



KONICA MINOLTA



SERVICE MANUAL

bizhub PRESS 
1250/1250 P/1052

bizhub PRO 
951

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KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.

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Revision list

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1	-	-	-	1250/1250P/1052 is added to the machine name.	2012/05/31
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34	D00007485 61	D.1.1 SYSTEM CONFIGURATION (1250/1250P/1052)	2	The information of 1250/1250P/1052 is added.	2012/05/31
35	D00007485 62	D.1.2 Configuration for optional device (1250/1250P/1052)	2	The information of 1250/1250P/1052 is added.	2012/05/31
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37	D00007485 65	D.2. MAIN BODY UNIT CONFIGURATION	2	Correction of error in writing	2012/05/31
38	D00007485 69	D.3.3 Paper exit process of RU-510 according to the difference of the finishing option and the weight	2	The information of 1250/1250P/1052 is added.	2012/05/31
39	D00007485 76	D.5.6 Separation process (Step 5)	2	Correction of error in writing	2012/05/31
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43	D00007486 00	E.1.7.1 Load from external memory	2	Correction of error in writing	2012/05/31
44	D00007486 01	E.1.7.2 Store to external memory	2	The note is added.	2012/05/31
45	D00008387 03	E.1.8.1 Outline	5	The information of 1250/1250P/1052 is added.	2012/05/31
46	D00008387 06	E.1.8.4 Technician mode	4	The information of 1250/1250P/1052 is added.	2012/05/31
47	D00007486 07	E.1.8.6 bizhub PRESS C7000/6000 replacement procedure	2	Describing method is changed.	2012/05/31
48	D00007486 08	E.1.8.7 bizhub PRESS 1250/1250P/1052 replacement procedure	2	The information of 1250/1250P/1052 is added.	2012/05/31
49	D00008387 22	E.1.8.11 Error message list	3	The information of 1250/1250P/1052 is added.	2012/05/31
50	D00007507 70	E.1.9.2 Preparation	3	The information of 1250/1250P/1052 is added.	2012/05/31
51	D00007507 71	E.1.9.3 Procedure for acquisition	3	The information of 1250/1250P/1052 is added.	2012/05/31
52	D00007517 21	F.1.2.1 1250/1250P/1052	2	The information of 1250/1250P/1052 is added.	2012/05/31
53	D00007517 35	F.1.2.5 PF-706	2	Correction of error in writing	2012/05/31
54	D00007517 25	F.1.2.6 EF-102	2	The information of EF-102 is added.	2012/05/31
55	D00007517 26	F.1.2.7 RU-509/HM-102	2	The information of 1250/1250P/1052 is added.	2012/05/31
56	D00007517 27	F.1.2.8 RU-510	2	The information of RU-510 is added.	2012/05/31
57	D00007517 33	F.1.2.14 LS-505	2	The information of 1250/1250P/1052 is added.	2012/05/31
58	D00007517 34	F.1.2.15 FD-503	2	The information of 1250/1250P/1052 is added.	2012/05/31
59	D00007515 53	F.1.2.16 SD-506	2	The information of 1250/1250P/1052 is added.	2012/05/31
60	D00007515 54	F.1.2.17 PB-503	2	The information of 1250/1250P/1052 is added.	2012/05/31
61	D00008080 11	F.1.2.18 GP-501	2	The information of 1250/1250P/1052 is added.	2012/05/31
62	D00008080 13	F.1.2.19 GP-502	2	The information of GP-502 is added.	2012/05/31
63	D00007517 36	F.1.3.1 951	2	Correction of error in writing	2012/05/31
64	D00007517 38	F.1.3.3 PF-706	2	Correction of error in writing	2012/05/31
65	D00008080 12	F.1.3.11 GP-501	2	Correction of error in writing	2012/05/31

No.	ID	Title	Ver.	Descriptions of revision	Date
66	D0000808014	F.1.3.12 GP-502	2	The information of GP-502 is added.	2012/05/31
67	D0000751745	F.2.2.1 Periodically replaced parts list	2	The information of 1250/1250P/1052 is added.	2012/05/31
68	D0000751746	F.2.2.2 Spotted replacement parts list	2	The information of 1250/1250P/1052 is added.	2012/05/31
69	D0000751747	F.2.3.1 Periodically replaced parts list	2	Correction of error in writing	2012/05/31
70	D0000751748	F.2.3.2 Spotted replacement parts list	2	The information of GP-502 is added.	2012/05/31
71	D0000751522	F.3.1 Life value of the ORU-M parts	2	The information of EF-102 is added.	2012/05/31
72	D0000748613	F.3.2 ORU-M parts list	2	The information of 1250/1250P/1052 is added.	2012/05/31
73	D0000737388	F.5.1 Precautions on maintenance	3	The note is added.	2012/05/31
74	D0000733753	F.5.4.1 Replacing the suction filter	2	Correction of error in writing	2012/05/31
75	D0000733777	F.5.7.3 Replacing the separation roller	2	Correction of error in writing	2012/05/31
76	D0000733780	F.5.7.6 Replacing the paper feed clutch/separation clutch	2	The information of 1250/1250P/1052 is added.	2012/05/31
77	D0000733781	F.5.7.7 Replacement procedure of the parts at the separation section	2	The information of 1250/1250P/1052 is added.	2012/05/31
78	D0000733787	F.5.8.6 Replacing the conveyance exit roller peripheral parts	2	The note is added.	2012/05/31
79	D0000733802	F.5.9.13 Replacing the registration roller / Up, the registration bearing, the roller gear /Rt, the registration gears /Up and / Lw	2	Correction of error in writing	2012/05/31
80	D0000733807	F.5.9.18 Replacing the cleaning brush, the cleaning shaft, the regulation plate assy and the power supply parts	2	Correction of error in writing	2012/05/31
81	D0000733809	F.5.9.20 Replacing the loop motor (M18)	2	Correction of error in writing	2012/05/31
82	D0000733827	F.5.9.38 Replacing the fusing exit roller and the coupling unit	2	Correction of error in writing	2012/05/31
83	D0000733834	F.5.10.2 Replacing the fusing cleaning web	2	The information of EF-102 is added.	2012/05/31
84	D0000733837	F.5.10.5 Replacing the fusing heater lamps /1 (L1) and /2 (L2)	2	The information of EF-102 is added.	2012/05/31
85	D0000733838	F.5.10.6 Replacing the fusing roller /Up, the heat insulating sleeve, the fusing bearing /Up and the fusing gear	2	The information of EF-102 is added.	2012/05/31
86	D0000733839	F.5.10.7 Replacing the fusing roller /Lw assy /Lubrication to the pressure warm assy	2	The information of EF-102 is added.	2012/05/31
87	D0000733840	F.5.10.8 Replacing the fusing cleaning sheet assy	2	The information of E-102 is added.	2012/05/31
88	D0000733842	F.5.10.10 Replacing the fusing heater lamp /3 (L3)	2	The information of E-102 is added.	2012/05/31
89	D0000733843	F.5.10.11 Replacing the fusing heating roller, the heat insulation sleeve /Lw and the heat roller bearing	2	The information of EF-102 is added.	2012/05/31
90	D0000733844	F.5.10.12 Replacing the fusing claw /Lw	2	The information of EF-102 is added.	2012/05/31
91	D0000733845	F.5.10.13 Replacing the fusing claw /Up	2	The information of EF-102 is added.	2012/05/31
92	D0000733846	F.5.10.14 Replacing the fusing claws installation assy	2	The information of EF-102 is added.	2012/05/31
93	D0000733847	F.5.10.15 Replacing the fusing temperature sensor /2 (TH2)	2	The information of EF-102 is added.	2012/05/31
94	D0000733848	F.5.10.16 Replacing the fusing temperature sensor /4 (TH4)	2	The information of EF-102 is added.	2012/05/31
95	D0000733849	F.5.10.17 Replacing the pressure worm assy and the pressure wheel assy (1250/1250P/1052/EF only)	2	The information of EF-102 is added.	2012/05/31

No.	ID	Title	Ver.	Descriptions of revision	Date
96	D00007338 50	F.5.10.18 Replacing the fusing cleaning roller, the bearing /G and the web prevention part assy	2	The information of EF-102 is added.	2012/05/31
97	D00007338 51	F.5.10.19 Replacing the fusing oscillation cam assy	2	The information of EF-102 is added.	2012/05/31
98	D00007338 57	F.5.12.3 Replacing the web motor (M24)	2	Correction of error in writing	2012/05/31
99	D00007556 55	F.5.12.5 Replacing the drum cleaner motor (M35)	2	Correction of error in writing	2012/05/31
100	D00007338 64	F.5.12.11 Replacing the paper feed motor (M4), the paper feed gear, the vertical conveyance motor (M8) and the conveyance gear	2	The note is added.	2012/05/31
101	D00007373 90	F.7.1 Precautions on maintenance	3	The note is added.	2012/05/31
102	D00007338 82	F.7.4.1 Replacing the pre-registration clutch /1 (CL1), /2 (CL3), /3 (CL5), the intermediate clutch /1 (CL2), /2 (CL4), and the horizontal conveyance exit clutch (CL6)	2	Correction of error in writing	2012/05/31
103	D00007338 84	F.7.4.3 Replacing the pre-registration roller, the intermediate conveyance roller, the pre-registration bearing, and the bearing C	2	Correction of error in writing	2012/05/31
104	D00007373 91	F.8.1 Precautions on maintenance	3	The note is added.	2012/05/31
105	D00007338 92	F.8.2.3 Replacing the separation roller	2	Correction of error in writing	2012/05/31
106	D00007339 03	F.8.5.1 Parts replacement procedure of the drive section	2	The note is added.	2012/05/31
107	D00007339 04	F.8.5.2 Replacing the paper feed drive pulley	2	Correction of error in writing	2012/05/31
108	D00007339 11	F.9.2.5 Replacing paper feed clutch (CL101) /pre-registration clutch (CL102)	2	Correction of error in writing	2012/05/31
109	D00008518 69	F.10.2 Fusing section	1	The information of E-102 is added.	2012/05/31
110	D00007373 96	F.11.3.1 Replacing the humidification rollers /Rt and /Lt and the water feed roller	4	Correction of error in writing	2012/05/31
111	D00007374 86	F.11.3.3 Replacing the pump motor (P1)	3	The information of 1250/1250P/1052 is added.	2012/05/31
112	-	F.12. PERIODICAL MAINTENANCE PROCEDURE RU-510	-	The information of RU-510 is added.	2012/05/31
113	D00007339 17	F.14.3.1 Replacing the paddle	2	Correction of error in writing	2012/05/31
114	D00007339 18	F.14.3.2 Replacing the stapler unit	2	Correction of error in writing	2012/05/31
115	D00007937 08	F.14.3.3 Lubrication of the stapler shaft and the rear stopper shaft	2	Correction of error in writing	2012/05/31
116	D00007339 19	F.15.2.1 Replacing the stapler unit	2	Correction of error in writing	2012/05/31
117	D00007339 20	F.15.2.2 Replacing the paddle /1, /2 and /3	2	Correction of error in writing	2012/05/31
118	D00007937 09	F.15.2.3 Cleaning and lubrication of the staple guide /Up and /Lw	2	Correction of error in writing	2012/05/31
119	D00007339 21	F.15.3.1 Cleaning the folding roller /1, /2	2	Correction of error in writing	2012/05/31
120	D00007374 06	F.16.2.1 Replacing the pick-up roller /Up and the paper feed roller /Up	6	Correction of error in writing	2012/05/31
121	D00007374 07	F.16.2.2 Replacing the pick-up roller /Lw and the paper feed roller /Lw	6	Correction of error in writing	2012/05/31
122	D00007374 08	F.16.2.3 Replacing the separation roller /Up and the torque limiter /Up	6	Correction of error in writing	2012/05/31
123	D00007374 09	F.16.2.4 Replacing the separation roller /Lw and the torque limiter /Lw	6	Correction of error in writing	2012/05/31
124	D00007784 90	F.16.2.5 Replacing the paper feed clutch /Up (CL201) and /Lw (CL202)	2	Correction of error in writing	2012/05/31

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125	D00007374 11	F.17.2.1 Replacing the stacker tray up down motor (M1)	4	The information of 1250/1250P/1052 is added.	2012/05/31
126	D00007374 12	F.17.2.2 Replacing the paper press solenoid /3 (SD8)	4	The information of 1250/1250P/1052 is added.	2012/05/31
127	D00007374 13	F.17.2.3 Replacing the paper press solenoid /1 (SD6)	4	The information of 1250/1250P/1052 is added.	2012/05/31
128	D00007374 14	F.17.2.4 Replacing the paper press solenoid /2 (SD7)	4	The information of 1250/1250P/1052 is added.	2012/05/31
129	D00007374 15	F.17.2.5 Replacing the rear stopper solenoid (SD3)	4	The information of 1250/1250P/1052 is added.	2012/05/31
130	D00007374 17	F.18.2.1 Replacing roller solenoids /1 (SD5) to /4 (SD8)	4	The information of 1250/1250P/1052 is added.	2012/05/31
131	D00007374 18	F.18.2.2 2nd folding roller solenoid (SD18)	4	The information of 1250/1250P/1052 is added.	2012/05/31
132	D00007374 19	F.18.3.1 Replacing the punch unit	4	The information of 1250/1250P/1052 is added.	2012/05/31
133	D00007374 22	F.18.4.1 Replacing the tray up down motor (M11)	4	The information of 1250/1250P/1052 is added.	2012/05/31
134	D00007374 23	F.18.5.1 Replacing the pick-up rubber (Upper stage)	5	The information of 1250/1250P/1052 is added.	2012/05/31
135	D00007374 24	F.18.5.2 Replacing the paper feed rubber (Upper stage)	5	The information of 1250/1250P/1052 is added.	2012/05/31
136	D00007374 25	F.18.5.3 Replacing the separation rubber (upper stage)	5	The information of 1250/1250P/1052 is added.	2012/05/31
137	D00007374 26	F.18.5.4 Replacing the pick-up rubber (Lower stage)	5	The information of 1250/1250P/1052 is added.	2012/05/31
138	D00007374 27	F.18.5.5 Replacing the paper feed rubber (lower stage)	4	The information of 1250/1250P/1052 is added.	2012/05/31
139	D00007374 28	F.18.5.6 Replacing the separation rubber (lower stage)	4	The information of 1250/1250P/1052 is added.	2012/05/31
140	D00007374 30	F.19.2.1 Replacing the roller release solenoid /1 (SD5)	4	The information of 1250/1250P/1052 is added.	2012/05/31
141	D00007374 33	F.19.2.4 Replacing the roller release solenoid /3 (SD7)	4	The information of 1250/1250P/1052 is added.	2012/05/31
142	D00007374 34	F.19.3.1 Replacing the stapler assy	5	The information of 1250/1250P/1052 is added.	2012/05/31
143	D00007374 39	F.19.4.2 Replacing the trimmer blade kit	5	The information of 1250/1250P/1052 is added.	2012/05/31
144	D00007374 40	F.19.4.3 Replacing the trimmer board assy	5	The information of 1250/1250P/1052 is added.	2012/05/31
145	D00007374 41	F.19.4.4 Replacing the trimming unit	4	The information of 1250/1250P/1052 is added.	2012/05/31
146	D00007374 42	F.19.4.5 Replacing the trimmer press motor (M32)	5	The information of 1250/1250P/1052 is added.	2012/05/31
147	D00007374 43	F.19.4.6 Replacing the trimmer blade motor (M31)	5	The information of 1250/1250P/1052 is added.	2012/05/31
148	D00007374 45	F.19.5.1 Replacing the bundle press stage gear	6	The information of 1250/1250P/1052 is added.	2012/05/31
149	D00007374 48	F.20.1.2 Replacing the switchback roller	5	The information of 1250/1250P/1052 is added.	2012/05/31
150	D00007374 49	F.20.1.3 Replacing the SC switchback release motor (M13) and the one-way clutches /A and /B	4	The information of 1250/1250P/1052 is added.	2012/05/31
151	D00007374 50	F.20.1.4 Replacing the SC pressure arm solenoid (SD13)	4	The information of 1250/1250P/1052 is added.	2012/05/31
152	D00007374 51	F.20.1.5 Replacing the FD alignment solenoid (SD11)	4	The information of 1250/1250P/1052 is added.	2012/05/31
153	D00007374 54	F.20.2.2 Replacing the roller cutter blade assy	5	The information of 1250/1250P/1052 is added.	2012/05/31
154	D00007374 58	F.20.3.2 Replacing the pick-up roller and the paper feed roller	4	The information of 1250/1250P/1052 is added.	2012/05/31
155	D00007374 59	F.20.3.3 Replacing the separation roller	4	The information of 1250/1250P/1052 is added.	2012/05/31
156	D00007374 60	F.20.3.4 Replacing the cover paper feed clutch (CL71) and the cover paper separation clutch (CL72)	4	The information of 1250/1250P/1052 is added.	2012/05/31

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157	D00007374 61	F.20.4.1 Replacing the sub tray exit solenoid (SD4)	5	The information of 1250/1250P/1052 is added.	2012/05/31
158	D00007374 62	F.20.5.1 Replacing the exhaust filters /A and /B	5	The information of 1250/1250P/1052 is added.	2012/05/31
159	D00007374 66	F.20.6.4 Replacing the glue tank assy	5	The information of 1250/1250P/1052 is added.	2012/05/31
160	D00007515 92	F.21.3.29 Back Gauge Removal	4	Correction of error in writing	2012/05/31
161	D00008519 77	F.22. PERIODICAL MAINTENANCE PROCEDURE GP-502	1	The information of GP-502 is added.	2012/05/31
162	-	G.8 EF-102	-	The information of E-102 is added.	2012/05/31
163	D00007374 79	G.9.1 List of disassembling and assembling parts	3	Correction of error in writing	2012/05/31
164	D00007374 84	G.9.2.5 Humidification unit	3	Correction of error in writing	2012/05/31
165	-	G.10 RU-510	-	The information of RU-510 is added.	2012/05/31
166	D00007340 06	G.11.1 List of disassembling and assembling parts	2	Correction of error in writing	2012/05/31
167	D00007340 07	G.11.2.2 Rear cover	2	Correction of error in writing	2012/05/31
168	D00007340 10	G.11.2.5 Punch unit	2	Correction of error in writing	2012/05/31
169	D00007340 30	G.12.3.12 Stacker unit	2	Correction of error in writing	2012/05/31
170	D00007340 31	G.12.3.13 Main tray	2	Correction of error in writing	2012/05/31
171	D00007340 32	G.12.3.14 Main tray up down motor (M11), main tray up-down drive assy	2	Correction of error in writing	2012/05/31
172	D00007340 37	G.13.3.3 Stapler unit cover	2	Correction of error in writing	2012/05/31
173	D00007340 38	G.13.3.4 SD unit	2	Correction of error in writing	2012/05/31
174	D00007340 39	G.13.3.5 Folding knife assy /1	2	Correction of error in writing	2012/05/31
175	D00008518 78	G.13.3.6 Folding knife assy /2	1	Correction of error in writing	2012/05/31
176	D00008387 44	G.17.2 List of disassembling and assembling parts	2	The information on the new type of the multi feed detection board is added.	2012/05/31
177	D00007785 00	G.20.3.5 SSD	2	Correction of error in writing	2012/05/31
178	-	G.22 GP-502	-	The information of GP-502 is added.	2012/05/31
179	D00007340 55	G.24.2.1 Purpose	2	Correction of error in writing	2012/05/31
180	D00007340 57	G.24.2.3 Checking of the contents of the package	2	Correction of error in writing	2012/05/31
181	D00007486 18	I.3.1 List of utility menus	2	Correction of error in writing	2012/05/31
182	D00007486 20	I.5.1 Service mode list	2	The information of GP-502 is added.	2012/05/31
183	D00007507 81	I.5.2.1 Start method	2	The note is added.	2012/05/31
184	D00007551 86	I.5.3.5 Fusing Speed Adjustment (Magnification Adjustment) EF-102	2	Correction of error in writing	2012/05/31
185	D00007486 37	I.5.3.18 Lead Edge Transfer Switch Timing Adj. (Timing Adjustment)	2	Correction of error in writing	2012/05/31
186	D00007486 47	I.5.3.28 Skew Detection Adjustment (1250/1250P/1052 only)	2	Correction of error in writing	2012/05/31
187	D00007486 89	I.5.5.9 Jam Counter/Jam Counter Individual Sec.	2	The information of 1250/1250P/1052 is added.	2012/05/31
188	D00007486 92	I.5.5.13 SC Counter/SC Counter Individual Sec.	2	The information of 1250/1250P/1052 is added.	2012/05/31
189	D00007486 96	I.5.5.18 Special Parts Counter (951)	2	Correction of error in writing	2012/05/31
190	D00007551 89	I.5.5.19 Special Parts Counter (1250/1250P/1052)	2	The information of 1250/1250P/1052 is added.	2012/05/31

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191	D00007487 01	I.5.6.4 IO check mode list	2	Correction of error in writing The information of 1250/1250P/1052 is added. The information of EF-102 is added. The information of RU-510 is added.	2012/05/31
192	D00007495 21	I.5.9.2 Software DIPSW setting list	2	Correction of error in writing The information of 1250/1250P/1052 is added. The information of EF-102 is added. The information of RU-510 is added. The information of GP-502 is added.	2012/05/31
193	D00007504 47	I.5.13.1 FS-532 Staple Position Adjustment (staple finisher (main) adjustment)	2	Correction of error in writing	2012/05/31
194	D00007504 61	I.5.13.15 PK-522 Horizontal position adjustment (paper feed direction) (staple finisher (punch) adjustment)	2	Correction of error in writing	2012/05/31
195	D00007504 81	I.5.13.36 SD-506 Tri-Fold Position Adj. (Saddle Stitcher Pos. Adj.)	2	Correction of error in writing	2012/05/31
196	D00007504 96	I.5.13.51 RU-510 Paper Length Adjustment (Relay Stacker Adjustment)	2	Correction of error in writing	2012/05/31
197	D00007505 10	I.5.17.1 Auth. Unit Selection	2	Correction of error in writing	2012/05/31
198	D00007505 18	I.6.4 Billing Coefficient Setting	2	The information of 1250/1250P/1052 is added.	2012/05/31
199	D00007505 41	I.8.2.6 The front and back registration by user (by paper brand) (front and back registration)	2	Correction of error in writing	2012/05/31
200	D00007505 42	I.8.2.7 The front and back registration by user (Fine Adjustment) (front and back registration)	2	Correction of error in writing	2012/05/31
201	D00007505 45	I.8.2.10 Transfer jitter adjustment	2	Correction of error in writing	2012/05/31
202	D00007505 47	I.8.2.12 PF-703 air-blow adjustment	2	The information of EF-102 is added.	2012/05/31
203	D00007340 65	I.9.1 Tray Centering Adjustment	2	Correction of error in writing	2012/05/31
204	D00008429 22	I.9.9 Registration roller pressure adjustment	1	The adjustment procedure is added.	2012/05/31
205	D00007340 80	I.11.2 Centering adjustment (for each tray)	2	Correction of error in writing	2012/05/31
206	D00007340 81	I.11.3 Centering Adjustment (PF)	2	Correction of error in writing	2012/05/31
207	D00007340 88	I.12.5 Centering adjustment (for each tray)	2	Correction of error in writing	2012/05/31
208	D00007340 89	I.12.6 Centering Adjustment (PF)	2	Correction of error in writing	2012/05/31
209	D00007340 95	I.13.4 Paper centering adjustment	2	Correction of error in writing	2012/05/31
210	D00008518 79	I.15.1 Height adjustment	1	The information of RU-510 is added.	2012/05/31
211	D00007785 06	I.18.1 Adjustment for Staple Clinch Failure	2	Correction of error in writing	2012/05/31
212	D00008519 08	I.18.2 1st folding skew adjustment	1	The adjustment procedure is added.	2012/05/31
213	D00007341 04	I.19.1 Punch hole position skew adjustment	2	Correction of error in writing	2012/05/31
214	D00008249 93	I.19.2 Punch unit adjustment mounting position adjustment	2	Correction of error in writing	2012/05/31
215	D00007376 15	I.24.5 Cover paper glue gap adjustment	3	Correction of error in writing	2012/05/31
216	D00007505 52	J.1.1 Precautions on rewriting the firmware	2	Correction of error in writing	2012/05/31
217	D00007505 53	J.1.2 Firmware data flow	2	Correction of error in writing	2012/05/31
218	D00007505 56	J.1.5 Error list	2	Correction of error in writing	2012/05/31
219	D00007505 57	J.3.1 Usage of the USB memory ISW	2	Correction of error in writing	2012/05/31

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220	-	J.3.2 ISW Procedure of GP-502	-	The information of GP-502 is added.	2012/05/31
221	D0000750558	J.3.3 Boot USB memory ISW	2	Correction of error in writing	2012/05/31
222	D0000750560	J.4.4 Internet ISW using the Web Utilities	2	Correction of error in writing	2012/05/31
223	D0000750561	J.4.6 Internet ISW using the operation panel	2	Correction of error in writing	2012/05/31
224	D0000747351	K.1.1 Jam code list	2	Correction of error in writing The information of 1250/1250P/1052 is added. The information of E-102 is added. The information of RU-510 is added.	2012/05/31
225	D0000747674	K.2.3 Malfunction code list	2	Correction of error in writing The information of 1250/1250P/1052 is added. The information of E-102 is added. The information of RU-510 is added.	2012/05/31
226	D0000751491	K.3.4.2 RU-509	2	Correction of error in writing	2012/05/31
227	D0000748269	K.3.4.3 RU-510	2	The information of RU-510 is added.	2012/05/31
228	D0000748276	K.4.2.2 Check the printer	2	The item is added.	2012/05/31
229	D0000748339	L.1.1.22 Fusing section	2	Correction of error in writing	2012/05/31
230	D0000852254	L.1.6 EF-102	1	The information of EF-102 is added.	2012/05/31
231	-	L.1.8 RU-510	-	The information of RU-510 is added.	2012/05/31
232	D0000851979	L.1.20 GP-502	1	The information of GP-502 is added.	2012/05/31
233	D0000748395	L.2.1.6 ADU drive board /1	2	Correction of error in writing	2012/05/31
234	D0000750727	L.2.6.1 RU control board (RUCB)	3	Correction of error in writing	2012/05/31
235	D0000750728	L.2.6.2 HM drive board (HMDB)	3	Correction of error in writing	2012/05/31
236	D0000750729	L.2.6.3 DC power supply (DCPS)	3	Correction of error in writing	2012/05/31
237	-	L.2.7 RU-510	-	The information of RU-510 is added.	2012/05/31
238	D0000851980	L.2.18 GP-502	1	The information of GP-502 is added.	2012/05/31
239	D0000748447	M.8.1 Timing chart of the humidifier OFF mode (bypass conveyance)	2	Correction of error in writing	2012/05/31
240	-	M.9 RU-510	-	The information of RU-510 is added.	2012/05/31
241	D0000748452	M.11.1 Timing chart of the straight mode	2	Correction of error in writing	2012/05/31
242	D0000824925	N.3.1 PF-703 (1/2)	2	The wiring diagram of PF-703 is added.	2012/05/31
243	D0000851883	N.3.2 PF-703 (2/2)	1	The wiring diagram of PF-703 is added.	2012/05/31
244	D0000851884	N.5. EF-102	1	The wiring diagram of EF-102 is added.	2012/05/31
245	D0000851885	N.6. RU-509	1	The wiring diagram of RU-509 is added.	2012/05/31
246	D0000851886	N.7. RU-510	1	The wiring diagram of RU-510 is added.	2012/05/31
247	D0000851887	N.13. LS-505	1	The wiring diagram of LS-505 is added.	2012/05/31
248	D0000851888	N.14. FD-503	1	The wiring diagram of FD-503 is added.	2012/05/31
249	D0000851889	N.15. SD-506	1	The wiring diagram of SD-506 is added.	2012/05/31
250	D0000851890	N.16. PB-503	1	The wiring diagram of PB-503 is added.	2012/05/31
251	D0000851981	N.18. GP-502	1	The wiring diagram of GP-502 is added.	2012/05/31
252	D0000735614	O.2.3.3 Original size detection control	2	Correction of error in writing	2012/05/31

No.	ID	Title	Ver.	Descriptions of revision	Date
253	D00007356 38	O.7.2.1 Toner bottle/large capacity hopper drive (1250/1250P/1052)	2	The information of 1250/1250P/1052 is added.	2012/05/31
254	D00008518 82	O.7.2.2 Toner bottle/large capacity hopper drive (PRO951)	2	Correction of error in writing	2012/05/31
255	D00007356 47	O.8.3.1 Transfer belt pressure position control	2	Correction of error in writing	2012/05/31
256	D00007356 58	O.10.2.1 Cleaning blade drive	2	Correction of error in writing	2012/05/31
257	D00007356 60	O.10.3.1 Cleaning operation	2	Correction of error in writing	2012/05/31
258	D00007356 71	O.11.3.6 Remaining paper detection control	2	Correction of error in writing	2012/05/31
259	D00007356 86	O.13.3.2 Loop control	2	Correction of error in writing	2012/05/31
260	D00007356 93	O.14.3.1 Fusing roller drive control	2	The information of 1250/1250P/1052 is added.	2012/05/31
261	D00007356 94	O.14.3.2 Pressure release drive control (1250/1250P/1052 only)	2	Correction of error in writing	2012/05/31
262	D00007356 95	O.14.3.3 Web drive control	2	Correction of error in writing	2012/05/31
263	D00007356 97	O.14.3.5 Fusing temperature control	2	The information of 1250/1250P/1052 is added.	2012/05/31
264	D00007356 98	O.14.3.6 Protection against temperature abnormality	2	Correction of error in writing	2012/05/31
265	D00007357 54	O.20.2.23 Collection pipe cooling fan (FM34) control	2	Correction of error in writing	2012/05/31
266	D00007357 55	O.20.2.24 Toner bottle cooling fan (FM35) control	2	Correction of error in writing	2012/05/31
267	D00007327 75	PB.2.3.3 Air control	2	The information of EF-102 is added.	2012/05/31
268	D00007327 77	PB.2.3.5 Remaining paper detection control	2	Correction of error in writing	2012/05/31
269	D00007328 01	PB.9.3.2 Multi feed detection control	2	Correction of error in writing	2012/05/31
270	D00007328 11	PC.2.3.4 Separation mechanism	2	Correction of error in writing	2012/05/31
271	D00007328 15	PC.2.3.8 Remaining paper detection control	2	Correction of error in writing	2012/05/31
272	-	PE THEORY OF OPERATION EF-102	-	The information of E-102 is added.	2012/05/31
273	D00007370 70	PF.2.3.1 Conveyance control	4	The information of 1250/1250P/1052 is added.	2012/05/31
274	D00007370 76	PF.3.3.1 Outline of de-curler	5	Correction of error in writing	2012/05/31
275	D00007370 77	PF.3.3.2 De-curler section conveyance control	2	Correction of error in writing	2012/05/31
276	D00007370 87	PF.4.3.1 Paper exit conveyance control	3	Correction of error in writing	2012/05/31
277	D00007370 94	PF.5.3.2 Humidification section conveyance control	4	Correction of error in writing	2012/05/31
278	D00007370 95	PF.5.3.3 Humidification roller / water feed roller pressure control	3	Correction of error in writing	2012/05/31
279	-	PG THEORY OF OPERATION RU-510	-	The information of RU-510 is added.	2012/05/31
280	D00007329 24	PI.7.3.1 Paper exit opening control	2	Correction of error in writing	2012/05/31
281	D00007517 68	PK.2.3.1 Punch ready position movement control	2	Correction of error in writing	2012/05/31
282	D00007328 84	PM.2.3.1 Conveyance control	2	Correction of error in writing	2012/05/31
283	D00007372 62	PQ.2.1 Configuration	4	Correction of error in writing	2012/05/31
284	-	PS THEORY OF OPERATION GP-502	-	The information of GP-502 is added.	2012/05/31
285	D00008249 43	Q.2.3.4 Printer CD-Mag. Adjustment (Side2)	2	The information of 1250/1250P/1052 is added.	2012/05/31
286	D00008249 51	Q.3.1.2 Centering	2	Correction of error in writing	2012/05/31

No.	ID	Title	Ver.	Descriptions of revision	Date
287	D00008249 52	Q.3.1.3 Skew (Tilt)	2	Correction of error in writing	2012/05/31
288	D00008249 55	Q.3.2.2 Checkpoint and handling	2	Correction of error in writing	2012/05/31

A SAFETY AND IMPORTANT WARNING ITEMS

Read carefully the safety and important warning items described below to understand them before doing service work.

1. IMPORTANT NOTICE




- Because of possible hazards to an inexperienced person servicing this product as well as the risk of damage to the product, KONICA MINOLTA BUSINESS TECHNOLOGIES, INC. (hereafter called KMBT) strongly recommends that all servicing be performed only by KMBT-trained service technicians.
- Changes may have been made to this product to improve its performance after this Service Manual was printed. Accordingly, KMBT does not warrant, either explicitly or implicitly, that the information contained in this service manual is complete and accurate.
- The user of this service manual must assume all risks of personal injury and/or damage to the product while servicing the product for which this service manual is intended. Therefore, this service manual must be carefully read before doing service work both in the course of technical training and even after that, for performing maintenance and control of the product properly.
- Keep this service manual also for future service.

2. DESCRIPTION ITEMS FOR DANGER, WARNING AND CAUTION

2.1 Description items in this Service Manual






In this Service Manual, each of three expressions “⚠DANGER”, “⚠WARNING”, and “⚠CAUTION” are defined as follows.

When servicing the product, the relevant works (disassembling, reassembling, adjustment, repair, maintenance, etc.) need to be conducted with utmost care.

 DANGER	: Action having a high possibility of suffering death or serious injury
 WARNING	: Action having a possibility of suffering death or serious injury
 CAUTION	: Action having a possibility of suffering a slight wound and property damage

2.2 Description items for safety and important warning items

Symbols used for safety and important warning items are defined as follows:

 : Precaution when servicing the product.	 General precaution	 Electric hazard	 High temperature
 : Prohibition when servicing the product.	 General prohibition	 Do not touch with wet hand	 Do not disassemble
 : Direction when servicing the product.	 General instruction	 Unplug	 Ground/Earth

Illustrations representing the power plug and wall outlet used in the following descriptions are only typical. Their shapes differ depending on the country or region.

3. SAFETY WARNINGS

3.1 MODIFICATIONS NOT AUTHORIZED BY KONICA MINOLTA BUSINESS TECHNOLOGIES, INC.

KONICA MINOLTA brand products are renowned for their high reliability. This reliability is achieved through high-quality design and a solid service network.

Product design is a highly complicated and delicate process where numerous mechanical, physical, and electrical aspects have to be taken into consideration, with the aim of arriving at proper tolerances and safety factors. For this reason, unauthorized modifications involve a high risk of degradation in performance and safety. Such modifications are therefore strictly prohibited. The points listed below are not exhaustive, but they illustrate the reasoning behind this policy.

3.1.1 Actions requiring special attention

WARNING



- Do not make any modifications to the product unless otherwise instructed by KMBT.



- Do not use any part not specified by KMBT.

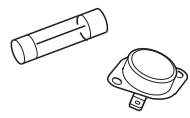


- Do not use any power cord or power plug not specified by KMBT.



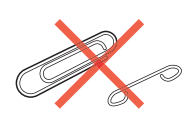
- Use only the protective fuses specified by KMBT.

Use of any type of fuse or related part not specified by KMBT makes safety devices inoperative which may result in a fire from high heat.



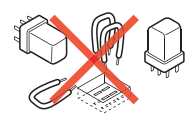
- Do not disable fuse functions or use a wire, metal clip, solder, or other conductor in place of the fuse.

Fire may result from high heat.



- Do not disable relay functions (for example, inserting a piece of paper between relay contacts to hamper circuit action.)

Fire may result from high heat.

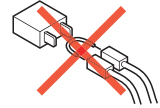


WARNING

- Do not disable safety functions (for example, interlocks and safety circuits).



Safety devices become inoperative, resulting in fire from high heat, electric shock, or injury.



3.2 POWER PLUG SELECTION

In some countries or areas, the power plug provided with the product may not fit the wall outlet used in the area. In that case, it is the obligation of the customer engineer (hereafter called the CE) to attach the appropriate power plug or power cord set in order to connect the product to the supply.

3.2.1 Power Cord Set or Power Plug

WARNING

- Use a power supply cord set which meets the following criteria:
 - provided with a plug having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and
 - the plug has pin/terminal(s) for grounding, and
 - provided with three-conductor cable having enough current capacity, and
 - the cord set meets regulatory requirements for the area.



Use of inadequate cord set leads to fire or electric shock.




WARNING

- Attach power plug which meets the following criteria:
 - having configuration intended for the connection to wall outlet appropriate for the product's rated voltage and current, and
 - the plug has pin/terminal(s) for grounding, and
 - meets regulatory requirements for the area.

Use of inadequate cord set leads to the product connecting to inadequate power supply (voltage, current capacity, grounding), and may result in fire or electric shock.

- The wires in the power supply cord shall be connected to the terminals of the plug in accordance with the following:

Color of the wire		Terminal of the plug
Brown	Black	Marked with "L", "A" or "W" or colored RED
Light Blue	White	Marked with "N" or colored BLACK
Green-and-Yellow		Marked with "E", "PE" or "  " or colored GREEN or GREEN-AND-YELLOW

- Wrong connection may cancel safeguards within the product, and results in fire or electric shock.

3.3 CHECKPOINTS WHEN PERFORMING ON-SITE SERVICE

KONICA MINOLTA brand products are extensively tested before shipping, to ensure that all applicable safety standards are met, in order to protect the customer and customer engineer (hereafter called the CE) from the risk of injury. However, in daily use, any electrical equipment may be subject to parts wear and eventual failure. In order to maintain safety and reliability, the CE must perform regular safety checks.

3.3.1 Power Supply

(1) Connection to Power Supply

WARNING

- The power outlet should have a capacity of at least the maximum power consumption and be dedicated only to the product.

The current that can be passed through the outlet is limited and any current exceeding the limit could result in fire.

- If the wall outlet has two or more receptacles and the product and another electrical appliance are plugged into this wall outlet, make sure that the total load does not exceed the rating of the wall outlet. The current that can be passed through the outlet is limited and any current exceeding the limit could result in a fire.



- Do not use any conversion plug adapter even if the power plug shape does not match your wall outlet.

The shapes of the power plug and the wall outlet are set according to the voltage and allowable current. Use of a conversion plug adapter could result in an abnormal voltage or insufficient current capacity, leading to a fire. It may also result in an electric shock due to a grounding failure.

If the plug shape does not match the wall outlet, request the user to perform power source installation work.

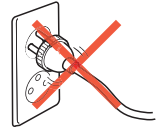


WARNING

- Make sure the power cord is plugged into the wall outlet securely.



If the power plug is left loose in the wall outlet, contact failure may occur, leading to abnormal heating of the power plug and a risk of fire.



(2) Ground Connection

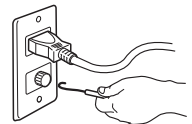
WARNING

- Check whether the product is grounded properly.



If current leakage occurs in an ungrounded product, you may suffer electric shock while operating the product.

Connect power plug to grounded wall outlet.



- Make sure of correct ground connection.
If the grounding wire is connected to an inappropriate part, there is a risk of explosion or electric shock. Do not connect the grounding wire to any of the following parts:

- a. Gas pipe: Gas explosion or fire may result.
- b. Lightning rod: Risk of electric shock or fire during lightning.
- c. Grounding wire for telephone line: Risk of electric shock or fire during lightning.
- d. Water pipe and faucet: These parts do not serve as a ground connection because of a plastic part that is very often installed midway within the water pipe.



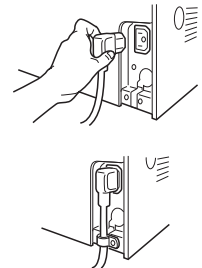
(3) Power Plug and Cord

WARNING

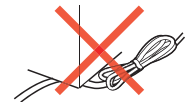
- When using the power cord set (inlet type) that came with this product, make sure the connector is securely inserted in the inlet of the product.



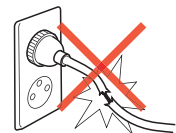
When a securing measure is provided, secure the cord with the fixture properly. If the power cord (inlet type) is not connected to the product securely, a contact problem may lead to increased resistance, overheating, and risk of fire.



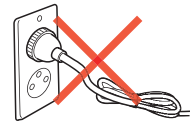
- Do not allow the power cord to be stepped on or pinched. Overheating may occur there, leading to a risk of fire.



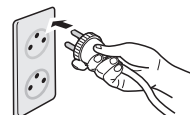
- Check whether the power cord is damaged. Check whether the sheath is damaged. If the power plug, cord, or sheath is damaged, replace with a new power cord (with plug and connector on each end) specified by KMBT. Using the damaged power cord may result in fire or electric shock.



- Do not bundle or tie the power cord. Overheating may occur there, leading to a risk of fire.



- Check whether dust is collected around the power plug and wall outlet. Using the power plug and wall outlet without removing dust may result in fire.

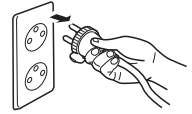


- Do not insert the power plug into the wall outlet with a wet hand. The risk of electric shock exists.

WARNING



- When unplugging the power cord, grasp the plug, not the cable.
The cable may be broken, leading to a risk of fire and electric shock.

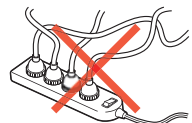


(4) Wiring

WARNING



- Never use multi-plug adapters to plug multiple power cords in the same outlet.
If used, the risk of fire exists.



- When an extension cord is required, use one that meets the rated current, rated voltage, and the relevant safety standards of the country.



Current that can be passed through the extension cable is limited and fire may result from the use of an inappropriate type of an extension cable.
Do not use an extension cable reel with the cable taken up. Fire may result.



3.3.2 Installation Requirements

(1) Prohibited Installation Places

WARNING



- Do not place the product near flammable materials or volatile materials that may catch fire.

A risk of fire exists.



- Do not place the product in a place exposed to water such as rain.

A risk of fire and electric shock exists.



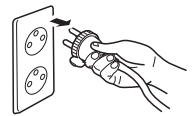
(2) When not Using the Product for a long time

WARNING



- When the product is not to be used for an extended period of time (for holidays, for example), instruct the user to turn OFF the power switch and unplug the power cord from the power outlet.

Dust collected around the power plug and outlet may cause fire.



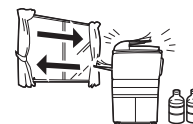
(3) Ventilation

CAUTION

- The product generates ozone gas during operation.

If the smell of ozone is present in the following cases, ventilate the room.

- a. When the product is used in a poorly ventilated room
- b. When making a lot of copies
- c. When using multiple products at the same time



(4) Stability

CAUTION

- Be sure to lock the caster stoppers.
In the case of an earthquake, the product may slide, leading to an injury.

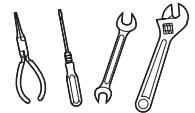


3.3.3 After Service

(1) Inspection before Servicing

WARNING

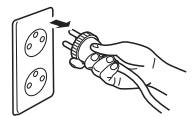
- Before conducting an inspection, read all relevant documentation (service manual, technical notices, etc.) and proceed with the inspection following the prescribed procedure using the recommended personal safety equipment and using only the prescribed tools.



Do not make any adjustment not described in the documentation.

If the prescribed procedure or tool is not used, the product may break and a risk of injury or fire exists.

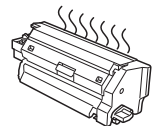
- Before conducting an inspection, be sure to disconnect the power plugs from the Main Body and Accessories (Options).



When the power plug is inserted into the wall outlet, some units are still powered even if the POWER switch is turned OFF. A risk of electric shock exists.

CAUTION

- The area around the fixing unit is hot. You may get burned.



CAUTION



- Do not leave the machine unattended during transportation, installation, and/or inspection.
If the machine is left unattended, face protrusions toward the wall or take other necessary precautions to prevent a user or other person in the area from stumbling over a protrusion of the machine or being caught by a cable, possibly causing a fall to the floor or other personal injury.

(2) Work Performed with the Product Powered On

WARNING



- Take every care when making adjustments or performing an operation check with the product powered.
If you make adjustments or perform an operation check with the external cover detached, you may touch live or high-voltage parts or you may be caught in moving gears or the timing belt, leading to a risk of injury.



- Take every care when servicing with the external cover detached.
High-voltage exists around the drum unit. A risk of electric shock exists.



- If it is absolutely necessary to service the machine with the door open or external covers removed, always be attentive to the motion of the internal parts.
A normally protected part may cause unexpected hazards.

CAUTION



- Do not keep gazing at a lamp light during the service procedure with the product powered ON.

Eyestrain may result.

(3) Safety Checkpoints

WARNING



- When a product fault is reported from a user, check parts and repair the fault appropriately with safety in mind.

A damaged product, personal injury, or fire may result.



- Whenever mounting an option on the machine, be attentive to the motion of the other workers performing the task.

Another worker may be injured by a pinch point between the machine and the option.



- When mounting an option on the machine, be careful about the clearance between the machine and the option.

You may be injured with your finger or hand pinched between the machine and the option.



- When removing a part that secures a motor, gear, or other moving part, disassembling a unit, or reinstalling any of such parts and units, be careful about moving parts and use care not to drop any part or unit. During the service procedure, give sufficient support for any heavy unit.

You may be injured by a falling part or unit.

WARNING



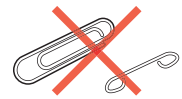
- Check the external covers and frame for possible sharp edges, burrs, and damage.
They can be a cause of injury during use or servicing.



- When accessing a hard-to-view or narrow spot, be careful about sharp edges and burrs on the frame and parts.
They may injure your hands or fingers.



- Do not allow any metal parts such as clips, staples, and screws to fall into the product.
They can short internal circuits and cause electric shock or spark bursting into flame.



- Check wiring for pinched and any other damage.
Current can leak, leading to a risk of electric shock or fire.



- Check high-voltage cables and sheaths for any damage.
Damage may lead to product failure and/or the risk of fire.



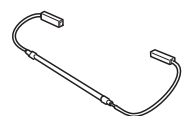
- Do not disassemble or adjust the write unit (PH unit) incorporating a laser.
The laser light can enter your eye, leading to a risk of loss of eyesight.



- Do not supply power with the write unit (PH unit) shifted from the specified mounting position.
The laser light can enter your eye, leading to a risk of loss of eyesight.



- After replacing a part to which AC voltage is applied (e.g., optical lamp and fixing lamp), be sure to check the installation state.
A risk of fire exists.

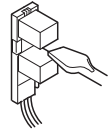


WARNING

- Check the interlock switch and actuator for loosening and check whether the interlock functions properly.



If the interlock does not function, you may receive an electric shock or be injured when you insert your hand in the product (e.g., for clearing paper jam).



- Make sure the wiring cannot come into contact with sharp edges, burrs, or other pointed parts.



Damage may lead to the risk of electric shock or fire.



- Make sure that all screws, components, wiring, connectors, etc. that were removed for safety check and maintenance have been reinstalled in the original location. (Pay special attention to forgotten connectors, pinched cables, forgotten screws, etc.)



A risk of product trouble, personal injury, electric shock, and fire exists.



- Never use any flammable or combustible spray, fluid, gas, or similar substance in and around the product.



Do not use any flammable or combustible dust spray, in particular, to clean the interior of the product.

Fire or explosion may result.



CAUTION

- Carefully remove all toner remnants and dust from electrical parts and electrode units such as a charging corona unit.



Toner remnants and dust may lead to product failure and/or the risk of fire.

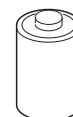
CAUTION



- Check electrode units such as a charging corona unit for deterioration and signs of leakage.
Damage may lead to product failure and/or the risk of fire.



- When replacing a battery, replace it with a new one as specified.
Dispose of the used battery as instructed on its packaging or by local ordinance.
There is a risk of explosion if the battery is replaced with an incorrect type.



(4) Handling of Consumables

WARNING



- For handling of consumables (toner, developer, photoconductor, etc.) and their storage precautions, see MSDS.

(5) Handling of Service Materials

CAUTION



- Handle with care according to MSDS.
Use of solvent may involve explosion, fire, or personal injury.



3.4 FUSE

CAUTION

Double pole / neutral fusing

ATTENTION

Double pôle / fusible sur le neutre.

3.5 Used Batteries Precautions

3.5.1 ALL Areas

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacturer's instructions.

3.5.2 Germany

VORSICHT!

Explosionsgefahr bei unsachgemäßem Austausch der Batterie.
Ersatz nur durch denselben oder einen vom Hersteller empfohlenen gleichwertigen Typ.
Entsorgung gebrauchter Batterien nach Angaben des Herstellers.

3.5.3 France

ATTENTION

Il y a danger d'explosion s'il y a remplacement incorrect de la batterie.
Remplacer uniquement avec une batterie du même type ou d'un type équivalent recommandé par le constructeur.
Mettre au rebut les batteries usagées conformément aux instructions du fabricant.

3.5.4 Denmark

ADVARSEL!

Lithiumbatteri - Eksplosionsfare ved fejlagtig håndtering.
Udskiftning må kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tilbage til leverandøren.

3.5.5 Finland, Sweden

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattillverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

3.5.6 Norway

ADVARSEL

Eksplosjonsfare ved feilaktig skifte av batteri.
Benytt samme batteritype eller en tilsvarende type anbefalt av apparatfabrikanten.
Brukte batterier kasseres i henhold til fabrikantens instruksjoner.

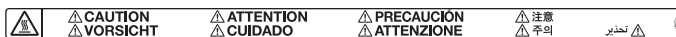
4. WARNING INDICATIONS ON THE MACHINE

Caution labels shown are attached in some areas on/in the machine.

When accessing these areas for maintenance, repair, or adjustment, special care should be taken to avoid burns and electric shock.

4.1 Warning indications inside the machine

(Entrance of the reversal output unit)



(Right side of the fixing unit)



(Top surface of the fixing unit)



CAUTION

DO NOT put your hand between the main body and developing fixing unit; otherwise you may be injured.

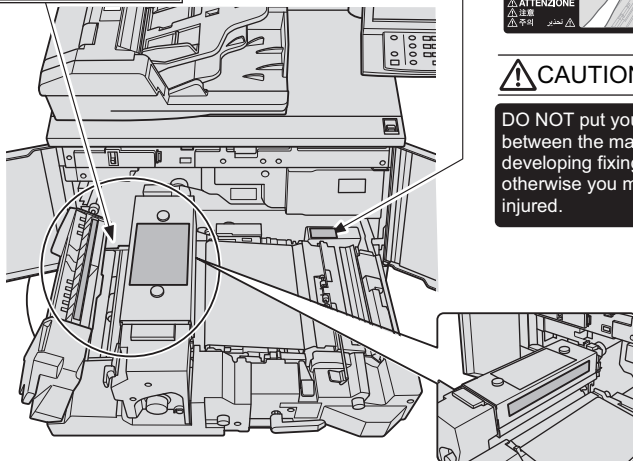
CAUTION

The fixing unit is very hot.
To avoid getting burned DO NOT TOUCH.



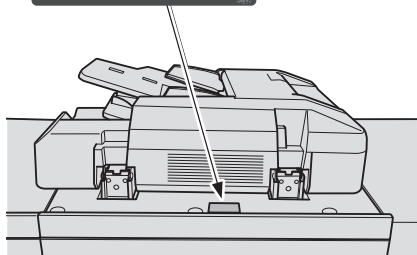
CAUTION

DO NOT put your hand between the main body and developing fixing unit; otherwise you may be injured.

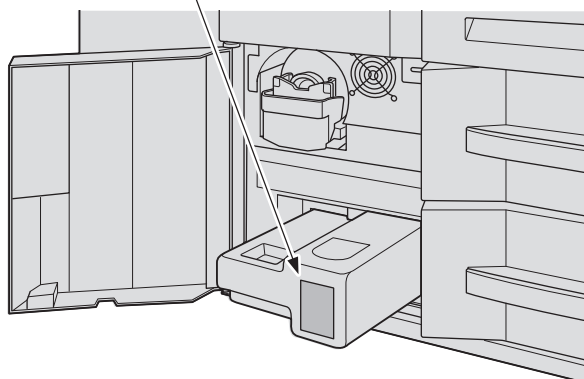


CAUTION

DO NOT INSERT
your finger into the
two ADF hinge
portions;
otherwise you may
be injured.

**WARNING**

DO NOT throw the waste
toner box into a fire. If it
is thrown into a fire, the
toner may ignite and
cause a dangerous
situation.



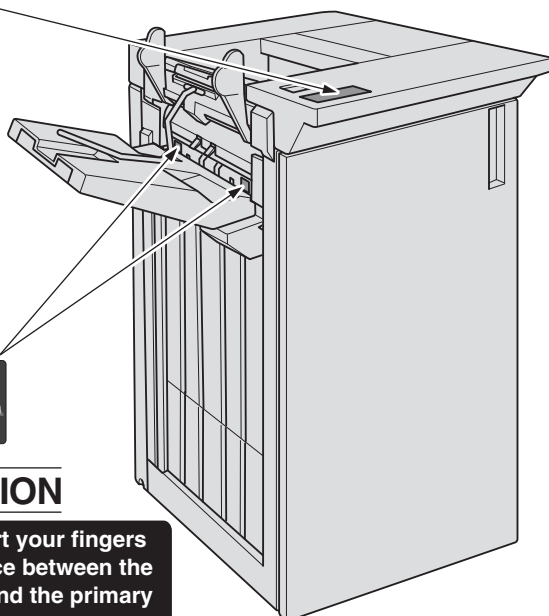
(FS-532)

**CAUTION**

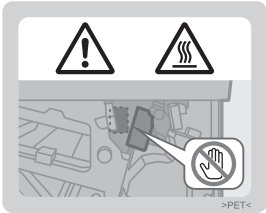
NEVER put your hand on the top of printed sheets when removing them from the primary (main) tray. Failure to do so may cause unexpected injury, such as getting your fingers squeezed between the main body and the primary (main) tray going upward. Be sure to hold both front and rear sides of the stack to remove it from the tray.

**CAUTION**

NEVER insert your fingers into the space between the main body and the primary (main) tray. Failure to do so may cause unexpected injury, such as getting your fingers squeezed by the primary (main) tray sliding sideways. Please be careful when removing paper from the tray.

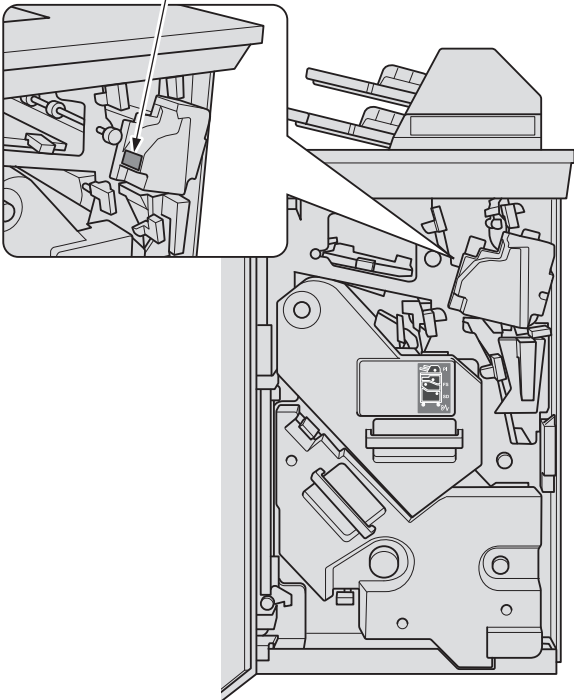


(FS-532)



⚠ CAUTION

NEVER put your hand into the hollow portion inside the finisher. The finisher mounted with Punch Kit PK-522 has a hollow portion, in the back of which is located a motor. Touching the motor, you may get burned. Please do not put your hand deep into the hollow portion when removing mishandled paper.

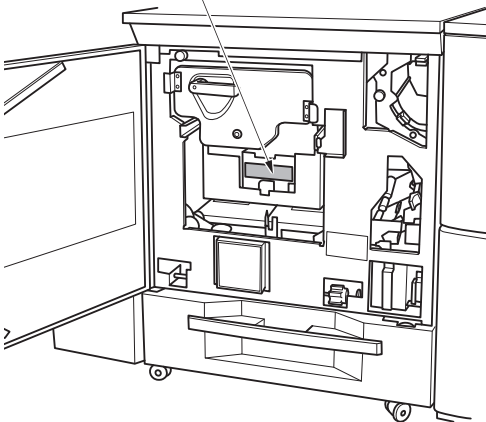


(PB-503)

	⚠ CAUTION High temperature!	⚠ ATTENTION Température élevée!
	⚠ VORSICHT Heiße Oberfläche!	⚠ PRECAUCIÓN Temperatura alta!
	⚠ ATTENZIONE Alta temperatura!	⚠ CUIDADO Alta Temperatura!
	⚠ 注意 高温!	⚠ 주의 고온!
	⚠ 注意 高温!	⚠ تحذير حرارة عالية!

⚠ CAUTION

The paste tank unit is very hot. To avoid getting burned **DO NOT TOUCH.**



a0g6m0e003ca

(GP-501)

⚠️ **WARNING**

Electrical shock hazard.
Disconnecting power from
this section does not
remove power from
adjacent sections of the
machine.

⚠️ **ATTENTION**

Risque de secousse électrique.
Couper le circuit électrique
dans ce secteur ne mets
pas hors circuit les
sections adjacentes de
cette machine.



⚠️ **MUCHO CUIDADO**

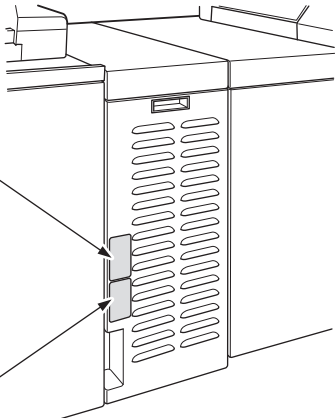
Riesgo de choque eléctrico.
El desconectar la fuente de
alimentación de esta sección
no previene la desconexión
de otras secciones contiguas
a esta máquina.

⚠️ **WARNUNG**

Elektroschockgefahr.
Abschalten des Stroms von
diesem Teil der Maschine
unterbricht nicht den
Strom von anliegenden
Teilen der Maschine.

⚠️ WARNING

This safety message you could get an electrical shock because disconnecting power from this section does not cut off power from adjacent sections of the machine.



<div><div>⚠️ ATTENTION</div><div>Risque de secousse électrique. Ne pas ouvrir. Pas de pièces réparables par l'utilisateur. Entretien par personnel qualifié.</div></div> <div><div></div></div>	<div><div>⚠️ WARNING</div><div>Electrical shock hazard. Do not open. No user serviceable parts inside. Refer servicing to qualified service personnel.</div></div> <div><div></div></div>
<div><div>⚠️ WARNUNG</div><div>Spannungsführende Teile. Nicht öffnen. Enthält keine vom Endverbraucher zu wartende Teile. Für Service bitte an qualifiziertes Service-Personal wenden.</div></div> <div><div>⚠️ MUCHO CUIDADO</div><div>Riesgo de choque eléctrico. No abra. Adentro, no hay piezas reparables para el usuario. Mantenimiento solamente para personal calificado.</div></div>	

⚠️ **WAARSCHUWING**

Kans op elektrische schok.
Niet openen.
Bevat geen door gebruik te repareren onderdelen.
Door bevoegd servicepersoneel laten repareren.

⚠️ **ATTENZIONE**

Pericolo di scarica elettrica.
Non aprire.
Nessuna parte riparabile dall'utente.
Chiamare un servizio riparazioni qualificato.

⚠️ WARNING

This safety message means that you might get seriously hurt or killed if you open the product and expose yourself to hazardous voltage. NEVER remove the screwed on covers. ALWAYS refer service requirements to qualified service personnel.

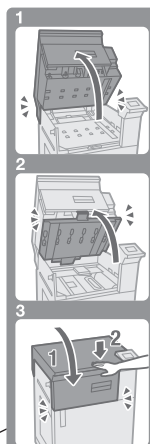
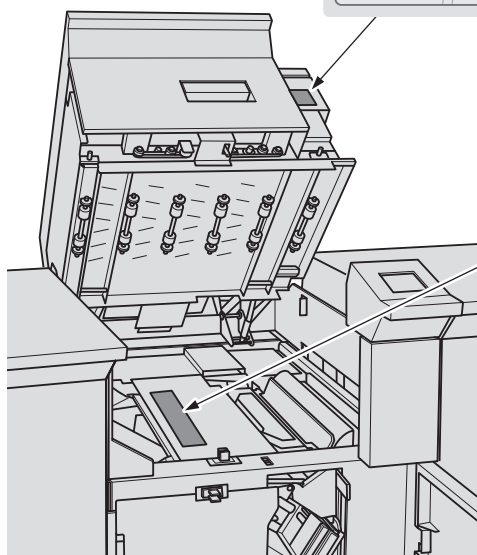
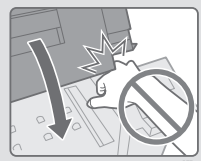
a0g6m0e004ca

(GP-502)

⚠ CAUTION

NEVER put your hand on the display panel when closing the upper part of the auto ring binder. Otherwise, you may be injured. Please be careful when closing the upper part of the auto ring binder.

⚠ CAUTION ⚠ 注意
⚠ ATTENTION ⚠ 주의
⚠ VORSICHT ⚠ تحذير ⚠
⚠ PRECAUCIÓN
⚠ CUIDADO
⚠ ATTENZIONE



⚠ CAUTION
⚠ ATTENTION
⚠ VORSICHT
⚠ PRECAUCIÓN
⚠ CUIDADO
⚠ ATTENZIONE
⚠ 注意 ⚠ 주의
⚠ تحذير ⚠

**⚠ CAUTION**

When the top cover or bypass deck of the ring binder is opened, be careful of your head. Otherwise, you may be injured getting bumped on your head. Please be especially careful when removing mishandled paper.

(GP-502)

⚠ WARNING

Electrical shock hazard. Disconnecting power from this section does not remove power from adjacent sections of the machine.

⚠ ATTENTION

Risque de secousse électrique. Couper le circuit électrique dans ce secteur ne met pas hors circuit les sections adjacentes de cette machine.

⚠ MUCHO CUIDADO

Riesgo de choque eléctrico. El desconectar la fuente de alimentación de esta sección no previene la desconexión de otras secciones contiguas a esta máquina.

⚠ WARNING

Elektroschockgefahr. Abschalten des Stroms von diesem Teil der Maschine unterbricht nicht den Strom von anliegenden Teilen der Maschine.

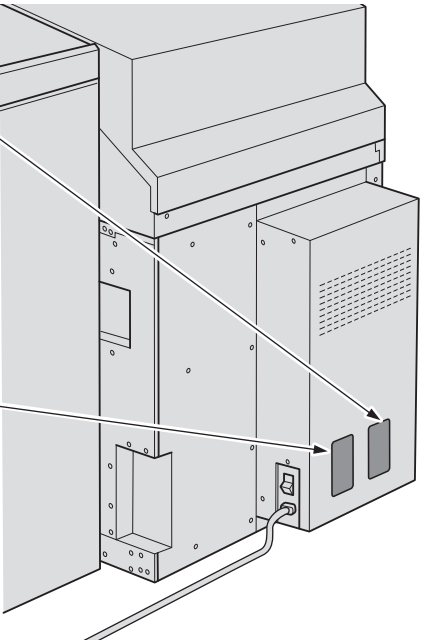
⚠ WARNING

This safety message means you could get an electrical shock because disconnecting power from this section does not cut off power from adjacent sections of the machine.

⚠ WARNING

This safety message means that you might get seriously hurt or killed if you open the product and expose yourself to hazardous voltage. NEVER remove the screws on covers. ALWAYS refer service requirements to qualified service personnel.

<p>⚠ ATTENTION</p> <p>Risque de secousse électrique. Ne pas ouvrir. Pas de pièces réparables par l'utilisateur. Entretien par personnel qualifié.</p>	<p>⚠ WARNING</p> <p>Electrical shock hazard. Do not open. No user serviceable parts inside. Refer servicing to qualified service personnel.</p>
<p>⚠ WARNING</p> <p>Spannungsführende Teile. Nicht öffnen. Entfallt keine vom Endverbraucher zu wartende Teile. Für Service bitte an qualifiziertes Service-Personal wenden.</p>	<p>⚠ MUCHO CUIDADO</p> <p>Riesgo de choque eléctrico. No abra. Adentro, no hay piezas reparables para el usuario. Mantenimiento solamente para personal calificado.</p>
<p>⚠ WAARSCHUWING</p> <p>Kans op elektrische schok. Niet openen. Bevat geen door gebruik te repareren onderdelen. Door bevoegd servicepersoneel laten repareren.</p>	<p>⚠ ATTENZIONE</p> <p>Pericolo di scarica elettrica. Non aprire. Nessuna parte riparabile dall'utente. Chiamare un servizio di riparazioni qualificato.</p>



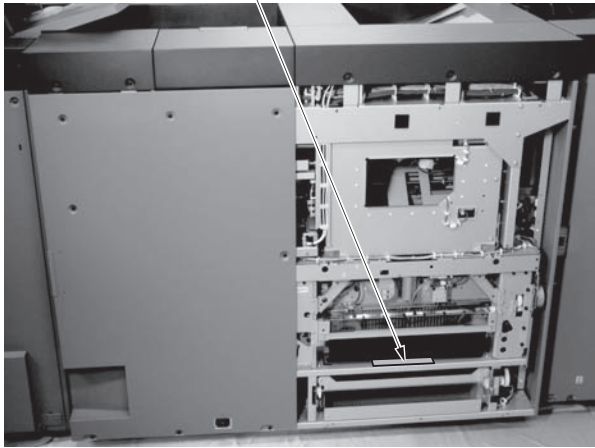
(SD-506)

⚠ WARNING
⚠ WARNING
⚠ 警告



⚠ WARNING

Do not touch the edge of the trimmer blade. You get injured.



⚠ CAUTION

- **You may be burned or injured if you touch any area that you are advised not to touch by any caution label. Do not remove caution labels. If any caution label has come off or soiled and therefore the caution cannot be read, contact our service office.**

4.2 Warning indications on the boards

WARNING



- To avoid electric shock, after turning OFF the power switch, do not touch the DC power supply/1 unit for 15 minutes.
If the DC power supply unit is faulty, it may take time before its voltage drops sufficiently.
- To avoid electric shock, after turning OFF the power switch, do not touch the DC power supply/2 unit for 30 minutes.
If the DC power supply unit is faulty, it may take time before its voltage drops sufficiently.

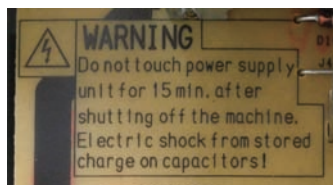
⚠ WARNING

To avoid electric shock, after turning OFF the power switch, do not touch the DC power supply unit for 30 minutes. If the DC power supply unit is faulty, it may take time before its voltage drops sufficiently.



WARNING Do not touch power supply unit for 30 min. after shutting off the machine.
Electric Shock from Stored Charge on Capacitors!

Do not touch power supply unit for 30 min. after shutting off the machine.
Electric shock from stored charge on capacitors!

**⚠ WARNING**

To avoid electric shock, after turning OFF the power switch, do not touch the DC power supply unit for 15 minutes. If the DC power supply unit is faulty, it may take time before its voltage drops sufficiently.



WARNING Do not touch power supply unit for 15 min. after shutting off the machine.
Electric Shock from Stored Charge on Capacitors!

⚠ WARNING

- Do not open the cover for 50 minutes after turning OFF the power switch.

⚠ WARNING

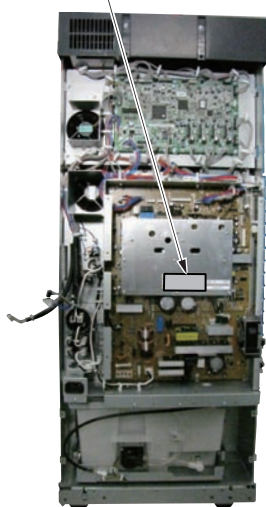
There is a possibility of electrical shock caused by charging voltage.

(RU-509)



⚠ WARNING

Do not open the cover for 50 minutes after turning OFF the power switch. There is a possibility of electrical shock caused by charging voltage.



⚠ CAUTION

- You may be burned or injured if you touch any area that you are advised not to touch by any caution label. Do not remove caution labels. If any caution label has come off or soiled and therefore the caution cannot be read, contact our service office.

5. MEASURES TO TAKE IN CASE OF AN ACCIDENT

1. If an accident has occurred, the distributor who has been notified first must immediately take emergency measures to provide relief to affected persons and to prevent further damage.
2. If a report of a serious accident has been received from a customer, an on-site evaluation must be carried out quickly and KMBT must be notified.
3. To determine the cause of the accident, conditions and materials must be recorded through direct on-site checks, in accordance with instructions issued by KMBT.
4. For reports and measures concerning serious accidents, follow the regulations specified by every distributor.

B NOTATION OF THE CONTENTS

1. PRECAUTION ON HANDLING THIS MANUAL

Be sure to maintain the confidentiality of this manual.

Mishandling of this manual may make you face punishment according to the laws.

2. PRODUCT NAME

In this manual, each product is indicated as following names.

- | | |
|-------------------------------------|---------------------|
| (1) bizhub PRESS 1250/1250P/1052*1: | Copier or Main body |
| bizhub PRO 951*1: | Copier or Main body |
| Microsoft Windows Vista: | Windows Vista |
| Microsoft Windows 7: | Windows 7 |

*1 This Service Manual is also applicable to bizhub PRO 951, bizhub PRESS 1250/1250P/1052 and ineo 951/1250/1052.

3. TRADEMARK

3.1 TRADEMARKS OF OTHER COMPANIES

The indicated company and product names are the trademarks or registered trademarks of each company.

3.2 OWN TRADEMARKS

KONICA MINOLTA and KONICA MINOLTA logo are the registered trademarks of KONICA MINOLTA HOLDINGS, INC..

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4. ELECTRICAL PARTS AND SIGNALS

Those listed by way of example below are not exhaustive, but only some instances among many.

Classification	Load symbol	Ex. of signal name	Description
Sensor	PS	IN	Sensor detection signal
		PS	
		Door PS1	
		SIG	
		102 PS	
Solenoid	SD	24V	Power to drive the solenoid
		DRV	Drive signal
		SOL	
Clutch	CL	24V	Power to drive the clutch
		DRV	Drive signal
		SOL	
Motor	M	24V	Power to drive the motor
		CONT	Drive signal
		DRV1	Drive signals of two kinds
		DRV2	
		D1	
		D2	
		_U	Drive signals (control signals) of three kinds
		_V	
		_W	
		DRV1	
		DRV2	
		DRV3	
		D1	Drive signals (control signals) of four kinds Motor, phases A and B control signals
		D2	
		D3	
		D4	
		DRV A	
		DRV \overline{A}	
		DRV B	
		DRV \overline{B}	
		A	
		/A	
		B	
		/B	
		AB	
		BB	
		CLK, PLL	PLL control signal
		LCK, Lock, LD	PLL lock signal
		FR	Forward/reverse rotation signal
		EM, Lock, LCK, LD	Motor lock abnormality
		BLK	Drive brake signal
		P/S	Power/stop
		S/S	Operating load start/stop signal
		SS	
		CW/CCW, F/R	Rotational direction switching signal
		ENB	Effective signal
		TEMP_ER	Motor temperature abnormality detection signal
Fan	FM	24V	Power to drive the fan motor
		CONT, DRIVE	Drive signal
		HL	Speed control signal (2 speeds)
		EM, Lock, LCK, FEM	Detection signal
Others		TH1.S, ANG	Analog signal
Ground		SG, S_GND, S_GND	Signal ground

Serial communication		PG, P.GND	Power ground
		DCD	Data carrier detection
		SIN	Serial input
		SOUT	Serial output
		DTR	Data terminal operation available
		GND	Signal ground (earth)
		DSR, DSET	Data set ready
		RTS	Transmission request signal
		CTS	Consent transmission signal
		RI	Ring indicator
		TXD	Serial transmission data
		RXD	Serial reception data

5. PAPER FEED DIRECTION

When the direction in which paper is fed is in parallel with the longer side of paper, the paper feed direction like this is referred to as the longitudinal feed.

And the paper feed direction that is perpendicular to the longitudinal feed is referred to as the transverse feed.

When specifying the longitudinal feed, "S (abbreviation for Short Edge Feeding)" is added to the paper size. For the transverse feed, no specific notation is employed.

However, when only the longitudinal feed is specified for one and the same paper size with no specification made for the transverse feed, "S" is not added even when being fed longitudinally.

<Example>

Paper size	Feed direction	Notation
A4	Transverse feed	A4
	Longitudinal feed	A4S
A3	Longitudinal feed	A3

C PRODUCT SPECIFICATIONS

1. bizhub PRESS 1250/1250P/1052

1.1 Type

Type	Console type (floor-mounted type)
Copying method	Indirect electrostatic method
Original stand	Fixed
Original alignment	Left rear standard
Photo conductor	OPC
Sensitizing method	LED print head (LPH) exposure method
Tray capacity	2 trays (1,500 sheets x 2, 80g/m ²) PF-703 (1,850 sheets x 2, 1,300 sheets x 1, 80g/m ²) *1 PF-706 (2,000 sheets x 3, 80g/m ²) *1

*1 PF-703 and PF-706 are optional.

1.2 Functions

Original	Sheet, book, solid object	
Max. original size	A3 or 11 x 17	
Paper size	Trays 1, 2	SRA3, A3, JISB4 *1, ISOB4 *2, SRA4S, A4, A4S, JISB5 *1, ISOB5 *2, B5S, A5, 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K *3, 16K *3, 16KS *3 Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W) Custom (Max. 324mm x 463mm, Min. 182mm x 139mm) Tab paper (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2) *1 Default for North America *2 Default for Europe *3 For China/Taiwan only
	ADU	SRA3, A3, B4, ISOB4, SRA4S, A4, A4S, B5, ISOB5, B5S, A5, 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2, 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K, 16K, 16KS Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W) Custom (Max. 324mm x 483mm, Min. 95mm x 133mm)
Paper weight	Trays 1, 2	40g/m ² to 300g/m ²
	PF-703/PF-706	40g/m ² to 350 g/m ²
	Duplex	40g/m ² to 300g/m ²
Magnification:	Fixed magnification	Inch: x 1.000, x 2.000, x 1.545, x 1.294, x 1.214, x 0.939, x 0.772, x 0.647, x 0.500 Metric: x 1.000, x 2.000, x 1.414, x 1.189, x 0.840, x 0.707, x 0.500
	Preset zoom setting	3 types
	Zoom magnification	x 0.250 to x 4.000 (at the step of 0.1%)
	Vertical magnification	x 0.250 to x 4.000 (at the step of 0.1%)
	Horizontal magnification	x 0.250 to x 4.000 (at the step of 0.1%)
Warm-up time	420 sec. or less	
First copy out time	PRESS1250	2.8 sec. or less
	PRESS1052	3.0 sec. or less
Continuous copy speed	PRESS1250/1250P	125 sheets/min. (A4)
	PRESS1052	105 sheets/min. (A4)
Continuous copy count	Up to 9,999 sheets	
Original density selection	Auto density selection, manual (9 steps), user density registration (2 types of settings can be registered)	
Resolution:	Scan	600dpi x 600dpi
	Write	1200dpi x 1200dpi
DRAM	768 MB	

HDD *1 *2	250 GB	
Interface section	RJ45 Ethernet x 1, Serial port (RS232-C) x 1, Serial port (USB TypeA x 4)	
Number of originals to be stored	10,000 sheets or more	
	Under the following conditions	Original : FAX#4CHART/A4 Density : Manual 5 Mode : Text/photo

*1 Removable when using RH-101 (optional).

*2 1 for standard equipment.

1.3 Paper Type

Type of paper	Main tray	PF-703	PF-706
Coated	○ *1	○ *2	○ *1 *3
PrePrinted	×	○ *2	○ *3
Fine	○	○	○
Plain	○	○	○
Book/News (216 g/m ² or less is recommended)	○	○	○
Embossed (216 g/m ² or less is recommended)	○	○	○
Blank Insert	○	○	○
Label Paper *4	×	○	○
OHP Film *5	×	○	○
Tab Paper *6	○	○	○
Embossed2 (62 g/m ² to 135 g/m ² are recommended.)	○	○	○
Envelope *7 (70 g/m ² to 100 g/m ² are recommended.)	×	○	×

*1 Paper can be fed in the humidity 60 % or less.

*2 Use of HT-505 is recommended in the humidity condition.

*3 When using PP-701

*4 Only the PF middle tray can feed paper. Paper feed direction is specified.

*5 Only the PF middle tray can feed paper. Quality is not guaranteed.

*6 Set direction is specified. Only for simplex.

*7 When EF-102 is used. Tray4 is recommended for the paper feed tray.

1.4 Recommended paper

1.4.1 Inch

Paper type	Product name	Recommendation *1
Bond	Domtar First Choice Multiuse (90 g/m ²)	Recommended paper A
	Domtar First Choice Cover & Card (176 g/m ²)	Recommended paper B
	Hammermill Tidal MP (75 g/m ²)	Recommended paper A
	Hammermill Fore MP (75 g/m ²)	Recommended paper A
	Hammermill Fore MP-colors (30% post-consumer fiber) (75 g/m ²)	Recommended paper A
	Xerox Digital Publishing Paper (68 g/m ²)	Recommended paper A
	Hammermill Color Copy Digital Cover Photo White (120 g/m ²)	Recommended paper A
	Boise X9 (60 g/m ²)	Recommended paper B
Recycled	Domtar Recycled Husky Xero Copy (75 g/m ²)	Recommended paper A
	Hammermill Great White Copy (30% Post-Consumer Fiber) (75 g/m ²)	Recommended paper A
	Boise ASPEN 100 Recycle (75 g/m ²)	Recommended paper A
Gloss	Smart Kromekote Laser High GlossC2S-Ultra Gloss Cast Coat(234.4 g/m ²)	Recommended paper B

	Carolina Digital C2S Cover (234 g/m ²)	Recommended paper B
Cover	Domtar First Choice Cover&Card (176 g/m ²)	Recommended paper B
Tab Paper	Xerox Business 90lb Index (90lb)	Recommended paper B
	Springhill Digital Index (Formerly known as Index Plus) (110lb)	Recommended paper B
Transparency	Folex X475 (92 g/m ² to 135 g/m ²) *2	Paper for original through check
Label	Avery 5160 (136 g/m ² to 216 g/m ²) *2	Paper for original through check
	Avery 5352 (136 g/m ² to 216 g/m ²) *2	Paper for original through check
NCR	Appleton NCR Paper Xero/Form II *2	Paper for original through check
Embossed2	strathmore grandee white (118 g/m ²)	Recommended paper B
	strathmore pastelle bright white (118 g/m ²)	Recommended paper B
	via linen bright white (104 g/m ²)	Recommended paper B
	via felt bright white i-tone (216 g/m ²)	Recommended paper B

*1 Recommended paper A: Evaluation standard paper for Japan, North America and Europe

Recommended paper B: Paper which can be fed (Reliability evaluation is not target). Long grain paper is recommended for 49 g/m² or less, and short grain paper is recommended for 217 g/m² or more.

Paper for original through check: Q zone is recommended

*2 Only for simplex

1.4.2 Metric

Paper type	Product name	Recommendation*1
Business	Clairefontaine Clairalfa White (80 g/m ²)	Recommended paper A
	Konicaminolta Original (80 g/m ²)	Recommended paper A
	Konicaminolta Profi (80 g/m ²)	Recommended paper A
	Mondi IQ premium (80 g/m ²)	Recommended paper A
	Mondi BIO TOP 3 extra (80 g/m ²)	Recommended paper A
	Stora Enso Berga Superior (100 g/m ²)	Recommended paper A
	Mondi Color Copy (90g/m ² , 120 g/m ²)	Recommended paper A
	Mondi Color Copy (200 g/m ² , 300 g/m ² , 350 g/m ²)	Recommended paper B
	Clairefontaine Clairmail (60 g/m ²)	Recommended paper A
	Konicaminolta Color + (90 g/m ²)	Recommended paper A
	Mondi MAESTRO supreme (60 g/m ²)	Recommended paper A
	Mondi MAESTRO supreme (160 g/m ²)	Recommended paper B
	Stora Enso 4CC (100 g/m ²)	Recommended paper A
	Stora Enso 4CC (220 g/m ² , 280 g/m ²)	Recommended paper B
	Xerox Colortech+ (280 g/m ²)	Recommended paper B
	Stora Enso Zoom Image (80 g/m ²)	Recommended paper A
	Mondi IQ Selection Smooth (160 g/m ²)	Recommended paper B

	Atlantic feinpost (50 g/m ²)	Paper for original through check
Eco-friendly	Mondi MAESTRO TRIOTEC TCF (80 g/m ²)	Recommended paper A
Recycled	Mondi NAUTILUS SuperWhite (80 g/m ²)	Recommended paper A
	Classic White (80 g/m ²)	Recommended paper A
Coated	SchneidersoehneColor Copy Gloss (120 g/m ²)	Recommended paper B
Transparency	Folex X475 (92 g/m ² to 135 g/m ²) *2	Paper for original through check
Label	Avery L7169 (92 g/m ² to 135 g/m ²) *2	Paper for original through check
	Avery L7160 (136 g/m ² to 216 g/m ²) *2	Paper for original through check
Tab Paper	Konicaminolta Divider Cards (160 g/m ²)	Recommended paper B
NCR	Xerox Premium Digital (82 g/m ²) *2	Recommended paper B
	Carbonless Paper (86 g/m ²) *2	Recommended paper B

*1 Recommended paper A: Evaluation standard paper for Japan, North America and Europe

Recommended paper B: Paper which can be fed (Reliability evaluation is not target). Long grain paper is recommended for 49 g/m² or less, and short grain paper is recommended for 217 g/m² or more.

Paper for original through check: Q zone is recommended

*2 Only for simplex

1.5 Materials

Parts name	Useful life	Name
Toner bottle	105,000 prints *1	TN014
Drum	1,000,000 prints or 175 hours *2	DR012
	1,000,000 prints or 220 hours *3	
Developer	1,000,000 prints or 175 hours *2	DV011
	1,000,000 prints or 220 hours *3	
Waste toner box	750,000 prints *1	A4EUR75V##

*1 A4 original at 4 to 5% coverage.

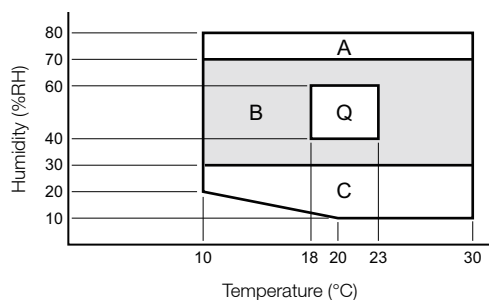
*2 1250/1250P

*3 1052

1.6 Maintenance

Maintenance cycle	Every 1,000,000 prints			
Ave. number of prints	100,000 to 500,000 per month			
Max. number of prints	PRESS1250/1250P	Q zone *1	3,000,000 per month	100,000 per day
		B, C zone *1	2,400,000 per month	80,000 per day
		A zone *1	600,000 per month	20,000 per day
	PRESS 1052	Q zone *1	2,000,000 per month	67,000 per day
		B, C zone *1	1,600,000 per month	54,000 per day
		A zone *1	600,000 per month	20,000 per day

*1 The zones mean the temperature and humidity range indicated in the following graph.



1.7 Machine data

Power source	Inch: Single-phase three-wire AC 208V to 240V -10% to +10%, 24A, 60Hz Metric: Single-phase three-wire AC 230V -14% to +10.6%, 25A, 50Hz/60Hz	
Maximum power consumption	Inch: 5,760W or less (AC208V to 240V, full option) Metric: 6,000W or less (AC220V to 240V, full option)	
Weight	PRESS1250/1052: Approx. 371kg PRESS1250P: Approx. 341kg	
Dimensions	PRESS1250/1052 itself	990 (W) x 910 (D ^{*1}) x 1,234 (H ^{*2}) mm
	PRESS1250+PF-703+RU-510+F D-503+FS-532	3,635 (W) x 910 (D ^{*1}) x 1,454 (H ^{*3}) mm

*1 Including the rear duct

*2 Excluding the control panel

*3 The height from the bottom to the top of the control panel.

1.8 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

1.9 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

2. bizhub PRO 951

2.1 Type

Type	Console type (floor-mounted type)
Copying method	Indirect electrostatic method
Original stand	Fixed
Original alignment	Left rear standard
Photo conductor	OPC
Sensitizing method	LED print head (LPH) exposure method
Tray capacity	2 trays (1,500 sheets x 2, 80g/m ²) LU-409 (4,500 sheets x 1, 20lb: 80 g/m ²) *1 LU-410 (4,000 sheets x 1, 20lb: 80 g/m ²) *1 PF-706 (2,000 sheets x 3, 80 g/m ²) *1

*1 LU-409, LU-410 and PF-706 are optional.

2.2 Functions

Original	Sheet, book, solid object	
Max. original size	A3 or 11 x 17	
Paper size	Trays 1, 2	SRA3, A3, JISB4 *1, ISOB4 *2, SRA4S, A4, A4S, JISB5 *1, ISOB5 *2, B5S, A5, 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K *3, 16K *3, 16KS *3 Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W,) Custom size paper (Max. 324mm x 463mm, Min. 182mm x 139mm) Tab paper (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2) *1 Default for North America *2 Default for Europe *3 For China/Taiwan only
	ADU	SRA3, A3, B4, ISOB4, SRA4S, A4, A4S, B5, ISOB5, B5S, A5, 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2, 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K, 16K, 16KS Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W) Custom size paper (Max. 324mm x 483mm, Min. 95mm x 133mm)
Paper weight	Trays 1, 2	40 g/m ² to 300 g/m ²
	LU-409/LU-410	40 g/m ² to 300 g/m ²
	PF-706	40 g/m ² to 350 g/m ²
	Duplex	50 g/m ² to 300 g/m ²
Magnification:	Fixed magnification	Inch: x 1.000, x 2.000, x 1.545, x 1.294, x 1.214, x 0.939, x 0.772, x 0.647, x 0.500 Metric: x 1.000, x 2.000, x 1.414, x 1.189, x 0.840, x 0.707, x 0.500
	Preset zoom setting	3 types
	Zoom magnification	x 0.250 to x 4.000 (at the step of 0.1%)
	Vertical magnification	x 0.250 to x 4.000 (at the step of 0.1%)
	Horizontal magnification	x 0.250 to x 4.000 (at the step of 0.1%)
Warm-up time	390 sec. or less	
First copy out time	3.4 sec. or less	
Continuous copy speed	95 sheets/min. (A4)	
Continuous copy count	Up to 9,999 sheets	
Original density selection	Auto density selection, manual (9 steps), user density registration (2 types of settings can be registered)	
Resolution:	Scan	600dpi x 600dpi
	Write	1200dpi x 1200dpi
DRAM	768 MB	
HDD *1 *2	250 GB	
Interface section	RJ45 Ethernet x 1, Serial port (RS232-C) x 1, Serial port (USB TypeA x 1)	

Number of originals to be stored	10,000 sheets or more	
	Under the following conditions	Original : FAX#4CHART/A4 Density : Manual 5 Mode : Text/photo

*1 Removable when using RH-101 (optional).

*2 1 for standard equipment.

2.3 Type of paper

Type of paper	Main tray	PF-706	LU-409/410
Fine	○	○	○
Plain	○	○	○
Book/News (216 g/m ² or less is recommended)	○	○	○
Embossed (216 g/m ² or less is recommended)	○	○	○
Blank Insert	○	○	○
Label Paper* ¹	×	○	○
OHP Film* ²	×	○	○
Tab paper* ³	○	○	○

*1 Only the LU tray or the PF-706 middle tray can feed paper. Paper feed direction is specified.

*2 Only the LU tray or the PF-706 middle tray can feed paper. Quality is not guaranteed.

*3 Set direction is specified. Only for simplex.

2.4 Recommended paper

2.4.1 Inch

Paper type	Product name	Recommendation* ¹
Bond	Domtar First Choice Multiuse (90 g/m ²)	Recommended paper A
	Domtar First Choice Cover & Card (176 g/m ²)	Recommended paper B
	Hammermill Tidal MP (75 g/m ²)	Recommended paper A
	Hammermill Fore MP (75 g/m ²)	Recommended paper A
	Hammermill Fore MP-colors (30% post-consumer fiber) (75 g/m ²)	Recommended paper A
	Xerox Digital Publishing Paper (68 g/m ²)	Recommended paper A
	Hammermill Color Copy Digital Cover Photo White (120 g/m ²)	Recommended paper A
	Boise X9 (60 g/m ²)	Recommended paper B
Recycled	Domtar Recycled Husky Xero Copy (75 g/m ²)	Recommended paper A
	Hammermill Great White Copy (30% Post-Consumer Fiber) (75 g/m ²)	Recommended paper A
	Boise ASPEN 100 Recycle (75 g/m ²)	Recommended paper A
Cover	Domtar First Choice Cover&Card (176 g/m ²)	Recommended paper B
Tab Paper	Xerox Business 90lb Index (90lb)	Recommended paper B
	Springhill Digital Index (Formerly known as Index Plus) (110lb)	Recommended paper B
Transparency	Folex X475 (92 g/m ² to 135 g/m ²) * ²	Paper for original through check
Label	Avery 5160 (136 g/m ² to 216 g/m ²) * ²	Paper for original through check
	Avery 5352 (136 g/m ² to 216 g/m ²) * ²	Paper for original through check
NCR	Appleton NCR Paper Xero/Form II * ²	Paper for original through check

*1 Recommended paper A: Evaluation standard paper for Japan, North America and Europe

Recommended paper B: Paper which can be fed (Reliability evaluation is not target). Long grain paper is recommended for 49 g/m² or less, and short grain paper is recommended for 217 g/m² or more.

Paper for original through check: Q zone is recommended

*2 Only for simplex

2.4.2 Metric

Paper type	Product name	Recommendation*1
Business	Clairefontaine Clairalfa Whilte (80 g/m ²)	Recommended paper A
	Konicaminolta Original (80 g/m ²)	Recommended paper A
	Konicaminolta Profi (80 g/m ²)	Recommended paper A
	Mondi IQ premium (80 g/m ²)	Recommended paper A
	Mondi BIO TOP 3 extra (80 g/m ²)	Recommended paper A
	Stora Enso Berga Superior (100 g/m ²)	Recommended paper A
	Mondi Color Copy (90 g/m ² , 120 g/m ²)	Recommended paper A
	Mondi Color Copy (200 g/m ² , 300 g/m ² , 350 g/m ²)	Recommended paper B
	Clairefontaine Clairmail (60 g/m ²)	Recommended paper A
	Konicaminolta Color + (90 g/m ²)	Recommended paper A
	Mondi MAESTRO supreme (60 g/m ²)	Recommended paper A
	Mondi MAESTRO supreme (160 g/m ²)	Recommended paper B
	Stora Enso 4CC (100 g/m ²)	Recommended paper A
	Stora Enso 4CC (220 g/m ² , 280 g/m ²)	Recommended paper B
	Xerox Colortech+ (280 g/m ²)	Recommended paper B
	Stora Enso Zoom Image (80 g/m ²)	Recommended paper A
	Mondi IQ Selection Smooth (160 g/m ²)	Recommended paper B
	Atlantic feinpost (50 g/m ²)	Paper for original through check
Eco-friendly	Mondi MAESTRO TRIOTEC TCF (80 g/m ²)	Recommended paper A
Recycled	Mondi NAUTILUS SuperWhite (80 g/m ²)	Recommended paper A
	Classic White (80 g/m ²)	Recommended paper A
Transparency	Folex X475 (92 g/m ² to 135 g/m ²) *2	Paper for original through check
Label	Avery L7169 (92 g/m ² to 135 g/m ²) *2	Paper for original through check
	Avery L7160 (136 g/m ² to 216 g/m ²) *2	Paper for original through check
Tab Paper	Konicaminolta Divider Cards (160 g/m ²)	Recommended paper B
NCR	Xerox Premium Digital (82 g/m ²) *2	Recommended paper B
	Carbonless Paper (83 g/m ²) *2	Recommended paper B

*1 Recommended paper A: Evaluation standard paper for Japan, North America and Europe

Recommended paper B: Paper which can be fed (Reliability evaluation is not target). Long grain paper I is recommended for 49 g/m² or less, and short grain paper is recommended for 217 g/m² or more.

Paper for original through check: Q zone is recommended

*2 Only for simplex

2.5 Materials

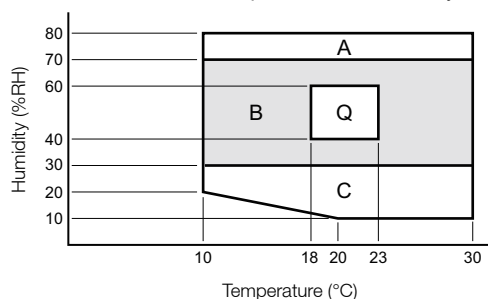
Parts name	Useful life	Name
Toner bottle	105,000 prints*1	TN015
Drum	750,000 prints or 190 hours	DR012
Developer	750,000 prints or 190 hours	DV011
Waste toner box	750,000 prints*1	A4EUR75V##

*1 A4 original at 4 to 5% coverage.

2.6 Maintenance

Maintenance cycle	Every 750,000 prints		
Ave. number of prints	100,000 to 500,000 per month		
Max. number of print	Q zone*1	1,500,000 per month	50,000 per day
	B, C zone*1	1,000,000 per month	35,000 per day
	A zone*1	300,000 per month	10,000 per day

*1 The zones mean the temperature and humidity range indicated in the following graph.



2.7 Machine data

Power source	Inch: Single-phase three-wire AC 208V to 240V -10% to +10%, 16A, 60Hz Metric: Single-phase three-wire AC 230V -14% to +10.6%, 15A, 50Hz/60Hz	
Maximum power consumption	Inch: 3,840W or less (AC208V to 240V, full option) Metric: 3,600W or less (AC220V to 240V, full option)	
Weight	Approx. 364kg (including DF)	
Dimensions	PRO951 itself	990 (W) x 910 (D*1) x 1,234 (H*2)mm
	PRO951+LU-409+FS-532	2,375 (W) x 910 (D*1) x 1,454 (H*3) mm

*1 Including the rear duct

*2 Excluding the control panel.

*3 The height from the bottom to the top of the operation panel.

2.8 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

2.9 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

3. DF-615 /616

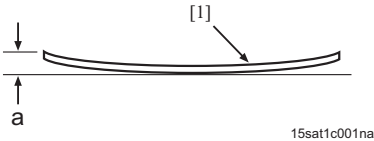
3.1 Type

Type	Sheet-through type automatic document feeder
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3.2 Functions

Paper size	A3, B4, ISOB4, A4, A4S, B5, ISOB5, B5S, ISOB5S, A5 11 x 17, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 8 ¹ / ₂ x 5 ¹ / ₂ , 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13, 8K* ¹ , 16K* ¹ , 16KS* ¹ Maximum original size: 297mm x 431.8mm Minimum original size: 128mm x 139.7mm *1 For China/Taiwan only	
Original stacking capacity	100 sheets, max. (80g/m ²)	
Original read speed (A4 size)	DF-615	Single sided copy mode: 105 sheets/min.
		Double sided copy mode: 65 sheets/min.
	DF-616	Single sided copy mode: 96sheets/min.
		Double sided copy mode: 68 sheets/min.
Original feed layout	Set with the front side up, at center as standard	
Original image read position	Dedicated slit glass section	
Resolution	600dpi	

3.3 Type of paper

Type of paper	Plain paper of 50g/m ² to 130g/m ² In the single-sided copy mode, however, plain paper of 131g/m ² to 200g/m ² is also available in the single feed mode.	
Paper curl amount	Up to 10mm with 5 originals overlapped one another  a Curing: 10 mm or less [1] Original	

3.4 Originals other than the paper feed and throughput can be guaranteed

With the following originals, no severe problems are found such as frequent jams and major damage to the originals, although it is not possible to obtain a numeric value indicating reliability that can be specified in product guarantee terms

Recycled paper, straw paper, heat-sensitive paper, originals fed in the mixing of perforated original mode, Fine paper of 35g/m² to 50g/m², costume size originals (such as CF originals), coated paper, originals with a rough surface (such as letterhead), folded originals (Z-Folded or folded in 2)

3.5 Originals not allowed to be fed

The following originals can not be used

OHP film, blueprint master, label paper, offset master, bonded original, Fine paper of 35g/m² to 201g/m²

3.6 Combination of mixed originals

Combinations of the same and different size originals is available. The following table shows the available combination of mixed originals.

Metric: Europe

Other originals	Reference originals (original with a maximum width)						
	A3	A4	B4	B5	A4S	A5	B5S
A3	□	○	—	—	—	—	—
A4	○	□	—	—	—	—	—
B4	⊗	⊗	□	○	—	—	—
B5	⊗	⊗	○	□	—	—	—
A4S	⊗	⊗	⊗	⊗	□	○	—
A5	⊗	⊗	⊗	⊗	○	□	—
B5S	✕	✕	⊗	⊗	⊗	⊗	□

Inch

Other originals	Reference originals (original with a maximum width)				
	11 x 17	8½ x 11	8½ x 14	8½ x 11S	8½ x 5½
11 x 17	□	○	—	—	—
8½ x 11	○	□	—	—	—
8½ x 14	⊗	⊗	□	○	○
8½ x 11S	⊗	⊗	○	□	○
8½ x 5½	⊗	⊗	○	○	□

Taiwanese

Other originals	Reference originals (original with a maximum width)						
	A3	A4	8K	16K	A4S	A5	16KS
A3	□	○	—	—	—	—	—
A4	○	□	—	—	—	—	—
8K	⊗	⊗	□	○	—	—	—
16K	⊗	⊗	○	□	—	—	—
A4S	⊗	⊗	⊗	⊗	□	○	—
A5	⊗	⊗	⊗	⊗	○	□	—
16KS	✕	✕	⊗	⊗	⊗	⊗	□

□ : same size, ○ : :same series, ⊗ : different series, ✕: no mixed loading,
—: not supported

3.7 Machine data

Power source	24/5.1VDC±10% (supplied from the main body)
Maximum power consumption	210W or less
Dimensions	650 (W) x 570 (D) x 170 (H) mm (excluding the original feed tray)
Weight	Approx. 22kg

3.8 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

3.9 Note regarding the specifications

- Note
- The information herein may be subject to change for improvement without notice.

4. PF-703

4.1 Type

Type	Front loading type suction method 3-tray paper feeder
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4.2 Functions

Number of trays	3 trays (All trays universal)
Maximum tray capacity	5,000 sheets (80g/m ² standard paper) Tray /1 : 1,300 sheets Tray /2, /3 : 1,850 sheets

4.3 Type of paper

Paper size	SRA3, A3, JISB4 *1, ISOB4 *2, SRA4, SRA4S, A4, A4S, JISB5 *1, ISOB5 *2, JISB5S *1, ISOB5S *2, A5 8K *3, 16K *3, 16KS *3 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W, Max. 324mm x 463mm) Custom size paper (Max. 324mm x 483mm, Min. 182mm x 133mm) *4 Tab paper (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2) *5 Envelope (Max. 245mm x 375mm, Min. 100mm x 135mm) *6	
Applicable paper	Plain, Fine, Coated, Recycled paper, PrePrinted, Book/News, Embossed, Blank Insert, Embossed2, Envelope *7	
Paper weight	Tray /1, /3	40 to 300g/m ²
	Tray /2	40 to 350g/m ²

*1 Default for North America

*2 Default for Europe

*3 For China/Taiwan only

*4 When using small size guide : Min. 95mm x 133mm

*5 Tab paper is unavailable for PI-PFU.

*6 Paper feed available only from tray /4. The assist guide is required for some size of paper.

*7 When EF-102 is installed.

4.4 Machine data

Power source	36/24/12/5VDC, 200VAC (supplied both from the main body)
Maximum power consumption *1	DC : 90W or less AC : 100W or less
Weight	186kg
Dimensions	871.5 (W) x 780 (D) x 1038 (H) mm

*1 Excluding the power consumption of HT-505. (Power consumption AC of HT-505: 580W or less)

4.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

4.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

5. HT-505

5.1 Type

Type	Fan heater type dehumidifier
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5.2 Machine data

Power source	24/5VDC, 200V to 240VAC (supplied from PF)
Maximum power consumption	DC: 6W or less, AC: 580W or less
Dimensions	Dehumidifier fan heater unit: 197 (W) x 82 (D) x 293 (H) mm Power source unit: 121 (W) x 80 (D) x 160 (H) mm
Weight	Dehumidifier fan heater unit: 1.5kg (per unit) Power supply unit: 0.9 kg

5.3 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

5.4 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

6. FA-501

6.1 Type

Type	Paper conveyance unit for PI with multi-feed detection
------	--

6.2 Type of paper

Paper size	Maximum 324mm x 463mm, minimum 95mm x 133mm
Applicable paper	Plain, Fine, Coat, recycled paper, PrePrinted, Book/News, Embossed, Blank Insert, Embossed2
Paper weight	40 to 350g/m ²

6.3 Machine data

Power source	Same as the PF.
Maximum power consumption	36W or less
Dimensions	Conveyance section 150 (W) x 580 (D) x 200 (H) mm External parts 575mm x 608mm, 575mm x 375mm
Weight	9kg

6.4 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

6.5 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

7. PF-706

7.1 Type

Type	Front loading type 3-tray paper feeder
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7.2 Functions

Number of trays	3 trays (All trays universal)
Maximum tray capacity	6,000 sheets (80g/m ² standard paper) = 2,000 sheets x 3 trays

7.3 Type of paper

Paper size	SRA3, A3, JISB4 *1, ISOB4 *2, SRA4S, A4, A4S, JISB5 *1, ISOB5 *2, JISB5S *1, ISOB5S *2, A5, 8K *3, 16K *3, 16KS *3 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W, Max. 324mm x 463mm) Custom size paper (Max. 324mm x 463mm, Min. 182mm x 139mm) *4 Tab paper (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2) *1 Default for North America *2 Default for Europe *3 For China/Taiwan only *4 When using small size guide : Min. 95mm x 139mm	
Applicable paper	Plain, Fine, Coated *5, Recycled paper, PrePrinted, Book/News, Embossed, Inserting sheet (not printed), Embossed2 *6 *5 Available with environmental humidity 60% or less *6 Paper feed available only from tray /5	
Paper weight	Tray /1, /3	40g/m ² to 300g/m ²
	Tray /2	40g/m ² to 350 g/m ²

7.4 Machine data

Power source	36/24/12/5VDC, 200VAC to 240VAC (supplied both from the main body or PF703)
Maximum power consumption	110W or less
Weight	Approx. 150kg
Dimensions	809 (W) x 780 (D) x 1038 (H) mm

7.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

7.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

8. PP-701

8.1 Type

Type	Overlay printing enhancement kit for PF
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8.2 Machine data

Power source	24VDC (supplied from PF)
Maximum power consumption	19W or less
Dimensions	125 (W) x 90 (D) x 175 (H) mm
Weight	Approx. 2kg

8.3 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

8.4 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

9. LU-409/410

9.1 Type

Type	Side mount type large volume paper feed tray
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9.2 Functions

Maximum tray capacity	LU-409	5000 sheets (64g/m ² for paper)
	LU-410	4500 sheets (64g/m ² for paper)

9.3 Type of paper

Paper size	LU-409	A4, B5, ISOB5, 8 1/2 x 11, 9 x 11, 8K Tab Paper, Wide paper (Max. 314mm x 229mm) Custom (Max. 314mm x 229mm, Min. 250mm x 176mm)
	LU-410	A3, B4, ISOB4, A4, A4S, SRA4S, 16K, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 Tab Paper, Wide paper (Max. 324mm x 483mm), Custom (Max. 324mm x 483mm, Min. 203mm x 195mm)

9.4 Machine data

Power source	DC24/5V, 200VAC to 240VAC (supplied from the main body)	
Maximum power consumption	LU-409	DC70W or less, AC13W or less
	LU-410	DC70W or less, AC13W or less
Weight	LU-409	Approx. 30kg
	LU-410	Approx. 43kg
Dimensions	LU-409	436 (W) x 639 (D) x 709 (H) mm
	LU-410	700 (W) x 639 (D) x 715 (H) mm

9.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

9.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

10. RH-101

10.1 Type

Type	Removable HDD kit
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10.2 Functions

Functions	When the main power is OFF, the inner case and the hard disk can be removed/inserted from RH-101.
	When RH-101 is used, do NOT use the security mode of the main body.

10.3 Machine data

Power source	12/5VDC (supplied from the main body)
Maximum power consumption	5W or less (built-in HDD power: 70W or less)
Weight	Approx. 2.4kg
Dimensions	150 (W) x 260 (D) x 110 (H) mm

10.4 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80% RH (with no condensation)

10.5 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

11. HD-511

11.1 Type

Type	Inner HDD kit
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11.2 Functions

Functions	Removable HDD kit (RH-101)
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11.3 Machine data

Power source	12/5VDC (supplied from the main body)
Power consumption	70W or less
Weight	Approx. 0.85kg
Dimensions	186 (W) x 118 (D) x 37 (H) mm

11.4 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80% RH (with no condensation)

11.5 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

12. EF-102

12.1 Type

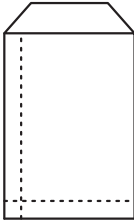
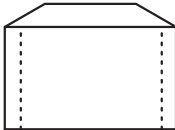
Type	Envelope kit
Configuration	Fusing unit
	Paper feed assist part

12.2 Functions

Paper feed method	Equipping the dedicated fusing unit and the paper feed assist part enables envelope feed.	
Document alignment	Center	
Paper feed mode	Only face up exit in the simplex mode. Refeeding papers are not assured.	
Paper feed direction	Open the flap and feed paper from the opposite side of the flap.	
Paper feed specification	Paper feed tray	Can be fed only from the tray4 of PF-703. Paper feed auxiliary part is required according to the shape of envelope.
	Paper feed tray load capacity	150 sheets
Finishing specification*1	Output Tray	Can be output only to the main tray of FS-532.
	Output tray load capacity	150 sheets
	Finishing options which can be connected	RU-510, FS-532, SD-510, PK-522, PI-502, FD-503, GP-501, GP-502

*1 Shift, punch, and mixed loading are not allowed. Alignment is not guaranteed.

12.3 Type of paper

Weight of envelope	70g/m ² to 100g/m ²		
Envelope size	Length in the main scan direction	100mm to 245mm *Paper feed assist parts must be connected. *When the envelope is between 120mm and 135mm, the envelope is not assured because paper feed assist parts are not available.	
	Length in the sub scan direction	135mm to 375mm	
Recommended envelope* ¹	Inch	6 x 9 1/2	241mm x 152mm
		5 3/4 x 8 7/8	226mm x 146mm
	Metric	C5	162mm x 229mm
		C5/C6	114mm x 229mm
Single side seam and double side seam are recommended.			
<div><div></div><div></div></div>			
<div><div>[1] Single side seam</div><div>[2] Double side seam</div></div>			
Envelope not allowed to use	Envelopes with double-stick tape or release coated paper on the flap. The envelope with the film window.		

*1 The seal area is not assured

12.4 Recommended paper

12.4.1 Inch

Size	Maker	Product name	Seam method	Recommendation
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6 x 9 1/2	Western States Sulfite	7059 white (93 g/m ²)	Double side seam	Evaluation standard paper
5 3/4 x 8 7/8	Western States Sulfite	5214 white (93 g/m ²)	Double side seam	Recommended paper
4 1/8 x 9 1/2	Supremex	1000440 (100 g/m ²)	Double side seam	Recommended paper

12.4.2 Metric

Size	Maker	Product name	Seam method	Recommendation
C5 162mm x 229mm	ELCO	32486 (100 g/m ²)	Double side seam	Evaluation standard paper
C5/C6 114mm x 229mm	GOESSLER	10355 (100 g/m ²)	Double side seam	Recommended paper
105mm x 215mm	GOESSLER	10030 (100 g/m ²)	Double side seam	Recommended paper

12.5 Machine data

Power source	5VDC, 200VAC (supplied from the main body)
Maximum power consumption	2500W or less
Dimensions	Fusing unit: 170 (W) x 685 (D) x 230 (H) mm
Weight	Fusing unit: Approx. 17kg Paper feed guide member: Approx. 1kg Rear cover: Approx. 0.5kg

12.6 Operating environment

Temperature	18°C to 23°C
Humidity	40% to 60%RH (with no condensation)

12.7 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

13. RU-509

13.1 Type

Type	Relay conveyance device with paper cooling/de-curler function
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13.2 Functions

De-curler conveyance mode	Reduces paper curl and conveys at an accelerating rate with post treatment linear velocity.
In the straight conveyance mode	Feed without the de-curl process and conveys at an accelerating rate with post treatment linear velocity.
Humidifier conveyance mode	Executes humidification of HM-102 (option) and conveys at an accelerating rate with post treatment linear velocity.
Output paper density adjustment mode ^{*1}	Measures the color density of the density patch printed on paper and feeds back to the image stabilization control of the main body.

^{*1} C7000/C7000P/C70hc/C6000 only.

13.3 Type of paper

Paper size	SRA3, A3, B4, ISOB4, SRA4 ^{*1} , SRA4S, A4, A4S, B5, ISOB5, B5S, ISOB5S ^{*1} , A5, A5S ^{*1} , B6S ^{*1} , ISOB6S ^{*1} , A6S ^{*1} , Postcard 13 x 19 ^{*1} , 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2 ^{*1} , 5 1/2 x 8 1/2S 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K, 16K, 16KS Wide paper ^{*2} (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W, Max. 324mm x 463mm) Tab paper ^{*3} (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2) Custom size paper Minimum 100mm x 148mm, Maximum 330mm x 487mm ^{*1} Minimum 100mm x 148mm, Maximum 330mm x 463mm ^{*2}
Type of paper	Same as the main body.
Paper weight	64 g/m ² to 300 g/m ² ^{*1} , 40 g/m ² to 350 g/m ² ^{*2}
Allowed curl	60mm or less

^{*1} C7000/C7000P/C70hc/C6000 only.

^{*2} 1250/1250P/1052 only.

^{*3} For C7000/C7000P/C70hc/C6000, A4, 8 1/2 x 11 only.

13.4 Machine data

Power source	100VAC (Japan), 120VAC (North America), 220VAC to 240VAC (Europe)/5VDC (supplied from the main body)
Maximum power consumption	700W or less
Dimensions	410 (W) x 735 (D) x 1,020 (H) mm
Weight	Approx. 60kg

13.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

13.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

14. HM-102

14.1 Type

Type	Paper humidifier kit
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14.2 Functions

Functions	Humidifies the both sides of paper to adjust curling.
Tank capacity	20L (equivalent to approx. 100,000 copies)

14.3 Type of paper

Paper size	SRA3, A3, B4, ISOB4, SRA4 ^{*1} , SRA4S, A4, A4S, B5, ISOB5, B5S, ISOB5S ^{*1} , A5, A5S ^{*1} , B6S ^{*1} , ISOB6S ^{*1} , A6S ^{*1} , Postcard 13 x 19 ^{*1} , 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2 ^{*2} , 5 1/2 x 8 1/2S 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K, 16K, 16KS Wide paper ^{*2} (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W, Max. 324mm x 463mm) Tab paper ^{*3} (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2) Custom paper (Max. 330 x 487mm, Min. 100 x 148mm) Custom size paper Minimum 100mm x 148mm, Maximum 330mm x 487mm ^{*1} Minimum 100mm x 148mm, Maximum 330mm x 463mm ^{*2}
Type of paper	Same as the main body.
Paper weight	64 to 300g/m ² ^{*1} ^{*4} , 50 to 350g/m ² ^{*2} ^{*4}

^{*1} C7000/C7000P/C70hc/C6000 only

^{*2} 1250/1250P/1052 only

^{*3} For C7000/C7000P/C70hc/C6000, A4, 8 1/2 x 11 only

^{*4} For Humidifier ON mode, Envelope or Coated, PrePrinted, Blank Insert Sheet, Embossed, and Embossed2 with the weight under 135 g/m² or less cannot be used.

14.4 Machine data

Power source	24/5VDC (supplied from RU-509)
Dimensions	Humidifier section: 194 (W) x 492 (D) x 83 (H) mm Water feed tank section: 339 (W) x 646 (D) x 246 (H) mm
Weight	Approx. 30kg

14.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

14.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

15. RU-510

15.1 Type

Type	Paper conveyance unit with paper overlap and reverse functions
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15.2 Functions

Double sheets reverse/exit conveyance mode ^{*1}	Reverses 2 sheets of paper exited from the main body, PI-PFU or GP-501 and conveys to finishing unit.
Single sheet reverse/exit conveyance mode	Reverses a single sheet of paper exited from the main body, PI-PFU or GP-501 and conveys to finishing unit.
Straight conveyance mode	Conveys papers exited from the main body, PI-PFU or GP-501 to finishing unit without any process.

^{*1} 1250/1250P only

15.3 Paper type

Paper size	SRA3, A3, JISB4 ^{*1} , ISOB4 ^{*2} , SRA4 ^{*3} , SRA4S, A4, A4S, JISB5 ^{*1} , ISOB5 ^{*2} , JISB5S ^{*1} , ISOB5S ^{*2} , A5, A5S ^{*3} , A6S ^{*3} 13 x 19 ^{*3} , 12 x 18, 11 x 17, 9 x 11, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ ^{*3} , 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13 8K ^{*4} , 16K ^{*4} , 16KS ^{*4} Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 ¹ / ₂ x 11W, 8 ¹ / ₂ x 11SW, 5 ¹ / ₂ x 8 ¹ / ₂ W, Max. 331mm x 488mm ^{*5}) Custom size paper (Max. 331mm x 488mm ^{*5} , Min. 95mm x 133mm ^{*6}) Tab paper (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ , Max. 331mm x 463mm)	
Paper type	Plain, Fine, Coated, Tab Paper, OHP Film, Label Paper, PrePrinted, Blank Insert, Embossed2, Book/News, Embossed, Envelope: same as the main body.	
Paper weight	40g/ m ² to 350g/ m ²	
	2 pages reverse/exit conveyance mode ^{*7}	40g/ m ² to 216g/ m ²

^{*1} Default for North America

^{*2} Default for Europe

^{*3} Except for 1250/1250P/1052

^{*4} For China/Taiwan only

^{*5} 1250/1250P/1052: 324mm x 463mm

^{*6} 1250/1250P/1052: 139mm x 182mm

^{*7} 1250/1250P only

15.4 Machine data

Power source	24/5V DC (supplied from the previous device)
Maximum power consumption	79VA or less
Dimensions	410 (W) x 723 (D) x 1020 (H) mm
Weight	Approx. 35 kg

15.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

15.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

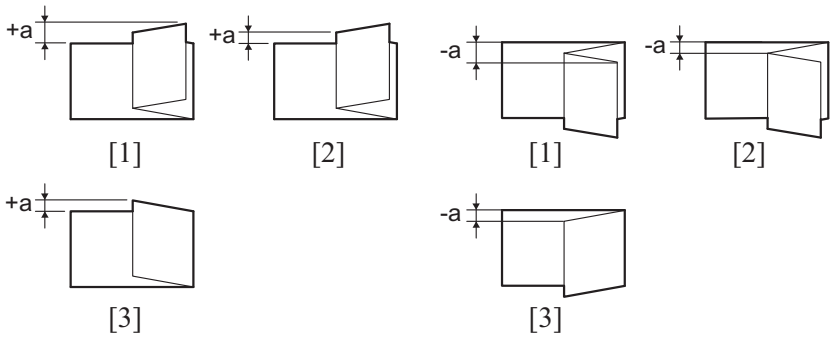
16. ZU-608

16.1 Type


Type	Z-folding multi punching device
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16.2 Functions

Punch	Punching method	Reciprocal punching method (punching each paper)																					
	Holes	Inch area: 2-Holes/3-Holes (switched automatically) Metric area: 2-Holes/4-Holes (switched automatically)																					
	Hole diameter	Inch area: $\phi 8.0 \pm 0.5$ mm Metric area: $\phi 6.5 \pm 0.5$ mm																					
	Hole position	<div><div><div>Metric area : 10.5 mm\pm 5 mm Inch area : 9.5 mm\pm 5 mm</div><div><div><div>Hole pitch Metric area : 80 mm\pm 0.5 mm Inch area : 108 mm\pm 0.5 mm</div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>Center of the paper</div></div></div></div><div><div>Inch area : 9.5 mm 5 mm</div><div><div><div>Hole pitch 108 mm\pm 0.5 mm</div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>Center of the paper</div></div></div></div><div><div>Metric area : 10.5 mm\pm 5 mm</div><div><div><div>Hole pitch 80 mm\pm 0.5 mm</div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>Center of the paper</div></div></div></div></div></div></div></div></div></div></div>																					
Punch hole accuracy	<div><div><div>The accuracy is measured with 10 punched papers being overlapped.</div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>a</div></div></div></div><div><div>Inch area: a (a diameter of an inscribed circle of a punched hole): 5.5mm or more Metric area: a (a diameter of an inscribed circle of a punched hole): 4.0mm or more</div></div></div>																						
Folding method		Buckle folding method with the roller pair																					
Z-Folding	Folding length	<div><div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div><div>a</div></div></div></div><div><div><div>L</div><div>[1]</div></div><div><div>L</div><div>[2]</div></div></div><div>15kvt1j002na</div><table><tr><td></td><td>Paper size</td><td>L (mm)</td><td>a (mm)</td></tr><tr><td rowspan="4">[1]</td><td>Z-Folding</td><td>A3</td><td>202 to 209</td></tr><tr><td></td><td>B4</td><td>174 to 181</td></tr><tr><td></td><td>8K</td><td>187 to 194</td></tr><tr><td></td><td>11 x 17</td><td>208 to 215</td></tr><tr><td>[2]</td><td>Folding</td><td>8 1/2\times14</td><td>234.5 to 241.5</td></tr></table></div>		Paper size	L (mm)	a (mm)	[1]	Z-Folding	A3	202 to 209		B4	174 to 181		8K	187 to 194		11 x 17	208 to 215	[2]	Folding	8 1/2 \times 14	234.5 to 241.5
	Paper size	L (mm)	a (mm)																				
[1]	Z-Folding	A3	202 to 209																				
		B4	174 to 181																				
		8K	187 to 194																				
		11 x 17	208 to 215																				
[2]	Folding	8 1/2 \times 14	234.5 to 241.5																				

Folding precision	 <p> a: $\pm 2\text{mm}$ or less [1] 1st folding skew [2] 2nd folding skew [3] Folding ($8\frac{1}{2} \times 14$ only) </p>
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16.3 Type of paper

No punch mode	Same as the main body		
Punch mode	Paper size	2 holes	A3, B4, ISOB4, SRA4S, A4, A4S, B5, ISOB5, B5S, A5, A5S, 11×17, 9×11, 8 1/2×14, 8 1/2×11, 8 1/2×11S, 5 1/2×8 1/2 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K, 16K, 16KS
		3 holes	A3, B4, A4, 11×17, 8 1/2×11, 8K, 16K
		4 holes	A3, B4, A4, 11×17, 8 1/2×11, 8K, 16K
	Paper Type	60 to 91 g/m ² of Plain and Fine Special paper is not guaranteed. The punching of label paper, tab paper, OHP paper, blueprint master and binding-holed paper are not allowed.	
Z-Fold mode	Paper size	A3 , B4 11 x 17, 8 1/2 x 14 8K	
	Paper Type	60 to 91 g/m ² of Plain and Fine Special paper is not guaranteed. The punching of label paper, tab paper, OHP paper, blueprint master and binding-holed paper are not allowed.	
Paper curl amount			
	a	Excluding the OHP paper: Amount of curl: 15 mm or less OHP paper: Amount of curl: 3 mm or less	

16.4 Machine data

Power source	100 to 240 VAC (Automatic switching)
	5VDC (supplied from the main body)
Maximum power consumption	120W or less
Dimensions	169 (W) x 660 (D) x 930 (H) mm
Weight	Approx. 38kg

16.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

16.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

17. FS-532

17.1 Type

Type	Staple-cut type multi staple device
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17.2 Functions

(1) Functions

Sort/group mode
Offset Sort/offset group mode
Offset staple mode
Staple mode

(2) Staple sheet

- Combination condition of the paper type/the paper width (in the sub scan direction)/the number of sheets for every range of paper weight

Paper weight (g/m ²)	Number of staple sheets						
	Plain		Fine			Plain paper / except Fine	
	Less than 400mm	400mm or more	320mm or less	321mm to 399mm	400mm or more	Less than 400mm	400mm or more
49 to 49	-	-	-	-	-	-	-
50 to 61	100	50	50	20	-	35	35
62 to 74	100	50	50	20	-	35	35
75 to 80	100 ^{*1}	50	30	30	30	35	35
81 to 91	60 ^{*1}	50	30	30	30	35	35
92 to 135	50	50	30	30	30	30	30
136 to 162	40	40	30	30	30	25	25
163 to 216	25	25	25	25	25	20	20
217 to 244	25	25	25	25	25	15	15
245 to 300	10	10	10	10	10	10	10
301 to 350	-	-	-	-	-	-	-

*1 For 1250/1250P/1052/951, the maximum number of sheets that the machine can staple differs depending on the paper weight.

(3) Staple position

Staple position	1 in the back (parallel/45 degrees), 1 in the front (parallel), 2 in center (pitch: 120mm, 140mm and 165mm)
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(4) Maximum tray capacity

(a) Sort/group mode

Main tray	The stacked height is detected by the main tray quarter position sensor (PS17), the main tray middle position sensor (PS18), the 4000 sheets sensor (PS19) and the 3000 sheets sensor (PS16).			
	Measure of paper full detection (Excluding Z-folding/center folding)	When SD-510 is not installed (Paper weight 72g/m ² to 81g/m ²)	Paper length	Sheet
			320mm or more	2000 sheets
			250mm to 319mm	4200 sheets
			249mm or less	750 sheets
		When SD-510 is installed (Paper weight 72g/m ² to 81g/m ²)	Paper length	Sheet
			320mm or more	2000 sheets
			250mm to 319mm	3000 sheets
			249mm or less	750 sheets
	Measure of paper full detection (Z-folding/center folding)	Z-folding (Paper weight 130g/m ² or less)	20 sheets*1	
Center folding (Paper weight 130g/m ² or less)		20 sheets*1		
Sub tray	The stacked height is detected by the sub tray paper full sensor (PS9).			
	Measure of paper full detection	Excluding Z-folding/center folding (Plain paper 80g/m ²)	300 sheets	
		Z-Folding	20 sheets	
		Center folding	40 sheets	

*1 20 sheets, 30 sheets, 40 sheets, 50 sheets can be set by switching DIPSW24-4 and DIPSW24-5.

(b) Offset Sort/offset group mode

Main tray	The stacked height is detected by the main tray quarter position sensor (PS17), the main tray middle position sensor (PS18), the 4000 sheets sensor (PS19) and the 3000 sheets sensor (PS16).			
	Measure of paper full detection (Excluding Z-folding/center folding)	When SD-510 is installed/not installed (Paper weight 72g/m ² to 81g/m ²)	Paper length	Sheet
			320mm or more	1500 sheets
			250mm to 319mm	1500 sheets
			249mm or less	750 sheets
	Measure of paper full detection (Z-folding/center folding)	Z-folding (Paper weight 130g/m ² or less)	20 sheets*1	
		Center folding (Paper weight 130g/m ² or less)	20 sheets*1	

*1 20 sheets, 30 sheets, 40 sheets, 50 sheets can be set by switching DIPSW24-4 and DIPSW24-5.

(c) Staple mode

Main tray	The stacked height is detected by the main tray quarter position sensor (PS17), the main tray middle position sensor (PS18), the 4000 sheets sensor (PS19) and the 3000 sheets sensor (PS16).			
	Measure of paper full detection	When SD-510 is installed/not installed	2 to 9 sheets (Paper length: 182mm to 364mm)	150 sets
			2 to 9 sheets (Paper length: except for 182mm to 364mm)	75 sets
			10 to 20 sheets	50 sets
			21 to 30 sheets	30 sets
			31 to 40 sheets	25 sets
			41 to 50 sheets	20 sets
			51 to 60 sheets	15 sets
			61 to 100 sheets	10 sets

17.3 Type of paper**(1) Sort/group mode/offset Sort/offset group mode**

Paper size	SRA3, SRA4, A3, B4, ISOB4, SRA4S, A4, A4S, B5, ISOB5, B5S, A5, ISOB5S, A5S, B6S* ⁴ , A6S* ⁴ 13 x 19, 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 7 1/4 x 10 1/2, 8 1/2 x 11S, 5 1/2 x 8 1/2 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13, 7 1/4 x 10 1/2S, 5 1/2 x 8 1/2S* ⁴ 8K, 16K, 16KS Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W, Max. 324mm x 488mm* ¹) Custom size paper (Max. 331mm x 488mm* ¹ , Min. 95mm x 133mm* ²) Tab paper (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2, Max. 324mm x 483mm* ¹) * ³
Applicable paper	Plain, Fine, Color, Coated, PrePrinted, Book/News, Envelope* ⁴ , Embossed, Embossed2, Tab Paper (same as the main body)
Paper weight	50g/m ² to 350 g/m ²

*1 1250/1250P/1052/951+LU-410: 324mm x 483mm (The machines except for LU-410 conform to each product specification)

*2 1250/1250P/1052/951+PF-706: 95mm x 139mm (The machines except for PF-706 conform to each product specification)

*3 Operation of paper exit with tab area at the trail edge side is not warranty.


*4 Offset Sort/Offset group mode cannot be used.

(2) Staple mode

Paper size* ¹	SRA3, SRA4, A3, B4, ISOB4, SRA4S, A4, A4S, B5, ISOB5, A5, 13 x 19, 12 x 18, 11 x 17, 9 x 11, 8 1/2 x 14, 8 1/2 x 11, 7 1/4 x 10 1/2, 8 1/2 x 11S, 5 1/2 x 8 1/2 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K, 16K Wide paper (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W, Max. 331mm x 488mm* ¹) Custom size paper (Max. 324mm x 488mm* ^{1,2} , Min. 120mm x 240mm* ³) Tab paper (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2, Max. 324 mm x 488 mm* ¹) * ⁴
Applicable paper	Plain, Fine, Color, Coated, PrePrinted, Book/News, Embossed, Embossed2, Tab Paper (same as the main body)
Paper weight	50g/m ² to 300g/m ²

- * Z-folding staple: Maximum 305mm x 229mm, minimum 210mm x 210mm
- *1 1250/1250P/1052/951+LU-410: 324mm x 483mm (The machines except for LU-410 conform to each product specification)
- *2 Rear corner parallel staple: Maximum 320mm x 483mm
- *3 1250/1250P/1052/951+PF-706: 120mm x 240mm (The machines except for PF-706 conform to each product specification)
- *4 Operation of paper exit with tab area at the trail edge side is not warranty.

17.3.1 Allowable amount of curling

Paper curl amount		
	The amount is measured with 5 papers overlapped after printed	
	a	Excluding the OHP paper: Amount of curl: 15 mm or less OHP paper: Amount of curl: 3 mm or less

17.4 Machine data

Power source	24VDC±10% (supplied from the main body)
Maximum power consumption	144W or less
Dimensions	With the main tray: 798 (W) x 723 (D) x 1070 (H) mm Without the main tray: 544 (W) x 723 (D) x 1070 (H) mm
Weight	Approx. 74kg

17.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

17.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

18. SD-510

18.1 Type

Type	Saddle stitching unit with center folding and tri-folding
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18.2 Functions

(1) Functions

Saddle stitching mode	Exits paper to the output tray after being saddle stitched.
Half-Fold mode	Exits paper to the output tray after being center folded on 1 or more sheets of paper.
Tri-folding mode	Exits paper to the output tray after being tri-folded on 1 or more sheets of paper.
Paper exit	Paper conveyance by the belt conveyor

(2) Maximum tray capacity

Folding exit tray	Large-size paper (sub-scanning direction length: 330mm or longer)	Center folding	1 to 5 sheets	35 copies*1
		Folding & Stapling	2 to 5 sheets	35 copies*1
			6 to 10 sheets	23 sheets*2
			11 to 20 sheets	15 copies*3
			20 to 25 sheets	15 copies*3
	Small-size paper: (sub-scanning direction length: shorter than 330mm)	Center folding	1 to 5 sheets	35 copies*1
		Folding & Stapling	2 to 5 sheets	35 copies*1
			6 to 10 sheets	25 copies*2
			11 to 20 sheets	15 copies*3
			20 to 25 sheets	15 copies*3
		Tri-Fold	1 sheet	50 copies
			2 sheets	40 copies
			3 sheets	30 copies

*1 20 sheets when 92g/m² or heavier paper is used for inside paper or cover, or the paper is fed from PI-502.

*2 15 sheets when 92g/m² or heavier paper is used for cover, or the paper is fed from PI-502.

*3 10 sheets when 92g/m² or heavier paper is used for cover, or the paper is fed from PI-502.

18.3 Type of paper

(1) Saddle stitching mode

Paper size	SRA3, A3, B4, ISOB4, SRA4S, A4S, B5S, ISOB5S 13 x 19, 12 x 18, 11 x 17, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11S 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13, 7 ¹ / ₄ x 10 ¹ / ₂ S 8K, 16KS Wide paper (A3W, A4SW, B4W, 12 x 18W, 11 x 17W, 8 ¹ / ₂ x 11SW, Max. 331mm x 488mm* ₁) Custom size paper (Max. 331mm x 488mm* ₁ , Min. 120mm x 240mm* ₂)		
Applicable paper	Plain, Fine, Color, Coated, PrePrinted, Book/News, Embossed, Embossed2 (same as the main body)		
Paper weight	Inside paper: 50g/m ² to 216g/m ² Cover: 50g/m ² to 300g/m ²		
Maximum saddle stitching sheets	Weight	Sheet	
		Paper width is 279.4mm or longer in the sub scan direction.	Paper width is shorter than 279.4mm in the sub scan direction.
	40g/m ² to 49g/m ²	-	-
	50g/m ² to 61g/m ²	25 sheets	-
	62g/m ² to 74g/m ²	20 sheets	-
	75g/m ² to 80g/m ²	20 sheets	10 sheets
	81g/m ² to 91g/m ²	16 sheets	10 sheets
	92g/m ² to 105g/m ²	5 sheets	5 sheets
	106g/m ² to 135 g/m ²	5 sheets	5 sheets
	136g/m ² to 162g/m ²	5 sheets	5 sheets
	163g/m ² to 216g/m ²	5 sheets	5 sheets
	217g/m ² to 244g/m ²	Cover only	-
	245g/m ² to 300g/m ²	Cover only	-
	301g/m ² to 350 g/m ²	-	-

	For the 217g/m ² or more wide paper, only the cover is available and 1 sheets is counted as a set of 5 sheets.
Staple position	Automatically adjusted according to the paper size (60mm to 148.5mm)
*1 1250/1250P/1052/951+LU-410: 324mm x 483mm (The machines except for LU-410 conform to each product specification)	
*2 1250/1250P/1052/951+PF-706: 120mm x 240mm (The machines except for PF-706 conform to each product specification)	

(2) Half-Fold mode

Paper size	SRA3, A3, B4, ISOB4, SRA4S, A4S, B5S, ISOB5S 13 x 19, 12 x 18, 11 x 17, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11S 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13, 7 ¹ / ₄ x 10 ¹ / ₂ S 8K, 16KS Wide paper (A3W, A4SW, B4W, 12 x 18W, 11 x 17W, 8 ¹ / ₂ x 11SW, Max. 331mm x 488mm* ₁) Custom size paper (Max. 331mm x 488mm* ₁ , Min. 120mm x 240mm* ₂)		
Applicable paper	Plain, Fine, Color, Coated, PrePrinted, Book/News, Embossed, Embossed2 (same as the main body)		
Paper weight	Inside paper: 50g/m ² to 216g/m ² Cover: 50g/m ² to 300g/m ²		
Maximum center folding sheets	Weight	Sheet	
		Paper width is 279.4mm or longer in the sub scan direction. Paper width is shorter than 279.4mm in the sub scan direction.	
	40g/m ² to 49 g/m ²	-	-
	50g/m ² to 61g/m ²	5 sheets	-
	62g/m ² to 74g/m ²	5 sheets	-
	75g/m ² to 80g/m ²	5 sheets	5 sheets
	81g/m ² to 91g/m ²	5 sheets	5 sheets
	92g/m ² to 105g/m ²	5 sheets	5 sheets
	106g/m ² to 135 g/m ²	5 sheets	5 sheets
	136g/m ² to 162g/m ²	5 sheets	5 sheets
	163g/m ² to 216g/m ²	5 sheets	5 sheets
	217g/m ² to 244g/m ²	1 sheet	1 sheet
	245g/m ² to 300g/m ²	1 sheet	1 sheet
	301g/m ² to 350 g/m ²	-	-

*1 1250/1250P/1052/951+LU-410: 324mm x 483mm (The machines except for LU-410 conform to each product specification)


*2 1250/1250P/1052/951+PF-706: 120mm x 240mm (The machines except for PF-706 conform to each product specification)

(3) Tri-folding mode

Paper size	A4S 8 ¹ / ₂ x 11S 16KS	
Applicable paper	Plain, Fine, Color, Coated * ₁ , PrePrinted, Book/News, Embossed, Embossed2 (same as the main body)	
Paper weight	Inside papers: 50g/m ² to 105g/m ²	
Maximum tri-folding sheets	Weight	Sheet
	40g/m ² to 49 g/m ²	-
	50g/m ² to 61g/m ²	3 sheets
	62g/m ² to 74g/m ²	3 sheets
	75g/m ² to 80g/m ²	3 sheets
	81g/m ² to 91g/m ²	3 sheets
	92g/m ² to 105g/m ²	1 sheet
	106g/m ² to 135 g/m ²	-
	136g/m ² to 162g/m ²	-
	163g/m ² to 216g/m ²	-
	217g/m ² to 244g/m ²	-
	245g/m ² to 300g/m ²	-
	301g/m ² to 350 g/m ²	-

*1 Maximum tri-folding sheets: 1 sheet

(4) Allowable amount of curling

Paper curl amount	 <p>The amount is measured with 5 papers overlapped after printed</p>	
	a	Excluding the OHP paper: Amount of curl: 15 mm or less OHP paper: Amount of curl: 3 mm or less

18.4 Machine data

Power source	24/5VDC (supplied from the main body)
Maximum power consumption	40W or less
Dimensions	281.3 mm (W) x 596.4 mm (D) x 529.8 mm (H)
Weight	SD-510 itself: Approx. 22.6kg Output tray: Approx. 3.8kg

18.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

18.6 Note regarding the specifications

Note


- The information herein may be subject to change for improvement without notice.

19. PK-522

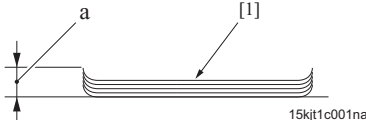
19.1 Type

Type	FS-integrated type punching operation device
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19.2 Functions

Punching method	Stops and punches every paper
No. of holes	Inch area: 2-Holes/3-Holes Metric area: 2-Holes/4-Holes
Hole diameter	Inch area: $\phi 8.0$ mm Metric area: $\phi 6.5$ mm
Punch hole accuracy	The accuracy is measured with 10 punched papers being overlapped.  Inch area: a (a diameter of an inscribed circle of a punched hole): 5.5mm or more Metric area: a (a diameter of an inscribed circle of a punched hole): 4.0mm or more
Hole pitch	Inch area: 70 mm (2 holes), 108 mm (3 holes) Metric area: 80 mm (2 holes/4 holes)
Supported mode	Punch mode, straight mode
Applicable post processing mode	Sort, group, staple

19.3 Type of paper

Paper size	2 holes	A3, B4, SRA4S, A4, A4S, B5, B5S, A5, A5S, ISOB4, ISOB5, ISOB5S, 11 x 17, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ S, 5 ¹ / ₂ x 8 ¹ / ₂ , 9 x 11, 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13, 8K, 16K, 16KS
	3/4 holes	A3, B4, A4, B5, ISOB4* ¹ , ISOB5* ¹ , 11 x 17, 8 ¹ / ₂ x 11, 8K, 16K
Applicable paper	Plain, Fine, Color, Coated, PrePrinted, Book/News, Embossed, Embossed2 (same as the main body)	
Paper weight	60g/m ² to 300g/m ²	
Punching prohibited paper	Label, tab, OHT, second original, punched paper, Envelope, and others which cause troubles on the operation of the punch unit and the punch blade	
Paper curl amount	 a Curing: 10 mm or less [1] 5 sheets	

*1 3 holes only

19.4 Machine data

Power source	24/5VDC (supplied from the main body)
Maximum power consumption	30W or less
Dimensions	156 (W) x 592 (D) x 180 (H) mm
Weight	Approx. 4.5kg

19.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

19.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

20. PI-502

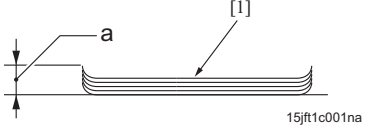
20.1 Type

Type	Torque limiter separation type sheet feeding device
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20.2 Functions

Automatic sheet feeding (Online operation)	Feeds the sheet to FS automatically under the instruction from the main body.
Manual sheet feeding (Offline operation)	<p>Feeds the sheet to FS under the instruction from the operation panel of PI.</p> <p>The following 5 types can be selected for the post processing mode.</p> <p>1 staple/back mode</p> <p>2 staples (flat-stapling) mode</p> <p>Punch Mode (when PK-522 is installed on FS)</p> <p>Saddle stitching mode</p> <p>Tri-Fold mode</p> <p>Note</p> <p>The tray /Lw only supports the manual sheet feeding.</p>

20.3 Type of paper

Paper size	Tray /Up	<p>A4, A4S, B5, ISOB5*¹, B5S, ISOB5S*¹, and A5</p> <p>9 x 11, 8¹/₂ x 11, 8¹/₂ x 11S, 5¹/₂ x 8¹/₂</p> <p>16K, 16KS</p> <p>Custom paper (Max. 305mm x 297mm, Min. 182mm x 139mm)</p>
	Tray /Lw	<p>SRA3, A3, B4, ISOB4*¹, SRA4S, A4, A4S, B5, ISOB5*¹, B5S, ISOB5S*¹, and A5</p> <p>13 x 19, 12 x 18, 11 x 17, 9 x 11, 8¹/₂ x 14,</p> <p>8¹/₂ x 11, 8¹/₂ x 11S, 5¹/₂ x 8¹/₂</p> <p>8¹/₂ x 13, 8¹/₄ x 13, 8¹/₈ x 13¹/₄, 8 x 13</p> <p>8K, 16K, 16KS</p> <p>Custom paper (Max. 331mm x 483mm, Min. 182mm x 139mm)</p>
Type of paper	Plain, Recycle, Color, Special, Coated, Fine	
Paper weight	50g/m ² to 300g/m ²	
Capacity	Tray /Up, /Lw	200 sheets (80 g/m ²) or 30 mm or less in height
Paper curl amount	 <p>a Curing: 10 mm or less</p> <p>[1] 5 sheets</p>	

*1 (1250/1250P/1052 only)

20.4 Machine data

Power source	24/5VDC (supplied from the main body)
Maximum power consumption	30W or less
Dimensions	511 (W) x 620 (D) x 220 (H) mm
Weight	Approx. 10.5kg

20.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

20.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

21. MK-732

21.1 Type

Type	PI paper conveyance unit
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21.2 Type of paper

Paper size	Maximum 331mm x 488mm, minimum 182mm x 139mm
Applicable paper	Plain, Fine, Coated , Recycled paper
Paper weight	50g/m ² to 300g/m ²

21.3 Machine data

Power source	24/5VDC (supplied from the main body)
Maximum power consumption	20W or less
Dimensions	478 (W) x 120 (D) x 201 (H) mm
Weight	3 kg

21.4 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

21.5 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

22. LS-505

22.1 Type

Type	Grip conveyance type horizontal stacker	
Conveyance method	Entrance conveyance	Roller conveyance method
	Stacker tray conveyance	Grip conveyance method
	Sub tray conveyance	Roller conveyance method
	Coupling conveyance	Roller conveyance
Alignment method	Movable alignment lever (stacker tray only)	
Method of stacking	Horizontal stacking	Mixed stacking is unavailable (stacker tray only)
Shifting method	Conveyance direction shift	Shift amount: 20mm (stacker tray only) *1

*1 The use of the shift is unavailable with tab paper.

22.2 Functions

(1) Function

Stacker tray non-sort mode	Exited into the stacker tray with no processing made.
Sub tray mode	Exits paper to the sub tray without any process.
Stacker tray sort mode	Executes shifting operation (20mm) and exits paper to the stacker tray *1
Coupling mode	Conveys paper to the succeeding device without any process.

*1 The use of the shift is unavailable with tab paper.

(2) Maximum tray capacity

Maximum tray capacity (Paper weight 80g/m ²)	Stacker tray	<ul style="list-style-type: none"> • 5,000 sheets SRA3, A3, JISB4 *1, ISOB4 *2 *3 *4 *6, SRA4 *4 *5 *6, SRA4S, A4, A4S 13 x 19 *3 *4 *5, 12 x 18, 11 x 17, 9 x 11 *3 *4 *6, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K *4 *5 *6 *7, 16K *4 *5 *6 *7 • 3,000 sheets Coated paper (Sub-scan direction is 380mm or longer) • 2,000 sheets JISB5 *1, ISOB5 *2 *3 *4 *6, A5, 5 1/2 x 8 1/2 *3 *4 *5
	Sub tray	Straight paper exit: 200 sheets Z-Folding paper: 20 sheets Half-folding paper: 40 sheets

*1 Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*2 Default for Europe

*3 1200/1200P/1051/1250/1250P/1052 only

*4 C8000 only

*5 C6501/C6501P/C65hc only

*6 C7000/C7000P/C70hc/C6000 only

*7 For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

22.3 Type of paper

Paper size	Stacker tray	SRA3, A3, JISB4 *1, ISOB4 *2 *3 *5 *11, SRA4 *4 *5 *11, SRA4S, A4, A4S, JISB5 *1, ISOB5 *2 *3 *5 *11, JISB5S *1, ISOB5S *3 *5 *11, A5 13 x 19 *4 *5 *11, 12 x 18, 11 x 17, 9 x 11 *3 *5 *11, 8 1/2 x 14, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2 *3 *5, 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13, 8K *4 *5 *11, 16K *4 *5 *11 Wide paper *3 (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W, Max. 324mm x 463mm) Tab paper *7 *8 (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, Max. 324mm x 463mm) Custom size paper Max. 324mm x 463mm, Min. 210mm x 148mm *3 Max. 483mm x 210mm, Min. 148mm x 2mm *4 *5 *11
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	Sub tray	<p>SRA3, A3, JISB4^{*1}, ISOB4^{*2} *3 *5 *11, SRA4^{*4} *5 *11, SRA4S, A4, A4S, JISB5^{*1}, ISOB5^{*2} *3 *5 *11, JISB5S^{*1}, ISOB5S^{*2} *3 *5 *11, A5, A5S^{*4} *5 *11, JISB6S^{*1} *4 *5 *11, ISOB6S^{*2} *5 *11, A6S^{*4} *5 *11 13 x 19^{*4} *5 *11, 12 x 18, 11 x 17, 9 x 11^{*3} *5 *11, 8¹/₂ x 14, 8¹/₂ x 11, 8¹/₂ x 11S, 5¹/₂ x 8¹/₂ *3 *5, 5¹/₂ x 8¹/₂S^{*4} *5 *11, 8¹/₂ x 13, 8¹/₄ x 13, 8¹/₈ x 13¹/₄, 8 x 13, 8K^{*4} *5 *6 *11, 16K^{*4} *5 *6 *11, 16KS^{*4} *5 *6 *11</p> <p>Wide paper^{*3} (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8¹/₂ x 11W, 8¹/₂ x 11SW, 5¹/₂ x 8¹/₂W, Max. 324mm x 463mm)</p> <p>Tab paper^{*8} *9 (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8¹/₂ x 11, 8¹/₂ x 11S, 5¹/₂ x 8¹/₂, Max. 324mm x 463mm)</p> <p>Postcard</p> <p>Custom size paper</p> <p>Max. 324mm x 463mm, Min. 95mm x 133mm^{*3}</p> <p>Max. 330mm x 487mm, Min. 100mm x 148mm^{*4} *11</p> <p>Max. 330mm x 487mm, Min. 100mm x 140mm^{*5}</p>
Paper weight	Stacker tray	<p>50g/m² to 244g/m² *3</p> <p>64g/m² to 256g/m² *4 *5 *11</p>
	Sub tray	<p>40g/m² to 350g/m² *3 *10</p> <p>64g/m² to 300g/m² *4 *11</p> <p>64g/m² to 350g/m² *5</p>

*1 Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*2 Default for Europe

*3 1200/1200P/1051/1250/1250P/1052 only

*4 C6501/C6501P/C65hc only

*5 C8000 only

*6 For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*7 1 to 15 tab (4 tab and 10 tab are unavailable.) The use of the shift is unavailable with tab paper.

*8 C8000/C7000/C7000P/C70hc/C6000 is A4 and 8¹/₂ x 11 only

*9 Operation of paper exit with tab area at the trail edge side is not warranty.

*10 Loading paper weight 49g/m² or less is not warranty

*11 C7000/C7000P/C70hc/C6000 only

22.4 Machine data

Power source	100VAC to 240VAC, 5VDC (supplied from the main body) *1
Maximum power consumption	143W or less
Weight	Approx. 110kg
Dimensions	785 (W) x 723 (D) x 1,020 (H) mm

*1 C8000/C6501/C6501P/C65hc/C7000/C7000P/C70hc/C6000: Only 5VDC is supplied from the main body

22.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

22.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.


23. FD-503

23.1 Type

Type	Multi-folding device with punch and PI functions
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23.2 Functions

(1) Function

Normal paper exit function	Transfer paper exited from the main body is exited into the main tray/sub tray.
Punching function	Transfer paper that is exited by the main body or fed to the PI is punched for each sheet of paper and exited into the main tray.
Punch hole accuracy	<p>The accuracy is measured with 10 punched papers being overlapped.</p>  <p>a (a diameter of an inscribed circle of a punched hole): 5.0mm or more (2 punched holes), 6.5mm or more (3 punched holes)</p>
Folding functions	Transfer paper that is exited from the main body or fed to the PI is handled for folding (either one of the following: Z-Fold, Letter fold-out, Letter fold-in, Double parallel fold, Gate fold, and folding) for each sheet of paper, and exited into the sub tray/main tray (The Z-Fold exit to the main tray while in the FS connection is limited only to B4, A3, 8 1/2 x 14, 11 x 17, 12 x 18 and 8K.)
PI insertion function	PI tray paper is inserted in the transfer paper exited from the main body.
Manual mode	PI tray paper is punched, folded and stapled, and then exited into the sub tray/main tray. (The stapling function is available only when the staple unit is connected to the downstream of the FD.)

(2) Maximum tray capacity

<p>Main tray</p> <p>(Paper weight 40g/m² to 350g/m² *1, 64g/m² to 300g/m² *2 *11, 64g/m² to 350g/m² *3)</p>	<p>2500 sheets:</p> <p>A4, A4S, JISB5*4, ISOB5*1 *3 *5 *11, JISB5S*4, ISOB5S*3 *5 *11 9 x 11*1 *3 *11, 8 1/2 x 11, 8 1/2 x 11S 16K*2 *3 *6 *11, 16KS*2 *3 *6 *11</p> <p>1500 sheets:</p> <p>SRA3, A3, JISB4*4, ISOB4*1 *3 *5 *11, SRA4 *2 *3 *11, SRA4S 13 x 19*2 *3 *11, 12 x 18, 11 x 17, 8 1/2 x 14 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13 8K*2*3 *6 *11</p> <p>500 sheets:</p> <p>A5, A5S*2*3 *11, JISB6S*2 *3 *4 *11, ISOB6S*3 *5 *11, 5 1/2 x 8 1/2 *1*3, 5 1/2 x 8 1/2S*2*3 *11</p> <p>Others:</p> <p>Tab paper *7*8 (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 1/2 x 11, 8 1/2 x 11S, 5 1/2 x 8 1/2, Max. 324mm x 463mm)</p> <p>Wide paper *1(A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 1/2 x 11W, 8 1/2 x 11SW, 5 1/2 x 8 1/2W, Max. 324mm x 463mm)</p> <p>Custom size paper</p> <p>Minimum 95mm x 139mm, Maximum 324mm x 463mm*1 Minimum 100mm x 148mm, Maximum 330mm x 483mm*2 *11 Minimum 100mm x 140mm, Maximum 330mm x 483mm*3</p>
<p>Sub tray</p> <p>(with folder tray)</p>	<p>Folding type:</p> <p>Tri-Fold-in, Tri-Fold-out, Double parallel, Gate</p> <p>Paper size:</p> <p>A3, B4, ISOB4*1 *3 *11, A4S, SRA4S, 12 x 18, 11 x 17, 8 1/2 x 14, 8 1/2 x 11S, 8K*2 *3 *6 *11 Custom size paper (Maximum 305mm x 458mm, Minimum 210mm x 279mm)</p> <p>Paper weight:</p> <p>Letter fold-in, Letter fold-out 50g/m² to 130g/m² *1, 64g/m² to 130g/m² *2 *3 *11 Double parallel, Gate 50g/m² to 91g/m² *1, 64g/m² to 91g/m² *2 *3 *11</p> <p>Tray capacity of folding paper</p> <p>30 sets or more (for all types of folding with 80g/m² paper)*9</p>
<p>Sub tray</p> <p>(without folder tray)</p> <p>(Paper weight 40g/m² to 350g/m² *1*10,</p>	<p>Tray capacity: 200 sheets</p> <p>SRA3, A3, JISB4*4, ISOB4*1 *3 *5 *11, SRA4S, A4, A4S, JISB5*4, ISOB5*1*3 *5*11, JISB5S*4, ISOB5S *3 *5 *11, A5, A5S*2 *3 *11, JISB6S*2 *3 *4 *5 *11, ISOB6S *3 *11, A6S*2 *3 *11</p>

64g/m ² to 300g/m ² *2 *11, 64g/m ² to 350g/m ² *3)	13 x 19 ^{*2} *3*11, 12 x 18, 11 x 17, 9 x 11 ^{*1} *3*11, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ *1 *3, 5 ¹ / ₂ x 8 ¹ / ₂ S *2 *3*11 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13 Tab paper *7 *8 (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂) Wide paper *1 (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 ¹ / ₂ x 11W, 8 ¹ / ₂ x 11SW, 5 ¹ / ₂ x 8 ¹ / ₂ W, Max. 324mm x 463mm) Postcard Custom size paper	Minimum 95mm x 139mm, Maximum 324mm x 463mm *1 Minimum 100mm x 148mm, Maximum 330mm x 483mm *2 *11 Minimum 100mm x 140mm, Maximum 330mm x 487mm *3
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*1 1200/1200P/1051/1250/1250P/1052 only

*2 C6501/C6501P/C65hc only

*3 C8000 only

*4 Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*5 Default for Europe

*6 For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*7 Operation of paper exit with tab area at the trail edge side is not warranty.

*8 C8000 is A4, 8¹/₂ x 11 only

*9 Paper is stacked in the exiting sequence.

*10 Loading paper weight 49g/m² or less is not warranty

*11 C7000/C7000P/C70hc/C6000 only

23.3 Type of paper

(1) Punching function

Paper size	2-hole: SRA3, A3, JISB4 *1, ISOB4 *2 *3 *4 *9, SRA4S, A4, A4S, JISB5 *1, ISOB5 *2 *3 *4 *9, JISB5S *1, ISOB5S *2 *3 *4 *9, A5, A5S *4 *5 *9 12 x 18, 11 x 17, 9 x 11 *3 *4 *9, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ *3 *4 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13 8K *4 *5 *6 *9, 16K *4 *5 *6 *9, 16KS *4 *5 *6 *9 Tab paper *7 (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ , Max. 324mm x 463mm) 3/4-hole: SRA3, A3, JISB4 *1, ISOB4 *2 *3 *4 *9 *10, A4, JISB5 *1, ISOB5 *2 *3 *4 *9 *10, 12 x 18, 11 x 17, 9 x 11 *3 *4 *9, 8 ¹ / ₂ x 11, 8K *4 *5 *6 *9, 16K *4 *5 *6 *9 Tab paper *7 (A3, A4, B4, B5, 11 x 17, 8 ¹ / ₂ x 11S, Max. 324mm x 463mm)
Applicable paper	Plain paper, tab paper
Paper weight	50g/m ² to 216g/m ² (2 sheets overlap mode: 50g/m ² to 91g/m ²) *3, 64g/m ² to 216g/m ² *4 *5 *9

(2) Folding functions

Paper size	A3, JISB4 *1, ISOB4 *2 *3 *4 *9, SRA4S, A4S 12 x 18, 11 x 17, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11S 8K *4 *5 *6 *9 Custom size paper (Maximum 305mm x 458mm, Minimum 210mm x 279mm)
Applicable paper	Plain paper
Paper weight	Half-Fold, Tri-Fold-in, Tri-Fold-out, Z-Fold 50g/m ² to 130g/m ² *3, 64g/m ² to 130g/m ² *4 *5 *9 Double parallel, Gate 50g/m ² to 91g/m ² *3, 64g/m ² to 91g/m ² *4 *5 *9

(3) PI functions

Paper size	SRA3, A3, JISB4 *1, ISOB4 *2 *3 *4, SRA4 *4 *5 *9, SRA4S, A4, A4S, JISB5 *1, ISOB5S *2 *3 *4, JISB5S *1, A5 13 x 19 *4 *5 *9, 12 x 18, 11 x 17, 9 x 11 *3 *4 *9, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ *3 *4, 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13
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	8K*4*5 *6 *9, 16K*4*5 *6 *9, 16KS*4*5 *6 *9 Custom size paper *8 <ul style="list-style-type: none"> • 1200/1200P/1051/1250/1250P/1052 Minimum 182mm x 139mm, Maximum 324mm x 463mm • C6501/C6501P/C65hc/C7000/C7000P/C70hc/C6000 Minimum 182mm x 148mm, Maximum 330mm x 483mm • C8000 Minimum 182mm x 140mm, Maximum 330mm x 483mm
Applicable paper	Plain, Recycle, Fine, Special
Paper weight	50g/m ² to 300g/m ²
Maximum tray capacity	500 sheets (80g/m ²) x 2 trays

*1 Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*2 Default for Europe

*3 1200/1200P/1051/1250/1250P/1052 only

*4 C8000 only

*5 C6501/C6501P/C65hc only

*6 For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*7 For C8000/C7000/C7000P/C70hc/C6000, A4, 8¹/₂ x 11 only

*8 When using as the cover in perfect binding mode (Minimum 182mm x 279mm, Maximum 307mm x 483mm)

*9 C7000/C7000P/C70hc/C6000 only

*10 3 holes only

23.4 Machine data

Power source	100VAC to 240VAC, 5VDC (supplied from the main body) *1
Maximum power consumption	180VA or less
Dimensions	400 (W) x 723 (D) x 1231 (H)mm (The main tray is not included in the width)
Weight	Approx. 130kg

*1 C8000 /C6501 /C6501P /C65hc /C7000 /C7000P/C70hc/C6000 : Only 5VDC is supplied from the main body

23.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

23.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

24. SD-506

24.1 Type

Type	Saddle stitching unit with fore-edge trimming and multi-folding function
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24.2 Functions

(1) Function

Sub tray paper exit mode	Exit paper to the sub tray without any process.
Coupling paper exit mode	Convey paper to the succeeding device without any process.
Saddle stitching mode	Exit paper to the bundle exit tray after the center folding/saddle stitching operation.
Saddle stitching trimming mode	Exit paper to the bundle exit tray after the center folding/saddle stitching/trimming operation.
Multi-center folding mode	Exit paper to the bundle exit tray after the center folding on 1 or more sheets of paper.
Multi-center folding trimming mode	Exit paper to the bundle exit tray after the center folding and the trimming operation on 1 or more sheets of paper.
Overlap tri-folding mode	Exit paper to the tri-folding tray after the letter folding operation on 1 or more sheets of paper.

(2) Maximum tray capacity

Sub tray (Paper weight 80g/m ²)	200 sheets		
	Z-Folding	20 sheets	
	Center folding	40 sheets	
Bundle exit tray	Folding & Stapling/trimming Mode	Stitching sheets	Set
		2 to 10	50 or more
		11 to 20	30 or more
		21 to 40	20 or more
		41 to 50	15 or more
	Multi-center folding mode	30 sets	
Tri-folding paper exit tray	Overlap tri-folding mode	20 sets	

24.3 Type of paper

(1) Straight/sub tray mode

Paper size	SRA3, A3, JISB4 ^{*1} , ISOB4 ^{*2} *3 *4 *10, SRA4 ^{*4} *5 *10, SRA4S, A4, A4S, JISB5 ^{*1} , ISOB5 ^{*2} *3 *4 *10, JISB5S ^{*1} , ISOB5S ^{*2} *4 *10, A5, A5S ^{*4} *5 *10, B6S ^{*4} *5 *10, ISOB56 ^{*4} *10, A6S ^{*4} *5 *10 13 x 19 ^{*4} *5 *10, 12 x 18, 11 x 17, 9 x 11 ^{*3} *4 *10, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ *3 *4, 5 ¹ / ₂ x 8 ¹ / ₂ S ^{*4} *5 *10 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13 8K ^{*4} *5 *6 *10, 16K ^{*4} *5 *6 *10, 16KS ^{*4} *5 *6 *10 Wide paper ^{*3} (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 ¹ / ₂ x 11W, 8 ¹ / ₂ x 11SW, 5 ¹ / ₂ x 8 ¹ / ₂ W, Max. 324mm x 463mm) Tab paper ^{*7} *8 (A3, B4, A4, A4S, B5, B5S, 11 x 17, 8 ¹ / ₂ x 11, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ , Max. 324mm x 463mm) Postcard Custom size paper		
		Minimum 95mm x 139mm, Maximum 324mm x 463mm ^{*3}	
		Minimum 100mm x 148mm, Maximum 330mm x 483mm ^{*5} *10	
		Minimum 100mm x 140mm, Maximum 330mm x 487mm ^{*4}	
Paper weight	40g/m ² to 350g/m ² *3 *9 64g/m ² to 300g/m ² *5 *10 64g/m ² to 350g/m ² *4		

*1 Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*2 Default for Europe

*3 1200/1200P/1051/1250/1250P/1052 only

*4 C8000 only

*5 C6501/C6501P/C65hc only

*6 For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*7 Operation of paper exit with tab area at the trail edge side is not warranty.

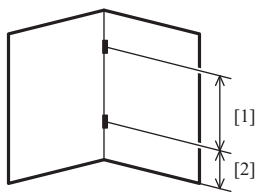

*8 C8000/C7000/C7000P/C70hc/C6000 is A4, 8¹/₂ x 11 only

*9 Loading paper weight 49g/m² or less is not warranty

*10 C7000/C7000P/C70hc/C6000 only

(2) Saddle stitching mode

Paper size	SRA3, A3, JISB4 ^{*1} , ISOB4 ^{*2} *3 *4 *8, SRA4S, A4S, B5S
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	12 x 18, 11 x 17, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11S 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13 8K *4 *5 *6 *8, 16KS *4 *5 *6 *8 Wide paper *3(A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8 ¹ / ₂ x 11W, 8 ¹ / ₂ x 11SW, 5 ¹ / ₂ x 8 ¹ / ₂ W, Max. 324mm x 463mm) Custom size paper (Maximum 324mm x 463mm, Minimum 182mm x 257mm)				
Paper weight	50g/m ² to 244g/m ² *3, 64g/m ² to 244g/m ² *4 *5 *8				
Maximum saddle stitching sheets	Plain, coated, color specific	Paper weight	Sheet		
			Plain paper	Coated Color specific *4 *5 *8	
		50g/m ² to 81g/m ²	50 *7	30 *7	
		82g/m ² to 91g/m ²	30 *7	15 *7	
		92g/m ² to 130g/m ²	20 *7	10 *7	
		131g/m ² to 161g/m ²	15 *7	5 *7	
		162g/m ² to 209g/m ²	10	-	
		210g/m ² to 244g/m ²	5	-	
	Fine	Paper brand	55kg (64g/m ²)	70kg (81.4g/m ²)	
		KIMMARI V	50 sheets	50 sheets	
		RAICHO FINE			
		KANABISHI			
		OK PRINCE	-		
		NEW NPi	50 sheets	30 sheets	
		POD PRINCE FINE			
		SHIRAOI			
Staple position	Automatically adjusted according to the paper size (90mm to 165mm)  <div>15ant1c006na</div> [1] = [Paper Size] / 2 ± 2mm [2] = [Paper Size] / 4 ± 2mm				
Folding height	 <div>15ant1c011na</div>				
	Stitching sheets	[1] Folding height			
	A3 12 x 18 11 x 17 (401mm or more)	B4 8 ¹ / ₂ x 14 (301mm to 400mm)	A4S 8 ¹ / ₂ x 11S (261mm to 300mm)	B5S (260mm or less)	
	2 to 5	35mm or less	40mm or less	45mm or less	Not defined
	6 to 15	45mm or less	50mm or less	Not defined	
	16 to 30	50mm or less	55mm or less		
	31 to 50	60mm or less	65mm or less		
	(The above information is applied when paper weight is 64g/m ² and no thick cover is not used.)				

*1 Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*2 Default for Europe

*3 1200/1200P/1051/1250/1250P/1052 only

*4 C8000 only

*5 C6501/C6501P/C65hc only

*6 For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*7 1 sheet can be switched to thick paper (200g/m²)

*8 C7000/C7000P/C70hc/C6000 only

(3) Trimming mode

Paper size	SRA3, A3, JISB4 ^{*1} , ISOB4 ^{*2} *3 *4 *7, SRA4S, A4S, B5S 12 x 18, 11 x 17, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11S 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13 8K *4 *5 *6 *7, 16KS *4 *5 *6 *7 Wide paper ^{*3} (A3W, B4W, A4SW, B5SW, 12 x 18W, 11 x 17W, 8 ¹ / ₂ x 11SW, Max. 324mm x 463mm) Custom size paper (Maximum 324mm x 463mm, Minimum 182mm x 257mm)
Paper weight	50g/m ² to 244g/m ² *3 64g/m ² to 244g/m ² *4 *5 *7
Maximum trimming sheets	50 sheets (80g/m ²) or 49 sheets (80g/m ²) + 1 sheet (200g/m ²) (The above is the number of the printed paper before folding. The number of fore-edge (after folding) is double.)

*1 Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*2 Default for Europe

*3 1200/1200P/1051/1250/1250P/1052 only

*4 C8000 only

*5 C6501/C6501P/C65hc only

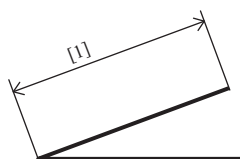
*6 For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*7 C7000/C7000 /C70hc/C6000 only

(4) Multi-center folding mode

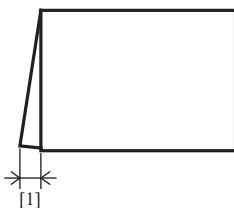
Paper size	SRA3, A3, JISB4 ^{*1} , ISOB4 ^{*2} *3 *4 *7, SRA4S, A4S, B5S 12 x 18, 11 x 17, 8 ¹ / ₂ x 14, 8 ¹ / ₂ x 11S 8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13 8K *4 *5 *6 *7, 16KS *4 *5 *6 *7 Wide paper ^{*3} (A3W, B4W, A4SW, B5SW, 12 x 18W, 11 x 17W, 8 ¹ / ₂ x 11SW, Max. 324mm x 463mm) Custom size paper (Maximum 324mm x 463mm, Minimum 182mm x 257mm)	
Paper weight	50g/m ² to 244g/m ² *3, 64g/m ² to 244g/m ² *4 *5 *7	
Maximum overlap folding sheets	Paper weight	Sheet
	50g/m ² to 81g/m ²	5 sheets
	82g/m ² to 130g/m ²	3 sheets
	131g/m ² to 244g/m ²	2 sheets

Folding precision (for 1 sheet)



15ant1c009na

$$[1] = [\text{Paper Size}] / 2 \pm 1.5\text{mm}$$



15ant1c008na

$$[1] = 1.5\text{mm or less}$$

*1 Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*2 Default for Europe

*3 1200/1200P/1051/1250/1250P/1052 only

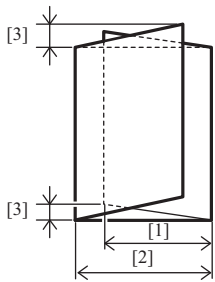
*4 C8000 only

*5 C6501/C6501P/C65hc only

*6 For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

*7 C7000/C7000P/C70hc/C6000 only

(5) Overlap tri-folding mode

Paper size	A4S, 8 ¹ / ₂ x 11S			
Paper weight	50g/m ² to 91g/m ² *1, 64g/m ² to 91g/m ² *2 *3 *4			
Maximum overlap folding sheets	Paper weight	Sheet		
	50g/m ² to 81g/m ²	5 sheets		
	82g/m ² to 91g/m ²	3 sheets		
Folding precision (for 1 sheet)	Paper size	[1]	[2]	[3]
	A4S	97.5 ± 4mm	102.0 ± 4mm	1.5mm or less
	8 ¹ / ₂ x 11S	91.6 ± 4mm	96.1 ± 4mm	
	<div></div> <div>15ant1c010na</div>			

*1 1200/1200P/1051/1250/1250P/1052 only

*2 C6501/C6501P/C65hc only

*3 C8000 only

*4 C7000/C7000 /C70hc/C6000 only

24.4 Machine data

Power source	100VAC to 240VAC, 5VDC (supplied from the main body) *1
Maximum power consumption	270W
Weight	280kg
Dimensions	When the bundle output tray is stored: 1,170 (W) x 775 (D) x 1,020 (H) mm When the bundle output tray is pulled out 1,170 (W) x 1,441 (D) x 1,020 (H) mm

*1 C8000/C6501/C6501P/C65hc/C7000/C7000P/C70hc/C6000: Only 5VDC is supplied from the main body.

24.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

24.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

25. PB-503

25.1 Type

Type	Simplified perfect binding machine (Consoled hot-melt type)
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25.2 Functions

(1) Function

Perfect binding mode	Automatically binds and stocks in a book stock section.
Sub tray mode	Exits paper to the sub tray without any process
Relay conveyance mode	Exits paper to the option (FS-521/FS-532) on the subsequent stage without any process

(2) Binding sheets

Binding sheets	Min. thickness	10 sheets		
	Max. thickness	Plain: 300 sheets or 30mm Color/Coated: 150 sheets or 15mm		
Binding sheets with Z-Fold sheets*1 Binding sheets*1	Simplex printing	Number of Z-Fold sheets	Max. number of unfold sheets	Total
		Number of Inserted sheets	Max. number of sheets	
		1 sheet	200 sheets	201 sheets
	Duplex printing	2 sheets	150 sheets	152 sheets
		Number of Z-Fold sheets	Max. number of unfold sheets	Total
		Number of Inserted sheets	Max. number of sheets	
		1 sheet	200 sheets	201 sheets
		2 sheets	150 sheets	152 sheets
		3 sheets	100 sheets	103 sheets
		4 sheets	50 sheets	54 sheets
	Simplex/duplex mixed printing (printer function)	When 1 or more unfold sheets is single-sided, the specification is the same as the simplex print. When the z-folded sheet is single-sided, the specification is the same as the duplex print.		

*1 C8000/C7000/C7000P/C70hc/C6000: The limit of the total number of sheets can be released by switching DIPSW30-5 from 0 (default) to 1.

1250/1250P/1052/1200/1200P/1051: The limit of the total number of sheets can be released by switching DIPSW37-2 from 0 (default) to 1.

(3) Maximum tray capacity

Book stock section	Maximum 11 books *1 x 2 rows *2 (book thickness: 30mm)	
	10 sheets to 30 sheets book	50 sets
	31 sheets to 150 sheets book	35 books or until the upper limit is detected.
	151 sheets to 300 sheets book	Until the upper limit is detected
PB cover paper tray*3	1000 sheets (82g/m ²) 500 sheets (216g/m ²)	
Sub tray	200 sheets (80g/m ²)	

*1 The available number of books may decrease due to curls of papers.

*2 When books have been stacked up to the limit at the first row, the first stack is automatically moved to the second row on the cart, and piling books at the first row continues.

*3 Cover paper supply is selectable from PB cover paper tray, main body tray, PI or PI-PFU (1200/1200P/1051/1250/1250P/1052 only).

(4) Others

Warm-up time	Approx. 20 minutes
Cover trimming	Selectable from Trim/Not trim.

25.3 Type of paper

(1) Paper size

Perfect binding mode	Inside paper: A4, JISB5*1, ISOB5*2*3*5*9, A5, A5S*3*9, 8 ¹ / ₂ x 11, 5 ¹ / ₂ x 8 ¹ / ₂ *3*9, 5 ¹ / ₂ x 8 ¹ / ₂ S*3*9, 16K*3*4*9 Custom size paper (Maximum 307 (W) x 221 (L) mm, Minimum 139 (W) x 210 (L) mm)
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	<p>Z-fold size (A3, JISB4^{*1}, ISOB4^{*2*3*5*9}, A4S, 11 x 17, 8¹/₂ x 11S, 8K^{*3*4*9})</p> <p>Cover:</p> <p>Maximum 307mm x 472mm, Minimum 139mm x 279mm</p> <p>Vertical (main scan direction) Same size as the inside paper.</p> <p>Horizontal (sub scan direction) Wide size L mm</p> <p>L= book size in the sub scan direction x 2 + book thickness (book spine) + 5mm (for trimming)</p>
Sub tray mode	<p>SRA3, A3, JISB4^{*1}, ISOB4^{*2*3*5*9}, SRA4^{*3*9}, SRA4S, A4, A4S, JISB5^{*1}, ISOB5^{*2*3*5*9}, JISB5S^{*1}, ISOB5S^{*2*3*9}, A5, A5S^{*3*9}, B6S^{*3*9}, ISOB6S^{*3*9}, A6S^{*3*9}, 8K^{*3*4*9}, 16K^{*3*4*9}, 16KS^{*3*4*9}</p> <p>13 x 19^{*3*9}, 12 x 18, 11 x 17, 9 x 11, 8¹/₂ x 14, 8¹/₂ x 11, 8¹/₂ x 11S,</p> <p>5¹/₂ x 8¹/₂^{*3*5}, 5¹/₂ x 8¹/₂S^{*3*9}</p> <p>8¹/₂ x 13, 8¹/₄ x 13, 8¹/₈ x 13¹/₄, 8 x 13</p> <p>Wide paper ^{*5} (A3W, B4W, A4W, A4SW, B5W, B5SW, A5W, 12 x 18W, 11 x 17W, 8¹/₂ x 11W, 8¹/₂ x 11SW, 5¹/₂ x 8¹/₂W, Max. 324mm x 460mm)</p> <p>Custom size: Maximum 330mm x 487mm^{*3*9}, 324mm x 463mm^{*5}</p> <p>Minimum 100mm x 140mm^{*3}, 100mm x 148mm^{*9}, 95mm x 139mm^{*5}</p> <p>Finite tab paper ^{*6*7}: A3, B4, A4, A4S, B5, B5S, 11 x 17, 8¹/₂ x 11, 8¹/₂ x 11S, 5¹/₂ x 8¹/₂</p> <p>Postcard</p>
Relay conveyance mode ^{*8}	<p>Paper which can be used by the subsequent option (FS-521/FS-532)</p> <ul style="list-style-type: none"> • Large size: <p>SRA3, A3, JISB4^{*1}, ISOB4^{*2*3*5*9}, SRA4^{*3*9}, SRA4S</p> <p>12 x 18, 11 x 17, 8¹/₂ x 14, 13 x 19^{*3*9}, 8K^{*3*4*9}</p> <p>8¹/₂ x 13, 8¹/₄ x 13, 8¹/₈ x 13¹/₄, 8 x 13</p> <p>Wide paper ^{*5} (Max. 324mm x 460mm)</p> • Small size: <p>A4, A4S, JISB5^{*1}, ISOB5^{*2*3*5*9}, JISB5S^{*1}, ISOB5S^{*2*3*9}, 16K^{*3*4*9}, 16KS^{*3*9}</p> <p>9 x 11, 8¹/₂ x 11, 8¹/₂ x 11S</p> • Minimum size: <p>A5, A5S^{*3*9}, JISB6S^{*1*3*9}, ISOB6S^{*2*3*9}, 5¹/₂ x 8¹/₂^{*3*5}, 5¹/₂ x 8¹/₂S^{*3*9}</p> • Others: <p>Finite tab paper ^{*6*7}: A3, B4, A4, A4S, B5, B5S, 11 x 17, 8¹/₂ x 11, 8¹/₂ x 11S, 5¹/₂ x 8¹/₂</p> <p>Custom size paper:</p> <p>Maximum 330mm x 487mm^{*3*9}, 324mm x 463mm^{*5}</p> <p>Minimum 100mm x 140mm^{*3}, 100mm x 148mm^{*9}, 95mm x 139mm^{*5}</p>

(2) Paper weight

Perfect binding mode	<p>Inside paper:</p> <p>64g/m² to 91g/m² ^{*2}</p> <p>64g/m² to 105g/m² ^{*1*6}</p> <p>Cover:</p> <p>82g/m² to 216g/m² ^{*2}</p> <p>81g/m² to 209g/m² ^{*1*6}</p>
Sub tray mode	<p>40g/m² to 350g/m² ^{*2}</p> <p>64g/m² to 350g/m² ^{*1}</p> <p>64g/m² to 300g/m² ^{*6}</p>
Relay conveyance mode	<p>40g/m² to 350g/m² ^{*2}</p> <p>64g/m² to 350g/m² ^{*1}</p> <p>64g/m² to 300g/m² ^{*6}</p>

^{*1} Default for North America (C8000/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

^{*2} Default for Europe

^{*3} C8000 only

^{*4} For China/Taiwan only (C6501/C6501P/C65hc/1200/1200P/1051/C7000/C7000P/C70hc/C6000 only)

^{*5} 1200/1200P/1051/1250/1250P/1052 only

^{*6} Operation of paper exit with tab area at the trail edge side is not warranty.

^{*7} For C8000/C7000/C7000P/C70hc/C6000, A4, 8¹/₂ x 11 only

^{*8} Paper can be fed only when the FS-521/FS-532 is connected as the subsequent stage of the PB-503

^{*9} C7000/C7000P/C70hc/C6000 only

(3) Applicable paper in each mode

	Body	Cover	-
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					Binding mode (1250/1250 P/ 1052/1200/ 1200P/ 1051)	Binding mode (C8000/ C7000/ C7000P/ C70hc/ C6000)	PB tray	Main tray	Sub tray
Plain	Japan	J paper	64g/m ²		○	○	-	-	○
	North America	Tidal MP	20lb (75g/m ²)		○	○	-	-	○
	Europe	Konica Minolta Original	80g/m ²		○	-	-	-	○
		Konica Minolta Profi	80g/m ²		-	-	-	-	○
Recycled paper	Japan	NR-A80	64g/m ²		-	○	-	-	○
		NR-A100	64g/m ²		○	○			○
	North America	Hammermill Great White	20lb (75g/m ²)		○	-	-	-	○
		Recycle Eclips	20lb (75g/m ²)		-	-	-	-	○
	Europe	Nautilus	80g/m ²		○	-	-	-	○
		Classic White	80g/m ²		○	-	-	-	○
Color	Japan	Konicaminolta CF paper	80g/m ²		-	○	-	-	○
	North America	Hammermill Color Copy Photo White	28lb (105g/m ²)		-	○	-	-	○
		Domtor Microprint Color Copy	28lb (105g/m ²)		-	○	-	-	○
		Gilbert Neutech Color Copy	28lb (105g/m ²)		-	○	-	-	○
	Europe	Color copy (mondi)	90g/m ²	-	○	-	-	○	
			100g/m ²	-	○	-	-	○	
Fine	-	-	Body	Cover	-	-	-	-	-
	Japan	Kinmari V	64g/m2 to 91g/m ²	82g/m2 to 216g/m ²	-	-	○	Δ	○
		NEW NPi FINE	64g/m2 to 91g/m ²		-	-	○	Δ	○
			105g/m ²		-	○	-	-	○
		POD prince high quality	64g/m2 to 91g/m ²		○	-	○	○	○
		OK PRINCE FINE	81.4g/m ²		-	-	○	Δ	○
			105g/m ²		-	○	-	-	○
		shiraoi	64g/m2 to 91g/m ²		-	-	○	Δ	○
		High quality	64g/m2 to 91g/m ²		-	-	○	Δ	○
		KANABISHI	64g/m2 to 91g/m ²		-	-	○	Δ	○
Coated *1	Japan	JD	98g/m ²		-	○	-	-	○
		NEW AGE	81.4g/m ²		-	○	-	-	○
		NEW AGE BLANC	81.4g/m ²		-	○	-	-	○
		POD GLOSS COAT	64g/m2 to 81g/m ²		-	-	-	-	○
	North America	Kromekote Laser	82g/m2 to 130g/m ²		-	-	○	Δ	○
		HIGH GLOSS	131g/m2 to 161g/m ²		-	-	○	Δ	○
		Futura Laser	162g/m2 to 216g/m ²		-	-	○	Δ	○

Δ: Available for a paper curled less than 10mm

*1 Regarding Coated, the matt coated paper is only available for the body.

25.4 Machine data

Power source	100VAC 50/60Hz common 5VDC (supplied from the main body)	
Power consumption	1000W or less	
Weight	Approx. 270kg	
Dimensions	1,360 (W) x 1,223 (H) x 775 (D) mm	
	Binding section	740 (W) x 1,223 (H) x 775 (D) mm
	Book stock section Relay conveyance section	620 (W) x 1,020 (H) x 753 (D) mm

25.5 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80%RH (with no condensation)

25.6 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

26. IC Unit

26.1 Type

Type	Built-in box type for the KONICA MINOLTA main body
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26.2 Functions

Resolution:	Printing System: 600 x 600dpi, 1200 x 1200dpi Scanning Resolution: 200dpi, 300dpi, 400dpi, 600dpi, 1200dpi
Gradation:	256 (8bit) equivalent
Printable Area:	Same as the main body
Number of Print:	1 to 9999
Continuous Print Speed:	bizhub PRESS 1250/1250P : 125ppm (A4, 8 ¹ / ₂ x 11) (For the 2nd and following copies) bizhub PRESS 1052 : 105ppm (A4, 8 ¹ / ₂ x 11) (For the 2nd and following copies) bizhub PRO 951: 95ppm (A4, 8 ¹ / ₂ x 11) (For the 2nd and following copies)
Page-description language:	PCL5e/6, Adobe PostScript3 (PS3019), PDF direct print (PDF Ver.1.7), TIFF direct print (TIFF Ver. 6 compliance), PPML (Ver. 2.2)
Printer Driver:	PCL6 (KONICA MINOLTA) There is no driver for PCL5e <ul style="list-style-type: none"> • Windows XP Home Edition/Professional (SP2 or later) • Windows Server 2003 Standard • Windows Vista (any version) • Windows Server 2008 • Windows 7 (any version) (until SP1) * (XP (Professional)/Server 2003/Vista/Server 2008/7 include x64) PS Plug-In/PS PPD <ul style="list-style-type: none"> • Windows XP Home Edition/Professional (SP2 or later) • Windows Server 2003 Standard • Windows Vista (any version) • Windows Server 2008 • Windows 7 (any version) (until SP1) • Mac OS 10.4/10.5/10.6 (Including Intel Mac 10.4/10.5/10.6) * (XP (Professional)/Server 2003/Vista/Server 2008/7 include x64)
Printing Method:	Pserver (IPX/SPX), LPD/LPR (TCP/IP), IPP (TCP/IP), Apple Talk (Ether Talk), Bonjour(TCP/IP), Web service printing (TCP/IP), NPrinter /RPrinter (IPX/SPX), Raw Port (TCP/IP)

26.3 Machine data

CPU	Pentium G6950 2.8GHz	
Memory	2GB	
SSD	2GB	
HDD	250GB	
Host Interface:	Ethernet, USB 2.0	
Power source	Supplied from the main body	
Network Interface	RJ-45 Ethernet (1000BASE-T/100Base-TX/10Base-T)	
LED:	10BASE-T	LED1: OFF LED1: Yellow
	100BASE-TX	LED1: Green LED1: Yellow
	1000BASE-T	LED1: Orange LED1: Yellow

26.4 Operating environment

Temperature	Same as the main body.
Humidity	Same as the main body.

26.5 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

27. GP-501

27.1 Type

Type	Multi-hole punch unit for ring binding
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27.2 Modes of Operation

Bypass mode	The paper moves straight from the printer to the finisher without passing through the punch module. In this mode the paper is not punched.
Punch mode with Punch	The paper moves from printer to the punch module where it gets punched and then is routed to the finisher.

27.3 Machine data

Punch unit size	12" (305mm) W x 40" (1016mm) H x 30.5" (775mm) D
Weight	170 lbs (80kg) unpackaged, 270 lbs (123kg) packaged (Pallet, Carton, PKG Inserts)
Color	Top Cover . Orca Black, Lower covers . Cuttle Gray
AC Power Supply to GP-501	External power cord according to market destination.
DC 5V Supply to GP-501	Supplied by system to PCB contained within GP-501
System Power Supply Lines	GP-501 Internal Lead-Through <ul style="list-style-type: none"> On upstream side: Wiring with connectors through cover-recess. On downstream side: Lock-style connector panel on left side cover.

27.4 Software

Communication method	i) Start-stop synchronization style, full duplex. ii) 1 Start Bit, 8bit Data length, 1 Parity Bit, 1 Stop bit. Max Frame Length: 128 byte iii) Hard flow control (CTS/RTS). iv) Baud rate: [Standard] 19200 bps [ISW=Log file Transmissions] 78000 bps
Communication Content	According Interface Specification (See also Appendix B)

27.5 Electronic

Required signals to UP & Downstream connected units	RXD, RTS, CTS, TXD
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27.6 Inputs

(1) Media Input from Printer

Alignment/ skew variance at pick up	Center justified \pm 4mm
Line speed	290 to 1250 mm/s (Fixed speeds within this range)
Speed variance at pick up	\pm 2%
Sheet frequency	120 ppm maximum

(a) For Punching

Paper weight	20lb bond - 80lb cover Plain Paper: 75gsm - 216gsm Other Paper: 120gsm - 216gsm Exception ProClick: LTR & A4 Limited to 200gsm	
Paper type	See appendix C	
Maximum Sheet size	Letter configuration	279 x 216mm
	A4 configuration	297 x 210mm

(b) For Bypass

Paper weight	16lb bond - 93lb cover 64gsm - 350gsm	
Paper type	Coated, Pre-printed, High Quality, Plain, Book, Color, Rough, Post Card, Label, OHP, Index	
Transparency weight	5 -10 mil (0.127mm to 0.254mm)	
Maximum bypass sheet size	13" x 24.8" (330 x 630mm)	
Minimum bypass sheet size	3.74" x 5.47" (95 x 139mm)	

(2) Power

Supply	GP-501 individual power supply and power cord required.				
Configurations by market	See table below.				
Machine	Market	Voltage (V)	Current (A)	Frequency (Hz)	Paper size
1	US, Canada	115 +10/-15 %	3	60	8 ¹ / ₂ x 11
2	Europe, Australia	220-240 +10/-15 %	1.8	50	A4

27.7 Outputs

Alignment/ skew at delivery	± 2mm or less for the pick up position
Speed variance at delivery	± 1% compared to speed variance at pick up
Chip tray capacity	2500 cycles (based on punched sheet count)

27.8 Performance

Punch accuracy	Hole size	± 2%
	Alignment	±0.5mm
	Back gauge depth	±0.3mm

(1) Reliability

MCBJ: Punch	1 in 15,000 (20lb bond)
MCBJ: Bypass	1 in 65,000 (20lb bond)

27.9 Operation Environment, Storage, Transport

Normal Operation Temperature	10 deg C – 30 deg C
Normal Operation Humidity	10% - 80%
Storage Temperature	-10 deg C – 40 deg C
Storage Humidity	10% - 80%

27.10 Safety /Regulatory

Noise emissions (measured to ISO7779)	Punch	Maximum of 78dBA (punching 216gsm cover)
	Bypass	Maximum of 70dBA

(1) Safety Compliance

UL & CSA standards	CAN/USA-C22.2 No. 60950-01 UL60950-1 First Edition
TUV standards	IEC 60950-1:2001 EN60950-1:2001

(2) Electromagnetic Compliance

EMC standards	EN55024:1998 Amendments A1:2001 & A2:2003 EN61000-3-2:2000 EN61000-3-3:1995 Amendment A1:2001 EN55022:1998 Amendments A1:2000 & A2:2003 EN61000-4-2, EN61000-4-4, EN61000-4-5, EN61000-4-6, EN61000-4-11
FCC standards	Class B Part 15, Subpart B, Section A 15.107A & 15.109a

27.11 Appendix A

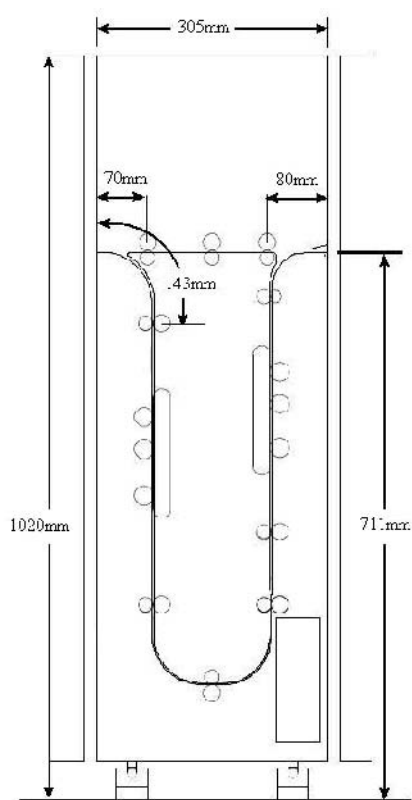


Figure 1.1 Front

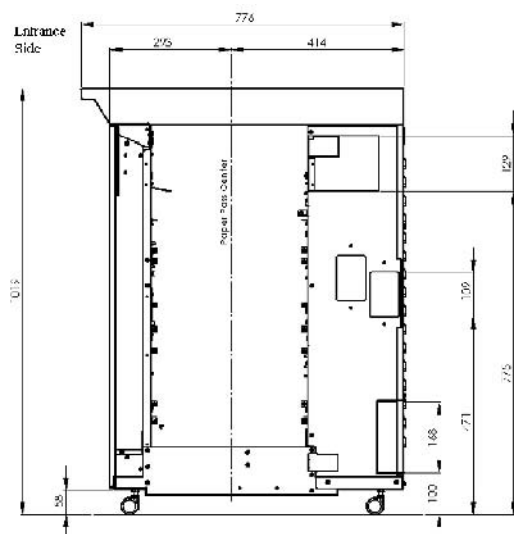


Figure 1.2 Entrance

27.12 Appendix B

No.	Model	Die set type	# Pins	Pinshape	Hole size (WxH or D)	Paper size	Label artwork
1	DS-501	Ring Binder 3Hole	3	Round	8mm (0.316")	8 ¹ / ₂ x 11	
2	DS-502	Plastic Bind Cerlox	19	Rect.	8mm x 2.9mm (0.313" x 0.116")	8 ¹ / ₂ x 11	
3	DS-503	WireBind -3:1 Square	32	Square	4mm x 4mm (0.156" x 0.156")	8 ¹ / ₂ x 11	
4	DS-504	WireBind -2:1 Rectangular	21	Rect.	6.4mm x 5.4mm (0.250" x 0.214")	8 ¹ / ₂ x 11	
5	DS-505	Color Coil	44	Round	4.4mm (0.174")	8 ¹ / ₂ x 11	

6	DS-506	VeloBind	11	Round	3.2mm (0.125")	8 ¹ / ₂ x 11	
7	DS-507	ProClick	32	Rect.	5mm x 5.5mm (0.197" x 0.217")	8 ¹ / ₂ x 11	
8	DS-508	Ring Binder 4 Hole	4	Round	8mm (0.316")	A4	
9	DS-509	Plastic Bind Cerlox	21	Rect.	8mm x 2.9mm (0.313" x 0.116")	A4	
10	DS-510	WireBind –3:1 Round	34	Round	4.4mm (0.174")	A4	
11	DS-511	WireBind –2:1 Round	23	Round	6.38mm (0.251")	A4	
12	DS-512	Color Coil	47	Round	4.4mm (0.174")	A4	
13	DS-513	VeloBind	12	Round	3.2mm (0.125")	A4	
14	DS-514	ProClick	34	Rect.	5mm x 5.5mm (0.197" x 0.217")	A4	
15	DS-515	Ring Binder 2 Hole	2	Round	8mm (0.316")	A4	
16	DS-516	Plastic Bind Cerlox	20	Rect.	8mm x 2.9mm (0.313" x 0.116")	A4	
17	DS-517	WireBind –2:1 Rectangular (Australia)	23	Rect.	6.4mm x 5.4mm (0.250" x 0.214")	A4	
18	DS-518	WireBind –3:1 Square (Australia)	34	Square	4mm x 4mm (0.156" x 0.156")	A4	

27.13 Appendix C

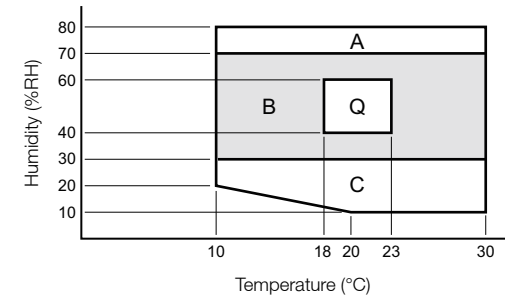
Paper Type for Punching			
Destination	Paper Name	Weight (g/m ²)	Punch *2
(1) US	Hammermill Color Copy Paper - Photo White	120	Q-Zone
	Hammermill Tidal MP	75	All
	Hammermill Fore MP	75	All
	Color Copy (Mondi) *1	120	Q-Zone
	Wausau Exact Gloss Coated (C1S) *1	215	Q-Zone
	Hammermill Color Copy Cover *1	163	Q-Zone
		216	Q-Zone
	Color Copy (Mondi) *1	160	Q-Zone
(2) EU	Konica Minolta Original	80	All
	Konica Minolta Profi	80	All
	Mondi BIO TOP 3 extra	80	All
	Mondi Color Copy	200	Q-Zone

*1 For only C6501/C6501P/C65hc

*2 Q-Zone: Guaranteed only in Q-zone

All: Guaranteed in all environments

*Refer to the below graph



27.14 Glossary of Terms

These terms are common to the punch and bindery industry.

Cerlox	The trade name GBC uses for its Plastic Binding
Color coil	A plastic coil that looks like a spring which is threaded through round holes punched in the document then the ends are cut off and crimped. The holes are either 4:1 or 5:1 (4 holes per inch or 5 holes per inch). This type of bind lays flat and even folds around for easy handling of the document.
Flush-cut covers	Covers stock that is the same size as the paper contents and has round corners.
Plastic binding	The name used to describe GBC's most common binding method. The 19 and 21 rectangular hole, Plastic Comb type.
ProClick	A plastic element that snaps together. This style requires holes that appear to be the same as Twin Loop but are actually slightly larger. The larger holes enable correct operation of the ProClick Pronto finishing devise.
Tabbing (hanging chad)	Tabbing or hanging chad is when a hole is not punched cleanly through the material leaving a piece of paper hanging from the edge. This condition occurs when a die set is worn and will usually result in miss-feeds.
Twin loop	Looped wire element that is feed into square or round holes in the document in a similar fashion to Plastic Binding. The holes are either 2:1 or 3:1 (2 holes per inch or 3 holes per inch). It is then squeezed together or crimped to create an attractive bind that lays flat.
Velobind	A heat seal plastic bind that is best known for it's security and it's attractive look. The one draw-back for VeloBind is that it is not a layflat bind style. It is most often used in the Legal market for it's security feature.

28. GP-502

28.1 Type

Type	Automatic Ring Binding Device (Ring Binder)
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28.2 Functions

(1) Function

Bind mode	Automatically punches and binds papers exited from the previous device and stocks in a book stock section.
Through conveyance mode	Conveys papers exited from the previous device to the succeeding device without any process.

(2) Binding sheets

	Front cover (g/m ²)	Back cover (g/m ²)	Body weight (g/m ²)	Minimum (sheets)	Maximum (sheets) *2
Sheet*1	163 to 216 or OHP paper: 1 sheet	163 to 216 1 sheet	75	7	102
			80		96
			90		85
			100		76
			110		70
			120		64

*1 The sum of the front cover, back cover and body

*2 The value at the Q zone

(3) Book stock quantity

The full detection sensor detects the limits of the stock quantity. For the 75g/m² body and 216g/m² front cover, refer to the followings.

7 sheets book	Equivalent to 30 sheets book or until the upper limit is detected
20 sheets book	Equivalent to 25 sheets book or until the upper limit is detected
102 sheets book	Equivalent to 8 sheets book or until the upper limit is detected

(4) Others

Punch waste capacity	Approx. 5,000 punches *Detected by the full detection sensor *Except for the environment of low humidity
Element stacker	Minimum 16 sheets *Detected by the full detection sensor
	Maximum Approx. 100 sheets *Defined by the position of the label

28.3 Type of paper

(1) Paper size

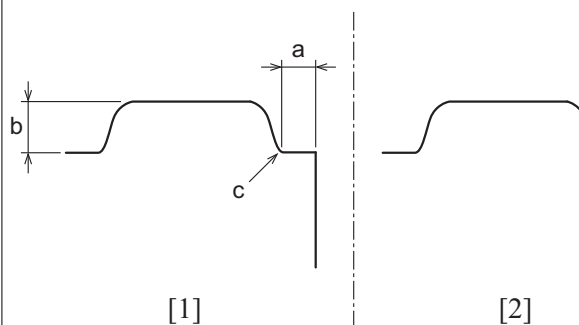
Bind mode	A4, 8 ¹ / ₂ x 11 Tab paper (A4, 8 ¹ / ₂ x 11)
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Requirements for the tab paper

a: Min.: 5mm

b: Max.: 13.5mm

b: R Min.: 4.8mm



[1] Tab paper with a shoulder: available

[2] Tab paper with no shoulder: unavailable

Through conveyance mode	Same as the main body.
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(2) Paper weight

Bind mode	Body	75g/m ² to 120g/m ²
	Cover	163g/m ² to 216g/m ² OHP paper (Front cover only)
	Insert sheet	75g/m ² to 120g/m ²
Through conveyance mode	Same as the main body.	

(3) Type of paper

Bind mode	Body	Plain, Fine, Coated* ¹
	Cover	Plain, Fine, Coated* ¹ , OHP papers* ²
	Insert sheet	Plain, Fine, Coated
Through conveyance mode	Same as the main body.	

*¹ Only when connected to 1250/1250P/1052*² Front cover only. The paper feeding reliability, image, and damage are not assured. Q zone only.**(4) Recommended paper**

	Paper type	Product name	Weight	Bind mode			
				Mono		Color	
				Book	Cover	Book	Cover
Inch	Bond	Hammermill Color Copy Paper - Photo White	120g/m ²	-	-	A	-
		Hammermill Tidal MP	75g/m ²	A	-	A	-
		Hammermill Fore MP	75g/m ²	A	-	-	-
	Gloss	Wausau Exact Gloss Coated (CIS)	215g/m ²	-	A	-	-
		Hammermill Color Copy Glossy	120g/m ²	-	-	A	-
	Color paper	Hammermill Color Copy Cover	163g/m ²	-	-	-	A
			216g/m ²	-	-	-	A
	Transparency	3M CG3700		-	B	-	B
Metric	Business	Konicaminolta Original	80g/m ²	A	-	A	-
		Konicaminolta Profi	80g/m ²	A	-	A	-
		Mondi BIO TOP 3 extra	80g/m ²	A	-	-	-


	Color paper	Mondi Color Copy	100g/m ²	-	-	A	-
			120g/m ²	-	-	A	-
			200g/m ²	-	A	-	A
	Coated	Mondi Color Copy Coated Glossy	170g/m ²	-	-	-	A
	Transparency	3M CG3700		-	B	-	B

* Recommended paper A: Evaluation standard paper for Japan, North America and Europe

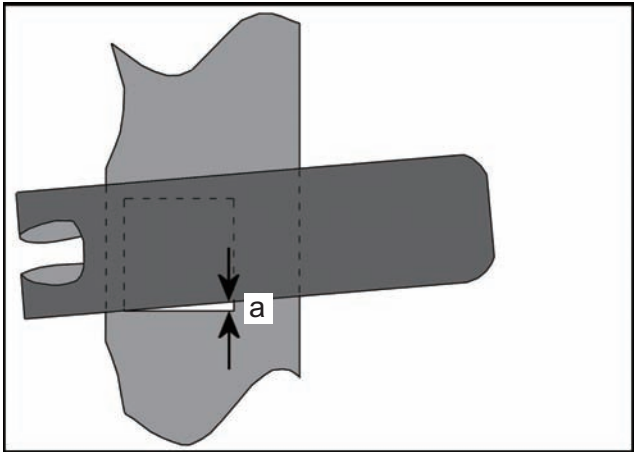
Recommended paper B: Paper for original through check. Q zone is recommended

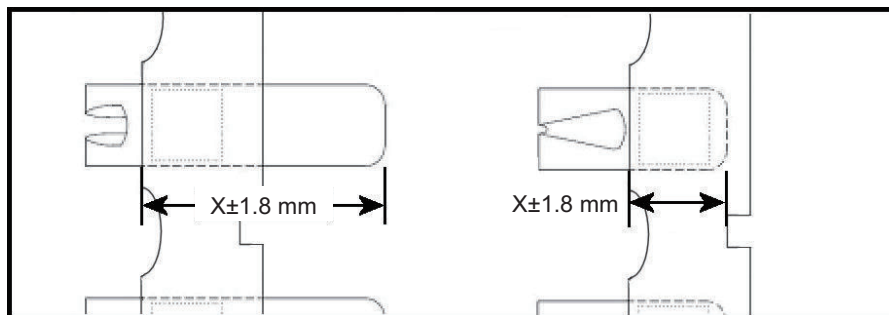
28.4 Performance Specifications

(1) Input conditions

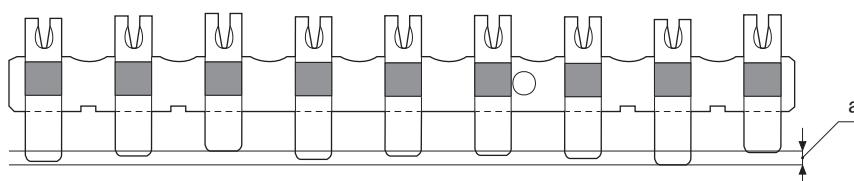
Paper grain	No limitation		
Centering	±8mm around the center		
Paper curl amount			
	a	In the bind mode, 10mm or less In the through conveyance mode, 15mm or less OHP paper: Amount of curl: 3 mm or less	

(2) Sticking specifications

Sticking specifications	Peeling strength of the bind element: 8.9N or more		
Sticking accuracy	<div></div>		
	a	Finger skew: ±1.6mm	
Sticking length	Length: 10 steps in accordance with the book thickness		
	Step	Sticking length x (mm)	Step Sticking length x (mm)
	1	38.6	6 25.4
	2	36.8	7 22.6
	3	34.0	8 19.9
	4	30.9	9 16.7
	5	28.5	10 15.8



The variability among the sticking lengths in each step: $x \pm 1.8\text{ mm}$

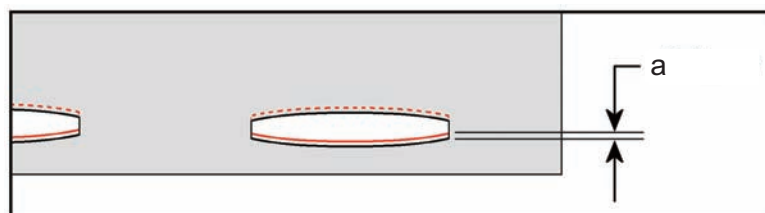


a The variability among the sticking lengths in a single book (The variability between 9 elements): 5mm or less

Sticking defective Regardless of the low temperature and low humidity

(3) Book specifications

Hole position



a $\pm 0.5\text{ mm}$ or less

Center misalignment: $\pm 1.0\text{ mm}$ or less around the paper center

Hole quality	The size of the fluff	0.38mm or less	
	Remainings after trimming	Regardless of 1mm or less in height, and 1.5mm or less in width.	
Element damage	Grain damage	Regardless of the grain damage such as the scratches by nail.	
	Edge damage	Regardless of 1.0mm x 1.0mm or less in size, and 1.0mm or less in height.	
	Hole damage (Back side only)	Dent of 0.6mm to 0.9mm in diameter	Regardless of 100 dents or less for 1 Box
		Dent of 1.0mm or more in diameter	Regardless of 1 dent or less for 1 Box
		Unless the depth of the dent has no effect on the surface.	

28.5 Materials

Name	RB-101 (Ring binder element for GP-502)		
Type	GBC ellips		
Color	4 Colors		
	Black: WY1, Clear: WY2, White: WY3, Navy Blue: WY4		
Thickness	0.356 \pm 0.02 mm (Base material only)		
	0.510 \pm 0.03 mm (Base material and double-stick tape)		
Service life	1 year after manufacture. Only for the ones that are saved under the following conditions. Storage ambient condition: Temperature: 12°C to 32°C, Humidity: 25% to 80% Transportation ambient condition: Temperature: 0°C to 70°C, Humidity: 0% to 90%		

Percent defective * The incidence ratio where the element has no double-stick tape	1/200 sheets
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28.6 Machine data

Power source	Inch: AC 115V, 60Hz Metric: AC 230V, 50Hz
Maximum power consumption	Inch: 200W or less (2.2A or less) Metric: 190W or less (0.98A or less)
Weight	193kg
Dimensions	655 (W) x 944 (D ^{*1}) x 1,020 (H) mm

*1 Including the power box.

28.7 Operating environment

Temperature	10°C to 30°C
Humidity	10% to 80% RH (with no condensation)

28.8 Note regarding the specifications

Note

- The information herein may be subject to change for improvement without notice.

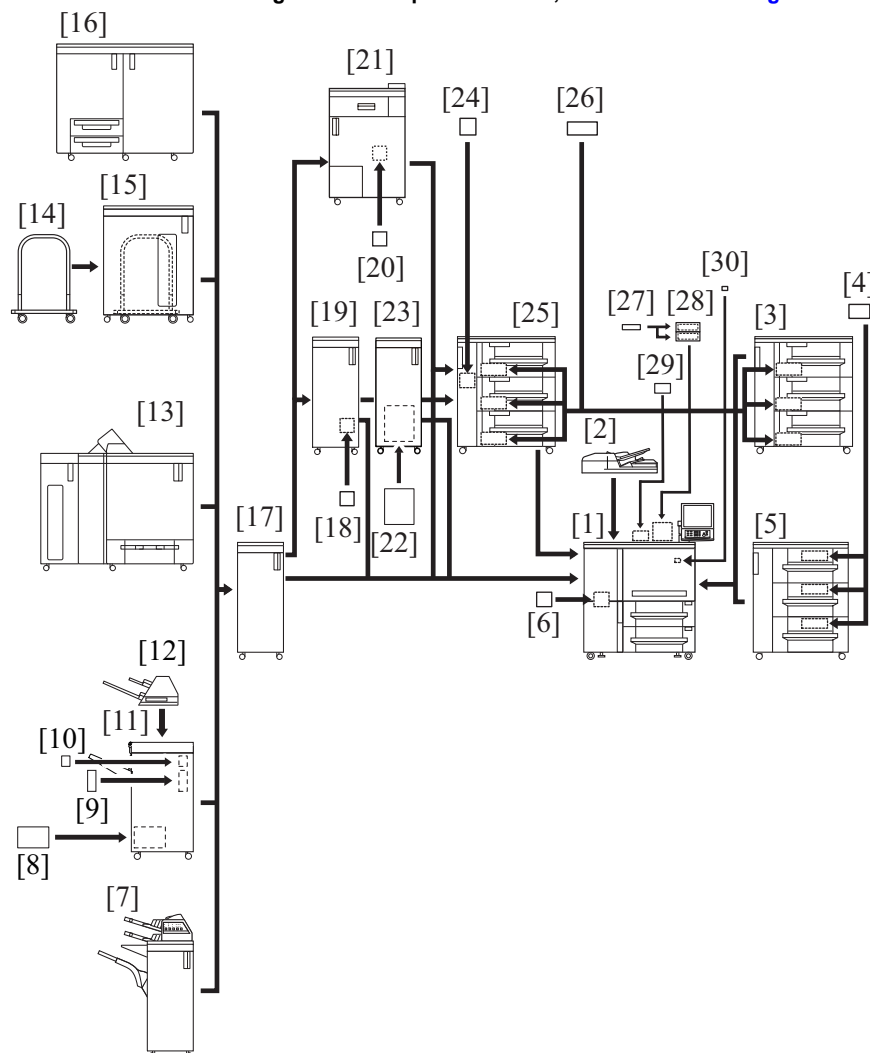
D OVERALL COMPOSITION

1. SYSTEM CONFIGURATION

1.1 SYSTEM CONFIGURATION (1250/1250P/1052)

NOTE

- For details of the configuration for optional device, refer to “D.1.2 Configuration for optional device (1250/1250P/1052)”.



[1] Main body	[2] Reverse automatic document feeder (DF-615) *1
[3] Large capacity paper feed unit with suction (PF-703)	[4] Overlay printing kit (PP-701)
[5] Large capacity paper feed unit (PF-706)	[6] Fusing unit for envelope (EF-102)
[7] Folding unit (FD-503)	[8] Saddle stitch unit (SD-510)
[9] Punch kit (PK-522)	[10] PI-502 coupling conveyance kit(MK-732)
[11] Finisher (Flat staple type) (FS-532)	[12] Post inserter (PI-502)
[13] Perfect binder (PB-503)	[14] Large capacity stacker handcart (LC-501)
[15] Large capacity stacker (LS-505)	[16] Saddle stitch unit (SD-506)
[17] Relay conveyance unit (RU-510)	[18] Die set (DS-***)*2
[19] Multi-hole punch unit (GP-501)	[20] Ring binder element (RB-101)
[21] Smart Punch unit (GP-502)	[22] Humidification unit (HM-102)
[23] Relay conveyance unit (RU-509)	[24] PI-PFU kit (FA-501)
[25] Post inserter (PI-PFU: PF-703 + FA-501)	[26] Dehumidification heater (HT-505) *3
[27] Inner HDD kit for removable HDD kit (HD-511)	[28] Removable HDD kit (RH-101)
[29] Authentication unit (AU-201)	[30] Upgrade kit (UK-205)

*1 In the case of the 1250P, no scanner/DF function is provided.

*2 Selectable arbitrarily in accordance with the number and shape of pins.

Model	Paper size	The number of pins	Shape of pin
DS-501	8 ¹ / ₂ x 11	3	Round
DS-502	8 ¹ / ₂ x 11	19	Rectangle

DS-503	8 ¹ / ₂ x 11	32	Square
DS-504	8 ¹ / ₂ x 11	21	Rectangle
DS-505	8 ¹ / ₂ x 11	44	Round
DS-506	8 ¹ / ₂ x 11	11	Round
DS-507	8 ¹ / ₂ x 11	32	Rect.
DS-508	A4	4	Round
DS-509	A4	21	Rectangle
DS-510	A4	34	Round
DS-511	A4	23	Round
DS-512	A4	47	Round
DS-513	A4	12	Round
DS-514	A4	34	Rect.
DS-515	A4	2	Round
DS-516	A4	20	Rectangle
DS-517	A4	23	Square
DS-518	A4	34	Square

*3 Used exclusively for PF-703. 2 units can be installed to one PF-703 at the maximum. 4 units can be installed to the system in total when 2 or more PF-703 are used in the system (including the use of the post inserter).

1.2 Configuration for optional device (1250/1250P/1052)

Note

- The options can be connected each other. However, be sure to take note of the AC connection mode.
- Depending on the combination of the main body and the finishing options, RU-509, HM-102, and PI-PFU do not need to be connected.
- RU-510 has to be connected for connecting PI-PFU and/or GP-501.
- RU-510 is essential for 1250/1250P.
- In case of 1052, RU-510 does not need to be connected except for PI-PFU connection.
- MK-732 must be connected for connecting PI-502.
- FS-532 and PF-703 must be connected for connecting EF-102. And the finishing options which can be connected are RU-510, FS-532, SD-510, PK-522, PI-502, FD-503, GP-501 and GP-502.
- The combination except as mentioned in the following is prohibited.

1.2.1 Coupling combination of the main body and the paper feed option

Coupling combination of the main body and the paper feed option				AC power to be connected to
1	PF-706		Main body	-
2	PF-703		Main body	-
3	PF-706	PF-703	Main body	-
4	PF-703	PF-703	Main body	-

1.2.2 Coupling combination of the main body and the finisher option

Combination of the main body and the finisher option									AC power to be connected to	
1	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	LS-505		External (RU-509)	
2	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	LS-505	FS-532	External (RU-509)	
3	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	SD-506		External (RU-509)	
4	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	SD-506	PB-503	External (RU-509/ PB-503)	
5	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	SD-506	FS-532	External (RU-509)	
6	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	PB-503		External (RU-509/ PB-503)	
7	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	FS-532		External (RU-509)	
8	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503			External (RU-509)	
9	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	LS-505		External (RU-509)	
10-A	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	LS-505	FS-532	External (RU-509)	
10-B	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	LS-505	FS-532	PK-522	External (RU-509)
11	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	SD-506		External (RU-509)	
12	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	PB-503		External (RU-509/ PB-503)	
13-A	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	FS-532		External (RU-509)	

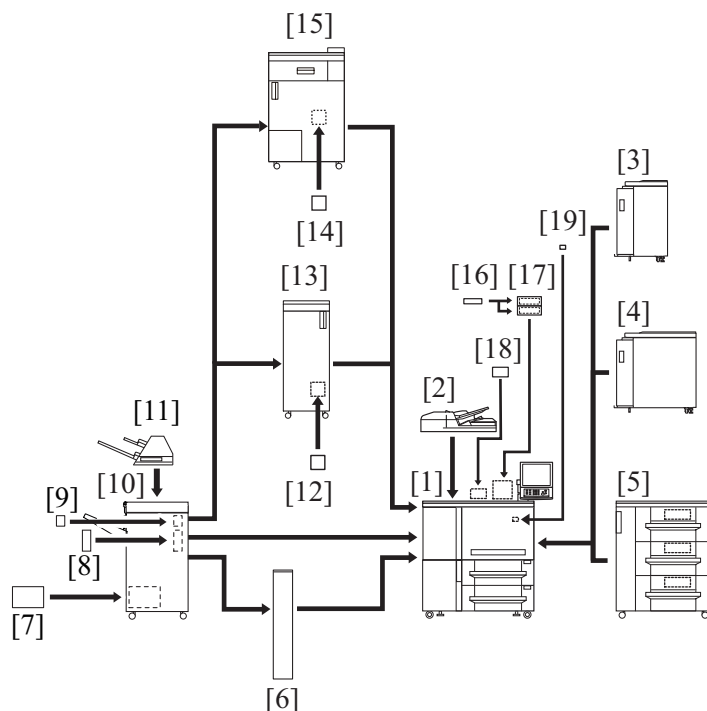
13-B	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	FS-532	PK-522		External (RU-509)	
14	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505				External (RU-509)	
15	Main body	PI-PFU	HM-102	RU-509	RU-510	SD-506	PB-503			External (RU-509/ PB-503)	
16-A	Main body	PI-PFU	HM-102	RU-509	RU-510	SD-506	FS-532			External (RU-509)	
16-B	Main body	PI-PFU	HM-102	RU-509	RU-510	SD-506	FS-532	PK-522		External (RU-509)	
17	Main body	PI-PFU	HM-102	RU-509	RU-510	SD-506				External (RU-509)	
18	Main body	PI-PFU	HM-102	RU-509	RU-510	PB-503				External (RU-509/ PB-503)	
19-A	Main body	PI-PFU	HM-102	RU-509	RU-510	FS-532				External (RU-509)	
19-B	Main body	PI-PFU	HM-102	RU-509	RU-510	FS-532	PK-522			External (RU-509)	
19-C	Main body	PI-PFU	HM-102	RU-509	RU-510	FS-532	SD-510			External (RU-509)	
19-D	Main body	PI-PFU	HM-102	RU-509	RU-510	FS-532	PI-502			External (RU-509)	
19-E	Main body	PI-PFU	HM-102	RU-509	RU-510	FS-532	PK-522	SD-510		External (RU-509)	
19-F	Main body	PI-PFU	HM-102	RU-509	RU-510	FS-532	PK-522	PI-502		External (RU-509)	
19-G	Main body	PI-PFU	HM-102	RU-509	RU-510	FS-532	SD-510	PI-502		External (RU-509)	
19-H	Main body	PI-PFU	HM-102	RU-509	RU-510	FS-532	PK-522	SD-510	PI-502	External (RU-509)	
20	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	SD-506	PB-503		External (RU-509/ PB-503)	
21	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	LS-505	SD-506		External (RU-509)	
22	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	LS-505	PB-503		External (RU-509/ PB-503)	
23	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	LS-505	LS-505		External (RU-509)	
24	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	LS-505	PB-503		External (RU-509/ PB-503)	
25	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	LS-505	SD-506		External (RU-509)	
26-A	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	SD-506	FS-532		External (RU-509)	
26-B	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	SD-506	FS-532	PK-522	External (RU-509)	
27-A	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FS-532			External (RU-509/ GP-501)	
27-B	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FS-532	PK-522		External (RU-509/ GP-501)	
27-C	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FS-532	SD-510		External (RU-509/ GP-501)	
27-D	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FS-532	PI-502		External (RU-509/ GP-501)	
27-E	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FS-532	PK-522	SD-510	External (RU-509/ GP-501)	
27-F	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FS-532	PK-522	PI-502	External (RU-509/ GP-501)	
27-G	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FS-532	SD-510	PI-502	External (RU-509/ GP-501)	
27-H	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FS-532	PK-52 2	SD-510	PI-502	External (RU-509/ GP-501)
28	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	FD-503	FS-532		External (RU-509/ GP-501)	
29-A	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	SD-506	FS-532		External (RU-509/ GP-501)	
29-B	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	SD-506	FS-532	PK-522	External (RU-509/ GP-501)	
30-A	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	LS-505	FS-532		External (RU-509/ GP-501)	

30-B	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	LS-505	FS-532	PK-522	External (RU-509/ GP-501)
31	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	LS-505	PB-503		External (RU-509/ PB-503/GP-501)
32	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	PB-503			External (RU-509/ PB-503/GP-501)
33-A	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	PB-503	FS-532		External (RU-509/ PB-503/GP-501)
33-B	Main body	PI-PFU	HM-102	RU-509	GP-501	RU-510	PB-503	FS-532	PK-522	External (RU-509/ PB-503/GP-501)
34	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	SD-506	PB-503	FS-532	External (RU-509/ PB-503)
35-A	Main body	PI-PFU	HM-102	RU-509	RU-510	PB-503	FS-532			External (RU-509/ PB-503)
35-B	Main body	PI-PFU	HM-102	RU-509	RU-510	PB-503	FS-532	PK-522		External (RU-509/ PB-503)
36	Main body	PI-PFU	HM-102	RU-509	RU-510	FD-503	PB-503	FS-532		External (RU-509/ PB-503)
37-A	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	PB-503	FS-532		External (RU-509/ PB-503)
37-B	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	PB-503	FS-532	PK-522	External (RU-509/ PB-503)
38-A	Main body	PI-PFU	HM-102	RU-509	RU-510	SD-506	PB-503	FS-532		External (RU-509/ PB-503)
38-B	Main body	PI-PFU	HM-102	RU-509	RU-510	SD-506	PB-503	FS-532	PK-522	External (RU-509/ PB-503)
39-A	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	FS-532			External (RU-509/ GP-502)
39-B	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	FS-532	PK-522		External (RU-509/ GP-502)
40	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	FD-503	FS-532		External (RU-509/ GP-502)
41-A	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	SD-506	FS-532		External (RU-509/ GP-502)
41-B	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	SD-506	FS-532	PK-522	External (RU-509/ GP-502)
42-A	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	LS-505	FS-532		External (RU-509/ GP-502)
42-B	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	LS-505	FS-532	PK-522	External (RU-509/ GP-502)
43	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	LS-505	PB-503		External (RU-509/ PB-503/GP-502)
44	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	PB-503			External (RU-509/ PB-503/GP-502)
45-A	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	PB-503	FS-532		External (RU-509/ PB-503/GP-502)
45-B	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	PB-503	FS-532	PK-522	External (RU-509/ PB-503/GP-502)
46	Main body	PI-PFU	HM-102	RU-509	RU-510	LS-505	LS-505	LS-505		External (RU-509)
47	Main body	PI-PFU	HM-102	RU-509	GP-502	RU-510	FD-503	SD-506	FS-532	External (RU-509/ GP-502)

1.3 System configuration (951)

NOTE

- For details of the configuration for optional device, refer to “[D.1.4 Configuration for optional device \(951\)](#)”.



[1] Main body	[2] Reverse automatic document feeder (DF-616)
[3] Large capacity paper feed unit (LU-409)	[4] Large capacity paper feed unit (LU-410)
[5] Large capacity paper feed unit (PF-706)	[6] Z-folding unit (ZU-608)
[7] Saddle stitch unit (SD-510)	[8] Punch kit (PK-522)
[9] PI-502 coupling conveyance kit (MK-732)	[10] Finisher (Flat staple type) (FS-532)
[11] Post inserter (PI-502)	[12] Die set (DS-***)*1
[13] Multi-hole punch unit (GP-501)	[14] Ring binder element (RB-101)
[15] Smart Punch unit (GP-502)	[16] Inner HDD kit for Removable HDD kit (HD-511)
[17] Removable HDD kit (RH-101)	[18] Authentication unit (AU-201)
[19] Upgrade kit (UK-205)	-

*1 Selectable arbitrarily in accordance with the number and shape of pins.

Model	Paper size	The number of pins	Shape of pin
DS-501	8 ¹ / ₂ x 11	3	Round
DS-502	8 ¹ / ₂ x 11	19	Rectangle
DS-503	8 ¹ / ₂ x 11	32	Square
DS-504	8 ¹ / ₂ x 11	21	Rectangle
DS-505	8 ¹ / ₂ x 11	44	Round
DS-506	8 ¹ / ₂ x 11	11	Round
DS-507	8 ¹ / ₂ x 11	32	Rect.
DS-508	A4	4	Round
DS-509	A4	21	Rectangle
DS-510	A4	34	Round
DS-511	A4	23	Round
DS-512	A4	47	Round
DS-513	A4	12	Round
DS-514	A4	34	Rect.
DS-515	A4	2	Round
DS-516	A4	20	Rectangle
DS-517	A4	23	Square
DS-518	A4	34	Square

1.4 Configuration for optional device (951)

Note

- The options can be connected each other.
- MK-732 must be connected for connecting PI-502.

- The combination except as mentioned in the following is prohibited.

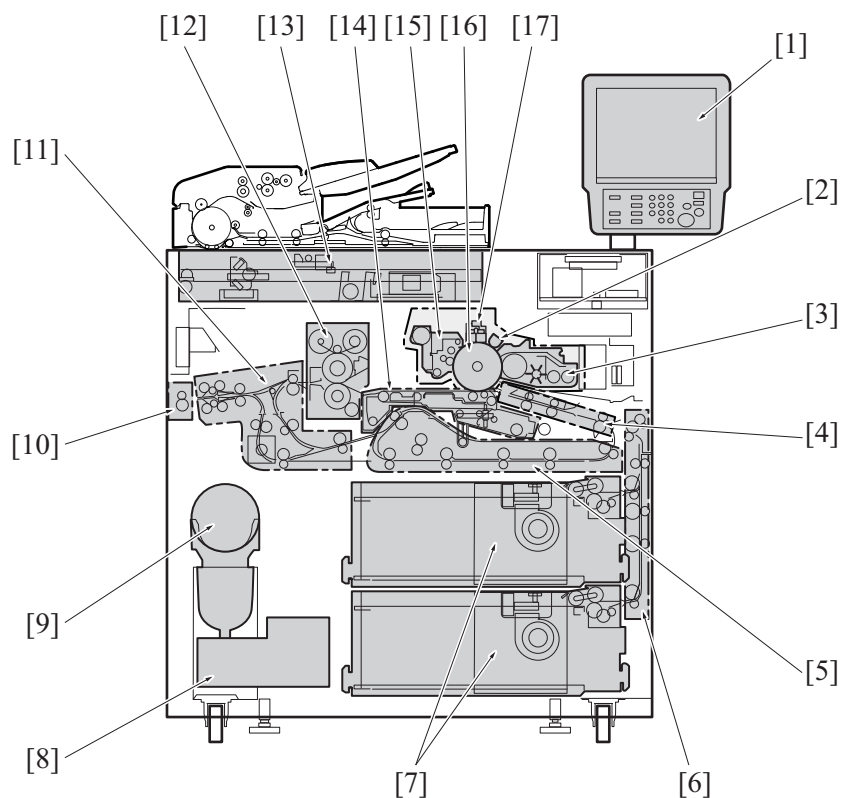
1.4.1 Combination of the main body and the paper feed option

Combination of the main body and the paper feed option			AC power to be connected to
1	PF-706	Main body	-
2	LU-409	Main body	-
3	LU-410	Main body	-

1.4.2 Combination of the main body and the finisher option

Combination of the main body and the finisher option							AC power to be connected to
1	Main body	FS-532					-
2	Main body	FS-532	PK-522				-
3	Main body	FS-532	SD-510				-
4	Main body	FS-532	PI-502				-
5	Main body	FS-532	PK-522	SD-510			-
6	Main body	FS-532	PK-522	PI-502			-
7	Main body	FS-532	SD-510	PI-502			-
8	Main body	FS-532	PK-522	SD-510	PI-502		-
9	Main body	ZU-608	FS-532				External (ZU-608)
10	Main body	ZU-608	FS-532	PK-522			External (ZU-608)
11	Main body	ZU-608	FS-532	SD-510			External (ZU-608)
12	Main body	ZU-608	FS-532	PI-502			External (ZU-608)
13	Main body	ZU-608	FS-532	PK-522	SD-510		External (ZU-608)
14	Main body	ZU-608	FS-532	PK-522	PI-502		External (ZU-608)
15	Main body	ZU-608	FS-532	SD-510	PI-502		External (ZU-608)
16	Main body	ZU-608	FS-532	PK-522	SD-510	PI-502	External (ZU-608)
17	Main body	GP-501	FS-532				External (GP-501)
18	Main body	GP-501	FS-532	PK-522			External (GP-501)
19	Main body	GP-501	FS-532	SD-510			External (GP-501)
20	Main body	GP-501	FS-532	PI-502			External (GP-501)
21	Main body	GP-501	FS-532	PK-522	SD-510		External (GP-501)
22	Main body	GP-501	FS-532	PK-522	PI-502		External (GP-501)
23	Main body	GP-501	FS-532	SD-510	PI-502		External (GP-501)
24	Main body	GP-501	FS-532	PK-522	SD-510	PI-502	External (GP-501)
25	Main body	GP-502	FS-532				External (GP-502)
26	Main body	GP-502	FS-532	PK-522			External (GP-502)
27	Main body	GP-502	FS-532	SD-510			External (GP-502)
28	Main body	GP-502	FS-532	PI-502			External (GP-502)
29	Main body	GP-502	FS-532	PK-522	SD-510		External (GP-502)
30	Main body	GP-502	FS-532	PK-522	PI-502		External (GP-502)
31	Main body	GP-502	FS-532	SD-510	PI-502		External (GP-502)
32	Main body	GP-502	FS-532	PK-522	SD-510	PI-502	External (GP-502)

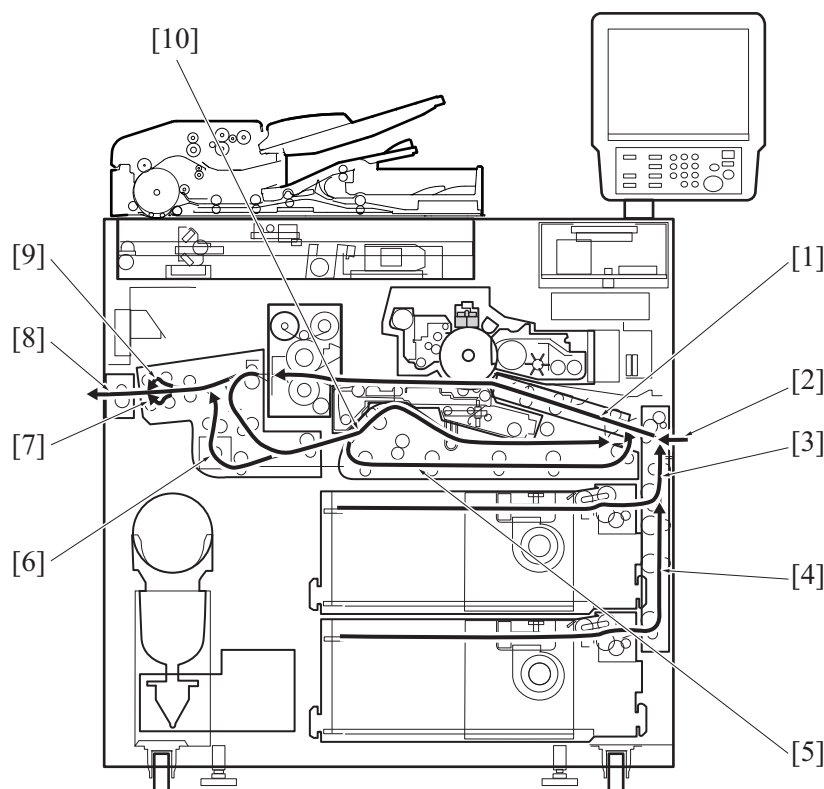
2. MAIN BODY UNIT CONFIGURATION



[1]	Operation panel section	[2]	Write section
[3]	Developing section	[4]	Registration section
[5]	Duplex section	[6]	Vertical conveyance section
[7]	Paper feed section	[8]	Waste toner box
[9]	Toner supply section	[10]	Paper exit section
[11]	Reverse/exit section	[12]	Fusing section
[13]	Scanner section	[14]	Transferring section
[15]	Cleaning section	[16]	Photo conductor section
[17]	Charging section	-	

3. PAPER PATH

3.1 PAPER PATH



[1]	Registration conveyance	[2]	PFU/LU*1 paper feed
[3]	Tray /1 paper feed	[4]	Tray /2 paper feed
[5]	ADU paper feed	[6]	Reversal Output
[7]	De-curler/Lw paper exit*2	[8]	Straight paper exit
[9]	De-curler/Up paper exit	[10]	ADU reverse conveyance

*1 LU paper path supports PRO 951 only.

*2 PRO 951 is not supported.

3.2 Paper exit path pattern

3.2.1 Outline of paper exit path pattern

- The paper exit path differs between face up and face down according to the difference of the line speed and whether RU-510 is provided or not.
- Each of the straight paper exit path and the reverse paper exit path is provided in the main body and RU-510.
- RU-510 has 2 types of reverse paper exit forms; the double sheets reverse paper exit and single sheet reverse paper exit.

Note

- Since PRO 951 does not include RU-510 in the system configuration, Face up is specified in the straight output and Face down in the reversal output.
- The paper exit path of the decurler /Up and /Lw of the main body is selectable in both cases of the straight output and the reversal output.
- Since PRO 951 does not install the decurler /Lw, the paper exit path of the decurler /Lw is not selectable.

3.2.2 Paper exit path pattern when RU-510 is installed

- The following shows the paper exit path pattern when RU -510 is installed to the main body.

Note

- Installing RU-510 is essential for 1250/1250P and it enables the continuous copy speed 125 sheets/min. (A4).
- It is not essential for 1052 to install RU-510 if PI-PFU (PF-703 + FA-501) or GP-501 is not included in the system configuration.

RU-510	Line Speed (mm/s)	Continuous copy speed (sheets/min.) A4	Face up		Face down	
			Main body	RU-510	Main body	RU-510
Provided	570	125	Reverse paper exit	Double sheets reverse paper exit	Straight paper exit	Double sheets reverse paper exit
	490	105	Straight paper exit	Straight paper exit	Straight paper exit	Single sheet reverse paper exit
	330	70	Straight paper exit	Straight paper exit	Straight paper exit	Single sheet reverse paper exit
Not provided	490	105	Straight paper exit	-	Reverse paper exit	-

	330	70	Straight paper exit	-	Reverse paper exit	-
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3.3 Paper exit process of RU-510 according to the difference of the finishing option and the weight

The reverse paper exit process of RU-510 switches the double sheets conveyance, the single sheet conveyance and the straight conveyance according to the connected finisher option and the paper weight.

The combination of the process patterns of RU-510 is shown in the following list.

3.3.1 In case of 1250/1250P

⊙ : Double sheets reverse conveyance △ : Single sheet straight conveyance
 ○ : Single sheet reverse conveyance — : Out of specification

Option	function			weight (g/m ²)									
				40 to 49	50 to 61	62 to 74	75 to 91	92 to 130	131 to 161	162 to 216	217 to 300	301 to 350	
FS	Straight	Simplex	FaceUp	⊙	⊙	⊙	⊙	⊙	⊙	⊙	△	△	
			FaceDown	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		△	△	△	△	△	△	△	△	—	
	Shift	Simplex	FaceUp	⊙	⊙	⊙	⊙	⊙	⊙	⊙	△	△	
			FaceDown	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		△	△	△	△	△	△	△	△	—	
	Staple	Simplex	FaceUp	—	—	—	—	—	—	—	—	—	—
			FaceDown	—	⊙	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		—	△	△	△	△	△	△	△	—	
	Sub tray	Simplex	FaceUp	⊙	⊙	⊙	⊙	⊙	⊙	⊙	△	△	
			FaceDown	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		△	△	△	△	△	△	△	△	—	
GP	Multi punch	Simplex	FaceUp	—	—	—	—	—	—	—	—	—	
			FaceDown	—	—	—	⊙	⊙	⊙	⊙	—	—	
		Duplex		—	—	—	⊙	⊙	⊙	⊙	—	—	
	Bypass	Simplex	FaceUp	—	—	⊙	⊙	⊙	⊙	⊙	△	△	
			FaceDown	—	—	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		—	—	△	△	△	△	△	△	—	
FD	Punch	Simplex	FaceUp	—	—	—	—	—	—	—	—	—	
			FaceDown	—	⊙	⊙	⊙	○	○	○	—	—	
		Duplex		—	△	△	△	△	△	△	—	—	
	Half Fold/Z Fold/ Tri-Fold-in/ Tri Fold out	Simplex	FaceUp	—	○	○	○	○	—	—	—	—	
			FaceDown	—	○	○	○	○	—	—	—	—	
		Duplex		—	△	△	△	△	—	—	—	—	
	Double Parallel / Gate	Simplex	FaceUp	—	○	○	○	—	—	—	—	—	
			FaceDown	—	○	○	○	—	—	—	—	—	
		Duplex		—	△	△	△	—	—	—	—	—	
LS	Stacker	Simplex	FaceUp	—	⊙	⊙	⊙	⊙	⊙	⊙	△	—	
			FaceDown	—	⊙	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		—	△	△	△	△	△	△	△	—	
	Sub Tray	Simplex	FaceUp	⊙	⊙	⊙	⊙	⊙	⊙	⊙	△	△	
			FaceDown	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		△	△	△	△	△	△	△	△	—	
SD	Sub Tray	Simplex	FaceUp	⊙	⊙	⊙	⊙	⊙	⊙	⊙	△	△	
			FaceDown	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		△	△	△	△	△	△	△	△	—	
	Fold & Staple Multi Half	Simplex	FaceUp	—	—	—	—	—	—	—	—	—	
			FaceDown	—	○	○	○	○	○	○	○	—	
		Duplex		—	△	△	△	△	△	△	△	—	
	Multi 3-Fold	Simplex	FaceUp	—	○	○	○	—	—	—	—	—	
			FaceDown	—	○	○	○	—	—	—	—	—	
		Duplex		—	△	△	△	—	—	—	—	—	
PB	Sub Tray	Simplex	FaceUp	⊙	⊙	⊙	⊙	⊙	⊙	⊙	△	△ ^{*1}	
			FaceDown	⊙	⊙	⊙	⊙	⊙	⊙	⊙	○	—	
		Duplex		△	△	△	△	△	△	△	△	—	
	Perfect binding	Simplex	FaceUp	—	—	—	—	—	—	—	—	—	
			FaceDown	—	—	○	○	—	—	—	—	—	
Duplex		—	—	△	△	—	—	—	—	—			

*1 Less than 300g/m²

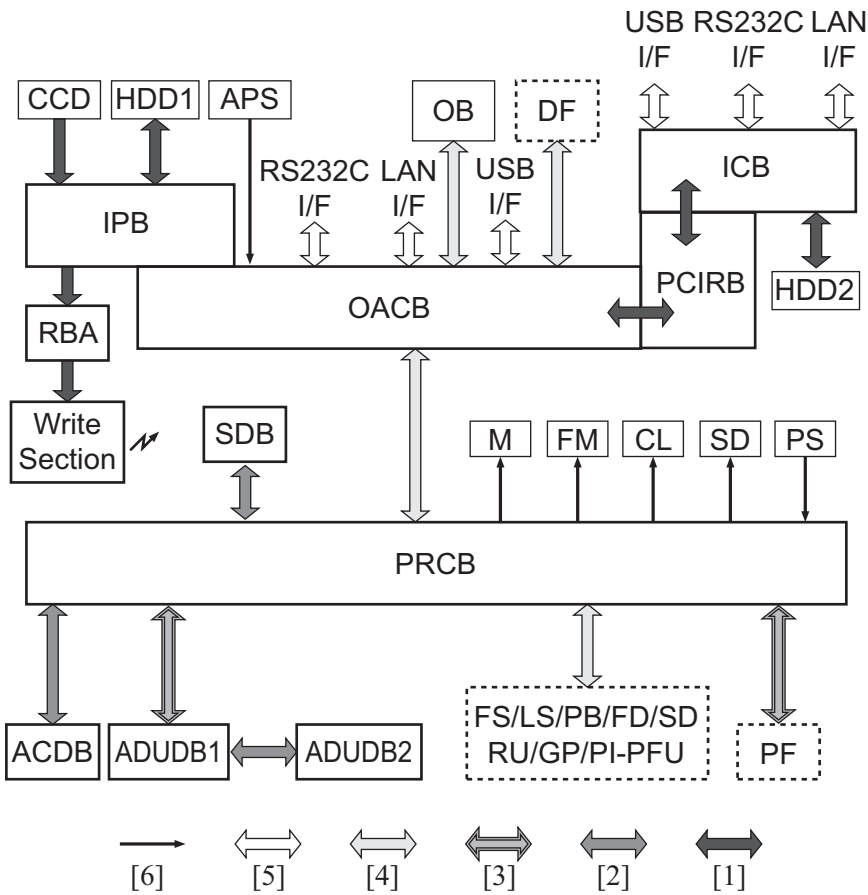
3.3.2 In case of 1052

○ : Single sheet reverse conveyance — : Out of specification
 △ : Single sheet straight conveyance

Option	function			weight (g/m ²)								
				40 to 49	50 to 61	62 to 74	75 to 91	92 to 130	131 to 161	162 to 216	217 to 300	245 to 350
FS	Straight	Simplex	FaceUp	○	○	○	○	○	○	○	○	○
			FaceDown	△	△	△	△	△	△	△	△	—
		Duplex		○	○	○	○	○	○	○	○	—
	Shift	Simplex	FaceUp	○	○	○	○	○	○	○	○	○
			FaceDown	△	△	△	△	△	△	△	△	—
		Duplex		○	○	○	○	○	○	○	○	—
	Staple	Simplex	FaceUp	—	—	—	—	—	—	—	—	—
			FaceDown	—	△	△	△	△	△	△	△	—
		Duplex		—	○	○	○	○	○	○	○	—
	Sub tray	Simplex	FaceUp	○	○	○	○	○	○	○	○	○
			FaceDown	△	△	△	△	△	△	△	△	—
		Duplex		○	○	○	○	○	○	○	○	—
GP	Multi punch	Simplex	FaceUp	—	—	—	—	—	—	—	—	—
			FaceDown	—	—	—	△	△	△	△	—	—
		Duplex		—	—	—	△	△	△	△	—	—
	Bypass	Simplex	FaceUp	—	—	○	○	○	○	○	○	○
			FaceDown	—	—	△	△	△	△	△	△	—
		Duplex		—	—	○	○	○	○	○	○	—
FD	Punch	Simplex	FaceUp	—	—	—	—	—	—	—	—	—
			FaceDown	—	△	△	△	△	△	△	—	—
		Duplex		—	○	○	○	○	○	○	—	—
	Half Fold/Z Fold/ Tri-Fold-in/ Tri Fold out	Simplex	FaceUp	—	○	○	○	—	—	—	—	—
			FaceDown	—	△	△	△	△	—	—	—	—
		Duplex		—	○	○	○	○	—	—	—	—
	Double Parallel / Gate	Simplex	FaceUp	—	○	○	○	—	—	—	—	—
			FaceDown	—	△	△	△	—	—	—	—	—
		Duplex		—	○	○	○	—	—	—	—	—
LS	Stacker	Simplex	FaceUp	—	○	○	○	○	○	○	○	—
			FaceDown	—	△	△	△	△	△	△	△	—
		Duplex		—	○	○	○	○	○	○	○	—
	Sub Tray	Simplex	FaceUp	○	○	○	○	○	○	○	○	○
			FaceDown	△	△	△	△	△	△	△	△	—
		Duplex		○	○	○	○	○	○	○	○	—
SD	Sub Tray	Simplex	FaceUp	○	○	○	○	○	○	○	○	○
			FaceDown	△	△	△	△	△	△	△	△	—
		Duplex		○	○	○	○	○	○	○	○	—
	Fold & Staple Multi Half	Simplex	FaceUp	—	—	—	—	—	—	—	—	—
			FaceDown	—	△	△	△	△	△	△	△	—
		Duplex		—	○	○	○	○	○	○	○	—
	Multi 3-Fold	Simplex	FaceUp	—	○	○	○	—	—	—	—	—
			FaceDown	—	△	△	△	—	—	—	—	—
		Duplex		—	○	○	○	—	—	—	—	—
PB	Sub Tray	Simplex	FaceUp	○	○	○	○	○	○	○	○	△ ^{*1}
			FaceDown	△	△	△	△	△	△	△	△	—
		Duplex		○	○	○	○	○	○	○	○	—
	Perfect binding	Simplex	FaceUp	—	—	—	—	—	—	—	—	—
			FaceDown	—	—	△	△	—	—	—	—	—
		Duplex		—	—	○	○	—	—	—	—	—

*1 Less than 300g/m²

4. CONTROL BLOCK DIAGRAM

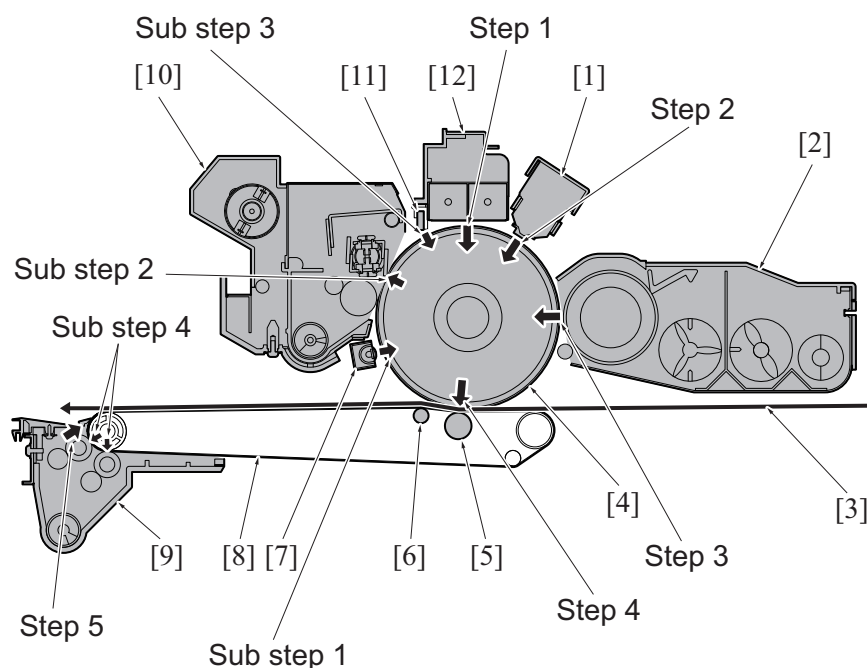


[1]	Image bus	[2]	Parallel bus
[3]	Clock-synchronized serial bus	[4]	UART bus
[5]	Other bus	[6]	Individual signal line

5. IMAGE CREATION PROCESS

5.1 Image creation flow and functions

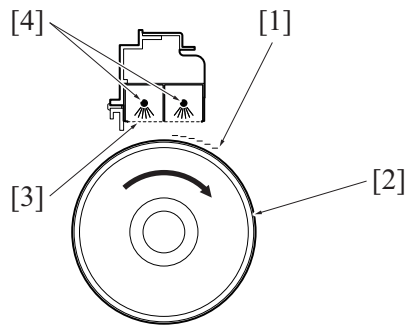
Step	Process	Function
Step 1	Charging process	Forms a charge layer on the photo conductor drum.
Step 2	LED exposure process	Forms an electrostatic latent image on the photo conductor drum.
Step 3	Developing process	Makes the electrostatic latent image to the visible image.
Step 4	transfer process	Transfers the toner image on the photo conductor drum to the paper.
Step 5	Separation process	Separates paper after the toner transfer from the photo conductor drum.
Sub step 1	Discharge before cleaning	Removes the potential of the toner on the photo conductor drum after the transfer. Also, remove the residual potential on the photo conductor drum after the transfer
Sub step 2	Drum cleaning	Removes the toner on the photo conductor drum after the transfer.
Sub step 3	Exposure before charging	Removes the potential remains on the photo conductor drum after the drum cleaning.
Sub step 4	Transfer belt cleaning	Removes the toner on the transfer belt after the transfer.
Sub step 5	Toner collection	Collect the toner that is removed by drum cleaning and transfer belt cleaning. (Not displayed in the following picture.)



[1] Write unit (LPH)	[2] Developing unit
[3] Paper	[4] Photo conductor drum
[5] Transfer roller	[6] Rear nip roller
[7] PCC unit	[8] Transfer belt
[9] Transfer belt cleaning unit	[10] Cleaning unit
[11] Erase lamp (EL)	[12] Charging corona

5.2 Charging process (Step 1)

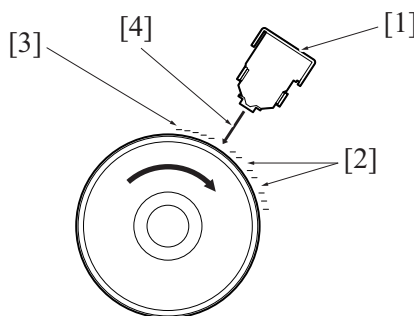
- The charging corona consists of the gold coated tungsten wire [4] and the charging control plate [3].
- Applies the high DC voltage (negative) to the charging corona, and charges the negative charge [1] to the photo conductor drum [2] by discharging of wire.
- During the discharge from the wire, the potential of the photo conductor drum is the same as the potential around because the discharge passes through the charge control plate.



[1]	Charge (negative)	[2]	Photo conductor drum
[3]	Charging control plate	[4]	Charging corona

5.3 LED exposure process (Step 2)

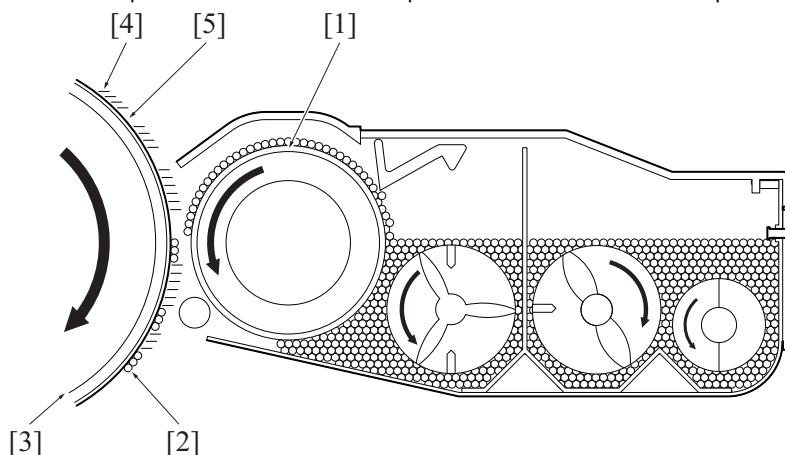
- The charge [3] on the photo conductor drum has a characteristic that it is neutralized and disappears when the light is exposed.
- With this characteristic, creates an image on the photo conductor drum by exposing the LED light to the image area.
- The image that is created on the photo conductor drum by charging is referred to as "electrostatic latent image".



[1]	Write unit (LPH)	[2]	Neutralized section
[3]	Charge (negative)	[4]	LED light

5.4 Developing process (Step 3)

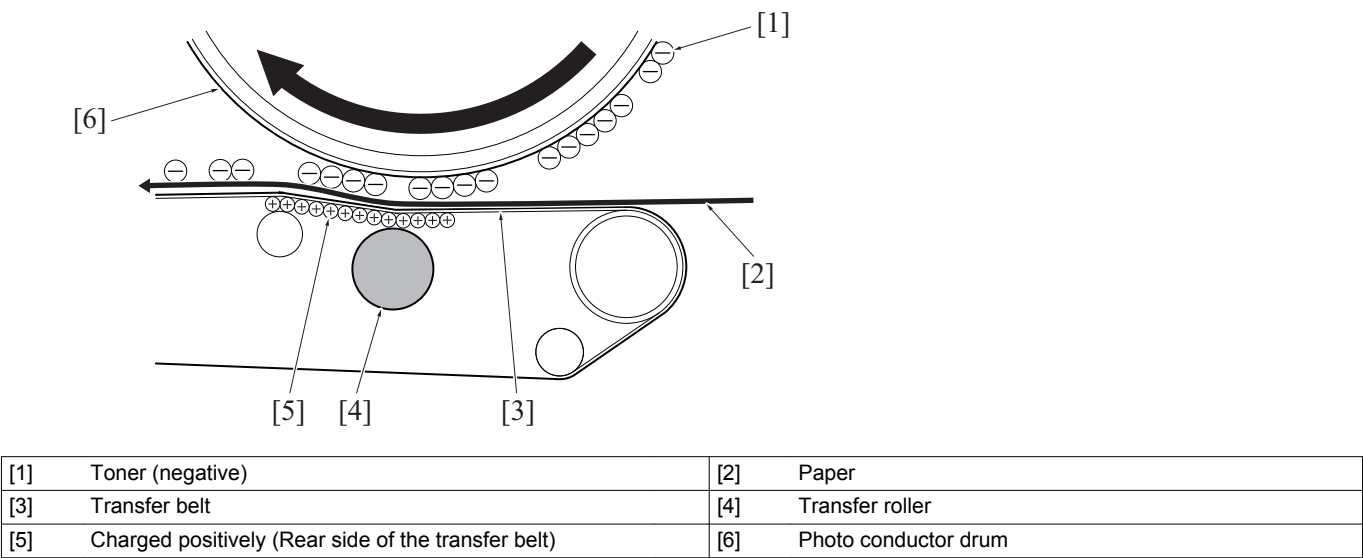
- The non-image points of the electrostatic latent image on the photo conductor drum [3] is charged negatively [4] while the image points are neutralized [5].
- As the toner is charged negatively [2], it is attracted to the image points on the photo conductor drum. As a result, a visible toner image is created on the photo conductor drum. This operation is referred to as "development."



[1]	Developing roller	[2]	Toner (negative)
[3]	Photo conductor drum	[4]	Charge (negative)
[5]	Neutralized area	-	

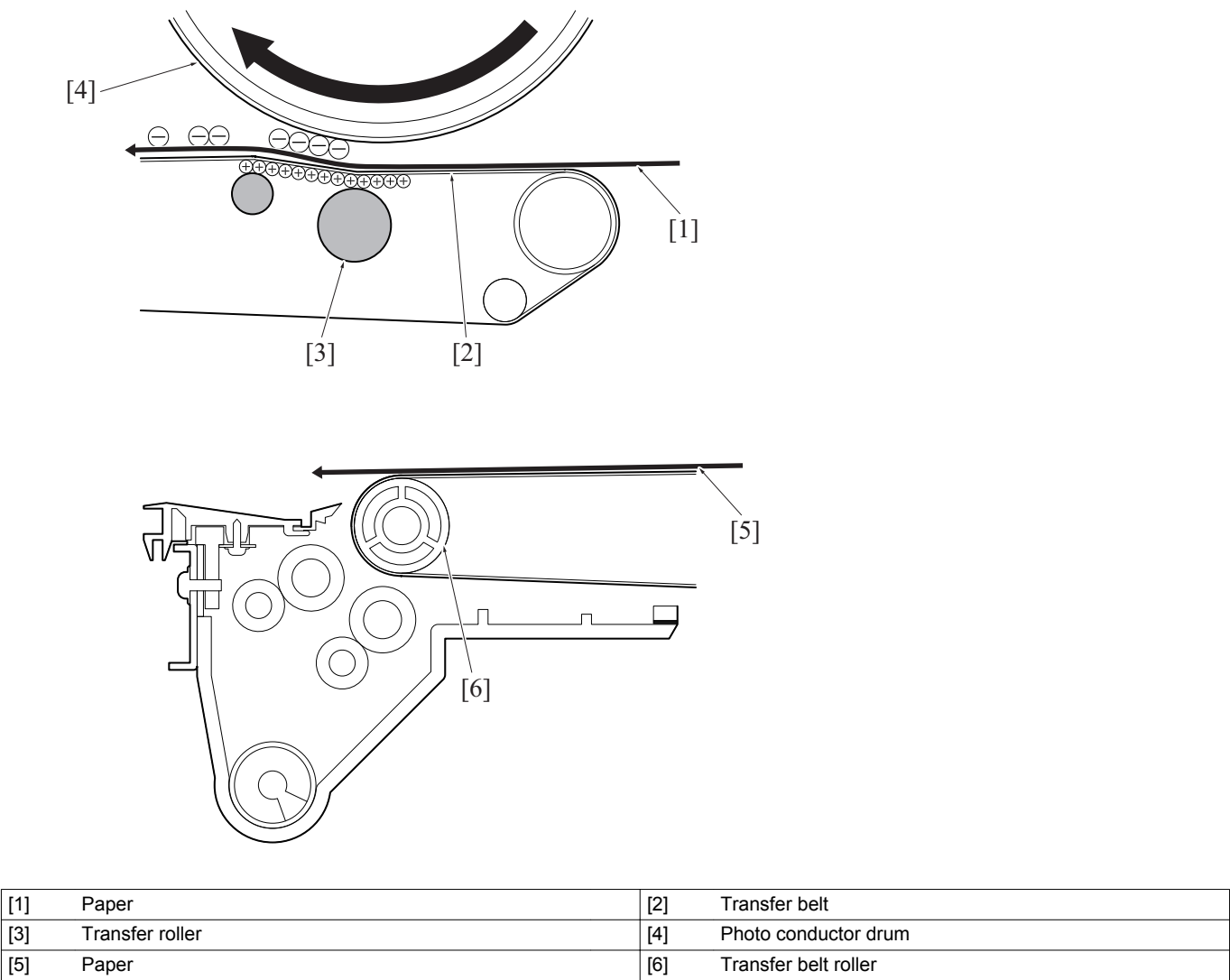
5.5 Transfer process (Step 4)

- The operation to move the toner image [1] on the photo conductor drum [6] to the paper [2] is referred to as "transfer".
- At the transfer, the transfer roller [4] which is mounted on the bottom part of the transfer belt [3] conveys the paper while the paper is pressed against the transfer belt and the photo conductor drum.
- DC bias at high voltage is applied to the transfer roller.
- The DC bias that is applied to the transfer roller is positive. The toner that is charged negatively is moved on the paper by electrolysis that is formed between the transfer roller and the photo conductor drum.



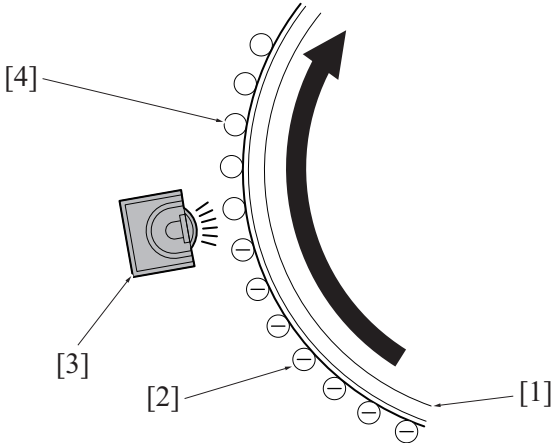
5.6 Separation process (Step 5)

- At the transfer, the paper [1] being transferred is absorbed to the transfer belt [2] that is charged positively by the transfer roller [3].
- The paper that passed through the transfer position is about to wrap around the photo conductor drum [4], but is conveyed without wrapping because the absorption power to the transfer belt is stronger. This operation is referred to as "separation".
- The paper [5] separated from the photo conductor drum is conveyed absorbing to the transfer belt, and the paper absorbing to the belt is self-stripped at the belt drive roller section [6].



5.7 Toner neutralizing (Sub step 1)

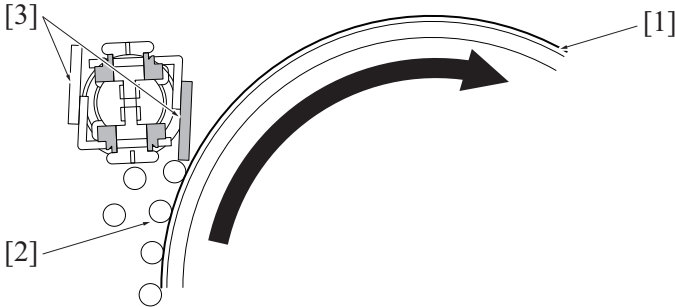
- A developing bias voltage is impressed onto the PCC unit [3]. Between the paper, the positive is outputted and the potential of the toner that is charged negatively is neutralized. In the paper (during the transfer), the negative is outputted and the memory by the residual potential after the transfer is prevented.
- The neutralized toner [4] is easy to be cleaned because the absorption to the photo conductor drum weakened.



[1]	Photo conductor drum	[2]	Toner (negative)
[3]	PCC unit	[4]	Toner (Neutralized)

5.8 Drum cleaning (Sub step 2)

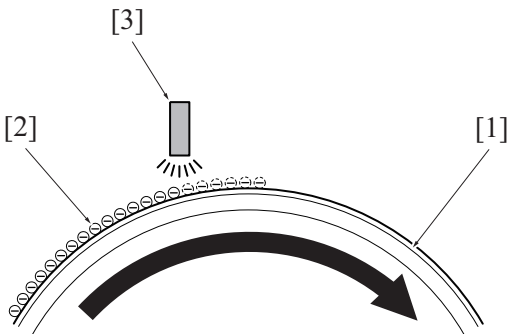
- Since the toner [2] neutralized at the PCC unit still has the absorption power, the toner remains being attached on the photo conductor drum [1].
- The process to remove the toner that is attached on the photo conductor drum is referred to as "drum cleaning".
- Drum cleaning is conducted by scraping the toner adhering to the photo conductor drum with the edge of the urethane rubber plate which is called blade [3].



[1]	Photo conductor drum	[2]	Toner
[3]	Blade	-	

5.9 Exposure before charging (Sub step 3)

- After completion of drum cleaning, no toner remains but a subtle potential remains [2] on the photo conductor drum [1] surface.
- If the potential remains on the drum surface, the charging for the next print is not performed normally.
- The exposure which is different from the laser exposure is performed to neutralize the potential on the drum surface completely. This process is referred to as "exposure before the charging."
- This machine uses the erase lamp (EL) [3] for the exposure before the charging.

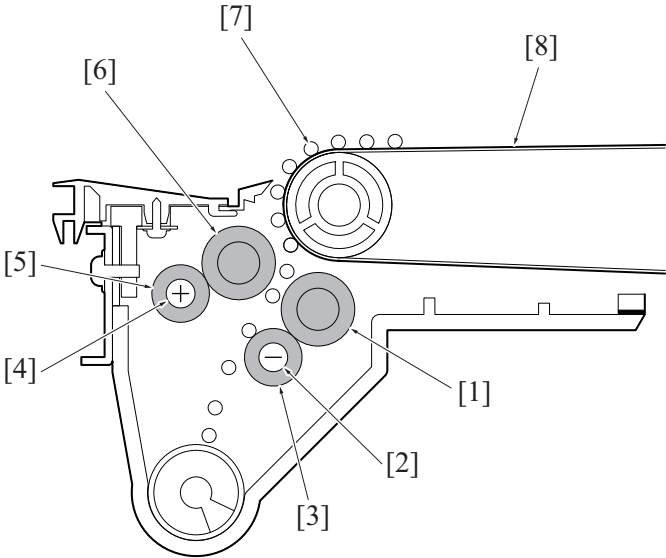


[1]	Photo conductor drum	[2]	Remaining potential
-----	----------------------	-----	---------------------

[3]Erase lamp (EL)	-
--------------------	---

5.10 Transfer belt cleaning (Sub step 4)

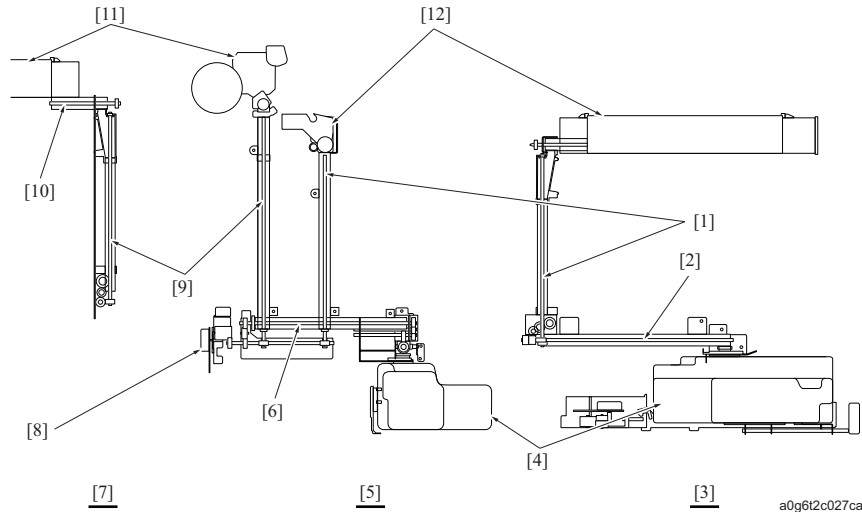
- The transfer belt [8] gets dirty because the drum contacts it directly.
- The process to remove the toner that is attached on the transfer belt is referred to as "transfer belt cleaning process".
- For 1st cleaning shaft [4] of the transfer belt cleaning unit, apply the positive voltage [5] and collect the toner that is attached on the transfer belt by 1st cleaning brush [6].
- For 2nd cleaning shaft [3], apply the negative voltage [2] and collect the toner that is attached on the transfer belt by 2nd cleaning brush [1].



[1]2nd cleaning brush	[2]Negative voltage
[3]2nd cleaning shaft	[4]1st cleaning shaft
[5]Positive voltage	[6]1st cleaning brush
[7]Toner	[8]Transfer belt

5.11 Toner collection (Sub step 5)

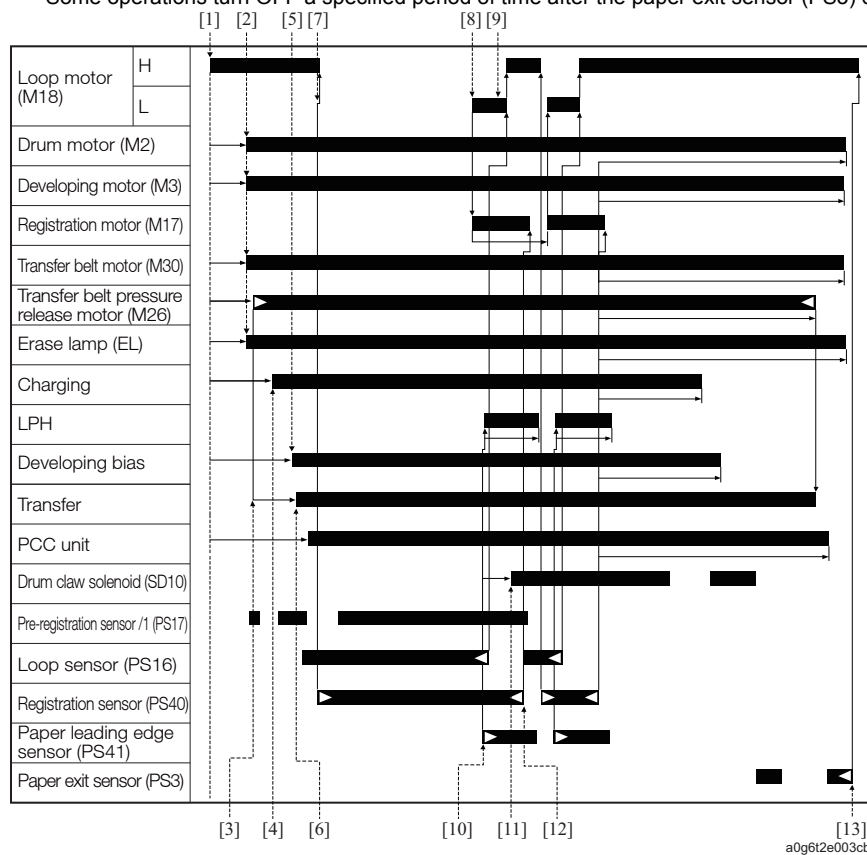
- The toner collected in the drum cleaning section [11] and the transfer belt cleaning section [12] must be conveyed and disposed into the waste toner box [4] without being recycled for the maintenance of the image quality.



[1]Vertical conveyance section for transfer belt cleaning	[2]Waste toner box connection section
[3]Left inside	[4]Waste toner box
[5]Rear side	[6]Horizontal conveyance section
[7]Right inside	[8]Waste toner motor (M9)
[9]Vertical conveyance section for drum cleaning	[10]Drum cleaner connection section
[11]Drum cleaning section	[12]Transfer belt cleaning section

6. IMAGE CREATION CONTROL

- When detecting that a print start signal turns ON [1], the loop motor (M18) and other motors provided for paper feed and conveyance processes turn ON to start the paper feed operation.
- When a prescribed time elapses after receiving this signal, the drum motor (M2), the developing motor (M3) and the transfer belt motor (M30) turn ON [2] with each of the units around the photo conductor section brought into an operating condition.
- The erase lamp (EL) turns ON to start neutralizing the drum.
- When another prescribed time elapses, the transfer belt pressure release motor (M26) turns ON [3] to apply pressure on the transfer belt against the drum.
- After pressing the transfer belt to the drum, the following operations are performed in the following order; charging [4], high voltage impression to developing bias [5] and high voltage impression to the transfer belt [6].
- A specified period of time after the loop creation [7] on the supplied paper is completed in the registration roller section, the registration motor (M17) turns on [8] and starts the conveyance of the first piece of paper which creates the loop.
- At this time, M18 which drives the loop roller switches the line speed to low to conduct the loop assist [9].
- During this conveyance operation, the paper leading edge sensor (PS41) detects the paper edge and turns ON [10]. A specified period of time after it, the LPH turns ON to form the image on the drum with LED light.
- The drum claw solenoid (SD10) also turns ON [11] after the PS41 turns ON.
- Paper goes through the drum in time and the image which have been created on the drum is transferred to paper and the paper gets separated from the drum at that time.
- The paper separated from the drum is transferred to the fusing section by the transfer belt.
- The continuous paper conveyance enables the operations above and each operations turn OFF a specified period of time after the registration sensor (PS40) detects the paper edge and turns OFF [12].
- Some operations turn OFF a specified period of time after the paper exit sensor (PS3) detects the last piece of paper and turns OFF [13].



[1]	Print start signal	[2]	M2, M3, M30, EL ON
[3]	Transfer belt pressure	[4]	Charger high voltage impression
[5]	Developing bias impression	[6]	Transfer high voltage impression
[7]	Loop creation	[8]	Registration
[9]	Loop assist	[10]	Paper leading edge detection
[11]	Drum claw drive	[12]	Trailing edge of paper detected
[13]	Trailing edge of paper detected		

7. PROCESS SPEED

According to the paper type which is selected in the paper setting in the setup menu or the environmental decision, it controls process speed switchover.

7.1 1250/1250P (at normal temperature)

Process speed	Paper weight	
570mm/s	Coat	40g/m ² to 162 g/m ²
	PrePrinted	40g/m ² to 162 g/m ²
	Fine	40g/m ² to 216g/m ²
	Plain paper	40g/m ² to 216g/m ²
	Book/News	40g/m ² to 61g/m ²
	Embossed	40g/m ² to 61g/m ²
	Inserting sheet (not printed)	40g/m ² to 216g/m ²
	Embossed2	-
490mm/s	Coat	-
	PrePrinted	-
	Fine	217 to 244g/m ²
	Plain paper	-
	Book/News	62g/m ² to 91g/m ²
	Embossed	62g/m ² to 74g/m ²
	Inserting sheet (not printed)	-
	Embossed2	-
	Envelope	-
330mm/s	Coat	163 to 350 g/m ²
	PrePrinted	163 to 350 g/m ²
	Fine	217 to 350 g/m ²
	Plain paper	217g/m ² to 350g/m ²
	Book/News	92g/m ² to 216g/m ²
	Embossed	75g/m ² to 216g/m ²
	Inserting sheet (not printed)	217 to 350 g/m ²
	Embossed2	75g/m ² to 216g/m ²
	Envelope	62g/m ² to 135g/m ²

7.2 1052 (at normal temperature)

Process speed	Paper weight	
490mm/s	Coat	40g/m ² to 162 g/m ²
	PrePrinted	40g/m ² to 162 g/m ²
	Fine	40g/m ² to 244g/m ²
	Plain paper	40g/m ² to 216g/m ²
	Book/News	40g/m ² to 91g/m ²
	Embossed	40g/m ² to 74 g/m ²
	Inserting sheet (not printed)	40g/m ² to 216g/m ²
	Embossed2	-
	Envelope	-
330mm/s	Coat	163 to 350 g/m ²
	PrePrinted	163 to 350 g/m ²
	Fine	217 to 350 g/m ²
	Plain paper	217g/m ² to 350g/m ²
	Book/News	92g/m ² to 216g/m ²

	Embossed	75g/m ² to 216g/m ²
	Inserting sheet (not printed)	217 to 350g/m ²
	Embossed2	75g/m ² to 216g/m ²
	Envelope	62g/m ² to 135g/m ²

7.3 PRO 951 (at normal temperature)










Process speed	Paper weight	
460mm/s	Fine	40g/m ² to 216g/m ²
	Plain paper	40g/m ² to 162 g/m ²
	Book/News	40g/m ² to 135 g/m ²
	Embossed	40g/m ² to 91g/m ²
	Inserting sheet (not printed)	40g/m ² to 162 g/m ²
290mm/s	Fine	217 to 350g/m ²
	Plain paper	163 to 350 g/m ²
	Book/News	136 to 216 g/m ²
	Embossed	92g/m ² to 216g/m ²
	Inserting sheet (not printed)	163 to 350 g/m ²

E SERVICE TOOL

1. bizhub PRESS 1250/1250P/1052/PRO 951



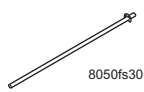


1.1 Service material list









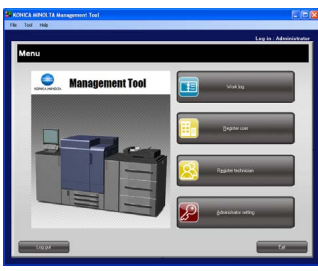



1.1.1 Service material list

Parts Number	Name	Shape	Remark
-	Isopropyl alcohol	 50gaf2c142na	
-	Acetone	 50gaf2c142na	
000V-19-##	Setting powder	 50gaf2c143na	25g
000V-18-##	Cleaning pad	 50gaf2c144na	10pcs/1 pack
65AA-992##	Hydro-wipe	 8050fs3005	10pcs/1 pack
00GR0026##	Multemp FF-RM (Fluotribo MH)	 50gaf2c145na	25g
00GR0002##	Plas guard No.2	 50gaf2c145na	25g
00GR0022##	Molykote EM-30L	 50gaf2c145na	25g
A0N9PP67##	Magnalube-G Teflon Grease		0.75 oz

1.2 Jig list

1.2.1 Jig list

Parts Number	Name	Shape	Remark
55VAJG03##	Thermostat positioning jig /A (for fusing roller /Up)		Quantity: 1
55VAJG04##	Thermostat positioning jig /B (for fusing heating roller)		Quantity: 1
7050K002##	Optics unit positioning jig	 8050fs3011	Quantity: 2
00M6-2-##	Door switch jig	 8050fs3012	Quantity: 1
4040PJ1##	Test chart (A3)	 8050fs3005	Quantity: 1 Black and white

Parts Number	Name	Shape	Remark
4040PJP2##	Test chart (11 x 17)	 8050fs3005	Quantity: 1 Black and white
120A9711##	Adjustment chart	 8050fs3005	Quantity: 1 For DF
120A9712##	White chart	 8050fs3005	Quantity: 2pc/set For DF adjustment
65AA995##	Fusing adjustment paper (16 sheets/A3)	 8050fs3005	Quantity: 1 For multi feed detection
00VC-2-0##	Drum cover	 8050fs3017	Quantity: 4
00VD-100##	Blower brush	 8050fs3018	Quantity: 1
56UAPJG0##	Multimeter	 8050fs3019	Quantity: 1
120A1052##	Positioning shaft	 8050fs3019	Quantity: 2pc/set For DF adjustment
-	Management Tool		Quantity: 1 Application for ORU-M Use for managing the counter information of the unit.
A0H2RX00##	Trimmer unit support board		Quantity: 1 For SD
A4F4PJG1##	Staple adjustment jig		Quantity: 1 For SD-510
A4F6PPDH##	Generator, Motor Crank-wires		Quantity: 1 For GP-502

1.3 Mail remote notification system

1.3.1 Outline

"Mail remote notification system" is a system that allows you to obtain a list print which can be output by the main body using the Internet mail (E-mail).

Using this system dispenses not only with printing the list on paper but also visiting the users. Send an E-mail with a simple keyword to the main body to receive the list prints from the main body by E-mail.

1.3.2 Operating environment

In order to use the functions of "Mail remote notification system", the following conditions must be met. The operation of the functions is available while in jams, SC, and a low power mode. Under the condition that the main body is not operating, an E-mail sent to the main body does not get lost but is handled when the main body is activated again.

1. The main body has a server that can receive an E-mail using POP3 or IMAP protocol.

2. The copier has a mail server that can send an E-mail using SMTP protocol.
3. In the following 4 cases, "Mail remote notification system" does not operate in the main body.
 - When the main power switch (SW1) is OFF
 - When the sub power switch (SW2) is ON
 - The copier is in the auto shut-off mode.
 - When the "Enhance Security Mode" is set to ON (the use of the main body NIC is not allowed.)

1.3.3 Major functions

Sending a mail with a simple keyword allows you to use the following functions.

1. The list print information of the main body you want to obtain can be received by E-mail.
List prints that can be obtained are the following 11 lists.
 - Mode Memory List
 - User setting list
 - Font pattern list
 - Machine Management List
 - Adjustment Data List
 - Parameter list
 - User setting list
 - Counter list
 - Coverage data list
 - Communication log list
 - Audit log report
2. The counter list can be checked by cell phone.
3. A password used for certification of a mail can be change.
4. Directions for use of "Mail remote notification system" can be received by mail.
To use the preceding functions, send a mail with a simple keyword (command).
For particulars of the command, refer to [E.1.3.5 Operating instructions of the mail remote notification system](#)

1.3.4 Initialization

To use "Mail remote notification system", register the network parameter on the main body and the account on the mail server.

(1) Setting from the operation panel

Set the IP address of the copier from the operation panel to connect the copier to the network. [E.1.3.4.\(2\) Setting from the Web browser](#) When this setting has been already made, proceed to

(a) Procedure

1. Press [Utility/Counter] on the operation panel.
2. Press [06 Administrator Setting].
3. Press [04 Network Setting].
4. Press [01 Machine NIC Setting].
5. Press [01 TCP/IP Setting].
6. Enter "IP address," "Subnet mask," and "Gateway Address."
7. Restart the main body.

Note

- The system administrator normally assigns the IP address of the copier. For details, contact the system administrator.

(2) Setting from the Web browser

Enter the setting of the mail server from the Web browser. To use the Web browser, make preparations of a PC that can be connected to the network.

Note

- No space is available in all items to be set. The following characters cannot be used for setting an E-mail address.
() < > ; : " []
When an improper entry or setting is made on the Web browser, be sure to make corrections following the error message. When not correcting the error, program download error occurs.

(a) Procedure

1. Start up the Web browser.
When the proxy is set on the Web browser, it becomes unavailable to access the main body Web.
For particulars, contact the network administrator. Be sure to avoid setting from 2 or more browsers at a time.
2. Specify the IP address of the copier main body that is entered thorough "(1) Setting from the operation panel".
When you access the Web Utilities of the copier main body, "Main page" is displayed.

Web Utilities

- [Remote Panel](#)
- [Remote Monitor](#)
- [Multi Monitor](#)

- [Machine Manager Setting](#)
- [Extension for maintenance](#)



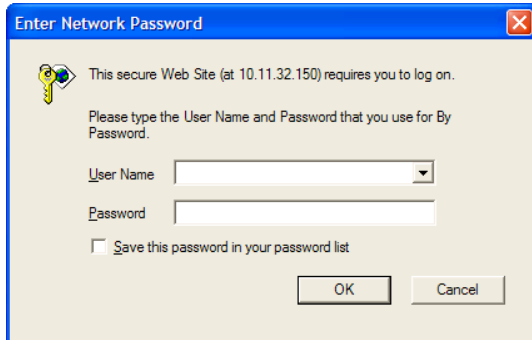
3. "Main page screen"

Click [Extension for maintenance].

4. Enter the user name or the CE password in "Extension for maintenance" and press "OK."

User name: ce (small letter, cannot be changed)

Password: CE Enter the password. (Default:"9279272")



5. "Extension for maintenance screen"

Click [E-mail Initial Setting].

Extension for maintenance

- [E-Mail Initial Setting](#)
- [SMTP Mail Setting](#)
- [Internet FAX](#)
- [Remote Panel](#)
- [Panel Lock](#)
- [Machine settings, status, support](#)
- [Mail Log](#)

Main Page

6. "Mail initial setting screen"

E-Mail Initial Setting

(E-Mail Notification)

Enable E-Mail notification	<input type="radio"/> Yes <input type="radio"/> No
Time difference	900 (Minimum: -1200, Maximum: 1200)
Sending mail (SMTP) server	0000 (Maximum: 128 Characters)
SMTP port number	25 (Default: 25, Minimum: 1, Maximum: 99999)
Sending mail (SMTP) server Time out	5 minute 0 second (Minimum: 30 seconds, Maximum: 5 minutes)
Interval between fetching mails	0 minute 0 second (Minimum: 1 minute, Maximum: 60 minutes)
Receiving mail server	0000 (Maximum: 128 Characters)
Kind of mail protocol	<input type="radio"/> POP3 <input type="radio"/> IMAP
POP3/IMAP port number	<input type="radio"/> Enable default (POP3: 110, IMAP: 143) <input type="radio"/> Custom: (Minimum: 1, Maximum: 99999)

Setting item	Details
Enable E-mail notification	When using the mail remote notification system, select "Use." Default is "Not use."
Time difference	The time at which a mail was sent out is calculated based on this value. For time difference setting, enter the difference from the standard time UTC in the range from -1200 (- 12 hour 00 minute) to +1200 (+12 hour 00 minute). When no value is entered, +0000 (UTC) is set. (Example: In the case of Japan, enter + 900.)
Sending mail (SMTP) server	Set the Host Name or IP address of the SMTP server. When using SSL, check in the "Enable SSL."
SMTP port number	Set the port Number of the SMTP server. For default, 25 is set.

Sending mail (SMTP) server time out	Set the time-out of the SMTP connection. Default is for 5 minutes.
Interval between fetching mails	The interval of the main body checking the receiving mail server to see if a mail is newly received. (An interval can be specified in the range from 1 minute to 60 minutes.) Taking into consideration the load on the network, this is set at the interval of 10 minutes.
Receiving mail server	Set the Host Name or IP address of the receiving mail server. When using SSL, check in the "Enable SSL."
Kind of mail spool	Select either of POP3 and IMAP. For default, [POP3] is selected.
POP3 (IMAP) Port Number	Select "Enable default" when using 110 for POP3, and 143 for IMAP. When using other than the default, select "Custom" and enter a port number to use.
User name on the server	Enter an account name assigned to the main body by the receiving mail server.
Password	Enter a password to the account name above.
E-mail Address for Machine Address	Enter the mail address of the main body its own. The address is normally "mail account name@incoming mail server name."
Nickname	Enter a nickname that is added to the title (subject) of a mail sent from the main body. No entry causes no problem.
CE password	Enter a password that is added to the title (subject) of a mail sent to the main body. The main body uses this password for security check.
Also Notice to the administrator	<ul style="list-style-type: none"> • Not transfer: Default • only illegal mail: When a mail received by the main body does not match with the password above, or when the mail size is in excess of a fixed size (10k bytes), transfer the mail. • all mails: Transfer all mails that use "Mail remote notification system."
Administrator E-mail address	When "only illegal mail" or "all mails" is selected, enter an E-mail address for transfer.
Announce delay time in replay mail	Choose whether to indicate in the mail the interval (the amount of time required) from the time when a mail is sent to the main body to the time when the main body receives it. Default is "Not use."
Enable POP (IMAP) before SMTP before SMTP Authentication	After authentication is made by the mail receiving server, a selection is made to decide whether to send out the mail or not. For default, "Send" is selected.
Retry polling when the machine is busy	POP polling option in machine busy state. For default, "Send" is selected.
Enable SMTP Authentication	Input the User name and the password when using it. Default is "Not use."

7. After completion of entry, click the [Apply] key.

8. Conduct the mail sending/receiving test.

- Click "Sending and Receiving test" and a sending test and a receiving test are conducted collectively to check to see if a test mail sent is correctly received.
When a test failed, recheck the set items following the error message.

Sending test	A mail sending test is made on the SMTP server. A test mail is sent to "E-mail Address for Machine" set in Step6.
Receiving test	A receiving test is made on the incoming mail server. A test mail is received from "E-mail Address for Machine" set in Step6.

9. Restart the main body.

1.3.5 Operating instructions of the mail remote notification system

For commands for communications with the main body and the details of options, refer to the following table.

Command	Option	Description	Minimum input
GETLOG		Send back a mail with the information specified in the option.	G
	ModeMemory	Send back [Mode Memory List] by mail.	M
	UserSetting	Send back [User Management List] by mail.	U
	FontPattern	Send back [Font Pattern List] by mail.	F
	Management	Send back [Machine Management List] by mail.	Ma
	Adjustment	Sent back [Adjustment Data List] by mail.	A
	Parameter	Send back [Parameter List] by mail.	P
	UserManagement	Send back [Use Management List] by mail.	UseM
	Counter	Send back [Counter List] by mail.	C
	Pixel Ratio	Send back [Coverage Data List] by mail.	PI
	CommunicationLog	Send back [Communication Log List] by mail.	Co
	Audit Log	Send back [Audit Log List] by mail.	Au
	ALL	Send back all preceding items by mail.	AL
	Not specified	Edit the [Counter List] to display it on cell phone and send back.	
CHPASS	[OldPasswd] [NewPasswd]	Change a password to be used for certification of a mail.	C
	[OldPasswd]	Specify a password that is currently used.	
	[NewPasswd]	Specify a new password.	

HELP	Not specified	Send a help mail that describes the operating instructions of the not specified commands above.	H
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1.3.6 Mail sending

A command (option) printed on the mail is not case sensitive and can be identified from the minimum input listed on the preceding table.

Note

- Mail software can be used without discrimination by OS and a hand-held device or a free mail using browser.
- Use the mail software in the text mode. The HTML mail is not available.
- For the mail software, as a condition for reception, 128 characters or more are recommended as the maximum number of characters displayed in a line.
- One or more spaces or TAB are required between a command and an option that are written in the mail. The line break is not available.
- Enter all the commands that are written in the mail in one-byte alphanumeric characters (ASCII characters). When any other characters are used, an error message "No command found" is sent back.
- Start a command written in the mail from the line head with not space. When there is a space or TAB found at the line head, the line is ignored.
- The maximum number of commands available in a mail is 10. Commands exceeding 10 are ignored.
- Avoid attaching a file to a mail to send to the main body. When the attached file size is large, the main body handles that mail as a nuisance mail.
- Avoid adding a signature to a mail to send to the main body. The copier handles a signature on a mail as a command and send back an error mail.
- In the case the power is shut off while the main body is sending a mail or the main body is printing the list print, the same mail can be sent back twice.
- The main body can receive up to 5 mails from the mail server at the same time. The main body can receive up to mails from the mail server at the same time.

1.4 Machine setting data Import/Export screen

1.4.1 OUTLINE

Back up various types of data such as adjustment data and the setting data stored in the NVRAM board (NRB) from the PC to the PC via the Web browser. When the data in NRB corrupts, write that backup data onto the NRB to minimize the length of time for the re-adjustment of the main body.

Note

- The setting data to be written is same as the setting data which can be written in [I.5.15 Setting Data](#).
- The counter related data is not written onto the NRB.
- The backup data of alternate main body (with another serial number) is not available.
- When replacing the NRB, contact the service manager of the authorized distributor to confirm its handling.

(1) Data export

(a) Procedure

1. Enter the Service mode.

Note

- Enter the service mode to use this function.

2. Access the extension for maintenance in Web Utilities of the main body.

Extension for maintenance

- [E-Mail Initial Setting](#)
- [CSRC http Setting](#)
- [Internet ISW](#)
- [Remote Panel](#)
- [Machine setting data Import/Export](#)
- [Mail Log](#)

[Main Page](#)

3. "Extension for maintenance screen"
Click [Machine setting data Import/Export]

Machine setting data Import/Export

Import

Select nvram backup file, and push submit button.

Import datatype change
 Nvram NVRAM
 Web setting A B C D E F G H I J

Export

4. Click [Export] and [Save] in the file download screen, and decide the location to save the backup data.

(2) Data import

Note

- When the NVRAM board (NRB) is replaced, be sure to set the Serial number (refer to [I.5.9.4 M/C Serial Number Setting](#)) and the IP address (refer to [E.1.3.4 Initialization](#)).

(a) Procedure

1. Enter the Service mode.

Note

- Enter the service mode to use this function.

2. Access the extension for maintenance in Web Utilities of the main body, and enter the [Machine setting data Import/Export] mode.
3. "Machine setting data Import/Export screen"
 Click NVRAM of [Import Data Type Change] - [Non-volatile]. Click [Browse] of import and select the folder in which the backup data is stored and press [Import].

Machine setting data Import/Export

Import

Select nvram backup file, and push submit button.

Import datatype change
 Nvram NVRAM
 Web setting A B C D E F G H I J

Export

Novram all data (BASE64) ▼

4. Confirm that the data is written on normally and turn off and on again the main power switch (SW1).

Machine setting data Import/Export

SUCCESS. Data were written to the machine.

Novram write succeed. Please OFF/ON the machine

[Back](#)

1.5 Job history list

1.5.1 OUTLINE

"Job History List" is the function to refer to the output history of the copier by using Web browser. The job history displayed on the operation panel is stored in the memory and deleted when the SW2 is turned OFF. However, with this function, the job history is stored in the main body hard disk /1 (HDD1) so that the users can refer it even after the SW2 is turned OFF.

1.5.2 Major functions

The job history list allows you to use the following functions.

- Displaying and downloading of job history by 100 data.
- Saving of the job history up to 1 million (The number of histories to save is selectable from 100,000, 500,000 or 1 million. Select 0 to turn OFF the job history utility.)

- Up to 10 types (A to J) of setting files can be imported from the CE page.
- The contents displayed can be changed for each of the 10 setting files (A to J)

Note

- **The history data displayed on the output history list of the main body when the job is completed is stored in HDD1. Therefore the data is not stored in case the job is stopped, proof is output or jam is caused.**
- **Sending history of the scanned information (Scan to E-mail, Scan to FTP, Scan to SMB, and so on) is not saved**

1.5.3 Setting method

When using the Job history list in the initialization, the 4 items of job history are displayed. However by importing the customized setting file, other items can be displayed. For the information about getting this setting file and the editor commands, contact the Support section of the authorized distributor.

The following are the display items of job history in the initialization

- No
- JobId
- Mode
- Date

Job History List

1 - 0 (Total 0)

No.	JobId	Mode	Date
-----	-------	------	------

(1) Setting from the touch panel

Set the IP address of the copier from the touch panel to connect the copier to the network.

[E.1.5.3.\(2\) Setting from the Web browser](#) When this setting has been already made, proceed to

(a) Procedure

1. Select [Utility/Counter] button on the touch panel.
2. Press [06 Administrator Setting].
3. Press [04 Network Setting].
4. Press [01 Machine NIC Setting].
5. Press [01 TCP/IP Setting].
6. Enter "IP address," "Subnet mask," and "Gateway Address."
7. Restart the main body.

Note

- **The system administrator normally assigns the IP address of the copier. For details, contact the system administrator.**

(2) Setting from the Web browser

Input the setting on the web browser to import the setting file to the copier. In order to use the Web browser, make preparations of the PC that can be introduced into the network.

(a) Procedure

1. Start up the Web browser.
 - When the proxy is set on the Web browser, it becomes unavailable to access the main body Web. For particulars, contact the network administrator. Be sure to avoid setting from 2 or more browsers at a time.
2. Specify the IP address of the main body that is entered thorough [E.1.5.3.\(1\) Setting from the touch panel](#)
When you access the Web Utilities of the copier main body, "Main page" is displayed.

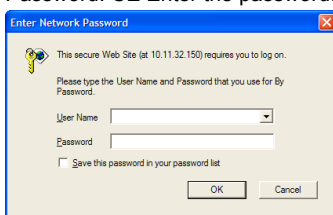
Web Utilities

- [Remote Panel](#)
- [Remote Monitor](#)
- [Multi Monitor](#)

- [Machine Manager Setting](#)
- [Extension for maintenance](#)



3. "Main page screen"
Click [Extension for maintenance].
4. Enter the user name or the CE password in "Extension for maintenance" and press "OK."
User name: ce (small letter, cannot be changed)
Password: CE Enter the password. (Default:"9279272")



5. Enter the service mode.

Note

- When the copier is not in service mode, the setting of [Machine setting data Import/Export] is unavailable.

6. "Extension for maintenance screen"

Click [Machine setting data Import/Export]

Extension for maintenance

- [E-Mail Initial Setting](#)
- [CSRC http Setting](#)
- [Internet ISW](#)
- [Remote Panel](#)
- [Machine setting data Import/Export](#)
- [Mail Log](#)

Main Page

7. "Machine setting data Import/Export screen"

Click each symbol (A to J) displayed on [Import datatype change] -[Web setting]

Machine setting data Import/Export

Select joblog setting file [joblogA.html] and push submit button.

Import datatype change
 Chart [Gray Chart](#)
 Web setting [A B C D E F G H I J](#)

Note

- The setting file imported to A is displayed on "Machine Admin. Setting screen" in initial setting, therefore selecting A is recommended.

8. "Machine setting data Import/Export screen"

When the preparation of the setting file is completed, the following message is displayed. Click [Browse] key, and specify the setting file.

Machine setting data Import/Export

Select joblog setting file [joblogA.html] and push submit button.

Import datatype change
 Chart [Gray Chart](#)
 Web setting [A B C D E F G H I J](#)

Note

- The setting file does not need to be named [joblogA.html]. The settings are saved in the main body with names of joblogA.html to joblogJ.html.

9. "Machine setting data Import/Export screen"

Click [OK].

Submit...

10. "Machine setting data Import/Export screen"

When the import is completed correctly, the following message is displayed. Turn on and off the power switch (SW2) of the main body.

SUCCESS. Data were written to the machine.

File save succeed

Note

- To enable the setting data, turn the SW2 OFF and ON again and initialize the HDD1.
- Access the Web Utility after the initialization of main body/options is completed. The imported setting files may not take effect when accessing the Web Utility soon after the OFF/ON of SW2.

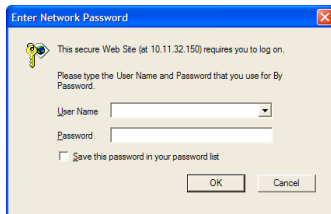
11. "Main page screen"

Click [Administrator Setting].

12. Enter the user name and the administrator password on "administrator setting log in" page, and click "OK".

User name: admin (small letter, cannot be changed)

Password: Enter the password of the administrator of the copier

**Note**

- They differ from the login user name and the password for the Extension for maintenance

13. "Machine Admin. Setting screen"

Click [Job History List].

14. "Job History List screen"

Change the URL in the address bar to the letter from A to J that has imported the customized file to update the page.

Example

Before: <http://X.X.X.X/goform/joblog.cgi?viw=A>

After: <http://X.X.X.X/goform/joblog.cgi?viw=B>

Note

- In case the customized file is imported to "B".

15. "Job History List screen"

Click [JobHistory list].

Note

- This operation sets the customized item number in order.
- The address bar displays "<http://X.X.X.X/goform/joblog.cgi>" after the click.

(b) In case the writing of the setting file fails

When the writing of the setting file fails, the following message is displayed. In this case, conduct the following procedure to see if the hard disk /1 (HDD1) has malfunction and requires the replacement or not.

FAILURE. Data were't written to the machine.

File save error!

1. Conduct the step 1 to step10 of the procedure (a) to see if the import of the setting file is normally completed. When the import of the setting file fails after conducting these processes, conduct the step4 and the following steps.
2. Enter the Service mode.
"Service Mode menu screen"
Press [04 State Confirmation].
Press [01. I/O Check Mode].
3. [I/O Check Mode screen]
Enter "99" with the numeric keys. Confirm that "99-00" is displayed on the message display area.
4. Press the Access button.
5. Enter "03" with the numeric keys. Confirm that "99-03" is displayed on the message display area.
6. Press the Start button.
Press the Start button to perform the HDD bad sectors check and recovery again when "NG" is displayed.
When "OK" appears, conduct the step1 to step10 of the procedure (1) to see if the import of the setting file is normally completed. If the writing of the setting file fails after conducting these processes, the trouble of the HDD1 is considerable. Replace it with new one.

1.6 Counter list acquisition using USB memory**1.6.1 OUTLINE**

By connecting the USB memory to the service port, the counter list information can be saved in the USB memory in the text file format.

1.6.2 List that can be acquired

1. Counter list
2. Mode Memory List
3. User setting list
4. User setting list
5. Audit log report
6. Machine Management List
7. Adjustment Data List
8. Coverage data list
9. Maintenance History
10. ORU-M Maintenance History (1250/1250P/1052 only)
11. Communication log list
12. Parameter List

Note

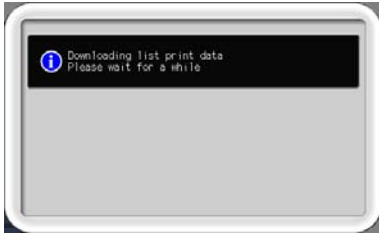
- If you set DIPSW30-1 from 0 to 1, the communication log list and the followings are output to the file.
- If you set DIPSW15-0 from 0 to 1, the ORU-M Maintenance History is output to the file. (1250/1250P/1052 only)

1.6.3 Acquisition method**(1) Preparation:**

Connect the USB memory to the main body connection port.

(2) Procedure

1. Press [Utility/Counter] on the operation panel.
2. Press [Details].
3. "Details Counter List screen"
Press [HELP] - [Utility/Counter] - [Mode Check] on the operation panel.
4. After the following message appears, remove the USB memory.



Note

- Do not remove the USB memory before the message disappears. The data is being output to the file while the message is displayed. If the USB memory is removed while the message is displayed, the file cannot be saved properly.

(3) File storage location

The list print data file is saved to the root directory in the USB memory.

(4) File name

The file name is defined as follows. When the same file name exists, it is overwritten with new data.

listprint + Machine code + destination code + Serial No._ Year_Date_Time.txt

Example: listprintA0G6001000285_2010_0103_1749.txt

1.7 ORU-M Counter Rewrite (1250/1250P/1052 only)

1.7.1 Load from external memory

(1) OUTLINE

Read the counter data that is written with Management Tool from the USB memory and write it to the main body. To reduce the down-time, it can be executed even during printing.

The counter data for the spare unit not in use is written on the main body and the target units are as follows.

- Charging corona
- Developing suction
- Transfer belt unit
- Transfer belt cleaning unit
- Drum cleaner
- PCC
- Fusing unit

Note

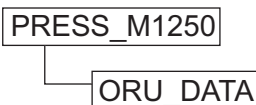
- This function is available only when DIPSW 15-0 is set to ON.

(2) Preparation:

Connect the USB memory to the service port.

Note

- When the counter data file is created in the folder combination mode of Management Tool, save the counter data file in the following folder configuration of the USB memory.



- This is the counter data file name.
[Main Body Serial Number]_ORU_DATA.bin

(3) Procedure

1. Be sure that the ordinary operation screen ^{*1} is displayed.
Press [Utility/Counter] button.
2. "Setting menu screen"
On the Operation panel, press the following buttons.
1→0→C→6→9
3. "ORU-M Counter Rewrite Menu screen"
Press [01 Read from External Memory].

Note

- If the USB memory is not connected to the connection port, the error message appears not to go on to the file selection screen.
4. "ORU-M Counter Rewrite <From External> screen"
Press [Next] or [Back] to select the file to be read and press [OK].

Note

- By pressing [Limit], only the file corresponded to the serial number of the machine appears.



5. "ORU-M Counter Rewrite <From External> screen"

After selecting [Charging Corona]/[Developing Suction]/[Transfer Belt Unit]/[Trans.Belt Cleaning Unit]/[Drum Cleaner]/[PCC]/[Fusing Unit] in "Load Item", check the counter value with [▲]/[▼] and press [Store Selected Items]. Press [Store All Items] to read the counter data of all items.



6. "Pop-up screen"

Press [Yes] to start reading the counter data.

**Note**

- Be sure not to turn OFF the main power switch (SW1) until the reading file completes.

7. "Pop-up screen"

Confirm the message "Completed data loading from external memory" and press [OK].

*1 Default is [Machine Screen].

1.7.2 Store to external memory

(1) Functions

Transfers the counter data of the fusing unit and the intermediate transfer unit from the main body to the USB memory. The saved data can be used in Management Tool.

Note

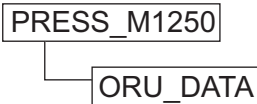
- This function is available only when DIPSW 15-0 is set to ON.

(2) Preparation:

Connect the USB memory to the service port.

Note

- Be sure to create a folder as shown below beforehand.



(3) Procedure

1. Be sure that the ordinary operation screen ^{*1} is displayed.
Press [Utility/Counter] button.

2. "Setting menu screen"

On the Operation panel, press the following buttons.

1→0→C→6→9

3. "ORU-M Counter Rewrite Menu screen"

Press [02 Store to External Memory].

Note

- If the USB memory is not connected to the connection port, the error message appears not to go on to the file selection screen.

4. "ORU-M Counter Rewrite <To External> screen"

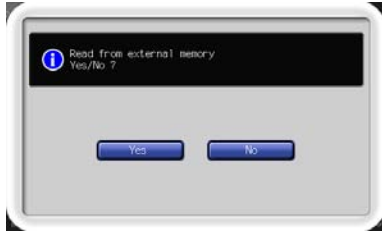
Press [Start Storing].

Note

- When the USB memory is not connected to the connection port, an error message appears.
- Be sure not to turn OFF the main power switch (SW1) until the storing file completes.

5. "Pop-up screen"

A pop-up screen appears after saving completes. Check the file name and press [OK].



6. "ORU-M Counter Rewrite <To External> screen"

Confirm that the screen returns to "ORU-M Counter Rewrite <To External> screen", disconnect the USB memory from the service port.

^{*1} Default is [Machine Screen].

1.8 Management Tool

1.8.1 Outline

"Management Tool" is a software to read and reset the parts counter information of the unit.

(1) Operating environment

The following shows the hardware requirements of the Management Tool.

Applicable OS	Windows 2000 Professional (Service Pack 4 or later versions) Windows XP Professional (Service Pack 3 or later versions) Windows Vista (32bit/64bit) Home Premium/Business/Enterprise/Ultimate (Service Pack 2 or later versions) Windows 7 (32bit/64bit) Home Premium/Professional/Enterprise/Ultimate (Service Pack 1 or later versions)
CPU	Conform to OS recommended environment
Hard disk space	100MB or more
Memory space	Conform to OS recommended environment
Web browser	Microsoft Internet Explorer Ver.6.0 (Service Pack 1 or later versions)
Library	Windows 2000 & Microsoft .NET Framework 2.0 Windows XP & Microsoft .NET Framework 2.0 (SP2) Windows Vista & Microsoft .NET Framework 2.0 (SP2) Windows 7 & Microsoft .NET Framework 2.0 (SP2)
Display	At resolution of 800 x 600 (SVGA) or more 16 bits color or more
Applicable machine	bizhub PRESS C8000 bizhub PRESS C7000 bizhub PRESS C6000 bizhub PRESS 1250 bizhub PRESS 1250P bizhub PRESS 1052

Note

- Compliant OS may be limited depending on the RFID tag reader/writer.

- The applicable machines may be changed by the machine development in the future.

(2) RFID tag reader/writer

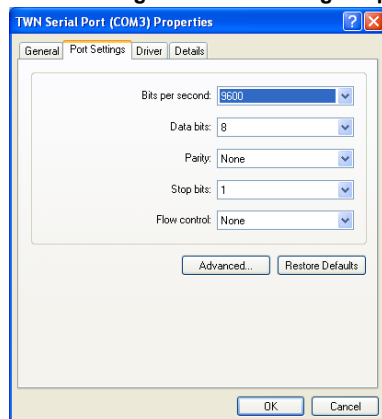
Management Tool uses the RFID tag reader/writer for reading and writing the PFID tag. The following shows the corresponding RFID tag reader/writer.

- "TMRF-1-U001" (Tamura Corporation)
- "TWN3" (Elatec Vertriebs GmbH)
Applicable mode USB
: Transparent Virtual COM Port
V24: Transparent Operation

Note

The driver for the RFID tag reader-writer needs to be installed to the computer beforehand.

- "TMRF-1-U001" (Tamura Corporation)
TmRfid USB driver (Windows 2000/XP)
Vista/7 dedicated USB driver(Windows Vista/7)
- "TWN3" (Elatec Vertriebs GmbH)
TWN Serial Port driver (Windows XP)
- The following shows the setting the port of the TWN Serial Port driver.



Item	Value
bit/sec	9600
Data bit	8
Parity	None
Stop bit	1
Flow control	None

(3) Main functions

The following shows the main functions of the Management Tool.

- Reading/writing RFID tag of unit (bizhub PRESS C8000)
The part information is read from the RFID tag of the unit and displayed on the screen. Select the part whose counter information is reset and write the reset information on the IC tag.
- Reading/writing data file of unit (bizhub PRESS C7000/6000, bizhub PRESS 1250/1250P/1052)
Reads out the part information from the data file of the unit output from the device and displays it on the screen. Select a part whose counter information is reset on the screen, and write the reset information to the data file. (Support to read/write automatically from the USB memory.)
- Work log management
The counter information and the counter reset information caught from the replacement work are saved automatically as a log. On the work log display, the information can be sorted by the read or reset date and searched by the term such as the customer or the technician who executed the replacement. Therefore, the previous works can be checked.
- Output of work information with CSV file
Outputs the work information and work log when replacing in the CSV format file.
- Printing work information
Prints out the work information and work log when replacing.
- Association of the user information and the device
The user information can be associated with the device.
- Export/Import
The work log, user information, and technician information can be exported to the file. Also, the exported file can be imported.
- Serial number setting (bizhub PRESS C8000)
When replacing the tag due to the breakage, new RFID tag can be recognized to the machine.
- Intermediate transfer steering sensor information setting (bizhub PRESS C8000)
The initial value of the intermediate transfer steering sensor can be registered.
- Option
Set each setting of Management Tool.
- Log in mode
To use the Management Tool, login is required.
2 modes are provided for log in; "Administrator mode" and "Technician mode."
[Administrator mode]
Mode when log in as administrator.
[Technician mode]

Mode when log in as technician. The administrator registers the technician.
The operable function differs depending on the log in mode.

No.	Function name	Administrator mode	Technician mode
1	Replacement work	No	Yes
2	Work log	Yes	Yes
3	Register user	Yes	Yes
4	Register technician	Yes	No
5	SetPersonal	No	Yes
6	Administrator Setting	Yes	No
7	Unit Serial Number Setting	No	Yes
8	Intermediate transfer steering sensor information setting	No	Yes
9	Option	No	Yes
10	Version	Yes	Yes

Yes: operable, No: inoperable

1.8.2 Installation of Management Tool

(1) Installation method

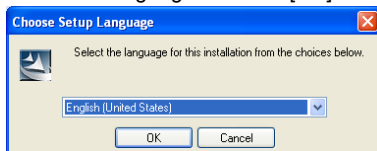
Install the Management Tool in the following steps.

Note

- Log on with the user name which has the Administrator authority to install.
- If any application is running on the computer (including anti-virus program), close it.
- Check that "Microsoft .NET Framework 2.0 (SP2)" has been installed on the computer before the installation.

Installation steps

1. Double click the installation program "Setup.exe."
2. Select the language and click [OK].

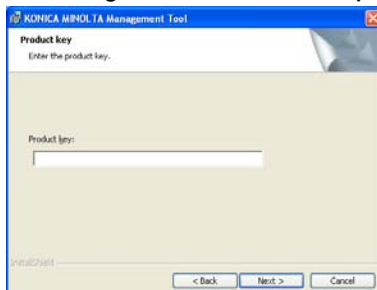


3. Continue the installation following the instructions on screen.

Note

• Product key input

The Management Tool installer displays the screen to input the product key during installation.



The installation continues when the input product key is proper.

(2) Items to be installed

Once the Management Tool is installed, the following items are registered on the Start menu and the desk top.

Items to be registered for start menu

- Program
- Readme
- Manual

Items to be registered on desktop

- Shortcut of program

Note

- The "Readme" of the Start menu can be set not to be installed.
- Select "Custom" on the set up type and check the items to be installed.
- Whether to create the shortcut of the program registered on the desktop can be selected when installing.

(3) Uninstallation

There are following 2 ways to uninstall the Management Tool.

- Use "Add or Remove Programs" ("Add or Remove Programs" for Windows2000, "Programs and Features" for Windows Vista/7).
- Execute "Setup.exe" again.

Note

- The user information and the data information (Work log, User information, and Technician information) are saved in the following folder separately from Management Tool.
 - 2000/XP:

C:\Documents and Settings\All Users\Application Data\KONICA MINOLTA\Management Tool\

- Vista/7:

C:\Users\Public\Documents\KONICA MINOLTA\Management Tool\

Since those information cannot be deleted by uninstalling, delete them manually.

When reinstalling it without deleting those information, the Management Tool can be started with the information before uninstallation.

- When uninstalling the Management Tool, all Management Tool programs need to be closed.

1.8.3 Starting up of Management Tool

(1) Start

There are following 2 ways to start the Management Tool.

- Start from the Start menu of Windows
Click Windows "Start" button - "All Programs" ("Programs" for Windows2000) - "KONICAMINOLTA" - "Management Tool" - "Management Tool."
- Start from the shortcut icon on the desktop
Double click "KONICA MINOLTA Management Tool" icon created on the desktop.

The login screen appears when it starts.

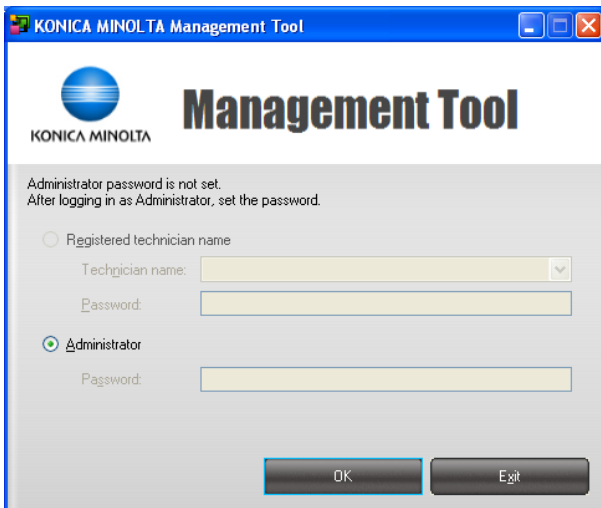
Note

- Whether to create the "KONICA MINOLTA Management Tool" icon or not can be selected when installing.

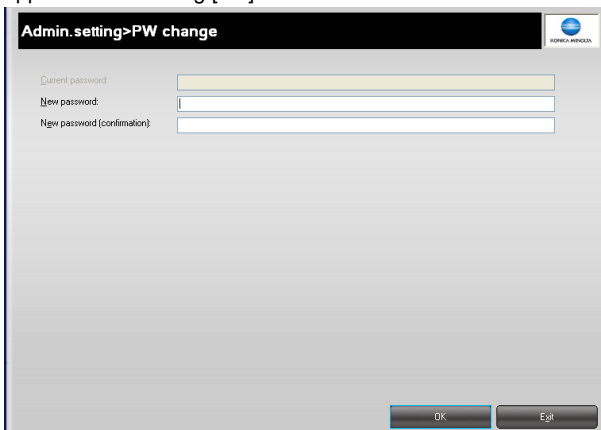
(2) The login screen

The login screen appears when the Management Tool starts. Select the login mode and enter the required information to log in.

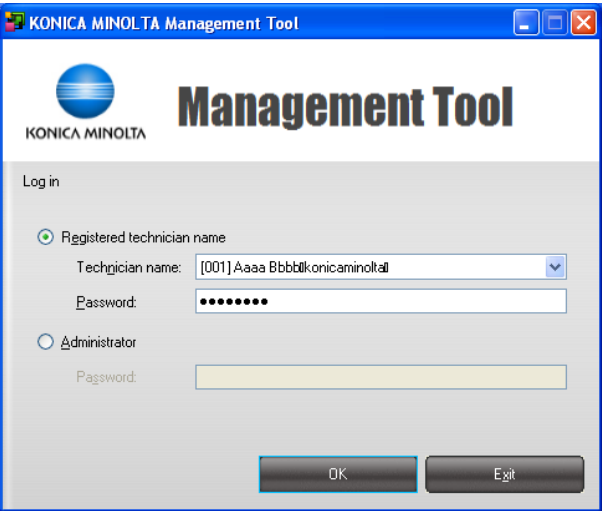
(a) At 1st time of startup



The administrator password has not been set right after the installation. Set the administrator password when the password setting screen appears after clicking [OK] button.



(b) At normal startup

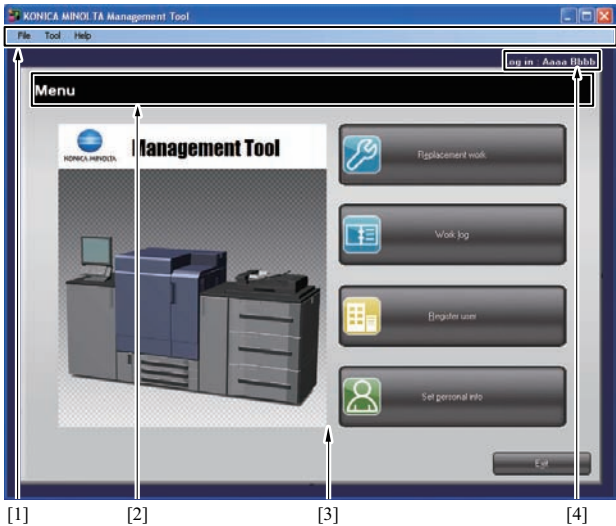


For the replacement work, log in in the technician mode. Select [Registered technician name] and enter the required information to log in.

Note

- The image at the top of the screen can be customized. (Refer to [E.1.8.10.\(4\) Image setting](#))
 - When no technician has been registered, the registered technician name cannot be selected.
- For details of registering technician, [E.1.8.9.\(2\) Register technician](#).

(3) Operation screen



[1]	Menu bar	[2]	Navigation
[3]	Operation area	[4]	Login user

1. Menu bar
Specify each function of the Management Tool. (Refer to [E.1.8.10 Various setting for the software](#))
2. Navigation



[1]	Path	[2]	Image
-----	------	-----	-------

- Path
The transition of screens from the top screen is displayed as the path.
 - Image
The image can be customized. (Refer to: [E.1.8.10.\(4\) Image setting](#))
3. Login user
The current login user is displayed.
 4. Operation area
The operation panel based on the purpose is displayed.

(4) End

- There are following 2 ways to exit the Management Tool.
- Click [Exit] button on the login screen or the top screen

- Select [Exit] from [File] menu
- Click [x] (close) button on the upper right corner of the screen
- Shut down or log off the computer

1.8.4 Technician mode

The operation procedures when logging in as an registered technician is described below.

To execute this mode, register the technician information in the administrator mode. (Refer to [E.1.8.9.\(2\) Register technician](#))

(1) Top screen



When logging in successfully, the top screen is displayed.

- To perform unit parts replacement, click "Replacement work" button. (Refer to [E.1.8.4.\(2\) Replacement work](#))
- To check the work log, click "WorkLog" button. (Refer to [E.1.8.4.\(3\) Work log](#))
- To register the customer information, click "RegisterUser" button. (Refer to [E.1.8.4.\(4\) Register user](#))
- To change the password or edit the memo, click "Set personal info" button. (Refer to [E.1.8.4.\(5\) SetPersonal](#))

Note

- The image at the left of the screen can be customized. (Refer to [E.1.8.10.\(4\) Image setting](#))

(2) Replacement work

Perform unit parts replacement.

(a) Type of replacement

Depending on the machine type, the form and media of data differ.

Management Tool is applied to the following machines.

- bizhub PRESS C8000 (Refer to [E.1.8.5 bizhub PRESS C8000 replacement procedure](#))
- bizhub PRESS C7000/6000P (Refer to [E.1.8.6 bizhub PRESS C7000/6000 replacement procedure](#))
- bizhub PRESS 1250/1250P/1052 (Refer to [E.1.8.7 bizhub PRESS 1250/1250P/1052 replacement procedure](#))

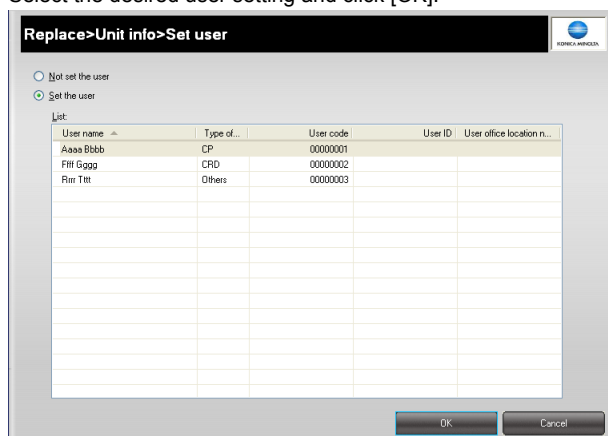
(b) Associating customers

When the device serial number and the user information are properly associated, the user information is displayed on the operation information automatically.

When not set, " (No User Setting)" is displayed.

To modify the association between the unit read and the user, conduct the following procedures.

- Click "Change" to display the user setting screen.
- Select the desired user setting and click [OK].



The user setting of the work information is changed.

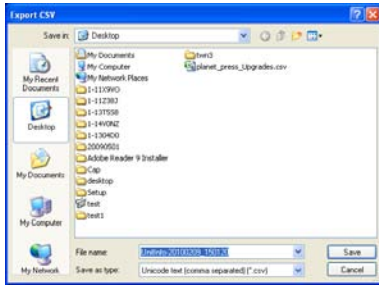
Note

- For details on user registration, refer to [E.1.8.4.\(4\) Register user](#).

(c) Export the csv format file

The detailed information of the unit currently displayed is exported in CSV format.

1. Specify the location to store the file.



2. Click [Save].

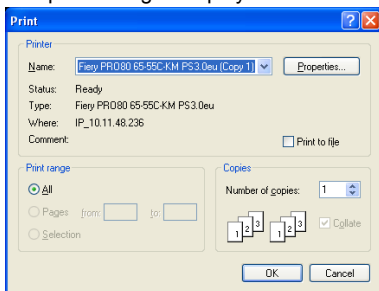
The CSV file is exported to the specified location.

For details on CSV format, refer to [E.1.8.10.\(6\) Export CSV](#).

(d) Printing the report

The detailed information of the unit currently displayed can be printed as report.

1. The print dialog is displayed.



2. Click [OK].

The report is printed.

For details on print layout, refer to [E.1.8.10.\(7\) Print Report](#).

(3) Work log

The work conditions of previous replacement work can be checked.

(a) Procedures to display the work log list

1. Click "Work log" on the top screen.
Or select "Work log" in "Tool" menu.
2. The work log referring method selection screen appears.
 - To display the work log by selecting the user, click "Select user."
Proceed to [step 3](#).
 - To display the work log by selecting the technician, click "Select technician."
Proceed to [step 4](#).
 - To display all the work log, click "All."
Proceed to [step 5](#).



3. The "Select user" screen appears.

Select the user to check the work log, and click "OK."

Proceed to [step 5](#).

4. The "Select technician" screen appears.

Select the technician to check the work log, and click "OK."

Proceed to [step 5](#).

5. The work log list is displayed.

On the work log list, filtering by conditions or sorting displayed items is available. Select the work log information to check its detail, export as CSV or print report.

Unit type	Times of...	Unit remov...	Count read date	Count reset date	The last undo
Fusing	0	-	2/9/2010 11:41:20	-	-
Fusing	0	-	2/9/2010 11:57:36	-	-
2nd transfer	0	-	2/9/2010 2:21:32 PM	-	-
Fusing	0	-	2/9/2010 2:21:41 PM	-	-
2nd transfer	0	-	2/9/2010 2:24:10 PM	-	-
Fusing	0	-	2/9/2010 2:24:24 PM	2/9/2010 2:35:06 PM	-
Fusing	0	-	2/9/2010 2:36:16 PM	2/9/2010 2:48:57 PM	-
2nd transfer	0	-	2/9/2010 2:36:28 PM	-	-

For the display filter, the displayed contents differs depending on the display method selected on the work log reference method in step 2.

When selecting "Select user":

When selecting "Select technician":

Note

- The items can be sorted in descending/ascending order by clicking the item name of the work log list. The mark ▲ indicates that the current display is in ascending order. Click it to change in descending order.

Unit type	Times of replacement	Unit removal date	Count read ...	Count reset date	The last ur
Fusing	0	-	2/9/2010 11:57:36...	-	-
2nd transfer	0	-	2/9/2010 2:21:32 ...	-	-

- On the work log list screen, the items to be displayed and their display width can be changed via "Set list view". (Refer to [E.1.8.10.\(5\) Set list view](#))
- Click [Export CSV] to export the work log information currently selected in CSV format. (Refer to [E.1.8.10.\(6\) Export CSV](#))
- Click [Print] to print the report of the work log information currently selected. (Refer to [E.1.8.10.\(7\) Print Report](#))

(b) Detailed information

The detailed information of the replacement work log selected on the work log list is displayed.
Change the user to be associated or edit the work information memo.

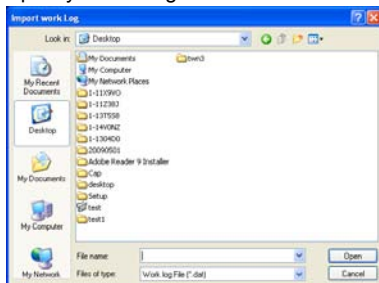
Note

- Click [Back] or [Next] to switch the work log displayed.
- Click [Export CSV] to export the work log information currently displayed in CSV format. (Refer to [E.1.8.10.\(6\) Export CSV](#))
- Click [Print] to print the report of the work log information currently displayed. (Refer to [E.1.8.10.\(7\) Print Report](#))
- For details on user association, refer to [E.1.8.4.\(2\).\(b\) Associating customers](#).

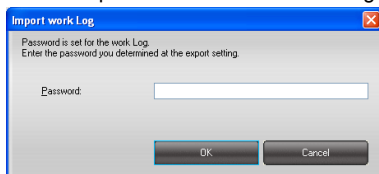
(c) Import

Import the work log which is exported from Management Tool.

1. Specify the storage location of the work log file to import.



2. Click [Open].
3. The password input screen is displayed.
Enter the password set on the work log file when it was exported.



4. Click [OK].
The work log file is imported.

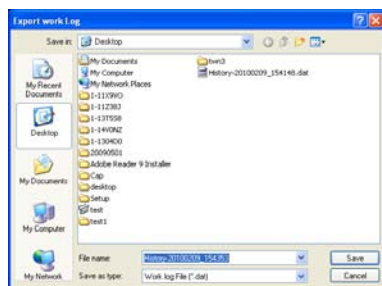
Note

- Use one-byte alphanumeric characters and symbols for password.
- The work log information already exists is not imported.
- The invalid work log information is skipped and the import process continues.
- The work log exported by other computer also can be imported. However it happens that the work log information is overlapped.

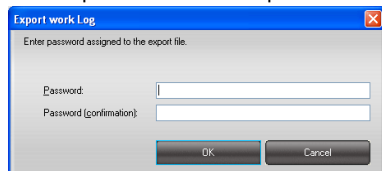
(d) Export

Export the work log collectively.

1. Specify the location to store the file.



2. Click [Save].
3. The password input screen is displayed.
Set the password on the export file.



4. Click [OK].
The export of the work log starts.

Note

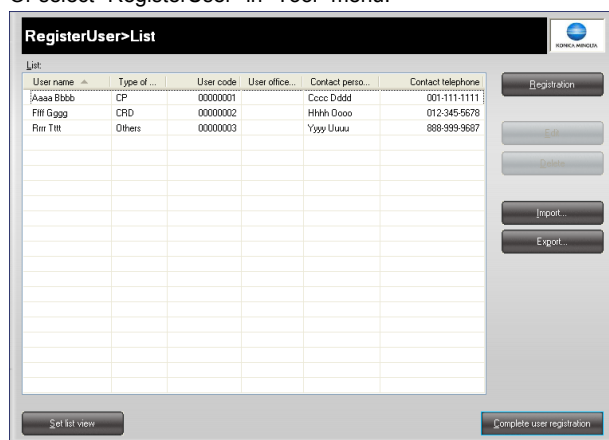
- Use one-byte alphanumeric characters and symbols for password.
- The password set on the export file is required when importing it.
- The file format "Work log file" is a format to display the contents on the Management Tool. When the file is stored in other format, the file is unable to open on the Management Tool.

(4) Register user

Register, edit or delete the user information.

(a) User list

Click [RegisterUser] on the top screen.
Or select "RegisterUser" in "Tool" menu.



Note

- The items can be sorted in descending/ascending order by clicking the item name of the user information list. The mark ▲ indicates that the current display is in ascending order. Click it to change in descending order.

User name ▲	Type of ...	User code	User office...	Contact perso...	Contact telephone
Aaaa Bbbb	CP	00000001		Cccc Dddd	001-111-1111
Ffff Gggg	CRD	00000002		Hhhh Oooo	012-345-5678
Rrrr Tttt	Others	00000003		Yyyy Uuuu	888-999-9687

- On the user information list screen, the items to be displayed and their display width can be changed via "Set list view". (Refer to [E.1.8.10.\(5\) Set list view](#))

(b) Initial registration

Register the user information.

1. Click [New] on the user list screen.
2. The registration screen is displayed.
3. Enter "User name."
Use 1 to 64 characters regardless of whether one-byte or two byte.
4. Select "Type of business."
5. Enter the following items if necessary.
 - Enter "User code." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Enter "User ID." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Enter "User office location name." Use 0 to 256 characters regardless of whether one-byte or two byte.
 - Enter "User office location code." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Enter "Contact person name." Use 0 to 64 characters regardless of whether one-byte or two byte.
 - Enter "Contact person ID no." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Enter "Contact telephone." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Register "Machine list".
Enter "Machine serial number to add." Use 1 to 13 one-byte alphanumeric characters and symbols. Click "Add" to add it to "Machine list".
Select and click the serial number to delete from "Machine list".
 - Enter "Remark."
6. Click [Register].
The entered user information is registered and the next user information can be registered.

Note

- **Register the serial number of the machine of the user to "Machine list" so that the user information is automatically associated when reading unit information while in the replacement work.**

(c) Edit

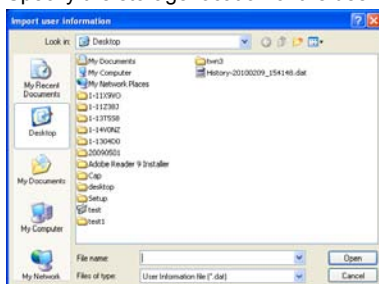
Edit a registered user information.

1. Edit the items to be changed.
For entering each items, refer to [E.1.8.4.\(4\).\(b\) Initial registration](#).
2. Click [OK].
The edited result is reflected to the user information.

(d) Import

Import the user information which is exported from Management Tool.

1. Specify the storage location of the user information file to import.



2. Click [Open].
The user information file is imported.

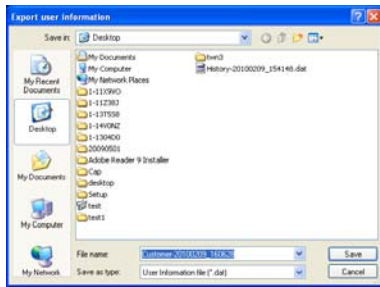
Note

- **The user information already exists is not imported.**

(e) Export

Export the user information collectively.

1. Specify the location to store the file.



2. Click [Save].
The export of the user information starts.

Note

- The file format "User Information file" is a format to display the contents on the Management Tool. When the file is stored in other format, the file is unable to open on the Management Tool.

(5) SetPersonal

Change the password of login technician or edit the comment.

(a) Password Change

1. Click "Password change."
The password change screen is displayed. The password can be changed at this time.

2. Click [OK].
The new Password is set.

Note

- Use one-byte alphanumeric characters and symbols for password.

(6) Serial number setting (bizhub PRESS C8000)

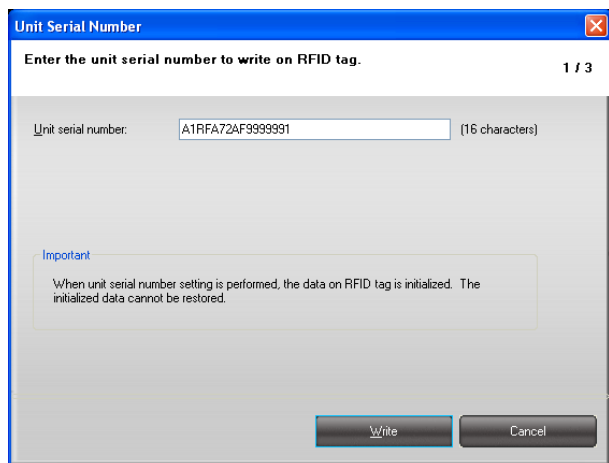
The unit serial number is written in the RFID tag.

Note

- When replacing the RFID tag because of such as physical damage, the new RFID tag can be recognized by the unit.

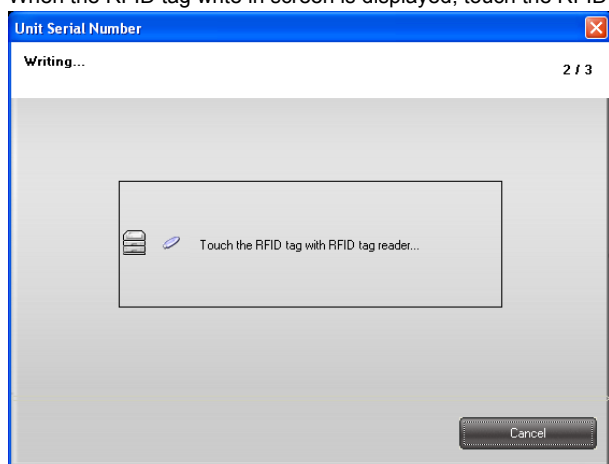
(a) Procedures of the unit serial number setting

1. Select "Unit Serial Number" from "Tool" menu.
When the RFID tag reader is not recognized, the process does not proceed to step 2. Check that the RFID tag reader is correctly connected.
2. The wizard starts up and the unit serial number input screen is displayed.
Enter the unit serial number and click "Write."

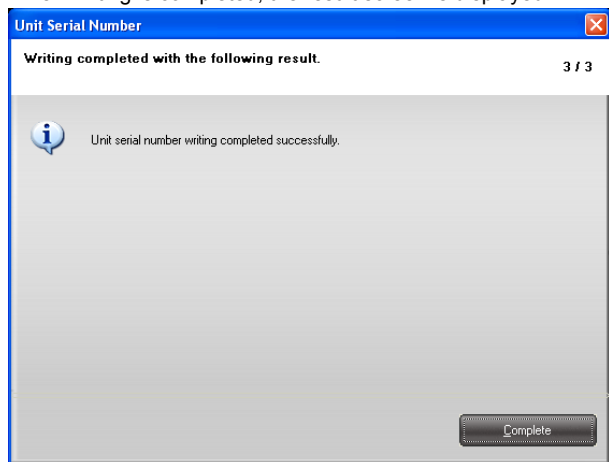
**Note**

- **Serial number setting initializes the RFID tag data. The initialized data cannot be restored.**

3. When the RFID tag write in screen is displayed, touch the RFID tag with the RFID tag reader.



4. When writing is completed, the result screen is displayed.



(7) Intermediate transfer steering sensor information setting (bizhub PRESS C8000)

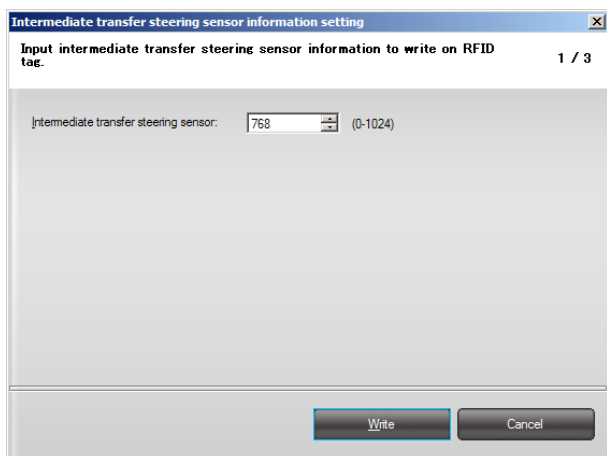
The initial value of the intermediate transfer steering sensor is written to the RFID tag.

(a) Procedures of the intermediate transfer steering sensor information setting

1. Select "Intermediate transfer steering sensor information setting" from "Tool" menu.

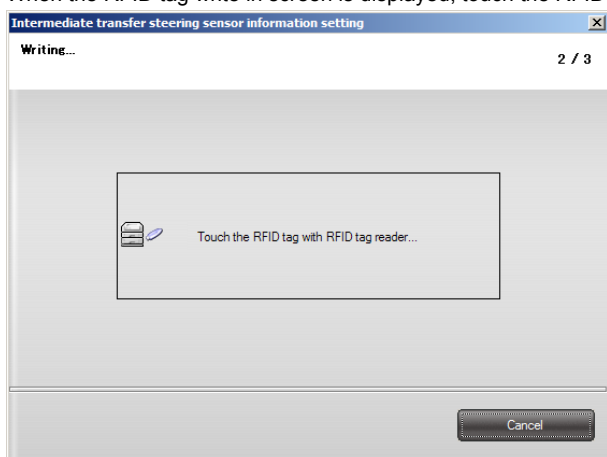
Note

- **When the RFID tag reader is not recognized, the process does not proceed to step 2. Check that the RFID tag reader is correctly connected.**
2. Wizard is activated and the intermediate transfer steering sensor information input screen appears.



Input the intermediate transfer steering sensor information and click "Write".

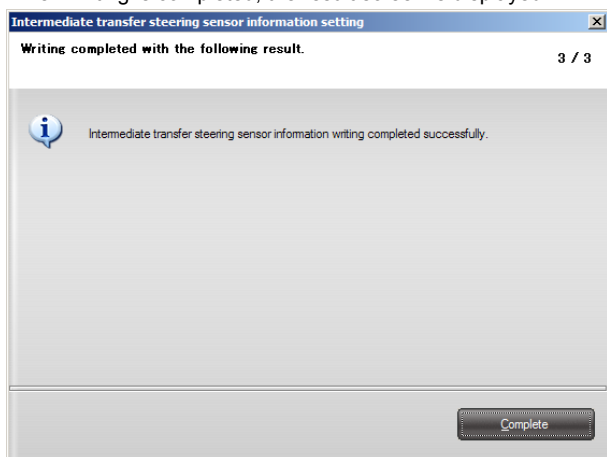
3. When the RFID tag write in screen is displayed, touch the RFID tag with the RFID tag reader.



Note

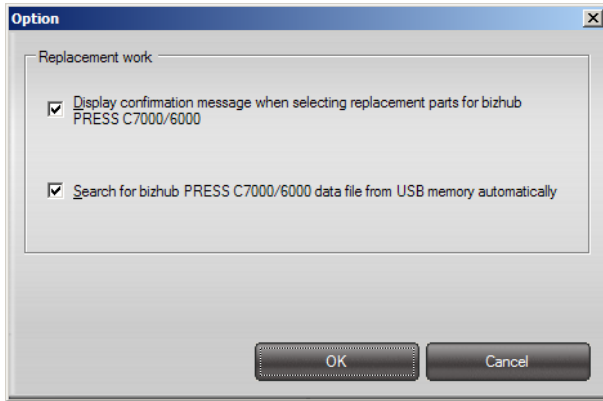
- Touch the RFID tag in which the data of the intermediate transfer unit is saved.

4. When writing is completed, the result screen is displayed.



(8) Option

Set each setting of Management Tool.



(a) Display a confirmation message when selecting a part to be replaced of the bizhub PRESS C7000/6000, 1250/1250P/1052.

Select whether to display the message to confirm the target unit after selecting the part at the replacement of the bizhub PRESS C7000/6000, 1250/1250P/1052.

(b) Locate the data file of the bizhub PRESS C7000/6000, 1250/1250P/1052 in the USB memory.

Set the activation mode of the replacement of the bizhub PRESS C7000/6000, 1250/1250P/1052.

- When the box is checked, the replacement is activated in USB memory cooperation mode.
- When the box is not checked, the replacement is activated in folder cooperation mode.

1.8.5 bizhub PRESS C8000 replacement procedure

1. Click "Replacement work" on the top screen.

Or select "Replacement work" in "Tool" menu.

When the RFID tag reader is not recognized, the process does not proceed to step 2. Check that the RFID tag reader is correctly connected.

2. A screen to select machine type appears.



Select "bizhub PRESS C8000" and click [OK] button.

Proceed to step 3.

When the RFID tag reader is not recognized, the process does not proceed to step 3. Check that the RFID tag reader is correctly connected.

3. When the unit read screen is displayed, touch the RFID tag with the RFID tag reader.



4. When read successfully, the unit information screen is displayed.
The units read are listed on the left of the screen as buttons.

Replace>C8000>Unitinfo

Read another User name: (No User Setting) Change

Intermediate Transfer Unit(1)
S/N:A1RFA500L9999995

2nd Fusing Unit(2)
S/N:A1RJA72A29999992

Fusing Unit(3)
S/N:A1RFA72AF99999991

2nd Fusing Unit(4)
S/N:A1RJA72A29999998

↑ ↓

CSV export... Print...

Intermediate Transfer Unit

Serial number: A1RFA500L9999995

Name	Part No.	Q'ty	Count	Life cycle
<input type="checkbox"/> 1st Transfer Roller/C	A03U5012	1	156793	52%
<input type="checkbox"/> 1st Transfer Roller/K	A03U5012	1	156793	52%
<input type="checkbox"/> Transfer Roller Bearing	65AA2638	8	1319...	43%
<input type="checkbox"/> 1st Transfer Roller/Y	A03U5012	1	32562	10%
<input type="checkbox"/> 1st Transfer Roller/M	A03U5012	1	32562	10%
<input type="checkbox"/> Toner Recovery Sheet	65AA-293	1	15434	5%
<input type="checkbox"/> Belt Cleaning Blade	A1RF5106	1	15210	5%
<input type="checkbox"/> Transfer Belt Separation Cl...	65AA-287	3	32562	5%
<input type="checkbox"/> Intermediate Transfer Belt	A1RF5001	1	0	0%
<input type="checkbox"/> Transfer Belt Cleaning Unit	A1RFB506	1	1201	0%
<input type="checkbox"/> 2nd Transfer Roller/U	A1RF5004	1	2357	0%
<input type="checkbox"/> Transfer Belt Cleaning Seal...	A1RF5112	1	0	0%

Reset count Undo reset

Parts count Unit/machine Basic info End of work

5. Select the parts to reset the counted value from the unit information read.

Replace>C8000>Unitinfo

Read another User name: (No User Setting) Change

Intermediate Transfer Unit(1)
S/N:A1RFA500L9999995

2nd Fusing Unit(2)
S/N:A1RJA72A29999992

Fusing Unit(3)
S/N:A1RFA72AF99999991

2nd Fusing Unit(4)
S/N:A1RJA72A29999998

↑ ↓

CSV export... Print...

Intermediate Transfer Unit

Serial number: A1RFA500L9999995

Name	Part No.	Q'ty	Count	Life cycle
<input checked="" type="checkbox"/> 1st Transfer Roller/C	A03U5012	1	156793	52%
<input type="checkbox"/> 1st Transfer Roller/K	A03U5012	1	156793	52%
<input checked="" type="checkbox"/> Transfer Roller Bearing	65AA2638	8	1319...	43%
<input checked="" type="checkbox"/> 1st Transfer Roller/Y	A03U5012	1	32562	10%
<input checked="" type="checkbox"/> 1st Transfer Roller/M	A03U5012	1	32562	10%
<input checked="" type="checkbox"/> Toner Recovery Sheet	65AA-293	1	15434	5%
<input checked="" type="checkbox"/> Belt Cleaning Blade	A1RF5106	1	15210	5%
<input checked="" type="checkbox"/> Transfer Belt Separation Cl...	65AA-287	3	32562	5%
<input type="checkbox"/> Intermediate Transfer Belt	A1RF5001	1	0	0%
<input type="checkbox"/> Transfer Belt Cleaning Unit	A1RFB506	1	1201	0%
<input type="checkbox"/> 2nd Transfer Roller/U	A1RF5004	1	2357	0%
<input type="checkbox"/> Transfer Belt Cleaning Seal...	A1RF5112	1	0	0%

Reset count Undo reset

Parts count Unit/machine Basic info End of work

Note

- When selecting the intermediate transfer belt of the intermediate transfer unit, the intermediate transfer belt information screen is displayed.
Be sure to input the reflectance value which is written on the belt.

Intermediate transfer belt information

Enter intermediate transfer belt information.

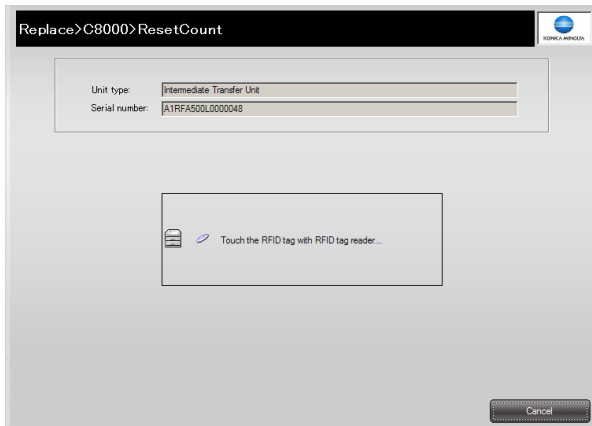
Front: 2500 (2000-3500)

Rear: 3000 (2000-3500)

OK Cancel

6. Click "Reset count".

When the count reset screen is displayed, touch the RFID tag with the RFID tag reader.

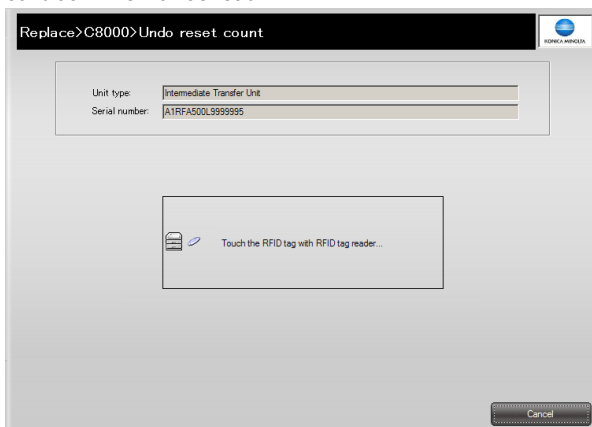


7. When count reset is done successfully, the unit information screen is updated.



8. When canceling the count reset, Click "Undo reset count."

When the canceling count reset screen is displayed, touch the RFID tag with the RFID tag reader. The count information returns to the condition when it was read.



9. To read information of another unit, click "Read another."
→ Return to step3.

Note

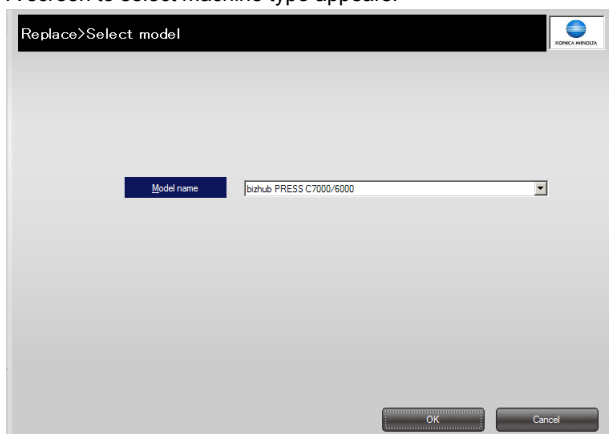
- Information of up to 10 units can be read at a time of each replacement work.
When reading information of more than 10 units, exit the replacement work once and select "Replacement work " on the top screen again.
- While in replacement work, the Management Tool cannot be exited.
To exit the Management Tool, exit the replacement work.

1.8.6 bizhub PRESS C7000/6000 replacement procedure

Note

- Depending on the saving destination of the cooperated counter data, there are 2 modes for the replacement on the bizhub PRESS C7000/6000.
 - USB cooperation mode:
Execute the counter reset directly to the counter data that is read from the main body to the USB memory with the "Save to External Memory" of ORU-M.
 - Folder cooperation mode:
Move the counter data read from the main body to the USB memory to the folder of the client PC once and execute the counter reset to the counter data in the folder with the "Save to External Memory" of ORU-M.
- It is activated in the mode of the previous replacement, but the mode can be selected with "Option" (Refer to [E.1.8.4.\(8\) Option](#)). (Default is USB cooperation mode.)

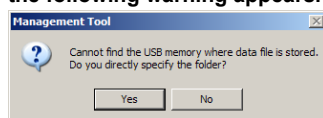
1. Click "Replacement work" on the top screen.
Or select "Replacement work" in "Tool" menu.
2. A screen to select machine type appears.



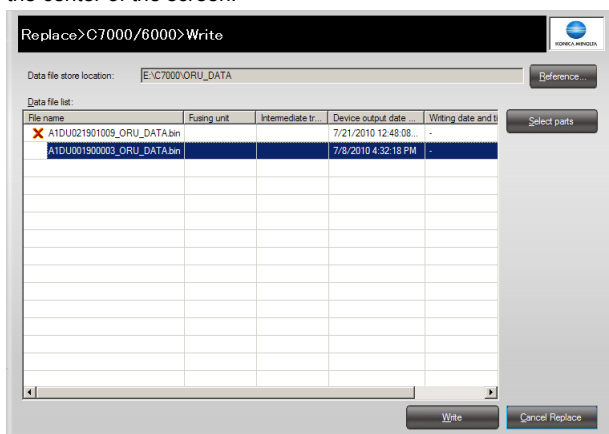
Select "bizhub PRESS C7000/6000" and click [OK] button.
Proceed to step 3.

Note

- When it is activated in the USB cooperation mode and the USB memory in which the data file is saved cannot be recognized, the following warning appears. Select [Yes (Y)] to activate in the folder cooperation mode.



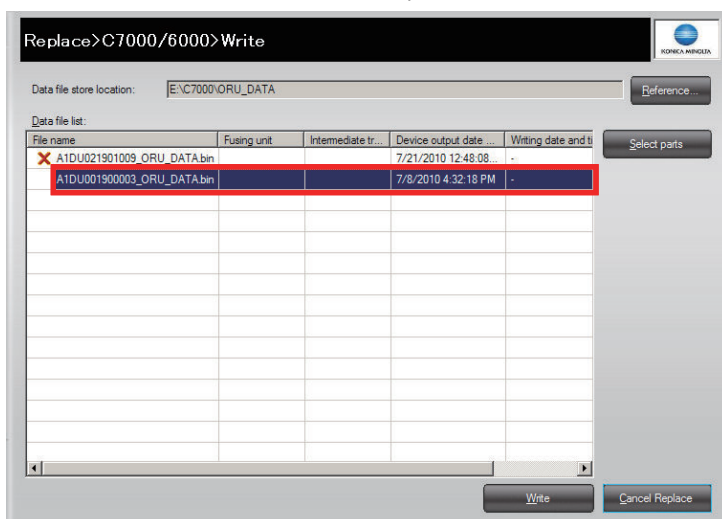
3. Once the reading the data file of the USB memory or the folder completes, the writing screen appears. The read files are shown in a list on the center of the screen.



Note

- When it is activated in the folder cooperation mode, it cooperates with the folder of the previous replacement.

4. Select the data file which includes the unit to be replaced from the read data files and click "Select parts".



Note

- The unit with "blank" is the target unit of the replacement.
- The display of the unit column shows the condition of the unit.
 - Blank:
Unit whose part information is exported from the device (target to replace)
 - Completed editing:
Unit whose part to be reset the count has been selected, or whose unit serial number has been set
 - Already written.:
Unit whose part to be reset the count has been written in the data file
 - Already imported the device.:
Unit whose part information has been imported to the device
- For the unit with "Already imported the device." on the column, the part to be reset the count cannot be selected.

5. Once the reading of unit completes, the part selection screen appears.
The units read are listed on the left of the screen as buttons.

Replace>C7000/6000>Write>Select parts

Data file: A1DU001900003_ORU_DATA.bin
User name: (No User Setting) [Change]

Fusing Unit(1)
S/N:

Intermediate Transfer Unit(2)
S/N:

Fusing Unit
Serial number: FA1RFA72F9999995

Name	Part No.	Qty	Count	Life cycle
<input checked="" type="checkbox"/> Fusing Roller/L	A03U7203	1	410805	91%
<input checked="" type="checkbox"/> Fusing Belt	A03U7205	1	410805	91%
<input checked="" type="checkbox"/> Fusing Bearing/L	26NA5371	2	410805	91%
<input checked="" type="checkbox"/> Insulating Sleeve/L	A03U7227	2	410805	91%
<input checked="" type="checkbox"/> Fusing Drive Gear/O	A03U8095	1	410805	91%
<input type="checkbox"/> Paper Exit Roller/Up	A03U7225	2	392685	87%
<input type="checkbox"/> Fusing Limiter	65AA5365	1	410805	68%
<input type="checkbox"/> Fusing Regulating Gear	65AA7747	1	410805	68%
<input type="checkbox"/> Fusing Roller/2	A03U7202	1	410805	45%
<input type="checkbox"/> Belt Regulating Sleeve	A03U7250	2	410805	45%
<input type="checkbox"/> Insulating Sleeve/U	A03U7295	2	410805	45%
<input type="checkbox"/> Fusing Roller/1	A03U7201	1	410805	45%

Parts count Unit/machine Basic info

[CSV export...] [Print...] [Back to writing screen] [Cancel Replace]

6. Select the unit to replace, select the part to reset the count, and then click "Back to writing screen".

Replace>C7000/6000>Write>Select parts

Data file: A1DU001900003_ORU_DATA.bin
User name: (No User Setting) [Change]

Fusing Unit(1)
S/N:

Intermediate Transfer Unit(2)
S/N:

Intermediate Transfer Unit
Serial number: LA1RFA72L9999996

Name	Part No.	Qty	Count	Life cycle
<input checked="" type="checkbox"/> Belt Cleaning Blade(Distan...	A03U5530	1	13185	8%
<input checked="" type="checkbox"/> Intermediate Transfer Belt	A03U5042	1	17087	4%
<input checked="" type="checkbox"/> Toner Recovery Sheet	A1DUA532	1	17087	4%
<input type="checkbox"/> 1st Transfer Roller/K	A03U5004	1	17087	4%
<input type="checkbox"/> 2nd Transfer Roller/U	65AA2611	1	17087	4%
<input type="checkbox"/> 1st Transfer Roller/Y	A03U5012	1	12830	3%
<input type="checkbox"/> 1st Transfer Roller/M	A03U5012	1	12830	3%
<input type="checkbox"/> 1st Transfer Roller/C	A03U5012	1	12830	3%
<input type="checkbox"/> Transfer Belt Cleaning Unit	A1DUA530	1	17087	2%
<input type="checkbox"/> Transfer Belt Separation Cl...	A1DUA518	3	17087	2%
<input type="checkbox"/> Separation Claw Solenoid	26NA8251	1	15198	1%
<input type="checkbox"/> Transfer Roller Bearing	65AA2638	8	17087	0%

Parts count Unit/machine Basic info

[CSV export...] [Print...] [Back to writing screen] [Cancel Replace]

On the parts selecting screen, the unit serial number (alphanumeric characters in 16-digit) can be input.
Blank is also available when the serial number is not needed.

Intermediate Transfer Unit

Serial number: LA1RFA72L9999996

Name	Part No.	Qty	Count	Life cycle
------	----------	-----	-------	------------

Conduct the same operation to all units to be replaced.

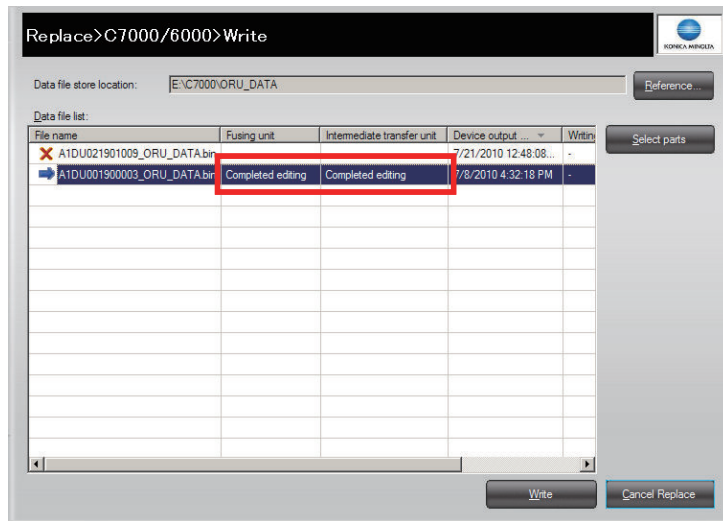
Note

- Writing to data file is not executed by clicking the "Back to writing screen" on the parts selecting screen. Writing to the data file is executed on the writing screen. For details, refer to the steps 7 and more.

- The input unit serial number is reflected when you return to the writing screen and write the data file. The display is not updated during inputting and editing the number. The serial number displayed on the button on the left of the screen and the unit/machine information shows the old information before inputting the number.

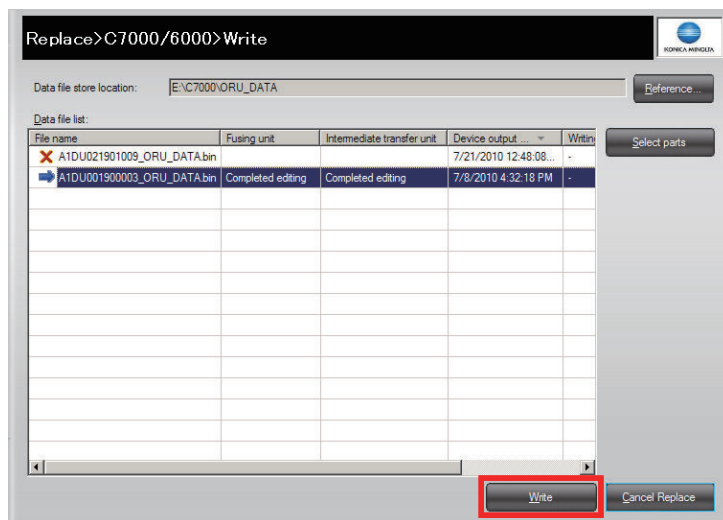
7. Writing screen appears.

Confirm that the unit with part selected is "Completed editing".



8. Repeat steps 4 to 7 to all data files which include the unit to be replaced.

9. Click "Write" button.



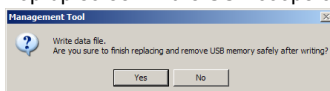
Note

- Click "Reference" button of the writing screen and select the folder to switch to the folder cooperate mode.
- In the next replacement, it is activated in the mode of the previous replacement. This mode can be switched with "Option" (Refer to [E.1.8.4.\(8\) Option](#)).

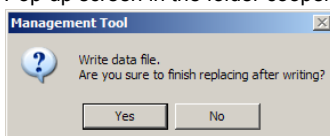
10. A writing confirmation message appears and "Completed editing" unit is written in the data file of the USB memory or the PC folder. Then, the replacement completes.

In the USB cooperate mode, once the replacement completes, the USB memory can be removed safely.

* Pop-up screen in the USB cooperation mode



* Pop-up screen in the folder cooperation mode

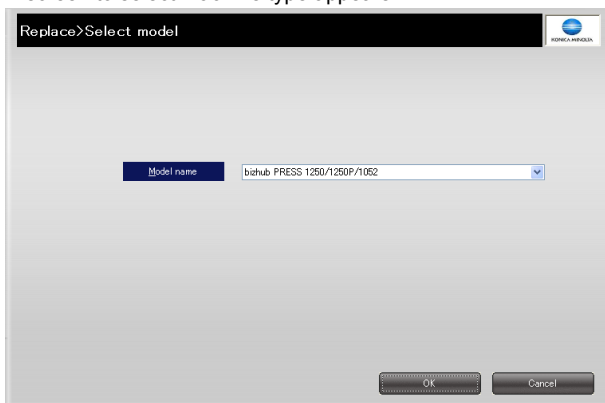


Note

- Be sure not to disconnect the USB memory until the writing completes since it takes time to complete writing to the USB memory in the USB cooperation mode.
- When the USB memory failed to be removed safely, writing to data file may not complete properly. Confirm that no other program uses the USB memory and write to the data file again.
- In the folder cooperate mode, be careful not to mistake the import data when cooperating with the C7000/6000 main body.
- While in replacement work, the Management Tool cannot be exited.
To exit the Management Tool, exit the replacement work.

1.8.7 bizhub PRESS 1250/1250P/1052 replacement procedure**Note**

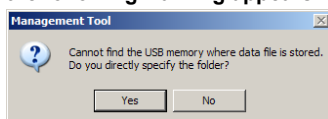
- Depending on the destination of the cooperated counter data, there are 2 modes for the replacement on the bizhub PRESS 1250/1250P/1052.
 - **USB cooperation mode:**
Execute the counter reset directly to the counter data read from the main body to the USB memory with the "Save to External Memory" of ORU-M (Refer to [E.1.7.2 Store to external memory](#)).
 - **Folder cooperation mode:**
Move the counter data read from the main body to the USB memory to the folder of the client PC once and execute the counter reset to the counter data in the folder with the "Save to External Memory" of ORU-M (Refer to [E.1.7.2 Store to external memory](#)).
 - It is activated in the mode of the previous replacement, but the mode can be selected with "Option" (Refer to [E.1.8.4.\(8\) Option](#)). (Default is USB cooperation mode.)
1. Click "Replacement work" on the top screen.
Or select "Replacement work" in "Tool" menu.
 2. A screen to select machine type appears.



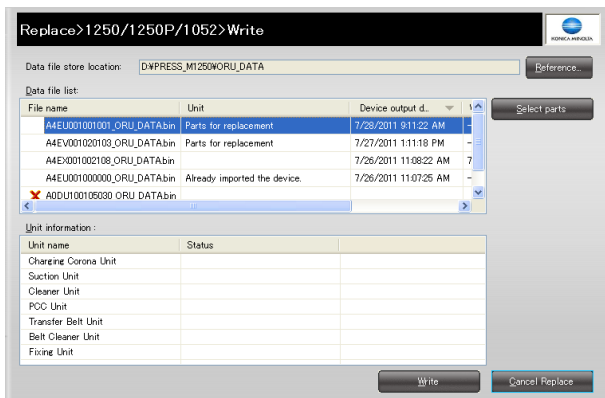
Select "bizhub PRESS 1250/1250P/1052" and click [OK] button.
Proceed to step 3.

Note

- When it is activated in the USB cooperation mode and the USB memory in which the data file is saved cannot be recognized, the following warning appears. Select [Yes (Y)] to activate in the folder cooperation mode.

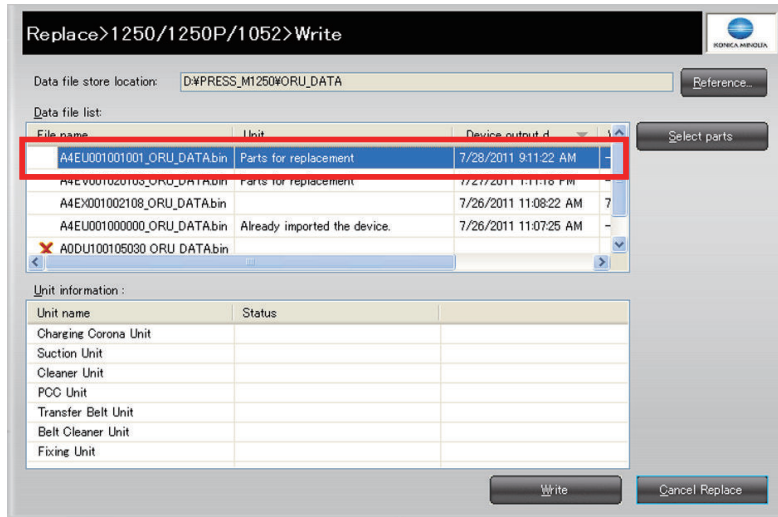


3. Once the reading the data file of the USB memory or the folder completes, the writing screen appears. The read files are shown in a list on the upper in the center of the screen. Also the unit information of the data files selected in the data file list is shown in a list on the lower in the center of the screen.

**Note**

- When it is activated in the folder cooperation mode, it cooperates with the folder of the previous replacement.

4. Select the data file which includes the unit to be replaced from the read data files and click "Select parts".



Note

- The data file with "Parts for replacement" on the unit column has the target unit of the replacement (the part whose count to be reset).
 - The display of the unit column shows the condition of the all units which are stored in the data file.
 - Blank:
Data file which has the unit whose part information has been exported from the device, or the unit which has been written. Although the target unit of the replacement does not exist, the part whose count to be reset can be selected, and the unit serial number can be set.
 - Parts for replacement:
Data file which has the target unit of the replacement in the unit whose part information has been exported from the device, or in the unit which has been written. The unit whose count to be reset can be selected, and the unit serial number can be set.
 - Unit includes parts which was replaced:
Data file which has the unit whose part to be reset the count has been selected, or whose unit serial number has been set.
 - Already imported the device.:
Data File which has the all units whose part information are imported to the device.
 - The unit with "blank" on the status column of the unit information list is the target unit of the replacement.
 - The display of the status column shows the condition of the unit.
 - Blank:
Unit whose part information is exported from the device (target to replace)
 - Completed editing:
Unit whose part to be reset the count has been selected, or whose unit serial number has been set
 - Already written.:
Unit whose part to be reset the count has been written in the data file
 - Already imported the device.:
Unit whose part information has been imported to the device
 - For the unit with "Already imported the device." on the status column of the unit information list, the part whose count to be reset cannot be selected.
5. Once the reading of unit completes, the part selection screen appears.
The units read are listed on the left of the screen as buttons.

Replace>1250/1250P/1052>Write>Select parts

Data file: A4EU001001001_ORU_DATA.bin

User name: (No User Setting) Change

Charging Corona Unit(1)
S/N:CA1RFC33D9999988

Suction Unit(2)
S/N:SA1RFC33D9999988

Cleaner Unit(2)
S/N:CR1RFC33D9999988

POC Unit(4)
S/N:PC1RFC33D9999988

↑ ↓

CSV export Print

Charging Corona Unit

Serial number: CA1RFC33D9999988

Name	Part No.	Q'ty	Count	Life cycle
<input checked="" type="checkbox"/> Charge cleaning unit	A4EUA463	1	1130451	113%
<input type="checkbox"/> Charging wire	56UA2509	1	278483	27%
<input type="checkbox"/> Charge control plate	A4EUA467	1	278483	27%
<input type="checkbox"/> Charging corona unit	A4EUA460	1	278483	3%

Parts count Unit/machine Basic info

Back to writing screen Cancel Replace

6. Select the unit to replace, select the part to reset the count, and then click "Back to writing screen".

Replace>1250/1250P/1052>Write>Select parts

Data file: A4EU001001001_ORU_DATA.bin

User name: (No User Setting) Change

Suction Unit(2)
S/N:SA1RFC33D9999988

Cleaner Unit(2)
S/N:CR1RFC33D9999988

POC Unit(4)
S/N:PC1RFC33D9999988

Transfer Belt Unit(5)
S/N:TR1RFC33D9999988

↑ ↓

CSV export Print

Transfer Belt Unit

Serial number: TR1RFC33D9999988

Name	Part No.	Q'ty	Count	Life cycle
<input checked="" type="checkbox"/> Earth electrode unit	A4EUA506	1	4461535	111%
<input checked="" type="checkbox"/> Trans belt	A0G65001	1	4407251	110%
<input checked="" type="checkbox"/> Transfer electrode unit	A4EUA508	1	4199391	104%
<input type="checkbox"/> Power supply ball bearing	A0G65039	1	3424211	85%
<input type="checkbox"/> Trans roller	A4EU5006	1	2441171	61%

Parts count Unit/machine Basic info

Back to writing screen Cancel Replace

On the parts selecting screen, the unit serial number (alphanumeric characters in 16-digit) can be input. Blank is also available when the serial number is not needed.

Transfer Belt Unit

Serial number: TR1RFC33D9999988

Name	Part No.	Q'ty	Count	Life cycle
------	----------	------	-------	------------

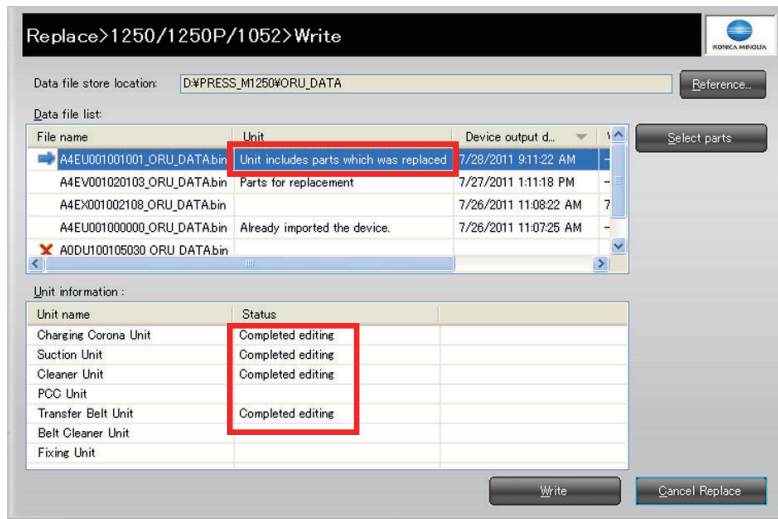
Conduct the same operation to all units to be replaced.

Note

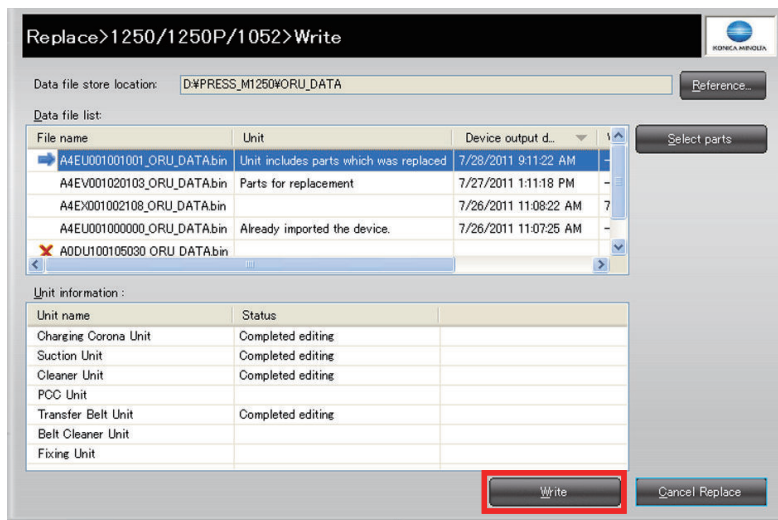
- Writing to data file is not executed by clicking the "Back to writing screen" on the parts selecting screen. Writing to the data file is executed on the writing screen. For details, refer to the steps 7 and more.
- The input unit serial number is reflected when you return to the writing screen and write the data file. The display is not updated during inputting and editing the number. The serial number displayed on the button on the left of the screen and the unit/machine information shows the old information before inputting the number.

7. Writing screen appears.

Check "Unit includes parts which was replaced" on the unit column of the data file whose parts has been selected on the data file list. Also, check "Completed editing" with the unit whose parts has been selected on the unit information list.



8. Repeat steps 4 to 7 to all data files which include the unit to be replaced.
9. Click "Write" button.



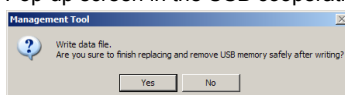
Note

- Click "Reference" button of the writing screen and select the folder to switch to the folder cooperate mode.
- In the next replacement, it is activated in the mode of the previous replacement. This mode can be switched with "Option" (Refer to [E.1.8.4.\(8\) Option](#)).

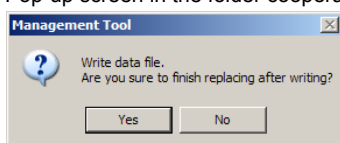
10. A writing confirmation message appears and the unit with "Completed editing" on the unit information list is written in the data file of the USB memory or the PC folder. Then, the replacement completes.

In the USB cooperate mode, once the replacement completes, the USB memory can be removed safely.

- * Pop-up screen in the USB cooperation mode



- * Pop-up screen in the folder cooperation mode



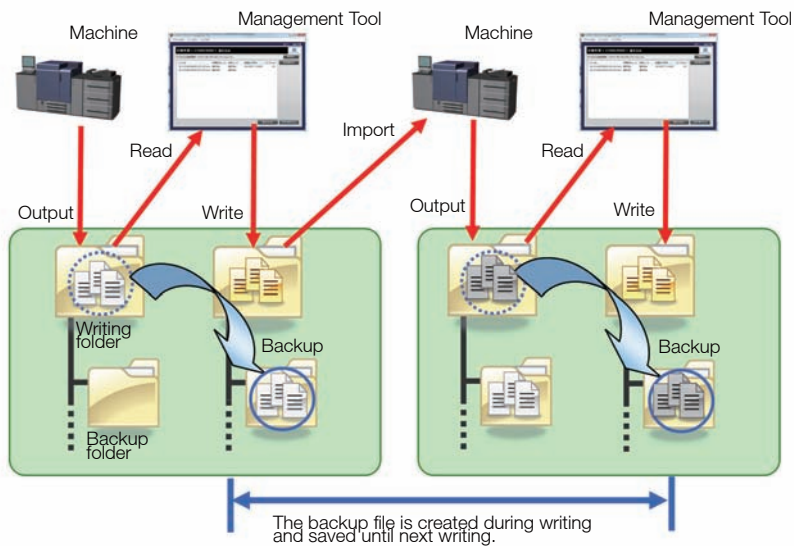
Note

- Be sure not to disconnect the USB memory until the writing completes since it takes time to complete writing to the USB memory in the USB cooperation mode.
- When the USB memory failed to be removed safely, writing to data file may not complete properly. Confirm that no other program uses the USB memory and write to the data file again.
- In the folder cooperate mode, be careful not to mistake the import data when cooperating with the 1250/1250P/1052 main body.
- While in replacement work, the Management Tool cannot be exited.

To exit the Management Tool, exit the replacement work.

1.8.8 Backup file

In the replacement of the bizhub PRESS C7000/6000, 1250/1250P/1052, back up the data file at writing to the data file.



Note

- If the wrong information is written with Management Tool, take back the backup file to the writing folder to recover the information.
- When several writings are executed to 1 data file, the data to be recovered is the data file which written before the last writing.
- For the backup file in the USB cooperation mode, a backup folder is created automatically and saved in the ORU-DATA folder.
- For the backup file in the folder cooperation mode, a backup folder is created automatically and saved in the folder that is the same as the data file.

1.8.9 Administrator mode

Set the required information of the Management Tool.

(1) Top screen



When logging in successfully, the top screen is displayed.

- To check the work log, click "WorkLog" button. (Refer to [E.1.8.9.\(3\) Administrator Setting](#))
- To register the customer information, click "RegisterUser" button. (Refer to [E.1.8.4.\(4\) Register user](#))
- To register a technician, click "RegisterTech" button. (Refer to [E.1.8.9.\(2\) Register technician](#))
- To change the administrator password, click "Admin.setting" button. (Refer to [E.1.8.9.\(3\) Administrator Setting](#))

(2) Register technician

Register, edit or delete the technician information.

(a) Technician list

Click [RegisterTech] on the top screen.
Or select "RegisterTech" in "Tool" menu.

RegisterTech>List

Registration no.	Technician name	Technician code	Company name	Service office name
001	Aaaa Bbbb	000000001	konicaminolta	
002	Cccc Dddd	000000002	konicaminolta	
003	Ffff Gggg	000000003	konicaminolta	
004	Eeee Mmmm	000000004	konicaminolta	
005	Hhhh Uuuu	000000005	konicaminolta	
006	Vvvv Tttt	000000006	konicaminolta	

Buttons: Registration, Edit, Delete, Import, Export, Set list view, Complete technician registration

Note

- The items can be sorted in descending/ascending order by clicking the item name of the technician information list. The mark ▲ indicates that the current display is in ascending order. Click it to change in descending order.

Registration no.	Technician name	Technician code	Company name	Service office name
▲ 001	Aaaa Bbbb	000000001	konicaminolta	
002	Cccc Dddd	000000002	konicaminolta	

- On the technician information list screen, the items to be displayed and their display width can be changed via "Set View". (Refer to [E.1.8.10.\(5\) Set list view](#))

(b) Initial registration

Register a new technician information.

The items with "*" must be filled.

RegisterTech>List>New

Registration No. 007 [* Must item]

Technician name: Pppp Kkkk

Password: *****

Password (confirmation): *****

Technician code: 000000007

Country: Japan

Company name: konicaminolta

Company code:

Service office name:

Service office code:

Generate a password

Generated password: Issue password

Buttons: Set password, Copy, Registered, Exit

- Enter "Technician name."
Use 1 to 64 characters regardless of whether one-byte or two byte.
- Enter "Password" and "Password (confirmation)."
Use one-byte alphanumeric characters and symbols for password.
- Enter "Country."
Use 1 to 128 characters regardless of whether one-byte or two byte.
- Enter "Company name."
Use 1 to 256 characters regardless of whether one-byte or two byte.
- Enter the following items if necessary.
 - Enter "Technician code." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Enter "Company code." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Enter "Service office name." Use 0 to 256 characters regardless of whether one-byte or two byte.
 - Enter "Service office code." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - "Generate a password"

By clicking "Generate a password", a password is generated automatically.
Click "Set password" to set the password automatically generated to the "Password" and "Password (confirmation)." Click "Copy" to copy the password automatically generated to the clipboard.
- Click [Registered].
The entered technician information is registered and the next technician information can be registered.

Note

- Registration No. is determined automatically.

(c) Edit

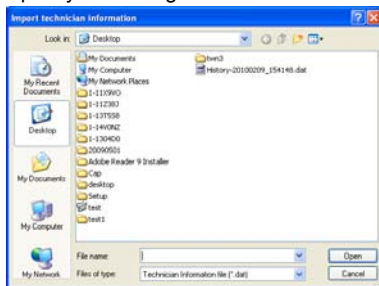
Edit a registered technician information.

1. Edit the items to be changed.
 - Edit "Technician name." Use 1 to 64 characters regardless of whether one-byte or two byte.
 - Edit "Technician code." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Edit "Country." Use 1 to 128 characters regardless of whether one-byte or two byte.
 - Edit "Company." Use 1 to 256 characters regardless of whether one-byte or two byte.
 - Edit "Company code." Use 0 to 32 one-byte alphanumeric characters and symbols.
 - Edit "Service office name." Use 0 to 256 characters regardless of whether one-byte or two byte.
 - Edit "Service office code." Use 0 to 32 one-byte alphanumeric characters and symbols.
2. Click [OK].
The edited result is reflected to the technician information.

(d) Import

Import the technician information which is exported from Management Tool.

1. Specify the storage location of the technician information file to import.



2. Click [Open].
The technician information file is imported.

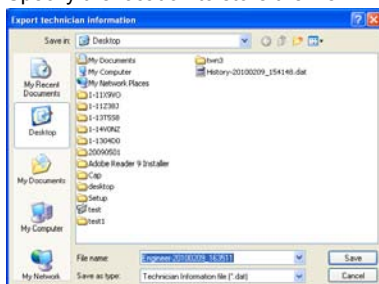
Note

- The technician information already exists is not imported.

(e) Export

Export the technician information collectively.

1. Specify the location to store the file.



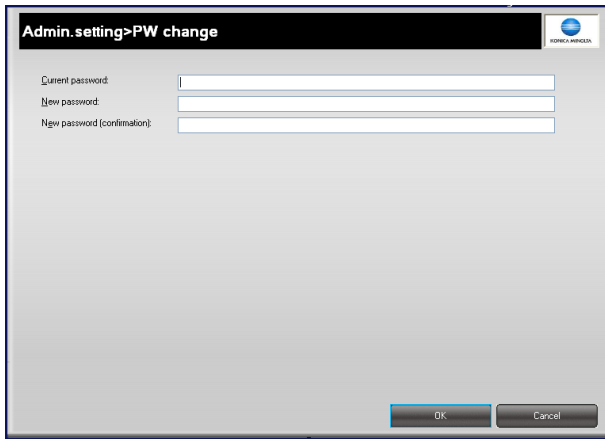
2. Click [Save].
The export of the technician information starts.

Note

- The file format "Technician Information file" is a format to display the contents on the Management Tool. When the file is stored in other format, the file is unable to open on the Management Tool.

(3) Administrator Setting

Change the administrator password.



1. Enter the current password and the new password.
2. Click [OK].

The new Password is set.

Note

- Use one-byte alphanumeric characters and symbols for password.

1.8.10 Various setting for the software

(1) File menu

(a) Import

- Work log
Select "Work log" from "Import" in the "File" menu to load the work log which has been exported with the Management Tool. (Refer to [E.1.8.4.\(3\).\(c\) Import](#))

Note

- It is available only from the top screen or the Work log screen.

- User information
Select "User information" from "Import" in the "File" menu to load the user information which has been exported with the Management Tool. (Refer to [E.1.8.4.\(4\).\(d\) Import](#))

Note

- It is available only from the top screen or the Register user screen.

- Technician information
Select "Technician information" from "Import" in the "File" menu to load the technician information which has been exported with the Management Tool. (Refer to [E.1.8.9.\(2\).\(d\) Import](#))

Note

- This menu is displayed when logging in as an administrator.
- It is available only from the top screen or the Technician information screen.

(b) Export

- Work log
Select "Work log" from "Export" in the "File" menu to store the collective work log as a file. (Refer to [E.1.8.4.\(3\).\(d\) Export](#))

Note

- It is available only from the top screen or the Work log screen.

- User information
Select "User information" from "Export" in the "File" menu to store the collective user information as a file. (Refer to [E.1.8.4.\(4\).\(e\) Export](#))

Note

- It is available only from the top screen or the Register user screen.

- Technician information
Select "Technician information" from "Export" in the "File" menu to store the collective user information as a file. (Refer to [E.1.8.9.\(2\).\(e\) Export](#))

Note

- This menu is displayed when logging in as an administrator.
- It is available only from the top screen or the Register technician screen.

(2) Tool menu

The functions in "Tool" are available only from the top screen.

(a) Replacement work

Select "Replacement work" in "Tool" menu to perform unit parts replacement. (Refer to [E.1.8.4.\(2\) Replacement work](#))

Note

- This menu is displayed when logging in to the technician mode.

(b) Work log

Select "Work log" from "Tool" to check the work log. (Refer to [E.1.8.4.\(3\) Work log](#))

(c) Register user

Select "Register user" in "Tool" menu to check, register, edit, or delete user information. (Refer to [E.1.8.4.\(4\) Register user](#))

(d) SetPersonal

Select "Set personal info" in "Tool" menu to change the password of login technician or edit comments. (Refer to [E.1.8.4.\(5\) SetPersonal](#))

Note

- This menu is displayed when logging in to the technician mode.

(e) Unit Serial Number Setting

Select "Unit Serial Number" from "Tool" menu to write the unit serial number in the RFID tag. (Refer to [E.1.8.4.\(6\) Serial number setting \(bizhub PRESS C8000\)](#))

Note

- This menu is displayed when logging in to the technician mode.

(f) Intermediate transfer steering sensor information setting

The default value of the intermediate transfer steering sensor can be written in the RFID tag by selecting "Intermediate transfer steering sensor information setting" from "Tool" menu. (Refer to [E.1.8.4.\(7\) Intermediate transfer steering sensor information setting \(bizhub PRESS C8000\)](#))

Note

- This menu is displayed when logging in to the technician mode.

(g) Option

Each item of Management Tool can be set by selecting "Option" from "Tool" menu. (Refer to [E.1.8.4.\(8\) Option](#))

Note

- This menu is displayed when logging in to the technician mode.

(h) Register technician

Select "Register technician" in "Tool" menu to check, register, edit, or delete technician information. (Refer to [E.1.8.9.\(2\) Register technician](#))

Note

- This menu is displayed when logging in as an administrator.

(i) Administrator Setting

Select "Administrator Setting" in "Tool" menu to change the password of administrator. (Refer to [E.1.8.9.\(3\) Administrator Setting](#))

Note

- This menu is displayed when logging in as an administrator.

(3) Help menu**(a) Version**

Select "Version" in the "Help" menu to display version information of the Management Tool.

Note

- The image at the top of the screen can be customized. (Refer to [E.1.8.10.\(4\) Image setting](#))

(4) Image setting**(a) Navigation**

"70 x 40 (pixels)" image display area of is provided in the navigation view area. An image to be displayed here can be customized by users.



Item	Description
Supported file type	GIF, JPG, JPEG, BMP, PNG
Image size	Image size is arbitrary. *1
Display method	Custom image to be displayed is enlarged or reduced to the area size (70 x 40).
File Name	Navigation. (extension *2)
Stored location	(Install directory)\Images
Remark	When a file exists, a custom image is displayed. *3

*1 70 x 40 (pixels) size is recommended.

*2 For extension, refer to "Supported file type."

When a file does not exist, a default image shown above is displayed.

(b) Log in screen

"480 x 90 (pixels)" image display area of is provided on the login screen. An image to be displayed here can be customized by users.



Item	Description
Supported file type	GIF, JPG, JPEG, BMP, PNG
Image size	Image size is arbitrary. *1
Display method	Custom image to be displayed is enlarged or reduced to the area size (480 x 90).
File Name	Login.(extension*2)
Stored location	(Install directory)\Images
Remark	When a file exists, a custom image is displayed. *3

*1 480 x 90 (pixels) size is recommended.

*2 For extension, refer to "Supported file type."

When a file does not exist, a default image shown above is displayed.

(c) Top screen

"350 x 365 (pixels)*1" image display area of is provided on the login screen (when the main window size is 800 x 600*2). An image to be displayed here can be customized by users.



Item	Description
Supported file type	GIF, JPG, JPEG, BMP, PNG
Image size	Image size is arbitrary. *1
Display method	Custom image to be displayed is enlarged or reduced to the area size (350 x 365).
File Name	TopMenu.(extension*3)
Stored location	(Install directory)\Images
Remark	When a file exists, a custom image is displayed. *4

*1 350 x 365 (pixels) size is recommended.

*2 Image size (350 x 365) is default value. The image is displayed by enlarged or reduced in accordance with the window size.

*3 For extension, refer to "Supported file type."

When a file does not exist, a default image shown above is displayed.

(d) Version information screen

"460 x 150 (pixels)" image display area of is provided on the version information screen.

An image to be displayed here can be customized by users.



Management Tool

Item	Description
Supported file type	GIF, JPG, JPEG, BMP, PNG

Image size	Image size is arbitrary. *1
Display method	Custom image to be displayed is enlarged or reduced to the area size (460 x 150).
File Name	Version.(extension)*2)
Stored location	(Install directory)\Images
Remark	When a file exists, a custom image is displayed. *3

*1 460 x 150 (pixels) size is recommended.

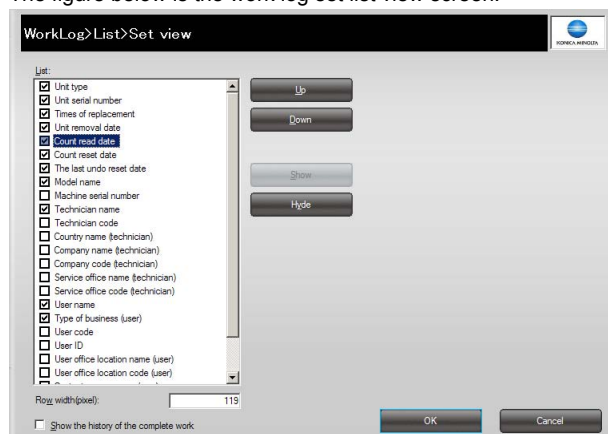
*2 For extension, refer to "Supported file type."

When a file does not exist, a default image shown above is displayed.

(5) Set list view

The items to be displayed and the display width can be changed.

1. Click [Set list view].
2. The set list view screen is displayed.
The items to be displayed differs among screens.
The figure below is the work log set list view screen.



3. Set show/hide of items by checking in the list.
 - Items with check are displayed.
 - The setting can be changed by clicking [Show]/[Hide] on the right of the screen.
4. Set other conditions if necessary.
 - Selected column width: Specify the display width by entering desired value. It can be specified by 0 to 999.
 - [Top] :Item display order is moved to top.
 - [Bottom] :Item display order is moved to bottom.
5. Click [OK].
The set list view is updated.

(6) Export CSV

The format of the CSV file exported by the Management Tool is as follows.

Output items

Common information (Replacement work information)		
No	Item	Description
1	User name	The user name associated to replacement work is exported.
2	Type of business (user)	The type of business associated to replacement work is exported.
3	User code	The user code associated to replacement work is exported.
4	User ID	The user ID associated to replacement work is exported.
5	User office location name (user)	The user office location name associated to replacement work is exported.
6	User office location code (user)	The user office location code associated to replacement work is exported.
7	Contact person name (user)	The contact person name associated to replacement work is exported.
8	Contact person ID no. (user)	The contact person ID no. associated to replacement work is exported.
9	Contact telephone (user)	The contact telephone associated to replacement work is exported.
10	Technician name	The name of the technician who performed replacement work is exported.
11	Technician code	The code of the technician who performed replacement work is exported.
12	Country (technician)	The country of the technician who performed replacement work is exported.
13	Company name (technician)	The company name of the technician who performed replacement work is exported.
14	Company code (technician)	The company code of the technician who performed replacement work is exported.
15	Service office name (technician)	The service office name of the technician who performed replacement work is exported.

16	Service office code (technician)	The service office code of the technician who performed replacement work is exported.
17	Machine name	Export the device name.
18	Main Body Serial Number	The serial number of the main body is exported.
19	Unit type	The unit type is exported.
20	Unit Serial Number	The serial number of the unit is exported.
21	Replacement Count	The number of times of unit replacement is exported.
22	Unit removal date	The date of unit removal is exported.
23	Count read date	The date when the unit RFID tag is read is exported.
24	Count reset date	The date when the count is reset is exported.
25	The last undo reset date	The last date when undoing reset is exported.
26	Number of parts	The number of parts in the unit is exported.
Part Information (for each part)		
27	No	Assigned from 1 automatically.
28	Replace	The replaced parts are outputted as "Changed."
29	Parts name	The parts name is exported.
30	Parts No.	The parts number is exported.
31	Quantity	The quantity of parts is exported.
32	Count	The count value of parts is exported.
33	Life cycle	The life cycle value of parts is exported.
34	Supplement 1	When the unit type is "intermediate transfer unit" and the parts is "intermediate transfer belt" with count reset, "intermediate transfer belt characteristic value (front)" is exported.
35	Supplement 2	When the unit type is "intermediate transfer unit" and the parts is "intermediate transfer belt" with count reset, "intermediate transfer belt characteristic value (rear)" is exported.

Note

- Break character is "," (comma).
- Each item is enclosed in " " (double quotation marks).
- When no data exist, only " " (double quotation marks) is outputted.

File format

The header (item name) is created on first row of the file.

For the subsequent rows, each parts information is outputted per one line.

For example, when the unit has 15 parts in it, 15 rows are outputted per replacement work.

1st row	Header row (exports the item name)	N of replaced parts per replacement work
2nd row	Replacement work 1 - part (1)	
3rd row	Replacement work 2 - part (2)	
4th row	Replacement work 3 - part (3)	
5th row	Replacement work 4 - part (4)	
	<div> <div></div> <div></div> <div></div> </div>	

(7) Print Report

Details on the replacement work can be printed as replacement report.

Print layout

Unit replacement slip						
Unit information				Technician information		
Name	: Fusing			Country	: Japan	
Serial Number	: A1RFA72AF9999991			Company name	: konicaminolta	
Times of replacement	: 0			Name	: Aaaa Bbbb	
Unit removal date	: -			User information		
Count read date	: 2/9/2010 11:57:36 AM			User name	:	
Count reset date	: -			Type of business	:	
Machine information				User office location	:	
Serial Number	:			name	:	
				Contact person	:	
				name	:	
				Contact telephone	:	
				Software information		
				Software	: KONICA MINOLTA Management Tool	
				Version	: 1.0.00000 0001	
Part Information						
No.	Replacement	Part name	Part No.	Q'ty	Life cycle	
1		Fusing Web Unit	A1RFB775	1	0	0%
2		Fusing Out Heat Assembly	A1RFB785	1	0	0%
3		Fusing Oscillating Axis Assembly	A1RFA752	1	0	0%
4		Fusing Paper Exit Guide Assembly	A1RFA773	1	0	0%
5		Fusing Under Belt Unit	A1RFA780	1	0	0%
6		Fusing Roller Assembly	A1RFA800	1	0	0%
7		Fusing Separation Claw Unit	A1RFA774	1	0	0%
8		Fusing Web Torque Limiter	A1RF7239	1	0	0%
9		Fusing Web Prevention Part	A1RF7240	1	0	0%
10		Fusing Paper Exit Roller(Low)	A1RF7517	1	0	0%
11		Fusing Refresh Roller Assembly	A1RFB754	1	0	0%
12		Fusing Drive Assembly	A1RFA755	1	0	0%
13		Fusing Temp. Sensor(Out Heat)	A1RFB793	1	0	0%
14		Fusing Temp. Sensor(U-Belt)	A1RFA751	1	0	0%
15		Fusing Temp. Sensor(Fus.Roller)	A1RFB750	1	0	0%
16		Fusing Heater/1	A1RFM31A	1	0	0%
17		Fusing Heater/4	A1RFM34A	1	0	0%
18		Fusing Heater/5	A1RFM35A	1	0	0%
19		Fusing Paper Exit Actuator Ass.	A1RFA776	1	0	0%
20		Fusing Web Motor Assembly	A1RFB753	1	0	0%
Print date 09/02/2010						

1.8.11 Error message list

An error message may appear while Management Tool is operating.
The description of error and its error code are displayed.



The error codes and countermeasures are shown below. Follow the countermeasures shown below.

Error code	Measure taken
400-402, 500, 501, 600, 700, 2005-2008, 2030-2044, 2100-2109, 2130-2140, 2151-2160, 2170-2187, 2194-2196, 2200-2209, 2230-2240, 2251-2260, 2270-2280, 2290-2297, 2303-2329, 2331-2343, 2346-2358, 2362, 2363, 2367, 2405, 2409, 2411, 2500-2509, 2516, 2517, 2520-2523, 2762-2766, 2781-2813, 3000-3006, 3008-3014, 3100, 3101	Retry.
2402, 2403, 2410, 2411, 5001-5010, 5200-5208	Check the RFID tag and retry. Note <ul style="list-style-type: none"> When the same error occurs even after retrying, remove the RFID tag reader/writer from a computer once and insert it again, then reboot the Management Tool. When the same error still occurs, contact an administrator.
2400, 2406-2408, 5100-5106	Check whether the RFID tag reader/writer is connected to a computer correctly.

102, 111-113, 800-802, 854, 855, 860-868, 880-884, 2090-2096, 2600-2611, 2622-2633, 2636-2644, 2710-2720, 3000-3006	Reinstall the Management Tool.
2100-2121, 2151-2160, 2170-2180, 2200-2221, 2251-2260, 2270-2280, 2303-2319, 2322-2329, 2331-2345, 2359, 2731, 2760, 2761	The file is not supported.
100	Non-compliant OS is used.
803-808, 914, 915, 950, 951, 2401, 2404, 2721-2723, 2730, 2732-2759, 2767-2775, 5102, 5201	Reboot the Management Tool.
2510-2515	Check the printing environment.

1.9 Acquisition of the controller log

1.9.1 OUTLINE

When there occurs an abnormal condition with respect to the image controller, acquisition of the controller log allows you to expect a location where an error has occurred.

USB memory is used for this acquisition. There are the following two procedures for log acquisition: "Controller defective log" and "Controller capture."

(1) Acquisition of the controller defective log

It is possible to collect log data in the USB memory just before a defective condition occurs.

Used when no defective condition recurs or it occurs less frequently.

Note

- The acquisition of print data is restricted only to 10 jobs just before the USB memory is inserted with [04 Spool Print Jobs in HDD before RIP] in [Controller] set to [Enable].

(2) Acquisition of the controller capture

Jobs can be collected after the USB memory is connected. This is used when a defective condition can be reproduced easily.

1.9.2 Preparation

(1) USB memory

- The shape must be slim so that it can be connected to the USB port (Type A) for the service of IC.
- USB memory that has been formatted in FAT or FAT 32 form.
- USB memory with a capacity larger than 2 GB, when used for the acquisition of defective log.
- When used for capture acquisition, the larger the capacity of the USB memory, the greater the number of data that can be obtained. (The number of data that can be obtained depends on the print size of the original and the capacity of the USB memory.)

(2) Key files for log acquisition

- Key file for acquisition of the defective log of the controller: showallog
- Key file for acquisition of the controller capture: getcapture

Note

- Obtain a key file from KMBT.
- Be sure to store only one of "showallog" or "getcapture" key file in the USB memory. If both of the key files are stored in the USB memory, the defective log/capture is not acquired properly.

(3) Setting of the controller

Make settings of [MACHINE] - [Controller] - [04 Spool Print Jobs in HDD before RIP setting] to [Enable] on the operation panel of the main body.

When the spool setting is changed, be sure to turn off and on the main power switch (SW1).

1.9.3 Procedure for acquisition

(1) Procedure of acquisition of the controller defective log

1. Store the key file for acquisition of the controller defective log (showallog) in the USB memory with empty space.

Note

- A key file cannot be created. So, be sure to obtain one from KMBT.

2. Connect the USB memory to the USB port (Type A) for the service of IC.
3. Wait until the "Machine condition" key or "Controller setting" key of the panel display stops blinking. Also, wait until the access lamp of the USB memory stops flashing. The data acquisition normally completes in about 15 seconds after the lamp stops flashing.

Note

- While the defective log is being collected, "Machine condition" key or "Controller setting" key normally keeps blinking, but it does not blink when there is a communication error between the controller and the main body.
- When there occurs a communication error, check the access lamp of the USB memory.

4. Check to see if the name of an obtained log file is shown in the upper left section of the screen when the following buttons are pressed down on the operation panel: [MACHINE]-[Controller]-[Log File Name]. (IPLog_yyyymmdd_hhmmss.log)

Note

- You cannot check when there occurs a communication error between the controller and the main body.

5. Disconnect the USB memory from the USB port (Type A) for the service of IC.
6. Check to see if there is an IPLog_yyyymmddhhmmss.log file obtained on the day in the USB memory, and then copy all the files stored to the PC.

Note

- Several files other than the above are stored depending on the condition.
- Be sure to turn the main power switch (SW1) OFF and ON after removing the USB memory from the service port.
If it is not turned OFF and ON, there will be no guarantee for its proper operation after the log acquisition is completed.

7. Compress the files copied to the PC to send to KMBT.

Other than the preceding procedure, there are following functions to collect information to make the analysis of the trouble easier.

- Log acquisition: Save the controller log to the HDD right after the trouble occurs.

(a) Log acquisition: Save the controller log to the HDD right after the trouble occurs.

With this function, you can acquire the log right after the trouble occurs. It makes the analysis of the trouble easier. Since this operation must be performed right after the trouble occurs, the user is required to help in some cases. The controller logs of the latest three jobs can be saved with this operation.

Preparation**(1) USB memory**

- The shape must be slim so that it can be connected to the USB port (Type A) for the service of IC.
- USB memory that has been formatted in FAT or FAT 32 form.
- USB memory with a capacity larger than 2GB, when used for the acquisition of defective log.

(2) Key files for log acquisition

- Key file for acquisition of the defective log of the controller: showallog

Note

- Obtain a key file from KMBT.

(3) Setting of the controller

Make settings of [MACHINE] - [Controller] - [04 Spool Print Jobs in HDD before RIP setting] to [Enable] on the operation panel of the main body.

When the spool setting is changed, be sure to turn off and on the main power switch (SW1).

Procedure to save and collect the log (For the steps 1 to 5 to save, ask the user to help in some cases.)

1. On the control panel of the main body, press [Controller] -> [08 Administrator Setting] -> [01 Software Switch Setting] and set the switch number "50" to "1" (ON).
2. Display the [MACHINE] screen.
3. Press [RECALL] -> [COPY] -> [RECALL] -> [COPY] -> [RECALL] -> [COPY].

Note

- Be sure to input all items within 5 seconds after pressing the first [RECALL].

4. When the input of step 2 succeeds, the data lamp of the main body starts flashing. The flashing means that the controller log is saving to the HDD on the controller side. Be sure to wait until the flashing of the data lamp stops.

Note

- When the data lamp does not start flashing within 10 seconds after performing the step 2, perform the step 2 again.

5. Be sure to confirm that the flashing of the data lamp stops. No need to turn OFF/ON the sub and main switches after this operation.

Note

- When this operation is performed for several times, only the latest information is saved. The former log data is overwritten and cannot be acquired.

6. The CE acquires the log. Use a USB memory to acquire the log.

Note

- Be sure that only the CE can perform the following operations. Do not disclose it to the user.
- When the log cannot be collected with the USB memory, follow the following procedure that uses FTP.
- Refer to (1) Procedure of acquisition of the controller defective log, since the procedure is the same.

Files to be obtained

DebugDataX.log (X:0 (the latest log), 1 (the second last log), 2 (the third last log))

7. On the control panel of the main body, press [Controller] -> [08 Administrator Setting] -> [01 Software Switch Setting] and set the switch number "50" to "0" (OFF).
8. Send the acquired data to KMBT.

Procedure to collect the log via FTP

1. Start the command prompt on the PC.
2. Enter "ftp://" (IP address of the controller)".
3. Enter the ID and password to log on.
ID: log, Password: sysadm
4. Enter "ls" or "dir" to check whether the following files exist.
DebugDataX.log (X:0 (the latest log), 1 (the second last log), 2 (the third last log))
5. Download the file to the PC by "mget" (several files) or "get" (single file).

(2) Procedure of acquisition of the controller capture

1. Obtain a key file for acquisition of controller capture from KMBT.
Create a key file in the other way. (A key file can be created from a Notepad.)
*Key file format: The <> section is edited.

HDDorUSB, <type>	<type>=USB: Saved in the USB memory inserted.
MIO,<switch>, <count>	<switch>=ON: Obtained <switch>=OFF: Not obtained <count>=1 to ∞: Number of files obtained (Overwritten with a number specified and deleted in the order of the older files when out of memory.)
NET,<switch>, <count>	The same as above
PDL,<switch>, <count>	The same as above
RIP,<switch>, <count>	The same as above
TIF,<switch>, <count>	The same as above

*MIO: Data received from the network

*NET: Data analyzed with PrintJobAnalyzer

*PDL: Data analyzed with PJLParser

*RIP: Data storing RIP Buffer

*TIF: TIFF image data output by interpreter

Example)

HDDorUSB, USB

MIO, ON, 30 (In the case of collecting 30)

2. Copy a key file for acquisition of an edited controller capture (getcapture) in the USB memory with empty space.
3. Connect the USB memory to the USB port (Type A) for the service of IC.
4. About after waiting for 20 seconds, check to see if the access lamp of the USB memory stops flashing.
5. Continue printing until there occurs any problems you want to obtain.

Note

- Print speed gets slower than usual according to the contents of acquisition (or the contents of the key file).

6. Check to see if the access lamp of the USB memory stops flashing, and then remove the USB memory from the USB port (Type A) for the service of IC.
7. Check to see if there are files obtained on the day in the USB memory, and then copy all the files stored to the PC.
Files to be obtained with switch=ON
 - MIO_YYYYMMDD_hhmmss.txt
 - NET_YYYYMMDD_hhmmss.txt
 - PDL_YYYYMMDD_hhmmss.txt
 - RIP_YYYYMMDD_hhmmss.txt
 - TIF_YYYYMMDD_hhmmss.tif
8. Compress the files copied to the PC to send to KMBT.

F PERIODICAL MAINTENANCE

1. MAINTENANCE ITEM

1.1 Replacing procedure of the periodical replacement parts

Note

- For the replacement procedure of the periodically replaced parts, refer to [F.5 PERIODICAL MAINTENANCE PROCEDURE bizhub PRESS 1250/1250P/1052/PRO 951](#).

1.2 bizhub PRESS 1250/1250P/1052

1.2.1 1250/1250P/1052

(1) Periodic maintenance 1 (Every 1,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Image check			•			
		Charger/cleaner/developing unit/ LPH/drum removing						
		Drum stand inside cleaning (including the front side of the drum fixing coupling)		•				Vacuum cleaner
2	Scanner section	Exterior removing						
		Cleaning of the glass/the mirror		•				Isopropyl alcohol/cleaning pad
		Exterior installing						
3	Write section	Cleaning of the LPH lens		•				Cleaning pad
4	Charging corona	Charger control plate/discharge wire/both ends cover removing						
		Cleaning section removing						
		Charging cleaning unit A4EUR708##	2				•	
		Cleaning of the back plate		•				Cleaning pad/blower brush
		Charger control plate A4EUR709##	1				•	
		Charging wire 56UA2509##	2				•	
		Charger rubber vibration isolator 55VA2527##	2				•	
		C-clip 45AA2040##	2				•	
5	Cleaning section	Discharge wire A0G64708##	1				•	
		PCC cleaning		•				
		Cleaning blade A0G65350##	2				•	Cleaning pad/blower brush
		Cleaning of the receiving mylar		•				
		Cleaning of the inside of the cleaning unit		•				Vacuum cleaner
		Waste toner box A4EUR75V##					•	
		Drum scraper Assy A4EUR711##	1				•	
6	Photo conductor section	Scatter preventive filter Assy A4EUR712##	1				•	
		Drum • Photo conductor setting mode is conducted (in service mode)	1				•	Replace it once for every 1,000,000 prints or the following running time 1250/1250P: 175h 1052: 220h (whichever is earlier)
		Cleaning of the photo conductor section		•				Isopropyl alcohol/cleaning pad /Vacuum cleaner
		Drum claw A0G63456##	3				•	
		Drum claw unit cleaning		•				Vacuum cleaner /cleaning pad
		Drum fixing spring 55FU2014##	1				•	

		Drum positioning collar 25SA2015##	1				•	
7	Developing section	Cleaning of the developing section		•				Cleaning pad/vacuum cleaner
		Developer • TonerDensitySensorInit.Auto (in service mode)					•	Replace it once for every 1,000,000 prints or the following running time 1250/1250P: 175h 1052: 220h (whichever is earlier)
8	Toner supply section	Cleaning of the toner cartridge insertion opening		•				Vacuum cleaner
9	Transfer/Separation section	Removing/reinstalling of the interior/the exterior						Isopropyl alcohol/cleaning pad/blower brush
		Cleaning of the belt cleaning unit		•				
10	Fusing section	Cleaning of the Fusing claws /Up and /Lw/the entrance guide plate		•				Acetone/cleaning pad
		Fixing cleaning web A0G67314##	1				•	
11	Paper feed section	Cleaning of each sensor		•				Cleaning pad/blower brush
		Cleaning of the paper dust removing brush for vertical conveyance section		•				Vacuum cleaner/blower brush
		Cleaning of the vertical conveyance sensor		•				Cleaning pad/blower brush
12	DUPLEX SECTION	Cleaning of the paper dust removing brush		•				Vacuum cleaner/blower brush
		Cleaning of the registration sensor section		•				Cleaning pad/blower brush
		Cleaning of other sensors		•				
		Cleaning of the pre-transfer roller		•				Isopropyl alcohol/cleaning pad
		Cleaning of the loop roller		•				
		ADU Transport roller cleaning (4 positions)		•				
		Cleaning of the ADU reverse/exit roller		•				
		Transport roller cleaning (2 positions)		•				
		Cleaning of the ADU acceleration roller		•				
		Cleaning of the ADU exit roller		•				
		Cleaning of the ADU reverse roller		•				
		Cleaning of entire conveyance section/installing of the cover						Vacuum cleaner
13	De-curler section	Cleaning of the de-curler entrance roller		•				Isopropyl alcohol/cleaning pad
		Transport roller cleaning (2 positions)		•				
14	Each unit installing	Drum installing						
		Sensor/stay installing						
		Developing unit/suction filter						
		Installing of the cleaning unit						
		Charger installing						
		Installing the drum stand (drum fixing screws)						
15	Final check	Check warm-up time			•			
		Check of the image and the paper through (including each adjustment)			•			
		Maintenance counter reset (in service mode)			•			

(2) Periodic maintenance 2 (Every 2,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Cleaning section	Cleaning of the cleaning unit		•				Vacuum cleaner /cleaning pad

		Toner guide brush assembly A4EUR70K##	1				•	
		Scattering prevention felt 55VA5568##	1				•	
		Seal plate /Fr A4EUR70G##	1				•	
		Seal plate /Rr A4EUR70H##	1				•	
		Guide plate assy A4EUR70J##	1				•	
2	Developing section	Suction filter A4EU3908##	1				•	
3	Toner supply section	Agitator plate assembly /1 A4EUR705##	1				•	
		Agitator plate assembly /2 A4EUR706##	1				•	
4	Transfer/Separation section	Cleaning of the belt cleaning unit		•				
		Regulation plate assy A4EUR700##	2				•	
5	Fusing section	Fusing roller /Up A0G67304##	1				•	
		Heat insulating sleeve 45405339##	2				•	
		Fusing bearing /Up A0G67346##	2				•	
		Fusing roller /Lw assy A4EUR70V##	1				•	
		Fusing claw /Up 56UA5453##	6				•	
		Fusing claw /Lw 25AA5329##	2				•	
		Fusing cleaning sheet assy A4EUR70U##	1				•	
		Cleaning of the fusing heating roller		•				Cleaning pad/blower brush
		Lubrication to the pressure worm assy				•		

(3) Periodic maintenance 3 (Every 3,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Paper feed section	Pick-up roller A4EUR715##	2				•	Actual replacement cycle: 500,000 feeds
		Paper feed roller A4EUR714##	2				•	
		Separation roller A4EUR714##	2				•	

(4) Periodic maintenance 4 (Every 4,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Photo conductor section	Drum temperature sensor (TH5) A4EUR702##	1				•	
2	Cleaning section	Toner seal board A4EUR713##	1				•	
3	Toner supply section	Toner supply sleeve /1 A4EUR70W##	1				•	
		Toner supply sleeve /2 A4EUR70X##	1				•	
4	Transfer/Separation section	Transfer belt A0G65001##	1				•	
		Cleaning brush A4EU5106##	2				•	
		Transfer roller A4EU5006##	1				•	

		Bearing /H A0G65039##	2				•	
		Transfer contact /Rr A4EUR70C##	2				•	
		Transfer contact /Fr A4EUR70B##	1				•	
		Power supply parts 65AA2689 ##	2				•	
5	Registration section	registration motor shaft gear					•	Plas guard No.2
6	Fusing section	Fusing heater lamp /1 (L1) A0G6M330##	1				•	
		Fusing heater lamp /2 (L2) A0G6M330##	1				•	
		Fusing heater lamp /3 (L3) 55VB8304##	1				•	
		Fusing heating roller 56UA5307##	1				•	
		Heat roller bearing 56UA7507##	2				•	
		Heat insulating sleeve /Lw 26AA5315##	2				•	
		Fusing temperature sensor /2 (TH2) 55VA8804##	1				•	
		Fusing temperature sensor /4 (TH4) 55VA8806##	1				•	
7	Main body	Charging filter A4EUR900##	1				•	
		Filter plate A4EUR900##	1				•	
8	Vertical conveyance section	Paper fur brush A4EUR730##	1				•	

(5) Periodic maintenance 5 (Every 6,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Main body	Ozone filter /12 A4EU1123 ##	2				•	
		Charging exhaust filter 56UA1122##	1				•	
		Cleaning of the cover/machine internal		•				Isopropyl alcohol/cleaning pad
		Web motor (M24) A4EUM101##	1				•	

(6) Periodic maintenance 6 (Every 8,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Charging corona	Charging corona A4EUR707##	1				•	
2	Cleaning section	Guide shaft A0G65305##	1				•	
		Cleaning gear /2 assembly A4EUR70F##	1				•	
		PCC unit A4EUR75K##	1				•	
3	Developing section	Developing suction seal/2 56UA3103##	2				•	
		Developing suction seal/5 56UA3106##	1				•	
		Stopper pad /1 A4EU3946##	2				•	
		Suction pad /H A0G63944##	1				•	

		Stopper pad /2 A4EU3947##	2				•	
		Developing unit A4EUR703##	1				•	
4	Transfer/Separation section	Cleaning shaft A0G65107##	2				•	
5	Registration section	Registration roller /Up A4EU7106##	1				•	
		Registration bearing A4EU7154##	2				•	
		Registration gear /Up A0G67142##	1				•	
		Registration gear /Lw A0G67143##	1				•	
6	Fusing section	Fusing gear A0G67260##	1				•	
7	De-curler section	Fixing exit roller 56UA4595##	4				•	

(7) Periodic maintenance 7 (Every 12,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Vertical conveyance section	Paper dust removing brush shaft A4EUR716##	1				•	
		Conveyance exit roller A4EU7012##	1				•	
		Conveyance roller /1 A4EU7013##	1				•	Actual replacement cycle: 12,000,000 feeds (for each paper exit)
2	Paper exit section	Cleaning of the paper exit sensor		•				Blower brush
		Output roller 56UA4557 ##	1				•	Actual replacement cycle: 8,000,000 feeds

(8) Periodic maintenance 8 (Every 14,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Fusing section	Fusing cleaning roller 56UA5353##	1				•	
		Bearing /G 56UA7609##	2				•	
2	Toner supply section	Pump unit /Rt A4EUR70Y##	1				•	Actual replacement cycle: 10,000,000 feeds
		Pump unit /Lt A4EUR710##	1				•	

(9) Periodic maintenance 9 (Every 16,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Transfer/Separation section	Belt cleaning unit A4EUR70D##	1				•	
2	DUPLEX SECTION	Cleaning of the ADU reverse sensor /2		•				Blower brush
		Output convey roller /1 A4EU8174##	1				•	Actual replacement cycle: 12,000,000 feeds
		Output convey roller /2 assy A4EUR701##	1				•	
		ADU accelerator roller A4EU8171##	1				•	
		Reversal output roller A4EU8172##	1				•	
		ADU reversal roller A4EU8176##	1				•	

		ADU conveyance roller /1 A4EU8175##	1				•	
		ADU conveyance roller /2 A4EU8175##	1				•	
		ADU conveyance roller /3 A4EU8177##	1				•	
		ADU conveyance roller /4 A4EU8177##	1				•	
		ADU exit roller A4EU8177##	1				•	
3	De-curler section	Removing/installing of the exterior/ the paper exit section						
		De-curler belt /Up A0G68464##	7				•	Actual replacement cycle: 6,000,000 feeds
		De-curler belt /Lw A0G68464##	7				•	
		De-curler entrance roller A4EU8407##	1				•	Actual replacement cycle: 12,000,000 feeds
		Reverse gate 56UA4760##	7				•	
		Guide member /Up A0G68451##	1				•	Actual replacement cycle: 8,000,000 feeds
		Guide member /Lw A0G68452##	1				•	
		Coupling unit A4EU8470##	1				•	

(10) Periodic maintenance 10 (Every 20,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Paper feed section	Paper feed clutch /1 (CL4) 57GA8201##	1				•	Actual replacement cycle: 3,000,000 feeds
		Paper feed clutch /2 (CL6) 57GA8201##	1				•	
		Separation clutch /1 (CL5) 57GA8201##	1				•	
		Separation clutch /2 (CL7) 57GA8201##	1				•	
2	Vertical conveyance section	Pre-registration clutch /1 (CL1) 57GA8201##	1				•	
		Pre-registration clutch /2 (CL3) 57GA8201##	1				•	
		Vertical conveyance clutch (CL2) 57GA8201##	1				•	

(11) Periodic maintenance 11 (Every 24,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Registration section	Removing/installing of the exterior/ the unit						
		Paper lift sheet A0G67121##	1				•	
		Loop driven roller A4EU8180##	1				•	
		Pre-transfer driven roller assy A4EUR748##	2				•	
2	Fusing section	Removing/installing of the fusing unit						
		Fusing oscillation cam assy A4EUR737##	1				•	
		Fusing claws installation assy A4EUR732##	6				•	
		Web prevention part A4EUR70T##	1				•	

		Bearing /G 56UA7609##	1				•	
3	Paper feed section	Removing/installing of the tray unit						
		Bearing /D A00J6179##	3				•	
		Bearing /C A00V2406##	2				•	
		Reverse rotation shaft A0G65708##	2				•	
		Bearing /D A00J6179##	3				•	
		Paper feed input shaft A4EUR72K##	2				•	
4	Vertical conveyance section	Conveyance pulley 55VA7653##	2				•	
		Conveyance belt /A 56UA7809##	1				•	
		Bearing /E A00J6178##	5				•	
		Cleaning gear /B 55VA7921##	1				•	
		Scraper shaft 56UA4417##	1				•	
		Paper dust guide holder A4EUR70N##	1				•	

(12) Periodic maintenance 12 (Every 32,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Cleaning section	Cleaning gear /3 A0G65327##	2				•	

(13) Periodic maintenance 13 (Every 40,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Toner supply section	Air separation motor (M10) A0Y5M104##	1				•	
		Intermediate hopper motor (M11) 13GQ8003##	1				•	
		Toner bottle motor (M6) A0PNM102##	1				•	
		Toner hopper motor (M7) A0PNM102##	1				•	
		Waste toner box swing motor (M19) A0WJM100##	1				•	
2	Fusing section	Pressure worm assy A4EUR76B##	1				•	Actual replacement cycle: 30,000,000 startups
		Pressure wheel assy A4EUR70P##	1				•	
3	Vertical conveyance section	Paper feed cleaning gear /B 56UA7716##	1				•	
		Paper feed gear /A 56UA7717##	1				•	
		Paper feed gear /B 56UA7718##	1				•	
		Paper exit input gear 56UA7707##	1				•	
		Torque limiter 57GA4430##	1				•	Actual replacement cycle: 6,000,000 feeds
		Conveyance roller /2 A0G67003##	1				•	
		Conveyance roller /3 A0G67002##	1				•	

		Pre-registration roller /1 and /2 A0G67001##	2				•	
		Pre-registration bearing 56UA7603##	4				•	
4	De-curler section	Reverse/exit solenoid (SD7) A4EUR74A##	1				•	
		De-curler solenoid /Up (SD8) A4EUR749##	1				•	
		De-curler solenoid /Lw (SD5) A4EUR74R##	1				•	
		De-curler motor (M32) A0PNM102##	1				•	
5	Registration section	Roller gear /Rt A4EU7144##	1				•	
6	DUPLEX SECTION	Removing/installing of the ADU cover /Lt						
		Motor gear /Rt A4EU8146##	1				•	
		Registration motor (M17) A4EUR73Q##	1				•	
		Removing/installing of the ADU conveyance motor /2 assy						
		ADU conveyance motor belt /2 56UA7808##	1				•	
		ADU conveyance motor /2 (M16) A4EUR73W##	1				•	
		Removing/installing of the ADU drive belts (common to each belt)						
		ADU reverse motor belt 13GQ7755##	1				•	
		ADU reverse motor (M12) A4EUR73Q##	1				•	
		Removing/installing of the pressure unit						
		Transfer belt pressure release motor (M26) A0Y5M104##	1				•	
		Reverse/exit motor belt 56UA7806##	1				•	
		Reverse/exit motor (M13) A4EUR73Q##	1				•	
		ADU accelerate motor belt A0G68194##	1				•	
		ADU paper exit roller belt A4EU8221##	1				•	
		ADU accelerate motor (M14) A4EUR73Q##	1				•	
		Loop motor (M18) A4EUR73X##	1				•	
		Transfer belt motor (M30) A0R5M103##	1				•	
		ADU conveyance motor /1 belt 15BA7753##	1				•	
		ADU conveyance motor /1 (M15) A03UM111##	1				•	
7	Main body rear side	Paper feed motor (M4) A0G6M101##	1				•	
		Paper feed gear A4EU2391##	1				•	
		Vertical conveyance motor (M8) A1TVM101##	1				•	
		Conveyance gear 56UA7706##	1				•	
		Developing screw motor (M21) A0PNM102##	1				•	
		Fusing gear A0G62372##	1				•	

		Transfer belt cleaning motor (M5) A0PNM102##	1				•	
		Paper exit conveyance motor (M31) A0PNM102##	1				•	
		Paper exit motor (M20) A0PNM102##	1				•	
		fusing motor (M1) A0G6M101##	1				•	
		Drum motor (M2) A0PNM102##	1				•	
		developing motor (M3) 15AA8005##	1				•	
		Waste toner motor (M9) A0WJM100##	1				•	
		Belt cleaning gear A0G62506##	1				•	
		Drum cleaner motor (M35) A0R5M103##	1				•	
8	Paper feed section	Removing/installing of the handling unit/the rollers						
		Torque limiter /A A03X5656##	2				•	Actual replacement cycle: 6,000,000 feeds
		Cover A0G65720##	2				•	
		Removing/installing of the handling unit/the guide plate						
		Input gear A0G66023##	2				•	Actual replacement cycle: 6,000,000 feeds

1.2.2 DF-615

(1) Periodic maintenance 1 (Every 1,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check			•			
		Cover			•			
2	Paper feed section	Pick-up roller		•				Isopropyl alcohol/cleaning pad
		Paper feed roller		•				
		Paper feed auxiliary roller		•				
		Cleaning pad		•				
		Registration roller		•				
		Pre-separation rubber		•				
		Original count sensor		•				Blower brush
		Original size sensor /Lt		•				
		Original size sensor /Rt		•				
3	Conveyance section	Original registration sensor /Lt		•				
		Original registration sensor /Rt		•				
4	Read section	Original conveyance sensor		•				
		Original skew sensor /Rr		•				
		Original skew sensor /Fr		•				
		Centering sensor /Rr		•				
		Centering sensor /Fr		•				
		Centering LED sensor /Rr		•				
		Centering LED sensor /Fr		•				
5	Paper exit section	Mirror on the driven roller assembly		•				
		Original reverse sensor		•				
		Reverse jam sensor		•				
		Original reverse exit sensor		•				
6	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Spotted replacement (Every 400,000 feeds)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed section	Separation roller 13GA4606##	1				•	

(3) Spotted replacement (Every 800,000 feeds)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed section	Pick-up roller 13GA4604##	1				•	
		Paper feed roller 15AS4605##	1				•	
		Paper feed auxiliary roller 15AS4601##	1				•	
		Torque limiter 13GAR719##	1				•	

1.2.3 PF-703**(1) Periodic maintenance 1 (Every 1,000,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check			•			
2	Tray section	Cleaning of each sensor		•				Blower brush
3	Conveyance section	Cleaning of each sensor		•				
4	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Periodic maintenance 2 (Every 14,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Conveyance section	PF paper exit roller 15BA5011##	1				•	Actual replacement cycle: 6,000,000 feeds
		Bearing /C A00V2406##	7				•	
		Bearing /B 50007501##	1				•	
		Pre-registration clutch /1 (CL1) 57GA8201##	1				•	Actual replacement cycle: 3,000,000 feeds
		pre-registration clutch /2 (CL3) 57GA8201##	1				•	
		Pre-registration clutch /3 (CL5) 57GA8201##	1				•	
		intermediate clutch /1 (CL2) 57GA8201##	1				•	
		intermediate clutch /2 (CL4) 57GA8201##	1				•	
		Horizontal conveyance exit clutch (CL6) 57GA8201##	1				•	

(3) Periodic maintenance 3 (Every 24,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed belt section	Removing/installing of the rear cover						
		Removing/installing of the exterior/ the tray/the paper feed belt unit						

		Paper feed belt A0GDR705##	12				•	Actual replacement cycle: 6,000,000 feeds
		Paper feed clutch /1 (CL7), /2 (CL8), /3 (CL9) 57GA8201##	3				•	Actual replacement cycle: 3,000,000 feeds
		Torque limiter A03U8157##	3				•	Actual replacement cycle: 6,000,000 feeds
2	Tray section	Shutter solenoids /Rr1 (SD4), /2 (SD6), /3 (SD8) A0GDR700##	3				•	
		Shutter solenoids /Fr1 (SD5), /2 (SD7), /3 (SD9) A0GDR700##	3				•	
		Shutter solenoids /1 (SD10), /2 (SD11), /3 (SD12) A0GDR701##	3				•	
3	Tray horizontal conveyance section	Removing/installing of the tray horizontal conveyance/the connector unit						Be sure to replace only the 1st tandem of the coupling. It does not need the replacement when using just 1 PF-703. Actual replacement cycle: 6,000,000 feeds
		Horizontal conveyance roller /A A0GD7121##	2				•	
		Horizontal conveyance roller /B A0GD7122##	3				•	
		Spacer 12QV4065##	10				•	
4	COUPLING CONVEYANCE SECTION	Connecting the coupling devices/ Removing/reinstalling of the exterior						
		Entrance conveyance roller /Lw A0GD7171##	1				•	
		Spacer 12QV4065##	2				•	
5	Conveyance section	Removing/installing of the exit/upper conveyance section						
		Torque limiter /Up A03U8157##	1				•	Actual replacement cycle: 6,000,000 feeds
		Removing/installing of the lower conveyance section						
		Torque limiter /Lw 57GA4430##	1				•	Actual replacement cycle: 6,000,000 feeds
		Pre-registration roller A0GC7005##	3				•	
		Pre-registration bearing 56UA7603##	6				•	
		Horizontal registration roller A0GC7005#	1				•	
		Horizontal registration bearing 56UA7603#	2				•	
		Intermediate conveyance roller A0GC7006##	3				•	

1.2.4 PF-703 (PI-PFU)

(1) Periodic maintenance 1 (Every 1,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check			•			
2	Tray section	Cleaning of each sensor		•				Blower brush
3	Conveyance section	Cleaning each sensor (except for the multi feed sensor)		•				
4	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Periodic maintenance 2 (Every 4,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	

1	Conveyance section	Horizontal conveyance exit clutch (CL6) 57GA8201##	1				•	Actual replacement cycle: 3,000,000 feeds
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(3) Periodic maintenance 3 (Every 14,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Conveyance section	pre-registration clutch /1 (CL1) 57GA8201##	1				•	Actual replacement cycle: 3,000,000 feeds
		pre-registration clutch /2 (CL3) 57GA8201##	1				•	
		Pre-registration clutch /3 (CL5) 57GA8201##	1				•	
		intermediate clutch /1 (CL2) 57GA8201##	1				•	
		intermediate clutch /2 (CL4) 57GA8201##	1				•	
		Horizontal registration roller A0GC7005##	1				•	Actual replacement cycle: 6,000,000 feeds
		Horizontal registration bearing 56UA7603##	2				•	
		PF paper exit roller 15BA5011##	1				•	
		PF Paper exit roller /2 A0GF7021##	1				•	
		Bearing /C A00V2406##	8				•	
		Bearing /B 50007501##	2				•	
		Cleaning of the multi feed sensor		•				Blower brush
2	Tray horizontal conveyance section	Removing/installing of the tray horizontal conveyance/the connector unit						
		Horizontal conveyance roller /A A0GD7121##	2				•	Actual replacement cycle: 6,000,000 feeds
		Horizontal conveyance roller /B A0GD7122##	3				•	
		Spacer 12QV4065##	10				•	
3	COUPLING CONVEYANCE SECTION	Connecting the coupling devices/ Removing/reinstalling of the exterior						
		Entrance conveyance roller /Up A0GD7172##	1				•	Actual replacement cycle: 6,000,000 feeds
		Spacer 12QV4065##	3				•	

(4) Periodic maintenance 4 (Every 24,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed belt section	Removing/installing of the rear cover						
		Removing/installing of the exterior/ the tray/the paper feed belt unit						
		Paper feed belt A0GDR705##	12				•	Actual replacement cycle: 6,000,000 feeds
		Paper feed clutch /1 (CL7), /2 (CL8), /3 (CL9) 57GA8201##	3				•	Actual replacement cycle: 3,000,000 feeds
		Torque limiter A03U8157##	3				•	Actual replacement cycle: 6,000,000 feeds
2	Tray section	Shutter solenoids /Rr1 (SD4), /2 (SD6), /3 (SD8) A0GDR700##	3				•	

		Shutter solenoids /Fr1 (SD5), /2 (SD7), /3 (SD9) A0GDR700##	3				•	
		Shutter solenoids /1 (SD10), /2 (SD11), /3 (SD12) A0GDR701##	3				•	
3	Conveyance section	Removing/installing of the exit/upper conveyance section						
		Torque limiter /Up A03U8157##	1				•	Actual replacement cycle: 6,000,000 feeds
		Removing/installing of the lower conveyance section						
		Torque limiter /Lw 57GA4430##	1				•	Actual replacement cycle: 6,000,000 feeds
		Pre-registration roller A0GC7005##	3				•	
		Pre-registration bearing 56UA7603##	6				•	
		Intermediate conveyance roller A0GC7006##	3				•	

1.2.5 PF-706

(1) Periodic maintenance 1 (Every 1,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Preparation	Original through check			•			
2	Tray section	Cleaning of each sensor		•				Blower brush
3	Conveyance section	Cleaning of each sensor		•				
4	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Periodic maintenance 2 (Every 3,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Chec k	Lubric ation	Repla ce	
1	Tray section	Pick-up roller A4EYR70A##	3				•	Actual replacement cycle: 500,000 feeds
		Paper feed roller A4EYR70B##	3				•	
		Separation roller A4EYR70B##	3				•	

(3) Periodic maintenance 3 (Every 10,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Conveyance section	PF paper exit roller 15BA5011##	1				•	Actual replacement cycle: 6,000,000 feeds
		Bearing /C A00V2406##	9				•	
		Bearing /B 50007501##	1				•	

(4) Periodic maintenance 4 (Every 20,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Tray section	Paper fur brush A4EY5604##	3				•	Actual replacement cycle: 3,000,000 feeds
		Paper feed clutch /1 (CL6) 57GA8201##	1				•	
		Paper feed clutch /2 (CL9) 57GA8201##	1				•	

		Paper feed clutch /3 (CL12) 57GA8201##	1				•	
		Separation clutch /1 (CL7) 57GA8201##	1				•	
		Separation clutch /2 (CL10) 57GA8201##	1				•	
		Separation clutch /3 (CL13) 57GA8201##	1				•	
		Forced separation clutch /1 (CL8) 57GA8201##	1				•	
		Forced separation clutch /2 (CL11) 57GA8201##	1				•	
		Forced separation clutch /3 (CL14) 57GA8201##	1				•	
2	Conveyance section	pre-registration clutch /1 (CL1) 57GA8201##	1				•	
		Pre-registration clutch /2 (CL3) 57GA8201##	1				•	
		Pre-registration clutch /3 (CL5) 57GA8201##	1				•	
		Intermediate clutch /Up (CL2) 57GA8201##	1				•	
		Intermediate clutch /Lw (CL4) 57GA8201##	1				•	

(5) Periodic maintenance 5 (Every 40,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Tray section	Removing/installing of the handling unit/the rollers						
		Torque limiter /A A03X5656##	3				•	
		Cover A0G65720##	3				•	
		Bearing /D A00J6179##	9				•	
		Bearing /C A00V2406##	3				•	
		Reverse rotation shaft A0GC5708##	3				•	
		Bearing /E A00J6178##	6				•	
		Input shaft A0GC6013##	3				•	
		Idler shaft A0GC5711##	3				•	
		Reverse input shaft A0GC5720##	3				•	
		Bearing /D A00J6179##	3				•	
		Bearing /E A00J6178##	3				•	
		Input gear A0G66023##	3				•	Actual replacement cycle: 6,000,000 feeds
2	Conveyance section	Removing/installing of the exit/upper conveyance section						
		Torque limiter /Up 57GA4430##	1				•	Actual replacement cycle: 6,000,000 feeds
		Removing/installing of the lower conveyance section						
		Torque limiter /Lw 57GA4430##	1				•	Actual replacement cycle: 6,000,000 feeds
		Pre-registration roller A0GC7005##	3				•	

3	Drive section	Pre-registration bearing 56UA7603#	6				•	
		Intermediate conveyance roller A0GC7006##	4				•	
		Paper feed pulley A0GC2104##	5				•	
		Shaft assy /C A4EYR701##	2				•	
		Pulley /P A0GD2160##	1				•	
		Idler pulley /D A0GD2103##	4				•	
		Gear /C A0GD2168##	2				•	
		Shaft assy /P A4EYR702##	1				•	
		Paper drive pulley A4EU2391##	1				•	

(6) Spotted replacement (Every 50,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Traysets(PP-701)	Pick-up rubber A08R5621##	1				•	
		Paper feed roller A08R5622##	1				•	
		Separation roller A08R5622##	1				•	

1.2.6 EF-102**(1) Periodic maintenance 1 (Every 500,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Preparation	Image check			•			
2	Fusing section	Cleaning of the entrance guide plate		•				Roller cleaner/cleaning pad
		Fusing roller /Up A4F27304##	1				•	
		Fusing roller /Lw Assy A4F2R700##	1				•	
3	Final check	Check warm-up time			•			
		Check of the image and the paper through			•			

(2) Periodic maintenance 2 (Every 1,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Fusing section	Fusing cleaning web A0G67314##	1				•	

(3) Periodic maintenance 3 (Every 2,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Fusing section	Heat insulating sleeve 45405339##	2				•	
		Fusing bearing /Up A0G67346##	2				•	
		Fusing cleaning sheet assy A4EUR70U##	1				•	
		Cleaning of the fusing heating roller		•				Cleaning pad/blower brush

		Lubrication to pressure worm assy				•		Multemp FF-RM
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(4) Periodic maintenance 4 (Every 4,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replacement	
1	Fusing section	Fusing heater lamp /1 (L1) A0G6M330##	1				•	
		Fusing heater lamp /2 (L2) A0G6M330##	1				•	
		Fusing heater lamp /3 (L3) 55VB8304##	1				•	
		Fusing heating roller 56UA5307##	1				•	
		Heat roller bearing 56UA7507##	2				•	
		Heat insulating sleeve/Lw 26AA5315##	2				•	
		Fusing temperature sensor /2 (TH2) 55VA8804##	1				•	
		Fusing temperature sensor/4 (TH4) 55VA8806##	1				•	

(5) Periodic maintenance 5 (Every 8,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replacement	
1	Fusing section	Fusing gear A0G67260##	1				•	

(6) Periodic maintenance 6 (Every 14,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replacement	
1	Fusing section	Fusing cleaning roller 56UA5353##	1				•	
		Bearing /G 56UA7609##	2				•	

(7) Periodic maintenance 7 (Every 24,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replacement	
1	Fusing section	Removing/installing of the fusing unit						
		Web prevention part A4EUR70T##	1				•	
		Bearing /G 56UA7609##	1				•	

(8) Periodic maintenance 8 (Every 40,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replacement	
1	Fusing section	Pressure worm assy A4EUR76B##	1				•	Actual replacement cycle: 30,000,000 startups
		Pressure wheel assy A4EUR70P##	1				•	

1.2.7 RU-509/HM-102**(1) Periodic maintenance 1 (Every 300,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
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				Cleani ng	Check	Lubric ation	Repla ce	
1	HM-102	Humidification section entrance sensor		•				Blower brush
		Humidification roller /Rt		•				Isopropyl alcohol/cleaning pad
		Humidification roller /Lt		•				
		Water feed roller		•				

(2) Periodic maintenance 2 (Every 600,000 prints)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Output paper density detection section	Shutter		•				Blower brush Only for tandem

(3) Spotted replacement (Every 300,000 prints)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	HM-102	Humidification roller /Rt A1TU5001##	1				•	
		Humidification roller /Lt A1TU5002##	1				•	
		Water feed filter A1TU5215##	1				•	

(4) Spotted replacement (Every 1,500,000 prints)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	HM-102	Water feed roller A1TU5003##	2				•	

(5) Spotted replacement (Every 10,000,000 prints)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	HM-102	Pump motor (P1) A1TUR704##	1				•	

1.2.8 RU-510**(1) Periodic maintenance 1 (Every 1,000,000 prints)**

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Preparation	Original through check			•			
2	Conveyance section	Cleaning of each sensor		•				Blower brush
3	Final check	Original through check			•			
		Cleaning of the cover		•				Drum cleaner/ cleaning pad

(2) Spotted replacement (Every 20,000,000 prints)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Chec k	Lubric ation	Repla ce	
1	Conveyance section	Entrance roller /1, /2 A4FC7014##	2				•	
		Merging section roller, stacker entrance roller A4FC7002##	2				•	
		Exit roller A4FCR904##	1				•	

	Paper re-feed roller A4FC7019##	1				•	
	Straight gate A4FC7030##	1				•	
	Bearing /K A00V2406##	10				•	
	Bearing assy A4FCR905##	2				•	
	Entrance conveyance belt A0GE2105##	1				•	
	Paper exit conveyance belt A4FC7015##	1				•	
	Paper exit pulley A4FC7078##	1				•	
	Conveyance pulley A4FC7077##	5				•	

(3) Spotted replacement (Every 30,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Conveyance section	Entrance motor (M1) A4FCR900##	1				•	
		Paper exit motor (M2) A4FCR900##	1				•	

(4) : Spotted replacement (Actual replacement cycle: Every 50,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Conveyance section	Driven roller A0GY7121##	4				•	

(5) Spotted replacement (Every 60,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Conveyance section	Stack switch motor (M6) A083M100##	1				•	

1.2.9 FS-532**(1) Periodic maintenance 1 (Every 1,000,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Preparation	Original through check			•			
2	PAPER CONVEYANCE SECTION	FNS entrance roller cleaning		•				Isopropyl alcohol/cleaning pad
		FNS pass sensor (PS1)		•				Blower brush
		Paper overlap sensor /1 (PS32)		•				
		Paper overlap sensor /2 (PS33)		•				
		Roller pressure motor home sensor (PS34)		•				
3	Stacker section	Cleaning rollers		•				Isopropyl alcohol/cleaning pad
		Stacker empty sensor (PS28)		•				Blower brush
		Stacker upper sensor (PS43)		•				
		Staple scraps box cleaning		•				
		Stacker entrance roller pressure entrance cam				•		Molykote
		Stack assist plate drive cam				•		
		Stapler shaft				•		
		Rear stopper moving shaft, Metal frame sliding position				•		
4	Main tray section	Main tray upper limit sensor (PS14)		•				Blower brush

		Main tray paper exit sensor (PS10)		•				
		The rubber surface at the lower side of the gripper/The winding rubber at the lower side of the gripper		•				Isopropyl alcohol/cleaning pad
		Up/Down tray drive section				•		Molykote
		Paper exit alignment plate slide shaft				•		
5	Final check	Original through check		•				
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Spotted replacement (Every 300,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Stacker section	Paddle A4F37500##	6				•	

(3) Spotted replacement (Every 500,000 operations)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Stacker section	Staple unit A4F37350##	1				•	

1.2.10 SD-510**(1) Periodic maintenance 1 (Every 1,000,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Folding section	Cleaning knives		•				Isopropyl alcohol/cleaning pad
		Cleaning rollers		•				
		Exit belt cleaning		•				
		Cleaning staple shaft		•				

(2) Spotted replacement (Every 200,000 operations)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Stapler section	Staple unit A4F47300##	1				•	

(3) Spotted replacement (Every 300,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Folding section	Paddle /1 A4F4R70D##	2				•	
		Paddle /2 A4F4R70E##	2				•	
		Paddle /3 A4F4R70F##	2				•	

1.2.11 PK-522**(1) Periodic maintenance 1 (Every 1,000,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Punch section	Cleaning the punch edge		•				Blower brush
		Cleaning the sensor		•				

1.2.12 PI-502**(1) Spotted replacement (Every 100,000 feeds)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed section	Paper feed roller 13QNR705##	2				•	
		Separation roller 13QNR704##	2				•	

(2) Spotted replacement (Every 200,000 feeds)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed section	Pick-up roller 50BAR701##	2				•	

(3) Spotted replacement (Every 600,000 feeds)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed section	Torque limiter 13QN4073##	2				•	

(4) Spotted replacement (Every 1,000,000 feeds)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed section	Paper feed clutch /Up 13QN8201##	1				•	
		Paper feed clutch /Lw 13QN8201##	1				•	

1.2.13 MK-732**(1) Periodic maintenance 1 (Every 1,000,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Conveyance section	Conveyance roller cleaning		•				Isopropyl alcohol/cleaning pad

1.2.14 LS-505**(1) Periodic maintenance 1 (Every 1,500,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check			•			
2	Conveyance section	Cleaning of each sensor		•				Blower brush
3	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Spotted replacement (Every 5,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Conveyance section	Paper press solenoid /3 (SD8) 15AV8255##	1				•	
		Paper press solenoid /1 (SD6) 15AV8252##	1				•	
		Paper press solenoid /2 (SD7) 15AV8251##	1				•	
		Rear stopper solenoid (SD3) 15AV8253##	1				•	

		Stacker tray up down motor (M1) 15AV8003##	1				•	
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1.2.15 FD-503**(1) Periodic maintenance 1 (Every 1,500,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check			•			
		Removing the punch unit						
		Removing from RU						
2	Punch section	Punch shaft and the punch support board		•				Isopropyl alcohol/cleaning pad
		Punch drive section				•		Molykote EM-30L
3	Post-process	Installing the punch unit						
		Installing to RU						
4	Final check	Original through check			•			

(2) Periodic maintenance 2 (Every 2,400,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	PI section	Cleaning of each sensor		•				
2	Tray up/down section	Cleaning of each sensor		•				
3	Punch section	Cleaning of each sensor		•				
4	Conveyance section	Cleaning of each sensor		•				
5	Final check	Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(3) Periodic maintenance 3 (Every 5,400,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Final check	Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(4) Spotted replacement (Every 100,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	PI section	Paper feed rubber 50BAR702##	2				•	
		Separation rubber 13QNR704##	2				•	

(5) Spotted replacement (Every 200,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	PI section	Pick-up rubber 50BAR701##	6				•	

(6) Spotted replacement (Every 5,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Punch unit A0H0R700## (Japan) A0H0R701## (US) A0H0R702## (Europe)	1				•	
2	Conveyance section	Roller solenoid /1 (SD5) 15AGR723##	1				•	

		Roller solenoid /2 (SD6) 15AGR723##	1				•	
		Roller solenoid /3 (SD7) 15AGR723##	1				•	
		Roller solenoid /4 (SD8) 15AGR723##	1				•	
		2nd folding roller solenoid (SD18) 15AGR761##	1				•	
3	Tray up/down section	Tray up down motor 129U-108##	1				•	

1.2.16 SD-506**(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check			•			
		Removing the rear cover						
		Removing the unit						
2	Right angle conveyance section	Right angle conveyance sensor /1		•				Blower brush
		Right angle conveyance sensor /2		•				
		Right angle conveyance roller /1		•				Isopropyl alcohol/cleaning pad
		Right angle conveyance roller /2		•				
		Right angle conveyance roller /3		•				
		Right angle conveyance roller /4		•				
3	Folding section	Folding main scan alignment home sensor /Fr1		•				Blower brush
		Folding main scan alignment home sensor /Fr2		•				
		Folding entrance roller /1		•				Isopropyl alcohol/cleaning pad
		Folding entrance roller /2		•				
		Folding entrance roller /3		•				
4	Saddle stitching section	Saddle stitching paper sensor		•				Blower brush
		Bundle sensor /1		•				
5	Bundle processing section	Bundle sensor /2		•				
6	Trimmer section	Trimmer scraps full sensor		•				
		Actuator		•				
7	Post-process	Installing the unit			•			
		Installing the rear cover		•				Isopropyl alcohol/cleaning pad
8	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Periodic maintenance 2 (Every 1,500,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Trimmer section	Paper holding screw A0H26621##	2	•		•		Molykote EM-30L Actual lubrication cycle:37,500 cuts

(3) Spotted replacement (Every 18,900 cuts)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Trimmer section	Trimmer board assy A0H2B622##	1				•	Actual replacement cycle: 18,900 cuts

(4) Spotted replacement (Every 37,500 cuts)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Trimmer section	Trimmer blade kit	1	•			•	

		A0H2R901##						
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(5) Spotted replacement (Every 500,000 cuts)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Trimmer section	Trimmer press motor (M32) A0H2M101##	1				•	

(6) Spotted replacement (Every 500,000 times)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Bundle processing section	Bundle press stage gear 15AN7719##	1				•	

(7) Spotted replacement (Every 1,000,000 sets)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Saddle stitching section	Stapler assy 15AN-550# #	2				•	

(8) Spotted replacement (Every 2,500,000 sets)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Right angle conveyance section	Saddle stitch unit A0H2A720##	1				•	
		Slope unit 15AN-500##	1				•	
		Bundle press stage unit A0H2A530##	1				•	
2	Trimmer section	Trimmer unit A0H2A620##	1				•	
		Trimmer blade motor (M31) A0H2M102##	1				•	

(9) Spotted replacement (Every 5,000,000 sets)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Right angle conveyance section	Roller release solenoid /1 (SD5) 15AN8251##	1				•	
		Roller release solenoid /2 (SD6) 15ANR710##	1				•	
		Right angle conveyance gate solenoid (SD2) 15ANR711##	1				•	
2	Folding section	Roller release solenoid /3 (SD7) 15AN8251##	1				•	

1.2.17 PB-503**(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check			•			
2	Conveyance section	Entrance sensor		•				Blower brush
		SC entrance sensor		•				
		Sub tray conveyance roller		•				Isopropyl alcohol/cleaning pad
		Intermediate conveyance roller		•				
		Entrance conveyance roller		•				

		Cover paper conveyance roller		•				
3	Glue tank section	Glue tank		•		•*1		Tweezers, cleaning pad, Multemp FF-RM
4	Up/down forming section	Cover paper folding plate		•*2				Tweezers, cleaning pad
		Book spine backing plate		•*2				
		Book exit belt /Rr		•				Isopropyl alcohol/cleaning pad
		Book exit belt /Fr		•				
		Cover paper conveyance roller /Rt		•				
		Cover paper conveyance roller /Ft		•				
		Cover paper table entrance roller		•				
		Paper fur brush		•				Blower brush
		Cover paper alignment plate shaft				•*3		Plas guard No.2
5	Glue supply	Pellet hopper		•				Blower brush
6	Book stock section	Book load limit sensor		•				
		Book upper limit LED		•				
		Booklet sensor /1, /2		•				
		Guide shaft /Rt, /Lt				•*4		Plas guard No.2
		Book conveyance belt /Rr		•				Isopropyl alcohol/cleaning pad
		Book conveyance belt /Fr		•				
		Book movement belt		•				
7	Cover paper tray section	Paper dust removing brush		•				Blower brush
		Paper dust removing roller		•				Isopropyl alcohol/cleaning pad
		Conveyance roller		•				
8	SC section	Switchback assist roller /Rr		•				
		Switchback assist roller /Fr		•				
		Sub scan alignment plate slide shaft				•		
9	Clamp section	Paper reference plate		•				
		Clamp pressure plate shaft	1			•*5		Plas guard No.2
10	Relay conveyance section	Relay conveyance roller /1, /2, /3, /4, /5		•				Isopropyl alcohol/cleaning pad
		Relay paper exit roller /1, /2		•				Blower brush
		Relay conveyance entrance sensor		•				
		Relay conveyance intermediate sensor		•				
		Relay conveyance exit sensor		•				
11	Book stock section	Book movement belt /2		•				Isopropyl alcohol/cleaning pad
12	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

*1 Lubricate to the glue apply roller motor drive connecting gear.

*2 Cleaning of the cover paper folding plate and the book spine backing plate is an abbreviated cleaning. Remove adhered glue as necessary.

*3 Lubricate to the cover paper alignment plate shaft.

*4 Lubricate to the guide shafts /Rt and /Lt.

*5 Lubricate to the clamp pressing board shaft.

(2) Spotted replacement (Every 100,000 cuts)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replacement	
1	Cutter section	Roller cutter blade assy A0756230##	1				•	

(3) Spotted replacement (Every 3,000,000 operations)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replacement	
1	SC section	SC switchback release motor (M13) A0V9M101##	1				•	

2	SUB TRAY SECTION	Sub tray paper exit solenoid (SD4) 15ANR714##	1				•	
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(4) Spotted replacement (Every 5,000,000 operations)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	SC section	FD alignment solenoid (SD11) 15AA8251##	1				•	
		SC pressure arm solenoid (SD13) A075B746##	1				•	

(5) Spotted replacement (Every 6,000,000 operations)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	SC section	One-way clutch /A 13GQ7709##	1				•	
		One-way clutch /B 13GQ7709##	1				•	

(6) Spotted replacement (Every 500,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Cover paper tray section	Pick-up roller 55VAR750##	1				•	
		Paper feed roller 55VAR749##	1				•	
		Separation roller 55VAR749##	1				•	

(7) Spotted replacement (Every 750,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	SC section	Switchback roller 13GQ4519##	1				•	

(8) Spotted replacement (Every 3,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Cover paper tray section	Cover paper pick up clutch (CL71) 56AA8201##	1				•	
2		Cover paper separation clutch (CL72) 56AA8201##	1				•	

(9) Spotted replacement (Every 120 hours)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Fan unit section	Pellet supply cooling fan (FM4) 27LA8051##	1				•	
2	Deodorant unit	Exhaust filter /A A15X3017##	1				•	

(10) Spotted replacement (Every 240 hours)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Deodorant unit	Exhaust filter /B	1				•	

		A15X3018##					
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(11) Spotted replacement (Every 2000 hours)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Glue tank section	Glue tank assy A15XA36A## (100V) A15XA36E## (120V) A15XA36F## (240V)	1				•	

(12) Spot replacement (Every 6,000 hours)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Glue tank section	Cover paper glue roller drive gear bearing of glue tank section A0753799##	4				•	

1.2.18 GP-501**(1) Periodic maintenance 1 (Every 200,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Punch section	Die Set Pins			•	•		3-IN-ONE (WD-40Company) Actual lubrication count: 50,000 punches This maintenance to be done by user.

(2) Periodic maintenance 2 (Every 750,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Punch section	Die Set Shoulder Bolts			•	•		Magnalube-G TeflonGreaseActual lubrication count: 200,000 punches This maintenance to be done by user.

(3) Periodic maintenance 3 (Every 3,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check GP removal, Front door open			•			
2	Bypass conveyance section	Paper Path, Bypass		•	•			Alcohol
3	Punch conveyance section	Latching Mechanisms aligner			•			
4		Paper Path, Aligner panels		•	•			Alcohol
5		Aligner Idler Rollers		•	•			
6		Roller energy drive		•	•			
7	Bypass/Punch conveyance section	Optical Sensors		•				Blower brush
8		Timing Belts		•	•			Alcohol
9		Idler Rollers		•	•			
10		Drive Rollers		•	•			
11	Punch section	Back Gauge mechanism		•	•			Blower brush/ vacuum cleaner
12		Die Guide		•				Vacuum cleaner
13		Paper Path, Punch		•	•			Alcohol
14	External section	Base		•				Vacuum cleaner
15		Door Closing Latch			•			

16	Post-process	Front door close, GP connected						
17	Final check	Original through check			•			
18		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(4) Periodic maintenance 4 (Every 12,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch conveyance section	Aligner Idler Roller Assembly		•				Alcohol
2		Belt Aligner (Green)	1	•				
3	Punch section	Punch drive cams	1			•		Magnalube-G Teflon Grease Actual lubrication count: 3,000,000 punches

(5) Spotted replacement (Every 500,000 punches)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Die Set	1		•		•	Replacement is recommended if hanging chips are usually generated.

(6) Spotted replacement (Every 4,000,000 cycle)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Back Gauge Mechanism A0N9PP59##	1				•	Actual replacement count: 4,000,000 punches

1.2.19 GP-502**(1) Periodic maintenance 1 (Every 1,000,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Bypass section	Bypass Rollers		•	•			

(2) Spotted replacement (Every 500,000 punches)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Pullback Pad A4F6PP00##	2				•	

(3) Spotted replacement (Every 1,000,000 punches)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Suction Cup: Element Feeder A4F6PP03##	1				•	
2	Preparation	Removing the rear cover Removing the punch unit			•			
3	Punch Unit	Oiled Felt, Die-set A4F6PP01##	1				•	
		Punch Module	1			•		Magnalube-G Teflon Grease/ Nippeco MP No.1
		Vertical Transport Belts: Before Punch	4	•	•			Isopropyl alcohol/cleaning pad
		Vertical Transport Belts: After Punch	4	•	•			
4	Post-process	Installing the punch unit Installing the rear cover			•			

(4) Spotted replacement (Every 4,000,000 punches)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch Unit	Punch Pin/Plate Assy, Die-set A4F6PP02##	1				•	

1.3 bizhub PRO 951**1.3.1 951****(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Image check			•			
		Charger/cleaner/developing unit/ LPH/drum removing						
		Drum stand inside cleaning (including the front side of the drum fixing coupling)		•				Vacuum cleaner
2	Scanner section	Exterior removing						
		Cleaning of the glass/the mirror		•				Isopropyl alcohol/cleaning pad
		Exterior installing						
3	Write section	Cleaning of the LPH lens		•				Cleaning pad
4	Charging corona	Charger control plate/discharge wire/both ends cover removing						
		Cleaning section removing						
		Charging cleaning unit A4EUR708##	2				•	
		Cleaning of the back plate		•				Cleaning pad/blower brush
		Charger control plate A4EUR709##	1				•	
		Charging wire 56UA2509##	2				•	
		Charger rubber vibration isolator 55VA2527##	2				•	
		C-clip 45AA2040##	2				•	
5	Cleaning section	Discharge wire A0G64708##	1				•	
		PCC cleaning		•				
		Cleaning blade A0G65350##	2				•	Cleaning pad/blower brush
		Cleaning of the receiving mylar		•				
		Cleaning of the inside of the cleaning unit		•				Vacuum cleaner
		Waste toner box A4EUR75V##					•	
		Drum scraper Assy A4EUR711##	1				•	
		Scatter preventive filter Assy A4EUR712##	1				•	
6	Photo conductor section	Drum • Photo conductor setting mode is conducted (in service mode)	1				•	Replace it once for every 7,500,000 prints or 190 h. of driving time, whichever is earlier.
		Cleaning of the photo conductor section		•				Isopropyl alcohol/cleaning pad /Vacuum cleaner
		Drum claw A0G63456##	3				•	
		Drum claw unit cleaning		•				Vacuum cleaner /cleaning pad
		Drum fixing spring 55FU2014##	1				•	
		Drum positioning collar 25SA2015##	1				•	
7	Developing section	Cleaning of the developing section		•				Cleaning pad/vacuum cleaner

		Developer • TonerDensitySensorInit.Auto (in service mode)					•	Replace it once for every 7,500,000 prints or 190 h. of driving time, whichever is earlier.
8	Toner supply section	Cleaning of the toner cartridge insertion opening		•				Vacuum cleaner
9	Transfer/Separation section	Removing/reinstalling of the interior/the exterior						Isopropyl alcohol/cleaning pad/blower brush
		Cleaning of the belt cleaning unit		•				
10	Fusing section	Cleaning of the Fusing claws /Up and /Lw/the entrance guide plate		•				Acetone/cleaning pad
		Fixing cleaning web A4EW7314##	1				•	
11	Paper feed section	Cleaning of each sensor		•				Cleaning pad/blower brush
		Cleaning of the paper dust removing brush for vertical conveyance section		•				Vacuum cleaner/blower brush
		Cleaning of the vertical conveyance sensor		•				Cleaning pad/blower brush
12	DUPLEX SECTION	Cleaning of the paper dust removing brush		•				Vacuum cleaner/blower brush
		Cleaning of the registration sensor section		•				Cleaning pad/blower brush
		Cleaning of other sensors		•				
		Cleaning of the pre-transfer roller		•				Isopropyl alcohol/cleaning pad
		Cleaning of the loop roller		•				
		ADU Transport roller cleaning (4 positions)		•				
		Cleaning of the ADU reverse/exit roller		•				
		Transport roller cleaning (2 positions)		•				
		Cleaning of the ADU acceleration roller		•				
		Cleaning of the ADU exit roller		•				
		Cleaning of the ADU reverse roller		•				
		Cleaning of entire conveyance section/installing of the cover						Vacuum cleaner
13	De-curler section	Cleaning of the de-curler entrance roller		•				Isopropyl alcohol/cleaning pad
		Transport roller cleaning (2 positions)		•				
14	Each unit installing	Drum installing						
		Sensor/stay installing						
		Developing unit/suction filter						
		Installing of the cleaning unit						
		Charger installing						
		Installing the drum stand (drum fixing screws)						
15	Final check	Check warm-up time			•			
		Check of the image and the paper through (including each adjustment)			•			
		Maintenance counter reset (in service mode)			•			

(2) Periodic maintenance 2 (Every 1,500,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Cleaning section	Cleaning of the cleaning unit		•				Vacuum cleaner /cleaning pad
		Toner guide brush assembly A4EUR70K##	1				•	
		Scattering prevention felt 55VA5568##	1				•	

		Seal plate /Fr A4EUR70G##	1				•	
		Seal plate /Rr A4EUR70H##	1				•	
		Guide plate assy A4EUR70J##	1				•	
2	Developing section	Suction filter A4EU3908##	1				•	
3	Toner supply section	Agitator plate assembly /1 A4EUR705##	1				•	
		Agitator plate assembly /2 A4EUR706##	1				•	
4	Transfer/Separation section	Cleaning of the belt cleaning unit		•				
		Regulation plate assy A4EUR700##	2				•	
5	Fusing section	Fusing roller /Up 56UA5304##	1				•	
		Heat insulating sleeve 45405339##	2				•	
		Fusing bearing /Up A0G67346##	2				•	
		Fusing roller /Lw assy A4EUR70V##	1				•	
		Fusing claw /Up 56UA5453##	6				•	
		Fusing claw /Lw 25AA5329##	2				•	
		Fusing cleaning sheet assy A4EUR70U##	1				•	
		Cleaning of the fusing heating roller		•				Cleaning pad/blower brush
6	Paper feed section	Pick-up roller A4EUR715##	2				•	Actual replacement cycle: 500,000 feeds
		Paper feed roller A4EUR714##	2				•	
		Separation roller A4EUR714##	2				•	

(3) Periodic maintenance 3 (Every 3,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Photo conductor section	Drum temperature sensor (TH5) A4EUR702##	1				•	
2	Cleaning section	Toner seal board A4EUR713##	1				•	
3	Toner supply section	Toner supply sleeve /1 A4EUR70W##	1				•	
		Toner supply sleeve /2 A4EUR70X##	1				•	
4	Transfer/Separation section	Transfer belt A0G65001##	1				•	
		Cleaning brush A4EU5106##	2				•	
		Transfer roller A4EU5006##	1				•	
		Bearing /H A0G65039##	2				•	
		Transfer contact /Rr A4EUR70C##	2				•	
		Transfer contact /Fr A4EUR70B##	1				•	
		Power supply parts 65AA2689 ##	2				•	
5	Registration section	registration motor shaft gear				•		Plas guard No.2
6	Fusing section	Fusing heater lamp /1 (L1) A4EWM330##	1				•	

		Fusing heater lamp /2 (L2) A4EWM330##	1				•	
		Fusing heater lamp /3 (L3) 55VB8304##	1				•	
		Fusing heating roller 56UA5307##	1				•	
		Heat roller bearing 56UA7507##	2				•	
		Heat insulating sleeve /Lw 26AA5315##	2				•	
		Fusing temperature sensor /2 (TH2) 55VA8804##	1				•	
		Fusing temperature sensor /4 (TH4) 55VA8806##	1				•	
7	Main body	Charging filter A4EUR900##	1				•	
		Filter plate A4EUR900##	1				•	
8	Vertical conveyance section	Paper fur brush A4EUR730##	1				•	

(4) Periodic maintenance 4 (Every 4,500,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Chec k	Lubric ation	Repla ce	
1	Main body	Ozone filter /12 A4EU1123 ##	2				•	
		Charging exhaust filter 56UA1122##	1				•	
		Cleaning of the cover/machine internal		•				Isopropyl alcohol/cleaning pad

(5) Periodic maintenance 5 (Every 6,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Charging corona	Charging corona A4EUR707##	1				•	
2	Cleaning section	Guide shaft A0G65305##	1				•	
		Cleaning gear /2 assembly A4EUR70F##	1				•	
		PCC unit A4EUR75K##	1				•	
3	Developing section	Developing suction seal/2 56UA3103##	2				•	
		Developing suction seal/5 56UA3106##	1				•	
		Stopper pad /1 A4EU3946##	2				•	
		Suction pad /H A0G63944##	1				•	
		Stopper pad /2 A4EU3947##	2				•	
		Developing unit A4EUR703##	1				•	
4	Transfer/Separation section	Cleaning shaft A0G65107##	2				•	
5	Registration section	Registration roller /Up 56UA4606##	1				•	
		Registration bearing A4EU7154##	2				•	
		Registration gear /Up A0G67142##	1				•	
		Registration gear /Lw A0G67143##	1				•	

6	Fusing section	Fusing gear A0G67260##	1				•	
7	Main body	Web motor (M24) A4EUM101##	1				•	
8	De-curler section	Fixing exit roller 56UA4595##	4				•	

(6) Periodic maintenance 6 (Every 10,500,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Fusing section	Fusing cleaning roller 56UA5353##	1				•	
		Bearing /G 56UA7609##	2				•	
2	Paper exit section	Cleaning of the paper exit sensor		•				Blower brush
		Output roller 56UA4557 ##	1				•	Actual replacement cycle: 6,000,000 feeds
3	Paper feed section	Paper feed clutch /1 (CL4) 57GA8201##	1				•	Actual replacement cycle: 3,000,000 feeds
		Paper feed clutch /2 (CL6) 57GA8201##	1				•	
		Separation clutch /1 (CL5) 57GA8201##	1				•	
		Separation clutch /2 (CL7) 57GA8201##	1				•	
4	Vertical conveyance section	Pre-registration clutch /1 (CL1) 57GA8201##	1				•	
		Pre-registration clutch /2 (CL3) 57GA8201##	1				•	
		Vertical conveyance clutch (CL2) 57GA8201##	1				•	

(7) Periodic maintenance 7 (Every 12,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Toner supply section	Pump unit /Rt A4EUR70Y##	1				•	Actual replacement cycle: 10,000,000 feeds
		Pump unit /Lt A4EUR710##	1				•	
2	Transfer/Separation section	Belt cleaning unit A4EUR70D##	1				•	
3	Vertical conveyance section	Paper dust removing brush shaft A4EUR716##	1				•	
		Conveyance exit roller A4EU7012##	1				•	
		Conveyance roller /1 A4EU7013##	1				•	Actual replacement cycle: 12,000,000 feeds (for each paper exit)
4	DUPLEX SECTION	Cleaning of the ADU reverse sensor /2		•				Blower brush
		Output convey roller /1 A4EU8174##	1				•	Actual replacement cycle: 12,000,000 feeds
		Output convey roller /2 assy A4EUR701##	1				•	
		ADU accelerator roller A4EU8171##	1				•	
		Reversal output roller A4EU8172##	1				•	
		ADU reversal roller A4EU8176##	1				•	
		ADU conveyance roller /1 A4EU8175##	1				•	
		ADU conveyance roller /2 A4EU8175##	1				•	

		ADU conveyance roller /3 A4EU8177##	1				•	
		ADU conveyance roller /4 A4EU8177##	1				•	
		ADU exit roller A4EU8177##	1				•	
5	De-curler section	Removing/installing of the exterior/ the paper exit section						
		De-curler belt /Up A0G68464##	7				•	Actual replacement cycle: 6,000,000 feeds
		Decurler entrance roller A4EU8407##	1				•	Actual replacement cycle: 12,000,000 feeds
		Reverse gate 56UA4760##	7				•	
		Guide member /Up A0G68451##	1				•	Actual replacement cycle: 6,000,000 feeds
		Coupling unit A4EU8470##	1				•	

(8) Periodic maintenance 8 (Every 18,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Registration section	Removing/installing of the exterior/ the unit						
		Paper lift sheet A0G67121##	1				•	
		Loop driven roller A4EU8180##	1				•	
		Pre-transfer driven roller assy A4EUR748##	2				•	
2	Fusing section	Removing/installing of the fusing unit						
		Fusing oscillation cam assy A4EUR737##	1				•	
		Fusing claws installation assy A4EUR732##	6				•	
		Web prevention part A4EUR70T##	1				•	
		Bearing /G 56UA7609##	1				•	
3	Paper feed section	Removing/installing of the tray unit						
		Bearing /D A00J6179##	3				•	
		Bearing /C A00V2406##	2				•	
		Reverse rotation shaft A4EW5708##	2				•	
		Bearing /D A00J6179##	3				•	
		Paper feed input shaft A4EUR72K##	2				•	
		Removing/installing of the handling unit/the rollers						
		Torque limiter /A A03X5656##	2				•	Actual replacement cycle: 6,000,000 feeds
		Cover A0G65720##	2				•	
		Removing/installing of the handling unit/the guide plate						
		Input gear A0G66023##	2				•	Actual replacement cycle: 6,000,000 feeds
4	Vertical conveyance section	Conveyance pulley 55VA7653##	2				•	
		Conveyance belt /A 56UA7809##	1				•	

	Bearing /E A00J6178##	5				•	
	Cleaning gear /B 55VA7921##	1				•	
	Scraper shaft 56UA4417##	1				•	
	Paper dust guide holder A4EUR70N##	1				•	
	Torque limiter 57GA4430##	1				•	Actual replacement cycle: 6,000,000 feeds
	Conveyance roller /2 A0G67003##	1				•	
	Conveyance roller /3 A0G67002##	1				•	
	Pre-registration roller /1 and /2 A0G67001##	2				•	
	Pre-registration bearing 56UA7603##	4				•	

(9) Periodic maintenance 9 (Every 24,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Cleaning section	Cleaning gear /3 A0G65327##	2				•	
2	Vertical conveyance section	Paper feed cleaning gear /B 56UA7716##	1				•	
		Paper feed gear /A 56UA7717##	1				•	
		Paper feed gear /B 56UA7718##	1				•	
		Paper exit input gear 56UA7707##	1				•	

(10) Periodic maintenance 10 (Every 30,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Toner supply section	Air separation motor (M10) A0Y5M104##	1				•	
		Intermediate hopper motor (M11) 13GQ8003##	1				•	
		Toner bottle motor (M6) A0PNM102##	1				•	
		Toner hopper motor (M7) A0PNM102##	1				•	
		Waste toner box swing motor (M19) A0WJM100##	1				•	
2	De-curler section	Reverse/exit solenoid (SD7) A4EUR74A##	1				•	
		De-curler solenoid /Up (SD8) A4EUR749##	1				•	
		De-curler motor (M32) A0PNM102##	1				•	
3	Registration section	Roller gear /Rt A4EU7144##	1				•	
4	DUPLEX SECTION	Removing/installing of the ADU cover /Lt						
		Motor gear /Rt A4EU8146##	1				•	
		Registration motor (M17) A4EUR73Q##	1				•	
		Removing/installing of the ADU conveyance motor /2 assy						
		ADU conveyance motor belt /2 56UA7808##	1				•	

		ADU conveyance motor /2 (M16) A4EUR73W##	1				•	
		Removing/installing of the ADU drive belts (common to each belt)						
		ADU reverse motor belt 13GQ7755##	1				•	
		ADU reverse motor (M12) A4EUR73Q##	1				•	
		Removing/installing of the pressure unit						
		Transfer belt pressure release motor (M26) A0Y5M104##	1				•	
		Reverse/exit motor belt 56UA7806##	1				•	
		Reverse/exit motor (M13) A4EUR73Q##	1				•	
		ADU accelerate motor belt A0G68194##	1				•	
		ADU paper exit roller belt A4EU8221##	1				•	
		ADU accelerate motor (M14) A4EUR73Q##	1				•	
		Loop motor (M18) A4EUR73X##	1				•	
		Transfer belt motor (M30) A0R5M103##	1				•	
		ADU conveyance motor /1 belt 15BA7753##	1				•	
		ADU conveyance motor /1 (M15) A03UM111##	1				•	
5	Main body rear side	Paper feed motor (M4) 65AA8002##	1				•	
		Paper feed gear A4EU2391##	1				•	
		Vertical conveyance motor (M8) A1TVM101##	1				•	
		Conveyance gear 56UA7706##	1				•	
		Developing screw motor (M21) A0PNM102##	1				•	
		Fusing gear A0G62372##	1				•	
		Transfer belt cleaning motor (M5) A0PNM102##	1				•	
		Paper exit conveyance motor (M31) A0PNM102##	1				•	
		Paper exit motor (M20) A0PNM102##	1				•	
		fusing motor (M1) 65AA8002##	1				•	
		Drum motor (M2) A0PNM102##	1				•	
		developing motor (M3) 15AA8005##	1				•	
		Waste toner motor (M9) A0WJM100##	1				•	
		Belt cleaning gear A0G62506##	1				•	
		Drum cleaner motor (M35) A0R5M103##	1				•	

1.3.2 DF-616

(1) Periodic maintenance 1 (Every 750,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification	Materials Tools used
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				Cleani ng	Check	Lubric ation	Repla ce	
1	Preparation	Original through check			•			
		Cover			•			
2	Paper feed section	Pick-up roller		•				Isopropyl alcohol/cleaning pad
		Paper feed roller		•				
		Paper feed auxiliary roller		•				
		Cleaning pad		•				
		Registration roller		•				Blower brush
		Pre-separation rubber		•				
		Original count sensor		•				
		Original size sensor /Lt		•				
		Original size sensor /Rt		•				
3	Conveyance section	Original registration sensor /Lt		•				
4	Read section	Original conveyance sensor		•				
		Original skew sensor /Rr		•				
		Original skew sensor /Fr		•				
5	Paper exit section	Mirror on the driven roller assembly		•				
		Original reverse sensor		•				
		Reverse jam sensor		•				
		Original reverse exit sensor		•				
6	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Spotted replacement (Every 400,000 feeds)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Paper feed section	Separation roller 13GA4606##	1				•	

(3) Spotted replacement (Every 800,000 feeds)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Paper feed section	Pick-up roller 13GA4604##	1				•	
		Paper feed roller 15AS4605##	1				•	
		Paper feed auxiliary roller 15AS4601##	1				•	
		Torque limiter 13GAR719##	1				•	

1.3.3 PF-706**(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Preparation	Original through check			•			
2	Tray section	Cleaning of each sensor		•				Blower brush
3	Conveyance section	Cleaning of each sensor		•				
4	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Periodic maintenance 2 (Every 2,250,000 prints)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Chec k	Lubric ation	Repla ce	
1	Tray section	Pick-up roller A4EYR70A##	3				•	Actual replacement cycle: 500,000 feeds

	Paper feed roller A4EYR70B##	3				•	
	Separation roller A4EYR70B##	3				•	

(3) Periodic maintenance 3 (Every 10,500,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Conveyance section	PF paper exit roller 15BA5011##	1				•	Actual replacement cycle: 6,000,000 feeds
		Bearing /C A00V2406##	9				•	
		Bearing /B 50007501##	1				•	

(4) Periodic maintenance 4 (Every 18,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Tray section	Paper fur brush A4EY5604##	3				•	Actual replacement cycle: 3,000,000 feeds
		Paper feed clutch /1 (CL6) 57GA8201##	1				•	
		Paper feed clutch /2 (CL9) 57GA8201##	1				•	
		Paper feed clutch /3 (CL12) 57GA8201##	1				•	
		Separation clutch /1 (CL7) 57GA8201##	1				•	
		Separation clutch /2 (CL10) 57GA8201##	1				•	
		Separation clutch /3 (CL13) 57GA8201##	1				•	
		Forced separation clutch /1 (CL8) 57GA8201##	1				•	
		Forced separation clutch /2 (CL11) 57GA8201##	1				•	
		Forced separation clutch /3 (CL14) 57GA8201##	1				•	
2	Conveyance section	pre-registration clutch /1 (CL1) 57GA8201##	1				•	
		Pre-registration clutch /2 (CL3) 57GA8201##	1				•	
		Pre-registration clutch /3 (CL5) 57GA8201##	1				•	
		Intermediate clutch /Up (CL2) 57GA8201##	1				•	
		Intermediate clutch /Lw (CL4) 57GA8201##	1				•	

(5) Periodic maintenance 5 (Every 30,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Tray section	Removing/installing of the handling unit/the rollers						
		Torque limiter /A A03X5656##	3				•	
		Cover A0G65720##	3				•	
		Bearing /D A00J6179##	9				•	
		Bearing /C A00V2406##	3				•	

		Reverse rotation shaft A0GC5708##	3				•	
		Bearing /E A00J6178##	6				•	
		Input shaft A0GC6013##	3				•	
		Idler shaft A0GC5711##	3				•	
		Reverse input shaft A0GC5720##	3				•	
		Bearing /D A00J6179##	3				•	
		Bearing /E A00J6178##	3				•	
		Input gear A0G66023##	3				•	Actual replacement cycle: 6,000,000 feeds
2	Conveyance section	Removing/installing of the exit/upper conveyance section						
		Torque limiter /Up 57GA4430##	1				•	Actual replacement cycle: 6,000,000 feeds
		Removing/installing of the lower conveyance section						
		Torque limiter /Lw 57GA4430##	1				•	Actual replacement cycle: 6,000,000 feeds
		Pre-registration roller A0GC7005##	3				•	
		Pre-registration bearing 56UA7603#	6				•	
		Intermediate conveyance roller A0GC7006##	4				•	
3	Drive section	Paper feed pulley A0GC2104##	5				•	
		Shaft assy /C A4EYR701##	2				•	
		Pulley /P A0GD2160##	1				•	
		Idler pulley /D A0GD2103##	4				•	
		Gear /C A0GD2168##	2				•	
		Shaft assy /P A4EYR702##	1				•	
		Paper feed drive pulley A4EU2391##	1				•	

1.3.4 LU-409/410

(1) Periodic maintenance 1 (Every 750,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Preparation	Original through check			•			
2	Paper feed section	Sensors		•				Blower brush
		Gears				•		Plas guard No.2
		Pre-registration roller/Driven roller		•				Isopropyl alcohol/cleaning pad
		Pick-up roller		•				
		Paper feed roller		•				
		Separation roller		•				
3	Final check	Original through check			•			
		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(2) Periodic maintenance 2 (Every 750,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Chec k	Lubric ation	Repla ce	

1	Paper feed section	Pick-up roller 55VAR750##	1				•	Actual replacement cycle: 500,000 feeds
		Paper feed roller 55VAR749##	1				•	
		Separation roller 55VAR749##	1				•	

(3) Periodic maintenance 3 (Every 3,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed section	Paper feed clutch 57GA8201##	1				•	Actual replacement cycle: 3,000,000 feeds
		Pre-registration clutch 57GA8201##	1				•	

(4) Periodic maintenance 4 (Every 10,500,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Paper feed section	Torque limiter A03X5656##	1				•	Actual replacement cycle: 6,000,000 feeds
		Pre-registration roller 13GG4005 ##	1				•	
		Pre-registration bearing 55VA7554##	2				•	
		Replacing paper feed idler gear A0Y62101##	1				•	
		Paper feed input gear 13RJ7908 ##	1				•	

1.3.5 ZU-608**(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Punch edge/guide		•				Blower brush
		Punch scraps conveyance motor (M607) A111A928##	1				•	
		Punch clutch 13NKK001##	1				•	
2	Conveyance section	Entrance guide plate		•				Cleaning pad
		Conveyance guide plate		•				
		Registration roller		•				Isopropyl alcohol/cleaning pad
		Conveyance roller		•				
		Exit roller		•				
		Exit guide plate		•				Cleaning pad
3	Z-folding section	Folding roller		•				Isopropyl alcohol/cleaning pad
		Folding guide plate		•				Cleaning pad
4	Punch scraps conveyance section	Punch scraps box		•				
5	Final check	Original through check			•			
		Exterior cleaning		•				Isopropyl alcohol/cleaning pad

1.3.6 FS-532**(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check			•			

2	PAPER CONVEYANCE SECTION	FNS entrance roller cleaning		•			Isopropyl alcohol/cleaning pad
		FNS pass sensor (PS1)		•			Blower brush
		Paper overlap sensor /1 (PS32)		•			
		Paper overlap sensor /2 (PS33)		•			
		Roller pressure motor home sensor (PS34)		•			
3	Stacker section	Cleaning rollers		•			Isopropyl alcohol/cleaning pad
		Stacker empty sensor (PS28)		•			Blower brush
		Stacker upper sensor (PS43)		•			
		Staple scraps box cleaning		•			
		Stacker entrance roller pressure entrance cam				•	Molykote
		Stack assist plate drive cam				•	
		Stapler shaft				•	
		Rear stopper moving shaft, Metal frame sliding position				•	
4	Main tray section	Main tray upper limit sensor (PS14)		•			Blower brush
		Main tray paper exit sensor (PS10)		•			
		The rubber surface at the lower side of the gripper/The winding rubber at the lower side of the gripper		•			Isopropyl alcohol/cleaning pad
		Up/Down tray drive section				•	Molykote
		Paper exit alignment plate slide shaft				•	
5	Final check	Original through check			•		
		Cleaning of the cover		•			Isopropyl alcohol/cleaning pad

(2) Spotted replacement (Every 300,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Stacker section	Paddle A4F37500##	6				•	

(3) Spotted replacement (Every 500,000 operations)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Stacker section	Staple unit A4F37350##	1				•	

1.3.7 SD-510**(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Folding section	Cleaning knives		•				Isopropyl alcohol/cleaning pad
		Cleaning rollers		•				
		Exit belt cleaning		•				
		Cleaning staple shaft		•				

(2) Spotted replacement (Every 200,000 operations)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Stapler section	Staple unit A4F47300##	1				•	

(3) Spotted replacement (Every 300,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
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				Cleani ng	Check	Lubric ation	Repla ce	
1	Folding section	Paddle /1 A4F4R70D##	2				•	
		Paddle /2 A4F4R70E##	2				•	
		Paddle /3 A4F4R70F##	2				•	

1.3.8 PK-522**(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Punch section	Cleaning the punch edge		•				Blower brush
		Cleaning the sensor		•				

1.3.9 PI-502**(1) Spotted replacement (Every 100,000 feeds)**

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Paper feed section	Paper feed roller 13QNR705##	2				•	
		Separation roller 13QNR704##	2				•	

(2) Spotted replacement (Every 200,000 feeds)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Paper feed section	Pick-up roller 50BAR701##	2				•	

(3) Spotted replacement (Every 600,000 feeds)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Paper feed section	Torque limiter 13QN4073##	2				•	

(4) Spotted replacement (Every 1,000,000 feeds)

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Paper feed section	Paper feed clutch /Up 13QN8201##	1				•	
		Paper feed clutch /Lw 13QN8201##	1				•	

1.3.10 MK-732**(1) Periodic maintenance 1 (Every 750,000 prints)**

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Conveyance section	Covneyance roller cleaning		•				Isopropyl alcohol/cleaning pad

1.3.11 GP-501**(1) Periodic maintenance 1 (Every 200,000 prints)**

No.	Unit classification	Description	Qua ntity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	

1	Punch section	Die Set Pins			•	•		3-IN-ONE (WD-40Company) Actual lubrication count: 50,000 punches This maintenance to be done by user.
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(2) Periodic maintenance 2 (Every 750,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Punch section	Die Set Shoulder Bolts			•	•		Magnalube-G TeflonGreaseActual lubrication count: 200,000 punches This maintenance to be done by user.

(3) Periodic maintenance 3 (Every 3,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Preparation	Original through check GP removal, Front door open			•			
2	Bypass conveyance section	Paper Path, Bypass		•	•			Alcohol
3	Punch conveyance section	Latching Mechanisms aligner			•			
4		Paper Path, Aligner panels		•	•			Alcohol
5		Aligner Idler Rollers		•	•			
6		Roller energy drive		•	•			
7	Bypass/Punch conveyance section	Optical Sensors		•				Blower brush
8		Timing Belts		•	•			Alcohol
9		Idler Rollers		•	•			
10		Drive Rollers		•	•			
11	Punch section	Back Gauge mechanism		•	•			Blower brush/ vacuum cleaner
12		Die Guide		•				Vacuum cleaner
13		Paper Path, Punch		•	•			Alcohol
14	External section	Base		•				Vacuum cleaner
15		Door Closing Latch			•			
16	Post-process	Front door close, GP connected						
17	Final check	Original through check			•			
18		Cleaning of the cover		•				Isopropyl alcohol/cleaning pad

(4) Periodic maintenance 4 (Every 12,000,000 prints)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Punch conveyance section	Aligner Idler Roller Assembly		•				Alcohol
2		Belt Aligner (Green)	1	•				
3	Punch section	Punch drive cams	1			•		Magnalube-G Teflon Grease Actual lubrication count: 3,000,000 punches

(5) Spotted replacement (Every 500,000 punches)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleani ng	Check	Lubric ation	Repla ce	
1	Punch section	Die Set	1		•		•	Replacement is recommended if hanging chips are usually generated.

(6) Spotted replacement (Every 4,000,000 cycle)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Back Gauge Mechanism A0N9PP59##	1				•	Actual replacement count: 4,000,000 punches

1.3.12 GP-502**(1) Periodic maintenance 1 (Every 1,000,000 prints)**

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Bypass section	Bypass Rollers		•	•			

(2) Spotted replacement (Every 500,000 punches)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Pullback Pad A4F6PP00##	2				•	

(3) Spotted replacement (Every 1,000,000 punches)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch section	Suction Cup: Element Feeder A4F6PP03##	1				•	
2	Preparation	Removing the rear cover Removing the punch unit			•			
3	Punch Unit	Oiled Felt, Die-set A4F6PP01##	1				•	
		Punch Module	1			•		Magnalube-G TeflonGrease/ Nippeco MP No.1
		Vertical Transport Belts: Before Punch	4	•	•			Isopropyl alcohol/cleaning pad
		Vertical Transport Belts: After Punch	4	•	•			
4	Post-process	Installing the punch unit Installing the rear cover			•			

(4) Spotted replacement (Every 4,000,000 punches)

No.	Unit classification	Description	Quantity	Implementation classification				Materials Tools used
				Cleaning	Check	Lubrication	Replace	
1	Punch Unit	Punch Pin/Plate Assy, Die-set A4F6PP02##	1				•	

2. PERIODICALLY REPLACED PARTS LIST

2.1 Periodical replacement parts

Note

- For the part number of periodically replaced parts, refer to "Parts guide manual."
- For the replacement procedure of the periodically replaced parts, refer to [F.5 Periodical maintenance procedure bizhub PRESS 1250/1250P/1052/PRO 951](#) to [F.20 Periodical maintenance procedure PB-503](#).
- The parts count No. given in the following table represents the number of the special parts count in the service mode.

2.2 bizhub PRESS 1250/1250P/1052

2.2.1 Periodically replaced parts list

(1) Main body

No.	Classification	Parts name	Parts No.	Quantity	Actual replacement Cycle	Parts count No.
1	Main body	Filter plate	A4EUR900##	1	4,000,000	1
2		Charging filter	A4EUR900##	1	4,000,000	1
3		Web motor (M24)	A4EUM101##	1	6,000,000	63
4		Ozone filter /12	A4EU1123 ##	2	6,000,000	2
5		Charging exhaust filter	56UA1122#	1	6,000,000	3
6	Photo conductor section	Drum positioning collar	25SA2015##	1	1,000,000	-
7		Drum fixing spring	55FU2014##	1	1,000,000	-
8		Drum claw	A0G63456##	3	1,000,000	4
9		Drum temperature sensor (TH5)	A4EUR702##	1	4,000,000	5
10		Drum	DR012	1	F.4 Life value	-
11	Transfer/Separation section	Regulation plate assy	A4EUR700##	2	2,000,000	19
12		Power supply parts	65AA2689##	2	4,000,000	26
13		Bearing /H	A0G65039##	2	4,000,000	23
14		Cleaning brush	A4EU5106##	2	4,000,000	22
15		Transfer belt	A0G65001##	1	4,000,000	20
16		Transfer roller	A4EU5006##	1	4,000,000	21
17		Transfer contact /Fr	A4EUR70B##	1	4,000,000	25
18		Transfer contact /Rr	A4EUR70C##	2	4,000,000	24
19		Cleaning shaft	A0G65107##	2	8,000,000	27
20		Belt cleaning unit	A4EUR70D##	1	16,000,000	28
21	Charging corona	C-clip	45AA2040##	2	1,000,000	8
22		Charging wire	56UA2509##	2	1,000,000	6
23		Charger control plate	A4EUR709##	1	1,000,000	7
24		Charging cleaning unit	A4EUR708##	2	1,000,000	8
25		Charger rubber vibration isolator	55VA2527##	2	1,000,000	6
26		Charging corona	A4EUR707##	1	8,000,000	9
27	Developing section	Developer	DV011		F.4 Life value	-
28		Suction filter	A4EU3908##	1	2,000,000	10
29		Suction pad /H	A0G63944##	1	8,000,000	11
30		Developing suction seal/2	56UA3103##	2	8,000,000	11
31		Developing suction seal/5	56UA3106##	1	8,000,000	11
32		Developing unit	A4EUR703##	1	8,000,000	12
33		Stopper pad /1	A4EU3946##	2	8,000,000	11
34		Stopper pad /2	A4EU3947##	2	8,000,000	11
35	Cleaning section	Cleaning blade	A0G65350##	2	1,000,000	32, 33
36		Drum scraper assy	A4EUR711##	1	1,000,000	34
37		Waste toner box	A4EUR75V##	1	1,000,000	-
38		Scatter preventive filter assy	A4EUR712##	1	1,000,000	35
39		Discharge wire	A0G64708	1	1,000,000	30
40		Guide plate assy	A4EUR70J##	1	2,000,000	40
41		Seal plate /Fr	A4EUR70G##	1	2,000,000	39
42		Seal plate /Rr	A4EUR70H##	1	2,000,000	38
43		Toner guide brush assembly	A4EUR70K##	1	2,000,000	36, 37
44		Scattering prevention felt	55VA5568#	1	2,000,000	-
45		Toner seal board	A4EUR713##	1	4,000,000	41
46		PCC unit	A4EUR75K##	1	8,000,000	31

47		Guide shaft	A0G65305##	1	8,000,000	42
48		Cleaning gear /2 assembly	A4EUR70F##	1	8,000,000	43
49		Cleaning gear /3	A0G65327##	2	32,000,000	44
50	Toner supply section	Agitator plate assembly /1	A4EUR705##	1	2,000,000	14
51		Agitator plate assembly /2	A4EUR706##	1	2,000,000	14
52		Toner supply sleeve /1	A4EUR70W##	1	4,000,000	15
53		Toner supply sleeve /2	A4EUR70X##	1	4,000,000	16
54		Pump unit /Lt	A4EUR710##	1	10,000,000	18
55		Pump unit /Rt	A4EUR70Y##	1	10,000,000	17
56		Air separation motor (M10)	A0Y5M104##	1	40,000,000	-
57		Toner hopper motor (M7)	A0PNM102##	1	40,000,000	-
58		Toner bottle motor (M6)	A0PNM102##	1	40,000,000	-
59		Intermediate hopper motor (M11)	13GQ8003##	1	40,000,000	-
60		Waste toner box swing motor (M19)	A0WJM100##	1	40,000,000	-
61	Paper feed section	Pick-up roller	A4EUR715##	2	500,000	86, 90
62		Paper feed roller	A4EUR714##	2	500,000	87, 91
63		Separation roller	A4EUR714##	2	500,000	87, 91
64		Paper feed clutch /1 (CL4)	57GA8201##	1	3,000,000	88
65		Paper feed clutch /2 (CL6)	57GA8201##	1	3,000,000	92
66		Forced separation clutch /1 (CL5)	57GA8201##	1	3,000,000	89
67		Forced separation clutch /2 (CL7)	57GA8201##	1	3,000,000	93
68		Cover	A0G65720##	2	6,000,000	-
69		Torque limiter /A	A03X5656##	2	6,000,000	-
70		Input gear	A0G66023##	2	6,000,000	94, 95
71		Reverse rotation shaft	A0G65708##	2	24,000,000	-
72		Paper feed input shaft	A4EUR72K##	2	24,000,000	-
73		Bearing /C	A00V2406##	2	24,000,000	-
74		Bearing /D	A00J6179##	3	24,000,000	-
75		Bearing /D	A00J6179##	3	24,000,000	-
76	Vertical conveyance section	Pre-registration clutch /1 (CL1)	57GA8201##	1	3,000,000	98
77		Pre-registration clutch /2 (CL3)	57GA8201##	1	3,000,000	100
78		Vertical conveyance clutch (CL2)	57GA8201##	1	3,000,000	99
79		Paper fur brush	A4EUR730##	1	4,000,000	96
80		Torque limiter	57GA4430#	1	6,000,000	-
81		Pre-registration roller /1 and /2	A0G67001##	2	6,000,000	104, 105
82		Pre-registration bearing	56UA7603##	4	6,000,000	-
83		Conveyance roller /2	A0G67003##	1	6,000,000	103
84		Conveyance roller /3	A0G67002##	1	6,000,000	103
85		Paper dust removing brush shaft	A4EUR716##	1	12,000,000	106
86		Conveyance roller /1	A4EU7013##	1	12,000,000	102
87		Conveyance exit roller	A4EU7012##	1	12,000,000	101
88		Cleaning gear /B	55VA7921#	1	24,000,000	-
89		Scraper shaft	56UA4417##	1	24,000,000	-
90		Paper dust guide holder	A4EUR70N##	1	24,000,000	97
91		Bearing /E	A00J6178##	5	24,000,000	-
92		Conveyance pulley	55VA7653##	2	24,000,000	-
93		Conveyance belt /A	56UA7809##	1	24,000,000	-
94		Paper feed gear /A	56UA7717##	1	40,000,000	-
95		Paper feed gear /B	56UA7718##	1	40,000,000	-
96		Paper feed cleaning gear /B	56UA7716##	1	40,000,000	-
97		Paper exit input gear	56UA7707##	1	40,000,000	-
98	Registration section	Registration gear /Lw	A0G67143##	1	8,000,000	108
99		Registration gear /Up	A0G67142##	1	8,000,000	108
100		Registration roller /Up	56UA4606##	1	8,000,000	107
101		Registration bearing	A4EU7154##	2	8,000,000	107
102		Loop driven roller	A4EU8180##	1	24,000,000	-
103		Paper lift sheet	A0G67121##	1	24,000,000	-
104		Pre-transfer driven roller assy	A4EUR748##	2	24,000,000	-
105		Roller gear /Rt	A4EU7144##	1	40,000,000	109

106	DUPLEX SECTION	ADU accelerator roller	A4EU8171##	1	12,000,000	110
107		ADU exit roller	A4EU8177##	1	12,000,000	114
108		ADU reversal roller	A4EU8176##	1	12,000,000	112
109		ADU conveyance roller /1	A4EU8175##	1	12,000,000	114
110		ADU conveyance roller /2	A4EU8175##	1	12,000,000	114
111		ADU conveyance roller /3	A4EU8177##	1	12,000,000	114
112		ADU conveyance roller /4	A4EU8177##	1	12,000,000	114
113		Output convey roller /1	A4EU8174##	1	12,000,000	113
114		Output convey roller /2 assy	A4EUR701##	1	12,000,000	113
115		Reversal output roller	A4EU8172##	1	12,000,000	111
116		ADU accelerate motor (M14)	A4EUR73Q##	1	40,000,000	-
117		ADU accelerate motor belt	A0G68194##	1	40,000,000	-
118		ADU paper exit roller belt	A4EU8221##	1	40,000,000	-
119		ADU reverse motor (M12)	A4EUR73Q##	1	40,000,000	-
120		ADU reverse motor belt	13GQ7755##	1	40,000,000	-
121		ADU conveyance motor /1 (M15)	A03UM111##	1	40,000,000	-
122		ADU conveyance motor /1 belt	15BA7753##	1	40,000,000	-
123		ADU conveyance motor /2 (M16)	A4EUR73W##	1	40,000,000	-
124		Removing/installing of the ADU conveyance motor belt /2	56UA7808##	1	40,000,000	-
125		Motor gear /Rt	A4EU8146##	1	40,000,000	-
126		Loop motor (M18)	A4EUR73X##	1	40,000,000	-
127		Registration motor (M17)	A4EUR73Q##	1	40,000,000	-
128		Transfer belt motor (M30)	A0R5M103##	1	40,000,000	-
129		Transfer belt pressure release motor (M26)	A0Y5M104##	1	40,000,000	-
130		Reverse/exit motor (M13)	A4EUR73Q##	1	40,000,000	-
131		reverse/exit motor belt	56UA7806#	1	40,000,000	-
132	Fusing section	Fixing cleaning web	A0G67314##	1	1,000,000	46
133		Heat insulating sleeve	45405339##	2	2,000,000	51
134		Fusing roller /Lw assy	A4EUR70V##	1	2,000,000	48
135		Fusing roller /Up	A0G67304##	1	2,000,000	47
136		Fusing bearing /Up	A0G67346##	2	2,000,000	52
137		Fusing cleaning sheet assy	A4EUR70U##	1	2,000,000	53
138		Fusing claw /Lw	25AA5329##	2	2,000,000	50
139		Fusing claw /Up	56UA5453##	6	2,000,000	49
140		Heat roller bearing	56UA7507##	2	4,000,000	60
141		Heat insulating sleeve /Lw	26AA5315#	2	4,000,000	57
142		Fusing heater lamp /1 (L1)	A0G6M330##	1	4,000,000	55
143		Fusing heater lamp /2 (L2)	A0G6M330##	1	4,000,000	55
144		Fusing heater lamp /3 (L3)	55VB8304	1	4,000,000	59
145		Fusing temperature sensor /2 (TH2)	55VA8804#	1	4,000,000	61
146		Fusing temperature sensor /4 (TH4)	55VA8806#	1	4,000,000	58
147		Fusing heating roller	56UA5307#	1	4,000,000	56
148		Fusing gear	A0G67260##	1	8,000,000	62
149		Bearing /G	56UA7609##	2	14,000,000	-
150		Fusing cleaning roller	56UA5353##	1	14,000,000	54
151		Web prevention part	A4EUR70T##	1	24,000,000	64
152		Bearing /G	56UA7609##	1	24,000,000	-
153		Fusing claws installation assy	A4EUR732##	6	24,000,000	-
154		Fusing oscillation cam assy	A4EUR737##	1	24,000,000	-
155		Pressure worm assy	A4EUR76B##	1	30,000,000	65
156		Pressure wheel assy	A4EUR70P##	1	30,000,000	66
157	De-curler section	De-curler belt /Lw	A0G68464##	7	6,000,000	115
158		De-curler belt /Up	A0G68464##	7	6,000,000	115
159		Guide member /Lw	A0G68452##	1	8,000,000	118
160		Guide member /Up	A0G68451##	1	8,000,000	117
161		Fixing exit roller	56UA4595##	4	8,000,000	116
162		Decurler entrance roller	A4EU8407##	1	12,000,000	119

163		Reverse gate	56UA4760##	7	12,000,000	120
164		Coupling unit	A4EU8470##	1	16,000,000	121
165		De-curler solenoid /Lw (SD5)	A4EUR74R##	1	40,000,000	-
166		De-curler solenoid /Up (SD8)	A4EUR749##	1	40,000,000	-
167		De-curler motor (M32)	A0PNM102##	1	40,000,000	-
168		Reverse/exit solenoid (SD7)	A4EUR74A##	1	40,000,000	-
169	Paper exit section	Output roller	56UA4557 ##	1	12,000,000	122
170	Main body rear side	Drum cleaner motor (M35)	A0R5M103##	1	40,000,000	-
171		Drum motor (M2)	A0PNM102##	1	40,000,000	-
172		Belt cleaning gear	A0G62506##	1	40,000,000	-
173		Paper feed gear	A4EU2391##	1	40,000,000	-
174		Paper feed motor (M4)	A0G6M101##	1	40,000,000	-
175		Developing screw motor (M21)	A0PNM102##	1	40,000,000	-
176		Developing motor (M3)	15AA8005##	1	40,000,000	-
177		Vertical conveyance motor (M8)	A1TVM101##	1	40,000,000	-
178		Fusing gear	A0G62372##	1	40,000,000	-
179		Fusing motor (M1)	A0G6M101##	1	40,000,000	-
180		Transfer belt cleaning motor (M5)	A0PNM102##	1	40,000,000	-
181		Waste toner motor (M9)	A0WJM100##	1	40,000,000	-
182		Paper exit motor (M20)	A0PNM102##	1	40,000,000	-
183		Paper exit conveyance motor (M31)	A0PNM102##	1	40,000,000	-
184		Conveyance roller	56UA7706##	1	40,000,000	-

(2) Option

No.	Classification	Parts name	Parts No.	Quantity	Actual replacement Cycle	Parts count No.
1	PF-703	Pre-registration clutch /2 (CL3)	57GA8201##	1	3,000,000	196, 209
2		Pre-registration clutch /3 (CL5)	57GA8201##	1	3,000,000	197, 210
3		intermediate clutch /1 (CL2)	57GA8201##	1	3,000,000	198, 211
4		intermediate clutch /2 (CL4)	57GA8201##	1	3,000,000	200, 213
5		Horizontal conveyance exit clutch (CL6)	57GA8201##	1	3,000,000	199, 212
6		Torque limiter /Up	A03U8157##	1	6,000,000	-
7		Torque limiter /Lw	57GA4430##	1	6,000,000	-
8		Pre-registration roller	A0GC7005##	3	6,000,000	188, 189, 190, 193, 201, 202, 203, 206
9		Pre-registration bearing	56UA7603##	6	6,000,000	-
10		Horizontal registration roller	A0GC7005##	1	6,000,000	188, 189, 190, 193, 201, 202, 203, 206
11		Horizontal registration bearing	56UA7603##	2	6,000,000	-
12		Intermediate conveyance roller	A0GC7006##	3	6,000,000	192, 194, 205, 207
13		PF paper exit roller	15BA5011##	1	6,000,000	191
14		Bearing /C	A00V2406##	7	6,000,000	-
15		Bearing /B	50007501##	1	6,000,000	-
16		Paper feed belt	A0GDR705##	12	6,000,000	139, 148, 157, 166, 175, 184
17		Paper feed clutch /1 (CL7), /2 (CL8), /3 (CL9)	57GA8201##	3	3,000,000	-
18		Torque limiter	A03U8157##	3	6,000,000	-
19		Shutter solenoid /Rr1 (SD4), /2 (SD6), /3 (SD8)	A0GDR700##	3	6,000,000	141, 150, 159, 168, 177, 186
20		Shutter solenoids /Fr1 (SD5), /2 (SD7), /3 (SD9)	A0GDR700##	3	6,000,000	140, 149, 158, 167, 176, 185
21		Horizontal conveyance roller /A	A0GD7121##	2	6,000,000	214
22		Horizontal conveyance roller /B	A0GD7122##	3	6,000,000	214
23		Spacer	12QV4065##	10	6,000,000	214
24		Entrance conveyance roller /Lw	A0GD7171##	1	6,000,000	215
25		Spacer	12QV4065##	2	6,000,000	215

26		Shutter solenoids /1 (SD10), /2 (SD11), /3 (SD12)	A0GDR701##	3	6,000,000	142, 151, 160, 169, 178, 187
27	PF-703 (PI-PFU)	Pre-registration clutch /1 (CL1)	57GA8201##	1	3,000,000	314
28		Pre-registration clutch /2 (CL3)	57GA8201##	1	3,000,000	315
29		Pre-registration clutch /3 (CL5)	57GA8201##	1	3,000,000	316
30		Intermediate clutch /1 (CL2)	57GA8201##	1	3,000,000	317
31		Intermediate clutch /2 (CL4)	57GA8201##	1	3,000,000	319
32		Horizontal conveyance exit clutch (CL6)	57GA8201##	1	3,000,000	318
33		Torque limiter /Up	A03U8157##	1	6,000,000	-
34		Torque limiter /Lw	57GA4430##	1	6,000,000	-
35		Pre-registration roller	A0GC7005##	3	6,000,000	307, 308, 309, 312
36		Pre-registration bearing	56UA7603##	6	6,000,000	-
37		Horizontal registration roller	A0GC7005##	1	6,000,000	307, 308, 309, 312
38		Horizontal registration bearing	56UA7603##	2	6,000,000	-
39		Intermediate conveyance roller	A0GC7006##	3	6,000,000	311, 313
40		PF paper exit roller	15BA5011##	1	6,000,000	310
41		PF Paper exit roller /2	A0GF7021##	1	6,000,000	-
42		Bearing /C	A00V2406##	8	6,000,000	-
43		Bearing /B	50007501##	2	6,000,000	-
44		Paper feed belt	A0GDR705##	12	6,000,000	293, 298, 303
45		Paper feed clutch /1 (CL7), /2 (CL8), /3 (CL9)	57GA8201##	3	3,000,000	292, 297, 302
46		Torque limiter	A03U8157##	3	6,000,000	295, 300, 305
47		Shutter solenoids /Rr1 (SD4), /2 (SD6), /3 (SD8)	A0GDR700##	3	6,000,000	
48		Shutter solenoid /Fr1 (SD5), /2 (SD7), /3 (SD9)	A0GDR700##	3	6,000,000	294, 299, 304
49		Horizontal conveyance roller /A	A0GD7121##	2	6,000,000	320
50		Horizontal conveyance roller /B	A0GD7122##	3	6,000,000	320
51		Spacer	12QV4065##	10	6,000,000	320
52		Entrance conveyance roller /Up	A0GD7172##	1	6,000,000	321
53		Spacer	12QV4065##	3	6,000,000	321
54		Shutter solenoids /1 (SD10), /2 (SD11), /3 (SD12)	A0GDR701##	3	6,000,000	296, 301, 306
55	PF-706	Pick-up roller	A4EYR70A##	3	500,000	134, 143, 152, 161, 170, 179
56		Paper feed roller	A4EYR70B##	3	500,000	135, 144, 153, 162, 171, 180
57		Separation roller	A4EYR70B##	3	500,000	135, 144, 153, 59, 52, 171, 180
58		Paper fur brush	A4EY5604##	3	3,000,000	
59		Pre-registration clutch /1 (CL1)	57GA8201##	1	3,000,000	195, 208
60		Pre-registration clutch /2 (CL3)	57GA8201##	1	3,000,000	196, 209
61		Pre-registration clutch /3 (CL5)	57GA8201##	1	3,000,000	197, 210
62		Intermediate clutch /Up (CL2)	57GA8201##	1	3,000,000	198, 211
63		Intermediate clutch /Lw (CL4)	57GA8201##	1	3,000,000	199, 213
64		Torque limiter /Up, /Lw	57GA4430#	2	6,000,000	-
65		Pre-registration roller	A0GC7005##	3	6,000,000	188, 189, 190, 201, 202, 203
66		Pre-registration bearing	56UA7603##	6	6,000,000	-
67		Intermediate conveyance roller	A0GC7006##	4	6,000,000	192, 194, 205, 207
68		PF paper exit roller	15BA5011##	1	6,000,000	191, 204
69		Bearing /C	A00V2406##	9	6,000,000	-
70		Bearing /B	50007501##	1	6,000,000	-
71		Torque limiter /A	03X5656##	3	40,000,000	-
72		Cover	A0G65720##	3	40,000,000	-
73		Paper feed pulley	A0GC2104##	5	40,000,000	-
74		Shaft assy /C	A4EYR701##	2	40,000,000	-
75		Shaft assy /P	A4EYR702##	1	40,000,000	-

76		Pulley /P	A0GD2160##	1	40,000,000	-
77		Gear /C	A0GD2168##	2	40,000,000	-
78		Idler pulley /D	A0GD2103##	4	40,000,000	-
79		Paper feed clutch /1 (CL6)	57GA8201##	1	3,000,000	136, 163
80		Paper feed clutch /2 (CL9)	57GA8201##	1	3,000,000	145, 172
81		Paper feed clutch /3 (CL12)	57GA8201##	1	3,000,000	154, 181
82		Separation clutch /1 (CL7)	57GA8201##	1	3,000,000	137, 164
83		Separation clutch /2 (CL10)	57GA8201##	1	3,000,000	146, 173
84		Separation clutch /3 (CL13)	57GA8201##	1	3,000,000	155, 182
85		Forced separation clutch /1 (CL8), /2 (CL11), /3 (CL14)	57GA8201##	3	3,000,000	138, 165, 147, 156, 174, 183
86		Bearing /D	A00J6179##	9	40,000,000	147, 174
87		Bearing /C	A00V2406##	3	40,000,000	156, 183
88		Reverse rotation shaft	A0GC5708##	3	40,000,000	-
89		Bearing /E	A00J6178##	6	40,000,000	-
90		Input shaft	A0GC6013##	3	40,000,000	-
91		Idler shaft	A0GC5711##	3	40,000,000	-
92		Reverse input shaft	A0GC5720##	3	40,000,000	-
93		Bearing /D	A00J6179##	3	40,000,000	-
94		Bearing /E	A00J6178##	3	40,000,000	-
95		Paper drive pulley	A4EU2391##	1	40,000,000	-
96		Input gear	A0G66023##	3	6,000,000	216, 217, 218, 219, 220, 221
97	EF-102	Fusing cleaning web	A0G67314##	1	1,000,000	68
98		Heat insulating sleeve	45405339##	2	2,000,000	71
99		Fusing roller /Lw Assy	A4F2R700##	1	500,000	70
100		Fusing roller /Up	A4F27304##	1	500,000	69
101		Fusing bearing /Up	A0G67346##	2	2,000,000	72
102		Fusing cleaning sheet assy	A4EUR70U##	1	2,000,000	73
103		Heat roller bearing	56UA7507##	2	4,000,000	80
104		Heat insulating sleeve/Lw	26AA5315##	2	4,000,000	77
105		Fusing heater lamp /1 (L1)	A0G6M330##	1	4,000,000	75
106		Fusing heater lamp /2 (L2)	A0G6M330##	1	4,000,000	75
107		Fusing heater lamp /3 (L3)	55VB8304##	1	4,000,000	79
108		Fusing temperature sensor /2 (TH2)	55VA8804##	1	4,000,000	81
109		Fusing temperature sensor/4 (TH4)	55VA8806##	1	4,000,000	78
110		Fusing heating roller	56UA5307##	1	4,000,000	76
111		Fusing gear	A0G67260##	1	8,000,000	82
112		Bearing /G	56UA7609##	2	14,000,000	-
113		Fusing cleaning roller	56UA5353##	1	14,000,000	74
114		Web prevention part	A4EUR70T##	1	24,000,000	83
115		Bearing /G	56UA7609##	1	24,000,000	-
116		Pressure worm assy	A4EUR76B##	1	30,000,000	84
117		Pressure wheel assy	A4EUR70P##	1	30,000,000	85

2.2.2 Spotted replacement parts list

(1) Option

No.	Classification	Parts name	Parts No.	Quantity	Actual replacement Cycle	Parts count No.
1	DF-615	Separation roller	13GA4606##	1	400,000	224
2		Pick-up roller	13GA4604##	1	800,000	222
3		Paper feed roller	15AS4605##	1	800,000	223
4		Paper feed auxiliary roller	15AS4601##	1	800,000	225
5		Torque limiter	13GAR719##	1	800,000	226
6	PP-701	Pick-up rubber	A08R5621##	1	50,000	-
7		Paper feed roller	A08R5622##	1	50,000	-
8		Separation roller	A08R5622##	1	50,000	-
9	HM-102	Humidification roller /Rt	A1TU5001##	1	300,000	333
10		Humidification roller /Lt	A1TU5002##	1	300,000	334

11		Water feed roller	A1TU5003##	2	1,500,000	335
12		Water feed filter	A1TU5215##	1	300,000	336
13		Pump motor (P1)	A1TUR704##	1	10,000,000	340
14	RU-510	Entrance roller /1, /2	A4FC7014##	2	20,000,000	323
15		Merging section roller, stacker entrance roller	A4FC7002##	2	20,000,000	324
16		Paper exit roller	A4FCR904##	1	20,000,000	326
17		Paper re-feed roller	A4FC7019##	1	20,000,000	325
18		Straight gate	A4FC7030##	1	20,000,000	322
19		Bearing /K	A00V2406##	10	20,000,000	328
20		Bearing Assy	A4FCR905##	2	20,000,000	328
21		Entrance conveyance belt	A0GE2105##	1	20,000,000	329
22		Paper exit conveyance belt	A4FC7015##	1	20,000,000	329
23		Paper exit pulley	A4FC7078##	1	20,000,000	330
24		Conveyance pulley	A4FC7077##	5	20,000,000	330
25		Entrance motor (M1)	A4FCR900##	1	30,000,000	331
26		Paper exit motor (M2)	A4FCR900##	1	30,000,000	331
27		Driven roller	A0GY7121##	4	50,000,000	327
28		Stack switch motor (M6)	A083M100##	1	60,000,000	332
29	FS-532	Paddle	A4F37500##	6	300,000	232
30		Staple unit	A4F37350##	1	500,000	231
31	SD-510	Staple unit	A4F47300##	1	200,000	342
32		Paddle /1	A4F4R70D##	2	300,000	345
33		Paddle /2	A4F4R70E##	2	300,000	345
34		Paddle /3	A4F4R70F##	2	300,000	345
35	PI-502	Paper feed roller	13QNR705##	2	100,000	348, 353
36		Separation roller	13QNR704##	2	100,000	349, 354
37		Pick-up roller	50BAR701##	2	200,000	347, 352
38		Torque limiter	13QN4073##	2	600,000	350, 355
39		Paper feed clutch /Up	13QN8201##	1	1,000,000	346
40		Paper feed clutch /Lw	13QN8201##	1	1,000,000	351
41	LS-505	Stacker tray up down motor (M1)	15AV8003##	1	5,000,000	250, 255, 245
42		Paper press solenoid /1 (SD6)	15AV8252##	1	5,000,000	246, 251, 256
43		Paper press solenoid /2 (SD7)	15AV8251##	1	5,000,000	248, 253, 258
44		Paper press solenoid /3 (SD8)	15AV8255##	1	5,000,000	249, 254, 259
45		Rear stopper solenoid (SD3)	15AV8253##	1	5,000,000	247, 252, 257
46	FD-503	Separation rubber	13QNR704##	2	100,000	236, 239
47		Paper feed rubber	50BAR702##	2	100,000	237, 240
48		Pick-up rubber	50BAR701##	6	200,000	235, 238
49		Tray up down motor (M11)	129U-108##	1	5,000,000	245
50		Roller solenoid /1 (SD5)	15AGR723##	1	5,000,000	242
51		Roller solenoid /2 (SD6)	15AGR723##	1	5,000,000	
52		Roller solenoid /3 (SD7)	15AGR723##	1	5,000,000	
53		Roller solenoid /4 (SD8)	15AGR723##	1	5,000,000	
54		2nd folding roller solenoid (SD18)	15AGR761##	1	5,000,000	243
55		Punch unit	A0H0R700## (Japan) A0H0R701## (US) A0H0R702## (Europe)	1	5,000,000	241
56	SD-506	Trimmer board assy	A0H2B622##	1	18,900	263
57		Trimmer blade kit	A0H2R901##	1	37,500	262
58		Bundle press stage gear	15AN7719##	1	500,000	267
59		Trimmer press motor (M32)	A0H2M101##	1	500,000	268
60		Trimmer blade motor (M31)	A0H2M102##	1	2,500,000	269
61		Stapler assy	15AN-550# #	2	1,000,000	260, 261
62		Saddle stitch unit	A0H2A720##	1	2,500,000	-
63		Slope unit	15AN-500##	1	2,500,000	-
64		Bundle press stage unit	A0H2A530##	1	2,500,000	-
65		Trimmer unit	A0H2A620##	1	2,500,000	270

66		Roller release solenoid /1 (SD5)	15AN8251##	1	5,000,000	264
67		Roller release solenoid /2 (SD6)	15ANR710##	1	5,000,000	-
68		Roller release solenoid /3 (SD7)	15AN8251##	1	5,000,000	264
69		Right angle conveyance gate solenoid (SD2)	15ANR711##	1	5,000,000	-
70	PB-503	Roller cutter blade assy	A0756230##	1	100,000	280
71		Pick-up roller	15VA-484##	1	500,000	276
72		Paper feed roller	15VA-483##	1	500,000	277
73		Separation roller	15VA-483##	1	500,000	
74		Switchback roller	13GQ4519##	1	750,000	275
75		Pellet supply cooling fan (FM4)	27LA8051##	1	750,000	-
76		SC switchback release motor (M13)	A0V9M101##	1	3,000,000	272
77		Sub tray paper exit solenoid (SD4)	15ANR714##	1	3,000,000	271
78		Cover paper pick up clutch (CL71)	56AA8201##	1	3,000,000	278
79		Cover paper separation clutch (CL72)	56AA8201##	1	3,000,000	279
80		FD alignment solenoid (SD11)	15AA8251##	1	5,000,000	273
81		SC pressure arm solenoid (SD13)	A075B746##	1	5,000,000	274
82		One-way clutch /A	13GQ7709##	1	6,000,000	-
83		One-way clutch /B	13GQ7709##	1	6,000,000	-
84		Exhaust filter /A	A15X3017##	1	120 hours	285
85		Exhaust filter /B	A15X3018##	1	240 hours	286
86		Cover paper glue roller drive gear bearing of glue tank section	A0753799##	4	6,000 hours	-
87		Glue tank assy (100V) (120V) (240V)	A15XA36A## A15XA36E## A15XA36F##	1	2,000 hours	284
88	GP-501	Die Set	DS-5##		500,000	341
89		Back Gauge mechanism	A0N9PP59##	1	4,000,000	291
90	GP-502	Pullback Pad	A4F6PP00##	2	500,000	341
91		Suction Cup: Element Feeder	A4F6PP03##	1	1,000,000	342
92		Oiled Felt, Die-set	A4F6PP01##	1	1,000,000	343
93		Punch Pin/Plate Assy., Die-set	A4F6PP02##	1	4,000,000	344

2.3 bizhub PRO 951

2.3.1 Periodically replaced parts list

(1) Main body

No.	Classification	Parts name	Parts No.	Quantity	Actual replacement Cycle	Parts count No.
1	Main body	Filter plate	A4EUR900##	1	3,000,000	1
2		Charging filter	A4EUR900##	1	3,000,000	1
3		Ozone filter /12	A4EU1123 ##	2	4,500,000	2
4		Charging exhaust filter	56UA1122##	1	4,500,000	3
5		Web motor (M24)	A4EUM101##	1	6,000,000	63
6	Photo conductor section	Drum positioning collar	25SA2015##	1	750,000	-
7		Drum fixing spring	55FU2014##	1	750,000	-
8		Drum claw	A0G63456##	3	750,000	4
9		Drum temperature sensor (TH5)	A4EUR702##	1	3,000,000	5
10		Drum	DR012	1	F.4 Life value	-
11	Transfer/Separation section	Regulation plate assy	A4EUR700##	2	1,500,000	19
12		Power supply parts	65AA2689##	2	3,000,000	26
13		Bearing /H	A0G65039##	2	3,000,000	23
14		Cleaning brush	A4EU5106##	2	3,000,000	22
15		Transfer belt	A0G65001##	1	3,000,000	20
16		Transfer roller	A4EU5006##	1	3,000,000	21
17		Transfer contact /Fr	A4EUR70B##	1	3,000,000	25
18		Transfer contact /Rr	A4EUR70C##	2	3,000,000	24
19		Cleaning shaft	A0G65107##	2	6,000,000	27
20		Belt cleaning unit	A4EUR70D##	1	12,000,000	28

21	Charging corona	C-clip	45AA2040##	2	750,000	8
22		Charging wire	56UA2509##	2	750,000	6
23		Charger control plate	A4EUR709##	1	750,000	7
24		Charging cleaning unit	A4EUR708##	2	750,000	8
25		Charger rubber vibration isolator	55VA2527##	2	750,000	6
26		Charging corona	A4EUR707##	1	6,000,000	9
27	Developing section	Developer	DV011		F.4 Life value	-
28		Suction filter	A4EU3908##	1	1,500,000	10
29		Suction pad /H	A0G63944##	1	6,000,000	11
30		Developing suction seal/2	56UA3103##	2	6,000,000	11
31		Developing suction seal/5	56UA3106##	1	6,000,000	11
32		Developing unit	A4EUR703##	1	6,000,000	12
33		Stopper pad /1	A4EU3946##	1	6,000,000	11
34		Stopper pad /2	A4EU3947##	2	6,000,000	11
35	Cleaning section	Cleaning blade	A0G65350##	2	750,000	32, 33
36		Drum scraper assy	A4EUR711##	1	750,000	34
37		Waste toner box	A4EUR75V##		750,000	-
38		Scatter preventive filter assy	A4EUR712##	1	750,000	35
39		Discharge wire	A0G64708##	1	750,000	30
40		Guide plate assy	A4EUR70J##	1	1,500,000	40
41		Seal plate /Fr	A4EUR70G##	1	1,500,000	39
42		Seal plate /Rr	A4EUR70H##	1	1,500,000	38
43		Toner guide brush assembly	A4EUR70K##	1	1,500,000	36, 37
44		Scattering prevention felt	55VA5568##	1	1,500,000	-
45		Toner seal board	A4EUR713##	1	3,000,000	41
46		PCC unit	A4EUR75K##	1	6,000,000	31
47		Guide shaft	A0G65305##	1	6,000,000	42
48		Cleaning gear /2 assembly	A4EUR70F##	1	6,000,000	43
49		Cleaning gear /3	A0G65327##	2	24,000,000	44
50	Toner supply section	Agitator plate assembly /1	A4EUR705##	1	1,500,000	14
51		Agitator plate assembly /2	A4EUR706##	1	1,500,000	14
52		Toner supply sleeve /1	A4EUR70W##	1	3,000,000	15
53		Toner supply sleeve /2	A4EUR70X##	1	3,000,000	16
54		Pump unit /Lt	A4EUR710##	1	10,000,000	18
55		Pump unit /Rt	A4EUR70Y##	1	10,000,000	17
56		Air separation motor (M10)	A0Y5M104##	1	30,000,000	-
57		Toner hopper motor (M7)	A0PNM102##	1	30,000,000	-
58		Toner bottle motor (M6)	A0PNM102##	1	30,000,000	-
59		Intermediate hopper motor (M11)	13GQ8003##	1	30,000,000	-
60		Waste toner box swing motor (M19)	A0WJM100##	1	30,000,000	-
61	Paper feed section	Pick-up roller	A4EUR715##	2	500,000	66, 70
62		Paper feed roller	A4EUR714##	2	1,500,000	67, 71
63		Separation roller	A4EUR714##	2	1,500,000	67, 71
64		Paper feed clutch /1 (CL4)	57GA8201##	1	3,000,000	68
65		Paper feed clutch /2 (CL6)	57GA8201##	1	3,000,000	72
66		Separation clutch /1 (CL5)	57GA8201##	1	3,000,000	69
67		Separation clutch /2 (CL7)	57GA8201##	1	3,000,000	73
68		Cover	A0G65720##	2	6,000,000	-
69		Torque limiter /A	A03X5656##	2	6,000,000	-
70		Input gear	A0G66023##	2	6,000,000	74, 75
71		Reverse rotation shaft	A4EW5708##	2	18,000,000	-
72		Paper feed input shaft	A4EUR72K##	2	18,000,000	-
73		Bearing /C	A00V2406##	2	18,000,000	-
74		Bearing /D	A00J6179##	3	18,000,000	-
75		Bearing /D	A00J6179##	3	18,000,000	-
76	Vertical conveyance section	Pre-registration clutch /1 (CL1)	57GA8201##	1	3,000,000	78
77		Pre-registration clutch /2 (CL3)	57GA8201##	1	3,000,000	80
78		Paper fur brush	A4EUR730##	1	3,000,000	76
79		Vertical conveyance clutch (CL2)	57GA8201##	1	3,000,000	79

80		Torque limiter	57GA4430##	1	6,000,000	-
81		Pre-registration roller /1 and /2	A0G67001##	2	6,000,000	84, 85
82		Pre-registration bearing	56UA7603##	4	6,000,000	-
83		Conveyance roller /2	A0G67003##	1	6,000,000	83
84		Conveyance roller /3	A0G67002##	1	6,000,000	83
85		Paper dust removing brush shaft	A4EUR716##	1	12,000,000	86
86		Conveyance roller /1	A4EU7013##	1	12,000,000	82
87		Conveyance exit roller	A4EU7012##	1	12,000,000	81
88		Cleaning gear /B	55VA7921##	1	18,000,000	-
89		Scraper shaft	56UA4417##	1	18,000,000	-
90		Paper dust guide holder	A4EUR70N##	1	18,000,000	77
91		Bearing /E	A00J6178##	5	18,000,000	-
92		Conveyance pulley	55VA7653##	2	18,000,000	-
93		Conveyance belt /A	56UA7809##	1	18,000,000	-
94		Paper feed gear /A	56UA7717##	1	24,000,000	-
95		Paper feed gear /B	56UA7718##	1	24,000,000	-
96		Paper feed cleaning gear /B	56UA7716##	1	24,000,000	-
97		Paper exit input gear	56UA7707##	1	24,000,000	-
98	Registration section	Registration gear /Lw	A0G67143##	1	6,000,000	88
99		Registration gear /Up	A0G67142##	1	6,000,000	88
100		Registration roller /Up	56UA4606##	1	6,000,000	87
101		Registration bearing	A4EU7154##	2	6,000,000	87
102		Loop driven roller	A4EU8180##	1	18,000,000	-
103		Paper lift sheet	A0G67121##	1	18,000,000	-
104		Pre-transfer driven roller assy	A4EUR748##	2	18,000,000	-
105		Roller gear /Rt	A4EU7144##	1	30,000,000	89
106	DUPLEX SECTION	ADU accelerator roller	A4EU8171##	1	12,000,000	90
107		ADU exit roller	A4EU8177##	1	12,000,000	94
108		ADU reversal roller	A4EU8176##	1	12,000,000	92
109		ADU conveyance roller /1	A4EU8175##	1	12,000,000	94
110		ADU conveyance roller /2	A4EU8175##	1	12,000,000	94
111		ADU conveyance roller /3	A4EU8177##	1	12,000,000	94
112		ADU conveyance roller /4	A4EU8177##	1	12,000,000	94
113		Output convey roller /1	A4EU8174##	1	12,000,000	93
114		Output convey roller /2 assy	A4EUR701##	1	12,000,000	93
115		Reversal output roller	A4EU8172##	1	12,000,000	91
116		ADU accelerate motor (M14)	A4EUR73Q##	1	30,000,000	-
117		ADU accelerate motor belt	A0G68194##	1	30,000,000	-
118		ADU paper exit roller belt	A4EU8221##	1	30,000,000	-
119		ADU reverse motor (M12)	A4EUR73Q##	1	30,000,000	-
120		ADU reverse motor belt	13GQ7755##	1	30,000,000	-
121		ADU conveyance motor /1 (M15)	A03UM111##	1	30,000,000	-
122		ADU conveyance motor /1 belt	15BA7753##	1	30,000,000	-
123		ADU conveyance motor /2 (M16)	A4EUR73W##	1	30,000,000	-
124		ADU conveyance motor belt /2	56UA7808##	1	30,000,000	-
125		Motor gear /Rt	A4EU8146##	1	30,000,000	-
126		Loop motor (M18)	A4EUR73X##	1	30,000,000	-
127		Registration motor (M17)	A4EUR73Q##	1	30,000,000	-
128		Transfer belt motor (M30)	A0R5M103##	1	30,000,000	-
129		Transfer belt pressure release motor (M26)	A0Y5M104##	1	30,000,000	-
130		Reverse/exit motor (M13)	A4EUR73Q##	1	30,000,000	-
131		Reverse/exit motor belt	56UA7806##	1	30,000,000	-
132	Fusing section	Fixing cleaning web	A4EW7314##	1	750,000	46
133		Heat insulating sleeve	45405339##	2	1,500,000	51
134		Fusing roller /Lw assy	A4EUR70V##	1	1,500,000	48
135		Fusing roller /Up	56UA5304##	1	1,500,000	47
136		Fusing bearing /Up	A0G67346##	2	1,500,000	52
137		Fusing cleaning sheet assy	A4EUR70U##	1	1,500,000	53

138		Fusing claw /Lw	25AA5329##	2	1,500,000	50
139		Fusing claw /Up	56UA5453##	6	1,500,000	49
140		Heat roller bearing	56UA7507##	2	3,000,000	60
141		Heat insulating sleeve /Lw	26AA5315##	2	3,000,000	57
142		Fusing heater lamp /1 (L1)	A4EWM330##	1	3,000,000	55
143		Fusing heater lamp /2 (L2)	A4EWM330##	1	3,000,000	55
144		Fusing heater lamp /3 (L3)	55VB8304##	1	3,000,000	59
145		Fusing temperature sensor /2 (TH2)	55VA8804##	1	3,000,000	61
146		Fusing temperature sensor /4 (TH4)	55VA8806##	1	3,000,000	58
147		Fusing heating roller	56UA5307##	1	3,000,000	56
148		Fusing gear	A0G67260##	1	6,000,000	62
149		Bearing /G	56UA7609##	2	10,500,000	-
150		Fusing cleaning roller	56UA5353##	1	10,500,000	54
151		Web prevention part	A4EUR70T##	1	18,000,000	64
152		Bearing /G	56UA7609##	1	18,000,000	-
153		Fusing claws installation assy	A4EUR732##	6	18,000,000	-
154		Fusing oscillation cam assy	A4EUR737##	1	18,000,000	-
155	De-curler section	De-curler belt /Up	A0G68464##	7	6,000,000	95
156		Fixing exit roller	56UA4595##	4	6,000,000	96
157		Guide member /Up	A0G68451##	1	6,000,000	97
158		Coupling unit	A4EU8470##	1	12,000,000	100
159		Decurler entrance roller	A4EU8407##	1	12,000,000	98
160		Reverse gate	56UA4760##	7	12,000,000	99
161		De-curler solenoid /Up (SD8)	A4EUR749##	1	30,000,000	-
162		De-curler motor (M32)	A0PNM102##	1	30,000,000	-
163		Reverse/exit solenoid (SD7)	A4EUR74A##	1	30,000,000	-
164	Paper exit section	Output roller	56UA4557 ##	1	6,000,000	101
165	Main body rear side	Drum cleaner motor (M35)	A0R5M103##	1	30,000,000	-
166		Drum motor (M2)	A0PNM102##	1	30,000,000	-
167		Belt cleaning gear	A0G62506##	1	30,000,000	-
168		Paper feed gear	A4EU2391##	1	30,000,000	-
169		Paper feed motor (M4)	65AA8002##	1	30,000,000	-
170		Developing screw motor (M21)	A0PNM102##	1	30,000,000	-
171		Developing motor (M3)	15AA8005##	1	30,000,000	-
172		Vertical conveyance motor (M8)	A1TVM101##	1	30,000,000	-
173		Fusing gear	A0G62372##	1	30,000,000	-
174		Fusing motor (M1)	65AA8002##	1	30,000,000	-
175		Transfer belt cleaning motor (M5)	A0PNM102##	1	30,000,000	-
176		Waste toner motor (M9)	A0WJM100##	1	30,000,000	-
177		Paper exit motor (M20)	A0PNM102##	1	30,000,000	-
178		Paper exit conveyance motor (M31)	A0PNM102##	1	30,000,000	-
179		Conveyance gear	56UA7706##	1	30,000,000	-

(2) Option

No.	Classification	Parts name	Parts No.	Quantity	Actual replacement Cycle	Parts count No.
1	PF-706	Pick-up roller	A4EYR70A##	3	500,000	110, 119, 128
2		Paper feed roller	A4EYR70B##	3	500,000	111, 120, 129
3		Separation roller	A4EYR70B##	3	500,000	111, 120, 129
4		Paper fur brush	A4EY5604##	3	3,000,000	-
5		Pre-registration clutch /1 (CL1)	57GA8201##	1	3,000,000	144
6		Pre-registration clutch /2 (CL3)	57GA8201##	1	3,000,000	145
7		Pre-registration clutch /3 (CL5)	57GA8201##	1	3,000,000	146
8		Intermediate clutch /Up (CL2)	57GA8201##	1	3,000,000	147
9		Intermediate clutch /Lw (CL4)	57GA8201##	1	3,000,000	148
10		Torque limiter /Up, /Lw	57GA4430##	2	6,000,000	-
11		Pre-registration roller	A0GC7005##	3	6,000,000	137, 138, 139
12		Pre-registration bearing	56UA7603##	6	6,000,000	-

13		Intermediate conveyance roller	A0GC7006##	4	6,000,000	141, 143
14		PF paper exit roller	15BA5011##	1	6,000,000	140
15		Bearing /C	A00V2406##	9	6,000,000	-
16		Bearing /B	50007501##	1	6,000,000	-
17		Torque limiter /A	03X5656##	3	30,000,000	-
18		Cover	A0G65720##	3	30,000,000	-
19		Paper feed pulley	A0GC2104##	5	30,000,000	-
20		Shaft assy /C	A4EYR701##	2	30,000,000	-
21		Shaft assy /P	A4EYR702##	1	30,000,000	-
22		Pulley /P	A0GD2160##	1	30,000,000	-
23		Gear /C	A0GD2168##	2	30,000,000	-
24		Idler pulley /D	A0GD2103##	4	30,000,000	-
25		Paper feed clutch /1 (CL6)	57GA8201##	1	3,000,000	112
26		Paper feed clutch /2 (CL9)	57GA8201##	1	3,000,000	121
27		Paper feed clutch /3 (CL12)	57GA8201##	1	3,000,000	130
28		Separation clutch /1 (CL7)	57GA8201##	1	3,000,000	113
29		Separation clutch /2 (CL10)	57GA8201##	1	3,000,000	122
30		Separation clutch /3 (CL13)	57GA8201##	1	3,000,000	131
31		Forced separation clutch /1 (CL8), /2 (CL11), /3 (CL14)	57GA8201##	3	3,000,000	114, 123, 132
32		Bearing /D	A00J6179##	9	30,000,000	123
33		Bearing /C	A00V2406##	3	30,000,000	132
34		Reverse rotation shaft	A0GC5708##	3	30,000,000	-
35		Bearing /E	A00J6178##	6	30,000,000	-
36		Input shaft	A0GC6013##	3	30,000,000	-
37		Idler shaft	A0GC5711##	3	30,000,000	-
38		Reverse input shaft	A0GC5720##	3	30,000,000	-
39		Bearing /D	A00J6179##	3	30,000,000	-
40		Bearing /E	A00J6178##	3	30,000,000	-
41		Paper feed drive pulley	A4EU2391##	1	30,000,000	-
42		Input gear	A0G66023##	3	6,000,000	150, 151, 152
43	LU-409/410	Pick-up roller	55VAR750##	1	500,000	153
44		Paper feed roller	55VAR749##	1	500,000	154
45		Separation roller	55VAR749##	1	500,000	154
46		Paper feed clutch	57GA8201##	1	3,000,000	155
47		Pre-registration clutch	57GA8201##	1	3,000,000	157
48		Torque limiter	A03X5656##	1	6,000,000	-
49		Pre-registration roller	13GG4005 ##	1	6,000,000	156
50		Pre-registration bearing	55VA7554##	2	6,000,000	-
51		Replacing paper feed idler gear	A0Y62101##	1	6,000,000	-
52		Paper feed input gear	13RJ7908 ##	1	6,000,000	-
53	ZU-608	Punch scraps conveyance motor (M607)	A111A928##	1	750,000	180
54		Punch clutch	13NKK001##	1	750,000	-

2.3.2 Spotted replacement parts list

(1) Option

No.	Classification	Parts name	Parts No.	Quantity	Actual replacement Cycle	Parts count No.
1	DF-616	Separation roller	13GA4606##	1	400,000	160
2		Pick-up roller	13GA4604##	1	800,000	158
3		Paper feed roller	15AS4605##	1	800,000	159
4		Paper feed auxiliary roller	15AS4601##	1	800,000	161
5		Torque limiter	13GAR719##	1	800,000	162
6	FS-532	Paddle	A4F37500##	6	300,000	168
7		Staple unit	A4F37350##	1	500,000	167
8	SD-510	Staple unit	A4F47300##	1	200,000	182
9		Paddle /1	A4F4R70D##	2	300,000	185
10		Paddle /2	A4F4R70E##	2	300,000	185

11		Paddle /3	A4F4R70F##	2	300,000	185
12	PI-502	Paper feed roller	13QNR705##	2	100,000	188, 193
13		Separation roller	13QNR704##	2	100,000	189, 194
14		Pick-up roller	50BAR701##	2	200,000	187, 192
15		Torque limiter	13QN4073##	2	600,000	190, 195
16		Paper feed clutch /Up	13QN8201##	1	1,000,000	186
17		Paper feed clutch /Lw	13QN8201##	1	1,000,000	191
18	GP-501	Die Set	DS-5##		500,000	179
19		Back Gauge mechanism	A0N9PP59##	1	4,000,000	175
20	GP-502	Pullback Pad	A4F6PP00##	2	500,000	176
21		Suction Cup: Element Feeder	A4F6PP03##	1	1,000,000	177
22		Oiled Felt, Die-set	A4F6PP01##	1	1,000,000	178
23		Punch Pin/Plate Assy., Die-set	A4F6PP02##	1	4,000,000	179

3. ORU-M PARTS (1250/1250P/1052 only)

3.1 Life value of the ORU-M parts

(1) ORU-M corresponding parts

ORU-M stands for "Operator Replaceable Unit Management." This function displays the steps/adjustment setting methods and manages data when the educated user replaces the parts.

This function is enabled by installing the prescribed option and setting DIPSW15-0 to 1. For ORU-M corresponding parts, some parts provided as an assy of parts larger than those parts replaced normally by the CE so that the user can easily conduct the part replacement operation.

Note

- The ORU-M function is not available for the products equipped with EF-102.
- Be careful not to replace the fusing unit with EF-102 when ORU-M is enabled. EF-102 is falsely recognized as a usual fusing unit and errors such as jam by separation error occur.

3.2 ORU-M parts list

(1) ORU-M parts list

The Enable/Disable of the ORU-M parts can be set on [I.5.18.1 ORU-M Target Setting](#) in Service Mode individually.

ORU-M target unit has 2 types; "replacement type" and "reuse type".

· Replacement type: The user replaces the unit to complete.

· Reuse type: The CE maintains the part of unit that the user replaced. The unit itself is reused.

Target of ORU-M (Replaced by users)	Type	Target parts for maintenance	Replacement cycle	parts count No.	Detection of connector disconnecti on
Charging corona	Reuse type	Charging corona unit	8,000,000 prints	9	Provided
		Charging wire	1,000,000 prints	6	
		Charger control plate	1,000,000 prints	7	
		Charging cleaning unit	1,000,000 prints	8	
		C-clip	1,000,000 prints	-	
		Charger vibration proof rubber	1,000,000 prints	-	
Developing suction	Reuse type	Developing suction assy	-	13	None
		Suction filter	2,000,000 prints	10	
		Replacing the developing suction seal /2 and /5, the suction pad /H, and the stopper pads /1 and /2	8,000,000 prints	11	
Drum cleaner	Reuse type	Cleaning section	-	45	Provided
		Cleaning blade	1,000,000 prints	32	
		Cleaning blade running distance	1,000,000 prints	33	
		Drum scraper Assy	1,000,000 prints	34	
		Scatter preventive filter Assy	1,000,000 prints	35	
		Toner guide brush assy	2,000,000 prints	36	
		Toner guide brush assy running distance	2,000,000 prints	37	
		Seal plate /Rr	2,000,000 prints	38	
		Seal plate /Fr	2,000,000 prints	39	
		Guide plate assy	2,000,000 prints	40	
		Scattering prevention felt	2,000,000 prints	-	
		Toner seal board	4,000,000 prints	41	
		Guide shaft	8,000,000 prints	42	
		Cleaning gear /2 assembly	8,000,000 prints	43	
		Cleaning gear/3	32,000,000 prints	44	
PCC	Reuse type	PCC unit	8,000,000 prints	31	None
		Discharging wire	1,000,000 prints	30	
LPH	Only cleaning	LPH unit	-	-	Provided
Transfer belt unit	Reuse type	Transfer belt unit	-	29	None
		Bearing /H	4,000,000 prints	23	
		Transfer contact /Rr	4,000,000 prints	24	
		Transfer contact /Fr	4,000,000 prints	25	
		Transfer belt	4,000,000 prints	20	
		Transfer roller	4,000,000 prints	21	
Transfer belt cleaning unit	Reuse type	Belt cleaning unit	16,000,000 prints	28	None
		Regulation plate assy	2,000,000 prints	19	
		Electric power supply part	4,000,000 prints	26	

		Cleaning brush	4,000,000 prints	22	
		Cleaning shaft	8,000,000 prints	27	
Fusing cleaning web *1	Replacement type	Fusing cleaning web	1,000,000 prints	46	None
Fusing unit *1	Reuse type	Fusing unit	-	67	None
		Fusing cleaning web	1,000,000 prints	46	
		Fusing roller /Up	2,000,000 prints	47	
		Fusing roller /Lw Assy	2,000,000 prints	48	
		Fusing claw /Up	2,000,000 prints	49	
		Fusing claw /Lw	2,000,000 prints	50	
		Heat insulating sleeve	2,000,000 prints	51	
		Fusing bearing /Up	2,000,000 prints	52	
		Fusing cleaning sheet assy	2,000,000 prints	53	
		Heat roller bearing	4,000,000 prints	60	
		Fusing temperature sensor /2 (TH2)	4,000,000 prints	61	
		Fusing heater lamp /1 (L1), (L2)	4,000,000 prints	55	
		Fusing heating roller	4,000,000 prints	56	
		Heat insulating sleeve /Lw	4,000,000 prints	57	
		Fusing temperature sensor /4 (TH4)	4,000,000 prints	58	
		Fusing heater lamp /3 (L3)	4,000,000 prints	59	
		Fusing gear	8,000,000 prints	62	
		Fusing cleaning roller	14,000,000 prints	54	
		Bearing /G	14,000,000 prints	-	
		Web prevention part	24,000,000 prints	64	
		Bearing /G	24,000,000 prints	-	
		Fusing claws installation assy	24,000,000 prints	-	
		Fusing oscillation cam assy	24,000,000 prints	-	
		Pressure worm assy	30,000,000 prints	65	
		Pressure wheel assy	30,000,000 prints	66	
Feed roller unit (Tray1)	Replacement type	Pick-up roller	500,000 prints	86	None
		Paper feed roller	500,000 prints	87	
		Separation roller	500,000 prints	87	
Feed roller unit (Tray2)	Replacement type	Pick-up roller	500,000 prints	90	None
		Feed roller	500,000 prints	91	
		Separation roller	500,000 prints	91	

*1 The fusing cleaning web and the fusing unit cannot be set to "ORU-M Target Setting: [Enable]" at the same time.

3.3 ORU-M parts replacement timing

(1) ORU-M Life Threshold Setting

Set whether to display the ORU-M target unit in [I.5.18.2 ORU-M Life Threshold Setting](#) of the Service Mode by the life value. Set the threshold with percent.

For example, when the threshold is set to 50%, only the unit whose life cycle is 50% or more is displayed on the "ORU-M Replacement Unit screen".

This life threshold setting is applied to all screens that display the name of the ORU-M target unit.

(2) ORU-M warning icon display

When the life of the ORU-M target unit strays and the following conditions are met, the ORU-M warning icon appears on the Machine Screen.

- ORU-M function is enabled
- [Enable] in [I.5.18.1 ORU-M Target Setting](#)

3.4 Management of ORU-M parts counter

(1) Counter display

By pressing [ORU-M(Unit Replace)] on the Utility screen, the ORU-M target part counter appears.

Note

- By setting DIPSW15-0 to 1, [ORU-M(Unit Replace)] appears on the Utility screen.
- The content which appears on [ORU-M(Unit Replace)] reflects the setting of [I.5.18 ORU-M setting \(1250/1250P/1052 only\)](#).

(2) Counter clear

When the user replaces the ORU-M target parts in the ORU-M replacement work mode.

4. LIFE VALUE

4.1 Life value of materials/parts

Item	Print Quantity	Running time	Definition of driving time
Drum	1250/1250P/1052: 1,000,000 951: 750,000	1250/1250P: 175 hours 1052: 220 hours 951: 190 hours	The time during which the drum is being driven. Idling time* is included in this time period.
Developer	1250/1250P/1052: 1,000,000 951: 750,000	1250/1250P: 175 hours 1052: 220 hours 951: 190 hours	The time during which the developing roller is being driven. Idling time* is included in this time period.

4.2 Life value determining condition

The replacement cycle (number of print) is a value that is converted from the actual life when the print is performed under the determining condition (shown in the following list). The idling time (driving time of each part while in creating the non-image) differs depending on the output mode. Therefore, the actual life sometimes varies widely even for the same number of prints.

Item	Description
How to print	1250/1250P: 13-sheet Intermittent output 1052: 11-sheet Intermittent output 951: 10-sheet Intermittent output
Paper size	A4

Note

- Only print count or running time generates developer/drum replacement icon. The trigger can be switched between print count and running time by setting of the DIPSW 15-7 in the service mode.

5. PERIODICAL MAINTENANCE PROCEDURE bizhub PRESS 1250/1250P/1052/PRO 951

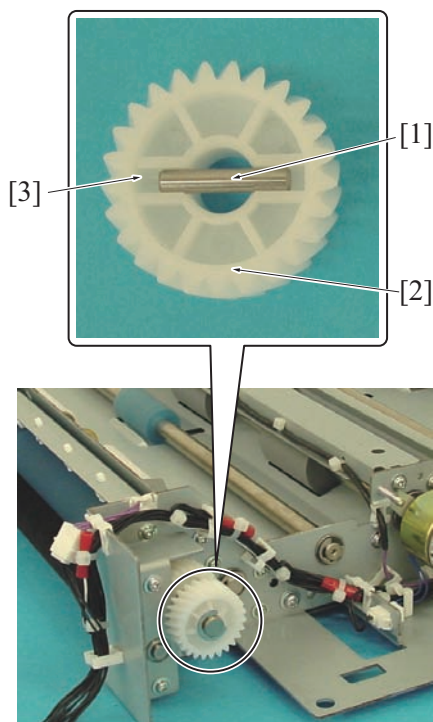
5.1 Precautions on maintenance

⚠ Note

- Be sure to unplug the power plug from the power outlet.

Note

- The gear [2] with the pin [1] is attached on every drive sections of the machine. Do not wipe off the grease that is applied to the groove receiving the pin [3] when removing and attaching the gear.



5.2 External section

5.2.1 Replacing the ozone filter /12/Charge exhaust filter

(1) Periodically replaced parts/cycle

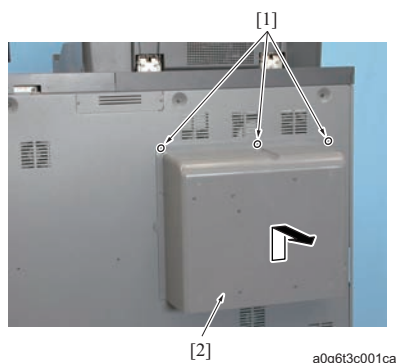
- Ozone filter /12
 - : Every 6,000,000 prints *1
 - : 4,500,000 prints *2
- Charge exhaust filter
 - : Every 6,000,000 prints *1
 - : 4,500,000 prints *2

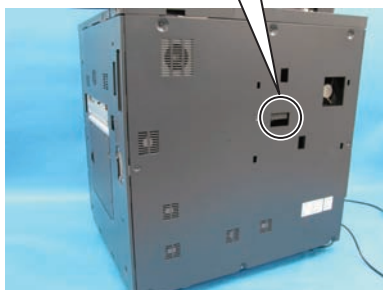
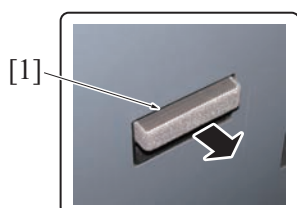
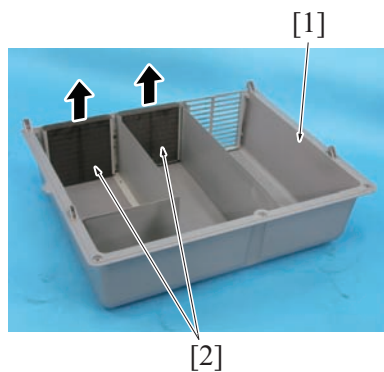
*1 1250/1250P/1052

*2 951

(2) Procedure

1. Loosen 3 screws [1] and remove the exhaust cover [2].





2. Remove 2 ozone filters /12 [2] from the exhaust cover [1].

3. Remove the charge exhaust filter assy [1].
4. Reinstall the preceding parts following the removal steps in reverse.
5. After replacing the ozone filter /12 and the charge exhaust filter, conduct the followings.
For the ozone filter /12: Counter reset of the parts counter No.2
For the ozone filter : Counter reset of the parts counter No.3

5.2.2 Replacing the charging filter/filter plate

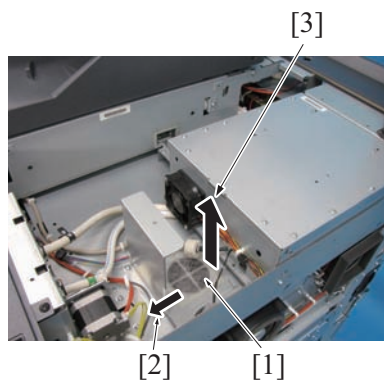
(1) Periodically replaced parts/cycle

- Charging filter
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2
- Filter plate
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2

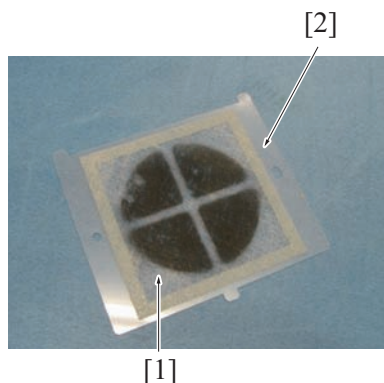
*1 1250/1250P/1052

*2 951

(2) Procedure



1. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
2. Remove the charging filter assy [1] by moving it to the arrow-marked directions [2] and then [3].



- Reinstall the preceding parts following the removal steps in reverse.

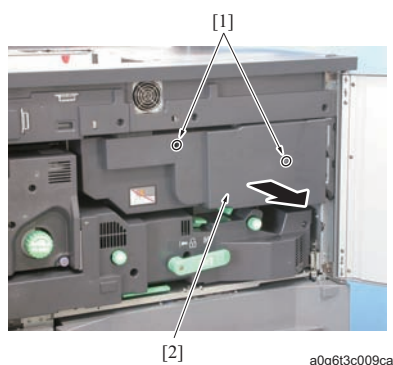
Note

- When reinstalling the charging filter assy, be sure to attach the charging filter [1] to the filter plate [2] beforehand.

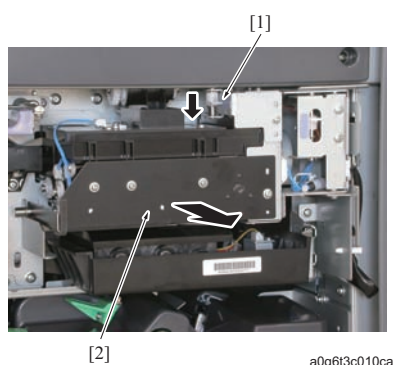
- After replacing the charging filter assy, conduct the following item.
Counter reset of the parts counter No.1

5.3 Photo conductor section**5.3.1 Removing/reinstalling the photo conductor section****Note**

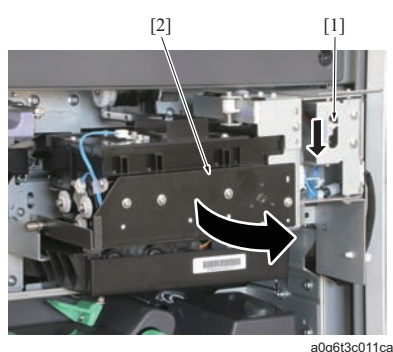
- When the drum section has been removed, be sure to store it in a dark place with the drum cover provided.
- When removing/reinstalling the photo conductor section, be careful not to rotate the drum in any direction other than the specified direction. Rotating it in the opposite direction to the rotational direction while printing damages the cleaning blade.
- When removing the photo conductor section, be sure to clean the coupling.
- When removing/reinstalling the photo conductor section, be sure not to touch the drum claw.
- When replacing the photo conductor, be sure to replace the cleaning blade at the same time.

(1) Procedure

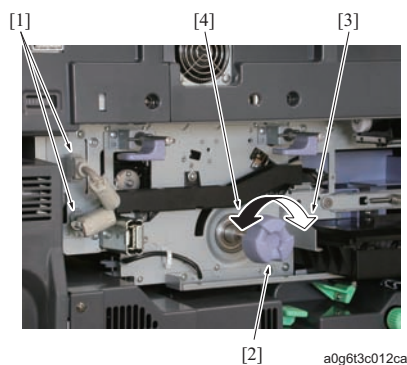
- Open the front doors /Rt and /Lt.
- Tilt the lever that pulls out the duplex section. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
- Loosen 2 screws [1] and remove the photo conductor section cover [2].



- Release the lock lever /1 [1] and pull out the intermediate toner hopper [2].



- Release the lock lever /2 [1] and open the intermediate toner hopper [2].



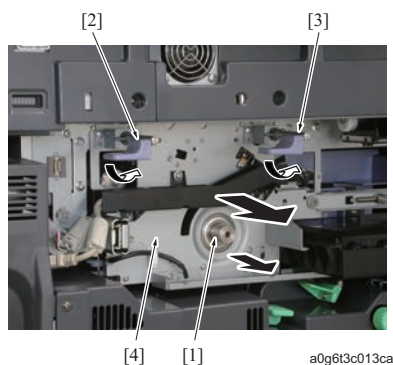
6. Remove 2 connectors [1].

7. Turn the drum lock knob [2] clockwise [3] to rotate the drum 1 full turn, and turn the knob counterclockwise [4] to remove it.

Note

- When removing the drum lock knob, be sure to rotate the drum 1 full turn clockwise to put the toner on the drum into the cleaner for dirt prevention.

8. Pull out the coupling [1].

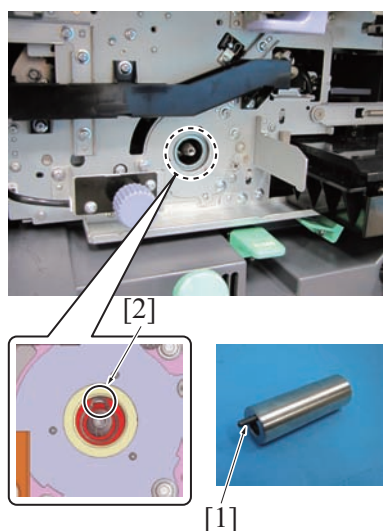


9. Release the photo conductor section lock lever /1 [2] and /2 [3] and pull out the photo conductor section [4] by holding the lock levers /1 and /2.

10. Reinstall the preceding parts following the removal steps in reverse.

Note

- When reinstalling the coupling, be sure to clean the periphery of the coupling with the isopropyl alcohol.
- When reinstalling the coupling, be sure to set the projection portion [1] of the coupling into the hole [2] of the drum shaft.



5.3.2 Replacing the charger unit

Note

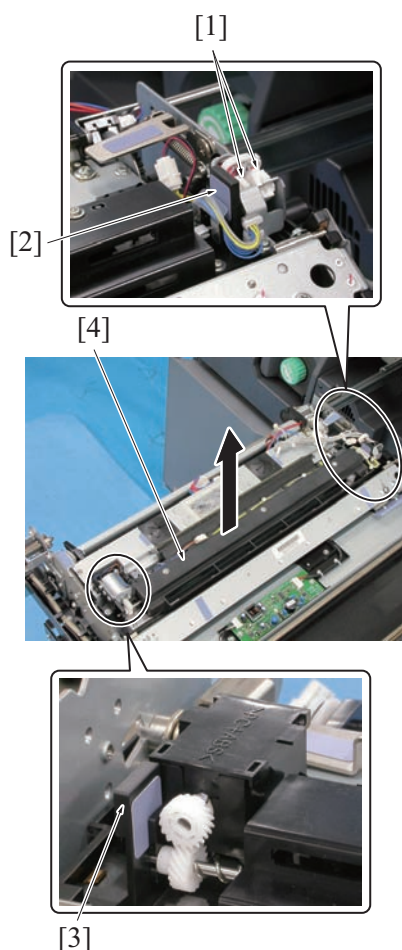
- When removing the charger unit, be careful not to touch the mesh portion of the charger control plate with bare hands.
- When cleaning the charger control plate, blow off dirt with the blower brush.

(1) Periodically replaced parts/cycle

- Charger unit
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

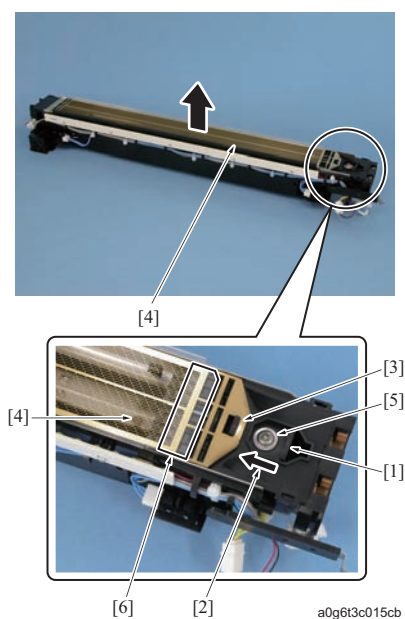
1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove 2 connectors [1].
3. Hold the portions marked with [2] and [3] and remove the charger unit [4].
4. Reinstall the preceding parts following the removal steps in reverse.
5. After replacing the charger unit, conduct the following item.
Counter reset of the parts counter No.9

5.3.3 Replacing the charger control plate**(1) Periodically replaced parts/cycle**

- Charger control plate
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the charger unit. (Refer to [F.5.3.2 Replacing the charger unit](#))
2. Slide the lever [1] in the arrow-marked direction [2] to release the lock [3] and remove the charger control plate [4].

Note

- Be sure to avoid loosening or removing the screw [5] that fastens the lever.

3. Reinstall the preceding parts following the removal steps in reverse.

Note

- When reinstalling the charger control plate, make sure that the PET sheet [6] comes to the outside (drum side).
- When reinstalling the charger control plate, make sure that the charger control plate is not bent and the edge is not distended.

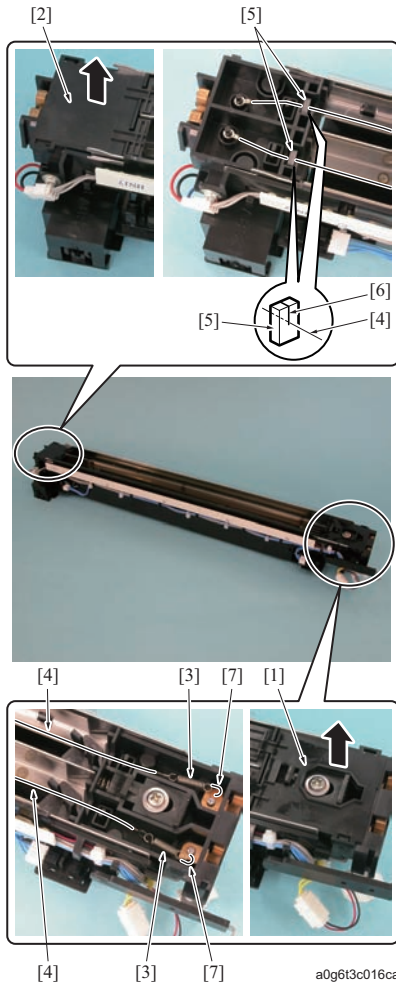
4. After replacing the charger control plate, conduct the following steps.
Counter reset of the parts counter No.7

5.3.4 Replacing the charger wire/charger vibration proof rubber**(1) Periodically replaced parts/cycle**

- Charging wire
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Charger rubber vibration isolator
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the charger unit. (Refer to [F.5.3.2 Replacing the charger unit](#))
2. Remove the charger control plate. (Refer to [F.5.3.3 Replacing the charger control plate](#))
3. Remove the craws, 2 each, and remove the spark arrester plates / Fr [1], /Rr [2].
4. Remove the springs [3], 1 each, and then remove the charger wires [4] and the charger vibration proof rubber [5], 1 each.

Note

- When removing the charger wire, be careful not to drop off the charger vibration proof rubbers.
- When reinstalling the charger wire, be sure to insert each of the wires into the cut [6] of the charger vibration proof rubber.
- Be sure to reinstall the charger wires so that the hook [7] of each spring turns to the inside.

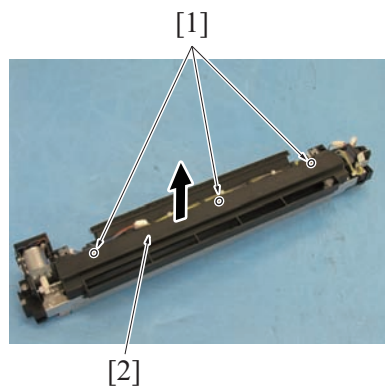
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the charger wire/charge vibration proof rubber, conduct the following steps.
Counter reset of the parts counter No.6

5.3.5 Replacing the charger cleaning unit/C-clip**(1) Periodically replaced parts/cycle**

- Charging cleaning unit
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- C-clip
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

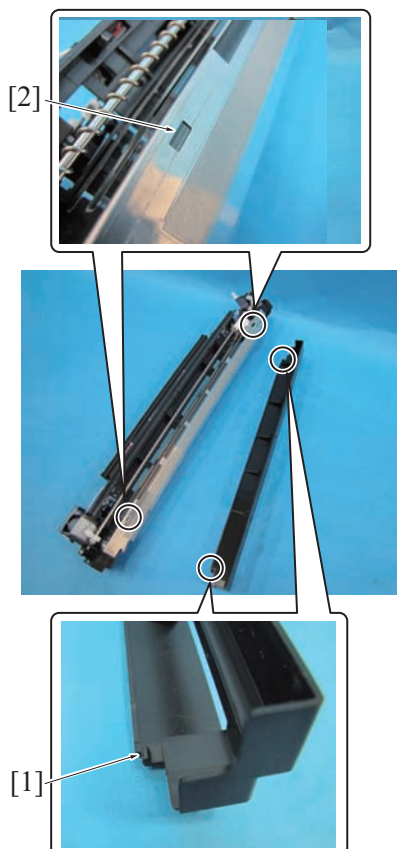
*2 951

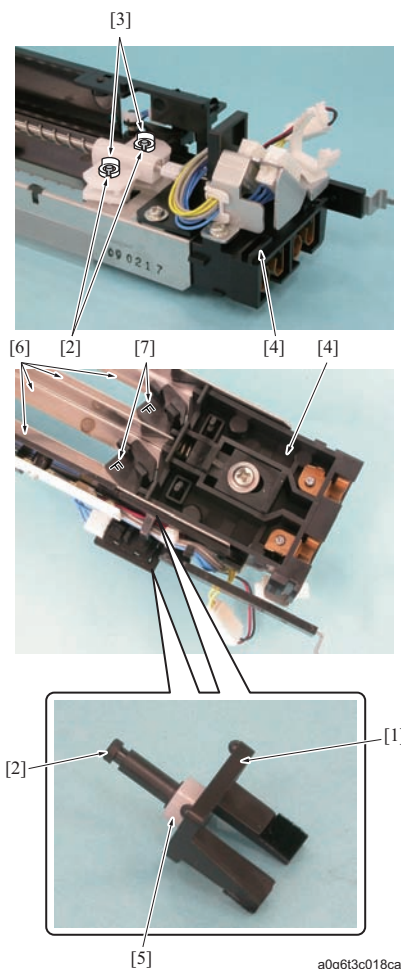
(2) Procedure

1. Remove the charger unit. (Refer to [F.5.3.2 Replacing the charger unit](#))
2. Remove the charger control plate. (Refer to [F.5.3.3 Replacing the charger control plate](#))
3. Remove the charger wire. (Refer to [F.5.3.4 Replacing the charger wire/charger vibration proof rubber](#))
4. Remove 3 screws [1] and remove the charger duct [2].

Note

- When reinstalling the charger duct, be sure to set 2 claws [1] of the charger duct into 2 holes [2] of the charger unit.





5. Remove the C-clip [3], 1 each, from the shaft [2] of the charger cleaning unit [1].
6. Reverse the charger unit [4] and remove the 2 charger cleaning units.
7. Remove the collar [5] from the shaft of each of the charger cleaning units.
8. When the charger back plate [6] is stained, clean it with Isopropyl alcohol and a cleaning pad.

Note

- Be careful that the collar inserted into the shaft of the charger cleaning unit does not drop off.
- Be sure to reinstall the charger cleaning unit so that the marking "F" [7] turns in the same direction as shown in the drawing.

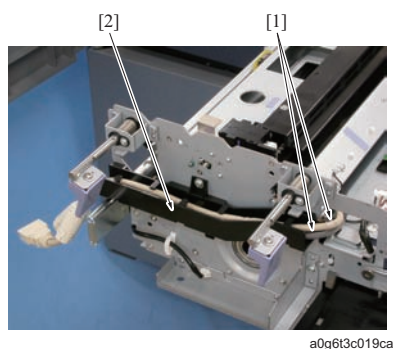
9. Reinstall the preceding parts following the removal steps in reverse.
10. After replacing the charger cleaning unit/C-clip, conduct the following steps.
Counter reset of the parts counter No.8

5.3.6 Cleaning the LPH lens**(1) Periodically cleaned parts/cycle**

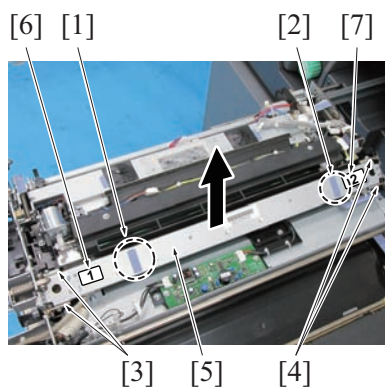
- LPH lens
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

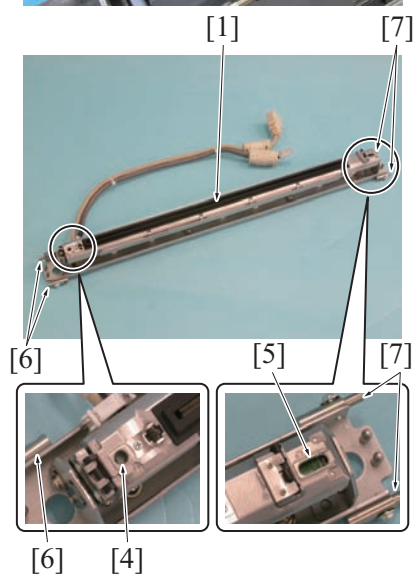
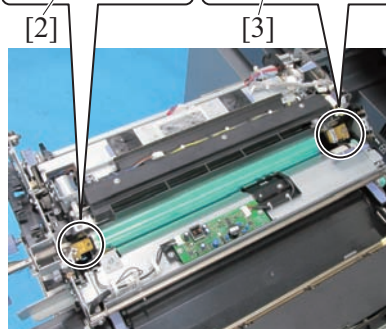
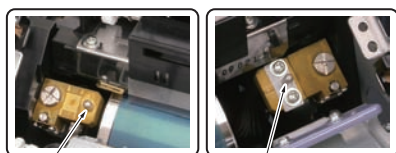
1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the wiring harness [1] from the wiring harness guide [2].



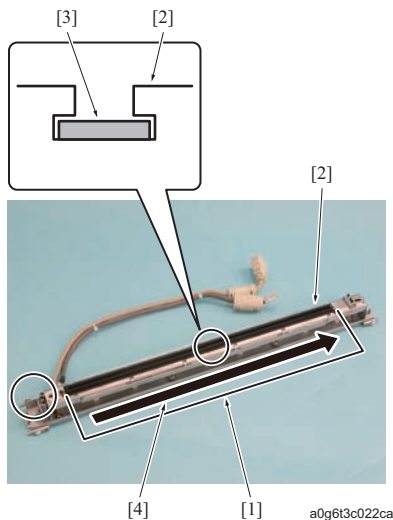
3. Hold the section A [1] and B [2] with both hands and release the section /Fr [3], and then release the section /Rr [4] to remove the LPH unit [5].

Note

- When removing/reinstalling the LPH, be sure to remove the label 1 [6] side at first and then the label 2 [7] side.

**Note**

- When reinstalling the LPH unit [1], be sure to set each guide pin [2] and [3] to each guide hole [4] and [5] of the unit.
- When reinstalling the LPH unit [1], install the section /Fr [6] before installing the section /Rr [7].



4. Clean the lens section [1] of the LPH unit with a cotton swab soaked in alcohol, and wipe with a dry cotton swab to finish.

Note

- Insert a cotton swab to the inside of the depression of the lens cover [2] to contact with the lens section [3].
- Be sure to use a cotton swab for one way [4] only once for both of cleaning and finishing. Never use a cotton swab back and forth. Be sure to use a new cotton swab to clean it again in the same direction or clean it in the opposite direction.

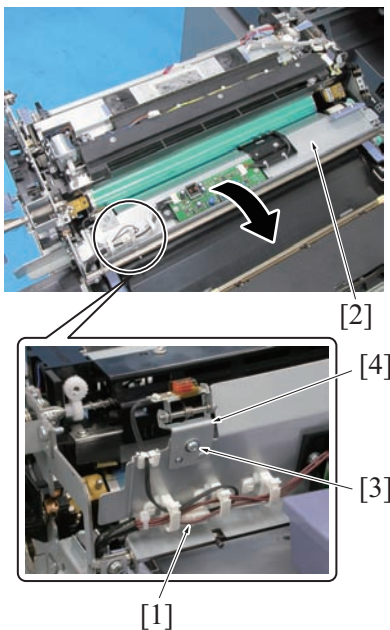
5. Reinstall the above parts following the removal steps in reverse.

5.3.7 Replacing the drum temperature sensor**(1) Periodically replaced parts/cycle**

- Temperature sensor
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Pull out the photo conductor section. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the LPH unit. (Refer to [F.5.3.6 Cleaning the LPH lens](#))
3. Disconnect the connector [1].
4. Open the sensor support stay [2].
5. Remove the screw [3] and then remove the drum temperature sensor [4].
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the drum temperature sensor, conduct the following steps.

Counter reset of the parts counter No.5

5.3.8 Replacing the drum/cleaning of the photo conductor section**Note**

- Be careful not to touch or damage the drum and the cleaning blade with bare hands.
- When storing the drum, be sure to store it in dark place with the drum cover attached.
- When reinstalling the drum, the cleaning blade and the toner guide brush, be sure to apply setting powder all around the drum and the cleaning blade regardless of these parts being new or used ones.
- When the drum is applied with setting powder, be sure conduct the following operations before installing the photo conductor section to the main body:
 1. With the charger, the LPH unit and the developing section removed, rotate the drum 1 full turn. (to prevent splashing of setting powder to the charger and prevent the image from getting blurred)
 2. When installing a new drum, be sure to reset the photo conductor counter in the service mode. Otherwise, image gray background and toner scatter occur. (Refer to [I.5.5.1.\(2\) Counter reset](#))

(1) Periodically replaced parts/cycle

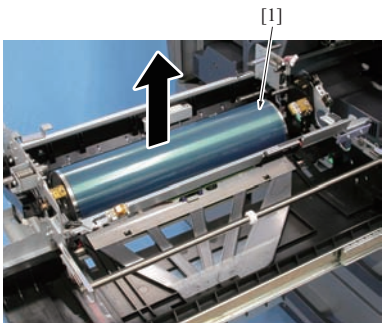
- Drum
 - : Every 1,000,000 prints or 175 hours of driving time, whichever is earlier.*1

- : Every 1,000,000 prints or 220 hours of driving time, whichever is earlier.*2
 : Every 750,000 prints or 190 hours of driving time, whichever is earlier.*3

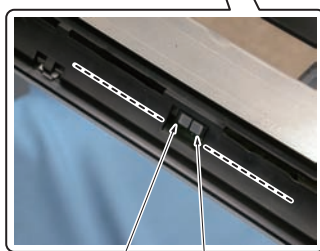
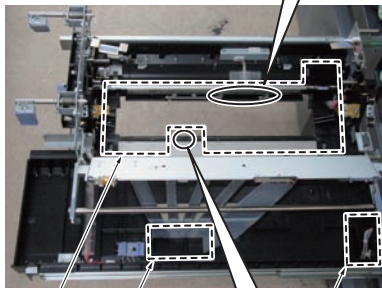
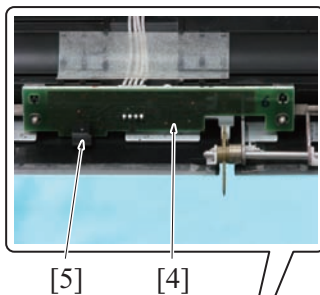
*1 1250/1250P

*2 1052

*3 951

(2) Procedure

a0g6t3c024ca



[6] [7]

1. Pull out the photo conductor section. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the charger unit. (Refer to [F.5.3.2 Replacing the charger unit](#))
3. Remove the LPH unit. (Refer to [F.5.3.6 Cleaning the LPH lens](#))
4. Remove the developing unit. (Refer to [F.5.4.4 Replacing the developing unit](#))
5. Remove the cleaning section. (Refer to [F.5.6.1 Removing/reinstalling the cleaning section](#))
6. Open the sensor support stay. (Refer to [F.5.3.7 Replacing the drum temperature sensor](#))
7. Remove the drum [1].

8. Clean toner adhered around the drum installation section [1] and the developing suction ducts [2] and [3] with a vacuum cleaner.
9. Clean the JAM sensor [5] on the JAM sensor board (JAMB) [4] with the cleaning pad.
10. Clean the IDC sensor [7] on the toner control board (TCB) [6] with a cotton swab soaked in alcohol.

Note

- Dampen the cotton swab with alcohol a little. When too much alcohol is dampened, wring extra alcohol out of cotton swab and clean the sensor.
- Do not use any materials other than a cotton swab soaked in alcohol to clean the IDC sensor. When cleaning the IDC sensor in other ways, the IDC sensor performance is not warranty. Be sure to replace TCB.

11. Reinstall the preceding parts following the removal steps in reverse.
12. After replacing the drum/cleaning the photo conductor section, conduct the following steps.
 - Charge potential automatic adjustment
(Refer to [1.5.4.10 Charge Potential Auto. Adj. \(Drum Peculiarity Adjustment\)](#))
 - Photo conductor setting mode
(Refer to [1.5.4.12 Sensitive Drum Set Mode \(Drum Peculiarity Adjustment\)](#))
 - Auto maximum density adjustment
(Refer to [1.5.4.13 Auto Maximum Density Adj. \(Drum Peculiarity Adjustment\)](#))
 - Auto dot diameter adjustment
(Refer to [1.5.4.14 Auto Dot Diameter Adj. \(Drum Peculiarity Adjustment\)](#))
 - Cartridge set mode
(Refer to [1.5.4.15 Cartridge Set Mode \(Drum Peculiarity Adjustment\)](#))

5.3.9 Replacing the drum claw**Note**

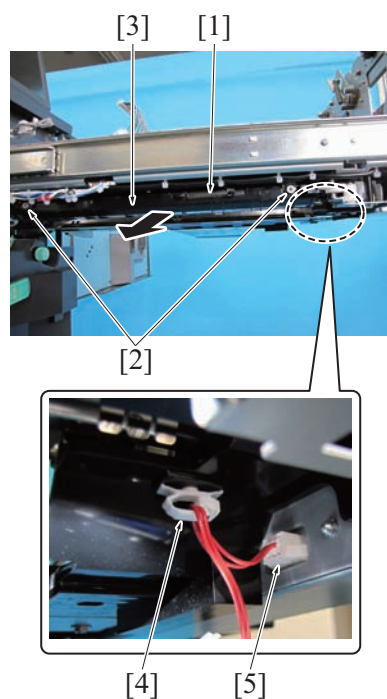
- When reinstalling the drum claw, take note of the direction and position of the claw.

(1) Periodically replaced parts/cycle

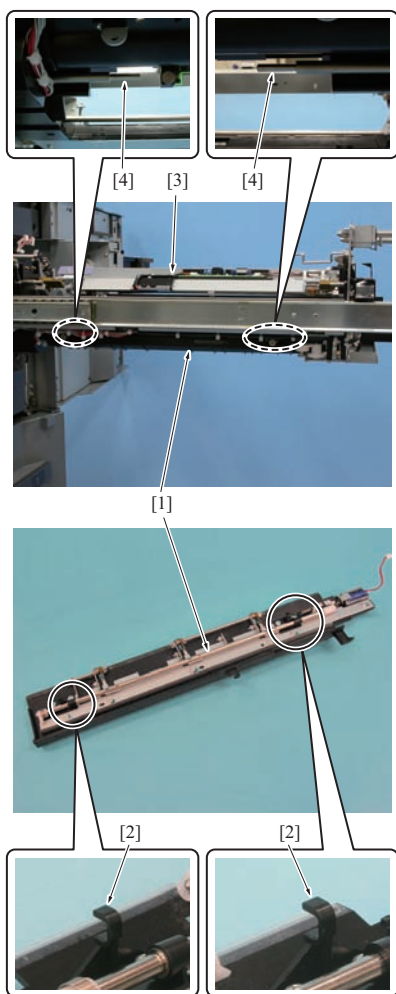
- Drum claw
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

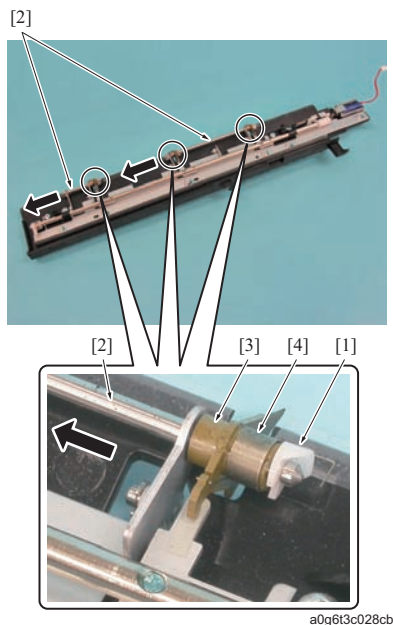
(2) Procedure

1. Pull out the photo conductor section. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the drum. (Refer to [F.5.3.8 Replacing the drum/cleaning of the photo conductor section](#))
3. Remove the spring [1].
4. Remove 2 screws [2] and then remove the drum claw unit [3].
5. Disengage the wiring saddle [4] and disconnect the connector [5].

**Note**

- When reinstalling the drum claw unit [1], be sure to set the hooks [2] to the shafts [4] of the photo conductor section [3].

a0g6t3c027cb



6. Remove 4 C-clips [1], and pull out the 2 shaft [2] in the arrow-marked direction to remove the 3 drum claws [3].
7. Remove the springs [4], 1 each, from each of the drum claws.

Note

- When reinstalling the drum claws, be sure to clean the shaft with the isopropyl alcohol and a cleaning pad. Reinstalling the separation claws with toner adhered causes the operation to slow down.
- After reinstalling the drum claws, check to see if they move smoothly.

8. Reinstall the preceding parts following the removal steps in reverse.
9. After replacing the drum claw, conduct the following item.
Counter reset of the parts counter No.4

5.3.10 Replacing the drum fixing spring and the drum positioning collar**Note**

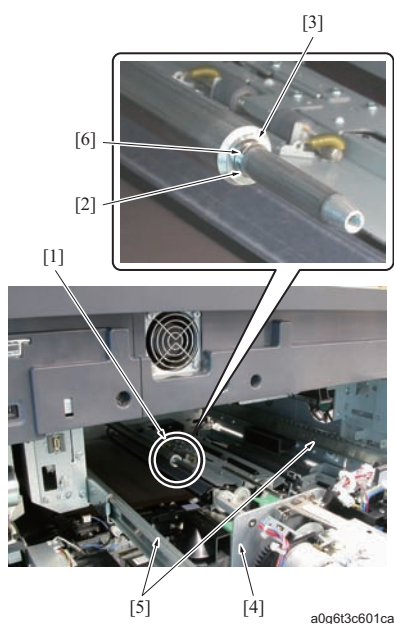
- Replace the drum fixing spring and the drum positioning collar at the same time.

(1) Periodically replaced parts/cycle

- Drum fixing spring
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Drum positioning collar
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Pull out the photo conductor section. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the drum positioning collar [2] from the drum shaft [1] and then remove the drum fixing spring [3].

Note

- When replacing the drum positioning collar and the drum fixing spring, be sure not to put weight on the photo conductor section [4], the guide rails [5] and the drum shaft.
- When reinstalling the drum positioning collar, be sure to set it to the slit [6] of the drum shaft.

3. Reinstall the above parts following the removal steps in reverse.

5.4 Developing section**5.4.1 Replacing the suction filter****(1) Periodically replaced parts/cycle**

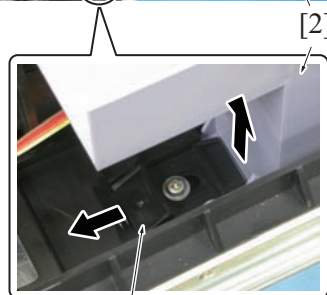
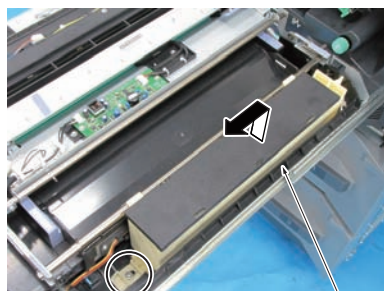
- Suction filter
 - : Every 2,000,000 prints *1

: Every 1,500,000 prints *2

*1 1250/1250P/1052

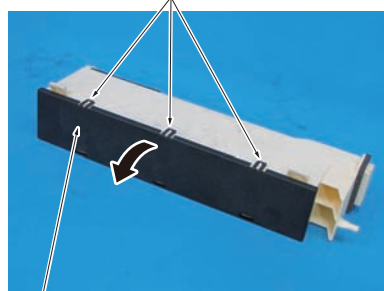
*2 951

(2) Procedure



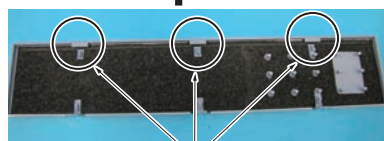
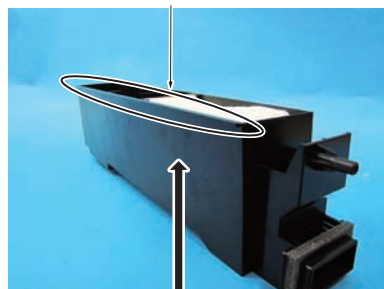
[1]

[1]



[2]

[2]



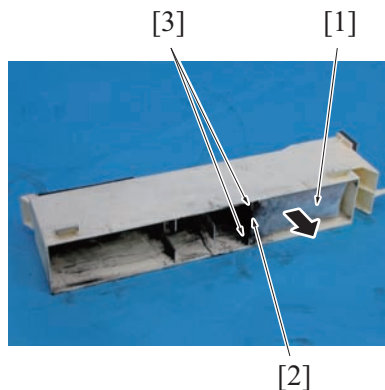
[1]

1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Release the lock [1] and remove the developing suction assy [2].

3. Release 3 claws [1] and remove the cover [2].

Note

- When reinstalling the cover, be sure to check that the 3 claws [1] are engaged with the projection portion [2] of the developing suction assy.



4. Remove the suction filter [1].

Note

- When reinstalling the suction filter, insert the opening [2] to the ribs [3] of the case.

5. Clean the inside of the developing suction Assy.
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the suction filter, conduct the following step.
Counter reset of the parts counter No.1

5.4.2 Replacing the developing suction seal /2 and /5, the suction pad /H, and the stopper pad /1 and /2

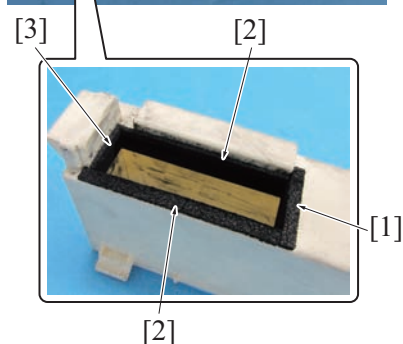
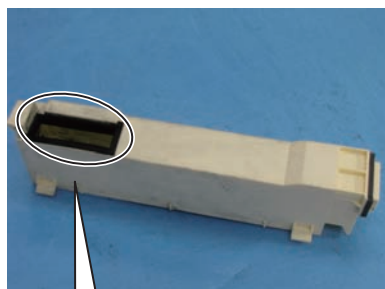
(1) Periodically replaced parts/cycle

- Developing suction seal /2
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Developing suction seal /5
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Suction pad /H
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Stopper pad /1
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Stopper pad /2
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2

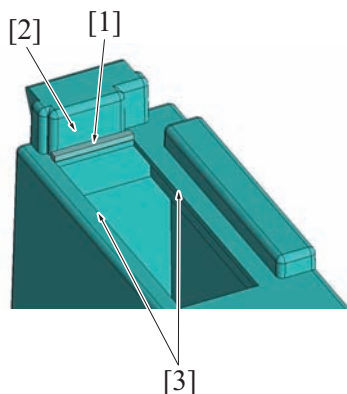
*1 1250/1250P/1052

*2 951

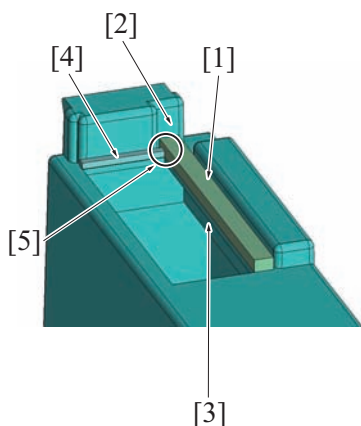
(2) Procedure



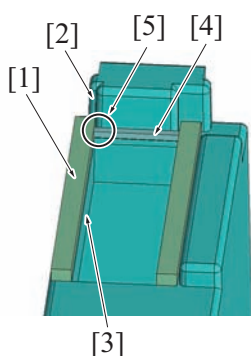
1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the suction filter /Lw. (Refer to [F.5.4.1 Replacing the suction filter](#))
3. Peel off the developing suction seal /5 [1].
4. Peel off 2 developing suction seals /2 [2].
5. Peel off the suction pad /H [3].

**Note**

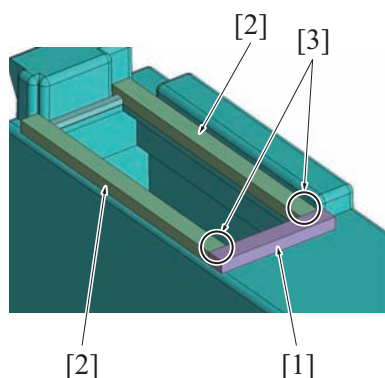
- When reinstalling the suction pad /H [1], with reference to the A side [2], place the long side in contact with the A side. At this time, be sure to put the longer side of the suction pad /H in contact with the inside surfaces [3] of the hole.

**Note**

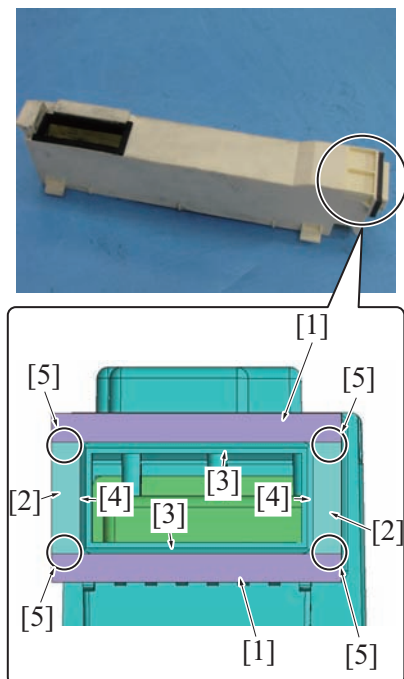
- When reinstalling the developing suction seal /2 [1], with reference to the B side [2], place the short side in contact with the B side and the long side to be the same level as the inside surfaces [3] of the hole. At this time, make sure that there is no gap at the contact portion [5] of the suction pad /H [4] and the developing suction seal /2.

**Note**

- When reinstalling the developing suction seal /2 [1], with reference to the C side [2], place the short side in contact with the C side and the long side to be the same level as the inside surfaces [3] of the hole. At this time, make sure that there is no gap at the contact portion [5] of the suction pad /H [4] and the developing suction seal /2.

**Note**

- When reinstalling the developing suction seal /5 [1], with reference to the short side of the outer side of the developing suction seal /2 [2], place the short side to be the same level as the long side of the outer side of the developing suction seal /2. At this time, make sure there is no gap at the contact portion [3] of the developing suction seals /5 and /2.



6. Peel off 2 stopper pads /1 [1].

7. Peel off 2 stopper pads /2 [2].

Note

- When reinstalling the stopper pad /1 [1], with reference to the D side [3], place the long side in contact with the D side.
- When reinstalling the stopper pad /2 [2], with reference to the E side [4], place the long side in contact with the E side. At this time, make sure there is no gap at the contact portion [5] of the stopper pads /2 and /1.

8. Reinstall the preceding parts following the removal steps in reverse.

9. After replacing the developing suction seal /2 and /5, the suction pad /H, and the stopper pad /1 and /2, conduct the following steps. Counter reset of the parts counter No.11

5.4.3 Cleaning of the developing unit

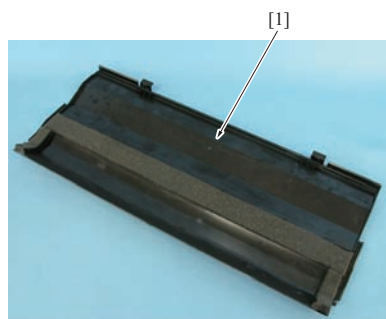
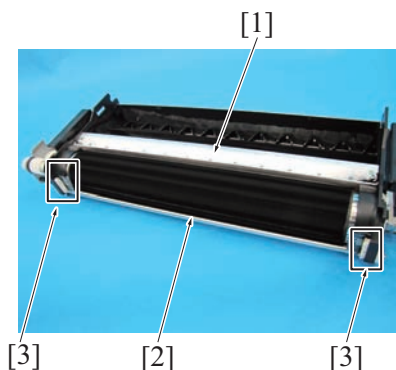
(1) Periodically cleaned parts/cycle

- Developing unit
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure



a0g6t3c036ca

1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the developing suction assembly. (Refer to [F.5.4.1 Replacing the suction filter](#))
3. Remove the developing unit. (Refer to [F.5.4.4 Replacing the developing unit](#))
4. Remove the developing unit cover /1. (Refer to [F.5.4.5 Replacing the developer](#))
5. Clean the developer regulation blade [1], the developer regulation shaft [2] and both ends of the developing roller [3] with the cleaning pad and the vacuum cleaner.

Note

- Be careful not vacuum too much developer necessarily. Be sure to clean just the stained sections.

6. Clean up the rear side of the developing unit cover /1 [1] with a vacuum cleaner.

7. Reinstall the above parts following the removal steps in reverse.

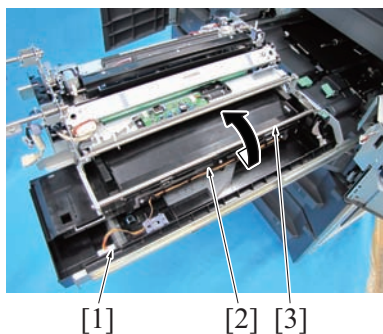
5.4.4 Replacing the developing unit

(1) Periodically replaced parts/cycle

- Developing unit
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2

*1 1250/1250P/1052

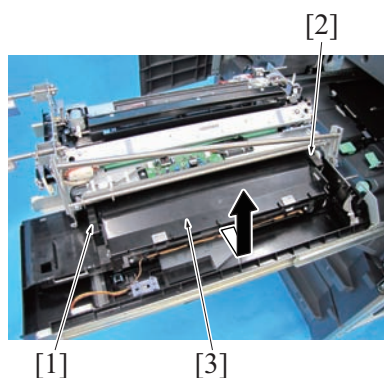
*2 951

(2) Procedure

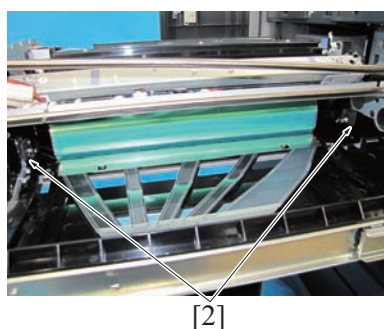
1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the developing suction assembly. (Refer to [F.5.4.1 Replacing the suction filter](#))
3. Disconnect the connector [1].
4. Release the developing pressure lever [3] while holding down the right side [2] of the developing unit.

Note

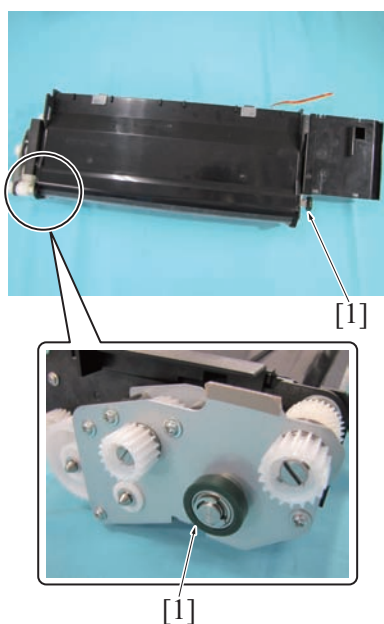
- When releasing the developing pressure lever, be careful not to touch the front panel and the rear panel of the photo conductor section.



5. Hold the sections [1] and [2] with both hands and remove the developing unit [3].

**Note**

- When reinstalling the developer unit, make sure that the developing unit stopper roller [1] is in contact with the developing unit stopper block [2]. (DS secured)
- When the developing unit stopper roller is too easily rotated, remove it once and then reinstall it.
- When installing the developing unit, be sure to insert it slowly in parallel.
- When the developing unit stopper roller has dirt or scratch, rotate and install it so that the part does not contact with the roller.





[2] [1]

6. Reinstall the preceding parts following the removal steps in reverse.

Note

- When reinstalling the developer unit, be careful that the front panel of the photo conductor section does not come into contact with the developing roller [1].
- Never rotate the developing gear to the arrow-marked direction [2].

7. After replacing the developing unit, conduct the following steps.

Counter reset of the parts counter No.12

Charging Potential Auto Adj.

(Refer to [1.5.4.10 Charge Potential Auto. Adj. \(Drum Peculiarity Adjustment\)](#))

Auto Maximum Density adjustment

(Refer to [1.5.4.13 Auto Maximum Density Adj. \(Drum Peculiarity Adjustment\)](#))

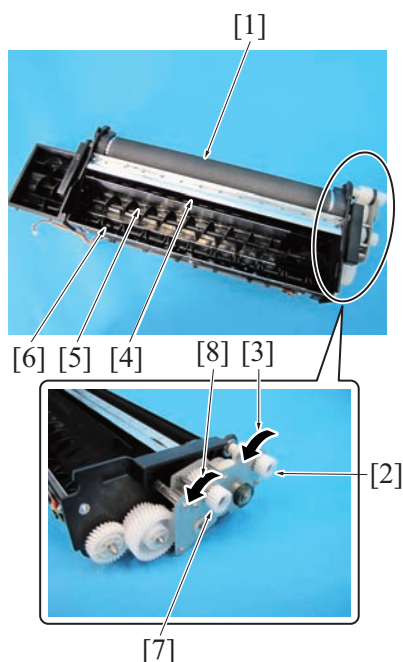
Auto Dot Diameter adjustment

(Refer to [1.5.4.14 Auto Dot Diameter Adj. \(Drum Peculiarity Adjustment\)](#))

Cartridge Set Mode

(Refer to [1.5.4.15 Cartridge Set Mode \(Drum Peculiarity Adjustment\)](#))**5.4.5 Replacing the developer****Note**

- When replacing the developer, be careful that dirt does not get into it.
- When rotating the developing roller [1], be sure to rotate the developing gear [2] to the arrow-marked direction [3] with the flat blade driver.
- When rotating the agitator screw [4], the conveyance screw [5] and the agitator plate [6], be sure to rotate the agitator gear [7] in the arrow-marked direction [8] with the flat blade driver.
- When charging the new developer, be sure to conduct "TonerDensitySensorInit.Auto" in Service Mode. If not reset, image fogging, toner splash and so on occur. (Refer to [1.5.5.1.\(2\) Counter reset](#))

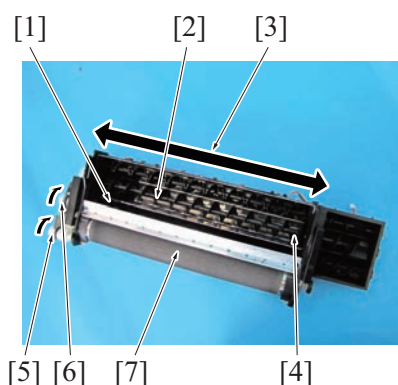
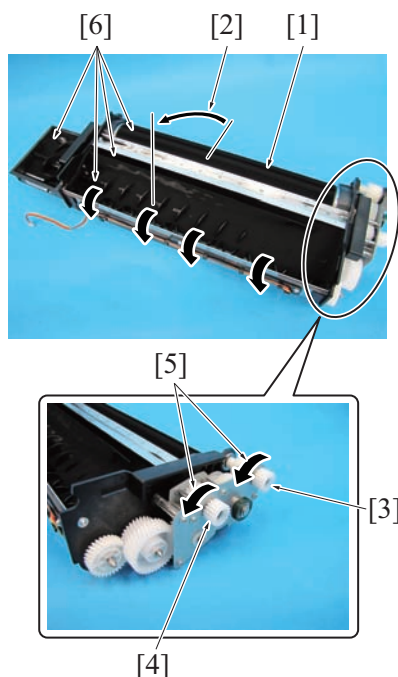
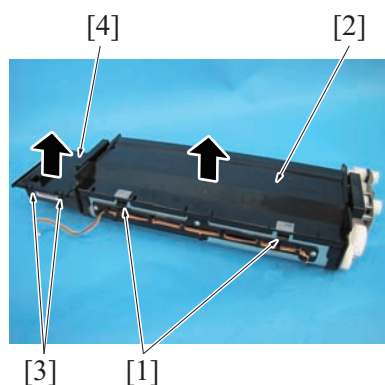
**(1) Periodically replaced parts/cycle**

- Developer
 - : Every 1,000,000 prints or 175 hours of driving time, whichever is earlier.*1
 - : Every 1,000,000 prints or 220 hours of driving time, whichever is earlier.*2
 - : Every 750,000 prints or 190 hours of driving time, whichever is earlier.*3

*1 1250/1250P

*2 1052

*3 951

(2) Procedure

1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the developing suction assembly. (Refer to [F.5.4.1 Replacing the suction filter](#))
3. Remove the developing unit. (Refer to [F.5.4.4 Replacing the developing unit](#))
4. Release 2 hooks [1] and remove the developing unit cover /1 [2].
5. Release 2 hooks [3] and remove the developing unit cover /2 [4].

6. With the developing unit [1] tilted to about 90°C [2], rotate the developing gear [3] and the agitator gear [4] in the arrow-marked direction [5] with a flat blade screwdriver to discharge the developer [6] in the developing unit thoroughly.
7. Use cleaner to clean the developer adhered to the developing roller.

Note

- Any used developer remaining in the developing roller causes gray background to the image.

8. Pour new developer evenly [3] from above the agitator screw [1] and the conveyance screw [2].
9. Rotate the developing gear [5] and the agitator gear [6] counterclockwise so that the developer gets fully into the developing unit [4].
10. Repeat the steps 8 and 9 to pour the developer completely.
11. Rotate the developing gear counterclockwise and check the height of developer across the entire developing roller [7].
12. Reinstall the preceding parts following the removal steps in reverse.
13. After replacing the developing unit, conduct the following steps.
 - Auto charging potential adjustment
(Refer to [I.5.4.10 Charge Potential Auto. Adj. \(Drum Peculiarity Adjustment\)](#))
 - TonerDensitySensorInit.Auto
(Refer to [I.5.4.11 Toner Density Sensor Init. \(Drum Peculiarity Adjustment\)](#))
 - Auto maximum density adjustment
(Refer to [I.5.4.13 Auto Maximum Density Adj. \(Drum Peculiarity Adjustment\)](#))
 - Auto dot diameter adjustment
(Refer to [I.5.4.14 Auto Dot Diameter Adj. \(Drum Peculiarity Adjustment\)](#))
 - Cartridge set mode
(Refer to [I.5.4.15 Cartridge Set Mode \(Drum Peculiarity Adjustment\)](#))

5.5 Toner supply/collection section**5.5.1 Replacing/cleaning of the toner bottle****(1) Periodically cleaned parts/cycle**

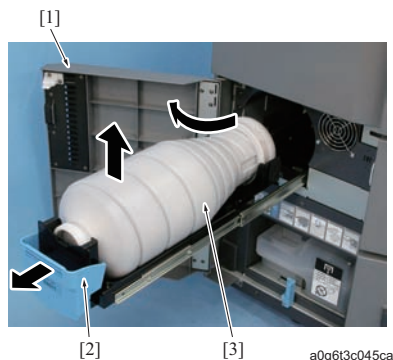
- Toner bottle insertion opening

- : Every 1,000,000 prints *1
- : Every 750,000 prints *2

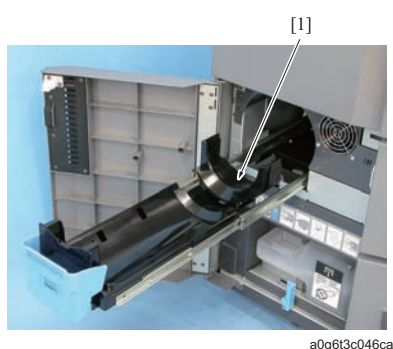
*1 1250/1250P/1052

*2 951

(2) Procedure



1. Open the toner supply door [1] and pull out the toner supply cover / A assembly [2].
2. Remove the toner bottle [3].



3. Clean around the toner bottle insertion opening [1] with a blower brush and a vacuum cleaner.
4. Reinstall the above parts following the removal steps in reverse.

5.5.2 Replacing the waste toner box

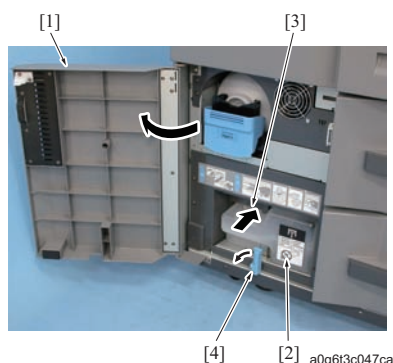
(1) Periodically replaced parts/cycle

- Waste toner box
- : Every 1,000,000 prints *1
- : Every 750,000 prints *2

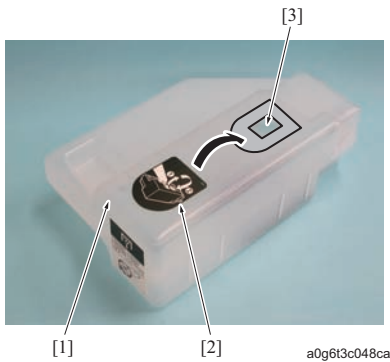
*1 1250/1250P/1052

*2 951

(2) Procedure



1. Open the toner supply door [1].
2. While pressing the waste toner box [2] in the arrow-marked direction [3], tilt the lock lever [4].
3. Pull out the waste toner box from the main body.



4. Peel off the PET sheet [2] already put on the waste toner box [1] and put it to the toner inlet [3] to cover it.
- Note**
- When disposing the waste toner box, be sure to cover the toner socket with PET sheet to prevent the toner spill while conveying.

5. Reinstall the above parts following the removal steps in reverse.
6. After replacing the waste toner box, conduct the following steps.
Counter reset of the parts counter PM (1,000,000 or 750,000)
(Refer to [I.5.5.1 Maintenance Counter](#))

5.5.3 Replacing the agitator plate assembly

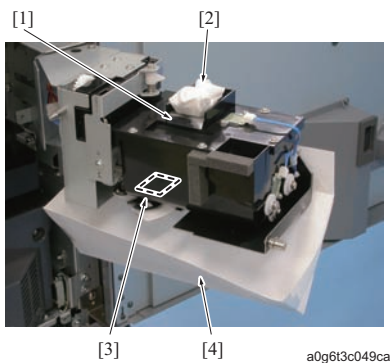
(1) Periodically replaced parts/cycle

- Agitator plate assy /1
: Every 2,000,000 prints *1
: Every 1,500,000 prints *2
- Agitator plate assy /2
: Every 2,000,000 prints *1
: Every 1,500,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure



1. Open the front doors /Rt and /Lt.
2. Tilt the lever that pulls out the duplex section. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
3. Remove the cover on the photo conductor section and pull out the intermediate toner hopper to open it. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
4. Close up the connection opening [1] of the intermediate toner hopper with a cleaning pad [2].
5. Attach the toner recovery bag [4] beneath the shutter section [3] connected to the developing unit.

Note

- For the toner recovery bag, use a paper bag made by folding a sheet of paper, or a vinyl bag. Be sure to fix it at an appropriate place so that toner does not spill over. Besides, be sure not to let the bag fall down with the weight of toner.
- The intermediate toner hopper contains toner about half as much as the volumetric capacity of the hopper. Be sure to set up a bag that accommodates of the entire toner amount.

6. Enter 54-00 in "I/O check mode" in the service mode and press the start button.
7. Insert the connecting shutter [1] fully deep and open it to discharge toner in the hopper. (This process takes about 5 minutes.)

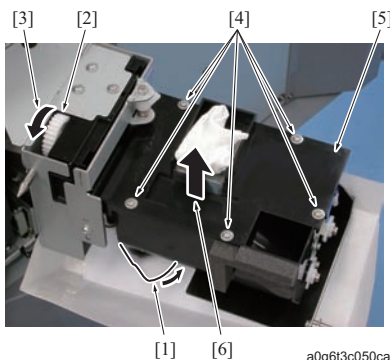
Note

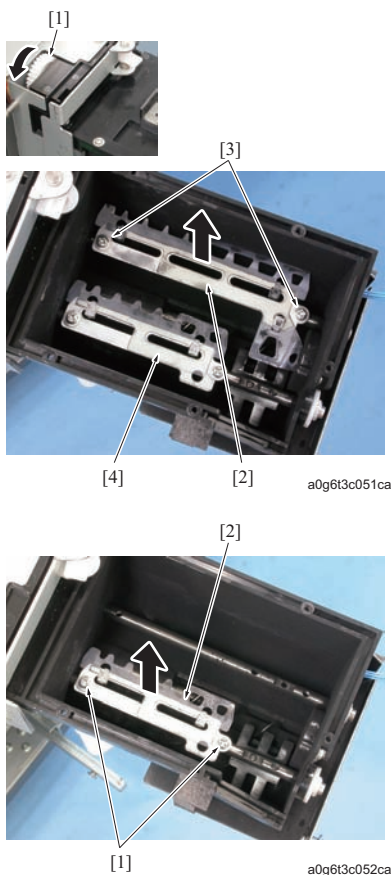
- While discharging, be sure to rotate the gear [2] several times in the arrow-marked direction [3] once in a while so that toner that is above the agitator plate assembly is discharged.
- Once no more toner is discharged by rotating the gear [2], it tells that almost all toner has been recovered.

8. Press the stop button.
9. Remove 5 screws [4] and then remove the intermediate toner hopper cover assy [5] in the arrow-marked direction [6].

Note

- The intermediate toner hopper cover assembly [5] is also adhered with toner. Be careful that it does not scatter.





10. Rotate the gear [1] in the arrow-marked direction until 2 screws [3] that hold the agitator plate assy /1 [2] turns up.

Note

- At this time, the sheet of the agitator plate assembly /1 jumps up. Be sure to cover about half of it with paper so that toner does not scatter.

11. Remove the 2 screw [3] and remove the stirring plate assy /1 [2].

Note

- Be sure not to rotate the gear [1] after removing the agitator plate assy /1. Rotating it causes a phase lag with the agitator plate assy /2 [4] and makes it impossible to detect the remaining amount of toner properly.

12. Remove 2 screw [1] and remove the stirring plate /2 assy [2].

13. Reinstall the preceding parts following the removal steps in reverse.

Note

- Some recovered toners have got mixed with impurities. Be sure to dispose it and do not put it back in the intermediate toner hopper.

14. After replacing the agitator plate assys /1 and /2, conduct the following steps.

Counter reset of the parts counter No.14

5.5.4 Replacing the intermediate hopper motor (M11)

(1) Periodically replaced parts/cycle

- Intermediate hopper motor (M11)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

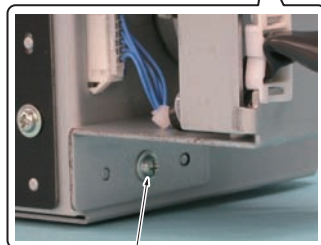
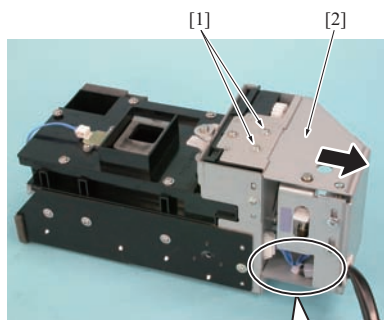


- Open the front doors /Rt and /Lt.
- Pull out the photo conductor section. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
- Disconnect the connector [1].
- Replace the photo conductor section.

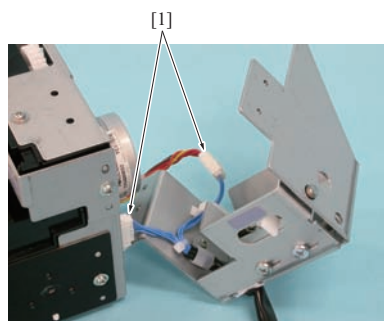
Note

- Be sure to pull out the intermediate toner hopper and keep it open.

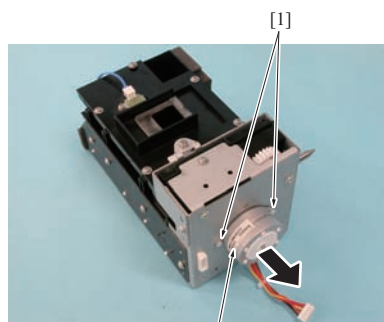
- Remove the screw [1] from the underneath
- Loosen 2 screws [2] to release the pin [3], and remove the intermediate toner hopper unit [4].



[1] a0g6t3c055ca



a0g6t3c056ca



[2] a0g6t3c057ca

7. Remove 3 screws [1] and remove the rotation hinge assy [2].

8. Disconnect the connector [1].

9. Remove 2 screws [1] and remove the intermediate hopper motor (M11) [2].

10. Reinstall the above parts following the removal steps in reverse.

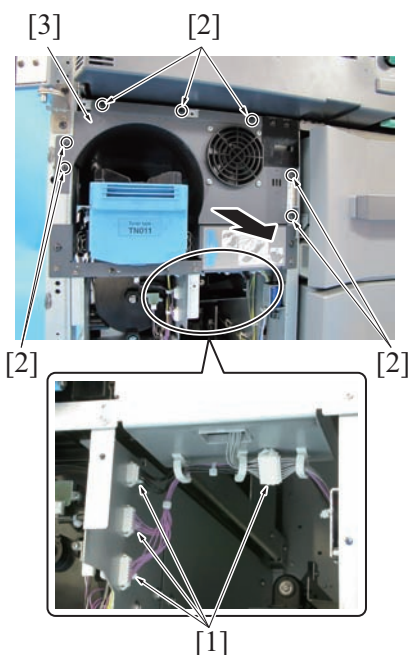
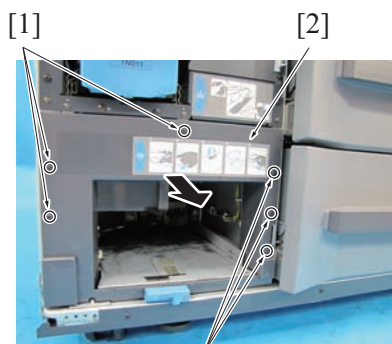
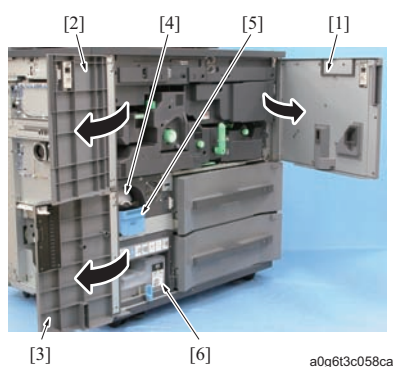
5.5.5 Replacing the toner supply sleeves /1 and /2

(1) Periodically replaced parts/cycle

- Toner supply sleeve /1
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2
- Toner supply sleeve /2
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2

*1 1250/1250P/1052

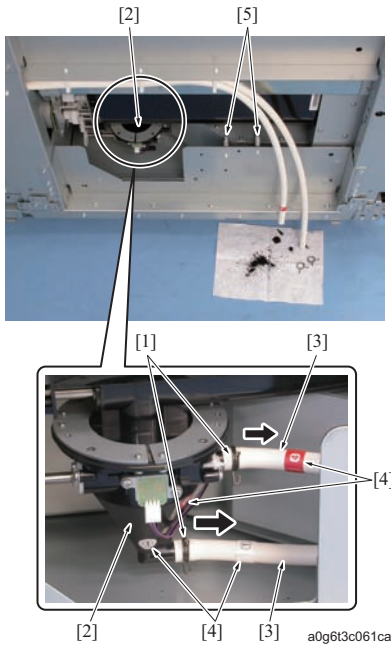
*2 951

(2) Procedure

1. Remove the left cover. (Refer to [G.2.2.4 Left cover](#))
2. Open the front doors /Rt [1] and /Lt [2] and the toner supply door [3].
3. Remove the toner bottle [4]. (Refer to [F.5.5.1 Replacing/cleaning of the toner bottle](#))
4. Remove the toner supply door. (Refer to [G.2.2.7 Toner supply door](#))
5. Replace the toner supply cover /A assembly [5].
6. Remove the waste toner box [6]. (Refer to [F.5.5.2 Replacing the waste toner box](#))

7. Remove 6 screws [1] and then remove the protective cover [2].

8. Disconnect 4 connectors [1].
9. Remove 7 screws [2] and then remove the toner supply protective assy [3].



10. Release 2 hose clamps [1] and remove 2 hoses [3] from the toner feed case [2].

Note

- Keep each of the released hose clamps [1] near the connecting opening of each hose [3].
- When the hose [3] is removed from the toner feed case [2], toner may spill out of each hose. Be careful that the inside of the main body does not get stained with the toner.
- The hose connecting section of the toner feed case [2] and the hose [3] are provided with the toner supply installation label [4] that indicates the respective points to which a connection is made. When installing each hose, be sure to make a connection between the points having the corresponding toner supply installation label [4].

11. Release the cable clamp [5] and pull out the hose [3] to the outside of the main body.

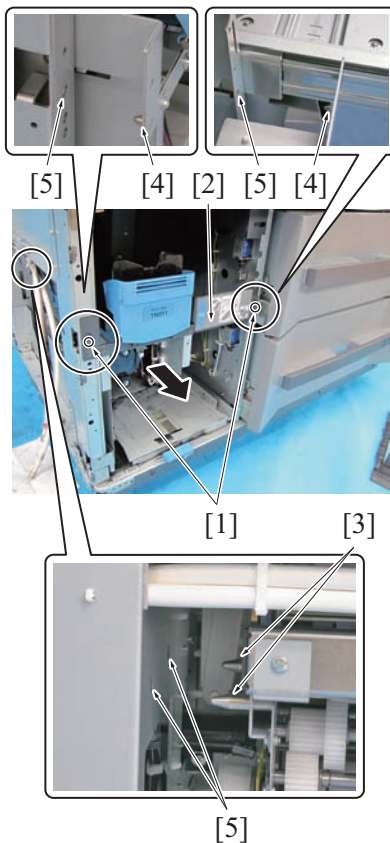
Note

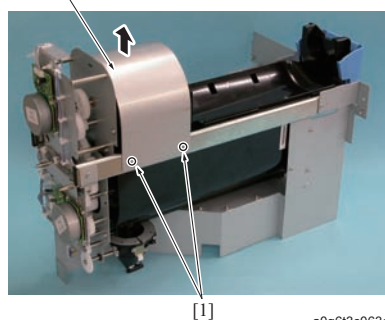
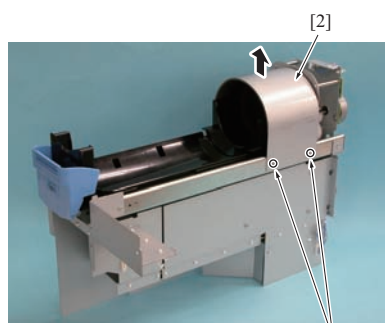
- The hose [3] may be damaged when the toner supply unit [6] is removed. Be sure to pull it out to the outside of the main body.

12. Remove 2 screws [1] and pull out the toner supply unit [2].

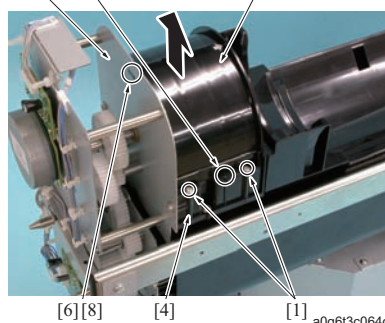
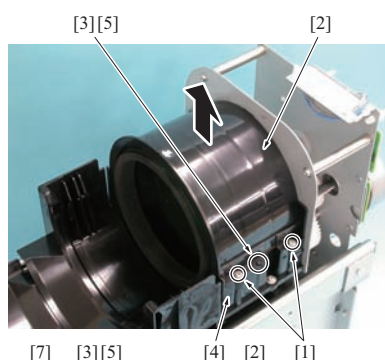
Note

- When reinstalling the toner supply unit [2], be sure to insert 2 guide pins [3] on the rear side and 2 guide pins [4] on the front side into the respective guide holes [5] of the main body frame.

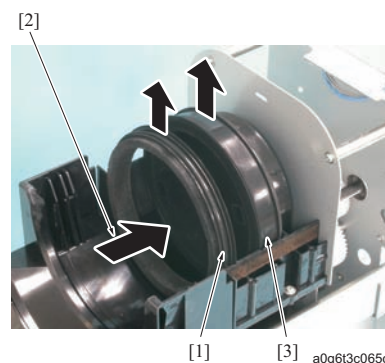




a0g6t3c063ca



a0g6t3c064ca



a0g6t3c065ca

13. Remove 4 screws [1] and then remove the toner supply protective plate [2].

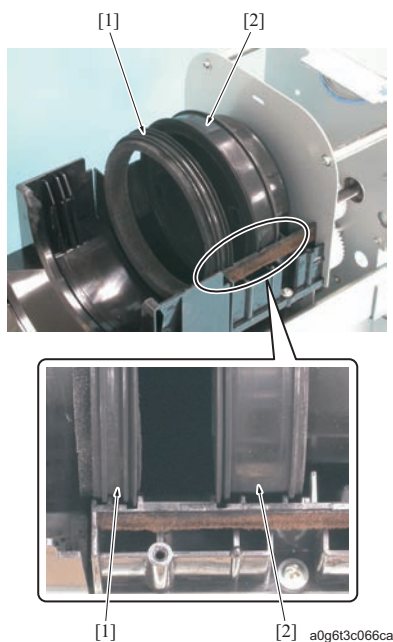
14. Remove 4 screws [1] and then remove the cover /Up [2].

Note

- When reinstalling the cover /Up [2], set the projection [5] of the cover /Lw [4] to the positioning hole [3] of the cover /Up [2] and then insert the projection [6] of the cover /Up [2] into the slit [8] of the drive board [7].

15. Remove the toner supply sleeves /1 [1].

16. Push the coupling in the arrow-marked direction [2] and remove the toner supply sleeve /2 [3].



17. Reinstall the preceding parts following the removal steps in reverse.

Note

- Be sure to reinstall the toner supply sleeves /1 [1] and /2 [2] in the direction as shown in the drawing.

Note

- After completion of disassembly/assembly of the toner supply unit, be sure to select the code 54-09 (rotation of the toner pump motor (M28) and the air pump motor (M29) in the I/O check mode of the service mode and then press the start button.

When toner drops off into the mixing section due to the vibration of the disassembly/assembly, it may cause the codes SC-2214 and C-2217. (Refer to [I.5.6.8 Removing toner in the toner mixing section](#))

18. After replacing the toner supply sleeves /1 and /2, conduct the following steps.

Counter reset of the parts counter No.15, 16

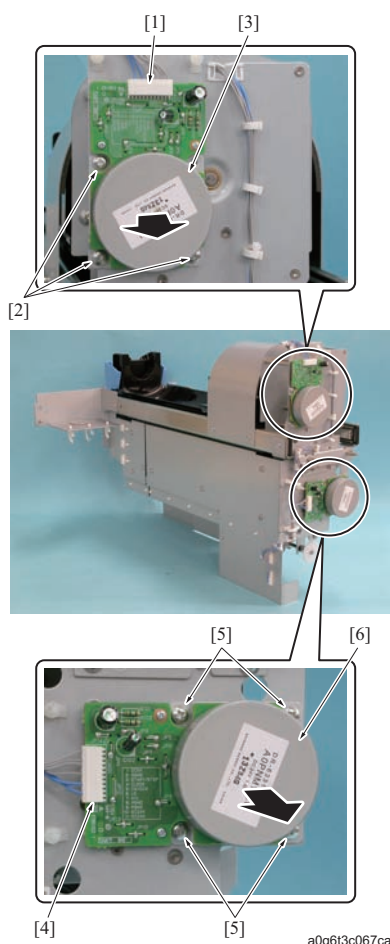
5.5.6 Replacing the toner bottle motor (M6) and the toner hopper motor (M7)

(1) Periodically replaced parts/cycle

- Toner bottle motor (M6)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Toner hopper motor (M7)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

* 1 1250/1250P/1052

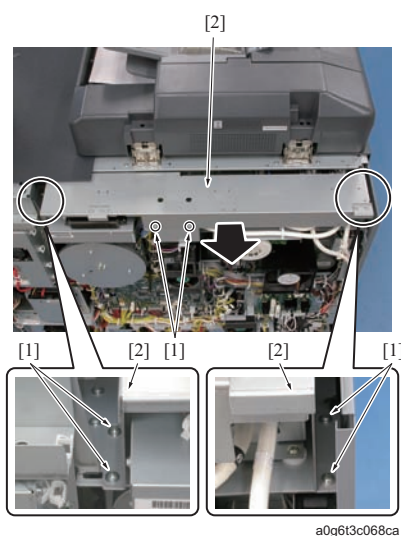
* 2 951

(2) Procedure

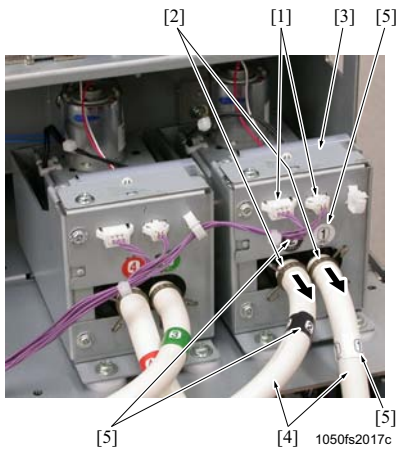
1. Remove the toner supply unit. (Refer to [F.5.5.5 Replacing the toner supply sleeves /1 and /2](#))
2. Disconnect the connector [1].
3. Remove 3 screws [2] and remove the toner bottle motor (M6) [3].
4. Disconnect the connector [4].
5. Remove 4 screws [5] and remove the toner hopper motor (M7) [6].
6. Reinstall the above parts following the removal steps in reverse.

5.5.7 Replacing the pump units /Lt and /Rt**(1) Periodically replaced parts/cycle**

- Pump unit /Lt
: Every 14,000,000 prints
- Pump unit /Rt
: Every 12,000,000 prints

(2) Procedure

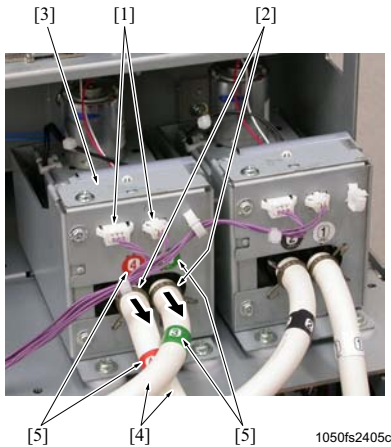
1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Remove the upper covers /Rr1 and /Rr2. (Refer to [G.2.2.8 Upper cover /Rr1](#) [G.2.2.9 Upper cover /Rr2](#))
3. Remove 6 screws [1] and then remove the exterior mounting plate [2].



4. Disconnect 2 connectors [1].
5. Release 2 hose clamps [2] and remove 2 hoses [4] from the pump unit /Rt [3].

Note

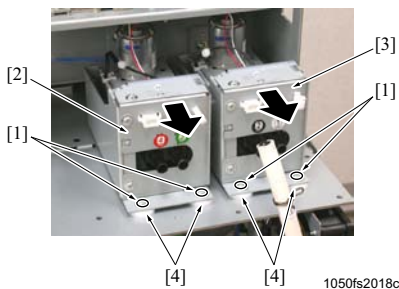
- Keep each of the released hose clamps [2] near the connecting opening of each hose [4].
- When the hose [4] is removed from the pump unit /Rt [3], the toner may spill out of each hose. Be careful that the inside of the main body does not get stained with the toner.
- The hose connecting section of the pump unit /Rt [3] and the hose [4] are provided with the toner supply installation label [5] that indicates the respective points to which a connection is made. When installing each hose, be sure to make a connection between the points having the corresponding toner supply installation label [5].



6. Disconnect 2 connectors [1].
7. Release 2 hose clamps [2] and remove 2 hoses [4] from the pump unit /Lt [3].

Note

- Keep each of the released hose clamps [2] near the connecting opening of each hose [4].
- When the hose [4] is removed from the pump unit /Lt [3], the toner may spill out of each hose. Be careful that the inside of the main body does not get stained with the toner.
- The hose connecting section of the pump unit /Lt [3] and the hose [4] are provided with the toner supply installation label [5] that indicates the respective points to which a connection is made. When installing each hose, be sure to make a connection between the points having the corresponding toner supply installation label [5].



8. Remove the screws [1], 2 each, and remove the pump unit /Lt [2] and the pump unit /Rt [3].

Note

- When reinstalling each pump unit, be sure to insert the toner supply spacer [4] between the attaching surfaces.

9. Reinstall the preceding parts following the removal steps in reverse.
10. After replacing the pump units /Lt and /Rt, conduct the following steps.

Counter reset of the parts counter No.17, 18

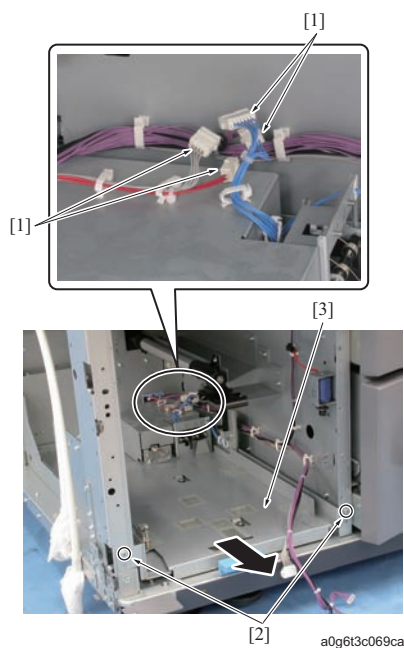
5.5.8 Replacing the waste toner box swing motor (M19)

(1) Periodically replaced parts/cycle

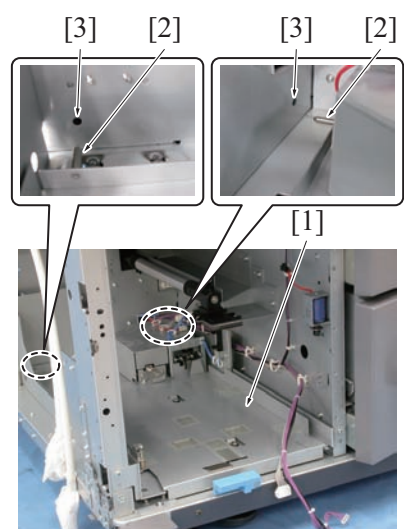
- Waste toner box swing motor (M19)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

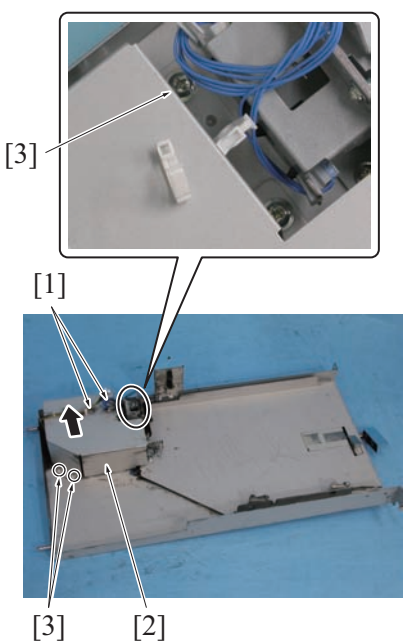
*2 951

(2) Procedure

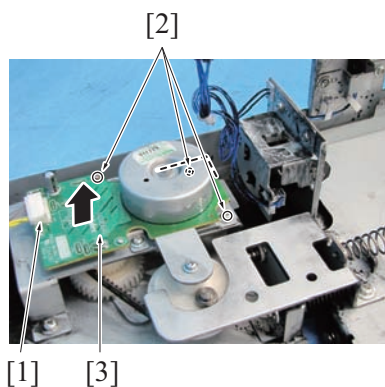
1. Remove the toner supply unit. (Refer to [F.5.5.5 Replacing the toner supply sleeves /1 and /2](#))
2. Pull out tray /2. (Refer to [F.5.7.5 Removing/reinstalling the tray](#))
3. Disconnect 4 connectors [1].
4. Remove 2 screws [2] and remove the swing tray unit [3].

**Note**

- When reinstalling the swing tray unit [1], be sure to insert 2 guide pins [2] on the rear side into the respective guide holes [3] of the main body frame.



5. Remove the wiring harness [1] from the protective cover /2 [2].
6. Remove 3 screws [3] and then remove the protective cover /2 [2].



7. Disconnect the connector [1].
8. Remove 3 screws [2] and remove the waste toner box swing motor (M19) [3].
9. Reinstall the preceding parts following the removal steps in reverse.

5.5.9 Replacing the air separation motor (M10)

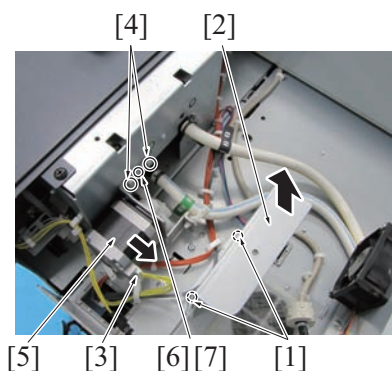
(1) Periodically replaced parts/cycle

- Air separation motor (M10)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

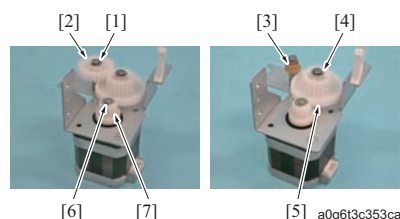
(2) Procedure



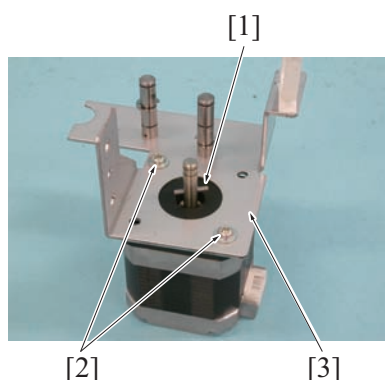
1. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
2. Remove 2 screws [1] and remove the exterior reinforcing plate [2].
3. Disconnect the connector [3].
4. Remove 2 screws [4] and remove the air separation motor assy [5].

Note

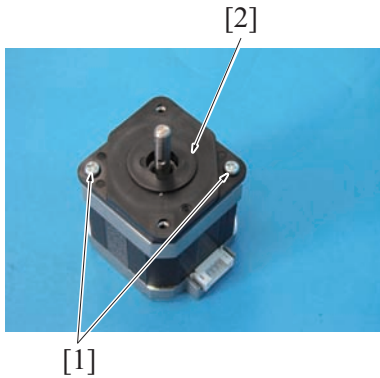
- When reinstalling the air separation motor assy, be sure to set the projection [7] of the main body to the positioning hole [6].



5. Remove the E-ring [1] and remove the gear [2] and the bearing [3].
6. Remove the E-ring [4] and remove the gear [5].
7. Remove the E-ring [6] and remove the gear [7].



8. Remove the pin [1].
9. Remove 2 screws [2] and then remove the motor mounting plate [3].



10. Remove 2 screws [1], and then remove the dumper [2].
11. Reinstall the preceding parts following the removal steps in reverse.

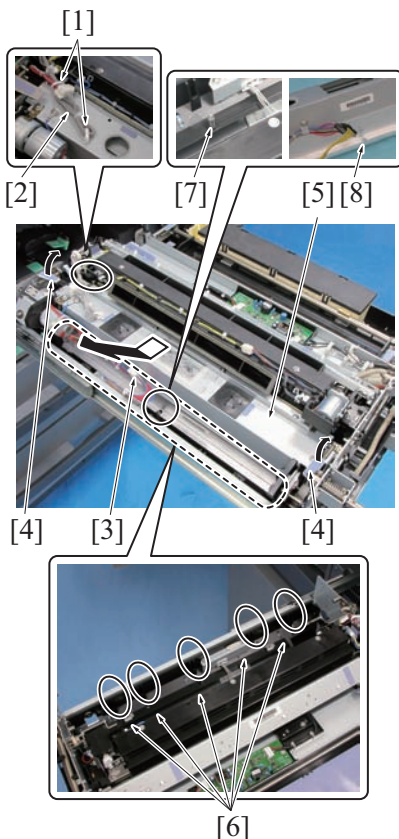
5.6 Cleaning section

5.6.1 Removing/reinstalling the cleaning section

Note

- Be sure to avoid touching the edge of the cleaning blade with bare hands.
- Before reinstalling the cleaning section, be sure to clean the cleaning section with a blower brush and a cleaning pad.
- When reinstalling the cleaning section, be sure to apply setting powder to the entire periphery of the drum and the cleaning blade regardless of these parts being new or used ones.
- When the drum is applied with setting powder, be sure conduct the following operations before installing the photo conductor section to the main body:
 1. To detect an accurate image density, clean setting powder splashed onto the IDC sensor on the toner control board (TCB) with a cotton swab soaked in alcohol. Do not use any materials other than a cotton swab soaked in alcohol to clean the IDC sensor. When cleaning the IDC sensor in other ways, the IDC sensor performance is not warranty. Be sure to replace TCB.
 2. With the charger unit, LPH unit and the developing unit removed, rotate the drum 1 full turn (to prevent splashing of setting powder to the charger and prevent the image from getting blurred).

(1) Procedure



1. Rotate the drum one full turn by hand.

Note

- Be sure to rotate the drum 1 full turn to prevent the toner on the guide brush inside the cleaning section from falling down.
2. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
 3. Remove the wiring harness [2] from the clamps [1].
 4. Disconnect the connector [3].
 5. Release 2 levers [4] that holding the cleaning section and remove the cleaning section [5].
- #### Note
- When removing the cleaning section, be sure to move it along the ribs [6] of the photo conductor section with the opposite side of the drum contacting section slanted to about 15°.
 - When reinstalling it, be sure to set the reference pin [7] of the photo conductor section to the notch [8] of the cleaning section.
 - When installing the cleaning section, be sure to check that the sheet of the drum scraper Assy touches the drum surface evenly.
 - If the sheet of the drum scraper assy does not touch the drum surface evenly, replace the drum scraper assy.
6. Reinstall the above parts following the removal steps in reverse.

5.6.2 Replacing the drum scraper assy/ scatter preventive filter assy

Note

- Be careful not to bend the edge of the drum scraper assy.

(1) Periodically replaced parts/cycle

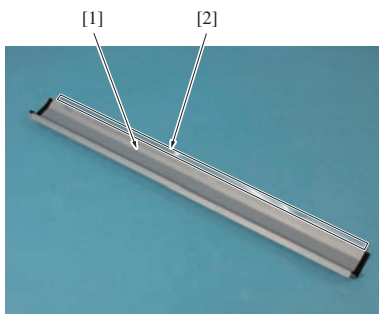
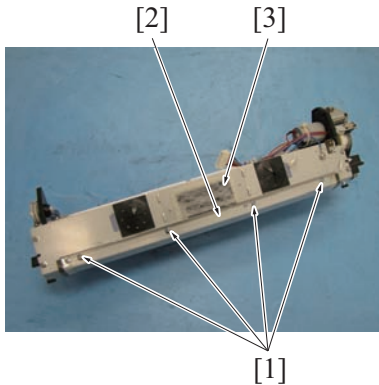
- Drum scraper assy
 - : Every 1,000,000 prints *1

- : Every 750,000 prints *2
- Scatter preventive filter assy
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure



a0g6i3c391ca

1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the cleaning section. (Refer to [F.5.6.1 Removing/reinstalling the cleaning section](#))
3. Remove 4 screws [1] and remove the drum scraper assy [2].
4. Remove the scatter preventive filter assy [3].

5. Reinstall the preceding parts following the removal steps in reverse.

Note

- When installing the drum scraper assy [1], be sure not to touch the edge [2].
- When installing the scatter preventive filter assy, be sure to install it so that the filter side faces outside against the cleaning section.

6. After you replace the drum scraper assy and the scatter preventive filter assy, conduct the following steps.

For the drum scraper assy: Counter reset of the parts counter No. 34

For the scatter preventive filter assy: Counter reset of the parts counter No.35

5.6.3 Replacing the cleaning blade

Note

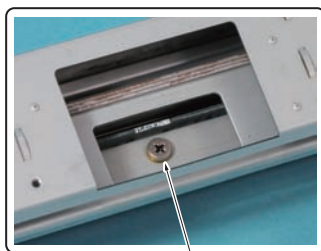
- When replacing the cleaning blades, be sure to replace 2 blades at the same time.
- Be sure to avoid touching the edge of the cleaning blade with bare hands.
- When replacing the cleaning blades, be sure to conduct "Blade Set Mode".

(1) Periodically replaced parts/cycle

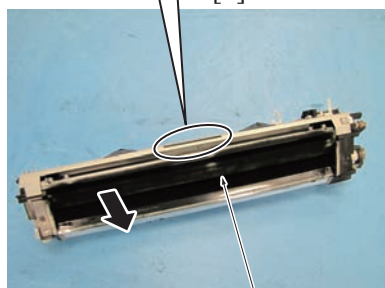
- Cleaning blade
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

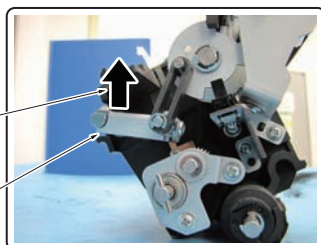
*2 951

(2) Procedure

[1]



[2]



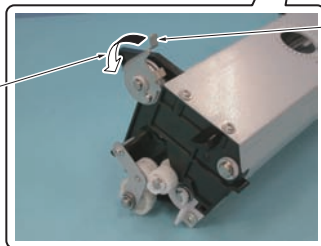
[2]

[1]



[4]

[3]

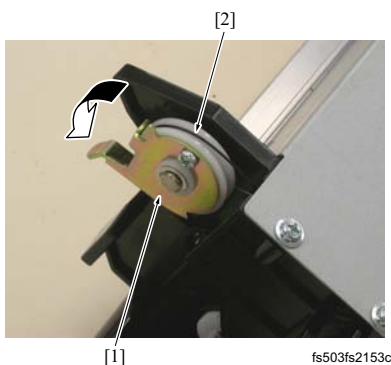
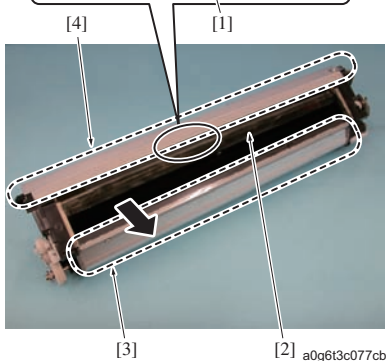
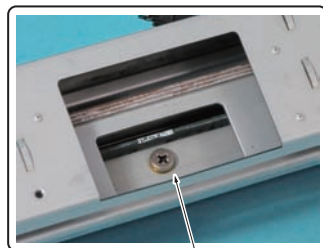
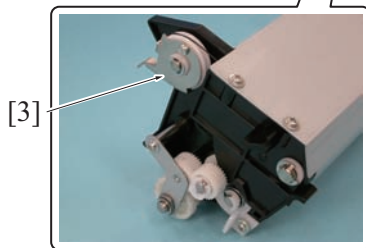
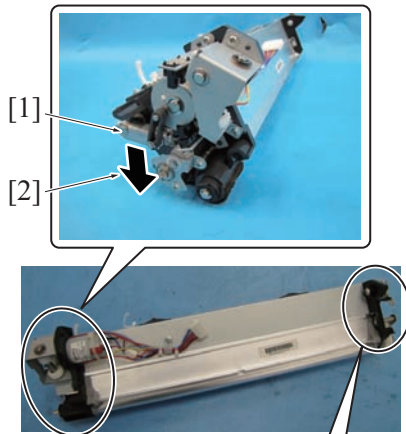


1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the cleaning section. (Refer to [F.5.6.1 Removing/reinstalling the cleaning section](#))
3. Remove the drum scraper assy and the scatter preventive filter assy. (Refer to [F.5.6.2 Replacing the drum scraper assy/ scatter preventive filter assy](#))
4. Remove the screw [1] and remove the cleaning blade /2 [2].
5. Install a new cleaning blade /2.

6. With the blade release arm [1] raised in the arrow-marked direction [2], rotate the blade replacement lever [3] in the arrow-marked direction [4] to turn the cleaning blade /2.

Note

- Be sure to keep the blade release arm raised up, do not let go of it.



7. Bring down the blade release arm [1] in the arrow-marked direction [2].

Note

- Be sure to keep hold of the blade replacement lever [3] being rotated, do not let go of it.

8. Release the hand that is holding the blade replacement lever.

9. Remove the screw [1] and then remove the cleaning blade /1 [2].
10. Install a new cleaning blade /1.
11. Remove toner adhered to the lower [3] and upper [4] blade sides of the cleaning section with a cleaning pad.
12. Conduct the following items in order.
 - Setting powder application
 - Blade auto replacement spring charge

13. Reinstall the parts after that following the removal steps in reverse.

Note

- After replacing the cleaning blades /1 and /2, be sure to check to see if the blade replacement lever [1] has been pulled.
- After replacing the cleaning blades /1 and /2, be sure to conduct the blade set mode in the service mode to prevent the blade from curling up. (Refer to [1.5.4.9 Blade Setting Mode \(Drum Peculiarity Adjustment\)](#))
- Be sure to avoid using the blade set mode other than when replacing the cleaning blade. Otherwise, the cleaning blade count of the fixed parts count is reset so that the blade is not replaced automatically at the correct timing.

5.6.4 Cleaning/replacing the toner seal board**Note**

- Be sure to avoid touching the edge of the cleaning blade with bare hands.

(1) Periodic cleaning cycle

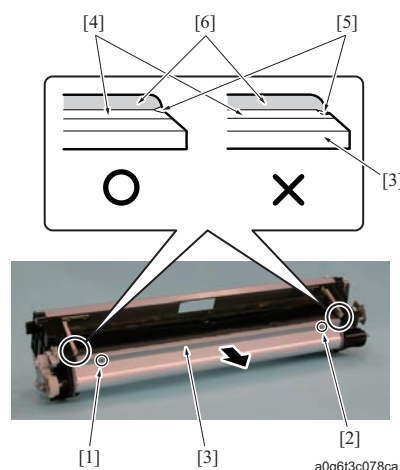
- Toner seal board
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

(2) Periodically replaced parts/cycle

- Toner seal board
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2

*1 1250/1250P/1052

*2 951

(3) Procedure

1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the cleaning section. (Refer to [F.5.6.1 Removing/reinstalling the cleaning section](#))
3. Remove the screws [1] and [2], and then remove the toner seal board [3].
4. Clean the sheet section [4] of the toner seal board with a blower brush and a cleaning pad.

Note

- When reinstalling the toner seal board, be sure to first of all install the screw [1].
- When both sides [5] of the sheet section of the toner seal board get inside of the toner guide brush [6], an overflow toner may occur. On such an occasion, correct the warp so that the warp of the sheet section becomes parallel to the toner guide brush or it turns a little to this side (less than 1mm).

5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the toner seal board, conduct the following items.
Counter reset of the parts counter No.41

5.6.5 Replacing the toner guide brush assy/scattering prevention felt/seal plates /Fr and /Rr**Note**

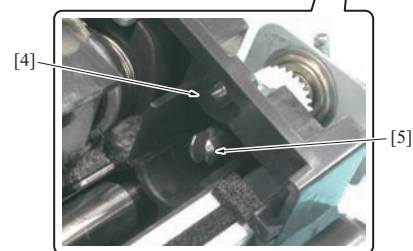
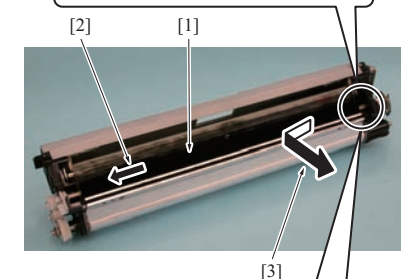
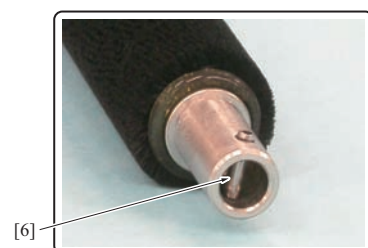
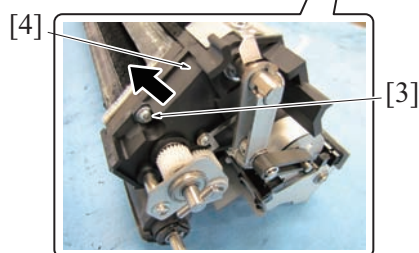
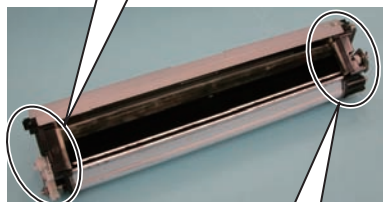
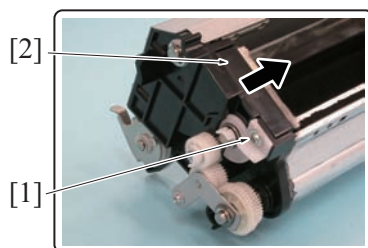
- Be sure to avoid touching the edge of the cleaning blade with bare hands.
- When reinstalling the toner guide brush assy, apply setting powder uniformly with the toner guide brush assy removed.
- Be sure to avoid touching the brush section of the toner guide brush with bare hands. Also, be careful that the brush section does not come in direct contact with other objects.

(1) Periodically replaced parts/cycle

- Toner guide brush assembly
 - : Every 2,000,000 prints *1
 - : Every 1,500,000 prints *2
- Scattering prevention felt
 - : Every 2,000,000 prints *1
 - : Every 1,500,000 prints *2
- Seal plate /Fr
 - : Every 2,000,000 prints *1
 - : Every 1,500,000 prints *2
- Seal plate /Rr
 - : Every 2,000,000 prints *1
 - : Every 1,500,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

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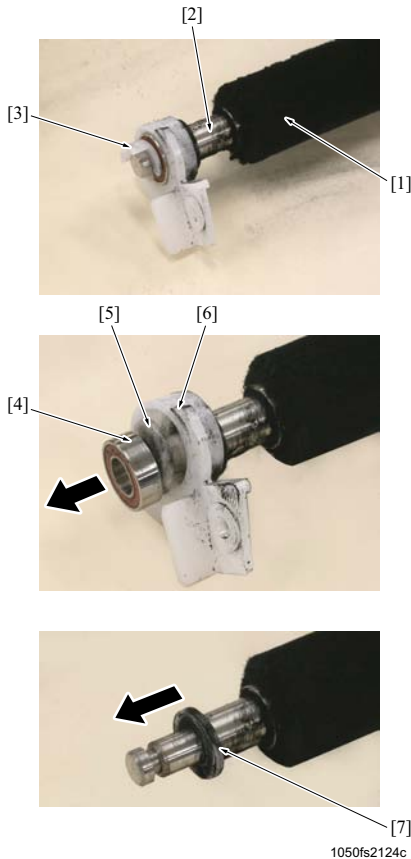
1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the cleaning section. [F.5.6.1 Removing/reinstalling the cleaning section](#)
3. Remove the drum scraper assy and the scatter preventive filter assy. (Refer to [F.5.6.2 Replacing the drum scraper assy/ scatter preventive filter assy](#))
4. Remove the cleaning blade. (Refer to [F.5.6.3 Replacing the cleaning blade](#))
5. Remove the toner seal board. (Refer to [F.5.6.4 Cleaning/replacing the toner seal board](#))
6. Remove the screw [1] and then remove the seal plate /Fr [2].
7. Remove the screw [3] and then remove the seal plate /Rr [4].

8. Move the toner guide brush assy [1] in the order of the arrow-marks [2] and then [3] and remove it.

Note

- When reinstalling the toner guide brush assy, be sure to set the pin [6] of the toner guide brush assy to the coupling slit [5] of the cleaning section [4].

9. After removing the toner guide brush assy, clean up the installation section of the seal plates /Fr and /Rr with a vacuum cleaner.



10. Remove the C-clip [3], the bearing [4], the scattering prevention felt [5], the bearing fixing member [6] and the toner prevention collar [7] in this order from the shaft [2] of the toner guide brush assy [1].

Note

- Be careful that the toner prevention collar does not get lost.

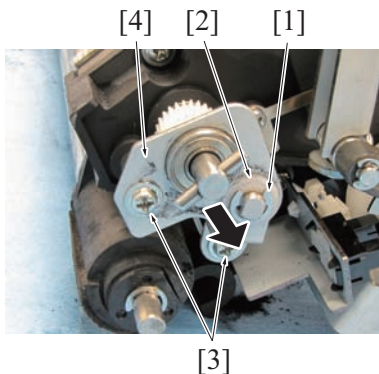
11. Reinstall the preceding parts following the removal steps in reverse.
12. After replacing the toner guide brush assy, the scattering prevention felt and the seal plate /Fr and /Rr, conduct the following steps.
- Setting powder application
- For the toner guide brush assy: Counter reset of the parts counter No.36 or No.37
- For the seal plate /Fr: Counter reset of the parts counter No.39
- For the seal plate /Rr: Counter reset of the parts counter No.38

5.6.6 Replacing the guide plate assy**(1) Periodically replaced parts/cycle**

- Cleaning gear /2 assy
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Cleaning gear /3
 - : Every 32,000,000 prints *1
 - : Every 24,000,000 prints *2
- Guide plate assy
 - : Every 2,000,000 prints *1
 - : Every 1,500,000 prints *2
- Guide shaft
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2

*1 1250/1250P/1052

*2 951

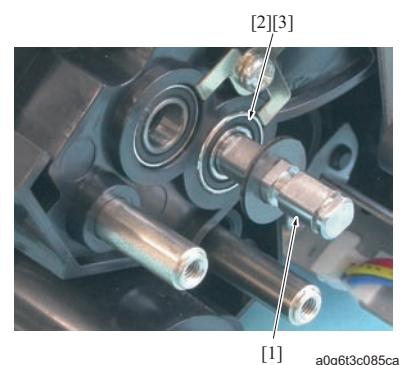
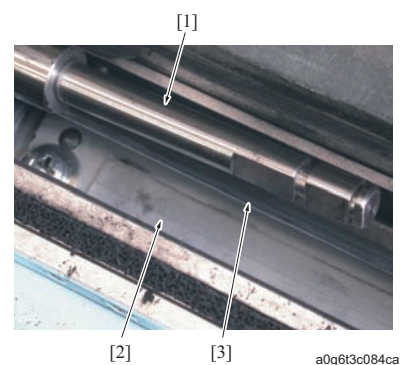
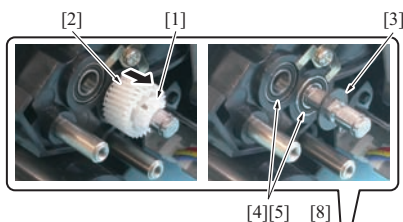
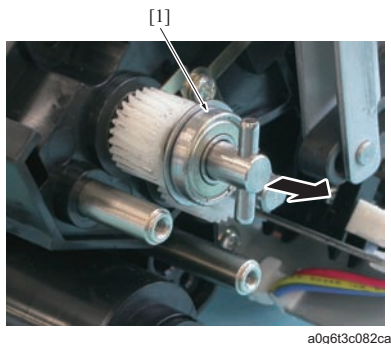
(2) Procedure

1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the cleaning section. (Refer to [F.5.6.1 Removing/reinstalling the cleaning section](#))
3. Remove the drum scraper assy and the scatter preventive filter assy. (Refer to [F.5.6.2 Replacing the drum scraper assy/ scatter preventive filter assy](#))
4. Remove the cleaning blade. (Refer to [F.5.6.3 Replacing the cleaning blade](#))
5. Remove the toner seal board. (Refer to [F.5.6.4 Cleaning/replacing the toner seal board](#))
6. Remove the seal plate and the toner guide brush assy. (Refer to [F.5.6.5 Replacing the toner guide brush assy/scattering prevention felt/seal plates /Fr and /Rr](#))
7. Remove the E-ring [1] and remove the cleaning mounting lever collar [2].
8. Remove 2 screws [3] and remove the drive reinforcing plate [4].

Note

- When reinstalling the drive reinforcing plate, be sure to tighten the screws [3] in the order after fastening each of the cleaning mounting lever collar with the E-ring.

9. Remove the cleaning gear /2 assy [1].



10. Remove the retaining rings [1], 1 each, and remove 2 cleaning gears /3 [2].

11. Remove the spacer [3].

Note

- When the cleaning gear /2 assy and the cleaning gear /3 [2] are removed, there is a possibility that the bearing [4] and the splash prevention felt [5] come off. If the felt become detached, make sure to replace it with a new one.

12. Remove the E-ring [6] and remove the cleaner bearing [7].

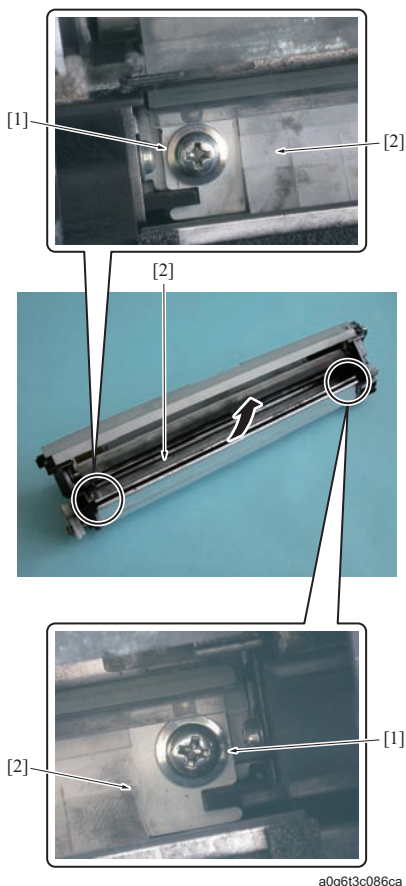
13. Pull out the guide shaft [8].

Note

- When reinstalling the guide shaft [1], be sure to insert it with the edge [3] of the guide plate assy [2] lowered by the scale.

Note

- When reinstalling the guide shaft [1], be sure to insert it while holding it down from the outside so that the bearing [2] does not come off.
- If the bearing and the splash prevention felt [3] come off while inserting the guide shaft, be sure to replace the splash prevention felt with a new one.



14. Remove 2 screws [1] and then remove the guide plate assy [2].

Note

- **When reinstalling the toner guide plate assembly, be sure to hit it against the lower side before fixing it.**

15. Clean up the exterior of the cleaning unit with a cleaning pad and a blower brush.

16. Reinstall the preceding parts following the removal steps in reverse.

17. After replacing the cleaning gear /2 assy and /B, the guide plate assy and the guide shaft, conduct the following steps.

- Setting powder application

For the cleaning gear /2 assy: Counter reset of the parts counter No.43

For the cleaning gear /3: Counter reset of the parts counter No.44

For the guide plate assy: Counter reset of the parts counter No.40

For the guide shaft: Counter reset of the parts counter No.42

5.6.7 Replacing the discharge wire / PCC unit

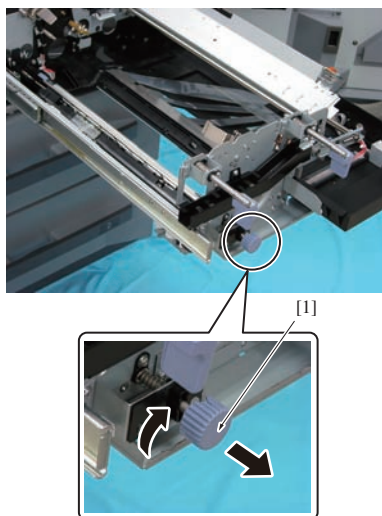
(1) Periodically replaced parts/cycle

- PCC unit
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Discharge wire
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

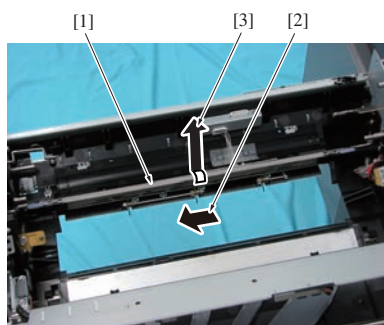
*1 1250/1250P/1052

*2 951

(2) Procedure



1. Remove the drum. (Refer to [F.5.3.8 Replacing the drum/cleaning of the photo conductor section](#))
2. Pull the PCC fixing knob [1] and rotate it 90 degrees.

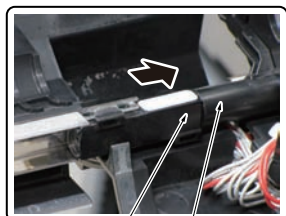


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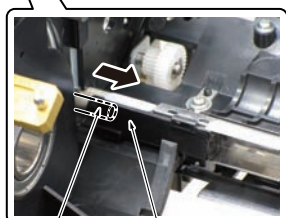
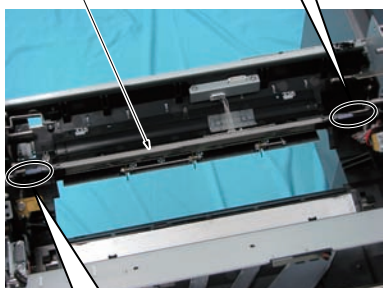
3. Move the PCC unit [1] in the arrow-marked direction [2]. Lift the PCC unit [1] in the arrow-marked direction [3] to remove it.

Note

- When removing the PCC unit, be sure to remove the front side first and then remove the rear side. Removing the PCC in reverse order may damage the spring of the power feed section and cause C-2705.



[1] [2] [3]



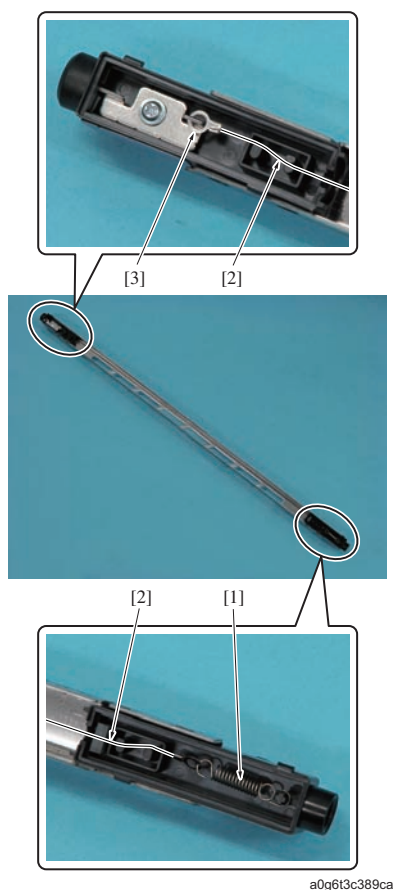
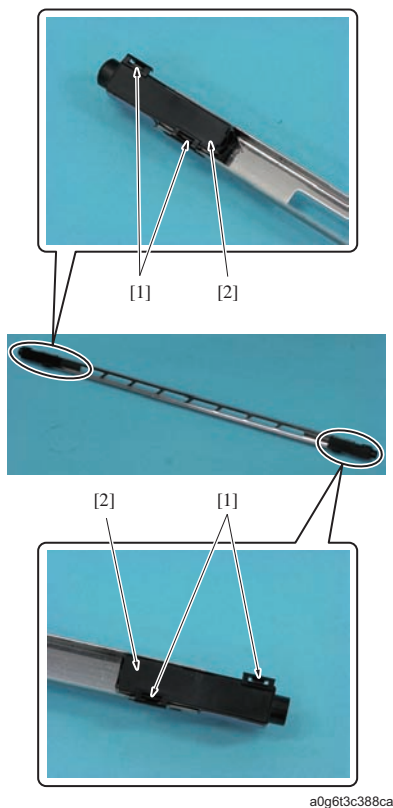
[4] [5]

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Note

- When reinstalling the PCC unit [1], be sure to reinstall the rear side first and then reinstall the front side.
- When reinstalling the PCC unit [1], be sure to check that the rear side [2] of the PCC unit is contacted with the power feed section [3] of the drum stand and the locking shaft [4] is inserted in the front side [5] of the PCC unit.

4. Remove 4 claws [1] and remove 2 covers [2].



5. Remove the spring [1] and remove the discharge wire [2] from the hook [3].
6. Reinstall the preceding parts following the removal steps in reverse.

Note

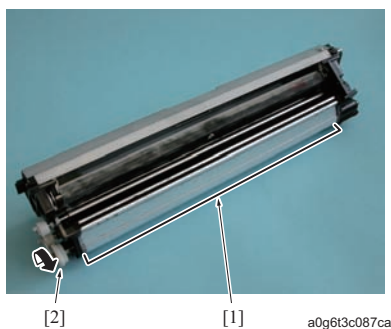
- When reinstalling the discharge wire [2], be sure to install the discharge wire [2] to the hook [3] first and then install the spring [1].
- The path of the discharge wire [2] should be the same as the illustration.

7. After replacing the discharge wire / PCC unit, conduct the following steps.
For the discharge wire: Counter reset of the parts counter No.30
For the PCC unit: Counter reset of the parts counter No.31

5.6.8 Cleaning when removing the cleaning unit (when conducting maintenance work)

Note

- When removing the cleaning unit, be sure to clean thoroughly both the inside and the inner wall of the cleaning unit with as little toner left as possible. When cleaning is insufficient, toner spills over the conveyance section.

(1) Procedure

1. Pull out the photo conductor section from the main body. (Refer to [F.5.3.1 Removing/reinstalling the photo conductor section](#))
2. Remove the cleaning section. (Refer to [F.5.6.1 Removing/reinstalling the cleaning section](#))
3. Remove the drum scraper assy and the scatter preventive filter assy. (Refer to [F.5.6.2 Replacing the drum scraper assy/ scatter preventive filter assy](#))
4. Remove the cleaning blade. (Refer to [F.5.6.3 Replacing the cleaning blade](#))
5. Remove the toner seal board. (Refer to [F.5.6.4 Cleaning/replacing the toner seal board](#))
6. Remove the toner guide brush assy and the seal plates /Fr and / Rr. (Refer to [F.5.6.5 Replacing the toner guide brush assy/ scattering prevention felt/seal plates /Fr and /Rr](#))
7. Tap the casing [1] section softly to let the toner adhering to the inner wall drop off.
8. Rotate the gear [2] in the arrow-marked direction to discharge toner to the outside.
9. Repeat the steps 5 and 6 until there is no toner discharged. Then clean the inside with a vacuum cleaner at the last.
10. Clean the cleaning unit mounting place (photo conductor section) with a vacuum cleaner.

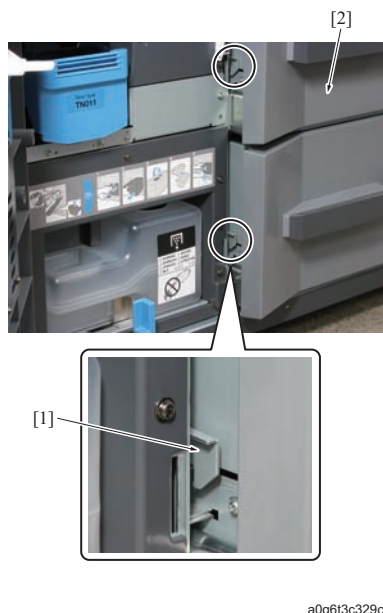
Note

- When cleaning it with a vacuum cleaner, be careful that the vacuum cleaner does not come into contact with drum.

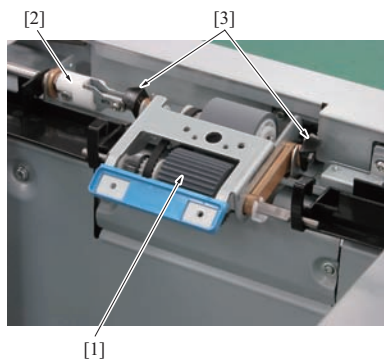
11. Reinstall the above parts following the removal steps in reverse.

5.7 Paper feed section**5.7.1 Removing/reinstalling the pick-up roller assembly/separation roller assembly****Note**

- The method for replacing the pick-up roller assy/separation roller assy is common for tray1 and tray2. The explanation here is given for tray /1.
- After completion of the installation, rotate the pick-up roller in the direction of the paper feed (counterclockwise as seen from the front) to check to see if the paper feed roller, the belt and the coupling section rotate smoothly. The rotation of the pick-up roller is restricted only to the direction of the paper feed (counterclockwise as seen from the front) and be sure not to turn it clockwise.
- Be sure to take note that the direction of the pick-up roller is different for the main body and the PF.

(1) Procedure

1. When the power switch is off, open the toner supply door.
2. Raise up the tray lock lever [1] slightly and pull out the tray [2].



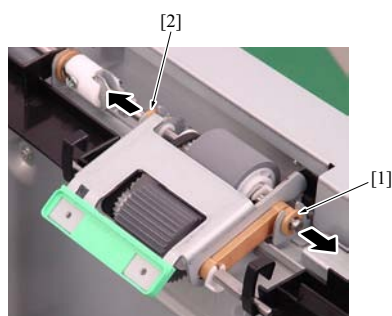
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3. Turn the pick-up roller [1] in the direction of the arrow (counterclockwise as seen from the front side) to make the coupling [2] upright.

Note

- The rotation of the pick-up roller [1] is restricted only to the arrow-marked direction (counterclockwise). It does not rotate in the reverse direction (clockwise). So, be sure not to turn it in this direction forcibly.

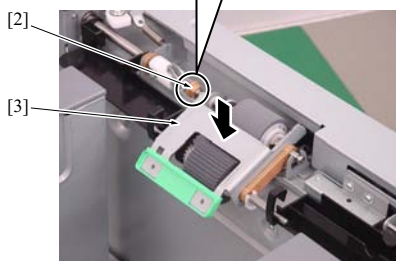
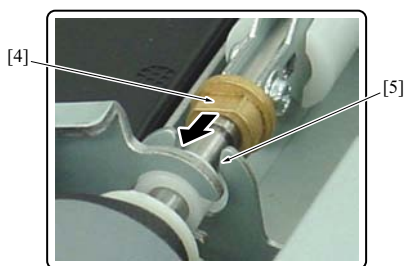
4. Remove 2 C-clips [3].



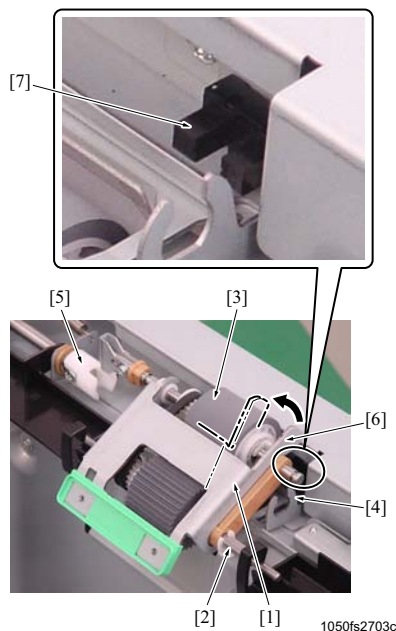
5. Remove the bearing /Fr [1].
6. Slide the bearing /Rr [2] to the rear side.

Note

- When installing the bearing /Fr [1], /Rr [2], insert it in the notch [5] of the metal frame while pressing down a little the metal frame [3] of the pick-up roller assembly to make level the flat portion [4] of the bearing /Rr [2]. Then insert the bearing /Fr [1] in the same manner as with the bearing /Rr.



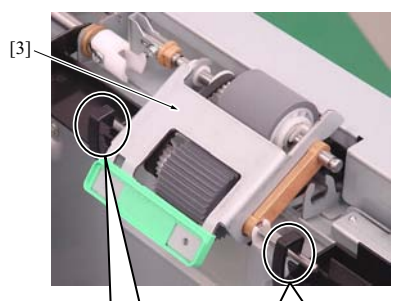
1050fs2702c



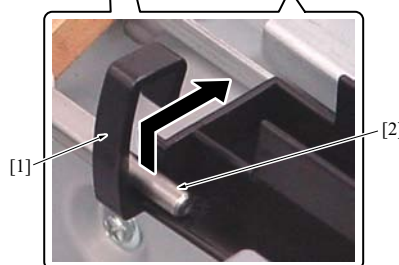
7. Hold the pick-up roller assembly [1] by hand and lift the paper feed roller [3] up to tilt while rotating it around the shaft [2] of the pick-up roller, and then remove it from the notch [4] of the bearing and the coupling [5].

Note

- When removing the pick-up roller [1], be careful not to damage the sensor [7] with the metal frame [6].

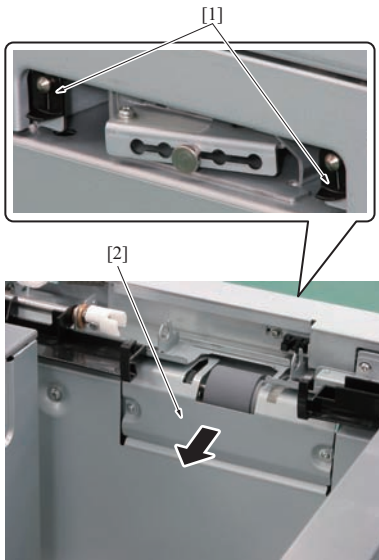


8. Remove the pick-up roller shaft [2] from the arm [1] of the paper feed guide plate and then remove the pick-up roller assembly [3].



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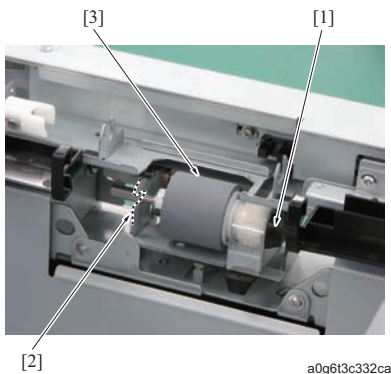
9. Remove 2 C-clips [1] and remove the entrance guide plate [2].



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10. Remove the C-clip [1].

11. Remove the separation roller [3] together with the shaft from the notch [2].



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12. Remove 2 screws [1].

Note

- When reinstalling it, fasten it with the screws while pressing down the separation roller assembly [2].

13. After pulling out the front side of the separation roller assembly [2], remove the coupling [3] in the rear from the joint [4].

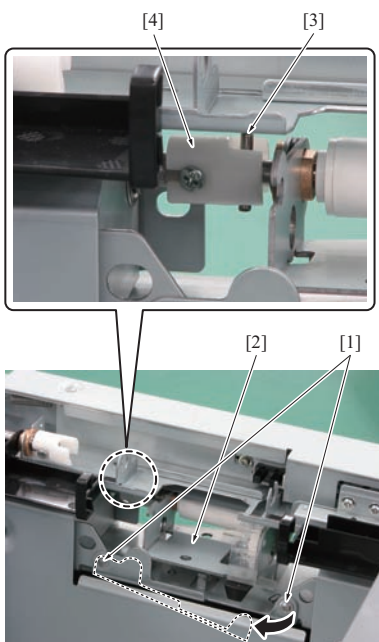
Note

- When reinstalling it, be sure to engage the coupling pin [3] with the joint [4] before installation.

14. Reinstall the preceding parts following the removal steps in reverse.

Note

- After completion of the installation, hold the pick-up roller slightly and rotate it in the direction of the paper feed (counterclockwise as seen from the front) to check to see if the paper feed roller, the belt and the coupling section rotate smoothly. The rotation of the pick-up roller is restricted only to the direction of the paper feed (counterclockwise as seen from the front) and be sure not to turn it clockwise.



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5.7.2 Replacing the pick-up roller/paper feed roller

Note

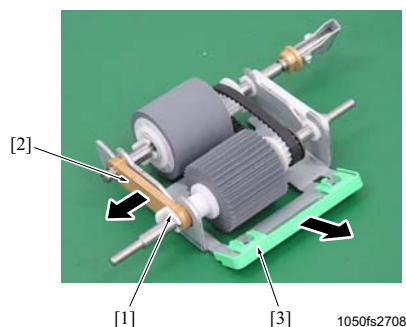
- The outward appearance of the collar is identical for the paper feed roller and the separation roller. However, the collar of the paper feed roller has a one-way mechanism on the inside while the collar of the separation roller does not. Be careful not to confuse one with the other.

(1) Periodically replaced parts/cycle

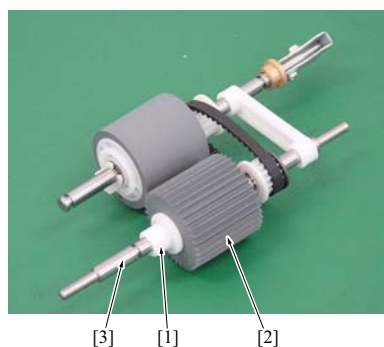
- Pick-up roller
 - : Every 3,000,000 prints (Actual replacement cycle: Every 500,000 feeds) *1
 - : Every 1,500,000 prints (Actual replacement cycle: Every 500,000 feeds) *2
- Paper feed roller
 - : Every 3,000,000 prints (Actual replacement cycle: Every 500,000 feeds) *1
 - : Every 1,500,000 prints (Actual replacement cycle: Every 500,000 feeds) *2

*1 1250/1250P/1052

*2 951

(2) Procedure

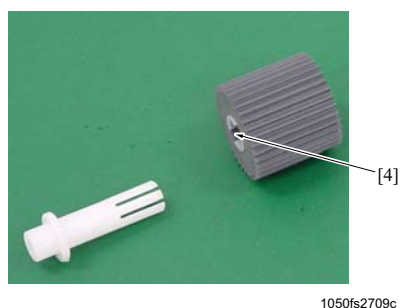
1. Remove the pick-up roller assembly.
2. Remove the C-clip [1], remove the coupling bearing [2] and then remove the mounting bracket [3].

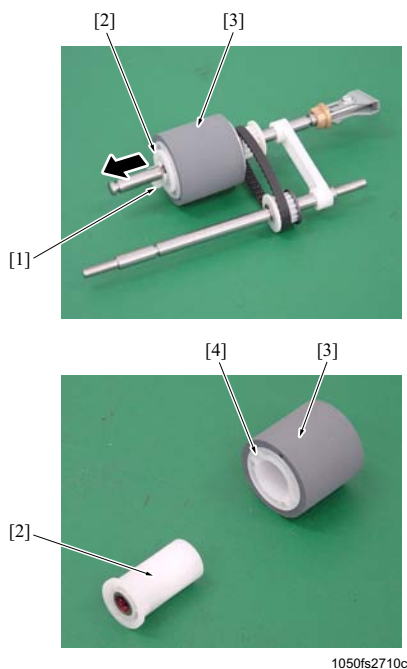


3. Pull out the shaft [3] from the collar [1] and remove the pick-up roller [2] from the collar [1].

Note

- When reinstalling it, take note of the direction of the pick-up roller. Be sure to insert the collar [1] from the side provided with the groove [4].





4. Remove the C-clip [1] and pull out the collar [2] and the paper feed roller [3].

Note

- When reinstalling it, take note of the direction of the paper feed roller. Be sure to insert the collar [2] from the side provided with the groove [4].

5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the pick-up roller and paper feed roller, conduct the following steps.

In case of 1250/1250P/1052

For the pick up roller of the tray1: Counter reset of the parts counter No.86

For the pick up roller of the tray2: Counter reset of the parts counter No.90

For the paper feed roller of the tray1: Counter reset of the parts counter No.87

For the paper feed roller of the tray2: Counter reset of the parts counter No.91

For 951

For the pick up roller of the tray1: Counter reset of the parts counter No.66

For the pick up roller of the tray2: Counter reset of the parts counter No.70

For the paper feed roller of the tray1: Counter reset of the parts counter No.67

For the paper feed roller of the tray2: Counter reset of the parts counter No.71

5.7.3 Replacing the separation roller

Note

- The outward appearance of the collar is identical for the separation roller and the paper feed roller. However, the collar of the paper feed roller has a one-way mechanism on the inside while the collar of the separation roller does not. Be careful not to confuse one with the other.

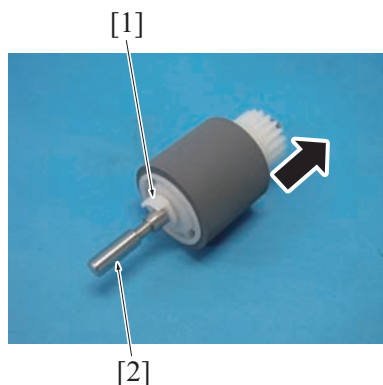
(1) Periodically replaced parts/cycle

- Separation roller
 - : Every 3,000,000 prints (Actual replacement cycle: Every 500,000 feeds)*₁
 - : Every 1,500,000 prints (Actual replacement cycle: Every 500,000 feeds)*₂

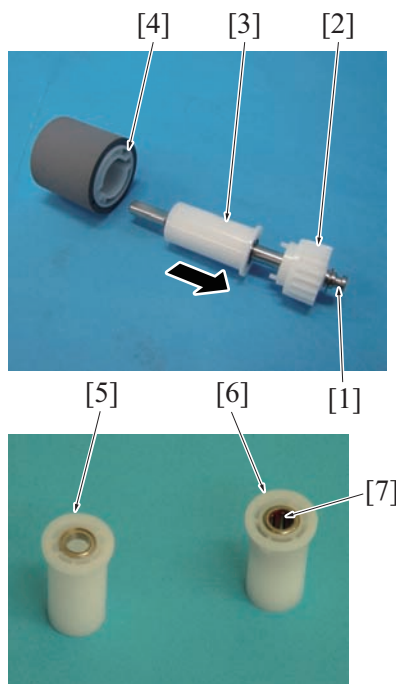
*₁ 1250/1250P/1052

*₂ 951

(2) Procedure



1. Remove the separation roller together with the shaft.
2. Remove the C-clip [1] and pull out the shaft [2] in the arrow-marked direction.



3. Remove the gear [2] and collar [3] when pulling out the shaft [1].

Note

- When reinstalling it, take note of the direction of the separation roller. Be sure to insert it into the shaft [1] from the side provided with the groove [4].
- The outward appearance is identical for the collar [5] of the separation roller and the collar [6] of the paper feed roller. However, the one-way mechanism [7] is provided on the inside of the collar [6] of the paper feed roller with no mechanism provided for the collar [5] of the separation roller. Be careful not to confuse one with the other.

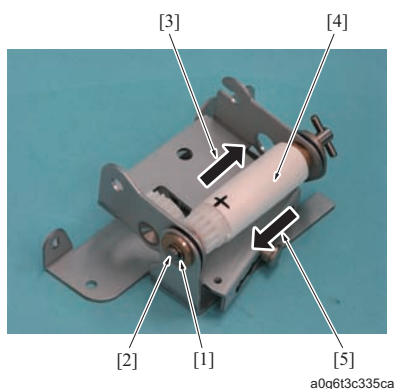
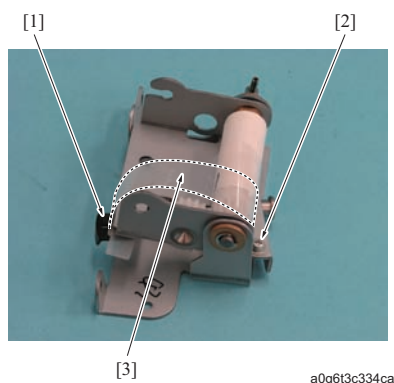
4. Reinstall the preceding parts following the removal steps in reverse.
5. After replacing the separation roller, conduct the following item.
In case of 1250/1250P/1052
 - For the separation roller of the tray1: Counter reset of the parts counter No.87
 - For the separation roller of the tray2: Counter reset of the parts counter No.91
 For 951
 - For the separation roller of the tray1: Counter reset of the parts counter No.67
 - For the separation roller of the tray2: Counter reset of the parts counter No.71

5.7.4 Replacing the torque limiter /A and the cover**(1) Periodically replaced parts/cycle**

- Torque limiter /A
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *1
 - : Every 18,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2
- Cover
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *1
 - : Every 18,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2

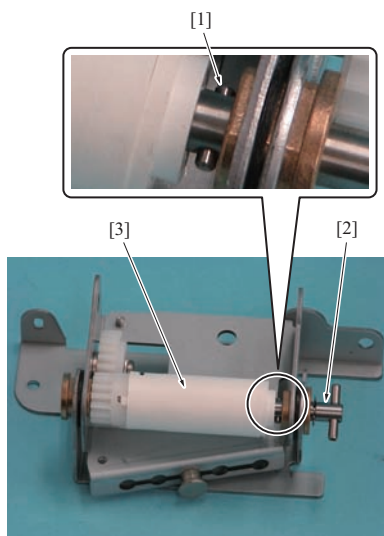
*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the pick-up roller assembly. (Refer to [F.5.7.1 Removing/reinstalling the pick-up roller assembly/separation roller assembly](#))
2. Remove the separation roller assy. (Refer to [F.5.7.1 Removing/reinstalling the pick-up roller assembly/separation roller assembly](#))
3. Remove the separation roller. (Refer to [F.5.7.3 Replacing the separation roller](#))
4. Remove the C-clips [1] and the screw [2], and then remove the cover [3].

5. Remove the E-ring [1] and move the shaft [2] in the arrow-marked direction [3].
6. Move the torque limiter /A [4] in the arrow-marked direction [5].



a0g6t3c336ca

7. Remove the pin [1], and pull out the shaft [2] to remove the torque limiter /A [3].
8. Reinstall the preceding parts following the removal steps in reverse.

5.7.5 Removing/reinstalling the tray

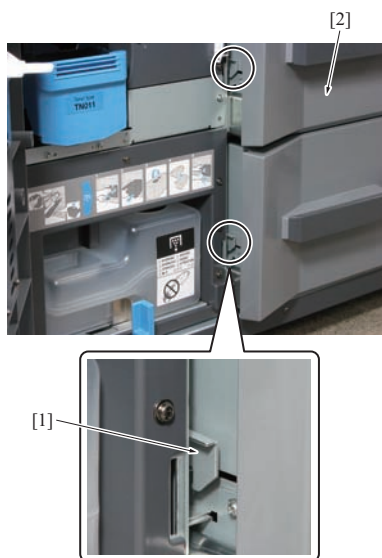
⚠ Note:

- Be sure to perform this operation with 2 people because the tray unit is heavy.

Note

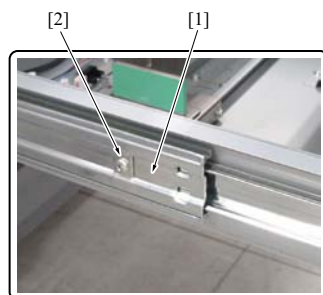
- The procedure for removing/reinstalling the trays /1 to /2 is identical. The explanation here is made of the tray /1.
- When raising up the tray, be sure to hold it at the specified positions. Holding it at positions other than those positions specified damage the tray, thus resulting in a paper feed jam.

(1) Procedure

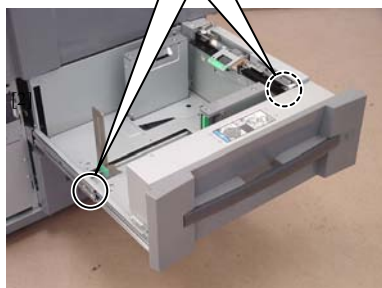


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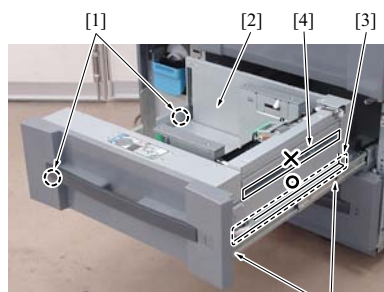
1. Open the toner supply door.
2. Raise up the tray lock lever [1] slightly and pull out the tray [2].
3. If any paper remaining, remove it.



4. Remove the stopper screws [2], 1 each, provided at either side of the rail [1] and pull the tray further out.



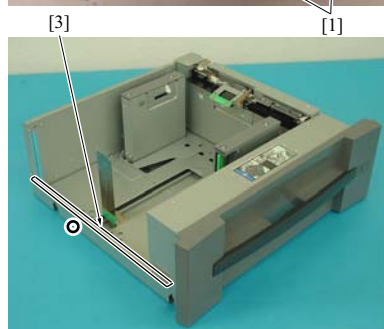
1050fs2716c



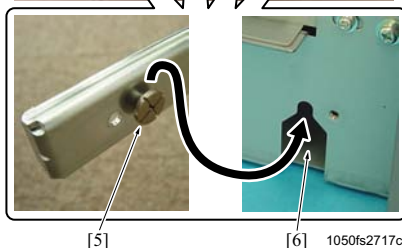
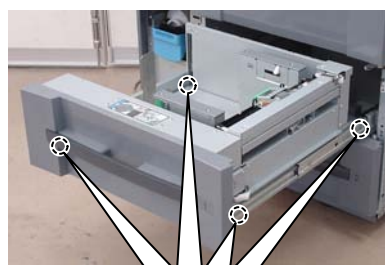
5. Remove the screws [1], 1 each, provided at either side of the rail, hold the tray [2] at the specified positions [3] and raise it up to remove it.

Note

- When raising up the tray, be sure to hold it at the specified positions [3] and raise it up with 2 persons.
- Be sure to avoid holding it at positions [4] that can be easily deformed. This may affect the paper tray, thus resulting in a jam.
- When reinstalling it, be sure to check to see if the knobs [5] provided at the 4 places on the rail are securely in the notches [6] of the tray.



6. Reinstall the above parts following the removal steps in reverse.



1050fs2717c

5.7.6 Replacing the paper feed clutch/separation clutch**(1) Periodically replaced parts/cycle**

- Paper feed clutch /1 (CL4), /2 (CL6)
: Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)*1

: Every 10,500,000 prints (Actual replacement cycle: Every 3,000,000 feeds)*2

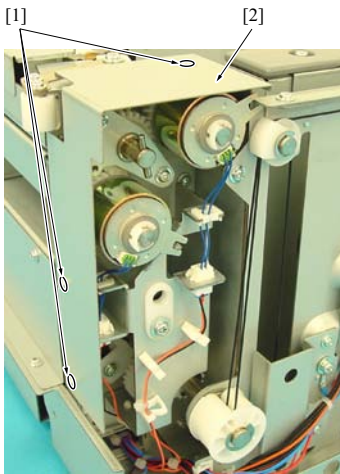
- Separation clutch /1 (CL5), /2 (CL7)

: Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)*1

* 1 1250/1250P/1052

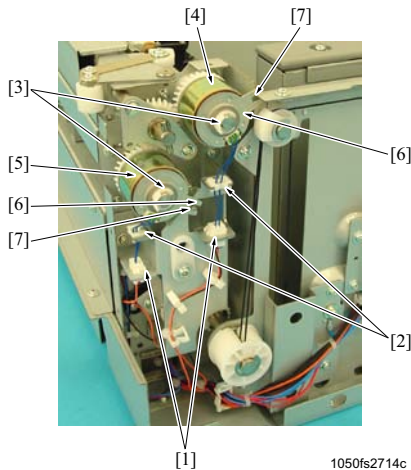
* 2 951

(2) Procedure



1050fs2713c

1. Remove the rail stopper screw of the tray and pull out the tray.
2. Remove 3 screws [1] and then remove the clutch cover [2].



1050fs2714c

3. Disconnect 2 connectors [1] and remove the 2 wire binding bands [2].
4. Remove 2 C-clips [3] and then remove the paper feed clutch [4] and the separation clutch [5].

Note

- When reinstalling it, be sure to engage the stopper [6] of the clutch with the stopper section [7].

5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the paper feed clutches /1 (CL4) and /2 (CL6) and the separation clutches /1 (CL5) and /2 (CL7), conduct the following steps.

In case of 1250/1250P/1052

- For the paper feed clutch /1: Counter reset of the parts counter No.88

- For the paper feed clutch /2: Counter reset of the parts counter No.92

- For the separation clutch /1: Counter reset of the parts counter No.89

- For the separation clutch /2: Counter reset of the parts counter No.93

For 951

- For the paper feed clutch /1: Counter reset of the parts counter No.68

- For the paper feed clutch /2: Counter reset of the parts counter No.72

- For the separation clutch /1: Counter reset of the parts counter No.69

- For the separation clutch /2: Counter reset of the parts counter No.73

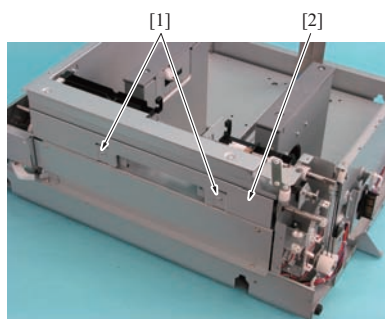
5.7.7 Replacement procedure of the parts at the separation section

(1) Periodically replaced parts/cycle

- Paper feed input shaft
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2
- Bearing /D
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2
- Reverse rotation shaft
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2
- Bearing /C
 - : Every 24,000,000 prints *1

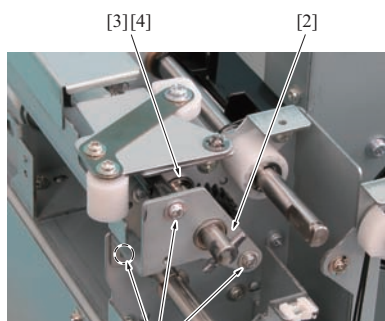
- : Every 18,000,000 prints *2
 - Input gear
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)*1
 - : Every 18,000,000 prints (Actual replacement cycle: Every 6,000,000 prints) *2
- * 1 1250/1250P/1052
* 2 951

(2) Procedure



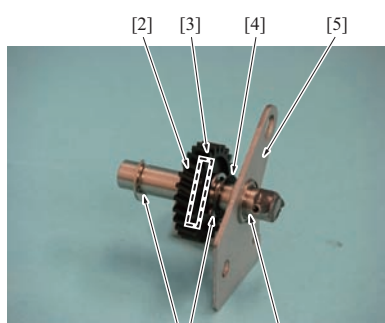
a0g6t3c305ca

1. Remove the pick-up roller assembly. (Refer to [F.5.7.1 Removing/reinstalling the pick-up roller assembly/separation roller assembly](#))
2. Remove the separation roller assy. (Refer to [F.5.7.1 Removing/reinstalling the pick-up roller assembly/separation roller assembly](#))
3. Remove the paper feed clutch and the separation clutch. (Refer to [F.5.7.6 Replacing the paper feed clutch/separation clutch](#))
4. Remove 2 screws [1] and remove the separation cover [2].



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5. Remove 3 screws [1], and then remove the paper feed input assy [2], the bearing /D [3], and the washer[4].

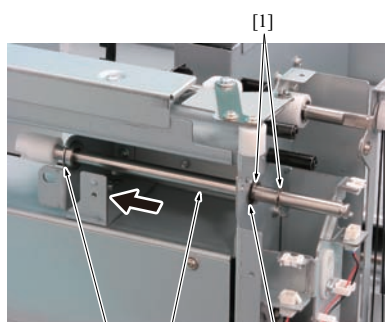


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6. Remove 2 E-rings [1], and remove the input gear [2], the pin [3], washer [4], the mounting plate [5], the washer [6], and the bearing /D [7].

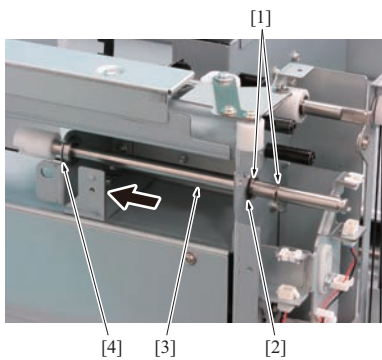
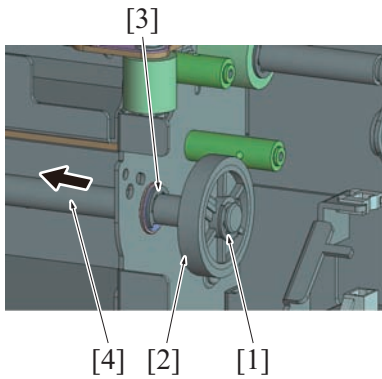
Note

- When removing the input gear [2], be careful not to drop the pin [3].



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7. Remove 2 E-rings [1], and remove the washer [2] and the bearing / D [3].
8. Move the reverse rotation shaft assy [4] in the arrow-marked direction to remove it from the notch [5].

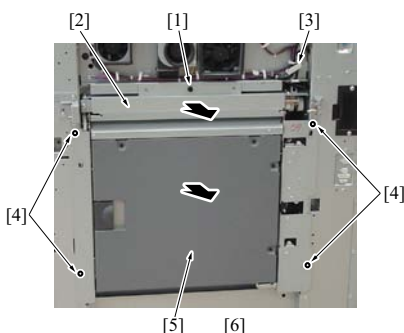


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Note

- For the 951, remove the E-ring [1] and the gear [2], and remove the E-ring [3] to slide the reverse rotation shaft assy [4] in the arrow-marked direction.

- Remove the washer [1] and the bearing /C [2].
- Remove the screw [3] and remove the coupling [4].
- Remove the E-ring [5] from the reverse rotation shaft [6].
- Reinstall the preceding parts following the removal steps in reverse.

5.8 Vertical conveyance section**5.8.1 Removing/reinstalling the vertical conveyance unit****(1) Procedure**

1050fs2732c

- Remove the right cover.
- Pull the knob [1] and remove the paper dust guide holder [2].

Note

- The roller get stained with paper dust that has gathered in the paper dust guide holder [2]. Be sure to remove it when removing the vertical conveyance unit.

- Disconnect the connector [3].
- Remove 4 screws [4] and then remove the vertical conveyance unit [5].

Note

- When placing the vertical conveyance unit, be sure to place it with the jam open/close door side down. Be sure not to put the roller side down since it damages the gear [6]. When placing it with the roller side down, be sure to remove 2 gears [6].

- Reinstall the above parts following the removal steps in reverse.

Note

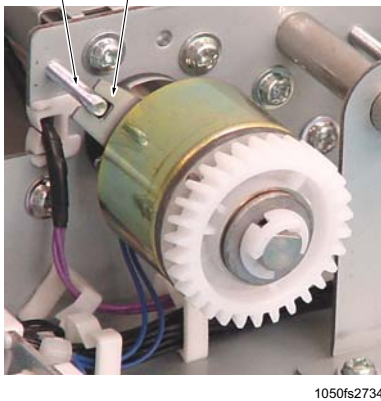
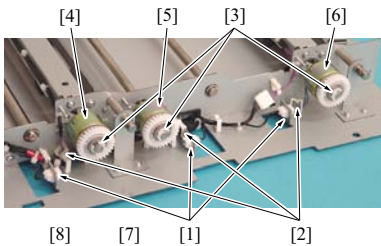
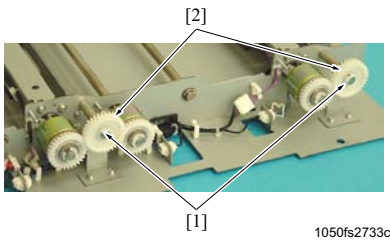
- Pulling out the main body tray with the vertical conveyance unit removed damages the guide roller that brings down forcibly the pick-up roller of the main body tray. Be sure not to pull out the main body tray with the vertical conveyance unit removed.
- When reinstalling it, be sure to move the vertical conveyance unit [5] to the rear side and tighten it up with the screws [4].

5.8.2 Replacing the pre-registration clutch/vertical conveyance clutch**(1) Periodically replaced parts/cycle**

- Pre-registration clutch /1 (CL1), /2 (CL3)
 - : Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds) *1
 - : Every 14,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds) *2
- Vertical conveyance clutch (CL2)
 - : Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds) *1
 - : Every 14,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds) *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the right cover.
2. Remove the vertical conveyance unit. (Refer to [F.5.8.1 Removing/reinstalling the vertical conveyance unit](#))
3. Remove 2 C-clips [1] and then remove 2 gears [2].

Note

- When reinstalling it, take note of the direction of the gears.

4. Disconnect 3 connectors [1] and remove 3 wire binding bands [2].
5. Remove 3 C-clips [3] and then remove the pre-registration clutch / 1 (CL1) [4], the vertical conveyance clutch (CL2) [5], and the pre-registration clutch / 2 (CL3) [6].

Note

- When reinstalling it, set the stopper [7] of the clutch to the screw [8].

6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the pre-registration clutches /1 (CL1) and /2 (CL3) and the vertical conveyance clutch (CL2), conduct the following steps.

In case of 1250/1250P/1052

For the pre-registration clutch /1: Counter reset of the parts counter No.98

For the pre-registration clutch /2: Counter reset of the parts counter No.100

For the vertical conveyance clutch: Counter reset of the parts counter No.99

For 951

For the pre-registration clutch /1: Counter reset of the parts counter No.78

For the pre-registration clutch /2: Counter reset of the parts counter No.80

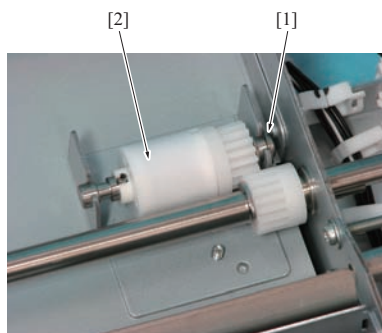
For the vertical conveyance clutch: Counter reset of the parts counter No.79

5.8.3 Replacing the pre-registration rollers /1 and /2, the pre-registration bearing, the conveyance rollers /2 and /3, and the torque limiter**(1) Periodically replaced parts/cycle**

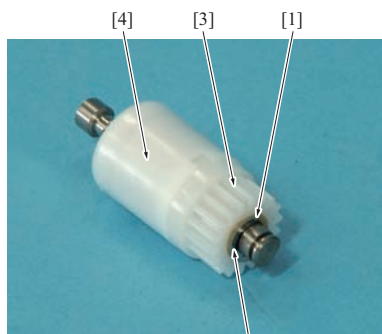
- Pre-registration roller /1 and /2
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *1
 - : Every 18,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2
- Pre-registration bearing
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *1
 - : Every 18,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2
- Conveyance roller /2
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *1
 - : Every 18,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2
- Conveyance roller /3
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *1
 - : Every 18,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2
- Torque limiter
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *1
 - : Every 18,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2

*1 1250/1250P/1052

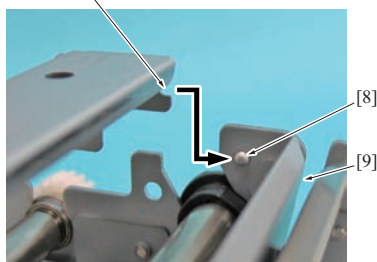
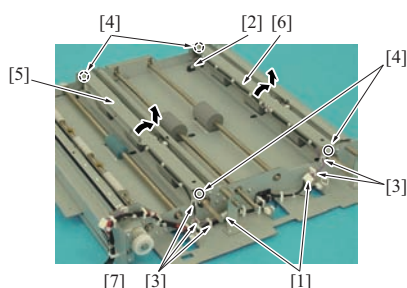
*2 951

(2) Procedure

a0g6t3c310ca



a0g6t3c311ca



a0g6t3c385ca

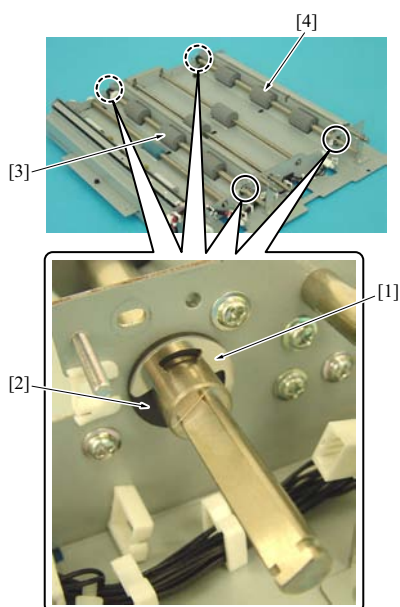
1. Remove the right cover.
2. Remove the vertical conveyance unit. (Refer to [F.5.8.1 Removing/reinstalling the vertical conveyance unit](#))
3. Remove the pre-registration clutches /1 (CL1) and /2 (CL3) and the vertical conveyance clutch (CL2). (Refer to [F.5.8.2 Replacing the pre-registration clutch/vertical conveyance clutch](#))
4. Remove the E-ring [1] and remove the torque limiter [2] together with the shaft.

5. Remove the E-ring [1], and then remove the collar [2], the gear [3] and the torque limiter [4].

6. Disconnect 2 connectors [1] and the connector [2], and remove the wire binding bands [3] at the 5 places.
7. Remove 4 screws [4] (one each at either side of each roller) and then remove the roller covers /1 [5] and /2 [6].

Note

- Be careful not to damage the sensor.
- When removing the roller covers /1 [5] and /2 [6], be sure to pull up the upper side.
- When reinstalling the roller covers /1 [5] and /2 [6], be sure to set the grooves [7] at both sides to the projection [8] and then press it slightly in the direction of the paper through slit [9].

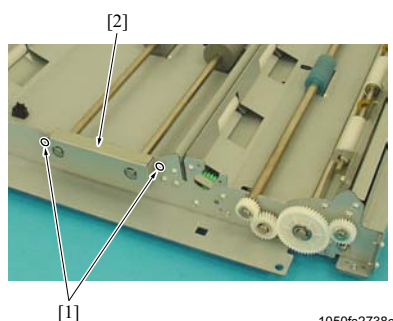


1050fs2736c

8. Remove the E-rings [1], 1 each for 4 places, the pre-registration bearings [2], 1 each, the pre-registration rollers /1 [3] and /2 [4].

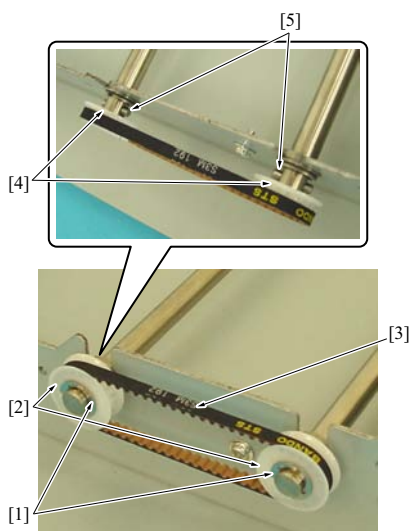
Note

- When removing and reinstalling the pre-registration rollers /1 [3] and /2 [4], be careful not to damage them with the corners of the guide plate.
- When reinstalling the pre-registration bearing [2], raise the conveyance guide plate so that it gets into the jam release condition. In this way, the bearing can be installed easily.



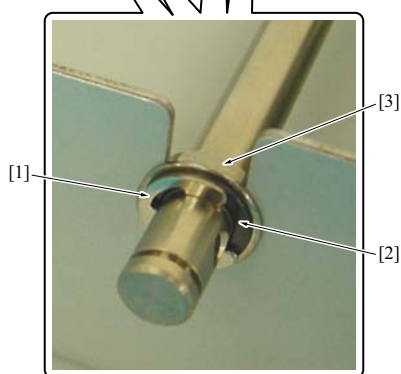
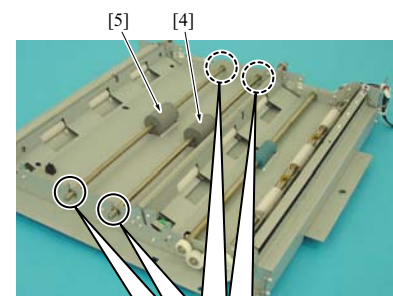
1050fs2738c

9. Remove 2 screws [1] and remove the cover [2].

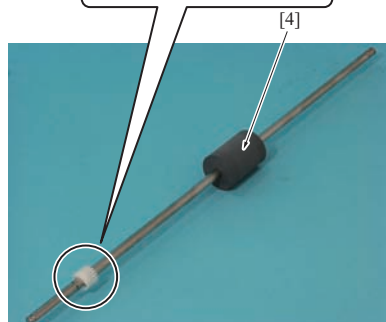
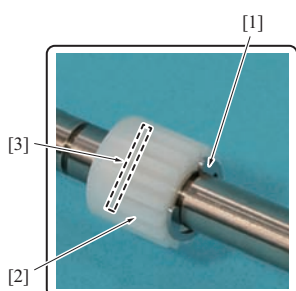


1050fs2739c

10. Remove 2 E-rings [1], 2 belt stoppers [2], the conveyance belt /A [3], 2 conveyance pulleys [4] and 2 pins [5].



1050fs2740c



a0g6i3c312ca

11. Remove the E-rings [1], 1 each for 4 places, and then remove the plastic washers [2], 1 each, the bearings [3], 1 each, the conveyance rollers /2 [4] and /3 [5].

12. Remove the E-ring [1], the gear [2] and the pin [3], and then remove the conveyance roller /2 [4].

13. Reinstall the preceding parts following the removal steps in reverse.

Note

- After completion of the installation, check to see if each roller rotates smoothly.

14. After replacing the pre-registration rollers /1, /2, the conveyance rollers /2 and /3, conduct the following item.

In case of 1250/1250P/1052

For the pre-registration roller /1: Counter reset of the parts counter No.104

For the pre-registration roller /2: Counter reset of the parts counter No.105

For the conveyance rollers /2 and /3: Counter reset of the parts counter No.103

For 951

For the pre-registration roller /1: Counter reset of the parts counter No.84

For the pre-registration roller /2: Counter reset of the parts counter No.85

For the conveyance rollers /2 and /3: Counter reset of the parts counter No.83

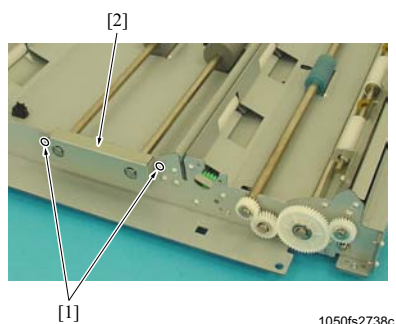
5.8.4 Replacing the conveyance pulley and the conveyance belt /A

(1) Periodically replaced parts/cycle

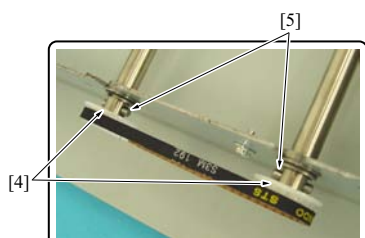
- Conveyance pulley
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2
- Conveyance belt /A
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2

* 1 1250/1250P/1052

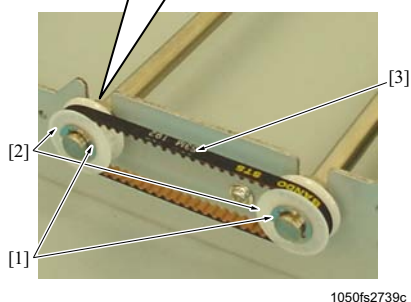
* 2 951

(2) Procedure

1. Remove the right cover. (Refer to [G.2.2.3 Right cover](#))
2. Remove the vertical conveyance unit. (Refer to [F.5.8.1 Removing/reinstalling the vertical conveyance unit](#))
3. Remove 2 screws [1] and remove the cover [2].



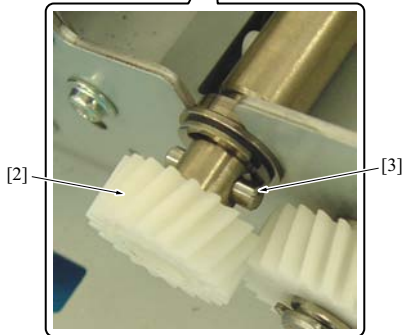
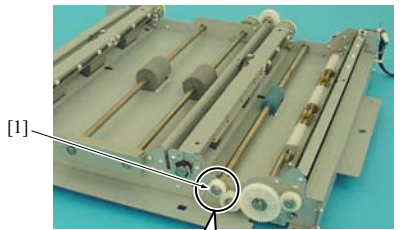
4. Remove 2 E-rings [1], 2 belt stoppers [2], the conveyance belt /A [3], 2 conveyance pulleys [4] and 2 pins [5].
5. Reinstall the preceding parts following the removal steps in reverse.

**5.8.5 Replacing the conveyance roller /1 and the paper feed gear /B****(1) Periodically replaced parts/cycle**

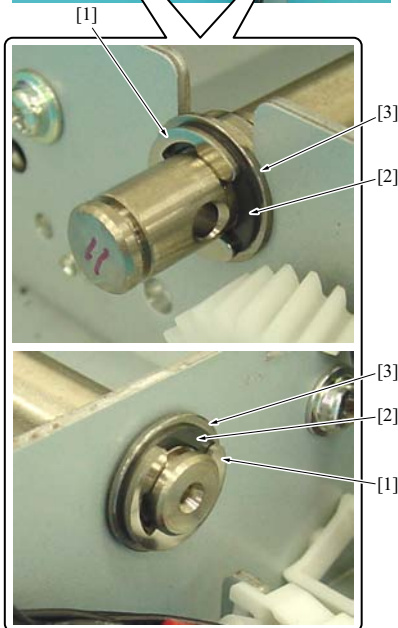
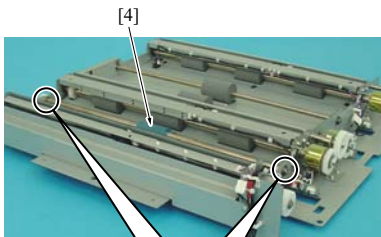
- Conveyance roller /1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds (outputs))
- Paper feed gear /B
 - : Every 40,000,000 prints *1
 - : Every 24,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1050fs2741c



1050fs2742c

1. Remove the right cover.
2. Remove the vertical conveyance unit. (Refer to [F.5.8.1 Removing/reinstalling the vertical conveyance unit](#))
3. Remove the E-ring [1] and remove the paper feed gear /B [2] and the pin [3].

Note

- When installing the E-ring [1], be careful not to damage the teeth of the paper feed gear /B [2].

4. Remove 2 E-rings [1], and remove 2 washers [2] and 2 bearings [3], and then remove the conveyance roller /1 [4].

Note

- When removing and reinstalling the conveyance roller /1 [4], be careful that it does not get damaged by the corners of the guide plate.
- When reinstalling the bearing [3], raise the conveyance guide plate so that it gets into the jam release condition. In this way, the bearing can be installed easily.

5. Reinstall the preceding parts following the removal steps in reverse.

Note

- After completion of the installation, check to see if the roller rotates smoothly.

6. After replacing the conveyance roller /1, conduct the following item.

In case of 1250/1250P/1052

For the conveyance roller /1: Counter reset of the parts counter No.102

For 951

For the conveyance roller /1: Counter reset of the parts counter No.82

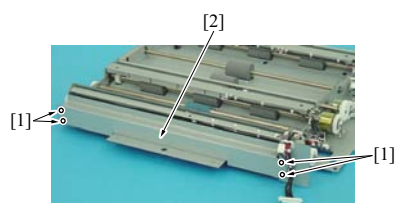
5.8.6 Replacing the conveyance exit roller peripheral parts**(1) Periodically replaced parts/cycle**

- Vertical conveyance exit roller
: Every 12,000,000 prints
- Paper dust removing brush shaft
: Every 12,000,000 prints
- Bearing /E
: Every 24,000,000 prints *1
: Every 18,000,000 prints *2
- Cleaning gear /B
: Every 24,000,000 prints *1
: Every 18,000,000 prints *2

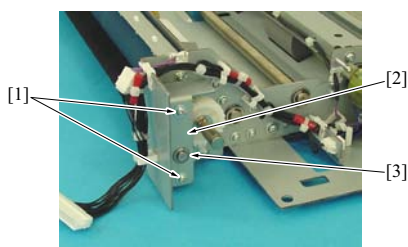
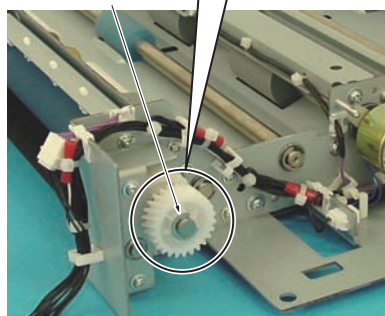
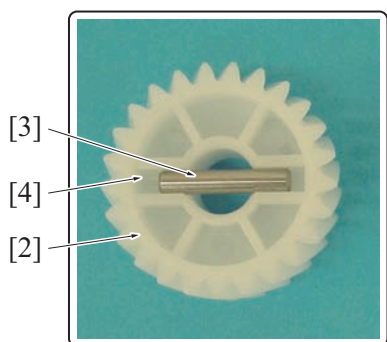
- Scraper shaft
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2
- Paper feed cleaning gear /B
 - : Every 40,000,000 prints *1
 - : Every 24,000,000 prints *2
- Paper feed gear /A
 - : Every 40,000,000 prints *1
 - : Every 24,000,000 prints *2
- Paper exit input gear
 - : Every 40,000,000 prints *1
 - : Every 24,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1050fs2743c



1050fs2745c

1. Remove the right cover.
2. Remove the vertical conveyance unit. (Refer to [F.5.8.1 Removing/reinstalling the vertical conveyance unit](#))
3. Remove 4 screws [1] and then remove the cover [2].

4. Remove the E-ring [1] and remove the paper exit input gear [2] and the pin [3].

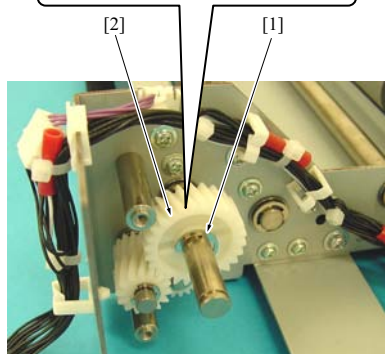
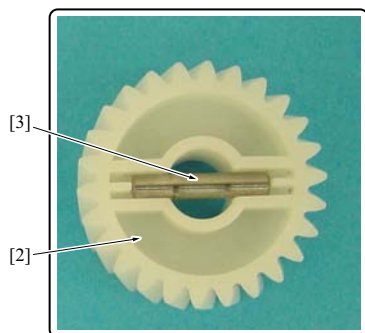
Note

- Do not wipe off the grease that applied to the groove which receives the pin [4].

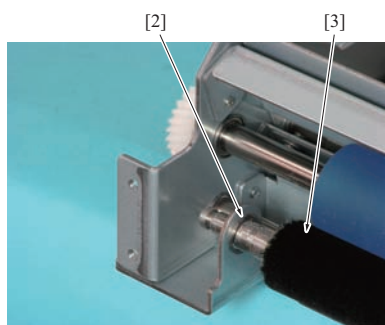
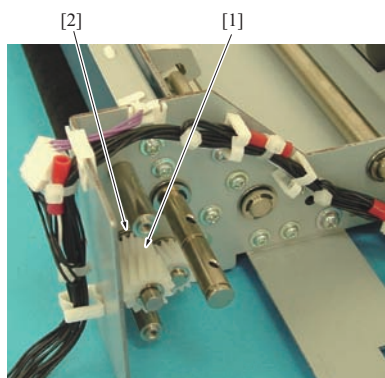
5. Remove 2 screws [1] and remove the gear cover [2] and the bearing /E [3].

Note

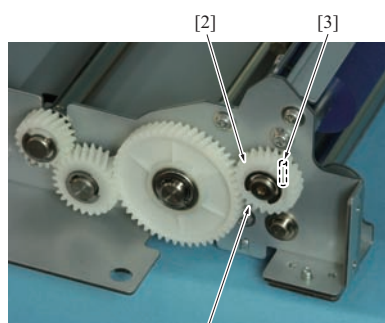
- When installing the bearing /E [3], be sure to install it from the inside to the gear cover [2].



1050fs2746c



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a0g6t3c314ca

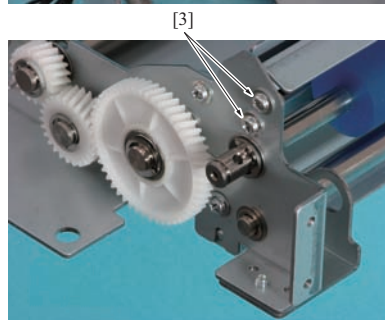
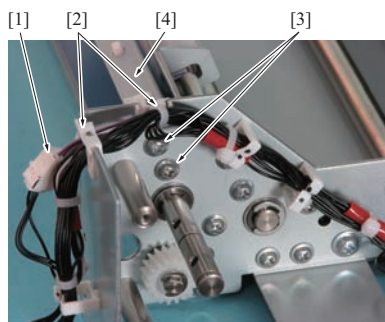
6. Remove the E-ring [1] and remove the paper feed cleaning gear /B [2] and the pin [3].

Note

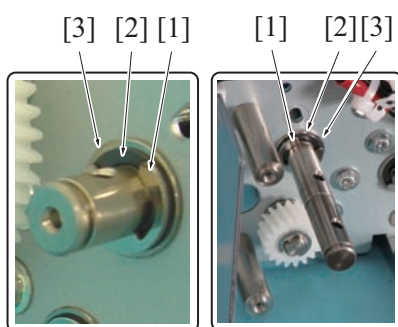
- The gear removed at the step4 is different from the one removed at the step6. Be careful not to confuse one with the other.

7. Remove the paper dust removing brush shaft [1], 2 bearings /E [2] and the paper dust removing brush [3].

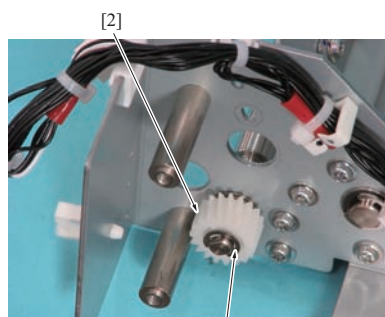
8. Remove the E-ring [1] and remove the paper feed gear /A [2] and the pin [3].



a0g6t3c315ca



[4]



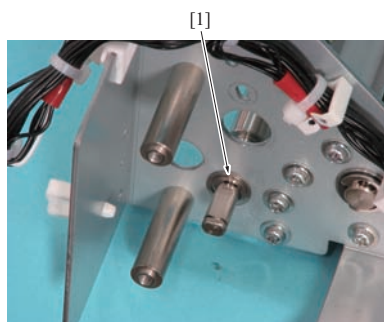
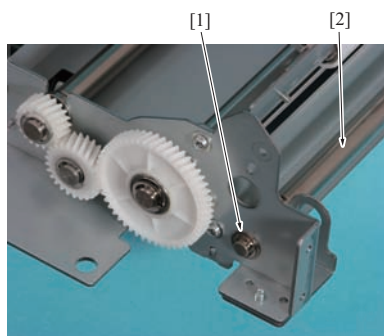
[1]

a0g6t3c317ca

9. Disconnect the connector [1] and remove 2 wire binding bands [2].
10. Remove 4 screws [3] and then remove the sensor mounting plate [4].

11. Remove 2 E-rings [1], 2 washers [2] and 2 bearings /E [3], and remove the conveyance exit roller [4].

12. Remove the E-ring [1] and then remove the Cleaning gear /A [2].



a0g6t3c318ca

13. Remove 2 E-rings [1] and remove the scraper shaft [2].
14. Reinstall the preceding parts following the removal steps in reverse.
15. After replacing the conveyance exit roller and the paper dust removing brush shaft, be sure to conduct the followings.
 - For 1250/1250P/1052
 - For the conveyance exit roller: Counter reset of the parts counter No.101
 - For the paper dust removing brush shaft: Counter reset of the parts counter No.106
 - For 951
 - For the conveyance exit roller: Counter reset of the parts counter No.81
 - For the paper dust removing brush shaft: Counter reset of the parts counter No.86

5.8.7 Replacing the paper dust removing brush and the paper dust guide holder

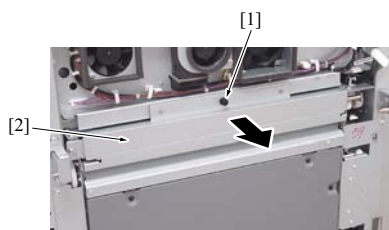
(1) Periodically replaced parts/cycle

- Paper fur brush
 - : Every 4,000,000 prints *1
 - : Every 2,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds) *2
- Paper dust guide holder
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2

*1 1250/1250P/1052

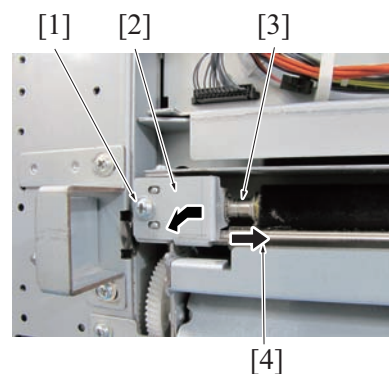
*2 951

(2) Procedure



1050fs2750c

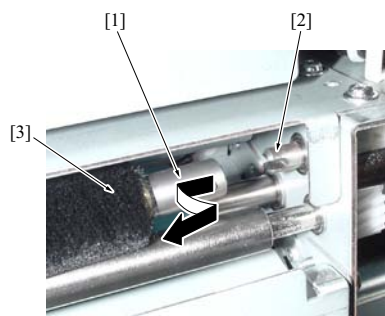
1. Pull the knob [1] and remove the paper dust guide holder [2].



2. Remove the screw [1] and pull out the holder [2] from the paper dust removing brush [3].

Note

- When reinstalling the holder [2], press the paper dust removing brush [3] to the arrow-marked direction [4] and fasten it with the screws.



[4] 1050fs2752c

3. Remove the paper dust removing brush shaft [1] from the coupling [2], and remove the paper dust removing brush [3], and then remove the bearing /E [4].
4. Reinstall the preceding parts following the removal steps in reverse.
5. After replacing the paper dust removing brush and the paper dust guide holder, be sure to conduct the followings.

In case of 1250/1250P/1052

For the paper dust removing brush: Counter reset of the parts counter No.96

For the paper dust guide holder: Counter reset of the parts counter No.97

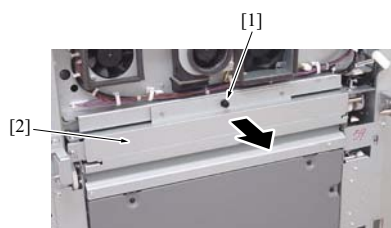
For 951

For the paper dust removing brush: Counter reset of the parts counter No.76

For the paper dust guide holder: Counter reset of the parts counter No.77

5.8.8 Cleaning of the paper dust guide holder

(1) Procedure



1050fs2753c

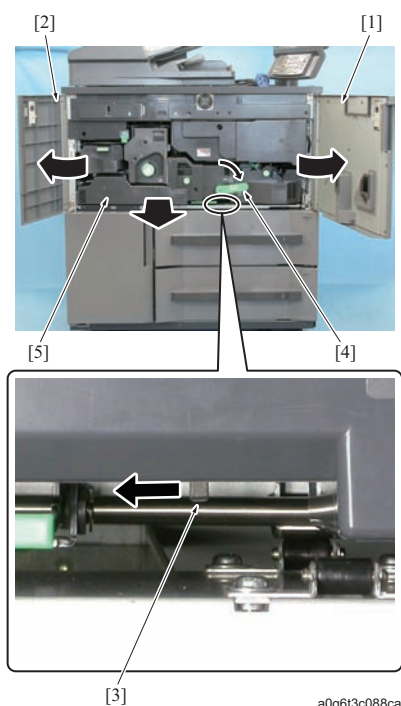
1. Pull the knob [1] and remove the paper dust guide holder [2].
2. Clean the paper dust guide holder [2] with the air brush.
3. Reinstall the above parts following the removal steps in reverse.

5.9 DUPLEX SECTION

5.9.1 Pulling out/reinstalling the duplex section

⚠ Note:

- Be sure to avoid forcibly turning ON the interlock switches /1 (MS1) and /2 (MS2) with the duplex section pulled out. Otherwise, a high voltage unexpectedly develop.

(1) Procedure

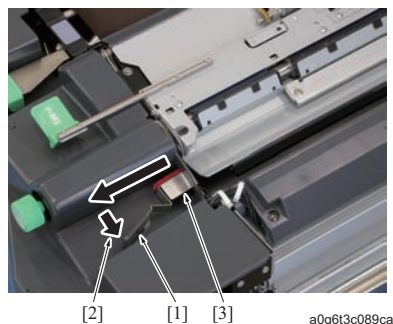
1. Open the front door /Rt [1] and the front door /Lt [2].
2. While pressing the lock release lever [3] with a driver in the arrow-marked direction, down the lever [4] that pulls out the duplex section to pull out the duplex section [5].
3. When reinstalling it, push in the duplex section and bring up the lever that pulls out the duplex section.

5.9.2 Cleaning of the paper dust removing brush for the registration roller /Lw**(1) Periodic cleaning cycle**

- Paper dust removing brush for the registration roller /Lw
 - : Every 1,000,000 prints ^{*1}
 - : Every 750,000 prints ^{*2}

^{*1} 1250/1250P/1052

^{*2} 951

(2) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. After once sliding the paper dust removing lever [1] to the arrow-marked direction [2], pull out and remove the paper dust removing brush [3] for the registration roller /Lw.
(The picture shows the lever that has been pulled out a little.)

Note

- When reinstalling the paper dust removing brush for the registration roller /Lw, be sure to insert it fully until it hits against the back. When the paper dust removing brush for the registration roller /Lw is not inserted fully, it blocks the light path of detection of the registration sensor (PS40), thus resulting in a jam.

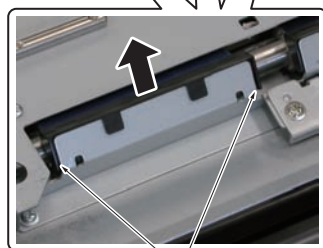
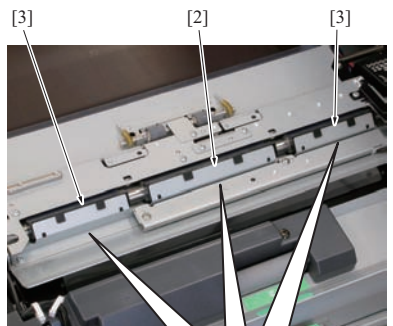
3. Clean the cleaning section [2] of the paper dust removing brush [1] for the registration roller /Lw with the blower brush.
4. Reinstall the above parts following the removal steps in reverse.

5.9.3 Cleaning of the paper dust removing brush for the registration roller /Up**(1) Periodic cleaning cycle**

- Paper dust removing brush for the registration roller /Up
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

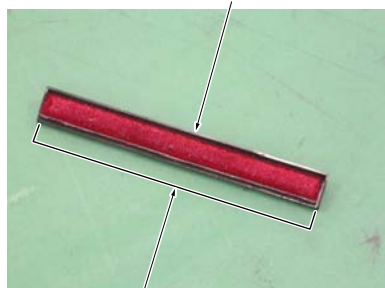
*1 1250/1250P/1052

*2 951

(2) Procedure

[1]

a0g6t3c091ca



[1]

[2]

fs503fs2134c

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Press the sides of the paper dust removing brush [1] and remove 2 paper dust removing brushes /1 [2] and /2 [3] provided for the registration roller /Up.

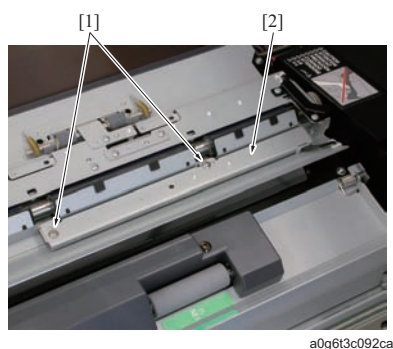
3. Clean each of 2 cleaning sections [2] of the paper dust removing brush [1] for the registration roller /Up.
4. Reinstall the above parts following the removal steps in reverse.

5.9.4 Cleaning of the registration sensor**(1) Periodic cleaning cycle**

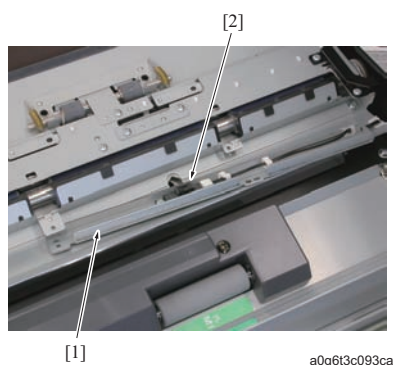
- Registration sensor
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove 2 screws [1] and release the fixing of the sensor mounting piece [2].



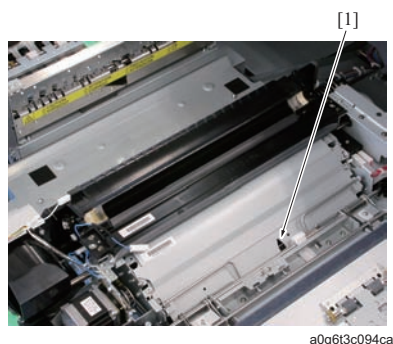
3. Turn over the sensor mounting piece [1] and clean the registration sensor (PS40) [2] with the blower brush.
4. Reinstall the above parts following the removal steps in reverse.

5.9.5 Cleaning the paper stay sensor /1**(1) Periodically cleaned parts/cycle**

- Paper stay sensor /1 (PS64)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

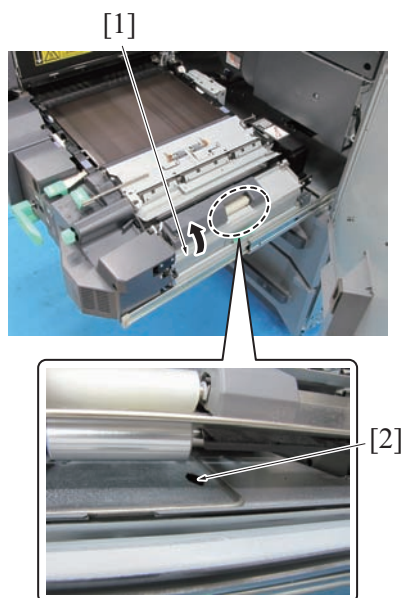
1. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
2. Clean the paper stay sensor/1 (PS64) [1] with the blower brush.
3. Reinstall the above parts following the removal steps in reverse.

5.9.6 Cleaning the paper stay sensor /2**(1) Periodically cleaned parts/cycle**

- Paper stay sensor /2 (PS63)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 1250/1250P/1052

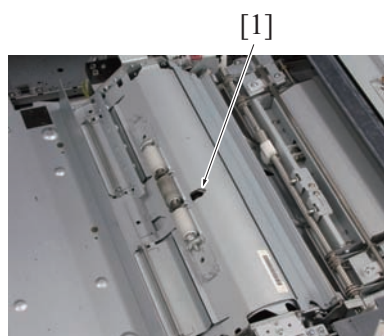
*2 951

(2) Procedure

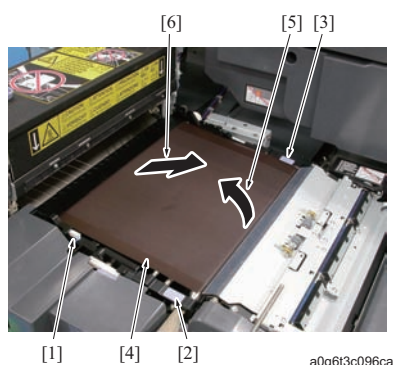
1. Open the cover [1], and then clean the paper stay sensor /2 (PS63) [2] with the blower brush.

5.9.7 Cleaning the ADU paper reverse sensors /2**(1) Periodically cleaned parts/cycle**

- ADU reverse sensor /2 (PS45)
 - : Every 1,000,000 prints *¹
 - : Every 750,000 prints *²

*¹ 1250/1250P/1052*² 951**(2) Procedure**

1. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
2. Remove the transfer belt cleaning unit. (Refer to [F.5.9.17 Replacing the belt cleaning unit](#))
3. Clean the ADU reverse sensor /2 (PS45) [1] with the blower brush.
4. Reinstall the above parts following the removal steps in reverse.

5.9.8 Removing/reinstalling the transfer belt unit**(1) Procedure**

a0g6t3c096ca

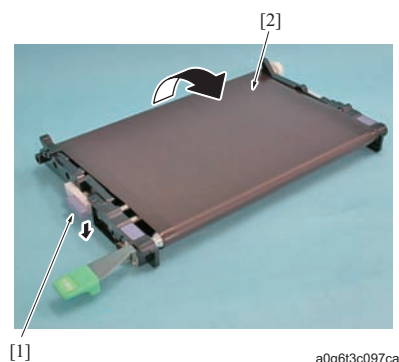
1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fastener [1].
3. Hold the portions marked with [2] and [3] and slant the transfer belt by 45° [5], and pull it out [6].
4. Reinstall the above parts following the removal steps in reverse.

5.9.9 Replacing the transfer belt, the transfer roller, the bearing /H and the transfer contact /Rr**(1) Periodically replaced parts/cycle**

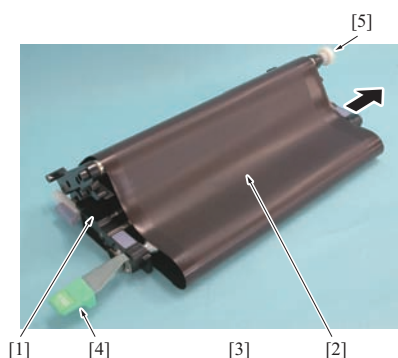
- Transfer belt
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2
- Transfer roller
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2
- Bearing /H
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2
- Transfer contact /Rr
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

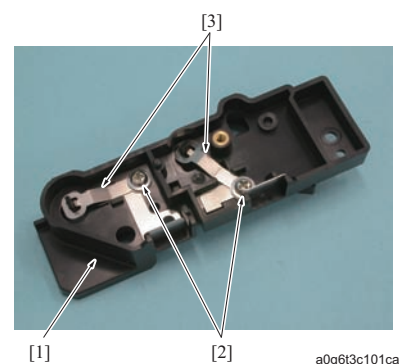
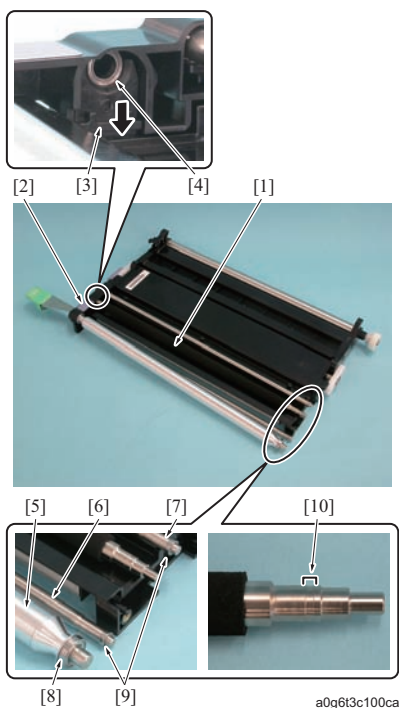
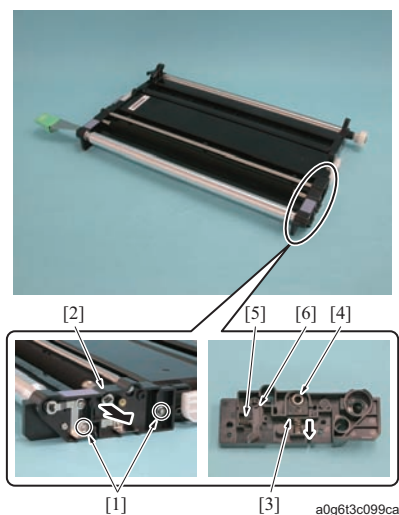
1. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
2. Release the lock lever [1] and fold the transfer belt unit [2].



3. Pull out the transfer belt [2] from the transfer belt unit [1].

Note

- Be careful not to touch the surface of the transfer belt.
- Clean the surface of the transfer belt with the cleaning pad. Do not use alcohol.
- When reinstalling the transfer belt, turn the notation of the model number [3] described inside to the jam release lever [4] side.
- After reinstalling the transfer belt, be sure to rotate the gear [5] to see if there is no mis-centering.



4. Remove 2 screws [1] and remove the transfer roller support assy /Rr [2].
5. Release the bearing support member [3] of the transfer roller support assy /Rr, and remove the bearing /H [4].

Note

- When removing the transfer roller support assy /Rr, the spring installed inside [5] and the releasing member [6] drop off at the same time. When reinstalling the transfer roller support assy /Rr, be sure to build them in the transfer roller support assy /Rr.

6. Remove the transfer roller [1].
7. Release the bearing support member [3] of the transfer roller support assy /Fr [2], and remove the bearing /H [4].

Note

- Be careful not to lose the bearings [8] and [9] installed in the transfer belt driven roller [5] and the nip roller [6] and [7].
- Be sure to locate the shaft with the groove [10] of the transfer roller on the transfer roller support assy /Rr side (the rear side).

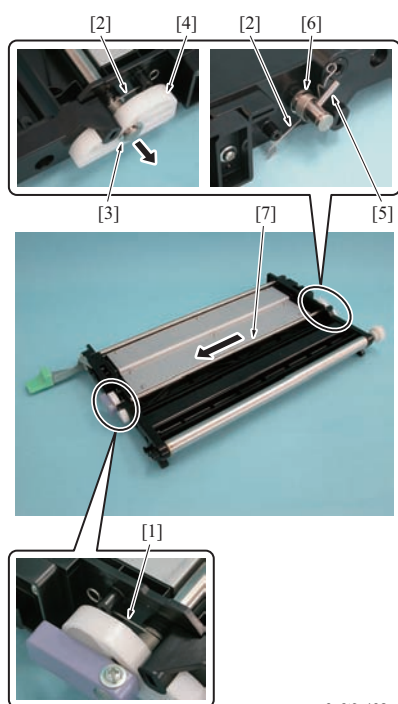
8. Release the springs [2], 1 each, of transfer roller support assy /Rr [1], and then remove 2 transfer contact /Rr [3].
9. Reinstall the preceding parts following the removal steps in reverse.
10. After replacing the transfer belt, the transfer roller, the bearing /H and the transfer contact /Rr, conduct the following steps.
For the transfer belt: Counter reset of the parts counter No.20
For the transfer roller: Counter reset of the parts counter No.21
For the bearing /H: Counter reset of the parts counter No.23
For the transfer contact /Rr: Counter reset of the parts counter No. 24

5.9.10 Replacing the transfer contact /Fr**(1) Periodically replaced parts/cycle**

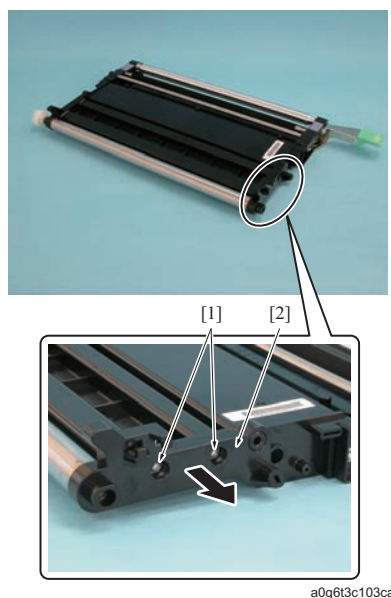
- Transfer contact /Fr
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2

*1 1250/1250P/1052

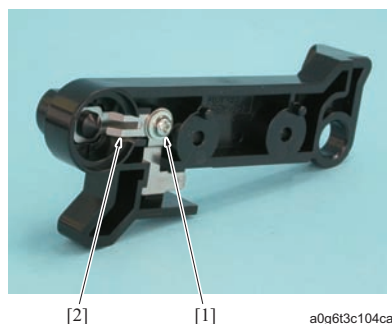
*2 951

(2) Procedure

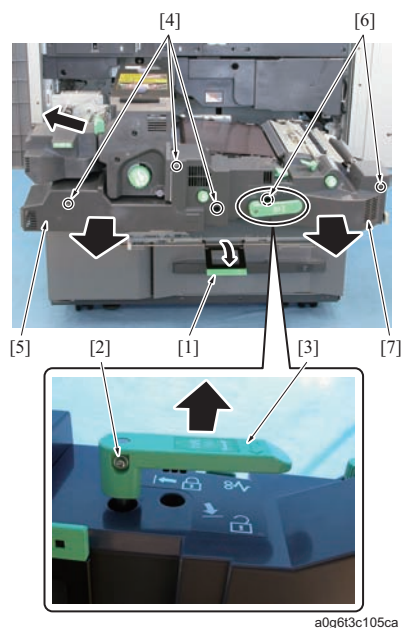
1. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
2. Remove the transfer belt. (Refer to [F.5.9.9 Replacing the transfer belt, the transfer roller, the bearing /H and the transfer contact /Rr](#))
3. Release the lock springs /Fr [1] and /Rr [2].
4. Remove the E-ring [3] and remove the release cam [4].
5. Remove the pin [5] and the lock spring /Rr [2].
6. Remove the E-ring [6].
7. Pull out the release lock lever assy [7].



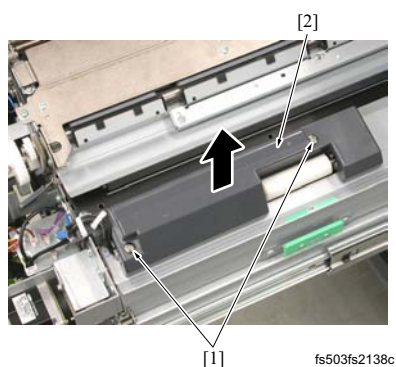
8. Remove 2 screws [1] and remove the drive shaft support member assy [2].



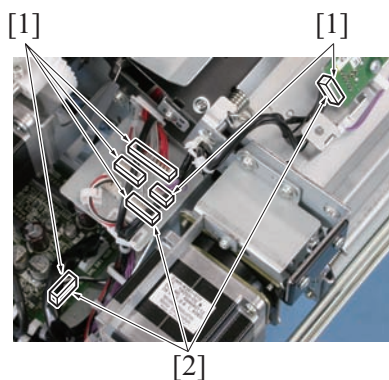
9. Remove the screw [1] and remove the transfer contact /Fr [2].
10. Reinstall the preceding parts following the removal steps in reverse.
11. After replacing the transfer contact /Fr, conduct the following steps.
For the transfer contact /Fr: Counter reset of the parts counter No. 25

5.9.11 Removing/reinstalling the duplex section cover**(1) Procedure**

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Open the jam release lever [1].
3. Remove the screw [2], and pull out the duplex section pull out lever [3].
4. Loosen 3 screws [4] and remove the duplex section cover /Lt [5].
5. Loosen 2 screws [6] and remove the duplex section cover /Rt [7].
6. Reinstall the above parts following the removal steps in reverse.

5.9.12 Removing/reinstalling the registration section**(1) Procedure**

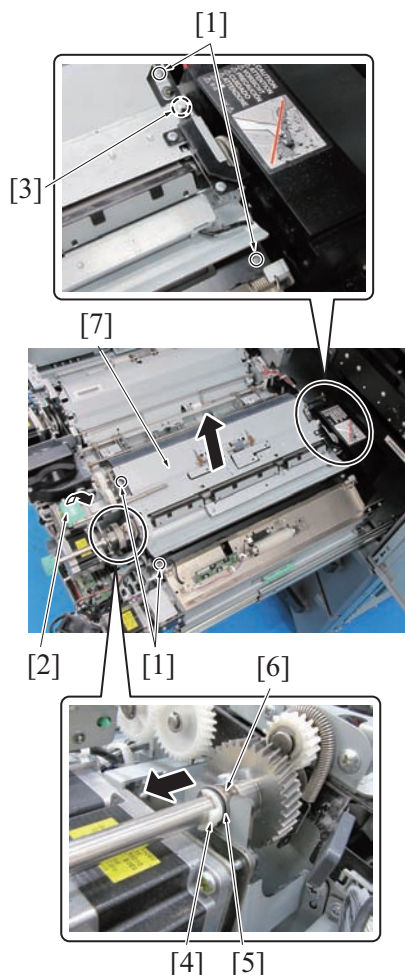
1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the duplex section cover /Lt and /Rt. (Refer to [F.5.9.11 Removing/reinstalling the duplex section cover](#))
3. Remove 2 screws [1] and then remove the multi feed sensor cover [2] while removing the wire harness from the cord clamp.



4. Disconnect 6 connectors [1].

Note

- The 3 connectors [2] are only for 1250/1250P/1052.



5. Remove 4 screws [1].
6. Open the pre-transfer jam handler [2] and remove the screw [3].
7. Remove the C-clip [4] and slide the washer [5] and the bearing [6].
8. Remove the registration unit [7].
9. Reinstall the preceding parts following the removal steps in reverse.

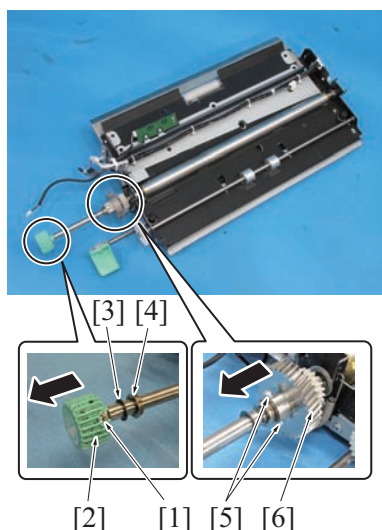
5.9.13 Replacing the registration roller /Up, the registration bearing, the roller gear /Rt, the registration gears /Up and /Lw

(1) Periodically replaced parts/cycle

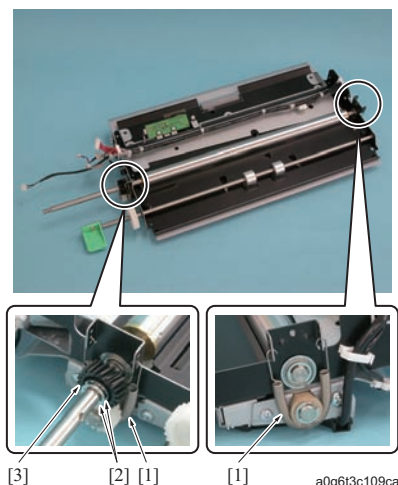
- Registration roller /Up
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Registration bearing
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Roller gear /Rt
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Registration gear /Up
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Registration gear /Lw
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

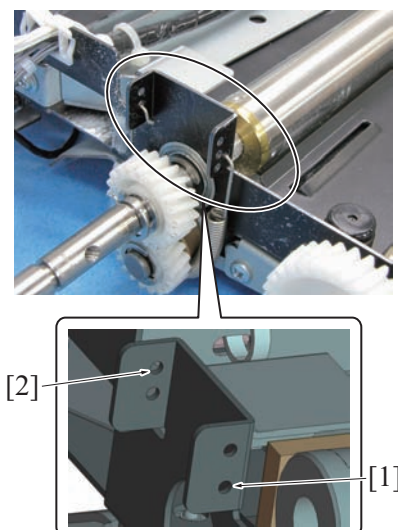
1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the paper dust removing brush for the registration roller / Lw. (Refer to [F.5.9.2 Cleaning of the paper dust removing brush for the registration roller /Lw](#))
3. Remove the paper dust removing brush for the registration roller / Up. (Refer to [F.5.9.3 Cleaning of the paper dust removing brush for the registration roller /Up](#))
4. Remove the registration section. (Refer to [F.5.9.12 Removing/ reinstalling the registration section](#))
5. Remove the screw [1] and then remove the knob [2].
6. Remove the washer [3] and the bearing [4].
7. Remove 2 screws [5] and remove the roller gear /Rt [6].



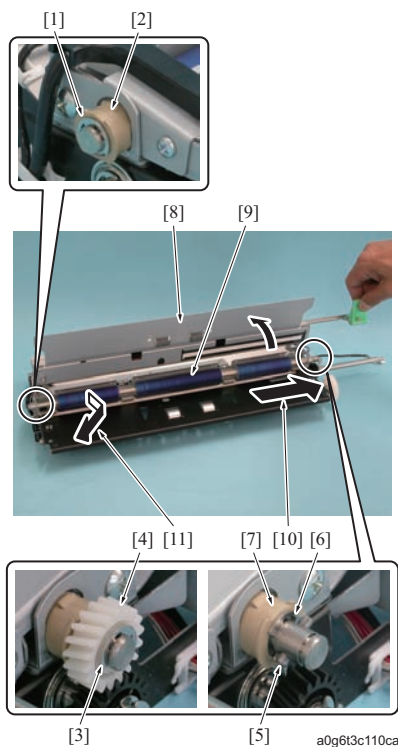
8. Remove 2 springs [1].
9. Remove 2 E-rings [2] and remove the registration gear /Lw [3].

Note

- There is a pin inside the registration gear /Lw. Be careful not to lose it.

**Note**

- When reinstalling the spring, be sure to set the notch to the holes [1] and [2].



10. Remove the E-ring [1] and remove the registration bearing [2].
 11. Remove the E-ring [3] and remove the registration gear /Up [4] and the pin [5].
 12. Remove the E-ring [6] and then remove the registration bearing [7].
 13. Open the pre-transfer jam handler [8] and move and remove the registration roller /Up [9] in the arrow-marked directions [10] and [11] in this order.
 14. Reinstall the preceding parts following the removal steps in reverse.
 15. After replacing the registration roller /Up, the registration bearing, the roller gear /Rt, and the registration gears /Up and /Lw, conduct the following items.
 - For 1250/1250P/1052
 - For the registration roller /Up: Counter reset of the parts counter number 107
 - For the registration bearing: Counter reset of the parts counter number 107
 - For the roller gear /Rt: Counter reset of the parts counter number 109
 - For the registration gears /Up and /Lw: Counter reset of the parts counter number 108
 - For 951
 - For the registration roller /Up: Counter reset of the parts counter number 87
 - For the registration bearing: Counter reset of the parts counter number 87
 - For the roller gear /Rt: Counter reset of the parts counter number 89
 - For the registration gears /Up and /Lw: Counter reset of the parts counter number 88
- Regist line speed adjustment
(Refer to [I.5.3.6 Registration Line Speed Adj. \(Magnification Adjustment\)](#))
- Printer FD-Mag. Adjustment (Side1)
(Refer to [I.5.3.7 Printer FD-Mag. Adj. \(Side1\) \(Magnification Adjustment\)](#))
 - Printer Restart Timing Adjustment (Side1)
(Refer to [I.5.3.13 Printer Restart Timing Adjustment \(Side1\) \(Timing Adjustment\)](#))

5.9.14 Replacing of the paper lift sheet

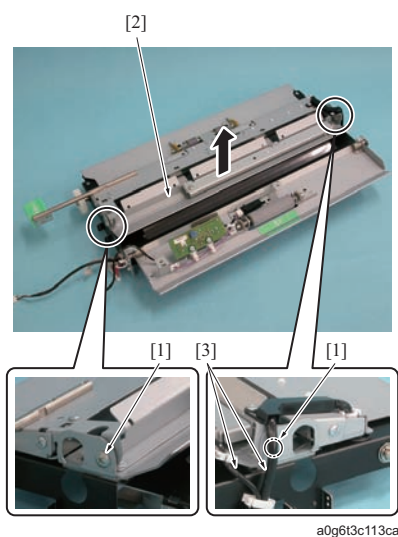
(1) Periodically replaced parts/cycle

- Paper lift sheet
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2

*1 1250/1250P/1052

*2 951

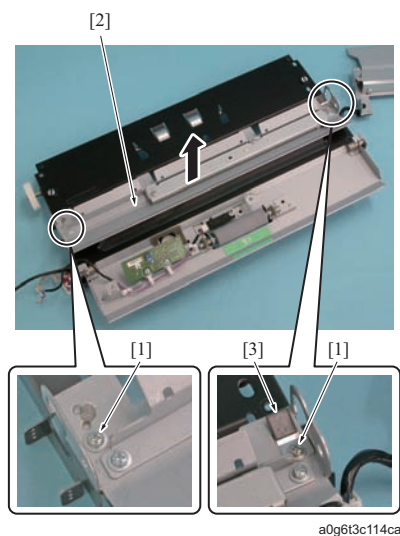
(2) Procedure



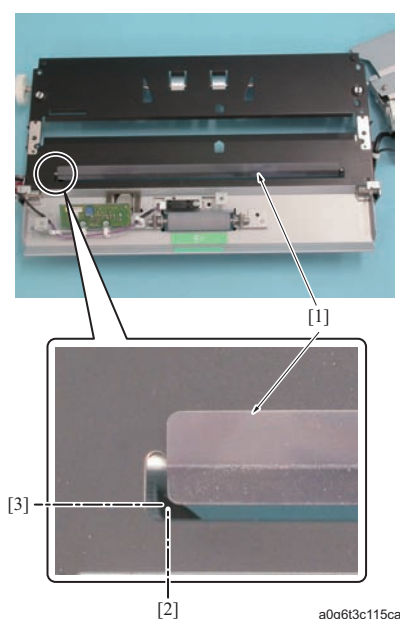
1. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
2. Remove the registration roller /Up. (Refer to [F.5.9.13 Replacing the registration roller /Up, the registration bearing, the roller gear /Rt, the registration gears /Up and /Lw](#))
3. Remove 2 screws [1] and remove the pre-transfer jam handler [2].

Note

- Be sure not to remove the wiring harness [3].



4. Remove 2 screws [1], and remove the registration entering assy [2] and registration spacer [3].



5. Peel off the paper lift sheet [1].

Note

- When reinstalling the paper lift sheet, be sure to paste the sheet based on [2] and [3] of the registration section.

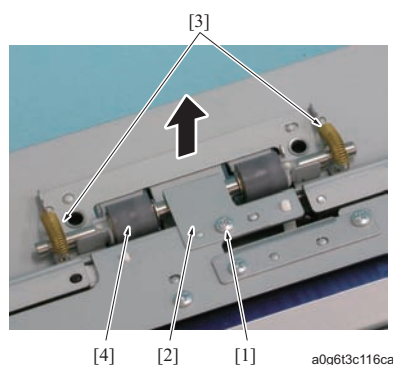
6. Reinstall the above parts following the removal steps in reverse.

5.9.15 Replacing the pre-transfer driven roller assy**(1) Periodically replaced parts/cycle**

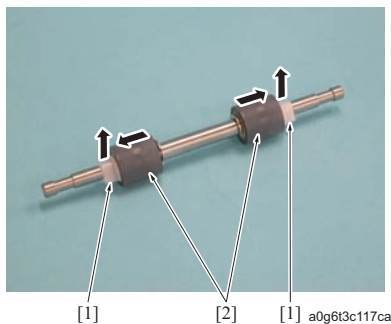
- Pre-transfer driven roller assy
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
2. Remove the screw [1] and remove the wiring plate [2].
3. Remove 2 screws [3] and remove the pre-transfer driven roller section [4].



4. Remove 2 bearings [1] and remove 2 pre-transfer driven roller assys [2].
5. Reinstall the preceding parts following the removal steps in reverse.

5.9.16 Replacing the loop driven roller

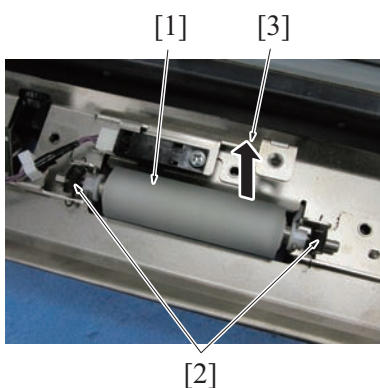
(1) Periodically replaced parts/cycle

- Loop driven roller
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2

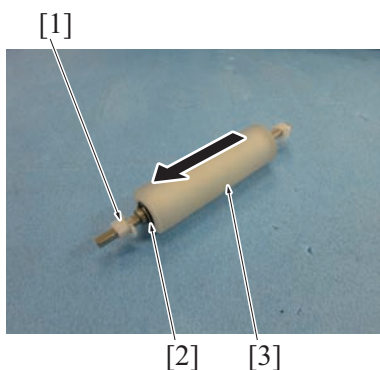
*1 1250/1250P/1052

*2 951

(2) Procedure



1. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
2. Release the loop driven roller assy [1] from the spring [2], and pull it out to the arrow-marked direction [3]



3. Remove the bearing [1] and the E-ring [2], and remove the loop driven roller [3].
4. Reinstall the above parts following the removal steps in reverse.

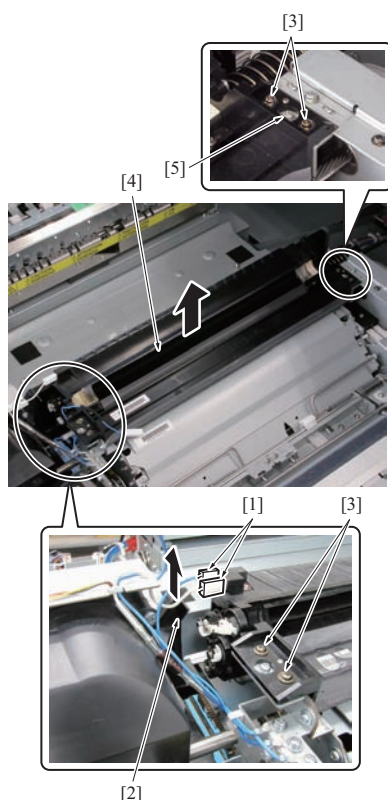
5.9.17 Replacing the belt cleaning unit

(1) Periodically replaced parts/cycle

- Belt cleaning unit
 - : Every 16,000,000 prints *1
 - : Every 12,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
4. Remove the duplex section cover /Lt and /Rt. (Refer to [F.5.9.11 Removing/reinstalling the duplex section cover](#))
5. Remove 2 fastons [1].
6. Remove the duct cover [2].
7. Remove 4 screws [3] and remove the belt cleaning unit [4].

Note

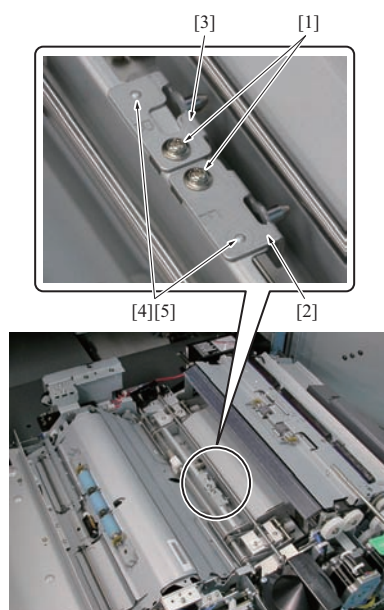
- Be sure not to touch the screw [5] because it is not allowed to be removed.

8. Reinstall the preceding parts following the removal steps in reverse.

Note

- When loosening or removing the screw not allowed to be removed, be sure to reinstall it by following "C. Installation adjustment". (Refer to [F.5.9.17.\(3\) Installation adjustment](#))

9. After replacing the belt cleaning unit, conduct the following steps.
For the belt cleaning unit: Counter reset of the parts counter No.28

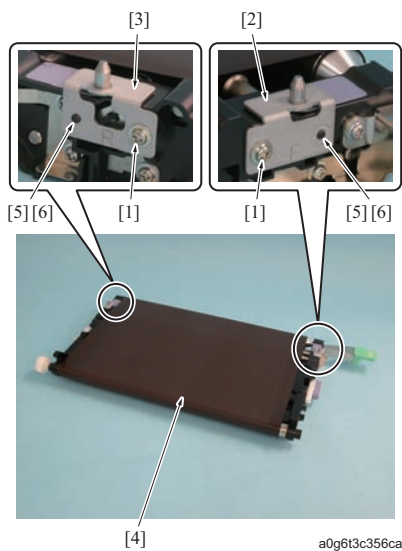
(3) Installation adjustment

1. Remove each 1 of the screws [1] and remove the transfer belt mounting jigs /Fr [2] and /Rr [3].

Note

- When reinstalling the transfer belt mounting jigs /Fr and /Rr, be sure to align the projections [5] of the main body to the positioning holes [4].

a0g6t3c355ca

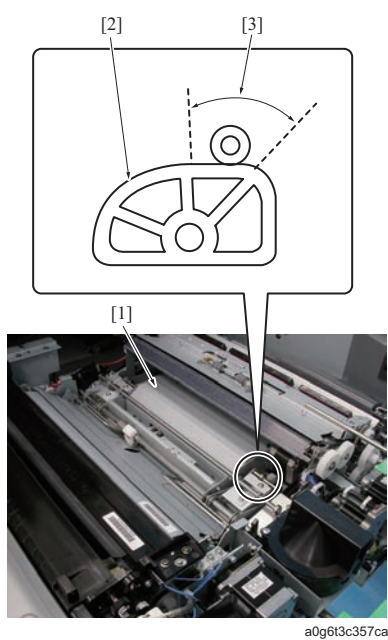


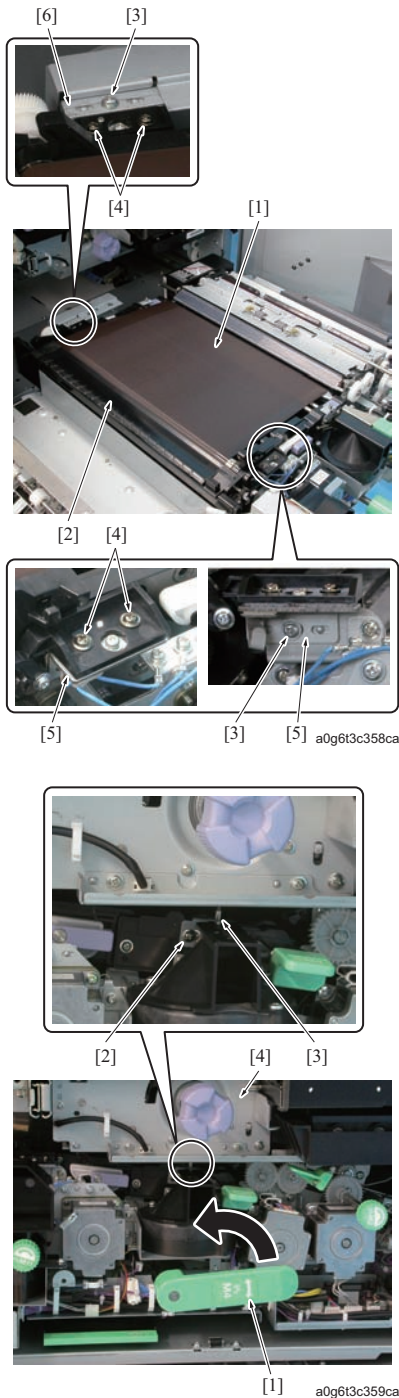
2. Install the transfer belt mounting jigs /Fr [2] and /Rr [3] to the transfer belt unit [4] with each 1 of the screws [1].

Note

- When reinstalling the transfer belt mounting jigs /Fr and /Rr, be sure to align the projections [6] of the transfer belt unit to the positioning holes [5].

3. Rotate the cam [2] of the transfer pressure unit [2] to make it to the position of pressure 1 [3].





4. Set the transfer belt unit [1] to the belt cleaning unit [2].
5. Loosen 2 screws which are not allowed to be removed [3].
6. Fix the belt cleaning unit [2] to the belt cleaning unit mounting brackets /Fr [5] and /Rr [6] with each 2 of the screws [4].

Note

- Be sure to loosen 2 screws which are not allowed to be removed [3].

7. Set the duplex section to the main body and bring up the lever [1] that pulls out the duplex section.
8. Check that the pin [3] of the transfer belt mounting jig /Fr [2] is set to the photo conductor section [4].
9. Release the lock and bring down the pull out lever, and then pull out the duplex section gently. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))

Note

- Be sure to repeat steps 7 and 9 again when the position of the transfer belt unit is out of alignment in pulling out the duplex section.

10. Fix the belt cleaning unit mounting brackets /Fr and /Rr with each 1 of the screws which are not allowed to be removed.
11. Be sure that the following reinstallation of the parts follows the removal steps in reverse.

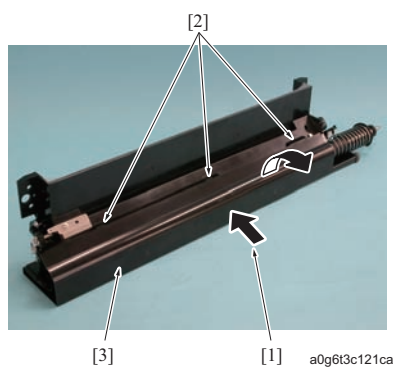
5.9.18 Replacing the cleaning brush, the cleaning shaft, the regulation plate assy and the power supply parts

(1) Periodically replaced parts/cycle

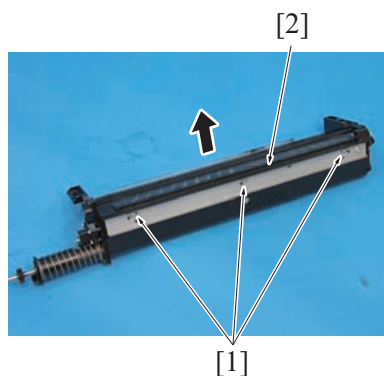
- Cleaning brush
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2
- Cleaning shaft
 - : Every 8,000,000 prints *1
 - : Every 6,000,000 prints *2
- Regulation plate assy
 - : Every 2,000,000 prints *1
 - : Every 1,500,000 prints *2
- Power supply parts
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2

*1 1250/1250P/1052

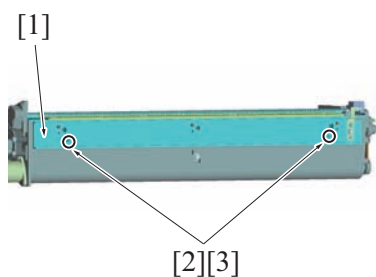
*2 951

(2) Procedure

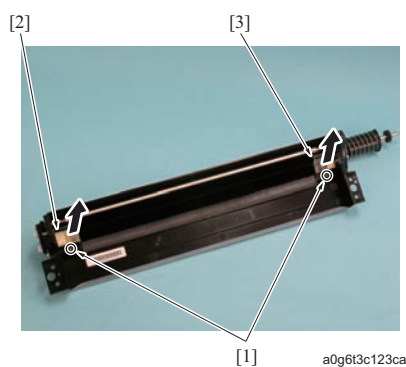
1. Remove the belt cleaning unit. (Refer to [F.5.9.17 Replacing the belt cleaning unit](#))
2. Push the bottom of the cooling duct [1] to release 3 claws [2], and remove the cooling duct assy [3].



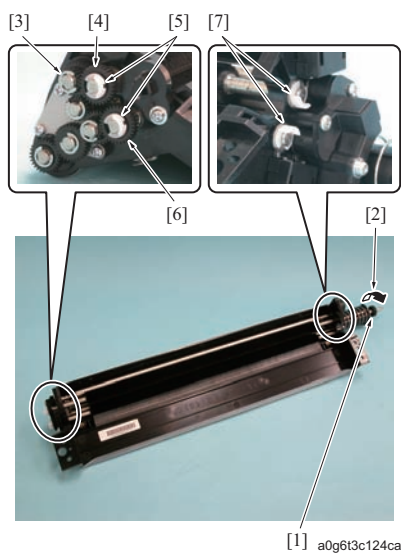
3. Remove 3 screws [1] and remove the separation cover assy [2].

**Note**

- When reinstalling the separation cover assy, make sure that the pin [3] gets in securely up to 2 holes [2] of the reinforcing plate [1].



4. Remove the screws [1], 1 each, and remove the scatter preventive blocks /Fr [2] and /Rr [3].

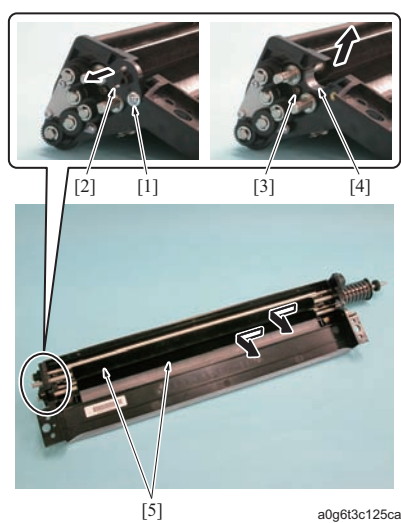


5. Rotate the gear [1] in the arrow-marked direction [2] to turn the notch of the E-ring [3] to the gear [4] side.

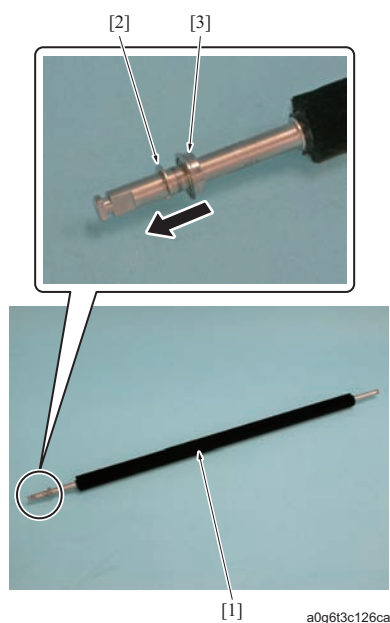
Note

- Be sure to rotate the gear [1] in the arrow-marked direction [2] at all times.
- When removing the gear [4], the E-ring [3] contacts it. be sure to turn the notch of the E-ring to the gear [4] side.

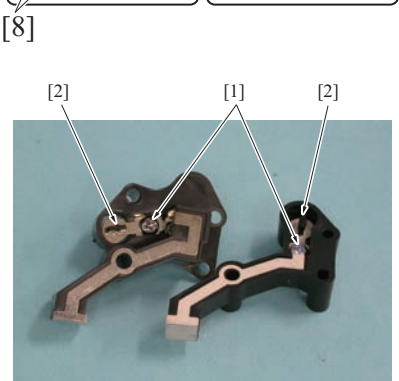
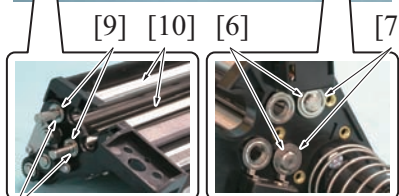
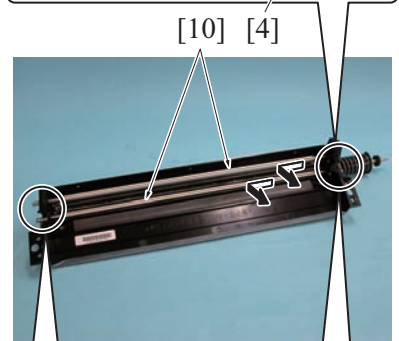
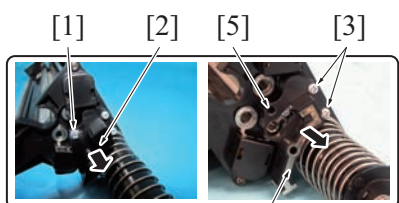
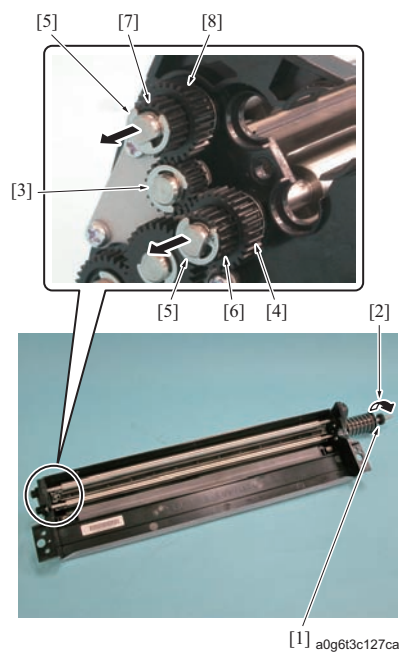
6. Remove 2 retaining rings [5], and remove the gears [4] and [6].
7. Remove 2 retaining rings [7].



8. Remove 2 screws [1] and remove the fixing cover [2].
9. Remove the screw [3] and remove the fixing member [4].
10. Remove 2 cleaning brush assy [5].



11. Remove the E-ring [2] and the bearing [3] from each cleaning brush assy [1].



12. Rotate the gear [1] in the arrow-marked direction [2] to turn the notch of the E-ring [3] to the gear [4] side.

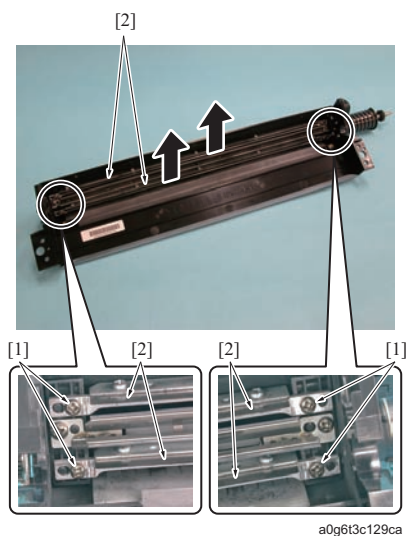
Note

- Be sure to rotate the gear [1] in the arrow-marked direction [2] at all times.
- When removing the gear [4], the E-ring [3] contacts it. be sure to turn the notch of the E-ring to the gear [4] side.

13. Remove 2 E-rings [5] and remove the gears [4], [6], [7] and [8].

14. Remove the screw [1] and remove the power supply cover [2].
 15. Remove 2 screws [3], and remove the power supply blocks /Up [4] and /Lw [5].
 16. Remove 2 E-rings [6] and remove 2 bearings [7].
 17. Remove 2 E-rings [8] and 2 bearings [9], and remove 2 cleaning shafts [10].

18. Remove the screws [1], 1 each, and then remove 2 power supply parts [2].



19. Remove the screws [1], 2 each, and remove 2 regulation plate assy [2].
20. Reinstall the preceding parts following the removal steps in reverse.
21. After replacing the cleaning brush, the cleaning shaft, the regulation plate assy and the power feeding members, conduct the following steps.
 For the cleaning brush: Counter reset of the parts counter No.22
 For the cleaning shaft: Counter reset of the parts counter No.27
 For the registration plate assy: Counter reset of the parts counter No.19
 For the power supply parts: Counter reset of the parts counter No. 26

5.9.19 Replacing the registration motor (M17) and the motor gear /Rt

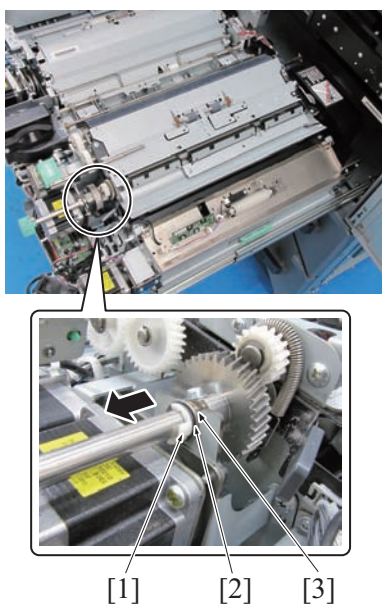
(1) Periodically replaced parts/cycle

- Registration motor (M17)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Motor gear /Rt
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

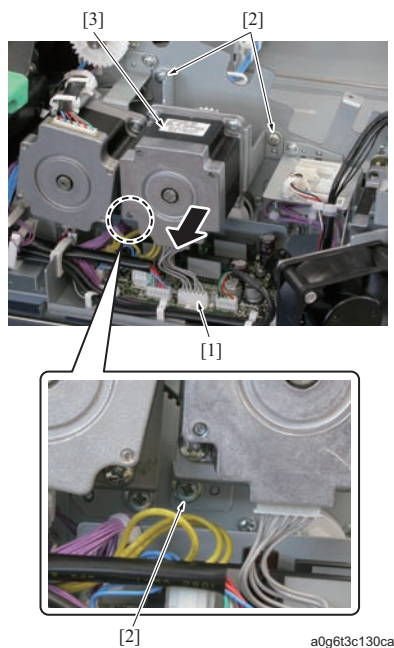
*1 1250/1250P/1052

*2 951

(2) Procedure



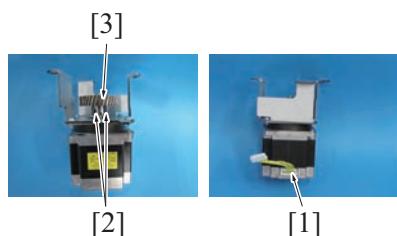
1. Remove the C-clip [1] and slide the washer [2] and the bearing [3].



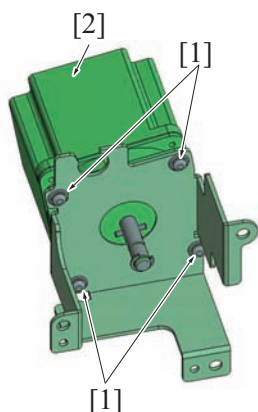
2. Disconnect the connector [1].
3. Remove 3 screws [2] and then remove the registration motor assembly [3].

Note

- When reinstalling the registration motor assy [3], tighten 3 screws [2] temporary and set the bearing, the washer and the C-clip which have been moved in step 2. Then, tighten the 3 screws [2] securely.



4. Disconnect the connector [1].
5. Remove 2 screws [2] and remove the motor gear /Rt [3].



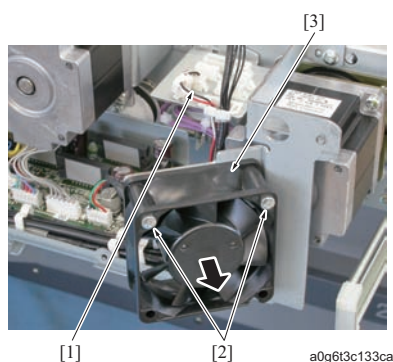
6. Remove 4 screws [1] and then remove the registration motor (M17) [2].
7. Reinstall the preceding parts following the removal steps in reverse.

5.9.20 Replacing the loop motor (M18)**(1) Periodically replaced parts/cycle**

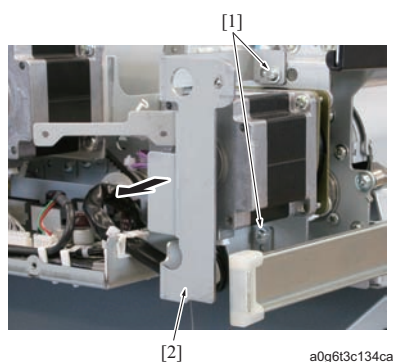
- Loop motor (M18)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

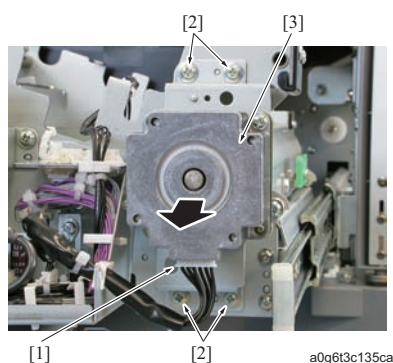
*2 951

(2) Procedure

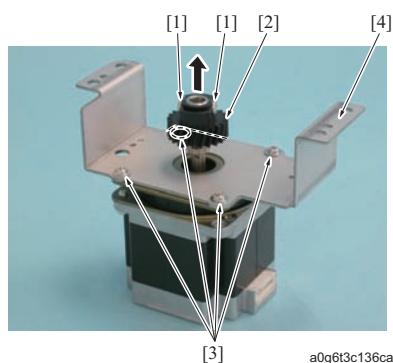
1. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
2. Disconnect the connector [1].
3. Remove 2 screws [2] and then remove the registration cooling fan (FM17) [3].



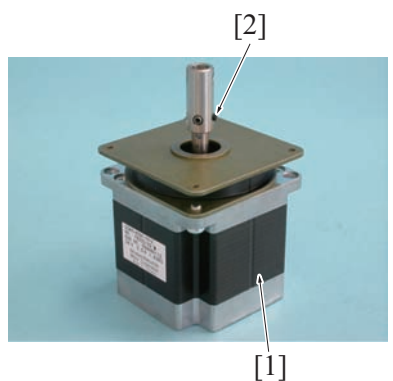
4. Remove 2 screws [1] and remove the fan mounting bracket [2].



5. Disconnect the connector [1].
6. Remove 4 screws [2] and then remove the loop motor assembly [3].



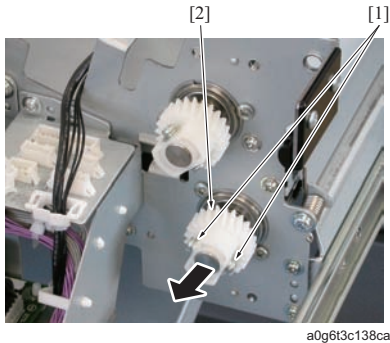
7. Remove 2 screws [1] and then remove the gear [2].
8. Remove 4 screws [3] and remove the motor mounting bracket [4].



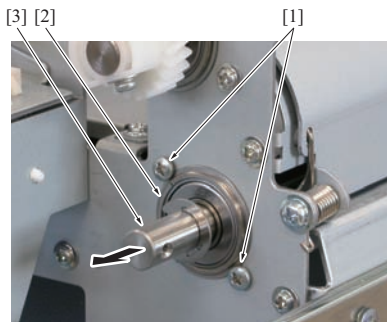
9. Remove screws [2] from the loop motor (M18) [1].
10. Reinstall the preceding parts following the removal steps in reverse.

5.9.21 Replacing the ADU exit roller**(1) Periodically replaced parts/cycle**

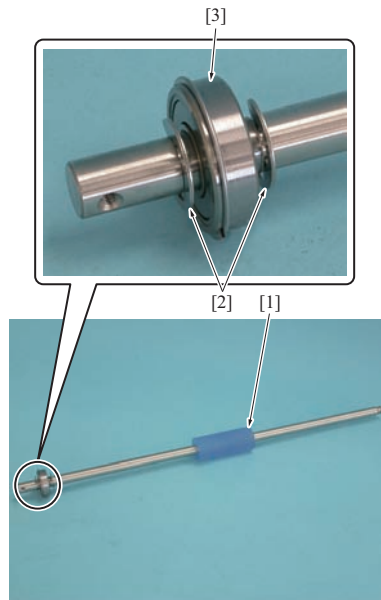
- ADU exit roller
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*¹
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*²

*¹ 1250/1250P/1052*² 951**(2) Procedure**

a0g6t3c138ca



a0g6t3c139ca



a0g6t3c140ca

1. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
2. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
3. Remove 2 screws [1] and then remove the gear [2].

4. Remove 2 screws [1] to release the fixing of the bearing [2].
5. Pull out the ADU exit roller [3].

Note

- When reinstalling the bearing, be sure to set the notch of the flange between 2 screws.
- To prevent the notch from opening, be sure to tighten 2 screws in the counterclockwise turn with the notch as a starting point.

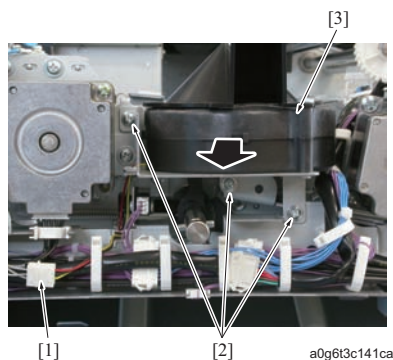
6. Remove 2 E-rings [2] and the bearing [3] from the ADU exit roller [1].
7. Reinstall the preceding parts following the removal steps in reverse.
8. After replacing the ADU exit roller, conduct the following steps.
In case of 1250/1250P/1052
For the ADU exit roller: Counter reset of the parts counter No.114
For 951
For the ADU exit roller: Counter reset of the parts counter No.94

5.9.22 Replacing the ADU reverse motor (M12) and the ADU reverse motor belt**(1) Periodically replaced parts/cycle**

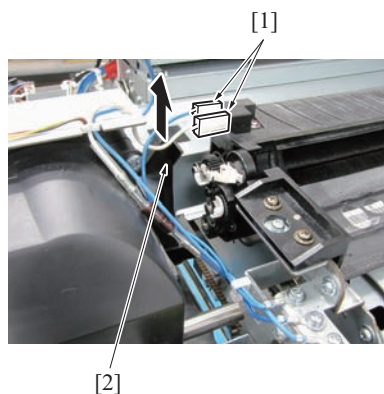
- ADU reverse motor (M12)
 - : Every 40,000,000 prints*¹
 - : Every 30,000,000 prints*²
- ADU reverse motor belt
 - : Every 40,000,000 prints*¹
 - : Every 30,000,000 prints*²

*¹ 1250/1250P/1052

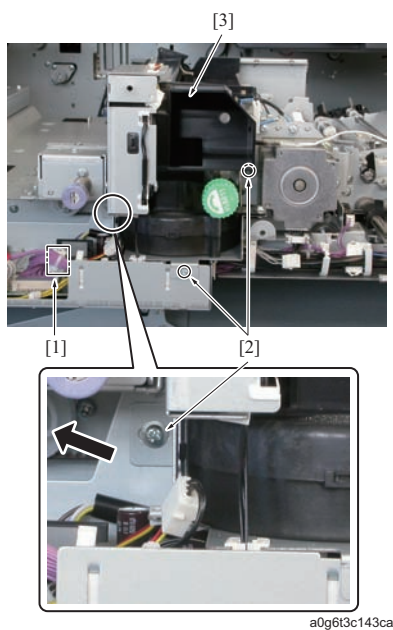
* 2 951

(2) Procedure

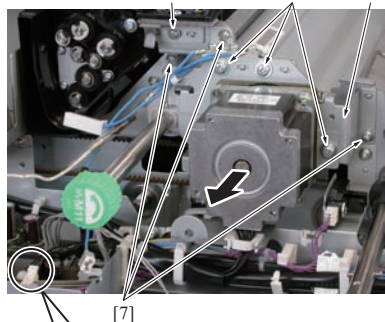
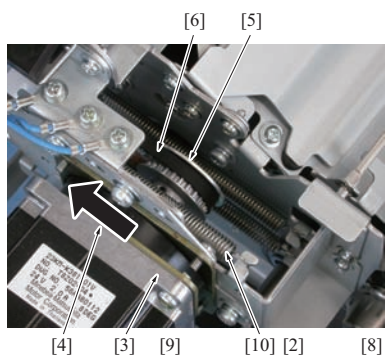
1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Remove the registration motor Assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
5. Remove the loop motor Assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
6. Disconnect the connector [1].
7. Remove 3 screws [2] and remove the belt cooling fan Assy [3].



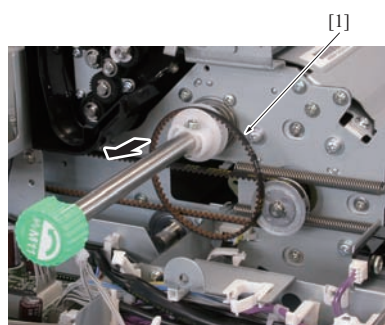
8. Remove 2 fasteners [1] and the duct cover [2].



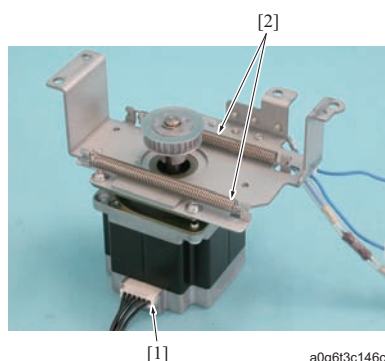
9. Disconnect the connector [1].
10. Remove 3 screws [2] and remove the fan mounting piece [3].



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a0g6t3c145ca



a0g6t3c146ca

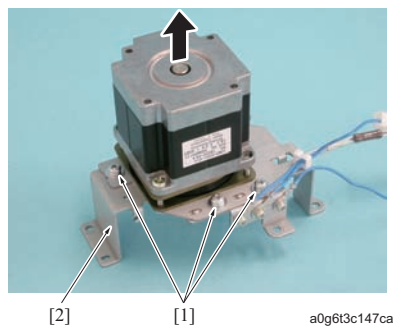
11. Disconnect the connector [1].
12. Loosen 3 screws [2] to slide the ADU reverse motor (M12) [3] in the arrow-marked direction [4], and release ADU reverse motor belt [6] from the pulley [5].
13. Remove 3 screws [7] and then remove the ADU reverse motor assembly [8].

Note

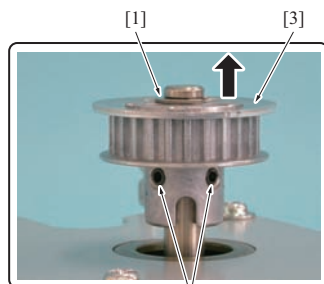
- Be sure not to touch the screw [9] because it is not allowed to be removed.
- When reinstalling the ADU reverse motor belt [6], the tension is automatically adjusted by the spring [10]. be sure to tighten the screw [2] after installing the ADU reverse motor belt.

14. Remove the ADU reverse motor belt [1].

15. Disconnect the connector [1].
16. Remove 2 springs [2].



17. Remove 3 screws [1] and remove the motor mounting plate [2].

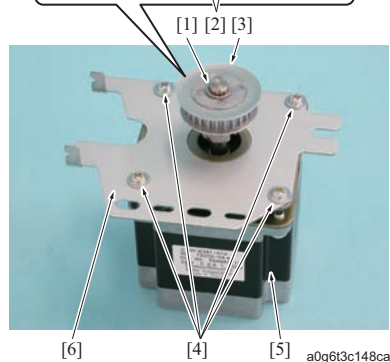


18. Remove the E-ring [1].

19. Remove 2 screws [2] and remove the pulley [3].

20. Remove 4 screws [4], and remove the motor slide plate [6] from the ADU reverse motor (M12) [5].

21. Reinstall the above parts following the removal steps in reverse.



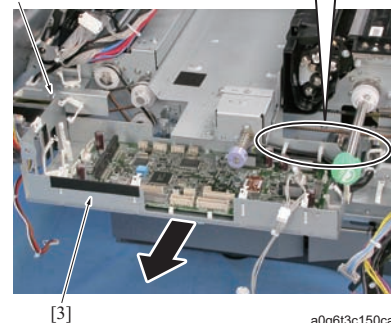
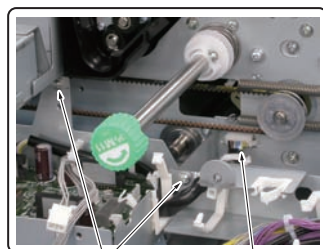
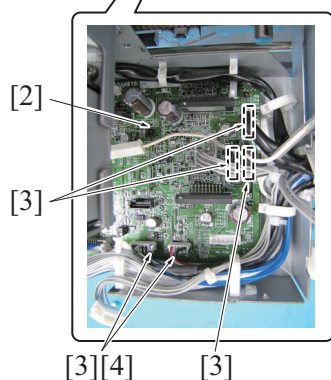
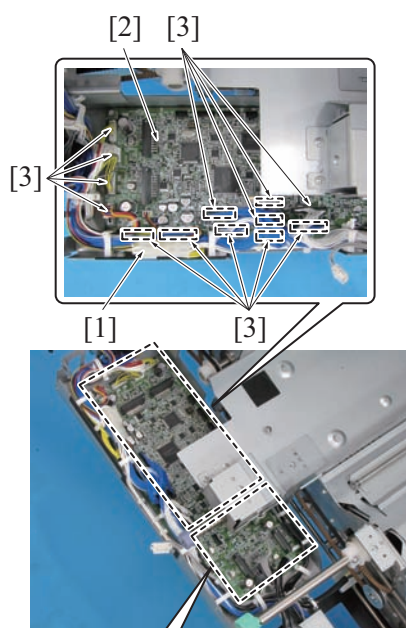
5.9.23 Replacing the ADU conveyance motor /2 (M16) and the ADU conveyance motor belt /2

(1) Periodically replaced parts/cycle

- ADU conveyance motor /2 (M16)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Removing/installing of the ADU conveyance motor belt /2
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

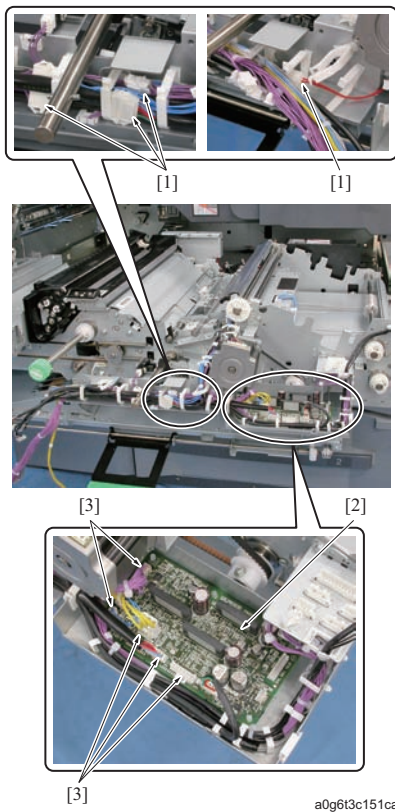
a0g6t3c150ca

1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Remove the registration motor Assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
5. Remove the loop motor Assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
6. Remove the ADU reverse motor Assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
7. Disconnect the connector [1].
8. Remove 18 connectors [3] that are connected to the ADU drive board /1 (ADUDB1) [2].

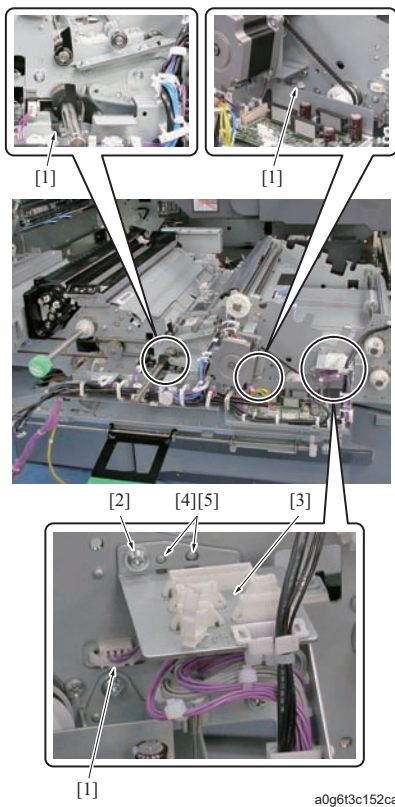
Note

- The 2 connectors [4] are only for 1250/1250P/1052.

9. Disconnect the connector [1].
10. Remove 3 screws [2] and remove the ADU drive board stay /1 [2].



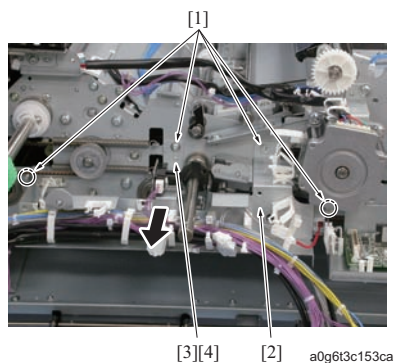
11. Disconnect 4 connectors [1].
12. Remove 5 connectors [3] that are connected to the ADU drive board /2 (ADUDB2) [2].



13. Disconnect the 3 connectors [1].
14. Remove the screw [2] and remove the connector mounting bracket [3].

Note

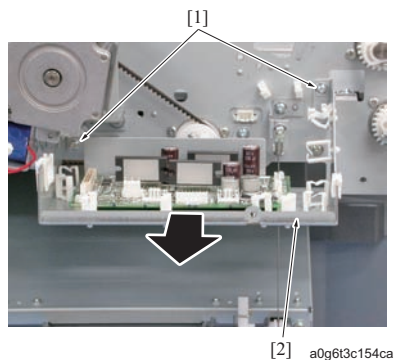
- When reinstalling the connector mounting piece, be sure to set 2 positioning holes [4] to 2 projections [5] of the duplex section.



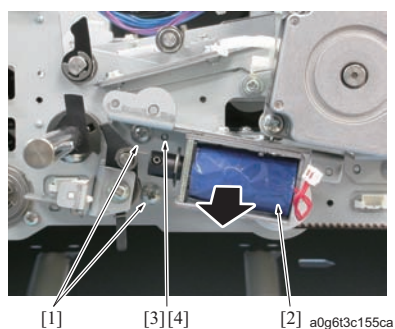
15. Remove 4 screws [1] and remove the wiring harness stay [2].

Note

- When reinstalling the wiring harness stay, be sure to set the positioning hole [3] to the projection of the duplex section [4].



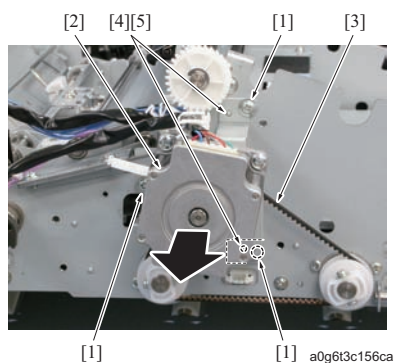
16. Remove 2 screws [1] and remove the ADU drive board stay /2 [2].



17. Remove 2 screws [1] and then remove the ADU lock solenoid assembly [2].

Note

- When reinstalling the thick paper assist solenoid assy, be sure to set the projection [4] of the duplex section to the positioning hole [3].

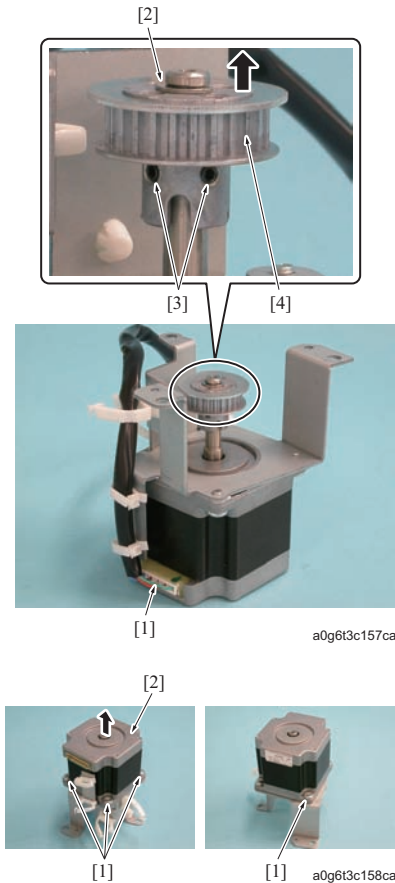


18. Remove 3 screws [1] and remove the ADU conveyance motor /2 assy [2].

19. Remove the ADU conveyance motor belt /2 [3].

Note

- When reinstalling the ADU conveyance motor /2 assy, be sure to set 2 positioning holes [4] to 2 projections [5] of the duplex section.



20. Disconnect the connector [1].
21. Remove the E-ring [2] and 2 screws [3], and remove the pulley [4].

22. Remove 4 screws [1] and remove the ADU conveyance motor /2 (M16) [2].
23. Reinstall the preceding parts following the removal steps in reverse.

5.9.24 Replacing the ADU conveyance roller /3 and /4

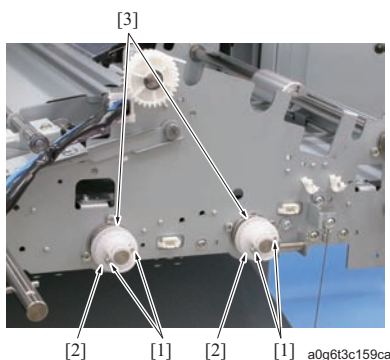
(1) Periodically replaced parts/cycle

- ADU conveyance roller /3
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*¹
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*²
- ADU conveyance roller /4
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*¹
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*²

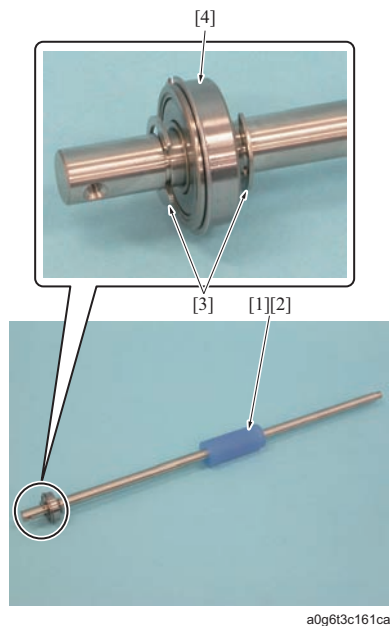
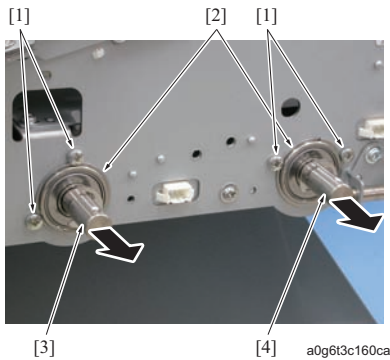
*¹ 1250/1250P/1052

*² 951

(2) Procedure



1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
5. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
6. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
7. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
8. Remove the screws [1], 2 each, and remove 2 pulleys [2] and 2 spacers [3].



9. Remove 2 screws [1] to release the fixing of 2 bearings [2].
10. Pull out the ADU conveyance rollers /3 [3] and /4 [4].

Note

- When reinstalling the bearing, be sure to set the notch of the flange between 2 screws.
- To prevent the notch from opening, be sure to tighten 2 screws in the counterclockwise turn with the notch as a starting point.

11. Remove E-rings [3], 2 each, and the bearings [4], 1 each, from the ADU conveyance rollers /3 [1] and /4 [2].

Note

- When reinstalling the bearing, be sure to turn the flange outside.

12. Reinstall the preceding parts following the removal steps in reverse.
13. After replacing the ADU conveyance roller /3 and /4, conduct the following item.

In case of 1250/1250P/1052

For the ADU conveyance rollers /3 and /4: Counter reset of the parts counter No.114

For 951

For the ADU conveyance rollers /3 and /4: Counter reset of the parts counter No.94

5.9.25 Replacing the reverse/exit roller and the reverse/exit motor belt

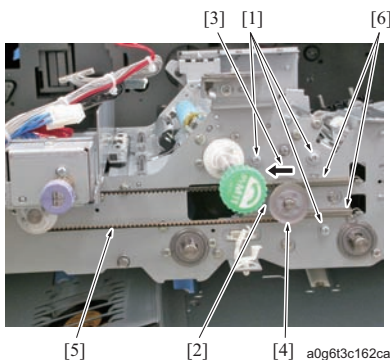
(1) Periodically replaced parts/cycle

- Reversal output roller
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *2
- reverse/exit motor belt
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

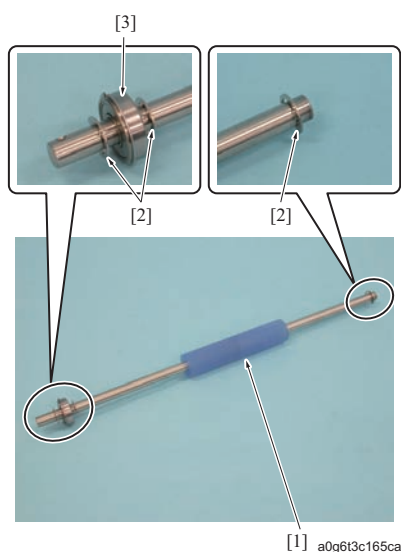
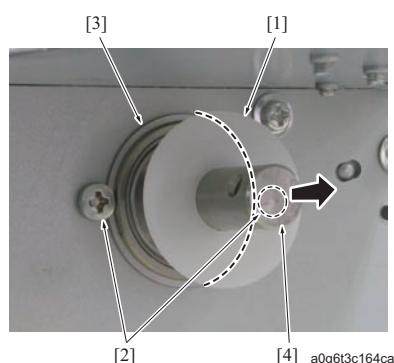
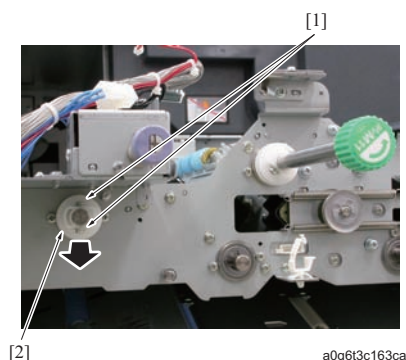


1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
5. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
6. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
7. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
8. Loosen 3 screws [1] to slide the reverse/exit motor (M13) [2] in the arrow-marked direction [3], and release the reverse/exit motor belt [5] from the pulley [4].

Note

- When reinstalling the reverse/exit motor belt [5], the tension is automatically adjusted by the spring [6]. be sure to tighten the screw [1] after installing the reverse/exit motor belt.

9. Remove 2 screws [1] and remove the pulley [2].



10. Remove the spacer [1].

11. Remove 2 screws [2] to release the fixing of the bearing [3].

12. Pull out the reverse/exit roller [4].

Note

- When reinstalling the bearing, be sure to set the notch of the flange between 2 screws.
- To prevent the notch from opening, be sure to tighten 2 screws in the counterclockwise turn with the notch as a starting point.

13. Remove 3 E-rings [2] and the bearing [3] from the reverse/exit roller [1].

Note

- When reinstalling the bearing, be sure to turn the flange outside.

14. Reinstall the preceding parts following the removal steps in reverse.

15. After replacing the reverse/exit roller, conduct the followings.

In case of 1250/1250P/1052

For the reverse/exit roller: Counter reset of the parts counter No. 111

For 951

For the reverse/exit roller: Counter reset of the parts counter No.91

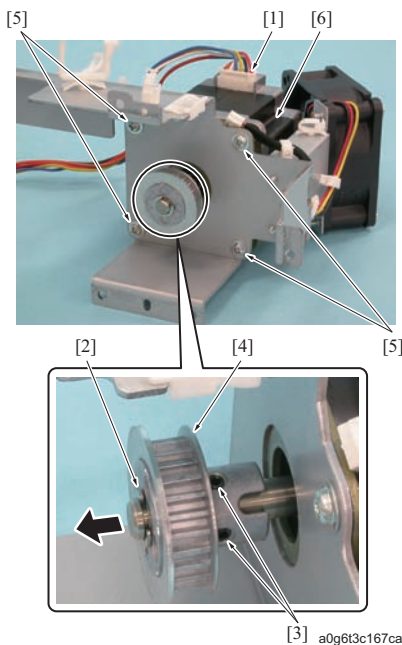
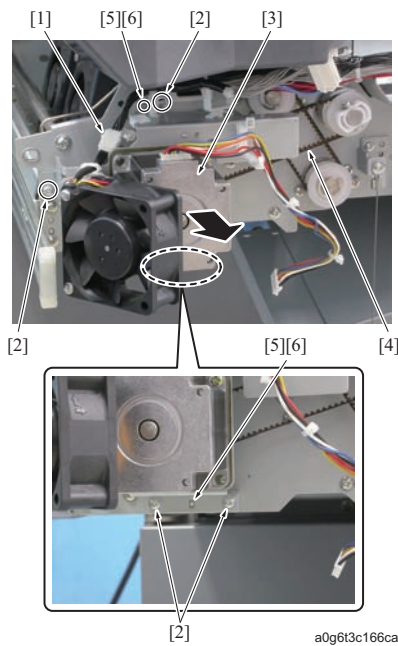
5.9.26 Replacing the ADU accelerate motor (M14) and the ADU accelerate motor belt

(1) Periodically replaced parts/cycle

- ADU acceleration motor
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- ADU accelerate motor belt
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Remove the registration motor Assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
5. Remove the loop motor Assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
6. Remove the ADU reverse motor Assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
7. Remove the ADU conveyance motor /2 Assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
8. Disconnect the connector [1].
9. Remove 4 screws [2] and then remove the ADU acceleration motor assembly [3].
10. Remove the ADU accelerate motor belt [4].

Note

- When reinstalling the ADU accelerate motor Assy, be sure to set 2 positioning holes [5] to 2 projections [6] of the duplex section.

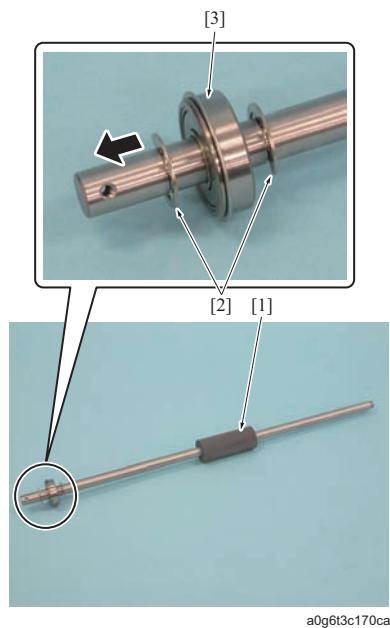
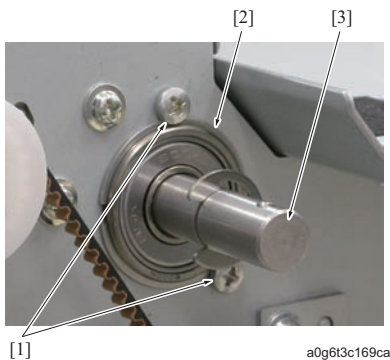
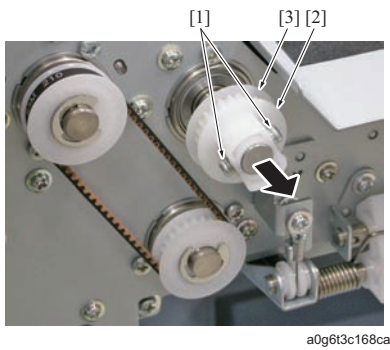
11. Disconnect the connector [1].
12. Remove the E-ring [2] and 2 screws [3], and remove the pulley [4].
13. Remove 4 screws [5] and remove the ADU accelerate motor (M14) [6].
14. Reinstall the above parts following the removal steps in reverse.

5.9.27 Replacing the ADU accelerate roller**(1) Periodically replaced parts/cycle**

- ADU accelerator roller
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
5. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
6. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
7. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
8. Remove the ADU accelerate motor assy. (Refer to [F.5.9.26 Replacing the ADU accelerate motor \(M14\) and the ADU accelerate motor belt](#))
9. Remove 2 screws [1] and remove the pulley [2] and the spacer [3].
10. Remove 2 screws [1] to release the fixing of the bearing [2].
11. Pull out the ADU accelerate roller [3].

Note

- When reinstalling the bearing, be sure to set the notch of the flange between 2 screws.
- To prevent the notch from opening, be sure to tighten 2 screws in the counterclockwise turn with the notch as a starting point.

12. Remove 2 E-rings [2] and the bearing [3] from the ADU accelerate roller [1].

Note

- When reinstalling the bearing, be sure to turn the flange outside.

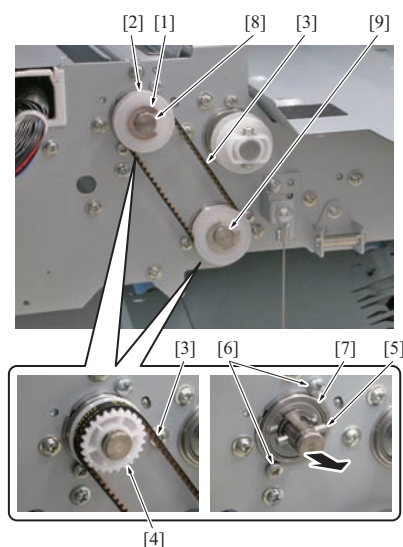
13. Reinstall the preceding parts following the removal steps in reverse.
14. After replacing the ADU accelerate roller, conduct the following steps.
In case of 1250/1250P/1052
For the ADU accelerate roller: Counter reset of the parts counter No.110
For 951
For the ADU accelerate roller: Counter reset of the parts counter No.90

5.9.28 Replacing the paper exit conveyance roller /1 and /2 assy and the ADU paper exit roller belt**(1) Periodically replaced parts/cycle**

- Paper exit conveyance roller /1
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *2
- Output convey roller /2 assy
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *2
- ADU paper exit roller belt
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

a0g6t3c171ca

1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
5. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
6. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
7. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
8. Remove the ADU accelerate motor assy. (Refer to [F.5.9.26 Replacing the ADU accelerate motor \(M14\) and the ADU accelerate motor belt](#))
9. Remove the E-ring [1] and then remove the spacer [2].
10. Remove the ADU paper exit roller belt [3].
11. Remove the pulley [4] and remove the pin [5].
12. Remove 2 screws [6] to release the fixing of the bearing [7].
13. Pull out the ADU paper exit conveyance roller /2 assy [8].
14. Following the steps 9 to 13, remove the paper exit conveyance roller /1 [9].

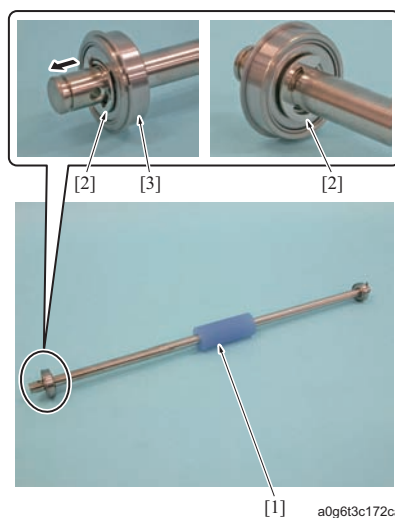
Note

- When reinstalling the bearing, be sure to set the notch of the flange between 2 screws.
- To prevent the notch from opening, be sure to tighten 2 screws in the counterclockwise turn with the notch as a starting point.

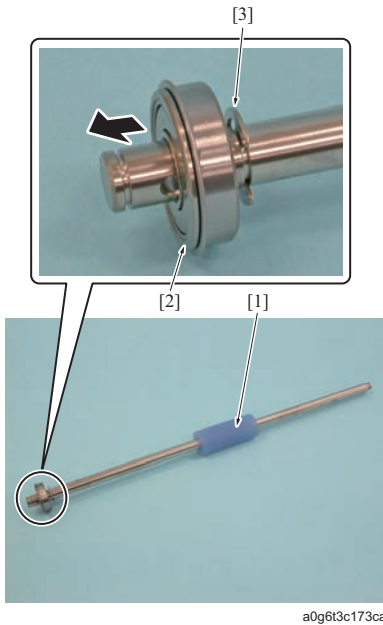
15. Remove 2 E-rings [2] and the bearing [3] from the paper exit roller /2 assy [1].

Note

- When reinstalling the bearing, be sure to turn the flange outside.



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16. Remove the bearing [2] and the E-ring [3] from the paper exit conveyance roller /1 [1].

Note

- When reinstalling the bearing, be sure to turn the flange outside.

17. Reinstall the preceding parts following the removal steps in reverse.
18. After replacing the paper exit conveyance roller /1 and the paper exit conveyance roller /2 assy, conduct the followings.
- In case of 1250/1250P/1052
For the paper exit conveyance roller /1 and the paper exit conveyance roller /2 assy: Counter reset of the parts counter No. 113
- For 951
For the paper exit conveyance roller /1 and the paper exit conveyance roller /2 assy: Counter reset of the parts counter No. 93

5.9.29 Replacing the ADU reverse roller

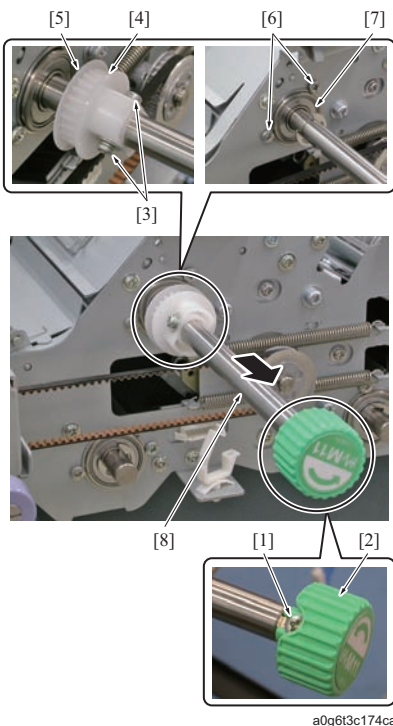
(1) Periodically replaced parts/cycle

- ADU reversal roller
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *2

*1 1250/1250P/1052

*2 951

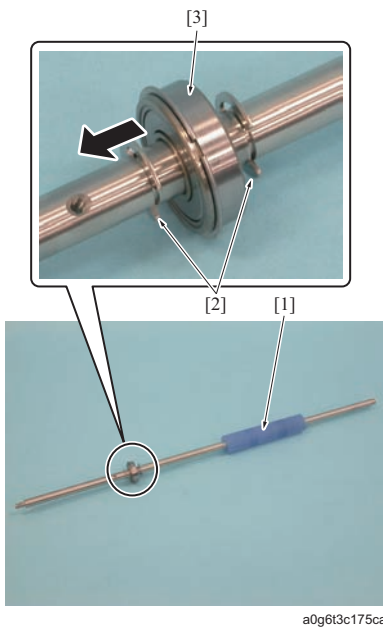
(2) Procedure



1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
5. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
6. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
7. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
8. Remove the ADU accelerate motor assy. (Refer to [F.5.9.26 Replacing the ADU accelerate motor \(M14\) and the ADU accelerate motor belt](#))
9. Remove the screw [1] and then remove the knob [2].
10. Remove 2 screws [3] and remove the pulley [4] and the spacer [5].
11. Remove 2 screws [6] to release the fixing of the bearing [7].
12. Pull out the ADU reverse roller [8].

Note

- When reinstalling the bearing, be sure to set the notch of the flange between 2 screws.
- To prevent the notch from opening, be sure to tighten 2 screws in the counterclockwise turn with the notch as a starting point.



13. Remove 2 E-rings [2] and the bearing [3] from the ADU reverse roller [1].

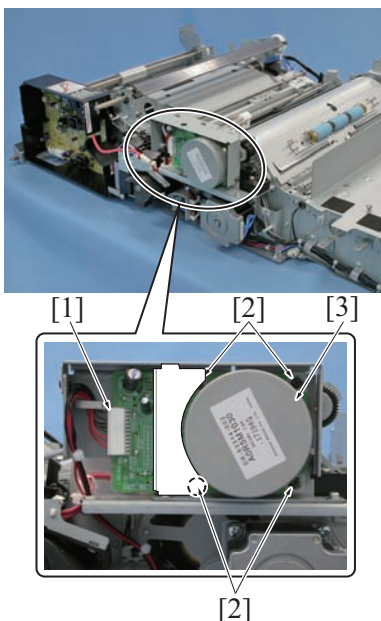
Note

- When reinstalling the bearing, be sure to turn the flange outside.

14. Reinstall the preceding parts following the removal steps in reverse.
15. After replacing the ADU reversal roller, conduct the following item.
In case of 1250/1250P/1052
For the ADU reverse roller: Counter reset of the parts counter No. 112
For 951
For the ADU reverse roller: Counter reset of the parts counter No. 92

5.9.30 Replacing the transfer belt motor (M30)**(1) Periodically replaced parts/cycle**

- Transfer belt motor (M30)
 - : Every 40,000,000 prints*¹
 - : Every 30,000,000 prints*²

*¹ 1250/1250P/1052*² 951**(2) Procedure**

1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the belt cleaning unit. (Refer to [F.5.9.17 Replacing the belt cleaning unit](#))
4. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
5. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
6. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
7. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
8. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
9. Remove the ADU accelerate motor assy. (Refer to [F.5.9.26 Replacing the ADU accelerate motor \(M14\) and the ADU accelerate motor belt](#))
10. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
11. Disconnect the connector [1].
12. Remove 4 screws [2] and remove the transfer belt motor (M30) [3].

Note

- The position of the transfer belt motor is adjusted as an assy. Be sure to replace directly the motor by itself when replacing one.

13. Reinstall the above parts following the removal steps in reverse.

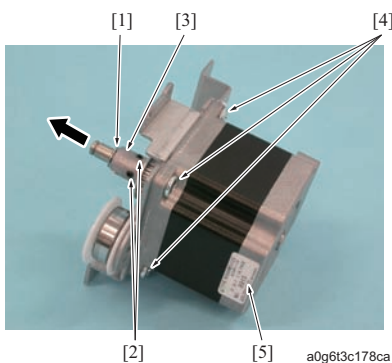
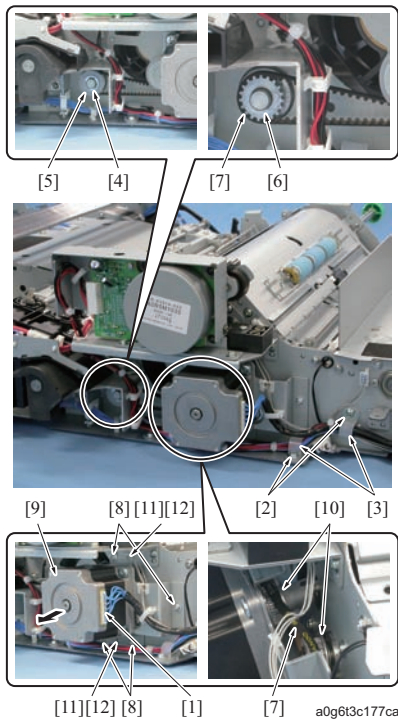
5.9.31 Replacing the ADU conveyance motor /1 (M15) and the ADU conveyance motor belt /1**(1) Periodically replaced parts/cycle**

- ADU conveyance motor /1 (M15)
 - : Every 40,000,000 prints*¹
 - : Every 30,000,000 prints*²
- ADU conveyance motor /1 belt

- : Every 40,000,000 prints*1
- : Every 30,000,000 prints*2

*1 1250/1250P/1052

*2 951

(2) Procedure

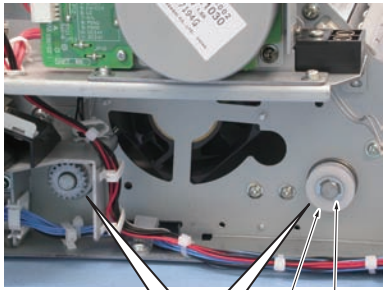
1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
 2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
 3. Remove the belt cleaning unit. (Refer to [F.5.9.17 Replacing the belt cleaning unit](#))
 4. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
 5. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
 6. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
 7. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
 8. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
 9. Remove the ADU accelerate motor assy. (Refer to [F.5.9.26 Replacing the ADU accelerate motor \(M14\) and the ADU accelerate motor belt](#))
 10. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
 11. Disconnect the connector [1].
 12. Remove the screw [2] and then remove the 2 wiring harness clamp [3].
 13. Remove the E-ring [4] and remove the spacer [5].
 14. Remove the ADU conveyance motor /1 belt [7] from the pulley [6].
 15. Remove 4 screws [8] and remove the ADU conveyance motor /1 assy [9].
 16. Remove the ADU conveyance motor belt /1 [7] from 2 pulleys [10].
- Note**
- Some of the screws [8] is hidden by the wiring harness. remove the wiring harness clamps [3] to move the wiring harness.
 - When reinstalling the ADU conveyance motor /1 assy, be sure to set 2 positioning holes [11] to 2 projections [12] of the duplex section.
17. Remove the E-ring [1] and 2 screws [2], and remove the pulley [3].
 18. Remove 3 screws [4] and remove the ADU conveyance motor /1 (M15) [5].
 19. Reinstall the above parts following the removal steps in reverse.

5.9.32 Replacing the ADU conveyance roller /1 and /2**(1) Periodically replaced parts/cycle**

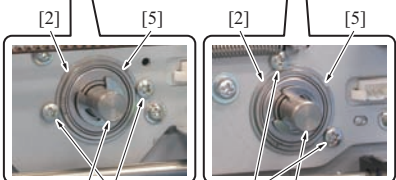
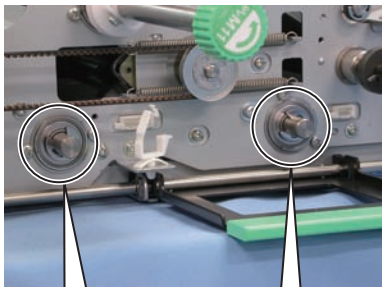
- ADU conveyance roller /1
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*2
- ADU conveyance roller /2
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*2

*1 1250/1250P/1052

*2 951

(2) Procedure

a0g6t3c179ca



a0g6t3c180ca

1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the belt cleaning unit. (Refer to [F.5.9.17 Replacing the belt cleaning unit](#))
4. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
5. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
6. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
7. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
8. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
9. Remove the ADU accelerate motor assy. (Refer to [F.5.9.26 Replacing the ADU accelerate motor \(M14\) and the ADU accelerate motor belt](#))
10. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
11. Remove the ADU conveyance motor /1 assy. (Refer to [F.5.9.31 Replacing the ADU conveyance motor /1 \(M15\) and the ADU conveyance motor belt /1](#))
12. Remove the E-ring [1] and then remove the spacer [2].
13. Remove the pulleys [3], 1 each, and remove the pins [4], 1 each.
14. Set the duplex section temporarily to the main body. (Refer to [G.2.2.22 DUPLEX SECTION](#))

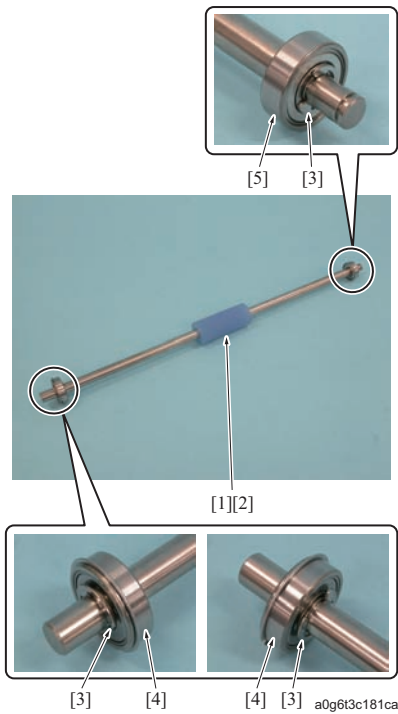
Note

- When the duplex section is on the working table, the ADU conveyance rollers /1 and /2 contact closely with driven roller of each roller and cannot be removed. Be sure to return the duplex section to the main body in advance.

15. Remove the screws [1], 2 each, to release the fixing of the bearings [2], 1 each.
16. Pull out the ADU conveyance rollers /1 [3] and /2 [4].

Note

- When reinstalling the bearings [2], be sure to set the notch to the position [5].
- To prevent the notch [5] from opening, be sure to tighten 2 screws [1] in the counterclockwise turn with the notch [5] as a starting point.



17. Remove 3 E-rings [3] and the bearings [4] and [5] from the ADU conveyance rollers /1 [1] and /2 [2].

Note

- When reinstalling the bearing [4], be sure to turn the flange outside.

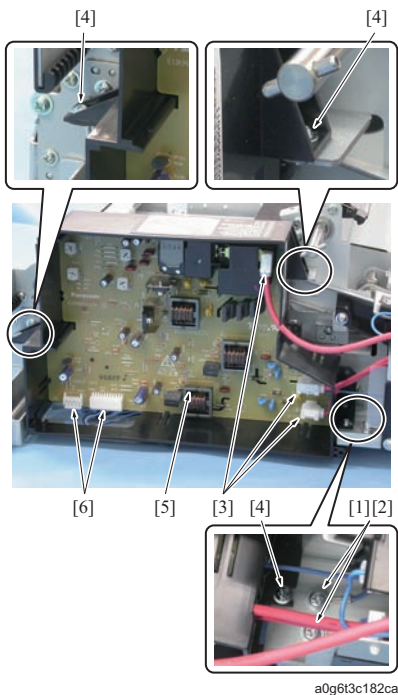
18. Reinstall the preceding parts following the removal steps in reverse.
19. After replacing the ADU conveyance rollers /1 and /2 conduct the following item.
- In case of 1250/1250P/1052
For the ADU conveyance rollers /1 and /2: Counter reset of the parts counter No.114
For 951
For the ADU conveyance rollers /1 and /2: Counter reset of the parts counter No.94

5.9.33 Replacing the transfer belt pressure release motor (M26)**(1) Periodically replaced parts/cycle**

- Transfer belt pressure release motor (M26)
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints *2

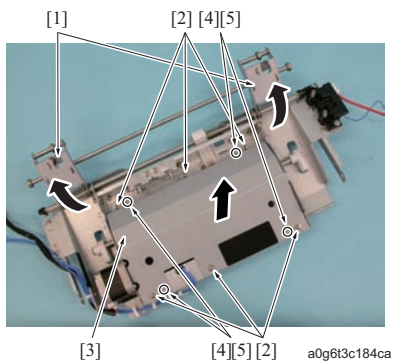
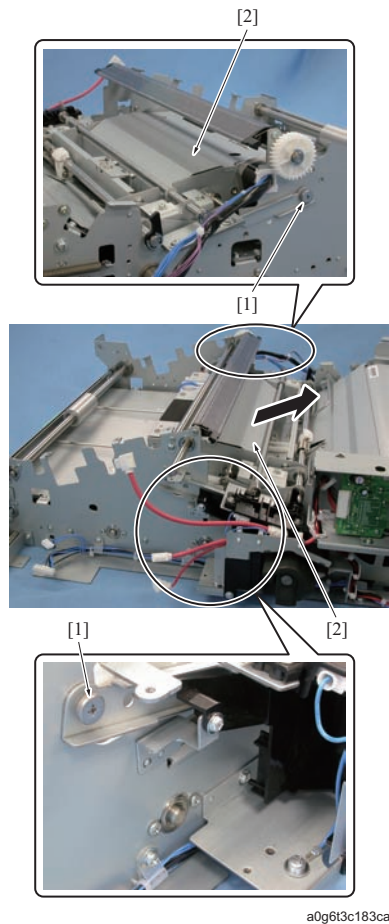
*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the belt cleaning unit. (Refer to [F.5.9.17 Replacing the belt cleaning unit](#))
4. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
5. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
6. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
7. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
8. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
9. Remove the ADU accelerate motor assy. (Refer to [F.5.9.26 Replacing the ADU accelerate motor \(M14\) and the ADU accelerate motor belt](#))
10. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
11. Remove 2 screws [1], and remove 2 ground terminals [2].
12. Disconnect 6 connectors [2] and remove 3 fastons [3].
13. Remove 3 screws [4] and remove the high voltage unit /2 (HV2) [5].

14. Remove 2 screws [1] and remove the transfer pressure unit [2].

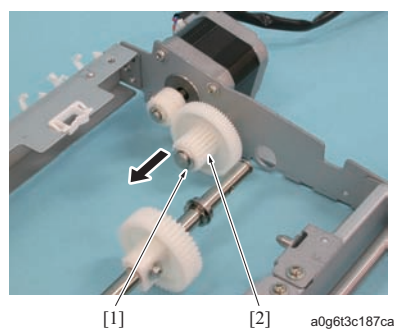
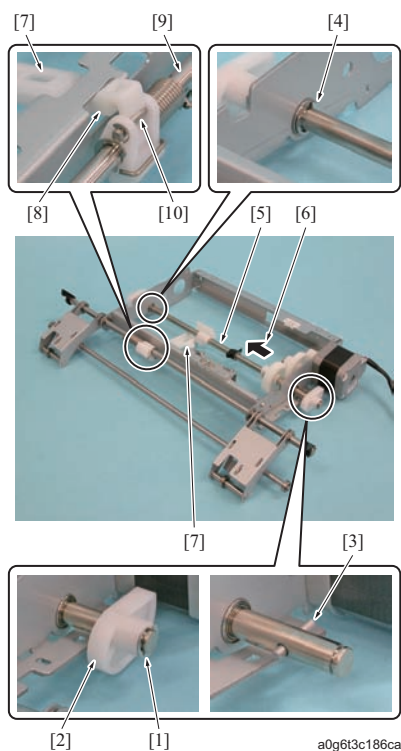
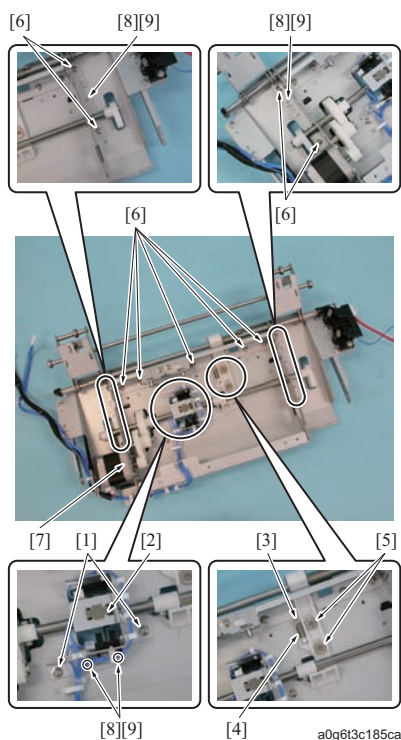


15. Open the pressure arm [1].

16. Remove 6 screws [2] and remove the cover [3].

Note

- When reinstalling the cover, be sure to set 4 positioning holes [4] to 4 projections [5] of the transfer pressure unit.



17. Remove 2 screws [1], and then remove the sensor mounting bracket [2].

Note

- Do not remove the cables of each sensor.

18. Remove the screw [3] and remove the spring [4].

19. Remove 2 screws [5] and 9 screws [6], and remove the pressure mechanism assy [7].

Note

- When reinstalling the sensor mounting bracket [2] and the pressure mechanism assy [7], be sure to set the positioning holes [8] to the projections [9] of transfer pressure unit.

20. Remove the E-ring [1] and remove the pressure cam [2] and the pin [3].

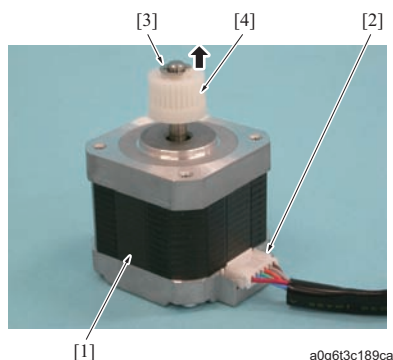
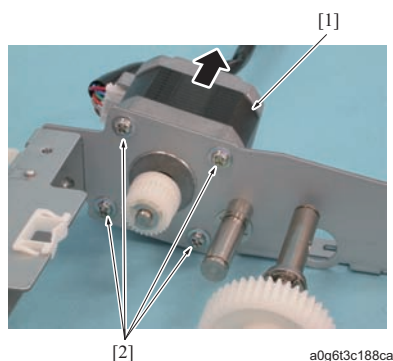
21. Remove the E-ring [4] and slide the cam drive shaft [5] in the arrow-marked direction [6].

22. Remove the slide member [7].

Note

- When reinstalling the slide member [7], be sure to engage the depression [8] to the pin [10] of the pressure shaft [9].

23. Remove the E-ring [1] and the gear [2].



24. Remove 4 screws [1] and remove the transfer belt pressure release motor assy [2].

25. Disconnect the connector [2] from the transfer belt pressure release motor (M26) [1].

26. Remove the E-ring [3] and remove the gear [4].

27. Reinstall the above parts following the removal steps in reverse.

5.9.34 Replacing the reverse/exit motor (M13)

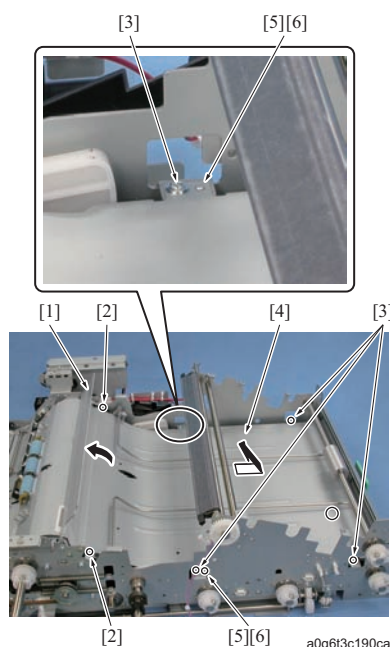
(1) Periodically replaced parts/cycle

- Reverse/exit motor (M13)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

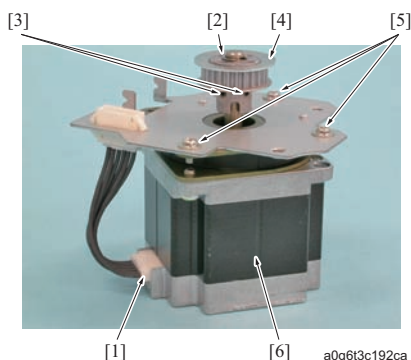
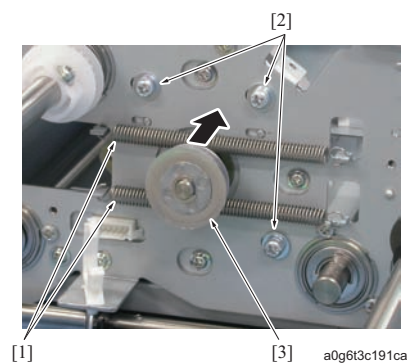
(2) Procedure



1. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the belt cleaning unit. (Refer to [F.5.9.17 Replacing the belt cleaning unit](#))
4. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
5. Remove the registration motor assy. (Refer to [F.5.9.19 Replacing the registration motor \(M17\) and the motor gear /Rt](#))
6. Remove the loop motor assy. (Refer to [F.5.9.20 Replacing the loop motor \(M18\)](#))
7. Remove the ADU reverse motor assy. (Refer to [F.5.9.22 Replacing the ADU reverse motor \(M12\) and the ADU reverse motor belt](#))
8. Remove the ADU conveyance motor /2 assy. (Refer to [F.5.9.23 Replacing the ADU conveyance motor /2 \(M16\) and the ADU conveyance motor belt /2](#))
9. Remove the ADU accelerate motor assy. (Refer to [F.5.9.26 Replacing the ADU accelerate motor \(M14\) and the ADU accelerate motor belt](#))
10. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
11. Remove the transfer pressure unit. (Refer to [28.8.32 Replacing the transfer belt pressure release motor \(M: 26\)](#))
12. Open the open/close plate [1] and remove 2 screws [2].
13. Remove 4 screws [3] and remove the ADU fixing plate [4].

Note

- When reinstalling the ADU fixing plate, be sure to set 2 positioning holes [5] to 2 projections [6] of the duplex section.



14. Remove 1 springs [2].

15. Remove 3 screws [2] and remove the reverse/exit motor assy [3].

16. Disconnect the connector [1].

17. Remove the E-ring [2] and 2 screws [3], and remove the pulley [4].

18. Remove 3 screws [5] and remove the reverse/exit motor (M13) [6].

19. Reinstall the above parts following the removal steps in reverse.

5.9.35 Replacing the reverse/exit solenoid (SD7) and the de-curler solenoid /Up (SD8) and /Lw (SD5)

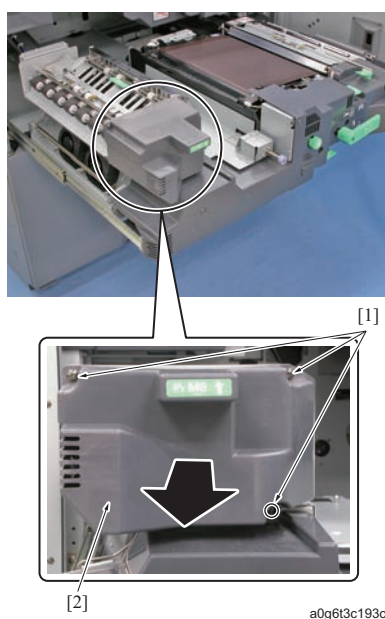
(1) Periodically replaced parts/cycle

- Reverse/exit solenoid (SD7)
 - : Every 40,000,000 prints*¹
 - : Every 30,000,000 prints*²
- De-curler solenoid /Up (SD8)
 - : Every 40,000,000 prints*¹
 - : Every 30,000,000 prints*²
- De-curler solenoid /Lw (SD5)
 - : Every 40,000,000 prints*¹

*¹ 1250/1250P/1052

*² 951

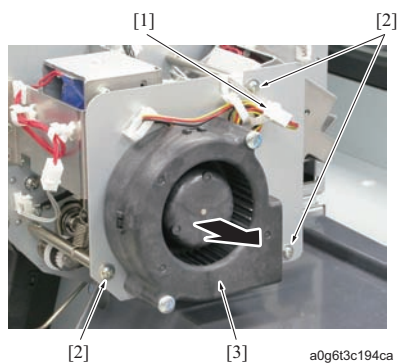
(2) Procedure



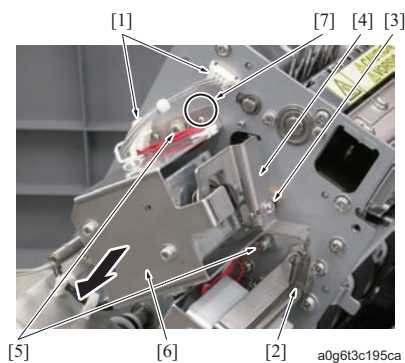
1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))

2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))

3. Loosen 3 screws [1] and remove the reverse section cover [2].



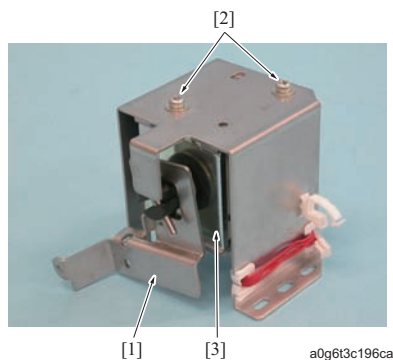
4. Disconnect the connector [1].
5. Remove 3 screws [2] and remove the ADU cooling fan /3 assy [3].



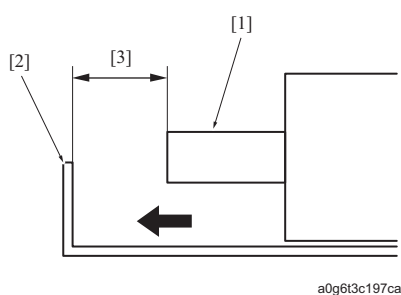
6. Disconnect 2 connectors [1].
7. Remove the spring [2].
8. Remove the screw [3] and release the fixing of the actuator [4].
9. Remove 2 screws [5] and then remove the reverse/exit solenoid assembly [6].

Note

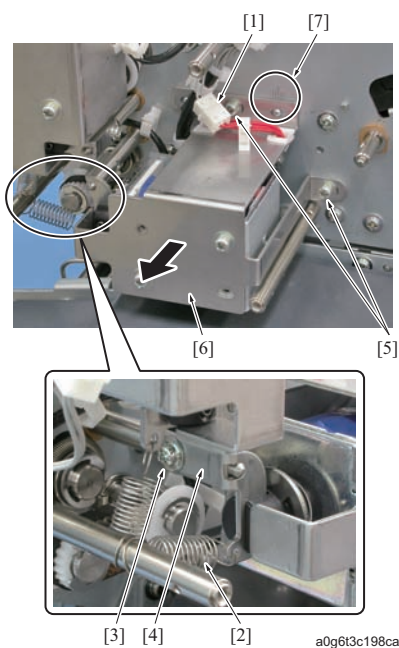
- When reinstalling the reverse/exit solenoid assy, be sure to set it to the same graduation [7] as that used for removal.



10. Remove the actuator [1].
11. Remove 2 screws [2] and remove the reverse/exit solenoid (SD7) [3].

**Note**

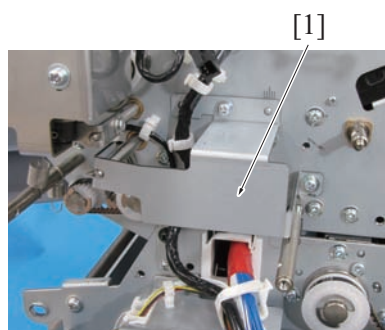
- When reinstalling the reverse/exit solenoid (SD7), be sure to fix it so that the gap [3] between the plunger [1] and the solenoid mounting bracket [2] is within the standard value.
Standard value: 3.8mm to 4.3mm



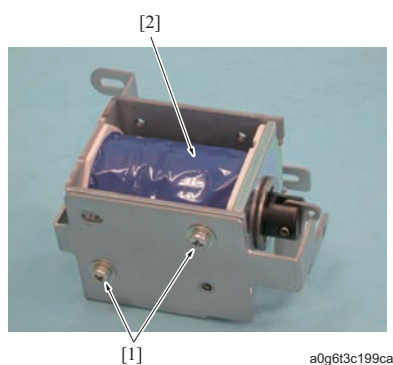
12. Disconnect the connector [1].
13. Remove the spring [2].
14. Remove the screw [3] and release the fixing of the actuator [4].
15. Remove 2 screws [5] and remove the de-curler solenoid /Lw assy [6].

Note

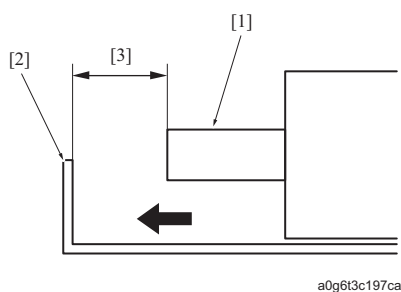
- When reinstalling the de-curler solenoid /Lw assy, be sure to set it to the same graduation [7] as that used for removal.

**Note**

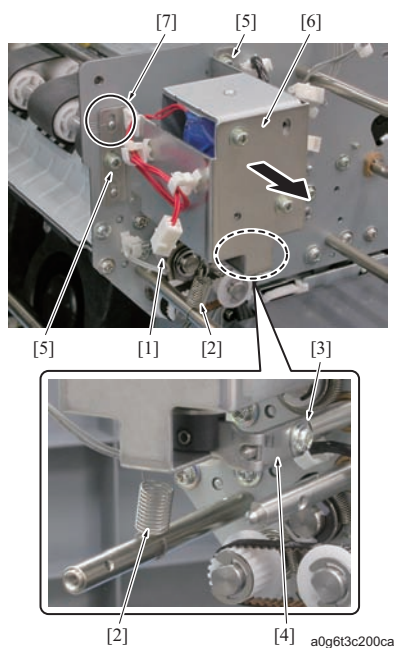
- For the 951, since it does not have the de-curler solenoid / Lw assy, there is no need to conduct steps 12 to 15. The metal frame [1] is attached, but there is no need to remove it.



16. Remove 2 screws [1] and remove the de-curler solenoid /Lw (SD5).

**Note**

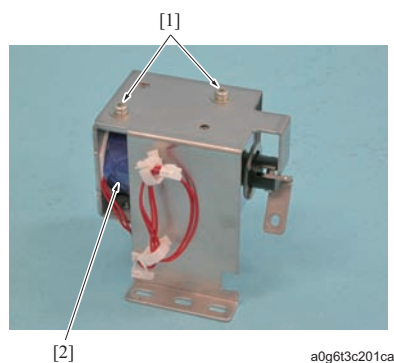
- When reinstalling the de-curler solenoid /Lw (SD5), be sure to fix it so that the gap [3] between the plunger [1] and the solenoid mounting bracket [2] is within the standard value.
Standard value: 3.8mm to 4.3mm



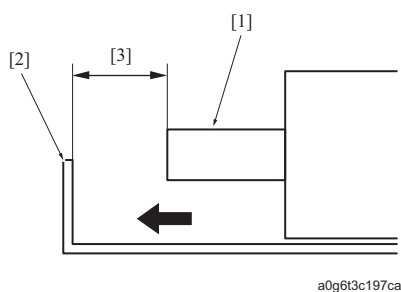
17. Disconnect the connector [1].
18. Remove the spring [2].
19. Remove the screw [3] and release the fixing of the actuator [4].
20. Remove 2 screws [5] and remove the de-curler solenoid /Up assy [6].

Note

- When reinstalling the de-curler solenoid /Up assy, be sure to set it to the same graduation [7] as that used for removal.



21. Remove 2 screws [1] and remove the de-curler solenoid /Up (SD8).

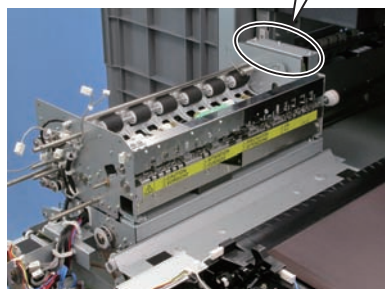
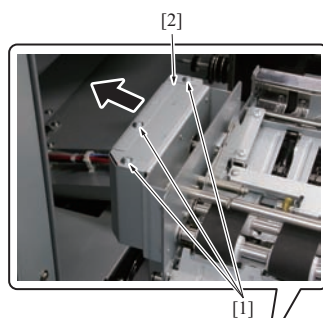


22. Reinstall the above parts following the removal steps in reverse.

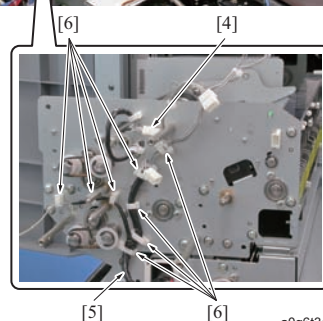
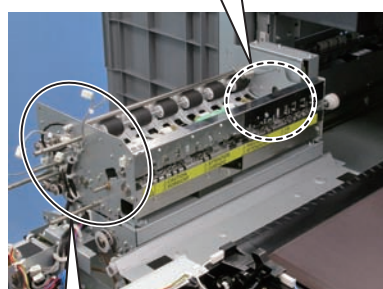
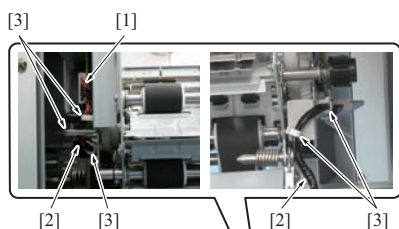
Note

- When reinstalling the de-curler solenoid /Up (SD8), be sure to fix it so that the gap [3] between the plunger [1] and the solenoid mounting bracket [2] is within the standard value.

Standard value: 3.8mm to 4.3mm

5.9.36 Removing/reinstalling the reverse/exit section**(1) Procedure**

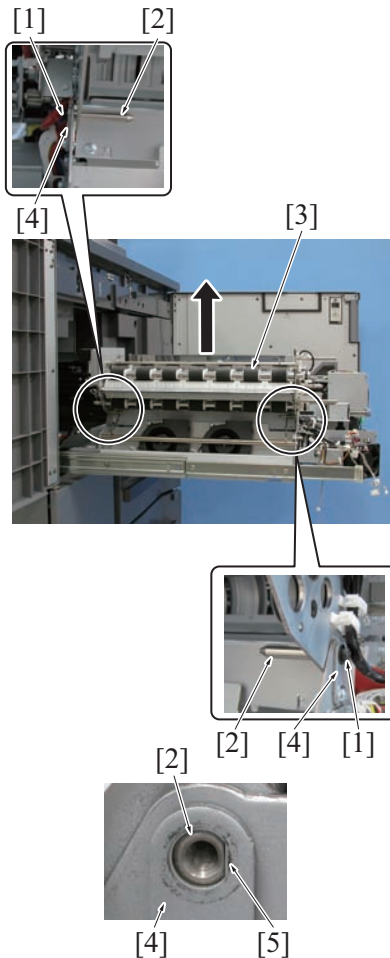
a0g6t3c202ca



a0g6t3c203ca

1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the reverse/exit solenoid assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
4. Remove the de-curler solenoid /Lw assy. (1250/1250P/1052 only) (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
5. Remove the de-curler solenoid /Up assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
6. Remove the duplex section cover /Lt. (Refer to 28.8.10 Removing/reinstalling the duplex section cover)
7. Remove 3 screws [1] and remove the de-curler motor cover [2].

8. Disconnect the connector [1] to release the wiring harness [2] from 5 wiring harness clamps [3].
9. Disconnect the connector [4] to release the wiring harness [5] from 8 wiring harness clamps [6].



10. Remove each 1 screw [1] and then remove each 1 fulcrum shaft [2].
11. Remove the reverse/exit section [3].
 - Note**
 - When reinstalling each fulcrum shaft [2], be sure to set it to the D-cut section [5] of the support plate [4].
12. Reinstall the preceding parts following the removal steps in reverse.

5.9.37 Replacing the reverse gate

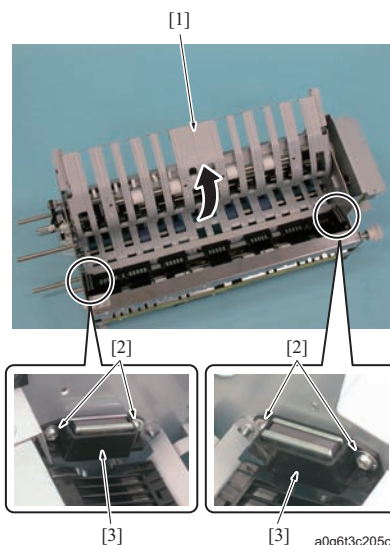
(1) Periodically replaced parts/cycle

- Reverse gate
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *¹
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds) *²

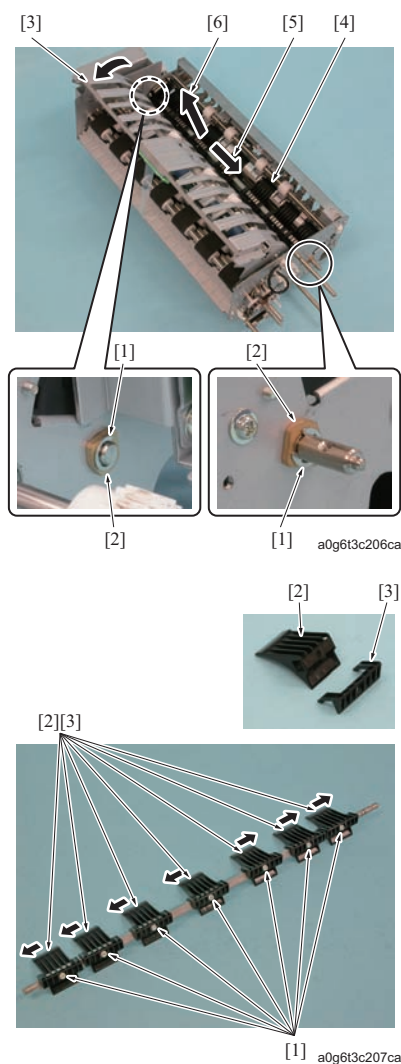
*¹ 1250/1250P/1052

*² 951

(2) Procedure



1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the reverse/exit solenoid assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
4. Remove the de-curler solenoid /Lw assy. (1250/1250P/1052 only) (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
5. Remove the de-curler solenoid /Up assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
6. Remove the reverse/exit section. (Refer to [F.5.9.36 Removing/reinstalling the reverse/exit section](#))
7. Open the reverse door [1] and remove the screws [2], 2 each, and then remove 2 magnet assys [3].



8. Remove the E-rings [1], 1 each, and remove 2 bearings [2].
9. Open the reverse door [3] and remove the reverse gate assembly [4] while sliding it to the arrow-marked directions [5] and [6] in this order.

10. Remove the screws [1], 1 each, and remove the reverse gates [2] and the guide member [3], seven each.
11. Reinstall the preceding parts following the removal steps in reverse.
12. After replacing the reverse gate, conduct the following item.
In case of 1250/1250P/1052
For the reverse gate: Counter reset of the parts counter No.120
For 951
For the reverse gate: Counter reset of the parts counter No.99

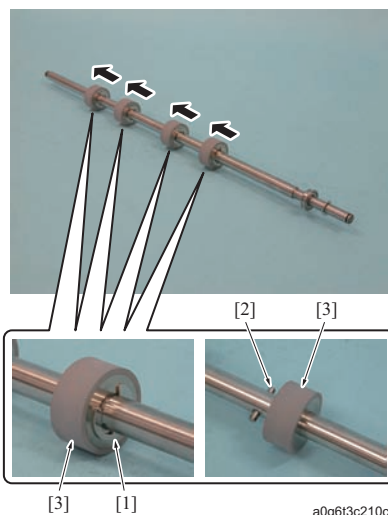
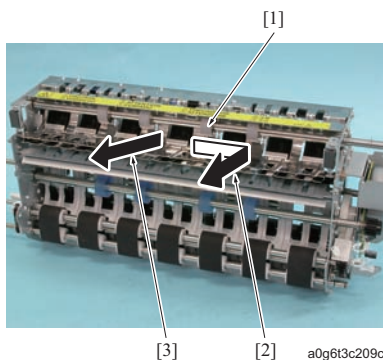
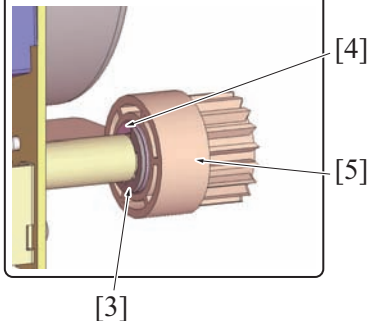
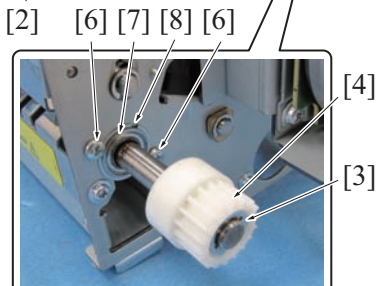
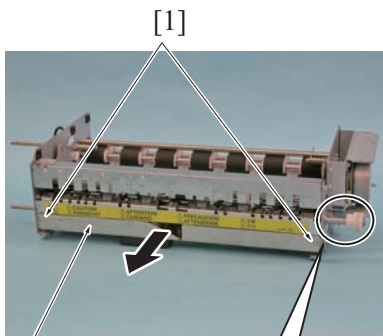
5.9.38 Replacing the fusing exit roller and the coupling unit

(1) Periodically replaced parts/cycle

- Fixing exit roller
 - : Every 8,000,000 prints*1
 - : Every 6,000,000 prints*2
- Coupling unit
 - : Every 16,000,000 prints*1
 - : Every 12,000,000 prints*2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/ reinstalling the fusing section](#))
3. Remove the reverse/exit solenoid assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
4. Remove the de-curler solenoid /Lw assy. (1250/1250P/1052 only) (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
5. Remove the de-curler solenoid /Up assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
6. Remove the reverse/exit section. (Refer to [F.5.9.36 Removing/ reinstalling the reverse/exit section](#))
7. Remove 2 screws [1], and then remove the duct assy [2].
8. Remove 2 E-rings [3] and washer [4] and then remove the coupling unit [5].
9. Remove 2 screws [6] to release the fixing of the bearing [7].

Note

- When reinstalling the bearing [7], be sure to set the notch to the position [8].
- To prevent the notch [8] from opening, be sure to tighten 2 screws [6] in the counterclockwise turn with the notch [8] as a starting point.

10. Remove the fusing exit roller assy [1] while sliding it in the arrow-marked directions [2] and [3] in this order.

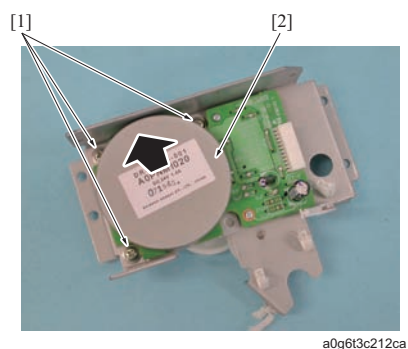
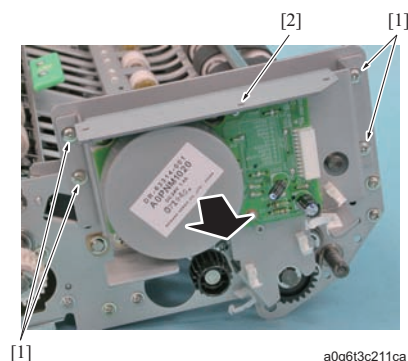
11. Remove the E-rings [1], 2 each, and the pins [2], 1 each, and then remove 4 fusing exit rollers [3].
12. Reinstall the preceding parts following the removal steps in reverse.
13. After replacing the fusing exit roller and the coupling unit, be sure to conduct the followings.
In case of 1250/1250P/1052
- For the fusing exit roller: Counter reset of the parts counter No. 116
For the coupling unit: Counter reset of the parts counter No.121
For 951
- For the fusing exit roller: Counter reset of the parts counter No.96
For the coupling unit: Counter reset of the parts counter No.100

5.9.39 Replacing the de-curler motor (M32)**(1) Periodically replaced parts/cycle**

- De-curler motor (M32)
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints*2

*1 1250/1250P/1052

*2 951

(2) Procedure

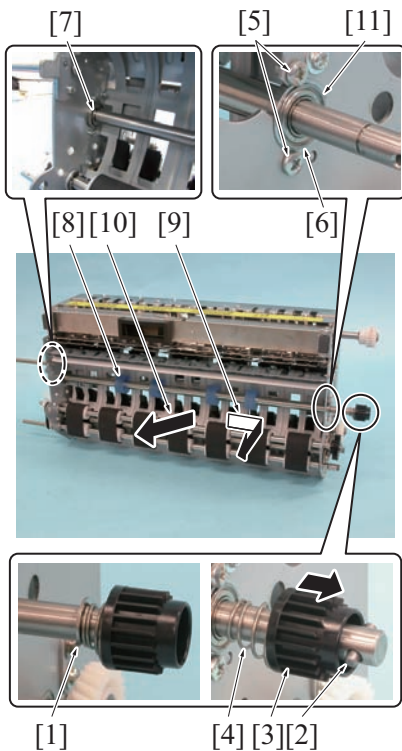
1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the reverse/exit solenoid assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
4. Remove the de-curler solenoid /Lw assy. (1250/1250P/1052 only) (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
5. Remove the de-curler solenoid /Up assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
6. Remove the reverse/exit section. (Refer to [F.5.9.36 Removing/reinstalling the reverse/exit section](#))
7. Remove 4 screws [1] and remove the de-curler motor assy [2].
8. Remove 3 screws [1] and remove the de-curler motor (M32) [2].
9. Reinstall the above parts following the removal steps in reverse.

5.9.40 Replacing the de-curler entrance roller**(1) Periodically replaced parts/cycle**

- De-curler entrance roller
 - : Every 16,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 12,000,000 feeds)*2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the reverse/exit solenoid assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
4. Remove the de-curler solenoid /Lw assy. (1250/1250P/1052 only) (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
5. Remove the de-curler solenoid /Up assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
6. Remove the reverse/exit section. (Refer to [F.5.9.36 Removing/reinstalling the reverse/exit section](#))
7. Remove the de-curler motor assy. (Refer to [F.5.9.39 Replacing the de-curler motor \(M32\)](#))
8. Remove the E-ring [1].
9. Remove the pin [2] and remove the coupling [3] and the spring [4].
10. Remove 2 screws [5] and remove the bearing [6].
11. Remove the E-ring [7].
12. Remove the de-curler entrance roller [8] while sliding it in the arrow-marked directions [9] and [10] in this order.

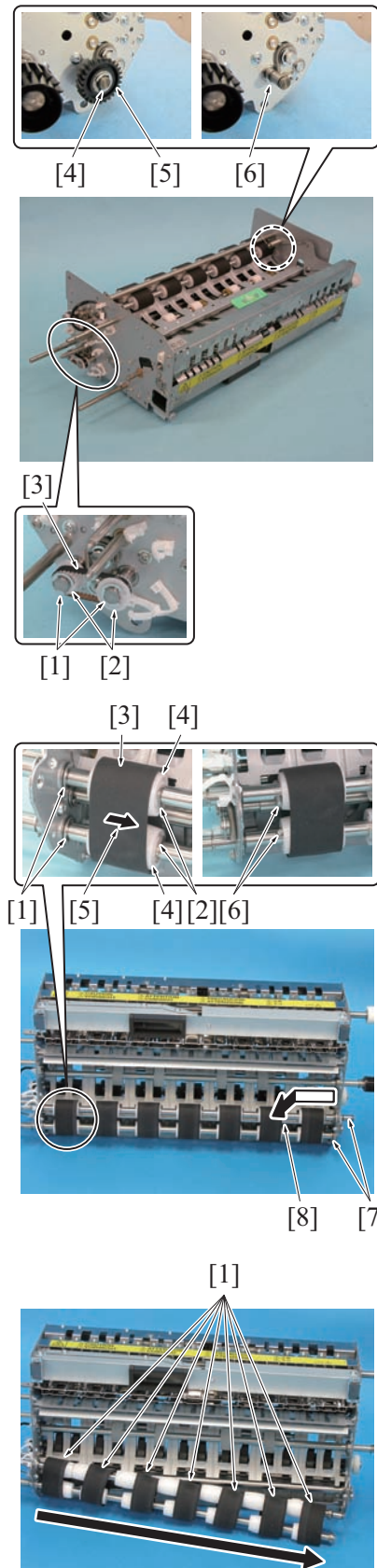
Note

- When reinstalling the bearing [6], be sure to set the notch to the position [11].
- To prevent the notch [11] from opening, be sure to tighten 2 screws [5] in the counterclockwise turn with the notch [11] as a starting point.

13. Reinstall the preceding parts following the removal steps in reverse.
14. After replacing the de-curler entrance roller, conduct the following steps.
In case of 1250/1250P/1052
For the de-curler entrance roller: Counter reset of the parts counter No.119
For 951
For the de-curler entrance roller: Counter reset of the parts counter No.98

5.9.41 Replacing the de-curler belt /Lw (1250/1250P/1052 only)**(1) Periodically replaced parts/cycle**

- De-curler belt /Lw
: Every 16,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)

(2) Procedure

1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the reverse/exit solenoid assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
4. Remove the de-curler solenoid /Lw assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
5. Remove the de-curler solenoid /Up assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
6. Remove the reverse/exit section. (Refer to [F.5.9.36 Removing/reinstalling the reverse/exit section](#))
7. Remove the de-curler motor assy. (Refer to [F.5.9.39 Replacing the de-curler motor \(M32\)](#))
8. Remove 2 E-rings [1] and remove 2 gears [2] and the belt [3].
9. Remove the E-ring [4] and remove the gear [5].
10. Remove the E-ring [6].

Note

- When reinstalling 2 bearings [2], be sure to set the flange of each gear alternately.

11. Remove 2 E-ring [1].
12. Remove 2 pins [2].
13. Slide 2 rollers [4] with the condition that the de-curler belt /Lw [3] is installed on, in the arrow-marked direction [5], and remove 2 pins [6].
14. Slide 2 regulation roller assys [7] in the arrow-marked direction [8] to release the rear section from the frame of the reverse/exit section.

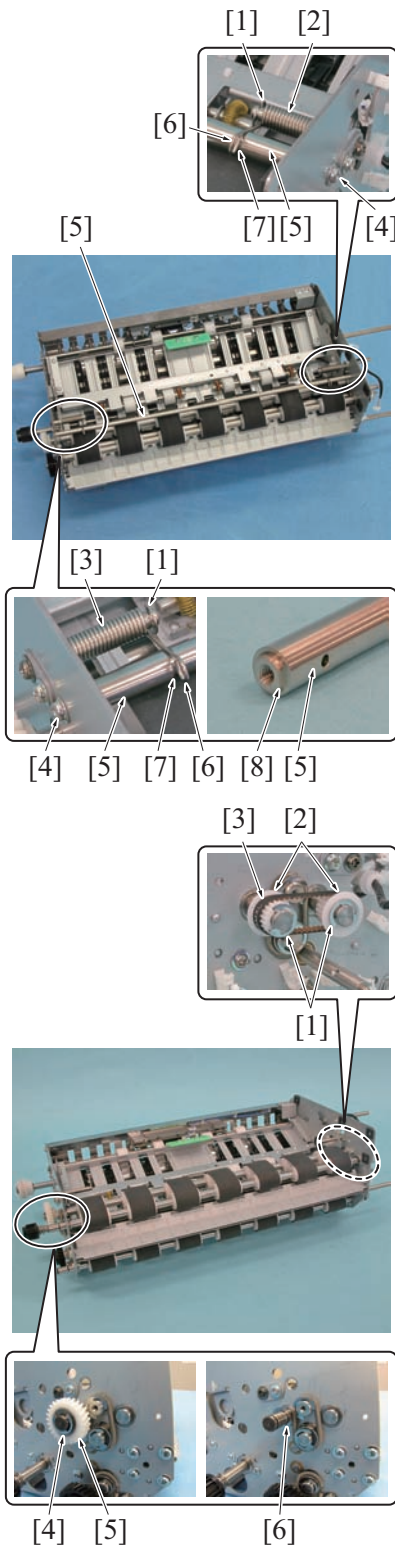
15. Remove 7 de-curler belt /Lw [1].
16. Reinstall the preceding parts following the removal steps in reverse.
17. After replacing the de-curler belt /Lw, conduct the following steps.
For the de-curler belt /Lw: Counter reset of the parts counter No. 115

5.9.42 Replacing the de-curler belt /Up**(1) Periodically replaced parts/cycle**

- De-curler belt /Up
 - : Every 16,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *1
 - : Every 12,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2

*1 1250/1250P/1052

* 2 951

(2) Procedure

1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the reverse/exit solenoid assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
4. Remove the de-curler solenoid /Lw assy. (1250/1250P/1052 only) (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
5. Remove the de-curler solenoid /Up assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
6. Remove the reverse/exit section. (Refer to [F.5.9.36 Removing/reinstalling the reverse/exit section](#))
7. Remove the de-curler motor assy. (Refer to [F.5.9.39 Replacing the de-curler motor \(M32\)](#))
8. Remove the E-rings [1], 1 each, and remove the open/close spring /Fr [2] and /Rr [3].
9. Remove 2 screws [4] and remove the stay [5].

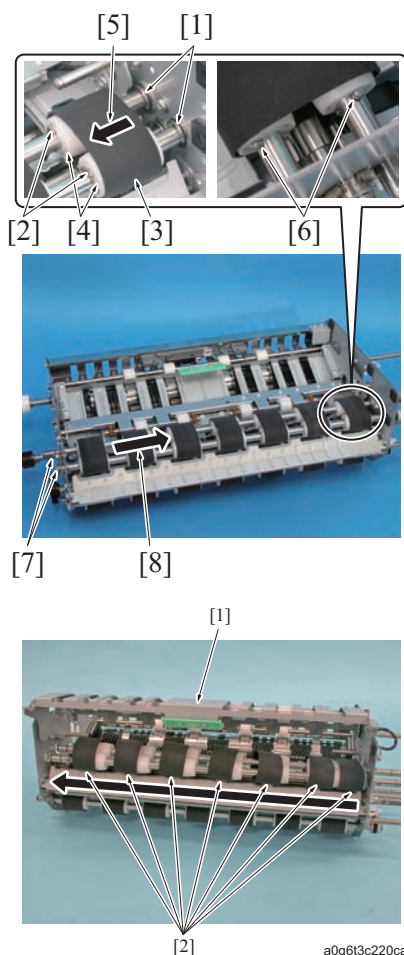
Note

- When reinstalling the open/close spring /Fr [2] and /Rr [3], be sure to hang each hook [6] on the groove [7] of the stay [5].
- Be sure to locate the D-cut side [8] of the stay [5] on the rear side.

10. Remove 2 E-rings [1] and remove 2 gears [2] and the belt [3].
11. Remove the E-ring [4] and remove the gear [5].
12. Remove the E-ring [6].

Note

- When reinstalling 2 bearings [2], be sure to set the flange of each gear alternately.



13. Remove 2 E-ring [1].
14. Remove 2 pins [2].
15. Slide 2 rollers [4] with the condition that the de-curler belt /Up [3] is installed on, in the arrow-marked direction [5], and remove 2 pins [6].
16. Slide 2 regulation roller assys [7] in the arrow-marked direction [8] to release the rear section from the flame of the reverse/exit section.

17. Open the reverse door [1] and remove 7 de-curler belt /Up [2].
18. Reinstall the preceding parts following the removal steps in reverse.
19. After replacing the de-curler belt /Up, conduct the following steps.
In case of 1250/1250P/1052
For the de-curler belt /Up: Counter reset of the parts counter No. 115
For 951
For the de-curler belt /Up: Counter reset of the parts counter No.95

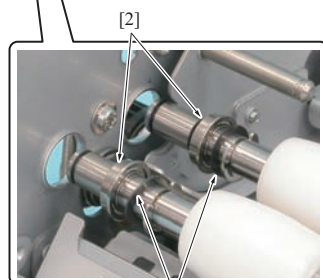
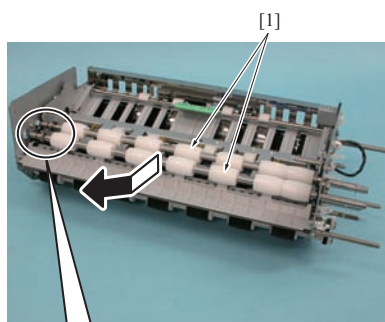
5.9.43 Replacing the guide member /Up and /Lw

(1) Periodically replaced parts/cycle

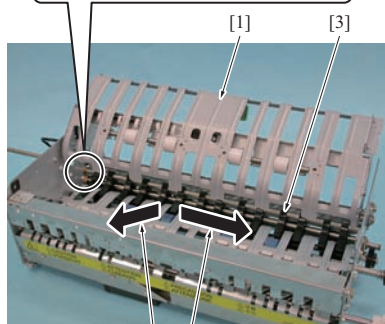
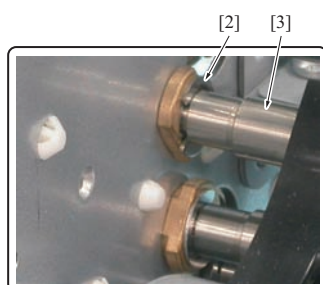
- Guide member /Up
: Every 16,000,000 prints (Actual replacement cycle: Every 8,000,000 feeds)^{*1}
: Every 12,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*2}
- Guide member /Lw
: Every 16,000,000 prints (Actual replacement cycle: Every 8,000,000 feeds)^{*1}

^{*1} 1250/1250P/1052

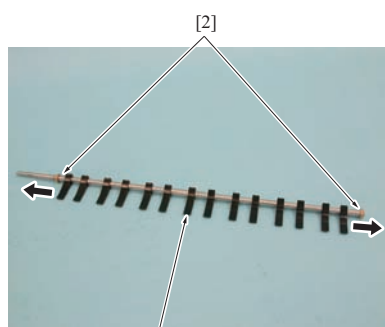
^{*2} 951

(2) Procedure

a0g6t3c221ca



a0g6t3c222ca



a0g6t3c223ca

1. Remove the duplex section. (Refer to [G.2.2.22 DUPLEX SECTION](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/ reinstalling the fusing section](#))
3. Remove the reverse/exit solenoid assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
4. Remove the de-curler solenoid /Lw assy. (1250/1250P/1052 only) (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
5. Remove the de-curler solenoid /Up assy. (Refer to [F.5.9.35 Replacing the reverse/exit solenoid \(SD7\) and the de-curler solenoid /Up \(SD8\) and /Lw \(SD5\)](#))
6. Remove the reverse/exit section. (Refer to [F.5.9.36 Removing/ reinstalling the reverse/exit section](#))
7. Remove the de-curler motor assy. (Refer to [F.5.9.39 Replacing the de-curler motor \(M32\)](#))
8. Remove de-curler belt /Up. (Refer to [F.5.9.42 Replacing the de-curler belt /Up](#))
9. Remove 2 regulation roller assy [1].

Note

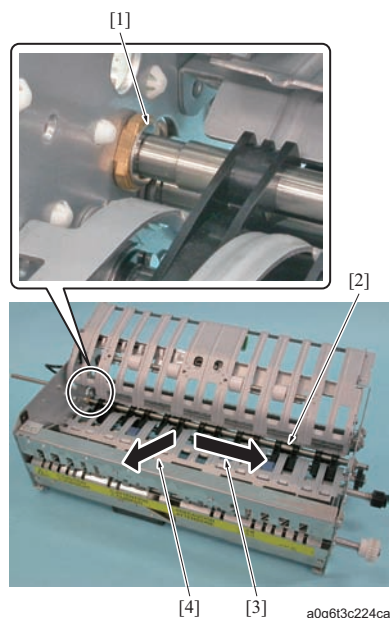
- Be careful not to lose the bearings [2], 1 each, and the spacers [3], 1 each, installed in the regulation roller assy [1] without fixing.

10. Open the reverse door [1].
11. Remove the E-ring [2], and slide the guide member /Up [3] in the arrow-marked directions [4] and [5] in this order.

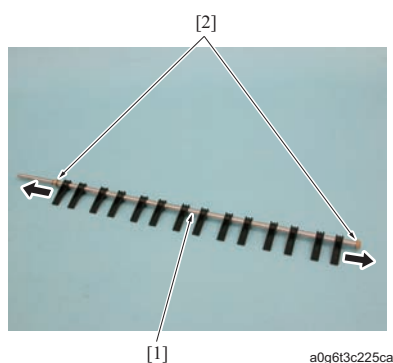
12. Remove 2 bearings [2] from the guide member /Up [1].

Note

- When reinstalling the bearing [2], be sure to turn each flange inside.



13. Remove the E-ring [1], and slide the guide member /Lw [2] in the arrow-marked directions [3] and [4] in this order.



14. Remove 2 bearings [2] from the guide member /Lw [1].

Note

- When reinstalling the bearing [2], be sure to turn each flange inside.

15. Reinstall the preceding parts following the removal steps in reverse.

16. After replacing the guide members /Up and /Lw, conduct the following items.

In case of 1250/1250P/1052

For the guide member /Up: Counter reset of the parts counter No. 117

For the guide member /Lw: Counter reset of the parts counter No. 118

For 951

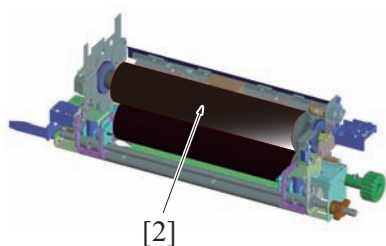
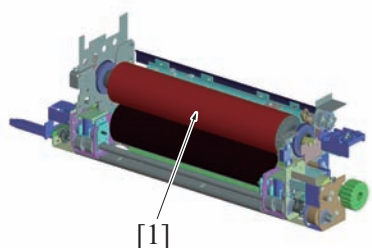
For the guide member /Up: Counter reset of the parts counter No. 97

5.10 Fusing section

5.10.1 Way to distinguish the fusing roller /Up between 1250/1250P/1052 and 951.

Note

- The fusing rollers /Up are different in material and color between 1250/1250P/1052 and 951.
- The fusing roller /Up [1] of 1250/1250P/1052 is a soft roller in red.
- The fusing roller /Up [2] of 951 is a hard roller in black.



5.10.2 Replacing the fusing cleaning web

⚠ Note:

- The fusing section is extremely hot immediately after turning OFF the main power switch (SW1) or the sub power switch (SW2) of the main body. Be sure to start operations when the temperature cools down sufficiently.

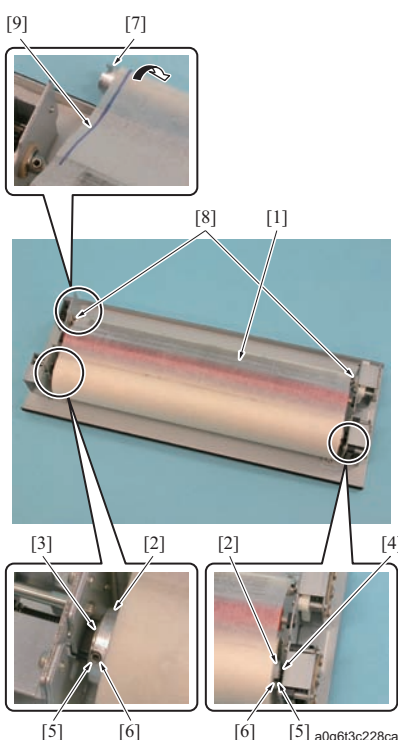
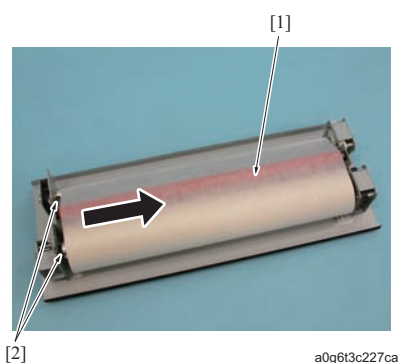
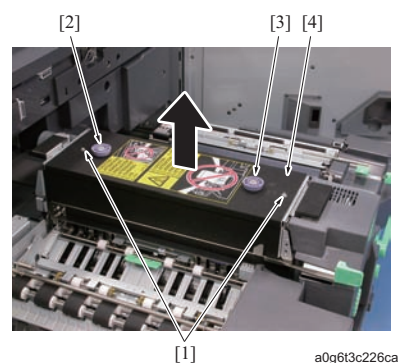
(1) Periodically replaced parts/cycle

- Fixing cleaning web
 - : Every 1,000,000 prints*1
 - : Every 750,000 prints*2

*1 1250/1250P/1052/EF

*2 951

(2) Procedure



- Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
- Remove 2 screws [1], and hold [2] and [3] to remove the fusing upper plate assy [4].

- Slide the old fusing cleaning web [1] in the arrow-marked direction to release it from 2 couplings [2].

- Install the shaft [2] on the unused side of the new fusing cleaning web [1] to the driven couplings /Rr [3] and /Fr [4].

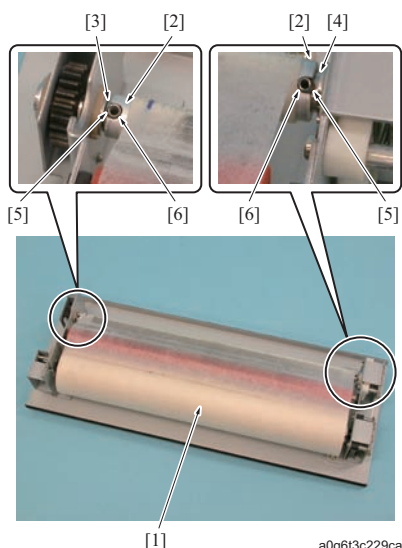
Note

- Be sure to set each detent [5] on the driven couplings to the notch [6] of the shaft on the unused side. When the web is installed in the wrong direction, it does not coincide with the notch.

- Hold either side[8] of the shaft [7] on the take-up side of the new fusing cleaning web with both hands, and take up the new cleaning web until the blue line (PRESS 1250/1250P/1052) or green line (PRO951)[9] disappears.

Note

- The performance of the new fusing cleaning web is guaranteed from the position in which the blue line (PRESS 1250/1250P/1052) or green line (PRO951) disappears. Be sure to take up the cleaning web up to this position.



6. Set the shaft [2] on the take-up side of the new fusing cleaning web [1] to the take-up couplings /Rr [3] and /Fr [4].

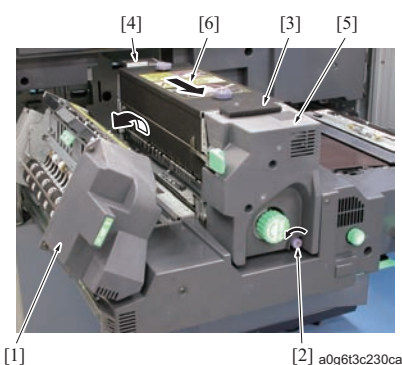
Note

- Be sure to set each detent [5] on the driven coupling to the notch [6] of the shaft on the unused side.

7. Be sure that the following reinstallation of the parts follows the removal steps in reverse.
8. After replacing the fusing cleaning web, conduct the following steps.
For the main body
- For the fusing cleaning web: Counter reset of the parts counter No.46
For EF
- For the fusing cleaning web: Counter reset of the parts counter No.68

5.10.3 Removing/reinstalling the fusing section**⚠ Note:**

- The fusing section is extremely hot immediately after turning OFF the main power switch (SW1) or the sub power switch (SW2) of the main body. Be sure to start operations when the temperature cools down sufficiently.

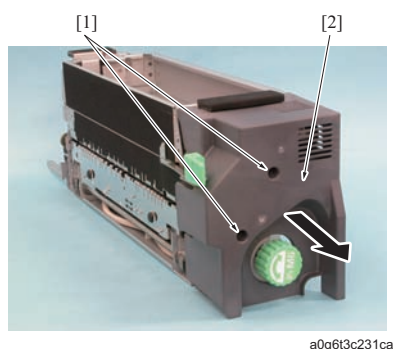
(1) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Open the paper reverse/exit section [1].
3. Release the lock [2].
4. Hold the handle /Fr [3] and Rr [4] with both hands, and slide the fusing section [5] in the arrow-marked direction [6], and lift it up to remove it.

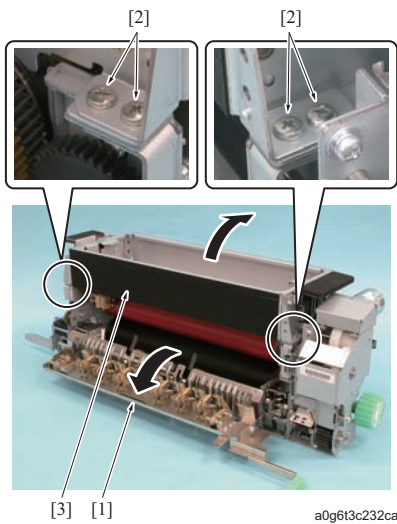
Note

- When reinstalling it, be sure to slide it with setting the fusing section to the reversal section side.

5. Reinstall the above parts following the removal steps in reverse.

5.10.4 Opening/closing of the web section**(1) Procedure**

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the fusing upper plate assy. (Refer to [F.5.10.2 Replacing the fusing cleaning web](#))
4. Remove 2 screws [1] and then remove the fusing cover [2].



5. Open the fusing paper exit section [1].
6. Remove 4 screws [2] and open the web section [3].
7. Reinstall the above parts following the removal steps in reverse.

5.10.5 Replacing the fusing heater lamps /1 (L1) and /2 (L2)

Note

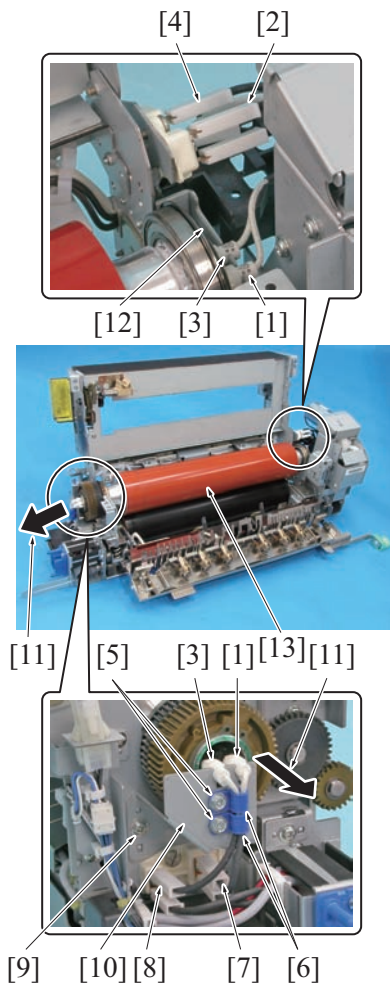
- Be sure to avoid touching the lamp section of the fusing heater lamps /1 (L1) and /2 (L2) with bare hands. When touched, be sure to clean it with the isopropyl alcohol.

(1) Periodically replaced parts/cycle

- Fusing heater lamp /1 (L1)
 - : Every 4,000,000 prints*1
 - : Every 3,000,000 prints*2
- Fusing heater lamp /2 (L2)
 - : Every 4,000,000 prints*1
 - : Every 3,000,000 prints*2

*1 1250/1250P/1052/EF

*2 951

(2) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the web section. (Refer to [F.5.10.4 Opening/closing of the web section](#))
4. Remove the faston terminal [2] from the fusing heater lamp /1 (L1) [1].
5. Remove the faston terminal [4] from the fusing heater lamp /2 (L2) [3].
6. Remove the screws [5], 1 each, and remove 2 wiring harness clamps [6].

Note

- When reinstalling the wiring harness clamp, be sure to install it in the correct position. When it is installed in a wrong position, the fusing cover cannot be attached.

7. Remove the faston terminal [7] from the fusing heater lamp /1 (L1) [1].
8. Remove the faston terminal [8] from the fusing heater lamp /2 (L2) [3].
9. Remove the screw [9] and remove the lamp fixing plate /Rr [10].
10. Pull out and remove each of the fusing heater lamps in the arrow-marked direction [11].

Note

- Be sure to install the fusing heater lamps /1 (L1) and /2 (L2) with the manufacturer mark in this side.
- When reinstalling the fusing heater lamp /1 (L1) and /2 (L2), be sure to insert it securely while taking note of the position in which the faston terminal is installed.
- When reinstalling each the fusing heater lamp, check if either end of each lamp is set in the fitting holes of the lamp fixing plates /Fr [12] and /Rr [10].
- After each fusing heater lamp is installed, check if it is not in touch with the inner face of the fusing roller /Up [13].

11. Reinstall the preceding parts following the removal steps in reverse.
12. After replacing the fusing heater lamp /1 (L1) and /2 (L2), conduct the following item.
For the main body
For the fusing heater lamps /1 and /2: Counter reset of the parts counter No.55
For EF
For the fusing heater lamps /1 and /2: Counter reset of the parts counter No.75

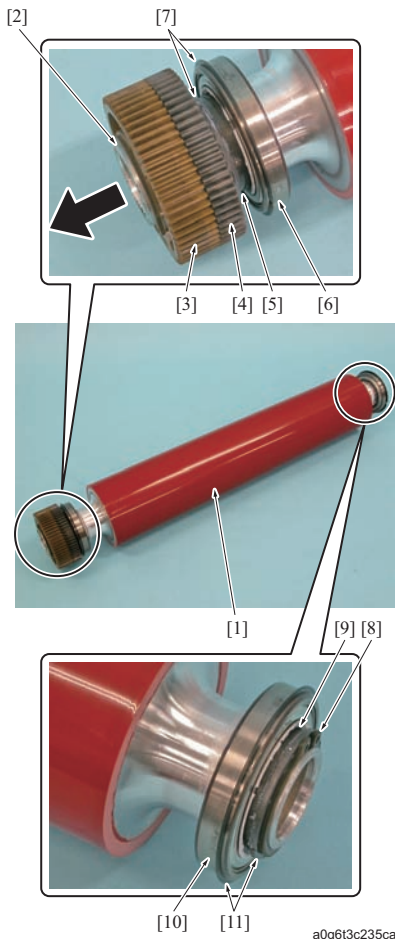
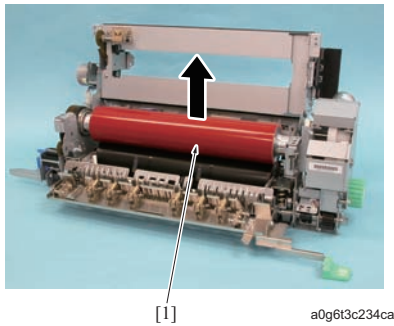
5.10.6 Replacing the fusing roller /Up, the heat insulating sleeve, the fusing bearing /Up and the fusing gear**(1) Periodically replaced parts/cycle**

- Fusing roller /Up
: Every 2,000,000 prints *1
: Every 1,500,000 prints *2
: Every 500,000 prints *3
- Heat insulating sleeve
: Every 2,000,000 prints *1*3
: Every 1,500,000 prints *2
- Fusing bearing /Up
: Every 2,000,000 prints *1*3
: Every 1,500,000 prints *2
- Fusing gear
: Every 8,000,000 prints *1*3
: Every 6,000,000 prints *2

*1 1250/1250P/1052

*2 951

*3 EF

(2) Procedure

1. Pull out the duplex section from the main body. (Refer to F.5.9.1 Pulling out/reinstalling the duplex section)
2. Remove the fusing section. (Refer to F.5.10.3 Removing/reinstalling the fusing section)
3. Open the web section. (Refer to F.5.10.4 Opening/closing of the web section)
4. Remove the fusing heater lamps /1 (L1) and /2 (L2). (Refer to F.5.10.5 Replacing the fusing heater lamps /1 (L1) and /2 (L2))
5. Remove the fusing roller /Up [1].

6. Remove the C-ring [2], the fusing gear [3], the gear [4] (part not replaced), the heat insulating sleeve [5] and the fusing bearing [6] from the fusing roller /Up [1].

Note

- When reinstalling the heat insulating sleeve and the fusing bearing /Up, make sure that the flange [7] turns outside.
- When reinstalling the heat insulating sleeve, apply Multemp FF-RM (or Fluotribo MH) on the inside and outside surface.

7. Remove the C-ring [8], the heat insulating sleeve [9] and the fusing bearing [10] from the fusing roller /Up [1].

Note

- When reinstalling the heat insulating sleeve and the fusing bearing /Up, make sure that the flange [11] turns outside.

8. Reinstall the preceding parts following the removal steps in reverse.
9. After replacing the fusing roller /Up, the heat insulating sleeve, the fusing bearing /Up and the fusing gear, conduct the followings.
For the main body
- For the fusing roller /Up: Counter reset of the parts counter No.47
- For the heat insulating sleeve: Counter reset of the parts counter No.51
For the fusing bearing /Up: Counter reset of the parts counter No.52
- For the fusing gear: Counter reset of the parts counter No.62
For EF
- For the fusing roller /Up: Counter reset of the parts counter No.69
- For the heat insulating sleeve: Counter reset of the parts counter No.71
For the fusing bearing /Up: Counter reset of the parts counter No.72
For the fusing gear: Counter reset of the parts counter No.82

5.10.7 Replacing the fusing roller /Lw assy /Lubrication to the pressure warm assy**(1) Periodically replaced parts/cycle**

- Fusing roller /Lw assy
 - : Every 2,000,000 prints *1
 - : Every 1,500,000 prints *2
 - : Every 500,000 prints *3

* 1 1250/1250P/1052

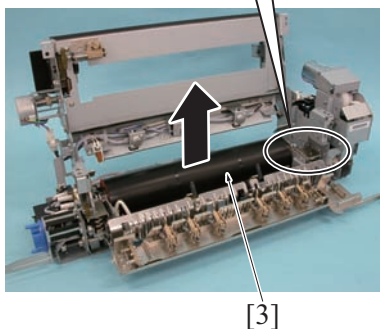
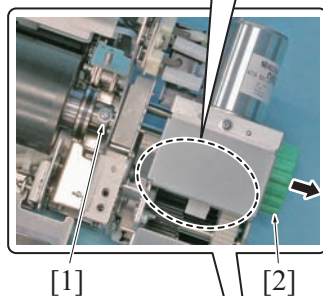
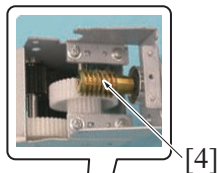
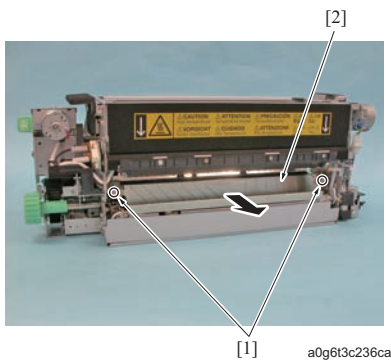
* 2 951

* 3 EF

(2) Periodic lubrication parts/Cycle

- Pressure worm assy
 - : Every 2,000,000 prints *1

* 1 1250/1250P/1052/EF

(3) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the web section. (Refer to [F.5.10.4 Opening/closing of the web section](#))
4. Remove the fusing heater lamps /1 (L1) and /2 (L2). (Refer to [F.5.10.5 Replacing the fusing heater lamps /1 \(L1\) and /2 \(L2\)](#))
5. Remove the fusing roller /Up. (Refer to [F.5.10.6 Replacing the fusing roller /Up, the heat insulating sleeve, the fusing bearing /Up and the fusing gear](#))
6. Remove 2 screws [1] and remove the guide plate /Lw [2].

Note

- When reinstalling the guide plate /Lw, be sure to fix it while moving it down.

7. Remove the screw [1] and then remove the jam release knob [2].
8. Remove the fusing roller /Lw assembly [3].
9. Lubricate Multemp FF-RM to all around the pressure worm assy [4].

Note

- Lubrication to the pressure worm assy is required only for 1250/1250P/1052/EF.

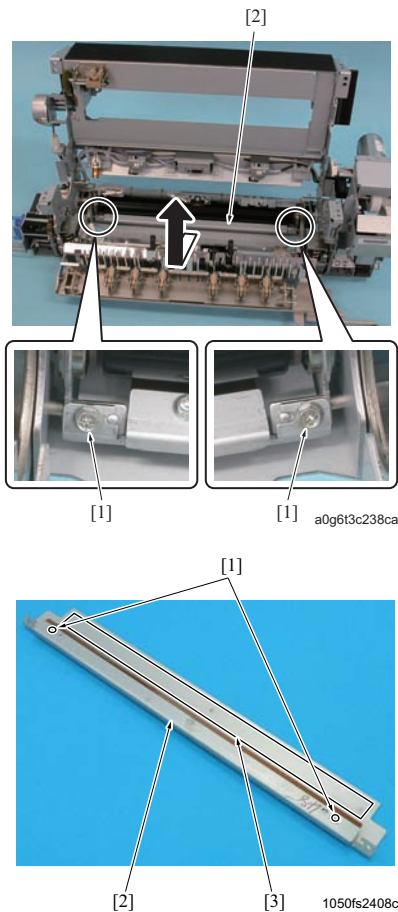
10. Reinstall the preceding parts following the removal steps in reverse.
11. After replacing the fusing roller /Lw assy, conduct the following steps.
 - For the main body
 - For fusing roller /Lw assy: Counter reset of the parts counter No. 48
 - In case of EF
 - For fusing roller /Lw assy: Counter reset of the parts counter No. 70

5.10.8 Replacing the fusing cleaning sheet assy**(1) Periodically replaced parts/cycle**

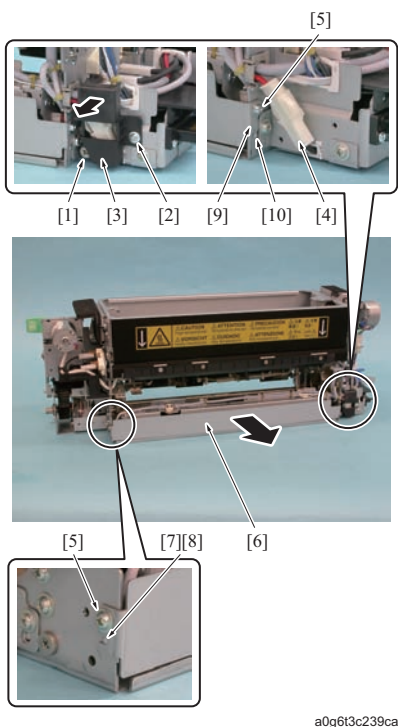
- Fusing cleaning sheet assy
 - : Every 2,000,000 prints *1
 - : Every 1,500,000 prints *2

*1 1250/1250P/1052/EF

*2 951

(2) Procedure

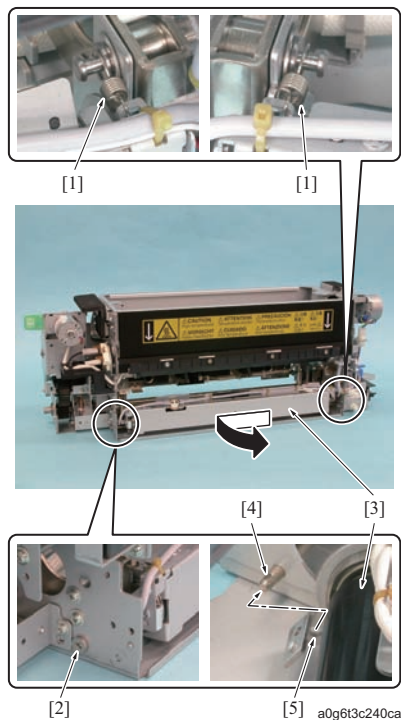
1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the web section. (Refer to [F.5.10.4 Opening/closing of the web section](#))
4. Remove the fusing heater lamps /1 (L1) and /2 (L2). (Refer to [F.5.10.5 Replacing the fusing heater lamps /1 \(L1\) and /2 \(L2\)](#))
5. Remove the fusing roller /Up. (Refer to [F.5.10.6 Replacing the fusing roller /Up, the heat insulating sleeve, the fusing bearing /Up and the fusing gear](#))
6. Remove the fusing roller /Lw assembly. (Refer to [F.5.10.7 Replacing the fusing roller /Lw assy /Lubrication to the pressure warm assy](#))
7. Remove 2 screws [1] and then remove the fusing cleaning unit [2].
8. Remove 2 screws [1] and then remove the fusing cleaning sheet assembly [2].
9. Remove the paper dust that has gathered in [3] of the fusing cleaning unit.
10. Reinstall the preceding parts following the removal steps in reverse.
11. After replacing the fusing cleaning sheet assy, conduct the following steps.
For the main body
- For fusing cleaning sheet assy: Counter reset of the parts counter No.53
In case of EF
- For fusing cleaning sheet assy: Counter reset of the parts counter No.73

5.10.9 Removing/reinstalling the fusing heating roller assembly**(1) Procedure**

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the fusing heater lamps /1 (L1) and /2 (L2). (Refer to [F.5.10.5 Replacing the fusing heater lamps /1 \(L1\) and /2 \(L2\)](#))
4. Remove the fusing roller /Up. (Refer to [F.5.10.6 Replacing the fusing roller /Up, the heat insulating sleeve, the fusing bearing /Up and the fusing gear](#))
5. Remove the fusing roller /Lw assembly. (Refer to [F.5.10.7 Replacing the fusing roller /Lw assy /Lubrication to the pressure warm assy](#))
6. Remove the fusing cleaning unit. (Refer to [F.5.10.8 Replacing the fusing cleaning sheet assy](#))
7. Remove the screws [1] and [2], and remove the connector cover [3].
8. Disconnect the connector [4].
9. Remove 2 screws [5] and then remove the fixing plate [6].

Note

- When reinstalling the fixing plate, be sure to set the positioning hole [7] to the projection [8] of the fusing section.
- Be careful not to insert the projection [10] of the fusing section inside of the fusing section [9] of the rear side of the fixing plate.



10. Remove 2 springs [1].
11. Remove the screw [2] and open the fusing heating roller assembly [3].

Note

- When reinstalling the fusing heating roller assy [3], be sure to set the guide hole [5] of the fusing heating roller assy to the guide pin [4] of the fusing section.

12. Reinstall the above parts following the removal steps in reverse.

5.10.10 Replacing the fusing heater lamp /3 (L3)**Note**

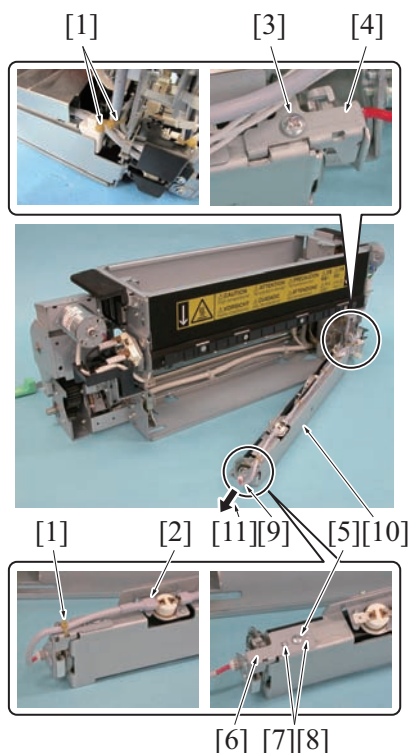
- Be careful not to touch the lamp section of the fusing heater lamp /3 (L3) with bare hands. When touched, be sure to clean it with the isopropyl alcohol.

(1) Periodically replaced parts/cycle

- Fusing heater lamp /3 (L3)
 - : Every 4,000,000 prints*1
 - : Every 3,000,000 prints*2

*1 1250/1250P/1052/EF

*2 951

(2) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the fusing heating roller assembly. (Refer to [F.5.10.9 Removing/reinstalling the fusing heating roller assembly](#))
4. Cut off the 3 wiring bands [1].

Note

- When attaching a new wire binding band, be sure to use a heat-resistant one (P/N:V501010014).

5. Remove the faston terminal [2].

Note

- Be sure to install the fusing heater lamp /3 (L3) with the manufacturer mark in this side.
- When reinstalling the faston terminal, be sure to insert it securely.

6. Remove the screw [3] and remove the fixing plate /Rr [4].
7. Remove the screw [5] and remove the fixing plate /Fr [6].

Note

- When reinstalling the fixing plate /Fr, be sure to set the positioning hole [7] to the projection [8] of the fusing heating roller assy.

8. Pull out the fusing heater lamp /3 (L3) [9] from the front side [11] of the fusing heating roller assembly [10] and remove it.

Note

- When reinstalling the fusing heater lamp /3 (L3), be sure to take note of the direction.

- After reinstalling the fusing heater lamp /3 (L3), check if it is not in touch with the inner face of the fusing heating roller.
- Reinstall the preceding parts following the removal steps in reverse.
 - After replacing the fusing heater lamp /3 (L3), conduct the following item.
 - For the main body
 - For the fusing heater lamp /3: Counter reset of the parts counter No.59
 - For EF
 - For the fusing heater lamp /3: Counter reset of the parts counter No.79

5.10.11 Replacing the fusing heating roller, the heat insulation sleeve /Lw and the heat roller bearing

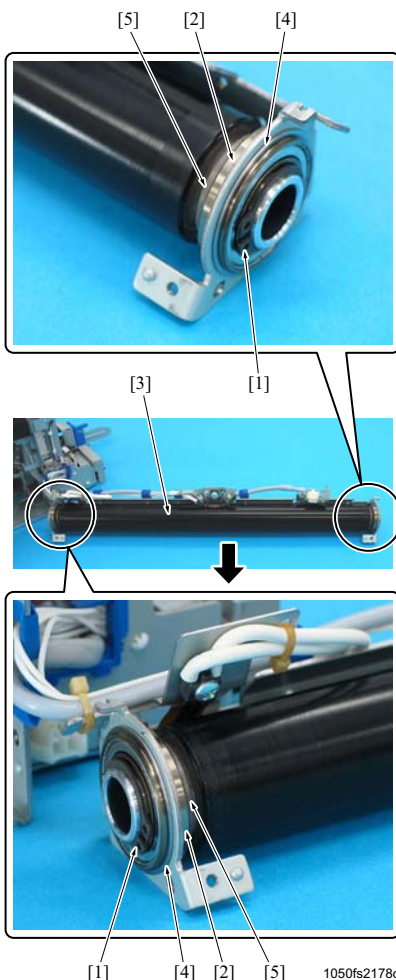
(1) Periodically replaced parts/cycle

- Fusing heating roller
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2
- Heat insulating sleeve /Lw
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2
- Heat roller bearing
 - : Every 4,000,000 prints *1
 - : Every 3,000,000 prints *2

*1 1250/1250P/1052/EF

*2 951

(2) Procedure



- Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
- Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
- Open the fusing heating roller assembly. (Refer to [F.5.10.9 Removing/reinstalling the fusing heating roller assembly](#))
- Remove the fusing heater lamp /3 (L3). (Refer to [F.5.10.10 Replacing the fusing heater lamp /3 \(L3\)](#))
- Remove the C-rings [1], 1 each, and remove the heat roller bearings [2], 1 each, and then remove the fusing heating roller [3].

Note

- When reinstalling the bearing, be sure to take note of the direction of the flange [4].

- Remove the heat insulating sleeves /Lw [5], 1 each, from the fusing heating roller.

Note

- When reinstalling the heat insulating sleeves /Lw, be sure to turn each flange to the fusing heating roller side.

- Reinstall the preceding parts following the removal steps in reverse.
- After replacing the fusing heater roller, the heat insulating sleeve /Lw and the heat roller bearing, conduct the following steps.
 - For the main body
 - For the fusing heating roller: Counter reset of the parts counter No.56
 - For the heat insulating sleeve /Lw: Counter reset of the parts counter No.57
 - For the fusing heating roller bearing: Counter reset of the parts counter No.60
 - In case of EF
 - For the fusing heating roller: Counter reset of the parts counter No.76
 - For the heat insulating sleeve /Lw: Counter reset of the parts counter No.77
 - For the heat roller bearing: Counter reset of the parts counter No.80

5.10.12 Replacing the fusing claw /Lw

(1) Periodically replaced parts/cycle

- Fusing claw /Lw

- : Every 2,000,000 prints*1
- : Every 1,500,000 prints*2

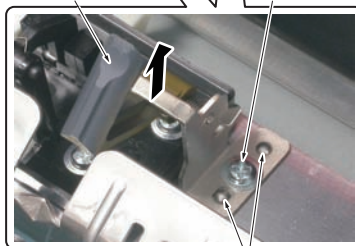
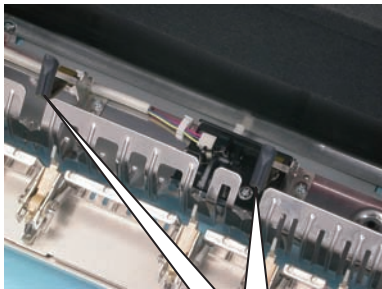
*1 1250/1250P/1052

*2 951

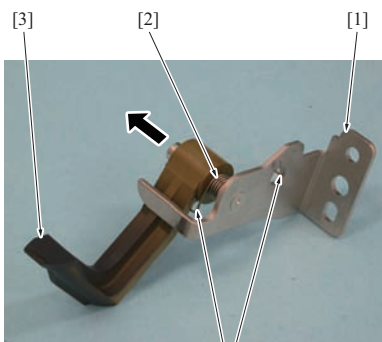
Note

- For EF-102, the fusing claw /Lw is not equipped so the replacement is not required.

(2) Procedure



[3] [4] a0g6t3c242ca



[4] a0g6t3c243ca

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the fusing paper exit section. (Refer to [F.5.10.4 Opening/closing of the web section](#))
4. Remove the screws [1], 1 each, and remove 2 fusing claw /Lw assys [2].

Note

- When reinstalling the fusing claw /Lw assys, be sure to set the positioning hole [3] to the projection [4] of the fusing paper exit section.

5. Remove the spring [2] from each fusing claw /Lw assy [1] and remove the fusing claw /Lw [3].

Note

- When reinstalling the fusing claw /Lw, be sure to take note of the position [4] to which the spring is hooked.

6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the fusing claw /Lw, conduct the following item.
 - For the fusing claw /Lw: Counter reset of the parts counter No.50

5.10.13 Replacing the fusing claw /Up

(1) Periodically replaced parts/cycle

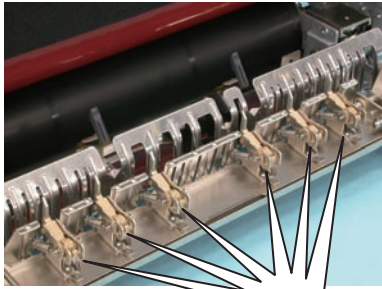
- Fusing claw /Up
- : Every 2,000,000 prints*1
- : Every 1,500,000 prints*2

*1 1250/1250P/1052

*2 951

Note

- For EF-102, the fusing claw /Up is not equipped so the replacement is not required.

(2) Procedure

a0g6t3c244ca

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the fusing paper exit section. (Refer to [F.5.10.4 Opening/closing of the web section](#))
4. Remove the screws [1], 1 each, and remove 6 fusing claws /Up [2].
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the fusing claw /Up, conduct the following item.
 - For the fusing claw /Up: Counter reset of the parts counter No.49

5.10.14 Replacing the fusing claws installation assy**(1) Periodically replaced parts/cycle**

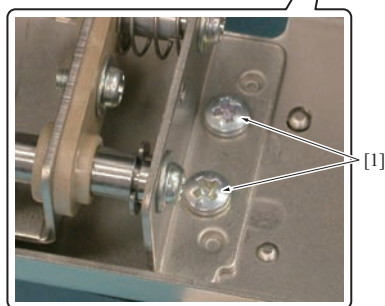
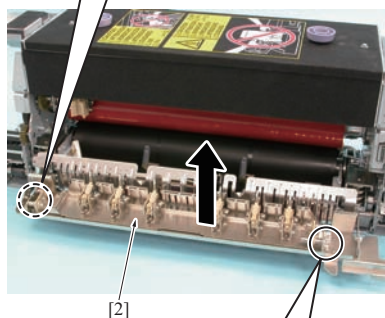
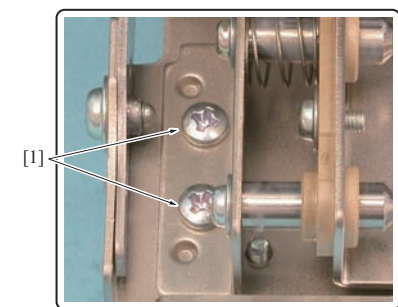
- Fusing claws installation assy
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2

*1 1250/1250P/1052

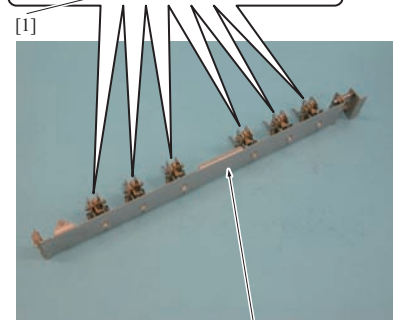
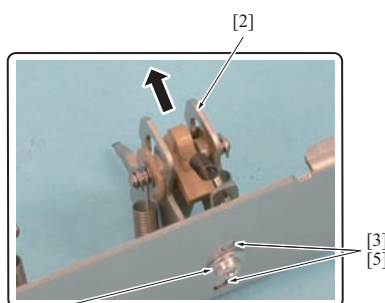
*2 951

Note

- No need to replace for EF-102.

(2) Procedure

a0g6t3c245ca



[4]

a0g6t3c246ca

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the fusing paper exit section. (Refer to [F.5.10.4 Opening/closing of the web section](#))
4. Remove 4 screws [1] and remove the fusing claw unit /Up [2].

5. Remove the screws [1], 1 each, and remove 6 fusing claw /Lw assys [2].

Note

- When reinstalling the fusing claws installation assy, be sure to set 2 projections [3] to 2 positioning holes [5] of the fusing claw unit /Up [4].

6. Reinstall the preceding parts following the removal steps in reverse.

5.10.15 Replacing the fusing temperature sensor /2 (TH2)**⚠ Note:**

- After reinstalling of the fusing temperature sensor /2 assy, be sure to check if it is in touch with the fusing roller /Up.

(1) Periodically replaced parts/cycle

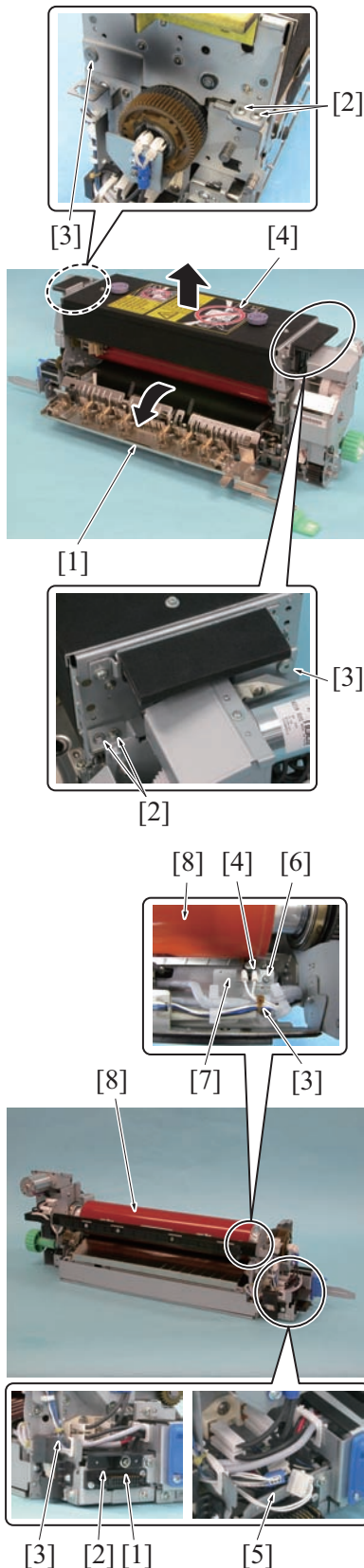
- Fusing temperature sensor /2 (TH2)

: Every 4,000,000 prints *1

: Every 3,000,000 prints *2

*1 1250/1250P/1052/EF

*2 951

(2) Procedure

1. Open the front doors /Rt and /Lt, and pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the fusing paper exit section [1].
4. Remove 4 screws [2] and 2 stepped screws [3], and remove the web section [4].

Note

- When attaching the stepped screw [3], make sure that it gets in securely up to the step of the screw.
- Be sure to remove the web section with it closed. If the web is removed with it open, the web section becomes unstable and you get injured.

5. Remove the screw [1] and then remove the connector cover [2].
6. Cut off the wiring band [3].

Note

- When attaching a wire binding band, be sure to use a heat-resistant one (P/N:V501010014).

7. Disconnect the connector [5] of the fusing temperature sensor /2 (TH2) [4].

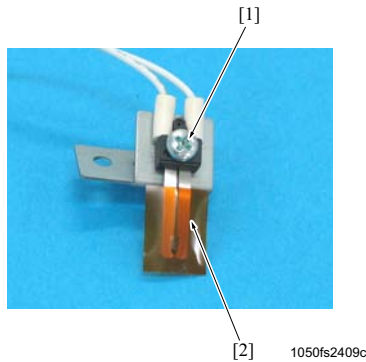
Note

- There are 3 connectors of the fusing temperature sensor in the same place. The number of pins of each connector is different. The connector of the fusing temperature sensor /2 (TH2) is 3 pin connector.

8. Remove the screw [6] and remove the fusing temperature sensor /2 assy [7].

Note

- When reinstalling the fusing temperature sensor /2 assy, be sure to check if it is in touch with the fusing roller /Up [8].



9. Remove the screw [1], and remove the fusing temperature sensor / 2 (TH2) [2].
10. Reinstall the preceding parts following the removal steps in reverse.
11. After replacing the fusing temperature sensor / 2 (TH2), conduct the following item.
 - For the main body
 - For the fusing temperature sensor / 2: Counter reset of the parts counter No.61
 - In case of EF
 - For the fusing temperature sensor / 2: Counter reset of the parts counter No.81

5.10.16 Replacing the fusing temperature sensor / 4 (TH4)

⚠ Note:

- After reinstalling of the fusing temperature sensor / 4 assy, be sure to check if it is in touch with the fusing heating roller.

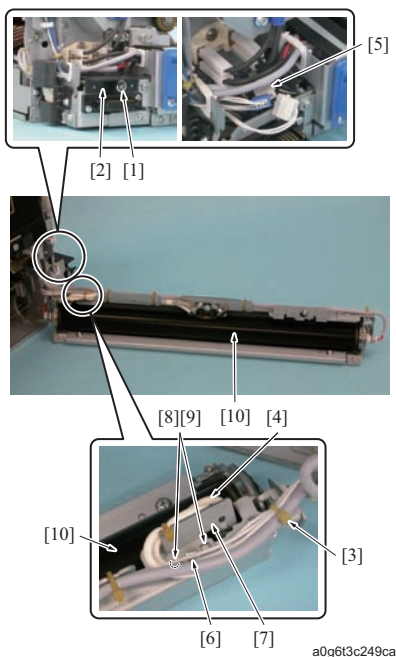
(1) Periodically replaced parts/cycle

- Fusing temperature sensor / 4 (TH4)
 - : Every 4,000,000 prints*1
 - : Every 3,000,000 prints*2

*1 1250/1250P/1052/EF

*2 951

(2) Procedure



1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the fusing heating roller assembly. (Refer to [F.5.10.9 Removing/reinstalling the fusing heating roller assembly](#))
4. Remove the screw [1] and then remove the connector cover [2].
5. Cut off the wiring band [3].
6. Disconnect the connector [5] of the fusing temperature sensor / 4 (TH4) [4].

Note

- There are 3 connectors of the fusing temperature sensor in the same place. The number of pins of each connector is different. The connector of the fusing temperature sensor / 4 (TH4) is 5 pin connector.

7. Remove the screw [6] and remove the fusing temperature sensor / 4 assy [7].

Note

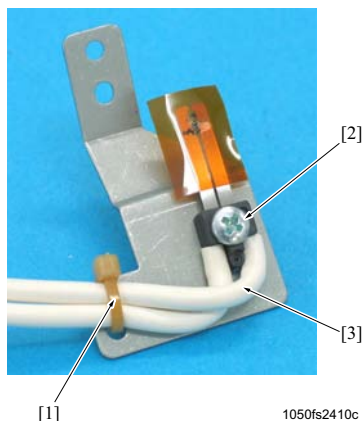
- When reinstalling the fusing temperature sensor 4 assy, be sure to set the positioning hole [8] to the projection [9] of the fusing heating roller assy.
- When reinstalling the fusing temperature sensor / 4 assy, be sure to check if it is in touch with the fusing heating roller [10].

8. Cut off the wiring band [1].
9. Remove the screw [2], and remove the fusing temperature sensor / 4 (TH4) [3].

Note

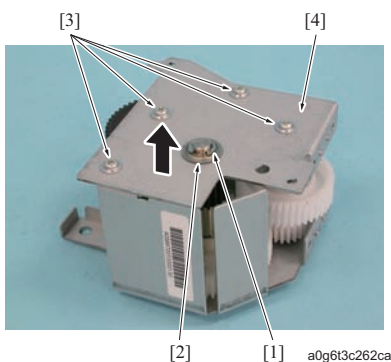
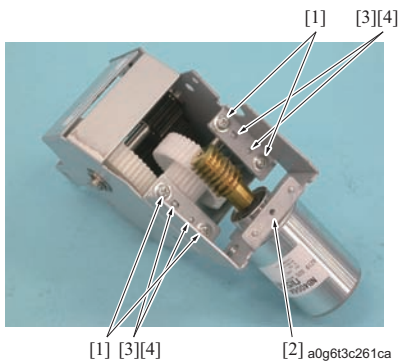
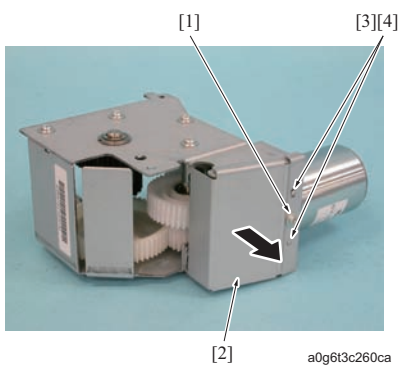
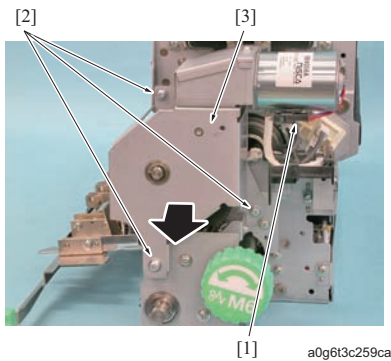
- When attaching a wire binding band, be sure to use a heat-resistant one (P/N:V501010014).

10. Reinstall the preceding parts following the removal steps in reverse.
11. After replacing the fusing temperature sensor / 4 (TH4), conduct the following item.
 - For the main body
 - For the fusing temperature sensor / 4 (TH4): Counter reset of the parts counter No.58
 - For EF
 - For the fusing temperature sensor / 4 (TH4): Counter reset of the parts counter No.78



5.10.17 Replacing the pressure worm assy and the pressure wheel assy (1250/1250P/1052/EF only)**(1) Periodically replaced parts/cycle**

- Pressure worm assy
: Every 40,000,000 prints (Actual replacement cycle: Every 30,000,000 activations)
- Pressure wheel assy
: Every 40,000,000 prints (Actual replacement cycle: Every 30,000,000 activations)

(2) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the fusing cover. (Refer to [F.5.10.4 Opening/closing of the web section](#))
4. Open the fusing paper exit section. (Refer to [F.5.10.4 Opening/closing of the web section](#))
5. Disconnect the connector [1].
6. Remove 3 screws [2] and remove the pressure drive assy [3].

7. Remove the screw [1] and remove the pressure cover /Up [2].

Note

- When reinstalling the pressure cover /Up, be sure to set 2 positioning holes [3] to 2 projections [4] of the pressure drive assy.

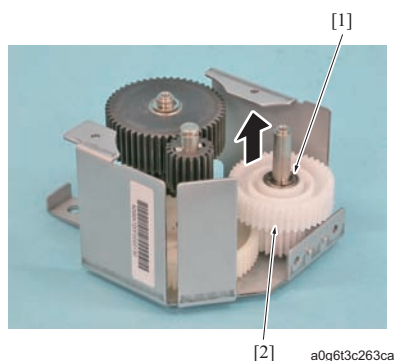
8. Remove 4 screws [1] and remove the pressure worm assy [2].

Note

- When reinstalling the pressure worm assy, be sure to set 4 positioning holes [3] to 4 projections [4] of the pressure drive assy.

9. Remove the E-ring [1] and remove the bearing [2].

10. Remove 4 screws [3] and remove the pressure panel /4 [4].



11. Remove the E-ring [1] and remove the pressure wheel assy [2].
12. Reinstall the preceding parts following the removal steps in reverse.
13. After replacing the pressure worm assy and the pressure wheel assy, conduct the following steps.
For the main body
For the pressure worm assy: Counter reset of the parts counter No.65
For the pressure wheel assy: Counter reset of the parts counter No.66
For EF
For the pressure worm assy: Counter reset of the parts counter No.84
For the pressure wheel assy: Counter reset of the parts counter No.85

5.10.18 Replacing the fusing cleaning roller, the bearing /G and the web prevention part assy

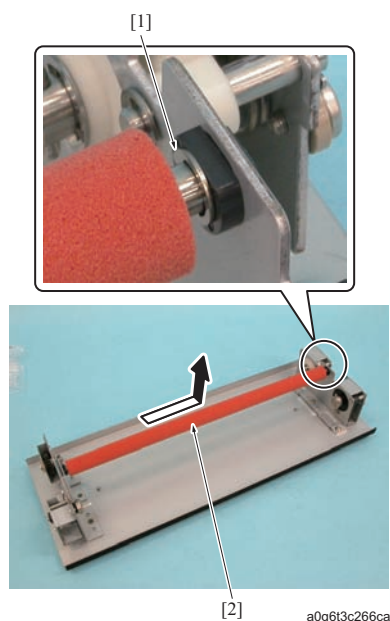
(1) Periodically replaced parts/cycle

- Fusing cleaning roller
 - : Every 14,000,000 prints *1
 - : Every 10,500,000 prints *2
- Bearing /G
 - : Every 14,000,000 prints *1
 - : Every 10,500,000 prints *2
- Web prevention part assy
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2
- Bearing /G
 - : Every 24,000,000 prints *1
 - : Every 18,000,000 prints *2

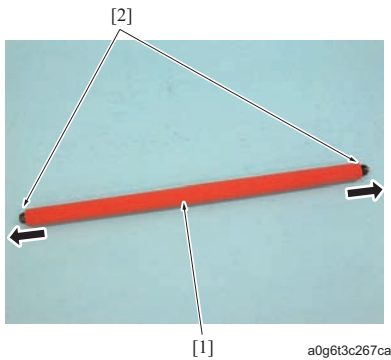
*1 1250/1250P/1052 /EF

*2 951

(2) Procedure



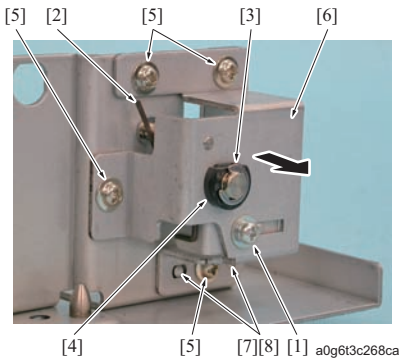
1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing upper plate assy. (Refer to [F.5.10.2 Replacing the fusing cleaning web](#))
3. Remove the fusing cleaning web. (Refer to [F.5.10.2 Replacing the fusing cleaning web](#))
4. Remove the E-ring [1] and remove the fusing cleaning roller [2].



5. Remove 2 bearings /G [2] from the fusing cleaning roller [1].

Note

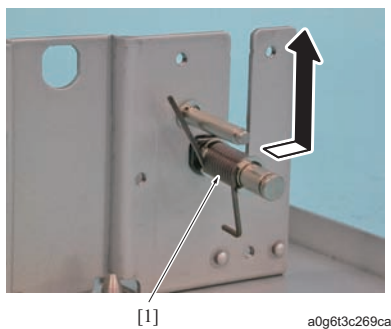
- When reinstalling the bearing /G, be sure to turn each flange inside.



6. Loosen the screw [1] to release the tension of the spring [2].
7. Remove the E-ring [3] and remove the bearing /G [4].
8. Remove 4 screws [5] and remove the drive plate /3 [6].

Note

- When reinstalling the drive plate /3, be sure to set 2 positioning holes [7] to 2 projections [8] of the fusing upper plate assy.



9. Remove the web prevention part assy [1].
10. Reinstall the preceding parts following the removal steps in reverse.
11. After replacing the fusing cleaning roller and the web prevention part assy, conduct the followings.
 - For the main body
 - For the fusing cleaning roller: Counter reset of the parts counter No.54
 - For the web prevention part assy : Counter reset of the parts counter No.64
 - In case of EF
 - For the fusing cleaning roller: Counter reset of the parts counter No.74
 - For the web prevention part: Counter reset of the parts counter No.83

5.10.19 Replacing the fusing oscillation cam assy**(1) Periodically replaced parts/cycle**

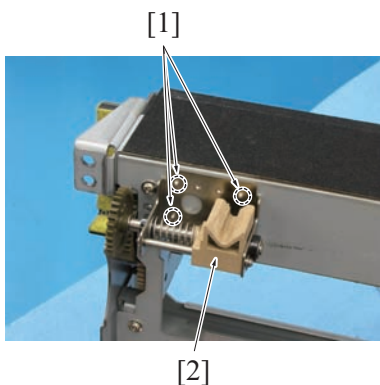
- Fusing oscillation cam assy
- : Every 24,000,000 prints *1
- : Every 18,000,000 prints *2

*1 1250/1250P/1052

*2 951

Note

- No need to replace for EF-102.

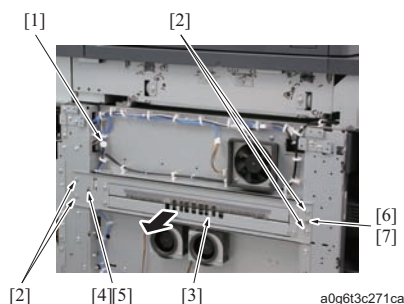
(2) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the fusing upper plate assy. (Refer to [F.5.10.2 Replacing the fusing cleaning web](#))
4. Open the web section. (Refer to [F.5.10.4 Opening/closing of the web section](#))
5. Remove 3 screws [1] and remove the fusing oscillation cam assy [2].
6. Reinstall the preceding parts following the removal steps in reverse.

5.11 Paper exit section

5.11.1 Removing/reinstalling the paper exit section

(1) Procedure



1. Remove the left cover. (Refer to [G.2.2.4 Left cover](#))
2. Disconnect the connector [1].
3. Remove 4 screws [2] and then remove the paper exit section [3].

Note

- When reinstalling the paper exit section, be sure to hook the retention hole [4] to the projection [5] of the frame and then set the positioning hole [6] to the positioning pin [7] of the frame.

4. Reinstall the above parts following the removal steps in reverse.

5.11.2 Cleaning paper exit sensor (PS3)

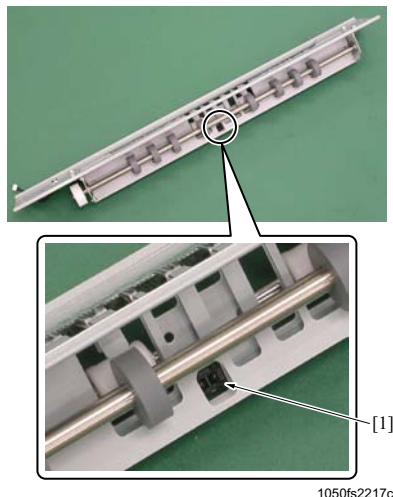
(1) Periodic cleaning cycle

- Paper exit sensor (PS3)
 - : Every 12,000,000 prints *1
 - : Every 10,500,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure



1. Remove the left cover. (Refer to [G.2.2.4 Left cover](#))
2. Remove the paper exit section. (Refer to [F.5.11.1 Removing/reinstalling the paper exit section](#))
3. Clean the paper exit sensor (PS3) [1] with the blower brush.
4. Reinstall the preceding parts following the removal steps in reverse.

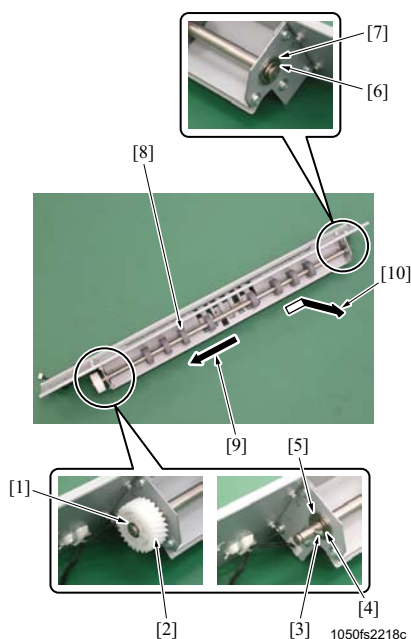
5.11.3 Replacing the main body paper exit roller

(1) Periodically replaced parts/cycle

- Output roller
 - : Every 12,000,000 prints (Actual replacement cycle: Every 8,000,000 feeds) *1
 - : Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 feeds) *2

*1 1250/1250P/1052

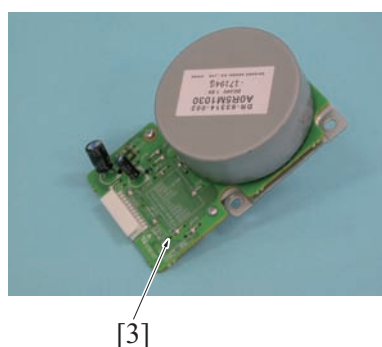
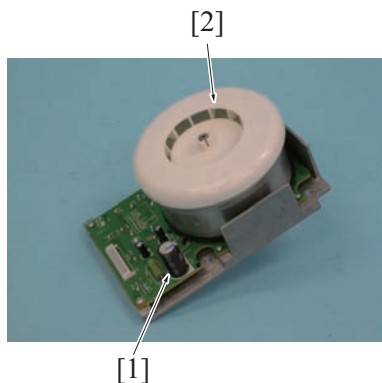
*2 951

(2) Procedure

1. Remove the left cover. (Refer to [G.2.2.4 Left cover](#))
2. Remove the paper exit section. (Refer to [F.5.11.1 Removing/reinstalling the paper exit section](#))
3. Remove the E-ring [1] and then remove the gear [2] and the pin [3].
4. Remove the E-ring [4] and remove the bearing [5].
5. Remove the E-ring [6] and then remove the bearing [7].
6. Move the main body paper exit roller [8] in the arrow-marked directions [9] and [10] in this order, and remove it.
7. Reinstall the preceding parts following the removal steps in reverse.
8. After replacing the main body paper exit roller, conduct the following steps.
In case of 1250/1250P/1052
For the paper exit roller of the main body: Counter reset of the parts counter No.122
For 951
For the paper exit roller of the main body: Counter reset of the parts counter No.101

5.12 Main body rear side**5.12.1 Way to distinguish between the main body rear side motor of 1250/1250P/1052 and the main body rear side motor of 951****Note**

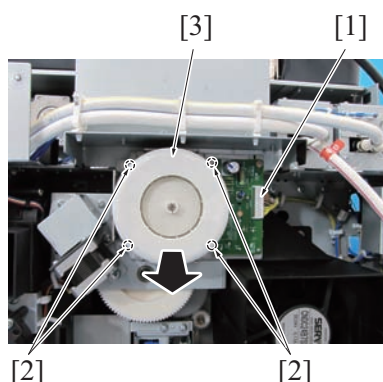
- The motors on the rear side of the main body are different in shape between 1250/1250P/1052 and 951.
- The main body rear motor [1] of 1250/1250P/1052 has a fan [2].
- The main body rear motor [3] of 951 has no fan.

**5.12.2 Replacing the fusing motor (M1) and the fusing gear****(1) Periodically replaced parts/cycle**

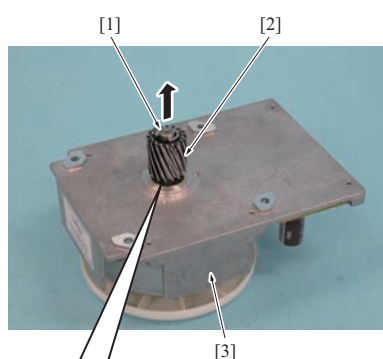
- Fusing motor (M1)
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints*2
- Fusing gear
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints*2

*1 1250/1250P/1052

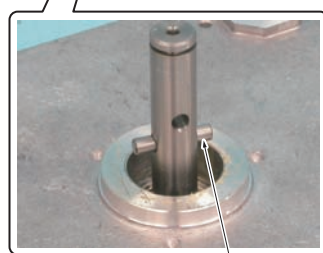
*2 951

(2) Procedure

1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Disconnect the connector [1].
3. Remove 4 screws [2] and remove the fusing motor assy [3].



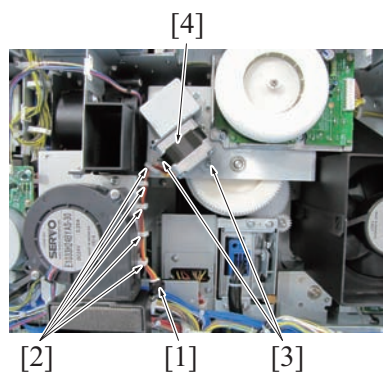
4. Remove the E-ring [1] and remove the fusing gear [2].
5. Remove the pin [4] from the fusing motor (M1) [3].
6. Reinstall the above parts following the removal steps in reverse.



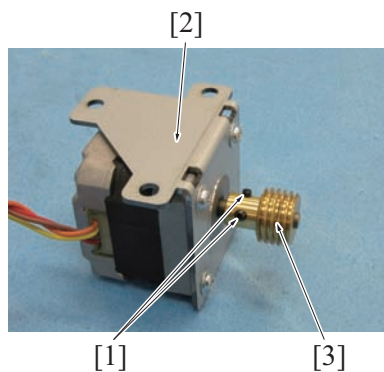
[4] a0g6t3c361ca

5.12.3 Replacing the web motor (M24)**(1) Periodically replaced parts/cycle**

- Web motor (M24)
- : Every 6,000,000 prints

(2) Procedure

1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Disconnect the connector [1].
3. Remove 5 wiring bands [2].
4. Remove 2 screws [3] and remove the web motor assy [4].



5. Remove 2 screws [1] and remove the gear [3] from the web motor (M24) [2].
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the web motor (M24), conduct the following steps.
Counter reset of the parts counter No.63

5.12.4 Replacing the drum motor (M2)

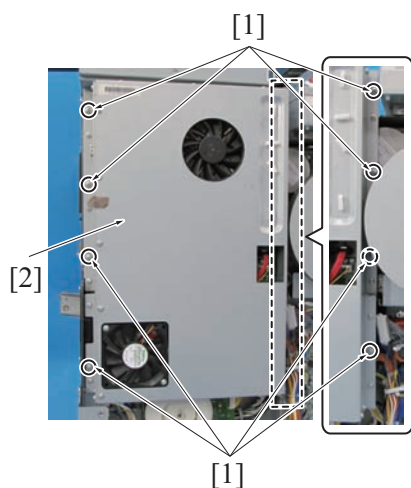
(1) Periodically replaced parts/cycle

- Drum motor (M2)
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints*2

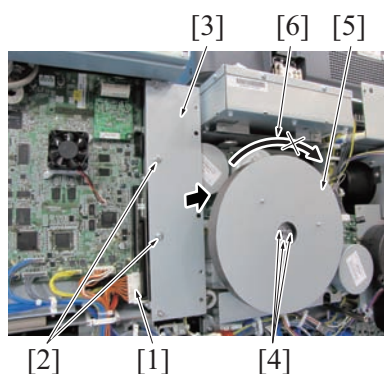
*1 1250/1250P/1052

*2 951

(2) Procedure



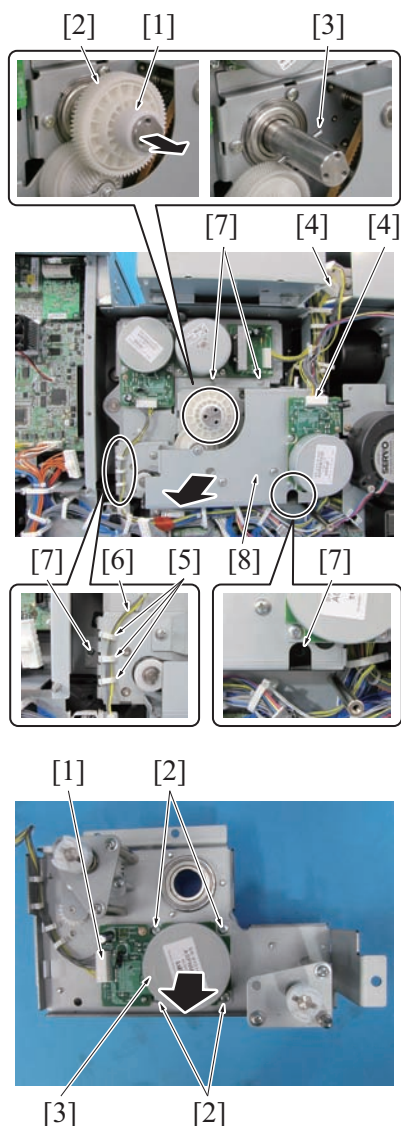
1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Remove 8 screws [1] and remove the IC unit [2].



3. Disconnect the connector [1].
4. Remove 2 screws [2] and remove PCI relay board assy [3].
5. Remove 3 screws [4] and remove the flywheel [5].

Note

- When removing the flywheel, be sure not to rotate in the arrow-marked direction [6].



6. Remove the spacer [1] and the gear [2], and then remove the pin [3].
7. Disconnect 2 connectors [4].
8. Release the wiring harness [6] from 3 wiring harness clamps [5].
9. Remove 4 screws [7], and then remove the drum drive assy [8].

10. Disconnect the connector [1].
11. Remove 4 screws [2] and remove the drum motor (M2).
12. Reinstall the above parts following the removal steps in reverse.

5.12.5 Replacing the drum cleaner motor (M35)

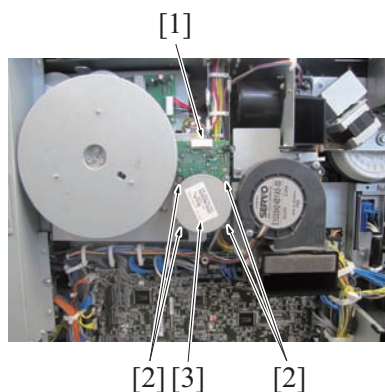
(1) Periodically replaced parts/cycle

- Drum cleaner motor (M35)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure



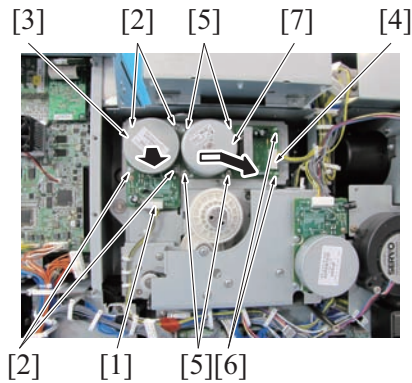
1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Disconnect the connector [1].
3. Remove 4 screws [2] and remove the drum cleaner motor (M35) [3].
4. Reinstall the preceding parts following the removal steps in reverse.

5.12.6 Replacing the developing motor (M3) and the developing screw motor (M21)**(1) Periodically replaced parts/cycle**

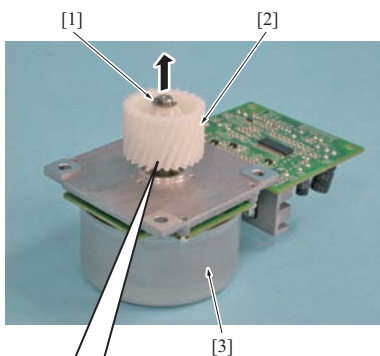
- Developing motor (M3)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Developing screw motor (M21)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

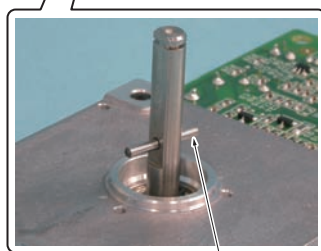
*2 951

(2) Procedure

1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Remove the flywheel. (Refer to [F.5.12.4 Replacing the drum motor \(M2\)](#))
3. Disconnect the connector [1].
4. Remove 4 screws [2] and remove the developing screw motor (M21) [3].
5. Disconnect the connector [4].
6. Remove 4 screws [5] and 2 board supports [6], and then remove the developing motor (M3) [7].



7. Remove the E-ring [1] and the gear [2].
8. Remove the pin [4] from the developing motor (M3) [3].
9. Reinstall the above parts following the removal steps in reverse.



[4]

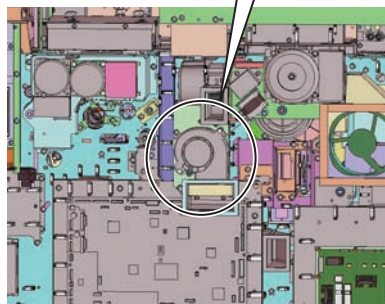
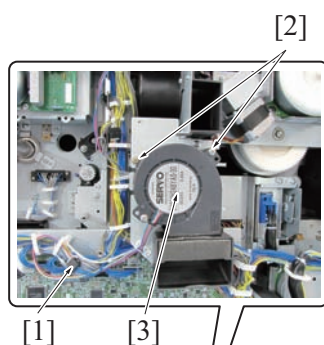
a0g6t3c366ca

5.12.7 Replacing the transfer belt cleaning motor (M5) and the belt cleaning gear**(1) Periodically replaced parts/cycle**

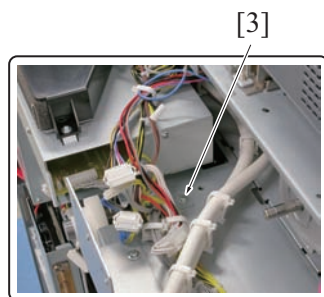
- Transfer belt cleaning motor (M5)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Belt cleaning gear
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

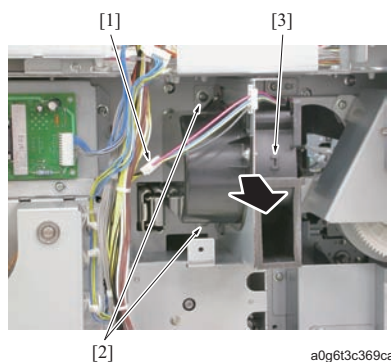
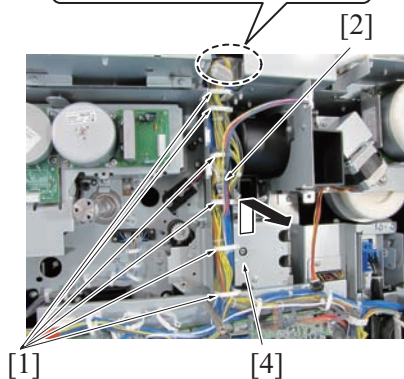
*2 951

(2) Procedure

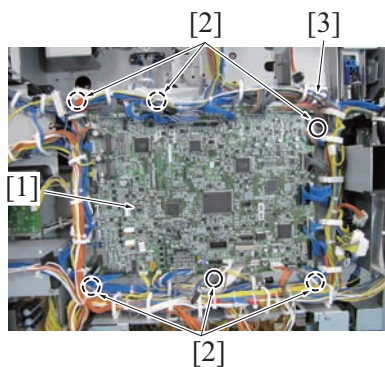
1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Remove the upper cover /Rr1. (Refer to [G.2.2.8 Upper cover /Rr1](#))
3. Remove the upper cover /Rr2. (Refer to [G.2.2.9 Upper cover /Rr2](#))
4. Remove the exterior mounting plate. (Refer to [F.5.5.7 Replacing the pump units /Lt and /Rt](#))
5. Remove the drum drive assy. (Refer to [F.5.12.4 Replacing the drum motor \(M2\)](#))
6. Disconnect the connector [1].
7. Remove 2 screws [2] and remove the transfer suction fan assy [3].



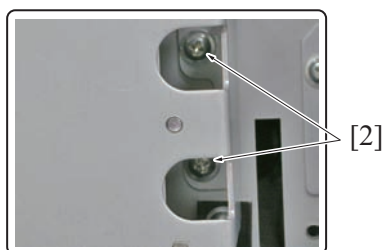
8. Release the wiring harness [2] from 6 wiring harness clamps [1].
9. Remove the screw [3], and remove the stay [4].



10. Disconnect the connector [1].
11. Remove 2 screws [2] and remove the cooling fan /2 assy [3].



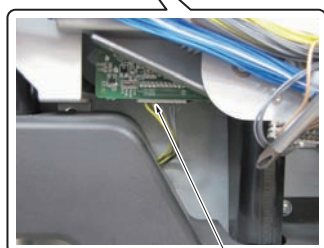
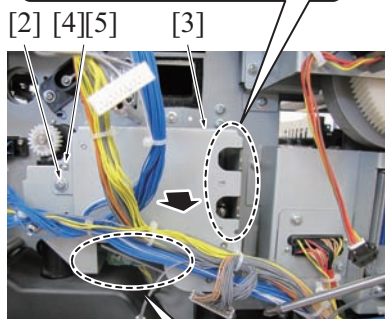
12. Disconnect all the connectors which are connected to the printer control board (PRCB) [1].
13. Remove 6 screws [2] and remove the printer control board assy [3].



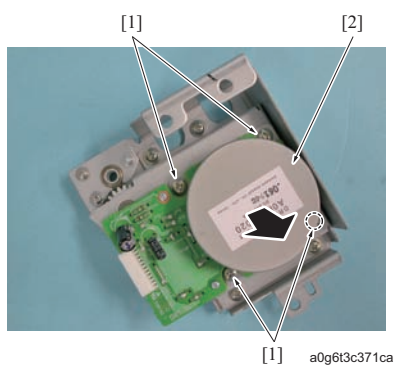
14. Disconnect the connector [1].
15. Remove 3 screws [2] and remove the transfer belt cleaning motor assy [3].

Note

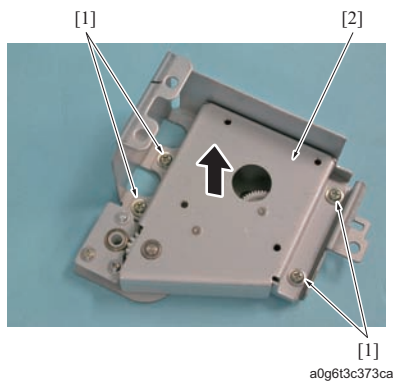
- When reinstalling the transfer belt cleaning motor assy, be sure to set the projection [5] of the main body to the positioning hole [4].



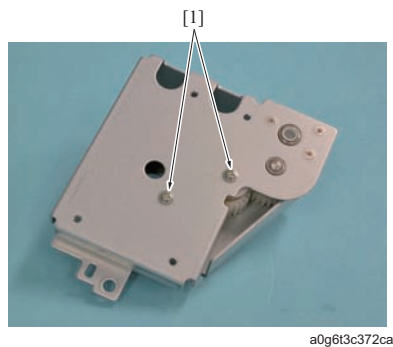
[1]



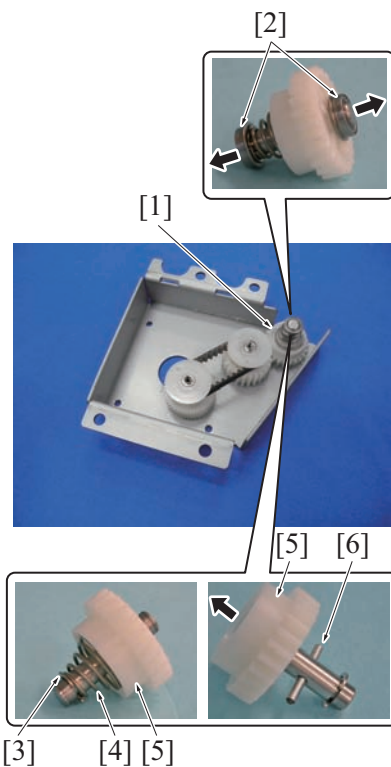
16. Remove 4 screws [1] and remove the transfer belt cleaning motor (M5) [2].



17. Remove 4 screws [1] and remove the belt CL crimp /2 [2].



18. Remove 2 screws [1].



19. Remove the belt cleaning gear assy [1].

20. Remove 2 bearings [2].

21. Remove the E-ring [3] and then remove the spring [4] and the belt cleaning gear [5].

Note

- Be careful not to lose the pin [6].

22. Reinstall the above parts following the removal steps in reverse.

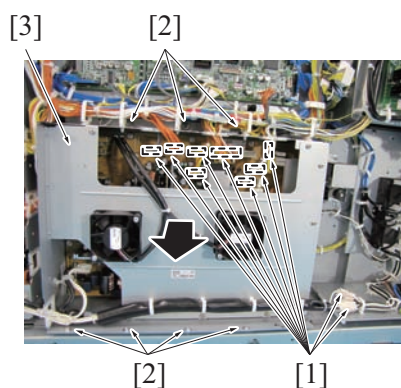
5.12.8 Replacing the waste toner motor (M9)

(1) Periodically replaced parts/cycle

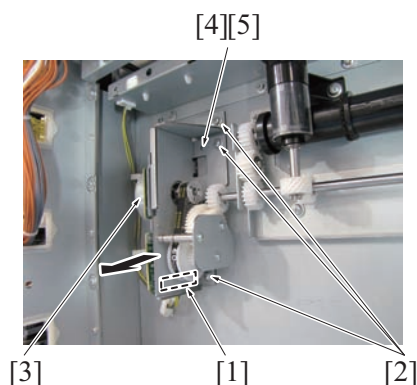
- Waste toner motor (M9)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

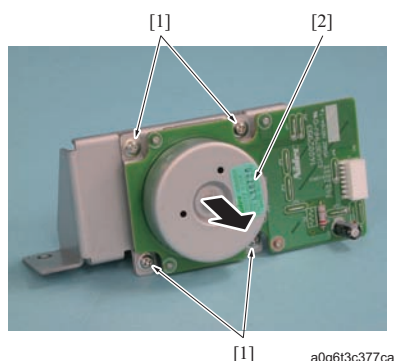
1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Disconnect 11 connectors [1].
3. Remove 7 screws [2] and remove the DC power supply /2 assy [3].



4. Disconnect the connector [1].
5. Remove 3 screws [2] and remove the waste toner motor assy [3].

Note

- When reinstalling the waste toner motor assy, be sure to set the projection [5] of the main body to the positioning hole [4].



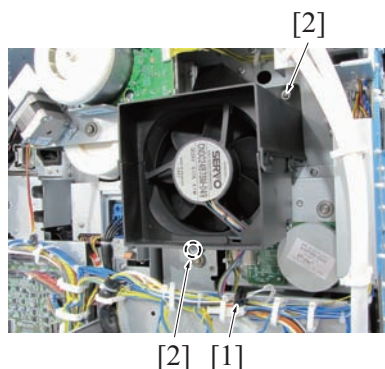
6. Remove 4 screws [1] and remove the waste toner motor (M9) [2].
7. Reinstall the above parts following the removal steps in reverse.

5.12.9 Replacing the paper exit motor (M20)**(1) Periodically replaced parts/cycle**

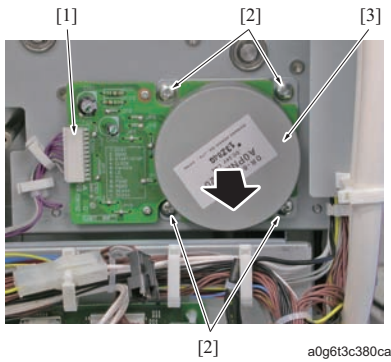
- Paper exit motor (M20)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Disconnect the connector [1].
3. Remove 2 screws [1] and remove the cooling fan /1 (FM1) [3].



4. Disconnect the connector [1].
5. Remove 4 screws [2] and remove the paper exit motor (M20) [3].
6. Reinstall the above parts following the removal steps in reverse.

5.12.10 Replacing the paper exit conveyance motor (M31)

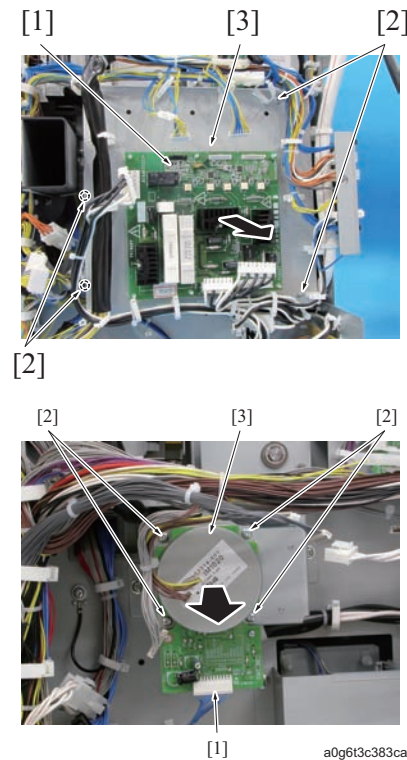
(1) Periodically replaced parts/cycle

- Paper exit conveyance motor (M31)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure



1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Disconnect all the connectors which is connected to the AC drive board (ACDB) [1].
3. Remove 4 screws [2] and remove AC drive board assy [3].

4. Disconnect the connector [1].
5. Remove 4 screws [2] and remove the paper exit conveyance motor (M31).
6. Reinstall the above parts following the removal steps in reverse.

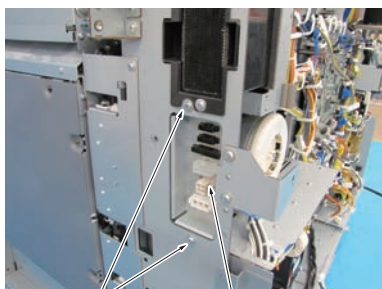
5.12.11 Replacing the paper feed motor (M4), the paper feed gear, the vertical conveyance motor (M8) and the conveyance gear

(1) Periodically replaced parts/cycle

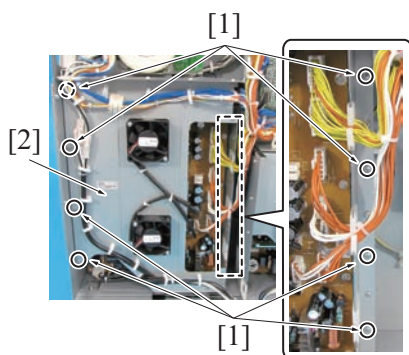
- Paper feed motor (M4)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Paper feed gear
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Vertical conveyance motor (M8)
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Conveyance roller
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

* 1 1250/1250P/1052

* 2 951

(2) Procedure

[1] [2]



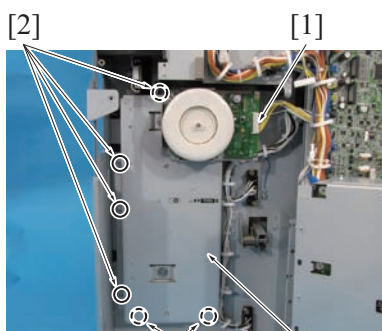
[1]

[2]

[1]

1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Remove the right cover. (Refer to [G.2.2.3 Right cover](#))
3. Remove the IC Unit. (Refer to [F.5.12.4 Replacing the drum motor \(M2\)](#))
4. Remove 2 screws [1] and remove the connector mounting plate [2].

5. Remove 8 screws [1] and remove the DC power supply /1 assy [2].



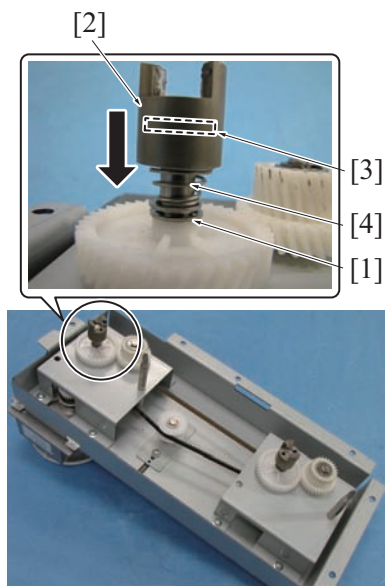
[2]

[1]

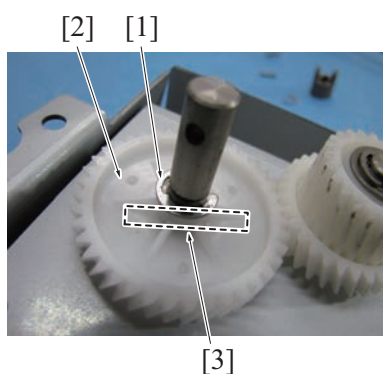
[2]

[3]

6. Disconnect the connector [1].
7. Remove 6 screws [2] and then remove the paper feed motor drive unit [3].



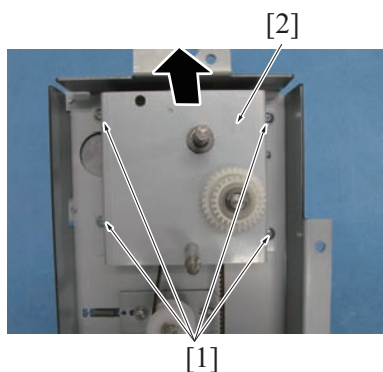
8. Remove the E-ring [1], push down the coupling [2] and then remove the pin [3].
9. Remove the coupling [2] and the spring [4].



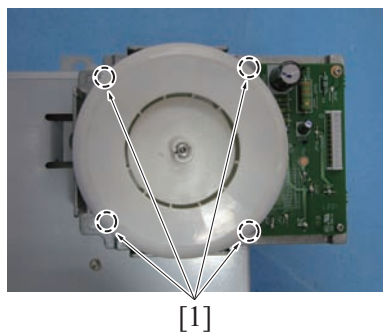
10. Remove the E-ring [1] and the gear [2].

Note

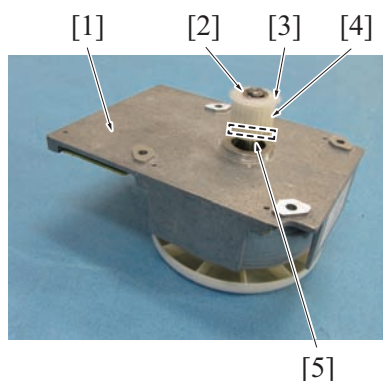
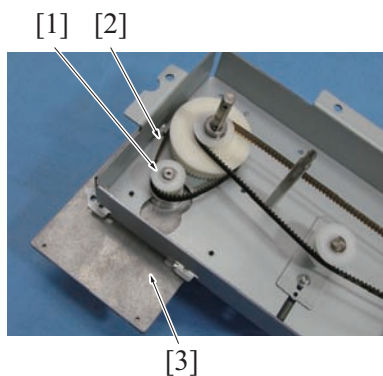
- When removing the gear [2], be careful not to drop the pin [3].



11. Remove 4 screws [1] and remove the gear cover [2].



12. Remove the 4 screws [1].



13. Release the paper feed gear [1] from the belt [2], and remove the paper feed motor assy [3].

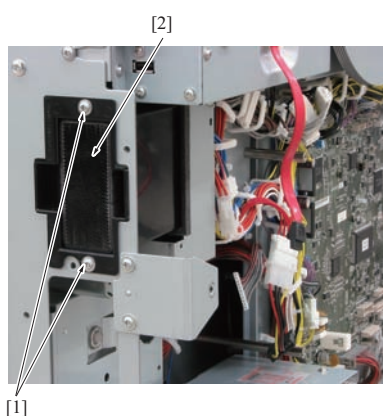
Note

- When reinstalling the paper feed motor assy, be sure to fit the paper feed gear [1] to the belt [2].

14. Remove the E-ring [2] from the paper feed motor (M4) [1], and remove the belt press collar [3], the paper feed gear [4] and the pin [5].

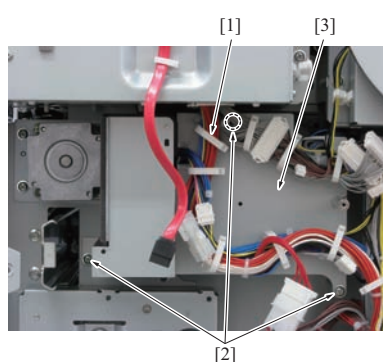
Note

- When removing the paper feed gear [4], be careful not to drop the pin [5].
- Do not wipe off the grease that applied to the groove which receives the pin.



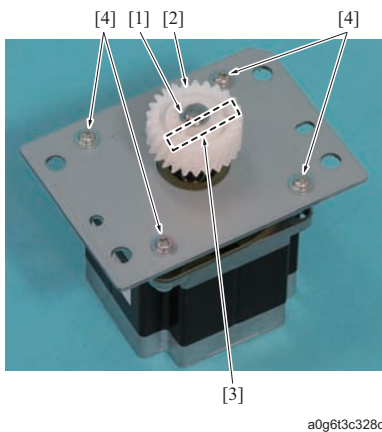
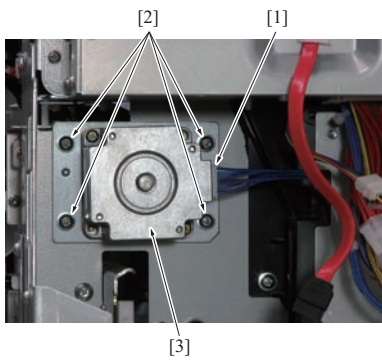
a0g6t3c325ca

15. Remove 2 screws [1] and remove the developing suction filter [2].



a0g6t3c326ca

16. Remove the wiring harness from the clamp [1].
17. Remove 3 screws [2] and remove the developing mounting plate [3].



18. Disconnect the connector [1] and remove 4 screws [2].
19. Remove the vertical conveyance motor assy [3].

20. Remove the E-ring [1], and remove the conveyance gear [2] and the pin [3].

Note

- When removing the conveyance gear [2], be careful not to drop the pin [3].

21. Remove 4 screws [4] and remove the vertical conveyance motor (M8) [5].
22. Reinstall the above parts following the removal steps in reverse.

Note

- When reinstalling the vertical conveyance motor (M8) [5], apply the plas guard No.2.

6. PERIODICAL MAINTENANCE PROCEDURE DF-615 /616

6.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

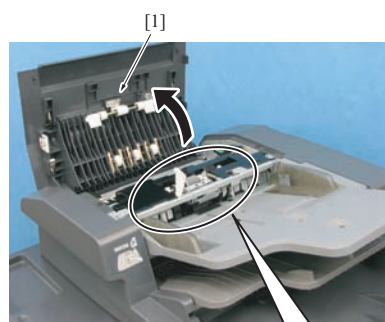
6.2 Paper feed section

6.2.1 Replacing the pick-up roller/paper feed roller/paper feed assist roller

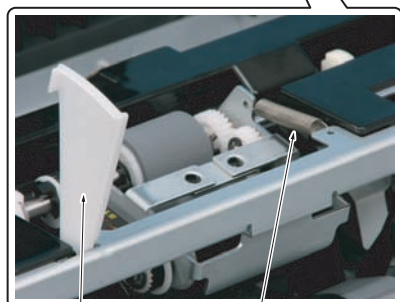
(1) Spotted replaced parts/cycle

- Pick-up roller
: Spot replacement (Actual replacement cycle: Every 800,000 feeds)
- Paper feed roller
: Spot replacement (Actual replacement cycle: Every 800,000 feeds)
- Paper feed assist roller
: Spot replacement (Actual replacement cycle: Every 800,000 feeds)

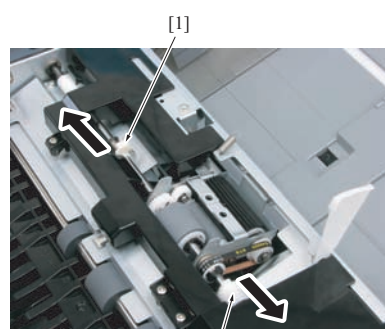
(2) Procedure



1. Open the open-close cover [1].
2. Lift up the stopper [2].
3. Remove the spring [3].

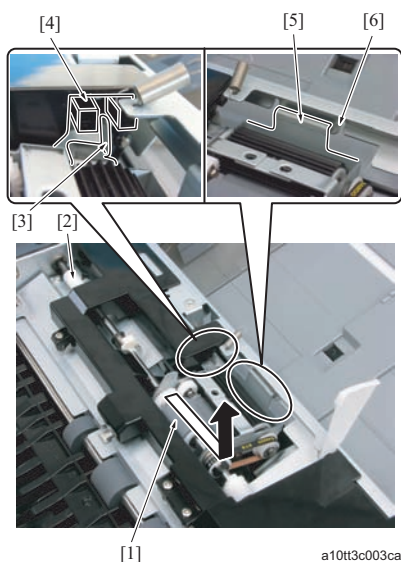


[2] [3] a10tt3c001ca



[2] a10tt3c002ca

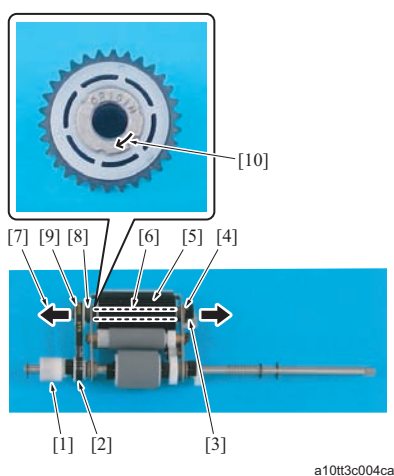
4. Slide each of the bearing [1] and the one-way clutch [2] to the outside.



5. Slide the pick-up roller unit [1] to the front side once to release it from the coupling [2], and remove it upward.

Note

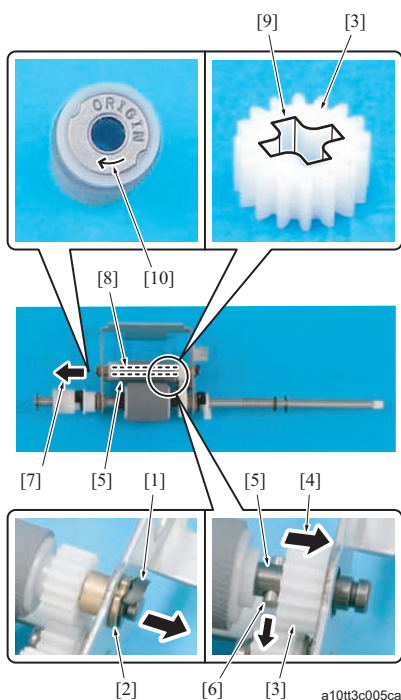
- When reinstalling the pick-up roller unit, be sure to engage the projection [3] of the pick-up roller unit to the tray upper limit sensor (PS315) [4]. Otherwise, paper is not fed correctly.
- When reinstalling the pick-up roller unit, make sure that the fold [5] of the pick-up roller unit comes above the fold [6] of the stay. If it comes under the fold, paper is not fed correctly.



6. Be sure to place the pick-up roller so that the one-way clutch [1] is at the lower left.
7. Remove the belt [2].
8. Remove the C-clip [3] and remove the bearing [4].
9. Pull out the shaft [6] of the pick-up roller [5] in the arrow-marked direction [7], and remove the pick-up roller.

Note

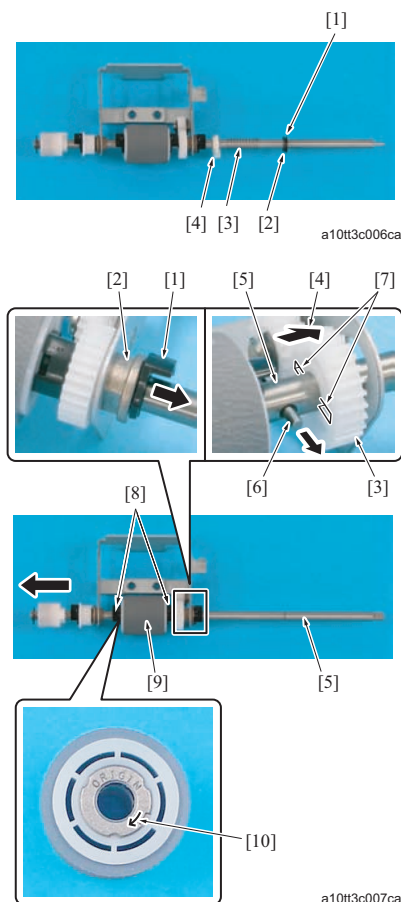
- The washer is inserted between the bearing [8] and the gear [9]. Be careful not to loose it.
- When reinstalling the pick-up roller, be sure to turn the arrow-mark [10] of the pick-up roller to the gear [9] side. Otherwise, paper is not fed correctly.



10. Remove the C-clip [1] and remove the bearing [2].
11. Slide the gear [3] in the arrow-marked direction [4] and remove the pin [6] from the shaft [5].
12. Pull out the shaft [5] in the arrow-marked direction [7] and remove the paper feed assist roller [8].

Note

- Be careful not to lose the pin [6].
- When reinstalling the gear [3], be sure to turn the detent [9] to the paper feed assist roller [8] side.
- When reinstalling the paper feed assist roller [8], be sure to turn the arrow-mark [10] of the paper feed assist roller to the opposite of the gear [3] side. Otherwise, paper is not fed correctly.



13. Remove the E-ring [1], and remove the washer [2], the spring [3], and the bearing [4].

14. Remove the C-clip [1] and remove the bearing [2].

15. Slide the gear [3] in the arrow-marked direction [4] and remove the pin [6] from the shaft [5].

Note

- Be careful not to lose the pin [6].
- When reinstalling the gear [3], be sure to set the pin [6] to the detent hole [7].

16. Remove 2 C-clips [8].

17. Remove the shaft [5] and remove the paper feed roller [9].

Note

- When reinstalling the paper feed roller [9], be sure to turn the arrow-mark [10] of the paper feed assist roller to the opposite of the gear [3] side. Otherwise, paper is not fed correctly.

18. Reinstall the preceding parts following the removal steps in reverse.

19. After you replace the pick-up roller, paper feed roller and paper feed assist roller, conduct the following items.

For DF-615

For the pick up roller: Counter reset of the parts counter No.222

For the feed roller: Counter reset of the parts counter No.223

For the paper feed assist roller: Counter reset of the parts counter No.225

For DF-616

For the pick up roller: Counter reset of the parts counter No.158

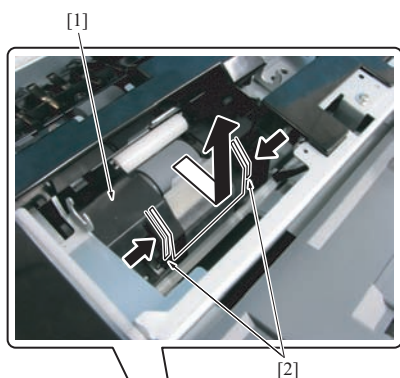
For the feed roller: Counter reset of the parts counter No.159

For the paper feed assist roller: Counter reset of the parts counter No.161

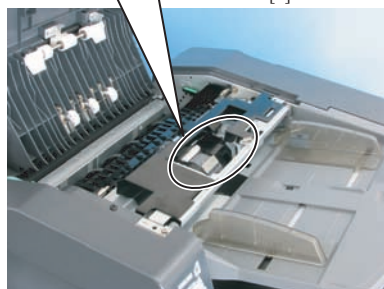
6.2.2 Replacing the separation roller/torque limiter

(1) Spotted replaced parts/cycle

- Separation roller
: Spot replacement (Actual replacement cycle: Every 400,000 feeds)
- Torque limiter
: Spot replacement (Actual replacement cycle: Every 800,000 feeds)

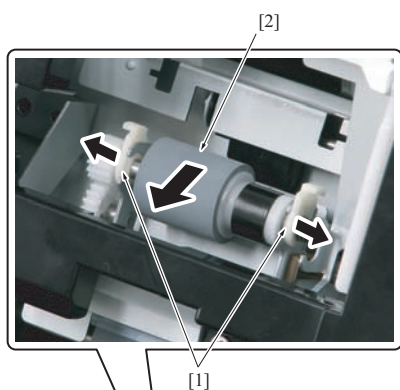
(2) Procedure

[2]



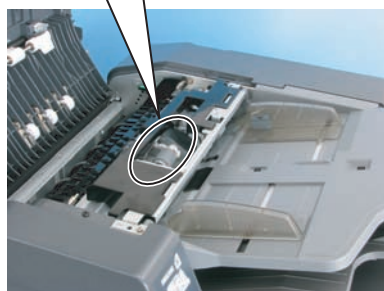
a10tt3c008ca

1. Remove the pick-up roller unit. (Refer to [F.6.2.1 Replacing the pick-up roller/paper feed roller/paper feed assist roller](#))
2. Release the hooks [2] of the assist roller assy [1] and remove the assist roller assy [1].



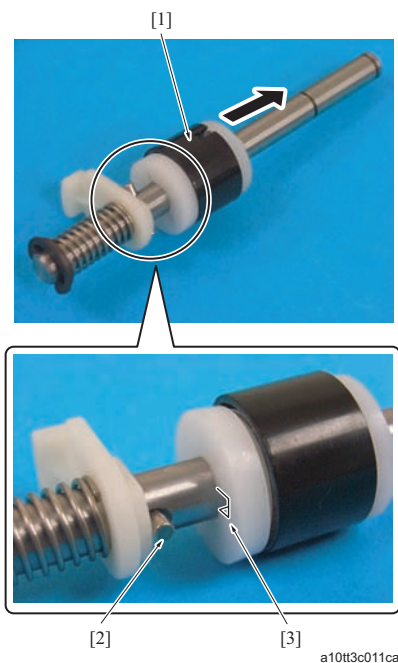
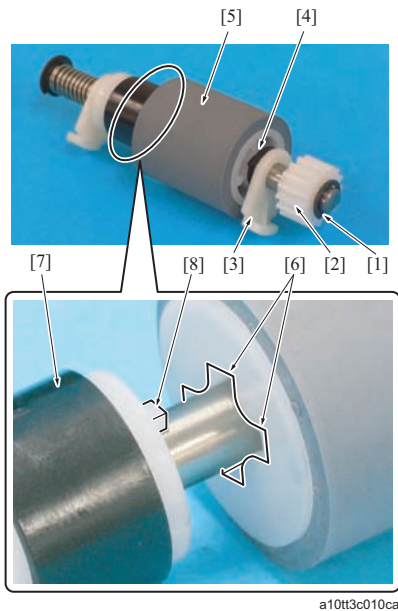
[2]

[1]



a10tt3c009ca

3. Slide 2 bearings [1] and remove the separation roller unit [2].



4. Remove the E-ring [1], and remove the gear [2] and the bearing [3].
5. Remove the C-clip [4] and remove the separation roller [5].

Note

- When reinstalling the separation roller, be sure to set the cross cut [6] to the projection [8] of the torque limiter [7].

6. Remove the torque limiter [1].

Note

- Be careful not to lose the detent pin [2] for the torque limiter.
- When reinstalling the torque limiter, be sure to set the pin to the detent hole [3].

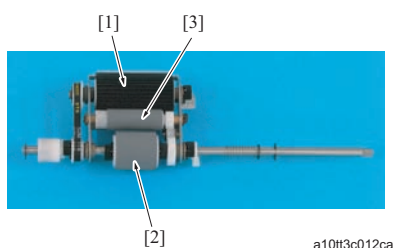
7. Reinstall the preceding parts following the removal steps in reverse.
8. After replacing the separation roller and the torque limiter, conduct the followings.
For DF-615
For the separation roller: Counter reset of the parts counter No.224
For the torque limiter: Counter reset of the parts counter No.226
For DF-616
For the separation roller: Counter reset of the parts counter No.160
For the torque limiter: Counter reset of the parts counter No.162

6.2.3 Cleaning the pick-up roller unit**(1) Periodic cleaning cycle**

- Pick-up roller
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Paper feed roller
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Paper feed assist roller
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 DF-615

*2 DF-616

(2) Procedure

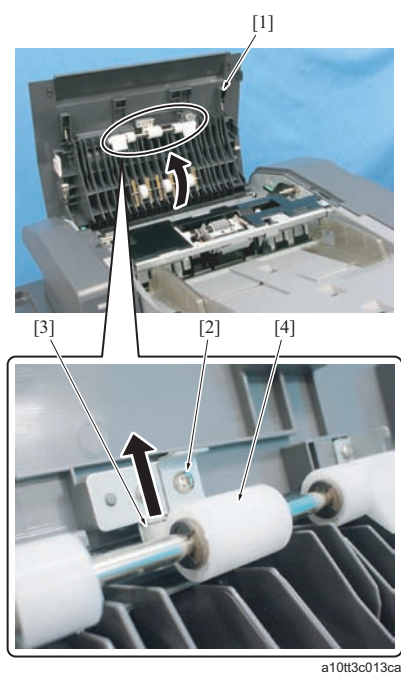
1. Remove the pick-up roller unit. (Refer to [F.6.2.1 Replacing the pick-up roller/paper feed roller/paper feed assist roller](#))
2. Clean the pick-up roller [1], the paper feed roller [2] and the paper feed assist roller [3] with the Isopropyl alcohol and the cleaning pad.
3. Reinstall the above parts following the removal steps in reverse.

6.2.4 Cleaning the cleaning pad/registration roller**(1) Periodic cleaning cycle**

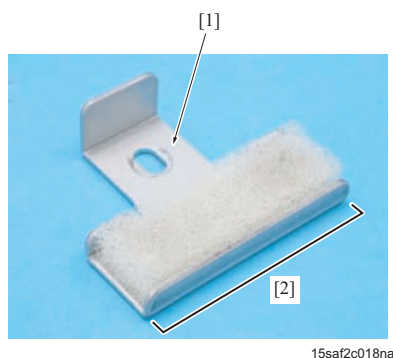
- Cleaning pad
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Registration roller
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 DF-615

*2 DF-616

(2) Procedure

1. Open the open-close cover [1].
2. Remove the screw [2] and remove the cleaning pad [3].
3. Clean the registration roller [4] with the isopropyl alcohol and the cleaning pad.



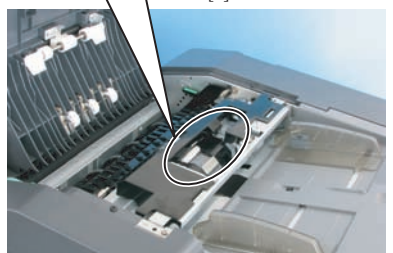
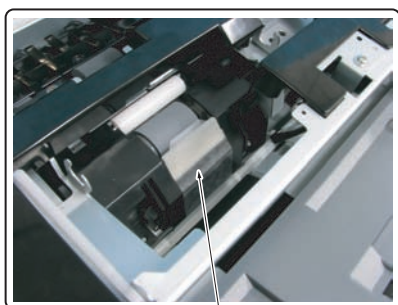
4. Clean the cleaning section [2] of the cleaning pad [1] with the blower brush.
5. Reinstall the above parts following the removal steps in reverse.

6.2.5 Cleaning the pre-separation rubber**(1) Periodic cleaning cycle**

- Pre-separation rubber
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 DF-615

*2 DF-616

(2) Procedure

a10tt3c014ca

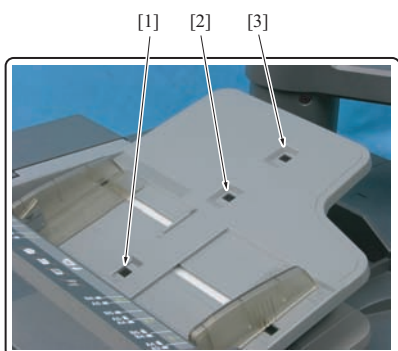
1. Remove the pick-up roller unit. (Refer to [F.6.2.1 Replacing the pick-up roller/paper feed roller/paper feed assist roller](#))
2. Clean the pre-separation rubber [1] with Isopropyl alcohol and a cleaning pad.
3. Reinstall the above parts following the removal steps in reverse.

6.2.6 Cleaning the paper feed section sensor**(1) Periodic cleaning cycle**

- Original count sensor (PS310)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Original size sensor /Lt (PS303)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Original size sensor /Rt (PS302)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 DF-615

*2 DF-616

(2) Procedure

a10tt3c015ca

1. Close the DF.
2. Clean the original count sensor (PS310) [1], the Original size sensor /Lt (PS303) [2] and the Original size sensor /Rt (PS302) [3] with the blower brush.

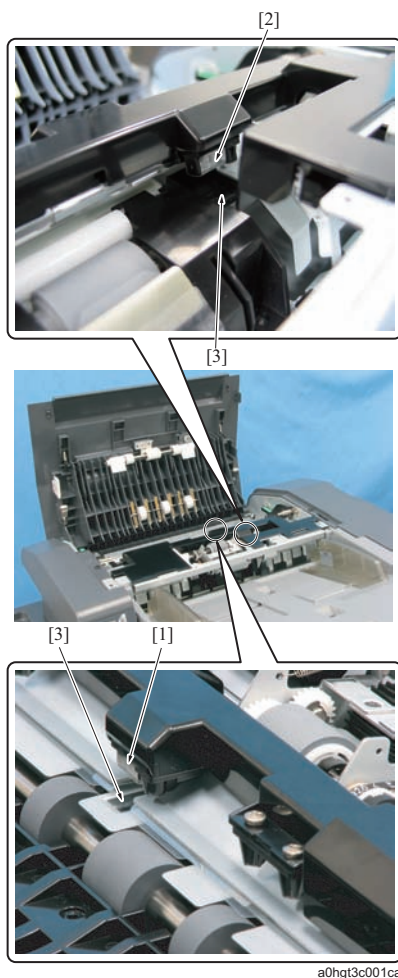
6.3 Conveyance section

6.3.1 Cleaning the conveyance section sensor (DF-615)

(1) Periodic cleaning cycle

- Original registration sensor /Lt (PS306)
: Every 1,000,000 prints
- Original registration sensor /Rt (PS318)
: Every 1,000,000 prints

(2) Procedure

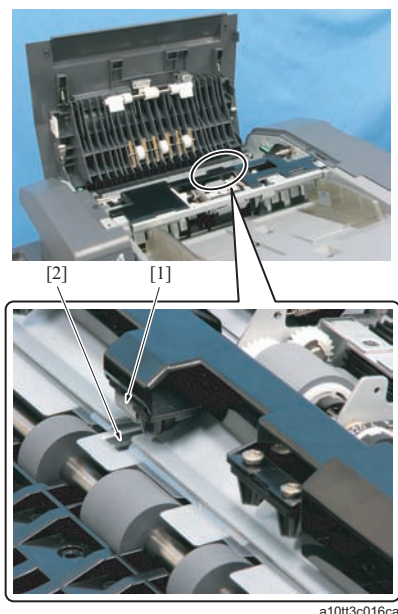


1. Remove the pick-up roller unit. (Refer to [F.6.2.1 Replacing the pick-up roller/paper feed roller/paper feed assist roller](#))
2. Clean the original registration sensors /Lt (PS306) [1], /Rt (PS318) [2] and the original registration mirror [3] with the blower brush.
3. Reinstall the above parts following the removal steps in reverse.

6.3.2 Cleaning the conveyance section sensor (DF-616)

(1) Periodic cleaning cycle

- Original registration sensor /Lt (PS306)
: Every 750,000 prints

(2) Procedure

a10tt3c016ca

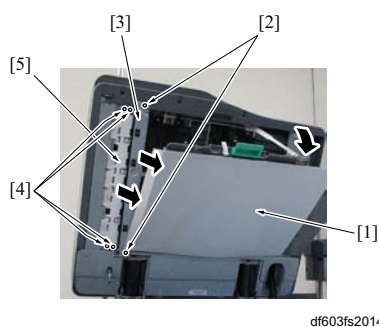
1. Open the open-close cover.
2. Clean the original registration sensor /Lt (PS306) [1] and the original registration mirror [2] with the blower brush.
3. Reinstall the above parts following the removal steps in reverse.

6.4 Read section**6.4.1 Cleaning the read section sensor/mirror for the sensor****(1) Periodic cleaning cycle**

- Original conveyance sensor (PS308)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Original skew sensor /Rr (PS311)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Original skew sensor /Fr (PS312)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

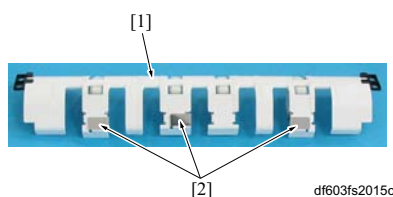
*1 DF-615

*2 DF-616

(2) Procedure

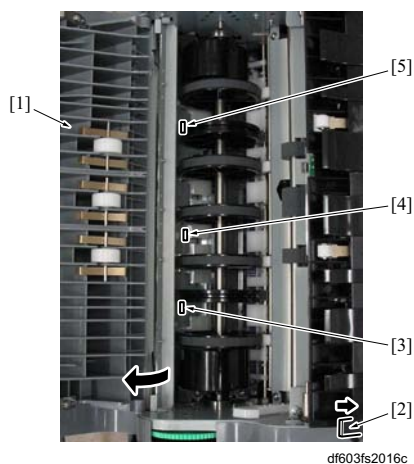
df603fs2014c

1. Open the DF.
2. Open the original glass guide [1].
3. Remove 2 screws [2] and then remove the driven roller assy [3].
4. Remove 4 screws [4] and then remove the conveyance guide [5].



df603fs2015c

5. Clean 3 mirrors [2] of the conveyance guide [1] with the blower brush.



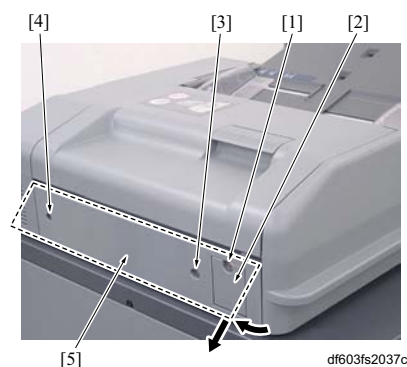
6. Close the original glass guide and then close the DF.
7. Open the open-close cover [1]. (The picture shows the condition after the cover is opened.)
8. Raise up the conveyance guide open-close lever [2]. (The picture shows the condition after the lever is raised up.)
9. Clean the original skew sensor /Fr (PS312) [3], the original conveyance sensor (PS308) [4] and the original skew sensor /Rr (PS311) [5] with the blower brush.
10. Reinstall the above parts following the removal steps in reverse.

6.4.2 Cleaning of the centering sensor (DF-615 only)

(1) Periodic cleaning cycle

- Centering sensor /Fr (PS320), /Rr (PS321)
: Every 1,000,000 prints
- Centering LED sensor /Fr (PS319), /Rr (PS322)
: Every 1,000,000 prints

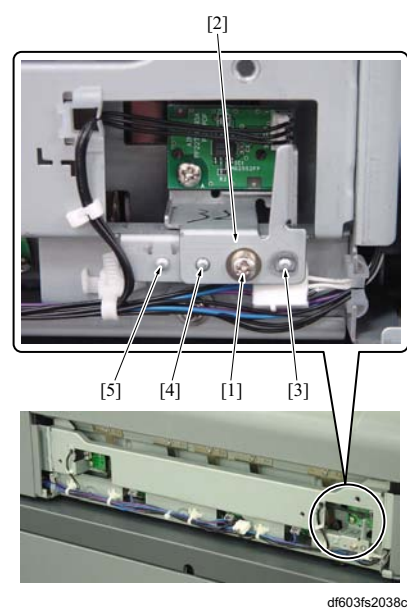
(2) Procedure



1. Remove the screw [1] and remove the sensor cover [2].
2. Remove the screw (stepped screw) [3] and the screw [4]. Pull out the lower section of the DF cover /Lt [5] and remove it while pulling it down.

Note

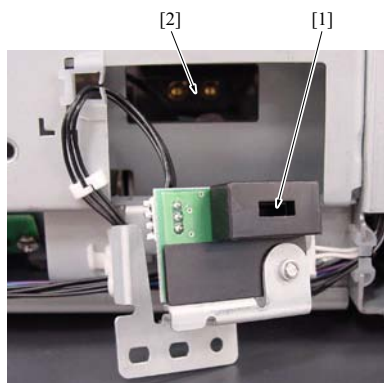
- Be sure to insert the upper section of the DF cover /Lt [5] when reinstalling it.



3. Remove the screw [1] and then remove the sensor mounting plate [2].

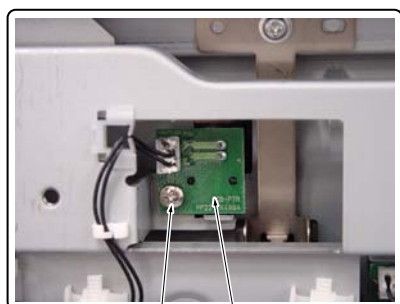
Note

- When reinstalling it, be sure to install the sensor mounting plate [2] to the dowels [3] and [4] for the A4 position and to the dowels [4] and [5] for the LT (8¹/₂ x 11) position. (Refer to [I.10.5 Centering sensor switchover adjustment \(DF-615 only\)](#))



df603fs2039c

4. Clean the centering sensor /Fr (PS320) [1] and the centering LED sensor /Fr (PS319) [2] with the blower brush.

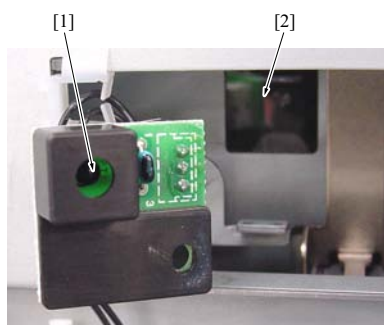


[1] [2]



df603fs2040c

5. Remove the screw [1] and then remove the centering sensor /Rr (PS321) [2].



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6. Clean the centering sensor /Rr (PS321) [1] and the centering LED sensor /Rr (PS322) [2] with the blower brush.
7. Reinstall the above parts following the removal steps in reverse.

6.5 Paper exit section

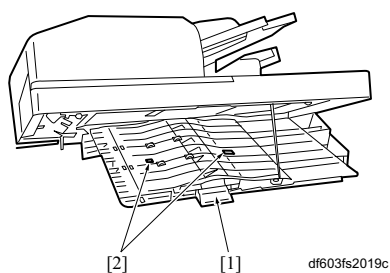
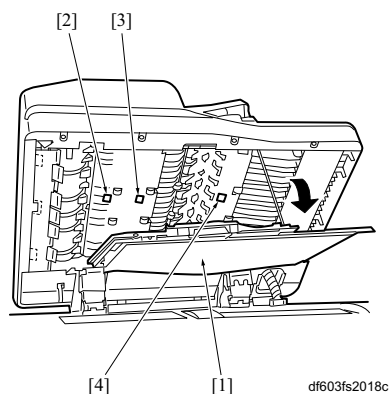
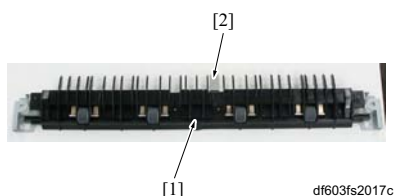
6.5.1 Cleaning the mirror on the driven roller assembly/paper exit section sensor/mirror for the sensor

(1) Periodic cleaning cycle

- Mirror on the driven roller assy
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Original reverse sensor (PS309)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Reverse jam sensor (PS304)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2
- Original reverse-exit sensor (PS313)
 - : Every 1,000,000 prints *1
 - : Every 750,000 prints *2

*1 DF-615

*2 DF-616

(2) Procedure

1. Remove the driven roller assy. (Refer to [F.6.4.1 Cleaning the read section sensor/mirror for the sensor](#))
2. Clean the mirror [2] on the driven roller assy [1] with the blower brush.

3. Open the original glass guide [1].
4. Clean the Original reverse sensor (PS309) [2], the reverse jam sensor (PS304) [3] and the original reverse-exit sensor (PS313) [4] with the blower brush.

5. Clean 2 mirrors [2] on the back of the original glass guide [1] with the blower brush.
6. Reinstall the above parts following the removal steps in reverse.

7. PERIODICAL MAINTENANCE PROCEDURE PF-703

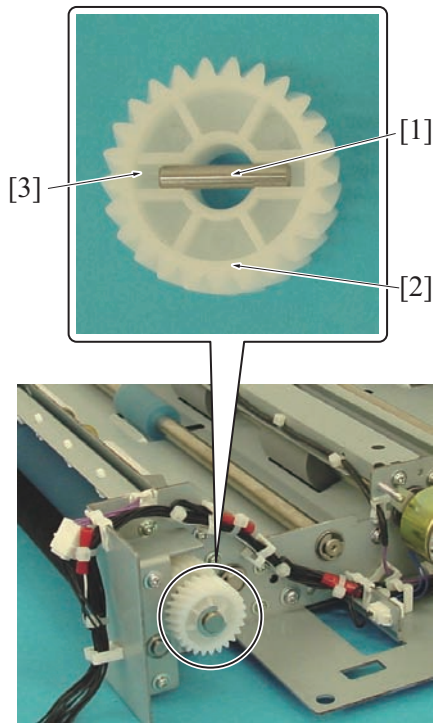
7.1 Precautions on maintenance

⚠ Note

- Be sure to unplug the power plug from the power outlet.

Note

- The gear [2] with the pin [1] is attached on every drive sections of DF-703. Do not wipe off the grease that is applied to the groove receiving the pin [3] when removing and attaching the gear.



7.2 Paper feed tray section

7.2.1 Replacing procedure of the shutter solenoids /1 (SD10), /2 (SD11), /3 (SD12)

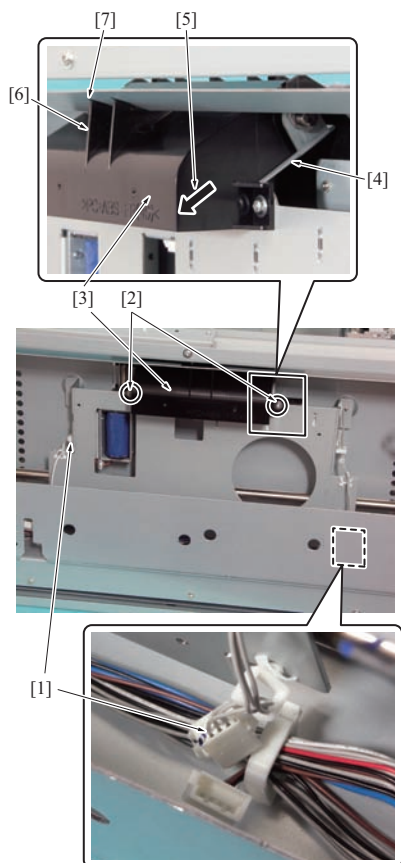
(1) Periodically replaced parts/cycle

- Paper leading edge shutter solenoid
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

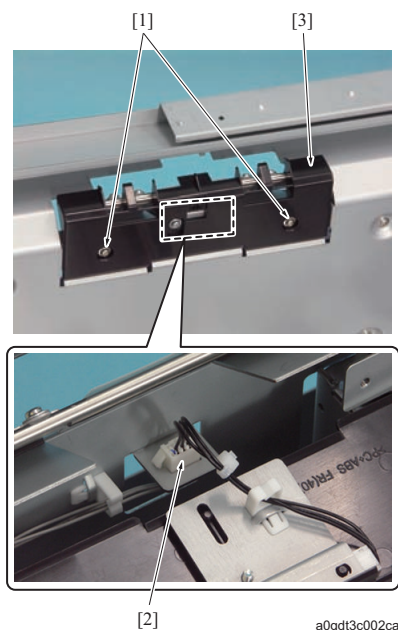
(2) Procedure

Note

- It explains with the tray1 in the picture but the procedure is the same for the trays 2 and 3.



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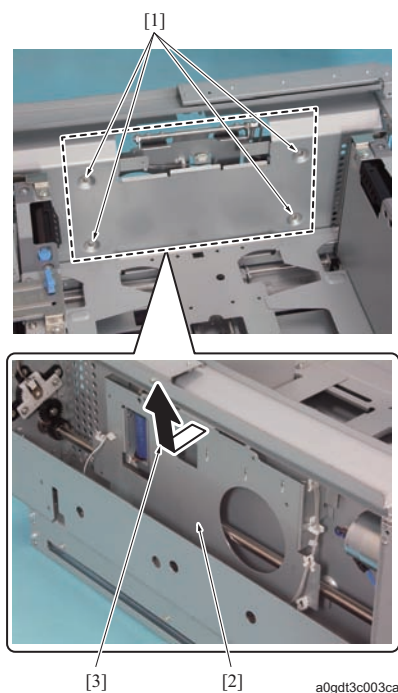
a0gdt3c002ca

1. Remove the paper leading edge separation fan. (Refer to [G.4.2.9 Paper leading edge separation fan /Fr1 \(FM3\), /Fr2 \(FM7\), /Fr3 \(FM11\), /Rr1 \(FM4\), /Rr2 \(FM8\), /Rr3 \(FM12\)](#))
2. Remove 2 connectors [1].
3. Remove 2 screws [2], and then remove the air duct [3] obliquely downward [5] along the metal plate [4].

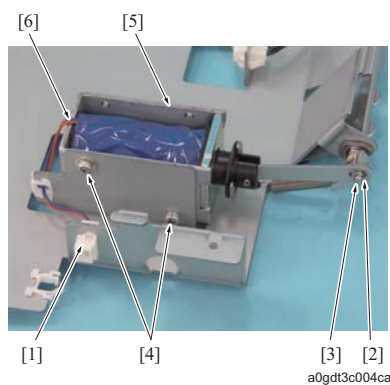
Note

- When reinstalling it, be sure to align 2 fins [6] of the air duct [3] with the notch [7] of the metal plate.

4. Remove 2 screws [1] and the connector [2], and then remove the upper limit sensor mounting plate [3].



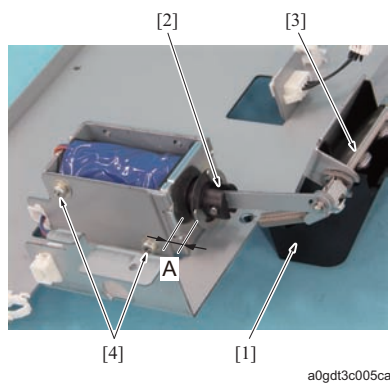
5. Remove 4 screws [1], tilt the fan mounting plate [2], and then remove it in the arrow-marked direction [3].



6. Disconnect the connector [1].
7. Remove the E-ring [2] and then pull out from the shaft [3].
8. Remove 2 screws [4] and then remove the paper leading edge shutter solenoids /1 (SD10), /2 (SD11), and /3 (SD12) [5].

Note

- When reinstalling it, be sure to install so that the wiring harness [6] of the paper leading edge shutter solenoid is in the direction in the picture.



9. Reinstall the preceding parts following the removal steps in reverse.

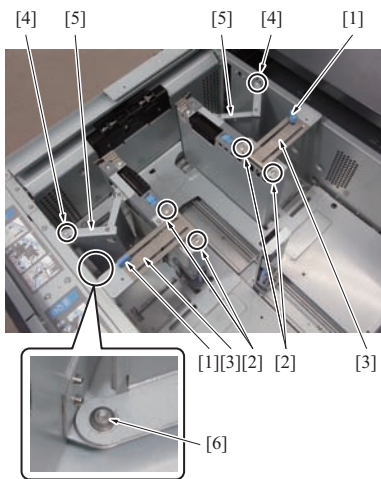
Note

- When reinstalling it, be sure to install the air duct [1] temporary and fix it with the screws [4] so that the gap A of the plunger [2] gets to the standard value at the position with the shutter [3] contacting to the air duct [1] by pulling the plunger.
- Standard value: A = 0.2mm to 0.7mm

7.2.2 Replacing the shutter solenoids /Fr1 (SD4), /Fr2 (SD6), /Fr3 (SD8), /Rr1 (SD5), /Rr2 (SD7) and /Rr3 (SD9)

(1) Periodically replaced parts/cycle

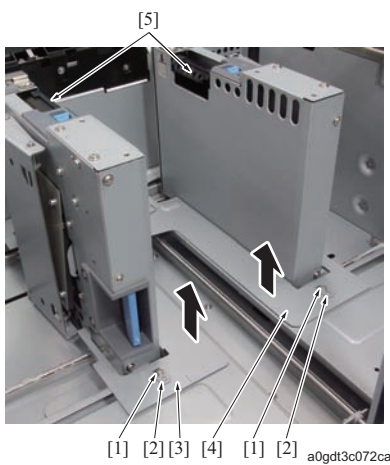
- Shutter solenoid /Fr1 (SD4), /Fr2 (SD6), /Fr3 (SD8), /Rr1 (SD5), /Rr2 (SD7), /Rr3 (SD9)
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

(2) Removing procedure of the side guide assy

1. Pull out the tray at the maximum. (Refer to [G.4.2.6 Tray](#))
2. Loosen 1 each of the screws [1] of the side guides /Fr and /Rr.
3. Remove each of the screws [2], 2 each, and shorten the reinforcing plate [3].
4. Remove the screws [4], 1 each, and remove the reinforcing hinge [5] from the pin [6].

Note

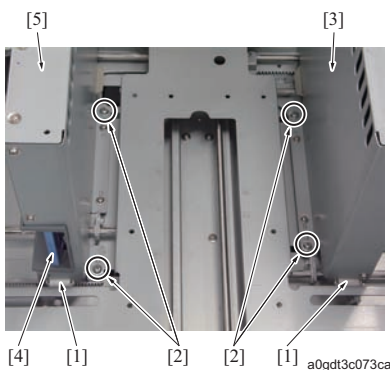
- Be careful that the screw [4] is the stepped screw.



5. Remove 1 each of the screws [1] at 2 positions, and then remove 1 each of the mounting metal fittings [2].
6. Remove the covers /Fr [3] and /Rr [4] by lifting it upward.

Note

- When removing/installing the covers /Fr and /Rr, be sure to push the flap slightly into the side guide and not to damage it.

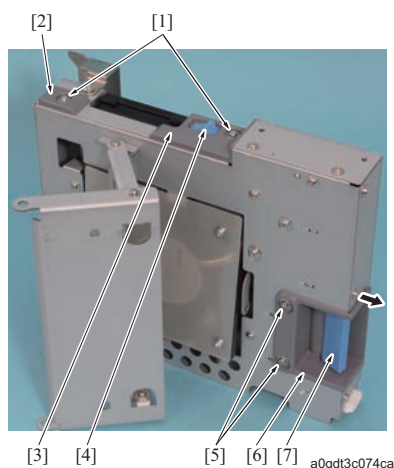


7. Remove 1 each of the connectors [1].
8. Remove 2 each of the screws [2].

Note

- When reinstalling it, tighten the screws temporary and check the parallel between the side guides /Fr and /Rr by using paper, and then tighten the screws fully.

9. Remove the side guide /Rr [3].
10. Remove the side guide /Fr [5] by pressing the side guide lock lever [4].
11. Reinstall the preceding parts following the removal steps in reverse.

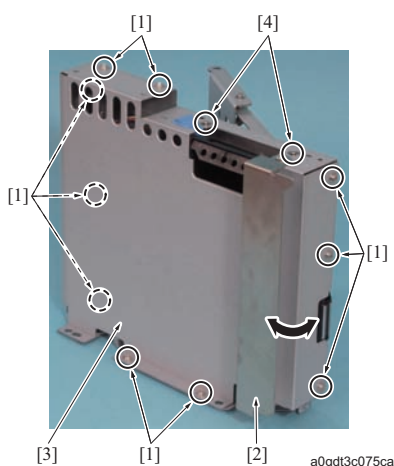
(3) Removing procedures of the shutter solenoids /Fr1 (SD4), /Fr2 (SD6) and /Fr3 (SD8)

1. Remove the side guide assy /Fr. (Refer to [F.7.2.2.\(2\) Removing procedure of the side guide assy](#))
2. Remove 2 screws [1] and remove the cover [2], [3].

Note

- The covers [2], [3] have the projection on the bottom, be sure to put it into the positioning hole on the side guide.
- Be sure to check that the slide knob [4] moves smoothly after installing the cover [3].

3. Remove 2 screws [5] and then remove the lever cover [6] by pressing the side guide lock lever [7] slightly.

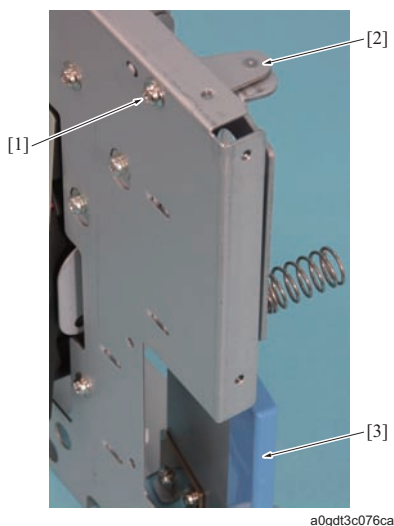


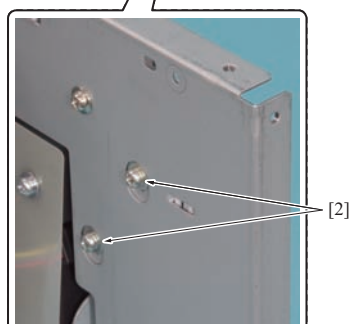
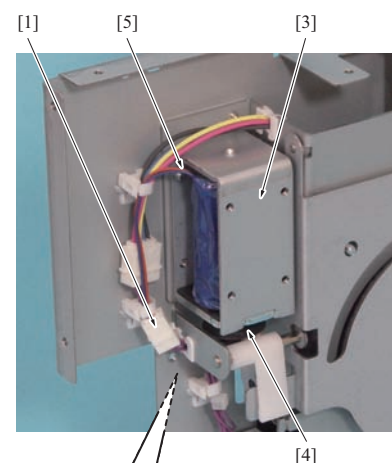
4. After removing 10 screws [1], rotate the small size guide [2], release the magnet, and then remove the cover [3].

Note

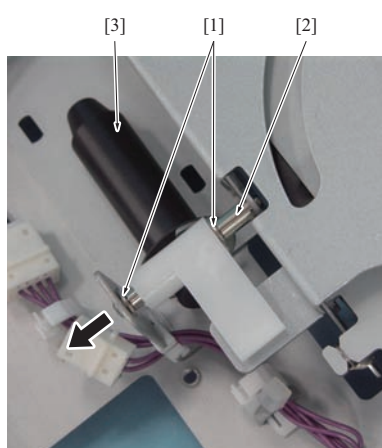
- When reinstalling it, be careful that the cover does not press the E-ring [4].

5. Remove the screw [1] and then remove the supporting bracket [2] and the side guide lock lever [3].

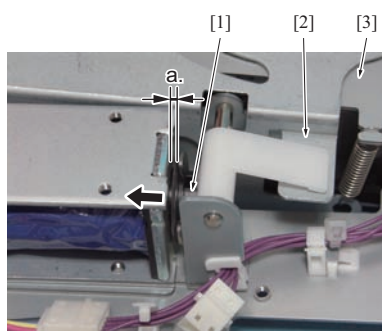




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6. Disconnect the connector [1].
7. Remove 2 screws [2] and then pull out the body [3] of the shutter solenoids /Fr1 (SD4), /Fr2 (SD6), and /Fr3 (SD8) from the plunger [4].

Note

- When reinstalling the body [3] of the shutter solenoid /Rr, be sure to install so that the wiring harness [5] is in the direction in the picture.

8. Remove 2 E-rings [1] and then remove the plunger [3] by pulling out the pin [2].

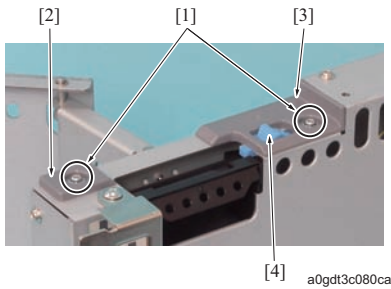
9. Reinstall the preceding parts following the removal steps in reverse.

Note

- When reinstalling it, be sure to install so that the gap A is the standard value at the position with the shutter [2] contacting to the metal plate [3] by pulling the plunger [1]. Standard value "a": = 0.2mm to 0.7mm

(4) Replacing procedure of the shutter solenoids /Rr1 (SD5), /Rr2 (SD7), /Rr3 (SD9)**Note**

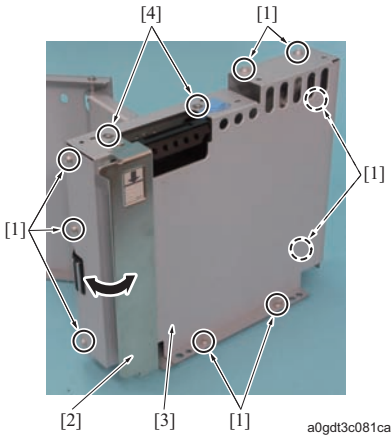
- The removing/installing procedure of the shutter solenoid is common between the trays 1, 2, and 3 but the layout of the wiring harness is different at some part. This section shows the procedure for the tray1 and the different parts are described in the procedure.



1. Remove the side guide assy /Rr. (Refer to [F.7.2.2.\(2\) Removing procedure of the side guide assy](#))
2. Remove 2 screws [1] and remove the cover [2], [3].

Note

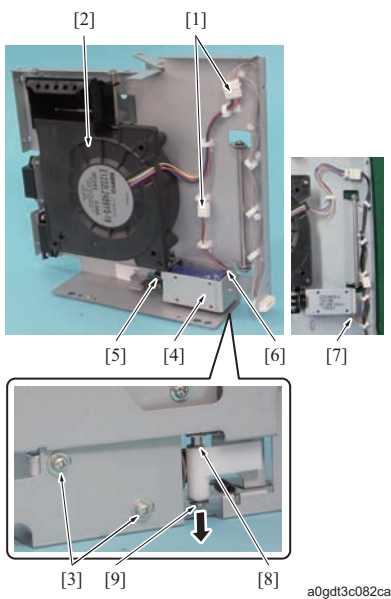
- The covers [2], [3] have the projection on the bottom, be sure to put it into the positioning hole on the side guide.
- Be sure to check that the slide knob [4] moves smoothly after installing the cover [3].



3. After removing 9 screws [1], rotate the small size guide [2], release the magnet, and then remove the cover [3].

Note

- When reinstalling it, be careful that the cover does not press the E-ring [4].



4. Remove 2 connectors [1].

Note

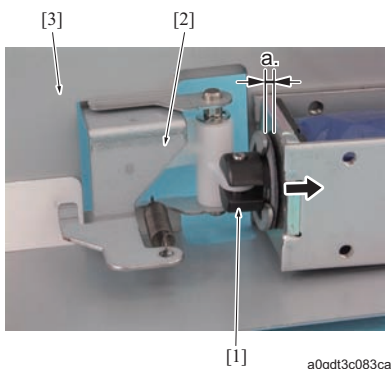
- The picture shows the tray1. Be sure that the layout of the wiring harness is different on the tray2 and 3.

5. Remove the paper feed assist fan /Rr [2].
6. Remove 2 screws [3] and then pull out the body [4] of the shutter solenoids /Rr1 (SD5), /Rr2 (SD7), and /Rr (SD9) from the plunger [5].

Note

- When reinstalling the body [4] of the shutter solenoid /Rr1 on the tray1, be sure to install so that the wiring harness faces upward [6] like in the picture.
- When reinstalling the body [4] of the shutter solenoids /Rr2, /Rr3 on the tray /2, /3, be sure to install so that the wiring harness faces downward [7] like in the picture.

7. Remove E-ring [8] and then remove the plunger [5] by pulling out the pin [9].



8. Reinstall the preceding parts following the removal steps in reverse.

Note

- When reinstalling it, be sure to install so that the gap A is the standard value at the position with the shutter [2] contacting to the metal plate [3] by pulling the plunger [1]. Standard value "a": = 0.2mm to 0.7mm

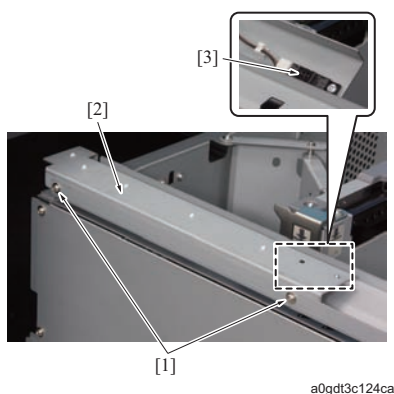
7.2.3 Cleaning the paper feed sensor /1 (PS2), /2 (PS6), /3 (PS10)

(1) Periodically cleaned parts/cycle

- Paper feed sensor /1 (PS2), /2 (PS6), /3 (PS10)

: Every 1,000,000 prints

(2) Procedure



1. Pull out the tray at the maximum. (Refer to [G.4.2.6 Tray](#))
2. Remove 2 screws [1].
3. Turn back the sensor mounting plate [2] and clean the paper feed sensor [3].
4. Reinstall the preceding parts following the removal steps in reverse.

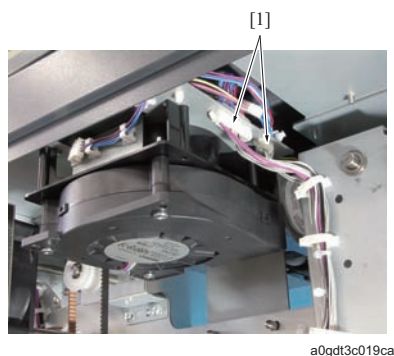
7.3 Paper feed suction section

7.3.1 Replacing the torque limiter

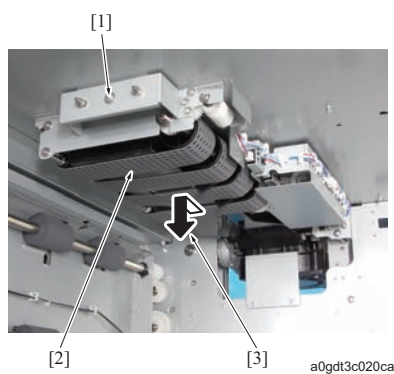
(1) Periodically replaced parts/cycle

- Torque limiter
- : Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

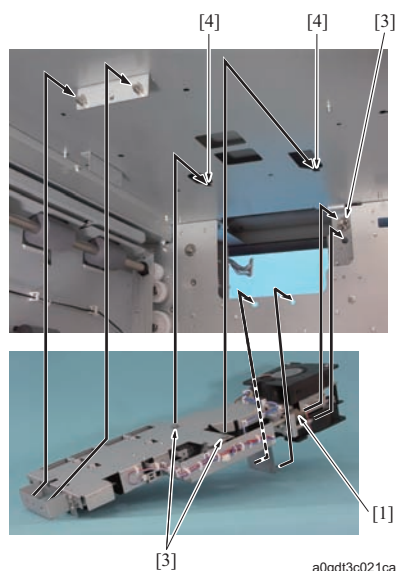
(2) Removing procedure of the paper feed suction unit



1. Remove the tray. (Refer to [G.4.2.6 Tray](#))
2. Remove the rear cover. (Refer to [G.4.2.3 Rear cover](#))
3. Remove 2 connectors [1].



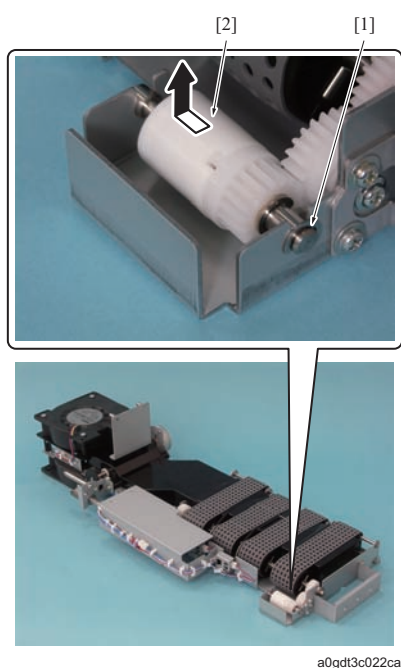
4. Remove the screw [1] and then remove the paper feed suction unit [2] in the arrow-marked direction [3].



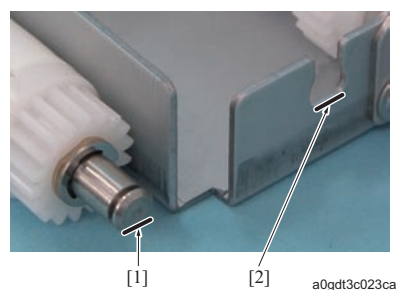
- Reinstall the preceding parts following the removal steps in reverse.

Note

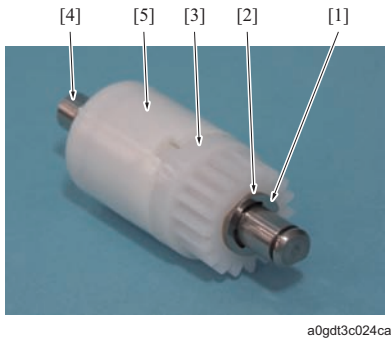
- When reinstalling it, be sure to put the coupling [1] to the coupling pin [2], the holder pin [3] to the hole [4], and each positioning pins to the corresponding holes.

(3) Replacing procedure of the torque limiter

- Remove the paper feed suction unit. (Refer to [F.7.3.1.\(2\) Removing procedure of the paper feed suction unit](#))
- Remove the E-ring [1] and then remove the torque limiter assy [2].

**Note**

- When reinstalling it, be sure to set the D-cut [1] of the shaft to the straight line side [2] of the hole.



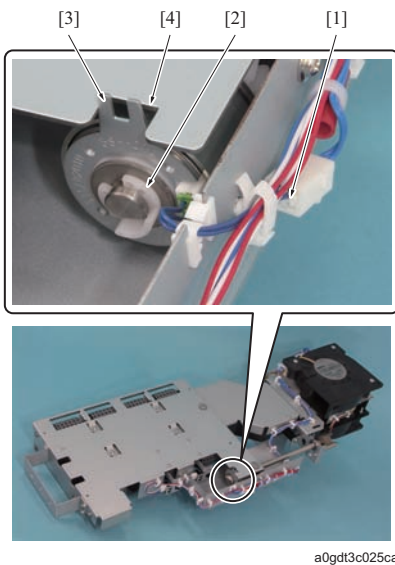
3. Remove the E-ring [1], remove the bearing [2] and the gear [3], and then remove the torque limiter [5] from the shaft [4].
4. Reinstall the preceding parts following the removal steps in reverse.

7.3.2 Replacing the paper feed clutch /1 (CL7), /2 (CL8), /3 (CL9)

(1) Periodically replaced parts/cycle

- Paper feed clutch /1 (CL7), /2 (CL8), /3 (CL9)
: Every 24,000,000 prints (Actual replacement cycle: Every 3,000,000 prints)

(2) Procedure for removal



1. Remove the paper feed suction unit. (Refer to [F.7.3.1 Replacing the torque limiter](#))
2. Disconnect the connector [1].
3. Remove the C-clip [2] and remove the paper feed clutch/1 (CL7), /2 (CL8), /3 (CL9).

Note

- When reinstalling it, be sure to put the claw [3] to the depression [4] of the metal plate.

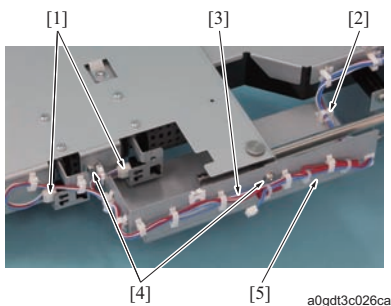
4. Reinstall the preceding parts following the removal steps in reverse.

7.3.3 Replacing the paper feed belt

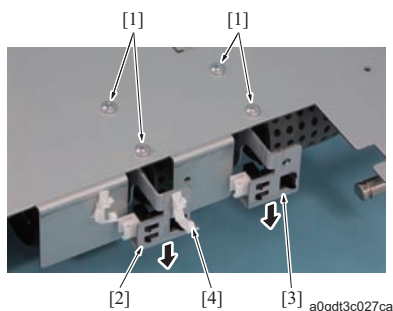
(1) Periodically replaced parts/cycle

- Paper feed belt
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

(2) Procedure for removal



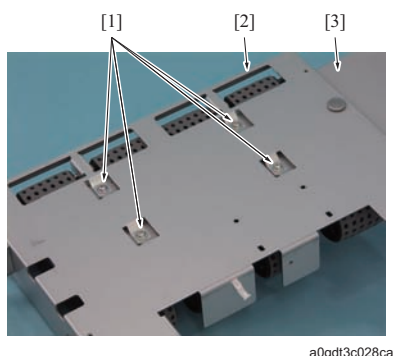
1. Remove the paper feed suction unit. (Refer to [F.7.3.1 Replacing the torque limiter](#))
2. Remove the paper feed clutch. (Refer to [F.7.3.2 Replacing the paper feed clutch /1 \(CL7\), /2 \(CL8\), /3 \(CL9\)](#))
3. Disconnect 2 connectors [1] and remove the wiring harness [2] between the wiring harness clamps [2] from the connector [1].
4. Remove 2 screws [4] and then remove the wiring plate [5].



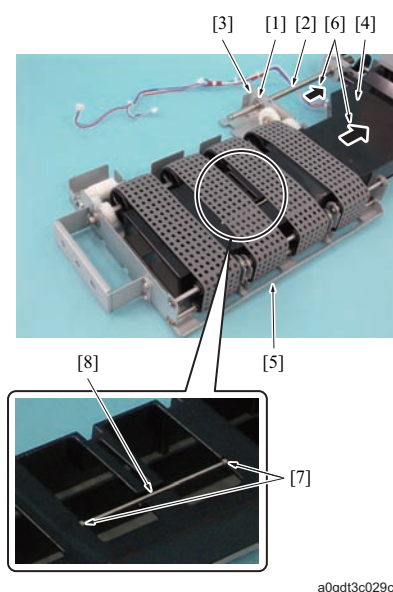
5. Remove 2 each of screws [1], and remove the sensor assy [2], [3].

Note

- Be careful that the sensor assy [2] has the wiring harness clamp [4].



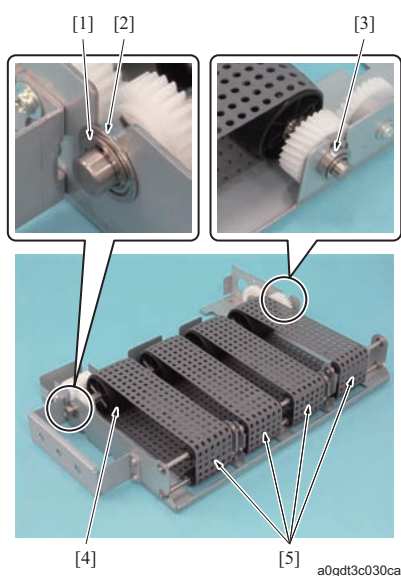
6. Remove 4 screws [1] and then turn it back by holding both of the belt unit assy [2] and the suction duct assy [3].



7. Remove the shaft [2] together with the bearing [1] from the metal plate [3], and the suction duct assy [4] from the belt unit assy [5] by pulling out in the arrow-marked direction [6].

Note

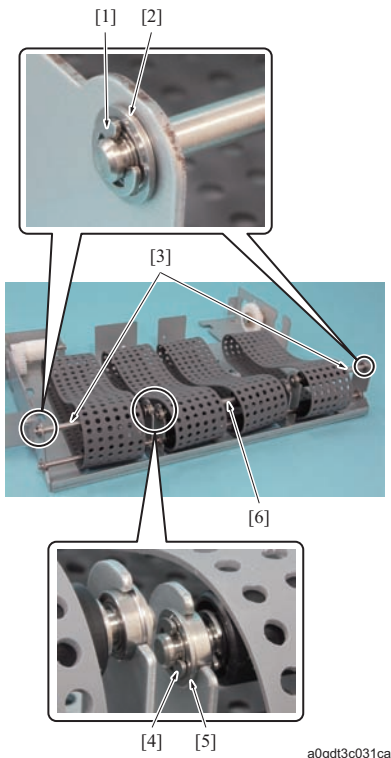
- Since the bearing [7] and the rotating shaft [8] are not secured, be careful not to lose them.



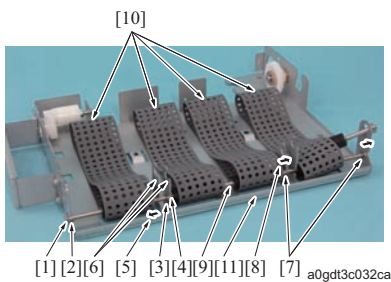
8. Remove the E-ring [1] and then remove the bearing [2].
9. Move the bearing [3] and then pull out the belt drive roller assy [4] from the paper feed belt [5].

Note

- Be sure to check that the paper feed belt is not tilt against the roller and rotates smoothly.



10. Remove 1 each of the E-rings [1] and the bearings [2] and then remove 2 belt driven roller assy /A [3].
11. Remove the E-ring [4] and the bearing [5] and then remove the belt driven roller assy /B [6].



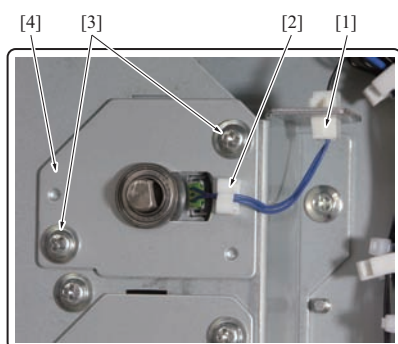
12. Remove the E-ring [1] and remove the bearing [2].
 13. Remove the E-ring [3] and move the bearing [4] in the arrow-marked direction [5].
- Note**
- When removing/installing the E-ring, be sure not to convert the bearing support bracket [6].
14. Move the bearing [8] in the arrow-marked direction and then remove the belt driven roller assy /C [9] and 4 paper feed belts [10] from the belt support plate [11].
- Note**
- When reinstalling the paper feed belt [10], be sure to install it so that the white line mark comes to the inside.
15. Reinstall the preceding parts following the removal steps in reverse.

7.4 Vertical conveyance section

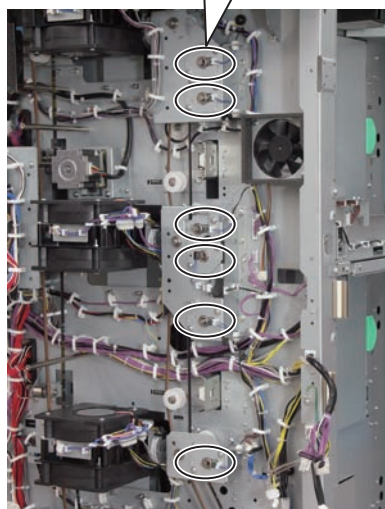
7.4.1 Replacing the pre-registration clutch /1 (CL1), /2 (CL3), /3 (CL5), the intermediate clutch /1 (CL2), /2 (CL4), and the horizontal conveyance exit clutch (CL6)

(1) Periodically replaced parts/cycle

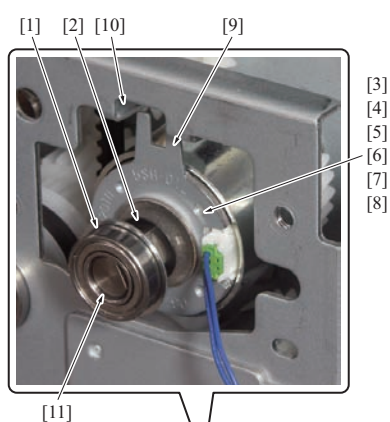
- Pre-registration clutch /1 (CL1), /2 (CL3), /3 (CL5)
: Every 14,000,000 prints (Actual replacement cycle: Every 3,000,000 prints)
 - Intermediate clutch /1 (CL2), /2 (CL4)
: Every 14,000,000 prints (Actual replacement cycle: Every 3,000,000 prints)
 - Horizontal conveyance exit clutch (CL6)*
: Every 14,000,000 prints (Actual replacement cycle: Every 3,000,000 prints)
- * For PI-PFU: Every 4,000,000 prints (Actual replacement cycle: Every 3,000,000 prints)

(2) Procedure

1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Disconnect the connectors [1], 1 each, and then remove the wiring harness from the wire binding band [2].
3. Remove each of the screws [3], 2 each, and the mounting metal fitting [4], 1 each.



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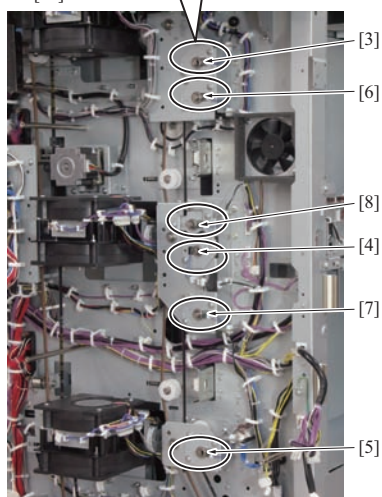


4. Remove 1 each of the bearings [1] and the washers [2], and then remove the pre-registration clutches /1 (CL1) [3], /2 (CL3) [4], and /3 (CL5) [5], the intermediate clutches /1 (CL2) [6], /2 (CL4) [7], and the horizontal conveyance exit clutch (CL6) [8].

Note

- When removing the bearing [1], the washer [2] is also removed. Be careful that the washer does not get lost.
- When reinstalling it, be sure to align the stopper [9] of the clutch with the notch [10].
- Do not press in the bearing [1] forcibly. When the bearing is perpendicular to the shaft [11], it can be installed smoothly. When it is slanting, it is not inserted smoothly.

5. Reinstall the preceding parts following the removal steps in reverse.



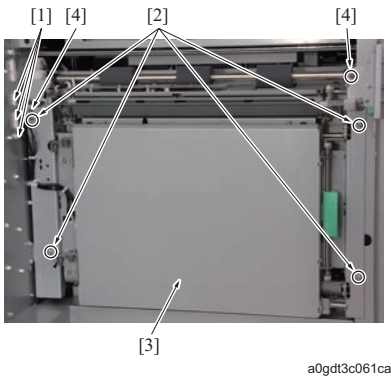
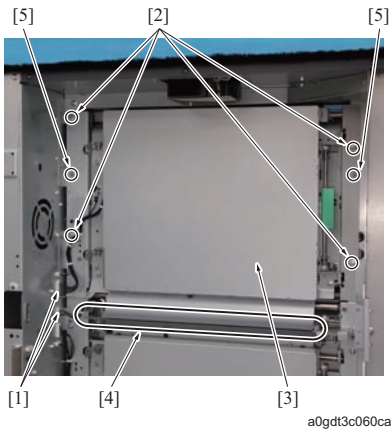
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7.4.2 Replacing the torque limiters /Up and /Lw

(1) Periodically replaced parts/cycle

- Torque limiter /Up, /Lw
- : Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

(2) Removing procedure of the vertical conveyance units /Up and /Lw



1. Remove the exit conveyance unit. (Refer to [F.7.5.1 Replacing PF paper exit roller, the bearings /C and /B for PF](#), and [F.7.6.1 Replacing the PF paper exit roller /2, the bearings /C and /B for PI-PFU](#))
2. Remove 2 connectors [1].
3. Remove 4 screws [2] and then remove the vertical conveyance unit /Up [3].

Note

- Be sure to avoid holding the vertical conveyance unit /Up at the paper-through section. This may deform the paper-through section and affect the paper through, thus resulting in a jam.
- Be sure to put the vertical conveyance unit /Up not to press the paper-through section [4].
- When reinstalling the vertical conveyance unit, be sure to align it with the positioning pin [5].

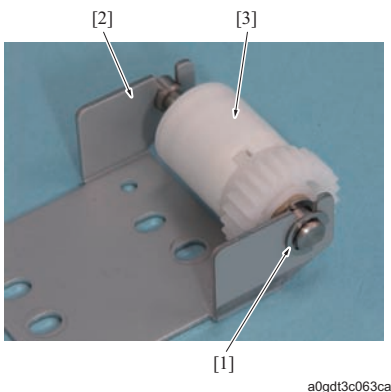
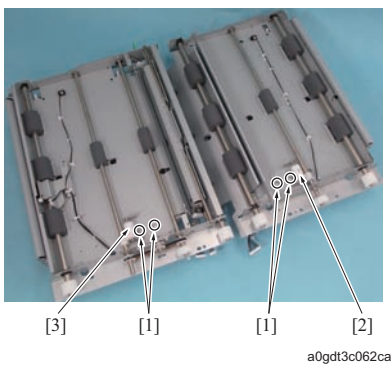
4. Disconnect the 3 connectors [1].
5. Remove 4 screws [2] and then remove the vertical conveyance unit /Lw [3].

Note

- Be sure to avoid holding the vertical conveyance unit /Lw at the paper-through section. This may deform the paper-through section and affect the paper through, thus resulting in a jam.
- When reinstalling the vertical conveyance unit, be sure to align it with the positioning pin [4].

6. Reinstall the preceding parts following the removal steps in reverse.

(3) Replacing procedure of the torque limiters /Up and /Lw



1. Remove the vertical conveyance units /Up and /Lw. ([F.7.4.2.\(2\) Removing procedure of the vertical conveyance units /Up and /Lw](#))
2. Remove 2 each of the screws [1] and then remove the torque limiter mounting bracket assy /Up [2] and /Lw [3].

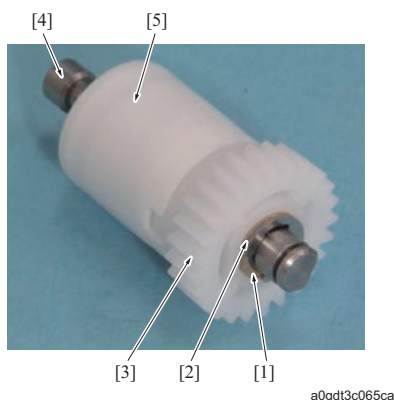
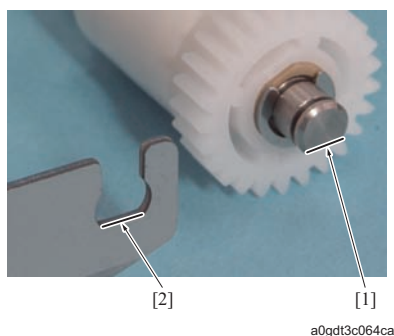
3. Remove the E-ring [1], and then remove the torque limiter assy /Up and /Lw [3] from the mounting bracket [2].

Note

- Be sure that the installation positions to the mounting bracket are left-right reversal between the torque limiter assy /Up and the torque limiter assy /Lw.
 - The picture shows the torque limiter assy /Up.
 - Be careful not to confuse the torque limiters /Up and /Lw since the parts numbers are different.
- Torque limiter /Up: A03U8157##
Torque limiter /Lw: 57GA4430##

Note

- When reinstalling it, be sure to align the D-cut [1] to the straight line [2] of the shaft hole on the mounting bracket.



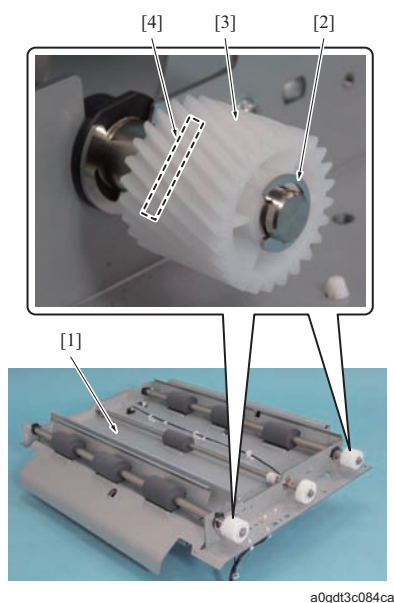
4. Remove the E-ring [1], pull out the bearing [2] and the gear [3] from the shaft [4], and then remove the torque limiters /Up and /Lw [5].
5. Reinstall the preceding parts following the removal steps in reverse.

7.4.3 Replacing the pre-registration roller, the intermediate conveyance roller, the pre-registration bearing, and the bearing C

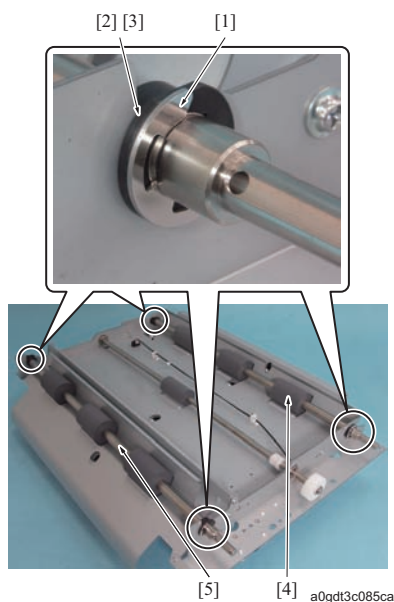
(1) Periodically replaced parts/cycle

- Pre-registration roller, Intermediate conveyance roller
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)
 - Pre-registration bearing
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)
 - Bearing C
: Every 14,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)
 - Horizontal registration roller*, Horizontal registration bearing*
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)
- * For PI-PFU: Every 14,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

(2) Procedure for the vertical conveyance unit /Up



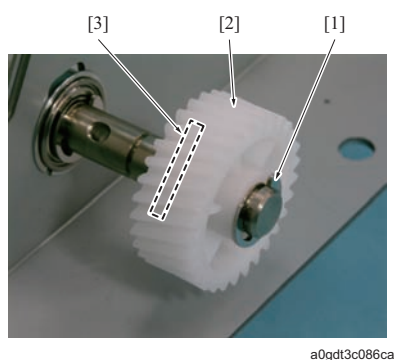
1. Remove the vertical conveyance unit /Up and then remove the torque limiter /Up. (Refer to [F.7.4.2 Replacing the torque limiters / Up and /Lw](#))
2. Remove 1 each of the E-rings [2] on 2 positions of the vertical conveyance units /Up [1] and then remove 1 each of the gears [3] and the pins [4].



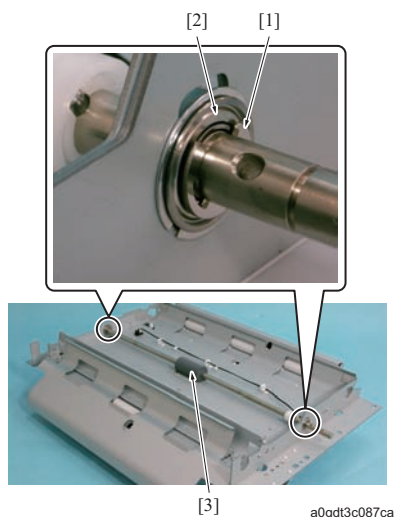
3. Remove E-rings [1], 1 each for 4 places, and then remove the pre-registration bearing [2] and the horizontal registration bearing [3], 1 each, and also remove the pre-registration roller [4] and the horizontal registration roller [5].

Note

- When removing/installing it, be careful not to damage the pre-registration roller with the corner of the guide plate.



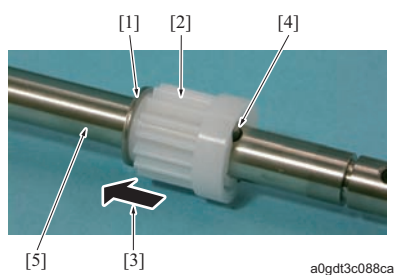
4. Remove the E-ring [1] and then remove the gear [2] and the pin [3].



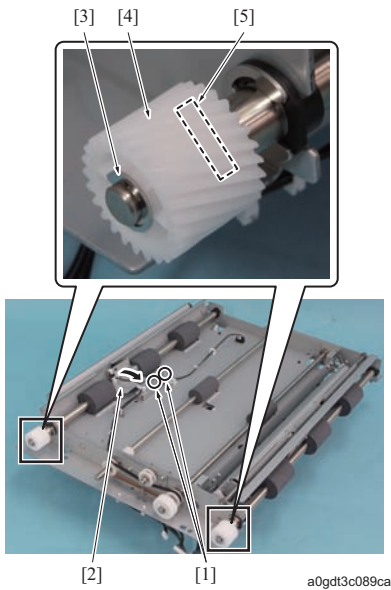
5. Remove 1 each of 2 E-rings [1] and then remove 1 each of the bearing /C [2] and the intermediate conveyance roller [3].

Note

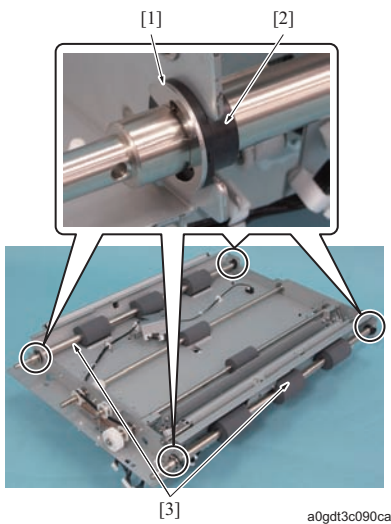
- When removing/installing it, be careful not to damage the intermediate conveyance roller with the corner of the guide plate.



6. Remove the E-ring [1] and remove the pin [4] by moving the gear [2] in the arrow-marked direction [3], and then remove the gear [2] from the intermediate conveyance roller [5].
7. Reinstall the preceding parts following the removal steps in reverse.

(3) Procedure for the vertical conveyance unit /Lw

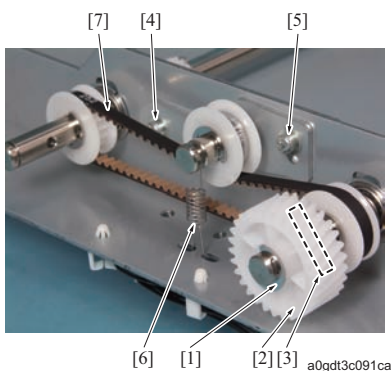
1. Remove the vertical conveyance unit /Lw and then remove the torque limiter /Lw. (Refer to [F.7.4.2 Replacing the torque limiters / Up and /Lw](#))
2. Remove 2 screws [1] and then move the sensor mounting plate [2] after turning it back.
3. Remove 1 each of 2 E-rings [3] and then remove 1 each of the gears [4] and the pins [5].



4. Remove 1 each of 4 E-rings [1] and then remove 1 each of the pre-registration bearing [2] and 2 pre-registration rollers [3].

Note

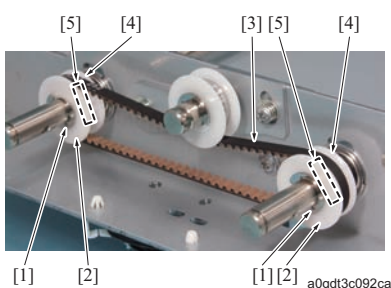
- When removing/installing it, be careful not to damage the pre-registration roller with the corner of the guide plate.



5. Remove the E-ring [1] and then remove the gear [2] and the pin [3].
6. Loosen the screws [4], [5] and then remove the spring [6].

Note

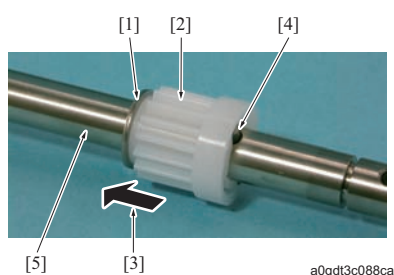
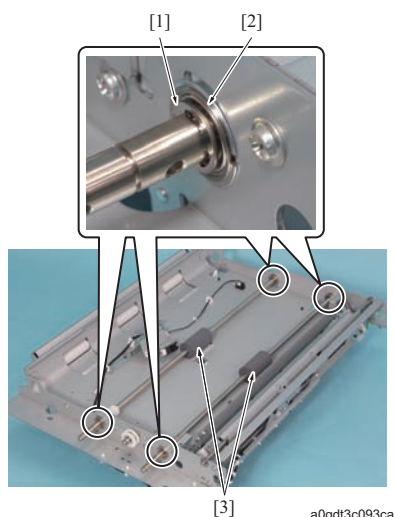
- When reinstalling it, tighten the screw [5] first and then the screw [4] so that the tension of the spring [6] is over the belt [7], and then confirm the belt rotating smoothly.



7. Remove 2 E-rings [1] and then remove 2 collars [2], the belt [3], 2 pulleys [4] and 2 pins [5].

Note

- When reinstalling the collars [2], be sure that the stepped side faces to the E-ring side.



8. Remove E-rings [1], 1 each for 4 places and then remove the bearings /C [2], 1 each, and 2 intermediate conveyance rollers /2 and /3 [3].

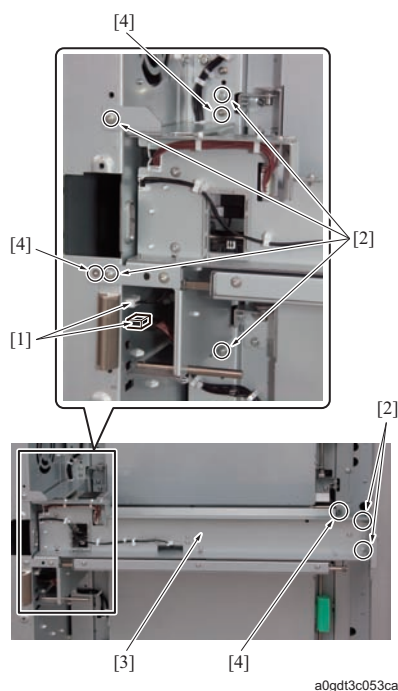
Note

- When removing/installing it, be careful not to damage the intermediate conveyance roller with the corner of the guide plate.

9. Remove the E-ring [1] and remove the pin [4] by moving the gear [2] in the arrow-marked direction [3], and then remove the gear [2] from the intermediate conveyance roller /3 [5].
10. Reinstall the preceding parts following the removal steps in reverse.

7.5 Exit conveyance section (PF)**7.5.1 Replacing PF paper exit roller, the bearings /C and /B****(1) Periodically replaced parts/cycle**

- PF paper exit roller
: Every 14,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)
- Bearings /C and /B
: Every 14,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

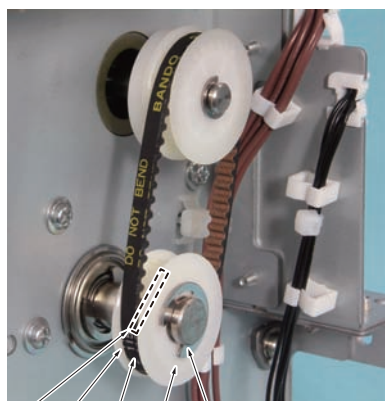
(2) Removing procedure of the PF exit conveyance unit

1. Disconnect 2 connectors [1].
2. Remove 6 screws [2] and then remove the PF exit conveyance unit [3].

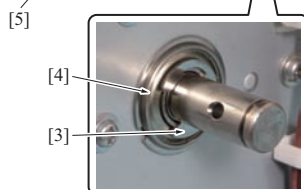
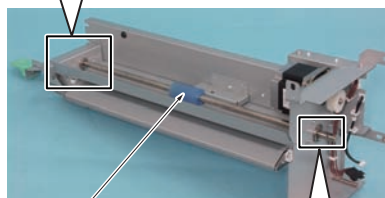
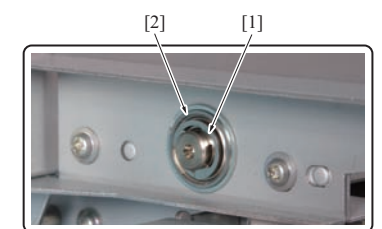
Note

- Be sure to avoid holding the PF exit conveyance unit at the paper-through section. This may deform the paper-through section and affect the paper through, thus resulting in a jam.
- When reinstalling it, be sure to put into 3 positioning pins [4].

3. Reinstall the preceding parts following the removal steps in reverse.

(3) Replacing procedure of the PF paper exit roller, the bearings /C and /B

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1. Remove the PF exit conveyance unit. (Refer to [F.7.5.1.\(2\) Removing procedure of the PF exit conveyance unit](#))
2. Remove the E-ring [1] and then remove the collar [2], the belt [3], the pulley [4] and the pin [5].

3. Remove the E-ring [1] and remove the bearing /C [2].
4. Remove the E-ring [3] and then remove the bearing /B [4] and the PF paper exit roller [5].
5. Reinstall the preceding parts following the removal steps in reverse.

7.6 Exit conveyance section (PI-PFU)**7.6.1 Replacing the PF paper exit roller /2, the bearings /C and /B****(1) Periodically replaced parts/cycle**

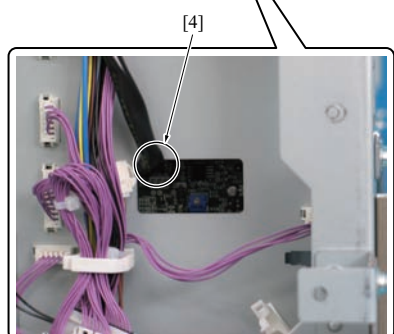
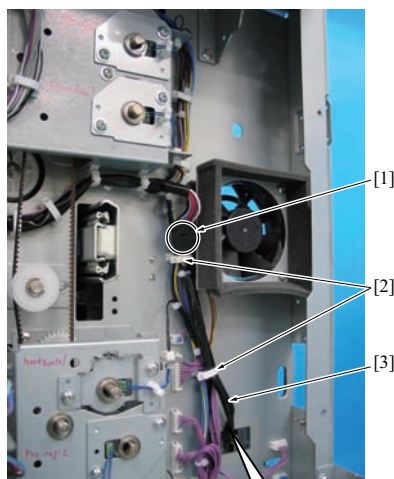
- PF Paper exit roller /2
: Every 14,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)
- Bearings /C and /B
: Every 14,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

(2) Removing procedure of the PI-PFU exit conveyance unit (FA-501)

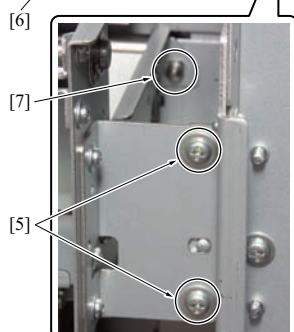
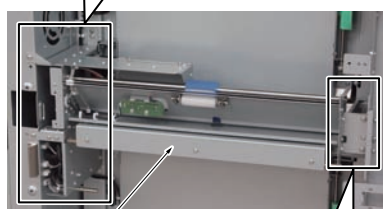
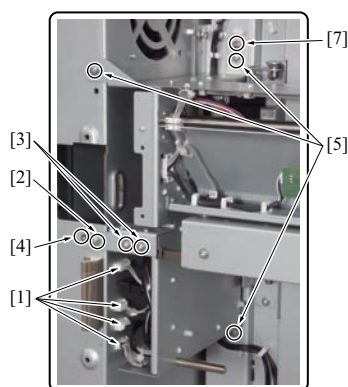
1. Remove the rear cover. (Refer to [G.4.2.3 Rear cover](#))
2. Disconnect the connector [1] and remove the wiring harness [3] from 2 wire saddles [2].

Note

- When reinstalling the wiring harness, be sure to set it with the wiring harness of FA-501 moved to the upper left [4] of the multi feed detection adjustment window.
- Be sure to set the wiring harness so that it does not contact the multi feed detection drive board (MFDDDB). Otherwise the multi feed detection error may occur.



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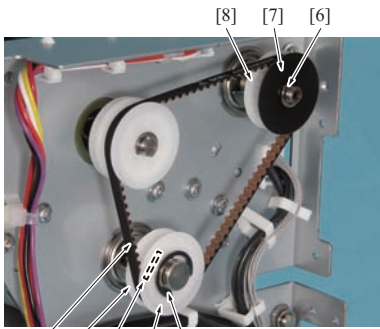
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3. Remove the left covers /Up and /Lw. (Refer to [G.4.2.13 Left cover / Up, /Lw \(PI-PFU only\)](#))
4. Disconnect 4 connectors [1].
5. Remove the screws [2].
6. Remove 2 screws [3], and then remove the mounting bracket [4].
7. Remove 5 screws [5] and then remove the PI-PFU exit conveyance unit [6].

Note

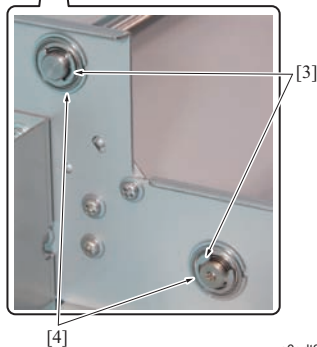
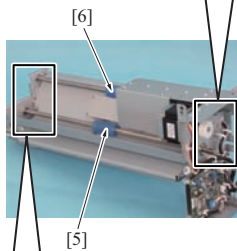
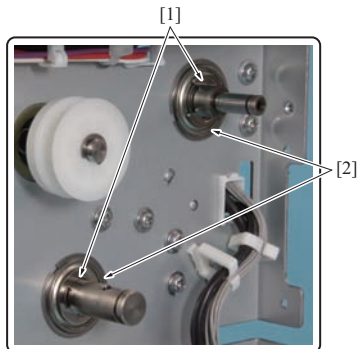
- Be sure to avoid holding the PF exit conveyance unit at the paper-through section. This may deform the paper-through section and affect the paper through, thus resulting in a jam.
- When reinstalling it, be sure to put into 2 positioning pins [7].

8. Reinstall the preceding parts following the removal steps in reverse.

(3) Replacing procedure of the PF paper exit roller, the bearings /C and /B

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1. Remove the PF exit conveyance unit. (Refer to [F.7.5.1.\(2\) Removing procedure of the PF exit conveyance unit](#))
2. Remove the E-ring [1] and then remove the collar [2], the belt [3], the pulley [4] and the pin [5].
3. Remove the E-ring [6] and then remove the collar [7] and the pulley [8].



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4. Remove 2 E-rings [1] and remove 2 bearings /B [2].
5. Remove 2 E-ring [3] and then remove 2 bearing /C [4] and the PF paper exit rollers [5] and /2 [6].
6. Reinstall the preceding parts following the removal steps in reverse.

7.7 Horizontal conveyance section**7.7.1 Replacing the horizontal conveyance rollers /A and /B, the spacer****(1) Periodically replaced parts/cycle**

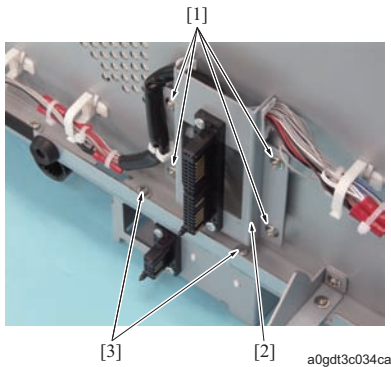
- Horizontal conveyance roller /A*
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)
- Horizontal conveyance roller /B*
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)
- Spacer*
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

* The Periodically replaced cycle for PI-PFU is as follows.

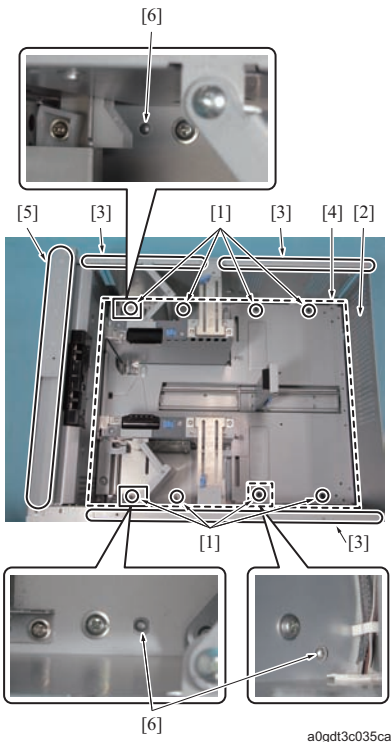
- : Every 14,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

Note

- Be sure to replace only the 1st tandem of the coupling It does not need the replacement when using just 1 PF-703.

(2) Procedure

1. Remove the tray1. (Refer to [G.4.2.6 Tray](#))
2. Remove the tray front cover. (Refer to [G.4.2.5 Tray front cover](#))
3. Remove 4 screws [1] and then remove the connector mounting bracket [2].
4. Remove 2 screws [3].



5. Remove 8 screws [1] and lift the specified positions [3] of the tray unit [2], and then remove it from the horizontal conveyance unit [4].

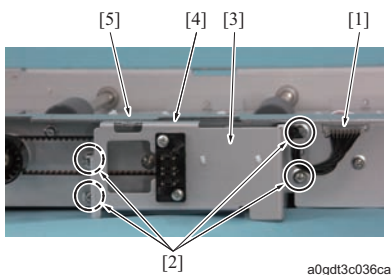
⚠ Note:

- Be sure to lift the tray with 2 people.

Note

- Be sure to hold the specified positions [3] and not to hold the positions [5] that can be easily deformed. This may affect the paper tray, thus resulting in a jam.
- When reinstalling the slope, be sure to align 3 positioning projections [6].

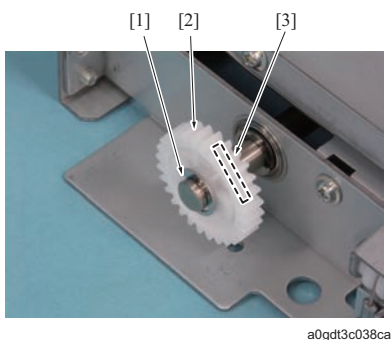
6. Reinstall the preceding parts following the removal steps in reverse.

(3) Replacing procedure of the horizontal conveyance rollers /A and /B, the spacer

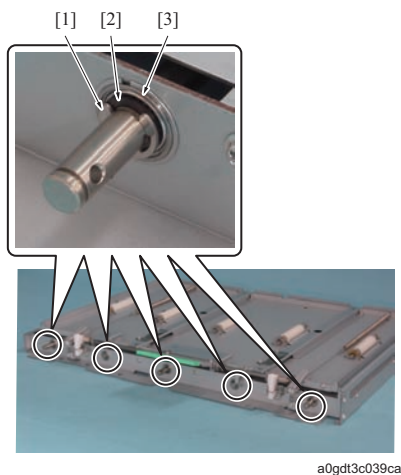
1. Remove the horizontal conveyance unit. (Refer to [F.7.7.1.\(2\) Procedure](#))
2. Disconnect the connector [1].
3. Remove 4 screws [2] and then remove the connector bracket [3].

Note

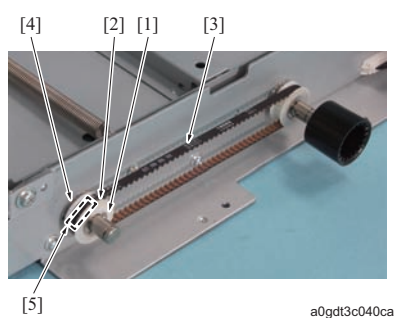
- When reinstalling it, be sure to install so that the top [4] of the connector bracket [3] is at the same height as the top [5] of the horizontal conveyance unit.



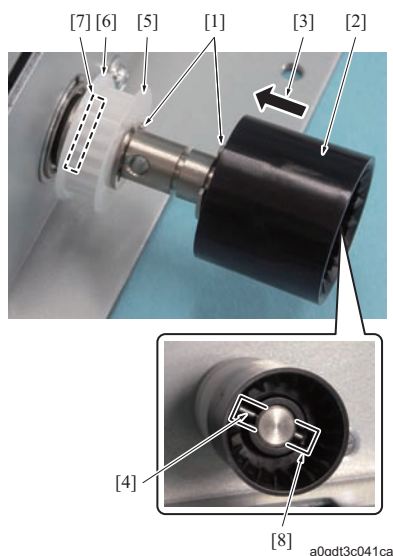
4. Remove the E-ring [1] and then remove the gear [2] and the pin [3].



5. Remove 1 each of 5 E-rings [1] and remove 5 spacers [2] and 5 bearings [3].



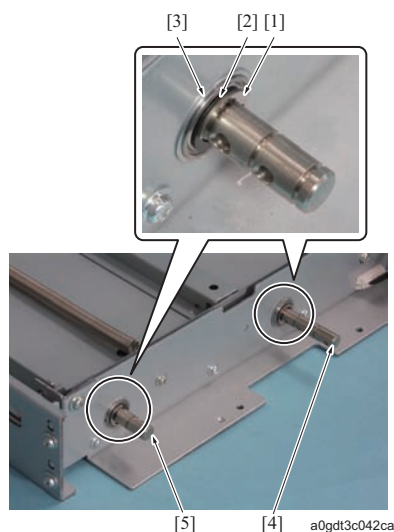
6. Remove the E-ring [1] and then remove the collar [2], the drive belt /1 [3], the pulley [4] and the pin [5].



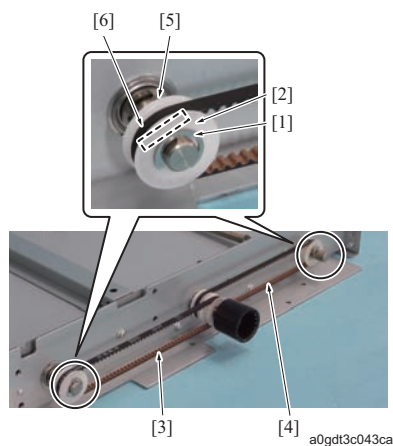
7. Remove 2 E-rings [1] and remove the pin [4] by moving the coupling [2] in the arrow-marked direction [3], and then remove the coupling [2], the collar [5], the pulley [6], and the pin [7].

Note

- Note that the lengths of the pin [4] and [7] are different and the [4] is longer.
- When reinstalling the coupling, be sure to align the pin [4] to the groove [8].



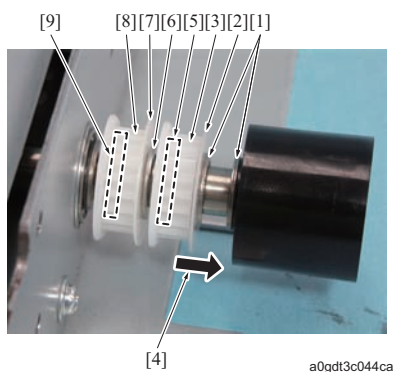
8. Remove 1 each of 2 E-rings [1] and then remove 2 spacers [2], 2 bearings [3], and the horizontal conveyance rollers /A [4] and /B [5].



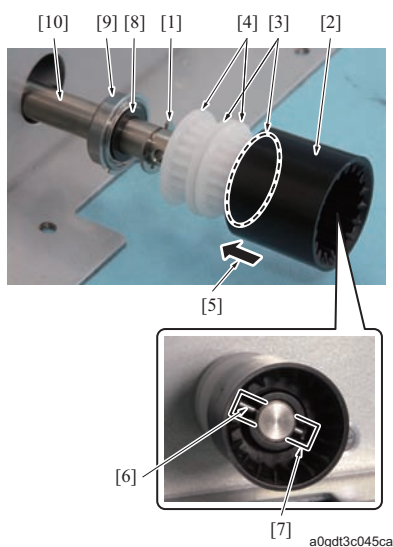
9. Remove 1 each of 2 E-rings [1] and then remove 2 collars [2], the drive belts /1 [3] and /2 [4], 2 pulleys [5], and 2 pins [6].

Note

- Be sure that the length of the drive belt /1 [3] and /2 [4] is different and the /1 [3] is longer.



10. Remove 2 E-rings [1] and then remove the pin [5] by moving the collar [2] and the pulley [3] in the arrow-marked direction [4].
11. Remove the E-ring [6] and then remove the pin [9] by moving the collar [7] and the pulley [8] in the arrow-marked direction [4].

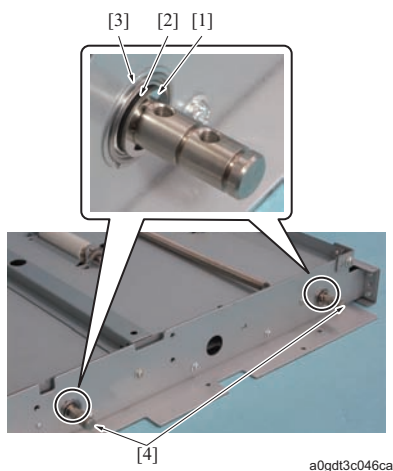


12. Remove the E-ring [1].
13. Remove the E-ring [2] and then remove the pin [6] by moving 2 collar [3] and 2 pulley [4] in the arrow-marked direction [5].

Note

- When reinstalling the coupling, be sure to align the pin [6] to the groove [7].

14. Remove the spacer [8], the bearing [9], and the horizontal conveyance roller /A [10].



15. Remove 1 each of 2 E-rings [1] and then remove 2 spacers [2], 2 bearings [3], and 2 horizontal conveyance rollers /B [4].
16. Reinstall the preceding parts following the removal steps in reverse.

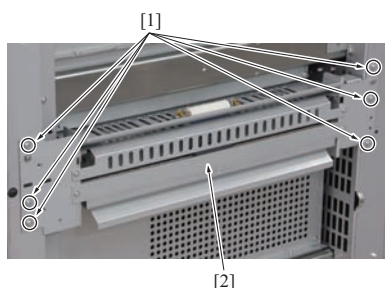
7.8 ENTRANCE CONVEYANCE SECTION

7.8.1 Replacing the entrance conveyance roller /Up, the spacer (in the case of PI-PFU)

(1) Periodically replaced parts/cycle

- Entrance conveyance roller /Up, Spacer
- : Every 14,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

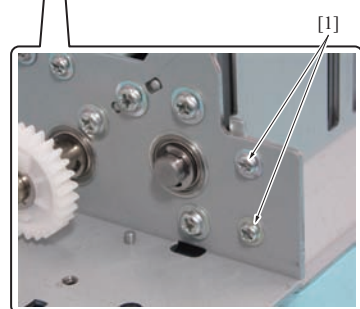
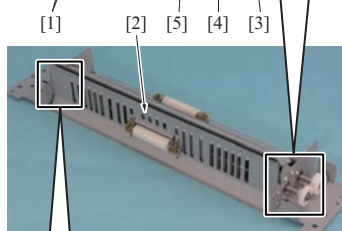
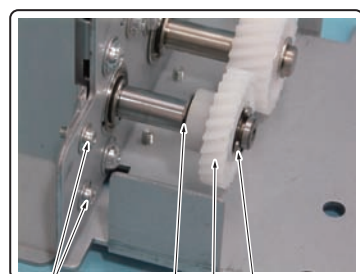
(2) Removing procedure of the entrance conveyance unit



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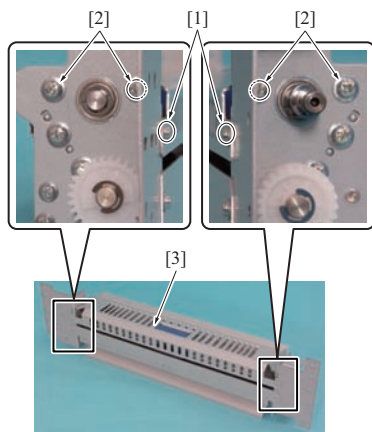
1. Remove the right cover. (Refer to [G.4.2.2 Right cover](#))
2. Remove 6 screws [1] and then remove the entrance conveyance unit.
3. Reinstall the preceding parts following the removal steps in reverse.

(3) Replacing procedure of the entrance conveyance roller /Up, the spacer



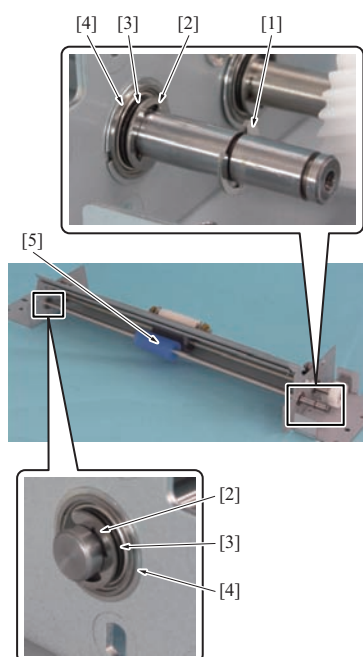
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1. Remove the entrance conveyance unit. (Refer to [F.7.8.1.\(2\) Removing procedure of the entrance conveyance unit](#))
2. Remove 4 screws [1] and then remove the entrance guide plate /1 [2].
3. Remove the E-ring [3] and then remove the gear [4] and the spacer [5].



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4. Remove 2 screws [1] and remove 4 screws [2], and then remove the entrance guide plate /2 [3].



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5. Remove the E-ring [1].
6. Remove 1 each of 2 E-rings [2] and remove 1 each of the spacers [3] and the bearings [4], and then remove the entrance conveyance roller /Up [5].
7. Reinstall the preceding parts following the removal steps in reverse.

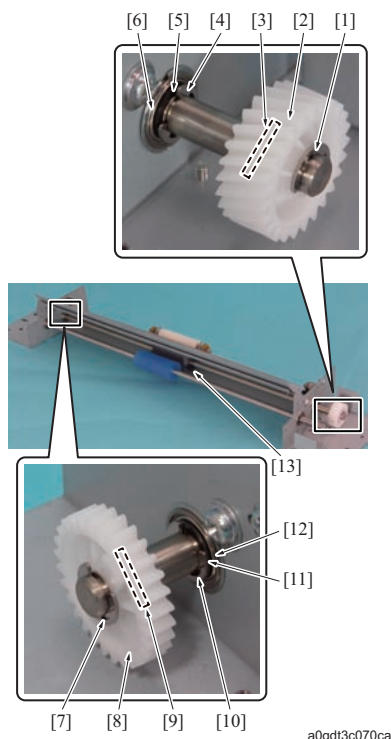
7.8.2 Replacing the entrance conveyance roller /Lw, the spacer (in the case of PF)

(1) Periodically replaced parts/cycle

- Replacing the entrance conveyance roller /Lw, the spacer (in the case of PF)
: Every 24,000,000 prints (Actual replacement cycle: Every 6,000,000 prints)

Note

- Be sure to replace only the 1st tandem of the coupling It does not need the replacement when using just 1 PF-703.

(2) Procedure

1. Remove the right cover. (Refer to [G.4.2.2 Right cover](#))
2. Remove the entrance conveyance roller unit. (Refer to [F.7.8.1 Replacing the entrance conveyance roller /Up, the spacer \(in the case of PI-PFU\)](#))
3. Remove the entrance guide plates /1 and /2. (Refer to [F.7.8.1 Replacing the entrance conveyance roller /Up, the spacer \(in the case of PI-PFU\)](#))
4. Remove the E-ring [1] and then remove the gear [2] and the pin [3].
5. Remove the E-ring [4] and then remove the spacer [5] and the bearing [6].
6. Remove the E-ring [7] and then remove the gear [8] and the pin [9].
7. Remove the E-ring [10] and then remove the spacer [11], the bearing [12], and the entrance conveyance roller /Lw [13].
8. Reinstall the preceding parts following the removal steps in reverse.

8. PERIODICAL MAINTENANCE PROCEDURE PF-706/PP-701

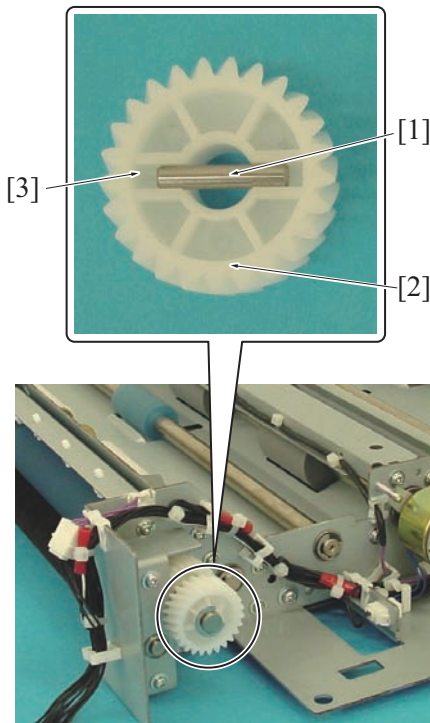
8.1 Precautions on maintenance

⚠ Note

- Be sure to unplug the power plug from the power outlet.

Note

- The gear [2] with the pin [1] is attached on every drive sections of DF-706. Do not wipe off the grease that is applied to the groove receiving the pin [3] when removing and attaching the gear.

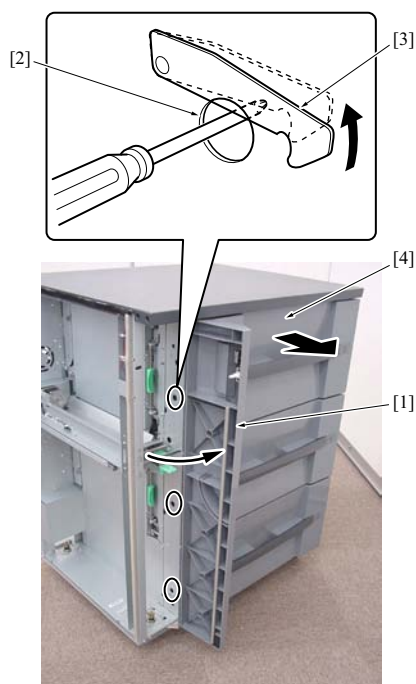


8.2 Tray section

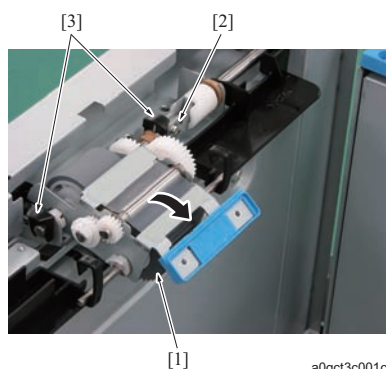
8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy

Note

- The removing/reinstalling methods of the pick-up roller assy and the separation roller assy are the same for all of the tray1, 2 and 3. The explanation here is given for tray1.
- After completion of installation, be sure to rotate the pick-up roller in the paper feed direction (clockwise as seen from the front side) to check to see if the paper feed roller and the belt rotate smoothly. The rotation is restricted only in the paper feed direction (clockwise as seen from the front side) and be careful not to rotate the roller counterclockwise.
- Be careful that the pick-up roller assy and the separation roller assy are different in the direction for the main body and for the PF.

(1) Procedure

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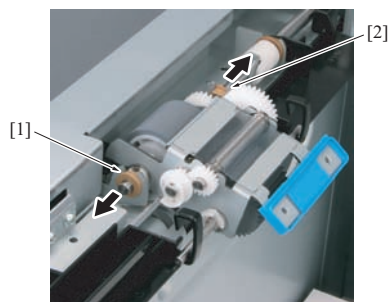
1. Open the front door [1].
2. Insert a driver into the hole [2] and pull out the tray [4] while lifting up a little the tray lock lever [3].

3. Rotate the pick-up roller [1] in the direction of the arrow (clockwise as seen from the front side) and bring the coupling [2] to the lengthwise direction.

Note

- The rotation of the pick-up roller [1] is restricted only to the arrow-marked direction (clockwise). It does not rotate in the reverse direction (counterclockwise). So, be sure not to turn it in this direction forcibly.

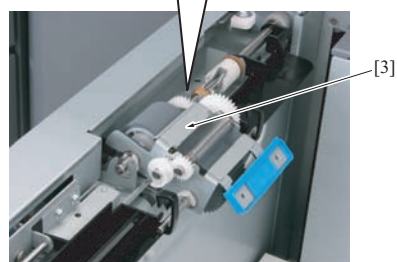
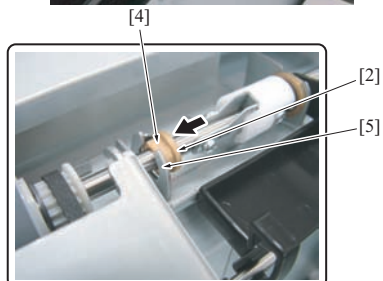
4. Remove 2 C-clips [3].



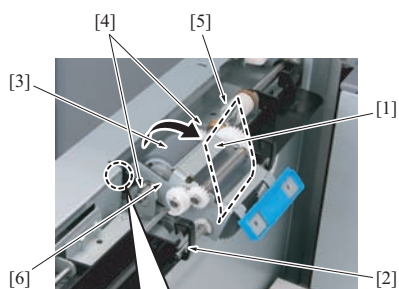
5. Remove the bearing /Fr [1].
6. Move the bearing /Rr [2] to the rear side.

Note

- When installing the bearing, press down a little the metal frame [3] of the pick-up roller assy and insert the flat section [4] of the bearing /Rr [2] into the notched section [5] of the metal frame while the flat section [4] of the bearing being held in a horizontal position. Then insert the bearing /Fr [1] in the same manner.



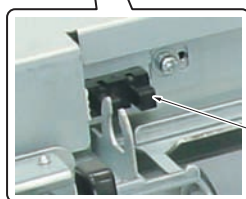
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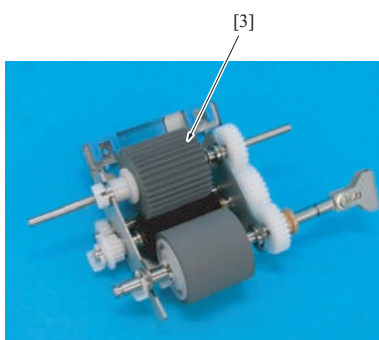
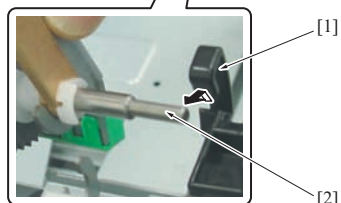
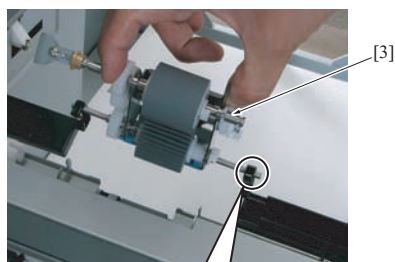
7. Hold the pick-up roller assy [1] by hand and lift and tilt the paper feed roller [3] so that it rotates on the shaft [2] of the pick-up roller to remove it from the notch of the bearing [4] and the coupling [5].

Note

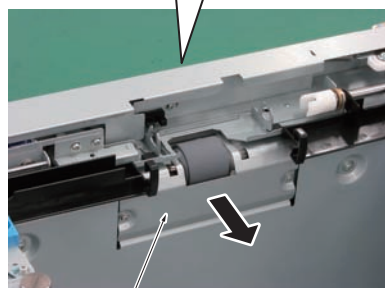
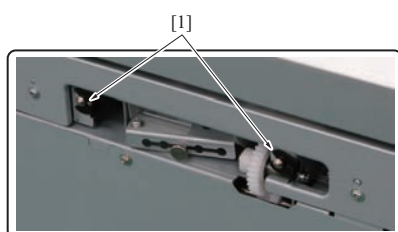
- When removing the pick-up roller [1], be careful not to damage the sensor [7] with the metal frame [6].



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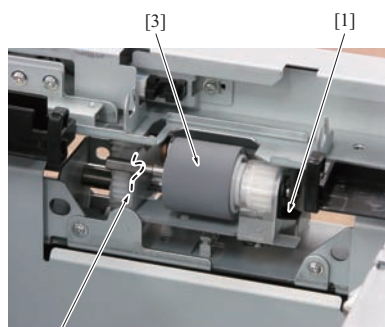


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[2]

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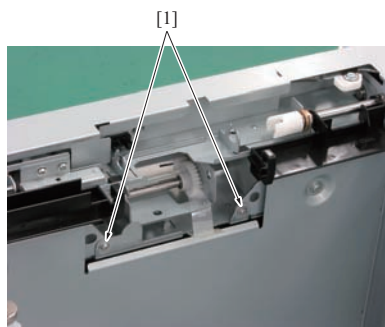
[2]

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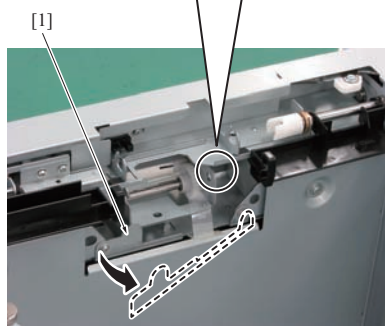
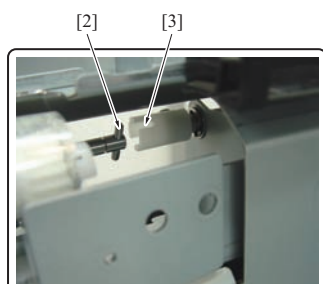
8. Remove the pick-up roller shaft [2] from the arm [1] of the paper feed guide plate and then remove the pick-up roller assembly [3].

9. Remove 2 C-clips [1] and remove the entrance guide plate [2].

10. Remove the C-clip [1].
11. Remove the separation roller [3] together with the shaft from the notch [2].



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12. Remove 2 screws [1].

Note

- When replacing only the separation roller, do not conduct this step.

13. Pull out the front side of the separation roller assy [1] in the arrow-marked direction, and then remove the coupling pin [2] in the rear from the joint [3].

Note

- When reinstalling it, be sure to engage the coupling pin [2] with the joint [3] before installation.
- When reinstalling it, fasten it with the screws while pressing down the separation roller assembly [1].

14. Reinstall the above parts following the removal steps in reverse.

Note

- After completion of installation, be sure to raise the pick-up roller a little and rotate it clockwise as seen from the front side to check to see if the paper feed roller and the belt rotate smoothly. (The direction of rotation is available only in the paper feed direction (clockwise as seen from the front side) and be careful not to rotate it counterclockwise.)

8.2.2 Replacing the pick-up roller and the paper feed roller

(1) Periodically replaced parts/cycle

- Pick-up roller
 - : Every 3,000,000 prints (Actual replacement cycle: Every 500,000 feeds) *1
 - : Every 2,250,000 prints (Actual replacement cycle: Every 500,000 feeds) *2
- Paper feed roller
 - : Every 3,000,000 prints (Actual replacement cycle: Every 500,000 feeds) *1
 - : Every 2,250,000 prints (Actual replacement cycle: Every 500,000 feeds) *2

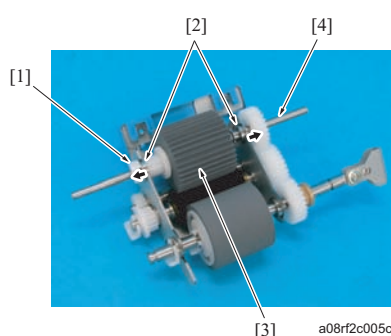
*1 When connected to 1250/1250P/1052

*2 When connected to 951

(2) Procedure

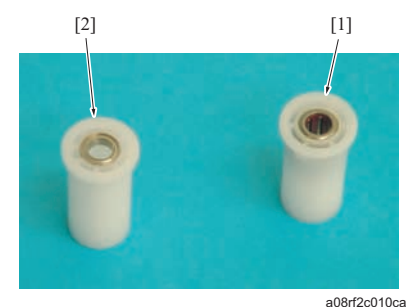
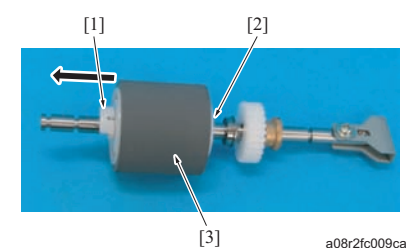
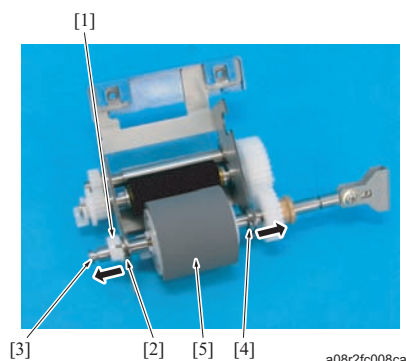
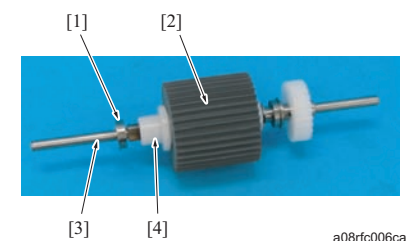
Note

- The outward appearance of the collar is identical for the paper feed roller and the separation roller. However, the collar of the paper feed roller has a one-way mechanism on the inside while the collar of the separation roller does not. Be careful not to confuse one with the other.



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1. Remove the pick-up roller assembly. (Refer to [F.8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
2. Remove the C-clip [1] of the pick-up roller assy.
3. Slide 2 bearings [2] and remove the pick-up roller [3] together with the shaft [4].



4. Remove the bearing [1] and pull out the pick-up roller [2] from the shaft [3].
5. Remove the pick-up roller from the collar [4].
6. Replace the pick-up roller.
7. Remove the C-clip [1] and pull out the bearing /Fr [2] from the shaft [3].
8. Slide the bearing /Rr [4] and remove the paper feed roller [5] together with the shaft [3].
9. Remove the C-clip [1].
10. Pull out the paper feed roller [3] from the collar [2].
11. Replace the pick-up roller [3].
12. Reinstall the preceding parts following the removal steps in reverse.

Note

- The external view of the collar is the same for the paper feed roller and the separation roller. However, there is a one-way mechanism provided on the inside of the collar [1] for the paper feed roller while no one-way mechanism is provided for the separation roller collar [2], be careful not to confuse one with the other.

8.2.3 Replacing the separation roller**(1) Periodically cleaned parts/cycle**

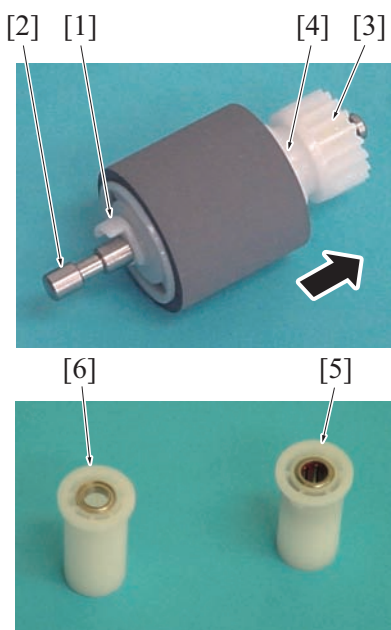
- Separation roller
 - : Every 3,000,000 prints (Actual replacement cycle: Every 500,000 feeds)*₁
 - : Every 2,250,000 prints (Actual replacement cycle: Every 500,000 feeds)*₂

*₁ When connecting to 1250/1250P/1052

*₂ When connecting to 951

(2) Procedure**Note**

- The outward appearance of the collar is identical for the paper feed roller and the separation roller. However, the collar of the paper feed roller has a one-way mechanism on the inside while the collar of the separation roller does not. Be careful not to confuse one with the other.



1. Remove the separation roller together with the shaft. (Refer to [F. 8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
2. Remove the C-clip [1].
3. Pull out the shaft [2] in the arrow-marked direction to remove the gear [3] and collar [4].
4. Replace the pick-up roller.
5. Reinstall the preceding parts following the removal steps in reverse.

Note

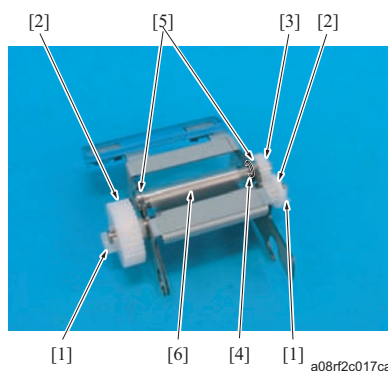
- The outward appearance of the collar is identical for the paper feed roller and the separation roller. However, the collar of the paper feed roller [5] has a one-way mechanism on the inside while the collar of the separation roller [6] does not. Be careful not to confuse one with the other.

8.2.4 Replacing the paper dust removing brush**(1) Periodically cleaned parts/cycle**

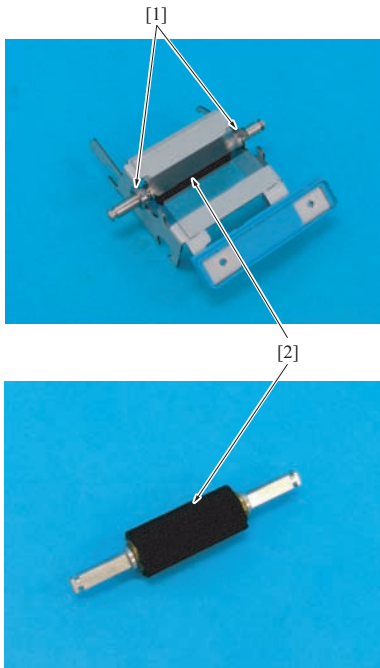
- Paper fur brush
 - : Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*1}
 - : Every 18,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*2}

^{*1} When connected to 1250/1250P/1052

^{*2} When connected to 951

(2) Procedure

1. Remove the pick-up roller and paper feed roller from the pick-up roller assy. (Refer to [F.8.2.2 Replacing the pick-up roller and the paper feed roller](#))
2. Remove 2 C-clips [1] and then remove 2 gears [2].
3. Remove the gear [3].
4. Remove the E-ring [4] and move 2 bearings [5] to remove the shaft [6].



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5. Remove 2 bearings [1] and remove the paper fur brush [2].
6. Replace the paper dust removing brush [2].
7. Reinstall the preceding parts following the removal steps in reverse.

8.2.5 Replacing the paper feed clutch, the separation clutch and the forced separation clutch

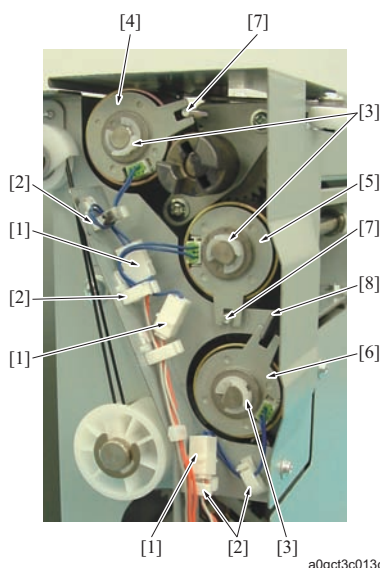
(1) Periodically replaced parts/cycle

- Paper feed clutch /1 (CL6), /2 (CL9), /3 (CL12)
 - : Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*1}
 - : Every 18,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*2}
- Separation clutch /1 (CL7), /2 (CL10), /3 (CL13)
 - : Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*1}
 - : Every 18,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*2}
- Forced separation clutch /1 (CL8), /2 (CL11), /3 (CL14)
 - : Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*1}
 - : Every 18,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*2}

^{*1} When connected to 1250/1250P/1052

^{*2} When connected to 951

(2) Procedure



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1. Remove the stopper screw of the tray and pull out the tray. (Refer to [G.5.2.6 Tray](#))
2. Disconnect 3 connectors [1] and remove 4 wire binding bands [2].
3. Remove 3 C-clips [3] and then remove the paper feed clutch (CL6/CL9/CL12) [4], the separation clutch (CL7/CL10/CL13) [5] and the forced separation clutch (CL8/CL11/CL14) [6].

Note

- When reinstalling it, be sure to engage the stopper of the clutch to the pin [7] and the projection of the metal frame [8].

4. Reinstall the preceding parts following the removal steps in reverse.

8.2.6 Replacing the torque limiter /A and the cover

(1) Periodically replaced parts/cycle

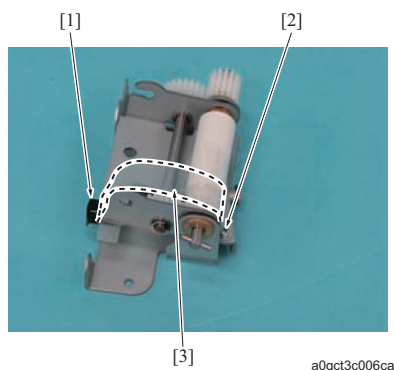
- Torque limiter /A
 - : Every 40,000,000 prints^{*1}

- : Every 30,000,000 prints *2
- Cover
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

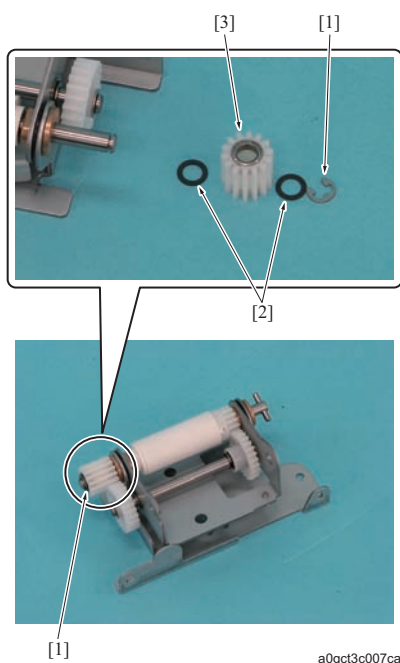
*1 When connected to 1250/1250P/1052

*2 When connected to 951

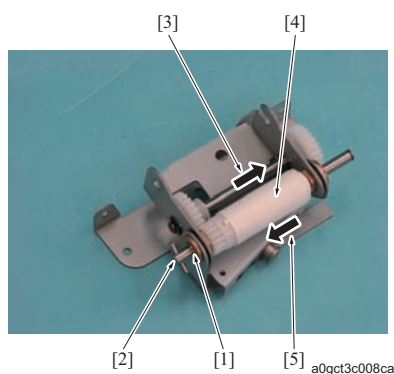
(2) Procedure



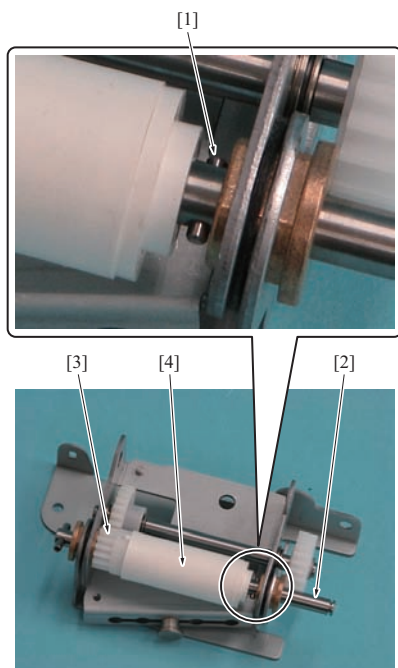
1. Remove the pick-up roller assembly. (Refer to [F.8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
2. Remove the separation roller assy. (Refer to [F.8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
3. Remove the separation roller. (Refer to [F.8.2.3 Replacing the separation roller](#))
4. Remove the C-clips [1] and the screw [2], and then remove the cover [3].



5. Remove the E-ring [1], and remove 2 washers [2] and the gear [3].



6. Remove the E-ring [1] and move the shaft [2] in the arrow-marked direction [3].
7. Move the torque limiter /A [4] in the arrow-marked direction.



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8. Remove the pin [1], and pull out the shaft [2] to remove the gear [3] and torque limiter /A [4].
9. Reinstall the preceding parts following the removal steps in reverse.

8.2.7 Replacing the idler shaft and the bearing /E

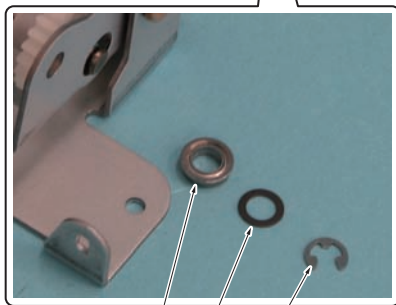
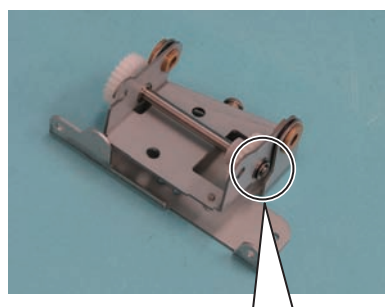
(1) Periodically replaced parts/cycle

- Idler shaft
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Bearing /E
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

*1 When connected to 1250/1250P/1052

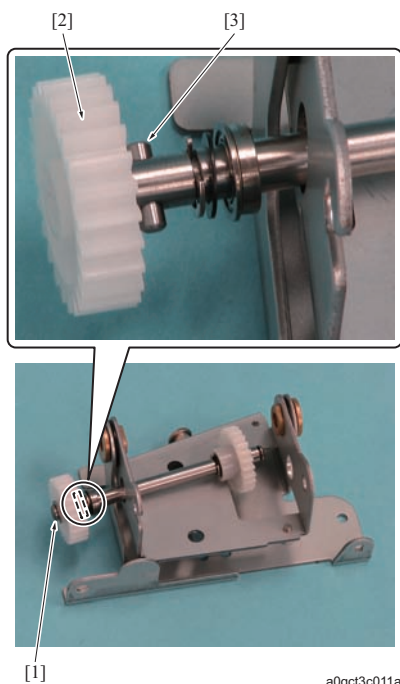
*2 When connected to 951

(2) Procedure



[3] [2] [1] a0gct3c010ca

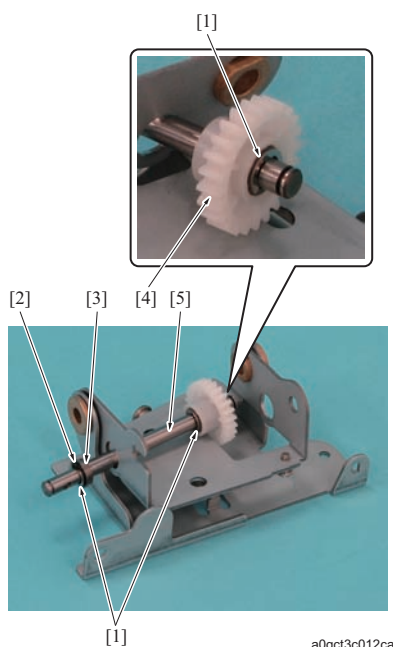
1. Remove the pick-up roller assembly. (Refer to [F.8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
2. Remove the separation roller assy. (Refer to [F.8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
3. Remove the separation roller. (Refer to [F.8.2.3 Replacing the separation roller](#))
4. Remove the torque limiter /A and the cover. (Refer to [F.8.4.2 Replacing the torque limiters /Up and /Lw](#))
5. Remove the E-ring [1] and remove the washer [2] and the bearing /E [3].



6. Remove the E-ring [1] and then remove the gear [2] and the pin [3].

Note

- When removing the gear [2], be careful not to drop the pin [3].



7. Remove 3 E-rings [1], and remove the washer [2], the bearing /E [3] and the gear [4] from the idler shaft [5].
8. Reinstall the preceding parts following the removal steps in reverse.

8.3 Separation section

8.3.1 Replacement procedure of the parts at the separation section

(1) Periodically replaced parts/cycle

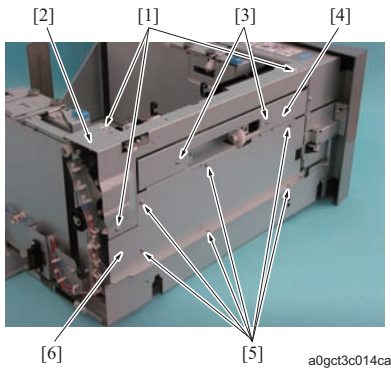
- Input shaft
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Bearing /D
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Reverse rotation shaft
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Bearing /C
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Reverse input shaft
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2

- Bearing /E
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Input gear
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 prints) *1
 - : Every 30,000,000 prints (Actual replacement cycle: Every 6,000,000 prints) *2

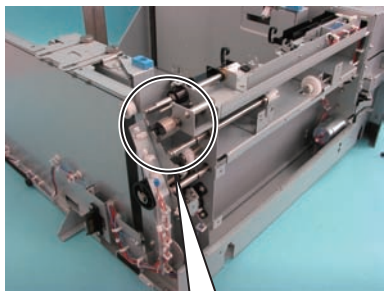
*1 When connected to 1250/1250P/1052

*2 When connected to 951

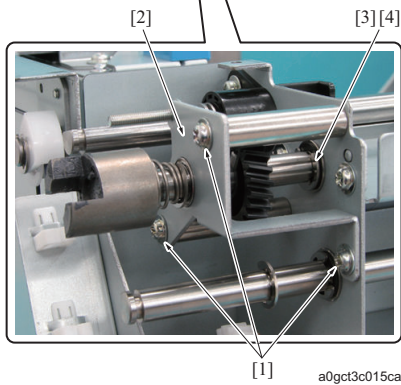
(2) Procedure



1. Remove the tray. (Refer to [G.5.2.6 Tray](#))
2. Remove the pick-up roller assembly. (Refer to [F.8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
3. Remove the separation roller assy. (Refer to [F.8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
4. Remove the paper feed clutch, the separation clutch and the forced separation clutch. (Refer to [F.8.2.5 Replacing the paper feed clutch, the separation clutch and the forced separation clutch](#))
5. Remove 3 screws [1] and remove the paper feed cover [2].
6. Remove 2 screws [3] and remove the separation cover [4].
7. Remove 6 screws [5] and remove the motor cover [6].



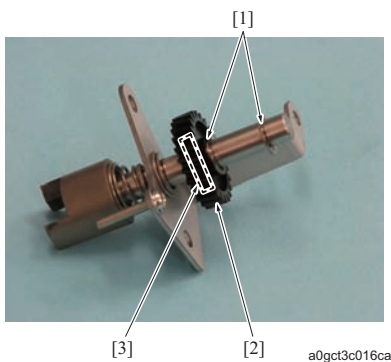
8. Remove 3 screws [1] and remove the input shaft assy [2], the bearing /D [3] and the washer [4].

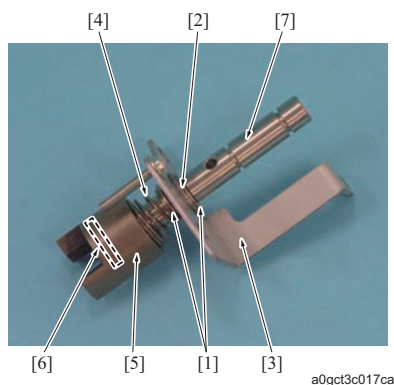


9. Remove 2 E-rings [1], and remove the input gear [2] and the pin [3].

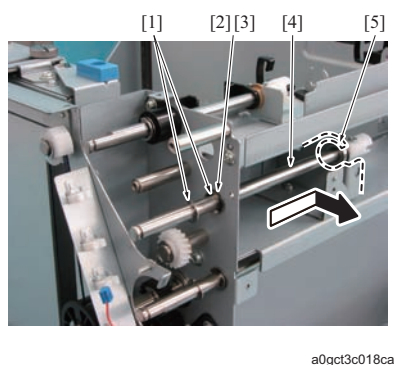
Note

- When removing the input gear [2], be careful not to drop the pin [3].

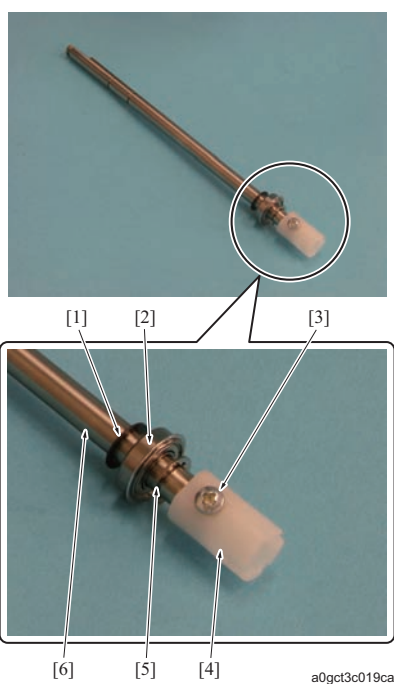




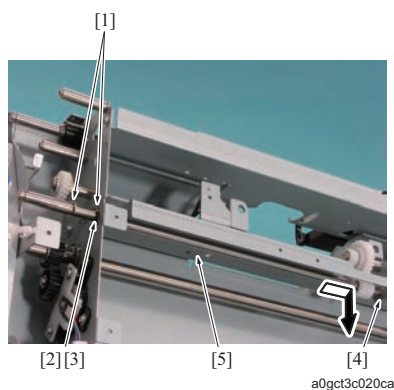
10. Remove 2 E-rings [1], and remove the bearing /D [2], the mounting plate [3], the spring [4], the coupling [5] and the pin [6] from the input shaft [7].



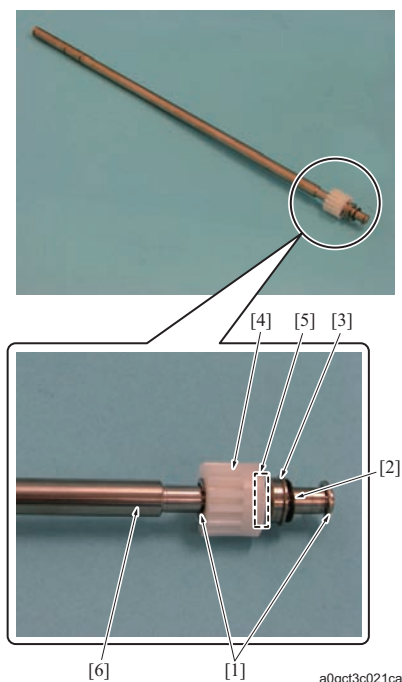
11. Remove 2 E-rings [1], and remove the washer [2] and the bearing / D [3].
12. Move the reverse rotation shaft assy [4] in the arrow-marked direction to remove it from the notch [5].



13. Remove the washer [1] and the bearing /C [2].
14. Remove the screw [3] and remove the coupling [4].
15. Remove the E-ring [5] from the reverse rotation shaft [6].



16. Remove 2 E-rings [1], and remove the washer [2] and the bearing / D [3].
17. Move the reverse rotation shaft assy /4 [5] in the arrow-marked direction to remove it from the notch [4].



18. Remove 2 E-rings [1], and remove the washer [2], the bearing /E [3], the gear [4] and the pin [5] from the reverse input shaft [6].

Note

- When removing the gear [4], be careful not to drop the pin [5].

19. Reinstall the preceding parts following the removal steps in reverse.

8.4 Conveyance section

8.4.1 Replacing the pre-registration clutches /1 (CL1), /2 (CL3) and /3 (CL5) and the intermediate clutches /Up (CL2) and /Lw (CL4)

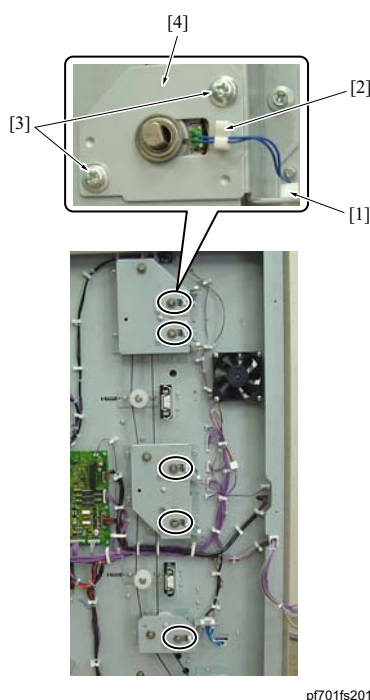
(1) Periodically replaced parts/cycle

- Pre-registration clutch /1 (CL1), /2 (CL3), /3 (CL5)
 - : Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*1}
 - : Every 18,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*2}
- Intermediate clutch /Up (CL2) and /Lw (CL4)
 - : Every 20,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*1}
 - : Every 18,000,000 prints (Actual replacement cycle: Every 3,000,000 feeds)^{*2}

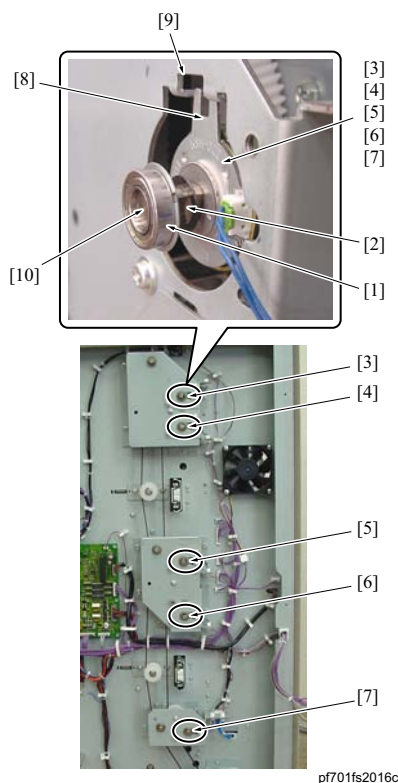
^{*1} When connected to 1250/1250P/1052

^{*2} When connected to 951

(2) Procedure



1. Remove the rear cover. (Refer to [G.5.2.3 Rear cover](#))
2. Disconnect the connectors [1], 1 each, and then remove the wiring harness from the wire binding band [2].
3. Remove each of the screws [3], 2 each, and the mounting metal fitting [4], 1 each.



4. Remove the bearings [1], 1 each, and the washers [2], 1 each. Then remove the pre-registration clutch /1 (CL1) [3], the intermediate clutch /Up (CL2) [4], the pre-registration clutch /2 (CL3) [5], the intermediate clutch /Lw (CL4) [6] and the pre-registration clutch /3 (CL5) [7].

Note

- When removing the bearing [1], the washer [2] may be also removed together. Be careful not to lose it.
- When reinstalling it, be sure to align the stopper [8] of the clutch with the notch [9].
- Do not insert the bearing [1] forcibly. When the bearing is perpendicular to the shaft [10], it can be installed smoothly. When it is slanting, it is not inserted smoothly.

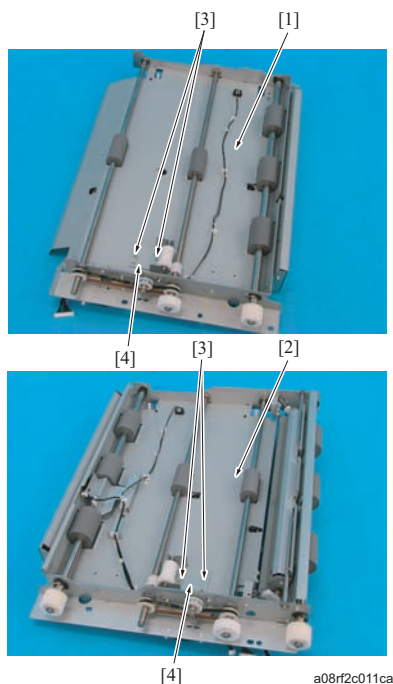
5. Reinstall the preceding parts following the removal steps in reverse.

8.4.2 Replacing the torque limiters /Up and /Lw**(1) Periodically replaced parts/cycle**

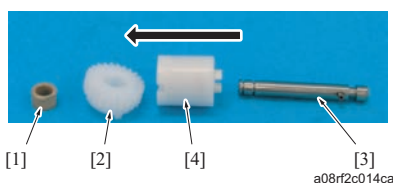
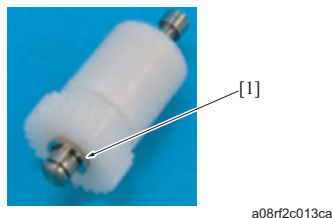
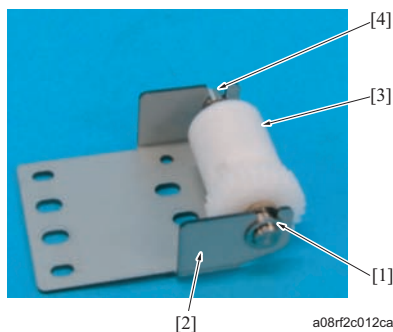
- Torque limiter /Up, /Lw
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)*¹
 - : Every 30,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)*²

*¹ When connected to 1250/1250P/1052

*² When connected to 951

(2) Procedure

1. Remove the following units.
 - Conveyance exit unit (Refer to [G.5.2.11 Conveyance exit unit](#))
 - Vertical conveyance units /Up and /Lw (Refer to [G.5.2.12 Vertical conveyance units /Up and /Lw](#))
2. Remove the 4 screws, 2 for each of the vertical conveyance unit/ Up [1] and /Lw [2], and remove the torque limiter assy [4] from each unit.



3. Remove the E-ring [1], and then remove the torque limiters /Up and /Lw [3], 1 each, together with the shaft [4] from the mounting bracket [2].

Note

- When attaching the torque limiters /Up and /Lw [3] to the mounting bracket [2], be sure to attach it in the correct orientation since the orientation for the vertical conveyance unit /Up is opposite to the orientation for the vertical conveyance unit /Lw.
- The left picture shows the torque limiter and the mounting bracket of the vertical conveyance unit/Up.

4. Remove the E-ring [1].

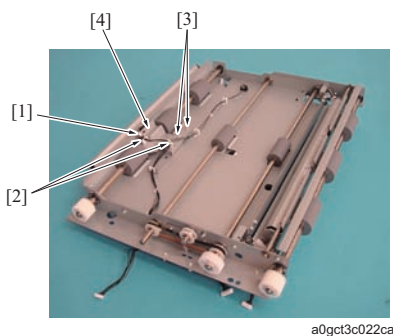
5. Pull out the bearing [1] and the gear [2] from the shaft [3] and remove the torque limiters /Up and /Lw [4], 1 each.
6. Replace the torque limiters /Up and /Lw [4], 1 each.
7. Reinstall the preceding parts following the removal steps in reverse.

8.4.3 Replacing the pre-registration roller and the registration bearing**(1) Periodically replaced parts/cycle**

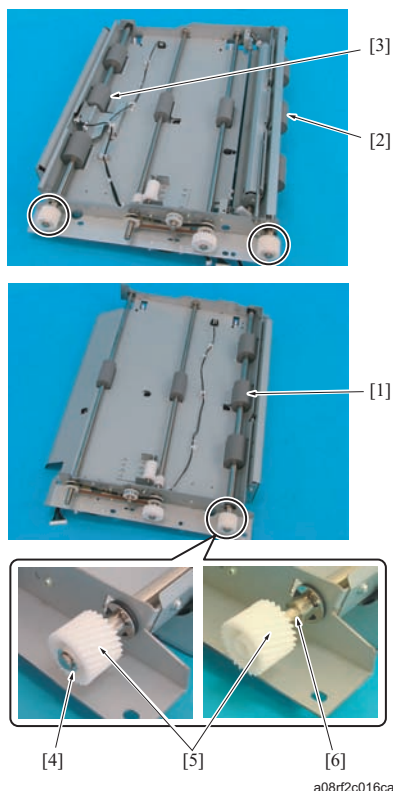
- Pre-registration roller
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*1}
 - : Every 30,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*2}
- Pre-registration bearing
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*1}
 - : Every 30,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*2}

^{*1} When connected to 1250/1250P/1052

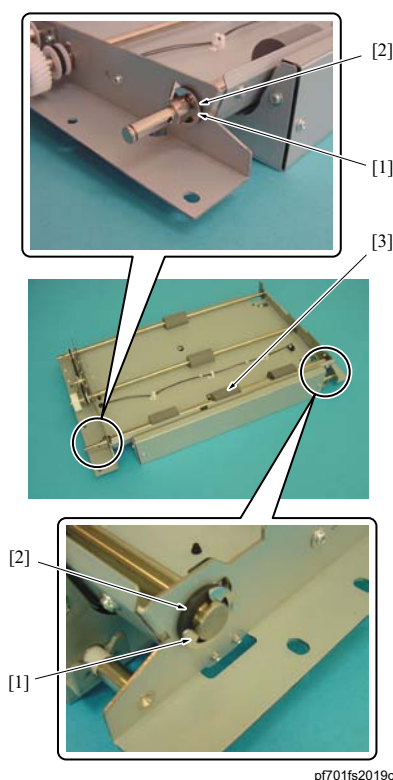
^{*2} When connected to 951

(2) Procedure

1. Remove the following units.
 - Conveyance exit unit (Refer to [G.5.2.11 Conveyance exit unit](#))
 - Vertical conveyance units /Up and /Lw (Refer to [G.5.2.12 Vertical conveyance units /Up and /Lw](#))
2. Disconnect the connector [1], and remove the wiring harness from 2 wire binding bands [2]. Remove 2 screws [3] and remove the pre-registration sensor /3 mounting plate [4].



3. Remove the E-rings [4], 1 each, of the pre-registration rollers /4 [2] and /5 [3] of the vertical conveyance unit /Lw and the pre-registration roller /3 [1] of the vertical conveyance unit /Up respectively, and then remove the gears [5], 1 each, and the pin [6], 1 each.



4. Remove the E-rings [1], 2 each, provided on both sides of each pre-registration rollers and then remove the pre-registration bearings [2], 2 each.
5. Remove the pre-registration roller [3].
6. Reinstall the preceding parts following the removal steps in reverse.

Note

- When reinstalling it, be careful not to damage the pre-registration roller with the corner of the guide plate.

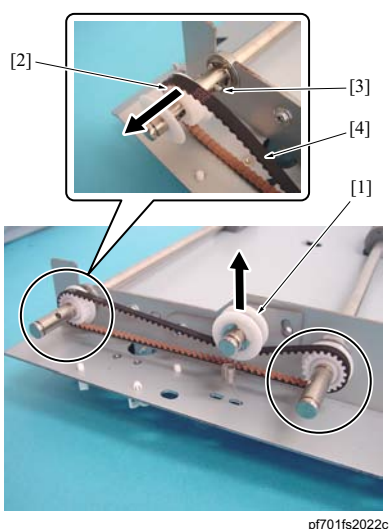
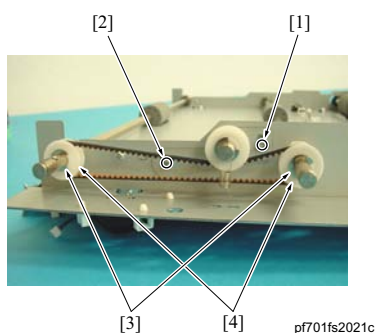
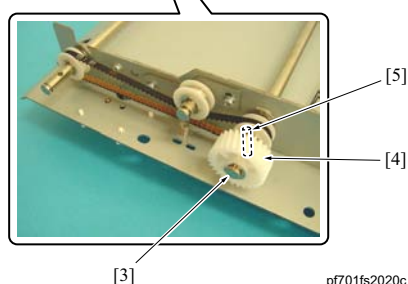
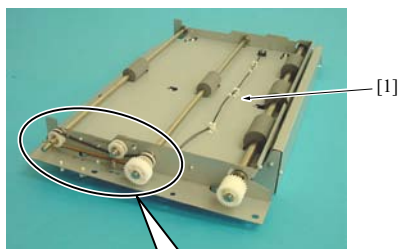
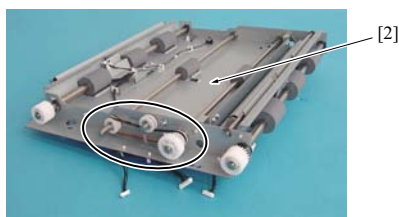
8.4.4 Replacing the intermediate conveyance roller and the bearing /C**(1) Periodically replaced parts/cycle**

- Intermediate conveyance roller
 - : Every 40,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*1}
 - : Every 30,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*2}
- Bearing /C
 - : Every 40,000,000 prints^{*1}
 - : Every 30,000,000 prints^{*2}

^{*1} When connected to 1250/1250P/1052

*2 When connected to 951

(2) Procedure



1. Remove the following units.
 - Conveyance exit unit (Refer to [G.5.2.11 Conveyance exit unit](#))
 - Vertical conveyance units /Up and /Lw (Refer to [G.5.2.12 Vertical conveyance units /Up and /Lw](#))
2. Remove the torque limiter assy, 1 each, from the vertical conveyance unit /Up and /Lw. (Refer to [F.8.4.2 Replacing the torque limiters /Up and /Lw](#))
3. Remove the E-rings [3], 1 each, of the vertical conveyance units / Up [1] and /Lw [2] and then remove the gears [4], 1 each, and the pin [5], 1 each.

4. Remove the screw [1].
5. Loosen the screw [2].
6. Remove the E-ring [3], 1 each, of the conveyance rollers /1, /2, /3 and /4, and then remove the collar [4].

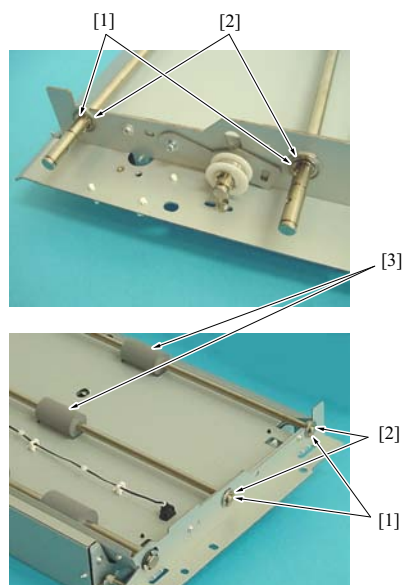
Note

- The collar [4] is distinguished between the front and the rear. Be sure to install it with the stepped side outside.

7. Remove the pulley [2], the pin [3] and the belt [4] while lifting up the tension roller [1].

Note

- When installing it, be sure to tighten it depending on the tension of the spring and rotate the conveyance roller to check that the belt rotates smoothly.



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8. Remove the E-rings [1], 2 each, provided on both sides of each of the conveyance rollers, and then remove the bearings /C [2], 2 each, and the intermediate conveyance roller [3].
9. Reinstall the preceding parts following the removal steps in reverse.

8.4.5 Replacing the PF paper exit roller and the bearings /B and /C

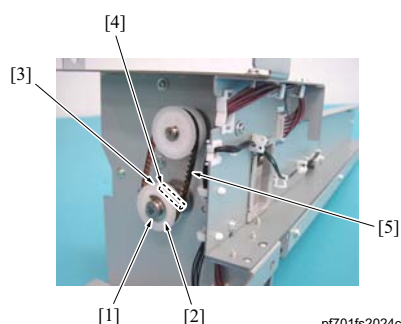
(1) Periodically replaced parts/cycle

- PF paper exit roller
 - : Every 10,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*1}
 - : Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 prints)^{*2}
- Bearing /C
 - : Every 10,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*1}
 - : Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 prints)^{*2}
- Bearing /B
 - : Every 10,000,000 prints (Actual replacement cycle: Every 6,000,000 feeds)^{*1}
 - : Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 prints)^{*2}

^{*1} When connected to 1250/1250P/1052

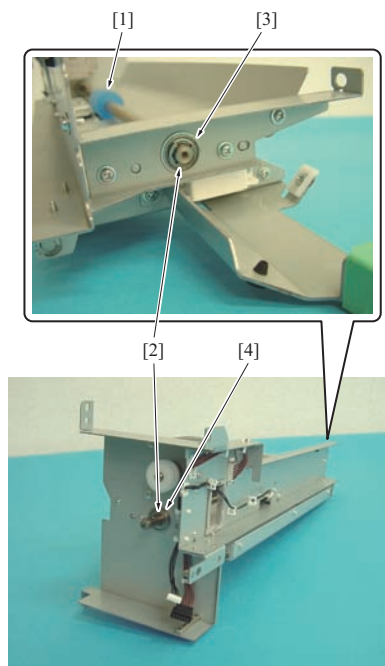
^{*2} When connected to 951

(2) Procedure



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1. Remove the exit conveyance unit. (Refer to [G.5.2.11 Conveyance exit unit](#))
2. Remove the E-ring [1] and then remove the collar [2], the pulley [3], the pin [4] and the belt [5].



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3. Remove the E-rings [2], 1 each, provided on both sides of the PF paper exit roller [1], and then remove the bearings /C [3] and /B [4].
4. Remove the PF paper exit roller [1].
5. Reinstall the preceding parts following the removal steps in reverse.

8.5 Drive section

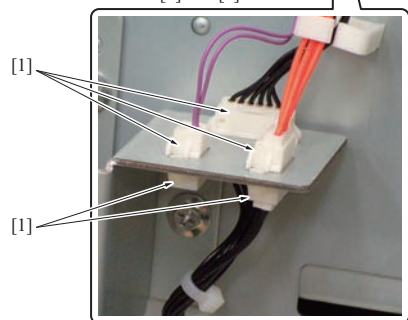
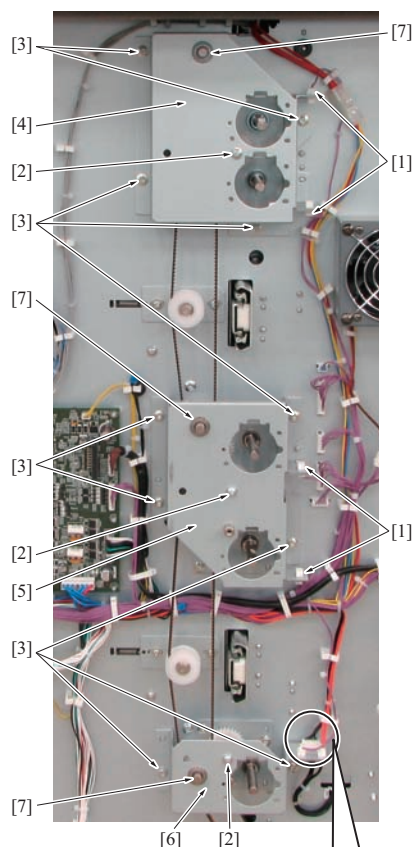
8.5.1 Parts replacement procedure of the drive section

(1) Periodically replaced parts/cycle

- Shaft assy /P
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints *2
- Pulley /P
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints *2
- Shaft assy /C
 - : Every 40,000,000 prints *1
 - : Every 30,000,000 prints *2
- Gear /C
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints *2
- Paper feed pulley
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints *2
- Idler pulley /D
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints *2

*1 When connected to 1250/1250P/1052

*2 When connected to 951

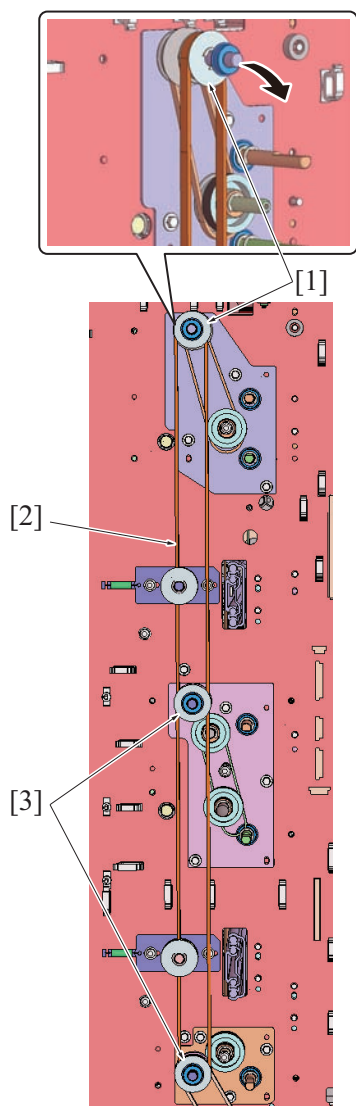
(2) Procedure

a0gct3c023ca

1. Remove the rear cover. (Refer to [G.5.2.3 Rear cover](#))
2. Remove the pre-registration clutches /1 (CL1), /2 (CL3) and /3 (CL4) and the intermediate clutches /Up (CL2) and /Lw (CL5). (Refer to [F.8.2.5 Replacing the paper feed clutch, the separation clutch and the forced separation clutch](#))
3. Disconnect 9 connectors [1].
4. Remove 3 screws [2] and 10 screws [3], and then remove the gear mounting plates /1 [4], /2 [5] and /3 [6].

Note

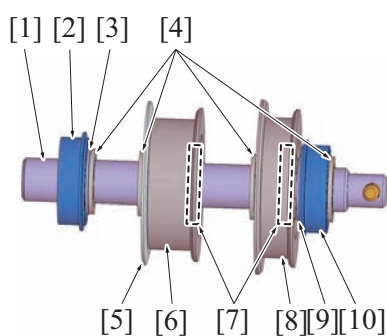
- When removing the gear mounting plates /1 [4], /2 [5] and /3 [6], be careful not to remove the bearing [7] together and drop it.



5. While pulling the shaft assy /P [1] toward you, loosen the belt [2] and remove the shaft assy /P [1] together with the bearing.
6. Remove 2 shaft assys /C [3] in the same manner.

Note

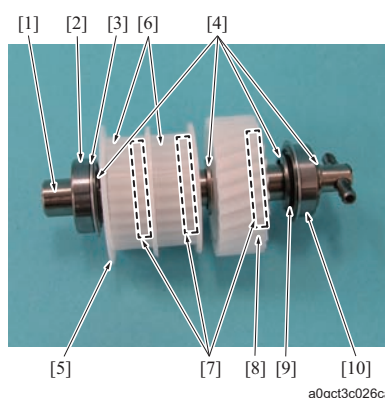
- When removing the shaft assys /P [1] and /C [3], be careful not to drop any part such as bearings.



7. Remove the bearing [2] and the washer [3] from the shaft assy /P [1].
8. Remove 4 E-rings [4], and remove the collar [5], the paper feed pulley [6], 2 pins [7], the pulley /P [8], the washer [9] and the bearing [10] from the shaft assy /P [1].

Note

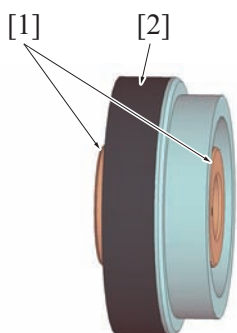
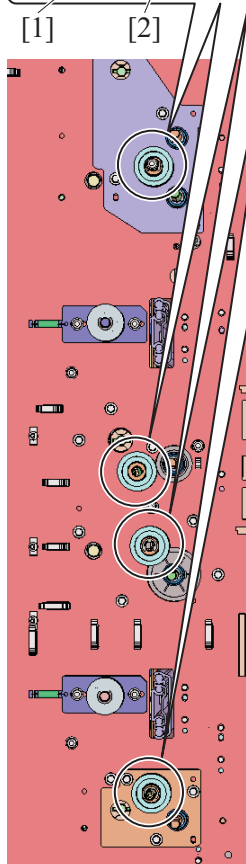
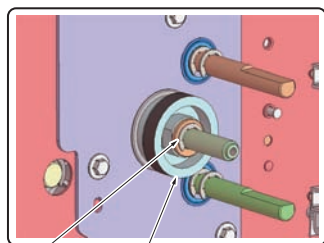
- When removing the paper feed pulley [6] and the pulley /P [8], be careful not to drop and lose the pin [7].
- Do not wipe off the grease that applied to the groove which receives the pin [4].



9. Remove the bearing [2] and the washer [3] from the shaft assy /C [1].
10. Remove 4 E-rings [4], and remove the collar [5], 2 paper feed pulleys [6], 3 pins [7], the gear /C [8], the washer [9] and the bearing [10] from the shaft assy /C [1].

Note

- When removing the paper feed pulley [6] and the gear /C [8], be careful not to drop and lose the pin [7].



11. Remove 4 E-rings [1] and remove 4 idler pulleys /D [2] together with the bearings.

Note

- Be careful not to drop the washer and the collar behind the bearing.

12. Remove 2 bearings [1] and remove the idler pulley /D [2].
13. Reinstall the preceding parts following the removal steps in reverse.

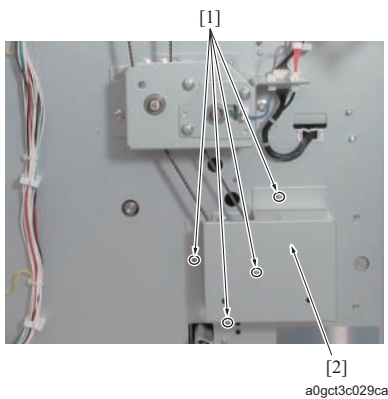
8.5.2 Replacing the paper feed drive pulley

(1) Periodically replaced parts/cycle

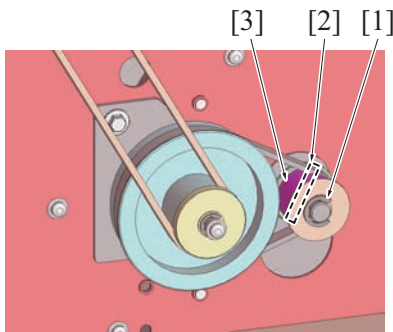
- Paper feed drive pulley
 - : Every 40,000,000 prints*1
 - : Every 30,000,000 prints*2

*1 When connected to 1250/1250P/1052

*2 When connected to 951

(2) Procedure

1. Remove the rear cover. (Refer to [G.5.2.3 Rear cover](#))
2. Remove 4 screws [1] and remove the gear mounting plate /4 [2].



3. Remove the E-ring [1] and remove the pin [2] and the paper feed drive pulley [3].
4. Reinstall the preceding parts following the removal steps in reverse.

Note

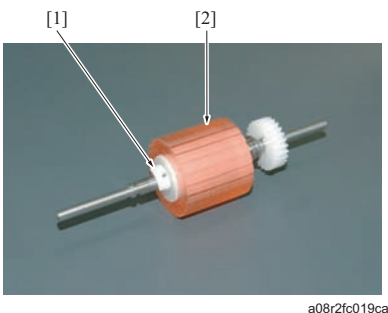
- When removing the paper feed pulley [3], be careful not to drop the pin [2].

8.6 PP-701**8.6.1 Replacing the pick-up roller and the paper feed roller****(1) Periodically replaced parts/cycle**

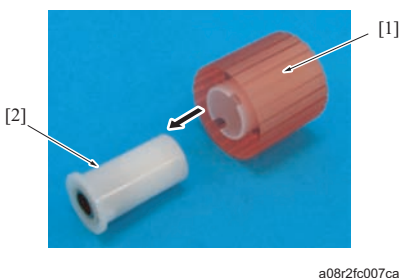
- Pick-up roller
: Spotted replacement (Actual replacement cycle: Every 50,000 feeds)
- Paper feed roller
: Spotted replacement (Actual replacement cycle: Every 50,000 feeds)

(2) Procedure**Note**

- The outward appearance of the collar is identical for the paper feed roller and the separation roller. However, the collar of the paper feed roller has a one-way mechanism on the inside while the collar of the separation roller does not. Be careful not to confuse one with the other.



1. Conduct the steps 1 to 3 in the [F.8.2.2 Replacing the pick-up roller and the paper feed roller](#)
2. Remove the C-clip [1] and remove the pick-up roller [2].



3. Pull out the collar [2] from the pick-up roller [1].
4. Replace the pick-up roller [1].
5. Conduct the steps 7 to 12 in the [F.8.2.2 Replacing the pick-up roller and the paper feed roller](#) and replace the paper feed roller.

8.6.2 Replacing the separation roller

(1) Periodically replaced parts/cycle

- Separation roller
: Spotted replacement (Actual replacement cycle: Every 50,000 feeds)

(2) Procedure

Note

- The outward appearance of the collar is identical for the paper feed roller and the separation roller. However, the collar of the paper feed roller has a one-way mechanism on the inside while the collar of the separation roller does not. Be careful not to confuse one with the other.

1. Conduct the steps 1 to 4 in the [F.8.2.3 Replacing the separation roller](#) and replace the separation roller.

9. PERIODICAL MAINTENANCE PROCEDURE LU-409/410

9.1 Precautions on maintenance

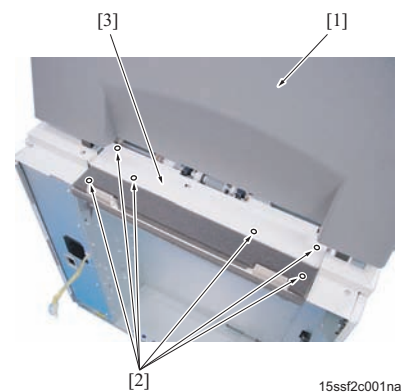
⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

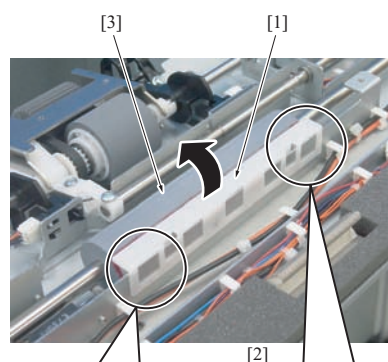
9.2 Paper feed section

9.2.1 Cleaning the paper dust removing brush

(1) Procedure



1. Remove the upper door [1]. (Refer to [G.6.2.2 Upper door](#))
2. Remove 6 screws [2] and remove the paper feed cover [3].

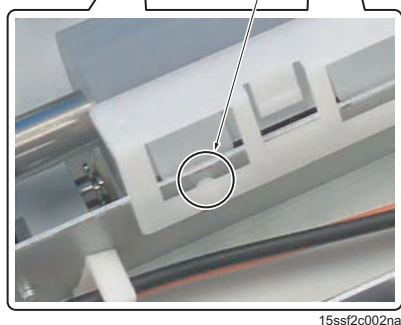


3. Release the protruding portions at 2 places of the paper dust removing brush [1], tilt them to the pre-registration roller [3] side, and remove the paper dust removing brush [1].

Note

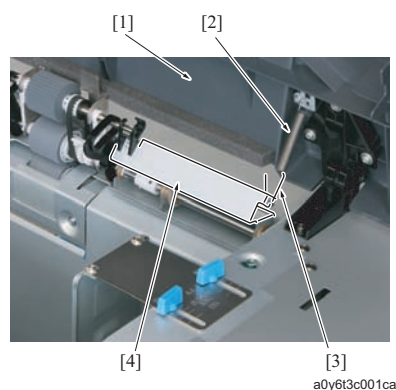
- When reinstalling them, be sure to tilt them to the pre-registration roller [3] side before inserting them

4. Clean the paper exit sensor with the blower brush.
5. Reinstall the above parts following the removal steps in reverse.

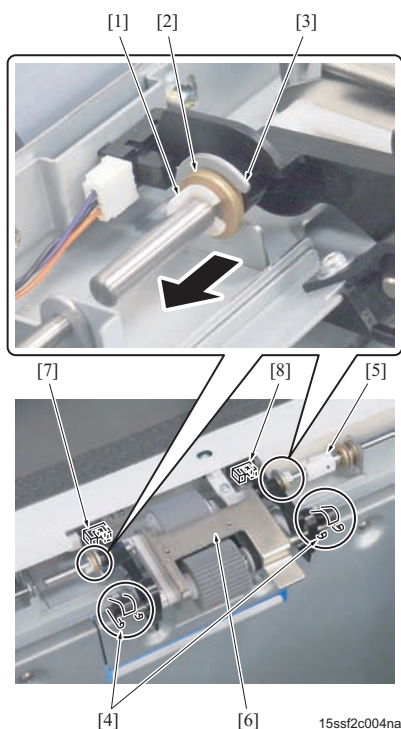


9.2.2 Removing/installing paper feed roller unit

(1) Procedure



1. Open the upper door [1].
2. Remove the hook [3] of spring [2] from the paper feed guide plate [4].



3. Remove C-clips [1] 1 each.
4. Slide the bearings [2] 1 each.
5. Remove the coupling [5] while removing the notch [3] and the arm [4] of paper feed guide plate, and remove the paper feed roller unit [6].

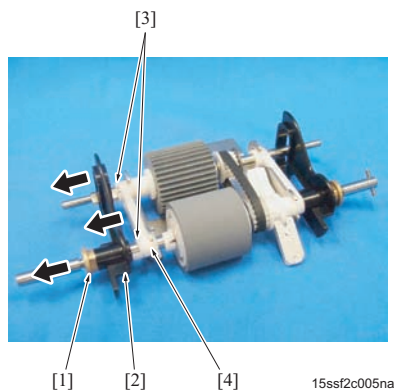
Note

- When removing/installing, be careful not to damage the upper limit sensor (PS109) [7] and the paper empty sensor (PS108) [8].

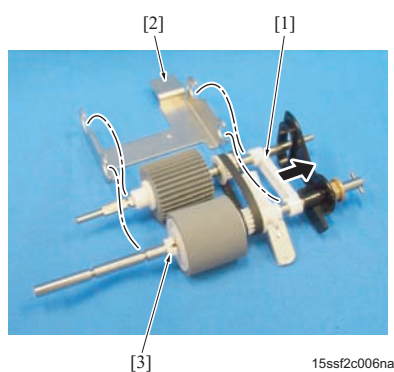
6. Reinstall the above parts following the removal steps in reverse.

9.2.3 Replacing the paper feed roller/pick-up roller**(1) Periodically replaced parts/cycle**

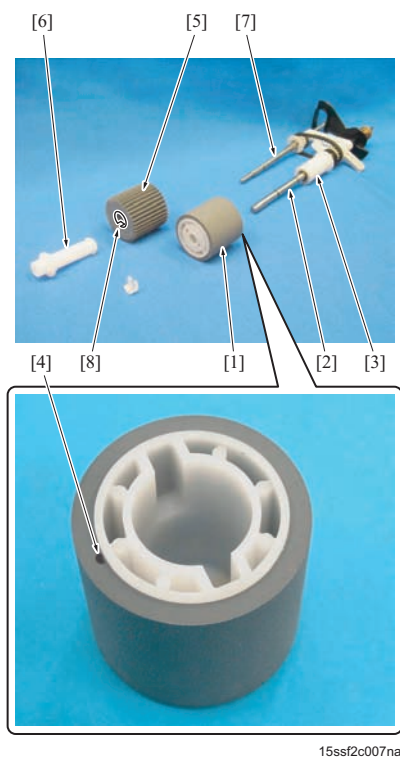
- Paper feed roller
: Every 7,500,000 prints (Actual replacement cycle: Every 500,000 prints)
- Pick-up roller
: Every 7,500,000 prints (Actual replacement cycle: Every 500,000 prints)

(2) Procedure

1. Remove the paper feed roller unit. (Refer to [F.9.2.2 Removing/ installing paper feed roller unit](#))
2. Turn over the paper feed roller unit, and remove 1 bearing [1] and the actuator [2].
3. Remove the 3 C-clips [2], and remove the coupling bearing [4].



4. Slide the coupling bearing [1] and remove the mounting bracket [2].
5. Remove the C-clip [3].



6. Pull out the paper feed roller [1] from the shaft [2] and the collar [3].
7. Pull out the pick-up roller [5] with the collar [6] from the shaft [7].
8. Remove the collar [6] from the pick-up roller [5].

Note

- When installing the paper feed roller [1], insert it into the collar [3] with its paint-marked side [4] ahead.
- When reinstalling the pick-up roller [5], be sure to insert the collar [6] into the groove [8] side before inserting it into the shaft [7].

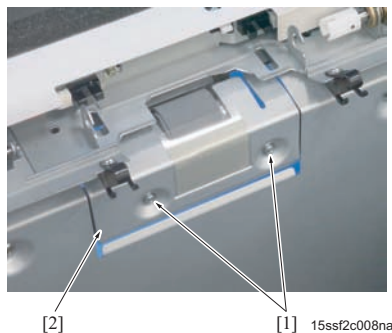
9. Reinstall the preceding parts following the removal steps in reverse.

9.2.4 Replacing the separation roller and the torque limiter**(1) Periodically replaced parts/cycle**

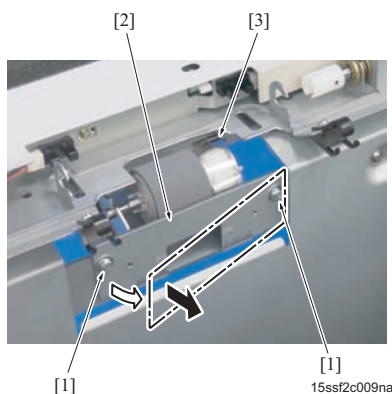
- Separation roller
: Every 7,500,000 prints (Actual replacement cycle: Every 500,000 prints)
- Torque limiter
: Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 prints)

(2) Procedure**Note**

- Be sure to press the tray down switch (SW100) while charging to lower the paper lift plate to the bottom before operation.



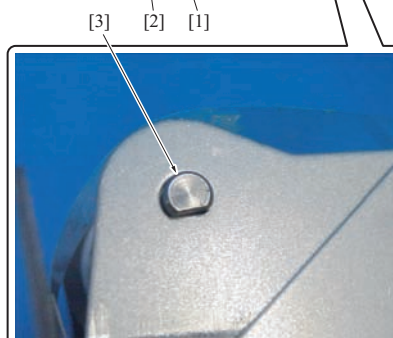
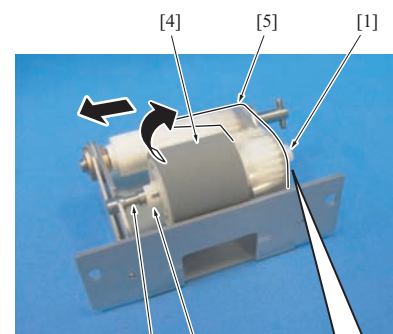
1. Remove the paper feed roller unit. (Refer to [F.9.2.2 Removing/ installing paper feed roller unit](#))
2. Remove 2 screws [1] and then remove the entrance guide plate [2].



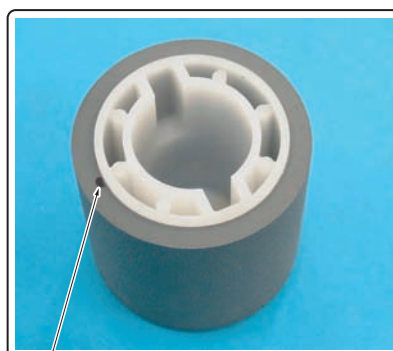
3. Remove 2 screws [1] and pull out the front side of the separation roller unit [2] in advance. And then remove the coupling [3] to dismount the separation roller.

Note

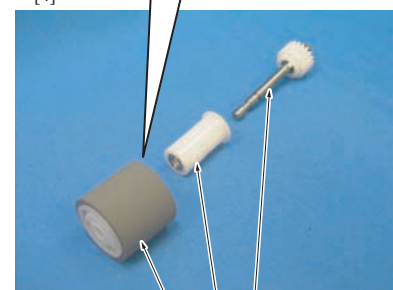
- When reinstalling it, be sure to engage the coupling [3] for installation and fasten the separation roller unit [2] with screws while pressing it downward.



15ssf2c010na



[4]



[1] [2] [3]

15ssf2c011na

4. Remove 2 C-clips [1] and then, with the shaft [2] and the D cut section [3] set together, remove the separation roller [4] together with the shaft [2].

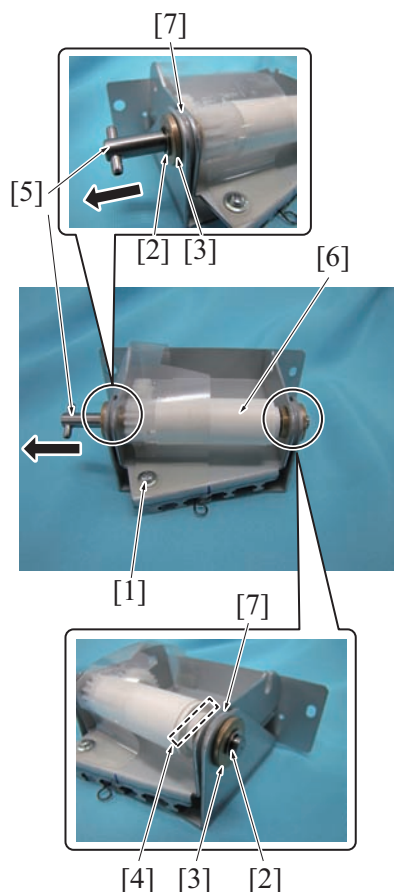
Note

- When removing and reinstalling it, be careful not to damage the transparent protective cover [5].

5. Pull out and remove the separation roller [1] from the collar [2] and the shaft [3].

Note

- When reinstalling the separation roller, be sure to insert it into the collar [2] from the paint-marked [4] side.
- Be sure to check to see if the surface of the separation roller is not smeared with grease.



6. Remove the screw [1].
7. Remove 2 E-rings [2] and remove 2 bearings [3].
8. Remove the pin [4] and pull out the shaft [5] in the arrow-marked direction.
9. Remove the torque limiter [6].

Note

- The 2 spacers [7] drop when the shaft [5] is pulled out in the arrow-marked direction. Be careful not to lose them.

10. Reinstall the preceding parts following the removal steps in reverse.

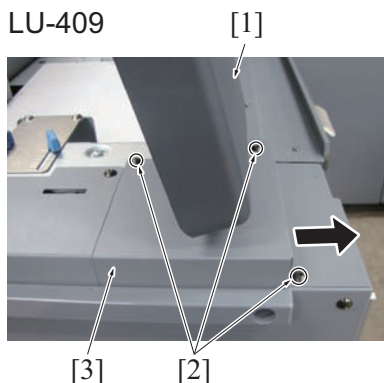
9.2.5 Replacing paper feed clutch (CL101) /pre-registration clutch (CL102)

(1) Periodically replaced parts/cycle

- Paper feed clutch (CL101)
: Every 3,000,000 prints (Actual replacement cycle: Every 3,000,000 prints)
- Pre-registration clutch (CL102)
: Every 3,000,000 prints (Actual replacement cycle: Every 3,000,000 prints)

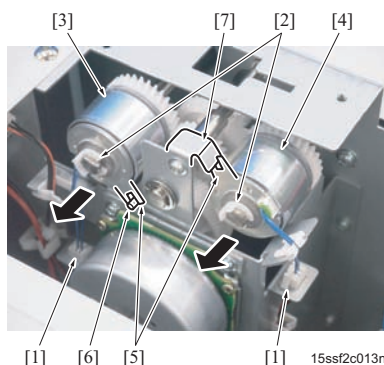
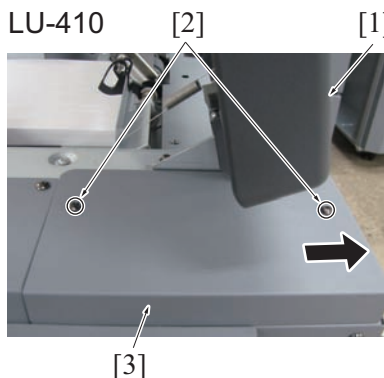
(2) Procedure

LU-409



1. Open the upper door [1].
2. Remove the 3 screws [2] in case of LU-409 and remove the 2 screws [2] in case of LU-410 and remove the clutch cover [3] in the arrow-marked direction.

LU-410



3. Remove 2 connectors [1].
4. Remove the 2 C-clips [2], and remove the paper feed clutch (CL101) [3] and the separation clutch (CL102) [4].

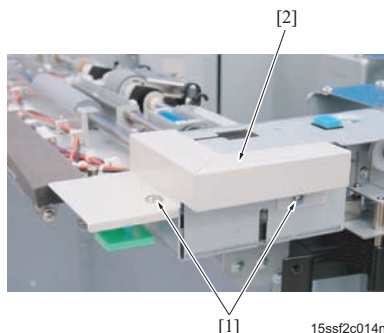
Note

- When installing, be sure to insert the stoppers [5] of the clutches over the screw [6] and the metal plate [7].

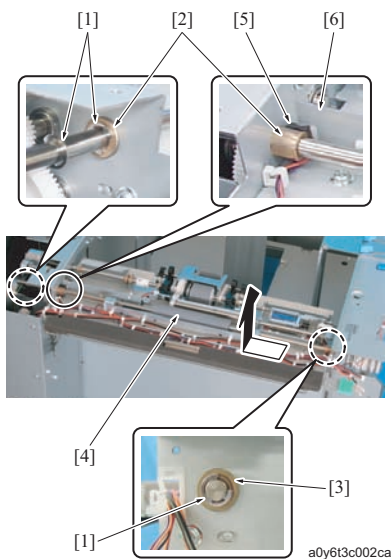
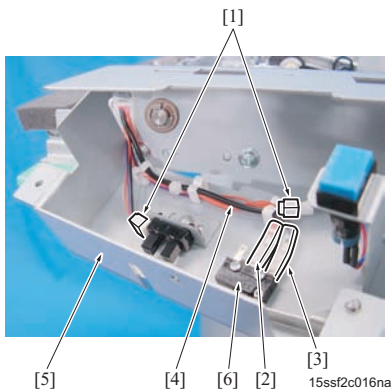
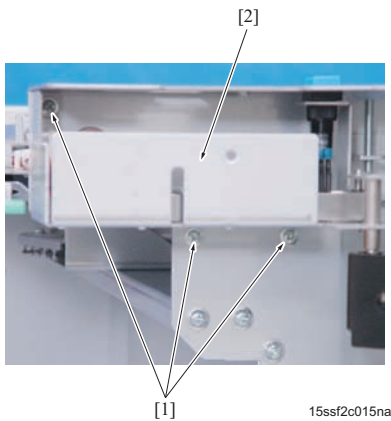
5. Reinstall the preceding parts following the removal steps in reverse.

9.2.6 Replacing the pre-registration roller and the pre-registration bearing**(1) Periodically replaced parts/cycle**

- Pre-registration roller
: Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 prints)
- Pre-registration bearing
: Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 prints)

(2) Procedure

1. Remove the following parts.
 - Upper door (Refer to [G.6.2.2 Upper door](#))
 - Right cover (Refer to [G.6.2.3 Right cover](#))
 - Front cover (Refer to [G.6.2.4 Front cover](#))
 - Front door (Refer to [G.6.2.6 Front door](#))
 - Paper feed cover, paper dust removing brush (Refer to [F.9.2.1 Cleaning the paper dust removing brush](#))
 - Clutch cover, pre-registration clutch (Refer to [F.9.2.5 Replacing paper feed clutch \(CL101\) /pre-registration clutch \(CL102\)](#))
2. Remove 2 screws [1], and then remove the upper cover /Fr [2].



3. Remove 3 screws [1] and then remove the connector mounting bracket [2].

Note

- Be sure not to pull the sensor mounting piece [2] too hard since it is connected with a wiring.

4. Remove the 2 connectors [1], the fastons [2] and [3], and the wiring [4]. And then remove the sensor mounting piece [5].

Note

- When installing the fastons [2] and [3], be sure to insert the orange cord [2] into the pin provided at the center of the front door interlock switch (MS101) [6].

5. Remove the 3 E-rings [1] and the pre-registration bearings [2] and [3], and then remove the pre-registration roller [4].

Note

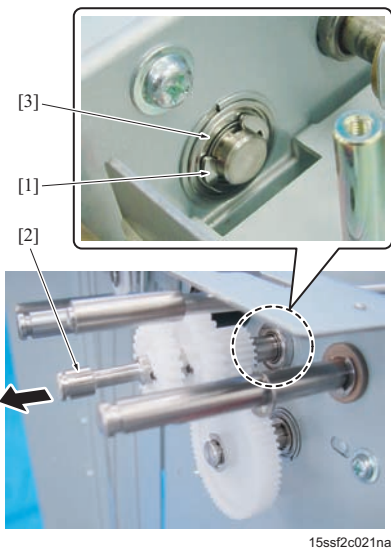
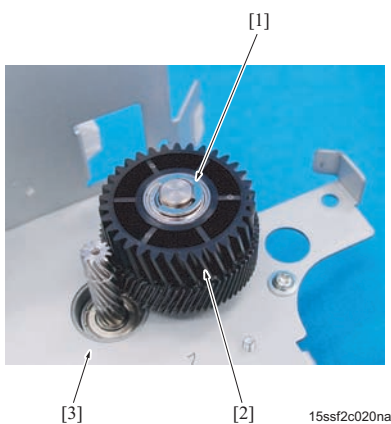
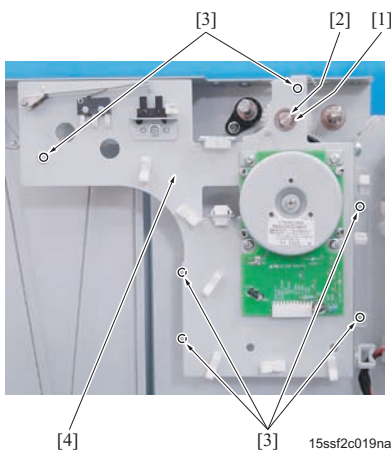
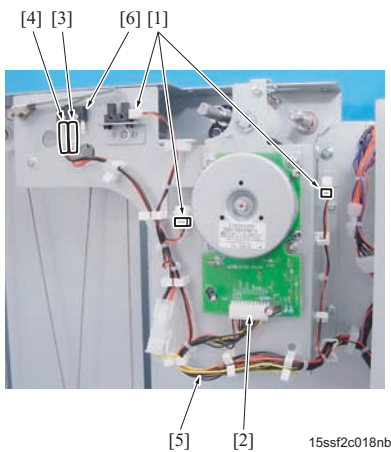
- When removing it, be careful that the rubber pad [5] does not get lost. And be sure to insert the rubber pad between the bearing [2] and the metal frame [6] after installing the pre-registration roller.
- When installing the pre-registration roller, be careful not to damage it with the edge of the metal frame.

6. Reinstall the preceding parts following the removal steps in reverse.

9.2.7 Replacing paper feed idler gear/paper feed input gear

(1) Periodically replaced parts/cycle

- Replacing paper feed idler gear
: Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 prints)
- Paper feed input gear
: Every 10,500,000 prints (Actual replacement cycle: Every 6,000,000 prints)

(2) Procedure

1. Remove the following parts.
 - Upper door (Refer to [G.6.2.2 Upper door](#))
 - Right cover (Refer to [G.6.2.3 Right cover](#))
 - Rear cover (Refer to [G.6.2.5 Rear cover](#))
 - Paper feed cover (Refer to [F.9.2.1 Cleaning the paper dust removing brush](#))
 - Paper feed clutch, pre-registration clutch (Refer to [F.9.2.5 Replacing paper feed clutch \(CL101\) /pre-registration clutch \(CL102\)](#))
2. Remove the 3 connectors [1], the connector [2], the fastons [3] and [4], and the wiring [5].

Note

- When removing the connector [2], be sure to pull it out downward while taking notice that the motor drive board does not crack up.
- When installing the fastons [3] and [4], be sure to insert the orange cord [5] into the pin provided at the center of the upper door interlock switch (MS102) [6].

3. Remove the E-ring [1] and the bearing [2].
4. Remove the 6 screws [3] and then remove the paper feed motor assembly [4].

5. Remove the E-ring [1] and then remove the paper feed idler gear [2].

Note

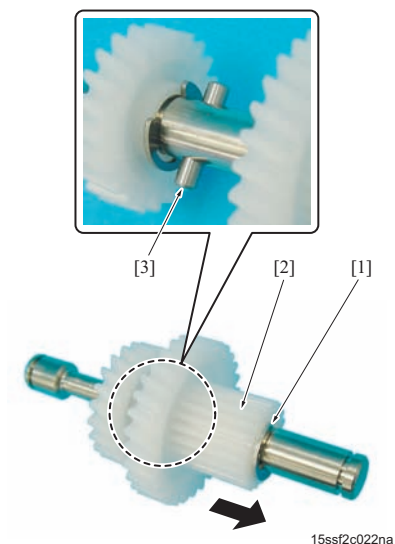
- When reinstalling the paper feed idler gear [2], be sure to install it with the side on which more teeth are provided set to the metal frame [3].

6. Remove the E-ring [1] and then remove the paper feed input gear assembly [2].

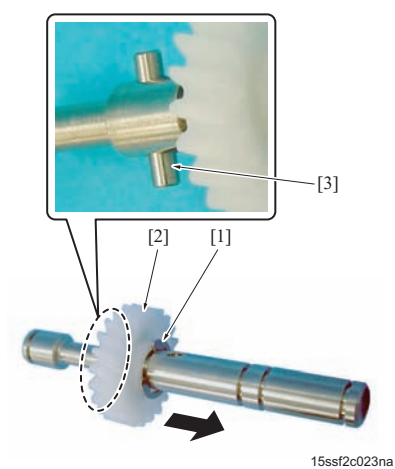
Note

- Be careful that the bearing [3] does not get lost.

7. Remove the E-ring [1] and then remove the paper feed gear [2] and the pin [3].



8. Remove the E-ring [1] and then remove the paper feed input gear [2] and the pin [3].
9. Reinstall the preceding parts following the removal steps in reverse.



10. PERIODICAL MAINTENANCE PROCEDURE EF-102

10.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

10.2 Fusing section

The periodical maintenance procedure is the same as that of fusing section of 1250/1250P/1052.

However, periodical maintenance procedure of some parts differs or not to be required.

Periodical maintenance procedure	Remark
F.5.10.2 Replacing the fusing cleaning web	
F.5.10.3 Removing/reinstalling the fusing section	
F.5.10.4 Opening/closing of the web section	
F.5.10.5 Replacing the fusing heater lamps /1 (L1) and /2 (L2)	
F.5.10.6 Replacing the fusing roller /Up, the heat insulating sleeve, the fusing bearing /Up and the fusing gear	Periodic maintenance cycle of the fusing roller /Up is different.
F.5.10.7 Replacing the fusing roller /Lw assy /Lubrication to the pressure warm assy	Periodic maintenance cycle of the fusing roller /Lw Assy is different.
F.5.10.8 Replacing the fusing cleaning sheet assy	
F.5.10.9 Removing/reinstalling the fusing heating roller assembly	
F.5.10.10 Replacing the fusing heater lamp /3 (L3)	
F.5.10.11 Replacing the fusing heating roller, the heat insulation sleeve /Lw and the heat roller bearing	
Replacing the fusing claw /Lw	For EF-102, the fusing claw /Lw is not equipped so the replacement is not required.
Replacing the fusing claw /Up	For EF-102, the fusing claw /Up is not equipped so the replacement is not required.
Replacing the fusing claws installation assy	No need to replace.
F.5.10.15 Replacing the fusing temperature sensor /2 (TH2)	
F.5.10.16 Replacing the fusing temperature sensor /4 (TH4)	
F.5.10.17 Replacing the pressure worm assy and the pressure wheel assy (1250/1250P/1052/EF only)	
F.5.10.18 Replacing the fusing cleaning roller, the bearing /G and the web prevention part assy	
Replacing the fusing oscillation cam assy	No need to replace.

11. PERIODICAL MAINTENANCE PROCEDURE RU-509/HM-102

11.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

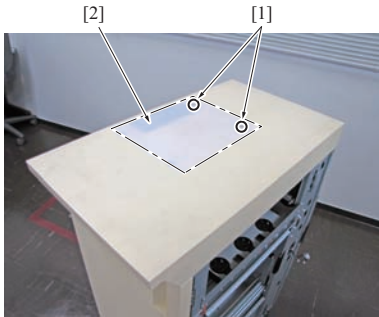
11.2 Output paper density detection section

11.2.1 Cleaning the shutter

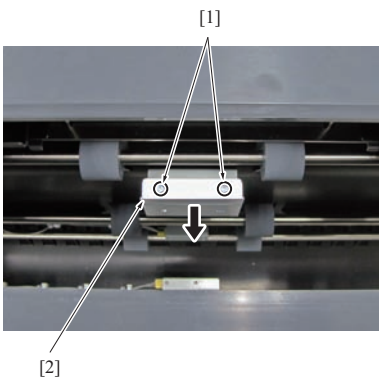
(1) Periodically cleaned parts/cycle

- Shutter: Every 600,000 prints

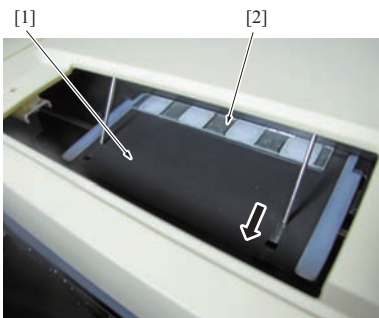
(2) Procedure



1. Remove 2 screws [1] and then remove the shutter cover [2].



2. Loosen 2 screws [1] and then remove the shutter stopper [2] in the arrow-marked direction.



3. Pull out the shutter [1] and clean the correction plate [2] with a blower brush.

Note

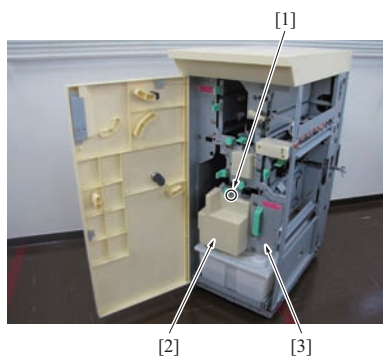
- Be careful that the shutter [3] falls down when it is pulled out too much.

11.3 Humidification section (HM-102)

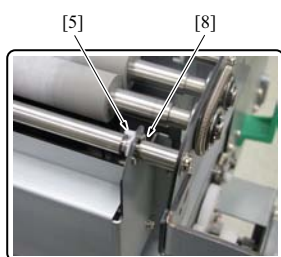
11.3.1 Replacing the humidification rollers /Rt and /Lt and the water feed roller

(1) Periodically replaced parts/Spotted replaced parts/cycle

- Humidification roller /Rt
: Spot replacement (Actual replacement cycle: every 300,000 prints)
- Humidification roller /Lt
: Spot replacement (Actual replacement cycle: every 300,000 prints)
- Water feed roller
: Spot replacement (Actual replacement cycle: every 1,500,000 prints)

(2) Procedure

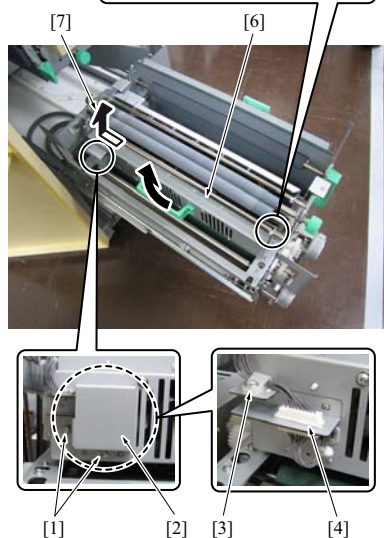
1. Remove the wire and then open the front door at the maximum.
(Refer to [G.9.2.2 Front door](#))
2. Remove the screw [1] and remove the humidification unit cover [2].
3. Pull out the humidification unit [3].

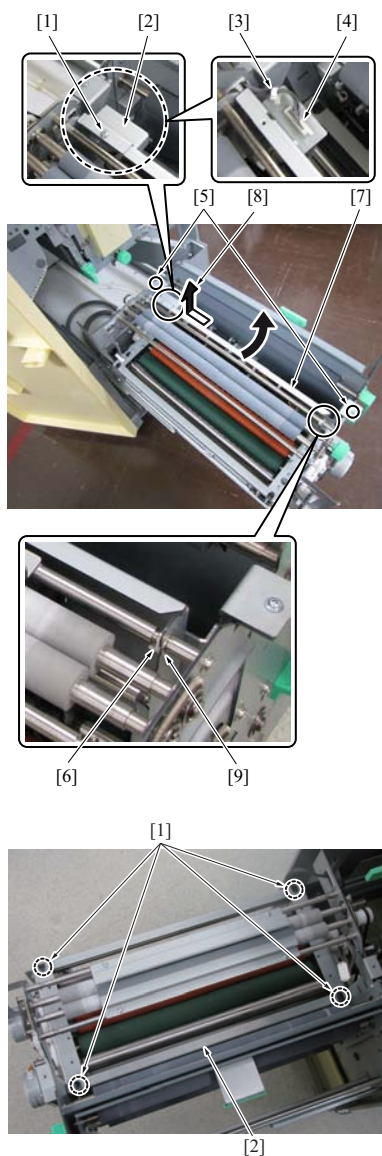


4. Remove 2 screws [1] and then remove the connector cover /Lt [2].
5. Remove the screw [3] and then disconnect the connector [4].
6. Remove the C-clip [5].
7. Open the open/close plate /Lt assy [6] and remove in the arrow-marked direction [7].

Note

- When reinstalling the open/close plate /Lt assy [6], be sure to hit the open/close plate /Lt assy [6] to the E-ring [8].





8. Remove the screw [1] and then remove the connector cover /Rt [2].
9. Release the clamp [3] and then disconnect the connector [4].
10. Remove 2 screws [5].
11. Remove the C-clip [6].
12. Open the open/close plate /Rt assy [7] and remove in the arrow-marked direction [8].

Note

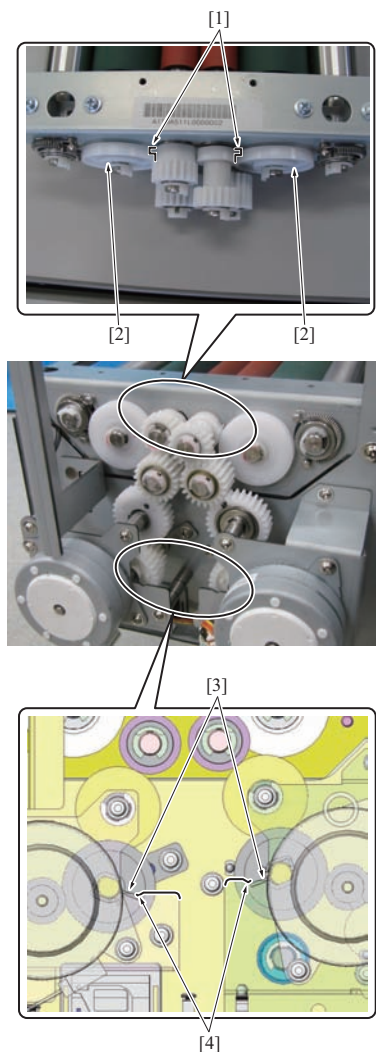
- When reinstalling the open/close plate /Rt assy [7], be sure to hit the open/close plate /Rt assy [7] to the E-ring [9].

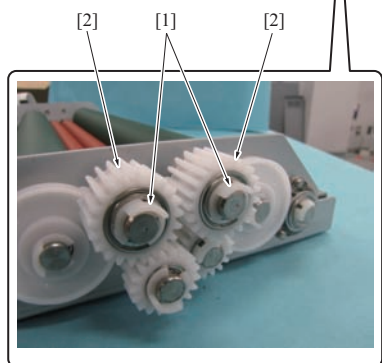
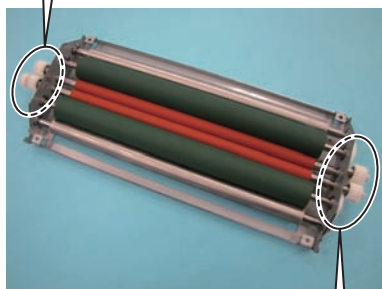
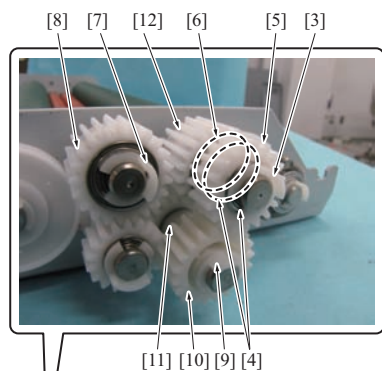
13. Remove 4 screws [1].
14. Remove the humidification roller assy [2].

15. Check point when reinstalling the humidification roller assy

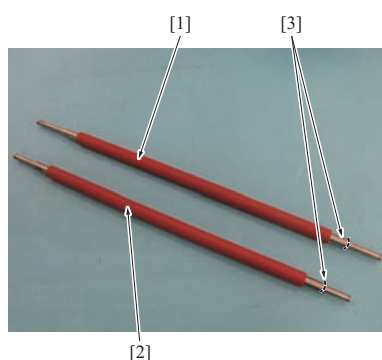
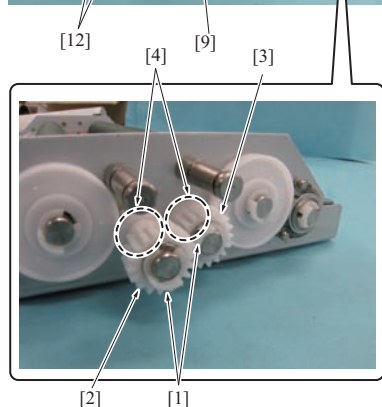
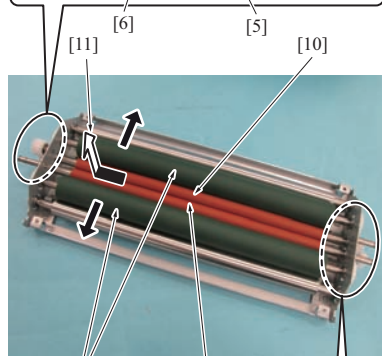
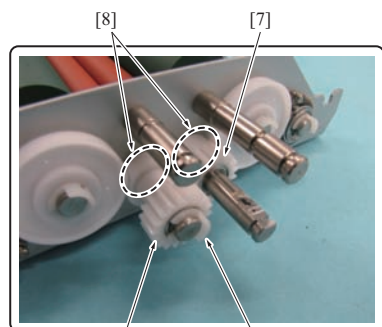
Note

- When reinstalling the humidification roller assy, be sure to set the projections [1] of the pressure release cam so that they hit the pressure rollers [2] beforehand. (Execute this setting to all 4 places.)
- When reinstalling the humidification roller assy, be sure to turn the gear so that the projection [3] of the gear aligns with the notch [4] beforehand.
- When reinstalling the humidification roller assy, be sure not to mis-align the positions of the projections of the humidification pressure cam [1] and the gear [3].





16. Put the humidification roller assy with bottom-up.
17. Remove 2 C-clips [1], and remove 2 gears [2].
18. Remove the C-clip [3], and remove the gear [5] with 2 bearings [4].
19. Remove the spacer [6].
20. Remove the C-clip [7], and remove the gear [8]
21. Remove the C-clip [9], and remove the gear [10] and the spacer [11].
22. Remove the gear [12].



23. Remove 2 C-clips [1], and then remove the humidification pressure cams /FrRt [2] and /FrLt [3] and 2 bearings [4].
24. Remove the C-clips [5], and then remove the humidification pressure cam /RrLt [6].
25. Remove the humidification pressure cam /RrRt [7] and 2 bearings [8].
26. Remove the humidification rollers /Rt [9] and /Lt [10] in the arrow-marked direction [11].

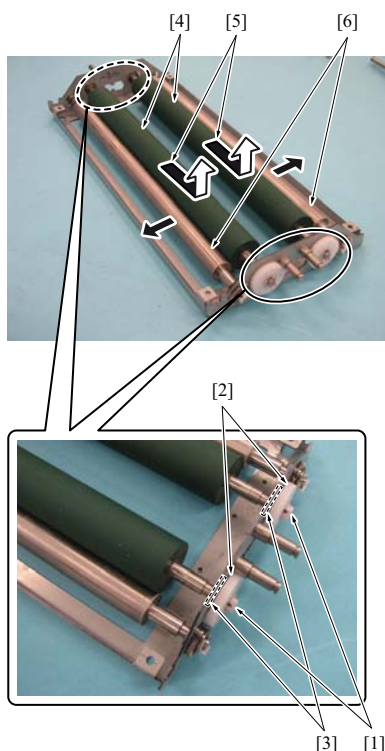
Note

- Remove the control roller [12] releasing to outside.

27. Check point when reinstalling the humidification rollers/Rt [1] and /Lt [2]

Note

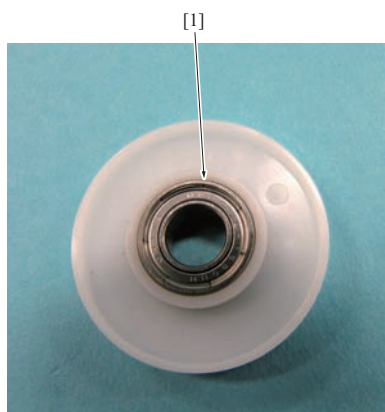
- When reinstalling the humidification rollers /Rt [1] and /Lt [2], be sure to note the following points.
The humidification roller /Rt is longer than the humidification roller /Lt.
The side with the groove [3] on the roller shaft comes to the front side.
Never touch the roller surface with bare hands.



28. Remove the C-clips [1], pressure rollers [2], and bearings [3], 4 each.
29. Remove 2 water feed rollers [4] in the arrow-marked direction [5].

Note

- When reinstalling the water feed roller, never touch the roller surface with bare hands.



30. Reinstall the preceding parts following the removal steps in reverse.

Note

- When reinstalling the pressure roller, be sure to set so that the bearing [1] comes inside.

31. After replacing the humidification rollers /Rt and /Lt and the water feed roller, conduct the following items.

The parts counter of the humidification roller /Rt

- No.336 (1250/1250P/1052)
- No.322 (C7000/C7000P/C70hc)

The parts counter of the humidification roller /Lt

- No.337 (1250/1250P/1052)
- No.323 (C7000/C7000P/C70hc)

The parts counter of the water feed roller

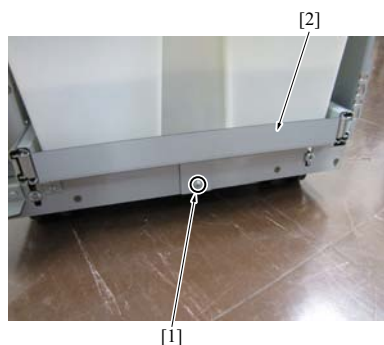
- No.338 (1250/1250P/1052)
- No.324 (C7000/C7000P/C70hc)

11.3.2 Replacing the water feed filter

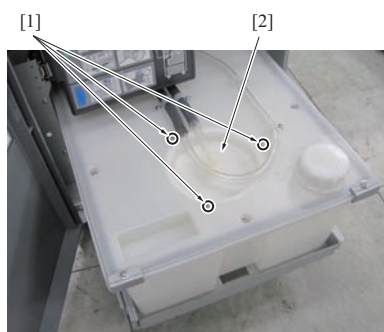
(1) Spotted replaced parts/cycle

- Water feed filter: Spot replacement (Actual replacement cycle: every 300,000 prints)

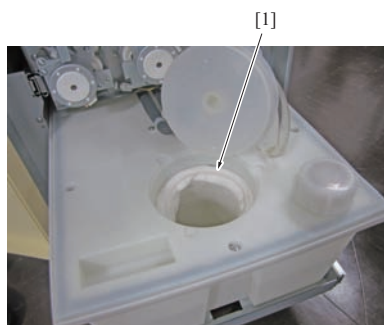
(2) Procedure



1. Open the front door.
2. Remove the screw [1] and then pull out the water feed tank [2].



3. Remove 3 screws [1] and open the filter cap [2].



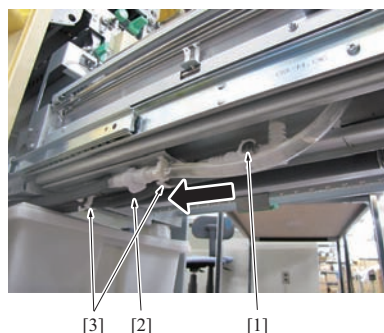
4. Remove the water feed filter [1].
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the part, be sure to reset the parts counter.
 - No.339 (1250/1250P/1052)
 - No.325 (C7000/C7000P/C70hc)

11.3.3 Replacing the pump motor (P1)

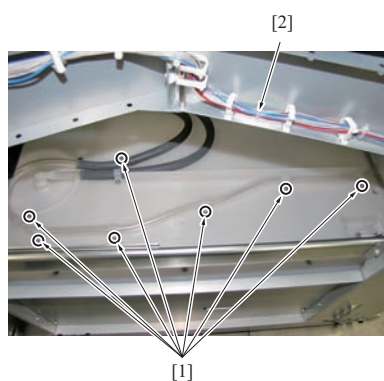
(1) Spotted replaced parts/cycle

- Pump motor (P1): Spot replacement (Actual replacement cycle: every 10,000,000 prints)

(2) Procedure



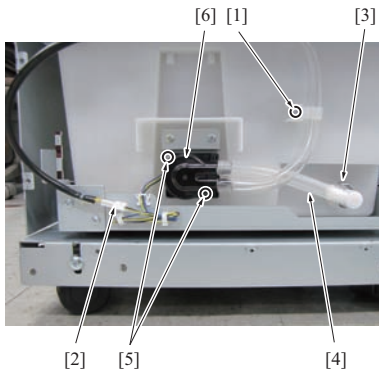
1. Remove the wire and then open the front door at the maximum. (Refer to [G.9.2.2 Front door](#))
2. Remove the rear cover. (Refer to [G.9.2.3 Rear cover](#))
3. Pull out the humidification unit.
4. Remove the pipe [2] in the arrow-marked direction while pressing the bracket [1].
5. Release the pipe from the clamp [3].



6. Pull out the water feed tank.
7. Remove 7 screws [1] to release the clamp.

Note

- Adjust the positions of the water feed tank and humidification unit so that the connecting arm [2] does not bother when removing the screw [1].



8. Remove the screw [1] to release the clamp.
9. Remove the clamp to release the wiring harness and then disconnect the connector [2].
10. Push the bracket [3] to remove the pipe [4].
11. Remove 2 screws [5] and then remove the pump motor (P1) [6].
12. Reinstall the preceding parts following the removal steps in reverse.
13. After replacing the part, be sure to reset the parts counter.
 - No.343

12. PERIODICAL MAINTENANCE PROCEDURE RU-510

12.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

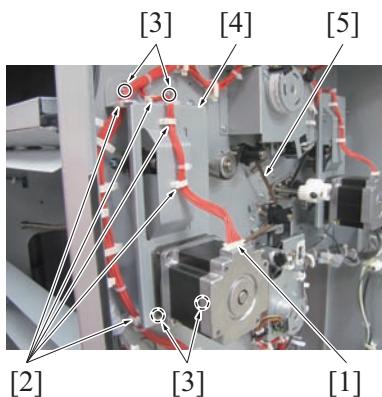
12.2 Conveyance section

12.2.1 Replacing the entrance conveyance motor (M1), the entrance conveyance belt, the paper exit motor (M2), the paper exit conveyance belt

(1) Periodically replaced parts/cycle

- Entrance motor (M1)
: Spotted replacement (Actual replacement cycle: Every 30,000,000 feeds)
- Entrance conveyance belt
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)
- Paper exit motor (M2)
: Spotted replacement (Actual replacement cycle: Every 30,000,000 feeds)
- Paper exit conveyance belt
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)

(2) Removing the entrance motor assy, Replacement procedure of the entrance conveyance belt



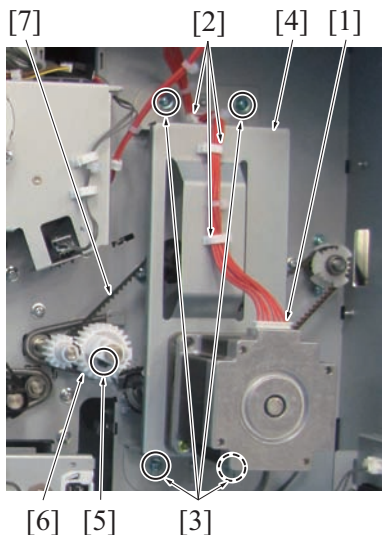
1. Remove the rear cover.
(Refer to [G.10.2.3 Rear cover](#))
2. Disconnect the connector [1].
3. Remove the 5 saddles [2] of the entrance motor mounting plate, and release the wiring harness.
4. Remove 4 screws [3], the entrance motor assy [4] and the entrance conveyance belt [5].

Note

When it is reinstalled, temporary tighten the 4 screws [3] and apply tension to the entrance conveyance belt [5] by own weight of the entrance motor assy [4]. Then tighten 4 screws [3].

5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the entrance conveyance belt, be sure to reset the special parts counter.
 - No.331

(3) Removing the paper exit motor assy, Replacement procedure of the paper exit conveyance belt

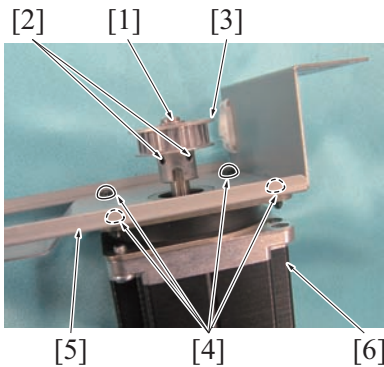


1. Remove the rear cover.
(Refer to [G.10.2.3 Rear cover](#))
2. Disconnect the connector [1].
3. Remove the 3 saddles [2] of the paper exit motor mounting plate, and release the wiring harness.
4. Remove 4 screws [3] and remove the paper exit motor [4].
5. Remove the screws [5] and then remove the drive gear [6] and the paper exit conveyance belt [7].

Note

When it is reinstalled, temporarily tighten 4 screws [3] and apply tension to the paper exit conveyance belt [7] by own weight of the paper exit motor assy [4]. Then, tighten 4 screws [3].

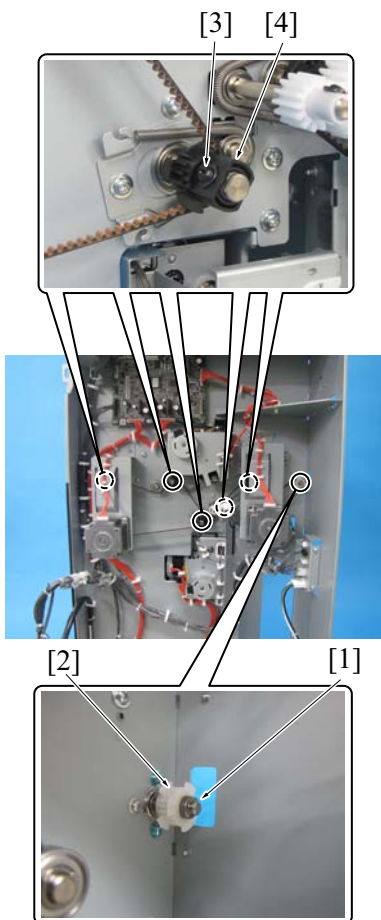
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the paper exit conveyance belt, be sure to reset the special parts counter.
 - No.331

(4) Replacement procedure of the entrance motor (M1) and the paper exit motor (M2)

1. Remove the entrance motor assy and the paper exit motor assy.
(Refer to [F.12.2.1.\(2\) Removing the entrance motor assy](#), [Replacement procedure of the entrance conveyance belt](#), [F.12.2.1.\(3\) Removing the paper exit motor assy](#), [Replacement procedure of the paper exit conveyance belt](#))
2. Remove the E-ring [1].
3. Loosen the 2 screws [2] and remove the pulley gear [3].
4. Remove the 4 screws [4]. Then remove the entrance motor (M1) and the paper exit motor (M2) [6] from the mounting plate [5].
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the entrance motor (M1) and the paper exit motor (M2), be sure to reset the special parts counter.
Entrance motor (M1), paper exit motor (M2)
• No.333

12.2.2 Replacing the paper exit pulley and the conveyance pulley**(1) Periodically replaced parts/cycle**

- Paper exit pulley
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)
- Conveyance pulley
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)

(2) Procedure

1. Remove the entrance motor (M1), the entrance conveyance belt, the paper exit motor (M2) and the paper exit conveyance belt.
(Refer to [F.12.2.1 Replacing the entrance conveyance motor \(M1\)](#), [the entrance conveyance belt](#), [the paper exit motor \(M2\)](#), [the paper exit conveyance belt](#))
2. Remove the E-ring [1] and remove the paper exit conveyance pulley [2].
3. Remove 3 each of the screws [3] at 5 positions, and then remove 5 conveyance pulleys [4].

Note

- Reinstall the paper exit pulley [4] with the gear inside.

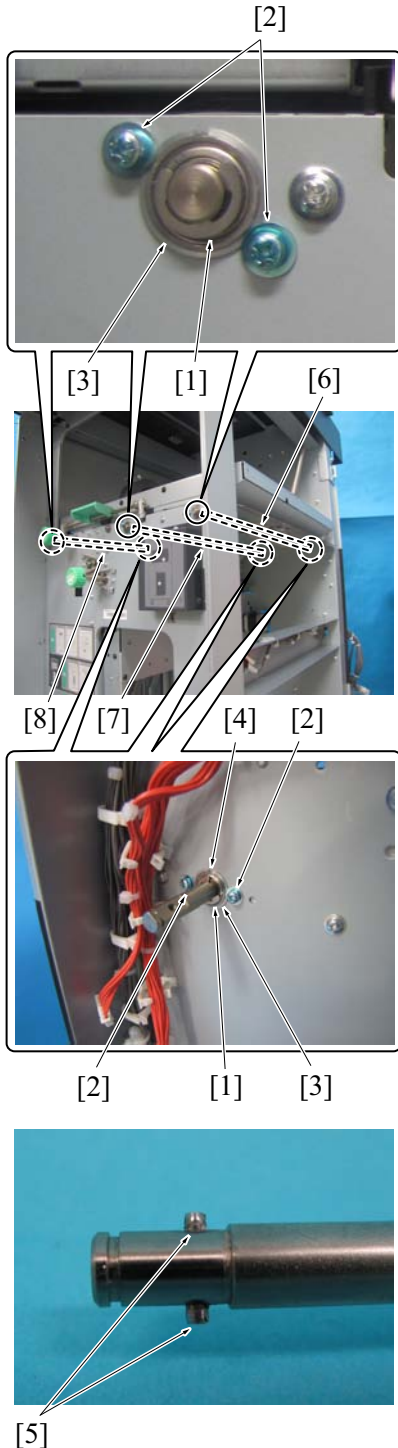
4. Reinstall the preceding parts following the removal steps in reverse.
5. After replacing the paper exit pulley and conveyance pulley, be sure to reset the special parts counter.
Paper exit pulley, Conveyance pulley
• No.332

12.2.3 Replacing the entrance roller /1, /2, paper exit roller, bearing /K and bearing assy**(1) Periodically replaced parts/cycle**

- Entrance roller /1
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)
- Entrance roller /2
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)

- Paper exit roller
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)
- Bearing /K
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)
- Bearing assy
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)

(2) Procedure

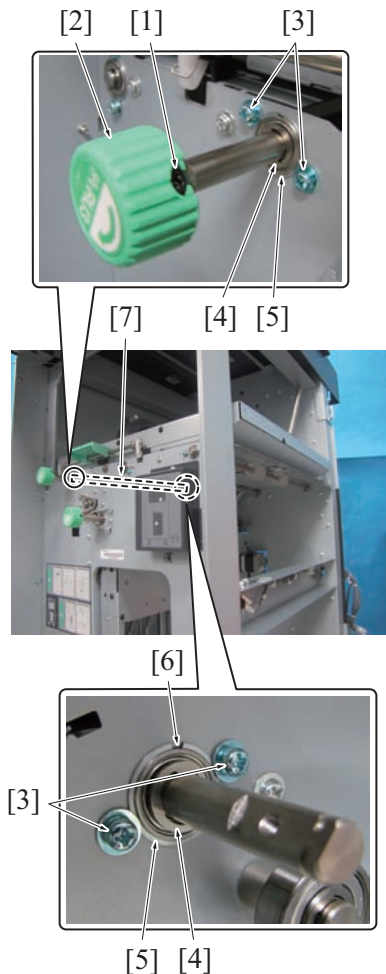


1. Replacing the entrance motor (M1), the entrance conveyance belt, the paper exit motor (M2), the paper exit conveyance belt (Refer to [F.12.2.1 Replacing the entrance conveyance motor \(M1\), the entrance conveyance belt, the paper exit motor \(M2\), the paper exit conveyance belt](#))
Remove the paper exit pulley, the conveyance pulley.
(Refer to [F.12.2.2 Replacing the paper exit pulley and the conveyance pulley](#))
 2. Remove the E-rings [1], 1 each.
 3. Remove the screw [2], 2 each, and then remove the bearing /K and bearing assy [3], 1 each.
*Only the bearing of paper exit roller [8] is the bearing assy.
- Note**
- When reinstalling the bearing /K and bearing assy [3], be sure to set so that the notch of the bearing /K and bearing assy comes in the position [4] as shown in the picture.
 - To prevent the notch from opening, when tighten the screws [2], 1 for each, in counterclockwise order.
 - When reinstalling the bearing /K [3] of the entrance roller / 1 [6], /2 [7], be sure to apply the Molykote EM-30L inside the bearing /K [3].
 - When reinstalling the bearing /K [3] of the paper exit roller [8], be sure to apply the Molykote EM-30L on all over around the spring pins [5] on front and rear of the shaft.
4. Remove the entrance roller /1 [6], /2 [7] and the paper exit roller [8].
 5. Reinstall the preceding parts following the removal steps in reverse.
 6. After replacing the entrance roller /1, /2 and paper exit roller, bearing /K and bearing Assy, be sure to reset the parts counter.
 - Entrance roller /1, /2
 - No.325
 - Exit roller
 - No.328
 - Bearing /K and bearing Assy
 - No.330

12.2.4 Replacing the merging section roller and bearing /K

(1) Periodically replaced parts/cycle

- Merging section roller
: Spot replacement (Actual replacement cycle: Every 20,000,000 feeds)
- Bearing /K
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)

(2) Procedure

1. Remove the paper exit motor (M2) and the paper exit conveyance belt. (Refer to [F.12.2.1 Replacing the entrance conveyance motor \(M1\), the entrance conveyance belt, the paper exit motor \(M2\), the paper exit conveyance belt](#))
2. Remove the conveyance pulley. (Refer to [F.12.2.2 Replacing the paper exit pulley and the conveyance pulley](#))
3. Remove the screw [1], and remove the knob [2].
4. Remove the screws [3], 2 each, and E-rings [4], 1 each, and then remove the bearings /K [5], 1 each.

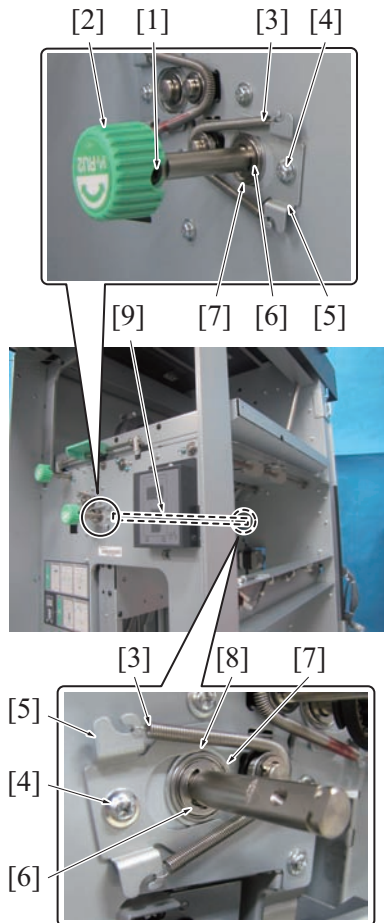
Note

- When reinstalling the bearing /K [7], be sure to set so that the notch of the bearing /K comes in the position [6] as shown in the picture.
- When reinstalling the bearing /K [7], be sure to apply the Molykote EM-30L inside of the bearing /K [7].

5. Remove the merging section roller [7].
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the merging section roller and bearing /K, be sure to reset the special parts counter.
 - Merging section roller
 - No.326
 - Bearing /K
 - No.330

12.2.5 Replacing the stacker entrance roller and bearing /K**(1) Periodically replaced parts/cycle**

- Stacker entrance roller
 - : Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)
- Bearing /K
 - : Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)

(2) Procedure

1. Remove the paper exit motor (M1) and the entrance conveyance belt. (Refer to [F.12.2.1 Replacing the entrance conveyance motor \(M1\)](#), [the entrance conveyance belt](#), [the paper exit motor \(M2\)](#), [the paper exit conveyance belt](#))
2. Remove the conveyance pulley. (Refer to [F.12.2.2 Replacing the paper exit pulley and the conveyance pulley](#))
3. Remove the screw [1], and remove the knob [2].
4. Remove each 1 spring [3].
5. Remove the screw [4], 1 each, and the mounting metal fitting [5], 1 each.
6. Remove the E-ring [6], 1 each, and then remove bearing /K [7], 1 each.

Note

- When reinstalling the bearing /K [7], be sure to set so that the notch of the bearing /K comes in the position [8] as shown in the picture.
- When reinstalling the bearing /K [7], be sure to apply the Molykote EM-30L inside of the bearing /K [7].

7. Remove the stacker entrance roller [9].
8. Reinstall the preceding parts following the removal steps in reverse.
9. After replacing the stacker entrance roller and bearing /K, be sure to reset the parts counter.

Stacker entrance roller

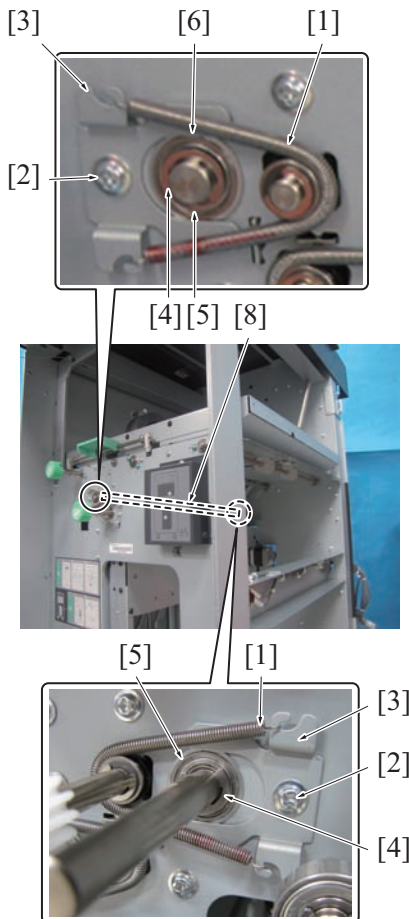
- No.326

Bearing /K

- No.330

12.2.6 Replacing the refeed roller and bearing /K**(1) Periodically replaced parts/cycle**

- Paper re-feed roller
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)
- Bearing /K
: Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)

(2) Procedure

1. Remove the entrance motor (M1), the entrance conveyance belt, the paper exit motor (M2) and the paper exit conveyance belt. (Refer to [F.12.2.1 Replacing the entrance conveyance motor \(M1\), the entrance conveyance belt, the paper exit motor \(M2\), the paper exit conveyance belt](#))
Remove the paper exit pulley and the conveyance pulley. (Refer to [F.12.2.2 Replacing the paper exit pulley and the conveyance pulley](#))

2. Remove each of the spring [1], 1 each.
3. Remove each of the screws [2], 1 each, and the mounting metal fitting [3], 1 each.
4. Remove the E-rings [4], 1 each, and then remove 5 bearings /K [5].

Note

- When the bearing /K [5] is reinstalled, be sure to set it so that the notch of the bearing /K [5] comes in the position [6].
- When reinstalling the bearing /K [5], be sure to apply the Molykote EM-30L inside the bearing /K [5].

5. Remove the paper re-feed roller [8].
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the paper re-feed roller and bearing /K, be sure to reset the special parts counter.

Paper re-feed roller

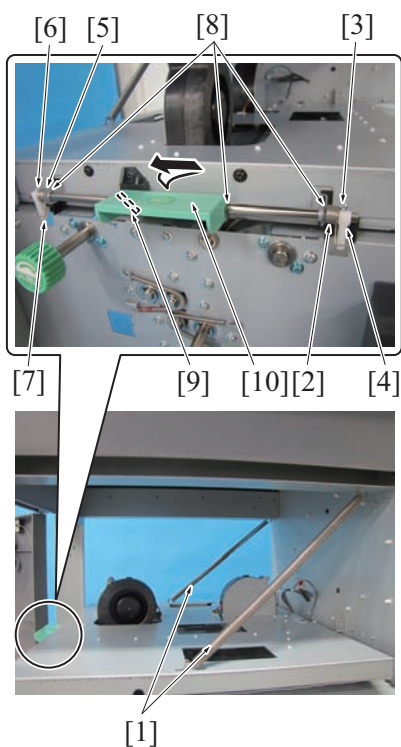
- No.327

Bearing /K

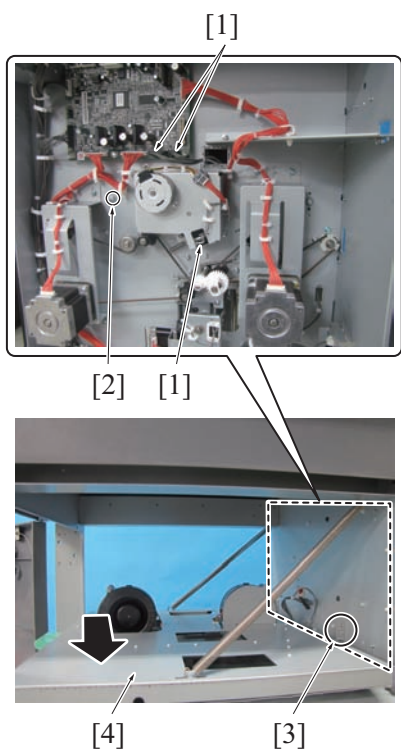
- No.330

12.2.7 Replacing the driven roller**(1) Periodically replaced parts/cycle**

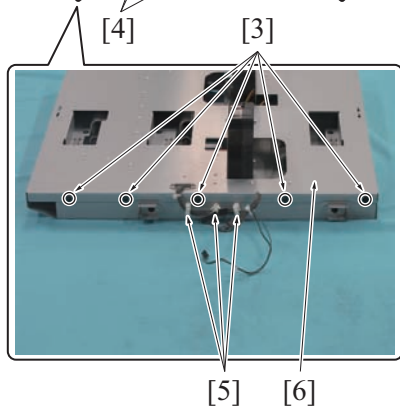
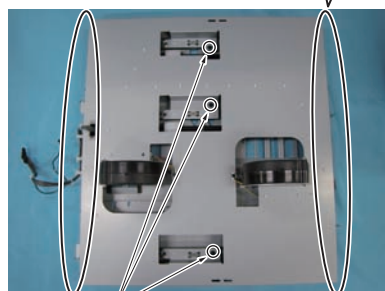
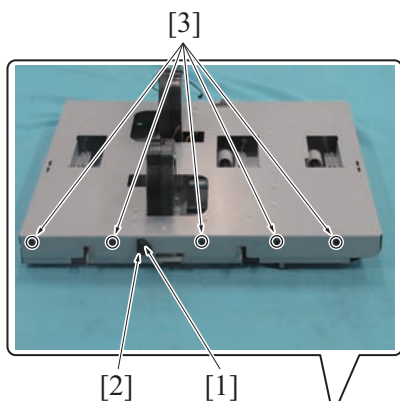
- Driven roller
: Spotted replacement (Actual replacement cycle: Every 50,000,000 feeds)

(2) Procedure

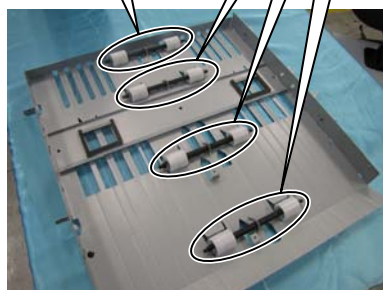
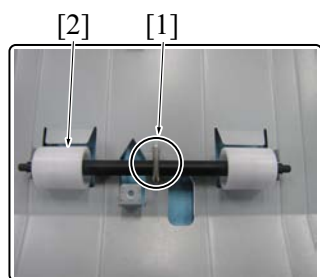
1. Remove the left cover.
(Refer to [G.10.2.4 Left cover](#))
Remove the rear cover.
(Refer to [G.10.2.5 Upper cover](#))
2. Remove the 2 open/close springs [1].
3. Release the release spring /Rt [2] and remove the screw [3]. Then remove the locking claw [4] and the release spring /Rt [2].
4. Release the release spring /Lt [5] and remove the screw [6]. Then remove the locking claw [7] and the release spring /Lt [5].
5. Remove the 3 E-rings [8] and remove pin [9]. Then pull out the open/close lever Assy [10] in the arrow-marked direction.



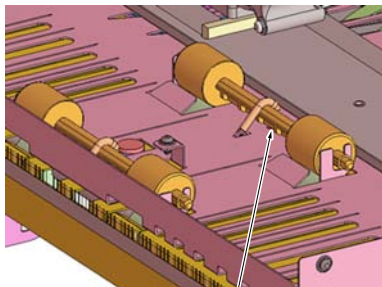
6. Disconnect the 3 connectors [1] and remove the saddle to release the wiring harness.
7. Remove the screw [2], and then remove the open/close shaft Assy /Rt [3].
8. Pull out the straight conveyance guide plate /Up [4] in the arrow-marked direction.



9. Remove 1 screw [1] and then remove the open/close lever lock parts[2].
10. Remove 10 screws [3] and 3 screws [4].
11. Remove the 3 saddles [5], and release the wiring harness, and remove the conveyance cover /Up [6].



12. Remove the holding spring [1], 1 each, and remove the 4 driven rollers [2], 4 each.



[1]

13. Reinstall the preceding parts following the removal steps in reverse.

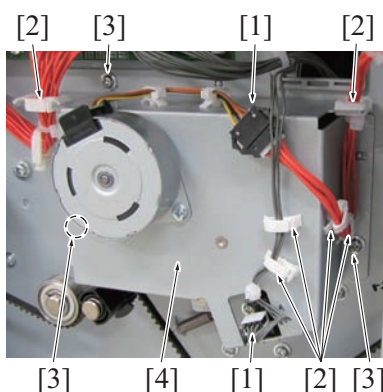
Note

- When reinstalling the driven roller, be sure to set it so that the groove of the drive motor [1] faces downward.

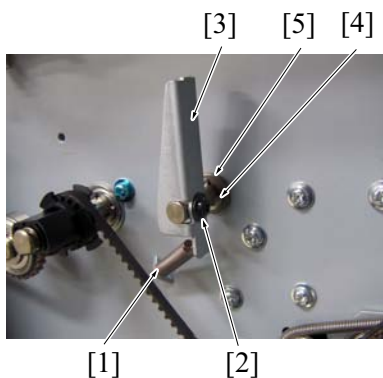
14. After replacing the driven roller, be sure to reset the special parts counter.
- No.329

12.2.8 Replacing the straight gate**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

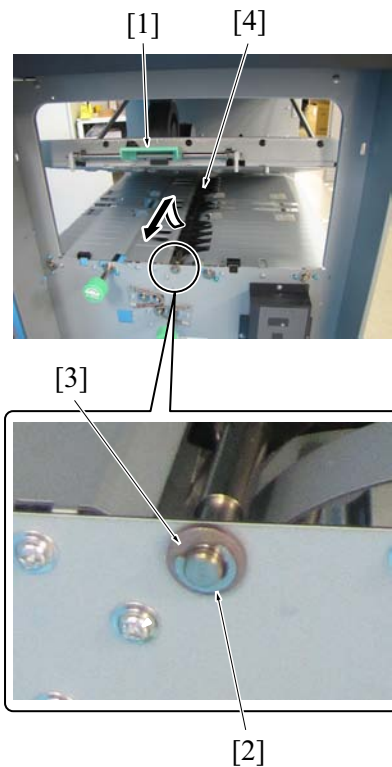
- Straight gate
 - : Spotted replacement (Actual replacement cycle: Every 20,000,000 feeds)

(2) Procedure

1. Remove the rear cover.
(Refer to [G.10.2.3 Rear cover](#))
2. Disconnect the 2 connectors [1].
3. Remove the 6 saddles [2] of the gate motor mounting plate, and release the wiring harness.
4. Remove the 3 screws [3] and then remove the fan motor mounting plate [4].



5. Remove the straight gate spring [1].
6. Remove the screw [2] and remove the straight gate solenoid arm [3].
7. Remove the E-ring [4] and remove the bearing [5].



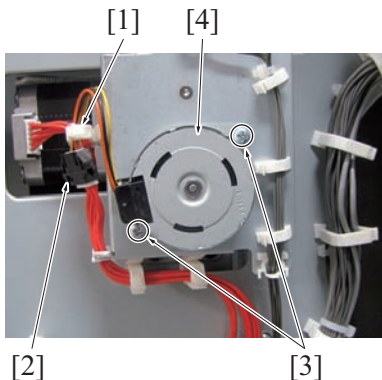
8. Remove the straight conveyance guide plate [1].
9. Remove the E-ring [2] and bearing [3], and pull out the straight gate [4] in the arrow-marked direction.
10. Reinstall the preceding parts following the removal steps in reverse.
11. After replacing the straight gate, be sure to reset the special parts counter.
 - Straight gate
 - No.324

12.2.9 Replacing the stack switch motor (M6)

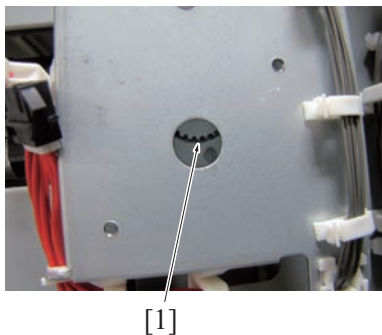
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Stack switch motor (M6)
- : Spot replacement (Actual replacement cycle: Every 60,000,000 prints)

(2) Procedure



1. Remove the rear cover.
(Refer to [G.10.2.3 Rear cover](#))
2. Remove the saddle [1], and release the wiring harness.
3. Disconnect the connector [2].
4. Remove the 2 screws [3], and remove the stack switch motor (M6) [4].



5. Reinstall the preceding parts following the removal steps in reverse.
- Note**
- When installing the stack switch motor (M6), be sure to fit the gear of stack switch motor (M6) to the belt [1].
6. After replacing the stack switch motor (M6), be sure to reset the special parts counter.
 - Stack switch motor (M6)
 - No.334

13. PERIODICAL MAINTENANCE PROCEDURE ZU-608

13.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

13.2 Punch section

13.2.1 Replacing the punch scraps conveyance motor (M607)

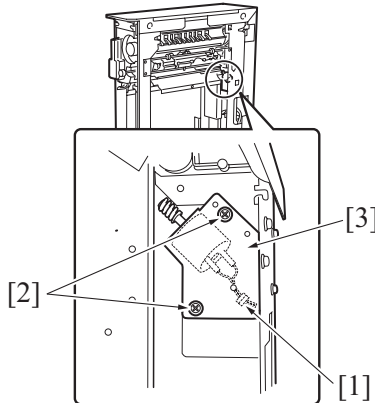
(1) Periodically replaced parts/cycle

- Punch scraps conveyance motor
: Every 750,000 prints

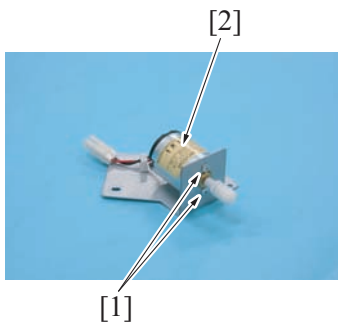
(2) Procedure

1. Remove the Z folding unit.

[G.11.2.7 Punch motor \(M604\)](#)



2. Disconnect the connector [1] and remove 2 screws [2], and remove the punch scraps conveyance motor assy [3].



3. Remove 2 screws [2], and remove the punch scraps conveyance motor [2].

4. Reinstall the preceding parts following the removal steps in reverse.
5. After replacing the part, be sure to reset the parts counter.
 - No.180 (951)

13.2.2 Replacing the punch clutch (CL601)

(1) Periodically replaced parts/cycle

- Punch clutch
: Every 750,000 prints

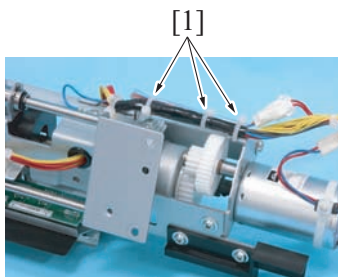
(2) Procedure

1. Remove the Z folding unit.

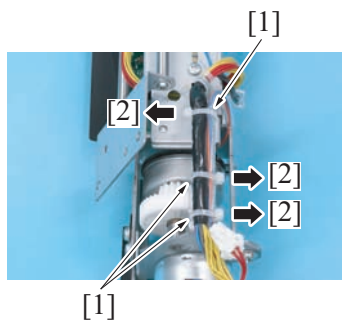
[G.11.2.7 Punch motor \(M604\)](#)

2. Remove the punch unit.

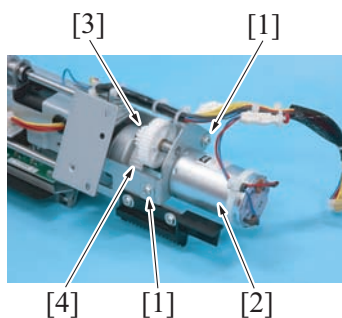
[G.11.2.6 Z-folding/conveyance unit](#)



3. Cut 3 wiring harness bands [1].

**Note**

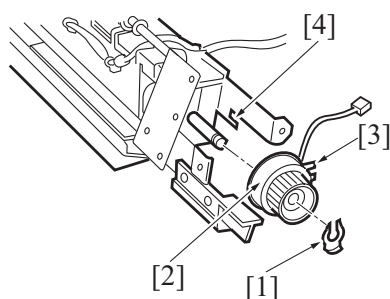
- When bind the wiring harness band [1], face them to the arrow-marked direction [2] to avoid the contact with the conveyance section of the main body.



4. Remove 2 screws [1], and remove the punch motor assy [2].

Note

- When reinstalling the punch motor assy [2], press the punch motor gear [3] to the gear [4]. Be sure to check that the gears rotate smoothly and there is appropriate backlash.



5. Remove the C-clip [1] and remove the punch clutch [2].

Note

- When reinstalling punch clutch [2], be sure to check the stopper [3] is engaged with a projection [4] of metal plate.

6. Reinstall the preceding parts following the removal steps in reverse.

14. PERIODICAL MAINTENANCE PROCEDURE FS-532

14.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

14.2 Conveyance section

14.2.1 Lubrication of the FNS entrance roller conveyance switching cam, the FNS entrance roller conveyance switching gate /Up

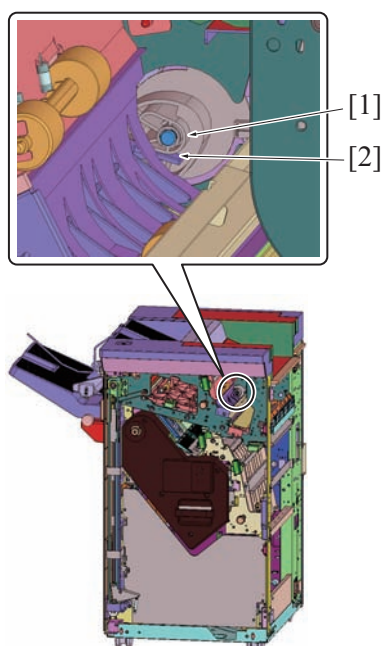
(1) Periodic lubrication parts/cycle

- FNS entrance roller conveyance switching cam
: Periodical lubrication cycle: Every 1,000,000 prints *1
: Periodical lubrication cycle: Every 750,000 prints *2
- FNS entrance roller conveyance switching gate /Up
: Periodical lubrication cycle: Every 1,000,000 prints *1
: Periodical lubrication cycle: Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure



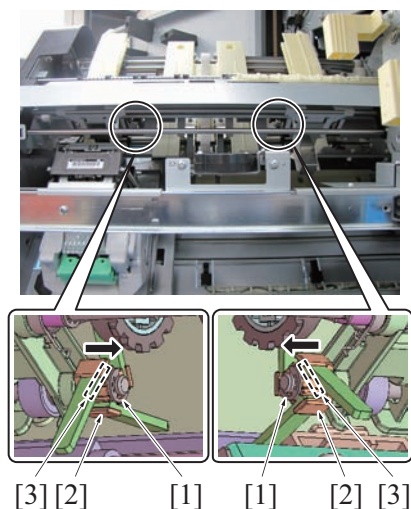
1. Open the front door.
2. Apply the Molykote EM-30L on the FNS entrance roller conveyance switching cam [1] and the arm section [2] of the FNS entrance roller conveyance switching gate /Up.

14.3 Stacker section

14.3.1 Replacing the paddle

(1) Periodically replaced parts/cycle

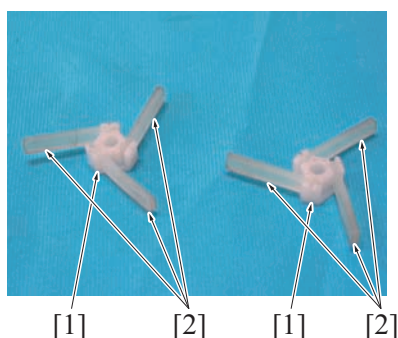
- Paddle
: Spotted replacement (Actual replacement cycle: Every 300,000 prints)

(2) Procedure

1. Pull out the stacker unit. (Refer to [G.12.3.12.\(1\) Procedure for pulling out the stacker unit](#))
2. Remove each E-ring [1] and then remove the paddle assy [2], 1 each, in the arrow-marked direction.

Note

- When removing the paddles, be careful not to drop the E-ring [1] and the axis pin [3].



3. Remove the paddle [2], 3 each, from the paddle assy [1].

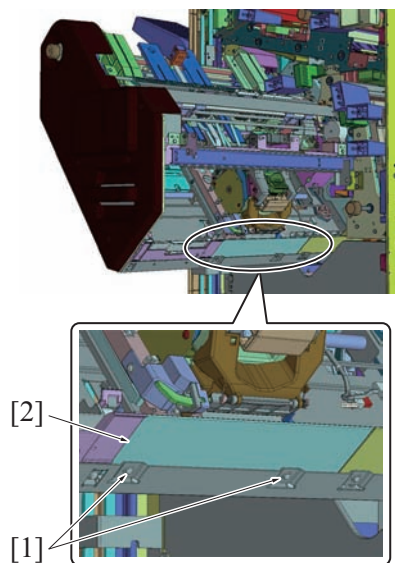
NOTE

- When reinstalling it, be sure to reinstall in the same direction as the installed direction.

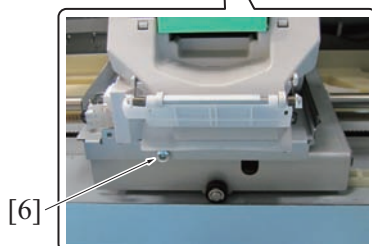
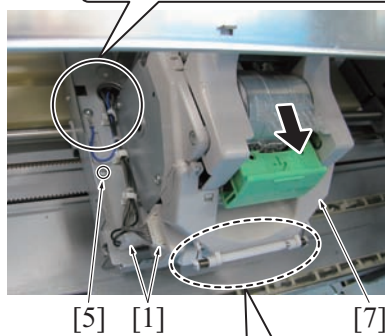
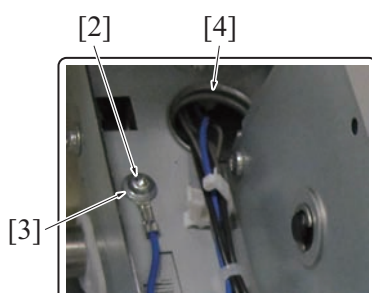
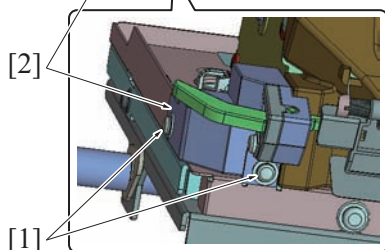
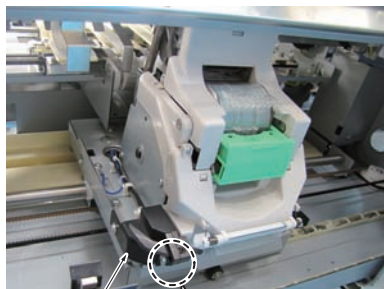
4. Reinstall the preceding parts following the removal steps in reverse.
5. After replacing the paddle, conduct the following steps.
When connecting to 1250/1250P/1052
Counter reset of the parts counter No.232
When connecting to 951
Counter reset of the parts counter No.168

14.3.2 Replacing the stapler unit**(1) Periodically replaced parts/cycle**

- Staple unit
: Spotted replacement (Actual replacement cycle: Every 500,000 operations)

(2) Procedure

1. Pull out the stacker unit. (Refer to [G.12.3.12.\(1\) Procedure for pulling out the stacker unit](#))
2. Remove 2 screws [1] and then remove the wiring mounting cover [2].

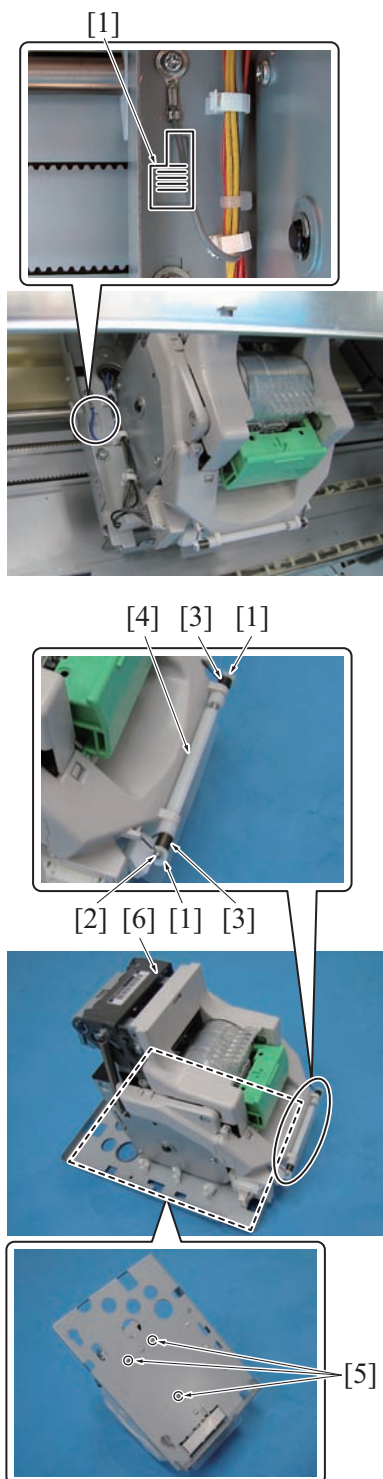


3. Remove 2 screws [1], and then remove the connector cover [2].

4. Disconnect 2 connectors [1], and release the wiring harness.
5. Remove the screw [2] to remove the ground [3], and then release the wiring harness.
6. Release the wiring harness from the hole [4], remove the screw [5].
7. By removing the screw [6], remove the stapler unit assy [7] in the arrow-marked direction.

Note

- Be sure to remove the screw [5] before removing the screw [6]. Otherwise, the stapler unit assy [7] could deform.

**Note**

- Removing the stapler unit assembly dislocates the staple position. Be sure to record the current adjustment position [1] before removing, and then adjust the position again when installing. (Refer to [I.17.1 Staple position adjustment](#))

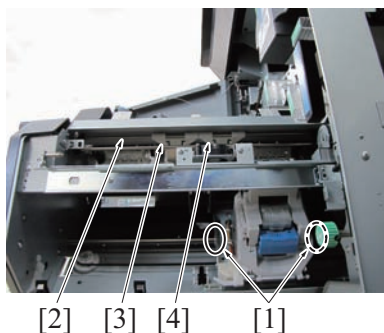
- Remove 2 C-clips [1] to pull out the shaft [2], and remove 2 springs [3] and the shutter [4].
- Remove 3 screws [5] and then remove the stapler unit [6].
- Reinstall the preceding parts following the removal steps in reverse.
- After replacing the stapler unit, conduct the following item.
Staple Position Adjustment (Refer to [I.17.1 Staple position adjustment](#))
When connecting to 1250/1250P/1052
Counter reset of the parts counter No.231
When connecting to 951
Counter reset of the parts counter No.167

14.3.3 Lubrication of the stapler shaft and the rear stopper shaft**(1) Periodic lubrication parts/cycle**

- Stapler shaft
 - : Periodical lubrication cycle: Every 1,000,000 prints *1
 - : Periodical lubrication cycle: Every 750,000 prints *2
- Rear stopper shaft
 - : Periodical lubrication cycle: Every 1,000,000 prints *1
 - : Periodical lubrication cycle: Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

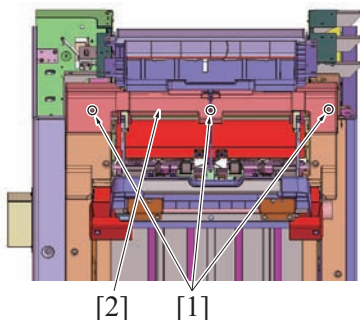
1. Pull out the stacker unit. (Refer to [G.12.3.12.\(1\) Procedure for pulling out the stacker unit](#))
2. Apply the Molykote EM-30L on 2 stapler shafts [1].
3. Apply the Molykote EM-30L on the rear stopper shaft [2], and move the rear stopper /Fr [3] and /Rr [4].

14.4 Paper exit section**14.4.1 Lubrication of the paper exit alignment plate shaft****(1) Periodic lubrication parts/cycle**

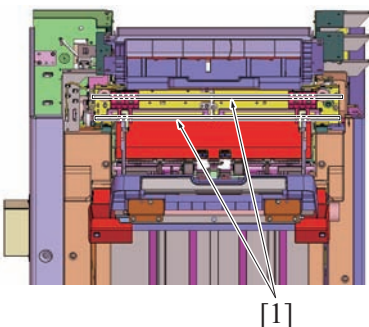
- Paper exit alignment plate shaft
 - : Periodical lubrication cycle: Every 1,000,000 prints *1
 - : Periodical lubrication cycle: Every 750,000 prints *2

*1 1250/1250P/1052

*2 951

(2) Procedure

1. Remove the upper cover /Fr2. (Refer to [G.12.3.7 Upper cover / Fr2](#))
2. Remove the upper cover /Rr. (Refer to [G.12.3.8 Upper cover /Rr](#))
3. Remove 3 screws [1] and remove the paper exit cover /Up [2].
4. Apply the Molykote on the paper exit alignment plate shaft [1].
5. Reinstall the preceding parts following the removal steps in reverse.



15. PERIODICAL MAINTENANCE PROCEDURE SD-510

15.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

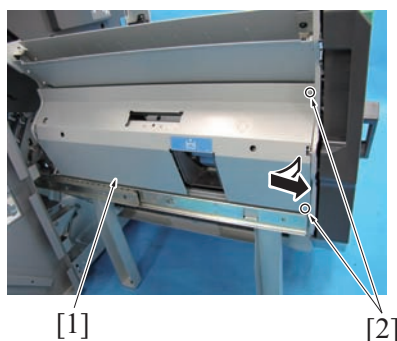
15.2 Stapler section

15.2.1 Replacing the stapler unit

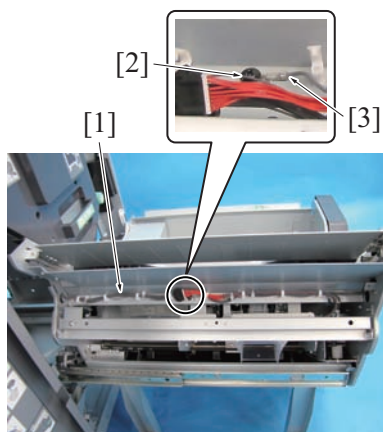
(1) Periodically replaced parts/cycle

- Staple unit
: Spot replacement (Actual replacement cycle: Every 200,000 operations)

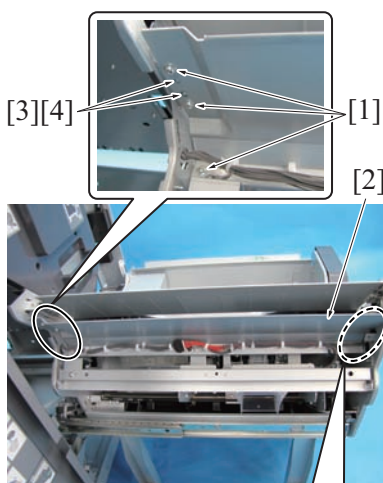
(2) Procedure for removal



1. Fully pull out the SD unit to install the SD support stay. (Refer to [G.13.3.4 SD unit](#))
2. Remove the front cover. (Refer to [G.13.3.2 Front cover](#))
3. Remove the stapler unit cover. [G.13.3.3 Stapler unit cover](#)
4. Remove the 2 screws [2] and then remove the SD unit cover/Lt [1] to the arrow-marked direction.



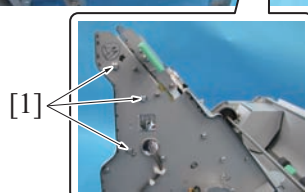
5. Remove the saddle, and release the wiring harness [1].
6. Remove the screw [2] and then remove the ground [3].

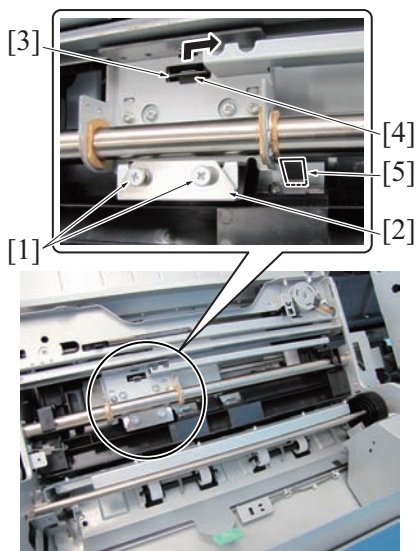


7. Remove 6 screws [1] and then remove the guide plate [2].

Note

- When installing the guide plate [2], be sure to set the hole [3] to the projection [4] of the guide plate.

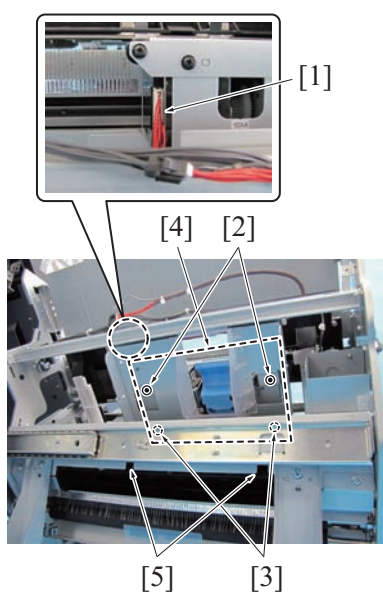




8. Remove 2 screws [1] to remove the clincher cover [2].

Note

- Remove the clincher cover [2] to the arrow-marked direction so that the claws [3] are released from the projection [4]
- When removing the clincher cover [2], be sure not to break the paddle [5].

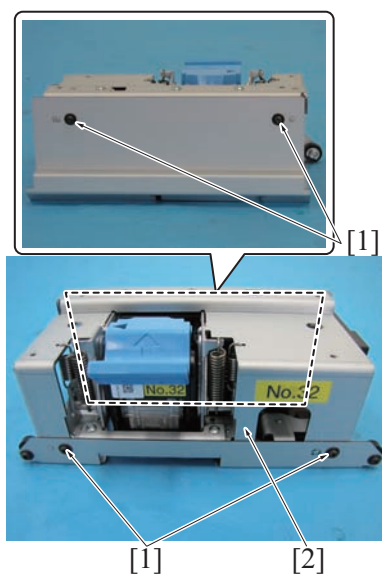


9. Disconnect the connector [1].

10. Remove 2 screws [2] and 2 screws [3]. Then remove the stapler unit assy [4].

Note

- When removing the screws [3], insert the driver into the hole [5] and remove them.

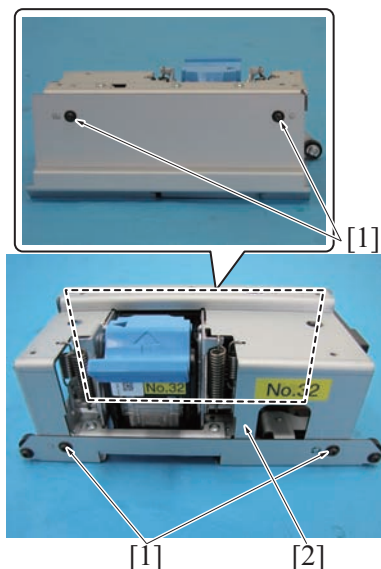


11. Remove 4 screws [1] and then remove the stapler unit [2].

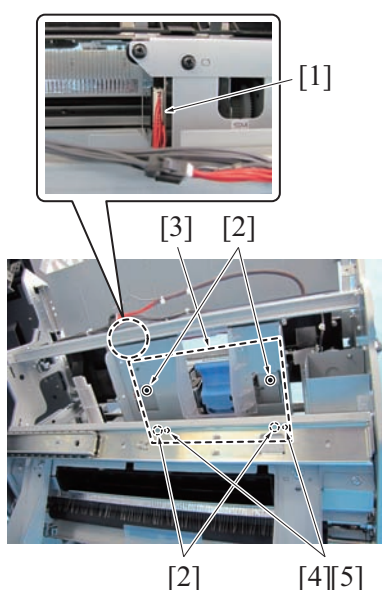
(3) Procedure for reinstallation

Note

- When the stapler unit is removed, be sure to adjust the position with the staple adjustment jig.



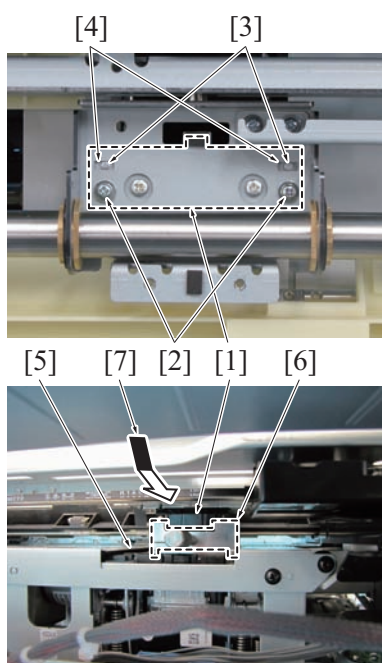
1. Install the stapler unit [2] with 4 screws [1].



2. Install the connector [1].
3. Install the stapler unit assy [3] with 4 screws [2].

Note

- When installing the stapler unit assy [3], be sure to set the projection [4] to the hole [5] of the stapler unit assy.



4. Loosen 2 screws [2] of the clincher [1].

Note

- Make sure that 2 injections [3] of the clincher do not come off from 2 slotted holes [4].
- Be careful that the staple adjustment jig [6] cannot be inserted if the 2 screws [2] are too loose.

5. Insert the staple adjustment jig [6] between the stapler unit [5] and the clincher [1], and adjust the horizontal position of the clincher [1].

Note

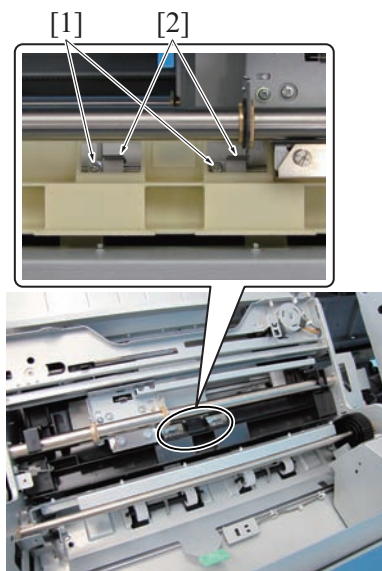
- When inserting the staple adjustment jig [6], be sure to insert it from obliquely above as indicated by the allow mark [7].

6. Loosen 2 screws [2] to fasten the clincher [1].
7. Pull out the staple adjustment jig [6].
8. Be sure that the following reinstallation of the parts follows the removal steps in reverse.
9. After replacing the staple unit, conduct the following item.
When connecting to 1250/1250P/1052
Counter reset of the parts counter No.345 of the staple unit
When connecting to 951

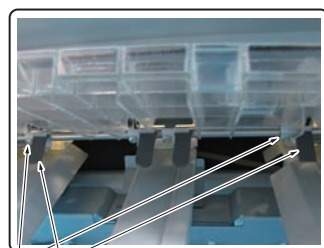
Counter reset of the parts counter No.182 of the staple unit

15.2.2 Replacing the paddle /1, /2 and /3**(1) Periodically replaced parts/cycle**

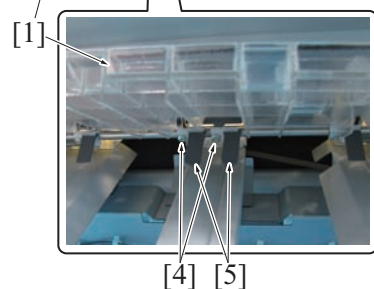
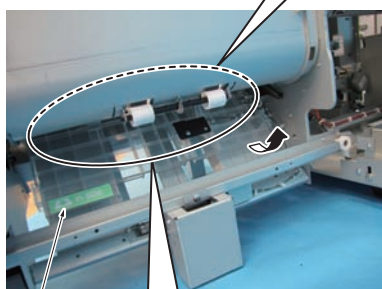
- Paddle /1
: Spot replacement (Actual replacement cycle: Every 300,000 prints)
- Paddle /2
: Spot replacement (Actual replacement cycle: Every 300,000 prints)
- Paddle /3
: Spotted replacement (Actual replacement cycle: Every 300,000 prints)

(2) Procedure

1. Fully pull out the SD unit. (Refer to [G.13.3.4 SD unit](#))
2. Remove the stapler unit cover. (Refer to [G.13.3.3 Stapler unit cover](#))
3. Remove each screw [1], and then remove 2 paddle /1 [2].



4. Lift up the paper exit guide [1] and remove each screw [2], and then remove 2 paddles /3 [3]
5. Remove each screw [4], and then remove 2 paddles /2 [5].
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the paddle/1, /2 and /3, conduct the following steps.
When connecting to 1250/1250P/1052
Counter reset of the parts counter No.348 of the paddle /1, /2, /3
When connecting to 951
Counter reset of the parts counter No.185 of the paddle /1, /2, /3

**15.2.3 Cleaning the staple guide /Up and /Lw****(1) Periodically cleaned parts/cycle**

- Staple guide /Up and /Lw

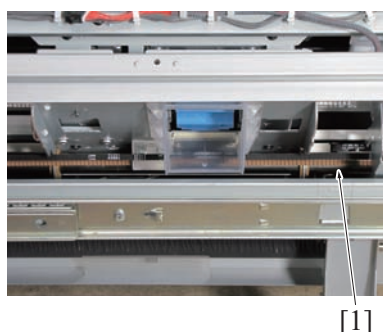
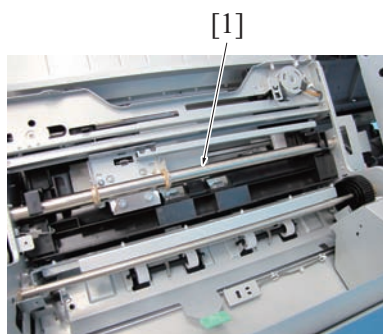
: Periodic cleaning cycle (Every 1,000,000 prints) *1

: Periodic cleaning cycle (Every 750,000 prints) *2

*1 1250/1250P/1052

*2 951

(2) Procedure



1. Fully pull out the SD unit. (Refer to [G.13.3.4 SD unit](#))
2. Remove the stapler unit cover. (Refer to [G.13.3.3 Stapler unit cover](#))
3. Clean the staple guide /Up [1] with drum cleaner.

Note

- When moving the stapler unit to right and left, be sure to hold the main body of the stapler.

4. Remove the SD unit cover /Lt. (Refer to [F.15.2.1 Replacing the stapler unit](#))
5. Clean the staple guide /Lw [1] with drum cleaner.

Note

- When moving the stapler unit to right and left, be sure to hold the main body of the stapler.

6. Reinstall the preceding parts following the removal steps in reverse.

15.3 Folding section

15.3.1 Cleaning the folding roller /1, /2

(1) Periodically cleaned parts/cycle

- Folding roller /1, /2

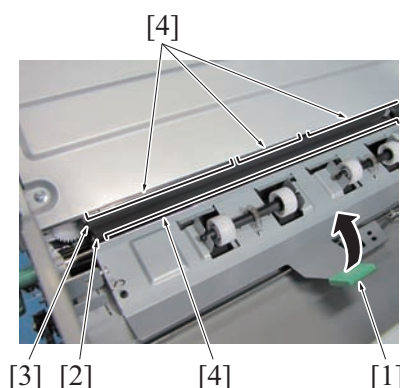
: Periodic cleaning cycle: Every 1,000,000 prints*1

: Periodic cleaning cycle (Every 750,000 prints)*2

*1 1250/1250P/1052

*2 951

(2) Procedure



1. Remove the folding knife assy /1. (Refer to [G.13.3.5 Folding knife assy /1](#))
2. Clean the folding roller /1 [2] and /2 [3] with drum cleaner while lifting up the conveyance guide plate [1].

Note

- Be careful not to adhere the drum cleaner to the PET parts [4].

3. Reinstall the preceding parts following the removal steps in reverse.

16. PERIODICAL MAINTENANCE PROCEDURE PI-502

16.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

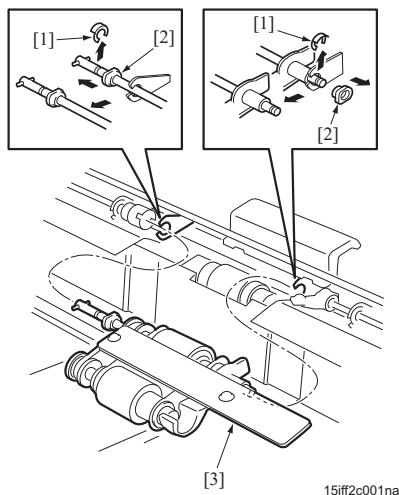
16.2 Paper feed section

16.2.1 Replacing the pick-up roller /Up and the paper feed roller /Up

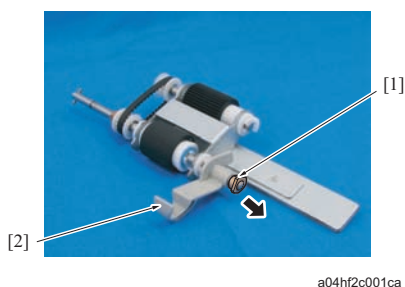
(1) Spotted replaced parts/cycle

- Pick-up roller /Up
: Spotted replacement (Actual replacement cycle: Every 200,000 feeds)
- Paper feed roller /Up
: Spotted replacement (Actual replacement cycle: Every 100,000 feeds)

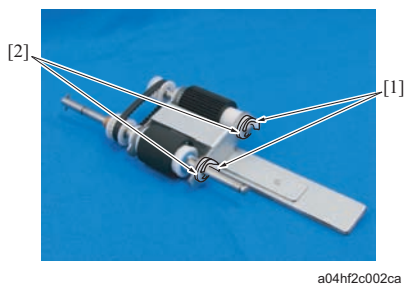
(2) Procedure



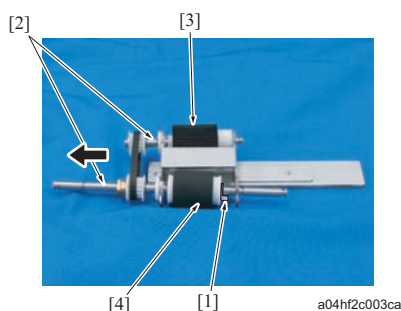
1. Remove the upper cover. (Refer to [G.15.2.2 Upper cover](#))
2. Remove 2 C-clips [1] and slide outward the bearings [2] at the left and right to remove the paper feed roller assy /Up [3].



3. Remove the bearing [1] and remove the actuator [2].



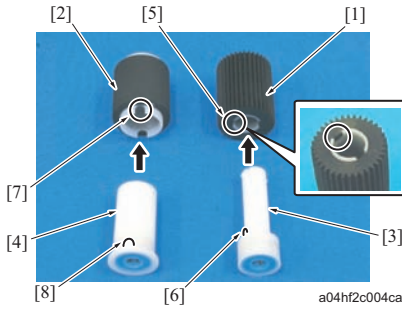
4. Remove 2 C-clips [1] and then remove 2 bearings [2].



5. Remove the C-clip [1].
6. Slide 2 roller shafts [2] in the arrow-marked direction and remove the pick-up roller /Up [3] and the paper feed roller /Up [4].

Note

- When reinstalling, be sure to set them so that the blue surfaces of the one-way clutches of the pick-up roller and the paper feed roller come to the front side.



- Remove the pick-up roller [1] and the paper feed roller [2] from the one-way clutches [3] and [4].

Note

- When reinstalling the pick-up roller [1], insert the one-way clutch [3] from the notch [5] side with its projection [6] fitted to the notch [5] of the pick-up roller.
- When reinstalling the paper feed roller [2], insert the one-way clutch [4] with its projection [8] fitted to the notch [7] of the paper feed roller.

- Reinstall the preceding parts following the removal steps in reverse.
- After replacing the pick-up roller /Up and paper feed roller /Up, conduct the following steps.

For the pick up roller /Up: Counter reset of the parts counter

- No.264 (C8000)
- No.264 (C7000/C7000P/C70hc/C6000/C6000L)
- No.350 (1250/1250P/1052)
- No.187 (951)

For the feed roller /Up: Counter reset of the parts counter

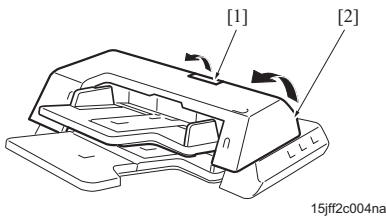
- No.265 (C8000)
- No.265 (C7000/C7000P/C70hc/C6000/C6000L)
- No.351 (1250/1250P/1052)
- No.188 (951)

16.2.2 Replacing the pick-up roller /Lw and the paper feed roller /Lw

(1) Spotted replaced parts/cycle

- Pick-up roller /Lw
: Spotted replacement (Actual replacement cycle: Every 200,000 feeds)
- Paper feed roller /Lw
: Spotted replacement (Actual replacement cycle: Every 100,000 feeds)

(2) Procedure



- Pull the release lever [1] and open the upper door [2].
- Perform steps 2 to 7 of "F.16.2.1 Replacing the pick-up roller /Up and the paper feed roller /Up."
- Reinstall the preceding parts following the removal steps in reverse.
- After replacing the pick-up roller /Lw and paper feed roller /Lw, conduct the following steps.

For the pick up roller /Lw: Counter reset of the parts counter

- No.269 (C8000)
- No.269 (C7000/C7000P/C70hc/C6000/C6000L)
- No.355 (1250/1250P/1052)
- No.192 (951)

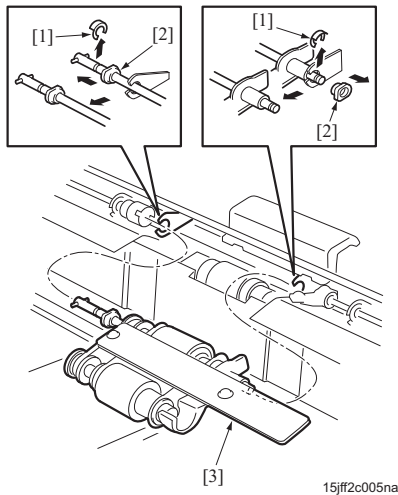
For the feed roller /Lw: Counter reset of the parts counter

- No.270 (C8000)
- No.270 (C7000/C7000P/C70hc/C6000/C6000L)
- No.356 (1250/1250P/1052)
- No.193 (951)

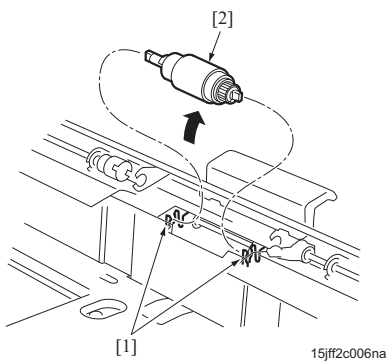
16.2.3 Replacing the separation roller /Up and the torque limiter /Up

(1) Spotted replaced parts/cycle

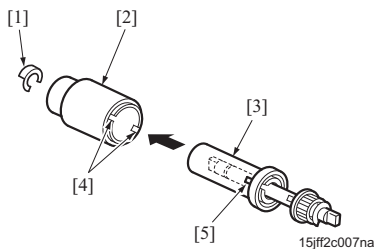
- Separation roller /Up
: Spotted replacement (Actual replacement cycle: Every 100,000 feeds)
- Torque limiter /Up
: Spotted replacement (Actual replacement cycle: Every 600,000 feeds)

(2) Procedure

1. Remove the upper cover. (Refer to [G.15.2.2 Upper cover](#))
2. Remove 2 C-clips [2] and slide outward the bearings [2] at the left and right to remove the paper feed roller assy /Up [3].



3. Release the hooks on the right and left, and then remove the separation roller assy /Up [2] by lifting it up.



4. Remove the C-clip [1] from the separation roller assy /Up and then remove the separation roller /Up [2] and the torque limiter /Up [3].
5. Reinstall the preceding parts following the removal steps in reverse.

Note

- Be sure to install the separation roller /Up with its 2 notches [4] on the front and fitted to the projections [5].

6. After replacing the separation roller /Up and the torque limiter /Up, conduct the followings.

For the feed roller /Up: Counter reset of the parts counter

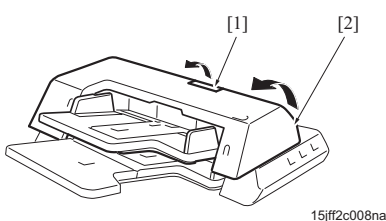
- No.266 (C8000)
- No.266 (C7000/C7000P/C70hc/C6000/C6000L)
- No.352 (1250/1250P/1052)
- No.189 (951)

For the torque limiter /Up: Counter reset of the parts counter

- No.267 (C8000)
- No.267 (C7000/C7000P/C70hc/C6000/C6000L)
- No.353 (1250/1250P/1052)
- No.190 (951)

16.2.4 Replacing the separation roller /Lw and the torque limiter /Lw**(1) Spotted replaced parts/cycle**

- Separation roller /Lw
: Spotted replacement (Actual replacement cycle: Every 100,000 feeds)
- Torque limiter /Lw
: Spotted replacement (Actual replacement cycle: Every 600,000 feeds)

(2) Procedure

1. Pull the release lever [1] and open the upper door [2].
2. Perform steps 2, 3 and 4 of "[F.16.2.3 Replacing the separation roller /Up and the torque limiter /Up.](#)"
3. Reinstall the preceding parts following the removal steps in reverse.
4. After replacing the separation roller /Lw and the torque limiter /Lw, conduct the followings.
For the separation roller /Lw: Counter reset of the parts counter
 - No.271 (C8000)
 - No.271 (C7000/C7000P/C70hc/C6000/C6000L)

- No.357 (1250/1250P/1052)
- No.194 (951)

For the torque limiter /Lw: Counter reset of the parts counter

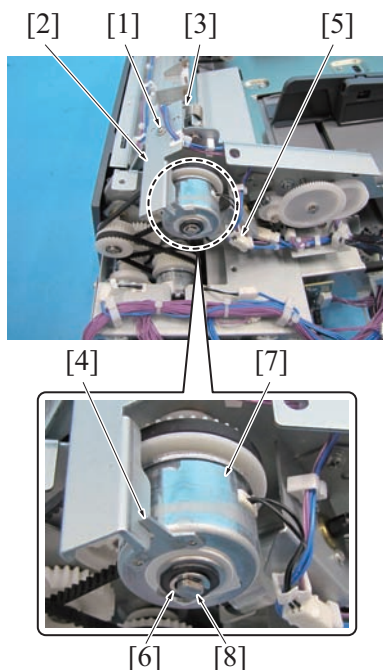
- No.272 (C8000)
- No.272 (C7000/C7000P/C70hc/C6000/C6000L)
- No.358 (1250/1250P/1052)
- No.195 (951)

16.2.5 Replacing the paper feed clutch /Up (CL201) and /Lw (CL202)

(1) Spotted replaced parts/cycle

- Paper feed clutch /Up (CL201)
: Spotted replacement (Actual replacement cycle: Every 1,000,000 feeds)
- Paper feed clutch /Lw (CL202)
: Spotted replacement (Actual replacement cycle: Every 1,000,000 feeds)

(2) Procedure



1. Remove the PI Unit. (Refer to [G.15.2.5 PI unit](#))
2. Remove the upper cover. (Refer to [G.15.2.2 Upper cover](#))
3. Remove the rear cover. (Refer to [G.15.2.3 Rear cover](#))
4. Remove the screw [1] and remove the clutch fixing cover [2].

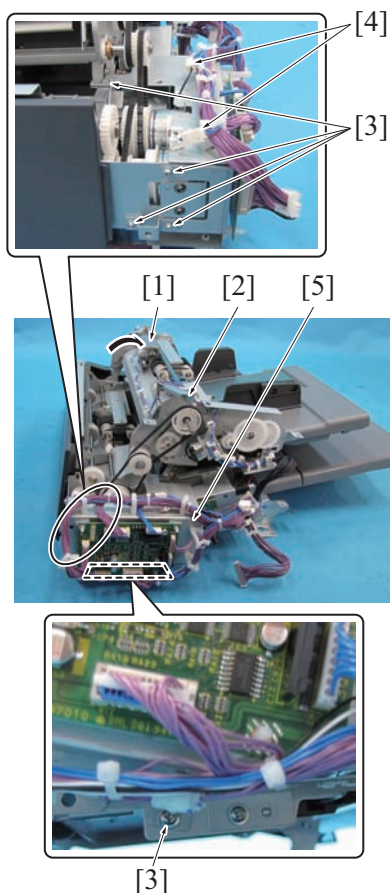
Note

- When installing the clutch fixing plate, be sure to install it so that the spring [3] comes under the fixing plate.
- When installing the clutch fixing plate, be sure to engage the stopper [4] of the clutch with the fixing plate and install it.

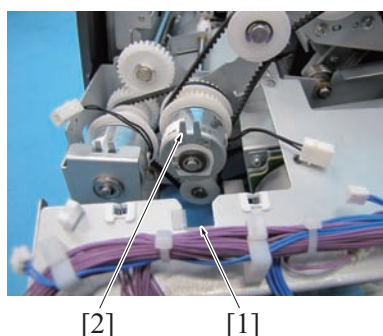
5. Remove the connector [5], remove the E-ring [6] and remove the paper feed clutch /Up [7].

Note

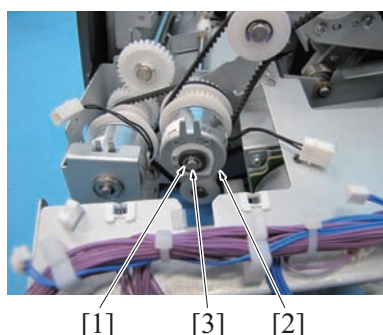
- When installing the paper feed clutch /Up [7], be sure to engage the D-cut [8] of the shaft with the paper feed clutch /Up and install it.



6. Pull the release lever [1] and open the upper door [2].
7. Remove 5 screws [3] and disconnect 2 connectors [4].
8. Release the wiring from the saddle and pull out the PIDB mounting plate [5] toward you.

**Note**

- When installing the PIDB mounting plate, be sure to engage the notch [1] of the mounting plate with the projection [2] of the paper feed clutch /Lw.



9. Remove the E-ring [1] and remove the conveyance clutch /Lw [2].

Note

- When installing the paper feed clutch /Up [2], be sure to engage the D-cut [3] of the shaft with the paper feed clutch /Up and install it.

10. Reinstall the preceding parts following the removal steps in reverse.

11. After replacing the paper feed clutch /Up and /Lw, conduct the following steps.

For the paper feed clutch /Up: Counter reset of the parts counter

- No.263 (C8000)
- No.263 (C7000/C7000P/C70hc/C6000/C6000L)
- No.349 (1250/1250P/1052)
- No.186 (951)

For the paper feed clutch /Lw: Counter reset of the parts counter

- No.268 (C8000)
- No.268 (C7000/C7000P/C70hc/C6000/C6000L)
- No.354 (1250/1250P/1052)
- No.191 (951)

17. PERIODICAL MAINTENANCE PROCEDURE LS-505

17.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

17.2 Conveyance section

17.2.1 Replacing the stacker tray up down motor (M1)

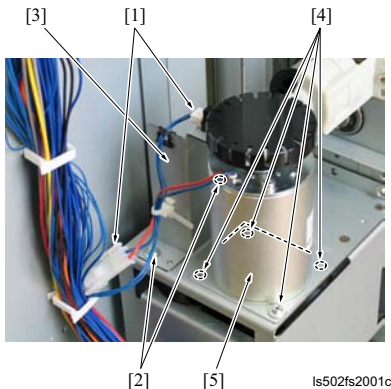
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Stacker tray up down motor (M1)
: Every 1,500,000 prints *¹ (Actual replacement cycle: Every 5,000,000 feeds *²)

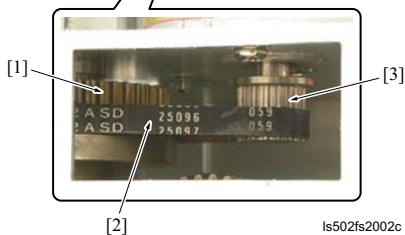
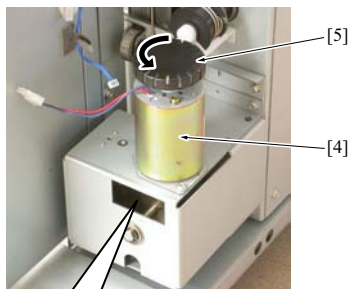
*¹ The periodical replacement is only for 1200/1200P/1051.

*² Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

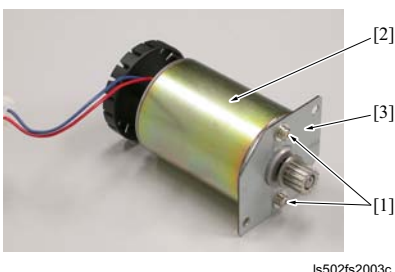


1. Remove the rear cover /Lw. (Refer to [G.16.2.2 Cover](#))
2. Disconnect 2 connectors [1].
3. Remove 2 screws [2] and remove the sensor mounting plate [3].
4. Remove 4 screws [4] and remove the stacker tray up down motor (M1) [5].



5. Check point when reinstalling the stacker tray up down motor (M1)
Note

- When reinstalling the stacker tray up down motor (M1), be sure to check that the belt [2] has been engaged with the gear [1], and then engage it with the gear [3] before fastening the stacker tray up down motor (M1) [4].
- When the belt [2] is not horizontally attached between the gear [1] and the gear [3], make adjustments by rotating the encoder [5] counterclockwise.



6. Remove 2 screws [1] and remove the motor mounting plate [3] from the stacker tray up down motor (M1) [2].
7. Reinstall the preceding parts following the removal steps in reverse.
8. After replacing the part, be sure to reset the parts counter.
 - No.250, No.255 or No.245 (1250/1250P/1052)
 - No.216 or No.221 (1200/1200P/1051)
 - No.219 or No.224 (C8000)

17.2.2 Replacing the paper press solenoid /3 (SD8)

(1) Periodically replaced parts/Spotted replaced parts/Cycle

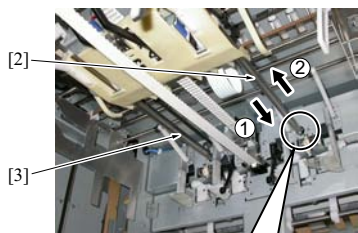
- Paper press solenoid /3 (SD8)
: Every 1,500,000 prints *¹ (Actual replacement cycle: Every 5,000,000 feeds *²)

*¹ The periodical replacement is only for 1200/1200P/1051.

*² Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure**Note**

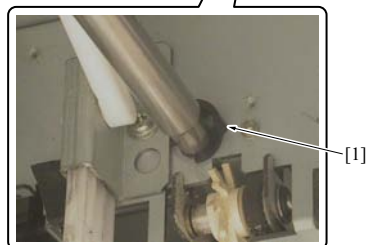
- When conducting this operation, be sure to bring the stacker tray down to the bottom in advance.



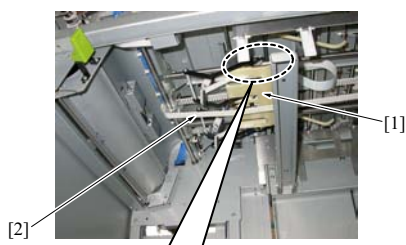
1. Remove the C-clip [1].
2. Slide the guide rail [2] in the arrow-marked direction and release the fixing.

Note

- In this step, be careful not to release the fixing on the rear guide rail [3].



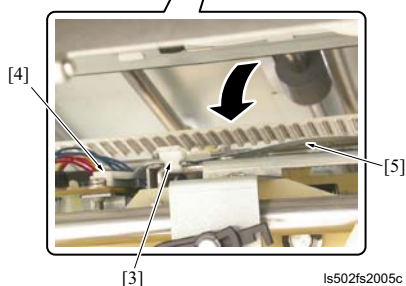
ls502fs2004c



3. Slant the shift unit [1] to the front side so that you can see the upper surface of it.

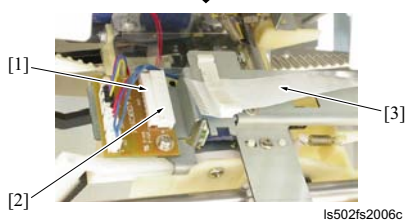
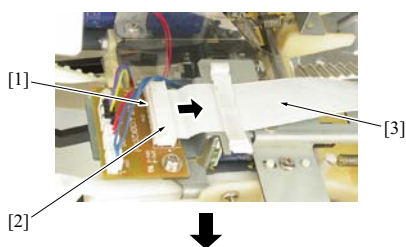
Note

- Be sure to slide the shift unit about 10cm to the right in advance.
- Be careful that the belt [2] does not get pushed down by the bottom of the shift unit.



ls502fs2005c

4. Release the cable stopper [3] and remove the ribbon cable [5] from the connector [4].



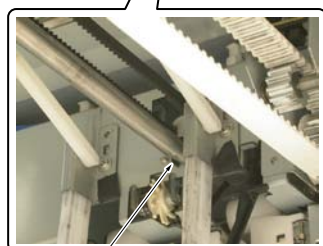
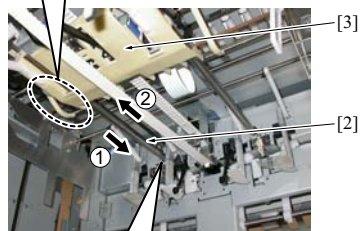
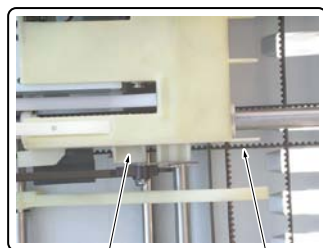
ls502fs2006c

5. How to handle the ribbon cable

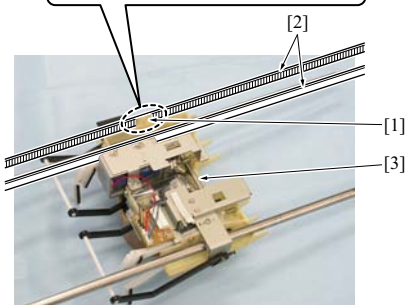
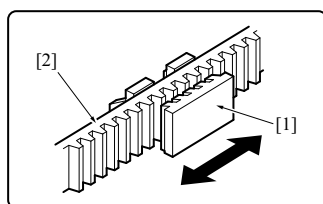
Note

- Slide the lock [2] of the connector [1] for the ribbon cable in the arrow-marked direction and remove the ribbon cable [3].

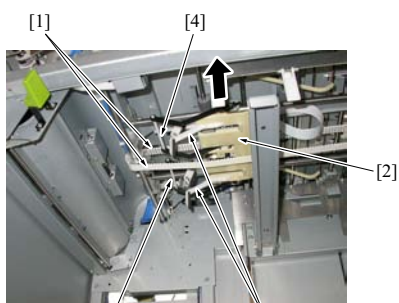
When reinstalling the ribbon cable, slide the lock in the reverse direction after inserting the cable.



[1] ls502fs2007c



ls502fs2008c



[1] [4] [3] ls502fs2009c

6. Remove the C-clip [1].
7. Slide the guide rail [2] in the arrow-marked direction and release the fixing.
8. Remove the belt [5] from the stopper section [4] of the shift unit [3].

9. Check point when reinstalling the belt

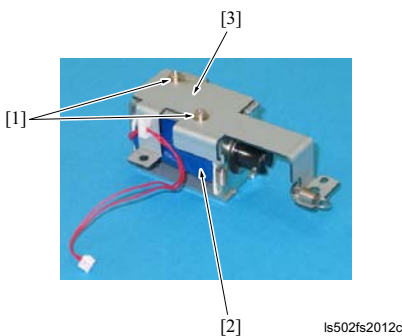
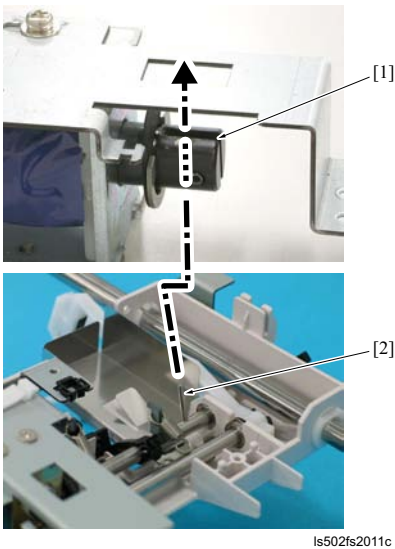
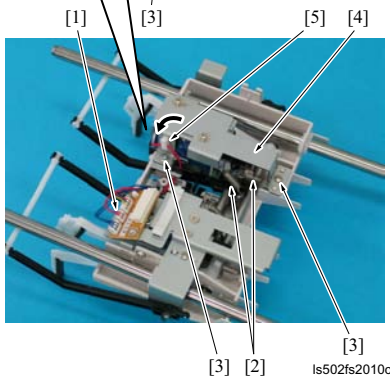
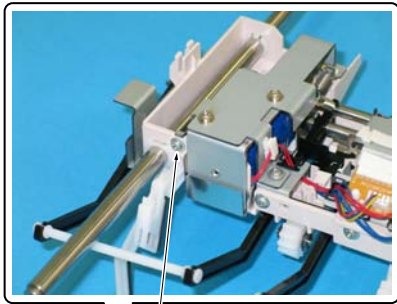
Note

- When attaching the belt [2] to the stopper section [1], slide the shift unit [3] in the arrow-marked direction and engage the stopper section with the belt.

10. Remove the shift unit [2] through the clearance between the belts [1].

Note

- When removing the conveyance unit [2], be careful that the edge stoppers [3] and the paper pressure arms /3 [4] do not contact the belt [1].



11. Disconnect the connector [1].
12. Remove 2 springs [2].
13. Rotate the wire saddle [5] in the arrow-marked direction and remove it.
14. Remove 3 screws [3] and remove the paper press solenoid /3 assy [4].

15. Check point when reinstalling the paper press solenoid /3 assy

Note

- When reinstalling the paper press solenoid /3 assy, be sure to insert the pin [2] of the shaft into the slit section [1] at the tip of the solenoid.

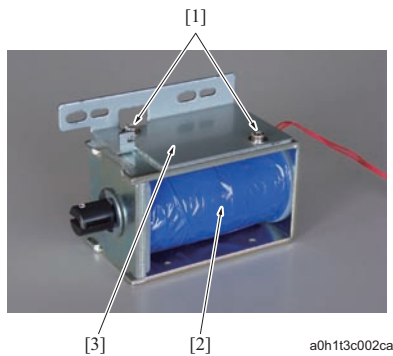
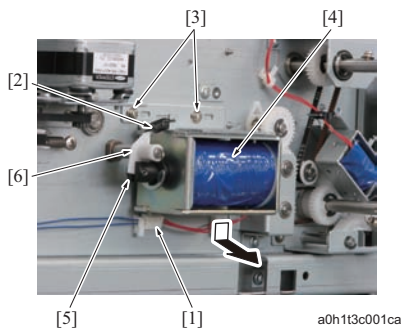
16. Remove 2 screws [1] and remove the solenoid mounting plate [3] from the paper press solenoid /3 (SD8) [2].
17. Reinstall the preceding parts following the removal steps in reverse.
18. After replacing the part, be sure to reset the parts counter.
 - No.249, No.254 or No.259 (1250/1250P/1052)
 - No.215 or No.220 (1200/1200P/1051)
 - No.218 or No.223 (C8000)

17.2.3 Replacing the paper press solenoid /1 (SD6)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Paper press solenoid /1 (SD6)
: Every 1,500,000 prints *1 (Actual replacement cycle: Every 5,000,000 feeds *2)

*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

1. Remove the front covers /Up and /Lw. (Refer to [G.16.2.2 Cover](#))
2. Disconnect the connector [1].
3. Remove the spring [2].
4. Remove 2 screws [3] and remove the paper press solenoid /1 assy [4].

Note

- When reinstalling the paper press solenoid /1 assy, be sure to insert the actuator [6] provided at the tip of the shaft into the slit section [5] at the tip of the solenoid.

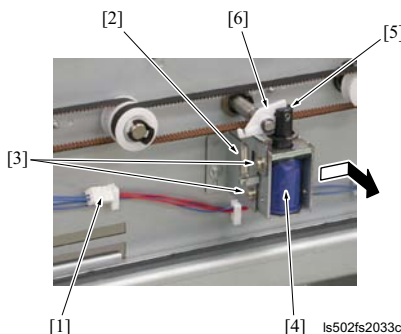
5. Remove 2 screws [1] and remove the solenoid mounting plate [3] from the paper press solenoid /1 (SD6) [2].
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the part, be sure to reset the parts counter.
 - No.246, No.251 or No.256 (1250/1250P/1052)
 - No.218 or No.223 (1200/1200P/1051)
 - No.215 or No.220 (C8000)

17.2.4 Replacing the paper press solenoid /2 (SD7)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Paper press solenoid /2 (SD7)
- : Every 1,500,000 prints ^{*1} (Actual replacement cycle: Every 5,000,000 feeds ^{*2})

^{*1} The periodical replacement is only for 1200/1200P/1051.

^{*2} Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

1. Remove the front covers /Up and /Lw. (Refer to [G.16.2.2 Cover](#))
2. Disconnect the connector [1].
3. Remove the spring [2].
4. Remove 2 screws [2] and remove the paper press solenoid /2 (SD7) [4].

Note

- When reinstalling the paper press solenoid /2 (SD7), be sure to insert the actuator [6] provided at the tip of the shaft into the slit section [5] at the tip of the solenoid.

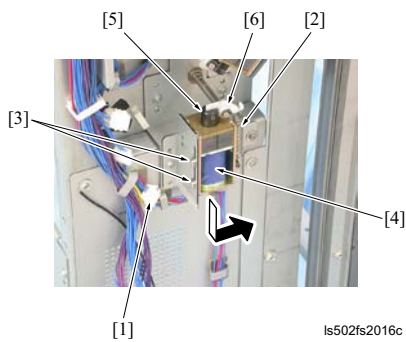
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the part, be sure to reset the parts counter.
 - No.248, No.253 or No.258 (1250/1250P/1052)
 - No.214 or No.219 (1200/1200P/1051)
 - No.217 or No.222 (C8000)

17.2.5 Replacing the rear stopper solenoid (SD3)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Rear stopper solenoid (SD3)
- : Every 1,500,000 prints ^{*1} (Actual replacement cycle: Every 5,000,000 feeds ^{*2})

^{*1} The periodical replacement is only for 1200/1200P/1051.

^{*2} Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

1. Remove the rear cover /Lw. (Refer to [G.16.2.2 Cover](#))
2. Disconnect the connector [1].
3. Remove the spring [2].
4. Remove 2 screws [3] and remove the rear stopper solenoid (SD3) [4].

Note

- When reinstalling the rear stopper solenoid (SD3), be sure to insert the actuator [6] provided at the tip of the shaft into the slit section [5] at the tip of the solenoid.
5. Reinstall the preceding parts following the removal steps in reverse.
 6. After replacing the part, be sure to reset the parts counter.
 - No.247, No.252 or No.257 (1250/1250P/1052)
 - No.213 or No.218 (1200/1200P/1051)
 - No.216 or No.221 (C8000)

18. PERIODICAL MAINTENANCE PROCEDURE FD-503

18.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

18.2 Conveyance section

18.2.1 Replacing roller solenoids /1 (SD5) to /4 (SD8)

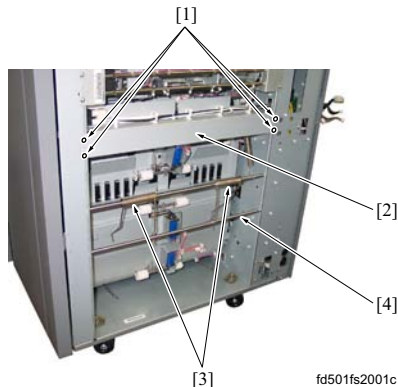
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Roller solenoid /1 (SD5) to /4 (SD8)
: Every 10,500,000 prints *¹ (Actual replacement cycle: Every 5,000,000 punches *²)

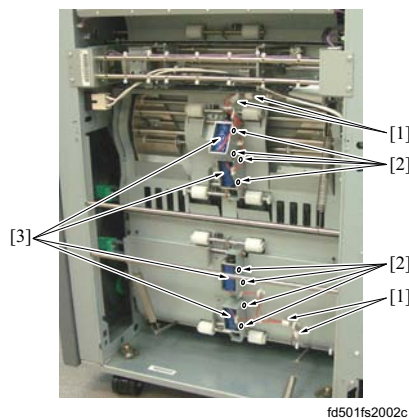
*¹ The periodical replacement is only for 1200/1200P/1051.

*² Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure



1. Remove 4 screws [1] and then remove the cord support board /A [2].
2. Remove the hook of the spring [3] from the shaft [4].



3. Disconnect 4 connectors [1].
4. Remove each of 2 screws [2] and then remove the roller solenoids /1 (SD5) to /4 (SD8) [3].
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the part, be sure to reset the parts counter.
 - No.242 (1250/1250P/1052)
 - No.209 (1200/1200P/1051)
 - No.208 (C8000)
7. Make adjustments of the installation position. (Refer to [I.22.1 Roller solenoids /1 \(SD5\), /2 \(SD6\), /3 \(SD7\) and /4 \(SD8\) position adjustment](#))

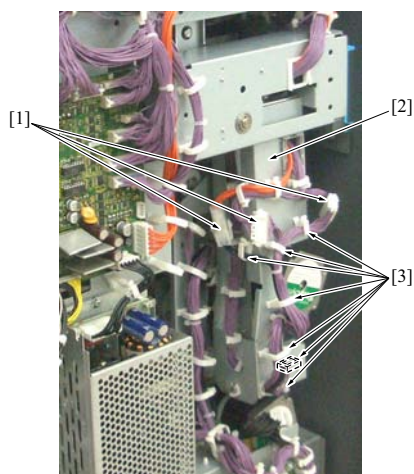
18.2.2 2nd folding roller solenoid (SD18)

(1) Periodically replaced parts/Spotted replaced parts/Cycle

- 2nd folding roller solenoid (SD18)
: Every 10,500,000 prints *¹ (Actual replacement cycle: Every 5,000,000 punches *²)

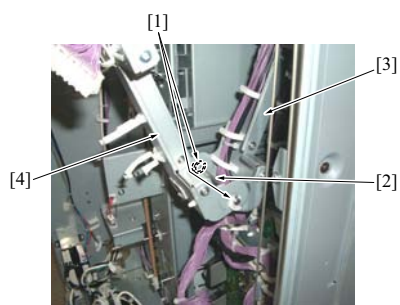
*¹ The periodical replacement is only for 1200/1200P/1051.

*² Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

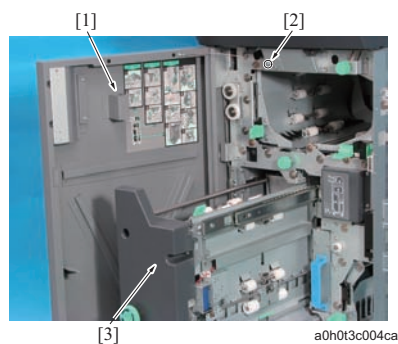
fd501fs2047c

1. Remove the rear cover. (Refer to [G.17.3.4 Rear cover](#))
2. Disconnect 3 connectors [1] and then remove the wiring harnesses from the 7 wiring harness guides [3] of the coupling arm /Rr [2].



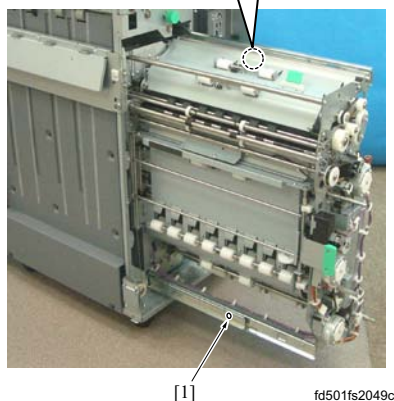
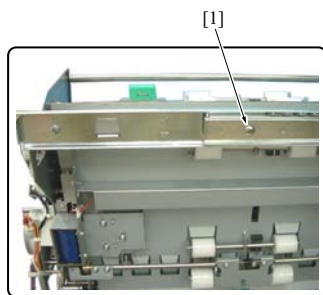
fd501fs2048c

3. Remove 2 C-clips [1].
4. Remove the shaft [2] and separate the coupling arm /Fr [3] and the coupling arm /Rr [4].

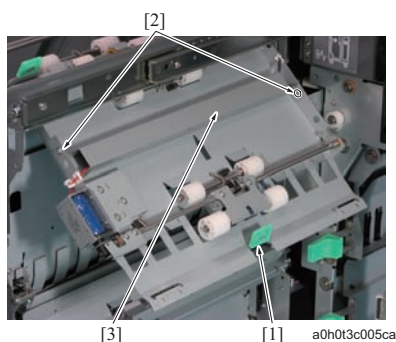


a0h0t3c004ca

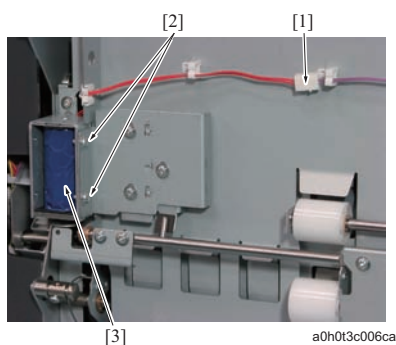
5. Open the front door [1] and then remove the screw [2].
6. Pull out the folding unit [3].



7. Remove the stopper screws [1], 1 each, from the left and right rails and pull further out the folding conveyance section.



8. Open the guide plate [1].
9. Remove 2 screws [2] and then remove the wiring mounting cover [3].



10. Disconnect the connector [1].
11. Remove 2 screws [2] and then remove the 2nd folding roller solenoid (SD18) [3].
12. Reinstall the preceding parts following the removal steps in reverse.
13. After replacing the part, be sure to reset the parts counter.
 - No.243 (1250/1250P/1052)
 - No.210 (1200/1200P/1051)
 - No.209 (C8000)
14. Make adjustments of the installation position. (Refer to [1.22.2 2nd folding roller solenoid \(SD18\) position adjustment](#))

18.3 Punch section

18.3.1 Replacing the punch unit

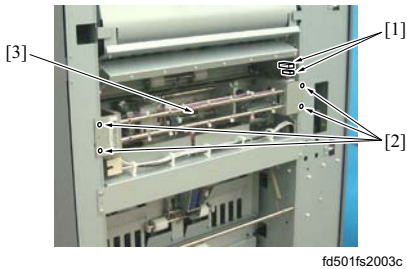
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Punch unit

: Every 10,500,000 prints ^{*1} (Actual replacement cycle: Every 5,000,000 punches ^{*2})

^{*1} The periodical replacement is only for 1200/1200P/1051.

^{*2} Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

1. Remove 2 connectors [1].
2. Remove 4 screws [2].
3. Remove the punch unit [3].
4. Reinstall the preceding parts following the removal steps in reverse.
5. After replacing the part, be sure to reset the parts counter.
 - No.241 (1250/1250P/1052)
 - No.208 (1200/1200P/1051)
 - No.207 (C8000)

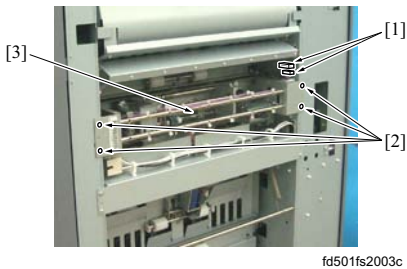
18.3.2 Cleaning the punch shaft and the punch support board**(1) Periodically cleaned parts/cycle**

- Punch shaft
 - : Every 1,400,000 prints (Actual cleaning count: Every 1,000,000 punches) *1
 - : Every 750,000 prints *2
 - : Every 1,500,000 prints *3
- Punch support board
 - : Every 1,400,000 prints (Actual cleaning count: Every 1,000,000 punches) *1
 - : Every 750,000 prints *2
 - : Every 1,500,000 prints *3

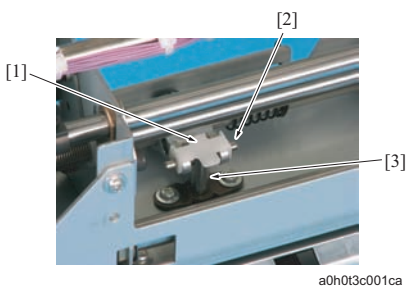
*1 C6501/C6501P/C65hc

*2 1200/1200P/1051

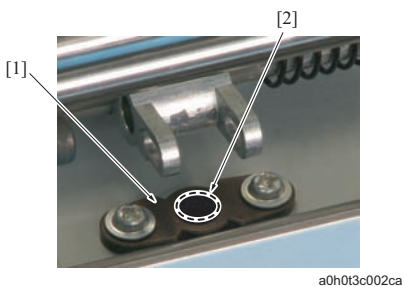
*3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

1. Remove 2 connectors [1].
2. Remove 4 screws [2].
3. Remove the punch unit [3].



4. Remove the plastic stopper [1], and remove the pin [2].
5. Remove the punch shaft [3], and clean the periphery. (Isopropyl alcohol/Cleaning pad)



6. Clean the inner periphery of the hole [2] of the punch support board [1]. (Isopropyl alcohol/Cleaning pad)

18.3.3 Lubricating the punch drive section**(1) Periodically lubricated parts/cycle**

- Punch drive section
 - : Every 1,400,000 prints (Actual lubrication cycle: Every 1,000,000 punches) *1
 - : Every 750,000 prints *2

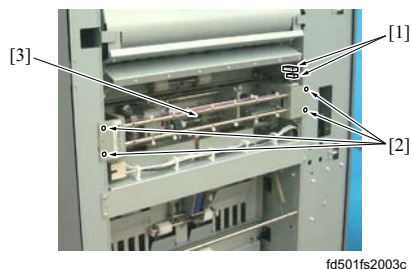
: Every 1,500,000 prints *3

*1 C6501/C6501P/C65hc

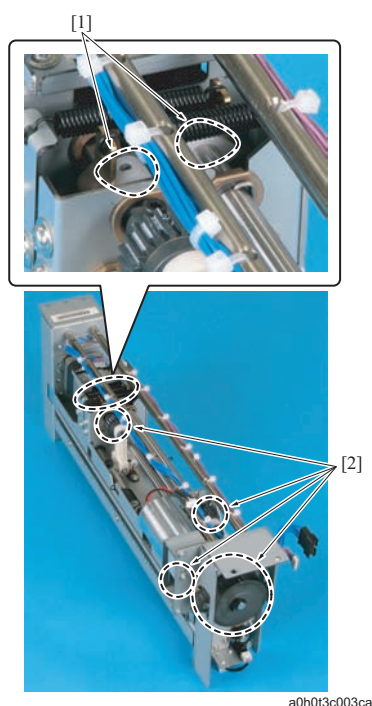
*2 1200/1200P/1051

*3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure



1. Remove 2 connectors [1].
2. Remove 4 screws [2].
3. Remove the punch unit [3].



4. Lubricate 2 stopper cams [1] and 8 gears [2]. (Molykote EM-30L)

18.4 Main tray section

18.4.1 Replacing the tray up down motor (M11)

(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Tray up down motor (M11)

: Every 5,200,000 prints (Actual replacement cycle: Every 5,000,000 prints) *1

: Every 10,500,000 prints (Actual replacement cycle: Every 5,000,000 prints) *2

: Spot replacement (Actual replacement cycle: Every 5,000,000 prints) *3

*1 C6501/C6501P/C65hc

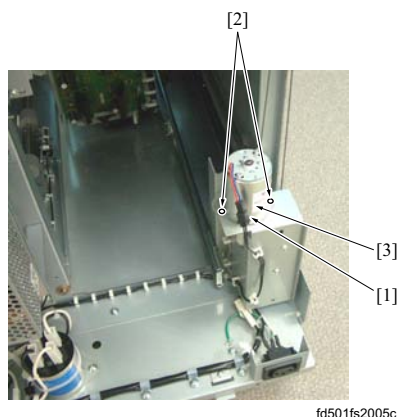
*2 1200/1200P/1051

*3 1250/1250P/1052/C8000

(2) Procedure

Note

- Be sure to remove the tray up down motor (M11) while supporting the up/down stay with your hands.



fd501fs2005c

1. Remove the rear cover (refer to [G.17.3.4 Rear cover](#)) and the left cover /Rr (refer to [G.17.3.6 Left cover /Rr](#)).
2. Open the front door and pull out the folding unit.
3. Disconnect the connector [1].
4. Remove 2 screws [2] and then remove the tray up down motor (M11) [3].
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the part, be sure to reset the parts counter.
 - No.244 (1250/1250P/1052)
 - No.211 (1200/1200P/1051)
 - No.210 (C8000)
 - No.161 (C6501/C6501P/C65hc)

18.5 PI section

18.5.1 Replacing the pick-up rubber (Upper stage)

(1) Periodically replaced parts/Spotted replaced parts/Cycle

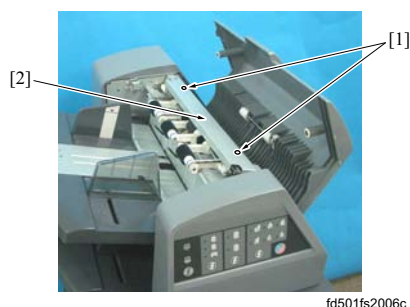
- Pick-up rubber
 - : Every 5,200,000 prints (Actual replacement cycle: Every 200,000 feeds) * 1
 - : Every 5,250,000 prints (Actual replacement cycle: Every 200,000 feeds) * 2
 - : Spot replacement (Actual replacement cycle: Every 200,000 feeds) * 3

* 1 C6501/C6501P/C65hc

* 2 1200/1200P/1051

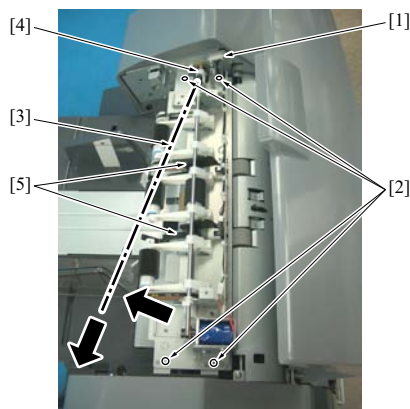
* 3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure



fd501fs2006c

1. Open the upper door.
2. Remove 2 screws [1] and then remove the protective cover [2].

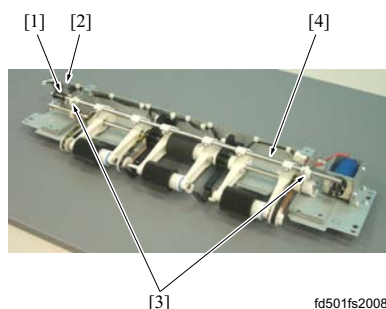


fd501fs2007c

3. Disconnect the connector [1].
4. Remove 4 screws [2] and then remove the pick-up unit /Up [3].

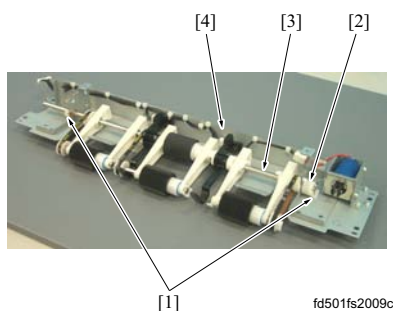
Note

- The rear side of the shaft is inserted into the coupling [4]. Be sure to remove the pick-up unit /Up [3] from the front side.
- Be careful not to damage 2 actuators [5] of the pick-up unit /Up.

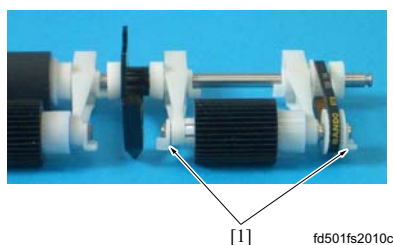


fd501fs2008c

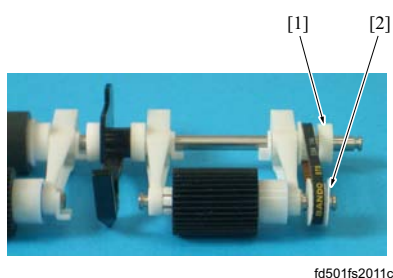
5. Remove the hook of the spring [1] from the mounting plate [2].
6. Remove 2 C-clips [3] and then remove the shaft [4].



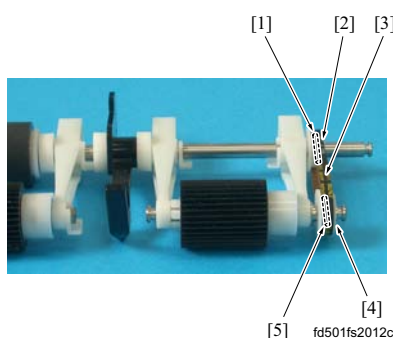
7. Remove 2 C-clips [1].
8. Remove the shaft fixing piece [2], and then remove the shaft [3] from the mounting plate [4].



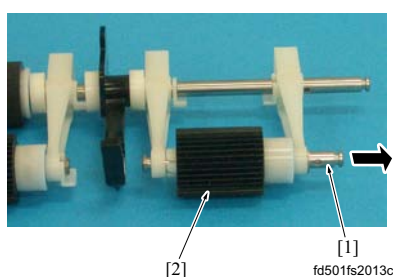
9. Remove 2 C-clips [1].



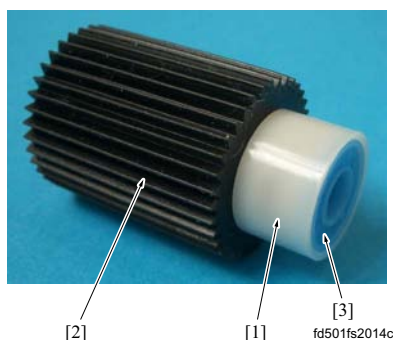
10. Remove the spacer [1] and the belt restriction plate [2].



11. Remove the belt [2] from the gears [2] and [4], and then remove the gears [2] and [4] and the pin [5] from the pick-up roller shaft [4].



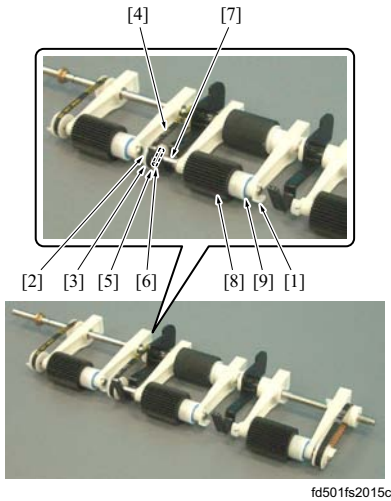
12. Pull out the pick-up roller shaft [1] to the front side, and remove the pick-up roller assy [2].



13. Remove the pick-up roller [1] and replace the pick-up rubber [2].

Note

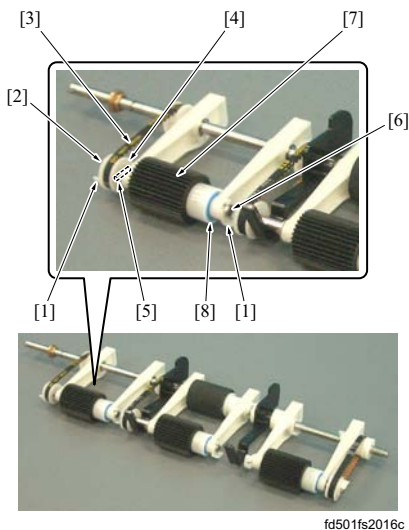
- Be sure to install the pick-up roller so that the one-way clutch [3] (blue) is on the front side.



14. Remove the C-clip [1].
15. Remove the E-ring [2].
16. Remove the belt restriction plate [3].
17. Remove the belt [4] from the gear [5], and then remove the gear [5] and the pin [6] from the pick-up roller shaft [7].
18. Pull out the pick-up roller shaft [7] to the rear side, and remove the pick-up roller assy [8].
19. Remove the pick-up roller and replace the pick-up rubber.

Note

- Be sure to install the pick-up roller so that the one-way clutch [9] (blue) is on the front side.



20. Remove 2 C-clips [1].
21. Remove the belt restriction plate [2].
22. Remove the belt [3] from the gear [4], and then remove the gear [4] and the pin [5] from the pick-up roller shaft [6].
23. Pull out the pick-up roller shaft [6] from the rear side, and remove the pick-up roller assy [7].
24. Remove the pick-up roller and replace the pick-up rubber.

Note

- Be sure to install the pick-up roller so that the one-way clutch [8] (blue) is on the front side.

25. After replacing the part, be sure to reset the parts counter.

- No.235 (1250/1250P/1052)
- No.202 (1200/1200P/1051)
- No.201 (C8000/C7000/C7000P/C70hc/C6000)
- No.152 (C6501/C6501P/C65hc)

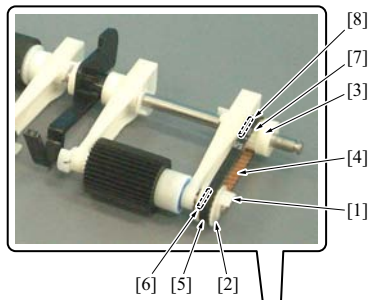
18.5.2 Replacing the paper feed rubber (Upper stage)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Paper feed rubber
 - : Every 2,200,000 prints (Actual replacement cycle: Every 100,000 feeds)* 1
 - : Every 2,250,000 prints (Actual replacement cycle: Every 100,000 feeds)* 2
 - : Spot replacement (Actual replacement cycle: Every 100,000 feeds)* 3

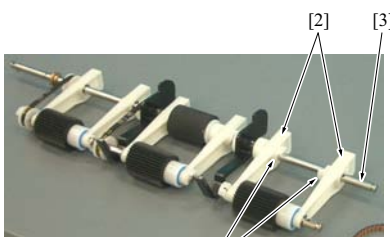
* 1 C6501/C6501P/C65hc

* 2 1200/1200P/1051

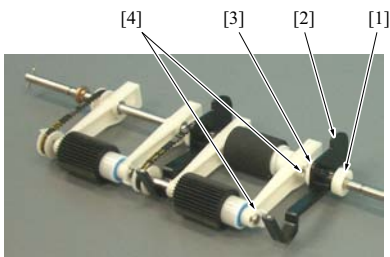
* 3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

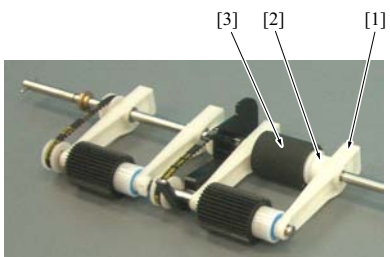
fd501fs2017c



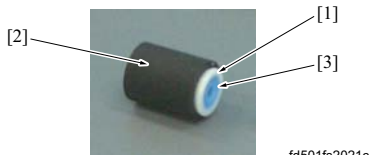
fd501fs2018c



fd501fs2019c



fd501fs2020c



fd501fs2021c

1. Conduct the steps 1 to 8 in "F.18.5.1 Replacing the pick-up rubber (Upper stage)" and remove the pick-up roller unit.
2. Remove the C-clip [1].
3. Remove the belt restriction plate [2].
4. Remove the spacer [3].
5. Remove the belt [4].
6. Remove the gear [5] and the pin [6].
7. Remove the gear [7] and the pin [8].

8. Remove 2 C-clips [1] and then remove the entire paper feed arm [2] from the paper feed shaft [3].

9. Remove the spacer [1].
10. Remove the actuator [2].
11. Remove the spacer [3].
12. Remove 2 C-clips [4].

13. Remove the paper feed arm [1].
14. Remove the spacer [2].
15. Remove the paper feed roller assy [3].

16. Remove the paper feed roller [1] and replace the paper feed rubber [2].
17. Reinstall the preceding parts following the removal steps in reverse.

Note

- Be sure to install the pick-up roller so that the one-way clutch [3] (blue) is on the front side.

18. After replacing the part, be sure to reset the parts counter.
 - No.237 (1250/1250P/1052)
 - No.204 (1200/1200P/1051)
 - No.203 (C8000/C7000/C7000P/C70hc/C6000)
 - No.154 (C6501/C6501P/C65hc)

18.5.3 Replacing the separation rubber (upper stage)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Separation rubber
 - : Every 2,200,000 prints (Actual replacement cycle: Every 100,000 feeds)*1

: Every 2,250,000 prints (Actual replacement cycle: Every 100,000 feeds)*2

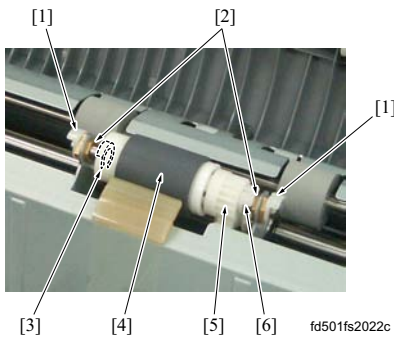
: Spot replacement (Actual replacement cycle: Every 100,000 feeds)*3

*1 C6501/C6501P/C65hc

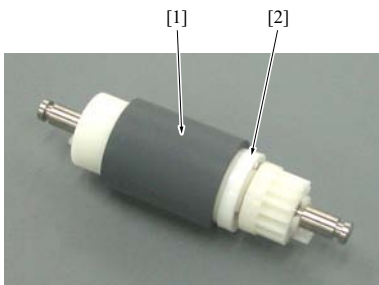
*2 1200/1200P/1051

*3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure



fd501fs2022c



fd501fs2023c

1. Conduct the steps 1 to 4 in "F.18.5.1 Replacing the pick-up rubber (Upper stage)" and remove the pick-up unit /Up.
2. Remove 2 C-clips [1].
3. Remove 2 bearings [2].
4. Remove the C-clip [3] and then remove the entire roller shaft from the mounting plate while pressing the separation roller assy [4] against the front gear [5].

Note

- Pins are employed on the inside of the separation roller assy [4] and the gear [5] respectively. When removing them, be careful that these pins do not get lost. With the C-clip [6] on the front side of the gear left as it is, pressing the roller onto the gear prevents the pins from dropping off.
5. Remove the separation roller rubber [1] from the separation roller [2] and replace it.
 6. Reinstall the preceding parts following the removal steps in reverse.
 7. After replacing the part, be sure to reset the parts counter.
 - No.236 (1250/1250P/1052)
 - No.203 (1200/1200P/1051)
 - No.202 (C8000/C7000/C7000P/C70hc/C6000)
 - No.153 (C6501/C6501P/C65hc)

18.5.4 Replacing the pick-up rubber (Lower stage)

(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Pick-up rubber

: Every 5,200,000 prints (Actual replacement cycle: Every 200,000 feeds)*1

: Every 5,250,000 prints (Actual replacement cycle: Every 200,000 feeds)*2

: Spot replacement (Actual replacement cycle: Every 200,000 feeds)*3

*1 C6501/C6501P/C65hc

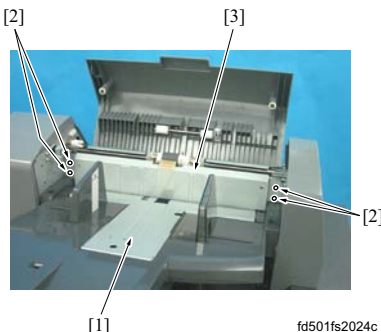
*2 1200/1200P/1051

*3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

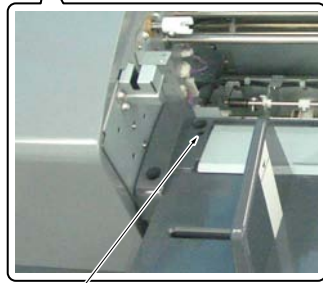
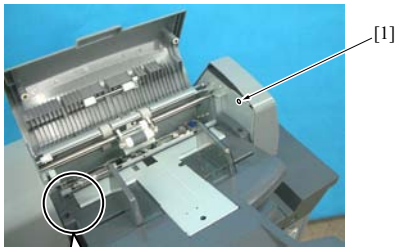
Note

- A shaft fixing screw is inserted when removing the PI tray /Up. Be sure to remove this shaft fixing screw from the PI tray /Up after completion of the replacement of the pick-up roller /Lw. Operating the machine with the shaft fixing screw inserted to the PI tray /Up damage to the PI section.

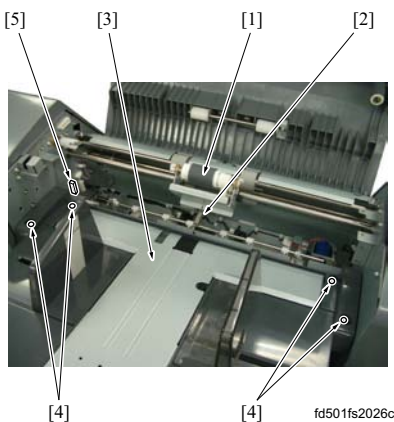


fd501fs2024c

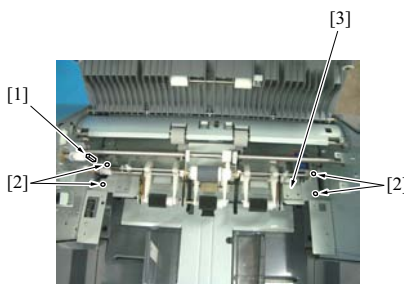
1. Make sure that the PI lift plate /Up [1] has come down fully. If it has not come down completely, conduct the I/O check (output) (PI/Up: 70-11, PI/Lw: 70-13) in the service mode.
2. Conduct the steps 1 to 4 in "F.18.5.1 Replacing the pick-up rubber (Upper stage)" and remove the pick-up unit /Up.
3. Remove 4 screws [2] and then remove the paper feed stopper plate /Up [3].



[2] fd501fs2025c



[4] fd501fs2026c



fd501fs2027c

4. Remove the shaft fixing screw [1] and insert it in the shaft fixing hole [2].

Note

- Be sure to turn the shaft fixing screw [1] until its stem section disappears completely.
- After completion of the replacement of the pick-up rubber (lower stage), be sure to remove the shaft fixing screw [1] from the position [2] and get it back to the position [1]. Operating the machine with the shaft fixing screw inserted to the position [2] damage to the PI section.

5. Remove the spring [2] hooked between the separation roller unit [1] and the PI tray /Up [3].
6. Disconnect the connector [5].
7. Remove 4 screws [4] and then remove the PI tray /Up [3].

Note

- When removing the PI tray /Up [2], be sure to pull it diagonally up to the left.

8. Disconnect the connector [1].
9. Remove 4 screws [2] and then remove the pick-up unit /Lw [3].
10. For the subsequent operations, conduct the pick-up rubber (upper stage) (steps 4 to 25). (Refer to [F.18.5.1 Replacing the pick-up rubber \(Upper stage\)](#))
11. Replace it with a new pick-up rubber.
12. Reinstall the preceding parts following the removal steps in reverse.

Note

- When installing the PI tray /Up, be sure to remove the shaft fixing screw and get it back to the original position.

13. After replacing the part, be sure to reset the parts counter.
 - No.238 (1250/1250P/1052)
 - No.205 (1200/1200P/1051)
 - No.204 (C8000/C7000/C7000P/C70hc)
 - No.155 (C6501/C6501P/C65hc)

18.5.5 Replacing the paper feed rubber (lower stage)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Paper feed rubber
 - : Every 2,200,000 prints (Actual replacement cycle: Every 100,000 feeds)* 1
 - : Every 2,250,000 prints (Actual replacement cycle: Every 100,000 feeds)* 2
 - : Spot replacement (Actual replacement cycle: Every 100,000 feeds)* 3

* 1 C6501/C6501P/C65hc

* 2 1200/1200P/1051

* 3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

1. Conduct the steps 1 to 9 in "[F.18.5.4 Replacing the pick-up rubber \(Lower stage\)](#)"
2. The subsequent operations are the same as the operations for the paper feed rubber (upper stage). (Refer to [F.18.5.2 Replacing the paper feed rubber \(Upper stage\)](#))
3. Reinstall a new paper feed rubber following the removal steps in reverse.
4. After replacing the part, be sure to reset the parts counter.

- No.240 (1250/1250P/1052)
- No.207 (1200/1200P/1051)
- No.206 (C8000/C7000/C7000P/C70hc/C6000)
- No.157 (C6501/C6501P/C65hc)

18.5.6 Replacing the separation rubber (lower stage)

(1) Periodically replaced parts/Spotted replaced parts/Cycle

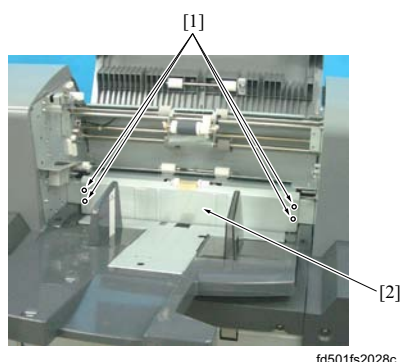
- Separation rubber
 - : Every 2,200,000 prints (Actual replacement cycle: Every 100,000 feeds) * 1
 - : Every 2,250,000 prints (actual replacement cycle: every 100,000 feeds) * 2
 - : Spot replacement (Actual replacement cycle: Every 100,000 feeds) * 3

* 1 C6501/C6501P/C65hc

* 2 1200/1200P/1051

* 3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure



1. Conduct the steps 1 to 9 in "F.18.5.4 Replacing the pick-up rubber (Lower stage)"
2. Remove 4 screws [1] and then remove the paper feed stopper plate /2 [2].
3. For the subsequent operations, conduct the separation rubber (upper stage) (steps 2 to 6). (Refer to F.18.5.3 Replacing the separation rubber (upper stage))
4. Replace it with a new separation rubber.
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the part, be sure to reset the parts counter.
 - No.239 (1250/1250P/1052)
 - No.206 (1200/1200P/1051)
 - No.205 (C8000/C7000/C7000P/C70hc)
 - No.156 (C6501/C6501P/C65hc)

19. PERIODICAL MAINTENANCE PROCEDURE SD-506

19.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

19.2 Right angle conveyance section

19.2.1 Replacing the roller release solenoid /1 (SD5)

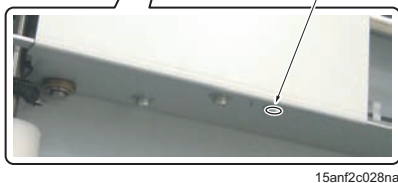
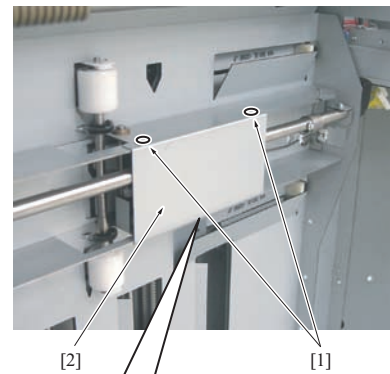
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Roller release solenoid /1 (SD5)
: Every 20,250,000 prints *1 (actual replacement cycle: every 5,000,000 operations *2)

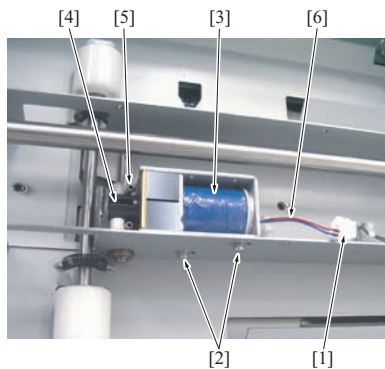
*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

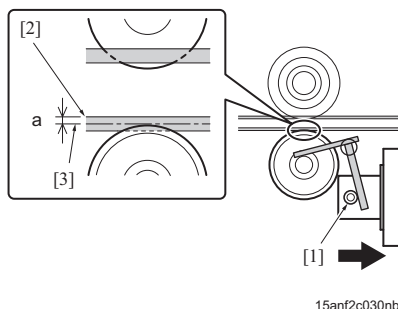
(2) Procedure



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1. Remove SD from the main body.
2. Remove 3 screws [1] and remove the cover [2].

3. Disconnect the connector [1].
4. Remove 2 screws [2] and then remove the roller release solenoid /1 (SD5) [3].

Note

- When installing the solenoid, make sure that the pin [5] is hitched to the plunger [4].
- Install it with the wiring harness [6] located on the guide plate side.

5. With the plunger [1] pulled, temporarily hold the new roller release solenoid /1 and adjust the position so that the clearance "a" between the roller [3] and the guide plate [2] is at a standard value, and then fully tighten the screws.
Standard value "a": 0mm to 0.5mm
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the part, be sure to reset the parts counter.
 - No.264 (1250/1250P/1052)
 - No.226 (1200/1200P/1051)
 - No.239 (C8000)

19.2.2 Replacing the roller release solenoid /2 (SD6)

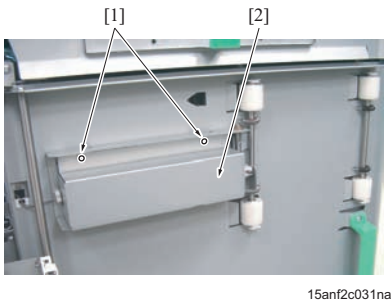
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Roller release solenoid /2 (SD6)
: Every 20,250,000 prints *1 (Actual replacement cycle: every 5,000,000 operations *2)

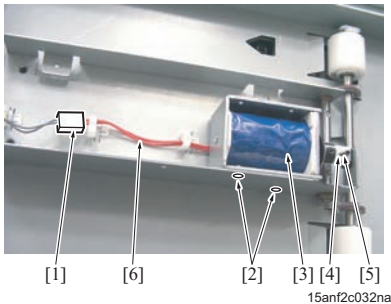
*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure



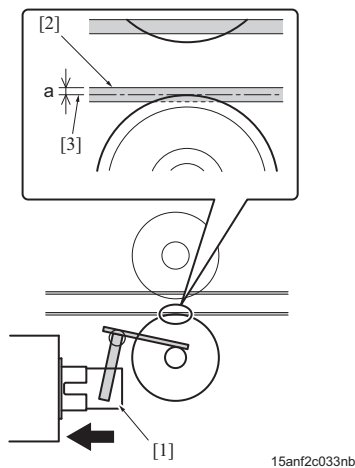
1. Open the front door /Rt.
2. Remove 2 screws [1] and remove the cover [2].



3. Disconnect the connector [1].
4. Remove 2 screws [2] and then remove the roller release solenoid / 2 (SD6) [3].

Note

- When reinstalling it, be sure to check that the pin [5] has been inserted into the hole on the plunger [4].
- Install it with the wiring harness [6] located on the guide plate side.



5. With the plunger [1] pulled, temporarily hold the new roller release solenoid / 2 and adjust the position so that the clearance "a" between the roller [3] and the guide plate [2] is at a standard value, and then fully tighten the screws.
Standard value "a": 0mm to 0.5mm
6. Reinstall the preceding parts following the removal steps in reverse.

19.2.3 Replacing the right angle conveyance gate solenoid (SD2)

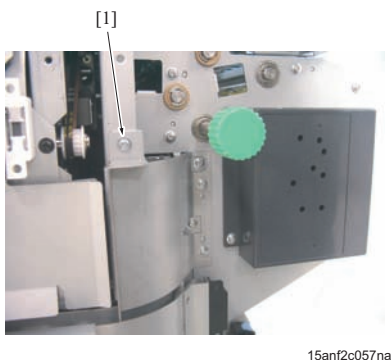
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Right angle conveyance gate solenoid (SD2)
: Every 20,250,000 prints *1 (actual replacement cycle: every 5,000,000 operations *2)

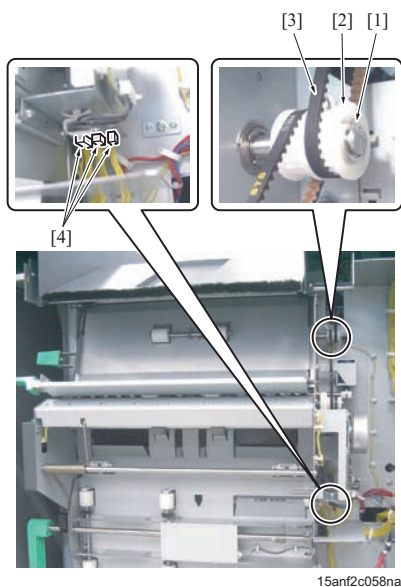
*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

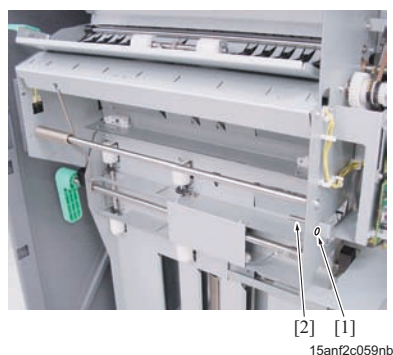
(2) Procedure



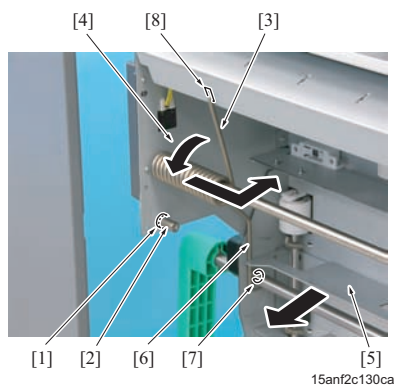
1. Open the front door /Rt and then remove the screw [1].
2. Remove the rear cover /Rt. (Refer to [G.18.3.3 Rear cover /Rt](#))
3. Remove the hex wrench (short, #2.5) from the trimmer section. (Refer to [F.19.4.2 Replacing the trimmer blade kit](#))



4. Remove the E-ring [1] and the pulley [2] and then remove the belt [3].
5. Disconnect 3 connectors [4].



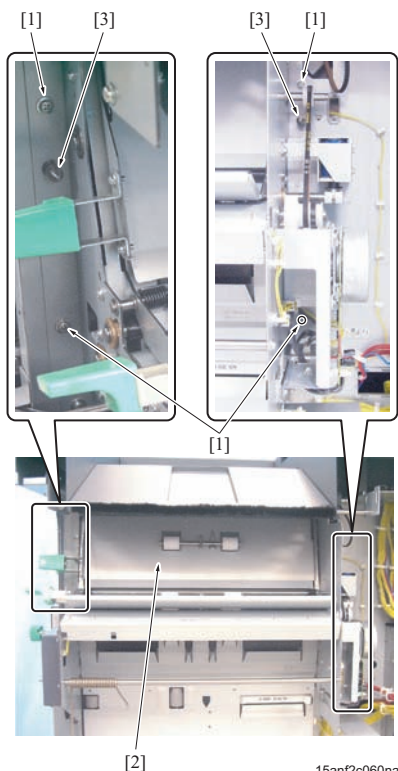
6. Remove the screw [1] and then remove the stopper [2].



7. Remove the screw [1] and then remove the stopper [2].
8. Pull the spring [3] in the arrow-marked direction [4] and release it, and then open the right angle conveyance guide plate [5].

Note

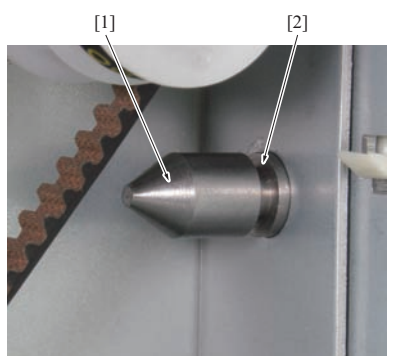
- When reinstalling the spring [3], hook the long arm [6] on the position between the frame and the E-ring [7] of the jam release handle shaft and insert the tip of the short arm [3] into the hole [8].



9. Remove 4 screws [1] and then remove the entrance conveyance unit [2].

Note

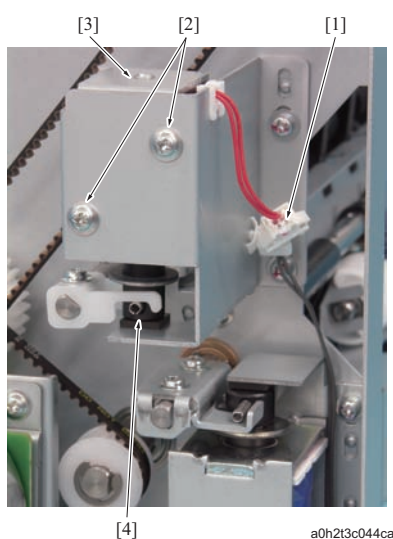
- When reinstalling, press it against 2 positioning pins [3] and then tighten the screw [1].



10. Check point when reinstalling the entrance conveyance unit

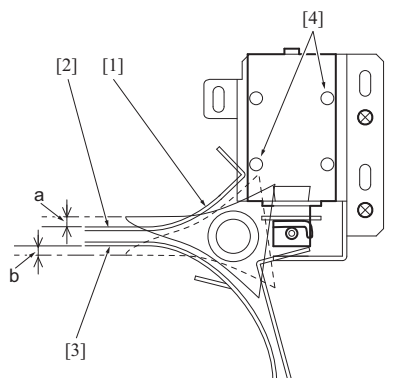
Note

- As the positioning pin [1] has anti-drop grooves, be sure to insert it fully before tightening the screw.

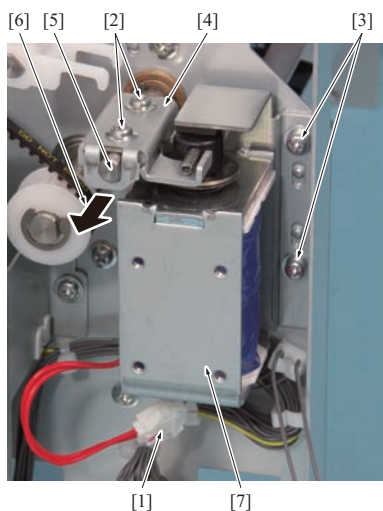


11. Disconnect the connector [1].

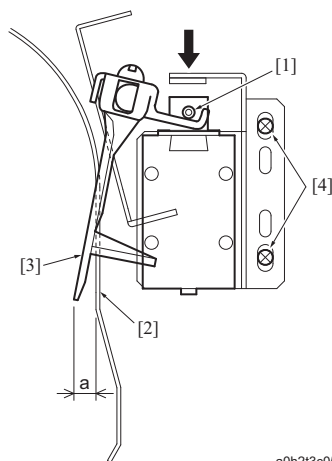
12. Remove 2 screws [2] and then remove the entrance gate solenoid [3] and the plunger [4].



a0h2t3c051ca



a0h2t3c045ca



a0h2t3c052ca

13. Standard value when reinstalling the entrance gate solenoid

Note

- When reinstalling, be sure to set in the following conditions before tightening the screw [4]; with the plunger of the entrance gate solenoid not pulled, the gap between the entrance gate [1] and the guide plate [2] is at a standard value "a", and with the plunger of the entrance gate solenoid pulled, the gap between the entrance gate [1] and the guide plate [3] is at a standard value "b".

Standard valuea: $2.0\text{mm} \pm 0.3\text{mm}$ b: $5.0\text{mm} \pm 0.5\text{mm}$

14. Disconnect the connector [1].

15. Remove 2 screws [2].

16. Remove 2 screws [3] and pull out the arm [4] from the shaft [5] in the arrow-marked direction [6]. Then remove the right angle conveyance gate solenoid assy [7].

Note

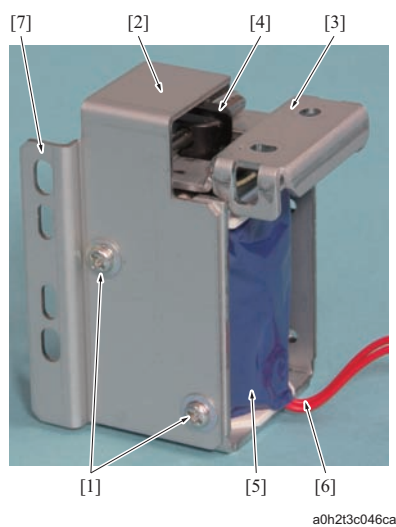
- When reinstalling, press the arm [4] against the D-cut of the shaft [5] and then tighten the screws [2].

17. Standard value when reinstalling the right angle conveyance gate solenoid assy

Note

- With the plunger [1] pulled, adjust the position so that the clearance "a" between the right angle conveyance gate [3] and the guide plate [2] is at a standard value "a", and then fully tighten the screws [4].

Standard value a: $4.8\text{mm} \pm 0.5\text{mm}$



18. Remove 2 screws [1], mounting plate [2], arm [3], plunger [4], and the right angle conveyance gate solenoid (SD2) [5].

Note

- When installing the right angle conveyance gate solenoid, make sure that the wires [6] are located on the other side of the hole [7] in the mounting plate [2].

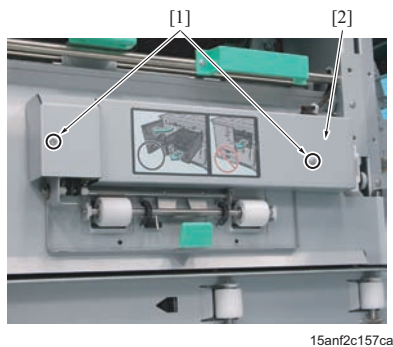
19. Reinstall the preceding parts following the removal steps in reverse.

19.2.4 Replacing the roller release solenoid /3 (SD7)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

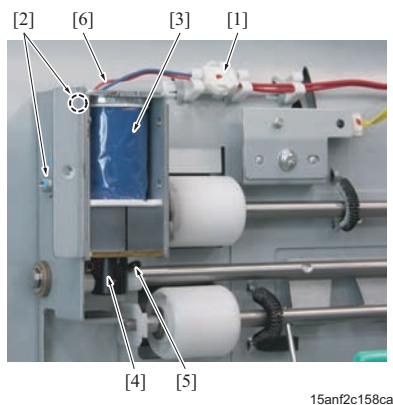
- Roller release solenoid /3 (SD7)
: Every 20,250,000 prints *¹ (actual replacement cycle: every 5,000,000 operations *²)

*¹ The periodical replacement is only for 1200/1200P/1051.

*² Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

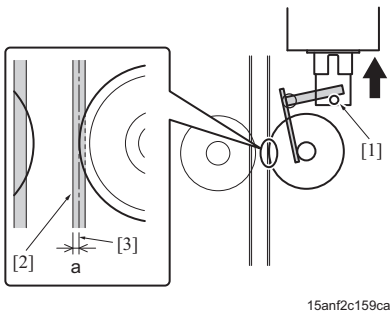
1. Open the front doors /Rt and /Lt.
2. Remove 2 screws [1] and remove the cover [2].



3. Disconnect the connector [1].
4. Remove 2 screws [2] and then remove the roller release solenoid / 3 (SD7) [3].

Note

- When installing the solenoid, make sure that the pin [5] is hitched to the plunger [4].
- Install it with the wiring harness [6] located on the guide plate side.



5. Slightly tighten the new roller release solenoid/3 with the plunger [1] pulled, adjust the position so that the gap between the paper feed surface [2] of the guide plate and the roller surface [3] falls within the standard value, and secure the roller release solenoid/3. Standard value "a": 1.3mm to 1.8mm
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the part, be sure to reset the parts counter.
 - No.264 (1250/1250P/1052)
 - No.226 (1200/1200P/1051)
 - No.239 (C8000)

19.3 Saddle stitching section

19.3.1 Replacing the stapler assy

(1) Periodically replaced parts/Spotted replaced parts/Cycle

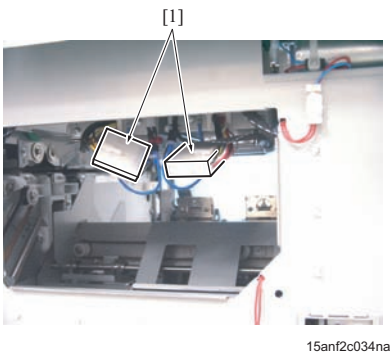
- Stapler assy

: Every 20,250,000 prints *1 (Actual replacement cycle: Every 1,000,000 staples) *2

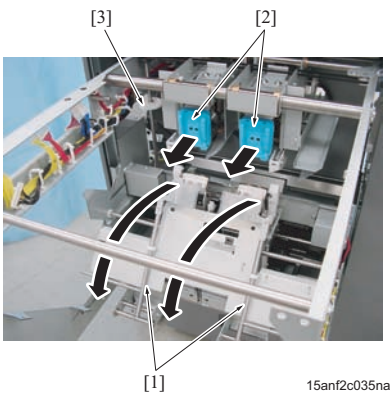
*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C6501/C6501P/C65hc/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure



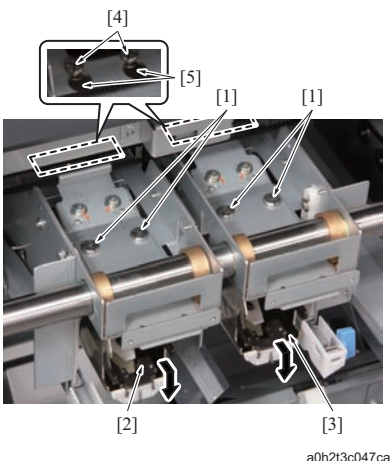
1. Remove the front door /Lt. (Refer to [G.18.3.8 Front door /Lt](#))
2. Remove the rear cover /Lt. (Refer to [G.18.3.2 Rear cover /Lt](#))
3. Disconnect 2 connectors [1] from the back side of the stapler, and release the wires on the stapler side from the clamps.



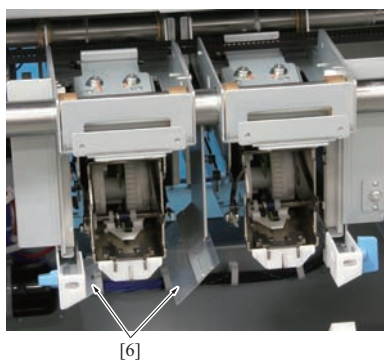
4. Pull out the saddle stitching unit. (Refer to [F.19.3.3 Pulling out the saddle stitching unit](#))
5. Tilt the bundle arm [1] to the front.
6. Remove the staple cartridges [2] to the front.

Note

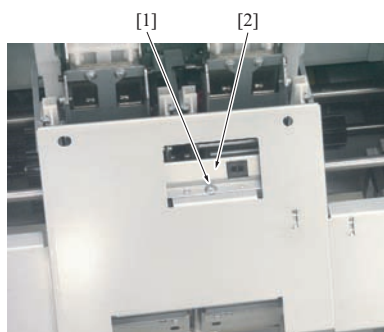
- When moving the stapler assy, be sure to move them by rotating the rotating knob [3] to prevent the belt tooth from skipping. Otherwise, it causes the belt tooth skipping.



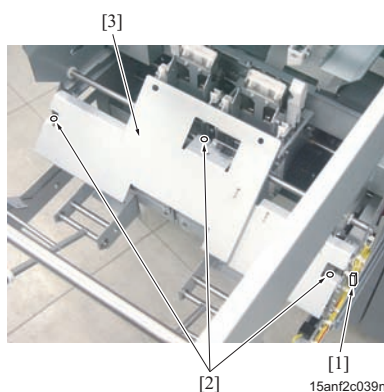
7. Remove 2 screws [1] on each stapler.
8. Move the staplers /Lt [2] and /Rt [3] forward, and then remove the pins [4], 2 for each, from each 2 holes [5] on each stapler. Then remove the staplers /Lt and /Rt downward.



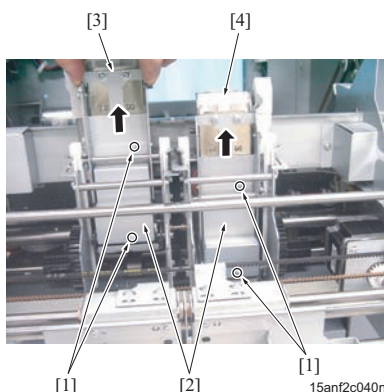
a0h2t3c048ca



15anf2c038na



15anf2c039na



15anf2c040na

9. Check point when removing/reinstalling the stapler /Lt

Note

- When removing/reinstalling the stapler /Lt, be sure not to bend the guide sheet [6].

10. Remove the screw [1] and remove the sensor cover [2].

11. Disconnect the connector [1].

Note

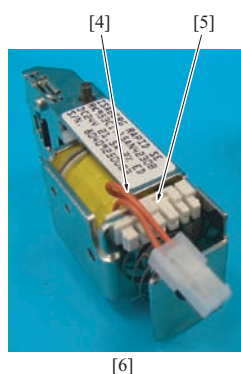
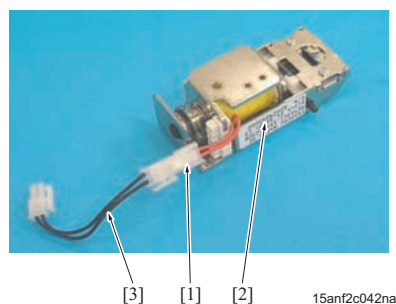
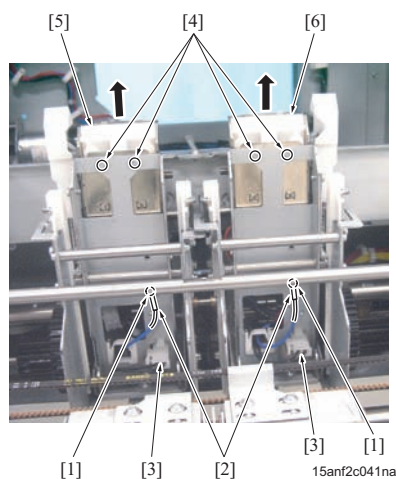
- When reinstalling the saddle stitching unit, be careful not to let the connector [1] make contact with the main body.

12. Remove 3 screws [2], and then remove the saddle stitching guide plate [3].

13. Remove 2 screws [1] each and then remove 2 connector covers [2].

Note

- When removing the connector covers, while lifting up the clinchers /Lt [3] and /Rt [4].



14. Remove each 1 screws [1] and then remove the ground [2].

Note

- When installing the grounds, fasten it with screws letting the wiring harness on the lower side.

15. Remove each of 1 connectors [3].

16. Remove 2 screws [4] each, and then remove the clinchers /Lt [5] and /Rt [6].

Note

- When installing the clinchers, slide them down as far as they go, and secure them with screws.

17. Disconnect the connector [1] and then remove the wiring harness [3] from the clincher [2].

18. Reinstall the preceding parts following the removal steps in reverse.

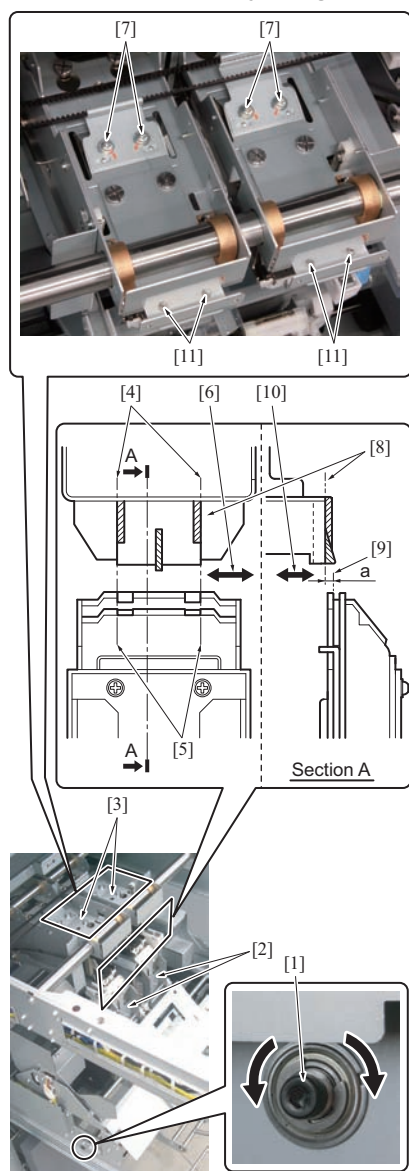
Note

- When reinstalling the wiring harness [4], be sure to wire the wiring harness to the guide (white) side [5] of the clincher. Do not route the wiring harness to the rear side as shown in the figure [7]. or the wiring harness may break at the clincher operation.

19. Adjust the mounting position of the staplers and the clinchers. (Refer to [F.19.3.1.\(3\) Procedure for adjusting the mounting position](#))

20. After replacing the part, be sure to reset the parts counter.

- No.260, 261 (1250/1250P/1052)
- No.222, No.223 (1200/1200P/1051)
- No.234, 235 (C8000/C7000/C7000P/C70hc/C6000)

(3) Procedure for adjusting the mounting position

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1. Rotate the screw [1] clockwise until clicked to make the clinchers [2] contact with the staplers [3] and lock the clinchers [2], and then check the step edges [4] of the staplers are aligned with the edges [5] of the clincher in the sub scan direction [6].
Standard value: $0 \pm 0.5\text{mm}$
2. When the value is not within the standard value, loosen 2 screws [7] each and move the staplers in the sub scan direction for adjustment while rotating the screw [1] counterclockwise to make the clinchers [2] and the stapler [3] closer, and then tighten the screws [7].
3. Tighten the screw [1] clockwise until it clicks to make the clinchers [2] contact with the stapler [3] and lock it. Make sure that the standard surface of the stapler [8] is located in rear side in main scan direction [10] compared to the inside plate inner surface [9] of the clincher.
Standard value "a": 0.2mm to 0.3mm
4. When the value is not within the standard value, loosen 2 screws [11] each and move the staplers in the main scan direction for adjustment while rotating the screw [1] counterclockwise to make the clinchers [2] and the stapler [3] closer, and then tighten the screws [11].

Note

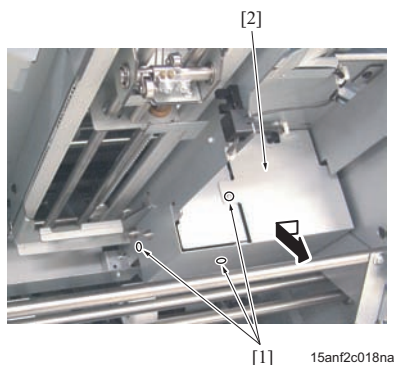
- After the reinstallation, perform the saddle stitching and check that the stapling is performed without problem.
- After the adjustment, be sure to perform the adjustment between the fold line position and the staple position, and tilt/gap adjustment of the clincher.
(Refer to [I.23.4 Staple position adjustment](#)), (Refer to [I.23.6 Tilt/gap adjustment of the clincher](#))

19.3.2 Replacing the slope unit**(1) Spotted replaced parts/cycle**

- Slope unit

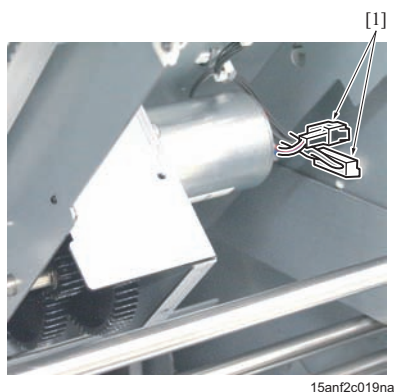
: Spot replacement (Actual replacement cycle: every 2,500,000 copies) *1

*1 1250/1250P/1052/1200/1200P/1051/C8000

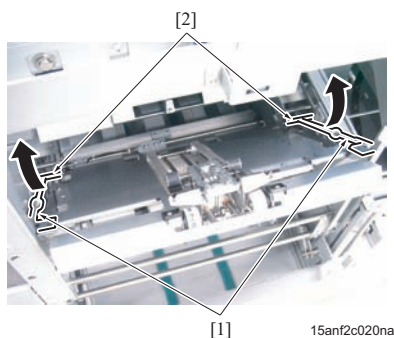
(2) Procedure

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1. Remove 3 screws [1], and then remove the motor cover [2].



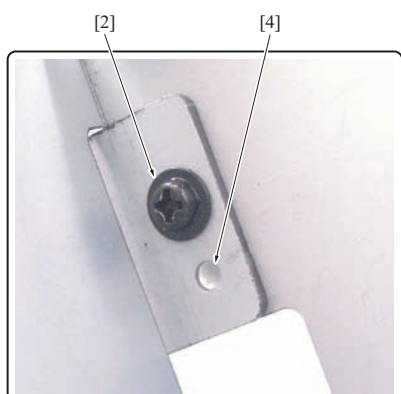
2. Disconnect 2 connectors [1].



3. Holding the bundle arms [1] on both sides in the vicinity of the fulcrum shaft [2], push them to the rear simultaneously and move the bundle arms [1] approximately 30mm.

Note

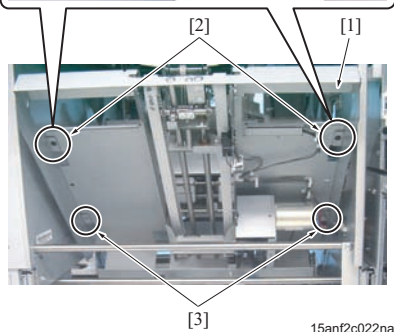
- When rotating the bundle arm [1] manually, be sure to rotate it gently with both hands because the bundle arm is driven simultaneously by the belts on both sides. Otherwise, it causes the belt tooth skipping.
- Never rotate the bundle arm [1] by holding its tip. Be sure to rotate it by holding the bundle arm [1] in the vicinity of the fulcrum shaft [2]. It causes the deformation.



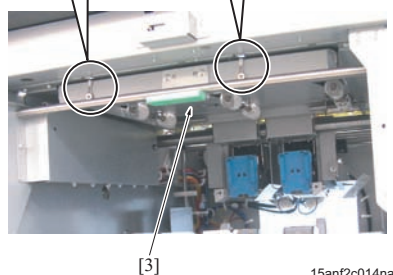
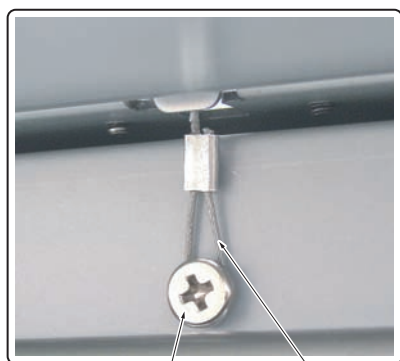
4. Remove 2 screws [2] and 2 screws [3] of the slope unit [1] from the bottom and top respectively, and then remove the slope unit [1].

Note

- When reinstalling the slope, be sure to align 2 positioning projections [4].



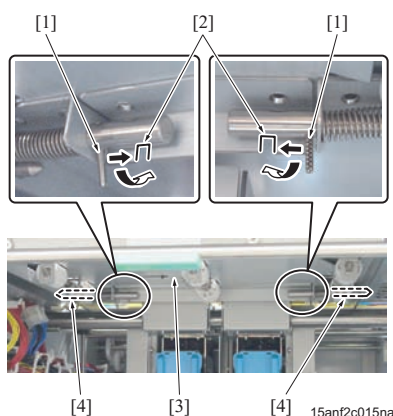
5. Reinstall the preceding parts following the removal steps in reverse.

19.3.3 Pulling out the saddle stitching unit**(1) Procedure**

1. Remove the front door /Lt. (Refer to [G.18.3.8 Front door /Lt](#))
2. Remove the slope unit. (Refer to [F.19.3.2 Replacing the slope unit](#))
3. Remove the wire [1] from the screw [2].

Note

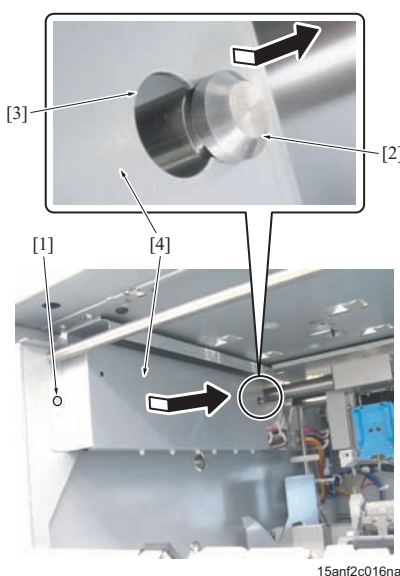
- When remove the 2nd wire [1], support the horizontal conveyance guide plate /Lt [3] with your hand so that it does not fall down.



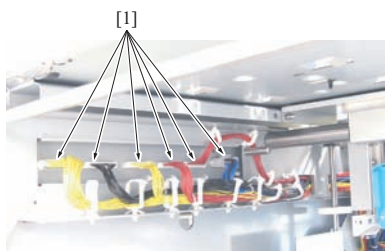
4. Slide 2 pins [1] to the arrow-marked direction and hook into the notches [2] to release the horizontal conveyance guide plate /Lt [3], and then remove the guide plate.

Note

- When reinstalling the horizontal conveyance guide plate / Lt [3], align the positions of the shafts [4], and then displace the pins [1] from the notches.

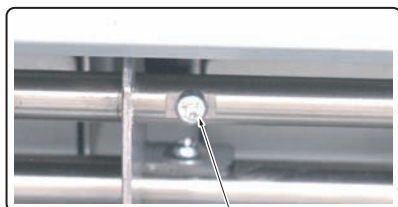


5. Remove the screw [1], move the wiring harness cover [4] to the rear, unplug the pin [2] from the hole [3], and then remove the wiring harness cover [4].

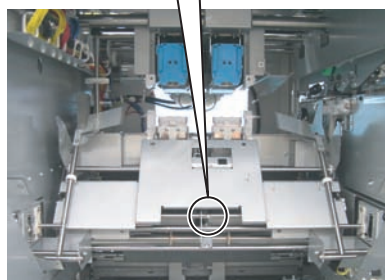


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6. Disconnect 6 connectors [1].

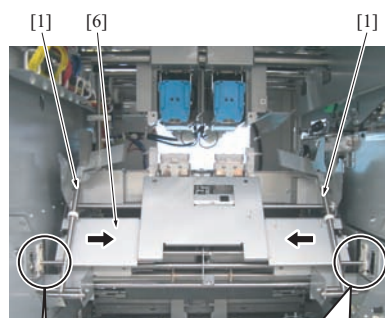


[1]



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7. Remove the screw [1].

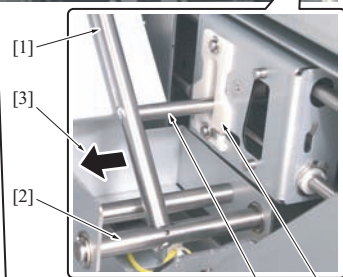


8. Holding the bundle arms [1] on both sides in the vicinity of the fulcrum shaft [2], gently move them to the inside [3], and then remove the guide shaft [4] from the hole of the shock absorbing guide [5].

Note

- When narrowing the space between the bundle arms [1], be sure to move them gently and simultaneously.
- When reinstalling them, be sure to check that the guide shaft [4] has been inserted into the shock absorbing hole [5].

9. Rotate the bundle arms [1] to the guide plate [6] on the stapler side.



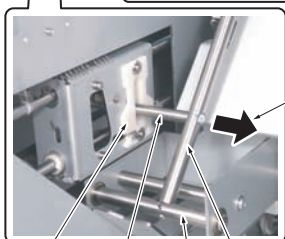
[1]

[3]

[2]

[4]

[5]



[3]

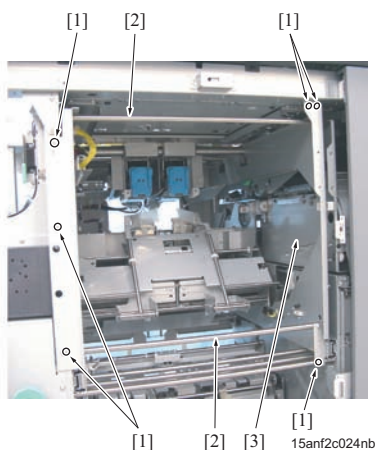
[5]

[4]

[2]

[1]

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10. Remove the 6 screws (with 1 washer each) [1], and then hold the shafts [2] to pull out the saddle stitching unit [3].

Note

- When pull out the saddle stitching unit, be sure not to snap the wiring harness of the removed connector contact with SD.

11. Reinstall the above parts following the removal steps in reverse.

19.3.4 Replacing the saddle stitching unit

⚠ CAUTION

- Be sure to perform this operation with 2 people because the saddle stitching unit is heavy.

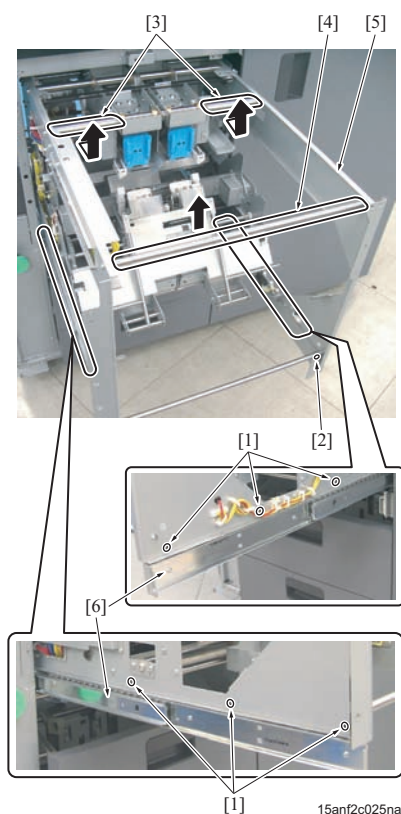
(1) Spotted replaced parts/cycle

- Saddle stitch unit

: Spot replacement (Actual replacement cycle: every 2,500,000 copies) * 1

* 1 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure



1. Pull out the saddle stitching unit. (Refer to [F.19.3.3 Pulling out the saddle stitching unit](#))

2. Remove 6 screws [1] and the screw [2], and remove the saddle stitching unit [5] with 2 people by holding the shafts [3] and [4] while lift up the shaft [3] slightly and shift the saddle stitching unit to the front side.

Note

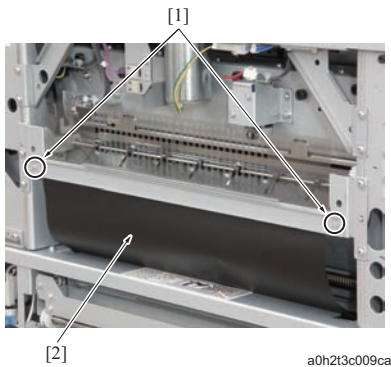
- Be sure to hold the saddle stitching unit at the shafts [3] and [4].
- When reinstalling the saddle stitching unit, check that the unit is surely placed on the rails [6] before releasing the unit.

3. Reinstall the preceding parts following the removal steps in reverse.

19.4 Trimmer section

19.4.1 Removing/installing the trimmer paddle assy

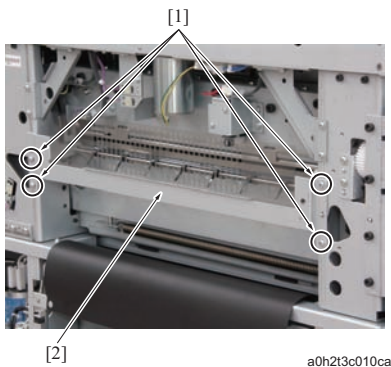
(1) Procedure



1. Remove the following parts.
 - Rear cover /Lt (Refer to [G.18.3.2 Rear cover /Lt](#))
2. Store the trimmer scraps box completely in the SD.
3. Remove 2 screws [1], and remove the trimmer scraps guide [2].

Note

- When installing the trimmer scraps guide, be sure that the trimmer scraps box is stored completely in the SD, and the trimmer scraps guide [2] is fully stretched. If you stretch the trimmer scraps guide with the trimmer scraps box has not stored completely, the trimmer scraps guide gets broken during operation.

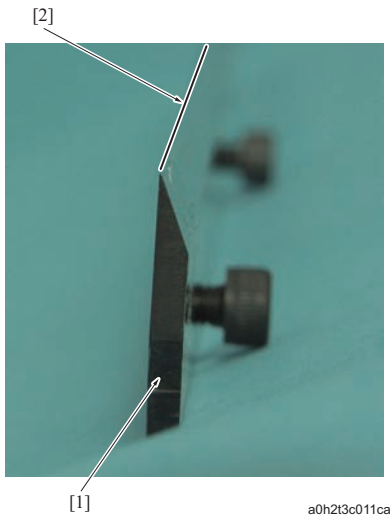


4. Remove 4 screws [1] and remove the trimmer paddle assy [2].
5. Reinstall the above parts following the removal steps in reverse.

19.4.2 Replacing the trimmer blade kit

⚠ WARNING

- Pay extra caution when holding the trimmer blade [1]. Never touch the edge [2] of the blade. You get injured.
- Remove the blade cover only at the replacement. Otherwise, never remove the cover. You get injured.
- Dispose the used trimmer blade as specified by the local authority.



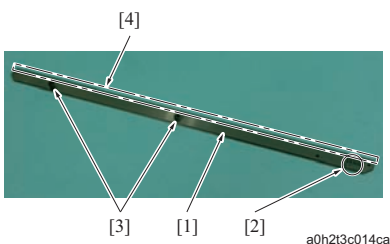
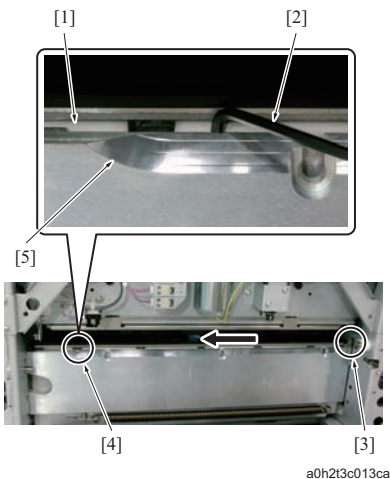
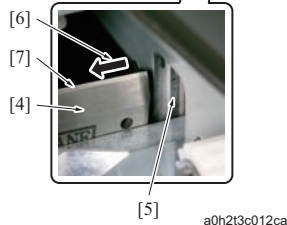
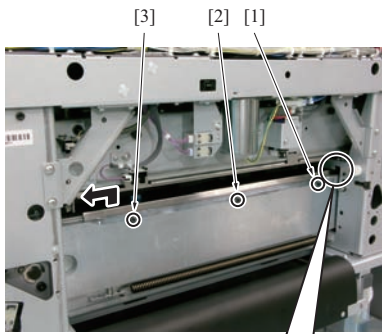
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Trimmer blade kit
 - : Every 1,400,000 prints (Actual replacement cycle: Every 37,500 cuts) *1
 - : Every 1,500,000 prints (Actual replacement cycle: Every 37,500 cuts) *2
 - : Spot replacement (Actual replacement cycle: every 37,500 cuts) *3

*1 C6501/C6501P/C65hc

*2 1200/1200P/1051

*3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

1. Move the trimmer board to the release position.

Note

- Move the trimmer board to the trimmer press upper limit sensor (PS52) by the output check code ""71-56" in the I/O check mode in the service mode.

2. Turn OFF the sub power switch (SW2) and the main power switch (SW1) of the main body and unplug the power plug from the power outlet.
3. Remove the rear cover /Lt. (Refer to [G.18.3.2 Rear cover /Lt](#))
4. Remove the trimmer paddle assy. (Refer to [F.19.4.1 Removing/ installing the trimmer paddle assy](#))
5. Remove the screw [1].
6. Loosen the screws [2] and [3].

⚠ WARNING

- Do not loosen the screws [2] and [3] too much, or the trimmer blade drops during the operation. Keep the loosening amount of the screws [2] and [3] to a minimum requirement for removing the trimmer blade [4].

7. Hold the screws [2] and [3] and slightly lift the screw [3] side. Then move the trimmer blade [4] in the arrow-marked direction [6] to pull out from the hole [5], and remove it.
8. Put the trimmer blade [4] at a safe place with no fear of falling down.

⚠ WARNING

- Pay extra caution when handling the trimmer blade [4]. Never touch the edge [7] of the blade. You get injured.

9. Insert the #2.5 hex wrench [2] onto the mounting slit [1] of the trimmer blade, and then slide it from right [3] to left [4] (viewed from the operator) to clean the trimmer scraps.

Note

- Conduct the cleaning with the #2.5 hex wrench which is one-step thinner than the hex wrench #3 used for the installation screws of the trimmer blade. Using #3 causes the deformation of the mounting slit.
- To change the direction of the hex wrench, remove the wrench once and reinsert it again.
- The bottom of the slit of the left side [4] (viewed from the operator) is curved in the same manner as the blade [5]. Be sure to scrape the trimmer scraps.

10. Clean the mounting slit [1] of the trimmer blade with the blower brush.

11. Put a new trimmer blade [1] on the floor and insert 2 new screws about half and a bit length of them [3] into the marked side [2].

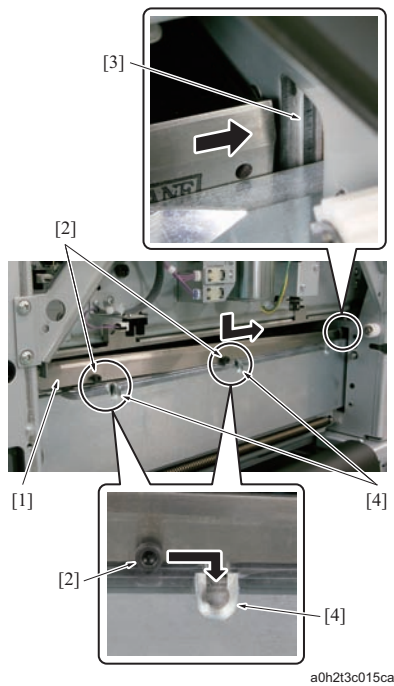
⚠ WARNING

- Be sure to insert the screws [3] enough to hold the trimmer blade, otherwise the trimmer blade falls down during the operation.

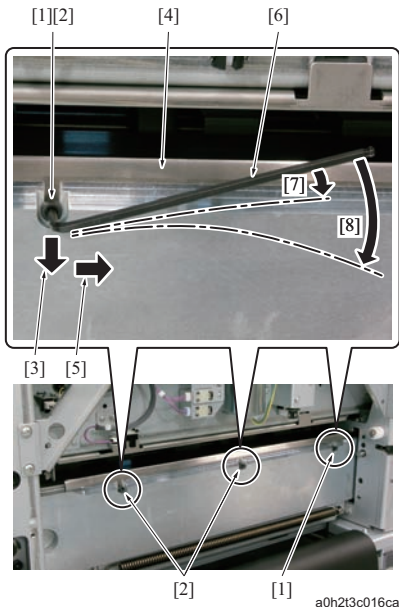
Note

- Install the brand-new screws [3] that are shipped with the trimmer blade kit.

12. Remove the blade cover [4] of the new trimmer blade kit and put that cover on the old trimmer blade.



13. Insert the trimmer blade to the hole [3] by holding 2 screws [2].
Then insert 2 screws [2] to the screw grooves [4].



14. Tighten the new screw [1] temporarily. Then press 2 screws [1] and [2] downward [3] until the trimmer blade [4] contacts the bottom, and then press it to the right side [5] (viewed from the operator).
15. Tighten 2 screws [1] and [2] with the #3 hex wrench [6].

⚠ WARNING

- When tightening 2 screws [1] and [2], tighten them temporarily with the torque that bends the tip of the #3 hex wrench [6] approximately 5° [7], and then fully tighten them with the strong torque that bends it approximately 15° [8].

Note

- Be sure to check and clear the foreign object that obstacles the operation of the trimmer blade.

16. Reinstall the preceding parts following the removal steps in reverse.

Note

- After replacing the trimmer blade, perform the saddle stitch with trimming and check that the trimming is performed without problem.

17. After replacing the part, be sure to reset the parts counter.

- No.262 (1250/1250P/1052)
- No.224 (1200/1200P/1051)
- No.229 (C8000/C7000/C7000P/C70hc/C6000)
- No.178 (C6501/C6501P/C65hc)

19.4.3 Replacing the trimmer board assy

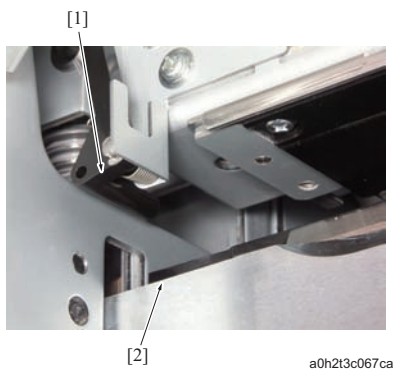
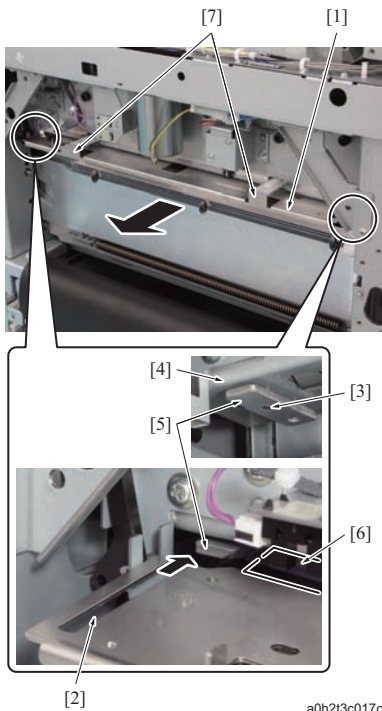
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Trimmer board assy
 - : Every 600,000 prints (Actual replacement cycle: Every 18,900 cuts) *1
 - : Every 750,000 prints (Actual replacement cycle: Every 18,900 cuts) *2
 - : Spot replacement (Actual replacement cycle: every 18,900 cuts) *3

*1 C6501/C6501P/C65hc

*2 1200/1200P/1051

*3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

1. Move the trimmer board to the release position.

Note

- By the output check code "71-97" in the I/O check mode in the service mode, move the trimmer press board to the position where the trimmer board is released.

2. Turn OFF the sub power switch (SW2) and the main power switch (SW1) of the main body and unplug the power plug from the power outlet.
3. Remove the rear cover /Lt. (Refer to [G.18.3.2 Rear cover /Lt](#))
4. Remove the trimmer paddle assy. (Refer to [F.19.4.1 Removing/installing the trimmer paddle assy](#))
5. Remove the trimmer board assy [1] by pulling it horizontally to the back side.

Note

- When reinstalling it, aligning the slit [2] of the trimmer board assy [1] with the pin [3] and insert it between the trimmer press plate [4] and the hold plate [5].
- When inserting it, be careful not to bend the guide sheet [6].
- When pushing it into the machine, be sure to insert it horizontally by pushing the movement arm receiver [7].

6. Clean the bottom surface of the actuator [1] and the top surface [2] of the trimmer blade retaining plate which contacts to the bottom surface.

Note

- When the trimmer scraps remain or the cleaning is not conducted properly, the trimmer completion timing differs and a trimming fault occurs.

7. Reinstall the preceding parts following the removal steps in reverse.
8. Reset the trimmer board solenoid operation counter.

Note

- Reset the trimmer board solenoid operation counter by the output check code "71-95" of the I/O check mode of the service mode.
- If the counter is not reset, the trimmer board solenoid operating timing after the trimmer board is replaced becomes faster than specified timing (700/500/300 times of trimming). (In the first operation only)
- After replacing the trimmer board, perform the saddle stitch with trimming and check that the trimming is performed without problem.

9. After replacing the part, be sure to reset the parts counter.

- No.263 (1250/1250P/1052)
- No.225 (1200/1200P/1051)
- No.230 (C8000/C7000/C7000P/C70hc/C6000)
- No.179 (C6501/C6501P/C65hc)

19.4.4 Replacing the trimming unit**Note:**

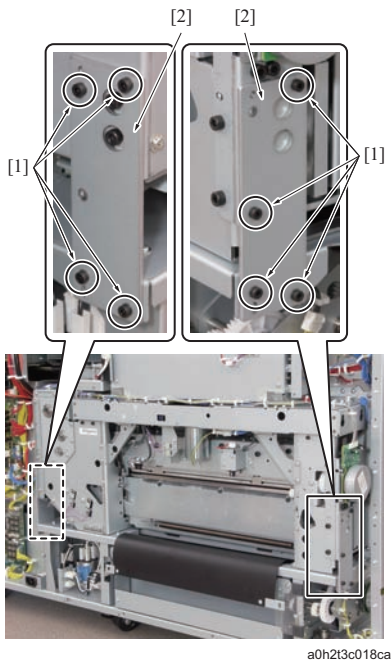
- Be sure to perform this operation with 2 people because the trimmer unit is heavy.

(1) Spotted replaced parts/cycle

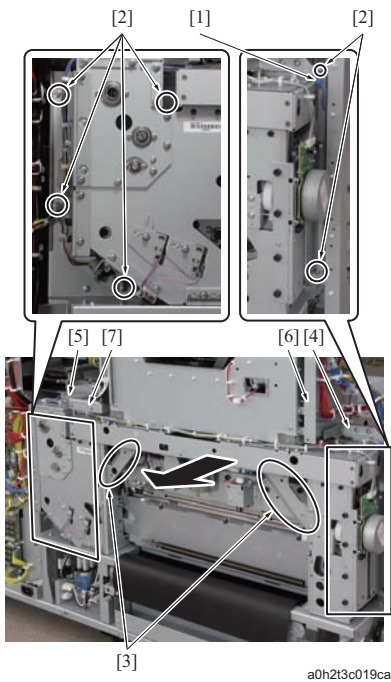
- Trimmer unit

: Spot replacement (actual replacement cycle: every 2,500,000 cuts) *1

*1 1250/1250P/1052/1200/1200P/1051/C6501/C6501P/C65hc/C8000

(2) Procedure for pulling out the trimmer unit

- Remove the following parts.
 - Rear cover /Lt (Refer to [G.18.3.2 Rear cover /Lt](#))
 - Rear cover /Rt (Refer to [G.18.3.3 Rear cover /Rt](#))
 - Left cover (Refer to [G.18.3.4 Left cover](#))
 - Trimmer paddle assy (Refer to [F.19.4.1 Removing/installing the trimmer paddle assy](#))
- Remove each 4 of the screws [1] at 2 places, and then remove 2 fixing plates [2].

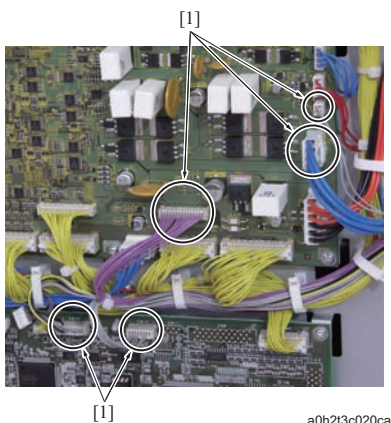


- Disconnect the connector [1].

Note

- When reinstalling it, be careful not to nip the wiring harness with the metal plate.

- Remove 6 screws [2].
- Pull out the trimmer unit to the back side until the stoppers [4] and [5] touch to the anti-drop brackets [6] and [7] by holding the configuration parts [3] of the trimmer unit.
- Reinstall the preceding parts following the removal steps in reverse.

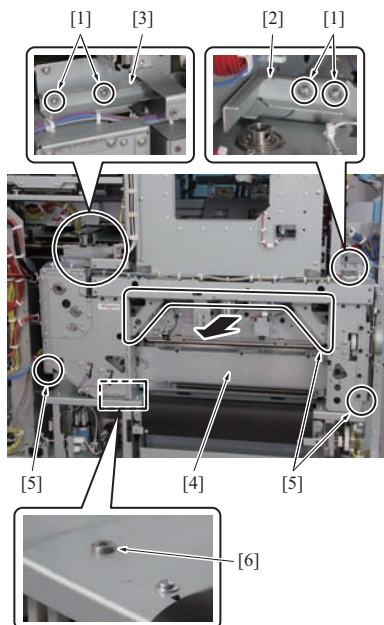
(3) Removing/reinstalling the trimmer unit

- Conduct by the step 4 of the procedure for pulling out the trimmer unit (Refer to [F.19.4.4.\(2\) Procedure for pulling out the trimmer unit](#))

⚠ DANGER:

- Be sure not to pull out the trimmer unit to the back side until the stopper is removed. If the stopper is removed while the trimmer unit is pulled out to the back side, the trimmer unit drops.

- Disconnect 5 connectors [1] and then remove the wiring harness from the wiring harness clamp.



a0h2t3c021ca

3. Remove each 2 of the screws [1] at 2 places, and then remove the stoppers /1 [2] and /2 [3].
4. Pull out the trimmer unit [4] to the back side by holding the configuration parts [5].

Note

- Remove or reinstall the trimmer unit [4] by lifting it slightly to avoid the projection for preventing falling off [6] on the trimmer unit plate.
- Be sure not to hold the position that is easily damaged like the electrical parts.

⚠ Note:

- Be sure to perform this operation with 2 people because the trimmer unit is heavy.

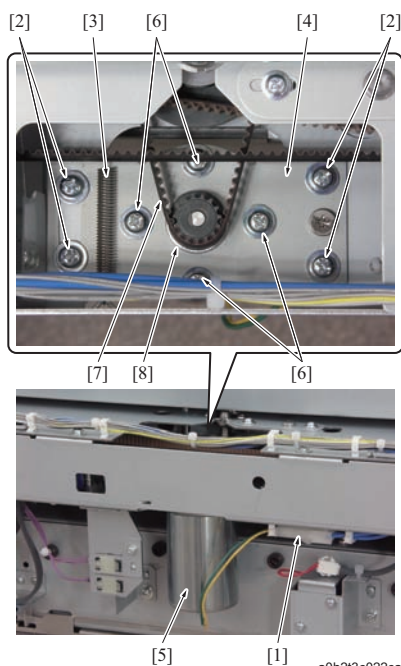
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the part, be sure to reset the parts counter.
 - No.270 (1250/1250P/1052)
 - No.234 (1200/1200P/1051)
 - No.233 (C8000)

19.4.5 Replacing the trimmer press motor (M32)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Trimmer press motor (M32)
- : Every 20,250,000 prints *1 (Actual replacement cycle: Every 500,000 cuts *2)

*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

a0h2t3c022ca

1. Pull out the trimmer unit. (Refer to [F.19.4.4 Replacing the trimming unit](#))
2. Disconnect the connector [1].
3. Loosen 4 screws [2].

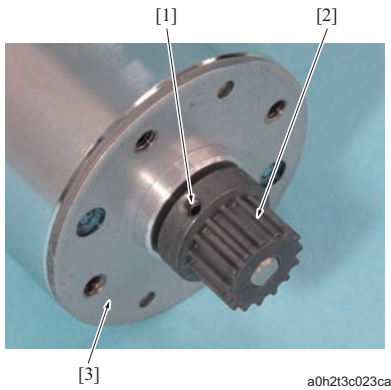
Note

- When reinstalling it, be sure to tighten 4 screws [2] after making the tension of the spring [3] over the mounting plate [4].

4. Remove 4 screws [6] with keeping the trimmer press motor (M32) [5], and then remove it from the belt [7].

Note

- When reinstalling it, be sure to put the trimmer press motor (M32) [5] into the round hole [8].



5. Loosen the screw [1] and then remove the gear [2] from the trimmer press motor (M32) [3].
6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the part, be sure to reset the parts counter.
 - No.268 (1250/1250P/1052)
 - No.230 (1200/1200P/1051)
 - No.231 (C8000/C7000/C7000P/C70hc/C6000)

19.4.6 Replacing the trimmer blade motor (M31)

(1) Periodically replaced parts/Spotted replaced parts/Cycle

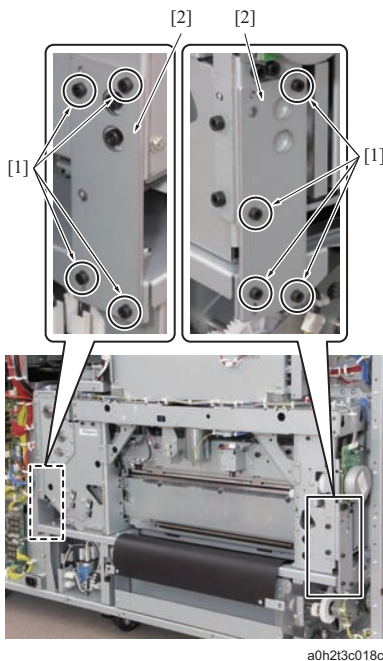
- Trimmer blade motor (M31)
: Every 30,000,000 prints *¹ (Actual replacement cycle: Every 850,000 cuts *²)
- Trimmer blade motor (M31)
: Spot replacement (Actual replacement cycle: Every 2,500,000 feeds)*³

*¹ The periodical replacement is only for 1200/1200P/1051.

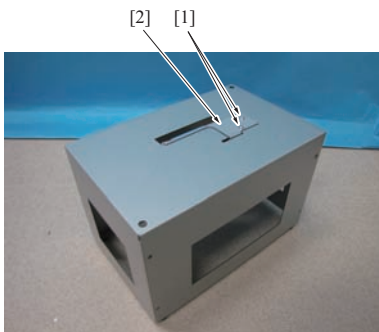
*² Actual replacement cycle of 1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

*³ Actual replacement cycle of 1250/1250P/1052

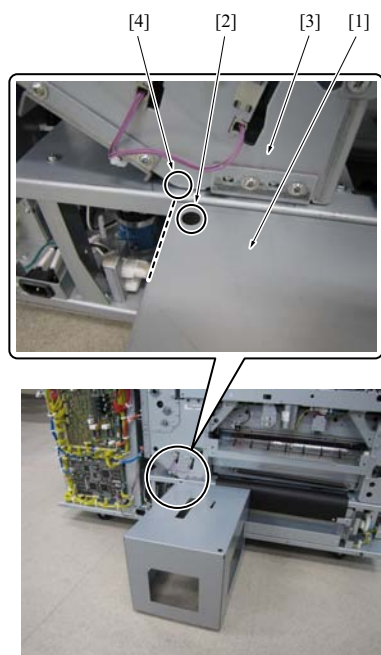
(2) Procedure (previous trimmer unit)



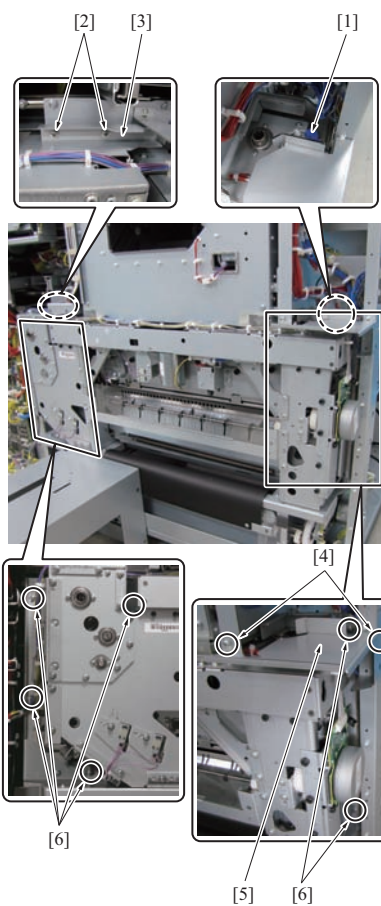
1. Remove the following parts.
 - Rear cover /Lt (Refer to [G.18.3.2 Rear cover /Lt](#))
 - Rear cover /Rt (Refer to [G.18.3.3 Rear cover /Rt](#))
 - Left cover (Refer to [G.18.3.4 Left cover](#))
 - Trimmer scraps guide (Refer to [F.19.4.1 Removing/installing the trimmer paddle assy](#))
2. Remove each 4 of the screws [1] at 2 places, and then remove 2 fixing plates [2].



3. Remove 2 screws [1] of the jig for supporting trimmer unit and then remove the anti-drop bracket [2].



4. Align the edge of the jig for supporting trimmer unit [1] with the corner [4] of the trimmer unit based on the hole [2] of the jig for supporting trimmer unit [1].



5. Disconnect the connector [1].

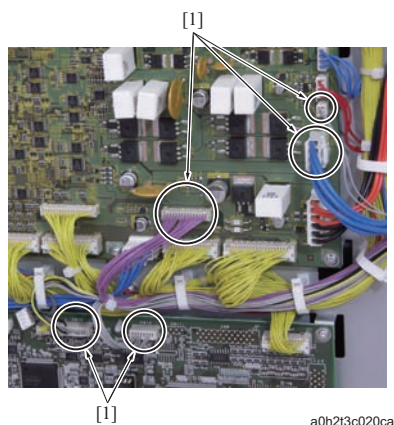
Note

- When reinstalling it, be careful not to nip the wiring harness with the metal plate.

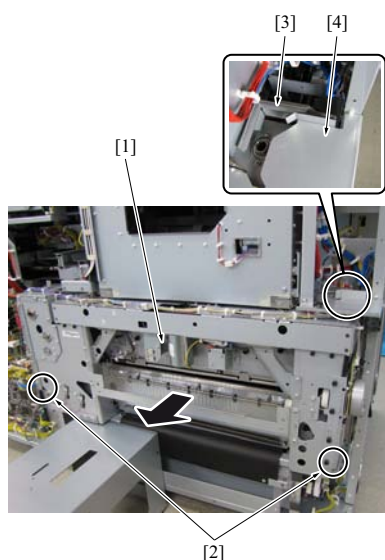
6. Remove 2 screws [2] and then remove the stopper [3].
7. Reinstall the anti-drop bracket [5] with 2 screws [4] which have been removed in step 3.
8. Remove 6 screws [6].

⚠ DANGER:

- Be sure not to pull out the trimmer unit to the back side until the stopper [3] is removed. If the stopper is removed while the trimmer unit is pulled out to the back side, the trimmer unit drops.



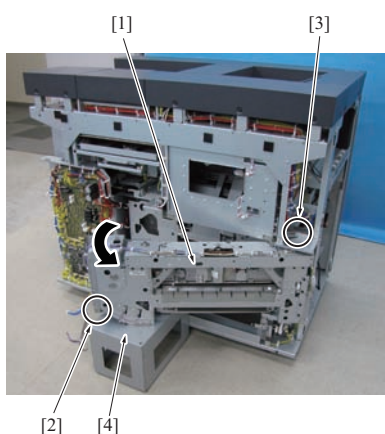
9. Disconnect 5 connectors [1] and then remove the wiring harness from the wiring harness clamp.



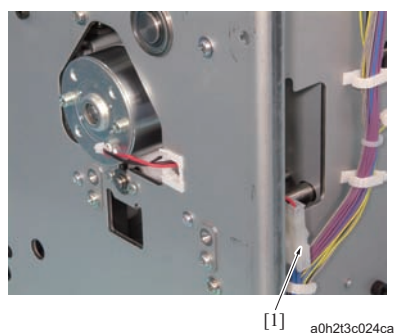
10. Pull out the trimmer unit to the back side until the stoppers [3] touch to the anti-drop brackets [4] by holding the lower edges [2] of the trimmer unit [1].

Note

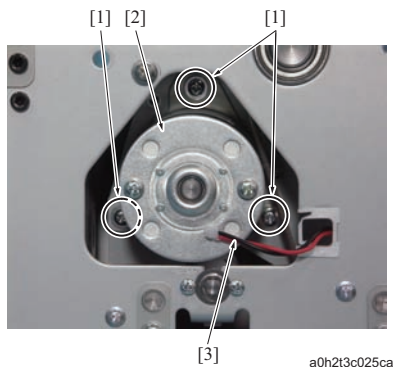
- Be sure not to hold the position that is easily damaged like the electrical parts.



11. Hold the lower right [2] of the trimmer unit [1], turn it around the engaging [3] of the stopper and the anti-drop bracket, and then put the trimmer unit [1] on the jig for supporting trimmer unit [4].



12. Disconnect the connector [1].



13. Remove 3 screws [1] and then remove the trimmer blade motor (M31) [2].

Note

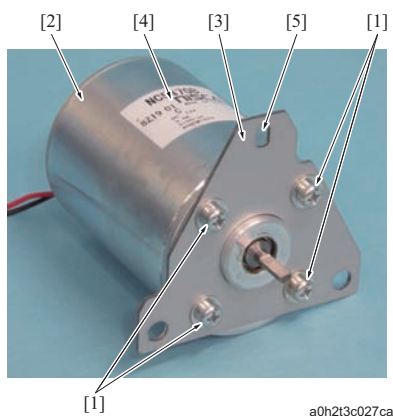
- When reinstalling it, be sure to set so that the wiring harness [3] comes in the position as shown in the picture.



14. Check point when reinstalling the trimmer blade motor (M31)

Note

- When reinstalling it, be sure to insert the D-cut [1] of the shaft on the trimmer blade motor (M31) into the D-cut hole [2] of the planetary gear.



15. Remove 4 screws [1] and then remove the mounting bracket [3] from the trimmer blade motor (M31) [2].

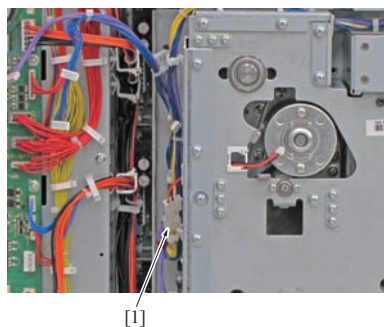
Note

- When reinstalling it, be sure that the label [4] is in the same direction as the slotted hole [5] on the mounting bracket [3].

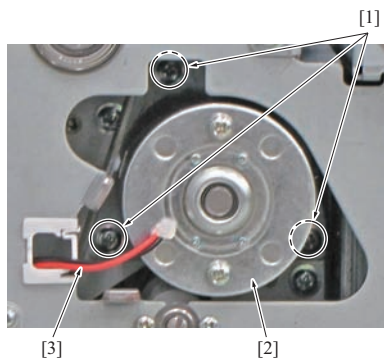
16. Reinstall the preceding parts following the removal steps in reverse.

17. After replacing the part, be sure to reset the parts counter.

- No.269 (1250/1250P/1052)
- No.231 (1200/1200P/1051)
- No.232 (C8000/C7000/C7000P/C70hc/C6000)

(3) Procedure (new trimmer unit)

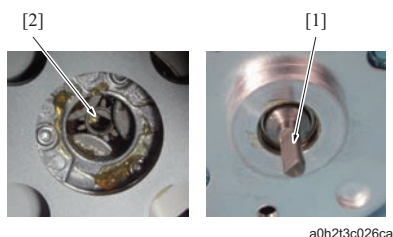
1. Remove the rear cover /Lt. (Refer to [G.18.3.2 Rear cover /Lt](#))
2. Disconnect the connector [1].



3. Loosen 3 screws [1] and then remove the trimmer blade motor (M31) [2].

Note

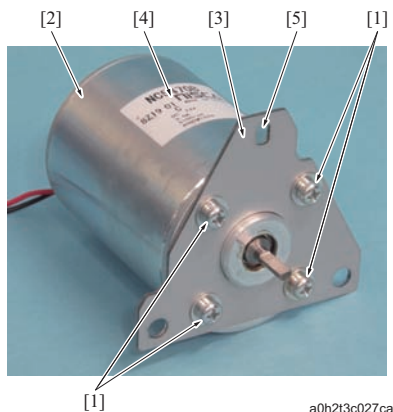
- When reinstalling it, be sure to set so that the wiring harness [3] comes in the position as shown in the picture.



4. Check point when reinstalling the trimmer blade motor (M31)

Note

- When reinstalling it, be sure to insert the D-cut [1] of the shaft on the trimmer blade motor (M31) into the D-cut hole [2] of the planetary gear.



5. Remove 4 screws [1] and then remove the mounting bracket [3] from the trimmer blade motor (M31) [2].

Note

- When reinstalling it, be sure that the label [4] is in the same direction as the slotted hole [5] on the mounting bracket [3].

6. Reinstall the preceding parts following the removal steps in reverse.
7. After replacing the part, be sure to reset the parts counter.
 - No.269 (1250/1250P/1052)
 - No.231 (1200/1200P/1051)
 - No.232 (C8000/C7000/C7000P/C70hc/C6000)

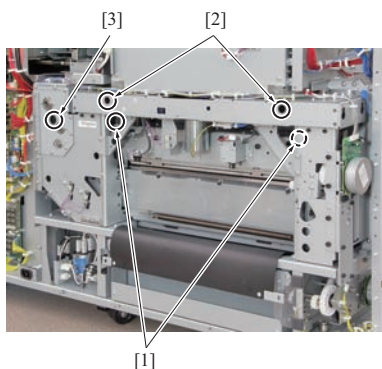
19.4.7 Lubrication to the trimmer unit**(1) Periodic lubrication parts/cycle**

- Paper holding screw
 - : Every 1,400,000 prints (Actual lubrication cycle: Every 37,500 cuts) *1
 - : Every 1,500,000 prints (Actual lubrication cycle: Every 37,500 cuts) *2*3
- Drive gear /3, /4
 - : Every 20,250,000 prints (Actual lubrication cycle: Every 500,000 cuts) *2

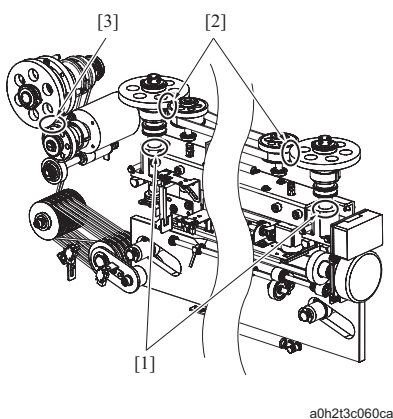
*1 C6501/C6501P/C65hc

*2 1200/1200P/1051

*3 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

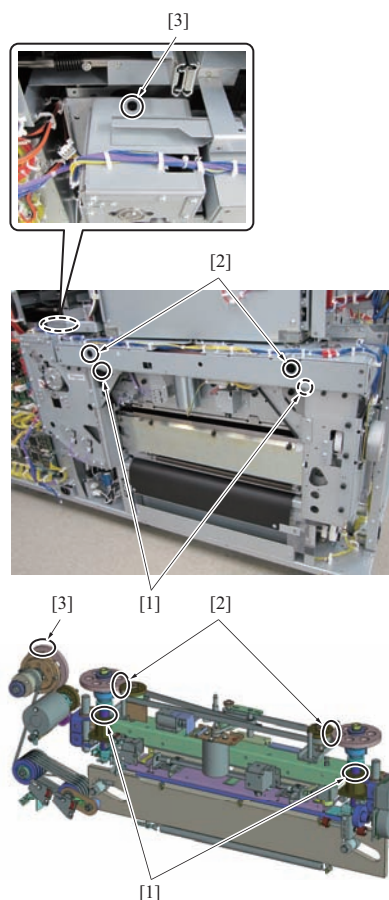
(2) Procedure (previous trimmer unit)

1. Remove the rear cover /Lt. (Refer to [G.18.3.2 Rear cover /Lt](#))
2. Lubricate Molykote EM-30L to the paper holding screw [1].
3. Lubricate Molykote EM-30L to the drive gears /3 [2] and /4 [3].
4. Reinstall the preceding parts following the removal steps in reverse.



Note

- When applying the grease, be careful not to spill the grease to other parts.

(3) Procedure (new trimmer unit)

1. Pull out the trimmer unit. (Refer to [F.19.4.4.\(2\) Procedure for pulling out the trimmer unit](#))
2. Lubricate Molykote EM-30L to the paper holding screw [1].
3. Lubricate Molykote EM-30L to the drive gears /3 [2] and /4 [3].
4. Reinstall the preceding parts following the removal steps in reverse.

Note

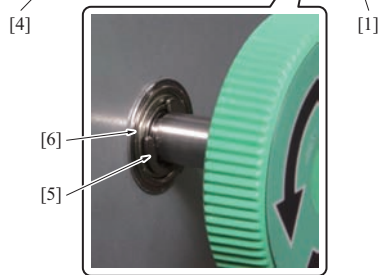
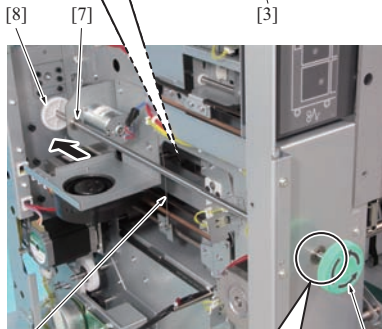
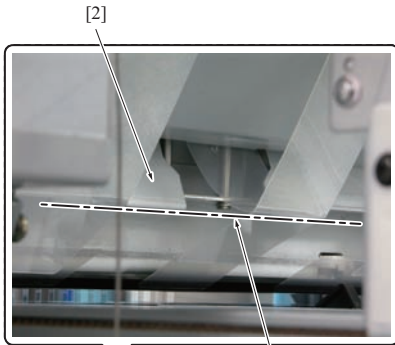
- When applying the grease, be careful not to spill the grease to other parts.

19.5 Bundle processing section**19.5.1 Replacing the bundle press stage gear****(1) Periodically replaced parts/Spotted replaced parts/Cycle**

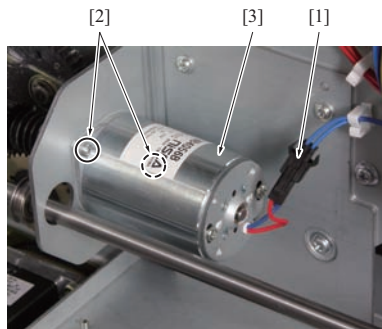
- Bundle press stage gear
: Every 20,250,000 prints *1 (Actual replacement cycle: Every 500,000 set (number of set of sheets exited to the bundle tray) *2)

*1 The periodical replacement is only for 1200/1200P/1051.

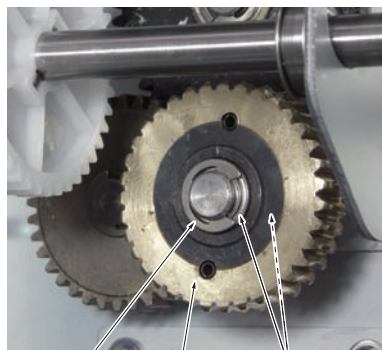
*2 1250/1250P/1052/1200/1200P/1051/C6501/C6501P/C65hc/C8000/C7000/C7000P/C70hc/C6000 spotted replaced cycle

(2) Procedure

a0h2t3c028ca



a0h2t3c029ca



a0h2t3c030ca

1. Remove the following parts.
 - Rear cover /Lt (Refer to [G.18.3.2 Rear cover /Lt](#))
 - Left cover (Refer to [G.18.3.4 Left cover](#))
2. Rotate the jam cleaning knob [1] in the arrow-marked direction until it stops.

Note

 - When the jam cleaning knob [1] stops, be sure to check that the bundle registration plate [2] comes to the upper position [3] after the bundle press stage goes down and the tension of the wire [4] is released.
 - Be sure not to rotate the jam cleaning knob too much.
3. Remove the E-ring [5] and move the gear [8] to the back side after moving the bearings [6] and [7].

4. Disconnect the connector [1].
5. Remove 2 screws [2] and then remove the bundle press stage up down motor (M24).

Note

- Be careful not to lose the pin [3] as it drops off when removing the gear [2].

6. Remove the E-ring [1], and then remove the bundle press stage gear [2] and 2 bearings [3] on both sides of the gear.

Note

- After replacing the bundle press stage gear [2], be sure to apply plas guard No.2 to the gear.

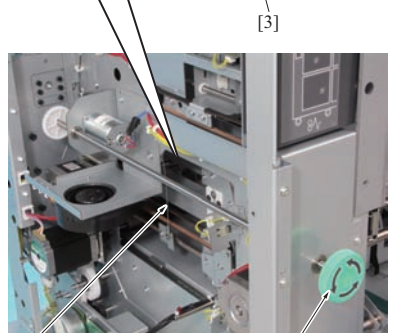
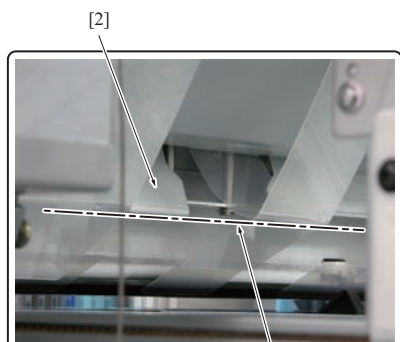
7. Reinstall the preceding parts following the removal steps in reverse.
8. After replacing the part, be sure to reset the parts counter.
 - No.267 (1250/1250P/1052)
 - No.229 (1200/1200P/1051)
 - No.242 (C8000/C7000/C7000P/C70hc/C6000)

19.5.2 Replacing the bundle press stage unit**(1) Spotted replaced parts/cycle**

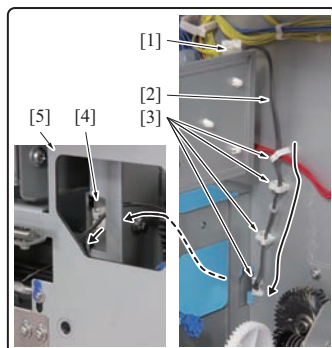
- Bundle press stage unit

: Spot replacement (Actual replacement cycle: every 2,500,000 copies (number of set of sheets exited to the bundle tray)) *1

*1 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

[1] a0h2t3c031ca



a0h2t3c032ca

1. Remove the following parts.
 - Rear cover /Lt (Refer to [G.18.3.2 Rear cover /Lt](#))
 - Rear cover /Rt (Refer to [G.18.3.3 Rear cover /Rt](#))
 - Left cover (Refer to [G.18.3.4 Left cover](#))
 - Trimmer unit (Refer to [F.19.4.4 Replacing the trimming unit](#))
2. Rotate the jam cleaning knob [1] in the arrow-marked direction until it stops.

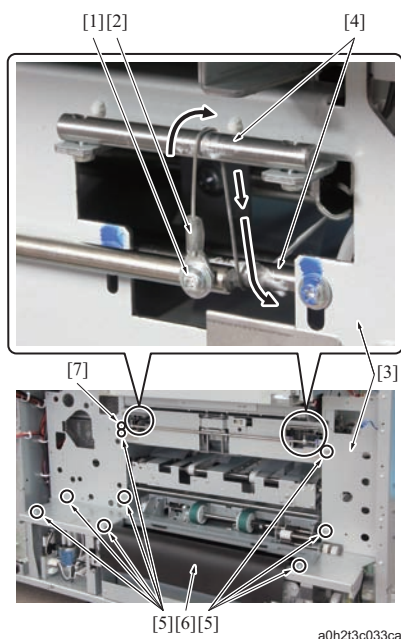
Note

- When the jam cleaning knob [1] stops, be sure to check that the bundle registration plate [2] comes to the upper position [3] after the bundle press stage goes down and the tension of the wire [4] is released.
- Be sure not to rotate the jam cleaning knob too much.

3. Disconnect the connector [1].
4. Remove the wiring harness [2] from the clamp [3], and then pull it out from the hole [4] by following the arrow.

Note

- When reinstalling it, be careful not to nip the wiring harness [2] with the trimmer unit plate [5].



5. Remove 1 each of the screws at 2 places and remove 1 each of the up-down wire [2], and then take it out to the front side of the machine from the trimmer unit plate [3] by following the arrow.

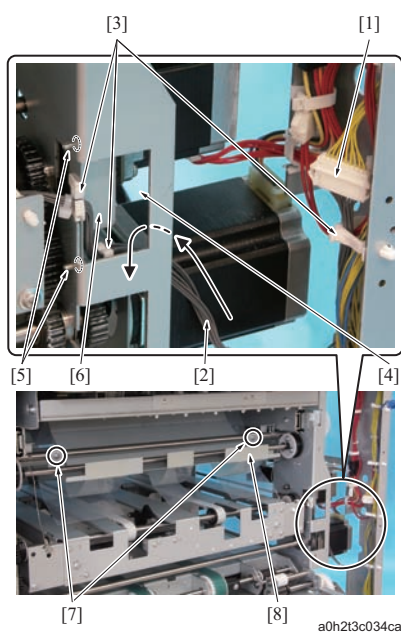
Note

- When reinstalling it, be sure to lubricate Molykote EM-30L to each 2 shafts [4].

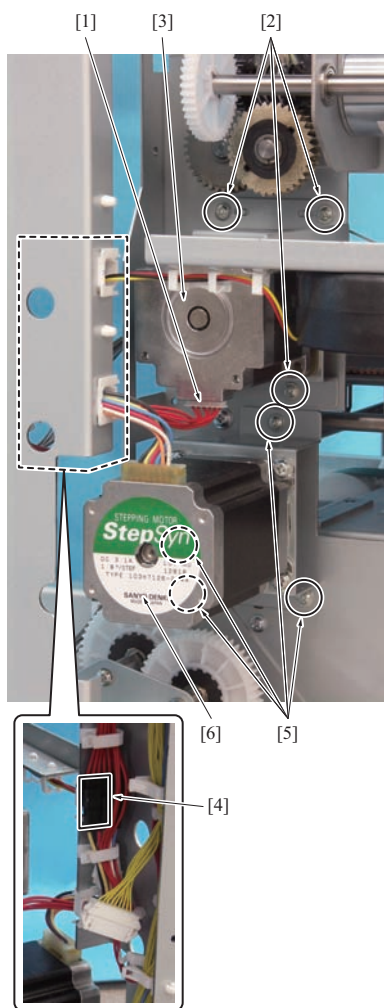
6. Remove 8 screws [5] and then remove the trimmer unit plate [3].

Note

- Be careful not to damage the trimmer scraps guide [6].
- When reinstalling it, be sure to align the projection [7].



7. Disconnect the connector [1] and remove the wiring harness [2] from clamp [3], and then take it out from the hole [4] of the metal plate to the arrow-marked direction.
8. Remove 2 screws [5] and then remove the bracket [6].
9. Remove 2 screws [7] and then remove the guide plate [8].



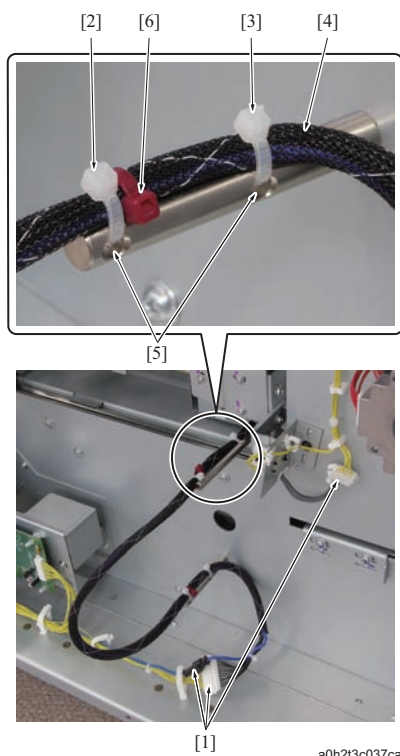
a0h2t3c035ca

10. Disconnect the connector [1].
11. Remove 3 screws [2] and then remove the bundle registration motor (M12) [3].
12. Disconnect the connector [4].
13. Remove 4 screws [5] and then remove the bundle press movement motor (M17) [6].



a0h2t3c036ca

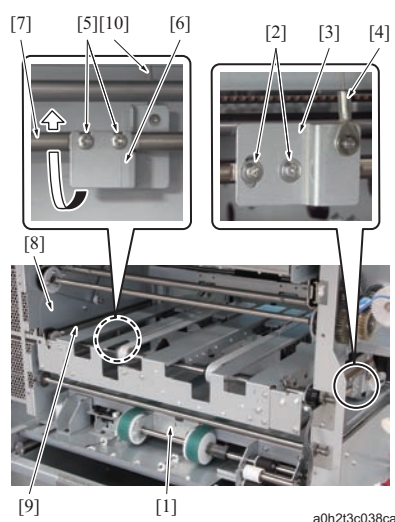
14. Remove the E-ring [1] and then remove the gear [2] and the pin [3].
15. Remove the E-ring [4] and then remove the gear [5] and the pin [6].



16. Disconnect 3 connectors [1].
17. Cut the wire binding bands [2] and [3] and remove the wiring harness [4].

Note

- Be sure to let the wire binding bands [2] and [3] into the shaft hole [5] and install the wire retaining band [6] on the [2] side between the bands [2] and [3].



18. Pull out the bundle paper exit tray [1].
19. Remove 2 screws [2] and then remove the wire mounting plate /Lt [3].

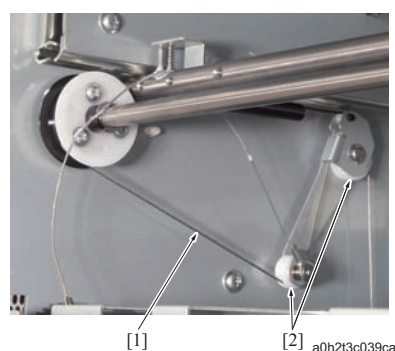
Note

- Since the wire /Lt [4] has the tension of the spring, be sure to remove 2 screws [2] with keeping the wire mounting plate /Lt [3] and lift it up until the tension is released, and then take it off gently.

20. Loosen the screws [5] and pull the wire mounting plate /Rt [6] downward to move it to the opposite side of the shaft [7], and then remove it to the space between the side plate [8] and the timing belt [9].

Note

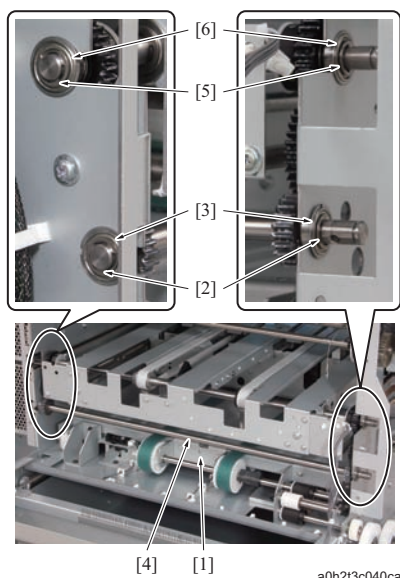
- Since the wire /Rt [10] has the tension of the spring, be sure to lift up the wire mounting plate /Rt [6] until the tension is released, and then take it off gently.



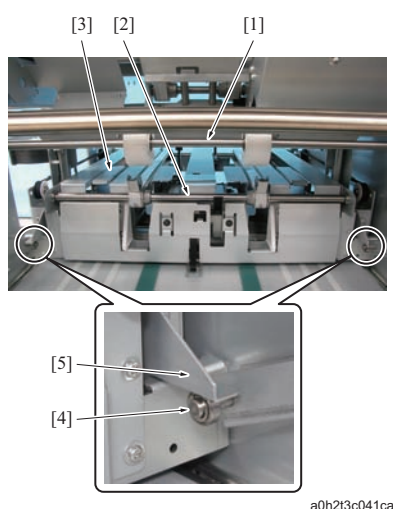
21. Check point when reinstalling the wire

Note

- When reinstalling it, be sure to put the wire [1] on 2 pulleys [2].



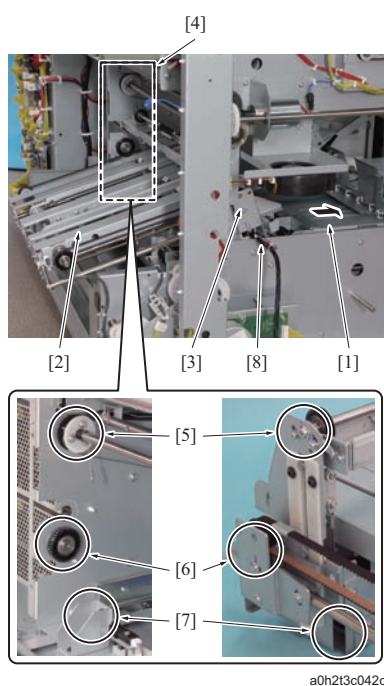
22. Push the bundle paper exit tray [1] fully to the back.
23. Remove 2 E-rings [2] and then remove 2 bearings [3] and the drive shaft [4].
24. Remove 2 E-rings [5] and then remove the bearings [6].



25. While keep holding the bundle paper exit assist roller [1] horizontally, push the bundle press stage unit [3] to the back with holding the shaft [2] to release the roller pin [4] of the bundle paper exit assist roller arm from the regulation bracket [5]. After the release, put down the bundle paper exit assist roller [1] gently.

Note

- Once the roller pin [4] of the bundle paper exit assist roller arm is removed from the regulation bracket [5], the bundle paper exit assist roller drops off. Therefore, be sure to hold with hands.
- When reinstalling, be sure to put the roller pin [4] under the regulation bracket [5].



26. Pull out the bundle paper exit tray [1] to about half.

Note

- If the bundle paper exit tray [1] is pulled out too much, the bundle press stage unit [2] drops off from the tray.

27. Pull out the bundle press stage unit [2] to the position in the picture with holding the bundle press section [3]. Then, pull it out more to the back with paying attention to the contacting places [5], [6], and [7] on the right side, and remove the arm [8].
28. Reinstall the preceding parts following the removal steps in reverse.

Note

- After the installation, be sure to check that the bundle press stage unit goes up and down horizontally by rotating the jam cleaning knob.

20. PERIODICAL MAINTENANCE PROCEDURE PB-503

20.1 Sub compile (SC) section

20.1.1 Precautions on maintenance

⚠ CAUTION

- Be sure to unplug the power plug of the PB from the power outlet.
- Make sure to unplug the power code of the main body from the power outlet when it is connected to the main body.

20.1.2 Replacing the switchback roller

(1) Periodically replaced parts/Spotted replaced parts/Cycle

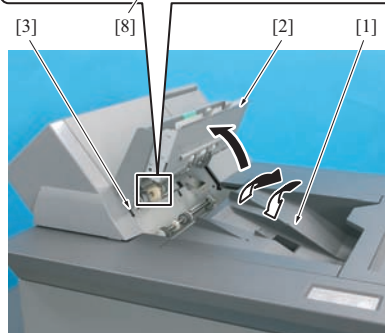
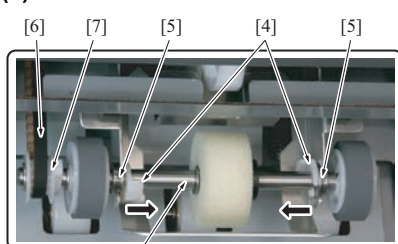
- Switchback roller
 - : Every 750,000 prints ^{*1} (Actual replacement cycle: Every 600,000 cuts)
 - : Spotted replacement (Actual replacement cycle: Every 600,000 prints) ^{*2}
 - : Spotted replacement (Actual replacement cycle: Every 750,000 prints) ^{*3}

^{*1} 1200/1200P/1051

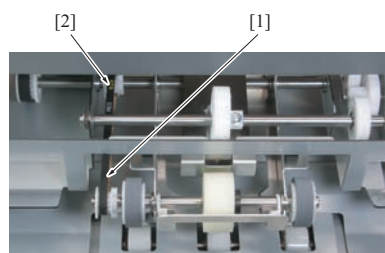
^{*2} C8000/C7000/C7000P/C70hc/C6000

^{*3} 1250/1250P/1052

(2) Procedure



a075f2c001ca



a075f2c002ca

1. Open the upper door [1] to open the SC door [2]. Then close the upper door [1].

Note

- To keep the SC door open, insert a screwdriver into the hole [3]. Be sure to remove the screwdriver when closing the sub clamp door, or the cover gets damaged.

2. Remove the 2 C-clips [4], and slide the 2 bearings [5] into the inside.

Note

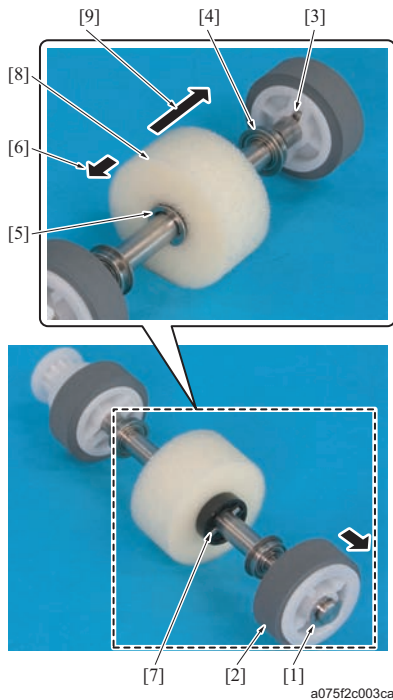
- Before removing the C-clips, be sure to spread a sheet of paper and so on under the switchback roller assy to prevent the C-clips from dropping into inside of the machine.

3. Release the pulley [7] from the belt [6] gently, and remove the switchback roller assy [8].

4. Check point when reinstalling the switchback roller assy

Note

- After reinstalling the switchback roller assy, use a mirror to check that the belt [1] is properly looped over the pulley [2] without any slackness. If the belt has comes off the pulley, remove the SC cover /Up to correct that. (Refer to [G.19.2.12 SC cover /Up](#))



5. Remove the E-ring [1], and remove the roller [2] and the pin [3].
6. Remove the bearing [4].

Note

- Be sure to install the bearing [4] so that its collar faces toward the switchback roller.

7. Remove the E-ring [5], slide the switchback roller [8] in the direction of the arrow [6] (toward the pulley) and remove the pin [7]. Then remove the switchback roller [8] in the direction of the arrow [9].
8. Reinstall the preceding parts following the removal steps in reverse.
9. After replacing the part, be sure to reset the parts counter.
 - No.275 (1250/1250P/1052)
 - No.239 (1200/1200P/1051)
 - No.299 (C8000/C7000/C7000P/C70hc/C6000)

20.1.3 Replacing the SC switchback release motor (M13) and the one-way clutches /A and /B

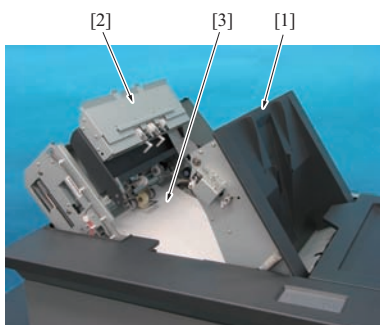
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- SC switchback release motor (M13)
 - : Every 6,000,000 prints *¹ (Actual replacement cycle: Every 3,000,000 prints *²)
 - : Spot replacement (Actual replacement cycle: Every 750,000 prints *²)
- One-way clutch /B
 - : Spot replacement (Actual replacement cycle: Every 6,000,000 prints *²)
- One-way clutch /A
 - : Every 12,000,000 prints *¹ (Actual replacement cycle: Every 6,000,000 cuts *²)

*¹ Periodical replacement only for 1200/1200P/1051. C8000 is not supported.

*² Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

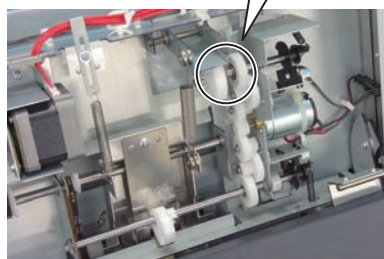
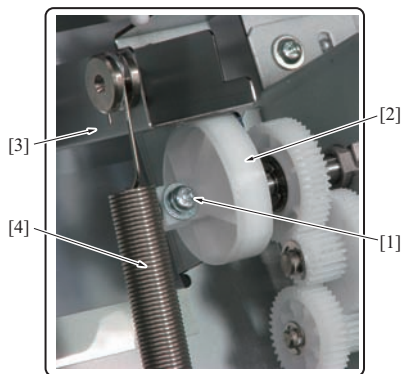
(2) Procedure



1. Remove the SC cover /Up. (Refer to [G.19.2.12 SC cover /Up](#))
2. Open the upper door [1] to open the SC door [2] and set the paper [3].
3. Close the SC door [2].

Note

- Before removing the C-clips, be sure to spread a sheet of paper under the switchback roller assy to prevent the C-clips from dropping into the machine inside.

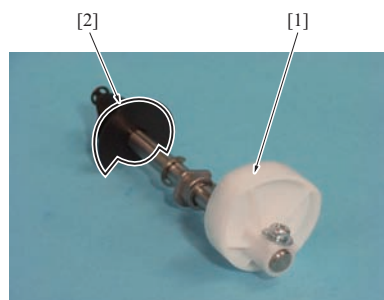


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4. Remove the screw [1] and remove the switchback cam [2].

Note

- The switchback cam [2] is tensioned by the spring [4] via the switchback arm [3]. When removing the screw [1], the switchback arm [3] is pulled by the spring [4] and the switchback cam [2] moves. At this time, be careful not to drop the screw [1].

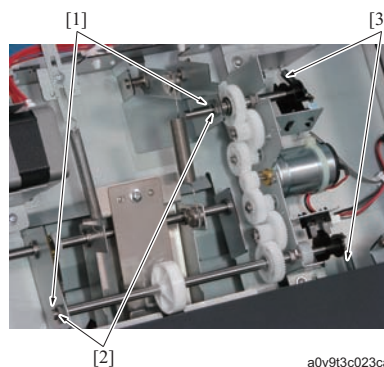


a0v9t3c022ca

5. Check point when reinstalling the switchback cam

Note

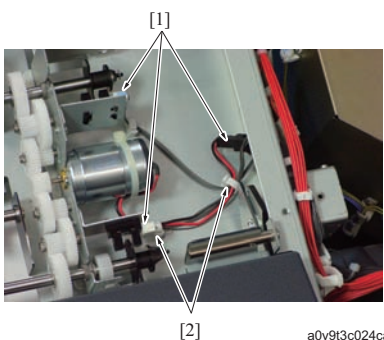
- When reinstalling the switchback cam [2], be sure to install it following the positional relation with the actuator [2] as shown in the picture.



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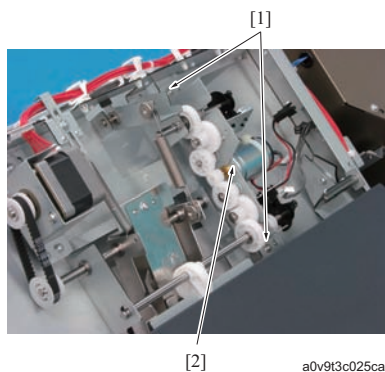
6. Remove 2 E-rings [1] and remove 2 bearings [2].

7. Remove 2 springs [3].

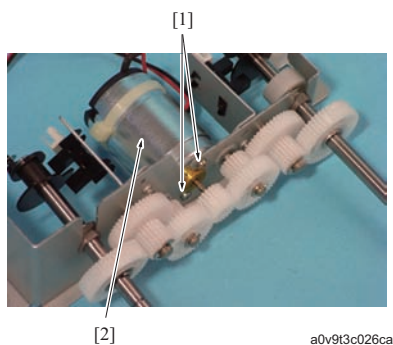


a0v9t3c024ca

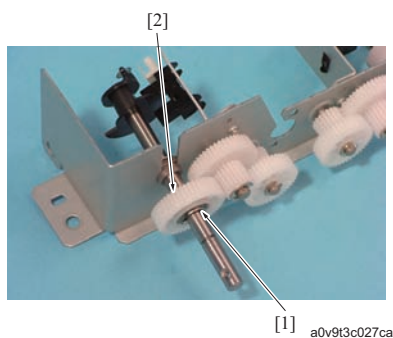
8. Disconnect 3 connectors [1] and remove the wiring harness from 2 wiring harness clamps [2].



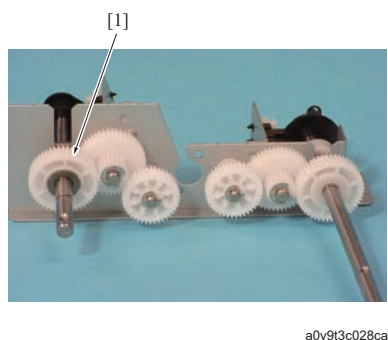
9. Remove 2 screws [1] and remove the SC switchback release motor assy [2].



10. Remove 2 screws [1] and remove the SC switchback release motor [2].



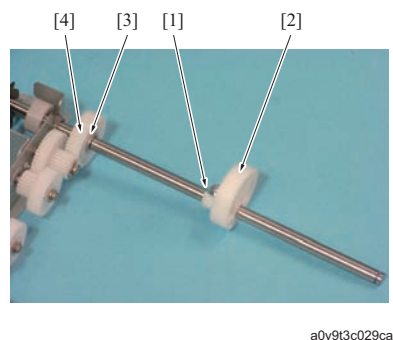
11. Remove the E-ring [1] and remove the one-way clutch /B [2].



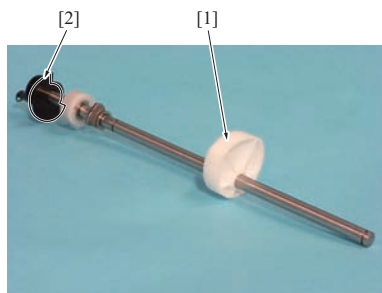
12. Check point when reinstalling the one-way clutch /B

Note

- When reinstalling the one-way clutch /B [1], be sure to install it in the direction shown in the picture.



13. Remove the screw [1] and remove the pressure cam [2].
 14. Remove the E-ring [3] and remove the one-way clutch /A [4].
 15. Reinstall the preceding parts following the removal steps in reverse.
 16. After replacing the part, be sure to reset the parts counter.
- No.272 (1250/1250P/1052)
 - No.236 (1200/1200P/1051)
 - No.296 (C8000)

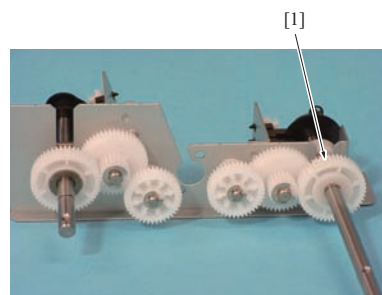


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17. Check point when reinstalling the pressure cam

Note

- When reinstalling the pressure cam [1], be sure to install it following the positional relation with the actuator [2] as shown in the picture.

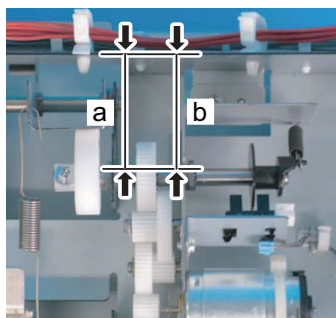


a0v9t3c033ca

18. Check point when reinstalling the one-way clutch /A

Note

- When reinstalling the one-way clutch /A [1], be sure to install it in the direction shown in the picture.



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19. Standard value when reinstalling the SC switchback release motor assy

Note

- When reinstalling the SC switchback release motor assy, be sure to set so that the distances "a" and "b" become same value.

Standard value: The difference of distances "a" and "b" = 0.2mm or less

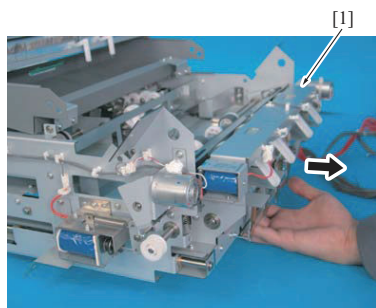
20.1.4 Replacing the SC pressure arm solenoid (SD13)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- SC pressure arm solenoid (SD13)

: Every 20,250,000 prints *1 (Actual replacement cycle: Every 5,000,000 cuts *2)

*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

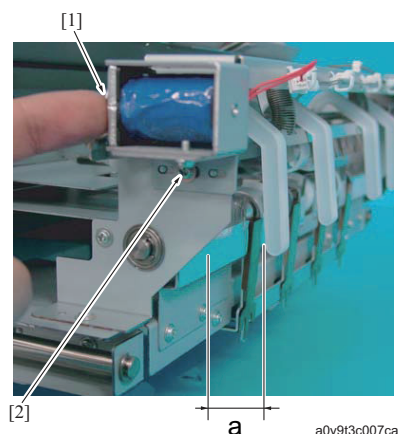
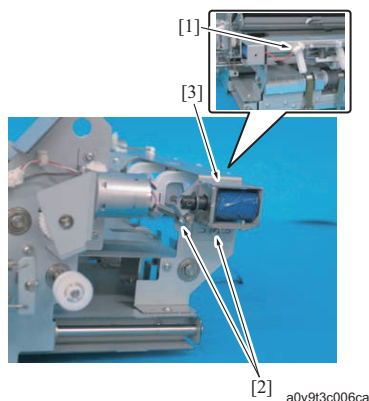
(2) Procedure

a0v9t3c005ca

1. Remove the SC unit. (Refer to [G.19.2.21 SC unit](#))**Note**

- When putting down the SC unit, be sure not to pin the wiring harness under it.
- Put the SC unit on a table so that the bottom surface of the sub scan alignment unit [1] does not contact the floor.

2. Pull out the sub scan alignment unit [1] in the arrow-marked direction.



3. Disconnect the connector [1].
4. Remove 2 screws [2] and remove the SC pressure arm solenoid (SD13) [3].
5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the part, be sure to reset the parts counter.
 - No.274 (1250/1250P/1052)
 - No.238 (1200/1200P/1051)
 - No.298 (C8000)

7. Standard value when reinstalling the SC pressure arm solenoid (SD13)

Note

- When reinstalling the SC pressure arm solenoid, adjust the position so that the distance "a" obtains a standard value with the plunger [1] pulled, and then fix with the screw [2].

Standard value: $a = 16.4 \pm 1\text{mm}$

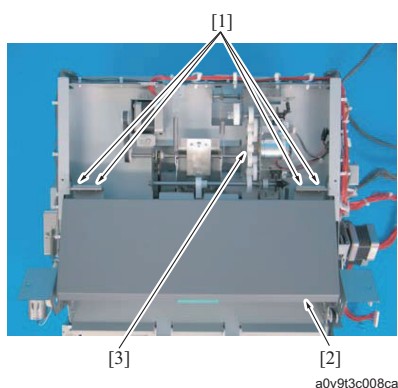
20.1.5 Replacing the FD alignment solenoid (SD11)**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- FD alignment solenoid (SD11)

: Every 20,250,000 prints ^{*1} (Actual replacement cycle: Every 5,000,000 cuts ^{*2})

^{*1} The periodical replacement is only for 1200/1200P/1051.

^{*2} Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

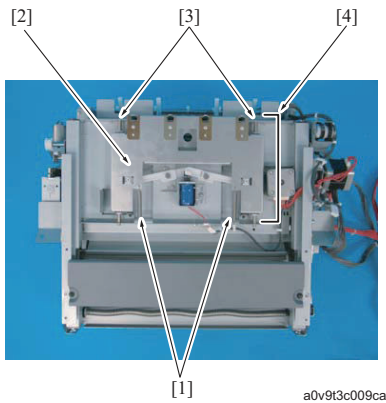
(2) Procedure

1. Remove the SC unit. (Refer to [G.19.2.21 SC unit](#))

Note

- When putting down the SC unit, be sure not to pin the wiring harness under it.
- Put the SC unit on a table so that the bottom surface of the sub scan alignment unit [1] does not contact the floor.

2. Remove 4 screws [1] and remove the SC door [2].

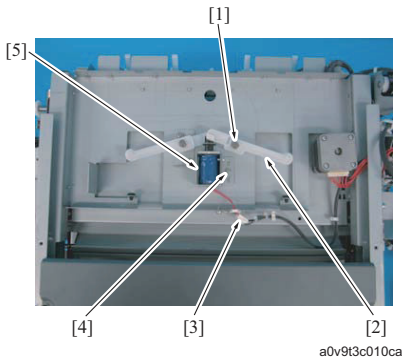


3. Put the SC unit with the FD alignment solenoid assy [4] faced up.

Note

- Put the SC unit on a table so that the SC switchback release motor assy [3] does not contact the floor.

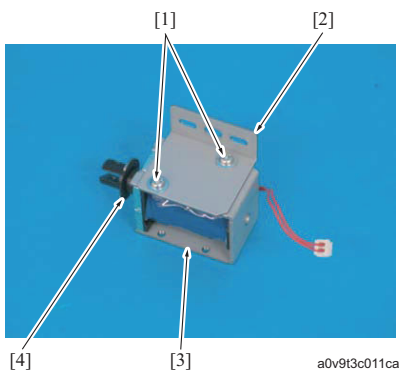
4. Remove 2 springs [1].
5. Remove 2 screws [3] and pull out 2 shafts, and then remove the sub scan alignment plate [2].



6. Remove the E-ring [1] and remove the sub scan alignment arm [2].
7. Disconnect the connector [3] and remove the screw [4], and then remove the FD alignment solenoid assy [5].

Note

- When removing the FD alignment solenoid assy, be careful not to drop the pin.

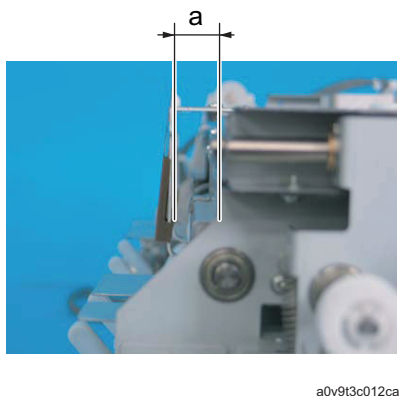


8. Remove 2 screws [1] to remove the mounting plate [2], and then remove the FD alignment solenoid (SD11) [3].

Note

- When reinstalling the FD alignment solenoid, adjust the position so that the distance "a" obtains a standard value with the plunger [4] pulled.

Standard value: $a = 17.5 \pm 0.5\text{mm}$



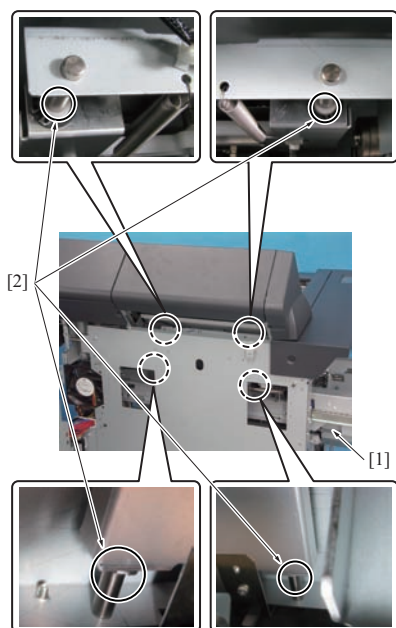
9. Reinstall the preceding parts following the removal steps in reverse.
10. After replacing the part, be sure to reset the parts counter.
 - No.273 (1250/1250P/1052)
 - No.237 (1200/1200P/1051)
 - No.297 (C8000)

20.1.6 Lubrication to the sub scan alignment plate shaft

(1) Periodic lubrication parts/cycle

- Sub scan alignment plate shaft
- : Every 750,000 prints *1

*1 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

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1. Remove the PB left unit. (Refer to [G.19.2.23 PB left unit](#))
2. Remove the upper cover /Md. (Refer to [G.19.2.21 SC unit](#))
3. Pull out the clamp unit [1].
4. Apply plas guard No.2 to the 4 sub scan alignment plate shafts [2].
5. Reinstall the preceding parts following the removal steps in reverse.

20.2 Cover paper table section**20.2.1 Precautions on maintenance****⚠ CAUTION**

- Make sure to unplug the power cord of the main body from the power outlet when it is connected to the main body.
- The glue tank unit is extremely hot right after turning OFF the main power switch (SW1) or the sub power switch (SW2) of the main body. To prevent burn injuries, leave the unit until it cools enough before performing the maintenance work.

Note

- Before performing the maintenance work, be sure to carry out the initial operation so that each part/unit is at the home position.

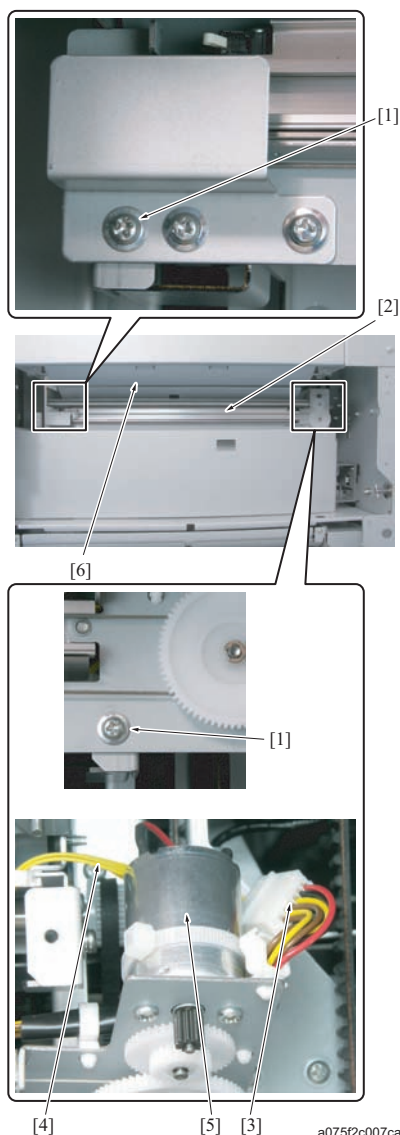
20.2.2 Replacing the roller cutter blade assy**(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Roller cutter blade assy

: Every 10,500,000 prints *1 (Actual replacement cycle: Every 100,000 cuts *2)

*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

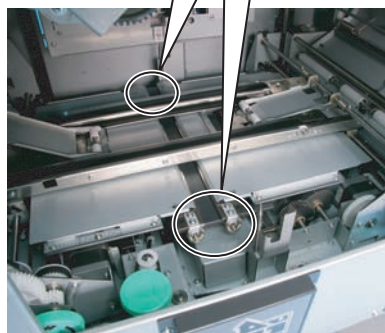
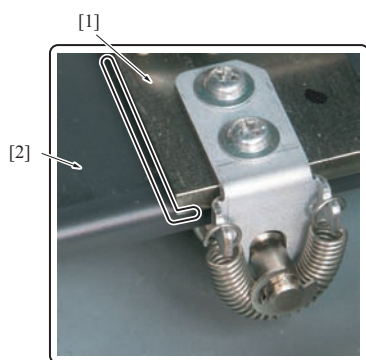
(2) Procedure

1. Remove the PB from the main body.
 2. Remove the conveyance unit /Lw. (Refer to [G.19.2.26 Conveyance unit /Lw](#))
 3. Remove 2 screws [1] and the roller cutter blade assy [2]. Then disconnect the connector [3].
- Note**
- Pull out the cover paper waste box before removing the roller cutter assy.
 - When reinstalling the roller cutter assy, be sure to route the wire binding [4] under the cutter motor (M50) [5].
 - Push the roller cutter blade assy [2] against the metal plate [6] to reinstall the assy.
4. Reinstall the preceding parts following the removal steps in reverse.
 5. After replacing the part, be sure to reset the parts counter.
 - No.280 (1250/1250P/1052)
 - No.244 (1200/1200P/1051)
 - No.304 (C8000/C7000/C7000P/C70hc/C6000)

20.2.3 Cleaning the cover paper folding plate and the book spine backing plate**(1) Periodically cleaned parts/cycle**

- Cover paper folding plate and the book spine backing plate
- : Every 750,000 prints*¹

*1 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Simplified cleaning procedure

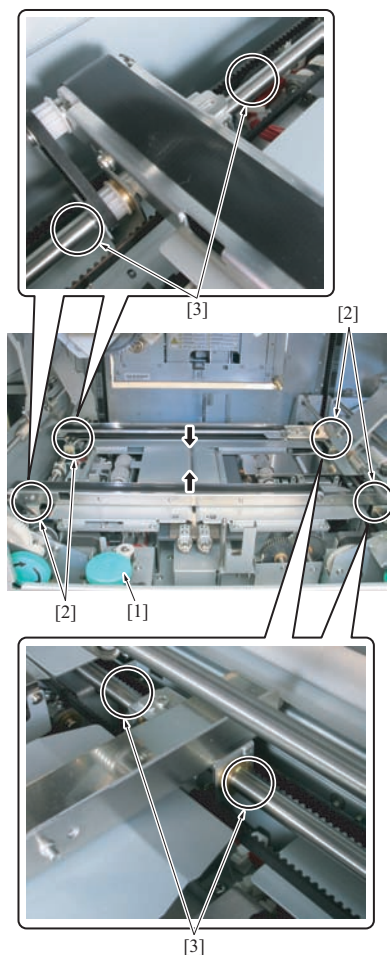
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1. Carry out the I/O check in service mode in the order of following output check code, and turn OFF the sub power switch (SW2) and the main power switch (SW1) with the cover paper folding plate opened.
"77-55", "77-45", "77-58", "77-61"
2. Clean the cover paper folding plate [1] and the book spine backing plate [2].

20.2.4 Lubrication to the cover paper alignment plate shaft**(1) Periodic lubrication parts/cycle**

- Cover paper alignment plate shaft
: Every 750,000 prints *1

*1 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

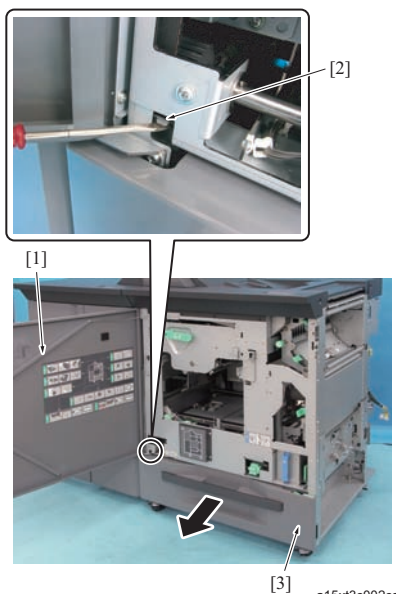
(2) Procedure

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1. Turn the knob [1] to move the cover paper alignment plate inward.
2. Apply plas guard No.2 to the 4 cover paper alignment plate shafts [2].

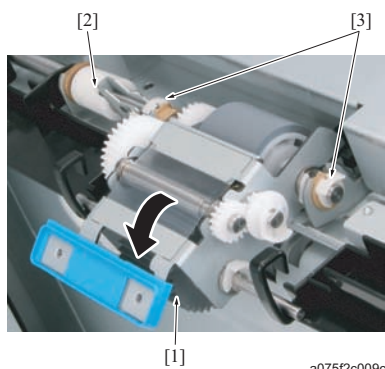
Note

- Apply plas guard No.2 to the outside of the cover paper alignment plate bearing on both sides [3].

20.3 Cover paper supply section**20.3.1 Removing/reinstalling the pick-up roller assy and the separation roller assy****(1) Procedure**

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1. Open the front door [1].
2. Unlock the cover paper tray [3] by slightly pushing up the cover paper tray lock lever [2] with a screwdriver or a similar tool, and pull out the cover paper tray [3].

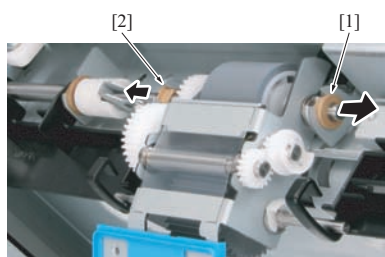


3. Turn the pick-up roller [1] in the direction of the arrow (counterclockwise as seen from the front side) to make the coupling [2] upright.

Note

- Be sure not to rotate the pick-up roller [1] against the direction of the arrow (clockwise) forcibly, as the roller is not designed to rotate in that direction.

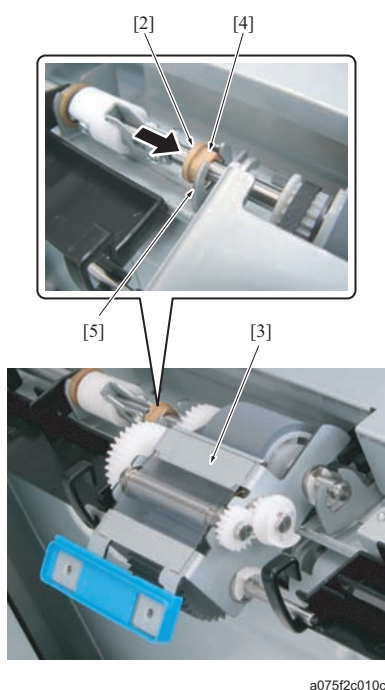
4. Remove 2 C-clips [3].

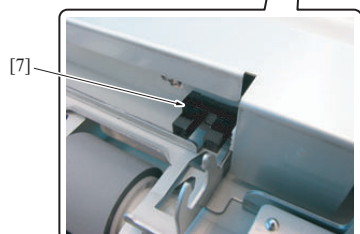
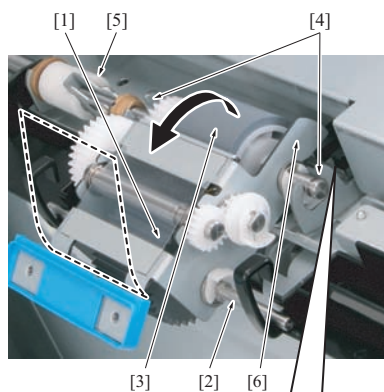


5. Remove the bearing /Fr [1].
6. Move the bearing /Rr [2] to the rear side.

Note

- When reinstalling them, insert the bearing /Rr [2] into the notch [5] on the metal frame while keeping on the level the flat face [4] of the bearing, and slightly pressing down the metal frame [3] of the pick-up roller assy. Then insert the bearing /Fr [1] in the same manner.



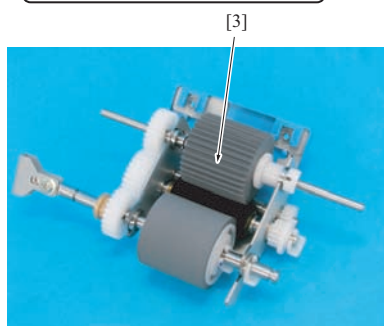
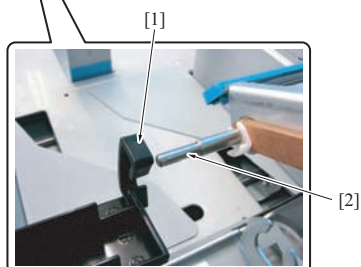
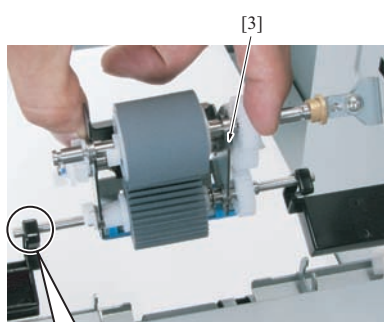


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7. Hold the pick-up roller assy [1] by hand and lift and tilt the paper feed roller [3] so that it rotates on the shaft [2] of the pick-up roller to remove it from the notch of the bearing [4] and the coupling [5].

Note

- When removing the pick-up roller assy [1], be careful not to damage the sensor [7] with the metal frame [6].

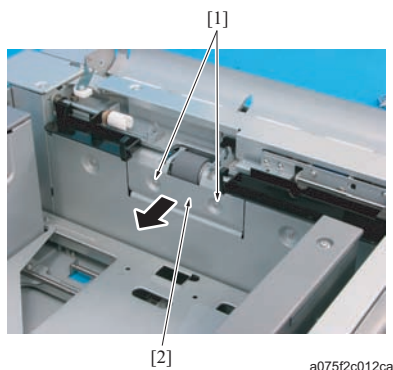


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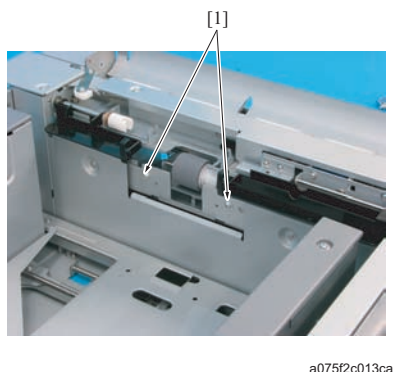
8. Remove the pick-up roller shaft [2] from the arm [1] of the paper feed guide plate and then remove the pick-up roller assembly [3].
9. Reinstall the above parts following the removal steps in reverse.

Note

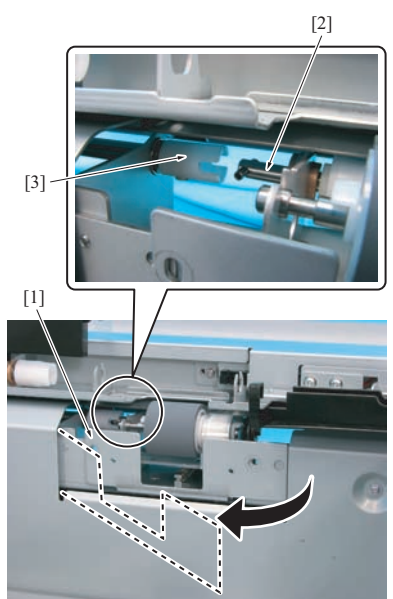
- After installing the pick-up roller assy, rotate the pick-up roller counterclockwise as seen from the front side.
- Make sure the paper feed roller and the belt rotate smoothly.
- The pick-up roller rotates in counterclockwise direction only. Be sure not to rotate it in the opposite direction.



10. Remove 2 screws [1] and then remove the entrance guide plate [2].



11. Remove 2 screws [1].

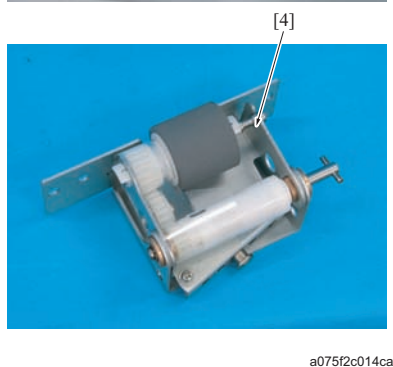


12. Open the frame [1] of the separation roller assy in the direction of the arrow, and remove the coupling pin [2] on the rear side from the joint [3]. Then remove the separation roller assy [4].

Note

- When reinstalling, make sure to engage the coupling pin [2] with the joint [3].
- When reinstalling the separation roller assy [4], fasten it with the screws while pressing it down.

13. Reinstall the above parts following the removal steps in reverse.



20.3.2 Replacing the pick-up roller and the paper feed roller

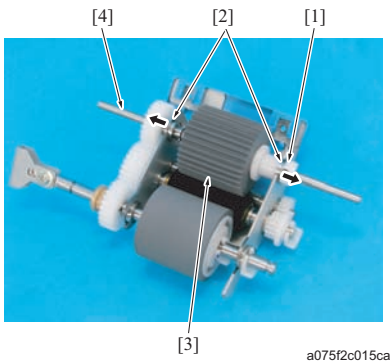
(1) Spotted replaced parts/cycle

- Pick-up roller
 - : Spot replacement (Actual replacement cycle: Every 500,000 feeds)*1
- Paper feed roller
 - : Spot replacement (Actual replacement cycle: Every 500,000 feeds)*1

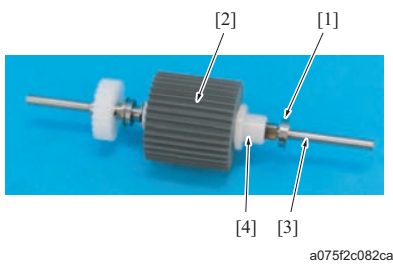
*1 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure**Note**

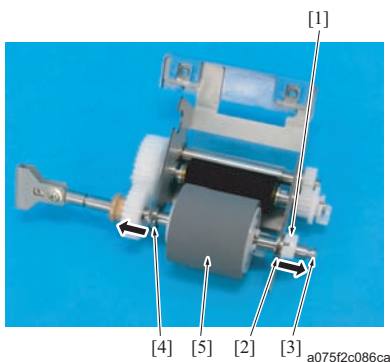
- The outward appearance of the collar is identical for the paper feed roller and the separation roller. However, the collar of the paper feed roller has a one-way mechanism on the inside while the collar of the separation roller does not. Be careful not to confuse one with the other.



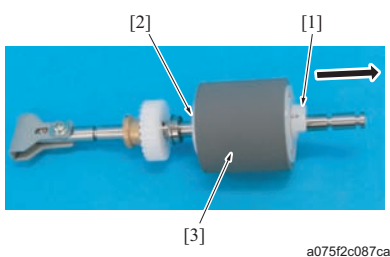
1. Remove the pick-up roller assembly. (Refer to [F.20.3.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
2. Remove the C-clip [1] of the pick-up roller assy.
3. Slide 2 bearings [2] and remove the pick-up roller [3] together with the shaft [4].



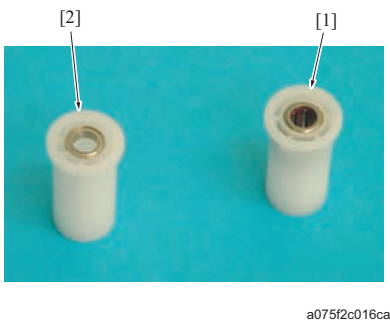
4. Remove the bearing [1] and pull out the pick-up roller [2] from the shaft [3].
5. Remove the pick-up roller [2] from the collar [4].
6. Replace the pick-up roller.



7. Remove the C-clip [1] and pull out the bearing /Fr [2] from the shaft [3].
8. Move the bearing /Rr [4] and remove the paper feed roller [5] together with the shaft [3].



9. Remove the C-clip [1].
10. Pull out the paper feed roller [3] from the collar [2].
11. Replace the pick-up roller [3].



12. Reinstall the preceding parts following the removal steps in reverse.

Note

- There is no big difference in appearance between the 2 collars (one for the paper feed roller, and the other one is for the separation roller). However, they are different in the inside. The collar [1] for the paper feed roller has a one-way mechanism in it, and the other one [2] does not. Make sure to attach them correctly.

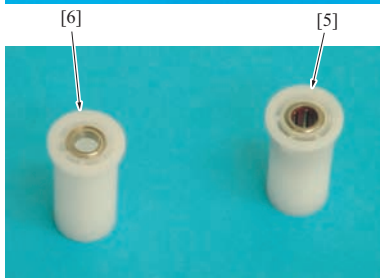
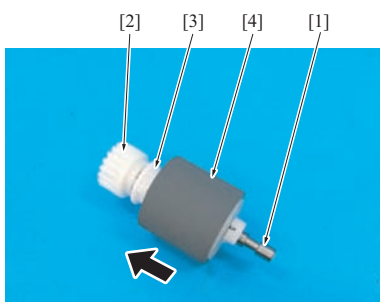
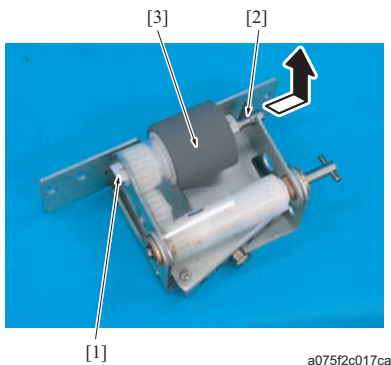
13. After replacing the part, be sure to reset the parts counter.
 - No.276, No.277 (1250/1250P/1052)
 - No.240, No.241 (1200/1200P/1051)
 - No.300, No.301 (C8000)

20.3.3 Replacing the separation roller**(1) Spotted replaced parts/cycle**

- Separation roller

: Spot replacement (Actual replacement cycle: Every 500,000 feeds)*1

*1 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

1. Remove the separation roller assy. (Refer to [F.20.3.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))
2. Remove the C-clip [1] and remove the separation roller [3] together with the shaft [2].

3. Pull out the gear [2], the collar [3] and the separation roller [4] from the shaft [1] in the direction of the arrow.
4. Replace the separation roller [4].
5. Reinstall the preceding parts following the removal steps in reverse.

Note

- There is no big difference in appearance between the 2 collars (one for the paper feed roller, and the other one is for the separation roller). However, they are different in the inside. The collar [5] for the paper feed roller has a one-way mechanism in it, and the other one [6] does not. Make sure to attach them correctly.

6. After replacing the part, be sure to reset the parts counter.
 - No.277 (1250/1250P/1052)
 - No.241 (1200/1200P/1051)
 - No.301 (C8000)

20.3.4 Replacing the cover paper feed clutch (CL71) and the cover paper separation clutch (CL72)**(1) Spotted replaced parts/cycle**

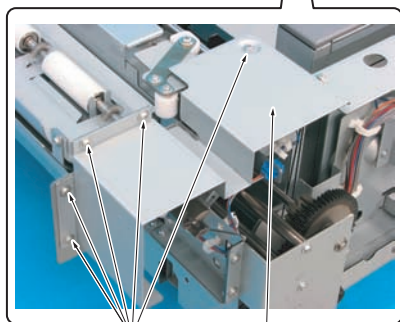
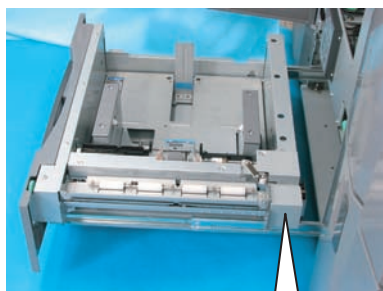
- Cover paper pick up clutch (CL71)

: Spot replacement (Actual replacement cycle: Every 3,000,000 feeds)*1

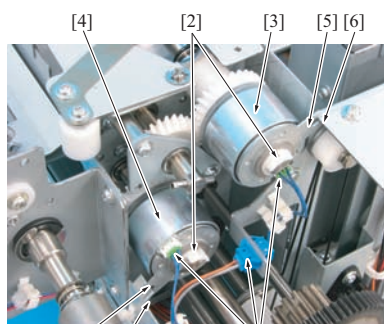
- Cover paper separation clutch (CL72)

: Spot replacement (Actual replacement cycle: Every 3,000,000 feeds)*1

*1 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

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1. Remove the stopper screws, 1 each, attached on the right and left rails of the cover paper tray and pull out the tray. (Refer to [G. 19.2.28 Cover paper tray](#))
2. Remove the 5 screws [1] and remove the clutch cover [2].

3. Disconnect 3 connectors [1].
4. Remove the C-clips [2], 1 each, and remove the cover paper feed clutch (CL71) [3] and the cover paper separation clutch (CL72) [4].

Note

- When reinstalling, be sure to insert the stopper [5] of the clutch over the tab [6] of the metal frame.

5. Reinstall the preceding parts following the removal steps in reverse.
6. After replacing the part, be sure to reset the parts counter.
 - No.278, No.279 (1250/1250P/1052)
 - No.242, No.273 (1200/1200P/1051)
 - No.302, No.303 (C8000)

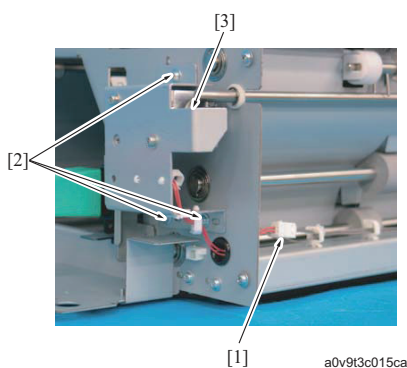
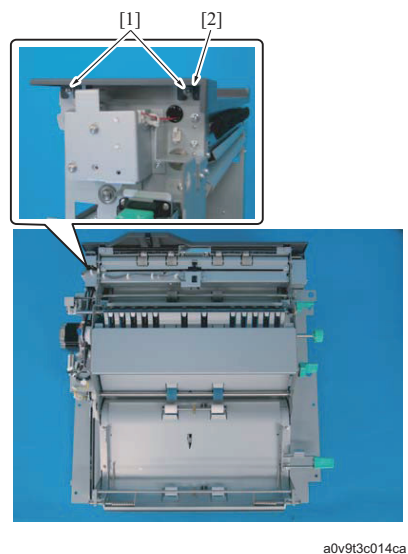
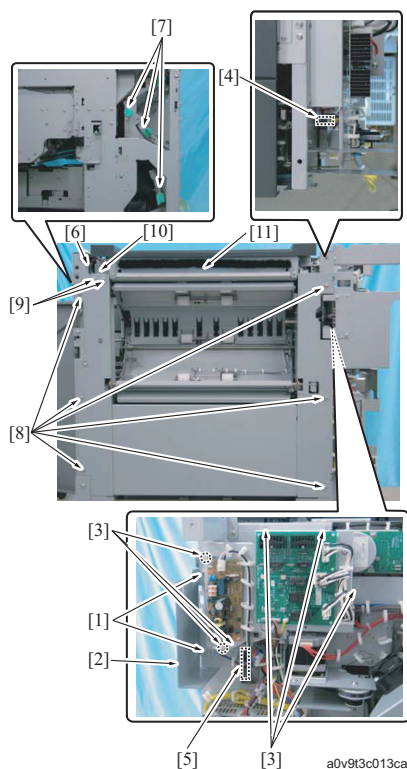
20.4 Conveyance section**20.4.1 Replacing the sub tray exit solenoid (SD4)****(1) Periodically replaced parts/Spotted replaced parts/Cycle**

- Sub tray paper exit solenoid (SD4)

: Every 10,500,000 prints *1 (Actual replacement cycle: Every 3,000,000 prints *2)

*1 The periodical replacement is only for 1200/1200P/1051.

*2 Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

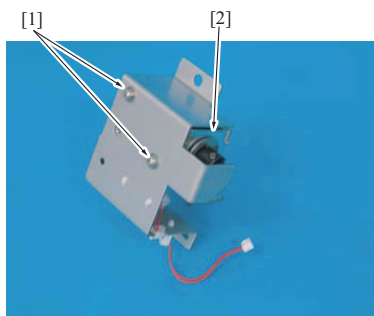
1. Remove the PB from the main body.
2. Remove the PB left unit. (Refer to [G.19.2.23 PB left unit](#))
3. Remove the upper cover /FrRt. (Refer to [G.19.2.13 Upper cover / FrRt](#))
4. Remove the upper cover /RrRt. (Refer to [G.19.2.15 Upper cover / RrRt](#))
5. Remove the rear cover /Rt. (Refer to [G.19.2.5 Rear cover /Rt](#))
6. Remove 2 screws [1] and remove the metal frame [2].
7. Remove 6 screws [3] and disconnect the connectors [4] and [5].
8. Disconnect the connector [6].
9. Remove the screws of 3 knobs [7] and remove the knobs.
10. Remove 2 screws [9] and remove the metal frame [10].
11. Remove 6 screws [8] and remove the conveyance unit [11].

Note

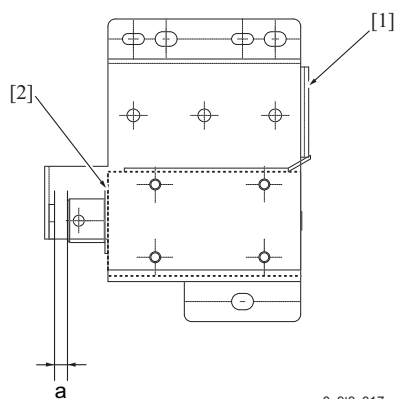
- Put the conveyance unit on a table so that the paper entrance guide does not contact the floor.

12. Loosen the screws [1], 2 each, on the upper cover /Rt, and remove the upper cover /Rt.

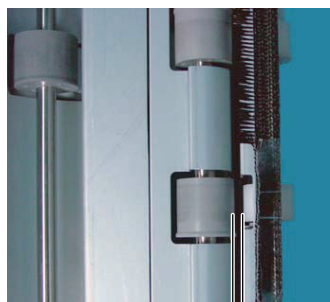
13. Disconnect the connector [1].
14. Remove 3 screws [2] and remove the sub tray exit solenoid assy [3].



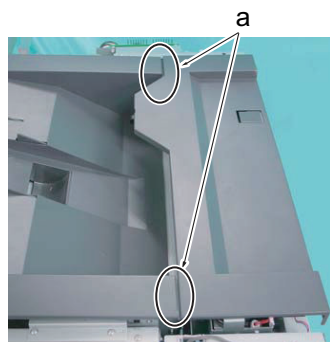
a0v9t3c016ca



a0v9t3c017ca



a0v9t3c018ca



a0v9t3c019ca

15. Remove 2 screws [1] and remove the sub tray exit solenoid assy (SD4) [2].
16. Reinstall the preceding parts following the removal steps in reverse.
17. After replacing the part, be sure to reset the parts counter.
 - No.271 (1250/1250P/1052)
 - No.235 (1200/1200P/1051)
 - No.295 (C8000/C7000/C7000P/C70hc/C6000)

18. Standard 1 value when reinstalling the sub tray exit solenoid assy (SD4)
 - When reinstalling the sub tray exit solenoid [1], adjust the position so that the distance "a" obtains a standard value with the plunger [2] pulled.
Standard value: $a = 3.7 \pm 0.5\text{mm}$

19. Standard 2 value when reinstalling the sub tray exit solenoid assy (SD4)
 - While pulling the plunger of the sub tray exit solenoid, adjust the position so that the distance "a" (the distance between the paper exit roller and the paper exit driven roller) obtains a standard value.
Standard value: $a = 0 \pm 1.5\text{mm}$

20. Check point when reinstalling the conveyance unit
 - After reinstalling the conveyance unit, check the points "a" shown in the picture, to see that the conveyance unit does not contact the upper door. When they are in contact, loosen 4 fixing screws on the upper cover /Rt and adjust the position so that the upper door and the upper cover /Rt does not come in contact.

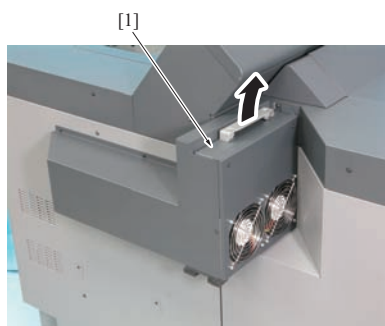
20.5 Framework section

20.5.1 Replacing the exhaust filters /A and /B

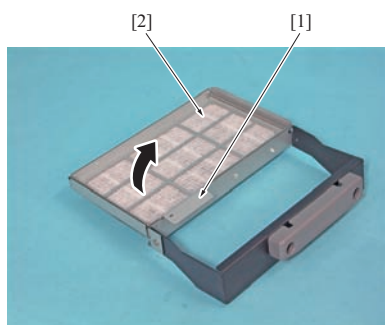
(1) Spotted replaced parts/cycle

- Exhaust filter /A
: Spot replacement (Actual replacement cycle: Every 120 hours of rotation of glue apply roller)*1
- Exhaust filter /B
: Spot replacement (Actual replacement cycle: Every 240 hours of rotation of glue apply roller)*1

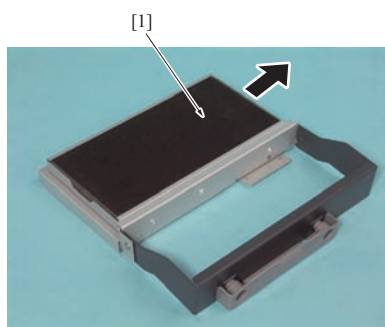
*1 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

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a15xt3c004ca



a15xt3c005ca

1. Remove the exhaust filter assy [1].

2. Pull the filter holding lever [1] in the arrow-marked direction, and then remove 2 exhaust filters /A [2].

3. Reverse the exhaust filter assy and slide the exhaust filter /B [1] in the arrow-marked direction to remove it.

4. Reinstall the preceding parts following the removal steps in reverse.

5. After replacing the part, be sure to reset the parts counter.

- No.283, No.284 (1250/1250P/1052)
- No.250, No.251 (1200/1200P/1051)
- No.305, No.306 (C8000/C7000/C7000P/C70hc/C6000)

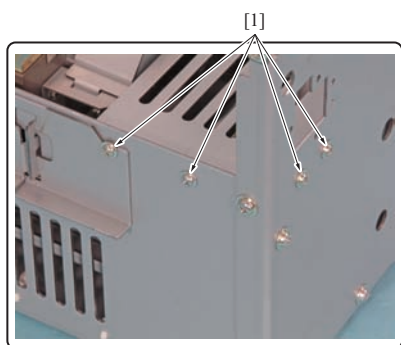
20.6 Glue tank section**20.6.1 Replacing the glue apply roller drive gear bearing****(1) Periodically replaced parts/cycle**

- Glue apply roller drive gear bearing

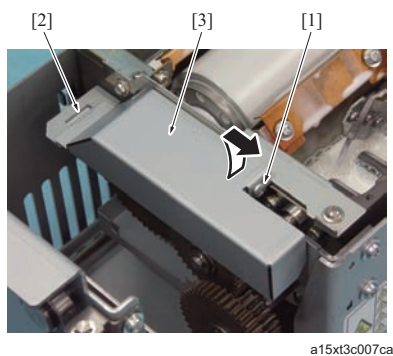
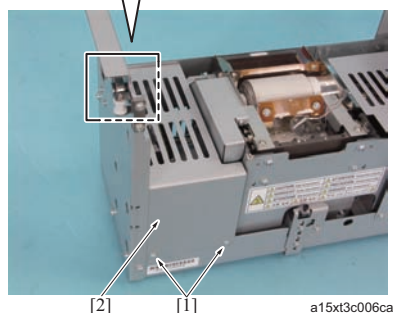
: Every 30,000,000 prints ^{*1} (Actual replacement cycle: Every 6,000 hours) ^{*2}

^{*1} The periodical replacement is only for 1200/1200P/1051.

^{*2} Actual replacement cycle of 1250/1250P/1052/1200/1200P/1051/C8000

(2) Procedure

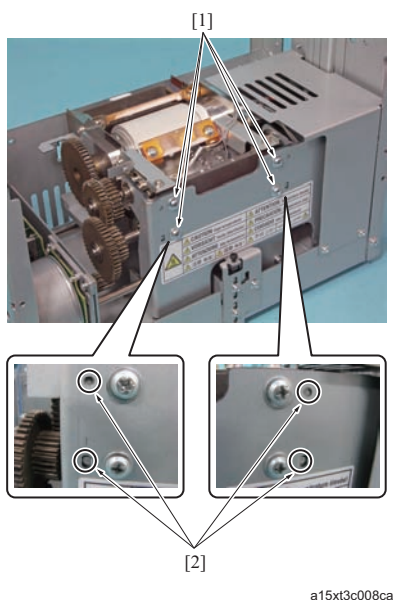
1. Remove the glue tank unit. (Refer to [G.19.2.20 Glue tank unit](#))
2. Remove 6 screws [1] and remove the tank cover /Lt [2].



3. Loosen the screw [1] and remove the gear cover [3] from the notch [2].

Note

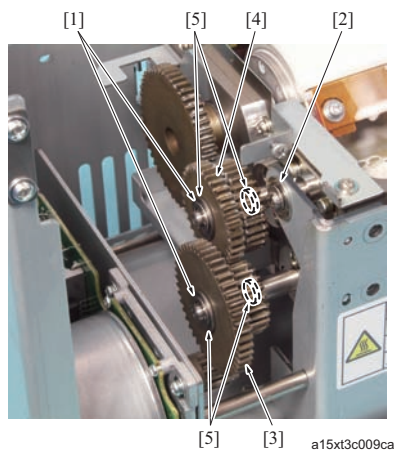
- When reinstalling, be sure to put the gear cover edge [3] into the notch [2].



4. Remove the 4 screws [1].

Note

- When reinstalling the slope, be sure to align 4 positioning projections [2].



5. Remove 2 E-ring [1].
6. Pull up the glue tank assy by holding the shaft [2], and remove the glue apply roller drive gears /1 [3] and /2 [4] and the bearings [5], 2 for each.
7. Reinstall the preceding parts following the removal steps in reverse.

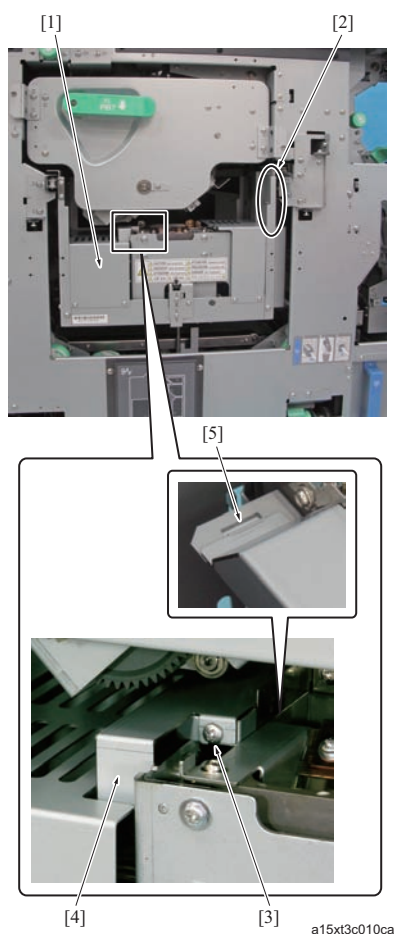
20.6.2 Lubrication to the glue apply roller drive gear

(1) Periodic lubrication parts/Cycle

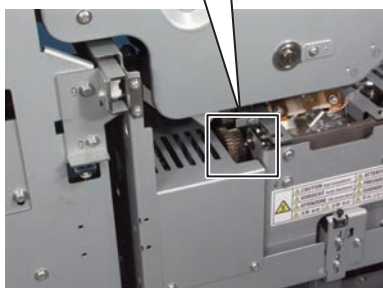
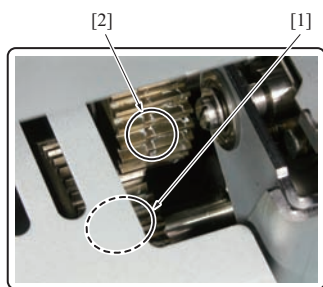
- Glue apply roller drive gear
- : Every 750,000 prints*1

*1 1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure



1. Open the front door and move the glue tank unit [1] frontward.
Note
 - When moving the glue tank unit, be sure to hold it by the metal frame [2] on the right side of the unit.
2. Remove the screw [1] and then remove the gear cover [4].
Note
 - When reinstalling, be sure to put the edge of the gear cover [4] under the notch [5] of the glue tank side.



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3. Apply the multitemp FF-RM to the Glue apply roller drive gear [2].
4. Reinstall the above parts following the removal steps in reverse.

20.6.3 Replacing the pellet supply cooling fan (FM4)

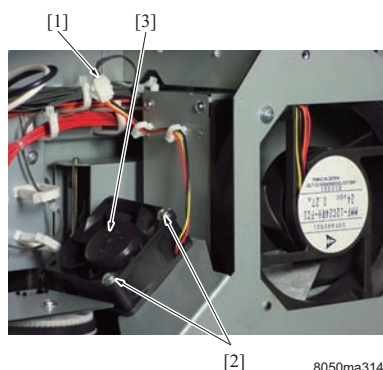
(1) Periodically replaced parts/Spotted replaced parts/Cycle

- Pellet supply cooling fan (FM4)
 - : Every 750,000 prints *1
 - : Spot replacement (Actual replacement cycle: Every 120 hours) *2

*1 1200/1200P/1051

*2 1250/1250P/1052/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure



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1. Remove the rear cover /Rt. (Refer to [G.19.2.5 Rear cover /Rt](#))
2. Disconnect the connector [1].
3. Remove 2 screws [2] and remove the pellet supply cooling fan (M4) [3].
4. Reinstall the preceding parts following the removal steps in reverse.

Note

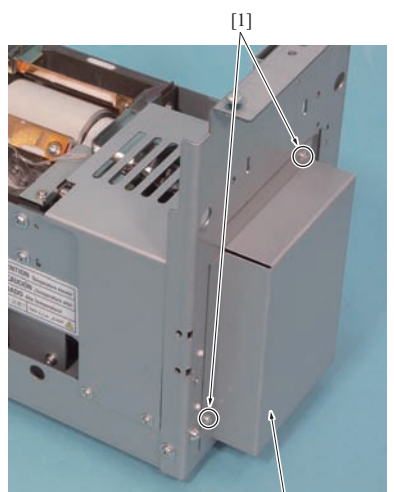
- When reinstalling the pellet supply cooling fan (FM4) [3], be sure to reinstall it to the same direction as shown in the picture.
- Be sure not to nip the wiring harness.

20.6.4 Replacing the glue tank assy

(1) Spotted replaced parts/cycle

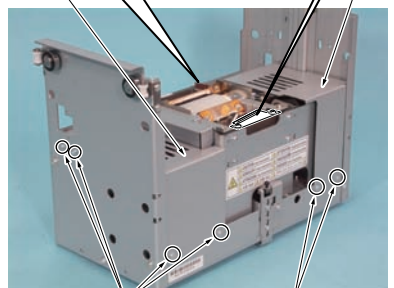
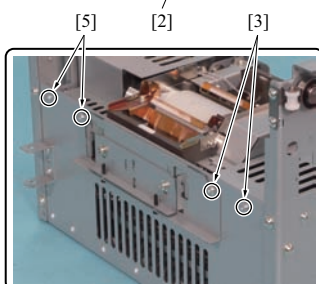
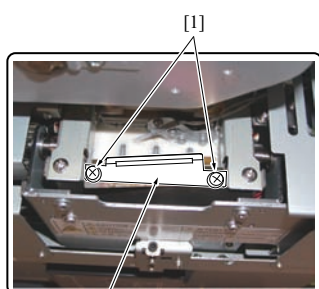
- Glue tank assy
 - : Spot replacement (Actual replacement cycle: Every 2,000 hours) *1

*1 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

[2] a15xt3c012ca

1. Remove the glue tank unit. (Refer to [G.19.2.20 Glue tank unit](#))
2. Remove 2 screws [1] and then remove the wiring mounting cover [2].

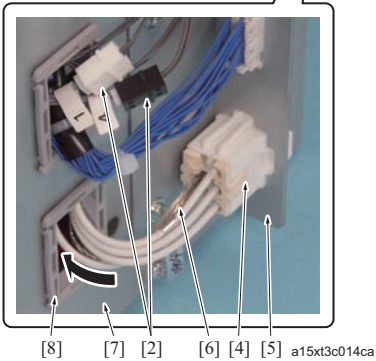
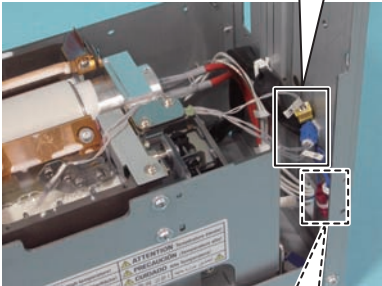
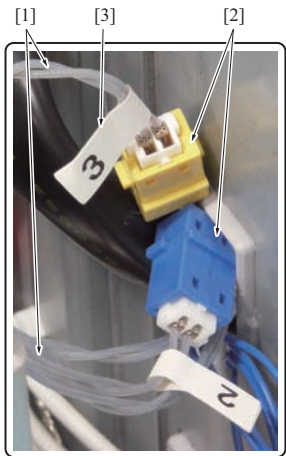


[3] [5] a15xt3c013ca

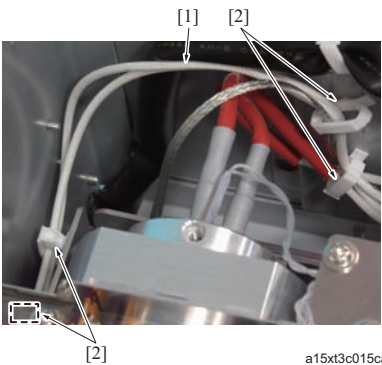
3. Remove 2 screws [1], and then remove the glue thread cut plate [2].
4. Remove 6 screws [3] and remove the tank cover /Lt [4].
5. Remove 4 screws [5] and remove the tank cover /Rt [6].

Note

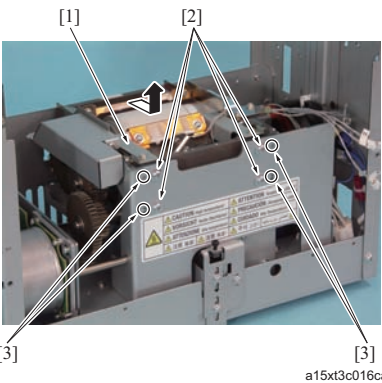
- When reinstalling it, reinstall it so that the curved part comes top.



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6. Disconnect 4 connectors [2] of the translucent wiring harnesses of the temperature sensor.

Note

- When reconnecting the connector, check the color of the connector and the number label [3] on the wiring harness, and connect each connector to the corresponding wiring harness.

Number	Color
1	White
2	Blue
3	Yellow
4	Black

7. Remove the connector [4] from the metal frame [5].

Note

- When reinstalling it, be sure to set the metal wiring harness [6] toward the metal plate side [7].

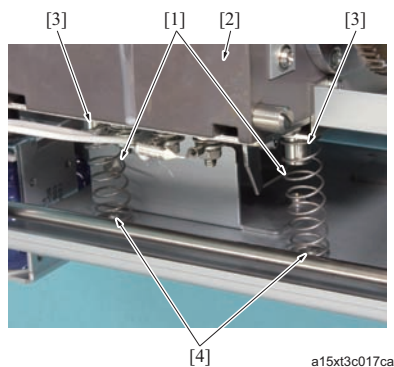
8. Remove the square saddle [8] from the metal frame [7] and put the connector [4] to the inside of the glue tank unit.

9. Remove the wiring harness [1] from the 4 wire saddles [2].

10. Remove 4 screws [2] and remove the glue tank assy [1].

Note

- When reinstalling the slope, be sure to align 4 positioning projections [3].



11. Reinstall the preceding parts following the removal steps in reverse.

Note

- When reinstalling it, be sure to set it with 2 springs [1] put on the pin [3] on the bottom of the glue tank assy and on the projection [4] of the glue tank unit.
- After replacing the parts, be sure to conduct the glue apply roller gap adjustment. (Refer to [I.24.4 Glue apply roller gap adjustment](#))

12. After replacing the part, be sure to reset the parts counter.

- No.282 (1250/1250P/1052)
- No.249 (1200/1200P/1051)
- No.308 (C8000/C7000/C7000P/C70hc/C6000)

20.7 Clamp section

20.7.1 Lubrication to the clamp pressing board shaft

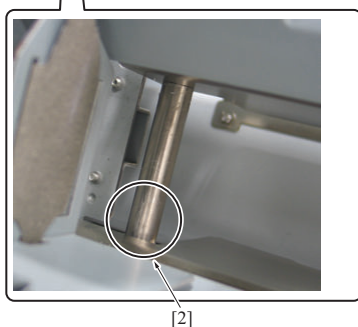
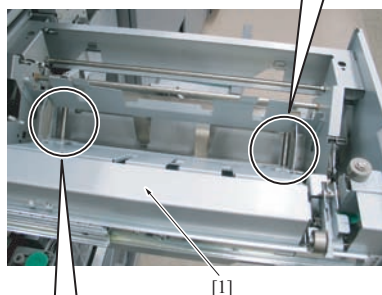
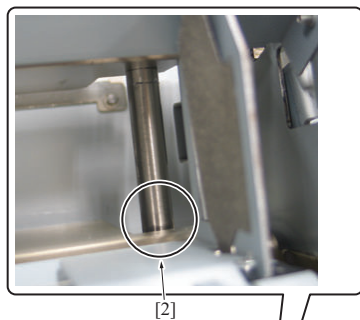
(1) Periodic lubrication parts/cycle

- Clamp pressure plate shaft
: Every 750,000 prints*1

*1 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

1. Pull out the clamp unit [1].
2. Apply the plas guard No.2 to 2 positions on the clamp pressing board shaft [2].



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20.8 Book stock section

20.8.1 Lubrication to the guide shafts /Rt and /Lt

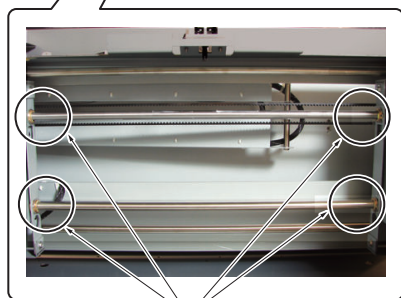
(1) Periodic lubrication parts/Cycle

- Guide shaft /Rt, /Lt
: Every 750,000 prints*1

*1 1250/1250P/1052/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000

(2) Procedure

1. Apply the plas guard No.2 to 4 positions on 4 positions [1] on the guide shafts /Rt and /Lt.



[1]





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21. PERIODICAL MAINTENANCE PROCEDURE GP-501

21.1 Caution for maintenance procedure

DESCRIPTION ITEMS FOR SAFTY

These symbols are used in this documentation alert you to danger or important information.

	WARNING:	Indicates a potentially hazardous situation which, if not avoided, could result in death or serious Injury.
	WARNING:	Risk of electrical shock. This warning statement indicates situations where there is a risk of death by electric shock.
	CAUTION:	This notice indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.
		Certain components in this product are susceptible to damage from electrostatic discharge. Observe all ESD procedures to avoid component damage.

This section contains cleaning and maintenance procedures.

CAUTION

- **GP-501 uses screws of inch standard. Therefore, do not mix them with other products (metric standard screws). Otherwise, the screw hole is damaged.**
- **Make sure to unplug the power cord of the main body from the power outlet when it is connected to the main body.**

21.2 DIE SET SERVICE

21.2.1 Die Set Service

The Die Set assembly is not serviceable other than inspection and periodic lubrication. The one exception is the felt pad on the Twin Loop Die Set can be replaced. If a Die Set is at its end of life, it will tend to cause mis-feeds due to hanging chips. This is a result of die plate wear, and not pin wear, which cannot be corrected. When this occurs, the Die Set should be replaced with a new one.

21.2.2 Die Set Life Expectancy

The GP-501 Punch Die Sets have a minimum life expectancy of 500K cycles (sheets of paper punched). With periodic lubrication and optimum paper types, life can exceed this number. Variables that affect life expectancy:

- Failure to follow the lubrication schedule or using the incorrect lubricant.
- Variety and types of paper being punched
- Cover stocks being punched
- Length of the average job
- Other environmental conditions

21.2.3 Die Set Components

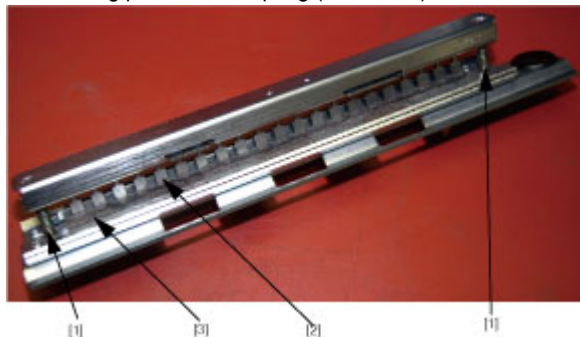
(1) Die Set Types

The GP-501 Punch uses two types of Die Sets.

Type	Description	Bindery Style
Felt Pad Retainer Assembly	Felt oiler pad on one side (with magnet and retaining plate)	DS-501, 503, 504, 506, 508, 510, 511, 513, 515, 517, 518
Encircled Felt Oiler Pad	Felt oiler pad surrounds the punch pins	DS-502, 505, 507, 509, 512, 514, 516

(2) Serviceable Components

- Shoulder bolt and spring [1]
- Punch pins [2]
- Felt pad [3]
- Floating pressure bar spring (not shown).



(3) Felt Pad Retaining Assembly

The twin loop Die Set has a removable felt pad assembly. The felt pad [1] provides lubrication to the punch pins under normal usage and helps keep them clean. The magnet [2] and retainer [3] keeps the felt pad in place during normal handling and operation.

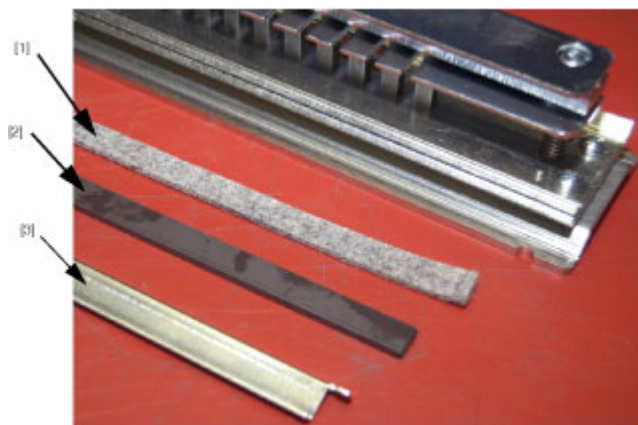


Figure 3.2 Felt Pad Assembly.

Note

- The felt pad assembly on the Twin Loop Die Set is the only assembly that can be replaced.

(4) Reassembling the Felt Pad Assembly

The felt pad assembly consists of the felt pad [1], magnet [2], and retainer [3].

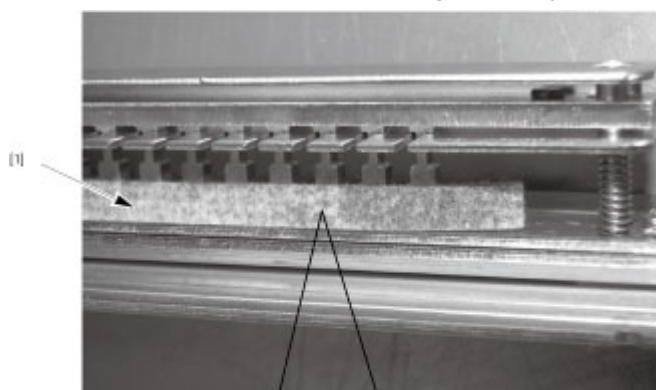
(a) To assemble the felt pad retaining assembly:

Figure 3.3 Placing Felt Oil Pad on Die Set.

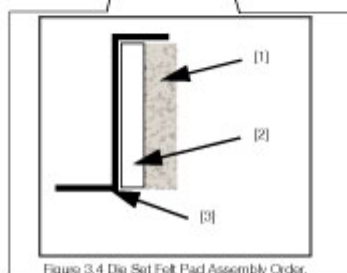
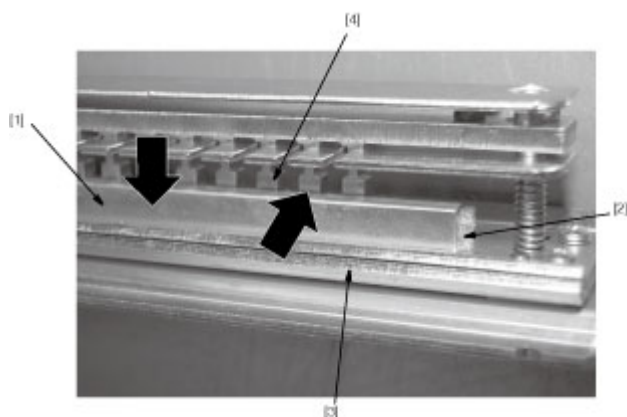
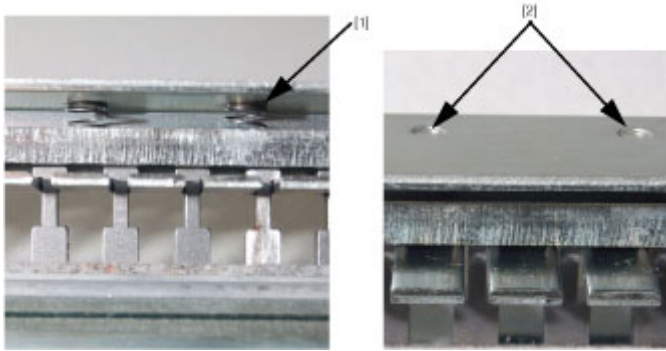


Figure 3.4 Die Set Felt Pad Assembly Order.



1. Lay the die assembly on a table so that the open side of the top bar is facing up.
2. Lay the felt pad [1] along the punch pins so that it spans all pins.
3. If the pad needs oil, apply it along the full length of the pad.
4. Insert the magnet [2] into the retainer [3].

5. Place the magnet and retainer [1] over the pad [2] and lightly press them against the pad and the Die Set base. Make sure the assembly is sitting on the base [3] and that the felt pad is against the punch pins [4].

(5) Floating Pressure Bar Spring Replacement

Some Die Sets use springs to hold the top plate above the pressure bar [1]. Detents in the top plate hold the springs in place [2]. Ensure all springs are in place.

(a) To replace pressure bar springs:

1. Compress the spring and insert between the top bar and pressure bar.
2. Use a flat screwdriver to position the spring so that the detent holds it in place.
3. Compress the top bar to ensure it moves freely and that it returns.

21.2.4 Checking and Replacing the Die Set**(1) Periodically Checked and replaced parts/Spotted Checked and replaced parts/cycle**

- Dieset

: Every 2,000,000 prints ^{*1} (Actual replacement cycle: Every 500,000 punches ^{*2}) ^{*3}

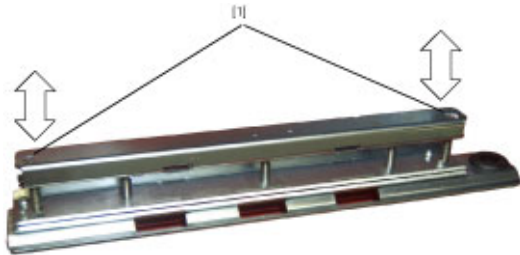
^{*1} The periodical replacement is only for 1200/1200P/1051/C6501/C6501P/C65hc.

^{*2} Actual replacement cycle of 1200/1200P/1051/C6501/C6501P/C65hc/C8000.

^{*3} Replace as needed. Replacement is recommended if hanging chips are usually generated.

(2) Procedure

Set the Die Set on a table and press the top plate straight down at both ends [1] at the same time and look for a smooth operation. The top plate and pins should retract fully when you release.



Reinstall the Die Set into the punch and run several sheets of the customer's paper through the punch. Inspect the holes.

- Holes should be clean and even with no tearing or frayed edges.
- Holes should be punched completely, leaving no chip attached.
- Holes should be straight (no skew) and evenly spaced from the edge of the paper and aligned.

21.2.5 Checking and lubricating the Die Set pins and Die Set shoulder bolts**(1) Periodically Checked and lubricated parts/cycle**

- Die Set pins

: Every 200,000 prints (Actual lubrication cycle: Every 50,000 punches) ^{*1}

: Every 210,000 prints (Actual lubrication cycle: Every 50,000 punches) ^{*2}

- Die Set Shoulder bolts

: Every 800,000 prints (Actual lubrication cycle: Every 200,000 Punches) ^{*1}

: Every 750,000 prints (Actual lubrication cycle: Every 200,000 Punches) ^{*2}

^{*1} 1200/1200P/1051/C6501/C6501P/C65hc

^{*2} C8000

(2) Procedure

Inspect the punch pins for signs of wear or mis-alignment. Periodic lubrication extends the life of the Die Sets. The customer or operator can perform this maintenance between technician inspections.

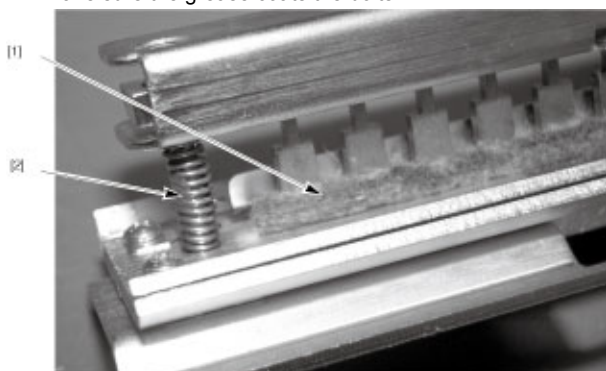
**(3) To lubricate Die Set pins:**

- Lubricate with 3-IN-ONE oil (high quality machine oil).
- Apply oil lightly along the length of the pad [1], but do not over saturate.
- Do not use spray lubricants because they tend to dry up quickly and leave a sticky residue.

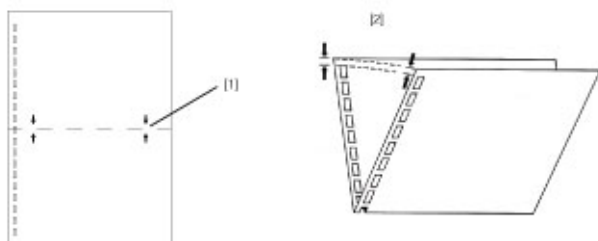
For the felt pad retaining assembly instructions, refer to [F.21.2.3 Die Set Components](#).

(4) To lubricate shoulder bolts:

- Lubricate the shoulder bolts and springs [2] using a brush to apply Magnalube-G Teflon Grease.
- Make sure the grease coats the bolts.

**21.2.6 Hole Alignment inspection**

Inspect the hole alignment on the customer's punched paper. Fold the punched sheet of paper in half [1] and the punched holes should be aligned evenly along the edge and centered between the ends [2]. If the punched holes are not aligned, then the Die Set cradle must be adjusted. For adjustment procedures.

**21.3 CHECK, CLEANING, AND LUBRICATION****21.3.1 CHECK, CLEANING, AND LUBRICATION**

If operating properly, the GP-501 will punch the same types of copy paper and cover materials handled by the copier and run at the same speed. Hole quality will vary between different grades of paper.

The following maintenance should be performed according to the schedule.

(1) Table 3.2 Maintenance Schedule

Description	Qty.	Part Number	Period	Check	Clean	Lubricate	Replace	Materials, Tools Used
Aligner belt (green belt)			12,000K prints		X			a soft cloth and alcohol
Aligner idler roller assembly			12,000K prints		X			a soft cloth and alcohol
Aligner idler rollers			3,000K prints	X	X			a soft cloth and alcohol
Aligner latching mechanisms			3,000K prints	X				-
Back gauge solenoid			3,000K prints	X	X			Blower brush/ vacuum cleaner
Back gauge mechanism	1	A0N9PP59##	4,000K prints				X	-

Base			3,000K prints		X			Vacuum cleaner
Die guide			3,000K prints		X			Vacuum cleaner
Die set			500K prints				Y	-
Punch die (pins)			50K prints	X		Oil		3-IN-ONE (WD-40 Company)
Die set shoulder bolts			200K prints	X		Grease		Magnalube-G Teflon Grease
Door closing latch			3,000K prints	X				-
Drive rollers			3,000K prints	X	X			a so ft cloth and alcohol
Idler rollers			3,000K prints	X	X			a so ft cloth and alcohol
Optical sensors			3,000K prints		X			Blower brush
Paper path, Aligner Panels			3,000K prints	X	X			a so ft cloth and alcohol
Paper path, bypass			3,000K prints	X	X			a so ft cloth and alcohol
Paper path, punch			3,000K prints	X	X			a so ft cloth and alcohol
Punch drive cams			3,000K prints			Grease		Magnalube-G Teflon Grease
Roller energy drive			3,000K prints	X	X			a so ft cloth and alcohol
Timing belts			3,000K prints	X	X			a so ft cloth and alcohol

21.3.2 External Cleaning

The cover may be cleaned with a soft cloth moistened with mild detergent and warm water.

Do not use chemical cleaners or solvents as these may have a harmful effect. Use detergent sparingly to avoid contact with electrical components.

⚠ WARNING:

- **Make sure you disconnect the GP-501 Punch from its power source before cleaning. Failure to observe this warning could result in death or serious injury.**

21.3.3 Internal Cleaning

Occasionally remove the covers and remove paper dust and chips. Paper dust can accumulate throughout the punch including around the motors and other electrical components. Use a vacuum cleaner if possible. A small paintbrush can also be used but extreme care should be used around electrical components.

Non-electrical components may be cleaned with alcohol, an approved cleaner, or a soft cloth moistened with mild detergent and warm water.

Rollers can be cleaned with alcohol.

⚠ WARNING:

- **Make sure you disconnect the GP-501 Punch from its power source before cleaning. Failure to observe this warning could result in death or serious injury.**

21.3.4 Operational Inspection

Make sure the punch operates smoothly and produces the desired holes in the customer's paper.

21.3.5 Internal Inspection

Whenever the cover has been removed for corrective maintenance, visually inspect for defects and problems such as damaged components, loose screws or nuts, abraded wire insulation, loose terminals, etc. Correct any problems before returning the machine to service.

21.3.6 Cleaning the base

(1) Periodically cleaned parts/cycle

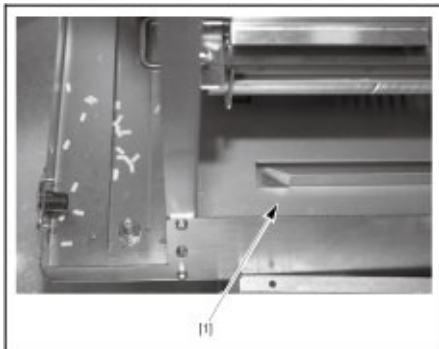
- Base
- Every 3,000,000 prints

(2) Procedure

Chips and paper dust falls to the bottom of the punch. Clean with a vacuum cleaner each time the machine is serviced. The customer can also do this between the technician's visits.

(3) Chip Bin

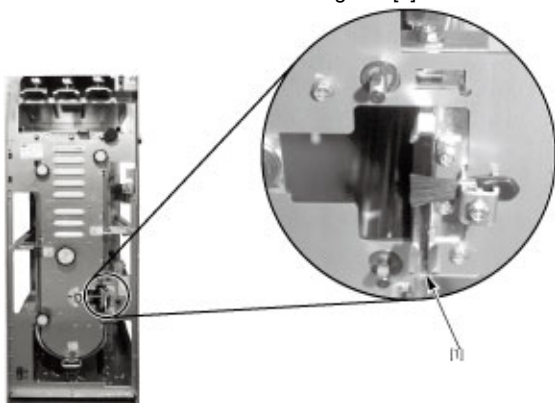
Remove the Chip bin tray and empty. Vacuum out paper chips and dust from the Chip bin [1], especially at the back around the chip tray switch.

**21.3.7 Cleaning the Die guide****(1) Periodically cleaned parts/cycle**

- Die guide
: Every 3,000,000 prints

(2) Procedure

Remove the Die Set and clean the guide [1] with a vacuum cleaner.

**21.3.8 Checking the Door Latch**

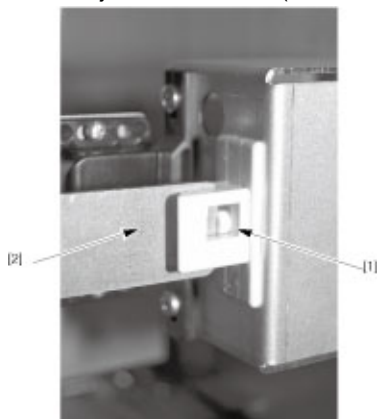
The door latch must hold the door closed and ensure that the switch activation tab is depressing the door switch [1]. The switch tab [2] should press the switch button just so that it is close to bottoming.

(1) Periodically checked parts/cycle

- Door latch
: Every 3,000,000 prints.

(2) Procedure

- Ensure latch holds door closed.
- Ensure switch is activated when the door is closed.
- To adjust the door latch. (Refer to [G.21.2.1 Door latch check](#))

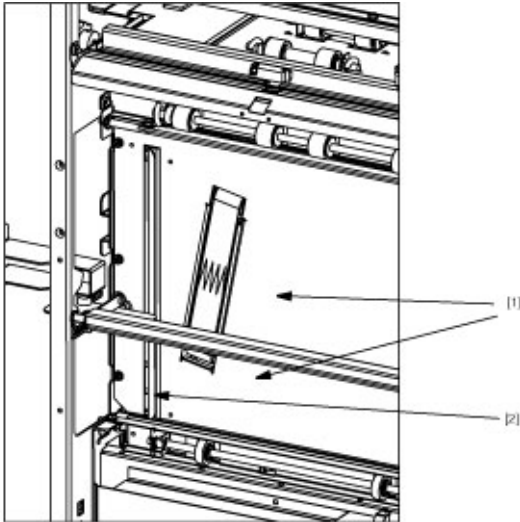


21.3.9 Cleaning and Checking the aligner paper path and panels**(1) Periodically cleaned and checked parts/cycle**

- Aligner paper path and panels
: Every 3,000,000 prints.

(2) Procedure

Inspect for worn or damaged parts. Clean with alcohol, an approved cleaner, or a soft cloth moistened with mild detergent and warm water as needed.

(3) To clean the Aligner Panels:

1. Lift the Aligner latches to open panels.
2. Clean surfaces [1].
3. Clean paper alignment channels [2].

21.3.10 Cleaning and Checking the Aligner Idler Roller**(1) Cleaning and Checking the Aligner Idler Roller**

Aligner idler rollers press the paper against the green drive belts and align the paper for punching and exiting. To replace the idler rollers. (Refer to [F.21.3.25 Aligner Idler Roller Replacement](#))

(a) Periodically cleaned and checked parts/cycle

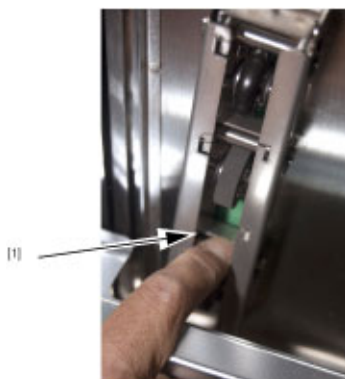
- Aligner Idler Roller
: Every 3,000,000 prints.

(b) Procedure

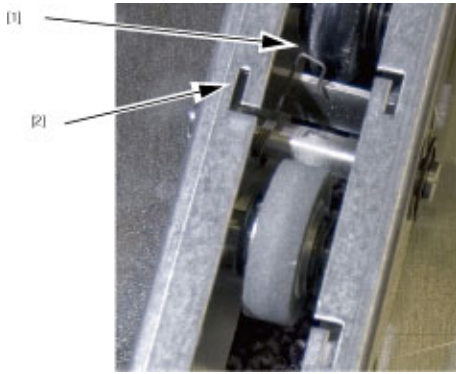
- Make sure the aligner rollers are clean.
- Ensure that the idler rollers maintain pressure against the green drive belt.
- Inspect for bent or damaged parts.

⚠ WARNING:

- **Disconnect the GP-501 Punch from power and retain the power cord in your possession for your safety. Failure to observe this warning could result in death or serious Injury.**

(c) To inspect the aligner idler rollers:

1. Press the top of each roller's bracket [1]. The roller should move away from the green belt drive and then when released, they spring back into place.



2. Ensure the torsion springs [1] are hooked over the bracket [2].

(d) To clean idler rollers:

1. Clean the idler rollers with a soft cloth and alcohol.
2. Inspect the idler rollers for wear patterns or groves. Surface should be evenly textured and clean.

21.3.11 Cleaning the Aligner (Green) Drive Belt

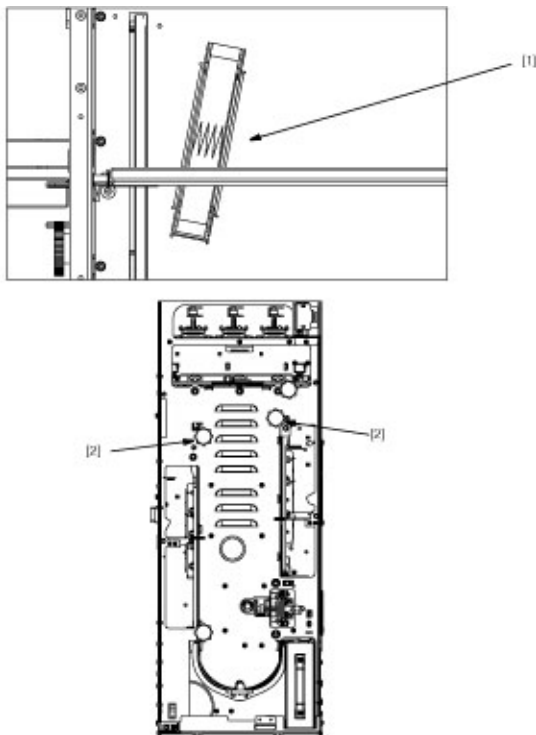
(1) Periodically cleaned parts/cycle

- Aligner (Green) Drive Belt
- : Every 12,000,000 prints. *1
- *1 1200/1200P/1051/C8000

(2) Procedure

- Ensure the Aligner Drive Belts are clean.
- Inspect for frayed edges and wear.

(3) To clean the Aligner Drive Belts:



1. Clean Green Drive Belt [1] with a plastic scouring pad.
 2. Use the drive knob [2] to turn the belt.
- Figure 3.16 Cleaning Green Drive Belt.

To adjust or replace the Aligner Drive Belt. (Refer to [F.21.3.26 Aligner Drive Belt Replacement](#))

21.3.12 Cleaning and Checking the Back Gauge Solenoid

(1) Periodically cleaned and checked parts/cycle

- Back Gauge Solenoid
- : Every 3,000,000 prints.

(2) Procedure

1. Inspect and ensure the Back Gauge solenoid linkage moves freely. Press linkage down and release [1]. Linkage should return.
2. Clean out the solenoid and surrounding area with a vacuum cleaner and canned air [2]. Make sure the solenoid is clean and dry.

Note

- Do not apply lubricants to the solenoid or linkage.

To remove and repair the back gauge. (Refer to [F.21.3.28 Replacing the back gauge mechanism](#), [F.21.3.29 Back Gauge Removal](#))



21.3.13 Cleaning and Checking the Idler Rollers

(1) Periodically cleaned and checked parts/cycle

- Idler rollers
- : Every 3,000,000 prints.

(2) Procedure

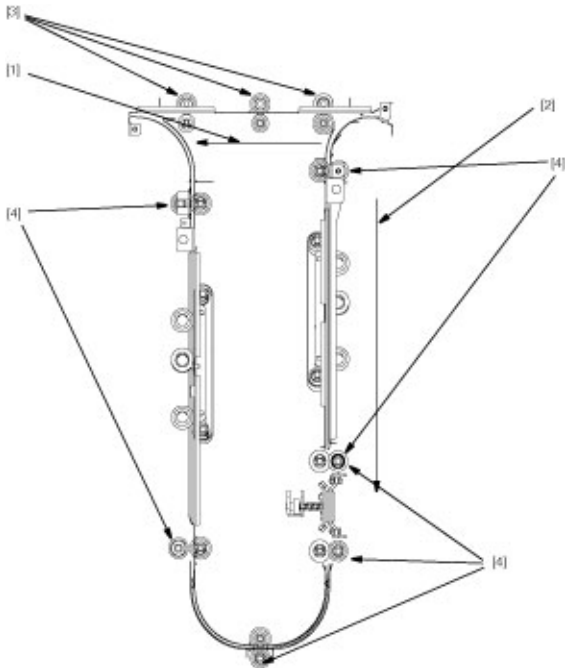
Idler rollers press against the drive rollers and move the paper through the bypass [1] or the punch [2].

Inspect rollers for wear patterns or grooves. The roller surface should be even and have a textured surface. Where practical, remove the roller assembly to clean [3].

Please see the reference page about the maintenance procedure of each roller.

Bypass Idler roller [3].

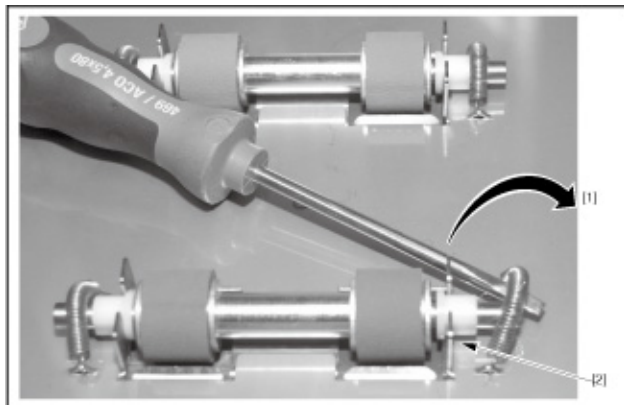
Punch Idler roller [4]. (Refer to [F.21.3.14 Cleaning and Checking the punch idler rollers](#))



(3) Cleaning and Checking the Bypass Idler Rollers

Idler rollers press against the drive rollers and move the paper through the bypass. Rollers can usually be serviced without removing the bypass panel.

1. Separate the punch from the printer.
2. Disconnect the power.
3. Lift the retaining spring over the end of the idler roller shaft. The illustration shows moving the spring [1] on the bypass plate, which has been removed from the machine for clarity.
4. Pull the released shaft end out of the bushing fork [2], releasing the opposite end of the shaft from the other retaining spring.
5. Clean the idler rollers with a soft cloth and alcohol.
6. Ensure the rollers turn freely on the shaft.
7. To install idler roller assemblies reverse the steps.

**Installation Note:**

- Make sure the flat surface of the bushing aligns in the fork.
- Rollers are non-directional so it does not matter which end goes in each fork.
- After the assembly is in place, gently pull the assembly outward and release to ensure it moves freely in the fork.

(4) Cleaning and Checking the punch idler rollers

Idler rollers press against the drive rollers and move the paper through the GP-501 Punch. Most can be serviced without disassembling punch components. Unplug unit and separate from the printer. (Refer to [G.21.3.2 Separating the Punch From the Printer](#)).

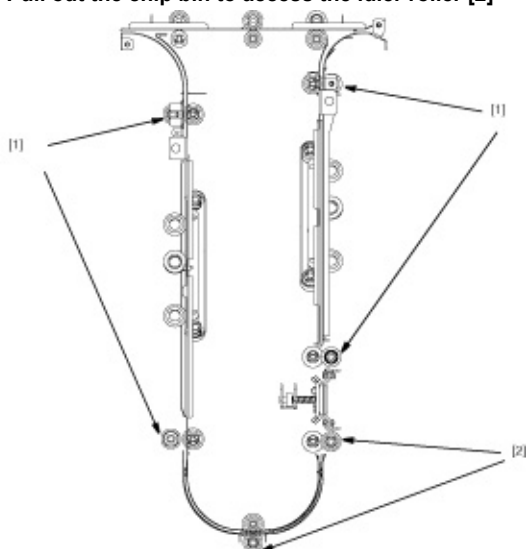
Also remove two side panels as described in [F.21.3.22 Bypass panel Removal](#) and [F.21.3.24 Aligner Panel Removal](#)

(a) Procedure

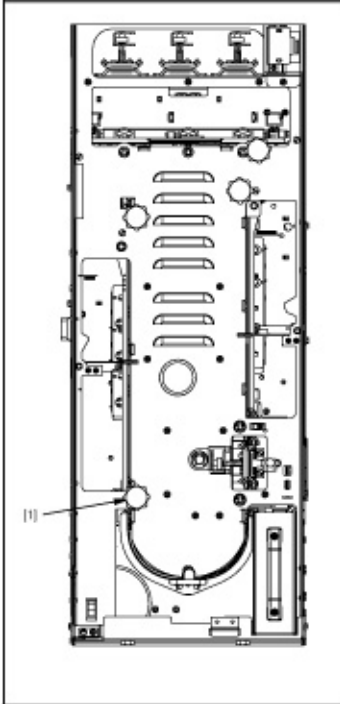
Inspect rollers for wear patterns or groves [1],[2]. The roller surface should be even and have a textured surface. Replace per the maintenance schedule.

Note

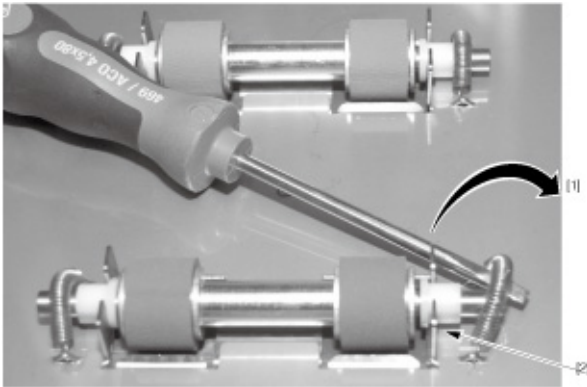
- Pull out the chip bin to access the idler roller [2]



- Use the drive knob [1] to turn the rollers to continue inspection and cleaning.



To remove the Punch Idler rollers:



1. Lift the retaining spring [1] over the end of the idler roller shaft.
2. Pull the released shaft end out of the bushing fork [2], releasing the opposite end of the shaft from the other retaining spring.
3. To install idler roller assemblies reverse the steps.

Installation Note:

- Make sure the flat surface of the bushing aligns in the fork.
- Rollers are non-directional so it does not matter which end goes in each fork.
- After the assembly is in place, gently pull the assembly outward and release to ensure it moves freely in the fork.

21.3.14 Cleaning and Checking the punch idler rollers

Idler rollers press against the drive rollers and move the paper through the GP-501 Punch. Most can be serviced without disassembling punch components. Unplug unit and separate from the printer. (Refer to [G.21.3.2 Separating the Punch From the Printer](#)).

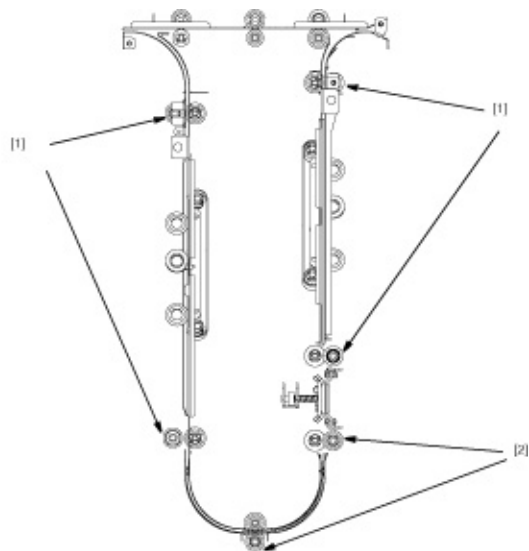
Also remove two side panels as described in [F.21.3.22 Bypass panel Removal](#) and [F.21.3.24 Aligner Panel Removal](#)

(1) Procedure

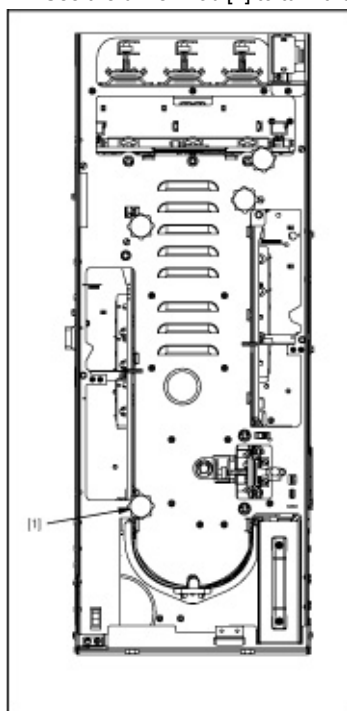
Inspect rollers for wear patterns or groves [1],[2]. The roller surface should be even and have a textured surface. Replace per the maintenance schedule.

Note

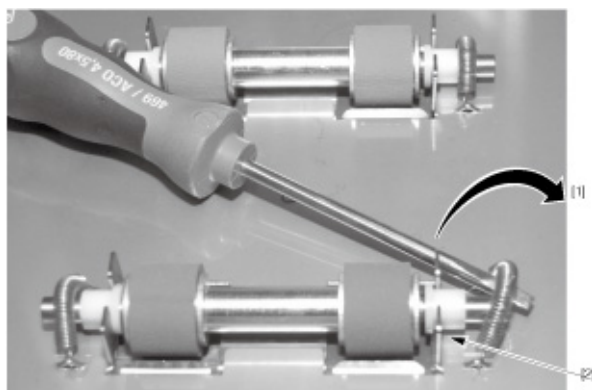
- Pull out the chip bin to access the idler roller [2]



- Use the drive knob [1] to turn the rollers to continue inspection and cleaning.



(2) To remove the Punch Idler rollers:



1. Lift the retaining spring [1] over the end of the idler roller shaft.
2. Pull the released shaft end out of the bushing fork [2], releasing the opposite end of the shaft from the other retaining spring.
3. To install idler roller assemblies reverse the steps.

Installation Note:

- Make sure the flat surface of the bushing aligns in the fork.
- Rollers are non-directional so it does not matter which end goes in each fork.
- After the assembly is in place, gently pull the assembly outward and release to ensure it moves freely in the fork.

21.3.15 Cleaning and Checking the Drive Rollers

Drive rollers are located opposite the idler rollers.

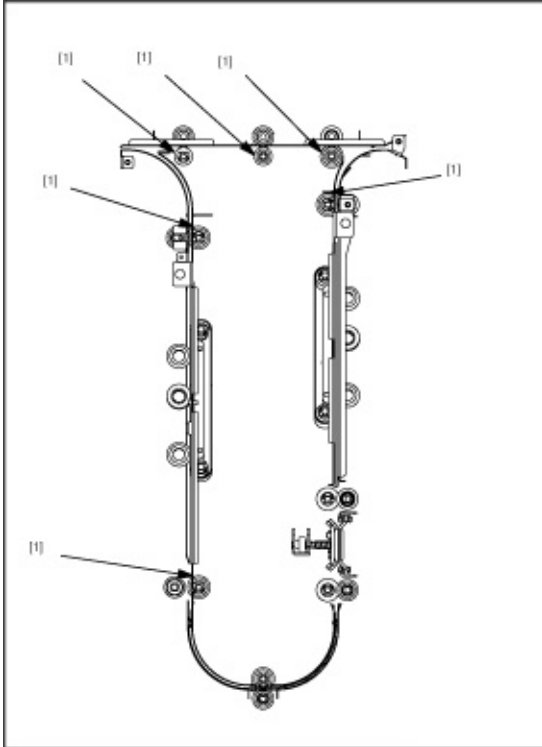
(1) Periodically cleaned and checked parts/cycle

- Drive rollers
: Every 3,000,000 prints

(2) Procedure

Inspect for wear patterns or groves. The roller surface should be even and not glazed.

Some drive rollers are not easily accessible. Those that are [1], should be inspected and cleaned when the idler rollers are removed. Where practical, make sure the rollers are clean. Clean with a soft cloth and alcohol. Refer to also [F.21.3.13 Cleaning and Checking the Idler Rollers](#).



21.3.16 Checking the Aligner Latch

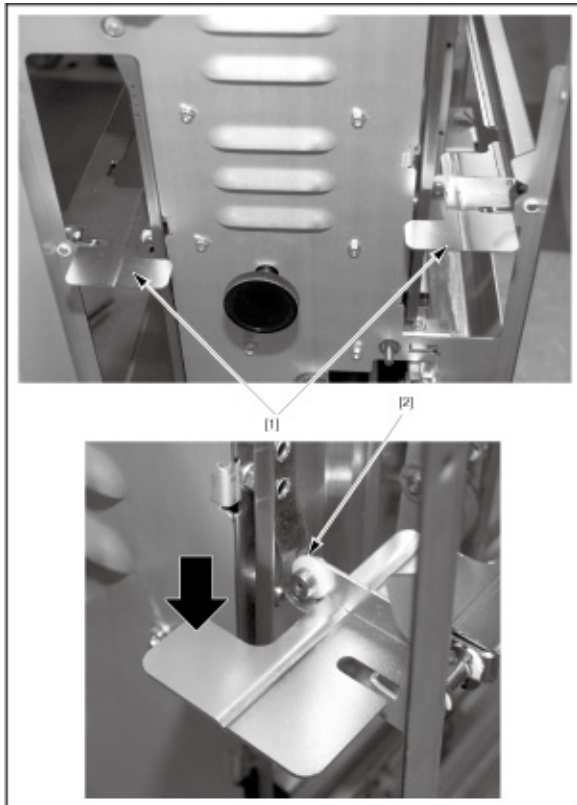
Latches [1] on both sides of the punch hold the Aligner Panels in place, which in turn keeps even pressure on the idler rollers.

(1) Periodically checked parts/cycle

- Aligner Latch
: Every 3,000,000 prints

(2) Procedure

- Inspect the latches for worn or damaged parts.
- Open and close the latches and ensure they lock into place when closed.
- Ensure the nylon wheel [2] turns freely on its bearing and that it aligns with its locking.



21.3.17 Cleaning the Optical Sensors

(1) Periodically checked parts/cycle

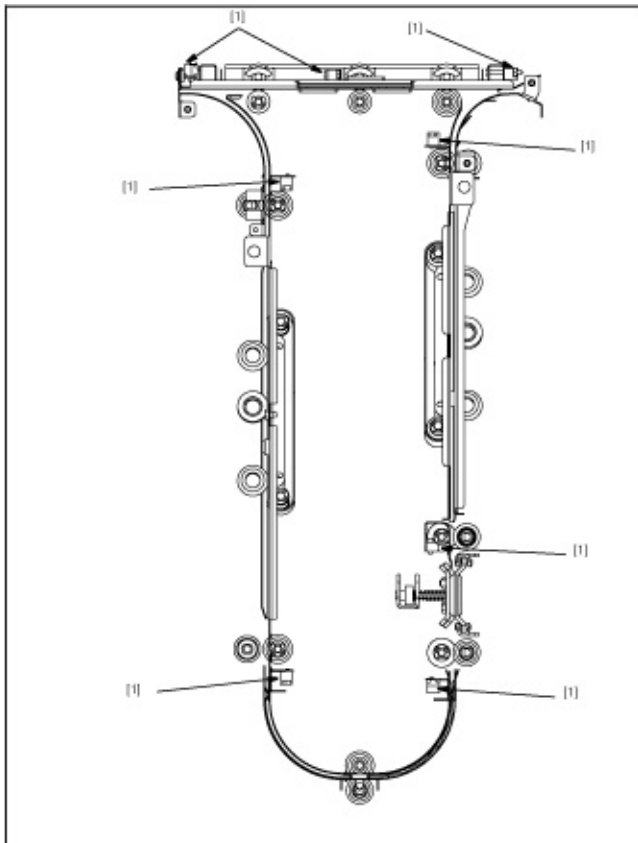
- Optical Sensors
- : Every 3,000,000 prints

(2) Procedure

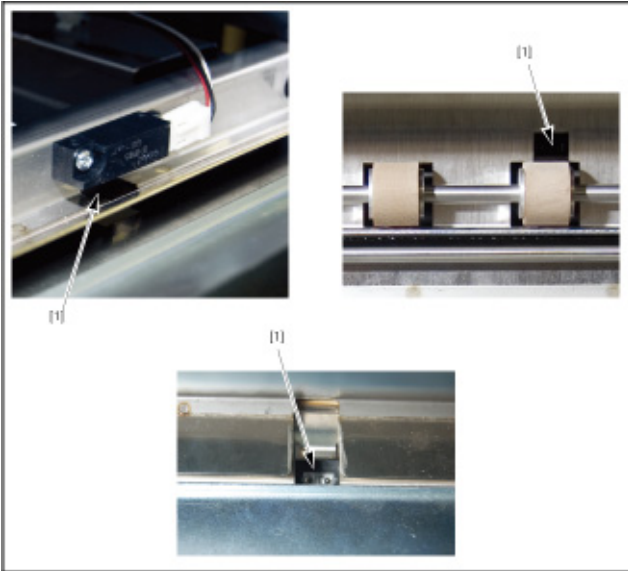
- Inspect and clean Optical Sensors [1] per the maintenance schedule or as needed.

(3) Supplies Needed

Canned air or vacuum cleaner



Use canned air to blow the debris off each sensor. The illustration shows examples of three sensors [1].



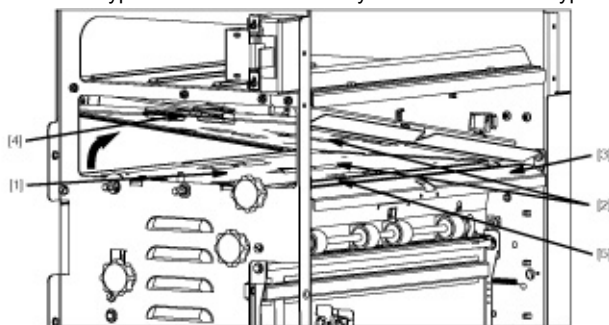
21.3.18 Cleaning and Checking the Bypass Paper Path

(1) Periodically cleaned and checked parts/cycle

- Bypass paper path
: Every 3,000,000 prints

(2) Procedure

- Inspect the Bypass panel [1], rollers [2], and entrance guide [3] for wear, damage, and obstructions.
- Inspect the rollers for wear patterns or groves. The surface should be rough and even. Make sure the rollers are clean. Clean rollers with a soft cloth and alcohol. (Refer to [F.21.3.13 Cleaning and Checking the Idler Rollers](#), [F.21.3.15 Cleaning and Checking the Drive Rollers](#))
- Raise the panel and ensure the magnet holds it in open [4]. Inspect the path for obstructions. Clean as needed.
- Close the panel and check that it is flat and that paper will pass under it.
- Ensure the bypass diverter moves freely and returns to the bypass position.



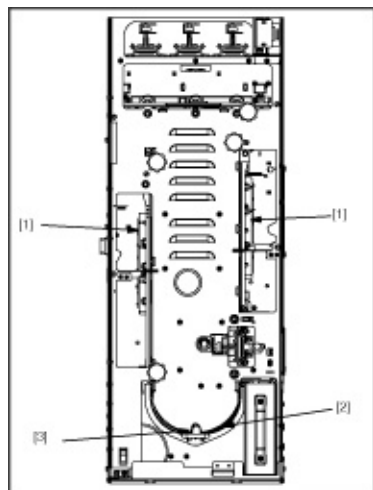
21.3.19 Cleaning and Checking the Punch Paper Path

(1) Periodically cleaned and checked parts/cycle

- Punch Paper path
: Every 3,000,000 prints

(2) Procedure

- Inspect the entire paper path through the punch. Look for wear, damage, and obstructions.
- Inspect the rollers for wear patterns or groves.
- Open the Aligner Panels [1] and U-channel [2] and make sure there are no obstructions.
- Confirm that the latch [3] holds the U-channel tightly in place. Re-shape it if necessary.
- Clean as needed.



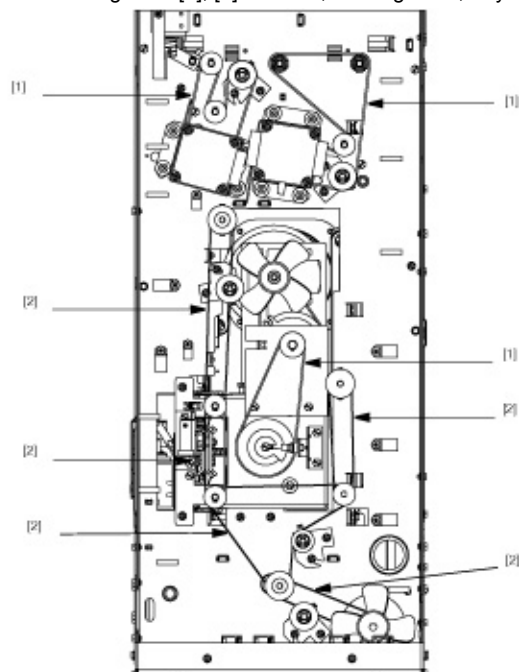
21.3.20 Cleaning and Checking the Timing Belt

(1) Periodically cleaned and checked parts/cycle

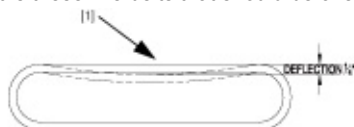
- Timing Belt
- : Every 3,000,000 prints

(2) Procedure

Inspect all timing belts [1], [2] for wear, missing teeth, frayed edges, and cracks. For replacement, refer to [F.21.3.43 Belt replacement](#).



Check for proper deflection of belts. The belts should be slightly loose with approximately 1/4" (6.35mm) deflection [1]. Belts that are too loose will not drive properly and belts that are too tight can wear out prematurely or damage their driven components. Five belts [2] have tensioners, it is these five belts that should be checked.



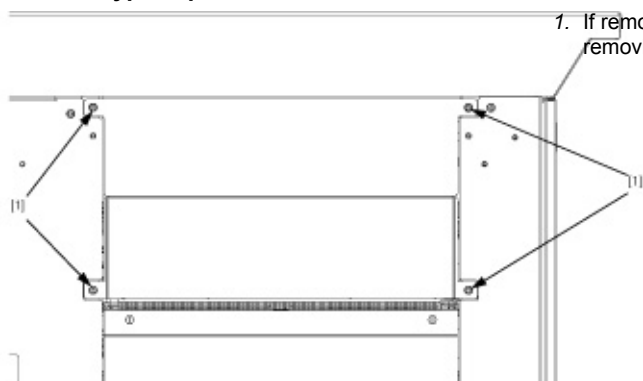
21.3.21 Bypass panel

(1) Tools Needed

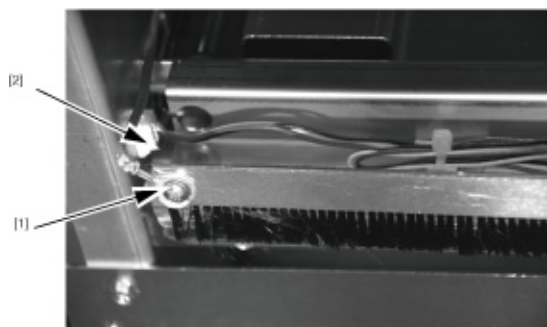
- Phillips screwdriver or 1/4" nut driver
- Flat bladed screwdriver
- Needle nose pliers

(2) Procedure

Separate the punch from the printer and remove the rear cover. (Refer to [G.21.3.2 Separating the Punch From the Printer](#), [G.21.3.3 Removing the Rear Cover](#))

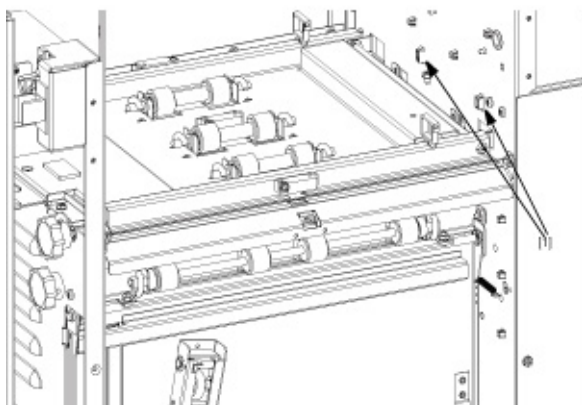
21.3.22 Bypass panel Removal**(1) To remove the Bypass panel:**

1. If removing the Bypass panel, remove the side panel cover by removing the 4 screws [1].

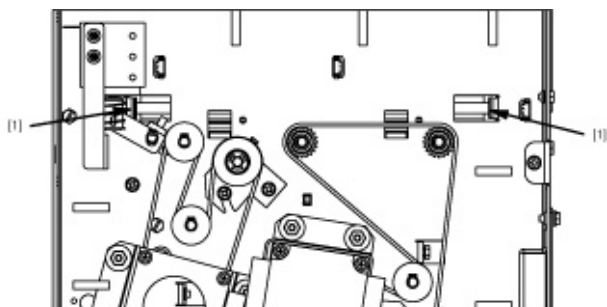


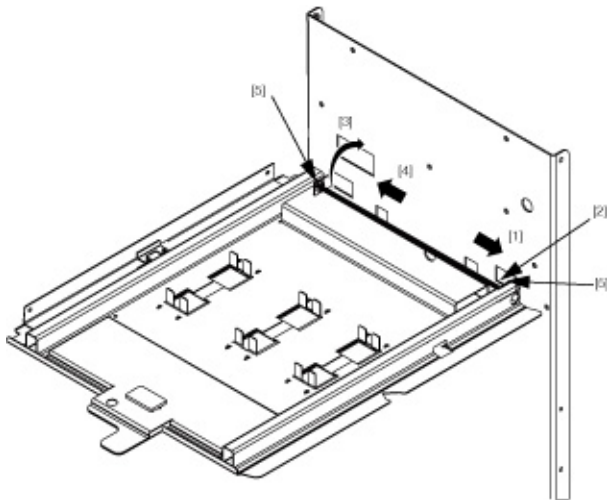
2. Disconnect the grounding strap by removing the screw [1] on the exit side of the bypass.
3. Unplug the exit side connector [2] at the rear frame.

4. Disconnect the connectors [1] of Enter sensor (S1) and Bypass sensor (S8).



5. From the rear of the punch, remove one of the E-rings [1] from the Bypass shaft.

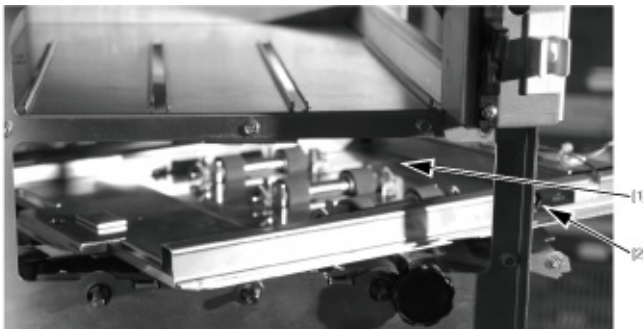




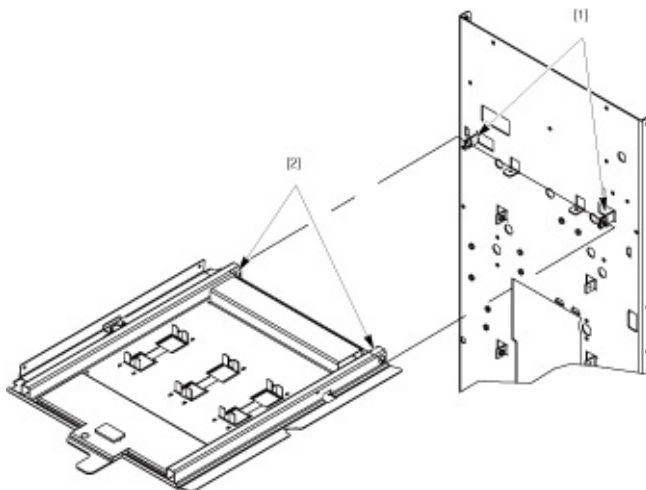
6. From the side of the punch, slide the shaft towards the end of the shaft [1] without the E-Ring [2] until the other end of the shaft clears the nylon bushing and bracket.
7. Lift the opposite end of the shaft [3] and slide it out of the Bypass panel in the opposite direction of the removed E-Ring [4].

Installation Note

- Make sure the nylon bushing is installed so that it protrudes through the mounting bracket of the rear frame into the Bypass panel [5].



8. Rotate the rear of Bypass panel [1] so that it extends past the entrance side of the punch [2].



9. Remove the Bypass panel.
10. To install the Bypass panel, reverse the steps.

Installation Note

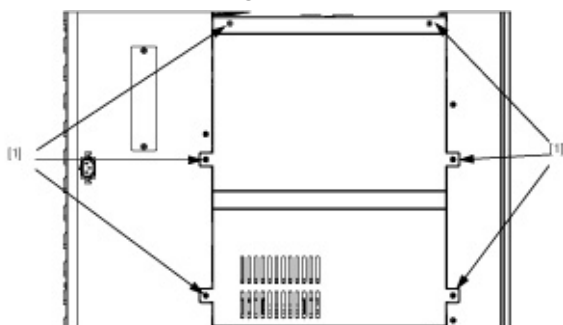
- Position the Bypass panel so that it is outside the shaft mounting brackets. The nylon bushings go through the mounting brackets [1], into the Bypass panel [2].

21.3.23 Aligner panels

The entrance side Aligner panel positions the paper in the Back Gauge for punching. The exit side Aligner panel positions the paper for the finisher. Prior to servicing the Aligner Panels, separate the GP-501 Punch from the printer. (Refer to [G.21.3.2 Separating the Punch From the Printer](#)).

21.3.24 Aligner Panel Removal

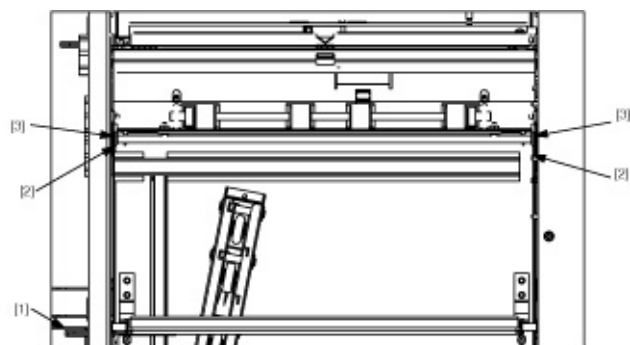
Removing the Aligner panels provides access to the paper path and the Aligner Green Drive Belt. The procedure is the same for the entrance and exit Aligner panels except that the exit side has a docking plate which must be removed first.

(1) To remove the Aligner panel:

1. If removing the exit side Aligner panel, remove the side panel cover by removing the 6 screws [1].

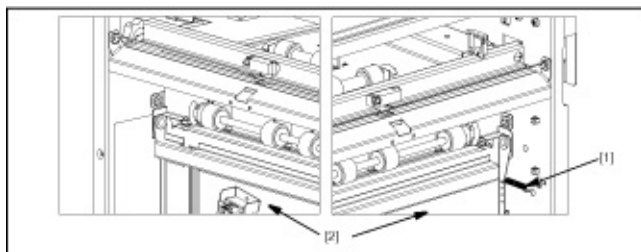
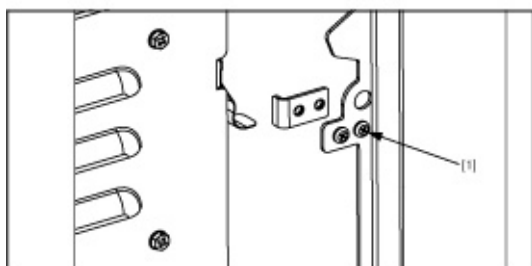
Note

- The rest of the steps are the same for both Aligner panels.



2. Release the Aligner latch [1].
3. Remove the E-clips from both ends of the Aligner shaft [2].
4. Remove the shaft nylon bushings [3]

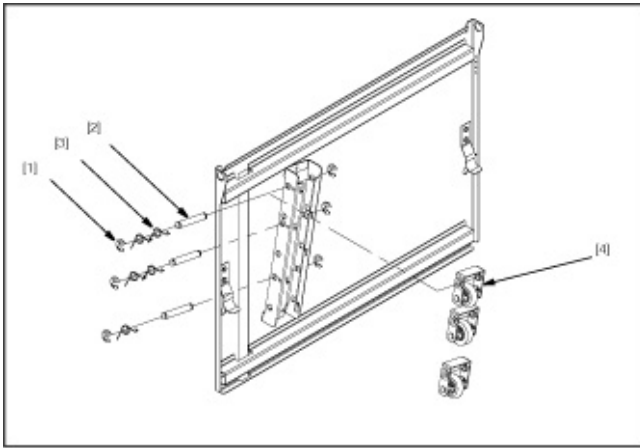
5. Slide the shaft out the front of the punch.
6. Remove aligner latch stop by removing screws [1].



7. Unhook the tension spring from the panel [1].
8. Remove the Aligner panel [2] out the front of the punch.
9. Reverse the steps to install the Aligner panel.

21.3.25 Aligner Idler Roller Replacement**(1) Tools Required**

- Flat head screw driver
- Needle nose pliers

(2) Procedure

1. Pull off E-Clips [1]
2. Remove the pins [2]. During removal of pins hold on to spring with fingers.
3. Completely remove the springs [3] and then slide roller assembly [4] down and then out.

Note

- Aligner rollers must be moved downwards. Hence all the rollers need to be removed.

21.3.26 Aligner Drive Belt Replacement**(1) Procedure**

Before replacing the green drive belts, remove the Aligner panels. (Refer to [F.21.3.24 Aligner Panel Removal](#)) Then follow the procedures below for the entrance side or exit side green drive belt service.

(2) Tools Required

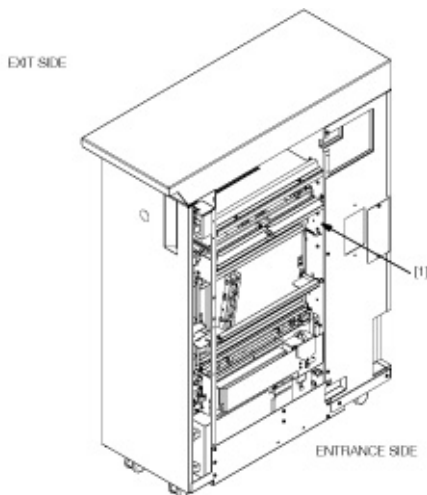
- Phillips screw driver
- Nut drivers, 1/4 and 5/16"
- Hex wrenches, 5/64 and 9/64"
- Snap ring pliers
- E-Ring tool
- Twelve inch metal ruler or similar straight edge

⚠ CAUTION

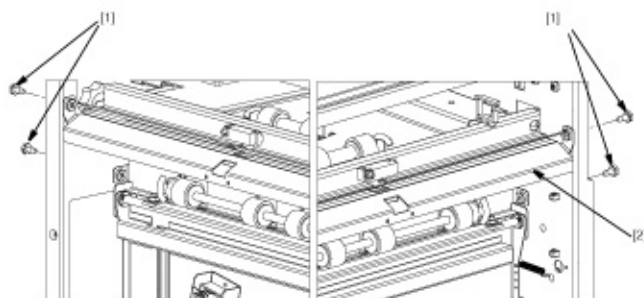
- Disconnect the GP-501 Punch from power and retain the power cord in your possession for your safety. Failure to observe this caution can result in injury.

Note

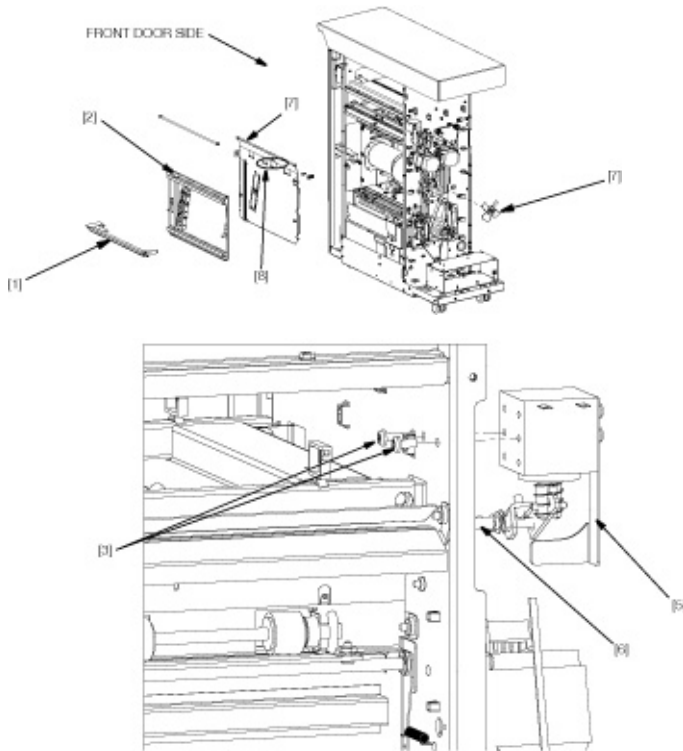
- Empty the paper chip bin and replace it. This makes it easier to find small parts that you may drop into the bin.

(3) Paper Entrance Side Green Drive Belt Replacement

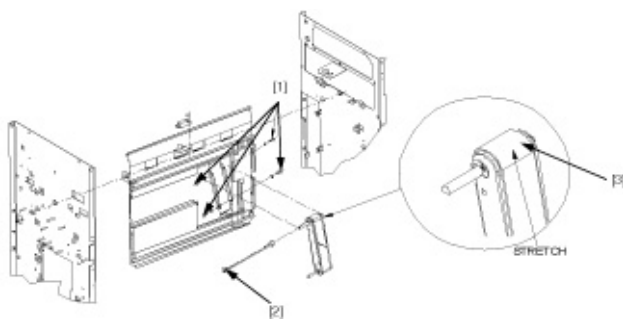
1. Disconnect the enter sensor (S1) wire from the side frame [1].



2. Remove the 4 screws that secure the front paper chute [1] to remove the entrance guide [2].



3. To remove the GP2 aligner latch [1], do the following:
 1. Unhook the spring of the GP2 aligner latch on the right end.
 2. Remove only one (the one closest to the frame) of the E-rings of the GP2 aligner latch on the left end (front Door side).
 3. Push the GP2 aligner latch in toward the front door until it clears the rear frame.
 4. Pull the entire GP2 aligner latch, door latch out and set it aside.
4. To remove Entrance Idler Aligner panel [2] assembly. (Refer to F. 21.3.24 Aligner Panel Removal)
5. Remove the fan [7] that prevents access to the flexible cable. To remove it simply pull it off the shaft.
6. Remove the flexible cable using a hex wrench.
7. Remove the 2 screws [3]
8. Loosen screw from the solenoid link.
9. Remove the solenoid assembly [5] and link from the Diverter Shaft[6], leave it hanging.



10. Remove the 2 E-Rings of the Entrance Diverter assembly, slide the Diverter out and set it aside.
11. To remove the Entrance Drive Aligner assembly [7], which is the large sheet metal assembly that actually contains the green drive belt and Aligner.
 1. Remove the 6 Screws that secure the face of this assembly.
 2. Remove the 2 screws that secure this assembly from the side frame.
 3. Disconnect the sensor connector [8]
 4. Pull and walk the entire sheet metal assembly of the Paper Guide Aligner assembly up and outward. You can grab the assembly at the roller cut out with your fingers.

⚠ CAUTION

- As you pull the assembly out, disconnect the sensor harness behind the assembly as soon as you are able to reach it. Failure to observe this notice may damage the wiring.

12. Remove the green drive belt Aligner Roller assembly by removing the 4 screws [1].

⚠ CAUTION

- Leave the Flex Shaft [2] attached.

(4) Green Drive Belt Assembly

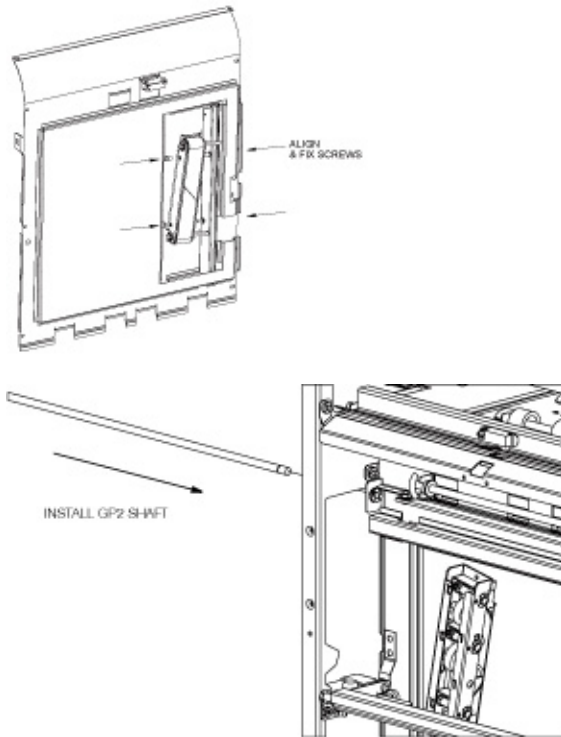
1. Stretch the new Belt [3] onto the Aligner Roller assembly, green side out. Rotate the Flex Shaft [2] to confirm that the belt tracks properly.
2. Slide the Aligner into place, loosely attach the 4 Pan Head Screws with the 4 Lock Washers.
 1. Check that the metal surface of the Aligner Roller assembly is flush with the Sheet Metal surface of the Paper Guide. A 12" metal ruler works well to check this adjustment. Slip the ruler under the green drive belt and press it flat against the two surfaces.
 2. Adjust the Aligner and snug the screws when perfectly flush.

Note

- The green drive belt should look like the drawing shown in Figure 3.35.

3. As a double check, hold the entire Paper Guide assembly up so that you can visually inspect the alignment between the sheet metal surface and the metal surface of the Aligner. The green drive belt should appear to be even or parallel, and just floating above the surface of the sheet metal.

3. To install the Paper Guide assembly into the GP-501 Punch:



1. As you slide the Paper Guide assembly into place,
 - Hook up the Sensor Harness to the Sensor on the back.
 - Lift it up slightly to clear the lower Transition Paper Guide.
 - Be sure to clear the Sensor Bracket at the top left.
 - Be sure that the Flex Coupling Shaft is sticking out of the rear of the GP-501 Punch properly.
2. Visually check all around the mounting area of the Paper Guide assembly and that the Sensor Harness is properly connected.
3. Loosely secure it in place with 3 screws on the left and 3 on the right.
4. Loosely install the 2 top screws.
5. Once all 8 mounting screws have been properly started you have good alignment. You may now go back and tighten the screws until they are snug.
4. Install the Flexible Shaft.
5. Install the curved sheet metal Exit Paper Guide (item 7) with Idler Roller 4 Screws. Start all 4 screws, (2 on front and 2 on back) then tighten.
6. Connect the Sensor Wire Harness at the top rear of the Exit Paper Guide.
7. Install the GP2 Shaft back into place by inserting it first into the front, then the back.

8. Close the GP2 Flipper Latch.
Repeat the test of rotating the pulleys to ensure smooth rotation of the Idler Rollers.
9. Attach the GP2 Shaft Spring.
10. Install the front E-Ring to secure GP2.

(5) Entrance Aligner Panel Installation

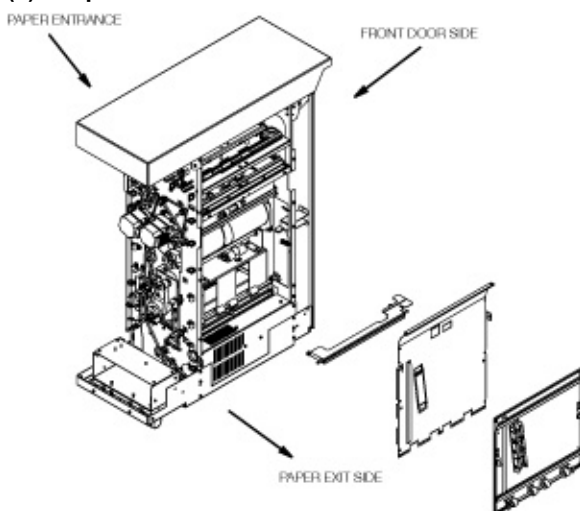
To install the Idler Aligner panel, refer to [F.21.3.24 Aligner Panel Removal](#). Then insert the punch into the printer and finisher and connect the power cord.

1. Test the GP-501 Punch by doing the following:
 1. Run 10 copies in bypass mode.
 2. Run 1 sheet in punch mode.
 3. Run 10 sheets in punch mode.
 4. Run 100 sheets in punch mode.

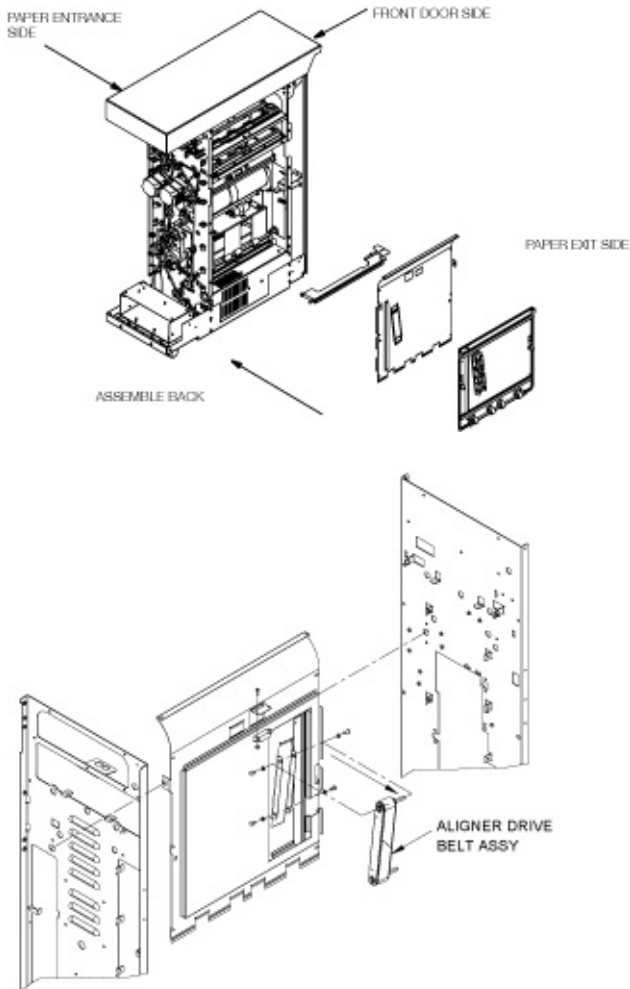
(a) Test the GP-501 Punch by doing the following:

1. Run 10 copies in bypass mode.
2. Run 1 sheet in punch mode.
3. Run 10 sheets in punch mode.
4. Run 100 sheets in punch mode.

(6) Paper Entrance and Exit Side Green Drive Belt Replacement



1. To remove the GP6 Flipper (C), Door Latch:
 1. Remove only one (the one closest to the frame) of the E-Rings of the GP6 Flipper on the right end (front door side).
 2. Push the GP6 Flipper in toward the front door until it clears the rear frame.
 3. Pull the entire GP6 Flipper, door latch out and set it aside.



2. To remove the Rear Aligner, Idler Paper Guide assembly:
 1. Remove 2 E-Rings from the Pivot Shaft.
 2. Slide the Shaft all the way out through the front of the GP-501 Punch.
 3. Remove the 2 nylon bearings.
 4. Remove and set aside the Rear Aligner, Idler Paper Guide assembly.
3. To remove the curved sheet metal Exit Paper Guide assembly:
 1. Remove the 4 screws (2 rear and 2 front) of the curved sheet metal Exit Paper Guide assembly.
 2. Unplug the sensor.
 3. Pull the entire sheet metal Exit Paper Guide assembly out, set aside.
4. To remove the Rear, Drive Side, and Paper Guide Aligner assembly. This is the large sheet metal assembly within the GP-501 Punch that contains the green drive belt Aligner.

CAUTION

- **Walk the Belt off of the Aligner Pulley at the rear.**

1. Remove the 2 screws that hold the block to the frame. The Coupler is loose and the rear panel will come out.
2. Remove the 6 screws that secure the face of this assembly.
3. Remove the 2 screws that secure this assembly from the top.
4. Pull and walk the entire sheet metal assembly of the Paper Guide Aligner up and outward. You can grab the assembly at the roller cut out with your fingers.

CAUTION

- **Handle the helical coupling carefully. It is very delicate.**

Note

- **In order to access these screws, you must first remove the Die Set storage shelf and the cable shield attached to the Die storage shelf at the paper entrance side. Moving the Die Storage shelf aside will enable better access to the 2 screws with a short Phillips screw driver.**

CAUTION

- **As you do this, disconnect the sensor harness behind the assembly as soon as you are able to reach it. Failure to do this can damage the unit.**

5. Remove the green drive belt Aligner Roller assembly by removing the 4 screws (S).

CAUTION

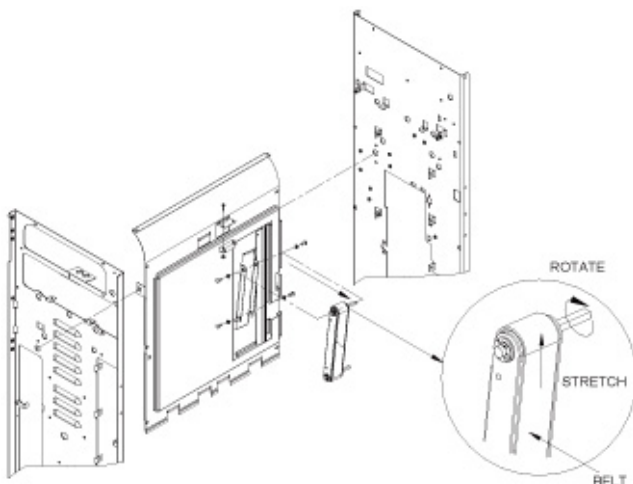
- **Leave the Flex Shaft (FS) attached.**

6. Remove the green drive belt Aligner Roller assembly by removing the 4 screws.

CAUTION

- **Leave the Coupler attached.**

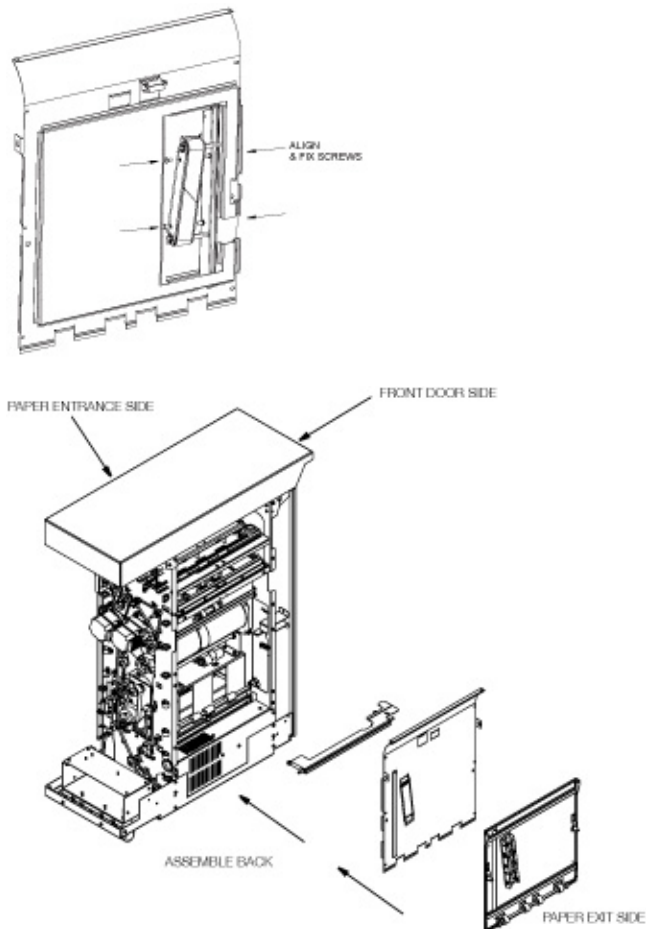
(7) Green Drive Belt Assembly



1. Stretch the new green drive belt onto the Aligner Roller assembly, green side out.
 - Take care when handling the Aligner Roller assembly so as not to damage the Flex Coupling.
 - Rotate the shaft to confirm that the belt tracks properly.
2. Slide the Aligner into place, loosely attach the 4 pan head screws with the 4 lock washers.

Check that the metal surface of the Aligner Roller assembly is flush with the sheet metal surface of the Paper Guide. A 12" metal ruler works well to check this adjustment. Slip the ruler under the green drive belt and press it flat against the two surfaces. Adjust the Aligner and snug the screws when perfectly flush. The green drive belt should look like the drawing shown in Figure 3.41.

To ensure proper assembly, hold the entire Paper Guide assembly up so that you can visually inspect the alignment between the sheet metal surface and the metal surface of the Aligner. The green drive belt should appear to be even and just floating above the surface of the sheet metal.



3. To install the Paper Guide assembly into the GP-501 Punch:
 1. As you slide the Paper Guide assembly into place:
 - Hook up the Sensor Harness to the Sensor on the back.
 - Lift it up slightly to clear the lower Transition Paper Guide.
 - Be sure to clear the sensor bracket at the top left.
 - Be sure that the Flex Coupling shaft is sticking out of the rear of the GP-501 Punch properly.
 2. Visually check all around the mounting area of the Paper Guide assembly and that the sensor harness is properly connected.
 3. Loosely secure it in place with 3 screws on the left and 3 on the right.
 4. Loosely install the 2 top screws.
 5. Once all 8 mounting screws have been properly started go back and tighten the screws until they are snug.

CAUTION

- Do not over tighten the 2 screws on top.

4. Install the 2 screws to secure the bearing block for the pulley arrangement at the rear of the GP-501 Punch. Press the block to the top of the punch before tightening.
5. Install the pulley and belt onto the pulley block. Once properly aligned, check belt and pulley movement. Tighten the set screw.
6. Install the Die Set storage rack with 3 screws front and 3 screws back. Remember to attach the ground strap at the middle screw on the rear (belt side). Start each screw to achieve proper alignment, then go back over each screw and tighten it.
7. Install the Cable Guard on top of the Die Set storage rack (2 Screws).
8. Install the curved sheet metal Exit Paper Guide with Idler Roller 4 screws.
9. Start all 4 screws, (2 on front and 2 on back) then tighten.
10. Connect the sensor wire harness at the top rear of the Exit Paper Guide.
11. To install the Idler Aligner Paper Guide:
 1. Hold it loosely in place.
 2. Press the nylon flange bearings into place, through both pieces of sheet metal, with the flange to the inside.
 3. Slide the shaft through the front of the machine, while holding the nylon flange bearing in place.
 4. Secure with 2 E-rings on the inside of the bearing.
 5. Inspect by pressing in on the bottom area of the sheet metal for:
 - A slight deflection of each Idler Roller as you press.
 - As you press, you can turn the pulleys at the rear of the GP-501 Punch and see the Idler Rollers rotate smoothly.
12. Bend the small metal tab back into place.
13. Install the GP6 shaft back into place by inserting it first into the front, then the back.
14. Close the GP6 Flipper Latch.

Repeat the test of rotating the pulleys to ensure smooth rotation of the Idler Rollers.
15. Attach the GP6 shaft spring.
16. Install the front E-Ring to secure GP6.

(8) Aligner Panel Installation

To install the Idler Aligner panel, refer to [F.21.3.24 Aligner Panel Removal](#). Then insert the punch into the main body and finisher and connect the power cord.

(a) Test the GP-501 Punch by doing the following:

1. Run 10 copies in bypass mode.
2. Run 1 sheet in punch mode.

3. Run 10 sheets in punch mode.
4. Run 100 sheets in punch mode.

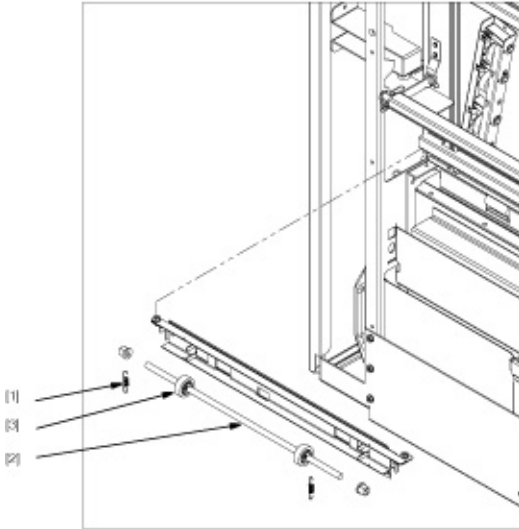
21.3.27 Cleaning and checking the energy drive roller

(1) Periodically cleaned and checked parts/ cycle

- Energy drive rollers
- : 3,000,000 prints

(2) Procedure

Reference Figure 3.44 Energy Roller as you perform this procedure.



1. Without disconnecting either retaining spring [1], roll one of them gently to one side to release the Energy Drive Roller shaft from its mounting bracket.
2. Lift the shaft [2] from the mounting bracket.
3. Using a clean cloth and alcohol, clean the surfaces of the rollers [3] to remove any paper dust or toner that may have accumulated over time.
4. Reverse steps 2 & 1 above to replace the shaft into the holder.
5. Ensure the flats of the bearings are seated properly in the mounting brackets.
6. Ensure the springs are straight on the bearing to apply sufficient force for the rollers to turn when you rotate the knob at the front of the machine.

21.3.28 Replacing the back gauge mechanism

The Back Gauge assembly pauses the paper just as the edge has entered the die set. Working properly, the sheet will pause only long enough for the holes to be punched correctly. The Back Gauge assembly also controls the paper chad falling into the chad bin, significantly reducing the amount of chad that could flow through the paper path. Some chad falls outside the chad bin and should be cleaned up with a vacuum cleaner during each servicing.

⚠ WARNING

- **Disconnect the GP-501 Punch from its power source before removing the Back Gauge assembly.**
Failure to observe this warning can result in severe injury or death and damage the punch.

(1) Periodically replaced parts/Spotted replaced parts/cycle

- Back gauge mechanism
- : Every 16,000,000 prints*¹ (Actual replacement cycle: Every 4,000,000 punches*²)

*¹ The periodical replacement is only for 1200/1200P/1051.

*² Actual replacement cycle of 1200/1200P/1051/C8000.

(2) Procedure

Remove Back Gauge assembly to clean and service the solenoid or to replace the Back Gauge. Also allows the removal of the Punch Module.

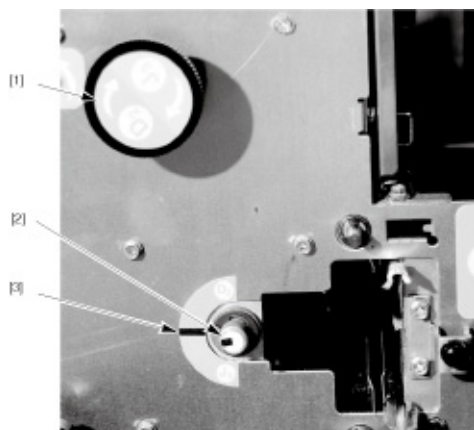
To repair or replace the Back Gauge, separate the GP-501 Punch from the printer and finisher and then remove the rear cover. (Refer to [G. 21.3.1 Preparing the GP-501 punch for service](#))

(3) Tools Required

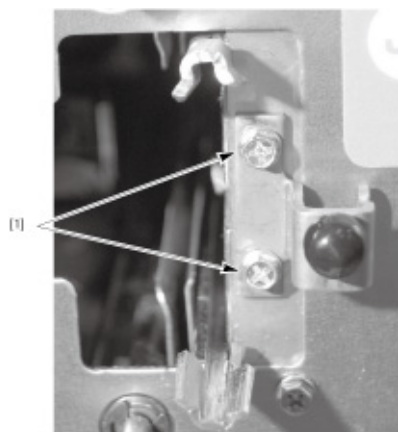
Phillips screw driver or 1/4" nut driver

Note

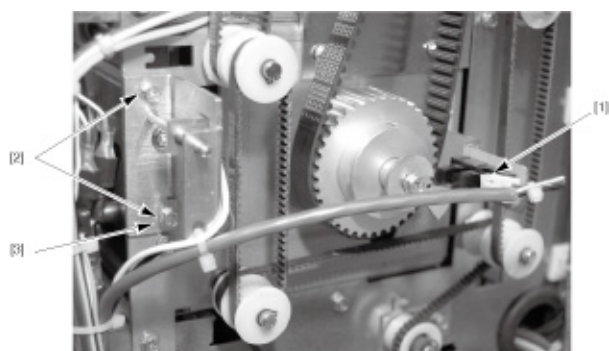
- Empty the paper chip bin and replace it. This makes it easier to find small parts that you may drop into the bin.

21.3.29 Back Gauge Removal**(1) To remove the Back Gauge assembly:**

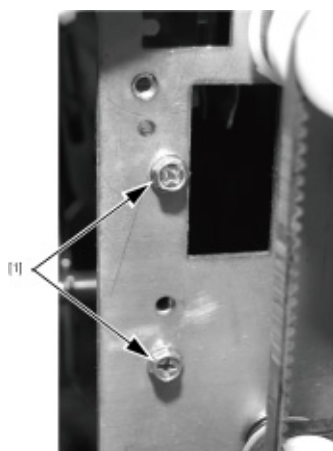
1. Turn the Punch Cycle knob [1] so that the punch drive indicator [2] lines up the position indicator [3].



2. Remove the Die Set and Chip Bin.
3. Remove the two Die Set Chip Brush bracket screws [1].



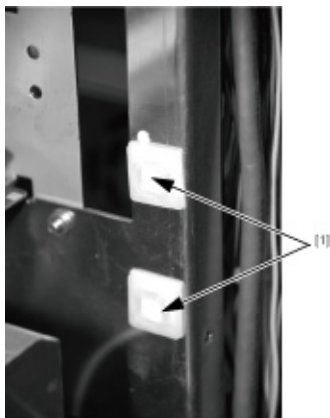
4. On the rear of the punch, unplug the drive punch flag sensor connector [1].
5. Remove the 2 Die Set Adjustment Bracket screws [2] and pull the bracket aside [3].



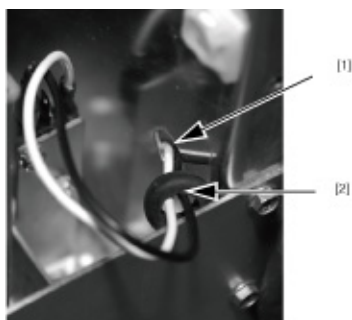
6. Remove the 2 Back Gauge rear mounting screws [1].



7. Disconnect the Back Gauge connector from the Punch Controller PCB [1].



8. Cut wire harness ties as needed to free the solenoid wires.
9. Cut the 2 harness ties on the entrance side of the punch.

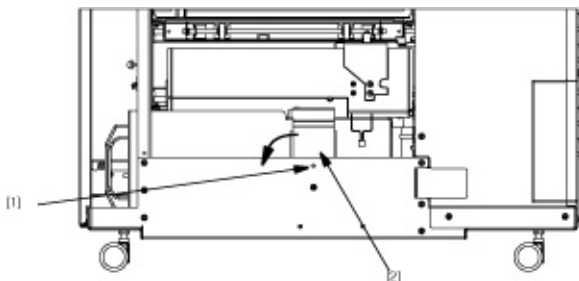


10. Remove the grommet from the frame [1].

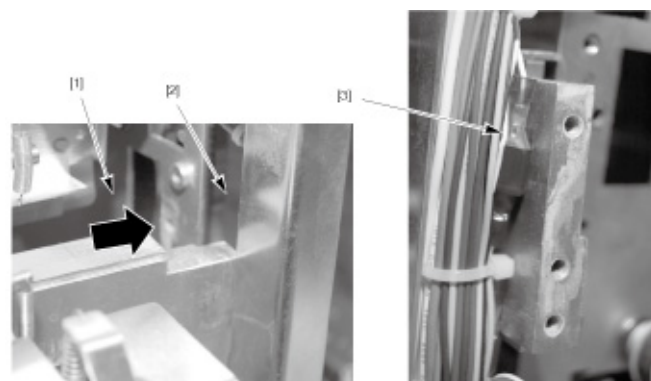
Note

- If you are not replacing the Back Gauge or are removing it for access to the Punch Module, it is not necessary to pull the wire through the hole in the frame. The Back Gauge can be set aside.

11. Feed the connector through the hole in the frame and the grommet separately [2].



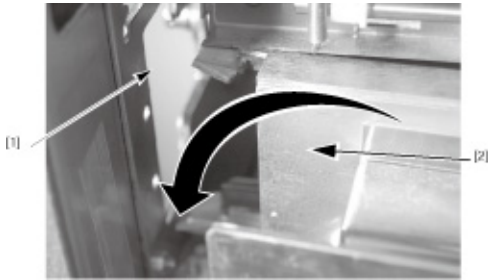
12. Remove one top screw [1] of chip tray full sensor bracket [2] and pivot the bracket down.



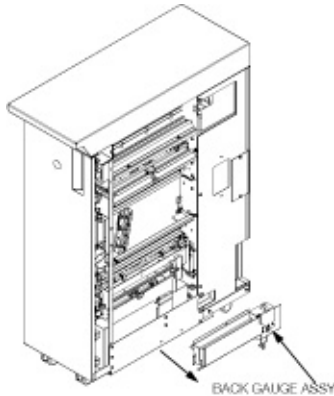
13. Gently slide the Back Gauge assembly to the rear of the punch [1] so that it extends through the slot [2] and clears the wiring harness [3].

CAUTION

- Do not damage the wires in the wiring harness. Failure to observe this precaution may damage the wiring.



14. Make sure the left end of the Back Gauge clears the opening on the front of the punch [1] and pull it out [2] while sliding it to towards the front.



15. Remove the Back Gauge and rail as an assembly.
16. To install the Back Gauge, reverse these steps.
17. After replacing the Back gauge mechanism, conduct the following item.
When connecting to C8000/C7000/C7000P/C70hc/C6000
Counter reset of the parts counter number 317
When connecting to 1250/1250P/1052
Counter reset of the parts counter number 293
When connecting to 951
Counter reset of the parts counter number 175

(2) Testing

(a) To test the Back Gauge:

1. Install a Die Set.
2. Rotate the punch drive knob to ensure the drive and cams turn easily.
3. Test for proper hole alignment to the paper edge by doing the following.
 - a. Run 1 page at a time.
 - b. Run 2 pages at a time.
 - c. Run 5 pages at a time.
 - d. Run 10 pages at a time.
 - e. Run 50 pages at a time.

21.3.30 Solenoid Spring Replacement

(1) Procedure

Removal of spring [1] and [2] -

Grasp the loop of the spring with needle nose pliers and then pull them off the shaft.

Removal of spring [3] -

Grasp the loop of the spring with needle nose pliers and then pull them off the sheet metal part.

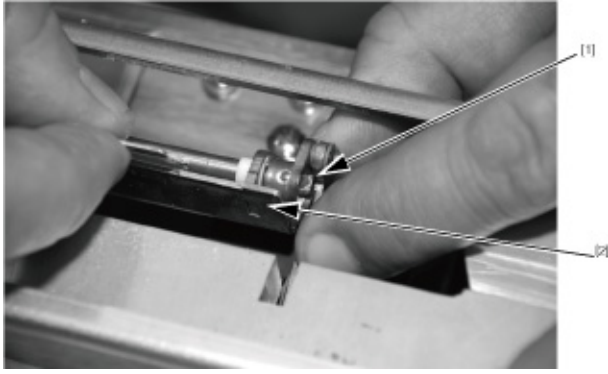


21.3.31 Back Gauge Paddle

(1) Procedure

First remove Back gauge assembly as described in "[F.21.3.29 Back Gauge Removal](#)".

Deep or angled deep punches may be caused by a broken weld on the Paddle shaft [1]. Inspect the Paddle and press down on it while holding the linkage to keep the linkage from moving. If the paddle [2] moves, replace the Back Gauge assembly.



21.3.32 Back Gauge Assembly Adjustment

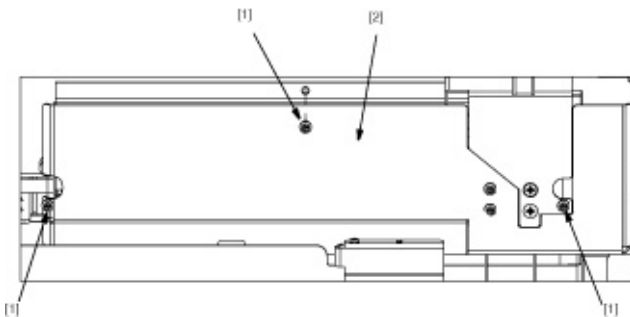
The Back Gauge can be adjusted up and down for optimum operation for specific Die Sets.

The Back Gauge should be at its highest position for VeloBind or PB Die Sets. If it is not, the Back Gauge Paddle may not completely close the paper path gap. This can result in paper (especially with excessive curl) slipping through the gap created by the Paddle and the top plate of the Die Set. This causes a deep punch.

Initially, move the assembly to its highest position and then adjust accordingly after testing each Die Set.

Ensure it is easy to insert and remove three hole Die Sets. If the Die Set is too tight, evenly lower the Back Gauge slightly to achieve the tightness required, while still retaining the PB and VeloBind functionality mentioned above.

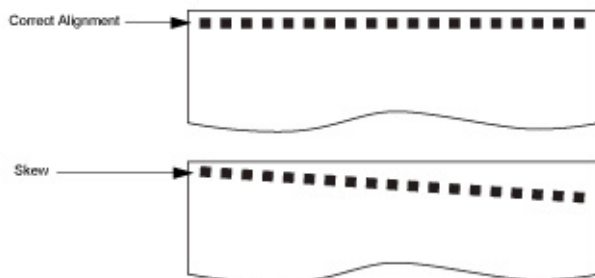
(1) To adjust the Back Gauge:



1. Loosen the 3 phillips head screws [1].
2. Move the entire assembly [2] upward or downward as needed while keeping it even.
3. While holding the assembly up, tighten the 3 screws.

(2) Testing

(a) To test the Back Gauge adjustment:



1. Run a few sheets of paper and check for skew with each Die Set.
2. Adjust the Back Gauge as needed and re-test.
3. Run 200 to 500 sheets of paper and check for mis-feeding, deep punching, and skew.

21.3.33 Punch module

(1) Tools Required

- Phillips screw driver or 1/4" nut driver
- Hex wrench, 5/64"

NOTE

- Empty the paper chip bin and replace it. This makes it easier to find small parts that you may drop into the bin.

(2) Procedure

Remove the module to lubricate the cams, or to service or replace the following components.

- Punch motor
- Drive motor belt
- Punch module brake
- Cams
- Flexible drive coupling
- Punch Module drive rollers

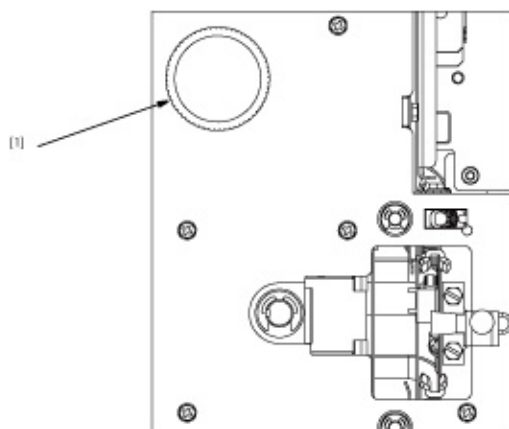
The clutch can be replaced without removing the module. (Refer to [F.21.3.36 Punch Clutch Replacement](#)).

⚠ WARNING

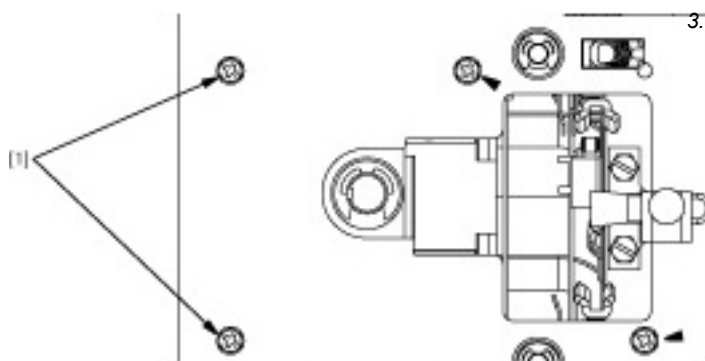
- Disconnect the GP-501 Punch from its power source before removing the Back Gauge assembly. Failure to observe this warning can result in severe injury or death and damage the punch.

21.3.34 Punch Module Removal

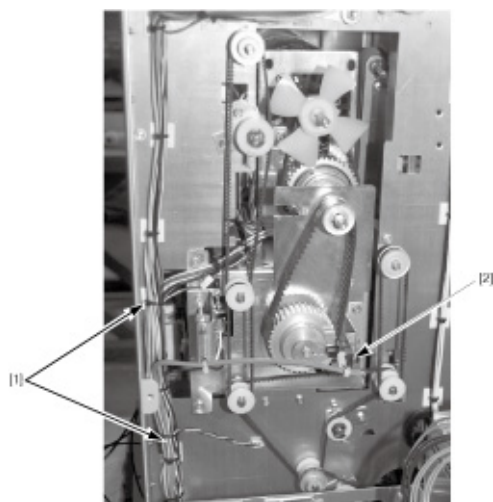
The Back Gauge assembly must be removed before removing the Punch Module. (Refer to [F.21.3.29 Back Gauge Removal](#)).

(1) To remove the Punch Module:

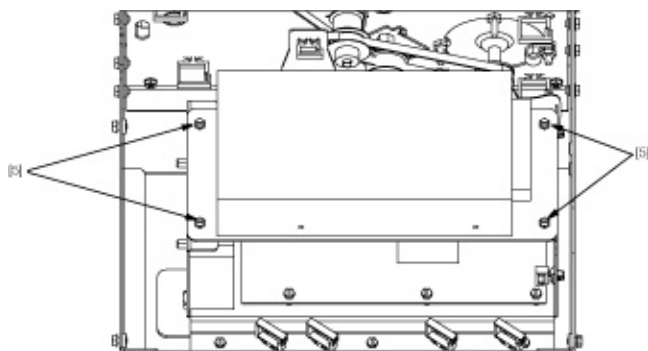
1. Remove the Back Gauge assembly.
2. Use a 5/64" hex wrench to remove the Punch Cycle knob [1].



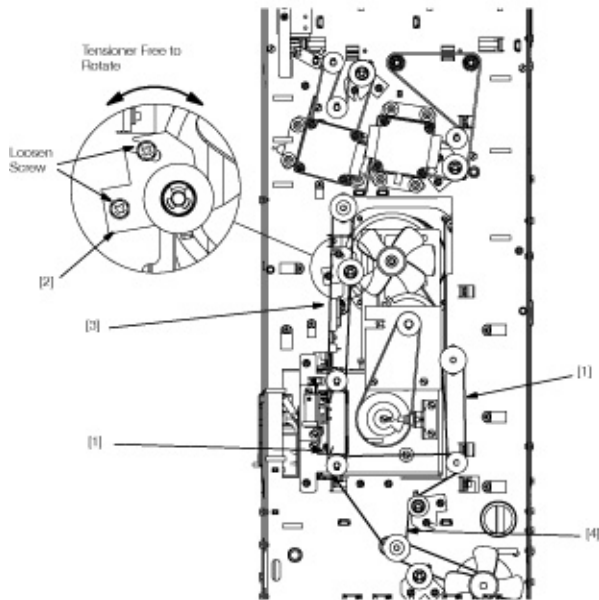
3. Remove the 4 Punch Module retaining screws [1] from the front panel.



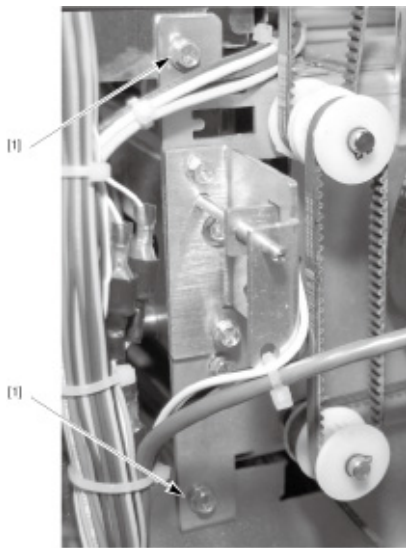
4. Release the cable ties on the left wiring harness [1] to free the Punch Module wiring. Remove the connector from flag sensor [2]. Remove harness from brake and clutch as per image below.



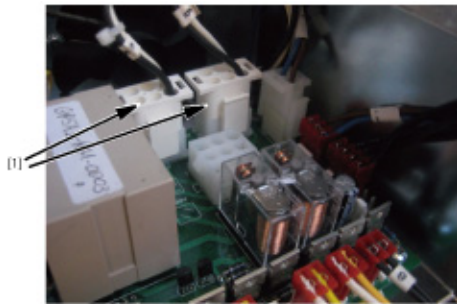
5. Remove the belts in the following order.
 1. Remove the bottom left and right vertical belts [1] by walking the belts over the pulleys.
 2. Remove the 4 power supply screws [5].
 3. Loosen the belt idler rollers [2] and remove the upper vertical belt [3].
 4. Remove the bottom triangular belt [4] after loosening the respective tensioner.

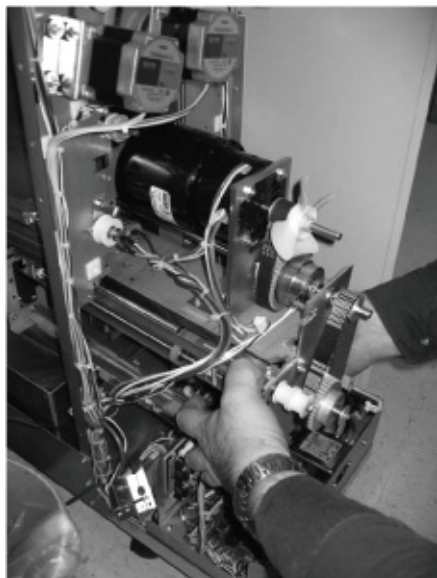


6. Remove the two rear Punch Module screws [1].



7. Cut wire harness ties as needed to release the punch wiring.
8. Unplug the punch connector [1] from the control board.





9. Carefully slide the Punch Module out the back of the punch. Ensure that the wiring harness does not get caught or prevent removal of the module.

21.3.35 Lubricating to the Punch Drive Cams

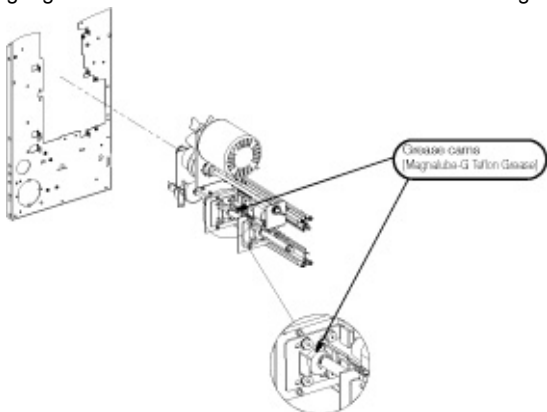
(1) Periodically lubricated parts/cycle

- Punch drive cams
: Every 12,000,000 prints (Actual lubrication cycle: Every 3,000,000 punches)*1

*1 1200/1200P/1051/C8000

(2) Procedure

Back gauge and rail needs to be removed for accessing punch module cams. refer to [F.21.3.29 Back Gauge Removal](#) for removing back gauge. Use brush for reach to cams for further cleaning operation.



Installation Note

- Make sure the wires on the rear of the punch are not obstructing the Die Set or Chip Bin.

21.3.36 Punch Clutch Replacement

(1) Procedure

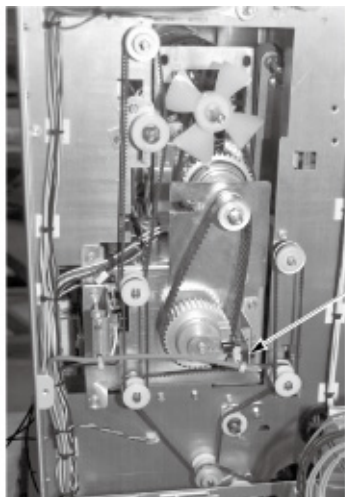
Replace if Punch clutch is malfunctioning.

Note

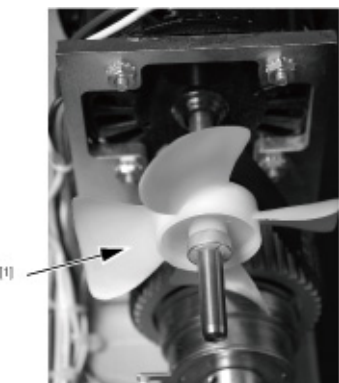
- The Punch clutch can be removed without removing the Punch Module.

(2) Tools Required

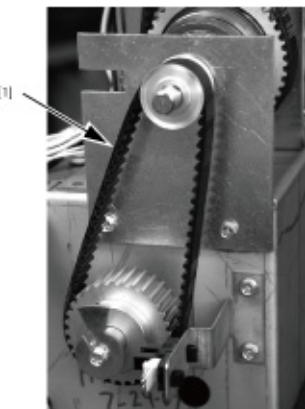
- Phillips screwdriver or 1/4" nut driver
- Hex wrench, 5/64"

(3) To remove the clutch:

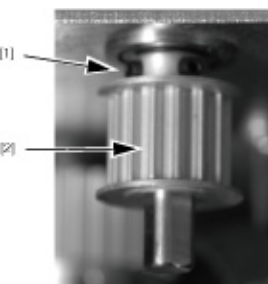
1. Unplug the punch flag sensor (S9) connector [1].



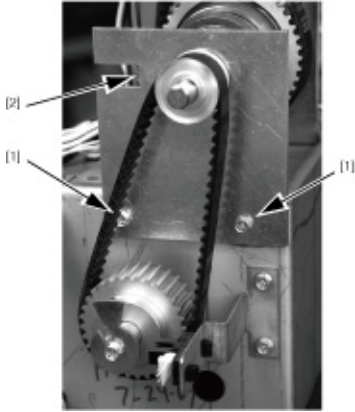
2. Slide the fan [1] off the shaft.



3. Remove the lower drive belt [1].



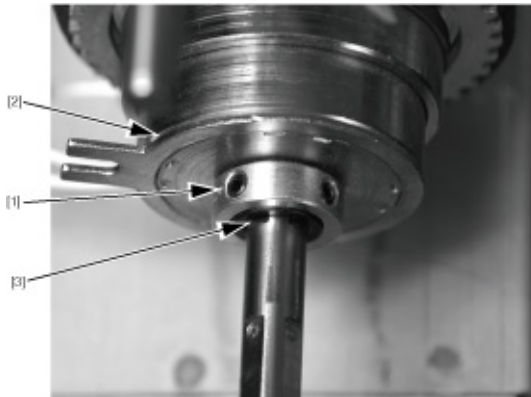
4. Loosen the 2 pulley socket head set screws [1].
5. Remove the pulley and its shaft key [2].



6. Remove the 2 clutch bracket screws [1].

Installation Note

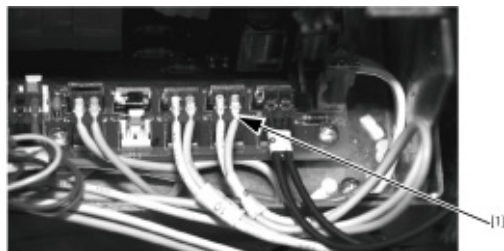
- When installing the clutch bracket, ensure that the fork of the clutch engages the tab on the bracket [2].



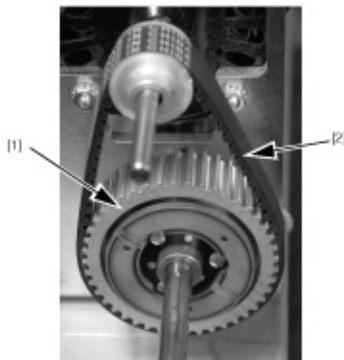
7. Loosen the 2 clutch socket head set screws [1], slide the Punch clutch [2] off the shaft, and remove the shaft key [3].

Installation Note

- When installing the Punch clutch, be sure to install the shaft key. Press the Punch clutch against the drive gear plate. While pressing the clutch against the plate, tighten the 2 set screws. The assembly does not require a gap between the Punch clutch and clutch plate.



8. Cut wire ties as needed and unplug the clutch connector [1] from the Punch Controller PCB.



9. Slide the back portion of the clutch [1] off the shaft.
The motor drive belt [2] can be removed at the same time.
10. To install the clutch, reverse these steps.

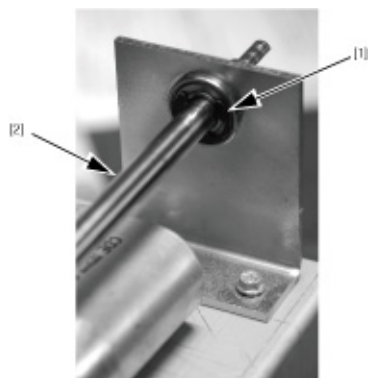
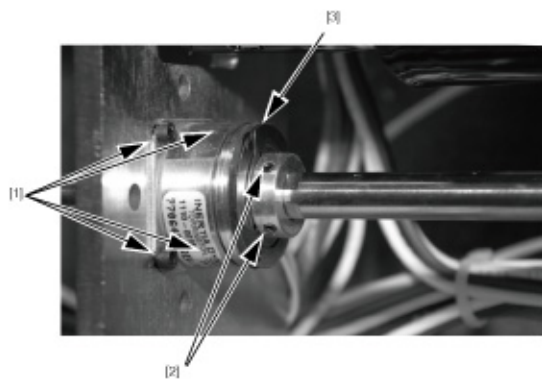
21.3.37 Punch Module Brake Replacement and Adjustment

(1) Procedure

To replace the Punch module brake, first remove the clutch and related drives. (Refer to [F.21.3.36 Punch Clutch Replacement](#)). The Punch module brake must be adjusted while on drive shaft. To adjust the Punch module brake. (Refer to [F.21.3.39 Punch Module Brake Adjustment](#))

(2) Tools Needed

- Feeler gauge, 0.0001" (0.00254 mm)
- Hex wrenches, 0.05" and 3/32"
- Flat blade screwdriver
- Pliers

21.3.38 Punch Module Brake Replacement**(1) To replace the Punch module brake**

1. Remove the 4 socket head set screws [1].
2. Loosen the 2 set screws [2] until the brake pad [3] slides freely on the shaft.

Installation Note

- When installing the Punch module brake, ensure that the 2 set screws engage the flats on the shaft. To adjust the Punch module brake. (Refer to [F.21.3.39 Punch Module Brake Adjustment](#))

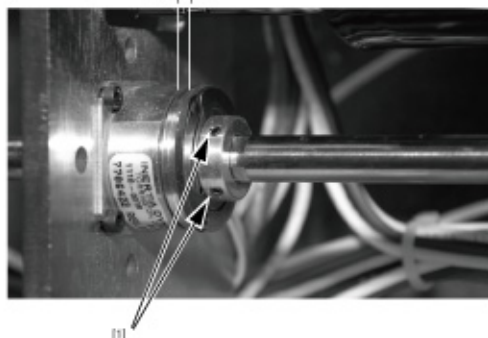
3. Remove the E-Ring at the opposite end of the shaft [1].
4. Slide the shaft [2] out of the bearing bracket, away from the clutch end.
5. Slide the Punch module brake assembly off the shaft.
6. To install the Punch module brake assembly, reverse these steps.

21.3.39 Punch Module Brake Adjustment**(1) Procedure**

The Punch module brake can be adjusted without removing the Punch module brake from the shaft. The gap between the brake and the pad is 0.0001" (0.00254 mm) .

(2) To adjust the Punch module brake

0.0001" (0.00254 mm)

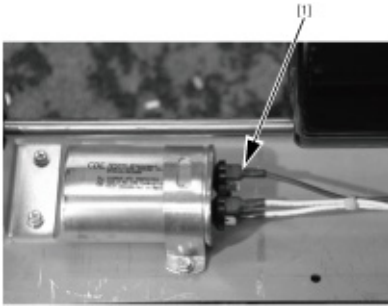


1. Loosen the 2 set screws [1] until the brake pad slides freely on the shaft.

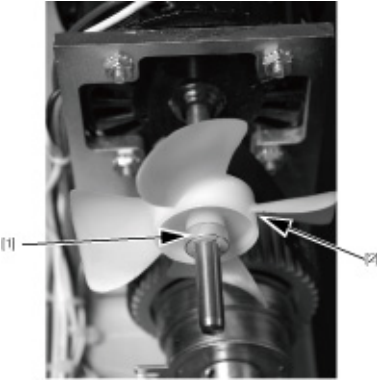
2. Use a 0.0001" (0.00254 mm) feeler gauge to set the gap between the brake and the brake pad.
3. Tighten the 2 set screws and check the gap.

21.3.40 Punch Module Motor Replacement**(1) Procedure**

Replace motor when it malfunctions.

(2) To replace the Punch Module motor:

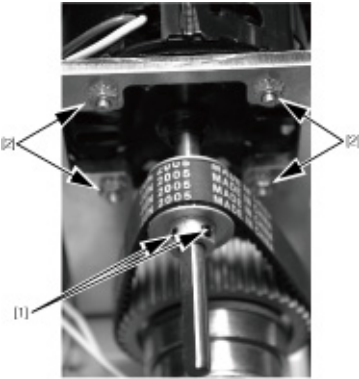
1. Cut any wire ties as necessary to release the motor wires.
2. Unplug motor wire connections from the capacitor [1].



3. Remove the metal spring clip [1] from the fan and slide the fan [2] off the shaft.

Installation Note

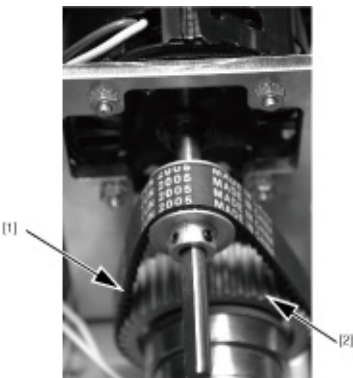
- When installing the fan, be sure to align the flat of the fan hub with the flat on the shaft. Also, make sure the hub and spring clip are facing away from the motor.



4. Loosen the 2 socket head set screws[1] on the pulley and slide the pulley and belt off the shaft.
5. Remove the motor mounting 4 nuts [2].
6. To install the motor, reverse these steps.

21.3.41 Punch Module Motor Drive Belt Replacement**(1) Procedure**

Replace the belt when it is frayed, missing teeth, or worn out.

(2) To replace the Punch Module drive belts:

1. With the fan removed from the shaft, work the belt [1] off the clutch gear [2].
2. Install a new belt by looping it over the motor pulley and then work it onto the clutch gear.
The belt requires no adjustment. It should have slight deflection when pressed.

21.3.42 Punch Module Drive Roller Replacement**(1) Procedure**

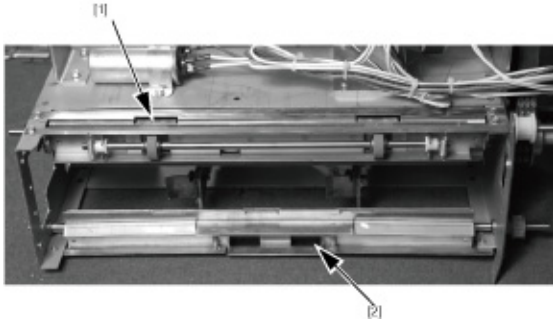
Inspect for wear patterns or grooves. The roller surface should be even and not glazed. Clean with a soft cloth and alcohol.

(2) Tools Required

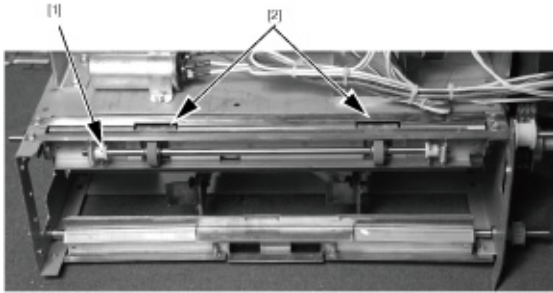
- Phillips screw driver or 1/4" nut driver
- Flat bladed screwdriver

- Needle nose pliers

With the Punch Module out of the machine, the punch entrance side [1] and exit [2] drive rollers can be cleaned or replaced.

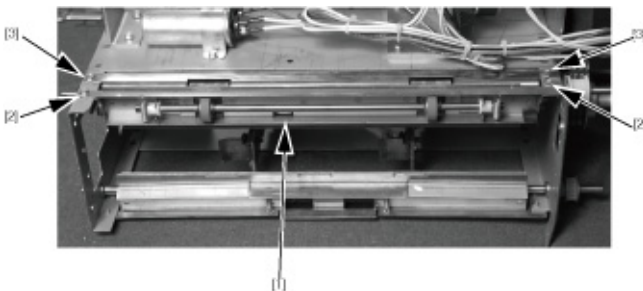


(3) To clean the punch entrance drive rollers:

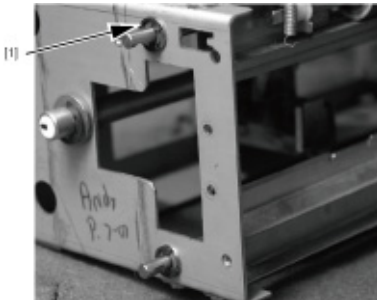


1. Remove the idler roller assembly [1].
2. Rotate and clean the drive rollers [2].

(4) To replace the punch entrance drive rollers:

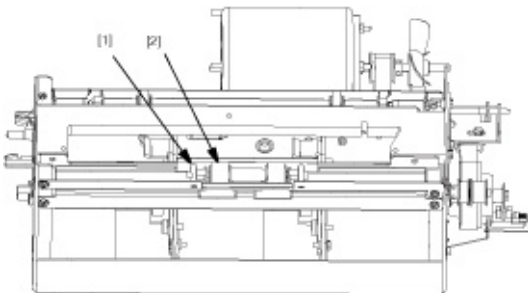


1. Unplug the sensor [1].
2. Remove the 2 screws at the ends of the idler roller assembly [2].
3. Remove the 2 screws at the ends of the drive roller assembly [3].

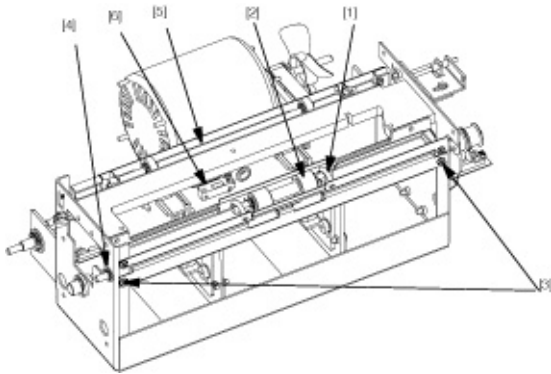


4. Remove the E-Ring at the end of the drive roller shaft [1].
5. Slide the drive roller shaft and bracket towards the opposite end of the Punch Module so that the end of the shaft clears the bearing at the end where you removed the E- Ring [1].
6. Lift the drive roller and bracket out of the Punch Module.

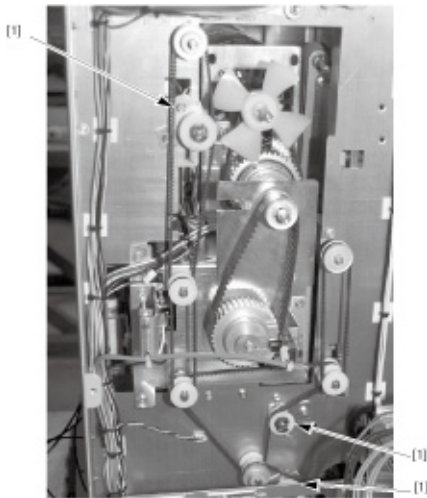
(5) To clean the punch exit drive rollers:



1. Move one retaining spring [1] to the side and then remove the idler roller assembly [2].
2. Rotate and clean the drive rollers [2].

(6) To replace the punch exit drive rollers:

1. Move one retaining spring [1] to the side and then remove the idler roller assembly [2].
2. Remove the 2 screws at each end of the idler roller assembly [3].
3. Remove the E-Ring [4] at the end of the drive roller shaft.
4. Slide the drive roller shaft and bracket towards the opposite end of the Punch Module so that the end of the shaft clears the bearing at the end where you removed the E-Ring [4].
5. Lift the drive roller and bracket out of the Punch Module [5].
6. Remove the sensor [6].
7. To install the drive roller, reverse these steps.

21.3.43 Belt replacement**(1) To replace belts:**

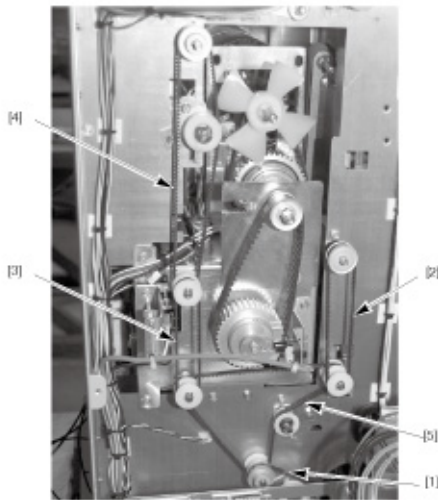
[1]->[2]->[3]->[4]->[5]

1. Loosen the screws of the 3 belt idlers [1].

Installation Note

- When setting the belt tension, adjust the belt idlers so that the belt has approximately 1/4" (6.35mm) of deflection.

2. Remove the belts in order as follows



3. To install and adjust the tension of the belts, reverse these steps.

21.3.44 Tools

Tools (needs to be reviewed by Engineering for current design accuracy)
Tools recommended for service of the GP-501 Punch:

(1) Standard Measure Tools (English as opposed to metric)

- Open end ignition wrench - 1/4" (required only for chad kit installation)
- Phillips screwdriver or 1/4" and 5/16" nut drivers
- Hex wrenches, 3/32", 5/64", and 9/64"

(2) Other Recommended Tools and Supplies

- Needle nose pliers
- Wire cutters

- Screw driver, flat head, small
- Supply of wire tie wraps

22. PERIODICAL MAINTENANCE PROCEDURE GP-502

The descriptions of the periodical maintenance procedure GP-502 are mentioned in the GP-502 service manual.

G DISASSEMBLING/REASSEMBLING

1. ITEMS NOT ALLOWED TO BE DISASSEMBLED

1.1 Screw-lock applied screw

Note

- The screw-lock is applied as a prevention of screw looseness.
- The screw-lock is applied to the screws which have a risk of loosening with the oscillation and load during using and shipment.
- When loosening or removing the screw which has been applied the screw-lock, be sure to apply the screw-lock again after tightening the screw.

1.2 Prohibition of adjusting the volume of boards

Note

- Do not change the volume of the boards whose adjustment procedures are not indicated.

1.3 Precaution on removing the boards

⚠ CAUTION

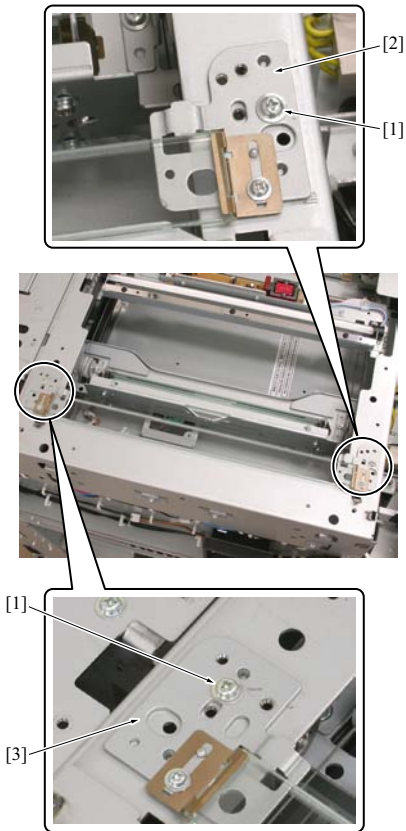
- When removing the boards, check the safety and important warning items and then remove the boards following the removal procedure.
- The removal procedures from the connector and the board support are omitted.
- Be sure to use the body earth when touching the element on the board by necessity.
- For the prevention of electric shock, do not touch the DC power supply /1 of the main body for 515 minutes after turning OFF the power switch.
There is a possibility of electrical shock caused by charging voltage.
- For the prevention of electric shock, do not touch the DC power supply /2 of the main body for 30 minutes after turning OFF the power switch.
There is a possibility of electrical shock caused by charging voltage.
- For the prevention of electric shock, do not touch the DC power supply of the RU for 50 minutes after turning OFF the power switch.
There is a possibility of electrical shock caused by charging voltage.

1.4 Scanner section

1.4.1 Read position adjusting plates /Fr and /Rr

(1) Positions from which removing is prohibited

- The skew adjustment by the DF skew adjustment screw [1] is not allowed as a rule.



1050fs2073c

[1]	Screws not allowed to be removed	[2]	Read position adjusting plate /Fr
[3]	Read position adjusting plate /Rr	-	

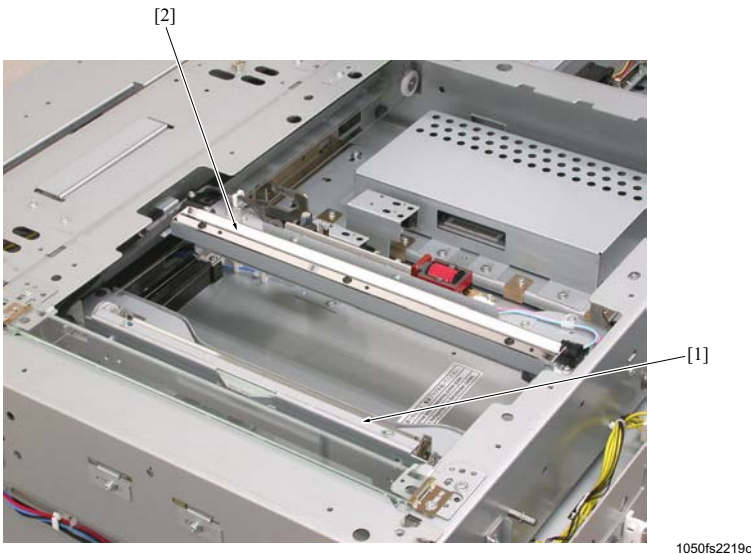
(2) Reason of prohibition

The read position adjusting plates /Fr and /Rr hold in place the slit glass that becomes the read position while in the DF scan. The displacement of the slit glass damages the image read by the DF to be distorted. Accordingly, changing the position of installation is not allowed.

1.4.2 Mirror unit/exposure unit

(1) Position not allowed to be adjusted

- Installation positions of the mirror unit and the exposure unit



[1]	Mirror unit	[2]	Exposure unit
-----	-------------	-----	---------------

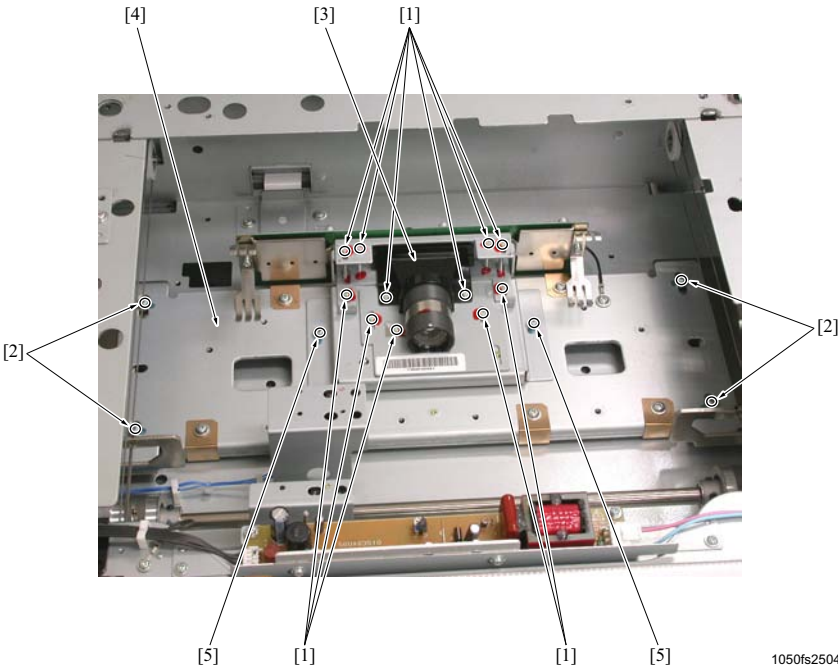
(2) Reason of prohibition

The distance between the mirror unit and the exposure unit affects the magnifications of the original to be read in the sub scan direction. Therefore, adjusting the installation positions of the mirror unit and the exposure unit arbitrarily is not allowed. However, when the exposure unit and the scanner wire have been removed, these parts must be reinstalled using the optics unit positioning jig.

1.5 CCD unit

1.5.1 Positions from which removing is prohibited

- 9 screws used to assemble the CCD unit
- 4 attaching screws of the lens reference plate assembly



[1]	Screws not allowed to be removed	[2]	Screws not allowed to be removed
[3]	CCD unit	[4]	Read position adjusting plate /Rr
[5]	Attaching screw of the CCD unit (allowed to be removed when replacing the CCD unit)	-	

1.5.2 Reason of prohibition

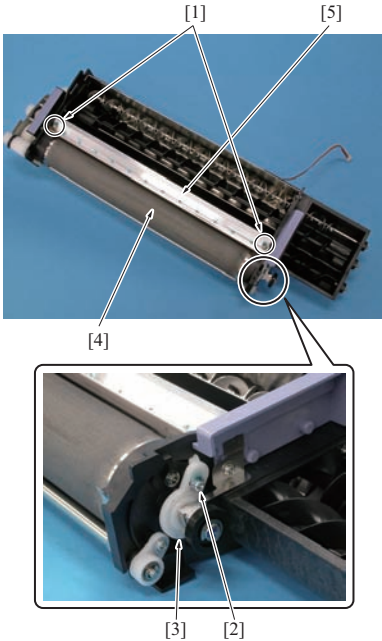
The accuracy of the CCD unit is guaranteed as a unit, and if disassembled, its accuracy is not guaranteed. Accordingly, removing screws that lead up to the disassembly of the CCD unit is not allowed.

The lens reference plate assembly acts as the basis for the installation position of the CCD unit. Removing this assembly causes the displacement of the optical axis of the CCD unit. So, be sure not to remove the attaching screws of the lens reference plate assembly.

1.6 Developing unit

1.6.1 Positions from which removing is prohibited

- 2 fixing screws of the developer regulation blade
- One fixing screw of the magnet angle adjusting knob



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[1]	Screws not allowed to be removed	[2]	Screws not allowed to be removed
[3]	Magnet angle adjusting knob	[4]	Developing roller
[5]	Developer regulation blade	-	

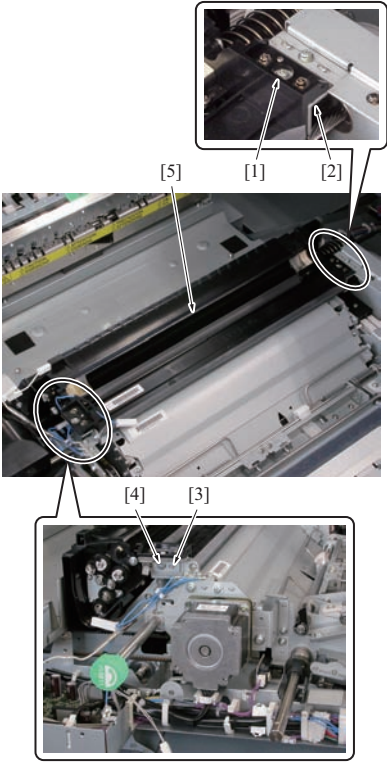
1.6.2 Reason of prohibition

The developer regulation blade and the magnet angle adjusting knob both decide the heights of the developer in the developing roller. They have been adjusted to an appropriate value in advance. Accordingly, removing these fixing screws is not allowed.

1.7 DUPLEX SECTION

1.7.1 Positions from which removing is prohibited

- 1 fixing screw of the belt cleaning unit mounting bracket /Fr
- 1 fixing screw of the belt cleaning unit mounting bracket /Rr



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[1]	Screws not allowed to be removed	[2]	Belt cleaning unit mounting bracket /Rr
[3]	Belt cleaning unit mounting bracket /Fr	[4]	Screws not allowed to be removed
[5]	Belt cleaning unit	-	

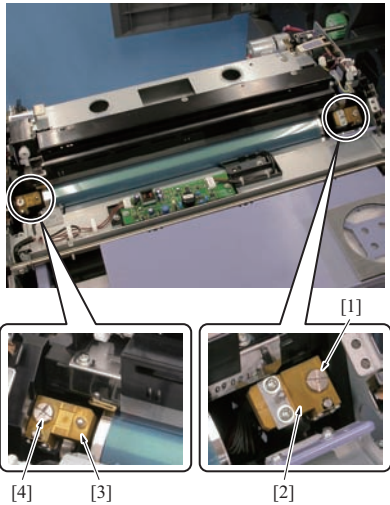
1.7.2 Reason of prohibition

The belt cleaning unit holds in place the transfer belt unit. The positional relation between the transfer belt unit and the drum has been adjusted to an appropriate place in advance by the installation position of the belt cleaning unit mounting bracket /Fr and /Rr. Accordingly, removing the fixing screws of these mounting brackets is not allowed.

1.8 Photo conductor section

1.8.1 Positions from which removing is prohibited

- 1 fixing screw of the LPH mounting bracket /Fr
- 1 fixing screw of the LPH mounting bracket /Rr



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[1]	Screws not allowed to be removed	[2]	LPH mounting bracket /Rr
[3]	LPH mounting bracket /Fr	[4]	Screws not allowed to be removed

1.8.2 Reason of prohibition

The positions of the LPH and the drum are adjusted beforehand according to the installation position of the LPH mounting brackets /Fr and /Rr. Accordingly, removing the fixing screws of these mounting brackets is not allowed.

2. bizhub PRESS 1250/1250P/1052/PRO 951

2.1 List of disassembling and assembling parts

Note

- This list shows the explanation of the disassembly and reassembly of the parts which are considered necessary to replace (other than periodically replaced parts). However, these parts except for the covers do not require to be disassembled while in normal service operations.
- For the replacement procedure of the periodically replaced parts, refer to "[F.5. Periodical maintenance procedure bizhub PRO 1200/1200P/1051.](#)"

No.	Section	Parts name
1	Cover	Rear cover
2		Right cover
3		Left cover
4		Front door /Rt
5		Front door /Lt
6		Toner supply door
7		Upper cover /Rr1
8		Upper cover /Rr2
9		Upper cover /Rt
10		Original glass
11		Upper cover / Lt
12		Upper cover /Fr
13	Scanner section	CCD unit
14		Exposure lamp
15		Exposure unit
16		Scanner wire
17	Paper feed section	Lift wire
18		Paper feed assist fan
19		Paper lift motor
20	Registration section	Multi feed detection board /S, /R
21	Duplex section	Duplex section
22	Fusing section	Fusing temperature sensor /1
23		Fusing temperature sensor /3
24		Thermostat /1, /2
25		Thermostat /3
26	HDD	Hard disk /1
27		Hard disk /2

2.2 Disassembling and assembling procedures

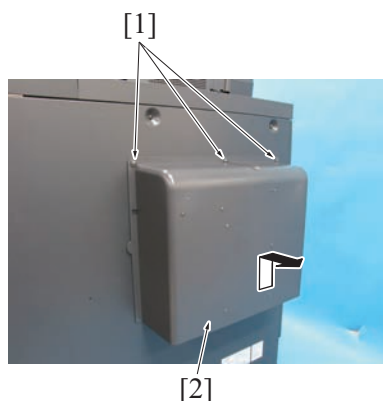
2.2.1 Precautions on disassembling and assembling

⚠ Note:

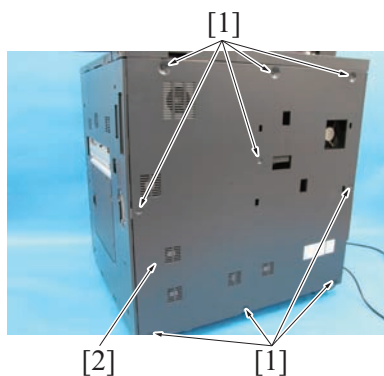
- When disassembling/reassembling the parts, be sure to unplug the power plug of the main body from the power outlet.

2.2.2 Rear cover

(1) Procedure



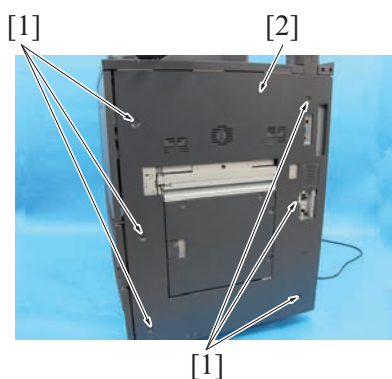
1. Loosen 3 screws [1] and remove the exhaust cover [2].



2. Remove 9 screws [1] and then remove the rear cover [2].
3. Reinstall the preceding parts following the removal steps in reverse.

2.2.3 Right cover

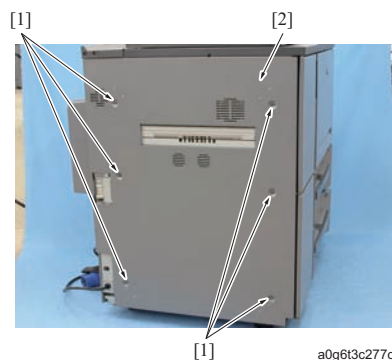
(1) Procedure



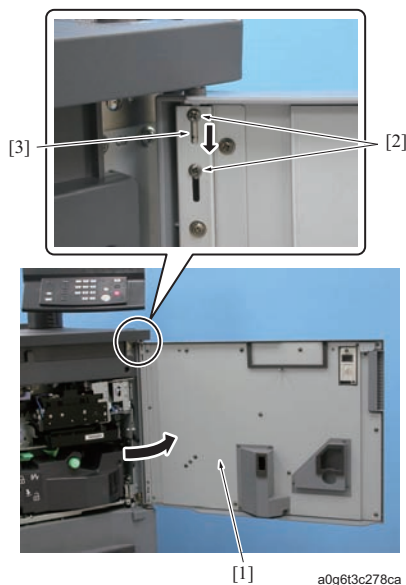
1. Remove 6 screws [1] and then remove the right cover [2].
2. Reinstall the preceding parts following the removal steps in reverse.

2.2.4 Left cover

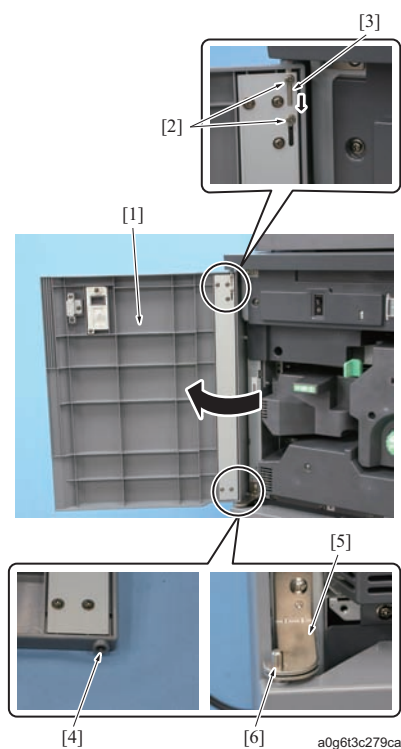
(1) Procedure



1. Remove 6 screws [1] and then remove the left cover [2].
2. Reinstall the preceding parts following the removal steps in reverse.

2.2.5 Front door /Rt**(1) Procedure**

1. Open the front door /Rt [1].
2. Loosen 2 screws [2] and bring down the shaft [3].
3. Remove the front door /Rt [1].
4. Reinstall the preceding parts following the removal steps in reverse.

2.2.6 Front door /Lt**(1) Procedure**

1. Open the front door /Lt [1].
2. Loosen 2 screws [2], bring down the shaft [3] and remove the front door /Lt [1].

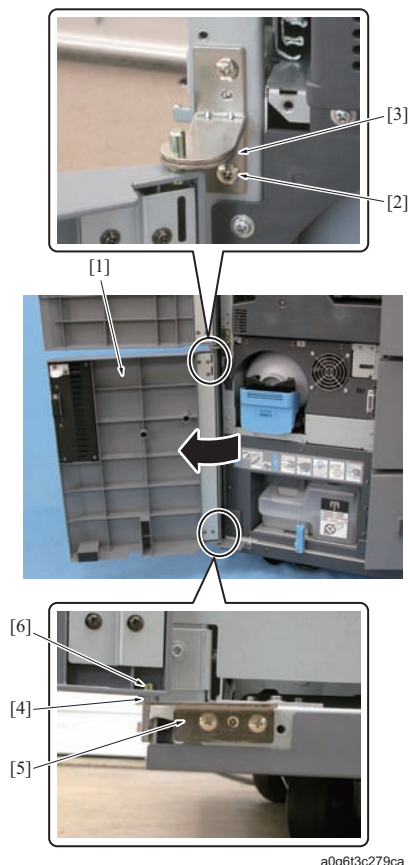
Note

- When reinstalling the front door /Lt [1], be sure to insert the projection [6] of the hinge [5] into the hole [4] provided in the lower section of the front door /Lt.

3. Reinstall the preceding parts following the removal steps in reverse.

2.2.7 Toner supply door

(1) Procedure



1. Open the toner supply door [1].
2. Remove the screw [2] and then remove the hinge [3] together with the toner supply door [1].

Note

- When reinstalling the toner supply door [1], be sure to insert the projection [6] of the hinge [5] into the hole [4] provided in the lower section of the toner supply door.

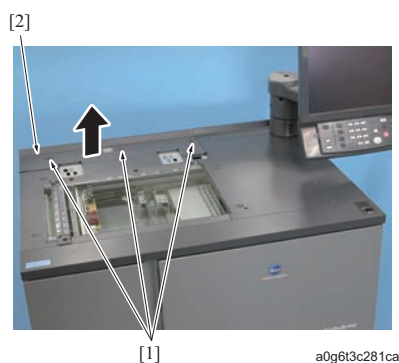
3. Reinstall the preceding parts following the removal steps in reverse.

2.2.8 Upper cover /Rr1

Note

- The same removal and reinstallation procedure is applicable when the DF-615/616 is provided.

(1) Procedure

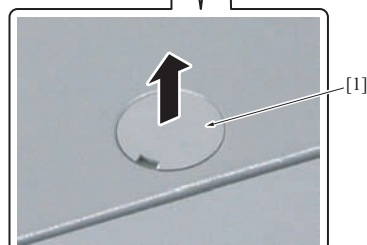
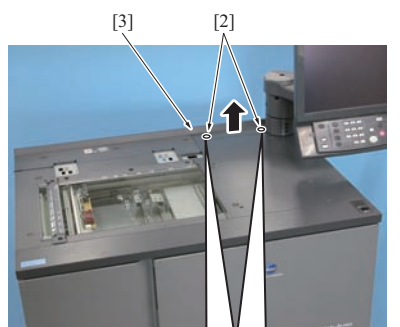


1. Remove 3 screws [1] and then remove the upper cover /Rr1 [2].
2. Reinstall the preceding parts following the removal steps in reverse.

2.2.9 Upper cover /Rr2

Note

- The same removal and reinstallation procedure is applicable when the DF-615/616 is provided.

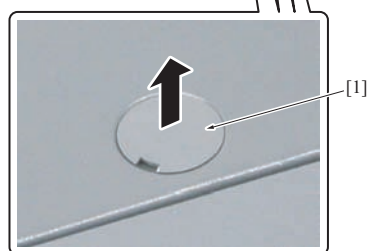
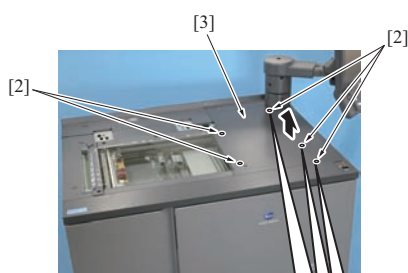
(1) Procedure

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1. Remove 2 screw caps [1].
2. Remove 2 screws [2] and then remove the upper cover /Rr2 [3].
3. Reinstall the preceding parts following the removal steps in reverse.

2.2.10 Upper cover /Rt**Note**

- The same removal and reinstallation procedure is applicable when the DF-615/616 is provided.

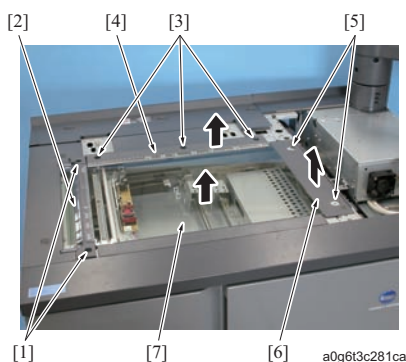
(1) Procedure

a0g6t3c283ca

1. Remove 3 screw caps [1].
2. Remove 5 screws [2] and then remove the upper cover /Rt [3].
3. Reinstall the preceding parts following the removal steps in reverse.

2.2.11 Original glass**Note**

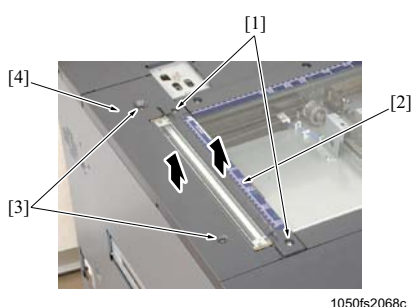
- The same removal and reinstallation procedure is applicable when the DF-615/616 is provided.
- When reinstalling the original glass, be sure that the shading correction plate (white) is on the upper side of the glass.

(1) Procedure

1. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
2. Remove 2 screws [1] and then remove the original stopper plate / Lt [2].
3. Remove 3 screws [3] and then remove the original stopper plate / Rr [4].
4. Remove 2 screws [5] and then remove the original stopper plate / Rt [6].
5. Remove the original glass [7].
6. Reinstall the preceding parts following the removal steps in reverse.

2.2.12 Upper cover / Lt**Note**

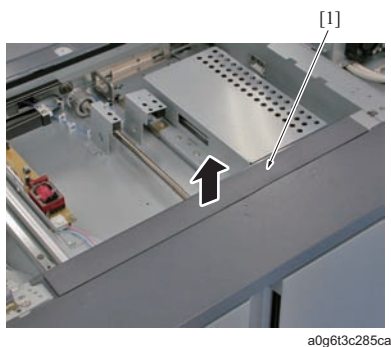
- The same removal and reinstallation procedure is applicable when the DF-615/616 is provided.

(1) Procedure

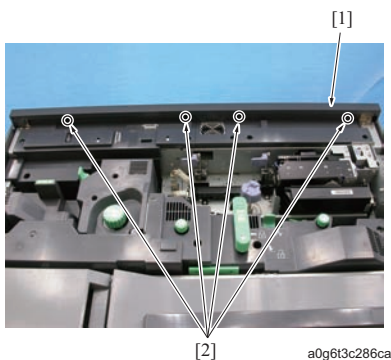
1. Remove 2 screws [1] and then remove the original stopper plate / Lt [2].
2. Remove 2 screws [3] and then remove the upper cover /Lt [4].
3. Reinstall the preceding parts following the removal steps in reverse.

2.2.13 Upper cover /Fr**Note**

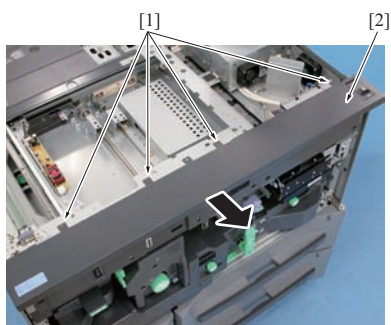
- The same removal and reinstallation procedure is applicable when the DF-615/616 is provided.

(1) Procedure

1. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
2. Remove the original glass. (Refer to [G.2.2.11 Original glass](#))
3. Remove the upper cover /Lt. (Refer to [G.2.2.12 Upper cover / Lt](#))
4. Remove the original glass guide /Fr [1].



5. Remove the front door /Rt. (Refer to [G.2.2.5 Front door /Rt](#))
6. Remove the front door /Lt. (Refer to [G.2.2.6 Front door /Lt](#))
7. Remove 4 screws [2] provided on the bottom of the upper cover / Fr [1].

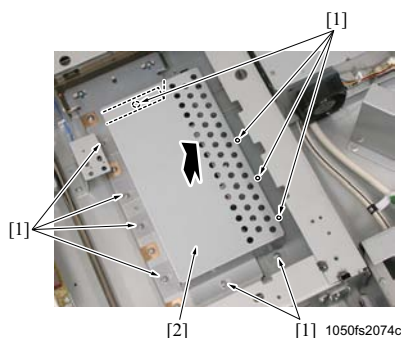


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8. Remove 4 screws [1] and then remove the upper cover /Fr [2].
9. Reinstall the preceding parts following the removal steps in reverse.

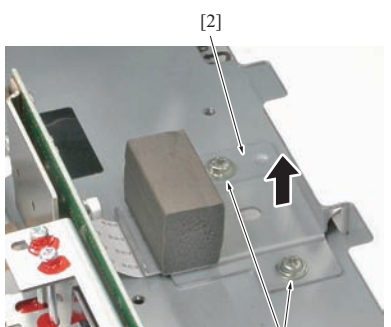
2.2.14 CCD unit

(1) Procedure



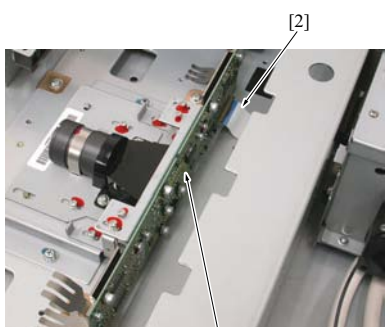
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1. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
2. Remove the original glass. (Refer to [G.2.2.11 Original glass](#))
3. Remove 10 screws [1] and then remove the lens light blocking cover [2].



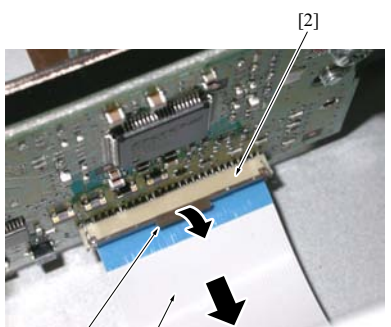
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4. Remove 2 screws [1] and then remove the cable cover [2].



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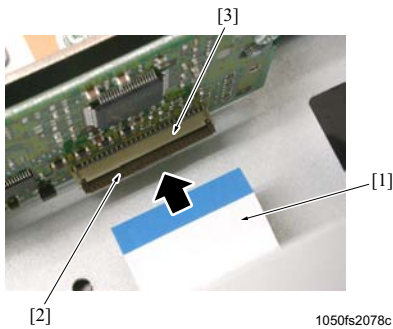
5. Remove the ribbon cable [2] from the CCD board (CCDB) [1].



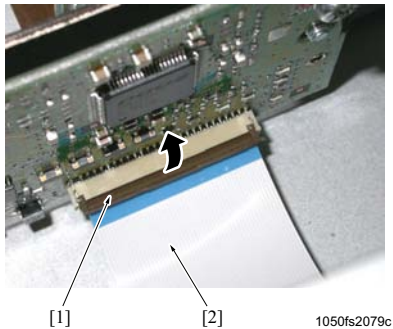
1050fs2077c

Note

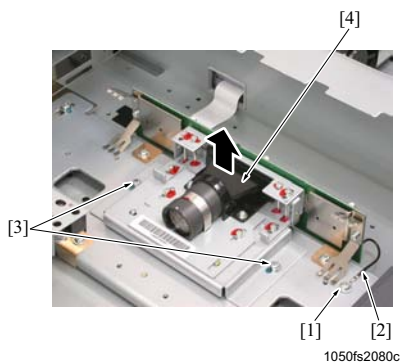
- When removing the ribbon cable [1], bring down the lock lever [3] of the connector [2] in the direction as shown in the drawing to release the lock and pullout the ribbon cable.

**Note**

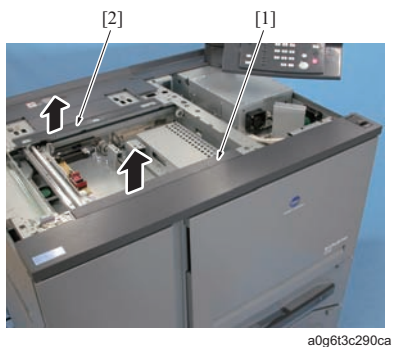
- When reinstalling the ribbon cable [1], make sure that the lock lever [2] is released. Then insert the ribbon cable fully into the connector [3] while taking care that the conductor side of the ribbon cable comes to the under side of the lock lever.

**Note**

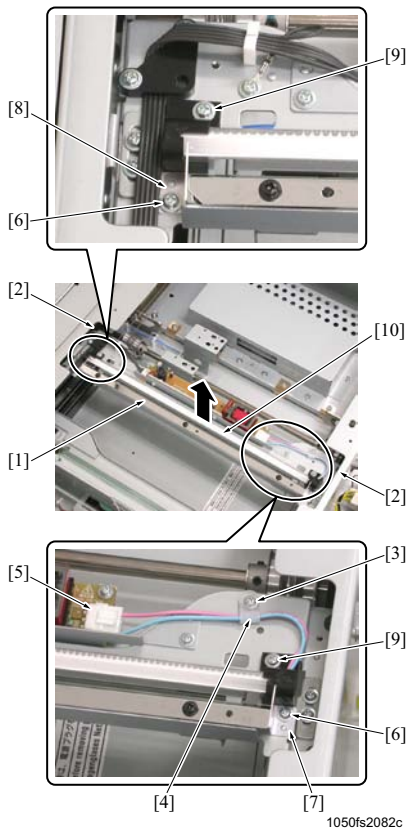
- After that, return the lock lever [1] to its original position and lock the ribbon cable [2].



- Remove the screw [1], and remove the ground terminal [2].
- Remove 2 screws [3] and then remove the CCD unit [4].
- Reinstall the preceding parts following the removal steps in reverse.
- After reinstalling the CCD unit, conduct the following items in order.
 - Printer FD-Mag. Adj. (Side1)
(Refer to [I.5.3.7 Printer FD-Mag. Adj. \(Side1\) \(Magnification Adjustment\)](#))
 - Scanner paper feed direction magnification adjustment
(Refer to [I.5.3.11 Scanner FD-Mag. Adj. \(Magnification Adjustment\)](#))
 - Scanner paper feed direction magnification adjustment
(Refer to [I.5.3.12 ADF FD-Mag. Adjustment \(Magnification Adjustment\)](#))
 - Scanner restart timing adjustment
(Refer to [I.5.3.19 Scanner Restart Timing Adj. \(Timing Adjustment\)](#))
 - Distortion adjustment original glass (main scan direction)
(Refer to [I.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment original glass (sub scan direction)
(Refer to [I.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment ADF (main scan direction)
(Refer to [I.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment ADF (sub scan direction)
(Refer to [I.5.3.35 Distortion Adjustment](#))

2.2.15 Exposure lamp**(1) Procedure**

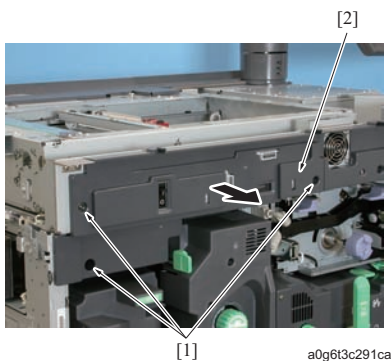
- Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
- Remove the original glass. (Refer to [G.2.2.11 Original glass](#))
- Remove the upper cover /Lt. (Refer to [G.2.2.12 Upper cover / Lt](#))
- Remove the original glass guide /Fr [1].
- Remove the original glass guide /Rr [2].



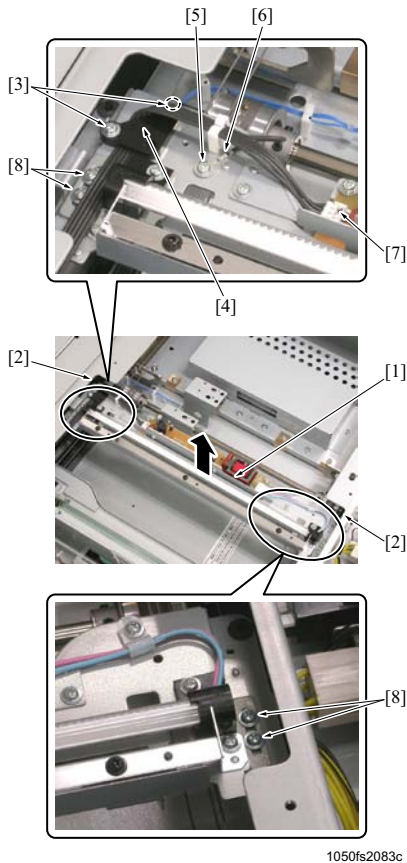
6. Move the exposure unit [1] to the notch position [2] of the main body frame.
7. Remove the screw [3] and then remove the cable clamp [4].
8. Disconnect the connector [5].
9. Remove the screws [6], 1 each, and then remove the lamp presser plates /Fr [7] and /Rr [8].
10. Remove 2 screws [9] and then remove the exposure lamp [10].
11. Reinstall the preceding parts following the removal steps in reverse.
12. After reinstalling the exposure lamp, conduct the following steps.
 - Scanner restart timing adjustment
(Refer to [I.5.3.19 Scanner Restart Timing Adj. \(Timing Adjustment\)](#))
 - Distortion adjustment original glass (main scan direction)
(Refer to [I.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment original glass (sub scan direction)
(Refer to [I.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment ADF (main scan direction)
(Refer to [I.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment ADF (sub scan direction)
(Refer to [I.5.3.35 Distortion Adjustment](#))

2.2.16 Exposure unit

(1) Procedure for removal



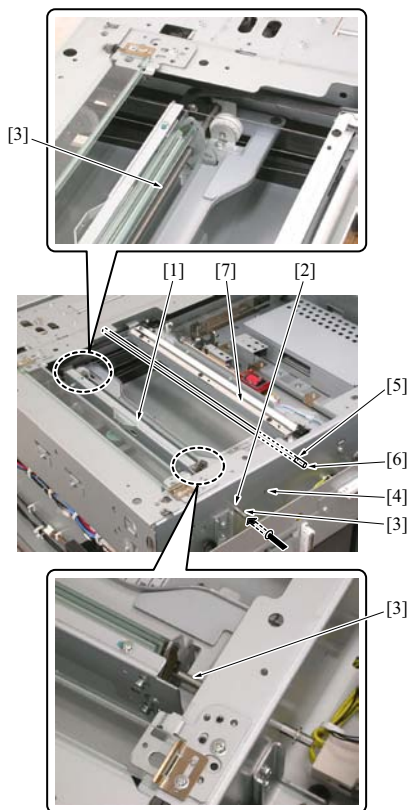
1. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
2. Remove the original glass. (Refer to [G.2.2.11 Original glass](#))
3. Remove the upper cover /Lt. (Refer to [G.2.2.12 Upper cover / Lt](#))
4. Remove the upper cover /Fr. (Refer to [G.2.2.13 Upper cover /Fr](#))
5. Remove 3 screws [1] and remove the upper cover /Lt [2].



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6. Move the exposure unit [1] to the notch position [2] of the main body frame.
7. Remove 2 screws [3] and then remove the cord presser member [4].
8. Remove the screw [5] and then remove the ground terminal [6].
9. Disconnect the connector [7].
10. Remove 4 screws [8] and then remove the exposure unit [1].

(2) Procedure for reinstallation



1050fs2084c

1. Move the V-mirror unit [1] toward the V-mirror positioning hole [2].
2. Insert the optics unit positioning jig [3] into the V-mirror positioning hole [2], and fix the V-mirror unit [1].

Note

- Be sure to insert the optics unit positioning jig [3] from the front side and pass it through the V-mirror unit [1].
- Be care full not to confuse the V-mirror positioning hole [2] with the unused hole [4].

3. Insert the optics unit positioning jig [6] into the exposure unit positioning hole [5].
4. Press the exposure unit [7] against the optics unit positioning jig [6].
5. Reinstall the exposure unit with 4 screws.
6. Remove 2 optics unit positioning jigs.
7. Be sure that the reinstallation of the following parts follows the removal steps in reverse.
8. After reinstalling the exposure unit, conduct the following items in order.
 - Scanner restart timing adjustment
(Refer to [1.5.3.19 Scanner Restart Timing Adj. \(Timing Adjustment\)](#))
 - Distortion adjustment original glass (main scan direction)
(Refer to [1.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment original glass (sub scan direction)
(Refer to [1.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment ADF (main scan direction)
(Refer to [1.5.3.35 Distortion Adjustment](#))
 - Distortion adjustment ADF (sub scan direction)
(Refer to [1.5.3.35 Distortion Adjustment](#))

2.2.17 Scanner wire

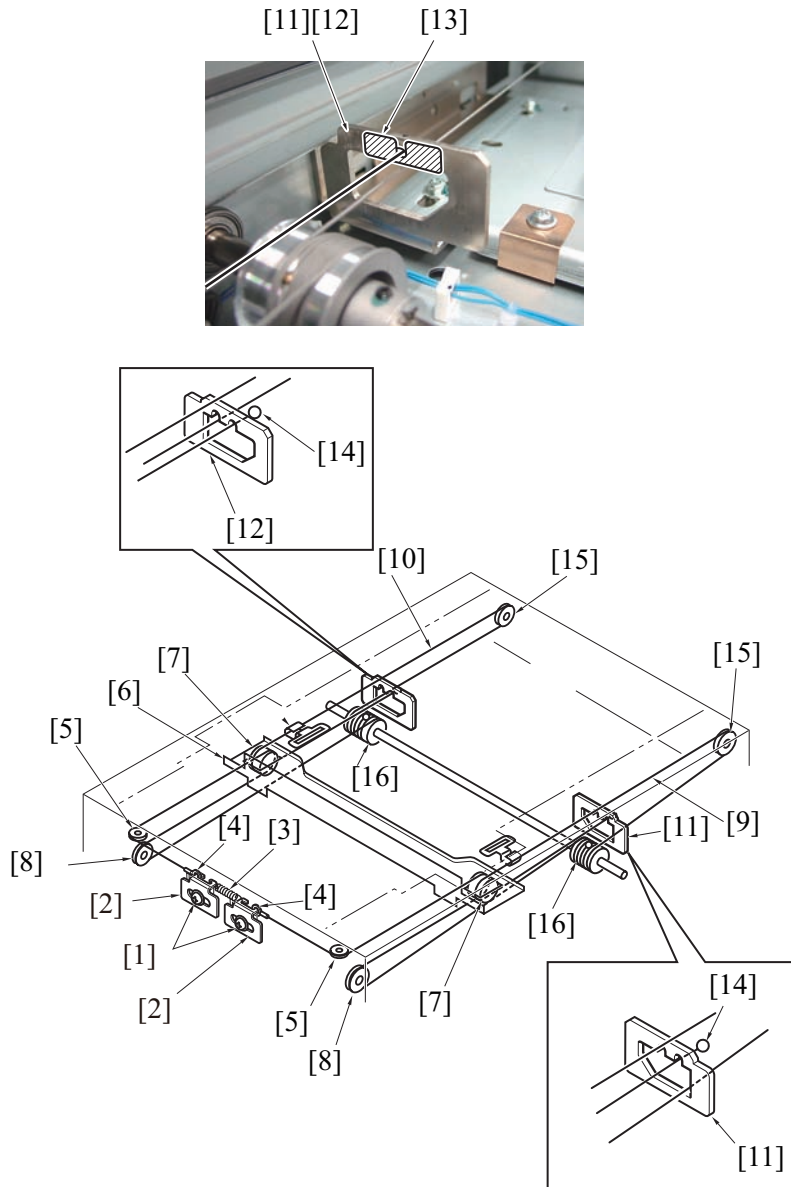
Note

- Be sure to wind the wire closely without overlapping each other.
- When re-stretching or replacing the scanner wire, be sure to use the optics unit positioning jig.

- When re-stretching or replacing the scanner wire, be sure to conduct the image adjustment in the service mode. (Refer to [ADJUSTMENT/SETTING](#))

(1) Procedure for removal

1. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
2. Remove the original glass. (Refer to [G.2.2.11 Original glass](#))
3. Remove the upper cover /Lt. (Refer to [G.2.2.12 Upper cover / Lt](#))
4. Remove the upper cover /Fr. (Refer to [G.2.2.13 Upper cover /Fr](#))
5. Remove the exposure unit. (Refer to [G.2.2.16 Exposure unit](#))
6. Loosen each screw [1], release 2 spring fixing plates [2], and remove the spring [3].
7. Remove the wire terminal [4] from the spring fixing plate [2], and then remove the scanner wires /Fr [9] and /Rr [10] from the pulley /3 [5], the pulley [7] of the V-mirror unit [6] and the pulley /2 [8] in order.
8. Remove the wire restriction sheet [13] from the wire stoppers /Fr [11] and /Rr [12].
9. Remove the metal ball [14] from the wire stoppers /Fr [11] and /Rr [12], and then remove each scanner wire from the pulley [7] of the V-mirror unit [6] and the pulley /1 [15] in order.
10. Remove the scanner wires Fr [9] and /Rr [10] from the drive pulley [16].

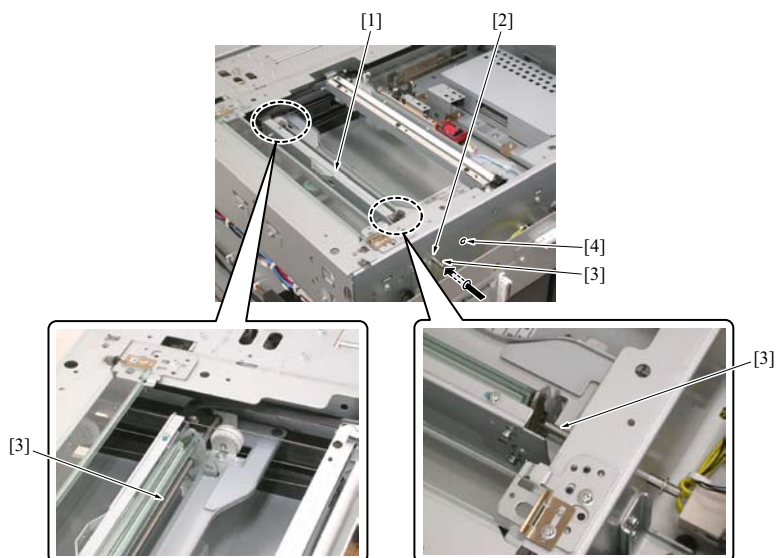


(2) Procedure for reinstallation

1. Move the V-mirror unit [1] toward the V-mirror positioning hole [2].
2. Insert the optics unit positioning jig [3] into the V-mirror positioning hole [2], and fix the V-mirror unit [1].

Note

- Be sure to insert the optics unit positioning jig [3] from the front side and pass it through the V-mirror unit [1].
- Be care full not to confuse the V-mirror positioning hole [2] with the unused hole [4].



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3. Drop the metal ball [3] in between the scanner wire /Fr [1] and /Rr [2] into the installation hole of the drive pulley [4]. With this hole as a starting point, wind the wire 4 turns [5] outwards and 5 turns [6] inwards.

Note

- Be sure to wind the scanner wire with the metal ball [7] at the end outwards and the scanner wire with the wire terminal [8] at the end inwards.
- For both scanner wires, be sure to pull out the one wound outwards in the paper feed direction [9] from above the drive pulley and the one wound inwards in the paper exit direction [10] from above the drive pulley.

4. For each scanner wire that has been wound outside of the drive pulley, pass it through the wire stopper /Fr [11] or /Rr [12], pulley /1 [13] and the outside of the pulley [15] of the V-mirror unit [14] in order, and then fasten it to the respective wire stoppers.

Note

- Each wire stopper is provided with 2 grooves. Fix the metal ball [7] in the groove on the outside for the wire stopper /Fr [11], and fix it in the groove on the inside for the wire stopper /Rr [12].

5. For each scanner wire that has been wound inside of the drive pulley, reverse it by the pulley /2 [16], pass it through the inside of the pulley [15] of the V-mirror unit [14] and pulley /3 [17], and then hook the wire terminal [8] to the spring fixing plate [18].
6. Paste the wire restriction sheet [19] to the wire stoppers /Fr [11] and /Rr [12]. (The sheet is common to both the front and rear stoppers.)

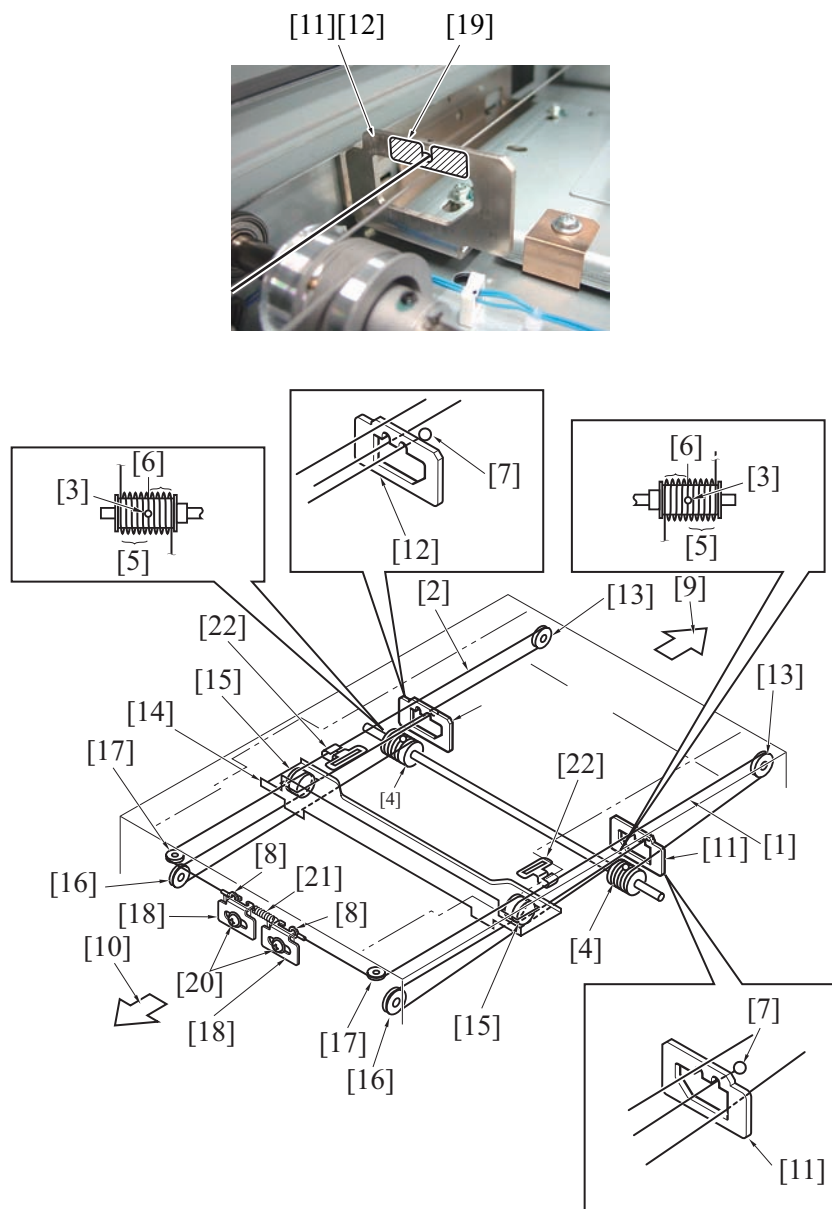
Note

- Be sure to paste it so that the wire restriction sheet comes in contact with the wire.

7. Fasten tentatively each of the spring fixing plates with the screw [20].
8. Loosen once the screw [20], attach the spring [21] between 2 spring fixing plate [18] and then fix each spring fixing plate with the screw [20].

Note

- After reinstalling each scanner wire, check the respective exposure unit mounting brackets [22] if they turn to the inside.



9. Be sure that the reinstallation of the following parts follows the removal steps in reverse.

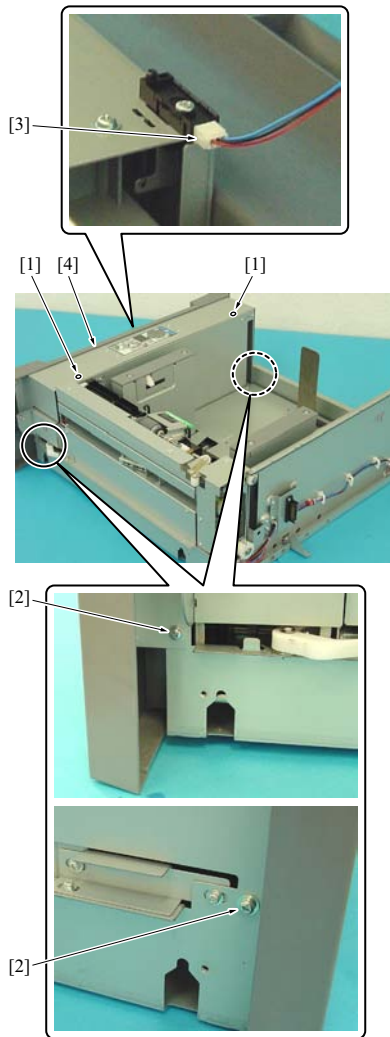
10. After reinstalling the scanner wire, conduct the following items in order.

- Mirror unit positioning (require the jigs)
- Scanner restart timing adjustment
(Refer to [1.5.3.19 Scanner Restart Timing Adj. \(Timing Adjustment\)](#))
- Distortion adjustment original glass (main scan direction)
(Refer to [1.5.3.35 Distortion Adjustment](#))
- Distortion adjustment original glass (sub scan direction)
(Refer to [1.5.3.35 Distortion Adjustment](#))
- Distortion adjustment ADF (main scan direction)
(Refer to [1.5.3.35 Distortion Adjustment](#))
- Distortion adjustment ADF (sub scan direction)
(Refer to [1.5.3.35 Distortion Adjustment](#))

2.2.18 Lift wire

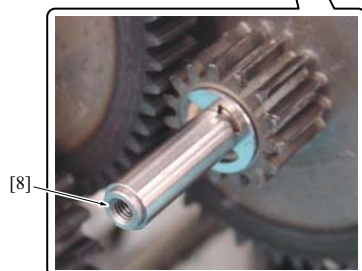
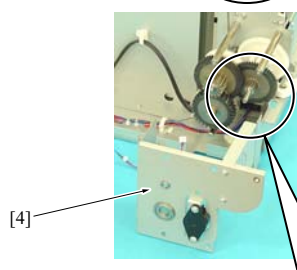
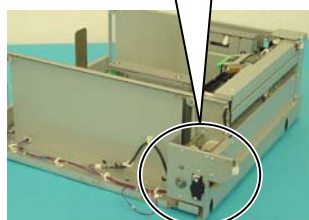
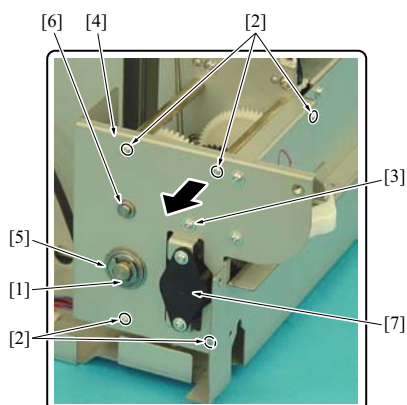
Note

- The same procedure for removing/reinstalling the lift wire is used for both the trays /1 and /2.

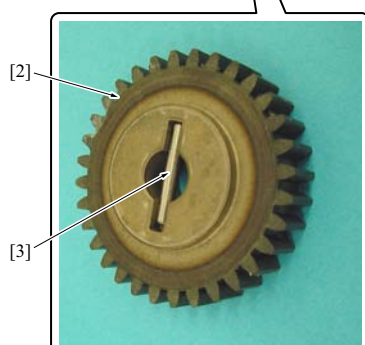
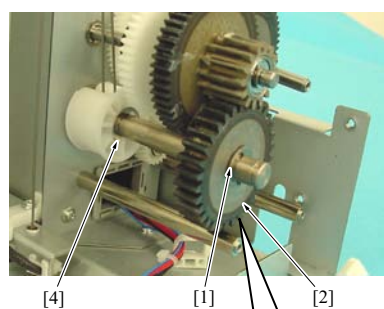
(1) Procedure

1050fs2754c

1. Remove the tray. (Refer to [F.5.7.5 Removing/reinstalling the tray](#))
2. Remove 2 screws [1] and 2 screws [2] with washer.
3. Disconnect the connector [3] and then remove the tray front cover [4].



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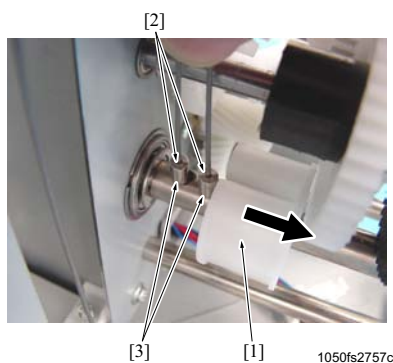
1050fs2756c

4. Remove the E-ring [1].
5. Remove 5 screws [2].
6. Remove the screw [3].
7. Remove the bearings [5] and [6], and the torque restriction gear (1250/1250P/1052 only) [7] together with the gear mounting plate [4].

Note

- When removing the gear mounting plate [4], take note that the gear comes off freely.
- When reinstalling it, make sure that the step [8] of each shaft gets in the gear mounting plate [4] securely.
- Be sure to reinstall the bearing (large) [5] from the outside of the gear cover [4] and the bearing (small) [6] from the inside.

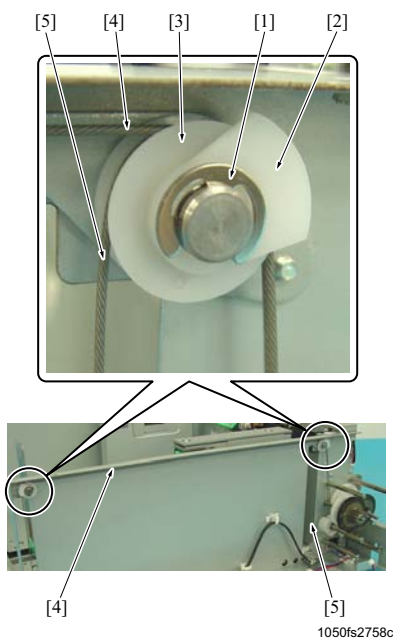
8. Remove the E-ring [1] and then remove the gear [2] and the pin [3].
9. Remove the E-ring [4].



10. Slide the pulley [1] and remove the wire end [2] from the shaft hole [3].

Note

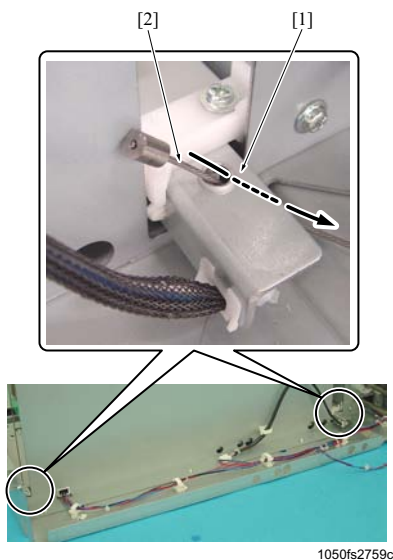
- When reinstalling it, lift up the paper lift plate a little to give slack to the lift wire you want to insert. Then insert the wire ends [2] into the shaft hole [3] one at a time and fix it with the pulley [1].



11. Remove the E-rings [1], 1 each provided at the 2 places and then remove the wire covers [2], 1 each.
12. Remove the lift wires /Fr1 [4] and /Fr2 [5] from the pulley [3].

Note

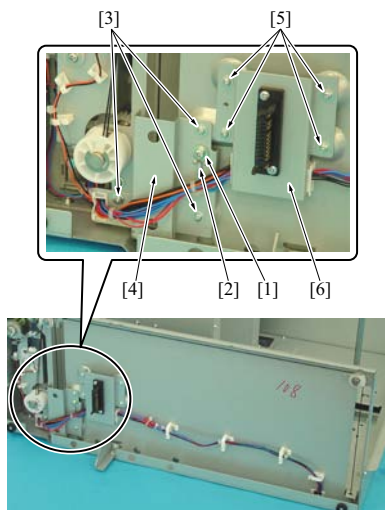
- When reinstalling it, make sure that the lift wires /Fr1 [4] and /Fr2 [5] are contained in the wire cover [2] and they are not crossing each other.



13. Pull out from up to down the lift wires /Fr1 and /Fr2 [2] from the arm [1] of the paper lift plate.

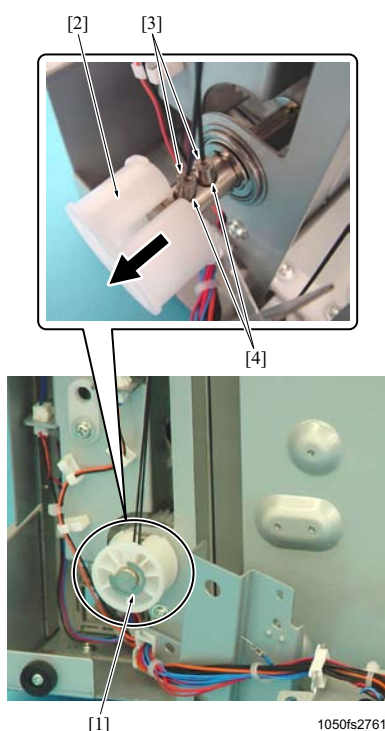
Note

- Be sure to pull out the lift wire gently and take care that the lift wire does not get damaged by the edges of the metal frame.



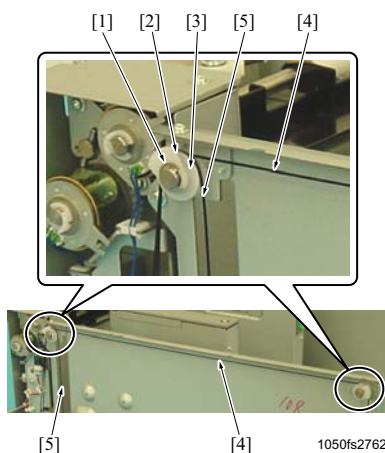
1050fs2760c

14. Remove the screw [1] and then remove the ground [2].
15. Remove 3 screws [3] and then remove the cover [4].
16. Remove 4 screws [5] and then remove the connector mounting plate [6].



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17. Remove the E-ring [1].
18. Slide the pulley [2] and remove the wire end [3] from the shaft hole [4].

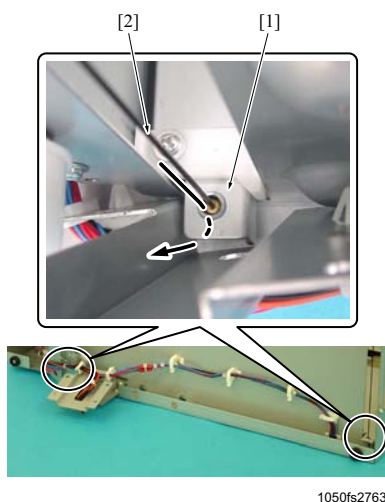


1050fs2762c

19. Remove the E-rings [1], 1 each provided at the 2 places and then remove the wire covers [2], 1 each.
20. Remove the lift wires /Rr1 [4] and /Rr2 [5] from the pulley [3].

Note

- When reinstalling it, make sure that the lift wires /Rr1 [4] and /Rr2 [5] are contained in the wire cover [2] and they are not crossing each other.



21. Pull out from up to down the lift wires /Rr1 and /Rr2 [2] from the arm [1] of the paper lift plate.

Note

- Be sure to pull out the lift wire gently and take care that the lift wire does not get damaged by the edges of the metal frame.

22. Reinstall the preceding parts following the removal steps in reverse.

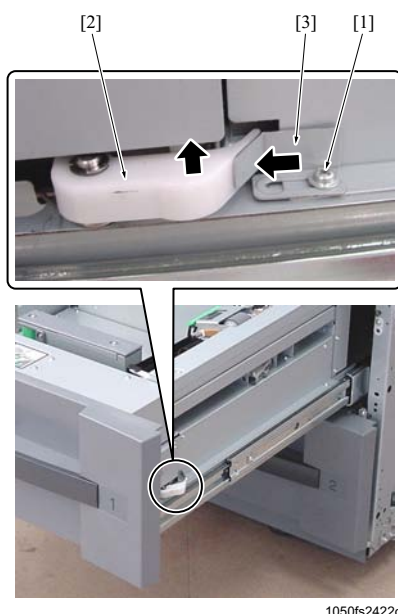
Note

- The lift wire /Fr is gray in color and /Rr black in color.
- Make sure that the lift wires do not cross each other.
- After reinstall the lift wire, check the paper lift plate to ensure it is level.

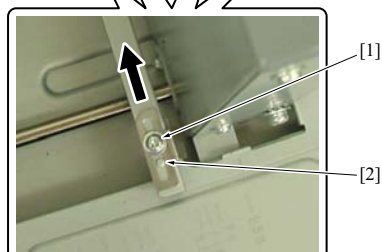
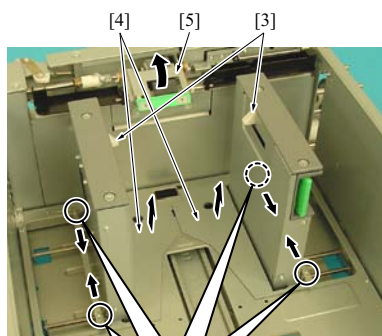
2.2.19 Paper feed assist fan (1250/1250P/1052 only)

Note

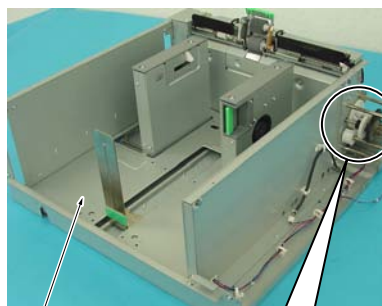
- The same removal and reinstallation procedures of the paper feed assist fans /Fr1 (FM21), /Rr1 (FM20) and /Fr2 (FM23), /Rr2 (FM24) are used for trays1 and 2.

(1) Procedure

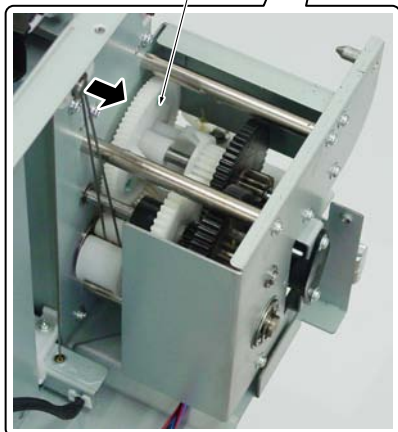
1. Remove the tray. (Refer to [F.5.7.5 Removing/reinstalling the tray](#))
2. Loosen a screw [1].
3. With the release lever [2] placed at its original position, hold the stopper [3] and tighten the screw [1] to fix the stopper.
4. Remove the tray front cover. (Refer to [G.2.2.18 Lift wire](#))



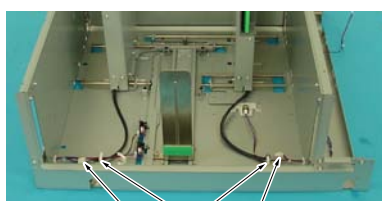
1050fs2764c



[1] [2]



1050fs2765c



[1] [2] [1]

1050fs2767c

5. Loosen each screws provided at the 4 places [1], and slide the bracket [2] to the arrow-marked direction.
6. Hold down the paper stopper [3] and pull out the lift plate cover [4] upward to remove it.

Note

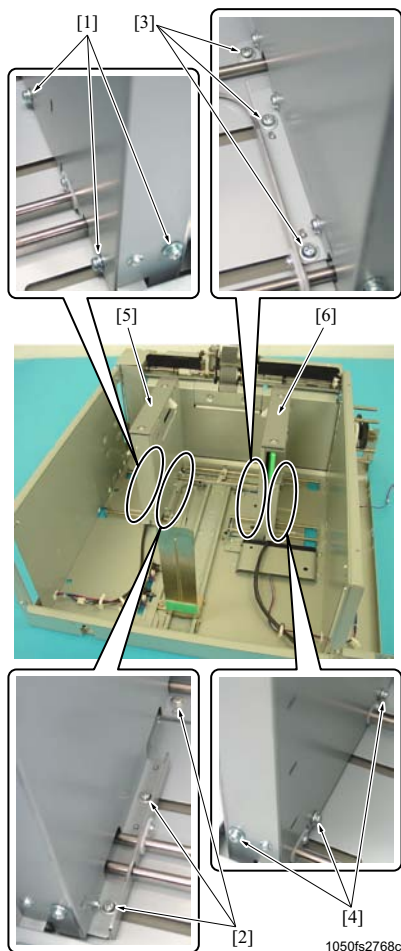
- When removing the lift plate cover [4], raise up the pick-up roller [5] in the arrow-marked direction to move it out of the way.
- When reinstalling the bracket [2], push it slightly in the opposite direction of removal and fix it with screws.

7. Rotate the gear of the drive section by hand and raise the paper lift plate [1] upward. Move the coupling gear [2] in the arrow-marked direction and then fix the lift plate.

8. Disconnect the connectors [1], 1 each, and the wire binding bands [2], 1 each.

Note

- To make it clear, the picture shows the condition in which the lift plate is removed.

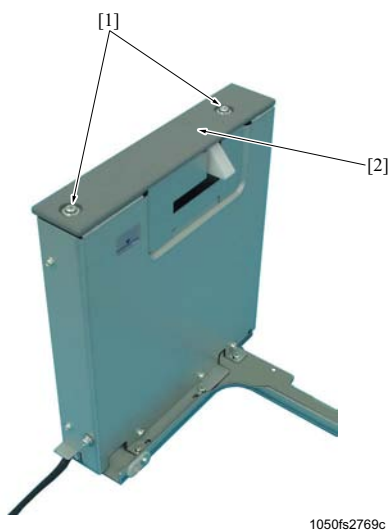


9. Remove the screw [1], the screw [2], the screw [3] and the screws [4], 3 each.

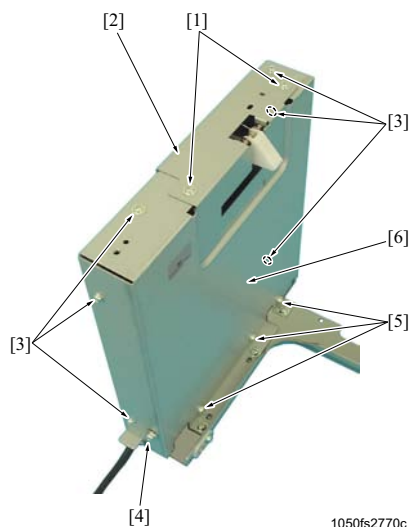
10. Remove the paper guides /Fr [5] and /Rr [6].

Note

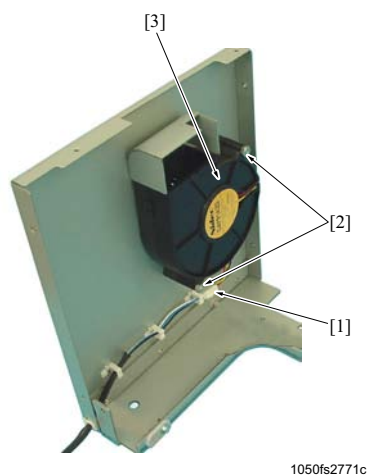
- When reinstalling it, be sure to fasten the paper guides /Fr [5] and /Rr [6] with the screws [2] and the screws [3], 3 each. Then tentatively tighten the screws [1] and the screws [4], 3 each and tighten them up fully after placing the paper guides /Fr and /Rr in a vertical position.
- To check the verticality of the paper guides, move the guide plate up and down with copy paper placed on the lift plate and check the clearance of the paper guide.



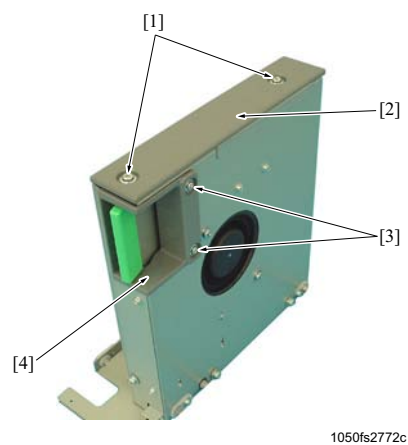
11. Remove the screws [1], 2 each, of the paper guide /Rr and then remove the paper guide cover [2].



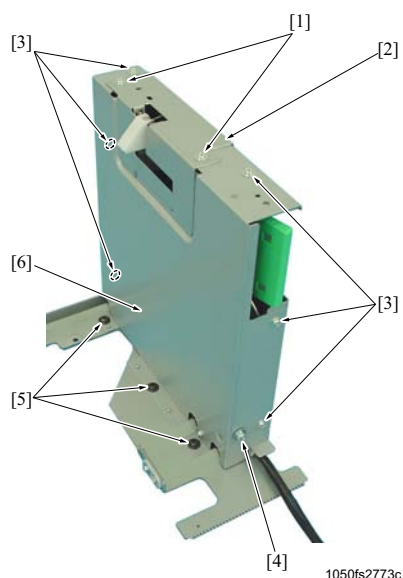
12. Remove the screws [1], 2 each, and then remove the paper stopper mounting plate [2].
13. Remove 6 screws [3], the screw (with a washer and a spring washer) [4] and 3 screws [5], and then remove the fan motor mounting plate [6].



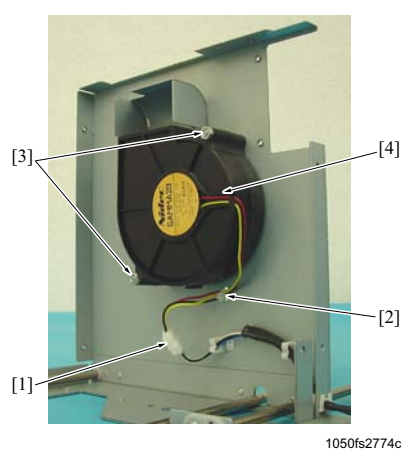
14. Disconnect the connector [1].
15. Remove 2 screws (nuts) [2] and the paper feed assist fans /Rr1 (FM20) and /Rr2 (FM24) [3].



16. Remove the screws [1], 2 each of the paper guide /Fr and then remove the paper guide cover [2].
17. Remove 2 screws [3] and then remove the lever cover [4].



18. Remove 2 screws [1] and then remove the paper stopper mounting plate [2].
19. Remove 6 screws [3], the screw (with a washer and a spring washer) [4] and 3 screws [5], and then remove the fan motor mounting plate [6].



20. Cut off the connector [1] and the wire binding band [2].
21. Remove 2 screws (nuts) [3] and the paper feed assist fans /Fr1 (FM21) and /Fr2 (FM23) [4].

Note

- When reinstalling it, be sure to replace the wire binding band with a new one.

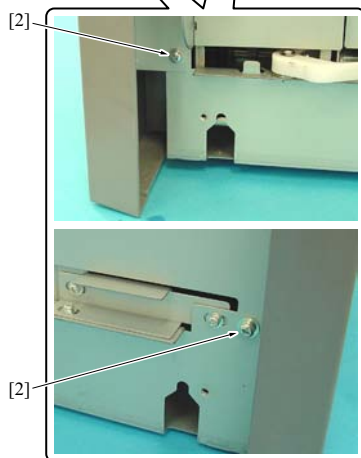
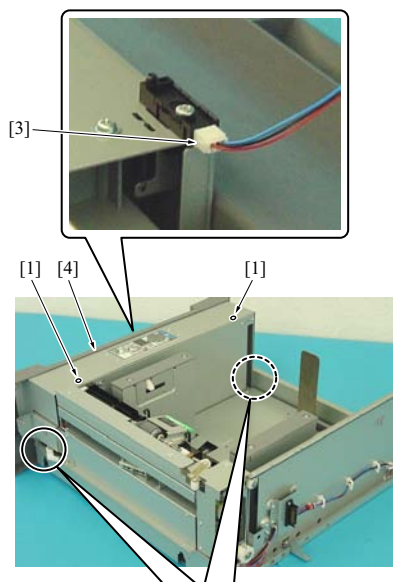
22. Reinstall the preceding parts following the removal steps in reverse.

Note

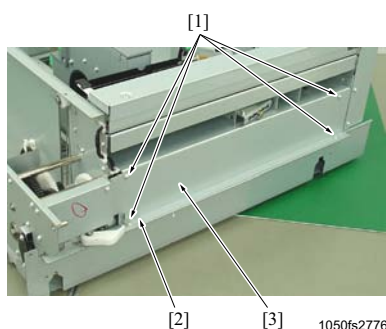
- After completion of reinstallation, be sure to conduct the paper size detection adjustments. (Refer to [I.5.3.1 Tray Size Adjustment \(Tray Adjustment\)](#))

2.2.20 Paper lift motor**Note**

- The same removal and reinstallation procedures are employed for the tray lift-up motors /1 (M25) and /2 (M34) of the trays1 and 2.

(1) Procedure

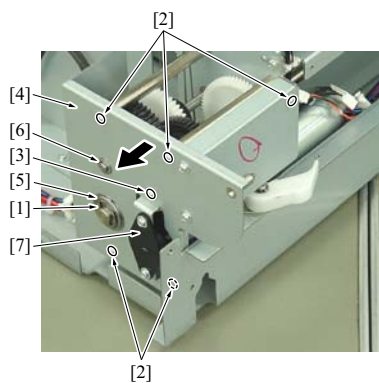
1050fs2775c



1050fs2776c

1. Remove the tray. (Refer to [F.5.7.5 Removing/reinstalling the tray](#))
2. Remove 2 screws [1] and 2 screws [2] with washer.
3. Disconnect the connector [3] and then remove the tray front cover [4].

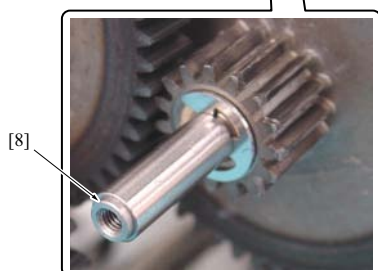
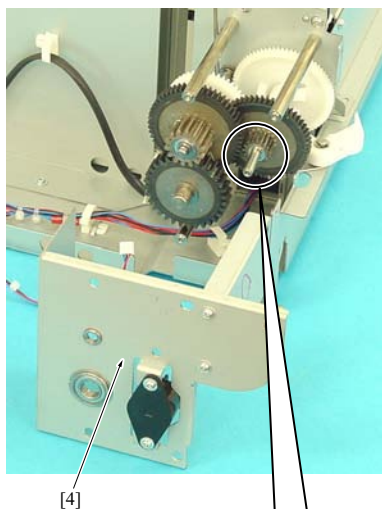
4. Remove 4 screws [1] and then remove the stopper [2] and the cover [3].



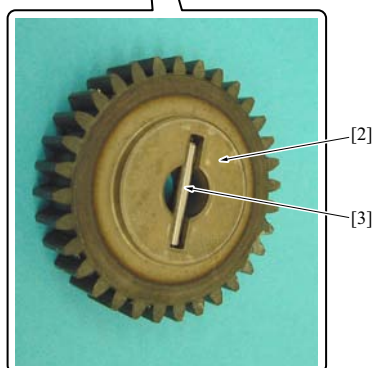
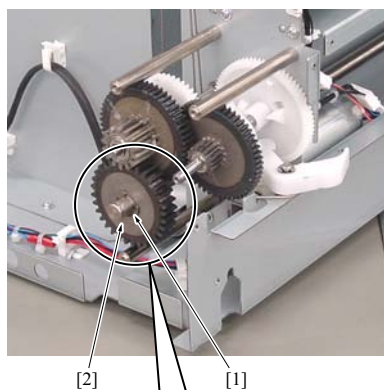
5. Remove the E-ring [1].
6. Remove 5 screws [2].
7. Remove the screw [3].
8. Remove the bearings [5] and [6], and the torque restriction gear (1250/1250P/1052 only) [7] together with the gear mounting plate [4].

Note

- When removing the gear mounting plate [4], take note that the gear comes off freely.
- When reinstalling it, make sure that the step [8] of each shaft gets in the gear mounting plate [4] securely.
- Be sure to reinstall the bearing (large) [5] from the outside of the gear cover [4] and the bearing (small) [6] from the inside.



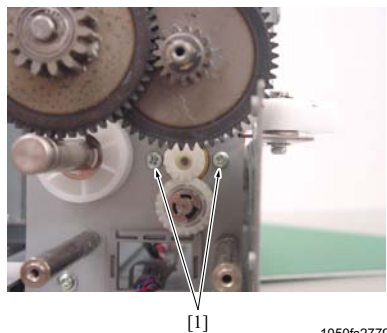
1050fs2777c



1050fs2778c

9. Remove the E-ring [1] and then remove the gear [2] and the pin [3].

10. Remove 2 screws [1].



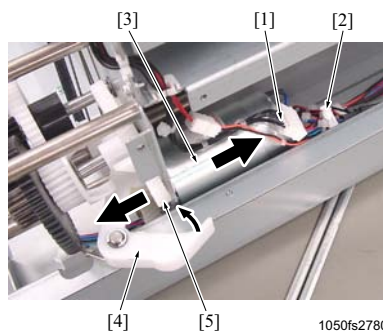
1050fs2779c

11. Disconnect the connector [1] and the wire binding band [2], and then remove the tray lift-up motors /1 (M25) and /2 (M34) [3].

Note

- For ease of the removal and reinstallation operations, press the release lever [4] so that the coupling gear [5] can raise.

12. Reinstall the preceding parts following the removal steps in reverse.

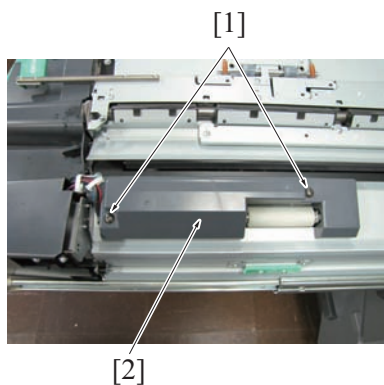


1050fs2780c

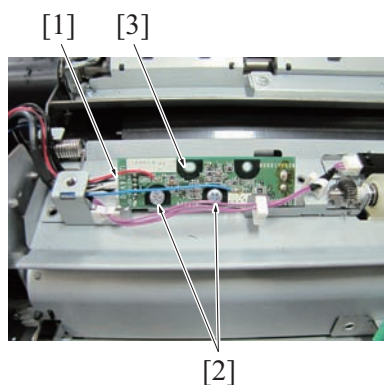
2.2.21 Multi feed detection board (1250/1250P/1052 only)

Note

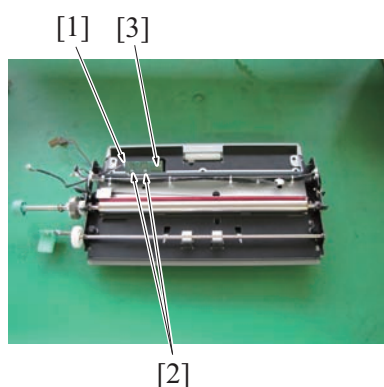
- When replacing the multi feed detection board /S and /R, be sure to conduct the sensitivity adjustments of the multi feed sensor. (Refer to [I.5.6.5 Adjustment when replacing the multi feed detection board \(main body\) \(1250/1250P/1052 only\)](#))

(1) Procedure

1. Pull out the duplex section from the main body. (Refer to [F.5.9 Duplex Section](#))
2. Remove 2 screws [1] and then remove the cover of the multi feed detection board /R [2].



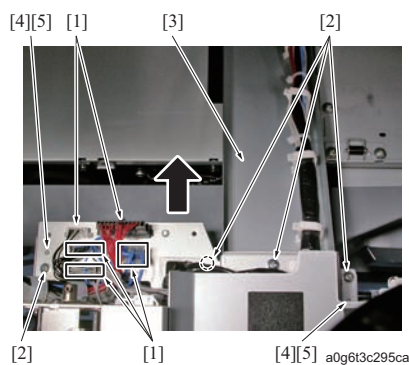
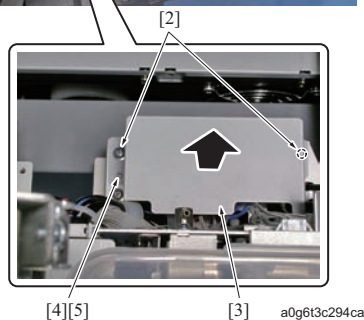
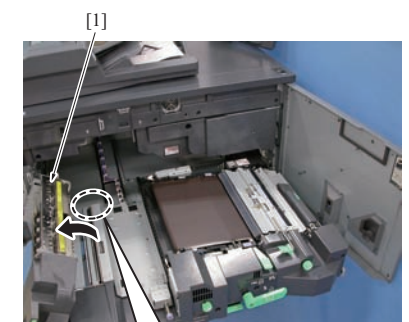
3. Disconnect the connector [1].
4. Remove 2 screws [2] and then remove the multi-feed detection board /R (MFDBR) [3].



5. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
6. Turn over the registration section and remove the connector [1].
7. Remove 2 screws [2], then remove the multi-feed detection board /S (MFDBS) [3].
8. Reinstall the preceding parts following the removal steps in reverse.

2.2.22 DUPLEX SECTION**Note**

- Be sure to perform this operation with 2 people because the duplex section is heavy.

(1) Procedure

1. Remove the fusing section. (Refer to [F.5.10 transfer section](#))
2. Remove the transfer belt unit. (Refer to [F.5.9.8 Removing/reinstalling the transfer belt unit](#))
3. Remove the registration section. (Refer to [F.5.9.12 Removing/reinstalling the registration section](#))
4. Open the paper reverse-exit section [1].
5. Remove 2 screws [2] and then remove the connector cover [3].

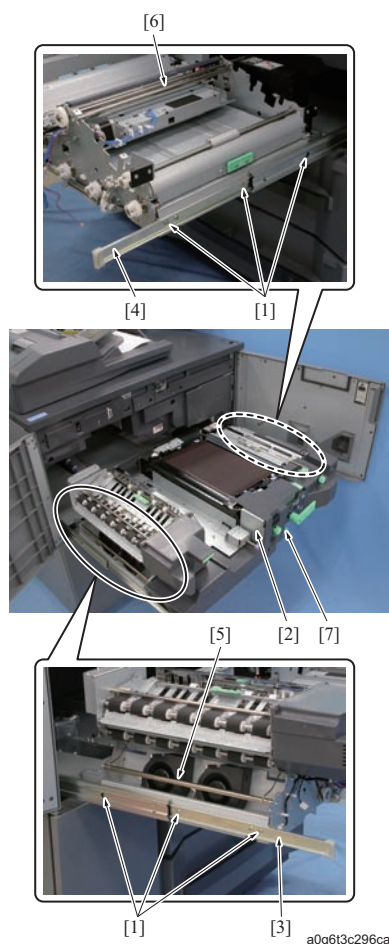
Note

- When reinstalling the connector cover, be sure to set the positioning hole [4] to the projection [5] of the duplex section.

6. Disconnect 5 connectors [1].
7. Remove 4 screws [2] and remove the cable arm [3].

Note

- When reinstalling the cable arm, be sure to set the positioning hole [4] to the projection [5] of the duplex section.



8. Remove the screws [1], 3 each, to release the duplex section [2] from the guide rails /Lt [3] and /Rt [4].
9. Hold the stays /Lt [5] and /Rt [6] with 2 people, and remove the duplex section.

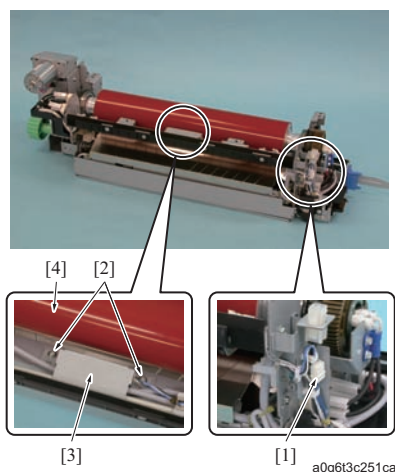
Note

- Be sure place the duplex section in a horizontal place.
- Be sure to avoid placing the duplex section from the front side diagonally since it deforms the open/close door /A [7].

10. Reinstall the preceding parts following the removal steps in reverse.

2.2.23 Fusing temperature sensor /1 (TH1)**Note**

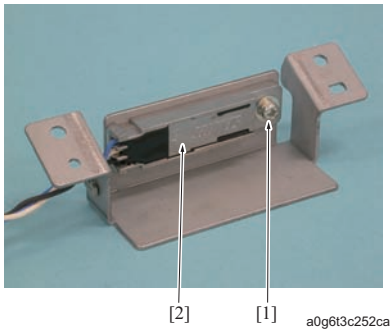
- After reinstalling the fusing temperature sensor /1 (TH1), be sure to check if the wiring harness is not in touch with the fusing roller /Up.

(1) Procedure for removal

1. Pull out the duplex section from the main body. (Refer to [F.5.9 Duplex Section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the web section. (Refer to [F.5.10.15 Replacing the fusing temperature sensor /2 \(TH2\)](#))
4. Disconnect the connector [1].
5. Remove the screw [2] and remove the fusing temperature sensor / 1 assy [3].

Note

- When removing the fusing temperature sensor /1 assy, be careful to avoid the driver from being in touch with the fusing roller /Up [4].



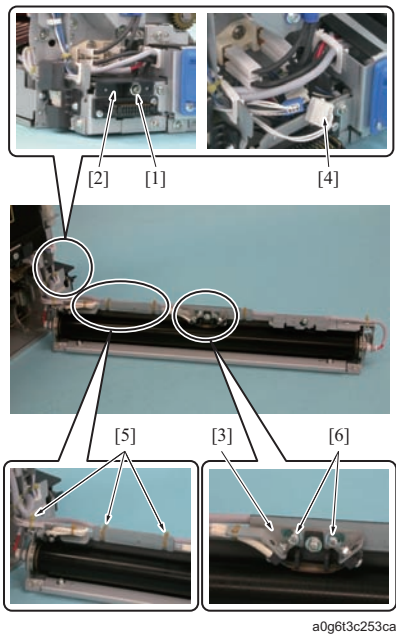
6. Remove the screw [1] and then remove the fusing temperature sensor /1 (TH1) assy [2].
7. Reinstall the preceding parts following the removal steps in reverse.

2.2.24 Fusing temperature sensor /3 (TH3)

Note

- Be sure to make the position adjustments when the roller has cooled down.
- When reinstalling the fusing temperature sensor /3 (TH3), adjust it with the temperature sensor positioning jig /B before fixing it. Be sure to apply Screw-lock to the screw that has been fixed.
- After reinstalling the fusing temperature sensor /3 (TH3), be sure to check if the wiring harness is not in touch with the fusing heating roller.

(1) Procedure for removal



1. Pull out the duplex section from the main body. (Refer to [F.5.9 Duplex Section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the fusing heating roller assy. (Refer to [F.5.10.9 Removing/reinstalling the fusing heating roller assembly](#))
4. Remove the screw [1] and then remove the connector cover [2].
5. Disconnect the connector [4] of the fusing temperature sensor /3 (TH3) [3].

Note

- There are 3 connectors of the fusing temperature sensor in the same place. The number of pins of each connector is different. The connector of the fusing temperature sensor /3 (TH3) is 4 pin connector.

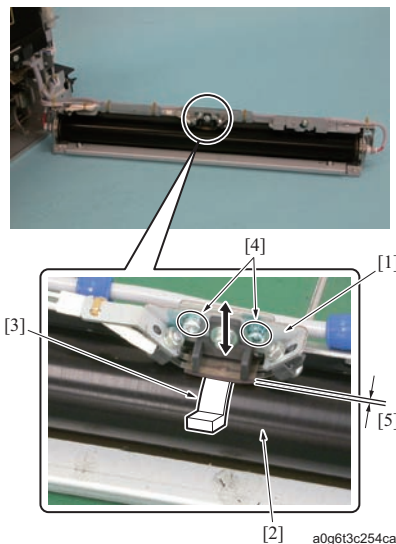
6. Cut off 3 wiring bands [5].

Note

- When attaching a wire binding band, be sure to use a heat-resistant one (P/N:V501010014).

7. Remove the 2 screw [6] and then remove the fusing temperature sensor /3 (TH3) assy [3].

(2) Procedure for reinstallation



1. Insert the temperature sensor positioning jig /B [3] between the fusing temperature sensor /3 (TH3) [1] and the fusing heating roller [2].
2. Adjust the position of the fusing heating sensor /3 (TH3) so that it becomes flush with the temperature sensor positioning jig /B, and then fix it with 2 screws [4].

Note

- Be sure to adjust the distance a [5] between the fusing temperature sensor /3 (TH3) and the fusing heating roller so that it becomes flush with the temperature sensor positioning jig /B. Standard value: $a = 0.7 \pm 0.1\text{mm}$
- Be sure to set the fusing temperature sensor /3 (TH3) parallel to the roller.

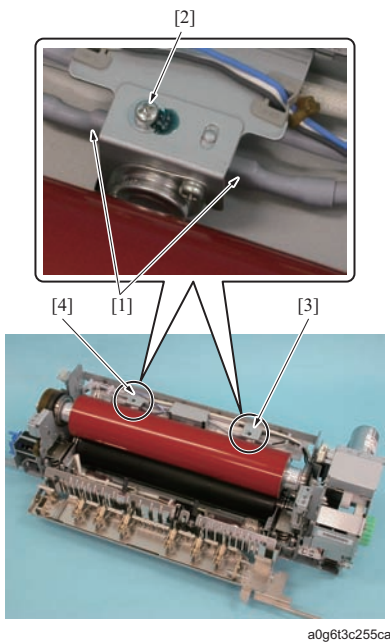
3. Apply Screw-lock to 2 screws [4].
4. Be sure that the reinstallation of the following parts follows the removal steps in reverse.

2.2.25 Thermostat /1 (TS1), /2 (TS2)

Note

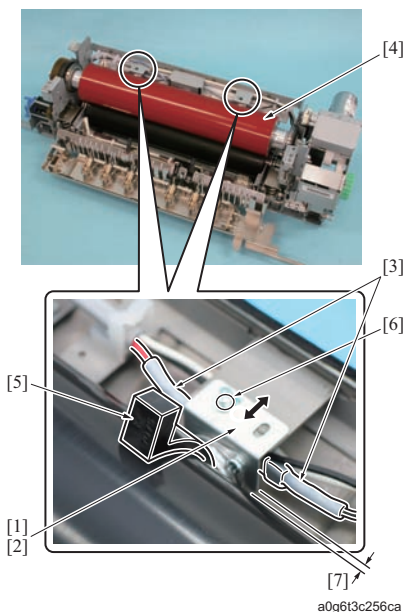
- Be sure to make the position adjustments when the roller has cooled down.
- When reinstalling the thermostat /1 (TS1) and /2 (TS2), adjust it with the thermostat positioning jig /A before fixing it. Be sure to apply Screw-lock to the screw that has been fixed.
- After reinstalling the thermostat /1 (TS1), /2 (TS2), be sure to check if the wiring harness is not in touch with the fusing roller /Up.

(1) Procedure for removal



1. Pull out the duplex section from the main body. (Refer to [F.5.9 Duplex Section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Remove the web section. (Refer to [F.5.10.15 Replacing the fusing temperature sensor /2 \(TH2\)](#))
4. Remove the faston terminals [1], 2 each.
5. Remove the screws [2], 1 each, and remove the thermostats /1 (TS1) [3] and /2 (TS2) [4].

(2) Procedure for reinstallation



1. Install the faston terminals [3], 2 each, to the thermostats /1 (TS1) [1] and /2 (TS2) [2].
2. Insert the thermostat positioning jig /A [5] between the thermostat /1 (TS1) [1] and the fusing roller /Up [4].
3. Adjust the position of the thermostat /1 (TS1) so that it becomes flush with the thermostat positioning jig /A, and then fix it with the screw [6].
4. Following the steps 2 and 3, install the thermostat /2 (TS2) [2].

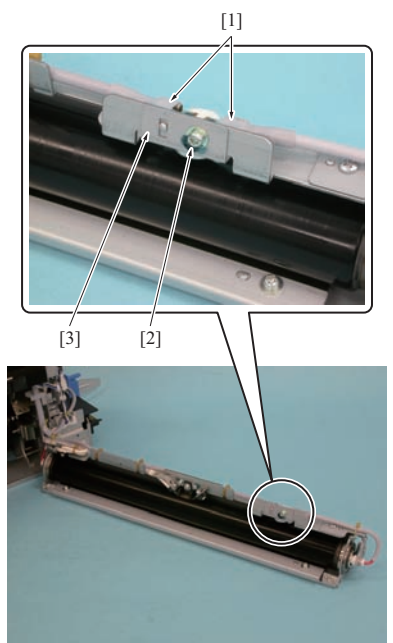
Note

- Be sure to adjust the distance a [6] between each thermostat and the fusing roller /Up so that it becomes equal to the thickness of the thermostat positioning jig /A. Standard value: $a = 3.0 \pm 0.2\text{mm}$
5. Apply Screw-lock to the screw [6].
 6. Be sure that the reinstallation of the following parts follows the removal steps in reverse.

2.2.26 Thermostat /3 (TS3)

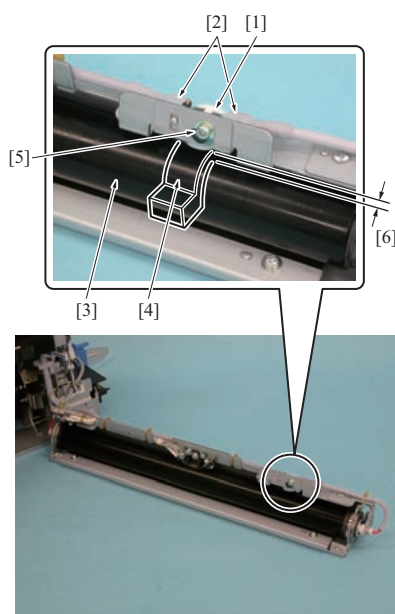
Note

- Be sure to make the position adjustments when the roller has cooled down.
- When reinstalling the thermostat /3 (TS3), adjust it with the thermostat positioning jig /B before fixing it. Be sure to apply Screw-lock to the screw that has been fixed.
- After reinstalling the thermostat /3 (TS3), be sure to check if the wiring harness is not in touch with the fusing heating roller.

(1) Procedure for removal

a0g6t3c257ca

1. Pull out the duplex section from the main body. (Refer to [F.5.9 Duplex Section](#))
2. Remove the fusing section. (Refer to [F.5.10.3 Removing/reinstalling the fusing section](#))
3. Open the fusing heating roller assy. (Refer to [F.5.10.9 Removing/reinstalling the fusing heating roller assembly](#))
4. Remove 2 faston terminals [1].
5. Remove the screw [2], and then remove the thermostat /3 (TS3) [3].

(2) Procedure for reinstallation

a0g6t3c258ca

1. Install 2 faston terminals [2] to the thermostat /3 (TS3) [1].
2. Insert the thermostat positioning jig /B [4] between the thermostat /3 (TS3) [1] and the fusing heating roller [3].
3. Adjust the position of the thermostat /3 (TS3) so that it becomes flush with the thermostat positioning jig /B, and then fix it with the screw [5].

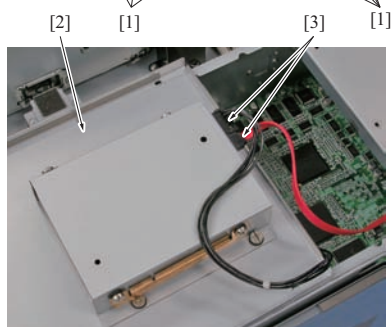
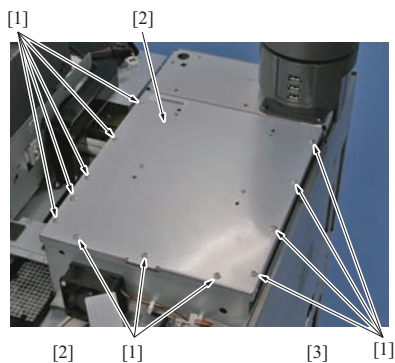
Note

- Be sure to adjust the distance a [6] between the thermostat /3 (TS3) and the fusing heating roller so that it becomes equal to the thickness of the thermostat positioning jig /B.
Standard value: $a = 3.0 \pm 0.2\text{mm}$

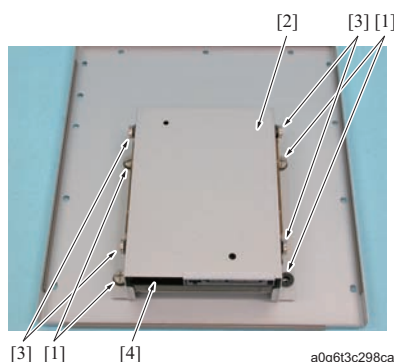
4. Apply Screw-lock to the screw [5].
5. Be sure that the reinstallation of the following parts follows the removal steps in reverse.

2.2.27 Hard disk /1 (HDD1)

(1) Procedure



a0g6t3c297ca



a0g6t3c298ca

1. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
2. Remove 12 screws [1].
3. Remove and turn over the cover [2], and disconnect 2 connectors [3].

4. Remove 4 screws [1] and then remove the hard disk mounting bracket [2].
5. Remove 4 screws [3] and then remove the hard disk /1 (HDD1) [4].
6. Reinstall the preceding parts following the removal steps in reverse.

2.2.28 Hard disk /2

(1) Procedure

For the disassembling and assembling procedures for the hard disk /2 (HDD2), refer to "[G.20.3.6 Hard disk /2 \(HDD2\)](#)".

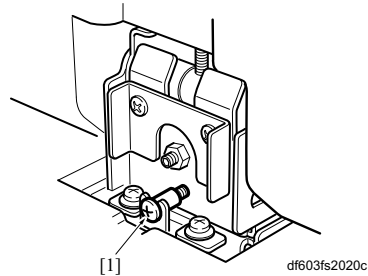
3. DF-615 /616

3.1 Items not allowed to be disassembled/reassembled

3.1.1 DF skew adjustment screw

Note

- The skew adjustment by the DF skew adjustment screw [1] is not allowed as a rule.



3.2 List of disassembling and assembling parts

No.	Section	Parts name
1	DF main body	DF
2	Cover	Cover /Fr, /Rr, /Lt

3.3 Disassembling and assembling procedures

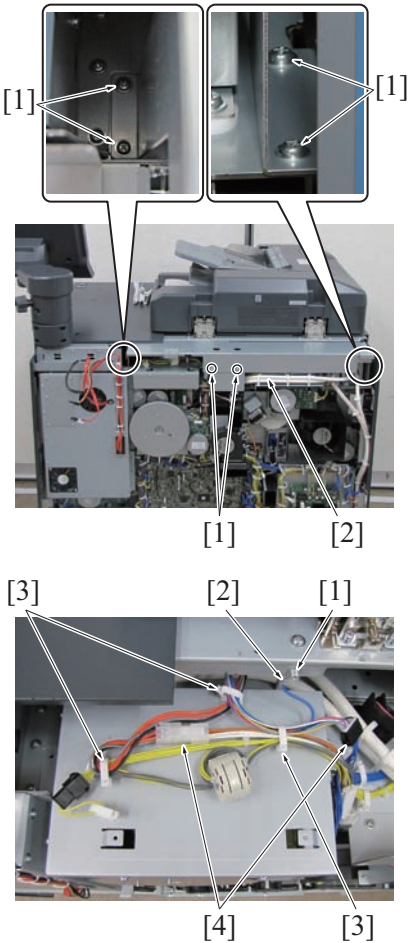
3.3.1 Precautions on disassembling and assembling

⚠ CAUTION

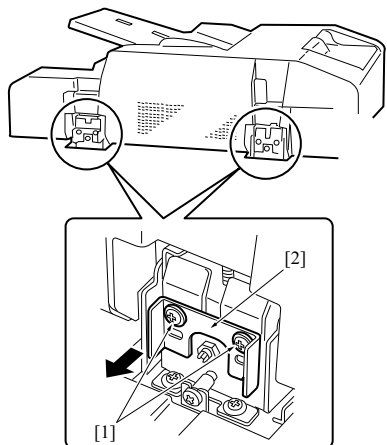
- Be sure to unplug the power plug from the power outlet.

3.3.2 DF

(1) Procedure for removal

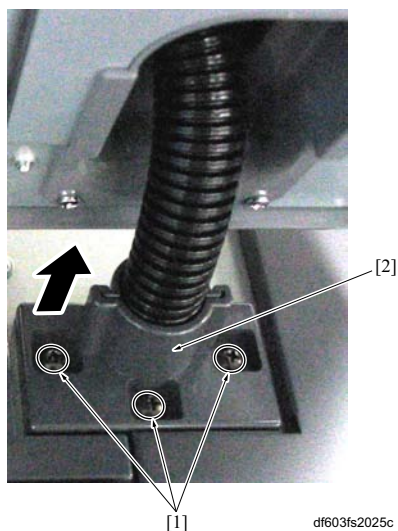


1. Remove the main body rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Remove the upper cover /Rr1 of the main body. (Refer to [G.2.2.8 Upper cover /Rr1](#))
3. Remove the upper cover /Rr2 of the main body. (Refer to [G.2.2.9 Upper cover /Rr2](#))
4. Remove 6 screws [1] and remove the exterior mounting plate [2] of the main body.
5. Remove the screw [1], and remove the ground terminal [2].
6. Remove 3 clamps [3] and disconnect 2 connectors [4].



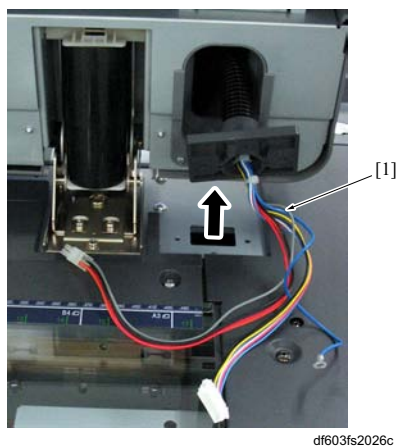
df603fs2023c

7. Remove 2 screws [1] and then remove 2 angle adjustment plates [2].



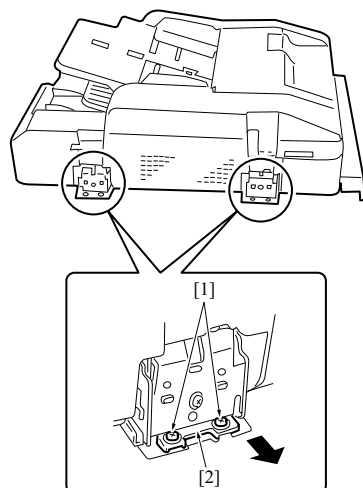
df603fs2025c

8. Open the DF until it is vertical.
9. Remove 3 screws [1] and then remove the cable conduit [2].



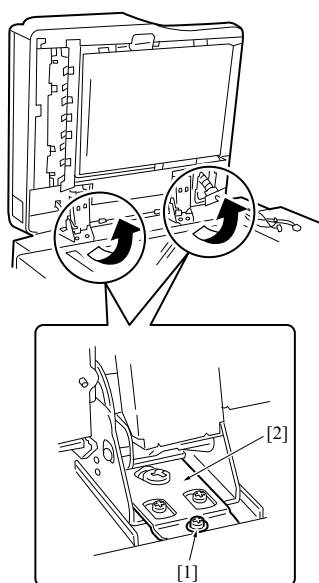
df603fs2026c

10. Pull out the cable [1] to the upper side of the main body.



df603fs2027c

11. Close the DF, remove 2 screws [1] each, and then remove 2 fixing plates /Rr [2].



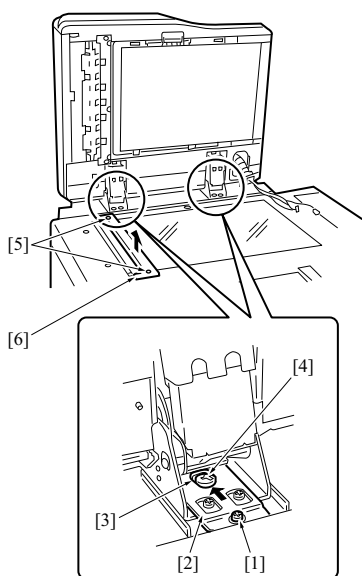
df603fs2028c

12. Open the DF until it is vertical.
13. Remove 1 screw [1] on each plate while supporting the DF, and remove 2 fixing plates /Fr [2].
14. Remove the DF from the main body.

Note

- The DF may fall to the back side when the fixing plate /Fr [2] is removed. Be sure to conduct operations while supporting it.

(2) Procedure for reinstallation



df603fs2029c

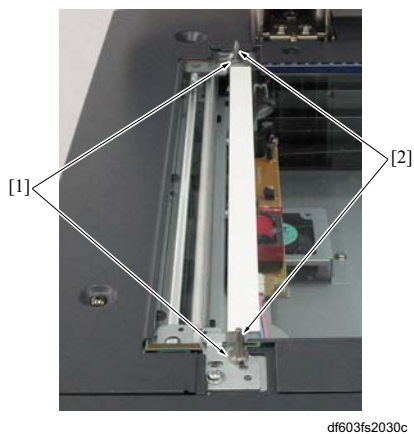
1. With the DF set to the main body, temporarily hold 2 fixing plates / Fr [2] with a screw [1].

Note

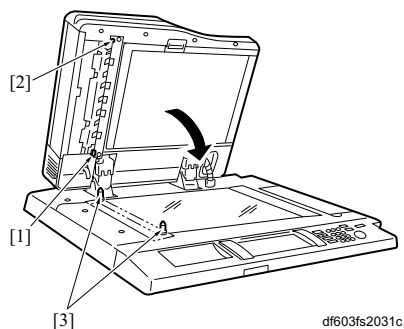
- For the fixing plate /Fr [2], be sure to insert the potbellied hole section [3] under the guide screw [4].

2. Remove 2 screws [5] and remove the original stopper plate /Lt [6].
3. Remove the cable conduit following the removal steps in reverse.
4. Reinstall other parts following the removal steps 2 to 6 in reverse.

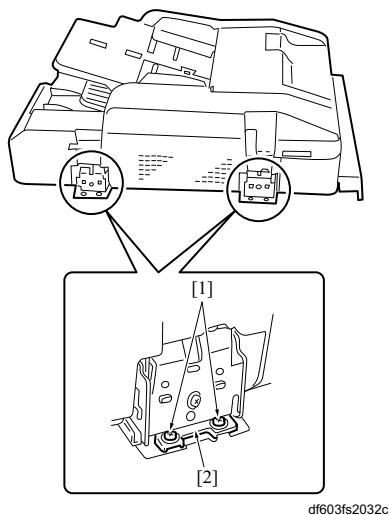
5. Install 2 DF positioning jigs [2] in 2 holes [1] provided in the place to which the original stopper plate /Lt is attached.



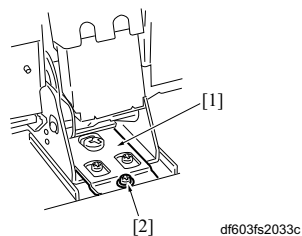
6. Close the DF slowly and set the reference hole (oval) [1] and the reference hole (round) [2] to the DF positioning jigs [3].

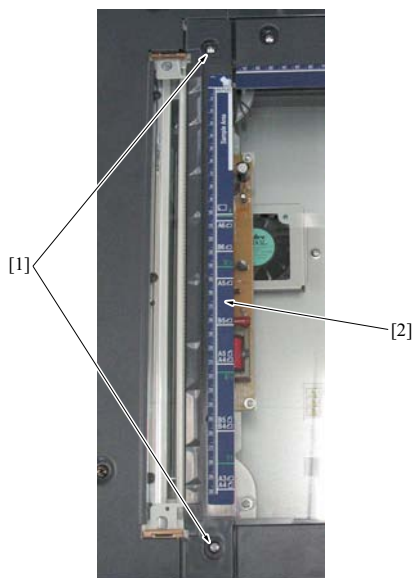


7. With the positions put together, reinstall 2 fixing plates /Rr [2] with 2 screws [1] each.



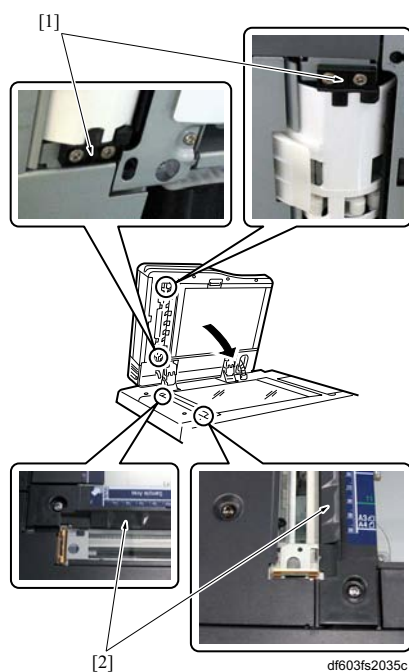
8. Open the DF and tighten the screw [2], 1 for each plate, of the fixing plates /Fr [1].





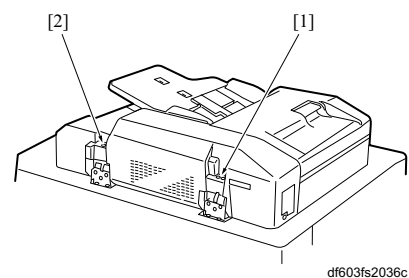
df603fs2034c

9. Remove the DF positioning jig and reinstall the original stopper plate /Lt [2] with 2 screws [1].



df603fs2035c

10. Close the DF and check to see if each of 2 stopper pieces [1] on the DF side comes in touch with the dent [2] in the original stopper plate /Lt on the main body side.



df603fs2036c

11. When the stopper pieces do not get contact with the dent on the original stopper plate /Lt at the same time, make adjustments by turning the adjusting screw A [1].

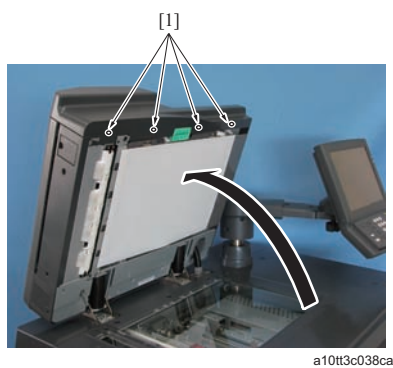
Note

- When a satisfactory adjustment cannot be obtained with the adjusting screw A [1], make adjustments turning the adjusting screws A [1] and B [2] alternately.

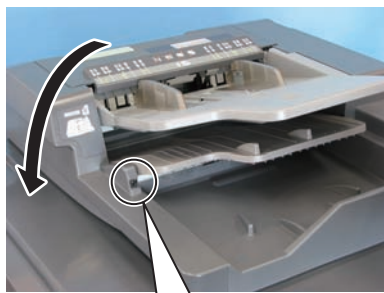
12. Repeat the steps 10 and 11 until each of the stopper pieces get contact with the dent on the original stopper plate /Lt at the same time.
13. Reinstall the angle adjustment plate following the removal step 7 in reverse.
14. Reinstall the main body rear cover.

3.3.3 Cover /Fr, /Rr, /Lt

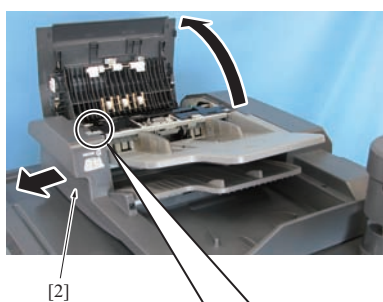
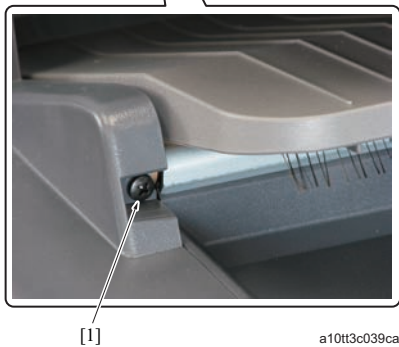
(1) Procedure



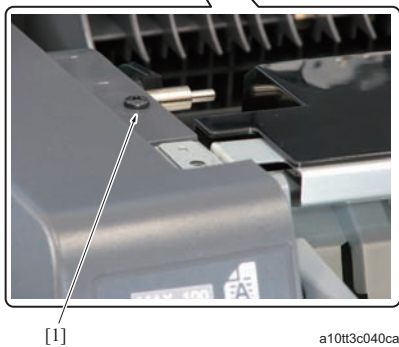
1. Open the DF.
2. Remove 4 screws [1].



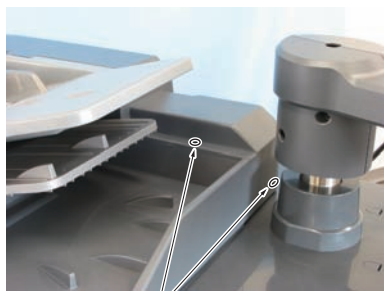
3. Close the DF.
4. Remove the screw [1].



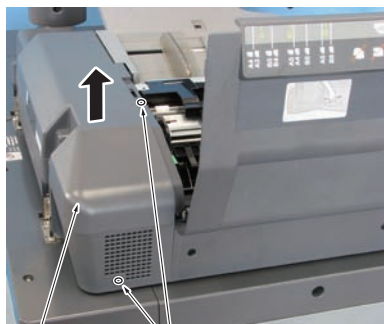
5. Open the open-close cover.
6. Remove the screw [1].
7. Remove the cover /Fr [2].



8. Remove 4 screws [1] and remove the cover /Rr [2].



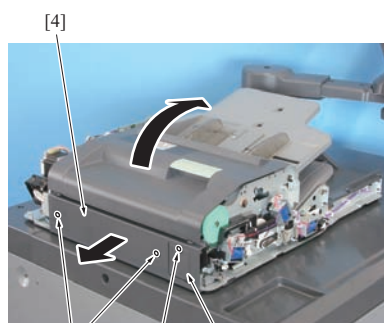
[1]



[2]

[1]

a10tt3c041ca



[4]

[3]

[1]

[2]

a10tt3c042ca

9. Open the open-close cover.

10. Remove the screw [1] and remove the sensor cover [2].

11. Remove 2 screws [3] and remove the cover /Lt [4].

12. Reinstall the preceding parts following the removal steps in reverse.

4. PF-703

4.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Right cover
2		Rear cover
3		Front door
4		Tray front cover
5	Paper feed tray section	Tray
6		Lift wire
7		Paper feed assist fan /Fr1 (FM1), /Fr2 (FM5), /Fr3 (FM9), /Rr1 (FM2), /Rr2 (FM6), /Rr3 (FM10)
8		paper leading edge separation fan /Fr1 (FM3), /Fr2 (FM7), /Fr3 (FM11), /Rr1 (FM4), /Rr2 (FM8), Rr3 (FM12)(
9		Paper lift motor /1 (M7), /2 (M8), /3 (M9)
10		Paper feed check window
11	Others	PF drive board (PFUDB)
12	Cover	Left cover /Up, /Lw (PI-PFU only)
13	Others	Multi feed detection boards /S (MFDBS) and /R (MFDBR)

4.2 Disassembling and assembling procedures

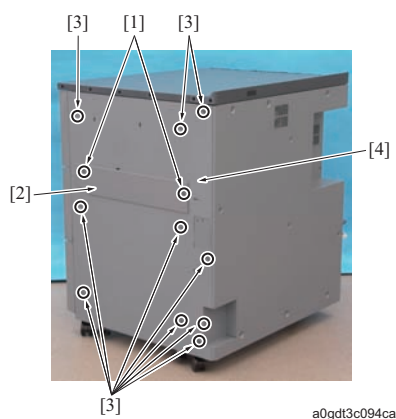
4.2.1 Precautions on disassembling and assembling

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

4.2.2 Right cover

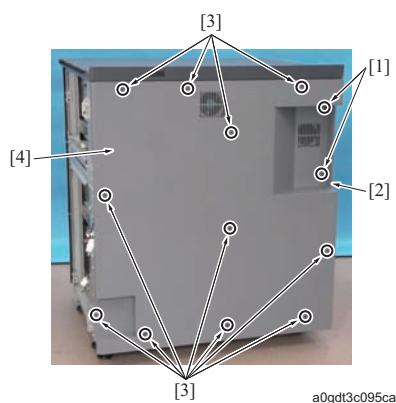
(1) Procedure



1. Remove 2 screws [1] and remove the paper feed cover [2].
2. Remove 10 screws [3] and then remove the right cover.
3. Reinstall the preceding parts following the removal steps in reverse.

4.2.3 Rear cover

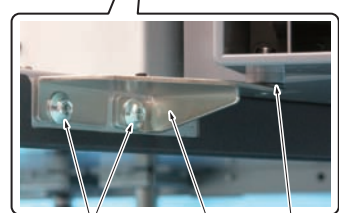
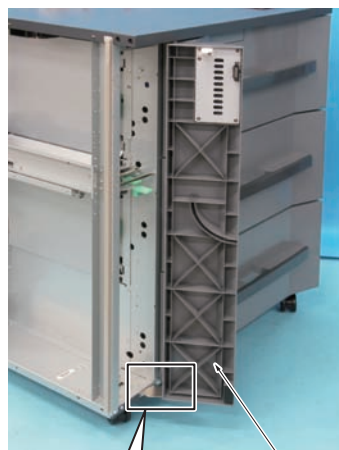
(1) Procedure



1. Remove 2 screws [1] and then remove the PI-PFU cover [2] (PI-PFU only).
2. Remove 11 screws [3] and then remove the rear cover [4].
3. Reinstall the above parts following the removal steps in reverse.

4.2.4 Front door

(1) Procedure

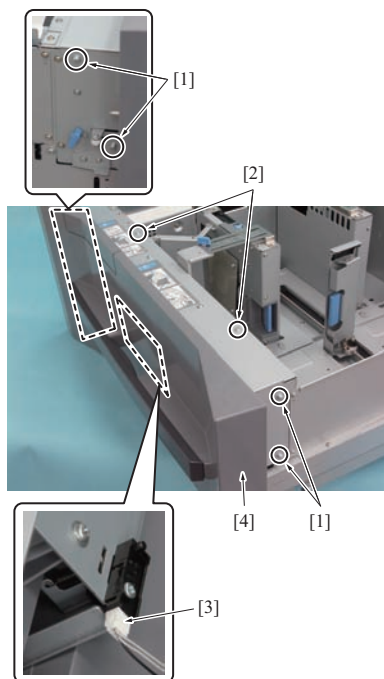


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1. Open the front door [1].
2. Remove 2 screws [2] and remove the mounting plate [3] and the washer [4], and then remove the front door [1].
3. Reinstall the above parts following the removal steps in reverse.

4.2.5 Tray front cover

(1) Procedure

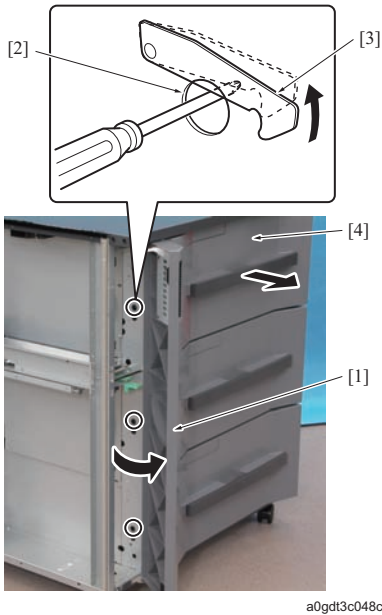


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1. Pull out the paper feed tray. (Refer to [G.4.2.6 Tray](#))
2. Remove 4 screws [1] and 2 screws [2] and disconnect the connector [3], and then remove the tray front cover [4].

4.2.6 Tray

(1) Procedure for pulling out the tray

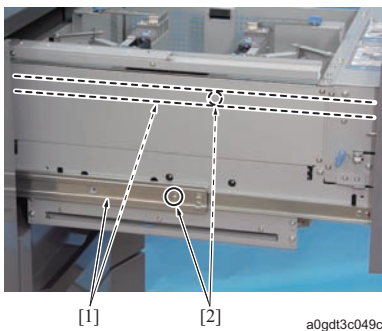


1. Open the front door [1].
2. Insert a driver into the hole [2] and pull out the tray [4] while lifting up a little the tray lock lever [3].

(2) Procedure for pulling out the tray at the maximum

⚠ Note:

- Be sure to pull out the trays one at a time. Avoid pulling out more than 2 trays at once. It causes the PF to turn over.



1. Pull out the paper feed tray. (Refer to [G.4.2.6.\(1\) Procedure for pulling out the tray](#))
2. Remove the stopper screws [2], 1 each, provided on the right and left rails [1] and further pull out the tray.
3. Reinstall the above parts following the removal steps in reverse.

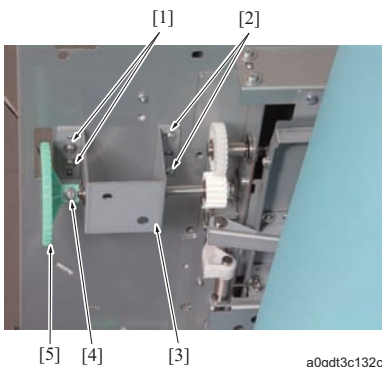
(3) Procedure for removing the tray

⚠ Note:

- Be sure to perform this operation with 2 people because the tray unit is heavy.

Note

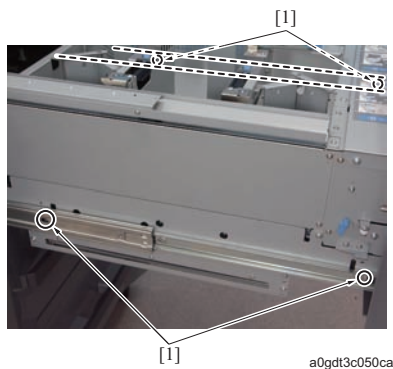
- The removing/installing procedure of the tray is common between the trays1, 2, and 3 but the installation position is different between the tray1 and the trays2 and 3 at some part. This section shows the procedure for the tray 1 and the different parts are described in the procedure.
- Be sure to lift the tray by holding the specified positions. Holding it at positions other than those positions specified damage the tray, thus resulting in a paper feed jam.



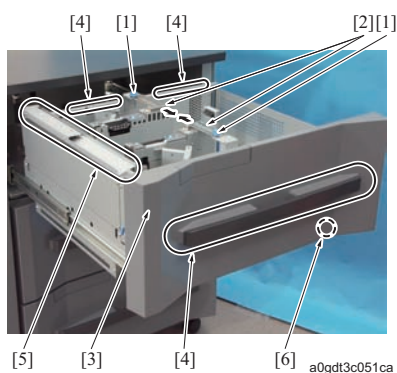
1. Pull out the tray at the maximum. (Refer to [G.4.2.6.\(2\) Procedure for pulling out the tray at the maximum](#))
2. Remove the screws [1] and [2], 2 each, and then remove the jam release gear assy [3]. (Tray1 only)

Note

- Be careful not to let 2 screws [1] oblique when reinstalling it. When it is hard to reinstall, remove the tray front cover (refer to [G.4.2.5 Tray front cover](#)) and loosen the screw [4] to remove the jam release knob [5].



3. Remove screws [1], 2 each, from the left and right rails.



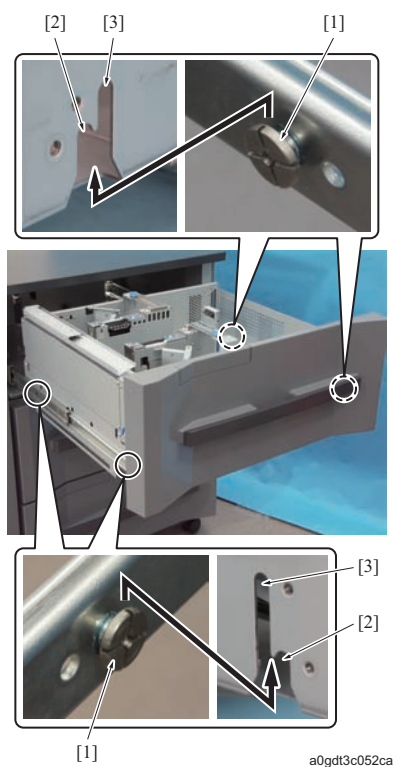
4. Loosen 2 screws [1] and set the side guide [2] to the minimum size.
5. Remove the tray by holding the specified positions [4] of the tray [3] and lifting upward.

⚠ Note:

- Be sure to lift the tray with 2 people.

Note

- Be sure to hold the specified positions [4] and not to hold the positions [5] that can be easily deformed. This may affect the paper tray, thus resulting in a jam.



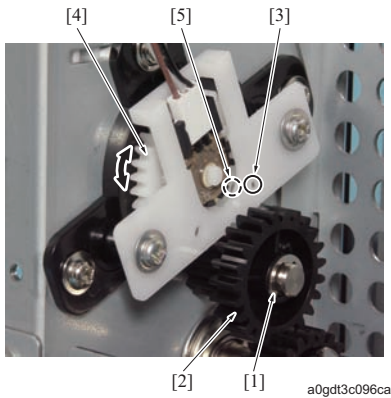
6. Reinstall the above parts following the removal steps in reverse.

Note

- When reinstalling it, be sure to insert the 4 knobs [1] on the rail to the shallow groove [2] in the case of the tray1. In the case of the trays2 and 3, be sure to insert the knobs to the deep groove [3].

4.2.7 Lift wire

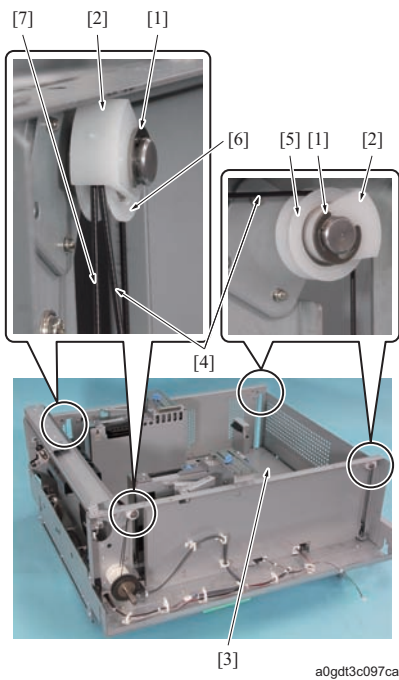
(1) Procedure



1. Remove the tray. (Refer to [G.4.2.6 Tray](#))
2. Remove the tray front cover. (Refer to [G.4.2.5 Tray front cover](#))
3. Remove the paper leading edge separation fan /Fr1 (FM3), /Fr2 (FM7), /Fr3 (FM11), /Rr1 (FM4), /Rr2 (FM8), /Rr3 (FM12))
4. Remove the paper lift gear assy. (Refer to [G.4.2.10 Paper lift motor /1 \(M7\), /2 \(M8\), /3 \(M9\)](#))
5. Remove the E-ring [1] and the gear [2].

Note

- When reinstalling it, be sure to reinstall the gear [2] with the aligned position by inserting the screwdriver to the quadrilateral hole [3] and rotating the gear [4] going through the hole [5] of the gear [4].



6. Remove 4 E-rings [1] and then remove 1 each of the pulley covers [2].
7. Lift the paper lift plate [3] horizontally to loosen 1 each of the lift wires /Rt [4] back and forth, and then remove it from the pulleys [5] and [6].
8. Lift the paper lift plate [3] horizontally to loosen 1 each of the lift wires /Lt [7] back and forth, and then remove it from the pulleys [6].

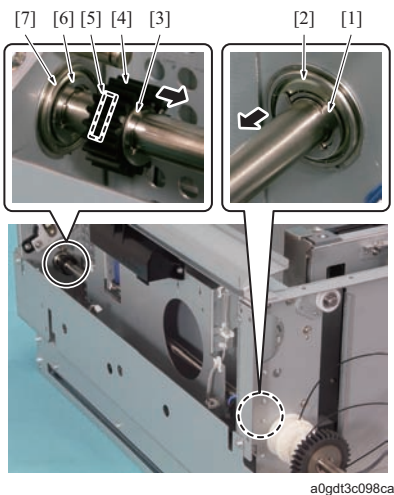
Note

- When hooking the lift wire to the pulley, be sure to hook the shorter lift wire /Lt [7] to the inside and the longer lift wire /Rt [4] to the outside.
- When installing the wires, make sure that the lift wires are properly routed inside the wire covers and are not crossed each other.

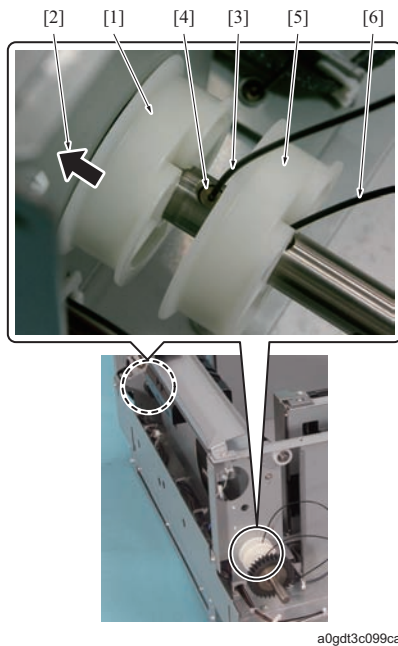
9. Remove the pulleys [5] and [6].

Note

- When reinstalling the pulley, be sure that the metal bearing comes to the outside.



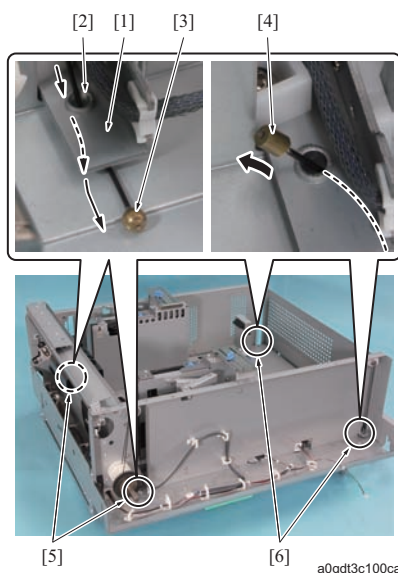
10. Remove the E-ring [1] and move the bearing [2] inward.
11. Remove the E-ring [3] and move the gear [4] inward and then remove the pin [5].
12. Remove the E-ring [6] and move the bearing [7] inward.



13. Remove the lift wire /Lt [3] from the shaft hole [4] by moving the pulley [1] inward [2], and then remove the lift wire /Rt [6] by moving the pulley [5].

Note

- Be sure to put the shorter lift wire /Lt [7] to the inside and the longer lift wire /Rt [4] to the outside.



14. Pull out the lift wires /Rt and /Lt [3] from the hole [2] of the lift plate arm [1] to downward.

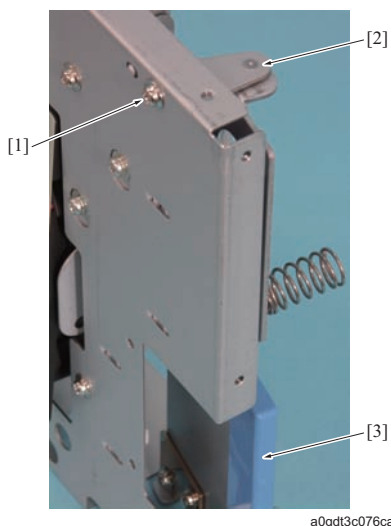
Note

- When reinstalling it, be sure to put the circular cylindrical shape wire end [4] from the downside of the hole [2].
- Be sure to install the shorter lift wire /Lt to the lift plate arm [5] and the longer lift wire /Rt to the lift plate arm [6].
- When pulling/installing it, be sure to pull out carefully and be careful not to damage it with the corner of the metal plate.

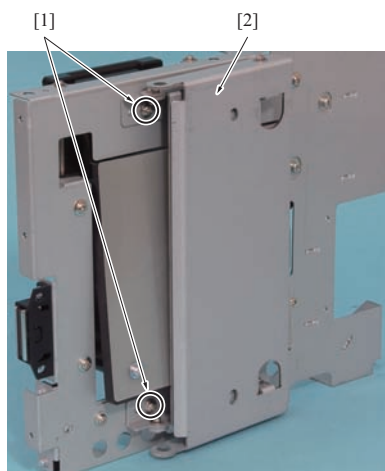
15. Reinstall the above parts following the removal steps in reverse.

4.2.8 Paper feed assist fan /Fr1 (FM1), /Fr2 (FM5), /Fr3 (FM9)

(1) Procedure

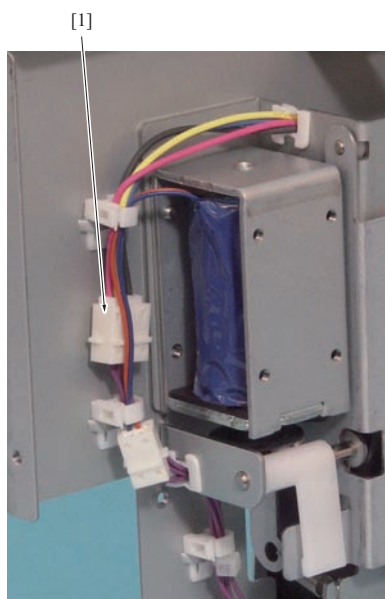


1. Pull out the tray at the maximum. (Refer to [G.4.2.6 Tray](#))
2. Remove the side guide assy /Fr and remove the cover, and then open the side guide assy. (Refer to [F.7.2.2.\(3\) Removing procedures of the shutter solenoids /Fr1 \(SD4\), /Fr2 \(SD6\) and /Fr3 \(SD8\)](#))
3. Remove the screw [1] and then remove the supporting bracket [2] and the side guide lock lever [3].



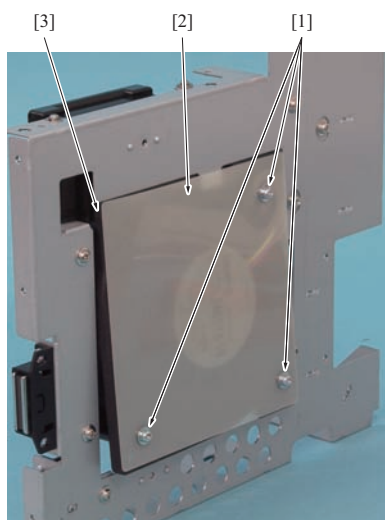
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4. Remove 2 screws [1] and remove the reinforcing hinge [2].



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5. Disconnect the connector [1].



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6. Remove 3 screws [1] and then remove the protecting sheet [2], the paper feed assist fans /Fr1 (FM1), /Fr2 (FM5) and /Fr3 (FM9) [3].

Note

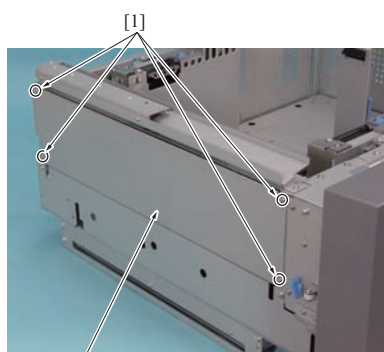
- When reinstalling it, be sure to install so that the wiring harness comes to the position in the picture.
- Be sure to install so that the protecting sheet does not slack.

7. Reinstall the above parts following the removal steps in reverse.

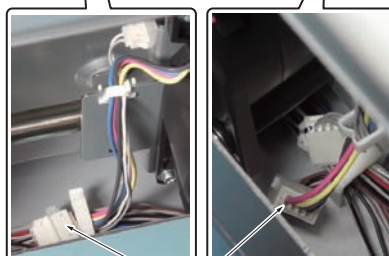
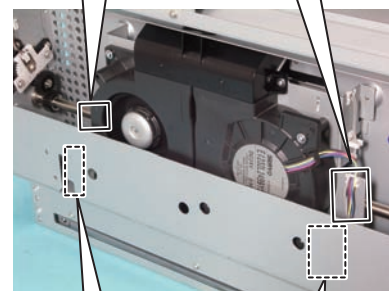
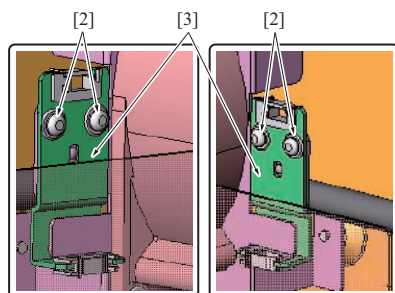
4.2.9 Paper leading edge separation fan /Fr1 (FM3), /Fr2 (FM7), /Fr3 (FM11), /Rr1 (FM4), /Rr2 (FM8), /Rr3 (FM12)

Note

- Since the bottom of the tray 1 has the horizontal conveyance unit, the height inside the tray is different from the height of the trays 2 and 3. Therefore, the tray needs to be removed to remove the paper leading edge separation fan of the tray 1. In the case of the trays 2 and 3, the paper leading edge separation fan can be removed while it is installed to PF.

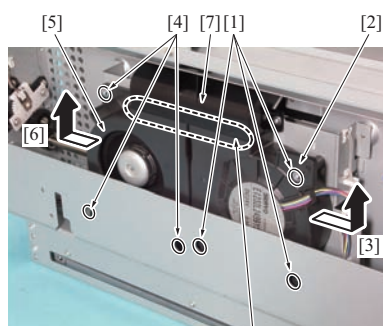
(1) Procedure

a0gdt3c006ca



[1]

a0gdt3c135ca



[8]

a0gdt3c007ca

1. Remove the tray. (Refer to [G.4.2.6 Tray](#))
2. Remove 4 screws [1] and then remove the fan cover [2].

3. Disconnect 2 connectors [1].
4. Remove the screw [2] and then remove the 2 wiring harness clamp [3].

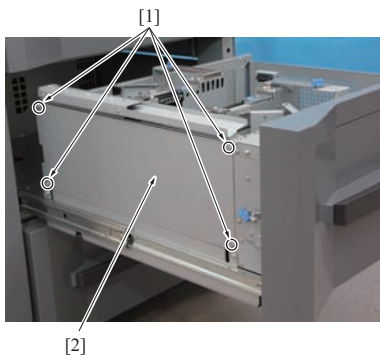
5. Remove 3 screws [1] and remove the paper leading edge separation fan /Fr1 (FM3) [2] by moving it in the arrow-marked direction [3].
6. Remove 3 screws [4] and remove the paper leading edge separation fan /Rr1 (FM4) [5] by moving it in the arrow-marked direction [6].

Note

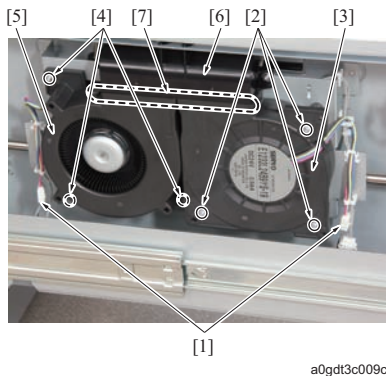
- When reinstalling the paper leading edge separation fans / Fr1 [2] and /Rr1 [5], be sure to press them against the air duct [7] and secure the screws so that there is no space between the contacting section [8].

7. Reinstall the above parts following the removal steps in reverse.

(2) Procedure for the trays 2 and 3



1. Remove the stopper and pull out the tray at the maximum. (Refer to [G.4.2.6 Tray](#))
2. Remove 4 screws [1] and then remove the fan cover [2].



3. Disconnect 2 connectors [1].
4. Remove 3 screws [2] and remove the paper leading edge separation fans /Fr2 and /Fr3 [3].
5. Remove 3 screws [4] and remove the paper leading edge separation fans /Rr2 and /Rr3 [5].

Note

- When reinstalling the paper leading edge separation fans /Fr2, /Fr3 [3] and /Rr2, /Rr3 [5], be sure to press them against the air duct [6] and secure the screws so that there is no space between the contacting section [7].

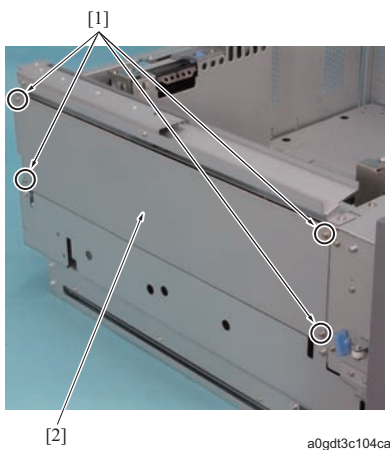
6. Reinstall the above parts following the removal steps in reverse.

4.2.10 Paper lift motor /1 (M7), /2 (M8), /3 (M9)

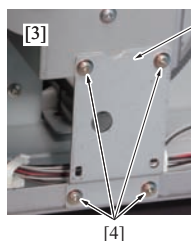
(1) Removing procedure of the paper lift gear assy

Note

- The removing/installing procedure of the paper lift gear assy is common between the trays 1, 2, and 3 but the installation position is different at some part. This section shows the procedure for the tray 1 and the different parts are described in the procedure.

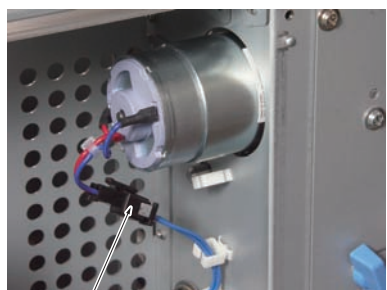


1. Remove the tray. (Refer to [G.4.2.6 Tray](#))
2. Remove the tray front cover. (Refer to [G.4.2.5 Tray front cover](#))
3. Remove 4 screws [1] and then remove the fan cover [2].



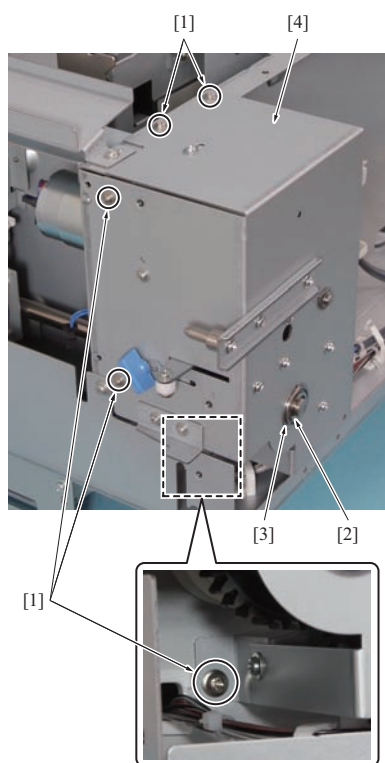
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4. Remove 4 screws [2] (in the case of the tray1 [1]) or 4 screws [4] (in the case of the trays2 and 3 [3]) and then remove the reinforcing plate [5].



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5. Disconnect the connector [1].

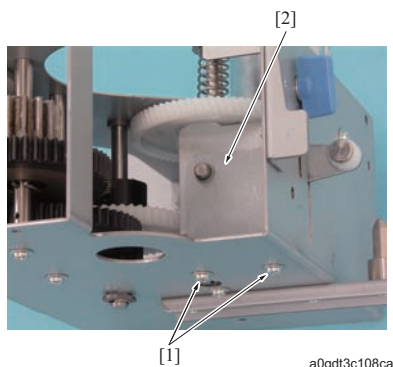


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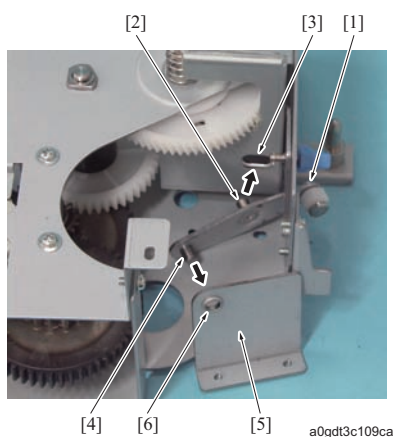
6. Remove 5 screws [1], the E-ring [2], and the bearing [3] and then remove the paper lift gear assy [4].
7. Reinstall the above parts following the removal steps in reverse.

(2) Removing procedure of the paper lift motor

1. Remove the paper lift gear assy. (Refer to [G.4.2.10.\(1\) Removing procedure of the paper lift gear assy](#))
2. Remove 2 screws [1] and then remove the support bracket [2].

**Note**

- When reinstalling it, be sure to put the pin [2] of the arm [1] into the hole [3] and the pin [4] into the hole [6] of the support bracket [5].

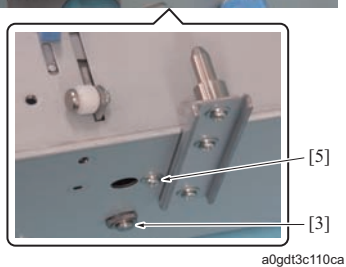
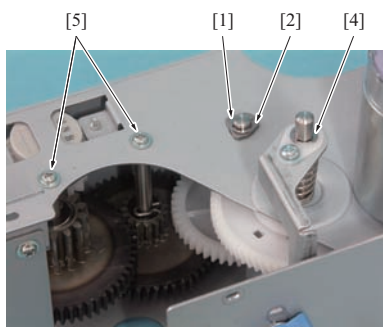


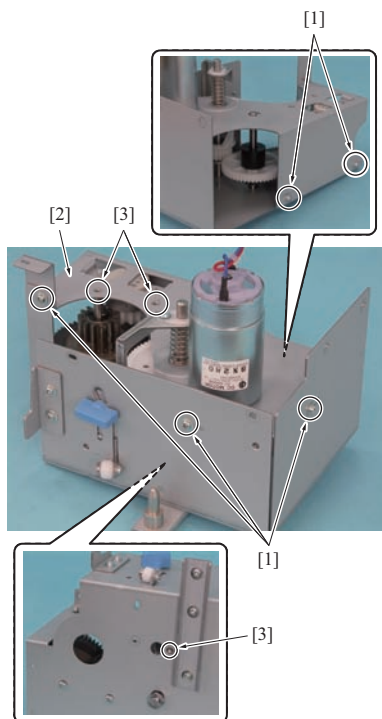
3. Remove the E-ring [1] and remove the bearing [2].

Note

- When reinstalling it, be sure to align the bearing [3] on the opposite side.

4. Remove the E-ring [4].
5. Remove 3 screws [5].



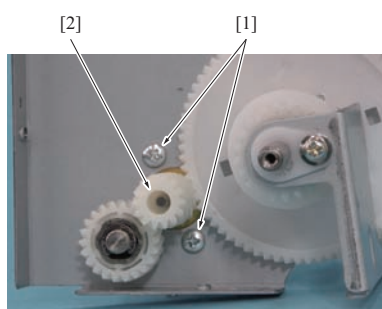


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6. Remove 5 screws [1], and then remove the top of the paper lift gear assy [2].

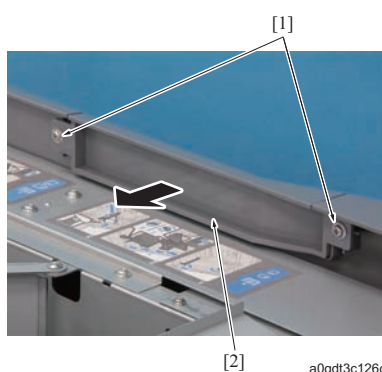
Note

- When reinstalling it, be sure to align 3 D-cut [3] positions of the shaft and then tighten the screw [1].



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7. Remove 2 screws [1], and then remove the paper lift motor [2].
8. Reinstall the above parts following the removal steps in reverse.

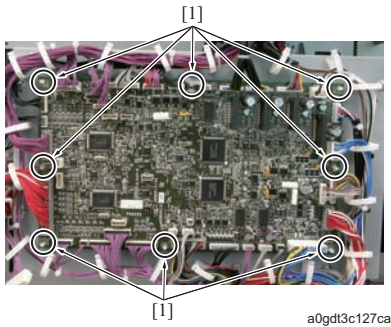
4.2.11 Paper feed check window**(1) Procedure**

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1. Pull out the paper feed tray. (Refer to [G.4.2.6 Tray](#))
2. Remove 2 screws [1] and then remove the paper feed check window [2].
3. Reinstall the above parts following the removal steps in reverse.

4.2.12 PF drive board (PFUDB)

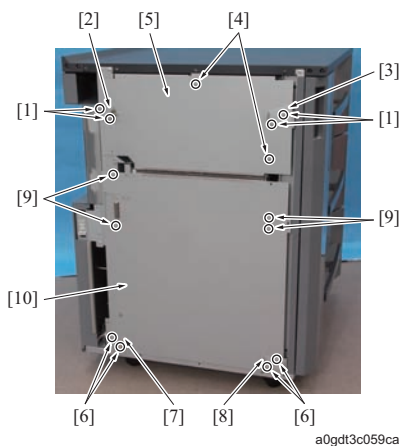
(1) Procedure



1. Remove the rear cover. (Refer to [G.4.2.3 Rear cover](#))
2. Disconnect all connectors.
3. Remove 8 clamps [1] and then remove the PF drive board (PFUDB).
4. Reinstall the above parts following the removal steps in reverse.

4.2.13 Left cover /Up, /Lw (PI-PFU only)

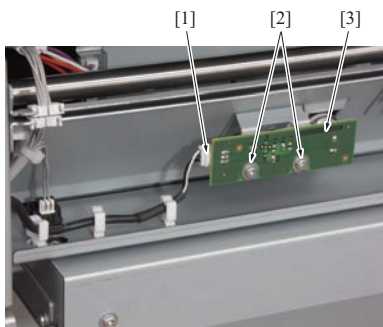
(1) Procedure



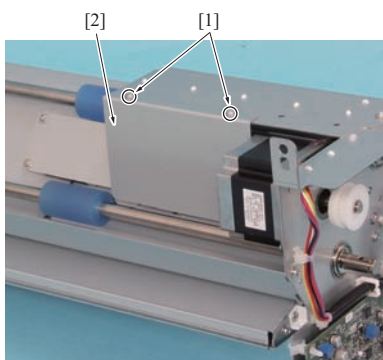
1. Remove 2 screws [1] and remove the mounting brackets [2], [3].
2. Remove 4 screws [2] and then remove the left cover /Up [5].
3. Remove the screws [6], 2 each, and then remove the mounting brackets [7], [8].
4. Remove 9 screws [4] and then remove the left cover /Lw[10].
5. Reinstall the above parts following the removal steps in reverse.

4.2.14 Multi feed detection boards /S (MFDBS) and /R (MFDBR) (PI-PFU only)

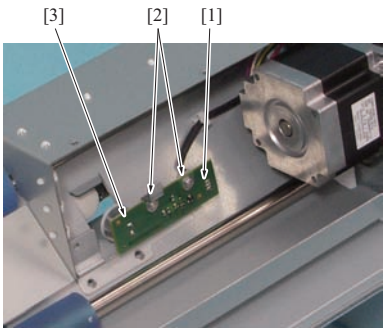
(1) Procedure



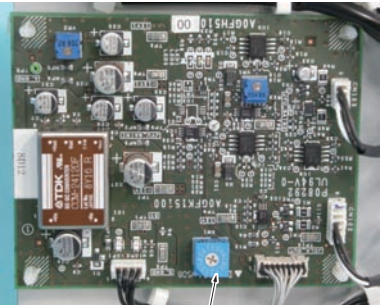
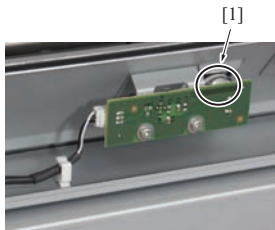
1. Remove the exit conveyance unit (FA-501). (Refer to [F.7.6.1.\(2\) Removing procedure of the PI-PFU exit conveyance unit \(FA-501\)](#))
2. Disconnect the connector [1] and 2 screws [2] and then remove the multi feed detection board /S (MFDBS) [3].



3. Remove 2 screws [1] and remove the cover [2].



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[2]

a0gdt3c131ca

4. Disconnect the connector [2] and 1 screws [2] and then remove the multi feed detection board /R (MFDBS) [3].

5. Check the stamp letter [1] placed on the multi feed detection board /S and /R, and rotate the rotary switch [2] on the multi feed detection drive board (MFDDB) as per following table.

Stamp letter	Rotary switch
A	A
B	B
C	C
D	D
F	F

6. Reinstall the above parts following the removal steps in reverse.

Note

- After the installation, be sure to conduct the adjustment which is conducted in replacing the multi feed detection board (PI-PFU). (Refer to [1.5.6.11 Adjustment when replacing the multi feed detection board \(PI-PFU\)](#))

5. PF-706

5.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Right cover
2		Rear cover
3		Front door
4		PF drive board (PFUDB)
5	Tray section	Tray
6		Lift wire
7		Paper feed assist fans /Fr and /Rr
8		Lift motor
9		Paper feed sensor
10	Conveyance section	Conveyance exit unit
11		Vertical conveyance units /Up and /Lw

5.2 Disassembling and assembling procedures

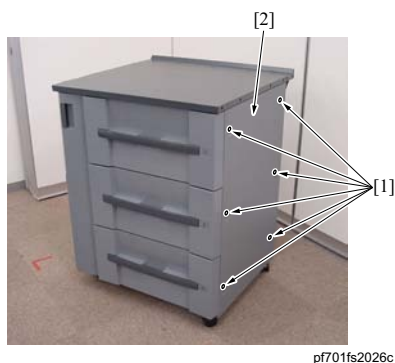
5.2.1 Precautions on disassembling and assembling

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

5.2.2 Right cover

(1) Procedure

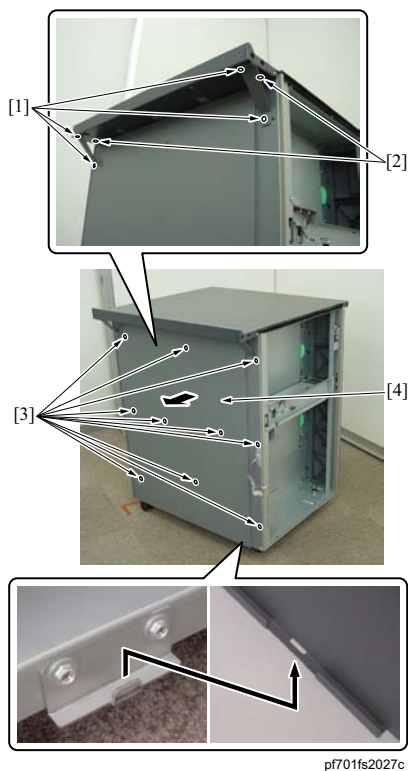


pf701fs2026c

1. Remove 6 screws [1] and then remove the right cover [2].
2. Reinstall the above parts following the removal steps in reverse.

5.2.3 Rear cover

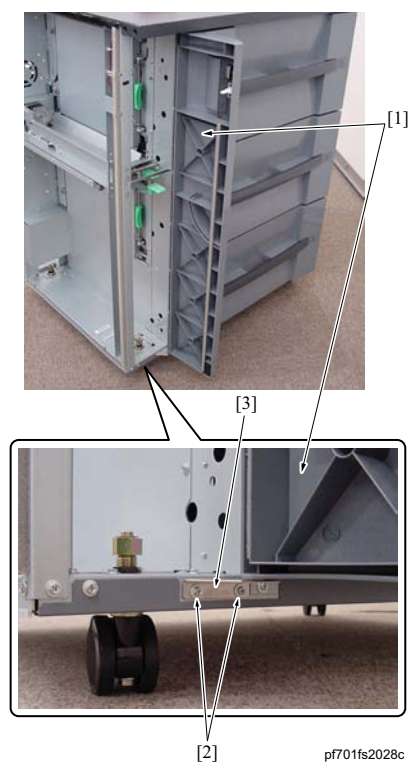
(1) Procedure



1. Remove the screws [1], 2 each, and then remove 2 stays [2].
2. Remove 10 screws [3] and then remove the rear cover [4].
3. Reinstall the above parts following the removal steps in reverse.

5.2.4 Front door

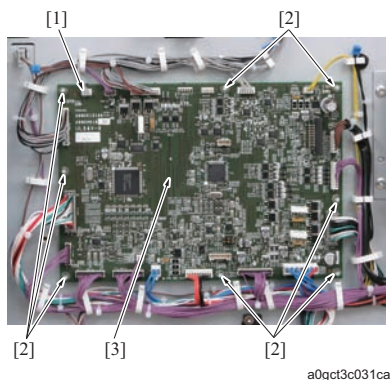
(1) Procedure



1. Open the front door [1].
2. Remove 2 screws [2] and then remove the front door [1] after removing the mounting plate [3].

5.2.5 PF drive board (PFUDB)

(1) Procedure



a0gct3c031ca

1. Remove the rear cover. (Refer to [G.5.2.3 Rear cover](#))
2. Disconnect the connector [1].
3. Remove 8 clamps [2] and then remove the PF drive board (PFUDB).

5.2.6 Tray

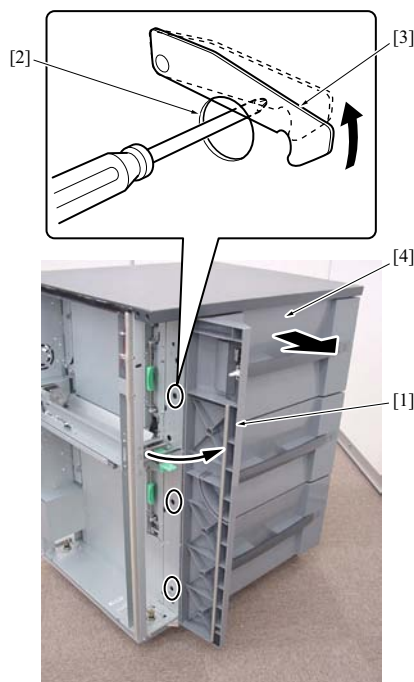
⚠ Note

- Be sure to perform this operation with 2 people because the tray unit is heavy.
- Be sure to pull out the trays one at a time. Avoid pulling out more than the 2 trays at once. This may cause the PF to turn over.

Note

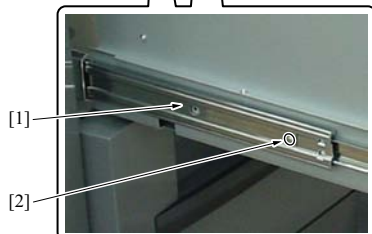
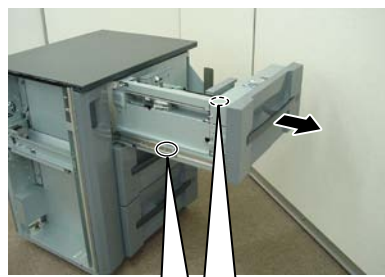
- The removing/reinstallation procedures of the trays are the same for all the trays 1 to 3. The explanation here is of tray1.
- When raising up the tray, be sure to hold it at the specified positions. Holding it at positions other than those positions specified damage the tray, thus resulting in a paper feed jam.

(1) Procedure



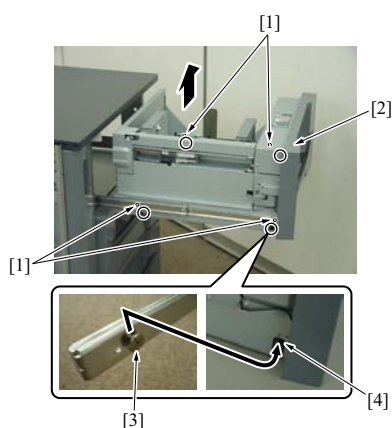
pf701fs2030c

1. Open the front door [1].
2. Insert a driver into the hole [2] and pull out the tray [4] while lifting up a little the tray lock lever [3].
3. If any paper remaining, remove it.



pf701fs2031c

4. Remove the stopper screws [2], 1 each, provided on the right and left rails [1] and further pull out the tray.

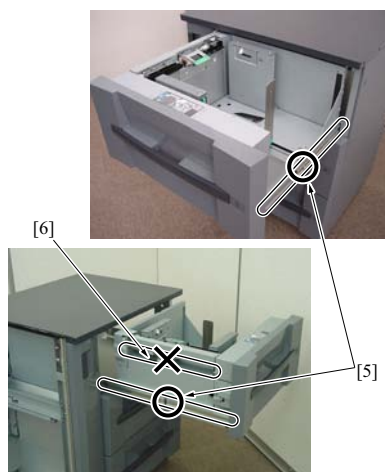


5. Remove the screws [1], 2 each, provided on the right and left rails and lift up the tray [2] at the specified positions to remove it.

Note

- When reinstalling it, be sure to check the knobs [3] provided on 4 rails to ensure they get into the notches [4] of the tray securely.
- When raising up the tray, be sure to hold it at the specified positions [5] and raise it up with 2 persons.
- Do not hold the part indicated with [6] as the part can easily become deformed, which adversely affects paper feed resulting in a paper jam.

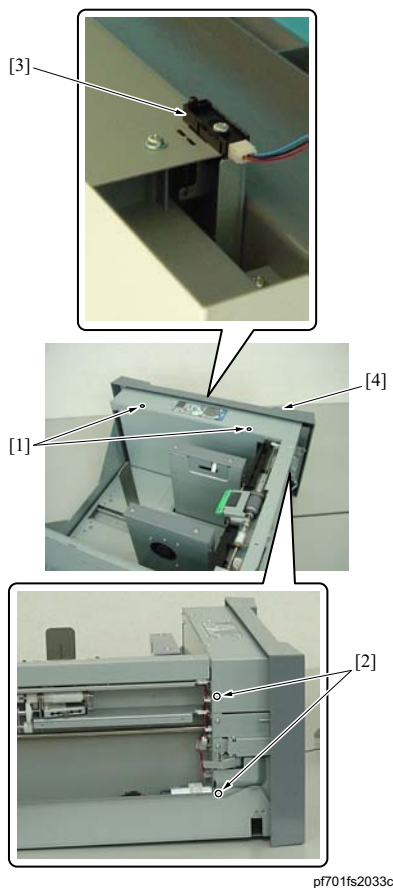
6. Reinstall the above parts following the removal steps in reverse.



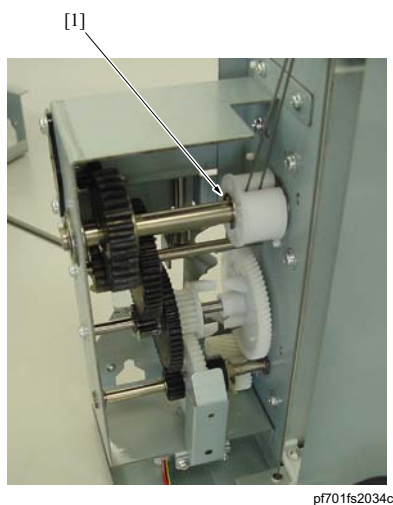
pf701fs2032c

5.2.7 Lift wire**Note**

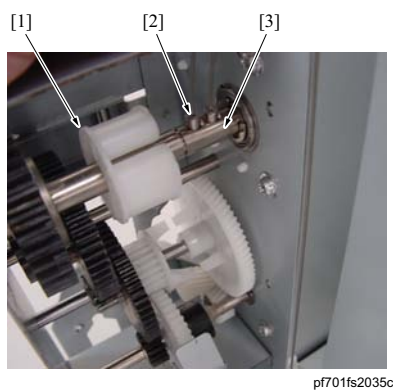
- The removing/reinstalling procedure of the lift wire is the same for trays /1 to /3.

(1) Procedure

1. Remove the tray.
2. Remove 2 screws [1] and then remove the washer and 4 screws [2].
3. Disconnect the connector [3] and remove the front cover [4] of the tray.



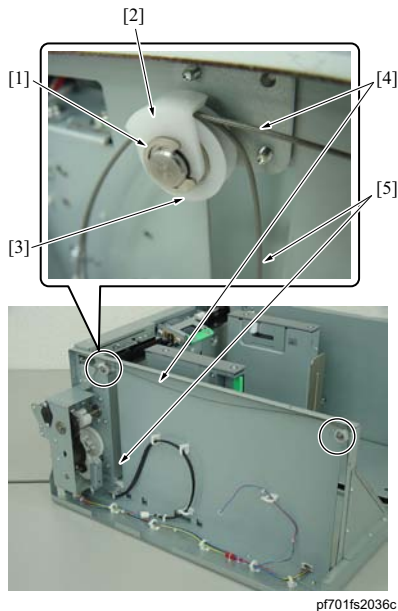
4. Remove the E-ring [1].



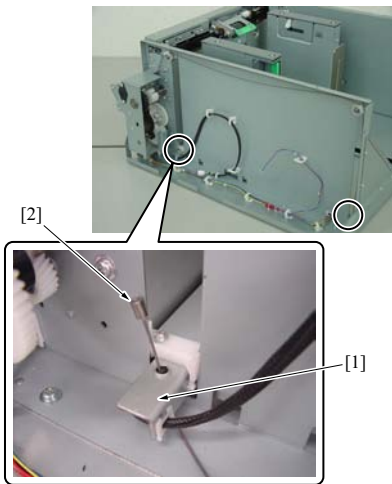
5. With the pulley [1] slid, pull out the wire end [2] from the hole of the shaft [3].

Note

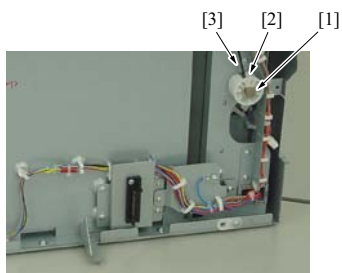
- When reinstalling the pulley, be sure to raise the lift plate a little to give slack to the wire you are inserting. Then insert the wire ends [2], one at a time, into the shaft hole and fasten it with the pulley [1]. In this way, the wires can be inserted easily.



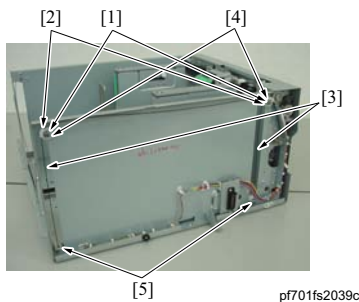
pf701fs2036c



pf701fs2037c



pf701fs2038c



pf701fs2039c

6. Remove the E-rings [1], 1 each, and then remove the wire cover [2].
7. Remove the wires /Fr1 [4] and /Fr2 [5] from the pulley [3].

Note

- When installing the wires, be sure to check to see if they are contained in the wire cover [2] and do not cross each other.

8. Pull out the wire /Fr [2] from the lift plate arm [1].

Note

- When pulling out the wire, pull it out gently and be careful not to damage it with the corner of the metal frame.

9. Remove the E-ring [1].
10. Slide the pulley [2] and remove the wire end [3].

11. Remove the E-ring [1].
12. Remove the pulley cover [2] and then remove the wire /Rr [3] from the pulley [4].
13. Pull out the wire /Rr [3] from the lift plate arm [5].
14. Reinstall the above parts following the removal steps in reverse.

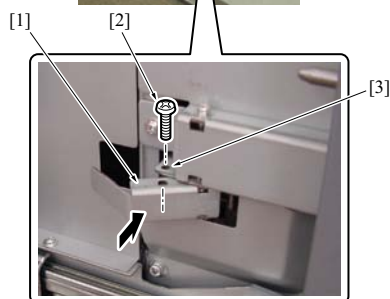
Note

- The wire /Fr is red in color and the wire /Rr is dark blue.
- Be sure to insert each wire into the corresponding shaft hole. The shaft hole on the center side of the tray is used for the shorter wire.
- Check the wires to see if they cross each other.
- After completion of installation, check the lift plate to see if it is horizontal.

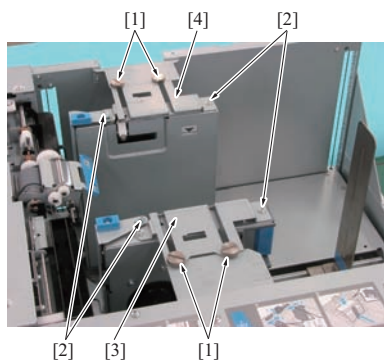
5.2.8 Paper feed assist fan /Fr (FM1/FM3/FM5), /Rr (FM2/FM4/FM6)

Note

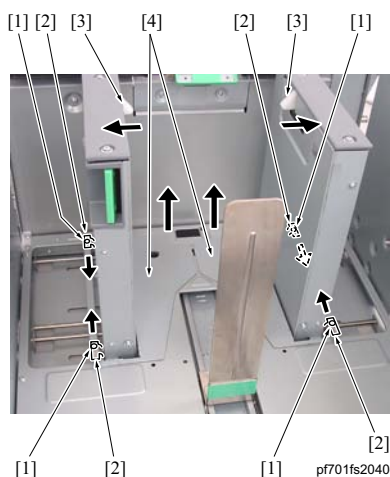
- The removal and reinstallation procedures of the paper feed assist fans are the same for the trays 1 to 3.

(1) Procedure

pf701fs2063c



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pf701fs2040c

1. Remove the tray. (Refer to [G.5.2.6 Tray](#))
2. Push in the release lever [1] and insert the screw [2] into the hole [3] to fasten the release lever [1].
3. Remove the tray front cover. (Refer to [G.5.2.7 Lift wire](#))

4. Remove 4 stepped screws [1] and 4 screws [2], and remove the paper guide support plates /Fr [3] and /Rr [4].

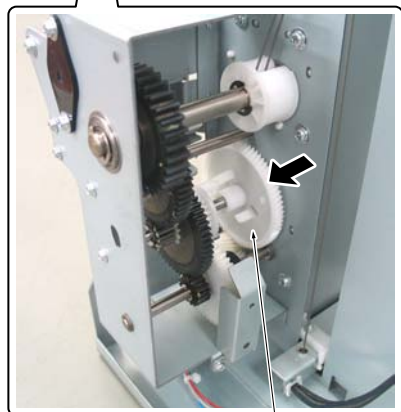
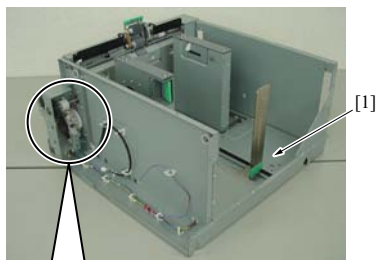
Note

- There is an E-ring on the stepped screw to prevent coming off. Be sure to remove this E-ring together.

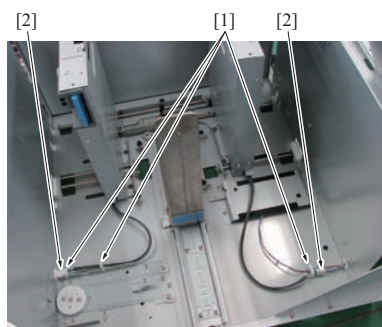
5. Loosen the 2 screws [1] and move the metal fitting [2] in the arrow-marked direction.
6. Hold down the paper stopper [3] and pull out the lift plate cover [4] upward to remove it.

Note

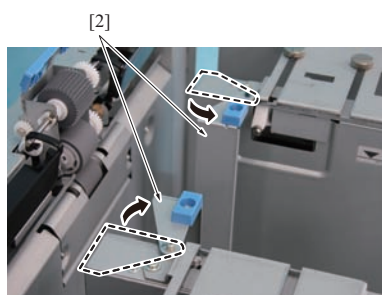
- When removing it, lift up the pick-up roller for evacuation.
- When reinstalling the bracket [2], push it slightly in the opposite direction of removal and fix it with screws.



[2] pf701fs2041c



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a0gct3c034ca

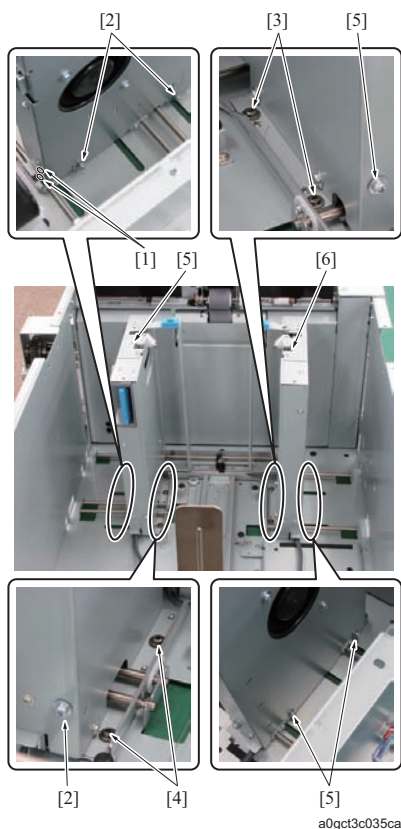
7. Rotate the gear of the drive section by hand to raise up the lift plate [1] upward and move the coupling gear [2] in the arrow-marked direction to fix the lift plate.

8. Remove 3 wire binding bands [1] and disconnect 2 connectors [2].

Note

- To make it clear, the picture shows the condition in which the lift plate is removed.

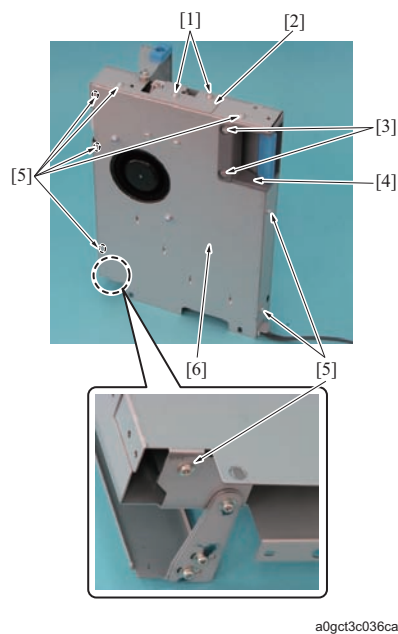
9. Move the 2 small-size guides [1] inward as shown in the picture.



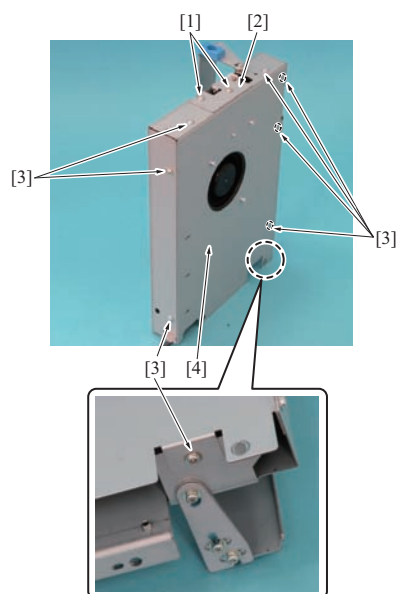
10. Remove 2 screws [1], 3 screws (including the washers) [2], 2 screws [3], 2 screws [4] and 3 screws (including the washers) [5].
11. Remove the paper guides /Fr [6] and /Rr [7].

Note

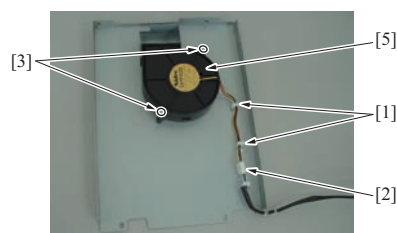
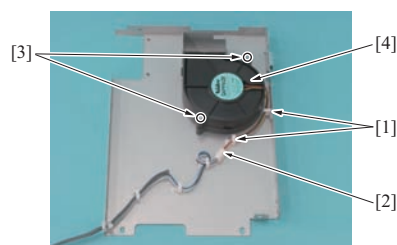
- When reinstalling it, be sure to fasten the paper guides /Fr [6] and /Rr [7] with the screws [3] and the screws [4], 2 each. Then tentatively tighten 2 screws [1], 3 screws [2] and 3 screws [5], tighten them up fully after placing the paper guides /Fr and /Rr in a vertical position.
- To check the verticality of the paper guides, move the guide plate up and down with copy paper placed on the lift plate and check the clearance of the paper guide.



12. Remove 2 screws [1] of the paper guide /Fr and then remove the paper guide mounting plate [2].
13. Remove 2 screws [3] and then remove the lever cover [4].
14. Remove 8 screws [5] and remove the fan motor mounting plate [6].



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15. Remove 2 screws [1] of the paper guide /Rr and then remove the paper stopper mounting plate [2].
16. Remove 8 screws [3] and then remove the fan motor mounting plate [4].

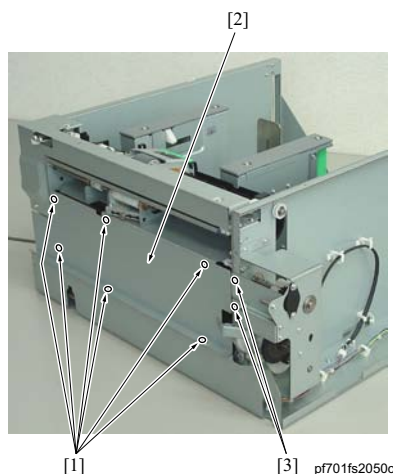
17. Remove the wire binding bands [1], 2 each, and disconnect the connectors [2], 1 each.
18. Remove the screws (nuts) [3], 2 each, and then remove the paper feed assist fans /Fr (FM1/FM3/FM5) [4] and /Rr (FM2/FM4/FM6) [5].
19. Reinstall the above parts following the removal steps in reverse.

Note

- After completion of installation, be sure to conduct the paper size detection adjustments.
(Refer to [I.5.3.1 Tray Size Adjustment \(Tray Adjustment\)](#))

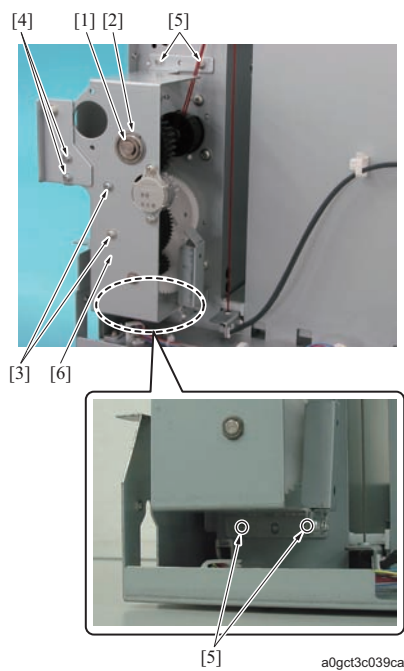
5.2.9 Paper lift motor (M42/M43/M44)**Note**

- The removal and reinstallation procedures of the paper lift motor are the same for the trays 1 to 3.

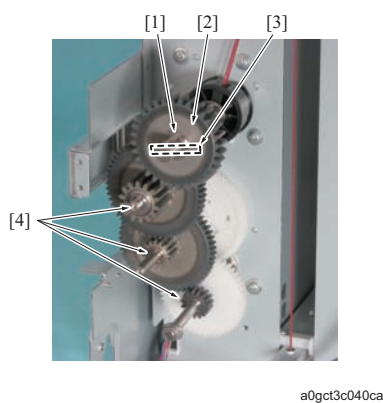
(1) Procedure

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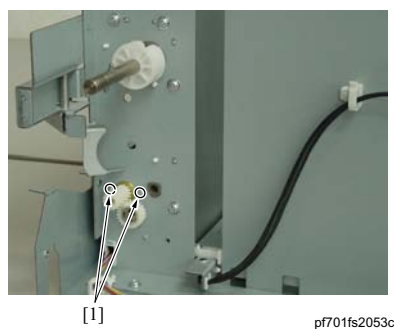
1. Remove the tray. (Refer to [G.5.2.6 Tray](#))
2. Remove the tray front cover. (Refer to [G.5.2.7 Lift wire](#))
3. Remove 6 screws [1], and remove the motor cover [2].
4. Remove 2 screws [3].



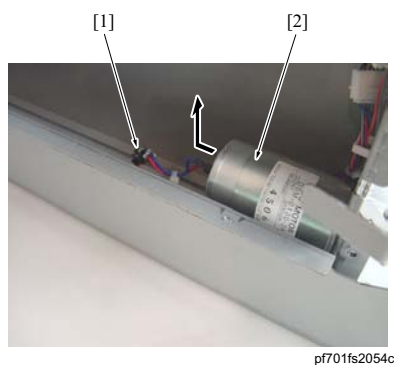
5. Remove the E-ring [1] and remove the bearing [2].
6. Remove 2 screws [3].
7. Remove 2 screws [4].
8. Remove 4 screws [5].
9. Remove the gear mounting plate [6].



10. Remove the E-ring [1] and then remove the gear [2] and the pin [3].
11. Remove 3 gears [4] together with the shaft.



12. Remove 2 screws [1].

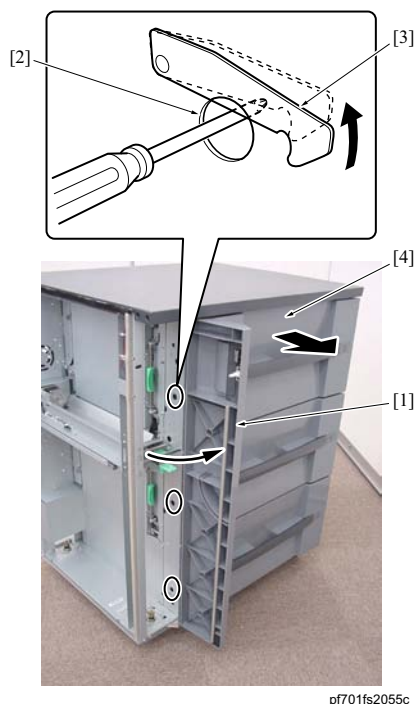


13. Disconnect the connector [1] and remove the paper lift motor (M42/M43/M44) [2].
14. Reinstall the above parts following the removal steps in reverse.

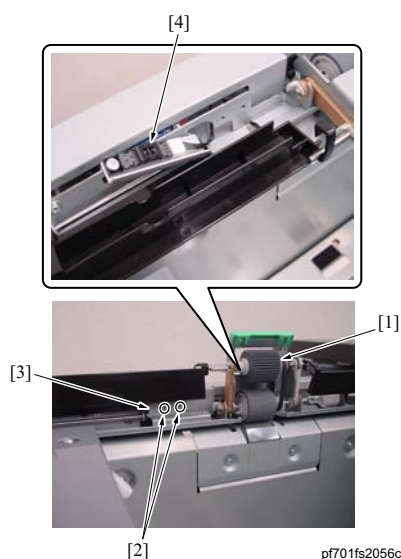
5.2.10 Cleaning the paper feed sensor (PS3/7/11)

(1) Procedure

1. Open the front door [1].
2. Insert a driver into the hole [2] and pull out the tray [4] while lifting up a little the tray lock lever [3].



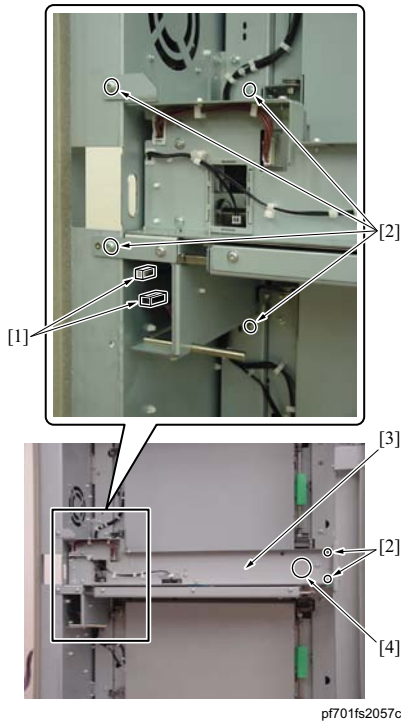
3. Lift up the pick-up roller [1].
4. Remove 2 screws [2] to remove the sensor mounting plate [3], and then turn over the paper feed sensor [4] for cleaning.
5. Reinstall the above parts following the removal steps in reverse.



5.2.11 Conveyance exit unit

Note

- Be sure to avoid holding the conveyance exit unit at the paper-through section. This may deform the paper-through section and affect the paper through, thus resulting in a jam.

(1) Procedure

1. Disconnect 2 connectors [1].
2. Remove 6 screws [2] and then remove the conveyance exit unit [3].

Note

- Be sure to avoid holding the conveyance exit unit at the paper-through section. This may deform the paper-through section and affect the paper through, thus resulting in a jam.

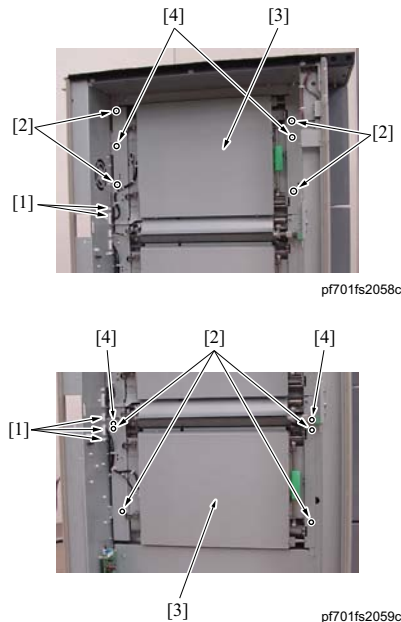
3. Reinstall the above parts following the removal steps in reverse.

Note

- Be sure to reinstall it so that the lever placed at marked with " ! " [4] of the vertical conveyance unit /Lw comes to the upper side.

5.2.12 Vertical conveyance units /Up and /Lw**Note**

- Be sure to avoid holding the vertical conveyance unit at the paper-through section. This may deform the paper-through section and affect the paper through, thus resulting in a jam.

(1) Procedure

1. Remove the exit conveyance unit. (Refer to [G.5.2.11 Conveyance exit unit](#))
2. Disconnect 2 connectors [1].
3. Remove 4 screws [2] and then remove the vertical conveyance unit /Up [3].

Note

- When reinstalling the Vertical conveyance unit, be sure to align it with the positioning pin [4].

4. Disconnect 3 connectors [1].
5. Remove 4 screws [2] and then remove the vertical conveyance unit /Lw [3].

Note

- When reinstalling the Vertical conveyance unit, be sure to align it with the positioning pin [4].

6. Reinstall the above parts following the removal steps in reverse.

6. LU-409/410

6.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover section	Upper door
2		Right cover
3		Front cover
4		Rear cover
5		Front door
6	Up/down section	Lift wire of LU-409
7		Lift wire of LU-410

6.2 Disassembling and assembling procedures

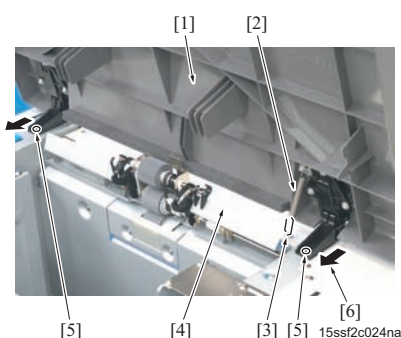
6.2.1 Precautions on disassembling and assembling

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

6.2.2 Upper door

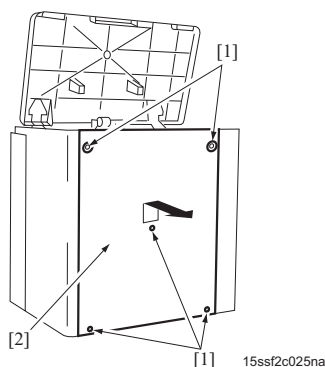
(1) Procedure



- Open the upper door [1].
- Remove the hook [3] of spring [2] from the paper feed guide plate [4].
- Remove 2 screws [5] and slide the upper door [1] in the arrow-marked [6] direction. Then remove it upward.
- Reinstall the above parts following the removal steps in reverse.

6.2.3 Right cover

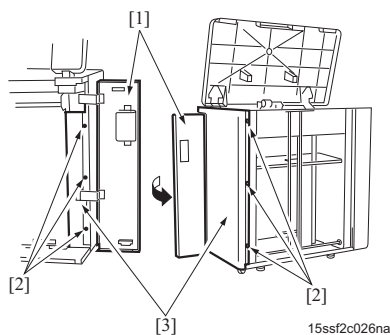
(1) Procedure



- Open the upper door.
- Remove 5 screws [1] and then remove the right cover [2].
- Reinstall the above parts following the removal steps in reverse.

6.2.4 Front cover

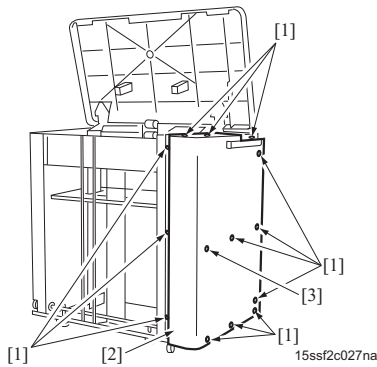
(1) Procedure



- Open the upper door.
- Remove the right cover. (Refer to [G.6.2.3 Right cover](#))
- Open the front door [1] and remove the 6 screws [2].
- Close the front door [1], and remove the front cover [3].
- Reinstall the above parts following the removal steps in reverse.

6.2.5 Rear cover

(1) Procedure



1. Open the upper door.
2. Remove the right cover. (Refer to [G.6.2.3 Right cover](#))
3. Remove 13 screws [1] (for LU-409) and then remove the rear cover [2].

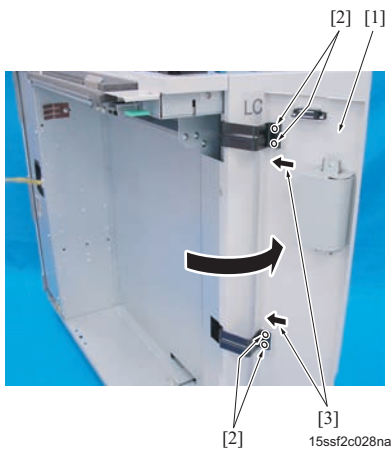
Note

- For LU-410, remove 13 screws [1] and the screw [3], that is, 14 screws in all, and then remove the rear cover [2].

4. Reinstall the above parts following the removal steps in reverse.

6.2.6 Front door

(1) Procedure



1. Open the front door [1].
2. Remove 2 screws [4] and then remove the front door.

Note

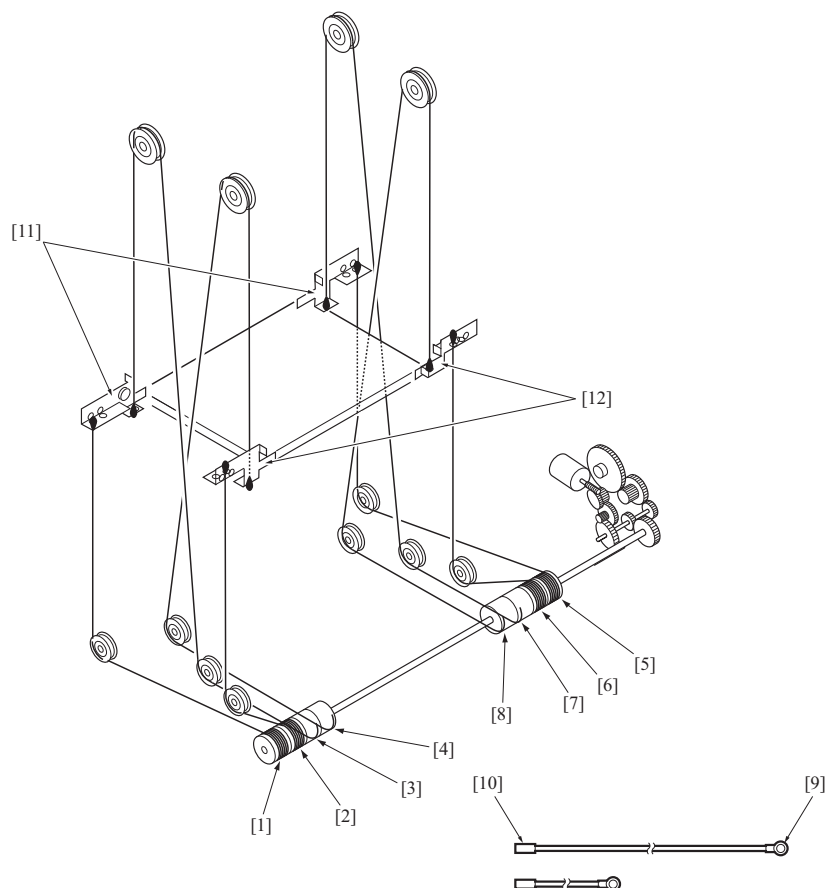
- When installing the front door [1], be sure to push it in the arrow-marked direction [3] and tighten up the screw [2].

3. Reinstall the above parts following the removal steps in reverse.

6.2.7 LU-409 lift wire

Note

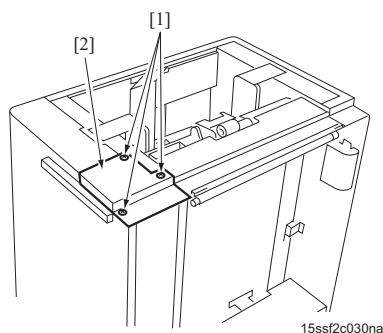
- There are 4 kinds of lift wires different in length. And the following wire: /Fr1 [1], /Fr2 [2], /Fr3 [3], /Fr4 [4], and /Rr1 [5], /Rr2 [6], /Rr3 [7], /Rr4 [8], 8 in all, are employed according to the pulleys arranged from outside toward inside. Lift wires of the same length can be used either on the front and rear sides.
Lift wires /Fr1 [1] and /Rr1 [5]: 769.3mm
Lift wires /Fr2 [2] and /Rr2 [6]: 661.0mm
Lift wires /Fr3 [3] and /Rr3 [7]: 1250.3mm
Lift wires /Fr4 [4] and /Rr4 [8]: 1323.6mm
- When installing the wire, be sure to install the wire end formed of a ball [9] to the wire mounting plate [11] or [12] and the wire end of a cylindrical form [10] to the pulley side.
- For LU-409 and LU-410, the positions on the paper lift plate to which the lift wires /Fr3 [3], /Fr4 [4], /Rr3 [7], /Rr4 [8] are connected are reversed on the right and left sides. Be careful not to mixed the right side with the left side. For LU-409, the lift wires /Fr3 [3] and /Rr3 [7] are connected to the left [11] of the paper lift plate and lift wires /Fr4 [4] and /Rr4 [8] are connected to the right [12].



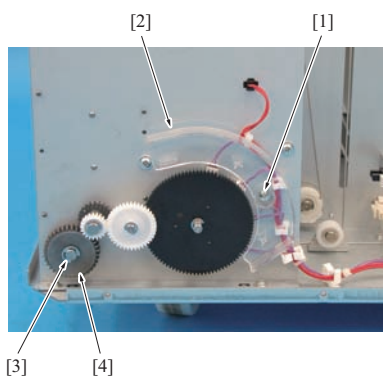
(1) Procedure for removal

Note

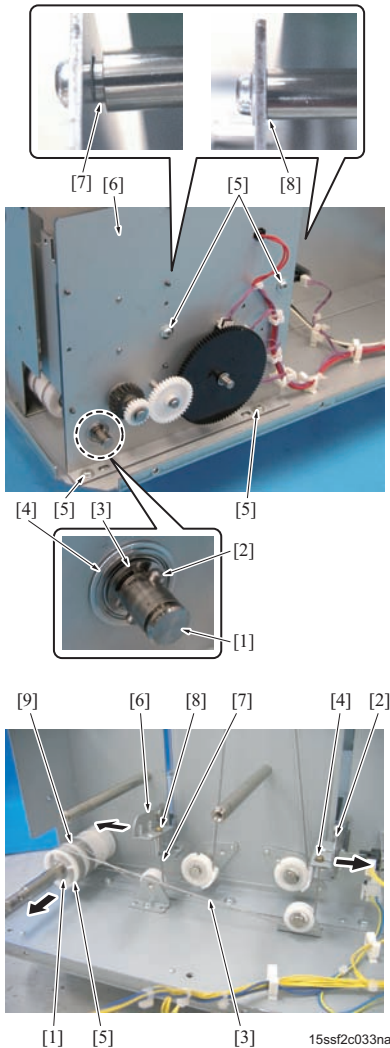
- Be sure to press the tray down switch (SW100) while charging to lower the paper lift plate to the bottom before operation.



1. Open the upper door.
2. Remove the LU from the main body.
3. Remove the following door and covers.
 - Upper door (Refer to [G.7.2.2 HDD installing unit](#))
 - Right cover (Refer to [G.6.2.3 Right cover](#))
 - Front cover (Refer to [G.6.2.4 Front cover](#))
 - Rear cover (Refer to [G.6.2.5 Rear cover](#))
4. Remove 3 screws [1] and then remove the clutch cover [2].



5. Remove the screw [1] and then remove the wiring harness cover [2].
6. Remove the E-ring [3] and remove the gear [4].



7. Pull out the pin [2] from the shaft [1].
8. Remove the E-ring [3] and remove the bearing [4].
9. Remove 4 screws [5] and then remove the paper lift motor assy [6].

Note

- When reinstalling it, be sure to check to see if it gets into the mounting plate securely [8] since the shaft to which it is installed is stepped [7].

10. Remove the E-ring [1].

11. Loosen the lift wire /Rr1 [3] by pressing the rear wire mounting plate /Lt [2] downward and slide the wire end [4] in the arrow-marked direction for removal.

Note

- When installing the wire end [4] of the lift wire /Rr1 [3], be sure to mount it into the installation hole provided on the outside of the rear wire mounting plate /Lt [2].

12. Remove the pulley /Rr1 [5] from the shaft and then remove the lift wire /Rr1 [3].

Note

- When installing it, be sure to wind it 6 turns around the pulley /Rr1 [5] so that the lift wire / Rr1 [3] can be pulled out from above the pulley.
- Be careful that the wire does not overlap each other.

13. Loosen the lift wire /Rr2 [7] by pressing downward the rear wire mounting plate /Rt [6] and slide the wire end [8] in the arrow-marked direction for removal.

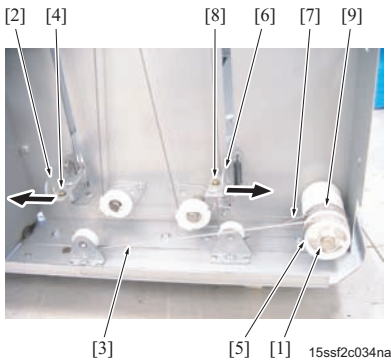
Note

- When installing the wire end [8] of the lift wire /Rr2 [7], be sure to mount it into the installation hole provided on the outside of the rear wire mounting plate /Rt [6]. When the wire end [8] will not get into the installation hole provided on the inside, be sure to rewind closely the lift wire /Rr2 [7] that has been wound around the pulley /Rr2 [9] before installing it.

14. Remove the pulley /Rr2 [9] from the shaft and then remove the lift wire /Rr2 [7].

Note

- When installing it, be sure to wind it 6 turns around the pulley /Rr2 [9] so that the lift wire / Rr2 [7] can be pulled out from above the pulley.
- Be careful that the wire does not overlap each other.



15. Remove the E-ring [1].

16. In the same manner as with Step 11 on the rear side, loosen the lift wire /Fr1 [3] by pressing the front wire mounting plate /Lt [2] downward and slide the wire end [4] in the arrow-marked direction for removal.

Note

- When installing the wire end [4] of the lift wire /Fr1 [3], be sure to mount it into the installation hole provided on the outside of the front wire mounting plate /Lt [2].

17. Remove the pulley /Fr1 [5] from the shaft and then remove the lift wire /Fr1 [3].

Note

- When installing it, be sure to wind it 6 turns around the pulley /Fr1 [5] so that the lift wire / Fr1 [3] can be pulled out from above the pulley.
- Be careful that the wire does not overlap each other.

18. Loosen the lift wire /Fr2 [7] by pressing downward the front wire mounting plate /Rt [6] and slide the wire end [8] in the arrow-marked direction for removal.

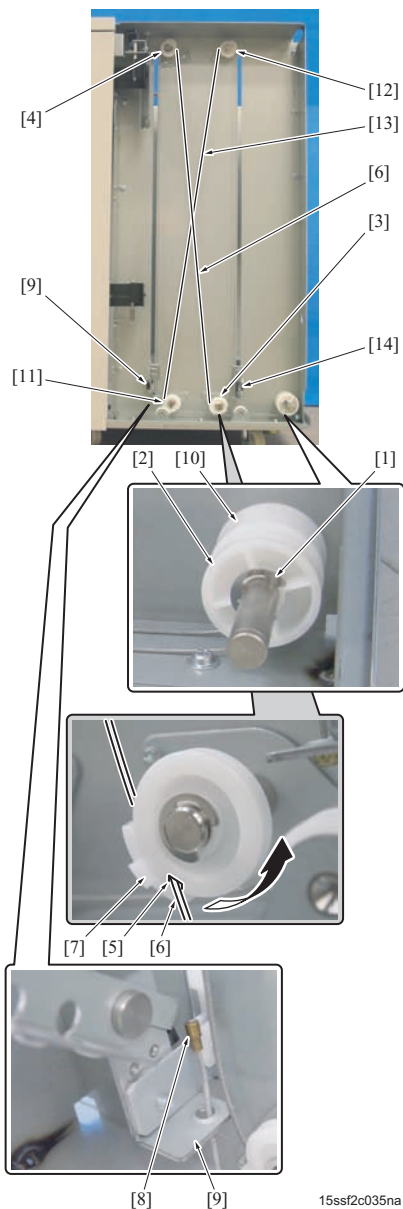
Note

- When installing the wire end [8] of the lift wire /Fr2 [7], be sure to mount it into the installation hole provided on the inside of the front wire mounting plate /Rt [6]. When the wire end [8] will not get into the installation hole provided on the inside, be sure to rewind closely the lift wire /Fr2 [7] that has been wound around the pulley /Fr2 [9] before installing it.

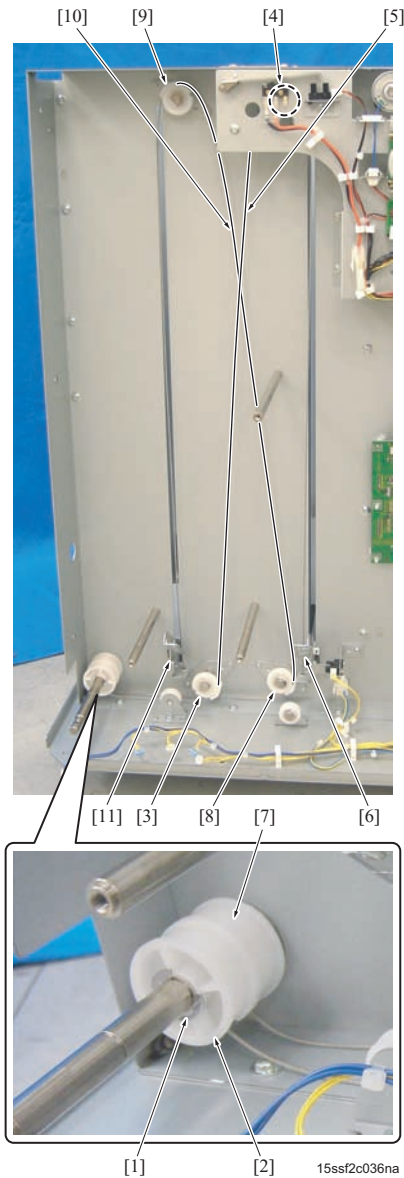
19. Remove the pulley /Fr2 [9] from the shaft and then remove the lift wire /Fr2 [7].

Note

- When installing it, be sure to wind it 6 turns around the pulley /Fr2 [9] so that the lift wire / Fr2 [7] can be pulled out from above the pulley.
- Be careful that the wire does not overlap each other.

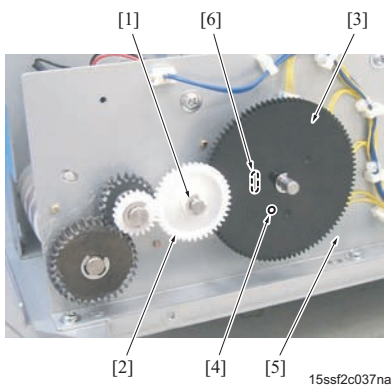


20. Remove the E-ring [1] and then remove the pulley /Fr3 [2] from the shaft.
21. With the lift wire /Fr3 [6] set onto the notch [5] of the pulleys [3] and [4], slide the wire cover [7] and remove the lift wire /Fr3 [6] from the pulleys [3] and [4].
22. Pull out downward the wire end [8] of the lift wire /Fr3 [6] from the front wire mounting plate /Lt [9], and remove the lift wire /Fr3 [6].
23. Remove the pulley /Fr4 [10] from the shaft. And in the same manner as with Step 21, remove the lift wire /Fr4 [13] from the pulleys [11] and [12].
24. Pull out downward the lift wire /Fr4 [13] from the front wire mounting plate /Rt [14] for removal.



25. Remove the E-ring [1] and then remove the pulley /Rr3 [2] from the shaft.
26. In the same manner as with Step 21, remove the lift wire /Rr3 [5] from the pulleys [3] and [4].
27. In the same manner as with Step 22, remove the lift wire /Rr3 [5] from the rear wire mounting plate / Lt [6].
28. In the same manner as with Step 23, remove the pulley /Rr4 [7] from the shaft and then remove the lift wire /Rr4 [10] from the pulleys [8] and [9].
29. In the same manner as with Step 24, pull out the lift wire /Rr4 [10] from the rear wire mounting plate /Rt [11] for removal.

(2) Procedure for reinstallation



1. For the removal Step 29 to Step 6, reinstall the parts following the removal steps in reverse.
2. Remove the E-ring [1] and then remove the idle gear [2].
3. With a screwdriver inserted into the hole [4] of the remaining paper detection gear [3], set it onto the position of the hole [6] of the paper lift motor mounting plate [5].

Note

- Be sure to position the 2 holes with the paper lift plate at its lower most position.

4. Insert the idle gear [2] into the shaft while taking care that the position of the hole [4] of the remaining paper detection gear [3] does not move, and then reinstall the E-ring [1].
5. For the removal Step 4 to Step 1, reinstall the parts following the removal steps in reverse.

Note

- After installing, carry out the paper lift plate horizontal adjustment. (Refer to [I.13.3 Paper lift plate horizontal adjustment](#))

6.2.8 LU-410 lift wire

Note

- There are 4 kinds of lift wires different in length. And the following wire: /Fr1 [1], /Fr2 [2], /Fr3 [3], / Fr4 [4], and /Rr1 [5], /Rr2 [6], / Rr3 [7], /Rr4 [8], 8 in all, are employed according to the pulleys arranged from inside toward outside. Lift wires of the same length can be used either on the front and rear sides.

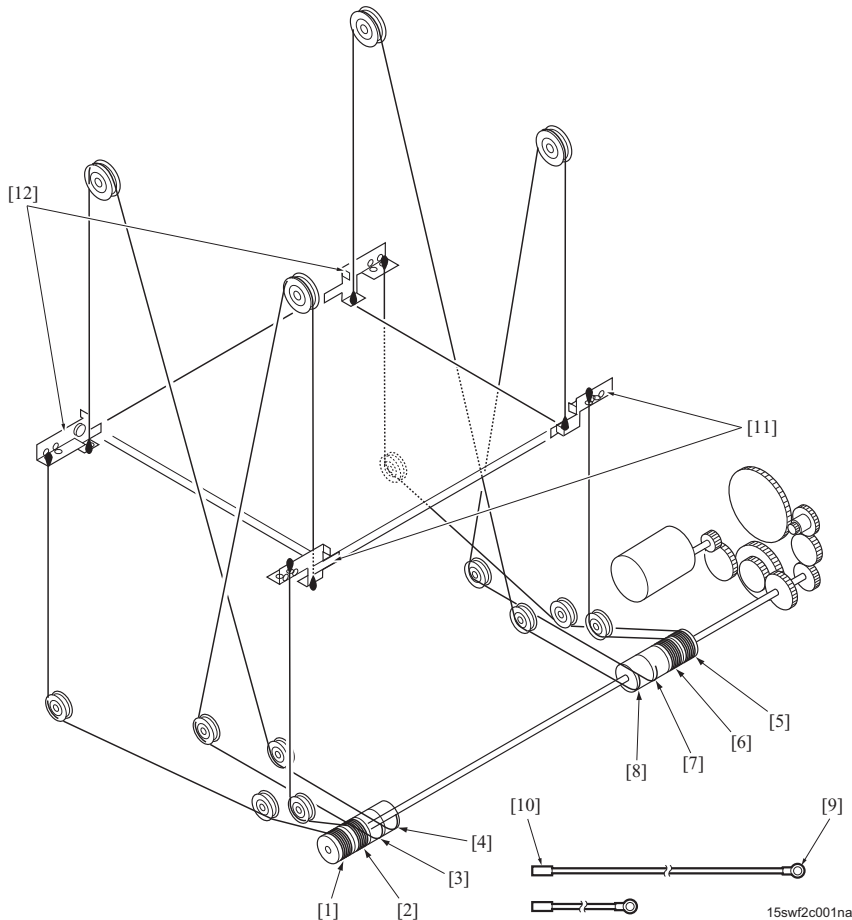
Lift wires /Fr1 [1] and /Rr1 [5]: 1057.3mm

Lift wires /Fr2 [2] and /Rr2 [6]: 692.1mm

Lift wires /Fr3 [3] and /Rr3 [7]: 1321.7mm

Lift wires /Fr4 [4] and /Rr4 [8]: 1303.1mm

- When installing the wire, be sure to install the wire end formed of a ball [9] to the wire mounting plate [11] or [12] and the wire end of a cylindrical form [10] to the pulley side.
- For LU-409 and LU-410, the positions on the paper lift plate to which the lift wires /Fr3 [3], /Fr4 [4], /Rr3 [7], /Rr4 [8] are connected are reversed on the right and left sides. Be careful not to mix the right side with the left side. For LU-410, the lift wires /Fr3 [3] and /Rr3 [7] are connected to the right [11] of the paper lift plate and lift wires /Fr4 [4] and /Rr4 [8] are connected to the left [12].



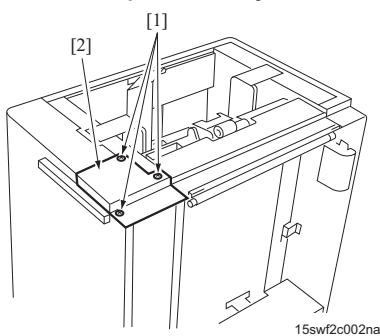
(1) Procedure for removal

⚠ Note:

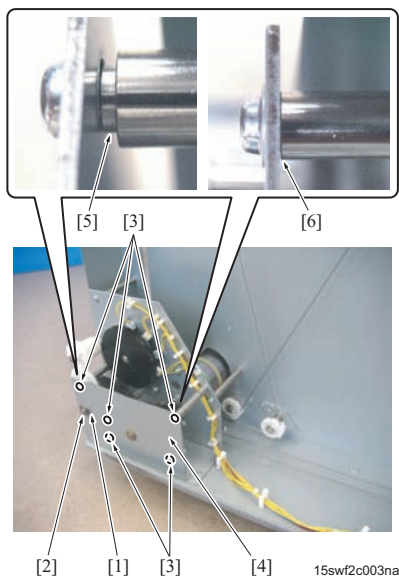
- Make sure to unplug the power cord of the main body from the power outlet when it is connected to the main body.

Note

- Be sure to press the tray down switch (SW100) while charging to lower the paper lift plate to the bottom before operation.



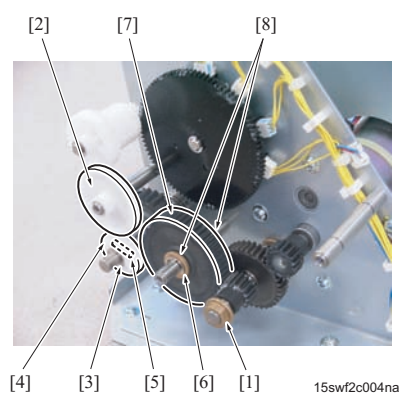
1. Open the upper door.
2. Remove the LU from the main body.
3. Remove the following door and covers.
 - Upper door (Refer to [G.6.2.2 Upper door](#))
 - Right cover (Refer to [G.6.2.3 Right cover](#))
 - Front cover (Refer to [G.6.2.4 Front cover](#))
 - Rear cover (Refer to [G.6.2.5 Rear cover](#))
4. Remove 3 screws [1] and then remove the clutch cover [2].



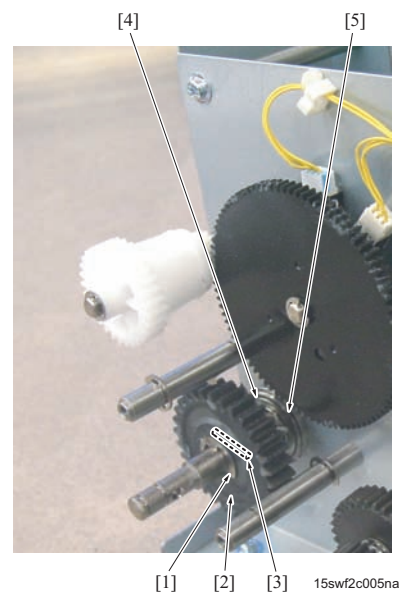
5. Remove the E-ring [1] and the bearing [2].
6. Remove 5 screws [3] and remove the gear cover [4].

Note

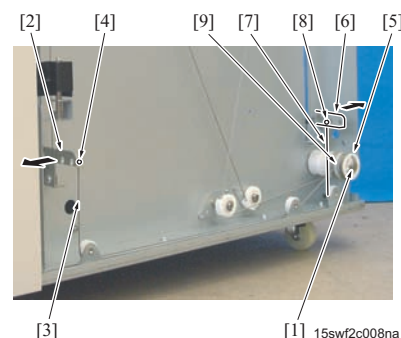
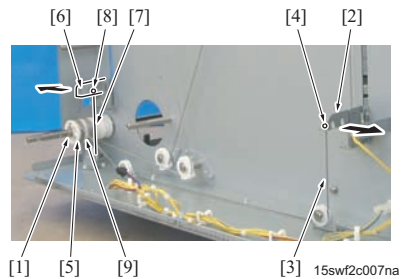
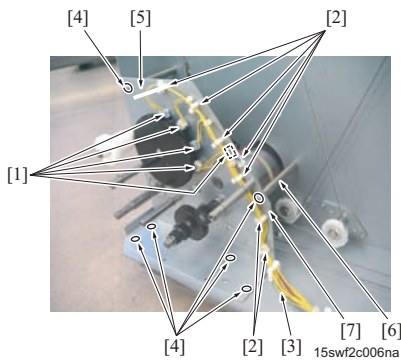
- When reinstalling it, be sure to check to see if it gets into the mounting plate securely [6] since the shaft to which it is installed is stepped [5].



7. Remove the bearing [1].
8. Remove the idle gear [2].
9. Remove the E-ring [3] and then remove the gear [4] and the pin [5].
10. Remove the E-ring [6] and then remove the gear [7] together with 2 bearings [8] provided on either side of the gear [7].



11. Remove the E-ring [1] and then remove the gear [2] and the pin [3].
12. Remove the E-ring [4] and then remove the bearing [5].



13. Disconnect 5 connectors [1].
14. Remove the wiring [3] from the clamps [2] provided at the 7 positions.
15. Remove 6 screws [4] and then remove the paper lift motor assy [5].

Note

- When reinstalling it, be sure to check to see if it gets into the mounting plate [7] securely since the shaft [6] to which it is installed is stepped.

16. Remove the E-ring [1].
17. Loosen the lift wire /Rr1 [3] by pressing the rear wire mounting plate /Lt [2] downward and slide the wire end [4] in the arrow-marked direction for removal.

Note

- When installing the wire end [4] of the lift wire /Rr1 [3], be sure to mount it into the installation hole provided on the outside of the rear wire mounting plate /Lt [2].

18. Remove the pulley /Rr1 [5] from the shaft and then remove the lift wire /Rr1 [3].

Note

- When installing it, be sure to wind it 6 turns around the pulley /Rr1 [5] so that the lift wire / Rr1 [3] can be pulled out from above the pulley.
- Be careful that the wire does not overlap each other.

19. Press downward the rear wire mounting plate /Rt [6] and slide the wire end [8] of the lift wire /Rr2 [7] in the arrow-marked direction for removal.

Note

- When installing the wire end [8] of the lift wire /Rr2 [7], be sure to mount it into the installation hole provided on the outside of the rear wire mounting plate /Rt [6]. When the wire end [8] will not get into the installation hole provided on the inside, be sure to rewind closely the lift wire /Rr2 [7] that has been wound around the pulley /Rr2 [9] before installing it.

20. Remove the pulley /Rr2 [9] from the shaft and then remove the lift wire /Rr2 [7].

Note

- When installing it, be sure to wind it 6 turns around the pulley /Rr2 [9] so that the lift wire / Rr2 [7] can be pulled out from above the pulley.
- Be careful that the wire does not overlap each other.

21. Remove the E-ring [1].
22. In the same manner as with Step 11 on the rear side, loosen the lift wire /Fr1 [3] by pressing the front wire mounting plate /Lt [2] downward and slide the wire end [4] in the arrow-marked direction for removal.

Note

- When installing the wire end [4] of the lift wire /Fr1 [3], be sure to mount it into the installation hole provided on the outside of the front wire mounting plate /Lt [2].

23. Remove the pulley /Fr1 [5] from the shaft and then remove the lift wire /Fr1 [3].

Note

- When installing it, be sure to wind it 6 turns around the pulley /Fr1 [5] so that the lift wire / Fr1 [3] can be pulled out from above the pulley.
- Be careful that the wire does not overlap each other.

24. Loosen the lift wire /Fr2 [7] by pressing downward the front wire mounting plate /Rt [6] and slide the wire end [8] in the arrow-marked direction for removal.

Note

- When installing the wire end [8] of the lift wire /Fr2 [7], be sure to mount it into the installation hole provided on the inside of the front wire mounting plate /Rt [6]. When the wire end [8] will not get into the installation hole provided on the inside, be sure to rewind closely the lift wire /Fr2 [7]

that has been wound around the pulley /Fr2 [9] before installing it.

25. Remove the pulley /Fr2 [9] from the shaft and then remove the lift wire /Fr2 [7].

Note

- When installing it, be sure to wind it 6 turns around the pulley /Fr2 [9] so that the lift wire / Fr2 [7] can be pulled out from above the pulley.
- Be careful that the wire does not overlap each other.

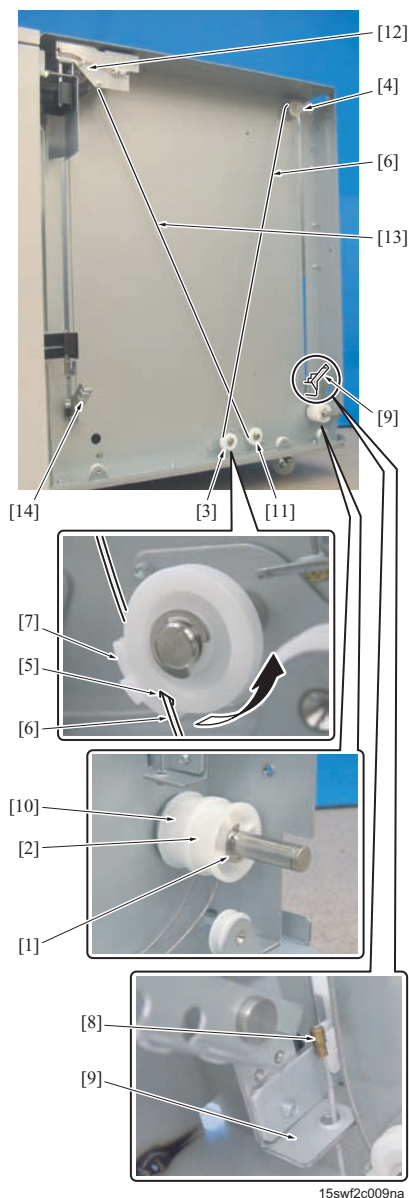
26. Remove the E-ring [1] and then remove the pulley /Fr3 [2] from the shaft.

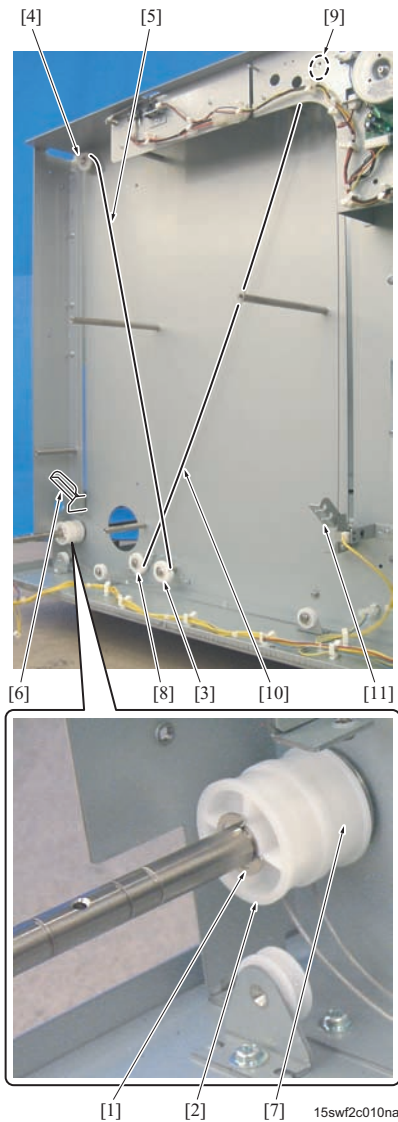
27. With the lift wire /Fr3 [6] set onto the notch [5] of the pulleys [3] and [4], slide the wire cover [7] and remove the lift wire /Fr3 [6] from the pulleys [3] and [4].

28. Pull out downward the wire end [8] of the lift wire /Fr3 [6] from the front wire mounting plate /Lt [9], and remove the lift wire /Fr3 [6].

29. Remove the pulley /Fr4 [10] from the shaft. And in the same manner as with Step 27, remove the lift wire /Fr4 [13] from the pulleys [11] and [12].

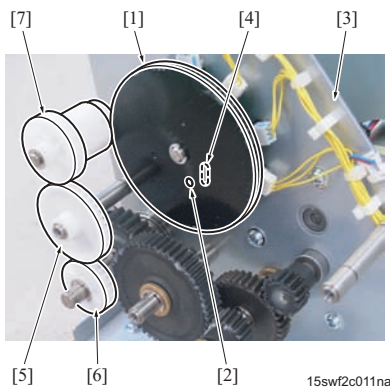
30. Pull out downward the wire end [8] from the front wire mounting plate /Rt [14], and remove the lift wire /Fr4 [13].





31. Remove the E-ring [1] and then remove the pulley /Rr3 [2] from the shaft.
32. In the same manner as with Step 21, remove the lift wire /Rr3 [5] from the pulleys [3] and [4].
33. In the same manner as with Step 22, remove the lift wire /Rr3 [5] from the rear wire mounting plate / Lt [6].
34. In the same manner as with Step 23, remove the pulley /Rr4 [7] from the shaft and then remove the lift wire /Rr4 [10] from the pulleys [8] and [9].
35. In the same manner as with Step 24, pull out the lift wire /Rr4 [10] from the rear wire mounting plate /Rt [11] for removal.

(2) Procedure for reinstallation



1. For the removal Step 35 to Step 9, reinstall the parts following the removal steps in reverse.
2. With a screwdriver inserted into the hole [2] of the remaining paper detection gear [1], set it onto the position of the hole [4] of the paper lift motor mounting plate [3].

Note

- Be sure to position the 2 holes with the paper lift plate at its lower most position.

3. Insert the idle gear [5] into the shaft while taking care that the position of the hole [2] of the remaining paper detection gear [1] does not move.

Note

- While taking note of the direction in which the idle gear [5] is inserted, check to see if it is engaged securely with the gears [6] and [7].

4. For the removal Step 7 to Step 1, reinstall the parts following the removal steps in reverse.

Note

- After installing, carry out the paper lift plate horizontal adjustment. (Refer to [I.13.3 Paper lift plate horizontal adjustment](#))

7. RH-101

7.1 List of disassembling and assembling parts

No.	Section	Parts name
1	HDD installing unit	HDD installing unit

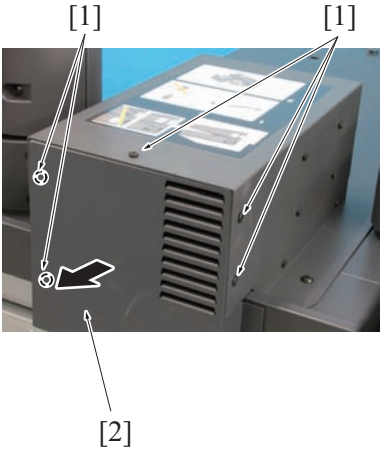
7.2 Disassembling and assembling procedures

7.2.1 Precautions on disassembling and assembling

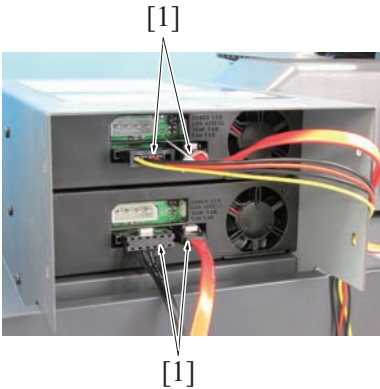
- ⚠ CAUTION
- Be sure to unplug the power plug from the power outlet.

7.2.2 HDD installing unit

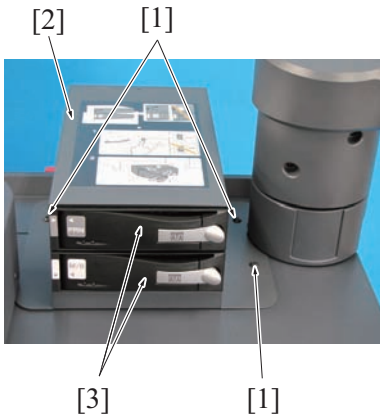
(1) Procedure



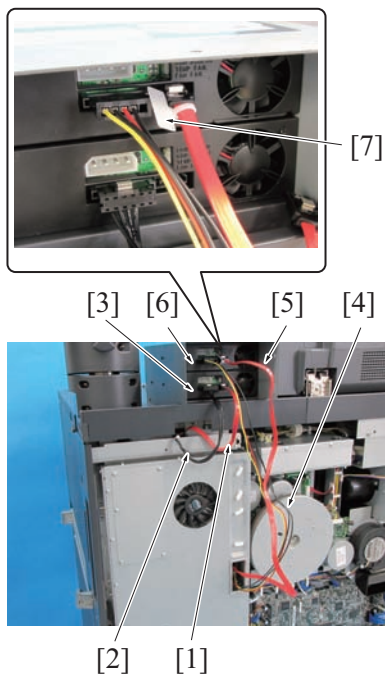
1. Remove 5 screws [1], and remove the rear cover [2] of the HDD installing unit.



2. Disconnect 4 connectors [1].



3. Remove 3 screws [1] and then remove the HDD installing unit [2].
- Note**
- Make sure that the HDD unit [3] is locked, or that the HDD unit [3] is uninstalled.
4. Reinstall the preceding parts following the removal steps in reverse.

**Note**

- Connect the signal wiring harness [1] and the power source wiring harness [2] to M/B side (lower stage) [3].
- Connect the power feed wiring harness [4] and the I/F wiring harness [5] to the printer side (upper stage) [6].
- The wiring harness band [7] is attached to the I/F wiring harness [5] as a mark.
- To make it clear, the picture shows the condition in which the main body rear cover is removed.

8. EF-102

8.1 List of disassembling and assembling parts

The procedure is the same as that of fusing unit of 1250/1250P/1052.

No.	Section	Parts name
1	Fusing section	Fusing temperature sensor /1
2		Fusing temperature sensor /3
3		Thermostat /1, /2
4		Thermostat /3

9. RU-509/HM-102

9.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Front door
2		Rear cover
3		Upper cover
4	Humidification section (HM-102)	Humidification unit
5		Water feed tank
6	Conveyance section	Color density sensor unit
7		Shutter
8	Others	RU control board (RUCB)

9.2 Disassembling and assembling procedures

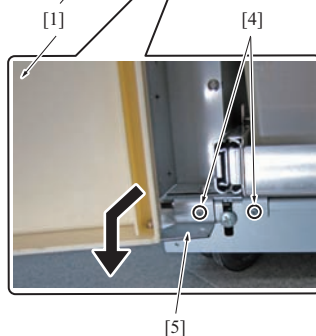
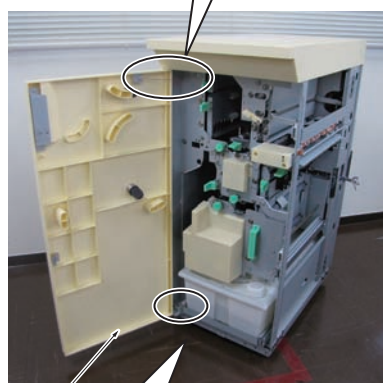
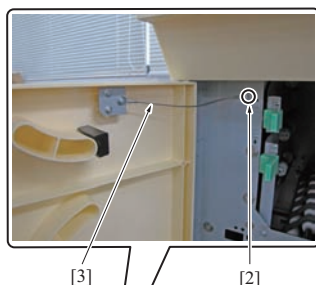
9.2.1 Precautions on disassembling and assembling

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

9.2.2 Front door

(1) Procedure



1. Open the front door [1], remove the screw [2] and then remove the wire [3].

Note

- When reinstalling, be sure to set so that the wire [3] becomes level.

2. Remove 2 screws [4] and then remove the door support bracket [5] and the front door [1] in the arrow-marked direction.

Note

- The front door [1] is heavy. Support it securely when removing it.

3. Reinstall the above parts following the removal steps in reverse.

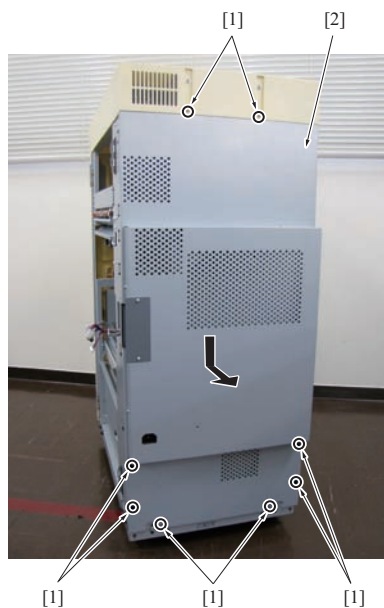
Note

- When reinstalling, check that the front door [1] closes securely.

9.2.3 Rear cover

(1) Procedure

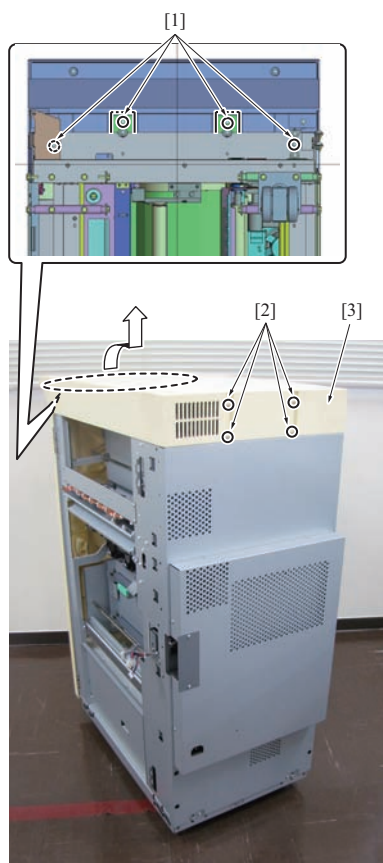
1. Remove the 8 screws [1] and then remove the rear cover [2].
2. Reinstall the above parts following the removal steps in reverse.



9.2.4 Upper cover

(1) Procedure

1. Remove 4 screws [1].
2. Remove 4 screws [2].
3. Remove the upper cover [3].
4. Reinstall the above parts following the removal steps in reverse.

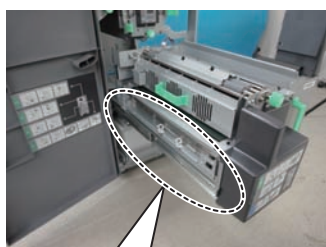


9.2.5 Humidification unit

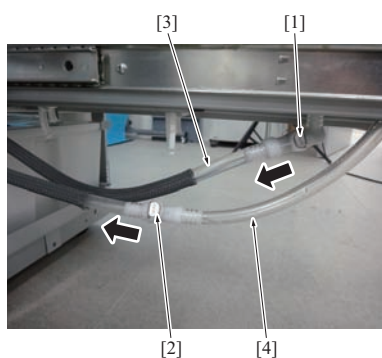
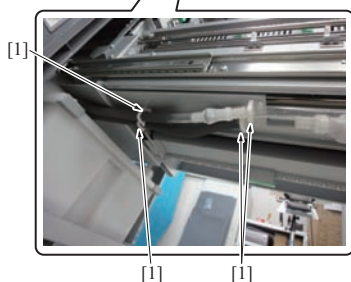
(1) Procedure



1. Remove the rear cover. (Refer to [G.9.2.3 Rear cover](#))
2. Open the front door [1].
3. Pull out the humidification unit [2].



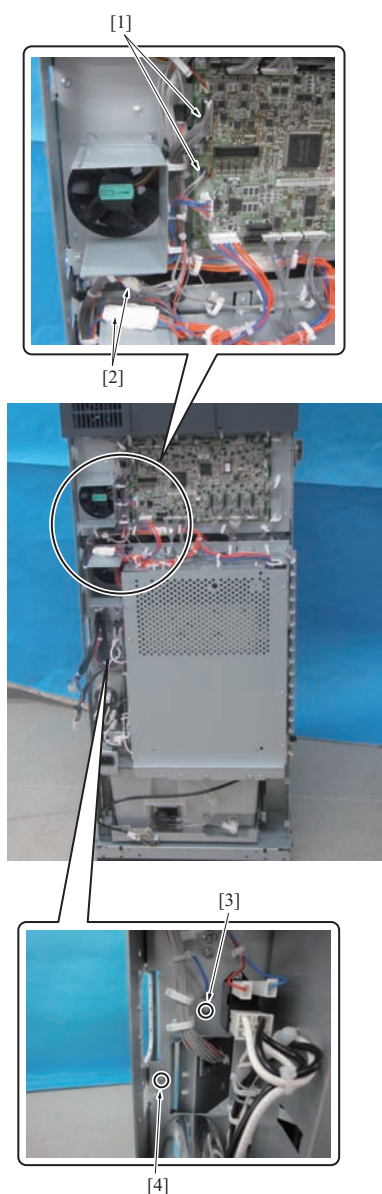
4. Release 4 clamps [1].



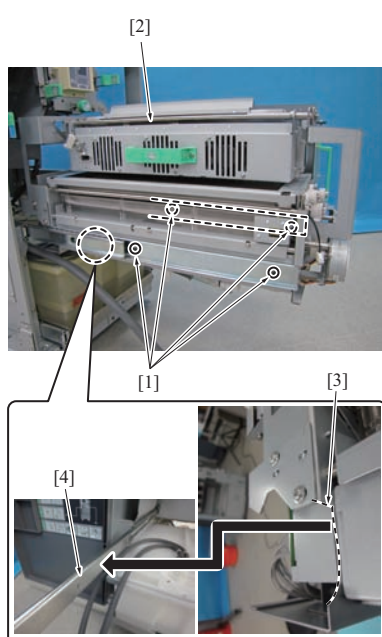
5. Cut off the connection of the pipes [3] and [4] while pressing the brackets [1] and [2].

Note

- Discharge water inside the cut pipe [4] to proper container, otherwise water leaks when cutting off the connection of the pipe [4].



6. Remove 2 connectors [1] from the board.
7. Remove 2 relay connectors [2].
8. Remove the screw [3] and then remove the ground.
9. Remove the screw [4] and then cut off the connecting arm.

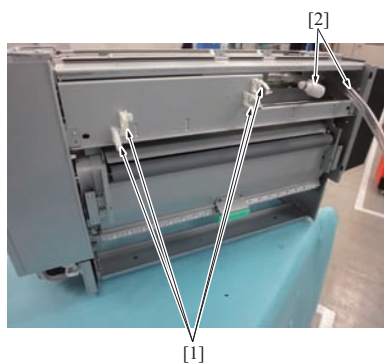


10. Remove 4 screws [1] from the right and left rails.
11. Remove the humidification unit [2].

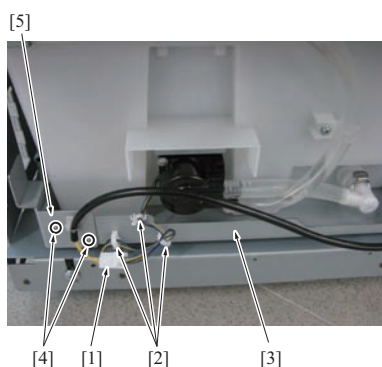
Note

- When removing the humidification unit [2], never hold the parts easily deformed such as Jam clearing lever.
- When reinstalling the humidification unit [2], be sure to fit the groove on the left side of the unit [3] to the rail [4] before putting the entire unit on the rail.

12. Reinstall the above parts following the removal steps in reverse.

**Note**

- When putting down the humidification unit, put a support board or something under it not to damage the clamp [1] or the pipe [2].

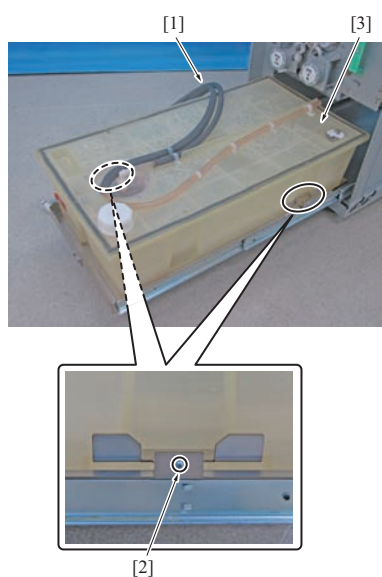
9.2.6 Water feed tank**(1) Procedure**

1. Open the front door. (Refer to [G.9.2.2 Front door](#))
2. Remove the rear cover. (Refer to [G.9.2.3 Rear cover](#))
3. Disconnect the connector [1].
4. Release the wiring harness from all clamps [2].

Note

- Be sure to put the removed connector in the water feed tank tray [3].

5. Remove 2 screws [4] and then remove the stopper [5].



6. Pull out the humidification unit and remove 2 pipes. (Refer to [G.9.2.5 Humidification unit](#))
7. Pull out the water feed tank. (Refer to [F.11.3.2 Replacing the water feed filter](#))

Note

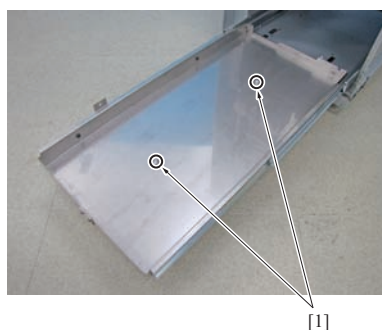
- Be sure to put the pipe to the left [1] beforehand so that it does not get stuck inside.

8. Put the humidification unit to the original position.

Note

- Be sure to pull out the water feed tank before putting back the humidification unit so that the pipe does not get stuck inside.

9. Remove 2 screws [2] and then remove the water feed tank [3].



10. Reinstall the above parts following the removal steps in reverse.

Note

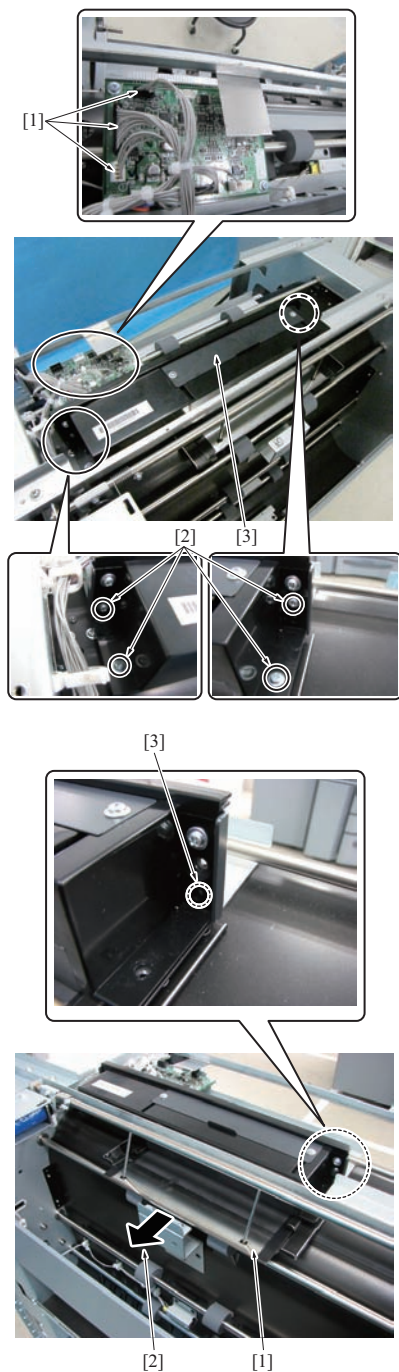
- When reinstalling the water feed tank, be sure to set the positioning [1] hole to the projection of the water feed tank tray.

9.2.7 Color density sensor unit

Note

- When replacing the color density sensor unit, replace the shutter at the same time.

(1) Procedure



1. Remove the upper cover. (Refer to [G.9.2.4 Upper cover](#))
2. Disconnect the 3 connectors [1].
3. Remove 4 screws [2] and then remove the color density sensor unit [3].

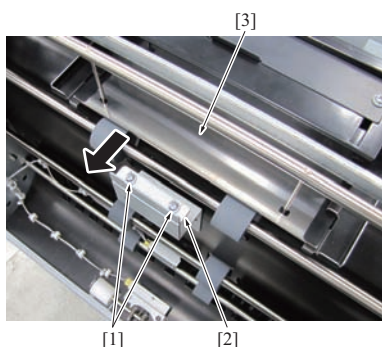
4. Reinstall the above parts following the removal steps in reverse.

Note

- When reinstalling the unit, be sure to set the projection of the mounting plate in the hole [3] of the unit by pressing the color sensor unit while pulling the shutter [1] in the arrow-marked direction [2].

9.2.8 Shutter

(1) Procedure



1. Remove the upper cover. (Refer to [G.9.2.4 Upper cover](#))
2. Loosen 2 screws [1] and then remove the stopper [2].
3. Pull out the shutter [3] in the arrow-marked direction to remove.
4. Reinstall the above parts following the removal steps in reverse.

9.2.9 Note for replacing the board

(1) Procedure

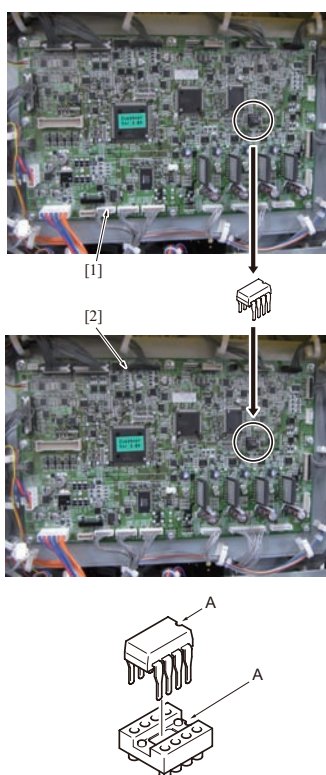
⚠ Note

- When the RU control board (RUCB) is replaced, be sure to replace the EEPROM (IC33).

1. Install EEPROM (IC33) of the old control board [1] to the new control board [2].

Note

- Be sure to install the "A" sections of the EEPROM (IC33) in the same direction.
- After replacing the RU control board (RUCB), conduct rewriting of the firmware. (Refer to [J. Rewriting of firmware](#))



10. RU-510

10.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Front door
2		Rear cover
3		Left cover
4		Upper cover
5	Others	RU control board (RUCB)

10.2 Disassembling and assembling procedures

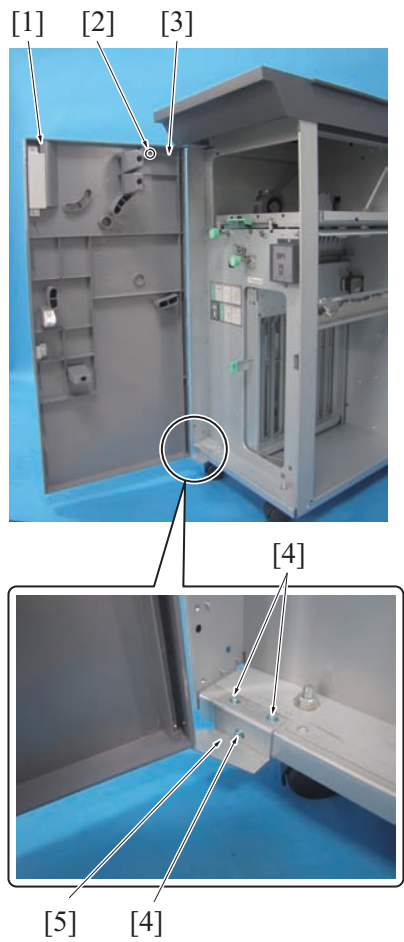
10.2.1 Precautions on disassembling and assembling

CAUTION

- Be sure to unplug the power plug from the power outlet.

10.2.2 Front door

(1) Procedure



1. Open the front door [1] and remove the screw [2] and release the wire [3].
2. Remove the 3 screws [4] and then remove the door support bracket [5] and the front door [1].

Note

- The front door [1] is heavy. Support it securely when removing it.

3. Reinstall the preceding parts following the removal steps in reverse.

10.2.3 Rear cover

(1) Procedure



1. Remove 5 screws [1] and then remove the rear cover [2].
2. Reinstall the preceding parts following the removal steps in reverse.

10.2.4 Left cover

(1) Procedure

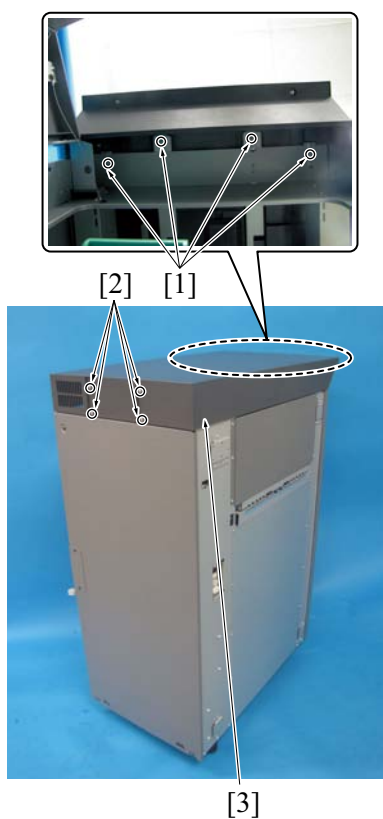


1. Remove 10 screws [1] and then remove the left cover [2].
2. Reinstall the preceding parts following the removal steps in reverse.

10.2.5 Upper cover

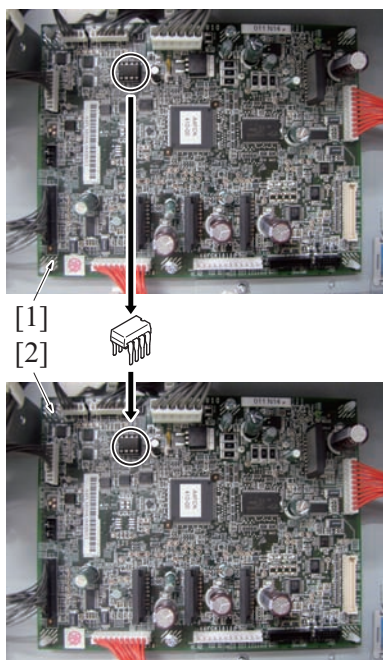
(1) Procedure

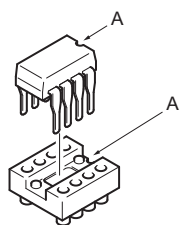
1. Remove 4 screws [1].
2. Remove 4 screws [2].
3. Remove the upper cover [3].
4. Reinstall the preceding parts following the removal steps in reverse.



10.2.6 Note for replacing the board

1. When the RU control board (RUCB) is replaced, be sure to replace the EEPROM (IC19). Install EEPROM (IC19) of the old control board [1] to the new control board [2].





a04jf2c017ca

Note

- Be sure to install the "A" sections of the EEPROM (IC19) in the same direction.
- After replacing the RU control board (RUCB), conduct rewriting of the firmware.
(Refer to [J. Rewriting of firmware](#))

11. ZU-608

11.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover section	Rear cover
2		Upper cover
3		Front cover
4	Z-folding section	Z-folding/conveyance unit
5	Conveyance section	Punch motor (M604)
6		Registration motor (M601)
7		Main motor cooling fan (FM601)
8		Paper edge sensor board (PESB)
9	Punch section	Punch unit
10		Punch motor (M604)
11		Punch shift motor (M605)
12	Others	ZU control board (ZUCB)

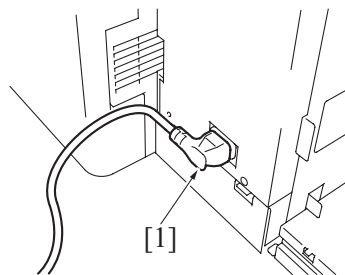
11.2 Disassembling and assembling procedures

11.2.1 Precautions on disassembling and assembling

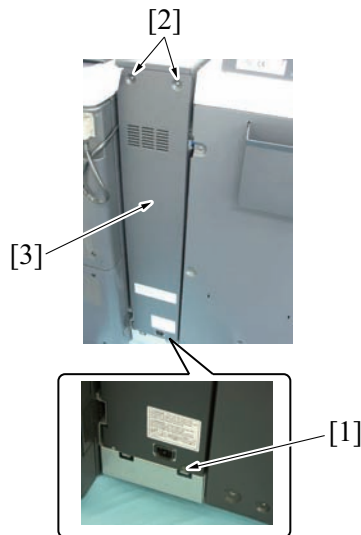
⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

11.2.2 Rear cover



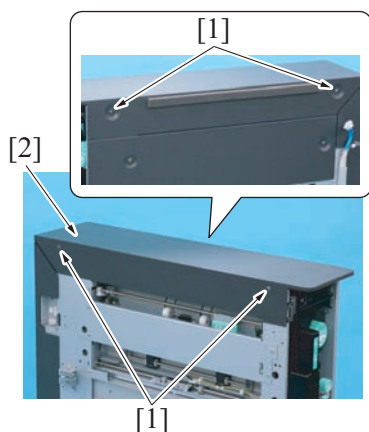
- Remove the power code [1].



- Loosen the screw [1], and remove 2 screws [2], and remove the rear cover [3].

- Reinstall the above parts following the removal steps in reverse.

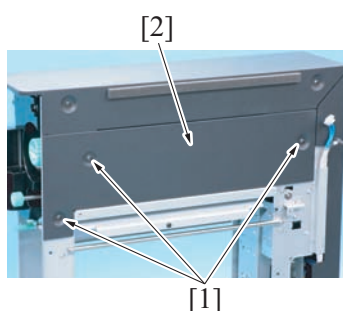
11.2.3 Upper cover



1. Remove 4 screws [1] and then remove the upper cover [2].

2. Reinstall the above parts following the removal steps in reverse.

11.2.4 Front cover



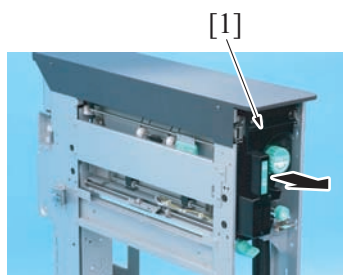
1. Remove 3 screws [1] and then remove the right cover [2].

2. Reinstall the above parts following the removal steps in reverse.

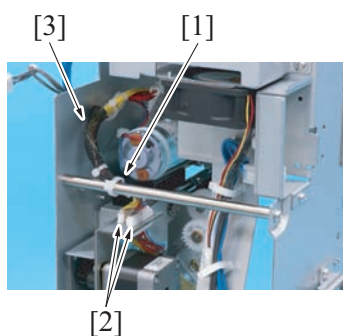
11.2.5 Punch unit

1. Remove the rear cover.

[G.11.2.2 Rear cover](#)



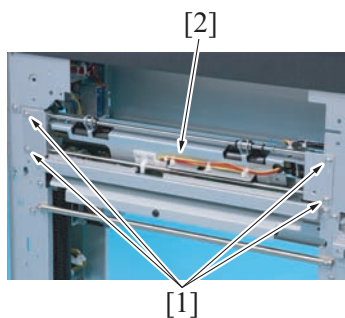
2. Pull out the Z folding/conveyance unit [1].



3. Cut the wiring harness band [1], and disconnect 2 connectors [2].

Note

- When bind the wiring harness band [1], be sure to bind it so that the wiring harness [3] passes the wiring harness band [1] from left to right from the view of the rear.
- Be sure to bind the wiring harness band [1] with sufficient length of the wiring harness [3] when the punch unit move to forward.



4. Remove 4 screws [1], and remove the punch unit [2].

5. Reinstall the above parts following the removal steps in reverse.

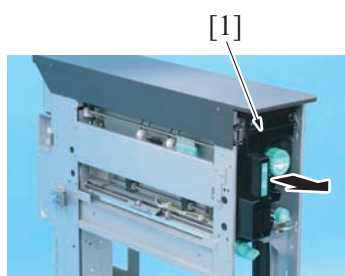
11.2.6 Z-folding/conveyance unit

1. Remove the rear cover.

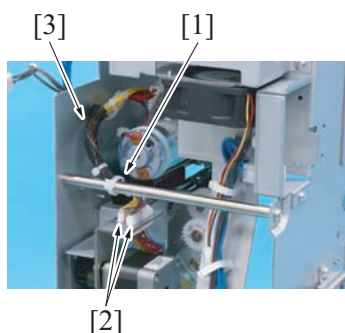
[G.11.2.2 Rear cover](#)

2. Remove the right cover.

[G.11.2.4 Front cover](#)



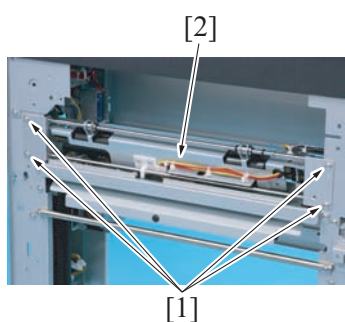
3. Pull out the Z folding/conveyance unit [1].



4. Cut the wiring harness band [1], and disconnect 2 connectors [2].

Note

- When bind the wiring harness band [1], be sure to bind it so that the wiring harness [3] passes the wiring harness band [1] from left to right from the view of the rear.
- Be sure to bind the wiring harness band [1] with sufficient length of the wiring harness [3] when the punch unit move to forward.



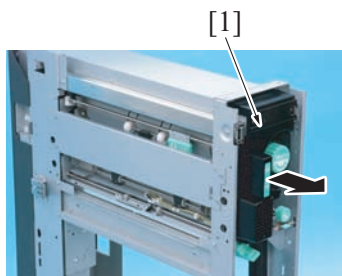
5. Remove 4 screws [1], and remove the punch unit [2].

6. Reinstall the above parts following the removal steps in reverse.

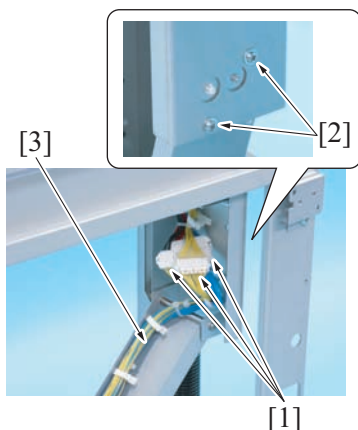
11.2.7 Punch motor (M604)

1. Remove the upper cover.

[G.11.2.3 Upper cover](#)

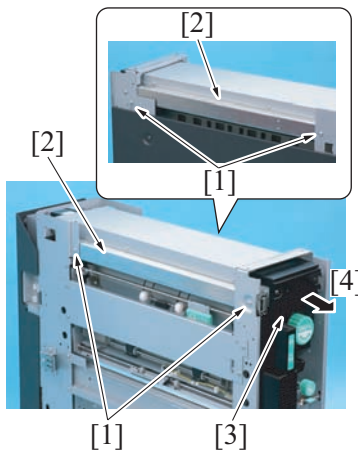


2. Pull out the Z folding/conveyance unit [1].

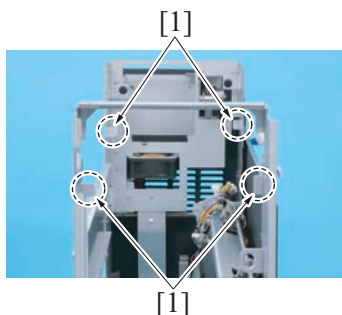


3. Disconnect 3 connectors [1] and remove 2 screws [2], and remove the arm [3].

4. Reinstall the Z folding/conveyance unit back again.



5. Remove 4 screws [1], and remove Z-folding/conveyance unit [3] to the front [4] by holding the rails [2] at the both sides.



Note

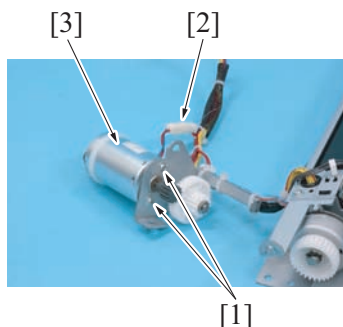
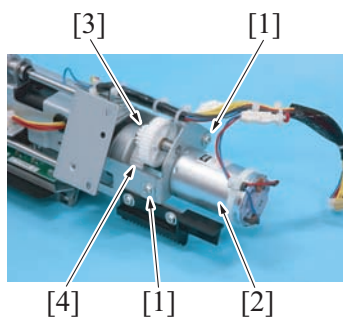
- When placing the Z-folding/conveyance unit, place it on the flat surface with its top or left side down.
- When reinstalling the Z-folding/conveyance unit, be sure to place the rails on the rail holders [1] at 4 positions.

6. Reinstall the above parts following the removal steps in reverse.

11.2.8 Main motor (M606)

1. Remove the punch unit.

[G.11.2.6 Z-folding/conveyance unit](#)



2. Remove 2 screws [1], and remove the punch motor assy [2].

Note

- When reinstalling the punch motor assy [2], press the punch motor gear [3] to the gear [4]. Be sure to check that the gears rotate smoothly and there is appropriate backlash.

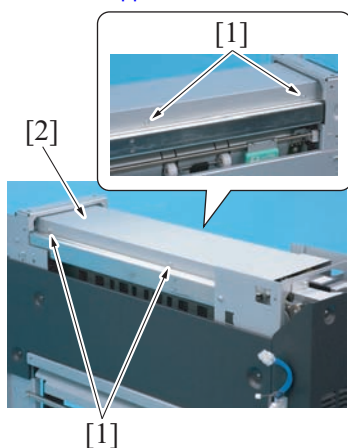
3. Remove 2 screws [1] and disconnect the connector [2], and remove the punch motor assy [3].

4. Reinstall the above parts following the removal steps in reverse.

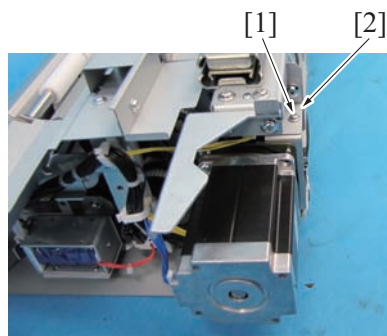
11.2.9 Registration motor (M601)

1. Remove the upper cover.

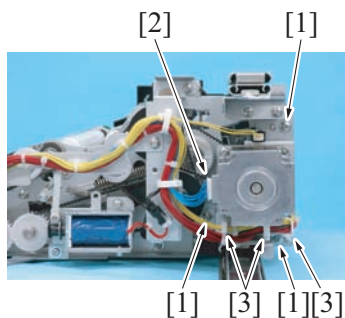
[G.11.2.3 Upper cover](#)



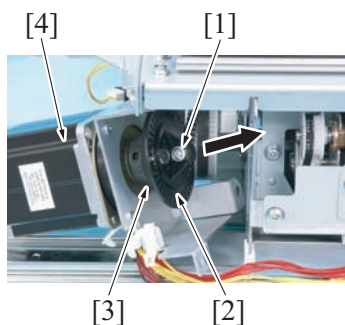
2. Remove 4 screws [1], and remove the conveyance upper cover [2].



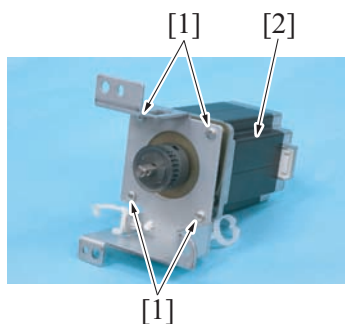
3. Remove the Z folding/conveyance unit.
[G.11.2.7 Punch motor \(M604\)](#)
4. Remove the screw [1], and remove the conveyance encoder sensor installation board [2].



5. Remove 3 screws [1], and disconnect the connector [2], and remove the harness from 3 wire saddles [3].



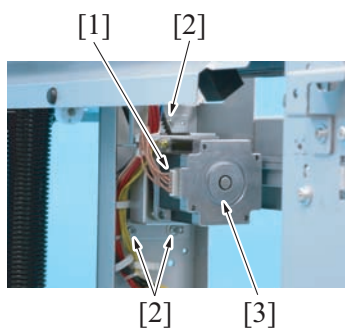
6. Remove the screw [1], the slit circular disc [2] and the belt [3], and remove the main motor assy [4].



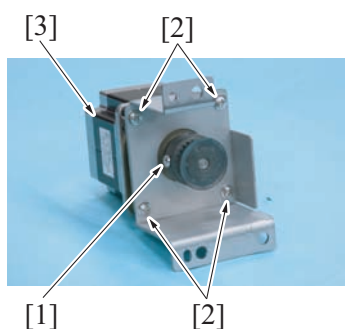
7. Remove 4 screws [1], and remove the main motor [2].

8. Reinstall the preceding parts following the removal steps in reverse.

11.2.10 Punch shift motor (M605)



1. Disconnect the connector [1], and remove 3 screws [2], and remove the registration motor assy [3].



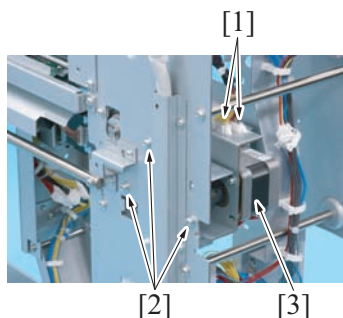
2. Remove the screw [1].
3. Remove 4 screws [2], and remove the registration motor [3].

4. Reinstall the above parts following the removal steps in reverse.

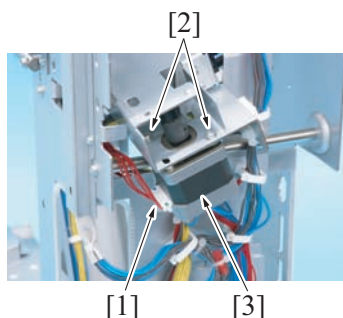
11.2.11 Main motor cooling fan (FM601)

1. Remove the rear cover.

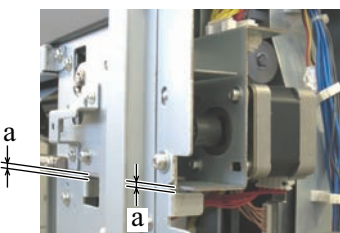
[G.11.2.2 Rear cover](#)



2. Disconnect 2 connectors [1] and remove 3 screws [2], and remove the punch shift motor assy [3].



3. Disconnect the connector [1] and remove 2 screws [2], and remove the punch shift motor [3].



Note

- When installing the punch shift motor assy, adjust its position so that there is a clearance of "a", as specified below, at the front and rear sides and make sure that the motor assy is horizontal. Adjustment value: "a" = 2 mm

4. Reinstall the preceding parts following the removal steps in reverse.

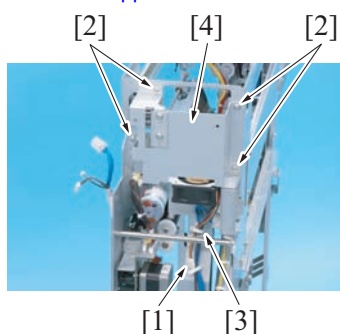
11.2.12 ZU control board (ZUCB)

1. Remove the rear cover.

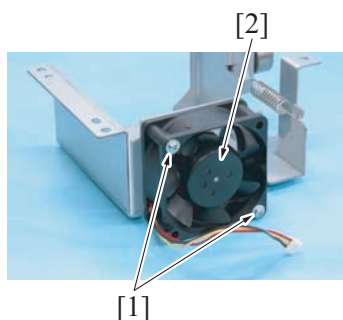
[G.11.2.2 Rear cover](#)

2. Remove the upper cover.

[G.11.2.3 Upper cover](#)



3. Disconnect the connector [1], and remove 4 screws [2], and remove the harness from wire saddle [3], and remove the main motor cooling fan assy [4].



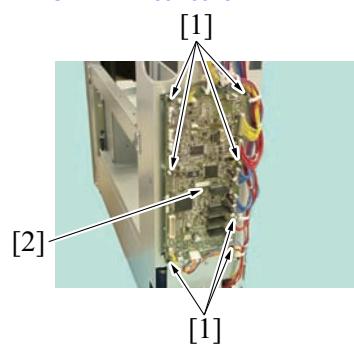
4. Remove 2 screws [1], and remove the main motor cooling fan [2].

5. Reinstall the above parts following the removal steps in reverse.

11.2.13 Paper edge sensor board (PESB)

1. Remove the rear cover.

[G.11.2.2 Rear cover](#)



2. Disconnect all 13 connectors from the ZU control board.
3. Remove 7 board supports [1], and remove the ZU control board [2].

4. Reinstall the above parts following the removal steps in reverse.

12. FS-532

12.1 Items not allowed to be disassembled/reassembled

12.1.1 PI paper feed path adjustment screw

(1) Positions from which removing is prohibited

- 1 adjustment screw of the PI paper feed path



[1] Screws not allowed to be removed

-

(2) Reason of prohibition

The installation position of the PI paper feed path is adjusted before shipping.

If the position of the PI paper feed path shifts, the paper that is fed from the PI is likely to be tilted. Therefore, the installation position must not be changed.

12.2 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Front door
2		Rear cover
3		Upper cover /Rt1
4		Upper cover /Rt2
5		Upper cover /Fr
6		Upper cover/Rr
7		Upper cover /Md
8		Front cover
9		Sub tray
10	Stacker section	Stacker unit
11	Main tray section	Main tray
12		Main tray up down motor (M11)
13		Main tray up down drive assy

12.3 Disassembling and assembling procedures

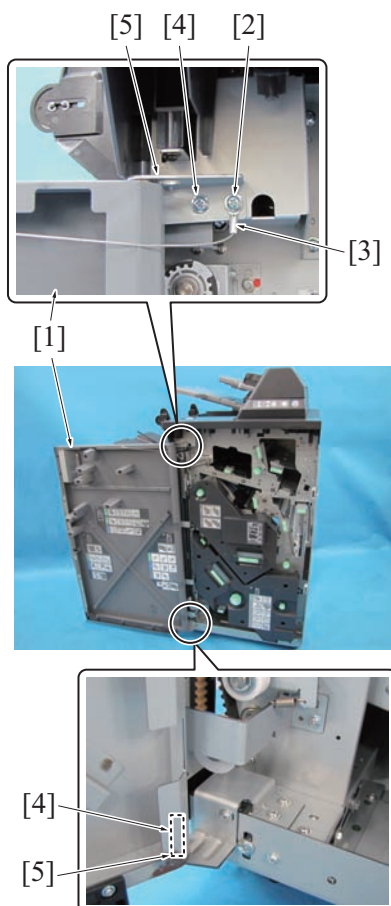
12.3.1 Precautions on disassembling and assembling

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

12.3.2 Front door

(1) Procedure



1. Open the front door [1].
2. Remove the upper cover /Fr1. (Refer to [G.12.3.6 Upper cover / Fr1](#))
3. Remove the screw [2] and release the wire [3].
4. Remove the screw [4] and then remove the door support bracket [5] and the front door [1].

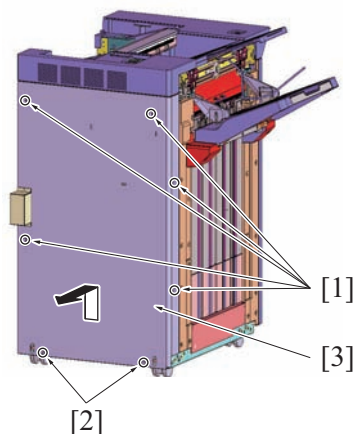
Note

- The front door [1] is heavy. Support it securely when removing it.
- When installing the front door [1], be sure to set so that the shaft [4] is inserted into the hole [5] of the front door.

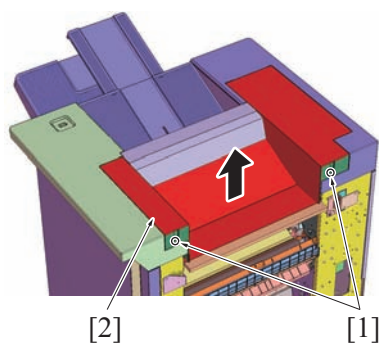
5. Reinstall the preceding parts following the removal steps in reverse.

12.3.3 Rear cover

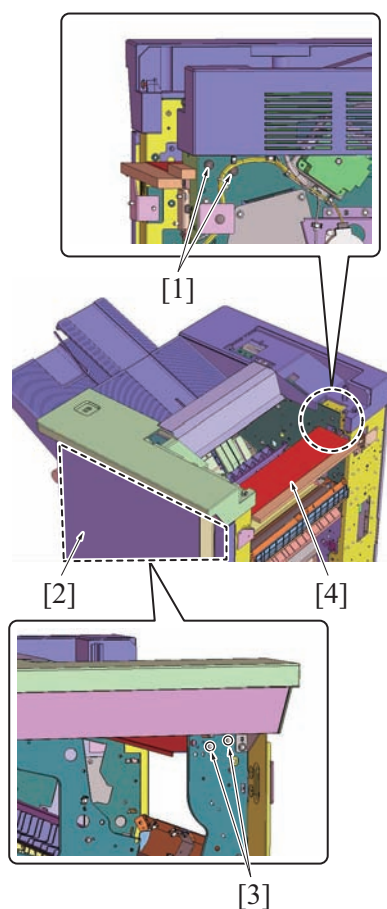
(1) Procedure



1. Remove 5 screws [1].
2. Loosen 2 screws [2] and then remove the rear cover [3] in the arrow-marked direction.
3. Reinstall the above parts following the removal steps in reverse.

12.3.4 Upper cover /Rt1**(1) Procedure**

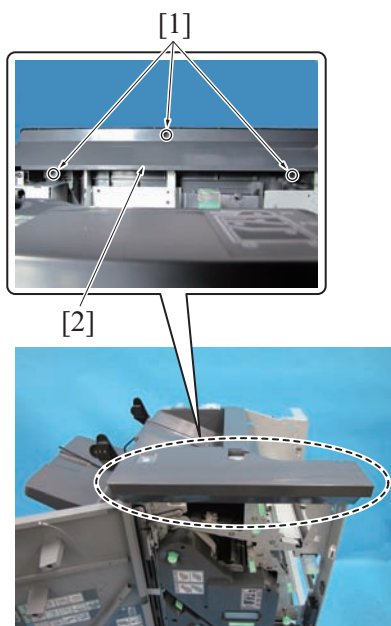
1. Loosen 2 screws [1].
2. Remove the upper cover /Rt1 [2] in the arrow-marked direction.
3. Reinstall the above parts following the removal steps in reverse.

12.3.5 Upper cover /Rt2**(1) Procedure**

1. Remove 2 screws [1].
2. Open the front door [2], remove 2 screws [3] and then remove the upper cover /Rt2 [4].
3. Reinstall the above parts following the removal steps in reverse.

12.3.6 Upper cover /Fr1

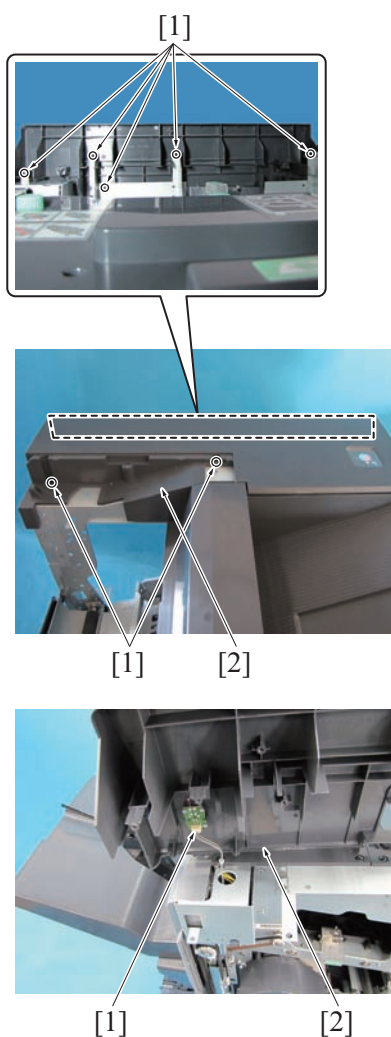
(1) Procedure



1. Remove 3 screws [1] and remove the upper cover /Fr1 [2].
2. Reinstall the preceding parts following the removal steps in reverse.

12.3.7 Upper cover /Fr2

(1) Procedure

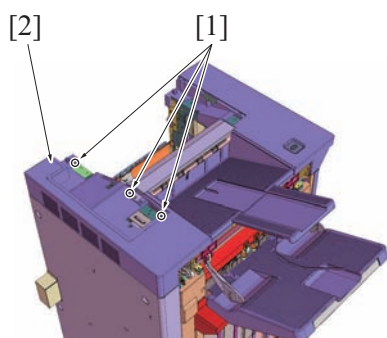


1. Remove the upper cover /Fr1. (Refer to [G.12.3.6 Upper cover / Fr1](#))
2. Remove the upper cover /Rt1. (Refer to [G.12.3.4 Upper cover / Rt1](#))
3. Remove the front door. (Refer to [G.12.3.2 Front door](#))
4. Remove 7 screws [1].

5. Disconnect the connector [1] and remove the upper cover /Fr2 [2].
6. Reinstall the preceding parts following the removal steps in reverse.

12.3.8 Upper cover /Rr

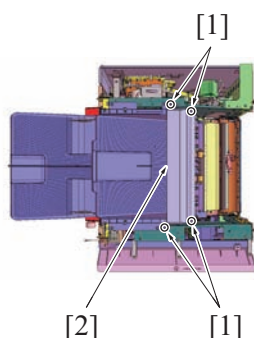
(1) Procedure



1. Remove the upper cover /Rt1. (Refer to [G.12.3.4 Upper cover / Rt1](#))
2. Remove 3 screws [1] and then remove the upper cover /Rr [2].
3. Reinstall the above parts following the removal steps in reverse.

12.3.9 Upper cover /Md

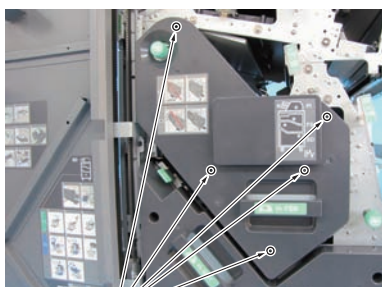
(1) Procedure



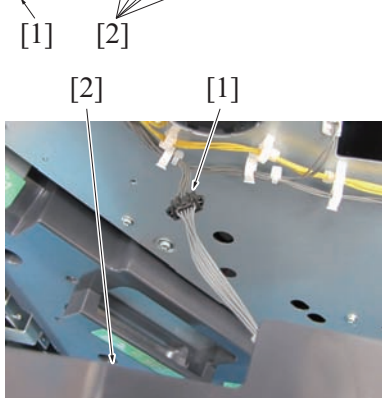
1. Remove the upper cover /Rt1. (Refer to [G.12.3.4 Upper cover / Rt1](#))
2. Remove the upper cover /Fr2. (Refer to [G.12.3.7 Upper cover / Fr2](#))
3. Remove the upper cover/Rr. (Refer to [G.12.3.8 Upper cover /Rr](#))
4. Remove 2 screws [1] and then remove the upper cover /Md [2].
5. Reinstall the above parts following the removal steps in reverse.

12.3.10 Front cover

(1) Procedure



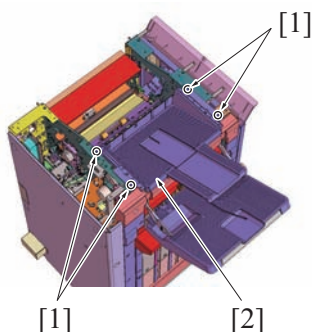
1. Open the front door [1] and remove the 5 screws [2].



2. Disconnect the connector [1] and remove the front cover [2].
3. Reinstall the preceding parts following the removal steps in reverse.

12.3.11 Sub tray

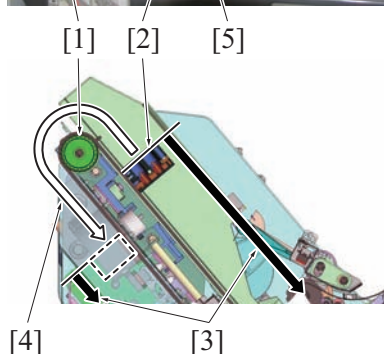
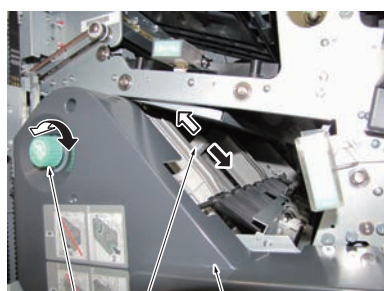
(1) Procedure



1. Remove the upper cover /Rt1.
2. Remove the upper cover /Fr.
3. Remove the upper cover /Rr.
4. Remove the upper cover /Md.
5. Remove 4 screws [1], and remove the sub tray [2].
6. Reinstall the above parts following the removal steps in reverse.

12.3.12 Stacker unit

(1) Procedure for pulling out the stacker unit



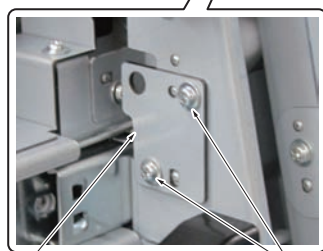
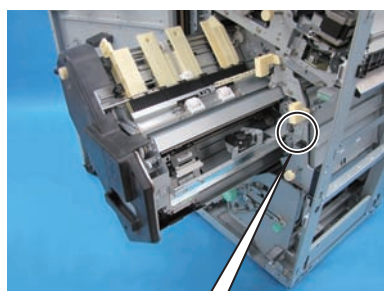
1. By opening the front door and rotating the knob [1], move the FD alignment plate [2] in arrow-marked position [3].

Note

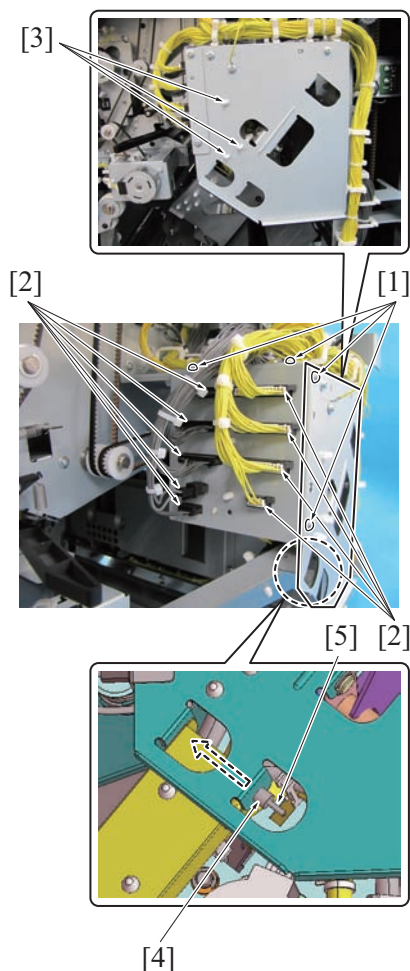
- Be careful that the stacker unit could be locked and not be pulled out if the FD alignment plate [2] is at the arrow-marked position [4].

2. Pull out the stacker unit [5].

(2) Procedure for pulling out the stacker unit



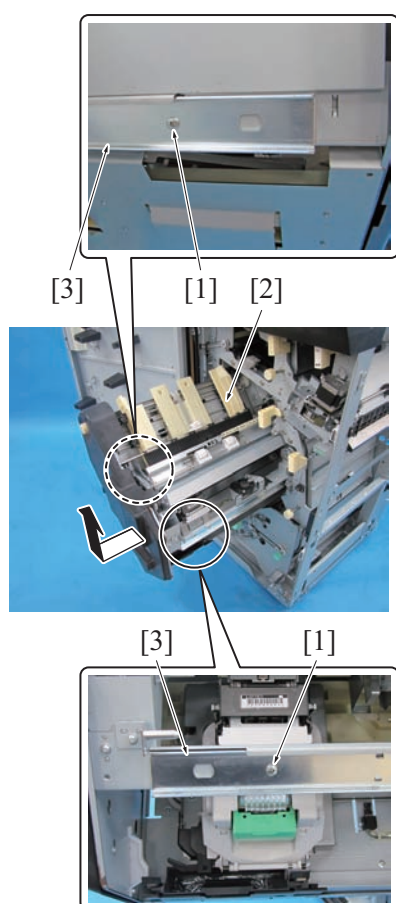
1. Remove the rear cover. (Refer to [G.12.3.3 Rear cover](#))
2. Remove the upper cover/Rr. (Refer to [G.12.3.8 Upper cover /Rr](#))
3. Pull out the stacker unit. (Refer to [G.12.3.12.\(1\) Procedure for pulling out the stacker unit](#))
4. Remove 2 screws [1] and then remove the stopper [2].



5. Remove 4 screws [1] and then disconnect 9 connectors [2].
6. Remove 3 saddles [3] inside the metal frame, and release the wiring harness.
7. Remove the stopper [4] and then pull out the shaft [5] in the arrow-marked direction.

Note

- Fix the connector installation plate and the stacker arm to the back of the stacker unit with tape.



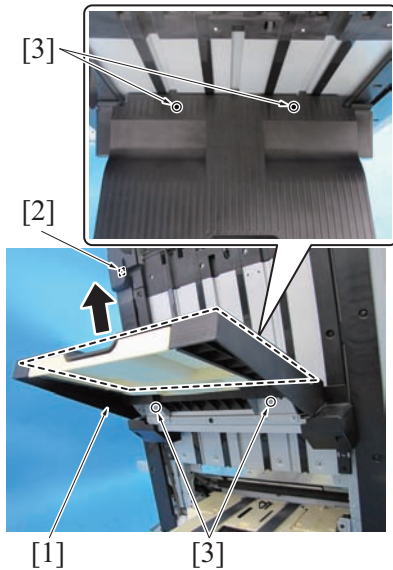
8. Remove 2 screws [1] and then remove the stacker unit [2] from the rail [3].
9. Reinstall the preceding parts following the removal steps in reverse.

12.3.13 Main tray

⚠ Note

- After having lowered the main tray, be sure to unplug the power plug from the power outlet.

(1) Procedure



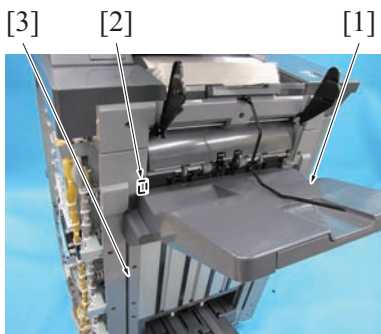
1. Turn ON the sub power switch (SW2), lower the main tray [1] blocking the light of the main tray upper limit sensor (PS14) [2] during up and down operation of the main tray, and then turn OFF the main power switch (SW1) and the sub power switch (SW2) of the main body.
2. Unplug the power plug of the main body from the power outlet.
3. Remove 4 screws [3] and then remove then main tray [1] in the arrow-marked direction.
4. Reinstall the above parts following the removal steps in reverse.

12.3.14 Main tray up down motor (M11), main tray up-down drive assy

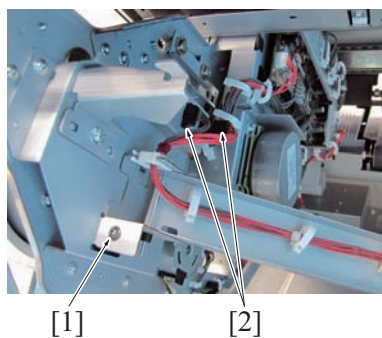
(1) Procedure

⚠ Note

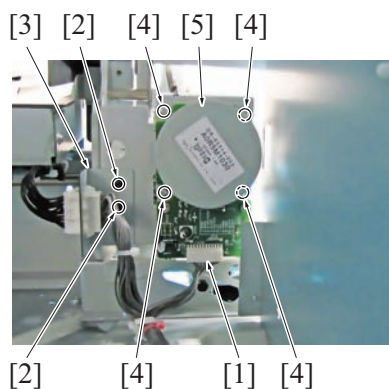
- After having lowered the main tray, be sure to unplug the power plug from the power outlet.



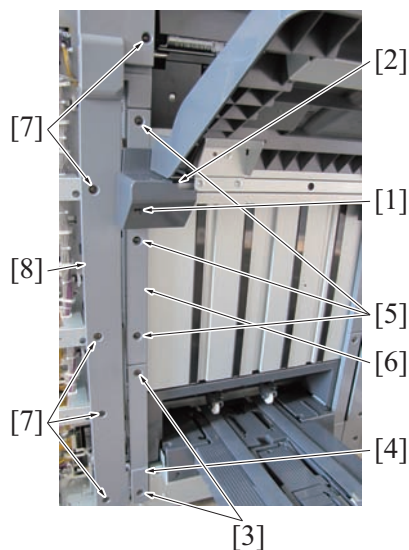
1. Turn ON the sub power switch (SW2), and block the light of the tray upper limit sensor (PS16) [2] during up and down operation of the main tray [1]. Then, lower the main tray until it does not bother the removal of the paper exit cover [3].
2. Turn OFF the sub power switch (SW2) and main power switch (SW1) of the main body.
3. Unplug the power plug of the main body from the power outlet.
4. Remove the rear cover. (Refer to [G.12.3.3 Rear cover](#))



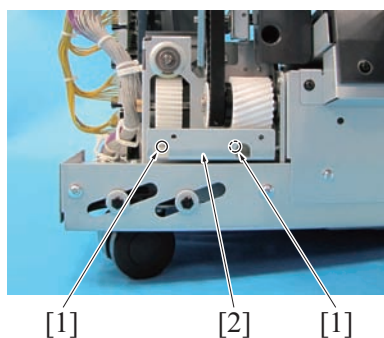
5. Fully pull out the SD unit. (Refer to [G.13.3.4.\(1\) Procedure for fully pulling out the SD unit](#))
6. Disconnect the 2 connectors [2] and remove the screw [1]. Then remove the saddle arm.



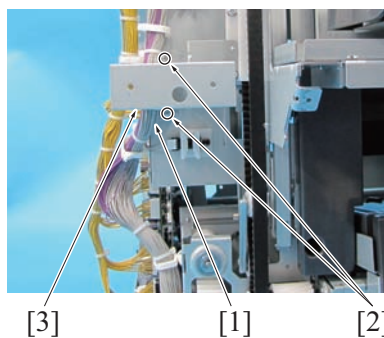
7. Disconnect the connector [1].
8. Remove the 2 screws [2], and remove the connector mounting plate [3].
9. Remove the 4 screws [4], and remove the main tray up down motor [5].



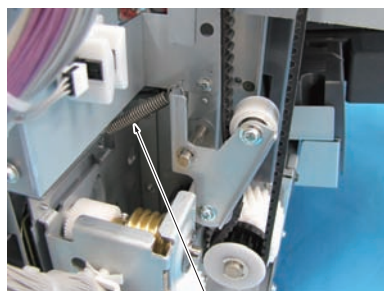
10. Remove the screw [1], and remove the main tray cover /Rr [2].
11. Remove the 2 screws [3], and remove the paper exit cover /Rr3 [4].
12. Remove 3 screws [5], and remove the paper exit cover /Rr2 [6].
13. Remove the 5 screws [7], and remove the paper exit cover /Rr1 [8].



14. Remove the 2 screws [1], and then remove the exterior mounting plate /1 [2].



15. Release the wiring harness [1] from the saddle and remove 2 screws [2], and then remove the exterior mounting plate /2 [3].



[1]

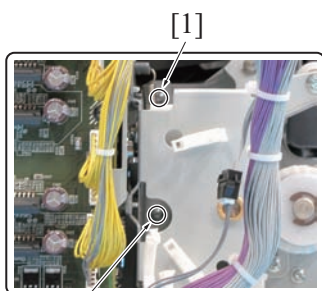
16. Remove the spring [1].



[2]

[1]

17. Remove the screw [1], and remove the metal plate [2].



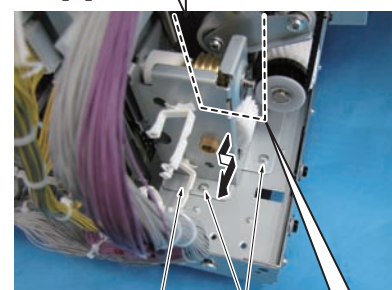
[1]

18. Remove 6 screws [1] and then remove the main tray up-down drive assy [2] in the arrow-marked direction.

Note

- Be sure to remove the main tray up-down drive assy [2] while holding the main tray by hand. If not to do so, the main tray drops off.

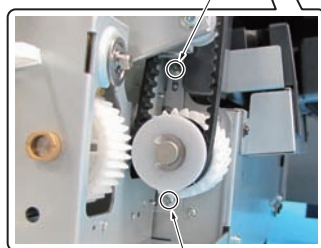
19. Reinstall the preceding parts following the removal steps in reverse.



[2]

[1]

[1]



[1]

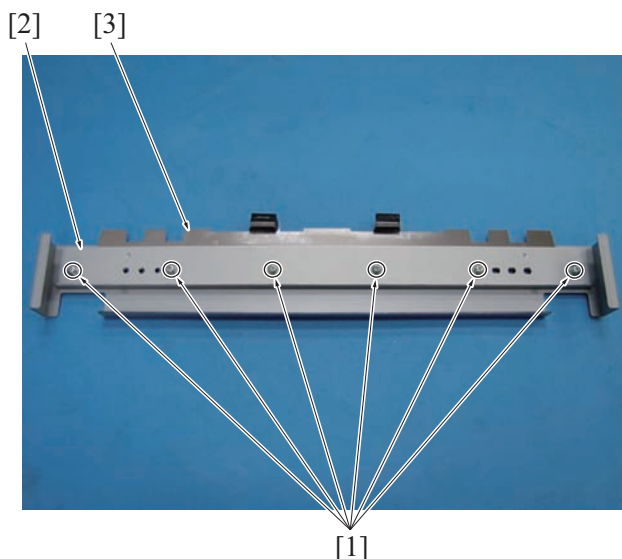
13. SD-510

13.1 Items not allowed to be disassembled/reassembled

13.1.1 Folding knife/1

(1) Positions from which removing is prohibited

- 6 attaching screws of the folding knife /1



[1]	Screws not allowed to be removed	[2]	Folding knife assy /1
[3]	Folding knife /1	-	

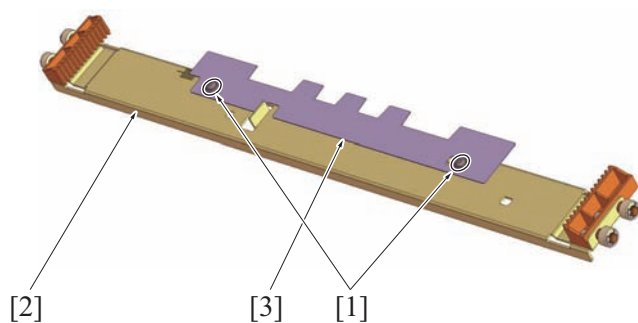
(2) Reason of prohibition

The install position of the folding knife /1 is adjusted during the production process, and if disassembled, its accuracy is not guaranteed. Therefore, removing screws that leads the disassembly of the folding knife /1 is not allowed.

13.1.2 Folding knife/2

(1) Positions from which removing is prohibited

- 2 attaching screws of the folding knife /2



[1]	Screws not allowed to be removed	[2]	Folding knife assy /2
[3]	Folding knife /2	-	

(2) Reason of prohibition

The install position of the folding knife /2 is adjusted during the production process, and if disassembled, its accuracy is not guaranteed. Therefore, removing screws that leads the disassembly of the folding knife /2 is not allowed.

13.2 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Front cover
2		Stapler unit cover
3	SD unit	SD unit
4	Folding section	Folding knife assy /1

13.3 Disassembling and assembling procedures

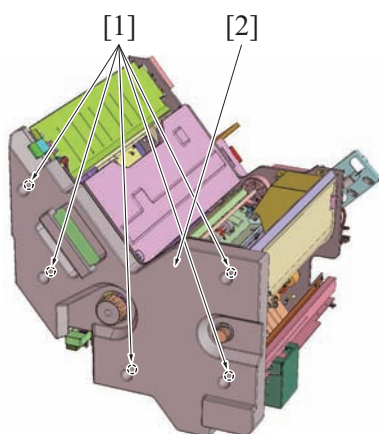
13.3.1 Precautions on disassembling and assembling

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

13.3.2 Front cover

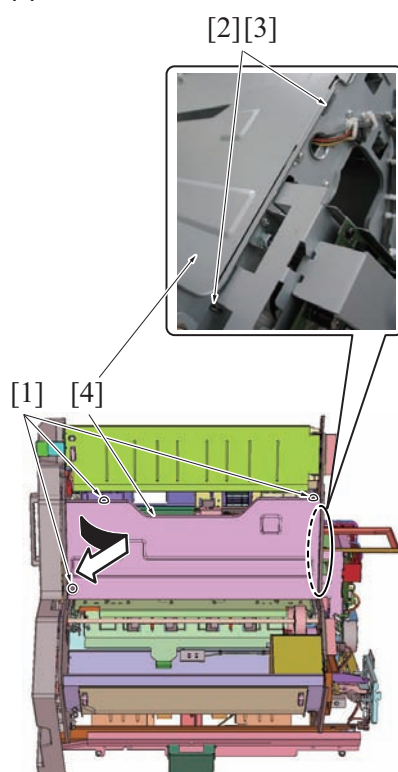
(1) Procedure



1. Remove 5 screws [1] and then remove the front cover [2].
2. Reinstall the above parts following the removal steps in reverse.

13.3.3 Stapler unit cover

(1) Procedure

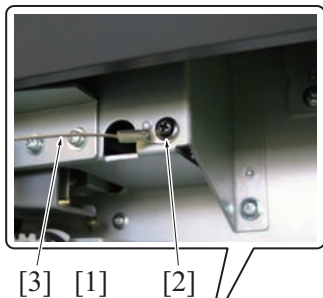


1. Pull out the SD unit. (Refer to [G.13.3.4 SD unit](#))
2. Remove 3 screws [1].
3. Release 2 claws [2] from the 2 holes [3], and remove the staple unit cover [4].
4. Reinstall the preceding parts following the removal steps in reverse.

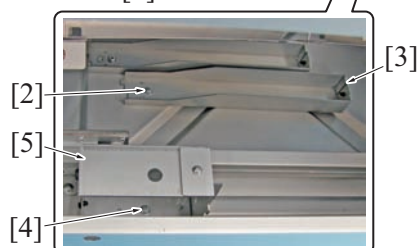
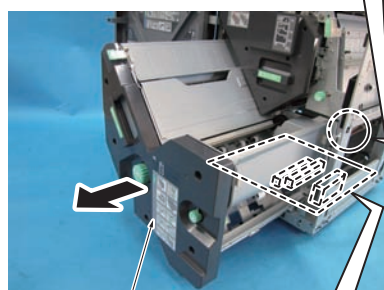
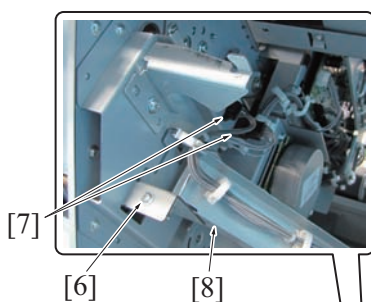
13.3.4 SD unit

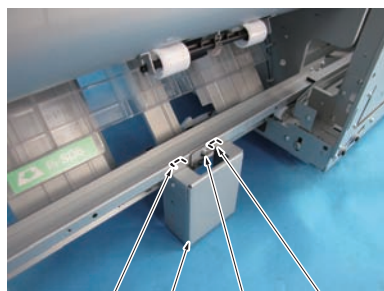
(1) Procedure for fully pulling out the SD unit

1. Open the front door [1].
2. Remove the screw [2] and release the wire [3]

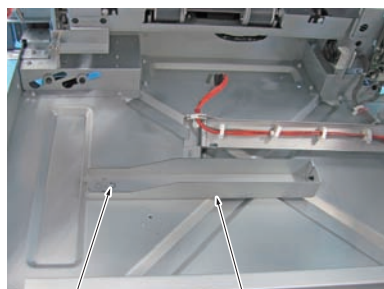
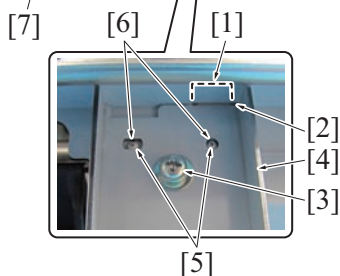
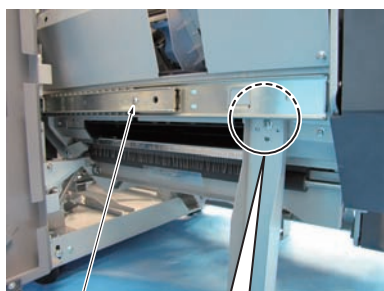


3. Pull out the SD unit [1].
4. Remove the screw [2], and then remove the SD support stay /Lt1 [3].
5. Remove the screw [4], and then remove the SD support stay /Rt [5].
6. Remove the screw [6] to remove the 2 connectors [7], and then remove the SD arm [8].

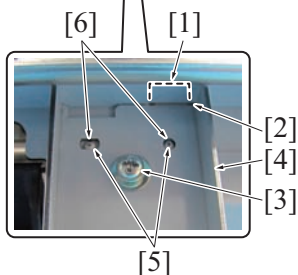




[1][2] [4] [3] [1][2]



[1] [2]



7. Insert the projection of the SD support stay/Rt [1] into the hole of the SD unit [2].
8. Install the SD support stay /Rt [4] using the screw [3] removed in step 4.

9. Insert the projection of the SD support stay/Lt1 [1] into the hole of the SD unit [2].
10. Install the SD support stay /Lt1 [4] using the screw [3] removed in step 3.

Note

- When installing the SD support stay /Lt1, be sure to set the projection [5] to the hole [6] of the SD support stay / Lt1.
- Please note that the deformation of the rail may occur or that the SD unit may fall down if the SD unit is removed without the SD support stay installed. When pulling out the SD unit, be sure to install the SD support stay.

11. Remove the stopper screw [7], and then remove the SD unit.

Note

- When pulling out the SD unit, lift the SD unit upward slightly.

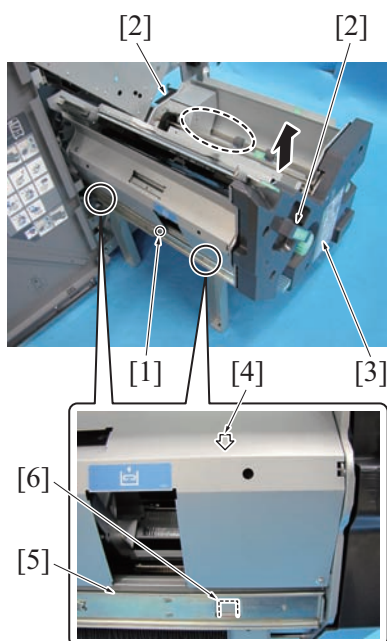
12. Remove the screw [1], and then remove the SD support stay /Lt2 [2].

13. Insert the projection of the SD support stay/Lt2 [1] into the hole of the SD unit [2].

14. Install the SD support stay /Lt2 [4] using the screw [3] removed in step 11.

Note

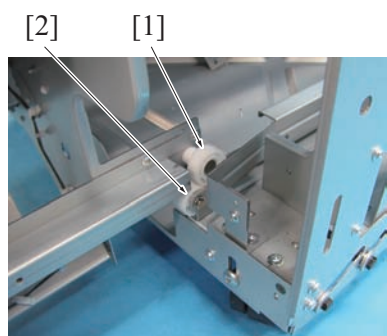
- When installing the SD support stay /Lt2, be sure to set the projection [5] to the hole [6] of the SD support stay / Lt2.

(2) Procedure for removing the SD unit

1. Fully pull out the SD unit. (Refer to [G.13.3.4.\(1\) Procedure for fully pulling out the SD unit](#))
2. Remove the front cover of FS. (Refer to [G.12.3.10 Front cover](#))
3. Remove the screw [1].
4. Hold 2 handles [2] and then remove the SD unit [3] in the arrow-marked direction.

Note

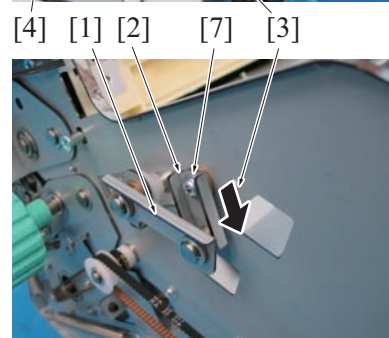
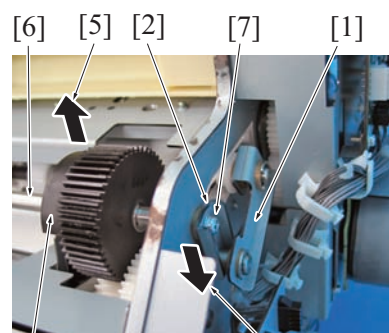
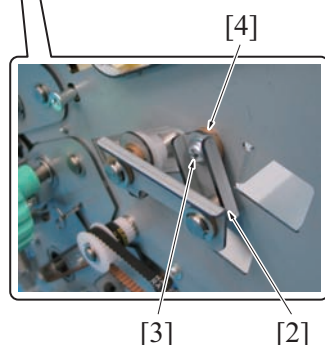
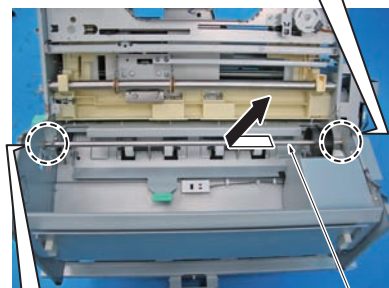
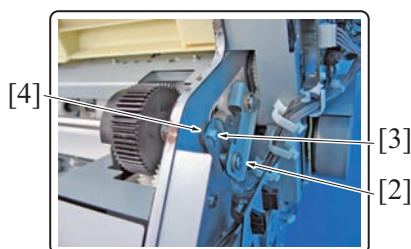
- When reinstalling the SD unit, be sure to set the mark [4] of the SD unit to the metal frame [6] of the rail [5].

**Note**

- When reinstalling the SD unit, be sure to set the rail [1] of the SD unit on the rail [2] of the finisher.

13.3.5 Folding knife assy /1

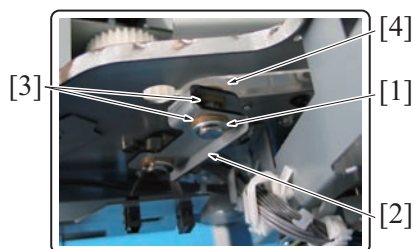
(1) Procedure



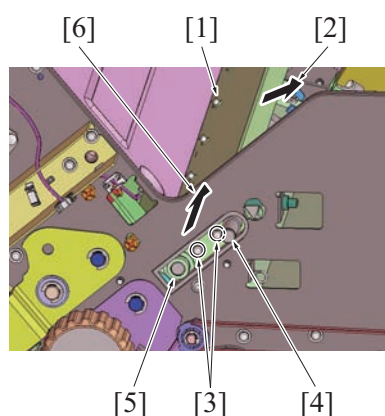
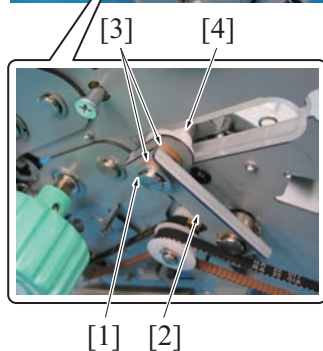
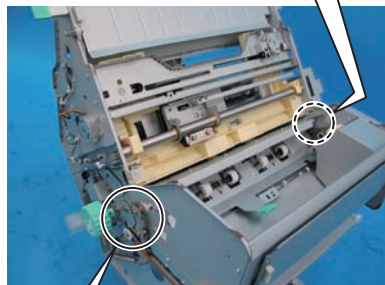
1. Remove the SD unit. (Refer to [G.13.3.4.\(2\) Procedure for removing the SD unit](#))
2. Remove the front cover. (Refer to [G.13.3.2 Front cover](#))
3. Remove the stapler unit cover. (Refer to [G.13.3.3 Stapler unit cover](#))
4. Rotate the folding knife drive shaft [1] to adjust the position of the clunk arm assy [2].
5. Remove the screw [3], 1 each, release the crank arm assy [2], and remove the bearing [4], 1 each.
6. Remove the folding knife drive shaft [1] in the arrow-marked direction.

Note

- When installing the clunk arm assy [1], be sure to install it so that the clunk arm [2] faces [3] the opposite direction [5] to the actuator [4].
- When installing the clunk arm assy [1], be sure to install the screw [7], 1 each, to prevent the clunk arm [2] from coming off from the folding knife drive shaft [6].
- When installing the clunk arm assy [1], be careful that the leading edge of the folding knife assy /1 does not bend by contacting with the 1st folding roller.



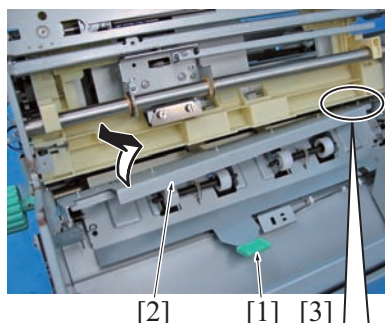
7. Remove each E-rings [1], and remove each crank arm assy [2], the bearings [3], 2 each, and each collar [4].



8. Remove the folding knife assy /1 [1] in the arrow-marked direction [2].
 9. Remove 2 screws [3] and then remove the assy stay /Fr [4] in the arrow-marked direction [6].
 10. Disconnect the collar [5].

Note

- When removing the assy stay /Fr, be careful not to drop the collar [5].

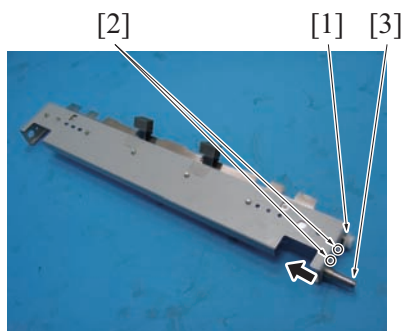


11. By lifting the conveyance guide plate [1], remove the folding knife assy/1 [2] in the arrow-marked direction.

Note

- When removing the folding knife assy /1 [2], be careful not to drop the collar [3].

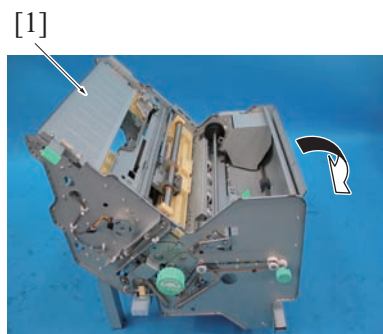




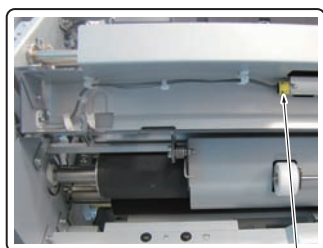
12. Disconnect the collar [1].
13. Remove 2 screws [2] and then remove the assy stay /Rr [3] in the arrow-marked direction.
14. Reinstall the preceding parts following the removal steps in reverse.

13.3.6 Folding knife assy /2

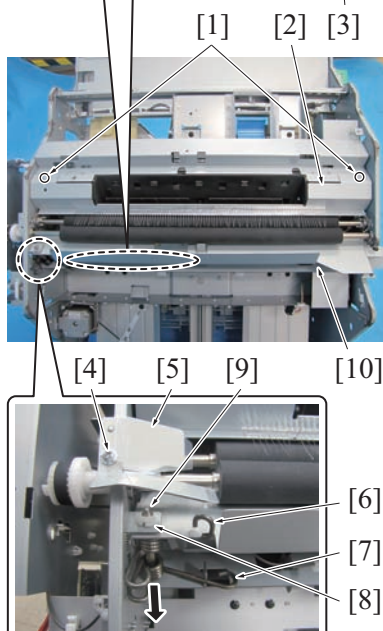
(1) Procedure

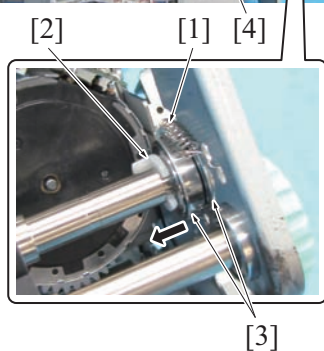
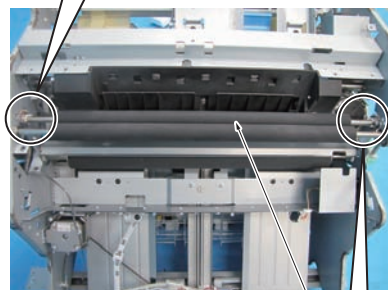
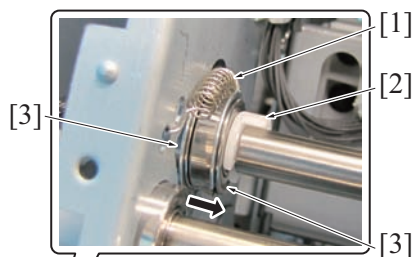


1. Remove the SD unit. (Refer to [G.13.3.4 SD unit](#))
2. Remove the front cover. (Refer to [G.13.3.2 Front cover](#))
3. Remove the SD support stay /Rt and tilt the SD unit [1] in the arrow-marked direction. (Refer to [G.13.3.4 SD unit](#))
4. Remove the SD support stay /Lt. (Refer to [G.13.3.4 SD unit](#))

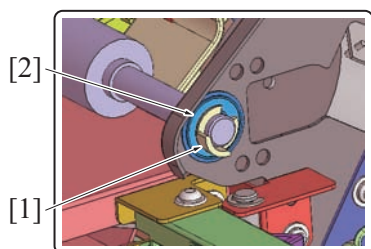


5. Remove 2 screws [1] and then remove the paper exit guide /1 [2].
6. Disconnect the connector [3], and release the wiring harness.
7. Remove the screw [4] and then remove the cover [5].
8. Release the springs /1 [6] and /2 [7].
9. Remove the C-clip [8] and pull out the shaft [9] in the arrow-marked direction, and then remove the springs /1 [6] and /2 [7] and the paper exit guide /2 [10].

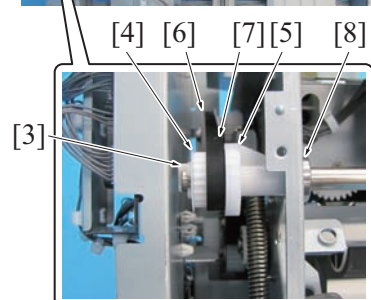
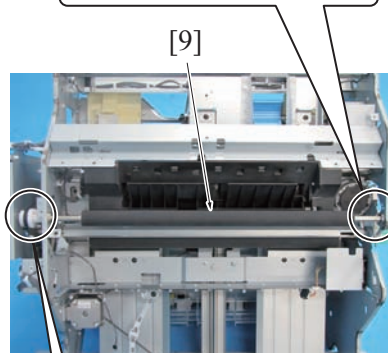


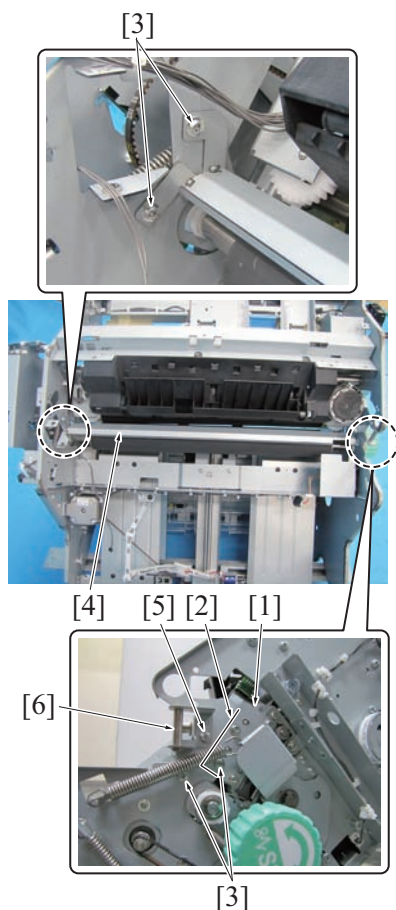


10. Remove each spring [1] and then remove each C-clip [2].
11. Slide the bearings [3], 2 each, to the inside, and remove the paper exit driven roller [4].

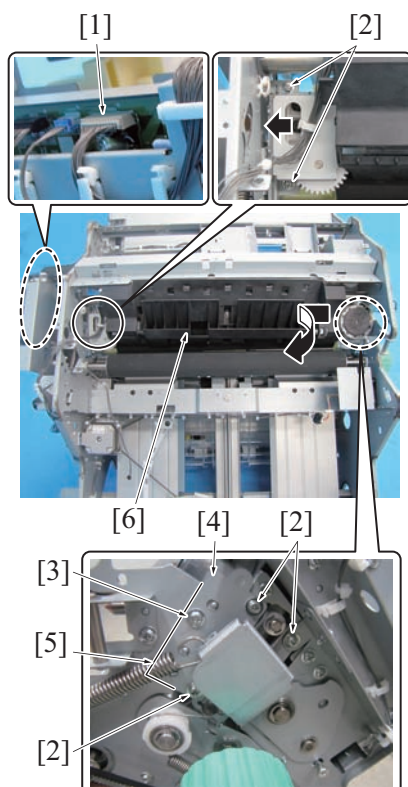


12. Remove the C-clip [1] and remove the bearing [2].
13. Remove the C-clip [3] and the belt holding material [4], and remove the belt [7] from the pulley [5] and the paper exit drive gear [6].
14. Remove the pulley [5] and the bearing [8], and remove the paper exit roller [9].





15. Mark [2] the mounting position of the folding knife assy /2 mounting plate [1] with a pencil or something.
16. Remove 4 screws [3] and then remove the folding guide [4].
17. Remove the screw [5], and remove the paper exit guide lock part [6].

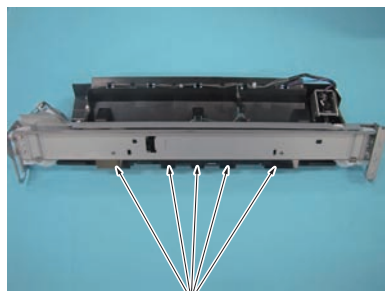


18. Disconnect the connector [1] to release the wiring harness, remove 5 screws [2] and 1 screw [3], and remove the folding knife assy /2 mounting plate [4].

Note

- When installing the folding knife assy /2 mounting plate [4], be sure to install it according to the mark [5] that has been marked in the step 16.
The 2nd folding misalignment occurs if the mounting plate is mis-placed.

19. Remove the folding knife assy /2 [6] in the arrow-marked direction.



[1]

20. Reinstall the preceding parts following the removal steps in reverse.

Note

- When installing the folding knife assy /2, be sure not to grab the blade [1] or not to hit it against other parts. It could lead to the skew or damage of the blade.

14. PK-522

14.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Punch unit	Punch unit

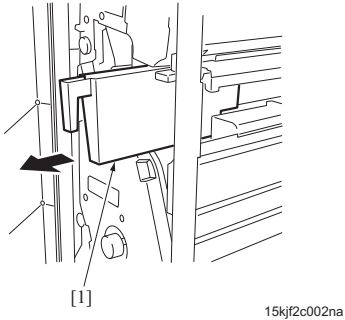
14.2 Disassembling and assembling procedures

14.2.1 Precautions on disassembling and assembling

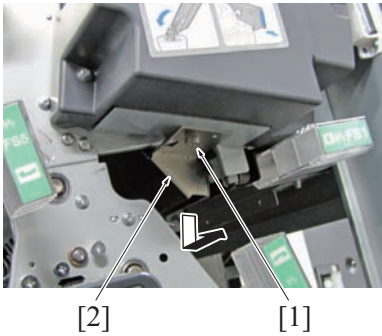
- ⚠ CAUTION
- Be sure to unplug the power plug from the power outlet.

14.2.2 Punch unit

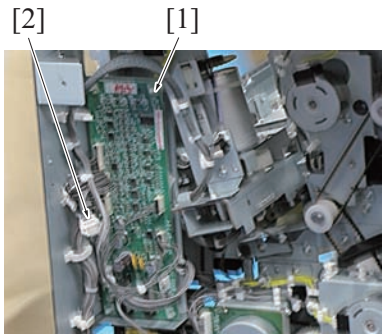
(1) Procedure



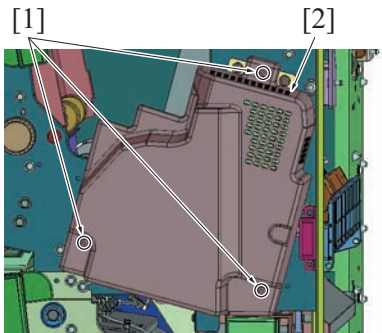
1. Remove the punch waste box [1].



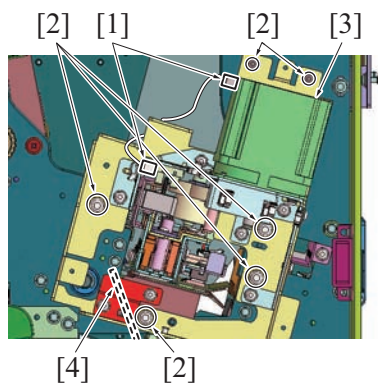
2. Remove the screw [1], and remove the shooter [2] in the arrow-marked direction.



3. Remove the rear cover of FS-532. (Refer to [G.12.3.3 Rear cover](#))
4. Remove the connector from the punch drive board (PDB) [1] to release the wiring harness, and then remove the relay connector [2].



5. Remove 3 screws [1] and then remove the punch unit cover [2].



6. Disconnect the 2 connectors [1] and remove the clamp to release the wiring harness.
7. Remove 6 screws [2], and remove the punch unit [3].

Note

- **When removing the punch unit, be careful not to damage the conductive PET [4].**

8. Reinstall the preceding parts following the removal steps in reverse.
9. After reinstalling the punch unit, conduct the following items in order.

Punch unit mounting position adjustment

(Refer to [I.19.2 Punch unit adjustment mounting position adjustment](#))

15. PI-502

15.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Upper cover
2		Rear cover
3		Operation panel cover

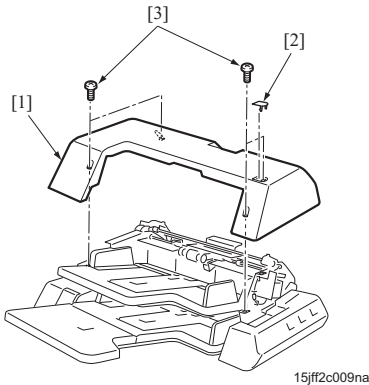
15.2 Disassembling and assembling procedures

15.2.1 Precautions on disassembling and assembling

- ⚠ CAUTION
- Be sure to unplug the power plug from the power outlet.

15.2.2 Upper cover

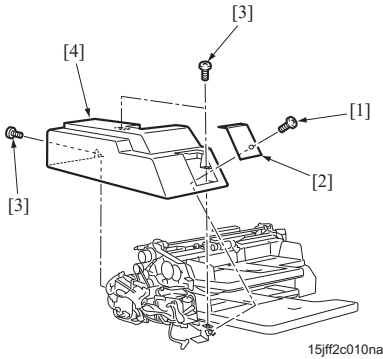
(1) Procedure



1. Remove the cap [2] of the upper cover [1].
2. Remove 4 screws [3] and then remove upper cover [1].
3. Reinstall the above parts following the removal steps in reverse.

15.2.3 Rear cover

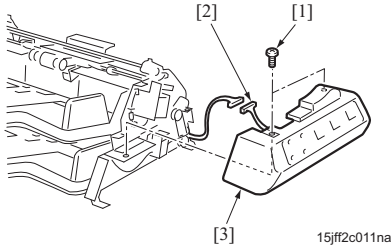
(1) Procedure



1. Remove the upper cover. (Refer to [G.15.2.2 Upper cover](#))
2. Remove the screw [1] and then remove the connector cover [2].
3. Remove 3 screws [3] and then remove the rear cover [4].
4. Reinstall the above parts following the removal steps in reverse.

15.2.4 Operation panel cover

(1) Procedure

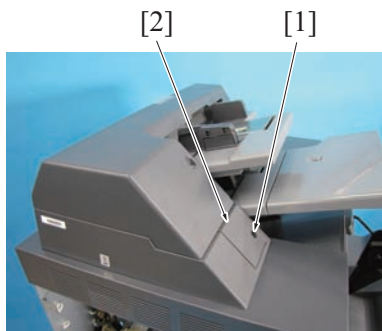


1. Remove the upper cover. (Refer to [G.15.2.2 Upper cover](#))
2. Remove 2 screws [1] and the relay connector [2], and then remove the operation panel assy [3].
3. Reinstall the above parts following the removal steps in reverse.

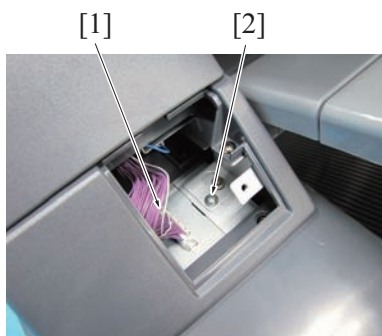
15.2.5 PI unit

(1) Procedure

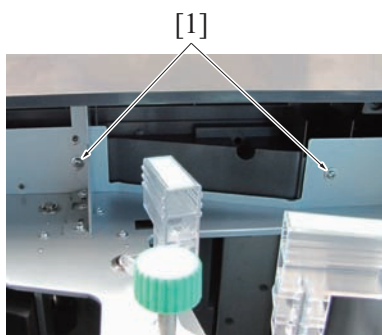
1. Remove the screw [1] and remove the connector cover [2].



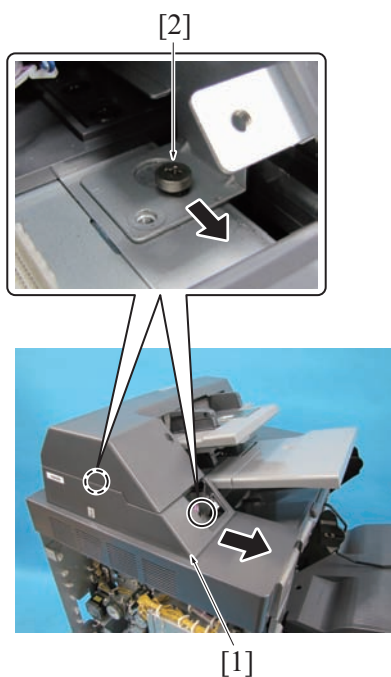
2. Remove the connector [1] and remove the spring [2].



3. Open the front door of FS and remove the 2 screws [1].



4. Move the PI unit [1] in the arrow-marked direction, release 2 locks [2] of the positioning screw, and remove the PI unit [1].
5. Reinstall the preceding parts following the removal steps in reverse.



16. LS-505

16.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Cover
2	Conveyance section	Stacker tray up/down wire

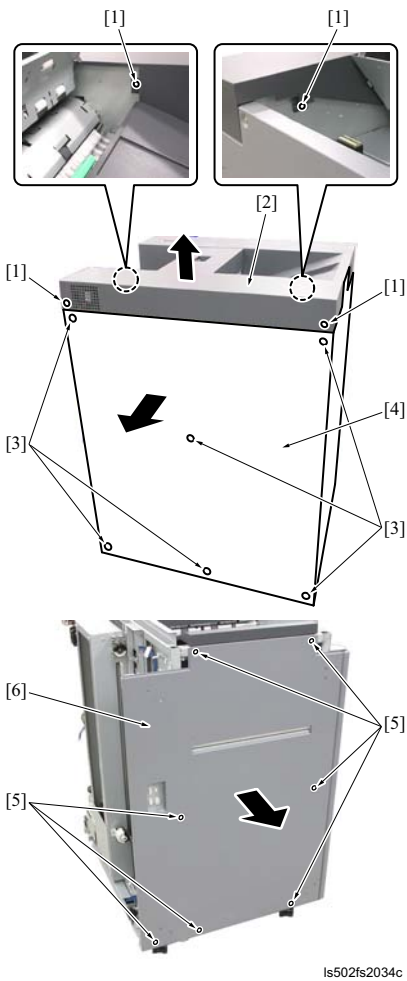
16.2 Disassembling and assembling procedures

16.2.1 Precautions on disassembling and assembling

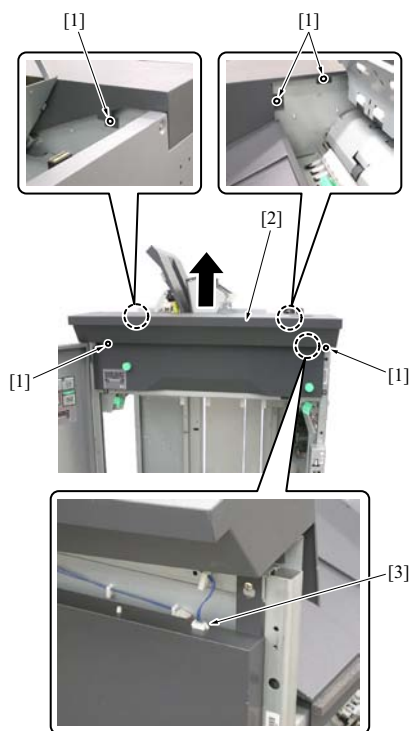
- ⚠CAUTION
- Be sure to unplug the power plug from the power outlet.

16.2.2 Cover

(1) Procedure

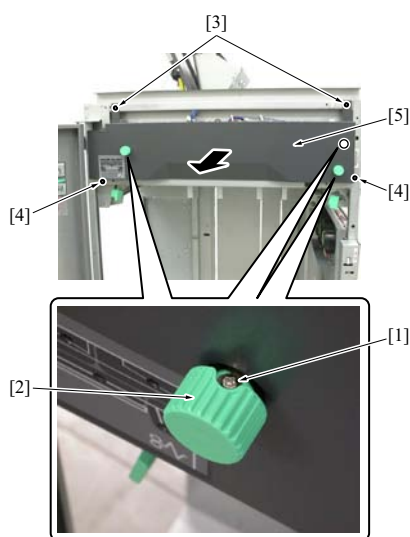


1. Remove 4 screws [1] and then remove the rear cover /Up [2].
2. Remove 6 screws [3] and then remove the rear cover /Lw [4].
3. Remove 7 screws [5] and then remove the left cover [6].



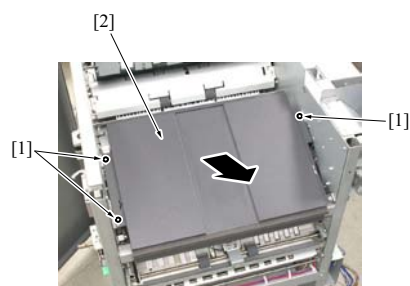
ls502fs2035c

4. Remove 5 screws [1] and move the front cover /Up [2] to the upper side.
5. Disconnect the connector [3] and remove the front cover /Up [2].



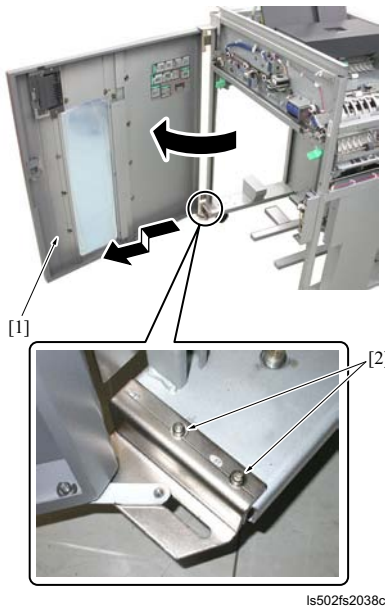
ls502fs2036c

6. Remove the screws [1], 1 each, and then remove 3 knobs [2].
7. Loosen 2 screws [3].
8. Remove 2 screws [4] and then remove the front cover /Lw [5].



ls502fs2037c

9. Remove 3 screws [1] and then remove upper cover [2].



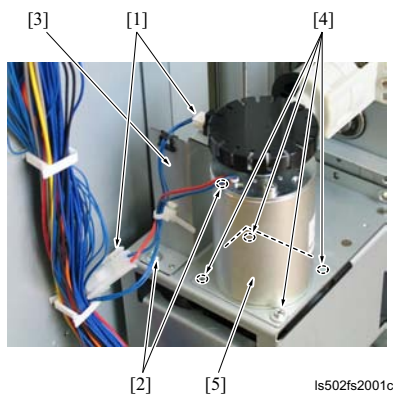
10. Open the front door [1].
11. Remove 2 screws [2] and then remove the front door [1].
12. Reinstall the above parts following the removal steps in reverse.

16.2.3 Replacing the stacker tray up/down wire

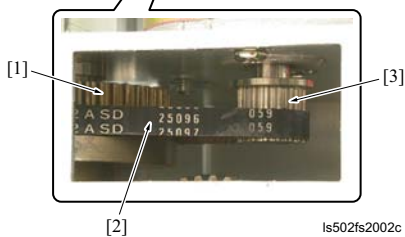
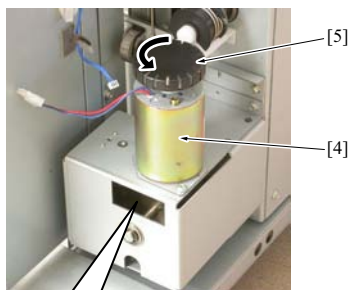
Note

- When conducting this operation, be sure to set the stacker tray at the home position (the upper most position) in advance.

(1) Procedure



1. Remove the rear covers /Up and /Lw. (Refer to [G.16.2.2 Cover](#))
2. Disconnect 2 connectors [1].
3. Remove 2 screws [2] and remove the sensor mounting plate [3].
4. Remove 4 screws [4] and remove the stacker tray up down motor (M1) [5].

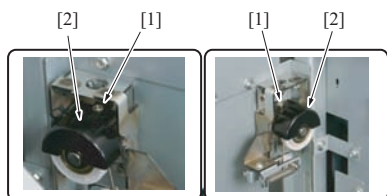


5. Check point when reinstalling the stacker tray up down motor (M1)
- Note**
- When reinstalling the stacker tray up down motor (M1), be sure to check that the belt [2] has been engaged with the gear [1], and then engage it with the gear [3] before fastening the stacker tray up down motor (M1) [4].
 - When the belt [2] is not horizontally attached between the gear [1] and the gear [3], make adjustments by rotating the encoder [5] counterclockwise.

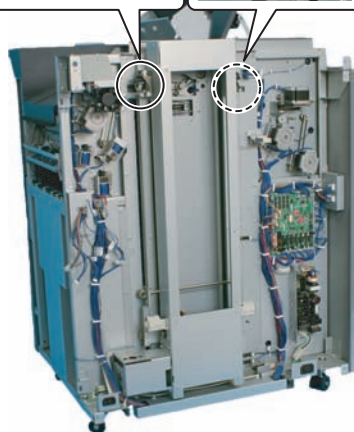


ls502fs2003c

6. Remove 2 screws [1] and remove the motor mounting plate [3] from the stacker tray up down motor (M1) [2].

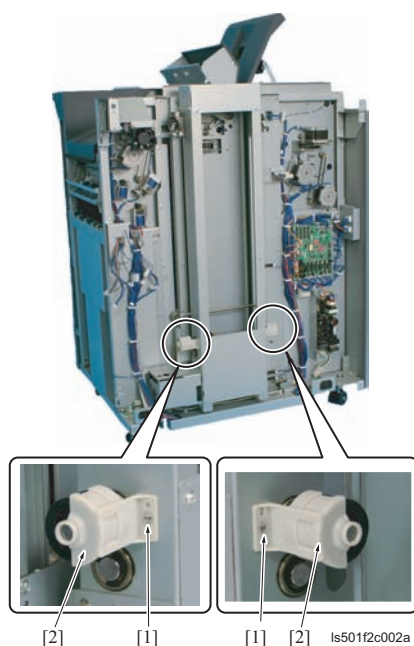


7. Remove the screws [1], 1 each, and remove the pulley covers [2], 1 each.

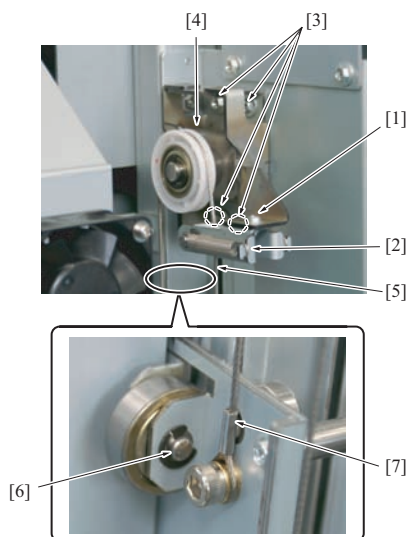


ls501f2c001a

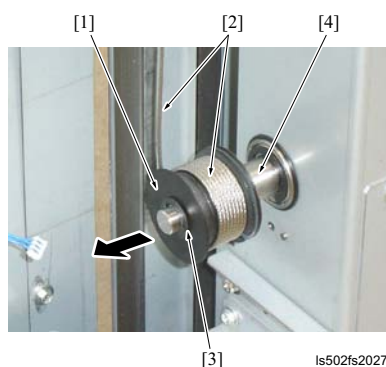
8. Remove the screws [1], 1 each, and remove the pulley covers [2], 1 each.



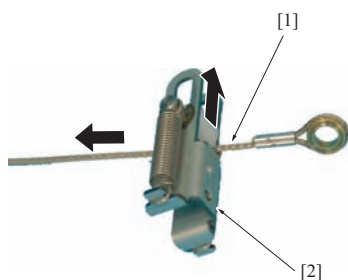
ls501f2c002a



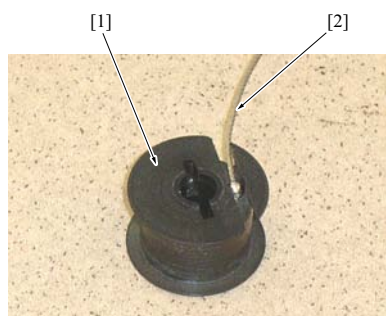
Is501f2c003a



Is502fs2027c



Is501f2c004a



Is502fs2028c

9. Remove the screw [1] and remove the wire retaining bracket [2].
10. Remove 4 screws [3] and remove the pulley assy [4].
11. Remove the hexagon socket screw [6] and remove the tip [7] of the wire /1 [5].

Note

- On the paper exit side, loosen 4 screws [3], bring down the pulley assy [4] and release the tension of the wire /2 [5] before starting the operation.
- When reinstalling it, the positions of the pulley assy on the paper feed side and the paper exit side become important. Be sure to check the marked position in advance of the pulley assy on the paper exit side.

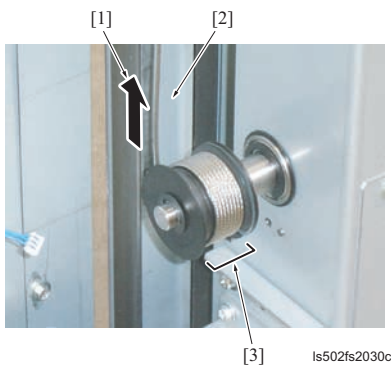
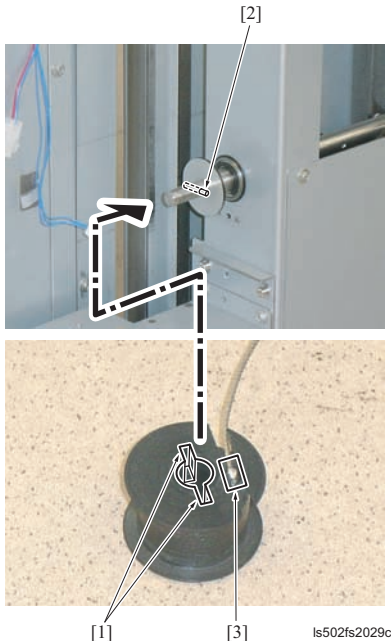
12. Release the winding of the wire /1 [2] from the pulley [1].
13. Remove the E-ring [3] and then remove the pulley [1] from the shaft [4].

14. Remove the wire retaining bracket [2] from the wire /1 [1].

Note

- When installing the wire retaining bracket [2], install it to the wire /1 [1] so that the bracket comes to the rear side.

15. Remove the wire /1 [2] from the pulley [1].
16. Reinstall a new wire /1 following the preceding steps 6 to 12 in reverse.



17. Check point 1 when reinstalling the wire

Note

- When 2 wires at both sides are removed at the same time, the stacker tray comes down. So, be sure to replace the wires one at a time (The remaining wire holds the stacker tray in place.)
- When attaching the pulley to the shaft, be sure to align the groove [1] of the pulley with the pin [2] that has been inserted into the shaft.
- Be sure to set up it with the bead set portion [3].

18. Check point 2 when reinstalling the wire

Note

- When winding the wire around the pulley, be sure to wind it 8 turns [3] so that the direction of drawing-out [1] comes to the rear panel side [2].
- The direction of drawing-out of the wire /1 is symmetrical to that of the wire /2.

19. Check point 3 when reinstalling the wire

Note

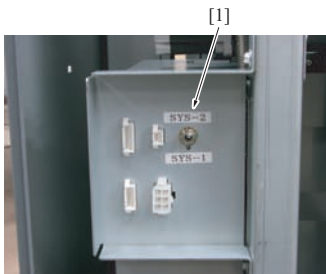
- When fixing the pulley assy [1] on the paper exit side, be sure to fix it at the same position as it was removed from.

20. Replace the wire /2 with a new one following the preceding steps 6 to 13.

21. Reinstall other parts following the steps 1 to 6 in reverse.

16.2.4 Caution when setting models using toggle SW**⚠ CAUTION**

When using C6501/C6501P/C65hc/1200/1200P/1051/C8000/C7000/C7000P/C70hc/C6000, be sure to set the toggle switch on the connector connection of the left side of the LS to SYS2 [1].



17. FD-503

17.1 Items not allowed to be disassembled/reassembled

17.1.1 Precautions on disassembling and assembling

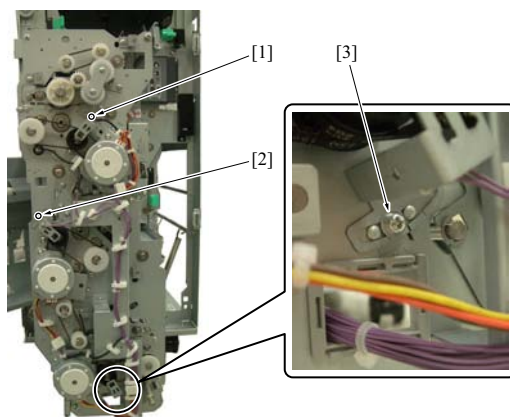
⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

17.1.2 Folding/conveyance switching position adjustment section

Note

- Be sure to avoid removing or loosening the screws [1], [2], and [3] of the folding/conveyance switching position adjustment section provided on the front of the folding conveyance unit. The adjustment scale marked on the folding conveyance frame are used in the factory.



fd501fs2079c

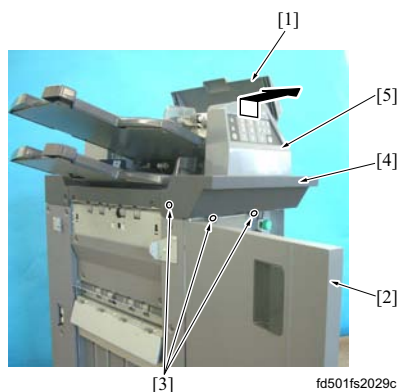
17.2 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover section	Upper cover /Fr + PI cover /Fr
2		Upper cover /Rr + PI cover /Rr
3		Upper door
4		Rear cover
5		Left cover /Fr
6		Left cover /Rr
7		Paper exit stopper cover
8		Right cover
9		Left cover /Up
10		Mount cover
11		Front door
12	Folding conveyance section	2nd folding conveyance sensor (PS53)
13		3rd folding conveyance sensor (PS54)
14		3rd folding roller
15		Folding conveyance section
16	Main tray section	Main tray up/down wire
17	PI section	Way to distinguish between new and old types of the multi feed detection board /1, /2
18		Multi feed detection board /1, /2 (new type)
19		Multi feed detection board /1, /2 (old type)

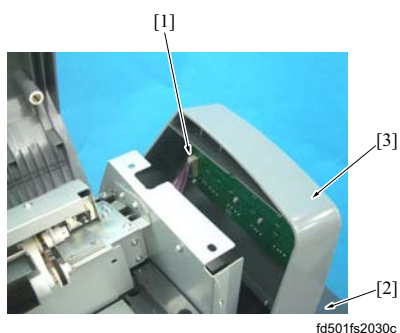
17.3 Disassembling and assembling procedures

17.3.1 Upper cover /Fr + PI cover /Fr

(1) Procedure



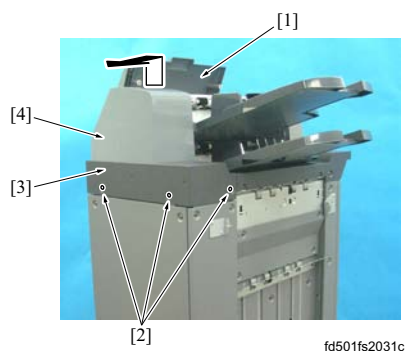
1. Open the upper door [1] and the front door [2].
2. Remove 3 screws [3], pull out the PI cover /Fr [5] to the front side while raising it together with the upper cover /Fr [4].



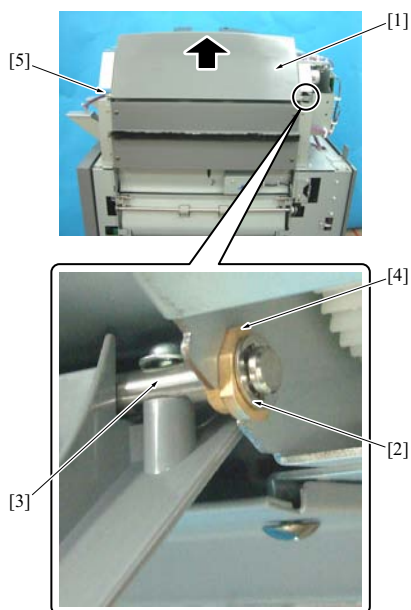
3. Disconnect the connector [1] and remove the PI cover /Fr [3] together with the upper cover /Fr [2].

17.3.2 Upper cover /Rr + PI cover /Rr

(1) Procedure

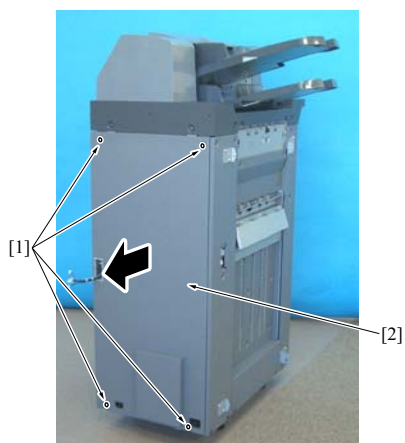


1. Open the upper door [1].
2. Remove 3 screws [2] and pull out the PI cover /Rr [4] to the rear side while raising it together with the upper cover /Rr [3].

17.3.3 Upper door**(1) Procedure**

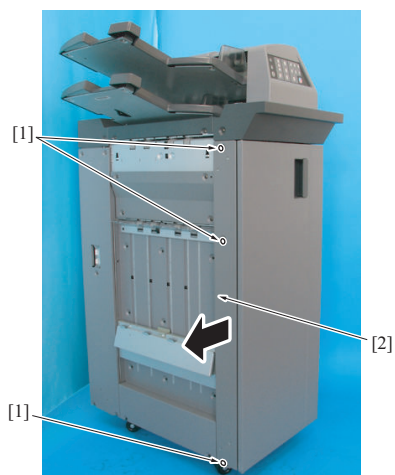
fd501fs2032c

1. Remove the upper cover /Fr, the PI cover /Fr, the upper cover /Rr and the PI cover /Rr.
2. Close the upper door [1].
3. Remove the E-ring [2] and then remove the bearing [4] of the upper door open/close shaft [3].
4. With the bearing [5] shifted to the front side, remove the upper door [1].

17.3.4 Rear cover**(1) Procedure**

fd501fs2033c

1. Remove 4 screws [1] and then remove the rear cover /Lw [2].

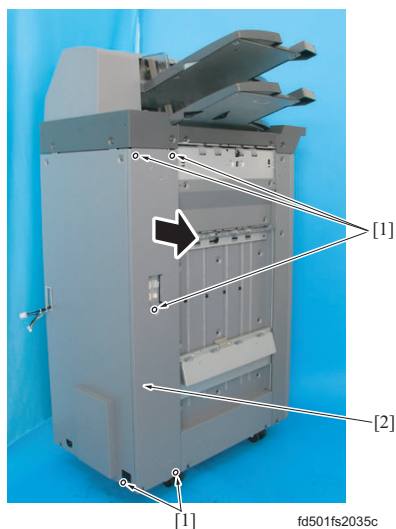
17.3.5 Left cover /Fr**(1) Procedure**

fd501fs2034c

1. Remove 3 screws [1] and then remove the left cover /Fr [2].

17.3.6 Left cover /Rr

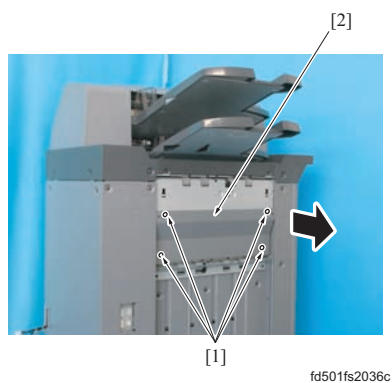
(1) Procedure



1. Remove 5 screws [1] and then remove the left cover /Rr [2].

17.3.7 Paper exit stopper cover

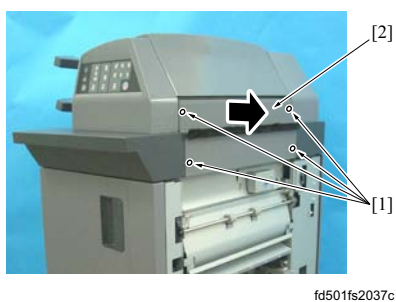
(1) Procedure



1. Remove 4 screws [1] and then remove the paper exit stopper cover [2].

17.3.8 Right cover

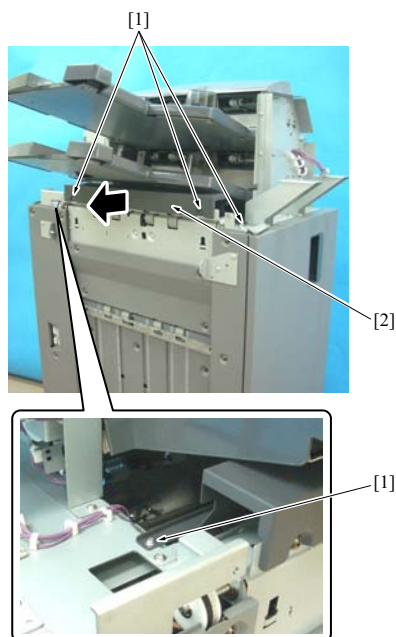
(1) Procedure



1. Remove 4 screws [1] and then remove the right cover [2].

17.3.9 Left cover /Up

(1) Procedure

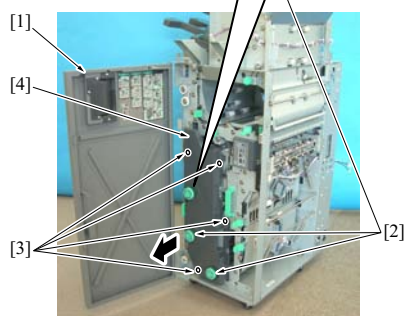
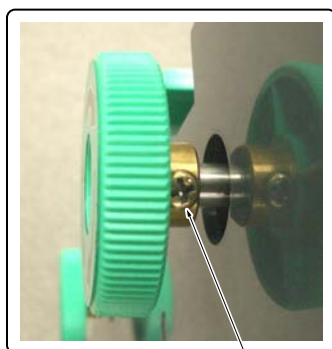


fd501fs2038c

1. Remove the upper cover /Fr, the PI cover /Fr, the upper cover /Rr and the PI cover /Rr.
2. Remove 4 screws [1] and then remove the left cover /Up [2].

17.3.10 Mount cover

(1) Procedure



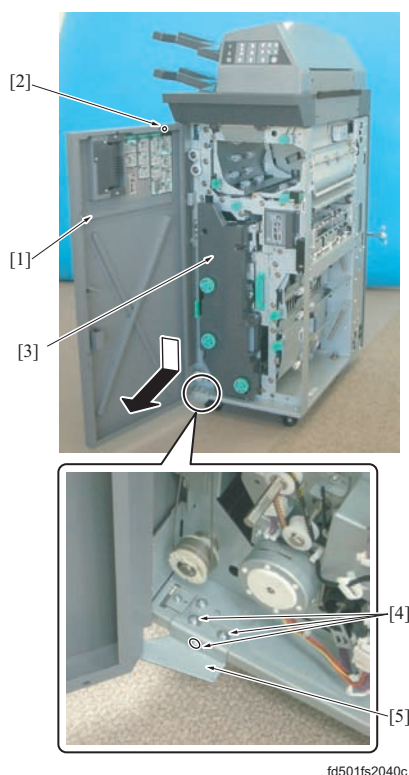
fd501fs2039c

1. Open the front door [1].
2. Remove 3 screws [2] of the handle and then remove the handle.
3. Remove 4 screws [3] and then remove the mount cover [4].

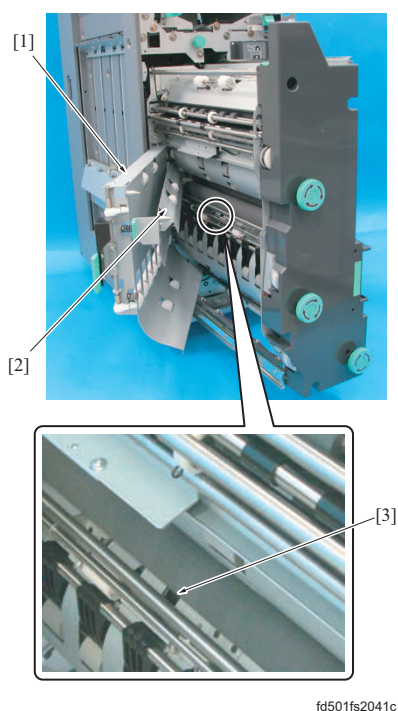
17.3.11 Front door

Note

- When removing the front door, be sure to support it so that it does not fall down.

(1) Procedure

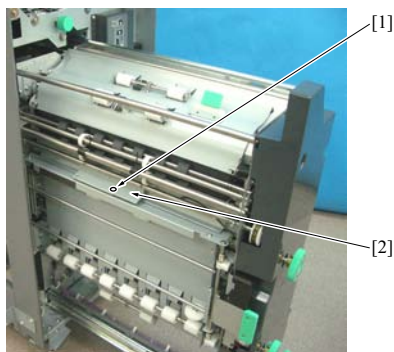
1. Open the front door [1].
2. Remove the screws [2].
3. Remove the mount cover [3].
4. Remove 3 screws [4] while pushing up the front door so that it does not fall down, and then remove the support plate [5].
5. Remove the front door [1].

17.3.12 Cleaning the 2nd folding conveyance sensor (PS53)**(1) Procedure**

1. Remove the front door and pull out the folding unit. (Refer to [G. 17.3.11 Front door](#))
2. Open the guide plates [1] and [2].
3. Clean the 2nd folding conveyance sensor (PS53) [3].

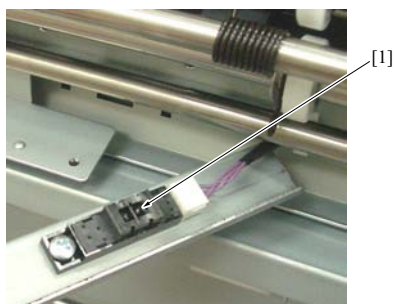
17.3.13 Cleaning the 3rd folding conveyance sensor (PS54)

(1) Procedure



fd501fs2042c

1. Remove the front door and pull out the folding unit. (Refer to [G. 17.3.11 Front door](#))
2. Remove the screw [1] and turn over the sensor mounting plate [2].

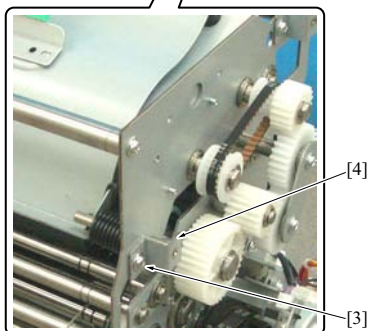
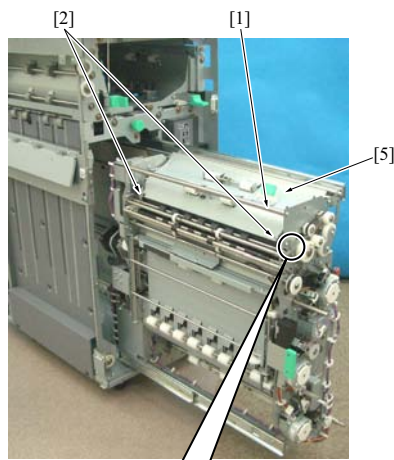


fd501fs2043c

3. Clean the 3rd folding conveyance sensor (PS54) [1].

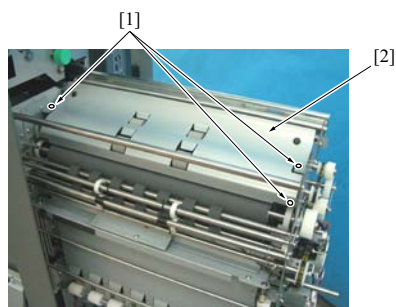
17.3.14 Cleaning the 3rd folding roller

(1) Procedure



fd501fs2044c

1. Open the front door and pull out the folding unit. (Refer to [G. 17.3.11 Front door](#))
2. Remove the stand cover. (Refer to [G. 17.3.10 Mount cover](#))
3. The 2 springs [2] are hooked to the shaft [1]. Remove them from the shaft [1].
4. Remove the screw [3] and then remove 2 springs [2], the support plate [4] and the guide plate [5].



fd501fs2045c

5. Remove 3 screws [1] and then remove the guide plate [2].



fd501fs2046c

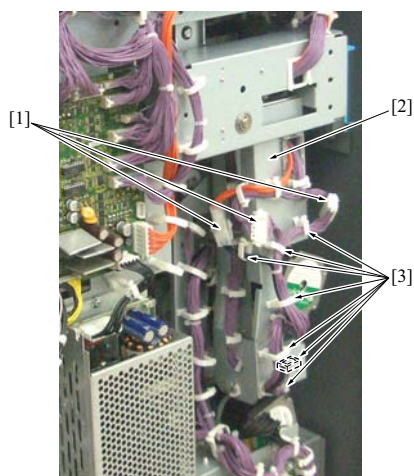
6. Clean the 3rd folding roller [1].

17.3.15 Folding conveyance section

⚠ CAUTION

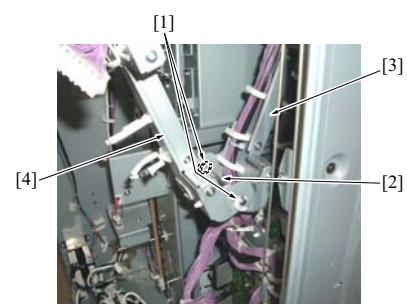
- The folding conveyance section is heavy. Be sure to conduct this operation with 2 people.

(1) Procedure



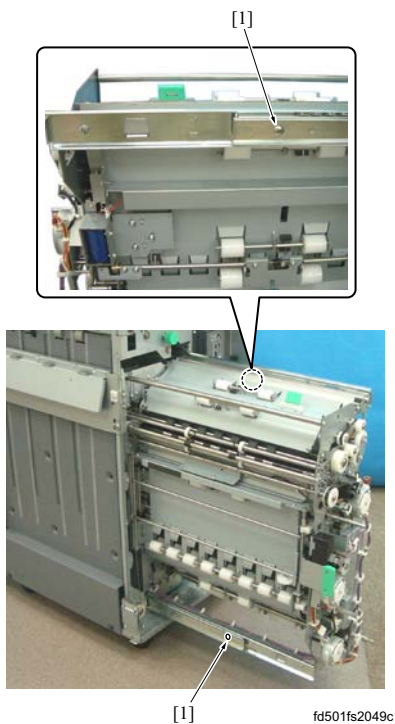
fd501fs2047c

1. Remove the front door and the rear cover.
2. Disconnect 3 connectors [1] and then remove the wiring harnesses from the 7 wiring harness guides [3] of the coupling arm /Rr [2].

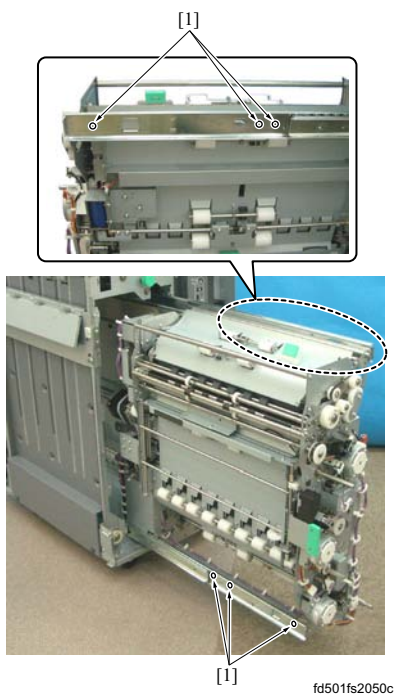


fd501fs2048c

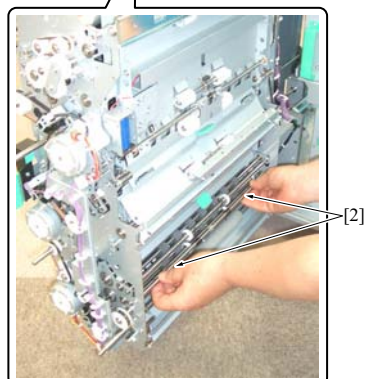
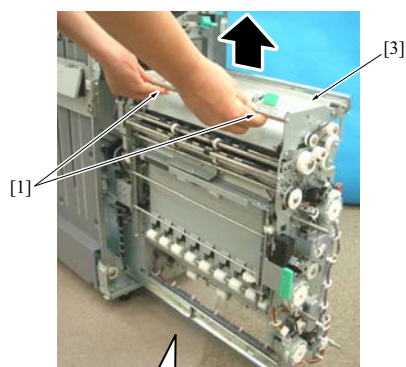
3. Remove 2 C-clips [1].
4. Remove the shaft [2] and separate the coupling arm /Fr [3] and the coupling arm /Rr [4].



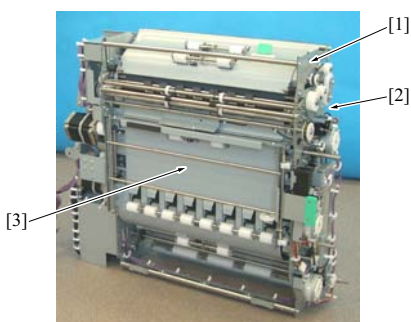
5. Remove the stopper screws [1], 1 each, from the left and right rails and pull further out the folding conveyance section.



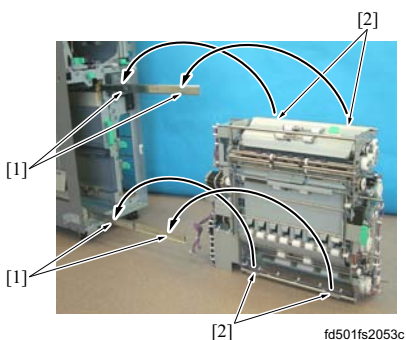
6. Remove screws [1], 3 each, from the left and right rails.



fd501fs2051c



fd501fs2052c



fd501fs2053c

7. Hold the folding conveyance section [3] at the specified places [1] and [2] and remove it while lifting it up.

CAUTION

- Be careful of your posture when removing it. Be sure to conduct this operation with 2 people so that you do not suffer backache.

Note

- When lifting up the folding conveyance section, be sure to hold the shaft at the places [1] and [2]. Holding it at other places such as the roller shaft or the guide plate may cause deformation to these places.

8. Stand the folding conveyance section [1] upright when it has been removed, or lay it down on the right-side [2].

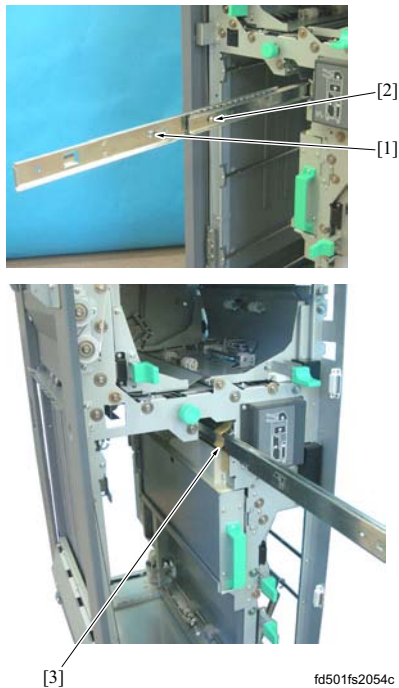
Note

- Be careful not to lay it with the left side [3] down. The guide plate may get deformed.

9. Check point when reinstalling the folding conveyance section

Note

- When installing the folding conveyance section, make sure that all 4 hooks [1] of the rails have engaged the attaching holes [2] of the folding conveyance section.
- The top should be attached by pushing it to the right to engage the upper rail and the bottom pushed to the left to engage the lower rail.



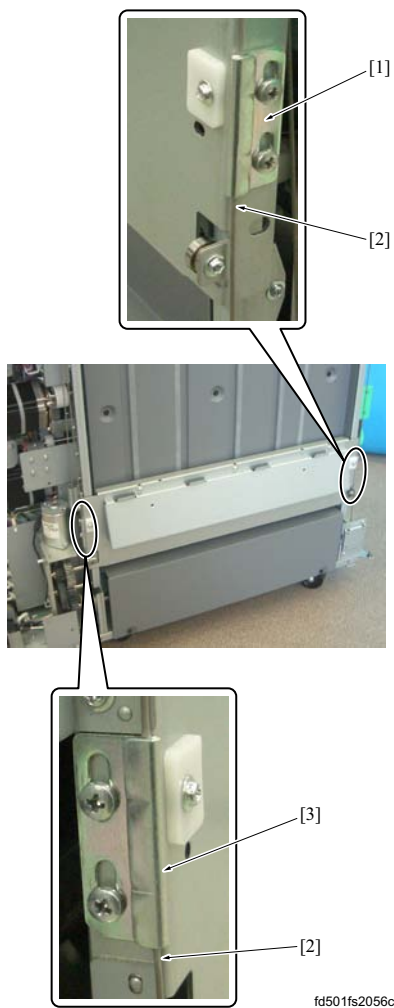
10. Reinstall the above parts following the removal steps in reverse.

Note

- When installing the folding conveyance section, pull out the rail further than the length of the stopper [1]. Use the stopper screw [2] to fasten it tentatively at its fully pulled-out position and fix the rail on the opposite side with tape [3]. It prevents the rail from moving to inside for an easy and smooth operation.

17.3.16 Main tray up/down wire

(1) Procedure



1. Check point when removing/reinstalling the main tray up/down wire.

Note

- The following procedure for replacing the up/down wire shows the examples on the rear side. The figuration and the winding of wires on the front side are symmetrical to those on the rear side.
- There are 2 types of up/down wires provided, one [1] on the front side and the other [3] on the rear side. Be sure to use the wire with the correct wire mounting plate direction when installing it. The direction of the wire mounting plate distinguished between these 2 wires when the shorter wire [2] is placed under the longer wire.

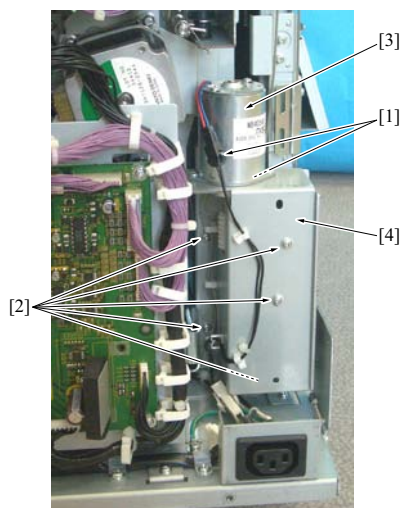
2. Remove the following parts.

Rear cover (Refer to [G.17.3.4 Rear cover](#))

Left cover /Fr (Refer to [G.17.3.5 Left cover /Fr](#))

Left cover /Rr (Refer to [G.17.3.6 Left cover /Rr](#))

Front door (Refer to [G.17.3.11 Front door](#))

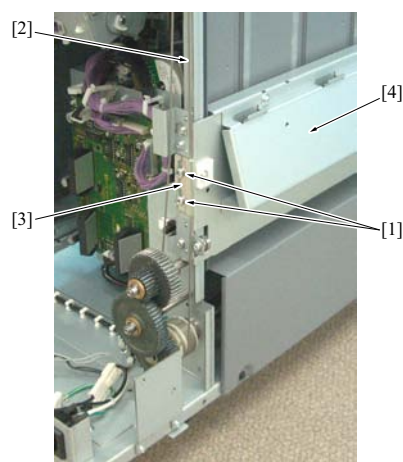


fd501fs2057c

3. Remove 2 connectors [1] and 5 screws [2], and then remove the gear box [4] together with the up/down motor (M11) [3].

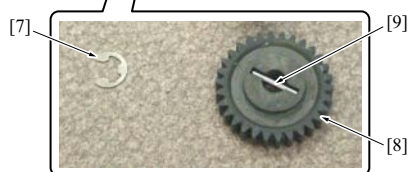
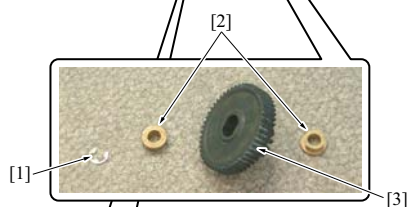
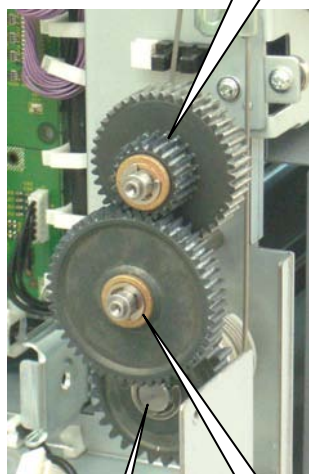
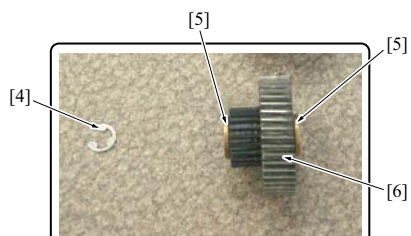
CAUTION

- When the gear box is removed, the up/down stay may fall down. So, when removing the gear box, be sure to support the stay with your hands.



fd501fs2058c

4. Remove 2 screws [1] and then remove the wire mounting plate [3] of the up/down wire /Rr [2] from the up/down stay [4].

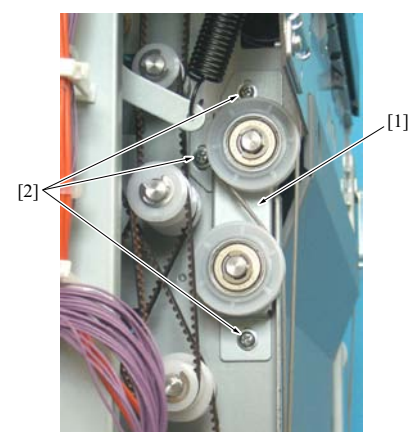


fd501fs2059c

5. Remove the E-ring [1] and then remove the gear [3] together with the 2 bearings [2].
6. Remove the E-ring [4] and then remove the gear [6] together with the 2 bearings [5].
7. Remove the E-ring [7] and then remove the gear [8] and the pin [9].

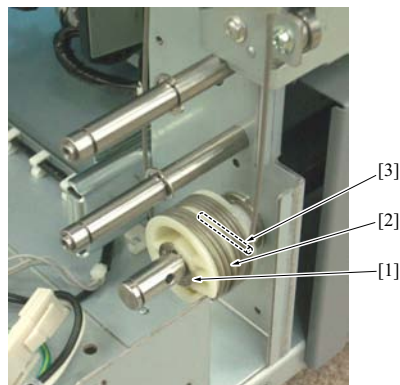
Note

- When removing the gear [8], be careful not to drop the pin [9].



fd501fs2060c

8. Loosen 3 screws [2] of the belt tensioner [1].

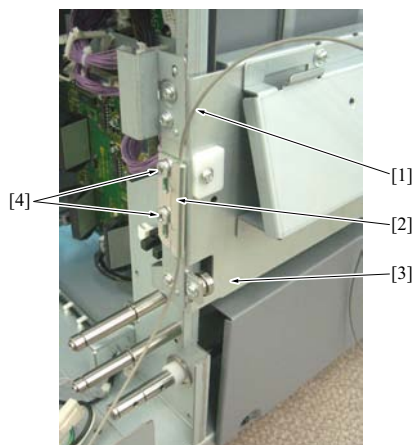


fd501fs2061c

9. Remove the E-ring [1] and then remove the up/down pulley /RrLw [2] and the pin [3].

Note

- When removing the up/down pulley /RrLw [2], be careful not to drop the pin [3].

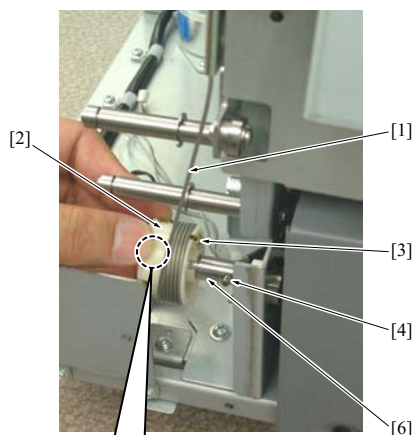


fd501fs2062c

10. Temporarily tighten the wire mounting plate [2] of a new up/down wire /Rr [1] to the up/down stay [3] with 2 screws [4].

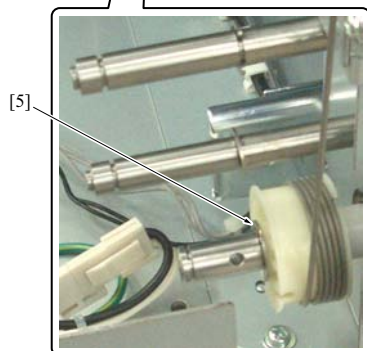
Note

- Install the up/down wires placing the shorter wire below the longer one with the wire supporting part of the mounting plate outside.
- There are 2 types of up/down wires, one for the front side and the other for the rear side, but these 2 wires are different in the direction of the wire mounting plates. Be sure to use a wire that fits in with the direction of a wire mounting plate.



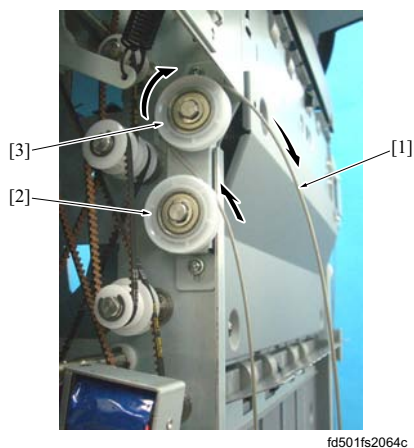
fd501fs2063c

11. Fasten the new up/down wire /Rr [1] with the wire end [3] provided on the inside of the up/down pulley /RrLw [2] and insert it into the shaft [6]. Rotate the up/down pulley /RrLw [2] and wind it 5.5 turns clockwise from inside to outside around the up/down pulley with no slack, and then insert the up/down pulley /RrLw [2] fully onto the shaft so that it coincides with the pin [4] and fasten it with the E-ring [5]. If the angle does not coincide with the pin [4], move up and down the front side of the up/down tray to change the angle of the shaft [6].

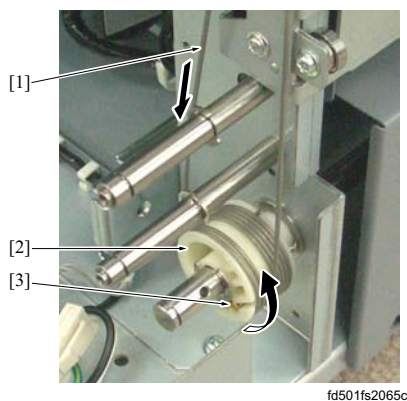


fd501fs2063c

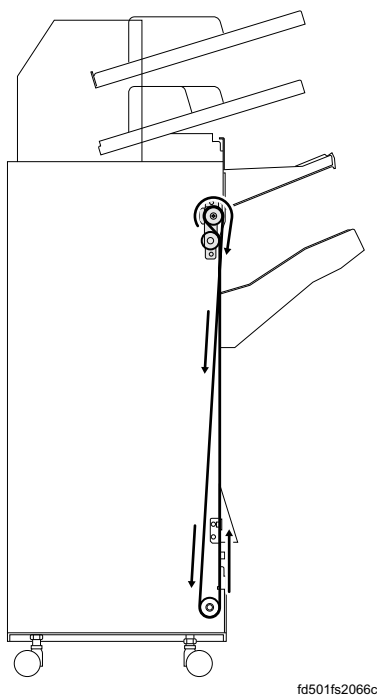
12. Hook up the up/down wire /Rr [1] onto the up/down pulley /RrUp [3] through the relay pulley /Rr [2].

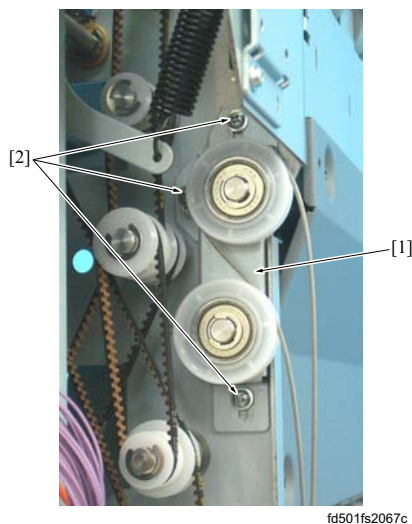


13. Wind the up/down wire /Rr [1] 2 turns counterclockwise from inside to outside around the up/down pulley /RrLw [2] with no slack and fasten it with the wire end [3].



14. The route along which the up/down wire /Rr passes
The route along which the up/down wire /Rr passes is, on the whole, as shown in the drawing left.

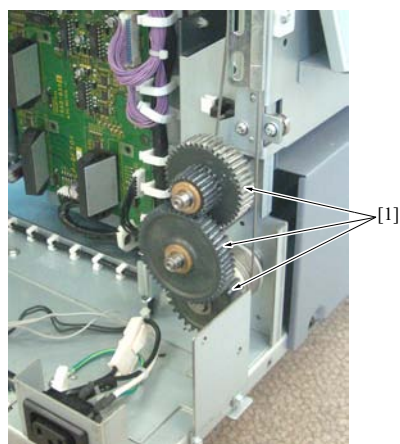




fd501fs2067c

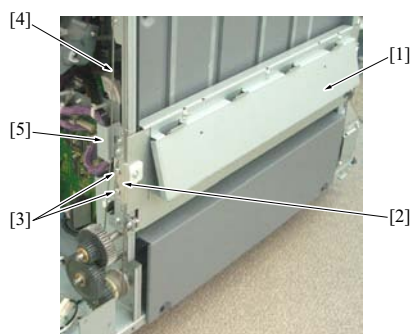
15. Use a tension gauge or spring balance to pull up the wire tensioner [1] upward with a designated force "A," and fasten it with the 3 screws [2].

Specified value: $A = 2.5\text{kg} \pm 0.25\text{kg}$



fd501fs2068c

16. Reinstall the 3 gears [1] following the removal steps in reverse.



fd501fs2069c

17. With the up/down stay [1] held in a horizontal position, tighten the 2 screws [3] of the wire mounting plate [2].

Note

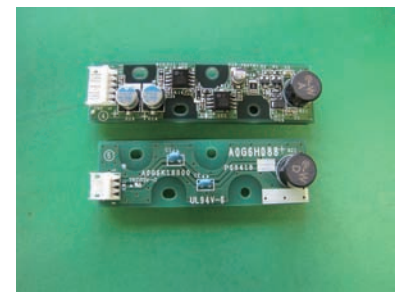
- Move the up/down stay up and down and check to see if it moves smoothly. If it does not move smoothly, adjust it again so that it becomes horizontal.
- Check the up/down wire [4] if it gets behind the actuator plate [5]. If it gets behind the douser, an unnecessary load is applied to the up/down wire [4] when the up/down stay [1] goes up.

18. Reinstall the above parts following the removal steps in reverse.

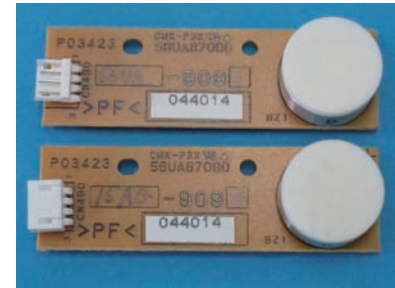
17.3.17 Way to distinguish between new and old types of the multi feed detection board /1 (MFDB/1) and /2 (MFDB/2)

Note

- Both of the multi feed detection boards /1 (MFDB/2) and /2 (MFDB/2) have new type [1] and old type [2].
- Each of the new and old types of the multi feed detection board /1 (MFDB/1) and /2 (MFDB/2) has different mounting metal frames and PI drive boards (PIDB) that correspond to each detection board, and are incompatible.



[1]



[2]

17.3.18 Multi feed detection board /1 (MFDB/1) and /2 (MFDB/2) (new type)

Note

- When the multi feed detection board is replaced, be sure to conduct the adjustment in replacing multi feed detection board (PI). (Refer to [I.5.6.9 Adjustment when replacing the multi feed detection board \(PI\) \(new type\)](#))

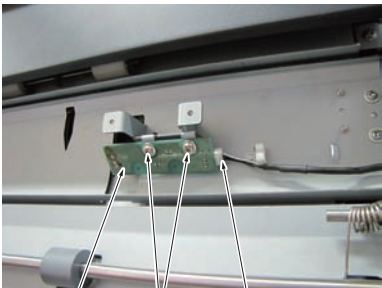
(1) Procedure



[2] [1]

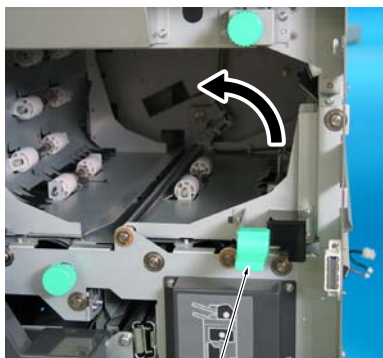
fd501fs2070c

- Remove 2 screws [1] and then remove the multi feed detection board /1 (MFDB/1) cover [2].



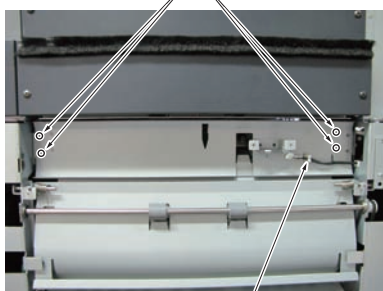
[3] [2] [1]

- Disconnect the connector [1].
- Remove 2 screws [2] and then remove the multi feed detection board /1 (MFDB/1) [3].

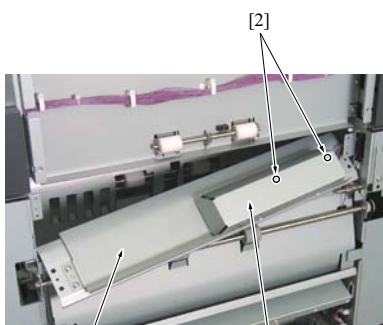


[1]

fd501fs2072c



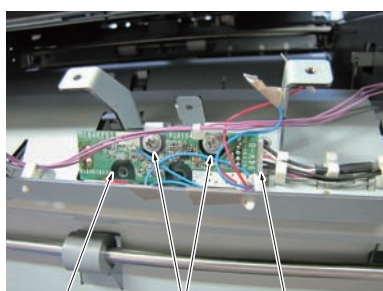
[2]



[1]

[3]

fd501fs2074c



[3]

[2]

[1]

4. Open the front door and then open the conveyance guide plate /2 [1] in the upper right direction.

5. Remove 4 screws [1].
6. Remove the wiring harness of the multi feed detection board /1 (MFDB/1) from the wiring harness guide [2].

7. Turn around the conveyance guide plate /2 assy [1] inside the machine and pull it to the outside.
8. Remove 2 screws [2] and then remove the multi feed detection board /2 cover [3].

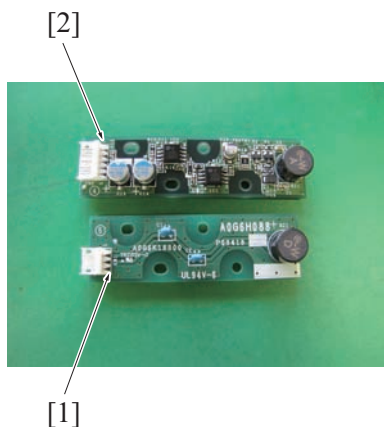
Note

- When turning it around, or when disassembling or reassembling it, be careful not to damage the wiring harness.

9. Disconnect the connector [1].
10. Remove 2 screws [2] and then remove the multi feed detection board /2 (MFDB/2) [3].
11. Reinstall the above parts following the removal steps in reverse.

(2) Note for installing the multi feed detection boards /1 (MFDB/1) and /2 (MFDB/2)

- Multi feed detection board /1 (MFDB/1) [1] and /2 (MFDB/2) [2] are different in shape. When reinstalling them, be sure to set at the proper positions.

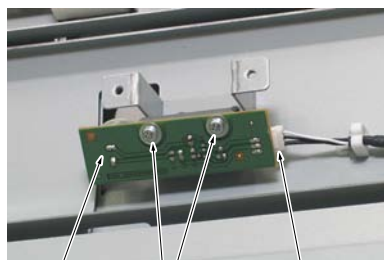
**17.3.19 Multi feed detection board /1 (MFDB/1) and /2 (MFDB/2) (old type)****Note**

- When replacing the multi-feed detection board /1 (MFDB/1), be sure to replace the multi-feed detection board /2 (MFDB/2) at the same time.
- When the multi-feed detection board is replaced, be sure to conduct the adjustment in replacing multi-feed detection board (PI). (Refer to [I.5.6.10 Adjustment when replacing the multi feed detection board \(PI\) \(old type\)](#))

(1) Procedure

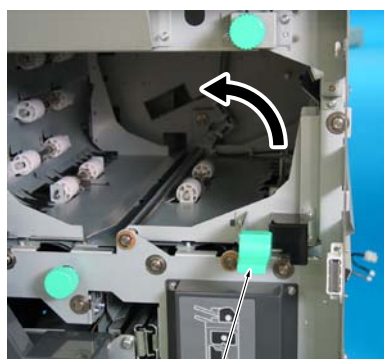
fd501fs2070c

- Remove 2 screws [1] and then remove the multi-feed detection board /1 (MFDB/1) cover [2].



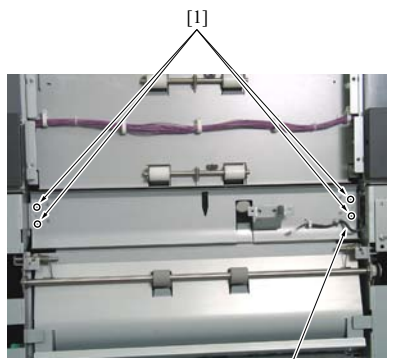
fd501fs2071c

- Disconnect the connector [1].
- Remove 2 screws [2] and then remove the multi-feed detection board /1 (MFDB/1) [3].

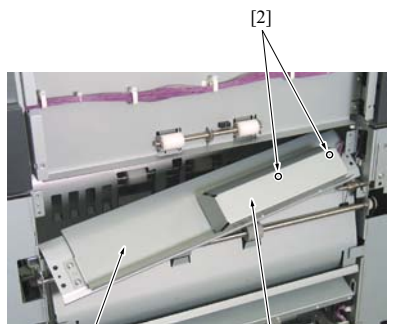


fd501fs2072c

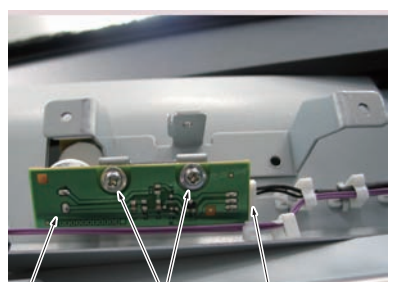
- Open the front door and then open the conveyance guide plate /2 [1] in the upper right direction.



[2] fd501fs2073c



[1] [3] fd501fs2074c



[3] [2] [1] a0h0t3c007ca

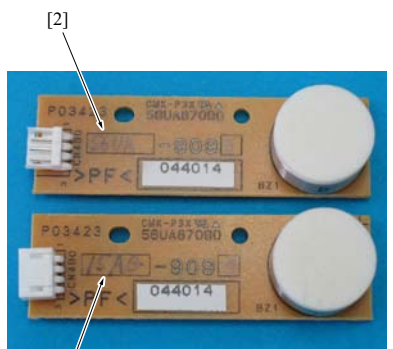
5. Remove 4 screws [1].
6. Remove the wiring harness of the multi-feed detection board /1 (MFDB/1) from the wiring harness guide [2].

7. Turn around the conveyance guide plate /2 Assy [1] inside the machine and pull it to the outside.
8. Remove 2 screws [2] and then remove the multi-feed detection board /2 cover [3].

Note

- When turning it around, or when disassembling or reassembling it, be careful not to damage the wiring harness.

9. Disconnect the connector [1].
10. Remove 2 screws [2] and then remove the multi-feed detection board /2 (MFDB/2) [3].
11. Reinstall the above parts following the removal steps in reverse.

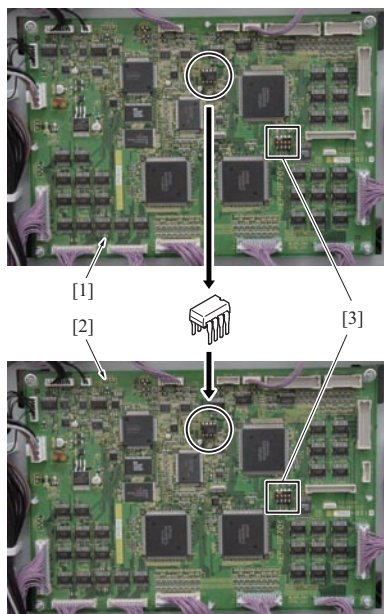
(2) Note for installing the multi-feed detection boards /1 (MFDB/1) and /2 (MFDB/2)

[1] fd501fs2076c

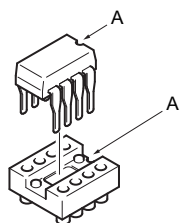
- The multi-feed detection boards /1 (MFDB/1) and /2 (MFDB/2) are installed on the same type board. Be careful not to confuse one with the other when installing them.
- Be sure to confirm the marking on the board when installing it.
Multi-feed detection board /1 (MFDB/1) [1]: 15AG
Multi-feed detection board /2 (MFDB/2) [2]: 56UA
- The connector shape is different for the multi-feed detection boards /1 (MFDB/1) and /2 (MFDB/2). So, even if it is installed, the connector cannot be connected.

17.3.20 Note for replacing the board**Note**

- When the FD control board (FDCB) is replaced, be sure to replace the EEPROM (IC68).



fd501fs2077c



fd501fs2078c

1. Install EEPROM (IC68) of the old control board [1] to the new control board [2].

Note

- Be sure to set the SW3 [3] same as the old FDCB. (Refer to [L.2.12.1 PI drive board \(PIDB\)](#))

2. Check point when reinstalling the EEPROM (IC68)

Note

- Be sure to install the "A" sections of the EEPROM (IC68) in the same direction.

After replacing the FD control board (FDCB), conduct rewriting of the firmware.

(Refer to [J. Rewriting of firmware](#))

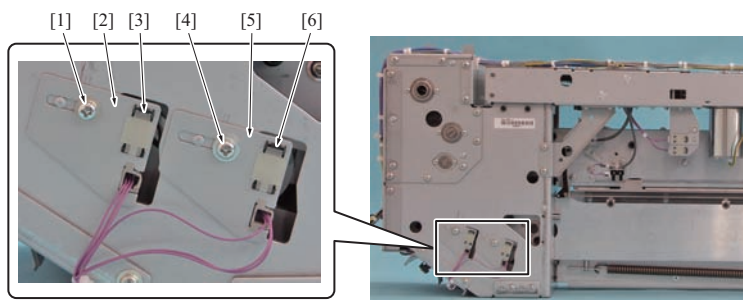
18. SD-506

18.1 Items not allowed to be disassembled/reassembled

18.1.1 Trimmer blade home sensor (PS50), Trimmer blade upper limit sensor (PS51)

(1) Positions from which removing is prohibited

- 1 fixing screw of the mounting plate on each trimmer blade home sensor (PS50) and trimmer blade upper limit sensor (PS51)



a0h2t3c061ca

[1]	Screw not allowed to be adjusted/removed	[2]	Mounting plate
[3]	Trimmer blade upper limit sensor (PS51)	[4]	Screw not allowed to be adjusted/removed
[5]	Mounting plate	[6]	Trimmer blade home sensor (PS50)

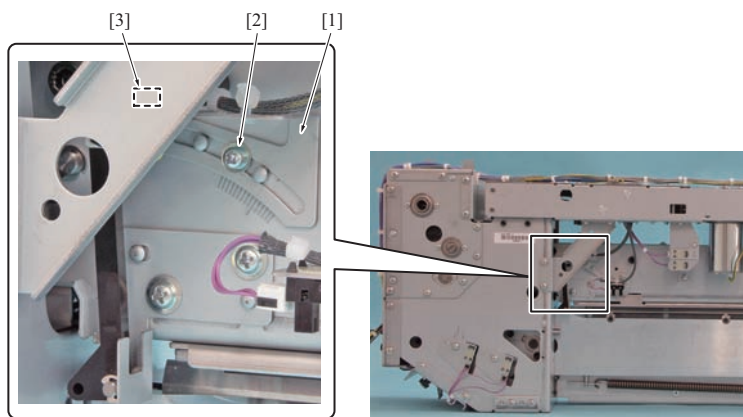
(2) Reason of prohibition

- The trimmer blade home sensor (PS50) detects the home position of the trimmer blade. Once the home position is out of alignment, the trimmer blade gets out from the trimmer press plate. It prevents paper from entering to the trimmer section and causes the trimming error or damages the trimmer blade retaining plate. Therefore, be sure not to change the installation position of PS50.
- The trimmer blade upper limit sensor (PS51) detects the upper limit of the trimmer blade after the completion of the trimming. Once the upper limit detection is out of alignment, the paper fails to be trimmed because the trimmer blade stops before the completion or the trimmer blade and the trimmer board get damaged because the trimmer blade cuts in the trimmer board deeply. Therefore, be sure not to change the installation position of PS51.

18.1.2 Trimmer completion sensor (PS62)

(1) Positions from which removing is prohibited

- 1 fixing screw of the trimmer completion sensor (PS62) mounting plate



a0h2t3c062ca

[1]	Mounting plate	[2]	Screw not allowed to be adjusted/removed
[3]	Trimmer completion sensor (PS62)	-	

(2) Reason of prohibition

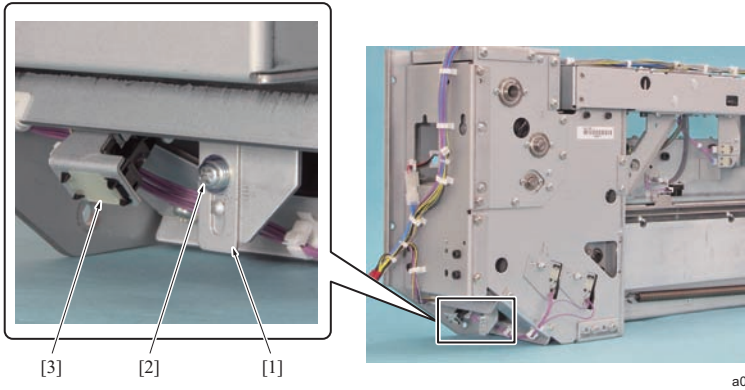
- The trimmer completion sensor (PS62) detects the completion of the trimming. Once the trimmer completion timing is out of alignment, the paper fails to be trimmed or the trimmer blade and the trimmer board get damaged because the trimmer blade cuts in the trimmer board deeply. Therefore, be sure not to change the installation position of PS50.

18.1.3 Wire slack prevention sensor (PS66)

(1) Positions from which removing is prohibited

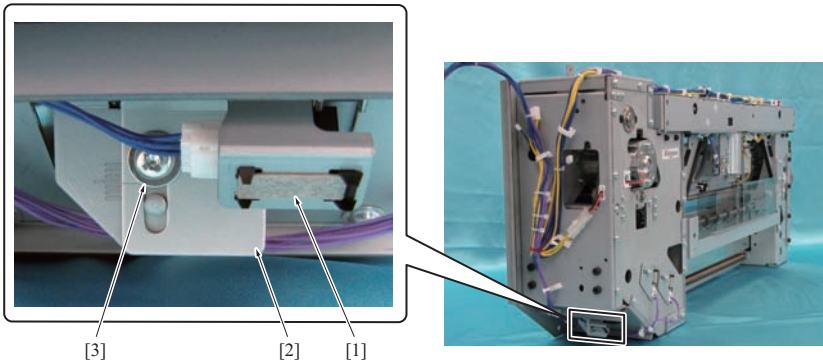
- 1 fixing screw of the wire slack prevention sensor (PS66) mounting plate

(a) Previous trimmer unit



[1]	Mounting plate	[2]	Screw not allowed to be adjusted/removed
[3]	Wire slack prevention sensor (PS66)	-	

(b) New trimmer unit



[1]	Wire slack prevention sensor (PS66)	[2]	Mounting plate
[3]	Screw not allowed to be adjusted/removed	-	

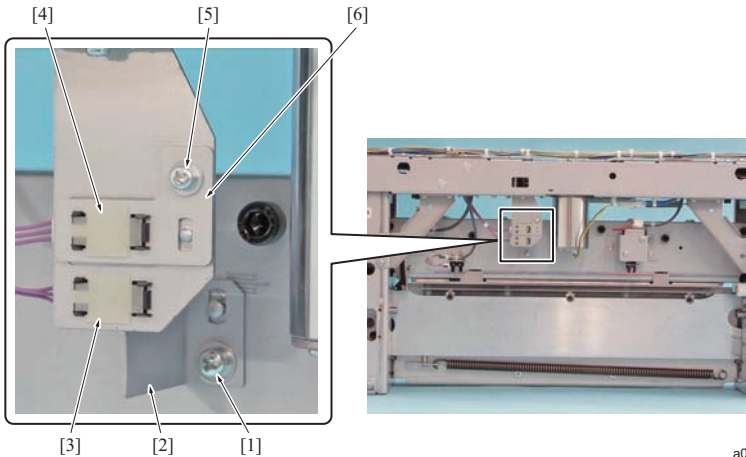
(2) Reason of prohibition

- The wire slack prevention sensor (PS66) detects the slack of the winding wire on the trimmer blade. Once the detection position is out of alignment, the wire is removed from the winding pulley and damages the trimmer unit. Therefore, be sure not to change the installation position of PS66.

18.1.4 Trimmer press upper limit sensor (PS52), Trimmer press home sensor (PS53)

(1) Positions from which removing is prohibited

- 1 fixing screw of the trimmer press upper limit sensor (PS52) mounting plate
- 1 fixing screw of the trimmer press home sensor (PS53) actuator



[1]	Screw not allowed to be adjusted/removed	[2]	Actuator
[3]	Trimmer press home sensor (PS53)	[4]	Trimmer press upper limit sensor (PS52)

[5] Screw not allowed to be adjusted/removed	[6] Mounting plate
--	--------------------

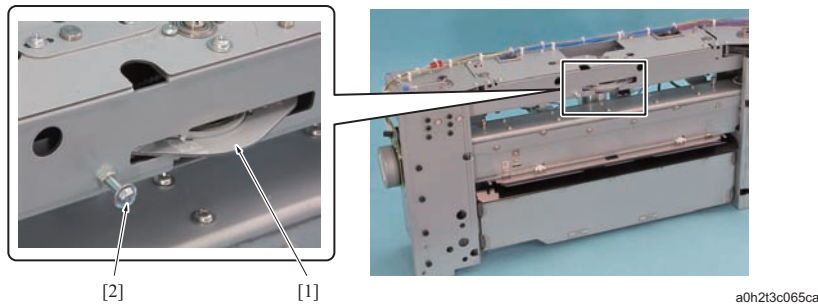
(2) Reason of prohibition

- The trimmer press home sensor (PS53) detects the home position of the trimmer press plate. Once the home position is out of alignment, the opening is not opened enough for the paper. It causes the trimming error by preventing paper from entering to the trimming section. Therefore, be sure not to change the position of the actuator of PS53.
- The trimmer press upper limit sensor (PS52) detects the upper limit of the trimmer press. Once the upper limit position is out of alignment, the opening is not opened enough for the paper. It causes the trimming error by preventing paper from entering to the trimming section, or the opening is not enough for replacing the trimmer blade. Therefore, be sure not to change the installation position of PS52.

18.1.5 Trimmer press brake

(1) Positions from which removing is prohibited

- 1 gap adjusting screw of the trimmer press brake



[1] Trimmer press brake	[2] Screw not allowed to be adjusted/removed
-------------------------	--

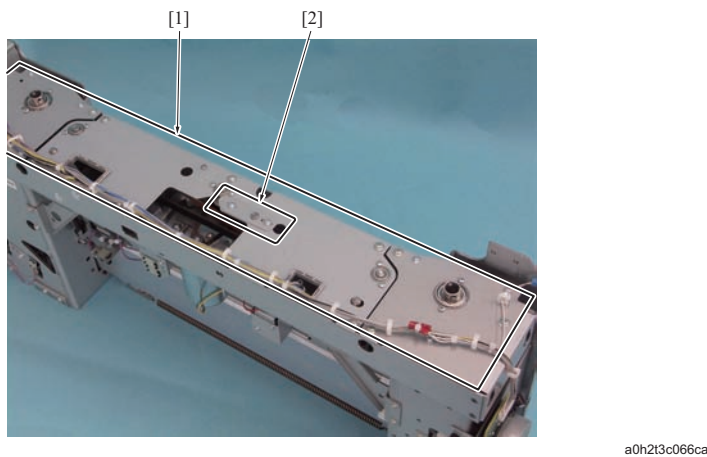
(2) Reason of prohibition

- The trimmer press brake pushes the timing belt and prevents the trimmer press motor (M32) from rotating too much which caused by the inertia of the trimmer press board. Once the gap between the trimmer press brake and the timing belt changes, it damages the timing belt or disables the brake. Therefore, be sure not to adjust the gap adjusting screw of the trimmer press brake.

18.1.6 Fixing screw of the trimmer press timing belt

(1) Positions from which removing is prohibited

- All screws which fix the driving system of the trimmer press



[1] Screws not allowed to be adjusted/removed (all screws shown in the picture)	[2] Screws allowed to be removed
---	----------------------------------

(2) Reason of prohibition

- The paper holding screw on right and left drives the trimmer press plate through the timing belt. Once the part such as gear of the driving system is removed, the parallelism of the trimmer press plate is not guaranteed because of the belt tooth skipping. Therefore, be sure not to remove the attaching screw of the cover which fixes the driving system and the bearing fixing screw.

18.2 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Rear cover /Lt
2		Rear cover /Rt
3		Left cover
4		Upper cover /Fr

5		Upper cover /Rr3
6		Sub tray cover
7		Front door /Lt
8		Front door /Rt
9	Folding section	Folding unit

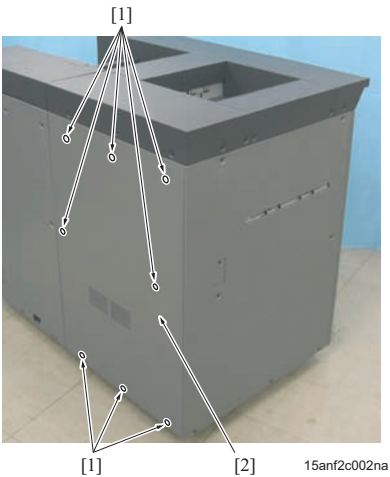
18.3 Disassembling and assembling procedures

18.3.1 Precautions on disassembling and assembling

- ⚠ CAUTION
- Be sure to unplug the power plug from the power outlet.

18.3.2 Rear cover /Lt

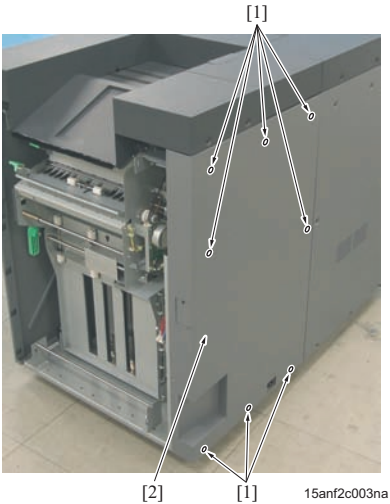
(1) Procedure



1. Remove 8 screws [1], and then remove the rear cover /Lt [2].
2. Reinstall the above parts following the removal steps in reverse.

18.3.3 Rear cover /Rt

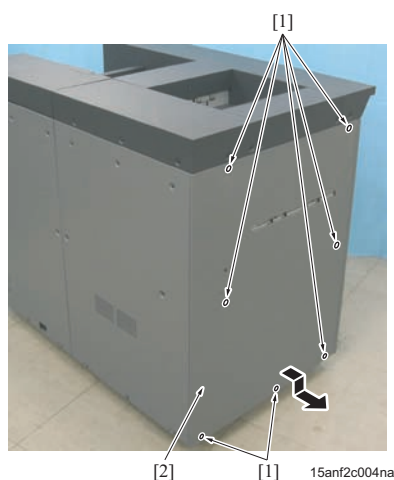
(1) Procedure



1. Remove 8 screws [1], and then remove the rear cover /Rt [2].
2. Reinstall the above parts following the removal steps in reverse.

18.3.4 Left cover

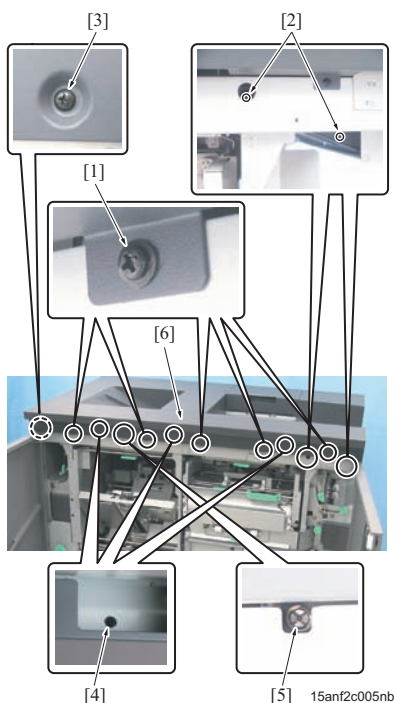
(1) Procedure



1. Remove 7 screws [1], slide the bottom of the left cover [2] to the outside, and remove it to the bottom.
2. Reinstall the above parts following the removal steps in reverse.

18.3.5 Upper cover /Fr

(1) Procedure



1. Open the front doors /Rt and /Lt.
2. Remove the 5 screws [1] on the front, 2 screws [2], 1 screw [3] on the left, and 3 screws [4] under the cover.
3. Loosen a screw [5].
4. Lift up and remove the upper cover /Fr [6].

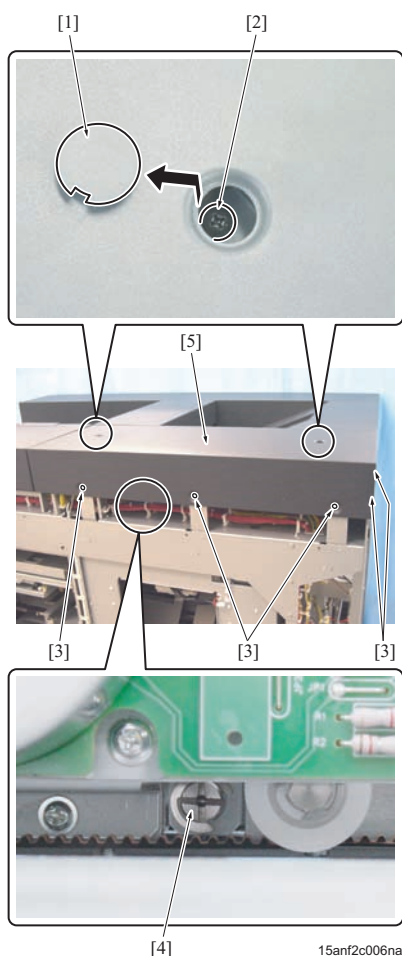
Note

- When removing the upper cover /Fr [6], pull the screw [5] to the front so that the tip of the screw does not catch the upper cover /Fr [6].

5. Reinstall the above parts following the removal steps in reverse.

18.3.6 Upper cover /Rr3

(1) Procedure



1. Remove the rear cover /Lt. (Refer to [G.18.3.2 Rear cover /Lt](#))
2. Remove 2 screw caps [1] and then remove 2 screws [2].
3. Remove 5 screws [3].
4. Loosen the screw [4] and then remove the upper cover /Rr3 [5].

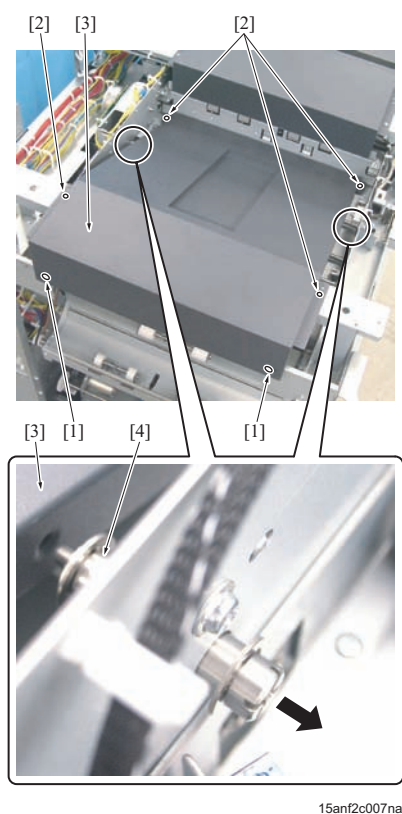
Note

- When removing the upper cover /Rr3 [5], pull the screw [4] to the front so that the tip of the screw does not catch the upper cover /Rr3 [5].

5. Reinstall the above parts following the removal steps in reverse.

18.3.7 Sub tray cover

(1) Procedure



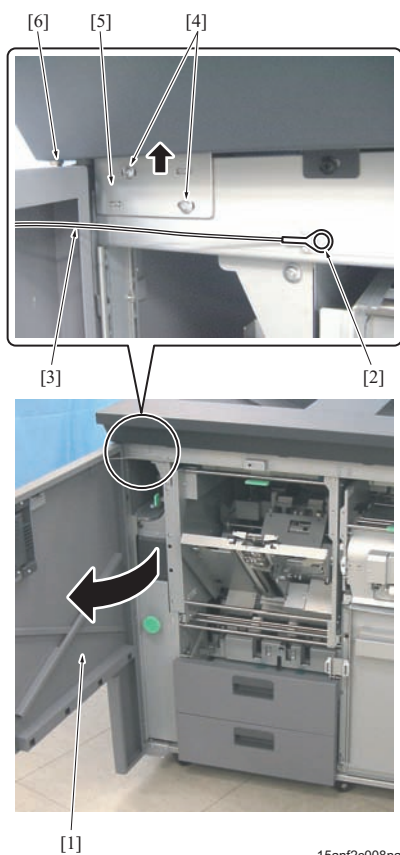
1. Remove the upper cover /Fr. (Refer to [G.18.3.5 Upper cover /Fr](#))
2. Remove the upper cover /Rr3. (Refer to [G.18.3.6 Upper cover /Rr3](#))
3. Remove 2 screws [1] and 4 screws [2], and then remove the sub tray cover [3].
4. Reinstall the above parts following the removal steps in reverse.

Note

- When reinstalling the sub tray cover [3], pull the screw [4] to the outside.

18.3.8 Front door /Lt

(1) Procedure



1. Open the front door /Lt [1].
2. Remove the screw [2], and then remove the front door stopper /Lt [3].
3. Remove 2 screws [4] and remove the fulcrum [6] by sliding the hinge [5] upward, and then remove the front door /Lt [1].

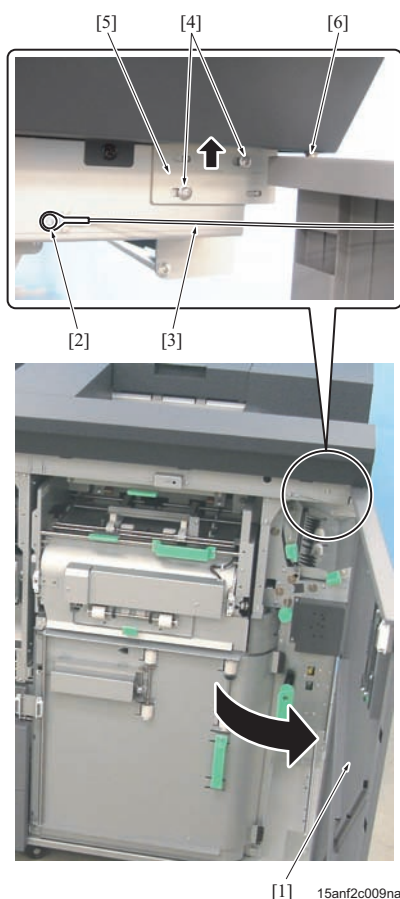
Note

- Support the front door /Lt [1] with your hand so that it does not fall down when removing the screw [4].

4. Reinstall the above parts following the removal steps in reverse.

18.3.9 Front door /Rt

(1) Procedure



1. Open the front door /Rt [1].
2. Remove the screw [2], and then remove the front door stopper /Rt [3].
3. Remove 2 screws [4], remove the fulcrum [6] by sliding the hinge [5] upward, and then remove the front door /Rt [1].

Note

- Support the front door /Rt [1] with your hand so that it does not fall down when removing the screw [4].

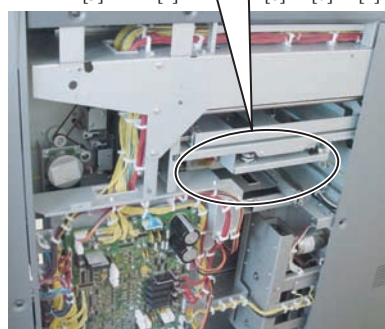
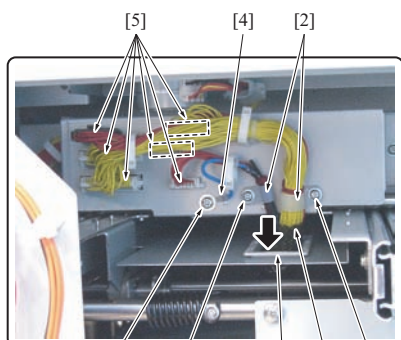
4. Reinstall the above parts following the removal steps in reverse.

18.3.10 Folding unit

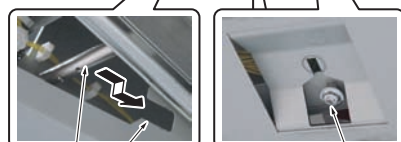
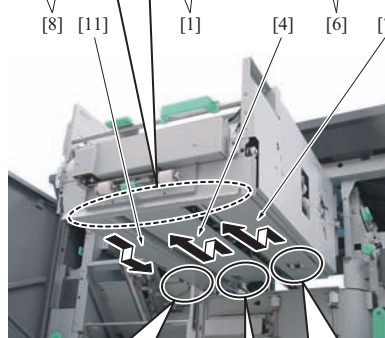
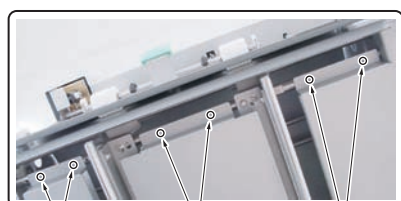
⚠ CAUTION

- Be sure to perform this operation with 2 people because the folding unit is heavy.

(1) Procedure



15anf2c010na



15anf2c011na

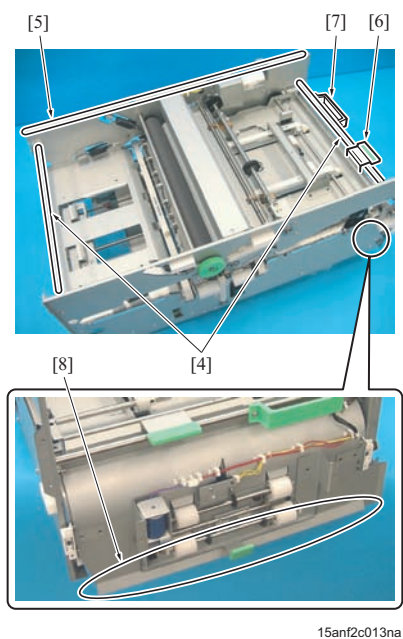
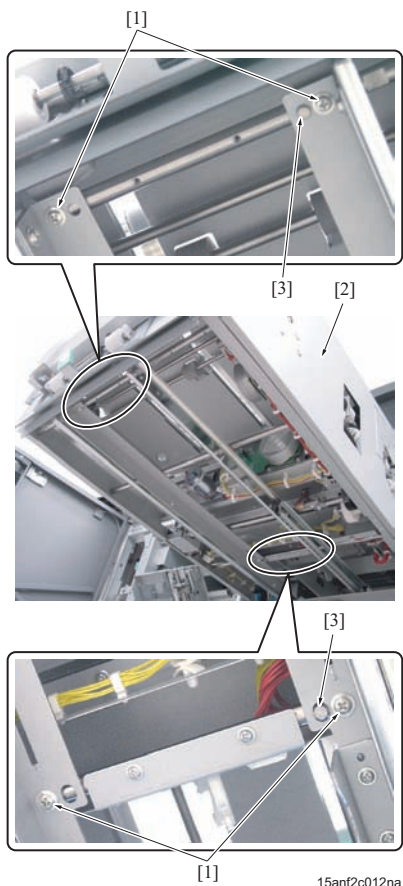
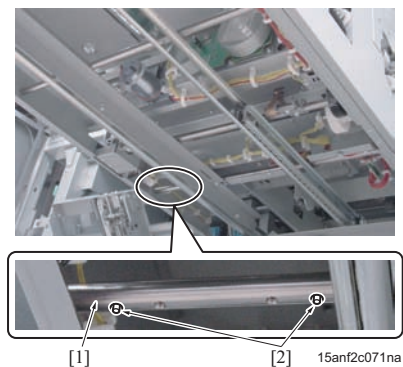
1. Remove the front door /Rt. (Refer to [G.18.3.9 Front door /Rt](#))
2. Remove the rear cover /Rt. (Refer to [G.18.3.3 Rear cover /Rt](#))
3. Remove 2 screws [1] and 2 clamps [2] from the rear of the folding unit.

Note

- Be sure not to let the clamps [2] fall down.

4. Remove the screw [3] and the ground [4].
5. Disconnect 6 connectors [5].
6. Remove the clamp and fall drop the wiring harness [7] from the hole [6] on the wiring harness guide.

7. Pull out the folding unit.
8. Pull out the folding unit. Remove 2 screws [1], separate the notch [2] from the hole [3] and remove the lower cover /2 [4].
9. Loosen the screw [5], remove the 2 screws [6] and remove the lower cover /1 [7].
10. Remove 2 screws [8], separate the notch [10] from the shaft [9] and remove the lower cover /3 [11].



11. Check point when reinstalling the lower cover /3.

Note

- Install the lower cover /3 [11] between 2 pins [2] of the shaft [1]. If it is installed at an improper position, other parts are damaged in storing the folding unit.

12. Remove 4 screws [1], and then lift up and remove the folding unit [2] with 2 people.

Note

- When reinstalling it, be sure to align the positioning pin [3] with the hole.

13. Reinstall the above parts following the removal steps in reverse.

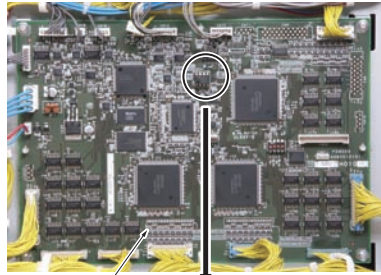
Note

- When holding the folding unit, be sure to hold the shafts [4] at front and rear or the upper top of the side plate [5]. Never hold the jam release lever [6] or the handle [7]. They get damaged.
- When placing the folding unit, place it on the table to avoid the guide plate [8] on the front being contacted with the floor because it is projected from the bottom of the unit.

18.3.11 Note for replacing the board

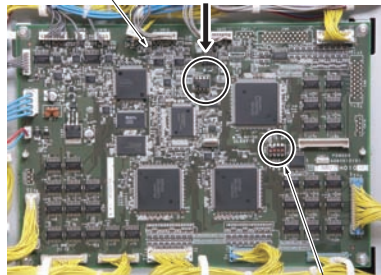
Note

- When the SD control board (SDCB) is replaced, be sure to replace the EEPROM (IC68).

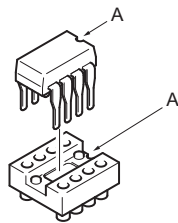


[1]

[2]



[3]



a0g6f3c053ca

- Remove the EEPROM (IC68) from the old SD control board (SDCB) [1] and install it into the new SD control board (SDCB) [2].

Note

- Be sure to install the "A" sections of the EEPROM (IC68) in the same direction.
- Be sure to set the SW3 [3] as the same as the settings of the old SDCB. (Refer to [L.2.10.1 SD control board](#))
- After replacing the SD control board (SDCB), conduct rewriting of the firmware. (Refer to [J. Rewriting of firmware](#))

19. PB-503

19.1 List of disassembling and assembling parts

No.	Section	Parts name
1	Cover	Front door
2		Front cover
3		Booklet door
4		Rear cover /Rt
5		Rear cover /Lt
6		Left cover
7		Relay conveyance gear cover /Fr
8		Relay conveyance gear cover /Rr
9		Pellet supply cover
10		SC cover /Fr
11		SC cover /Up
12		Upper cover /FrRt
13		Upper cover /FrLt
14		Upper cover /RrRt
15		Upper cover /RrLt
16		Upper cover /Md
17	Others	Deodorant unit
18	Pellet supply section	Pellet supply unit
19	Glue tank section	Glue tank unit
20	SC section	SC unit
21	Clamp section	Clamp unit
22	Others	PB left unit
23	Book stock section	Book lift wire
24		Cart wire
25	Conveyance section	Conveyance unit /Lw
26	Relay conveyance section	Relay conveyance unit
27	Cover paper supply section	Cover paper tray
28		Cover paper lift wire

19.2 Disassembling and assembling procedures

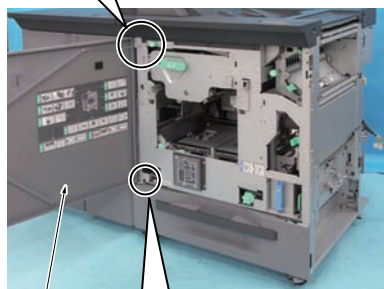
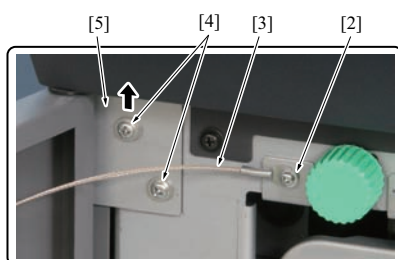
19.2.1 Precautions on disassembling and assembling

CAUTION

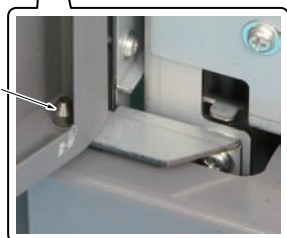
- Make sure to unplug the power cord of the main body from the power outlet when it is connected to the main body.

19.2.2 Front door

(1) Procedure



[1]



[6]

a15xt3c018ca

1. Open the front door [1].
2. Remove the screw [2] and then remove the wire [3].
3. Remove 2 screws [4], and then remove the front door [1] from the lower pin [6] with the mounting bracket [5] attaching to the front door [1].
4. Reinstall the above parts following the removal steps in reverse.

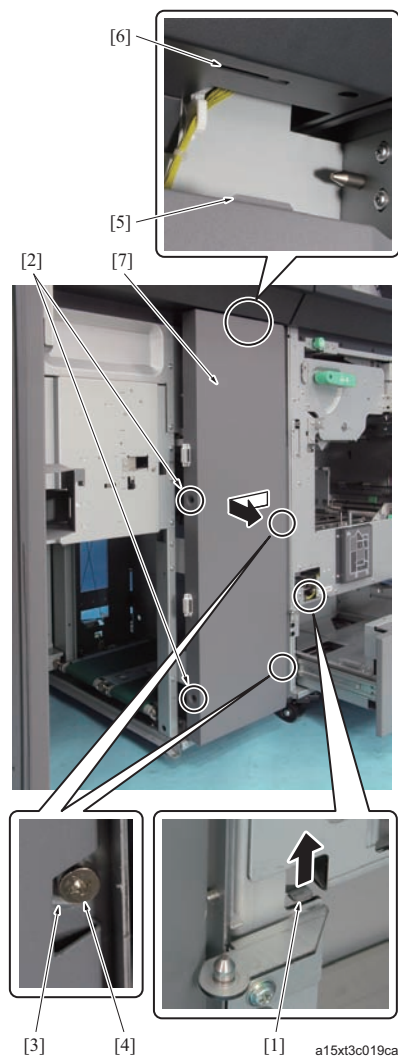
Note

- When reinstalling the wire [3], tighten the screw at the position in the picture. (In order to prevent the wire from contacting with the tab.)

19.2.3 Front cover

(1) Procedure

1. Remove the front door. (Refer to [G.19.2.2 Front door](#))
2. Lift the lever [1] and pull out the cover paper tray.
3. Remove 2 screws [2].
4. Release the notches [3] at 2 positions from the screws [4] and pull out the projection [5] from the hole [6], and then remove the front cover [7].
5. Reinstall the above parts following the removal steps in reverse.



19.2.4 Booklet door

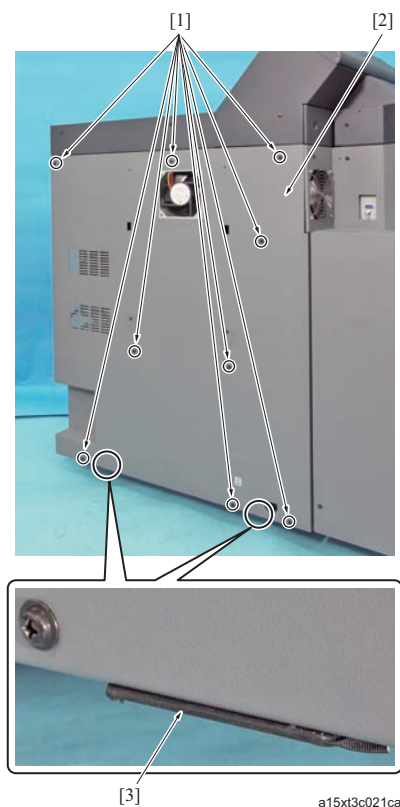
(1) Procedure



1. Open the booklet door [1].
2. Remove the screw [2] and then remove the wire [3].
3. Remove 2 screws [4], and then remove the booklet door [1] from the lower pin [6] with the mounting bracket [5] attaching to the booklet door [1].
4. Remove the mounting bracket [5] from the booklet door [1].
5. Reinstall the above parts following the removal steps in reverse.

19.2.5 Rear cover /Rt

(1) Procedure



1. Remove the deodorant unit. (Refer to [G.19.2.18 Deodorant unit](#))
2. Remove 9 screws [1], and then remove the rear cover /Rt [2].

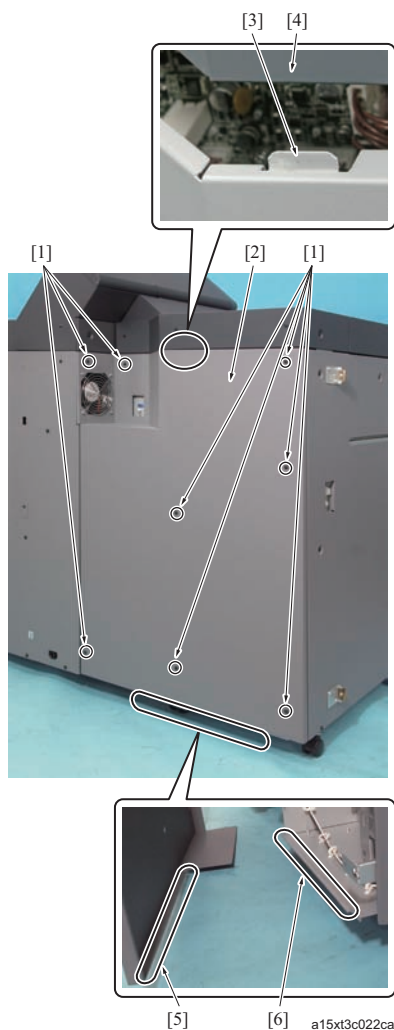
Note

- When installing the rear cover, make sure to attach the metal plates [3] to the bottom of the rear cover.

3. Reinstall the above parts following the removal steps in reverse.

19.2.6 Rear cover /Lt

(1) Procedure



1. Remove the deodorant unit. (Refer to [G.19.2.18 Deodorant unit](#))
2. Remove 8 screws [1], and then remove the rear cover /Lt [2].

Note

- When reinstalling it, be sure to set it with the projection [3] put into the notch of the upper cover /RrLt [4], and with its bottom [5] put on the metal frame [6].

3. Reinstall the above parts following the removal steps in reverse.

19.2.7 Left cover

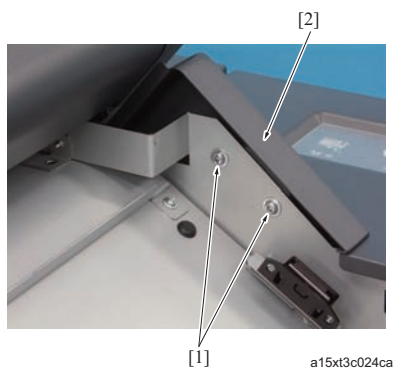
(1) Procedure



1. Loosen 2 screws [1].
2. Remove 5 screws [2] and then remove the left cover [3].
3. Reinstall the above parts following the removal steps in reverse.

19.2.8 Relay conveyance gear cover /Fr

(1) Procedure



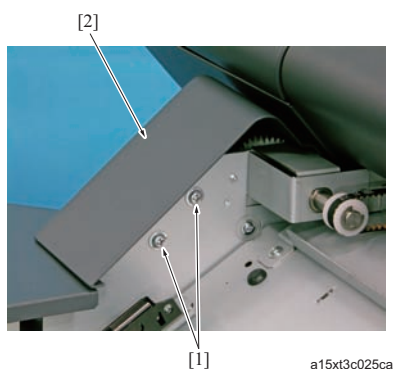
1. Open the relay conveyance door.
2. Remove 2 screws [1] and remove the relay conveyance gear cover /Fr [2].
3. Reinstall the above parts following the removal steps in reverse.

Note

- When reinstalling it, be sure to put the claw of the plate in the hole of the relay conveyance gear cover /Fr.

19.2.9 Relay conveyance gear cover /Rr

(1) Procedure



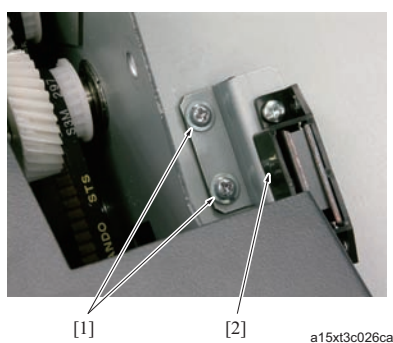
1. Open the relay conveyance door.
2. Remove 2 screws [1] and remove the relay conveyance gear cover /Rr [2].
3. Reinstall the above parts following the removal steps in reverse.

Note

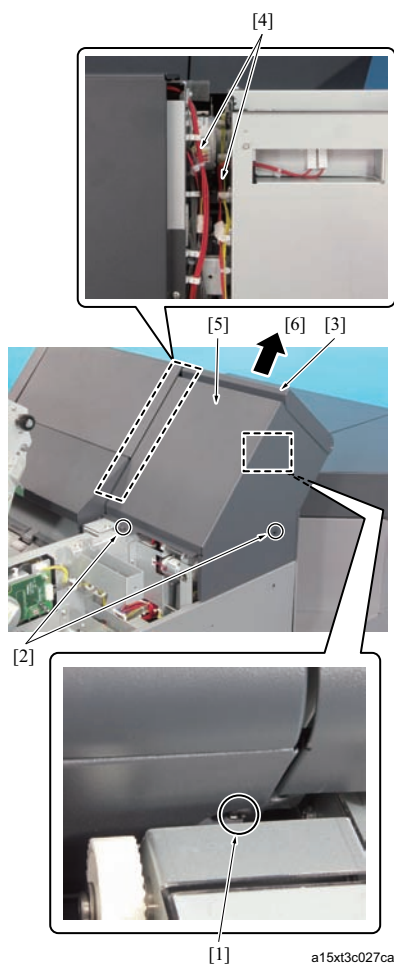
- When reinstalling it, be sure to put it in the hole of the relay conveyance gear cover /Rr.

19.2.10 Pellet supply cover

(1) Procedure



1. Remove the deodorant unit. (Refer to [G.19.2.18 Deodorant unit](#))
2. Remove the upper cover /RrRt. (Refer to [G.19.2.15 Upper cover / RrRt](#))
3. Remove the relay conveyance gear cover /Rr. (Refer to [G.19.2.9 Relay conveyance gear cover /Rr](#))
4. Remove 2 screws [1] and remove the magnet catch /Rr [2].

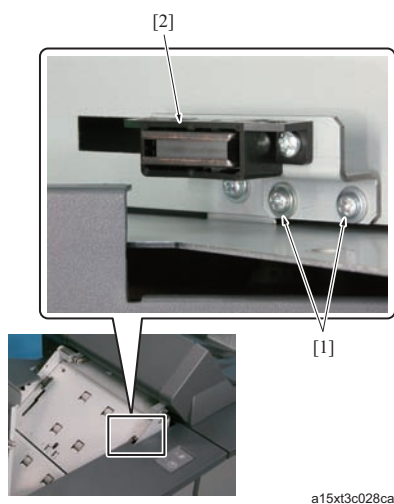


5. Loosen a screw [1].
6. Remove 2 screws [2].
7. Open the pellet supply door [3]. Remove the pellet supply cover [5] in the arrow-marked direction [6] carefully so as not to damage the wire harness [4].

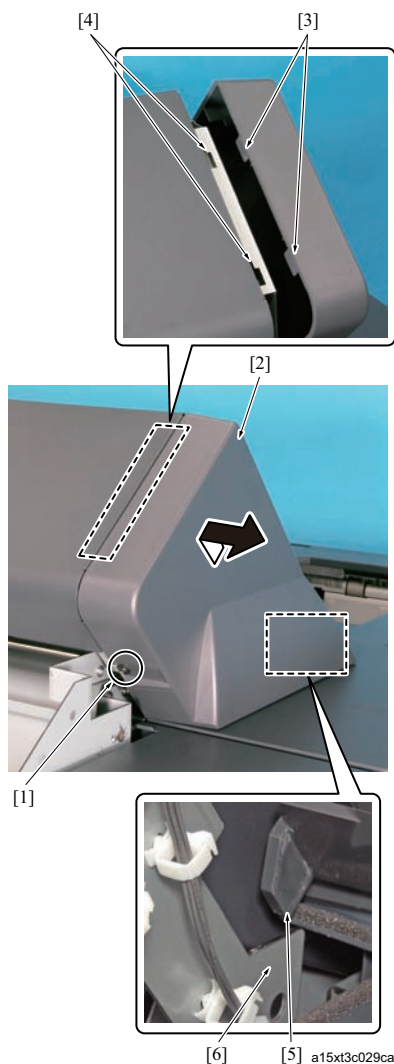
Note

- When removing/installing the glue supply cover, be careful not to cut or damage the wire binding [4].

8. Reinstall the above parts following the removal steps in reverse.

19.2.11 SC cover /Fr**(1) Procedure**

1. Remove the relay conveyance gear cover /Fr. (Refer to [G.19.2.8 Relay conveyance gear cover /Fr](#))
2. Remove 2 screws [1] and remove the magnet catch /Fr [2].



3. Remove the screw [1] and remove the SC cover /Fr [2] to the arrow-marked direction.

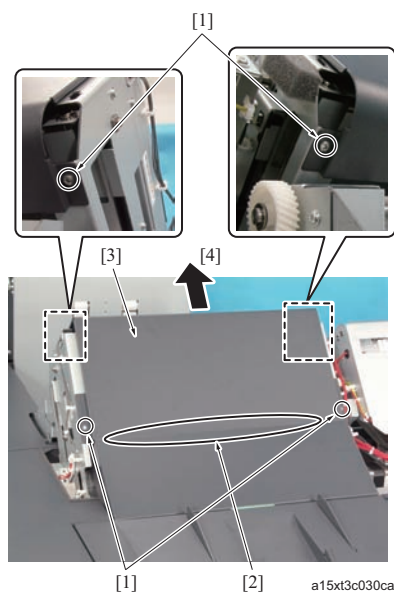
Note

- When reinstalling it, be sure to put 2 claws on the upper side [3] into the holes [4], and put the claw on the lower side [5] to the inside of the metal frame.

4. Reinstall the above parts following the removal steps in reverse.

19.2.12 SC cover /Up

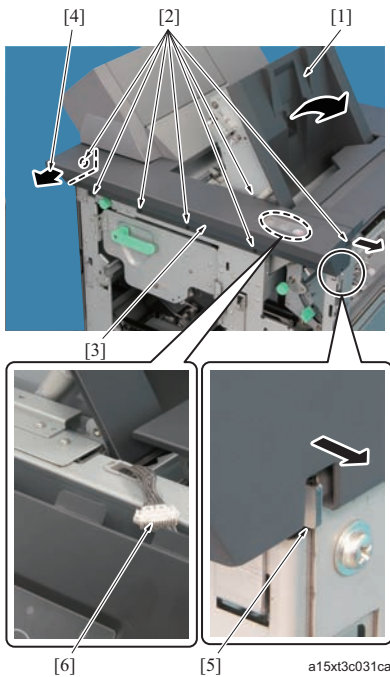
(1) Procedure



1. Remove the pellet supply cover. (Refer to [G.19.2.19 Pellet supply unit](#))
2. Remove the SC cover /Fr. (Refer to [G.19.2.11 SC cover /Fr](#))
3. Remove 4 screws [1] and remove the SC cover /Up [3] in the arrow-marked direction [4] while slightly lifting up the circled part [2].
4. Reinstall the above parts following the removal steps in reverse.

19.2.13 Upper cover /FrRt

(1) Procedure



1. Remove the PB left unit. (Refer to [G.19.2.23 PB left unit](#))
2. Open the upper door [1].
3. Remove 7 screws [2].
4. Pull the left part of the upper cover /FrRt [3] in the arrow-marked direction [4]. Then release the cover from the projection [5] and disconnect it from the connector [6].

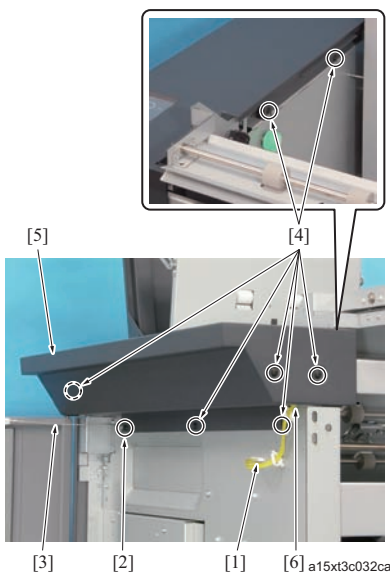
Note

- When reinstalling it, be sure to put the connector [6] under the upper cover /FrRt [3] properly so as not to let the cables get caught between the cover and the frame.

5. Reinstall the above parts following the removal steps in reverse.

19.2.14 Upper cover /FrLt

(1) Procedure



1. Remove the PB left unit. (Refer to [G.19.2.23 PB left unit](#))
2. Remove the relay conveyance gear cover /Fr. (Refer to [G.19.2.8 Relay conveyance gear cover /Fr](#))
3. Disconnect the connector [1].
4. Open the relay conveyance door.
5. Remove the screw [2] and release the wire [3].
6. Remove 7 screws [4] and then remove the upper cover /FrLt [5].

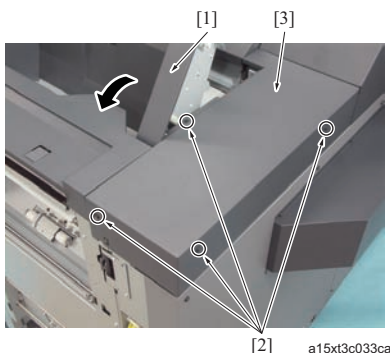
Note

- When reinstalling it, be careful not to nip the wiring harness [6].

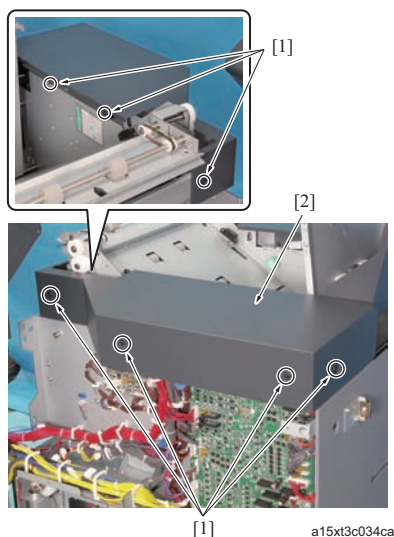
7. Reinstall the above parts following the removal steps in reverse.

19.2.15 Upper cover /RrRt

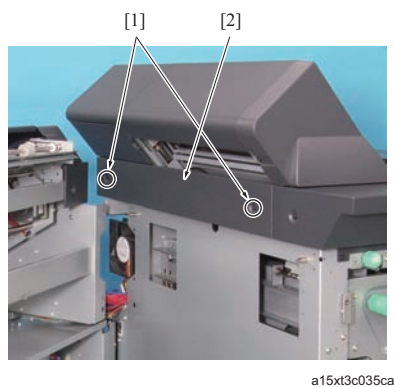
(1) Procedure



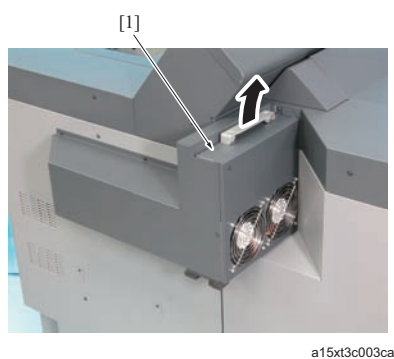
1. Open the upper door [1].
2. Remove 4 screws [2] and then remove the upper cover /RrRt [3].
3. Reinstall the above parts following the removal steps in reverse.

19.2.16 Upper cover /RrLt**(1) Procedure**

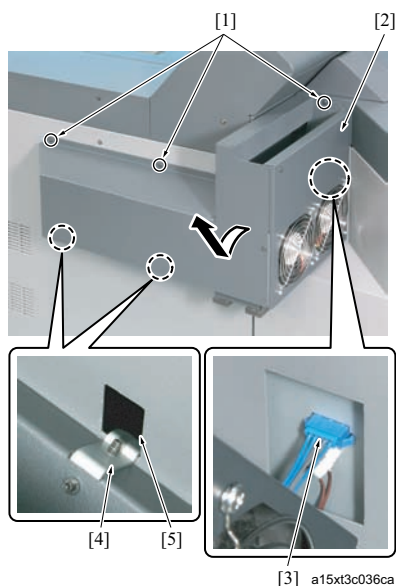
1. Remove the PB left unit. (Refer to [G.19.2.23 PB left unit](#))
2. Remove the relay conveyance gear cover /Rr. (Refer to [G.19.2.9 Relay conveyance gear cover /Rr](#))
3. Open the relay conveyance door.
4. Remove 7 screws [1] and then remove the upper cover /RrLt [2].
5. Reinstall the above parts following the removal steps in reverse.

19.2.17 Upper cover /Md**(1) Procedure**

1. Remove the PB left unit. (Refer to [G.19.2.23 PB left unit](#))
2. Remove 2 screws [1] and then remove the upper cover /Md [2].
3. Reinstall the above parts following the removal steps in reverse.

19.2.18 Deodorant unit**(1) Procedure**

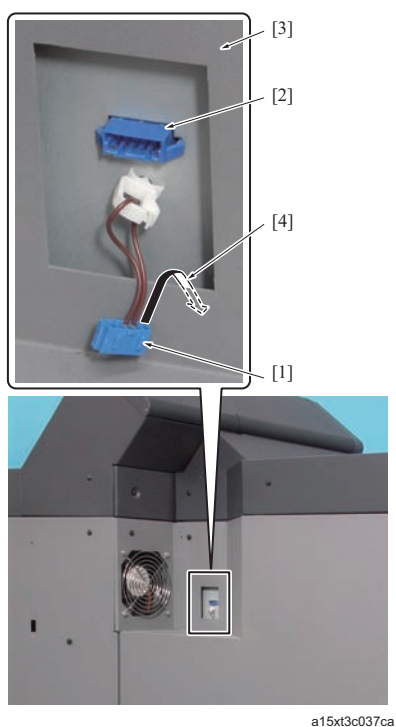
1. Remove the exhaust filter assy [1].



2. Remove 3 screws [1] and lean the deodorant unit [2]. Disconnect the connector [3] and then remove the deodorant unit [2].

Note

- When reinstalling it, be sure to put 2 claws [2] in the holes [5].



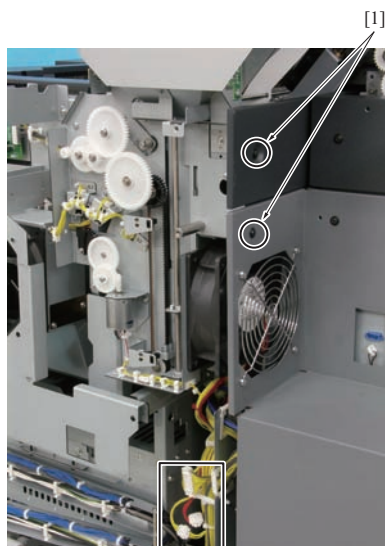
3. Reinstall the above parts following the removal steps in reverse.

Note

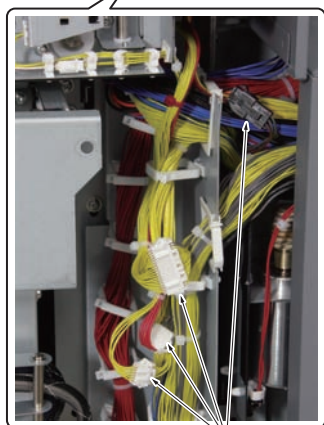
- Connecting the loop connector [1] to the connector [2] enables the operational check with no error indication without connecting the deodorant unit. After the operation, be sure to remove the loop connector [1] and put it inside [4] of the rear cover /Lt [3].
- After installing it, be sure to check that the deodorant fans /1 (FM97) and /2 (FM98) of the deodorant unit are rotating.

19.2.19 Pellet supply unit

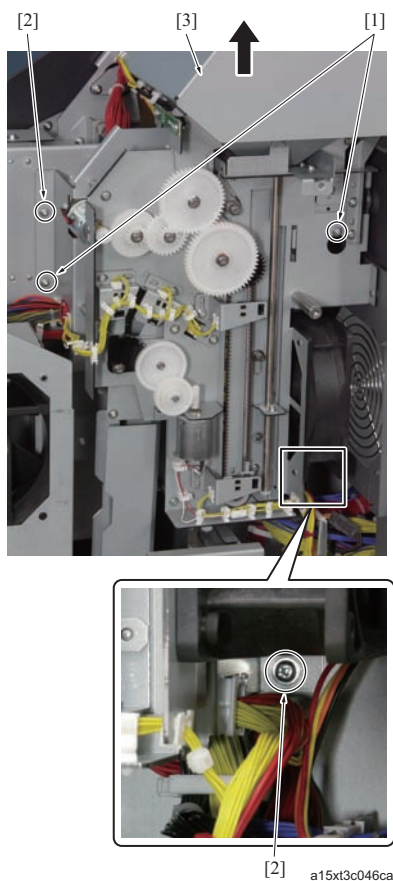
(1) Procedure



1. Remove the rear cover /Rt. (Refer to [G.19.2.5 Rear cover /Rt](#))
2. Remove the pellet supply cover. (Refer to [G.19.2.10 Pellet supply cover](#))
3. Remove 2 screws [1].
4. Disconnect 4 connectors [2].



[2] a15xt3c045ca



5. Loosen 2 screws [1].
6. Remove 2 screws [2] and remove the pellet supply unit [3] upward.

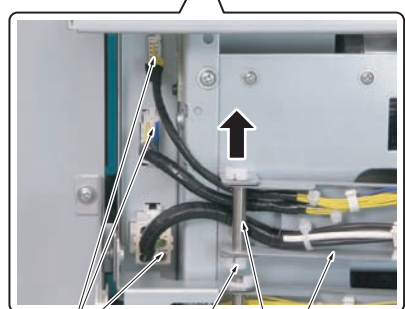
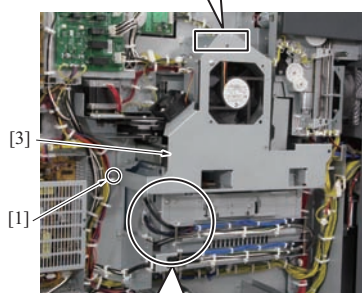
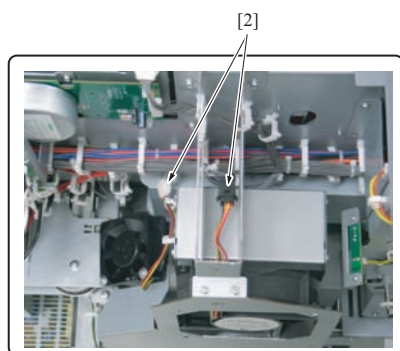
Note

 - When removing the unit, be careful not to spill the pellet.
7. Reinstall the above parts following the removal steps in reverse.

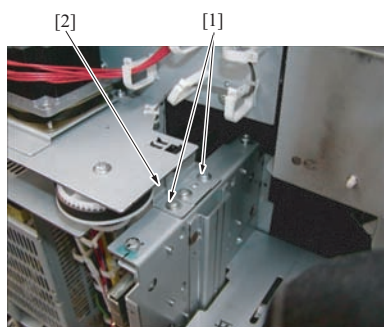
19.2.20 Glue tank unit

⚠ CAUTION

- The glue tank unit is extremely hot right after turning OFF the main power switch (SW1) or the sub power switch (SW2) of the main body. To prevent burn injuries, leave the unit until it cools enough before performing the maintenance work.

(1) Procedure

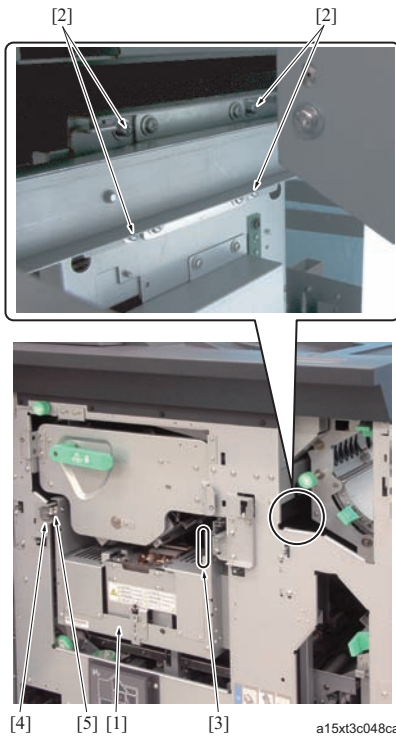
[4] [5] [6] [7] a15xt3c047ca



a075f2c119ca

1. Remove the rear cover /Rt. (Refer to [G.19.2.5 Rear cover /Rt](#))
2. Remove the upper cover /RrRt. (Refer to [G.19.2.15 Upper cover / RrRt](#))
3. Remove the screw [1], disconnect 2 connectors [2], and then remove the suction unit [3].
4. Disconnect 3 connectors [4].
5. Remove the C-clip [5] and pull out the pin [6] straight up to release the coupling arm [7].

6. Remove 2 screws [1] and then uncouple the belt coupling bracket [2].



7. Pull out the glue tank unit [1] and remove 4 screws [2].

Note

- When moving the glue tank unit, be sure to hold it by the metal frame [3] on the right side of the unit.
- When removing the screw [2], be careful to avoid injury from sharp metal edges around the screw.

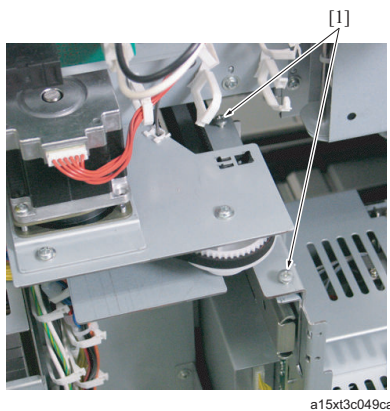
8. Further pull out the glue tank unit [1].

9. Remove the roller [5] from the rail [4] and remove the glue tank unit.

10. Reinstall the above parts following the removal steps in reverse.

Note

- After installing the glue tank unit, make a test print and binding to check that no glue is squeezed out of the top and bottom edges of the created book and no pages come off the cover when opening the book.

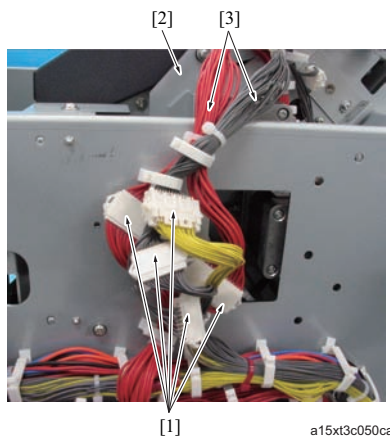


Note

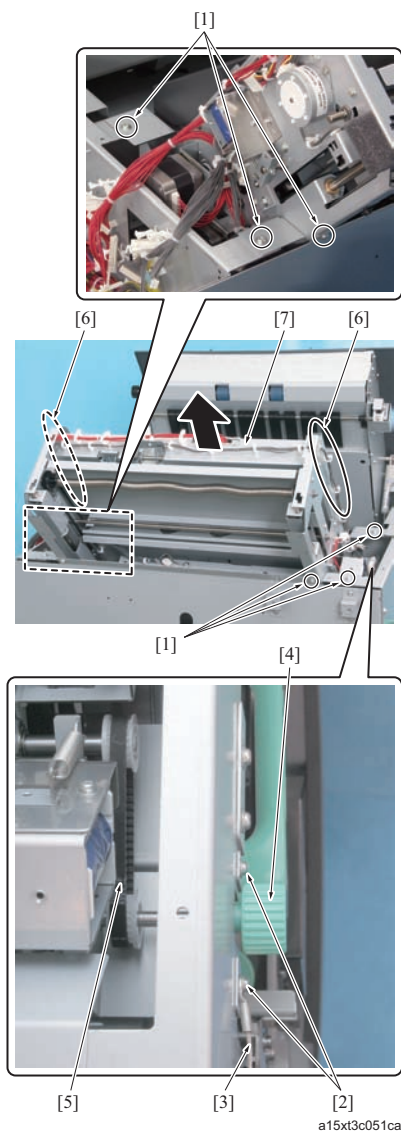
- Never loosen or tighten the 2 screws because they are keeping the levelness and vertical position of the glue tank unit.

19.2.21 SC unit

(1) Procedure



1. Remove the PB left unit. (Refer to [G.19.2.23 PB left unit](#))
2. Remove the upper cover /Md. (Refer to [G.19.2.17 Upper cover / Md](#))
3. Remove the pellet supply unit. (Refer to [G.19.2.19 Pellet supply unit](#))
4. Remove the SC cover /Up. (Refer to [G.19.2.12 SC cover /Up](#))
5. Remove the upper cover /FrRt. (Refer to [G.19.2.13 Upper cover / FrRt](#))
6. Disconnect 5 relay connectors [1].
7. Remove the wire binding [3] from the SC unit [2] by releasing the wire binding from the saddles.

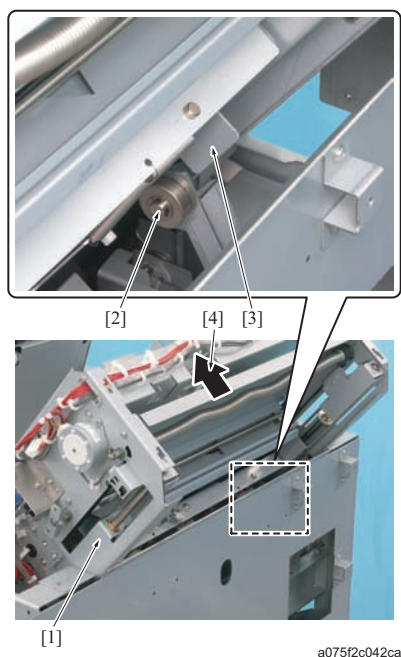


8. Remove 6 screws [1].
9. Remove 2 screws [2] and remove the wire [3] and the knob [4]. Then remove the belt [5].

Note

- After installing the belt [5], check that the lug belt is properly engaging with the pulleys with no slack and turns smoothly when the knob is turned.

10. Hold the metal frames [6] on the rear and front side of the unit, and remove the SC unit [7] to the arrowed direction.



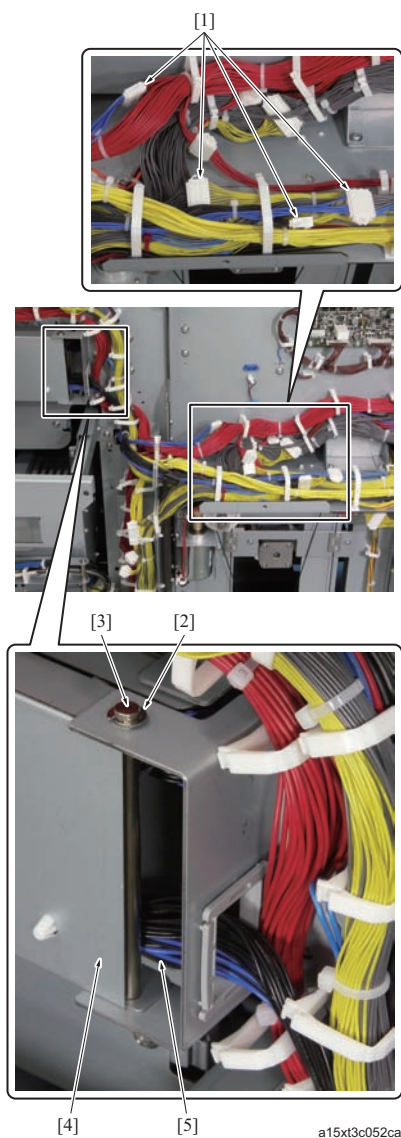
11. Reinstall the above parts following the removal steps in reverse.

Note

- When the SC unit [1] is removed, the lock arm [2] is released from the stopper [3]. Therefore, when installing the SC unit, be sure to put the lock arm [2] under the stopper [3] while lifting and tilting the unit in the direction of the arrow [4].

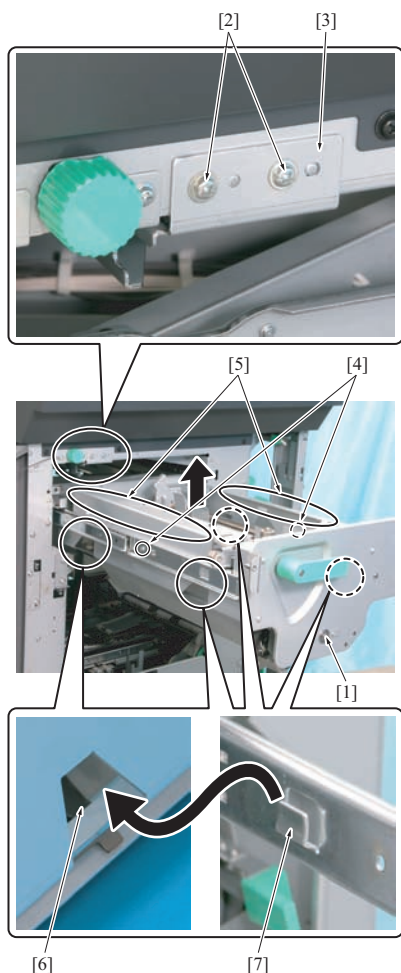
19.2.22 Clamp unit

(1) Procedure



a15xt3c052ca

1. Remove the rear cover /Lt. (Refer to [G.19.2.6 Rear cover /Lt](#))
2. Remove the pellet supply unit. (Refer to [G.19.2.19 Pellet supply unit](#))
3. Disconnect 4 connectors [1].
4. Remove the E-ring [2] and pull out the pin [3] downward to release the coupling arm [4].
5. Release the wiring harness [5] between the connector [1] and the coupling arm [4] from the saddles.



a15xt3c053ca

6. Pull out the clamp unit [1] carefully watching the wire binding and the coupling arm on the rear of the unit.
7. Remove the 2 screws [2] and then remove the lock bracket [3].
8. Remove 2 screws [4].
9. While lifting the clamp unit [1] by holding its left and right metal frames [5], release the 4 notches [6] from the hooks [7] and remove the clamp unit.

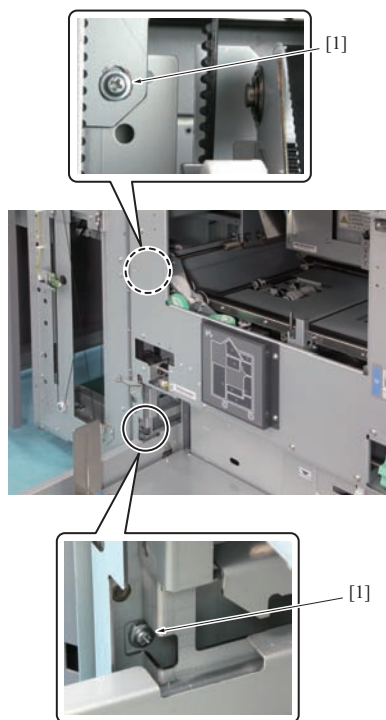
Note

- When reinstalling the clamp unit, make sure that the 4 hooks [7] are properly fitted in the notches [6] of the unit.

10. Reinstall the above parts following the removal steps in reverse.

Note

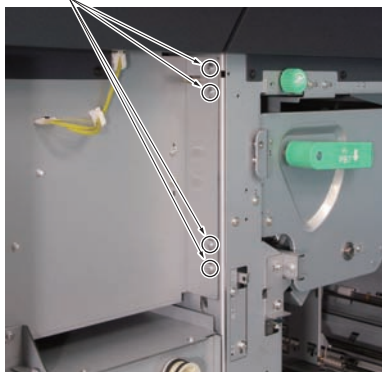
- After installing the clamp unit, make a test print and binding to check that the cover and inside papers are neatly aligned without skewing.

19.2.23 PB left unit**(1) Procedure**

a15xt3c054ca

1. Remove the rear cover /Rt. (Refer to [G.19.2.5 Rear cover /Rt](#))
2. Remove the rear cover /Lt. (Refer to [G.19.2.6 Rear cover /Lt](#))
3. Remove the front door. (Refer to [G.19.2.2 Front door](#))
4. Remove the front cover. (Refer to [G.19.2.3 Front cover](#))
5. Remove 2 screws (with washer) [1].

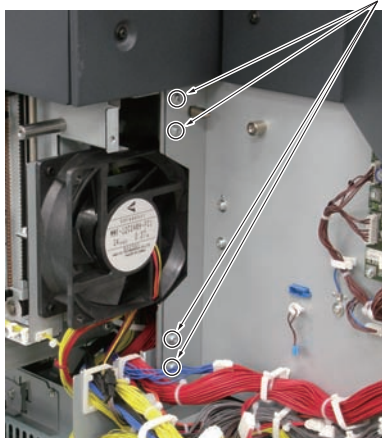
[1]



a15xt3c055ca

6. Remove 4 screws [1].

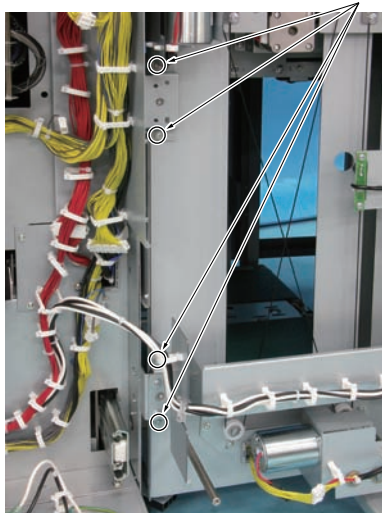
[1]



a15xt3c056ca

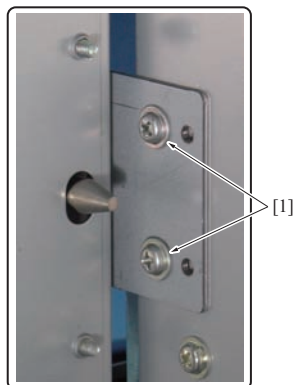
7. Remove 4 screws [1].

[1]



a15xt3c057ca

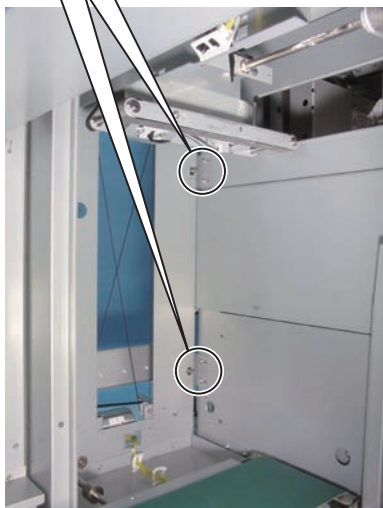
8. Loosen 4 screws [1].



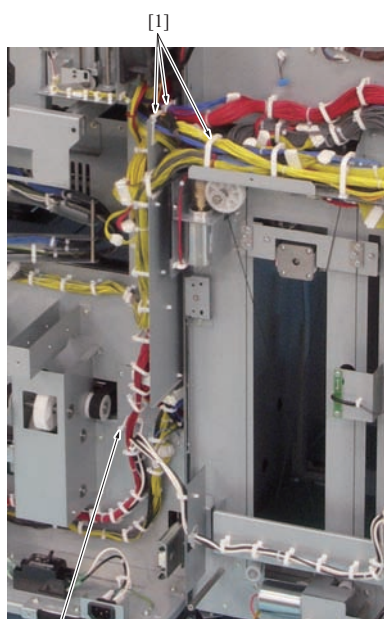
9. Remove the screws [1] at 2 positions, 2 each.

Note

- As the screw [1] is longer than other screws, be careful when reinstalling.



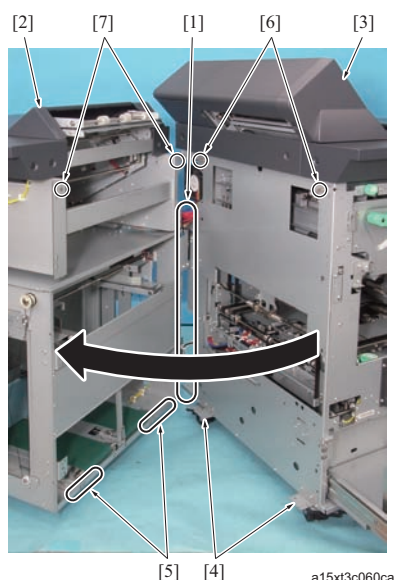
a15xt3c058ca



[1]

a15xt3c059ca

10. Remove the clamps [1] at 4 positions.



11. Rotate the PB left unit [2] around the wiring harness section [1] on the rear side to remove it from the PB right unit [3].

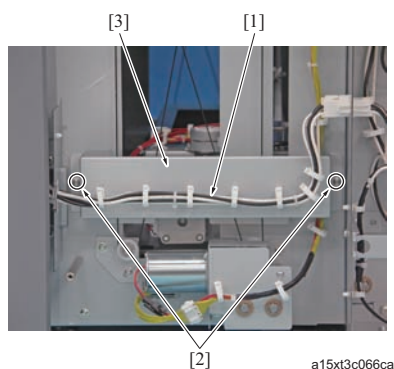
Note

- The PB left unit [2] is rotated up to about 90 degrees.
- When rotating the PB left unit [2], be sure to rotate it around the wiring harness section [1] and be careful not to damage the wiring harness.
- When reinstalling it, put the bottom of the PB left unit [5] on the brackets [4] on the lower side and then put the pins [6] on the upper side into the holes [7].

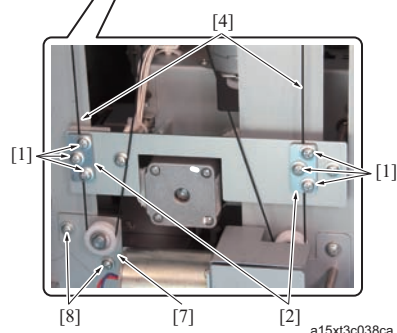
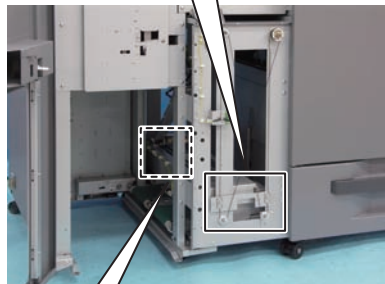
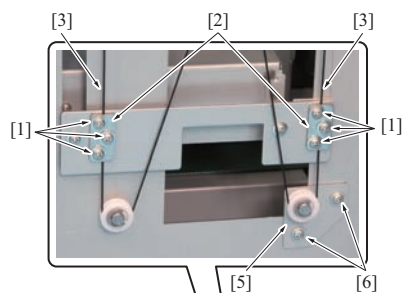
12. Reinstall the above parts following the removal steps in reverse.

19.2.24 Book lift wire

(1) Procedure



1. Carry out the I/O check in service mode in the following order of output check code, and turn OFF the sub power switch (SW2) and the main power switch (SW1) after moving the carriage section to its lowest position.
"77-55", "77-45", "77-58", "77-61"
2. Remove the front cover. (Refer to [G.19.2.3 Front cover](#))
3. Remove the rear cover /Lt. (Refer to [G.19.2.6 Rear cover /Lt](#))
4. Release the wiring harness [1] from the saddles and remove 2 screws [2] and then remove the wiring harness bracket [3].



5. Remove 3 screws [1] and remove the 4 mounting brackets [2] on the front and rear of the book stock unit.

Note

- When reinstalling, route the book lift wires /Fr [3] and /Rr [4] between 2 screws and 1 screw [1], and secure them with the mounting brackets [2].

6. Loosen the 2 screws [6] of the tension bracket /Fr [5].

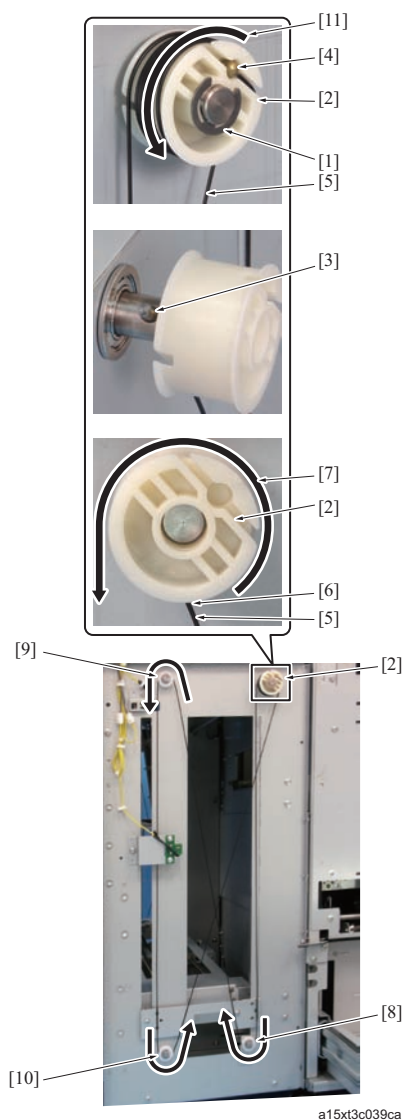
Note

- When installing the tension bracket /Fr [5], be sure to tighten the screws [6] while pulling the bracket downward by the specified tension.
Standard value: 5kgf

7. Loosen the 2 screws [8] of the tension bracket /Rr [7].

Note

- When installing the tension bracket /Rr [7], be sure to tighten the screws [8] while pulling the bracket downward by the specified tension.
Standard value: 5kgf



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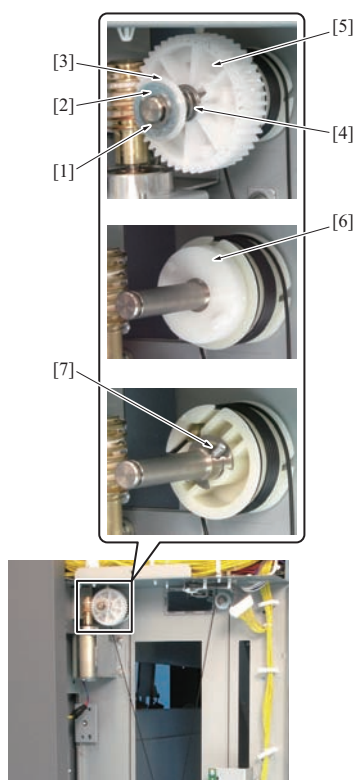
8. Remove the E-ring [1], pulley [2], pin [3], and the wire end [4]. Then remove the book lift wire/Fr [5].

Note

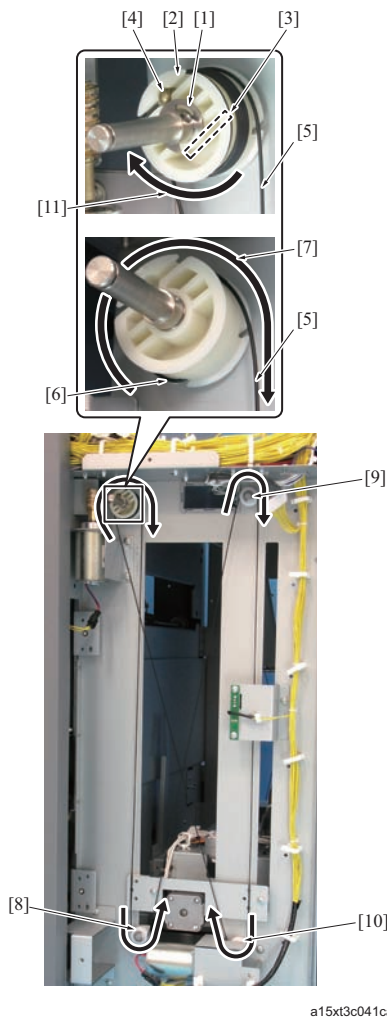
- Install the book lift wire/Fr [5] as following. Route the wire so that it comes out of the lower right [6] of the pulley [2]. Loop the wire over the pulley [7], then loop it over the [8], [9], [10] pulleys in that order. Then wind the wire 6 times counterclockwise [11] over the pulley [2], and put the wire end [4] into the pulley.

9. Remove the E-ring [1], then remove the washers [2] and [3], spring [4], and gear [5].

10. Remove the coupling [6] and the pin [7].



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11. Remove the E-ring [1], pulley [2], pin [3], and the wire end [4].
Then remove the book lift wire/Rr [5].

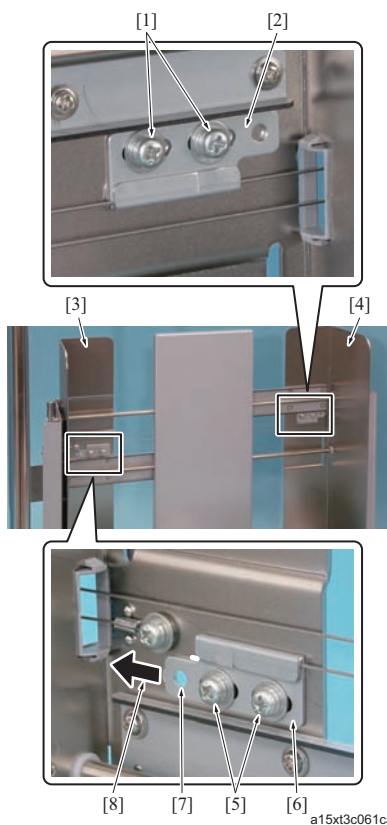
Note

- Install the book lift wire/Rr [5] as following. Route the wire so that it comes out of the lower left [6] of the pulley [2]. Loop the wire over the pulley [7], then loop it over the [8], [9], [10] pulleys in that order. Then wind the wire 6 times counterclockwise [11] over the pulley [2], and put the wire end [4] into the pulley.

12. Reinstall the above parts following the removal steps in reverse.

19.2.25 Cart wire

(1) Procedure



1. Remove 2 screws [1] and then remove the mounting plate /Rr [2].

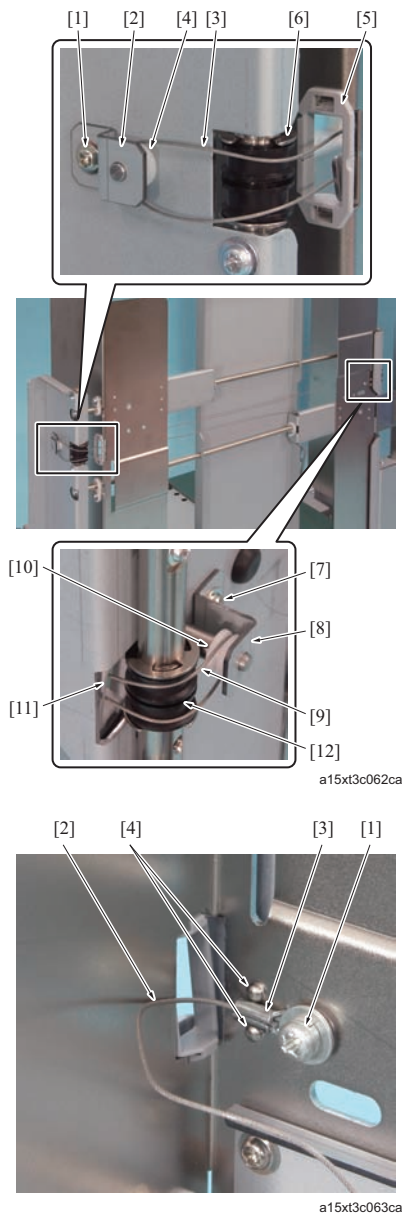
Note

- When reinstalling it, be sure to open the registration plates /Fr [3] and /Rr [4] fully and then install the mounting plate /Rr [2].

2. Remove 2 screws [5] and then remove the mounting plate /Fr [6].

Note

- When reinstalling it, temporarily hold the mounting plate / Fr [6] and hook the tension gauge on the hole [7]. Then pull it in the arrow-marked direction [8] with the standard value and then fully tighten it.
Standard value: 1 to 1.5kgf
- Check that the wires are not crossed or they do not contact metal frame.



3. Remove the screw [1] and then remove the mounting metal fitting /Rr [2].
4. Remove the wire [3] from the pulley [4] and release it from the saddles [5].

Note

- When installing the wire [3] on the pulley [4], be sure to hook it on the pulley [6] with the mounting plate /Rr on the upper side.

5. Remove the screw [7] and remove the mounting metal fitting /Fr [8].
6. Remove the wire [9] from the pulley [10] and release it from the saddles [11].

Note

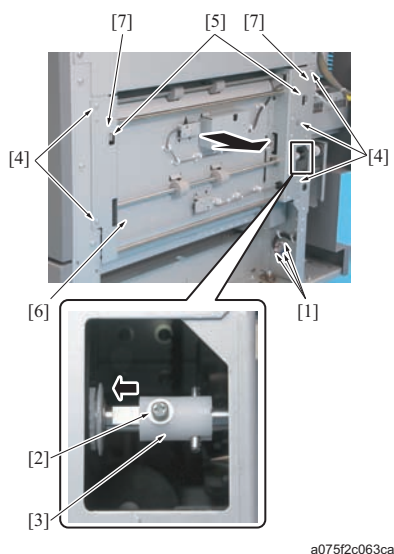
- When installing the wire [9] on the pulley [10], be sure to hook it on the pulley [12] with the mounting plate /Rr on the upper side.

7. Remove the screw [1] and release the wire.

Note

- When reinstalling it, be sure to put the edge part [3] between the projections [4].

8. Reinstall the above parts following the removal steps in reverse.

19.2.26 Conveyance unit /Lw**(1) Procedure**

1. Disconnect 3 connectors [1] and release the wire binding from 6 saddles.
2. Remove the screw [2] and slide the coupling [3] into the arrow-marked direction.
3. Remove 5 screws [4].
4. Release the conveyance unit /Lw [6] from the hooks [5] and remove the unit.

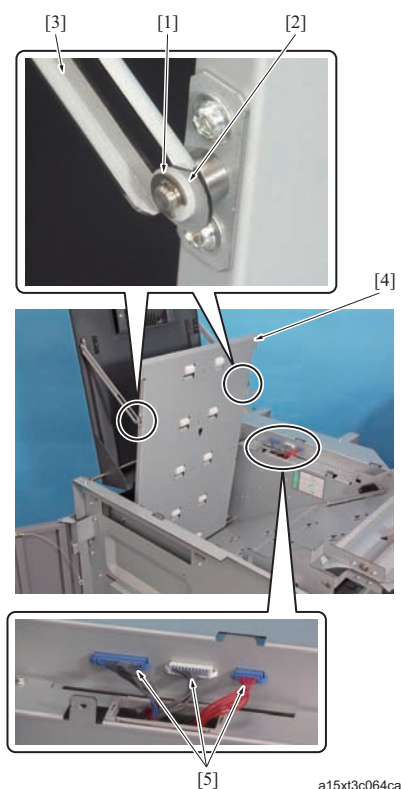
Note

- When reinstalling, be sure to align it to the projection [7].

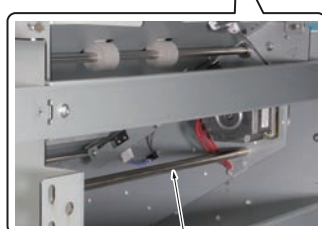
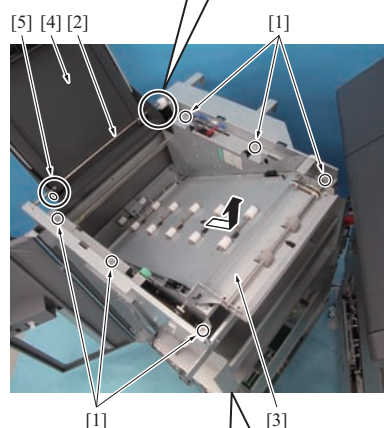
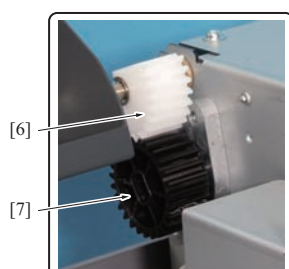
5. Reinstall the above parts following the removal steps in reverse.

19.2.27 Relay conveyance unit

(1) Procedure



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[2]

a15xt3c065ca

1. Remove the PB left unit. (Refer to [G.19.2.23 PB left unit](#))
2. Remove the upper cover /FrLt. (Refer to [G.19.2.14 Upper cover / FrLt](#))
3. Remove the upper cover /RrLt. (Refer to [G.19.2.16 Upper cover / RrLt](#))
4. Open the relay conveyance door.
5. Remove the E-rings [1] at 2 positions and remove the spacer [2], and then release the arm [3].

Note

- When releasing the arm [3], the conveyance guide plate [4] falls. Hold it by hand during operation.

6. Put down the conveyance guide plate [4].
7. Disconnect 3 connectors [5].

8. Remove 6 screws[1].
9. Remove the relay conveyance unit [3] by holding 2 shafts [2].

Note

- When removing the relay conveyance unit [3], insert a thin driver into the hole [5] so that the relay conveyance door [4] does not close. When moving down the relay conveyance door [4] lower than the horizontal position, the gear [6] comes off from the dumper gear [7] and the dumper adjustment is misaligned.

10. Reinstall the above parts following the removal steps in reverse.

19.2.28 Cover paper tray

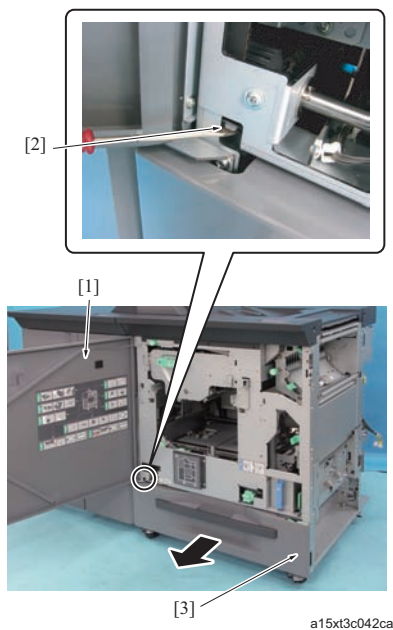
⚠ CAUTION

- As the cover paper tray is heavy, be sure to perform the following work with 2 people.

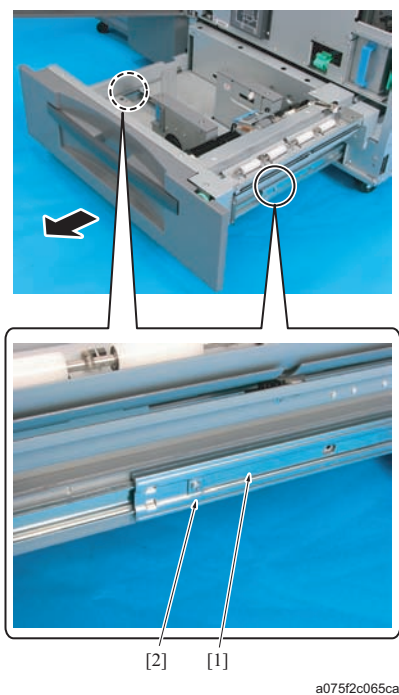
Note

- When lifting the cover paper tray, be sure to hold it by the specified positions. Holding it at positions other than those positions specified damage the tray, thus resulting in a paper feed jam.

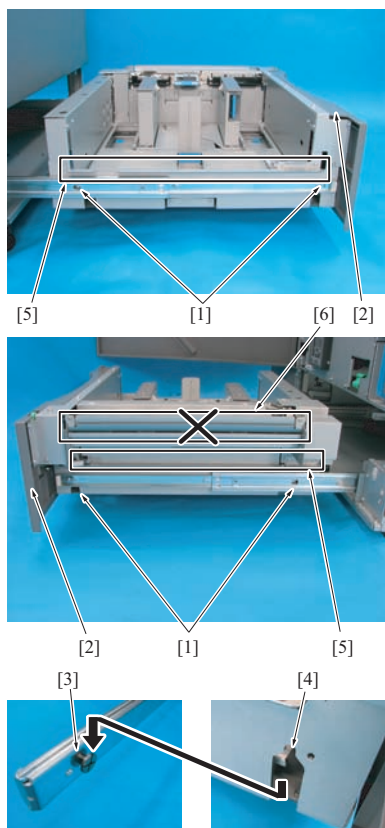
(1) Procedure



- Open the front door [1].
- Unlock the cover paper tray [3] by slightly pushing up the cover paper tray lock lever [2] with a screwdriver or a similar tool, and pull out the cover paper tray [3].



- Remove the 2 stopper screws [2], 1 for each right and left rail [1] and further pull out the cover paper tray.



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4. Remove 4 screws [1], 2 for each left and right rail, hold the cover paper tray [2] by the specified positions [5], and remove it straight up.

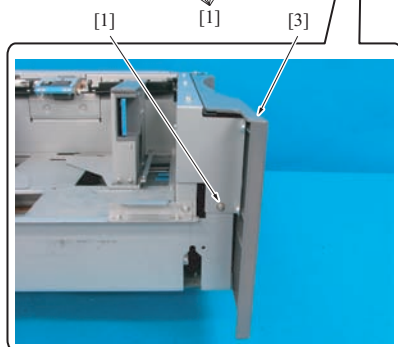
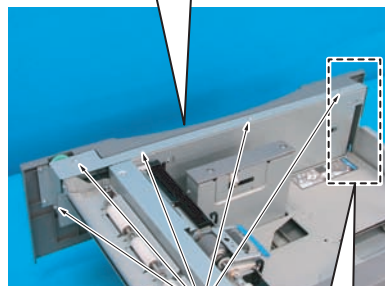
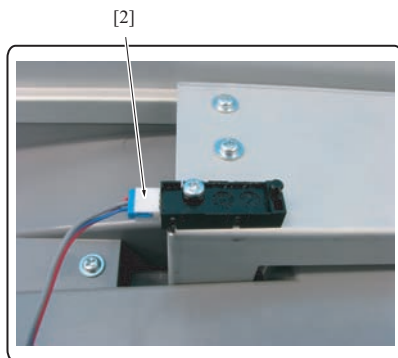
Note

- When installing the cover paper tray, make sure that the 4 knobs [3] on the rails are properly fitted in the notches [4] of the cover paper tray.
- When lifting the cover paper tray, be sure to hold the specified positions [5] by 2 people. Do not hold the part indicated with [6] as the part can easily become deformed, which adversely affects paper feed resulting in a paper jam.

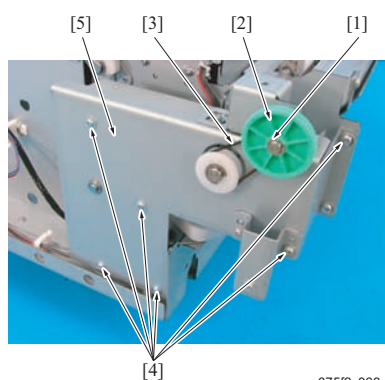
5. Reinstall the above parts following the removal steps in reverse.

19.2.29 Cover paper lift wire

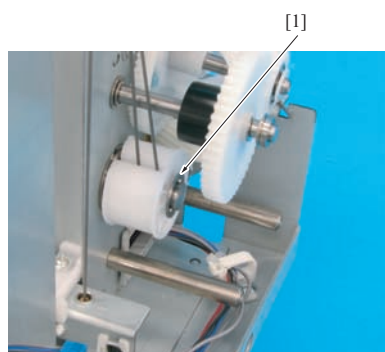
(1) Procedure



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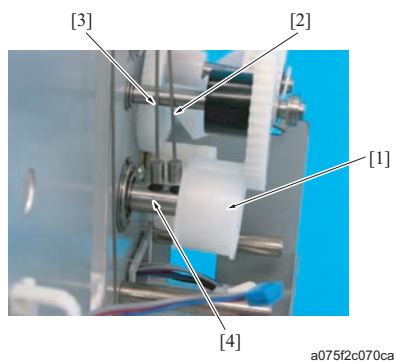


a075f2c069ca

1. Remove the cover paper tray. (Refer to [G.19.2.28 Cover paper tray](#))
2. Remove 6 screws[1].
3. Disconnect the connector [2], and remove the cover paper tray front cover [3].

4. Remove the E-ring [1], and remove the knob [2] and the belt [3].
5. Remove 6 screws[4] and remove the gear cover [5].

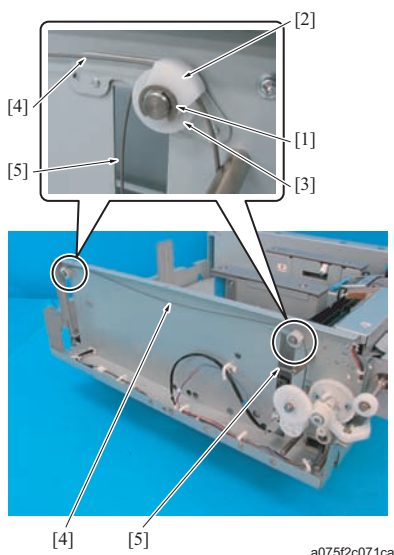
6. Remove the E-ring [1].



7. Slide the pulley [1], and pull out the wire ends of the lift wire /Fr1 [2] and /Fr2 [3] from each hole of the shaft [4].

Note

- The wire end of the shorter wire, lift wire /Fr2 [3], must be inserted into the shaft hole near the frame of the cover paper tray. The wire end of the shorter wire, lift wire/Fr2 [3], must be inserted into the shaft hole near the frame of the cover paper tray.
- When installing the pulley, lift the cover paper lift plate slightly to give slack to the wires and insert the wire ends one by one into the shaft holes. Then secure them with the pulley [1].

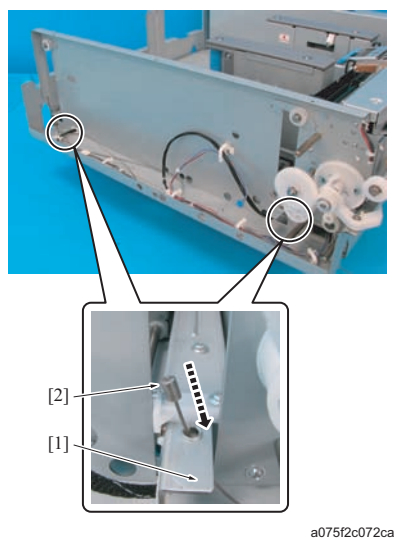


8. Remove the E-rings [1], 1 each, and then remove the wire cover [2].

9. Remove the cover paper lift wires/Fr1 [4] and /Fr2 [5] from each pulley [3].

Note

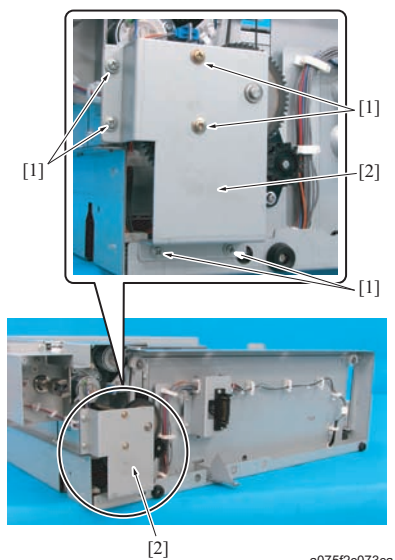
- When installing the wires, make sure that the wires are properly routed inside the wire covers [2] and are not crossed each other.



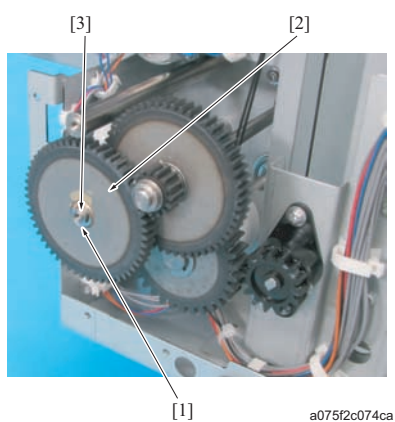
10. Pull out each wire end [2] through each hole of the cover paper lift plate arm [1].

Note

- When pulling out the wire, pull it out carefully so as not to damage it with sharp metal edges.



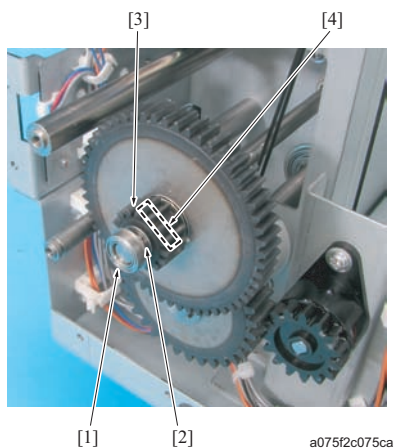
11. Remove 6 screws[1] and remove the gear cover [2].



12. Remove the E-ring [1] and the gear [2].

Note

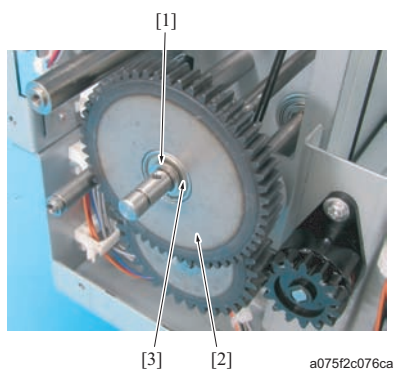
- When removing the gear [2], be careful not to drop and lose the bearing [3].



13. Remove the bearing [1] and the E-ring [2], and then remove the gear [3].

Note

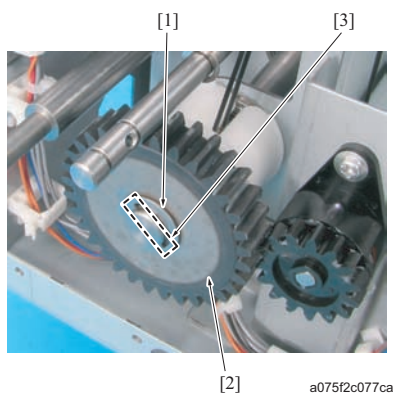
- When removing the gear [3], be careful not to drop the pin[4].



14. Remove the E-ring [1] and the gear [2].

Note

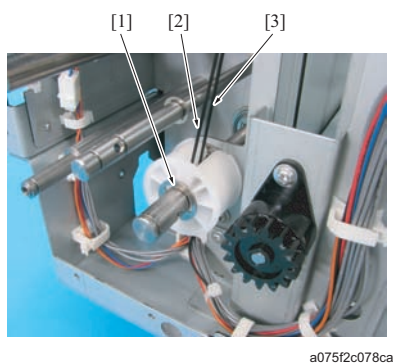
- When removing the gear [2], be careful not to drop the bearing [3].



15. Remove the E-ring [1] and the gear [2].

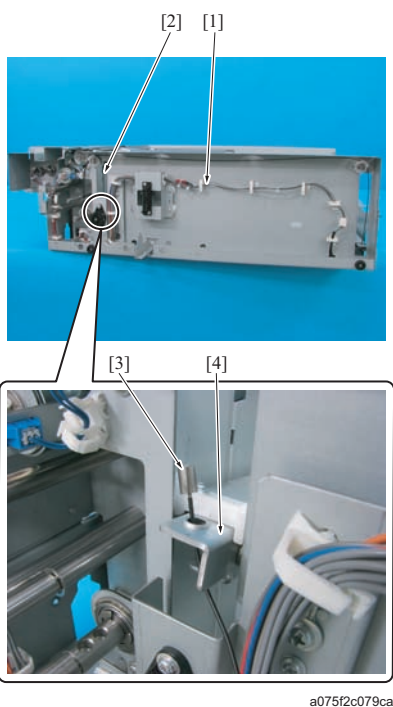
Note

- When removing the gear [2], be careful not to drop and lose the pin [3].



16. Remove the E-ring [1].

17. Pull out the cover paper lift wire/Rr1 [2] and /Rr2 [3] from the shaft holes in the same manner as step7.



18. Remove the cover paper lift wire/Rr1 [1] and /Rr2 [2] in the same manner as step8 to step10.

19. Reinstall the above parts following the removal steps in reverse.

Note

- When pulling out the wire end [3] of the cover paper lift wire /Rr2 [2], lift the cover paper lift plate until the cover paper lift plate arm [4] appears.
- The wire /Fr is gray in color and the wire /Rr is black.
- When the installation is completed, make sure that the lift plate is horizontal.

19.2.30 Binding mode procedure with manual operating function

- When a problem occurs at the clamp section or the cover paper table section, the binding can be checked with the manual operation.

Note

- Disconnect the connector (CN5) on the PB control board (PBCB) after the check. (Manual operation forbidden state)

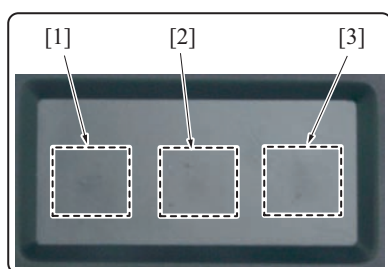
(1) Procedure

[2]

[1]

a15xt3c043ca

1. Remove the rear cover /Lt. (Refer to [G.19.2.6 Rear cover /Lt](#))
2. Connect the connector [2] to the connector (CN5) [1] on the PB control board (PBCB).



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3. Press the button /1 [1].
4. Open the front door and pull out the clamp unit.
5. Set the inside paper to the clamp unit.
6. Adjust the clamp alignment plates /Fr and /Rr to the inside paper edge on the shorter side by hand.
7. Press the button /2 [2].
8. Set the clamp unit.

Note

- Set the clamp unit gently. Setting it roundly causes the misalignment of inside papers widening the clamp alignment plate.

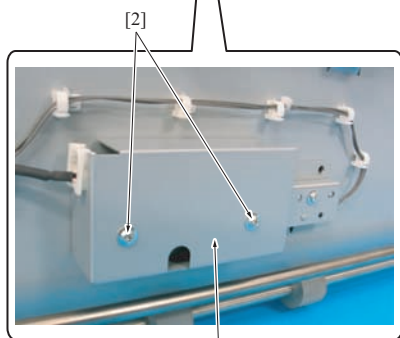
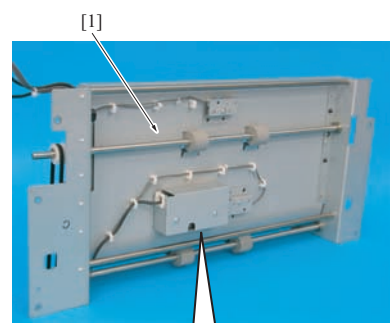
9. Close the front door.
10. Press the button /3 [3].

Note

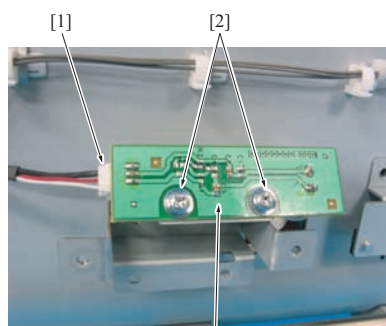
- Disconnect the connector (CN5) on the PB control board (PBCB) after the check.

19.2.31 Multi feed detection boards /S (MFDBS) and /R (MFDBR)**Note**

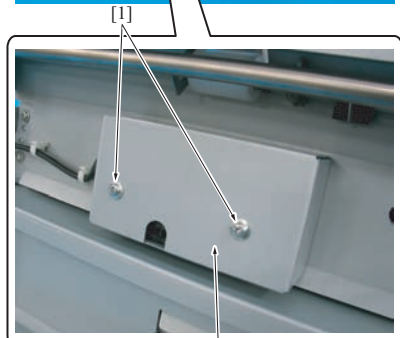
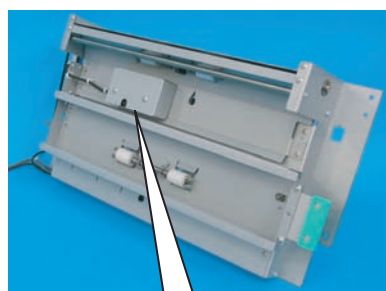
- When replacing the multi-feed detection board /S (MFDBS), be sure to replace the multi-feed detection board /R (MFDBR) at the same time.
- When the multi-feed detection board is replaced, be sure to conduct the adjustment in replacing multi-feed detection board. (Refer to [I.5.6.12 Adjustment when replacing the cover paper multi feed detection board \(PB\)](#))

(1) Procedure

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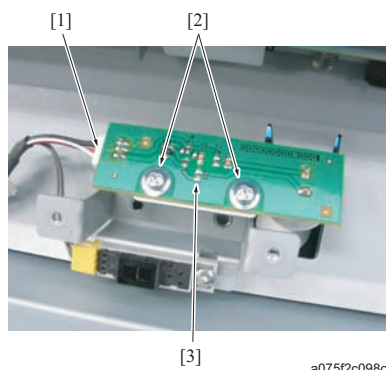


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1. Remove the conveyance unit /Lw [1]. (Refer to [G.19.2.26 Conveyance unit /Lw](#))
2. Remove 2 screws [2] and then remove the cover of the multi-feed detection board /S (MFDBS) [3].

3. Disconnect the connector [1].
4. Remove 2 screws [2], then remove the multi-feed detection board /S (MFDBS) [3].

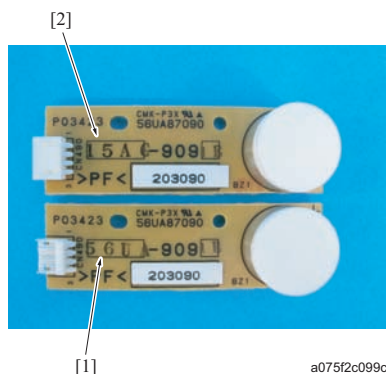
5. Remove 2 screws [2] and then remove the cover of the multi-feed detection board /R (MFDBR) [2].



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6. Disconnect the connector [1].
7. Remove 2 screws [2] and then remove the multi-feed detection board /R (MFDBR) [3].
8. Reinstall the above parts following the removal steps in reverse.

(2) Note for installing the multi-feed detection boards /S (MFDBS) and /R (MFDBR)



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- The multi-feed detection boards /S (MFDBS) and /R (MFDBR) are installed on the same type board. Be careful not to confuse one with the other when installing them.
- Be sure to confirm the marking on the board when installing it.
Multi-feed detection board /S (MFDBS) [1]: 56UA
Multi-feed detection board /R (MFDBR) [2]: 15AG
- The connector shape is different for the multi-feed detection boards /S (MFDBS) and /R (MFDBR). So, even if it is installed, the connector cannot be connected.

20. IC Unit

20.1 Items not allowed to be disassembled/reassembled

20.1.1 IC board (ICB)

(1) Positions from which removing is prohibited

- Cooling fin for the chipset
- Battery
- Cooling fin
- EEPROM



[1]	Cooling fin for the chipset	[2]	Battery
[3]	Cooling fin	[4]	EEPROM

(2) Reason of prohibition

When removing them, the operation is no more warranty. Be sure not to remove them.

20.2 List of disassembling and assembling parts

Note

- This list shows the explanation of the disassembly and reassembly of the parts which are considered necessary to replace (other than periodically replaced parts). However, these parts do not require to be disassembled while in normal service operations.

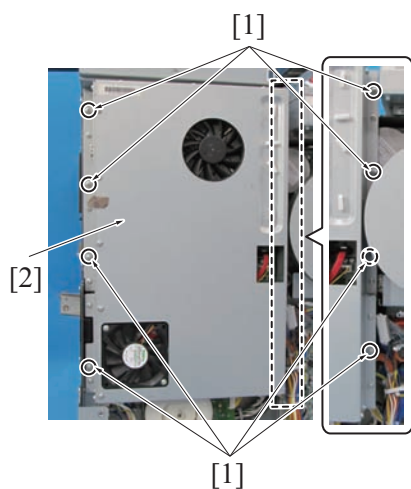
No.	Section	Parts name
1	IC section	IC Unit
2		Memory
3		IC cooling fan (FM39)
4		SSD
5		Hard disk /2 (HDD2)
6		IC board (ICB)

20.3 Disassembling and assembling procedures

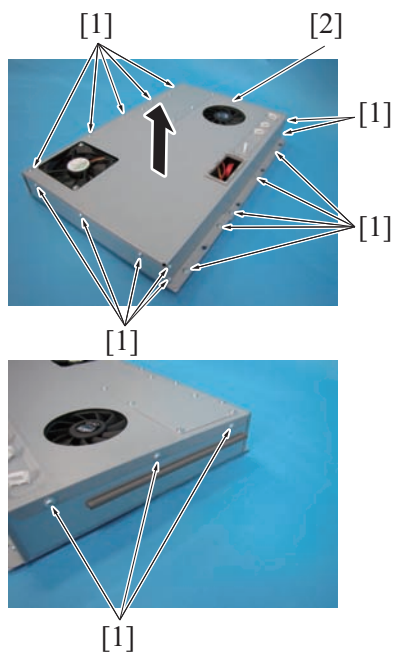
20.3.1 Precautions on disassembling and assembling

⚠ CAUTION

- Be sure to unplug the power plug from the power outlet.

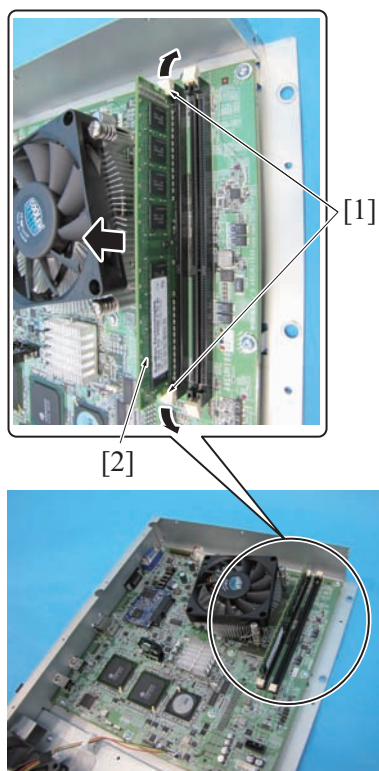
20.3.2 IC Unit**(1) Procedure**

1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Remove 8 screws [1] and remove the IC unit [2].
3. Reinstall the preceding parts following the removal steps in reverse.

20.3.3 Memory**(1) Procedure**

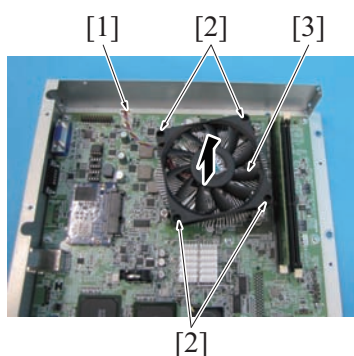
1. Remove the IC Unit. (Refer to [G.20.3.2 IC Unit](#))
2. Remove 20 screws [1] and remove the IC unit cover [2].

3. Open 2 memory slots [1] by finger and remove the memory [2].
4. Reinstall the preceding parts following the removal steps in reverse.



20.3.4 IC cooling fan (FM39)

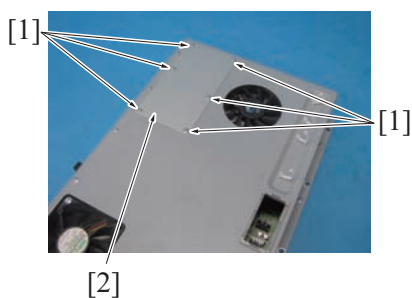
(1) Procedure



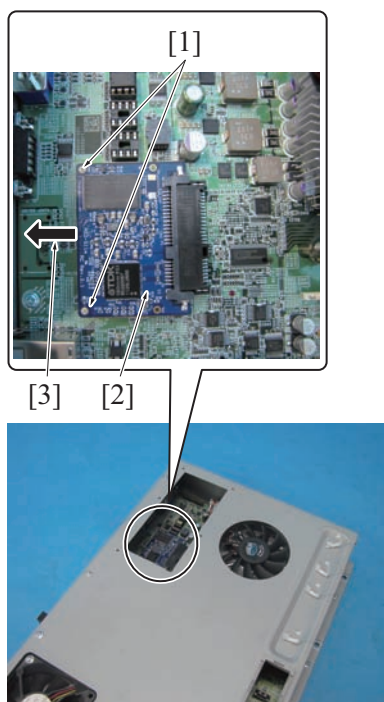
1. Remove the IC Unit. (Refer to [G.20.3.2 IC Unit](#))
2. Remove the IC unit cover. (Refer to [G.20.3.3 Memory](#))
3. Disconnect the connector [1].
4. Remove 4 screws [2] and remove the IC cooling fan (FM39) [3].
5. Reinstall the preceding parts following the removal steps in reverse.

20.3.5 SSD

(1) Procedure



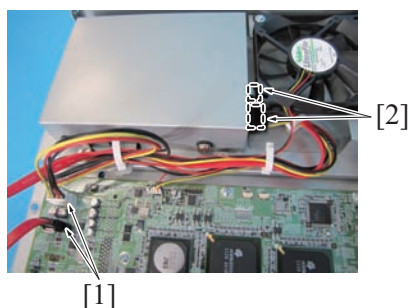
1. Remove the IC Unit. (Refer to [G.20.3.2 IC Unit](#))
2. Remove 6 screws [1] and then remove the cover [2].



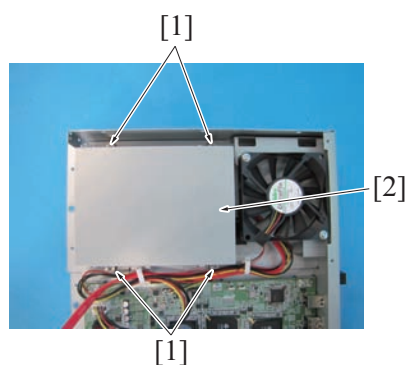
3. Remove 2 screws [1] and remove the SSD [2] in the arrow-marked direction [3].
4. Reinstall the preceding parts following the removal steps in reverse.

Note

- After replacing SSD, be sure to rewrite the FW to the latest version.

20.3.6 Hard disk /2 (HDD2)**(1) Procedure**

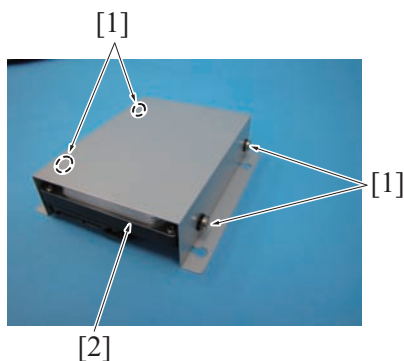
1. Remove the IC Unit. (Refer to [G.20.3.2 IC Unit](#))
2. Remove the IC unit cover. (Refer to [G.20.3.3 Memory](#))
3. Remove 2 connectors [1] and 2 connectors [2].



4. Remove 4 screws [1] and remove the hard disk /2 unit [2].

NOTE

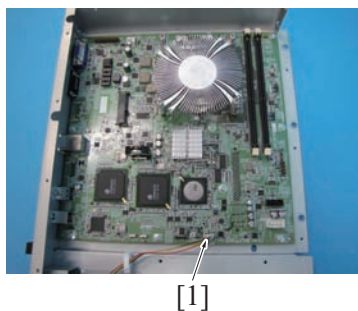
- When removing the hard disk /2 unit [2], be sure that the wiring does not come in contact with the screw section.



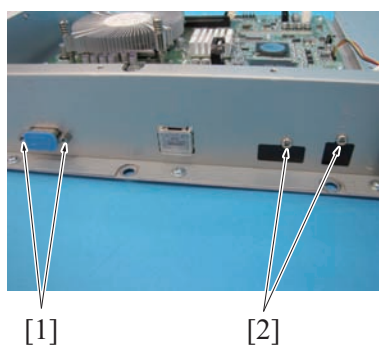
5. Remove 4 screws [1] and remove the hard disk /2 (HDD2) [2].
6. Reinstall the preceding parts following the removal steps in reverse.
7. After reinstalling the hard disk /2 (HDD2), conduct the following item.
 - IC HDD format (Refer to [I.5.14 IC HDD format](#))

20.3.7 IC board (ICB)

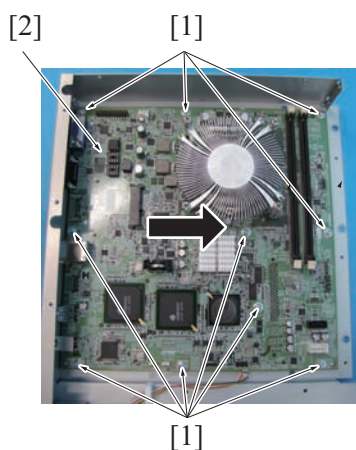
(1) Procedure



1. Remove the IC Unit. (Refer to [G.20.3.2 IC Unit](#))
2. Remove the IC unit cover. (Refer to [G.20.3.3 Memory](#))
3. Remove the IC cooling fan (FM39). (Refer to [G.20.3.4 IC cooling fan \(FM39\)](#))
4. Remove SSD. (Refer to [G.20.3.5 SSD](#))
5. Remove the hard disk /2 (HDD2). (Refer to [G.20.3.6 Hard disk /2 \(HDD2\)](#))
6. Disconnect the connector [1].



7. Remove 2 screws [1] and 2 screws [2].

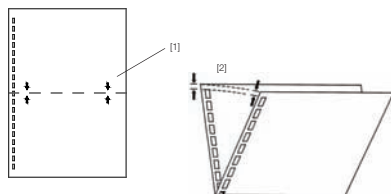


8. Remove 10 screws [1] and remove the IC board (ICB) [2].
9. Reinstall the preceding parts following the removal steps in reverse.

21. GP-501

21.1 Centering punched holes

Die Set Position Cradle Adjustment, The die set position cradle is set in the factory; however, because of the punched-hole spacing on the PB die sets, there is a minimal amount of paper on each edge of the punched paper. The die set position cradle may have to be fine adjusted to center the punched-hole pattern in the paper. Listed below are the step-by-step instructions to adjust the die set to the proper position.

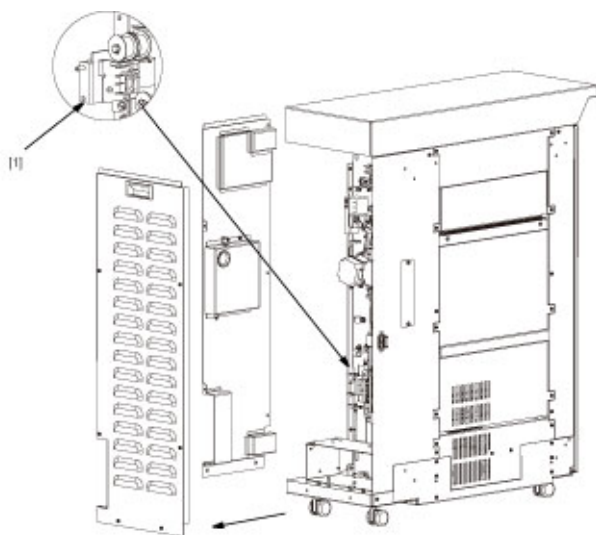


1. The punched-hole alignment must be checked on a piece of punched paper. Fold the punched sheet of paper in half [1] and the punched-holes should be aligned evenly along the edge and centered between the ends [2]. If the punched-holes are not aligned, then the die set cradle must be adjusted to align the punched holes.

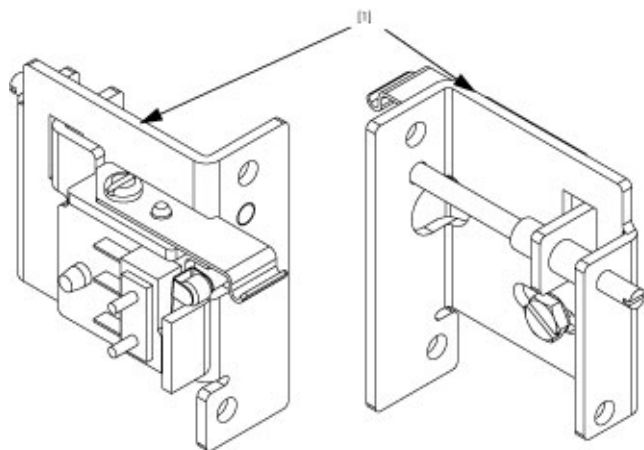
Note

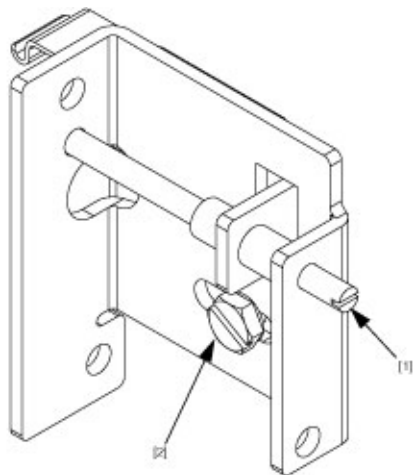
- The paper path is always constant, if the holes are not centered, you must adjust the die set cradle.

2. The two back covers on the GP-501 Punch must be removed to access the die set position cradle [1]. (Refer to [G.21.3.3 Removing the Rear Cover.](#))

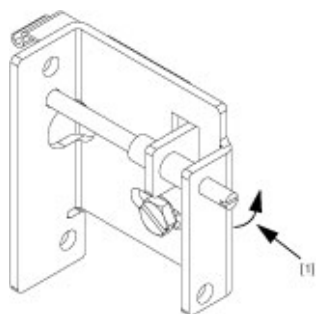


3. Before adjusting the die set position cradle, you must first note what direction the die set cradle [1] must move.

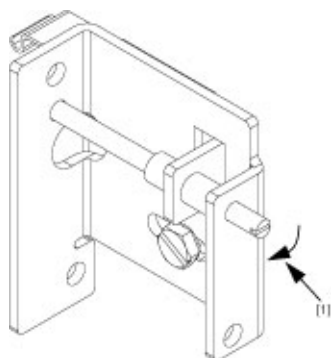




4. Loosen the lock-down screw [1].
5. Using a flat-blade screwdriver, turn the adjustment screw [2] clockwise or counter-clockwise to move the die set position cradle.



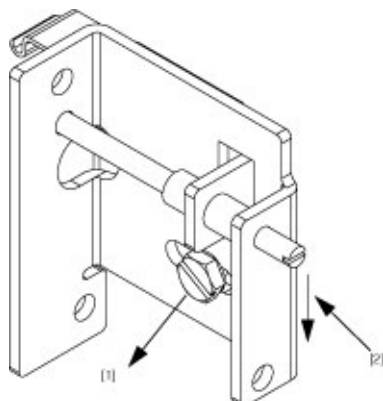
6. Observe the punched paper. If the punched-holes are too close to the rear of the machine, then you must turn the adjustment screw counter-clockwise [1].



7. If the punched-holes are too close to the front of the machine, then you must turn the adjustment screw clockwise [1].

Note

- **Seven full turns of the adjustment screw result in a 1/4" (6.35 mm) change in the punched hole position.**

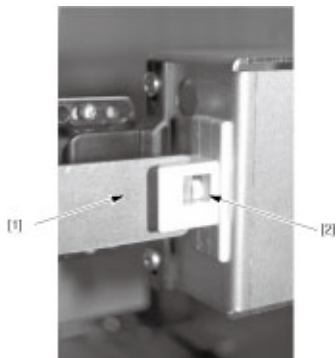


8. Before tightening the lock-down screw [1], tilt or bias the assembly towards the bottom of the machine [2] and tighten the lock-down screw. This will ensure positive engagement between the locking lever and the die set.
9. Run a test sample of punched paper and recheck paper alignment. Re-adjust if necessary.

21.2 Door latch

21.2.1 Door latch check

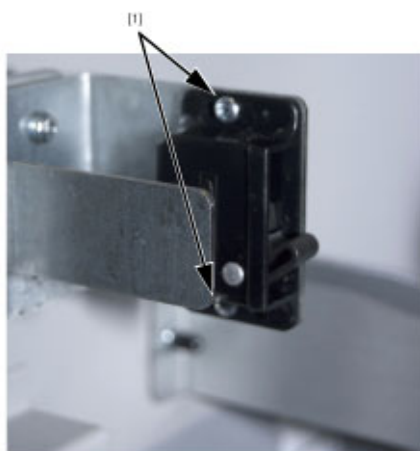
(1) Procedure



1. Ensure the door latch holds the door closed and that the activating bracket tab [1] depresses the door switch [2]. The tab should press the switch button just so that it is close to bottoming out.

21.2.2 Door Latch Adjustment

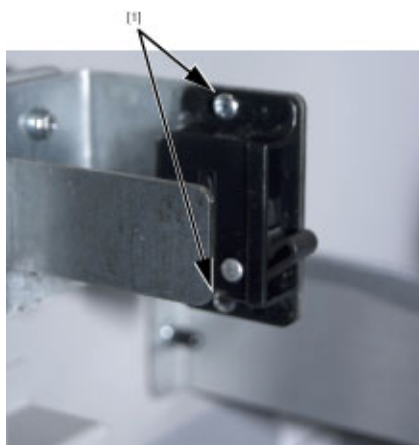
(1) To adjust the door latch:



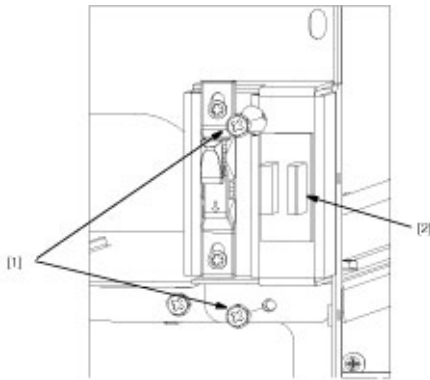
1. Open the front door.
2. Loosen the two adjustment screws [1] on the door latch.
3. Do one of the following.
 - To move the door in, move the latch towards the front of the door.
 - To move the door out, move the latch away from the front of the door.
4. Tighten the 2 screws [1] and close the door.
5. Test its operation.

21.2.3 Door Latch and Switch Replacement

(1) To replace the door latch:



1. Open the front door.
2. Remove the 2 screws [1].

(2) To replace the door switch:

1. Open the front door.
2. Remove the 2 screws [1].
3. Unplug connectors from switch [2].

21.3 Preparing the GP-501 punch for service**21.3.1 Preparing the GP-501 punch for service**

Most service requires that the GP-501 Punch be separated from the printer and finisher and the rear cover be removed.

⚠ WARNING

- Disconnect the unit from power and maintain the cord in your possession. Failure to observe this warning can result in injury or electrical shock.

(1) Procedure

- Unplug the unit from power.
- Disconnect the communication cable
- Empty Chip Bin

21.3.2 Separating the Punch From the Printer

Follow the instructions as described in Installation Manual.

21.3.3 Removing the Rear Cover

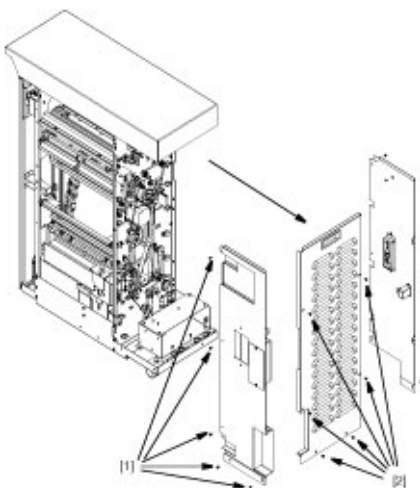
Separate the punch from the printer and finisher first. (Refer to [G.21.3.2 Separating the Punch From the Printer.](#))

Note

- It is not necessary nor recommended that you remove the top cover.

(1) Procedure**(2) Tool Required**

- Phillips screwdriver or 1/4" hex head nut driver

(3) To remove the rear cover:

1. Remove the 5 screws on the entrance side [1] and remove the 6 rear cover screws [2].
2. Slide the cover out from under the top cover. Do not remove the top cover.

21.4 Leveling and aligning to the printer

The punch must be level and in line with the printer and finisher. If the printer and GP-501 Punch are moved or relocated, the system must be re-leveled.

Note

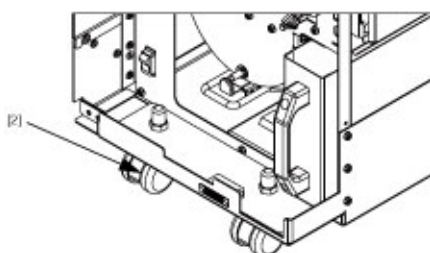
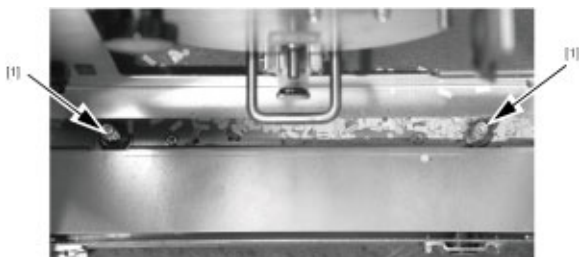
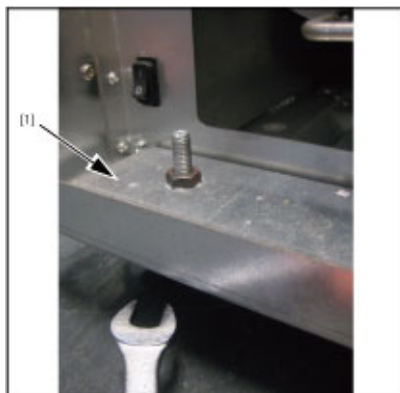
- It is important that the punch is not twisted or skewed. It must be level front to back and side to side.

(1) Procedure

Raise or lower the GP-501 Punch's castors to level it.

(2) Tool Required

- 2 3/8" open ended wrenches
- Level

(3) To level the punch:

1. Remove the rear cover and put the punch back in line with the printer and finisher.
2. Place the level on a flat surface of the top [1] and determine which castor needs adjustment.

3. Loosen the locking nut [1] of the castor.
4. From below the frame and at the top of the castor [2], adjust the height of the castor as needed.
5. Check the level and adjust as necessary.
6. Tighten the locking nut [1].
7. Ensure punch is level and in line with main body and finisher.
8. Install rear cover.

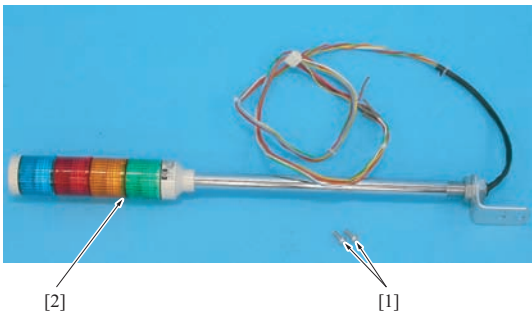
22. GP-502

The descriptions of the disassembling and reassembling procedure GP-502 are mentioned in the GP-502 service manual.

23. COMMERCIALLY AVAILABLE PARTS

23.1 Reinstalling the status indicator light

23.1.1 Configuration

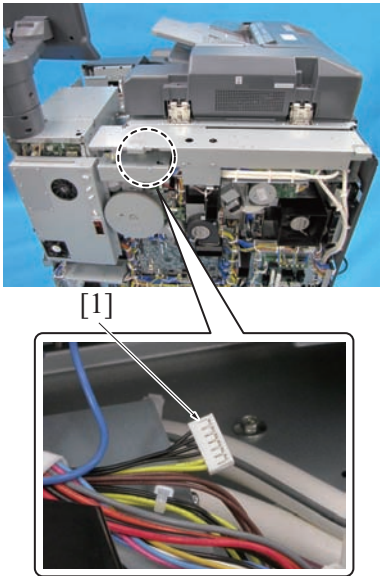


[1]	Screws (2)	[2]	Status indicator light
-----	------------	-----	------------------------

23.1.2 Connector

(1) Connecting connector

(a) Connector position



[1]	CN160	-
-----	-------	---

(b) Connector specifications

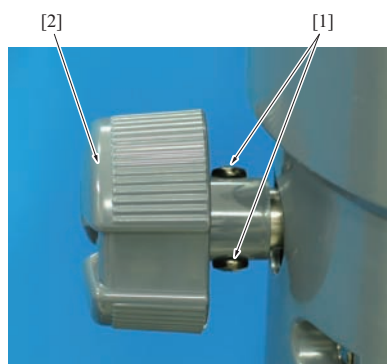
Conne ctor	Pin Number	Signal name	Description	Output timing	Type of signal
160	1	PAT1	Light ON signal	L signal output when the printing available	Open collector
	2	PAT2		L signal output while in the scanning or printing operation	
	3	PAT3		L signal output when an abnormal stop occurs due to jams, error codes, no paper, or no toner	
	4	PAT4		L signal output when the toner supply message is displayed	
	5	24V	24V DC source	At all times	24V, 500mA
	6	P.GND	Power ground	-	-

23.1.3 Procedure

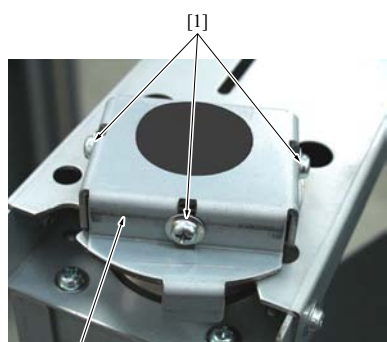
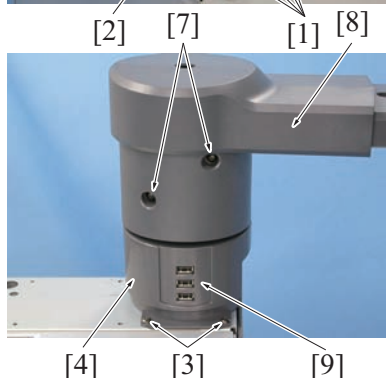
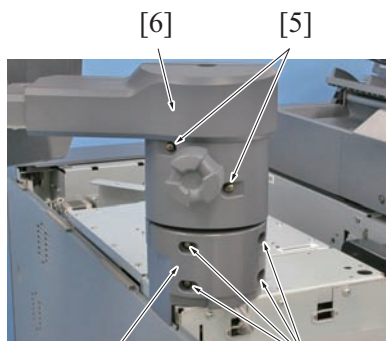
(1) Procedure for reinstallation

(a) Preparation

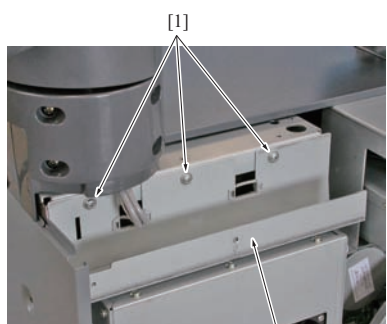
- Be sure to specify the wiring harness pin assignment on the status indicator light side to the CN160 pin assignment on the main body side so that the CN can be connected.

(b) Procedure on the main body side

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1. Remove the rear cover. (Refer to [G.2.2.2 Rear cover](#))
2. Remove the upper cover /Rr2. (Refer to [G.2.2.9 Upper cover / Rr2](#))
3. Remove the upper cover /Rt. (Refer to [G.2.2.10 Upper cover /Rt](#))
4. Remove 2 screws [1] and then remove the adjusting knob [2].

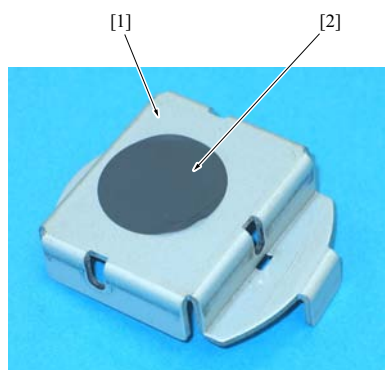
5. Remove 4 screws [1] and then remove the arm cover /3 [2].
6. Remove 2 screws [3] and then remove the arm cover /4 [4].
7. Remove 2 screws [5] and then remove the arm cover /1 [6].
8. Remove 2 screws [7] and then remove the arm cover /2 [8].

Note

- The USB port [9] is not provided for the 951.

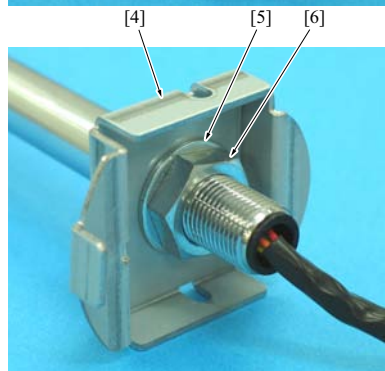
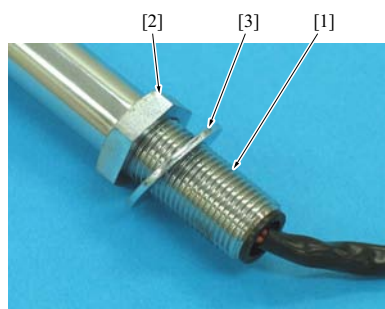
9. Remove 3 screws [1] and then remove the arm cover /5 [2].

10. Remove 3 screws [1] and then remove the exterior mounting plate /A [2].



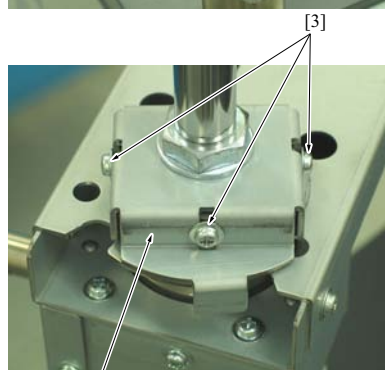
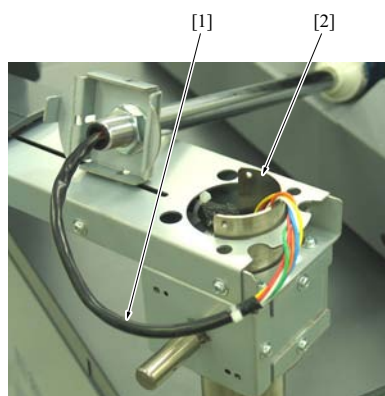
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11. Peel off the label [2] of the arm cover /5 [1].



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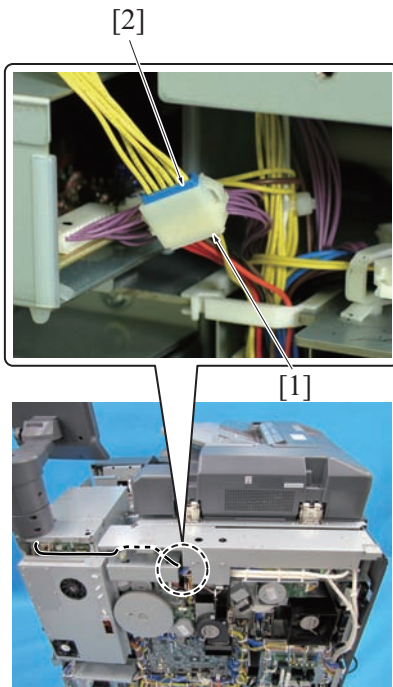
12. With the bolt section [1] of the status indicator light provided with the nut [2] and washer [3], pass the wiring harness of the status indicator light through the arm cover /5 [4], the washer [5] and the nut [6] and tighten up the nut [6].



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13. Pass the wiring harness [1] of the status indicator light through the operation unit support member [2] and install the arm cover /5 [4] with 3 screws [3].

14. Reinstall the arm cover /1, /2, /3 and /4 and the adjusting knob following the removal steps in reverse.



15. Connect the connector [1] of the status indicator light to the connector [2] on the main body for wiring.

Note

- **When wiring, be sure that the wiring harness does not come in contact with the drive section.**

16. Reinstall the upper cover /Rt and /Rt2 and the rear cover following the removal steps in reverse.

24. INDIVIDUAL SUPPORT PARTS

24.1 OUTLINE

Individual support parts set 3 types of items so that the demands expected in the POD market and Product printing market can be met. Providing these parts allows customization adequate to the type of users usage.

24.2 Installation of the paper feed assist plate

24.2.1 Purpose

The paper feed assist plate is used to adjust the pick-up pressure on paper by changing the load on the pick-up roller. Adjustments can be made according to the type of paper to increase the paper feed performance.

Improve a non feed condition that is apt to occur when feeding paper, such as a thick paper, that is hard to convey.

24.2.2 Characteristics

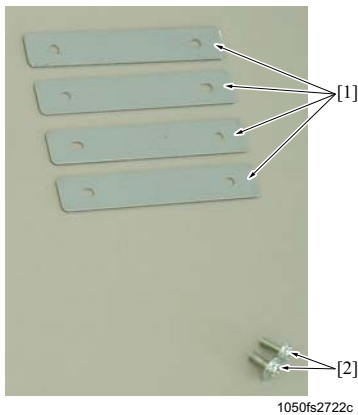
The paper feed assist plate weighs about 10g and the pick-up roller can be equipped with up to 4 plates. Increasing or decreasing the number of plates allows you to adjust the pick-up pressure corresponding to the type of paper.

4 plates only are packaged together with the main body and they can be purchased as service parts when required.

24.2.3 Checking of the contents of the package

The package contains the following as a set.

- [1] Paper feed assist plate: 4 pcs.
- [2] Screw: 2 pcs. (M3 x 8)



24.2.4 Procedure

For the main body, refer to "[I.9.3 Pick-up roller load adjustment.](#)" (Refer to [I.9.3 Pick-up roller load adjustment](#))

For the PF, refer to "[I.12.2 Pick-up roller height adjustment.](#)" (Refer to [I.12.2 Pick-up roller height adjustment](#))

24.3 Installing the postcard kit

24.3.1 Purpose

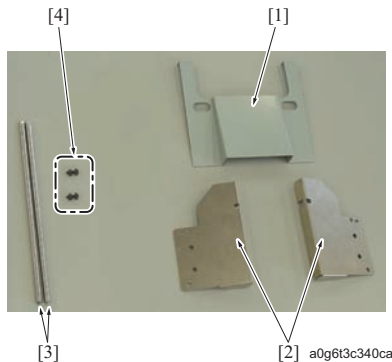
The postcard kit is set as the service parts to feed the postcard.

PF supports feeding of the postcard by default, and the postcard kit is only for the main body tray.

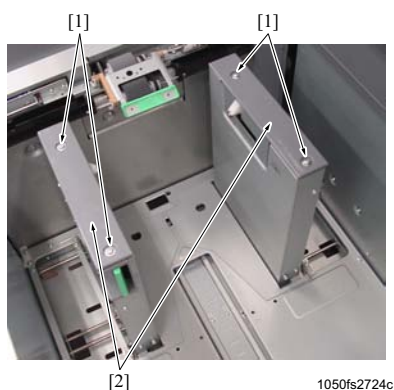
24.3.2 Checking of the contents of the package

The package contains the following as a set.

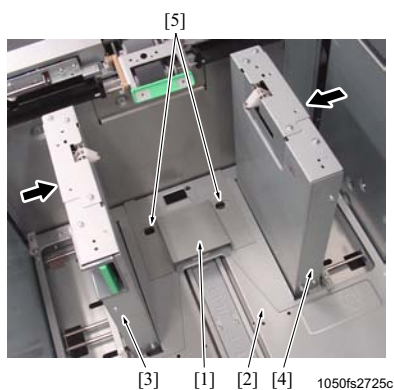
- [1] Bottom plate: 1
- [2] Upper plate /Fr, /Rr: 1 each (2 in total)
- [3] Regulation shaft /S (for the main body): 2
- [4] Screw: 4 pcs. (TP3 x 4)



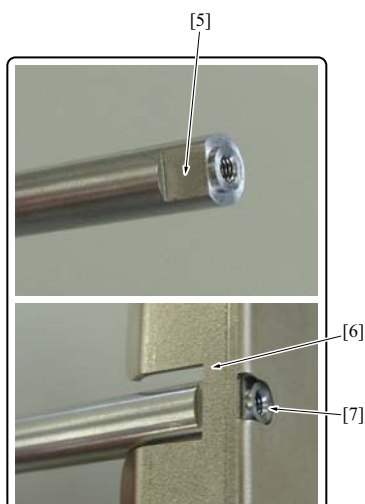
24.3.3 Procedure



1. Pull out the paper feed tray.
2. Remove the screws [1], 2 each, and remove 2 paper guide covers [2].



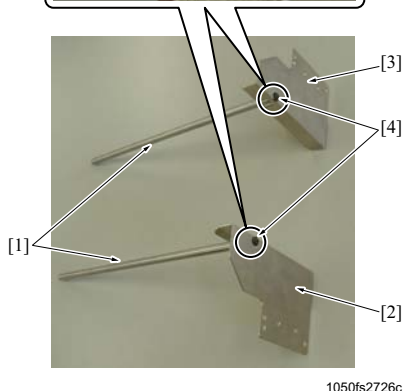
3. Put the bottom plate [1] of the postcard kit on the paper lift board [2], and close the paper guides /Fr [3] and /Rr [4] to the minimum size to adjust the hole position [5].

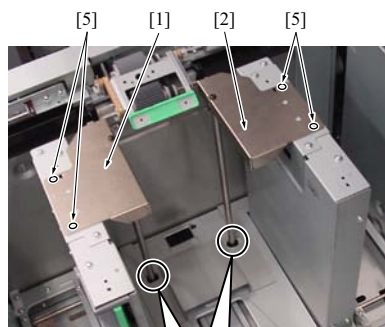


4. Install the regulation shaft [1] to the upper plates /Fr [2] and /Rr [3] with the screw [4].

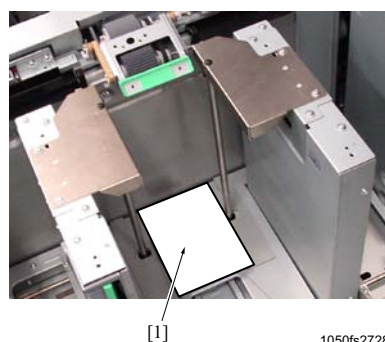
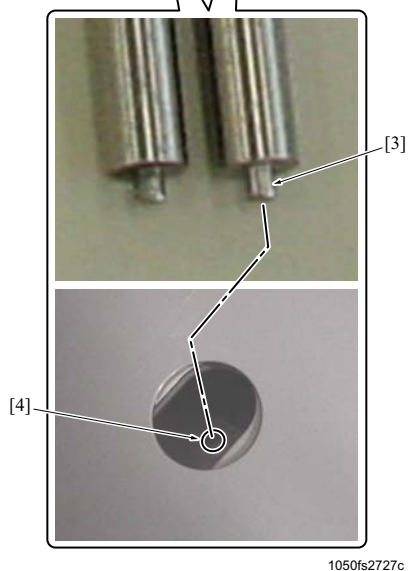
Note

- Be sure to install the shaft so that the flat side [5] at the edge faces to the notch [6] of the upper plate.
- Be sure to set the stepped section [7] of the regulation shaft in the upper plate.

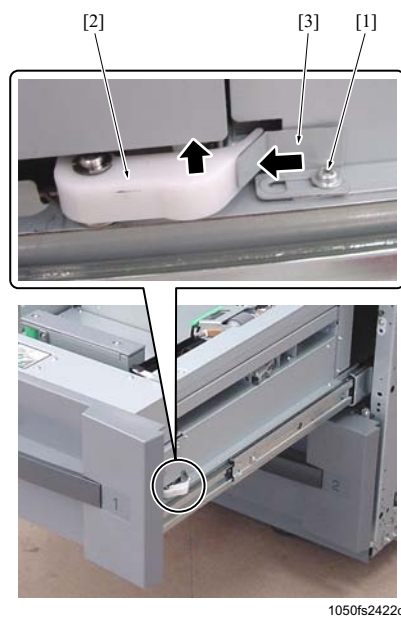




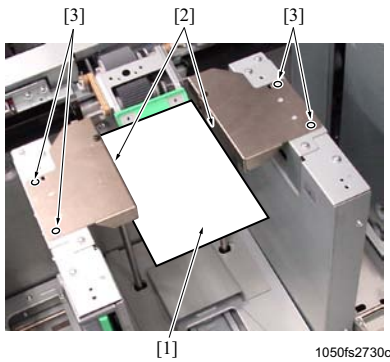
5. Insert the projection [3] at the edge of the regulation shaft on the upper plates /Fr [1] and /Rr [2] assembled in step 4 to the hole [4] on the bottom plate, and then temporarily tighten the screws [5], 2 each.



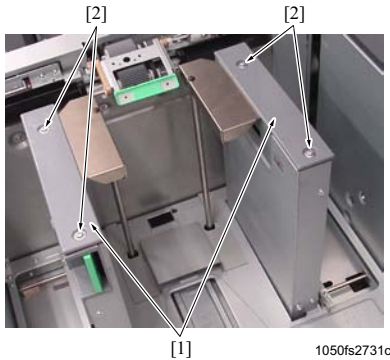
6. Set some piece of postcard [1].



7. Loosen a screw [1].
8. With the release lever [2] placed at its original position, hold the stopper [3] and tighten the screw [1] to fix the stopper.
9. Set the tray. After confirm that the paper lift finished its elevation to the top by hearing the sound of the paper lift motor, pull out the tray again.



10. Adjust the position of the regulation shaft [2] so that the postcard [1] is pinched but not bent between the regulation shaft [2] without any space, and then tighten the screws [3], 2 each.



11. Install 2 paper guide covers [1] with the screws [2], 2 each.
12. Remove the screw to release the release lever that has been fixed at step 7.

Note

- No need to conduct a particular setting on DIPSW of the service mode.

24.4 Replacing the stroking shaft pressure spring

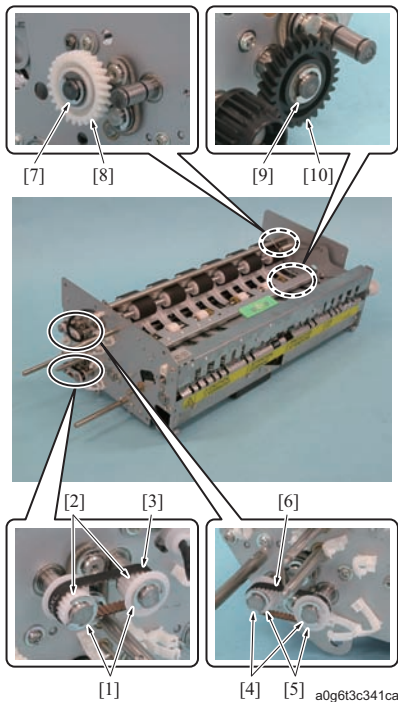
24.4.1 Purpose

The stroking shaft pressure spring is used to strengthen the stroking pressure of the de-curler belts /Up and /Lw.

24.4.2 Characteristics

The stroking shaft pressure spring improves the power of correcting the curl of the thin paper. However, the paper through of the thick paper and the plain paper in the de-curler section may be difficult.

24.4.3 Procedure

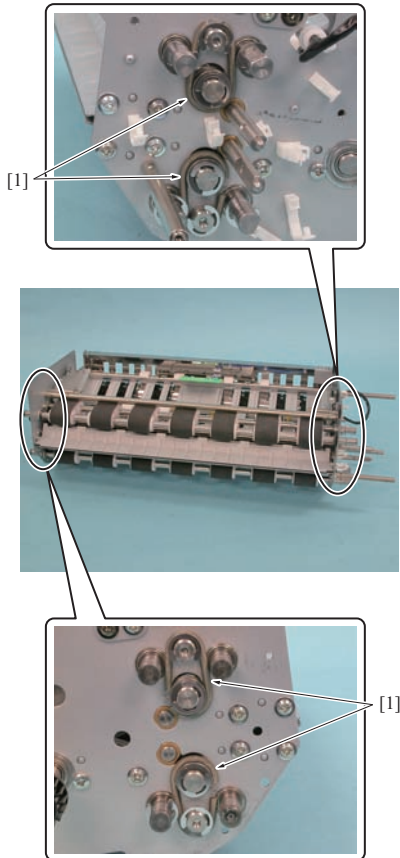


1. Pull out the duplex section.
2. Remove the fusing section.
3. Remove the reverse/exit solenoid assy.
4. Remove the de-curler solenoid /Lw assy.
5. Remove the de-curler solenoid /Up assy.
6. Remove the reverse/exit section.
7. Remove the de-curler motor assy.
8. Remove 2 E-rings [1] and remove 2 gears [2] and the belt [3].
9. Remove 2 E-rings [4] and remove 5 gears [2] and the belt [6].
10. Remove the E-ring [7] and remove the gear [8].
11. Remove the E-ring [9] and remove the gear [10].

Note

- When reinstalling the gears [2] and [5], 2 each, be sure to set the flange of each gear alternately.

12. Replacing 4 stroking shaft pressure spring [1].
13. Reinstall the above parts following the removal steps in reverse.



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H CLEANING/LUBRICATION

1. CLEANING/LUBRICATION PROCEDURES

The descriptions of the cleaning and the lubrication are mentioned in the maintenance section of each device.

I ADJUSTMENT/SETTING

1. CHECKING BEFORE STARTING WORK

When conducting claims in the field, it is necessary to check first the following:

1. Are the power supply and voltage secured in accordance with the specifications?
2. Is the power supply properly grounded?
3. Is any equipment that repeatedly consumes a lot of electricity connected to the same power supply? (for example: Electric noise sources such as elevator and air conditioner)
4. Are environmental conditions suitable for the machine?
 - High temperature and high humidity, direct sunlight, air ventilation, and so on.
 - Levelness of the location on which the machine is installed.
5. Does the cause of poor images lie in the original itself?
6. Is density selected properly?
7. Is the original glass stained?
8. Is proper paper used for copy?
9. Are copy consumables replaced with new ones at their life? (for example: Developer, drum, cleaning blade, and so on)
10. Is toner filled?

2. CHECKPOINTS WHEN CONDUCTING ON-SITE SERVICE

When repairing the machine, be sure to pay due attention to the following items.

1. Be sure to unplug the power plug from the power outlet. Also, when operating the machine with the power supplied, be careful of the scan of the exposure unit and be sure not to get caught by the gear.
2. The fusing section is hot. Be careful not to get burned for handling it.
3. The developing unit is magnetized strongly. Be careful not to bring a watch and instrument near to the unit.
4. Be careful not to damage the drum with a tool.
5. Be careful not to touch IC directly with bare hands.

3. UTILITY

3.1 List of utility menus

Note

- For details on the utility menu, refer to "User's guide."

- 01 System Setting
 - 01 Language Setting
 - 02 Unit Setting
 - 03 Operation/Info.Sound Setting
 - 01 Volume Setting
 - 02 Info. Sound Item Setting
 - 04 1 Shot/Message Indication Time
 - 05 Default Screen Setting
 - 06 Auto Reset Setting
 - 07 Key Response Time
 - 08 Change User Password
 - 09 Shortcut Key Register
 - 01 Copy Application Register
 - 02 Copy Output Setting Register
 - 03 Function Key Register
 - 04 Scan Application Register
- 02 Function Setting
 - 01 Paper Tray Setting
 - 01 Auto Tray Selection Setting
 - 02 Auto Tray Switch ON/OFF
 - 03 ATS Setting
 - 04 PFU Preliminary Dry Setting
 - 05 Type Selection for Auto Paper
 - 02 Individual Function Change
 - 03 Lead Edge Image Erase
 - 04 Density Setting
 - 01 Density by Original Type
 - 02 Preset Density Setting
 - 03 Photo Mode Density Selection
 - 04 Image Density Selection
 - 05 Set Zoom Ratio Setting
 - 06 Tandem Setting
 - 01 Tandem One Time Data Read
 - 02 Tandem Machine Wait/Proof
 - 03 Tandem Shift Data Setting
 - 04 Distribution Recovery
 - 05 Tandem Setting After Job
- 03 Copy Setting
 - 01 Reset Setting
 - 01 Initial Setting
 - 02 Reset Function Setting
 - 03 Initial by Key Counter Insert
 - 02 Individual Function Change
- 04 Scan Setting
 - 01 Default Address Setting
 - 02 Scan Initial Setting
 - 03 Individual Function Change
- 05 Touch Panel Adjustment
- 06 Administrator Setting
 - 01 System Setting
 - 01 Power Save Setting
 - 01 Power Save Setting
 - 02 ErP Setting
 - 02 Time/Date Setting
 - 03 Weekly Timer Setting
 - 01 Weekly Timer ON/OFF Setting
 - 02 Time Setting
 - 03 Date Setting
 - 04 Select Time for Power Save
 - 05 Password Non-Business Hours
 - 04 List/Counter
 - 05 Restrict User Access Setting
 - 06 Expert Adjustment
 - 01 Printer Quality Adj.
 - 02 Corner Staple(Back) Angle
 - 03 Mis-centering Detection JAM Setting
 - 04 Main Power Auto OFF Setting
 - 05 Original Scan Area Setting
 - 06 ADF Frame Erase Setting
 - 07 Non-Image Area Erase Setting
 - 08 Scan Quality Adjustment
 - 07 Size Setting

- 08 Annotation Setting
- 09 Perfect Binding Mode Setting
 - 01 Usable Paper Weight Select
 - 02 Paper Count Limit for PB
 - 03 Unfitting Cover Stop Setting
- 10 Keyboard Type Setting
- 11 Operation Screen Customize
 - 01 Font Weight Setting
 - 02 Copy Screen Customize Set
 - 03 Scan Screen Customize Set
 - 04 Store Screen Customize Set
- 02 Administrator Registration
 - 01 Administrator Registration
- 03 User Auth./Account Track
 - 01 Authentication Method
 - 02 User Authentication Setting
 - 01 Administrative Setting
 - 02 User Registration
 - 03 User Counter
 - 03 Account Track
 - 01 Account Track Registration
 - 02 Account Track Counter
 - 04 Print without Authentication
 - 05 Auth. Device Setting
 - 06 External Server Setting
 - 07 User/Account Common Setting
- 04 Network Setting
 - 01 Machine NIC Setting
 - 01 TCP/IP Setting
 - 02 http Communication Setting
 - 03 E-mail initial setting
 - 02 Controller NIC Setting
 - 01 TCP/IP Setting
 - 02 NetWare Setting
 - 03 HTTP Server Setting
 - 04 FTP Setting
 - 05 SNMP Setting
 - 06 SMB Setting
 - 07 AppleTalk Setting
 - 08 Bonjour Setting
 - 09 E-mail Setting
 - 10 TCP Socket Setting
 - 11 CSRC Setting
 - 12 OpenAPI Setting
 - 13 Web Service Setting
 - 14 JSP Setting
 - 15 LDAP Setting
 - 16 IEEE802.1x Setting
 - 17 Detail Setting
- 05 Copy/Printer Setting
 - 01 Offset Setting
 - 01 Job Offset Operating
 - 02 Offset Output Mode Setting
 - 02 Continuation print (Printer)
 - 03 Page No. pos. (Booklet)
 - 04 Fusing Pre-rotation Set
 - 05 Sample Print Setting
 - 06 Proof Print (1st Sheet) Set
 - 07 JAM Identification Display
 - 08 Automatic Image Rotation
 - 09 Interruption Suspend
 - 10 Copy Reserve Operation
 - 11 Scan Stop by Pull Out Tray
 - 12 Continuation Print (Copy)
 - 13 Original Glass SDF Method
 - 14 SDF Auto Setting
- 06 System Connection
 - 01 Administrator Call
- 07 Security Setting
 - 01 Administrator Password
 - 02 HDD Management Setting
 - 01 Folder/User Box List Delete
 - 02 HDD Stored Data Auto Delete Period
 - 03 HDD Lock Password
 - 04 Delete Temp. Data Setting
 - 05 Delete All Data Setting
 - 06 HDD Encryption Setting
 - 03 Enhanced Security Mode

- 08 Scan Address Register
 - 01 Send Address Edit/Delete
- 09 OpenAPI Auth. Management
 - 01 Restriction Code Setting

3.2 Start/exit

3.2.1 Start method

1. Be sure that the ordinary operation screen *1 is displayed.
Press [Utility/Counter] button.
 2. "Utility screen"
Utility screen is displayed.
- *1 Default is [Machine Screen].

3.2.2 Exit method

1. "Utility screen"
Press [Exit] to go back to the ordinary operation screen.
2. The new settings become effective.

4. LIST OF ADJUSTMENT ITEMS

4.1 Priority for Adjustment/Setting after replacing parts

Conduct the following adjustment on the items list in this order when replacing the parts on the list. Proper operation/image quality is not guaranteed without conducting those adjustment after the parts replacement.

Note

- When replacing the image processing board (IPB) due to the IPB being damaged, be sure to use the NVRAM board (NRB) that was installed on the damaged IPB on the new IPB. Contact the service manager of the authorized distributor if it is considered that NRB is also damaged.
- The NVRAM board (NRB) stores various adjustment data, setting data and counter data. Therefore, when replacing the PB, perform all adjustments and settings, and be sure to replace the parts for control correction (Drum, developer, cleaning blade, cleaning web). For details, contact the service manager of the authorized distributor.
- When replacing a board due to PB control board (PBCB), SD control board (SDCB), FD control board (FDCB), RU control board (RUCB) or FNS control board (FNSCB) being damaged, be sure to use the non-volatile memory (EEPROM) that was installed on the damaged control board on the new control board. Install the new EEPROM and perform all adjustments for the PB, SD, FD, RU or FS if it is considered that the EEPROM is also damaged.

Classification	Replacement parts/Others	Description
-	After PM Implementation	PM cycle setting counter reset
Drum (Refer to F.5.3.8 Replacing the drum/cleaning of the photo conductor section)	Drum (Refer to F.5.3.8 Replacing the drum/cleaning of the photo conductor section)	Setting powder application Charging Potential Auto. Adj. Sensitive Drum set Mode Auto Maximum Density adjustment Auto Dot Diameter adjustment Cartridge Set Mode
Development (Refer to F.5.4.5 Replacing the developer)	Developer (Refer to F.5.4.5 Replacing the developer)	Charging Potential Auto Adj. TonerDensitySensorInit.Auto Auto Maximum Density adjustment Cartridge Set Mode
Cleaning (Refer to F.5.6 Cleaning section)	Cleaning blade (Refer to F.5.6.3 Replacing the cleaning blade)	Setting powder application Blade Replacement spring charge Blade setting mode Cartridge Set Mode
	Toner guide brush (Refer to F.5.6.5 Replacing the toner guide brush assy/scattering prevention felt/seal plates /Fr and /Rr)	Setting powder application
Process mount	Drum + Developer (Refer to F.5.3.8 Replacing the drum/cleaning of the photo conductor section) F.5.4.5 Replacing the developer	Setting powder application Charging Potential Auto Adj. Sensitive Drum set Mode TonerDensitySensorInit.Auto Auto Maximum Density adjustment Auto Dot Diameter adjustment Cartridge Set Mode
	Drum + Cleaning blade (Refer to F.5.3.8 Replacing the drum/cleaning of the photo conductor section) F.5.6.3 Replacing the cleaning blade	Setting powder application Blade auto replacement spring charge Blade Setting Mode Charging Potential Auto Adj. Sensitive Drum set Mode Auto Maximum Density adjustment Auto Dot Diameter adjustment Cartridge Set Mode
	Developer + Cleaning blade (Refer to F.5.4.5 Replacing the developer) F.5.6.3 Replacing the cleaning blade	Setting powder application Blade auto replacement spring charge Blade Setting Mode TonerDensitySensorInit.Auto Auto Maximum Density adjustment Auto Dot Diameter adjustment Cartridge Set Mode
Scanner	Slit glass	ADF Density Adjustment
	Scanner wire, Exposure/Mirror unit (Refer to G.2.2.17 Scanner wire)	Mirror unit positioning (require the jigs) Scanner Restart Timing adjustment Distortion adjustment original glass (main scan direction) Distortion adjustment original glass (sub scan direction)

		Distortion adjustment ADF (main scan direction) Distortion adjustment ADF (sub scan direction)
	CCD unit (Refer to G.2.2.14 CCD unit)	Printer CD-Mag. Adj.(Side1) Scanner paper feed direction magnification adjustment Scanner (ADF) paper feed direction magnification adjustment Scanner restart timing adjustment Distortion adjustment original glass (main scan direction) Distortion adjustment original glass (sub scan direction) Distortion adjustment ADF (main scan direction) Distortion adjustment ADF (sub scan direction) CCD Right and Left Quality Adjustment
Write (Refer to F.5.3.6 Cleaning the LPH lens)	LPH unit (Refer to F.5.3.6 Cleaning the LPH lens)	Printer CD-Mag. Adj.(Side1) Printer Centering Adjustment Printer Restart Timing Adjustment(Side1) Auto charging potential adjustment Auto maximum density adjustment Auto dot diameter adjustment Cartridge set mode
Registration (Refer to F.5.9.13 Replacing the registration roller /Up, the registration bearing, the roller gear /Rt, the registration gears / Up and /Lw)	Registration roller (Refer to F.5.9.13 Replacing the registration roller /Up, the registration bearing, the roller gear /Rt, the registration gears /Up and /Lw)	Regist line speed adjustment Printer FD-Mag. Adjustment (Side1) Printer Restart Timing Adjustment(Side1)
Fusing Cleaning (Refer to F.5.10 transfer section)	Cleaning web (Refer to F.5.10.2 Replacing the fusing cleaning web)	Fusing cleaning web counter clear
	Fusing heater lamp /1 (L1) (Refer to F.5.10.5 Replacing the fusing heater lamps /1 (L1) and /2 (L2))	Installing direction of fusing lamp (with maker mark in front)
	Fusing heater lamp /2 (L2) (Refer to F.5.10.5 Replacing the fusing heater lamps /1 (L1) and /2 (L2))	Installing direction of fusing lamp (with maker mark in front)
	Fusing heater lamp /3 (L3) (Refer to F.5.10.10 Replacing the fusing heater lamp /3 (L3))	Installing direction of fusing lamp (with maker mark in front)
	Thermostat /1 (TS1), /2 (TS2) (Refer to G.2.2.25 Thermostat /1 (TS1), /2 (TS2))	Thermostat positioning (require the jig)
	Thermostat /3 (TS3) (Refer to G.2.2.26 Thermostat /3 (TS3))	Thermostat positioning (require the jig)
Boards	High voltage unit /1, /2 (HV1, /2)	High voltage auto adjustment
	Overall control board (OACB) (Refer to D.4. CONTROL BLOCK DIAGRAM)	Rewriting of firmware NVRAM board (NRB) replacement
	Printer control board (PRCB) (Refer to D.4. CONTROL BLOCK DIAGRAM)	Rewriting of firmware
	Operation board /1 (OB1)	Rewriting of firmware
	Hard disk /2 (HDD2) (Refer to G.2.2.28 Hard disk /2)	IC HDD format
	ADU drive board /1 (ADUDB1)	Multi feed detection board adjustment
	Controller SSD	Rewriting of firmware
DF-615 /616	DF control board (DFCB)	Rewriting of firmware ADF Sensor Sensitivity adjustment ADF Centering Sensor Adj. ADF Original Size Adj. ADF Registration Loop adjustment Scanner (ADF) paper feed direction magnification adjustment ADF Restart Timing adjustment

		ADF Centering adjustment ADF Skew Offset adjustment Distortion adjustment ADF (main scan direction) Distortion adjustment ADF (sub scan direction)
FA-501	FA-501 multi feed detection board (MFDB)	Multi feed detection board adjustment
EF-102	Cleaning web (Refer to F.5.10.2 Replacing the fusing cleaning web)	Fusing cleaning web counter clear
	Fusing heater lamp /1 (L1) (Refer to F.5.10.5 Replacing the fusing heater lamps /1 (L1) and /2 (L2))	Installing direction of fusing lamp (with maker mark in front)
	Fusing heater lamp /2 (L2) (Refer to F.5.10.5 Replacing the fusing heater lamps /1 (L1) and /2 (L2))	Installing direction of fusing lamp (with maker mark in front)
	Fusing heater lamp /3 (L3) (Refer to F.5.10.10 Replacing the fusing heater lamp /3 (L3))	Installing direction of fusing lamp (with maker mark in front)
	Thermostat /1 (TS1), /2 (TS2) (Refer to G.2.2.25 Thermostat /1 (TS1), /2 (TS2))	Thermostat positioning (require the jig)
	Thermostat /3 (TS3) (Refer to G.2.2.26 Thermostat /3 (TS3))	Thermostat positioning (require the jig)
RU-509/510	RU control board (RUCB)	EEPROM replacement Rewriting of firmware
ZU-608	ZU control board (ZUCB)	Punch Edge Sensor Adjustment
	Paper edge sensor board (PESB)	Punch Edge Sensor Adjustment
FS-532	FNS control board (FNSCB)	EEPROM replacement Rewriting of firmware
SD-510	SD control board (SDCB)	Rewriting of firmware
	Stapler unit	Clincher positioning (require the jig)
PK-522	Punch drive board (PDB)	Paper Edge Sensor Adjustment
	Paper size sensor (PS305)	Paper Edge Sensor Adjustment
LS-505	LS control board (LSCB)	Toggle switch setting Rewriting of firmware Grip conveyance home sensor adjustment Paper width adjustment Paper length adjustment
FD-503	FD control board (FDCB)	DIPSW setting of the boards Rewriting of firmware EEPROM replacement
	Multi feed detection board (MFDB)	Multi feed detection board adjustment
	PI drive board (PIDB)	Multi feed detection board adjustment
SD-506	SD control board (SDCB)	DIPSW setting of the boards Rewriting of firmware EEPROM replacement
	Trimmer board assy (Refer to F.19.4.3 Replacing the trimmer board assy)	I/O Check Mode (trimmer board solenoid operation counter reset)
PB-503	PB control board (PBCB)	DIPSW setting of the boards Rewriting of firmware EEPROM replacement Multi feed detection board adjustment
	Multi feed detection board (MFDBS, MFDBR)	Multi feed detection board adjustment

5. SERVICE MODE

5.1 Service mode list

This machine is provided with a service mode for various adjustments/settings. Data adjusted/set with this mode is stored in NVRAM board (NRB).

- 01 Machine Adjustment
 - 01 Tray Adjustment
 - 01 Tray Size Adjustment
 - 02 Tray Amount Detection Adj.
 - 02 Magnification adjustment
 - 01 Transfer Belt Speed Adj.
 - 02 Fusing Speed Adjustment
 - 03 Registration Line Speed Adj.
 - 04 Printer FD-Mag. Adj. (Side1)
 - 05 Printer FD-Mag. Adj. (Side2)
 - 06 Printer CD-Mag. Adj. (Side1)
 - 07 Printer CD-Mag. Adj. (Side2)
 - 08 Scanner FD-Mag. Adj.
 - 09 ADF FD-Mag. Adjustment
 - 03 Timing Adjustment
 - 01 Printer Restart Timing(Side1)
 - 02 Printer Restart Timing(Side2)
 - 03 Printer Registration Loop Adj.
 - 04 Printer Pre-registration Adj.
 - 05 Printer Lead Edge Margin Adj.
 - 06 Lead Transfer SW Timing Adj.
 - 07 Scanner Restart Timing Adj.
 - 08 ADF Restart Timing Adj.
 - 09 ADF Registration Loop Adj.
 - 04 Centering Adjustment
 - 01 Printer Centering Adjustment
 - 02 Scanner Centering Adjustment
 - 03 ADF Centering Adjustment
 - 05 LPH Adjustment
 - 01 Gap adj. Between LPH Chips
 - 02 Black Line Restraint Adj.
 - 03 LPH Adj. Pattern Select
 - 06 Skew Detection Adjustment (1250/1250P/1052 only)
 - 07 Quality Adjustment
 - 01 Sharpness Offset Adjustment
 - 02 Image Distinction Level
 - 03 Density Adjustment
 - 01 AE(AES) Adjustment
 - 02 Copy Density Adjustment
 - 03 Background Removal
 - 04 CCD Right-Left Quality
 - 08 Distortion Adjustment
 - 09 Non-Image Area Erase Check
 - 10 ADF Adjustment
 - 01 ADF Density Adjustment
 - 02 ADF Original Size Adj.
 - 03 ADF Sensor Sensitivity Adj.
 - 04 ADF Skew Offset Adj.
 - 05 ADF Centering Sensor Adj. (1250/1052 only)
 - 11 Recall Standard Data
- 02 Process Adjustment
 - 01 High Voltage adjustment
 - 01 High Voltage Auto Adjustment
 - 02 HV Adjustment (Charge)
 - 03 HV Adj. (Charge grid voltage)
 - 04 HV Adj. (Bias Development)
 - 05 HV Adjustment (Transfer)
 - 06 Trans Belt M-Brush Current
 - 07 Trans Belt S-Brush Current
 - 08 Discharge Before Cleaning
 - 02 Drum Peculiarity Adjustment
 - 01 Blade Setting Mode
 - 02 Charge Potential Auto. Adj.
 - 03 TonerDensitySensorInit.Auto
 - 04 Sensitive Drum Set Mode
 - 05 Auto Maximum Density Adj.
 - 06 Auto Dot Diameter Adj.
 - 07 Cartridge Set Mode
 - 08 Blade Replace Mode
 - 09 Default Density Setting
 - 03 Drum Peculiarity Manual
 - 04 Recall Standard Data

- 03 Counter/Data
 - 01 Maintenance Counter
 - 02 Collection Date
 - 01 Paper Size Counter(Total)
 - 02 Paper Size Counter(Copy)
 - 03 Paper Size Counter(Printer)
 - 04 Large Size Counter
 - 05 ADF Counter
 - 06 Coverage Data History
 - 07 Coverage Ranking List
 - 08 Paper JAM History
 - 09 JAM Counter
 - 10 Counter of Each Copy Mode
 - 11 SC Data of Time Series
 - 12 SC Counter
 - 13 JAM Counter Individual Sec.
 - 14 SC Count Individual Sec.
 - 15 Counter of Each Paper Type
 - 16 Maintenance History
 - 01 Parts History in Time Series
 - 17 ORU-M Maintenance History (1250/1250P/1052 only)
 - 03 Parts Counter
 - 01 Special Parts Counter
 - 02 Voluntary Part Counter
- 04 State Confirmation
 - 01 I/O Check Mode
- 05 List Output
 - 01 List Output
- 06 Test Mode
 - 01 Test Pattern Output Mode
 - 02 Test Pattern Density Setting
 - 03 Running mode
- 07 System Setting
 - 01 Software DIPSW Setting
 - 02 Service Center TEL/FAX
 - 03 M/C Serial Number Setting
 - 04 Setup Date/Business Setting
- 08 Firmware Version
 - 01 Firmware Version
- 09 CS Remote Care
 - 01 CS Remote Care
 - 01 E-mail
 - 02 Modem
 - 03 http
- 10 ISW
 - 01 ISW
- 11 Finisher Adjustment
 - 01 Stapler(Main) Adjustment
 - 01 Staple Position Adjustment
 - 02 Staple Paper Width Adjustment
 - 03 FD Alignment Plate Adjustment
 - 04 Exit Guide Unit Paper Width
 - 05 Rewind Paddle Descent Adj.
 - 02 Stapler(Fold) Adjustment
 - 01 Fold&Staple Pitch Adjustment
 - 02 Fold&Staple Paper Width Adj.
 - 03 Fold&Staple Staple Pos. Adj.
 - 04 Fold&Staple Fold Pos. Adj.
 - 05 Half-Fold Fold Position Adj.
 - 06 Tri-Fold Adjustment
 - 01 Tri-Fold Position Adjustment
 - 02 Double Fold Plate Adjustment
 - 07 Half-Fold Strength Adjustment
 - 03 Stapler(Punch) Adjustment
 - 01 Vert. Position Adj. (CD)
 - 02 Horiz. Position Adj. (FD)
 - 03 Registration Adjustment
 - 04 Paper Edge Sensor Adj.
 - 04 Stapler(PI) Adjustment
 - 01 Tray Size Adjustment
 - 02 PI Registration Adjustment
 - 05 Multi Folder(Punch) Adj.
 - 01 Paper Width Adjustment
 - 02 Punch Vertical Pos. Adj.
 - 03 Punch Gap Recovery Adj.
 - 06 Multi folder (Fold) Adj.
 - 01 Half-Fold Position Adjustment
 - 02 Tri-Fold-in Position Adj.

- 03 Tri-Fold-out Pos. Adj.
- 04 Double Parallel Position Adj.
- 05 Z-Fold Position Adjustment
- 06 Gate Position Adjustment
- 07 Fold Registration Loop Adj.
- 07 Stacker Adjustment
 - 01 Paper Width Adjustment
 - 02 Paper Length Adjustment
- 08 Saddle Stitcher Adjustment
 - 01 Staple Center Adjustment
 - 02 Staple Paper Width Adj.
 - 03 Staple Pitch Adjustment
 - 04 Half-Fold Position Adjustment
 - 05 Tri-Fold Position Adj.
 - 06 Fold Paper Width Adjustment
 - 07 Trimming Adjustment
 - 08 Trimmer Receiver Adjustment
 - 01 Count Select for move
 - 02 Moving Pitch Select
- 09 Perfect Binder Adjustment
 - 01 Cover Trimming Adj.
 - 02 Cover Lead Edge Adj.
 - 03 Spine Corner Forming Pos.
 - 04 Glue Start Position Adj.
 - 05 Glue Finish Position Adj.
 - 06 Temperature Adj.
 - 07 Sub Compile CD Width Adj.
 - 08 Clamp CD Width Adj.
 - 09 Cover Up/Down CD Width Adj.
 - 10 Clamp FD Position Adj.
- 10 Relay Stacker Adjustment
 - 01 Paper Width Adjustment
 - 02 Paper Length Adjustment
- 11 PI-PFU Adjustment
 - 01 Tray adjustment
 - 01 Tray Amount Detection Adj.
 - 02 Pre-registration Adjustment
- 05 Z-Folding Unit Adjustment
 - 01 Z-Fold Position Adjustment
 - 02 Punch Adjustment
 - 01 Vert. Position Adj.(CD)
 - 02 Horiz. Position Adj.(FD)
 - 03 Punch Registration Loop Adj.
 - 04 Punch Edge Sensor Adjustment
- 13/06 Recall Standard Data
- 12 IC HDD Format
 - 01 IC HDD Format
- 14 Setting Data
 - 01 Read from External Memory
 - 02 Store to External Memory
 - 03 Size Setting Rewrite
- 15 Log Store
 - 01 Log Store Setting
 - 02 Execute Log Store
- 16 Auth. Device Setting
 - 01 Auth. Unit Selection
 - 02 Loadable Driver Install
- 17 ORU-M Setting (1250/1250P/1052 only)
 - 01 ORU-M Item Setting
 - 02 ORU-M Life Threshold Setting
 - 03 ORU-M Password Setting

NOTE

- Service Mode of GP-502 is mentioned in the GP-502 service manual.

5.2 Start/exit**5.2.1 Start method**

You can access the service mode while the power is both turned ON and OFF.

In either way, the started service mode is the same, but how to exit differs.

NOTE

- Ensure appropriate security for Service Mode function setting procedures. They should NEVER be shown to any unauthorized person not involved with service jobs.
- If you leave the site with the Service Mode setting screen being displayed, unauthorized changes could occur for any set values. When you finish the setting of Service Mode, or if you have to leave the site by necessity when the Service Mode has been set, be sure to press [Exit] to the basic screen.

(1) Start-up from power ON

1. Be sure that the ordinary operation screen *1 is displayed.
Press [Utility/Counter] button.
 2. "Utility screen"
On the Operation panel, press the following buttons.
Stop → 0 → 0 → Stop → 0 → 1
When the CE password has been set, entering the password is required to enter the service mode.
 3. "Service Mode Menu screen"
The service mode appears.
- *1 Default is [MACHINE] screen.

(2) Start-up from power OFF

1. While pressing [Utility/Counter] button, turn ON the sub power switch (SW2).
When the CE password has been set, entering the password is required to enter the service mode.
2. "Service Mode Menu screen"
The service mode appears.

5.2.2 Exit method

Exit methods differ according to the condition of power switch, ON or OFF.

(1) When the power is ON

1. "Service Mode menu screen"
Press [Exit] to back to "Utility screen".
2. The new settings become effective.

(2) When the power is OFF

1. "Service Mode Menu screen"
Turn OFF the SW2.
2. After the reboot, the new settings become effective.

5.3 Machine adjustment**5.3.1 Tray Size Adjustment (Tray Adjustment)****(1) Functions**

It adjusts the paper size that the tray of PF-706 or the main body detects.

(2) Usage

Conduct this adjustment when the paper size detection does not work properly or when removing the paper guide.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [01 Tray Adjustment].
3. "Tray Adjustment screen"
Press [01 Tray Size Adjustment].
4. "Tray Size Adjustment screen"
Select (1) of the trays you want to adjust since the tray size adjustment has the following items.
[Tray1(1)] / [Tray1(2)] / [Tray2(1)] / [Tray2(2)] / [Tray3(1)] / [Tray3(2)] / [Tray4(1)] / [Tray4(2)] / [Tray5(1)] / [Tray5(2)] / [Tray6 (1)]/[Tray6 (2)]/
[Tray7 (1)]/[Tray7 (2)]/[Tray8 (1)]/[Tray8 (2)]

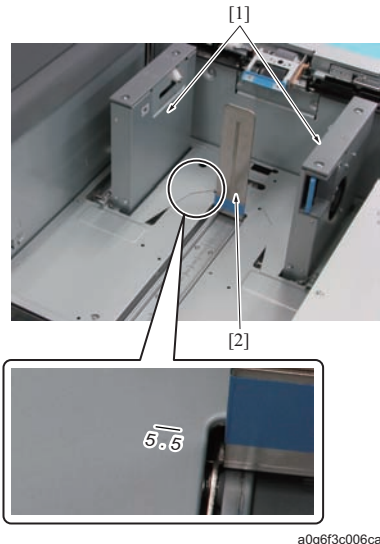
Note

- Be sure to select (1) of the trays you want to adjust.
- In case of 1250/1250P/1052, the tray size adjustment cannot be done on PF-703. Therefore, the corresponding tray cannot be selected.
- In case of 951, the tray size adjustment cannot be done on LU-409/410. Therefore, the corresponding tray cannot be selected.

5. Pull out the selected tray and extend the paper guide [1] and the rear stopper [2] at maximum.
Adjust the paper guide to the position 250mm (main scan direction).
Adjust the rear stopper to the position 139.7mm (5 1/2 inch: sub scan direction).

Note

- Use a scale for aligning it to 250mm in the main scan direction.



6. Set the tray.
7. Press [Start].
The current position of the selected tray is read in. When the adjustment is done, the message "Completed" is displayed.
8. Select (2) of the trays you want to adjust.

Note

- Be sure to select (2) of the trays you want to adjust.

9. Pull out the tray and extend the paper guide and the rear stopper at maximum.
Adjust the paper guide to the position 297mm (main scan direction).
Adjust the rear stopper to the position 457.2mm (18 inch: sub scan direction).
10. Set the tray.
11. Press [Start].
The current position of the selected tray is read in. When the adjustment is done, the message "Completed" is displayed.
12. To adjust other trays, repeat steps 4 to 11.

5.3.2 Tray Amount Detection Adj. (Tray Adjustment)

(1) Functions

Adjust the paper remaining VR detection of each trays.

(2) Usage

Adjust it when the paper remaining detection of the tray does not work properly.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
 2. "Service Mode Menu screen"
Press [01 Tray Adjustment].
 3. "Tray Adjustment screen"
Press [02 Tray Amount Detection Adj.].
 4. "Tray Amount Detection Adjustment screen"
Select [Lower] of the trays you want to adjust.
 5. Pull out the selected tray and remove all paper.
 6. Set the tray.
- Note**
- Confirm that the paper lift plate of the tray is in its lower limit position.
7. Press [Start].
After the adjustment, the message "Complete" appears.
 8. "Tray Amount Detection Adjustment screen"
Select [Upper] of the trays you want to adjust.
 9. Pull out the selected tray and set 1 piece of paper.
 10. Set the tray.
 11. Press [Start].
After the adjustment, the message "Complete" appears.
 12. To adjust other trays, repeat steps 4 to 11.

5.3.3 Transfer Belt Speed Adj. (Magnification Adjustment)

(1) Functions

Adjust the line speed of the transfer belt to the line speed of the drum.

(2) Usage

Usually, do not use this adjustment in the field.

Be sure to conduct "I.5.3.6 Registration Line Speed Adj. (Magnification Adjustment)", "I.5.3.7 Printer FD-Mag. Adj. (Side1) (Magnification Adjustment)", and "I.5.3.8 Printer FD-Mag. Adj.(Side2) (Magnification Adjustment)" when conducting the adjustment.

When a transfer jitter which occurs on each line speed cannot be corrected by Fusing Speed Adjustment, conduct this adjustment.

When there is a 60mm pitch unevenness occurs, conduct this adjustment.

(3) Preparation

Set A3 paper (about 130g/m²) in the tray1 and set the weight setting to [92 to 135g].

Set A3 paper (80g/m²) in the tray2 and set the weight setting to [75 to 91g].

(4) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu"
Press [01 Transfer Belt Speed Adj.].
4. "Transfer Belt Speed Adjustment screen"
Select [High Speed], and select [No.9] in Test Pattern Select.
5. "Transfer Belt Speed Adjustment screen"
Press [Print Mode].
6. "PRINT MODE screen"
Select the tray2 and output 3 sheets of the test pattern.
Note
 - Be sure to select the tray2 which has been set in the preparation.
 - Do not use the paper other than A3 size.
7. "PRINT MODE screen"
Press [Close] to go back to "Transfer Belt Speed Adjustment screen".
Check the level of the pitch unevenness about 60mm on the test pattern. In case the level of the pitch unevenness is bad, conduct step 8 and the following steps. in case the level of the pitch unevenness is good, the adjustment completes.
8. "Transfer Belt Speed Adjustment screen"
Set the line speed to 1 step shorter side from current value and select the test pattern No.9.
 - Adjustment range: -20 to +20
 - 1 Step = 0.05%
9. "Transfer Belt Speed Adjustment screen"
Press [Print Mode].
10. "PRINT MODE screen"
Select the tray2 and output 3 sheets of the test pattern to check the level of about 60mm pitch unevenness.
In case of 1250/1250, when the level of the pitch unevenness is good, input that setting value for both [Mid Speed] and [Low Speed].
In case of 1052/951, when the level of the pitch unevenness is good, input that setting value for [Low Speed].
11. Repeat steps 8 to 10 until the 60mm pitch unevenness is resolved.

5.3.4 Fusing Speed Adjustment (Magnification Adjustment)

(1) Function

By adjusting the fusing speed, appropriate the paper loop amount between the transfer belt unit and the fusing unit.

(2) Usage

When a transfer jitter occurs, conduct this adjustment.

(3) Preparation

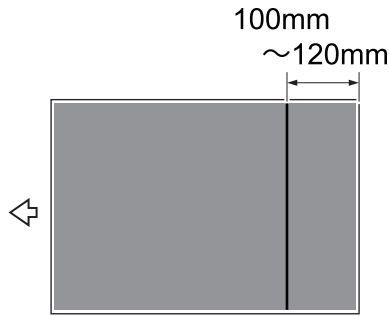
Set A3 paper (about 130 g/m²) in the tray1 and set the weight setting to [92 to 135g].

(4) Procedure

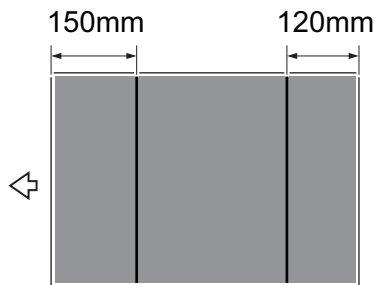
1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu screen"
Press [02 Fusing Speed Adjustment].
4. "Fusing Speed Adjustment screen"
Select [High Speed], and select [No.9] in Test Pattern Select.
5. "Fusing Speed Adjustment screen"
Press [Print Mode].
6. "PRINT MODE screen"
Select the tray1 and output 3 sheets of the test pattern.
Note
 - Be sure to select the tray1 which has been set in the preparation.
 - Do not use the paper other than A3 size.
7. "PRINT MODE screen"
Press [Close] to go back to "Fusing Speed Adjustment screen".

Check the level of the transfer jitter on the test pattern.

- 1st: Check the transfer jitter around 100mm to 120mm from the paper trailing edge.



- 2nd and 3rd sheets of paper: Check the transfer jitter around 120mm from the paper trailing edge and 150mm from the paper leading edge.



In case the level of the transfer jitter is bad, conduct step 8 and the following steps. In case the level of the transfer jitter is good, the adjustment completes.

8. "Fusing Speed Adjustment screen"

Select [High Speed], set the fusing speed to 1 step shorter side from current value and select the test pattern [No.9].

- Adjustment range: -20 to +20
- 1step = 0.05%

9. "Fusing Speed Adjustment screen"

Press [Print Mode].

10. "PRINT MODE screen"

Select the tray1, output 3 sheets of the test pattern and check the transfer jitter as well as the step 7.

In case of 1250/1250P, when the level of the transfer jitter is good, input that setting value for both [Mid Speed] and [Low Speed].

In case of 1052/951, when the level of the transfer jitter is good, input that setting value for [Low Speed].

11. Repeat the steps 8 to 10 until the transfer jitter is resolved.

5.3.5 Fusing Speed Adjustment (Magnification Adjustment) EF-102

(1) Functions

By adjusting the fusing speed, optimize the paper loop amount between the transfer belt unit and the fusing unit.

(2) Usage

Conduct this adjustment when the image is smudged by the image misalignment at the front and rear side of the envelope.

Note

- This adjustment becomes enabled only when EF-102 is installed to 1250/1250P/1052.

(3) Preparation

Set the envelope at the middle tray of PF-703

(4) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu"
Press [02 Fusing Speed Adjustment].
4. "Fusing Speed Adjustment screen"
Select [Envelope], and select [No.9] in Test Pattern Select.
5. "Fusing Speed Adjustment screen"
Press [Print Mode].
6. "PRINT MODE screen"
Select the tray4 and output 3 sheets of the test pattern.

Note

- Be sure to select the tray4 which has been set in the preparation.
- For the size of the envelope available, refer to the product specification of EF-102. (Refer to: [C.12. EF-102](#))

7. "PRINT MODE screen"

Press [Close] to go back to "Fusing Speed Adjustment screen".

Check the level of the transfer jitter on the test pattern.

- The smudged image on the 1st envelope is recognized



If the level of the smudged paper is bad, conduct step 8 and the following steps. If the level of the smudged paper is good, the adjustment completes.

8. "Fusing Speed Adjustment screen"

Select [Envelope], set the fusing speed to 1 step shorter side from current value and select the test pattern [No.9].

- Adjustment range: -20 to +20
- 1 Step = 0.05%

9. "Fusing Speed Adjustment screen"

Press [Print Mode].

10. "PRINT MODE screen"

Select the tray including the envelope, output 3 sheets of the test pattern and check the transfer jitter as well as the step7.

11. Repeat the steps 8 to 10 until the paper does not get smudged by the image misalignment.

5.3.6 Registration Line Speed Adj. (Magnification Adjustment)

(1) Functions

Change the line speed of the registration roller to adjust it to the process speed of the drum transfer belt.

(2) Usage

When a transfer jitter occurs at a position about 160mm from the paper trailing edge, conduct this adjustment.

Note

- Usually, do not use this adjustment in the field. Only when a transfer jitter occurs at a position 160mm from the paper trailing edge, conduct this adjustment.
- This adjustment changes the line speed of the registration roller only. Unless properly adjusted, it causes a transfer jitter at a position 160mm from the paper trailing edge.
- Conduct "[I.5.3.7 Printer FD-Mag. Adj. \(Side1\) \(Magnification Adjustment\)](#)" and "[I.5.3.8 Printer FD-Mag. Adj.\(Side2\) \(Magnification Adjustment\)](#)" to adjust the magnification in the sub scan direction.
- The density of "[I.5.8.2 Test Pattern Density](#)" is reflected. So, be sure to check the set value of "[I.5.8.2 Test Pattern Density](#)" to ensure it is "255."

(3) Preparation

Set A3 paper (about 130g/m²) in the tray2 and set the weight setting to [92 to 135g].

(4) Procedure

1. "Service Mode Menu screen"

Press [01 Machine Adjustment].

2. "Service Mode Menu screen"

Press [02 Magnification Adjustment].

3. "Magnification Adjustment Menu screen"

Press [03 Registration Line Speed Adj.].

4. "Registration Line Speed Adjustment screen"

Set "9" to the test pattern and press [Print Mode].

5. "PRINT MODE screen"

Select Tray2 and output 3 sheets of the test pattern.

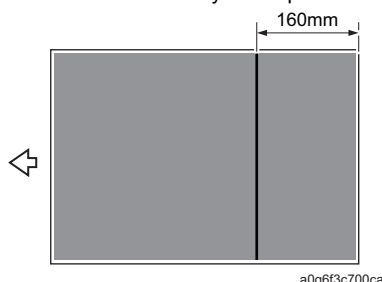
Note

- Be sure to select the tray2 which has been set in the preparation.
- Do not use the paper other than A3 size.

6. "PRINT MODE screen"

Check the transfer jitter at the position 160mm from the paper trailing edge on the test pattern.

Be sure that the density at the position 160mm from the paper trailing edge is the same as the density around.



7. When the transfer jitter occurs, press [Close].

8. "Registration Line Speed Adjustment screen"

Input the number 3 steps minus side from the present setting and press [Print Mode].

- Adjustment range: -40 to +55
- 1step: 0.05%

Note

- When the value of [Registration Line Speed] is -6, set -9.
- When inputting the setting data, be sure to input each 3 steps in the minus side at once. Input each 1 step only when the fine adjustment is needed. By the adjustment with each 1 step, it is hard to judge whether the change is caused by the driving system or by the adjustment value input.

9. Repeat the steps 4 to 8 until the transfer jitter is resolved.

5.3.7 Printer FD-Mag. Adj. (Side1) (Magnification Adjustment)**(1) Functions**

Adjust the magnification in the sub scan direction of the printer system front side only. (Change the line speed of the drum and the registration roller evenly.)

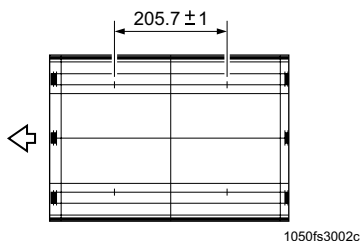
(2) Usage

When the transfer jitter occurs at positions about 300mm from the paper leading edge on the front side, about 150mm from the paper leading edge on the 2nd or later sheet or at random positions, conduct this adjustment to reduce the transfer jitter by adjusting the magnification in the sub scan direction to positive side.

Conduct this adjustment when the magnification in the sub scan direction of the printer system front side only is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu screen"
Press [04 Printer FD-Mag. Adj. (Side1)].
4. "Printer FD-Mag. Adjustment (Side1) screen"
Press [Print Mode].
5. Set the A3 or 11 x 17 paper. Press the start button to output the test pattern.
6. Check the magnification in the sub scan direction.
 - Standard value: $\pm 0.5\%$ or less (When in life-size)
within 205.7 ± 1 mm



7. When the value is not within the standard value, press [Close].
8. "Printer FD-Mag. Adjustment (Side1) screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range: -10 to +10
 - 1 Step = 0.05%
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.8 Printer FD-Mag. Adj.(Side2) (Magnification Adjustment)**(1) Functions**

Adjust the magnification in the sub scan direction of the printer system back side only. (Change the line speed of the drum and the registration roller evenly.)

(2) Usage

Conduct this adjustment when the transfer jitter occurs at the position to reduce the transfer jitter by adjusting the magnification in the sub scan direction.

Conduct this adjustment when the magnification in the sub scan direction of the printer system back side only is not within the standard value.

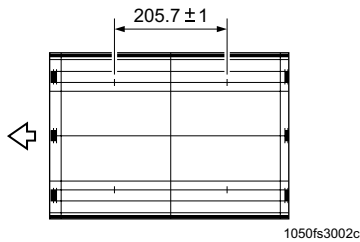
Note

- Be sure "1.5.3.7 Printer FD-Mag. Adj. (Side1) (Magnification Adjustment)" has been adjusted.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu"
Press [05 Printer FD-Mag. Adj. (Side2)].

4. "Printer FD-Mag. Adjustment (Side2) screen"
Select the paper tray that you want to adjust from the followings.
[Tray1]/[Tray2]/[Tray3]/[Tray4]/[Tray5]/[Tray6]/[Tray7]/[Tray8]
5. "Printer FD-Mag. Adjustment (Side2) screen"
Press [Print Mode].
6. Set A3 size paper on the tray selected in step 4 and press the start button to output the test pattern.
7. Check the magnification in the sub scan direction.
 - Standard value: $\pm 0.5\%$ or less (When in life-size)
within 205.7 ± 1 mm



8. When the value is not within the standard value, press [Close].
9. "Printer FD-Mag. Adjustment (Side2) screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range: -10 to +0
 - 1 Step = 0.05%
10. Repeat steps 4 to 9 until the standard value can be obtained.

5.3.9 Printer CD-Mag. Adjustment (Side1) (Magnification Adjustment)

(1) Functions

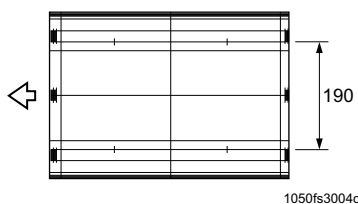
Adjust the magnification in the main scan direction of the printer system front side only. (Change the magnification in image-processing before the exposure.)

(2) Usage

Conduct this adjustment when the magnification in the main scan direction of the printer system front side only is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu"
Press [06 Printer CD-Mag. Adj. (Side1)].
4. "Printer CD-Mag. Adjustment (Side1) screen"
Press [Print Mode].
5. Set the A3 or 11 x 17 paper. Press the Start button to output the test pattern.
6. Check the magnification in the main scan direction.
 - Standard value: $\pm 0.5\%$ or less (When in life-size)
within $190\text{mm} \pm 1\text{mm}$



7. When the value is not within the standard value, press [Close].
8. "Printer CD-Mag. Adjustment (Side1) screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range: -10 to +10
 - 1 Step = 0.05%
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.10 Printer CD-Mag. Adjustment (Side2) (Magnification Adjustment)

(1) Functions

Adjust the magnification in the main scan direction of the printer system back side only. (Change the magnification in image-processing before the exposure.)

(2) Usage

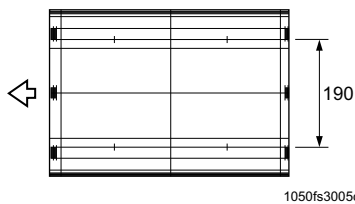
Conduct this adjustment when the magnification in the main scan direction of the printer system back side only is not within the standard value.

Note

- Be sure "1.5.3.7 Printer FD-Mag. Adj. (Side1) (Magnification Adjustment)" has been adjusted.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu"
Press [07 Printer CD-Mag. Adj. (Side2)].
4. "Printer CD-Mag. Adjustment (Side2) screen"
Select the paper tray that you want to adjust from the followings.
[Tray1]/[Tray2]/[Tray3]/[Tray4]/[Tray5]/[Tray6]/[Tray7]/[Tray8]
5. "Printer CD-Mag. Adjustment (Side2) screen"
Press [Print Mode].
6. Set A3 size paper on the tray selected in step 4 and press the start button to output the test pattern.
7. Measure the magnification of the main scan direction with a scale.
 - Standard value: $\pm 0.5\%$ or less (When in life-size)
within $190\text{mm} \pm 1\text{mm}$



8. When the value is not within the standard value, press [Close].
9. "Printer CD-Mag. Adjustment (Side2) screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range: -10 to +0
 - 1 Step = 0.05%
10. Repeat steps 4 to 9 until the standard value can be obtained.

5.3.11 Scanner FD-Mag. Adj. (Magnification Adjustment)**(1) Functions**

Adjust the magnification in the sub scan direction of the scanner system (the scanning speed of the exposure unit).

(2) Usage

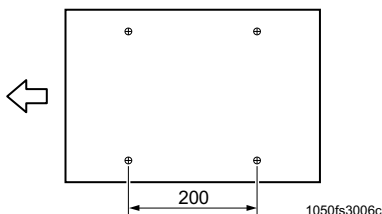
Conduct this adjustment when the magnification in the sub scan direction in scanning is not within the standard value.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.
- Be sure the printer FD magnification adjustment has been adjusted.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu"
Press [08 Scanner FD-Mag. Adj.].
4. "Scanner FD-Mag. Adjustment screen"
Press [Print Mode].
5. Select A3 or 11 x 17 paper, and set the "test chart" on the original glass. Press the Start button.
6. Measure the magnification in the sub scan direction with a scale.
 - Standard value: $\pm 0.5\%$ or less (When in life-size)
within $200\text{mm} \pm 1\text{mm}$



7. When the value is not within the standard value, press [Close].
8. "Scanner FD-Mag. Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range: -40 to +40
 - 1 Step = 0.05%

9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.12 ADF FD-Mag. Adjustment (Magnification Adjustment)

(1) Functions

Adjust the magnification in the sub scan direction of the scanner system (the scanning speed of the DF).

(2) Usage

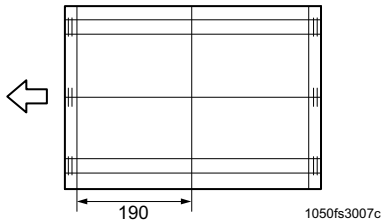
Conduct this adjustment when the magnification in the sub scan direction in scanning is not within the standard value.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.
- Be sure the printer FD magnification adjustment has been adjusted.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [02 Magnification Adjustment].
3. "Magnification Adjustment Menu"
Press [09 ADF FD-Mag. Adjustment].
4. "ADF FD-Mag. Adjustment screen"
Select the item to be adjusted and press [Print Mode].
5. Select the A3 or 11 x 17 paper, and set the "adjustment chart" on the ADF. Press the Start button.
6. Measure the magnification in the sub scan direction with a scale.
 - Standard value: $\pm 0.5\%$ or less (When in life-size)
within $190\text{mm} \pm 1\text{mm}$



7. When the value is not within the standard value, press [Close].
8. "ADF FD-Mag. Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range: -40 to +40
 - 1 Step = 0.05%
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.13 Printer Restart Timing Adjustment (Side1) (Timing Adjustment)

(1) Functions

Adjust the leading edge timing of front side by changing the LPH exposure start timing.

(2) Usage

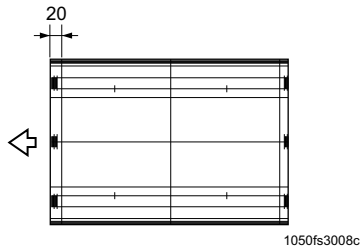
Conduct this adjustment when the leading edge on the front side is lacking or too much in printing.

Note

- Be sure "I.5.3.7 Printer FD-Mag. Adj. (Side1) (Magnification Adjustment)" has been adjusted.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
 2. "Service Mode Menu screen"
Press [03 Timing Adjustment].
 3. "Timing Adjustment Menu screen"
Press [01 Printer Restart Timing(Side1)].
 4. "Printer Restart Timing Adjustment(Side1) screen"
Tray can be adjusted by all tray or each tray. Select the item you adjust, and press [Print Mode].
- Note**
- In case of 1250/1250P/1052, [Tray1 Offset] to [Tray8 Offset] can be adjusted.
 - In case of 951, [Tray1 Offset] to [Tray5 Offset] can be adjusted.
5. Set the A3 or 11 x 17 paper. Press the Start button to output the test pattern.
 6. Measure the leading edge timing with a scale.
 - Standard value: $20 \pm 0.5\text{mm}$ (AB)
 - Standard value : 25.4 (1 inch) $\pm 0.5\text{mm}$ (Inch)



7. When the value is not within the standard value, press [Close].
8. "Printer Restart Timing Adjustment(Side1) screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range: -30 to +30
 - 1 Step = 0.1mm
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.14 Printer Restart Timing Adjustment (Side2) (Timing Adjustment)

(1) Functions

Adjust the leading edge timing of back side by changing the LPH exposure start timing.

(2) Usage

Conduct this adjustment when the leading edge on the back side is lacking or too much in printing.

Note

- Be sure "I.5.3.8 Printer FD-Mag. Adj.(Side2) (Magnification Adjustment)" has been adjusted.
- Be sure "I.5.3.13 Printer Restart Timing Adjustment (Side1) (Timing Adjustment)" has been adjusted.

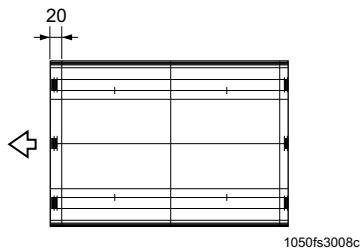
(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [03 Timing Adjustment].
3. "Timing Adjustment Menu screen"
Press [02 Printer Restart Timing(Side2)].
4. "Printer Restart Timing Adjustment(Side2) screen"
Tray can be adjusted by each tray. Select the item you adjust, and press [Print Mode].

Note

- In case of 1250/1250P/1052, [Tray1 Offset] to [Tray8 Offset] can be adjusted.
- In case of 951, [Tray1 Offset] to [Tray5 Offset] can be adjusted.

5. Set the A3 or 11 x 17 paper. Press the Start button to output the test pattern.
6. Measure the leading edge timing with a scale.
 - Standard value: $20 \pm 0.5\text{mm}$ (AB)
 - Standard value : 25.4 (1 inch) $\pm 0.5\text{mm}$ (Inch)



7. When the value is not within the standard value, press [Close].
8. "Printer Restart Timing Adjustment(Side2) screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range: -30 to +30
 - 1 Step = 0.1mm
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.15 Printer Registration Loop Adj. (Timing Adjustment)

(1) Functions

Adjust the paper loop amount in the registration roller section.

(2) Usage

Conduct this adjustment when the paper skew, crease, or jamming occurs in the registration roller section.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].

2. "Service Mode Menu screen"
Press [03 Timing Adjustment].
3. "Centering Adjustment Menu screen"
Press [03 Printer Registration Loop Adj.].
4. "Printer Registration Loop Adjustment screen"
Select the item that you want to adjust and press [Print Mode].

Note

- The adjustment values for "Side1" and "Side2" are reflected on the following paper weight and size

Length in the sub scan direction	Paper weight	
	50 g/m ² to 162 g/m ²	163 g/m ² to 350 g/m ²
Less than 169.9mm	Plain	Plain
170mm to 483mm	Plain	Thick

Side2

Length in the sub scan direction	Paper weight	
	50 g/m ² to 162 g/m ²	163 g/m ² to 350 g/m ²
Less than 184.9mm	Plain	Plain
185mm to 483mm	Plain	Thick

- The adjustment values for "Side1 Thin" and "Side2 Thin" are reflected on the paper weight 40g/m² to 49g/m².
- The adjustment value for "Side1 Envelope" is reflected on the envelope.

5. Set the copy according to the item that has been adjusted and press the start button to output the test pattern.
6. When the trouble is not solved, press [Close].
7. "Printer Registration Loop Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Adjustment range:
For 1250/1250P/1052
Side1: -8 (small) to +10 (big)
Side2: -10 to +10
Side1 Thick: -5 to +10
Side2 Thick: -10 to +10
Side1 Thin: -5 to +10
Side2 Thin: -10 to +10
Side1 Envelope: 0 to +10
<In case of 951>
Side1: -12 (Small) to +5 (Big)
Side2: -10 to +10
Side1 Thick: -9 to +5
Side2 Thick: -10 to +10
Side1 Thin: -9 to +5
Side2 Thin: -10 to +10
 - 1 Step = 1mm
8. Repeat the steps 4 to 7 until an appropriate value is obtained.

5.3.16 Printer Pre-registration Adj. (Timing Adjustment)**(1) Functions**

Adjust the paper loop amount in the pre-registration roller section.

(2) Usage

Conduct this adjustment when the paper skew, crease, or jamming occurs in the pre-registration roller section.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [03 Timing Adjustment].
3. "Timing Adjustment Menu screen"
Press [04 Printer Pre-registration Adj.].
4. "Printer Pre-registration Adjustment screen"
Select the size of paper you want to adjust from [Not Thin Paper] or [Thin Paper].
5. "Printer Pre-registration Adjustment screen"
Tray can be adjusted by each tray. Select the item you adjust, and press [Print Mode].

Note

- In case of 1250/1250P/1052, [Tray1] to [Tray8] can be adjusted.
- In case of 951, [Tray1] to [Tray5] can be adjusted.

6. Select A3 or 11 x 17 paper, and press the Start key to output the test pattern.
7. When the trouble is not solved, press [Close].

8. "Printer Pre-registration Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -10 (small) to +10 (large)
 - 1 Step = 1mm
9. Repeat the steps 4 to 8 until an appropriate value is obtained.

5.3.17 Printer Lead Edge Margin Adj. (Timing Adjustment)

(1) Functions

Adjust the image erasure amount of the leading edge.

(2) Usage

Conduct this adjustment when the image erasure (deleted) amount of the leading edge is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [03 Timing Adjustment].
3. "Timing Adjustment Menu screen"
Press [05 Printer Lead Edge Margin Adj.].
4. "Printer Lead Edge Margin Adjustment screen"
Press [Print Mode].
5. Select A3 or 11 x 17 paper, and press the Start key to output the test pattern.
6. Check the printer lead edge timing.
 - Standard value: within 2mm \pm 1mm
7. When the value is not within the standard value, press [Close].
8. "Printer Lead Edge Margin Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -20 (small) to +40 (large)
 - 1 Step = 0.1mm
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.18 Lead Edge Transfer Switch Timing Adj. (Timing Adjustment)

(1) Functions

Adjust the start up timing of the transfer current value switch.

(2) Usage

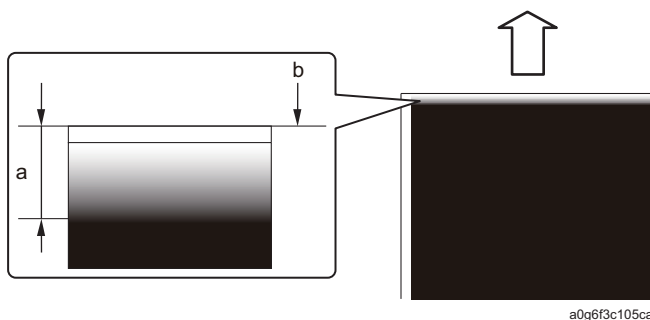
When the transfer error area on the leading edge of the image is large under the low temperature/humidity environment, conduct this adjustment.

(3) Preparation

Set A4 paper (64g/m²) in the tray1 and set the weight setting to [62g to 74g]. KONICA MINOLTA J paper 55kg (64g/m²) is recommended.

(4) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
 2. "Service Mode Menu screen"
Press [03 Timing Adjustment].
 3. "Timing Adjustment Menu screen"
Press [06 Lead Transfer SW Timing Adj.].
 4. "Lead Edge Transfer Switch Timing Adj. screen"
Press [Print Mode].
 5. "PRINT MODE screen"
Select the tray1 and output 3 sheets of the test pattern.
- Note**
- Be sure to select the tray1 which has been set in the preparation.
6. "PRINT MODE screen"
Press [Close] to return to "Lead Edge Transfer Switch Timing Adj. screen".
Measure the transfer start up timing amount at the leading edge with the output the test pattern.



- a = Transfer start up timing amount
- b = Paper leading edge

Note

- For the measurement of the transfer start up timing amount, select the image whose measured amount is the largest of 3 outputs.
- For the measurement of the transfer start up timing amount, measure the area from the paper leading edge to the shadow part of the image.

7. "Lead Edge Transfer Switch Timing Adj. screen"

Enter a numeric value through the numeric keys and press [Set].

- Standard value: a = 2.5mm to 4.0mm
- Adjustment range: -3 to +8
- 1step:1msec = 0.5mm

Note

- Do not adjust it to less than 2.0mm or the separation error occurs.

8. Repeat steps 4 to 7 until the standard value can be obtained.

5.3.19 Scanner Restart Timing Adj. (Timing Adjustment)**(1) Functions**

Adjust image leading edge timing of original scanning from the original glass (the starting position for reading while in the original scanning mode by the exposure unit).

(2) Usage

Conduct this adjustment when the leading edge is lacking or too much in scanning.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not has the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [03 Timing Adjustment].
3. "Timing Adjustment Menu screen"
Press [07 Scanner Restart Timing Adj.].
4. "Scanner(Orig. Glass) Restart Timing Adj. screen"
Press [Print Mode].
5. Select A3 or 11 x 17 paper, place a "test chart" on the original glass, and press Start key.
6. Check the leading edge timing.
 - Standard value: within ± 1.5 mm
7. When the value is not within the standard value, press [Close].
8. "Scanner(Orig. Glass) Restart Timing Adj. screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -40 (image, fast) to +40 (image, slow)
 - 1 Step = 0.1mm
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.20 ADF Restart Timing Adj. (Timing Adjustment)**(1) Functions**

Adjust the image leading edge timing of DF original scanning (the starting position for reading while in the original scanning mode).

(2) Usage

Conduct this adjustment when the leading edge is lacking or too much in scanning DF.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not has the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [03 Timing Adjustment].
3. "Timing Adjustment Menu screen"
Press [08 ADF Restart Timing Adj.].
4. "ADF restart timing adj. screen"
Select the side of the original to be adjusted and press [Print Mode].
5. Select A3 or 11 x 17 paper, and set the "adjustment chart" on the ADF. Press the Start Key.
6. Check the image leading edge timing.
 - Standard value: ± 2 mm
7. When the value is not within the standard value, press [Close].
8. "ADF restart timing adj. screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -50 (image, fast) to +50 (image, slow)
 - 1 Step = 0.1mm

9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.21 ADF Registration Loop Adj. (Timing Adjustment)

(1) Functions

Adjust the original loop amount in the DF registration roller section.

(2) Usage

Conduct this adjustment when the paper skew, crease, or jamming occurs in the DF registration roller section.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Machine adjustment menu"
Press [03 Timing Adjustment].
3. "Timing Adjustment Menu screen"
Press [09 ADF Registration Loop Adj.].
4. "ADF regist loop adj. screen"
Select the side of the original to be adjusted and press [Print Mode].
5. Select A3 or 11 x 17 paper, and set the "adjustment chart" on the ADF. Press the Start Key.
6. When the ADF registration loop amount is not appropriate, press [Close].
7. "ADF regist loop adj. screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -10 (small) to +10 (large)
 - 1 Step = 0.5mm
8. Repeat the steps 4 to 7 until an appropriate value is obtained.

5.3.22 Printer Centering Adjustment (Centering Adjustment)

(1) Functions

Adjust the centering of images of the printer main scan direction by changing the LPH writing position.

(2) Usage

Conduct this adjustment when the image mis-centering of the main scan direction occurs while in printing.

Note

- Be sure that " " and " " have been adjusted. [I.5.3.9 Printer CD-Mag. Adjustment \(Side1\) \(Magnification Adjustment\)](#) [I.5.3.10 Printer CD-Mag. Adjustment \(Side2\) \(Magnification Adjustment\)](#)

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [04 Centering Adjustment].
3. "Centering Adjustment Menu screen"
Press [01 Printer Centering Adjustment] and press [Print Mode].
4. Select A3 or 11 x 17 paper, and press the Start key to output the test pattern.
5. Fold the printed paper into 2 along the center in the main scan direction, and measure how much the left and right lines misalign from each other.
 - Standard value: within $\pm 1.5\text{mm}$
6. When the value is not within the standard value, press [Close].
7. "Printer Centering Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -64 (image in front) to +63 (image in back)
 - 1 Step = 0.1mm
8. Repeat steps 4 to 7 until the standard value can be obtained.

5.3.23 Scanner Centering Adjustment (Centering Adjustment)

(1) Functions

Adjust the centering of images in the main scan direction when scanning from the original glass.

(2) Usage

Conduct this adjustment when the image mis-centering of the main scan direction occurs while in scanning.

Note

- Be sure ["I.5.3.22 Printer Centering Adjustment \(Centering Adjustment\)"](#) has been adjusted.
- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [04 Centering Adjustment].

3. "Centering Adjustment Menu screen"
Press [02 Scanner Centering Adjustment] and press [Print Mode].
4. Select A3 or 11 x 17 paper, place a "test chart" on the original glass, and press Start key.
5. Fold the printed paper into 2 along the center in the main scan direction, and measure how much the left and right lines misalign from each other.
 - Standard value: within $\pm 1.5\text{mm}$
6. When the value is not within the standard value, press [Close].
7. "Scanner (Orig. Glass) Centering Adj. screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -30 (image in front) to +30 (image in back)
 - 1 Step = 0.1mm
8. Repeat steps 4 to 7 until the standard value can be obtained.

5.3.24 ADF Centering Adjustment (Centering Adjustment)

(1) Functions

Adjust the centering of images when scanning from the DF.

(2) Usage

Conduct this adjustment when the image mis-centering of the main scan direction occurs while in original scanning from DF.

Note

- Be sure "[I.5.3.22 Printer Centering Adjustment \(Centering Adjustment\)](#)" has been adjusted.
- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
 2. "Service Mode Menu screen"
Press [04 Centering Adjustment].
 3. "Centering Adjustment Menu screen"
Press [03 ADF Centering Adjustment].
 4. "ADF Centering Adjustment screen"
Select the item to be adjusted and press [Print Mode].
- * When the sub power switch is ON, the position of the centering sensor /Fr on ADF is automatically detected and displayed.

Note

- "Small" represents paper which is smaller than 300mm in the sub-scan direction. However, it excludes A4 or 8 1/2 x 11 which is automatically adjusted by the centering sensor.
- "Large" represents paper which is larger than 300mm in the sub-scan direction. However, it excludes A3 or 11 x 17 which is automatically adjusted by the centering sensor.
- When adjusting ADF centering sensor adjustment (SIDE1: A4 or 8 1/2 x 11) and (SIDE1: A3 or 11 x 17), change the centering sensor /Fr position to "LT" side. Then, turn OFF/ON the sub power switch, and follow the procedure of this adjustment. (Refer to [I.10.5 Centering sensor switchover adjustment \(DF-615 only\)](#))
- The ADF centering sensor adjustment (SIDE1: A4 or 8 1/2 x 11) and (SIDE1: A3 or 11 x 17) is available only for 1250/1250P/1052.

5. Select paper according to the adjusted item. Set the "adjustment chart" on the ADF and press the Start Key.
6. Fold the printed paper into 2 along the center in the main scan direction, and measure how much the left and right lines misalign from each other.
 - Standard value: within $\pm 2\text{mm}$
7. When the value is not within the standard value, press [Close].
8. "ADF centering adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -30 (image in front) to +30 (image in back)
 - 1 Step = 0.1mm
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.3.25 Gap Adj. Between LPH Chips (LPH Adjustment)

(1) Functions

Adjust the light intensity value between chips according to the implementation gap of the LED chip.

(2) Usage

Check it when replacing the LPH unit.

When sharp white lines or black lines occur locally in sub scan direction, conduct this adjustment.

Note

- No need to adjust if the white or black line does not appear on the test pattern after replacing the LPH unit.

(3) Procedure

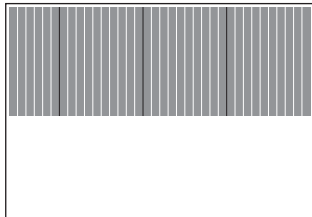
1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [05 Magnification Adjustment].
3. "LPH Adjustment Menu screen"
Press [01 Gap adj. between LPH chips].

4. "Gap Adjustment Between LPH Chips screen"
Select [Dark Gray] or [Light Gray] in "Test Pattern Select".

Note

- To make the judgment easier, select [Dark Gray] when the white line occurs and select [Light Gray] when the black line occurs.

5. "Gap Adjustment Between LPH Chips screen"
Select [Off] in "Line Draw" and press [Print Mode].
6. "PRINT MODE screen"
Set the A4 or 8 1/2 x 11 paper. Press the Start key to output the test pattern.
7. "Gap Adjustment Between LPH Chips screen"
Select [On] in "Line Draw" and press [Print Mode].
8. "PRINT MODE screen"
Set the A4 or 8 1/2 x 11 paper. Press the Start key to output the test pattern.
 - The white lines and the black lines appear. Each black lines mean 10 unit of gap positions. Check the position which gets the gap adjustment by comparing the test pattern (without lines) output in step 6 to the position of the lines.
Press [Close].



a0g6f3c001ca

9. "Gap Adjustment Between LPH Chips screen"
Check if the white line or the black line occurs.
Since the sharp white or black line comes from the LPH, focus on the sharp lines to specify the position of occurrence.
Select the key from [1] to [39] of the LPH chips gap corresponding to the target line position.

Note

- The line which comes from the process is wide and fuzzy.

10. "Gap Adjustment Between LPH Chips screen"
In the case of white line: Adjust to positive side.
In the case of black line: Adjust to negative side.
 - Adjustment range: -8 to + 8
 - 1 Step = 1.0%

Note

- If the adjustment value between chips of LED is too big, it causes the black line. If the adjustment value is too small, it causes the white line.
- Input the value by pressing [+] or [-].
- When adjusting all 39 positions at a time, press [All Offset].

11. Repeat the steps 4 to 10 until an appropriate value is obtained.

5.3.26 Black Line Restraint Adj. (LPH Adjustment)

(1) Functions

Adjust the 1mm width black line that the optical property of the SELFOC Lens Array (SLA) causes.

(2) Usage

When the black line (sickly black line) specific to the LPH occurs locally, conduct this adjustment.
Check it when replacing the LPH unit.

Note

- This adjustment is to adjust the optical property of the SELFOC Lens Array (SLA). The SLA whose adjustment is not needed is gray out and cannot be adjusted. (No need to adjust.)
- No need to adjust if the black line does not appear on the test pattern after replacing the LPH unit.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [05 LPH Adjustment].
3. "LPH Adjustment Menu screen"
Press [02 Black Line Restraint Adj.].
4. "Black line restraint adjustment screen"
Select [Dark Gray] or [Light Gray] in "Test Pattern Select".

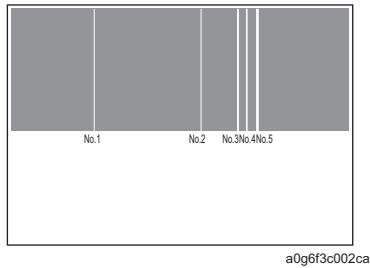
Note

- Since the appearance differs between the black lines, check with 2 types of [Dark Gray] and [Light Gray].

5. "Black line restraint adjustment screen"
Select [On] in "Line Draw" and press [Print Mode].
6. "PRINT MODE screen"
Set the A4 or 8 1/2 x 11 paper. Press the Start key to output the test pattern.

Note

- When the adjustment value is input, the white lines like in the picture appear. The positions of these white lines show the position where the optical property of the SELFOC Lens Array (SLA) is adjusted.
- When the adjustment value is input, the white lines from 1 (No.1) to 5 (No.5) are output in order. The number varies between the LPH unit.



7. "Black line restraint adjustment screen"
Select [Off] in "Line Draw" and press [Print Mode].
8. "PRINT MODE screen"
Set the A4 or 8 1/2 x 11 paper. Press the Start key to output the test pattern.
Compare the test patterns output with [On] and [Off] in "Line Draw" to check the black line adjustment position.
If the position of the black line on the test pattern output with [Off] in "Line Draw" and the position of the white line on the test pattern output with [On] in "Line Draw" are the same, adjust the point.
9. "Black line restraint adjustment screen"
Press [Set value] of the point to be adjusted.
Change the adjustment value by pressing [-] or [+] following below.
 - 0: No light intensity adjustment
 - 1: Lower the light intensity value 1 (1.0 equivalent)
 - 2: Lower the light intensity value 2 (2.0 equivalent)
 - 3: Lower the light intensity value 3 (3.0 equivalent)
10. "Black line restraint adjustment screen"
Select [Off] in "Line Draw" and output the test pattern.
Check if the black line occurs.
11. Repeat the steps 4 to 10 until an appropriate value is obtained.

5.3.27 LPH Adj. Pattern Select (LPH Adjustment)**(1) Functions**

Switch the light intensity adjustment pattern which decreases the periodic noise in main scan direction caused by the optical property of the SELFOC Lens Array (SLA).

(2) Usage

Usually, do not use this adjustment in the field.
Be sure to select the pattern No.1.

5.3.28 Skew Detection Adjustment (1250/1250P/1052 only)**(1) Functions**

Save the standard value of the paper skew detection to NVRAM board (NRB).

(2) Usage

It has been already adjusted at the factory setting, but conduct the procedure to adjust the paper skew detection volume.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [06 Skew Detection Adjustment].
3. "Skew Detection Adjustment screen"
Press [Print Mode].
4. Select A4 or 8 1/2 x 11 size paper in tray2 and press the start key to output the test pattern.

Note

- Select [75-91g] for the basic weight setting.
- Adjust it on tray2.

5. Check that there is no skew on the output image visually.

Note

- Save the paper skew value of the last copied paper to NVRAM board (NRB).
- Be sure to continue the adjustment until there is no paper skew. The paper skew amount is stored in NRB by going back to the user mode with paper skewed.
- After completion of the adjustment, the adjustment value is displayed on the touch panel.

6. When there is a skew, press [Close].
7. Repeat the steps 3 to 6 until the paper skew is resolved.

8. Set the threshold [1.0%], [0.5%] or [OFF] for each tray from [Tray Setting] - [Skew Detect Set].

(4) Adjustment value confirmation method

1. "Service Mode Menu screen"
Press [04 State Confirmation].
2. "Service Mode Menu screen"
Press [01 I/O Check Mode].
3. "I/O Check Mode screen"
Enter "94" for the check code with the numeric keys.
4. Press the start button.
Press [Next] to see the current value of [Skew Detection Adjustment].
Check that the gap of the adjustment value between the first time and the second time is within -200 to +200.
Conduct the adjustment again if there is no gap between the adjustment values.

5.3.29 Sharpness Offset Adjustment (Quality Adjustment)

(1) Functions

Adjust midpoint of sharpness in User Mode/Quality Adjustment.

(2) Usage

Conduct this adjustment to shift the sharpness image in User Mode/Quality Adjustment to the soft side or the sharp side. To reduce the moire, shift it to the soft side. However, it tends to cause the image blurring.

Note

- This adjustment reflects only to the scanned image.
- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [07 Quality Adjustment]. (1250/1052)
Press [06 Quality Adjustment]. (951)
3. "Quality Adjustment Menu screen"
Press [01 Sharpness Offset Adjustment].
4. "Sharpness Offset Adjustment screen"
Enter a numeric value through the numeric keys as needed and press [Set].
 - Setting range: -5 (soft* reduce moire) to +5 (sharp* increase moire)
 Press [Print Mode].

Note

- Since it is the trade-off between the moire and the image blurring, conduct the adjustment which is suitable for the originals.

5. Select A3 or 11 x 17 paper, place a "test chart" on the original glass, and press Start key.
6. "PRINT MODE screen"
Check the outputted image.
7. Repeat the steps 4 to 6 until an appropriate value is obtained.

5.3.30 Image Distinction Level (Quality Adjustment)

(1) Functions

Adjust the detection ability for the dot area on the original image.

(2) Usage

Conduct this adjustment to change the center value of the text/photo judging function in User Mode/Quality Adjustment.

Note

- The scanned original is judged to text, picture, or dot text by the image processing. The filter to be used is decided according to the result.
- Use this adjustment for raising the judgment precision of the original on which the area is misjudged.
- To widen the judgment area of the picture, adjust it in the user mode.
- This adjustment reflects only to the scanned image.
- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [07 Quality Adjustment]. (1250/1052)
Press [06 Quality Adjustment]. (951)
3. "Quality Adjustment Menu screen"
Press [02 Image Distinction Level].
4. "Image Distinction Level screen"
Press [Print Mode].
5. Select A3 paper, set the original that you want to adjust on the original glass, and press the start button.
6. Dot/Text detection pattern is outputted.
This output pattern shows how the original image is judged.
 - Gray part: Judged as dot

- White part: Judged as picture
 - Black part: Judged as text
7. Press [Close].
 8. "Image Distinction Level screen"
Select the mode that you want to adjust.
Enter a numeric value through the numeric keys as needed and press [Set].
 - [Dot Detect Adjustment]: Adjust the detectability of the dot area on the original image
Range: -5 (reduce dot area) to +5 (increase dot area)
 - [Dot/Text Area Adjustment]: Fine adjust the center position of the dot/text area on the original image
Setting range: -5 (increase the dot area, decrease the text area) to +5 (decrease the dot area, increase the text area)
 9. Repeat the steps 4 to 8 until an appropriate value is obtained.

5.3.31 AE(AES) Adjustment (Quality adjustment)

(1) Functions

Fine adjust the auto density center position.

(2) Usage

Conduct this adjustment to change the center value that is selected with the auto density function in the user mode.

Note

- This adjustment reflects only to the scanned image.
- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not has the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [07 Quality Adjustment]. (1250/1052)
Press [06 Quality Adjustment]. (951)
3. "Quality Adjustment Menu screen"
Press [03 Density Adjustment].
4. "Density Adjustment Menu screen"
Press [01 AE(AES) Adjustment].
5. "AE(AES) Adjustment screen"
Press [Print Mode].
6. Set the original which auto density to be changed on the original glass and press the start key.
7. Press [Close].
8. "AE(AES) Adjustment screen"
Enter a numeric value through the numeric keys as needed and press [Set].
 - Range: -5 (image highlighted) to +5 (background highlighted)
9. Repeat the steps 5 to 8 until an appropriate value is obtained.

5.3.32 Copy Density Adjustment (Quality Adjustment)

(1) Functions

Fine adjust the center position of the scan density for each quality mode.

(2) Usage

Conduct this adjustment to change the center value of the density setting function in user mode.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not has the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [07 Quality Adjustment]. (1250/1052)
Press [06 Quality Adjustment]. (951)
3. "Quality Adjustment Menu screen"
Press [03 Density Adjustment].
4. "Density Adjustment Menu screen"
Press [02 Copy Density Adjustment].
5. "Copy Density Adjustment screen"
Select the quality mode that you want to adjust and press [Print Mode].
6. Set the test chart on the original glass, and press the start button.
7. Press [Close].
8. "Copy Density Adjustment screen"
Enter a numeric value through the numeric keys as needed and press [Set].
 - Range: -5 (lighter) to +5 (darker)
9. Repeat the steps 5 to 8 until an appropriate value is obtained.

5.3.33 BackgroundRemoval (Quality Adjustment)

(1) Functions

Fine adjust the center position of the background for each quality mode.

(2) Usage

Conduct this adjustment to change the intensity of the background adjustment function in user mode.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [07 Quality Adjustment]. (1250/1052)
Press [06 Quality Adjustment]. (951)
3. "Quality Adjustment Menu screen"
Press [03 Density Adjustment].
4. "Quality Adjustment Menu screen"
Press [03 Background Removal].
5. "BackgroundRemoval screen"
Enter a numeric value through the numeric keys as needed and press [Set].
 - Range: -5 (background highlighted) to +5 (background fogged)

5.3.34 CCD Right and Left Quality Adjustment (Quality Adjustment)**(1) Function**

Adjust the sampling timing of the CCD output to adjust the density gap between backward and forward (in the main scan direction) against the optical axis of lens.

(2) Usage

Because of the variations of parts accuracy of the CCD unit, the image density against the optical axis of lens may differ between backward and forward (in the main scan direction). Therefore, perform this adjustment when there is a density gap between backward and forward at the center of the main scan direction on the copied paper after replacing the CCD unit.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not has the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [07 Quality Adjustment]. (1250/1052)
Press [06 Quality Adjustment]. (951)
3. "Quality Adjustment Menu screen"
Press [04 CCD Right-Left Quality].
4. "CCD Right-Left Quality screen"
Press [Print Mode].
5. Select A3 or 11 x 17 paper, and set the test chart on the original glass. Press the Start button.
6. Fold the output paper at the center of the main scan direction, and check that there is no density gap between backward and forward.
7. When there is a skew, press [Close].
8. "CCD Right-Left Quality screen"
Select [Crosswise Dir. (Front)] to equalize the density.

Note

- There are 2 types for the adjustment; "Crosswise Dir. (Front)" and "Crosswise Dir. (Back)". Be sure to execute the adjustment with "Crosswise Dir. (Front)".

Enter a numeric value through the numeric keys and press [Set].

- Setting range: -16 to +16
9. Repeat the steps 4 to 8 until an appropriate value is obtained.

5.3.35 Distortion Adjustment**(1) Functions**

Adjust the image distortion in scanning.

(2) Usage

Conduct this adjustment when the image distortion occurs in scanning.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not has the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [08 Distortion Adjustment]. (1250/1052)
Press [07 Distortion Adjustment]. (951)
3. "Distortion Adjustment screen"
Select the item that you want to adjust and press [Print Mode].
4. Select A3 or 11 x 17 paper. Set the "test chart" at the position (original glass or ADF) according to the adjusted item, and press the Start Key.
5. Measure the image distortion with a scale.

- Standard value: $\pm 0.5\%$ or less (difference in the diagonals of 200mm square must be 1.4mm or less)
- 6. When the value is not within the standard value, press [Close].
- 7. "Distortion Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -50 (counterclockwise) to +50 (clockwise)
 - 1 Step = 0.05%
- 8. Repeat steps 3 to 7 until the standard value can be obtained.

5.3.36 Non-Image Area Erase Check

(1) Functions

Check the non-image area erase function and automatically adjust the sensitivity to detect the non-image area.

(2) Usage

Conduct this adjustment when installing the copier, moving its installation location, or when the non-image area erase function does not work satisfactorily.

(3) Preparation

Open fully the DF.
Do not put anything on the original glass.
Clean the original glass.

Note

- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(4) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [09 Non-Image Area Erase Check].(1250/1052)
Press [08 Non-Image Area Erase Check]. (951)
3. "Non-Image Area Erase check screen"
Press [Start].
4. Make sure that the following message appears.
NORMAL adjustment selected.
The machine is set to appropriate parameters for Non-image area erase.
If any other message appears, refer to " ", and perform the non-image area erase check again.[I.5.3.36.\(5\) Error message and Handling](#)

(5) Error message and Handling

If an error is detected while performing the "Non Image Area Erase Check" mode, the following error message is displayed.

(a) Error message1

Adjust for Extreme Brightness.
Non-Image Area Erase function may not operate correctly with dark (density) original.
Please refer to [ADJUSTMENT/SETTING]-[Machine Adjust] columns of the Service Manual.

Handling 1

If the use of the non-image area erase function or the case of copying originals that have a dark background is not frequently, the copier can be used in the current installation location. However, when copy originals that have a dark background are frequently copied, install the copier in a location where less external light gets in (darker) than the present location, and check the non-image area erase check mode again.

(b) Error message2

Adjust for Extreme Brightness. In many cases, the Non-Image Area Erase function will not operate correctly.
Please refer to [ADJUSTMENT/SETTING]-[Machine Adjust] columns of the Service Manual.

Handling 2

When the non-image area erase function is not used frequently, the copier can be used in the current installation location. However, if the non-image area erase function is frequently used, install the copier in a location where less external light gets in (darker) than the present location, and check the non-image area erase check mode again. At this time, when there is a bright light source such as a fluorescent light installed directly above the machine, reconsider the installation location, or take some measures to shield the light source and check the mode again.

5.3.37 ADF Density Adjustment (ADF Adjustment)

(1) Functions

Adjust the sensitivity for ADF reading.

(2) Usage

Since the slit glass of the scanning section is coated with electrical conductive material, the way it refracts light from the exposure lamp is different from the way of the original glass. Thus, perform this adjustment when replacing the slit glass.

(3) Preparation

Clean the slit glass.

Make sure that the white chart is not dirty. (Partial dirt can be ignored)

Note

- **This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.**

(4) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [10 ADF Adjustment]. (1250/1052)
Press [09 ADF Adjustment]. (951)
3. "ADF Adjustment Menu screen"
Press [01 Density Adjustment].
4. "ADF Density Adjustment screen"
Set the "white chart" on the DF.

Note

- **Set the "white chart" in the A4-direction.**

5. Press [Start].
The white chart is scanned, and density is automatically adjusted.
6. After the density adjustment, the adjustment value is displayed. When an error message appears, turn OFF/ON the sub power switch (SW2) of the main body. Repeat steps 1 to 5 until it is completed properly.

5.3.38 ADF Original Size Adj. (ADF Adjustment)**(1) Functions**

Adjust the original size in setting the original on ADF.

(2) Usage

Conduct this adjustment when the original size detection does not work properly.

Note

- **This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.**

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [10 ADF Adjustment]. (1250/1052)
Press [09 ADF Adjustment]. (951)
3. "ADF Adjustment Menu screen"
Press [02 ADF Original Size Adj.].
4. "ADF Original Size Adj. screen"
Make sure A4 is selected and set A4 paper on the ADF and press [Start].
5. "ADF Original Size Adj. screen"
Confirm the message of completion, press [B6].
6. "ADF Original Size Adj. screen"
Set B6S paper on the ADF and press [Start].
7. "ADF Original Size Adj. screen"
Confirm the message of completion, press [Print Mode].
8. Make sure the ADF original size is properly detected.

5.3.39 ADF Sensor Sensitivity Adj. (ADF Adjustment)**(1) Functions**

Adjust the sensor sensitivity of DF.

(2) Usage

Conduct this adjustment when a malfunction (JAM display does not disappear despite no paper JAM) occurs in the reflective type sensors.

(3) Preparation

Clean each of the ADF reflective sensors.

Note

- **This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.**

(4) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [10 ADF Adjustment]. (1250/1052)
Press [09 ADF Adjustment]. (951)
3. "ADF Adjustment Menu screen"
Press [03 ADF Sensor Sensitivity Adj.].
4. "ADF sensor sensitivity adjustment screen"

Press [Start].

The DF sensor sensitivity is automatically adjusted, and the message of completion appears.

5. Press [Print Mode] to check to see if there is any malfunction.
6. When malfunction is found, press [Close] to repeat steps 5 and 6.
7. Press [Return] to return to "ADF Adjustment Menu screen"

5.3.40 ADF Skew Offset Adj. (ADF Adjustment)

(1) Functions

Adjust image skew in the DF scanning mode.

(2) Usage

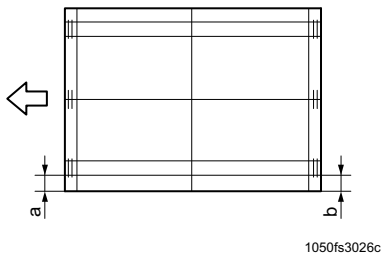
Conduct this adjustment when the image skew occurs in the DF scanning mode.

Note

- This adjustment is reflected on the skew adjustment control in DF scanning mode.
- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [10 ADF Adjustment]. (1250/1052)
Press [09 ADF Adjustment]. (951)
3. "ADF Adjustment Menu screen"
Press [04 ADF Skew Offset Adj.].
4. "ADF Skew Offset Adjustment screen"
Press [Print Mode].
5. Set the "adjustment chart" on the ADF and press the Start Key.
6. Measure the image skew with a scale.
 - Standard value: within $\pm 0.5\%$
The gap between a and b is 2.1mm or less



7. When the value is not within the standard value, press [Close].
8. "ADF Skew Offset Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
 - Range: -60 (counterclockwise) to +60 (clockwise)
 - 1 Step = 0.05%
9. Repeat steps 4 to 8 until the standard value can be obtained.
10. Press [Return] to return to "ADF Adjustment Menu screen"

5.3.41 ADF Centering Sensor Adjustment (ADF Adjustment) (1250/1052 only)

(1) Functions

Adjust sensitivity of the centering sensor /Fr.

(2) Usage

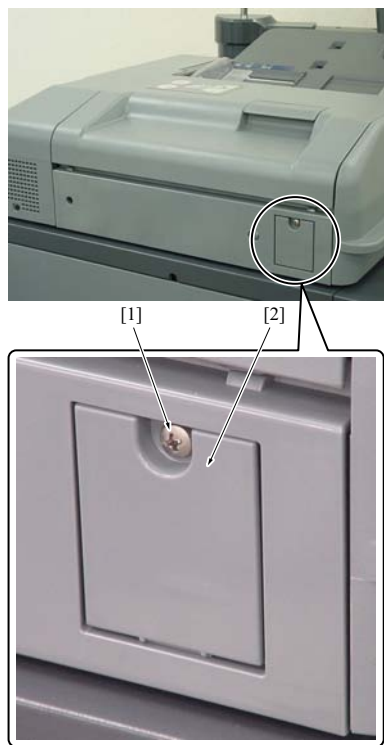
When there is a mis-centering on the scanned image, conduct this adjustment.

Note

- Be sure to conduct adjustment for both A4 and 8 1/2 x 11.
- This adjustment is for 1250/1052 (copier version). 1250P (printer version) and 951 do not have the adjustment method.

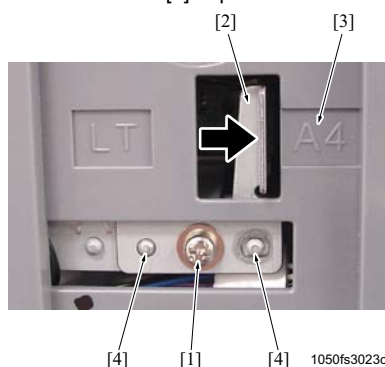
(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [10 ADF Adjustment].
3. "ADF Adjustment Menu screen"
Press [05 ADF Centering Sensor Adj.].
4. "ADF Centering Sensor Adjustment screen"
Select "A4".
5. Remove the screw [1] and remove the sensor cover [2].



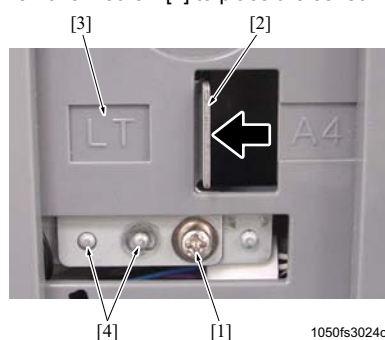
1050fs3022c

6. Remove 1 screw [1] to place the sensor mounting plate [2] to the "A4" side [3] impress, the 2 locating projections [4] to their places.



1050fs3023c

7. "ADF Centering Sensor Adj. screen"
Press [Start]. Sensitivity of the sensor is adjusted, and message of completion is displayed.
8. Select $8\frac{1}{2} \times 11$.
9. Remove 1 screw [1] to place the sensor mounting plate [2] to the "LT" side [3] impress, the 2 locating projections [4] to their places.



1050fs3024c

10. "ADF Centering Sensor Adj. screen"
Press [Start]. Sensitivity of the sensor is adjusted, and message of completion is displayed.
11. Replace the sensor plate to the position of original size ($A4$ or $8\frac{1}{2} \times 11$) that the customer mainly uses.

5.3.42 Recall Standard Data

(1) Functions

Reset the adjustment values of the machine adjustment to the factory initial data or the installation initial data.

(2) Usage

The same adjustment table is changed since some parts of the machine adjustment can be changed by the user. Therefore, conduct this adjustment when the adjustment values cannot be initialized because of the erroneous operation by the user.

(3) Procedure

1. "Service Mode Menu screen"
Press [01 Machine Adjustment].
2. "Service Mode Menu screen"
Press [11 Recall Standard Data]. (1250/1250P/1052)
Press [10 Recall Standard Data]. (951)
3. "Recall standard data: Machine adjustment screen"
Press [Factory Initial Data] or [Installation Initial Data].

Note

- Selecting [Factory Initial Data] recalls the factory initial data.
- Selecting [Installation initial data] recalls the adjustment values stored when code "91" of the I/O check mode was conducted.
- When selecting [Data at shipment] or [Data at installation], the data returns with no display changed on the screen.

4. Press [Yes] to restore standard data.
Press [No] to cancel the operation.

5.4 Process adjustment**5.4.1 High Voltage Auto Adjustment (High Voltage Adjustment)****(1) Functions**

Current values and voltage values of a transfer current and developing bias are automatically adjusted respectively.

(2) Usage

Conduct this adjustment when the high voltage units /1 and /2 (HV1, 2) are replaced.

(3) Preparation

The photo conductor section must be set.

(4) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [01 High Voltage Adjustment].
3. "High Voltage Adjustment Menu screen"
Press [01 High Voltage Auto Adjustment].
4. "HV Adjustment (Auto adjustment) screen"
Press [Start]. After the automatic adjustment, the message of completion appears.

Note

- When an error message appears during the adjustment, check to see if the error unit is properly installed and cleaned. Conduct the adjustment again.

5.4.2 HV Adjustment (Charge) (High Voltage Adjustment)

Do not conduct this adjustment in the field.

5.4.3 HV Adj. (Charg grid voltage) (High Voltage Adjustment)

Do not conduct this adjustment in the field.

5.4.4 HV Adj. (Bias Development) (High Voltage Adjustment)

Do not conduct this adjustment in the field.

5.4.5 Transfer Manual Adj. (High Voltage Adjustment)

Do not conduct this adjustment in the field.

5.4.6 Trans belt M-Brush Current (High Voltage Adjustment)

Do not conduct this adjustment in the field.

5.4.7 Trans belt M-Brush Current (High Voltage Adjustment)

Do not conduct this adjustment in the field.

5.4.8 Discharge Before Cleaning (High Voltage Adjustment)

Do not conduct this adjustment in the field.

5.4.9 Blade Setting Mode (Drum Peculiarity Adjustment)

(1) Functions

Apply toner to the cleaning blade and drum to prevent the damage.

(2) Usage

Perform this adjustment when changing the cleaning blade.

Note

- **Perform this process only after changing the cleaning blade. Otherwise, the cleaning blade special parts counter is reset, thus making it impossible to implement the auto blade change in the right timing.**
- **Apply setting powder to the cleaning blade and drum.**

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [02 Drum Peculiarity Adjustment].
3. "Drum Peculiarity Adjustment Menu screen"
Press [01 Blade Setting Mode].
4. "Blade setting mode screen"
Press [Start].
5. "Blade setting mode screen"
"Is cleaning blade exchanged?" is displayed. Then press [Yes]. With toner applied, the drum is cleaned with the cleaning blade. The message of completion appears.

5.4.10 Charge Potential Auto. Adj. (Drum Peculiarity Adjustment)

(1) Functions

It measures the photo conductor charging potential and automatically adjusts the charging current, the grid voltage, and the developing bias respectively.

(2) Usage

Conduct this adjustment when replacing the drum.

Conduct this adjustment when replacing the high voltage unit /1, /2 (HV /1, /2).

Adjust it when replacing the LPH unit.

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [02 Drum Peculiarity Adjustment].
3. "Drum Peculiarity Adjustment Menu screen"
Press [02 Charge Potential Auto. Adj.].
4. "Charge Potential Automatic Adjustment screen"
Press [Start]. After the automatic adjustment, the message of completion appears.

Note

- **When the following error messages appear, check to see if the drum potential sensor (DPS) is properly installed and cleaned. Conduct the adjustment again.**
 - 1) Error 1
In the 0V check of the DPS, voltage over 100V is detected 5 times or more.
 - 2) Error 2
The drum potential after laser exposure is detected to be over 350V, and it is determined that control patch detect signal is not output.
 - 3) Error 3
Drum potential has been corrected 10 or more times, but it does not converge.

5.4.11 Toner Density Sensor Init. (Drum Peculiarity Adjustment)

(1) Functions

Adjust TCR (Vc) with the new developer when replacing the developer.

TCR sensor (TCRS) measures the developer permeability in the developing unit and it memorizes the value with which the TCR sensor output voltage gets to the standard value into the NVRAM board (NRB).

(2) Usage

Conduct this adjustment when replacing the developer.

Note

- **Be sure not to print without conducting the toner density sensor initial auto adjustment after replacing the developer. Without the adjustment, the developer has to be replaced again since the proper image density cannot be provided.**
- **When conducting the auto toner density sensor initial adjustment, the developer counter in the maintenance counter is reset automatically.**

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"

Press [02 Drum Peculiarity Adjustment].

3. "Drum Peculiarity Adjustment mode menu screen"

Press [03 TonerDensitySensorInit.Auto].

4. "TonerDensitySensorInit.Auto screen"

Press [Start].

5. "TonerDensitySensorInit.Auto screen"

"Is developer exchanged?" is displayed. Then, press [Yes]. After the Auto Adjustment, the message of completion appears.

Note

- **When the following error messages appear, follow the solution.**
 1. **Error 5**
- Solution
 1. Check the connector connection of the TCR sensor (TCRS).
 2. Check the developer centering in the Developing unit.
 3. Check the coupling tally of the Developing unit.
 4. Check the connector connection of the sensitive drum section and the Main Body.
 5. Check the connection status between the TCR sensor (TCRS) and the printer control board (PRCB).
 6. Replace the TCR sensor (TCRS) or the printer control board (PRCB).

5.4.12 Sensitive Drum Set Mode (Drum Peculiarity Adjustment)

(1) Functions

Put the lubricant to the photo conductor to keep the cleaning ability.

(2) Usage

Conduct this adjustment when replacing the photo conductor.

Note

- **When conducting the photo conductor set mode, the photo conductor counter in the maintenance counter is reset automatically.**
- **Perform cleaning process for the IDC sensor before conducting sensitive drum set mode.**

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [02 Drum Peculiarity Adjustment].
3. "Drum Peculiarity Adjustment Menu screen"
Press [04 Sensitive Drum Set Mode].
4. "Photo conductor setting mode screen"
Press [Start].
5. "TonerDensitySensorInit.Auto screen"
"Is sensitive drum exchanged?" is displayed. Then, press [Yes]. After the Auto Adjustment, the message of completion appears.

5.4.13 Auto Maximum Density Adj. (Drum Peculiarity Adjustment)

(1) Functions

Automatically adjust the maximum density that is suitable for the drum.

(2) Usage

Conduct this adjustment when replacing the drum, developer, and LPH unit.

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [02 Drum Peculiarity Adjustment].
3. "Drum Peculiarity Adjustment mode menu screen"
Press [05 Auto Maximum Density Adj.].
4. "Auto maximum Density Adjustment screen"
Press [Start]. After the automatic adjustment, the message of completion appears.

Note

- **When the following error messages appear, check to see if the toner control board (TCB) is properly installed and cleaned. Conduct the adjustment again.**
 - 1) **Error 1**
The maximum density sensor (on the TCB) dirt correction has been corrected or more times, but it does not converge.
 - 2) **Error 2**
The auto maximum density adjustment is not completed, when the developing roller rotation speed reaches the specified value.
 - 3) **Error 3**
No signal is output from the maximum density sensor. Control patch detect signal is not output.

5.4.14 Auto Dot Diameter Adj. (Drum Peculiarity Adjustment)

(1) Functions

Automatically adjust the dot diameter of laser beam that is suitable for the drum.

(2) Usage

Conduct this adjustment when replacing the drum or LPH unit.

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [02 Drum Peculiarity Adjustment].
3. "Drum Peculiarity Adjustment mode menu screen"
Press [06 Auto Dot Diameter Adj.].
4. "Auto dot diameter adjustment screen"
Press [Start]. After the automatic adjustment, the message of completion appears.

Note

- **When the following error messages appear, check to see if the toner control board (TCB) is properly installed and cleaned. Conduct the adjustment again.**
 - 1) Error 1
The gamma sensor (on the TCB) dirt correction has been corrected or more times, but it does not converge.
 - 2) Error 2
The auto dot diameter adjustment completed with an abnormal value.

5.4.15 Cartridge Set Mode (Drum Peculiarity Adjustment)**(1) Functions**

Agitate the recycle toner that is back to the developer to prevent the overflow toner to the conveyance section.

(2) Usage

Conduct this adjustment when black spots (toner) appear on the print-out after removing/inserting the photo conductor section.

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [02 Drum Peculiarity Adjustment].
3. "Drum Peculiarity Adjustment mode menu screen"
Press [07 Cartridge Set Mode].
4. "Cartridge set mode screen"
Press [Start]. The development unit and the drum rotate for 3 minutes to charge low-charge toner.
5. After the rotation stops, press [Print Mode].
6. Select the A3 or 11 x 17 paper. Press the Start button to output 10 blank papers, thus cleaning the drum.
7. When the black spot does not disappear, press [Close] to repeat steps 4 to 6.

5.4.16 Blade Replace Mode (Drum Peculiarity Adjustment)**(1) Functions**

Automatically replace from the 1st cleaning blade to the 2nd cleaning blade.

(2) Usage

When the image error occurs because of the cleaning blade, conduct this mode to prevent the image error.

Note

- **When it has been switched to the 2nd cleaning blade, this mode is not available.**
- **By conducting this mode, the periodically replaced timing of the cleaning blade gets faster.**

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [02 Drum Peculiarity Adjustment].
3. "Drum peculiarity adjustment screen"
Press [08 Blade Setting Mode].
4. "Blade Replace Mode screen"
Press [Start].

Note

- **When [Start] is disabled, the 2nd cleaning blade is set.**
- **To enable [Start], execute [Blade Setting Mode] after replacing the 2nd cleaning blade.**

5. "Blade Replace Mode screen"
When the mode completes, "Blade replace mode Completed" appears.

5.4.17 Default Density Setting (Drum Peculiarity Adjustment)**(1) Function**

Fine adjust the standard density in the printer engine.

(2) Usage

Use to stabilize the maximum density and to reduce the toner consumption.

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [02 Drum Peculiarity Adjustment].
3. "Drum Peculiarity Adjustment mode menu screen"
Press [09 Default Density Setting].
4. "Default Density Setting screen"
Enter a numeric value through the numeric keys as needed and press [Set].
 - Adjustment range: -5(lighter) to +3 (darker)
5. Press [Stabilize Image].

Note

- When changing the setting data, be sure to press [Stabilize Image]. In other way, the changed data is not reflected to the control.

5.4.18 Drum Peculiarity Manual

Do not conduct this adjustment in the field.

5.4.19 Recall Standard Data**(1) Functions**

Reset the adjustment values of the process adjustment to the factory initial data or the installation initial data.

(2) Usage

Conduct this adjustment when the initialization cannot be done because of the various change by CE.

Note

- In case the data recovery is conducted, the developer needs to be replaced since the value of "TonerDensitySensorInit.Auto" is recovered to the initial value or the installation value.

(3) Procedure

1. "Service Mode Menu screen"
Press [02 Process Adjustment].
2. "Service Mode Menu screen"
Press [04 Recall Standard Data].
3. "Recall Standard Data (Process adjustment) screen"
Press [Factory Initial Data] or [Installation Initial Data].

Note

- Selecting [Factory Initial Data] recalls the factory initial data.
- Selecting [Installation Initial Data] recalls the adjustment values stored when code "91-00" of the I/O check mode was conducted.
- When selecting [Data at shipment] or [Data at installation], the data returns with no display changed on the screen.

4. Press [Yes] to restore standard data.
Press [No] to cancel the operation.

5.5 Counter/Data**5.5.1 Maintenance Counter****(1) OUTLINE**

Reset the PM Counter and set the cycle and set the cycles of Developer Counter and OPC Drum Counter.

Note

- For the PM Counter, Developer Counter, and OPC Drum Counter, the counts are made 1 count for simplex and 2 counts for the duplex of small-size paper, 2 counts for the simplex and 4 counts for the duplex of large-size paper.

(2) Counter reset

Reset the PM counter.

Note

- Be sure to reset the PM counter when the periodic maintenance (every 1,000,000 prints for 1250/1250P/1052, every 750,000 prints for 951) is performed.
Otherwise, the periodic check alert message and icon do not disappear.

(a) Procedure

1. "Service Mode Menu screen"
Press [03 Counter/Data]
2. "Service Mode Menu screen"
Press [01 Maintenance Counter].
3. "Maintenance Counter/Cycle screen"
Press [PM Cycle] and then press [Counter Clear].
4. "Reset confirm screen"
Press [Yes] to reset the counter.

The counter is reset, and the start date is automatically inputted.
Press [No] not to reset the counter. It returns to the "Maintenance Counter/Cycle screen".

5. "Maintenance Counter/Cycle screen"

Pressing [OK] validates resetting. Pressing [Cancel] invalidates the counter reset.

(3) PM cycle

Configure settings of the PM cycle, developer cycle and drum cycle.

Note

- The PM cycle, developer cycle and drum cycle are already inputted in the initial settings. Usually, do not change these settings.

(a) Procedure

1. "Service Mode Menu screen"
Press [03 Counter/Data]
2. "Service Mode Menu screen"
Press [01 Maintenance Counter].
3. "Maintenance Counter/Cycle screen"
Press one of the [PM Cycle], [Developer], and [Sensitive Drum] that you want to set.
4. "Maintenance Counter/Cycle screen"
Enter the high order digits of the cycle value through the numeric key.
[PM Cycle]: Upper 5 digits
[Developer]: Upper 5 digits
[Sensitive Drum]: Upper 5 digits
5. "Maintenance Counter/Cycle screen"
Pressing [OK] returns you to the "Service mode menu screen."
Press [Cancel] to cancel the operation.

5.5.2 Collection Data

The following data held in the machine can be displayed on the operation panel.

It is also possible to confirm collected data by the CS Remote Care, list output and the mail remote notification system.

- Paper Size Counter (Total)
- Paper Size Counter (Copy)
- Paper Size Counter (Printer)
- Large Size Counter
- ADF Counter
- Coverage Data History
- Coverage Ranking List
- Paper JAM History*¹
- JAM Counter*¹
- Counter of Each Copy Mode*¹
- SC Data of Time Series*¹
- SC Counter*¹
- JAM Counter Individual Sec.*¹
- SC Count Individual Sec.*¹
- Counter of Each Paper Type*¹
- Maintenance History
 - Parts History in Time Series
- ORU-M Maintenance History*²

*¹ When setting DIPSW 30-1 from "0" to "1", these data can be confirmed.

*² 1250/1250P/1051 only. It is available when DIPSW 15-0 is set from "0" to "1".

(1) Procedure

1. "Service Mode Menu screen"
Press [03 Counter/Data]
2. "Service Mode Menu screen"
Press [02 Collection Data].
3. "Collecting Data Menu screen"
Press the collection data item key you want to confirm.
4. "Individual data confirmation screen"
Press [Next] or [Previous] to scroll the screen.

Note

- [Counter Clear] is displayed on each screen of [13 JAM Counter Individual Sec.] and [14 SC Counter Individual Sec.].
A screen to confirm the count reset appears when [Counter Clear] is pressed. Press [Yes] to reset the sectional count.
Pressing [No] returns to "Individual data confirmation screen" with the interval data not reset.
Reset these data while in the PM implementation to confirm the jam or SC occurrence count after it was visited last time.

5.5.3 Paper Size Counter (Total/copy/printer counter)

Confirm the number of printings of each paper size.

Note

- Maximum count: 99,999,999
- For the CSRC parameter, P1 stands the total counter, P2 stands the copy counter, and P6 stands the printer counter.
- Regardless of the paper size, 1 count for the simplex and 2 counts for the duplex.
- The items other than No.02 to No.32 are all counted as No.01 Others.

- Wide paper is counted as the basic standard.
- Blank such as Insert Sheet or back side of the duplex odd page is not counted.

No.	CSRC parameter (P1, P2, P6)	Paper Size	Remark
01	00	Others	
02	01	A3	
03	02	A4S	
04	03	A5	
05	04	A6	Not used
06	05	B4	Including ISO-B4
07	06	B5S	Including ISO-B5
08	07	B6	Not used
09	08	12 x 18	
10	09	11 x 17	
11	0A	8 ¹ / ₂ x 14	
12	0B	8 ¹ / ₂ x 11S	
13	0C	7 ¹ / ₄ x 10 ¹ / ₂	Not used
14	0D	5 ¹ / ₂ x 8 ¹ / ₂	
15	0E	8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13	
16	0F	Postcard	
17	10	4 x 6	Not used
18	11	8K	
19	12	16K	
20	13	Long paper	Not used
21	14	A2	Not used
22	15	SRA3	
23	16	SRA4	
24	17	13 x 19	Not used
25	18	Infinite 1	Sub scan direction: 196mm or less
26	19	Infinite 2	Sub scan direction: 197mm to 250mm
27	1A	Infinite 3	Sub scan direction: 251mm to 330mm
28	1B	Infinite 4	Sub scan direction: 331mm to 390mm
29	1C	Infinite 5	Sub scan direction: 391mm or more
30	1D	A4	
31	1E	B5	
32	1F	8 ¹ / ₂ x 11	

5.5.4 Large Size Counter

Confirm the number of printings of the large-size paper.

Note

- Maximum count: 99,999,999
- Definition of the large size can be changed by DIPSW10-3/ 4 (A3, 11 x 17, 12 x 18 for default).

No.	CSRC command (Parameter)	Item	Remark
01	BI (00)	Large-size printer counter	DIPSW10-3, 4 decides the definition of the large size.
02	BH (00)	Large-size copy counter	
03	F6 (01)	Large-size scan counter	

5.5.5 ADF Counter

Confirm the number of originals fed in each ADF mode.

Note

- Maximum count: 99,999,999
- Number.1, 2 are not counted as Number.3 to 8.

No.	CSRC parameter (F0)	Item	Remark
1	00	N of originals fed in ADF mode	Simplex Mode
2	01	N of originals fed in RADF mode	Duplex Mode
3	02	N of originals fed in RDH simplex mode	Not used
4	03	N of originals fed in RRDH duplex mode	Not used

No.	CSRC parameter (F0)	Item	Remark
5	04	N of originals fed in LDF mode	Not used
6	05	N of originals fed in CFF mode	Not used
7	06	N of 1-sided SDF original fed	Single Feed mode
8	07	N of 1-sided mixed original fed	Mixed original mode
9	08	N of 2-sided mixed original fed	Mixed original mode
10	09	N of originals fed in 2 in 1 mode	Not used
11	0A	N of 1-sided Z-Folded original fed	Z-Folded original mode
12	0B	N of 2-sided Z-Folded original fed	Z-Folded original mode
13	0C	N of 2-sided SDF original fed	Single Feed mode

5.5.6 Coverage Data History

With 5,000 prints as one data, the coverage (original B/W ratio) and the total accumulation are displayed.

Note

- This coverage is a calculated value based on the colored area and the transfer paper area, and is different from the toner consumption when actually printed.
- Up to 30 most recent coverage data are stored and deleted in chronological order.

No.	CSRC Parameter (V0)	Print count	Coverage (%)
1	00	Total count	(00.0 to 99.9%)
2	01	Print count 1	
3	02	Print count 2	
4	03	Print count 3	
5	04	Print count 4	
6	05	Print count 5	
7	06	Print count 6	
8	07	Print count 7	
9	08	Print count 8	
10	09	Print count 9	
11	0A	Print count 10	
12	0B	Print count 11	
13	0C	Print count 12	
14	0D	Print count 13	
15	0E	Print count 14	
16	0F	Print count 15	
17	10	Print count 16	
18	11	Print count 17	
19	12	Print count 18	
20	13	Print count 19	
21	14	Print count 20	
22	15	Print count 21	
23	16	Print count 22	
24	17	Print count 23	
25	18	Print count 24	
26	19	Print count 25	
27	1A	Print count 26	
28	1B	Print count 27	
29	1C	Print count 28	
30	1D	Print count 29	
31	1E	Print count 30	

5.5.7 Coverage Ranking List

Confirm the data of the 15 higher order jobs in the order of the higher coverage (original B/W ratio).
To exclude faulty operations (skyshot) by a user, display only data for continuous 5 or more print-outs.

Note

- The coverage data is a calculated value based on the colored area and the transfer paper area of the image data. Therefore, it is different from the toner consumption when actually printed.

No.	CSRC Parameter (V1)	Coverage (%)	Print Quantity	Paper size	Mode	Date
01	00	00.0 to 99.9%	Displaying the number of papers		Copier or Printer	
02	01					
03	02					
04	03					
05	04					
06	05					
07	06					
08	07					
09	08					
10	09					
11	0A					
12	0B					
13	0C					
14	0D					
15	0E					

5.5.8 Time series jam data

With respect to the latest 100 jam data, it is possible to confirm jam code, total counter, date of occurrence, time of occurrence, tray, paper size, and magnification.
(except idling JAM.)

5.5.9 Jam Counter/Jam Counter Individual Sec.

Confirm the JAM occurrence count for each JAM code (except idling JAM)

Note

- **Maximum count: 999,999**
- **The jam code is a code displayed when DIPSW11-7 is set to 1.**

No.	CSRC Parameter (J0, J1)	Item Jam code
1	00	1101
2	01	1102
3	02	1103
4	03	1104
5	04	1201
6	05	1202
7	06	1203
8	07	1204
9	08	1301
10	09	1302
11	0A	1303
12	0B	1304
13	0C	1305
14	0D	1401
15	0E	1402
16	0F	1403
17	10	1405
18	11	1501
19	12	1502
20	13	1503
21	14	1504
22	15	1505
23	16	1611
24	17	1612
25	18	1613
26	19	1614
27	1A	1615
28	1B	1621
29	1C	1622

No.	CSRC Parameter (J0, J1)	Item Jam code
30	1D	1623
31	1E	1625
32	1F	1631
33	20	1632
34	21	1633
35	22	1634
36	23	1635
37	24	1641
38	25	1642
39	26	1643
40	27	1644
41	28	1645
42	29	1646
43	2A	1647
44	2B	1648
45	2C	1701
46	2D	1702
47	2E	1703
48	2F	1704
49	30	1705
50	31	1706
51	32	1712
52	33	1801
53	34	1802
54	35	1803
55	36	1804
56	37	1805
57	38	1806
58	39	1807
59	3A	1808
60	3B	1810
61	3C	1811
62	3D	1812
63	3E	1813
64	3F	1814
65	40	1815
66	41	1901
67	42	1902
68	43	1903
69	44	1904
70	45	2101
71	46	3101
72	47	3102
73	48	3103
74	49	3110
75	4A	3111
76	4B	3112
77	4C	3201
78	4D	3202
79	4E	3203
80	4F	3204
81	50	3205
82	51	3206
83	52	3207
84	53	3208
85	54	3255

No.	CSRC Parameter (J0, J1)	Item Jam code
86	55	5101
87	56	6101
88	57	6102
89	58	6201
90	59	6202
91	5A	6203
92	5B	6204
93	5C	6205
94	5D	6206
95	5E	6207
96	5F	6208
97	60	6209
98	61	6210
99	62	6301
100	63	6302
101	64	6303
102	65	6304
103	66	6305
104	67	6306
105	68	6307
106	69	6308
107	6A	6309
108	6B	6310
109	6C	6311
110	6D	7101
111	6E	7102
112	6F	7103
113	70	7104
114	71	7105
115	72	7107
116	73	7108
117	74	7109
118	75	7110
119	76	7111
120	77	7112
121	78	7216
122	79	7217
123	7A	7218
124	7B	7220
125	7C	7221
126	7D	7222
127	7E	7223
128	7F	7224
129	80	7225
130	81	7226
131	82	7227
132	83	7228
133	84	7229
134	85	7230
135	86	7231
136	87	7235
137	88	7236
138	89	7237
139	8A	7238
140	8B	7239
141	8C	7240

No.	CSRC Parameter (J0, J1)	Item Jam code
142	8D	7241
143	8E	7242
144	8F	7243
145	90	7244
146	91	7245
147	92	7246
148	93	7247
149	94	7248
150	95	7249
151	96	7250
152	97	7251
153	98	7260
154	99	7261
155	9A	7262
156	9B	7264
157	9C	7265
158	9D	7266
159	9E	7271
160	9F	7272
161	A0	7281
162	A1	7290
163	A2	7401
164	A3	7402
165	A4	7403
166	A5	7404
167	A6	7405
168	A7	7406
169	A8	7407
170	A9	7408
171	AA	7409
172	AB	7410
173	AC	7411
174	AD	7412
175	AE	7431
176	AF	7432
177	B0	7433
178	B1	7434
179	B2	7435
180	B3	7436
181	B4	7437
182	B5	7438
183	B6	7439
184	B7	7440
185	B8	7441
186	B9	7442
187	BA	7461
188	BB	7462
189	BC	7463
190	BD	7464
191	BE	7465
192	BF	7466
193	C0	7467
194	C1	7468
195	C2	7469
196	C3	7470
197	C4	7471

No.	CSRC Parameter (J0, J1)	Item Jam code
198	C5	7472
199	C6	7501
200	C7	7502
201	C8	7503
202	C9	7504
203	CA	7505
204	CB	7506
205	CC	7507
206	CD	7508
207	CE	7509
208	CF	7510
209	D0	7511
210	D1	7512
211	D2	7513
212	D3	7514
213	D4	7515
214	D5	7516
215	D6	7517
216	D7	7518
217	D8	7519
218	D9	7520
219	DA	7521
220	DB	7522
221	DC	7523
222	DD	7524
223	DE	7530
224	DF	7531
225	E0	7532
226	E1	7533
227	E2	7535
228	E3	7550
229	E4	7551
230	E5	7552
231	E6	7553
232	E7	7554
233	E8	7555
234	E9	7556
235	EA	7561
236	EB	7562
237	EC	7563
238	ED	7564
239	EE	7565
240	EF	7566
241	F0	7567
242	F1	7568
243	F2	7569
244	F3	7570
245	F4	7571
246	F5	7572
247	F6	7573
248	F7	7574
249	F8	7575
250	F9	7576
251	FA	7577
252	FB	7578
253	FC	7579

No.	CSRC Parameter (J0, J1)	Item Jam code
254	FD	7580
255	FE	7581
256	FF	7582
257	00	7583
258	01	7584
259	02	7585
260	03	7590
261	04	7591
262	05	7592
263	06	7593
264	07	7594
265	08	7595
266	09	7596
267	0A	7597
268	0B	7601
269	0C	7602
270	0D	7603
271	0E	7604
272	0F	7605
273	10	7606
274	11	7607
275	12	7608
276	13	7621
277	14	7622
278	15	7623
279	16	7624
280	17	7625
281	18	7626
282	19	7660
283	1A	7661
284	1B	7662
285	1C	7663
286	1D	7664
287	1E	7665
288	1F	7666
289	20	7667
290	21	7668
291	22	7669
292	23	7670
293	24	7671
294	25	7672
295	26	7673
296	27	7674
297	28	7675
298	29	7676
299	2A	7677
300	2B	7678
301	2C	7679
302	2D	7680
303	2E	7681
304	2F	7682
305	30	7683
306	31	7684
307	32	7685
308	33	7686
309	34	7687

No.	CSRC Parameter (J0, J1)	Item Jam code
310	35	7688
311	36	7689
312	37	7690
313	38	7691
314	39	7692
315	3A	7693
316	3B	7694
317	3C	7695
318	3D	7696
319	3E	7697
320	3F	7698
321	40	8101
322	41	8102
323	42	8103
324	43	8104
325	44	8105
326	45	8106
327	46	8107
328	47	8109
329	48	8111
330	49	8112
331	4A	8113
332	4B	8114
333	4C	8115
334	4D	8121
335	4E	8122
336	4F	8123
337	50	8125
338	51	8131
339	52	8132
340	53	8133
341	54	8134
342	55	8135
343	56	8141
344	57	8142
345	58	8143
346	59	8144
347	5A	8145
348	5B	8146
349	5C	8147
350	5D	8148
351	5E	8149
352	5F	9201
353	60	9202
354	61	9203
355	62	9301
356	63	9401
357	64	3113
358	65	7611
359	66	7612

5.5.10 Counter of Each Copy Mode (951)

Confirm the status of use of each copy mode.

Note

- Maximum count: 99,999,999

No.	CSRC parameter (F1, F2)	Item	Count conditions
1	00	1-1 mode	1 count for 1-Sided exit, 2 counts for 2-Sided exit
2	01	1-2 mode	
3	02	2-1 mode	
4	03	2-2 mode	
5	04	ADF 1-1 mode	
6	05	ADF 1-2 mode	
7	06	Mixed original mode	
8	07	Single Feed mode	
9	08	Z-Folded original mode	
10	09	LEF: Portrait/SEF: Landscape (Reg.)	
11	0A	LEF: Landscape/SEF: Portrait (Reg.)	
12	0B	LEF: Portrait/SEF: Landscape (Rev.)	
13	0C	LEF: Landscape/SEF: Portrait (Rev.)	
14	0D	Text / Photo	
15	0E	Text	
16	0F	Photo	
17	10	Dot Matrix	
18	11	Custom size Original	
19	12	Corner Staple (Top Left)	
20	13	Corner Staple (Top Right)	
21	14	2 Position Staple(Left)	
22	15	2 Position Staple(Top)	
23	16	Right & Left	
24	17	2 Position Staple(Right)	
25	18	Top Binding	
26	19	Tab Original	
27	1A	Fold & Staple	
28	1C	Group	1 count for 1-Sided exit, 2 counts for 2-Sided exit
29	1D	Offset Group	
30	1E	Sort	
31	1F	Offset Sort	
32	20	Face Down	
33	21	Face Up	
34	22	1 to N	
35	23	N to 1	1 count for 1-Sided exit, 2 counts for 2-Sided exit
36	25	Cover Sheet	
37	27	Real Size Copy	
38	28	Preset magnification E4	
39	29	Preset magnification E3	
40	2A	Preset magnification E2	
41	2B	Preset magnification E1	
42	2C	Preset magnification R4	
43	2D	Preset magnification R3	
44	2E	Preset magnification R2	
45	2F	Preset magnification R1	
46	30	Set Zoom Ratio 1	
47	31	Set Zoom Ratio 2	
48	32	Set Zoom Ratio 3	
49	33	Zoom	
50	34	Vertical/Horizontal Zoom	
51	35	Maximum Zoom	
52	36	Minimum Zoom	
53	37	APS	
54	38	AMS	
55	39	Auto Density	1 count for 1-Sided exit, 2 counts for 2-Sided exit
56	3C	Interrupted Copy	
57	3D	Cancel Automatic Image Rotation	

No.	CSRC parameter (F1, F2)	Item	Count conditions
58	3E	Insert Sheet	1 count for 1-Sided exit, 2 counts for 2-Sided exit
59	3F	Chapters	
60	40	Combine	
61	41	Booklet	
62	42	Adhesive Binding	
63	44	Insert Image	
64	45	Book Copy	
65	46	Program Job	
66	47	Non-Image Area Erase	
67	48	Neg-/Positive Reverse	
68	49	Auto Repeat	
69	4A	Manual Repeat	
70	4B	Standard Size Repeat	
71	4C	Frame Erase	
72	4D	Center Erase	
73	4E	Image Centering	
74	4F	All-image Area	
75	50	Shift	
76	51	Reduce & Shift	
77	52	Overlay/Registered Overlay	
78	53	Watermark/Watermark Numbering	
79	54	Preset Stamp	
80	55	Date/Time	
81	56	Page No.	
82	57	Numbering	
83	58	Set quantity 1	Number of JOB
84	59	Set quantity 2-5	
85	5A	Set quantity 6-10	
86	5B	Set quantity 11 or More	
87	5C	Time While Power Remote 1 is ON	Accumulation of time during which the overall control board/image-processing board is powered (main power switch is ON). (unit: min.)
88	5D	Time While Power Remote 2 is ON	Time during which the main relay is ON. (unit: min.)
89	5E	Time While Power Remote 3 is ON	Time during which the power control signal (REM/3) is ON. (unit: min.)
90	5F	Time While Power Remote 4 is ON	Time during which the power control signal (REM/4) is ON. (unit: min.)
91	60	Time During Low Power Mode	Time in the LOW-POWER mode. (unit: min.)
92	61	Time During Warm Up Time	Time for warm-up, except print ready time. (unit: min.)
93	62	Time During Front Door Open	Time during which the front door is open. (in seconds)
94	63	Operation Time in 1side Straight Exit	Time from the start of print and the end of print. (in seconds) (Down time due to jam omitted)
95	64	Operation Time in 1side Reverse Exit	
96	65	Operation Time in 2side Print	
97	66	Operation Time in ADF Mode	Time during which ADF operates. (in seconds)
98	67	Morning Correction Counter	Count 1 per image stabilization control (fixing temperature is 50°C or lower)
99	68	Time During APS Sensor ON	Time during which the APS sensor is ON. (in seconds)
100	6B	N of Fold & Staple Used Jobs	Number of JOB
101	6C	N of ADF Special Error5 Occurred	Number of ADF double feed detection
102	6D	N of ADF NF Occurred	Number of ADF no feed detection
103	6E	N of ADF Special Error1 Occurred	Number of wrong detections of original size
104	6F	N of ADF Special Error2 Occurred	Number of wrong detections of next original information
105	70	N of ADF Special Error3 Occurred	Number of errors in size for which mixed size mode is not allowed

No.	CSRC parameter (F1, F2)	Item	Count conditions
106	71	N of Scanner Scanned	Counts 1 for pressing start key in the original glass mode
107	72	N of Electrode Cleaned	Number of executions
108	73	N of Memory Overflow	Sum of number 115, 116, 117 plus HDD memory shortage
109	74	N of Fusing Alarm Occurred	Times of occurrence
110	75	N of No Toner Stop Occurred	
111	76	N of AGC Retry	Times of retry
112	78	N of Mis-Centering Correct Error	Times of occurrence
113	79	N of ADF Distortion Adjust Error	
114	7A	N of ADF Distortion Data Error	
115	7B	Compression Memory Overflow	Scanner compression/print compression memory shortage
116	7C	Page Memory Overflow(Scan)	Shortage in memory for receiving print data
117	7D	Page Memory Overflow (print)	Decompression page memory shortage
118	7E	Staple Finisher Main Tray Alarm	Times of occurrence
119	7F	Staple Finisher Staple Alarm	
120	81	N of ADF Special Error4 Occurred	Ready timeout error
121	82	Store for HDD (Sync. with Copying)	Number of JOB (For the copier HDD storing, printer print & HDD storing, printer HDD storing only, and JOB that adds HDD storing in wait/proof)
122	83	Store for HDD (Store Scan → HDD)	
123	85	Store for FTP/SMB (Store HDD → FTP/SMB)	
124	86	Recall from HDD (Recall HDD)	1 count for 1-Sided exit, 2 counts for 2-Sided exit
125	89	Wide paper count (A3W or 11 x 17W)	
126	8A	Wide paper count (A4W or 8 ¹ / ₂ x 11W)	
127	8B	Wide paper count (A4RW or 8 ¹ / ₂ x 11RW)	
128	8C	Wide paper count (A5W or 5 ¹ / ₂ x 8 ¹ / ₂ W)	
129	8D	Wide paper count (Others)	
130	8E	Punch	
131	8F	Z-Folding	
132	91	Mixplex (Simplex)	
133	92	Mixplex (Duplex)	
134	93	Right & Left Binding Originals	1 count for 1-Sided exit, 2 counts for 2-Sided exit
135	94	Top Bind Originals	
136	95	Inside Print Multi Tri-Fold	
137	96	Outside Print Multi Tri-Fold	
138	9F	Multi Half-Fold	
139	A2	Main Tray Output	
140	AD	Staple Finisher Sub Tray Output	Number of JOB
141	AE	Main Tray Output Job Number	
142	B7	Staple Finisher Sub Tray Job Number	
143	B8	Multi Half-Fold Job Number	1 count for 1-Sided exit, 2 counts for 2-Sided exit
144	BB	Annotation	
145	D4	Scan to E-mail	Number of JOB Scan To E-mail (scanner mode)
146	D5	Scan to HDD	Number of JOB Scan To HDD (scanner mode)
147	D6	Scan to FTP	Number of JOB Scan To FTP (scanner mode)
148	D7	Scan to SMB	Number of JOB Scan To SMB (scanner mode)
149	D8	Sample Paper Counter	1 count for 1-Sided exit, 2 counts for 2-Sided exit
150	D9	Sample Paper Counter in Printer Job	
151	DA	Sample Paper Counter in Printer Job (L Size)	
152	DB	Copy Protect	PI Paper Counter
153	DC	PI Paper Counter	
154	DD	Job Unit Offset Job Number	Output OffsetJob by Set Job
155	DE	Set Offset Job Number	Output OffsetJob by Set Numbers
156	DF	Sheet Offset Job Number	Output OffsetJob by Set Page
157	E0	1Set+Sheet Offset Job Number	1 Set +Output Offset Job by Set Page

No.	CSRC parameter (F1, F2)	Item	Count conditions
158	E1	Continued Job for Next Day	Number of continued Job for next day in sub power OFF
159	E2	Temperature Cooling Counter	Number of temperature cooling process in sub power OFF
160	E3	Moving Counter to Suspended Job	Number of Job moved to suspended Job
161	E4	Tab Paper Used Job	Number of Job exited tab paper
162	E5	Needless Tab Paper Exit Job	Needless tab output Job number
163	E6	Ticket Edit Counter	Number of ticket edit process
164	E7	Sample Print Counter	Number of sample print output
165	E8	600dpi Print Counter	1 count for 1-Sided exit, 2 counts for 2-Sided exit
166	E9	Multi Punch	
167	EF	Ring Bind	1 count for 1-Sided exit, 2 counts for 2-Sided exit
168	F0	Front Cover Outside Print	1 count for 1-Sided exit, 2 counts for 2-Sided exit
169	F1	Front Cover Inside Print	1 count for 1-Sided exit, 2 counts for 2-Sided exit
170	F2	Back Cover Outside Print	1 count for 1-Sided exit, 2 counts for 2-Sided exit
171	F3	Back Cover Inside Print	1 count for 1-Sided exit, 2 counts for 2-Sided exit
172	F4	Bind Direction Left Bind	1 count for 1-Sided exit, 2 counts for 2-Sided exit
173	F5	Bind Direction Right Bind	1 count for 1-Sided exit, 2 counts for 2-Sided exit
174	F6	Bind parts Drawer Open	Times of occurrence
175	F7	Ring Bind Booklet Tray Open	Times of occurrence
176	F8	Ring Bind Booklet Tray Near Full	Times of occurrence
177	F9	Ring Bind Booklet Tray Full	Times of occurrence
178	FA	Non Punch-Hole Scrap Box	Times of occurrence
179	FB	Punch-Hole Scrap Box Full	Times of occurrence
180	FC	No Bind Parts	Times of occurrence
181	FD	Stacker Paper remain	Times of occurrence
182	FE	Stacker Full	Times of occurrence
183	FF	Booklet Tray Output	1 count for 1-Sided exit, 2 counts for 2-Sided exit
184	00	Booklet Tray Job Number	Number of JOB
185	01	Staple Pitch Wide (165 mm)	1 count for 1-Sided exit, 2 counts for 2-Sided exit
186	02	Staple Pitch Narrow (140 mm)	1 count for 1-Sided exit, 2 counts for 2-Sided exit
187	03	Staple Pitch Narrow+ (120 mm)	1 count for 1-Sided exit, 2 counts for 2-Sided exit
188	04	Folding Tray Output	1 count for 1-Sided exit, 2 counts for 2-Sided exit
189	05	Folding Tray Output Job Number	Number of JOB
190	06	Folding Tray Full Alarm	Times of occurrence
191	07	Non Punch-Hole Scrap Box Alarm	Times of occurrence
192	08	Punch-Hole Scrap Box Full	Times of occurrence

5.5.11 Counter of Each Copy Mode (1250/1250P/1052)

Confirm the status of use of each copy mode.

Note

- **Maximum count: 99,999,999**

No.	CSRC parameter (F1, F2)	Item	Count conditions
1	00	1-1 mode	1 count for 1-Sided exit, 2 counts for 2-Sided exit
2	01	1-2 mode	
3	02	2-1 mode	
4	03	2-2 mode	
5	04	ADF 1-1 mode	
6	05	ADF 1-2 mode	
7	06	Mixed original mode	
8	07	Single Feed mode	
9	08	Z-Folded original mode	
10	09	LEF: Portrait/SEF: Landscape (Reg.)	
11	0A	LEF: Landscape/SEF: Portrait (Reg.)	
12	0B	LEF: Portrait/SEF: Landscape (Rev.)	
13	0C	LEF: Landscape/SEF: Portrait (Rev.)	
14	0D	Text / Photo	
15	0E	Text	

No.	CSRC parameter (F1, F2)	Item	Count conditions
16	0F	Photo	
17	10	Dot Matrix	
18	11	Custom Size Original	
19	12	Corner Staple (Top Left)	
20	13	Corner Staple (Top Right)	
21	14	2 Position Staple(Left)	
22	15	2 Position Staple(Top)	
23	16	Right & Left	
24	17	2 Position Staple(Right)	
25	18	Top Binding	
26	19	Tab Original	
27	1A	Fold & Staple	
28	1B	Stacker1 5000 Sheets Full Alarm	Times of occurrence
29	1C	Group	1 count for 1-Sided exit, 2 counts for 2-Sided exit
30	1D	Offset Group	
31	1E	Sort	
32	1F	Offset Sort	
33	20	Face Down	
34	21	Face Up	
35	22	1 to N	
36	23	N to 1	
37	24	Stacker2 5000 Sheets Full Alarm	Times of occurrence
38	25	Cover Sheet	1 count for 1-Sided exit, 2 counts for 2-Sided exit
39	26	Trimmer	
40	27	Real Size Copy	
41	28	Preset Magnification E4	
42	29	Preset Magnification E3	
43	2A	Preset Magnification E2	
44	2B	Preset Magnification E1	
45	2C	Preset Magnification R4	
46	2D	Preset Magnification R3	
47	2E	Preset Magnification R2	
48	2F	Preset Magnification R1	
49	30	Preset Zoom Ratio1	
50	31	Preset Zoom Ratio 2	
51	32	Preset Zoom Ratio 3	
52	33	Zoom	
53	34	Vertical/Horizontal Zoom	
54	35	Maximum Zoom	
55	36	Minimum Zoom	
56	37	APS	
57	38	AMS	
58	39	Auto Density	
59	3C	Interrupted Copy	1 count for 1-Sided exit, 2 counts for 2-Sided exit
60	3D	Cancel Automatic Image Rotation	
61	3E	Insert Sheet	
62	3F	Chapters	
63	40	Combine	
64	41	Booklet	
65	42	Adhesive Binding	
66	44	Insert Image	1 count for 1-Sided exit, 2 counts for 2-Sided exit
67	45	Book Copy	
68	46	Program Job	
69	47	Non-Image Area Erase	
70	48	Neg-/Positive Reverse	
71	49	Auto Repeat	
72	4A	Manual Repeat	

No.	CSRC parameter (F1, F2)	Item	Count conditions
73	4B	Standard Size Repeat	
74	4C	Frame Erase	
75	4D	Center Erase	
76	4E	Image Centering	
77	4F	All-image Area	
78	50	Shift	
79	51	Reduce & Shift	
80	52	Overlay/Registered Overlay	
81	53	Watermark/Watermark Numbering	
82	54	Preset Stamp	
83	55	Date/Time	
84	56	Page No.	
85	57	Numbering	
86	58	Set Quantity 1	
87	59	Set Quantity 2-5	
88	5A	Set Quantity 6-10	
89	5B	Set Quantity 11 or More	
90	5C	Time While Power Remote 1 is ON	Accumulation of time during which the overall control board/image-processing board is powered (main power switch is ON). (unit: min.)
91	5D	Time While Power Remote 2 is ON	Time during which the main relay is ON. (unit: min.)
92	5E	Time While Power Remote 3 is ON	Time during which the power control signal (REM/3) is ON. (unit: min.)
93	5F	Time While Power Remote 4 is ON	Time during which the power control signal (REM/4) is ON. (unit: min.)
94	60	Time During Low Power Mode	Time in the LOW-POWER mode. (unit: min.)
95	61	Time During Warm Up Time	Time for warm-up, except print ready time. (unit: min.)
96	62	Time During Front Door Open	Time during which the front door is open. (in seconds)
97	63	Operation Time in 1side Straight Exit	Time from the start of print and the end of print. (in seconds) (Down time due to jam omitted)
98	64	Operation Time in 1side Reverse Exit	
99	65	Operation Time in 2side Print	
100	66	Operation Time in ADF Mode	Time during which ADF operates. (in seconds)
101	67	Morning Correction Counter	Count 1 per image stabilization control (fixing temperature is 50°C or lower)
102	68	Time During APS Sensor ON	Time during which the APS sensor is ON. (in seconds)
103	6B	N of Fold & Staple Used Jobs	Number of JOB
104	6C	N of ADF Special Error5 Occurred	Number of ADF double feed detection
105	6D	N of ADF NF Occurred	Number of ADF no feed detection
106	6E	N of ADF Special Error1 Occurred	Number of wrong detections of original size
107	6F	N of ADF Special Error2 Occurred	Number of wrong detections of next original information
108	70	N of ADF Special Error3 Occurred	Number of errors in size for which mixed size mode is not allowed
109	71	N of Scanner Scanned	Counts 1 for pressing start key in the original glass mode
110	72	N of Electrode Cleaned	Number of executions
111	73	N of Memory Overflow	Sum of number 119, 120, 121 plus HDD memory shortage
112	74	N of Fusing Alarm Occurred	Times of occurrence
113	75	N of No Toner Stop Occurred	
114	76	N of AGC Retry	
115	77	Multi Tri-Fold Tray Full Alarm	Times of occurrence
116	78	N of Mis-Centering Correct Error	
117	79	N of ADF Distortion Adjust Error	
118	7A	N of ADF Distortion Data Error	
119	7B	Compression Memory Overflow	Scanner compression/print compression memory shortage

No.	CSRC parameter (F1, F2)	Item	Count conditions
120	7C	Page Memory Overflow(Scan)	Shortage in memory for receiving print data
121	7D	Page Memory Overflow (Print)	Decompression page memory shortage
122	7E	Staple Finisher Main Tray Alarm	Times of occurrence
123	7F	Staple Finisher Staple Alarm	
124	80	Saddle Stitcher Scrap Full Alarm	
125	81	N of ADF Special Error4 Occurred	
126	82	Store for HDD (Sync. with Copying)	Number of JOB (For the copier HDD storing, printer print & HDD storing, printer HDD storing only, and JOB that adds HDD storing in wait/proof)
127	83	Store for HDD (Store Scan → HDD)	Number of JOB
128	85	Store for FTP/SMB (Store HDD → FTP/SMB)	Number of JOB
129	86	Recall from HDD (Recall HDD)	
130	88	Saddle Stitcher Staple Alarm	
131	89	Wide Paper (A3W or 11 x 17W)	
132	8A	Wide Paper (A4W or 8 ¹ / ₂ x 11W)	1 count for 1-Sided exit, 2 counts for 2-Sided exit
133	8B	Wide Paper (A4RW or 8 ¹ / ₂ x 11RW)	
134	8C	Wide Paper (A5W or 5 ¹ / ₂ x 8 ¹ / ₂ W)	
135	8D	Wide Paper (Others)	
136	8E	Punch	
137	8F	Z-Folding	
138	90	Multi Folder scrap Full Alarm	Times of occurrence
139	91	Mixplex (Simplex)	1 count for each paper exit in the single side mode
140	92	Mixplex (Duplex)	2 counts for each paper exit in the double side mode
141	93	Right & Left Binding Originals	1 count for 1-Sided exit, 2 counts for 2-Sided exit
142	94	Top Bind Originals	
143	95	Inside Print Multi Tri-Fold	
144	96	Outside Print Multi Tri-Fold	
145	97	Inside Print Tri-Fold-in	
146	98	Outside Print Tri-Fold-in	
147	99	Inside Print Tri-Fold-out	
148	9A	Outside Print Tri-Fold-out	
149	9B	Inside Print Double Parallel	
150	9C	Outside Print Double Parallel	
151	9D	Inside Print Gate	
152	9E	Outside Print Gate	
153	9F	Multi Half-Fold	
154	A0	Inside Print Half-Fold	
155	A1	Outside Print Half-Fold	
156	A2	Main Tray Output	
157	A3	Stacker1 Tray Output	Number of JOB
158	A4	Stacker2 Tray Output	
159	A5	Stacker Auto Setting Output	
160	A6	Stacker Pile Allow	
161	A7	Fold & Staple Tray Output	
162	A8	Tri-Fold Tray Output	
163	A9	Folding Sub Tray Output	
164	AA	Stacker1 Sub Tray Output	
165	AB	Stacker2 Sub Tray Output	
166	AC	Fold & Staple Sub Tray Output	
167	AD	Staple Finisher Sub Tray Output	
168	AE	Main Tray Output Job Number	
169	AF	Stacker1 Tray Output Job Number	
170	B0	Stacker2 Tray Output Job Number	
171	B1	Fold & Staple Output Job No.	
172	B2	Tri-Fold Tray Output Job No.	
173	B3	Folding Sub Tray Job Number	
174	B4	Stacker1 Sub Tray Job Number	

No.	CSRC parameter (F1, F2)	Item	Count conditions
175	B5	Stacker2 Sub Tray Job Number	
176	B6	Fold & Staple Sub Tray Job Number	
177	B7	Staple Finisher Sub Tray Job Number	
178	B8	Multi Half-Fold Job Number	
179	B9	Inside Half-Fold Job Number	
180	BA	Outside Half-Fold Job Number	
181	BB	Annotation	1 count for 1-Sided exit, 2 counts for 2-Sided exit
182	BC	Perfect Bind(Cover Blank)	Number of JOB
183	BD	Perfect Bind(Cover Print 1-in-1)	
184	BE	Perfect Bind(Cover Print 2-in-1)	
185	BF	Perfect Bind(Cover Print 3-in-1)	
186	C0	Perfect Binder Cover Tray mode	
187	C2	Perfect Bind Set (Cover Trim)	Number of books when cover paper trimming is set.
188	C3	Perfect Bind Set (Cover Non-Trim)	Number of books when cover paper trimming is not set.
189	C4	Perfect Binder Sub Tray Output	Number of ejected papers
190	C5	Perfect Binder Sub Compile Output	Number of ejected inside papers
191	C6	Perfect Binder Cover Tray Pull-Out	Times of pulling out PB cover tray
192	C7	Perfect Binder Front Door open	Times of opening PB front door
193	C8	Stacker Cover of Perfect Binder Open	Times of opening PB book stock section cover
194	C9	Total Book Volumes	Number of books created by perfect binder
195	CA	Total Book Volumes (0.0-10.0mm)	
196	CB	Total Book Volumes (10.1-20.0mm)	
197	CC	Total Book Volumes (20.1-30.0mm)	
198	CD	Total Book Volumes	Total number of inside papers of book created by perfect binder
199	CE	Total Thickness	Thickness of book created by perfect binder (value is rounded to the nearest 0.1mm)
200	CF	Perfect Binder Trim Scrap Box Full Alarm	Times of occurrence
201	D0	Perfect Binder Stacker Full Alarm	
202	D1	Perfect Binder Glue Pellet Supply Alarm	
203	D2	Perfect Binder Glue Pellet Stop Up Alarm	
204	D3	Perfect Binder-related Alarm	Times of occurrence of perfect binder alarms other than number 197, number 198, number 199 and number 200
205	D4	Scan to E-mail	Number of JOB Scan To E-mail (scanner mode)
206	D5	Scan to HDD	Number of JOB Scan To HDD (scanner mode)
207	D6	Scan to FTP	Number of JOB Scan To FTP (scanner mode)
208	D7	Scan to SMB	Number of JOB Scan To SMB (scanner mode)
209	D8	Sample Paper Counter	1 count for 1-Sided exit, 2 counts for 2-Sided exit
210	D9	Sample Paper Counter in Printer Job	
211	DA	Sample Paper Counter in Printer Job (L Size)	
212	DB	Copy Protect	
213	DC	PI Paper Counter	PI Paper Counter
214	DD	Job Unit Offset Job Number	Output OffsetJob by Set Job
215	DE	Set Offset Job Number	Output OffsetJob by Set Numbers
216	DF	Sheet Offset Job Number	Output OffsetJob by Set Page
217	E0	1Set+Output Offset Job Number	1 Set +Output Offset Job by Set Page
218	E1	Continued Job for Next Day	Number of continued Job for next day in sub power OFF
219	E2	Temperature Cooling Counter	Number of temperature cooling process in sub power OFF
220	E3	Moving Counter to Suspended Job	Number of Job moved to suspended Job
221	E4	Tab Paper Used Job	Number of Job exited tab paper
222	E5	Needless Tab Paper Exit Job	Needless tab output Job number
223	E6	Ticket Edit Counter	Number of ticket edit process
224	E7	Sample Print Counter	Number of sample print output
225	E8	600dpi Print Counter	1 count for 1-Sided exit, 2 counts for 2-Sided exit
226	E9	Multi Punch	
227	EA	Stacker3 5000 Sheets Full Alarm	Times of occurrence
228	EB	Stacker3 Tray Output	1 count for 1-Sided exit, 2 counts for 2-Sided exit

No.	CSRC parameter (F1, F2)	Item	Count conditions
229	EC	Stacker3 Sub Tray Output	1 count for 1-Sided exit, 2 counts for 2-Sided exit
230	ED	Stacker3 Tray Output Job Number	Number of JOB
231	EE	Stacker3 Sub Tray Job Number	Number of JOB
232	EF	Ring Bind	1 count for 1-Sided exit, 2 counts for 2-Sided exit
233	F0	Front Cover Outside Print	1 count for 1-Sided exit, 2 counts for 2-Sided exit
234	F1	Front Cover Inside Print	1 count for 1-Sided exit, 2 counts for 2-Sided exit
235	F2	Back Cover Outside Print	1 count for 1-Sided exit, 2 counts for 2-Sided exit
236	F3	Back Cover Inside Print	1 count for 1-Sided exit, 2 counts for 2-Sided exit
237	F4	Bind Direction Left Bind	1 count for 1-Sided exit, 2 counts for 2-Sided exit
238	F5	Bind Direction Right Bind	1 count for 1-Sided exit, 2 counts for 2-Sided exit
239	F6	Bind parts Drawer Open	Times of occurrence
240	F7	Ring Bind Booklet Tray Open	Times of occurrence
241	F8	Ring Bind Booklet Tray Near Full	Times of occurrence
242	F9	Ring Bind Booklet Tray Full	Times of occurrence
243	FA	Non Punch-Hole Scrap Box	Times of occurrence
244	FB	Punch-Hole Scrap Box Full	Times of occurrence
245	FC	No Bind Parts	Times of occurrence
246	FD	Stacker Paper Remain	Times of occurrence
247	FE	Stacker Full	Times of occurrence
248	FF	Booklet Tray Output	1 count for 1-Sided exit, 2 counts for 2-Sided exit
249	00	Booklet Tray Output Job Number	Number of JOB
250	01	Staple Pitch Wide (165 mm)	1 count for 1-Sided exit, 2 counts for 2-Sided exit
251	02	Staple Pitch Narrow (140 mm)	1 count for 1-Sided exit, 2 counts for 2-Sided exit
252	03	Staple Pitch Narrow+ (120 mm)	1 count for 1-Sided exit, 2 counts for 2-Sided exit
253	04	Folder Tray Output	1 count for 1-Sided exit, 2 counts for 2-Sided exit
254	05	Folder Tray Job Number	Number of JOB
255	06	Folder Tray Full Alarm	Times of occurrence
256	09	Water Tank Empty	Times of occurrence

5.5.12 SC data of time series

With respect to the latest 20 SC, confirm SC code, total counter, date of occurrence, time of occurrence and machine condition (00: Idling, 01: Scanner operating, 02: Printer operating, 03: Scanner and printer operating).

5.5.13 SC Counter/SC Counter Individual Sec.

Check the number of occurrence of abnormality for each error code.

Note

- **Maximum count: 9,999**
- **When the service mode DIPSW3-1 is 1 (Latched), C-35xx, 38xx, 39xx, 1540 to 1562, 2214 and 2217 are not counted.**

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
1	00	C-0001
2	01	C-0002
3	02	C-0003
4	03	C-0004
5	04	C-0005
6	05	C-0006
7	06	C-0007
8	07	C-0008
9	08	C-0010
10	09	C-0011
11	0A	C-0012
12	0B	C-0020
13	0C	C-0021
14	0D	C-0022
15	0E	C-0023
16	0F	C-0024
17	10	C-0025
18	11	C-0101

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
19	12	C-0103
20	13	C-0104
21	14	C-0105
22	15	C-0106
23	16	C-0107
24	17	C-0108
25	18	C-0109
26	19	C-0110
27	1A	C-0111
28	1B	C-0112
29	1C	C-0113
30	1D	C-0114
31	1E	C-0115
32	1F	C-0116
33	20	C-0118
34	21	C-0119
35	22	C-0120
36	23	C-0121
37	24	C-0130
38	25	C-0131
39	26	C-0132
40	27	C-0133
41	28	C-0134
42	29	C-0140
43	2A	C-0141
44	2B	C-0142
45	2C	C-0143
46	2D	C-0144
47	2E	C-0145
48	2F	C-0150
49	30	C-0151
50	31	C-0152
51	32	C-0153
52	33	C-0201
53	34	C-0203
54	35	C-0204
55	36	C-0205
56	37	C-0207
57	38	C-0208
58	39	C-0222
59	3A	C-0223
60	3B	C-0226
61	3C	C-0227
62	3D	C-0230
63	3E	C-0231
64	3F	C-0240
65	40	C-0241
66	41	C-0242
67	42	C-0243
68	43	C-0244
69	44	C-0245
70	45	C-0250
71	46	C-0251
72	47	C-0252
73	48	C-0253
74	49	C-0254

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
75	4A	C-0255
76	4B	C-0261
77	4C	C-0262
78	4D	C-0263
79	4E	C-0264
80	4F	C-0265
81	50	C-0266
82	51	C-0271
83	52	C-0272
84	53	C-0273
85	54	C-0274
86	55	C-0275
87	56	C-0276
88	57	C-0281
89	58	C-0282
90	59	C-0283
91	5A	C-0284
92	5B	C-0285
93	5C	C-0286
94	5D	C-0304
95	5E	C-0306
96	5F	C-0307
97	60	C-0309
98	61	C-0310
99	62	C-0312
100	63	C-0320
101	64	C-0322
102	65	C-0323
103	66	C-0325
104	67	C-0326
105	68	C-0328
106	69	C-0329
107	6A	C-0331
108	6B	C-0341
109	6C	C-0342
110	6D	C-0344
111	6E	C-0345
112	6F	C-0347
113	70	C-0348
114	71	C-0350
115	72	C-0351
116	73	C-0353
117	74	C-0354
118	75	C-0356
119	76	C-0357
120	77	C-0359
121	78	C-0360
122	79	C-0361
123	7A	C-0370
124	7B	C-0371
125	7C	C-0372
126	7D	C-0373
127	7E	C-0374
128	7F	C-0375
129	80	C-0376
130	81	C-0377

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
131	82	C-0378
132	83	C-0379
133	84	C-0380
134	85	C-0381
135	86	C-0382
136	87	C-0383
137	88	C-0384
138	89	C-0385
139	8A	C-0386
140	8B	C-0387
141	8C	C-0388
142	8D	C-0389
143	8E	C-0390
144	8F	C-0391
145	90	C-0392
146	91	C-0393
147	92	C-0394
148	93	C-0395
149	94	C-0396
150	95	C-0397
151	96	C-0398
152	97	C-0399
153	98	C-0403
154	99	C-0404
155	9A	C-0410
156	9B	C-0411
157	9C	C-0412
158	9D	C-0413
159	9E	C-0414
160	9F	C-0420
161	A0	C-0421
162	A1	C-0422
163	A2	C-0423
164	A3	C-0424
165	A4	C-0425
166	A5	C-0501
167	A6	C-0502
168	A7	C-0503
169	A8	C-0504
170	A9	C-0505
171	AA	C-0506
172	AB	C-0507
173	AC	C-0508
174	AD	C-0509
175	AE	C-0510
176	AF	C-0511
177	B0	C-0512
178	B1	C-0513
179	B2	C-0514
180	B3	C-0515
181	B4	C-0516
182	B5	C-0517
183	B6	C-0518
184	B7	C-0519
185	B8	C-0520
186	B9	C-0521

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
187	BA	C-0522
188	BB	C-0523
189	BC	C-0524
190	BD	C-0525
191	BE	C-0526
192	BF	C-0527
193	C0	C-0528
194	C1	C-0529
195	C2	C-0530
196	C3	C-0531
197	C4	C-0532
198	C5	C-0533
199	C6	C-0534
200	C7	C-0535
201	C8	C-0536
202	C9	C-0537
203	CA	C-0538
204	CB	C-0539
205	CC	C-0540
206	CD	C-0541
207	CE	C-0542
208	CF	C-0543
209	D0	C-0544
210	D1	C-0545
211	D2	C-0546
212	D3	C-0547
213	D4	C-0548
214	D5	C-0561
215	D6	C-0562
216	D7	C-0563
217	D8	C-0564
218	D9	C-0565
219	DA	C-0566
220	DB	C-0567
221	DC	C-0568
222	DD	C-0569
223	DE	C-0570
224	DF	C-0571
225	E0	C-0572
226	E1	C-0573
227	E2	C-0574
228	E3	C-0575
229	E4	C-0576
230	E5	C-0577
231	E6	C-0578
232	E7	C-0579
233	E8	C-0580
234	E9	C-0581
235	EA	C-0582
236	EB	C-0583
237	EC	C-0584
238	ED	C-0601
239	EE	C-0602
240	EF	C-0603
241	F0	C-0604
242	F1	C-0605

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
243	F2	C-0606
244	F3	C-0611
245	F4	C-0612
246	F5	C-0613
247	F6	C-0614
248	F7	C-0615
249	F8	C-0616
250	F9	C-0621
251	FA	C-0622
252	FB	C-0623
253	FC	C-0624
254	FD	C-0625
255	FE	C-0626
256	FF	C-0631
257	00	C-0632
258	01	C-0633
259	02	C-0634
260	03	C-0635
261	04	C-0636
262	05	C-0637
263	06	C-0638
264	07	C-0639
265	08	C-0640
266	09	C-0641
267	0A	C-0642
268	0B	C-0651
269	0C	C-0652
270	0D	C-0653
271	0E	C-0654
272	0F	C-0655
273	10	C-0656
274	11	C-0657
275	12	C-0658
276	13	C-0659
277	14	C-0660
278	15	C-0661
279	16	C-0662
280	17	C-0671
281	18	C-0672
282	19	C-0673
283	1A	C-0674
284	1B	C-0675
285	1C	C-0676
286	1D	C-0677
287	1E	C-0678
288	1F	C-0679
289	20	C-0680
290	21	C-0681
291	22	C-0682
292	23	C-1001
293	24	C-1005
294	25	C-1006
295	26	C-1007
296	27	C-1008
297	28	C-1009
298	29	C-1010

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
299	2A	C-1011
300	2B	C-1012
301	2C	C-1013
302	2D	C-1014
303	2E	C-1017
304	2F	C-1102
305	30	C-1103
306	31	C-1104
307	32	C-1105
308	33	C-1106
309	34	C-1107
310	35	C-1108
311	36	C-1109
312	37	C-1110
313	38	C-1113
314	39	C-1114
315	3A	C-1115
316	3B	C-1116
317	3C	C-1124
318	3D	C-1125
319	3E	C-1126
320	3F	C-1127
321	40	C-1130
322	41	C-1131
323	42	C-1132
324	43	C-1133
325	44	C-1134
326	45	C-1135
327	46	C-1136
328	47	C-1137
329	48	C-1140
330	49	C-1141
331	4A	C-1142
332	4B	C-1143
333	4C	C-1144
334	4D	C-1145
335	4E	C-1146
336	4F	C-1147
337	50	C-1148
338	51	C-1150
339	52	C-1151
340	53	C-1152
341	54	C-1153
342	55	C-1154
343	56	C-1155
344	57	C-1156
345	58	C-1157
346	59	C-1158
347	5A	C-1159
348	5B	C-1170
349	5C	C-1171
350	5D	C-1172
351	5E	C-1173
352	5F	C-1174
353	60	C-1175
354	61	C-1176

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
355	62	C-1177
356	63	C-1178
357	64	C-1179
358	65	C-1201
359	66	C-1202
360	67	C-1203
361	68	C-1204
362	69	C-1205
363	6A	C-1206
364	6B	C-1211
365	6C	C-1212
366	6D	C-1213
367	6E	C-1214
368	6F	C-1215
369	70	C-1216
370	71	C-1221
371	72	C-1222
372	73	C-1223
373	74	C-1224
374	75	C-1225
375	76	C-1226
376	77	C-1227
377	78	C-1228
378	79	C-1229
379	7A	C-1230
380	7B	C-1231
381	7C	C-1232
382	7D	C-1233
383	7E	C-1234
384	7F	C-1235
385	80	C-1241
386	81	C-1242
387	82	C-1243
388	83	C-1244
389	84	C-1245
390	85	C-1246
391	86	C-1247
392	87	C-1248
393	88	C-1249
394	89	C-1250
395	8A	C-1251
396	8B	C-1252
397	8C	C-1253
398	8D	C-1254
399	8E	C-1255
400	8F	C-1256
401	90	C-1257
402	91	C-1258
403	92	C-1259
404	93	C-1260
405	94	C-1261
406	95	C-1262
407	96	C-1263
408	97	C-1264
409	98	C-1265
410	99	C-1266

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
411	9A	C-1267
412	9B	C-1268
413	9C	C-1269
414	9D	C-1270
415	9E	C-1271
416	9F	C-1272
417	A0	C-1273
418	A1	C-1274
419	A2	C-1275
420	A3	C-1281
421	A4	C-1282
422	A5	C-1283
423	A6	C-1284
424	A7	C-1290
425	A8	C-1291
426	A9	C-1292
427	AA	C-1293
428	AB	C-1294
429	AC	C-1295
430	AD	C-1296
431	AE	C-1297
432	AF	C-1298
433	B0	C-1299
434	B1	C-1301
435	B2	C-1302
436	B3	C-1303
437	B4	C-1304
438	B5	C-1305
439	B6	C-1306
440	B7	C-1307
441	B8	C-1308
442	B9	C-1309
443	BA	C-1310
444	BB	C-1311
445	BC	C-1316
446	BD	C-1317
447	BE	C-1318
448	BF	C-1319
449	C0	C-1320
450	C1	C-1330
451	C2	C-1331
452	C3	C-1332
453	C4	C-1333
454	C5	C-1334
455	C6	C-1341
456	C7	C-1342
457	C8	C-1351
458	C9	C-1352
459	CA	C-1353
460	CB	C-1354
461	CC	C-1355
462	CD	C-1356
463	CE	C-1357
464	CF	C-1358
465	D0	C-1359
466	D1	C-1360

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
467	D2	C-1361
468	D3	C-1364
469	D4	C-1402
470	D5	C-1403
471	D6	C-1404
472	D7	C-1405
473	D8	C-1406
474	D9	C-1407
475	DA	C-1408
476	DB	C-1411
477	DC	C-1431
478	DD	C-1432
479	DE	C-1433
480	DF	C-1434
481	E0	C-1435
482	E1	C-1436
483	E2	C-1437
484	E3	C-1438
485	E4	C-1439
486	E5	C-1440
487	E6	C-1441
488	E7	C-1442
489	E8	C-1443
490	E9	C-1451
491	EA	C-1452
492	EB	C-1453
493	EC	C-1454
494	ED	C-1455
495	EE	C-1456
496	EF	C-1499
497	F0	C-1501
498	F1	C-1502
499	F2	C-1504
500	F3	C-1505
501	F4	C-1506
502	F5	C-1507
503	F6	C-1508
504	F7	C-1509
505	F8	C-1510
506	F9	C-1511
507	FA	C-1512
508	FB	C-1513
509	FC	C-1514
510	FD	C-1515
511	FE	C-1516
512	FF	C-1517
513	00	C-1518
514	01	C-1519
515	02	C-1520
516	03	C-1521
517	04	C-1522
518	05	C-1523
519	06	C-1524
520	07	C-1525
521	08	C-1526
522	09	C-1527

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
523	0A	C-1528
524	0B	C-1530
525	0C	C-1531
526	0D	C-1532
527	0E	C-1534
528	0F	C-1537
529	10	C-1538
530	11	C-1540
531	12	C-1541
532	13	C-1542
533	14	C-1543
534	15	C-1544
535	16	C-1545
536	17	C-1546
537	18	C-1547
538	19	C-1548
539	1A	C-1549
540	1B	C-1550
541	1C	C-1551
542	1D	C-1552
543	1E	C-1553
544	1F	C-1554
545	20	C-1555
546	21	C-1556
547	22	C-1557
548	23	C-1558
549	24	C-1559
550	25	C-1560
551	26	C-1561
552	27	C-1562
553	28	C-1565
554	29	C-1566
555	2A	C-1567
558	2D	C-1651
559	2E	C-1652
560	2F	C-1653
561	30	C-1654
562	31	C-1655
563	32	C-1656
564	33	C-2101
565	34	C-2102
566	35	C-2103
567	36	C-2104
568	37	C-2201
569	38	C-2202
570	39	C-2203
571	3A	C-2204
572	3B	C-2205
573	3C	C-2206
574	3D	C-2207
575	3E	C-2208
576	3F	C-2209
577	40	C-2210
578	41	C-2211
579	42	C-2212
580	43	C-2213

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
581	44	C-2214
582	45	C-2215
583	46	C-2217
584	47	C-2220
585	48	C-2221
586	49	C-2222
587	4A	C-2224
588	4B	C-2225
589	4C	C-2226
590	4D	C-2227
591	4E	C-2228
592	4F	C-2230
593	50	C-2231
594	51	C-2233
595	52	C-2234
596	53	C-2235
597	54	C-2236
598	55	C-2237
599	56	C-2238
600	57	C-2241
601	58	C-2242
602	59	C-2304
603	5A	C-2306
604	5B	C-2307
605	5C	C-2309
606	5D	C-2311
607	5E	C-2313
608	5F	C-2317
609	60	C-2318
610	61	C-2401
611	62	C-2402
612	63	C-2403
613	64	C-2411
614	65	C-2412
615	66	C-2413
616	67	C-2701
617	68	C-2702
618	69	C-2704
619	6A	C-2705
620	6B	C-2801
621	6C	C-2802
622	6D	C-2803
623	6E	C-2804
624	6F	C-2807
625	70	C-2808
626	71	C-2809
627	72	C-2810
628	73	C-2811
629	74	C-2812
630	75	C-2815
631	76	C-2816
632	77	C-2821
633	78	C-2822
634	79	C-3102
635	7A	C-3103
636	7B	C-3104

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
637	7C	C-3201
638	7D	C-3202
639	7E	C-3501
640	7F	C-3502
641	80	C-3503
642	81	C-3504
643	82	C-3801
644	83	C-3802
645	84	C-3901
646	85	C-3902
647	86	C-3903
648	87	C-3904
649	88	C-3905
650	89	C-3906
651	8A	C-4301
652	8B	C-4303
653	8C	C-4304
654	8D	C-4305
655	8E	C-4307
656	8F	C-4314
657	90	C-4316
658	91	C-4701
659	92	C-4702
660	93	C-4703
661	94	C-4705
662	95	C-4706
663	96	C-4708
664	97	C-4709
665	98	C-4720
666	99	C-4721
667	9A	C-4722
668	9B	C-4725
669	9C	C-4850
670	9D	C-5010
671	9E	C-5101
672	9F	C-5311
673	A0	C-5313
674	A1	C-5317
675	A2	C-5319
676	A3	C-5320
677	A4	C-5322
678	A5	C-5326
679	A6	C-5327
680	A7	C-5328
681	A8	C-5329
682	A9	C-5330
683	AA	C-5332
684	AB	C-5337
685	AC	C-5338
686	AD	C-5339
687	AE	C-5340
688	AF	C-5341
689	B0	C-5343
690	B1	C-5344
691	B2	C-5345
692	B3	C-5347

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
693	B4	C-5348
694	B5	C-6101
695	B6	C-6102
696	B7	C-6103
697	B8	C-6301
698	B9	C-6302
699	BA	C-6303
700	BB	C-6701
701	BC	C-6702
702	BD	C-6703
703	BE	C-6704
704	BF	C-6705
705	C0	C-6706
706	C1	C-6707
707	C2	C-6708
708	C3	C-6709
709	C4	C-6710
710	C5	C-6717
711	C6	C-6719
712	C7	C-6721
713	C8	C-6801
714	C9	C-8001
715	CA	C-8002
716	CB	C-8003
717	CC	C-8201
718	CD	C-8301
719	CE	C-8401
720	CF	C-8402
721	D0	C-8403
722	D1	C-8404
723	D2	C-8405
724	D3	C-8406
725	D4	C-8407
726	D5	C-8408
727	D6	C-8409
728	D7	C-8410
729	D8	C-8411
730	D9	C-8412
731	DA	C-A001
732	DB	C-A002
733	DC	C-A003
734	DD	C-A004
735	DE	C-A005
736	DF	C-A006
737	E0	C-A007
738	E1	C-A008
739	E2	C-A009
740	E3	C-A101
741	E4	C-C101
742	E5	C-C102
743	E6	C-C103
744	E7	C-C104
745	E8	C-C105
746	E9	C-C106
747	EA	C-C107
748	EB	C-C108

No.	CSRC Parameter (E0, E1, E2)	Item (Error code)
749	EC	C-C109
750	ED	C-C111
751	EE	C-C112
752	EF	C-C113
753	F0	C-C114
754	F1	C-C115
755	F2	C-C116
756	F3	C-C117
757	F4	C-C118
758	F5	C-C119
759	F6	C-C120
760	F7	C-C121
761	F8	C-C123
762	F9	C-C124
763	FA	C-C125
764	FB	C-C130
765	FC	C-D001
766	FD	C-D002
767	FE	C-D003
768	FF	C-D004
769	00	C-D010
770	01	C-D101
771	02	C-D102
772	03	C-E001
773	04	C-E002
774	05	C-E003
775	06	C-E004
776	07	C-E005
777	08	C-E006
778	09	C-E007
779	0A	C-C131
780	0B	C-C132
854	55	C-1180
855	56	C-1181
856	57	C-1412
857	58	C-C136
858	59	C-D080

5.5.14 Counter of Each Paper Type

Check the number of originals that is fed for each paper type and weight.

Note

- **Maximum count: 99,999,999**
- **For each type of paper specified in the tray setting, small size paper is 1 count for each paper exit of the single side and 2 counts of the double side, large size paper is 2 counts for the single side and 4 counts for the double side.**

No.	Item
1	Coated (40-49)
2	Coated (50-61)
3	Coated (62-74)
4	Coated (75-91)
5	Coated (92-135)
6	Coated (136-162)
7	Coated (163-216)
8	Coated (217-244)
9	Coated (245-300)
10	Coated (301-350)
11	PrePrinted (40-49)
12	PrePrinted (50-61)

No.	Item
13	PrePrinted (62-74)
14	PrePrinted (75-91)
15	PrePrinted (92-135)
16	PrePrinted (136-162)
17	PrePrinted (163-216)
18	PrePrinted (217-244)
19	PrePrinted (245-300)
20	PrePrinted (301-350)
21	Fine (40-49)
22	Fine (50-61)
23	Fine (62-74)
24	Fine (75-91)
25	Fine (92-135)
26	Fine (136-162)
27	Fine (163-216)
28	Fine (217-244)
29	Fine (245-300)
30	Fine (301-350)
31	Plain (40-49)
32	Plain (50-61)
33	Plain (62-74)
34	Plain (75-91)
35	Plain (92-135)
36	Plain (136-162)
37	Plain (163-216)
38	Plain (217-244)
39	Plain (245-300)
40	Plain (301-350)
41	Book/News (40-49)
42	Book/News (50-61)
43	Book/News (62-74)
44	Book/News (75-91)
45	Book/News (92-135)
46	Book/News (136-162)
47	Book/News (163-216)
48	Book/News (217-244)
49	Book/News (245-300)
50	Book/News (301-350)
51	Embossed (40-49)
52	Embossed (50-61)
53	Embossed (62-74)
54	Embossed (75-91)
55	Embossed (92-135)
56	Embossed (136-162)
57	Embossed (163-216)
58	Embossed (217-244)
59	Embossed (245-300)
60	Embossed (301-350)
61	Blank Insert (40-49)
62	Blank Insert (50-61)
63	Blank Insert (62-74)
64	Blank Insert (75-91)
65	Blank Insert (92-135)
66	Blank Insert (136-162)
67	Blank Insert (163-216)
68	Blank Insert (217-244)
69	Blank Insert (245-300)
70	Blank Insert (301-350)

No.	Item
71	Embossed2 (40 to 49)
72	Embossed2 (50 to 61)
73	Embossed2 (62 to 74)
74	Embossed2 (75 to 91)
75	Embossed2 (92 to 135)
76	Embossed2 (136 to 162)
77	Embossed2 (163 to 216)
78	Embossed2 (217 to 244)
79	Embossed2 (245 to 300)
80	Embossed2 (301 to 350)
81	Envelope (40-49)
82	Envelope (50-61)
83	Envelope (62-74)
84	Envelope (75-91)
85	Envelope (92-135)
86	Envelope (136-162)
87	Envelope (163-216)
88	Envelope (217-244)
89	Envelope (245-300)
90	Envelope (301-350)

5.5.15 Parts History in Time Series (Maintenance History)

(1) Usage

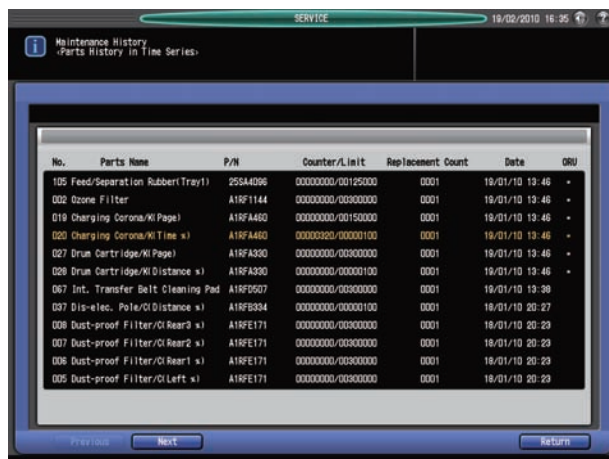
Check the maintenance frequency for respective parts.

(2) Specifications

- The latest 50 items of the maintenance counter reset history is displayed.
- Item
 - No.
(Number of the special parts counter)
 - Parts Name
 - P/N
 - Counter/Limit
 - Replacement count
 - Date
 - ORU
(The mark "***" means that the part is replaced in the ORU-M mode.)

(3) Confirmation steps of Parts History in Time Series

- "Collecting Data Menu screen"
Press [16 Maintenance History].
- "Maintenance History Menu screen"
Press [01 Parts History in Time Series].
- "Maintenance History<Parts History in Time Series> screen"
Check the special parts counter reset history.



5.5.16 ORU-M Maintenance History (1250/1250P/1052 only)

(1) Usage

Check the frequency of unit replacement, then predict the timing of replacing the ORU-M target part and collect each type of information.

(2) Specifications

Item

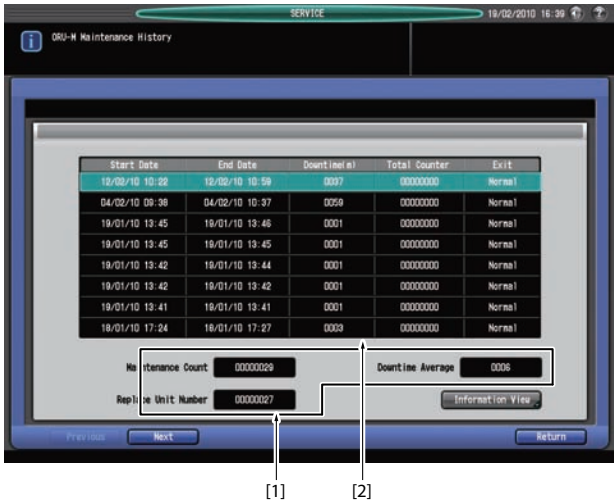
- Information of ORU-M maintenance history:
Unit replacing Start/End date and time, Downtime (m), Total Counter, End Status (Normal, error)
- Information of each ORU-M maintenance unit:
Parts Name, P/N, Serial Number, Life Cycle, Replacement Count, Replace Reason (Periodical Replacement, Image Trouble, Transport Trouble/JAM)
- Information of total ORU-M maintenance:
Maintenance Count, Replace Unit Number, Downtime Average

Maximum storable number

- The data of the latest 125 replacements of the ORU-M corresponding unit are stored.
When one of the ORU-M counters is reset, up to 125 data including the latest replacement date and the replaced unit information are stored.
Example
When replacing 4 units at a maintenance, the data of latest 25 maintenances can be stored.
(Maintenance date (1 item to be stored) + 4 units replaced (4 items to be stored) = 5 items to be stored
With this function, the following items can be checked.
Name of replaced unit
Part No. (P/N)
Life cycle
Replacement Count
Replace Reason (PM, CM (image quality), CM (machine broken))
- The down time of the latest 50 units are stored.
Measures the length of time from when entering the ORU-M replacement screen to when exiting it.
Up to 50 data (time taken for replacement and replacement date) of each ORU-M corresponding unit are stored. The data older than that are stored as averaged value.

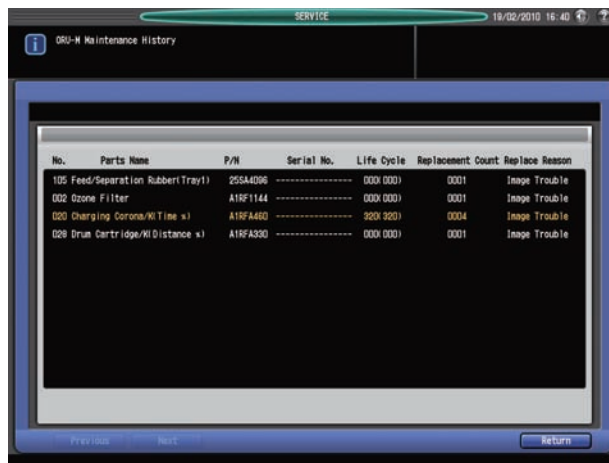
(3) ORU-M maintenance history check procedures

1. "ORU-M Maintenance History screen"
Check the ORU maintenance history.



[1] Information of ORU-M total maintenance history:	[2] ORU-M maintenance history information
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2. To check the object unit of each maintenance, select the maintenance to display and then press [Information View].
3. "Information View screen"
Check the maintenance of each unit.



5.5.17 Checking, setting and resetting procedure of the Special Parts Counter

When a part is replaced, reset the counter of the part that has been replaced to manage the service history.

(1) Procedure

1. "Service Mode Menu screen"
Press [03 Counter/Data]
2. "Service Mode Menu screen"
Press [03 Parts Counter].
3. "Parts Counter Menu screen"
Press [01 Special Parts Counter].
4. "Parts Counter <Special Parts Counter> screen"
Press [Next] or [Previous] to scroll the screen.
Press [▲] or [▼] to select an item you want to reset.
5. Press [Counter Clear].
6. "Reset confirm screen"
Press [Yes] to reset the counter.
Press [No] not to reset the counter. You return to the "Parts Counter <Special Parts Counter> screen."

5.5.18 Special Parts Counter (951)

Note

- Be sure to reset the fusing cleaning web counter (Number.046) after replacing the cleaning web. Otherwise, fuser cleaning trouble occurs.
- Be sure to perform the blade set mode of the service mode after replacing the cleaning blade. This operation automatically resets the cleaning blade counter (No. 032, 033). Otherwise, the auto blade replacement cannot be implemented.
- Maximum count: 99,999,999

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
001	00	Charging filter	A4EU1181	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
002	02	Ozone filter /12	A4EU1123	
003	03	Charging exhaust filter	56UA1122	
004	07	Drum Separation claws	A0G63456	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
005	08	Drum temperature sensor	A4EUA341	
006	0C	Charging wire	56UA2509	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
007	0D	Charger control plate	A4EUA467	
008	0E	Charge cleaning unit	A4EUA463	
009	0F	Charger unit	A4EUA460	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
010	13	Suction filter /L	A4EU3908	
011	15	Developing suction seal*1	A4EU3946 A4EU3947 A0G63944	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
			A0G63945 56UA3103 56UA3106	those sizes, 1 count for the single and 2 counts for the double.
012	16	Developing unit	A4EUA370	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
013	17	Suction unit	A4EUA390	
014	1A	Stirring plate assy	A4EUA401/A4EUB409	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
015	1B	Toner supply sleeve /1	A4EUB402	
016	1C	Toner supply sleeve /2	A4EUB403	
017	1D	Toner pump /1	A4EUB420	1 count for each paper exit in the single side mode, 2 counts in the double side mode.
018	1E	Toner pump /2	A4EUB440	
019	22	Guide blade unit	A4EUA526	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
020	23	Transfer belt	A0G65001	
021	24	Transfer roller	A4EU5006	
022	25	Cleaning brush	A4EU5106	
023	26	Power supply ball bearing	A0G65039	
024	27	Transfer electrode unit	A4EUA508	
025	28	Earth electrode unit	A4EUA506	
026	29	Power supply parts	65AA2689	
027	2A	Cleaning shaft	A0G65107	
028	2B	Belt cleaner unit	A4EUA520	
029	2C	Transfer belt unit	A4EUA500	
030	2F	Discharge wire	A0G64708	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
031	30	PCC unit	A0G6R7D5	
032	34	Drum cleaning blade	A0G65350	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double. The running distance of the No.32 drum cleaning blade and the No.33 drum cleaning blade cannot be reset with the counter reset button. The counter is reset in conjunction with the blade setting mode.
033	35	Drum cleaning blade running distance	A0G65350	Measures the count ON time of the photo conductor drive motor , and calculates the ON time x process speed in millimeters. Data is displayed in meters. The running distance of the No.32 drum cleaning blade and the No.33 drum cleaning blade cannot be reset with the counter reset button. The counter is reset in conjunction with the blade setting mode.
034	36	Drum scraper unit	A4EUB530	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
035	37	Scatter prevent filter unit	A4EUB531	
036	38	Drum cleaner brush	A4EUA549	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double. The running distances of the No.36 drum cleaner brush and the No.37 drum cleaner are reset together when one of them is reset with the counter reset button.
037	39	Drum cleaner brush running distance	A4EUA549	Measures the count ON time of the photo conductor drive motor , and calculates the

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
				"ON time" x "brush theta" x "process speed" in millimeters. Data is displayed in meters. The running distances of the No.36 drum cleaner brush and the No.37 drum cleaner are reset together when one of them is reset with the counter reset button.
038	3A	Drum cleaner side seal R	A4EUA543	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
039	3B	Drum cleaner side seal F	A4EUA542	
040	3C	Fur brush scraper	A4EUA548	
041	3D	Cleaner toner tray	A4EUB549	
042	3E	Guide shaft	A0G65305	
043	3F	Drum Cleaning Gear/2 Assy	A4EUA534	
044	40	Drum cleaning gear /3	A0G65327	
045	41	Cleaner unit	A4EUA530	Count when the normal fusing unit is connected. 0 to 3 counts according to the print area when transferring to paper completes.
046	46	Fixing cleaning web	A4EW7314	
047	47	Fix. roller (U)	56UA5304	Count when the normal fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
048	48	Fusing roller Unit(L)	A4EUA797	
049	49	Fusing claws top	56UA5453	
050	4A	Fusing claws low	25AA5329	
051	4B	Heat sleeve (Top)	45405339	
052	4C	Top roller bearing	A0G67346	
053	4D	Fixing CL sheet	A4EUA779	
054	4E	Fusing cleaning roller	56UA5353	
055	4F	Fusing heater	A4EWM330	
056	50	Fixing sub roller	56UA5307	
057	51	Heat sleeve (Heated)	26AA5315	
058	52	Outside heat roller sensor	55VA8806	
059	53	Outside heater	A4EUM331	
060	54	Heat roller holder	56UA7507	
061	55	Heat roller sensor	55VA8804	
062	56	Fusing gear /2	A0G67260	1 count for each paper exit in the single side mode, 2 counts in the double side mode.
063	57	Web motor	A00TM100	
064	58	Web prevention part	A4EUA744	Count when the normal fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
065	5B	Fusing unit	A4EUA720/A4EWA720	Count when the normal fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
066	7E	Tray1 feed roller	A4EUB602	1 count for each exit of paper from Tray1
067	7F	Tray1 conv/rev roller	A4EUB601	
068	80	Tray1 feed clutch	57GA8201	
069	81	Tray1 handle clutch	57GA8201	
070	82	Tray2 feed roller	A4EUB602	1 count for each exit of paper from Tray2
071	83	Tray2 conv/rev roller	A4EUB601	
072	84	Tray2 feed clutch	57GA8201	
073	85	Tray2 handle clutch	57GA8201	
074	86	Tray1 input gear	A0G66023	1 count for each exit of paper from Tray1
075	87	Tray2 input gear	A0G66023	1 count for each exit of paper from Tray2

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
076	89	Paper fur brush	A4EUA705	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
077	8A	Cleaning case unit	A4EUA701	
078	8B	V-convey clutch top	57GA8201	1 count for each exit of paper from Tray1, 2
079	8C	V-convey clutch mid.	57GA8201	1 count for each exit of paper from Tray2
080	8D	V-convey clutch low	57GA8201	
081	8E	V-convey exit roller	A4EU7103	1 count for each paper exit.
082	8F	V-convey roller /1 (φ20)	56UA4413	1 count for each paper exit.
083	90	V-convey roller 2/3 (φ/32)	A0G67002/A0G67003	1 count for each exit of paper from Tray2
084	91	Tray1 pre-reg. roller	A0G67001	1 count for each exit of paper from Tray1
085	92	Tray2 pre-reg. roller	A0G67001	1 count for each exit of paper from Tray2
086	93	Brush gear assembly	A4EUB709	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
087	97	Registration roller /Up Registration bearing	56UA4606/A4EU7154	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
088	98	Registration gear /Up Registration gear /Lw	A0G67142/A0G67143	
089	99	Roller gear /Rt Motor gear /Rt	A4EU7144/A4EU8146	1 count for each paper exit in the single side mode, 2 counts in the double side mode.
090	9D	ADU accelerator roller	A4EU8171	1 count for each paper reversed in the main body and exited in the single side mode, 1 count in the double side mode
091	9E	Reversal output roller	A4EU8172	2 counts for each paper reversed in the main body and exited in the single side mode, 1 count in the double side mode.
092	9F	ADU reversal roller	A4EU8176	2 counts for each paper reversed in the main body and exited in the single side mode, 2 counts in the double side mode.
093	A0	Output convey roller	A4EUB835/A4EU8174	1 count for each paper reversed in the main body and exited in the single side mode
094	A1	ADU convey roller	A4EU8175/A4EU8177	0 count for each paper exit in the single side mode, 1 count for double
095	A5	De-curler belt	A0G68464	1 count for each paper exit using upper de-curler or lower decurler.
096	A6	Fixing exit roller	56UA4595(N=4)	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
097	A7	Guide member /Up	A0G68451	1 count for each paper exit using upper de-curler
098	A9	De-curler entrance roller	A4EU8407	1 count for each paper exit in the single side mode, 1 count in the double side mode.
099	AA	Reversal output guide	56UA4760	1 count for each paper exit in the single side mode, 2 counts in the double side mode.
100	AB	Coupling unit	A4EU8470	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
101	AF	Output roller	56UA4557	1 count for each paper exit in the single side mode, 1 count in the double side mode.
102	B3	Tray1 feed counter	A4EUA600	1 count for each exit of paper from Tray1
103	B4	Tray2 feed counter	A4EUA600	1 count for each exit of paper from Tray2
104	B5	Tray3 feed counter	A0GCA600/A0GDA620	1 count for each exit of paper from Tray3

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
105	B6	Tray4 feed counter	A0GCA600/A0GDA620	1 count for each exit of paper from Tray4
106	B7	Tray5 feed count	A0GCA600/A0GDA620	1 count for each exit of paper from Tray5
107	BB	Main Switch	A4EUM600	1 count each time the main power switch turns OFF the power.
108	BC	Door Switch	A0G6M603	1 count each time the front door is opened.
109	BD	Exposure On time	A4EUM301	Accumulation of time lamp is on. 1 count per second. Outputted per minute.
110	C2	Tray3 feed roller	A4EUB602	1 count for each exit of paper from Tray3. (PF-706 only)
111	C3	Tray3 conv/rev roller	A4EUB601	
112	C4	Tray3 feed clutch	57GA8201	1 count for each exit of paper from Tray3
113	C5	Tray3 handle clutch	57GA8201	1 count for each exit of paper from Tray3 and the clutch is ON. (PF-706 only)
114	C6	Tray3 reverse clutch	57GA8201	
115	C7	Tray3 suction belt	A0GD5213	1 count for each exit of paper from Tray3. (PF-703 only)
116	C8	Tray 3 air shutter solenoid /Fr	A0GDA650	
117	C9	Tray 3 air shutter solenoid /Rr	A0GDA650	
118	CA	Tray 3 air shutter solenoid /Edge	A0GDA640	
119	CB	Tray4 feed roller	A4EUB602	1 count for each exit of paper from Tray4. (PF-706 only)
120	CC	Tray4 conv/rev roller	A4EUB601	
121	CD	Tray4 feed clutch	57GA8201	1 count for each exit of paper from Tray4
122	CE	Tray4 handle clutch	57GA8201	1 count for each exit of paper from Tray4 and the clutch is ON. (PF-706 only)
123	CF	Tray4 reverse clutch	57GA8201	
124	D0	Tray4 suction belt	A0GD5213	1 count for each exit of paper from Tray4. (PF-703 only)
125	D1	Tray4 air shutter solenoid/F	A0GDA650	
126	D2	Tray4 air shutter solenoid/R	A0GDA650	
127	D3	Tray4 air shutter solenoid/Lead Edge	A0GDA640	
128	D4	Tray5 feed roller	A4EUB602	1 count for each exit of paper from Tray5. (PF-706 only)
129	D5	Tray5 conv/rev roller	A4EUB601	
130	D6	Tray5 feed clutch	57GA8201	1 count for each exit of paper from Tray5
131	D7	Tray5 handle clutch	57GA8201	1 count for each exit of paper from Tray5 and the clutch is ON. (PF-706 only)
132	D8	Tray5 reverse clutch	57GA8201	
133	D9	Tray5 suction belt	A0GD5213	1 count for each exit of paper from Tray5. (PF-703 only)
134	DA	Tray5 air shutter solenoid/Fr	A0GDA650	
135	DB	Tray5 air shutter solenoid/Rr	A0GDA650	
136	DC	Tray5 air shutter solenoid/Lead	A0GDA640	
137	F8	PFU1 V-convey roller/T	A0GC7005	1 count for each exit of paper from Tray3
138	F9	PFU1 V-convey roller/M	A0GC7005	1 count for each exit of paper from Tray4
139	FA	PFU1 V-convey roller/L	A0GC7005	1 count for each exit of paper from Tray5
140	FB	PFU1 paper exit roller	A0GD7001	1 count for each exit of paper from Tray3, 4, 5
141	FC	PFU1 V-convey Mid-conv roller/T1	A0GC7006	1 count for each exit of paper from Tray3
142	FD	PFU1 V-convey Mid-conv roller/T2	A0GC7005	1 count for each exit of paper from Tray3, 6, 7, 8. (PFU1 is PF-703 only)
143	FE	PFU1 V-convey Mid-conv roller/L	A0GC7006	1 count for each exit of paper from Tray5
144	FF	PFU1 V-convey clutch /T	57GA8201	1 count for each exit of paper from Tray3
145	00	PFU1 V-convey clutch /M	57GA8201	1 count for each exit of paper from Tray4
146	01	PFU1 V-convey clutch /L	57GA8201	1 count for each exit of paper from Tray5
147	02	PFU 1 Mid-conv clutch/T1	57GA8201	1 count for each exit of paper from Tray3
148	03	PFU 1 Mid-conv clutch/T2	57GA8201	1 count for each exit of paper from Tray3, 6, 7, 8. (PFU1 is PF-703 only)
149	04	PFU 1 Mid-conv clutch/L	57GA8201	1 count for each exit of paper from Tray5
150	14	Tray3 input gear	A0G66023	1 count for each exit of paper from Tray3. (PF-706 only)
151	15	Tray4 input gear	A0G66023	1 count for each exit of paper from Tray4. (PF-706 only)
152	16	Tray5 input gear	A0G66023	1 count for each exit of paper from Tray5. (PF-706 only)
153	30	LU feed roller	55VA-484	1 count for each exit of paper from LU.
154	31	LU conv/rev roller	55VA-483	

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
155	32	LU feed clutch	57GA8201	Original feed count in all modes.
156	33	LU pre-reg. roller	13GG4005	
157	34	LU pre-reg. clutch	57GA8201	
158	38	ADF pick up roller	13GA4604	
159	39	ADF feed roller	15AS4605	
160	3A	ADF retard roller	13GA4606	
161	3B	ADF sub pick roller	15AS4601	
162	3C	ADF torque limiter	13GA-135	
163	3D	ADF SDF solenoid	13GA8252	All original feed count in SDF mode
164	3E	ADF LSB solenoid	13GA8251	1 count for each sheet of the large-size original single side mode. *2 1 count for each sheet of the large-size original double side mode.*2
165	3F	ADF press/release SD	13GA8251	1 count for each sheet of the large-size original double side mode.*2
166	40	ADF SSB solenoid	13GA8251	1 count for each sheet of the all size original double side mode.
167	45	FS Staple /ASSY	A4F37350	1 count for each booklet exit in either of the 1-staple at front or 1-staple at rear mode. 2 counts for each booklet exit completion in the 2-stapling mode
168	46	FS paddle	A4F37467	1 count for each paper exit completion to the staple stacker.
169	47	Driven roller/1	A4F37020	1 count for each paper exit.
170	48	Driven roller/2	A4F37022	
171	A0	GP Slant roller unit	A0N9PA01	1 count for each paper exit in multi-punch mode.
172	A1	GP Bypass unit	A0N9PA02	1 count for each paper exit.
173	A2	GP roller drive section	A0N9PA03	1 count for each paper exit in multi-punch mode.
174	A3	GP Belt Aligner (Green)	A0N9PA04	
175	A4	GP back-gauge mechanism	A0N9PA05	
176	E3	GP pull-back pad	A4F6PP0000	1 count for each paper stacked in the GP stacker
177	E4	GP suction cup	A4F6PP0300	
178	E5	GP die set felt	A4F6PP0100	
179	E6	GP die set	A4F6PP0200	
180	F3	ZU punch motor assy	A111A928	Number of punch of ZU (number of sheets of output ZU punch paper)
181	F4	ZU punch	14JB5001/ 14JA5001/	
182	F8	SD Staple	A4F47300	2 counts for each booklet exit completion in the saddle stitching mode.
183	F9	2nd folding gate solenoid	9J07M200	1 count for each paper exit in the tri-folding mode.
184	FA	Lead edge nip solenoid	26NA8251	1 count for each paper (356mm or more in length) exit completion to the staple stacker (saddle stitching/bundle center-folding/tri-folding)
185	FB	Paddle	A4F47273	1 count for each paper exit completion to the staple stacker (Saddle stitching/bundle center-folding/tri-folding)
186	FF	PI Conveyance Clutch/U	13QN8201	1 count for each PI upper paper feed.
187	00	PI feed roller assy/A/Top	50BA-574	
188	01	PI feed roller/B/U	13QN-446	
189	02	PI reverse rubber/Top	13QN-443	
190	03	PI Torque Limiter/U	13QN4073	
191	04	PI Conveyance Clutch/L	13QN8201	1 count for each PI lower paper feed.
192	05	PI Feed Roller assy/A/Low	50BA-574	
193	06	PI Feed Roller/B/L	50BA-575	
194	07	PI reverse rubber/Low	13QN-443	
195	08	PI Torque Limiter/L	13QN4073	
196	0C	Punch unit	A4FAW01 (Japan 2-hole)	Number of sheets output in the punch mode

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
			A4FAW11(North America 2/3-hole) A4FAW21(Europe 2/4-hole)	

1 The part number of the developing suction seal is displayed as "A4EU39/A0G639*/56UA31*" on the control panel. It is printed as "suction seal" for the list output.

*2 The large-size original represents all originals in the mixed original mode; A3, B4, A4S, B5S, 8K, 16KS, 11 x 17, 8 1/2 x 14, 8 1/2 x 11S, 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13

Note

- When the fixed part count exceeds the limit, the No. is displayed in different color with the * (asterisk) mark on the left.
- The count related to the finisher is conducted by the main body as well as the other items.

5.5.19 Special Parts Counter (1250/1250P/1052)

Note

- Be sure to reset the fusing cleaning web counter (Number.046) after replacing the cleaning web. Otherwise, fuser cleaning trouble occurs.
- Be sure to perform the blade set mode of the service mode after replacing the cleaning blade. This operation automatically resets the cleaning blade counter (No.032, 033). Otherwise, the auto blade replacement cannot be implemented.
- Maximum count: 99,999,999

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
001	00	Charging filter	A4EU1181	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
002	02	Ozone filter /12	A4EU1123	
003	03	Charging exhaust filter	56UA1122	
004	07	Drum Separation claws	A0G63456	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
005	08	Drum temperature sensor	A4EUA341	
006	0C	Charging wire	56UA2509	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
007	0D	Charger control plate	A4EUA467	
008	0E	Charge cleaning unit	A4EUA463	
009	0F	Charger unit	A4EUA460	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
010	13	Suction filter /L	A4EU3908	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
011	15	Developing suction seal*1	A4EU3946 A4EU3947 A0G63944 A0G63945 56UA3103 56UA3106	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
012	16	Developing unit	A4EUA370	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
013	17	Suction unit	A4EUA390	
014	1A	Stirring plate assy	A4EUA401/A4EUB409	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
015	1B	Toner supply sleeve /1	A4EUB402	
016	1C	Toner supply sleeve /2	A4EUB403	
017	1D	Toner pump /1	A4EUB420	1 count for each paper exit in the single side mode, 2 counts in the double side mode.
018	1E	Toner pump /2	A4EUB440	
019	22	Guide blade unit	A4EUA526	2 counts for each 338mm or longer (in sub scan direction) paper exit in the
020	23	Transfer belt	A0G65001	

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
021	24	Transfer roller	A4EU5006	single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
022	25	Cleaning brush	A4EU5106	
023	26	Power supply ball bearing	A0G65039	
024	27	Transfer electrode unit	A4EUA508	
025	28	Earth electrode unit	A4EUA506	
026	29	Power supply parts	65AA2689	
027	2A	Cleaning shaft	A0G65107	
028	2B	Belt cleaner unit	A4EUA520	
029	2C	Transfer belt unit	A4EUA500	
030	2F	Discharge wire	A0G64708	
031	30	PCC unit	A0G6R7D5	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
032	34	Drum cleaning blade	A0G65350	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double. The running distance of the No.32 drum cleaning blade and the No.33 drum cleaning blade cannot be reset with the counter reset button. The counter is reset in conjunction with the blade setting mode.
033	35	Drum cleaning blade running distance	A0G65350	Measures the count ON time of the photo conductor drive motor , and calculates the ON time x process speed in millimeters. Data is displayed in meters. The running distance of the No.32 drum cleaning blade and the No.33 drum cleaning blade cannot be reset with the counter reset button. The counter is reset in conjunction with the blade setting mode.
034	36	Drum scraper unit	A4EUB530	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
035	37	Scatter prevent filter unit	A4EUB531	
036	38	Drum cleaner brush	A4EUA549	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double. The running distances of the No.36 drum cleaner brush and the No.37 drum cleaner are reset together when one of them is reset with the counter reset button.
037	39	Drum cleaner brush running distance	A4EUA549	Measures the count ON time of the photo conductor drive motor, and calculates "ON time" x "brush θ " x "process speed" in millimeters. Data is displayed in meters. The running distances of the No.36 drum cleaner brush and the No.37 drum cleaner are reset together when one of them is reset with the counter reset button.
038	3A	Drum cleaner side seal R	A4EUA543	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count
039	3B	Drum cleaner side seal F	A4EUA542	
040	3C	Fur brush scraper	A4EUA548	

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
041	3D	Cleaner toner tray	A4EUB549	for the single and 2 counts for the double.
042	3E	Guide shaft	A0G65305	
043	3F	Drum cleaning Gear/2 Assy	A4EUA534	
044	40	Drum cleaning gear /3	A0G65327	
045	41	Cleaner unit	A4EUA530	
046	46	Fixing cleaning web	A0G67314	Count when the normal fusing unit is connected. 0 to 3 counts according to the print area when transferring to paper completes.
047	47	Fix. roller (U)	A0G67304	Count when the normal fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
048	48	Fusing roller Unit(L)	A4EUA797	
049	49	Fusing claws top	56UA5453	
050	4A	Fusing claws low	25AA5329	
051	4B	Heat sleeve (Top)	45405339	
052	4C	Top roller bearing	A0G67346	
053	4D	Fixing CL sheet	A4EUA779	
054	4E	Fusing cleaning roller	56UA5353	
055	4F	Fusing heater	A0G6M330	
056	50	Fixing sub roller	56UA5307	
057	51	Heat sleeve (Heated)	26AA5315	
058	52	Outside heat roller sensor	55VA8806	
059	53	Outside heater	A4EUM331	
060	54	Heat roller holder	56UA7507	
061	55	Heat roller sensor	55VA8804	
062	56	Fusing gear /2	A0G67260	
063	57	Web motor	A00TM100	1 count for each paper exit in the single side mode, 2 counts in the double side mode.
064	58	Web prevention part	A4EUA744	Count when the normal fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
065	59	Fixing roller press warm unit	A4EUA731	Count when the normal fusing unit is connected. 1 count for engine booting up
066	5A	Fixing roller press wheel unit	A4EUA730	Count when the normal fusing unit is connected. 1 count for engine booting up
067	5B	Fusing unit	A4EUA720/A4EWA720	Count when the normal fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
068	62	Fusing Cleaning Web (Envelope Fusing Unit)	A0G67314	Count when the envelope fusing unit is connected. 0 to 3 counts according to the print area when transferring to paper completes.
069	63	Fusing Roller (U) (Env. Fusing Unit)	A4F27304	Count when the envelope fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
070	64	Fusing Roller Unit(L) (Env. Fusing Unit)	A4F2A797	

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
071	67	Heat Sleeve(Upper) (Env. Fusing Unit)	45405339	Count when the envelope fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
072	68	Upper Roller Bearing (Env. Fusing Unit)	A0G67346	
073	69	Fusing CL Sheet (Env. Fusing Unit)	A4EUA779	
074	6A	Fusing Cleaning Roller (Env. Fusing Unit)	56UA5353	
075	6B	Fusing Cleaning Web (Envelope Fusing Unit)	A0G6M330	
076	6C	Fusing Sub Roller (Env. Fusing Unit)	56UA5307	
077	6D	Heat Sleeve(Heated) (Envelope Fusing Unit)	26AA5315	Count when the envelope fusing unit is connected. 1 count for each paper exit in the single side mode, 2 counts in the double side mode.
078	6E	Outside Heat Roller Sensor (Env. Fusing Unit)	55VA8806	
079	6F	Outside Heater (Env. Fusing Unit)	A4EUM331	
080	70	Heat Roller Bearing (Env. Fusing Unit)	56UA7507	
081	71	Heat Roller Sensor (Env. Fusing Unit)	55VA8804	
082	72	Fusing Gear/2 (Envelope Fusing Unit)	A0G67260	
083	74	Web Prevention Part (Env. Fusing Unit)	A4EUA744	Count when the envelope fusing unit is connected. 2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
084	75	Fix. Roller Press Warm Unit (Env. Fus. Unit)	A4EUA731	Count when the envelope fusing unit is connected. 1 count for engine booting up
085	76	Fix. Roller Press Wheel Unit (Env. Fus. Unit)	A4EUA730	
086	7E	Tray1 feed roller	A4EUB602	1 count for each exit of paper from Tray1
087	7F	Tray1 conv/rev roller	A4EUB601	
088	80	Tray1 feed clutch	57GA8201	
089	81	Tray1 handle clutch	57GA8201	
090	82	Tray2 conv/rev roller	A4EUB602	1 count for each exit of paper from Tray2
091	83	Tray2 conv/rev roller	A4EUB601	
092	84	Tray2 feed clutch	57GA8201	
093	85	Tray2 handle clutch	57GA8201	
094	86	Tray1 input gear	A0G66023	1 count for each exit of paper from Tray1
095	87	Tray2 input gear	A0G66023	1 count for each exit of paper from Tray2
096	89	Paper fur brush	A4EUA705	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
097	8A	Cleaning case unit	A4EUA701	
098	8B	V-convey clutch top	57GA8201	1 count for each exit of paper from Tray1, 2
099	8C	V-convey clutch mid.	57GA8201	1 count for each exit of paper from Tray2
100	8D	V-convey clutch low	57GA8201	
101	8E	V-convey exit roller	A4EU7103	1 count for each paper exit.
102	8F	V-convey roller1 (φ20)	56UA4413	1 count for each paper exit.
103	90	V-convey roller 2/3 (φ32)	A0G67002/A0G67003	1 count for each exit of paper from Tray2
104	91	Tray1 pre-registration roller	A0G67001	1 count for each exit of paper from Tray1

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
105	92	Tray2 pre-reg. roller	A0G67001	1 count for each exit of paper from Tray2
106	93	Brush gear assembly	A4EUB709	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
107	97	Registration roller /Up Registration bearing	A4EU7106/A4EU7154	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
108	98	Registration gear /Up Registration gear /Lw	A0G67142/A0G67143	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
109	99	Roller gear /Rt Motor gear /Rt	A4EU7144/A4EU8146	1 count for each paper exit in the single side mode, 2 counts in the double side mode.
110	9D	ADU accelerator roller	A4EU8171	1 count for each paper reversed in the main body and exited in the single side mode, 1 count in the double side mode.
111	9E	Reversal output roller	A4EU8172	2 counts for each paper reversed in the main body and exited in the single side mode, 1 count in the double side mode.
112	9F	ADU reversal roller	A4EU8176	2 counts for each paper reversed in the main body and exited in the single side mode, 2 counts in the double side mode.
113	A0	Output convey roller	A4EUB835/A4EU8174	1 count for each paper reversed in the main body and exited in the single side mode
114	A1	ADU convey roller	A4EU8175/A4EU8177	0 count for each paper exit in the single side mode, 1 count for double
115	A5	De-curler belt	A0G68464	1 count for each paper exit using upper de-curler or lower decurler
116	A6	Fixing exit roller	56UA4595(N=4)	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
117	A7	Guide member /Up	A0G68451	1 count for each paper exit using upper de-curler
118	A8	Guide unit /Down	A0G68452	1 count for each paper exit using upper de-curler
119	A9	De-curler entrance roller	A4EU8407	1 count for each paper exit in the single side mode, 1 count in the double side mode.
120	AA	Reversal output guide	56UA4760	1 count for each paper exit in the single side mode, 2 counts in the double side mode.
121	AB	Coupling unit	A4EU8470	2 counts for each 338mm or longer (in sub scan direction) paper exit in the single side mode, 4 counts for the double. Except for those sizes, 1 count for the single and 2 counts for the double.
122	AF	Output roller	56UA4557	1 count for each paper exit in the single side mode, 1 count in the double side mode.
123	B3	Tray1 feed counter	A4EUA600	1 count for each exit of paper from Tray1
124	B4	Tray2 feed counter	A4EUA600	1 count for each exit of paper from Tray2
125	B5	Tray3 feed counter	A0GCA600/A0GDA620	1 count for each exit of paper from Tray3

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
126	B6	Tray4 feed counter	A0GCA600/A0GDA620	1 count for each exit of paper from Tray4
127	B7	Tray5 feed count	A0GCA600/A0GDA620	1 count for each exit of paper from Tray5
128	B8	Tray6 feed counter	A0GCA600/A0GDA620	1 count for each exit of paper from Tray6
129	B9	Tray7 feed counter	A0GCA600/A0GDA620	1 count for each exit of paper from Tray7
130	BA	Tray8 feed counter	A0GCA600/A0GDA620	1 count for each exit of paper from Tray8
131	BB	Main Switch	A4EUM600	1 count each time the main power switch turns OFF the power.
132	BC	Door Switch	A0G6M603	1 count each time the front door opens
133	BD	Exposure On time	A4EUM301	Accumulation of time lamp is on. 1 count per second. Outputted per minute.
134	C2	Tray3 feed roller	A4EUB602	1 count for each exit of paper from Tray3. (PF-706 only)
135	C3	Tray3 conv/rev roller	A4EUB601	
136	C4	Tray3 feed clutch	57GA8201	1 count for each exit of paper from Tray3
137	C5	Tray3 reverse clutch	57GA8201	1 count for each exit of paper from Tray3 and the clutch is ON. (PF-706 only)
138	C6	Tray3 reverse clutch	57GA8201	
139	C7	Tray3 suction belt	A0GD5213	1 count for each exit of paper from Tray3. (PF-706 only)
140	C8	Tray 3 air shutter solenoid /Fr	A0GDA650	
141	C9	Tray 3 air shutter solenoid /Rr	A0GDA650	
142	CA	Tray 3 air shutter solenoid /Edge	A0GDA640	
143	CB	Tray4 feed roller	A4EUB602	1 count for each exit of paper from Tray4. (PF-706 only)
144	CC	Tray4 conv/rev roller	A4EUB601	1 count for each exit of paper from Tray4
145	CD	Tray4 feed clutch	57GA8201	
146	CE	Tray4 handle clutch	57GA8201	1 count for each exit of paper from Tray4 and the clutch is ON. (PF-706 only)
147	CF	Tray4 reverse clutch	57GA8201	
148	D0	Tray4 suction belt	A0GD5213	1 count for each exit of paper from Tray4. (PF-703 only)
149	D1	Tray4 air shutter solenoid/Fr	A0GDA650	
150	D2	Tray4 air shutter solenoid/Rr	A0GDA650	
151	D3	PI-PFU4 air shutter solenoid/Lead	A0GDA640	
152	D4	Tray5 feed roller	A4EUB602	1 count for each exit of paper from Tray5. (PF-706 only)
153	D5	Tray5 conv/rev roller	A4EUB601	
154	D6	Tray5 feed clutch	57GA8201	1 count for each exit of paper from Tray5
155	D7	Tray5 handle clutch	57GA8201	1 count for each exit of paper from Tray5 and the clutch is ON. (PF-706 only)
156	D8	Tray5 reverse clutch	57GA8201	
157	D9	Tray5 suction belt	A0GD5213	1 count for each exit of paper from Tray5. (PF-703 only)
158	DA	Tray5 air shutter solenoid/Fr	A0GDA650	
159	DB	Tray5 air shutter solenoid/Rr	A0GDA650	
160	DC	Tray5 air shutter solenoid/Lead	A0GDA640	
161	DD	Tray6 feed roller	A4EUB602	1 count for each exit of paper from Tray6. (PF-706 only)
162	DE	Tray6 conv/rev roller	A4EUB601	
163	DF	Tray6 feed clutch	57GA8201	1 count for each exit of paper from Tray6
164	E0	Tray6 handle clutch	57GA8201	1 count for each exit of paper from Tray6 and the clutch is ON. (PF-706 only)
165	E1	Tray6 reverse clutch	57GA8201	
166	E2	Tray6 suction belt	A0GD5213	1 count for each exit of paper from Tray6. (PF-703 only)
167	E3	Tray6 air shutter solenoid/Fr	A0GDA650	
168	E4	Tray6 air shutter solenoid/Rr	A0GDA650	
169	E5	Tray6 air shutter solenoid/Lead	A0GDA640	

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
170	E6	Tray7 feed roller	A4EUB602	1 count for each exit of paper from Tray7. (PF-702 only)
171	E7	Tray7 conv/rev roller	A4EUB601	
172	E8	Tray7 feed clutch	57GA8201	1 count for each exit of paper from Tray7
173	E9	Tray7 handle clutch	57GA8201	1 count for each exit of paper from Tray7 and the clutch is ON. (PF-706 only)
174	EA	Tray7 reverse clutch	57GA8201	
175	EB	Tray7 suction belt	A0GD5213	
176	EC	Tray7 air shutter solenoid/Fr	A0GDA650	
177	ED	Tray7 air shutter solenoid/Rr	A0GDA650	1 count for each exit of paper from Tray7. (PF-703 only)
178	EE	Tray7 air shutter solenoid/Lead	A0GDA640	
179	EF	Tray8 conv/rev roller	A4EUB602	
180	F0	Tray8 conv/rev roller	A4EUB601	
181	F1	Tray8 feed clutch	57GA8201	1 count for each exit of paper from Tray8
182	F2	Tray8 handle clutch	57GA8201	1 count for each exit of paper from Tray8 and the clutch is ON. (PF-706 only)
183	F3	Tray8 reverse clutch	57GA8201	
184	F4	Tray8 suction belt	A0GD5213	1 count for each exit of paper from Tray8. (PF-703 only)
185	F5	Tray8 air shutter solenoid/Fr	A0GDA650	
186	F6	Tray8 air shutter solenoid/Rr	A0GDA650	
187	F7	PI-PFU8 air shutter solenoid/Lead	A0GDA640	
188	F8	PFU1 V-convey roller/T	A0GC7005	1 count for each exit of paper from Tray3
189	F9	PFU1 V-convey roller/M	A0GC7005	1 count for each exit of paper from Tray4
190	FA	PFU1 V-convey roller/L	A0GC7005	1 count for each exit of paper from Tray5
191	FB	PFU1 paper exit roller	A0GD7001	1 count for each exit of paper from Tray3, 4, 5, 6, 7, 8
192	FC	PFU1 V-convey Mid-conv roller/T1	A0GC7006	1 count for each exit of paper from Tray3
193	FD	PFU1 V-convey Mid-conv roller/T2	A0GC7005	1 count for each exit of paper from Tray3, 6, 7, 8. (PFU1 is PF-703 only)
194	FE	PFU1 V-convey Mid-conv roller/L	A0GC7006	1 count for each exit of paper from Tray5
195	FF	PFU1 V-convey clutch /T	57GA8201	1 count for each exit of paper from Tray3
196	00	PFU1 V-convey clutch /M	57GA8201	1 count for each exit of paper from Tray4
197	01	PFU1 V-convey clutch /L	57GA8201	1 count for each exit of paper from Tray5
198	02	PFU 1 Mid-conv clutch/T1	57GA8201	1 count for each exit of paper from Tray3
199	03	PFU 1 Mid-conv clutch/T2	57GA8201	1 count for each exit of paper from Tray3, 6, 7, 8. (PFU1 is PF-703 only)
200	04	PFU 1 Mid-conv clutch/L	57GA8201	1 count for each exit of paper from Tray5
201	05	PFU2 V-convey roller/T	A0GC7005	1 count for each exit of paper from Tray6
202	06	PFU2 V-convey roller/M	A0GC7005	1 count for each exit of paper from Tray7
203	07	PFU2 V-convey roller/L	A0GC7005	1 count for each exit of paper from Tray8
204	08	PFU 2 paper exit roller	A0GD7001	1 count for each exit of paper from Tray6, 7, 8.
205	09	PFU2 V-convey Mid-conv roller/T1	A0GC7006	1 count for each exit of paper from Tray6
206	0A	PFU2 V-convey Mid-conv roller/T2	A0GC7005	1 count for each exit of paper from Tray6. (PF-703 only)
207	0B	PFU2 V-convey Mid-conv roller/L	A0GC7006	1 count for each exit of paper from Tray8

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
208	0C	PFU2 V-convey clutch /T	57GA8201	1 count for each exit of paper from Tray6
209	0D	PFU2 V-convey clutch /M	57GA8201	1 count for each exit of paper from Tray7
210	0E	PFU2 V-convey clutch /L	57GA8201	1 count for each exit of paper from Tray8
211	0F	PFU2 Mid-conv clutch/T1	57GA8201	1 count for each exit of paper from Tray6
212	10	PFU2 Mid-conv clutch/T2	57GA8201	1 count for each exit of paper from Tray6. (PF-703 only)
213	11	PFU2 Mid-conv clutch/L	57GA8201	1 count for each exit of paper from Tray8
214	12	Connection convey roller/H	A0GDA710	1 count for each exit of paper from Tray6, 7, 8.
215	13	Connection convey roller/Entrance	A0GDA750	1 count for each exit of paper from Tray6, 7, 8.
216	14	Tray3 input gear	A0G66023	1 count for each exit of paper from Tray3. (PF-706 only)
217	15	Tray4 input gear	A0G66023	1 count for each exit of paper from Tray4. (PF-706 only)
218	16	Tray5 input gear	A0G66023	1 count for each exit of paper from Tray5. (PF-706 only)
219	17	Tray6 input gear	A0G66023	1 count for each exit of paper from Tray6. (PF-706 only)
220	18	Tray7 input gear	A0G66023	1 count for each exit of paper from Tray7. (PF-706 only)
221	19	Tray8 input gear	A0G66023	1 count for each exit of paper from Tray8. (PF-706 only)
222	38	ADF pick up roller	13GA4604	Original feed count in all modes.
223	39	ADF feed roller	15AS4605	
224	3A	ADF retard roller	13GA4606	
225	3B	ADF sub pick roller	15AS4601	
226	3C	ADF torque limiter	13GA-135	
227	3D	ADF SDF solenoid	13GA8252	
228	3E	ADF LSB solenoid	13GA8251	1 count for each sheet of the large-size original single side mode.*2 1 count for each sheet of the large-size original double side mode.*2
229	3F	ADF press/release SD	13GA8251	1 count for each sheet of the large-size original double side mode.*2
230	40	ADF SSB solenoid	13GA8251	1 count for each sheet of the all size original double side mode.
231	45	FS Staple /ASSY	A4F37350	1 count for each booklet exit in either of the 1-staple at front or 1-staple at rear mode. 2 counts for each booklet exit completion in the 2-stapling mode.
232	46	FS paddle	A4F37467	1 count for each paper exit completion to the staple stacker.
233	47	Driven roller/1	A4F37020	1 count for each paper exit.
234	48	Driven roller/2	A4F37022	
235	4C	FD feed roller/A Top	50BA-574	Counts the paper feed from PI tray / Up.
236	4D	FD Reverse Rubber/Top	13QN-443	
237	4E	FD feed roller/B Top	50BA-575	
238	4F	FD feed roller/A Low	50BA-574	Counts the paper feed from PI tray / Lw.
239	50	FD Reverse Rubber/Low	13QN-443	
240	51	FD feed roller/B Low	50BA-575	
241	52	FD punch unit	A0H0A91A /A91E/ A91F	1 count for each paper exit completion in the punch mode.
242	53	FD solenoid/A unit(release/1)	15AG-493	1 count for each paper exit completion in the punch or folding mode (all size).
243	54	FD solenoid/A unit(release/2)	15AG-688	1 count for each paper exit completion in the folding mode (all size)

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
				1 count for each paper exit completion in the punch mode (paper length 220mm or larger).
244	55	FD Motor Assy(Up/Down Motor)	129U-108	1 count for each paper exit completion to the main tray (FD self connection only)
245	59	LS3 Up/Down motor	15AV8003	Counts operation number of times of the stacker tray up down motor.
246	5A	LS1 solenoid (Lead)	15AV8252	1 count for each paper exit completion in the offset operation (all size)
247	5B	LS1 solenoid (Rear)	15AV8253	1 count for each paper exit completion. (All size)
248	5C	LS1 solenoid (Center)	15AV8251	1 count for each paper exit completion. (Paper size: 295mm or more in length and 226mm or more in width)
249	5D	LS1 solenoid (Curl)	15AV8255	1 count for each paper exit completion.
250	5E	LS1 Up/Down motor	15AV8003	Counts operation number of times of the stacker tray up down motor.
251	5F	LS2 solenoid (Lead)	15AV8252	1 count for each paper exit completion in the offset operation (all size)
252	60	LS2 solenoid (Rear)	15AV8253	1 count for each paper exit completion. (All size)
253	61	LS2 solenoid (Center)	15AV8251	1 count for each paper exit completion. (Paper size: 295mm or more in length and 226mm or more in width)
254	62	solenoid (Curl)	15AV8255	1 count for each paper exit completion.
255	63	LS2 Up/Down motor	15AV8003	Counts operation number of times of the stacker tray up down motor.
256	64	LS3 solenoid (Lead edge SD)	15AV8252	1 count for each paper exit completion in the offset operation (all size)
257	65	LS3 solenoid (Trail edge SD)	15AV8253	1 count for each paper exit completion. (All size)
258	66	LS3 solenoid (Center SD)	15AV8251	1 count for each paper exit completion. (Paper size: 295mm or more in length and 226mm or more in width)
259	67	LS3 solenoid (Curl SD)	15AV8255	1 count for each paper exit completion.
260	68	SD Staple/Right	15AN-550	1 count for each book exit in the saddle stitching mode/multi center folding mode
261	69	SD Staple/Left	15AN-550	1 count for each book exit in the saddle stitching mode/multi center folding mode
262	6A	SD trimmer edge	A0H2R901	1 count for each booklet exit completion in the trimming mode
263	6B	SD trimmer receiver	A0H2B622	1 count for each booklet exit completion in the trimming mode
264	6C	SD solenoid (Release)	15AN8251	1 count for each paper exit completion to the folding section.
265	6D	SD solenoid (Release SD)	13QE8251	1 count for each paper exit completion to the folding section.
266	6E	SDFNS solenoid /2 (Overlap gate SD)	12QR8252	1 count for each paper exit completion to the pile alignment section
267	6F	SD gear /B	15AN7719	1 count for each book exit in the saddle stitching mode/half-folding mode
268	70	SD trimmer press motor	A0H2M101	1 count for each booklet exit completion in the trimming mode
269	71	SD trimmer edge motor	A0H2M102	
270	72	SD trimmer unit	A0H2A620	
271	77	PB sub tray exit solenoid	15ANR714	1 count for each paper exit in PB sub tray
272	78	PB SB roller release drive motor	A0V9M101	1 count for each paper exit in PB stack section
273	79	PB SubCompile FD SD	15AA8251	
274	7A	PB SC pressure arm solenoid	15AA8251	
275	7B	PB paper exit drive roller /A	13GQ4519	1 count for each paper exit from PB

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
276	7C	PB tray feed roller	55VA-484	1 count for each book exit in PB tray cover mode.
277	7D	PBTray conv/rev roller	55VA-483	
278	7E	PB tray feed clutch	56AA8201	
279	7F	PB tray handle clutch	56AA8201	
280	80	PB cutter /ASSY	A0756230	1 count for each book exit when PB cover paper trimming is set.
281	82	PB path switch solenoid	56QA8251	1 count for each book exit in other than PB tray cover mode.
282	84	PB503 melt tank Assy	A15XA36A/36E/36F	Time during which tank applying roller of PB-503 rotates. 1 count per hour.
283	85	PB503 Exhaust filter /A	A15X3017	1 count for each paper exit in PB stack section
284	86	PB503 Exhaust filter /B	A15X3018	
285	87	Pellet supply cooling fan	27LA8051	1 count for each paper exit in PB stack section
286	88	One-way clutch /A	13GQ7709	1 count for each paper exit in PB stack section
287	89	One-way clutch /B	13GQ7709	1 count for each paper exit in PB stack section
288	8A	Shaft of the driving gear of the melt tank applying roller	A0753799	Time during which tank applying roller of PB-503 rotates. 1 count per 8 hours.
289	A0	GP Slant roller unit	A0N9PA01	1 count for each paper exit in multi-punch mode.
290	A1	GP Bypass unit	A0N9PA02	1 count for each paper exit.
291	A2	GP roller drive section	A0N9PA03	1 count for each paper exit in multi-punch mode.
292	A3	GP Belt Aligner (Green)	A0N9PA04	
293	A4	GP back-gauge mechanism	A0N9PA05	
294	A8	PI-PFU1 feed clutch	57GA8201	1 count for each exit of paper from PI-PFU1
295	A9	PI-PFU1 suction belt	A0GD5213	
296	AA	PI-PFU1 air shutter solenoid/F	A0GDA650	
297	AB	PI-PFU1 air shutter solenoid/R	A0GDA650	
298	AC	PI-PFU1 air shutter solenoid/Lead	A0GDA640	
299	AD	PI-PFU2 feed clutch	57GA8201	1 count for each exit of paper from PI-PFU2
300	AE	PI-PFU2 suction belt	A0GD5213	
301	AF	PI-PFU2 air shutter solenoid/F	A0GDA650	
302	B0	PI-PFU2 air shutter solenoid/R	A0GDA650	
303	B1	PI-PFU2 air shutter solenoid/Lead	A0GDA640	
304	B2	PI-PFU3 feed clutch	57GA8201	1 count for each exit of paper from PI-PFU3
305	B3	PI-PFU3 suction belt	A0GD5213	
306	B4	PI-PFU3 air shutter solenoid/F	A0GDA650	
307	B5	PI-PFU3 air shutter solenoid/R	A0GDA650	
308	B6	PI-PFU3 air shutter solenoid/Lead	A0GDA640	
309	B7	PI-PFU V-convey roller/T	A0GC7005	1 count for each exit of paper from PI-PFU1
310	B8	PI-PFU V-convey roller/M	A0GC7005	1 count for each exit of paper from PI-PFU2
311	B9	PI-PFU V-convey roller/L	A0GC7005	1 count for each exit of paper from PI-PFU3
312	BA	PI-PFU paper exit roller	A0GD7001/A0GF7021	1 count for each paper exit from main body
313	BB	PI-PFU V-convey Mid-conv roller/T1	A0GC7006	1 count for each exit of paper from PI-PFU1
314	BC	PI-PFU V-convey Mid-conv roller/T2	A0GC7005	1 count for each exit of paper from main body (Tray1 to Tray8) or from PI-PFU1
315	BD	PI-PFU V-convey Mid-conv roller/L	A0GC7006	1 count for each exit of paper from PI-PFU3
316	BE	PI-PFU V-convey clutch /T	57GA8201	1 count for each exit of paper from PI-PFU1
317	BF	PI-PFU V-convey clutch /T	57GA8201	1 count for each exit of paper from PI-PFU2

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
318	C0	PI-PFU V-convey clutch /L	57GA8201	1 count for each exit of paper from PI-PFU3
319	C1	PI-PFU Mid-conv clutch/T1	57GA8201	1 count for each exit of paper from PI-PFU1
320	C2	PI-PFU Mid-conv clutch/T2	57GA8201	1 count for each exit of paper from main body (Tray1 to Tray8) or from PI-PFU1
321	C3	PI-PFU Mid-conv clutch/L	57GA8201	1 count for each exit of paper from PI-PFU3
322	C4	PI-PFU Convey roller/H	A0GDA710	1 count for each paper exit from main body
323	C5	PI-PFU Convey roller/Entrance	A0GDA750	
324	D0	RU straight sw gate	A4FC7030	1 count for each paper reversed in RU and exited (2 counts for paper overlapped in RU and exited)
325	D1	RU entrance roller/devirgence(before) roller	A4FC7014	1 count for each paper exit.
326	D2	RU entrance/junction roller	A4FC7002	
327	D3	RU registration roller	A4FC7019	
328	D4	RU exit roller	A4FCA205	
329	D5	RU driven roller	A0GY7121	
330	D6	RU bearing	A00V2406 /A4FCA220	
331	D7	RU convey timing belt (entrance/exit)	A0GE2105/A4FC7015	
332	D8	RU convey/output pulley	A4FC7077/A4FC7078	
333	D9	RU conveyance motor	A4FCB210	
334	DA	Assist gate motor	A083M100	1 count for each paper reversed in RU and exited (2 counts for paper overlapped in RU and exited)
335	DB	RU registration drive gear 1/2	A4FC7022/A4FC7023	1 count for each paper exit
336	DE	HM supply roller /1	A1TU5001	1 count for each sheet with the humidification ON.
337	DF	HM supply roller /2	A1TU5002	
338	E0	HM supply roller /3	A1TU5003	
339	E1	HM Filter	A1TU5215	
340	E2	HM motor /P	A1TUM201	
341	E3	GP pull-back pad	A4F6PP0000	1 count for each paper stacked in the GP stacker
342	E4	GP suction cup	A4F6PP0300	
343	E5	GP die set felt	A4F6PP0100	
344	E6	GP die set	A4F6PP0200	
345	F8	SD Staple	A4F47300	2 count for each book exit in the saddle stitching mode/half-folding mode
346	F9	2nd folding gate solenoid	9J07M200	1 count for each paper exit in the tri-folding mode.
347	FA	Lead edge nip solenoid	26NA8251	1 count for each paper (356mm or more in length) exit completion to the staple stacker (saddle stitching/bundle center-folding/tri-folding)
348	FB	Paddle	A4F47273	1 count for each paper exit completion to the staple stacker (Saddle stitching/bundle center-folding/tri-folding)
349	FF	PI Conveyance Clutch/U	13QN8201	1 count for each PI upper paper feed
350	00	PI feed roller assy/A/Top	50BA-574	
351	01	PI feed roller/B/U	13QN-446	
352	02	PI reverse rubber/Top	13QN-443	
353	03	PI Torque Limiter/U	13QN4073	
354	04	PI Conveyance Clutch/L	13QN8201	1 count for each PI lower paper feed.
355	05	PI Feed Roller assy/A/Low	50BA-574	
356	06	PI Feed Roller/B/L	50BA-575	
357	07	PI reverse rubber/Low	13QN-443	
358	08	PI Torque Limiter/L	13QN4073	
359	0C	Punch unit	A4FAW01 (Japan 2-hole)	Number of sheets output in the punch mode

No.	CSRC Parameter (Z1, Z7)	Parts name	Parts No.	Count conditions
			A4FAW11 (North America 2/3-hole) A4JUF21 (Europe 2/4-hole)	

1 The part number of the developing suction seal is displayed as "A4EU39/A0G639*/56UA31*" on the control panel. It is printed as "suction seal" for the list output.

*2 The large-size original represents all originals in the mixed original mode; A3, B4, A4S, B5S, 8K, 16KS, 11 x 17, 8 1/2 x 14, 8 1/2 x 11S, 8 1/2 x 13, 8 1/4 x 13, 8 1/8 x 13 1/4, 8 x 13

Note

- When the fixed part count exceeds the limit, the No. is displayed in different color with the * (asterisk) mark on the left.
- The count related to the finisher is conducted by the main body as well as the other items.

5.5.20 Voluntary Part Counter (Parts Counter)

Used to control the service history of each part not registered as a special part.

For 30 data from No. 01 up to 30, confirm and reset of the name, P/N (parts number), limit value and print count.

Note

- Take 1 count for each print page of all paper exits with no discrimination made by paper size.
- When the print count is in excess of a limit value, an asterisk "*" is displayed to the left of the limit value and the item which is in excess is displayed in red.

(1) Set/Check procedure

1. "Service Mode Menu screen"
Press [03 Counter/Data]
2. "Service Mode Menu screen"
Press [03 Parts Counter].
3. "Parts Counter Menu screen"
Press [02 Voluntary Part Counter].
4. "Parts Counter <Voluntary Part Counter> screen"
Press [Next] or [Previous] to scroll the screen.
Press [▲] or [▼] to select a data number.
5. Select either [Parts Name Setting], [P/N Setting], or [Limit Setting].
6. Enter the data to set or change.
 - [Name Setting]: Enter a part name (16-digit)
 - [P/N]: Enter the part number. (13-digit)
 - [Limit]: Enter the limit value. (8 digits)
7. Press [OK] to update data.
Press [Cancel] to cancel the update.

(2) Reset procedure

1. "Service Mode Menu screen"
Press [03 Counter/Data]
2. "Service Mode Menu screen"
Press [03 Parts Counter].
3. "Parts Counter Menu screen"
Press [02 Voluntary Part Counter].
4. "Parts Counter <Voluntary Part Counter> screen"
Press [Next] or [Previous] to scroll the screen.
Press [▲] or [▼] to select an item you want to reset.
5. Press [Counter Clear].
6. "Reset confirm screen"
Press [Yes] to reset the counter.
Press [No] not to reset the counter. You return to the "Parts Counter <Voluntary Part Counter> screen."

(3) Relationship between data number and CSRC parameter

No.	Part Name	P/N	Counter	Limit	Start
	CSRC parameter (Z4)	CSRC parameter (Z3)	CSRC parameter (G0)	CSRC parameter (H0)	CSRC parameter (H3)
001	00	00	00	00	00
002	01	01	01	01	01
003	02	02	02	02	02
004	03	03	03	03	03
005	04	04	04	04	04
006	05	05	05	05	05
007	06	06	06	06	06
008	07	07	07	07	07
009	08	08	08	08	08
010	09	09	09	09	09

011	0A	0A	0A	0A	0A
012	0B	0B	0B	0B	0B
013	0C	0C	0C	0C	0C
014	0D	0D	0D	0D	0D
015	0E	0E	0E	0E	0E
016	0F	0F	0F	0F	0F
017	10	10	10	10	10
018	11	11	11	11	11
019	12	12	12	12	12
020	13	13	13	13	13
021	14	14	14	14	14
022	15	15	15	15	15
023	16	16	16	16	16
024	17	17	17	17	17
025	18	18	18	18	18
026	19	19	19	19	19
027	1A	1A	1A	1A	1A
028	1B	1B	1B	1B	1B
029	1C	1C	1C	1C	1C
030	1D	1D	1D	1D	1D

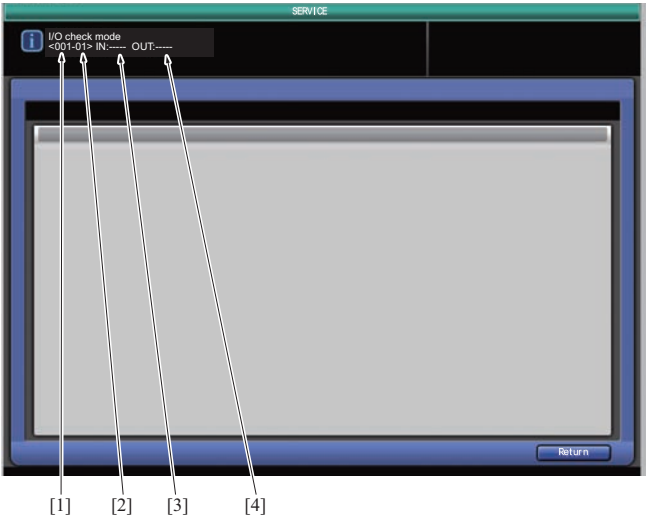
5.6 State Confirmation

5.6.1 I/O Check Mode

(1) Outline

This machine is equipped with the input/output checking function as a self-diagnostic function, which allows the signal check (input check) and the checking and adjustment (output check) of the load behavior.

(2) "I/O Check Mode screen"



[1]	I/O check code	[2]	Multi code
[3]	[3] Input check	[4]	[4] Output check

5.6.2 Input check method

(1) Usage

Input check can check each sensor signal.

(2) Procedure

- "Service Mode Menu screen"
Press [04 State Confirmation].
- "Service Mode Menu screen"
Press [01. I/O Check Mode].
- "I/O Check Mode screen"
Enter the input check code with the numeric keys.
- To use the multi mode, press the Access button.
- Enter the multi code with the numeric keys.
- The input check result (H/L) is shown in the message display column "IN".

7. Repeat steps 3 to 6 to perform the other signal input check.

5.6.3 Output check method

(1) Usage

Output check mode can check the operation of each load.

(2) Procedure

- "Service Mode Menu screen"
Press [04 State Confirmation].
- "Service Mode Menu screen"
Press [01. I/O Check Mode].
- "I/O Check Mode screen"
Enter the output check code with the numeric keys.
- To use the multi mode, press the Access button.
- Enter the multi code with the numeric keys.
- Press the start key.
The load specified operates.
- Press the stop button.
The operation of the load is completed.
- Repeat steps 3 to 7 to perform the other load or signal output check.

5.6.4 IO check mode list

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
0	0					Analog signal	L4, FM19	Exposure lamp + Scanner cooling fan	
1	0						M6	Toner bottle motor	
	1	Analog signal	PS39	Intermediate hopper toner remaining sensor	• 000: Toner • 001: No toner				
	2		PS32	Hopper toner remaining sensor /1	• 000: Toner • 001: No toner				
	3		PS33	Hopper toner remaining sensor /2	• 000: Toner • 001: No toner				
	4		PS34	Cup section toner remaining sensor	• 000: Toner • 001: No toner				
2	0		TH5	Drum temperature	Display of temperature (°C)				
	1		TEM/ HUM2	Transfer belt temperature	Display of temperature (°C)				
	2		TEM/ HUM1	External temperature of the main body	Display of temperature (°C)				
	3		TEM/ HUM1	External humidity of the main body	Display of humidity (%)				
3	0		TH1	Fusing roller /Up center temperature(Main body/ EF)	Display of temperature (°C)				
	1		TH3	Fusing heating roller center temperature (main body/EF)	Display of temperature (°C)				
4	0		TH2	Fusing roller /Up edge temperature (main body/ EF)	Display of temperature (°C)				
5	0		TEM/ HUM2	Humidity sensor signal	Display of humidity (%)				
6	0		TCB	The maximum density monitor signal	0 to 255				
7	0		TCB	The maximum density output signal	0 to 255				
8	0		TCB	Gamma output signal	0 to 255				
9	0		DPSB	Drum potential sensor output signal	0 to 255				
10	0		JAMB	Drum jam sensor output signal	0 to 1023				
11	1	Paper feed	PS8	Paper empty sensor /1 (Tray/1)	• 000: No paper • 001: Paper				
	2		PS12	Paper empty sensor /2 (Tray/2)	• 000: No paper • 001: Paper				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	3		PS3	Paper empty sensor /1 (Tray3) (PF-703)	• 000: No paper • 001: Paper				
	3		PS4	Paper empty sensor /1 (Tray3) (PF-706)	• 000: No paper • 001: Paper				
	4		PS7	Paper empty sensor /2 (Tray4) (PF-703)	• 000: No paper • 001: Paper				
	4		PS8	Paper empty sensor /2 (Tray4) (PF-706)	• 000: No paper • 001: Paper				
	5		PS11	Paper empty sensor /3 (Tray5) (PF-703)	• 000: No paper • 001: Paper				
	5		PS12	Paper empty sensor /3 (Tray5) (PF-706)	• 000: No paper • 001: Paper				
	6		PS3	Paper empty sensor /1 (Tray6) (PF-703)	• 000: No paper • 001: Paper				
	6		PS4	Paper empty sensor /1 (Tray6) (PF-706)	• 000: No paper • 001: Paper				
	7		PS7	Paper empty sensor /2 (Tray7) (PF-703)	• 000: No paper • 001: Paper				
	7		PS8	Paper empty sensor /2 (Tray7) (PF-706)	• 000: No paper • 001: Paper				
	8		PS11	Paper empty sensor /3 (Tray8) (PF-703)	• 000: No paper • 001: Paper				
	8		PS12	Paper empty sensor /3 (Tray8) (PF-706)	• 000: No paper • 001: Paper				
	9		PS108	Paper empty sensor (LU)	• 000: No paper • 001: Paper				
12	1		VR1	Remaining paper VR /1 (Tray /1)	Remaining display (0 to 1023)				
	2		VR4	Remaining paper VR /2 (Tray2)	Remaining display (0 to 1023)				
	3		VR1	Remaining paper VR /1 (Tray3) (PF-703/706)	Remaining display (0 to 1023)				
	4		VR4	Remaining paper VR /2 (Tray4) (PF-703/706)	Remaining display (0 to 1023)				
	5		VR7	Remaining paper VR /3 (Tray5) (PF-703/706)	Remaining display (0 to 1023)				
	6		VR1	Remaining paper VR /1 (Tray6) (PF-703/706)	Remaining display (0 to 1023)				
	7		VR4	Remaining paper VR /2 (Tray7) (PF-703/706)	Remaining display (0 to 1023)				
	8		VR7	Remaining paper VR /3 (Tray8) (PF-703/706)	Remaining display (0 to 1023)				
	9		PS102	Remaining paper sensor /1 (LU)	• 000: No paper • 001: Paper				
	10		PS103	Remaining paper sensor /2 (LU)	• 000: No paper • 001: Paper				
	11		PS104	Remaining paper sensor /3 (LU)	• 000: No paper • 001: Paper				
	12		PS105	Remaining paper sensor /4 (LU)	• 000: No paper • 001: Paper				
13	1		VR2	CD paper size VR/1 (Tray1)	0 to 255				
	2		VR5	CD paper size VR/2 (Tray2)	0 to 255				
	3		VR2	CD paper size VR/1 (Tray3) (PF-703/706)	0 to 255				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
14	4		VR5	CD paper size VR/2 (Tray4) (PF-703/706)	0 to 255				
	5		VR8	CD paper size VR/3 (Tray5) (PF-703/706)	0 to 255				
	6		VR2	CD paper size VR/1 (Tray6) (PF-703/706)	0 to 255				
	7		VR5	CD paper size VR/2 (Tray7) (PF-703/706)	0 to 255				
	8		VR8	CD paper size VR/3 (Tray8) (PF-703/706)	0 to 255				
	1		VR3	FD paper size VR/1 (Tray1)	0 to 1023				
	2		VR6	FD paper size VR/2 (Tray2)	0 to 1023				
	3		VR3	FD paper size VR/1 (Tray3) (PF-703/706)	0 to 1023				
	4		VR6	FD paper size VR/2 (Tray4) (PF-703/706)	0 to 1023				
	5		VR9	FD paper size VR/3 (Tray5) (PF-703/706)	0 to 1023				
	6		VR3	FD paper size VR/1 (Tray6) (PF-703/706)	0 to 1023				
	7		VR6	FD paper size VR /2 (Tray7) (PF-703/706)	0 to 1023				
	8		VR9	FD paper size VR /3 (Tray8) (PF-703/706)	0 to 1023				
15	1					Data clear	-	Data collection count clear	
	2						-	Mode memory clear	
	3						-	Count clear by copy modes	
	98							CS Remote Care memory initialization	Used in the CS Remote Care mode
16	1	Paper feed	PS6	Upper limit sensor /1 (Tray1)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	2		PS10	Upper limit sensor /2 (Tray2)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	3		PS5	Upper limit sensor /1 (Tray3) (PF-703)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	3		PS2	Upper limit sensor /1 (Tray3) (PF-706)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	4		PS9	Upper limit sensor /2 (Tray4) (PF-703)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	4		PS6	Upper limit sensor /2 (Tray4) (PF-706)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	5		PS13	Upper limit sensor /3 (Tray5) (PF-703)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	5		PS10	Upper limit sensor /3 (Tray5) (PF-706)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	6		PS5	Upper limit sensor /1 (Tray6) (PF-703)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	6		PS2	Upper limit sensor /1 (Tray6) (PF-706)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	7		PS9	Upper limit sensor /2 (Tray7) (PF-703)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	7		PS6	Upper limit sensor /2 (Tray7) (PF-706)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	8		PS13	Upper limit sensor /3 (Tray8) (PF-703)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	8		PS10	Upper limit sensor /3 (Tray8) (PF-706)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	9		PS109	Upper limit sensor (LU)	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 				
	10		PS101	Lower limit sensor (LU)	<ul style="list-style-type: none"> • 000: Other than lower limit • 001: Lower limit 				
	11		SW100	Tray down switch (LU)	<ul style="list-style-type: none"> • 000: OFF • 001: ON 				
17	0					-	M22	Cleaning blade packing lock move	Used in repacking
	1	Paper feed	-	Tray1 set signal	<ul style="list-style-type: none"> • 000: Not set • 001: Set 				
	2		-	Tray2 set signal	<ul style="list-style-type: none"> • 000: Not set • 001: Set 				
	3		-	Tray3 set signal	<ul style="list-style-type: none"> • 000: Not set • 001: Set 				
	4		-	Tray4 set signal	<ul style="list-style-type: none"> • 000: Not set • 001: Set 				
	5		-	Tray5 set signal	<ul style="list-style-type: none"> • 000: Not set • 001: Set 				
	6		-	Tray6 set signal	<ul style="list-style-type: none"> • 000: Not set • 001: Set 				
	7		-	Tray7 set signal	<ul style="list-style-type: none"> • 000: Not set • 001: Set 				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	8		-	Tray8 set signal	• 000: Not set • 001: Set				
	9		-	Tray3 trailing edge guide set signal	• 000: Not set • 001: Set				
	10		-	Tray4 trailing edge guide set signal	• 000: Not set • 001: Set				
	11		-	Tray5 trailing edge guide set signal	• 000: Not set • 001: Set				
	12		-	Tray6 trailing edge guide set signal	• 000: Not set • 001: Set				
	13		-	Tray7 trailing edge guide set signal	• 000: Not set • 001: Set				
	14		-	Tray8 trailing edge guide set signal	• 000: Not set • 001: Set				
	15		-	PFU1 horizontal conveyance section set signal	• 000: Not set • 001: Set				
18	1		PS9	Handle release sensor /1 (Tray1)	• 000: OFF • 001: ON	Paper feed	CL8	Forced separation clutch / 1 (Tray3) (PF-706)	
	2		PS13	Handle release sensor /2 (Tray2)	• 000: OFF • 001: ON		CL11	Forced separation clutch / 2 (Tray4) (PF-706)	
	3		PS4	Handle release sensor /1 (Tray3) (PF-703)	• 000: OFF • 001: ON		CL14	Forced separation clutch / 3 (Tray5) (PF-706)	
	3		PS5	Handle release sensor /1 (Tray3) (PF-706)	• 000: OFF • 001: ON		CL14	Forced separation clutch / 3 (Tray5) (PF-706)	
	4		PS8	Handle release sensor /2 (Tray4) (PF-703)	• 000: OFF • 001: ON		CL8	Forced separation clutch / 1 (Tray6) (PF-706)	
	4		PS9	Handle release sensor /2 (Tray4) (PF-706)	• 000: OFF • 001: ON		CL8	Forced separation clutch / 1 (Tray6) (PF-706)	
	5		PS12	Handle release sensor /3 (Tray5) (PF-703)	• 000: OFF • 001: ON		CL11	Forced separation clutch / 2 (Tray7) (PF-706)	
	5		PS13	Handle release sensor /3 (Tray5) (PF-706)	• 000: OFF • 001: ON		CL11	Forced separation clutch / 2 (Tray7) (PF-706)	
	6		PS4	Handle release sensor /1 (Tray6) (PF-703)	• 000: OFF • 001: ON		CL14	Forced separation clutch / 3 (Tray8) (PF-706)	
	6		PS5	Handle release sensor /1 (Tray6) (PF-706)	• 000: OFF • 001: ON		CL14	Forced separation clutch / 3 (Tray8) (PF-706)	
	7		PS8	Handle release sensor /2 (Tray7) (PF-703)	• 000: OFF • 001: ON				
	7		PS9	Handle release sensor /2 (Tray7) (PF-706)	• 000: OFF • 001: ON				
	8		PS12	Handle release sensor /3 (Tray8) (PF-703)	• 000: OFF • 001: ON				
	8		PS13	Handle release sensor /3 (Tray8) (PF-706)	• 000: OFF • 001: ON				
19	1					Paper feed	CL5	Separation clutch /1 (Tray1)	
	2						CL7	Separation clutch /2 (Tray2)	
	3						CL7	Separation clutch /1 (Tray3) (PF-706)	
	4						CL10	Separation clutch /2 (Tray4) (PF-706)	
	5						CL13	Separation clutch /3 (Tray5) (PF-706)	
	6						CL7	Separation clutch /1 (Tray6) (PF-706)	
	7						CL10	Separation clutch /2 (Tray7) (PF-706)	
	8						CL13	Separation clutch /3 (Tray8) (PF-706)	
	9						M4, CL5	Paper feed motor + Separation clutch /1 (Tray1)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	10						M4, CL7	Paper feed motor + Separation clutch /2 (Tray2)	
	11						M1, CL7	Paper feed motor + Separation clutch /1 (Tray3) (PF-706)	
	12						M1, CL10	Paper feed motor + Separation clutch /2 (Tray4) (PF-706)	
	13						M1, CL13	Paper feed motor + Separation clutch /3 (Tray5) (PF-706)	
	14						M1, CL7	Paper feed motor + Separation clutch /1 (Tray6) (PF-706)	
	15						M1, CL10	Paper feed motor + Separation clutch /2 (Tray7) (PF-706)	
	16						M1, CL13	Paper feed motor + Separation clutch /3 (Tray8) (PF-706)	
20	1	Paper feed, conveya nce	PS7	Paper feed sensor /1 (Tray1)	• 000: No paper • 001: Paper		SD3	Pick-up solenoid /1 (Tray1)	
	2		PS11	Paper feed sensor /2 (Tray2)	• 000: No paper • 001: Paper		SD4	Pick-up solenoid /2 (Tray2)	
	3		PS2	Paper feed sensor /1 (Tray3) (PF-703)	• 000: No paper • 001: Paper		SD4	Pick-up solenoid /1 (Tray3) (PF-706)	
	3		PS3	Paper feed sensor /1 (Tray3) (PF-706)	• 000: No paper • 001: Paper		SD4	Pick-up solenoid /1 (Tray3) (PF-706)	
	4		PS6	Paper feed sensor /2 (Tray4) (PF-703)	• 000: No paper • 001: Paper		SD5	Pick-up solenoid /2 (Tray4) (PF-706)	
	4		PS7	Paper feed sensor /2 (Tray4) (PF-706)	• 000: No paper • 001: Paper		SD5	Pick-up solenoid /2 (Tray4) (PF-706)	
	5		PS10	Paper feed sensor /3 (Tray5) (PF-703)	• 000: No paper • 001: Paper		SD6	Pick-up solenoid /3 (Tray5) (PF-706)	
	5		PS11	Paper feed sensor /3 (Tray5) (PF-706)	• 000: No paper • 001: Paper		SD6	Pick-up solenoid /3 (Tray5) (PF-706)	
	6		PS2	Paper feed sensor /1 (Tray6) (PF-703)	• 000: No paper • 001: Paper		SD4	Pick-up solenoid /1 (Tray6) (PF-706)	
	6		PS3	Paper feed sensor /1 (Tray6) (PF-706)	• 000: No paper • 001: Paper		SD4	Pick-up solenoid /1 (Tray6) (PF-706)	
	7		PS6	Paper feed sensor /2 (Tray7) (PF-703)	• 000: No paper • 001: Paper		SD5	Pick-up solenoid /2 (Tray7) (PF-706)	
	7		PS7	Paper feed sensor /2 (Tray7) (PF-706)	• 000: No paper • 001: Paper		SD5	Pick-up solenoid /2 (Tray7) (PF-706)	
	8		PS10	Paper feed sensor /3 (Tray8) (PF-703)	• 000: No paper • 001: Paper		SD6	Pick-up solenoid /3 (Tray8) (PF-706)	
	8		PS11	Paper feed sensor /3 (Tray8) (PF-706)	• 000: No paper • 001: Paper		SD6	Pick-up solenoid /3 (Tray8) (PF-706)	
	9		PS25	Paper suction sensor /Fr1 (Tray3)	• 000: No paper • 001: Paper		SD4, SD5	Shutter solenoid /Fr1 + Shutter solenoid /Rr1 (Tray3) (PF-703)	
	10		PS26	Paper suction sensor /Rr1 (Tray3)	• 000: No paper • 001: Paper		SD6, SD7	Shutter solenoid /Fr2 + Shutter solenoid /Rr2 (Tray4) (PF-703)	
	11		PS27	Paper suction sensor /Fr2 (Tray4)	• 000: No paper • 001: Paper		SD8, SD9	Shutter solenoid /Fr3 + Shutter solenoid /Rr3 (Tray5) (PF-703)	
	12		PS28	paper suction sensor /Rr2 (Tray4)	• 000: No paper • 001: Paper		SD4, SD5	Shutter solenoid /Fr1 + Shutter solenoid /Rr1 (Tray6) (PF-703)	
	13		PS29	paper suction sensor /Fr3 (Tray5)	• 000: No paper • 001: Paper		SD6, SD7	Shutter solenoid /Fr2 + Shutter solenoid /Rr2 (Tray7) (PF-703)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	14		PS30	Paper suction sensor /Rr3 (Tray5)	• 000: No paper • 001: Paper		SD8, SD9	Shutter solenoid /Fr3 + Shutter solenoid /Rr3 (Tray8) (PF-703)	
	15		PS25	Paper suction sensor /Fr1 (Tray6)	• 000: No paper • 001: Paper		SD100	Pick-up solenoid (LU)	
	16		PS26	Paper suction sensor /Rr1 (Tray6)	• 000: No paper • 001: Paper				
	17		PS27	Paper suction sensor /Fr2 (Tray7)	• 000: No paper • 001: Paper				
	18		PS28	Paper suction sensor /Rr2 (Tray7)	• 000: No paper • 001: Paper				
	19		PS29	Paper suction sensor /Fr3 (Tray8)	• 000: No paper • 001: Paper				
	20		PS30	Paper suction sensor /Rr3 (Tray8)	• 000: No paper • 001: Paper				
	21		PS37	Shutter home sensor /1 (Tray3)	• 000: OFF • 001: ON				
	22		PS38	Shutter home sensor /2 (Tray4)	• 000: OFF • 001: ON				
	23		PS39	Shutter home sensor /3 (Tray5)	• 000: OFF • 001: ON				
	24		PS37	Shutter home sensor /1 (Tray6)	• 000: OFF • 001: ON				
	25		PS38	Shutter home sensor /2 (Tray7)	• 000: OFF • 001: ON				
	26		PS39	Shutter home sensor /3 (Tray8)	• 000: OFF • 001: ON				
21	1		PS17	Pre-registration sensor /1 (Tray1)	• 000: No paper • 001: Paper	Paper feed	CL4	Paper Feed Clutch /1 (Tray1)	
	2		PS18	Pre-registration sensor /2 (Tray2)	• 000: No paper • 001: Paper		CL6	Paper Feed Clutch /2 (Tray2)	
	3		PS14	Pre-registration sensor /1 (Tray3) (PF-703/706)	• 000: No paper • 001: Paper		CL6	Paper feed clutch /1 (Tray3) (PF-706)	
	4		PS18	Pre-registration sensor /2 (Tray4) (PF-703/706)	• 000: No paper • 001: Paper		CL9	Paper feed clutch /2 (Tray4) (PF-706)	
	5		PS20	Pre-registration sensor /3 (Tray5) (PF-703/706)	• 000: No paper • 001: Paper		CL12	Paper feed clutch /3 (Tray5) (PF-706)	
	6		PS14	Pre-registration sensor /1 (Tray6) (PF-703/706)	• 000: No paper • 001: Paper		CL6	Paper feed clutch /1 (Tray6) (PF-706)	
	7		PS18	Pre-registration sensor /2 (Tray7) (PF-703/706)	• 000: No paper • 001: Paper		CL9	Paper feed clutch /2 (Tray7) (PF-706)	
	8		PS20	Pre-registration sensor /3 (Tray8) (PF-703/706)	• 000: No paper • 001: Paper		CL12	Paper feed clutch /3 (Tray8) (PF-706)	
	9						CL7	Paper feed clutch /1 (Tray3) (PF-703)	
	10						CL8	Paper feed clutch /2 (Tray4) (PF-703)	
	11						CL9	Paper feed clutch /3 (Tray5) (PF-703)	
	12						CL7	Paper feed clutch /1 (Tray6) (PF-703)	
	13						CL8	Paper feed clutch /2 (Tray7) (PF-703)	
	14						CL9	Paper feed clutch /3 (Tray8) (PF-703)	
	15						CL102	Pre-registration clutch (LU)	
	16						CL101	Paper feed clutch (LU)	
22	1	Paper feed, conveya nce	PS19	Vertical conveyance sensor /1	• 000: No paper • 001: Paper		CL1	Pre-registration clutch /1	
	2		PS21	Vertical conveyance sensor /3	• 000: No paper • 001: Paper		CL3	Pre-registration clutch /3	
	3		PS15	Vertical conveyance sensor /1 (PF-703/706)	• 000: No paper • 001: Paper		CL1	Pre-registration clutch /1 (Tray3) (PF-703/706)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	4		PS21	Vertical conveyance sensor /3 (PF-703)	• 000: No paper • 001: Paper		CL3	Pre-registration clutch /2 (Tray4) (PF-703/706)	
	4		PS21	Vertical conveyance sensor /2 (PF-706)	• 000: No paper • 001: Paper		CL3	Pre-registration clutch /2 (Tray4) (PF-703/706)	
	5		PS15	Vertical conveyance sensor /1 (PF-703/706)	• 000: No paper • 001: Paper		CL5	Pre-registration clutch /3 (Tray5) (PF-703/706)	
	6		PS21	Vertical conveyance sensor /3 (PF-703)	• 000: No paper • 001: Paper		CL2	Vertical conveyance clutch	
	6		PS21	Vertical conveyance sensor /2 (PF-706)	• 000: No paper • 001: Paper		CL2	Vertical conveyance clutch	
	7		PS20	Vertical conveyance sensor /2	• 000: No paper • 001: Paper		CL2	Intermediate clutch /1 (PF-703)	
	7		PS20	Vertical conveyance sensor /2	• 000: No paper • 001: Paper		CL2	Intermediate clutch /Up (PF-706)	
	8		PS16	Intermediate sensor /Up (PF-703/706)	• 000: No paper • 001: Paper		CL4	Intermediate clutch /2 (PF-703)	
	8		PS16	Intermediate sensor /Up (PF-703/706)	• 000: No paper • 001: Paper		CL4	Intermediate clutch /Lw (PF-706)	
	9		PS22	Intermediate sensor /Lw (PF-703/706)	• 000: No paper • 001: Paper		M8	1250/1250P/1052: Vertical conveyance motor (330mm /s) 951: Vertical conveyance motor (290mm /s)	
	10		PS16	Intermediate sensor /Up (PF-703/706)	• 000: No paper • 001: Paper		M8	1250/1250P/1052: Vertical conveyance motor (490mm /s) 951: Vertical conveyance motor (460mm /s)	
	11		PS22	Intermediate sensor /Lw (PF-703/706)	• 000: No paper • 001: Paper		M8	Vertical conveyance motor (570mm/s)	
	12						M8	1250/1250P/1052: Vertical conveyance motor (1250mm /s) 951: Vertical conveyance motor (870mm /s)	
	13						CL1	Pre-registration clutch /1 (Tray6) (PF-703/706)	
	14						CL3	Pre-registration clutch /2 (Tray7) (PF-703/706)	
	15						CL5	Pre-registration clutch /3 (Tray8) (PF-703/706)	
	16						CL2	Intermediate clutch /1 (PF-703)	
	16						CL2	Intermediate clutch /Up (PF-706)	
	17						CL4	Intermediate clutch /2 (PF-703)	
	17						CL4	Intermediate clutch /Lw (PF-706)	
	18						M4, CL1	Paper feed motor + Pre-registration clutch /1	
	19						M4, CL3	Paper feed motor + Pre-registration clutch /3	
	20						M1, CL1	Paper feed motor + Pre-registration clutch /1 (PF-703/706)	
	21						M1, CL3	Paper feed motor + Pre-registration clutch /2 (PF-703/706)	
	22						M1, CL5	Paper feed motor + Pre-registration clutch /3 (PF-703/706)	
	23						M4, CL2	Paper feed motor + Vertical conveyance clutch	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	24						M1, CL2	Paper feed motor + Intermediate clutch /1 (PF-703)	
	24						M1, CL2	Paper feed motor + Intermediate clutch /Up (PF-706)	
	25						M1, CL4	Paper feed motor + Intermediate clutch /2 (PF-703)	
	25						M1, CL4	Paper feed motor + Intermediate clutch /Lw (PF-706)	
	26						CL6	V-convey clutch mid.	
	27						M1, CL1	Paper feed motor + Pre- registration clutch /1 (PF-703/706)	
	28						M1, CL3	Paper feed motor + Pre- registration clutch /2 (PF-703/706)	
	29						M1, CL5	Paper feed motor + Pre- registration clutch /3 (PF-703/706)	
	30						M1, CL2	Paper feed motor + Intermediate clutch /1 (PF-703)	
	30						M1, CL2	Paper feed motor + Intermediate clutch /Up (PF-706)	
	31						M1, CL4	Paper feed motor + Intermediate clutch /2 (PF-703)	
	31						M1, CL4	Paper feed motor + Intermediate clutch /Lw (PF-706)	
	32						CL6	V-convey clutch mid.	
23	1	Paper feed, conveya nce	PS41	Paper leading edge sensor	• 000: No paper • 001: Paper		M25	Tray lift-up motor /1 (Tray1)	From the tray lowering position to the upper limit
	2		PS16	Loop sensor	• 000: No paper • 001: Paper		M34	Tray lift-up motor /2 (Tray2)	From the tray lowering position to the upper limit
	3		PS40	Registration sensor	• 000: No paper • 001: Paper		M7	Paper lift motor /1 (Tray3) (PF-703)	From the tray lowering position to the upper limit
	3		PS40	Registration sensor	• 000: No paper • 001: Paper		M42	Paper lift motor /1 (Tray3) (PF-706)	From the tray lowering position to the upper limit
	4		PS17	Loop sensor /1 (Tray3) (PF-703/706)	• 000: No paper • 001: Paper		M8	Paper lift motor /2 (Tray4) (PF-703)	From the tray lowering position to the upper limit
	4		PS17	Loop sensor /1 (Tray3) (PF-703/706)	• 000: No paper • 001: Paper		M43	Paper lift motor /2 (Tray4) (PF-706)	From the tray lowering position to the upper limit
	5		PS19	Loop sensor /2 (Tray4) (PF-703/706)	• 000: No paper • 001: Paper		M9	Paper lift motor /3 (Tray5) (PF-703)	From the tray lowering position to the upper limit
	5		PS19	Loop sensor /2 (Tray4) (PF-703/706)	• 000: No paper • 001: Paper		M44	Paper lift motor /3 (Tray5) (PF-706)	From the tray lowering position to the upper limit
	6		PS23	Loop sensor /3 (Tray5) (PF-703/706)	• 000: No paper • 001: Paper		M7	Paper lift motor /1 (Tray6) (PF-703)	From the tray lowering position to the upper limit
	6		PS23	Loop sensor /3 (Tray5) (PF-703/706)	• 000: No paper • 001: Paper		M42	Paper lift motor /1 (Tray6) (PF-706)	From the tray lowering position to the upper limit

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	7		PS24	PF exit conveyance sensor (PF-703/706)	• 000: No paper • 001: Paper		M8	Paper lift motor /2 (Tray7) (PF-703)	From the tray lowering position to the upper limit
	7		PS24	PF exit conveyance sensor (PF-703/706)	• 000: No paper • 001: Paper		M43	Paper lift motor /2 (Tray7) (PF-706)	From the tray lowering position to the upper limit
	8		PS17	Loop sensor /1 (Tray6) (PF-703/706)	• 000: No paper • 001: Paper		M9	Paper lift motor /3 (Tray8) (PF-703)	From the tray lowering position to the upper limit
	8		PS17	Loop sensor /1 (Tray6) (PF-703/706)	• 000: No paper • 001: Paper		M44	Paper lift motor /3 (Tray8) (PF-706)	From the tray lowering position to the upper limit
	9		PS19	Loop sensor /2 (Tray7) (PF-703/706)	• 000: No paper • 001: Paper		M100	Paper lift motor (Up) (LU)	
	10		PS23	Loop sensor /3 (Tray8) (PF-703/706)	• 000: No paper • 001: Paper		M100	Paper lift motor (Down) (LU)	
	11		PS24	PF exit conveyance sensor (PF-703/706)	• 000: No paper • 001: Paper				
	12		PS31	Horizontal conveyance sesor /1 (PF-703)	• 000: No paper • 001: Paper				
	13		PS32	Horizontal conveyance sesor /2 (PF-703)	• 000: No paper • 001: Paper				
	14		PS33	Horizontal conveyance sesor /3 (PF-703)	• 000: No paper • 001: Paper				
	15		PS34	Horizontal conveyance sesor /4 (PF-703)	• 000: No paper • 001: Paper				
	16		PS35	Horizontal conveyance sesor /5 (PF-703)	• 000: No paper • 001: Paper				
	17		PS106	LU exit sensor (LU)	• 000: No paper • 001: Paper				
	18		PS107	Pre-registration sensor (LU)	• 000: No paper • 001: Paper				
24	1		PS22	Fusing exit sensor	• 000: No paper • 001: Paper	Paper feed	SD1	Tray lock solenoid /1 (Tray1)	
	2		PS3	Paper exit sensor	• 000: No paper • 001: Paper		SD2	Tray lock solenoid /2 (Tray2)	
	3		PS48	Reverse sensor /1	• 000: No paper • 001: Paper		SD1	Tray lock solenoid /1 (Tray3) (PF-703/706)	
	4		PS47	Reverse sensor /2	• 000: No paper • 001: Paper		SD2	Tray lock solenoid /2 (Tray4) (PF-703/706)	
	5		PS38	Fusing jam sensor (main body/EF)	• 000: No paper • 001: Paper		SD3	Tray lock solenoid /3 (Tray5) (PF-703/706)	
	6		PS50	ADU reverse paper exit sensor	• 000: No paper • 001: Paper		SD1	Tray lock solenoid /1 (Tray6) (PF-703/706)	
	7		PS23	De-curler entrance sensor	• 000: No paper • 001: Paper		SD2	Tray lock solenoid /2 (Tray7) (PF-703/706)	
	8		PS65	Paper skew sensor /Fr	• 000: Paper • 001: No paper		SD3	Tray lock solenoid /3 (Tray8) (PF-703/706)	
	9		PS66	Paper skew sensor /Rr	• 000: Paper • 001: No paper				
25	1		SW4	Door switch /1	• 000: Close • 001: Open	Paper feed	M30	1250/1250P/1052: Transfer belt motor (330mm /s) 951: Transfer belt motor (290mm /s)	
	2		PS1	Door open/close sensor /1	• 000: Close • 001: Open		M30	1250/1250P/1052: Transfer belt motor (490mm /s) 951: Transfer belt motor (460mm /s)	
	3		PS2	Door open/close sensor /2	• 000: Close • 001: Open		M30	Transfer belt motor (570mm /s)	
	4		MS1, MS2	Interlock switch /1, /2	• 000: Close • 001: Open		M5	Transfer belt cleaning motor	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	5		PS317	APS timing sensor	• 000: Close • 001: Open				
	6		SW5	Door switch /2	• 000: Close • 001: Open				
	7		-	Fusing section set detection signal	• 000: Not set • 001: Set				
	9		PS1	Door open/close sensor (PF-703/706)	• 000: Close • 001: Open				
	10		SW1	Vertical conveyance door switch /Up (PF-703/706)	• 000: OFF • 001: ON				
	11		SW2	Vertical conveyance door switch /Lw (PF-703/706)	• 000: OFF • 001: ON				
	12		MS1	Interlock switch (PF-703/706)	• 000: Close • 001: Open				
	13		SW3	Horizontal conveyance door switch (PF-703/706)	• 000: OFF • 001: ON				
	14		PS1	Door open/close sensor (PF-703/706)	• 000: Close • 001: Open				
	15		SW1	Vertical conveyance door switch /Up (PF-703/706)	• 000: OFF • 001: ON				
	16		SW2	Vertical conveyance door switch /Lw (PF-703/706)	• 000: OFF • 001: ON				
	17		MS1	Interlock switch (PF-703/706)	• 000: Close • 001: Open				
	18		SW3	Horizontal conveyance door switch (PF-703/706)	• 000: OFF • 001: ON				
	19		PS14	Waste toner box set sensor	• 000: OFF • 001: ON				
	20		PS37	Waste toner full sensor /1	• 000: OFF • 001: ON				
	21		-	Heater unit set signal (Tray3)	• 000: OFF • 001: ON				
	22		-	Heater unit set signal (Tray4)	• 000: OFF • 001: ON				
	23		-	Heater unit set signal (Tray5)	• 000: OFF • 001: ON				
	24		-	Heater unit set signal (Tray6)	• 000: OFF • 001: ON				
	25		-	Heater unit set signal (Tray7)	• 000: OFF • 001: ON				
	26		-	Heater unit set signal (Tray8)	• 000: OFF • 001: ON				
	27		PS62	Waste toner full sensor /2	• 000: OFF • 001: ON				
	28		PS100	Upper door open/close sensor (LU)	• 000: Open • 001: Close				
	29		PS110	Front door open/close sensor (LU)	• 000: Open • 001: Close				
26	1					Paper feed	M18	1250/1250P/1052: Loop motor (1250mm/s) 951: Loop motor (870mm/ s)	
	2						M18	Loop motor (1000mm/s)	
	3						M18	Loop motor (750mm/s)	
	4						M18	Loop motor (570mm/s)	
	5						M18	1250/1250P/1052: Loop motor (490mm/s) 951: Loop motor (460mm/ s)	
	6						M18	1250/1250P/1052: Loop motor (330mm/s) 951: Loop motor (290mm/ s)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
27	1						M20	1250/1250P/1052: Paper exit motor /1 (330mm/s) 951: Paper exit motor /1 (290mm/s)	
	2						M20	1250/1250P/1052: Paper exit motor /1 (490mm/s) 951: Paper exit motor /1 (460mm/s)	
	3						M20	Paper exit motor /1 (570mm/s)	
	4						M20	1250/1250P/1052: Paper exit motor /1 (750mm/s) 951: Paper exit motor /1 (600mm/s)	
	5						M20	Paper exit motor /1 (1000mm/s)	
	6						M20	1250/1250P/1052: Paper exit motor /1 (1250mm/s) 951: Paper exit motor /1 (1000mm/s)	
	10						M13	Reverse/exit motor (1250mm/s)	
	11						M13	Reverse/exit motor (1000mm/s)	
	12						M13	Reverse/exit motor (750mm/s)	
28	1						M4	Paper feed motor	
	2						M1	Paper feed motor (PF-703/706)	
	3						M1	Paper feed motor (PF-703/706)	
	4						M101	Paper feed motor (290mm/s) (LU)	
	5						M101	Paper feed motor (460mm/s) (LU)	
	6						M101	Paper feed motor (870mm/s) (LU)	
29	0						SD10	Drum claw solenoid	
30	1	Scanner	PS51	Scanner home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M3	1250/1250P/1052: PF exit conveyance motor (330mm/s) (PF-703)	
	1		PS51	Scanner home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M2	1250/1250P/1052: PF exit conveyance motor (330mm/s) (PF-706) 951: PF exit conveyance motor (290mm/s) (PF-706)	
	2						M3	1250/1250P/1052: PF exit conveyance motor (1250mm/s) (PF-703)	
	2						M2	1250/1250P/1052: PF exit conveyance motor (1250mm/s) (PF-706) 951: PF exit conveyance motor (870mm/s) (PF-706)	
	3						M3	PF exit conveyance motor (570mm/s) (PF-703)	
	3						M2	PF exit conveyance motor (570mm/s) (PF-706)	
	4						M3	1250/1250P/1052: PF exit conveyance motor (490mm/s) (PF-703)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	4						M2	1250/1250P/1052: PF exit conveyance motor (490mm/s) (PF-706) 951: PF exit conveyance motor (460mm/s) (PF-706)	
	5						M3	PF exit conveyance motor (330mm/s) (PF-703)	
	5						M2	PF exit conveyance motor (330mm/s) (PF-706)	
	6						M3	PF exit conveyance motor (1250mm/s) (PF-703)	
	6						M2	PF exit conveyance motor (1250mm/s) (PF-706)	
	7						M3	PF exit conveyance motor (570mm/s) (PF-703)	
	7						M2	PF exit conveyance motor (570mm/s) (PF-706)	
	8						M3	PF exit conveyance motor (490mm/s) (PF-703)	
	8						M2	PF exit conveyance motor (490mm/s) (PF-706)	
	9						M10	Shutter motor /1 home position move (PF-703)	
	10						M10	Move to close position after shutter motor /1 home position move (PF-703)	
	11						M11	Shutter motor /2 home position move (PF-703)	
	12						M11	Move to close position after shutter motor /2 home position move (PF-703)	
	13						M12	Shutter motor /3 home position move (PF-703)	
	14						M12	Move to close position after shutter motor /3 home position move (PF-703)	
	15						M10	Shutter motor /1 home position move (PF-703)	
	16						M10	Move to close position after shutter motor /1 home position move (PF-703)	
	17						M11	Shutter motor /2 home position move (PF-703)	
	18						M11	Move to close position after shutter motor /2 home position move (PF-703)	
	19						M12	Shutter motor /3 home position move (PF-703)	
	20						M12	Move to close position after shutter motor /3 home position move (PF-703)	
	21						M2	Paper feed belt motor (PF-703)	
	22						M2	Paper feed belt motor (PF-703)	
	23						M4	Coupling conveyance motor /1 (PF-703)	
	24						M5	Coupling conveyance motor /2 (PF-703)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	25						M6	Coupling conveyance motor /3 (PF-703)	
31	0					Scanner	M27	Home search + Scan	
	1	Scanner	PS52	APS sensor /1	• 000: Paper • 001: No paper				
	2		PS53	APS sensor /2	• 000: Paper • 001: No paper				
	8		PS317	APS timing sensor	• 000: Close • 001: Open				
34	0					Scanner	M27, L4	Shading correction	
35	0						M27	DF scan position move + Scanner cooling fan	
36	0						M27	Scanner packing lock move	Used in repacking
40	0					Main body	M1	Fusing motor	
	1						M1	1250/1250P/1052: Fusing motor (330mm/s) 951: Fusing motor (290mm/s)	
	2						M1	1250/1250P/1052: Fusing motor (490mm/s) 951: Fusing motor (460mm/s)	
	3						M1	Fusing motor (570mm/s)	
	4						M32	1250/1250P/1052: De- curler motor (330mm/s) 951: De-curler motor (290mm/s)	
	5						M32	1250/1250P/1052: De- curler motor (490mm/s) 951: De-curler motor (460mm/s)	
	6						M32	De-curler motor (570mm/s)	
	7						M32	1250/1250P/1052: De- curler motor (750mm/s) 951: De-curler motor (600mm/s)	
	8						M32	De-curler motor (1000mm/ s)	
	9						M32	1250/1250P/1052: De- curler motor (1250mm/s) 951: De-curler motor (1000mm/s)	
41	0						M2, M3, M35	Drum motor + Developing motor + Drum cleaner motor	
	1						M2, M3, M35	Drum motor (330mm/s) + Developing motor + Drum cleaner motor Drum motor (290mm/s) + Developing motor + Drum cleaner motor	
	2						M2, M3, M35	Drum motor (490mm/s) + Developing motor + Drum cleaner motor Drum motor (460mm/s) + Developing motor + Drum cleaner motor	
	3						M2, M3, M35	Drum motor (570mm/s) + Developing motor + Drum cleaner motor	
	4						M2 ,M 3 , M35	Drum motor + Developing motor + Drum cleaner motor	
42	1						FM19	Scanner cooling fan	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	2						FM6	Suction cooling fan /1 (high speed)	
	3						FM6	Suction cooling fan /1 (low speed)	
	4						FM18	Front cooling fan	
	6						FM1	Suction cooling fan /1 (high speed)	
	7						FM1	Cooling fan /1 (low speed)	
	8						FM2	Cooling fan /2 (high speed)	
	9						FM2	Cooling fan /2 (low speed)	
	12						FM31	Developing cooling fan	
	13						FM7	Suction cooling fan /2	
	14						FM3, FM25, FM26	LPH fan /1, LPH fan /2, LPH fan /3 (high speed)	
	15						FM3, FM25, FM26	LPH fan /1, LPH fan /2, LPH fan /3 (low speed)	
	16						FM4	Paper exit cooling fan /Up (high speed)	
	17						FM4	Paper exit cooling fan /Up (low speed)	
	18						FM20, FM21	Paper feed assist fan / Rr1, /Fr1 (Tray1)	
	19						FM23, FM24	Paper feed assist fan / Rr2, /Fr2 (Tray2)	
	20						FM1, FM2	Paper feed assist fan / Fr1, /Rr1 (Tray3) (PF-706)	
	21						FM3, FM4	Paper feed assist fan / Fr2, /Rr2 (Tray4) (PF-706)	
	22						FM5, FM6	Paper feed assist fan / Fr3, /Rr3 (Tray5) (PF-706)	
	24						FM10, FM28	Paper exit cooling fan / Lw1, /Lw2	
	25						FM12	Image processing cooling fan	
	26						FM11	Pump cooling fan	
	27						FM34	Collection pipe cooling fan (high speed)	
	28						FM34	Collection pipe cooling fan (low speed)	
	30						FM22	Developing suction fan	
	33						FM27	Transfer belt cleaning fan (high speed)	
	34						FM27	Transfer belt cleaning fan (low speed)	
	35						FM35	Toner bottle cooling fan	
	36						FM1, FM2	Paper feed assist fan / Fr1, /Rr1 (Tray6) (PF-706)	
	37						FM3, FM4	Paper feed assist fan / Fr2, /Rr2 (Tray7) (PF-706)	
	38						FM5, FM6	Paper feed assist fan / Fr3, /Rr3 (Tray8) (PF-706)	
	39						FM44	Charge exhaust fan (High speed)	
	40						FM44	Charge exhaust fan (Low speed)	
	50						FM13	Paper suction fan /1 (Tray3) (PF-703)	
	51						FM15	Paper suction fan /3 (Tray4) (PF-703)	
	52						FM17	Paper suction fan /5 (Tray5) (PF-703)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	53						FM3, FM4	Paper leading edge separation fan /Fr1, /Rr1 (Tray3) (PF-703)	
	54						FM7, FM8	Paper leading edge separation fan /Fr2, /Rr2 (Tray4) (PF-703)	
	55						FM11, FM12	Paper leading edge separation fan /Fr3 and / Rr3 (Tray5) (PF-703)	
	56						FM1, FM2	Paper feed assist fan / Fr1, /Rr1 (Tray3) (PF-703)	
	57						FM5, FM6	Paper feed assist fan / Fr2, /Rr2 (Tray4) (PF-703)	
	58						FM9, FM10	Paper feed assist fan / Fr3, /Rr3 (Tray5) (PF-703)	
	59						FM13	Paper suction fan /1 (Tray6) (PF-703)	
	60						FM15	Paper suction fan /3 (Tray7) (PF-703)	
	61						FM17	Paper suction fan /5 (Tray8) (PF-703)	
	62						FM3, FM4	Paper leading edge separation fan /Fr1, /Rr1 (Tray6) (PF-703)	
	63						FM7, FM8	Paper leading edge separation fan /Fr2, /Rr2 (Tray7) (PF-703)	
	64						FM11, FM12	Paper leading edge separation fan /Fr3 and / Rr3 (Tray8) (PF-703)	
	65						FM1, FM2	Paper feed assist fan / Fr1, /Rr1 (Tray6) (PF-703)	
	66						FM5, FM6	Paper feed assist fan / Fr2, /Rr2 (Tray7) (PF-703)	
	67						FM9, FM10	Paper feed assist fan / Fr3, /Rr3 (Tray8) (PF-703)	
	68						FM22, FM23	Dehumidifier fan /Rt1, /Lt1 (Tray3) (PF-703)	
	69						FM24, FM25	Dehumidifier fan /Rt2, /Lt2 (Tray4) (PF-703)	
	70						FM26, FM27	Dehumidifier fan /Rt3, /Lt3 (Tray5) (PF-703)	
	71						FM22, FM23	Dehumidifier fan /Rt1, /Lt1 (Tray6) (PF-703)	
	72						FM24, FM25	Dehumidifier fan /Rt2, /Lt2 (Tray7) (PF-703)	
	73						FM26, FM27	Dehumidifier fan /Rt3, /Lt3 (Tray8) (PF-703)	
	74						FM14	Paper suction fan /2 (Tray3) (PF-703)	
	75						FM16	Paper suction fan /4 (Tray4) (PF-703)	
	76						FM18	Paper suction fan /6 (Tray5) (PF-703)	
	77						FM14	Paper suction fan /2 (Tray6) (PF-703)	
	78						FM16	Paper suction fan /4 (Tray7) (PF-703)	
	79						FM18	Paper suction fan /6 (Tray8) (PF-703)	
	80						FM19, FM20	PF cooling fan /1, /2 (PF-703)	
	80						FM7	PF cooling fan (PF-706)	
	81						FM19, FM20	PF cooling fan /1, /2 (PF-703)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
43	81						FM7	PF cooling fan (PF-706)	
	82						FM21	PF cooling fan /3 (PF-703)	
	83						FM21	PF cooling fan /3 (PF-703)	
	1						CNT1	Total counter	
	2						CNT2	Key counter	
	3						PS4	Centering sensor LED	
	4						PS62	Waste toner full sensor /2 LED	
	5						M19	Waste toner box swing motor	
45	6						M9	Waste toner motor	
	0						M24	Web motor	
46	0						M23	Charger cleaning motor (shuttle)	
	1						M23	Charger cleaning motor (to the back)	
47	1						M23	Charger cleaning motor (to the front)	
	2						M23	Charger cleaning motor (to the front)	
48	0					Peculiar function s	M26	Transfer belt pressure release motor	
	1						M33	Fusing pressure release motor(Main body/ EF)	
49	0						OB2	Illuminate all LEDs	
49	1	Peculiar function s	TEMS	temperature sensor/5, /6, /7 (PF-703)	Display of temperature (°C)				
	2		TEMS	temperature sensor/5, /6, /7 (PF-703)	Display of temperature (°C)				
	3		TEMS	temperature sensor/1 (PF-703)	Display of temperature (°C)				
	4		TEMS	temperature sensor/2 (PF-703)	Display of temperature (°C)				
	5		TEMS	temperature sensor/3 (PF-703)	Display of temperature (°C)				
	6		TEMS	temperature sensor/5, /6, /7 (PF-703)	Display of temperature (°C)				
	7		TEMS	temperature sensor/5, /6, /7 (PF-703)	Display of temperature (°C)				
	8		TEMS	temperature sensor/1 (PF-703)	Display of temperature (°C)				
	9		TEMS	temperature sensor/2 (PF-703)	Display of temperature (°C)				
	10		TEMS	temperature sensor/3 (PF-703)	Display of temperature (°C)				
50	0					Peculiar function s	M3, M2	Developing motor + Drum motor	
	1						M21	Developing screw motor	
51	0						EL	Erase lamp	
52	0	Peculiar function s	CNT2	Key counter	<ul style="list-style-type: none"> • 000: Not connected • 001: Connected 				
53	1		TEM/HUMS	Temperature-humidity sensor (PF-703)	Display of temperature (°C)		-	Status indicator lamp - PAT 1 ON	
	1		TEMS	Temperature sensor (PF-706)	Display of temperature (°C)		-	Status indicator lamp - PAT 1 ON	
	2		TEM/HUMS	Temperature-humidity sensor (PF-703)	Display of humidity (%)		-	Status indicator lamp - PAT2 ON	
	3						-	Status indicator lamp - PAT3 ON	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	4						-	Status indicator lamp - PAT4 ON	
	9	Peculiar function s	TEM/ HUMS	Temperature-humidity sensor (PF-703)	Display of temperature (°C)				
	9		TEMS	Temperature sensor (PF-706)	Display of temperature (°C)				
	10		TEM/ HUMS	Temperature-humidity sensor (PF-703)	Display of temperature (°C)				
54	0					Peculiar function s	M11	Intermediate hopper motor	
	1	Peculiar function s	PS26	Charger cleaning home sensor	• 000: Other than home position • 001: Home position				
	2		PS27	Charger cleaning limit sensor	• 000: Other than limit position • 001: Limit position				
	3					Peculiar function s	M7	Toner hopper motor	
	4						M28	Toner pump motor (high speed)	
	5						M28	Toner pump motor (low speed)	
	6						M29	Air pump motor (high speed)	
	7						M29	Air pump motor (low speed)	
	8						M28, M29	Toner pump motor (high speed) + Air pump motor (high speed)	
	9						M28, M29	Toner pump motor (low speed) + Air pump motor (low speed)	Used after moving the machine
	10						M10	Air separation motor	
	11						M9, M19	Toner cleaning mode	It does not operate but displays "FIN" when the waste toner box is not set
55	0						LCDB	Message test	
	1	Peculiar function s	PS24	Blade sensor /1	• 000: OFF • 001: ON				
	2		PS25	Blade sensor /2	• 000: OFF • 001: ON				
56	0		MFDB S, MFDB R	Multi feed detection board /S, /R	• 000: Other than multi feed • 001: Multi feed				
57	1		PS58	Fusing pressure home sensor(1250/1250P/1052/ EF)	• 000: OFF • 001: ON				
	2		PS59	Fusing pressure position sensor /1(1250/1250P/ 1052/EF)	• 000: OFF • 001: ON				
	3		PS60	Fusing pressure position sensor /2(1250/1250P/ 1052/EF)	• 000: OFF • 001: ON				
	4		PS61	Fusing pressure position sensor /3(1250/1250P/ 1052/EF)	• 000: OFF • 001: ON				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
58	1		PS55	Transfer pressure position sensor /1	• 000: OFF • 001: ON				
	2		PS56	Transfer pressure position sensor /2	• 000: OFF • 001: ON				
	3		PS54	Transfer pressure home sensor	• 000: OFF • 001: ON				
60	1	DF	PS303	Original size sensor /Lt	• 000: No paper • 001: Paper	DF	M301	Original feed motor (forward)	
	2		PS302	Original size sensor /Rt	• 000: No paper • 001: Paper		M301	Original feed motor (reverse)	
	3		PS306	Original registration sensor /Lt	• 000: No paper • 001: Paper		M302	Original conveyance motor (forward)	
	4		PS308	Original conveyance sensor	• 000: No paper • 001: Paper		M302	Original conveyance motor (reverse)	
	5		PS309	Original reverse sensor	• 000: No paper • 001: Paper		M303	Original exit motor /1 (forward)	
	6		PS307	Original exit sensor /Lt	• 000: No paper • 001: Paper		M303	Original exit motor /1 (reverse)	
	7		PS313	Original reverse-exit sensor	• 000: No paper • 001: Paper		M304	Original exit motor /2 (forward)	
	8		PS314	Original exit sensor /Rt	• 000: No paper • 001: Paper		M304	Original exit motor /2 (reverse)	
	9		PS305	Original empty sensor	• 000: No paper • 001: Paper		M305	Tray up-down motor (forward)	
	10		PS301	DF open-close sensor	• 000: Close • 001: Open		M305	Tray up-down motor (reverse)	
	11		MS301	Cover open-close switch 1	• 000: Close • 001: Open		SD302	Pressure roller release solenoid	
	12		PS318	Original registration sensor /Rt (DF-615)	• 000: No paper • 001: Paper		SD303	Gate solenoid	
	13		PS304	Reverse jam sensor	• 000: No paper • 001: Paper		SD304	Exit gate solenoid	
	14		PS312	Original skew sensor /Fr	• 000: No paper • 001: Paper		SD301	SDF switching solenoid	
	15		PS310	Original count sensor	• 000: No paper • 001: Paper		FM301, FM302	Cooling fan /Lt + cooling fan /Rt	
	16		PS311	Original skew sensor /Rr	• 000: No paper • 001: Paper				
	17		MFDBS, MFDBR	Multi feed detection boards /S and /R (DF-615)	• 000: Other than multi feed • 001: Multi feed				
	18		PS320	Centering sensor /Fr (DF-615)	• 000: No paper • 001: Paper				
	19		PS321	Centering sensor /Rr (DF-615)	• 000: No paper • 001: Paper				
68	1	LS (3rd tandem)	PS4	Entrance sensor	• 000: No paper • 001: Paper	LS (3rd tandem)	M2	Conveyance motor	
	2		PS10	Sub tray exit sensor	• 000: No paper • 001: Paper		M2	Conveyance motor	
	3		PS7	Conveyance sensor /1	• 000: No paper • 001: Paper		M3	Sub tray exit motor	
	4		PS16	Conveyance sensor /2	• 000: No paper • 001: Paper		M3	Sub tray exit motor	
	5		PS17	Conveyance sensor /3	• 000: No paper • 001: Paper		M6	Coupling conveyance motor	
	6		PS18	Coupling exit sensor	• 000: No paper • 001: Paper		M6	Coupling conveyance motor	
	7		PS6	Paper empty sensor	• 000: Full • 001: Other than full		M4	Grip conveyance motor	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	8		PS3	Stacker tray upper limit sensor	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 		M4	Grip conveyance motor	
	9		PS13	2,000 sheets stacked sensor	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		M7	Alignment motor (initial operation)	
	10		PS19	Paper detection sensor	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		M7	Alignment motor	
	11		PS14	5,000 sheets stacked sensor	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		M5	Shift unit motor (home position search) Search	
	12		PS9	Sub tray full sensor	<ul style="list-style-type: none"> • 000: Other than full • 001: Full 		M5	Shift unit motor	
	13		PS1	Stacker tray set sensor	<ul style="list-style-type: none"> • 000: Not set • 001: Set 		M1	Stacker tray up down motor (down)	
	14		RS1	Hand cart set switch	<ul style="list-style-type: none"> • 000: Not set • 001: Set 		M1	Stacker tray up down motor (up)	
	15		PS15	Stacker tray arm release sensor	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		SD1	1st gate solenoid	
	16		TOB	Paper exit switch	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		SD10	2nd gate solenoid	
	17		MS1	Front door switch	<ul style="list-style-type: none"> • 000: Close • 001: Open 		SD9	Front stopper solenoid	
	18		RS2	JAM door switch	<ul style="list-style-type: none"> • 000: Close • 001: Open 		SD3	Rear stopper solenoid	
	19		PS8	Subtray door sensor	<ul style="list-style-type: none"> • 000: Close • 001: Open 		SD8	Paper press solenoid /3	
	20		MS2	Stacker tray upper limit switch	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 		SD6	Paper press solenoid /1	
	21		MS3	Stacker tray lower limit switch	<ul style="list-style-type: none"> • 000: Other than lower limit • 001: Lower limit 		SD4	Front door lock solenoid	
	22		PS12	Alignment home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD11	Coupling conveyance lock solenoid	
	23		PS11	Shift unit home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD2	Job partition solenoid	
	24		PS5	Grip conveyance home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD7	Paper press solenoid /2	
	25						FM1, FM2, FM3, FM6	Paper cooling fan motor / Fr, Paper cooling fan motor /Mi, Paper cooling fan motor /1, /2	
	26						FM5	Paper cooling fan motor / Rr	
	32	LS (3rd tandem)	-	FNS connection detection signal	<ul style="list-style-type: none"> • 000: Not connected • 001: Connected 				
69	1					RU-509	SD1	Humidification section gate solenoid	
	2						SD2	De-curler gate solenoid /1	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	3						SD3	De-curler gate solenoid /2	
	6	RU-509	-	Humidifier unit set signal (DIPSW 4)	• 000: ON • 001: OFF				
	7		-	Subsequent stage connection detection	• 000: Connected • 001: Not connected				
	8		-	HM-102 connection detection	• 000: Not connected • 001: Connected				
	9		-	RU-509 connection detection	• 000: Not connected • 001: Connected				
	10		-	Water tank full sensor	• 000: Other than full • 001: Full				
	15					RU-509	M10	Humidification section roller pressure motor /Lt (home position search)	
	16						M10	Humidification roller pressure home sensor /Lt (Press)	Enabled after conducting home position search (69-15)
	17	RU-509	PS1	Entrance sensor	• 000: Paper • 001: No paper		M1	Entrance conveyance motor (400mm/s)	
	18		PS2	De-curler entrance sensor	• 000: Paper • 001: No paper		M2	Intermediate conveyance motor (400mm/s)	
	19		PS3	Color density detection timing sensor	• 000: Paper • 001: No paper		M4	Paper exit motor (1000mm/s)	
	20		PS4	Paper exit conveyance sensor	• 000: Paper • 001: No paper		M5	De-curler pressure motor (home position search)	
	21		PS5	De-curler pressure home sensor /Lw	• 000: Home position • 001: Other than home position		M5	De-curler pressure motor / Lw	Enabled after conducting home position search (69-20)
	22		PS6	De-curler pressure home sensor /Up	• 000: Other than home position • 001: Home position		M6	De-curler pressure motor / Up (home position search)	
	23						M6	De-curler pressure motor / Up	Enabled after conducting home position search (69-22)
	25						FM1, FM2, FM3	Entrance paper fan /1, /2, /3	
	26						FM4, FM5	Ventilation assist fan /1, /2	
	27						FM15, FM16, FM17	Entrance paper fan /4, /5, /6	
	28						FM18, FM19, FM20	Entrance paper fan /7, /8, /9	
	29						FM21	Ventilation assist fan /3	
	30	RU-509	SW1	Door switch	• 000: Open • 001: Close		JAMIB	Jam indication board	
	31						M3	De-curler conveyance motor (400mm/s)	
	33	RU-509	PS7	Humidification section entrance sensor	• 000: Paper • 001: No paper		M7	Humidification section entrance conveyance motor (400mm/s)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	34		PS8	Water tank empty sensor	• 000: No water • 001: Water		P1	Pump motor	
	35		PS9	Humidification section roller pressure home sensor /Rt	• 000: Other than home position • 001: Home position		M9	Humidification section roller pressure motor /Rt (home position search)	
	36		PS10	Humidification section roller pressure home sensor /Lt	• 000: Other than home position • 001: Home position		M9	Humidification section roller pressure motor/Rt (Press)	Enabled after conducting home position search (69-35)
	37						M8	Humidification section conveyance motor (400mm/s)	
	40		PS12	Paper exit sensor	• 000: Paper • 001: No paper				
	41					RU-509	FM6, FM7, FM8	Humidification section paper fan /1, /2, /3	
	44						FM9, FM10, FM11	Humidification section paper fan /4, /5, /6	
	49		CDDB Y	Color density detection board /Y (LED OFF)	Display top 8 bit out of 16bit		CDLE DY, CDLE DM, CDLE DC, CDLE DK	Color density LED/Y, Color density LED/M, Color density LED/C, Color density LED/K	
	50		CDDB M	Color density detection board /M (LED OFF)	Display top 8 bit out of 16bit		SD5	Shutter solenoid	
	51		CDDB C	Color density detection board /M (LED OFF)	Display top 8 bit out of 16bit				
	52		CDDB K	Color density detection board /K (LED OFF)	Display top 8 bit out of 16bit				
	53		CDDB Y	Color density detection board /Y (LED ON)	Display top 8 bit out of 16bit				
	54		CDDB M	Color density detection board /M (LED ON)	Display top 8 bit out of 16bit				
	55		CDDB C	Color density detection board /C (CDDBC)	Display top 8 bit out of 16bit				
	56		CDDB K	Color density detection board /K (LED ON)	Display top 8 bit out of 16bit				
70	1	FD	PS1	FD entrance sensor	• 000: Paper • 001: No paper	FD	M1	Entrance conveyance motor	
	2		PS4	PI exit sensor	• 000: No paper • 001: Paper		M2	Punch conveyance motor	
	3		PS5	Punch conveyance sensor	• 000: Paper • 001: No paper		M3	Intermediate conveyance motor	
	4		PS7	Main tray folding paper full sensor	• 000: Full • 001: Other than full		M4	1st folding motor (F rotation)	
	5		PS8	2 holes punch home sensor	• 000: Other than home position • 001: Home position		M4	1st folding motor (R rotation)	
	6		PS9	3 holes/4 holes home sensor	• 000: Other than home position • 001: Home position		M5	2nd folding motor (F rotation)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	7		PS10	Alignment plate home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M5	2nd folding motor (R rotation)	
	8		PS11	Punch registration home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M6	3rd folding motor (F rotation)	
	9		PS12	Punch scraps box set sensor	<ul style="list-style-type: none"> • 000: Not set • 001: Set 		M6	3rd folding motor (R rotation)	
	10		PS13	Intermediate conveyance sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		M7	PI conveyance motor	
	11		PS16	Sub tray exit sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		M8	Paper lift motor /Up (down)	
	12		PS17	Sub tray paper full sensor	<ul style="list-style-type: none"> • 000: Full • 001: Other than full 		M8	Paper lift motor /Up (up)	
	13		PS18	Main tray paper exit sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		M9	Paper lift motor /Lw (down)	
	14		PS20	Main tray upper limit sensor	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 		M9	Paper lift motor /Lw (up)	
	15		PS22	Main tray lower limit sensor	<ul style="list-style-type: none"> • 000: Other than lower limit • 001: Lower limit 		M17	Main tray exit motor	
	16		PS23	Main tray empty sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 				
	17		PS26	Punch scraps full sensor	<ul style="list-style-type: none"> • 000: Full • 001: Other than full 				
	21					FD	M10	Punch motor (3 holes)	
	22	FD	PS2	Folding exit sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		M10	Punch motor (2 holes)	
	23		CN90	Main tray connection recognition (CN90 connection)	<ul style="list-style-type: none"> • 000: Connected • 001: Unconnected 		M11	Tray up down motor (home position search)	
	24		PS51	1st folding conveyance sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M12	Alignment motor (home position search)	
	25		PS52	Folding entrance sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 				
	26		PS53	2nd folding conveyance sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 	FD	M13	Punch registration motor	
	27		PS54	3rd folding conveyance sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M14	1st folding release motor (conveyance position move)	
	28		PS55	1st folding cam home sensor	<ul style="list-style-type: none"> • 000: Pressure • 001: Release 		M14	1st folding release motor (folding position move)	ON: Folding position OFF: Conveyance position
	29		PS56	2nd folding cam home sensor	<ul style="list-style-type: none"> • 000: Pressure • 001: Release 		M15	2nd folding release motor (conveyance position move)	
	30		PS57	3rd folding cam home sensor	<ul style="list-style-type: none"> • 000: Pressure • 001: Release 		M15	2nd folding release motor (folding position move)	ON: Folding position OFF: Conveyance position
	31		PS58	S size conveyance sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		M16	3rd folding release motor (conveyance position move)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	32		PS6	Punch registration sensor	• 000: No paper • 001: Paper		M16	3rd folding release motor (folding position move)	ON: Folding position OFF: Conveyance position
	33		FDOB	Staple selection switch	• 000: ON • 001: OFF				
	34		FDOB	Punch selection switch	• 000: ON • 001: OFF				
	35		FDOB	Folding selection switch	• 000: ON • 001: OFF				
	36		FDOB	Start/Stop switch	• 000: ON • 001: OFF				
	37		FDOB	Multi-feed function select switch	• 000: ON • 001: OFF				
	39		PS46	Sub tray folding paper full sensor	• 000: Other than full • 001: Full				
	40		PS31	PI conveyance sensor /Up	• 000: No paper • 001: Paper				
	41		PS37	PI conveyance sensor /Lw	• 000: No paper • 001: Paper				
	42		PS32	PI upper limit sensor /Up	• 000: Other than upper limit • 001: Upper limit				
	43		PS33	PI paper empty sensor /Up	• 000: Other than full • 001: Full				
	44		PS34	PI lift plate home sensor / Up	• 000: Other than home position • 001: Home position				
	45		PS35	L size sensor /Up	• 000: Paper • 001: No paper				
	46		PS36	S size sensor /Up	• 000: Paper • 001: No paper				
	48		PS38	PI upper limit sensor /Lw	• 000: Other than upper limit • 001: Upper limit				
	49		PS39	PI paper empty sensor /Lw	• 000: Other than full • 001: Full				
	50		PS40	PI lift plate home sensor / Lw	• 000: Other than home position • 001: Home position				
	51		PS41	L size sensor /Lw	• 000: Paper • 001: No paper				
	52		PS42	S size sensor /Lw	• 000: Paper • 001: No paper				
	53		PS43	PI cover open/close sensor	• 000: Open • 001: Close				
	54		PS44	PI paper set sensor /Up	• 000: Paper • 001: No paper				
	55		PS45	PI paper set sensor /Lw	• 000: Paper • 001: No paper				
	61		PS47	PI max paper size sensor / Up	• 000: Paper • 001: No paper	FD	SD1	Entrance gate solenoid	
	62		PS48	PI max paper size sensor / Lw	• 000: Paper • 001: No paper		SD3	S size gate solenoid	
	63						SD4	L size gate solenoid	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	64	FD	-	FD connection detection signal	• 000: Not connected • 001: Connected		SD5	Roller solenoid /1	
	65						SD6	Roller solenoid /2	
	66						SD7	Roller solenoid /3	
	67						SD8	Roller solenoid /4	
	68						SD9	Sub tray gate solenoid	
	69						SD12	Paper exit solenoid	
	70						SD13	PI pick-up solenoid /Up	
	71						SD14	PI pick-up solenoid /Lw	
	72						SD15	Folding gate solenoid	
	74						SD18	2nd folding roller solenoid	
	75						CL1	PI registration clutch /Up	
	76						CL2	PI registration clutch /Lw	
	82						MFDB 1	Multi-feed detection board /1 (CLK output)	
	89						FDOB	FD operation board (lit all LEDs)	
	90						JAMIB	Jam indication board (lit all LEDs)	
71	1	SD-506	PS1	Entrance sensor	• 000: No paper • 001: Paper	SD-506	M1	Entrance conveyance motor	
	2		PS2	Horizontal conveyance sensor /1	• 000: No paper • 001: Paper		M2	Horizontal conveyance motor	
	3		PS3	Horizontal conveyance sensor /2	• 000: No paper • 001: Paper		M3	Folding entrance motor	
	4		PS4	Horizontal conveyance exit sensor	• 000: No paper • 001: Paper		M4	Folding transfer motor (F rotation)	
	5		PS5	Right angle conveyance sensor /1	• 000: Paper • 001: No paper		M4	Folding transfer motor (R rotation)	
	6		PS6	Right angle conveyance sensor /2	• 000: Paper • 001: No paper		M6	Right angle conveyance motor	
	7		PS7	Folding sensor /1	• 000: Paper • 001: No paper		M29	Stapler motor /Rt (1 staple)	
	8		PS8	Folding passage sensor	• 000: No paper • 001: Paper		M30	Stapler motor /Lt (1 staple)	
	9		PS17	Overlap home sensor	• 000: Other than home position • 001: Home position		M5	Bundle exit motor	
	10		PS18	Folding main scan alignment home sensor / Fr1	• 000: Home position • 001: Other than home position		M8	Folding sub scan alignment exit motor	
	11		PS49	Folding main scan alignment home sensor / Fr2	• 000: Home position • 001: Other than home position				
	12		PS20	1st folding blade home sensor /1	• 000: Home position • 001: Other than home position				
	13		PS21	1st folding blade home sensor /2	• 000: Other than home position • 001: Home position				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	14		PS22	2nd folding blade home sensor /1	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 				
	15		PS23	2nd folding blade home sensor /2	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	16		PS24	Folding exit home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	17		PS9	Tri-folding exit sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 				
	18		PS10	Tri-folding paper full sensor	<ul style="list-style-type: none"> • 000: Full • 001: Other than full 				
	19		PS11	Sub tray exit sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 				
	20		PS12	Sub tray paper full sensor	<ul style="list-style-type: none"> • 000: Full • 001: Other than full 				
	21		PS44	Folding sensor /2	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 	SD-506	M5	Bundle exit motor (home position search)	
	22		PS19	Folding main scan alignment home sensor /Rr	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	23		PS46	Guide shaft home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	24		HS2/ HS4	Clincher start sensors /Rt and /Lt	<ul style="list-style-type: none"> • 000: Clinch • 001: No clinch 	SD-506	M7	Folding main scan alignment motor /Fr (home position search)	
	25						M7	Folding main scan alignment motor /Fr (alignment)	Enabled after conducting home position search (71-24)
	27						M8	Folding sub scan alignment motor (home position search)	
	29						M9	Saddle stitching alignment motor /Rt (home position search)	
	30						M9	Saddle stitching alignment motor /Rt (inward movement)	Enabled after conducting home position search (71-29)
	31						M10	Bundle exit motor (home position search)	
	32						M10	Bundle arm motor (inward movement)	Enabled after conducting home position search (71-31)
	33	SD-506	PS13	Saddle stitching paper sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M11	Bundle clip motor (home position search)	
	34		PS14	Bundle sensor /1	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M12	Bundle registration motor (home position search)	
	35		PS15	Bundle sensor /2	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M13	Overlap motor (home position search)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	36		PS16	Bundle registration plate home sensor	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		M14	Folding main scan alignment motor /Rr (home position search)	
	37		PS25	Stapler movement home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M14	Folding main scan alignment motor /Rr (forward movement)	After conducting home position search (71-36)
	38		PS26	Clincher up down home sensor	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 				
	39		PS27	Saddle stitching press home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 	SD-506	M15	Stapler movement motor (home position search)	
	40		PS28	Saddle stitching alignment home sensor /Rt	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M15	Stapler movement motor (staple position movement)	
	41		PS29	Saddle stitching alignment home sensor /Lt	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M16	Saddle stitching alignment motor /Lt (home position search)	
	42		PS33	Bundle clip upper limit sensor	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 		M16	Saddle stitching alignment motor /Lt (inward movement)	
	43		PS30	Bundle clip lower limit sensor	<ul style="list-style-type: none"> • 000: Other than lower limit • 001: Lower limit 		M17	Bundle press movement motor (home position search)	
	44		PS32	Bundle arm home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M18	1st folding blade motor (home position search)	
	45		PS31	Bundle arm rotation home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M19	2nd folding blade motor (home position search)	
	46		PS34	Bundle registration home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M20	Clincher up down motor (home position search)	
	47		PS35	Bundle press stage up down home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M20	Clincher up down motor (stapling)	
	48		PS45	Bundle press stage up down limit sensor	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 		M21	Saddle stitching press motor (home position search)	
	49		PS37	Bundle press home sensor	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		M22	Bundle arm rotation motor (home position search)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	50		PS47	Bundle press lower limit sensor	<ul style="list-style-type: none"> • 000: Lower limit • 001: Other than lower limit 		M23	Bundle press motor (home position search)	
	51		PS48	Scraps press home sensor	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		M24	Bundle press stage up down motor (home position search)	
	52		PS40	Scraps box set sensor	<ul style="list-style-type: none"> • 000: Not set • 001: Set 		M25	Guide shaft motor (home position search)	
	53		PS41	Trimmer scraps full sensor	<ul style="list-style-type: none"> • 000: Full • 001: Other than full 		M31	Trimmer blade motor (home position search)	
	54		PS36	Bundle press movement home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M31	Trimmer blade motor (trimming position)	
	55		PS38	Bundle arm assist home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M32	Trimmer press motor (home position search)	
	56		PS39	Bundle arm assist upper limit sensor	<ul style="list-style-type: none"> • 000: Upper limit • 001: Other than upper limit 		M32	Trimmer press motor (upper limit search)	
	57		SW1	Staple empty switch /Rt	<ul style="list-style-type: none"> • 000: Staple • 001: No staple 		M32	Trimmer press motor (pressing)	Enabled after conducting home position search (71-55)
	58		SW2	Staple empty switch /Lt	<ul style="list-style-type: none"> • 000: Staple • 001: No staple 		M32	Trimmer press motor (movement to trimmer board release position)	Enabled after conducting home position search (71-55)
	59		HS1	Stapler home sensor /Rt	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		M10	Bundle arm motor (inward movement)	
	60		HS3	Stapler home sensor /Lt	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		M23	Bundle press motor (pressing)	
	61		PS50	Trimmer blade home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M24	Bundle press stage up down motor (up)	
	62		PS51	Trimmer blade upper limit sensor	<ul style="list-style-type: none"> • 000: Upper limit • 001: Other than upper limit 		M24	Bundle press stage up down motor (home position search for the bundle registration plate)	
	63		PS52	Trimmer press upper limit sensor	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 		M26	Bundle arm assist motor (home position search)	
	64		PS53	Trimmer press home sensor	<ul style="list-style-type: none"> • 000: Other than lower limit • 001: Lower limit 				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	65		PS42	Front door sensor /Rt	• 000: Close • 001: Open	SD-506	M33	Trimmer paddle motor (forward rotation)	
	66		PS43	Front door sensor /Lt	• 000: Close • 001: Open		M33	Trimmer paddle motor (reverse rotation)	
	67		PS54	Bundle sensor /4	• 000: No paper • 001: Paper				
	68		PS55	Trimmer registration sensor	• 000: Other than registration position • 001: Registration position				
	69		PS56	Folding sub scan alignment home sensor	• 000: Other than home position • 001: Home position				
	70		PS57	Bundle exit sensor /2	• 000: Paper • 001: No paper				
	71		PS58	Bundle tray set sensor	• 000: Set • 001: Not set	SD-506	SD1	Entrance gate solenoid	
	72		PS59	Trimmer board replacement sensor	• 000: Not replace • 001: replace		SD2	Right angle conveyance gate solenoid	
	73						SD3	Horizontal conveyance gate solenoid	
	74						SD4	Roller release solenoid /4	
	75	SD-506	PS61	Bundle tray paper full sensor	• 000: Other than full • 001: Full		SD5	Roller release solenoid /1 (roller press)	
	76						SD5	Roller release solenoid /1 (roller release)	
	77	SD-506	PS60	Folding entrance sensor	• 000: Paper • 001: No paper		SD6	Roller release solenoid /2	
	78						SD7	Roller release solenoid /3 (roller press)	
	79						SD7	Roller release solenoid /3 (roller release)	
	80						SD8	Folding unit lock solenoid (lock)	
	81	SD-506	PS62	Trimmer completion sensor	• 000: Other than complete • 001: Complete		SD8	Folding unit lock solenoid (release)	
	82						SD11	Trimmer board solenoid (ON once)	
	83	SD-506	PS66	Wire slack prevention sensor	• 000: Without slack • 001: With slack		SD11	Trimmer board solenoid (ON twice)	
	84		-	New trimming unit connection detection	• 000: Connected • 001: Not connected		SD12	Brake solenoid	
	86						CL1	Tri-folding exit clutch	
	87						FM1	Scraps removal fan motor	
	88	SD-506	-	FNS connection detection signal	• 000: Not connected • 001: Connected	SD-506			
	90						JAMIB /2	Jam indication board (LED ON)	
	95						-	Trimmer board solenoid operation counter reset	Reset after replace the trimmer board
	96						-	Set of trimming operation	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	97						M32	Trimmer press motor (Move the trimmer board replace position after home position search)	
	98						M32, SD11	Trimmer board forced movement (Turn ON SD11 after the trimmer press motor moves to the trimmer board replacement position)	
72	1	FS-532	PS1	FNS entrance sensor	• 000: Paper • 001: No paper	FS-532	M1	FNS entrance motor (1000mm/s)	
	2		PS5	Paper overlap sensor /3	• 000: Paper • 001: No paper		M2	FNS conveyance motor /2 (1000mm/s)	
	3		PS6	Staple center position sensor	• 000: Other than the center position • 001: Center position		M3	FNS conveyance motor /3 (1000mm/s)	
	4		PS7	Staple scraps box full sensor	• 000: Other than full • 001: Full		M4	FNS conveyance motor /4 (1000mm/s) (MK-732)	
	5		PS8	Sub tray exit sensor	• 000: No paper • 001: Paper		M5	Stacker entrance motor (1000mm/sec)	
	6		PS9	Sub tray paper full sensor	• 000: Other than full • 001: Full		M6	Paper exit motor (1000mm/s)	
	7		PS10	Main tray paper exit sensor	• 000: Paper • 001: No paper				
	8		PS11	Stack assist home sensor	• 000: Other than home position • 001: Home position	FS-532	M8	Stack assist motor (Home position search)	
	9		PS12	Stack alignment home sensor	• 000: Other than home position • 001: Home position		M9	Stacker alignment motor (home position move)	
	10		PS13	Paper exit opening sensor	• 000: Other than home position • 001: Home position		M9	Stacker alignment motor (A4S standby position move)	Available only from the home position
	11		PS14	Main tray upper limit sensor	• 000: Other than upper limit • 001: Upper limit		M9	Stacker alignment motor (Alignment operation)	Available only from A4S position
	12		PS15	Paper removal sensor	• 000: No paper • 001: Paper		M9	Stacker alignment motor (A4S standby position move)	Available only after the alignment operation
	13		PS16	3000 sheets sensor	• 000: Other than 3,000 sheets position • 001: 3,000 sheets position		M10	Paper exit opening motor (Home position move (Close))	
	14		PS17	Main tray quarter position sensor	• 000: Other than the quarter position • 001: Quarter position		M10	Paper exit opening motor (Opening big (In A4S staple mode))	Available only from the home position

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	15		PS18	Main tray middle position sensor	<ul style="list-style-type: none"> • 000: Other than the middle position • 001: Middle position 		M11	Main tray up down motor (Home position move)	
	16		PS19	4000 sheets sensor	<ul style="list-style-type: none"> • 000: Other than 4,000 sheets position • 001: 4,000 sheets position 				
	17		PS20	Paper exit alignment plate home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	18		PS21	Paper exit alignment plate up down home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 	FS-532	M12	Paper exit alignment plate motor (Home position search)	
	19		PS22	Stapler movement home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M12	Paper exit alignment plate motor (Move from home position to A4S shelter position)	Available only from the home position
	20		PS23	Main tray home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M12	Paper exit alignment plate motor (Move from A4S shelter position to alignment position)	Available only from A4S alignment position
	21		PS24	Gripper home sensor /Up	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M12	Paper exit alignment plate motor (Move from alignment position to A4S shelter position)	Available only after the alignment operation
	22		PS25	Gripper exit sensor /Lw	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		M13	Paper exit alignment plate up down motor (Home position search)	
	23		PS26	Small size paper alignment home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M13	Paper exit alignment plate up down motor (Move from home position to alignment position)	Available only from the home position
	24		PS27	Stack rear home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M14	Stapler movement motor (Home position move)	
	25		PS28	Stacker empty sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		M14	Stapler movement motor (move to A4 size 1-stapling position)	
	26		PS29	Stacker rear stopper home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M15	Tray shift roller motor (Home position search)	
	27		PS30	Stacker paper press home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M16	Gripper exit motor /Up (Home position search)	
	28		PS31	Conveyance gate home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M17	Gripper exit motor /Lw (Home position search)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	29		PS32	Paper overlap sensor /1	• 000: Paper • 001: No paper		M18	Small size paper alignment motor (Home position search)	
	30		PS33	Paper overlap sensor /2	• 000: Paper • 001: No paper		M19	Stacker movement motor (Home position search)	
	31		PS34	Roller pressure motor home sensor	• 000: Other than home position • 001: Home position		M20	Stacker rear stopper motor (Home position search)	
	32		PS35	Staple scraps box set sensor	• 000: Not set • 001: Set		M21	Stacker paper press motor (Home position search)	
	33		PS36	Bypass gate home sensor	• 000: Other than home position • 001: Home position		M22	Conveyance gate motor (Home position search)	
	34		PS37	Exit paper press home sensor	• 000: Other than home position • 001: Home position				
	35		PS38	Rewind paddle release home sensor	• 000: Other than home position • 001: Home position				
	36					FS-532	M25	Bypass gate motor (Home position search)	
	37	FS-532	PS41	Staple empty sensor	• 000: Staple • 001: No staple		M26	Exit paper press motor (Home position search)	
	38		PS40	Stapler home sensor	• 000: Home position • 001: Other than home position		M27	Roller pressure motor (Home position search)	
	39		PS42	Cartridge set sensor	• 000: Cartridge • 001: No cartridge		M28	Rewind paddle release motor (Home position search)	
	40		PS43	Stack upper section sensor	• 000: Paper • 001: No paper				
	41		PS44	Stacker rear alignment sensor	• 000: Not detected • 001: Detected				
	42		PS45	Door sensor	• 000: Open • 001: Close	FS-532	M31	Stapler motor (stapling)	Available after initialization
	43		PS46	Main tray near empty sensor	• 000: No paper • 001: Paper				
	44					FS-532	FM1	Large size paper alignment fan	
	45	FS-532	-	SD-510 connection detection (SD-510)	• 000: Not connected • 001: Connected				
	46		PS120	Tray exit sensor /1 (SD-510)	• 000: No paper • 001: Paper				
	47		PS121	Tray exit sensor /2 (SD-510)	• 000: No paper • 001: Paper				
	48		PS122	Tray lift up sensor (SD-510)	• 000: Not detected • 001: Detected				
	49					FS-532	M120	Saddle stitching exit motor (SD-510)	
	50	FS-532	PS101	Stacker empty sensor /Up (SD-510)	• 000: No paper • 001: Paper		M101	SD entrance motor (1000mm/sec) (SD-510)	
	51		PS102	SD entrance sensor (SD-510)	• 000: No paper • 001: Paper		M102	SD stapler motor (stapling) (SD-510)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	52		PS103	Stapler home sensor (SD-510)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M103	Stapler movement motor (Home position search) (SD-510)	
	53		PS104	Staple empty sensor (SD-510)	<ul style="list-style-type: none"> • 000: Staple • 001: No staple 		M104	Saddle stitching alignment motor (Home position search) (SD-510)	
	54		PS105	Stapler shift home sensor (PS-510)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M105	Stopper motor (Home position search) (SD-510)	
	55		PS106	Alignment home sensor (SD-510)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M106	Center paddle motor (Home position search) (SD-510)	
	56		PS107	Stopper home sensor (SD-510)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M107	1st folding knife motor (Home position search) (SD-510)	
	57		PS108	Center paddle home sensor (SD-510)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M108	Folding roller motor (Rotate) (SD-510)	
	58		PS114	Lower paddle home sensor (SD-510)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M109	Lower paddle motor (Home position search) (SD-510)	
	59		PS110	1st folding knife home sensor (SD-510)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M110	2nd folding knife motor (Home position search) (SD-510)	
	60		PS111	2nd folding knife home sensor (SD-510)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	61		PS112	2nd folding sensor (SD-510)	<ul style="list-style-type: none"> • 000: Not detected • 001: Detected 	FS-532	SD101	2nd folding gate solenoid (SD-510)	
	62		PS113	Folding exit sensor (SD-510)	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		SD102	Rear gripper solenoid (SD-510)	
	64		PS115	Stacker empty sensor /Lw (SD-510)	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 				
	65					FS-532	M302	Punch shift motor (Home position search) (PK-522)	
	66						M302	Punch shift motor (PK-522)	
	69	FS-532	PS301	Punch home sensor (for 2/4-Hole) (PK-522)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M301	Punch motor (Home position search) (PK-522)	
	70		PS307	Punch home sensor (for 3/4-Hole) (PK-522)	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M301	Punch motor (2-hole PK punch execute) (PK-522)	72-69 must have been performed in advance.
	71		PS306	Punch encoder sensor (PK-522)	<ul style="list-style-type: none"> • 000: Transparent • 001: Light blocked 		M301	Punch motor (3/4-hole PK punch execute) (PK-522)	72-69 must have been performed in advance.

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	72		PS302	Punch scraps box full sensor (PK-522)	• 000: Full • 001: Other than full				
	73		PS304	Punch scraps box set sensor (PK-522)	• 000: Not set • 001: Set	FS-532	JAMIB	Jam indicator board (Illuminate all LEDs)	
	74		PS303	Punch shift home sensor (PK-522)	• 000: Other than home position • 001: Home position				
	75		PS305	Paper size sensor (PK-522)	• 000: No paper • 001: Paper				
	76		PS305	Paper size sensor (PK-522)	• 000: No paper • 001: Paper				
	77		PS305	Paper size sensor (PK-522)	• 000: No paper • 001: Paper	FS-532	LED1	Main tray upper limit LED (Illuminate LED)	
	78		PS305	Paper size sensor (PK-522)	• 000: No paper • 001: Paper				
	79		PS305	Paper size sensor (PK-522)	• 000: No paper • 001: Paper				
	80		-	PK connection detection (PK-522)	• 000: Connected • 001: Not connected				
	81		SW1	Paper exit switch	• 000: ON • 001: OFF				
	82		PS206	Paper pass-through sensor /Lw (PI-502)	• 000: No paper • 001: Paper				
	83		PS201	Paper pass-through sensor /Up (PI-502)	• 000: No paper • 001: Paper	FS-532	M203	Conveyance motor (667mm/sec) (PI-502)	
	84		PS203	Paper set sensor /Up (PI-502)	• 000: No paper • 001: Paper		CL201	Conveyance clutch /Up (PI-502)	
	85		PS205	Upper limit sensor /Up (Upper tray) (PI-502)	• 000: Other than upper limit • 001: Upper limit		CL202	Conveyance clutch /Lw (PI-502)	
	86		PS204	Lower limit sensor /Up (Upper tray) (PI-502)	• 000: Other than lower limit • 001: Lower limit		M201	Tray lift motor /Up (move down: home position search) (PI-502)	
	87		PIOB	Sheet feeder manual start/clear switch (PI-502)	• 000: OFF • 001: ON		M201	Tray lift motor /Up (Up) (PI-502)	
	88		PIOB	Sheet feeder manual punch button switch (PI-502)	• 000: OFF • 001: ON		M202	Tray lift motor /Lw (Move down: Home position search) (PI-502)	
	89		PIOB	Sheet feeder manual function selection button switch (PI-502)	• 000: OFF • 001: ON		M202	Tray lift motor /Lw (Up) (PI-502)	
	90		MS201	Upper door open/close switch (PI-502)	• 000: Open • 001: Close		SD201	Pick-up solenoid /Up (PI-502)	
	91		PS207	Paper empty sensor /Lw (PI-502)	• 000: No paper • 001: Paper		SD202	Pick-up solenoid /Lw (PI-502)	
	92		PS208	Large size sensor /Lw (PI-502)	• 000: No paper • 001: Paper		CL203	Registration clutch (PI-502)	
	93		PS209	Upper limit sensor /Lw (Lower tray) (PI-502)	• 000: Other than upper limit • 001: Upper limit		PIOB	PI control board (illuminate all LEDs) (PI-502)	
	94		PS210	Tray lower limit sensor /Lw (Lower tray) (PI-502)	• 000: Other than lower limit • 001: Lower limit				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	95		PS202	Paper empty sensor /Up (PI-502)	• 000: No paper • 001: Paper				
	96		PS212	Paper set sensor	• 000: No paper • 001: Paper				
	97		-	PK connection detection (PI-502)	• 000: Not connected • 001: Connected				
	99		-	FS connection detection	• 000: Not connected • 001: Connected				
73	1	LS (1st tandem)	PS4	Entrance sensor	• 000: No paper • 001: Paper	LS (1st tandem)	M2	Conveyance motor	
	2		PS10	Sub tray exit sensor	• 000: No paper • 001: Paper		M2	Conveyance motor	
	3		PS7	Conveyance sensor /1	• 000: No paper • 001: Paper		M3	Sub tray exit motor	
	4		PS16	Conveyance sensor /2	• 000: No paper • 001: Paper		M3	Sub tray exit motor	
	5		PS17	Conveyance sensor /3	• 000: No paper • 001: Paper		M6	Coupling conveyance motor	
	6		PS18	Coupling exit sensor	• 000: No paper • 001: Paper		M6	Coupling conveyance motor	
	7		PS6	Paper empty sensor	• 000: Full • 001: Other than full		M4	Grip conveyance motor	
	8		PS3	Stacker tray upper limit sensor	• 000: Other than upper limit • 001: Upper limit		M4	Grip conveyance motor	
	9		PS13	2,000 sheets stacked sensor	• 000: OFF • 001: ON		M7	Alignment motor (initial operation)	
	10		PS19	Paper detection sensor	• 000: OFF • 001: ON		M7	Alignment motor	
	11		PS14	5,000 sheets stacked sensor	• 000: OFF • 001: ON		M5	Shift unit motor (home position search)	
	12		PS9	Sub tray full sensor	• 000: Other than full • 001: Full		M5	Shift unit motor	
	13		PS1	Stacker tray set sensor	• 000: Not set • 001: Set		M1	Stacker tray up down motor (down)	
	14		RS1	Hand cart reset switch	• 000: Not set • 001: Set		M1	Stacker tray up down motor (up)	
	15		PS15	Stacker tray arm release sensor	• 000: OFF • 001: ON		SD1	1st gate solenoid	
	16		TOB	Paper exit switch	• 000: OFF • 001: ON		SD10	2nd gate solenoid	
	17		MS1	Front door switch	• 000: Close • 001: Open		SD9	Front stopper solenoid	
	18		RS2	JAM door switch	• 000: Close • 001: Open		SD3	Rear stopper solenoid	
	19		PS8	Sub tray door sensor	• 000: Close • 001: Open		SD8	Paper press arm solenoid / 3	
	20		MS2	Stacker tray upper limit switch	• 000: Other than upper limit • 001: Upper limit		SD6	Paper press arm solenoid / 1	
	21		MS3	Stacker tray lower limit switch	• 000: Other than lower limit • 001: Lower limit		SD4	Front door lock solenoid	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	22		PS12	Alignment home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD11	Tandem conveyance lock solenoid	
	23		PS11	Shift unit home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD2	Job partition solenoid	
	24		PS5	Grip conveyance home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD7	Paper press solenoid /2	
	25						FM1, FM2, FM3, FM6	Paper cooling fan motor / Fr, Paper cooling fan motor /Mi, Paper cooling fan motor /1, /2	
	26						FM5	Paper cooling fan motor / Rr	
	32	LS (1st tandem)	-	FNS connection detection signal	<ul style="list-style-type: none"> • 000: Not connected • 001: Connected 				
74	1					LS (2nd tandem)	M2	Conveyance motor	
	2						M2	Conveyance motor	
	3						M3	Sub tray exit motor	
	4						M3	Sub tray exit motor	
	5						M6	Coupling conveyance motor	
	6						M6	Coupling conveyance motor	
	7						M4	Grip conveyance motor	
	8						M4	Grip conveyance motor	
	9	LS (2nd tandem)	PS13	2,000 sheets stacked sensor	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		M7	Alignment motor (initial operation)	
	10		PS19	Paper detection sensor	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		M7	Alignment motor	
	11		PS14	5,000 sheets stacked sensor	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		M5	Shift unit motor (home position search)	
	12		PS9	Sub tray full sensor	<ul style="list-style-type: none"> • 000: Other than full • 001: Full 		M5	Shift unit motor	
	13		PS1	Stacker tray set sensor	<ul style="list-style-type: none"> • 000: Not set • 001: Set 		M1	Stacker tray up down motor (down)	
	14		RS1	Hand cart reset switch	<ul style="list-style-type: none"> • 000: Not set • 001: Set 		M1	Stacker tray up down motor (up)	
	15		PS15	Stacker tray arm release sensor	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		SD1	1st gate solenoid	
	16		TOB	Paper exit switch	<ul style="list-style-type: none"> • 000: OFF • 001: ON 		SD10	2nd gate solenoid	
	17		MS1	Front door switch	<ul style="list-style-type: none"> • 000: Close • 001: Open 		SD9	Front stopper solenoid	
	18		RS2	JAM door switch	<ul style="list-style-type: none"> • 000: Close • 001: Open 		SD3	Rear stopper solenoid	
	19		PS8	Sub tray door sensor	<ul style="list-style-type: none"> • 000: Close • 001: Open 		SD8	Paper press arm solenoid / 3	
	20		MS2	Stacker tray upper limit switch	<ul style="list-style-type: none"> • 000: Other than upper limit • 001: Upper limit 		SD6	Paper press arm solenoid / 1	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	21		MS3	Stacker tray lower limit switch	<ul style="list-style-type: none"> • 000: Other than lower limit • 001: Lower limit 		SD4	Front door lock solenoid	
	22		PS12	Alignment home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD11	Tandem conveyance lock solenoid	
	23		PS11	Shift unit home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD2	Job partition solenoid	
	24		PS5	Grip conveyance home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		SD7	Paper press solenoid /2	
	25						FM1, FM2, FM3, FM6	Paper cooling fan motor / Fr, Paper cooling fan motor /Mi, Paper cooling fan motor /1, /2	
	26						FM5	Paper cooling fan motor / Rr	
	32	LS (2nd tandem)	-	FNS connection detection signal	<ul style="list-style-type: none"> • 000: Not connected • 001: Connected 				
76	1	RU-510	PS7	Gate home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	2		PS8	Stack switch home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	3		-	Subsequent stage connection detection	<ul style="list-style-type: none"> • 000: Connected • 001: Not connected 				
	7		PS5	Stacker jam sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 				
	21					RU-510	M5	Gate motor (home position move)	
	24		-				M6	Stack switch motor (home position move)	
	29	RU-510	PS1	Entrance sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M1	Entrance conveyance motor	
	40		-	FNS connection detection signal	<ul style="list-style-type: none"> • 000: Not connected • 001: Connected 				
	42		PS4	CD alignment home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 	RU-510	M4	CD alignment motor (home position move)	
	43		PS2	Paper exit sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M2	Paper exit motor	
	44		PS6	Entrance jam sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	46		PS3	FD alignment home sensor	• 000: Other than home position • 001: Home position	RU-510	M3	FD alignment motor (home position move)	
	49		MS1	Interlock switch	• 000: ON • 001: OFF				
	52					RU-510	FM1, FM2	Stack assist fan /Fr ,/Rr	
	90						JAMIB	JAM indicator board (lit all LEDs)	
77	1	PB	PS1	Entrance sensor	• 000: Paper • 001: No paper	PB	M1	Entrance conveyance motor	
	2		PS2	SC entrance sensor	• 000: Paper • 001: No paper		M2	Intermediate conveyance motor	
	3		PS3	Cover paper entrance sensor	• 000: No paper • 001: Paper		SD1	Entrance gate solenoid	
	4		PS4	Sub tray exit sensor	• 000: No paper • 001: Paper		SD2	Bypass gate solenoid	
	5		PS5	Sub tray full sensor	• 000: Full • 001: Other than full		SD3	Sub tray gate solenoid	
	6						SD4	Sub tray exit solenoid	
	7						M11	SC entrance conveyance motor	
	8	PB	PS12	SC switchback arm pressure detection sensor	• 000: Press • 001: Release		M12	SC switchback conveyance motor (F rotation)	
	9		PS13	SC switchback spring pressure detection sensor	• 000: Release • 001: Press		M12	SC switchback conveyance motor (R rotation)	
	10		PS14	SC alignment HP sensor	• 000: Other than home position • 001: Home position		M13	SC switchback release motor (home position search)	
	11		PS16	SC paper detection sensor	• 000: Paper • 001: No paper		M13	SC switchback release motor (High pressing position move)	
	12		PS17	SC roller release sensor	• 000: Release • 001: Press		M13	SC switchback release motor (Low pressing position move)	
	13		PS18	Clamp entrance movement HP sensor	• 000: Other than home position • 001: Home position		M15	SC alignment motor (home position search)	
	14		PS19	Clamp entrance roller release sensor	• 000: Release • 001: Press		M15	SC alignment motor (A4 standby position move)	77-13 must have been performed in advance.
	15		PS21	Clamp alignment HP sensor	• 000: Other than home position • 001: Home position		M15	SC alignment motor (alignment)	
	16		PS22	Clamp HP sensor	• 000: Other than home position • 001: Home position		M17	SC bundle conveyance motor	
	17		PS23	Clamp pressure sensor	• 000: Release • 001: Press		M18	SC roller release motor (home position search)	
	18		PS24	Clamp rotation HP sensor	• 000: Other than home position • 001: Home position		M18	SC roller release motor (movement to the pressing position)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	19		PS25	Clamp rotation pressure sensor	• 000: Release • 001: Press		M19	Clamp entrance movement motor (home position search)	
	20		PS26	Cover paper table upper limit sensor /Fr	• 000: Other than upper limit • 001: Upper limit		M19	Clamp entrance movement motor (movement to the entrance position)	The following adjustments must have been made in advance. 1. 77-19 2. 77-29 3. 77-31 4. 77-32
	21		PS27	Cover paper table upper limit sensor /Rr	• 000: Other than upper limit • 001: Upper limit		M20	Clamp entrance roller release motor (home position search)	
	22		PS28	Clamp paper sensor	• 000: Paper • 001: No paper		M20	Clamp entrance roller release motor (pressing position move)	
	23		PS29	Booklet thickness sensor	• 000: Not detected • 001: Detected		SD11	FD alignment solenoid	
	24						SD12	SC stopper solenoid	
	25						SD13	SC pressure arm solenoid	
	26	PB	PS33	Glue tank HP sensor	• 000: Other than home position • 001: Home position		M21	Clamp alignment motor (home position search)	
	27		PS36	Pellet supply remaining sensor	• 000: Pellet • 001: No pellet		M21	Clamp alignment motor (A4 standby position move)	
	28		PS37	Pellet supply passage sensor	• 000: Detected • 001: Not detected		M21	Clamp alignment motor (alignment)	
	29		PS38	Pellet supply arm upper limit sensor	• 000: Other than upper limit • 001: Upper limit		M22	Clamp motor (home position search)	
	30		PS39	Pellet supply arm home sensor	• 000: Other than lower limit • 001: Lower limit		M22	Clamp motor (movement to the clamp position)	
	31		M32	Glue apply roller motor	• 000: Abnormal • 001: Normal		M23	Clamp rotation motor (home position search)	77-19 must have been performed in advance.
	32		PS3	Paper exit sensor	• 000: Paper • 001: No paper		M23	Clamp rotation motor (movement to the compile position)	77-19 must have been performed in advance.
	33		PS41	Cover paper alignment HP sensor	• 000: Other than home position • 001: Home position		SD91	Straight gate solenoid	
	34		PS42	Cover paper conveyance arm HP sensor /Rt	• 000: Other than home position • 001: Home position		M31	Glue tank movement motor (home position search)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	35		PS43	Cover paper conveyance arm HP sensor /Lt	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M31	Glue tank movement motor (tank forward movement)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34 4. 77-49 5. 77-51
	36		PS44	Cover paper switchback sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M31	Glue tank movement motor (tank backward movement)	The following adjustments must have been made in advance. 1. 77-35 2. 77-55 3. 77-29 4. 77-34 5. 77-49 6. 77-51
	37		PS45	Cover paper sensor /Rt	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M32	Glue apply roller motor	Be sure that the warm-up completes.
	38		PS46	Cover paper sensor /Lt	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		SD31	Glue tank up solenoid /1	
	39		PS47	Cover paper table HP sensor /Fr	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		SD32	Cover paper glue up solenoid	
	40		PS53	Cover paper table HP sensor /Rr	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		H1	Glue tank heater	
	41		PS48	Cover paper folding plate HP sensor /Rt	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		H2	Glue apply roller heater	
	42		PS49	Cover paper folding plate HP sensor /Lt	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 				
	43		PS50	Cover paper folding plate encoder sensor	<ul style="list-style-type: none"> • 000: Not detected • 001: Detected 	PB	M34	Pellet supply arm motor (home position search)	
	44		PS51	Cover paper folding plate position sensor	<ul style="list-style-type: none"> • 000: Not at the reference position • 001: At the reference position 		M34	Pellet supply arm motor (movement to the supply position)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34
	45		PS52	Cover paper folding pressure sensor	<ul style="list-style-type: none"> • 000: Release • 001: Press 		M41	Cover paper alignment motor (home position search)	77-55 must have been performed in advance.
	46		SW41	Cutter home sensor	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		M41	Cover paper alignment motor (A3 standby position move)	The following adjustments must have been made in advance. 1. 77-55 2. 77-45 3. 77-57 4. 77-60

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	47		SW42	Cutter home sensor	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 		M41	Cover paper alignment motor (alignment)	The following adjustments must have been made in advance. 1. 77-55 2. 77-45 3. 77-57 4. 77-60 5. 77-46
	48		MS2	Front door switch	<ul style="list-style-type: none"> • 000: Open • 001: Close 		M42	Booklet exit motor	77-55 must have been performed in advance.
	49		PS57	Booklet door sensor	<ul style="list-style-type: none"> • 000: Open • 001: Close 		M43	Cover paper conveyance arm motor /Rt (home position search)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34
	50		PS61	Booklet end sensor	<ul style="list-style-type: none"> • 000: Not detected • 001: Detected 		M43	Cover paper conveyance arm motor /Rt (roller pressure)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34 4. 77-49
	51		PS62	Cover paper conveyance belt movement HP sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M44	Cover paper conveyance arm motor /Lt (home position search)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34
	52		PS63	Cover paper belt home sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M44	Cover paper conveyance arm motor /Lt (roller pressure)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34 4. 77-51
	53		PS64	Cover paper belt lower limit sensor	<ul style="list-style-type: none"> • 000: Other than lower limit • 001: Lower limit 		M45	Cover paper conveyance motor (F rotation)	77-55 must have been performed in advance.
	54		PS65	Booklet load limit sensor	<ul style="list-style-type: none"> • 000: Upper limit • 001: Other than upper limit 		M45	Cover paper conveyance motor (R rotation)	77-55 must have been performed in advance.
	55		PS66	Booklet sensor /1	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M46, M47	Cover paper table up down motor /Fr, /Rr (home position search)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	56		PS67	Booklet sensor /2	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 		M46, M47	Cover paper table up down motor /Fr, /Rr (book spine corner creation)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34 4. 77-49 5. 77-50 6. 77-51 7. 77-52 8. 77-19 9. 77-31 10. 77-30 11. 77-32 12. 77-45 13. 77-58 14. 77-61
	57		PS68	Booklet stopper HP sensor	<ul style="list-style-type: none"> • 000: Other than home position • 001: Home position 		M48	Cover paper folding motor /Rt (home position search)	77-55 must have been performed in advance.
	58		PS69	Cart set sensor	<ul style="list-style-type: none"> • 000: Not set • 001: Set 		M48	Cover paper folding motor /Rt (movement to the open position)	The following adjustments must have been made in advance. 1. 77-55 2. 77-45
	59		OB/2	Booklet stock operation board	<ul style="list-style-type: none"> • 000: SW ON • 001: SW OFF 		M48	Cover paper folding motor /Rt (movement to the close position)	The following adjustments must have been made in advance. 1. 77-55 2. 77-45 3. 77-58
	60		-	-			M49	Cover paper folding motor /Lt (home position search)	77-55 must have been performed in advance.
	61		SW1	Upper door switch /1	<ul style="list-style-type: none"> • 000: Close • 001: Open 		M49	Cover paper folding motor /Lt (movement to the open position)	The following adjustments must have been made in advance. 1. 77-55 2. 77-45
	62						M50	Cutter motor (home position search)	77-55 must have been performed in advance.
	63						M50	Cutter motor (cut position movement)	77-55 must have been performed in advance.
	64		PBCB	PB connection detection signal	<ul style="list-style-type: none"> • 000: Not connected • 001: Connected 		SD41	Cover paper lift solenoid	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34 4. 77-49 5. 77-57
	65		-	Cover paper tray set detection signal	<ul style="list-style-type: none"> • 000: Set • 001: Not set 				
	66	PB	PS71	Cover paper empty sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 	PB			

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	67		-	power plug connection detection signal	• 000: Power detected • 001:		M61	Cover paper belt motor	
	68		PS74	Cover paper tray upper limit sensor	• 000: Other than upper limit • 001: Upper limit		M62	Cover paper belt movement motor (home position search)	
	69		PS75	Cover paper conveyance sensor /1	• 000: Paper • 001: No paper		M62	Cover paper belt movement motor (A4 standby position move)	77-68 must have been performed in advance.
	70		PS76	Cover paper conveyance sensor /2	• 000: Paper • 001: No paper		M62	Cover paper belt movement motor (book stock alignment)	
	71		PS77	Cover paper conveyance sensor /3	• 000: Paper • 001: No paper		M63	Cover paper belt up down motor (home position search: upper limit)	
	72		PS78	Cover paper conveyance sensor /4	• 000: Paper • 001: No paper		M63	Cover paper belt up down motor (movement to the lower position)	The following adjustments must have been made in advance. 1.77-68 2.77-69
	73		PS79	Cover paper conveyance sensor /5	• 000: Paper • 001: No paper		M64	Booklet movement motor	
	74		PS80	Waste box full sensor	• 000: Full • 001: Other than full		M65	Booklet stopper motor (home position search)	
	75		PS81	Waste box set sensor	• 000: Not set • 001: Set		M65	Booklet stopper motor (A4 standby position move)	77-74 must have been performed in advance.
	76						M73	Cover paper tray lift motor	
	77						M74	Cover paper feed motor	
	78						SD71	Cover paper pick up solenoid	
	79						SD72	Cover paper tray solenoid	
	80		PS82	Cover paper tray knob sensor	• 000: Release • 001: Lock		M71	Cover paper tray fan /1	
	81		TH2	Glue tank temperature sensor /Up	0 to 255		M72	Cover paper tray fan /2	
	82		TH3	Glue tank temperature sensor /Md	0 to 255		MC71	Cover paper feed clutch	
	83		TH4	Glue tank temperature sensor /Lw	0 to 255		MC72	Cover paper separation clutch	
	84		TH1	Glue apply roller temperature sensor	0 to 255		SD80	Front door lock solenoid (locked)	
	85		OB1	Manual operation board	• 000: Glue apply SW ON • 001: Glue apply SW OFF		SD80	Front door lock solenoid (released)	
	86		OB1	Manual operation board	• 000: Alignment SW ON • 001: Alignment SW OFF		M80	Exhaust fan /1	
	87		OB1	Manual operation board	• 000: Start SW ON • 001: Start SW OFF		-	Multi-feed clock output signal	
	88		MS1	Pellet supply door switch	• 000: Open • 001: Close		JAMIB /1 JAMIB /2	Jam indication board /1, /2 (all the lights on)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	89		TH1	Glue apply roller temperature sensor (high temperature abnormality)	• 000: Normal • 001: Abnormal		OB/1	Manual operation board (all the lights on)	
	90		TH1	Glue apply roller temperature sensor (low- temperature abnormality)	• 000: Normal • 001: Abnormal		M4, M81	Exhaust fan /2 Pellet supply cooling fan	
	91		TH2	Glue tank temperature sensor /Up (high temperature abnormality)	• 000: Normal • 001: Abnormal		SD61	Booklet door lock solenoid (lock)	
	92		TH2	Glue tank temperature sensor /Up (low- temperature abnormality)	• 000: Normal • 001: Abnormal		SD61	Booklet door lock solenoid (release)	
	93		TH3	Glue tank temperature sensor /Md (high temperature abnormality)	• 000: Normal • 001: Abnormal				
	94		TH3	Glue tank temperature sensor /Md (low- temperature abnormality)	• 000: Normal • 001: Abnormal				
	95		TH	Glue tank temperature sensor /Lw (high temperature abnormality)	• 000: Normal • 001: Abnormal		M71, M72, M73, M74, SD71, SD72, MC71, MC72	Cover paper feed operation for the adjustment of the multi- feed detection board	77-96 must have been performed in advance.
	96		TH	Glue tank temperature sensor /Lw (low- temperature abnormality)	• 000: Normal • 001: Abnormal		-	All initial operation	
78	01	GP-501	S1	Enter sensor	• 000 : No Paper • 001 : Paper	GP	-	Entrance stepper motor	
	02		S2	Stepper 1 speed sensor	• 000 : No Paper • 001 : Paper		-	Exit stepper motor	
	03		S3	Punch module sensor	• 000 : No Paper • 001 : Paper		-	Transport motor	
	04		S5	Back Gauge sensor	• 000 : No Paper • 001 : Paper		-	Punch motor	
	05		S6	Stepper 2 speed sensor	• 000 : No Paper • 001 : Paper		-	Divert solenoid	
	06		S7	Exit sensor	• 000 : No Paper • 001 : Paper		-	Backstop solenoid	
	07	GP-501	S8	Bypass sensor	• 000 : No Paper • 001 : Paper		-	Punch brake	
	08	GP-501	S9	Punch flag sensor	• 000 : Home position • 001 : Punch operation		-	Punch clutch	
	09		-	Chip tray switch	• 000 : Set • 001 : Not set		-	Punch stepper motor punch operation	
	10		-	Die set swtich	• 000 : Set • 001 : Not set				
	11		-	Door switch	• 000 : Close • 001 : Open				
	13		S4	U-channel sensor	• 000 : No paper • 001 : Paper				
	16	GP-501	-	GP connection detected	• 000 : Not connected • 001 : Connected				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
79	1	PB	PS91	Relay conveyance intermediate sensor	• 000: Paper • 001: No paper	PB	M92	Relay conveyance motor (1000mm/s)	
	2		PS92	Relay conveyance door sensor	• 000: Open • 001: Close		M91	Relay conveyance exit motor (1000mm/s)	
	3		PS93	Relay conveyance entrance sensor	• 000: Paper • 001: No paper		OB2	Booklet stock operation board (JAM display LED ON)	
	4		PS94	Relay conveyance exit sensor	• 000: Paper • 001: No paper		M33	Pellet supply pipe motor (home position search)	
	5						M33	Pellet supply pipe motor (upper limit position move)	The following adjustments must have been made in advance. 1. 77-55 2. 77-29 3. 77-34 4. 77-44 5. 79-05
	6		PS96	Pellet supply pipe home sensor	• 000: Other than home position • 001: Home position				
	7		PS95	Pellet supply pipe upper limit sensor	• 000: Not detected • 001: Detected				
38		ZU	PESB	Paper edge sensor board (Edge detection 1)	• 000: Paper • 001: No paper	ZU	M608	Punch switchover motor (2 holes switching)	
39							M608	Punch switchover motor (3 holes switching)	
40		ZU	PS609	Exit sensor	• 000: Paper • 001: No paper		M606	Main motor	
41			PESB	Paper edge sensor board (Edge detection 2)	• 000: Paper • 001: No paper		M602	1st folding stopper motor	
42			PESB	Paper edge sensor board (Edge detection 3)	• 000: Paper • 001: No paper		M603	2st folding stopper motor	
43			PESB	Paper edge sensor board (Edge detection 4)	• 000: Paper • 001: No paper		SD601	Gate solenoid /Lw	
44							SD602	Gate solenoid /Up	
45							CL601	Punch clutch	
46		ZU	PS605	Punch shift home sensor	• 000: Other than home position • 001: Home position		M601	Registration motor	
47			PS604	2st folding stopper home sensor	• 000: Home position • 001: Other than home position		M607	Punch scraps conveyance motor	
48			PS608	Punch scraps full sensor	• 000: Full • 001: Other than full		FM601	Main motor cooling fan	
49			PS607	Punch scraps box set sensor	• 000: Not set • 001: Set		M604	Punch motor	
50			PS610	Conveyance encoder sensor	• 000: Lock • 001: Release		M605	Punch shift motor	
51			MS601	Punch switchover switch	• 000: 2-Hole • 001: 3/4-Hole		-	Paperless running mode	
54			PS606	Punch home sensor	• 000: Home position • 001: Other than home position				

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	55		PS603	1st folding stopper home sensor	<ul style="list-style-type: none"> • 000: Home position • 001: Other than home position 				
	56		ACSW1	Door switch	<ul style="list-style-type: none"> • 000: Close • 001: Open 				
	57		FM601	Main motor cooling fan (Lock detection)	<ul style="list-style-type: none"> • 000: Not detected • 001: Detected 				
	62		PESB	Paper edge sensor board (Edge detection 5)	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 				
	63		PS601	Conveyance sensor	<ul style="list-style-type: none"> • 000: Paper • 001: No paper 				
80	1	ADU	PS35	ADU conveyance sensor / 1	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 	ADU	SD7	Reverse/exit solenoid	
	2		PS43	ADU exit sensor ADU	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		SD6	ADU lock solenoid	
	3		PS49	ADU accelerate sensor	<ul style="list-style-type: none"> • 000: No paper • 001: Paper 		SD10	Drum claw solenoid	
	4		PS42	ADU deceleration sensor			SD8	De-curler solenoid /Up	
	5		PS44	ADU handle release sensor			SD5	De-curler solenoid /Lw	
	6		PS63	Paper stay sensor /2					
	7		PS45	ADU reverse sensor /2					
	8		PS36	ADU conveyance sensor / 2					
	9		PS64	Paper stay sensor /1					
83	1					ADU	M17	Registration motor (570mm/s)	
	2						M17	1250/1250P/1052: Registration motor (330mm/s) 951: Registration motor (290mm/s)	
	3						M17	1250/1250P/1052: Registration motor (490mm/s) 951: Registration motor (460mm/s)	
84	1						M12	1250/1250P/1052: ADU reverse motor (F rotation: 1250mm/s) 951: ADU reverse motor (F rotation: 1000mm/s)	
	2						M12	ADU reverse motor (F rotation: 570mm/s)	
	3						M12	1250/1250P/1052: ADU reverse motor (R rotation: 1250mm/s) 951: ADU reverse motor (R rotation: 1000mm/s)	
	4						M12	1250/1250P/1052: ADU reverse motor (F rotation: 750mm/s) 951: ADU reverse motor (F rotation: 600mm/s)	
	5						M12	1250/1250P/1052: ADU reverse motor (F rotation: 330mm/s) 951: ADU reverse motor (F rotation: 290mm/s)	
	6						M12	1250/1250P/1052: ADU reverse motor (R rotation: 750mm/s) 951: ADU reverse motor (R rotation: 600mm/s)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
85	7						M12	ADU reverse motor (F rotation: 1000mm/s)	
	8						M12	1250/1250P/1052: ADU reverse motor (F rotation: 490mm/s) 951: ADU reverse motor (F rotation: 460mm/s)	
	9						M12	ADU reverse motor (R rotation: 1000mm/s)	
	1						M15	1250/1250P/1052: ADU conveyance motor /1 (1250mm/s) 951: ADU conveyance motor /1 (1000mm/s)	
	2						M15	ADU conveyance motor /1 (570mm/s)	
	3						M15	1250/1250P/1052: ADU conveyance motor /1 (750mm/s) 951: ADU conveyance motor /1 (600mm/s)	
	4						M15	1250/1250P/1052: ADU conveyance motor /1 (330mm/s) 951: ADU conveyance motor /1 (290mm/s)	
	5						M15	ADU conveyance motor /1 (1000mm/s)	
	6						M15	1250/1250P/1052: ADU conveyance motor /1 (490mm/s) 951: ADU conveyance motor /1 (460mm/s)	
	7						M16	1250/1250P/1052: ADU conveyance motor /2 (1250mm/s) 951: ADU conveyance motor /2 (1000mm/s)	
	8						M16	ADU conveyance motor /2 (570mm/s)	
	9						M16	1250/1250P/1052: ADU conveyance motor /2 (750mm/s) 951: ADU conveyance motor /2 (600mm/s)	
	10						M16	1250/1250P/1052: ADU conveyance motor /2 (330mm/s) 951: ADU conveyance motor /2 (290mm/s)	
	11						M16	ADU conveyance motor /2 (1000mm/s)	
	12						M16	1250/1250P/1052: ADU conveyance motor /2 (490mm/s) 951: ADU conveyance motor /2 (460mm/s)	
86	1						M13	1250/1250P/1052: Reverse/exit motor (F rotation: 1250mm/s) 951: Reverse/exit motor (F rotation: 1000mm/s)	
	2						M13	Reverse paper exit motor (F rotation: 570mm/s)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	3						M13	1250/1250P/1052: Reverse/exit motor (R rotation: 1250mm/s) 951: Reverse/exit motor (R rotation: 1000mm/s)	
	4						M13	1250/1250P/1052: Reverse/exit motor (F rotation: 750mm/s) 951: Reverse/exit motor (F rotation: 600mm/s)	
	5						M13	1250/1250P/1052: Reverse/exit motor (F rotation: 330mm/s) 951: Reverse/exit motor (F rotation: 290mm/s)	
	6						M13	1250/1250P/1052: Reverse/exit motor (R rotation: 750mm/s) 951: Reverse/exit motor (R rotation: 600mm/s)	
	7						M13	Reverse paper exit motor (F rotation: 1000mm/s)	
	8						M13	1250/1250P/1052: Reverse/exit motor (F rotation: 490mm/s) 951: Reverse/exit motor (F rotation: 460mm/s)	
	9						M13	Reverse paper exit motor (R rotation: 1000mm/s)	
87	1						FM14 FM17	ADU cooling fan /1 Registration cooling fan	
	2						FM13 FM15	ADU cooling fan /3 ADU cooling fan /2	
88	1						M14	1250/1250P/1052: ADU accelerate motor (1250mm/s) 951: ADU accelerate motor (1000mm/s)	
	2						M14	ADU accelerate motor (570mm/s)	
	3						M14	1250/1250P/1052: ADU accelerate motor (750mm/ s) 951: ADU accelerate motor (600mm/s)	
	4						M14	1250/1250P/1052: ADU accelerate motor (330mm/ s) 951: ADU accelerate motor (290mm/s)	
	5						M14	ADU accelerate motor (1000mm/s)	
	6						M14	1250/1250P/1052: ADU accelerate motor (490mm/ s) 951: ADU accelerate motor (460mm/s)	
89	1	PI-PFU	PS3	Paper empty sensor /1 (Tray1) (PF-703)	• 000: No paper • 001: Paper	PI-PFU	CL7	Paper feed clutch /1	
	2		PS7	Paper empty sensor /2 (Tray2) (PF-703)	• 000: No paper • 001: Paper		CL8	Paper feed clutch /2	
	3		PS11	Paper empty sensor /3 (Tray3) (PF-703)	• 000: No paper • 001: Paper		CL9	Paper feed clutch /3	
	4		VR1	Remaining paper VR /1 (Tray1) (PF-703)	Remaining display (0 to 1023)		SD4, SD5	Shutter solenoids /Fr1, / Rr1	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	5		VR4	Remaining paper VR /2 (Tray2) (PF-703)	Remaining display (0 to 1023)		SD6, SD7	Shutter solenoids /Fr2, / Rr2	
	6		VR7	Remaining paper VR /3 (Tray3) (PF-703)	Remaining display (0 to 1023)		SD8, SD9	Shutter solenoids /Fr3, / Rr3	
	7		VR2	CD paper size VR /1 (Tray1) (PF-703)	0 to 255		SD10	Paper leading edge shutter solenoid /1	
	8		VR5	CD paper size VR /2 (Tray2) (PF-703)	0 to 255		SD11	Paper leading edge shutter solenoid /2	
	9		VR8	CD paper size VR /3 (Tray3) (PF-703)	0 to 255		SD12	Paper leading edge shutter solenoid /3	
	10		VR3	FD paper size VR /1 (Tray1) (PF-703)	0 to 1023		CL1	Pre-registration clutch /1	
	11		VR6	FD paper size VR /2 (Tray2) (PF-703)	0 to 1023		CL3	Pre-registration clutch /2	
	12		VR9	FD paper size VR /3 (Tray3) (PF-703)	0 to 1023		CL5	Pre-registration clutch /3	
	13		PS5	Upper limit sensor /1 (Tray1) (PF-703)	• 000: Other than upper limit • 001: Upper limit		CL1, M1	Pre-registration clutch /1 + Paper feed motor	
	14		PS9	Upper limit sensor /2 (Tray2) (PF-703)	• 000: Other than upper limit • 001: Upper limit		CL3, M1	Pre-registration clutch /2 + Paper feed motor	
	15		PS13	Upper limit sensor /3 (Tray3) (PF-703)	• 000: Other than upper limit • 001: Upper limit		CL5, M1	Pre-registration clutch /3 + Paper feed motor	
	16	-	-	Tray1 set signal	• 000: Not set • 001: Set		CL2, M1	Intermediate clutch /1 + Paper feed motor	
	17	-	-	Tray2 set signal	• 000: Not set • 001: Set		CL4, M1	Intermediate clutch /2 + Paper feed motor	
	18	-	-	Tray3 set signal	• 000: Not set • 001: Set		CL6, M1	Horizontal conveyance exit clutch + Paper feed motor	
	19	-	-	Tray1 trailing edge guide set signal	• 000: Not set • 001: Set		M7	Paper lift motor /1	
	20	-	-	Tray2 trailing edge guide set signal	• 000: Not set • 001: Set		M8	Paper lift motor /2	
	21	-	-	Tray3 trailing edge guide set signal	• 000: Not set • 001: Set		M9	Paper lift motor /3	
	22	-	-	PFU1 horizontal conveyance section set	• 000: Not set • 001: Set		SD1	Tray lock solenoid /1	
	23		PS4	Handle release sensor /1 (Tray1) (PF-703)	• 000: OFF • 001: ON		SD2	Tray lock solenoid /2	
	24		PS8	Handle release sensor /2 (Tray2) (PF-703)	• 000: OFF • 001: ON		SD3	Tray lock solenoid /3	
	25		PS12	Handle release sensor /3 (Tray3) (PF-703)	• 000: OFF • 001: ON		M1	Paper feed motor	
	26		PS2	Paper feed sensor /1 (Tray1) (PF-703)	• 000: No paper • 001: Paper		M3	PF exit conveyance motor (330mm/s)	
	27		PS6	Paper feed sensor /2 (Tray2) (PF-703)	• 000: No paper • 001: Paper		M3	PF exit conveyance motor (1250mm/s)	
	28		PS10	Paper feed sensor /3 (Tray3) (PF-703)	• 000: No paper • 001: Paper		M3	PF exit conveyance motor (570mm/s)	
	29		PS25	Paper suction sensor /Fr1	• 000: No paper • 001: Paper		M3	PF exit conveyance motor (490mm/s)	
	30		PS26	Paper suction sensor /Rr1	• 000: No paper • 001: Paper		M3	PF exit conveyance motor (1000mm/s)	
	31		PS27	Paper suction sensor /Fr2	• 000: No paper • 001: Paper		M10	Shutter motor /1 home position move (PF-703)	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	32		PS28	Paper suction sensor /Rr2	• 000: No paper • 001: Paper		M10	Move to close position after shutter motor /1 home position move (PF-703)	
	33		PS29	Paper suction sensor /Fr3	• 000: No paper • 001: Paper		M11	Shutter motor /2 home position move (PF-703)	
	34		PS30	Paper suction sensor /Rr3	• 000: No paper • 001: Paper		M11	Move to close position after shutter motor /2 home position move (PF-703)	
	35		PS37	Shutter home sensor /1	• 000: No paper • 001: Paper		M12	Shutter motor /3 home position move (PF-703)	
	36		PS38	Shutter home sensor /2	• 000: No paper • 001: Paper		M12	Move to close position after shutter motor /3 home position move (PF-703)	
	37		PS39	Shutter home sensor /3	• 000: No paper • 001: Paper		M2	Paper feed belt motor (PF-703)	
	38		PS14	Pre-registration sensor /1 (Tray1) (PF-703)	• 000: No paper • 001: Paper		M4	Coupling conveyance motor /1 (PF-703) (330mm/s)	
	39		PS18	Pre-registration sensor /2 (Tray2) (PF-703)	• 000: No paper • 001: Paper		M4	Coupling conveyance motor /1 (PF-703) (490mm/s)	
	40		PS20	Pre-registration sensor /3 (Tray3) (PF-703)	• 000: No paper • 001: Paper		M4	Coupling conveyance motor /1 (PF-703) (570mm/s)	
	41		PS15	Vertical conveyance sensor /1 (PF-703)	• 000: No paper • 001: Paper		M4	Coupling conveyance motor /1 (PF-703) (1000mm/s)	
	42		PS21	Vertical conveyance sensor /3 (PF-703)	• 000: No paper • 001: Paper		M4	Coupling conveyance motor /1 (PF-703) (1250mm/s)	
	43		PS16	Intermediate sensor /Up (PF-703)	• 000: No paper • 001: Paper		M5	Coupling conveyance motor /2 (PF-703) (330mm/s)	
	44		PS22	Intermediate sensor /Lw (PF-703)	• 000: No paper • 001: Paper		M5	Coupling conveyance motor /2 (PF-703) (490mm/s)	
	45		PS17	Loop sensor /1 (Tray6) (PF-703)	• 000: No paper • 001: Paper		M5	Coupling conveyance motor /2 (PF-703) (570mm/s)	
	46		PS19	Loop sensor /2 (Tray7) (PF-703)	• 000: No paper • 001: Paper		M5	Coupling conveyance motor /2 (PF-703) (1000mm/s)	
	47		PS23	Loop sensor /3 (Tray8) (PF-703)	• 000: No paper • 001: Paper		M5	Coupling conveyance motor /2 (PF-703) (1250mm/s)	
	48		PS24	PF exit conveyance sensor /1 (PF-703)	• 000: No paper • 001: Paper		M6	Coupling conveyance motor /3 (PF-703) (330mm/s)	
	49		PS36	PF exit conveyance sensor /2 (PF-703)	• 000: No paper • 001: Paper		M6	Coupling conveyance motor /3 (PF-703) (490mm/s)	
	50		PS31	Horizontal conveyance sensor /1 (PF-703)	• 000: No paper • 001: Paper		M6	Coupling conveyance motor /3 (PF-703) (570mm/s)	
	51		PS32	Horizontal conveyance sensor /2 (PF-703)	• 000: No paper • 001: Paper		M6	Coupling conveyance motor /3 (PF-703) (1000mm/s)	
	52		PS33	Horizontal conveyance sensor /3 (PF-703)	• 000: No paper • 001: Paper		M6	Coupling conveyance motor /3 (PF-703) (1250mm/s)	
	53		PS34	Horizontal conveyance sensor /4 (PF-703)	• 000: No paper • 001: Paper		FM13	Paper suction fan /1	
	54		PS35	Horizontal conveyance sensor /5 (PF-703)	• 000: No paper • 001: Paper		FM14	Paper suction fan /2	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
	55		PS1	Door open/close sensor (PF-703)	• 000: Close • 001: Open		FM15	Paper suction fan /3	
	56		SW1	Vertical conveyance door switch /Up (PF-703)	• 000: OFF • 001: ON		FM16	Paper suction fan /4	
	57		SW2	Vertical conveyance door switch /Lw (PF-703)	• 000: OFF • 001: ON		FM17	Paper suction fan /5	
	58		MS1	Interlock switch (PF-703)	• 000: Close • 001: Open		FM18	Paper suction fan /6	
	59		SW3	Horizontal conveyance door switch (PF-703)	• 000: OFF • 001: ON		FM3, FM4	Paper leading edge separation fan /Fr1, /Rr1 (Tray1) (PI-PFU)	
	60		-	Heater unit set signal (Tray1)	• 000: OFF • 001: ON		FM7, FM8	Paper leading edge separation fan /Fr2, /Rr2 (Tray2) (PI-PFU)	
	61		-	Heater unit set signal (Tray2)	• 000: OFF • 001: ON		FM11, FM12	Paper leading edge separation fan /Fr3, /Rr3 (Tray3) (PI-PFU)	
	62		-	Heater unit set signal (Tray3)	• 000: OFF • 001: ON		FM1, FM2	Paper feed assist fan / Fr1, /Rr1 (Tray1) (PI-PFU)	
	63		TEM/ HUMS	Temperature-humidity sensor (PF-703)	Display of temperature (°C)		FM5, FM6	Paper feed assist fan / Fr2, /Rr2 (Tray2) (PI-PFU)	
	64		TEM/ HUMS	Temperature-humidity sensor (PF-703)	Display of temperature (°C)		FM9, FM10	Paper feed assist fan / Fr3, /Rr3 (Tray3) (PI-PFU)	
	65						FM22, FM23	Dehumidifier fan /Rt1, /Lt1 (Tray1) (PI-PFU)	
	66						FM24, FM25	Dehumidifier fan /Rt2, /Lt2 (Tray2) (PI-PFU)	
	67						FM26, FM27	dehumidifier fan /Rt3, /Lt3 (Tray3) (PI-PFU)	
	68						FM19, FM20	PF cooling fan /1, /2	
	69						HT-50 5	PFU tray upper heater	
	70						HT-50 5	PFU tray lower heater	
	71	PI-PFU	MFDB S/ MFDB R	Multi feed detection board /S, /R	• 000: OFF • 001: ON		MFDB S/ MFDB R	Multi feed detection board /S, /R	
	72		-	Multi feed detection unit set signal	• 000: OFF • 001: ON		FM21	PF cooling fan /3	
	75		TEMS /5, /6, / 7	temperature sensor/5, /6, / 7 (PF-703)	Display of temperature (°C)		HT-50 5	PI-PFU tray upper heater control	Adjust the temperature when the temperature inside the tray is 40 °C or when the heater is 70 °C.
	76		TEMS /5, /6, / 7	temperature sensor/5, /6, / 7 (PF-703)	Display of temperature (°C)		HT-50 5	PI-PFU tray lower heater control	Adjust the temperature when the temperature inside the tray is 40 °C or when the heater is 70 °C.
	77		TEMS /5	temperature sensor/1 (PF-703)	Display of temperature (°C)		HT-50 5	Heater control when heater is installed to the corresponding page	
	78		TEMS /6	temperature sensor/2 (PF-703)	Display of temperature (°C)		HT-50 5	Heater control when heater is installed to the corresponding page	
	79		TEMS /7	temperature sensor/3 (PF-703)	Display of temperature (°C)		HT-50 5	Heater control when heater is installed to the corresponding page	

Co de	Mul ti	Input check				Output check			
		Classific ation	Symb ol	Name	Display and signal source	Classific ation	Symb ol	Name	Restrictive conditions
90	00					Others	-	Finishing OP adjustment data EEPROM storage (installation data)	Perform after installation adjustment
91	00						-	Main body adjustment data NVRAM board storage (Installation Initial Data)	Perform after installation adjustment
92	00						-	NVRAM board data reset	Cannot adjust in the field
93	00						-	Finishing OP adjustment data each EEPROM storage	Cannot adjust in the field
94	00						-	Adjustment data display	
96	00						-	Main body adjustment data NVRAM board storage (Installation Initial Data)	Cannot adjust in the field
97	00						-	Image memory (DRAM) capacity check	
98	00						-	Image memory (DRAM) check	
99	01						HDD1	HDD1 total capacity	
	02						HDD1	HDD1 remaining capacity check	
	03						HDD1	HDD1 bad sectors check and recovery	

5.6.5 Adjustment when replacing the multi feed detection board (main body) (1250/1250P/1052 only)

(1) Usage

When the multi feed detection board of the main body or the ADU drive board /1 (ADUDB1) is replaced, conduct this adjustment. Adjust it when multi feed is not detected properly due to specific types of paper (such as thin paper, coated paper with less stiffness, and thick paper).

Note

- Adjustment error occurs because of the temperature of the sensor surface. Make the adjustment at a temperature close to the condition in which the copier is actually used (20°C to 30°C). (In the case you brought a new part from outdoors, make the adjustment after the temperature of the sensor surface and the room temperature become the same)

(2) Procedure

- Replace the multi feed detection board /S and /R. (Refer to [G.2.2.21 Multi feed detection board \(1250/1250P/1052 only\)](#))
- Select the input check code "56-00" of the I/O check mode in the service mode.
- Insert 1 sheet of the paper (P/N 65AA9950#) between the multi feed detection board /S and /R (200g/m² to 300g/m² paper can also be used). Be sure that the paper does not trail down.

Note

- If the paper trails down, the angle of paper insertion is different from the angle of paper passage, thus making it impossible to make an accurate adjustment.

- Connect the tester (voltmeter) to the following positions of the ADUDB1.

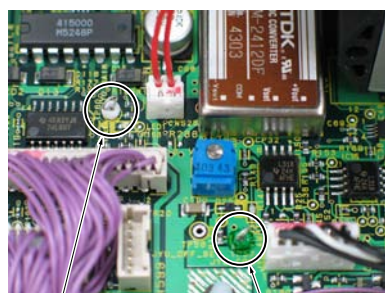
+terminal: test pin Number TP75 (white) [1]

- terminal: test pin Number TP57 (green) [2]

Range: DC 20V

Note

- Because the duplex section is powered, do not drop any metal material on the board, or do not connect the tester pin to an irrelevant terminal. It causes the board to short circuit and be damaged.



[1]

[2]

1050fs3057c

- In the ADU drive board /1 (ADUDB1) volume, set power voltage to the standard value. Standard value: 5.0 ± 0.2V

6. Pull out the paper inserted in step 3.
7. Insert one sheet of paper that customer mainly use (paper weight 62g/m² to 209g/m²), that customer mainly use and confirm that "L" is displayed on the input check display
 "L": no multi feed (0 or 1 sheet of paper)
 "H": multi feed (2 sheets of paper)
8. Insert another sheet of paper (2 sheets in all), that customer mainly use and confirm that "H" is displayed on the input check display.
9. If there is a detection error, return to step 3 to conduct the adjustment again. In step6, set power voltage to the value 1.0V lower than the previous adjustment.
10. Repeat the steps 7 to 9 until detection error is resolved.
11. Pull out the inserted papers, and install the parts you removed.

5.6.6 Cleaning blade transportation lock

(1) Usage

This lock separates the cleaning blade from the drum, thus preventing any damage on the cleaning blade while moving the machine or during a long-term storage.

Use this lock when packing the machine while moving an installation location.

Note

- **While conducting this mode, the blade is automatically replaced. In case the first cleaning blade was used before packing, be sure to perform a spring charge for the auto blade replacement as you reinstall the machine.**

(2) Procedure

1. Check whether the currently used cleaning blade is the first one or the second one.
2. Enter the I/O check mode.
3. Enter "17" with the numeric keys. Confirm that "17-00" is displayed on the message display area.
4. Open the front door /Rt.

Note

- **If the front door /Rt is not open, the blade motor (M22) does not rotate.**

5. Press the start key.
6. The blade motor (M22) starts rotating, and the cleaning blade moves from the drum to the transportation lock position.

5.6.7 Scanner transportation lock

(1) Usage

Move the scanner mirror to the transportation lock position, thus making it easy to fix the mirror with screws.

Use this lock when packing the machine while moving an installation location.

(2) Procedure

1. Enter the I/O check mode.
2. Enter "36" with the numeric keys. Confirm that "36-00" is displayed on the message display area.
3. Press the start key.
4. The scanner motor (M27) starts rotating, and the mirror moves to the left.
5. Fix the mirror with the lock screws of the scanner mirror you removed when unpacking the machine.

5.6.8 Removing toner in the toner mixing section

(1) Usage

After moving the installation location of the machine, remove the toner which have dropped into the mixing section of the toner supply section.

(2) Procedure

1. Enter the I/O check mode.
2. Enter "54" with the numeric button. Confirm that "54-00" is displayed in the message display area.
3. Press the Access button.
4. Enter "09" with the numeric keys. Confirm that "54-09" is displayed in the message display area.
5. Press the start button.
6. The toner pump motor (M28) and the air pump motor (M29) start rotating. Press the STOP button to stop them after about 1minute.

5.6.9 Adjustment when replacing the multi feed detection board (PI) (new type)

(1) Usage

When the multi feed detection board (MFDB) of PI or PI drive board (PIDB) is replaced, conduct this adjustment.

Also, perform this adjustment when multi feed of special paper (thin paper, coated paper with less stiffness, thick paper) cannot be detected properly.

Note

- **Adjustment error occurs because of the temperature of the sensor surface. Make the adjustment at a temperature close to the environment in which the copier is actually used (20 °C to 30 °C).**
(In the case you brought a new part from outdoors, make the adjustment after the temperature of the sensor surface and the room temperature become the same)

(2) Procedure

1. Replace the multi feed detection board /1, /2. (Refer to chapter II "Maintenance4.3.5 Registration section") (Refer to [G.17.3.18 Multi feed detection board /1 \(MFDB/1\) and /2 \(MFDB/2\) \(new type\)](#))
2. Enter the I/O check mode.
3. Enter "70" with the numeric keys. Confirm that "70-00" is displayed on the message display area.

4. Press the Access button.
5. Enter "82" with the numeric keys. Confirm that "70-82" is displayed on the message display area.
6. Open the FD upper door and front door to turn the jam clearing knob [1]. Insert 1 sheet of paper [2] (P/N 65AA-991#, fusing adjustment paper, 16 sheets/A3) between the multi feed detection boards /1 and /2 [3] (200g/m² to 300g/m² paper can also be used).

Note

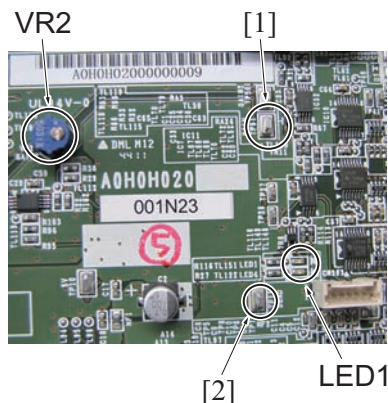
- Turn the jam clearing knob until the paper hits the roller [4], thus confirming that the paper is between the multi feed detection board /1 and /2.



7. Press the Start key to activate the output check mode. Connect the tester (voltmeter) to the following positions of the PIDB.
+ terminal: test pin Number TP51 (GAIN) [1]
- terminal: test pin Number TP11 (SGND) [2]
Range: DC 20V

Note

- Because the FD is powered, do not drop any metal material on the board, or do not connect the tester pin to an irrelevant terminal.
It causes the board to short circuit and be damaged.



8. In the PIDB volume (VR2), set power voltage to the standard value.
Standard value: 9.0 ± 0.1V
9. Press the Stop key and pull out the paper inserted in step 6.
10. Insert 1 sheet of paper that customer mainly uses (paper weight 50g/m² to 300g/m²), and confirm that the LED of PIDB (LED1) turns ON.
LED ON: No multi feed (0 or 1 sheet of paper)
LED OFF: Multi feed (2 sheets of paper)
11. Insert another sheet of paper (2 sheets in all), that customer mainly uses, and check that the LED turns OFF.
12. If there is a detection error, return to step 6 to conduct the adjustment again. In step 8, set power voltage to the value 1.0V lower than the previous adjustment.
13. Repeat the steps 9 to 12 until detection error is resolved.
14. Pull out the inserted papers, and install the parts you removed.

5.6.10 Adjustment when replacing the multi feed detection board (PI) (old type)**(1) Usage**

When the multi-feed detection board (MFDB) of PI or PI drive board is replaced, conduct this adjustment.

Also, perform this adjustment when multi feed of special paper (thin paper, coated paper with less stiffness, thick paper) cannot be detected properly.

Note

- The multi-feed detection board /1 and /2 are adjusted in the manufacturing process as a pair of upper and lower. Be sure to replace them as a pair.
- Adjustment error occurs because of the temperature of the sensor surface. Make the adjustment at a temperature close to the environment in which the copier is actually used (20 °C to 30 °C).

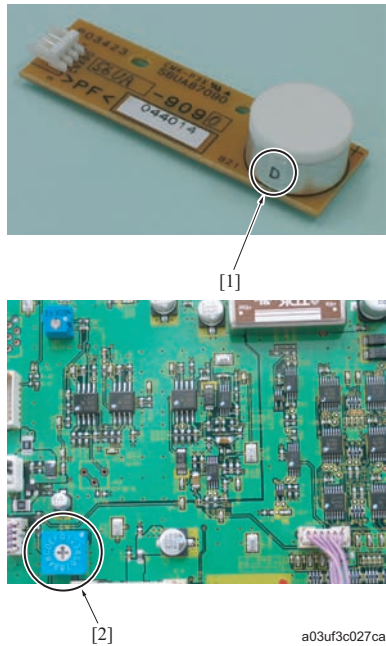
(In the case you brought a new part from outdoors, make the adjustment after the temperature of the sensor surface and the room temperature become the same)

(2) Procedure

- 1. Replace the multi-feed detection board /1, /2. (Refer to [G.17.3.19 Multi feed detection board /1 \(MFDB/1\) and /2 \(MFDB/2\) \(old type\)](#))
- 2. Check the stamp letter [1] placed on the multi-feed detection boards /1 and /2, and rotate the rotary switch [2] on the PI drive board (PIDB) as shown in the following table.

Stamp letter	Rotary switch
A	1
B	2
C	3
D	4
E	6
F	7

Note
• The rotary switch5 is not used.



- 3. Enter the I/O check mode.
- 4. Enter "70" with the numeric keys. Confirm that "70-00" is displayed on the message display area.
- 5. Press the Access button.
- 6. Enter "82" with the numeric keys. Confirm that "70-82" is displayed on the message display area.
- 7. Open the FD upper door and front door to turn the jam clearing knob [1]. Insert 1 sheet of paper [2] (P/N 65AA-991#, fusing adjustment paper, 16 sheets/A3) between the multi-feed detection boards /1 and /2 [3] (200g/m/2 to 300g/m2 paper can also be used).

Note
• Turn the jam clearing knob until the paper hits the roller [4], thus confirming that the paper is between the multi-feed detection board /1 and /2.

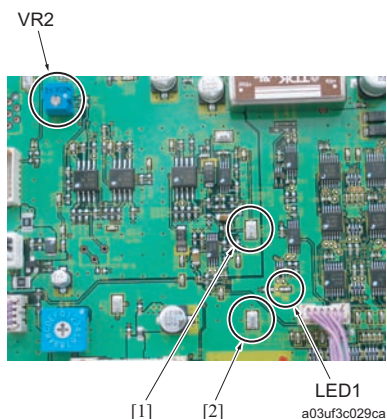


- 8. Press the Start key to activate the output check mode. Connect the tester (voltmeter) to the following positions of the PIDB.
+ terminal: test pin Number TP51 (GAIN) [1]
- terminal: test pin Number TP11 (SGND) [2]

Range: DC 20V

Note

- Because the FD is powered, do not drop any metal material on the board, or do not connect the tester pin to an irrelevant terminal.
It causes the board to short circuit and be damaged.



- In the PIDB volume (VR2), set power voltage to the standard value.
Standard value: $8.0 \pm 0.2V$
- Press the Stop key and pull out the paper inserted in step 4.
- Insert 1 sheet of paper that customer mainly uses (paper weight 50g/m² to 300g/m²), and confirm that the LED of PIDB (LED1) turns ON.
LED ON: No multi-feed (0 or 1 sheet of paper)
LED OFF: Multi-feed (2 sheets of paper)
- Insert another sheet of paper (2 sheets in all), that customer mainly uses, and check that the LED turns OFF.
- If there is a detection error, return to step7 to conduct the adjustment again. In step9, set power voltage to the value 1.0V lower than the previous adjustment.
- Repeat the steps 10 to 13 until detection error is resolved.
- Pull out the inserted papers, and install the parts removed.

5.6.11 Adjustment when replacing the multi feed detection board (PI-PFU)

(1) Usage

When the multi feed detection board (MFDBS/MFDBR) or the multi feed detection drive board (MFDDDB) of PI-PFU is replaced, conduct this adjustment.

Also, perform this adjustment when multi feed of special paper (thin paper, coated paper with less stiffness, thick paper) cannot be detected properly.

Note

- The multi feed detection board /S and /R are adjusted in the manufacturing process as a pair of upper and lower. Be sure to replace them as a pair.
- Adjustment error occurs because of the temperature of the sensor surface. Make the adjustment at a temperature close to the condition in which the copier is actually used (20°C to 30°C). (In the case you brought a new part from outdoors, make the adjustment after the temperature of the sensor surface and the room temperature become the same)

(2) Procedure

- Replace the multi feed detection board /S and /R. Replace the multi feed detection board /S and /R. (Refer to [G.4.2.14 Multi feed detection boards /S \(MFDBS\) and /R \(MFDBR\) \(PI-PFU only\)](#))
- Check the stamp letter [1] placed on the multi feed detection board /S, /R, and rotate the rotary switch [2] on the multi feed detection drive board (MFDDDB) as per following table.

Stamp letter	Rotary switch
A	A
B	B
C	C
D	D
E	E
F	F

Note

- Be sure to set this setting before installing the exit conveyance unit (FA) to PI-PFU since the adjusting point is inaccessible when the exit conveyance unit is installed to PI-PFU.

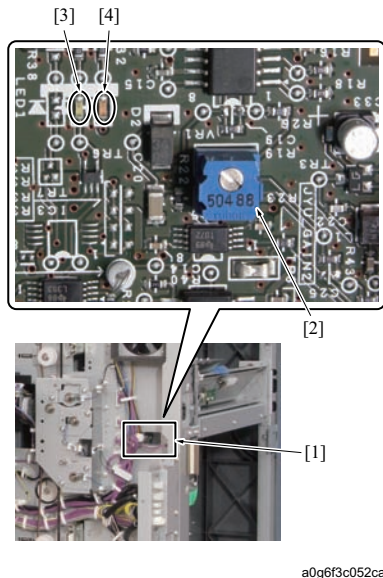


3. Select the output check code "89-71" of the I/O check mode in the service mode.
4. Put 1 sheet of paper (P/N 65AA9950#) [1] into the paper path [2] and insert it between the multi feed detection board /S and /R [3] (200g/m² to 300g/m² paper can also be used).

Note

- Turn the jam clearing knob until the paper hits the PF exit conveyance sensor /1 (PS24) [4], thus confirming that the paper is between the multi feed detection board /S and /R.

5. Press the Start key to activate the output check mode. Rotate the volume (VR1) [2] of MFDDB [1] to the right to turn OFF LED2 [3].



6. Rotate VR1 to the left and stop it at the position where LED2 (green) is stably ON.

Note

- Be sure to rotate VR1 to the left after rotating it to the right to turn OFF LED2. Be sure to stop at the position where it changes to be stably ON after rotating it to the left and passing through OFF to flashing. When the volume is rotated to the left too much from the stable lighting, LED1 [4] (red) turns ON. In this condition, the voltage gets higher than the standard and it misjudges the multi feed conveyance as 1 sheet conveyance.
- Conduct the adjustment while the LED2 (green) is ON and LED1 (red) is OFF.

7. Pull out the paper inserted in step4.
8. Insert one sheet of paper that customer mainly use (paper weight 50g/m² to 300g/m²), and confirm that the MFDDB's LED2 can be turned on.
LED2 ON: no multi feed (Judged as 0 or 1 sheet of paper)
9. Fold in half by the longer side of the paper that customer mainly uses (A3 or 11 x 7) and set it onto the PI-PFU tray (A4 or 81/2 x 11). Feed the paper using the inter-sheet function in the application function, and check that whether it detects multi feed or not.

Note

- Be sure to set the folded paper with the fold line toward the feed direction.
- Multi feed detection JAM code 81-07

10. If there is a detection error, return to step4 and adjust with the paper which the customer mainly uses.

11. Repeat steps 4 to 10 until detection error is resolved.
12. Pull out the inserted papers, and install the parts you removed.

5.6.12 Adjustment when replacing the cover paper multi feed detection board (PB)

(1) Usage

When the cover paper multi feed detection board of PB or the PB control board (PBCB) is replaced, conduct this adjustment.

Also, perform this adjustment when multi-feed of special paper (thin paper, coated paper with less stiffness, thick paper) cannot be detected properly.

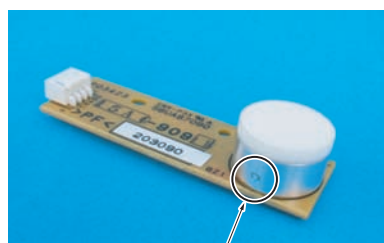
Note

- The multi-feed detection board /S and /R are adjusted in the manufacturing process as a pair. Be sure to replace them as a pair.
- Adjustment error occurs because of the temperature of the sensor surface. Make the adjustment at a temperature close to the environment in which the copier is actually used (20 °C to 30 °C).
(In the case you brought a new part from outdoors, make the adjustment after the temperature of the sensor surface and the room temperature become the same)

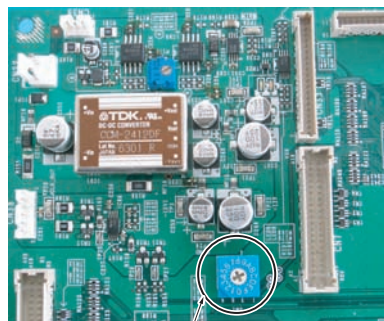
(2) Procedure

1. Replace the multi-feed detection boards /S and /R. (Refer to [G.19.2.31 Multi feed detection boards /S \(MFDBS\) and /R \(MFDBR\)](#))
2. Check the stamp letter [1] placed on the cover paper multi-feed detection boards /S and /R, and rotate the rotary switch [2] on the PBCB as shown in the following table.

Stamp letter	Rotary switch
A	1
B	2
C	3
D	4
E	5



[1]



[2]

564Af3c001cb

3. Insert 1 sheet of paper (P/N 65AA-9910, fusing adjustment paper, 16 sheets/A3) in the cover paper tray of the PB.
(200 to 300g/m² paper can also be used.)
4. Select the output check code "77-96" of the I/O check mode in the service mode.
5. Press the Start key.
Perform the all initializing operation.
6. After the operations, press the Stop key.
7. Select the output check code "77-95" of the I/O check mode in the service mode.
8. Press the Start key.
The paper is fed from the cover paper tray and stops at the conveyance section.

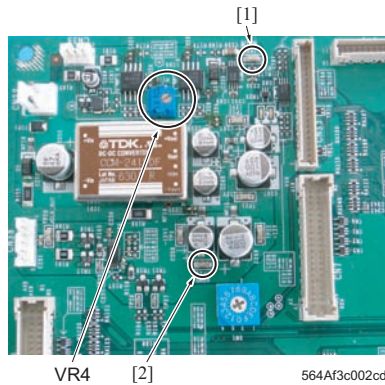
Note

- Confirm that the paper is between the multi-feed detection boards /1 and /2.

9. After the operations, press the Stop key.
10. Connect the tester (voltmeter) to the following positions of the PBCB.
+ terminal: test pin Number TP28 (GAIN) [1]
- terminal: test pin Number TP24 (AGND) [2]
Range: DC 20V

Note

- Because the PB is powered, do not drop any metal material on the board, or do not connect the tester pin to an irrelevant terminal.
It causes the board to short circuit and be damaged.



11. In the PBCB volume (VR4), set power voltage to the standard value.
Standard value: $8.0 \pm 0.1V$
12. Pull out the paper inserted in step 8.
13. Insert 1 sheet of paper that customer mainly uses (paper weight $50g/m^2$ to $300g/m^2$), and confirm that the LED of PBCB (LED1) turns ON.
LED ON: No multi-feed (0 or 1 sheet of paper)
LED OFF: Multi-feed (2 sheets of paper)
14. Insert another sheet of paper (2 sheets in all), that customer mainly uses, and check that the LED turns OFF.
15. If there is a detection error, return to step 3 to conduct the adjustment again. In step 11, set power voltage to the value 1.0V lower than the previous adjustment.
16. Repeat steps 3 to 14 until detection error is resolved.
17. Pull out the inserted papers, and install the parts removed.

5.6.13 FD, SD-506, PB adjustment data EEPROM storage

(1) Usage

Adjustment data of FD, SD-506 and PB which are adjusted in the field are backed up to the nonvolatile memory (EEPROM) of FD control board (FDCB), SD control board (SDCB) and PB control board (PBCB). When necessary, it can be recalled by selecting [Installation Initial Data] in Recall Standard Data (Finisher adjustment data) in the Service Mode.

Note

- Only 1 type of data can be backed up. When backed up again, data is overwritten.
- When several units of SD, FD and PB are connected, the data is backed up to all EEPROMs.
To back up the data of 1 option respectively, connect only the target option to the main body.

(2) Procedure

1. Enter the I/O check mode.
2. Enter "90" with the numeric keys.
Confirm that "90-00" is displayed on the message display area.
3. Press the Start key.
4. "NOW" is displayed while in the back-up. When completed, "FIN" is displayed and the current finisher adjustment data is backed up in the EEPROM.

5.6.14 Main body adjustment data NVRAM board storage (installation data)

(1) Usage

Adjustment data of the main body which are adjusted in the field are backed up to the NVRAM board (NRB). When necessary, it can be recalled with installation data of Recall Standard Data (Machine adjustment data, Process adjustment data) in the service mode.

Note

- Only 1 type of data can be backed up. When backed up again, data is overwritten.

(2) Procedure

1. Enter the I/O check mode.
2. Enter "91" with the numeric keys.
Confirm that "91-00" is displayed on the message display area.
3. Press the start key.
4. "NOW" is displayed while in the back-up. Then when it completes, "FIN" is displayed and the current machine adjustment data and the process adjustment data are backed up in the NRB.

5.6.15 Hard disk check

(1) Usage

Perform this operation if you want to check hard disk /1 (HDD1) total capacity of the copier, the remaining capacity, and the malfunction code (C-D001 to D004) related to the hard disk.

(2) Procedure

1. Enter the I/O check mode.
2. Enter "99" with the numeric keys.
Confirm that "99-00" is displayed on the message display area.
3. Press the Access button.

4. Enter one of the followings with the numeric keys.
Check that "99-##" (## represent multi code number) is displayed in the message display area.
01: HDD1 total capacity check
02: HDD1 remaining capacity check
03: HDD1 bad sectors check and recovery
5. Press the start button.
 - HDD1 total capacity check: The total capacity is displayed
 - HDD1 remaining capacity check: Remaining capacity is displayed
 - HDD1 bad sectors check and recovery:
During the operation-"NOW" is displayed
The operation succeeded - "OK" is displayed
The operation failed - "NG" is displayed
Press the start key to perform the HDD1 bad sectors check and recovery again when "NG" is displayed.

Note

- The operation cannot be canceled during the HDD1 bad sectors check and recovery. (The stop button or [Return] are disabled.)
- Replace the HDD1 in case performing the HDD1 bad sectors check and recovery do not prevent the malfunction code.

5.7 List Output**(1) Usage**

Output various lists.

(2) Procedure

1. "Service Mode Menu screen"
Press [05 List Output].
2. "Service Mode Menu screen"
Press [01 List Output].
3. "List Output screen"
The list output mode menu includes the following items.
 - Machine Management List
 - Adjustment Data List
 - Coverage data list
 - Parameter List
 - Font Pattern
 - Communication Log List *1
 - Maintenance History
 - ORU-M Maintenance History (1250/1250P/1052 only)
 - Memory Dump List

Note

- When setting DIPSW30-1 to 1, the Parameter List, Font Pattern, Communication Log List and Memory Dump List are displayed.
- When setting DIPSW15-0 to 1, the ORU-M Maintenance History is displayed. (1250/1250P/1052 only)
- Do not use the parameter list and the memory dump list in the field because they are for development.

4. "List Output screen"
Select the Item to be output and press [Print Mode].
5. Press the Start key to output the selected list.
6. Press [Close].
7. "List Output screen"
To output other lists, repeat steps 4 to 7.

*1 Prints out the latest 30 items of the sending and receiving history of the mail remote notification system and the CS Remote Care. The start time of communications, the time period of communications (modem only), the communication modes, the results of communications, and the senders (mail only) are printed.

The communication modes and the results of communications are displayed in the numbers of 4 digit number. For the meaning of them, refer to the following table.

	Communication mode	Results of communication
0000	-	Transmitted successfully
0001	Initial transmission	Connection time out when transmitting
0002	Emergency transmission	-
0004	Emergency recovery transmission	Received successfully
0005	-	Reception failed
0008	Transmission for warning	-
0010	Warning recovery transmission	-
0020	Maintenance start transmission	-
0040	Maintenance completion transmission	-
0080	Administrator transmission	-
0100	Fixed date transmission	-
0200	Response transmission	-
0***	-	Transmission failed

1000	Enquiry	-
2000	Data rewrite	-
4000	Response reception	-
6000	ISW complete notification	-
8000	Test mail	-

The SMTP reply codes (200 to 554) prescribed in the RFC1846, 2554 and 2821 or the HTTP reply codes (100 to 510) prescribed in the RFC2616 are displayed in the place of ***.

5.8 Test Mode

5.8.1 Test Pattern Output Mode

(1) Usage

Output various test patterns to use them for troubleshooting.

Note

- Do not use any test pattern number not described in the service manual.

(2) Procedure

- "Service Mode Menu screen"
Press [06 Test Mode].
- "Service Mode Menu screen"
Press [01 Test Pattern Output Mode].
- "Test Pattern Output Mode screen"
Enter the test pattern No. you want to output through the numeric keys and press [Set] and then press [Print Mode].
- Select A3 or 11 x 17 paper, and press the Start button to output the test pattern.
- Press [Close].
- To output other test patterns, repeat steps 3 to 5

5.8.2 Test Pattern Density

(1) Usage

Set the density of test pattern.

(2) Procedure

- "Service Mode Menu screen"
Press [06 Test Mode].
- "Service Mode Menu screen"
Press [02 Test Pattern Density Setting].
- "Test Pattern Density setting screen"
Enter a numeric value through the numeric keys and press [Set] and then press [Print Mode].
Setting range: 0 (light) to 255 (dark).
- Set the A3 or 11 x 17 paper. Press the Start button to output the test pattern.

5.8.3 Running Mode

(1) Usage

Conduct a test while in the continuous print operation.

In this mode, the following items can be selected:

- Intermittent copy
After completion of the printing operation for the set print count, the machine changes into the ready state and waits for 0.5sec. before resuming the same operation.
- Paperless running mode
Without feeding paper and detecting paper or jam, the printing operation is made nearly at the same timing as the normal operation.
In the same manner as the intermittent copy, after completion of the printing operation for the set print count, the machine changes into the ready state and waits for 0.5sec. before resuming the same operation.
- Paperless Mode
In the same manner as the paperless mode, without detecting paper or jam, the printing operation is made nearly at the same timing as the normal operation.
- Paperless endless mode
The machine operates with the print count infinitely set automatically. In the same manner as the paperless mode, without feeding paper and detecting paper or jam, the printing operation is made nearly at the same timing as the normal operation.
- Running Mode
The printing operation is made in the paperless endless mode plus the scanning operation and the auto paper feed tray switching.

(2) Procedure

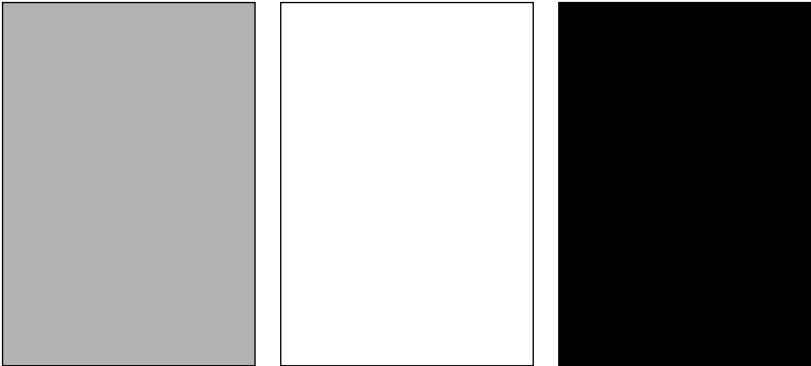
- "Service Mode Menu screen"
Press [06 Test Mode].
- "Service Mode Menu screen"
Press [03 Running Mode].
- "Running Mode screen"
Select the mode that you want to adjust and press [Print Mode].
- Press the Start button to start the running test.
- Press the STOP button to stop the running test.

5.8.4 Test Pattern No.1 Overall halftone

(1) [Check item]

- When density is set to 70 (halftone)
If there are white stripes, black stripes, determine whether the fault is with the scanner system or the process system.
[Recommended checkpoints]: Developing unit, cleaning unit, charger unit, transfer/separation charger unit, scanner mirrors, slit glass, original glass
 - When the density is set to 0 (white)
If the test pattern is gray background image, determine whether the fault is with the process.
Recommended checkpoints]: Charging corona and high voltage contact.
 - When density is set to 255 (black)
If the density is light, determine whether the fault is with the process.
[Recommended checkpoints]: LPH unit
- * For information about setting the density, refer to [1.5.8.2 Test Pattern Density](#).

(2) Test pattern



1050fs3011c

[1]	When the density is set to 70	[3]	When the density is set to 255
[2]	When the density is set to 0	-	

5.8.5 Test Pattern No.9 Line screen halftone

(1) [Check item]

- Check if there is any uneven density or transfer jitter.
[Recommended checkpoints]: Moisture absorption of paper, developing unit, charger, transfer jitter adjustment
For the transfer jitter adjustment, refer to [1.8.2.10 Transfer jitter adjustment](#)

Note

- The density of halftone changes according to the test pattern density adjustment.

(2) Test pattern



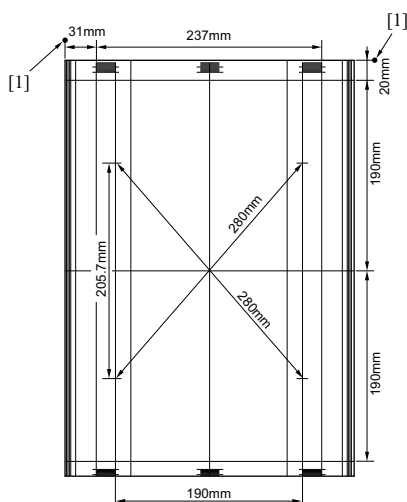
1050fs3055c

5.8.6 Test Pattern No.16 Linearity evaluation pattern

(1) [Check item]

Judge from this test pattern whether the scanner system or the printer system is abnormal.
Items that can be checked include main scan magnification, sub scan magnification, image skew, and leading edge timing of the printer system. If the copy image is defective despite no abnormality being visible on the test pattern, the scanner system is defective.

(2) Test pattern



1050fs:3014c

[1]	Edge of pager	-
-----	---------------	---

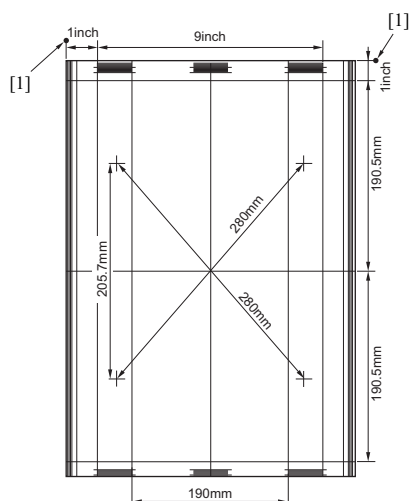
5.8.7 Test Pattern No.33 Linearity evaluation pattern

(1) [Check item]

Judge from this test pattern whether the scanner system or the printer system is abnormal.

Items that can be checked include main scan magnification, sub scan magnification, image skew, and leading edge timing of the printer system. If the copy image is defective despite no abnormality being visible on the test pattern, the scanner system is defective.

(2) Test pattern



a0y5f3c015ca

[1]	Edge of pager	-
-----	---------------	---

5.9 System Setting

5.9.1 Software DIPSW setting procedures

(1) OUTLINE

Set the software DIPSW.

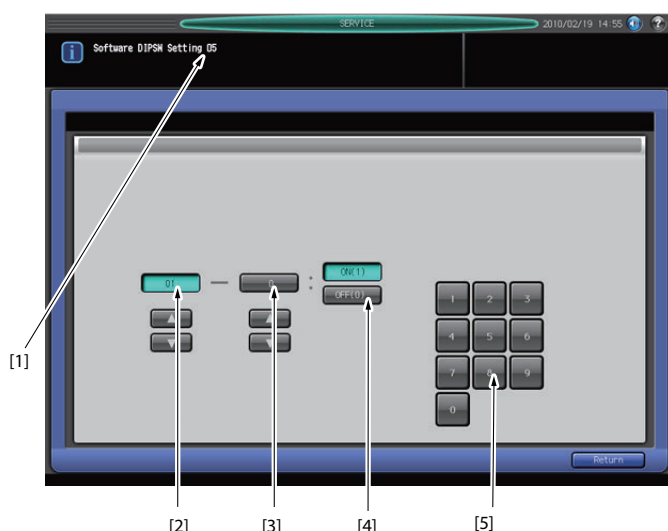
Note

- Do not change any switch not described in the service manual.

(2) Procedure

1. "Service Mode Menu screen"
Press [07 System Setting].
2. "Service Mode Menu screen"
Press [01 Software DIPSW Setting].
3. "Software switch setting mode screen"
Press [▲] / [▼] or numeric buttons after pressing the "DIPSW number" and "Bit number" buttons.
4. Press [On (1)] or [Off (0)] to set the selected bit number ON/OFF.

(3) Software DIPSW setting screen



[1]	DIPSW data (indicates the 8bit values of the selected DIPSW numbers in hexadecimal from 00 to FF.)	[2]	DIPSW number
[3]	Bit number (0 to 7)	[4]	Bit data: 1:ON, 0:OFF
[5]	Numeric buttons	[6]	-

5.9.2 Software DIPSW setting list

Note

- Do not change any bit not described on this table.

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
1	0	GP punch 1-position stapling (1250/1250P/1052 only) • Function: Normally, flat stapling is restricted for paper punched in GP-501. Release this restriction to enable only the 1-position stapling. • Usage: Set this setting to "1" to perform the flat stapling to paper punched in GP-501. Note • Depending on the type of die set, it is possible that a hole is made on the stapling section. In this case, setting to "1" causes a JAM.	• 0: Restrict • 1: Allow	0	0	0
	1	-	• 0: - • 1: -	0	0	0
	2	-	• 0: - • 1: -	0	0	0
	3	Setting to allow the usage of underscore for FTP host name • Function: Switches the allowance of using underscore for FTP host name • Usage: Set this setting to "1" to enter underscore for the FTP host name.	• 0: Prohibited • 1: Allowed	0	0	0
	4	Prohibition of printing when the PM count is reached	• 0: Disabled • 1: Enabled	0	0	0
	5	Print number setting until printing is prohibited after PM is displayed	• 1,000Print: 1-7=0, 1-6=0, 1-5=0 • 2,000Print: 1-7=0, 1-6=0, 1-5=1 • 3,000Print: 1-7=0, 1-6=1, 1-5=0 • 4,000Print: 1-7=0, 1-6=1, 1-5=1 • 5,000Print: 1-7=1, 1-6=0, 1-5=0 • 1,000Print: 1-7=1, 1-6=0, 1-5=1 • 1,000Print: 1-7=1, 1-6=1, 1-5=0 • 1,000Print: 1-7=1, 1-6=1, 1-5=1	0	0	0
	6			0	0	0
2	7			0	0	0
	0	Display of [Fusing Temperature Set.] on "Adjustment mode menu"	• 0: Not displayed • 1: Displayed	0	0	0
	1	All charger cleaning cycle (fusing temperature 50°C or less when turning ON) • Function: Changes the frequency of the charging corona automatic cleaning that is executed when the fusing temperature is under 50°C and power turns ON.	• Cleaning every time: 2-3 = 0, 2-2 = 0, 2-1 = 0 • At 5,000 prints: 2-3=0, 2-2=0, 2-1=1 • At 10,000 prints: 2-3=0, 2-2=1, 2-1=0	0	0	0
	2			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3	<ul style="list-style-type: none"> • Usage: Set this setting not to perform the cleaning too much for the machine that prints small quantity of paper in a day. • Note • The related switches are DIPSW2-4/5 and DIPSW3-3/4. 	<ul style="list-style-type: none"> • At 15,000 prints: 2-3=0, 2-2=1, 2-1=1 • At 20,000 prints: 2-3=1, 2-2=0, 2-1=0 • At 25,000 prints: 2-3=1, 2-2=0, 2-1=1 • At 30,000 prints: 2-3=1, 2-2=1, 2-1=0 • No cleaning: 2-3=1, 2-2=1, 2-1=1 	0	0	0
	4	All charger cleaning cycle (after printout)	<ul style="list-style-type: none"> • At 10,000 prints: 2-5=0, 2-4=0 • At 20,000 prints: 2-5=0, 2-4=1 • At 30,000 prints: 2-5=1, 2-4=0 • At 5,000 prints: 2-5=1, 2-4=1 	0	0	0
	5	<ul style="list-style-type: none"> • Function: Select the number of prints from the morning for the print interval of the charging corona automatic cleaning that is executed after the print. • Usage: Set this setting to pause the job and change the frequency of cleaning the charging corona. It is also used for the image trouble caused by the discharge unevenness. • Note • The related switches are DIPSW2-1/2/3 and DIPSW 3-3/4. 		0	0	0
	6	Blade auto replacement cycle	<ul style="list-style-type: none"> • At 375,000 prints: 2-7=0, 2-6=0 • At 250,000 prints: 2-7=0, 2-6=1 • At 500,000 prints: 2-7=1, 2-6=0 • At 150,000 prints: 2-7=1, 2-6=1 	0	0	0
	7			0 (951) 1 (1250/1250P/1052)	0 (951) 1 (1250/1250P/1052)	0 (951) 1 (1250/1250P/1052)
3	0	-	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0
	1	SC latch (C-2214, C-2217, C-3501 to C-3504, C-3801, C-3901 to C-3906, C-1540 to C-1562)	<ul style="list-style-type: none"> • 0: Unlatched • 1: Latched 	0	0	0
	2	Coated/preprinted thick paper line speed setting in normal/high temperature and humidity(1250/1250P/1052 only) When printing coated/preprinted thick paper under the environment of normal/high temperature and humidity, image erasure at a few millimeters away from the leading edge of paper may occur. Therefore, set the line speed of the 162g/m ² to 350g/m ² coated/preprinted paper to 300mm/s to prevent the image erasure at the edge. If there is no image at the edge or the image quality at the edge does not matter, the line speed of the 162g/m ² to 350g/m ² coated paper can be faster by changing this setting to productivity priority. Note <ul style="list-style-type: none"> • Under the environment in low temperature and humidity, the line speed is always the same (330mm/s) regardless of DIPSW setting. • The fusing pressure amount and the edge transfer current value are also changed by changing the setting. 	<ul style="list-style-type: none"> • 0: Edge image priority • 1: Productivity priority 	0	0	0
	3	Charger cleaning function	<ul style="list-style-type: none"> • 0: Enabled • 1: Disabled 	0	0	0
	4	Back side density up setting <ul style="list-style-type: none"> • Function: Increases the developing potential on the back side for 50V to increase the image density. • Usage: It usually controls the density up on the back side by changing the developing potential. In case the image density on the back side is higher than that on the front side with the smooth surface paper, however, set this DIPSW to "1" to prevent the density gap between both sides. 	<ul style="list-style-type: none"> • 0: Up the back side density • 1: Not up the back side density 	1	1	1

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	5	SD-506 Setting to allow the user to use [Trimmer Receiver Adjustment] button (1250/1250P/1052 only). • Function: Switches whether to display [08 Trimmer Receiver Adjustment] in [MACHINE] - [Adjustment] - [Finisher Adjustment] - [08 Saddle Stitcher Adjustment]. • Usage: Set this setting to "1" to display [08 Trimmer Receiver Adjustment] button.	• 0: Not allow • 1: Allow	0	0	0
	6	I/O check mode output15 memory clear	• 0: Disabled • 1: Enabled	0	0	0
	7	The maximum stacking capacity selection in small-size (longer side 250mm to 319mm) of FS in shift mode	• 0: Stops at the tray middle position sensor (PS6) (loading 1500 sheets) • 1: Stops at the tray lower limit sensor (PS3) (loading 3000 sheets)	0	0	0
4	0	RADF auto skew adjustment	• 0: Enabled • 1: Disabled	0	0	0
	1	Switching the setting to enable or disable the limit control by the weight in the ring bind mode of GP-502. • Function: In the ring bind mode of GP-502, it has a limit for the number of sheets; 102 sheets for 75g/m ² to 91g/m ² paper and 72 sheets for 92g/m ² to 135g/m ² . When this setting is set to "1", the limitation becomes invalid. • Usage: Set this setting to "1" to increase the maximum number of sheets in the ring bind mode of GP-502. Note • As a protection when the limitation is disabled, set DIPSW4-2 to 1 (enabled) so that the hard limit works.	• 0: Enable • 1: Disable	0	0	0
	2	Switching the setting to enable or disable the booklet thickness over alarm in the ring bind mode of GP-502 • Function: Switches the method for detecting the upper limit of loaded booklet in the ring bind mode of GP-502. There are 2 methods for detecting the upper limit of loaded booklet; number count by the weight and the thickness detection sensor. As the default, only the number count is enabled. Use this setting to enable or disable the thickness detection sensor. • Usage: Set this setting to "1" to enable the thickness detection sensor. Note • When the number limitation is disabled (-1) with DIPSW4-1, set this setting to "1" so that the hard limit works.	• 0: Disabled • 1: Enabled	0	0	0
	3	-	• 0: - • 1: -	0	0	0
	4			0	0	0
	5	APS when change magnification	• 0: Enabled • 1: Disabled	0	1	0
	6	Paper exit switch timing from LS2 to LS1(1250/1250P/1052 only)	• 0: Stacker full, break between jobs • 1: Stacker full	0	0	0
	7	Large-size paper count method (other than PM counter)	• 0: 1 count • 1: 2 count	0	1	0
	0	-	• 0: - • 1: -	0	0	0
	1			0	0	0
	2			0	0	0
	3			1	1	1
5	4	Blank page print with HDD page select print	• 0: Disabled • 1: Enabled	0	0	0
	5	Developer toner density switchover	• Standard: 5-7=0, 5-6=0, 5-5=0 • -0.4%: 5-7=0, 5-6=0, 5-5=1	0	0	0
	6			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	7	<ul style="list-style-type: none"> • Function: By adjusting the toner density in the developer detected with TCR sensor (TCRS), change only the toner density without changing the image density. • Usage: <ul style="list-style-type: none"> • Solution for image fogging/overflow toner 1) Set it to 1 step minus side, print 250 sheets of paper with test pattern No.12, and then print 250 sheets of paper with test pattern No.11. 2) Check that there is no image fogging or overflow toner. 3) In case the problem is not solved, set it to 1 more step minus side, print 250 sheets of paper with test pattern No.12, and then print 250 sheets of paper with test pattern No.11 again. Repeat the steps. • Solution when the image density is light 1) Check the value of [Maximum density adj.] (developing theta), set it 1 step plus side and print 500 sheets of paper with test pattern No.11 when the value is about 250. 2) Confirm image density. 3) In case the image density is not solved, set this setting 1 step plus side and print 500 sheets of paper with test pattern No.11. Repeat the steps. • Note <ul style="list-style-type: none"> • Be sure to change this setting step by step and check the image density and the overflow toner. • This setting is used when the image density is lighter than the standard (about 1.45 in reflected density) and the value of [Maximum density adj.] is about 250, or when the overflow toner occurs. • The image density cannot be set darker than the standard with this setting. 	<ul style="list-style-type: none"> • -0.7%: 5-7=0, 5-6=1, 5-5=0 • -1.0%: 5-7=0, 5-6=1, 5-5=1 • +0.4%: 5-7=1, 5-6=0, 5-5=0 • +0.7%: 5-7=1, 5-6=0, 5-5=1 • +1.0%: 5-7=1, 5-6=1, 5-5=0 • Restricted: 5-7=1, 5-6=1, 5-5=1 	0	0	0
6	0	-	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0
	1	-	<ul style="list-style-type: none"> • 0: Enabled • 1: Disabled 	1	1	1
	2	Drum claw operation	<ul style="list-style-type: none"> • 0: Enabled • 1: Disabled 	0	0	0
	3	Setting to display the button to select very strong for the pressure power (1250/1250P/1052 only) <ul style="list-style-type: none"> • Function: Switches the display of the [Very Strong] button on [Tray Setting] - [Process Adj.] - [Pressure Power Setting]. • Usage: Use this setting when the fusing under cannot be solved on the 300g/m² paper and so on. • Note <ul style="list-style-type: none"> • The life of the fusing roller is shortened when large numbers of prints are performed with very strong pressure. 	<ul style="list-style-type: none"> • 0: Not display • 1: Display 	0	0	0
	4	-	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0
	5	Image stabilization control cycle	<ul style="list-style-type: none"> • At 20,000 prints: 6-6=0, 6-5=0 • At 30,000 prints: 6-6=0, 6-5=1 • At 40,000 prints: 6-6=1, 6-5=0 • At 50,000 prints: 6-6=1, 6-5=1 	0	0	0
	6	Changes cycle of the image stabilization control (drum potential, maximum density, gamma auto adjustment).		1	1	1
	7	Drum potential auto adjustment	<ul style="list-style-type: none"> • 0: Enabled • 1: Disabled 	0	0	0
7	0	Fusing cleaning web feed control	<ul style="list-style-type: none"> • Automatic control: 7-1=0, 7-0=0 • Fixed to 1/2 feeding amount (low coverage control): 7-1=0, 7-0=1 • Normal control (feeding amount 1/1): 7-1=1, 7-0=0 • Fixed to twice feeding amount (low coverage control): 7-1=1, 7-0=1 	0	0	0
	1	Under the automatic control, the feeding amount control of the fusing cleaning web is twice as much as the usual in high coverage mode. Therefore, the feeding amount of the fusing cleaning web can be fixed with this setting if the high coverage originals are printed frequently.		0	0	0
	2	Background Density Adjustment	<ul style="list-style-type: none"> • Standard: 7-3=0, 7-2=0 • Dark (25V down): 7-3=0, 7-2=1 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3	Change the charging potential and set the image density of the highlight section.	<ul style="list-style-type: none"> Lighter (25V up): 7-3=1, 7-2=0 Lightest (50V up): 7-3=1, 7-2=1 	0	0	0
	4	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
8	0	Fusing initial rotation before print	<ul style="list-style-type: none"> With initial rotation (normal control): 8-1=0, 8-0=0 Standard + 5 sec: 8-1=0, 8-0=1 Standard + 10 sec: 8-1=1, 8-0=0 Standard + 30 sec: 8-1=1, 8-0=1 	0	0	0
	1	In case the fusibility at initial print is not enough, set the period of fusing initial rotation longer than the standard to keep the fusibility. Note · The period of standard fusing initial rotation gets longer with this setting. However, it does not conduct the initial rotation when the [Fusing Pre-rotation Setting] on [UTILITY] is set [Rotation OFF].		0	0	0
	2	Fusing initial rotation condition	<ul style="list-style-type: none"> Low temperature: 8-3=0, 8-2=0 Low/normal: 8-3=0, 8-2=1 Low/normal/high temperature: 8-3=1, 8-2=0 No preparatory rotation: 8-3=1, 8-2=1 	0	0	0
	3	In the low temperature environment, fusibility may be insufficient immediately after the power is turned ON. So, rotate the fusing roller while in the warm-up to obtain an even heat distribution of the fusing roller to avoid the insufficient fusing. In this adjustment, determine the environment in which you implement the fusing initial rotation. · Low temperature: perform the fusing initial rotation in the low temperature environment only. · Low/normal temperature: perform the fusing initial rotation in the low and normal temperature environment · Low/normal/high temperature: perform the fusing initial rotation in all environments.		1	1	1
	4	Fusing initial rotation time	<ul style="list-style-type: none"> Automatic control: 8-5=0, 8-4=0 300 sec: 8-5=0, 8-4=1 60 sec: 8-5=1, 8-4=0 0 sec: 8-5=1, 8-4=1 	0	0	0
	5			0	0	0
	6	Switch of Billing Total Counter display · Function: Switches the display of billing total counter on "UTILITY". · Usage: Set this setting to "1" when the CE uses the billing count.	<ul style="list-style-type: none"> 0: Disable (Not display) 1: Enable (Display) 	0 (951) 1 (1250/1250P/1052)	0 (951) 1 (1250/1250P/1052)	0 (951) 1 (1250/1250P/1052)
	7	Fusing initial rotation control after printing of small-size paper It prevents the thermal offset or crease at edges of the paper which occurs when conducting the solid black printing after feeding the small-size paper (216mm or less in width). However, when this setting is set to "1" and the next job starts within 4 minutes after the previous printing stops, the fusing preparatory rotation time becomes longer.	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	1	1	1
	0	-	<ul style="list-style-type: none"> 0: - 1: - 	0	1	1
	1			0	0	0
	2			0	0	0
	3			0	0	0
9	4	Copy quantity limit	<ul style="list-style-type: none"> No limit: 9-7=0, 9-6=0, 9-5=0, 9-4=0 1 sheet: 9-7=0, 9-6=0, 9-5=0, 9-4=1 3 sheets: 9-7=0, 9-6=0, 9-5=1, 9-4=0 5 sheets: 9-7=0, 9-6=0, 9-5=1, 9-4=1 9 sheets: 9-7=0, 9-6=1, 9-5=0, 9-4=0 10 sheets: 9-7=0, 9-6=1, 9-5=0, 9-4=1 20 sheets: 9-7=0, 9-6=1, 9-5=1, 9-4=0 	0	0	0
	5			0	0	0
	6			0	0	0
				0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	7		<ul style="list-style-type: none"> • 30 sheets: 9-7=0, 9-6=1, 9-5=1, 9-4=1 • 50 sheets: 9-7=1, 9-6=0, 9-5=0, 9-4=0 • 99 sheets: 9-7=1, 9-6=0, 9-5=0, 9-4=1 • No limit: 9-7=1, 9-6=0, 9-5=1, 9-4=0 • No limit: 9-7=1, 9-6=0, 9-5=1, 9-4=1 • No limit: 9-7=1, 9-6=1, 9-5=0, 9-4=0 • No limit: 9-7=1, 9-6=1, 9-5=1, 9-4=0 • No limit: 9-7=1, 9-6=1, 9-5=1, 9-4=1 	0	0	0
10	0	Image memory usable area	• Compression memory 232MB/ Expansion memory 536MB: 10-1=0, 10-0=0	0	0	0
	1	Changes the usable area of DRAM (768MB) on the image-processing board (IPB). Compression memory is used within the memory area of compressed image data, and expansion memory is used for page memory of expanded image data. There are 2 types of image memory; DRAM on IPB and hard disk/1 (40GB of total 160GB is used). DRAM is used by priority. If hard disk/1 is damaged and memory overflow occurs during scanning or transferring data from PC, increase compression memory. If memory overflow occurs before printing starts, increase expansion memory.	<ul style="list-style-type: none"> • Compression memory 172MB/ Expansion memory 596MB: 10-1=0, 10-0=1 • Compression memory 566MB/ Expansion memory 202MB: 10-1=1, 10-0=0 • Compression memory 86MB/ Expansion memory 682MB: 10-1=1, 10-0=1 	0	0	0
	2	Image memory use mode • Function: Switches the setting to output the 19-inch image with the worst compression rate. • Usage: Set this setting to "1" to output the 19-inch image with the worst compression rate.	<ul style="list-style-type: none"> • 0: In dependence upon DIPSW10-0/1. • 1: Compression memory 222MB/Expansion memory 546MB 	0	0	0
	3	Definition change of the large-size paper in counter control	• A3· 11 x 17· 12 x 18: 10-4=0, 10-3=0	0	0	0
	4	Default varies depending on the destination. Refer to I.5.9.6 Definition change of the large-size paper in counter control about the default for each destination.	<ul style="list-style-type: none"> • Small size only: 10-4=0, 10-3=1 • A3· 11 x 17· 12 x 18· 8¹/₂ x 14· B4· 8K: 10-4=1, 10-3=0 • A3· 11 x 17· 12 x 18· 8¹/₂ x 14· B4· 8K· 8¹/₂ x 13· 8¹/₄ x 13· 8¹/₈ x 13¹/₄· 8 x 13: 10-4=1, 10-3=1 	0	0	0
	5	Number of pages allowed for saddle stitch (paper weight: 92g/m ² to 244g/m ²)	• +0: 10-7=0, 10-6=0, 10-5=0	0	0	0
	6		• +5: 10-7=0, 10-6=0, 10-5=1	0	0	0
	7		<ul style="list-style-type: none"> • +10: 10-7=0, 10-6=1, 10-5=0 • +15: 10-7=0, 10-6=1, 10-5=1 • +20: 10-7=1, 10-6=0, 10-5=0 • +25: 10-7=1, 10-6=0, 10-5=1 • +30: 10-7=1, 10-6=1, 10-5=0 • -: 10-7=1, 10-6=1, 10-5=1 	0	0	0
11	0	-	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0
	1	Automatic paper supply	<ul style="list-style-type: none"> • 0: Disabled • 1: Enabled 	0	0	0
	2	-	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0
	3	SC screen switchover	<ul style="list-style-type: none"> • 0: F/E code screen switch • 1: F code screen only 	0	0	0
	4	Filter for jagged edges on slanting lines	<ul style="list-style-type: none"> • 0: Disabled • 1: Enabled 	0	0	0
	5	<ul style="list-style-type: none"> • Front cover print + Booklet + Group in printer jobs • Output setting change of RECALL HDD in printer jobs 	<ul style="list-style-type: none"> • 0: Restrict • 1: Allow 	0	0	0
	6	-	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	7	Jam code display	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
12	0	-	<ul style="list-style-type: none"> 0: - 1: - 	1	1	1
	1	Screen noise addition in scanner quality Conduct this adjustment when the texture pattern occurs on scanned image in picture mode. By changing this setting to "1", it adds noise on the scanned image before the screen process and prevents the texture pattern. However, it tends to cause noise on the image.	<ul style="list-style-type: none"> 0: Not add noise 1: Add noise 	0	0	0
	2	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	3			0	0	0
	4			0	0	0
	5			1	1	1
	6			0	0	0
	7			0	0	0
13	0	Original size detection switchover1	<ul style="list-style-type: none"> 0: A5 1: 5¹/₂ x 8¹/₂ 	0	1	0
	1	Original size detection switchover 2	<ul style="list-style-type: none"> 0: A4S 1: 8¹/₂ x 11S 	0	1	0
	2	Prohibition of GP-501 and Z-folding mode (1250/1250P/1052 only) <ul style="list-style-type: none"> • Function: Switches the prohibition of the mode that performs Z-folding to A3 size paper and outputs it as a cover from PI after the punch of GP-501. • Usage: Set this setting to "1" to release the prohibitions of this mode. 	<ul style="list-style-type: none"> 0: Prohibit 1: Allow 	0	0	0
	3	Switch of the set value when the page margin of printer job is set to "Use the set value of main body" <ul style="list-style-type: none"> • Function: Fixes the shift value of the job whose image shift has been set to "Use the shift value of main body" to "0". • Usage: Set this setting to "1" to fix the shift value to "0". Note It based on the premise that the user enters the shift value for using the Wait/Proof function.	<ul style="list-style-type: none"> 0: Use the set value of main body 1: Page Margin 0mm 	0	0	0
	4	Change of the mode for reserving a copy job <ul style="list-style-type: none"> • Function: Switches the display of the previous job setting for reserving a copy job. • Usage: Set this setting to "1" to keep the previous job setting. 	<ul style="list-style-type: none"> 0: Initialize the set value 1: Set value of the previous job 	0	0	0
	5	Original size detection switchover 3	<ul style="list-style-type: none"> 8 x 13: 13-7=0, 13-6=0, 13-5=0 8¹/₄ x 13: 13-7=0, 13-6=0, 13-5=1 8¹/₈ x 13¹/₄: 13-7=0, 13-6=1, 13-5=0 8¹/₂ x 13: 13-7=0, 13-6=1, 13-5=1 8¹/₂ x 14: 13-7=1, 13-6=0, 13-5=0 Not used: 13-7=1, 13-6=0, 13-5=1 Not used: 13-7=1, 13-6=1, 13-5=0 Not used: 13-7=1, 13-6=1, 13-5=1 	0	0	0
	6			0	0	0
	7			1	1	1
	0	Original size detection switchover 4	<ul style="list-style-type: none"> 0: B4, 11 x 17/B5, 8¹/₂ x 11/B5S 1: 8K/16K/16KS 	0	0	0
	1	Wider-sized paper + punch support in printer mode	<ul style="list-style-type: none"> 0: Limited 1: Not limited 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	2	Function to prevent the original on original glass from being left	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	3	The operation to check the staple limit at the print starting When the DIPSW21-0 Mixed size paper staple is set to "1" (batch output), the staple limit number is checked at printing starts. If the output number is behind the staple limit, the stapling order is canceled and normal printing starts.	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
	4	Postcard support (for North America)		0	0	0
	5	Size standard switchover of B series paper	<ul style="list-style-type: none"> 0: JIS 1: ISO 	0	0	1
	6	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	7			0	0	0
15	0	ORU-M function switchover (1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Not use 1: Use 	0	0	0
	1	Number of "Fine" paper that can be stapled	<ul style="list-style-type: none"> 100 sheets: 15-2=0, 15-1=0 50 sheets: 15-2=0, 15-1=1 40 sheets: 15-2=1, 15-1=0 30 sheets: 15-2=1, 15-1=1 	0	0	0
	2			0	0	0
	3	Finishing option alarm stop Alarm stop means the following full detection functions. FD/FS/LS tray lower limit, FD/FS/LS/SD number of sheets on the tray, FD punch, FS staple scraps, SD trim scraps.	<ul style="list-style-type: none"> Stops immediately after detection: 15-4=0, 15-3=0 Stops at a break between print set after detection: 15-4=0, 15-3=1 Does not stop while printing: 15-4=1, 15-3=0 Does not stop while printing: 15-4=1, 15-3=1 	0	0	0
	4			0	0	0
	5	CS Remote Care recognition	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
	6	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	7	Trigger the display of developer/drum replacement icon	<ul style="list-style-type: none"> 0: Number of prints 1: Running time 	0	0	0
16	0	Developer/drum running time display	<ul style="list-style-type: none"> 0: Displayed 1: Not displayed 	0	0	0
	1	Copy reservation function	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	2	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	3			0	0	0
	4	Setting menu mode installation date display	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	5	Non-image area erase mode judge level	<ul style="list-style-type: none"> Standard: 16-6=0, 16-5=0 Correspond to dark original: 16-6=0, 16-5=1 Correspond to light interference: 16-6=1, 16-5=0 Not used: 16-6=1, 16-5=1 	0	0	0
	6			0	0	0
	7	NIC selection for E-mail CS Remote Care * Conditions for setting the security enhance mode to ON - Administrator Authentication: ON - CE Authentication: ON - DIPSW40-0-1 (Carrying over the job for next day: Disabled) - DIPSW16-7-0 (NIC of E-Mail CS Remote Care: Use the controller NIC) - Removal HDD is not used	<ul style="list-style-type: none"> 0: Controller NIC 1: Main body NIC 	0	0	0
17	0	Summer time setting	<ul style="list-style-type: none"> 0 minutes: 17-3=0, 17-2=0, 17-1=0, 17-0=0 10 minutes: 17-3=0, 17-2=0, 17-1=0, 17-0=1 20 minutes: 17-3=0, 17-2=0, 17-1=1, 17-0=0 30 minutes: 17-3=0, 17-2=0, 17-1=1, 17-0=1 	0	0	0
	1			1	1	1
	2			1	1	1

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3		<ul style="list-style-type: none"> 40 minutes: 17-3=0, 17-2=1, 17-1=0, 17-0=0 50 minutes: 17-3=0, 17-2=1, 17-1=0, 17-0=1 60 minutes: 17-3=0, 17-2=1, 17-1=1, 17-0=0 70 minutes: 17-3=0, 17-2=1, 17-1=1, 17-0=1 80 minutes: 17-3=1, 17-2=0, 17-1=0, 17-0=0 90 minutes: 17-3=1, 17-2=0, 17-1=0, 17-0=1 100 minutes: 17-3=1, 17-2=0, 17-1=1, 17-0=0 110 minutes: 17-3=1, 17-2=0, 17-1=1, 17-0=1 120 minutes: 17-3=1, 17-2=1, 17-1=0, 17-0=0 130 minutes: 17-3=1, 17-2=1, 17-1=0, 17-0=1 140 minutes: 17-3=1, 17-2=1, 17-1=1, 17-0=0 150 minutes: 17-3=1, 17-2=1, 17-1=1, 17-0=1 	0	0	0
	4	Density selection at scanning tab paper	<ul style="list-style-type: none"> 80: 17-6=0, 17-5=0, 17-4=0 40 (Lightest): 17-6=0, 17-5=0, 17-4=1 60: 17-6=0, 17-5=1, 17-4=0 100: 17-6=0, 17-5=1, 17-4=1 120: 17-6=1, 17-5=0, 17-4=0 160: 17-6=1, 17-5=0, 17-4=1 200: 17-6=1, 17-5=1, 17-4=0 255 (Darkest): 17-6=1, 17-5=1, 17-4=1 	0	0	0
	5			0	0	0
	6			0	0	0
	7	Switching of custom size paper in printer mode	<ul style="list-style-type: none"> 0: Not rotate 1: Rotate 	1	1	1
18	0	Faulty part isolation: Tray /1	<ul style="list-style-type: none"> 0: Normal 1: Unusable 	0	0	0
	1	Faulty part isolation: Tray /2		0	0	0
	2	Faulty part isolation: Tray /3		0	0	0
	3	Faulty part isolation: Tray /4		0	0	0
	4	Faulty part isolation: RADF		0	0	0
	5	Faulty part isolation: Tray /7(1250/1250P/1052 only)		0	0	0
	6	Faulty part isolation: Tray /8(1250/1250P/1052 only)		0	0	0
	7	Faulty part isolation: HDD1		0	0	0
19	0	Fusing temperature setting	<ul style="list-style-type: none"> Standard: 19-3=0, 19-2=0, 19-1=0, 19-0=0 Standard + 5°C: 19-3=0, 19-2=0, 19-1=0, 19-0=1 Standard + 10°C: 19-3=0, 19-2=0, 19-1=1, 19-0=0 Standard + 15°C: 19-3=0, 19-2=0, 19-1=1, 19-0=1 Standard - 5°C: 19-3=0, 19-2=1, 19-1=0, 19-0=0 Standard - 10°C: 19-3=0, 19-2=1, 19-1=0, 19-0=1 Standard - 15°C: 19-3=0, 19-2=1, 19-1=1, 19-0=0 Standard - 15°C: 19-3=0, 19-2=1, 19-1=1, 19-0=1 Standard - 15°C: 19-3=1, 19-2=0, 19-1=0, 19-0=0 Standard - 15°C: 19-3=1, 19-2=0, 19-1=0, 19-0=1 Standard - 15°C: 19-3=1, 19-2=0, 19-1=1, 19-0=0 Standard - 15°C: 19-3=1, 19-2=0, 19-1=1, 19-0=1 Standard - 15°C: 19-3=1, 19-2=1, 19-1=0, 19-0=0 	0	0	0
	1	Temperature up: Decrease insufficient fusing or wrapping jam at fusing.		0	0	0
	2	Temperature down: decrease paper exit curling or waving. Note • When the [Fusing Temperature Set.] display to the DIPSW2-0 adjustment menu is set to "1", the setting can be made up to -30°C in [MACHINE] - [Adjustment] - [Fusing Temperature Set.]. However during printing, the temperature is controlled to up to -15°C.		0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3		<ul style="list-style-type: none"> Standard - 15°C: 19-3=1, 19-2=1, 19-1=0, 19-0=1 Standard - 15°C: 19-3=1, 19-2=1, 19-1=1, 19-0=0 Standard - 15°C: 19-3=1, 19-2=1, 19-1=1, 19-0=1 	0	0	0
	4	Black band width when the inside temperature is high • Function: Black band is not created when "1" is selected for this setting and the drum temperature sensor (TH5) detects temperature above 45°C. • Usage: When the cleaning fault occurs on the low coverage print under the high temperature environment, use this setting. Note • When this setting is set to "1", toner tends to spill over. • When this setting is set to "1", the black band creation that is linked to the toner supply is not performed. Though, it creates the black band that is created regularly.	<ul style="list-style-type: none"> 0: Changes in synchronization with the toner supply amount 1: Not create the black band 	0	0	0
	5	Fusing pressure control at initial print(1250/1250P/1052 only) In case the fusibility is not enough until 100 sheets of paper, after starting print from idling, improve the fusibility by increasing the fusing pressure 1 level for specified time. Note • For 180 seconds after starting print, fusing pressure increases the level for 1. • By setting it to "CHANGE PRESSURE", it increases the level for 1 under all environments.	<ul style="list-style-type: none"> 0: Not change pressure 1: Change pressure 	0	0	0
	6	Maximum black band width of black band creation control (low coverage)	<ul style="list-style-type: none"> 14mm: 19-7=0, 19-6=0 6mm: 19-7=0, 19-6=1 3mm: 19-7=1, 19-6=0 10mm: 19-7=1, 19-6=1 	0	0	0
	7	• Function: Changes the width of the black band that is created at the specified interval. The width of the black band is controlled with the exposure width of the LPH. • Usage: When the cleaning fault occurs on the low coverage print after the high coverage print, make the black band creation width narrower. When the overflow toner occurs on the low coverage print, make the black band creation width wider.		0	0	0
20	0	Releasing the prohibition of Frame Erase and Standard size repeat • Function: Switches the prohibition or the prohibition release of Frame Erase and Standard size repeat. • Usage: Set this setting to "1" to erase the original frame that is read during the repeat.	<ul style="list-style-type: none"> 0: Prohibit 1: Allow 	0	0	0
	1	Image scanning area with image shift Normal: Compare the original size and the transfer paper size, the smaller one is to be the image area. Original priority: Original size is to be the image area.	<ul style="list-style-type: none"> 0: Normal 1: Original priority 	0	0	0
	2	Total page number standard in stamp mode	<ul style="list-style-type: none"> 0: Based on original 1: Based on transfer paper 	0	0	0
	3	Skip page and skip page number in the program job	<ul style="list-style-type: none"> 0: Skip page only 1: Skip page and skip page number 	0	0	0
	4	Faulty part isolation: Tray /5	<ul style="list-style-type: none"> 0: Normal 1: Unusable 	0	0	0
	5	Faulty part isolation: Tray /6(1250/1250P/1052 only)		0	0	0
	6	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	7	Tandem connection setting By connecting the two main bodies with the Ethernet, the tandem output is enabled. Note • The optional configuration must be the same in the master device and the sub device. • The firmware version must be the same in the master device and the sub device.	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
21	0	Mixed size paper staple	<ul style="list-style-type: none"> 0: Allowed (real-time output) 1: Prohibited (batch output) 	0	0	0
	1	Double side print size specification of printer job (This setting prints on the singular paper when the size is different from the front to back side.)	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
	2	Target settings to judge unmatched paper type in process adjustment value of a job read out from HDD	<ul style="list-style-type: none"> 0: Target settings 1: Not target settings (not overwrites the process adjustment value) 	0	0	0
	3	PB warm up control switchover(1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: No warm-up during power ON 1: Warm-up during power ON 	0	0	0
	4	PB heater control switchover(1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Heater turns OFF automatically in 1 minute after finishing perfect binding. 1: Heater does not turn OFF automatically in 1 minute after finishing perfect binding. 	0	0	0
	5	Touch-panel adjustment method	<ul style="list-style-type: none"> 0: Utility/setting button +hard key 1: hard key 	0	0	0
	6	Target settings to judge unmatched paper type in front and back registrations value of a job read out from HDD	<ul style="list-style-type: none"> 0: Target settings 1: Not target settings (not overwrites the front and back registrations value) 	0	0	0
	7	Switchover of scanner screen reset button Decides whether to skip to sending mode selection screen or not when pressing the reset button on the scanner screen.	<ul style="list-style-type: none"> 0: Reset 1: Skip to Reset + Sending mode selection screen 	0	0	0
22	0	Machine NIC/Controller NIC setting	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	1	1	1
	1	FD-503 number of punch hole(1250/1250P/1052 only)	<ul style="list-style-type: none"> Not used: 22-2=0, 22-1=0 2 and 3 holes: 22-2=0, 22-1=1 2 and 4 holes: 22-2=1, 22-1=0 Not used: 22-2=1, 22-1=1 	1	1	0
	2			0	0	1
	3	Image position for the custom size original (when using DF)	<ul style="list-style-type: none"> 0: Based on user selection 1: Based on APS at DF 	0	0	0
	4	Function of power save button	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	5	SD trimmer board moving timing adjustment(1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Not displayed 1: Displayed 	0	0	0
	6	Operation when staple empty of FNS	<ul style="list-style-type: none"> 0: Staple supply request 1: Selecting between staple supply or staple release 	0	0	0
	7	Jam screen selection	<ul style="list-style-type: none"> 0: Jam position display 1: Described by illustration 	0	0	0
23	0	-	<ul style="list-style-type: none"> 0: - 1: - 	1	1	1
	1			1	1	1
	2	Exposure time fine adjustment • Function: Changes the LPH exposure time at a rate to the initial setting value. • Usage: Use this setting to change the middle tone density or the line width when the user requests to do so.	<ul style="list-style-type: none"> Standard: 23-4=0, 23-3=0, 23-2=0 Up 4 (Exposure time: 1.24 times) : 23-4=0, 23-3=0, 23-2=1 Up 3 (Exposure time: 1.18 times) : 23-4=0, 23-3=1, 23-2=0 Up 2 (Exposure time: 1.12 times) : 23-4=0, 23-3=1, 23-2=1 Up 1 (Exposure time: 1.06 times) : 23-4=1, 23-3=0, 23-2=0 Down 1 (Exposure time: 0.94 times) : 23-4=1, 23-3=0, 23-2=1 	0	0	0
	3			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	4		<ul style="list-style-type: none"> Down 2 (Exposure time: 0.88 times) : 23-4=1, 23-3=1, 23-2=0 Down 3 (Exposure time: 0.82 times) : 23-4=1, 23-3=1, 23-2=1 	0	0	0
	5	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	6	LS paper exit of 350g/m ² paper	<ul style="list-style-type: none"> 0: Restrict 1: Allow 	0	0	0
	7	Custom size image rotation switchover (LEF original → SEF paper) Note • Rotate when DIPSW17-1 is "1".	<ul style="list-style-type: none"> 0: Rotate 1: Not rotate 	0	0	0
24	0	Scanner density switchover in 1200dpi Conduct the image processing on the scanned data to set the image density proper to the usage. Copier (with engine peculiarity gamma): Conduct the image processing based on outputting the scanned data with PRESS 1250/1052/PRO 951 again, then send the data to IC. The image density output from PRESS 1250/1052/PRO 951 is the same as the copy. Printer (without engine peculiarity gamma): Conduct the image processing based on checking the scanned data on the screen of PC, then send the data to IC. The image density output from PRESS 1250/1052/PRO 951 is darker than the copy.	<ul style="list-style-type: none"> 0: Copier (with engine peculiarity gamma): 1: Printer (without engine peculiarity gamma): 	0	0	0
	1	Display objects in Job History List	<ul style="list-style-type: none"> 0: Output job 1: Output job + Incomplete job 	0	0	0
	2	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	3	PF-703 heater control(1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	4	Half-Fold, Z-Fold output number limit	<ul style="list-style-type: none"> 50 sheets: 24-5=0, 24-4=0 	1	1	1
	5		<ul style="list-style-type: none"> 40 sheets: 24-5=0, 24-4=1 30 sheets: 24-5=1, 24-4=0 20 sheets: 24-5=1, 24-4=1 	1	1	1
	6	Z-Fold + Staple output number limit	<ul style="list-style-type: none"> 5 sheets: 24-7=0, 24-6=0 	0	0	0
	7		<ul style="list-style-type: none"> 8 sheets: 24-7=0, 24-6=1 10 sheets: 24-7=1, 24-6=0 3 sheets: 24-7=1, 24-6=1 	0	0	0
25	0	Stop setting when low coverage continues • Function: Reduce the cleaning fault by stopping the drum periodically. • Usage: When the cleaning fault occurs on the low coverage print, set this setting to "1".	<ul style="list-style-type: none"> 0: OFF 1: ON 	0	0	0
	1	High coverage productivity down • Function: Reduce the marks on drum and the cleaning fault by decreasing the productivity and reducing the load of the cleaning blade. • Usage: When the marks on drum and the cleaning fault occur on the high coverage print, set this setting to "1". I.5.9.7 High coverage productivity down threshold setting shows the relationship between this setting and the setting of "Setting menu" - "Function Setting" - "Individual Function Chang". See the list only as a guide.	<ul style="list-style-type: none"> 0: Productivity priority 1: Blade durability priority 	0	0	0
	2	Maximum black band width of black band creation control (high coverage) • Function: Specifies the maximum black band width of black band creation control • Usage: When the cleaning fault occurs on the high coverage print, make the black band width wider. However, the marks on drum tend to occur frequently. When the marks on drum occur on the high coverage print, make the black band width narrower. However, the cleaning fault tends to occur frequently.	<ul style="list-style-type: none"> 0mm: 25-3=0, 25-2=0 	0	0	0
	3		<ul style="list-style-type: none"> 21.5mm: 25-3=0, 25-2=1 6mm: 25-3=1, 25-2=0 12mm: 25-3=1, 25-2=1 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
26	4	Initialization of [Air Assist] setting when recalling paper profile	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
	5	Change of sheet insertion tray in printer mode when executing Insert Sheet, Chapters or Booklet + Wait output jobs	<ul style="list-style-type: none"> 0 Change collectively 1: Change separately 	0	0	0
	6	Function to latch the start button (During lifting the FS tray and warm-up after releasing JAM)	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
	7	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4	Multi feed detection (FD/PI) (1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	5	PF forced separation clutch control	<ul style="list-style-type: none"> 0: Operate only in high temp. 1: Operate always 	0	0	0
27	6	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	7	Multi feed detection (DF)	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	0	Paper weight-line speed control switchover	<ul style="list-style-type: none"> 0: For Japan 1: For other than Japan 	0	1	1
	1	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	2	Transfer table switchover setting of Fine 40 g/m ² to 49 g/m ² • Function: Switches the edge transfer current value table of Fine at level of 40g/m ² . • Usage: Change the value with DIPSW since the proper current value for the Fine at the level of 40 g/m ² varies depending on the destination. Note • The default of DIPSW varies depending on the destination. It is set at the factory.	<ul style="list-style-type: none"> Fine 40A (default for Japan/ other areas): 27-3=0, 27-2=0 Fine 40B (default for North America): 27-3=0, 27-2=1 Fine 40C (default for Europe): 27-3=1, 27-2=0 Fine 40A: 27-3=1, 27-2=1 	0	1	0
	3			0	0	1
	4			0	0	0
	5			0	0	0
	6	Dot complement in skew adjustment Set this setting ON when moire occurs on the image in the skew correction during scanning. It is effective for moire occurs at dot area with even density.	<ul style="list-style-type: none"> 0: OFF 1: ON 	0	0	0
	7	Z-fold for 5 1/2 x 11S paper in printer job/mixed original sizes copy mode		0	0	0
28	0	Selection of page margin method set on main body for printer job	<ul style="list-style-type: none"> 0: Side1 and side2 collectively 1: Side1 and side2 separately 	0	0	0
	1	telnet & ftp port (Main body NIC)	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	2	Changing direction of adjusting print start position at back side in fine increments (other than book)	<ul style="list-style-type: none"> 0: To the direction opposite to the front-side direction 1: To the direction same as the front-side direction 	0	0	0
	3	Changing direction of adjusting print start position at back side in fine increments (book)	<ul style="list-style-type: none"> 0: To the direction same as the front-side direction 1: To the direction opposite to the front-side direction 	0	0	0
	4	Image shift when outputting the custom size print job The shift of the image is caused depending on the size of paper when it is sent the custom size image as print Job. (The output is different from the thumbnail displayed image). For particulars, refer to I.5.9.8 Image shift when outputting the custom size print job.	<ul style="list-style-type: none"> 0: Based on paper 1: Based on image 	0	0	0
	5	Layout change when setting "2 in 1+Folding +Outside Print" in FD	<ul style="list-style-type: none"> 0: 1st page on the right, 2nd page on the left 1: 1st page on the left, 2nd page on the right 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	6	Standard of shifting with the shifting direction specified 2 repeats.	<ul style="list-style-type: none"> 0: Based on image 1: Based on paper 	0	0	0
	7	Release the limitation for multi half-fold	<ul style="list-style-type: none"> 0: Limited 1: Not Limited 	0	0	0
29	0	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	1	Switchover the limit of loading to LS stacker(1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Limit by weight 1: 5000 sheets uniformly 	0	0	0
	2	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	3			0	0	0
	4	Operation control switchover of front cooling fan (FM18)	<ul style="list-style-type: none"> 0: Idling OFF 1: ON for 10 minutes after finishing printing (when the drum temperature is 45°C or more) 	0	0	0
	5	Setting to extend the operation time of the cooling fan after the Job <ul style="list-style-type: none"> Function: Extend the operation time of the cooling fan to cool inside the machine. Usage: By setting this setting to "1", the time to rotate the fan at high speed is extended and the machine cooling time is shortened. Use this setting to shorten the time to shut down when the sub power switch (SW2) is turned OFF. 	<ul style="list-style-type: none"> 0: Rotate the fan at high speed for 1 minute after the Job 1: Rotate the fan at high speed for 1 hour after the Job 	0	0	0
	6	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
30	7			0	0	0
	0	Service mode, restriction of data collection display	<ul style="list-style-type: none"> 0: Restricted 1: Not restricted 	0	0	0
	1			0	0	0
	2			0	0	0
	3			1	1	1
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7	Test pattern No. 16 paper size switchover	<ul style="list-style-type: none"> 0: A3 (Test pattern No. 16) 1: 11 x 17 (Test pattern No. 33) 	0	1	0
31	0	-	<ul style="list-style-type: none"> 0: - 1: - 	1	1	1
	1			0	0	0
	2	Printer input delay control Prevents the memory overflow by delaying the data input time when it occurs in printer job.	<ul style="list-style-type: none"> Without delay control: 31-3=0, 31-2=0 Delay control from 10% left: 31-3=0, 31-2=1 Delay control from 20% left: 31-3=1, 31-2=0 Delay control from 30% left: 31-3=1, 31-2=1 	0	0	0
	3			0	0	0
	4	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
32	0	Perfect binding punch operation(1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
	1			0	0	0
	2			1	1	1

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3	Switching the browser agent when using eCopy. • Function: PRO 951 uses eCopy ver 4.6. PRESS 1250/1250P/1052 use eCopy ver. 5.0. When eCopy is in use, a browser agent which is corresponding to versions needs to be set. The browser agent that is used can be changed using this DIPSW. • Usage: Set this setting to "1" to use eCopy ver 4.6 when using eCopy on PRESS 1250/1250P/1052. Note • Connecting to eCopy ver5.0 is disabled when this setting is set to "1".	• 0: The browser agent for eCopy ver5.0 • 1: The browser agent for eCopy ver4.6	0	0	0
	4	-	• 0: - • 1: -	0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
33	0	Faulty part isolation: FD-fold/punch function(1250/1250P/1052 only)	• 0: Normal • 1: Unusable	0	0	0
	1	-	• 0: - • 1: -	0	0	0
	2	Faulty part isolation: FD main tray paper exit(1250/1250P/1052 only)	• 0: Normal • 1: Unusable	0	0	0
	3	Faulty part isolation: PI function(1250/1250P/1052 only)		0	0	0
	4	-	• 0: - • 1: -	0	0	0
	5			0	0	0
	6	Faulty part isolation: LS main tray (1st) (1250/1250P/1052 only)	• 0: Normal • 1: Unusable	0	0	0
34	7	Faulty part isolation: LS main tray (2nd) (1250/1250P/1052 only)		0	0	0
	0	Faulty part isolation: SD saddle stitch(1250/1250P/1052 only)		0	0	0
	1	Faulty part isolation: SD multi center fold(1250/1250P/1052 only)		0	0	0
	2	Faulty part isolation: SD multi tri-fold(1250/1250P/1052 only)		0	0	0
	3	Faulty part isolation: SD trimming(1250/1250P/1052 only)		0	0	0
	4	Faulty part isolation: SD-tandem, sub tray paper exit(1250/1250P/1052 only)		0	0	0
	5	-	• 0: - • 1: -	0	0	0
	6			0	0	0
35	7	Faulty part isolation: PB-503 relay conveyance section (1250/1250P/1052 only)	• 0: Normal • 1: Unusable	0	0	0
	0	Faulty part isolation: FS staple function		0	0	0
	1	Faulty part isolation: FS main tray paper exit		0	0	0
	2	Faulty part isolation: FS		0	0	0
	3	Faulty part isolation: PB cover paper insertion(1250/1250P/1052 only)		0	0	0
	4	Faulty part isolation: PB binder function(1250/1250P/1052 only)		0	0	0
	5	Faulty part isolation: PB(1250/1250P/1052 only)		0	0	0
	6	Switching the recovery for the number of sets when the stapling JAM occurs	• 0: Disable the recovery for the number of sets • 1: Enable the recovery for the number of sets	0	0	0
36	7	Faulty part isolation: RU(1250/1250P/1052 only)	• 0: Normal • 1: Unavailable for 2 sheets (Available in less productivity)	0	0	0
	0	Fusing heat roller temperature control In case the uneven brightness or the blister occurs on coated paper, prevent the problem by lowering the control temperature of the fusing heating roller. However, the fusibility tends to be	• Normal control: 36-1=0, 36-0=0 • 175 °C at all times: 36-1=0, 36-0=1 • 105 °C at all times: 36-1=1, 36-0=0 • Heater OFF: 36-1=1, 36-0=1	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	1	decreased on the rough surface paper when lowering the temperature. Note · In case the uneven brightness or the blister occurs on coated paper with the default setting, conduct the following steps to change the setting. 1) Set 105°C at all times and check that there is no uneven brightness or blister. 2) In case it is not improved, set the heater OFF. · Be sure not to use 175°C setting since 175°C and heater OFF are switched depending on the environment in the normal control.		0	0	0
	2	Fusibility improvement control at print starting When the printing starts from the idling statement under the environment other than low temperature and the fusibility is not enough on the image printed less than 100 sheets, change this setting to "1". Note · When changing this setting to "1", FPOT (first printout time) is extended 3 seconds to 7 seconds under every environments until the detection temperature of the fusing roller gets to the specified temperature.	<ul style="list-style-type: none"> 0: Conducted only under low temperature 1: Create under any environment 	0	0	0
	3	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7	Prohibit 50g/m ² paper for inside in perfect binding/Release limit (1250/1250P/1052 only) Inside paper weights 50g/m ² is prohibited for perfect binding. By changing this setting to "1" with the function to be set in the case of using 50g/m ² paper for inside, the following items are released. · Prohibit 50g/m ² paper for inside · Limitation to 300 sheets for inside This setting has a risk like jams caused by binding strength or curling.	<ul style="list-style-type: none"> 0: Restrict 1: Allow 	0	0	0
37	0	Faulty part isolation: PI-PFU Tray2(1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Normal 1: Unusable 	0	0	0
	1	Faulty part isolation: PI-PFU Tray3(1250/1250P/1052 only)		0	0	0
	2	PB perfect binding limit (includes Z-Fold) (1250/1250P/1052 only)	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0
	3	Upper limit setting for the number of papers to be stapled	<ul style="list-style-type: none"> 0: Limited according to paper size, paper weight, or paper type, whichever is the minimum. 1: Limited according to the paper size 	0	0	0
	4	Stop at limit of stapling volume	<ul style="list-style-type: none"> 0: ON (stop at limit) 1: OFF (Not stop at limit) 	0	0	0
	5	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	6			0	0	0
	7			0	0	0
38	0	Default folder when selecting box function	<ul style="list-style-type: none"> 0: Private folder 1: Shared folder 	0	0	0
	1	File name overwriting with box function	<ul style="list-style-type: none"> 0: Disabled 1: Enabled 	0	0	0
	2	Print quantity and output page selection for Wait or Proof output for box function	<ul style="list-style-type: none"> 0: Enabled 1: Disabled 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3	APS when starting copier job output Set whether conduct APS when starting a copier job. This setting is enabled when the [ATS Permit] in the utility menu is set to ON.	<ul style="list-style-type: none"> • 0: OFF • 1: ON 	0	0	0
	4	Automatic change of tray setting names	<ul style="list-style-type: none"> • 0: Automatically changes the name to the name of selected paper type, when paper type, paper weight, color, and punch settings are changed. • 1: Automatically changes the name to the name of selected paper type, when the name has been set to "paper type". 	0	0	0
	5	Peripheral image erasure of custom size by printer job	<ul style="list-style-type: none"> • 0: Disabled • 1: Enabled 	0	0	0
	6	Buck side trailing edge erasure amount with duplex output	<ul style="list-style-type: none"> • 2mm (copier)* / 0mm (printer): 38-7=0, 38-6=0 • * It becomes 4mm when the paper size is custom size with the DIPSW38-5 has been set to "1". • 6mm: 38-7=0, 38-6=1 • 8mm: 38-7=1, 38-6=0 • 10mm: 38-7=1, 38-6=1 	0	0	0
	7			0	0	0
39	0	Tray1 paper leading edge buckling prevention control Change the paper feed control of the main body for other than [PrePrinted] to the same control as that for [PrePrinted]. When this setting is set to "1", the double feed tends to occur. Note This setting does not work for the settings of paper that weights 75 g/m2 or more and coated paper.	<ul style="list-style-type: none"> • 0: Disabled • 1: Enabled 	0	0	0
	1	Tray2 paper leading edge buckling prevention control Change the paper feed control of the main body for other than [PrePrinted] to the same control as that for [PrePrinted]. When this setting is set to "1", the double feed tends to occur. Note This setting does not work for the settings of paper that weights 75 g/m2 or more and coated paper.		0	0	0
	2	Tray3 paper leading edge buckling prevention control (PF-706) Change the paper feed control of PF-706 for other than [PrePrinted] to the same control as that for [PrePrinted]. When this setting is set to "1", the double feed tends to occur. Note This setting does not work for the settings of paper that weights 75 g/m2 or more and coated paper.		0	0	0
	3	Tray4 paper leading edge buckling prevention control (PF-706) Change the paper feed control of PF-706 for other than [PrePrinted] to the same control as that for [PrePrinted]. When this setting is set to "1", the double feed tends to occur. Note This setting does not work for the settings of paper that weights 75 g/m2 or more and coated paper.		0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	4	Tray5 paper leading edge buckling prevention control (PF-706) Change the paper feed control of PF-706 for other than [PrePrinted] to the same control as that for [PrePrinted]. When this setting is set to "1", the double feed tends to occur. Note This setting does not work for the settings of paper that weights 75 g/m2 or more and coated paper.		0	0	0
	5	Tray6 paper leading edge buckling prevention control (PF-706) (1250/1250P/1052 only) Change the paper feed control of PF-706 for other than [PrePrinted] to the same control as that for [PrePrinted]. When this setting is set to "1", the double feed tends to occur. Note This setting does not work for the settings of paper that weights 75 g/m2 or more and coated paper.		0	0	0
	6	Tray7 paper leading edge buckling prevention control (PF-706) (1250/1250P/1052 only) Change the paper feed control of PF-706 for other than [PrePrinted] to the same control as that for [PrePrinted]. When this setting is set to "1", the double feed tends to occur. Note This setting does not work for the settings of paper that weights 75 g/m2 or more and coated paper.		0	0	0
	7	Tray8 paper leading edge buckling prevention control (PF-706) (1250/1250P/1052 only) Change the paper feed control of PF-706 for other than [PrePrinted] to the same control as that for [PrePrinted]. When this setting is set to "1", the double feed tends to occur. Note This setting does not work for the settings of paper that weights 75 g/m2 or more and coated paper.		0	0	0
40	0	Carrying over the job for next day * Conditions for setting the security enhance mode to ON - Administrator Authentication: ON - CE Authentication: ON - DIPSW40-0-1 (Carrying over the job for next day: Disabled) - DIPSW16-7-0 (NIC of E-Mail CS Remote Care: Use the controller NIC) - Removal HDD is not used	<ul style="list-style-type: none"> • 0: Enabled • 1: Disabled • Conditions for setting the security enhance mode to ON • Administrator Authentication: ON • CE Authentication: ON • DIPSW40-0-1 (Carrying over the job for next day: Disabled) • DIPSW16-7-0 (NIC of E-Mail CS Remote Care: Use the controller NIC) • Removal HDD is not used 	0	0	0
	1	Main body disposal mode SW allows both a part of the data of the NVRAM board (NRB) and all HDD data to be deleted before the disposal of the machine. Note • Setting this mode to "1" and executing the following step completely disable the NVRAM board (NRB). The restoring procedure is not available and the machine cannot be used again. Therefore, do not execute the steps except when throwing the machine away. "Utility" - "06 Administrator Setting" - "07 Security Setting" - "02 HDD Management Setting" - "05 Delete All Data" - "Deletion Execute" on "Mode 1" to "Mode 8"	<ul style="list-style-type: none"> • 0: Restrict • 1: Allow 	0	0	0
	2	Cover sheet single fold control with folding&stapling/multi center(1250/1250P/1052 only)	<ul style="list-style-type: none"> • Normal control: 40-3=0, 40-2=0 • Enables the control under a certain condition: 40-3=0, 40-2=1 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3	Enabling this setting improves accuracy of folding cover paper.	<ul style="list-style-type: none"> * Enables the control only when the weight of cover paper fed from the main body is 131g/m² or heavier. Enables the control all the time: 40-3=1, 40-2=0 -: 40-3=1, 40-2=1 	0	0	0
	4	SEL/LEF mixed print for Partition Paper Insertion	<ul style="list-style-type: none"> 0: Restrict the mixed output 1: Permit the mixed output 	0	0	0
	5	Erasure amount setting of front side trailing edge	2mm (copier)* / 0mm (printer): 40-6=0, 40-5=0 *It becomes 4mm when the paper size is user-defined with the DIPSW38-5 has been set to "1". 6mm: 40-6=0, 40-5=1 8mm: 40-6=1, 40-5=0 10mm: 40-6=1, 40-5=1	0	0	0
	6			0	0	0
	7	Margin control at scanner sending	<ul style="list-style-type: none"> 0: Send with the erase area (margin) deleted 1: Send with the erase area (margin) left 	0	0	0
41	0	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	1			0	0	0
	2			0	0	0
	3	Target settings to judge not matched curl adjustment of a job read out from HDD • Function: When the curl adjustments of the tray and the curl adjustment data of the job read out from HDD do not match, this switch allows a print job to continue or stop. When this setting is set to "1", the print job continues without stopping the machine. • Usage: A job is stored in HDD, and then a customer changes the curl setting. When the HDD job is printed, the job either stops or continues.	<ul style="list-style-type: none"> 0: Stopping the unmatched operation 1: Ignoring the unmatched operation 	0	0	0
	4	Target settings to judge not matched multi feed detection of a job read out from HDD (1250/1250P/1052 only) • Function: When the multi feed detection threshold of the tray and the multi feed detection threshold setting of the job read out from HDD do not match, this switch allows a print job to continue or stop. When this setting is set to "1", the print job continues without stopping the machine. • Usage: A job is stored in HDD, and then a customer changes the multi feed detection threshold setting. When the HDD job is printed, the job either stops or continues.		0	0	0
	5	Target settings to judge not matched [Mis-centerDetect] of a job read out from HDD • Function: When the [Mis-centerDetect] of the tray and the setting of the job read out from HDD do not match, this switch allows a print job to continue or stop. When this setting is set to "1", the print job continues without stopping the machine. • Usage: A job is stored in HDD, and then a customer changes the [Mis-centerDetect]. When the HDD job is printed, the job either stops or continues.		0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	6	Target settings to judge not matched RU Curl Adj. of a job read out from HDD (1250/1250P/1052 only) • Function: When the RU curl adjustments of the tray and the RU curl adjustment data of the job read out from HDD do not match, this switch allows a print job to continue or stop. When this setting is set to "1", the print job continues without stopping the machine. • Usage: A job is stored in HDD, and then a customer changes the RU curl setting. When the HDD job is printed, the job either stops or continues.		0	0	0
	7	Target settings to judge the not matched skew detection threshold of a job read out from HDD (1250/1250P/1052 only) • Function: When the skew detection threshold of the tray and the skew detection threshold of a job read out from HDD are do not matched, this switch allows a print job to continue or stop. When this setting is set to "1", the print job continues without stopping the machine. • Usage: A job is stored in HDD, and then a customer changes the skew detection threshold setting. When the HDD job is printed, the job either stops or continues.		0	0	0
42	0	PK-522 Number of Punch holes	<ul style="list-style-type: none"> • 2-Hole: 42-0=0, 42-1=0 • 2/3-Hole: 42-0=1, 42-1=0 • 2/4-Hole: 42-0=0, 42-1=1 • -: 42-0=1, 42-1=1 	0	1	0
	1	Note • The number of punch holes is set automatically as the factory default so that there is no need to change it in the field. However, change the number in the case of connecting the punch unit which is different from the destination.		0	0	1
	2	ZU-608 Number of Punch holes (951 only) Note • The number of punch holes is set automatically as the factory default so that there is no need to change it in the field. However, change the number in the case of connecting the punch unit which is different from the destination.	<ul style="list-style-type: none"> • 0: 2/4-Hole • 1: 2/3-Hole 	0	1	0
	3	-	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0
	4	SD-510 Output tray book feed amount • Function: When this setting is set to "1", the output tray of SD-510 feeds the bundle of paper by 1 set without storing them on the output tray. • Usage: Use this function for a user who has a mechanism such as moving by 1 set when move the book to the next process. Set this setting to "1" when the output tray belt is connected to the paper exit opening and conveys a book.	<ul style="list-style-type: none"> • 0: Auto • 1: 1 set exit 	0	0	0
	5	FS-532 Paper between 92 g/m2 to 216 g/m2 overlap conveyance Enable/Disable switch • Function: For paper overlap conveyance of FS-532, switches enable or disable for thick paper. Overlap conveyance of thick paper is not executed as the factory default to reduce the switch back sound. • Usage: Set this setting to "1" to increase productivity of the paper between 92 g/ m2 to 216 g/m2 in the stitching mode or the punch staple mode.	<ul style="list-style-type: none"> • 0: Disabled • 1: Enabled 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	6	Duplex, main body reverse and FS-532 staple restrict setting for the weight between 245g/m2 to 300g/m2 • Function: Switches Allow or Restrict of the duplex mode, main body reverse mode and FS-532 staple mode for the paper 245g/m2 to 300g/m2. • Usage: When the paper 245 g/m2 to 300 g/m2 in use cannot be guaranteed in the duplex mode, main body reverse mode and FS-532 staple mode, set this setting to "1" for prohibiting. Note This setting is set to "Allow" as the factory default based on using KM recommended paper.	• 0: Allow • 1: Restrict	0	0	0
	7	Auto Start after the release for over load of the FS-532 main tray. • Function: After the over loaded paper in the FS-532 main tray is removed, switches the Enable/Disable of the setting to start automatically. • Usage: Set this setting to "1" to enable the preceding setting.	• 0: Disabled • 1: Enabled	0	0	0
43	0	Authentication setting of ORU-M Password (1250/1250P/1052 only) • Function: Switches the Enable/Disable of the setting to request the Password for entering the ORU-M Mode. • Usage: Set this setting to "1" to control the ORU-M with the Password.		0	0	0
	1	Display setting of the ORU-M print mode (1250/1250P/1052 only) • Function: Switches the Enable/Disable of the setting to make the Sample Output button ON in the ORU-M Mode. • Usage: Set this setting to "1" not to execute the Sample Output in the ORU-M Mode.	• 0: ON • 1: OFF	0	0	0
	2	Input setting of ORU-M Replace Reason (1250/1250P/1052 only) • Function: Switches the Enable/Disable of the setting to input the Replace Reason for parts replacement in the ORU-M Mode. • Usage: Set this setting to "1" not to manage the Replace Reason such as when taking a report of burden for inputting the data than collecting it in the ORU-M Mode.	• 0: Enable • 1: Disable	0	0	0
	3	-	• 0: - • 1: -	0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
44	0	Number of Proof Print count • Function: Switch whether to count the number of sets of Proof Print or not. • Usage: Set this setting to "1" to count the number of sets of Proof Print as the number of sets of sheets exited.	• 0: OFF • 1: ON	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	1	Duplex Division of perPage setting • Function: Prescribe the subset staple for the odd pages during Duplex print to print on the back side and staple. When this setting is set to "1", staple the back side as Blank. • Usage: Set this setting to "1" to staple the odd pages by Subset staple specification during Duplex print. Note • If the 6-page Duplex Job is prescribed as the 3-page Duplex Job in the subset when this setting is set to "0", staple is performed as follows: 1 (Front), 2 (Back), 3 (Front), 4 (Back). When this setting is set to "1", staple is performed as follows: 1 (Front), 2 (Back), 3 (Front), and outputs as follows: 4 (Front), 5 (Back), 6 (Front).		0	0	0
	2	Printer Job Booklet + added cover • Usage: When this setting is set to "1", prints the Printer Job added a Booklet in the application function. • Usage: Set this setting to "1", to print the Printer Job added a Booklet in the application function. Note Enable when the Printer Job is in Wait Mode (Driver specified/HDD recall) or in Ticket Edit. (Not allow to add after the proof output)	• 0: Restrict • 1: Allow	0	0	0
	3	-	• 0: - • 1: -	0	0	0
	4	Keep the Punch Mode at File Combination • Function: Switches whether to keep the Punch Mode at File Combination or not. • Usage: Set this setting to "1" to perform Job Combination without releasing the Punch Mode at File Combination. Note • This DIPSW is enable when "HDD Combi. Individual Output" in "Function Setting" in "UTILITY" is "ON". • GB-501 Punch is not target.	• 0: OFF • 1: ON	0	0	0
	5	-	• 0: - • 1: -	0	0	0
	6			0	0	0
	7			0	0	0
	45			0	0	0
	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4	Switch the Duplex path/Simplex path when the Duplex Print page has a Simplex print page. • Function: When this setting is set to "0", operates the Duplex path with inserting a blank image after the Simplex page for the Simplex page of the mixed Job of Simplex/Duplex. This setting switches the Duplex path/Simplex path for the Simplex print. • Usage: Set this setting to "1" to operate the Simplex page in the Simplex Mode for the mixed Job of Simplex/Duplex. Note Productivity is improved when there are too few Duplex Print Jobs in the mixed Job of Simplex/Duplex. • Productivity is not necessarily improved by changing this setting.	• 0: Duplex path • 1: Simplex path	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	5	1 to N + Face Up/N to 1 + Face Down Print • Function: Switches the Face Setting in the 1 to N or N to 1 Mode of the Duplex Job. • Usage: When this setting is set to "1", prints 1 to N with Face Up and prints N to 1 with Face Down in the Duplex Job. Supports the case that the face set to the offline machine used by the users is different.	• 0: OFF (1 to N + Face Down/N to 1 + Face Up) • 1: ON (1 to N Face Up/N to 1 + Face Down)	0	0	0
	6	Switching the operation when the name of paper type is unregistered • Function: Set whether prints the job or not when the name of paper type is unregistered which is taken as the specified name Job from the driver. When this setting is set to "0", deletes the invalid job with no output. When this setting is set to "1", prints the job. However, selecting paper is based on the paper size not on other parameters (paper type, paper weight, punch hole, and color). • Usage: Conduct this switching to avoid the trouble that the name of paper type is unstable when a user prints the unregistered name Job with an Application which is not supported.	• 0: OFF • 1: ON	0	0	0
	7	HDD file list display order • Function: Set the order to display the file list in HDD. • Usage: Set this setting to "1" to display the file list in order of the latest register date.	• 0: OFF (in a regular order) (old to new) • 1: ON (in a reverse order) (new to old)	0	0	0
46	0	Drum Cleaning Condition Setting	• Top priority for blurred image prevention: 46-1=0, 46-0=0 • Priority for blurred image prevention: 46-1=0, 46-0=1 • Priority for preventing marks on drum: 46-1=1, 46-0=0 • Top priority for preventing marks on drum: 46-1=1, 46-0=1	1	1	1
	1	• Function: Change the amount of the PCC charge output value between image areas, and the cleaning brush theta. • Usage: Use this function when the marks on the drum or the blurred image occur due to the unintended environment of usage. Note • It is the trade-off between handling the marks on the drum and the blurred image. Check the condition to conduct the adjustment whether the set value is suitable since an excessive setting works negatively.		0	0	0
	2	System Settings for Drum Refresh Mode Create a black band on the drum to prevent the blurred image on the drum occurred on the charging corona after being left under high humidity environment. Delete the dirt of discharging with black band on the drum by scraping off with the cleaning brush. • Function : Sets the execution environment for the drum refresh mode that is performed automatically in specific conditions. • Usage : Use this setting when blurred image occurs on printing after the sub power switch (SW1) turns ON in specific conditions. Note • When changing this setting to "1", warm up time is extended by 30 seconds.	• 0: Conducted only under high humidity environment. • 1: Conducted under any environment.	0	0	0
	3	Operation Time Setting for Drum Refresh Mode • Function : Sets the operation time for the drum refresh mode. • Usage : Use this setting when blurred image still occurs on the image, if the drum refresh mode performed automatically under specific conditions.	• 0: 180 seconds • 1: 300 seconds	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	4	Periodical Operation Setting for Drum Refresh Mode Removes paper dust on the drum by conducting the drum refresh mode periodically to prevent blurred image when feeding the paper with much paper dust. • Function : The main body stops the job every 3,000 prints and perform the drum refresh mode. • Usage : Use this setting when blurred image occurs during the continuous feeding of the paper with much paper dust. Note • When changing this setting to "1", the productivity tends to lower since conducting periodical drum refresh mode stops the job.	• 0: Disabled • 1: Enabled	0	0	0
	5	-	• 0: - • 1: -	0	0	0
	6	Envelope image misalignment	<ul style="list-style-type: none"> When the paper length in the direction of the main scan is 180mm or longer and the direction of the sub-scan is 270mm or longer, the productivity is 60%: 46-7=0, 46-6=0 When the paper length in the direction of the main scan is 180mm or longer and the direction of the sub-scan is 270mm or longer, the productivity is 50%: 46-7=0, 46-6=1 When the paper length in the direction of the main scan is 150mm or longer and the direction of the sub-scan is 220mm or longer, the productivity is 50%: 46-7=1, 46-6=0 100% productivity for all size: 46-7=1, 46-6=1 	0	0	0
	7	• Function : By spacing the paper interval when printing on envelope, equalizes the temperature of the paper through side and the opposite side of the fusing pressure roller • Usage : Use this function when letter image misalignment occurs on prescribed envelope size. Note • Letter image misalignment does not occur for small printing operation like 150 sheets of paper for 1 job, so selecting "Productivity 100% for all sizes" is recommended. • The productivity is reduced depending on the envelope size to print.		0	0	0
47	0	LU isolation (951 only)	• 0: Usable • 1: Unusable	0	0	0
	1	Disabling LS3 main tray output (1250/1250P/1052 only)		0	0	0
	2	SD-510 (Fold & Staple/Multi Half-Fold/Multi Tri-Fold) unit isolation		0	0	0
	3	PI-502 Cover sheet unit isolation		0	0	0
	4	HM-102 isolation (1250/1250P/1052 only)		0	0	0
	5	ZU Z-Fold and Punch unit isolation (951 only)		0	0	0
	6	GP-502 Ring bind unit isolation		0	0	0
48	7	-	• 0: - • 1: -	0	0	0
	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
49	0	Limits the quantity of the staple limit by the length in the sub scan direction. • Function : Switch the maximum number of staple sheets to 50 sheets or 100 sheets for the paper whose length in the sub scan direction is 400mm or more. • Usage : Set this setting to "1" to set the maximum number of staple sheets to 100 sheets for the paper whose length in the sub scan direction is 400mm or more. Note	• 0: 400mm or more: 50 sheets, less than 400mm: 100 sheets • 1: 100 sheets fixed	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
50		• This setting is valid when the DIPSW37-3 is "1".				
	1	Switching the Start detection by FS-532 FS button	<ul style="list-style-type: none"> 0: Only enable when the FS button stops the Start detection 1: Enable at all times 	0	0	0
	2	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	3	Switch the warning of the waste toner box and display of status indicator light ON • Function: Makes the warning of the waste toner box cooperates with the PAT signal of status indicator light, and switches the display of the warning as the light. Warning of the waste toner box except when printing is unavailable: output PAT4 signal Warning of the waste toner box when printing is unavailable: output PAT3 and PAT4 signals • Usage Set this setting to "1" when the warning of the waste toner box cooperates with the lightning of the status indicator light. Note • Refer to "O.21.2.(1) Status indicator light" for PAT signal	<ul style="list-style-type: none"> 0: OFF 1: ON 	0	0	0
	4	SD-510 Switching the control when it is detected that the number of saddle stitching sheets exceeds the upper limit. • Function: In the saddle stitching mode of SD-510, switches the control when the number of saddle stitching sheets exceeds the upper limit. Usage: When this setting is set to "0", the saddle stitching mode is released and the bundle of paper is exited to the nearest sub tray. When this setting is set to "1", [Cancel the job] is displayed on the control panel when the exceedance of upper limit for the number of sheets is detected.	<ul style="list-style-type: none"> 0: Release the saddle switching and exit the paper 1: Cancel the job 	0	0	0
	5	-	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	6			0	0	0
	7			0	0	0
	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
51	0	Transfer control switch of the paper edge according to the environment • Function: Switches the lead edge transfer timing and transfer current value in the high humidity condition. • Usage: When drum separation error occurs in the humidity condition, set this setting to "Separation priority". Note • When this setting is set to "Separation priority", transfer missing on the paper leading edge becomes larger.	<ul style="list-style-type: none"> Edge image priority: 51-1=0, 51-0=0 Separation priority in a little high humidity condition. Edge image priority in the humidity condition: 51-1=0, 51-0=1 Separation priority: 51-1=1, 51-0=0 Edge image priority: 51-1=1, 51-0=1 (same as 51-1=0, 51-0=0) 	0	0	0
	1	• This setting is applied to the paper whose weight is between 40g/m² to 135g/m². • In the duplex print mode, this setting is applied only to the front side. • When performing all-image area print or full-bleed print, the paper is printed with the setting of no missing on paper edge regardless of this setting.	<ul style="list-style-type: none"> Edge image priority: 51-1=0, 51-0=0 Separation priority in a little high humidity condition Edge image priority in the humidity condition: 51-1=0, 51-0=1 Separation priority: 51-1=1, 51-0=0 Edge image priority: 51-1=1, 51-0=1 (same as 51-1=0, 51-0=0) 	0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	2	-	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
52	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
53	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
54	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
55	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
56	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
57	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
58	0			0	0	0
	1			0	0	0
	2			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
59	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
60	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
61	0	-	• 0: - • 1: -	0	0	0
	1	-	• 0: - • 1: -	0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
62	0			0	0	0
	1			0	0	0
	2	TIFF direct print • Function: When print a TIFF file as direct print, output F4 size (8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13) • Function: When print a TIFF file as direct print, output F4 size (8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13) in the selected sizes. • Usage: Use this function to switch F4 size (8 ¹ / ₂ x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , 8 x 13) while in TIFF direct printing.	• 8 x 13: 62-1=0, 62-2=0 • 8 ¹ / ₂ x 13: 62-1=1, 62-2=0 • 8 ¹ / ₄ x 13: 62-1=0, 62-2=1 • 8 ¹ / ₈ x 13 ¹ / ₄ : 62-1=1, 62-2=1	0	0	0
	3	-	• 0: - • 1: -	0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
		PCLXL stitching position correction • Function: Correct the stitching position only for the printing from the PCL driver. • Usage: Use this function to print as the same stitching position as the PS driver when print from the PCL driver.	• 0: Not correct the stitching position • 1: Correct the stitching position	0	0	0
63	0	Change of the scanner compression method • Function: Change the compression format of TIFF and PDF to G3 (MH) compression. • Usage: Use this function to change compression format to G3 (MH) format.	• 0: MMR • 1: MH	0	0	0
	1	-	• 0: - • 1: -	0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	6			0	0	0
	7			0	0	0
64	0	IGMP protocol determent • Function: Make IGMP protocol unusable. • Usage: Use this function not to send IGMP protocol data which is from MFP to the network.	• 0: Change the resolution • 1: Not change the resolution	0	0	0
	1	-	• 0: - • 1: -	0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
65	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
66	0	Updating interval of the count information • Function: Update the counter information at set intervals. • Usage: Use this function to change the updating intervals for the counter information that an application (Visual Count Master) obtains. Note • When this setting is set to 0 minutes, the counter information is updated only once at turning ON the main power.	• 10 min.: 66-0=0, 66-1=0 • 1 min.: 66-0=1, 66-1=0 • 0 min.: 66-0=0, 66-1=1 • 60 min.: 66-0=1, 66-1=1	0	0	0
	1			0	0	0
	2	Keep DoneJobList • Function: Change the control for JobList (kmJmJobTable) of MIB. Default: DoneJob deletes the job from the list after 5 seconds since the job is completed. ON: Keep the latest 100 jobs of ActiveJob and DoneJob, and then delete the others. • Usage: Use this function to obtain the information of DoneJob with MIB. Note • When this setting is set to 0 minutes, the counter information is updated only once at turning ON the main power.	• 0: Not Keep • 1: Keep	0	0	0
	3	Font backup data creation button display • Function: Backup or restore the downloaded fonts. • Usage: Use this function to backup or restore the downloaded fonts.	• 0: OFF • 1: ON	0	0	0
	4	CSV File Import/Export • Function: Import or export other CSV file. • Usage: While in exporting, the CSV file of JEFIGS, Ko, Sim, T is obtained in a USB memory. While in importing, store other CSV file which stored in a USB memory in SSD.		0	0	0
	5	-	• 0: - • 1: -	0	0	0
	6			0	0	0
	7			0	0	0
67	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
68	6			0	0	0
	7			0	0	0
	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
				0	0	0

5.9.3 Service Center TEL/FAX

(1) Usage

Register telephone and fax numbers of a service center that will be displayed in help information or when a malfunction occurs.

(2) Procedure

- "Service Mode Menu screen"
Press [07 System Setting].
- "Service Mode Menu screen"
Press [02 Service Center TEL/FAX].
- "Service Center TEL/FAX Setting screen"
Press either [Service Center TEL (16)] or [Service Center FAX (16)] to be set.
- Enter the telephone number or fax number you register through the numeric buttons.

Note

- When a number is less than 16 digits, be sure to use hyphen (-) to fill up the blanks.

- Press [OK] to register the data.
Press [Cancel] to cancel updating.

5.9.4 M/C Serial Number Setting

(1) Usage

Set and display the serial number of the main body and options.

Note

- The serial number of the main body cannot be changed.

(2) Procedure

- "Service Mode Menu screen"
Press [07 System Setting].
- "Service Mode Menu screen"
Press [03 M/C Serial Number Setting].
- "Serial number setting mode screen"
Select the option, then a keyboard screen appears. Enter a serial number using the alphanumeric buttons.
- Press [OK] to register the data.
Press [Cancel] to cancel updating.

5.9.5 Setup date/type of business setting

(1) Usage

Set the starting date of the total counter that is displayed on the utility mode and the type of business of the client that the CSRC notifies.
When setting the DIPSW 16-4 to 1, the starting date of the total counter is not displayed.

(2) Procedure

- "Service Mode Menu screen"
Press [07 System Setting].
- "Service Mode Menu screen"
Press [04 Setup Date/Business Setting].
- "Setup Date/Type of Business Setting screen"
Select the type of business. Not to specify the type of business, select [Unknown].
- "Setup Date/Type of Business Setting screen"
Enter an installation date with the numeric buttons. Press [Set] to highlight the Year/Month/Date to be entered.
- Press [OK] to update data.
Press [Cancel] to cancel updating.

5.9.6 Definition change of the large-size paper in counter control

Default varies depending on the destination.

PM counter control counts 2 for 338mm or more in the sub scan direction. Cannot be changed with DIPSW

Refer to the following table about the default for each destination.

Destination	Counter	large-size count number			DIPSW initial setting
		Standard-size paper		Custom size paper/ Wide Paper	
		A3 / 11 x 17	B4 / 8 ¹ / ₂ x 14		
Japan	Total counter	1	1	1	DIPSW 4-7: 0 DIPSW 10-4: 0 DIPSW 10-3: 0
Europe	Total counter	1	1	1	DIPSW 4-7: 0 DIPSW 10-4: 0 DIPSW 10-3: 0
North America	Total counter	2	1	2 (391mm or more)	DIPSW 4-7: 1 DIPSW 10-4: 0 DIPSW 10-3: 0
Others	Total counter	2	2	2 (331mm or more)	DIPSW 4-7: 1 DIPSW 10-4: 1 DIPSW 10-3: 0

5.9.7 High coverage productivity down threshold setting

Reduce the marks on drum and the cleaning fault by decreasing the productivity and reducing the load of the cleaning blade.

The following list shows the relationship between this setting and the setting of "Setting menu" - "Function Setting" - "Individual Function Chang". See the list only as a guide.

DIPSW25-1	High coverage control	Productivity
0	Quality	100% productivity for 0 to 30% coverage, 1/2 productivity for 30 to 40%, 1/3 productivity for 40% or more
	Performance	100% productivity for 0 to 35% coverage, 1/2 productivity for 35 to 45%, 1/3 productivity for 45% or more
	None	Fixed to 100% productivity
1	Quality	100% productivity for 0 to 15% coverage, 1/2 productivity for 15 to 40%, 1/3 productivity for 40% or more
	Performance	100% productivity for 0 to 20% coverage, 1/2 productivity for 20 to 45%, 1/3 productivity for 45% or more
	None	Fixed to 100% productivity

5.9.8 Image shift when outputting the custom size print job

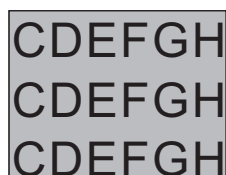
The shift of the image is caused depending on the size of paper when it is sent the custom size image as print Job. (The output is different from the thumbnail displayed image)

Mode	28-4 : 1	28-4 : 0
Paper size > Image	Normal	Normal
Paper size ≤ Image	Normal	Image shift

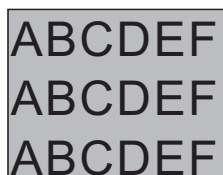
[Image]



[Normal]



[Image Shift]



5.10 Firmware Version

(1) Usage

Display the firmware version of the main body and options.

Note

- Ask the administrator of this machine whether to enhance the security or not. To enhance the security, check the firmware version and the checksum value. For rewriting the firmware, refer to [J.3.1 Usage of the USB memory ISW](#). Refer to [J.2.3.1 Firmware checksum check](#) for the method of checking the checksum value.
- When the administrator wants to enhance the security, check that the firmware version of the image control (I1) is the version (A4EU0Y0-00I1-G00-15 or later: 1250/1250P/1052, A4EU0Y0-00I1-G00-15 or later: 951) which ISO/IEC15408 certificates. If not, rewrite the firmware version to the certificated one.
- When the administrator wants to enhance the security, check that the firmware version of the IC controller (P) is the version (A4EU011-00P1-G00-15 or later: 1250/1250P/1052, A4EW011-00P1-G00-15 or later: 951) which ISO/IEC15408 certificates. If not, rewrite the firmware version to the certificated one.
- When installing the machine and upgrading the firmware version, be sure to check that the firmware version of the machine and the identification number of the user's guide are matched. If the numbers are not matched, provide the user's guide whose number corresponds to the firmware version of the machine to the administrator.
- [Image control] that is displayed on the screen represents the firmware version of the overall control board (OACB).

(2) Procedure

1. "Service Mode Menu screen"
Press [08 Firmware Version].
2. "Service Mode Menu screen"
Press [01 Firmware Version].
3. "Indication of Firmware Version screen"
Each firmware version is displayed.

5.11 CS Remote Care

5.11.1 OUTLINE

The CS Remote Care is a system that manages the main body by sending and receiving various kinds of the management data of the main body between the main body and the CS Remote Care center computer through the phone line, E-mail, or WebDAV server.

It enables the main body to call the center computer, and the center computer to inquire regularly the main body for various data.

The data handled by the CS Remote Care can be classified into the 3 following groups.

- a. Data that allow you to grasp the use conditions of the main body, such as the total count and the PM count.
- b. Data that give us the general information of when and how often an abnormality occurred with the main body.
- c. All sorts of adjustment data

Note

- When the security enhanced mode is set to ON, the use of the main body NIC is not allowed.

5.11.2 Setup procedure of the CS Remote Care (When using E-mail)

Note

- Select one of main body NIC or controller NIC to use.
Pay attention to the mail account and the DIPSW setting when selecting NIC to be used or using E-mail CS Remote Care and the mail remote notification system at the same time. For details, refer to [I.5.11.5 List of combinations of E-mail CS Remote Care and Mail remote notification system](#).
- Conduct the settings of the mail address and the mail server to be used for E-mail system of CS Remote Care beforehand. The setting methods differ depending on the used NIC as follows.
 - Main Body NIC: [Utility Menu] → [Administrator Setting] → [Network Setting] → [Machine NIC Setting] → [E-mail Initial Setting].
Or set from [E-mail Initial Setting] on [Extension for maintenance] of Web Utilities. (Refer to [I.5.11.6 Mail initial setting \(In the case of the main body NIC\)](#))
 - Controller NIC: Set [Utility Menu] → [Administrator Setting] → [Network Setting] → [Controller NIC Setting] → [CSRC Setting].
(Refer to [I.5.11.7 E-mail Initial Setting \(In the case of controller NIC\)](#))
- Conduct RAM clear for CS Remote Care first and then setup again when conducting the setup again for the main body that has been done CS Remote Care setup once. (Refer to [I.5.11.16 Initialization of RAM for CS Remote Care](#))

(1) When using E-mail (Duplex)

1. Device registration on CS Remote Care center
Pre-register the device with the application on the center side. (This step can be skipped when sending the initial connection mail from the machine to the center.) After the initial connection, in this case, register the device at the center side.)
For the device registration method at the center side, refer to the user's guide on CS Remote Care center application.
2. I/O check mode, data collection clear valid
Set [03-6] to "On (1)" from [Service mode] → [System Setting] → [Software DIPSW Setting].
3. CS Remote Care memory initialization
 1. Press [Service mode] → [State Confirmation] → [I/O Check Mode].
 2. Enter "15" with numeric keys and confirm that "015-00" appears on the screen.
 3. Press the [Access] button.
 4. Enter "98" with numeric keys and confirm that "015-98" appears on the screen.
 5. Press [Start] button and confirm that the output check display switches to "FIN".
4. CS Remote Care function ON
Set [15-5] to "On (1)" from [Service Mode] → [System Setting] → [Software DIPSW Setting].
5. Select the NIC that is used for CSRC
 1. Press [Service mode] → [System Setting] → [Software DIPSW Setting] and enter [16-7].
 2. Specify the NIC that is used.
 - On (1): Main body NIC
 - Off (0): Controller NIC

6. CS Remote Care system selection
Press [Service mode] → [CS Remote Care] → [CS Remote Care] and then [E-mail].
7. Communication method selection
Press [Duplex] on [CS Remote Care setting] screen.
8. ID code entry
 1. Press [ID code].
 2. Enter the 7-digit serviceman ID with numeric keys and press [ID code] again.
9. Press [Detail Setting] to display [E-mail (Duplex) Setting Menu] screen.
10. Basic setting
 1. Press [Basic Setting] on the [E-mail (Duplex) Setting menu] screen.
 2. Press [Center ID] and enter the center ID (5 digits).
 - The serial number that is input from [Service mode] → [System Setting] → [Serial Number Setting] appears on [Device ID].
 3. Press [Cryptogram] to make a selection to decide whether it is encrypted or not. (Default: Use Cryptogram).
 4. Press [OK].
11. Date and time setting for the CS Remote Care
 1. Press [Date and Time Setting] on the [E-mail (Duplex) Setting menu] screen.
 2. Press [Setting Time] to enter the year, month, day, and time.
 - Press [Set] to move the cursor among the year/month/day/hour/minute fields.
 3. Press [Time Zone] to enter the time zone.
 - Press [+/-] to switch plus/minus of the time zone.
 4. Press [OK].
12. Response time out setting
 1. Press [Response Timeout Setting] on the [E-mail (Duplex) Setting menu] screen.
 2. Enter the response timeout (10 minute to 1440 minutes, default: 30 minutes).
 3. Press [OK].
13. Turn on and off the power switch (SW2) of the main body.
14. Initial connection
Conduct the initial connection in one of the following steps.
 - Initial connection from the center side
Send the initial connection mail from the center side to the mail address of the machine. The initial connection completes when the machine receives the initial connection mail.
 - Initial connection from the machine
Send the initial connection mail from the machine to the center. In this case, set the E-mail address of the center on the [E-mail (Duplex) Setting Menu] → [Basic Setting] → [E-mail] and press [First Call]. In case the device pre-registration at the center side is skipped, it turns to be the temporary registered status by center receiving the initial connection mail. The initial connection is completed when the device is registered at the center side.

Note

- When the CS Remote Care related window is opened while receiving the initial connection mail from the center, the information being created is destroyed and the CS Remote Care setting screen is displayed.
- For the method of sending the initial connection mail from the center side, refer to the user's guide on CS Remote Care center application.
- Mail transmission is possible only between the center and the main body that the initial connection has been established.
- After when the initial registration is done, the center mail address is displayed on [Service mode] → [CS Remote Care] → [CS Remote Care] → [Detail Setting] → [Basic Setting] → [E-mail].
- When the transmission error occurs against the center, check the error code that appears. (Refer to [I.5.11.17 CS Remote Care error code list](#))

(2) When using E-mail (Simplex (from machine to center))

1. Device registration on CS Remote Care center
Pre-register the device with the application on the center side. (The preregistration of the device at the center side can be skipped. After the initial connection, in this case, register the device at the center side.)
For the device registration method at the center side, refer to the user's guide on CS Remote Care center application.
2. I/O check mode, data collection clear valid
Set [03-6] to "On (1)" from [Service mode] → [System Setting] → [Software DIPSW Setting].
3. CS Remote Care memory initialization
 1. Press [Service mode] → [State Confirmation] → [I/O Check Mode].
 2. Enter "15" with numeric keys and confirm that "015-00" appears on the screen.
 3. Press the [Access] button.
 4. Enter "98" with numeric keys and confirm that "015-98" appears on the screen.
 5. Press [Start] button and confirm that the output check display switches to "FIN".
4. CS Remote Care function ON
Set [15-5] to "On (1)" from [Service Mode] → [System Setting] → [Software DIPSW Setting].
5. Select the NIC that is used for CSRC
 1. Press [Service mode] → [System Setting] → [Software DIPSW Setting] and enter [16-7].
 2. Specify the NIC that is used.
 - On (1): Main body NIC
 - Off (0): Controller NIC
6. CS Remote Care system selection
Press [Service mode] → [CS Remote Care] → [CS Remote Care] and then [E-mail].
7. Communication method selection
Press [Simplex] on [CS Remote Care setting] screen.
8. ID code entry
 1. Press [ID code].
 2. Enter the 7-digit serviceman ID with numeric keys and press [ID code] again.
9. Press [Detail Setting] to display [E-mail (Simplex) Setting Menu] screen.
10. Basic setting
 1. Press [Basic Setting] on the [E-mail (Simplex) Setting menu] screen.

2. Press [Center ID] and enter the center ID (5 digits).
 - The serial number that is input from [Service mode] → [System Setting] → [Serial Number Setting] appears on [Device ID].
3. Press [E-mail] and enter the mail address of the center.
4. Press [Cryptogram] to make a selection to decide whether it is encrypted or not. (Default: Use Cryptogram).
5. Press [OK].
11. Date and time setting for the CS Remote Care
 1. Press [Date and Time Setting] on the [E-mail (Simplex) Setting menu] screen.
 2. Press [Setting Time] to enter the year, month, day, and time.
 - Press [Set] to move the cursor among the year/month/day/hour/minute fields.
 3. Press [Time Zone] to enter the time zone.
 - Press [+/-] to switch plus/minus of the time zone.
 4. Press [OK].
12. Regular send setting
 1. Press [Periodical Transmission Setting] on the [E-mail (Simplex) Setting menu] screen.
 2. Set the regular send schedule to the center.
 - Every month: Send it regularly to the center on the same date. Sent date is set at the end of the month by [End of Month].
 - Every week: Send it regularly to the center on the same time and the same day of the week.
 - Every day: Send it regularly to the center on the same time everyday.

Reference:

 - To distribute the access to the center, the default time of the periodical transmission setting after the RAM clear is calculated from the serial number.
3. Press [OK].
13. Data collecting setting
 1. Press [Collecting Data Setting] on the [E-mail (Simplex) Setting menu] screen.
 2. Select data to be collected.
 - Basic data
 - Account track data
 - Machine adjustment data
 - Coverage data
 3. Press [OK].
14. Turn on and off the power switch (SW2) of the main body.
15. Initial connection
 1. Press [Service mode] → [CS Remote Care] → [CS Remote Care] → [Detail Setting] → [Basic Setting].
 2. Press [First Call] to send the initial connection mail to the center.
 3. Once the mail sending completes normally, CS Remote Care setting screen appears. (Once the mail sending to the SMTP server normally, the registration on the machine completes.)
 4. The initial connection completes when the center receives the initial connection mail. In case the device pre-registration at the center side is skipped, it turns to be the temporary registered status by center receiving the initial connection mail. The initial connection is completed when the device is registered at the center side.

Note

 - When the transmission error occurs against the center, check the error code that appears. (Refer to [I.5.11.17 CS Remote Care error code list](#))

5.11.3 Setup procedure of the CS Remote Care (When using phone line modem)

Conduct the following procedure to set up when using phone line modem as CR Remote Care system.

Note

- Conduct RAM clear for CS Remote Care first and then setup again when conducting the setup again for the main body that has been done CS Remote Care setup once. (Refer to [I.5.11.16 Initialization of RAM for CS Remote Care](#))
- Use the Data modem of ITU-T V.34/V.32 bis/V.32 compliance, AT command compliance.

(1) When using the phone line modem

1. Device registration on CS Remote Care center
Pre-register the device with the application on the center side. (The preregistration of the device at the center side can be skipped. After the initial connection, in this case, register the device at the center side.)
For the device registration method at the center side, refer to the user's guide on CS Remote Care center application.
2. Modem connection
Turn off the power of the modem, connect the main body and the modem with a modem cable, and the modem and the wall outlet with a modular cable.
For the connection of a modular cable, refer to the instructions of the modem to be used.
3. I/O check mode, data collection clear valid
Set [03-6] to "On (1)" from [Service mode] → [System Setting] → [Software DIPSW Setting].
4. CS Remote Care memory initialization
 1. Press [Service mode] → [State Confirmation] → [I/O Check Mode].
 2. Enter "15" with numeric keys and confirm that "015-00" appears on the screen.
 3. Press the [Access] button.
 4. Enter "98" with numeric keys and confirm that "015-98" appears on the screen.
 5. Press [Start] button and confirm that the output check display switches to "FIN".
5. CS Remote Care function ON
Set [15-5] to "On (1)" from [Service Mode] → [System Setting] → [Software DIPSW Setting].
6. CS Remote Care system selection
Press [Modem] on [Service Mode] → [CS Remote Care] → [CS Remote Care].
7. ID code entry
 1. Press [ID code].
 2. Enter the 7-digit serviceman ID with numeric keys and press [ID code] again.
8. Press [Detail Setting] to display the [Modem Setting Menu] screen.
9. Basic setting

1. Press [Basic Setting] on the [Modem Setting Menu] screen.
2. Press [Center ID] and enter the center ID (5 digits).
 - The serial number that is input from [Service Mode] → [System Setting] → [Serial Number Setting] appears on [Device ID].
3. Press [Center Telephone Number] to enter the center phone number.
 - Use [P], [T], [W], [-], and so on as needed.
4. Press [Machine phone number] to enter the machine phone number.
 - Use [P], [T], [W], [-], and so on as needed.
5. Press [OK].
10. Date and time setting for the CS Remote Care
 1. Press [Date/Time Setting] on the [Modem Setting Menu] screen.
 2. Press [Setting Time] to enter the year, month, day, and time.
 - Press [Set] to move the cursor among the year/month/day/hour/minute fields.
 3. Press [Time Zone] to enter the time zone.
 - Press [+/-] to switch plus/minus of the time zone.
 4. Press [OK].
11. Modem initialization AT command entry

Note

 - **Change the initialization AT command of the modem as needed. (Normally no need to change.)**
 - **For the detail of AT command, refer to the instruction of the modem used.**
 1. Press [AT command] on the [Modem Setting Menu] screen.
 2. Press [Initial command] to enter AT command.
 3. Press [OK].
12. DIPSW setting for the CS Remote Care

Note

 - **Normally no need to change the setting, but conduct the setting as needed according to the connection environment.**
 1. Press [Software DIPSW Setting] on the [Modem Setting Menu] screen.
 2. Specify DIP-SW as needed. (Refer to [I.5.11.10 Input procedure of software DIPSW for CS Remote Care](#))
13. Turn on and off the power switch (SW2) of the main body.
14. First call execution
 1. Press [Basic Setting] on the [Modem Setting Menu] screen.
 2. Press [First Call] to start the initial transmission.
 - When the connection to the center completes successfully, the CS Remote Care setting screen appears.
 - When the transmission error occurs against the center, check the error code that appears. (Refer to [I.5.11.17 CS Remote Care error code list](#))
 - In case the device pre-registration at the center side is skipped, it turns to be the temporary registered status by center receiving the initial call. The initial connection is completed when the device is registered at the center side.

5.11.4 Setup procedure of the CS Remote Care (When using WebDAV server)

Conduct the following procedure to set up when using http communication as CR Remote Care system.

Note

- Select one of main body NIC or controller NIC to use.
- Conduct RAM clear for CS Remote Care first and then setup again when conducting the setup again for the main body that has been done CS Remote Care setup once. (Refer to [I.5.11.16 Initialization of RAM for CS Remote Care](#))
- Be sure to set the Communication setting in advance when the http proxy server is used or the authentication is required for the Web server. The setting methods differ depending on the used NIC as follows.
 - **Main Body NIC:** [Utility Menu] → [Administrator Setting] → [Network Setting] → [Machine NIC Setting] → [http Communication Setting]. Or set from [CSRC http Communication Setting] on [Extension for maintenance] of Web Utilities. (Refer to [I.5.11.8 http communication setting \(In the case of the main body NIC\)](#))
 - **Controller NIC:** Set [Utility Menu] → [Administrator Setting] → [Network Setting] → [Controller NIC Setting] → [CSRC Setting]. (Refer to [I.5.11.9 http Communication Setting \(In the case of controller NIC\)](#))

(1) When using http (Duplex)

1. Device registration on CS Remote Care center

Pre-register the device with the application on the center side. (The preregistration of the device at the center side can be skipped. After the initial connection, in this case, register the device at the center side.)

For the device registration method at the center side, refer to the user's guide on CS Remote Care center application.
2. I/O check mode, data collection clear valid

Set [03-6] to "On (1)" from [Service mode] → [System Setting] → [Software DIPSW Setting].
3. CS Remote Care memory initialization
 1. Press [Service mode] → [State Confirmation] → [I/O Check Mode].
 2. Enter "15" with numeric keys and confirm that "015-00" appears on the screen.
 3. Press the [Access] button.
 4. Enter "98" with numeric keys and confirm that "015-98" appears on the screen.
 5. Press [Start] button and confirm that the output check display switches to "FIN".
4. CS Remote Care function ON

Set [15-5] to "On (1)" from [Service Mode] → [System Setting] → [Software DIPSW Setting].
5. Select the NIC that is used for CSRC
 1. Press [Service mode] → [System Setting] → [Software DIPSW Setting] and enter [16-7].
 2. Specify the NIC that is used.
 - On (1): Main body NIC
 - Off (0): Controller NIC
6. CS Remote Care system selection

Press [http] on [Service Mode] → [CS Remote Care] → [CS Remote Care].
7. Communication method selection

Press [Duplex] on [CS Remote Care setting] screen.
8. ID code entry
 1. Press [ID code].

2. Enter the 7-digit serviceman ID with numeric keys and press [ID code] again.
 9. Press [Detail Setting] to display [http (Duplex) Setting Menu] screen.
 10. Basic setting
 1. Press [Basic Setting] on the [http (Duplex) Setting menu] screen.
 2. Press [Center ID] and enter the center ID (5 digits).
 - The serial number that is input from [Service Mode] → [System Setting] → [Serial Number Setting] appears on [Device ID]. The serial number that is input appears.
 3. Press [Web Server] and enter the URL of the Web server (Less than 255 one-byte characters)
 4. Press [Cryptogram] to make a selection to decide whether it is encrypted or not. (Default: Use Cryptogram).
 5. Press [OK].
 11. Heart Beat setting *1
 1. Press [Heart Beat Setting] on the [http (Duplex) Setting menu] screen.
 2. Press [Heart Beat Setting] to make a selection to decide whether the Heart Beat function is made valid or invalid. (Default: Enable)
 3. Press [Heart Beat Interval] to enter the transmission interval of the Heart Beats (1 minute to 256 minutes, default: 30 minutes).
 4. Press [Heart Beat Fix Send] to make a selection to decide whether the fixed time transmission of the heart beat is made enable or disable. (Default: Enable)
 5. Press [Heart Beat Fix Send Time] to enter the time for the Heart Beat transmission at the fixed time.
 6. Press [OK].
 12. Date and time setting for the CS Remote Care
 1. Press [Date/Time Setting] on the [http (Duplex) Setting menu] screen.
 2. Press [Setting Time] to enter the year, month, day, and time.
 - Press [Set] to move the cursor among the year/month/day/hour/minute fields.
 3. Press [Time Zone] to enter the time zone.
 - Press [+/-] to switch plus/minus of the time zone.
 4. Press [OK].
 13. Turn on and off the sub power switch (SW2) of the main body.
 14. First call execution
 1. Press [Basic Setting] on the [http (Duplex) Setting menu] screen.
 2. Press [First Call] to start the initial transmission.
 3. Once the initial call completes normally, CS Remote Care setting screen appears. (Once the initial connection file is stored in the Web server normally, the registration on the machine completes.)
 - The initial connection completes when the center receives the initial connection file. In case the device pre-registration at the center side is skipped, it turns to be the temporary registered status. The initial connection is completed when the device is registered at the center side.
- Note**
- **When the transmission error occurs against the center, check the error code that appears. (Refer to [I.5.11.17 CS Remote Care error code list](#))**
15. Turn on and off the sub power switch (SW2) of the main body. *2
 - *1 Heart Beat function is a function to notify that the machine being active by uploading the Heart Beat file to the registered Web server periodically. Heart Beat file contains the information of the total counter and the status.
 - *2 The Heart Beat function does not work when SW2 of the main body is not turned OFF/ON after the First Call finishes.

(2) When using http (Simplex (from machine to center))

1. Device registration on CS Remote Care center
Pre-register the device with the application on the center side. (The preregistration of the device at the center side can be skipped. After the initial connection, in this case, register the device at the center side.)
For the device registration method at the center side, refer to the user's guide on CS Remote Care center application.
2. I/O check mode, data collection clear valid
Set [03-6] to "On (1)" from [Service mode] → [System Setting] → [Software DIPSW Setting].
3. CS Remote Care memory initialization
 1. Press [Service mode] → [State Confirmation] → [I/O Check Mode].
 2. Enter "15" with numeric keys and confirm that "015-00" appears on the screen.
 3. Press the [Access] button.
 4. Enter "98" with numeric keys and confirm that "015-98" appears on the screen.
 5. Press [Start] button and confirm that the output check display switches to "FIN".
4. CS Remote Care function ON
Set [15-5] to "On (1)" from [Service Mode] → [System Setting] → [Software DIPSW Setting].
5. Select the NIC that is used for CSRC
 1. Press [Service mode] → [System Setting] → [Software DIPSW Setting] and enter [16-7].
 2. Specify the NIC that is used.
 - On (1): Main body NIC
 - Off (0): Controller NIC
6. CS Remote Care system selection
Press [http] on [Service Mode] → [CS Remote Care] → [CS Remote Care].
7. Communication method selection
Press [Simplex] on [CS Remote Care setting] screen.
8. ID code entry
 1. Press [ID code].
 2. Enter the 7-digit serviceman ID with numeric keys and press [ID code] again.
9. Press [Detail Setting] to display [http (Simplex) Setting Menu] screen.
10. Basic setting
 1. Press [Basic Setting] on the [http (Simplex) Setting menu] screen.
 2. Press [Center ID] and enter the center ID (5 digits).
 - The serial number that is input from [Service Mode] → [System Setting] → [Serial Number Setting] appears on [Device ID]. The serial number that is input appears.

3. Press [Web Server] and enter the URL of the Web server (Less than 255 one-byte characters)
 4. Press [Cryptogram] to make a selection to decide whether it is encrypted or not. (Default: Use Cryptogram).
 5. Press [OK].
 11. Heart Beat setting *1
 1. Press [Heart Beat Setting] on the [http (Duplex) Setting menu] screen.
 2. Press [Heart Beat Setting] to make a selection to decide whether the Heart Beat function is made valid or invalid. (Default: Enable)
 3. Press [Heart Beat Interval] to enter the transmission interval of the Heart Beats (1 minute to 256 minutes, default: 30 minutes).
 4. Press [Heart Beat Fix Send] to make a selection to decide whether the fixed time transmission of the heart beat is made enable or disable. (Default: Enable)
 5. Press [Heart Beat Fix Send Time] to enter the time for the Heart Beat transmission at the fixed time.
 6. Press [OK].
 12. Date and time setting for the CS Remote Care
 1. Press [Date/Time Setting] on the [http (Simplex) Setting menu] screen.
 2. Press [Setting Time] to enter the year, month, day, and time.
 - Press [Set] to move the cursor among the year/month/day/hour/minute fields.
 3. Press [Time Zone] to enter the time zone.
 - Press [+/-] to switch plus/minus of the time zone.
 4. Press [OK].
 13. Regular send setting
 1. Press [Periodical Transmission Setting] on the [http (Simplex) Setting menu] screen.
 2. Set the regular send schedule to the center.
 - Every month: Send it regularly to the center on the same date. Sent date is set at the end of the month by [End of Month].
 - Every week: Send it regularly to the center on the same time and the same day of the week.
 - Every day: Send it regularly to the center on the same time everyday.

Reference:

 - To distribute the access to the center, the default time of the periodical transmission setting after the RAM clear is calculated from the serial number.
 3. Press [OK].
 14. Data collecting setting
 1. Press [Collecting Data Setting] on the [http (Simplex) Setting menu] screen.
 2. Select data to be collected.
 - Basic data
 - Account track data
 - Machine adjustment data
 - Coverage data
 3. Press [OK].
 15. Turn on and off the sub power switch (SW2) of the main body.
 16. First call execution
 1. Press [Basic Setting] on the [http (Simplex) Setting menu] screen.
 2. Press [First Call] to start the initial transmission.
 3. Once the initial call completes normally, CS Remote Care setting screen appears. (Once the initial connection file is stored in the Web server normally, the registration on the machine completes.)
 - The initial connection completes when the center receives the initial connection file. In case the device pre-registration at the center side is skipped, it turns to be the temporary registered status. The initial connection is completed when the device is registered at the center side.
- Note**
- When the transmission error occurs against the center, check the error code that appears. (Refer to [I.5.11.8 http communication setting \(In the case of the main body NIC\)](#))
17. Turn on and off the sub power switch (SW2) of the main body. *2
 - 1* Heart Beat function is a function to notify that the machine being active by uploading the Heart Beat file to the registered Web server periodically. Heart Beat file contains the information of the total counter and the status.
 - 2* The Heart Beat function does not work when SW2 of the main body is not turned OFF/ON after the First Call finishes.

5.11.5 List of combinations of E-mail CS Remote Care and Mail remote notification system

To change a combination of E-mail CS Remote Care and Mail remote notification system, refer to this table to configure the DIPSW setting or the mail account setting.

Case	Mail remote notification system Notification system	E-mail CS Remote Care using the machine NIC E-mail used CS Remote Care	E-mail CS Remote Care using the controller NIC E-mail used CS Remote Care	Setting item	Value	Remark
1	○	○	-	"Use the mail remote notification system" of the main body NIC Web utility	Use	(*3)
				"Service Mode - Software DIPSW": 15-5 (*1)	1	
				"Service Mode - Software DIPSW": 16-7 (*2)	1	
2	○	-	○	"Use the mail remote notification system" of the main body NIC Web utility	Use	(*4)

				"Service Mode - Software DIPSW": 15-5 (*1)	1	
				"Service Mode - Software DIPSW": 16-7 (*2)	0	
3	○	-	-	"Use the mail remote notification system" of the main body NIC Web utility	Use	-
				"Service Mode - Software DIPSW": 15-5 (*1)	0	
				"Service Mode - Software DIPSW": 16-7 (*2)	0	
4	-	○	-	"Use the mail remote notification system" of the main body NIC Web utility	ON (*5)	-
				"Service Mode - Software DIPSW": 15-5 (*1)	1	
				"Service Mode - Software DIPSW": 16-7 (*2)	1	
5	-	-	○	"Use the mail remote notification system" of the main body NIC Web utility	Do not call	-
				"Service Mode - Software DIPSW": 15-5 (*1)	1	
				"Service Mode - Software DIPSW": 16-7 (*2)	0	

*1 Service Mode - Software DIPSW: 15-5 (CS Remote Care function ON, 0=OFF, 1=ON)

*2 Service Mode - Software DIPSW: 16-7 (NIC selection of E-mail CS Remote Care, 0=Controller NIC, 1=Main body NIC)

*3 Mail remote notification system and CS Remote Care using the main body NIC share the same mail account.

*4 Mail remote notification system and CS Remote Care using the controller NIC use separate mail accounts.

*5 Even when the mail remote notification system is not used, set it to "Yes" and conduct the mail initial setting.

5.11.6 Mail initial setting (In the case of the main body NIC)

Set the mail address and the mail server for the machine NIC.

Note

- E-mail initial setting can be set in the [Extension for maintenance] of Web Utilities. Refer to [E.1.3.4 Initialization for Web Utilities](#).
1. Press the [Utility/Counter].
 2. Press [Administrator Setting] → [Network Setting] → [Machine NIC Setting] → [E-mail Initial Setting]
 3. Conduct the following settings.
 - [Use E-mail System]: Select [ON].
 - [Time Zone]: Set the time zone.
 - [Trans(SMTP) Mail Server]: Set the host name of the SMTP server or IP address. When inputting the host name, set the DNS server on [Machine NIC Setting].
 - [SMTP port number]: Set the port number of the SMTP server.
 - [Trans Mail Server Timeout]: Set the timeout period (sec).
 - [New-arrival Check Interval]: Set the interval (min) for checking the new-arrivals.
 - [Receive Mail Server]: Set the IP address of the receiving mail server. When inputting the host name, set the DNS server on [Machine NIC Setting].
 - [Receive Mail Server Type]: Set the type of the receive mail server (POP3/IMAP).
 4. Press [Next] to conduct the following settings.
 - [POP3/IMAP Port Number]: Set the port number of the receive mail server.
 - [Receive Mail Account]: Set the account name.
 - [Receive Mail Password]: Set the account password.
 - [E-mail Address for Machine]: Set the E-mail address for main body NIC.
 - [POP (IMAP) before SMTP Authentication]: Make a setting to decide whether the POP (IMAP) before SMTP Authentication is used.
 5. Press [Next] to conduct the following settings.
 - [SMTP SSL Encryption]: Set whether to encrypt the SMTP communication.
 - [POP (IMAP) SSL Encryption]: Set whether to encrypt the POP (IMAP) communication.
 - [SMTP Authentication]: Set whether to use SMTP authentication or not.
 - [SMTP Authentication User ID]: Set the user ID of SMTP authentication.
 - [SMTP Authentication Password]: Set the password of SMTP authentication.
 6. Press [Test] and press [Yes] on the confirmation screen to conduct the sending and receiving test.
 7. Press [OK].

5.11.7 E-mail Initial Setting (In the case of controller NIC)

Set the mail address and the mail server for the controller NIC.

1. Press the [Utility/Counter].
2. Press [Administrator Setting] → [Network Setting] → [Controller NIC Setting] → [CSRC Setting].
3. Conduct the following settings.
 - [CSRC Send Setting]: Select [Enable].

- [SMTP Server Address]: Select the address specifying method (IPv4/IPv6/host name) and press [SMTP Server Address] to set the server address. When inputting the host name, set the DNS server on [TCP/IP Setting] in [Controller NIC Setting].
 - [Port Number]: Set the port number of the SMTP server.
 - [Administrator From Address]: Set the E-mail address for the controller NIC used for CSRC.
 - [Connection Timeout]: Set the time-out period (sec).
 - [Authentication Setting]: Set the enable/disable of POP before SMTP or SMTP Authentication.
 - [POP before SMTP Time]: Set the time period from connecting to the POP server with the POP before SMTP Authentication to connecting to the SMTP server.
4. Press [Next] to conduct the following settings.
 - [SMTP Authentication Setting]: Set the User ID, Password, and realm for the SMTP Authentication.
 5. Press [Next] to conduct the following settings.
 - [CSRC Receive Setting]: When using E-mail duplex, select [Enable].
 - [POP Server Address]: Select the address specifying method (IPv4/IPv6/host name) and press [POP Server Address] to set the server address. When inputting the host name, set the DNS server on [TCP/IP Setting] in [Controller NIC Setting].
 - [Login Name]: Set the account name.
 - [Password]: Set the account password.
 - [APOP Authentication]: Set the enable/disable of APOP Authentication.
 - [Port Number]: Set the port number of the POP server.
 - [Connection Timeout]: Set the time-out period (sec).
 - [Auto Receive Check]: Select [Enable] normally. Select [Disable] to stop the auto receive check temporarily when the POP server is down and so on. When [Disable] is selected, the mail cannot be received manually.
 - [Polling Interval]: Set the polling interval (min).
 6. Press [CSRC Communication Test] on [CSRC Setting] screen to conduct the test.
 7. Press [OK].

5.11.8 http communication setting (In the case of the main body NIC)

Be sure to set the following settings when the http proxy server is used or the authentication is required for Web server.

Note

- **http communication setting can be set in the [Extension for maintenance] of Web Utilities. Refer to [E.1.3.4 Initialization for Web Utilities](#).**
1. Press the [Utility/Counter].
 2. Press [Administrator Setting] → [Network Setting] → [Machine NIC Setting] → [http Communication Setting].
 3. Conduct the following settings.
 - [Enable Proxy Server]: Select whether to use the proxy server or not.
 - [Proxy Server Address]: Set the host name of the proxy server or IP address. When inputting the host name, set the DNS server on [Machine NIC Setting].
 - When the proxy server authentication is required, follow the procedures below.
(Ex.) When the proxy server name: www.example.com, user name: user and password: password, enter "user:password@www.example.com".
 - Proxy Server Port: Set the port number of the proxy server.
 - [Enable SSL]: Set whether to use SLL or not.
 - [Enable Authentication]: Set whether to use the Web server authentication or not.
 - [Authentication User Name]: Set the user name of the Web Server authentication.
 - [Authentication Password]: Set the password of the Web Server authentication.
 4. Press [OK].

5.11.9 http Communication Setting (In the case of controller NIC)

Be sure to set the following settings when the http proxy server is used or the authentication is required for the Web server.

1. Press the [Utility/Counter].
2. Press [Administrator Setting] → [Network Setting] → [Controller NIC Setting] → [CSRC Setting].
3. Press [Next] 3 times to conduct the following settings.
 - [Proxy Server Setting]: Select whether to use the proxy server or not.
 - [Proxy Server Address]: Select the address specifying method (IPv4/IPv6/host name) and press [Proxy Server Address] to set the server address. When inputting the host name, set the DNS server on [TCP/IP Setting] in [Controller NIC Setting].
 - When the proxy server authentication is needed, set as following.
(Example) In the case of Proxy Server Name: www.example.com, User Name: user, Password: password, enter "user:password@www.example.com".
 - [Proxy Server Port Number]: Set the port number of the proxy server.
 - [SSL Setting]: Set the enable/disable of SSL Encryption.
 - [Enable Authentication]: Set whether to use Web Server authentication or not.
 - [Authentication User Name]: Set the user name of the Web Server authentication.
 - [Authentication Password]: Set the password of the Web Server authentication.
4. Press [OK].

5.11.10 Input procedure of software DIPSW for CS Remote Care

Note

- **DIPSW bits data are written into the NVRAM board (NRB) every time a change is made. In case you changed bit data by accident, be sure to restore the previous state.**

Input procedure

1. Enter the service mode.
2. Press [CS Remote Care] → [CS Remote Care] on [Service Mode menu] screen.
3. Press [ID Code] on [CS Remote Care setting] screen.
4. Enter the 7-digit serviceman ID with numeric keys and press [ID code] again.
5. Press [Detail setting].
6. Press [Software DIPSW Setting] on the Utility menu screen.
7. Select the DIPSW number on "Software DIPSW Setting."

- Use the left arrow key or the numeric keys.
8. Select the DIPSW bit number.
- Use the left arrow key or the numeric keys.
9. Select [ON (1)] or [OFF (0)].
10. Press [Return] to return to the "Setting menu screen."

Note

- About functions of each switch, refer to [.I.5.11.11 List of software DIPSW for CS Remote Care](#)

5.11.11 List of software DIPSW for CS Remote Care

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
1	0	Dial mode	• 0: Pulse dial • 1: Tone dial	1	1	1
	1	Modem reception	• 0: Receive (Issue ATA by RING delivery) • 1: Not receive (Not issue ATA by RING delivery)	0	0	0
	2	Reservation	• 0: - • 1: -	0	0	0
	3			0	0	0
	4	Baud rate	• 1200bps: 1-7=0, 1-6=0, 1-5=1, 1-4=1 • 2400bps: 1-7=0, 1-6=1, 1-5=0, 1-4=0 • 4800bps: 1-7=0, 1-6=1, 1-5=0, 1-4=1 • 9600bps: 1-7=0, 1-6=1, 1-5=1, 1-4=0 • 19200bps: 1-7=0, 1-6=1, 1-5=1, 1-4=1 • 38400bps: 1-7=1, 1-6=0, 1-5=0, 1-4=0 • 57600bps: 1-7=1, 1-6=0, 1-5=0, 1-4=1	0	0	0
	5			0	0	0
	6			0	0	0
	7			1	1	1
2	0	Auto call on SC occurrence	• 0: OFF • 1: ON	1	1	1
	1	Auto call on date specification		1	1	1
	2	Auto call on the part replacement		1	1	1
	3	Auto call on the drum replacement		1	1	1
	4	Auto call on the periodic maintenance (PM)		1	1	1
	5	ORU-M start/finish notification	• 0: Not notify • 1: Notify	1	1	1
	6	Reservation	• 0: - • 1: -	0	0	0
	7	Automatic calling when reset fixed replacement parts	• 0: OFF • 1: ON	0	0	0
3	0	Reservation	• 0: - • 1: -	0	0	0
	1	Auto call on the toner supply	• 0: OFF • 1: ON	1	1	1
	2	Reservation	• 0: - • 1: -	0	0	0
	3	Notification of waste toner box full	• 0: OFF • 1: ON	1	1	1
	4	Reservation	• 0: - • 1: -	0	0	0
	5	Automatic calling when reset ORU replacement parts	• 0: OFF • 1: ON	0	0	0
	6	Reservation	• 0: - • 1: -	0	0	0
	7	Reservation	• 0: - • 1: -	0	0	0
4	0	CS Remote Care communication mode	• Data modem: 4-1=0, 4-0=0 • FAX (not used): 4-1=0, 4-0=1 • E-mail: 4-1=1, 4-0=0 • http: 4-1=1, 4-0=1	0	0	0
	1			1	1	1
	2	Reservation	• 0: - • 1: -	0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
5	6	Modem redial interval	<ul style="list-style-type: none"> 1 minute: 5-3=0, 5-2=0, 5-1=0, 5-0=1 2 minute: 5-3=0, 5-2=0, 5-1=1, 5-0=0 3 minute: 5-3=0, 5-2=0, 5-1=1, 5-0=1 4 minute: 5-3=0, 5-2=1, 5-1=0, 5-0=0 5 minute: 5-3=0, 5-2=1, 5-1=0, 5-0=1 6 minute: 5-3=0, 5-2=1, 5-1=1, 5-0=0 7 minute: 5-3=0, 5-2=1, 5-1=1, 5-0=1 8 minute: 5-3=1, 5-2=0, 5-1=0, 5-0=0 9 minute: 5-3=1, 5-2=0, 5-1=0, 5-0=1 10 minute: 5-3=1, 5-2=0, 5-1=1, 5-0=0 	0	0	0
	7			0	0	0
	0			1	1	1
	1			1	1	1
	2			0	0	0
	3			0	0	0
	4	Reservation	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
6	0	Modem redial times	<ul style="list-style-type: none"> 0 to 9: 000 0000 to 000 1001 10: 000 1010 11 to 99: 000 1011 to 110 0011 (The value of 6 to 0 bit) 	0	0	0
	1			1	1	1
	2			0	0	0
	3			1	1	1
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7	Reservation	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
7	0	Redial for response time out	<ul style="list-style-type: none"> 0: Not redial 1: Redial 	1	1	1
	1	Reservation	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
8	0	Retransmission interval on E-mail delivery error	<ul style="list-style-type: none"> 0 minute: 8-3=0, 8-2=0, 8-1=0, 8-0=0 10 minute: 8-3=0, 8-2=0, 8-1=0, 8-0=1 20 minute: 8-3=0, 8-2=0, 8-1=1, 8-0=0 30 minute: 8-3=0, 8-2=0, 8-1=1, 8-0=1 40 minute: 8-3=0, 8-2=1, 8-1=0, 8-0=0 50 minute: 8-3=0, 8-2=1, 8-1=0, 8-0=1 60 minute: 8-3=0, 8-2=1, 8-1=1, 8-0=0 70 minute: 8-3=0, 8-2=1, 8-1=1, 8-0=1 80 minute: 8-3=1, 8-2=0, 8-1=0, 8-0=0 90 minute: 8-3=1, 8-2=0, 8-1=0, 8-0=1 100 minute: 8-3=1, 8-2=0, 8-1=1, 8-0=0 110 minute: 8-3=1, 8-2=0, 8-1=1, 8-0=1 	0	0	0
	1			1	1	1
	2			1	1	1

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	3	Reservation	<ul style="list-style-type: none"> 120 minute: 8-3=1, 8-2=1, 8-1=0, 8-0=0 0: - 1: - 	0	0	0
	4			0	0	0
	6			0	0	0
	7			0	0	0
9	0	Retransmission times on E-mail delivery error	<ul style="list-style-type: none"> 0 to 9: 000 0000 to 000 1001 10: 000 1010 11 to 99: 000 1011 to 110 0011 (The value of 6 to 0 bit) 	0	0	0
	1			1	1	1
	2			0	0	0
	3			1	1	1
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7	Reservation	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
10	0	Time zone setting	<ul style="list-style-type: none"> -12 to -1: 1111 0100 to 1111 1111 0: 0000 0000 1 to 12: 0000 0001 to 0001100 (The value of 7 to 0 bit) 	0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	4			0	0	0
	6			0	0	0
	7			0	0	0
11	0	Timer 1 RING receive → CONNECT receive	<ul style="list-style-type: none"> 0 to 31sec: 0000 0000 to 0001 1111 32sec: 0010 0000 33 to 255sec: 0010 0001 to 1111 1111 (The value of 7 to 0 bit) 	0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			1	1	1
	6			0	0	0
	7			0	0	0
12	0	Timer 2 Dial calling complete → CONNECT receive	<ul style="list-style-type: none"> 0 to 63sec: 0000 0000 to 0011 1111 64sec: 0100 0000 65 to 255sec: 0100 0001 to 1111 1111 (The value of 7 to 0 bit) 	0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			1	1	1
	7			0	0	0
13	0	Timer 3 Not used	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	1			1	1	1
	2			0	0	0
	3			1	1	1
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
14	0	Timer 4 Connection → Start request telegram delivery	<ul style="list-style-type: none"> 0 to 31 (x 100msec): 0000 0000 to 0001 1111 32 (x 100msec): 0010 0000 33 to 255 (x 100msec) : 0010 0001 to 1111 1111 (The value of 7 to 0 bit) 	0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			1	1	1
	6			0	0	0
	7			0	0	0
15	0	Timer 5 Wait time for the response from other side	<ul style="list-style-type: none"> 0 to 29sec: 0000 0000 to 0001 1101 30sec: 0001 1110 31 to 255sec: 0001 1111 to 1111 1111 	0	0	0
	1			1	1	1
	2			1	1	1
	3			1	1	1

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
	4		(The value of 7 to 0 bit)	1	1	1
	5			0	0	0
	6			0	0	0
	7			0	0	0
16	0	Retry data, timer 6 Initialization OK → Dial request	<ul style="list-style-type: none"> 0 to 254 (x 5msec): 0000 0000 to 1111 1110 255 (x 5msec): 1111 1111 (The value of 7 to 0 bit) 	1	1	1
	1			1	1	1
	2			1	1	1
	3			1	1	1
	4			1	1	1
	5			1	1	1
	6			1	1	1
	7			1	1	1
17	0	Call on frequent JAM occurrence (main body) Number of enabled copy	<ul style="list-style-type: none"> 3000 copies: 17-1=0, 17-0=0 6000 copies: 17-1=0, 17-0=1 9000 copies: 17-1=1, 17-0=0 12000 copies: 17-1=1, 17-0=1 	1	1	1
	1			0	0	0
	2	Call on frequent JAM occurrence (ADF) Number of enabled original feed	<ul style="list-style-type: none"> 600 copies : 17-3=0, 17-2=0 1200 copies : 17-3=0, 17-2=1 1800 copies : 17-3=1, 17-2=0 2400 copies : 17-3=1, 17-2=1 	1	1	1
	3			0	0	0
	4	Reservation	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	5			0	0	0
	6		<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	7			0	0	0
18	0	Attention display	<ul style="list-style-type: none"> 0: OFF 1: ON 	1	1	1
	1	Reservation	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
19	0	E-mail/http communication mode	<ul style="list-style-type: none"> 0: Duplex 1: Simplex 	0	0	0
	1	Reservation	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
20	0	http Heart Beat function	<ul style="list-style-type: none"> 0: ON 1: OFF 	0	0	0
	1	http Heart Beat Fix send	<ul style="list-style-type: none"> 0: Off 1: ON 	1	1	1
	2	Reservation	<ul style="list-style-type: none"> 0: - 1: - 	0	0	0
	3			0	0	0
	4			0	0	0
	5	Auto sending of the JAM history when call on frequent JAM occurrence occurs	<ul style="list-style-type: none"> 0: OFF 1: ON 	1	1	1
	6	Sending frequent paper JAM alert		1	1	1
	7	Sending frequent original JAM alert		1	1	1
21	0	Threshold of sending frequent paper JAM alert	<ul style="list-style-type: none"> 1 times: 00000001 2 times: 00000010 3 times: 00000011 4 times: 00000100 5 times: 00000101 6 times: 00000110 7 times: 00000111 8 times: 00001000 	1	1	1
	1			0	0	0
	2			1	1	1
	3			0	0	0
	4			0	0	0
	5			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
22	6	Threshold of sending frequent original JAM alert	<ul style="list-style-type: none"> • 9 times: 00001001 • 10 times: 00001010 • 11 times: 00001011 • 12 times: 00001100 • 13 times: 00001101 • 14 times: 00001110 • 15 times: 00001111 • Other: Invalid (regarded as 5 times) (The value of 7 to 0 bit) 	0	0	0
	7			0	0	0
	0			1	1	1
	1			0	0	0
	2			1	1	1
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
23	0	Reservation	<ul style="list-style-type: none"> • 0: - • 1: - 	0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
24	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
25	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
26	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
27	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
28	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
29	7			0	0	0
	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
30	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
31	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
32	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
33	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
34	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
35	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0

DIPSW	Bit	Function	Set value	Default setting		
				Japan	Inch	Metric
36	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
37	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
38	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
39	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0
40	0			0	0	0
	1			0	0	0
	2			0	0	0
	3			0	0	0
	4			0	0	0
	5			0	0	0
	6			0	0	0
	7			0	0	0

5.11.12 Setup confirmation

1. Enter the service mode.
2. Press [CS Remote Care] → [CS Remote Care] on [Service Mode menu] screen.
3. Make sure that only selected item "E-Mail", "Modem", or "http" is displayed on the "CS Remote Care setting screen".

5.11.13 Maintenance call

As the CE starts the maintenance, enter the ID code of CE (7-digit number with which each CE is identified, managed by a distributor.) to notify the center the start of maintenance. After the maintenance, pressing [Maintenance Comp] notifies the center the completion of maintenance.

At the start of maintenance

1. Enter the service mode.
 2. Press [CS Remote Care] → [CS Remote Care] on [Service Mode menu] screen.
 3. Press [ID Code] on [CS Remote Care setting] screen.
 4. Enter the 7-digit serviceman ID with numeric keys and press [ID code] again.
- * During the maintenance, [Start] button blinks until the completion of the maintenance.

At the end of maintenance

1. Enter the service mode.
2. Press [CS Remote Care] → [CS Remote Care] on [Service Mode menu] screen.

3. Press [Maintenance Comp] on the "CS Remote Care setting screen."

5.11.14 Center call from administrator

If the setup of CS Remote Care is completed, the manager can call the center of CS Remote Care.

1. Press [Utility/Counter] button.
2. Press [Administrator Setting] → [System Connection] → [Administrator Call] on [Utility] screen.
3. Press [Start] on [Administrator Call] screen.
 - If the setup is not completed, or if other call is made, [Start] is grayed out, disabling to make a call.

About how to call the center and send various data of the main body on the specified date and time, refer to the manual of CS Remote Care center.

5.11.15 Confirm communication log

You can output and confirm the communication log.

1. Enter the service mode.
2. Press [List Output] on the "Service Mode menu" screen.
3. Press [Communication Log List] on the "List Output screen."
4. Press [Print Mode].
5. Press start button to output the selected list.

For details of logs, refer to [.I.5.7 List Output](#)

5.11.16 Initialization of RAM for CS Remote Care

Initializing the RAM for CS Remote Care enables you to perform the setup again.

1. Enter the service mode.
2. Press [CS Remote Care] → [CS Remote Care] on [Service Mode menu] screen.
3. Press [ID Code] on [CS Remote Care setting] screen.
4. Enter the 7-digit serviceman ID with numeric keys and press [ID code] again.
5. Press [Detail setting].
6. Press [RAM Clear] button on Utility screen.
7. Press [Execute] on "RAM Clear Setting" screen.
8. Press [Yes] on the confirmation screen.
9. The RAM is cleared, and the "CS Remote Care setting screen" is displayed.
10. Perform the setup again if necessary.

5.11.17 CS Remote Care error code list

Classification	Error Code	Description	Troubleshooting procedure
Connection via modem	K-0000	Connection NG (Cannot connect from the modem, timed out).	Redial.
	K-0001	Error code that may occur when a transmission is made from the main body to the center. No response (After connection, no start telegram from the center detected).	Redial and wait for re-reception.
	K-0002	Copying. Could not be written in non-volatile memory, and line disconnected.	
	K-0003	Error code that may occur when a transmission is made from the main body to the center. Center ID mismatch.	Confirm the center ID.
	K-0004	Serial number mismatch.	Confirm the serial number.
	K-0005	Error code that may occur when a transmission is made from the main body to the center. Syntax error (when receiving undefined commands or parameters)	Redial.
	K-0006	Received a write order for an unwritable item.	
	K-0007	Unread item error.	
	K-0008	Error code that may occur when a transmission is made from the main body to the center. Signal reception time out after a response detection (after the start telegram shuttled).	Redial.
	K-0009	Error code that may occur when a transmission is made from the main body to the center. Already registered serial number.	

Classification	Error Code	Description	Troubleshooting procedure
	K-0010	Error code that may occur when a transmission is made from the main body to the center. Communication error occurred because of the carrier OFF (NO CARRIER detected in the modem).	Redial.
	K-0011	Error code that may occur when a transmission is made from the main body to the center. Dial tone (NO DIALTONE) detected in the modem.	
	K-0012	Error code that may occur when a transmission is made from the main body to the center. Busy signal (BUSY) detected in the modem.	
	K-0013	Error code that may occur when a transmission is made from the main body to the center. NO ANSWER detected in the modem.	
	K-0014	Error code that may occur when a transmission is made from the main body to the center. Telegram error (irregular telegram received in response to the telegram you sent).	Retry standard times, and redial.
	K-0015	Serial number not registered in the center (4 x 40 telegrams received).	
	K-0016	Error code that may occur when a transmission is made from the main body to the center. Errors not defined in K-0000 to 0015.	Redial.
	K-0017	Error code that may occur when a transmission is made from the main body to the center. Telephone number you must call was not registered.	
	K-0100	Error code that may occur when a transmission is made from the main body to the center. DSR turned OFF or remains turned OFF.	
	K-0101	Error on creating a message queue.	
	K-0102	Error on generating a task.	
	K-0103	Error code that may occur when a transmission is made from the main body to the center. Error on sending a message.	
	K-0104	Error code that may occur when a transmission is made from the main body to the center. Error on receiving a message.	
	K-0105	Error code that may occur when a transmission is made from the main body to the center. Received an error (NG) from the timer task.	
	K-0201	Error code that may occur when a transmission is made from the main body to the center. Modem initialization NG.	
	K-0300	Error code that may occur when a transmission is made from the main body to the center. Center call evacuation buffer is full. Cannot evacuate any more.	
Connection via E-mail/ http	K-0590	Because of (E-mail/http) memory shortage, unable to secure enough area for sending a mail.	

Classification	Error Code	Description	Troubleshooting procedure
	K-0592	(E-mail/http) Controller in operation: unable to send a mail because the controller is in operation.	In the manual transmission, retry when the controller is idling. In the auto transmission, an automatic retry is performed after 1minute.
	K-0593	Sending error: (E-mail) Error comes back from the mail server. (http) Storing mail to Web server fails.	In the auto transmission, an automatic retry is performed after the specified time. Check if there is no fault in the network environment and the network settings.
	K-0594	(E-mail/http) Machine in operation: unable to send a mail because the machine is in operation.	In the manual transmission, retry when the machine is idling. In the auto transmission, an automatic retry is performed after 1minute.
	K-0595	(E-mail/http) Controller not connected: unable to send a mail because the controller is not connected.	Check the connection between the controller and the main body.
	K-0596	(E-mail/http) Controller-driven SC: unable to send a mail because of a controller-driven SC (49-xx).	If there is the controller-driven SC, a mail cannot be sent through the controller. Use a telephone. This error does not occur with the main body NIC.
	K-0597	(E-mail/http) No reply from controller	
	K-0600	(http) Fails to make the directory on Web server	

5.11.18 TROUBLESHOOTING

Check the followings when the main body does not receive the initial connection mail or does not return a response.

1. The center ID or the machine ID are not set in the main body.
2. The center ID or the machine ID are different (A machine ID error is not returned at the initial connection).
3. CS Remote Care function is disabled, or the phone line is selected in the CS Remote Care function selection.
4. Communication between the main body and the mail server is not proper (Check it with a transmission test).

5.12 ISW

Refer to "J Rewriting of firmware"

5.13 Finisher adjustment

5.13.1 FS-532 Staple Position Adjustment (staple finisher (main) adjustment)

(1) Functions

Adjust the staple position while in stapling by FS.

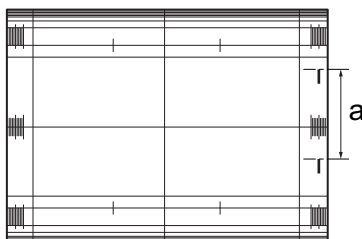
The staple pitch can be adjusted by adjusting the stop position of the stapler movement motor (M14) in this setting.

(2) Usage

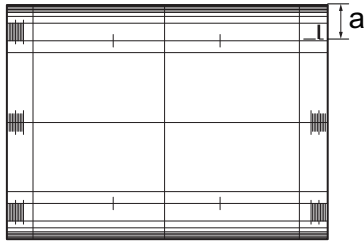
Conduct this adjustment when the staple position is not within the standard value by FS.

(3) Procedure

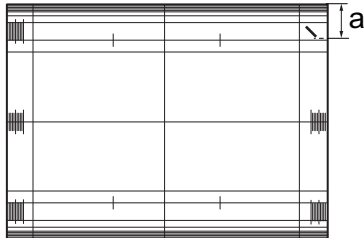
1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [01 Stapler(Main) Adjustment].
3. "Staple Finisher(Main) Adjustment Menu screen"
Press [01 Staple Position Adjustment].
4. "Staple Position Adjustment screen"
Select the Staple Mode to be adjusted from [2 Position Pitch(120mm)], [2 Position Pitch(140mm)], [2 Position Pitch(165mm)], [Rear Diagonal], [Rear Parallel] and [Front Parallel]. Then press [Print Mode].
5. Set the A3 paper and press the Start key to output the test pattern (No.16).
6. Check the Staple position "a" of the output paper in accordance with the selected Staple Mode.
 - For [2 Position Pitch(120mm)], [2 Position Pitch(140mm)] and [2 Position Pitch(165mm)]
Standard value: a = 120, 140, 165 ± 3mm



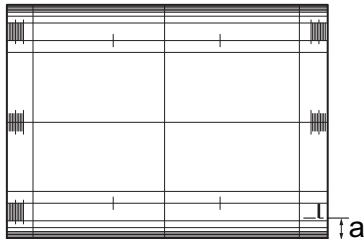
- For [Rear Parallel]
Standard value: a = 19.6 ± 2mm



- For [Rear Diagonal]
Standard value: $a = 15.2 \pm 3\text{mm}$



- For [Front Parallel]
Standard value: $a = 6.4 \pm 3\text{mm}$



- When the value is not within the standard value, press [Close].
- "Staple Position Adjustment screen"
Enter a value through the numeric buttons and press [SET].
Range ([2 Position Pitch(120mm)], [2 Position Pitch(140mm)] and [2 Position Pitch(165mm)]): -5 (narrower) to +5 (wider)
Range ([Rear Diagonal], [Rear Parallel] and [Front Parallel]): -5 (in front) to +5 (in back)
1 step = 1.0mm
- Repeat steps 4 to 8 until the standard value can be obtained.

5.13.2 FS-532 Staple Paper Width Adjustment (staple finisher (main) adjustment)

(1) Function

Changes the CD Alignment Plate width of the staple bundle.

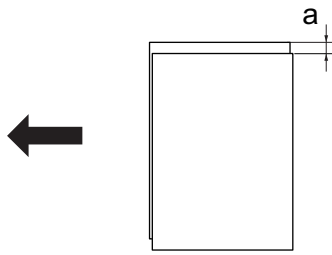
The paper width and the alignment width can be set by changing the driving amount of the stacker alignment motor (M9) in this adjustment.

(2) Usage

Conduct this adjustment when there is a misalignment in the main scan direction in a bundle of paper while in stapling by FS.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [01 Stapler(Main) Adjustment].
- "Staple Finisher(Main) Adjustment Menu screen"
Press [02 Staple Paper Width Adjustment].
- "Staple Paper Width Adjustment screen"
Press [▼] or [▲], and select [All].
- Press [Print Mode].
- Set paper in A4 size on the tray and press the Start key to output the test pattern (No.16).
- Check the misalignment "a" of the output paper in the main scan direction.
Standard value: $a = \pm 1.0\text{mm}$ or less



The paper is stacked on the stacker and stops in the following conditions.

- CD alignment plate: Closed
- FD alignment plate: Closed
- Rewind paddle: Descent

Check the alignment. For the target value of the adjustment, refer to the followings.

- The interval between the paper and the CD alignment plate: 0mm
- The interval between the paper and the FD alignment plate: -2mm (shorter with reference to the paper length)
- The contact area between the paper and the rewind paddle: 2mm (the paper being pressed)

When adjusting, remove the stacked paper and perform the initial operation by opening and closing the front door of the finisher.

Note

• When the operation stops due to the paper lack or jam during printing, be sure to perform the initial operation by opening and closing the front door.

• For the adjustment, be sure to conduct [I.5.13.2 Staple Paper Width Adjustment \(staple finisher \(main\) adjustment\)](#), [I.5.13.3 FS-532 FD Alignment Plate Adjustment \(staple finisher \(main\) adjustment\)](#), [I.5.13.5 FS-532 Rewind Paddle Descent Adjustment \(staple finisher \(main\) adjustment\)](#) in order.

• If the size of the paper to be adjusted exceeds 230mm, the FD alignment plate moves to the standby position because the paper is too long. Be careful that the paper jam possibly occurs at the paper exit section if the stacker is pulled out in this condition.

- When the value is not within the standard value, press [Close].
- "Staple Paper Width Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Range: -20 (wider) to +20 (narrower)
1 step = 0.1mm
- Repeat steps 5 to 9 until the standard value can be obtained.

5.13.3 FS-532 FD Alignment Plate Adjustment (staple finisher (main) adjustment)

(1) Function

Adjust the pushing of the FD alignment plate for the stacker while in alignment.

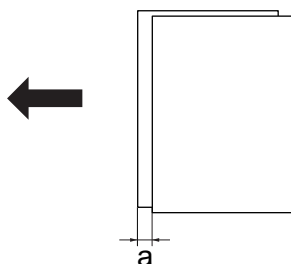
The amount of a bundle of paper which pushed by the FD alignment part can be adjusted by changing the driving amount of the small size paper alignment motor (M18) in this adjustment.

(2) Usage

Conduct this adjustment when there is a misalignment in the sub scan direction in a bundle of paper while in stapling by FS for the paper whose length in the sub scan direction is 230mm or more.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [01 Stapler(Main) Adjustment].
- "Staple Finisher(Main) Adjustment Menu screen"
Press [03 FD Alignment Plate Adjustment].
- "FD Alignment Plate Adjustment screen"
Press [▼] or [▲], and select [All].
- Press [Print Mode].
- Set paper in A4 size on the tray and press the Start key to output the test pattern (No.16).
- Check the misalignment "a" of the output paper in the sub scan direction.
Standard value: $a = \pm 1.0\text{mm}$ or less



The paper is stacked on the stacker and stops in the following conditions.

- CD alignment plate: Closed

- FD alignment plate: Closed
- Rewind paddle: Descent

Check the alignment. For the target value of the adjustment, refer to the followings.

- The interval between the paper and the CD alignment plate: 0mm
- The interval between the paper and the FD alignment plate: -2mm (shorter with reference to the paper length)
- The contact area between the paper and the rewind paddle: 2mm (the paper being pressed)

When adjusting, remove the stacked paper and perform the initial operation by opening and closing the front door of the finisher.

Note

• When the operation stops due to the paper lack or jam during printing, be sure to perform the initial operation by opening and closing the front door.

• For the adjustment, be sure to conduct [I.5.13.2 FS-532 Staple Paper Width Adjustment \(staple finisher \(main\) adjustment\)](#) , [I.5.13.3 FD Alignment Plate Adjustment \(staple finisher \(main\) adjustment\)](#), [I.5.13.5 FS-532 Rewind Paddle Descent Adjustment \(staple finisher \(main\) adjustment\)](#) in order.

• If the size of the paper to be adjusted exceeds 230mm, the FD alignment plate moves to the standby position because the paper is too long. Be careful that the paper jam possibly occurs at the paper exit section if the stacker is pulled out in this condition.

- When the value is not within the standard value, press [Close].
- "Staple Paper Width Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Setting range: -50 (wider) to +50 (narrower)
1 step = 0.1mm
- Repeat steps 5 to 9 until the standard value can be obtained.

5.13.4 FS-532 Exit Guide Unit Paper Width Adjustment (staple finisher (main) adjustment)

(1) Function

Adjust the position of the exit alignment plate (front and back) while in paper exit alignment.

The alignment intervals of the paper exit alignment plate can be adjusted by changing the driving amount of the paper exit alignment plate motor (M12) in this adjustment.

(2) Usage

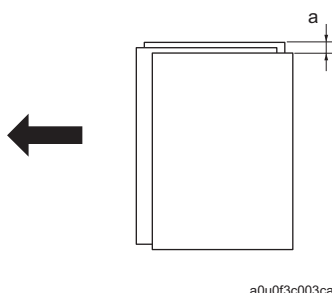
Adjust an uneven paper stack (main scanning direction) on the main tray in non-staple mode by the FS.

Note

- This adjustment is effective only for paper more than 182mm width (B5S) in the main scan direction in the straight exit, or paper more than 210mm width (A4) in the shift exit. This adjustment is invalid for paper of minimum size (A5S, B6S, 5¹/₂ x 8¹/₂S) since it does not operate the paper exit alignment.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [01 Stapler(Main) Adjustment].
- "Staple Finisher(Main) Adjustment Menu screen"
Press [04 Exit Guide Unit Paper Width].
- "Exit Guide Unit Paper Width Adjustment screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
- Press [Print Mode].
- Select the paper size according to the item that you want to adjust and press the Start key to output some test pattern (No.16).
- Check the misalignment "a" of the stacked paper.



Note

- Check the misalignment between exit paper and the exit alignment plate under the operation as a reference for the adjustment.
- Too narrow adjustment causes an uneven paper exit in the sub scan direction.

The paper is stacked on the main tray and stops while the paper exit alignment plate is closed.

Check the alignment. For the target value of the adjustment, refer to the followings.

- The interval between the paper and the paper exit alignment plate: 0mm

When adjusting, remove the stacked paper and perform the initial operation by opening and closing the front door of the finisher.

Note

• When the operation stops due to the paper lack or jam during printing, be sure to perform the initial operation by opening and closing the front door.

- Press [Close] to adjust the position of the paper exit alignment plate.
- "Exit Guide Unit Paper Width Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].

Setting range: -50 (wider) to +50 (narrower)

1 step = 0.1mm

Adjustment standard value (at the alignment operation): Paper width 0mm to +1mm

10. Repeat the steps 4 to 9 until an appropriate value is obtained.

5.13.5 FS-532 Rewind Paddle Descent Adjustment (staple finisher (main) adjustment)

(1) Functions

Adjust the rewind paddle descent (time) in stacking.

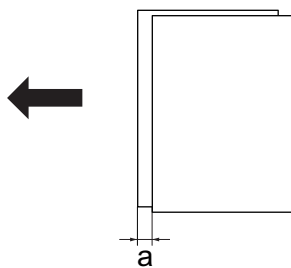
The alignment intervals in the FD direction can be adjusted by adjusting the stop position of the rewind paddle release motor (M28) in this adjustment.

(2) Usage

When there is a misalignment in FD direction, conduct this adjustment.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [01 Stapler(Main) Adjustment].
3. "Stapler(Main) Adjustment menu screen"
Press [05 Rewind Paddle Descent Adjustment].
4. "Rewind Paddle Descent Adjustment screen"
Press [▼] or [▲], and select [All].
5. Press [Print Mode].
6. Set paper in A4 size on the tray and press the Start key to output the test pattern (No.16).
7. Check the misalignment "a" of the output paper in the sub scan direction.
Standard value: $a = \pm 1.0\text{mm}$ or less



The paper is stacked on the stacker and stops in the following conditions.

- CD alignment plate: Closed
- FD alignment plate: Closed
- Rewind paddle: Descent

Check the alignment. For the target value of the adjustment, refer to the followings.

- The interval between the paper and the CD alignment plate: 0mm
- The interval between the paper and the FD alignment plate: -2mm (shorter with reference to the paper length)
- The contact area between the paper and the rewind paddle: 2mm (with the paper being pressed)

When adjusting, remove the stacked paper and perform the initial operation by opening and closing the front door of the finisher.

Note

• When the operation stops due to the paper lack or jam during printing, be sure to perform the initial operation by opening and closing the front door.

• For the adjustment, be sure to conduct [1.5.13.2 FS-532 Staple Paper Width Adjustment \(staple finisher \(main\) adjustment\)](#) , [1.5.13.3 FS-532 FD Alignment Plate Adjustment \(staple finisher \(main\) adjustment\)](#) , [1.5.13.5 Rewind Paddle Descent Adjustment \(staple finisher \(main\) adjustment\)](#) in order.

• If the size of the paper to be adjusted exceeds 230mm, the FD alignment plate moves to the standby position because the paper is too long. Be careful that the paper jam possibly occurs at the paper exit section if the stacker is pulled out in this condition.

8. When the value is not within the standard value, press [Close].
9. "Rewind Paddle Descent Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Setting range: -10 (Weak) to +10 (Strong)
1 step = 0.2mm
10. Repeat steps 5 to 9 until the standard value can be obtained.

5.13.6 SD-510 Fold&Staple Pitch Adjustment (staple finisher (fold) adjustment)

(1) Functions

Adjust the staple pitch for the Fold & Staple by the SD.

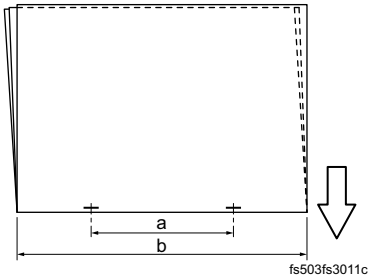
The Staple Pitch can be adjusted by adjusting the stop position of the stapler movement motor (M103) in this setting.

(2) Usage

Conduct this adjustment when the staple pitches of the Fold & Staple by SD are not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [02 Stapler(Fold) Adjustment].
3. "Stapler(Fold) Adjustment Menu screen"
Press [01 Fold&Staple Pitch Adjustment].
4. "Fold&Staple Pitch Adjustment screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
5. Press [Print Mode].
6. Set paper in size that you want to adjust on the Tray and press the Start key to output the test pattern (No.16).
7. Confirm the interval "a" between the Staples against the Paper Size "b."
Standard value: $a = b/2 \pm 3\text{mm}$



8. When the value is not within the standard value, press [Close].
9. "Fold&Staple Pitch Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Range: -300 (narrower) to +300 (wider)
1 step = 0.1mm
10. Repeat steps 5 to 9 until the standard value can be obtained.

5.13.7 SD-510 Fold&Staple Paper Width Adjustment (staple finisher (fold) adjustment)**(1) Functions**

Changes the CD Alignment Plate width of the staple bundle.

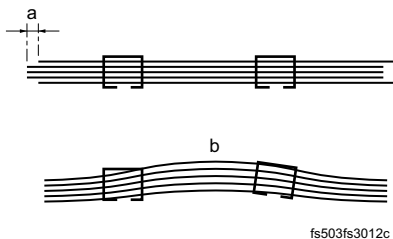
The paper width and the alignment width can be set by changing the driving amount of the saddle stitching alignment motor (M104) in this adjustment.

(2) Usage

Conduct this adjustment when there is a misalignment in the main scan direction in a bundle of paper while in stapling by SD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [02 Stapler(Fold) Adjustment].
3. "Stapler(Fold) Adjustment Menu screen"
Press [02 Fold&Staple Paper Width Adj.].
4. "Stapler(Fold) Adjustment Menu screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
5. Press [Print Mode].
6. Set paper in size that you want to adjust on the tray and press the Start key to output the test pattern (No.16).
7. Check to see if the bundle of papers is misaligned (a: a misalignment occurs when the paper width setting is larger than the paper width) and if the bundle is curved (b: the curve occurs when the paper width setting is smaller than the paper width).
Standard value "a": 1.0mm or less



8. When there is a misalignment or paper curvature, press [Close].
9. Enter the setting data through the numeric buttons and press [Set].
Range: -50 (narrower) to +50 (wider)
1 step = 0.1mm
10. Repeat steps 5 to 9 until the standard value can be obtained.

5.13.8 SD-510 Fold&Staple Staple Position Adjustment (staple finisher (fold) adjustment)

(1) Functions

Adjust the staple position for the Fold & Staple by the SD.

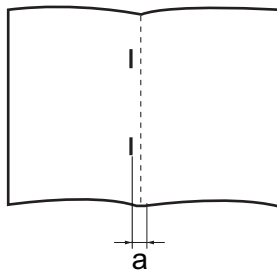
The staple position in the FD direction can be adjusted by adjusting the stop position of the stopper motor (M105) in this setting.

(2) Usage

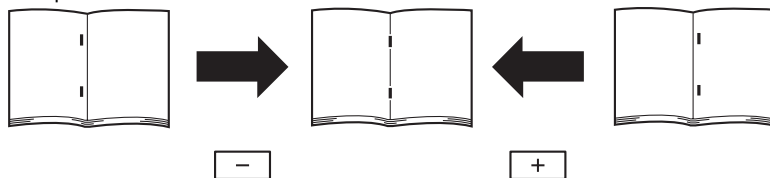
Conduct this adjustment when the staple position of the Fold & Staple by SD is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [02 Stapler(Fold) Adjustment].
3. "Stapler(Fold) Adjustment Menu screen"
Press [03 Fold&Staple Staple Pos. Adj.].
4. "Fold&Staple Staple Position Adjustment screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
5. Press [Print Mode].
6. Set paper in size that you want to adjust on the tray and press the Start key to output the test pattern (No.16).
7. Check the misalignment "a" between the staple position and the fold position of the printed paper.
Standard value "a": $\pm 1\text{mm}$



8. When the value is not within the standard value, press [Close].
9. "Fold&Staple Staple Position Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Range: -50 (paper exit upper side is longer) to +50 (paper exit upper side is shorter)
1 step = 0.1mm



10. Repeat steps 5 to 9 until the standard value can be obtained.

5.13.9 SD-510 Fold&Staple Fold Position Adjustment (staple finisher (fold) adjustment)

(1) Functions

Adjust the fold position on the Fold & Staple mode by the SD.

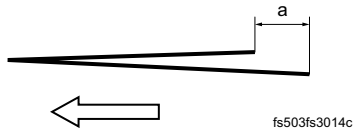
The folding position can be adjusted by adjusting the stop position of the stopper motor (M105) in this setting.

(2) Usage

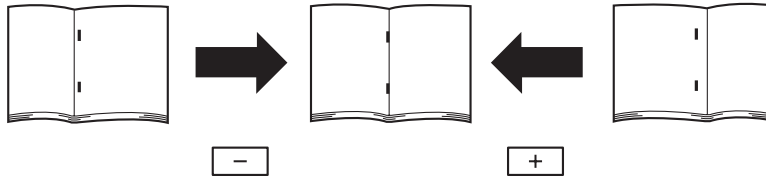
Conduct this adjustment when the fold position of the Fold & Staple by SD is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [02 Stapler(Fold) Adjustment].
3. "Stapler(Fold) Adjustment Menu screen"
Press [04 Fold&Staple Fold Pos. Adj.].
4. "Stapler(Fold) Adjustment Menu screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
5. Press [Print Mode].
6. Set paper in size that you want to adjust on the Tray and press the Start key to output the test pattern (No.16).
7. Check the misalignment "a" on the edge of the printed paper.
Standard value "a": $\pm 1\text{mm}$



8. When the value is not within the standard value, press [Close].
9. "Fold&Staple Fold Position Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Range: -50 (paper exit upper side is longer) to +50 (paper exit upper side is shorter)
1 step = 0.1mm



10. Repeat steps 5 to 9 until the standard value can be obtained.

5.13.10 SD-510 Half-Fold Fold Position Adjustment (staple finisher (fold) adjustment)

(1) Functions

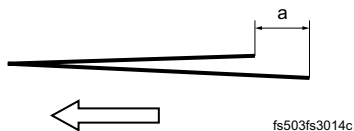
Adjust the fold position on the Half-Fold Mode by the SD.
The folding position can be adjusted by adjusting the stop position of the stopper motor (M105) in this setting.

(2) Usage

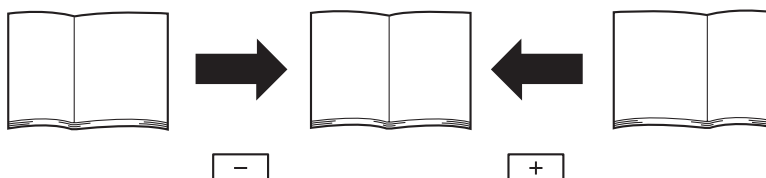
Conduct this adjustment when the fold position of the Half-Fold by SD is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [02 Stapler(Fold) Adjustment].
3. "Stapler(Fold) Adjustment Menu screen"
Press [05 Half-Fold Fold Position Adj.].
4. "Half-Fold Fold Position Adjustment screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
5. Press [Print Mode].
6. Set paper in size that you want to adjust on the Tray and press the Start key to output the test pattern (No.16).
7. Check the misalignment "a" on the edge of the printed paper.
Standard value "a": = $\pm 2.0\text{mm}$



8. When the value is not within the standard value, press [Close].
9. "Half-Fold Fold Position Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Range: -50 (paper exit upper side is longer) to +50 (paper exit upper side is shorter)
1 step = 0.1mm



10. Repeat steps 5 to 9 until the standard value can be obtained.

5.13.11 SD-510 Tri-Fold Position Adjustment (staple finisher (fold) adjustment)

(1) Functions

Adjust the fold positions on the multi tri-fold mode by the SD.
In the 1st Fold position adjustment, the folding position can be adjusted by changing the stop position of the stopper motor (M105).

In the 2nd Fold position adjustment, the folding position can be adjusted by changing the timing that the 2nd folding knife motor (M110) starts to rotate since the 2nd folding sensor (PS112) turns ON.

(2) Usage

Conduct this adjustment when the fold positions of multi tri-fold by SD is not within the standard value.

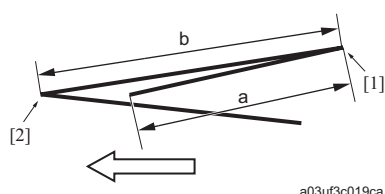
Note

- When adjusting both the 1st fold and the 2nd fold, be sure to start with the 1st fold.
- The position of the 1st fold is based on the leading edge of paper and the position of the 2nd fold is based on the position of the 1st fold. So, the dimension "b" in the step7 varies when either position of the 1st fold and the 2nd fold is changed.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [02 Stapler(Fold) Adjustment].
3. "Stapler(Fold) Adjustment Menu screen"
Press [06 Tri-Fold Adjustment].
4. "Tri-Fold Adjustment Menu screen"
Press [01 Tri-Fold Position Adjustment].
5. "Tri-Fold Position Adjustment screen"
Select the paper size that you want to adjust and press [Print Mode].
6. Set paper in size that you want to adjust on the Tray and press the Start key to output the test pattern (No.16).
7. Confirm "a" and "b" on the output paper.

Paper Size	Standard value (mm)	
	a ± 2.0	b ± 2.0
A4S	95.0	101.0
8 1/2 x 11S	89.4	95.0



[1] First fold	[2] Double fold
----------------	-----------------

8. When the value is not within the standard value, press [Close].
9. "Tri-Fold Position Adjustment screen"
Select the paper size that you want to adjust.
10. Press [1st Fold].
11. Enter the setting data through the numeric buttons and press [Set].
Range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "a" in the step7 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
12. Press [2nd Fold].
13. Enter the setting data through the numeric buttons and press [<<Set].
Range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "b" in the step7 gets larger when the setting data is moved to the positive side and gets smaller when moved to the negative side.
14. Repeat steps 5 to 13 until the standard value can be obtained.

5.13.12 SD-510 Double Fold Plate Adjustment (staple finisher (fold) adjustment)

(1) Functions

Adjust the pushing level of the 2nd folding knife on the multi tri-fold-in mode by the SD.

In this adjustment, the degree of how much the 2nd folding knife is pushed in is adjusted by changing the time of the forward rotation of the, 2nd knife motor (M110).

(2) Usage

Conduct the adjustment in case of the wide shift in the double folded bunch on the multi tri-fold-in mode by the SD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [02 Stapler(Fold) Adjustment].
3. "Stapler(Fold) Adjustment Menu screen"
Press [06 Tri-Fold Adjustment].
4. "Tri-Fold Adjustment Menu screen"
Press [02 Double Fold Plate Adjustment].

5. "Double Fold Plate Adjustment screen"
Select the paper size that you want to adjust and press [Print Mode].
6. Set paper in size that you want to adjust on the Tray and press the Start key to output the test pattern (No.16).
7. Check the wide shift in the double folded bunch on the edge of the output paper.
8. Press [Close] in case of wide shift.
9. "Double Fold Plate Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Setting range: -50 (shallower) to +50 (deeper)
1 step = 0.1mm
Note
 - **Push deeper in case of the wide shift.**
 - **Push shallower when the box folding occurs in the thin paper.**
 - **Push deeper when the overlap on the solid image shifts the 2nd folding positions of the cover, the 2nd paper and the succeeding sheets of paper.**
10. Repeat the steps 5 to 9 until the shift in the bunch is resolved.

5.13.13 SD-510 Half-Fold Strength Adjustment (staple finisher (fold) adjustment)

(1) Functions

Adjust the folding roller pressing time on the Fold & Staple Mode or the Multi Tri-Fold Mode by the SD.

The folding pressure can be adjusted by adjusting the low speed conveyance time of the folding roller motor (M108) in this setting. However, setting the pressing time longer decrease productivity.

(2) Usage

Lengthen the roller pressing time to strengthen the book fold.

Note

- **Productivity is reduced depending on the length of the roller pressing time.**

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [02 Stapler(Fold) Adjustment].
3. "Stapler(Fold) Adjustment Menu screen"
Press [07 Half-Fold Strength Adjustment].
4. "Half-Fold Strength Adjustment screen"
Press [Print Mode].
5. Set Paper in page quantity of the book to be created and press the Start key to output the test pattern (No.16).
6. Check the fold of the printed book, and press [Close] when the fold is weak.
7. "Half-Fold Strength Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Range: 0 to +10 (add time)
1 step = 1 second
8. Repeat the steps 4 to 7 until an appropriate Fold strength is obtained.

5.13.14 PK-522 Vertical position adjustment (Crosswise Dir.) (staple finisher (punch) adjustment)

(1) Function

Adjust the punch position of the punch kit (PK) in the main scan direction.

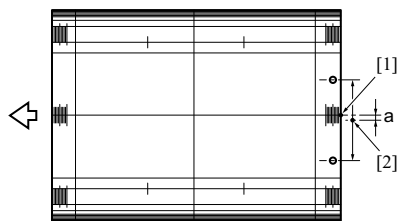
The shift amount of the punch unit can be adjusted by changing the driving amount of the punch shift motor (M302) in this adjustment.

(2) Usage

Conduct this adjustment when the punch position of the punch kit (PK) in the main scan direction is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [03 Stapler(Punch) Adjustment].
3. "Stapler(Punch) Adjustment Menu screen"
Press [01 Vert. Position Adj.(CD)].
4. "Punch Vert. Position Adj.(CD) screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
5. Press [Print Mode].
6. Set paper in size that you want to adjust on the tray and press the Start key to output the test pattern (No.16).
7. Fold the output paper in half in the main scan direction, and measure the gap "a" between the center line of the print and the center of the punch hole.
Standard value "a": = ± 1mm



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[1] Center of the paper	[2] Center of the punch hole
-------------------------	------------------------------

8. "Punch Vert. Position Adj.(CD) screen"
Enter the setting data through the numeric buttons and press [Set].
Range: -50 (to front) to +50 (to back)
1 step = 0.1mm
9. Repeat steps 5 to 8 until the standard value can be obtained.

5.13.15 PK-522 Horizontal position adjustment (paper feed direction) (staple finisher (punch) adjustment)

(1) Function

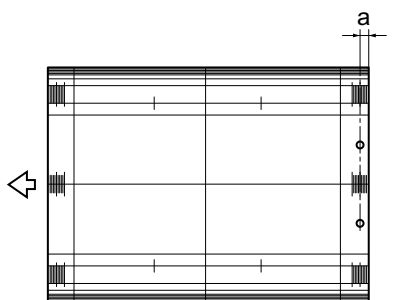
Adjust the punch position of the punch kit (PK) in the sub scan direction.
The punch position in the sub scan direction can be adjusted by adjusting the stop timing of the conveyance motor in this adjustment.

(2) Usage

Conduct this adjustment when the punch position of the punch kit (PK) in the sub scan direction is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [03 Stapler(Punch) Adjustment].
3. "Stapler(Punch) Adjustment Menu screen"
Press [02 Horiz. Position Adj.(FD)].
4. "Punch Horiz. Position Adj.(FD) screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
5. Press [Print Mode].
6. Set paper in size that you want to adjust on the tray and press the Start key to output the test pattern (No.16).
7. Check the punch position "a" of the output paper in the sub scan direction.
Standard value "a":
- Inch area: 9.5mm ± 3.0mm
- Metric area: 11.0mm ± 3.0mm



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8. "Punch Horiz. Position Adj.(FD) screen"
Enter the setting data through the numeric buttons and press [Set].
Range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
9. Repeat steps 5 to 8 until the standard value can be obtained.

5.13.16 PK-522 Registration Adjustment (staple finisher (punch) adjustment)

(1) Function

Change the registration loop amount of punch to adjust the paper skew.
In this adjustment, the loop can be adjusted by changing the driving time of the FNS entrance motor (M1) when paper strikes the entrance roller and a loop is formed.

(2) Usage

Conduct this adjustment when the punch hole of the punch kit (PK) is not straight.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [03 Stapler(Punch) Adjustment].
3. "Staple Finisher(Punch) Adjustment Menu screen"
Press [03 Registration Adjustment].
4. "Punch Registration Adjustment screen"
Select the item that you want to adjust and press [Print Mode].
5. Set paper in the tray or PI, and press Start to print the test pattern (No.16).
6. When the trouble is not solved, press [Close].
7. "Punch Registration Adjustment screen"
Enter the setting data through the numeric buttons and press [Set].
Range: -50 (smaller) to +50 (larger)
1 step = 0.1mm
8. Repeat the steps 4 to 7 until an appropriate value is obtained.

5.13.17 PK-522 Paper Edge Sensor Adjustment (staple finisher (punch) adjustment)**(1) Functions**

Adjust the sensitivity of the paper size sensor automatically to detect the paper edge as the standard of the punch hole properly.

(2) Usage

Adjust the sensitivity of the sensor after replacing the punch drive board (PDB) or the paper size sensor (PS305).

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [03 Stapler(Punch) Adjustment].
3. "Staple Finisher(Punch) Adjustment Menu screen"
Press [04 Paper Edge Sensor Adj.].
4. "Paper Edge Sensor Adjustment screen"
Press [Start].
5. A message "No Error" is displayed when the adjustment is finished successfully.

5.13.18 PI-502 Tray Size Adjustment (staple finisher (PI) adjustment)**(1) Function**

Adjust the detection size of the PI tray.

(2) Usage

Conduct this adjustment when the paper size is not correctly detected at the cover sheet tray of the PI.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [04 Stapler(PI) Adjustment]
3. "Stapler(PI) Adjustment Menu screen"
Press [01 Tray Size Adjustment].
4. "PI Tray Size Adjustment screen"
Select [Upper Tray] or [Lower Tray], press [A4] or [8¹/₂ x 11].
5. Load A4 paper in the selected tray of PI and press [Start]. (When you selected [8¹/₂ x 11] in step 4, load 8¹/₂ x 11 paper in the tray.)
6. A message "Completed" is displayed.
7. To adjust another tray, repeat the steps 4 to 6.
8. Exit the Service Mode, and check if original size set in the PI is correctly detected.

5.13.19 PI-502 PI Registration Adjustment (staple finisher (PI) adjustment)**(1) Function**

Adjust the punch registration loop at both the upper and lower stages of the post inserter.

(2) Usage

When a punch skew and crease occur, conduct this adjustment.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [04 Stapler(PI) Adjustment]
3. "Stapler(PI) Adjustment Menu screen"
Press [02 PI Registration Adjustment].

4. "PI Registration Adjustment screen"
Select either [PI Upper Tray] or [PI Lower Tray].
5. Set the paper which should be adjusted to the size of the selected PI tray, and feed the paper in the manual mode.
6. Check the outputted paper
7. Enter the setting data through the numeric buttons and press [<<Set].
Setting range: -5 (smaller) to +5 (larger)
1 step = 1.0mm

Note

- When there is a too much pucn skew, adjust the value to the positive side.
- When there is a too much paper crease, adjust the value to the negative side.

8. Repeat the steps 5 to 7 until an appropriate value is obtained.

5.13.20 FD-503 Paper Width Adjustment (Multi Folder(Punch) Adj.)**(1) Functions**

Adjusts the position of the alignment plate while in alignment.

(2) Usage

Adjust the misalignment of punch holes for punching by FD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [05 Multi Folder(Punch) Adj.].
3. "Multi Folder(Punch) Adj. menu screen"
Press [01 Paper Width Adjustment].
4. "Paper Width Adjustment screen"
Press [Print Mode].

Note

- Large size: Sub scan direction of paper is more than 298mm
- Small size: Sub scan direction of paper is less than 297mm

5. Set paper you want to adjust in the tray, the number of copies is set to 10 and press the Start key.
6. Check the diameter of the through-hole when the ejected paper is stacked.

Holes	Standard value (mm)
2-Holes	φ5.0 or larger
3-Holes	φ6.5 or larger

7. When the value is not within the standard value, press [Close].
8. "Paper Width Adjustment screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
9. Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (narrower) to +20 (wider)
1 step = 0.1mm

Note

- When the alignment plate is wider than an appropriate position, the punch centering is displaced, and when too narrow, the punch holes are apt to disperse.

10. Repeat the steps 4 to 9 until an appropriate value is obtained.

5.13.21 FD-503 Punch Vertical Position Adj. (Multi Folder(Punch) Adj.)**(1) Functions**

Adjusts the position of the alignment plate while in alignment.

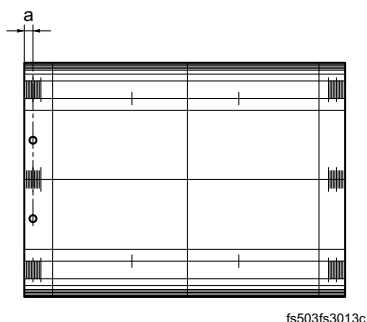
(2) Usage

Adjust the position of the punch holes made by the FD in sub scanning direction.
2-hole or 3-hole is selectable.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [05 Multi Folder(Punch) Adj.].
3. "Multi Folder(Punch) Adj. menu screen"
Press [02 Punch Vertical Position Adj.].
4. "Punch Vertical Position Adj. screen"
Select [2-Hole] or [3-Hole].
5. "Punch Vertical Position Adj. screen"
Press [Print Mode].
6. Set paper in size to be adjusted on the tray and press the Start key to output the test pattern (No.16).
7. Check the distance "a" from the output paper leading edge to the punch holes center position.

Holes	Standard value "a" (mm)
2-Holes	10.5±4.0
3-Holes	9.5±4



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8. When the value is not within the standard value, press [Close].
9. "Punch Vertical Position Adj. screen"
Press [▼] or [▲] to select the paper size to be adjusted.
10. Enter a value through the numeric buttons and press [<<SET].
Setting range: -40 (wider) to +40 (narrower)
1 step = 0.1mm
11. Repeat steps 5 to 10 until the standard value can be obtained.
12. To configure other punch hole/paper size, repeat steps 4 to 11.

5.13.22 FD-503 Punch Gap Recovery adjustment (Multi Folder(Punch) Adj.)

(1) Functions

Adjust the gap recovery amount of the overlapped paper if the punch holes are misaligned.

(2) Usage

- Adjust it when the punch holes are misarranged in the sub scan direction for each paper during punching by FD.
- Fine adjust the gap recovery amount.
- Reduce the recovery amount when the roller scratching caused by recovering too much or the edge damage occurs.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [05 Multi Folder(Punch) Adj.].
3. "Multi Folder(Punch) Adj. menu screen"
Press [03 Punch Gap Recovery Adj.].
4. "Punch Gap Recovery Adjustment screen"
Press [Print Mode].
5. Set 2 sheets of paper with a weight to be adjusted. Check that the set number is "2" and press the Start key.
6. Check the diameter of the through-hole when the ejected paper is stacked.

Holes	Standard value "a" (mm)
2-Holes	φ5.0 or larger
3-Holes	φ6.5 or larger

7. When the value is not within the standard value, press [Close].
8. "Punch Gap Recovery adjustment screen"
Select the paper weight to be adjusted.
9. Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (wider) to +20 (narrower)
1 step = 0.1mm

Note

- Adjust the paper which output in lower side against the paper path of the 1st sheet.

10. Repeat steps 4 to 9 until the standard value can be obtained.

5.13.23 FD-503 Half Fold Position Adjustment (Multi Folder (Fold) Adj.)

(1) Functions

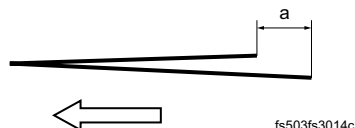
Adjust the paper stop position when folding papers.

(2) Usage

Adjust the fold position on the half fold mode by the FD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [06 Multi Folder(Fold) Adj.].
3. "Multi Folder (Fold) adj. menu screen"
Press [01 Half-Fold Position Adj.].
4. "Folding Position Adjustment screen"
Press [Print Mode].
5. Set paper in size to be adjusted on the tray and press the Start key to output the test pattern (No.16).
6. Check the misalignment "a" on the edge of the outputted paper.
Standard value "a": = $\pm 1.5\text{mm}$



7. When the value is not within the standard value, press [Close].
8. "Folding Position Adjustment screen"
Press [▼] or [▲] to select the paper size to be adjusted.
9. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 to +50
1 step = 0.1mm
 - If there is the misalignment given in the step 6, enter a set value on the positive side.
10. Repeat steps 4 to 9 until the standard value can be obtained.

5.13.24 FD-503 Tri-Fold-in Pos. Adj. (Multi Folder (Fold) Adj.)**(1) Functions**

Adjust the paper stop position when folding papers.

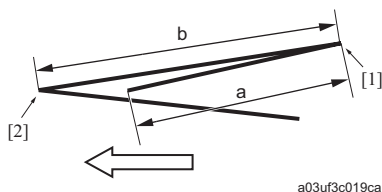
(2) Usage

Adjust the fold positions on the tri-fold-in mode by the FD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [06 Multi Folder(Fold) Adj.].
3. "Multi Folder (Fold) adj. menu screen"
Press [02 Tri-Fold-in Pos. Adj.].
4. "Tri-Fold-in Pos. Adj. screen"
Press [Print Mode].
5. Set paper in size to be adjusted on the tray and press the Start key to output test pattern (No.16).
6. Check "a" and "b" on the outputted paper.

Paper size	Standard value (mm)	
	a ± 1.5	b ± 1.5
A3	139.0	142.0
B4	120.3	123.3
A4S	98.0	101.0
SRA4S	105.7	108.7
12 x 18	151.4	154.4
11 x 17	142.9	145.9
8 ¹ / ₂ x 14	117.5	120.5
8 ¹ / ₂ x 11S	92.1	95.1
8K	129.0	132.0



[1] First fold	[2] Double fold
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7. When the value is not within the standard value, press [Close].
8. "Tri-Fold-in Pos. Adj. screen"
Press [▼] or [▲] to select the paper size to be adjusted.

9. Press [Single Fold].
10. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "a" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
11. Press [Double Fold].
12. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "b" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
13. Repeat steps 4 to 12 until the standard value can be obtained.

5.13.25 FD-503 Tri-Fold-out Pos. Adj. (Multi Folder (Fold) Adj.)

(1) Functions

Adjust the paper stop position when folding papers.

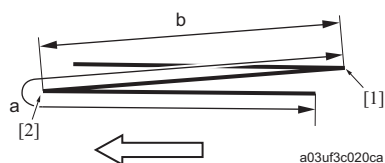
(2) Usage

Adjust the fold positions on the tri-fold-out mode by the FD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [06 Multi Folder(Fold) Adj.].
3. "Multi Folder (Fold) adj. menu screen"
Press [03 Tri-Fold-out Pos. Adj.].
4. "Tri-Fold-out Pos. Adj. screen"
Press [Print Mode].
5. Set paper in size to be adjusted on the tray and press the Start key to output test pattern (No.16).
6. Check "a" and "b" on the outputted paper.

Paper size	Standard value (mm)	
	a ± 1.5	b ± 1.5
A3	282.0	144.0
B4	243.7	123.3
A4S	199.0	101.0
SR44S	214.3	108.7
12 x 18	306.8	156.4
11 x 17	289.9	147.9
8 1/2 x 14	238.1	120.5
8 1/2 x 11S	187.3	95.1
8K	262.0	134.0



[1] First fold	[2] Double fold
----------------	-----------------

7. When the value is not within the standard value, press [Close].
8. "Tri-Fold-out Pos. Adj. screen"
Press [▼] or [▲] to select the paper size to be adjusted.
9. Press [Single Fold].
10. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "a" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
11. Press [Double Fold].
12. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "b" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
13. Repeat steps 4 to 12 until the standard value can be obtained.
14. To configure other paper size, repeat steps 4 to 13.

5.13.26 FD-503 Double Parallel Pos. Adj. (Multi Folder (Fold) Adj.)**(1) Functions**

Adjust the paper stop position when folding papers.

(2) Usage

Adjust the fold positions on the double parallel mode by the FD.

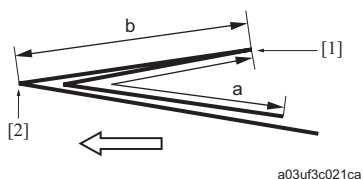
Note

- When adjusting both the single fold and the double fold, be sure to start with the single fold.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [06 Multi Folder(Fold) Adj.].
3. "Multi Folder (Fold) adj. menu screen"
Press [04 Double Parallel Pos. Adj.].
4. "Double Parallel Pos. Adj. screen"
Press [Print Mode].
5. Set paper in size to be adjusted on the tray and press the Start key to output test pattern (No.16).
6. Check "a" and "b" on the outputted paper.

Paper size	Standard value (mm)	
	a ± 1.5	b ± 1.5
A3	208.5	103.8
B4	180.5	89.8
A4S	147.0	73.0
SRA4S	158.5	78.8
12 x 18	227.1	113.1
11 x 17	214.4	106.7
8 1/2 x 14	176.3	87.7
8 1/2 x 11S	138.2	68.6
8K	193.5	96.3



[1] First fold	[2] Double fold
----------------	-----------------

7. When the value is not within the standard value, press [Close].
8. "Double Parallel Pos. Adj. screen"
Press [▼] or [▲] to select the paper size to be adjusted.
9. Press [Single Fold].
10. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "a" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
11. Press [Double Fold].
12. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "b" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
13. Repeat steps 4 to 12 until the standard value can be obtained.

5.13.27 FD-503 Z-Fold Position Adj. (Multi Folder (Fold) Adj.)**(1) Functions**

Adjust the paper stop position when folding papers.

(2) Usage

Adjust the fold positions on the z-fold mode by the FD.

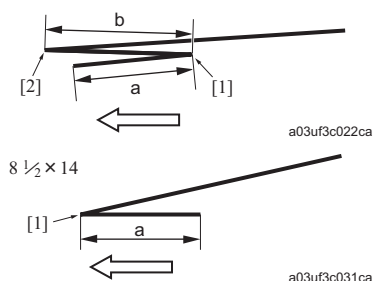
Note

- When adjusting both the single fold and the double fold, be sure to start with the single fold.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [06 Multi Folder(Fold) Adj.].
3. "Multi Folder (Fold) adj. menu screen"
Press [05 Z-Fold Position Adj.].
4. "Z-Fold Position Adjustment screen"
Press [Print Mode].
5. Set paper in size to be adjusted on the tray and press the Start key to output test pattern (No.16).
6. Check "a" and "b" on the outputted paper.

Paper size	Standard value (mm)	
	a ± 1.5	b ± 1.5
A3	105.5	108.5
B4	91.5	94.5
A4S	74.8	77.8
SRA4S	80.5	83.5
12 x 18	114.8	117.8
11 x 17	108.5	111.5
8 1/2 x 14	94.0	-
8 1/2 x 11S	70.4	73.4
8K	98.0	101.0



[1]	First fold	[2]	Double fold
-----	------------	-----	-------------

7. When the value is not within the standard value, press [Close].
8. "Z-Fold Position Adjustment screen"
Press [▼] or [▲] to select the paper size to be adjusted.
9. Press [Single Fold].
10. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "a" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
11. Press [Double Fold].
12. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "b" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
13. Repeat steps 4 to 12 until the standard value can be obtained.

5.13.28 FD-503 Gate Position Adj. (Multi Folder (Fold) Adj.)**(1) Functions**

Adjust the paper stop position when folding papers.

(2) Usage

Adjusts the fold position on the gate fold mode by the FD.

Note

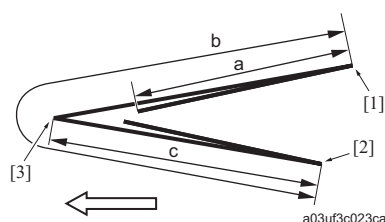
- When adjusting the single fold, the double fold and the triple fold, be sure to conduct the single fold, the double fold and the triple fold in this order.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [06 Multi Folder(Fold) Adj.].
3. "Multi Folder (Fold) adj. menu screen"
Press [06 Gate Position Adj.].

4. "Gate Position Adjustment screen"
Press [Print Mode].
5. Set paper in size to be adjusted on the tray and press the Start key to output test pattern (No.16).
6. Check the length of 2 places indicated with "a", "b" and "c".

Paper size	Standard value (mm)		
	a ± 1.5	b ± 1.5	c ± 1.5
A3	103.5	213.0	106.5
B4	89.5	185.0	92.5
A4S	72.8	151.5	75.8
SRA4S	78.5	163.0	81.5
12 x 18	112.8	231.6	115.8
11 x 17	106.5	218.9	109.5
8 ¹ / ₂ x 14	87.4	180.8	90.4
8 ¹ / ₂ x 11S	68.4	142.7	71.4
8K	96.0	198.0	99.0



[1] First fold	[3] Triple Fold
[2] Double fold	

7. When the value is not within the standard value, press [Close].
8. "Gate Position Adjustment screen"
Press [▼] or [▲] to select the paper size to be adjusted.
9. Press [Single Fold].
10. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "a" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
11. Press [Double Fold].
12. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "b" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
13. Press [Triple Fold].
14. Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - The dimension "c" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
15. Repeat steps 4 to 14 until the standard value can be obtained.

5.13.29 FD-503 Fold Registration Loop Adjustment (Multi Folder (Fold) Adj.)

(1) Functions

Adjust the fold registration loop amount.

(2) Usage

Adjust paper loop amount at the FD registration roller to correct paper skew, wrinkle, or paper jam at the roller.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [06 Multi Folder(Fold) Adj.].
3. "Multi Folder(Punch) Adj. menu screen"
Press [07 Fold Registration Loop Adj.].
4. "Fold Registration Loop Adjustment screen"
Press [Print Mode].
5. Set the A3 or 11 x 17 paper. Press the Start key to output the test pattern (No.16).
6. When the trouble is not solved, press [Close].
7. "Fold Registration Loop Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].

Setting range: -50 (smaller) to +50 (larger)

1 step = 0.1mm

8. Repeat the steps 4 to 7 until an appropriate value is obtained.

5.13.30 LS-505 Paper Width Adjustment (Stacker Adjustment)

(1) Functions

Adjusts the position of the alignment plate while in alignment.

(2) Usage

Conduct this adjustment when a paper exit mis-alignment occurs in the main scan direction of the LS stacker tray.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [07 Stacker Adjustment].
3. "Stacker Adjustment Mode Menu screen"
Press [01 Paper Width Adjustment].
4. "Paper Width Adjustment screen"
Select [Stacker No.1], [Stacker No.2] or [Stacker No.3].
5. "Paper Width Adjustment screen"
Press [Print Mode].
6. Set the A3 or 11 x 17 paper and press the Start key to output the test pattern (No.16).
7. If the problem is not solved, press [Close].
8. Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (narrower) to +20 (wider)
1 step = 0.1mm
9. Repeat the steps 5 to 8 until an appropriate value is obtained.

5.13.31 LS-505 Paper Length Adjustment (Stacker Adjustment)

(1) Functions

Adjust the lead edge stopper position.

(2) Usage

Conduct this adjustment when a paper exit mis-alignment occurs in the sub scan direction of the LS stacker tray.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [07 Stacker Adjustment].
3. "Stacker Adjustment Mode Menu screen"
Press [02 Paper Length Adjustment].
4. "Paper Length Adjustment screen"
Select [Stacker No.1], [Stacker No.2] or [Stacker No.3].
5. "Paper Length Adjustment screen"
Press [Print Mode].
6. Set the A3 or 11 x 17 paper and press the Start key to output the test pattern (No.16).
7. If the problem is not solved, press [Close].
8. Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (narrower) to +20 (wider)
1 step = 0.1mm
9. Repeat the steps 4 to 7 until an appropriate value is obtained.

5.13.32 SD-506 Staple Center Position (Saddle Stitcher Pos. Adj.)

(1) Functions

Adjust the position of the alignment plate while in alignment.

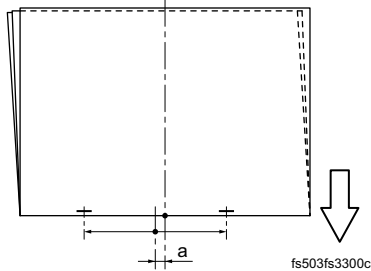
(2) Usage

Adjust the staple center position for the saddle stitch mode by the SD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [08 Saddle Stitcher Adjustment].
3. "Saddle Stitcher Adjustment menu screen"
Press [01 Staple Center Position].
4. "Stapling Center Position Adjustment screen"
Press [Print Mode].
5. Set the A3 or 11 x 17 paper and press the Start key to output the test pattern (No.16).

6. Check the misalignment "a" between the staple center and the paper center.
Standard value "a": $\pm 2\text{mm}$



7. When the value is not within the standard value, press [Close].
8. "Stapling Center Position Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (right) to +20 (left)
1 step = 0.1mm
9. Repeat steps 4 to 8 until the standard value can be obtained.

5.13.33 SD-506 Staple Paper Width Adj. (Saddle Stitcher Pos. Adj.)

(1) Functions

Adjust the position of the saddle stitching alignment plate while in alignment.

(2) Usage

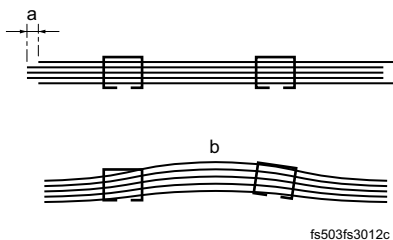
Adjust an uneven binding in a bundle of paper in saddle stitch mode by the SD.

Note

- Make sure that the folding skew adjustment of the mechanical adjustment has been completed.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [08 Saddle Stitcher Adjustment].
3. "Saddle Stitcher Adjustment Menu screen"
Press [02 Staple Paper Width Adj.].
4. "Staple Paper Width Adjustment screen"
Press [Print Mode].
5. Set paper in size to be adjusted on the tray and press the Start key to output test pattern (No.16).
6. Check to see if the bundle of papers is misaligned (a: a misalignment occurs when the paper width setting is larger than the paper width) and if the bundle is curved (b: the curve occurs when the paper width setting is smaller than the paper width).
Standard value "a": 1.0mm or less



7. When the value is not within the standard value, press [Close].
8. "Staple Paper Width Adjustment screen"
Press [▼] or [▲] to select the paper size to be adjusted.
9. Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (narrower) to +20 (wider)
1 step = 0.1mm
10. Repeat steps 4 to 9 until the standard value can be obtained.

5.13.34 SD-506 Staple Pitch Adjustment (Saddle Stitcher Pos. Adj.)

(1) Functions

Adjust the staple intervals for the saddle stitch mode by the SD.

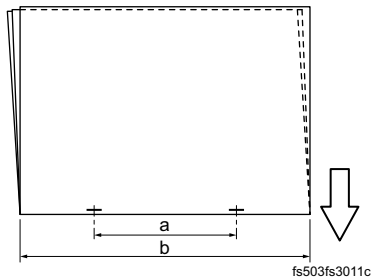
(2) Usage

Conduct this adjustment when the staple intervals of the saddle stitching by SD are not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"

- Press [08 Saddle Stitcher Adjustment].
- "Saddle Stitcher Adjustment menu screen"
Press [03 Staple Pitch Adjustment].
 - "Staple Pitch Adjustment screen"
Press [Print Mode].
 - Set paper in size to be adjusted on the tray and press the Start key to output test pattern (No.16).
 - Check the interval "a" between the staples against the paper size "b."
Standard value: $b/2 \pm 2\text{mm}$



- When the value is not within the standard value, press [Close].
- "Staple Pitch Adjustment screen"
Press [▼] or [▲] to select the paper size to be adjusted.
- "Staple Pitch Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (narrower) to +20 (wider)
1 step = 1.0mm
 - There are restrictions of setting range for each size of paper. Minimum value is determined based on the stapler movable range and the maximum value is determined so that the saddle stitching alignment plate and stapler do not interfere with each other. B5S: Setting is not possible (fixed to 91mm)
B4: -20 to +20 mm (108.5 to 148.5 mm)
A4S: -14 to +14 mm (91 to 119 mm)
A3: -20 to +16.5 mm (128.5 to 165 mm)
- Repeat steps 4 to 9 until the standard value can be obtained.

5.13.35 SD-506 Half-Fold Position Adj. (Saddle Stitcher Pos. Adj.)

(1) Functions

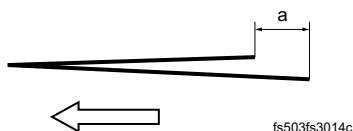
Adjust the fold position on the multi half fold mode by the SD.

(2) Usage

Conduct this adjustment when the folding position of half folding by SD is not within the standard value.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [08 Saddle Stitcher Adjustment].
- "Saddle Stitcher Adjustment menu screen"
Press [04 Half-Fold Position Adj.].
- "Folding Position Adjustment screen"
Press [Print Mode].
- Set paper in size to be adjusted on the tray and press the Start key to output test pattern (No.16).
- Check the misalignment "a" on the edge of the outputted paper.
Standard value "a": 1.5mm or less



- When the value is not within the standard value, press [Close].
- "Folding Position Adjustment screen"
Press [▼] or [▲] to select the paper size to be adjusted.
- "Folding Position Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
 - If there is the misalignment given in the step 6, enter a set value on the positive side.
- Repeat steps 4 to 9 until the standard value can be obtained.

5.13.36 SD-506 Tri-Fold Position Adj. (Saddle Stitcher Pos. Adj.)

(1) Functions

Adjust the fold positions on the multi tri-fold-in mode by the SD.

(2) Usage

Conduct this adjustment when the folding position of multi tri-folding by SD is not within the standard value.

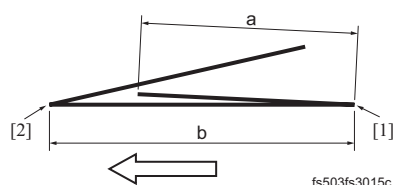
Note

- When adjusting both the single fold and the double fold, be sure to start with the single fold.
- The position of the single fold is based on the leading edge of paper and the position of the double fold is based on the position of the single fold. So, the dimension "b" in the step 7 varies when either position of the single fold and the double fold is changed.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [08 Saddle Stitcher Adjustment].
- "Saddle Stitcher Adjustment menu screen"
Press [05 Tri-Fold Position Adj.].
- "Tri-Fold Position Adjustment screen"
Press [Print Mode].
- Set paper in size that you want to adjust on the tray and press the Start key to output the test pattern (No.16).
- Check "a" and "b" on the outputted paper.

Paper size	Standard value (mm)	
	a	b
A4S	97.5 +/- 1.5	102.0 +/- 3.0
8 1/2 x 11S	91.6 +/- 1.5	96.1 +/- 3.0



[1] First fold	[2] Double fold
----------------	-----------------

- When the value is not within the standard value, press [Close].
- "Tri-Fold Position Adjustment screen"
Select the size of paper you want to adjust.
- Press [Single Fold].
- Enter a value through the numeric buttons and press [<<SET].
Setting range: -100 (shorter) to +100 (longer)
1 step = 0.1mm
 - The dimension "b" in the step 6 gets larger when the set value is moved to the positive side and gets smaller when moved to the negative side.
- Press [Double Fold].
- Enter a value through the numeric buttons and press [<<SET].
Setting range: -100 (longer) to +100 (shorter)
1 step = 0.1mm
 - The dimension "a" in the step 6 gets smaller when the set value is moved to the positive side and gets larger when moved to the negative side.
- Repeat steps 4 to 12 until the standard value can be obtained.

5.13.37 SD-506 Fold Paper Width Adj. (Saddle Stitcher Pos. Adj.)

(1) Functions

Adjust the alignment width while in alignment (sub scan direction).

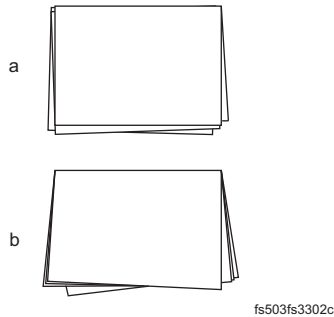
(2) Usage

When there is an uneven edge found with the bundle paper at the folding or multi tri-folding mode by SD, conduct this adjustment.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [08 Saddle Stitcher Adjustment].
- "Saddle Stitcher Adjustment menu screen"
Press [06 Fold Paper Width Adj.].
- "Fold Paper Width Adjustment screen"
Press [Print Mode].
- Set the paper of the paper size to be adjusted. Press the Start key to output the test pattern (No.16).

6. Check the printed pages for misalignment.
 - a: When the paper width setting is set to wider than the actual paper width, misalignment occurs at random.
 - b: When the paper width setting is set to narrower than the actual paper width, misalignment occurs in 1 direction.



7. When the value is not within the standard value, press [Close].
8. "Fold Paper Width Adjustment screen"
Press [▼] or [▲] to select the paper size to be adjusted.
9. "Fold Paper Width Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -50 (narrower) to +50 (wider)
1 step = 0.1mm
10. Repeat steps 4 to 9 until the standard value can be obtained.

5.13.38 SD-506 Trimming Adjustment (Saddle Stitcher Pos. Adj.)

(1) Functions

Change the registration position of the book for trimming.

(2) Usage

Adjust the misalignment in the trimmed fore-edge or the excess trimming by the SD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [08 Saddle Stitcher Adjustment].
3. "Saddle Stitcher Adjustment Menu screen"
Press [07 Trimming Adjustment].
4. "Trimming Adjustment screen"
Press [Print Mode].
5. Set paper in size that you want to adjust on the tray and press the Start key to output the test pattern (No.16).
6. Check the trimming distance "a" on the cover paper.
Standard value "a": 2mm or more

Note

- Trimming distance less than 2mm causes trimming fault.



7. When the value is not within the standard value, press [Close].
8. "Trimming Adjustment screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
9. "Trimming Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -400 (smaller) to +400 (larger)
1 step = 0.1mm

Note

- Since the minimum dimension (from the spine to the fore edge) after the trimming is limited to 122mm, the set value up to +400 fails to be reflected depending on the size of the paper.

10. Repeat steps 4 to 9 until the standard value can be obtained.

5.13.39 SD-506 Trimmer Receiver Adj. (Saddle Stitcher Pos. Adj.)

(1) Functions

Adjust the shift interval and the move pitch of the trimmer board.

(2) Usage

Adjust the poor trimming (for example, fluff on the cut end) in the trimming by the SD.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [08 Saddle Stitcher Adjustment].
3. "Saddle Stitcher Adjustment Menu screen"
Press [08 Trimmer Receiver Adjustment].
4. "Trimmer Receiver Adjustment Menu screen"
Select the options for "01 Count Select for Move" (number of cuts counted until the trimmer board moves) and "02 Moving Pitch Select" (travel distance of the trimmer board when it moves).

5.13.40 PB-503 Cover Trimming Adj. (Perfect Binder Adjustment)**(1) Functions**

Adjusts the trimming position of the right-side edge of the cover paper.

(2) Usage

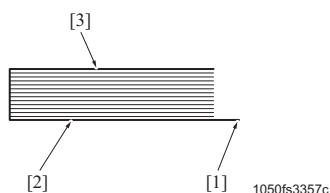
Conduct this adjustment when the trimming position on the leading edge of the right cover does not fit to the leading edge of the left cover.

Note

- In order to align the leading edges on the left and right covers, perform [I.5.13.41 PB-503 Cover Lead Edge Adj. \(Perfect Binder Adjustment\)](#) first and then perform the cover trimming adjustment.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
3. "Perfect Binder Adjustment Menu screen"
Press [01 Cover Trimming Adj.].
4. "Cover Trimming Adjustment screen"
Press [Perfect Binder Tray] or [Main Body Tray] to select the tray to be adjusted.
5. Press [Print Mode].
6. Select the paper type and press the start button to make test prints and carry out perfect binding.
7. Check the cover of the created book if its right-side edge and left-side edge align with each other.



[1]	Trimming position	[3]	Left cover paper
[2]	Right cover paper		

8. Press [Close] to change the trimming position of the right cover paper.
9. "Cover Trimming Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -128 (reduces the trimming amount) to +127 (enlarges the trimming amount)
1 step = 0.1mm
10. Repeat the steps 4 to 9 until an appropriate value is obtained.

5.13.41 PB-503 Cover Lead Edge Adj. (Perfect Binder Adjustment)**(1) Functions**

Sets the length that the left side of cover paper exceeds the length (width) of inside pages.

(2) Usage

Conduct this adjustment when the length that the left side of cover paper exceeds the length (width) of inside pages is not adequate.

(3) Procedure

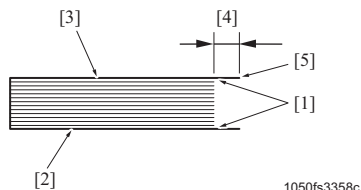
1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
3. "Perfect Binder Adjustment Menu screen"
Press [02 Cover Lead Edge Adj.].
4. "Cover Lead Edge Adj. screen"
Press [Main Body Tray] or [Perfect Binder Tray] to select the tray that you want to adjust.
5. Press [▼] or [▲] to select the paper size of cover paper.
Select the size of paper from the following options.
Total
8¹/₂ x 11
A4

A5S
B5
A5
5¹/₂ x 8¹/₂
Infinite
16K
8¹/₂ x 11W
5¹/₂ x 8¹/₂ W
A4W
A5W
B5W

Note

- Above paper sizes are book (the inside pages) finished sizes.

- Press [Print Mode].
- Select the paper type and press the start button to make test prints and carry out perfect binding.
- Check that the width of the left cover paper is longer than the width of the inside pages by specified amount.



[1]	Body	[4]	Length differential
[2]	Right cover paper	[5]	Edge of the left cover paper
[3]	Left cover paper		

- To change the width of the left cover paper, press [Close].
- "Cover Lead Edge Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -128 (shorter) to +127 (longer)
1 step = 0.1mm
- Repeat the steps 4 to 10 until an appropriate value is obtained.

5.13.42 PB-503 Spine Corner form Pos. (Perfect Binder Adjustment)

(1) Functions

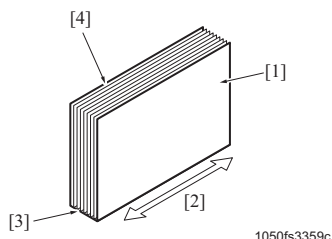
Adjusts the corner folding position of the cover paper.

(2) Usage

Adjust when the spine corner form position is not adequate.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
- "Perfect Binder Adjustment Menu screen"
Press [03 Spine Corner Forming Pos.].
- "Spine Corner Forming Position Adj. screen"
Press [Print Mode].
- Select the paper type and press the start button to make test prints and carry out perfect binding.
- Check that the corner edges of the cover paper are created uniformly in the main scan direction.



[1]	Right cover paper	[3]	Cover paper
[2]	In the direction of the main scan	[4]	Left cover paper

- When the corner edges of the cover paper are not created uniformly, press [Close].
- "Spine Corner Forming Position Adj. screen"
Select either of [Front Adj.] or [Rear Adj.].
Enter a value through the numeric buttons and press [<<SET].
Setting range: -128 (down) to +127 (up)

1 step = 0.1mm

9. Repeat the steps 4 to 8 until an appropriate value is obtained.

5.13.43 PB-503 Glue Start Position (Perfect Binder Adjustment)

(1) Functions

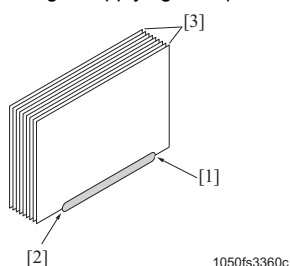
Adjusts the start position for applying glue to inside pages.

(2) Usage

Adjust when the start position for applying glue to inside pages is not adequate.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
- "Perfect Binder Adjustment Menu screen"
Press [04 Glue Start Position].
- "Pasting Start Pos. Adj. screen"
Press [Ahead] or [Back] to select which start position, for applying during forward movement or backward movement, that you want to adjust.
- Press [▼] or [▲] to select the paper size of cover paper.
Select the size of paper from the following options.
Total
8¹/₂ x 11
A4
B5
A5
5¹/₂ x 8¹/₂
16K
A4W
B5W
A5W
8¹/₂ x 11W
5¹/₂ x 8¹/₂W
Infinite
Note
 - Above paper sizes are book (the inside pages) finished sizes.
 - [Back] does not require the adjustment.
- Press [Print Mode].
- Select the paper type and press the start button to make test prints and carry out perfect binding.
- Check that the glue applying start position to the inside pages is appropriate.



[1]	Start position for frontward applying	[3]	Body
[2]	Start position for backward applying	[4]	

- To adjust the start position, press [Close].
- "Pasting Start Pos. Adj. screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -128 (earlier) to +127 (later)
1 step = 0.1mm
- Repeat the steps 4 to 10 until an appropriate value is obtained.

5.13.44 PB-503 Glue Finish Position (Perfect Binder Adjustment)

(1) Functions

Adjusts the position to finish applying glue.

(2) Usage

Adjust when the completion position for applying glue to inside pages is not adequate.

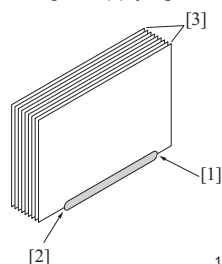
(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
3. "Perfect Binder Adjustment Menu screen"
Press [05 Glue Finish Position].
4. "Paste Finish Pos. Adj. screen"
Press [Ahead] or [Back] to select which finish position, for applying during forward movement or backward movement, that you want to adjust.
5. Press [▼] or [▲] to select the paper size of cover paper.
Select the size of paper from the following options.
Total
8¹/₂ x 11
A4
B5
A5
5¹/₂ x 8¹/₂
16K
A4W
B5W
A5W
8¹/₂ x 11 W
5¹/₂ x 8¹/₂W
Infinite

Note

- Above paper sizes are book (the inside pages) finished sizes.

6. Press [Print Mode].
7. Select the paper type and press the start button to make test prints and carry out perfect binding.
8. Check that the glue applying start position to the inside pages is appropriate.



1050fs3361c

[1]	Finish position for backward applying	[3]	Body
[2]	Finish position for frontward applying	[4]	

9. To adjust the finish position, press [Close].
10. "Paste Finish Pos. Adj. screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -128 (earlier) to +127 (later)
1 step = 0.1mm
11. Repeat the steps 4 to 10 until an appropriate value is obtained.

5.13.45 PB-503 Temperature Adjustment (Perfect Binder Adjustment)**(1) Functions**

Sets the temperatures to be detected by the glue apply roller temperature sensor (TH1), the glue tank temperature sensor/Up (TH2), the glue tank temperature sensor/Md (TH3), and the glue tank temperature sensor/Lw (TH4) provided in the glue tank.

(2) Usage

Adjust it when the applied glue does not harden or when the cover paper easily comes unglued.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
3. "Perfect Binder Adjustment Menu screen"
Press [06 Temperature Adjustment].
4. "Temperature Adjustment screen"
Press [Print Mode].
5. Select the paper type and press the start button to make test prints and carry out perfect binding.
6. Check that the glue applied has dried appropriately.
7. To adjust the dryness of the glue, press [Close].
8. "Temperature Adjustment screen"

Select the option of which the temperature is set.

The following options are provided.

- Glue Tank - Top
- Glue Tank - Mid
- Glue Tank - Low
- Glue Apply Roller

9. Enter a value through the numeric buttons and press [<<SET].

- Glue Tank - Top
Setting range: 128 °C to 136 °C
Default: 132 °C
- Glue Tank - Mid
Setting range: 140 °C to +145 °C
Default: 145 °C
- Glue Tank - Low
Setting range: 180 °C to +190 °C
Default: 185 °C
- Glue Apply Roller
Setting range: 160 °C to +170 °C
Default: 165 °C

10. Repeat the steps 4 to 9 until an appropriate value is obtained.

5.13.46 PB-503 Sub Compile CD Width Adj. (Perfect Binder Adjustment)

(1) Functions

Adjusts the alignment width of the inside pages when aligning in the main scan direction.

(2) Usage

Adjust when the alignment width of the inside pages in the main scan direction is not adequate.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
3. "Perfect Binder Adjustment Menu screen"
Press [07 Sub Compile CD Width Adj.].
4. "Sub Compile CD Width Adjustment screen"
Press [▼] or [▲] to select the paper size.
Select the size of paper from the following options.

Total

8¹/₂ x 11

A4

B5

A5

5¹/₂ x 8¹/₂

16K

A4W

B5W

A5W

8¹/₂ x 11 W

5¹/₂ x 8¹/₂ W

Infinite

Note

- Above paper sizes are book (the inside pages) finished sizes.

5. "Sub Compile CD Width Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (wider) to +20 (narrower)
1 step = 0.1mm
6. Create multiple books in normal copy mode, and check the alignment of the second and later book.
Change set value set in Step5 until a properly aligned book is created.

5.13.47 PB-503 Clamp CD Width Adjustment (Perfect Binder Adjustment)

(1) Functions

Adjusts the alignment width of the inside pages when aligning in the main scan direction.

(2) Usage

Adjust when the alignment width of the inside pages in the main scan direction is not adequate.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"

Press [09 Perfect Binder Adjustment].

3. "Perfect Binder Adjustment Menu screen"

Press [08 Clamp CD Width Adj.].

4. "Clamp CD Width Adjustment screen"

Press [▼] or [▲] to select the paper size.

Select the size of paper from the following options.

Total

8¹/₂ x 11

A4

B5

A5

5¹/₂ x 8¹/₂

16K

A4W

B5W

A5W

8¹/₂ x 11 W

5¹/₂ x 8¹/₂ W

Infinite

Note

- Above paper sizes are book (the inside pages) finished sizes.

5. "Clamp CD Width Adjustment screen"

Enter a value through the numeric buttons and press [<<SET].

Setting range: -20 (wider) to +20 (narrower)

1 step = 0.1mm

6. Create multiple books in normal copy mode, and check the alignment of the second and later book.
Change set value set in Step5 until a properly aligned book is created.

5.13.48 PB-503 Cover Up/Down CD Width Adj. (Perfect Binder Adjustment)

(1) Functions

Adjusts the positional relation in the main scan direction between the cover paper and the inside pages.

(2) Usage

Adjust when the positional relation in the main scan direction between the cover paper and the inside pages is not adequate.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
3. "Perfect Binder Adjustment Menu screen"
Press [09 Cover Up/Down CD Width Adj.].
4. "Cover Up/Down CD Width Adjustment screen"
Press [Perfect Binder Tray] or [Main Body Tray] to select the tray to be adjusted.
5. Press [Print Mode].
6. Select the paper type and press the start button to make test prints and carry out perfect binding.
7. Check if the relation between the main scan position of the cover and that of the inside pages are appropriate.
8. To adjust the relation of their main-scanning positions, press [Close].
9. "Cover Up/Down CD Width Adjustment screen"
Enter a value through the numeric buttons and press [<<SET].
Setting range: -20 (wider) to +20 (narrower)
1 step = 0.1mm
10. Repeat the steps 4 to 9 until an appropriate value is obtained.

5.13.49 PB-503 Clamp FD Position Adj. (Perfect Binder Adjustment)

(1) Functions

Adjusts the alignment width of the inside pages when aligning in the sub scan direction.

(2) Usage

Adjust when the alignment width of the inside pages in the sub scan direction is not adequate.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [09 Perfect Binder Adjustment].
3. "Perfect Binder Adjustment Menu screen"
Press [10 Clamp FD Position Adj.].
4. "Clamp FD Position Adjustment screen"
Press [▼] or [▲] to select the paper size.
Select the size of paper from the following options.

Total
 $8\frac{1}{2} \times 11$
 A4
 B5
 A5
 $5\frac{1}{2} \times 8\frac{1}{2}$
 16K
 A4W
 B5W
 A5W
 $8\frac{1}{2} \times 11$ W
 $5\frac{1}{2} \times 8\frac{1}{2}$ W
 Infinite

Note

- Above paper sizes are book (the inside pages) finished sizes.

- Press [Print Mode].
- Select the paper type and press the start button to make test prints and carry out perfect binding.
- Check if the sub scan direction of all the inside pages are properly aligned.
- To adjust the alignment width in sub-scanning direction of the inside pages, press [Close].
- "Clamp FD Position Adjustment screen"
 Enter a value through the numeric buttons and press [<<SET].
 Setting range: -20 (wider) to +20 (narrower)
 1 step = 0.1mm
- Repeat the steps 4 to 9 until an appropriate value is obtained.

Note

- If the setting is too wide, pages are misplaced in sub scan direction.
- If the setting is too narrow, mark of the FD alignment plate appears.

5.13.50 RU-510 Paper Width Adjustment (Relay Stacker Adjustment)**(1) Functions**

Adjust the position of the alignment plate operates in the main scan direction on the relay stacker (RU).

(2) Usage

Adjust it when the punch holes are misarranged in the main scan direction.

(3) Procedure

- "Service Mode Menu screen"
 Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
 Press [10 Relay Stacker Adjustment].
- "Relay Stacker Adjustment Menu screen"
 Press [01 Paper Width Adjustment].
- "Paper Width Adjustment screen"
 Press [▼] or [▲] to select the paper size.
 Select the size of paper from the following options.
 All Size
 SRA3, A3, A3W, B4, B4W, SRA4, A4, A4S, A4W, A4WS, B5, B5W, A5, A5W
 12×18 , 12×18 W, 11×17 , 11×17 W, 9×11 , $8\frac{1}{2} \times 14$, $8\frac{1}{2} \times 11$, $8\frac{1}{2} \times 11$ S, $8\frac{1}{2} \times 11$ W, $8\frac{1}{2} \times 11$ WS,
 $5\frac{1}{2} \times 8\frac{1}{2}$, $5\frac{1}{2} \times 8\frac{1}{2}$ W, 8×13 , $8\frac{1}{8} \times 13\frac{1}{4}$, $8\frac{1}{4} \times 13$, $8\frac{1}{2} \times 13$
 8K, 16K, 16KS
 Custom
- Press [Print Mode].
- Set 10 sheets of paper with a size to be adjusted.
 Set the setting to "10" to set the punch.
 Press the start button.
- Check the diameter of the through-hole when the ejected paper is stacked.

Holes	Standard value (mm)
2-Holes	φ5.0 or larger
3-Holes	φ6.5 or larger

- When the value is not within the standard value, press [Close].
- "Paper Width Adjustment screen"
 Enter a value through the numeric buttons and press [SET].
 Adjustment range: -20 (narrow) to + 20 (wide), 1 step = 0.1mm

Note

- For adjusting it, be sure to find the alignment point where the punch holes are not misarranged by setting the value to the maximum (wide) first and then changing it to narrower.

- Repeat the steps 4 to 9 until an appropriate value is obtained.

5.13.51 RU-510 Paper Length Adjustment (Relay Stacker Adjustment)**(1) Functions**

Adjust the position of the alignment plate operates in the sub scan direction on the relay stacker (RU).

(2) Usage

Adjust it when the punch holes are misarranged in the paper path direction.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [10 Relay Stacker Adjustment].
3. "Relay Stacker Adjustment Menu screen"
Press [02 Paper Length Adjustment].
4. "Paper Length Adjustment screen"
Press [▼] or [▲] to select the paper size.
Select the size of paper from the following options.
All Size
SRA3, A3, A3W, B4, B4W, SRA4, A4, A4S, A4W, A4WS, B5, B5W, A5, A5W
12 x 18, 12 x 18W, 11 x 17, 11 x 17W, 9 x 11, 8¹/₂ x 14, 8¹/₂ x 11, 8¹/₂ x 11S, 8¹/₂ x 11W, 8¹/₂ x 11WS,
5¹/₂ x 8¹/₂, 5¹/₂ x 8¹/₂W, 8 x 13, 8¹/₈ x 13¹/₄, 8¹/₄ x 13, 8¹/₂ x 13
8K, 16K, 16KS
Custom
5. Press [Print Mode].
6. Set 10 sheets of paper with a size to be adjusted.
Set the setting to "10" to set the punch.
Press the start button.
7. Check the diameter of the through-hole when the ejected paper is stacked.

Holes	Standard value (mm)
2-Holes	φ5.0 or larger
3-Holes	φ6.5 or larger

8. When the value is not within the standard value, press [Close].
9. "Paper Length Adjustment screen"
Enter a value through the numeric buttons and press [SET].
Adjustment range: -50 (narrow) to + 50 (wide), 1 step = 0.1mm

Note

- For adjusting it, be sure to find the alignment point where the punch holes are not misarranged by setting the value to the maximum (wide) first and then changing it to narrower.

10. Repeat the steps 4 to 9 until an appropriate value is obtained.

5.13.52 PI-PFU Tray Adjustment (PI-PFU Adjustment)**(1) Functions**

Adjust the paper remaining VR detection of PI-PFU each trays.

(2) Usage

Adjust it when the paper remaining detection of the PI-PFU each tray does not work properly.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [11 PI-PFU Adjustment].
3. "PI-PFU Adjustment Menu screen"
Press [01 Tray adjustment].
4. "PI-PFU Tray Adjustment Menu screen"
Press [01 Tray Amount Detection Adj.].
5. "Tray Amount Detection Adjustment screen"
Select [LOW] of the trays you want to adjust.
6. Pull out the selected tray and remove all paper.
7. Set the tray.
8. Press [Start].
After the adjustment, the message "Complete" appears.
9. "Tray Amount Detection Adjustment screen"
Select [UP] of the trays you want to adjust.
10. Pull out the selected tray and set 1 piece of paper.
11. Set the tray.
12. Press [Start].
After the adjustment, the message "Complete" appears.

13. To adjust the other trays, repeat steps 4 to 12.

5.13.53 PI-PFU Pre-registration Adjustment (PI-PFU adjustment)

(1) Functions

Adjust the paper loop amount in the registration roller section of the PI-PFU.

(2) Usage

Adjust when the paper skew or crease occurs.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [11 PI-PFU Adjustment].
- "PI-PFU Adjustment Menu screen"
Press [02 Pre-registration Adjustment].
- "Pre-registration Adjustment screen"
Select the item you adjust since the tray is adjusted by each (PI-PFU 1 to 3).
- "Pre-registration Adjustment screen"
Enter a numeric value through the numeric keys and press [Set].
Setting range: -10 (small) to +10 (large)
1 step = 1msec
- Check the skew or crease on paper in the normal mode.

Note

- Since the test print cannot be done from the service mode, check it in the normal mode which uses PI-PFU.

- Repeat the steps 4 to 6 until an appropriate value is obtained.

5.13.54 ZU-608 Z-Folding Position Adjustment (Z-Folding Unit Adjustment)

(1) Functions

Adjust the fold position on the Z-Fold position.

(2) Usage

Conduct this adjustment when the fold position on the Z-Fold position is not within the standard value

Note

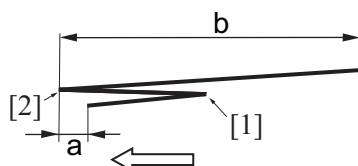
- When adjusting both the 1st fold and the 2nd fold, be sure to start with the 1st fold.
- The position of the 1st fold is based on the leading edge of paper and the position of the 2nd fold is based on the position of the 1st fold. So, the dimension "b" in the step8 varies when either position of the 1st fold and the 2nd fold is changed.

(3) Procedure

- "Service Mode Menu screen"
Press [11 Finisher Adjustment].
- "Service Mode Menu screen"
Press [05 Z-Folding Unit Adjustment].
- "Z-Folding Unit Adjustment Menu screen"
Press [01 Z-Fold Position Adjustment].
- "Z-Fold Position Adjustment screen"
Press [1st Fold] or [2nd Fold].
- "Z-Fold Position Adjustment screen"
Select the paper size that you want to adjust.
- Press [Print Mode].
- Set paper in size that you want to adjust on the Tray and press the Start key to output the test pattern (No.16).
- Confirm "a" and "b" on the output paper.

Paper Size	Standard value (mm)	
	a	b
A3	4.0 ± 2.0	202 to 209
B4		174 to 181
11×17		208 to 215
8 1/2×14	-	234.5 to 241.5
8K	4.0 ± 2.0	187 to 194

* 8 1/2×14 supports only folded in 2.



[1] 1st folding	[2] 2nd folding
-----------------	-----------------

9. When the value is not within the standard value, press [Close].
10. "Z-Fold Position Adjustment screen"
Select the paper size that you want to adjust.
11. Press [1st Fold].
12. "Z-Fold Position Adjustment screen"
Enter the setting data through the numeric buttons and press [<<Set].
Range: -128 (shorter) to +127 (longer)
1 step = 0.1mm
 - The dimension "a" in the step8 gets larger when the setting data is moved to the positive side and gets smaller when moved to the negative side.
13. Press [2nd Fold].
14. "Z-Fold Position Adjustment screen"
Enter the setting data through the numeric buttons and press [<<Set].
Range: -128 (shorter) to +127 (longer)
1 step = 0.1mm
 - The dimension "b" in the step8 gets larger when the setting data is moved to the positive side and gets smaller when moved to the negative side.
15. Repeat steps 6 to 14 until the standard value can be obtained.

5.13.55 ZU-608 Vertical position adjustment (Crosswise Dir.) (Z-Folding Unit Adjustment)

(1) Functions

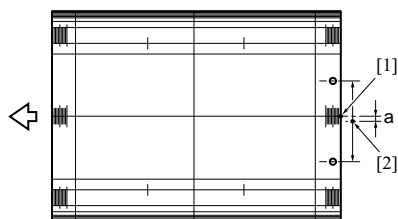
Adjust the punch position of ZU in the main scan direction.

(2) Usage

Conduct this adjustment when the punch position of ZU in the main scan direction is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [05 Z-Folding Unit Adjustment].
3. "Z-Folding Unit Adjustment Menu screen"
Press [02 Punch Adjustment].
4. "Punch Adjustment Menu screen"
Press [01 Vert. Position Adj.(CD)].
5. "Punch Vert. Position Adj.(CD) screen"
Press [▼] or [▲] to select the paper size that you want to adjust.
6. Press [Print Mode].
7. Set paper in size that you want to adjust on the Tray and press the Start key to output the test pattern (No.16).
8. Fold the output paper in half in the main scan direction, and measure the gap "a" between the center line of the print and the center of the punch hole.
Standard value "a": 0mm ± 2mm



[1] Center of the paper	[2] Center of the punch hole
-------------------------	------------------------------

9. When the value is not within the standard value, press [Close].
10. "Punch Vert. Position Adj.(CD) screen"
Enter the setting data through the numeric buttons and press [<<Set].
Range: -50 (to front) to +50 (to back)
1 step = 0.1mm
11. Repeat steps 6 to 10 until the standard value can be obtained.

5.13.56 ZU-608 Horizontal position adjustment (paper feed direction) (Z-Folding Unit Adjustment)

(1) Functions

Adjust the punch position of ZU in the sub scan direction.

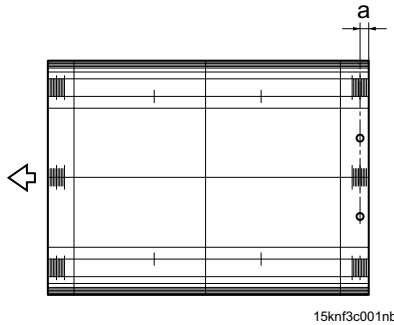
(2) Usage

Conduct this Adjustment when the punch position of ZU in the sub scan direction is not within the standard value.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].

2. "Service Mode Menu screen"
Press [05 Z-Folding Unit Adjustment].
3. "Z-Folding Unit Adjustment Menu screen"
Press [02 Punch Adjustment].
4. "Punch Adjustment Menu screen"
Press [02 Horiz. Position Adj. (FD)].
5. "Punch Horiz. Position Adj.(FD) screen"
Press [Print Mode].
6. Set paper in the tray or PI, and press Start key to print the test pattern (No.16).
7. Check the punch position "a" of the output paper in the sub scan direction.
Standard value "a":
- Inch area: 9.5mm \pm 5.0mm
- Metric area: 10.5mm \pm 5.0mm



8. When the value is not within the standard value, press [Close].
9. "Punch Horiz. Position Adj.(FD) screen"
Enter the setting data through the numeric buttons and press [<<Set].
Range: -50 (shorter) to +50 (longer)
1 step = 0.1mm
10. Repeat steps 5 to 9 until the standard value can be obtained.

5.13.57 ZU-608 Punch Registration Loop Adjustment (Z-Folding Unit Adjustment)

(1) Functions

Adjust the registration loop amount while in punching.

(2) Usage

Conduct this adjustment when punch skew, crease or paper jam at the punch registration section occurs.

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [05 Z-Folding Unit Adjustment].
3. "Z-Folding Unit Adjustment Menu screen"
Press [02 Punch Adjustment].
4. "Punch Adjustment Menu screen"
Press [03 Punch Registration Loop Adj.].
5. "Punch Registration Loop Adjustment screen"
Select the item that you want to adjust and press [Print Mode].
6. Set paper in the tray or PI, and press Start key to print the test pattern (No.16).
7. When the trouble is not solved, press [Close].
8. "Punch Registration Loop Adjustment screen"
Enter the setting data through the numeric buttons and press [<<Set].
Range: -20 (smaller) to +20 (larger)
1 step = 0.8mm
9. Repeat the steps 4 to 7 until an appropriate value is obtained.

5.13.58 ZU-608 Punch Edge Sensor Adjustment (Z-Folding Unit Adjustment)

(1) Functions

Adjust the sensitivity of the paper edge sensor automatically to detect the paper edge to ensure properly place the punch holes.

(2) Usage

Adjust the sensitivity of the sensor after replacing the ZU control board of ZU (ZUCB) or the paper edge sensor board (PESB).

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [05 Z-Folding Unit Adjustment].
3. "Z-Folding Unit Adjustment Menu screen"

- Press [02 Punch Adjustment].
- 4. "Punch Adjustment Menu screen"
Press [04 Punch Edge Sensor Adjustment].
- 5. "Punch Edge Sensor Adjustment screen"
Press [Start].
- 6. A message "Completed" is displayed when the adjustment is finished successfully.

5.13.59 Recall Standard Data

(1) Functions

Reset various setting values of the finisher adjustment to the factory initial data or the installation initial data.

(2) Usage

Conduct this adjustment when the initialization cannot be done because of the various change in the finisher adjustment items by CE.

Note

- **For Stacker Adjustment (LS), Trimmer Receiver Adjustment (SD), Stapler (Main) Adjustment (FS-532), Stapler (Fold) Adjustment (SD-510), Stapler (Punch) Adjustment (PK-522), Stapler (PI) Adjustment (PI-502), and Punch Edge Sensor Adjustment (ZU-608), the data cannot be recalled.**

(3) Procedure

1. "Service Mode Menu screen"
Press [11 Finisher Adjustment].
2. "Service Mode Menu screen"
Press [13/06 Recall Standard Data].
3. "Recall Standard Data Finisher adj. screen"
Press [Factory Initial Data] or [Installation Initial Data].

Note

- **Selecting [Factory Initial Data] recalls the factory initial data.**
- **Selecting [Installation initial data] recalls the adjustment values stored when code "90-00" of the I/O check mode was conducted.**

5.14 IC HDD format

Format the hard disk /2 (HDD2) on the print controller.

Formatting enables you to secure space/delete internal data.

5.14.1 Procedure

1. "Service Mode Menu screen"
Press [12 IC HDD Format].
2. "Service Mode Menu screen"
Press [01 IC HDD Format].
3. HDD format includes the following 5 items.
 - [All]
 - [Document]
 - [Parameter]
 - [Font]
 - [Spool]
4. Press the item you want to format.
5. "Format confirmation screen"
The message "Execute format Yes/No?" is displayed.
Press [Yes].

5.14.2 Purpose of each item

1. [All]
Formats all areas of the hard disk.
This operation is equal to performing the following 4 operations at once. Conduct this operation on such occasions as replacing the hard disk /2 (HDD2).
2. [Document]
Formats the document storage area. Conduct this operation when deleting the Scan to HDD job.
3. [Parameter]
Formats the storage area for the controller setting information.
Conduct this operation when deleting the whole setting information on the print controller (the network setting and default settings of each port, and so on).

Note

- **Be sure to output the settings information list before formatting parameters.**

4. [Font]
Formats the font data storage area.
Conduct this operation when deleting downloaded external font data.

Note

- **By formatting, all downloaded external fonts are deleted.**

5. [Spool]
Formats the spool area.
There is no need to format this area alone.

5.15 Setting data

5.15.1 Read from external memory

(1) OUTLINE

Stores each setting information stored in NVRAM board (NRB) from the machine to the USB memory and writes it from the USB memory to the machine. However, the setting data cannot be edited since it is encrypted.

(a) Setting information which is able to store/write

Data items	Data content
Paper setting data	Tray setting
	Paper Setting Register/Delete
	Register/Delete custom size
Setting menu data	Setting menu
Software DIPSW setting data	Software DIPSW
CSRC Setting Data	CSRC Setting

(2) Preparation:

Connect the USB memory to the main body connection port.

(3) Procedure

- "Service Mode Menu screen"
Press [14 Setting Data].
- "Service Mode Menu screen"
Press [01 Read from external memory].

Note

- If the USB memory is not connected to the connection port, the error message appears not to go on to the file selection screen.

- "Setting Data<Read from External Memory> screen"
Press [Next] or [Back] to select the file to be read and press [OK].

Note

- By pressing [Limit], only the file corresponded to the serial number of the machine appears.

- "Setting Data<Read from External Memory> screen"
Select the data to be read from [Paper Setting Data]/[Utility data]/[Software DIPSW Setting Data]/[CSRC Setting Data] and press [Start Reading].
- "Pop-up screen"
Press [Yes] to start reading the setting data.



Note

- Be sure not to turn OFF the main power switch (SW1) until the reading file completes.

- "Setting Data <Read from external memory> screen"
To read another setting data, press [Yes]. To finish the procedure, press [No].

Note

- By pressing [No], the machine restarts automatically.

5.15.2 Store to external memory

(1) Functions

Store the setting data from NRB to the USB memory.

(2) Preparation:

Connect the USB memory to the main body connection port.

(3) Procedure

- "Service Mode Menu screen"
Press [14 Setting Data].
- "Service Mode Menu screen"
Press [02 Store to External Memory].
- "Setting Data <Store to External Memory> screen"
Press [Start Storing].

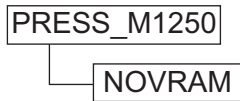
Note

- Be sure not to turn OFF the main power switch (SW1) until the storing file completes.

4. Press [OK] to return to "Setting Data <Store to External Memory screen".

(4) Folder structure of USB memory

When storing data to the USB memory and the folder is not created, it creates the next folder automatically. 4 models 1250/1250P/1052/951 share this folder.

**(5) Error list**

If the error occurs for reading from the external memory or for storing to the external memory, the error message appears. Confirm that " is displayed in the message display area.

Message	Cause of occurrence
Connection of an external memory device cannot be recognized.	1) The initialization of the USB device is not completed. 2) The USB memory is not connected to the connection port.
Could not be stored to external memory	3) Prohibit to write to the USB memory 4) Capacity shortage of the USB memory 5) Unable to execute the compression from the binary data to the ZLIB compressed data. 6) Unable to encrypt AES.
Could not be read from external memory	7) Data error on the header (2nd line) 8) Checksum abnormality 9) Unable to execute the replacement from the BASE64 data to the AES encrypt data. 10) Unable to execute the compounding of AES. 11) Unable to execute the extension from the ZLIB compressed data to the binary data.

5.15.3 Size setting rewrite**(1) Function**

Switch all setting values related to the paper size (DIPSW14-5, the user zoom setting, and size information of B series paper)

(2) Usage

When installing the main body, specify the settings that is related to the paper size to the JIS series or ISO series.

(3) Procedure

1. "Service Mode Menu screen"
Press [14 Setting Data]
2. "Service Mode Menu screen"
Press [03 Size Setting Rewrite].
3. "Size Setting Rewrite screen"
If the B size is switched from the JIS series to the ISO series, press the [B series (JIS) -> B series (ISO)]

Note

- [B series (ISO) -> B series (JIS)] is used only when JIS series is mistakenly selected. Usually do not use this setting.
- If this setting is configured, the user zoom setting value is initialized so that the zoom setting data registered by the user is deleted.

4. A pop-up message [The size setting is rewritten Yes/No ?] appears. Select either [Yes] or [No].

5.16 Log Store**5.16.1 Log Store Setting****(1) Usage**

Set the Log Store method for troubleshooting.

(2) Procedure

1. "Service Mode Menu screen"
Press [15 Log Store].
2. "Service Mode Menu screen"
Press [01 Log Store Setting].
3. "Log Store Setting screen"
Set each item.
 - "Store To"
Press [USB Memory] or [HDD].

Note

- When DIPSW18-7 is set to "1", the log cannot be stored on the HDD.

- "Encryption Password" setting

Note

- When [USB Memory] is selected on "Store To", only [ON] can be selected for "Encryption Password".

1. Press [ON].

2. "Encryption Password Input screen"

Input the password and press [OK].

Note

- The default password is "0000".
- Input the password within 16-digit.

- "Auto Log Store"

When "Auto Log Store" is set to "ON", the log is automatically stored when SC (except for HDD related SC) occurs.

Note

- Store condition

If the root directory does not have any dedicated directory for the Log Store of the serial No., the dedicated directory is created. Then an appropriate log is stored (Encryption zip) under the dedicated directory depending on the File Name which is created from Date, Time and SC Number.

Example:

/xxxxxxx/201001070925SC_48_50.zip

* xxxxxxx is the serial No.

- 100 logs can be stored at the maximum. Be sure to clear the log file when the number exceeds 100. (Refer to [I.5.16.2 Execute Log Storing](#))
 - When "USB Memory" is selected on "Store To" and the USB memory is not connected to the service port, the log is not stored automatically.
 - "Manual Log Store"
- When "Manual Log Store" is set to "ON", the log can be stored manually by [I.5.16.2 Execute Log Storing](#).
- Note**
- When "Manual Log Store" is set to [ON], [Log Store] button is displayed on "System Information" screen of Utility. User can collect the log with this button.

5.16.2 Execute Log Storing

(1) Usage

Store the log for trouble shooting manually.

Note

- When DIPSW18-7 is set to "1", the log cannot be stored on the HDD.
- 100 logs can be stored at the maximum. Be sure to clear the log file when the number exceeds 100.
- With the file name created from the date and time, the log is stored (encrypt zip) in the Log directory.

(2) Procedure

1. "Service Mode Menu screen"

Press [15 Log Store].

2. "Service Mode Menu screen"

Press [02 Execute Log Storing].

3. "Execute Log Storing screen"

The operation differs depending on the "Store To" setting in [I.5.16.1 Log Store Setting](#).

When USB memory is set as destination to which log is stored

- [Manual Log Store]: Stores the log in the USB memory.
 1. Press [Manual Log Store].
 2. [USB Memory Connection screen]

Connect the USB memory to the service port and press [OK].
- [Transfer to USB Memory]: Cannot be selected.
- [Clear Log File]: Clears the log in the USB memory.
 1. Press [Clear Log File].
 2. [USB Memory Connection screen]

Connect the USB memory to the service port and press [OK].

When HDD is set as destination to which log is stored

- [Manual Log Store]: Stores the log in HDD.
 1. Press [Manual Log Store].
- [Transfer to USB Memory]:

Transfers the log stored in the HDD to the route directory of the USB memory.

 1. Press [Transfer to USB Memory].
 2. [USB Memory Connection screen]

Connect the USB memory to the service port and press [OK].
- [Clear Log File]: Clears the log in the HDD.
 1. Press [Clear Log File].
 2. "Clear Log File screen"

Press [OK].

5.17 Auth. Device Setting

5.17.1 Auth. Unit Selection

(1) Usage

- Set the authentication device set/unset.

- Set this setting when set the authentication device (IC card authentication type).

(2) Procedure

1. "Service Mode Menu screen"
Press [16 Auth. Device Setting].
2. "Service Mode Menu screen"
Press [01 Auth. Unit Selection].
3. "Authentication Device Setting <Authentication Device Selection> screen"
Default is "Unset." Press [Authentication Device].
4. "Authentication Device Setting <Authentication Device Selection> screen"
Press [Card 1] or [Card 2].

Card 1	Use the IC Card Authentication type. (Standard)
Card 2	Use the non-contact IC Card Authentication type from third party. (Load)

- Be sure to conduct ISW of "Loadable Device Driver" before using the Card 2.
 - Be sure to turn OFF/ON the main power switch (SW1), after the Card 2 is set.
5. "Authentication Device Setting <Authentication Device Selection> screen"
Press [OK].

5.17.2 Loadable Driver Install

(1) Function

- Install the Loadable Device Driver by the USB Memory device.

(2) Usage

- As the default, the card reader driver of AU-201 is installed. When use a card reader other than AU-201, install the dedicated Loadable Device Driver.

(3) Preparation:

Connect the USB Memory which is written the drive data of the Loadable Device to be used into the connecting port.

Note

- **Be sure to connect the USB Memory while the main power switch and the sub power switch are OFF.**

(4) Procedure

1. Turn on the main power switch and the sub power switch.
2. "Service Mode Menu screen"
Press [16 Auth. Device Setting].
3. "Service Mode Menu screen"
Press [02 Loadable Driver Install].
4. "Firmware Update screen"
Press [Start] to start installing the Loadable Driver.
5. "Firmware Update screen"
A message to inform the install completion ("Download Completed") and checksum (xxxx) is displayed.
6. Turn off the main power switch and the sub power switch.
7. Remove the USB memory from the connecting port.
8. Turn on the main power switch and the sub power switch.

5.18 ORU-M Setting (1250/1250P/1052 only)

5.18.1 ORU-M Target Setting

(1) Usage

Set the ORU-M Item unit.

Note

- **ORU-M has to be enabled to select this setting. (The default is disabled.) To enable ORU-M, set DIPSW15-0: 1.**

(2) Procedure

1. "Service Mode Menu screen"
Press [17 ORU-M Setting].
2. "Service Mode Menu screen"
Press [01 ORU-M Item Setting].
3. "ORU-M Item Setting screen"
To set ORU-M Item, press [Enable] for the unit to register.

Note

- **The Fusing Cleaning Web and the Fusing Unit cannot be set to [Enable] at the same time.**

5.18.2 ORU-M Life Threshold Setting

(1) Usage

Set whether to display the ORU-M Item unit in the ORU-M Mode by the life value. Set the threshold with percent.

When the ORU-M object unit is set to "Enable", the units whose life value reaches the display threshold setting are displayed in the ORU-M mode.

Note

- **ORU-M has to be enabled to select this setting. (The default is disabled.) To enable ORU-M, set DIPSW15-0: 1.**

(2) Procedure

1. "Service Mode Menu screen"
Press [17 ORU-M Setting].
2. "Service Mode Menu screen"
Press [02 ORU-M Life Threshold Setting].
3. "ORU-M Life Threshold Setting screen"
Enter a value through the numeric buttons and press [<<SET].
 - 1 step = 1%
 - **Note**
 - **Default is 0%.**

5.18.3 ORU-M Password Setting**(1) Usage**

Set the password to enter the ORU-M Mode.

Note

- **ORU-M has to be enabled to select this setting. (The default is disabled.) To enable ORU-M, set DIPSW15-0: 1.**
- **This setting is valid when the DIPSW43-0=1.**

(2) Procedure

1. "Service Mode Menu screen"
Press [17 ORU-M Setting].
2. "Service Mode Menu screen"
Press [03 ORU-M Password Setting].
3. "ORU-M Password Setting screen"
Press [New Password], then a keyboard screen appears. Enter new password (4 digits) using the alphanumeric keys and then press [OK].
4. Press [Input Confirmation], then a keyboard screen appears. Enter new password (4 digits) using the alphanumeric keys again and then press [OK].

6. FEE COLLECTION SETTING

6.1 Fee Collection Setting List

Adjustment/Setting Item	
Billing Setting	01 Manage OpenAPI Auth.
	02 Billing Counter Coef. Set.

6.2 Start/exit

(1) Usage

Set up the various settings concerning the Billing Setting from the "Billing Setting Menu screen".

(2) Procedure

- "Service Mode Menu screen"
Before selecting any item in the service mode, press the hard keys in the order shown below.
Stop → 9
- "Billing Setting Menu screen"
Billing setting mode is activated. Set the various billing setting.
- "Billing Setting Menu screen"
Select the item to be set to display the setting screen of each item.
- "Billing Setting Menu screen"
Press [Close] to return to the "Service Mode screen."

6.3 Manage OpenAPI Auth.

6.3.1 Restriction Code

(1) Function

- Register [Index], [Vendor] and [Application] to the restriction code.
 - Maximum 8 one-byte alphanumeric characters can be registered.
 - Maximum 10 codes can be registered.

(2) Usage

- This setting is a communication setting with an application which developed by other companies. Do not change this setting without using.

6.4 Billing Coefficient Setting

(1) Usage

Set the count coefficient for each paper type and size of the billing counter.

The counting method differs depending on the customer. In order to cope with this situation, change the coefficient.

Note

When the coefficient is changed, the count value of the billing coefficient differs from actual number of printed sheets.

(2) Functions

Set the calculation of the billing counter that is displayed on Web Utilities and the coefficient to display the counter.

Note

In case of 1250/1250P/1052, the default setting of DIPSW8-6 is "1".

· In case of 951, set DIPSW8-6=1 to display this screen.

When the coefficient setting value is changed, the total value of the Web Utilities and the billing total counter value differ because of the following approach.

For the display on the Web Utilities, since the main body sends each counter and calculates on Web Utilities, new coefficient is used for the counter before changing the coefficient to calculate.

Since the display on the main body panel is calculated and accumulated for each output page, the coefficient after the change is used only for the output after the change when the coefficient is changed. (The counter before changing the coefficient is not changed.)

(3) Procedure

- "Billing Setting Menu screen"
Press [02 Billing Counter Coef. Set.].
- "Billing Counter Coef. Setting screen"
Press the number to be set from the Table of combination of Paper Type and Paper length to select.
Items can be set for 951

Type of paper	Paper length (In paper feed direction)			
	Less than 298mm	Between 298mm and 331mm	Between 331mm and 391mm	391mm or more
Plain	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0

Items can be set for 1250/1250P/1052

Type of paper	Paper length (In the paper feed direction)			
	Less than 298mm	Between 298mm and 331mm	Between 331mm and 391mm	391mm or more
Plain	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0

Embossed2	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0
Envelope	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0	1.0 to 4.0

3. Enter a value with the numeric buttons.
 - Setting Range
: 1.0 to 4.0
4. To set other coefficient, repeat steps 2 to 3.
5. Press [OK] to activate the setting, and the "Billing Setting Menu screen" is displayed.
Press [Cancel] to cancel updating.

7. CE/ADMINISTRATOR SECURITY SETTING

7.1 CE/Administrator Security Setting List

Adjustment/setting item	
CE/Administrator Security Setting	01 CE Authentication
	02 Authentication Password
	03 Admin. Authentication
	04 Machine Manager Password

Important

Conditions for setting the security enhance mode to ON

- **CE Authentication: [ON]**
- **Administrator Authentication: [ON]**
- DIPSW40-0-1 (Carrying over the job for next day: Disabled)
- DIPSW16-7-0 (NIC of E-Mail CS Remote Care: Use the controller NIC)
- Removal HDD is not used

7.2 Start/exit

(1) Usage

The CE/Admin. Security Setting Menu can be set on the "CE/Admin. Security Setting Menu screen" in the CE/Admin. Security Mode.

(2) Procedure

1. "Service Mode Menu screen"
Before selecting any item in the service mode, press the hard keys in the order shown below.
Stop → 0 → C
2. "CE/Administrator Security Setting Menu screen"
The CE/Administrator security mode starts up and the CE/Administrator Security Setting becomes available.
3. "CE/Administrator Security Setting Menu screen"
Select the item to be set to display the setting screen of each item.
4. "CE/Administrator Security Setting Menu screen"
Press [Close] to return to the "Service Mode screen."

Important

- The setting [06 Administrator Setting] in [07 Security Setting] in [03 Enhanced Security Mode] is available only when the CE Authentication and Admin. Authentication are set to [ON].

7.3 CE Authentication

(1) Usage

To strengthen security of the service mode, configure the setting so that a password is required to enter the service mode.

Note

To set the security enhance mode ON, this setting has to be "ON".

(2) Procedure

1. "CE/Administrator Security Setting Menu screen"
Press [01 CE Authentication].
2. "CE Authentication ON/OFF screen"
Press [ON] or [OFF].
3. When [OK] is pressed, the setting becomes valid and "CE/Administrator Security Setting Menu screen" is displayed.
4. Press [Cancel] to cancel updating.

7.4 CE Auth. Password

(1) Usage

Configure a password to enter the service mode.

Note

- Do not use anything easily guessed by others such as your name, birthday.
- CE should not inform other people of the password.
- The selection of the [CE Authentication Password] key is limited to only when the CE authentication setting is set to [ON].

(2) Procedure

1. "CE/Administrator Security Setting Menu screen"
Press [02 CE Authentication Password].
2. "CE Authentication Password screen"
Press [Current Password], then a keyboard screen appears. Enter the current password (8 digits) using the alphanumeric keys and then press [OK].
Default is "92729272."
When entering wrong password, the message "Password is incorrect" is displayed.
3. Press [New Password], then a keyboard screen appears. Enter new password (8 digits) using the alphanumeric keys and then press [OK].
4. Press [Input Confirmation], then a keyboard screen appears. Enter new password (8 digits) using the alphanumeric keys again and then press [OK].
5. "CE Authentication Password screen"
When [OK] is pressed, the setting becomes valid and "CE/Administrator Security Setting Menu screen" is displayed.

Press [Cancel] to cancel updating.

7.5 Admin. Authentication

(1) Usage

To strengthen security of the machine manager setting of the setting menu mode, configure the setting so that a password is required to enter the machine manager setting.

Note

To set the security enhance mode ON, this setting has to be "ON".

(2) Procedure

1. "CE/Administrator Security Setting Menu screen"
Press [03 Admin. Authentication].
2. "Admin. Authentication ON/OFF Setting screen"
Press [ON] or [OFF].
3. When [OK] is pressed, the setting becomes valid and "CE/Administrator Security Setting Menu screen" is displayed.
Press [Cancel] to cancel updating.

7.6 Administrator Password

(1) Usage

Configure a password to enter the Administrator Setting of the Utility.

The administrator password can also be set in the Administrator Setting of the Utility.

Note

- **When setting or changing the administrator password, CE must ask the administrator of the customer to change the administrator password promptly.**
- **Do not use anything easily guessed by others such as your name, birthday.**
- **The selection of the [Administrator Password] key is limited only when the Admin. Authentication setting is set to [ON].**

(2) Procedure

1. "CE/Administrator Security Setting Menu screen"
Press [04 Administrator Password].
2. "Administrator Password screen"
3. Press [New Password], then a keyboard screen appears. Enter new password (8 digits) using the alphanumeric keys and then press [OK].
Press [OK].
4. Press [Input Confirmation], then a keyboard screen appears. Enter new password (8 digits) using the alphanumeric keys again and then press [OK].
5. "Administrator Password screen"
When [OK] is pressed, the setting becomes valid and "CE/Administrator Security Setting Menu screen" is displayed.
Press [Cancel] to cancel updating.

8. ADJUSTMENT FOR POD

8.1 Process adjustment

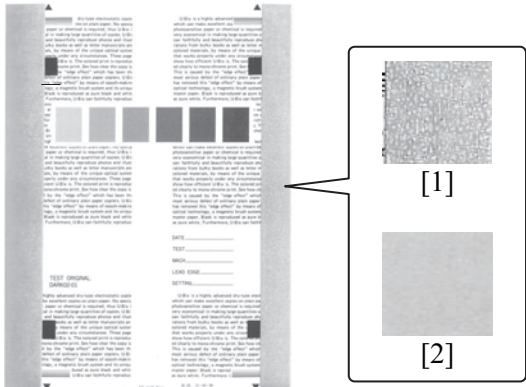
8.1.1 OUTLINE

This adjustment shows the directions of each adjustment of [Process Adjustment] that is displayed in the [Tray Setting]. When adjusting each item, check the problem, the paper on which it tends to occur, the paper weight and the environment in which it tends to occur to make a proper adjustment.

Separate setting can be set for each tray by setting offset to the adjustment value set in this setting. However, since it is possible that a trouble such as image fault occurs when excessive adjustment is performed, adjust carefully.

8.1.2 Image Trouble sample of genesis phenomenon

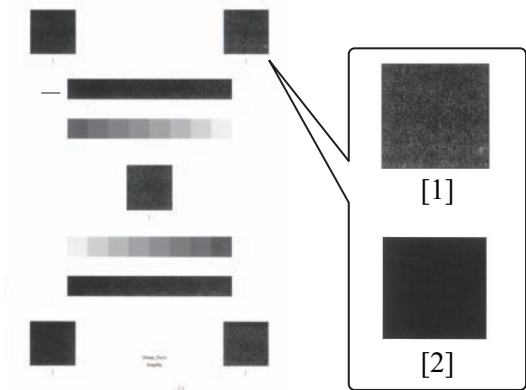
(1) Transfer repelling



[1] Image with transfer repelling	[2] Normal image
-----------------------------------	------------------

The transfer repelling is a symptom where the toner transferred by the discharge at the paper is flicked out when the transfer field becomes too excessive.

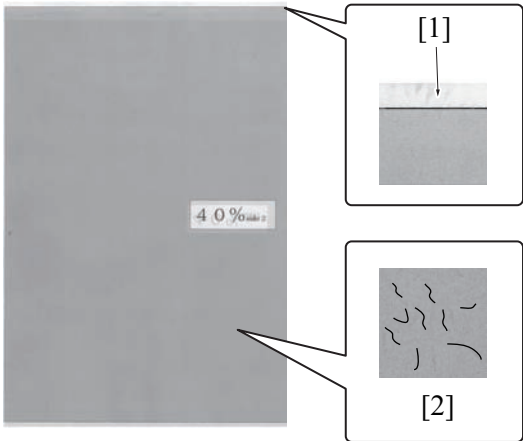
(2) poor transfer



[1] Poor transfer image	[2] Normal image
-------------------------	------------------

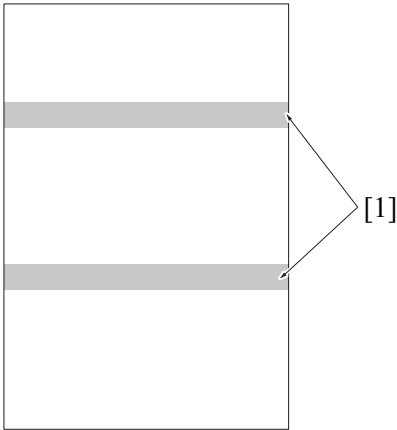
Poor transfer is a symptom where the toner transfer to the paper is insufficient by the shortage of the transfer field.

(3) Discharge image noise



[1]	Discharge image noise (Leading edge of the back side)	[2]	Discharge image noise (Middle of the back side)
-----	---	-----	---

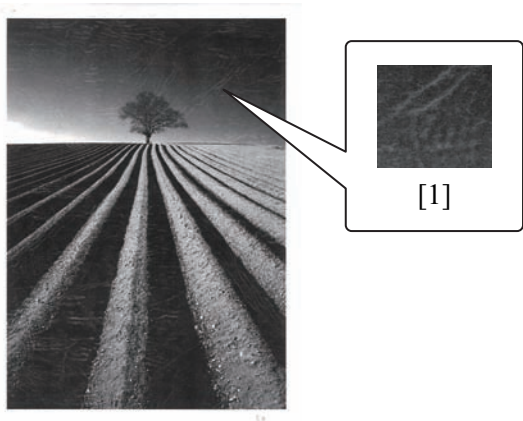
(4) NCR paper with the color changed



[1]	Trails of rollers	-
-----	-------------------	---

A symptom that the overlapped NCR papers conveyed by RU-510 changes in color by the roller pressure of post-processing option.
(1250/1250P only)

(5) Transfer missing on the paper depressed part



[1]	Transfer missing on the depressed part	-
-----	--	---

Transferability is degraded at the depressed part of the paper with a rough surface like Embossed2, and the amount of the tonar attached on the surface decreases.

(6) Dark image density



[1]



[2]

[1] Image in the Embossed setting

[2] Image in the Embossed2 setting

By comparing the images both in the embossed setting and in the embossed2 setting, the halftone is darker in the embossed2 setting. Therefore, the tone jump may occur on the image with the continuous tone.

8.1.3 Transfer Offset Adjustment (Offset Lead Edge 1(Front))

(1) Measure taken according to cause

1. Drum separation error
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - 40 g/m² to 91 g/m²
 3. Environment in which it tends to occur
 - High to normal humidity condition
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
 Setting Range
: - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling or belt separation error is possible to occur.
 - Enter the same value as "1.8.1.5 Transfer Offset Adjustment (Offset Lead Edge 2(Front))".
 - Change the edge1 and edge2 at the same time
2. Belt separation error
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - 40 g/m² to 61 g/m²
 3. Environment in which it tends to occur
 - Unidentified
 4. Adjustment method
 1. Adjust to the negative side
 2. Adjust negatively by 10steps until the proper condition can be obtained.
 Setting Range
: - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in minus direction, it is possible that the density decrease or the drum separation error occur because of the poor transfer.
 - Enter the same value as "1.8.1.5 Transfer Offset Adjustment (Offset Lead Edge 2(Front))".
 - Change the edge1 and edge2 at the same time
3. Discharge image noise (Pedatfid)
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - 40 g/m² to 61 g/m²
 3. Environment in which it tends to occur
 - Low humidity environment
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
 Setting Range
: - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling or belt separation error is possible to occur.

- Enter the same value as "[I.8.1.5 Transfer Offset Adjustment \(Offset Lead Edge 2\(Front\)\)](#)".

8.1.4 Transfer Offset Adjustment (Offset Lead Edge 1(Back))

(1) Measure taken according to cause

- Drum separation error
 - Paper on which it tends to occur
 - Unidentified
 - Paper weight
 - 40 g/m² to 91 g/m²
 - Environment in which it tends to occur
 - High to normal humidity condition
 - Adjustment method
 - Adjust to the positive side
 - Adjust positively by 10steps until the proper condition can be obtained.
Setting Range
: - 128 to + 127
 - Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling or belt separation error is possible to occur.
 - Enter the same value as "[I.8.1.6 Transfer Offset Adjustment \(Offset Lead Edge 2\(Back\)\)](#)".
 - Change the edge1 and edge2 at the same time
- Belt separation error
 - Paper on which it tends to occur
 - Unidentified
 - Paper weight
 - 40 g/m² to 61 g/m²
 - Environment in which it tends to occur
 - Unidentified
 - Adjustment method
 - Adjust to the negative side
 - Adjust negatively by 10steps until the proper condition can be obtained.
Setting Range
: - 128 to + 127
 - Precaution related to other adjustments
 - When the steps are moved too much in minus direction, it is possible that the density decrease or the drum separation error occur because of the poor transfer.
 - Enter the same value as "[I.8.1.6 Transfer Offset Adjustment \(Offset Lead Edge 2\(Back\)\)](#)".
 - Change the edge1 and edge2 at the same time
- Discharge image noise (Pedatified)
 - Paper on which it tends to occur
 - Unidentified
 - Paper weight
 - 40 g/m² to 61 g/m²
 - Environment in which it tends to occur
 - Low humidity environment
 - Adjustment method
 - Adjust to the positive side
 - Adjust positively by 10steps until the proper condition can be obtained.
Setting Range
: - 128 to + 127
 - Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling or belt separation error is possible to occur.
 - Enter the same value as "[I.8.1.6 Transfer Offset Adjustment \(Offset Lead Edge 2\(Back\)\)](#)".

8.1.5 Transfer Offset Adjustment (Offset Lead Edge 2(Front))

(1) Measure taken according to cause

- Drum separation error
 - Paper on which it tends to occur
 - Unidentified
 - Paper weight
 - 40 g/m² to 91 g/m²
 - Environment in which it tends to occur
 - High to normal humidity condition
 - Adjustment method
 - Adjust to the positive side
 - Adjust positively by 10steps until the proper condition can be obtained.
Setting Range
: - 128 to + 127
 - Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling or belt separation error is possible to occur.
 - Enter the same value as "[I.8.1.3 Transfer Offset Adjustment \(Offset Lead Edge 1\(Front\)\)](#)".
 - Change the edge1 and edge2 at the same time
- Belt separation error
 - Paper on which it tends to occur
 - Unidentified
 - Paper weight

- 40 g/m² to 61 g/m²
- 3. Environment in which it tends to occur
 - Unidentified
- 4. Adjustment method
 1. Adjust to the negative side
 2. Adjust negatively by 10steps until the proper condition can be obtained.
Setting Range
: - 128 to + 127
 3. Change the edge1 and edge2 at the same time
- 5. Precaution related to other adjustments
 - When the steps are moved too much in minus direction, it is possible that the density decrease or the drum separation error occur because of the poor transfer.
 - Enter the same value as "[I.8.1.3 Transfer Offset Adjustment \(Offset Lead Edge 1\(Front\)\)](#)".
- 3. Discharge image noise (Pedatifid)
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - 40 g/m² to 61 g/m²
 3. Environment in which it tends to occur
 - Low humidity environment
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
Setting Range
: - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling or belt separation error is possible to occur.
 - Enter the same value as "[I.8.1.3 Transfer Offset Adjustment \(Offset Lead Edge 1\(Front\)\)](#)".

8.1.6 Transfer Offset Adjustment (Offset Lead Edge 2(Back))

(1) Measure taken according to cause

1. Drum separation error
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - 40 g/m² to 91 g/m²
 3. Environment in which it tends to occur
 - High to normal humidity condition
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
Setting Range
: - 128 to + 127
 3. Change the edge1 and edge2 at the same time
 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling or belt separation error is possible to occur.
 - Enter the same value as "[I.8.1.4 Transfer Offset Adjustment \(Offset Lead Edge 1\(Back\)\)](#)".
2. Belt separation error
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - 40 g/m² to 61 g/m²
 3. Environment in which it tends to occur
 - Unidentified
 4. Adjustment method
 1. Adjust to the negative side
 2. Adjust negatively by 10steps until the proper condition can be obtained.
Setting Range
: - 128 to + 127
 3. Change the edge1 and edge2 at the same time
 5. Precaution related to other adjustments
 - When the steps are moved too much in minus direction, it is possible that the density decrease or the drum separation error occur because of the poor transfer.
 - Enter the same value as "[I.8.1.4 Transfer Offset Adjustment \(Offset Lead Edge 1\(Back\)\)](#)".
3. Discharge image noise (Pedatifid)
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - 40 g/m² to 61 g/m²
 3. Environment in which it tends to occur
 - Low humidity environment
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
Setting Range

: - 128 to + 127

5. Precaution related to other adjustments

- When the steps are moved too much in plus direction, the transfer repelling or belt separation error is possible to occur.
- Enter the same value as "I.8.1.4 Transfer Offset Adjustment (Offset Lead Edge 1(Back))".

8.1.7 Transfer Offset Adjustment (Offset Lead Edge 3(Front))

Usually, do not use this adjustment in the field.

8.1.8 Transfer Offset Adjustment (Offset Lead Edge 3(Back))

Usually, do not use this adjustment in the field.

8.1.9 Transfer Offset Adjustment (Offset Center(Front))

(1) Measure taken according to cause

1. poor transfer

1. Paper on which it tends to occur

- Unidentified

2. Paper weight

- Unidentified

3. Environment in which it tends to occur

- Unidentified

4. Adjustment method

1. Adjust to the positive side

2. Adjust positively by 10steps until the proper condition can be obtained.

Setting Range

: - 128 to + 127

5. Precaution related to other adjustments

- When the steps are moved too much in plus direction, the transfer repelling is possible to occur.

2. Discharge image noise (Pedatified)

1. Paper on which it tends to occur

- Fine, Plain

2. Paper weight

- Thin paper

3. Environment in which it tends to occur

- Unidentified

4. Adjustment method

1. Adjust to the positive side

2. Adjust positively by 10steps until the proper condition can be obtained.

Setting Range

: - 128 to + 127

5. Precaution related to other adjustments

- When the steps are moved too much in plus direction, the transfer repelling is possible to occur.

3. Transfer repelling

1. Paper on which it tends to occur

- Unidentified

2. Paper weight

- Thick

3. Environment in which it tends to occur

- Low humidity environment

4. Adjustment method

1. Adjust to the negative side

2. Adjust negatively by 10steps until the proper condition can be obtained.

Setting Range

: - 128 to + 127

5. Precaution related to other adjustments

- When the steps are moved too much in minus direction, it is possible that the density decrease or the discharge image noise (pedatified) occur because of the poor transfer.

8.1.10 Transfer Offset Adjustment (Offset Center(Back))

(1) Measure taken according to cause

1. poor transfer

1. Paper on which it tends to occur

- Unidentified

2. Paper weight

- Unidentified

3. Environment in which it tends to occur

- Unidentified

4. Adjustment method

1. Adjust to the positive side

2. Adjust positively by 10steps until the proper condition can be obtained.

Setting Range

: - 128 to + 127

5. Precaution related to other adjustments

- When the steps are moved too much in plus direction, the transfer repelling is possible to occur.

2. Discharge image noise (Pedatified)

1. Paper on which it tends to occur

- Fine, Plain
- 2. Paper weight
 - Thin paper
- 3. Environment in which it tends to occur
 - Unidentified
- 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
 Setting Range
 : - 128 to + 127
- 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling is possible to occur.
- 3. Transfer repelling
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - Thick
 3. Environment in which it tends to occur
 - Low humidity environment
 4. Adjustment method
 1. Adjust to the negative side
 2. Adjust negatively by 10steps until the proper condition can be obtained.
 Setting Range
 : - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in minus direction, it is possible that the density decrease or the discharge image noise (pedatified) occur because of the poor transfer.

8.1.11 Transfer Offset Adjustment (Offset Rear Edge(Front))

(1) Measure taken according to cause

1. poor transfer
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - Unidentified
 3. Environment in which it tends to occur
 - Unidentified
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
 Setting Range
 : - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling is possible to occur.
2. Discharge image noise (Pedatified)
 1. Paper on which it tends to occur
 - Fine, Plain
 2. Paper weight
 - Thin paper
 3. Environment in which it tends to occur
 - Unidentified
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
 Setting Range
 : - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling is possible to occur.
3. Transfer repelling
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - Thick
 3. Environment in which it tends to occur
 - Low humidity environment
 4. Adjustment method
 1. Adjust to the negative side
 2. Adjust negatively by 10steps until the proper condition can be obtained.
 Setting Range
 : - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in minus direction, it is possible that the density decrease or the discharge image noise (pedatified) occur because of the poor transfer.

8.1.12 Transfer Offset Adjustment (Offset Rear Edge(Back))

(1) Measure taken according to cause

1. poor transfer
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - Unidentified
 3. Environment in which it tends to occur
 - Unidentified
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
 Setting Range
: - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling is possible to occur.
2. Discharge image noise (Pedatified)
 1. Paper on which it tends to occur
 - Fine, Plain
 2. Paper weight
 - Thin paper
 3. Environment in which it tends to occur
 - Unidentified
 4. Adjustment method
 1. Adjust to the positive side
 2. Adjust positively by 10steps until the proper condition can be obtained.
 Setting Range
: - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in plus direction, the transfer repelling is possible to occur.
3. Transfer repelling
 1. Paper on which it tends to occur
 - Unidentified
 2. Paper weight
 - Thick
 3. Environment in which it tends to occur
 - Low humidity environment
 4. Adjustment method
 1. Adjust to the negative side
 2. Adjust negatively by 10steps until the proper condition can be obtained.
 Setting Range
: - 128 to + 127
 5. Precaution related to other adjustments
 - When the steps are moved too much in minus direction, it is possible that the density decrease or the discharge image noise (pedatified) occur because of the poor transfer.

8.1.13 Fusing pressure setting (1250/1250P/1052 only)

(1) Measure taken according to cause

1. Insufficient fusing
 1. Paper on which it tends to occur
 - Fine, Plain
 2. Paper weight
 - Thin to plain paper
 3. Environment in which it tends to occur
 - Low to normal temperature
 4. Adjustment method
 1. Refer to "I.8.2.14 User setting of each paper brand" to check the pressure level.
 2. Raise the pressure level one by one to be higher than the level confirmed in the step 1, and make it appropriate for improving the symptom.
 Setting Range
: The pressure gets stronger by setting to [Very Weak Pressure] → [Weak Pressure] → [Medium Pressure] → [Strong Pressure] in order.
 5. Precaution related to other adjustments
 - It is possible that too excessive adjustment makes the paper more curled.
2. Excessive curling
 1. Paper on which it tends to occur
 - Fine, Plain
 2. Paper weight
 - Thin paper
 3. Environment in which it tends to occur
 - Normal to high humidity condition
 4. Adjustment method
 1. Refer to "I.8.2.14 User setting of each paper brand" to check the pressure level.
 2. Lower the pressure level one by one to be higher than the level confirmed in the step 1, and make it appropriate for improving the symptom.
 Setting Range

: The pressure gets weaker by setting to [Weak Pressure] → [Medium Pressure] → [Strong Pressure] → [Very Weak Pressure] in order.

5. Precaution related to other adjustments

- It is possible that too much adjustment makes the fusing insufficient.

8.1.14 Process line speed setting

(1) Measure taken according to cause

1. NCR paper changes in color (1250/1250P only).

1. Paper on which it tends to occur
 - NCR paper
2. Paper weight
 - Unidentified
3. Environment in which it tends to occur
 - Unidentified
4. Adjustment method
 1. Set to [Mid Speed]

Setting Range

: [High Speed]/[Mid Speed]/[Low Speed]

* [Mid Speed] is only for 1250/1250P

The setting value of each machine is as follows.

	1250/1250P	1052	951
High Speed	570mm/s	490mm/s	460mm/s
Mid Speed	490mm/s	-	-
Low Speed	330mm/s	330mm/s	290mm/s

5. Precaution related to other adjustments

- Default speed is [Mid Speed] or [Low Speed], [High Speed] is not selectable
- Default speed is [Low Speed], [Mid Speed] is not selectable
- Change in the process speed is only applied for the following types and weights of papers.
 - Paper type: Coated, PrePrinted, Fine, Plain, Book/News, Embossed
 - Paper weight: 40 to 74g/m²

8.1.15 Density level of the Embossed2 (1250/1250P/1052 only)

(1) Measure taken according to cause

1. Transfer missing on the paper depressed part

1. Paper on which it tends to occur
 - Paper with a rough surface
2. Paper weight
 - Unidentified
3. Environment in which it tends to occur
 - Unidentified
4. Adjustment method
 1. Raise by 1 level.

Setting Range

: [Level 1]/[Level 2]/[Level 3]

* Default is [Level 3]

5. Precaution related to other adjustments

- Raising the level increases the toner consumption.

2. Dark image density

1. Paper on which it tends to occur
 - Unidentified
2. Paper weight
 - Unidentified
3. Environment in which it tends to occur
 - Unidentified
4. Adjustment method
 1. Reduce by 1 level.

Setting Range

: [Level 1]/[Level 2]/[Level 3]

* Default is [Level 3]

5. Precaution related to other adjustments

- Reducing the level leads to the easier occurrence of the transfer missing on the depressed part.

8.2 Image quality/improving paper feeding adjustment

8.2.1 OUTLINE

This section describes the methods of adjustments to improve image quality (the front and back registration, image density, transfer jitter) and paper feeding in response to customers (especially POD customers) who demand even higher quality of image and feeding than the factory settings.

8.2.2 The front and back registration

Align image printing position on the front side and back side.
Misalignment of image printing position occurs for the following reasons.

- The image leading edge on the front and back side are different. Thus, in case leading edge timings are misaligned, image positions on the front and back side are misaligned.
- Even the standard-size papers are not cut off according to the standard size.
- A paper that passes the fusing section becomes smaller because of moisture evaporation of the paper due to heat. In duplex printing, the front side passes the fusing section twice and the back side passes once, thus image on the front side becomes smaller than the back side.
- The shrinkage ratio in passing the fusing section is different depending on the paper type, paper brand, temperature/humidity of a paper storage location. To adjust misalignment due to these factors, use the front and back adjustment in the user mode, selecting [MACHINE] - [Register Type/Weight]. To adjust misalignment due to individual difference of each tray, select the tray you want to adjust in the user mode, selecting [MACHINE] - [Tray Setting]. Then, select [Change Set] - [Both Sides Adj.] in the [Change individualSet] to make an adjustment.

8.2.3 The front and back registration (printer) (front and back registration)

(1) Procedure

1. Adjust the paper skew on both side.
With the registration roller paper skew adjustment in the mechanical adjustment, adjust the skew of the sub scan direction on both side to be parallel to each other.

1050fs3350c

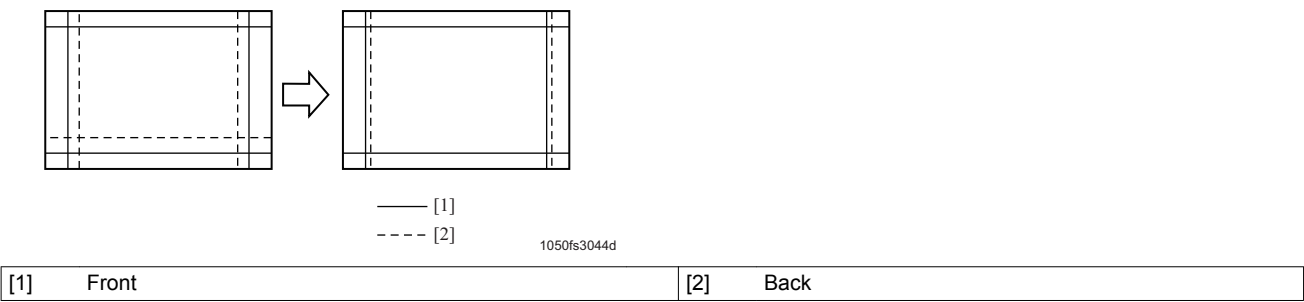
[1] Front	[2] Back
-----------	----------

2. Use the service mode to adjust various image timing in the front side of printer system.
Note
 - With the [Printer Centering Adjustment] in the service mode, there is no adjustment for individual tray. In case you must adjust individual tray, select the user mode, selecting [MACHINE] - [Tray Setting]. Then, select [Change Set] - [Both Sides Adj.] in the [Change individualSet] to make adjustment with the Image Shift function.
3. Adjust the leading edge timing of the back side.
Use [Printer Restart Timing Adjustment(Side2)] in the service mode. Use the cross on the figure A to align the leading edge timing of the back side to the timing of the front side.

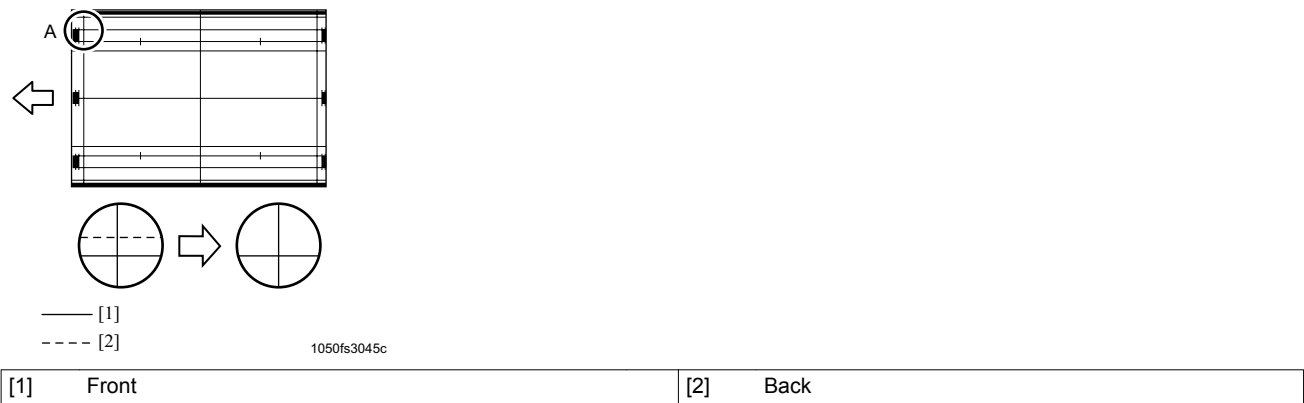
1050fs3043c

[1] Front	[2] Back
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4. Align the magnification of the back side to the front side.
Use [Printer FD-Mag. Adjustment (Side2)] and [Printer CD-Mag. Adjustment (Side2)] to align magnification of the back side to the front side.



5. Adjust the centering of the back side.
At the user mode, select the tray you want to adjust from [MACHINE] - [Tray Setting]. Then, select [Change Set] - [Both Sides Adj.] in the [Change individualSet] to make adjustment. Use the Image Shift function to align the centering of the back side on the figure A to the front side.
- Note
- With the [Printer Centering Adjustment] in the service mode, there is no adjustment for individual tray.
 - Since a test pattern cannot be output in the user mode, output an image from a PC to confirm the image centering or use [Test Pattern Output Mode] in Service mode.
 - The [Tray Setting] you set in step4 is an individual adjustment, in which the updated settings are not applied to the registered paper type. Thus, to change the registered paper type, select the paper name key you want to adjust in [MACHINE] - [Paper Setting Reg./Del.]. Make the adjustment with the Image Shift function of [Both Sides Adj.].

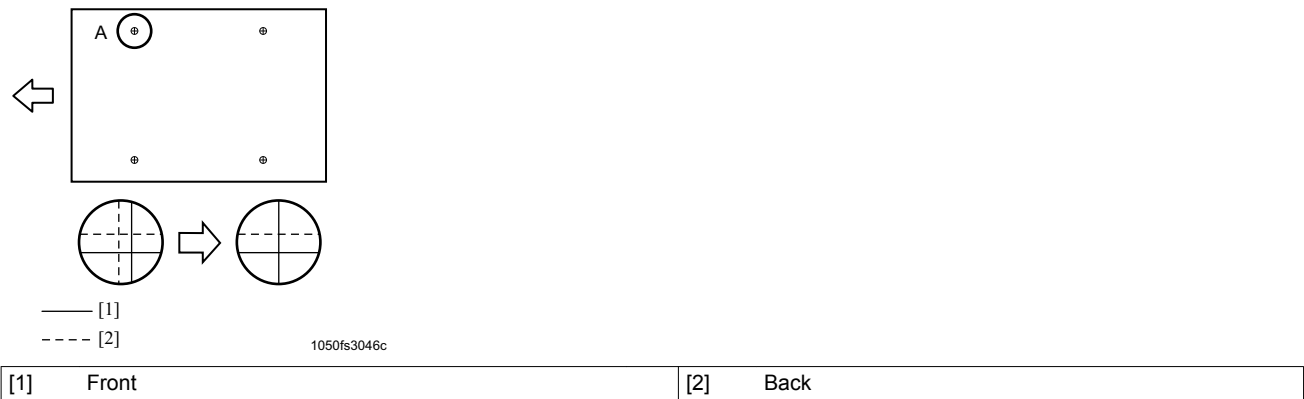


8.2.4 The front and back registration (scanner) (front and back registration)

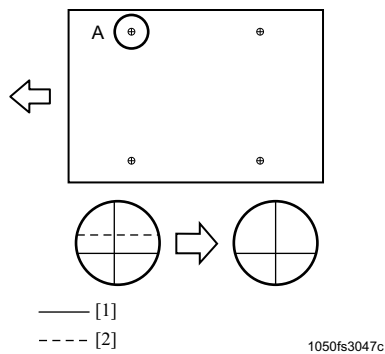
- Note
- Be sure that the following adjustments are done.
"I.5.3.11 Scanner FD-Mag. Adj. (Magnification Adjustment)"
"I.5.3.35 Distortion Adjustment"
 - This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(1) Procedure

1. Align the leading edge timing of both sides.
Use [Scanner Restart Timing Adjustment] in the service mode. Use the cross on the figure A to align the leading edge timing of both sides.

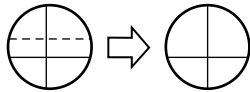
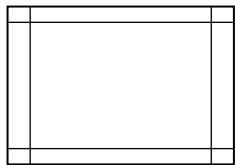
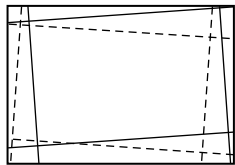
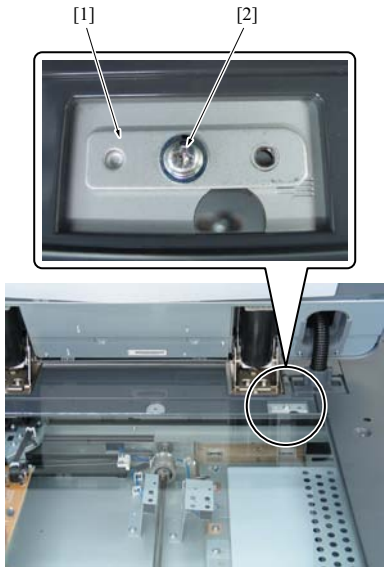


2. Align the centering and the magnification of both sides.
Use Image Shift in the [Both Sides Adj.] to align the centering of both sides on the figure A.



[1] Front	[2] Back
-----------	----------

3. Adjust the original skew.
Remove the original stopper plate /Rr, and mark the current position of the adjustment plate [1] with something like a pencil. Loosen the screw [2] to move the adjustment plate [1] up and down, thus adjusting the mounting position of the original stopper plate /Rr.



— [1]
--- [2]

1050fs3048c

[1] Front	[2] Back
-----------	----------

4. Perform steps 1 and 2 to adjust the misalignments of timing and centering caused by the original skew adjustment and the magnification adjustment.

8.2.5 The front and back registration (ADF) (front and back registration)

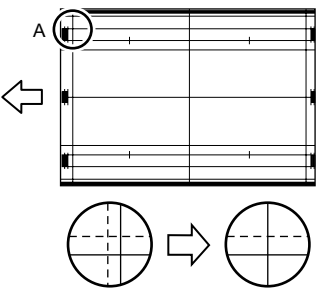
Note

- Be sure that the following adjustments are done.
"I.5.3.11 Scanner FD-Mag. Adj. (Magnification Adjustment)"
"I.5.3.20 ADF Restart Timing Adj. (Timing Adjustment)"
"I.5.3.24 ADF Centering Adjustment (Centering Adjustment)"

- "I.5.3.35 Distortion Adjustment"
- This adjustment is for 1250/1052/951 (copier version). 1250P (printer version) does not have the adjustment method.

(1) Procedure

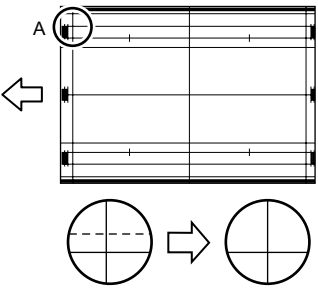
1. Align the leading edge timing of both sides.
Use [ADF Restart Timing Adj.] in the service mode. Use the cross on the figure A to align the leading edge timing of the back side to the front side.



[1]Front

[2]Back

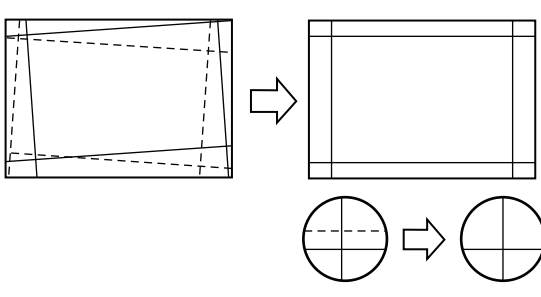
2. Align the centering of both sides.
Use [ADF Centering Adjustment] in the service mode to align the centering of the back side on the figure A to the front side.



[1]Front

[2]Back

3. Adjust the ADF paper skew.
With the ADF paper skew adjustment in the mechanical adjustment, adjust the skew on the front and back side.



[1]Front

[2]Back

4. Perform steps 1 and 2 to adjust the misalignments of timing and centering caused by the ADF paper skew adjustment.

8.2.6 The front and back registration by user (by paper brand) (front and back registration)

I.8.2.3 The front and back registration (printer) (front and back registration) I.8.2.4 The front and back registration (scanner) (front and back registration) I.8.2.5 The front and back registration (ADF) (front and back registration)Even when conducting the front and back registration in to, an adjustment is required depending on the type and brand of paper to be used.

Note

- I.8.2.3 The front and back registration (printer) (front and back registration) I.8.2.4 The front and back registration (scanner) (front and back registration) I.8.2.5 The front and back registration (ADF) (front and back registration)Check to see if the front and back registrations in to are completed.

(1) Procedure

1. From "MACHINE" in the user mode, press [Custom Register/Delete].



- Press the name key of paper you want to change, or press [↵] key to select the registered paper.



- Press [Add / Edit] to input the paper type, paper name, weight, colored paper and punch. For the type of paper and the weight, refer to "1.8.2.14 User setting of each paper brand".



- Press [Both Sides Adj.], and adjust the front and back registration.



8.2.7 The front and back registration by user (Fine Adjustment) (front and back registration)

1.8.2.6 The front and back registration by user (by paper brand) (front and back registration) Even when conducting the adjustments for brand of paper as described in, an adjustment is required depending on the number of trays in which paper is fed, the storage condition (temperature and humidity) of paper and the temperature and humidity in the room, and so on.

This adjustment describes the method for fine adjustment of each tray to the front and back adjustment of the paper brand setting described in **1.8.2.6 The front and back registration by user (by paper brand) (front and back registration)**

Note

- Check to see if the front and back registrations in **1.8.2.3 The front and back registration (printer) (front and back registration)**, **1.8.2.4 The front and back registration (scanner) (front and back registration)**, **1.8.2.5 The front and back registration (ADF) (front and back registration)**, **1.8.2.6 The front and back registration by user (by paper brand) (front and back registration)** are completed.

(1) Procedure

- From "MACHINE" in the user mode, press [Tray Setting].



- Press the tray key you want to adjust, and then press [Change].



- Press [Both Sides Adj.].



4. Register the front and back of the paper.
There are 2 modes for the registration, automatic (adjustment) and manual (adjustment).
 - Manual registration (adjustment)



- Automatic registration (adjustment)
Press [Chart Adjustment] to execute the automatic registration (adjustment).



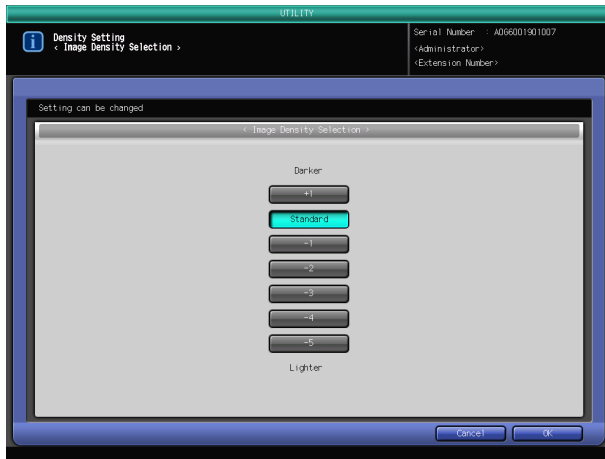
5. When adjusting another tray, repeat the steps 2 to 4.

8.2.8 Darken image density (image density adjustment)

Print industry customers sometimes demand image settings with dark image density in the shadow area such as the offset printing. This section describes how to adjust the shadow area (max. density) to make its image density darker.

If the adjustment to make image density darker is not performed properly, toner spillage or image background occurs. By this procedure, the density can be adjusted more safely, minimizing occurrences of these problems. However, perform this adjustment only when necessary. Related adjustments are as follows.

- Setting menu mode
 1. Image Density Selection
This setting changes the charger voltage and the developing bias.



- Service mode
 1. DIPSW5-5/6/7 developer toner density switchover
This setting adds the adjustment to the output value of TCR sensor, thus changing the toner density of developer without changing image density which changes the toner density.
 2. [Default Density Setting] on [Process Adjustment]
This setting makes fine adjustment of standard density in the printer engine.

(1) Procedure

1. With the image density selection of the density setting in the setting menu mode, set Darker [+1].
2. Output the test pattern No.11 in the test pattern output mode.
3. Confirm image density.
4. When image density is insufficient, conduct [Default Density Setting] on [Process adjustment]. (Refer to [I.5.4.17 Default Density Setting \(Drum Peculiarity Adjustment\)](#))
5. Confirm image density.
6. Check the value of [MAX DENSITY MANUAL ADJUSTMENT] (developing theta) and set it "+0.4%" with DIPSW5-5/6/7 developer toner density switch when the value is about 250.
7. Output 500 prints of the test pattern No.11.
8. Check the image density and adjust it to the plus side 1 step by step with DIPSW5-5/6/7 developer toner density switch until an appropriate value is obtained.

Note

- Be sure to adjust it 1 step by step since this setting change the toner density directly.
- Be sure not to adjust it too much by checking toner spillage or image background after changing the setting.

8.2.9 Lighten image density (image density adjustment)

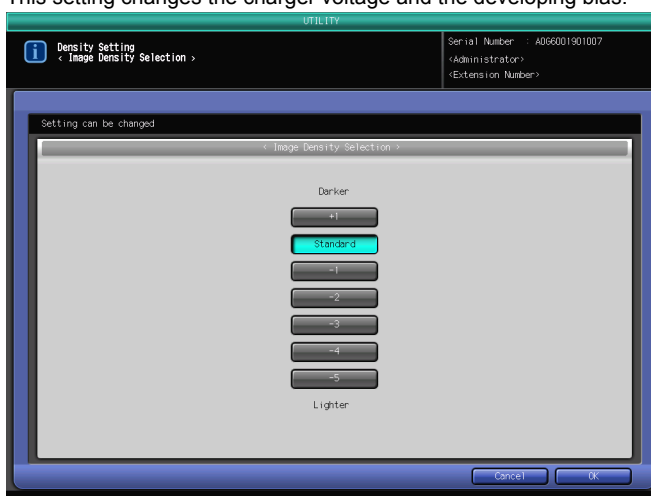
Such printing materials as books use lighter letters to reduce eyestrain of readers. Thus, some print industry customers demand light image settings.

This section describes how to lighten image density of the shadow section (max. density) without changing image density of the highlight section.

If the adjustment to make image density lighter is not performed properly, white spots in the shadow section occur. By this procedure, the density can be adjusted more safely, minimizing occurrences of problems. However, perform this adjustment only when necessary.

Related adjustments are as follows.

- Setting menu mode
 1. Image Density Selection
This setting changes the charger voltage and the developing bias.



- Service mode
 1. [Default Density Setting] on [Process Adjustment]
This setting makes fine adjustment of standard density in the printer engine.

(1) Procedure

1. With the image density selection of the density setting in the setting menu mode, set Lighter [-1].
2. Output the test pattern No.11 in the test pattern output mode.
3. Confirm image density.
4. When image density is insufficient, repeat steps 1 and 2 until "-5."
5. When image density is insufficient, conduct [Default Density Setting] on [Process adjustment]. (Refer to [I.5.4.17 Default Density Setting \(Drum Peculiarity Adjustment\)](#))
6. Output the test pattern No.11 in the test pattern output mode to confirm image density.

8.2.10 Transfer jitter adjustment

Describes how to adjust transfer jitter.

(1) Preparation

Adjustments differ depending on the position at which transfer jitter occurs. Thus, locate the position where transfer jitter occurs. Measure with a scale.

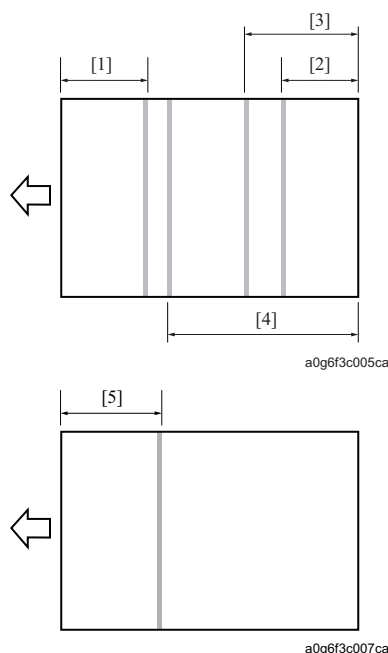
(a) Procedure

1. Output No.9 of the "test pattern output mode" with A3 paper.

Note

- Select [Test pattern density setting] of the service mode, and check to ensure that the test pattern density is set to 255.

2. Confirm the position where transfer jitter occurs.



[1]	Approx. 124mm from the leading edge	[4]	Approx. 265mm from the trailing edge
[2]	Approx. 120mm from the trailing edge	[5]	Approx. 150mm from the leading edge of the 2nd sheet
[3]	Approx. 160mm from the trailing edge	[6]	Random occurrence

Note

- The position where transfer jitter occurs differs depending on the paper type, paper weight or paper conveyance behavior.

(2) Cause and tendency of occurrence

The following shows the cause and tendency of occurrence for each transfer jitter occurrence position.

- [1] Approx. 124mm from the leading edge
Transferring the shock which caused when paper enters the transfer/separation section to LPH is the cause.
It occurs on the 300g/m² or more paper and appears sharply.
- [2] Approx. 120mm from the trailing edge (300mm from the leading edge)
Transfer jitter which occurs when the paper enters the fusing section. It occurs when the transfer belt speed is slower than the fusing.
- [3] Approx. 160mm from the trailing edge
The speed change which caused when the trailing edge passes through the nip of the registration roller is the cause.
- [4] Approx. 265mm from the trailing edge
The speed change which caused when the trailing edge passes through the loop roller is the cause.
- [5] Approx. 150mm from the trailing edge of the 2nd sheet
It occurs when the transfer belt speed changes when the 1st sheet enters the fusing section and separate from the transfer belt.
- [6] Random occurrence
The writing jitter which occurs when the transfer jitter due to the speed difference between the transfer belt and the fusing occurs and that condition causes the drum speed change.

(3) Measure taken

The following shows the measures to take for each transfer jitter occurrence position.

Transfer jitter occurrence position No.	Priority for adjustment		
	Transfer Belt Speed Adj. (Refer to 1.5.3.3 Transfer Belt Speed Adj. (Magnification Adjustment))	Regist line speed adjustment (Refer to 1.5.3.6 Registration Line Speed Adj. (Magnification Adjustment))	Fusing Speed Adjustment (Refer to 1.5.3.4 Fusing Speed Adjustment (Magnification Adjustment))
[1]	-	(1) Adjust to negative side	-
[2]	(2) Conduct this adjustment when the trouble is not resolved only with Fusing Speed Adjustment	((3)) When adjusting Transfer Belt Speed Adj., be sure to check	(1) Adjust to the negative side.
[3]	-	(1) Adjust either positive or negative side	-
[4]	-	(1) Adjust either positive or negative side	-
[5]	(2) Conduct this adjustment when the trouble is not resolved only with Fusing Speed Adjustment	((3)) When adjusting Transfer Belt Speed Adj., be sure to check	(1) Adjust to the negative side.
[6]	(2) Conduct this adjustment when the trouble is not resolved only with Fusing Speed Adjustment	((3)) When adjusting Transfer Belt Speed Adj., be sure to check	(1) Adjust to the negative side.

8.2.11 Overlay printing adjustment

Overlay printing is to reprint the company name, the address, the logo, and so on, on offset printed paper.

When performing overlay printing, take notice the following description.

Reference:

- The surface of coated paper is applied with a coating agent and so it takes more time for the ink of offset printing to dry. Therefore, to prevent blocking (back transfer), the entire surface of paper is applied with powder. The powder drastically reduces the conveyance forces of the pick-up roller and the paper feed roller, and this instance is apt to cause a no feed jam or a double feed jam.

Note

- Before overlay printing, be sure to take note of following.
 - In the case of PF-706, be sure to install the PP-701 (urethane roller).
 - We recommend use of PF-703 for the overlay printing.
 - Apply as little powder as possible when offset printing.
 - Get paper loosened sufficiently before setting it in the tray.
 - Adjust paper condition with the same environments (temperature and humidity) as the environments for the main body. When left in a high humidity environment, paper strongly adheres to each other making them unable to feed.
- A paper centering error is likely to occur due to contamination of the centering sensor (PS4) with powder. Clean the sensor if the error occurs or before starting overlay printing.
- Registration of paper must be checked every 30,000 prints.

(1) Preparation

- Conduct the following settings to the tray in the user mode.

- Set paper on which overlay printing has been made.
- Set the type of paper to [PrePrinted].
- Set the air-blow setting to [ON].

Note

- Registration of back and front sides must be checked every day before starting printing.

- Make the following settings in the service mode.

- Set software DIPSW26-4 to 1. (Sets forced separation clutch control ON at all times.)
- Set the DIPSW2-4/5 to "1". (sets the cleaning cycle of the charging corona to every 5,000 prints)
- When using paper other than coated paper for overlay printing, make the paper type setting to other than preprinted paper and set the software DIPSW corresponds to the selected paper tray to "1".

Tray1: DIPSW39-0

Tray2: DIPSW39-1

Tray3: DIPSW39-2

Tray4: DIPSW39-3

Tray5: DIPSW39-4

Tray6: DIPSW39-5

Tray7: DIPSW39-6

Tray8: DIPSW39-7

Note

- By setting above mentioned DIPSW to "1", paper feed control turns to be the same as that of [Preprinted paper] to keep the endurance of the urethane roller. However, it tends to cause the double feed.
- The above mentioned DIPSW does not work when [Coated paper] or [Paper weight 92g/m²] or more is selected for the paper setting.

3. Install the paper feed assist plate. (Refer to [1.9.3 Pick-up roller load adjustment](#))

Note

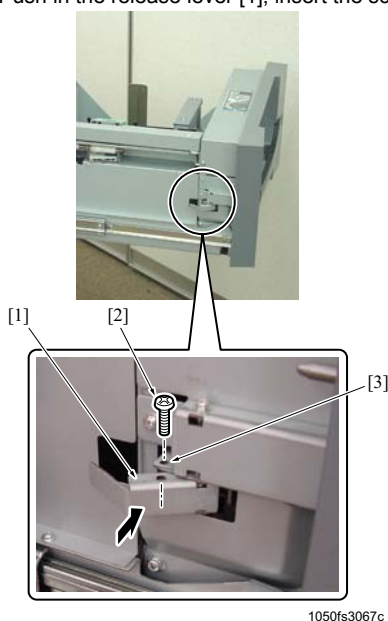
- The number of paper feed assist plates varies according to the paper weight.
 130g/m² or less → None
 130g/m² or more → 4 pcs.

(2) Air assist adjustment

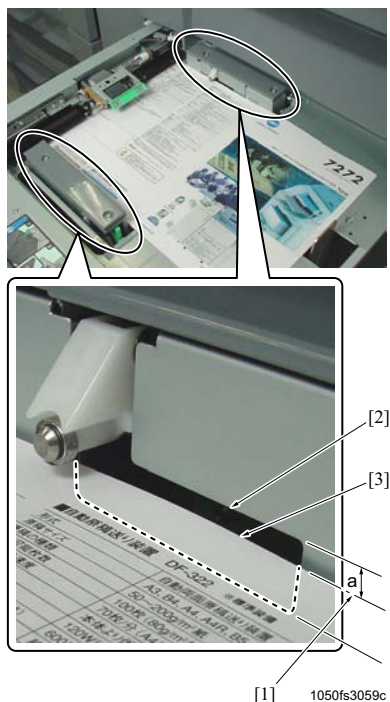
Check to see if the height of the air supply opening of the paper feed assist fan and the upper surface of paper are appropriate. Otherwise air assist is not conducted properly and a jam occurs.

(a) Procedure

1. Pull out the tray and set about 10 sheets of coated paper that have been printed in offset.
2. Push in the release lever [1], insert the screw [2] into the hole [3] to fix the release lever, and then set the tray.



3. After stop sound of the paper lift motor operation (when the paper lift plate gets to the upper limit position), pull out tray again.
4. Check the measurement "a" between the center position [1] (The center is 4.5mm from the upper edge [2].) of the air supply openings of the paper feed assist fan /Fr and /Rr and the upper surface of paper [3].
 Standard value "a": within 4.5 ± 2.5mm
 When the value is not within the standard, conduct step7 and succeeding steps.



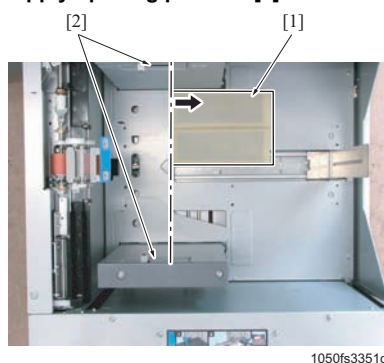
5. Release the release lever that was fixed at step2 and bring down the paper lift plate.
6. Pull out the tray and load it fully with coated paper that has been printed, and perform steps 2 to 5.
7. Conduct the following adjustments according to the curling condition of paper.
 1. When there is no paper curling with no paper slant.
Conduct "Pick-up roller height adjustment." (Refer to [I.9.4 Pick-up roller height adjustment](#))
 2. If there is slant found due to paper curling:



Put the underlays (included in the PP package) [1] under the lower side of the stacked paper.

Note

- To prevent air from blowing upon the pad when the remaining paper gets low, place the pad to the right side of the air supply opening position [2].



3. When there is a convex curling found with paper:

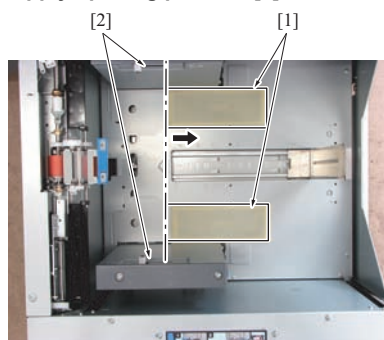


1050fs3062c

Put the underlays (included in the PP package) [1] under both sides of the stacked paper.

Note

- To prevent air from blowing upon the pad when the remaining paper gets low, place the pad to the right side of the air supply opening position [2].



1050fs3352c

4. When there is a concave curling found with paper:

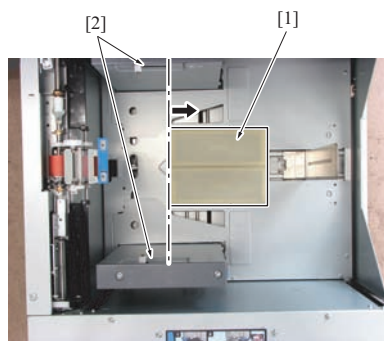


1050fs3064c

Put the underlays (included in the PP package) [1] under the center part of the stacked paper.

Note

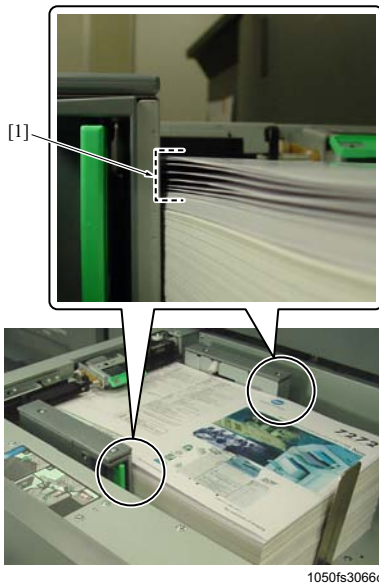
- To prevent air from blowing upon the pad when the remaining paper gets low, place the pad to the right side of the air supply opening position [2].
If there is a concave curling, it is normally possible to adjust curling by placing a pad at the center position 40mm away from the front and rear paper guides.



1050fs3353c

8. After adjustment, repeat step1 to step6 to check again the paper height at the air supply opening section.
9. Remove the PF right cover.
(PF-706: refer to [G.5.2.2 Right cover](#)), (PF-703: refer to [G.4.2.2 Right cover](#))
10. Select the code of the tray adjusted with code 42-** of the service mode - I/O check and press the start button to operate the paper feed assist fan.
11. After checking the paper separation condition [1] from the right side of the PF, press the Stop button to complete the I/O check.

12. Conduct the respective operations depending on the condition of separation.
 - a. Air is blown upon more than 10 sheets of paper and separate a sheet each.
 - b. Paper separation is not made for 1 sheet each, but 10 or more sheets of paper are being floated by air.
 - c. The number of sheets of paper that are being floated by air is less than 4 or 5.
 - d. No paper is floated



In the cases of "a" and "b," conduct step12 and succeeding steps.

In the cases of "c" and "d," repeat step1 to step11.

13. Conduct a test print to check to see if a jam occurs.
When a jam occurs, conduct "C. Paper feed pressure adjustment."
14. Reinstall the above parts following the removal steps in reverse.

Note

- Be sure to release the release lever that has been fixed at the step2.

(3) Paper feed pressure adjustment

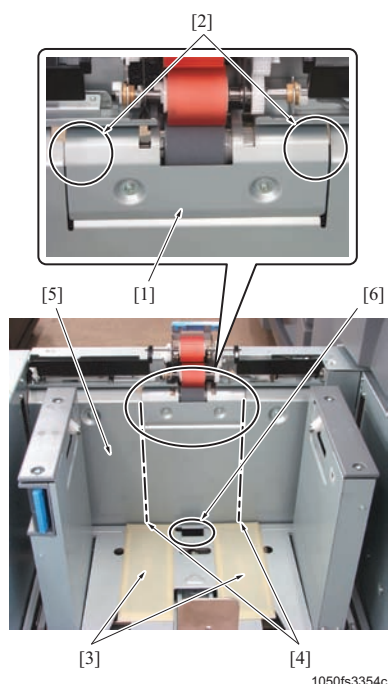
Despite the paper separation being made correctly by air from the paper feed assist fan, when a paper jam occurs, conduct the following adjustments.

(a) Procedure

1. Conduct the respective operations depending on the condition of jam.
 - J14-01 (Paper is not conveyed to the separation roller due to slipping of pick-up roller.) Add paper feed assist plates to raise pressure on the pick-up roller. (Refer to [I.9.3 Pick-up roller load adjustment](#))

Note

- 4 sheets of paper feed assist plate are normally used. However, when a no feed condition recurs, it is possible to use up to 8 sheets.
- J14-01 (paper bumps against both sides [2] of the entrance guide plate [1] and cannot go over the entrance guide plate [1].) Put the underlays (included in the PP package) [3] on the bottom of the tray locating them directory underneath [4] both edges [2] of the entrance guide plate [1].
- Be sure to set the underlays [3] so that those top edges are not contacted with the surface [5] of the tray, otherwise they interfere with the paper lift plate operation.
- Put the underlays [3] avoiding the paper empty sensor [6].



- J14-01 with thick paper (Paper is not conveyed to the separation roller due to paper being unable to get over the entrance guide plate.)
Up the pick-up roller height. (Down the sensor position. 2mm as a tentative) (Refer to [I.9.4 Pick-up roller height adjustment](#))
- J14-01 (Jam with a crushed leading edge of paper)
Increase the separation pressure. (Refer to [I.9.2 Separation pressure adjustment](#))
- J14-02 (No feed occurs before the pre-registration roller.)
Increase the separation pressure. (Refer to [I.9.2 Separation pressure adjustment](#))
- J17-12 (Double feed)
Down the pick-up roller height. (Down the sensor position. 2mm as a tentative) (Refer to [I.9.4 Pick-up roller height adjustment](#))

8.2.12 PF-703 air-blow adjustment

When the paper feed jam occurs from PF-703 tray according to the type of paper or the weight, set "Air Assist" in "Tray setting" to "On" to prevent the paper feed jam by adjusting the air volume of the lead air and the side air.

⚠ Note:

- Since the machine operates without the paper feed check window in this adjustment, be sure not to put your hand there.

(1) Prerequisite

The following items have to be done for conducting this adjustment.

- Remove the paper feed check window of the PF-703 tray and check the paper movement.
- Check the default value of the paper type/weight of the selected tray from the air-blow setting table.

Note

- When the jam occurs, check the setting position of paper and conduct this adjustment. Be sure to check the paper setting position since the bad setting position causes the jam.

(2) Preparation:

- Remove the paper feed check window of the tray to be adjusted. (Refer to [G.4.2.11 Paper feed check window](#))

(3) Procedure

1. Remove the paper feed check window. (Refer to [G.4.2.11 Paper feed check window](#))
2. Set [Tray Setting] and [Air Assist] on [MACHINE] tab in the user mode to [On].
3. Check the paper setting of the tray on which the jam occurs and [D. Air-blow setting table by paper type] to set the air volume of <EDGE> and <SIDE>.



Note

- When [Air Assist] is set to [On], level [5] appears regardless of the weight/paper type.

- Level [5] is not the air volume which corresponds to the paper/weight set to the tray to be adjusted.
- For Envelope, the set value changes depending on the width of the envelope. The weight does not matter.

4. Print out with paper on which the jam occurs to check the paper movement from the front of the tray.

Note

- To check the paper movement inside the tray, use the light.

5. Refer to "E. Adjustment method by paper movement" to adjust the air-blow level of <EDGE> and <SIDE>.

(4) Air-blow setting table by paper type

(a) Paper length: less than 160mm

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	6	6	4	7	9	9	9	9	9	9
	Side	0	0	4	4	4	7	9	9	9	9
PrePrinted	Edge	6	6	4	4	7	9	9	9	9	9
	Side	0	0	4	4	4	7	7	9	9	9
Fine/Plain	Edge	6	6	4	4	7	9	9	9	9	9
	Side	0	0	4	4	4	7	7	9	9	9
Book/News / Embossed	Edge	6	6	4	4	7	9	9	Unable to select		
	Side	0	0	4	4	4	7	7			

(b) Paper length: 160mm or longer, B5 (182mm) or shorter

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	1	2	4	7	9	9	9	9	9	9
	Side	2	2	4	4	4	7	9	9	9	9
PrePrinted	Edge	1	2	4	4	7	9	9	9	9	9
	Side	2	2	4	4	4	7	7	9	9	9
Fine/Plain	Edge	1	2	4	4	7	9	9	9	9	9
	Side	2	2	4	4	4	7	7	9	9	9
Book/News / Embossed	Edge	1	2	4	4	7	9	9	Unable to select		
	Side	2	2	4	4	4	7	7			

(c) Paper length: B5 (182mm) or longer, A4S (297mm) or shorter

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	1	2	4	7	9	9	9	9	9	9
	Side	2	2	4	4	4	7	9	9	9	9
PrePrinted	Edge	1	1	2	4	7	9	9	9	9	9
	Side	2	2	2	4	4	7	7	9	9	9
Fine/Plain	Edge	1	1	2	7	7	9	9	9	9	9
	Side	2	2	2	2	4	7	7	9	9	9
Book/News / Embossed	Edge	1	1	2	7	7	9	9	Unable to select		
	Side	2	2	2	2	4	7	7			

(d) Paper length: longer than A4S (297mm)

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	1	2	4	7	9	9	9	9	9	9
	Side	2	2	4	4	4	7	9	9	9	9
PrePrinted	Edge	1	1	2	4	7	9	9	9	9	9
	Side	2	2	2	4	4	7	7	9	9	9

Fine/ Plain	Edge	1	1	2	4	6	9	9	9	9	9
	Side	2	2	2	2	4	7	7	9	9	9
Book/ News / Embossed	Edge	1	1	2	4	6	9	9	Unable to select		
	Side	2	2	2	2	4	7	7			

(e) Paper wide 138mm or less (use small guide)

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	1	2	4	4	7	9	9	9	9	9
	Side	2	2	4	4	4	7	9	9	9	9
PrePrinted	Edge	1	1	2	4	7	9	9	9	9	9
	Side	2	2	2	2	2	7	7	9	9	9
Fine/ Plain	Edge	1	1	2	4	7	9	9	9	9	9
	Side	2	2	2	2	2	7	7	9	9	9
Book/ News / Embossed	Edge	1	1	2	4	7	9	9	Unable to select		
	Side	2	2	2	2	2	7	7			

(f) Paper wide 138mm or less (use small guide) and paper length less than 160mm

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	6	6	6	4	7	9	9	9	9	9
	Side	0	0	0	4	4	7	9	9	9	9
PrePrinted	Edge	6	6	6	4	7	9	9	9	9	9
	Side	0	0	0	2	2	7	7	9	9	9
Fine/ Plain	Edge	6	6	6	4	7	9	9	9	9	9
	Side	0	0	0	2	2	7	7	9	9	9
Book/ News / Embossed	Edge	6	6	6	4	7	9	9	Unable to select		
	Side	0	0	0	2	2	7	7			

(g) For Envelope (1250/1250P/1052+EF-102)

Length of Envelope	Air-blow setting	Width of Envelope		
		138mm or less	138mm to 200mm	201mm or more
Less than 160mm	Edge	0	1	9
	Side	0	7	4
160mm to 182mm	Edge	0	1	9
	Side	0	7	4
182mm to 297mm	Edge	0	1	9
	Side	0	7	4
297mm or more	Edge	0	1	9
	Side	0	7	4
Less than 160mm	Edge	4	0	0
	Side	2	0	0
160mm or more	Edge	4	0	0
	Side	2	0	0

(5) Adjustment method by paper movement**Case1****(1) Paper movement**

- Since the lead air is too strong, paper after 2nd sheet moves back to the opposite side of the paper feed direction and crosses over the trailing edge guide.
- Paper after the 2nd sheet gets into the gap between the stacked paper and the trailing edge guide.

(2) Jam condition

- Double feed

(3) Paper on which jam tends to occur

- Paper weight 100g/m² or less
- Paper length 210mm or longer
- Convexly curled paper

(4) Air-blow adjustment

- Weaken the lead

(5) Measure of adjustment

- Stabilize the paper movement at the paper separation point

(6) Related jam code

- Multi feed detection
J-1712
- PF703 - 1st tandem
J-1304/J-1403/J-1504
- PF703 - 2nd tandem
J-1614/J-1623/J-1634
- PI-PFU Multi feed detection
J-8107
- PI-PFU
J-8114/J-8123/J-8134

Case2**(1) Paper movement**

- Since the side air is too strong, the paper movement around the paper feed belt gets unstable.
- Paper after the second sheet floats too much to the paper feed belt side.
- Paper after the second sheet is sent a little to the paper feed direction.

(2) Jam condition

- Double feed

(3) Paper on which jam tends to occur

- Paper length 210mm or shorter

(4) Air-blow adjustment

- Strengthen the edge
- Weaken the side

(5) Measure of adjustment

- Stabilize the paper movement around the paper feed belt
- Adjust it not to float in bundle.
- Adjust it so that paper after the second sheet is not sent to the paper feed direction. (Increase the separation pressure)

(6) Related jam code

- Multi feed detection
J-1712
- PF703 - 1st tandem
J-1304/J-1403/J-1504
- PF703 - 2nd tandem
J-1614/J-1623/J-1634
- PI-PFU Multi feed detection
J-8107
- PI-PFU
J-8114/J-8123/J-8134

Case3**(1) Paper movement**

- Paper gets late to float and the separation with the lead air is not enough.
- Time for separating is not enough and 2 sheets are sent right after the floating.

(2) Jam condition

- Double feed

(3) Paper on which jam tends to occur

- Paper weight 200g/m² or less

(4) Air-blow adjustment

- Strengthen the side

(5) Measure of adjustment

- Keep the air volume to float paper.
- Adjust it to keep the time to separate.

(6) Related jam code

- Multi feed detection
J-1712
- PF703 - 1st tandem
J-1304/J-1403/J-1504
- PF703 - 2nd tandem
J-1614/J-1623/J-1634
- PI-PFU Multi feed detection
J-8107
- PI-PFU
J-8114/J-8123/J-8134

Case4**(1) Paper movement**

- Since the side air is too weak, the timing for paper sticking to the paper feed belt gets late.

(2) Jam condition

- Not stick to the paper feed belt

(3) Paper on which jam tends to occur

- Paper weight 200g/m² or less

(4) Air-blow adjustment

- Strengthen the side

(5) Measure of adjustment

- Keep the air volume to float paper.
- Adjust it to keep the time to separate.

(6) Related jam code

- PF703 - 1st tandem
J-1305/J-1405/J-1505
- PF703 - 2nd tandem
J-1615/J-1625/J-1635

Case5**(1) Paper movement**

- Since the lead air is too strong, the corner of the paper leading edge is pressed down.

(2) Jam condition

- No feed

(3) Paper on which jam tends to occur

- Paper wide 210mm or less

(4) Air-blow adjustment

- Weaken the lead

(5) Measure of adjustment

- Adjust it so that the paper leading edge sticks to the paper feed belt.

(6) Related jam code

- PF703 - 1st tandem
J-1301/J-1302/J-1401/J-1402/J-1501/J-1502
- PF703 - 2nd tandem
J-1611/J-1612/J-1621/J-1622/J-1631/J-1632
- PI-PFU

J-8111/J-8112/J-8121/J-8122/J-8131/J-8132

Case6**(1) Paper movement**

- Sticking of the paper leading edge is not enough

(2) Jam condition

- No feed

(3) Paper on which jam tends to occur

- Paper wide 210mm or less

(4) Air-blow adjustment

- Strengthen the side

(5) Measure of adjustment

- Adjust it to float paper.

(6) Related jam code

- PF703 - 1st tandem
J-1301/J-1302/J-1401/J-1402/J-1501/J-1502
- PF703 - 2nd tandem
J-1611/J-1612/J-1621/J-1622/J-1631/J-1632
- PI-PFU
J-8111/J-8112/J-8121/J-8122/J-8131/J-8132

8.2.13 Fusibility adjustment

This section describes the adjustment procedure for the case when the fusibility gets short according to the environment or paper type. The following items are the reason of the shortage of the fusibility.

- Print right after the sub power switch (SW2) turns ON from being OFF for long period
- Print right after starting from the idling (initial print)
- Print right after changing the paper weight or the paper type
- Setting environment of the machine is at low temperature
- Image pattern
- Specified paper

Note

- The productivity tends to lower since the fusing initial rotation time gets longer by the adjustment to improve the fusibility.

(a) Preparation

- Check that [Tray Setting] - [Pressure Power Setting] is [Default] (1250/1250P/1052 only).
- Check that [Setting Menu] - [Copy/Printer Setting] - [Fixing Pre-rotation Set] is [Rotation On].

In case the above 2 items are set differently, be sure to check the fusibility again after setting to [Default Pressure Power] and [Rotation On].

(b) Procedure

1. Refer to "[I.8.2.14 User setting of each paper brand](#)" to check the pressure level(1250/1250P/1052 only). This level is automatically selected when [Tray Setting] - [Pressure Power Setting] is [Default].
2. Set the level 1 level stronger than the pressure level which was checked in step 1.

Note

- When the pressure level checked in step 1 is "Strong Pressure Power", conduct the adjustment from step 3 since it cannot be stronger more than that level.

3. Print out the image and check the fusibility. When the fusibility is not enough, judge steps 4 to 6 depending on the situation.
4. In the case of the initial print (100 sheets or less after print start)/print right after changing the paper weight or the paper type:
 - 1) Change to "CONDUCT IN ALL ENVIRONMENT" in DIPSW36-2 fusibility improvement control at print starting
 - 2) Set it to "Change pressure" on DIPSW 19-5 fusing pressure control at initial print (1250/1250P/1052 only).
5. When the setting of the print/machine right after turning ON the sub power switch (SW2) is under the low temperature:
 - 1) Set DIPSW 8-4/5 fusing initial rotation time to 300 seconds.
6. When the fusibility is not enough depending on the image pattern or the paper type:
 - 1) Refer to " " to set the paper weight/paper type to 1 to 2 rank higher.[I.8.2.14 User setting of each paper brand](#)
 - 2) DIPSW19-0/1/2/3 fusing temperature setting

Note

- Since this setting changes the control temperature against all paper, the too much adjustment tends to cause the trouble like paper curling or paper waving.

8.2.14 User setting of each paper brand

For the user setting method for paper which is commonly used in the POD market by paper brand, refer to "User setting of each paper brand". This document shows the optimum set values for paper brands tested by KMBT. However, it does not assure the same image quality and paper feed ability as the paper specified by KMBT. Only the basic performance under usual environment (temperature and humidity) has been tested and confirmed. Information on other brand of paper will be also provided when the test is finished, by updating the document.

Refer to

User setting of each paper brand



8.2.15 Settings for feeding carbonless paper

When using carbonless paper (thin paper), take the following measures.

Note

- When feeding carbonless paper, take the following countermeasures.
 - When printing on carbonless middle sheets on the machine tray/PF-706, 50mm width of the sheet leading edge reacts by the pressure and changes in color. If this color cannot be allowed, use middle sheets 60mm longer in main scan direction, and 20mm longer in sub scan direction to trim off the discolored portion.
 - b) Set carbonless paper in SEF position (the narrower side of paper comes to the paper feed roller side).
 - c) Set the paper so that the paper curls convexly in the conveyance section.
 - d) Allowable curl amount is less than 3mm.
- When using paper curled more than 3mm, use the overlays included in the PP-701 package to correct the curl.
- e) Only [Simplex mode] is acceptable for carbonless paper.

(a) Preparation

1. Configure the following settings in user mode.
 - Set the type of paper to [Plain].
 - Set the air-blow setting to [ON].
 - Set the output setting to [Face-down].
 - Be sure to conduct the de-curler adjustment referring to " [I.8.2.14 User setting of each paper brand](#)
2. Carry out the following mechanical adjustment.
 - Weaken the separation pressure of the paper feed section for 1 step. (Refer to [I.9.2 Separation pressure adjustment](#))

9. MECHANICAL ADJUSTMENT bizhub PRESS 1250/1250P/1052/PRO 951

9.1 Tray Centering Adjustment

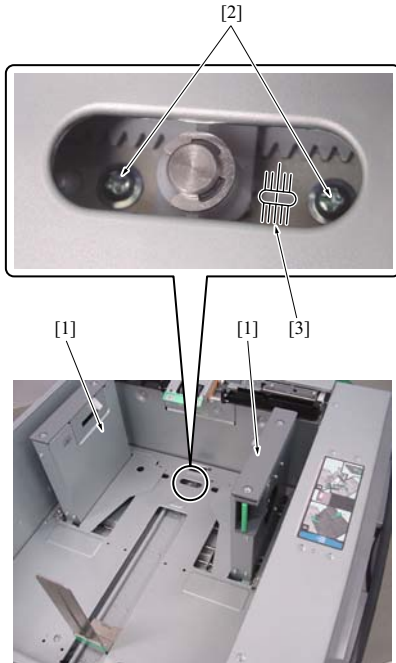
(1) Usage

This adjustment is made when the centering of paper varies each paper supplied from the trays 1 and 2. The centering is automatically adjusted in the image-processing unit, and this adjustment is made only when a centering exceeding the range of auto correction (± 5 mm) occurs.

Note

- Select [Detect] from [Setting Menu] - [06 Administrator Setting] - [01 System Setting] - [06 Expert Adjustment] - [03 Mis-centering Detect JAM Set.] to stop the operation by the jam when the centering exceeding the range of auto correction occurs.
- In this case, the jam code is J-3112.

(2) Procedure



1050fs3028c

1. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [OFF] from [Change Setting] - [Mis-centerDetect].
2. Perform copying/printing without automatic correction to check the centering of image.
3. Pull out the paper feed tray.
4. If any paper remaining, remove it.
5. If the paper guide [1] is at the small-size position, stretch the guide.
6. Loosen 2 screws [2].
7. Move the paper guide [1]. According to the centering you checked in step2, adjust the center position using the marking line [3].
8. Tighten 2 screws [2].
9. Insert a paper and set the tray.
10. Make a copy/print and check to see if the centering is within the standard value (± 2 mm).
11. When not up to the standard value, repeat the steps 3 to 10.
12. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [ON] from [Change Setting] - [Mis-centerDetect].

9.2 Separation pressure adjustment

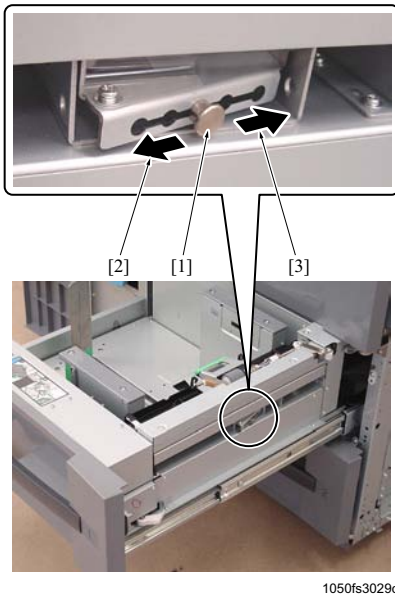
(1) Usage

Perform the separation pressure adjustment when the no feed (a paper is conveyed to the paper feed roller section but stops there) or the double feed occurs at the paper feed.

Note

- The no-feed or multi-feed error is most likely to occur due to paper type or operating environment. No feed tends to occur in low temperature environment, whereas high temperature environment results in a higher rate of multi-feed.
- Excess adjustment may reverse the symptom.

(2) Procedure



1. Pull out the paper feed tray.
2. Change the position of the spring adjustment lever [1].

Note

- The separation pressure is strengthened when the lever moves to the direction [2] and is weakened when the lever moves to the direction [3].
Weak: a double feed jam is improved.
Strong: a no feed jam is improved.

Reference:

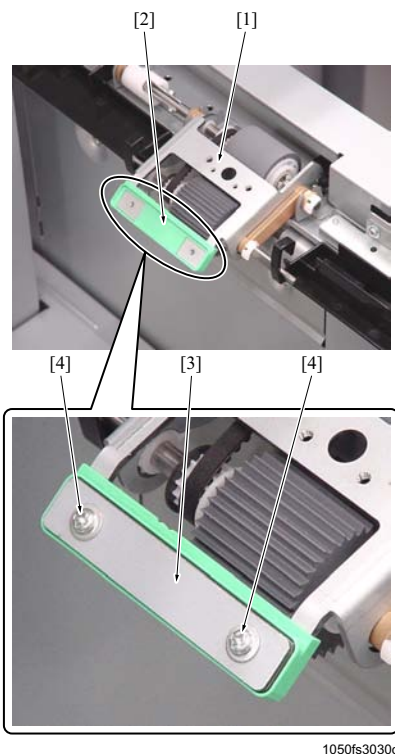
- The spring load changes 10% as the spring is moved 1 step.
3. Set the tray to perform copying/printing. Check whether the no feed or the double feed occurs or not.
 4. In case either jam occurs, repeat steps 1 to 3.

9.3 Pick-up roller load adjustment

(1) Usage

In case a no feed jam occurs frequently, perform the pick-up roller load adjustment.

(2) Procedure



1. Pull out the paper feed tray.
2. In the pick-up roller assy [1], put paper feed assist plate [3] on the paper feed assist plate holder [2], and fix them with accompanying screw (M3 x 8mm) [4].
3. Set the tray.
4. Perform copying/printing to check whether the no feed or the double feed occurs or not.

Note

- The maximum number of the paper feed assist plates that can be attached is 4 plates.
For the number of plates to be attached, refer to "[I.8.2.14 User setting of each paper brand](#)".
- The paper feed assist plate is approx. 10g each.

9.4 Pick-up roller height adjustment

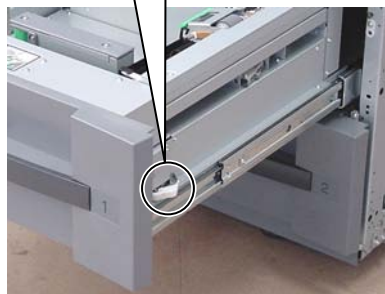
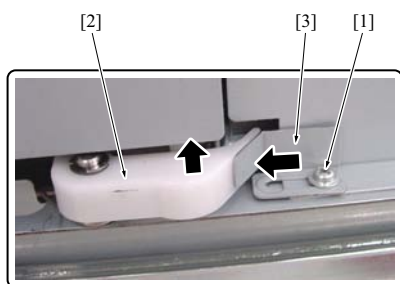
(1) Usage

Perform this adjustment when the following situations occurred.

- A no feed jam is not improved by the pick-up roller load adjustment
- A no feed jam in which a thick paper is stuck on the entrance guide (a metallic guide plate near the separation roller)
- A double feed jam is not improved by the separation pressure adjustment

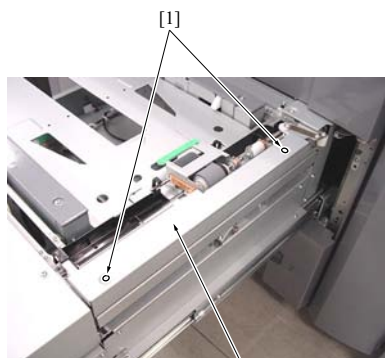
Note

- On performing the pick-up roller height adjustment, the paper feed pick-up amount is changed. Be sure to confirm the paper feed pick-up amount in the paper feed pick-up amount adjustment. (Refer to [I.9.5 Paper feed pick-up amount adjustment](#))

(2) Procedure

1050fs3031c

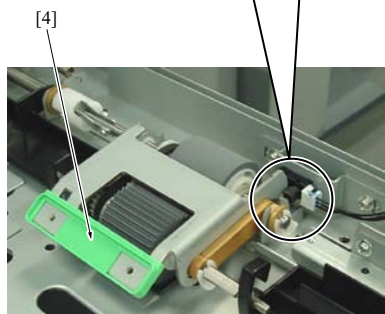
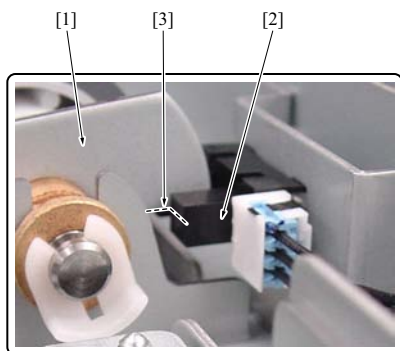
1. Pull out the paper feed tray.
2. If any paper remaining, remove it.
3. Loosen a screw [1].
4. With the release lever [2] placed at its original position, hold the stopper [3] and tighten the screw [1] to fix the stopper.



[2]

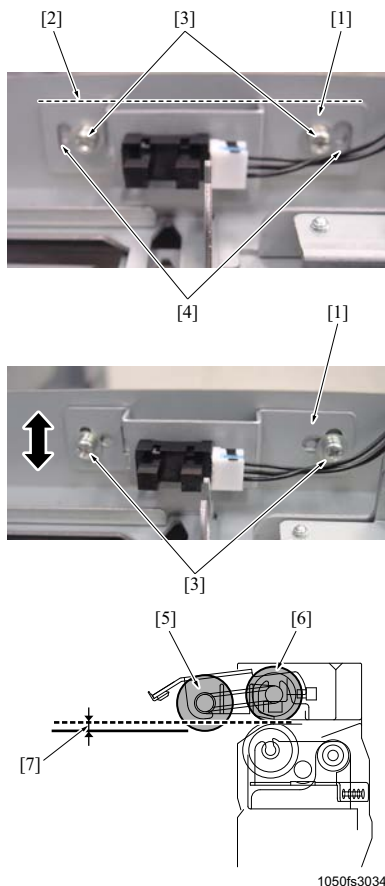
1050fs3032c

5. Set the tray. Confirm that the paper lift finished its elevation to the top by hearing the sound of the paper lift motor. Pull out the tray again.
6. Pull out the tray again. Remove 2 screws [1] to remove the paper feed cover [2].



1050fs3033c

7. Check if the actuator [1] of the pick-up roller assy meets the center [3] of the upper limit sensor/1 (PS6) and /2 (PS10) [2].
8. Remove the pick-up roller section [4]. (Refer to [F.5.7.1 Removing/reinstalling the pick-up roller assembly/separation roller assembly](#))



9. Record a mark for the height of the sensor placing plate.
10. Remove 2 screws [3], and place them temporarily in the slotted hole on the upper limit sensor placing plate [1].
11. Adjust the height of the sensor placing plate [1], and fix it with the screws [3].

Note

- Place the upper limit sensor placing plate [1] horizontally.

Adjustment standard

- Lifting the upper limit sensor position lowers the height of the pick-up roller [5]. (It increases the vertical gap [7] between the paper feed roller [6] and the pick-up roller [5].)
- Lowering the position of the upper limit sensor brings up the pick-up roller [5] (resulting in the reduced vertical gap [7] of elevation between the paper feed roller [6] and the pick-up roller [5].)
- In case a no feed occurred, lower the upper limit sensor.
- In case a double feed occurred, lift the upper limit sensor.

12. Place the pick-up roller section, and replace the stopper of step 4 to the original position.

Note

- If you set the tray without placing the pick-up roller, the paper lift does not stop at the upper limit, thus damaging the tray. Be sure to place the roller.

13. Insert a paper, and set the tray.
14. Perform copying/printing to confirm that the no feed or jam do not occur. In case they are not improved, repeat steps 7 to 14.
15. Check the paper feed pick-up amount. (Refer to [1.9.5 Paper feed pick-up amount adjustment](#))
16. Reinstall the above parts following the removal steps in reverse.

Note

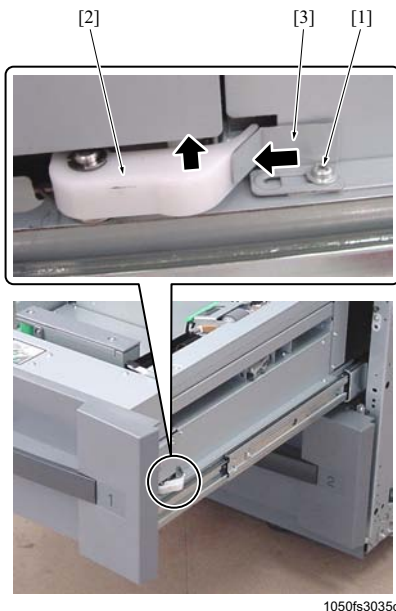
- After the adjustment, be sure to replace the stopper of the release lever to the original position.

9.5 Paper feed pick-up amount adjustment

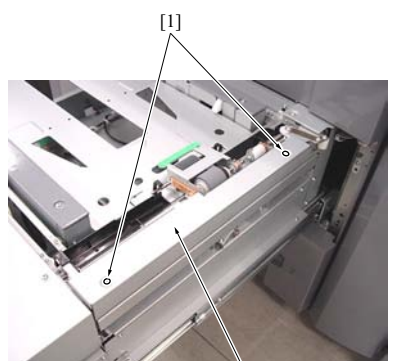
(1) Usage

Perform the paper feed pick-up amount adjustment as you have done the pick-up roller height adjustment.

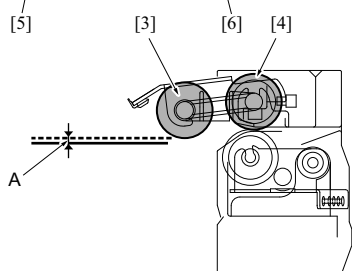
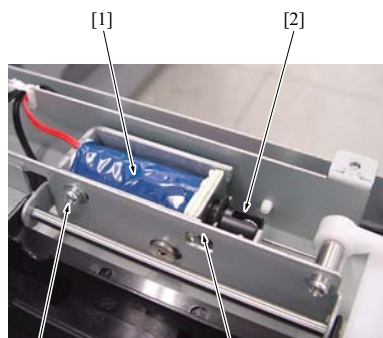
(2) Procedure



1. Pull out the paper feed tray.
2. If any paper remaining, remove it.
3. Loosen a screw [1].
4. With the release lever [2] placed at its original position, hold the stopper [3] and tighten the screw [1] to fix the stopper.



1050fs3036c



1050fs3037c

5. Set the tray. Confirm that the paper lift finished its elevation to the top by hearing the sound of the paper lift motor.
6. Pull out the tray again. Remove 2 screws [1] to remove the paper feed cover [2].

7. Pull the plunger [2] of the pick-up solenoid [1] to measure the gap "A" between the pick-up roller [3] and the paper lift plate [4] with the gap gauge.
Standard value A = 0.1mm to 1.5mm
If it is not within the standard value, follow step8 and after.
8. Loosen a screw [5].

Note

- Before loosening the screw [5], record the position of the pick-up solenoid [1] with the marking line [6].

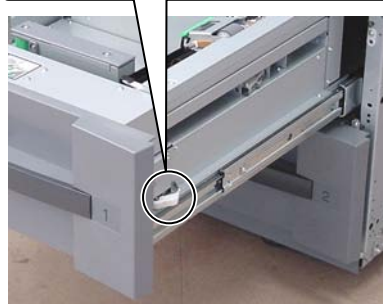
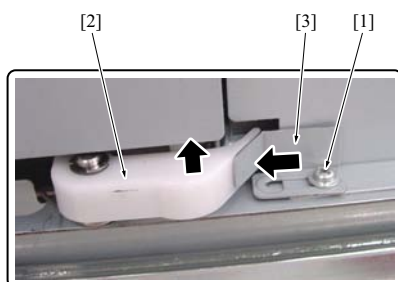
9. With the plunger [2] pulled, adjust the position of the pick-up solenoid [1] so that the standard value can be obtained for the gap A between the pick-up roller [3] and the paper lift plate [4].
10. Tighten the screw [5] to fix the pick-up solenoid [1].
11. Replace the stopper of step4 to the original position.
12. Insert a paper, and set the tray.
13. Perform copying/printing to confirm that the no feed does not occur.
14. Reinstall the above parts following the removal steps in reverse.

Note

- After the adjustment, be sure to replace the stopper of the release lever to the original position.

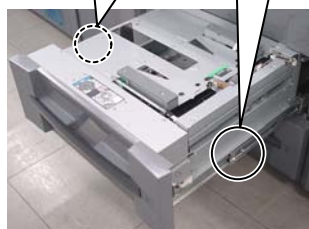
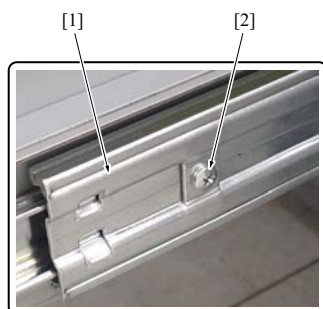
9.6 Paper lift plate skew adjustment**(1) Usage**

Perform the paper lift plate skew adjustment after replacing a lift wire or when the paper lift plate is skewed.

(2) Procedure

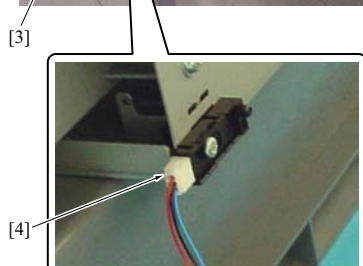
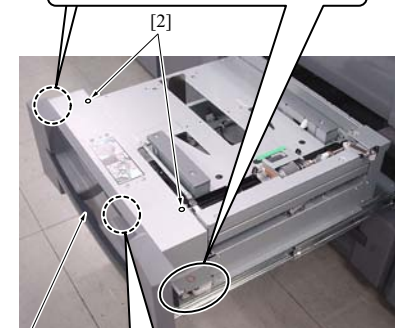
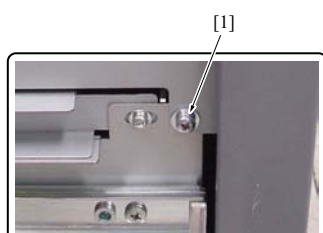
1050fs3038c

1. Pull out the paper feed tray.
2. If any paper remaining, remove it.
3. Loosen a screw [1].
4. With the release lever [2] placed at its original position, hold the stopper [3] and tighten the screw [1] to fix the stopper.



1050fs3039c

5. Set the tray. Confirm that the paper lift finished its elevation to the top by hearing the sound of the paper lift motor.
6. Pull out the tray again. Remove 2 screws [2] of the stopper of the rails [1] on the right and left side. Pull out the tray.



1050fs3040c

7. Remove 2 screws (with washers) on the right and left side [1] and 2 screws on the upper side [2].

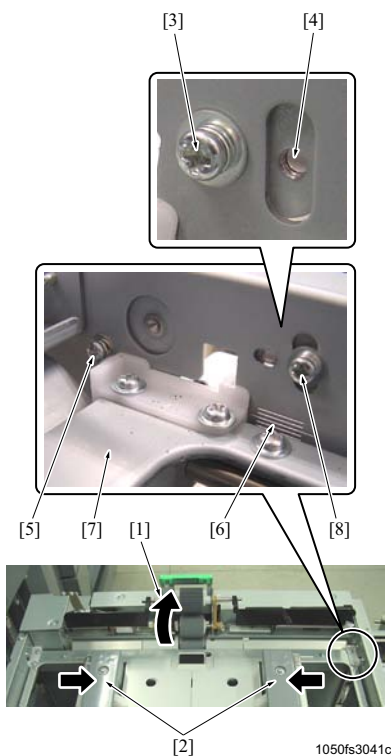
Note

- Removing the screws [1] and [2] causes the tray front cover [3] to fall. Support the cover not to drop.

8. Disconnect the connector [4] to remove the tray front cover [3].

Note

- Be sure to connect the connector as you place it. Otherwise, all trays in the main body become unable to be pulled out.



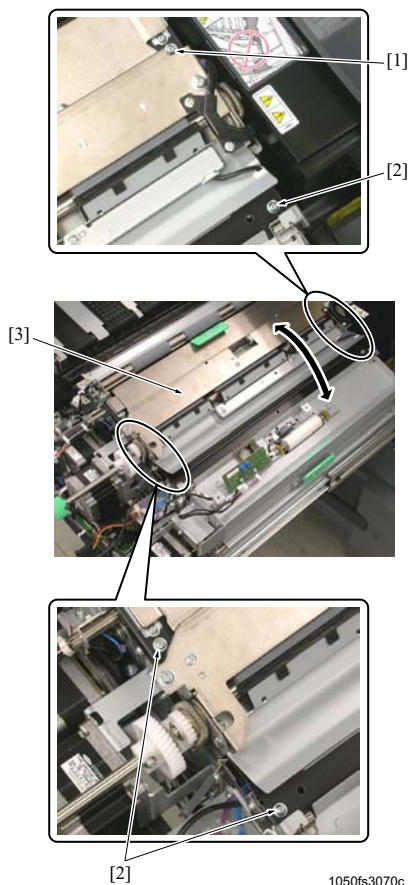
9. Lift up the pick-up roller [1].
10. In case the paper guide [2] is open, close it to the smallest-size position.
11. Remove the screw [3], and place them temporarily in the slotted screw hole [4].
12. While holding the pulley placing plate being placed with the screw [5], loosen the screw [5] to adjust the skewed paper lift plate [7] with the marking line [6].
13. Confirm that the paper lift plate is horizontal, and fix the screw [5] and [8].
14. Pull down the pick-up roller [1].
15. Place the tray front cover.
16. Insert a paper, and set the tray.
17. Perform copying/printing to confirm that the no jam occurs, and that papers are properly fed.
18. Reinstall the above parts following the removal steps in reverse.

Note

- After the adjustment, be sure to replace the stopper of the release lever to the original position.

9.7 Registration roller paper skew adjustment**(1) Usage**

Perform this adjustment when there is skew in the registration section.

(2) Procedure

1. Remove the screw [1] and then make sure the graduation of the screw [1].
2. Loosen 3 screws [2].
3. Move the registration section [3] to the arrow on the basis of the graduation.
4. Tighten the screw [1] and screws [2].
5. Perform copy/printing to check the paper skew.
6. In case it is not improved, repeat steps 1 to 5.

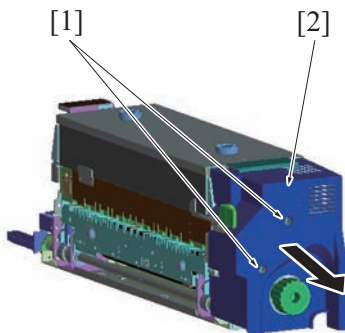
9.8 Fusing roller /Lw pressure adjustment (951 only)

(1) Usage

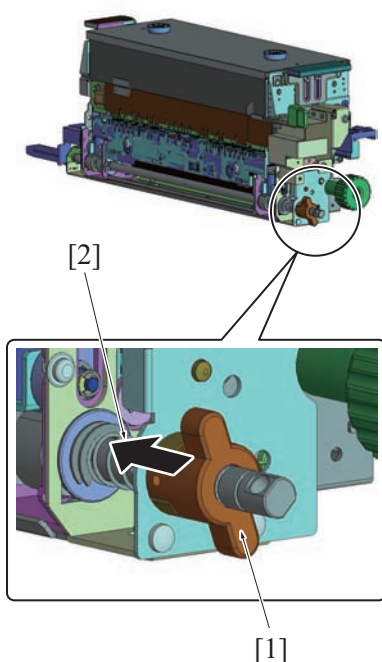
Conduct this adjustment when the paper is curled and not conveyed stably. Be careful that it is possible that excess adjustment cause the insufficient fusing.

(2) Procedure

1. Loosen 2 screws [1] and then remove the fusing cover [2].



2. Push the handle [1] in the arrow-marked direction [2], and then release the lock.

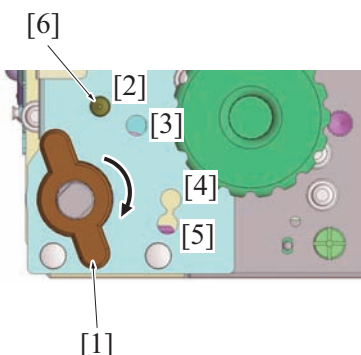


3. Rotate the handle [1] to confirm that the locks [6] are inserted into the positions [2], [3], [4] and [5], and then release the hand from the handle.
 - [2]: Strong fusing pressure (Default)
 - [3]: Medium fusing pressure
 - [4]: Weak fusing pressure
 - [5]: Release the fusing (Very weak fusing pressure)

Note

- The fusing position is set to [2] by default.
- In order to reform the curled paper, lower the fusing pressure step by step.

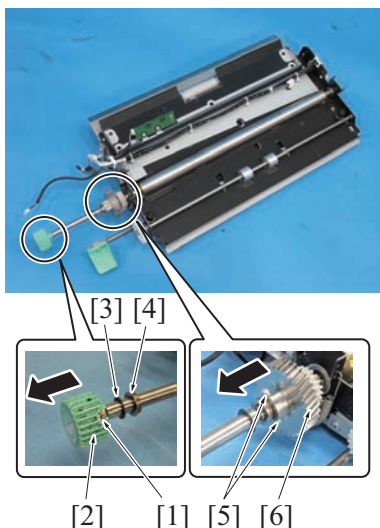
4. After the adjustment, execute the test print to check the curl of the paper.



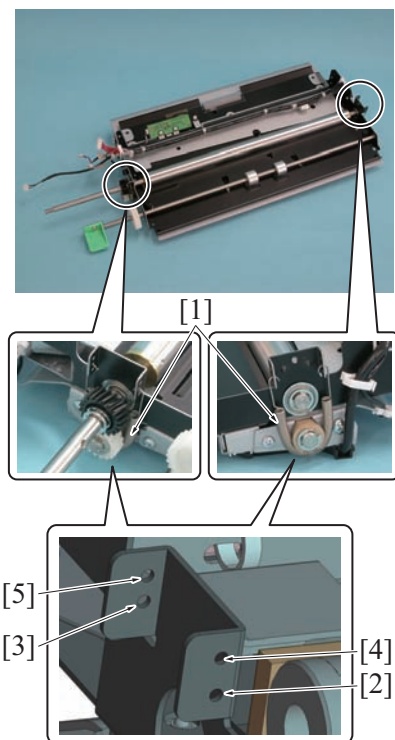
9.9 Registration roller pressure adjustment

(1) Usage

Perform this adjustment when the power for paper conveyance by the registration roller is not appropriate.

(2) Procedure

1. Remove the paper dust removing brush for the registration roller / Lw. (Refer to [F.5.9.2 Cleaning of the paper dust removing brush for the registration roller /Lw](#))
2. Remove the paper dust removing brush for the registration roller / Lw. (Refer to [F.5.9.2 Cleaning of the paper dust removing brush for the registration roller /Lw](#))
3. Remove the paper dust removing brush for the registration roller / Up. (Refer to [F.5.9.3 Cleaning of the paper dust removing brush for the registration roller /Up](#))
4. Remove the registration section. (Refer to [F.5.9.12 Removing/ reinstalling the registration section](#))
5. Remove the screw [1] and then remove the knob [2].
6. Remove the washer [3] and the bearing [4].
7. Remove 2 screws [5] and remove the roller gear /Rt [6].



8. Change the positions to hook 2 springs [1] according to the power for conveyance of the registration roller.
 - [2] and [5]: Medium conveyance power (Default)
 - [2] and [3]: Weak conveyance power
 - [4] and [5]: Strong conveyance power

Note

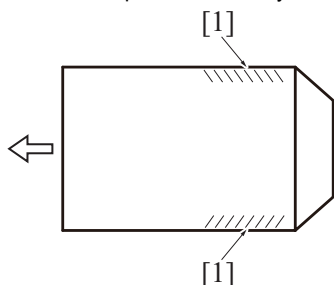
- When "Weak conveyance power" is set, the paper leading edge timing position for thick is longer compared to plain.

9. After adjustment, conduct a test print to check the condition of the power for conveyance of the registration roller.

(3) Case 1

When creases by the registration roller occur, set " Weak conveyance power". In the following, an envelope is used as an example.

- When using an envelope, small creases may occur on the folds [1].
- Particularly, creases are likely to occur to envelopes which are around 120mm in the direction of the main scan.
- The power for conveyance by the registration roller moves the bent of envelope to the fold and creases occur.
- Make the power for conveyance by the registration roller weak to prevent creases.



(4) Case 2

When the paper leading edge timing position for thick is longer compared to plain, set "Strong conveyance power".

Note

- The power of conveyance also changes according to dirt and abrasion of the roller. Perform this adjustment when the power for paper conveyance is not improved after replacing or cleaning the registration roller.

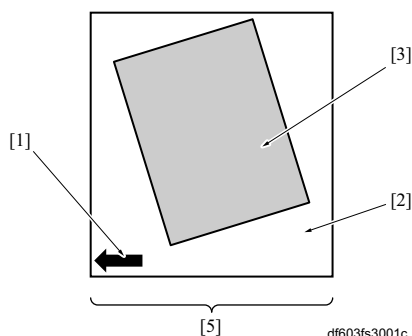
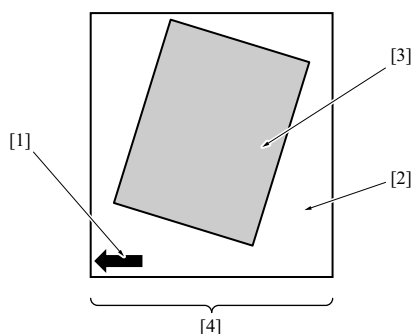
10. MECHANICAL ADJUSTMENT DF-615/616

10.1 Paper skew adjustment

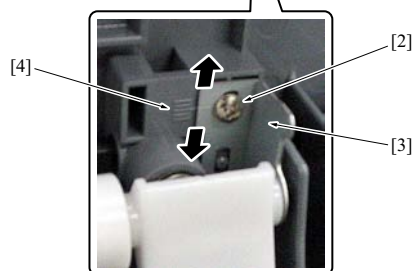
(1) Usage

Perform this adjustment when the image skew occurs.

(2) Procedure



df603fs3001c



df603fs3002c

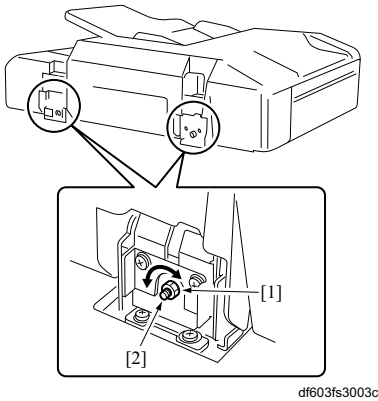
1. Make a copy in the single-sided original - single-sided copy mode, and check the original skew pattern (pattern A [4] or pattern B [5]) of the image [3] on the copy paper [2] to the copy paper feed direction [1].

2. Open the open-close cover [1].
3. Loosen the screw [2] and release the fixing of the registration roller bracket [3].
4. According to the original skew pattern, move the registration roller bracket [3] by 1 division [4] in the following direction.
In the pattern A: Move the registration roller bracket [3] to the lower side (direction down towards original feed flow).
In the pattern B: Move the registration roller bracket [3] to the upper side (direction up towards original feed flow).
5. Repeat the steps 2 to 4 until the original skew is within the specification (0.5% or less).
Specification: Paper skew $\pm 0.5\%$ or less (paper skew against the side parallel to the paper feed direction)

10.2 Hinge pressure adjustment

(1) Usage

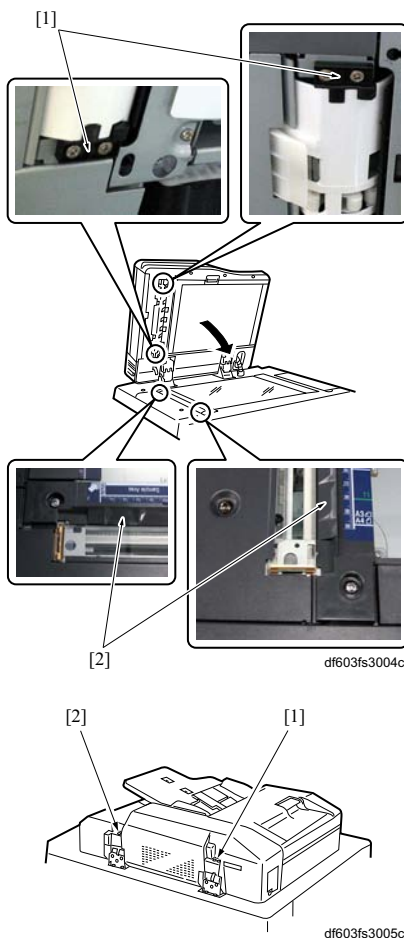
In this adjustment, the spring pressure when the DF is opened and closed is adjusted.

(2) Procedure

1. Close the DF.
2. Loosen the nuts [1], 1 each provided on both sides.
3. Open the DF.
4. Rotate the adjusting screw [2] to adjust the spring pressure of the hinge.
Tighten (clockwise): Spring pressure decreased.
Loosen (counterclockwise): Spring pressure increased.
5. Close the DF.
6. Tighten securely the nuts [1], 1 each provided on both sides.

10.3 Height adjustment**(1) Usage**

This adjusts the DF height.

(2) Procedure

1. Close the DF.
2. Check to see if each of 2 stopper pieces [1] on the DF side comes in touch with the dent [2] in the original stopper plate /Lt on the main body side.

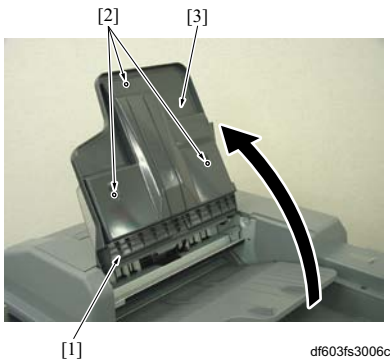
3. When the stopper pieces do not get contact with the dent on the original stopper plate /Lt at the same time, make adjustments by turning the adjusting screw A [1].

Note

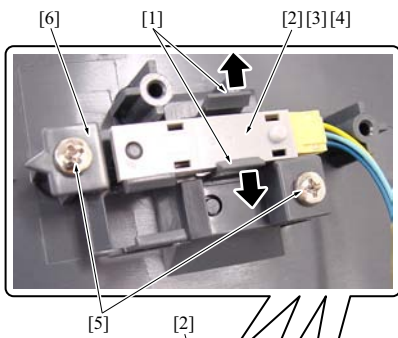
- For the adjustment of the DF height, be sure to make adjustments by turning the adjusting screw A [1] as a rule. When a satisfactory adjustment cannot be obtained with the adjusting screw A [1], make adjustments turning the adjusting screws A [1] and B [2] alternately.

10.4 Adjustment to prevent false detection by the original detection sensor**(1) Usage**

When the original count sensor (PS310) and the original size sensors /Lt (PS303) and /Rt (PS302) above the original feed tray make false detection due to the angle of incident of external light such as a fluorescent light, change the installation angle of the sensor.

(2) Procedure

1. Raise the original feed tray [1].
2. Remove 3 screws [2] and then remove the original feed tray cover /Lw [3].

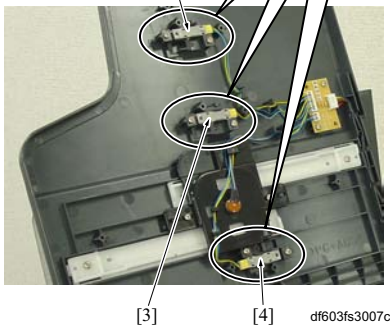


3. Expand the claw [1] a little wider and remove the original size sensors /Rt (PS302) [2] and /Lt (PS303) [3] and the original count sensor (PS310) [4].

Note

- Be careful not to spread the claw [1] too wide. Otherwise, it may break off.

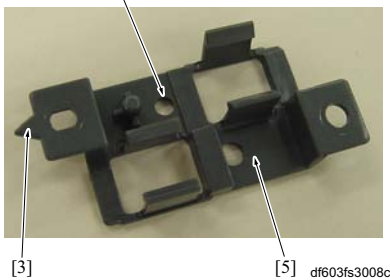
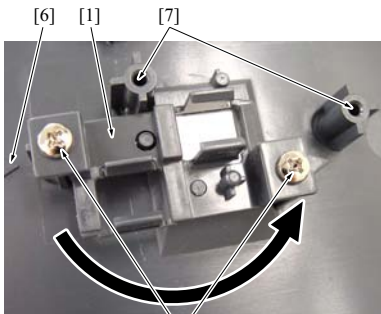
4. Remove 2 screws [5] and then remove the sensor holder [6].

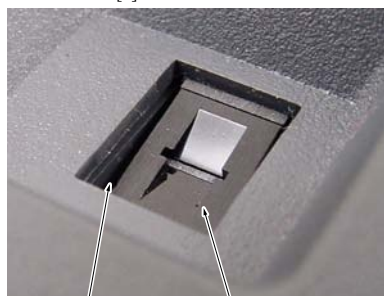
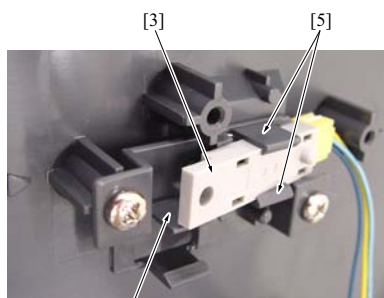


5. Rotate the sensor holder [1] up to 180DEGREE from side to side and fasten it with 2 screws [2].

Note

- When tilting the sensor at 10° forward or backward to the upright:
Install the sensor holder to the attaching hole [2] with the projection [3] placed on the side opposite to the triangular mark (▲) [6]. In this way, the sensor can be tilted to 10° forward. Installing the sensor holder to the attaching hole [7] with the projection [3] placed on the triangular mark (▲) [6] side allows the sensor to be tilted 10° backwards. In either case, install the sensor on the side [5] with no projection [3].
- When installing the sensor turned directly upward:
With the projection [3] put on the triangular mark (▲) [6] side, install the sensor holder [1] to the attaching hole [2]. Install the sensor on the side [4] provided with the projection [3].





[2] [1] df603fs3009c

6. Install the sensor [3] to the sensor holder [4] so that the sensor face [1] gets into the sensor window [2] as seen from above the original feed tray.

Note

- Be sure to check to see if the sensor [3] is securely held by the claw [5].
- Be careful that the sensor face [1] does not get damaged, and also be careful not to soil it with grimy hands.

7. Reinstall the above parts following the removal steps in reverse.

10.5 Centering sensor switchover adjustment (DF-615 only)

(1) Usage

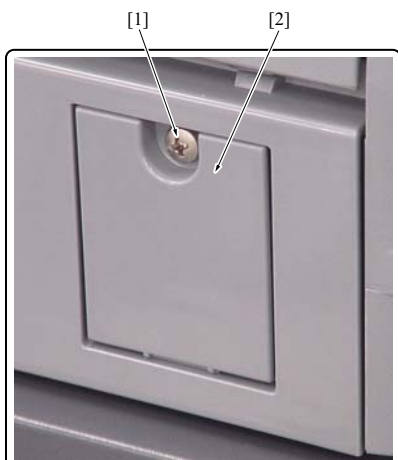
Adjust the installation position of the centering sensor /Fr (PS320) according to the original sizes (A4, A3 / 8 1/2 x 11, 11 x 17) mainly used by the user.

Note

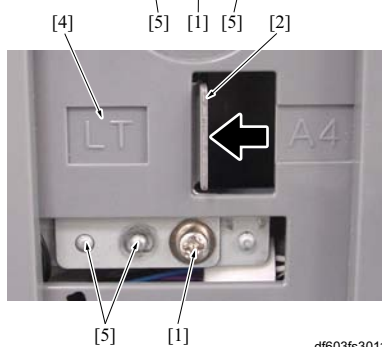
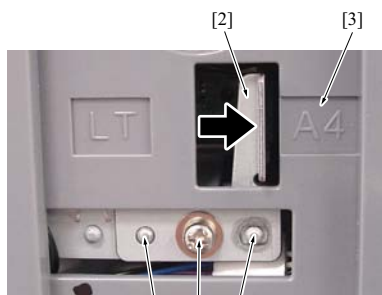
- Be sure to conduct in advance "ADF centering sensor sensitivity adjustment." (Refer to [I.5.3.41 ADF Centering Sensor Adjustment \(ADF Adjustment\) \(1250/1052 only\)](#))

(2) Procedure

1. Remove the screw [1] to remove the sensor cover [2].



df603fs3010c



df603fs3011c

2. Remove the screw [1] and install the sensor mounting plate [2] with the projection [5] set to the side stamped with "A4" [3] or to the "LT (8 1/2 x 11)" side [4].
 3. Reinstall the above parts following the removal steps in reverse.
- Reference:
- Turning OFF/ON the power switch (SW2) automatically recognizes the A4 position or the LT position.

11. MECHANICAL ADJUSTMENT PF-703

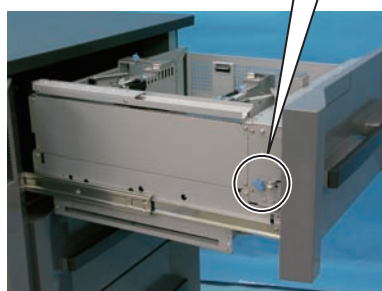
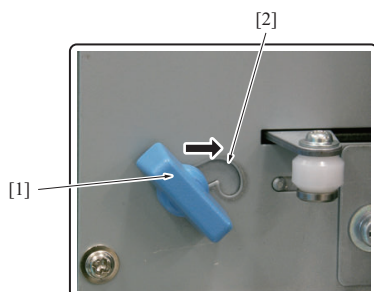
11.1 Paper height adjustment

(1) Usage

Conduct the paper height adjustment when a no feed condition, paper edge folding, or jams occur repeatedly during feeding paper, or in the case of feeding paper with a large amount of curl.

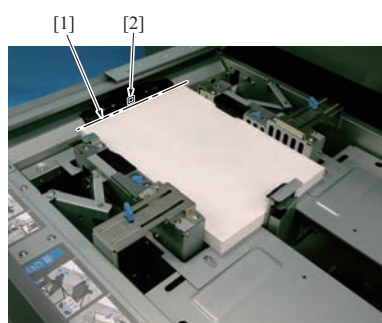
The gap between the height of the paper top and the height of the paper path on the paper feed belt is decided with the paper height adjustment.

(2) Procedure



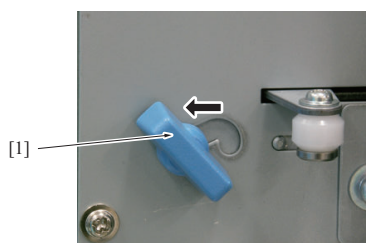
a0g6f3c100ca

1. Pull out the paper feed tray.
2. Loosen the screw [1] and move to [2].
3. Put the paper and set the tray. Confirm that the paper lift finished its elevation to the top by hearing the sound of the paper lift motor. Pull out the tray again.



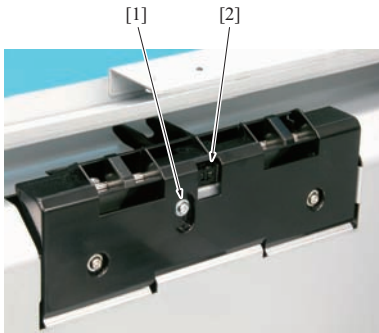
a0g6f3c101ca

4. Check the heights of the paper top [1] and the upper limit sensors / 1 (PS5), /2 (PS6), and /3 (PS10) [2].



a0g6f3c102ca

5. Loosen the screw [1] and move back to the original position, and then lower the paper lift plate.



a0g6f3c103ca

6. Loosen the screw [1] and adjust the height of the upper limit sensors /1 (PS5), /2 (PS6), and /3 (PS10) [2].

Note

- The shift amount of the upper limit sensors /1 (PS5), /2 (PS6), and /3 (PS10) [2] is the shift amount of the paper height.

7. Perform copying/printing to confirm that the no feed or jam do not occur. In case they are not improved, repeat steps 1 to 6.

11.2 Centering adjustment (for each tray)

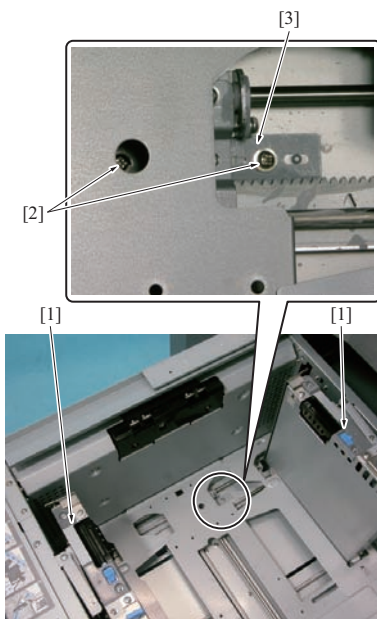
(1) Usage

This adjustment is made when the centering of paper varies each paper supplied from the trays 1, 2 and 3. The centering is automatically adjusted in the image-processing unit, and this adjustment is made when a centering exceeding the range of auto correction (+/- 5mm) occurs or jam occurs on paper more than 324mm width in the main scan direction.

Note

- Select [Detect] from [Setting Menu] - [06 Administrator Setting] - [01 System Setting] - [06 Expert Adjustment] - [03 Mis-centering Detect JAM Set.] to stop the operation by the jam when the centering exceeding the range of auto correction occurs.
- In this case, the jam code is J-3112.
- When a mis-centering of the same kind occurs in all of the fed paper from the trays /1 to /3, be sure to conduct "[I.12.6 Centering Adjustment \(PF\)](#)".

(2) Procedure



a0g6f3c104ca

1. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [OFF] from [Change Setting] - [Mis-centerDetect].
2. Perform copying/printing without automatic correction to check the centering of image.
3. Pull out the paper feed tray.
4. If any paper remaining, remove it.
5. If the paper guide [1] is at the small-size position, stretch the guide.
6. Loosen 2 screws [2].
7. Move the paper guide [1]. According to the centering you checked in step2, adjust the center position using the marking line [3].
8. Tighten 2 screws [2].
9. Insert a paper, and set the tray.
10. Make a copy/print and check to see if the centering is within the standard value (+/- 2mm).
11. When not up to the standard value, repeat the steps 3 to 10.
12. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [ON] from [Change Setting] - [Mis-centerDetect].

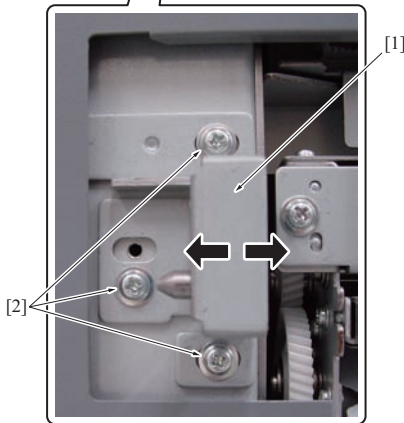
11.3 Centering Adjustment (PF)

(1) Usage

Conduct this adjustment when a mis-centering of the same kind occurs in all the fed paper from the PF trays 1, 2 and 3. The centering is automatically adjusted in the image-processing unit, and this adjustment is made when a centering exceeding the range of auto correction (+/- 5mm) occurs or jam occurs on paper more than 324mm width in the main scan direction.

Note

- Select [Detect] from [Setting Menu] - [06 Administrator Setting] - [01 System Setting] - [06 Expert Adjustment] - [03 Mis-centering Detect JAM Set.] to stop the operation by the jam when the centering exceeding the range of auto correction occurs.
- In this case, the jam code is J-3112.
- When mis-centering of paper is different for each of the trays 1 to 3, be sure to conduct "[I.12.5 Centering adjustment \(for each tray\)](#)".

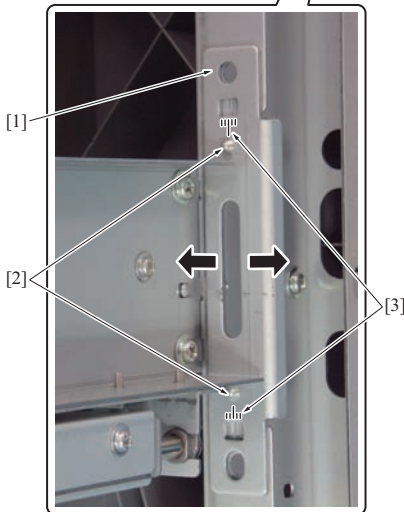
(2) Procedure

pf701fs3007d

1. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [OFF] from [Change Setting] - [Mis-centerDetect].
2. Make a copy/print for each of the trays 1 to 3, and make sure of the mis-centering of image with no automatic adjustment made.
3. Turn OFF the sub power switch (SW2) and the main power switch (SW1) of the main body and unplug the power plug from the power outlet.
4. Detach the PF from the main body. (Refer to "Installation manual.")
5. Loosen 3 screws [2] of the PF positioning bracket /Fr [1] on the main body side.
6. Move the PF positioning bracket /Fr [1] back and forth, and adjust the center position referring to the amount of discrepancy found in the step2.
7. Tighten 3 screws [2].
8. Connect the PF to the main body.
9. Connect the power plug of the main body to the power outlet and turn on the main power switch (SW1) and the power switch (SW2) of the main body.
10. Make a copy/print for each of the trays 1 to 3 to check the mis-centering to see if it is within the standard value ($\pm 2\text{mm}$).
11. When not up to the standard value, repeat the steps 3 to 10.
12. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [ON] from [Change Setting] - [Mis-centerDetect].

11.4 Tilt adjustment**(1) Usage**

Conduct this adjustment when the copy/print image tilt is found in all of the fed paper from the PF trays /1, /2 and /3.

(2) Procedure

pf701fs3008d

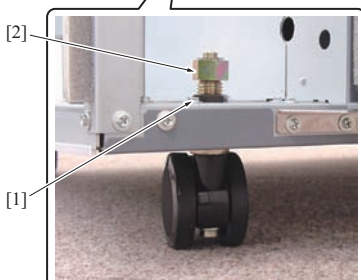
1. Turn OFF the sub power switch (SW2) and the main power switch (SW1) of the main body and unplug the power plug from the power outlet.
2. Detach the front side of the PF from the main body. (Refer to "Installation manual.")
3. Loosen 2 screws [2] of the positioning mounting metal fitting /Fr [1] on the PF side.
4. Move the positioning mounting metal fitting /Fr [1] back and forth, and adjust the tilt referring to the marking-off line [3].
5. Tighten 2 screws [2].
6. Connect the power plug of the main body to the power outlet and turn on the main power switch (SW1) and the power switch (SW2) of the main body.
7. Make a copy/print for each of the trays 1 to 3 and check to see if the tilt of the image has been adjusted.
8. When it has not been adjusted, repeat the steps 1 to 7.

11.5 Horizontal adjustment**(1) Usage**

Conduct this adjustment when the device cannot be placed in a horizontal position or when any discrepancy in height and/or tilt is found between the device and the main body.

Note

- Conducting horizontal adjustments may cause slipping-off of the position relative to the main body. So, after completion of adjustments, be sure to make a test copy/print to check to see if the paper feed is properly made from the PF.

(2) Procedure

pf701fs3009d

1. Turn OFF the sub power switch (SW2) and the main power switch (SW1) of the main body and unplug the power plug from the power outlet.
2. Detach the PF from the main body. (Refer to "Installation manual.")
3. Loosen the caster nuts [1] provided at the 2 places.
4. Use a wrench to rotate the caster nuts [2] provided at the 2 places and make horizontal adjustments of the device.

Note

- Be sure to take into account the height against the main body when making adjustments.

5. Rotate slightly by hand the caster nuts [2] at the 2 places to check to see if there is any caster being raised.

Note

- When any caster is found raised, use a wrench to rotate the nut [2] to extend the caster until you get a feel for secure contact.

6. Fasten the nut [2] with a wrench and tighten up the nut [1].

Note

- Be careful that when the nut [1] is tightened up with the nut [2] being not fastened, the nut [2] also rotates together with the nut [1], thus resulting in an incorrect position adjustment.

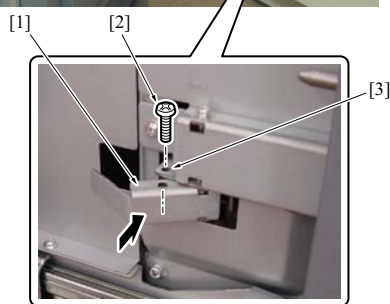
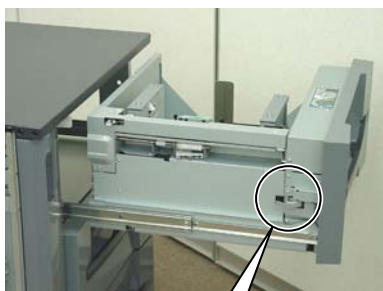
12. MECHANICAL ADJUSTMENT PF-706

12.1 Paper feed pick-up amount adjustment

(1) Usage

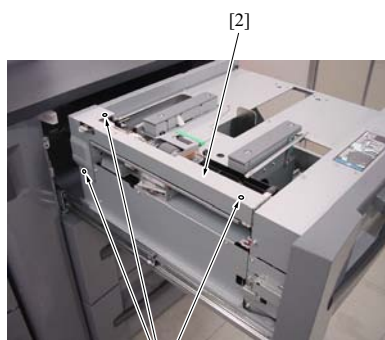
When a no feed condition occurs repeatedly while feeding paper, conduct the paper feed pick-up amount adjustment.

(2) Procedure



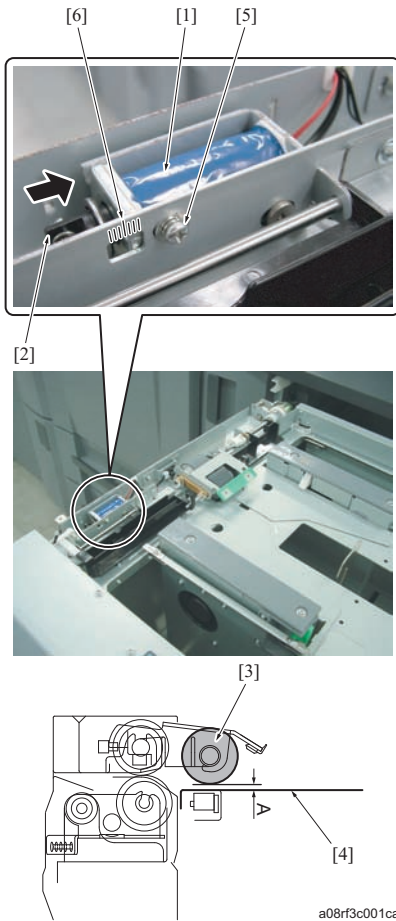
pf701fs3001c

1. Pull out the paper feed tray.
2. If any paper remaining, remove it.
3. Push in the release lever [1] and insert the screw [2] into the hole [3] to fasten the release lever [1].
4. Set the tray. Confirm that the paper lift finished its elevation to the top by hearing the sound of the paper lift motor. Pull out the tray again.
5. Remove the stopper screws, 1 each, attached on the right and left rails and pull the tray further out.



pf701fs3002c

6. Remove 3 screws [1] and remove the paper feed cover [2].



a08rf3c001ca

7. Pull the plunger [2] of the pick-up solenoid [1] and measure the clearance between the pick-up roller [3] and the lift plate [4] with a feeler gauge.
Standard value A = 0.1mm to 1.5mm
If it is not within the standard value, follow step8 and after.
8. Loosen a screw [5].

Note

- Before loosening the screw [5], record the position of the pick-up solenoid [1] with the marking line [6].

9. With the plunger [2] pulled, adjust the position of the pick-up solenoid [1] so that the clearance between the pick-up roller [3] and the lift plate [4] gets to the specified value.
10. Tighten the screw [5] to fix the pick-up solenoid [1].
11. Insert a paper, and set the tray.

Note

- When setting the tray, be sure to bring down the pick-up solenoid (in normal condition). Setting the tray with the paper feed cover removed and the pick-up roller brought up may cause damage to the pick-up roller.

12. Perform copying/printing to confirm that the no feed does not occur.
13. Reinstall the above parts following the removal steps in reverse.

Note

- After completion of adjustment, be sure to remove the screw of the release lever.

12.2 Pick-up roller height adjustment

(1) Usage

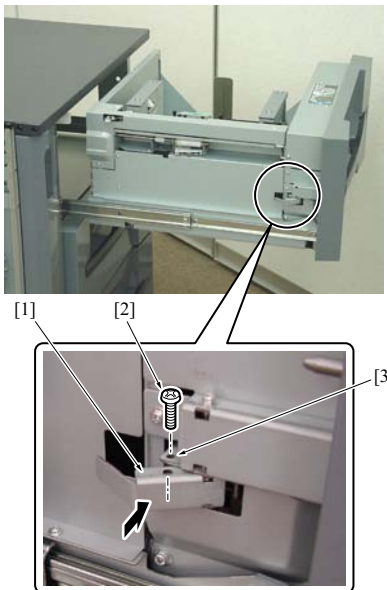
Conduct the pick-up roller height adjustment when a no feed condition, paper edge folding, or jams occur repeatedly during feeding paper, or in case of feeding paper with a large amount of curl.

According to the pick-up roller height adjustment, the height of the upper most paper and the paper through height of the paper feed roller are decided.

Note

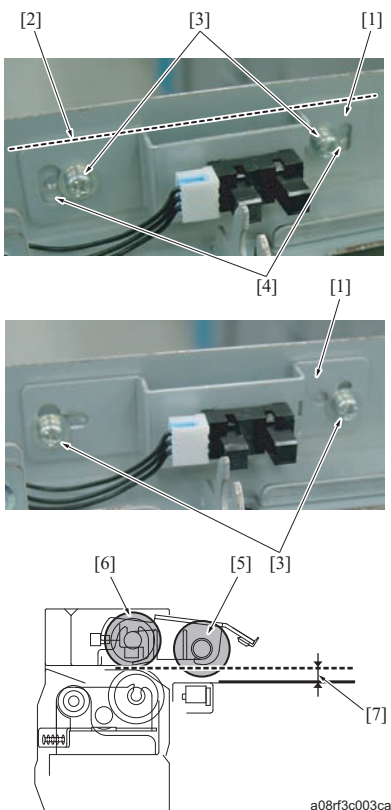
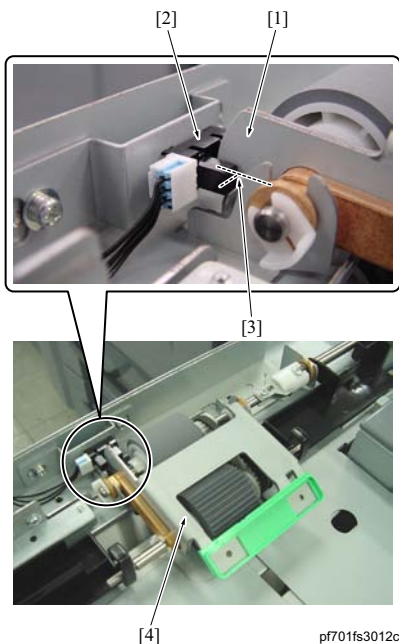
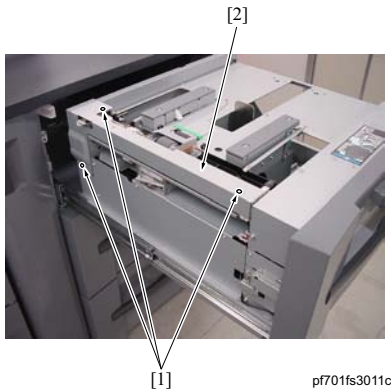
- On performing the pick-up roller height adjustment, the paper feed pick-up amount is changed. Be sure to confirm the paper feed pick-up amount in the paper feed pick-up amount adjustment.

(2) Procedure



pf701fs3010c

1. Pull out the paper feed tray.
2. If any paper remaining, remove it.
3. Push in the release lever [1] and insert the screw [2] into the hole [3] to fasten the release lever [1].
4. Set the tray. Confirm that the paper lift finished its elevation to the top by hearing the sound of the paper lift motor. Pull out the tray again.
Then pull out the tray again. Remove the stopper screw of the tray rail and further pull out the tray.



5. Remove 3 screws [1] and remove the paper feed cover [2].

6. Check if the actuator [1] of the pick-up roller assy meets the center [3] of the upper limit sensor/1 (PS2), /2 (PS6), /3 (PS10) [2]
7. Remove the pick-up roller section [4]. (Refer to [F.8.2.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))

8. Make a mark [2] of the height of the upper limit sensor mounting plate [1].
9. Remove 2 screws [3], attach and fasten it temporarily on the slotted hole side [4] of the upper limit sensor mounting plate [1].
10. Make vertical adjustments of the upper limit sensor mounting plate [1] and fasten it with the screws [3].

Note

- Be sure to install the upper limit sensor mounting plate [1] so that it becomes level.

Reference:

- Raising the position of the upper limit sensor brings down the pick-up roller [5] (resulting in the increased difference [7] of elevation between the paper feed roller [6] and the pick-up roller [5]).
- Lowering the position of the upper limit sensor brings up the pick-up roller [5] (resulting in the reduced difference [7] of elevation between the paper feed roller [6] and the pick-up roller [5]).
- When the printed page is folded, when paper jam occurs frequently, or when feeding paper with a large amount of curl, raise the upper limit sensor mounting plate.
- When feeding convexly curled paper, lower the upper limit sensor mounting plate.

11. Reinstall the pick-up roller assembly.

Note

- When specifying the tray with the pick-up roller not installed, the paper lift plate does not stop at the upper limit, thus damaging the tray. Be sure to install the pick-up roller.

12. Insert a paper, and set the tray.
13. Perform copying/printing to confirm that the no feed or jam do not occur. In case they are not improved, repeat steps 7 to 14.
14. Check the paper feed pick-up amount. (Refer to [1.12.1 Paper feed pick-up amount adjustment](#))

15. Reinstall the above parts following the removal steps in reverse.

Note

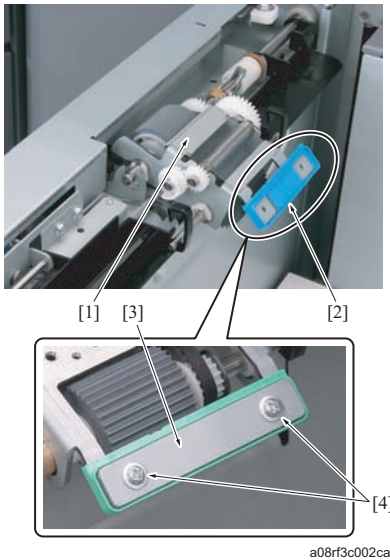
- After completion of adjustment, be sure to remove the screw of the release lever.

12.3 Pick-up roller load adjustment

(1) Usage

In case a no feed jam occurs frequently, perform the pick-up roller load adjustment.

(2) Procedure



1. Pull out the paper feed tray.
2. In the pick-up roller assy [1], put paper feed assist plate [3] on the paper feed assist plate holder [2], and fix them with accompanying screw (M3 x 8mm) [4].

Note

- Up to 8 paper feed assist plates can be attached.
For the number of plates to be attached, refer to "1.8.2.11 Overlay printing adjustment" and "1.8.2.14 User setting of each paper brand".
- The paper feed assist plate is approx. 10g each.

3. Set the tray.
4. Perform copying/printing to check whether the no feed or the double feed occurs or not.

Note

- When a no feed condition recurs, increase the number of the paper feed assist plates. When a double feed condition occurs, decrease the number of the paper feed assist plates.

5. In case either of no feed or double feed occurs, repeat steps 2 to 4.

12.4 Separation pressure adjustment

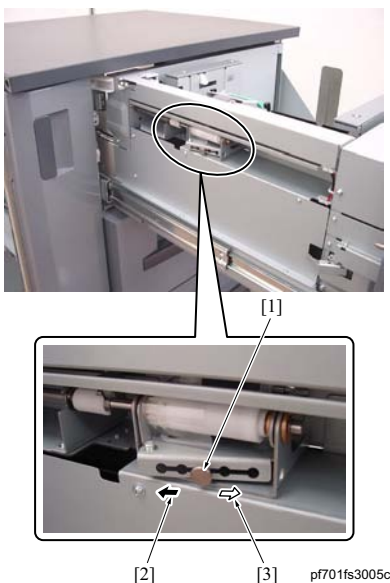
(1) Usage

When a no feed or double feed condition occurs repeatedly, conduct the separation pressure adjustments.

Note

- The no-feed or multi-feed error is most likely to occur due to paper type or operating environment. No feed tends to occur in low temperature environment, whereas high temperature environment results in a higher rate of multi-feed.
- Excess adjustment may reverse the symptom.

(2) Procedure



1. Pull out the paper feed tray.
2. Change the position of the spring adjustment lever [1].
The separation pressure is strengthened when the lever moves to the direction [2] and is weakened when the lever moves to the direction [3].

Weak: a double feed jam is improved.

Strong: a no feed jam is improved.

Reference:

- The pressure applied to the spring increases/decreases by about 10% increment.

3. Make a copy/print with the tray set, and check to see if a no feed or double feed condition occurs.
4. In case either of no feed or double feed occurs, repeat steps 2 to 3.

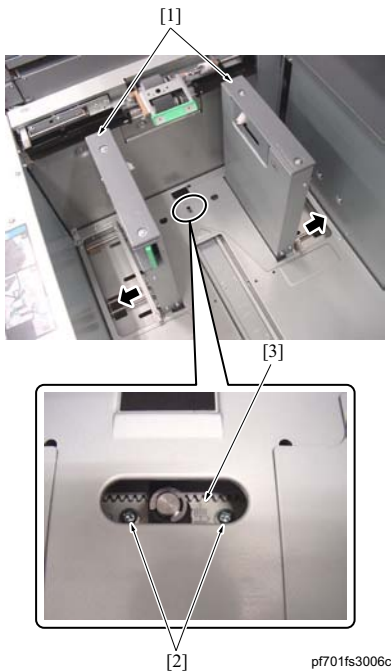
12.5 Centering adjustment (for each tray)

(1) Usage

This adjustment is made when the centering of paper varies each paper supplied from the trays 1, 2 and 3. The centering is automatically adjusted in the image-processing unit, and this adjustment is made when a centering exceeding the range of auto correction (+/- 5mm) occurs or jam occurs on paper more than 324mm width in the main scan direction.

Note

- Select [Detect] from [Setting Menu] - [06 Administrator Setting] - [01 System Setting] - [06 Expert Adjustment] - [03 Mis-centering Detect JAM Set.] to stop the operation by the jam when the centering exceeding the range of auto correction occurs.
- In this case, the jam code is J-3112.
- When a mis-centering of the same kind occurs in all of the fed paper from the trays /1 to /3, be sure to conduct "I.12.6 Centering Adjustment (PF)."

(2) Procedure

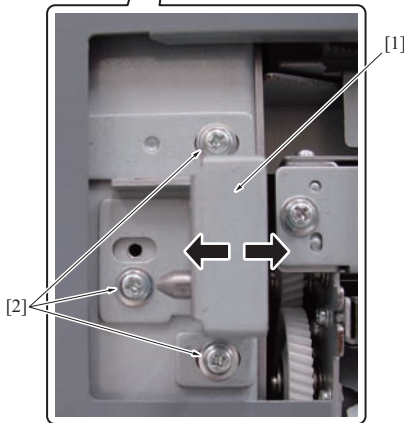
1. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [OFF] from [Change Setting] - [Mis-centerDetect].
2. Perform copying/printing without automatic correction to check the centering of image.
3. Pull out the paper feed tray.
4. If any paper remaining, remove it.
5. If the paper guide [1] is at the small-size position, stretch the guide.
6. Loosen 2 screws [2].
7. Move the paper guide [1]. According to the centering you checked in step2, adjust the center position using the marking line [3].
8. Tighten 2 screws [2].
9. Insert a paper, and set the tray.
10. Make a copy/print and check to see if the centering is within the standard value (+/- 2mm).
11. When not up to the standard value, repeat the steps 3 to 10.
12. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [ON] from [Change Setting] - [Mis-centerDetect].

12.6 Centering Adjustment (PF)**(1) Usage**

Conduct this adjustment when a mis-centering of the same kind occurs in all the fed paper from the PF trays 1, 2 and 3. The centering is automatically adjusted in the image-processing unit, and this adjustment is made when a centering exceeding the range of auto correction (+/- 5mm) occurs or jam occurs on paper more than 324mm width in the main scan direction.

Note

- Select [Detect] from [Setting Menu] - [06 Administrator Setting] - [01 System Setting] - [06 Expert Adjustment] - [03 Mis-centering Detect JAM Set.] to stop the operation by the jam when the centering exceeding the range of auto correction occurs.
- In this case, the jam code is J-3112.
- When mis-centering of paper is different for each of the trays1 to 3, be sure to conduct "I.12.5 Centering adjustment (for each tray)".

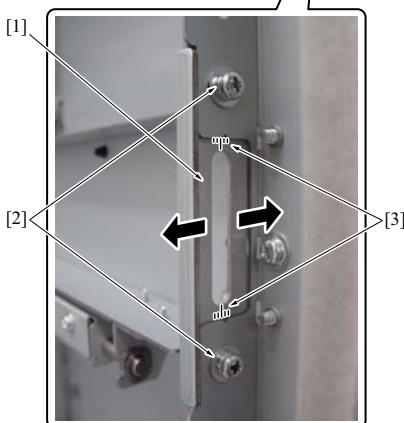
(2) Procedure

pf701fs3007d

1. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [OFF] from [Change Setting] - [Mis-centerDetect].
2. Make a copy/print for each of the trays 1 to 3, and make sure of the mis-centering of image with no automatic adjustment made.
3. Turn OFF the sub power switch (SW2) and the main power switch (SW1) of the main body and unplug the power plug from the power outlet.
4. Detach the PF from the main body. (Refer to "Installation manual.")
5. Loosen 3 screws [2] of the PF positioning bracket /Fr [1] on the main body side.
6. Move the PF positioning bracket /Fr [1] back and forth, and adjust the center position referring to the amount of discrepancy found in the step2.
7. Tighten 3 screws [2].
8. Connect the PF to the main body.
9. Connect the power plug of the main body to the power outlet and turn on the main power switch (SW1) and the power switch (SW2) of the main body.
10. Make a copy/print for each tray1 to tray3 to check the mis-centering to see if it is within the standard value ($\pm 2\text{mm}$).
11. When not up to the standard value, repeat the steps 3 to 10.
12. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [ON] from [Change Setting] - [Mis-centerDetect].

12.7 Tilt adjustment**(1) Usage**

Conduct this adjustment when the copy/print image tilt is found in all of the fed paper from the PF trays /1, /2 and /3.

(2) Procedure

pf701fs3008c

1. Turn OFF the sub power switch (SW2) and the main power switch (SW1) of the main body and unplug the power plug from the power outlet.
2. Detach the front side of the PF from the main body. (Refer to "Installation manual.")
3. Loosen 2 screws [2] of the positioning mounting metal fitting /Fr [1] on the PF side.
4. Move the positioning mounting metal fitting /Fr [1] back and forth, and adjust the tilt referring to the marking-off line [3].
5. Tighten 2 screws [2].
6. Connect the power plug of the main body to the power outlet and turn on the main power switch (SW1) and the power switch (SW2) of the main body.
7. Make a copy/print for each of the trays /1 to /3 and check to see if the tilt of the image has been adjusted.
8. When it has not been adjusted, repeat the steps 1 to 7.

12.8 Horizontal adjustment

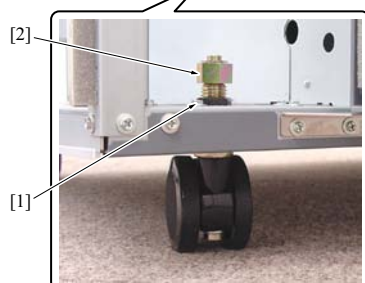
(1) Usage

Conduct this adjustment when the device cannot be placed in a horizontal position or when any discrepancy in height and/or tilt is found between the device and the main body.

Note

- Conducting horizontal adjustments may cause slipping-off of the position relative to the main body. So, after completion of adjustments, be sure to make a test copy/print to check to see if the paper feed is properly made from the PF.

(2) Procedure



pf701fs3009c

1. Turn OFF the sub power switch (SW2) and the main power switch (SW1) of the main body and unplug the power plug from the power outlet.
2. Detach the PF from the main body. (Refer to "Installation manual.")
3. Loosen the caster nuts [1] provided at the 2 places.
4. Use a wrench to rotate the caster nuts [2] provided at the 2 places and make horizontal adjustments of the device.

Note

- Be sure to take into account the height against the main body when making adjustments.

5. Rotate slightly by hand the caster nuts [2] at the 2 places to check to see if there is any caster being raised.

Note

- When any caster is found raised, use a wrench to rotate the nut [2] to extend the caster until you get a feel for secure contact.

6. Fasten the nut [2] with a wrench and tighten up the nut [1].

Note

- Be careful that when the nut [1] is tightened up with the nut [2] being not fastened, the nut [2] also rotates together with the nut [1], thus resulting in an incorrect position adjustment.

13. MECHANICAL ADJUSTMENT LU-409/410

13.1 Separation pressure adjustment

(1) Purpose

- Adjust the separation pressure which occurs during the paper feeding, and prevent the no-feed or the double-feed jam.

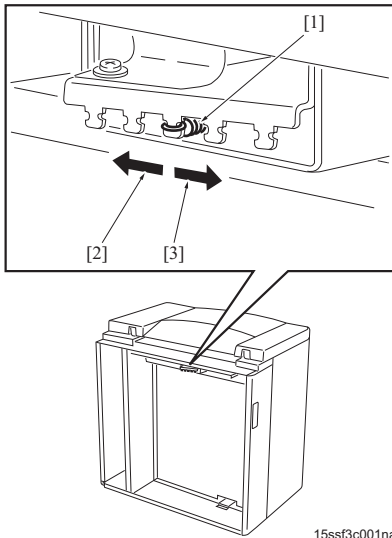
(2) Usage

Conduct the adjustment when there occurs a no-feed or double-feed jam repeatedly.

Note

- Do not make an excessive adjustment. Doing so may reverse the symptoms.
- Paper type and ambient temperature/humidity can be a major cause of the no-feed or multi-feed jam. For example, no-feed jam tends to occur in low temperature, and multi-feed jam does in high temperature. Make sure to carry out this adjustment with that in mind.

(3) Procedure



- Remove the LU from the main body.
- Disconnect the hooked end [1] of the spring from the tab, and attach it to another tab on the left [2] or right [3] side of the center tab to raise or reduce the separation pressure. The 5 tabs correspond to 5 pressure levels. Attach the hooked end of the spring to a tab on the [2] side to raise the pressure, or attach it to a tab on the [3] side to reduce the pressure.
Reducing pressure: lowers multi-feed jam rate.
Raising pressure: lowers no-feed jam rate.
Reference: The spring force changes in increments of about 10%.
- Reinstall the LU to the main body.

Note

- After completion of installation, be sure to make a print and check to see if a no feed jam or double feed jam does not occur.

13.2 Paper feed roller pressure adjustment (LU-410 only)

(1) Purpose

- Increase the pressure in feeding paper from LU to prevent the no feed.

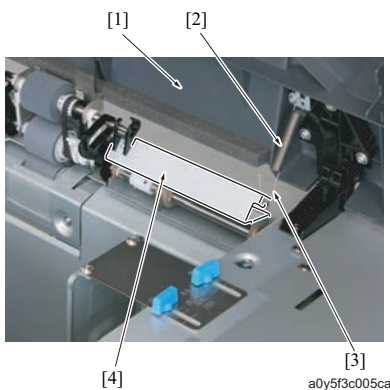
(2) Usage

- Conduct this adjustment when no feed occurs even with the separation pressure adjustment of LU.

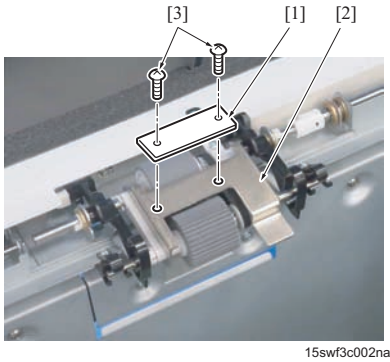
Note

- Adjusting the feed roller pressure changes the pick-up release amount. So after completion of adjustment, be sure to check the pick-up release amount.
- Be sure to purchase the paper feed assist plate (P/N: 13FG4062*) separately since it is supplemental part.

(3) Procedure



- Open the upper door [1].
- Remove the hook [3] of spring [2] from the paper feed guide plate [4].



3. Install the paper feed assist plate [1] to the paper feed roller unit plate [2] with 2 screws [3].
 4. Perform printing to confirm that the no feed does not occur.
- Note**
- When a no feed condition recurs, increase the number of paper feed assist plates. When a double feed condition occurs, decrease the number of plates.
 - Up to 6 paper feed assist plates can be attached.
5. In case either of no feed or double feed occurs, repeat steps 3 to 4.
 6. Check the pick-up release amount. (Refer to [1.13.7 Pick-up roller separation adjustment](#))

13.3 Paper lift plate horizontal adjustment

(1) Purpose

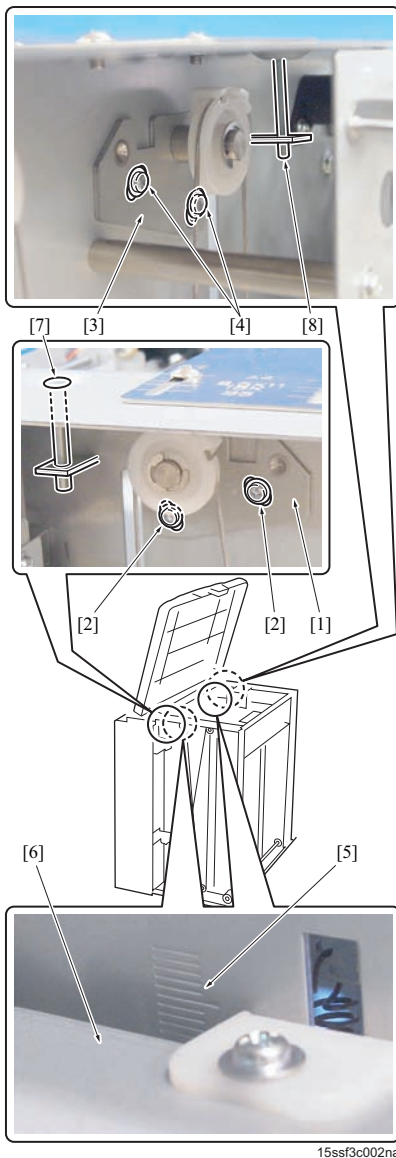
- Get back the inclined paper lift board to the horizontal position.

(2) Usage

- Conduct this adjustment when the paper feed jam often occurs or when the lift wire is replaced.

(3) Procedure

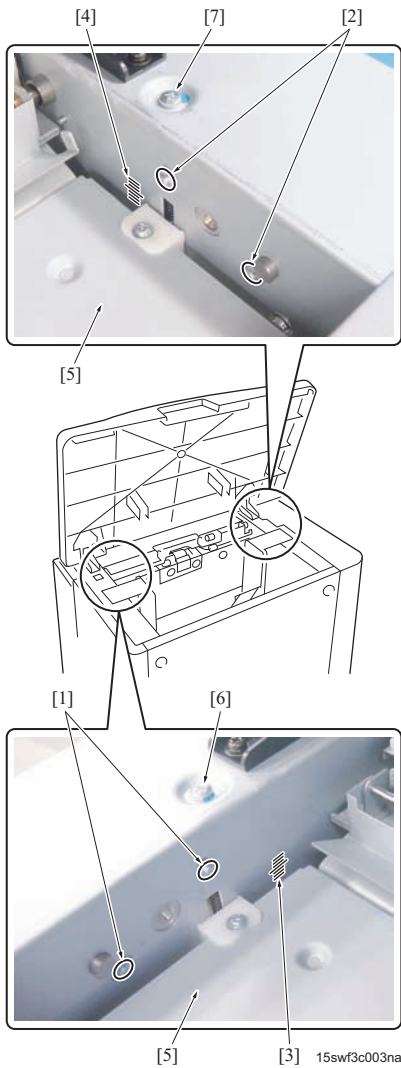
(a) Adjustments for LU-409



1. Turn on the main power switch (SW1) and the sub power switch (SW2) of the main body. After the paper lift plate stops at its uppermost position (listen to the sound of the paper lift motor to figure out the stop status), turn off the both switches.
2. Remove the LU from the main body.
3. Remove the following covers.
 - Left cover (Refer to [G.6.2.3 Right cover](#))
 - Front cover (Refer to [G.6.2.4 Front cover](#))
 - Rear cover (Refer to [G.6.2.5 Rear cover](#))
4. Loosen 2 screws [2] of the adjustment bracket /Fr [1] and 2 screws [4] of the adjustment bracket /Rr [3].
5. Using the marking-off line [5] as a guide, adjust the horizontal level of the paper lift plate [6] with the adjusting screws [7] and [8].
6. Tighten up 2 screws [2] and 2 screws [4].
7. Reinstall the above parts following the removal steps in reverse.

Note

- After completion of installation, be sure to make a print and check to see if a no feed jam or double feed jam does not occur.

(b) Adjustments for LU-410

1. Turn on the main power switch (SW1) and the sub power switch (SW2) of the main body. After the paper lift plate stops at its uppermost position (listen to the sound of the paper lift motor to figure out the stop status), turn off the both switches.
2. Open the upper door.
3. Loosen 2 screws [1] on the front side and 2 screws [2] on the rear side.
4. Using the marking-off lines [3] and [4] as a guide, adjust the horizontal level of the paper lift plate [5] with the adjusting screws [6] and [7].
5. Tighten up 2 screws [1] and 2 screws [2].
6. Reinstall the above parts following the removal steps in reverse.

Note

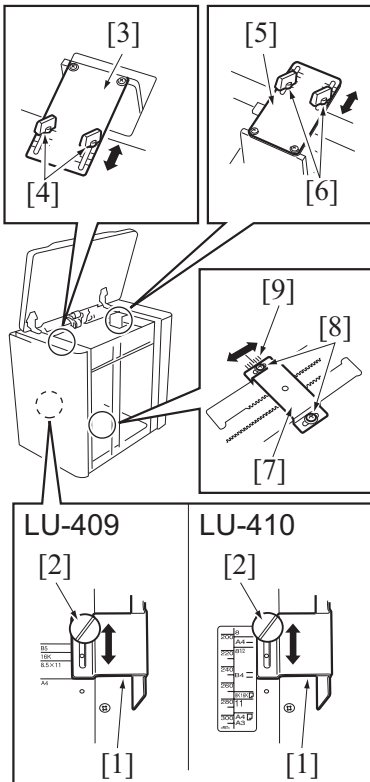
- After completion of installation, be sure to make a print and check to see if a no feed jam or double feed jam does not occur.

13.4 Paper centering adjustment**(1) Purpose**

- Adjust when the mis-centering between the center of the printed image and the paper occurs on the print from LU.

(2) Usage

- Adjust the skew between the center of the printed image and the paper.

(3) Procedure

1. Select the tray to adjust, selecting [MACHINE] - [Tray Setting] and then select [OFF] from [Change Setting] - [Mis-centerDetect].
2. Make a print of the test pattern No.16 and check the amount of centering with no adjustment made.
3. Load about 100 sheets of paper in the LU. (less than 100 may cause the paper becoming warped when the guide plate is pressed against it.)
4. Close the upper door. And turn off the main power switch (SW1) and the sub power switch (SW2) after the paper lift plate stops at its uppermost position (listen to the sound of the paper lift motor to figure out the stop status).
5. Remove the right cover. (Refer to [G.6.2.3 Right cover](#))
6. Open the front door and loosen the screw [2] of the paper width adjustment section [1].
7. Open the upper door and loosen 2 screws [4] of the guide plate /Fr [3] and 2 screws [6] of the guide plate /Rr [5].
8. Loosen the 2 screws [8] of the centering bracket [7].
9. Slide the centering bracket [7] aligning the line on the both ends of the bracket with the marking-off line [9], and tighten the 2 screws [8].
10. Press the guide plates /Fr [3] and /Rr [5] against the paper, tighten up screws [2], [4] and [6], 5 in all.

Note

- When pressing the guide plates against paper, make sure not to press them too much, or a paper jam may occur.

11. Reinstall the above parts following the removal steps in reverse.

Note

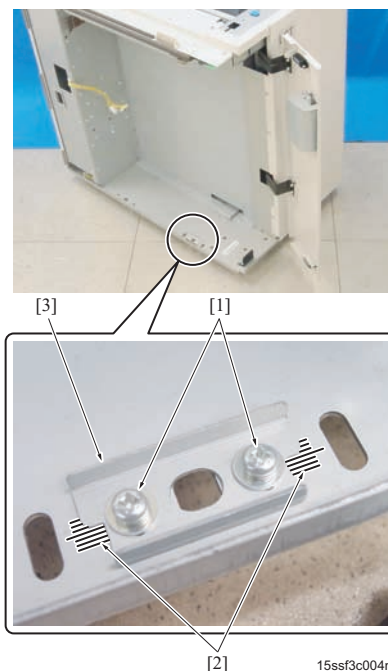
- Make some test prints to check to see that the off-centered amount falls within the allowable range.
- After checking that it is inside the specified value, be sure to enable the software DIPSW12-3 (data = 0).

13.5 Paper skew adjustment**Note**

- Conduct this adjustment when there is a difference in the inclination found with the main body tray and the paper skew. However, this method has a limited effect since all of the paper supplied is adjusted at the registration section.
- An adjustment is made at a different place according to the case in which there occurs a skew of the same inclination in all of the paper supplied from the LU or in which there occurs a skew at random for each sheet of paper.

(1) Preparation

1. Make the continuous print of the test pattern (No.16) to check to see if there is no skew.
2. Depending on the inclination of a skew, conduct either of the following adjustment B and C.
Skew in the same inclination for the entire LU: Adjustment procedure B
Skew at random: Adjustment procedure C

(2) Adjustment procedure taken when there is a skew found with all of the paper supplied from the LU.

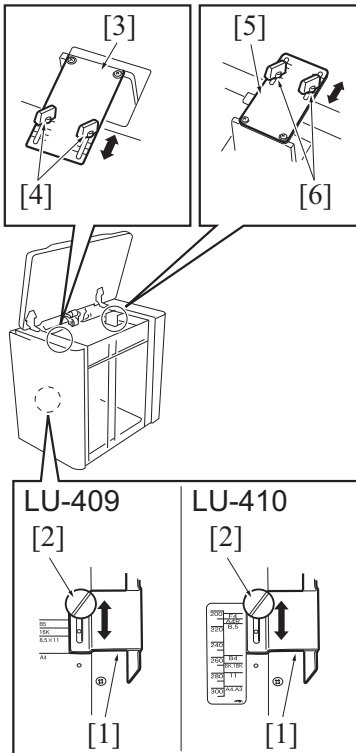
1. Open the front door.
2. Loosen 2 screws [1].
3. Using the marking-off lines [2] as a guide, adjust the position of the positioning bracket [3].

Note

- Be sure to move the positioning bracket [3] in parallel so that it comes to the same position as the marking-off lines [2] in front and rear.

4. Make the continuous print of the test pattern (No.16) to check to see if there is no skew.

(3) Procedure for adjustment when there occurs an irregular skew



1. Load about 100 sheets of paper in the LU. (less than 100 may cause the paper becoming warped when the guide plate is pressed against it.)
2. Turn on the main power switch (SW1) and the sub power switch (SW2) of the main body. After the paper lift plate stops at its uppermost position (listen to the sound of the paper lift motor to figure out the stop status), turn off the both switches.
3. Open the front door and loosen the screw [2] of the paper width adjustment section [1].
4. Open the upper door and loosen 2 screws [4] of the guide plate /Fr [3] and 2 screws [6] of the guide plate /Rr [5].
5. Press the guide plates /Fr [3] and /Rr [5] against the paper, tighten up screws [2], [4] and [6], 5 in all.

Note

- The size indication of the guide plate is given so that it becomes 2 mm larger than the standard size indication. This clearance of 2 mm may cause a skew depending on the type of paper.
- When pressing the guide plate against the paper, be careful not to apply too much force. Otherwise, the paper feed can be negatively affected, thus resulting in a jam.

6. Make the continuous print of the test pattern (No.16) to check to see if there is no skew.

13.6 (Maximum) Paper feed height adjustment

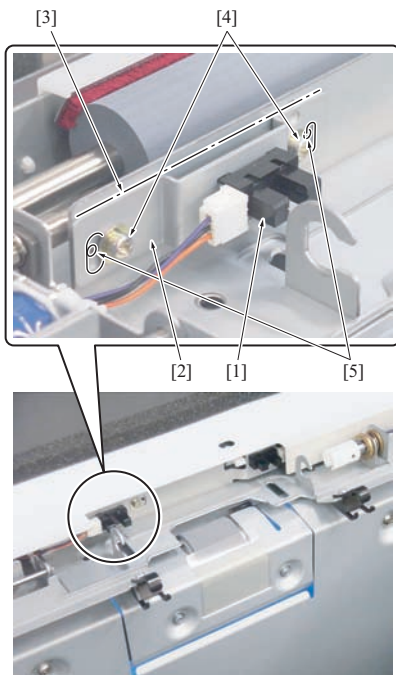
(1) Usage

Conduct this adjustment when the following conditions occur.

- When a no feed condition is not improved by conducting the paper feed roller pressure adjustment.
- When there occurs a no feed jam in which a thick paper gets stuck with the entrance guide plate (guide plate of the separation roller section).
- When a double feed jam is not improved by conducting the separation pressure adjustment.

Note

- Adjusting the paper feed height (upper limit) changes the pick-up release amount. So, be sure to conduct the pick-up release amount adjustment after this adjustment. (Refer to [I.13.7 Pick-up roller separation adjustment](#))

(2) Procedure

15ssf3c006na

1. Turn on the main power switch (SW1) and the sub power switch (SW2) of the main body. After the paper lift plate stops at its uppermost position (listen to the sound of the paper lift motor to figure out the stop status), turn off the both switches.
2. Remove the paper feed roller unit. (Refer to [F.9.2.2 Removing/installing paper feed roller unit](#))
3. Record a mark [3] for the height of the sensor mounting plate [2] of the upper limit sensor (PS109) [1].
4. Remove 2 screws [4], and attach them to the screw holes [5] provided outside. Then tighten them tentatively.
5. Adjust the sensor mounting plate [2] vertically while keeping it in a horizontal position, and tighten up the screw [4].

Note

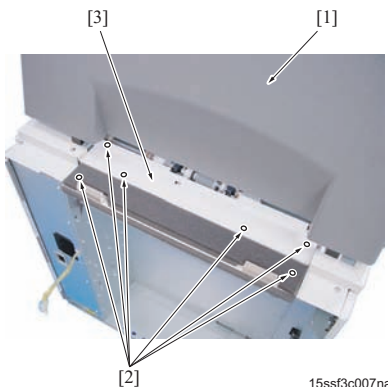
- Be sure to install the sensor mounting plate [2] so that it is in a horizontal position.
 - Move downward the sensor mounting plate [2] to increase the paper feed height, and move upward the sensor mounting plate [2] to decrease the paper feed height.
 - When there occurs a no feed condition and a convex-curved paper is fed, move downward the sensor mounting plate [2] to increase the paper feed height.
 - When there occurs a double feed condition with the edge of fed paper folded and a concave-curved paper is fed, move upward the sensor mounting plate [2] to decrease the paper feed height.
6. Reinstall the above parts following the removal steps in reverse.

Note

- When turning on power with no paper feed roller unit installed, the paper lift plate does not stop at its upper limit position, thus causing damage to the tray.

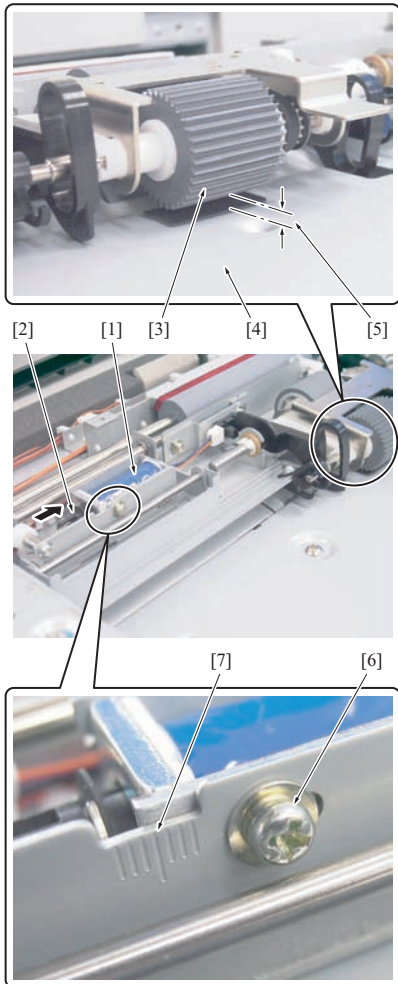
13.7 Pick-up roller separation adjustment**(1) Usage**

Conduct this adjustment when there occurs a no feed jam repeatedly and when the paper feed height (upper limit) adjustment is made.

(2) Procedure

15ssf3c007na

1. Turn on the main power switch (SW1) and the sub power switch (SW2) of the main body. After the paper lift plate stops at its uppermost position (listen to the sound of the paper lift motor to figure out the stop status), turn off the both switches.
2. Remove the upper door [1]. (Refer to [G.6.2.2 Upper door](#))
3. Remove 6 screws [2] and remove the paper feed cover [3].



15ssf3c008na

4. With the moving part [2] of the pick-up solenoid (SD100) [1] pulled in the direction of the arrow, measure the gap [5] between the pick-up roller [3] and the paper lift plate [4].
Standard value: 0.5mm to 2.5mm
When not within the standard value, conduct an adjustment following Steps 5 and 6.
5. Loosen the screw [6]. And then using the marking-off lines [7] as a guide, adjust the position of SD100 [1] and tighten up the screw [6].
6. Reinstall the above parts following the removal steps in reverse.

Note

- After completion of installation, be sure to make a print and check to see if a no feed jam or double feed jam does not occur.

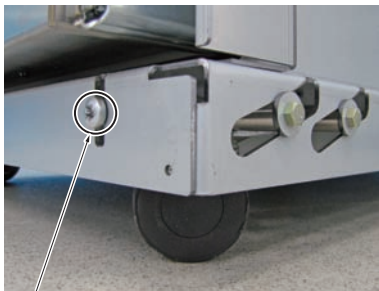
14. MECHANICAL ADJUSTMENT RU-509

14.1 Height adjustment

(1) Usage

Conduct this adjustment when there is any discrepancy in height and slant found between the main body and other optional devices.

(2) Procedure



[1]

1. Conduct the height adjustment by rotating the screw [1] at each of 4 positions. It goes up when rotating the screw [1] to the right, and goes down when rotating to the left.

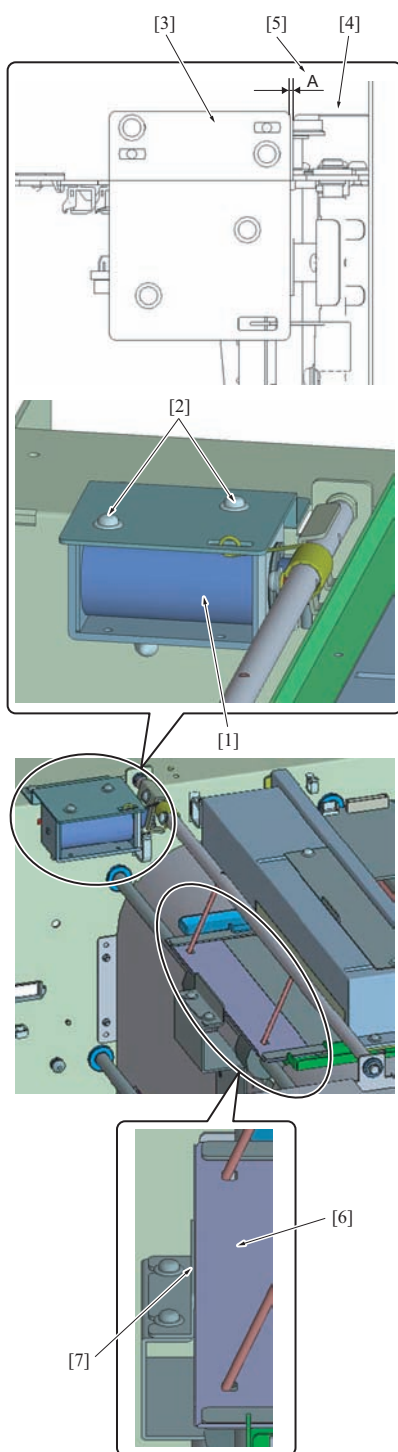
Note

- Be sure to make adjustments while considering the height between other optional devices.

14.2 Position adjustment of the shutter solenoid (SD5)

(1) Usage

Conduct this adjustment when replacing the shutter solenoid (SD5) or C-1297 occurs.

(2) Procedure

1. Remove the upper cover. (Refer to [G.9.2.4 Upper cover](#))
2. Loosen 2 screws [2] of the shutter solenoid (SD5) [1].
3. Measure the gap A [5] between the solenoid installation plate [3] and the framework [4]. Adjust it so that it obtains the standard value, and then tighten the screw [2].
Standard value: A = 0mm to 0.5mm
4. After adjusting, Turn ON the main body to enter the service mode and select [State Confirmation]- [I/O Check Mode]. Conduct the output code 69-50 to check that there is no gap between the shutter [6] and the stopper [7].

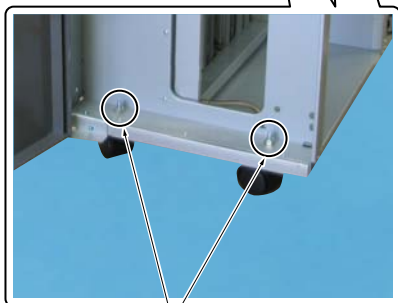
15. MECHANICAL ADJUSTMENT RU-510

15.1 Height adjustment

(1) Usage

Conduct this adjustment when there is any discrepancy in height and slant found between the main body and other optional devices.

(2) Procedure



[1]



[1]

1. Remove the rear cover.(Refer to [G.10.2.3 Rear cover](#))
2. Loosen the 4 nuts of the caster [1] but not to be removed.
3. Adjust the height of 4 casters of RU-510 to equalize the upper and lower gaps.
It goes down when rotating the screw [1] in the arrow-marked direction, and goes up when rotating in the reverse direction.
4. Tighten the 4 loosened nuts [1].

16. MECHANICAL ADJUSTMENT ZU-608

16.1 Gate solenoid/Lw adjustment

16.1.1 Purpose

This adjustment must be made in the following case

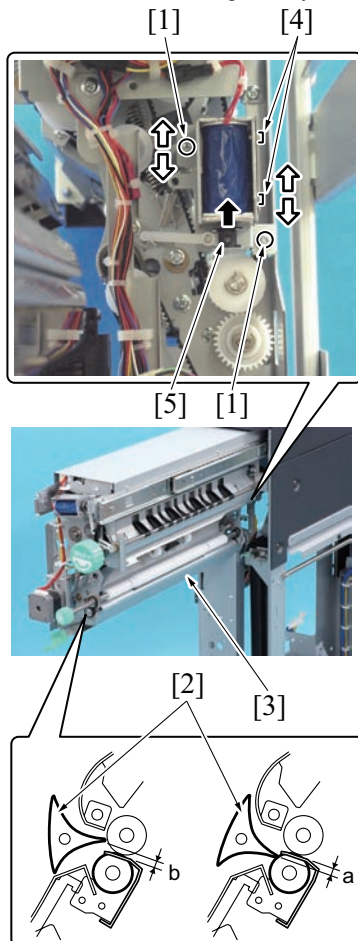
- When the gate solenoid/Lw (SD601) is replaced with a new one.

16.1.2 Procedure

- Remove the front cover.

[G.11.2.5 Punch unit](#)

- Pull out the Z folding/conveyance unit.



- Loosen 2 screws [1] and then visually adjust so that the gate /Lw [2] maintains the standard value a relative to the guide plate [3]. Then, tighten the 2 screws [1].
Standard value: a = 3 mm to 5 mm
- Loosen 2 screws [4] and adjust the gate /Lw [2] so that the clearance between the gate /Lw [2] and the guide plate [3] gets to the standard value "b" while gate solenoid/Lw turns ON and the plunger [5] is pulled, and then tighten 2 screws [4].
Standard value: b = 2 mm to 4.6 mm

16.2 1st folding skew adjustment

16.2.1 Purpose

This adjustment must be made in the following case

- When the skew of the 1st folding is not within the standard value.

Note

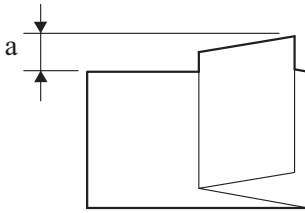
- This adjustment affects the 1st Z-fold position. Be sure therefore to perform [Z-Fold Position Adjustment] of the service mode whenever this adjustment has been completed.

[I.5.13.54 ZU-608 Z-Folding Position Adjustment \(Z-Folding Unit Adjustment\)](#)

16.2.2 Procedure

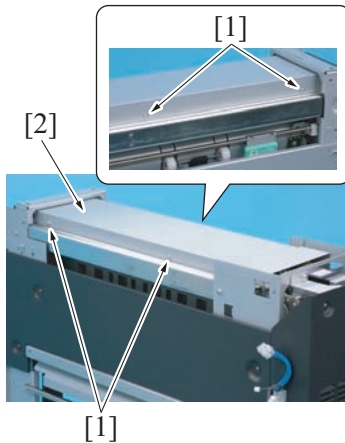
- Remove the upper cover.

[G.11.2.3 Upper cover](#)

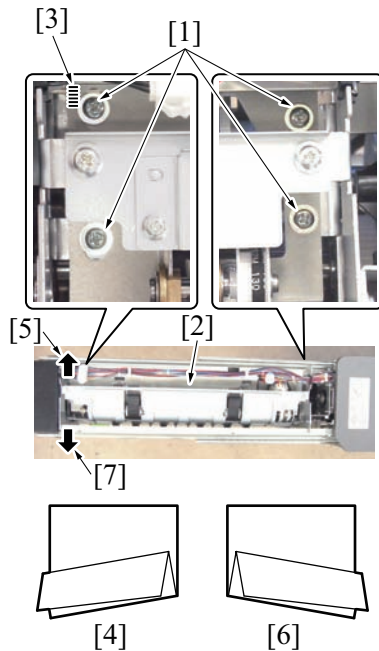


2. Perform the Z-folding printing operation on A3 or 11 x 17 paper and check to see if the skew of the 1st folding is within the standard value "a".
Standard value: a = 2 mm or less
When the value is not within the standard value, perform the following procedure.

3. Open the front door, and pull out the Z folding/conveyance unit.



4. Remove 4 screws [1], and remove the conveyance upper cover [2].



5. Loosen 4 screws [1].
6. Adjust the 1st stopper assembly [2] by moving the front side of the assembly to right and left by referring to the markings [3], and then tighten the 4 screws [1].
 - When the skew pattern is [4], move the front side of the 1st stopper assembly [2] to the left [5].
 - When the skew pattern is [6], move the front side of the 1st stopper assembly [2] to the right [7].
7. Replace the Z folding/conveyance unit, and then perform the Z-folding printing operation and check to see if the skew of the 1st folding is within the standard value.

8. Repeat steps 5 to 7 until the standard value can be obtained.

16.3 2nd folding skew adjustment

16.3.1 Purpose

This adjustment must be made in the following case

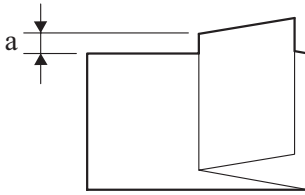
- When the skew of the 2nd folding is not within the standard value.

Note

- This adjustment affects the 2nd Z-fold position. Be sure therefore to perform [Z-Fold Position Adjustment] of the service mode whenever this adjustment has been completed.

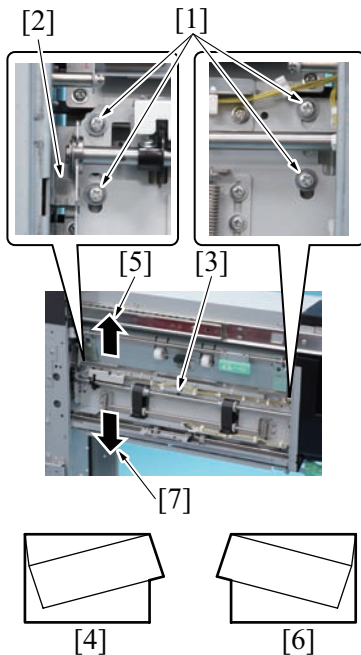
[I.5.13.54 ZU-608 Z-Folding Position Adjustment \(Z-Folding Unit Adjustment\)](#)

16.3.2 Procedure



1. Perform the Z-folding printing operation on A3 or 11 x 17 paper and check to see if the skew of the 2nd folding is within the standard value "a".
Standard value: a = 2 mm or less
When the value is not within the standard value, perform the following procedure.

2. Open the front door, and pull out the Z folding/conveyance unit.



3. Loosen 4 screws [1].
4. Adjust the 2nd stopper assembly [3] by moving it vertically by referring to the markings [2], and then tighten the 4 screws [1].
 - When the skew pattern is [4], move the front side of the 2nd stopper assembly [3] to the left [5].
 - When the skew pattern is [6], move the back side of the 2nd stopper assembly [3] downward [7].
5. Replace the Z folding/conveyance unit, and then perform the Z-folding printing operation and check to see if the skew of the 2nd folding is within the standard value.

6. Repeat steps 5 to 7 until the standard value can be obtained.

16.4 2nd stopper position adjustment

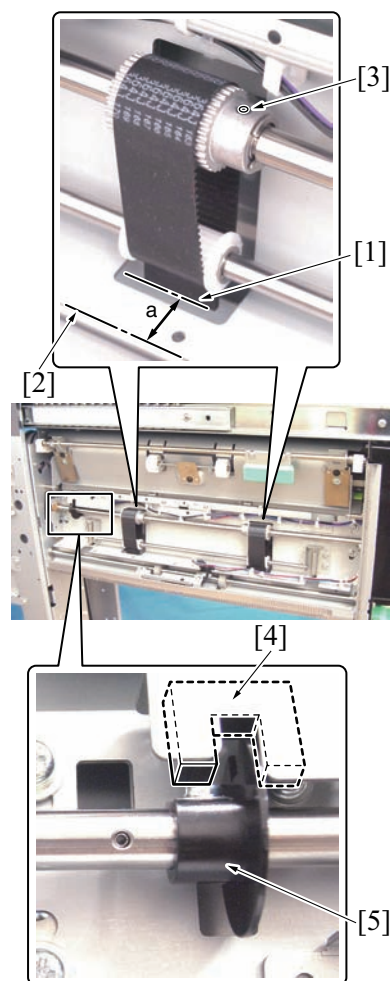
16.4.1 Purpose

This adjustment must be made in the following case

- When the 2nd folding position cannot be adjusted from the service mode
- the skew of the 2nd folding cannot be adjusted.

Note

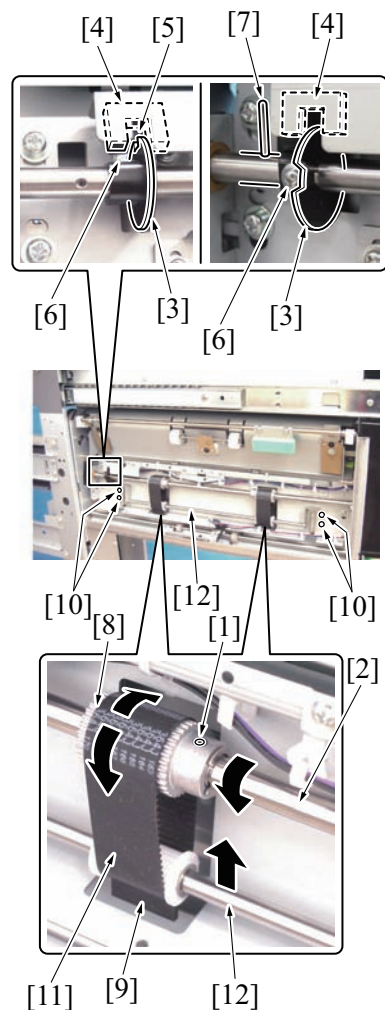
- This adjustment affects the 2nd Z-fold amount and 2nd Z-fold position. Be sure therefore to perform the following adjustment procedure whenever this adjustment has been completed.
 - 2nd folding skew adjustment
[1.16.3 2nd folding skew adjustment](#)
 - [Z-Fold Position Adjustment] of the service mode
[1.5.13.54 ZU-608 Z-Folding Position Adjustment \(Z-Folding Unit Adjustment\)](#)

16.4.2 Procedure

1. Conduct the Z-folding printing operation to move the 2nd stopper [1] to the home position, and then turn OFF the main power switch of the main body.
2. Open the front door, and pull out the Z folding/conveyance unit.
3. Check to see if the distance between the 2nd stopper [1] and inside edge of the guide plate [2] is within a standard value.
Standard value: $a = 20 \pm 0.5 \text{ mm}$
4. When the value is not within the standard value, perform the following procedure.
5. Loosen 2 screws [3] with the hex wrench, and then adjust the distance between the 2nd stopper [1] and the inside of the guide plate [2] so that it gets to the standard value a .

Note

- Be sure not to rotate the actuator [5] of the 2nd stopper home sensor [4] during the adjustment. It may be moved from the home position.
- Conduct the following steps 6 to 14 only if you cannot reach to the screws [3] with the hex wrench when they are located in side of the 2nd stopper assembly.



6. Rotate the shaft [2] so that you can reach to 2 screws [1] with the hex wrench.
7. Loosen 2 screws [1].
8. Rotate the shaft [2] so that the actuator [3] is roughly positioned to the home position [5] of the 2nd stopper home sensor [4].

Note

- **Never remove the screw [6] from the actuator [3].**
- **At the appropriate position, the anti-rotation pin [7] points upward when the actuator [3] faces to the left.**

9. Rotate the pulley [8] to move the 2nd stopper [9] to the position within the standard value.
10. Loosen 4 screws [10].
11. Lift up the shaft [12] upward enough to remove the belt [11] from the pulley [8], and then rotate the pulley [8] without moving the shaft [2] and the 2nd stopper [9] so that the screw [1] faces outside.
12. Tighten the 2 screws [1].
13. Tighten 4 screws [10].

Note

- **Before tightening the screws [10], be sure to check the tension is exerted on 2 belts [11].**

14. Repeat the steps 3 to 5 to adjust the 2nd stopper to the position within the standard value.

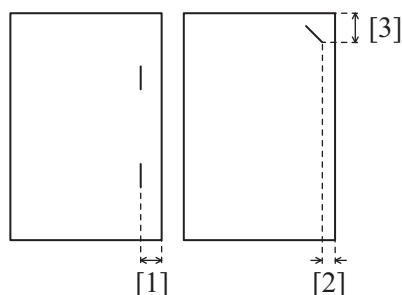
17. MECHANICAL ADJUSTMENT FS-532

17.1 Staple position adjustment

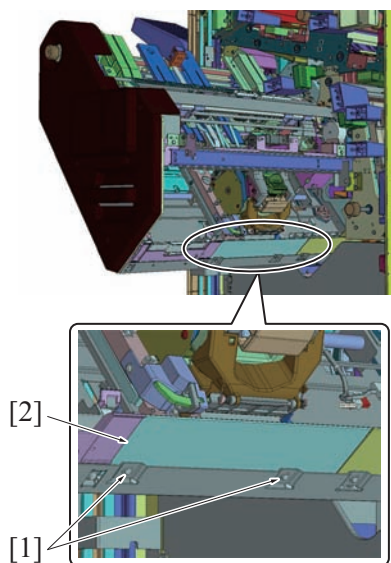
17.1.1 Usage

Change the setting when changing the staple position

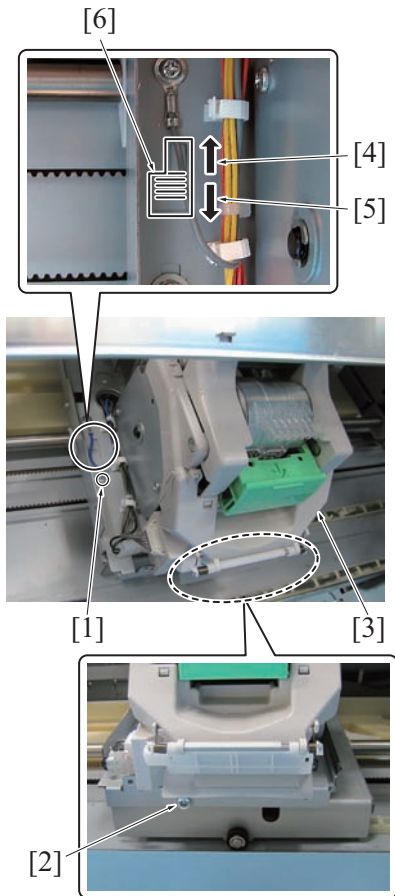
17.1.2 Procedure



1. The parallel staple position of FS-532 [1] is adjustable between 5.5 mm to 9.5 mm.
2. By adjusting the position of the parallel staple, the position of the corner staple is also changed as follows.
[2]: 6.7mm to 9.5mm
[3]: 12.4mm to 15.2mm



3. Remove 2 screws [1] and then remove the wiring mounting cover [2].



4. Remove the screw [1].
5. If the screw [2] is tightened, the stapler unit assy [3] moves in the arrow-marked direction [4] (the moving distance increases). If the screw [2] is loosened, the unit moves in the arrow-marked direction [5] (the moving distance decreases).

Note

- Be careful that the stapler unit assy [3] is possible to change the shape if the screw [2] is turned without the screw [1] being removed.

6. Adjust the position of the parallel staple by moving up and down the stapler unit assy [3] by referring to the division [6] of the mark. Marked at 1 step = 1mm interval.
7. Reinstall the preceding parts following the removal steps in reverse.

17.2 Main tray horizontal adjustment

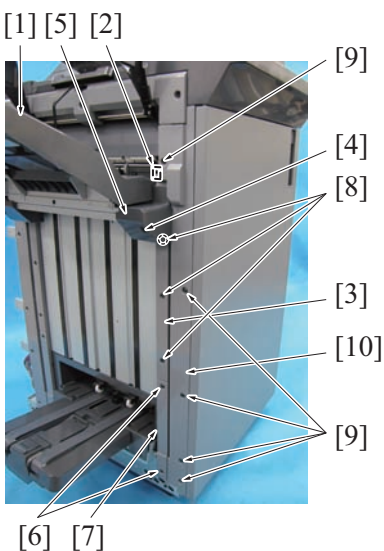
17.2.1 Purpose

When the heights of the main tray differs between the front and rear, conduct this adjustment.

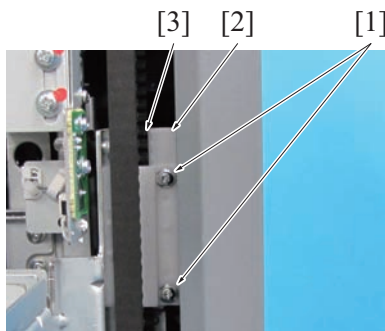
17.2.2 Procedure

⚠ Note

- After having lowered the main tray, be sure to unplug the power plug from the power outlet.



1. Turn ON the sub power switch (SW2), block the light of the tray upper limit sensor (PS16) [2] during up and down operation of the main tray [1], and lower the main tray to the position where the main tray does not interfere the removing of the output cover /Fr2 [3].
2. Turn OFF the sub power switch (SW2) and main power switch (SW1) of the main body.
3. Unplug the power plug of the main body from the power outlet.
4. Remove the screw [4] and remove the main tray cover /Fr [5].
5. Remove 2 screws [6] and remove the paper exit cover /Fr3 [7].
6. Remove 3 screws [8] and remove the paper exit cover /Fr2 [3].
7. Remove 5 screws [9] and remove the paper exit cover /Fr1 [10].



8. Remove 2 screws [1], remove the belt stopper [2] and adjust the position of the belt [3].
9. Reinstall the preceding parts following the removal steps in reverse.

18. MECHANICAL ADJUSTMENT SD-510

18.1 Adjustment for Staple Clinch Failure

18.1.1 Usage

When there is a problem in clinching of the stapler.

Note

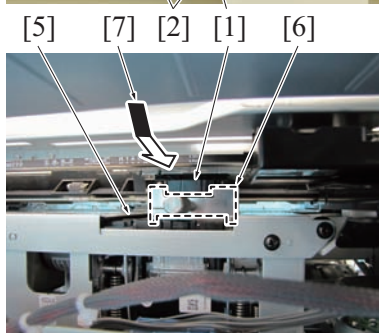
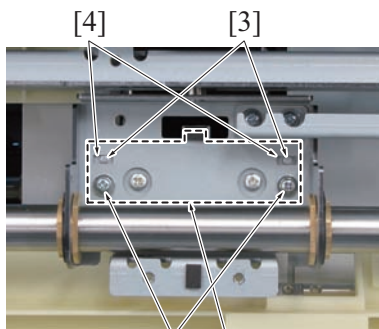
- Be careful not to let FS fall down when removing FS from the main body and pulling out the stacker unit from FS. It may cause the injury.

18.1.2 Procedure

1. Make a copy in the staple mode.



2. Check there is failures in clinching staples as described below.
 - There is the bucking [1] of the staple.
 - The floating [2] of the staple is within the standard value (L = 1 mm)
 - The bending height [3] of the staple is within the standard value (L = 0.5 mm)



3. If clinching performance is out of the above specifications, make the following adjustment.
4. Remove the SD unit. (Refer to [G.13.3.4 SD unit](#))
5. Remove the clincher cover. (Refer to [F.15.2.1 Replacing the stapler unit](#))
6. Loosen 2 screws [2] of the clincher[1].

Note

- Make sure that 2 injections [3] of the clincher do not come off from 2 slotted holes [4].
- Be careful that the staple adjustment jig [6] cannot be inserted if the 2 screws [2] are too loose.

7. Insert the staple adjustment jig [6] between the stapler unit [5] and the clincher [1], and adjust the horizontal position of the clincher [1].

Note

- When inserting the staple adjustment jig [6], be sure to insert it from obliquely above as indicated by the allow mark [7].

8. Loosen 2 screws [2] to fasten the clincher [1].
9. Pull out the staple adjustment jig [6].

18.2 1st folding skew adjustment

18.2.1 Usage

Conduct this adjustment when the skew of the 1st folding is not within the standard value.

Note

- This adjustment affects the 1st Z-fold position. Thus, be sure to perform the following adjustment in the service mode after the adjustment has been completed.

[I.5.13.8 SD-510 Fold&Staple Staple Position Adjustment \(staple finisher \(fold\) adjustment\)](#)

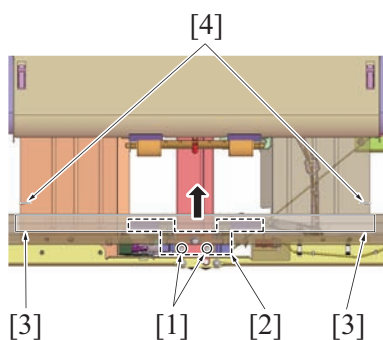
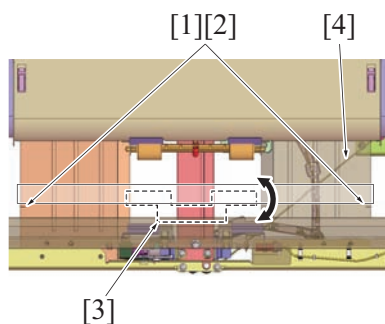
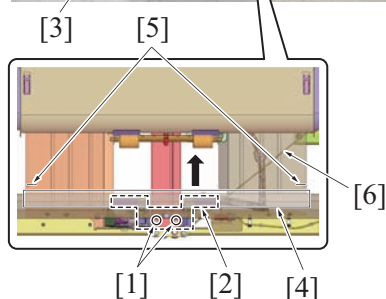
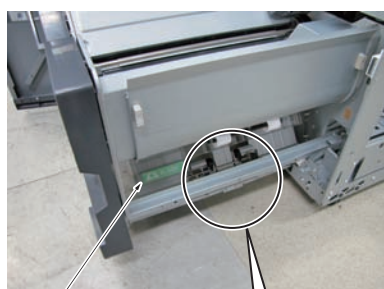
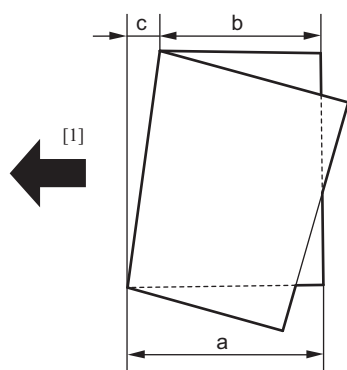
[I.5.13.9 SD-510 Fold&Staple Fold Position Adjustment \(staple finisher \(fold\) adjustment\)](#)

[I.5.13.10 SD-510 Half-Fold Fold Position Adjustment \(staple finisher \(fold\) adjustment\)](#)

[I.5.13.11 SD-510 Tri-Fold Position Adjustment \(staple finisher \(fold\) adjustment\)](#)

18.2.2 Procedure

1. Half-fold a sheet of A3 paper, measure the width "a" and "b" of the paper while keeping the paper exit direction [1], and confirm that the folding width "c" is within the standard value.
Standard value: a-b = c = ±2mm or less
When the value is not within the standard value, perform the following procedure.



2. Pull out the SD unit.
3. Loosen 2 screws [1].

Note

- Be careful that the position of the rear stopper [2] could change in the middle of the adjustment if 2 screws [1] are loosened excessively.

4. Lift the paper exit guide [3] and place the scale or something [4] on the rear stopper [2], and then slide the rear stopper [2] so that the marking-off line [5] and the scale [4] come to the same position.

Note

- Be sure to slide the rear stopper [2] with the belt [6].

5. Change the tilt of the stopper [3] so that both edges of the scale [1] and the marking-off line [2] come to the same position.
6. Use the belt [4] to slide the stopper [3] to the former position.

Note

- Be sure to slide the rear stopper [3] with the belt [4].

7. Tighten 2 screws [1].
8. Slide the rear stopper [2] again and confirm that both edges of the scale [3] and the marking-off line [4] are at the same position.
9. Repeat the steps 3 to 7 so that both edges of the scale and the marking-off line come to the same position.

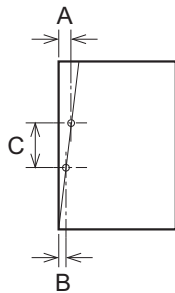
19. MECHANICAL ADJUSTMENT PK-522

19.1 Punch hole position skew adjustment

19.1.1 Usage

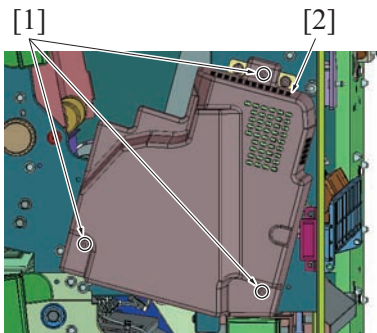
Conduct this adjustment if the edge of the paper and the punch hole position of the paper fed from PI is not in parallel.

19.1.2 Procedure

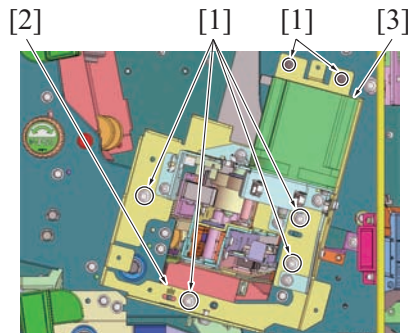


15kij3c001na

1. Check the tilt by using the platen copy or Service Mode after aligning paper in the main body paper feed tray with the side guide plate and the rear guide plate.
2. Conduct the paper skew adjustment when too much tilt is checked.
3. As a sample for checking the tilt of the punch hole position, conduct 3 sheets of punch mode printing for each simplex mode and duplex mode.
4. Measure the punch hole positions on 3 sheets of printed paper to check the tilt.
Tilt of the punch hole position (%) = $(A-B)/C$



5. Open the front door of FS.
6. Remove 3 screws [1] and then remove the punch unit cover [2].



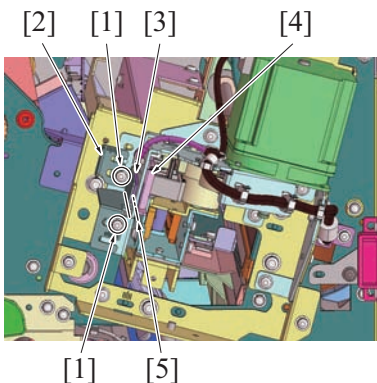
7. Loosen 6 adjustment screws [1] of PK.
8. Based on the division [2] of the mark, move the punch unit [3] to the right and left only for the tilt amount of the punch hole position.
1 division : 0.5%
9. Tighten 6 adjustment screws [1].
10. Repeat step 3 to 9 until the tilt of the punch holes is corrected.
11. Install the punch unit cover.

19.2 Punch unit adjustment mounting position adjustment

19.2.1 Usage

This adjustment is conducted when the installation location of FS-532 is changed.

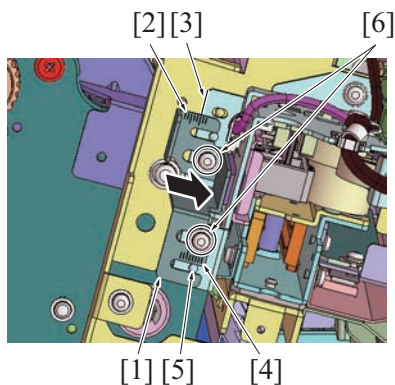
19.2.2 Procedure



1. Open the front door of the FS, and remove the punch unit cover (Refer to [1.19.1 Punch hole position skew adjustment](#))
2. Loosen 2 screws [1] so that the pad section [3] of the punch unit adjustment plate [2] slightly touches the oscillating plate [4] of the punch unit.

Note

- When letting the pad section [3] slightly touch, be sure to adjust the position of the punch unit adjustment plate [2] and the oscillating plate [4] so that they are parallel [5] to each other.



3. Check the positional relationship between the marking-off line (rear side) [2] of the punch unit adjustment plate [1] and the side edge of the metal frame [3], and between the marking-off line (front side) [4] of the punch unit adjustment plate and the projection [5].
4. Push the punch unit adjustment plate [1] in the arrow-marked direction and move the marking-off line at both front and rear sides by 3 divides of the scale from the position where the pad section slightly touches. Then, tighten 2 screws[6].

Note

- When the adjustment plate is pushed by 3 divides of the scale, it is possible that the side edge of the metal frame [3] could go beyond the left edge of the marking-off line (rear side) [2] or that the projection [5] could contact with the adjustment plate [1]. In this case, there are likely troubles with the installation position of the FS and the installation method of the PK, so be sure to check them again.

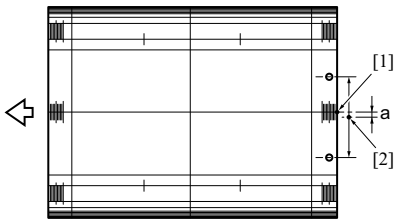
20. MECHANICAL ADJUSTMENT PI-502

20.1 PK punch position centering adjustment

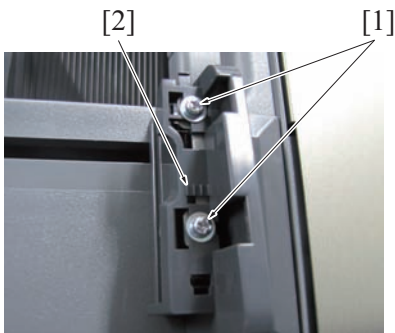
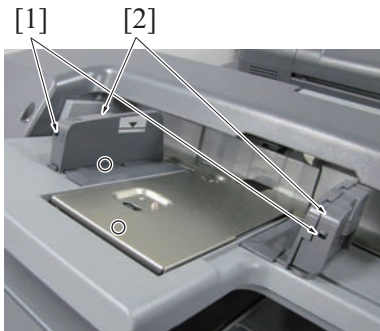
20.1.1 Usage

This adjustment is conducted when the punch position of the paper from the PI is misaligned in the vertical direction.

20.1.2 Adjustment procedure for the cover sheet tray /Up



15knf3c002nb



1. Output the test pattern No.16, and set the paper on the cover sheet tray /Up of the PI.
2. Process the paper in the punch mode, and check the misalignment "a" between the center of the paper [1] and the center of the punch holes [2].

3. Release the hook [1] and remove the cover of the side guide /Fr or /Rr [2].

4. Loosen 2 screws [1] of the side guide /Fr or /Rr, and slide the side guide in the opposite direction to the shift direction twice as far as the misalignment "a".
Example: If the punch position is shifted 1.5mm backward, the side guide /Fr or /Rr must be slid 3mm forward.
[2]: 1 division = 2mm

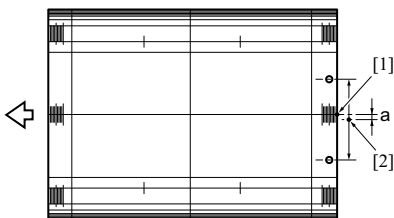
5. Tighten 2 screws [1], and fix the side guide /Fr or /Rr.

Note

- Be sure not to tighten 2 screws [2] too much.

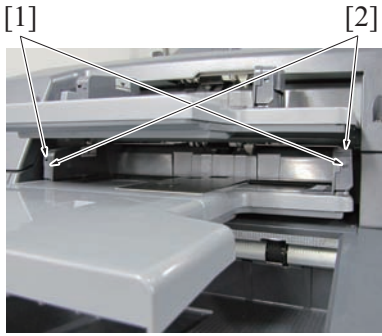
6. Set the paper on the cover sheet tray /Up, and make sure that the side guide /Fr or /Rr is mounted parallel to the paper.
7. Process the paper in the punch mode, and repeat the steps 1 to 6 until the misalignment of the punch hole position is improved.
8. Set the A4S paper on the cover sheet tray /Up, and conduct the "Tray Size Adjustment" ("Stapler (PI) Adjustment") in the service mode. (Refer to [I.5.13.18 PI-502 Tray Size Adjustment \(staple finisher \(PI\) adjustment\)](#))
9. Reinstall the preceding parts following the removal steps in reverse.

20.1.3 Adjustment procedure for the cover sheet tray /Lw

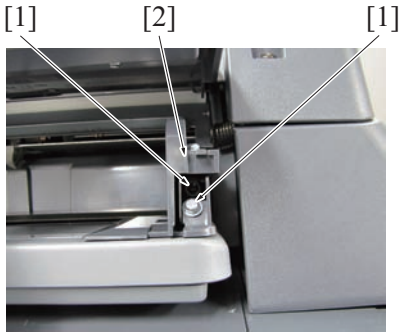


15knf3c002nb

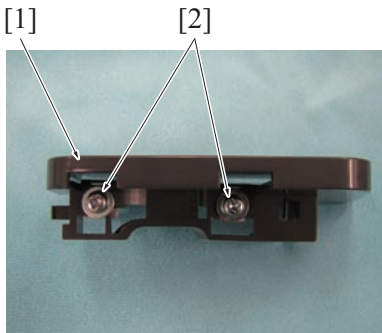
1. Output the test pattern (No.16), and set the paper on the cover sheet tray /Lw of the PI.
2. Process the paper in the punch mode, and check the misalignment "a" between the center of the paper [1] and the center of the punch holes [2].



3. Release the hook [1] and remove the cover of the side guide /Fr or /Rr [2].



4. Remove 2 screws [1], and dismount the side guide /Fr or /Rr [2].

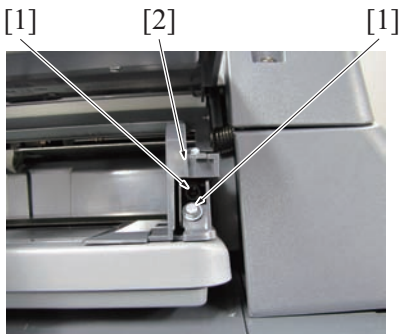


5. Loosen 2 screws [2] of the side guide /Fr or /Rr [1], and slide the side guide in the opposite direction to the shift direction twice as far as the misalignment "a".
Example: If the punch position is shifted 1.5mm backward, the side guide /Fr or /Rr [1] must be slid 3mm forward.

6. Tighten 2 screws [2], and fix the side guide /Fr or /Rr.

Note

- Be sure not to tighten 2 screws [2] too much.



7. Mount the side guide /Fr or /Rr with 2 screws [1].

Note

- Be sure not to tighten 2 screws [2] too much.

8. Set the paper on the cover sheet tray /Up, and make sure that the side guide /Fr or /Rr is mounted parallel to the paper.
9. Process the paper in the punch mode, and repeat the steps 1 to 6 until the misalignment of the punch hole position is improved.
10. Set the A4S paper on the cover sheet tray /Lw, and conduct the "Tray Size Adjustment" ("Stapler (PI) Adjustment") in the service mode. (Refer to [I.5.13.18 PI-502 Tray Size Adjustment \(staple finisher \(PI\) adjustment\)](#))
11. Reinstall the preceding parts following the removal steps in reverse.

21. MECHANICAL ADJUSTMENT LS-505

21.1 Adjusting the paper press solenoid /1 (SD6)

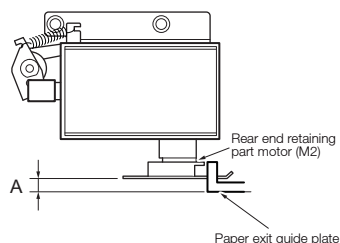
(1) Usage

Conduct this adjustment when uneven stack occurs.

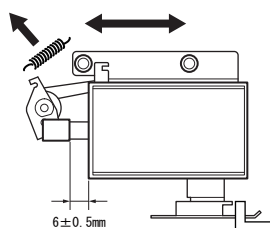
Note

- Before starting this operation, be sure to bring the stacker tray down to the bottom in advance.

(2) Procedure



- With the paper press solenoid /1 (SD6) turned on by hand, check to see if the A section in the drawing left is 1.5mm to 3mm.



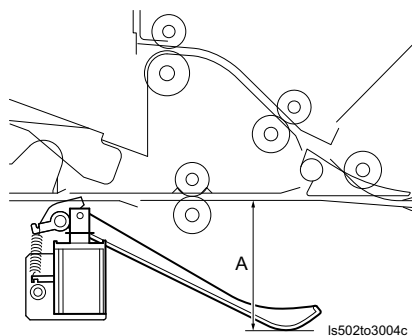
- When not in the range of adjustment, remove the spring, loosen the fixing screw of the paper press solenoid /1 (SD6), and make adjustment by moving it from side to side so that the range of the SD stroke becomes $6 \pm 0.5\text{mm}$.

21.2 Adjusting the paper press solenoid /2 (SD7)

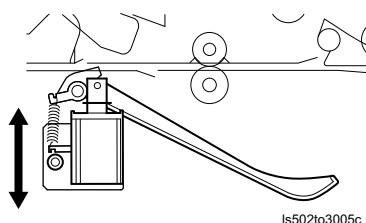
(1) Usage

Conduct this adjustment when uneven stack occurs with the B4 or larger paper.

(2) Procedure



- With the paper press solenoid /2 (SD7) turned OFF by hand, check to see if the A section in the drawing left is $66 \pm 2\text{mm}$.

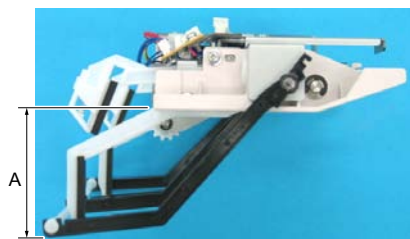


- When not in the range of adjustment, loosen the fixing screw of the paper press solenoid /2 (SD7) and make adjustments by sliding it up and down.

21.3 Adjusting the paper press solenoid /3 (SD8)

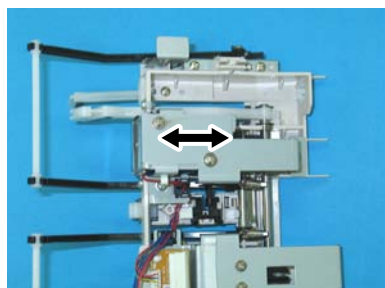
(1) Usage

Conduct this adjustment when uneven stack occurs.

(2) Procedure

ls502fs3006c

1. With the paper press solenoid /3 (SD8) turned OFF by hand, check to see if the A section in the drawing left is $50.1 \pm 1\text{mm}$.

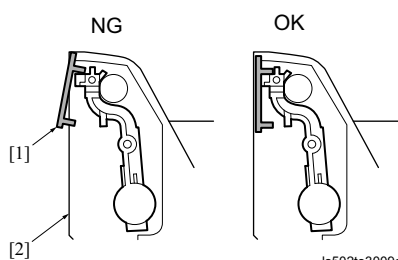


ls502fs3007c

2. When not in the range of adjustment, loosen the fixing screw of the paper press solenoid /3 (SD8) and make adjustments by sliding it from side to side.

21.4 Adjusting the job partition solenoid (SD2)**(1) Usage**

Conduct this adjustment when uneven stack occurs with the shift paper and non-shift paper in the sort mode.

(2) Procedure

ls502to3009c

1. With the job partition solenoid (SD2) turned ON by hand, check to see if the job partition blade [1] in the drawing left does not protrude from the metal frame [2].

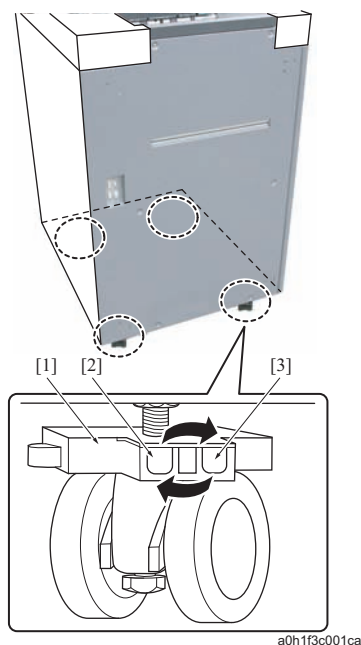


ls502fs3008c

2. When not in the range of adjustment, loosen the fixing screw of the job partition solenoid (SD2) and make adjustments by sliding it from side to side.

21.5 Horizontal adjustment**(1) Usage**

Adjustments are made when there is any discrepancy in height and slant found between the main body and other optional devices.

(2) Procedure

1. Conduct the horizontal adjustment by inserting the driver to the holes [2] and [3] on each of 4 ratchet material [1] and moving it back and forth. It goes up with the hole [2] and goes down with the hole [3].

Note

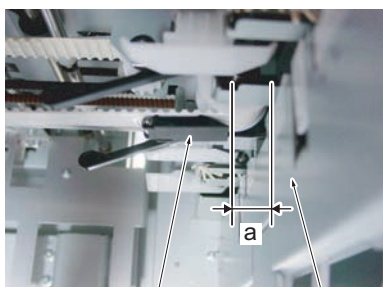
- Be sure to make adjustments while considering the height between the main body and other optional devices.
- Be sure not to go it up too much, otherwise the bolt comes off. (max. $\pm 5\text{mm}$)
- Be sure that the caster is contacting installation surface, otherwise the ratchet does not work. In this case, adjust the casters which are on the ground first to get the casters spinning to be on the ground.

21.6 Grip conveyance home sensor adjustment**(1) Usage**

Conduct this adjustment when the grip standby position on the grip belt is improper to receive the paper or when the shift unit drive abnormality occurs.

Note

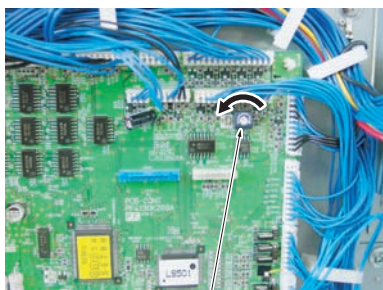
- When the shift unit drive abnormality (C-1204: 1st tandem, C-1214: 2nd tandem) occurs after replacing the LS control board (LSCB), conduct the following adjustment.

(2) Procedure

[1]

[2]
ls502fs3010c

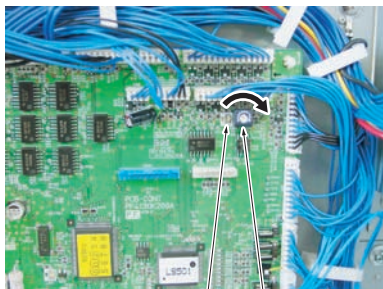
1. Turn ON the power of the main body.
2. Move the grip belt by hand and stop it at the position in which the leading edge of the grip [1] is about 4mm from the stack exit guide plate [2].
a: approx. 4mm



[1]

ls502fs3011c

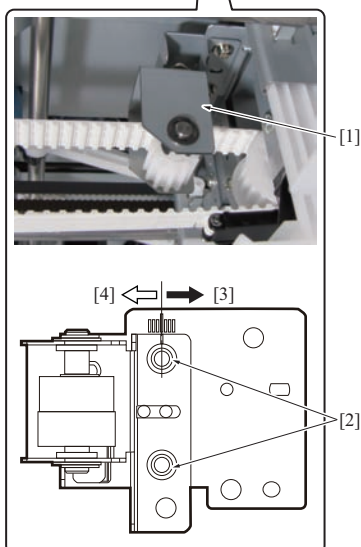
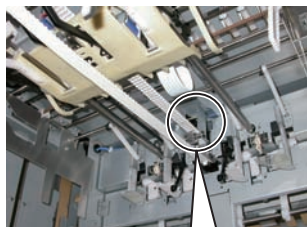
3. Rotate VR1 [1] on the LS control board (LSCB) fully to the left.



[2]

[1]

ls502fs3012c



4. Rotate VR1 [1] to the right and stop it at the position in which LED2 [2] turns ON from flashing.

Note

- When LED2 is rotated too much from the turn-on position to the flashing position, repeat the procedure starting at Step2.

5. After completion of adjustment, turn off and on the power of the main body and check if the interval "a" between the edge of the grip and the stack exit guide plate is $8 \pm 2\text{mm}$.
6. When the interval is not within the standard value, change the position of the sensor mounting plate [1]. Loosen 2 screws [2] and slide the sensor mounting plate to the right [3] to widen the interval "a". Slide the plate to the left [4] to narrow the interval.

22. MECHANICAL ADJUSTMENT FD-503

22.1 Roller solenoids /1 (SD5), /2 (SD6), /3 (SD7) and /4 (SD8) position adjustment

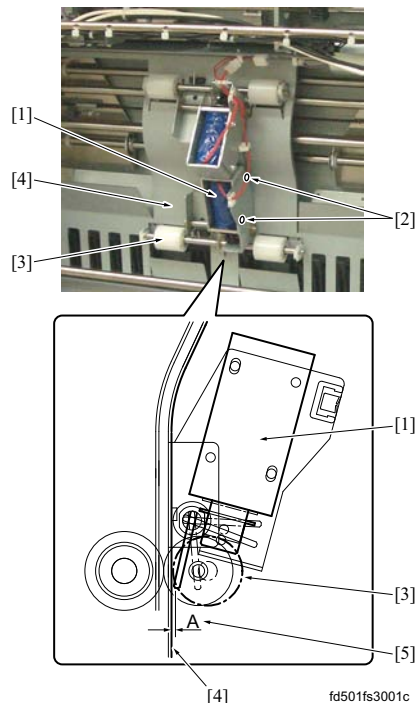
(1) Usage

When the roller solenoids /1 (SD5), /2 (SD6), /3 (SD7), /4 (SD8) are changed, be sure to conduct this adjustment.

Note

- The following adjustment steps show the steps for the roller solenoid /2 (SD6). The steps for the roller solenoids /1 (SD5), /3 (SD7) and /4 (SD8), are the same as the steps for the roller solenoid /2.

(2) Procedure

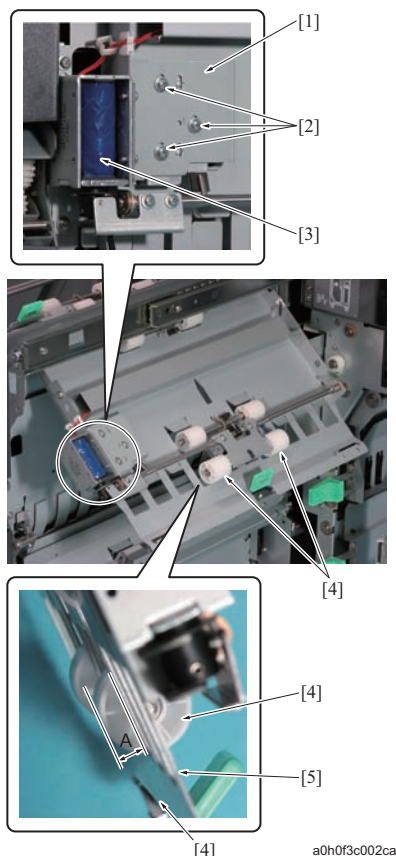


- Loosen 2 screws [2] of the roller solenoid /2 (SD6) [1].
- Measure the distance A [5] between the end face of the vertical conveyance roller /Lt [3] and the right side (the opposite of the paper through side) of the guide plate [4] when the roller solenoid /2 (SD6) [1] is turned ON, and then tighten the screw [2] after adjusting the distance so that it becomes the standard value. Standard value: A = 0mm to 1.5mm

22.2 2nd folding roller solenoid (SD18) position adjustment

(1) Usage

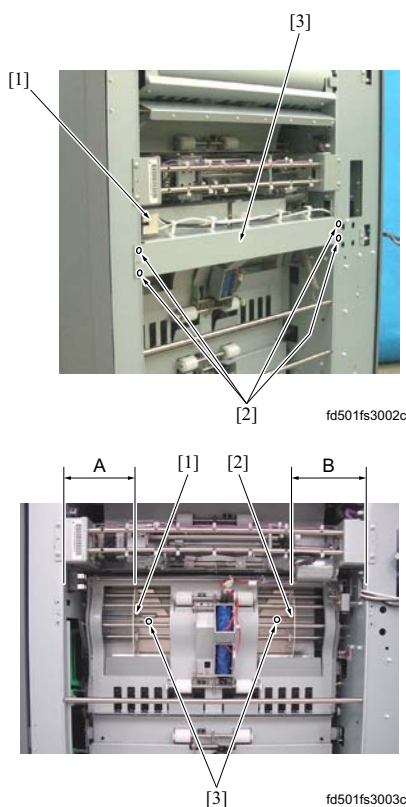
Conduct this adjustment when replacing the 2nd folding roller solenoid (SD18).

(2) Procedure

1. Loosen 3 screws [2] on the 2nd folding roller solenoid mounting plate [1].
2. Measure the gap A which the vertical conveyance roller /Lt [4] is out from the guide plate [5] when the 2nd folding roller solenoid (SD18) [3] is ON.
3. Adjust the mounting position so that the gap A is within the standard value shown in the following table, and then loosen 3 screws [2].
Standard value: A = 4mm to 5mm

22.3 Punch Centering Adjustment**(1) Usage**

When the front to rear position of the punch holes cannot be adjusted up to the specification in the paper width adjustment, be sure to conduct this adjustment. (Refer to [1.5.13.20 FD-503 Paper Width Adjustment \(Multi Folder\(Punch\) Adj.\)](#))

(2) Procedure

1. Disconnect the connector [1] and 4 screws [2], and then remove the cord support board /A [3].

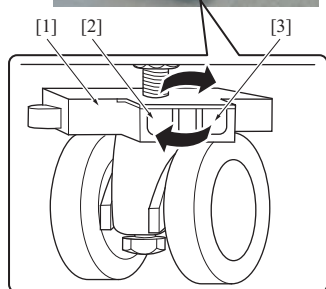
2. With the alignment plate /Fr [1] and the alignment plate /Rr [2] moved to the center, loosen the 2 screws [3].
3. Measure the distances A and B using a ruler and adjust the positions of the alignment plate /Fr [1] and the alignment plate /Rr [2] so that the distances A and B become equal, and then tighten 2 screws [3].
4. Reinstall the above parts following the removal steps in reverse.

22.4 Horizontal adjustment

(1) Usage

Conduct this adjustment when there is any discrepancy in height and slant found between the main body and other optional devices.

(2) Procedure



a0h0f3c001ca

1. Conduct the horizontal adjustment by inserting the driver to the holes [2] and [3] on each of 4 ratchet material [1] and moving it back and forth. It goes up with the hole [2] and goes down with the hole [3].

Note

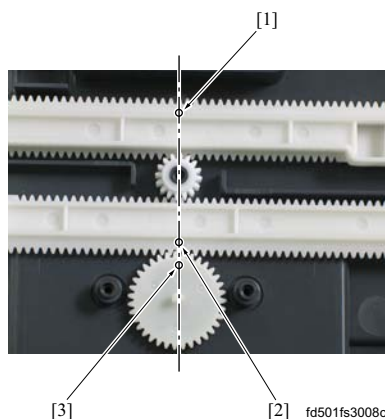
- Be sure to make adjustments while considerate the height between the main body and other optional devices.
- Be sure not to go it up too much, otherwise the bolt comes off. (max. $\pm 5\text{mm}$)
- Be sure that the caster is contacting installation surface, otherwise the ratchet does not work. In this case, adjust the casters which are on the ground first to get the casters spinning to be on the ground.

22.5 Paper feed control gear position adjustment (PI tray)

(1) Usage

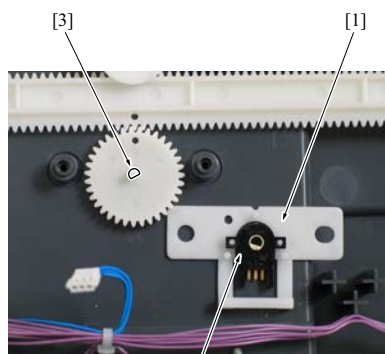
Conduct this adjustment when the paper size detection of PI does not work properly.

(2) Procedure

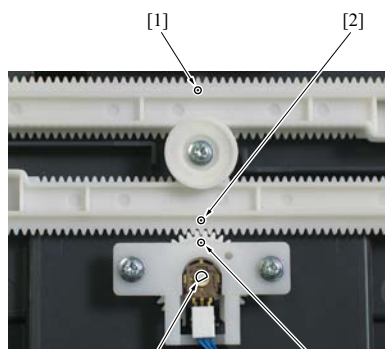


fd501fs3008c

1. Install the regulation plate rack A [1] and the regulation rack B [2] so that they are aligned with the reference hole of the detection gear [3].



fd501fs3009c



fd501fs3010c

2. Check the paper size VR [2] to ensure it is held by the 2 bosses on the paper size VR mounting plate [1].
3. Install the paper size VR [2] so that the notch of its center hole is set to the notch of the detection gear [3].

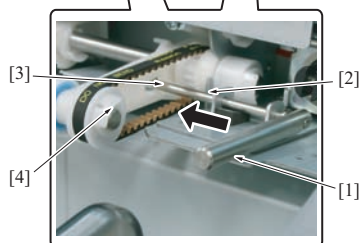
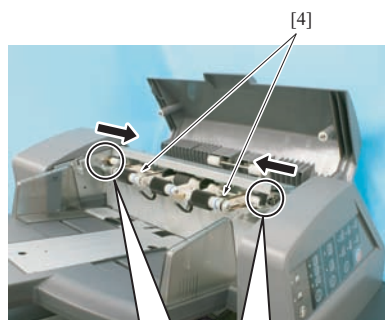
4. Check to see if the regulation plate rack A [1], the regulation plate rack B [2], the hole position of the detection gear [3] and the notch position of the paper size VR [4] are in the correct position respectively.

22.6 Paper feed pick-up volume adjustment (PI tray)

(1) Usage

Perform this adjustment when multi-feed or paper jam occurs when feeding paper from the PI.

(2) Procedure



fd501fs3011c

1. Slide 2 papers feed arm fixing levers [1] to inside, and insert the shafts [2] into the holes [3] in the paper feed arm to secure the paper feed arm [4].

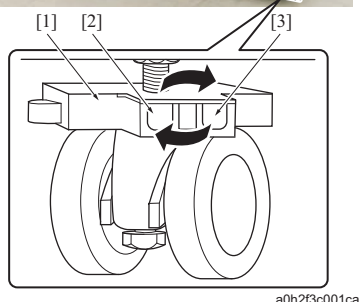
23. MECHANICAL ADJUSTMENT SD-506

23.1 Horizontal adjustment

(1) Usage

Conduct this adjustment when SD is not in a horizontal position.

(2) Procedure



1. Conduct the horizontal adjustment by inserting the driver to the holes [2] and [3] on each of 6 ratchet material [1] and moving it back and forth. It goes up with the hole [2] and goes down with the hole [3].

Note

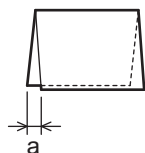
- Be sure to make adjustments while considering the height between the main body and other optional devices.
- Be sure not to go it up too much, otherwise the bolt comes off. (max. $\pm 5\text{mm}$)
- Be sure that the caster is contacting installation surface, otherwise the ratchet does not work. In this case, adjust the casters which are on the ground first to get the casters spinning to be on the ground.

23.2 Folding skew adjustment

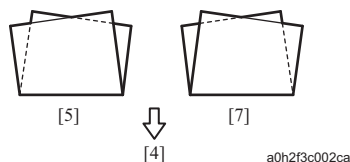
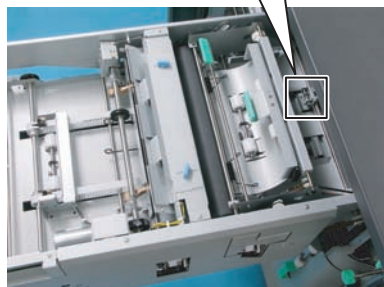
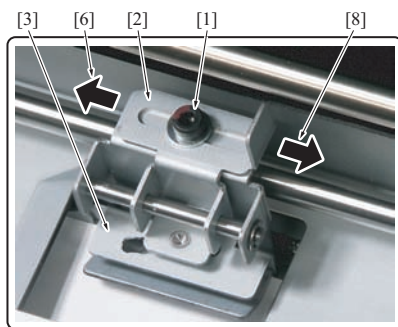
(1) Usage

Adjust the skew in the center folding.

(2) Procedure



1. Perform the center folding operation for 5 sheets of A3 or 11 x 17 paper and check their skew "a".
Standard value $a = \pm 1.5\text{mm}$
When the value is not within the standard value, perform the following procedure.



2. Open the front door /Rt and pull out the folding unit.
3. Loosen the screw [1], adjust the alignment stopper /Rr2 [3] back and forth by sliding the adjusting bracket [2] to right and left, and tighten the screw [1].

Note

- If the folding pattern on paper exited to the direction of bundle exit tray front side [4] is [5], slide the adjusting bracket [2] in the arrowed direction [6].
- If the folding pattern is [7], slide the adjusting bracket [2] in the arrowed direction [8].
- By sliding the adjusting bracket [2] to 1mm right and left, the alignment stopper /Rr2 [3] moves 1/3mm back and forth.

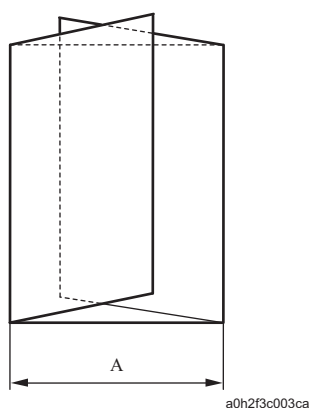
4. Return the folding unit to the original position and repeat the steps 1 through 3 until the standard value can be obtained.

23.3 Second folding position stabilization adjustment**(1) Usage**

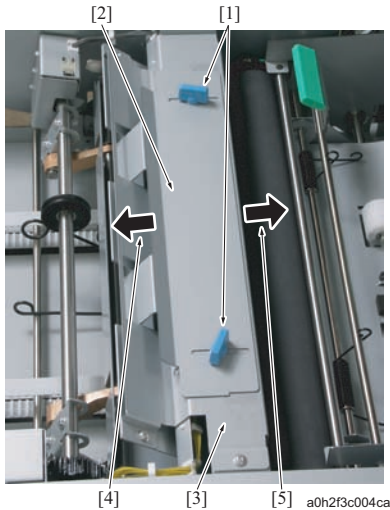
This adjustment is for adjusting the misalignment of the second folding position in tri-folding.

Note

- This adjustment is to adjust the variation per each folding. Adjust the second folding position by following "[1.5.13.36 SD-506 Tri-Fold Position Adj. \(Saddle Stitcher Pos. Adj.\)](#)".
- Be sure that the adjusting position is vary from the number of folding sheets.

(2) Procedure

1. Conduct the tri-folding with A4S or 8 1/2 x 11S, and check if the interval "A" between the first folding and the second folding is within the standard value.
Standard value A = 102.0mm ± 3mm (A4S)
Standard value A = 96.1mm ± 3mm (8 1/2 x 11S)
When the value is not within the standard value, perform the following procedure.



2. Open the front door /Rt and pull out the folding unit.
3. Loosen 2 screws [1] and move the stopper [2] in parallel back and forth referring to the mark [3].

Note

- Moving to the front side [4] makes the length between the foldings longer.
- Moving to the back side [5] makes the length between the foldings shorter.

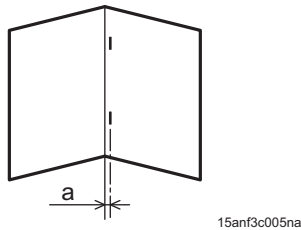
4. Repeat steps 1 to 3 until the standard value is obtained.

23.4 Staple position adjustment

(1) Usage

Adjust the misalignment between the staple position and the folding position.

(2) Procedure



1. Perform the saddle stitching operation for 25 to 30 sheets of A3 or 11 x 17 paper and check the misalignment "a" between the staple position and the folding position.

Standard value $a = \pm 1\text{mm}$

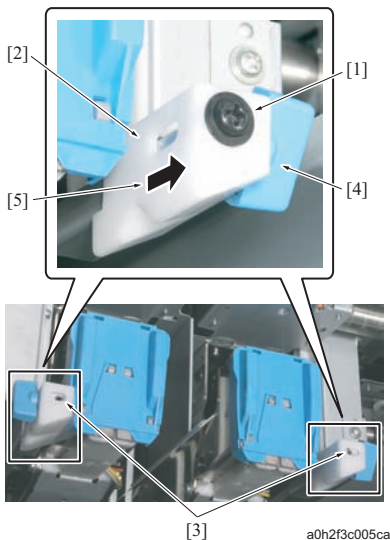
When the value is not within the standard value, conduct "(2).

Adjustment Procedure /1" then "(3). Adjustment Procedure /2" in this order.

(3) Adjustment Procedure /1

Note

- Be sure not to adjust over the allowable value since only the saddle stitching hold /Up is adjusted but the saddle stitching hold /Lw is not.
- When it cannot be adjusted by this simple adjustment (fine adjustment), be sure to conduct "(3). Adjustment Procedure /2".



1. Open the front door /Lt.
2. Install the M4 screw [1] obtained from the exterior and so on into the adjustment screw hole [3] of the saddle stitching hold /Up [2] with your fingers and tighten it slightly until it is contacted.

Note

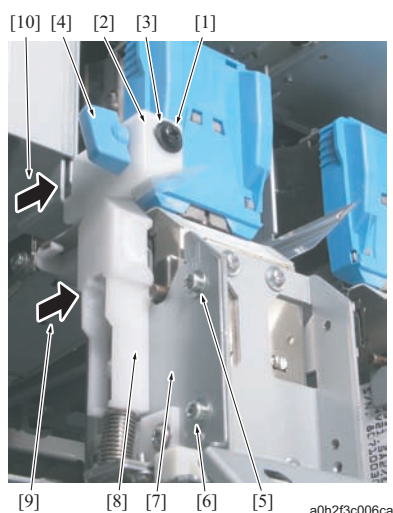
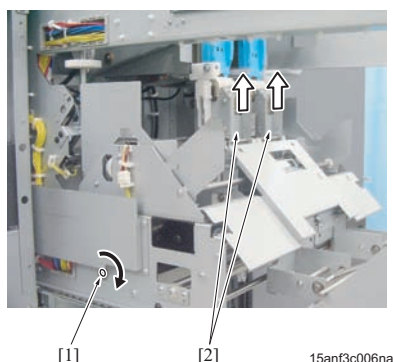
- Do not tighten the screw [1] too tight. Stop tightening when it is contacted.

3. Loosen the screw [4].
4. Rotate the screw [1] to move the position of the saddle stitching hold /Up [2] on both of the stapler /Rt and /Lt for the length of the misalignment "a".

Note

- Rotating the screw [1] 1 revolution moves the saddle stitching hold /Up 0.7mm (same width with staple).
- When the screw [1] is tightened, the staple position moves forward. When the screw [1] is loosened, the staple position moves backward.

5. While pushing the saddle stitching hold /Up [2] to the allowed direction [5] and contacting it to the screw [1], tighten the screw [4].
6. Remove the screw [1] and return it to the original position.
7. Conduct a test print in procedure A, and repeat steps 2 to 6 until the standard value is obtained.

(4) Adjustment Procedure /2

1. Pull out the saddle stitching unit.
(Refer to [F.19.3.3 Pulling out the saddle stitching unit](#))
2. Rotate the screw [1] clockwise until clicked to make the clinchers [2] contact with the staplers and lock the clinchers [2].

3. Install the M4 screw [1] obtained from the exterior and so on into the adjustment screw hole [3] of the saddle stitching hold /Up [2] with your fingers and tighten it slightly until it is contacted.

Note

- Do not tighten the screw [1] too tight. Stop tightening when it is contacted.

4. Loosen the screws [4], [5] and [6].
5. Rotate the screw [1] to move the position of the saddle stitching hold /Up [2] for the length of the misalignment "a".

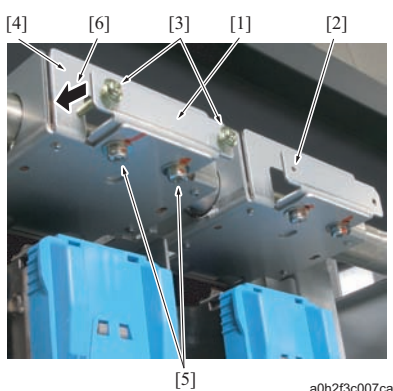
Note

- Rotating the screw [1] 1 revolution moves the saddle stitching hold /Up 0.7mm (same width with staple).
- When the screw [1] is tightened, the staple position moves forward. When the screw [1] is loosened, the staple position moves backward.

6. While pushing the mounting plate [7] to the arrow-marked direction [9] and contacting the saddle stitching hold /Up [2] to the screw [1], tighten the screws [5].
7. While pushing the saddle stitching hold /Up [2] to the arrow-marked direction [10] and contacting the saddle stitching hold /Up to the screw [1], tighten the screw [4], and then tighten the screw [6].
8. Remove the screw [1] and return it to the original position.
9. Return the saddle stitching unit, and then repeat steps 2 to 8 until the standard value can be obtained.

23.5 Stapler position adjustment**(1) Usage**

Conduct this adjustment when a broken staple, a bent staple, or a defective staple occurs in stapling.
This adjustment adjusts the phase lag with the clincher at front and rear.

(2) Procedure

1. Carry out stapling operation to check that the broken staple, the bent staple, or the defective staple does not occur. If the defective occurs, conduct the following procedure.
2. Open the front door /Lt.
3. Install the M3 screw about 20mm long [3] into the adjustment screw hole [2] of the stapler mounting bracket [1] with fingers and tighten it slightly until it is contacted to the supporting bracket [4].

Note

- Do not tighten the screw [3] too tight. Stop tightening when it is contacted.

4. Loosen a screw [5].
5. Rotate the screw [3] and move the anteroposterior position of the stapler to adjust the phase lag with the clincher.

Note

- Rotating the screw [3] 1 revolution moves the stapler 0.5mm.
- When the screw [3] is tightened, the staple position moves forward. When the screw [3] is loosened, the staple position moves backward.

6. While pushing the stapler mounting bracket [1] to the back side [6] and contacting the screw [3] to the supporting bracket [4], tighten the screw [5].
7. Remove the screw [3].

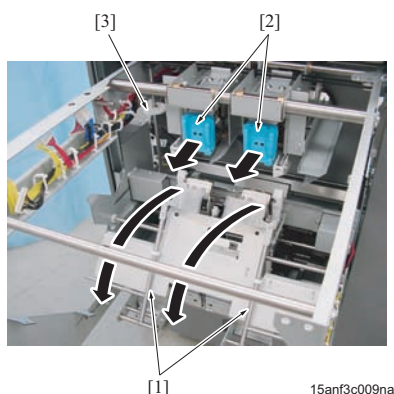
8. Repeat steps 1 to 7 until the defective staple does not occur.

23.6 Tilt/gap adjustment of the clincher

(1) Usage

Perform this adjustment when the staple break through the paper by stapling a few pages of booklet.

(2) Procedure

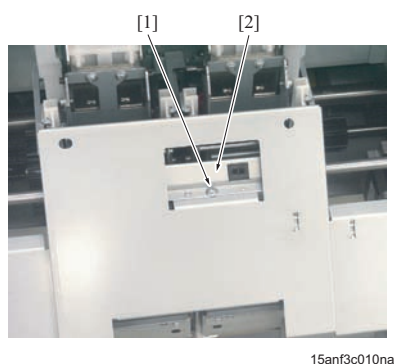


1. Carry out stapling operation with 2 sheets of papers, and check if the staple break through the paper. If the paper is broken through, perform the following steps.
2. Pull out the saddle stitching unit.
(Refer to [F.19.3.3 Pulling out the saddle stitching unit](#))
3. Tilt the bundle arm [1] to the front.
4. Remove the staple cartridges [2] to the front.
5. Rotate the stapler move gear [3] to move the stapler assy inward, then move them outward by approx. 30mm (the interval between the stapler becomes approx. 60mm).

Note

- Rotate the stapler move gear [3] to move the stapler assy inward, then move them outward by approx. 30mm (the interval between the stapler becomes approx. 60mm).

6. Remove the screw [1] and remove the sensor cover [2].

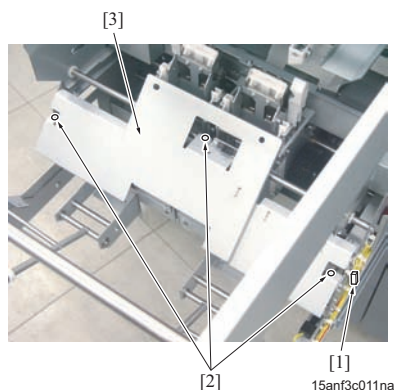


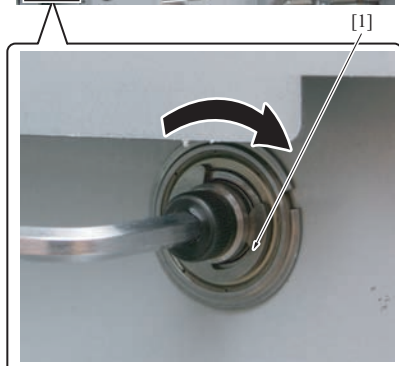
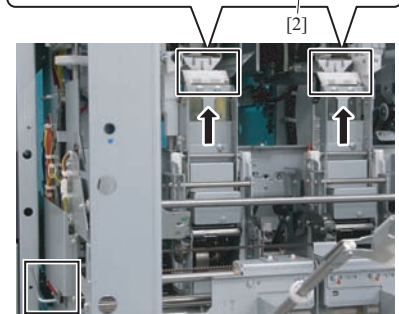
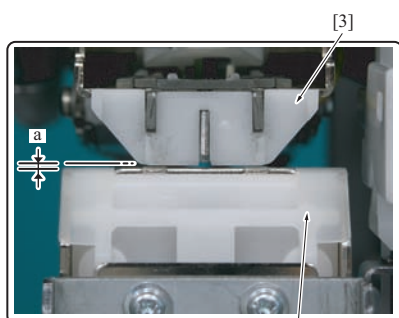
7. Disconnect the connector [1].

Note

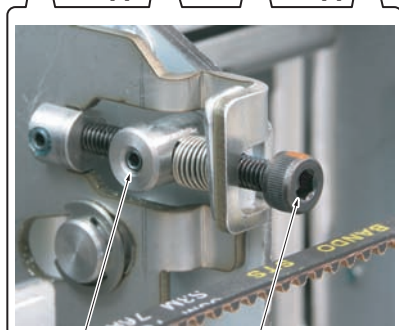
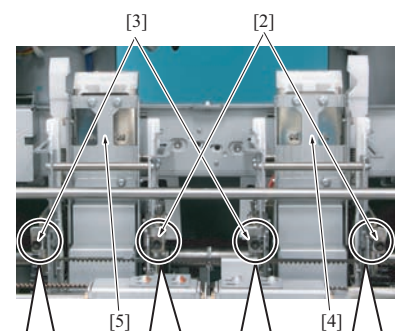
- When reinstalling the saddle stitching unit, be careful not to let the connector [1] make contact with the main body.

8. Remove 3 screws [2], and then remove the saddle stitching guide plate [3].





15anf3c012ca



[1]

[2] [3]

15anf3c013ca

9. Rotate the screw [1] clockwise until clicked to make the clinchers [2] contact with the staplers [3] and lock the clinchers [2]. At the moment the clinchers are locked, check if the clinchers do not roll from side to side and the gap between the staplers and the clinchers equals to the standard value.

Standard value "a": $0.3 \pm 0.1\text{mm}$ (2 sheets of 64g/m^2 papers can pass through the gap while 3 sheets cannot.)

10. When the gap is out of the standard value, loosen the screw [1] counterclockwise and lower the clinchers once. Then perform the adjustment the following procedure.

11. Loose the 4 screws [1].

12. Adjust the gap between the staplers and the clinchers so that the gap equals the standard value while loosening (gap becomes narrower) /tightening (gap becomes wider) the adjusting screw/Rt [2] and /Lt [3] in the same manner.

Note

- Be sure to perform the adjustment for both left and right side of each clincher/Rt [4] and /Lt [5] so that the stapler and the clinchers are parallel to each other.
- When the adjustment is completed, be sure to tighten the fixing screws [1].

13. Put the saddle stitching unit back. Then carry out stapling operation with 2 sheets of papers, and check if the staple does not break through the paper.

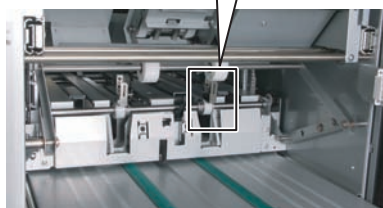
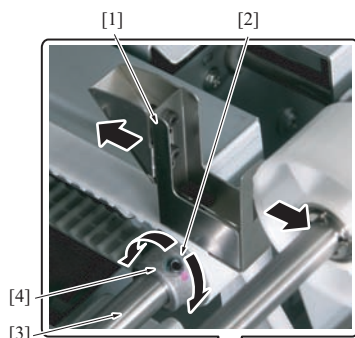
23.7 Roller cutter skew adjustment

(1) Usage

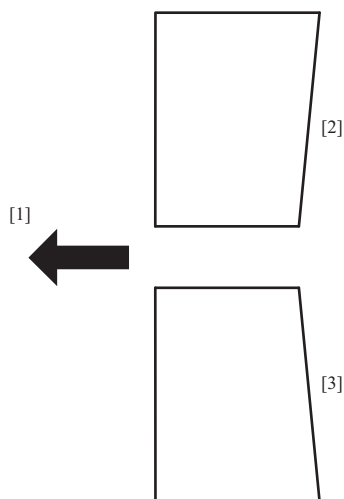
Adjust the skew when it occurs at trimming.

(2) Procedure

a0h2f3c008ca



a0h2f3c009ca



a0h2f3c010ca

1. Check the trimming parallelism by trimming center folded or senter stitched paper if it is within the standard value.
Standard value:
"a" = 1.0mm or less (2 to 15 sheets)
"a" = 1.5mm or less (16 to 50 sheets)
When the value is not within the standard value, perform the following procedure.

Note

- Remove the staple to check it for 2 sheets to 15 sheets.

2. Open the front door /Lt.
3. Loosen the screw [2] of the registration claw.
4. Turn the gear flange [4] with holding the shaft [3], adjust the registration claw /Rt [1] back and forth, and then tighten the screw [2].

5. Check point for the adjustment

Note

- Move the registration claw /Rt to the front side in case the skew is [2] to the paper exit direction [1], or move the claw to the rear side in case the skew is [3].

6. Repeat steps 1 to 5 until the standard value is obtained.

23.8 Trimming adjustment**(1) Usage**

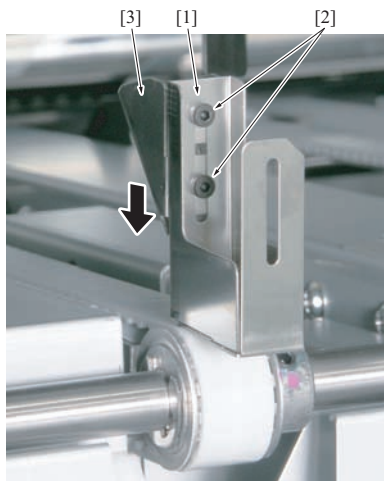
Adjust the gap when a large gap occurs at trimming thick books.

Note

- This adjustment is effective for the thick book more than 30 pages.

(2) Procedure

a0h2f3c011ca



a0h2f3c012ca

1. Check the trimming gap "a" by trimming the center folded or senter stitched book which has 31 pages or more. Conduct the following steps if the gap is large.

Note

- There is no standard value of trimming gap for 31 pages or more. Refer to the standard value for 16 pages to 30 pages, which is 1.5mm.

2. Open the front door /Lt.
3. Remove the slope unit. (Refer to [F.19.3.2 Replacing the slope unit](#))
4. Loosen the 2 screws [2] each of the registration claw /Rt and /Lt [1], move the fold retaining bracket [3] down to the bottom, and then tighten the screws [2].
5. Repeat steps 1 to 4 until the allowable value can be obtained.

24. MECHANICAL ADJUSTMENT PB-503

24.1 Clamp sub scan direction alignment adjustment

(1) Usage

Carry out the adjustment when the following conditions occur.

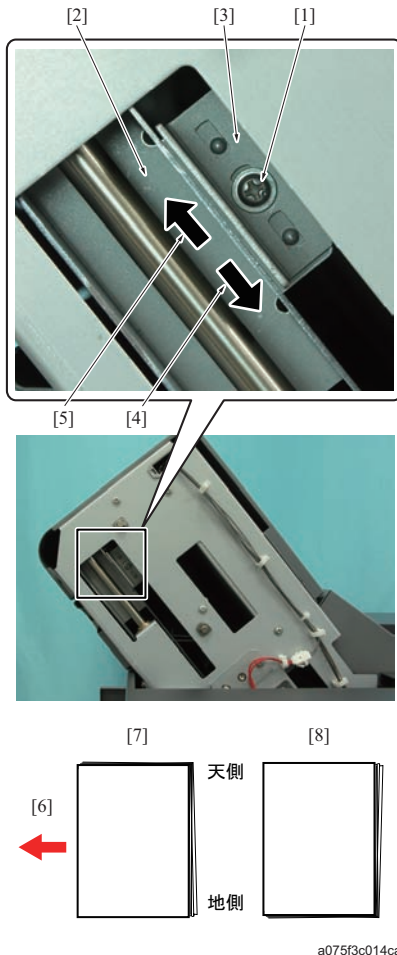
The fore edges near the top or the bottom of the book do not line up perfectly.

The pages come off from the cover paper near the top or the bottom of the book due to insufficient gluing to the spine of inside papers.

An improper gap between the reference plate and the sub scan alignment plate causes misalignment of the pages in the sub scan direction.

To correct the misalignment, perform "Clamp FD Position Adj. (Perfect Binder Adjustment)" in Service Mode → Finisher Adjustment → Perfect Binding Machine Adjustment.

(2) Procedure



1. Remove the SC cover/Fr. (Refer to [G.19.2.11 SC cover /Fr](#))
2. Loosen a screw [1].
3. Adjust the position of the sub scan alignment plate by moving the clamp entrance assy [2] in the direction of the arrow [4] or [5] to change the installation position of the clamp entrance assy against the coupling bracket [3].

Note

- Be sure to hold down the coupling bracket [3] when moving the clamp entrance assy, as the assy is heavy and hard to move.
 - [6] shows the book exit direction;
 - a. A misalignment occurs near the bottom side (front side when inside paper alignment is performed)
[7]: Move the clamp entrance assy [2] in the direction of the arrow [4] to make the gap at the front side narrower.
 - b. A misalignment occurs near the top side (back side when inside paper alignment is performed)
[8]: Move the clamp entrance assy [2] in the direction of the arrow [5] to make the gap at the front side wider.
 - When moving the clamp entrance assy [2] in the direction of the arrow [5], the misalignment of the inside papers occurs at both the top and bottom sides. To correct the misalignment, perform "Clamp FD Position Adj. (Perfect Binder Adjustment)" in Service Mode → Finisher Adjustment → Perfect Binding Machine Adjustment after performing this adjustment.
4. After performing the adjustment, make a test print and binding to check that the inside papers are perfectly lined up in the sub scan direction.
 5. Reinstall the preceding parts following the removal steps in reverse.

24.2 Clamp main scan direction alignment adjustment

(1) Usage

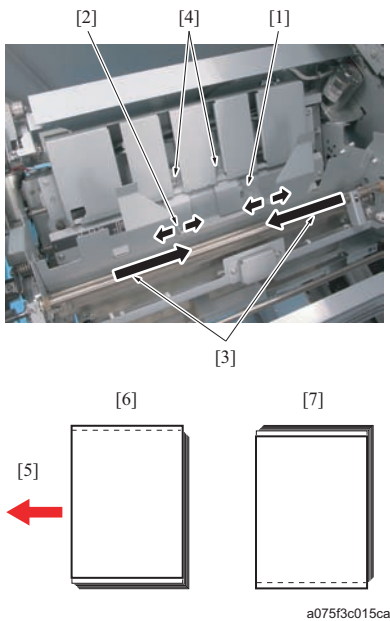
Carry out the adjustment when the following conditions occur.

The top and bottom edges of inside papers do not line up and it cannot be corrected even after performing "Clamp section CD alignment width adjustment" and "SC section CD alignment width adjustment" in the service mode.

The cover and the inside papers are not aligned.

Note

- The misalignment of cover and inside papers can also be adjusted in "[I.24.10 Cover paper alignment plate adjustment](#)" and "[I.24.12 Cover paper table positioning](#)".

(2) Procedure

1. Pull out the clamp unit.
 2. Move the clamp alignment plates /Fr [1] and /Rr [2] inward as far as they go [3].
- Note**
- Be sure to hold both clamp alignment plates/Fr [1] and /Rr [2], and move them slowly to maintain the proper engagement of the belt and the pulleys.
3. Loosen 2 screws [4] and adjust the position of the clamp alignment plates/Fr [1] and /Rr [2] by moving them back and forth.
- Note**
- [5] shows the book exit direction;
 - a. When top edge of cover paper runs off that of inside papers [6]: Move the clamp alignment plates/Fr [1] and /Rr [2] backward by the same distance.
 - b. When bottom edge of cover paper runs off that of inside papers [7]: Move the clamp alignment plates/Fr [1] and /Rr [2] forward by the same distance.
 - When moving 2 clamp alignment plates in the same direction, always move them by the same distance.
4. After performing the adjustment, make a test print and binding to check that the top and bottom edges of inside papers are perfectly lined up and the cover edges neatly align with edges of inside papers.
 5. Reinstall the above parts following the removal steps in reverse.

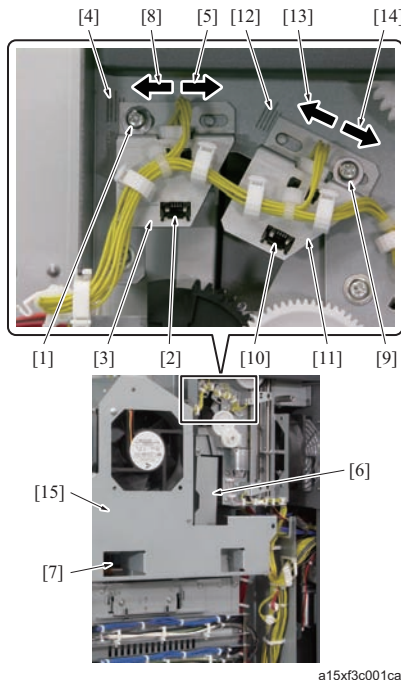
24.3 Pellet supply arm angle adjustment**(1) Usage**

Carry out the adjustment when the following conditions occur.

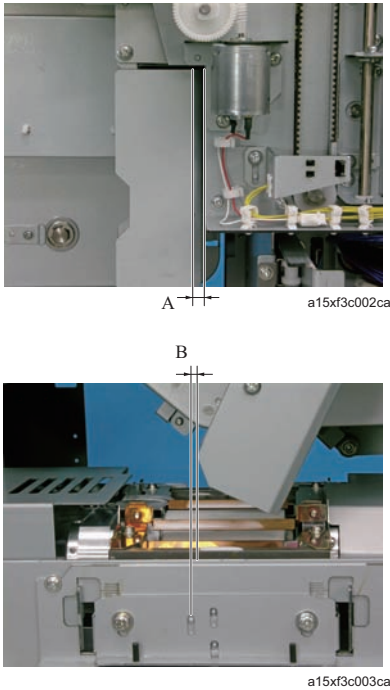
- The pellet is supplied to the tank improperly and it spills out of the tank.
- The pellet supply arm contacts with the other parts when the arm is in its home position.

Note

- Be sure to turn Off the power switch (SW2) and the main power switch (SW1) of the main body in advance.

(2) Procedure

1. Remove the rear cover /Rt.
(Refer to [G.19.2.5 Rear cover /Rt](#))
 2. Loosen a screw [1].
 3. Adjust the home position of the pellet supply arm by moving the mounting plate [3] of the pellet supply arm home sensor (PS39) [2] referring to the engraved lines [4] on the mounting plate [3].
 - a. Move the mounting plate in the direction of the arrow [5] to make the pellet supply arm [6] home position become closer to the glue tank [7].
 - b. Move the mounting plate in the direction of the arrow [8] to make the pellet supply arm [6] home position become further from the glue tank [7].
- Note**
- Adjust the position of the pellet supply arm so that the distance between the arm and the edge of the metal frame is 0mm to 3mm: A when the arm comes to the home position.
 - Do not move the mounting plate excessively or it contacts with the other parts.
4. Loosen a screw [9].
 5. Adjust the pellet supply position by moving the mounting plate [11] of the pellet supply arm upper limit sensor (PS38) [10] referring to the engraved lines [12] on the mounting plate.
 - a. Move the mounting plate in the direction of the arrow [13] to make the angle range of the pellet supply arm [6] become narrower.
 - b. Move the mounting plate in the direction of the arrow [14] to make the angle range of the pellet supply arm [6] become wider.
- Note**
- Adjust the position of the pellet supply arm so that the distance between the arm and the edge of the metal frame is +2mm to -4mm: B when the arm comes to the home position.
 - Do not move the mounting plate excessively or it contacts with the other parts.
6. Turn on the main power switch (SW1) and the power switch (SW2).



7. Carry out the output check "77-43" of I/O check in the service mode to detect the home position of the pellet supply arm and check if the home position is appropriate.
8. Move the pellet supply arm to the pellet supply position using the output check "77-44" of I/O check in the service mode and check if the pellet supply position is appropriate.

Note

- For restrictions or cautions of the output check "77-44", refer to the I/O check mode.
 - When it is hard to check the supply position, turn OFF the sub power switch (SW) and the main power switch (SW1) and remove the suction unit [15]. (Refer to G.19.2.20 Glue tank unit)
9. When the test result is not good, turn off the sub power switch (SW2) and the main power switch (SW1) and repeat steps 2 to 8.
 10. Reinstall the above parts following the removal steps in reverse.

24.4 Glue apply roller gap adjustment

(1) Usage

This adjusts the gap between the metal surface of the glue apply roller and the spine of inside papers. Changing the gap allows you to adjust the amount of glue applied to the spine.

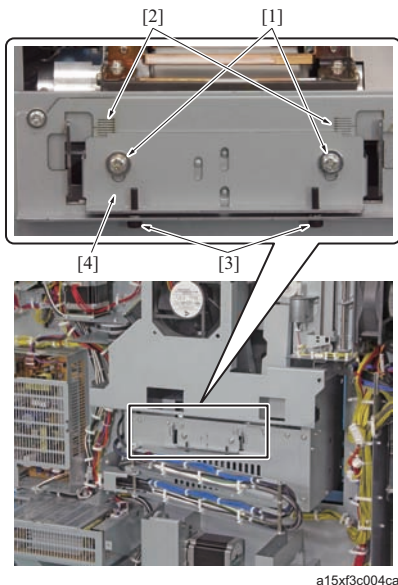
Note

- Reference values: The thickness of glue layer formed on the roller is about 2mm with the gap of 1.8mm.

CAUTION

- The glue tank unit is extremely hot immediately after turning off the main power switch (SW1) or the power switch (SW2) of the main body.
- To prevent burn injuries, make sure to leave the unit until it cools enough before performing the adjustment.

(2) Procedure



1. Remove the rear cover /Rt. (Refer to G.19.2.5 Rear cover /Rt)
2. Loosen 2 screws [1].
3. Adjust the stopper [4] position by moving it up and down with 2 screws [3] referring to the engraved lines [2], then tighten the screws [1].

Note

- The stopper [4] moves down 0.5mm by tightening the screws [3] for 1 rotation and it moves up by loosening the screws.
 - Raising the stopper brings the glue apply roller upward making the gap become smaller, which decreases the amount of glue applied.
 - Lowering the stopper brings the glue apply roller down making the gap become larger, which increases the amount of glue applied.
 - Do not lower the stopper excessively. Too much gap causes the glue application to fail.
 - When raising or lowering the stopper, be sure to adjust 2 screws [3] for the same amount and maintain the horizontal state of the stopper.
4. After performing the adjustment, make a test print and binding to check that the amount of glue applied to the book spine is appropriate.
 5. Reinstall the above parts following the removal steps in reverse.

24.5 Cover paper glue gap adjustment

(1) Usage

This adjustment is to adjust the gap between the surface of the cover paper glue material (scraper /Fr) and the spine of inside paper. Adjust the glue amount applied to the book spine by changing the gap.

There are 2 types of gap, one is for the thick coat mode and the other is for the thin coat mode. *1

Note

- The gap between the scraper /Fr and the spine is 2.5mm in the thin coat mode and 2.5mm in the thick coat mode. *1

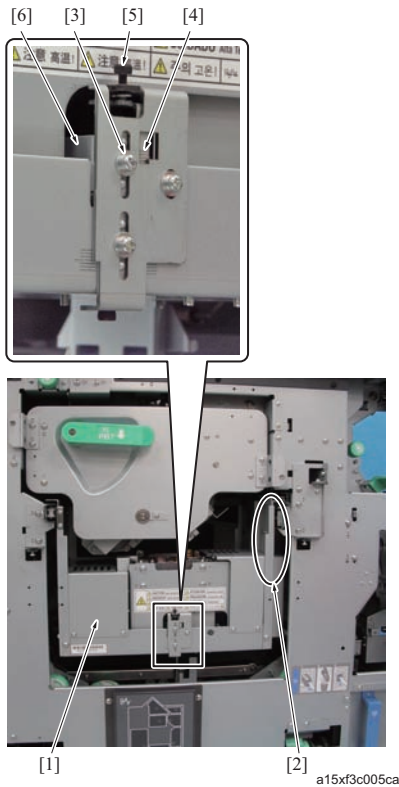
- When the gap in the thick coat mode is adjusted, the gap in the thin coat mode is changed. Therefore, be sure to adjust the gap in the thin coat mode also after adjusting the gap in the thick coat mode.

*1 The thick coat mode is not used for 1200/1200P/1051/1250/1250P/1052.

⚠ CAUTION

- The glue tank unit is extremely hot immediately after turning off the main power switch (SW1) or the power switch (SW2) of the main body.
- To prevent burn injuries, make sure to leave the unit until it cools enough before performing the adjustment.

(2) Gap adjustment procedure in thin coat mode



1. Open the front door and move the glue tank unit [1] frontward.

Note

- Be sure to hold the right arm [2] of the glue tank unit to move it.

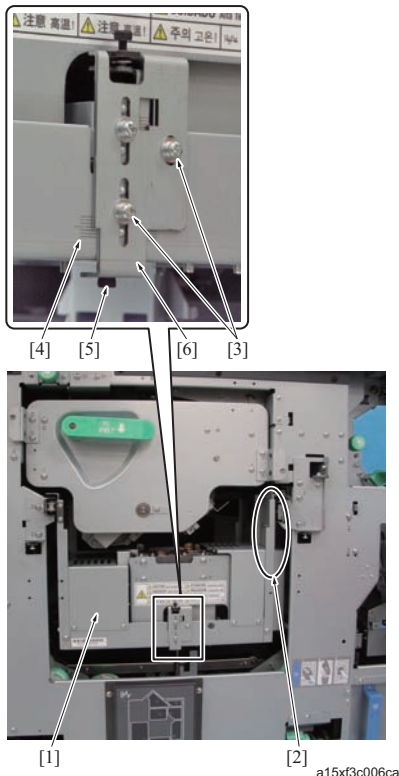
2. Loosen 1 screw [3].
3. Adjust the thin coat stopper [6] position by moving it up and down with the screw [5] referring to the engraved line [4], then tighten the screw [3] hitting it against the screw [5].

Note

- The thin coat stopper has a scale marked at 1mm interval.
- The thin coat stopper [6] moves down 0.5mm by tightening the screw [5] for 1 rotation and it moves up by loosening the screw.
- Raising the thin coat stopper brings the cover paper glue part closer to the book spine and it makes the scraped-off glue amount larger, which reduces the glue amount applied to the book spine.
- If the applied glue is thin and the cover does not stick to the book body, lowering the thin coat stopper (increasing the gap between the cover paper glue part and the book spine) increases the amount of glue applied to the book spine.
- If the applied glue is thick and the glue comes out too much, lifting the thin coat stopper (decreasing the gap between the cover paper glue part and the book spine) reduces the amount of glue applied to the book spine.

4. After performing the adjustment, make a test print and binding to check that the glue amount applied to the book spine is appropriate.

(3) Gap adjustment procedure in thick coat mode



1. Open the front door and move the glue tank unit [1] frontward.

Note

- Be sure to hold the right arm [2] of the glue tank unit to move it.

2. Loosen 2 screws [3].
3. Adjust the thick coat stopper [6] position by moving it up and down with the screw [5] referring to the engraved line [4], then tighten the screw [3] hitting it against the screw [5].

Note

- The thick coat stopper [6] moves down 0.5mm by tightening the screws [5] for 1 rotation and it moves up by loosening the screws.
- The thick coat stopper has a scale marked at 1mm interval. The right and left scales shift 0.5mm vertically. When adjusting it, be sure to move it by 1mm and check the position.
- When raising or lowering the thick coat stopper, be sure to maintain its horizontal state.
- Raising the thick coat stopper brings the cover paper glue part closer to the book spine and it makes the scraped-off glue amount larger, which reduces the glue amount applied to the book spine.
- If the applied glue is thin and the cover does not stick to the book body, lowering the thick coat stopper (increasing the gap between the cover paper glue part and the book spine) increases the amount of glue applied to the book spine.
- If the applied glue is thick and the glue comes out too much, lifting the thick coat stopper (decreasing the gap between the cover paper glue part and the book spine) reduces the amount of glue applied to the book spine.

4. After performing the adjustment, make a test print and binding to check that the glue amount applied to the book spine is appropriate.
5. Conduct the gap adjustment in the thin coat mode.

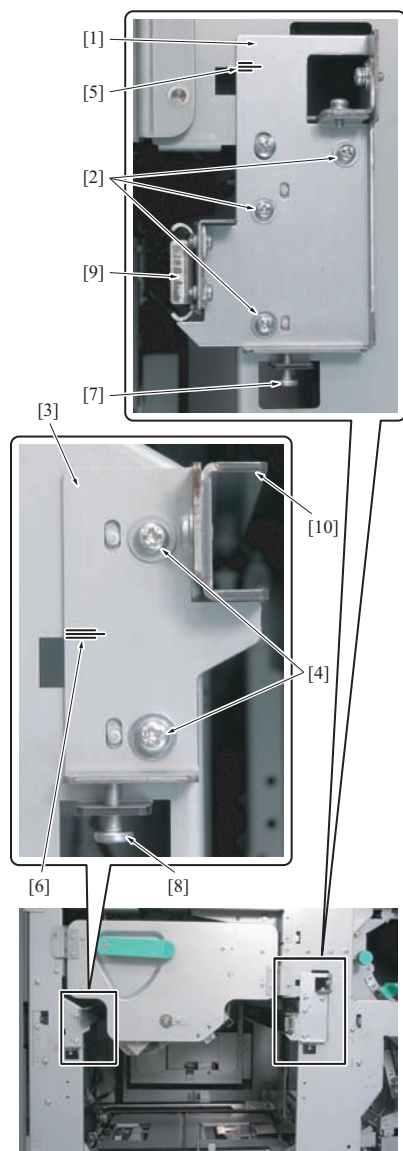
24.6 Glue tank movement rail tilt adjustment

(1) Usage

This adjusts the parallelism between the glue tank movement rail and the spine of inside papers.

Perform this when glue is not applied uniformly on the spine, especially when amount of glue applied is different between the top and bottom side of the book.

(2) Procedure



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1. Loosen 3 screws [2] of the bracket /Rt [1].
2. Loosen 2 screws [4] of the bracket /Lt [3].
3. Move the brackets /Rt [1] and /Lt [3] up and down by turning the screws [7] and [8] to adjust the height of the glue tank movement rails/Rt [9] and /Lt [10] referring to the engraved lines [5] and [6] on the brackets /Rt and /Lt.

Note

- Be sure to turn the screws [7] and [8] by the same amount so that the brackets/Rt [1] and /Lt [2] move the same amount.
- When the glue applied to the spine gets lower toward the bottom side, lower the brackets/Rt [1] and /Lt [2].

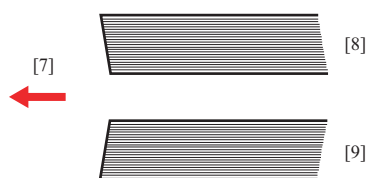
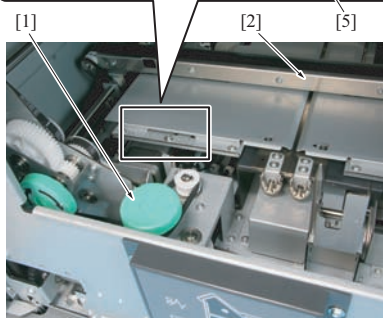
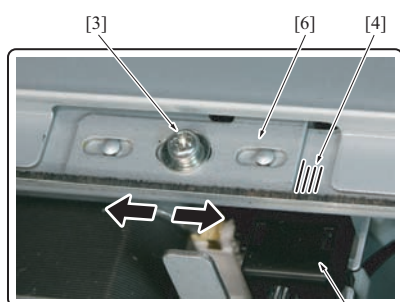
4. After performing the adjustment, make a test print and binding to check that the glue is applied to the book spine uniformly.

24.7 Cover paper folding plate nipping adjustment

(1) Usage

This adjusts the position of the cover paper folding plate/Lt to apply pressure to the cover paper.

Perform this adjustment when the cover paper is not folded at the right angle (when the book spine inclines).

(2) Procedure

a075f3c021ca

1. Turn the knob [1] to move the cover paper alignment plate/Fr [2] backward.
2. Loosen the screw [3] and adjust the actuator [6] position of the cover paper folding plate HP sensor /Lt (PS49) [5] by moving the actuator right and left referring to the engraved lines [4].

Note

- [7] shows the book exit direction;
 - a. When the book spine inclines as [8]: Move the actuator [6] to the left.
 - b. When the book spine inclines as [9]: Move the actuator [6] to the right.

3. After performing the adjustment, make a test print and binding to check that the book spine ends form right angle and no inside papers come off from the cover paper.

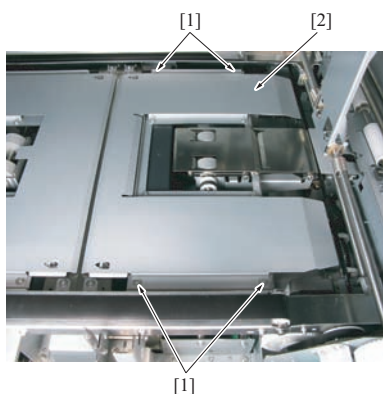
Note

- At the test print, print more than 50 sheets, or you cannot check the book spine.

24.8 Cover paper folding plate parallel adjustment**(1) Usage**

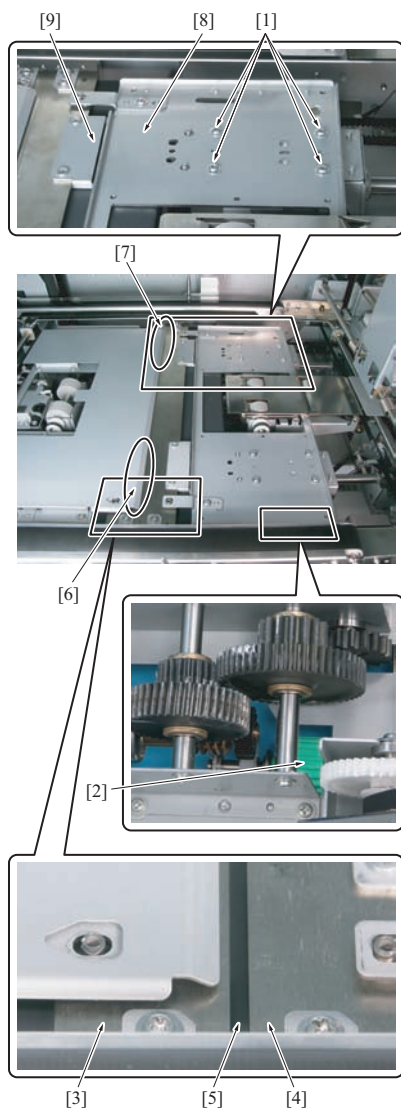
This adjusts the parallelism between the cover paper folding plate/Rt and /Lt.

Perform the adjustment when the book spine corners are not uniformly formed from the top and the bottom.

(2) Procedure

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1. Remove the cover paper tray. (Refer to [G.19.2.28 Cover paper tray](#))
2. Remove 4 screws [1] and remove the cover /Rt [2].



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3. Loosen 4 screws [1].
4. Put a hand from under the cover paper tray section and turn the knob [2] to move the cover paper folding plate /Rt [3] and /Lt [4] so that the gap between them becomes a few millimeters [5].
5. Slowly turn the knob [2] in reverse until the cover paper folding plate/Rt [3] and /Lt [4] contact each other without any gap at both front side [6] and rear side [7].

Note

- Make sure that the pressure drive plate/Rt [8] does not run on the pressure assist plate [9].
- Do not turn the knob [2] too much. Doing so brings the plates into pressure-applying state making the position adjustment impossible.

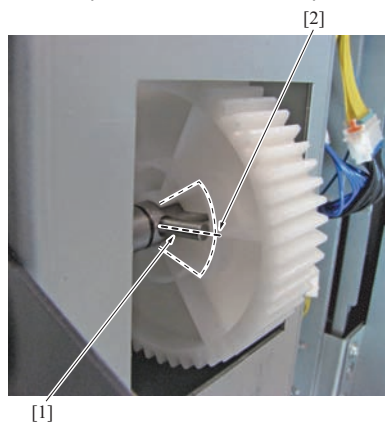
6. Tighten 4 screws [1].
7. After performing the adjustment, make a test print and binding to check that the book spine ends are forming right angle from the top and the bottom.
8. Reinstall the above parts following the removal steps in reverse.

24.9 Cover paper table up down belt adjustment**(1) Usage**

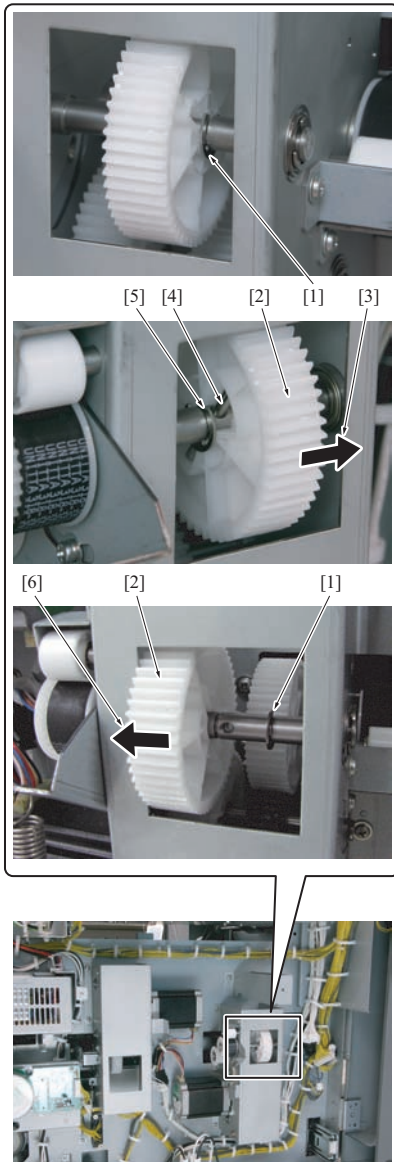
Perform the adjustment when the following conditions occur.
 The cover paper table up down drive system does not synchronize successfully.
 The front and rear cover paper table belts do not synchronize smoothly.

(2) Check point

Check that the pin [1] is placed on the center of the central sector of the gear [2].
 When the pin is out of the center, perform the following adjustment.



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(3) Procedure

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1. Remove the rear cover. (Refer to [G.19.2.5 Rear cover /Rt](#))
2. Remove the E-ring [1].
3. Move the gear [2] to the right [3] and remove the pin [4].
4. Remove the E-ring [5].
5. Move the gear [2] to the left [6] and install the E-ring [1].
6. Turn ON the main power switch (SW1) and the sub power switch (SW2) to let the system perform the initial operation.
7. Insert the pin [4], adjust the gear [2] so that it aligns with the gear inside, and slide the gear [2] to the right.
8. Install the E-ring [5] Install the rear cover
9. Install the rear cover.

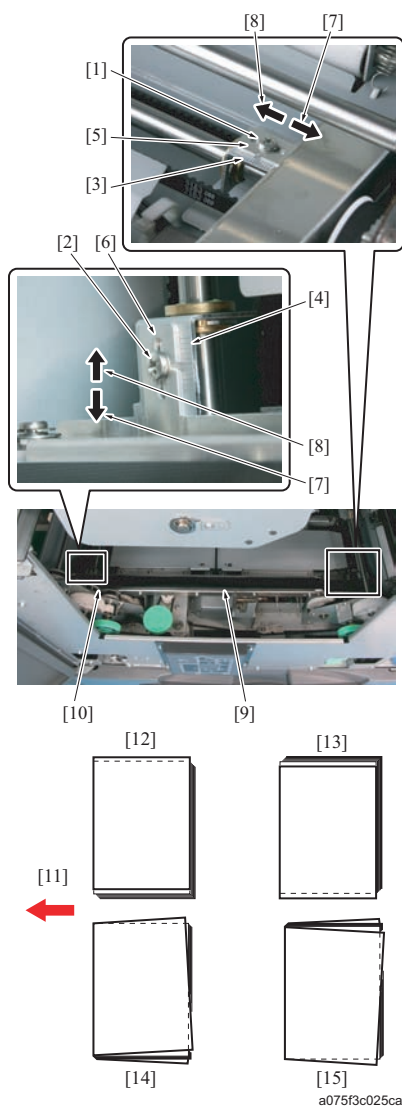
24.10 Cover paper alignment plate adjustment**(1) Usage**

This adjusts the position of the cover paper alignment plate/Fr in the main scan direction and its perpendicularity against the main scan direction.

Perform the adjustment when the cover paper and the inside papers are vertically or relatively misaligned.

Note

- The misalignment of cover and inside paper can also be adjusted in "[I.24.2 Clamp main scan direction alignment adjustment](#)" and "[I.24.12 Cover paper table positioning](#)".

(2) Procedure

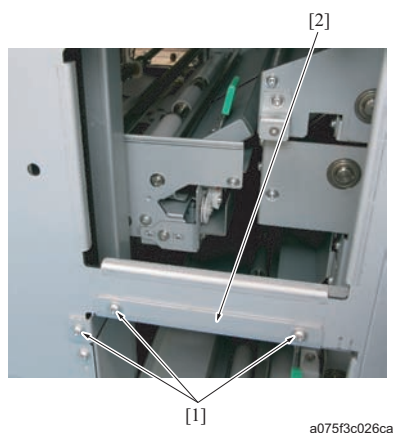
1. Loosen the screw [1] and [2].
2. Adjust the position and angle of the cover paper alignment plate / Fr [9] by moving the mounting brackets /Rt [5] and /Lt [6] to the front [7] and to the back [8] referring to the engraved lines [3] and [4].

Note

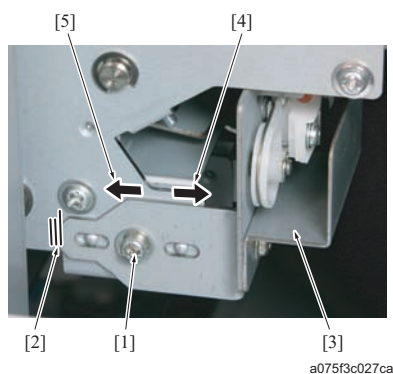
 - Do not move the mounting bracket /Lt [6] excessively, or the plate contacts with the gear [10].
 - [11] shows the book exit direction;
 - a. When the cover paper runs off the top edge of inside paper [12]: Move the mounting brackets /Rt [5] and /Lt [6] forward [7] by the same distance.
 - b. When the cover paper runs off the bottom edge of inside paper [13]: Move the mounting brackets /Rt [5] and /Lt [6] backward [8] by the same distance.
 - c. When 3 edges of cover paper misalign with the edges of inside paper [14]: Move the mounting bracket /Rt [5] backward [8] and move the mounting bracket /Lt [6] forward [7].
 - d. When 3 edges of cover paper misalign with the edges of inside paper [15]: Move the mounting bracket /Rt [5] forward [7] and move the mounting bracket /Lt [6] backward [8].
3. After performing the adjustment, make a test print and binding to check that the cover paper is neatly aligned with the inside papers.

24.11 Cover paper cutting skew adjustment**(1) Usage**

Perform the adjustment when the roller cutter trims the cover paper askew.

(2) Procedure

1. Remove the scraps box.
2. Remove 3 screws [1] and remove the metal frame [2].



- Loosen the screw [1] and adjust the position of the roller cutter assy [3] by moving it to the right [4] and the left [5] referring to the engraved lines [2].

Note

- When the length of the back cover is shorter than the length of the front cover at the bottom side:
Move the roller cutter assy [3] to the right side [4].
- When the length of the back cover is longer than the length of the front cover at the bottom side:
Move the roller cutter assy [3] to the left side [5].

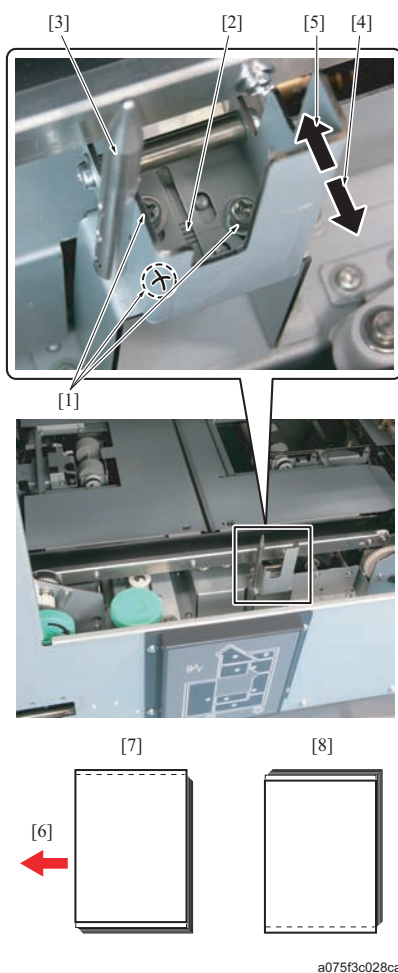
- After performing the adjustment, make a test print and binding to check that the cover paper is trimmed correctly.
- Reinstall the above parts following the removal steps in reverse.

24.12 Cover paper table positioning**(1) Usage**

This adjusts the relative position between the clamp unit and the cover table unit in the main scan direction. Perform the adjustment when the cover paper is vertically misaligned with the inside papers.

Note

- The misalignment of cover and inside paper can also be adjusted in "[I.24.2 Clamp main scan direction alignment adjustment](#)" and "[I.24.10 Cover paper alignment plate adjustment](#)."

(2) Procedure

- Loosen 3 screws [1].
- Adjust the position of the positioning pin/Fr [3] by moving it forward [4] and backward [5] referring to the engraved lines [2].

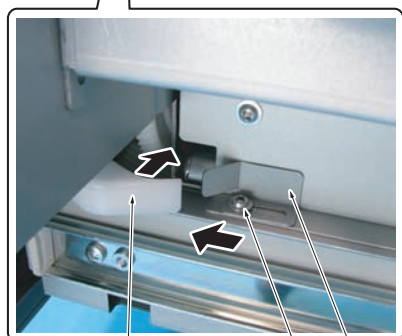
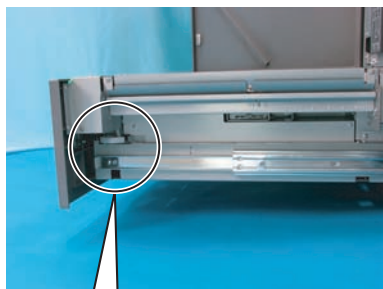
Note

- [6] shows the book exit direction;
 - When the cover paper runs off the top edge of inside paper [7]: Move the positioning pin /Fr [3] to the back [5].
 - When the cover paper runs off the bottom edge of inside paper [8]: Move the positioning pin /Fr [3] to the front [4].

- After performing the adjustment, make a test print and binding to check that the cover paper is neatly aligned with the inside paper.

24.13 Cover paper tray pick-up adjustment**(1) Usage**

Perform the adjustment when no feed from the cover paper tray occurs frequently.

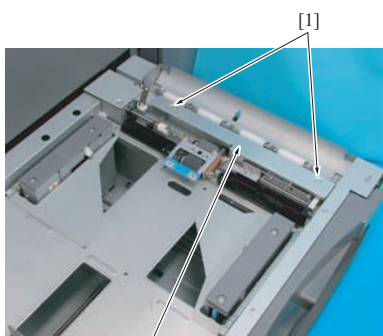
(2) Procedure

[2]

[1]

[3]

a075f3c001ca

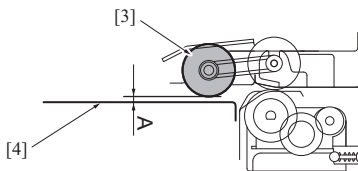
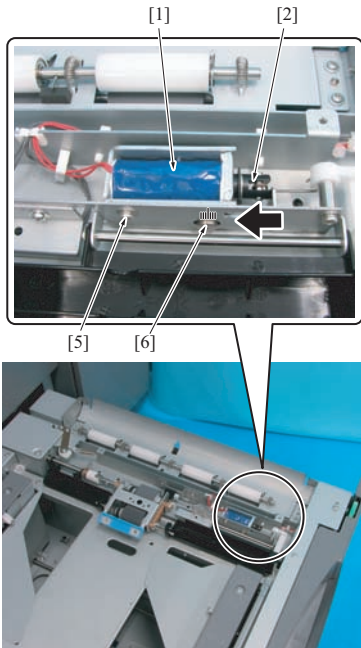


[2]

a075f3c002ca

1. Pull out the cover paper tray.
 2. Remove all remaining cover papers from the cover paper tray.
 3. Loosen a screw [1].
 4. Push the stopper [3] in the direction of the arrow with the release lever [2] retracted, and secure the stopper [3] with the screw [1].
- Note**
- After performing the adjustment, loosen the screw [1] and retighten it after releasing the stopper [3].
5. Install the cover paper tray, and pull out the tray again after the cover paper lift plate has lifted to the upper limit, which can be judged by the operating sound of the cover paper lift motor.
 6. Remove the stopper screws, 1 each, attached on the right and left rails and pull the cover paper tray further out. (Refer to [G.19.2.28 Cover paper tray](#))

7. Remove 2 screws [1] to remove the paper feed cover [2].



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8. Pull the plunger [2] of the pick-up solenoid [1] and measure the gap between the pick-up roller [3] and the cover paper lift plate [4] with a thickness gauge.
Measured value A = 0.1mm to 1.5mm
If it is not within the standard value, follow step 9 and after.
9. Loosen a screw [5].

Note

- Before loosening the screw, be sure to mark off the position of the pick-up solenoid [1] by drawing a line [6].

10. With the plunger [2] pulled, adjust the position of the pick-up solenoid [1] so that the gap between the pick-up roller [3] and the cover paper lift plate [4] falls into the specified range.
11. Tighten the screw [5] to fix the pick-up solenoid [1].
12. Load cover paper on the cover paper tray and close the tray.
13. Make a test print and binding selecting the perfect binding as the binding method and the PB cover paper tray as the cover feeder. Check that the no feed error does not occur.
14. Reinstall the above parts following the removal steps in reverse.

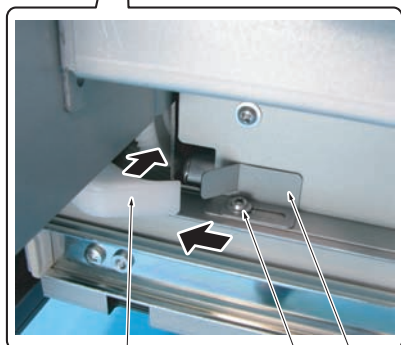
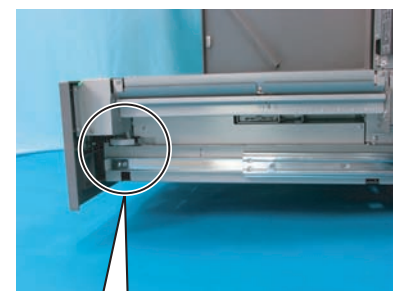
24.14 Cover paper tray pick-up roller height adjustment**(1) Usage**

Perform this adjustment when no-feed, crimp of leading edge, or paper jam occurs frequently when feeding the cover papers from the cover paper tray, or when curled cover papers need to be used.

This adjusts the vertical position of the cover paper pick-up roller. Changing the roller position changes the vertical gap between the top paper surface on the tray and the bottom surface of the cover paper feed roller.

Note

- With this adjustment, cover paper pick-up ability changes accordingly. When the adjustment is completed, make sure to perform the cover paper feed pick-up amount adjustment to check the pick-up amount.

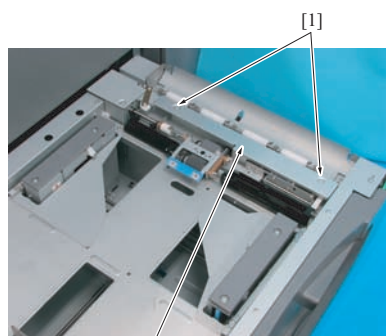
(2) Procedure

[2]

[1]

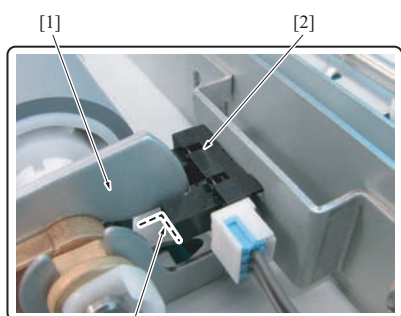
[3]

a075f3c004ca

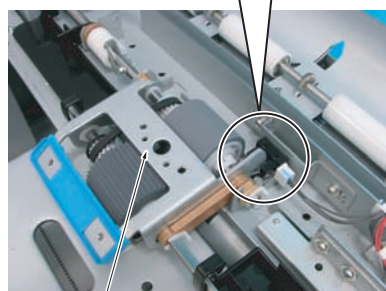


[2]

a075f3c005ca



[3]



[4]

a075f3c006ca

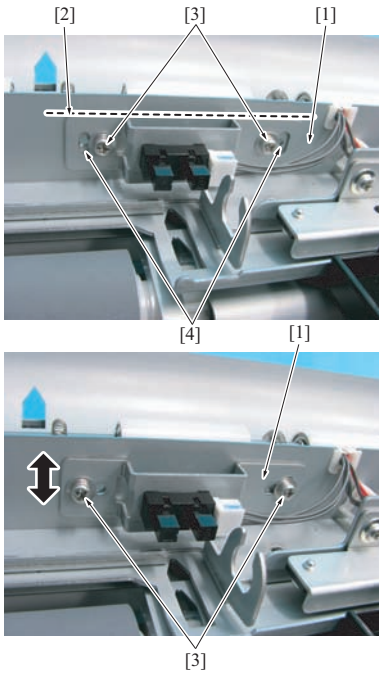
1. Pull out the cover paper tray.
2. Remove all remaining cover papers from the cover paper tray.
3. Loosen a screw [1].
4. Push the stopper [3] in the direction of the arrow with the release lever [2] retracted, and secure the stopper [3] with the screw [1].

Note

- After performing the adjustment, loosen the screw [1] and retighten it after releasing the stopper [3].

5. Install the cover paper tray, and pull out the tray again after the cover paper lift plate has lifted to the upper limit, which can be judged by the operating sound of the cover paper lift motor.
6. Remove the stopper screws, 1 each, attached on the right and left rails and pull the cover paper tray further out. (Refer to [G.19.2.28 Cover paper tray](#))
7. Pull out the tray again. Remove 2 screws [1] to remove the paper feed cover [2].

8. Check that the actuator [1] of the pick-up roller assy is aligned with the center [3] of the cover paper tray upper limit sensor (PS74) [2].
9. Remove the pick-up roller section [4]. (Refer to [F.20.3.1 Removing/reinstalling the pick-up roller assy and the separation roller assy](#))



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10. Mark off the position of the cover paper tray upper limit sensor mounting plate [1] by drawing a line [2].
11. Remove 2 screws [3] and temporarily install the cover paper upper limit sensor mounting plate [1] with the screws through the elongated screw holes [4].
12. Make vertical adjustments of the cover paper upper limit sensor mounting plate [1] and fasten it with the screws [3].

Note

- Be sure to install the cover paper tray upper limit sensor mounting plate [1] so that it keeps in a horizontal position.

Reference:

- Raising the position of the cover paper tray upper limit sensor brings the pick-up roller [5] down (It increases the vertical gap [7] between the paper feed roller [6] and the pick-up roller [5].)
- Lowering the position of the cover paper tray upper limit sensor brings up the pick-up roller [5] (reduces the vertical gap [7] between the cover paper feed roller [6] and the pick-up roller [5]).
- When crimp of leading edge or paper jam occurs, or when curled cover paper (concave curl) need to be used, raise the cover paper tray upper limit sensor mounting plate.
- When feeding warped cover paper (convex curl), lower the cover paper tray upper limit sensor mounting plate.

13. Reinstall the pick-up roller assembly.

Note

- Be sure to install the cover paper tray upper limit sensor mounting plate [1] so that it keeps in a horizontal position.

14. Load cover paper on the cover paper tray and close the tray.
15. Make a test print and binding selecting the perfect binding as the binding method and PB cover paper tray as the cover feeder. Check that the errors do not occur. If the errors still occur, repeat steps 9 to 15.
16. Check the cover paper tray paper feed pick-up adjustment. (Refer to [I.24.13 Cover paper tray pick-up adjustment](#))
17. Reinstall the above parts following the removal steps in reverse.

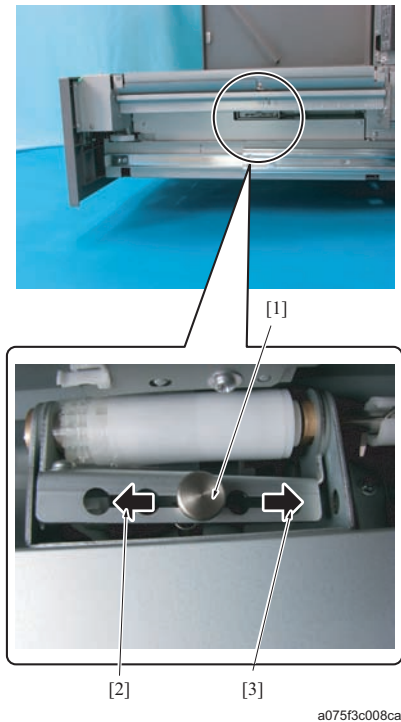
24.15 Cover paper tray separation pressure adjustment

(1) Usage

Perform this adjustment when no-feed or multi-feed from the cover paper tray occurs frequently.

Note

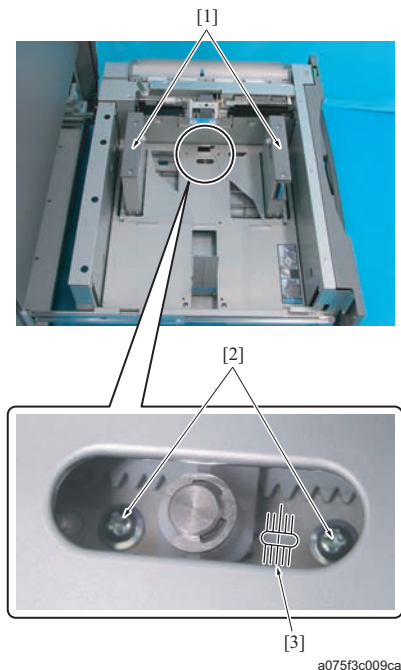
- A no-feed error tends to occur in low temperature environment, while a multi-feed error does in high temperature environment. Perform this adjustment with this in mind.
- Do not make an excessive adjustment. Doing so may reverse the respective symptoms.

(2) Procedure

1. Pull out the cover paper tray.
2. Change the position of the spring adjustment lever [1]. The separation pressure is strengthened when the lever moves to the direction [2] and is weakened when the lever moves to the direction [3].
Weak: A double feed jam is improved.
Strong: A no feed jam is improved.
Reference:
 - The spring load changes in increments of about 10%.
3. Set the cover paper tray.
4. Make a test print and binding selecting the perfect binding as the binding method and PB cover paper tray as the cover feeder.
Check that no-feed errors or multi-feed errors do not occur.
5. If the errors still occur, repeat steps 1 to 4.

24.16 Cover paper tray Centering Adjustment**(1) Usage**

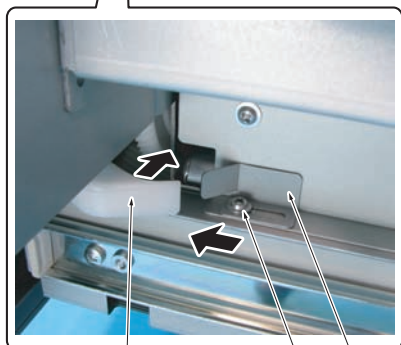
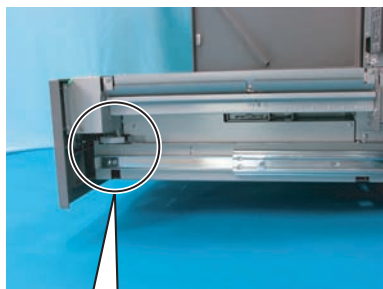
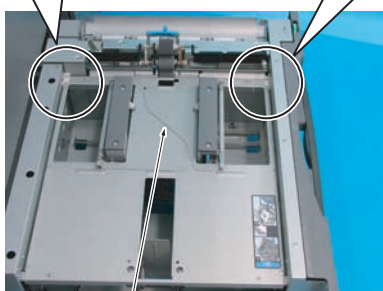
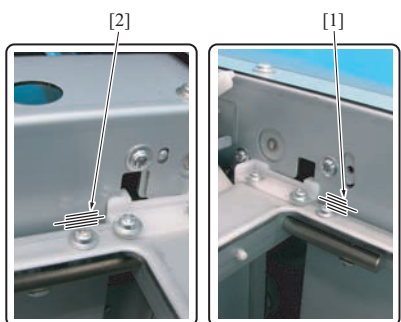
Perform this adjustment when the deviation between the cover paper and the inside papers is out of spec.
Standard value: $0 \pm 1\text{mm}$ or less (aligned edges), $0 \pm 1.5\text{mm}$ or less (trimmed edges)

(2) Procedure

1. Make a test print and binding selecting the perfect binding as the binding method and PB cover paper tray as the cover feeder.
Check how much the cover paper misaligns with the inside papers.
2. Pull out the cover paper tray.
3. Remove all remaining cover papers from the cover paper tray.
4. When the cover paper guides [1] are set at the small-size position, extend them.
5. Loosen 2 screws [2].
6. Move the cover paper guides [1] and adjust the center position based on the misalignment amount checked at step1, referring to the marking-off line [3].
7. Tighten 2 screws [2].
8. Load cover paper on the cover paper tray and close the tray.
9. Make a test print and binding selecting the perfect binding as the binding method and PB cover paper tray as the cover feeder.
Check that the misalignment amount falls into the specified range.
Standard value:
 $0 \pm 1\text{mm}$ or less (aligned edges)
 $0 \pm 1.5\text{mm}$ or less (trimmed edges)
10. If the value falls outside the range, repeat the steps 2 to 9.

24.17 Cover paper tray lift plate horizontal adjustment**(1) Usage**

Conduct this adjustment when the jam, no feed, or the folded paper occurs in the cover paper tray.

(2) Procedure[2] [1] [3]
a075f3c010ca[3]
a075f3c011ca

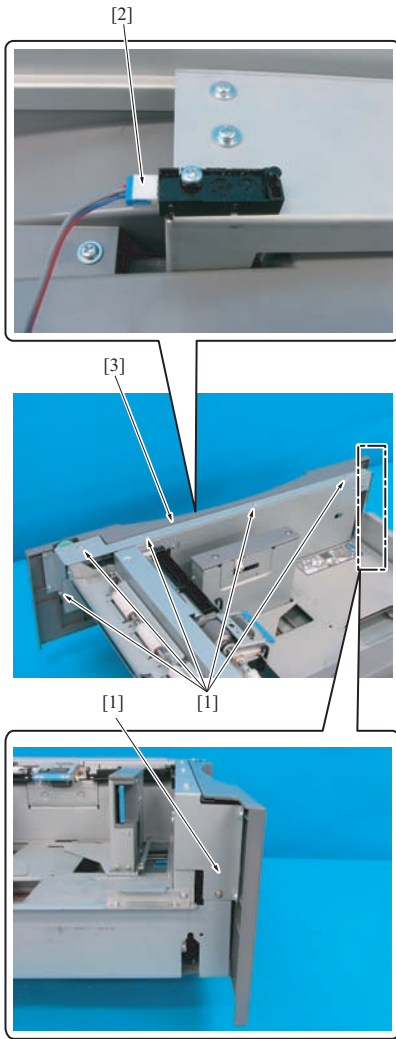
1. Pull out the cover paper tray.
2. Remove all remaining cover papers from the cover paper tray.
3. Loosen a screw [1].
4. Push the stopper [3] in the direction of the arrow with the release lever [2] retracted, and secure the stopper [3] with the screw [1].

Note

- After performing the adjustment, loosen the screw [1] and retighten it after releasing the stopper [3].

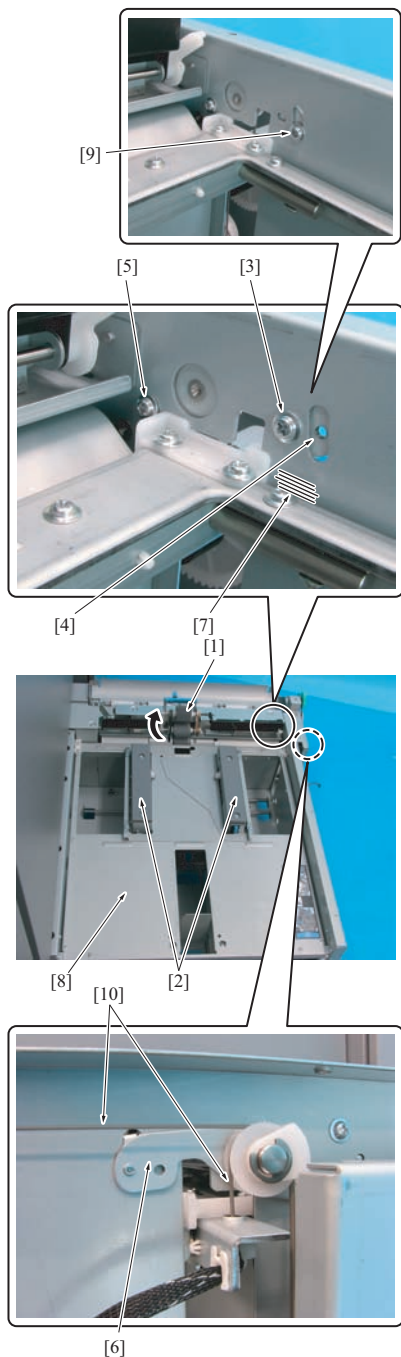
5. Install the cover paper tray, and pull out the tray again after the cover paper lift plate has lifted to the upper limit, which can be judged by the operating sound of the cover paper lift motor.

6. Check if the cover paper lift plate [3] is placed horizontally using the engraved lines on the near side [1] and the far side [2] of the tray. If the plate is not horizontal, perform step7 and the steps that follow.



a075f3c012ca

7. Remove 6 screws [1] of the cover paper tray front cover [3].
8. Disconnect the connector [2], and remove the cover paper tray front cover [3].



a075f3c013ca

9. Lift up the pick-up roller [1].
10. Move the cover paper guides [2] to the positions for the smallest paper size.
11. Remove the screw [3] and tighten it through the elongated screw hole [4] temporarily.
12. Loosen the screw [5] while supporting the pulley mounting plate [6] by hand, and correct the tilt of the cover paper lift plate [8] referring to the engraved lines [7].
13. Check that the cover paper lift plate [8] is placed horizontally, and secure the plate with the screw [5] and [9].

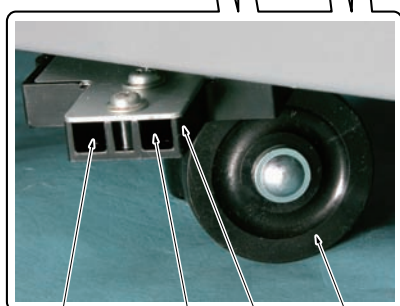
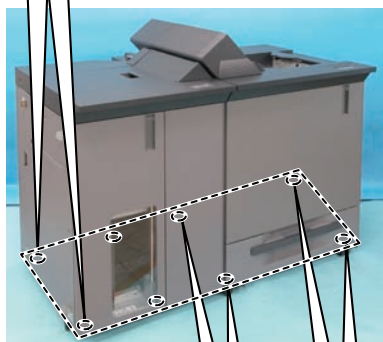
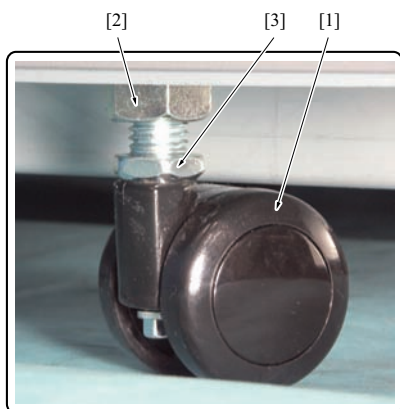
Note

- When tightening the screws [5] and [9], check that the wire [10] has not come off the pulley or not crossed.

14. Pull down the pick-up roller [1].
15. Load cover paper on the cover paper tray and close the tray.
16. Make a test and binding selecting the perfect binding as the binding method and PB cover paper tray as the cover feeder. Check that cover papers are fed normally without any jam.
17. Reinstall the above parts following the removal steps in reverse.

24.18 Height adjustment**(1) Usage**

Conduct this adjustment when the PB is not in a horizontal position or when the height of PB is not equal to the main body and the other options.

(2) Procedure

[6] [7] [5] [4]
a15xf3c007ca

1. Loosen the nut [2] of the caster /B [1] at 2 places.
2. Rotate the screw [3] at 2 places for adjusting the height of the PB left side.
3. Conduct the height adjustment by inserting the driver to the holes [6] and [7] on each of 4 ratchet section [5] of the casters /A [4] and moving it back and forth. It goes up with the hole [6] and goes down with the hole [7].

Note

- Be sure to make adjustments while considerate the height between the main body and other optional devices.
- Be sure not to go it up too much, otherwise the bolt comes off.
- When the caster /A [4] is not on the ground, fix the caster so that the ratchet does not spin out.
- Be sure to adjust so that every casters /A and /B are on the ground.

4. Secure the screw [3] of the caster /B [1] at 2 places and tighten the nut [2].

J REWRITING OF FIRMWARE

1. OUTLINE

1.1 Precautions on rewriting the firmware

(1) ISW execution procedures

When executing the ISW over the entire system, be sure to execute it in the order given below. (To minimize the occurrence of malfunction resulting from the mismatch of the firmware version)

Step	Type of programs
1 *1	DF(F), ZU-608(Z), FS(N), SD-510(K), GP-501(G), GP-502(M1, M2, M3), LS 1st tandem (S1), LS 2nd tandem (S2), LS 3rd tandem (S3), RU-509(R1), RU-510(R2), FD(H), SD-506(B), PB(J), Loadable device driver
2	IC Control (P)
3	Printer control (C)
4	Overall control (I)

*1 Be sure to conduct the low end first out of those set in the sequence¹.

Example) When the composition is made up of "LS-505 (1st tandem) + LS-505 (2nd tandem) + SD-506"

SD-506 (B)→LS-505 (S-2)→LS-505 (S-1)

Note

- When the overall control board is replaced, be sure to conduct first of all the ISW of the image control program. When the image control program is not contained in the overall control board, other programs cannot be written.
- Programs are not stored in the image processing board. So, when the board is replaced, the ISW is not required.
- When SSD of the IC controller is replaced, be sure to execute ISW for the controller program.

(2) DIPSW and toggle SW setting on the boards

Note

- When the FDCB, the SDCB, the LSCB or the PBCB is replaced, be sure to conduct the machine setting of the main body by the DIPSW (FD, SD or PB) on the control board (refer to [L.2.14.1 FD control board \(FDCB\)](#), [L.2.15.1 SD control board \(SDCB\)](#) or [L.2.16.1 PB control board \(PBCB\)](#)) or by the LS toggle SW (refer to [G.16.2.4 Caution when setting models using toggle SW](#)). After that setting, conduct the ISW.

(3) Connecting short connector when rewriting firmware

Be sure to connect the short connector to the post-processing option by following the table as follows.

PRESS 1250/1250P

	RU-509	GP-501	GP-502*2	RU-510	LS-505	FD-503	SD-506	PB-503	FS-532
When the option is connected to the upstream (PI-PFU/ RU-509/ RU-510 is connected right after the main body.)	Not required	Not required	Connect the short connector (2 wire bundles)*2	Not required	Not required	Not required	Not required	Not required	Not required

*1 When GP-502 connected right after the main body, connecting the short connector is not required.

*2 When the option connected to the upstream is PI-PFU, connecting the short connector is not required.

PRESS 1052

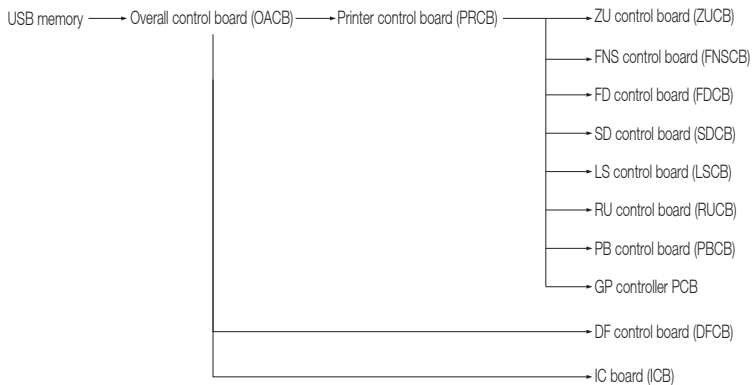
	RU-509	GP-501	GP-502	RU-510	LS-505	FD-503	SD-506	PB-503	FS-532
When the option is not connected to the upstream (right after the main body)	Not required	Not required	Not required	Not required	Connect the short connector which is connected to the main body to LS	Connect the short connector to CN-19 of the board	Connect the short connector to CN-19 of the board	Connect the short connector to CN-19 of the board	Not required
When the option is connected to the upstream (PI-PFU/ RU-509/ RU-510 is connected right after the main body.)	Not required	Not required	Connect the short connector (2 wire bundles)*1	Not required	Not required	Not required	Not required	Not required	Not required

*1 When the option connected to the upstream is PI-PFU, connecting the short connector is not required.

For PRO 951, all options not to be connected to the short connector.

1.2 Firmware data flow

The following shows the flow of the ISW data.



1.3 Main body setting for ISW

There are the following 2 ways for settings on the main body side.

(1) Type of setting

- Power ON mode
This mode is used when the firmware is not installed to the overall control board (OACB) or when it is damaged. In this condition, ISW of the OACB is possible when sub power switch (SW2) is turned ON.
- Service mode
This mode is used when the firmware of the OACB is installed properly.

(2) When in the version up of the program

Target board	Display when the power is turned ON	Mode
Overall control board	Normal	Service mode
Other boards	Normal	Service mode

(3) When writing new firmware (When replacing board and rewriting firmware failed)

Target board	Display when the power is turned ON	Mode
Overall control board	Power save LED blinks in orange	Power ON mode
	No display on touch panel	
Other boards	Error code display	Service mode

(1) For the overall control board (OACB), when something is wrong with the firmware or no firmware is written, the normal start-up cannot be made. In this condition, the power save LED blinks in orange when power switch is turned ON and placed in the firmware stand-by mode.

Note

- Firmware can only be written in Boot USB memory ISW.**
- (2) For other boards, when the firmware of the overall controller is normal and something is wrong with other firmware, a malfunction code is shown on the touch panel when the power is turned ON. In that case, enter the service mode and perform ISW normally.

1.4 Type

(1) USB Memory ISW

Directly connect the USB memory to the service port of the main body, and use the program stored in the USB memory to rewrite the firmware. For the USB memory ISW, the following methods are available depending on the start up method.

- USB memory ISW from service mode
Rewrite the firmware using the operation panel.
- Boot USB memory ISW when turning ON the power
Conduct when replacing the overall control board (OACB) or failed in rewriting a firmware.

(2) Internet ISW

Use the main body NIC to connect the main body to network environment, and use the FTP or the HTTP protocol to rewrite firmware via the program server on the Internet. For the Internet ISW, the following methods are available.

- Internet ISW using the Web Utilities
Rewrite the firmware by accessing the Web Utilities of the main body from the Web browser of the PC.
However, a network connected PC with the main body is required.
- Internet ISW using the operation panel
Rewrite the firmware using the operation panel.
- Internet ISW using the CS Remote Care

1.5 Error list

Detection function

- When the copier main body detects an abnormal condition after turning on the power, the copier does not display it on the main body touch panel, but inform you of it by lighting or flashing the LED (with the ISW placed in the standby condition). For the LED display, refer to the following table.

No.	Transaction	Power save LED status
1	CPU in initialization when the power is turned on	OFF
2	Flush memory in checking	OFF
3	When an error is detected while in memory check (ISW standby status)	Flashing in orange
4	Reading file from USB memory	Lighting in green
5	Erasing flash memory	Lighting in green
6	ISW processing (when the data is being received from the USB memory and the flush memory is being written)	Flashing in green
7	When an abnormality is detected while in data transmission	Flashing alternately in red and green
8	When an error is detected while in writing flush memory	Flashing in red
9	Memory check successfully completed: while in rebooting	OFF

(1) Main body error list

The following table shows error codes.

Error code	Description	Program applicable	Transaction
02	The internal work space cannot be secured.	P	1
04	The DRAM space cannot be secured.		
05	The DRAM space cannot be opened.		
06	Data transmission to the DRAM failed.		
21	The DRAM space on the controller side cannot be secured.		
41	The format of the input data is abnormal.	Common	2
42	The type name of input data is abnormal.		
43	The board name of input data is abnormal.		
64	Rewritten address error	F	2
81	Input device such as input time out is abnormal.	Common	3
C1	The erasing of the flush ROM failed.	I / T / W	4
C2	The writing of the flush ROM failed.		
C3	The ROM checksum is abnormal.		
C4	Output device such as output time out is abnormal.	Common	6
E1	Program SUM check error.	F	5
	Controller I/F writing error.	P	
	Erase error.	C/H/B/N/S/J/R /K/Z/M	
E2	Writing error.	C/H/B/N/S/J/R /K/Z/M	5
	Controller I/F verify error.	P	
E3	Blanc check error.	F	6
	Communication error.	C/H/B/N/S/J/R /K/Z/M	
E4	Switching the ISW mode of the FNS control board fails.	C/H/B/N/S/J/R /K/Z/M	8
44	CRC code check error	Common	9
100	Network connection error, USB memory connection error	Common	10
101	Error of the file which is downloaded from the network or the USB memory	Common	2
4xx	When the connection to the network is made with the communication protocol set by HTTP, a server error is returned from the server.	Common	11
5xx	When the connection to the network is made with the communication protocol set by FTP, a server error is returned from the server.	Common	11

Note

- For rewriting the IC firmware, the execution of the ISW is inhibited in case the initialization of the IC has not completed.
- When any one of the errors shown above occurs, an error code is not displayed, but the message "Now initializing Controller" is shown in the touch panel section.

(2) Troubleshooting procedure for the main body error

Troubleshooting No.	Troubleshooting procedure
1	The program is not running properly. Turn OFF/ON the main power switch (SW1) and the sub power switch (SW2) and execute ISW again. If the error still occurs after some repetitions, the trouble of the overall control board (OACB) is conceivable.
2	Check the ISW transfer data file and execute ISW again.

3	The flash ROM abnormality. If the same error still occurs continuously after executing ISW again, replace the overall control board (OACB).
4	The checksum result after writing the program and the checksum data displayed on the ISW transfer data file do not match. If the same error still occurs continuously after executing ISW again, it is conceivable that the ISW transfer data is not generated properly.
5	It detects an abnormality on the target ISW board. Check the target board of ISW.
6	Check the I/F between OACB and the printer control board (PRCB). Turn OFF/ON the SW1 and SW2 of the main body, and execute ISW again.
7	The communication between OACB, the printer control board (PRCB), and the FNS control board (FNSCB) is not conducted normally. Turn OFF/ON the SW1 and SW2 of the main body, and execute ISW again.
8	The CRC code result after transferring the program and the CRC code data displayed on the ISW transfer data file do not match. If the same error still occurs continuously after executing ISW again, replace the USB memory for the ISW and then execute ISW.
9	Check the network connection setting or the connecting status of the USB memory, and then execute ISW again.
10	Check the network setting of FTP/HTTP, and then execute ISW again.

2. ISWTTrns_G

2.1 Specifications

2.1.1 ISWTTrns_G (PC software)

(1) Operating environment of the software

- OS: Windows95/98/98SE/Me/NT4.0/2000/XP/Vista Home Basic/Home Premium/Business/Enterprise
- CPU: Pentium 75MHz or above
- Memory: 32MB or above
- Free space in hard disk: 100MB or more
- Others: PC provided with USB interface (TypeA)

The operation environment of the hardware is pursuant to the specification of each OS.

(2) Requirements for checking the check sum

- Personal computer (PC): 1
PC provided with USB interface
- ISWTTrns_G program
- Firmware

2.2 Installation of the ISWTTrns_G

Install the ISWTTrns_G program to the PC.

(1) Procedure

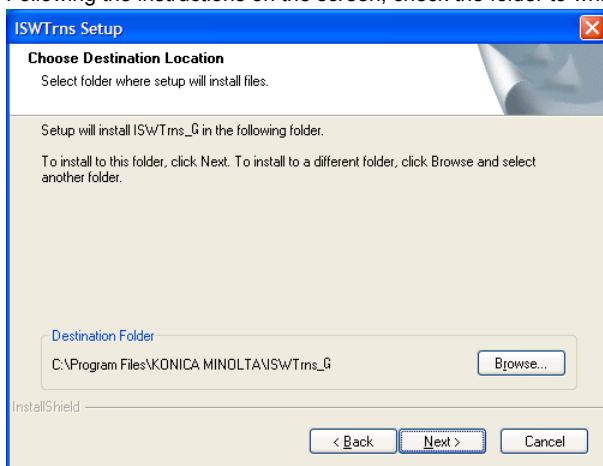
1. Start the PC.
2. Copy the setup files to the PC and double click the [Setup.exe] icon to start the install program.

Note

- When there remains the ISWTTrns_G.exe of the old version, uninstall the old version first, and then install the new version.

3. "ISWTTrns setup screen"

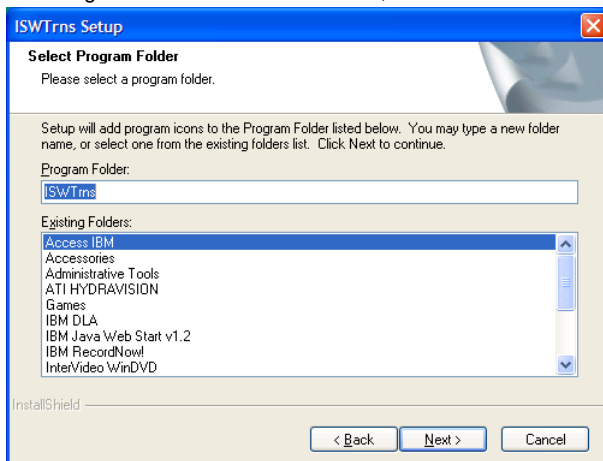
Following the instructions on the screen, check the folder to which an installation is made, and then click [Next].



Note

- "C:\Program Files\KONICA MINOLTA\ISWTTrns_G" has been set as a folder to be installed in default.
When changing the folder to which an installation is made, click [Reference] and specify one as you please.

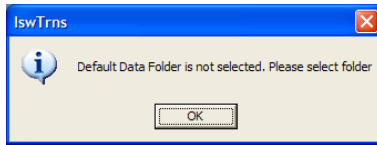
4. Following the instructions on the screen, check the folder to which the ISWTTrns program is stored and then click [Next].



Note

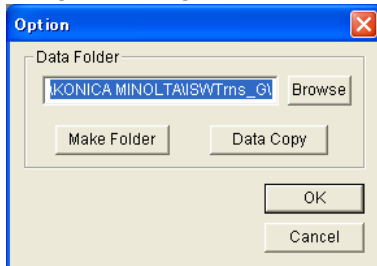
- For default, "ISWTTrns" is set as a folder to which an installation is made.
When changing the folder to which an installation is made, enter a folder name directly, or select one from the existing folder displayed.

5. Following the instructions on the screen, click [Completed].
 6. The installation of the ISWTrns_G program is automatically completed.
 7. Select "ISWTrns_G" from the start menu or double click the "ISWTrns_G" icon on the desk top to start up the "ISWTrns program_G."
 8. "ISWTrns dialog screen"
- Click [OK] to set the storage folder of the firmware.

**Note**

- This screen is shown only when the program is started for the first time after installing the ISWTrns_G.

9. "Option screen"
- Click [Make Folder].

**Note**

- A folder (C:\Program Files\KONICA MINOLTA\ISWTrns_G) on which the ISWTrns_G program is installed has been set as a storage folder in default.
- When changing a storage folder, click [Browse] and specify the folder, or make an entry directly in the editor box in full path.
- Clicking [Make Folder] creates hierarchical folders with the storage folder set above as a route.

10. "Option screen"
- Click [OK].

Note

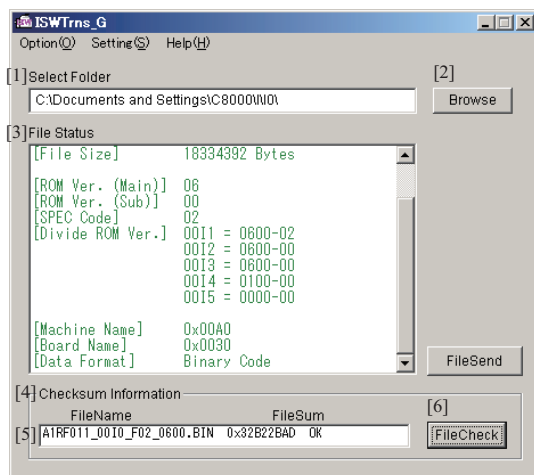
- This operation stores the data folder created in the step9 into the INI file of the ISWTrns program.

2.3 Usage of the ISWTrns_G

2.3.1 Firmware checksum check

(1) Details on the operation panel display

When the ISWTrns_G program starts up, the main screen of the ISWTrns_G is displayed. On the main screen, perform selecting of the file (firmware), information display and checksum. For detailed information of the functions, refer to the following.



[1]: Select Folder (File storage folder edit box)

A folder name is displayed in full path from the information of the data folder set and the INI file. When the firmware is in a folder other than the specified data folder, click [Browse] [2] to specify the file location or entering directly the file location.

[2]: [Browse]

This key is used when the firmware is in a folder other than the specified data folder. Display the folder selection screen to select the folder of [1].

[3]: File Status (File detail information)

View detailed information about the version file when select firmware.

[4]: Checksum Information frame

Display the firmware to be used based on the information selected in the frames [1], and click [File Check] [6] to display the checksum of the file and the consistency (OK, NG, ??) of the checksum.

[5]: File information display frame

Display the file version selected.

Click [File Check] at [6] to calculate the checksum of the entire displayed files. Compare the obtained value with the checksum value stored in the checksum file (*.sum) attached to the firmware to display the result.

[6]: [File Check]

With a file used in "Checksum Information" of [4] displayed, press this key to calculate the file checksum (checksum of the entire file) of the displayed file and show a result beside the file. Also, compare the result of the checksum with the checksum file attached to the firmware and display the obtained result in the following form.

"OK": accord

"NG": Not accord

"??": Checksum file (*.sum) not found

2.4 Error list

(1) ISWTrns_G error list

The ISWTrns_G displays messages when an error is shown or the operation is completed. The following table shows the contents of the message and the status of the ISWTrns_G.

Message	Status of the ISWTrns_G
The opening of the file the checksum of which is to be taken is not available.	The opening of the checksum file failed. The file is in use or damaged.
The opening of the file the checksum of which is to be taken cannot be read.	The reading of the checksum file failed. The memory is insufficient or the OS is in trouble.
The folder name is illegal.	The name of the input folder is illegal. Be sure to enter the whole path from the drive name such as "C:¥."
The default folder has not been set. Set the folder correctly.	The data folder setting has not been set to the ISWTrns.INI. Displays at the first startup only.
Some files cannot be copied.	1. The folder to be stored in does not exist. 2. When a file is copied into the folder in which a file of the same name is contained with "O/W (overwrite check box)" not checked. 3. When overwriting is made on an overwrite prohibited file. 4. Another application is using the file. OS trouble.
The transferred file is not found, or a file with an illegal name is found in the folder. Make sure of it.	The number of divisions of the transferred file written in the checksum file does not correspond with the number of files that actually exist. 1. When a file with an illegal name is in the data folder, or a file name that seems to be illegal is displayed in the folder list. 2. The number of divided files is insufficient. Check the insufficient number of files in the folder list and copy them again. 3. When the checksum file is damaged, copy it again to the folder.

(2) ISWTrns_G troubleshooting

When an error occurs while in the execution of the ISWTrns_G program, take the measures shown in the following table.

	Condition	Cause	Countermeasures
1	The ISWTrns_G does not start up.	The IswTrns_G.EXE file is damaged	Set it up again.
		The setup file itself is damaged.	Check the setup file and set it up again.
2	When an item in the combo box is selected, the file is not displayed.	The file is not stored in the relevant folder.	Check to see if the relevant file is stored in the folder displayed in the "Select Folder" text box. When a folder into which a file is stored is not found, use the "File copy" function.
		The Data Folder in the Option screen is set incorrectly.	Check the setting of the Data Folder. When a folder into which a file is stored is not found, use the "File copy" function.
		The file name is illegal (or has been changed.)	The file name must be used with no change made. When the file name is changed, the display or selection of the file becomes unavailable. When the file name is changed, return it to former state.
		The folder name is illegal (or has been changed.)	When the folder name created by the [Make Folder] button in the Option screen has been changed, it cannot be found. Return it to former state and check it again.
3	"NG" is displayed in the File Check.	The firmware using is damaged.	Copy the firmware and check it again. When "NG" still recurs, contact the supplier of the firmware.
4	"??" is displayed while in the File Check.	When the firmware was copied to the PC, the copying of the checksum file (*.sum) was forgotten.	Copy the checksum file to the folder same as the firmware at the same time. (When using the data copying function, a copy is made automatically.)

3. USB MEMORY ISW

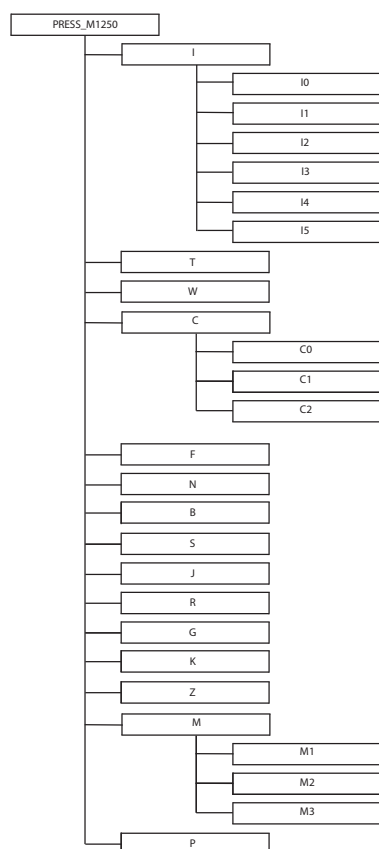
3.1 Usage of the USB memory ISW

(1) Board to be rewritten and firmware

Item	Specifications	
Board to be rewritten	Overall control board (OACB), Printer control board (PRCB), DF control board (DFCB), IC board (ICB), ZU control board (ZUCB), FNS control board (FNSCB), SD control board (SDCB), LS control board (LSCB), RU control board (RUCB), FD control board (FDCB), PB control board (PBCB), GP controller PCB	
Rewritable firmware	Image control	Collective (I0), I1 to I5, T, W
	Printer system	Collective (C0), C1, C2
	ADF	F
	IC controller	P
	Z-folding unit (ZU-608)	Z
	Stapler (FS-532)	N
	Saddle unit (SD-510)	K
	Multi puncher (GP-501)	G
	Ring binder (GP-502)	M1, M2, M3
	Stacker (LS-505)	S1 (1st tandem), S2 (2nd tandem), S3 (3rd tandem)
	RU (RU-509)	R1
	RU (RU-510)	R2
	Multi folder (FD-503)	H
	Saddle stitcher (SD-506)	B
	Perfect binder (PB-503)	J
	Loadable Device Driver	

(2) Procedure

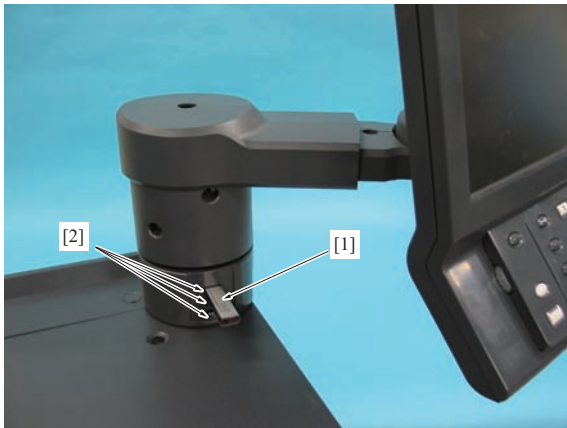
1. Save the firmware to the USB memory in the following folder structure.



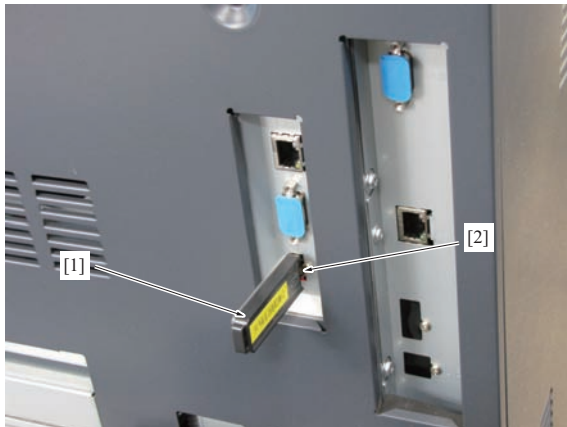
Note

- Create the PRESS_M1250 folder directly under the USB memory route.
- Several firmware can be saved to a folder. However 24 files is the maximum it can display on the touch panel. Also, 2 byte font cannot be displayed.
- Maximum 40 letters for a file name.
- The folder structure is common to 1250P/1052/951.

- The file name is the same for S1, S2, and S3. When S1 is selected on the rewriting screen, the file is written in the 1st tandem of LS. When S2 is selected on the rewriting screen, the file is written in the 2nd tandem of LS. When S3 is selected, the file is written in the 3rd tandem of LS.
 - Create the driver data of the loadable device directly under the USB memory route.
2. Connect the USB memory [1] to the main body connection port [2].
<In case of 1250/1250P/1052>



<In case of 951>



3. Enter the service mode.
4. "Service Mode Menu screen"
Press [10 ISW].
5. "ISW Menu screen"
Press [01 ISW].
6. "ISW mode screen"
Press [USB Memory ISW] and confirm that the message "Connection of a USB memory has been recognized." is displayed, then press the button that corresponds to the firmware to be rewritten.



7. Example: <Image Control> Collective (I0)
The file in the USB memory applicable folder is displayed. (Maximum 24 files)
Select the version of the file to be rewritten, and press [OK].

Note

- From the file name, the file availability is judged and the result is shown by text color.
White: File effective as ISW.
Yellow: Special ROM file.

Red: File other than ISW or file for different destination.

- Press [Limit] to display only the effective files. Press [File Name], [Date] or [Size (byte)] to sort the files by that order.



8. "External Memory Device ISW Mode" screen

Check the type and name of file to conduct ISW, and press [Start].

Note

- Press [File Select] to return to the file name selection screen.
- Press [ROM Selection] to return to the board type selection screen.



9. The following screen is displayed when ISW is completed.



10. Press [Continue] when conducting the ISW successively.

To end the ISW, pull out the USB memory from the connection port, then press [End].

By pressing [No], the machine restarts automatically.

11. Check the firmware version in the service mode to see if the ISW is completed successfully.

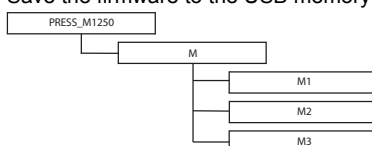
(3) Main body error list

When an error occurs while in the execution of the Internet ISW, an error code is displayed on the operation panel. (Refer to [J.1.5 Error list](#))

3.2 ISW Procedure of GP-502

3.2.1 Procedure of rewriting M1

1. Save the firmware to the USB memory in the following folder structure.

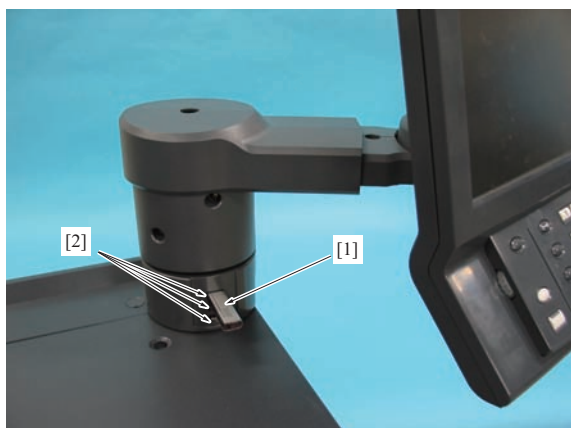


Note

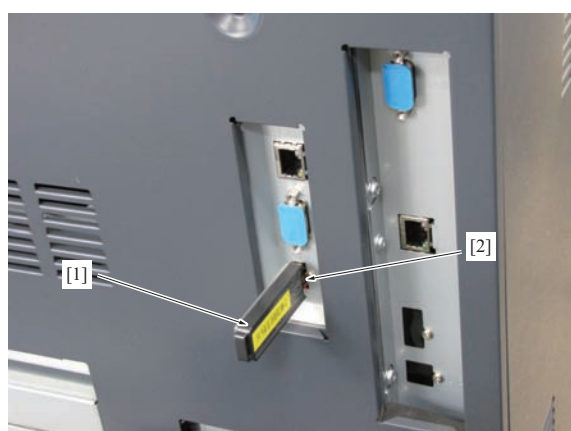
- Create the **PRESS_M1250** folder directly under the USB memory route.
- Several firmware can be saved to a folder. However 24 files is the maximum it can display on the touch panel. Also, 2 byte font cannot be displayed.

- **Maximum 40 letters for a file name.**
- **The folder structure is common to 1250P/1052/951.**

- Turn ON the sub power switch (SW2) of the main body, and connect the USB memory [1] to the connecting port [2] on the main body.
<For 1250/1250P/1052>



<For 951>



- Enter the service mode.
- "Service Mode Menu screen"
Press [10 ISW].
- "ISW Menu screen"
Press [01 ISW].
- "ISW mode screen"
Press [USB Memory ISW], confirm that the message "Connection of a USB memory has been recognized." is displayed, and then press [M1] [1].



[1]

- The file in the USB memory applicable folder is displayed. (Maximum 24 files)
Select the version of the file to be rewritten, and press [OK].

Note

- **From the file name, the file availability is judged and the result is shown by text color.**
White: File effective as ISW.

Yellow: Special ROM file.

Red: File other than ISW or file for different destination.

- Press [Limit] to display only the effective files. Press [File Name], [Date] or [Size (byte)] to sort the files by that order.

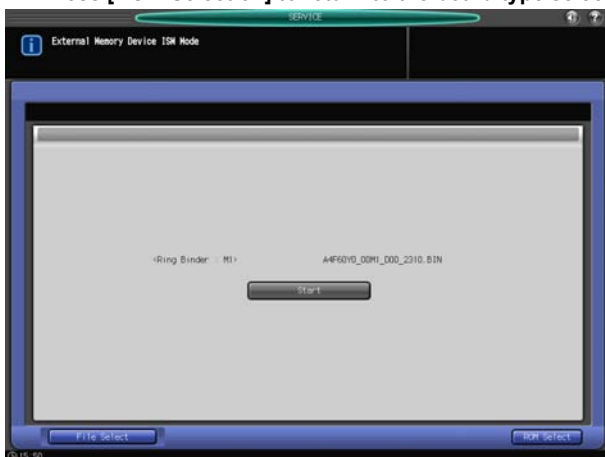


8. "External Memory Device ISW Mode" screen

Check the type and name of file to conduct ISW, and press [Start].

Note

- Press [File Select] to return to the file name selection screen.
- Press [ROM Selection] to return to the board type selection screen.



9. ISW is executed.

Note

- Do not turn OFF the main power while ISW is being executed.
- Do not press any keys or buttons on the operation panel while ISW is being executed.

10. The following screen is displayed when ISW is completed.



11. Remove the USB memory from the connection port, and press [No].

By pressing [No], the machine restarts automatically.

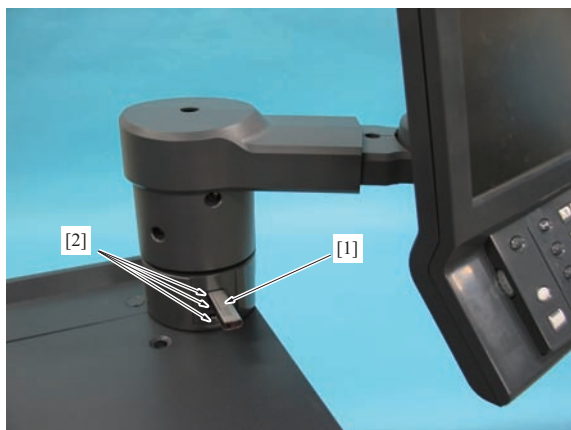
Note

- Press [No] when conducting the ISW of M2 successively.

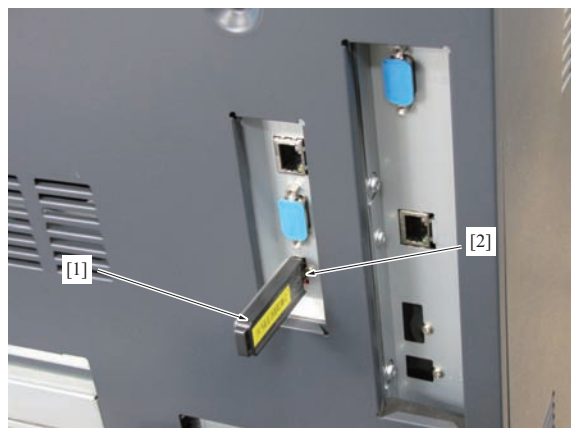
12. Check the firmware version in the service mode to see if the ISW is completed successfully.

3.2.2 Procedure of rewriting M2

1. After rebooting the main body, connect the USB memory [1] to the connecting port [2] on the main body.
<For 1250/1250P/1052>



<For 951>



2. Enter the service mode.
3. "Service Mode Menu screen"
Press [10 ISW].
4. "ISW Menu screen"
Press [01 ISW].
5. "ISW mode screen"
Press [USB Memory ISW], confirm that the message "Connection of a USB memory has been recognized." is displayed, and then press [M2] [1].



[1]

6. The file in the USB memory applicable folder is displayed. (Maximum 24 files)
Select the version of the file to be rewritten, and press [OK].

Note

- From the file name, the file availability is judged and the result is shown by text color.
White: File effective as ISW.
Yellow: Special ROM file.
Red: File other than ISW or file for different destination.
- Press [Limit] to display only the effective files. Press [File Name], [Date] or [Size (byte)] to sort the files by that order.



7. "External Memory Device ISW Mode" screen
Check the type and name of file to conduct ISW, and press [Start].

Note

- Press [File Select] to return to the file name selection screen.
- Press [ROM Selection] to return to the board type selection screen.



8. ISW is executed.

Note

- Do not turn OFF the main power while ISW is being executed.
- Do not press any keys or buttons on the operation panel while ISW is being executed.

9. The following screen is displayed when ISW is completed.



NOTE

- When the error code "E0" is displayed, turn OFF the main power. After solving the error, repeat the procedure from the step 1. (Refer to [J.1.5 Error list](#))

10. Remove the USB memory from the connection port, and press [No].
By pressing [No], the machine restarts automatically.

Note

- Press [No] when conducting the ISW of M3 successively.

11. After the main body is rebooted, the following screen is displayed on the operation panel of GP-502. This screen is displayed for 1 minute or 2 minutes.

**Note**

- Do not turn OFF the main power while the screen is displayed.
- Do not press any keys or buttons on the operation panel while the screen is displayed.
- If any keys or buttons on the operation panel is pressed, repeat the procedure from the step 1.

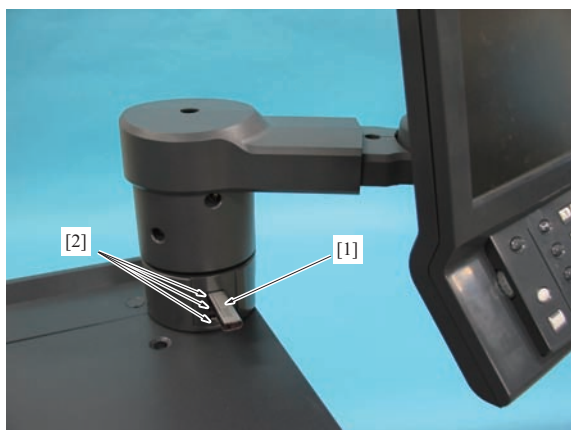
12. Confirm that the operation panel of GP-502 is changed to the following screen, and turn ON/OFF the sub power switch (SW2).



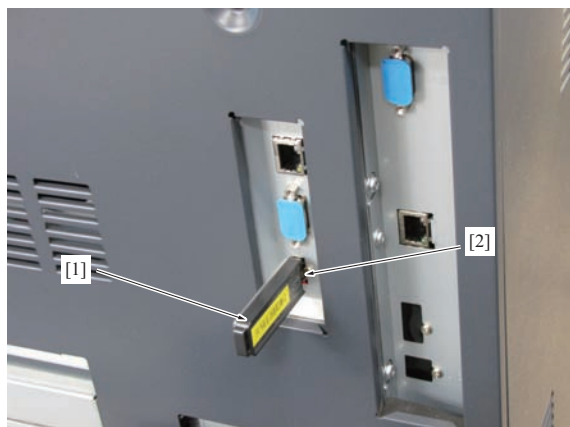
13. After rebooting the main body, check the firmware version in the service mode to see whether the ISW is completed successfully.

3.2.3 Procedure of rewriting M3

1. After the main body is rebooted, connect the USB memory [1] to the connecting port [2] on the main body.
<For 1250/1250P/1052>



<For 951>



2. Enter the service mode.
3. "Service Mode Menu screen"
Press [10 ISW].
4. "ISW Menu screen"
Press [01 ISW].
5. "ISW mode screen"
Press [USB Memory ISW], confirm that the message "Connection of a USB memory has been recognized." is displayed, and then press [M3] [1].



[1]

6. The file in the USB memory applicable folder is displayed. (Maximum 24 files)
Select the version of the file to be rewritten, and press [OK].

Note

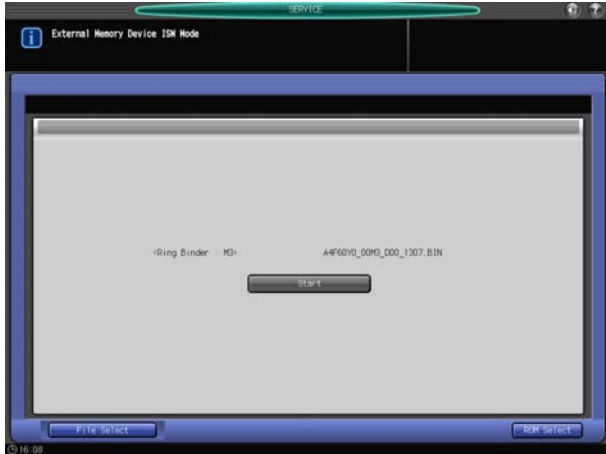
- From the file name, the file availability is judged and the result is shown by text color.
White: File effective as ISW.
Yellow: Special ROM file.
Red: File other than ISW or file for different destination.
- Press [Limit] to display only the effective files. Press [File Name], [Date] or [Size (byte)] to sort the files by that order.



7. "External Memory Device ISW Mode" screen
Check the type and name of file to conduct ISW, and press [Start].

Note

- Press [File Select] to return to the file name selection screen.
- Press [ROM Selection] to return to the board type selection screen.



8. ISW is executed.

Note

- Do not turn OFF the main power while ISW is being executed.
- Do not press any keys or buttons on the operation panel while ISW is being executed.

9. The following screen is displayed when ISW is completed.

**NOTE**

- When the error code "E0" is displayed, turn OFF the main power. After solving the error, repeat the procedure from the step 1. (Refer to [J.1.5 Error list](#))

10. Remove the USB memory from the connection port, and press [No].

By pressing [No], the machine restarts automatically.

11. After the main body is rebooted, the following screen is displayed on the operation panel of GP-502. This screen is displayed for 1 minute or 2 minutes.

**Note**

- Do not turn OFF the main power while the screen is displayed.
- Do not press any keys or buttons on the operation panel while the screen is displayed.
- If any keys or buttons on the operation panel is pressed, repeat the procedure from the step 1.

12. Confirm that the operation panel of GP-502 is changed to the following screen, and turn ON/OFF the sub power switch (SW2).



13. After rebooting the main body, check the firmware version in the service mode to see whether the ISW is completed successfully.

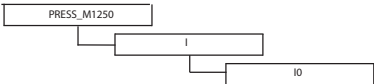
3.3 Boot USB memory ISW

(1) Board to be rewritten and firmware

Item	Specifications	
Board to be rewritten	Overall control board (OACB)	
Rewritable firmware	Image control	Batch rewrite (I0)

(2) Procedure

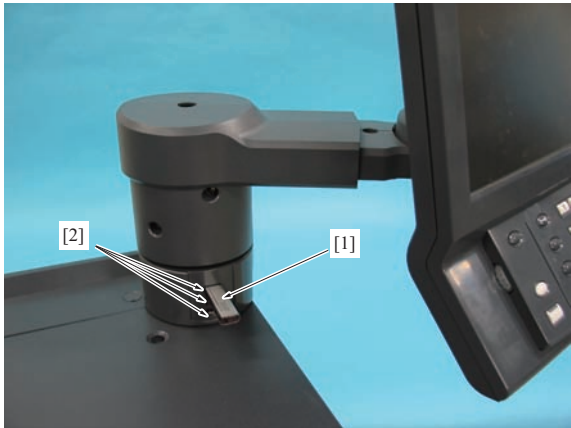
1. Save the firmware to the USB memory in the following folder structure.



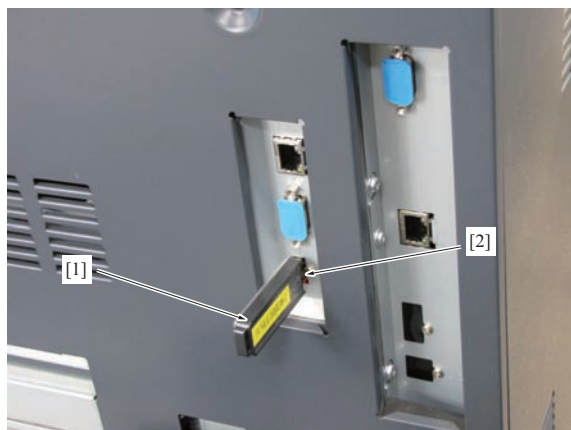
- Note**
- Create the PRESS_M1250 folder directly under the USB memory route.
 - The file name is recover.bin.

2. Start the main body.
3. "Start screen"
- The power save LED blinks in orange displaying "PLEASE WAIT STARTING SYSTEM" on the touch panel.
4. Connect the USB memory [1] to the main body service port [2] and ISW starts automatically.
- The condition of the process can be checked according to the status of the power save LED.
- Lighting in green: Reading file from USB memory/Deleting flash
 - Blinks in green: Writing

- Note**
- When the power save LED starts blinking in green, the USB memory can be pulled out from the service port.
- <In case of 1250/1250P/1052>



<In case of 951>



5. The main body automatically restarts when ISW finishes.
6. Check the firmware version in the service mode to see if the ISW is completed successfully.

4. INTERNET ISW

4.1 Outline

"Internet ISW" is a system to operate the ISW by the main body automatically receiving firmware from the program server, using Web browser, main body operation panel, or Internet mail (E-mail) to direct the ISW. ISW can be operated at the customer facility without carrying the program by using the Internet ISW from the main body operation panel or Web browser.

4.2 Operating environment

To use the Internet ISW function, the following conditions must to be met.

- The main body must be connected to the network environment that allows the download of firmware from the Internet by using ftp or http protocol.

In the following 9 cases, the "Internet ISW" does not operate on the main body.

- When the main power switch (SW1) is off
- When the sub power switch (SW2) is off
- The copier is in the auto shut-off mode.
- When the "Security Strengthen Set" is set to ON (The main body NIC other than the CS Remote Care cannot be used)
- During print operation, or various JOB (including reserve JOB) exists, or suspended JOB exists during main body idling.
- Using modes other than normal mode.
- Paper JAM has occurred.
- Image file exists in the image memory.
- Program type, board do not match.

4.3 Initialization

To make use of the Internet ISW, it is necessary to set in advance the network parameter, program server address, the fire wall address and so on, of the main body.

(1) Setting from the operation panel

To introduce the copier main body into the network, set the IP address of the copier from the operation panel.

[J.4.3.\(2\) Setting from the Web browser](#) When this setting has been already made, proceed to

(a) Procedure

1. Press [Utility/Counter] on the operation panel.
2. Press [06 Administrator Setting].
3. Press [04 Network Setting].
4. Press [01 Machine NIC Setting].
5. Press [01 TCP/IP Setting].
6. Enter "IP Address," "Subnet Mask," and "Gateway Address".
7. Turn OFF and ON the sub power switch (SW2) to restart the main body.

Note

- The system administrator normally assigns the IP address of the copier. For details, contact the system administrator.

(2) Setting from the Web browser

Enter the setting of the program server from the Web browser. At this time, in order to use the Web browser, make preparations of the PC that can be introduced into the network.

Note

- No "space" is allowed in all set items.
- When an incorrect setting is made on the Web browser, be sure to correct it following the error message. When no correction of input error is made, program download error occurs.

(a) Procedure

1. Start up the Web browser.
When the proxy is set on the Web browser, it becomes unavailable to access the main body Web.
For particulars, contact the network administrator. Be sure to avoid setting from 2 or more browsers at a time.
2. Specify the IP address of the main body that is entered thorough [J.4.3.\(1\) Setting from the operation panel](#).
Access the Web Utilities of the main body to display the "Main page screen".

Web Utilities

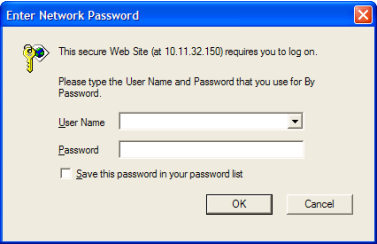
- [Remote Panel](#)
- [Remote Monitor](#)
- [Multi Monitor](#)

- [Machine Manager Setting](#)
- [Extension for maintenance](#)

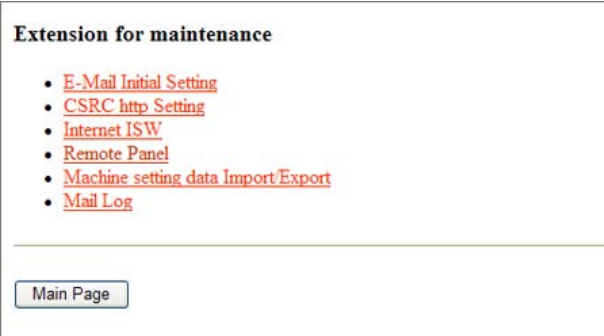


3. "Main page screen"
Click [Extension for maintenance].
4. Enter the user name and the CE password in the "Extension for maintenance" and then press [OK].
User name: ce (small letter, cannot be changed)

Password: Enter the CE password. (Default: "92729272")



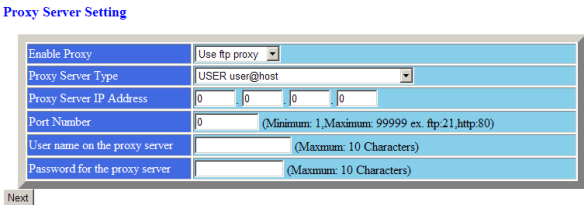
5. "Extension for maintenance screen"
Click [Internet ISW].



6. "Internet ISW screen"
Click [Initial Setting].



7. "Proxy Server Setting screen"
Set the proxy server.
When using no proxy server (fire wall), proceed to the step 9.



Enable Proxy	When using no proxy: "Connect to the program server." When using ftp proxy: "Use ftp proxy." When using ftp proxy: "Use ftp proxy." Select from the above.
Proxy Server Type	When selecting "Use ftp proxy" in "Enable Proxy", select the Proxy Server Type from the followings. Type1: "User user@host name" Type2: "OPEN host name" Type 3: FW user => FW password => SITE host name Type 4: "FW user name => FW password => User user@host" Note Types 2, 3 and 4 are unsupported. For authentication of proxy server, refer to "J.4.7 Authentication of the proxy server in Internet ISW"
Proxy Server IP Address	When using the proxy server, set the IP address of the proxy server.
Port Number	When using the proxy server, set the number of the port that uses the proxy server.
User name on the Proxy Server	When selecting the type1 or type2 in "Type of proxy server" shown above, set the account of the proxy server.
Password for the Proxy Server	When selecting the type 1 or type 2 in "Type of proxy server" above set the password of the proxy server.

8. After completion of entry, click [Next] and then after checking the set items in the setting check screen, click [Next]. However, if there is an input error, follow the message shown in red and click [Back] to re-set the item.

9. "Program Server Setting screen"

Set the program server. (When using the proxy)

Program Server Setting

Program Server Address: ftp://211.15.51.157/EUR/C6500/ (Maximum: 100 Characters)

User name on the program server: user (Maximum: 20 Characters)

Password for the program server: ***** (Maximum: 20 Characters)

Receiving time out: 10 minute (Minimum: 1 minute, Maximum: 60 minutes)

[Next]

Program server address	Set the address of the server into which the program to download is stored. Select the protocol to be used from the pull-down menu on the left and enter the following address in the text box on the right. In the case of ftp, it is a relative path from the home directory.
User name on the Program Server	Enter the account name of the program server.
Password for the Program Server	Enter the password of the program server.
Receiving time out	Set the receiving time-out of the program. When the time is out, the download of the program forcibly comes to an end, and the system returns to the normal mode without conducting the ISW.

10. After completion of entry, click [Next]. Then after checking the set items in the setting check screen, click [Completed].

However, if there is an input error, follow the message shown in red and click [Back] to re-set the item.

11. Set the program server. (When not using the proxy)

Protocol	Select the protocol that receives the program.
Program Server IP Address	Set the IP address of the server into which the program to be down loaded is stored.
Target directory	In the case of http, set the path after the host domain. In the case of ftp, set the relative path from the home directory.
User name on the Program Server	Enter the account name of the program server.
Password for the Program Server	Enter the password of the program server.
Receiving time out	Set the receiving time-out of the program. When the time is out, the download of the firmware forcibly comes to an end, and the system returns to the normal mode without conducting the ISW.

12. After completion of entry, click [Next]. Then after checking the set items in the setting check screen, click [Complete]. However, if there is an input error, follow the message shown in red and click [Back] to re-set the item.

13. Conduct the Download test.

- In the down load test, "test.dat" is down loaded from the program server set in the initialization to check the settings. When the download test failed, recheck the set items following the error message.
- When the download test is successfully completed, the communication speed and the expected download time are displayed as following. Refer to this information to set the "Receiving time out".

Download test

No Problem was found while downloading

Estimated line speed 6501584(bps)

Receiving data size	Estimated receiving time
1M byte	0 minute 1 second
3M byte	0 minute 3 second
5M byte	0 minute 6 second
7M byte	0 minute 8 second

[Back]

- When the download test failed, the response error code from the server is display as following. Since it may be because of a setting error, recheck the initialization.

Download test

Can't download from program server
Response Error Code from server [530]

Please change the initial setting accordingly

[Initial Setting]

[Back]

4.4 Internet ISW using the Web Utilities

Using the Web Utilities of the main body allows, by just making a click from the browser, to download the programs from the program server automatically for rewriting.

(1) Procedure

1. Proceed to "Internet ISW" on the Web Utilities.
"Internet ISW screen"

The firmware version of the present board is displayed beside each of the board types.

ISW

Please select board type

Image Control	Collective	I1	A4EU0Y0-001-F00-5700	I2	A4EU0Y0-002-F00-5600	I3	A4EU001-003-F00-5600
Image T		T1	A4EU0Y0-004-F00-0000	T2	A4EU0Y0-005-F00-0000		
Web Browser		W1	A4EU0Y0-00T1-F00-0000				
Printer Control	Collective	C1	A4EU0Y0-00C1-F00-0400	C2	A4EU0Y0-00C2-F00-0200		
ADF		F1	A0HG0Y2-00F1-F00-0000				
IC Control		I2	A4EU001-00P1-F00-5400				
Stapler		N					
Staple Unit		K					
Multi Pricker		G					
Ring Binder		M1		M2		M3	
Stacker		S1		S2		S3	
RU		R1		R2	A4FC0Y0-00R2-F00-0200		
Main Folder		H					
Back Folder		B					
Perfect Binder		P1	A15X0Y0-00J1-G00-30				

File name: _____ (Maximum: 25 Characters)
[ISW]

2. Select one ISW intended board at the item of "ISW". When specifying a firmware file name to be download, enter it in the [File name] text box.

ISW

Please select board type

Image Control	Collective	I1	A4EU0Y0-001-F00-5700	I2	A4EU0Y0-002-F00-5600	I3	A4EU001-003-F00-5600
Image T		T1	A4EU0Y0-004-F00-0000	T2	A4EU0Y0-005-F00-0000		
Web Browser		W1	A4EU0Y0-00T1-F00-0000				
Printer Control	Collective	C1	A4EU0Y0-00C1-F00-0400	C2	A4EU0Y0-00C2-F00-0200		
ADF		F1	A0HG0Y2-00F1-F00-0000				
IC Control		I2	A4EU001-00P1-F00-5400				
Stapler		N					
Staple Unit		K					
Multi Pricker		G					
Ring Binder		M1		M2		M3	
Stacker		S1		S2		S3	
RU		R1		R2	A4FC0Y0-00R2-F00-0200		
Main Folder		H					
Back Folder		B					
Perfect Binder		P1	A15X0Y0-00J1-G00-30				

File name: _____ (Maximum: 25 Characters)
[ISW]

When specifying no firmware name, the following files stored in the program server are rewritten.

I0	bootI0.bin
I1	bootI1.bin
I2	bootI2.bin
I3	bootI3.bin
I4	bootI4.bin
I5	bootI5.bin
T 1	bootT1.bin
W1	bootW1.bin
C0	bootC0.bin
C1	bootC1.bin
C2	bootC2.bin
F1	bootF1.bin
F2	bootF2.bin
H1	bootH1.bin
N1	bootN1.bin
B1	bootB1.bin
K1	bootK1.bin
S1	bootS1.bin
S2	bootS2.bin
J1	bootJ1.bin
R1	bootR1.bin
R2	bootR2.bin
G1	(Not used)
Z1	bootZ1.bin
M1	(Not used)
M2	(Not used)
M3	(Not used)
P 1	bootP1.bin

Note

- bootF1.bin is for FS-532 connected to 1250/1250P/1051 and bootF2.bin is for FS-532 connected to 951.
bootS1.bin is for LS (1st tandem) and bootS2.bin is for LS (2nd tandem).
bootR1.bin is for RU-509 and bootR2.bin is for RU-510.

3. After completion of entry, click the [ISW].
If there is an input error, follow the message shown in red and click [Back] to enter the item again.

4. Checking of the ISW conditions.

The power save LED lights in green during downloading the program. From the Web screen, check the current processing condition to see if there is any error.

- "ISW in communication"
- "ISW in rewriting" "Completed successfully":
- "Completed normally": Be sure to avoid pressing the "Read again" key of the browser to reboot after successful completion.
- "Aborted due to a communication error."
- "Aborted due to a communication time error."
- "Aborted due to a writing error."

5. When ISW is completed normally, the main body automatically restarts and completes ISW.

6. After restart of the main body, check the firmware version in "Internet ISW main screen" to see if it is being updated successfully.

4.5 Usage precautions

4.5.1 Notice to administrator

When conducting the Internet ISW, be sure to notify the administrator of it and get approval from administrator in advance.

Be sure to execute ISW with the main body not used. However, when the main body is in use (jobs present), the Internet ISW does not operate.

4.5.2 Power cut during writing

While in the ISW rewrite, the operation panel and the power switch (SW2) are locked. However, when the main power source is turned off due to power cut etc., the main body cannot start up.

However, this is a problem encountered while in the overall control board (OACB) rewrite. As for other errors while in the ISW, they can be rewritten by the Internet ISW again.

Should the main body be not able to start due to the reason above, go to the actual place and use Boot USB memory ISW to conduct the rewrite of the program.

4.6 Internet ISW using the operation panel

(1) Procedure

Example: When rewrite the overall control board (OACB) firmware (ALL).

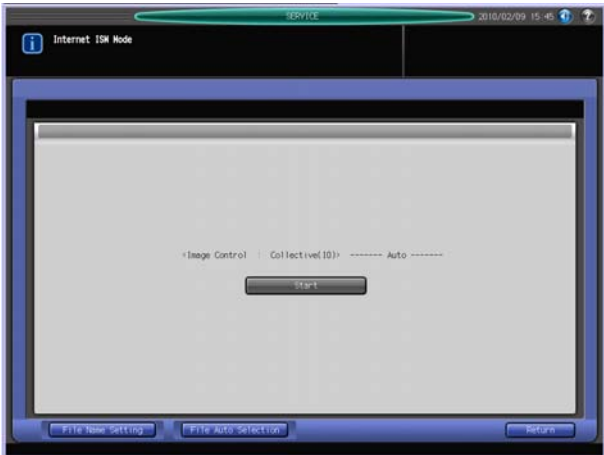
1. Display "ISW mode screen".



2. Press the [Internet ISW] on the screen and then press the [Collective(I0)] of <Image Control>.



3. Press the [Start] and download the latest firmware to start the rewrite.



In a case in which the download of an old version firmware is required, press the [File Name Input] and enter the file name manually.



4. The following screen is displayed when ISW is completed.



5. Press [Continue] when conducting the ISW successively.
To end the ISW, press [End].
The main body automatically restarts when [End] is pressed.
6. Check the firmware version in the service mode to see if the ISW is completed successfully.

(2) Main body error list

When an error occurs while in the execution of the Internet ISW, an error code is displayed on the operation panel. (Refer to [J.1.5 Error list](#))

4.7 Authentication of the proxy server in Internet ISW

(1) Proxy server

Proxy server which is provided on the inside of the fire wall is the generic name of a mail server that serves the proxy of a client who receives an access demand (HTTP and FTP) from the client.

(2) Authentication of the proxy server

There are 4 types of authentication methods for the proxy server.
The Internet ISW is corresponding to these 4 types.

(3) Authentication type of the proxy server and the command list

(a) Type1: User user name@host name

When accessing the outside through the proxy, authentication to the proxy server is not required.
When accessing the outside through the proxy server, or when the entry of the user name and password of the proxy server is not required, this proxy authentication is likely to be used.
Command

Command	Parameter	Reply Code	Description
---------	-----------	------------	-------------

USER	User name@host name	331	Transmit the user name of the program server and the program server address
PASS	Password	230	Transmit the password for the user name above

(b) Type2: OPEN host name

This process is almost the same as the type1, except for the exchange of commands while in authentication.

When all the settings are made correctly and no communication is available with type 1 authentication, apply this type.

Command

Command	Parameter	Reply Code	Description
OPEN	Host name	ftp expanded function, defined for each server	Transmit the user name of the program server
USER	User name	331	Transmit the user name of the program server
PASS	Password	230	Transmit the password for the user name above

(c) Type 3: FW user => FW password => SITE host name

This is a type that requires the authentication to the proxy server itself when accessing the outside.

The information of the server you want to access, the user name and password of the proxy server (F/W) are necessary. In the case of the user name and the password of the proxy server are required when accessing the outside through the proxy server, this proxy authentication is likely to be used.

Command

Command	Parameter	Reply Code	Description
USER	FW user	331	Transmit the user name of the proxy server
PASS	FW password	230	Transmit the password for the user name above
SITE	Host name	ftp expanded function, defined for each server	Transmit the user name of the program server
USER	User name	331	Transmit the user name of the program server
PASS	Password	230	Transmit the password for the user name above

(d) Type 4: FW user => FW password => USER user@host

This process is almost the same as the type3, except for the exchange of commands while in authentication.

When all the settings are made correctly and no communication is available with type 3 authentication, apply this type.

Command

Command	Parameter	Reply Code	Description
USER	FW user name	331	Transmit the user name of the proxy server
PASS	FW password	230	Transmit the password for the user name above
USER	User name@host name	331	Transmit the user name of the program server and the program server address
PASS	Password	230	Transmit the password for the user name above

(4) Remark

For fwtk2.1 (for Unix) and Black Jumbo Dog (for Windows), the type1 authentication is used. For most of the proxy servers, the type 1 authentication is used. When the authentication type of the proxy server is not known, you are recommended to make settings in type1 authentication as a temporary measure.

K TROUBLESHOOTING

1. JAM INDICATION

1.1 Jam code list

Classification	JAM Code	Cause	Resulting operation	Correction
Tray1	J-1101	During operation: The paper feed sensor /1 (PS7) does not turn ON within a specified period of time after the paper feed clutch /1 (CL4) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /1 and remove jammed paper if any.
	J-1102	The pre-registration sensor /1 (PS17) does not turn ON within a specified period of time after the paper feed clutch /1 (CL4) turns ON.		Open tray /1 and the main body vertical conveyance door, and remove jammed paper if any.
	J-1103	During operation: The vertical conveyance sensor /1 (PS19) does not turn ON within a specified period of time after the pre-registration sensor (PS17) turns ON.		Open tray /1 and the main body vertical conveyance door, and remove jammed paper if any.
	J-1104	During operation: When the trailing edge of paper is passing through the vertical conveyance sensor /1 (PS19), the pre-registration sensor /1 (PS17) is turned ON by the succeeding paper.	After completion of the exit of the preceding paper, the main body stops operations.	Open tray /1 and the main body vertical conveyance door, and remove jammed paper if any.
	J-1151	When idling: The vertical conveyance sensor /1 (PS19) turns ON while in idling.	-	Open the main body vertical conveyance door and remove jammed paper if any.
	J-1152	When idling: The pre-registration sensor /1 (PS17) turns ON while in idling.		Pull out tray /1 and remove jammed paper if any.
Tray2	J-1201	During operation: The paper feed sensor /2 (PS11) does not turn ON within a specified period of time after the paper feed clutch /2 (CL6) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /2 and remove jammed paper if any.
	J-1202	During operation: The pre-registration sensor /2 (PS18) does not turn ON within a specified period of time after the paper feed clutch /2 (CL6) turns ON.		Open tray2 and the main body vertical conveyance door, and remove jammed paper if any.
	J-1203	During operation: The pre-registration sensor /3 (PS21) does not turn ON within a specified period of time after the paper feed clutch /2 (PS18) turns ON.		Open tray2 and the main body vertical conveyance door, and remove jammed paper if any.
	J-1204	During operation: When the trailing edge of paper is passing through the vertical conveyance sensor /3 (PS21), the pre-registration sensor /2 (PS18) is turned ON by the succeeding paper.	After completion of the exit of the preceding paper, the main body stops operations.	Open tray2 and the main body vertical conveyance door, and remove jammed paper if any.
	J-1251	When idling: The vertical conveyance sensor /3 (PS21) turns ON while in idling.	-	Open the main body vertical conveyance door and remove jammed paper if any.
	J-1252	When idling: The pre-registration sensor /2 (PS18) turns ON while in idling.		Pull out tray /2 and remove jammed paper if any.
Tray3 (PFU1)	J-1301	During operation: PF-703 The paper feed sensor /1 (PS2) does not turn ON within a specified period of time after the paper feed clutch /1 (CL7) turns ON. (PF-706) The paper feed sensor /1 (PS3) does not turn ON within a specified period of time after the paper feed clutch /1 (CL6) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /3 and remove jammed paper if any.
LU	J-1301	During operation: The pre-registration sensor (PS107) does not turn ON within a specified period of time after the paper feed clutch (CL101) turns ON.		Open the LU upper cover and remove jammed paper if any. Open the LU jam door and remove jammed paper if any.
Tray3 (PFU1)	J-1302	During operation: (PF-703) The pre-registration sensor /1 (PS14) does not turn ON within a specified period of time after the paper feed clutch /1 (CL7) turns ON. (PF-706) The pre-registration sensor /1 (PS14) does not turn ON within a specified period of time after the paper feed clutch /1 (CL6) turns ON.		Open tray /3, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
LU	J-1302	During operation: The LU exit sensor (PS106) does not turn ON within a specified period of time after the pre-registration clutch (CL102) turns ON.		Open the LU upper cover and remove jammed paper if any. Open the LU jam door and remove jammed paper if any.
Tray3 (PFU1)	J-1303	During operation: (PF-703/706) The vertical conveyance sensor /1 (PS15) does not turn ON within a specified period of time after the pre-registration sensor /1 (PS14) turns ON.		Open tray /3, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.
	J-1304	During operation: (PF-703/706) When the trailing edge of paper is passing through the vertical conveyance sensor /1 (PS15), the pre-registration sensor /1 (PS14) is turned ON by the succeeding paper.		Open tray /3, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.
LU	J-1304	During operation: When the trailing edge of paper is passing through the LU exit sensor (PS106), the pre-registration sensor (PS107) is turned ON by the succeeding paper.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the LU upper cover and remove jammed paper if any. Open the LU jam door and remove jammed paper if any.
Tray3 (PFU1)	J-1305	During operation: PF-703 The paper suction sensor Fr/1 (PS25) and the paper suction sensor /Rr1(PS26) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /1 (FM13) and the paper suction fan /2 (FM14) turn ON.		Pull out tray /3 and remove jammed paper if any.
	J-1351	When idling: (PF-703/706) The pre-registration sensor /1 (PS14) turns ON while in idling.		Pull out tray /3 and remove jammed paper if any.
LU	J-1351	When idling: The LU exit sensor (PS106) turns ON while in idling.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the LU upper cover and remove jammed paper if any. Open the LU jam door and remove jammed paper if any.
Tray3 (PFU1)	J-1352	When idling: (PF-703/706) The vertical conveyance sensor /1 (PS15) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Up and remove jammed paper if any.
LU	J-1352	When idling: The pre-registration sensor (PS107) turns ON while in idling.		Open the LU upper cover and remove jammed paper if any. Open the LU jam door and remove jammed paper if any.
Tray4 (PFU1)	J-1401	During operation: PF-703 The paper feed sensor /2 (PS6) does not turn ON within a specified period of time after the paper feed clutch /2 (CL8) turns ON. (PF-706) The paper feed sensor /2 (PS7) does not turn ON within a specified period of time after the paper feed clutch /2 (CL9) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /4 and remove jammed paper if any.
	J-1402	During operation: PF-703 The pre-registration sensor /2 (PS18) does not turn ON within a specified period of time after the paper feed clutch /2 (CL8) turns ON. (PF-706) The pre-registration sensor /2 (PS18) does not turn ON within a specified period of time after the paper feed clutch /2 (CL9) turns ON.		Open tray /4, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1403	During operation: (PF-703/706) When the trailing edge of paper is passing through the loop sensor /2 (PS19), the pre-registration sensor /2 (PS18) is turned ON by the succeeding paper.		Open tray /4, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-1405	During operation: PF-703 The paper suction sensor /Fr3 (PS27) and the paper suction sensor /Rr2(PS28) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /3 (FM15) and the paper suction fan /4 (FM16) turn ON.		Pull out tray /4 and remove jammed paper if any.
	J-1451	When idling: (PF-703/706) The pre-registration sensor /2 (PS18) turns ON while in idling.	-	Pull out tray /4 and remove jammed paper if any.
Tray5 (PFU1)	J-1501	During operation: PF-703 The paper feed sensor /3 (PS10) does not turn ON within a specified period of time after the paper feed clutch /3 (CL9) turns ON. (PF-706) The paper feed sensor /3 (PS11) does not turn ON within a specified period of time after the paper feed clutch /3 (CL12) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /5 and remove jammed paper if any.
	J-1502	During operation: PF-703 The pre-registration sensor /3 (PS20) does not turn ON within a specified period of time after the paper feed clutch /3 (CL9) turns ON. (PF-706) The pre-registration sensor /3 (PS20) does not turn ON within a specified period of time after the paper feed clutch /3 (CL12) turns ON.		Open tray /5, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-1503	During operation: PF-703 The vertical conveyance sensor /3 (PS21) does not turn ON within a specified period of time after the pre-registration sensor /3 (PS20) turns ON. (PF-706) The vertical conveyance sensor /2 (PS21) does not turn ON within a specified period of time after the pre-registration sensor /3 (PS20) turns ON.		Open tray /5, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-1504	During operation: PF-703 When the trailing edge of paper is passing through the vertical conveyance sensor /3 (PS21), the pre-registration sensor /3 (PS20) is turned ON by the succeeding paper. (PF-706) When the trailing edge of paper is passing through the vertical conveyance sensor /2 (PS21), the pre-registration sensor /3 (PS20) is turned ON by the succeeding paper.	After completion of the exit of the preceding paper, the main body stops operations.	Open tray /5, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-1505	During operation: (PF-703) The paper suction sensor /Fr3 (PS29) and the paper suction sensor /Rr3 (PS30) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /5 (FM17) and the paper suction fan /6 (FM18) turn ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /5 and remove jammed paper if any.
	J-1551	When idling: (PF-703/706) The pre-registration sensor /3 (PS20) turns ON while in idling.	-	Pull out tray /5 and remove jammed paper if any.
	J-1552	When idling: PF-703 The vertical conveyance sensor /3 (PS21) turns ON while in idling. (PF-706) The vertical conveyance sensor /2 (PS21) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Lw and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
Tray6 (PFU2)	J-1611	During operation: PF-703 The paper feed sensor /1 (PS2) does not turn ON within a specified period of time after the paper feed clutch /1 (CL7) turns ON. (PF-706) The paper feed sensor /1 (PS3) does not turn ON within a specified period of time after the paper feed clutch /1 (CL6) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray6 and remove jammed paper if any.
	J-1612	During operation: PF-703 The pre-registration sensor /1 (PS14) does not turn ON within a specified period of time after the paper feed clutch /1 (CL7) turns ON. (PF-706) The pre-registration sensor /1 (PS14) does not turn ON within a specified period of time after the paper feed clutch /1 (CL6) turns ON.		Open tray /6, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.
	J-1613	During operation: (PF-703/706) The vertical conveyance sensor /1 (PS15) does not turn ON within a specified period of time after the pre-registration sensor /1 (PS14) turns ON.		Open tray /6, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.
	J-1614	During operation: (PF-703/706) When the trailing edge of paper is passing through the vertical conveyance sensor /1 (PS15), the pre-registration sensor /1 (PS14) is turned ON by the succeeding paper.	After completion of the exit of the preceding paper, the main body stops operations.	Open tray /6, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.
	J-1615	During operation: PF-703 The paper suction sensor Fr/1 (PS25) and the paper suction sensor /Rr1(PS26) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /1 (FM13) and the paper suction fan /2 (FM14) turn ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /6 and remove jammed paper if any.
Tray7 (PFU2)	J-1621	During operation: PF-703 The paper feed sensor /2 (PS6) does not turn ON within a specified period of time after the paper feed clutch /2 (CL8) turns ON. (PF-706) The paper feed sensor /2 (PS7) does not turn ON within a specified period of time after the paper feed clutch /2 (CL9) turns ON.		Pull out tray /7 and remove jammed paper if any.
	J-1622	During operation: PF-703 The pre-registration sensor /2 (PS18) does not turn ON within a specified period of time after the paper feed clutch /2 (CL8) turns ON. (PF-706) The pre-registration sensor /2 (PS18) does not turn ON within a specified period of time after the paper feed clutch /2 (CL9) turns ON.		Open tray /7, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1623	During operation: (PF-703/706) When the trailing edge of paper is passing through the loop sensor /2 (PS19), the pre-registration sensor /2 (PS18) is turned ON by the succeeding paper.		Open tray /7, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1625	During operation: PF-703 The paper suction sensor Fr/3 (PS27) and the paper suction sensor /Rr2(PS28) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /3 (FM15) and the paper suction fan /4 (FM16) turn ON.		Pull out tray /7 and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
Tray8 (PFU2)	J-1631	During operation: PF-703 The paper feed sensor /3 (PS10) does not turn ON within a specified period of time after the paper feed clutch /3 (CL9) turns ON. (PF-706) The paper feed sensor /3 (PS11) does not turn ON within a specified period of time after the paper feed clutch /3 (CL12) turns ON.		Pull out tray /8 and remove jammed paper if any.
	J-1632	During operation: PF-703 The pre-registration sensor /3 (PS20) does not turn ON within a specified period of time after the paper feed clutch /3 (CL9) turns ON. (PF-706) The pre-registration sensor /3 (PS20) does not turn ON within a specified period of time after the paper feed clutch /3 (CL12) turns ON.		Open tray /8, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-1633	During operation: PF-703 The vertical conveyance sensor /3 (PS21) does not turn ON within a specified period of time after the pre-registration sensor /3 (PS20) turns ON. (PF-706) The vertical conveyance sensor /2 (PS21) does not turn ON within a specified period of time after the pre-registration sensor /3 (PS20) turns ON.		Open tray /8, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-1634	During operation: PF-703 When the trailing edge of paper is passing through the vertical conveyance sensor /3 (PS21), the pre-registration sensor /3 (PS20) is turned ON by the succeeding paper. (PF-706) When the trailing edge of paper is passing through the vertical conveyance sensor /2 (PS21), the pre-registration sensor /3 (PS20) is turned ON by the succeeding paper.	After completion of the exit of the preceding paper, the main body stops operations.	Open tray /8, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-1635	During operation: PF-703 The paper suction sensor /Fr3 (PS29) and the paper suction sensor /Rr3 (PS30) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /5 (FM17) and the paper suction fan /6 (FM18) turn ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /8 and remove jammed paper if any.
Paper feed conveyance (PFU2)	J-1641	During operation: (PF-703/706) The intermediate sensor /Up (PS16) does not turn ON within a specified period of time after the vertical conveyance sensor /1 (PS15) turns ON.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-1642	During operation: (PF-703/706) The loop sensor /1 (PS17) does not turn ON within a specified period of time after the intermediate sensor /Up (PS16) turns ON.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-1643	During operation: (PF-703/706) The loop sensor /2 (PS19) does not turn ON within a specified period of time after the pre-registration sensor /2 (PS18) turns ON.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-1644	During operation: PF-703 The intermediate sensor /Lw (PS22) does not turn ON within a specified period of time after the vertical conveyance sensor /3 (PS21) turns ON. (PF-706) The intermediate sensor /Lw (PS22) does not turn ON within a specified period of time after the vertical conveyance sensor /2 (PS21) turns ON.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-1645	During operation: (PF-703/706) The loop sensor /3 (PS23) does not turn ON within a specified period of time after the intermediate sensor /Lw (PS22) turns ON.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-1646	During operation: (PF-703/706) The PF exit conveyance sensor (PS24) does not turn ON within a specified period of time after the loop sensor /1 (PS17) turns ON.		Open the PF front door, the PF vertical conveyance door /Up and the horizontal conveyance jam release lever, and remove jammed paper if any.
	J-1647	During operation: (PF-703/706) The PF exit conveyance sensor (PS24) does not turn ON within a specified period of time after the loop sensor /2 (PS19) turns ON.		Open the PF front door and the PF horizontal conveyance jam release lever, and remove jammed paper if any.
	J-1648	During operation: (PF-703/706) The PF exit conveyance sensor (PS24) does not turn ON within a specified period of time after the loop sensor /3 (PS23) turns ON.		Open the PF front door, the PF vertical conveyance door /Lw and the horizontal conveyance jam release lever, and remove jammed paper if any.
Tray6 (PFU2)	J-1651	When idling: (PF-703/706) The pre-registration sensor /1 (PS14) turns ON while in idling.	-	Pull out tray /3 and remove jammed paper if any.
	J-1652	When idling: (PF-703/706) The vertical conveyance sensor /1 (PS15) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Up and remove jammed paper if any.
Tray7 (PFU2)	J-1661	When idling: (PF-703/706) The pre-registration sensor /2 (PS18) turns ON while in idling.		Pull out tray /7 and remove jammed paper if any.
Tray8 (PFU2)	J-1671	When idling: (PF-703/706) The pre-registration sensor /3 (PS20) turns ON while in idling.		Pull out tray /5 and remove jammed paper if any.
	J-1672	When idling: PF-703 The vertical conveyance sensor /3 (PS21) turns ON while in idling. (PF-706) The vertical conveyance sensor /2 (PS21) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Lw and remove jammed paper if any.
Tray6 (PFU2)	J-1681	When idling: (PF-703/706) The intermediate sensor /Up (PS16) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Up and remove jammed paper if any.
	J-1682	When idling: (PF-703/706) The loop sensor /1 (PS17) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Up and remove jammed paper if any.
Tray7 (PFU2)	J-1683	When idling: (PF-703/706) The loop sensor /2 (PS19) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Lw and remove jammed paper if any.
Tray8 (PFU2)	J-1684	When idling: (PF-703/706) The intermediate sensor /Lw (PS22) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Lw and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-1685	When idling: (PF-703/706) The loop sensor /3 (PS23) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Lw and remove jammed paper if any.
Paper feed conveyance (PFU2)	J-1686	When idling: (PF-703/706) The PF exit conveyance sensor (PS24) turns ON while in idling.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
Paper feed conveyance (common to each tray)	J-1701	During operation: The ADU pre-registration sensor (PS40) does not turn ON within a specified period of time after the ADU conveyance sensor (PS42) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the main body front doors / R and /L, pull out the ADU section and remove jammed paper if any.
	J-1702	During operation: The ADU pre-registration sensor (PS42) does not turn ON within a specified period of time after the ADU conveyance sensor (PS16) turns ON.		Open the main body front doors / R and /L, pull out the ADU section and remove jammed paper if any.
Paper feed conveyance (Tray1, /2)	J-1703	During operation: The vertical conveyance sensor (PS16) does not turn ON within a specified period of time after the vertical conveyance sensor /1 (PS19) turns ON.	After completion of the exit of the preceding paper, the main body stops operations.	Open the main body vertical conveyance door and remove jammed paper if any.
Paper feed conveyance (Tray2)	J-1704	During operation: The vertical conveyance sensor /2 (PS20) does not turn ON within a specified period of time after the vertical conveyance sensor /3 (PS21) turns ON.		Open the main body vertical conveyance door and remove jammed paper if any.
	J-1705	During operation: The vertical conveyance sensor /1 (PS19) does not turn ON within a specified period of time after the vertical conveyance sensor /2 (PS20) turns ON.		Open the main body vertical conveyance door and remove jammed paper if any.
Paper feed conveyance (PFU)	J-1706	During operation: (PF-703/706) The loop sensor (PS16) of the main body does not turn ON within a specified period of time after the PF exit conveyance sensor (PS24) turns ON.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
LU	J-1706	During operation: The loop sensor (PS54) does not turn ON within a specified period of time after the LU exit sensor (PS106) turns ON.	If paper jam occurs during printing process, main body stops after paper exit.	Open the LU jam door and remove jammed paper if any.
Paper feed conveyance	J-1712	During operation: The multi feed detection board /S (MFDBS) or /R (MFDBR) detects the double feed. However, envelopes cannot be detected depending on the paper size. (PRO 951 is unimplemented)	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the main body front doors / R and /L, pull out the ADU section and remove jammed paper if any.
	J-1751	When idling: The vertical conveyance sensor (PS41) turns ON while in idling.	-	Open the main body front doors / R and /L, pull out the ADU section and remove jammed paper if any.
	J-1752	When idling: The pre-registration sensor (PS40) turns ON while in idling.		Open the main body front doors / R and /L, pull out the ADU section and remove jammed paper if any.
	J-1753	When idling: The pre-registration sensor (PS42) turns ON while in idling.		Open the main body front doors / R and /L, pull out the ADU section and remove jammed paper if any.
	J-1754	When idling: The pre-registration sensor (PS16) turns ON while in idling.		Open the main body front doors / R and /L, pull out the ADU section and remove jammed paper if any.
	J-1755	When idling: The vertical conveyance sensor /2 (PS20) turns ON while in idling.		Open the main body front doors / R and /L, pull out the ADU section and remove jammed paper if any.
Paper feed conveyance (PFU1)	J-1801	During operation: (PF-703/706) The intermediate sensor /Up (PS16) does not turn ON within a specified period of time after the vertical conveyance sensor /1 (PS15) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-1802	During operation: (PF-703/706) The loop sensor /1 (PS17) does not turn ON within a specified period of time after the intermediate sensor /Up (PS16) turns ON.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-1803	During operation: (PF-703/706) The loop sensor /2 (PS19) does not turn ON within a specified period of time after the pre-registration sensor /2 (PS18) turns ON.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
	J-1804	During operation: PF-703 The intermediate sensor /Lw (PS22) does not turn ON within a specified period of time after the vertical conveyance sensor /3 (PS21) turns ON. (PF-706) The intermediate sensor /Lw (PS22) does not turn ON within a specified period of time after the vertical conveyance sensor /2 (PS21) turns ON.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-1805	During operation: (PF-703/706) The loop sensor /3 (PS23) does not turn ON within a specified period of time after the intermediate sensor /Lw (PS22) turns ON.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-1806	During operation: (PF-703/706) The PF exit conveyance sensor (PS24) does not turn ON within a specified period of time after the loop sensor /1 (PS17) turns ON.		Open the PF front door, the PF vertical conveyance door /Up and the horizontal conveyance jam release lever, and remove jammed paper if any.
	J-1807	During operation: (PF-703/706) The PF exit conveyance sensor (PS24) does not turn ON within a specified period of time after the loop sensor /2 (PS19) turns ON.		Open the PF front door and the PF horizontal conveyance jam release lever, and remove jammed paper if any.
	J-1808	During operation: (PF-703/706) The PF exit conveyance sensor (PS24) does not turn ON within a specified period of time after the loop sensor /3 (PS23) turns ON.		Open the PF front door, the PF vertical conveyance door /Lw and the horizontal conveyance jam release lever, and remove jammed paper if any.
Horizontal conveyance (PFU1)	J-1810	During operation: (PF-703) The horizontal conveyance sensor /1 (PS31) does not turn ON within a specified period of time after the PF exit conveyance sensor (PS24) turns ON.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1811	During operation: (PF-703) The horizontal conveyance sensor /2 (PS32) does not turn ON within a specified period of time after the horizontal conveyance sensor /1 (PS31) turns ON.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1812	During operation: (PF-703) The horizontal conveyance sensor /3 (PS33) does not turn ON within a specified period of time after the horizontal conveyance sensor /2 (PS32) turns ON.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1813	During operation: (PF-703) The horizontal conveyance sensor /4 (PS34) does not turn ON within a specified period of time after the horizontal conveyance sensor /3 (PS33) turns ON.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1814	During operation: (PF-703) The horizontal conveyance sensor /5 (PS35) does not turn ON within a specified period of time after the horizontal conveyance sensor /4 (PS34) turns ON.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1815	During operation: (PF-703) The horizontal conveyance sensor /1 (PS17) does not turn ON within a specified period of time after the horizontal conveyance sensor /5 (PS35) turns ON.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
Paper feed conveyance (PFU1)	J-1851	When idling: (PF-703/706) The intermediate sensor /Up (PS16) turns ON while in idling.	-	Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-1852	When idling: (PF-703/706) The loop sensor /1 (PS17) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-1853	When idling: (PF-703/706) The loop sensor /2 (PS19) turns ON while in idling.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
	J-1854	When idling: (PF-703/706) The intermediate sensor /Lw (PS22) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-1855	When idling: (PF-703/706) The loop sensor /3 (PS23) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-1856	When idling: (PF-703/706) The PF exit conveyance sensor (PS24) turns ON while in idling.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
Horizontal conveyance (PFU1)	J-1860	When idling: (PF-703) The horizontal conveyance sensor /1 (PS31) turns ON while in idling.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1861	When idling: (PF-703) The horizontal conveyance sensor /2 (PS32) turns ON while in idling.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1862	When idling: (PF-703) The horizontal conveyance sensor /3 (PS33) turns ON while in idling.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1863	When idling: (PF-703) The horizontal conveyance sensor /4 (PS34) turns ON while in idling.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-1864	When idling: (PF-703) The horizontal conveyance sensor /5 (PS35) turns ON while in idling.		Open tray /3, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
Conveyance	J-1901	During operation: The main body vertical conveyance door is opened while in printing.	The main body stops immediately.	Close the vertical conveyance door.
PF	J-1902	During operation: The PFU1 front door is opened while in printing.	The main body/PF stops immediately.	Close the PF front door.
LU	J-1902	During operation: The LU jam door is opened while in printing. Or, the upper cover is opened while in LU operating.	If paper jam occurs during printing process, main body stops after paper exit.	Open the LU jam door or the upper cover and remove jammed paper if any.
PF	J-1903	During operation: The PFU2 front door is opened while in printing.	The main body/PF stops immediately.	Close the PF front door.
	J-1904	During operation: The PI-PFU front door is opened while in printing.		Close the PF front door.
Fusing/ paper exit	J-2101	During operation: While in the print sequence, the JAM sensor board (JAMB) detects paper at a prescribed timing.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-2151	When idling: While in idling, the JAM sensor board (JAMB) detects paper at a prescribed timing.	-	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-3101	During operation: The paper leading edge sensor (PS41) does not turn ON within a specified period of time after the registration motor (M17) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3102	During operation: The fusing exit sensor (PS22) does not turn ON within a specified period of time after the paper leading edge sensor (PS41) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3103	During operation: PS41 does not turn OFF even after 1.1 times of the conveyance time of the transfer paper length elapses after the paper leading edge sensor (PS41) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3110	During operation: Printer control abnormality	The main body stops immediately.	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3111	During operation: 1.0% or 0.5% of the skew is detected by the paper skew sensor /Fr (PS65), the paper skew sensor /Rr (PS66).(PRO 951 is unimplemented)	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3112	During operation: Centering of 5mm or more is detected by the centering sensor (PS4)		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3201	During operation: The de-curler entrance solenoid (PS23) does not turn ON within a specified period of time after the fusing exit sensor (PS22) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3202	During operation: While in the straight paper exit, the paper exit sensor (PS3) does not turn ON within a specified period of time after the de-curler entrance solenoid (PS23) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3203	During operation: ADU accelerate sensor (PS49) does not turn ON within a specified period of time after the fusing exit sensor (PS22) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3204	During operation: The reverse sensor /1 (PS48) does not turn ON within a specified period of time after the ADU accelerate sensor (PS49) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3205	During operation: The PS48 does not turn ON again within a specified period of time after the reverse sensor /1 (PS48) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3206	During operation: The de-curler entrance solenoid (PS23) does not turn ON within a specified period of time after the reverse sensor /1 (PS48) turns ON.	The main body stops immediately.	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3207	During operation: While in the reverse paper exit, the paper exit sensor (PS3) does not turn ON within a specified period of time after the de-curler entrance solenoid (PS23) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3208	During operation: The PS3 does not turn OFF again within a specified period of time after the paper exit sensor (PS3) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3251	When idling: The fusing exit sensor (PS22) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3252	When idling: The paper exit sensor (PS3) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3253	When idling: The ADU accelerate sensor (PS49) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-3254	When idling: The ADU reverse paper exit sensor (PS50) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3255	When idling: The fusing jam sensor (PS38) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3256	When idling: The reverse sensor /1 (PS48) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3257	When idling: The reverse sensor /2 (PS47) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-3258	When idling: The de-curler entrance sensor (PS23) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
External	J-5101	During operation: The front door/R, /L of the main body was opened while printing.		Close main body front doors /Rt and /Lt.
	J-5102	During operation: The waste toner BOX got into the unset status while in the print.		Set the waste toner box.
DF	J-6101	During operation: The DF open-close sensor (PS301) turns ON while in operation.	The DF stops immediately. If there is paper being transferred or having been transferred, the main body completes the paper exit before stopping operations.	Close the DF.
	J-6102	During operation: The cover open-close switch (MS301) turns ON while in operation.		Close the DF open-close cover.
	J-6201	During operation: The original registration sensor /Lt (PS306) does not turn OFF within a specified period of time after the pre-feed start.		Open the DF open-close cover and remove jammed paper if any.
	J-6202	During operation: The original conveyance sensor (PS308) does not turn ON within a specified period of time after the pre-feed start of the front side of the double-sided original (including the single-sided original).		Open the DF open-close cover and remove jammed paper if any.
	J-6203	During operation: The original conveyance sensor (PS308) does not turn ON within a specified period of time after the pre-feed start of the back side of the double-sided original.		Open the DF open-close cover and remove jammed paper if any.
	J-6204	During operation: While in the forward rotation of the original conveyance motor (M302), the original conveyance sensor (PS308) does not turn OFF within a specified period of time after it turns ON.		Open the DF open-close cover and remove jammed paper if any.
	J-6205	During operation: While in the reverse rotation of the original conveyance motor (M302), the original conveyance sensor (PS308) does not turn OFF within a specified period of time after it turns ON.		Open the DF open-close cover and remove jammed paper if any.
	J-6206	During operation: When entering a large-size double-sided original in the reverse section, the original reverse sensor (PS309) does not turn ON within a specified period of time after the original conveyance sensor (PS308) turns ON.		Open the DF open-close cover and remove jammed paper if any.
	J-6207	During operation: When exiting a large-size single-sided original, the original exit sensor /Lt (PS307) does not turn ON within a specified period of time after the original conveyance sensor (PS308) turns ON.		Open the DF open-close cover and remove jammed paper if any.
	J-6208	During operation: When exiting a large-size double-sided original, the original exit sensor /Lt (PS307) does not turn ON within a specified period of time after the original reverse sensor (PS309) turns ON.		Open the DF open-close cover and remove jammed paper if any.
	J-6209	During operation: When exiting a large-size single-sided original, the original exit sensor /Lt (PS307) does not turn OFF within a specified period of time after it turns ON.		Open the DF open-close cover and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-6210	During operation: When exiting a large-size double-sided original, the original exit sensor /Lt (PS307) does not turn OFF within a specified period of time after it turns ON.		Open the DF open-close cover and remove jammed paper if any.
	J-6301	During operation: When outputting a large-size double-sided original from the reverse section, the original reverse sensor (PS309) does not turn ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6302	During operation: When entering a large-size double-sided original into the reverse section, the original reverse sensor (PS309) does not turn OFF within a specified period of time after it turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6303	During operation: When outputting a large-size double-sided original from the reverse section, the original reverse sensor (PS309) does not turn OFF within a specified period of time after it turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6304	During operation: When exiting a small-size single-sided original, the original exit sensor /Rt (PS314) does not turn ON within a specified period of time after the original reverse sensor (PS309) turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6305	During operation: When exiting a small-size double-sided original, the original exit sensor /Rt (PS314) does not turn OFF within a specified period of time after the original reverse-exit sensor (PS313) turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6306	During operation: When exiting a small-size single-sided original, the original exit sensor /Rt (PS314) does not turn OFF within a specified period of time after it turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6307	During operation: When exiting a small-size double-sided original, the original exit sensor /Rt (PS314) does not turn OFF within a specified period of time after it turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6308	During operation: When entering a small-size double-sided original in the reverse section, the original reverse-exit sensor (PS313) does not turn ON within a specified period of time after the original conveyance sensor (PS308) turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6309	During operation: When outputting a small-size double-sided original in the reverse section, the original reverse-exit sensor (PS313) does not turn ON within a specified period of time after the original conveyance sensor (PS308) turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6310	During operation: When entering a small-size double-sided original into the reverse section, the original reverse-exit sensor (PS313) does not turn OFF within a specified period of time after it turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6311	During operation: When outputting a small-size double-sided original into the reverse section, the original reverse-exit sensor (PS313) does not turn OFF within a specified period of time after it turns ON.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6501	When idling: The original registration sensor /Lt (PS306) turns ON while in idling.		Open the DF open-close cover and remove jammed paper if any.
	J-6502	When idling: The original conveyance sensor (PS308) turns ON while in idling.		Open the DF open-close cover and remove jammed paper if any.
	J-6504	When idling: The original reverse sensor (PS309) turns ON while in idling.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6508	When idling: The original exit sensor /Lt (PS307) turns ON while in idling.		Open the DF open-close cover and remove jammed paper if any.
	J-6510	When idling: The original reverse-exit sensor (PS313) turns ON while in idling.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-6520	When idling: The original exit sensor /Rt (PS314) turns ON while in idling.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6540	When idling: The reverse jam sensor (PS304) turns ON while in idling.		Raise DF, open original glass guide, and remove jammed paper (if any) from DF.
	J-6580	When idling: The original registration sensor /Rt (PS318) turns ON while in idling. (DF-615 only)		Open the DF open-close cover and remove jammed paper if any.
FS	J-7101	During operation: The FS front door open jam. The door switch (MS1) turns OFF while in printing.	The FS and the main body stop immediately.	Remove jammed paper if any from the FS, the SD and the main body.
RU	J-7102	During operation: (RU-510) The RU front door open jam. The interlock switch (MS1) turns OFF while in the print.	The RU and the main body stop immediately.	Remove jammed paper if any from the RU/main body.
LS (1st tandem)	J-7103	During operation: The LS front door open jam. The door switch (MS1) turns OFF while in printing.	The LS and the main body stop immediately.	Remove jammed paper if any from the LS/main body.
LS (2nd tandem)	J-7104	During operation: The LS front door open jam. The door switch (MS1) turns OFF while in printing.		Remove jammed paper if any from the LS/main body.
FD	J-7105	During operation: The FD front door open jam. The front door switch (MS1) turns OFF while in the print.	The FD and the main body stop immediately.	Remove jammed paper if any from the FD/main body.
SD-506	J-7107	During operation: The SD front door/Rt open jam or the SD front door/Lt open jam. During printing, either the SD front door switch /Rt (MS1) or /Lt (MS2) turns OFF.	The SD and the main body stop immediately.	Remove jammed paper if any from the SD/main body.
PB	J-7108	During operation: The PB front door open jam. During printing, the front door switch (SW2), booklet door switch (SW3), upper door switch (SW1), and relay conveyance section door switch (MS3) turn OFF.	The PB and the main body stop immediately.	Remove jammed paper if any from the PB/main body.
GP-501	J-7109	During operation: The GP front door open jam. The door switch turns OFF while in the print.	The GP and the main body stop immediately.	Remove jammed paper if any from the GP/main body.
RU	J-7110	During operation: (RU-509) The RU front door open jam. The door switch (SW1) turns OFF while in printing.	The RU and the main body stop immediately.	Remove jammed paper if any from the RU/main body.
GP-502	J-7111	During operation: The GP front door open jam. The line Interrupt Interlock switch turns OFF while in the print.	The GP/main body stop immediately.	Remove jammed paper if any from the GP/main body.
LS (3rd tandem)	J-7112	During operation: The LS front door open jam. The door switch (MS1) turns OFF while in printing.	The LS and the main body stop immediately.	Remove jammed paper if any from the LS/main body.
FS	J-7216	During operation: The FNS entrance sensor (PS1) does not turn ON within a specified period of time after the paper exit sensor of the previous option turns ON.	The FS and the main body stop immediately.	Remove jammed paper if any from the FS/main body.
	J-7217	During operation: The main tray paper exit sensor (PS10) does not turn ON within a specified period of time after the FNS entrance sensor (PS1) turns ON.		Remove jammed paper if any from the FS/main body.
	J-7218	During operation: The paper overlap sensor /1 (PS32) does not turn ON within a specified period of time after the FNS entrance sensor (PS1) turns ON.		Remove jammed paper if any from the FS/main body.
	J-7220	During operation: While in stapling a small-size paper, the main tray paper exit sensor (PS10) does not turn ON within a specified period of time after the paper exit operation starts.		Remove jammed paper if any from the FS/main body.
	J-7221	During operation: While in stapling a large-size paper, the main tray paper exit sensor (PS10) does not turn OFF within a specified period of time after the paper exit operation starts.		Remove jammed paper if any from the FS/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7222	During operation: While in exiting paper in the sub tray, the sub tray exit sensor (PS8) does not turn ON within a specified period of time after the paper exit sensor of the previous option turns ON.		Remove jammed paper if any from the FS/main body.
	J-7223	During operation: While in exiting paper in the sub tray, PS1 does not turn OFF within a specified period of time after the sub tray exit sensor (PS8) turns ON.		Remove jammed paper if any from the FS/main body.
	J-7224	During operation: The stacker rear alignment sensor (PS44) does not turn ON within a specified period of time after the exit of paper bundle is completed. Or, PS44 turns OFF before a specified time since the small size paper alignment motor (M18) starts to excite when the standby position of exiting the paper bundle for the FD alignment plate is being moved.		Remove jammed paper if any from the FS/main body.
SD-510	J-7225	During operation: While in the tri-folding mode, the folding exit sensor (PS113) does not turn ON within a specified period of time after the folding is completed.	The SD and the main body stop immediately.	Remove jammed paper if any from the SD/main body.
	J-7226	During operation: PS113 does not turn OFF within a specified period of time after the folding exit sensor (PS113) turns ON.		Remove jammed paper if any from the SD/main body.
FS	J-7227	During operation: The paper overlap sensor /2 (PS33) does not turn ON within a specified period of time after the stacker entrance motor (M5) starts reverse rotation.	The FS and the main body stop immediately.	Remove jammed paper if any from the FS/main body.
	J-7228	During operation: PS32 does not turn OFF within a specified period of time after the paper overlap sensor /1 (PS32) turns ON.		Remove jammed paper if any from the FS/main body.
	J-7229	During operation: The main tray paper exit sensor (PS10) does not turn OFF within a specified period of time after the FNS entrance sensor (PS1) turns OFF.		Remove jammed paper if any from the FS/main body.
	J-7230	During operation: The main tray paper exit sensor (PS10) does not turn ON within a specified period of time after stapling a small-size paper starts.		Remove jammed paper if any from the FS/main body.
	J-7231	During operation: The paper overlap sensor /2 (PS33) does not turn OFF within a specified period of time after the stacker entrance motor (M5) starts forward rotation. Paper which is 253mm or more in the sub scan direction is not target.		Remove jammed paper if any from the FS/main body.
PI	J-7235	During operation: The paper passage sensor / Lw (PS206) does not turn ON within a specified period of time after the conveyance clutch /Lw (CL202) turns ON. Or, the paper passage sensor /Lw (PS206) does not turn ON within a specified period of time after the paper passage sensor /Up (PS201) turns ON.		Remove jammed paper if any from the FS/main body.
FS	J-7236	During operation: The paper overlap sensor /2 (PS33) does not turn ON within a specified period of time after the FNS entrance sensor (PS1) turns ON.		Remove jammed paper if any from the FS/main body.
SD-510	J-7237	During operation: The SD entrance sensor (PS102) does not turn ON within a specified period of time after the paper overlap sensor /2 (PS33) turns ON.	The SD and the main body stop immediately.	Remove jammed paper if any from the SD/main body.
ZU	J-7238	During operation: The leading/trailing/side edge sensors of the paper edge sensor board (PESB) do not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.	The ZU and the main body stop immediately.	Remove jammed paper if any from the ZU/main body.
	J-7239	During operation: The leading/trailing/side edge sensors of the paper edge sensor board (PESB) do not turn OFF within a specified period of time after they turn ON.		Remove jammed paper if any from the ZU/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7240	During operation: The conveyance sensor (PS601) does not turn ON within a specified period of time after the leading/trailing/side edge sensors of the paper edge sensor board (PESB) turn ON.		Remove jammed paper if any from the ZU/main body.
	J-7241	During operation: The conveyance sensor (PS601) does not switch from ON to OFF within a specified period of time after the Z-fold mode starts the 2nd folding.		Remove jammed paper if any from the ZU/main body.
	J-7242	During operation: The conveyance sensor (PS601) does not switch from ON to OFF within a specified period of time after the Z-fold mode finishes the 2nd folding.		Remove jammed paper if any from the ZU/main body.
PK	J-7243	During operation: The paper size sensor (PS305) does not detect the paper edge even after a specified period of time has passed after the punch shift motor (M302) turns ON. Or, the punch home sensor /1 (PS301) or /2 (PS307) does not turn ON even after a specified period of time has passed after the punch motor (M301) turns ON.	The FS and the main body stop immediately.	Remove jammed paper if any from the FS/main body.
ZU	J-7244	During operation: The exit sensor (PS609) does not turn ON within a specified period of time after the leading/trailing/side edge sensors of the paper edge sensor board (PESB) turn ON.	The ZU and the main body stop immediately.	Remove jammed paper if any from the ZU/main body.
	J-7245	During operation: The exit sensor (PS609) does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.		Remove jammed paper if any from the ZU/main body.
	J-7246	During operation: The exit sensor (PS609) does not turn OFF within a specified period of time after the exit sensor (PS609) turns ON.		Remove jammed paper if any from the ZU/main body.
	J-7247	During operation: The paper remains in the Z-fold unit within a specified period of time after the main body transmits the operation stop signal to the Z-fold unit.		Remove jammed paper if any from the ZU/main body.
SD-510	J-7248	During operation: The paper passage sensor / Up (PS201) does not turn ON within a specified period of time after the pick-up solenoid /Up (SD201) turns ON.	The SD and the main body stop immediately.	Remove jammed paper if any from the SD/main body.
PI	J-7249	During operation: The paper passage sensor / Up (PS201) does not turn ON within a specified period of time after the pick-up solenoid /Up (SD201) turns ON.	The FS and the main body stop immediately.	Remove jammed paper if any from the FS/main body.
	J-7250	During operation: The FNS entrance sensor (PS1) does not turn ON within a specified period of time after the paper passage sensor /Up (PS201) turns ON.		Open the PI upper door and remove jammed paper if any.
	J-7251	During operation: The FNS entrance sensor (PS1) does not turn ON within a specified period of time after the paper passage sensor /Lw (PS206) turns ON.		Open the PI upper door and remove jammed paper if any.
ZU	J-7260	During operation: The certain side edge sensor in the paper edge sensor board (PESB) does not turn ON within a specified period of time after the paper turns OFF leading/trailing/side edge sensors of the paper edge sensor board (PESB). Or, the punch home sensor (PS606) does not turn ON within a specified period of time after the punch clutch (CL601) turns ON.	The ZU and the main body stop immediately.	Remove jammed paper if any from the ZU/main body.
	J-7261	During operation: The saddle entrance sensor (PS102) does not turn ON within a specified period of time after the paper overlap sensor /2 (PS33) turns ON.		Remove jammed paper if any from the ZU/main body.
	J-7262	During operation: The exit sensor (PS609) does not turn ON within a specified period of time after the conveyance sensor (PS601) turns ON.		Remove jammed paper if any from the ZU/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7264	During operation: The conveyance sensor (PS601) does not turn ON within a specified period of time after the leading/trailing/side edge sensors of the paper edge sensor board (PESB) turn ON.		Remove jammed paper if any from the ZU/main body.
SD-510	J-7265	During operation: While in the tri-folding mode, the 2nd folding sensor (PS112) does not turn ON within a specified period of time after 1st folding starts.	The SD and the main body stop immediately.	Remove jammed paper if any from the SD/main body.
	J-7266	During operation: The SD entrance sensor (PS102) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7272	During operation: Stapler bucking, empty staple.		Remove jammed paper if any from the SD/main body.
FS	J-7281	During operation: The stapler home sensor (PS40) does not turn ON within a specified period of time after the stapler motor (M31) turns ON.	The FS and the main body stop immediately.	Remove jammed paper if any from the FS/main body after the FS front door is opened or closed.
	J-7290	During operation: FS or SD does not stop within a specified period of time after the operation stop signal is transmitted from the main body to the FS or SD.		Remove jammed paper if any from the FS, the SD and the main body.
	J-7301	When idling: The main tray paper exit sensor (PS10) turns ON while in idling.	-	Open the FS front door and the jam release lever, and remove jammed paper, if any.
	J-7302	When idling: The paper overlap sensor /1 (PS32) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
	J-7303	When idling: The stacker upper sensor (PS43) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
	J-7304	When idling: The paper overlap sensor /2 (PS33) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
	J-7305	When idling: The FNS entrance sensor (PS1) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
	J-7307	When idling: The sub tray exit sensor (PS8) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
	J-7308	When idling: The stacker empty sensor (PS28) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
SD-510	J-7309	When idling: The stacker empty sensor (PS101) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
	J-7310	When idling: The folding exit sensor (PS113) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
PI	J-7314	When idling: The paper passage sensor /Lw (PS206) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper if any.
FS	J-7316	When idling: The paper overlap sensor /3 (PS5) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
PI	J-7317	When idling: The paper passage sensor /Up (PS201) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper if any.
SD-510	J-7318	When idling: The SD entrance sensor (PS102) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
	J-7319	When idling: The 2nd folding sensor (PS112) turns ON while in idling.		Open the FS front door and the jam release lever, and remove jammed paper, if any.
GP-502	J-7320	When idling: The bypass direct entry sensor turns ON while in idling.	-	Remove jammed paper if any from the GP/main body.
	J-7321	When idling: The bypass direct exit sensor turns ON while in idling.		Remove jammed paper if any from the GP/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7322	When idling: The tall vertical entry sensor turns ON while in idling.		Remove jammed paper if any from the GP/main body.
	J-7323	When idling: The punch sensor turns ON while in idling.		Remove jammed paper if any from the GP/main body.
	J-7324	When idling: The pullback sensor turns ON while in idling.		Remove jammed paper if any from the GP/main body.
	J-7325	When idling: The paper present sensor (below tray) turns ON while in idling.		Remove jammed paper if any from the GP/main body.
	J-7326	When idling: The jam sensor at the document drawer turns ON while in idling.		Remove jammed paper if any from the GP/main body.
ZU	J-7330	When idling: One of these sensors turn ON while in idling. Conveyance sensor (PS601) 1st folding stopper home sensor (PS603) 2nd folding stopper home sensor (PS604) Punch shift home sensor (PS605) - Exit sensor (PS609)	-	Open the ZU front door and the jam release lever, and remove jammed paper, if any.
RU	J-7340	When idling: (RU-510) Either of the entrance sensor (PS1), the entrance jam sensor (PS6), or the gate home sensor (PS7) turns ON while in idling.		Open the front door, and remove jammed paper, if any
	J-7341	When idling: (RU-510) Either of the stacker jam sensor (PS5) or the stack switch home sensor (PS8) turns ON while in idling.		Open the front door, and remove jammed paper, if any
	J-7342	When idling: (RU-510) The paper exit sensor (PS2) turns ON while in idling.		Open the front door, and remove jammed paper, if any
LS (3rd tandem)	J-7346	During operation: The entrance sensor (PS4) turns ON while in idling.		Open the LS front door, open then entrance conveyance jam release lever and remove jammed paper, if any.
	J-7347	When idling: The sub tray paper exit sensor (PS10) turns ON while in idling.		Open the LS sub tray cover, and remove jammed paper, if any.
	J-7348	When idling: Either of the conveyance sensor /1 (PS7), /2 (PS16), or /3 (PS17) turns ON while in idling.		Open the LS jam door, and remove jammed paper, if any
	J-7349	When idling: The coupling exit sensor (PS18) turns ON while in idling.		Open the LS front door, open then the coupling exit jam release lever and remove jammed paper, if any.
LS (1st tandem)	J-7350	During operation: The entrance sensor (PS4) turns ON while in idling.		Open the LS front door, open then entrance conveyance jam release lever and remove jammed paper, if any.
	J-7351	When idling: The sub tray paper exit sensor (PS10) turns ON while in idling.		Open the LS sub tray cover, and remove jammed paper, if any.
	J-7352	When idling: Either of the conveyance sensor /1 (PS7), /2 (PS16), or /3 (PS17) turns ON while in idling.		Open the LS jam door, and remove jammed paper, if any
	J-7353	When idling: The coupling exit sensor (PS18) turns ON while in idling.		Open the LS front door, open then the coupling exit jam release lever and remove jammed paper, if any.
LS (2nd tandem)	J-7354	During operation: The entrance sensor (PS4) turns ON while in idling.		Open the LS front door, open then entrance conveyance jam release lever and remove jammed paper, if any.
	J-7355	When idling: The sub tray paper exit sensor (PS10) turns ON while in idling.		Open the LS sub tray cover, and remove jammed paper, if any.
	J-7356	When idling: Either of the conveyance sensor /1 (PS7), /2 (PS16), or /3 (PS17) turns ON while in idling.		Open the LS jam door, and remove jammed paper, if any
	J-7357	When idling: The coupling exit sensor (PS18) turns ON while in idling.		Open the LS front door, open then the coupling exit jam release lever and remove jammed paper, if any.

Classification	JAM Code	Cause	Resulting operation	Correction
FD	J-7358	When idling: Either of the FD entrance sensor (PS1), the punch conveyance sensor (PS5), or the punch registration sensor (PS6) turns ON while in idling.		Open the FD front door, open then the entrance conveyance jam release levers /1 and /2 and the punch conveyance jam release levers /1 and /2, and then remove jammed paper, if any.
	J-7359	When idling: Either of the intermediate conveyance sensor (PS13), the sub tray paper exit sensor (PS16), or the main tray paper exit sensor (PS18) turns ON while in idling.		Open the FD front door and the intermediate conveyance jam lever, and remove the jammed paper, if any.
	J-7360	When idling: Either of the 1st folding conveyance sensor (PS51), the 2nd folding conveyance sensor (PS53), the 3rd folding conveyance sensor (PS54), the S size conveyance sensor (PS58), the folding entrance sensor (PS52), or the folding exit sensor (PS2) turns ON while in idling.		Open the FD front door, pull out the folding conveyance section, open the folding conveyance jam release levers /1 to /5, and remove jammed paper, if any.
	J-7361	When idling: Either of the PI conveyance sensor /Up (PS31), the PI conveyance sensor /Lw (PS37), or the PI exit sensor (PS4) turns ON while in idling.		Open the FD upper door and remove jammed paper, if any. When jammed paper gets in the PI exit, open the entrance conveyance jam release lever /1 and remove the jammed paper.
RU	J-7365	When idling: (RU-509) The entrance sensor (PS1) turns ON while in idling.		Open the front door, and remove jammed paper, if any
	J-7366	When idling: (RU-509) Either of the de-curler entrance sensor (PS2) or the humidification section entrance sensor (PS7) turns ON while in idling.		Open the front door, and remove jammed paper, if any
	J-7367	When idling: (RU-509) Either of the color density detection timing sensor (PS3), paper exit conveyance sensor (PS4) or paper exit sensor (PS12) turns ON while in idling.		Open the front door, and remove jammed paper, if any
SD-506	J-7368	When idling: The entrance sensor (PS1) turns ON while in idling.		Open the SD front door /Rt and remove jammed paper, if any.
	J-7369	When idling: Either of the horizontal conveyance sensor /1 (PS2), the horizontal conveyance sensor /2 (PS3), or the sub tray exit sensor (PS11) turns ON while in idling.		Open the SD front door /Rt and remove jammed paper, if any.
	J-7370	When idling: The horizontal conveyance exit sensor (PS4) turns ON while in idling.		Open the SD front door /Lt and remove jammed paper, if any.
	J-7371	When idling: Either of the right angle conveyance sensor /1 (PS5) or the right angle conveyance sensor /2 (PS6) turns ON while in idling.		Open the SD front door /Rt and remove jammed paper, if any.
	J-7372	When idling: Either of the folding sensor /1 (PS7), the folding passage sensor (PS8), the tri-folding exit sensor (PS9), or the folding sensor /2 (PS44) turns ON while in idling.		Open the SD front door /Lt and remove jammed paper, if any.
	J-7373	When idling: The saddle stitching paper sensor (PS13) turns ON while in idling.		Open the SD front door /Lt and remove jammed paper, if any.
	J-7374	When idling: Either of the bundle sensor /1 (PS14), /2 (PS15), /4 (PS54), or the bundle exit sensor /2 (PS57) turns ON while in idling.		Open the SD front door /Lt and remove jammed paper, if any.
PB	J-7380	When idling: Either of the entrance sensor (PS1), the SC entrance sensor (PS2), the cover paper entrance sensor (PS3), or the sub tray paper exit sensor (PS4) turns ON while in idling.		Open the PB front door or the upper door, and remove jammed paper, if any.
	J-7381	When idling: The SC paper detection sensor (PS16) turns ON while in idling.		Open the PB upper door, and remove jammed paper, if any.
	J-7382	When idling: The clamp paper sensor (PS28) turns ON while in idling.		Open the PB front door, pull out the clamp section, and remove jammed paper, if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7383	When idling: Either of the cover paper switchback sensor (PS44), the cover paper sensor /Rt (PS45), or the cover paper sensor /Lt (PS46) turns ON while in idling.		Open the PB front door, and remove jammed paper, if any.
	J-7384	When idling: The book end fence sensor (PS61) turns ON while in idling.		Open the PB stacker door, and remove jammed paper, if any.
	J-7385	When idling: The cover paper conveyance sensors /1 (PS75), /2 (PS76), /3 (PS77), /4 (PS78), and /5 (PS79) turn ON while in idling.		Pull out the paper feed tray, and remove jammed paper, if any.
	J-7386	When idling: The relay conveyance entrance sensor (PS93), the relay conveyance intermediate sensor (PS91) and the relay conveyance exit sensor (PS94) turn ON during idling.		Open the PB relay conveyance door and remove jammed paper if any.
GP-501	J-7390	When idling: The enter sensor (S1) turns ON while in idling.		Open the GP front door, the bypass panel cover, and remove the jammed paper, if any.
	J-7391	When idling: The stepper 1 speed sensor (S2) turns ON while in idling.		Open the GP front door, the entrance aligner panel, and remove the jammed paper, if any.
	J-7392	When idling: The bypass sensor (S8) turns ON while in idling.		Open the GP front door, the bypass panel cover, and remove the jammed paper, if any.
	J-7393	When idling: The exit sensor (S7) turns ON while in idling.		Open the GP front door, the bypass panel cover, and remove the jammed paper, if any.
	J-7394	When idling: The punch flag sensor (S9) turns ON while in idling.		Open the GP front door, the entrance aligner panel, the bottom U-channel, and remove the jammed paper, if any.
	J-7395	When idling: The u-channel sensor (S4) turns ON while in idling.		Open the GP front door, the bottom U-channel, and remove the jammed paper, if any.
	J-7396	When idling: The backstop sensor (S5) turns ON while in idling.		Open the GP front door, the bottom U-channel, and remove the jammed paper, if any.
	J-7397	When idling: The stepper 2 speed sensor (S6) turns ON while in idling.		Open the GP front door, the exit aligner panel, and remove the jammed paper, if any.
LS (1st tandem)	J-7401	During operation: The entrance sensor (PS4) does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.	The LS and the main body stop immediately.	Remove jammed paper if any from the LS/main body.
	J-7402	During operation: The entrance sensor (PS4) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7403	During operation: The sub tray exit sensor (PS10) does not turn ON within a specified period of time after the entrance sensor (PS4) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7404	During operation: The sub tray paper exit sensor (PS10) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7405	During operation: The conveyance sensor /1 (PS7) does not turn ON within a specified period of time after the entrance sensor (PS4) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7406	During operation: The conveyance sensor /1 (PS7) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7407	During operation: The conveyance sensor /2 (PS16) does not turn ON within a specified period of time after the conveyance sensor /1 (PS7) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7408	During operation: The conveyance sensor /2 (PS16) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7409	During operation: The conveyance sensor /3 (PS17) does not turn ON within a specified period of time after the conveyance sensor /2 (PS16) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7410	During operation: The conveyance sensor /3 (PS17) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7411	During operation: The coupling exit sensor (PS18) does not turn ON within a specified period of time after the conveyance sensor /3 (PS17) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7412	During operation: The coupling exit sensor (PS18) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
LS (2nd tandem)	J-7431	During operation: The entrance sensor (PS4) does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7432	During operation: The entrance sensor (PS4) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7433	During operation: The sub tray exit sensor (PS10) does not turn ON within a specified period of time after the entrance sensor (PS4) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7434	During operation: The sub tray paper exit sensor (PS10) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7435	During operation: The conveyance sensor /1 (PS7) does not turn ON within a specified period of time after the entrance sensor (PS4) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7436	During operation: The conveyance sensor /1 (PS7) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7437	During operation: The conveyance sensor /2 (PS16) does not turn ON within a specified period of time after the conveyance sensor /1 (PS7) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7438	During operation: The conveyance sensor /2 (PS16) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7439	During operation: The conveyance sensor /3 (PS17) does not turn ON within a specified period of time after the conveyance sensor /2 (PS16) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7440	During operation: The conveyance sensor /3 (PS17) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7441	During operation: The coupling exit sensor (PS18) does not turn ON within a specified period of time after the conveyance sensor /3 (PS17) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7442	During operation: The coupling exit sensor (PS18) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
LS (3rd tandem)	J-7461	During operation: The entrance sensor (PS4) does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7462	During operation: The entrance sensor (PS4) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7463	During operation: The sub tray exit sensor (PS10) does not turn ON within a specified period of time after the entrance sensor (PS4) turns ON.		Remove jammed paper if any from the LS/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7464	During operation: The sub tray paper exit sensor (PS10) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7465	During operation: The conveyance sensor /1 (PS7) does not turn ON within a specified period of time after the entrance sensor (PS4) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7466	During operation: The conveyance sensor /1 (PS7) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7467	During operation: The conveyance sensor /2 (PS16) does not turn ON within a specified period of time after the conveyance sensor /1 (PS7) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7468	During operation: The conveyance sensor /2 (PS16) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7469	During operation: The conveyance sensor /3 (PS17) does not turn ON within a specified period of time after the conveyance sensor /2 (PS16) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7470	During operation: The conveyance sensor /3 (PS17) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
	J-7471	During operation: The coupling exit sensor (PS18) does not turn ON within a specified period of time after the conveyance sensor /3 (PS17) turns ON.		Remove jammed paper if any from the LS/main body.
	J-7472	During operation: The coupling exit sensor (PS18) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the LS/main body.
FD	J-7501	During operation: The FD entrance sensor (PS1) does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.	The FD and the main body stop immediately.	Remove jammed paper if any from the FD/main body.
	J-7502	During operation: The intermediate conveyance sensor (PS13) does not turn ON within a specified period of time after the FD entrance sensor (PS1) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7503	During operation: The main tray exit sensor (PS18) does not turn ON within a specified period of time after the intermediate conveyance sensor (PS13) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7504	During operation: The main tray exit sensor (PS18) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the FD/main body.
	J-7505	During operation: The sub tray paper exit sensor (PS16) does not turn ON within a specified period of time after the intermediate conveyance sensor (PS13) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7506	During operation: The sub tray paper exit sensor (PS16) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the FD/main body.
	J-7507	During operation: The punch conveyance sensor (PS5) does not turn ON within a specified period of time after the FD entrance sensor (PS1) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7508	During operation: The 3rd folding conveyance sensor (PS54) does not turn ON within a specified period of time after the punch conveyance sensor (PS5) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7509	During operation: The punch registration sensor (PS6) does not turn ON within a specified period of time after the punch conveyance sensor (PS5) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7510	During operation: The 1st folding conveyance sensor (PS51) does not turn ON within a specified period of time after the punch registration sensor (PS6) turns ON.		Remove jammed paper if any from the FD/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7511	During operation: The 3rd folding conveyance sensor (PS54) does not turn ON within a specified period of time after the 1st folding conveyance sensor (PS51) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7512	During operation: The intermediate conveyance sensor (PS13) does not turn ON within a specified period of time after the 3rd folding conveyance sensor (PS54) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7513	During operation: While in the folding operation, the 2nd folding conveyance sensor (PS53) does not turn ON within a specified period of time after the 1st folding motor (M4) starts to accelerate.		Remove jammed paper if any from the FD/main body.
	J-7514	During operation: While in the folding operation, the 3rd folding conveyance sensor (PS54) does not turn ON within a specified period of time after the 1st folding motor (M4) starts to accelerate.		Remove jammed paper if any from the FD/main body.
	J-7515	During operation: While in the folding operation, the 3rd folding conveyance sensor (PS54) does not turn ON within a specified period of time after the 2nd folding motor (M5) starts to accelerate.		Remove jammed paper if any from the FD/main body.
	J-7516	During operation: While in the folding operation, the intermediate conveyance sensor (PS13) does not turn ON within a specified period of time after the 3rd folding motor (M6) starts to accelerate.		Remove jammed paper if any from the FD/main body.
	J-7517	During operation: While in the folding operation, the 3rd folding conveyance sensor (PS54) does not turn ON within a specified period of time after the 2nd folding conveyance sensor (PS53) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7518	During operation: While in the folding operation, the intermediate conveyance sensor (PS13) does not turn ON within a specified period of time after the 3rd folding conveyance sensor (PS54) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7519	During operation: The PI conveyance sensor / Up (PS31) does not turn ON within a specified period of time after the PI pick-up solenoid /Up (SD13) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7520	During operation: The PI exit sensor (PS4) does not turn ON within a specified period of time after the PI conveyance sensor /Up (PS31) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7521	During operation: The PI conveyance sensor / Lw (PS37) does not turn ON within a specified period of time after the PI pick-up solenoid /Lw (SD14) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7522	During operation: The PI exit sensor (PS4) does not turn ON within a specified period of time after the PI conveyance sensor /Lw (PS37) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7523	During operation: The FD entrance sensor (PS1) does not turn ON within a specified period of time after the PI exit sensor (PS4) turns ON.		Remove jammed paper if any from the FD/main body.
	J-7524	During operation: The PI multi feed is detected.		Remove jammed paper if any from the FD/main body.
RU	J-7530	During operation: (RU-510) The entrance sensor (PS1) does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.	The RU and the main body stop immediately.	Remove jammed paper if any from the RU/main body.
	J-7531	During operation: (RU-510) While in the straight pass, the paper exit sensor (PS2) does not turn ON within a specified period of time after the entrance sensor (PS1) turns ON.		Remove jammed paper if any from the RU/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7532	During operation: (RU-510) The entrance sensor (PS1) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the RU/main body.
	J-7533	During operation: (RU-510) While in the reverse pass, the paper exit sensor (PS2) does not turn ON within a specified period of time after the entrance sensor (PS1) turns ON.		Remove jammed paper if any from the RU/main body.
	J-7535	During operation: (RU-510) The paper exit sensor (PS2) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the RU/main body.
	J-7550	During operation: (RU-509) The entrance sensor (PS1) does not turn ON within a specified period of time.		Remove jammed paper if any from the RU/main body.
	J-7551	During operation: (RU-509) The de-curler entrance sensor (PS7) does not turn ON within a specified period of time.		Remove jammed paper if any from the RU/main body.
	J-7552	During operation: (RU-509) The de-curler entrance sensor (PS2) does not turn ON within a specified period of time in the bypass path conveyance.		Remove jammed paper if any from the RU/main body.
	J-7553	During operation: (RU-509) The de-curler entrance sensor (PS2) does not turn ON within a specified period of time in the lower path conveyance.		Remove jammed paper if any from the RU/main body.
	J-7554	During operation: (RU-509) The color density detection timing sensor (PS3) does not turn ON within a specified period of time.		Remove jammed paper if any from the RU/main body.
	J-7555	During operation: (RU-509) The paper exit sensor (PS12) does not turn ON within a specified period of time.		Remove jammed paper if any from the RU/main body.
	J-7556	During operation: (RU-509) The paper exit sensor (PS12) does not turn OFF within a specified period of time.		Remove jammed paper if any from the RU/main body.
SD-506	J-7561	During operation: The entrance sensor (PS1) does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.	The SD and the main body stop immediately.	Remove jammed paper if any from the SD/main body.
	J-7562	During operation: The horizontal conveyance sensor /1 (PS2) does not turn ON within a specified period of time after the entrance sensor (PS1) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7563	During operation: The horizontal conveyance sensor /2 (PS3) does not turn ON within a specified period of time after the horizontal conveyance sensor /1 (PS2) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7564	During operation: The horizontal conveyance exit sensor (PS4) does not turn ON within a specified period of time after the horizontal conveyance sensor /2 (PS3) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7565	During operation: The horizontal conveyance exit sensor (PS4) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7566	During operation: The sub tray paper exit sensor (PS11) does not turn ON within a specified period of time after the horizontal conveyance sensor /1 (PS2) turns ON.		Remove jammed paper if any from the SD/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7567	During operation: The sub tray paper exit sensor (PS11) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7568	During operation: The right angle conveyance sensor /2 (PS6) does not turn ON within a specified period of time after the right angle conveyance motor (M6) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7569	During operation: The folding sensor /1 (PS7) does not turn ON within a specified period of time after the folding entrance motor (M3) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7570	During operation: The saddle stitching paper sensor (PS13) does not turn ON within a specified period of time after the folding sub scan alignment exit motor (M8) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7571	During operation: The bundle sensor /1 (PS14) does not turn ON within a specified period of time after the bundle arm rotation motor (M22) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7572	During operation: The bundle sensor /2 (PS15) does not turn ON within a specified period of time after the bundle clip motor (M11) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7573	During operation: The bundle sensor /4 (PS54) does not turn ON within a specified period of time after the bundle sensor /2 (PS15) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7574	During operation: The entrance sensor (PS1) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7575	During operation: The right angle conveyance sensor /2 (PS6) does not turn OFF within a specified period of time after it turns ON. Or the folding entrance sensor (PS60) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7576	During operation: The folding sensor /2 (PS44) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7577	During operation: The bundle sensor /1 (PS14) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7578	During operation: The bundle sensor /2 (PS15) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7579	During operation: The folding passage sensor (PS8) does not turn ON within a specified period of time after the folding transfer motor (M4) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7580	During operation: The tri-folding exit sensor (PS9) does not turn ON within a specified period of time after the folding transfer motor (M4) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7581	During operation: The folding sub scan alignment exit motor (M8) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7582	During operation: The folding passage sensor (PS8) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7583	During operation: The tri-folding paper exit sensor (PS9) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the SD/main body.
	J-7584	During operation: The trimming registration sensor (PS55) does not turn ON within a specified period of time after the bundle press movement motor (M17) turns ON.		Remove jammed paper if any from the SD/main body.
	J-7585	During operation: The trimming registration sensor (PS55) does not turn OFF within a specified period of time after the bundle registration motor (M12) turns ON.		Remove jammed paper if any from the SD/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
GP-501	J-7590	During operation: The enter sensor (S1) does not turn OFF within a specified period of time after it turns ON.	The GP/main body stop immediately.	Remove jammed paper if any from the GP/main body.
	J-7591	During operation: The stepper 1 speed sensor (S2) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7592	During operation: The bypass sensor (S8) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7593	During operation: The exit sensor (S7) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7594	During operation: The punch flag sensor (S9) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7595	During operation: The u-channel sensor (S4) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7596	During operation: The backstop sensor (S5) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7597	During operation: The stepper 2 speed sensor (S6) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
GP-502	J-7601	During operation: The bypass direct entry sensor does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.	The GP/main body stop immediately.	Remove jammed paper if any from the GP/main body.
	J-7602	During operation: The bypass direct entry sensor does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7603	During operation: The bypass direct exit sensor does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7604	During operation: The tall vertical entry sensor does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7605	During operation: The punch sensor does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7606	During operation: The pullback sensor does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7607	During operation: The jam sensor at the document drawer does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.		Remove jammed paper if any from the GP/main body.
	J-7608	During operation: The jam sensor at the document drawer does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the GP/main body.
	J-7611	During operation: The system trouble is detected in the bind mode.		Remove jammed paper if any from the GP/main body.
	J-7612	During operation: The system trouble is detected in the bypass mode.		Remove jammed paper if any from the GP/main body.
PB	J-7660	During operation: The entrance sensor (PS1) does not turn ON within a specified period of time after the main body paper exit sensor turns ON.	The PB and the main body stop immediately.	Remove jammed paper if any from the PB/main body.
	J-7661	During operation: The SC entrance sensor (PS2) does not turn ON within a specified period of time after the entrance sensor (PS1) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7662	During operation: The SC entrance sensor (PS2) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the PB/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7663	During operation: The cover paper entrance sensor (PS3) does not turn ON within a specified period of time after the main body paper exit sensor turns ON.		Remove jammed paper if any from the PB/main body.
	J-7664	During operation: The sub tray paper exit sensor (PS4) does not turn ON within a specified period of time after the entrance sensor (PS1) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7665	During operation: The sub tray paper exit sensor (PS4) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the PB/main body.
	J-7666	During operation: The SC paper detection sensor (PS16) does not turn ON within a specified period of time after the SC entrance sensor (PS2) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7667	During operation: The SC paper detection sensor (PS16) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the PB/main body.
	J-7668	During operation: When conveying 2 sheets at a time, the SC paper detection sensor (PS16) does not turn ON within a specified period of time after the operation starts.		Remove jammed paper if any from the PB/main body.
	J-7669	During operation: When conveying 2 sheets at a time, the SC paper detection sensor (PS16) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the PB/main body.
	J-7670	During operation: The SC paper detection sensor (PS16) does not turn OFF within a specified period of time after the SC bundle conveyance motor (M17) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7671	During operation: The clamp paper sensor (PS28) does not turn OFF within a specified period of time after the clamp motor (M22) turns OFF.		Remove jammed paper if any from the PB/main body.
	J-7674	During operation: The cover paper sensor /Rt (PS45) does not turn ON within a specified period of time after the cover paper feed clutch (CL71) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7675	During operation: The relay conveyance entrance sensor (PS93) does not turn ON within a specified period of time after the SC entrance sensor (PS2) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7676	During operation: When starting trimming of the cover paper fed from the PB, the cover paper switchback sensor (PS44) does not turn ON within a specified time period after the cover paper conveyance motor (M45) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7677	During operation: When finishing trimming of the cover paper fed from the PB, the cover paper switchback sensor (PS44) does not turn OFF within a specified time period after the cover paper conveyance motor (M45) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7678	During operation: When positioning the leading edge of the cover paper fed from the PB, the cover paper sensor/Lt (PS46) does not turn OFF within a specified time period after the cover paper conveyance motor (M45) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7679	During operation: When positioning the leading edge of the cover paper fed from the PB, the cover paper sensor/Lt (PS46) does not turn ON within a specified time period after the cover paper conveyance motor (M45) turns forward rotation ON.		Remove jammed paper if any from the PB/main body.
	J-7680	During operation: When cover paper is fed from the main body, the cover paper sensor/Rt (PS45) does not turn ON within a specified time period after the cover paper entrance sensor (PS3) turns ON.		Remove jammed paper if any from the PB/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7681	During operation: The relay conveyance intermediate sensor (PS91) does not turn ON within a specified period of time after the relay conveyance entrance sensor (PS93) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7682	During operation: When starting trimming of the cover paper fed from the main body, the cover paper switchback sensor (PS44) does not turn ON within a specified time period after the cover paper conveyance motor (M45) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7683	During operation: When finishing trimming of the cover paper fed from the main body, the cover paper switchback sensor (PS44) does not turn OFF within a specified time period after the cover paper conveyance motor (M45) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7684	During operation: When positioning the leading edge of the cover paper fed from the main body, the cover paper sensor/Lt (PS46) does not turn OFF within a specified time period after the cover paper conveyance motor (M45) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7685	During operation: When positioning the leading edge of the cover paper fed from the main body, the cover paper sensor/Lt (PS46) does not turn ON within a specified time period after the cover paper conveyance motor (M45) turns forward rotation ON.		Remove jammed paper if any from the PB/main body.
	J-7686	During operation: The booklet end sensor (PS61) does not turn ON within a specified period of time after the booklet conveyance belt motor (M61) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7687	During operation: When loading first book, the booklet sensor /1 (PS66) does not turn ON within a specified period of time after the booklet conveyance belt up down motor (M63) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7688	During operation: When first row of book moves, the booklet sensor /2 (PS67) does not turn ON within a specified period of time after the booklet movement motor (M64) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7689	During operation: When feeding paper, the cover paper conveyance sensor /1 (PS75) does not turn ON within a specified period of time after the cover paper feed clutch (CL71) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7690	During operation: The cover paper conveyance sensor /2 (PS76) does not turn ON within a specified period of time after the cover paper conveyance sensor /1 (PS75) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7691	During operation: When refeeding paper, the cover paper conveyance sensor /3 (PS77) does not turn ON within a specified period of time after the cover paper feed clutch (CL71) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7692	During operation: The cover paper conveyance sensor /4 (PS78) does not turn ON within a specified period of time after the cover paper conveyance sensor /3 (PS77) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7693	During operation: The multi feed detection board /2 (MFDBR) turns OFF.		Remove jammed paper if any from the PB/main body.
	J-7694	During operation: The relay conveyance exit sensor (PS94) does not turn ON within a specified period of time after the relay conveyance intermediate sensor (PS91) turns ON.		Remove jammed paper if any from the PB/main body.
	J-7695	During operation: The relay conveyance exit sensor (PS94) does not turn OFF within a specified period of time after it turns ON.		Remove jammed paper if any from the PB/main body.
	J-7696	During operation: The cover paper switchback sensor (PS44) does not turn ON within a specified period of time after the cover paper feed motor (M74) turns ON.		Remove jammed paper if any from the PB/main body.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-7697	During operation: No paper is detected (paper has been removed) when restarting the job after recovery.		Remove jammed paper if any from the PB/main body.
	J-7698	During operation: A cover paper has not been conveyed to the cover paper table section when clamping of inside pages is finished.		Remove jammed paper if any from the PB/main body.
Horizontal conveyance (PI-PFU)	J-8101	During operation: (PF-703) The horizontal conveyance sensor /1 (PS31) does not turn ON within a specified period of time after the main body paper exit sensor (PS3) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open tray /1, the PI-PFU front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-8102	During operation: (PF-703) The horizontal conveyance sensor /2 (PS32) does not turn ON within a specified period of time after the horizontal conveyance sensor /1 (PS31) turns ON.		Open tray /1, the PI-PFU front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-8103	During operation: (PF-703) The horizontal conveyance sensor /3 (PS33) does not turn ON within a specified period of time after the horizontal conveyance sensor /2 (PS32) turns ON.		Open tray /1, the PI-PFU front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-8104	During operation: (PF-703) The horizontal conveyance sensor /4 (PS34) does not turn ON within a specified period of time after the horizontal conveyance sensor /3 (PS33) turns ON.		Open tray /1, the PI-PFU front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-8105	During operation: (PF-703) The horizontal conveyance sensor /5 (PS35) does not turn ON within a specified period of time after the horizontal conveyance sensor /4 (PS34) turns ON.		Open tray /1, the PI-PFU front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-8106	During operation: (PF-703) The horizontal conveyance sensor /1 (PS17) does not turn ON within a specified period of time after the horizontal conveyance sensor /5 (PS35) turns ON.		Open tray /1, the PI-PFU front door and the horizontal conveyance jam release lever and remove jammed paper if any.
Paper feed conveyance (PI-PFU)	J-8107	During operation: PF-703 The multi feed detection boards and (MFDB and) detect a double feed.		Open tray /1, the PI-PFU front door and the horizontal conveyance jam release lever and remove jammed paper if any.
Horizontal conveyance (PI-PFU)	J-8109	During operation: PF-703 The PF exit conveyance sensor /2 (PS36) does not turn OFF within a specified period of time after it turns ON.	-	Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
Tray1 (PI-PFU)	J-8111	During operation: PF-703 The paper feed sensor /1 (PS2) does not turn ON within a specified period of time after the paper feed clutch /1 (CL7) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /1 and remove jammed paper if any.
	J-8112	During operation: PF-703 The pre-registration sensor /1 (PS14) does not turn ON within a specified period of time after the paper feed clutch /1 (CL7) turns ON.		Open tray1, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.
	J-8113	During operation: PF-703 The vertical conveyance sensor /1 (PS15) does not turn ON within a specified period of time after the pre-registration sensor /1 (PS14) turns ON.		Open tray1, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-8114	During operation: PF-703 When the trailing edge of paper is passing through the vertical conveyance sensor /1 (PS15), the pre-registration sensor /1 (PS14) is turned ON by the succeeding paper.	After completion of the exit of the preceding paper, the main body stops operations.	Open tray1, the PF front door and the vertical conveyance door /Up, and remove jammed paper if any.
	J-8115	During operation: PF-703 The paper suction sensor Fr/1 (PS25) and the paper suction sensor /Rr1(PS26) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /1 (FM13) and the paper suction fan /2 (FM14) turn ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /1 and remove jammed paper if any.
Tray2 (PI-PFU)	J-8121	During operation: PF-703 The paper feed sensor /2 (PS6) does not turn ON within a specified period of time after the paper feed clutch /2 (CL8) turns ON.		Pull out tray /2 and remove jammed paper if any.
	J-8122	During operation: PF-703 The pre-registration sensor /2 (PS18) does not turn ON within a specified period of time after the paper feed clutch /2 (CL8) turns ON.		Open tray2, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-8123	During operation: PF-703 When the trailing edge of paper is passing through the loop sensor /2 (PS19), the pre-registration sensor /2 (PS18) is turned ON by the succeeding paper.		Open tray2, the PF front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-8125	During operation: PF-703 The paper suction sensor Fr/3 (PS27) and the paper suction sensor /Rr2(PS28) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /3 (FM15) and the paper suction fan /4 (FM16) turn ON.		Pull out tray /2 and remove jammed paper if any.
Tray3 (PI-PFU)	J-8131	During operation: PF-703 The paper feed sensor /3 (PS10) does not turn ON within a specified period of time after the paper feed clutch /3 (CL9) turns ON.		Pull out tray /3 and remove jammed paper if any.
	J-8132	During operation: PF-703 The pre-registration sensor /3 (PS20) does not turn ON within a specified period of time after the paper feed clutch /3 (CL9) turns ON.		Open tray3, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-8133	During operation: PF-703 The vertical conveyance sensor /3 (PS21) does not turn ON within a specified period of time after the pre-registration sensor /3 (PS20) turns ON.		Open tray3, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-8134	During operation: PF-703 When the trailing edge of paper is passing through the vertical conveyance sensor /3 (PS21), the pre-registration sensor /3 (PS20) is turned ON by the succeeding paper.	After completion of the exit of the preceding paper, the main body stops operations.	Open tray3, the PF front door and the vertical conveyance door /Lw, and remove jammed paper if any.
	J-8135	During operation: PF-703 The paper suction sensor Fr/3 (PS29) and the paper suction sensor Rr3(PS30) do not turn ON within a specified period of time from the rotation stabilization standby (3sec) after the paper suction fan /5 (FM17) and the paper suction fan /6 (FM18) turn ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Pull out tray /3 and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
Paper feed conveyance (PI-PFU)	J-8141	During operation: PF-703 The intermediate sensor /Up (PS16) does not turn ON within a specified period of time after the vertical conveyance sensor /1 (PS15) turns ON.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-8142	During operation: PF-703 The loop sensor /1 (PS17) does not turn ON within a specified period of time after the intermediate sensor /Up (PS16) turns ON.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-8143	During operation: PF-703 The loop sensor /2 (PS19) does not turn ON within a specified period of time after the pre-registration sensor /2 (PS18) turns ON.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
	J-8144	During operation: PF-703 The intermediate sensor /Lw (PS22) does not turn ON within a specified period of time after the vertical conveyance sensor /3 (PS21) turns ON.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-8145	During operation: PF-703 The loop sensor /3 (PS23) does not turn ON within a specified period of time after the intermediate sensor /Lw (PS22) turns ON.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-8146	During operation: PF-703 The PF exit sensor /1 (PS24) does not turn ON within a specified period of time after the loop sensor /1 (PS17) turns ON.		Open the PF front door, the PF vertical conveyance door /Up and the horizontal conveyance jam release lever, and remove jammed paper if any.
	J-8147	During operation: PF-703 The PF exit sensor /1 (PS24) does not turn ON within a specified period of time after the loop sensor /2 (PS19) turns ON.		Open the PF front door and the PF horizontal conveyance jam release lever, and remove jammed paper if any.
	J-8148	During operation: PF-703 The PF exit sensor /1 (PS24) does not turn ON within a specified period of time after the loop sensor /3 (PS23) turns ON.		Open the PF front door and the PF horizontal conveyance jam release lever, and remove jammed paper if any.
	J-8149	During operation: PF-703 The PF exit conveyance sensor /2 (PS36) does not turn ON within a specified period of time after the PF exit conveyance sensor /1 (PS24) turns ON.		Open the PF front door, the PF vertical conveyance door /Lw and the horizontal conveyance jam release lever, and remove jammed paper if any.
Tray1 (PI-PFU)	J-8151	When idling: PF-703 The pre-registration sensor /1 (PS14) turns ON while in idling.	-	Pull out tray /1 and remove jammed paper if any.
	J-8152	When idling: PF-703 The vertical conveyance sensor /1 (PS15) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Up and remove jammed paper if any.
Tray2 (PI-PFU)	J-8161	When idling: PF-703 The pre-registration sensor /2 (PS18) turns ON while in idling.		Pull out tray /2 and remove jammed paper if any.
Tray3 (PI-PFU)	J-8171	When idling: PF-703 The pre-registration sensor /3 (PS20) turns ON while in idling.		Pull out tray /3 and remove jammed paper if any.
	J-8172	When idling: PF-703 The vertical conveyance sensor /3 (PS21) turns ON while in idling.		Open the PF front door and the vertical conveyance door /Lw and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
Paper feed conveyance (PI-PFU)	J-8181	When idling: PF-703 The intermediate sensor /Up (PS16) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-8182	When idling: PF-703 The loop sensor /1 (PS17) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-8183	When idling: PF-703 The loop sensor /2 (PS19) turns ON while in idling.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
	J-8184	When idling: PF-703 The intermediate sensor /Lw (PS22) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-8185	When idling: PF-703 The loop sensor /3 (PS23) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-8186	When idling: PF-703 The PF exit conveyance sensor /1 (PS24) turns ON while in idling.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
	J-8187	When idling: PF-703 The PF exit conveyance sensor /2 (PS36) turns ON while in idling.		Open the PF front door and the horizontal conveyance jam release lever, and remove jammed paper if any.
Horizontal conveyance (PI-PFU)	J-8191	When idling: (PF-703) The horizontal conveyance sensor /1 (PS31) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-8192	When idling: (PF-703) The horizontal conveyance sensor /2 (PS32) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Up, and remove jammed paper if any.
	J-8193	When idling: (PF-703) The horizontal conveyance sensor /3 (PS33) turns ON while in idling.		Open tray /1, the PI-PFU front door and the horizontal conveyance jam release lever and remove jammed paper if any.
	J-8194	When idling: (PF-703) The horizontal conveyance sensor /4 (PS34) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
	J-8195	When idling: (PF-703) The horizontal conveyance sensor /5 (PS35) turns ON while in idling.		Open the PF front door and the PF vertical conveyance door /Lw, and remove jammed paper if any.
ADU	J-9201	During operation: The ADU reverse sensor /2 (PS45) does not turn ON within a specified period of time after the reverse sensor /1 (PS48) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9202	During operation: While in drawing, the reverse sensor /2 (PS47) does not turn OFF within a specified period of time after the ADU reverse sensor /2 (PS45) turns ON.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9203	During operation: The ADU conveyance sensor /1 (PS35) does not turn ON within a specified period of time after the start from the 1st stop position.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9252	When idling: The ADU reverse sensor /2 (PS45) turns ON while in idling.	-	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9253	When idling: The paper stay sensor /1 (PS64) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.

Classification	JAM Code	Cause	Resulting operation	Correction
	J-9254	When idling: The paper stay sensor /2 (PS63) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9301	During operation: The ADU exit sensor (PS43) does not turn ON within a specified period of time after the ADU conveyance sensor /1 (PS35) turns ON.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9351	When idling: The ADU reverse sensor /1 (PS35) turns ON while in idling.	-	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9352	When idling: The ADU reverse sensor /2 (PS36) turns ON while in idling.		Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9401	During operation: After the start from the 2nd stopping position, the ADU deceleration sensor (PS42) does not turn ON within a specified period of time.	If there is a sheet of paper being printed when a jam occurs, the main body completes the paper exit before stopping operations.	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.
	J-9451	When idling: ADU exit sensor (PS43) turns ON while in idling.	-	Open the main body front doors / R and /L, pull out the duplex section and remove jammed paper if any.

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2. MALFUNCTION CODE

2.1 Trouble reset method

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

2.2 Function to detach defective sections

When the abnormality occurs on the part for which the faulty part isolation function is available, the defective units can be detached temporarily to use other control unit manually.

While detached, an error detection is not carried out on these detached units.

There are 2 methods of setting for limited use.

(1) User operation

When a malfunction code occurs, press the HELP key following the message on the operation panel and then turn the sub power switch (SW2) OFF and ON. This operation allows you to use it temporarily until the SW2 is OFF and ON (including an OFF/ON operation by the weekly timer) next time.

(2) DIPSW setting

Turning the sub power switch (SW2) OFF and ON after setting the specified software DIPSW bit allows you to make a limited use of it until the bit setting is released next time (it requires the OFF/ON operation of the SW2).

2.3 Malfunction code list

⚠ WARNING

- When any malfunction of C1540 to 1562; PB glue tank temperature abnormality or C-2214 to 2217, 3501, 3906; fusing temperature abnormality occurs, be sure to repair defective parts then set the software DIPSW3-1 of service mode to 0. If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body: Drive abnormality	C-0001	Main body drive serial input abnormality 1. Within a specified period of time after the power ON, a serial data is not received between the printer control board (PRCB) and the main body drive board.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	Printer control board (PRCB)		
	C-0002	Main body drive serial input abnormality 2. Within a specified period of time after the power ON, a serial data is not received between the printer control board (PRCB) and the main body drive board.		Printer control board (PRCB)		
	C-0003	Main body drive serial input abnormality 3. Within a specified period of time after the power ON, a serial data is not received between the printer control board (PRCB) and the main body drive board.		Printer control board (PRCB)		
	C-0004	Main body drive serial input abnormality 4. Within a specified period of time after the power ON, a serial data is not received between the printer control board (PRCB) and the main body drive board.		Printer control board (PRCB)		
Main body: Communication error	C-0005	Drive communication reception error detection abnormality 3.		<ul style="list-style-type: none"> • Printer control board (PRCB) • ADU drive board (ADUDB) 		
	C-0006	Drive communication reception error detection abnormality 4.		Printer control board (PRCB)		
	C-0007	Drive communication reception error detection abnormality 5.		Printer control board (PRCB)		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0008	Drive communication reception error detection abnormality 6.		Printer control board (PRCB)		
	C-0010	Drive communication reception error detection abnormality 2.		<ul style="list-style-type: none"> Printer control board (PRCB: main body) PF drive board (PFUDB: PF-703/706) 		
	C-0011	Drive communication reception error detection abnormality 8.		<ul style="list-style-type: none"> Printer control board (PRCB: main body) PF drive board (PFUDB: PF-703/706) 		
	C-0012	Drive communication reception error detection abnormality 9.		<ul style="list-style-type: none"> Printer control board (PRCB: main body) PF drive board (PFUDB: PF-703/706) 		
	C-0020	ADU drive serial input abnormality 1. In the initial communication check between the printer control board (PRCB) and the ADU drive board (ADUDB) after the power ON, a serial data is not received.		<ul style="list-style-type: none"> Printer control board (PRCB) ADU drive board (ADUDB) 		
	C-0021	ADU drive serial input abnormality 2. In the initial communication check between the printer control board (PRCB) and the ADU drive board (ADUDB) after the power ON, a serial data is not received.		<ul style="list-style-type: none"> Printer control board (PRCB) ADU drive board (ADUDB) 		
	C-0022	ADU drive serial input abnormality 3. In the initial communication check between the printer control board (PRCB) and the ADU drive board (ADUDB) after the power ON, a serial data is not received.		<ul style="list-style-type: none"> Printer control board (PRCB) ADU drive board (ADUDB) 		
	C-0023	Drive communication reception error detection abnormality 0.		<ul style="list-style-type: none"> Printer control board (PRCB) ADU drive board (ADUDB) 		
	C-0024	Drive communication reception error detection abnormality 7.		<ul style="list-style-type: none"> Printer control board (PRCB) ADU drive board (ADUDB) 		
	C-0025	Drive communication reception error detection abnormality 11.		<ul style="list-style-type: none"> Printer control board (PRCB) ADU drive board (ADUDB) 		
Main body: Drive abnormality	C-0101	Paper feed motor (M4) speed abnormality. An error detection signal is detected twice in succession within a specified period of time after M4 was turned ON.		<ul style="list-style-type: none"> Paper feed motor (M4) Printer control board (PRCB) 		
PF: Drive	C-0103	1st tandem PF-703/706 paper feed motor (M1) speed abnormality. An error detection signal is detected twice in succession within a specified period of time after M1 was turned ON.		<ul style="list-style-type: none"> Paper feed motor (M1: PF-703/706) PF drive board (PFUDB: PF-703/706) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body: Power abnormality	C-0104	Abnormality of the vertical conveyance motor (M8) power in the printer control board (PRCB). An error detection signal (blowout of ICP) of M8 is detected when M8 is turned ON.		<ul style="list-style-type: none"> Vertical conveyance motor (M8) Printer control board (PRCB) 		
PF: Power abnormality	C-0105	Abnormality of the PF exit conveyance motor (M2) power in the PF drive board (PFUDB) of the 1st tandem PF-706. An error detection signal (blowout of ICP) of M2 is detected when M2 is turned ON.		<ul style="list-style-type: none"> PF exit conveyance motor (M2: PF-706) PF drive board (PFUDB: PF-706) 		
PF: Drive	C-0106	2nd tandem PF-703/706 paper feed motor speed abnormality. An error detection signal is detected twice in succession within a specified period of time after M1 was turned ON.		<ul style="list-style-type: none"> Paper feed motor (M1: PF-703/706) PF drive board (PFUDB: PF-703/706) 		
PF: Power abnormality	C-0107	Abnormality of the PF exit conveyance motor (M2) power in the PF drive board (PFUDB) of the 2nd tandem PF-706. An error detection signal (blowout of ICP) of M2 is detected when M2 is turned ON.		<ul style="list-style-type: none"> PF exit conveyance motor (M2: PF-706) PF drive board (PFUDB: PF-706) 		
	C-0108	Abnormality of the PF conveyance motor (M3) power in the PF drive board (PFUDB) of the 1st tandem PF-703. An error detection signal (blowout of ICP) of M3 is detected when M3 is turned ON.		<ul style="list-style-type: none"> PF exit conveyance motor (M3: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0109	Abnormality of the PF conveyance motor (M3) power in the PF drive board (PFUDB) of the 2nd tandem PF-703. An error detection signal (blowout of ICP) of M3 is detected when M3 is turned ON.		<ul style="list-style-type: none"> PF exit conveyance motor (M3: PF-703) PF drive board (PFUDB: PF-703) 		
Main body: Power abnormality	C-0110	Abnormality of the registration section motor IC in the ADU drive board (ADUDB). The error detection signals of the ADU conveyance motor /2 (M16), the registration motor (M17) and the loop motor (M18) are detected after the print is started.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> ADU conveyance motor /2 (M16) Registration motor (M17) Loop motor (M18) ADU drive board /2 (ADUDB2) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0111	Abnormality of the duplex section motor IC in the ADU drive board (ADUDB). The error detection signals of the ADU reverse motor (M12), the reverse/exit motor (M13), the ADU accelerate motor (M14) and the ADU conveyance motor /1 (M15) are detected after the print is started.		<ul style="list-style-type: none"> • ADU reverse motor (M12) • Reverse/exit motor (M13) • ADU acceleration motor (M14) • ADU conveyance motor /1 (M15) • ADU drive board /1 (ADUDB1) 		
	C-0112	Vertical conveyance motor IC abnormality in the printer control board (PRCB) An error detection signal of vertical conveyance motor (M8) is detected after the print starts.		<ul style="list-style-type: none"> • Vertical conveyance motor (M8) • Printer control board (PRCB) 		
	C-0113	Abnormality 1 of the SD/CL_24V power for the printer control board (PRCB) tray. At the start, the error detection signals of the PRCB tray solenoid/clutch ICP blowout and 24V cut off are detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • DC power supply /2 (DCPS/2) • Printer control board (PRCB) 		
	C-0114	Abnormality 2 of the SD/CL_24V power for the printer control board (PRCB) tray. When the error detection signal of the PRCB tray solenoid/clutch ICP blowout is detected but no 24V cut off is detected at the start.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Paper feed clutch /1 (CL4) • Separation clutch /1 (CL5) • Paper feed clutch /2 (CL6) • Separation clutch /2 (CL7) • Pick-up solenoid /1 (SD3) • Pick-up solenoid /2 (SD4) • Printer control board (PRCB) 		
	C-0115	Abnormality 1 of the SD/CL_24V power for the printer control board (PRCB) vertical conveyance. At the start, the error detection signals of the PRCB vertical conveyance solenoid/clutch ICP blowout and 24V cut off are detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • DC power supply /2 (DCPS/2) • Printer control board (PRCB) 		
	C-0116	Abnormality 2 of the SD/CL_24V power for the printer control board (PRCB) tray. When the error detection signal of the PRCB tray solenoid/clutch ICP blowout is detected but no 24V cut off is detected at the start.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Pre-registration clutch /1 (CL1) • Vertical conveyance clutch (CL2) • Pre-registration clutch /2 (CL3) • Erase lamp (EL) • Tray lock solenoid /1 (SD1) • Tray lock solenoid /2 (SD2) • Drum claw solenoid (SD10) • Printer control board (PRCB) 		
PF: Power abnormality	C-0118	Abnormality of the power for the PF drive board	The main body and option stop immediately to	PF drive board (PFUDB: PF-703/706)		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
		(PFUDB) SD/CL of the PF-703/706. At the start, the error detection signal of the PFUDB solenoid/clutch ICP blowout is detected.	turn OFF the RL1 (the main relay) .			
Main body: Drive	C-0119	The transfer belt cleaning motor (M5) speed abnormality. The M5EM error detection signal is detected twice in succession within a specified period of time after M5 was turned ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Transfer belt cleaning motor (M5) Printer control board (PRCB) 		
	C-0120	Paper exit conveyance motor (M31) speed abnormality. The M31EM error detection signal is detected twice in succession within a specified period of time after M31 was turned ON.		<ul style="list-style-type: none"> Paper exit conveyance motor (M31) Printer control board (PRCB) 		
	C-0121	Paper exit motor (M20) speed abnormality. The M20EM error detection signal is detected twice in succession within a specified period of time after M20 was turned ON.		<ul style="list-style-type: none"> Paper exit motor (M20) Printer control board (PRCB) 		
PF: Power abnormality	C-0130	PF-703 coupling conveyance motor /1 (M4) power abnormality. An error detection signal (blowout of ICP) of M4 is detected when M4 is turned ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Coupling conveyance motor /1 (M4: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0131	PF-703 coupling conveyance motor /2 and /3 (M5 and M6) power abnormality. An error detection signal (blowout of ICP) of M5 and M6 is detected when M5 and M6 are turned ON.		<ul style="list-style-type: none"> Coupling conveyance motor /2 (M5: PF-703) Coupling conveyance motor /3 (M6: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0132	Abnormality of the power for the PF drive board (PFUDB) SD/CL of the 2nd tandem PF-703/706. At the start, the error detection signal of the PFUDB solenoid/clutch ICP blowout is detected.		PF drive board (PFUDB: PF-703/706)		
PF: Drive	C-0133	1st tandem PF-703 paper feed belt motor (M2) speed abnormality. An error detection signal is detected twice in succession within a specified period of time after M2 was turned ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper feed belt motor (M2: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0134	2nd tandem PF-703 paper feed belt motor (M2) speed abnormality. An error detection signal is detected twice in succession within a specified period of time after M2 was turned ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Paper feed belt motor (M2: PF-703) PF drive board (PFUDB: PF-703) 		
PI-PFU: Drive	C-0140	Paper feed motor speed abnormality of PI-PFU (PF-703) tandem PF.	The main body and option stop immediately to	<ul style="list-style-type: none"> Paper feed motor (M1: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
		An error detection signal is detected twice in succession within a specified period of time after M1 was turned ON.	turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> PF drive board (PFUDB: PF-703) 		
PI-PFU: Power abnormality	C-0141	PI-PFU (PF-703) PF exit conveyance motor (M3) power abnormality. An error detection signal (blowout of ICP) of M3 is detected when M3 is turned ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> PF exit conveyance motor (M3: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0142	PI-PFU (PF-703) coupling conveyance motor /1 (M4) power abnormality. An error detection signal (blowout of ICP) of M4 is detected when M4 is turned ON.		<ul style="list-style-type: none"> Coupling conveyance motor /1 (M4: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0143	PI-PFU (PF-703) coupling conveyance motor /2 and /3 (M5 and M6) power abnormality. An error detection signal (blowout of ICP) of M5 and M6 is detected when M5 and M6 are turned ON.		<ul style="list-style-type: none"> Coupling conveyance motor /2 (M5: PF-703) Coupling conveyance motor /3 (M6: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0144	PI-PFU (PF-703) SD/CL power abnormality. At the start, the error detection signal of the PFUDB solenoid/clutch ICP blowout is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	PF drive board (PFUDB: PF-703)		
PI-PFU: Drive	C-0145	PI-PFU (PF-703) paper feed belt motor (M2) speed abnormality. An error detection signal is detected twice in succession within a specified period of time after M2 was turned ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Paper feed belt motor (M2: PF-703) PF drive board (PFUDB: PF-703) 		
LU	C-0150	An abnormal speed signal of the paper feed motor (M101) is checked. An error detection signal is detected twice in succession a specified period of time after M101 was turned ON (the first signal is ignored).	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper feed motor (M101) LU drive board (LUDB) 		
	C-0151	The locking of the paper lift motor (M100) is detected. When M100 is ON, an error detection signal of the M100 is detected in succession for 1 second.	The main body stops immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Paper lift motor (M100) Lower limit sensor (PS101) Upper limit sensor (PS109) LU drive board (LUDB) 	DIPSW47-0	Paper feed in LU is unavailable (Shaded on the control panel)
LU: Power source abnormality	C-0152	Abnormality of the paper lift motor (M100) power in the LU drive board (LUDB). An error detection signal (blowout of ICP) of M100 is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper lift motor (M100) LU drive board (LUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0153	Abnormality of the solenoid and clutch power in the LU drive board (LUDB). An error detection signals (blowout of ICP) of the pick up solenoid (SD100), the paper feed clutch (CL101), and the preregistration clutch (CL102) are detected after the print is started.		<ul style="list-style-type: none"> Pick-up solenoid (SD100) Paper feed clutch (CL101) Pre-registration clutch (CL102) LU drive board (LUDB) 		
Main body: Tray1	C-0201	Tray1: up abnormality When the upper limit sensor /1 (PS6) is OFF, PS6 does not turn ON within 20 seconds after the tray lift-up motor /1 (M25) turns ON for lifting operation. At this time, an error detection signal (24V cut off) is detected.	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.	<ul style="list-style-type: none"> Upper limit sensor /1 (PS6) Tray lift-up motor /1 (M25) Printer control board (PRCB) DC power supply /2 (DCPS/2) 	DIPSW18-0	Paper feed in tray1 is unavailable (The operation panel is displayed in hatching)
	C-0203	Tray1 up abnormality 2. When the upper limit sensor /1 (PS6) is OFF, PS6 does not turn ON within 20 seconds after the tray lift-up motor /1 (M25) turns ON for lifting operation. At this time, an error detection signal is not detected.		<ul style="list-style-type: none"> Upper limit sensor /1 (PS6) Tray lift-up motor /1 (M25) Printer control board (PRCB) DC power supply /2 (DCPS/2) 	DIPSW18-0	Paper feed in tray1 is unavailable (The operation panel is displayed in hatching)
	C-0204	The locking of the tray lift-up motor /1 (M25) is detected. An error detection signal of M25 is detected while M25 is ON.		<ul style="list-style-type: none"> Tray lift-up motor /1 (M25) Printer control board (PRCB) 	DIPSW18-0	Paper feed in tray1 is unavailable (The operation panel is displayed in hatching)
Main body: Tray2	C-0205	Tray2 up abnormality 1. When the upper limit sensor /2 (PS10) is OFF, PS10 does not turn ON within 20 seconds after the tray lift-up motor /2 (M34) turns ON for lifting operation. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> Upper limit sensor /2 (PS10) Tray lift-up motor /2 (M34) Printer control board (PRCB) DC power supply /2 (DCPS/2) 	DIPSW18-1	Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)
	C-0207	Tray /2 up abnormality 2. When the upper limit sensor /2 (PS10) is OFF, PS10 does not turn ON within 20 seconds after the tray lift-up motor /2 (M34) turns ON for lifting operation. At this time, an error detection signal is not detected.		<ul style="list-style-type: none"> Upper limit sensor /2 (PS10) Tray lift-up motor /2 (M34) Printer control board (PRCB) DC power supply /2 (DCPS/2) 	DIPSW18-1	Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)
	C-0208	The locking of the tray lift-up motor /2 (M34) is detected. When M34 is ON, an error detection signal of the M34 is detected.		<ul style="list-style-type: none"> Tray lift-up motor /2 (M34) Printer control board (PRCB) 	DIPSW18-1	Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
PF: Tray3	C-0222	1st tandem PF-703/706 upper tray up abnormality. PF-703: When the upper limit sensor /1 (PS5) is OFF, PS5 does not turn ON within 20 seconds after the paper lift motor /1 (M7) turns ON for lifting operation. Or, the paper suction sensor /Fr1 and /Rr1 (PS25 and PS26) turn ON before PS5 turns ON while in tray lifting. PF-706: When the upper limit sensor /1 (PS2) is OFF, PS2 does not turn ON within 20 seconds after the paper lift motor /1 (M42) turns ON for the lifting operation.		<ul style="list-style-type: none"> Upper limit sensor /1 (PS5: PF-703) Upper limit sensor /1 (PS2: PF-706) Paper lift motor /1 (M7: PF-703) Paper lift motor /1 (M42: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW18-2	Paper feed in tray /3, /6, /7 and /8 is unavailable (The operation panel is displayed in hatching)
	C-0223	The locking of the paper lift motor /1 of the 1st tandem PF-703/706 upper tray (M7: PF-703, M42: PF-706) is detected. When M7 and M42 are ON, error detection signals of the M7 and M42 are detected.		<ul style="list-style-type: none"> Paper lift motor /1 (M7: PF-703) Paper lift motor /1 (M42: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW18-2	Paper feed in tray /3, /6, /7 and /8 is unavailable (The operation panel is displayed in hatching)
PF: Tray4	C-0226	1st tandem PF-703/706 middle tray up abnormality. PF-703: When the upper limit sensor /2 (PS9) is OFF, PS9 does not turn ON within 20 seconds after the paper lift motor /2 (M8) turns ON for lifting operation. Or, the paper suction sensor /Fr2 and /Rr2 (PS27 and PS28) turn ON before PS9 turns ON while in tray lifting. PF-706: When the upper limit sensor /2 (PS6) is OFF, PS6 does not turn ON within 20 seconds after the paper lift motor /2 (M43) turns ON for the lifting operation.		<ul style="list-style-type: none"> Upper limit sensor /2 (PS9: PF-703) Upper limit sensor /2 (PS6: PF-706) Paper lift motor /2 (M8: PF-703) Paper lift motor /2 (M43: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW18-3	Paper feed in tray /4 is unavailable (The operation panel is displayed in hatching)
	C-0227	The locking of the paper lift motor /2 of the 1st tandem PF-703/706 middle tray (M8: PF-703, M43: PF-706) is detected. When M8 and M43 are ON, error detection signals of the M8 and M43 are detected.		<ul style="list-style-type: none"> Paper lift motor /2 (M8: PF-703) Paper lift motor /2 (M43: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW18-3	Paper feed in tray /4 is unavailable (The operation panel is displayed in hatching)

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
PF: Tray5	C-0230	1st tandem PF-703/706 lower tray up abnormality. PF-703: When the upper limit sensor /3 (PS13) is OFF, PS13 does not turn ON within 20 seconds after the paper lift motor /3 (M9) turns ON for lifting operation. Or, the paper suction sensor /Fr3 and /Rr3 (PS29 and PS30) turn ON before PS13 turns ON while in tray lifting. PF-706: When the upper limit sensor /3 (PS10) is OFF, PS10 does not turn ON within 20 seconds after the paper lift motor /3 (M44) turns ON for the lifting operation.		<ul style="list-style-type: none"> Upper limit sensor /3 (PS13: PF-703) Upper limit sensor /3 (PS10: PF-706) Paper lift motor /3 (M9: PF-703) Paper lift motor /3 (M44: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW20-4	Paper feed in tray /5 is unavailable (The operation panel is displayed in hatching)
	C-0231	The locking of the paper lift motor /3 of the 1st tandem PF-703/706 lower tray (M9: PF-703, M44: PF-706) is detected. When M9 and M44 are ON, error detection signals of the M9 and M44 are detected.		<ul style="list-style-type: none"> Paper lift motor /3 (M9: PF-703) Paper lift motor /3 (M44: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW20-4	Paper feed in tray /5 is unavailable (The operation panel is displayed in hatching)
PF: Tray6	C-0240	2nd tandem PF-703/706 upper tray up abnormality. PF-703: When the upper limit sensor /1 (PS5) is OFF, PS5 does not turn ON within 20 seconds after the paper lift motor /1 (M7) turns ON for lifting operation. Or, the paper suction sensor /Fr1 and /Rr1 (PS25 and PS26) turn ON before PS5 turns ON while in tray lifting. PF-706: When the upper limit sensor /1 (PS2) is OFF, PS2 does not turn ON within 20 seconds after the paper lift motor /1 (M42) turns ON for the lifting operation.		<ul style="list-style-type: none"> Upper limit sensor /1 (PS5: PF-703) Upper limit sensor /1 (PS2: PF-706) Paper lift motor /1 (M7: PF-703) Paper lift motor /1 (M42: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW20-5	Paper feed in tray /6 is unavailable (The operation panel is displayed in hatching)
	C-0241	The locking of the paper lift motor /1 of the 2nd tandem PF-703/706 upper tray (M7: PF-703, M42: PF-706) is detected. When M7 and M42 are ON, error detection signals of the M7 and M42 are detected.		<ul style="list-style-type: none"> Paper lift motor /1 (M7: PF-703) Paper lift motor /1 (M42: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW20-5	Paper feed in tray /6 is unavailable (The operation panel is displayed in hatching)

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
PF: Tray7	C-0242	2nd tandem PF-703/706 middle tray up abnormality. PF-703: When the upper limit sensor /2 (PS9) is OFF, PS9 does not turn ON within 20 seconds after the paper lift motor /2 (M8) turns ON for lifting operation. Or, the paper suction sensor /Fr2 and /Rr2 (PS27 and PS28) turn ON before PS9 turns ON while in tray lifting. PF-706: When the upper limit sensor /2 (PS6) is OFF, PS6 does not turn ON within 20 seconds after the paper lift motor /2 (M43) turns ON for the lifting operation.		<ul style="list-style-type: none"> Upper limit sensor /2 (PS9: PF-703) Upper limit sensor /2 (PS6: PF-706) Paper lift motor /2 (M8: PF-703) Paper lift motor /2 (M43: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW18-5	Paper feed in tray /7 is unavailable (The operation panel is displayed in hatching)
	C-0243	The locking of the paper lift motor /2 of the 2nd tandem PF-703/706 middle tray (M8: PF-703, M43: PF-706) is detected. When M8 and M43 are ON, error detection signals of the M8 and M43 are detected.		<ul style="list-style-type: none"> Paper lift motor /2 (M8: PF-703) Paper lift motor /2 (M43: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW18-5	Paper feed in tray /7 is unavailable (The operation panel is displayed in hatching)
PF: Tray8	C-0244	2nd tandem PF-703/706 lower tray up abnormality. PF-703: When the upper limit sensor /3 (PS13) is OFF, PS13 does not turn ON within 20 seconds after the paper lift motor /3 (M9) turns ON for lifting operation. Or, the paper suction sensor /Fr3 and /Rr3 (PS29 and PS30) turn ON before PS13 turns ON while in tray lifting. PF-706: When the upper limit sensor /3 (PS10) is OFF, PS10 does not turn ON within 20 seconds after the paper lift motor /3 (M44) turns ON for the lifting operation.		<ul style="list-style-type: none"> Upper limit sensor /3 (PS13: PF-703) Upper limit sensor /3 (PS10: PF-706) Paper lift motor /3 (M9: PF-703) Paper lift motor /3 (M44: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW18-6	Paper feed in tray /8 is unavailable (The operation panel is displayed in hatching)
	C-0245	The locking of the paper lift motor /3 of the 2nd tandem PF-703/706 lower tray (M9: PF-703, M44: PF-706) is detected. When M9 and M44 are ON, error detection signals of the M9 and M44 are detected.		<ul style="list-style-type: none"> Paper lift motor /3 (M9: PF-703) Paper lift motor /3 (M44: PF-706) PF drive board (PFUDB: PF-703/706) 	DIPSW18-6	Paper feed in tray /8 is unavailable (The operation panel is displayed in hatching)
PI-PFU: PI Tray1	C-0250	PI-PFU (PF-703) upper tray up abnormality. When the upper limit sensor /1 (PS5) is OFF, PS5 does not turn ON within 20 seconds after the paper lift motor /1 (M7) turns ON for lifting operation. Or, the paper suction sensor /Fr1 and /Rr1 (PS25 and PS26) turn ON before PS5 turns ON while in tray lifting.		<ul style="list-style-type: none"> Upper limit sensor /1 (PS5: PF-703) Paper lift motor /1 (M7: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0251	The locking of the upper tray paper lift motor /1 (M7) is detected. When M7 is ON, an error detection signal of the M7 is detected.		<ul style="list-style-type: none"> Paper lift motor /1 (M7: PF-703) PF drive board (PFUDB: PF-703) 		
PI-PFU: PI Tray2	C-0252	PI-PFU (PF-703) middle tray up abnormality. When the upper limit sensor /2 (PS9) is OFF, PS9 does not turn ON within 20 seconds after the paper lift motor /2 (M8) turns ON for lifting operation. Or, the paper suction sensor /Fr2 and /Rr2 (PS27 and PS28) turn ON before PS9 turns ON while in tray lifting.		<ul style="list-style-type: none"> Upper limit sensor /2 (PS9: PF-703) Paper lift motor /2 (M8: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW37-0	Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)
	C-0253	The locking of the upper tray paper lift motor /2 (M8) is detected. When M8 is ON, an error detection signal of the M8 is detected.		<ul style="list-style-type: none"> Paper lift motor /2 (M8: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW37-0	Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)
PI-PFU: PI Tray3	C-0254	PI-PFU (PF-703) lower tray up abnormality. When the upper limit sensor /3 (PS13) is OFF, PS13 does not turn ON within 20 seconds after the paper lift motor /3 (M9) turns ON for lifting operation. Or, the paper suction sensor /Fr3 and /Rr3 (PS29 and PS30) turn ON before PS13 turns ON while in tray lifting.		<ul style="list-style-type: none"> Upper limit sensor /3 (PS13: PF-703) Paper lift motor /3 (M9: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW37-1	Paper feed in tray /3 is unavailable (The operation panel is displayed in hatching)
	C-0255	The locking of the upper tray paper lift motor /3 (M9) is detected. When M9 is ON, an error detection signal of the M9 is detected.		<ul style="list-style-type: none"> Paper lift motor /3 (M9: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW37-1	Paper feed in tray /3 is unavailable (The operation panel is displayed in hatching)
PF: Tray3	C-0261	1st tandem PF-703 shutter motor /1 (M10) operation time abnormality 1. The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Shutter motor /1 (M10: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW18-2	Paper feed in tray /3, /6, /7 and /8 is unavailable (The operation panel is displayed in hatching)
	C-0262	1st tandem PF-703 shutter motor /1 (M10) operation time abnormality 2. The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /1 (M10: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW18-2	Paper feed in tray /3, /6, /7 and /8 is unavailable (The operation panel is displayed in hatching)

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
PF: Tray4	C-0263	1st tandem PF-703 shutter motor /2 (M11) operation time abnormality 1. The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.		<ul style="list-style-type: none"> Shutter motor /2 (M11: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW18-3	Paper feed in tray /4 is unavailable (The operation panel is displayed in hatching)
	C-0264	1st tandem PF-703 shutter motor /2 (M11) operation time abnormality 2. The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /2 (M11: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW18-3	Paper feed in tray /4 is unavailable (The operation panel is displayed in hatching)
PF: Tray5	C-0265	1st tandem PF-703 shutter motor /3 (M12) operation time abnormality 1. The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.		<ul style="list-style-type: none"> Shutter motor /3 (M12: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW20-4	Paper feed in tray /5 is unavailable (The operation panel is displayed in hatching)
	C-0266	1st tandem PF-703 shutter motor /3 (M12) operation time abnormality 2. The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /3 (M12: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW20-4	Paper feed in tray /5 is unavailable (The operation panel is displayed in hatching)
PF: Tray6	C-0271	2nd tandem PF-703 shutter motor /1 (M10) operation time abnormality 1. The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.		<ul style="list-style-type: none"> Shutter motor /1 (M10: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW20-5	Paper feed in tray /6 is unavailable (The operation panel is displayed in hatching)
	C-0272	2nd tandem PF-703 shutter motor /1 (M10) operation time abnormality 2. The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /1 (M10: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW20-5	Paper feed in tray /6 is unavailable (The operation panel is displayed in hatching)

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
PF: Tray7	C-0273	2nd tandem PF-703 shutter motor /2 (M11) operation time abnormality 1. The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.		<ul style="list-style-type: none"> Shutter motor /2 (M11: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW18-5	Paper feed in tray /7 is unavailable (The operation panel is displayed in hatching)
	C-0274	2nd tandem PF-703 shutter motor /2 (M11) operation time abnormality 2. The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /2 (M11: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW18-5	Paper feed in tray /7 is unavailable (The operation panel is displayed in hatching)
PF: Tray8	C-0275	2nd tandem PF-703 shutter motor /3 (M12) operation time abnormality 1. The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.		<ul style="list-style-type: none"> Shutter motor /3 (M12: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW18-6	Paper feed in tray /8 is unavailable (The operation panel is displayed in hatching)
	C-0276	2nd tandem PF-703 shutter motor /3 (M12) operation time abnormality 2. The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /3 (M12: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW18-6	Paper feed in tray /8 is unavailable (The operation panel is displayed in hatching)
PI-PFU: PI Tray1	C-0281	PI-PFU (PF-703) shutter motor /1 (M10) operation time abnormality 1. The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.		<ul style="list-style-type: none"> Shutter motor /1 (M10: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0282	PI-PFU (PF-703)shutter motor /1 (M10) operation time abnormality 2. The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /1 (M10: PF-703) PF drive board (PFUDB: PF-703) 		
PI-PFU: PI Tray2	C-0283	PI-PFU (PF-703)shutter motor /2 (M11) operation time abnormality 1. The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.		<ul style="list-style-type: none"> Shutter motor /2 (M11: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW37-0	Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)
	C-0284	PI-PFU (PF-703)shutter motor /2 (M11) operation time abnormality 2. The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /2 (M11: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW37-0	Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)
PI-PFU: PI Tray3	C-0285	PI-PFU (PF-703)shutter motor /3 (M12) operation time abnormality 1. The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.		<ul style="list-style-type: none"> Shutter motor /3 (M12: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW37-1	Paper feed in tray /3 is unavailable (The operation panel is displayed in hatching)
	C-0286	PI-PFU (PF-703)shutter motor /3 (M12) operation time abnormality 2. The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Shutter motor /3 (M12: PF-703) PF drive board (PFUDB: PF-703) 	DIPSW37-1	Paper feed in tray /3 is unavailable (The operation panel is displayed in hatching)
Main body: Fan abnormality	C-0304	Paper exit cooling fan /Up (FM4) rotation abnormality + 24V power abnormality. The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) AC drive board (ACDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0306	Paper exit cooling fan /Up (FM4) rotation abnormality. The FM4 EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. However, error detection signal (24V cut off) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper exit cooling fan / Up (FM4) Printer control board (PRCB) AC drive board (ACDB) 		
	C-0307	Paper exit cooling fan /Lw1 (FM10) rotation abnormality + 24V power abnormality. The FM10EM error detection signal is detected twice in succession within a specified period of time after FM10 was turned ON. At this time, an error detection signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) AC drive board (ACDB) 		
	C-0309	Paper exit cooling fan /Lw1 (FM10) rotation abnormality. The FM10EM error detection signal is detected twice in succession within a specified period of time after FM10 was turned ON. In addition, error detection signal (24 V cut off) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper exit cooling fan / Lw1 (FM10) Printer control board (PRCB) AC drive board (ACDB) 		
	C-0310	Paper exit cooling fan /Lw2 (FM28) rotation abnormality + 24V power abnormality. The FM28EM error detection signal is detected twice in succession within a specified period of time after FM28 was turned ON. At this time, an error detection signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) AC drive board (ACDB) 		
	C-0312	Paper exit cooling fan /Lw2 (FM28) rotation abnormality. The FM28 EM error detection signal is detected twice in succession within a specified period of time after FM28 was turned ON. However, error detection signal (24V cut off) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper exit cooling fan / Lw2 (FM28) Printer control board (PRCB) AC drive board (ACDB) 		
	C-0320	Paper feed assist fan /Rr1 (FM20) rotation abnormality + 24V power abnormality. The FM20 EM error detection signal is detected twice in succession within a specified period of time after FM20 was turned ON. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0322	Paper feed assist fan /Rr1 (FM20) rotation abnormality. The FM20 EM error detection signal is detected twice in succession within a specified period of time after FM20 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Rr1 (FM20) Printer control board (PRCB) 		
	C-0323	Paper feed assist fan /Fr1 (FM21) rotation abnormality + 24V power abnormality. The FM21 EM error detection signal is detected twice in succession within a specified period of time after FM21 was turned ON. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		
	C-0325	Paper feed assist fan /Fr1 (FM21) rotation abnormality. The FM21 EM error detection signal is detected twice in succession within a specified period of time after FM21 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM21) Printer control board (PRCB) 		
	C-0326	Paper feed assist fan /Rr2 (FM24) rotation abnormality + 24V power abnormality. The FM24 EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		
	C-0328	Paper feed assist fan /Rr2 (FM24) rotation abnormality. The FM24 EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Rr2 (FM24) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0329	Paper feed assist fan /Fr2 (FM23) rotation abnormality + 24V power abnormality. The FM23 EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		
	C-0331	Paper feed assist fan /Fr2 (FM23) rotation abnormality. The FM23 EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr2 (FM23) Printer control board (PRCB) 		
PF : fan abnormality	C-0341	1st tandem PF-703/706 paper feed assist fan /Fr1 (FM1) power abnormality. The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM1: PF-703/706) PF drive board (PFUDB) 		
	C-0342	1st tandem PF-703/706 paper feed assist fan /Fr1 (FM1) rotation abnormality. The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM1: PF-703/706) PF drive board (PFUDB) 		
	C-0344	1st tandem PF-703/706 paper feed assist fan /Rr1 (FM2) power abnormality. The EM error detection signal of FM2 is detected twice in succession within a specified period of time after FM2 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper feed assist fan / Rr1 (FM2: PF-703/ PF-706) printer control board (PFUDB) 		
	C-0345	1st tandem PF-703/706 paper feed assist fan /Rr1 (FM2) rotation abnormality. The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM2: PF-703/ PF-706) PF drive board (PFUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0347	1st tandem PF-703/706 paper feed assist fan /Fr2 (FM5: PF-703, FM3: PF-706) power abnormality. The FM5 EM and FM3 EM error detection signals are detected twice in succession within a specified period of time after FM5 and FM3 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Paper feed assist fan / Fr2 (FM5: PF-703) • Paper feed assist fan / Fr2 (FM3: PF-706) • PF drive board (PFUDB) 		
	C-0348	1st tandem PF-703/706 paper feed assist fan /Fr2 (FM5: PF-703, FM3: PF-706) rotation abnormality. The FM5 EM and FM3 EM error detection signals are detected twice in succession within a specified period of time after FM5 and FM3 were turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> • Paper feed assist fan / Fr2 (FM5: PF-703) • Paper feed assist fan / Fr2 (FM3: PF-706) • PF drive board (PFUDB) 		
	C-0350	1st tandem PF-703/706 paper feed assist fan /Rr2 (FM6: PF-703, FM4: PF-706) power abnormality. The FM6 EM and FM4 EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM4 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> • Paper feed assist fan / Rr2 (FM6: PF-703) • Paper feed assist fan / Rr2 (FM4: PF-706) • PF drive board (PFUDB) 		
	C-0351	1st tandem PF-703/706 paper feed assist fan /Rr2 (FM6: PF-703, FM4: PF-706) rotation abnormality. The FM6 EM and FM4 EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM4 were turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> • Paper feed assist fan / Rr2 (FM6: PF-703) • Paper feed assist fan / Rr2 (FM4: PF-706) • PF drive board (PFUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0353	1st tandem PF-703/706 paper feed assist fan /Fr3 (FM9: PF-703, FM5: PF-706) power abnormality. The FM9 EM and FM5 EM error detection signals are detected twice in succession within a specified period of time after FM9 and FM5 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr3 (FM9: PF-703) Paper feed assist fan / Fr3 (FM5: PF-706) PF drive board (PFUDB) 		
	C-0354	1st tandem PF-703/706 paper feed assist fan /Fr3 (FM9: PF-703, FM5: PF-706) rotation abnormality. The FM9 EM and FM5 EM error detection signals are detected twice in succession within a specified period of time after FM9 and FM5 were turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr3 (FM9: PF-703) Paper feed assist fan / Fr3 (FM5: PF-706) PF drive board (PFUDB) 		
	C-0356	1st tandem PF-703/706 paper feed assist fan /Rr3 (FM10: PF-703, FM6: PF-706) power abnormality. The FM10 EM and FM6 EM error detection signals are detected twice in succession within a specified period of time after FM10 and FM6 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper feed assist fan / Rr3 (FM10: PF-703) Paper feed assist fan / Rr3 (FM6: PF-706) PF drive board (PFUDB) 		
	C-0357	1st tandem PF-703/706 paper feed assist fan /Rr3 (FM10: PF-703, FM6: PF-706) rotation abnormality. The FM10 EM and FM6 EM error detection signals are detected twice in succession within a specified period of time after FM10 and FM6 were turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Rr3 (FM10: PF-703) Paper feed assist fan / Rr3 (FM6: PF-706) PF drive board (PFUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0359	1st tandem PF-703/706 cooling fan power abnormality. PF-703: The FM19EM and FM20EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. At this time, an error detection signal (blowout of ICP) is detected. PF-706: The FM7 EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan (FM7) was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> PF cooling fan /1 (FM19: PF-703) PF cooling fan (FM7: PF-706) PF cooling fan /2 (FM20: PF-703) PF drive board (PFUDB) 		
	C-0360	1st tandem PF-703/706 cooling fan rotation abnormality 1. PF-703: The FM19 EM and FM20 EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. However, an error detection signal (blowout of ICP) is not detected. PF-706: The FM20 EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan (FM7) turns ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> PF cooling fan (FM7: PF-706) PF cooling fan /1 (FM19: PF-703) PF cooling fan /2 (FM20: PF-703) PF drive board (PFUDB: PF-703/706) 		
	C-0361	1st tandem PF-703 cooling fan rotation abnormality 2. The FM21EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan /3 (FM21) was turned ON with the front door closed. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> PF cooling fan /3 (FM21: PF-703) PF drive board (PFUDB) 		
	C-0370	2st tandem PF-703/706 paper feed assist fan /Fr1 (FM1) power abnormality. The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM1: PF-703/706) PF drive board (PFUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0371	2nd tandem PF-703/706 paper feed assist fan /Fr1 (FM1) rotation abnormality. The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM1: PF-703/706) PF drive board (PFUDB) 		
	C-0372	Paper feed assist fan /Fr1 (FM2: PF-703)		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM2: PF-703) printer control board (PFUDB) 		
	C-0373	2nd tandem PF-703/706 paper feed assist fan /Rr1 (FM2) rotation abnormality. The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM2: PF-703) PF drive board (PFUDB) 		
	C-0374	2nd tandem PF-703/706 paper feed assist fan /Fr2 (FM5: PF-703, FM3: PF-706) power abnormality. The FM5 EM and FM3 EM error detection signals are detected twice in succession within a specified period of time after FM5 and FM3 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper feed assist fan / Fr2 (FM5: PF-703) Paper feed assist fan / Fr2 (FM3: PF-706) PF drive board (PFUDB) 		
	C-0375	2nd tandem PF-703/706 paper feed assist fan /Fr2 (FM5: PF-703, FM3: PF-706) rotation abnormality. The FM5 EM and FM3 EM error detection signals are detected twice in succession within a specified period of time after FM5 and FM3 were turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr2 (FM5: PF-703) Paper feed assist fan / Fr2 (FM3: PF-706) PF drive board (PFUDB) 		
	C-0376	2nd tandem PF-703/706 paper feed assist fan /Rr2 (FM6: PF-703, FM4: PF-706) power abnormality. The FM6 EM and FM4 EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM4 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> paper feed assist fan / Rr2 (FM6: PF-703) Paper feed assist fan / Rr2 (FM4: PF-706) PF drive board (PFUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0377	2nd tandem PF-703/706 paper feed assist fan /Rr2 (FM6: PF-703, FM4: PF-706) rotation abnormality. The FM6 EM and FM4 EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM4 were turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> • paper feed assist fan / Rr2 (FM6: PF-703) • Paper feed assist fan / Rr2 (FM4: PF-706) • PF drive board (PFUDB) 		
	C-0378	2nd tandem PF-703/706 paper feed assist fan /Fr3 (FM9: PF-703, FM5: PF-706) power abnormality. The FM9 EM and FM5 EM error detection signals are detected twice in succession within a specified period of time after FM9 and FM5 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> • paper feed assist fan / Fr3 (FM9: PF-703) • Paper feed assist fan / Fr3 (FM5: PF-706) • PF drive board (PFUDB) 		
	C-0379	2nd tandem PF-703/706 paper feed assist fan /Fr3 (FM9: PF-703, FM5: PF-706) rotation abnormality. The FM9 EM and FM5 EM error detection signals are detected twice in succession within a specified period of time after FM9 and FM5 were turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> • paper feed assist fan / Fr3 (FM9: PF-703) • Paper feed assist fan / Fr3 (FM5: PF-706) • PF drive board (PFUDB) 		
	C-0380	2nd tandem PF-703/706 paper feed assist fan /Rr3 (FM10: PF-703, FM6: PF-706) power abnormality. The FM10 EM and FM6 EM error detection signals are detected twice in succession within a specified period of time after FM10 and FM6 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> • paper feed assist fan / Rr3 (FM10: PF-703) • Paper feed assist fan / Rr3 (FM6: PF-706) • PF drive board (PFUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0381	2nd tandem PF-703/706 paper feed assist fan /Rr3 (FM10 PF-703, FM6: PF-706) rotation abnormality. The FM6EM and FM10EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM10 were turned ON. However, an error detection signal (blowout of ICP) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • paper feed assist fan / Rr3 (FM10: PF-703) • Paper feed assist fan / Rr3 (FM6: PF-706) • PF drive board (PFUDB) 		
	C-0382	2nd tandem PF-703/706 cooling fan power abnormality. PF-703: The FM19EM and FM20EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. At this time, an error detection signal (blowout of ICP) is detected. PF-706: The FM7 EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan (FM7) was turned ON. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • PF cooling fan /1 (FM19: PF-703) • PF cooling fan (FM7: PF-706) • PF cooling fan /2 (FM20: PF-703) • PF drive board (PFUDB) 		
	C-0383	2nd tandem PF-703/706 cooling fan rotation abnormality 1. PF-703: The FM19 EM and FM20 EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. However, an error detection signal (blowout of ICP) is not detected. PF-706: The FM20 EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan (FM7) turns ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> • PF cooling fan (FM7: PF-706) • PF cooling fan /1 (FM19: PF-703) • PF cooling fan /2 (FM20: PF-703) • PF drive board (PFUDB: PF-703/706) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0384	2nd tandem PF-703 cooling fan rotation abnormality 2. The FM21EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan /3 (FM21) was turned ON with the front door closed. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> PF cooling fan /3 (FM21: PF-703) PF drive board (PFUDB) 		
PI-PFU : Fan abnormality	C-0385	PI-PFU (PF-703) paper feed assist fan /Fr1 (FM1) power abnormality. The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM1: PF-703/706) PF drive board (PFUDB) 		
	C-0386	PI-PFU (PF-703) paper feed assist fan /Fr1 (FM1) rotation abnormality. The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM1: PF-703/706) PF drive board (PFUDB) 		
	C-0387	PI-PFU (PF-703) paper feed assist fan /Rr1 (FM2) power abnormality. The EM error detection signal of FM2 is detected twice in succession within a specified period of time after FM2 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM2: PF-703) printer control board (PFUDB) 		
	C-0388	PI-PFU (PF-703) paper feed assist fan /Rr1 (FM2) rotation abnormality. The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr1 (FM2: PF-703) PF drive board (PFUDB) 		
	C-0389	PI-PFU (PF-703) paper feed assist fan /Fr2 (FM5) power abnormality. The FM5EM error detection signal is detected twice in succession within a specified period of time after FM5 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr2 (FM5: PF-703) Paper feed assist fan / Fr2 (FM3: PF-706) PF drive board (PFUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0390	PI-PFU (PF-703) paper feed assist fan /Fr2 (FM5) rotation abnormality. The FM5EM error detection signal is detected twice in succession within a specified period of time after FM5 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper feed assist fan / Fr2 (FM5: PF-703) Paper feed assist fan / Fr2 (FM3: PF-706) PF drive board (PFUDB) 		
	C-0391	PI-PFU (PF-703) paper feed assist fan /Rr2 (FM6) power abnormality. The FM6EM error detection signal is detected twice in succession within a specified period of time after FM6 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> paper feed assist fan / Rr2 (FM6: PF-703) Paper feed assist fan / Rr2 (FM4: PF-706) PF drive board (PFUDB) 		
	C-0392	PI-PFU (PF-703) paper feed assist fan /Rr2 (FM6) rotation abnormality. The FM6EM error detection signal is detected twice in succession within a specified period of time after FM6 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> paper feed assist fan / Rr2 (FM6: PF-703) Paper feed assist fan / Rr2 (FM4: PF-706) PF drive board (PFUDB) 		
	C-0393	PI-PFU (PF-703) paper feed assist fan /Fr3 (FM9) power abnormality. The FM9EM error detection signal is detected twice in succession within a specified period of time after FM9 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> paper feed assist fan / Fr3 (FM9: PF-703) Paper feed assist fan / Fr3 (FM5: PF-706) PF drive board (PFUDB) 		
	C-0394	PI-PFU (PF-703) paper feed assist fan /Fr3 (FM9) rotation abnormality. The FM9EM error detection signal is detected twice in succession within a specified period of time after FM9 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> paper feed assist fan / Fr3 (FM9: PF-703) Paper feed assist fan / Fr3 (FM5: PF-706) PF drive board (PFUDB) 		
	C-0395	PI-PFU (PF-703) paper feed assist fan /Rr3 (FM10) power abnormality. The EM error detection signal of FM10 is detected twice in succession within a specified period of time after FM10 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> paper feed assist fan / Rr3 (FM10: PF-703) Paper feed assist fan / Rr3 (FM6: PF-706) PF drive board (PFUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0396	PI-PFU (PF-703) paper feed assist fan /Rr3 (FM10) rotation abnormality. The FM10EM error detection signal is detected twice in succession within a specified period of time after FM10 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> • paper feed assist fan / Rr3 (FM10: PF-703) • Paper feed assist fan / Rr3 (FM6: PF-706) • PF drive board (PFUDB) 		
	C-0397	PI-PFU (PF-703) cooling fan power abnormality. The FM19EM and FM20EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> • PF cooling fan (FM7: PF-706) • PF cooling fan /1 (FM19: PF-703) • PF cooling fan /2 (FM20: PF-703) • PF drive board (PFUDB) 		
	C-0398	PI-PFU (PF-703) cooling fan rotation abnormality 1. The FM19EM and FM20EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> • PF cooling fan (FM7: PF-706) • PF cooling fan /1 (FM19: PF-703) • PF cooling fan /2 (FM20: PF-703) • PF drive board (PFUDB: PF-703/706) 		
	C-0399	PI-PFU (PF-703) cooling fan rotation abnormality 2. The FM21EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan /3 (FM21) was turned ON with the front door closed. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> • PF cooling fan /3 (FM21: PF-703) • PF drive board (PFUDB) 		
Main body:Power abnormality	C-0403	12V power abnormality in the printer control board (PRCB). An error detection signal of the 12V in PFDB (blowout of ICP) is detected.		<ul style="list-style-type: none"> • Printer control board (PRCB) • DC power supply /2 (DCPS/2) 		
	C-0404	5V power abnormality in the printer control board (PRCB). An error detection signal of the 5V in PRCB (blowout of ICP) is detected.		<ul style="list-style-type: none"> • Printer control board (PRCB) • DC power supply /2 (DCPS/2) 		
	C-0410	12V power abnormality in the ADU drive board (ADUDB). An error detection signal of the ADUDB (blowout of ICP) is detected.		<ul style="list-style-type: none"> • ADU drive board /1 (ADUDB1) • DC power supply /2 (DCPS/2) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0411	ADU drive board (ADUDB) power abnormality 1. An error detection signal (blowout of ICP) of the transfer paper correction sensor (PS4), transfer exposure lamp (L4) or SD is detected. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> • ADU drive board /1 (ADUDB1) • DC power supply /1 (DCPS/1) 		
	C-0412	ADU drive board (ADUDB) power abnormality 2. An error detection signal (blowout of ICP) of the transfer paper correction sensor (PS4), transfer exposure lamp (L4) or SD is detected. However, an error detection signal (24V cut off) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • ADU lock solenoid (SD6) • Reverse/exit solenoid (SD7) • De-curler solenoid /Up (SD8) • De-curler solenoid /Lw (SD5) • Centering sensor(PS4) • ADU drive board /1 (ADUDB1) 		
	C-0413	Interlock power abnormality of the ADU drive board (ADUDB). An error signal of the 24V interlock power is detected in the door detection closed status.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • ADU drive board /1 (ADUDB1) • DC power supply /1 (DCPS/1) 		
Main body: Centering sensor abnormality	C-0414	During the centering sensor (PS4) is ON, the centering data does not sent from the ADU drive board though more than 5 sheets are processed in succession.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Centering sensor(PS4) • ADU drive board /1 (ADUDB1) 		
PF: PF power source abnormality	C-0420	PF drive board (PFUDB: PF-703/706)	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	PF drive board (PFUDB: PF-703/706)		
	C-0421	Abnormality of the 12V power for the PF drive board (PFUDB) of the 2nd tandem PF-703/706. An error detection signal of the PFUDB (blowout of 12V ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	PF drive board (PFUDB: PF-703/706)		
	C-0422	Abnormality of the 24V power for the PF drive board (PFUDB) of the 1st tandem PF-703/706. While in printing, an error detection signal (24V power DOWN) of the PFUDB is detected.		PF drive board (PFUDB: PF-703/706)		
	C-0423	Abnormality of the 24V power for the PF drive board (PFUDB) of the 2nd tandem PF-703/706. While in printing, an error detection signal (24V power DOWN) of the PFUDB is detected.		PF drive board (PFUDB: PF-703/706)		
PI-PFU: Power abnormality	C-0424	Abnormality of the 12V power for the PF drive board (PFUDB) of PI-PFU (PF-703). An error detection signal of the PFUDB (blowout of 12V ICP) is detected.		PF drive board (PFUDB: PF-703)		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0425	Abnormality of the 24V power for the PF drive board (PFUDB) of PI-PFU (PF-703). While in printing, an error detection signal (24V power DOWN) of the PFUDB is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	Abnormality of the 24V power for the PF drive board (PFUDB) of PI-PFU (PF-703). While in printing, an error detection signal (24V power DOWN) of the PFUDB is detected.		
PF: PF power source abnormality	C-0501	1st tandem PF-703 paper leading edge separation fan /Fr1 (FM3) power abnormality. The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr1 (FM3: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0502	1st tandem PF-703 paper leading edge separation fan /Fr1 (FM3) rotation abnormality. The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr1 (FM3: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0503	1st tandem PF-703 paper leading edge separation fan /Fr2 (FM7) power abnormality. The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr2 (FM7: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0504	1st tandem PF-703 paper leading edge separation fan /Fr2 (FM7) rotation abnormality. The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr2 (FM7: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0505	1st tandem PF-703 paper leading edge separation fan /Fr3 (FM11) power abnormality. The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr3 (FM11: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0506	1st tandem PF-703 paper leading edge separation fan /Fr3 (FM11) rotation abnormality. The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr3 (FM11: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0507	1st tandem PF-703 paper leading edge separation fan /Rr1 (FM4) power abnormality. The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr1 (FM4: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0508	1st tandem PF-703 paper leading edge separation fan /Rr1 (FM4) rotation abnormality. The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr1 (FM4: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0509	1st tandem PF-703 paper leading edge separation fan /Rr2 (FM8) power abnormality. The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr2 (FM8: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0510	1st tandem PF-703 paper leading edge separation fan /Rr2 (FM8) rotation abnormality. The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr2 (FM8: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0511	1st tandem PF-703 paper leading edge separation fan /Rr3 (FM12) power abnormality. The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr3 (FM12: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0512	1st tandem PF-703 paper leading edge separation fan /Rr3 (FM12) rotation abnormality. The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr3 (FM12: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0513	1st tandem PF-703 paper suction fan /1 (FM13) power abnormality. The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /1 (FM13: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0514	1st tandem PF-703 paper suction fan /1 (FM13) rotation abnormality. The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /1 (FM13: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0515	1st tandem PF-703 paper suction fan /3 (FM15) power abnormality. The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /3 (FM15: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0516	1st tandem PF-703 paper suction fan /3 (FM15) rotation abnormality. The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /3 (FM15: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0517	1st tandem PF-703 paper suction fan /5 (FM17) power abnormality. The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /5 (FM17: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0518	1st tandem PF-703 paper suction fan /5 (FM17) rotation abnormality. The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /5 (FM17: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0519	1st tandem PF-703 paper suction fan /1 (FM14) power abnormality. The EM error detection signal of FM14 is detected twice in succession within a specified period of time after FM14 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /2 (FM14: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0520	1st tandem PF-703 paper suction fan /1 (FM14) rotation abnormality. The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /2 (FM14: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0521	1st tandem PF-703 paper suction fan /3 (FM16) power abnormality. The FM16 EM error detection of FM16 is detected twice in succession within a specified period of time after FM16 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper suction fan /4 (FM16: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0522	1st tandem PF-703 paper suction fan /3 (FM16) rotation abnormality. The FM16EM error detection signal is detected twice in succession within a specified period of time after FM16 was turned ON. However, an error detection signal (blowout of ICP) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Paper suction fan /4 (FM16: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0523	1st tandem PF-703 paper suction fan /5 (FM18) power abnormality. The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /6 (FM18: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0524	1st tandem PF-703 paper suction fan /5 (FM18) rotation abnormality. The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /6 (FM18: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0525	2nd tandem PF-703 paper leading edge separation fan /Fr1 (FM3) power abnormality. The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr1 (FM3: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0526	2nd tandem PF-703 paper leading edge separation fan /Fr1 (FM3) rotation abnormality. The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr1 (FM3: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0527	2nd tandem PF-703 paper leading edge separation fan /Fr2 (FM7) power abnormality. The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr2 (FM7: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0528	2nd tandem PF-703 paper leading edge separation fan /Fr2 (FM7) rotation abnormality. The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr2 (FM7: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0529	2nd tandem PF-703 paper leading edge separation fan /Fr3 (FM11) power abnormality. The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr3 (FM11: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0530	2nd tandem PF-703 paper leading edge separation fan /Fr3 (FM11) rotation abnormality. The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr3 (FM11: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0531	2nd tandem PF-703 paper leading edge separation fan /Rr1 (FM4) power abnormality. The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr1 (FM4: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0532	2nd tandem PF-703 paper leading edge separation fan /Rr1 (FM4) rotation abnormality. The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr1 (FM4: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0533	2nd tandem PF-703 paper leading edge separation fan /Rr2 (FM8) power abnormality. The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr2 (FM8: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0534	2nd tandem PF-703 paper leading edge separation fan /Rr2 (FM8) rotation abnormality. The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr2 (FM8: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0535	2nd tandem PF-703 paper leading edge separation fan /Rr3 (FM12) power abnormality. The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr3 (FM12: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0536	2nd tandem PF-703 paper leading edge separation fan /Rr3 (FM12) rotation abnormality. The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr3 (FM12: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0537	2nd tandem PF-703 paper suction fan /1 (FM13) power abnormality. The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /1 (FM13: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0538	2nd tandem PF-703 paper suction fan /1 (FM13) rotation abnormality. The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /1 (FM13: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0539	2nd tandem PF-703 paper suction fan /3 (FM15) power abnormality. The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /3 (FM15: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0540	2nd tandem PF-703 paper suction fan /3 (FM15) rotation abnormality. The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /3 (FM15: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0541	2nd tandem PF-703 paper suction fan /5 (FM17) power abnormality. The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /5 (FM17: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0542	2nd tandem PF-703 paper suction fan /5 (FM17) rotation abnormality. The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /5 (FM17: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0543	2nd tandem PF-703 paper suction fan /1 (FM14) power abnormality. The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /2 (FM14: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0544	2nd tandem PF-703 paper suction fan /1 (FM14) rotation abnormality. The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /2 (FM14: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0545	2nd tandem PF-703 paper suction fan /3 (FM16) power abnormality. The FM16 EM error detection of FM16 is detected twice in succession within a specified period of time after FM16 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper suction fan /4 (FM16: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0546	2nd tandem PF-703 paper suction fan /3 (FM16) rotation abnormality. The FM16EM error detection signal is detected twice in succession within a specified period of time after FM16 was turned ON. However, an error detection signal (blowout of ICP) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Paper suction fan /4 (FM16: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0547	2nd tandem PF-703 paper suction fan /5 (FM18) power abnormality. The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /6 (FM18: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0548	2nd tandem PF-703 paper suction fan /5 (FM18) rotation abnormality. The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /6 (FM18: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0561	PI-PFU (PF-703) paper leading edge separation fan /Fr1 (FM3) power abnormality. The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr1 (FM3: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0562	PI-PFU (PF-703) paper leading edge separation fan /Fr1 (FM3) rotation abnormality. The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr1 (FM3: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0563	PI-PFU (PF-703) paper leading edge separation fan /Fr2 (FM7) power abnormality. The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr2 (FM7: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0564	PI-PFU (PF-703) paper leading edge separation fan /Fr2 (FM7) rotation abnormality. The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr2 (FM7: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0565	PI-PFU (PF-703) paper leading edge separation fan /Fr3 (FM11) power abnormality. The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr3 (FM11: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0566	PI-PFU (PF-703) paper leading edge separation fan /Fr3 (FM11) rotation abnormality. The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Fr3 (FM11: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0567	PI-PFU (PF-703) paper leading edge separation fan /Rr1 (FM4) power abnormality. The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr1 (FM4: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0568	PI-PFU (PF-703) paper leading edge separation fan /Rr1 (FM4) rotation abnormality. The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr1 (FM4: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0569	PI-PFU (PF-703) paper leading edge separation fan /Rr2 (FM8) power abnormality. The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr2 (FM8: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0570	PI-PFU (PF-703) paper leading edge separation fan /Rr2 (FM8) rotation abnormality. The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr2 (FM8: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0571	PI-PFU (PF-703) paper leading edge separation fan /Rr3 (FM12) power abnormality. The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr3 (FM12: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0572	PI-PFU (PF-703) paper leading edge separation fan /Rr3 (FM12) rotation abnormality. The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper leading edge separation fan /Rr3 (FM12: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0573	PI-PFU (PF-703) paper suction fan /1 (FM13) power abnormality. The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /1 (FM13: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0574	PI-PFU (PF-703) paper suction fan /1 (FM13) rotation abnormality. The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /1 (FM13: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0575	PI-PFU (PF-703) paper suction fan /3 (FM15) power abnormality. The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /3 (FM15: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0576	PI-PFU (PF-703) paper suction fan /3 (FM15) rotation abnormality. The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /3 (FM15: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0577	PI-PFU (PF-703) paper suction fan /5 (FM17) power abnormality. The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /5 (FM17: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0578	PI-PFU (PF-703) paper suction fan /5 (FM17) rotation abnormality. The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /5 (FM17: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0579	PI-PFU (PF-703) paper suction fan /1 (FM14) power abnormality. The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /2 (FM14: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0580	PI-PFU (PF-703) paper suction fan /1 (FM14) rotation abnormality. The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /2 (FM14: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0581	PI-PFU (PF-703) paper suction fan /3 (FM16) power abnormality. The FM16 EM error detection of FM16 is detected twice in succession within a specified period of time after FM16 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Paper suction fan /4 (FM16: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0582	PI-PFU (PF-703) paper suction fan /3 (FM16) rotation abnormality. The FM16EM error detection signal is detected twice in succession within a specified period of time after FM16 was turned ON. However, an error detection signal (blowout of ICP) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Paper suction fan /4 (FM16: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0583	PI-PFU (PF-703) paper suction fan /5 (FM18) power abnormality. The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.		<ul style="list-style-type: none"> Paper suction fan /6 (FM18: PF-703) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0584	PI-PFU (PF-703) paper suction fan /5 (FM18) rotation abnormality. The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Paper suction fan /6 (FM18: PF-703) PF drive board (PFUDB: PF-703) 		
	C-0601	1st tandem PF-703 dehumidifier fan /Rt1 (FM22) rotation abnormality. The FM22EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt1 (FM22: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0602	PI-PFU (PF-703) dehumidifier fan /Lt1 (FM23) rotation abnormality. The FM23EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt1 (FM23: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0603	1st tandem PF-703 dehumidifier fan /Rt2 (FM24) rotation abnormality. The FM24EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt2 (FM24: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0604	1st tandem PF-703 dehumidifier fan /Lt2 (FM25) rotation abnormality. The FM25EM error detection signal is detected twice in succession within a specified period of time after FM25 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt2 (FM25: HT-505) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0605	1st tandem PF-703 dehumidifier fan /Rt3 (FM26) rotation abnormality. The FM26EM error detection signal is detected twice in succession within a specified period of time after FM26 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt3 (FM26: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0606	1st tandem PF-703 dehumidifier fan /Lt3 (FM27) rotation abnormality. The FM27EM error detection signal is detected twice in succession within a specified period of time after FM27 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt3 (FM27: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0611	2nd tandem PF-703 dehumidifier fan /Rt1 (FM22) rotation abnormality. The FM22EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt1 (FM22: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0612	2nd tandem PF-703 dehumidifier fan /Lt1 (FM23) rotation abnormality. The FM23EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt1 (FM23: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0613	2nd tandem PF-703 dehumidifier fan /Rt2 (FM24) rotation abnormality. The FM24EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt2 (FM24: HT-505) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0614	2nd tandem PF-703 dehumidifier fan /Lt2 (FM25) rotation abnormality. The FM25EM error detection signal is detected twice in succession within a specified period of time after FM25 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt2 (FM25: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0615	2nd tandem PF-703 dehumidifier fan /Rt3 (FM26) rotation abnormality. The FM26EM error detection signal is detected twice in succession within a specified period of time after FM26 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt3 (FM26: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0616	2nd tandem PF-703 dehumidifier fan /Lt3 (FM27) rotation abnormality. The FM27EM error detection signal is detected twice in succession within a specified period of time after FM27 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt3 (FM27: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0621	PI-PFU (PF-703) dehumidifier fan /Rt1 (FM22) rotation abnormality. The FM22EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt1 (FM22: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0622	PI-PFU (PF-703) dehumidifier fan /Lt1 (FM23) rotation abnormality. The FM23EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt1 (FM23: HT-505) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0623	PI-PFU (PF-703) dehumidifier fan /Rt2 (FM24) rotation abnormality. The FM24EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt2 (FM24: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0624	PI-PFU (PF-703) dehumidifier fan /Lt2 (FM25) rotation abnormality. The FM25EM error detection signal is detected twice in succession within a specified period of time after FM25 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt2 (FM25: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0625	PI-PFU (PF-703) dehumidifier fan /Rt3 (FM26) rotation abnormality. The FM26EM error detection signal is detected twice in succession within a specified period of time after FM26 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Rt3 (FM26: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0626	PI-PFU (PF-703) dehumidifier fan /Lt3 (FM27) rotation abnormality. The FM27EM error detection signal is detected twice in succession within a specified period of time after FM27 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Dehumidifier fan /Lt3 (FM27: HT-505) PF drive board (PFUDB: PF-703) 		
PF: Heater high temperature abnormality	C-0631	1st tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality. After turned ON, the temperature sensor /5 (TEMS/5) detects a heater abnormality signal.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0632	1st tandem PF-703 dehumidification heater /2 (HTR2) high temperature hardware abnormality. After turned ON, the temperature sensor /6 (TEMS/6) detects a heater abnormality signal.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0633	1st tandem PF-703 dehumidification heater /3 (HTR3) high temperature hardware abnormality. After turned ON, the temperature sensor /7 (TEMS/7) detects a heater abnormality signal.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0634	1st tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality. After turned ON, the temperature sensor /5 (TEMS/5) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0635	1st tandem PF-703 dehumidification heater /2 (HTR2) high temperature software abnormality. After turned ON, the temperature sensor /6 (TEMS/6) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0636	1st tandem PF-703 dehumidification heater /3 (HTR3) high temperature software abnormality. After turned ON, the temperature sensor /7 (TEMS/7) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
PF: Heater low temperature abnormality	C-0637	1st tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality. The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0638	1st tandem PF-703 dehumidification heater /2 (HTR2) low temperature software abnormality. The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0639	1st tandem PF-703 dehumidification heater /3 (HTR3) low temperature software abnormality. The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
PF: Heater temperature rise abnormality	C-0640	1st tandem PF-703 dehumidification heater /1 (HTR1) temperature rise abnormality. The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0641	1st tandem PF-703 dehumidification heater /2 (HTR2) temperature rise abnormality. The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0642	1st tandem PF-703 dehumidification heater /3 (HTR3) temperature rise abnormality. The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
PF: Heater high temperature abnormality	C-0651	2nd tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality. After turned ON, the temperature sensor /5 (TEMS/5) detects a heater abnormality signal.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0652	2nd tandem PF-703 dehumidification heater /2 (HTR2) high temperature hardware abnormality. After turned ON, the temperature sensor /6 (TEMS/6) detects a heater abnormality signal.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0653	2nd tandem PF-703 dehumidification heater /3 (HTR3) high temperature hardware abnormality. After turned ON, the temperature sensor /7 (TEMS/7) detects a heater abnormality signal.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0654	2nd tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality. After turned ON, the temperature sensor /5 (TEMS/5) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0655	2nd tandem PF-703 dehumidification heater /2 (HTR2) high temperature software abnormality. After turned ON, the temperature sensor /6 (TEMS/6) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
PF: Heater low temperature abnormality	C-0656	2nd tandem PF-703 dehumidification heater /3 (HTR3) high temperature software abnormality. After turned ON, the temperature sensor /7 (TEMS/7) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> • Lower tray fan heater (HT-505) • AC drive board /2 (ACDB/2: HT-505) • PF drive board (PFUDB: PF-703) 		
	C-0657	2nd tandem PF-703 dehumidification heater /1 (HTR1) low temperature hardware abnormality. The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> • Upper tray fan heater (HT-505) • AC drive board /2 (ACDB/2: HT-505) • PF drive board (PFUDB: PF-703) 		
	C-0658	2nd tandem PF-703 dehumidification heater /2 (HTR2) low temperature software abnormality. The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> • Middle tray fan heater (HT-505) • AC drive board /2 (ACDB/2: HT-505) • PF drive board (PFUDB: PF-703) 		
	C-0659	2nd tandem PF-703 dehumidification heater /3 (HTR3) low temperature software abnormality. The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> • Lower tray fan heater (HT-505) • AC drive board /2 (ACDB/2: HT-505) • PF drive board (PFUDB: PF-703) 		
PF: Heater temperature rise abnormality	C-0660	2nd tandem PF-703 dehumidification heater /1 (HTR1) temperature rise abnormality. The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> • Upper tray fan heater (HT-505) • AC drive board /2 (ACDB/2: HT-505) • PF drive board (PFUDB: PF-703) 		
	C-0661	2nd tandem PF-703 dehumidification heater /2 (HTR2) temperature rise abnormality. The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> • Middle tray fan heater (HT-505) • AC drive board /2 (ACDB/2: HT-505) • PF drive board (PFUDB: PF-703) 		
	C-0662	2nd tandem PF-703 dehumidification heater /3 (HTR3) temperature rise abnormality. The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> • Lower tray fan heater (HT-505) • AC drive board /2 (ACDB/2: HT-505) • PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
PF: Heater high temperature abnormality	C-0671	PI-PFU (PF-703) dehumidification heater /1 (HTR) high temperature hardware abnormality. After turned ON, the temperature sensor /5 (TEMS/5) detects a heater abnormality signal.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0672	PI-PFU (PF-703) dehumidification heater /2 (HTR2) high temperature hardware abnormality. After turned ON, the temperature sensor /6 (TEMS/6) detects a heater abnormality signal.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0673	PI-PFU (PF-703) dehumidification heater /3 (HTR3) high temperature hardware abnormality. After turned ON, the temperature sensor /7 (TEMS/7) detects a heater abnormality signal.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0674	PI-PFU (PF-703) dehumidification heater /1 (HTR) high temperature software abnormality. After turned ON, the temperature sensor /5 (TEMS/5) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0675	PI-PFU (PF-703) dehumidification heater /2 (HTR2) high temperature software abnormality. After turned ON, the temperature sensor /6 (TEMS/6) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0676	PI-PFU (PF-703) dehumidification heater /3 (HTR3) high temperature software abnormality. After turned ON, the temperature sensor /7 (TEMS/7) detects the heater temperature exceeding 105°C.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
PF: Heater low temperature abnormality	C-0677	PI-PFU (PF-703) dehumidification heater /1 (HTR1) low temperature software abnormality. The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0678	PI-PFU (PF-703) dehumidification heater /2 (HTR2) low temperature software abnormality. The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-0679	PI-PFU (PF-703) dehumidification heater /3 (HTR3) low temperature software abnormality. The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
PF: Heater temperature rise abnormality	C-0680	PI-PFU (PF-703) dehumidification heater /1 (HTR1) temperature rise abnormality. The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Upper tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0681	PI-PFU (PF-703) dehumidification heater /2 (HTR2) temperature rise abnormality. The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Middle tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-0682	PI-PFU (PF-703) dehumidification heater /3 (HTR3) temperature rise abnormality. The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.		<ul style="list-style-type: none"> Lower tray fan heater (HT-505) AC drive board /2 (ACDB/2: HT-505) PF drive board (PFUDB: PF-703) 		
	C-1001	Serial communication error between the main body and the finishing option.				
Finishing: Communication error	C-1001	Serial communication error between the main body and the finishing option.				
FS: FS-532 abnormality	C-1005	Communication error.	The main body and the FS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Printer control board (PRCB) FNS control board (FNSCB) 		
FD: FD abnormality	C-1006	Communication error.	The main body and the FD stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Printer control board (PRCB) FD control board (FDCB) 		
SD: SD-506 abnormality	C-1007	Communication error.	The main body and the SD stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Printer control board (PRCB) SD control board (SDCB) 		
PB: PB abnormality	C-1009	Communication error between Main CPU in the PB control board (PBCB) and Sub CPU1.	The main body and the PB stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> PB control board (PBCB) Control program 		
	C-1010	Communication error between Main CPU in the PB control board (PBCB) and Sub CPU2.		<ul style="list-style-type: none"> PB control board (PBCB) Control program 		
PB control board (PBCB)	C-1011	Paper feed error between the main body and PB.		<ul style="list-style-type: none"> PB control board (PBCB) Control program 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
GP : GP-501 abnormality	C-1012	Communication abnormality.	The main body and the GP stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Printer control board (PRCB) Punch Controller PCB 		
RU: RU-509 abnormality	C-1013	Communication error.	The main body and the RU stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Printer control board (PRCB) RU control board (RUCB) 		
RU: RU-510 abnormality	C-1014	Communication error.		<ul style="list-style-type: none"> Printer control board (PRCB) RU control board (RUCB) 		
FS: FS-532 abnormality	C-1102	The tray up down motor (M11) does not turn OFF even when a specified period of time elapses after it starts operations. Or, it operates for more than the allowed time at a speed out of the specified one.	The main body and the FS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> FNS control board (FNSCB) Main tray up down motor (M11) Main tray upper limit sensor (PS14) 	DIPSW35-1	FS main tray and stapling are not available
	C-1103	The stacker alignment home sensor (PS12) does not turn ON within a specified period of time after the home position search operation of the stacker alignment motor (M9) starts.		<ul style="list-style-type: none"> FNS control board (FNSCB) Stacker alignment motor (M9) Stacker alignment home sensor (PS12) 	DIPSW35-0	The use of staple is unavailable
	C-1105	The paper exit opening unit does not get to the specified opening position within a specified period of time after the paper exit opening motor (M10) starts operations.		<ul style="list-style-type: none"> FNS control board (FNSCB) Paper exit opening motor (M10) Paper exit home sensor (PS13) 	DIPSW35-1	FS main tray and stapling are not available
	C-1106	The stapler movement home sensor (PS22) does not turn ON within a specified period of time after the home position search operation of the stapler movement motor (M14) starts.		<ul style="list-style-type: none"> FNS control board (FNSCB) Stapler movement motor (M14) Stapler movement home sensor (PS22) 	DIPSW35-0	The use of staple is unavailable
	C-1109	The stapler home sensor (PS40) does not turn ON within a specified period of time after the stapler motor (M31) starts operations.		<ul style="list-style-type: none"> FNS control board (FNSCB) Stapler unit 	DIPSW35-0	The use of staple is unavailable
	C-1113	The stacker rear stopper home sensor (PS27) does not turn ON within a specified period of time after the home position search operation of the stacker movement motor (M19) starts.		<ul style="list-style-type: none"> FNS control board (FNSCB) Stacker movement motor (M19) Stacker rear stopper home sensor (PS27) 	DIPSW35-0	The use of staple is unavailable
	C-1114	The rewind paddle release home sensor (PS38) does not turn ON even after a specified period of time after the rewind paddle release home motor (M28) starts the home position search operation.		<ul style="list-style-type: none"> FNS control board (FNSCB) Rewind paddle release home sensor (PS38) Rewind paddle release motor (M28) 	DIPSW35-0	The use of staple is unavailable
FS: FS-510 abnormality	C-1115	The 1st folding knife home sensor (PS110) does not turn ON within a specified period of time after the 1st	The main body and the SD stop immediately to turn OFF the	<ul style="list-style-type: none"> FNS control board (FNSCB) SD control board (SDCB) 	DIPSW47-2	The use of half-fold, fold&staple and tri-fold

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
		folding knife motor (M107) turns ON.	main relay (RL1).	<ul style="list-style-type: none"> 1st folding knife motor (M107) 1st folding knife home sensor (PS110) 		is unavailable.
PI: PI abnormality	C-1124	The tray upper limit sensor /Lw (PS209) or the tray lower limit sensor /Lw (PS210) does not turn ON within a specified period of time after the tray lift motor /Lw (M202) turns ON.	The main body and the FS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> FNS control board (FNSCB) PI drive board (PIDB) Tray lift motor /Lw (M202) Tray upper limit sensor /Lw (PS209) Tray lower limit sensor /Lw (PS210) 	DIPSW47-3	PI unusable (PI unconnected)
	C-1125	The tray upper limit sensor /Up (PS205) or the tray lower limit sensor /Up (PS204) does not turn ON within a specified period of time after the tray up down motor /Up (M201) turns ON.		<ul style="list-style-type: none"> FNS control board (FNSCB) PI drive board (PIDB) Tray up down motor /Up (M201) Tray upper limit sensor /Up (PS205) Tray lower limit sensor /Up (PS204) 	DIPSW47-3	PI unusable (PI unconnected)
PK: PK abnormality	C-1127	The punch shift home sensor (PS303) does not turn ON within a specified period of time after the punch shift motor (M302) turns ON.		<ul style="list-style-type: none"> FNS control board (FNSCB) Punch drive board (PDB) Punch shift motor (M302) Punch shift home sensor (PS303) 	DIPSW35-2	The use of FS, SD, PK is unavailable.
ZU: ZU-608 abnormality	C-1130	1st folding stopper home sensor (PS603) does not turn ON within a specified period of time after the 1st folding stopper motor (M602) starts the home position search operation.	The main body and the ZU stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> ZU control board (ZUCB) 1st folding stopper motor (M602) 1st folding stopper home sensor (PS603) 	DIPSW47-5	The use of Z-folding and punch is unavailable.
	C-1131	2nd folding stopper home sensor (PS604) does not turn ON within a specified period of time after the 2nd folding stopper motor (M603) starts the home position search operation.		<ul style="list-style-type: none"> ZU control board (ZUCB) 2nd folding stopper motor (M603) 2nd folding stopper home sensor (PS604) 	DIPSW47-5	The use of Z-folding and punch is unavailable.
PK: PK abnormality	C-1132	The punch home sensor (PS301) does not turn ON within a specified period of time after the punch motor (M301) turns ON.	The main body and the FS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> FNS control board (FNSCB) Punch drive board (PDB) Punch motor (M301) Punch HP sensor /1 (PS301) Punch HP sensor /2 (PS307) 	DIPSW35-2	The use of FS, SD, PK is unavailable.
ZU: ZU-608 abnormality	C-1133	The punch shift home sensor (PS605) does not turn ON even after a specified period of time after the punch shift motor (M605) starts the home position search operation.	The main body and the ZU stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> ZU control board (ZUCB) Punch shift motor (M605) Punch shift home sensor (PS605) 	DIPSW47-5	The use of Z-folding and punch is unavailable.
	C-1134	An error detection signal of FM601 is detected continuously for a specified period of time while the main motor cooling fan (FM601) is ON.		<ul style="list-style-type: none"> ZU control board (ZUCB) Main motor cooling fan (FM601) 		
	C-1135	After the punch motor (M604) turns ON, M604 does not turn ON within a specified period of time.		<ul style="list-style-type: none"> ZU control board (ZUCB) Punch motor (M604) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
ZU: ZU-608 abnormality	C-1136	After the punch switchover motor (M608) turns ON, punch switchover switch (MS601) does not turn ON from OFF, or not turn OFF from ON within a specified period of time.		<ul style="list-style-type: none"> • ZU control board (ZUCB) • Punch switchover motor (M608) • Punch switchover switch (MS601) 	DIPSW47-5	The use of Z-folding and punch is unavailable.
FS: FS-532 abnormality	C-1137	The conveyance gate home sensor (PS31) does not turn ON within a specified period of time after the conveyance gate motor (M22) turns ON.	The main body and the FS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> • FNS control board (FNSCB) • Conveyance gate motor (M22) • Conveyance gate home sensor (PS31) 	DIPSW35-2	The use of FS, SD, PK is unavailable.
	C-1141	After the stack assist motor (M8) turns ON, the stack assist home sensor (PS11) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Stack assist motor (M8) • Stack assist home sensor (PS11) 	DIPSW35-0	The use of staple is unavailable
	C-1144	The paper exit alignment plate home sensor (PS20) does not turn ON within a specified period of time after the paper exit alignment plate motor (M12) turns ON.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Paper exit alignment plate motor (M12) • Paper exit alignment plate home sensor (PS20) 	DIPSW35-1	FS main tray and stapling are not available
	C-1147	The paper exit alignment plate up down home sensor (PS21) does not turn ON within a specified period of time after the paper exit alignment plate up down motor (M13) turns ON.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Paper exit alignment plate up down motor (M13) • Paper exit alignment plate up down home sensor (PS21)) 	DIPSW35-1	FS main tray and stapling are not available
	C-1153	The main tray home sensor (PS23) does not turn ON within a specified period of time after the tray shift roller motor (M15) turns ON.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Tray shift roller motor (M15) • Main tray home sensor (PS23) 	DIPSW35-1	FS main tray and stapling are not available
	C-1154	After the gripper exit sensor /Lw (M16) turns ON, the gripper home sensor /Up (PS24) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Gripper paper exit motor /Up (M16) • Gripper home sensor / Up (PS24) 	DIPSW35-1	FS main tray and stapling are not available
	C-1155	After the gripper exit sensor /Lw (M17) turns ON, the gripper home sensor /Lw (PS25) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Gripper paper exit motor /Lw (M17) • Gripper home sensor / Lw (PS25) 	DIPSW35-1	FS main tray and stapling are not available
	C-1156	After the stacker rear stopper motor (M20) turns ON, the stacker rear stopper home sensor (PS29) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Stacker rear stopper motor (M20) • Stacker rear stopper home sensor (PS29) 	DIPSW35-0	The use of staple is unavailable
	C-1157	After the stacker paper press motor (M21) turns ON, the stacker paper press home sensor (PS30) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Stacker paper press motor (M21) • Stacker paper press home sensor (PS30) 	DIPSW35-0	The use of staple is unavailable
	C-1158	After the roller pressure motor (M27) turns ON, the roller pressure motor home sensor (PS34) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> • FNS control board (FNSCB) • Roller pressure motor (M27) • Roller pressure motor home sensor (PS34) 	DIPSW35-0	The use of staple is unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1159	The bypass gate home sensor (PS36) does not turn ON within a specified period of time after the bypass gate motor (M25) turns ON.		<ul style="list-style-type: none"> FNS control board (FNSCB) Bypass gate motor (M25) Bypass gate home sensor (PS36) 	DIPSW35-0, DIPSW47-2	The use of staple, half-fold, fold&staple and tri-fold is unavailable.
	C-1170	The exit paper press home sensor (PS37) does not turn ON within a specified period of time after the exit paper press motor (M26) turns ON.		<ul style="list-style-type: none"> FNS control board (FNSCB) Exit paper press motor (M26) Exit paper press home sensor (PS37) 	DIPSW35-1	FS main tray and stapling are not available
	C-1171	The small size paper alignment home sensor (PS26) does not turn ON within a specified period of time after the small size paper alignment motor (M18) turns ON.		<ul style="list-style-type: none"> FNS control board (FNSCB) Small size paper alignment motor (M18) Small size paper alignment home sensor (PS26) 	DIPSW35-0	The use of staple is unavailable
	C-1172	An error detection signal of FM1 is detected continuously for a specified period of time while the large size paper alignment fan (FM1) is ON.		<ul style="list-style-type: none"> FNS control board (FNSCB) Large size paper alignment fan (FM1) 	DIPSW35-0	The use of staple is unavailable
FS: FS-510 abnormality	C-1173	The stapler shift home sensor (PS105) does not turn ON within a specified period of time after the stapler movement motor (M103) turns ON.	The main body and the SD stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> FNS control board (FNSCB) SD control board (SDCB) Stapler movement motor (M103) Stapler shift home sensor (PS105) 	DIPSW47-2	The use of half-fold, fold&staple and tri-fold is unavailable.
	C-1174	The operation does not complete within a specified period of time after the SD saddle stapler motor (M102) starts operations,		<ul style="list-style-type: none"> FNS control board (FNSCB) SD control board (SDCB) SD stapler motor (M102) 	DIPSW47-2	The use of half-fold, fold&staple and tri-fold is unavailable.
	C-1175	After the stopper motor (M105) turns ON, the stopper home sensor (PS107) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> FNS control board (FNSCB) SD control board (SDCB) Stopper motor (M105) Stopper home sensor (PS107) 	DIPSW47-2	The use of half-fold, fold&staple and tri-fold is unavailable.
	C-1176	After the center paddle motor (M106) turns ON, the center paddle home sensor (PS108) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> FNS control board (FNSCB) SD control board (SDCB) Center paddle motor (M106) Center paddle home sensor (PS108) 	DIPSW47-2	The use of half-fold, fold&staple and tri-fold is unavailable.
	C-1177	The 2nd folding knife home sensor (PS111) does not turn ON within a specified period of time after the 2nd folding knife motor (M110) turns ON.		<ul style="list-style-type: none"> FNS control board (FNSCB) SD control board (SDCB) 2nd folding knife motor (M110) 2nd folding knife home sensor (PS111) 	DIPSW47-2	The use of half-fold, fold&staple and tri-fold is unavailable.
FS: FS-532 abnormality	C-1179	RUKA communication error	The main body and the FS stop immediately to turn OFF the main relay (RL1).	FNS control board (FNSCB)		
FS: FS-510 abnormality	C-1180	The alignment home sensor (PS106) does not	The main body and the SD stop immediately to	FNS control board (FNSCB)	DIPSW47-2	The use of half-fold, fold&staple

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
		turn ON within a specified period of time after the saddle stitching alignment motor (M104) turns ON.	turn OFF the main relay (RL1).	<ul style="list-style-type: none"> SD control board (SDCB) Saddle stitching alignment motor (M104) Alignment home sensor (PS106) 		and tri-fold is unavailable.
	C-1181	After the lower paddle motor (M109) turns ON, the lower paddle home sensor (PS114) does not turn ON within a specified period of time.		<ul style="list-style-type: none"> FNS control board (FNSCB) SD control board (SDCB) Lower paddle motor (M109) Lower paddle home sensor (PS114) 	DIPSW47-2	The use of half-fold, fold&staple and tri-fold is unavailable.
LS (1st tandem): LS abnormality	C-1201	The stacker tray encoder sensor (PS2) does not turn ON within a specified period of time after the stacker tray up down motor (M1) turns ON. Or, the initial operation or the stacker tray down operation is not completed within a specified period of time.	The main body and the LS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Stacker tray up down motor (M1) LS control board (LSCB) 	DIPSW6-6	LS (1st tandem) unusable
	C-1202	The shift unit home sensor (PS11) does not turn ON within a specified period of time after the shift unit motor (M5) turns ON. Or, PS11 does not turn ON within a specified period of time.		<ul style="list-style-type: none"> Shift unit motor (M5) LS control board (LSCB) 	DIPSW6-6	LS (1st tandem) unusable
	C-1203	The alignment plate home sensor (PS12) does not turn ON within a specified period of time after the alignment motor (M7) turns ON. Or, PS12 does not turn ON within a specified period of time.		<ul style="list-style-type: none"> Alignment motor (M7) LS control board (LSCB) 	DIPSW6-6	LS (1st tandem) unusable
	C-1204	The grip conveyance home sensor (PS5) does not turn ON within a specified period of time after the grip conveyance motor (M4) turns ON.		Grip conveyance motor (M4)	DIPSW6-6	LS (1st tandem) unusable
	C-1205	The stacker tray upper limit switch (MS2) is ON when the stacker tray up down motor (M1) is in the up operation.		<ul style="list-style-type: none"> Stacker tray up down motor (M1) Stacker tray upper limit switch (MS2) 	DIPSW6-6	LS (1st tandem) unusable
	C-1206	The stacker tray lower limit switch (MS3) is ON when the stacker tray up down motor (M1) is in the down operation.		<ul style="list-style-type: none"> Stacker tray up down motor (M1) Stacker tray lower limit switch (MS3) 	DIPSW6-6	LS (1st tandem) unusable
LS (2nd tandem): LS abnormality	C-1211	The stacker tray encoder sensor (PS2) does not turn ON within a specified period of time after the stacker tray up down motor (M1) turns ON. Or, the initial operation or the stacker tray down operation is not completed within a specified period of time.		<ul style="list-style-type: none"> Stacker tray up down motor (M1) LS control board (LSCB) 	DIPSW6-6	LS (1st tandem) unusable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1212	The shift unit home sensor (PS11) does not turn ON within a specified period of time after the shift unit motor (M5) turns ON. Or, PS11 does not turn ON within a specified period of time.		<ul style="list-style-type: none"> Shift unit motor (M5) LS control board (LSCB) 	DIPSW6-6	LS (1st tandem) unusable
	C-1213	The alignment plate home sensor (PS12) does not turn ON within a specified period of time after the alignment motor (M7) turns ON. Or, PS12 does not turn ON within a specified period of time.		<ul style="list-style-type: none"> Alignment motor (M7) LS control board (LSCB) 	DIPSW6-6	LS (1st tandem) unusable
	C-1214	The grip conveyance home sensor (PS5) does not turn ON within a specified period of time after the grip conveyance motor (M4) turns ON.		Grip conveyance motor (M4)	DIPSW6-6	LS (1st tandem) unusable
	C-1215	The stacker tray upper limit switch (MS2) is ON when the stacker tray up down motor (M1) is in the up operation.		<ul style="list-style-type: none"> Stacker tray up down motor (M1) Stacker tray upper limit switch (MS2) 	DIPSW6-6	LS (1st tandem) unusable
	C-1216	The stacker tray lower limit switch (MS3) is ON when the stacker tray up down motor (M1) is in the down operation.		<ul style="list-style-type: none"> Stacker tray up down motor (M1) Stacker tray lower limit switch (MS3) 	DIPSW6-6	LS (1st tandem) unusable
FD: FD abnormality	C-1221	The 1st folding cam home sensor (PS55) does not turn ON within a specified period of time after the 1st folding release motor (M14) turns ON.	The main body and the FD stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> 1st folding release motor (M14) Folding drive board (FDB) 1st folding cam home sensor (PS55) 	DIPSW6-0	The use of the folding function and the punch section is unavailable
	C-1222	The 2nd folding cam home sensor (PS56) does not turn ON within a specified period of time after the 2nd folding release motor (M15) turns ON.		<ul style="list-style-type: none"> 2nd folding release motor (M15) Folding drive board (FDB) 2nd folding cam home sensor (PS56) 	DIPSW6-0	The use of the folding function and the punch section is unavailable
	C-1223	The 3rd folding cam home sensor (PS57) does not turn ON within a specified period of time after the 3rd folding release motor (M16) turns ON.		<ul style="list-style-type: none"> 3rd folding release motor (M16) Folding drive board (FDB) 3rd folding cam home sensor (PS57) 	DIPSW6-0	The use of the folding function and the punch section is unavailable
	C-1224	The 2 holes punch home sensor (PS8) does not turn OFF within a specified period of time after the 2-holes punch home position return operation starts. Or, after the punch motor (M10) turns ON, the 2 holes punch home sensor (PS8) does not turn OFF.		<ul style="list-style-type: none"> Punch motor (M10) Punch drive board (PDB) 2 holes punch home sensor (PS8) 	DIPSW6-0	The use of the folding function and the punch section is unavailable
	C-1225	The 3 holes/4 holes punch home sensor (PS9) does not turn OFF within a specified period of time after the 3 holes/4 holes punch home position return operation starts. Or, after the punch motor (M10) turns ON, the 3 holes/4 holes punch home sensor (PS9) does not turn OFF.		<ul style="list-style-type: none"> Punch motor (M10) Punch drive board (PDB) 3 holes/4 holes home sensor (PS9) 	DIPSW6-0	The use of the folding function and the punch section is unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1226	The alignment plate home sensor (PS10) does not turn ON within a specified period of time after the alignment plate home position return operation starts. Or, after the alignment motor (M12) turns ON, the alignment plate home sensor (PS10) does not turn OFF.		<ul style="list-style-type: none"> Alignment motor (M12) Punch drive board (PDB) Alignment plate home sensor (PS10) 	DIPSW6-0	The use of the folding function and the punch section is unavailable
	C-1227	The punch registration home sensor (PS11) does not turn ON within a specified period of time after the punch registration claw home position return operation starts. Or, after the punch registration motor (M13) turns ON, the punch registration home sensor (PS11) does not turn OFF.		<ul style="list-style-type: none"> Punch registration motor (M13) Punch drive board (PDB) Punch registration home sensor (PS11) 	DIPSW6-0	The use of the folding function and the punch section is unavailable
	C-1228	The main tray upper limit sensor (PS20) does not turn ON within a specified period of time after the main tray home position search starts. Or, after the tray up down motor (M11) turns ON, the main tray upper limit sensor (PS20) does not turn OFF.		<ul style="list-style-type: none"> Tray up down motor (M11) Main tray upper limit sensor (PS20) Punch drive board (PDB) 	DIPSW6-1	Main tray unusable
	C-1229	The main tray lower limit sensor (PS22) does not turn ON within a specified period of time after the tray up down motor (M11) is in the down operation.		<ul style="list-style-type: none"> Tray up down motor (M11) Punch drive board (PDB) Main tray lower limit sensor (PS22) 	DIPSW6-1	Main tray unusable
	C-1230	After the FD paper lift motor /Up (M8) is in the down operation, the PI lift plate home sensor /Up (PS34) does not turn ON within a specified period of time. Or, after the paper lift motor /Up (M8) is in the up operation, the PI tray upper limit sensor /Up (PS32) does not turn ON.		<ul style="list-style-type: none"> Paper lift motor /Up (M8) PI drive board (PIDB) PI lift plate home sensor /Up (PS34) PI upper limit sensor /Up (PS32) 	DIPSW6-2	The use of the PI section is unavailable
	C-1231	After the FD paper lift motor /Lw (M9) is in the down operation, the PI lift plate home sensor /Lw (PS40) does not turn ON within a specified period of time. Or, after the paper lift motor /Lw (M9) is in the up operation, the PI upper limit sensor /Lw (PS38) does not turn ON.		<ul style="list-style-type: none"> Paper lift motor /Lw (M9) PI drive board (PIDB) PI lift plate home sensor /Lw (PS40) PI upper limit sensor /Lw (PS38) 	DIPSW6-2	The use of the PI section is unavailable
	C-1232	An error detection signal is detected continuously for a specified period of time while the entrance conveyance motor (M1) is ON.		<ul style="list-style-type: none"> Paper lift motor /Lw (M9) PI drive board (PIDB) PI lift plate home sensor /Lw (PS40) PI upper limit sensor /Lw (PS38) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1233	An error detection signal of M3 is detected continuously for a specified period of time while the intermediate conveyance motor (M3) is ON.		<ul style="list-style-type: none"> Intermediate conveyance motor (M3) Punch drive board (PDB) 		
	C-1234	An error detection signal of M7 is detected continuously for a specified period of time while the PI conveyance motor (M7) is ON.		<ul style="list-style-type: none"> PI conveyance motor (M7) PI drive board (PIDB) 	DIPSW6-2	The use of the PI section unavailable
	C-1235	An error detection signal of M17 is detected continuously for a specified period of time while the main tray exit motor (M17) is ON.		<ul style="list-style-type: none"> Main tray exit motor (M17) Punch drive board (PDB) 		
SD: SD-506 abnormality	C-1241	The scraps press home sensor (PS48) does not turn ON within a specified period of time after the bundle exit motor (M5) starts the home position search operation.	The main body and the SD stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Bundle exit motor (M5) Scraps press home sensor (PS48) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1242	The folding main scan alignment home sensor / Fr1 (PS18) does not turn ON within a specified period of time after the folding main scan alignment motor /Fr (M7) starts the home position search operation. Or, even after a specified period of time after M7 starts the operation, it does not stop.		<ul style="list-style-type: none"> Folding main scan alignment motor /Fr (M7) Folding main scan alignment home sensor / Fr1 (PS18) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding, multi tri-folding and trimmer unavailable
	C-1243	The folding exit home sensor (PS24) does not turn ON within a specified period of time after the folding sub scan alignment exit motor (M8) starts the home position search operation. Or, even after a specified period of time after M8 starts to decelerate, it does not stop.		<ul style="list-style-type: none"> Folding sub scan alignment exit motor (M8) Folding exit home sensor (PS24) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable
	C-1244	The saddle stitching alignment home sensor /Rt (PS28) does not turn ON within a specified period of time after the saddle stitching alignment motor / Rt (M9) starts the home position search operation. Or, even after a specified period of time after M9 starts the operation, it does not stop.		<ul style="list-style-type: none"> Saddle stitching alignment motor /Rt (M9) Saddle stitching alignment home sensor / Rt (PS28) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1245	The bundle arm home sensor (PS32) does not turn ON within a specified period of time after the bundle arm motor (M10) starts the home position search operation. Or, even after a specified period of time after M10 starts the operation, it does not stop.		<ul style="list-style-type: none"> Bundle arm motor (M10) Bundle arm home sensor (PS32) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1246	The bundle clip upper limit sensor (PS33) does not turn ON within a specified period of time after the bundle clip motor (M11) starts the home position search operation. Or, even after a specified period of time after M11 starts the operation, it does not stop.		<ul style="list-style-type: none"> Bundle clip motor (M11) Bundle clip upper limit sensor (PS33) Bundle clip lower limit sensor (PS30) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1247	The bundle registration home sensor (PS34) does not turn ON within a specified period of time after the bundle registration motor (M12) starts the home position search operation. Or, even after a specified period of time after M12 starts the operation, it does not stop.		<ul style="list-style-type: none"> Bundle registration motor (M12) Bundle registration home sensor (PS34) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1248	The overlap home sensor (PS17) does not turn ON within a specified period of time after the overlap motor (M13) starts the home position search operation. Or, even after a specified period of time after M13 starts the operation, it does not stop.		<ul style="list-style-type: none"> Overlap motor (M13) Overlap home sensor (PS17) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable
	C-1249	The folding main scan alignment home sensor /Rr (PS19) does not turn ON within a specified period of time after the folding main scan alignment motor /Rr (M14) starts the home position search operation. Or, even after a specified period of time after M14 starts the operation, it does not stop.		<ul style="list-style-type: none"> Folding main scan alignment motor /Rr (M14) Folding main scan alignment home sensor / Rr (PS19) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable
	C-1250	The stapler movement home sensor (PS25) does not turn ON within a specified period of time after the home position search operation of the stapler movement motor (M15) starts. Or, even after a specified period of time after M15 starts the operation, it does not stop.		<ul style="list-style-type: none"> Stapler movement motor (M15) Stapler movement home sensor (PS25) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1251	The saddle stitching alignment home sensor /Lt (PS29) does not turn ON within a specified period of time after the saddle stitching alignment motor / Lt (M16) starts the home position search operation. Or, even after a specified period of time after M16 starts the operation, it does not stop.		<ul style="list-style-type: none"> Saddle stitching alignment motor /Lt (M16) Saddle stitching alignment home sensor / Lt (PS29) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1252	The bundle press movement home sensor (PS36) does not turn ON within a specified period of time after the bundle press movement motor (M17) starts the home position search operation. Or, even after a specified period of time after M17 starts the operation, it does not stop.		<ul style="list-style-type: none"> Bundle press movement motor (M17) Bundle press movement home sensor (PS36) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1253	The 1st folding blade home sensor (PS21) does not turn ON within a specified period of time after the 1st folding blade motor (M18) starts the home position search operation. Or 1st folding blade home sensor /1 (PS20) does not turned ON within a specified period of time after M18 starts the operation.		<ul style="list-style-type: none"> 1st folding blade motor (M18) 1st folding blade home sensor /1 (PS20), /2 (PS21) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable
	C-1254	The 2nd folding blade home sensor /2 (PS23) does not turn ON within a specified period of time after the 2nd folding blade motor (M19) starts the home position search operation. Or the 2nd folding blade home sensor /1 (PS22) does not turned ON within a specified period of time after M19 starts the operation.		<ul style="list-style-type: none"> 2nd folding blade motor (M19) 2nd folding blade home sensor /1 (PS22), /2 (PS23) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-2	The use of the multi-tri-folding unavailable
	C-1255	The clincher up down home sensor (PS26) does not turn ON even after a specified period of time after the clincher up down motor (M20) starts the home position search. Or, even after a specified period of time after M20 starts the operation, it does not stop.		<ul style="list-style-type: none"> Clincher up down motor (M20) Clincher up down home sensor (PS26) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1256	The saddle stitching press home sensor (PS27) does not turn ON within a specified period of time after the saddle stitching press motor (M21) starts the home position search operation. Or, even after a specified period of time after M21 starts the operation, it does not stop.		<ul style="list-style-type: none"> Saddle stitching press motor (M21) Saddle stitching press home sensor (PS27) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1257	The bundle arm rotation home sensor (PS31) does not turn ON within a specified period of time after the bundle arm rotation motor (M22) starts the home position search operation. Or, even after a specified period of time after M22 starts the operation, it does not stop.		<ul style="list-style-type: none"> Bundle arm rotation motor (M22) Bundle arm rotation home sensor (PS31) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1258	The bundle press home sensor (PS37) does not turn ON within a specified period of time after the bundle press motor (M23) starts the home position search operation. Or, even after a specified period of time after M23 starts the operation, it does not stop.		<ul style="list-style-type: none"> Bundle press motor (M23) Bundle press home sensor (PS37) Bundle press lower limit sensor (PS47) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1259	The bundle press home sensor (PS35) does not turn ON within a specified period of time after the bundle press stage up down motor (M24) starts the home position search operation. Or PS35 or the bundle press stage up down upper limit sensor (PS45) does not turned ON after a specified period of time M24 starts the operation.		<ul style="list-style-type: none"> Bundle press stage up down motor (M24) Bundle press stage up down home sensor (PS35) Bundle press stage up down limit sensor (PS45) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1260	The guide shaft home sensor (PS46) does not turn ON even after a specified period of time after the guide shaft motor (M25) starts the home position search operation. Or, even after a specified period of time after M25 starts the operation, it does not stop.		<ul style="list-style-type: none"> Guide shaft motor (M25) Guide shaft home sensor (PS46) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-1, DIPSW7-3	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1261	The stapler home sensor / Rt (HS1) or the clincher start sensor /Rt (HS2) does not turn ON even after a specified period of time after the stapler motor /Rt (M29) starts the operation.		<ul style="list-style-type: none"> Stapler assembly /Rt SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-3	The use of the saddle stitching and trimmer unavailable
	C-1262	The stapler home sensor / Lt (HS3) or the clincher start sensor /Lt (HS4) does not turn ON even after a specified period of time after the stapler motor /Lt (M30) starts the operation.		<ul style="list-style-type: none"> Stapler assembly /Lt SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-3	The use of the saddle stitching and trimmer unavailable
	C-1263	It does not stop even after a specified period of time after the trimmer blade motor (M31) starts the operation.		<ul style="list-style-type: none"> Trimmer blade motor (M31) Trimmer blade home sensor (PS50) Trimmer blade upper limit sensor (PS51) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-3	The use of the trimmer unavailable
	C-1264	It does not stop even after a specified period of time after the trimmer press motor (M32) starts the operation.		<ul style="list-style-type: none"> Trimmer press motor (M32) Trimmer press home sensor (PS53) Trimmer press upper limit sensor (PS52) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-1, DIPSW7-3	The use of the saddle stitching, multi-center folding and trimmer unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1265	It does not stop even after a specified period of time after the bundle arm assist motor (M26) starts the operation.		<ul style="list-style-type: none"> Bundle arm assist motor (M26) Bundle arm assist home sensor (PS38) Bundle arm assist upper limit sensor (PS39) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-1, DIPSW7-3	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1266	Rotation abnormality is detected for a specified period of time in succession while the entrance conveyance motor (M1) is driving.		<ul style="list-style-type: none"> Entrance conveyance motor (M1) SD control board (SDCB) SD drive board (SDDB) 		
	C-1267	Rotation abnormality is detected for a specified period of time in succession while the horizontal conveyance motor (M2) is driving.		<ul style="list-style-type: none"> Horizontal conveyance motor (M2) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-4	Sub tray, paper exit to subsequent stage and FS unavailable
	C-1268	Rotation abnormality is detected for a specified period of time in succession while the folding entrance motor (M3) is driving.		<ul style="list-style-type: none"> Folding entrance motor (M3) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-1, DIPSW7-2, DIPSW7-3	The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable
	C-1269	Rotation abnormality is detected for a specified period of time in succession while the folding transfer motor (M4) is driving.		<ul style="list-style-type: none"> Folding transfer motor (M4) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-1, DIPSW7-2, DIPSW7-3	The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable
	C-1270	Rotation abnormality is detected for a specified period of time in succession while the bundle exit motor (M5) is driving.		<ul style="list-style-type: none"> Bundle exit motor (M5) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-1, DIPSW7-3	The use of the saddle stitching, multi-center folding and trimmer unavailable
	C-1271	Rotation abnormality is detected for a specified period of time in succession while the folding sub scan alignment exit motor (M8) is driving.		<ul style="list-style-type: none"> Folding sub scan alignment exit motor (M8) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-0, DIPSW7-1, DIPSW7-2, DIPSW7-3	The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable
	C-1272	Rotation abnormality is detected for a specified period of time in succession while the trimmer paddle motor (M33) is driving.		<ul style="list-style-type: none"> Trimmer paddle motor (M33) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-3	The use of the trimmer unavailable
	C-1273	The trimmer completion sensor (PS62) does not turn ON even after a specified period of time after the trimmer blade motor (M31) is in the up operation.		<ul style="list-style-type: none"> Trimmer blade motor (M31) Trimmer completion sensor (PS62) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-3	The use of the trimmer unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1275	The wire slack sensor (PS66) detected the slack of the trimmer edge drive wire.		<ul style="list-style-type: none"> Wire slack prevention sensor (PS66) SD control board (SDCB) SD drive board (SDDB) 		
RU: RU-510 abnormality	C-1281	FD alignment motor (M3) drive abnormality. The CD alignment home sensor (PS3) does not turn ON even after a specified period of time after M3 starts the home position search operation. Or, even after a specified period of time after M3 starts the operation, it does not stop.	The main body and the RU stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> FD alignment home sensor (PS3) FD alignment motor (M3) RU control board (RUCB) 		
	C-1282	CD alignment motor (M4): drive abnormality. The CD alignment home sensor (PS4) does not turn ON even after a specified period of time after M4 starts the home position search operation. Or, even after a specified period of time after M4 starts the operation, it does not stop.		<ul style="list-style-type: none"> CD alignment home sensor (PS4) CD alignment motor (M4) RU control board (RUCB) 		
RU: RU-509 abnormality	C-1290	Rotation abnormality is detected for a specified period of time in succession while the de-curler conveyance motor (M3) is driving.		<ul style="list-style-type: none"> De-curler conveyance motor (M3) RU control board (RUCB) 		
	C-1291	The home position search operation of the de-curler pressure motor /Lw (M5) does not complete within a specified period of time.		<ul style="list-style-type: none"> De-curler pressure motor /Lw (M5) RU control board (RUCB) 		
	C-1292	The home position search operation of the de-curler pressure motor /Up (M6) does not complete within a specified period of time.		<ul style="list-style-type: none"> De-curler pressure motor /Up (M6) RU control board (RUCB) 		
	C-1293	Rotation abnormality is detected for a specified period of time in succession while the humidification section conveyance motor (M8) is driving.		<ul style="list-style-type: none"> Humidification section conveyance motor (M8) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidificati on unusable
	C-1294	The home position search operation of the humidification section roller pressure motor /Rt (M9) does not complete within a specified period of time.		<ul style="list-style-type: none"> Humidification section roller pressure motor /Rt (M9) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidificati on unusable
	C-1295	The home position search operation of the humidification section roller pressure motor /Lt (M10) does not complete within a specified period of time.		<ul style="list-style-type: none"> Humidification roller pressure motor /Lt (M10) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidificati on unusable
	C-1299	The water tank full sensor (PS13) detects ON continuously for more than a specified period of time.		<ul style="list-style-type: none"> Drain path Water tank full sensor (PS13) RU control board (RUCB) 	DIPSW13-2	Humidificati on unusable
LS (1st tandem): LS abnormality	C-1301	An error detection signal is detected continuously for a	The main body and the LS stop immediately to	<ul style="list-style-type: none"> Paper cooling fan motor /Fr (FM1) LS control board (LSCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
		specified period of time while the paper cooling fan motor /Fr (FM1) is ON.	turn OFF the main relay (RL1).			
	C-1302	An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /1 (FM2) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /1 (FM2) LS control board (LSCB) 		
	C-1303	An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor/Mi (FM3) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /Mi (FM3) LS control board (LSCB) 		
	C-1304	An error detection signal of FM4 is detected continuously for a specified period of time while the motor cooling fan motor (FM4) is ON.		<ul style="list-style-type: none"> Motor cooling fan motor (FM4) LS control board (LSCB) 		
	C-1305	An error detection signal of FM5 is detected continuously for a specified period of time while the paper cooling fan motor /Rr (FM5) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /Rr (FM5) LS control board (LSCB) 		
LS (2nd tandem): LS abnormality	C-1306	An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /Fr (FM1) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /Fr (FM1) LS control board (LSCB) 		
	C-1307	An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor/1 (FM2) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /1 (FM2) LS control board (LSCB) 		
	C-1308	An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /Mi (FM3) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /Mi (FM3) LS control board (LSCB) 		
	C-1309	An error detection signal of FM4 is detected continuously for a specified period of time while the motor cooling fan motor (FM4) is ON.		<ul style="list-style-type: none"> Motor cooling fan motor LS control board (LSCB) 		
	C-1310	An error detection signal of FM5 is detected continuously for a specified period of time while the paper cooling fan motor /Rr (FM5) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /Rr (FM5) LS control board (LSCB) 		
SD: SD-506 abnormality	C-1311	A rotation error detection signal is detected continuously for specified period of time while the scraps removal fan motor (FM1) is started or driving.	The main body and the SD stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Scraps removal fan motor (FM1) SD control board (SDCB) SD drive board (SDDB) 	DIPSW7-3	The use of the trimmer unavailable
LS (3rd tandem): LS abnormality	C-1316	An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /Fr (FM1) is ON.	The main body and the LS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Paper cooling fan motor /Fr (FM1) LS control board (LSCB) 		
	C-1317	An error detection signal is detected continuously for a specified period of time while the paper cooling fan /1 (FM2) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /1 (FM2) LS control board (LSCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1318	An error detection signal is detected continuously for a specified period of time while the paper cooling fan /Mi (FM3) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /Mi (FM3) LS control board (LSCB) 		
	C-1319	An error detection signal of FM4 is detected continuously for a specified period of time while the motor cooling fan motor (FM4) is ON.		<ul style="list-style-type: none"> Motor cooling fan motor LS control board (LSCB) 		
	C-1320	An error detection signal of FM5 is detected continuously for a specified period of time while the paper cooling fan /Rr (FM5) is ON.		<ul style="list-style-type: none"> Paper cooling fan motor /Rr (FM5) LS control board (LSCB) 		
PB: PB abnormality	C-1330	A rotation error detection signal is detected continuously for specified time period while the cover paper tray fan /1 (FM71) is started or driving.	The main body and the PB stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> PB control board (PBCB) PB drive board (PBDB) Cover paper tray fan /1 (FM71) 	DIPSW7-5	Paper feed from the PB is unavailable.
	C-1331	A rotation error detection signal is detected continuously for specified time period while the cover paper tray fan /2 (FM72) is started or driving.		<ul style="list-style-type: none"> PB control board (PBCB) PB drive board (PBDB) Cover paper tray fan /2 (FM72) 	DIPSW7-5	Paper feed from the PB is unavailable.
	C-1332	A rotation error detection signal is detected continuously for a specified time period while the exhaust fan /1 (FM80) is started or driving.		<ul style="list-style-type: none"> PB control board (PBCB) PB drive board (PBDB) Exhaust fan /1 (FM80) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1333	A rotation error detection signal is detected continuously for a specified time period while the exhaust fan /2 (FM81) is started or driving.		<ul style="list-style-type: none"> AC drive board (ACDB) PB control board (PBCB) PB drive board (PBDB) Exhaust fan /2 (FM81) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1334	A rotation error detection signal is detected continuously for specified period of time while the pellet supply cooling fan (FM4) is started or driving.		<ul style="list-style-type: none"> AC drive board (ACDB) PB control board (PBCB) PB drive board (PBDB) Pellet supply cooling fan (FM4) 	DIPSW7-6	Ejecting onto the sub tray is possible.
RU: RU-510 abnormality	C-1341	Stack assist fan /Fr (FM1) rotation abnormality. Rotation abnormality detected continuously for the specified time during FM1 operation.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Stack assist fan /Fr (FM1) RU control board (RUCB) 		
	C-1342	Stack assist fan /Rr (FM2) rotation abnormality. Rotation abnormality detected continuously for the specified time during FM2 operation.		<ul style="list-style-type: none"> Stack assist fan /Rr (FM2) RU control board (RUCB) 		
RU: RU-509 abnormality	C-1351	Error detection signals of FM/1, FM/2 and FM/3 are detected continuously for a specified period of time while the entrance paper fans /1 (FM1), /2 (FM2) and /3 (FM3) are ON.		<ul style="list-style-type: none"> Entrance paper fan /1 (FM1) Entrance paper fan /2 (FM2) Entrance paper fan /3 (FM3) RU control board (RUCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1352	Error detection signals of FM4 and FM5 are detected continuously for a specified period of time while the ventilation assist fans /1 (FM4) and /2 (FM5) are ON.		<ul style="list-style-type: none"> Ventilation assist fan /1 (FM4) Ventilation assist fan /2 (FM5) RU control board (RUCB) 		
	C-1353	Error detection signals of FM15, FM16 and FM17 are detected continuously for a specified period of time while the entrance paper fans /4 (FM15), /5 (FM16) and /6 (FM17) are ON.		<ul style="list-style-type: none"> Entrance paper fan /4 (FM15) Entrance paper fan /5 (FM16) Entrance paper fan /6 (FM17) RU control board (RUCB) 		
	C-1354	Error detection signals of FM18, FM19 and FM20 are detected continuously for a specified period of time while the entrance paper fans /7 (FM18), /8 (FM19) and /9 (FM20) are ON.		<ul style="list-style-type: none"> Entrance paper fan /7 (FM18) Entrance paper fan /8 (FM19) Entrance paper fan /9 (FM20) RU control board (RUCB) 		
	C-1355	Error detection signals of FM21 is detected continuously for a specified period of time while the ventilation assist fan /3 (FM21) is ON.		<ul style="list-style-type: none"> Jumper connector CN108 Ventilation assist fan /3 (FM21) RU control board (RUCB) 		
	C-1356	An error detection signal of FM6 is detected continuously for a specified period of time while the humidification section paper fan /1 (FM6) is ON.		<ul style="list-style-type: none"> Humidification section paper fan /1 (FM6) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidification unusable
	C-1357	An error detection signal of FM7 is detected continuously for a specified period of time while the humidification section paper fan /2 (FM7) is ON.		<ul style="list-style-type: none"> Humidification section paper fan /2 (FM7) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidification unusable
	C-1358	An error detection signal of FM8 is detected continuously for a specified period of time while the humidification section paper fan /3 (FM8) is ON.		<ul style="list-style-type: none"> Humidification section paper fan /3 (FM8) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidification unusable
	C-1359	An error detection signal of FM9 is detected continuously for a specified period of time while the humidification section paper fan /4 (FM9) is ON.		<ul style="list-style-type: none"> Humidification section paper fan /4 (FM9) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidification unusable
	C-1360	An error detection signal of FM10 is detected continuously for a specified period of time while the humidification section paper fan /5 (FM10) is ON.		<ul style="list-style-type: none"> Humidification section paper fan /5 (FM10) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidification unusable
	C-1361	An error detection signal of FM11 is detected continuously for a specified period of time while the humidification section paper fan /6 (FM11) is ON.		<ul style="list-style-type: none"> Humidification section paper fan /6 (FM11) RU control board (RUCB) RU control board (RUCB) 	DIPSW13-2	Humidification unusable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1364	An error detection signal of FM14 is detected continuously for a specified period of time while the humidification section paper fan (FM14) is ON.		<ul style="list-style-type: none"> Power supply fan (FM14) DC power supply (DCPS) 		
FS: FS-532 abnormality	C-1402	Non-volatile memory abnormality.	The main body and the FS stop immediately to turn OFF the main relay (RL1).	FNS control board (FNSCB)		
FD: FD abnormality	C-1403	Non-volatile memory abnormality.	The main body and the FD stop immediately to turn OFF the main relay (RL1).	FD control board (FDCB)		
SD: SD-506 abnormality	C-1404	Non-volatile memory abnormality.	The main body and the SD stop immediately to turn OFF the main relay (RL1).	SD control board (SDCB)		
PB: PB abnormality	C-1406	Non-volatile memory abnormality in the PB control board (PBCB)	The main body and the PB stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> PB control board (PBCB) Control program 		
RU: RU-509 abnormality	C-1407	Non-volatile memory abnormality.	The main body and the RU stop immediately to turn OFF the main relay (RL1).	RU control board (RUCB)		
RU: RU-510 abnormality	C-1408	Non-volatile memory abnormality.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	RU control board (RUCB: RU-510)		
SD: SD-506 abnormality	C-1411	5V power abnormality in the SD drive board (SDDB)	The main body and the SD stop immediately to turn OFF the main relay (RL1).	SD drive board (SDDB)		
FS: FS-532 abnormality	C-1412	24V activation failure	The main body and the FS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Power source FNS control board (FNSCB) 		
FD: FD abnormality	C-1432	Communication error in FD	The main body and the FD stop immediately to turn OFF the main relay (RL1).	Software bug		
SD: SD-506 abnormality	C-1433	Communication error in SD	The main body and the SD stop immediately to turn OFF the main relay (RL1).	Software bug		
PB: PB abnormality	C-1435	Message queue full or the control abnormality of Sub CPU1 in the PB control board (PBCB)	The main body and the PB stop immediately to turn OFF the	<ul style="list-style-type: none"> PB control board (PBCB) Control program 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1436	Message queue full or the control abnormality of Sub CPU2 in the PB control board (PBCB)	main relay (RL1).	<ul style="list-style-type: none"> • PB control board (PBCB) • Control program 		
	C-1437	Message queue of the communication among tasks in the PB is full.		Control program		
RU: RU-509 abnormality	C-1438	Communication error in RU	The main body and the RU stop immediately to turn OFF the main relay (RL1).	Software bug		
RU: RU-510 abnormality	C-1439	Communication error in RU	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Software bug 		
FS: FS-532/SD-510 abnormality	C-1442	Communication error between FS-532 and SD-510.	The main body and the SD stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> • FNS control board (FNSCB) • SD control board (SDCB) 	DIPSW47-2	The use of half-fold, fold&staple and tri-fold is unavailable.
FD: FD abnormality	C-1451	When the FD is unready, a signal to start operations is received from the main body.	The main body and the FD stop immediately to turn OFF the main relay (RL1).	Software bug		
SD: SD-506 abnormality	C-1452	When the SD is unready, a signal to start operations is received from the main body.	The main body and the SD stop immediately to turn OFF the main relay (RL1).	Software bug		
PB: PB abnormality	C-1454	PB operation prohibition abnormality. PB received operation start signal from the main body when the PB is unready.	The main body and the PB stop immediately to turn OFF the main relay (RL1).	Control program		
RU: RU-509 abnormality	C-1455	When RU is unready, a signal to start operations is received from the main body.	The main body and the RU stop immediately to turn OFF the main relay (RL1).	Software bug		
RU: RU-510 abnormality	C-1456	When RU is unready, a signal to start operations is received from the main body.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	Software bug		
	C-1499	Logical contradiction error		Software bug		
PB: PB abnormality	C-1501	The entrance conveyance has not been completed within a specified period of time after the entrance conveyance motor (M1) turns ON.	The main body and the PB stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Entrance conveyance motor (M1) 	DIPSW7-7	The use of the PB is unavailable
	C-1502	A rotation error detection signal is detected for a specified period of time in succession while the intermediate conveyance motor (M2) is driving.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Intermediate conveyance motor (M2) 	DIPSW7-6	Ejecting onto the sub tray is possible.

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1504	The SC entrance conveyance has not been completed within a specified period of time after the SC entrance conveyance motor (M11) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • SC entrance conveyance motor (M11) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1505	The switchback conveyance has not been completed within a specified period of time after the SC switchback conveyance motor (M12) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • SC switchback conveyance motor (M12) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1506	The switchback roller release operation has not been completed within a specified period of time after the SC switchback release motor (M13) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • SC switchback release motor (M13) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1507	The SC alignment has not been completed within a specified period of time after SC alignment motor (M15) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • SC alignment motor (M15) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1508	The SC paper bundle conveyance has not been completed within a specified period of time after the SC bundle conveyance motor (M17) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • SC bundle conveyance motor (M17) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1509	The SC roller release operation has not been completed within a specified period of time after the SC roller release motor (M18) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • SC roller release motor (M18) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1510	The SC entrance movement operation has not been completed within a specified period of time after the clamp entrance movement motor (M19) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Clamp entrance movement motor (M19) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1511	The clamp entrance roller release operation has not been completed within a specified period of time after the clamp entrance roller release motor (M20) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Clamp entrance roller release motor (M20) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1512	The clamp alignment has not been completed within a specified period of time after clamp alignment motor (M21) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Clamp alignment motor (M21) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1513	The clamp section open/close operation has not been completed within a specified period of time after the clamp motor (M22) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Clamp motor (M22) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1514	The clamp rotation operation has not been completed within a specified period of time after the clamp rotation motor (M23) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Clamp rotation motor (M23) 	DIPSW7-6	Ejecting onto the sub tray is possible.

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1515	The glue tank movement operation has not been completed within a specified period of time after the glue tank movement motor (M31) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Glue tank movement motor (M31) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1516	A rotation error detection signal is detected for a specified period of time in succession while the glue apply roller motor (M32) is driving.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1517	The count of a specified number of pellets, which is counted by the pellet supply passage sensor (PS37), has not been reached after the pellet supply pipe motor (M33) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Pellet supply pipe motor (M33) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1518	The operation of the pellet supply arm has not been completed within a specified period of time after the pellet supply arm motor (M34) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Pellet supply arm motor (M34) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1519	The alignment in the cover paper table up/down section has not been completed within a specified period of time after the cover paper alignment motor (M41) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper alignment motor (M41) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1520	The booklet exit has not been completed within a specified period of time after the booklet exit motor (M42) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Booklet exit motor (M42) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1521	The driven arm /Rt swing operation start has not been completed within a specified period of time after the cover paper conveyance arm motor /Rt (M43) turns ON		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper conveyance arm motor / Rt (M43) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1522	The driven arm /Lt swing operation start has not been completed within a specified period of time after the cover paper conveyance arm motor /Lt (M44) turns ON		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper conveyance arm motor / Lt (M44) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1523	The cover paper conveyance start has not been completed within a specified period of time after cover paper conveyance motor (M45) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper conveyance motor (M45) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1524	The cover paper table up or down movement has not been completed within a specified period of time after the cover paper table up down motor /Fr (M46) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper table up down motor /Fr (M46) 	DIPSW7-6	Ejecting onto the sub tray is possible.

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1525	The cover paper table up or down movement has not been completed within a specified period of time after the cover paper table up down motor /Rr (M47) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper table up down motor /Rr (M47) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1526	The movement of the cover paper folding plate / Rt has not been completed within a specified period of time after the cover paper folding motor /Rt (M48) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper folding motor /Rt (M48) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1527	The movement of the cover paper folding plate / Lt has not been completed within a specified period of time after the cover paper folding motor /Lt (M49) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper folding motor /Lt (M49) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1528	The trimming of the cover paper has not been completed within a specified period of time after the cutter motor (M50) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cutter motor (M50) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1530	The booklet movement of the booklet conveyance section has not been completed within a specified period of time after the booklet conveyance belt motor (M61) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Booklet conveyance belt motor (M61) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1531	The size changing operation of the carriage section has not been completed within a specified period of time after the booklet conveyance belt movement motor (M62) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Booklet conveyance belt movement motor (M62) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1532	The up/down movement operation of the carriage section has not been completed within a specified period of time after the booklet conveyance belt up down motor (M63) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Booklet conveyance belt up down motor (M63) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1534	The booklet rear edge pressing process has not been completed within a specified period of time after the booklet stopper motor (M65) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Booklet stopper motor (M65) 	DIPSW7-6	Ejecting onto the sub tray is possible.
	C-1537	The tray moving up process has not been completed within a specified period of time after the cover paper tray lift motor (M73) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper tray lift motor (M73) 	DIPSW7-5	Paper feed from the PB is unavailable.
	C-1538	The cover paper feed has not been completed within a specified period of time after the cover paper feed motor (M74) turns ON.		<ul style="list-style-type: none"> • PB control board (PBCB) • PB drive board (PBDB) • Cover paper feed motor (M74) 	DIPSW7-5	Paper feed from the PB is unavailable.

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1540	After the warm-up is started, temperature detected by the glue tank temperature sensor /Md (TH3) has not risen to a prescribed level within a specified time period.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Md (TH3) 	DIPSW7-7	The use of the PB is unavailable
	C-1541	After the warm-up is started, temperature detected by the glue tank temperature sensor /Lw (TH4) has not risen to a prescribed level within a specified time period.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Lw (TH4) 	DIPSW7-7	The use of the PB is unavailable
	C-1542	After the warm-up is started, temperature detected by the glue apply roller temperature sensor (TH1) has not risen to a prescribed level within a specified time period.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue apply roller temperature sensor (TH1) 	DIPSW7-7	The use of the PB is unavailable
	C-1543	After the pellet supply, temperature detected by the glue tank temperature sensor /Up (TH2) has not risen to a prescribed level within a specified period of time.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Up (TH2) 	DIPSW7-7	The use of the PB is unavailable
	C-1544	During standby, after the glue tank heater (H1) is turned ON, temperature detected by the glue tank temperature sensor /Md (TH3) has not risen to a prescribed level within a specified time period.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Md (TH3) 	DIPSW7-7	The use of the PB is unavailable
	C-1545	When the prescribed temperature is obtained and after the glue tank heater (H1) is turned ON, temperature detected by the glue tank temperature sensor /Lw (TH4) has not risen to a prescribed level within a specified time period.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Lw (TH4) 	DIPSW7-7	The use of the PB is unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1546	When the prescribed temperature is obtained and after the glue tank heater (H1) is turned ON, temperature detected by the glue apply roller temperature sensor (TH1) has not risen to a prescribed level within a specified time period.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue apply roller temperature sensor (TH1) 	DIPSW7-7	The use of the PB is unavailable
	C-1547	The glue apply roller temperature sensor (TH1) detects an abnormal high temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue apply roller temperature sensor (TH1) 	DIPSW7-7	The use of the PB is unavailable
	C-1548	The glue tank temperature sensor /Up (TH2) detects an abnormal high temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Up (TH2) 	DIPSW7-7	The use of the PB is unavailable
	C-1549	The glue tank temperature sensor /Md (TH3) detects an abnormal high temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Md (TH3) 	DIPSW7-7	The use of the PB is unavailable
	C-1550	The glue tank temperature sensor /Lw (TH4) detects an abnormal high temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Lw (TH4) 	DIPSW7-7	The use of the PB is unavailable
	C-1551	The glue apply roller temperature sensor (TH1) detects an abnormal high temperature (hardware) TH1 detects an abnormal high temperature of the glue apply roller.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue apply roller temperature sensor (TH1) 	DIPSW7-7	The use of the PB is unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1552	The glue tank temperature sensor /Up (TH2) detects an abnormal high temperature (hardware). TH2 detects an abnormal high temperature of the glue tank.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Up (TH2) 	DIPSW7-7	The use of the PB is unavailable
	C-1553	The glue tank temperature sensor /Md (TH3) detects an abnormal high temperature (hardware). TH3 detects an abnormal high temperature of the glue tank.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Md (TH3) 	DIPSW7-7	The use of the PB is unavailable
	C-1554	The glue tank temperature sensor /Lw (TH4) detects an abnormal high temperature (hardware). TH4 detects an abnormal high temperature of the glue tank.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Lw (TH4) 	DIPSW7-7	The use of the PB is unavailable
	C-1555	After warming-up is completed, the glue apply roller temperature sensor (TH1) detects an abnormal low temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue apply roller temperature sensor (TH1) 	DIPSW7-7	The use of the PB is unavailable
	C-1556	When glue supply control temperature is reached, the glue tank temperature sensor /Up (TH2) detects an abnormal low temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Up (TH2) 	DIPSW7-7	The use of the PB is unavailable
	C-1557	After warming-up is completed, the glue tank temperature sensor /Md (TH3) detects an abnormal low temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Md (TH3) 	DIPSW7-7	The use of the PB is unavailable

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1558	After warming-up is completed, the glue tank temperature sensor /Lw (TH4) detects an abnormal low temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Lw (TH4) 	DIPSW7-7	The use of the PB is unavailable
	C-1559	The glue apply roller temperature sensor (TH1) detects an abnormal low temperature (hardware). After warming-up is completed, TH1 detects the glue apply roller error signal of abnormal low temperature.	The main body stops immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue apply roller temperature sensor (TH1) 	DIPSW7-7	The use of the PB is unavailable
	C-1560	The glue tank temperature sensor /Up (TH2) detects an abnormal low temperature (hardware). After glue supply control temperature is reached, TH2 detects the glue tank error signal of abnormal low temperature.	The main body and the PB stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Up (TH2) 	DIPSW7-7	The use of the PB is unavailable
	C-1561	The glue tank temperature sensor /Md (TH3) detects an abnormal low temperature (hardware). After warming-up is completed, TH3 detects the glue tank error signal of abnormal low temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Md (TH3) 	DIPSW7-7	The use of the PB is unavailable
	C-1562	The glue tank temperature sensor /Lw (TH4) detects an abnormal low temperature (hardware). After warming-up is completed, TH4 detects the glue tank error signal of abnormal low temperature.		<ul style="list-style-type: none"> • AC drive board (ACDB) • Glue tank heater (H1) • Glue apply roller heater (H2) • PB control board (PBCB) • PB drive board (PBDB) • Glue apply roller motor (M32) • Glue tank temperature sensor /Lw (TH4) 	DIPSW7-7	The use of the PB is unavailable
	C-1565	Relay conveyance motor drive abnormality	The main body and the PB stop immediately to turn OFF the main relay (RL1). The relay conveyance does not start within the specified period of time after M92 turns ON.	<ul style="list-style-type: none"> • Relay conveyance motor (M92) • PB control board (PBCB) • PB drive board (PBDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-1566	Relay conveyance exit motor drive abnormality A rotation error detection signal is detected for a specified period of time in succession while the relay conveyance exit motor (M91) is driving.	The main body and the PB stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Relay conveyance exit motor (M91) PB control board (PBCB) PB drive board (PBDB) 		
	C-1567	Pellet supply pipe motor drive abnormality The pellet supply pipe has not completed the operations within a specified period of time after the pellet supply pipe motor (M33) turns ON.		<ul style="list-style-type: none"> Pellet supply pipe motor (M33) PB control board (PBCB) PB drive board (PBDB) 		
LS (3rd tandem): LS abnormality	C-1651	The stacker tray encoder sensor (PS2) does not turn ON within a specified period of time after the stacker tray up down motor (M1) turns ON. Or, the initial operation or the stacker tray down operation is not completed within a specified period of time.	The main body and the LS stop immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> Stacker tray up down motor (M1) LS control board (LSCB) 	DIPSW6-6	The use of the tandem (3rd) LS is unavailable
	C-1652	The shift unit home sensor (PS11) does not turn ON within a specified period of time after the shift unit motor (M5) turns ON. Or, PS11 does not turn ON within a specified period of time.		<ul style="list-style-type: none"> Shift unit motor (M5) LS control board (LSCB) 	DIPSW6-6	The use of the tandem (3rd) LS is unavailable
	C-1653	The alignment plate home sensor (PS12) does not turn ON within a specified period of time after the alignment motor (M7) turns ON. Or, PS12 does not turn ON within a specified period of time.		<ul style="list-style-type: none"> Alignment motor (M7) LS control board (LSCB) 	DIPSW6-6	The use of the tandem (3rd) LS is unavailable
	C-1654	The grip conveyance home sensor (PS5) does not turn ON within a specified period of time after the grip conveyance motor (M4) turns ON.		Grip conveyance motor (M4)	DIPSW6-6	The use of the tandem (3rd) LS is unavailable
	C-1655	The stacker tray upper limit switch (MS2) is ON when the stacker tray up down motor (M1) is in the up operation.		<ul style="list-style-type: none"> Stacker tray up down motor (M1) Stacker tray upper limit switch (MS2) 	DIPSW6-6	The use of the tandem (3rd) LS is unavailable
	C-1656	The stacker tray lower limit switch (MS3) is ON when the stacker tray up down motor (M1) is in the down operation.		<ul style="list-style-type: none"> Stacker tray up down motor (M1) Stacker tray lower limit switch (MS3) 	DIPSW6-6	The use of the tandem (3rd) LS is unavailable
Main body: Wire cleaning abnormality	C-2101	Charger cleaning motor (M23) operation time abnormality.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Charger cleaning limit sensor (PS26) Charger cleaning limit sensor (PS27) Charger cleaning motor (M23) Web motor (M24) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body : Wire cleaning abnormality	C-2102	Charger cleaning motor (M23) power abnormality.		<ul style="list-style-type: none"> Charger cleaning motor (M23) Web motor (M24) Printer control board (PRCB) 		
Main body: Wire cleaning abnormality	C-2103	Charger cleaning motor (M23) drive abnormality.		<ul style="list-style-type: none"> Charger cleaning motor (M23) Printer control board (PRCB) 		
Main body: Motor abnormality	C-2201	Toner bottle motor (M6) speed abnormality. An error detection signal is detected twice in succession within a specified period of time after M6 was turned ON.		<ul style="list-style-type: none"> Toner bottle motor (M6) Printer control board (PRCB) 		
	C-2202	Developing motor (M3) speed abnormality. Since an error detection signal is detected a second after M3 turns ON, turn OFF M3 for 0.5 seconds. Then, an error detection signal is detected again a second after it is turned ON again.		<ul style="list-style-type: none"> Developing motor (M3) Printer control board (PRCB) 		
	C-2203	The locking of the blade motor (M22) is detected. The error detection signal (over current) of M22 is detected.		<ul style="list-style-type: none"> Blade motor (M22) Printer control board (PRCB) 		
	C-2204	Drum motor (M2) drive abnormality + 24V power abnormality. The drum READY1 signal (READY condition) cannot be detected within a specified period of time after the drum motor (M2) turns ON. Or, the drum READY1 signal (READY release condition) cannot be detected within a specified period of time after M2 turns OFF. At this time, an error detection signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Printer control board (PRCB) DC power supply /1 (DCPS/1) 		
	C-2205	Drum motor (M2) power abnormality. The drum READY1 signal (READY condition) cannot be detected within a specified period of time after the drum motor (M2) turns ON. Or, the drum READY1 signal (READY release condition) cannot be detected within a specified period of time after M2 turns OFF. At this time, an error detection signal (blowout of ICP) of the blade motor (M22) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Drum motor (M2) Printer control board (PRCB) 		
	C-2206	Drum motor (M2) drive abnormality.		<ul style="list-style-type: none"> Blade sensor /1 (PS24) Blade sensor /2 (PS25) Drum motor (M2) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-2207	Drum motor (M22) drive abnormality + 24V power abnormality. The blade READY signal (READY condition) cannot be detected within a specified period of time after the blade replacement signal turns ON. Or, the blade READY signal (READY release condition) cannot be detected within a specified period of time after the blade replacement signal turns OFF. At this time, an error detection signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • DC power supply /2 (DCPS/2) • Printer control board (PRCB) 		
	C-2208	Blade motor (M22) power abnormality. The blade READY signal (READY condition) cannot be detected within a specified period of time after the blade replacement signal turns ON. Or, the blade READY signal (READY release condition) cannot be detected within a specified period of time after the blade replacement signal turns OFF. At this time, an error detection signal (blowout of ICP) of the blade motor (M22) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Blade motor (M22) • Printer control board (PRCB) 		
	C-2209	It is checked that the movement of the blade motor (M22) is not completed. The blade READY signal (READY condition) cannot be detected within a specified period of time after the blade replacement signal turns ON. Or, the blade READY signal (READY release condition) cannot be detected within a specified period of time after the blade replacement signal turns OFF. At this time, an error detection signal is not detected.		<ul style="list-style-type: none"> • Blade motor (M22) • Printer control board (PRCB) 		
	C-2210	The drum motor (M2) does not start. The drum READY2 signal (READY signal) is not detected within a specified period of time after M2 turns ON.		<ul style="list-style-type: none"> • Drum motor (M2) • Printer control board (PRCB) 		
	C-2211	Intermediate hopper motor (M11) power abnormality. An error detection signal (blowout of ICP) is detected when M11 turns ON.		<ul style="list-style-type: none"> • Intermediate hopper motor (M11) • Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-2212	Air separation motor (M10) power abnormality. An error detection signal (blowout of ICP) is detected when M10 turns ON.		<ul style="list-style-type: none"> Air separation motor (M10) Printer control board (PRCB) 		
	C-2213	Air separation motor (M10) rotation abnormality. Since an error is detected when M10 turns ON, turn it OFF. An error is still detected when turn it ON again.		<ul style="list-style-type: none"> Air separation motor (M10) Printer control board (PRCB) 		
	C-2214	The toner conveyance abnormality is detected. When executing the toner supply operation for 8 minutes, the intermediate hopper toner remaining sensor (PS39) does not turn ON and the hopper toner remaining sensor /2 (PS33) detects ON in succession for 15 seconds.		<ul style="list-style-type: none"> Intermediate hopper toner remaining sensor (PS39) Hopper toner remaining sensor /2 (PS33) Printer control board (PRCB) 		
	C-2215	Hopper toner remaining sensor /2 (PS33) abnormality. When the toner is supplied for 8minutes, it is found that the toner remaining sensor /1 (PS32) does not turn ON and the hopper toner remaining sensor /2 (PS33) turns OFF for the last 15 seconds in succession.		<ul style="list-style-type: none"> Hopper toner remaining sensor /1 (PS32) Hopper toner remaining sensor /2 (PS33) Printer control board (PRCB) 		
	C-2217	Leakage at the mixing section is detected. When the toner pump motor (M28) is operating, the cup section toner remaining sensor (PS34) detects the toner being provided in succession for seconds.		<ul style="list-style-type: none"> Cup section toner remaining sensor (PS34) Toner pump motor (M28) Printer control board (PRCB) 		
	C-2220	Toner pump motor (M28) rotation abnormality + 24V power abnormality. While M28 is rotating, an error detection signal (abnormal rotation/24V cut off) is detected for more than 1second.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		
	C-2221	Toner pump motor (M28) power abnormality. While M28 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an abnormality signal (blowout of ICP) is detected, but no abnormality signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Toner pump motor (M28) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-2222	Toner pump motor (M28) rotation abnormality. While M28 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an error detection signal (blowout of ICP/24V cut off) is not detected.		<ul style="list-style-type: none"> Toner pump motor (M28) Printer control board (PRCB) 		
	C-2224	Air pump motor (M29) rotation abnormality + 24V power abnormality. While M29 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an error signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		
	C-2225	Air pump motor (M29) power abnormality. While M29 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an abnormality signal (blowout of ICP) is detected, but no abnormality signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Air pump motor (M29) Printer control board (PRCB) 		
	C-2226	Air pump motor (M29) rotation abnormality. While M29 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an error detection signal (blowout of a fuse/24V cut off) is not detected.		<ul style="list-style-type: none"> Air pump motor (M29) Printer control board (PRCB) 		
	C-2227	Developing screw motor (M21) rotation abnormality. The M21EM error detection signal is detected twice in succession within a specified period of time after M21 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Developing screw motor (M21) Printer control board (PRCB) 		
	C-2228	The transfer belt motor (M30) rotation abnormality. The M30EM error detection signal is detected twice in succession within a specified period of time after M30 was turned ON. However, an error detection signal (blowout of ICP) is not detected.		<ul style="list-style-type: none"> Transfer belt motor (M30) ADU drive board (ADUDB) Printer control board (PRCB) 		
	C-2230	Waste toner box swing motor (M19) drive abnormality. The waste toner box swing sensor (PS15) ON or OFF is not detected twice in succession within a specified period of time after M19 turns ON.		<ul style="list-style-type: none"> Waste toner box swing sensor (PS15) Waste toner box swing motor (M19) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-2231	De-curler motor (M32) rotation abnormality. The M32EM error detection signal is detected twice in succession within a specified period of time after M32 was turned ON, and the main door detection is Close.		<ul style="list-style-type: none"> De-curler motor (M32) ADU drive board (ADUDB) Printer control board (PRCB) 		
	C-2233	Waste toner box swing motor (M19) rotation abnormality. The M19EM error detection signal is not detected twice in succession within a specified period of time after M19 was turned ON.		<ul style="list-style-type: none"> Waste toner box swing motor (M19) Printer control board (PRCB) 		
	C-2234	Transfer belt pressure release motor (M26) operation time abnormality 1. When M26 moves from the HP position to the pressure position, the transfer pressure position sensor /1 or /2 (PS55 or PS56) does not turn ON within a specified period of time. At this time, the main door detection is Close.		<ul style="list-style-type: none"> Transfer pressure position sensor /1 (PS55) Transfer pressure position sensor /2 (PS56) Transfer belt pressure release motor (M26) ADU drive board (ADUDB) 		
	C-2235	Transfer belt pressure release motor (M26) operation time abnormality 2.		<ul style="list-style-type: none"> Transfer pressure home sensor (PS54) Transfer belt pressure release motor (M26) ADU drive board (ADUDB) 		
	C-2236	Abnormality of the transfer belt pressure release motor (M26) IC in the ADU drive board (ADUDB). An error detection signal of M26 is detected after the print is started.		<ul style="list-style-type: none"> Transfer belt pressure release motor (M26) ADU drive board /1 (ADUDB1) 		
	C-2237	Waste toner motor (M9) rotation abnormality. The M9EM error detection signal is detected twice in succession within a specified period of time after M9 was turned ON.		<ul style="list-style-type: none"> Waste toner motor (M9) Printer control board (PRCB) 		
	C-2238	Blade motor (M22) abnormality. Waste blade motor does not move to the weak pressure position within a specified period of time after M22 turns ON.		<ul style="list-style-type: none"> Blade sensor /1 (PS24) Blade sensor /2 (PS25) Blade motor (M22) Printer control board (PRCB) 		
	C-2241	Abnormality of the intermediate hopper motor (M11) drive in the printer control board (PRCB).		<ul style="list-style-type: none"> Intermediate hopper motor (M11) Printer control board (PRCB) 		
	C-2242	Drum cleaner motor (M35) abnormality The M35 EM error detection signal is detected twice in succession within a specified period of time after M35 was turned ON.		<ul style="list-style-type: none"> Drum cleaner motor (M35) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body: Fan abnormality	C-2304	Developing suction fan (FM22) rotation abnormality + 24V power abnormality. The FM5 EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		
	C-2306	Developing suction fan (FM22) rotation abnormality. The FM5 EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Developing suction fan (FM22) Printer control board (PRCB) 		
	C-2307	Developing cooling fan /Up (FM31) rotation abnormality + 24V power abnormality. The FM31EM error detection signal is detected twice in succession within a specified period of time after FM31 was turned ON. At this time, an error detection signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		
	C-2309	Developing cooling fan (FM31) rotation abnormality. The FMx EM error detection signal is detected twice in succession within a specified period of time after FMx was turned ON. However, error detection signal (24V cut off) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Developing cooling fan (FM31) Printer control board (PRCB) 		
	C-2311	Developing cooling fan (FM11) rotation abnormality + 24V power abnormality. The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. At this time, an error detection signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) AC drive board (ACDB) 		
	C-2313	Pump cooling fan (FM11) rotation abnormality. The FM11 EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. However, error detection signal (24V cut off) is not detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Pump cooling fan (FM11) Printer control board (PRCB) AC drive board (ACDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-2317	Charger exhaust fan (FM44) rotation abnormality + 24V power abnormality. The FM44 EM error detection signal is detected twice in succession within a specified period of time after FM44 was turned ON. At this time, an error detection signal (24V cut off) is detected.		<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) AC drive board (ACDB) 		
	C-2318	Charger exhaust fan (FM44) rotation abnormality. The FM44 EM error detection signal is detected twice in succession within a specified period of time after FM44 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Charger exhaust fan (FM44) Printer control board (PRCB) AC drive board (ACDB) 		
Main body:Power abnormality	C-2401	The fall-off of the erase lamp (EL) CN is detected. When turning ON the power, an error detection signal (fall-off) is detected a specified period of time after the fall-off detection control signal of the EL CN turns ON.		<ul style="list-style-type: none"> Erase lamp (EL) Printer control board (PRCB) 		
Main body: Drum	C-2402	Drum temperature sensor wiring harness breakage. When the change in temperature of the drum temperature sensor (TH5) is less than -2°C a specified period of time after the main power switch (SW1) turns ON to start the control of the dehumidification heater /1 (HTR1) and the drum temperature is below 10°C after 1minute.		<ul style="list-style-type: none"> Drum temperature sensor (TH5) Printer control board (PRCB) 		
	C-2403	Drum temperature sensor wiring harness breakage. When the main power switch (SW1) turns ON with the fusing temperature below 50°C, the detected temperature of the drum temperature sensor (TH5) is more than 52°C, and when the detected temperature is above 52°C after a specified period of time.		<ul style="list-style-type: none"> Drum temperature sensor (TH5) Printer control board (PRCB) 		
	C-2411	TCR sensor (TCRS) output abnormality 1. The TCRS output is detected more than 3.0V (153step) in printing.		<ul style="list-style-type: none"> TCR sensor (TCRS) Printer control board (PRCB) 		
	C-2412	TCR sensor (TCRS) output abnormality 2. The TCRS output is detected more than 0.5V (25step) in printing.		<ul style="list-style-type: none"> TCR sensor (TCRS) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body: High voltage power source abnormality	C-2413	TCR sensor (TCRS) output abnormality 3.		<ul style="list-style-type: none"> • TCR sensor (TCRS) • Printer control board (PRCB) 		
	C-2701	A charge leak is detected. After a charge EM signal abnormality is detected while in the charge ON, up to 5 charge ON/OFF operations occur in succession while in 10 prints.		<ul style="list-style-type: none"> • Charging corona • High voltage unit /1 (HV1) 		
	C-2702	A transfer leak is detected. After a transfer EM signal abnormality is detected while in the charge ON, up to 5 transfer ON/OFF operations occur in succession while in 10 prints.		<ul style="list-style-type: none"> • Transfer roller • High voltage unit /2 (HV2) 		
	C-2704	24V high voltage power abnormality. An error detection signal (blowout of ICP) of 24V high voltage power is detected. At this time, the main door detection and the PFU door detection are Close.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • High voltage unit /2 (HV2) • ADU drive board (ADUDB) 		
	C-2705	PCC leak is detected. After a PCC EM signal abnormality is detected while in the PCC ON, up to 5 transfer ON/OFF operations occur in succession while in 10 prints.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • PCC unit • High voltage unit /3 (HV3) 		
Main body: Process abnormality	C-2801	IDC sensor (TCB) dirt correction abnormality. While in the maximum density correction (Dmax), the IDC sensor (TCB) dirt correction abnormality is detected 10 times in succession.	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.	<ul style="list-style-type: none"> • Toner control board (TCB) • Printer control board (PRCB) 		
	C-2802	The maximum density correction (Dmax) is not completed. While in Dmax, the number of rotations of the developing sleeve gets to the maximum.		<ul style="list-style-type: none"> • Developing motor (M3) • Toner control board (TCB) • Printer control board (PRCB) 		
	C-2803	The IDC sensor (TCB) output abnormality. While in the maximum density correction (Dmax), a patch for control is not output. (No output is made from the gamma sensor.)		<ul style="list-style-type: none"> • Toner control board (TCB) • LPH board (LPHB) • Overall control board (OACB) • Image processing board (IPB) 		
	C-2804	The dirt correction of the IDC sensor is not completed.		<ul style="list-style-type: none"> • Toner control board (TCB) • Printer control board (PRCB) 		
	C-2807	Drum potential sensor (DPS) output abnormality 1. The DPS detects the value less than the potential specified value of the unexposed part 5 times in succession.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Drum potential sensor (DPS) • Drum potential sensor board (DPSB) • Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-2808	Dot diameter correction abnormality. While in the dot diameter correction, the correction is terminated with an abnormal value.	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.	<ul style="list-style-type: none"> • Drum potential sensor (DPS) • Drum potential sensor board (DPSB) • Image processing board (IPB) • Printer control board (PRCB) • Overall control board (OACB) 		
	C-2809	Drum potential sensor (DPS) output abnormality 2. While in the 0V check of the DPS, more than 100V of the drum surface potential is detected more than 5 times. When this condition is detected 5 times in succession, the error code is displayed.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Drum potential sensor (DPS) • Drum potential sensor board (DPSB) • Printer control board (PRCB) 		
	C-2810	Drum potential sensor (DPS) output abnormality 3. While in the drum potential correction, a patch for control is not output with the V1 getting to more than 350V. When this condition is detected 5 times in succession, the error code is displayed.		<ul style="list-style-type: none"> • Drum potential sensor (DPS) • Drum potential sensor board (DPSB) • Printer control board (PRCB) 		
	C-2811	Drum potential sensor (DPS) data abnormality. While in the drum potential correction, no convergence is obtained even after correction is made more than 10 times. When this condition is detected 5 times in succession, the error code is displayed.		<ul style="list-style-type: none"> • Drum potential sensor (DPS) • Drum potential sensor board (DPSB) • Printer control board (PRCB) 		
	C-2812	Transfer current auto adjustment abnormality. The auto adjustment of the transfer current has not completed.	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.	<ul style="list-style-type: none"> • Transfer roller • High voltage unit /2 (HV2) 		
	C-2815	Developing bias auto adjustment abnormality. The auto adjustment of the developing bias has not completed.		<ul style="list-style-type: none"> • Developer • High voltage unit /1 (HV1) 		
	C-2816	Drum charger capacity deterioration. When the charger grid/developing bias is in excess of the limit of correction, lower the developing potential/fogging margin potential in steps of 50V. As a result, less than 50V of the difference with the target charger potential is detected 10 times in succession.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Drum potential sensor (DPS) • Drum potential sensor board (DPSB) • Charging corona • High voltage unit /1 (HV1) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-2821	The toner supply prohibition status is not released 1. Even though the TCR sensor (TCRS) output increases, the number of the toner supply prohibition status continuity is detected 30 times, and more than 2.5V of the TCRS output value is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • Developing unit • TCR sensor (TCRS) • Printer control board (PRCB) 		
	C-2822	The toner supply prohibition status is not released 2. The number of the toner supply prohibition status continuity becomes 100 times.		<ul style="list-style-type: none"> • Developing unit • TCR sensor (TCRS) • Printer control board (PRCB) 		
Main body: Motor abnormality	C-3102	Fusing pressure release motor (M33) operation time abnormality 1. When M33 moves from the release position to the pressure position, the fusing pressure home sensor (PS58) does not turn ON within a specified period of time.(PRO 951 is unimplemented) The same abnormality occurs when the fusing unit exclusively for PRO 951 is set to PRESS 1250/1250P/1052.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • Fusing unit • Fusing pressure position sensor (PS58) • Fusing pressure release motor (M33) • Printer control board (PRCB) 		
	C-3103	Fusing pressure release motor (M33) operation time abnormality 2. The fusing pressure home sensor (PS58) ON is not detected within a specified period of time after the main power turns ON. When M33 moves from the pressure position to the release position, PS58 does not turn ON within a specified period of time. (PRO 951 is unimplemented) The same abnormality occurs when the fusing unit exclusively for PRO 951 is set to PRESS 1250/1250P/1052.		<ul style="list-style-type: none"> • Fusing unit • Fusing pressure position sensor (PS58) • Fusing pressure release motor (M33) • Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body: Fusing set abnormality	C-3104	Abnormality when the fusing unit used exclusively for PRESS1250/1250P/1052 or EF-120 is set to PRO 951. An error is detected in the following conditions with the fusing unit used exclusively for PRESS1250/1250P/1052 or EF-102 is set to PRO 951. In case that either of the fusing pressure home sensor (PS58), fusing pressure position sensor /1 (PS59), fusing pressure position sensor /2 (PS60) and fusing pressure position sensor /3 (PS61) turns ON when both the ADU knob set and the fusing unit set are detected.		<ul style="list-style-type: none"> Fusing unit Printer control board (PRCB) 		
Main body: Motor abnormality	C-3201	Drum motor (M24) power abnormality + 24V power abnormality. When M24 turns ON, error detection signals (blowout of ICP and the 24V cut off) are detected.		DC power supply /2 (DCPS /2)		
	C-3202	Web motor (M24) power abnormality. An error detection signal (blowout of ICP) is detected when M24 turns ON. At this time, an error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Web motor (M24) Charger cleaning motor (M23) Printer control board (PRCB) 		
Main body: Fusing high temperature abnormality	C-3501	Thermistor /1 (TH1) high temperature abnormality (software). TH1 detects a temperature of 244°C or above 10 times in a period of 0.5second.		<ul style="list-style-type: none"> Fusing temperature sensor /1 (TH1) Fusing heater lamp /1 (L1) Fusing heater lamp /2 (L2) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3502	Thermistor /3 (TH3) high temperature abnormality (software). TH3 detects a temperature of 230°C or above 5 times in a period of 1second.		<ul style="list-style-type: none"> Fusing temperature sensor /3 (TH3) Fusing heater lamp /3 (L3) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3503	Thermistor /1 (TH1) high temperature abnormality (hardware). TH1 detects the fusing abnormality detection 1.		<ul style="list-style-type: none"> Fusing temperature sensor /1 (TH1) Fusing heater lamp /1 (L1) Fusing heater lamp /2 (L2) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3504	Thermistor /3 (TH3) high temperature abnormality (hardware). TH3 detects the fusing abnormality detection 4.		<ul style="list-style-type: none"> Fusing temperature sensor /3 (TH3) Fusing heater lamp /3 (L3) Printer control board (PRCB) AC drive board (ACDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body: Fusing low temperature abnormality	C-3801	Thermistor /1 (TH1) high temperature abnormality (software). TH1 does not get to 50°C when a specified period of time has elapsed after the main power switch (SW1) turns ON for the fusing ON control.		<ul style="list-style-type: none"> Fusing temperature sensor /1 (TH1) Fusing heater lamp /1 (L1) Fusing heater lamp /2 (L2) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3802	Thermistor /3 (TH3) high temperature abnormality (software). TH3 does not get to 50°C when a specified period of time has elapsed after the main power switch (SW1) turns ON for the fusing ON control.		<ul style="list-style-type: none"> Fusing temperature sensor /3 (TH3) Fusing heater lamp /3 (L3) Printer control board (PRCB) AC drive board (ACDB) 		
Main body: Fusing sensor abnormality	C-3901	Thermistor /1 (TH1) high temperature abnormality (long time/software). TH1 detects a temperature of 240°C or above 60 times in a period of 0.5second.		<ul style="list-style-type: none"> Fusing temperature sensor /1 (TH1) Fusing heater lamp /1 (L1) Fusing heater lamp /2 (L2) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3902	Thermistor /3 (TH3) high temperature abnormality (long time/software). TH3 detects a temperature of 220°C or above 30 times in a period of 1second.		<ul style="list-style-type: none"> Fusing temperature sensor /3 (TH3) Fusing heater lamp /3 (L3) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3903	Thermistor /1 (TH1) high temperature abnormality 1 (hardware). TH1 detects the fusing abnormality detection signal 2.		<ul style="list-style-type: none"> Fusing temperature sensor /1 (TH1) Fusing heater lamp /1 (L1) Fusing heater lamp /2 (L2) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3904	Thermistor /3 (TH3) high temperature abnormality (hardware). TH3 detects the fusing abnormality detection 5.		<ul style="list-style-type: none"> Fusing temperature sensor /3 (TH3) Fusing heater lamp /3 (L3) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3905	Thermistor /1 (TH1) high temperature abnormality 1 (hardware). TH1 detects the fusing abnormality detection signal 3.		<ul style="list-style-type: none"> Fusing temperature sensor /1 (TH1) Fusing heater lamp /1 (L1) Fusing heater lamp /2 (L2) Printer control board (PRCB) AC drive board (ACDB) 		
	C-3906	Thermistor /3 (TH3) high temperature abnormality (hardware). TH3 detects the fusing abnormality detection 6.		<ul style="list-style-type: none"> Fusing temperature sensor /3 (TH3) Fusing heater lamp /3 (L3) Printer control board (PRCB) AC drive board (ACDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body: Fan abnormality	C-4301	Image processing cooling fan (FM12) rotation abnormality + 24V power abnormality. The abnormal status is detected twice in succession after FM12 was turned ON. At this time, an error detection signal (24V cut off) is detected.		DC power supply /2 (DCPS/2)		
	C-4303	Image processing cooling fan (FM12) rotation abnormality 1. The FM12 EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Image processing cooling fan (FM12) Printer control board (PRCB) 		
	C-4304	Image processing cooling fan (FM12) rotation abnormality 2. When the print is started, the EM signal of FM12 turns ON.		<ul style="list-style-type: none"> Image processing cooling fan (FM12) Printer control board (PRCB) AC drive board (ACDB) 		
	C-4305	Charger suction fan (FM3) rotation abnormality + 24V power abnormality. The abnormal status is detected twice in succession after FM3 was turned ON. At this time, an error detection signal (24V cut off) is detected.	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.	DC power supply /2 (DCPS/2)		
	C-4307	Charger suction fan (FM3) rotation abnormality 1. The FM3 EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Charger suction fan (FM3) Printer control board (PRCB) 		
	C-4314	Front cooling fan (FM18) rotation abnormality + 24V power abnormality. The abnormal status is detected twice in succession after FM18 was turned ON. At this time, an error detection signal (24V cut off) is detected.		DC power supply /2 (DCPS/2)		
	C-4316	Front cooling fan (FM18) rotation abnormality. The FM26 EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. However, error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Front cooling fan (FM18) Printer control board (PRCB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
Main body: Image processing abnormality	C-4701	FIFO address abnormality for the printer. While in the image write, the expansion processing of image data that is read in is not correctly terminated.	If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).	Image processing board (IPB)		
	C-4702	Compression input FIFO abnormality. An error interrupt occurs with the compression/expansion chip FIFO.		Image processing board (IPB)		
	C-4703	Elongation abnormality. Due to the elongation of data the compression of which is not completed, the destruction of the compressed data and the abnormal length of data, an elongation abnormality is detected.		Image processing board (IPB)		
	C-4705	Printer time out.		<ul style="list-style-type: none"> Printer control board (PRCB) Image processing board (IPB) 		
	C-4706	Expansion device access abnormality. While in the image write, despite of no resource provided, an inappropriate processing such as accessing to the elongation device is made.		Image processing board (IPB)		
	C-4708	Expansion device access abnormality. When accessing to the memory device, a defective software is detected.		Image processing board (IPB)		
	C-4709	Memory time out.		<ul style="list-style-type: none"> Overall control board (OACB) Printer control board (PRCB) Image processing board (IPB) 		
	C-4720	Shift amount abnormality while in the repeat. When the shift amount (used for cutting margin, etc.) while in the repeat is negative (-).	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.	Image processing board (IPB)		
	C-4721	The Centering Adjustment is too late. The print operation starts before the paper centering adjustment is terminated. (The Centering Adjustment is too late)		<ul style="list-style-type: none"> Printer control board (PRCB) ADU drive board (ADUDB) 		
	C-4722	The creation of the PWM gamma curve failed. A PWM gamma curve is not created properly.		<ul style="list-style-type: none"> Toner control board (TCB) Printer control board (PRCB) 		
	C-4725	LPH board (LPHB) connection abnormality. Due to the disconnection of the LPHB connector, no connection is available with the overall control board.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> LPH board (LPHB) Relay board /A (RBA) Image processing board (IPB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-4850	Segmentation abnormality. The overall control software accesses an illegal address.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	Image processing board (IPB)		
	C-5010	Communication error between the overall control board (OACB) and the printer control board (PRCB). Any of the following error is detected during data reception between OACB and PRCB.		<ul style="list-style-type: none"> Printer control board (PRCB) Overall control board (OACB) 		
Main body: Power abnormality	C-5101	Fusing motor (M1) speed abnormality. An error detection signal is detected twice in succession within a specified period of time after M1 was turned ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Fusing motor (M1) Printer control board (PRCB) 		
Main body: Main relay operation malfunction	C-5102	Monitor the detection signal of RL1 turning ON and 24 VICP blowout since the main tray (RL1) firstly turns ON after the power source turns ON, and detect the abnormality 5 times in a row during a specified period of time.		<ul style="list-style-type: none"> Main relay (RL1) AC drive board (ACDB) 		
Main body: Fan abnormality	C-5311	Suction cooling fan /1 (FM6) rotation abnormality + 24V power abnormality. The FM6EM error detection signal is detected twice in succession within a specified period of time after FM6 was turned ON. At this time, an error detection signal (24V cut off) is detected.		DC power supply /2 (DCPS/2)		
	C-5313	Suction cooling fan /1 (FM6) rotation abnormality 1. The FM6EM error detection signal is detected twice in succession within a specified period of time after FM6 was turned ON. At this time, an error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Suction cooling fan /1 (FM6) Printer control board (PRCB) 		
	C-5317	Cooling fan /1 (FM1) rotation abnormality + 24V power abnormality. The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (24V cut off) is detected.		DC power supply /2 (DCPS/2)		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-5319	Cooling fan /1 (FM1) rotation abnormality 1. The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Cooling fan /1 (FM1) Printer control board (PRCB) 		
	C-5320	Cooling fan /2 (FM2) rotation abnormality + 24V power abnormality. The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. At this time, an error detection signal (24V cut off) is detected.		DC power supply /2 (DCPS/2)		
	C-5322	Cooling fan /1 (FM1) rotation abnormality 1. The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. At this time, an error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Cooling fan /2 (FM2) Printer control board (PRCB) 		
	C-5326	Cooling fan /1 (FM1) rotation abnormality 2. When the print is started, the EM signal of FM1 turns ON.	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.	<ul style="list-style-type: none"> Cooling fan /1 (FM1) Printer control board (PRCB) 		
	C-5327	Cooling fan /1 (FM1) rotation abnormality 2. When the print is started, the EM signal of FM2 turns ON.		<ul style="list-style-type: none"> Cooling fan /2 (FM2) Printer control board (PRCB) 		
	C-5328	Suction cooling fan /1 (FM6) rotation abnormality 2. When the print is started, the EM signal of FM6 turns ON.		<ul style="list-style-type: none"> Suction cooling fan /1 (FM6) Printer control board (PRCB) 		
	C-5329	Abnormality of the fan connected to ADU drive board. The EM error detection signal is detected twice in succession within a specified period of time after ADU cooling fan /1 (FM14), /3 (FM13), sensor cooling fan /1 (FM16) and registration cooling fan (FM17) connected to ADU drive board were turned ON. At this time, the door close detection of the door open/close sensor /1 (PS1), /2 (PS2) and PF door open/close sensor (PS70) is detected 10 times in succession.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Cooling fan /1 (FM14) Cooling fan /3 (FM13) Sensor cooling fan (FM16) Registration cooling fan (FM17) ADU drive board (ADUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-5330	Suction cooling fan /2 (FM7) rotation abnormality + 24V power abnormality. The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (24V cut off) is detected.		DC power supply /2 (DCPS/2)		
	C-5332	Suction cooling fan /2 (FM6) rotation abnormality. The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Suction cooling fan /2 (FM7) Printer control board (PRCB) AC drive board (ACDB) 		
	C-5337	De-curler fan /1 (FM29) rotation abnormality. The FM29EM error detection signal is detected twice in succession within a specified period of time after FM29 was turned ON. At this time, the door close is detected.		<ul style="list-style-type: none"> de-curler fan /1 (FM29) ADU drive board (ADUDB) 		
	C-5338	De-curler fan /2 (FM30) rotation abnormality. The FM30EM error detection signal is detected twice in succession within a specified period of time after FM30 was turned ON. At this time, the door close is detected.		<ul style="list-style-type: none"> de-curler fan /2 (FM30) ADU drive board (ADUDB) 		
	C-5339	Transfer belt cleaning fan (FM27) rotation abnormality. When the print is started, the EM signal of FM27 turns ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Transfer belt cleaning fan (FM27) ADU drive board (ADUDB) 		
	C-5340	Rotation abnormality of fans equipped in ADU. The EM error signal is detected twice in succession within a specified period of time after ADU cooling fan /2 (FM15), belt cooling fan (FM37) and reverse cooling fan (FM38) was turned ON. At this time, the door close is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> ADU cooling fan /2 (FM15) Belt cooling fan (FM37) Reverse cooling fan (FM38) ADU drive board (ADUDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-5341	Collection pipe cooling fan (FM34) rotation abnormality + 24V power abnormality. The FM34EM error detection signal is detected twice in succession within a specified period of time after FM34 was turned ON. At this time, an error detection signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Printer control board (PRCB) 		
	C-5343	Collection pipe cooling fan (FM34) rotation abnormality 1. The FM34EM error detection signal is detected twice in succession within a specified period of time after FM34 was turned ON. At this time, an error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Collection pipe cooling fan (FM34) Printer control board (PRCB) 		
	C-5344	Collection pipe cooling fan (FM34) rotation abnormality 2. When the print is started, the EM signal of FM34 turns ON.		<ul style="list-style-type: none"> Collection pipe cooling fan (FM34) Printer control board (PRCB) 		
	C-5345	Toner bottle cooling fan (FM35) rotation abnormality + 24V power abnormality. The FM35EM error detection signal is detected twice in succession within a specified period of time after FM35 was turned ON. At this time, an error detection signal (24V cut off) is detected.		DC power supply /2 (DCPS/2)		
	C-5347	Toner bottle cooling fan (FM35) rotation abnormality 1. The FM35EM error detection signal is detected twice in succession within a specified period of time after FM35 was turned ON. At this time, an error detection signal (24V cut off) is not detected.		<ul style="list-style-type: none"> Toner bottle cooling fan (FM35) Printer control board (PRCB) 		
	C-5348	Toner bottle cooling fan (FM35) rotation abnormality 2. When the print is started, the EM signal of FM35 turns ON.		<ul style="list-style-type: none"> Toner bottle cooling fan (FM35) Printer control board (PRCB) 		
Main body: Scanner abnormality	C-6101	Scanner motor (M27) movement time abnormality + 24V power abnormality. The scanner home sensor (PS51) or the APS sensor /1 (PS52) does not turn ON within a specified period of time after the home position search is	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /1 (DCPS/1) Scanner drive board (SCDB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
		started. At this time, an error detection signal (24V cut off) of M27 is detected.				
	C-6102	Scanner motor (M27) power abnormality. The scanner home sensor (PS51) or the APS sensor /1 (PS52) does not turn ON within a specified period of time after the home position search is started. At this time, 24V is normal, but an error detection signal (blowout of a fuse) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Scanner motor (M27) Scanner drive board (SDB) 		
	C-6103	Scanner motor (M27) movement time abnormality. The scanner home sensor (PS51) or the APS sensor /1 (PS52) does not turn ON within a specified period of time after the home position search is started. At this time, an error detection signal (blowout of a fuse/24V cut off) of M27 is not detected.		<ul style="list-style-type: none"> Scanner home sensor (PS51) APS sensor /1 (PS52) Scanner motor (M27) Scanner drive board (SDB) 		
Main body: Fan abnormality	C-6301	Scanner cooling fan (FM19) rotation abnormality + 24V power abnormality. The FM19EM error detection signal is detected twice in succession within a specified period of time after FM19 was turned ON. At this time, an error detection signal (24V cut off) is detected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> DC power supply /2 (DCPS/2) Scanner drive board (SCDB) 		
	C-6302	Scanner cooling fan (FM19) power abnormality. The FM19EM error detection signal is detected twice in succession within a specified period of time after FM19 was turned ON. At this time, 24V is normal, but an error detection signal (blowout of a fuse) is detected.		<ul style="list-style-type: none"> Scanner cooling fan (FM19) Scanner drive board (SDB) 		
	C-6303	Scanner cooling fan (FM19) rotation abnormality. The FM19EM error detection signal is detected twice in succession within a specified period of time after FM19 was turned ON. At this time, an error detection signal (blowout of a fuse/24V cut off) is not detected.		<ul style="list-style-type: none"> Scanner cooling fan (FM19) Scanner drive board (SDB) Printer control board (PRCB) 		
Main body: Image processing abnormality	C-6701	Filter coefficient abnormality. When processing images, a filter coefficient cannot be created normally.	If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and	Image processing board (IPB)		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-6702	Scanner FIFO abnormality. FIFO address abnormality for compression is indicated.	turning OFF the RL1 (the main relay).	Image processing board (IPB)		
	C-6703	SVV length abnormality. After negation of SVV, the compression of images that are read in and their development into the page memory are not terminated within a specified period of time.		Image processing board (IPB)		
	C-6704	Scanner time out.		<ul style="list-style-type: none"> Image processing board (IPB) Overall control board (OACB) Printer control board (PRCB) 		
	C-6705	Compression device access abnormality. When writing images, in spite of no resource provided, an inappropriate processing such as an access to the compression device is made.		Image processing board (IPB)		
	C-6706	SVV OFF abnormality. While in the image read, SVV does not turn OFF within a specified period of time and the preparation for scanning the next page cannot be started.		Image processing board (IPB)		
	C-6707	Shading correction abnormality (GA abnormality)		Image processing board (IPB)		
	C-6708	AOC/AGC adjustment level abnormality. AOC/AGC adjustment error occurs due to the abnormality related to the exposure lamp or the trouble of the read section.		<ul style="list-style-type: none"> Exposure lamp (L4) L4 inverter (L4_INVB) Scanner drive board (SDB) CCD board (CCDB) 		
	C-6709	Abnormality of the adjustment data by resolutions. The adjustment data evacuated by resolutions is not available.	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.	Image processing board (IPB)		
	C-6710	Density conversion gamma curve creation abnormality. A density conversion gamma curve cannot be created normally.		Image processing board (IPB)		
	C-6717	N-in-1 page area abnormality. Due to an image area abnormality of the memory, images cannot be developed on the memory.	If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).	Image processing board (IPB)		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-6719	The original skew adjustment is too late. The scan operation starts before the original skew adjustment is terminated.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Original skew sensor /Fr (PS312: DF-615/616) Original skew sensor /Rr (PS311: DF-615/616) DF control board (DFCB: DF-615/616) Overall control board (OACB: main body) 		
	C-6721	AGC retry. The AGC is retried due to the decreased light volume of the exposure lamp. However, no error occurs.	Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.	<ul style="list-style-type: none"> Exposure lamp (L4) L4 inverter (L4_INVB) Scanner drive board (SDB) CCD board (CCDB) 		
	C-6801	Initial communication error between the image processing board (OACB) and the operation board /1 (OB1). An initial communication from the main body to the operation panel is not sent within 30 seconds after the power is turned ON.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Operation board /1 (OB1) Overall control board (OACB) 		
DF: DF abnormality	C-8001	Sending error between the main body and DF. Although the main body sent out data according to the data transmission request by the DF, the same request is received again.	If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).	<ul style="list-style-type: none"> DF control board (DFCB: DF-615/616) Overall control board (OACB: main body) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8002	Reception error between the main body and DF. Checksum error or SRGA reception error is detected twice in succession while in the reception in serial communication.		<ul style="list-style-type: none"> DF control board (DFCB: DF-615/616) Overall control board (OACB: main body) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8003	Initial communication error between the main body and DF. When the main power switch (SW1) is ON, there is no response to the initial communication request from the main body to the DF even after a specified period of time elapses.		<ul style="list-style-type: none"> DF control board (DFCB: DF-615/616) Overall control board (OACB: main body) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8201	Tray up-down motor (M305) abnormality.		Tray up down motor (M305: DF-615/616)	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8301	Cooling fan /Lt (FM301) and /Rt (FM302) abnormality		<ul style="list-style-type: none"> Cooling fan /Lt (FM301: DF-615/616) Cooling fan /Rt (FM302: DF-615/616) DF control board (DFCB: DF-615/616) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8401	Original registration sensor /Lt (PS306) abnormality.		<ul style="list-style-type: none"> Original registration sensor /Lt (PS306: DF-615/616) DF control board (DFCB: DF-615/616) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-8402	Original conveyance sensor (PS308) abnormality.		<ul style="list-style-type: none"> Original conveyance sensor (PS308: DF-615/616) DF control board (DFCB: DF-615/616) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8403	Original reverse sensor (PS309) abnormality		<ul style="list-style-type: none"> Original reverse sensor (PS309: DF-615/616) DF control board (DFCB: DF-615/616) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8404	Non-volatile memory error		DF control board (DFCB: DF-615/616)	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8405	Reverse jam sensor (PS304) abnormality.		<ul style="list-style-type: none"> Reverse jam sensor (PS304: DF-615/616) DF control board (DFCB: DF-615/616) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8406	Original reverse-exit sensor (PS313) abnormality.		<ul style="list-style-type: none"> Original reverse-exit sensor (PS313: DF-615/616) DF control board (DFCB: DF-615/616) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8407	Original skew sensor /Fr (PS312) abnormality.		<ul style="list-style-type: none"> Original skew sensor /Fr (PS312: DF-615/616) DF control board (DFCB: DF-615/616) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8408	Original skew sensor /Rr (PS311) abnormality.		<ul style="list-style-type: none"> Original skew sensor /Rr (PS311: DF-615/616) DF control board (DFCB: DF-615/616) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8409	Original registration sensor /Rt (PS318) abnormality.(DF-615 only)		<ul style="list-style-type: none"> Original registration sensor /Rt (PS318: DF-615) DF control board (DFCB: DF-615) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8410	Centering sensor /Fr (PS320) abnormality. (DF-615 only)		<ul style="list-style-type: none"> Centering LED sensor / Fr (PS319: DF-615) Centering sensor /Fr (PS320: DF-615) DF control board (DFCB: DF-615) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8411	Centering sensor /Rr (PS321) abnormality. (DF-615 only)		<ul style="list-style-type: none"> Centering LED sensor / Rr (PS322: DF-615) Centering sensor /Rr (PS321: DF-615) DF control board (DFCB: DF-615) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
	C-8412	Multi feed detection boards /S (MFDBS) and /R (MFDBR) abnormality(DF-615 only)		<ul style="list-style-type: none"> Multi feed detection boards /S (MFDBS: DF-615) Multi feed detection boards /R (MFDBR: DF-615) DF control board (DFCB: DF-615) 	DIPSW18-4	DF mode unavailable (DF connection not recognized)
Main Body: IC Controller abnormality	C-A001	Transfer error to the main body image memory	The main body and option stop immediately to turn OFF the	<ul style="list-style-type: none"> IC board (ICB) PCI relay board (PCIRB) Overall control board (OACB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-A002	Hard disk /2 (HDD2) abnormality.	RL1 (the main relay) .	<ul style="list-style-type: none"> • IC board (ICB) • PCI relay board (PCIRB) • Hard disk /2 (HDD2) 		
	C-A003	IC cooling fan (FM39) lock abnormality.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • IC cooling fan (FM39) • IC board (ICB) 		
	C-A004	Unregulations IC error occurs.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • IC board (ICB) • PCI relay board (PCIRB) • Overall control board (OACB) 		
	C-A005	Version abnormality between SSD (SSD) and hard disk /2 (HDD2). The SSD version is different from the version information in HDD2.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • IC board (ICB) • Hard disk /2 (HDD2) • SSD (SSD) 		
	C-A006	Hard disc /2 (HDD2) abnormality 1 while in the security ON. While in the security ON, the unlocking of the HDD results in a failure due to the mismatched password of the hard disk /2 (HDD2).	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	Hard disk /2 (HDD2)		
	C-A007	Hard disc /2 (HDD2) abnormality 2 while in the security ON. Unlocked HDD2 is detected while in the security ON.		Hard disk /2 (HDD2)		
	C-A008	Hard disk /2 (HDD2) is unformatted. An unformatted HDD2 is detected.		Hard disk /2 (HDD2)		
	C-A009	Controller memory abnormality.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> • DIMM (DIMM) • IC board (ICB) 		
	C-A101	Controller initial communication abnormality.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> • IC board (ICB) • PCI relay board (PCIRB) • Overall control board (OACB) 		
Main body: Communication error	C-C101	Initial communication error between the overall control board (OACB) and the printer control board (PRCB). No response is returned from PRCB even after a specified period of time after the main power switch (SW1) and the sub power switch (SW2) turn ON. Or ISW information is not written on PRCB.		<ul style="list-style-type: none"> • Printer control board (PRCB) • Overall control board (OACB) 		
	C-C102	Initial communication error between the overall control board (OACB) and the printer control board (PRCB). Communication error from PRCB is detected. Or transmission is not completed.		<ul style="list-style-type: none"> • Printer control board (PRCB) • Overall control board (OACB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-C103	Communication error between the overall control board (OACB) and the operation board /1 (OB1). Communication error from OB1 is detected. Or transmission is not completed.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Operation board /1 (OB1) Overall control board (OACB) 		
	C-C104*	ISW write abnormality 1 of the printer control board.		<ul style="list-style-type: none"> Image processing board (IPB) Printer control board (PRCB) Overall control board (OACB) 		
	C-C105	ISW write abnormality 2 of the printer control board.		<ul style="list-style-type: none"> Image processing board (IPB) Printer control board (PRCB) Overall control board (OACB) 		
	C-C106	ISW time out error. No normal header is transmitted within a specified period of time after ISW is started.		<ul style="list-style-type: none"> Image processing board (IPB) Overall control board (OACB) 		
	C-C107	ISW download abnormality. An error is detected while downloading ISW.		<ul style="list-style-type: none"> Image processing board (IPB) Overall control board (OACB) 		
	C-C108	ISW write abnormality on the overall control board. An error is detected because ISW data cannot be written on the overall control board (OACB).		<ul style="list-style-type: none"> Image processing board (IPB) Overall control board (OACB) 		
FS: FS-532 ISW unwritten	C-C109	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the FS firmware.	The main body stops immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> FNSCB firmware FNS control board (FNSCB) 		
LS: LS ISW unwritten	C-C111	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the LS firmware (1st tandem).		<ul style="list-style-type: none"> LSCB firmware LS control board (LSCB) 		
	C-C112	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the LS firmware (2nd tandem).		<ul style="list-style-type: none"> LSCB firmware LS control board (LSCB) 		
FD: FD ISW unwritten	C-C113	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the FD firmware.		<ul style="list-style-type: none"> FDCB firmware FD control board (FDCB) 		
SD: SD-506 ISW unwritten	C-C114	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the SD firmware.		<ul style="list-style-type: none"> SDCB firmware SD control board (SDCB) 		
PB: PB ISW unwritten	C-C116	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the PB firmware.		<ul style="list-style-type: none"> PB firmware PB control board (PBCB) 		
GP: GP-501 ISW unwritten	C-C117	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the GP firmware.		<ul style="list-style-type: none"> GP firmware Punch Controller PCB 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
RU: RU-510 ISW unwritten	C-C118	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the RU firmware.		<ul style="list-style-type: none"> Firmware of RUCB RU control board (RUCB) 		
RU: RU-509 ISW unwritten	C-C119	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the RU program.		<ul style="list-style-type: none"> RU firmware RU control board (RUCB) 		
DF: Communication error	C-C120	ISW write abnormality on DF. When the main power switch (SW1) is ON, unwritten area by the ISW is detected in the DF control program.	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> DF control board (DFCB) Overall control board (OACB) 		
LS: LS ISW unwritten	C-C121	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the LS firmware (3rd tandem).	The main body stops immediately to turn OFF the main relay (RL1).	<ul style="list-style-type: none"> LSCB firmware LS control board (LSCB) 		
FS: SD-510 ISW unwritten	C-C124	When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the SD firmware.		<ul style="list-style-type: none"> Firmware of SD SD control board (SDCB) 		
IC: Communication error	C-C125	ISW write abnormality of controller. The firmware is not written on ICB or an error is detected during the ROM check.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	IC board (ICB)		
	C-C130	Wrong serial number. The serial number for the different machine is specified.				
DF wrong installation	C-C131	DF-615 is installed to PRO 951. Or, DF-615 is installed to PRESS1250/1052.	The main body stops immediately to turn OFF the main relay (RL1).	DF		
Wrong installation of image processing board	C-C132	The image processing board (IPB) used exclusively for PRESS1250/1250P/1052 is installed to PRO951. Or, IPB used exclusively for PRO951 is installed to PRESS1250/1250P/1052.		Image processing board (IPB)		
Common API unmatched version	C-C136	When the version differs between Common API for the overall control and IC controller.		<ul style="list-style-type: none"> Overall control board (OACB) IC board (ICB) 		
HDD: Communication error	C-D001	Hard disk /1 (HDD1) initialization abnormality. HDD1 is defective, or the connector is poorly connected.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	<ul style="list-style-type: none"> Hard disk /1 (HDD1) Overall control board (OACB) 		
	C-D002	JOB_RAM storage abnormality. The JOB information cannot be stored on the hard disk /1 (HDD1).	The main body and option stop immediately to turn OFF the RL1 (the main relay).	<ul style="list-style-type: none"> Hard disk /1 (HDD1) Overall control board (OACB) 		
	C-D003	Hard disk /1 (HDD1) periodic cleaning abnormality. While in a periodical cleaning, opening the rote to hard disk is not succeeded.		<ul style="list-style-type: none"> Hard disk /1 (HDD1) Overall control board (OACB) 		

Classification	Malfunction code	Cause	Resulting operation	Estimated abnormal parts	Faulty part isolation DIPSW	Control when
	C-D004	Hard disk /1 (HDD1) access defective. HDD1 is defective, or the connector is poorly connected.		<ul style="list-style-type: none"> Hard disk /1 (HDD1) Overall control board (OACB) 		
	C-D010	Hard disk /1 (HDD1) overwrite erase execution. HDD1 overwrite erase is executed.	The main body and option stop immediately to turn OFF the RL1 (the main relay) .	Hard disk /1 (HDD1)		
Common API related HDD file crushed	C-D080	The common API related HDD file on the hard disk / 1 (HDD1) is crushed	The main body and option stop immediately to turn OFF the RL1 (the main relay).	Hard disk /1 (HDD1)		
HDD: Communication error	C-E001	Message queue error. The message queue is insufficient or destroyed.	If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).	Overall control board (OACB)		
	C-E002	Message parameter value error. The parameter value is in excess of the permissible limits.		Overall control board (OACB)		
	C-E003	Source task error. The ID of the task that sends the message queue is undefined.		Overall control board (OACB)		
	C-E004	Receiving event error. The receiving event of the message is undefined.		Overall control board (OACB)		
	C-E005	Memory access abnormality.		Overall control board (OACB)		
	C-E006	Header readout address abnormality.		Overall control board (OACB)		
	C-E007	DRAM memory abnormality. An error is detected in the DRAM memory check at the start.		Overall control board (OACB)		

2.4 Malfunction code caused by connector disconnection

2.4.1 bizhub PRESS 1250/1250P/1052/PRO 951

Board name	Connector number	Function	Malfunction Code	Remark
Image processing board (IPB)	CN1	Sub power switch (SW2) I/F connector	-	The power source LED remains red and the system does not starts.
	CN110	A/D board I/F connector (FFC)	C-6708	AOC/AGC level adjustment abnormality A/D board unplugged - Blowout of ICP with A/D board
	CN123	Connector for the overall control board (OACB) connection (B to B)	-	The power source LED remains red and the system does not starts.
	CN124	Connector for the overall control board (OACB) connection (B to B)	-	The power source LED remains red and the system does not starts.
	CN130	Relay board /A (RBA) I/F connector	C-4725	LPH drive board (LPHB) connection abnormality.

Overall control board (OACB)	CN2100	NVRAM board (NRB) I/F connector	-	The main body starts operation, but the operation panel does not response (freezed) Or, display error in the operation panel section
	CN2101	NVRAM board (NRB) I/F connector	-	The main body starts operation, but the operation panel does not response (freezed) Or, display error in the operation panel section
	CN2200	Image processing board I/F connector	-	The power source LED remains red and the system does not starts.
	CN2201	Image processing board I/F connector	-	The power source LED remains red and the system does not starts.
	CN1704	DC control	C-8003	DF initial communication error
	CN1202	Connector for the service port I/F (B to C)	-	At the triple service port section on the arm section of the operation panel, the upper port operates while the middle and lower ports does not operates.
	CN1601	Connector for the operation panel I/F (B to C)	-	The power source LED turns green, but nothing is displayed on the operation panel.
	CN1703	Connector for DF/Scanner	C-8003	DF initial communication error
	CN1700	Printer control board (PRCB) I/F connector (B to C)	C-C102	Printer control board abnormality communication error CN135 (equivalent to CN1700 of the main body control) contact problem
	CN1600	Connector for the operation panel I/F (B to C)	-	The main body starts operation, but the operation panel is not displayed (Screen white out).
	CN1702	DC control 1	-	The power source LED turns green and the power save LED turns green, but nothing is displayed on the operation panel (screen black out).
	CN1701	TONER_VV	-	Error occurs during the process adjustment. However, the copy and print function are available if the process adjustment is not conducted after the start. (If a patch is created during the job, shut down)
	CN2103	Power connector	-	The power source LED turns green, and nothing is displayed on the operation panel (screen black out).
	CN2102	Power connector	-	The power source LED does not light, and the main body does not start operation.
	CN1203	Connector for the service port connection (B to C)	-	At the triple service port section on the arm section of the operation panel, the upper port operates while the middle and lower ports does not operates.
IC board (ICB)	CN501	Channel A Dimm0 connector	C-A101 (SC code is displayed after approx. 8 minutes)	IC initial communication error
	CN1706	Connector for Half Slim Module	C-A101	-
	CN1703	HDD power supply connector	C-A002	Hard disk /2 (HDD2) abnormality
	CN1702	HDD I/F connector	C-A002	Hard disk /2 (HDD2) abnormality
	CN2302	Connector for Box Fan	C-A003	IC cooling fan (FM24) lock abnormality
	CN2301	Connector for CPU Fan	C-A003	IC cooling fan (FM24) lock abnormality
Relay board /A (RBA)	CN2	-	C-4725	LPH drive board (LPHB) connection abnormality.
	CN4	-	C-4725	LPH drive board (LPHB) connection abnormality.
	CN3	-	C-4725	LPH drive board (LPHB) connection abnormality.
	CN1	-	C-4725	LPH drive board (LPHB) connection abnormality.

Relay board /U (RBU)	CN5	-	-	At the triple service port section on the arm section of the operation panel, all service ports does not operates.
	CN7	-	-	At the triple service port section on the arm section of the operation panel, the upper port operates while the middle and lower ports does not operates.

2.5 Solution 1 (C-0001_0300)

2.5.1 C-0001

Code

C-0001

Classification

Main body: Drive abnormality

Cause

Main body drive serial input abnormality 1.

Within a specified period of time after the power ON, a serial data is not received between the printer control board (PRCB) and the main body drive board.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connection status of PRCB connector, and repair it if any abnormality.
3. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.5.2 C-0002

Code

C-0002

Classification

Main body: Drive abnormality

Cause

Main body drive serial input abnormality 2.

Within a specified period of time after the power ON, a serial data is not received between the printer control board (PRCB) and the main body drive board.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connection status of PRCB connector, and repair it if any abnormality.
3. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.5.3 C-0003

Code

C-0003

Classification

Main body: Drive abnormality

Cause

Main body drive serial input abnormality 3.

Within a specified period of time after the power ON, a serial data is not received between the printer control board (PRCB) and the main body drive board.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connection status of PRCB connector, and repair it if any abnormality.
3. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.5.4 C-0004

Code

C-0004

Classification

Main body: Drive abnormality

Cause

Main body drive serial input abnormality4.

Within a specified period of time after the power ON, a serial data is not received between the printer control board (PRCB) and the main body drive board.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connection status of PRCB connector, and repair it if any abnormality.
3. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.5.5 C-0005

Code

C-0005

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 3.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and ADUDB, and repair it if any abnormality
3. Check the connector connection on PRCB and ADUDB, and repair it if any abnormality
4. Replace ADUDB
5. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.5.6 C-0006

Code

C-0006

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 4.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection status on PRCB, and repair it if any abnormality.
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.7 C-0007****Code**

C-0007

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 5.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection status on PRCB, and repair it if any abnormality.
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.8 C-0008****Code**

C-0008

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 6.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection status on PRCB, and repair it if any abnormality.
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.9 C-0010****Code**

C-0010

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 2.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB: main body)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and PFUDB, and repair it if any abnormality.
3. Check the connector connection on PRCB and PFUDB, and repair it if any abnormality.
4. Replace PFUDB.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.10 C-0011****Code**

C-0011

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 8.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB: main body)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and PFUDB, and repair it if any abnormality.
3. Check the connector connection on PRCB and PFUDB, and repair it if any abnormality.
4. Replace PFUDB.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.11 C-0012****Code**

C-0012

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 9.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB: main body)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and PFUDB, and repair it if any abnormality.
3. Check the connector connection on PRCB and PFUDB, and repair it if any abnormality.
4. Replace PFUDB.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.12 C-0020****Code**

C-0020

Classification

Main body: Communication error

Cause

ADU drive serial input abnormality 1.

In the initial communication check between the printer control board (PRCB) and the ADU drive board (ADUDB) after the power ON, a serial data is not received.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and ADUDB, and repair it if any abnormality
3. Check the connector connection on PRCB and ADUDB, and repair it if any abnormality
4. Replace ADUDB
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.13 C-0021****Code**

C-0021

Classification

Main body: Communication error

Cause

ADU drive serial input abnormality 2.

In the initial communication check between the printer control board (PRCB) and the ADU drive board (ADUDB) after the power ON, a serial data is not received.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and ADUDB, and repair it if any abnormality
3. Check the connector connection on PRCB and ADUDB, and repair it if any abnormality
4. Replace ADUDB
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.14 C-0022****Code**

C-0022

Classification

Main body: Communication error

Cause

ADU drive serial input abnormality 3.

In the initial communication check between the printer control board (PRCB) and the ADU drive board (ADUDB) after the power ON, a serial data is not received.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and ADUDB, and repair it if any abnormality
3. Check the connector connection on PRCB and ADUDB, and repair it if any abnormality
4. Replace ADUDB
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached**

2.5.15 C-0023**Code**

C-0023

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 0.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and ADUDB, and repair it if any abnormality
3. Check the connector connection on PRCB and ADUDB, and repair it if any abnormality
4. Replace ADUDB
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.16 C-0024****Code**

C-0024

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 7.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and ADUDB, and repair it if any abnormality
3. Check the connector connection on PRCB and ADUDB, and repair it if any abnormality
4. Replace ADUDB
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.17 C-0025****Code**

C-0025

Classification

Main body: Communication error

Cause

Drive communication reception error detection abnormality 11.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and ADUDB, and repair it if any abnormality

3. Check the connector connection on PRCB and ADUDB, and repair it if any abnormality
4. Replace ADUDB
5. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.5.18 C-0101

Code

C-0101

Classification

Main body: Drive abnormality

Cause

Paper feed motor (M4) speed abnormality.

An error detection signal is detected twice in succession within a specified period of time after M4 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed motor (M4)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 24-A, 4-D)
3. Replace M4.
4. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.5.19 C-0103

Code

C-0103

Classification

PF: Drive

Cause

1st tandem PF-703/706 paper feed motor (M1) speed abnormality.

An error detection signal is detected twice in succession within a specified period of time after M1 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed motor (M1: PF-703/706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-L, PF-706: 6-H)
3. Replace M1
4. Replace PFUDB

Faulty part isolation DIPSW
Control while detached

2.5.20 C-0104

Code

C-0104

Classification

Main body: Power abnormality

Cause

Abnormality of the vertical conveyance motor (M8) power in the printer control board (PRCB).

An error detection signal (blowout of ICP) of M8 is detected when M8 is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Vertical conveyance motor (M8)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PRCB (Wiring diagram: Main body (3/4): 6-I).
3. Replace M8 and PRCB at a time.

Faulty part isolation DIPSW**Control while detached****2.5.21 C-0105****Code**

C-0105

Classification

PF: Power abnormality

Cause

Abnormality of the PF exit conveyance motor (M2) power in the PF drive board (PFUDB) of the 1st tandem PF-706.
An error detection signal (blowout of ICP) of M2 is detected when M2 is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF exit conveyance motor (M2: PF-706)
- PF drive board (PFUDB: PF-706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-706: 7-H)
3. Replace M2 and PFUDB

Faulty part isolation DIPSW**Control while detached****2.5.22 C-0106****Code**

C-0106

Classification

PF: Drive

Cause

2nd tandem PF-703/706 paper feed motor speed abnormality.
An error detection signal is detected twice in succession within a specified period of time after M1 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed motor (M1: PF-703/706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-L, PF-706: 6-H)
3. Replace M1
4. Replace PFUDB

Faulty part isolation DIPSW**Control while detached****2.5.23 C-0107****Code**

C-0107

Classification

PF: Power abnormality

Cause

Abnormality of the PF exit conveyance motor (M2) power in the PF drive board (PFUDB) of the 2nd tandem PF-706.
An error detection signal (blowout of ICP) of M2 is detected when M2 is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF exit conveyance motor (M2: PF-706)

- PF drive board (PFUDB: PF-706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **"Please call service" is displayed on the touch panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-706: 7-H)
3. Replace M2 and PFUDB

Faulty part isolation DIPSW**Control while detached****2.5.24 C-0108****Code**

C-0108

Classification

PF: Power abnormality

Cause

Abnormality of the PF conveyance motor (M3) power in the PF drive board (PFUDB) of the 1st tandem PF-703.
An error detection signal (blowout of ICP) of M3 is detected when M3 is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF exit conveyance motor (M3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-703: 8-L)
3. Replace M3 and PFUDB at a time

Faulty part isolation DIPSW**Control while detached****2.5.25 C-0109****Code**

C-0109

Classification

PF: Power abnormality

Cause

Abnormality of the PF conveyance motor (M3) power in the PF drive board (PFUDB) of the 2nd tandem PF-703.
An error detection signal (blowout of ICP) of M3 is detected when M3 is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF exit conveyance motor (M3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-703: 8-L)
3. Replace M3 and PFUDB at a time

Faulty part isolation DIPSW**Control while detached****2.5.26 C-0110****Code**

C-0110

Classification

Main body: Power abnormality

Cause

Abnormality of the registration section motor IC in the ADU drive board (ADUDB).
The error detection signals of the ADU conveyance motor /2 (M16), the registration motor (M17) and the loop motor (M18) are detected after the print is started.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- ADU conveyance motor /2 (M16)
- Registration motor (M17)
- Loop motor (M18)
- ADU drive board /2 (ADUDB2)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **"Please call service" is displayed on the touch panel.**

Solution

1. Check the connector connection and the wiring between ADUDB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace M16, M17, M18 (Wiring diagram: Main body (2/4): 24-N, 24-M)
3. Replace ADUDB2.
4. Replace M16, M17, M18 and ADUDB2 at a time.

Faulty part isolation DIPSW

Control while detached

2.5.27 C-0111

Code

C-0111

Classification

Main body: Power abnormality

Cause

Abnormality of the duplex section motor IC in the ADU drive board (ADUDB).

The error detection signals of the ADU reverse motor (M12), the reverse/exit motor (M13), the ADU accelerate motor (M14) and the ADU conveyance motor /1 (M15) are detected after the print is started.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- ADU reverse motor (M12)
- Reverse/exit motor (M13)
- ADU acceleration motor (M14)
- ADU conveyance motor /1 (M15)
- ADU drive board /1 (ADUDB1)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **"Please call service" is displayed on the touch panel.**

Solution

1. Check the connector connection and the wiring between ADUDB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace M12, M13, M14, M15 (Wiring diagram: Main body (2/4): 19-P, 18-P, 7-P)
3. Replace ADUDB1
4. Replace M12, M13, M14, M15 and ADUDB1 at a time

Faulty part isolation DIPSW

Control while detached

2.5.28 C-0112

Code

C-0112

Classification

Main body: Power abnormality

Cause

Vertical conveyance motor IC abnormality in the printer control board (PRCB)

An error detection signal of vertical conveyance motor (M8) is detected after the print starts.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Vertical conveyance motor (M8)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **"Please call service" is displayed on the touch panel.**

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the M8 (Wiring diagram: Main body (3/4): 6-I).
3. Replace PRCB.
4. Replace M8 and PRCB at a time.

Faulty part isolation DIPSW

Control while detached

2.5.29 C-0113**Code**

C-0113

Classification

Main body: Power abnormality

Cause

Abnormality 1 of the SD/CL_24V power for the printer control board (PRCB) tray.

At the start, the error detection signals of the PRCB tray solenoid/clutch ICP blowout and 24V cut off are detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring related to DC24V between PRCB and DCPS /2, and repair it if any abnormality
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.30 C-0114****Code**

C-0114

Classification

Main body: Power abnormality

Cause

Abnormality 2 of the SD/CL_24V power for the printer control board (PRCB) tray.

When the error detection signal of the PRCB tray solenoid/clutch ICP blowout is detected but no 24V cut off is detected at the start.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed clutch /1 (CL4)
- Separation clutch /1 (CL5)
- Paper feed clutch /2 (CL6)
- Separation clutch /2 (CL7)
- Pick-up solenoid /1 (SD3)
- Pick-up solenoid /2 (SD4)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring related to DC24V between PRCB and clutch/solenoid, and repair it if any abnormality
2. Check the drive and the coupling of the clutch and the solenoid, repair it if any abnormality, and then replace PRCB (Wiring diagram: Main body (3/4): 16-A, 22-A, Main body (3/4): 17-A)
3. Replace PRCB.
4. Replace the clutch, the solenoid and PRCB at a time

Faulty part isolation DIPSW**Control while detached****2.5.31 C-0115****Code**

C-0115

Classification

Main body: Power abnormality

Cause

Abnormality 1 of the SD/CL_24V power for the printer control board (PRCB) vertical conveyance.

At the start, the error detection signals of the PRCB vertical conveyance solenoid/clutch ICP blowout and 24V cut off are detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring related to DC24V between PRCB and DCPS /2, and repair it if any abnormality
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.5.32 C-0116****Code**

C-0116

Classification

Main body: Power abnormality

Cause

Abnormality 2 of the SD/CL_24V power for the printer control board (PRCB) tray.

When the error detection signal of the PRCB tray solenoid/clutch ICP blowout is detected but no 24V cut off is detected at the start.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Pre-registration clutch /1 (CL1)
- Vertical conveyance clutch (CL2)
- Pre-registration clutch /2 (CL3)
- Erase lamp (EL)
- Tray lock solenoid /1 (SD1)
- Tray lock solenoid /2 (SD2)
- Drum claw solenoid (SD10)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring related to DC24V between PRCB and clutch/solenoid/EL, and repair it if any abnormality
2. Check the drive and the coupling of the clutch and the solenoid, repair it if any abnormality, and then replace PRCB (Wiring diagram: Main body (1/4): 23-B)
3. Replace PRCB.
4. Replace the clutch, the solenoid, EL and PRCB at a time

Faulty part isolation DIPSW**Control while detached****2.5.33 C-0118****Code**

C-0118

Classification

PF: Power abnormality

Cause

Abnormality of the power for the PF drive board (PFUDB) SD/CL of the PF-703/706.

At the start, the error detection signal of the PFUDB solenoid/clutch ICP blowout is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality
2. Check the drive and the coupling of the solenoid and the clutch connected to PFUDB, repair/replace it if any abnormality, and then replace PFUDB
3. Replace PFUDB.
4. If the same error cord occurs even after replacing PFUDB, replace the connected solenoid, the clutch and PFUDB at a time

Faulty part isolation DIPSW**Control while detached****2.5.34 C-0119****Code**

C-0119

Classification

Main body: Drive

Cause

The transfer belt cleaning motor (M5) speed abnormality.

The M5EM error detection signal is detected twice in succession within a specified period of time after M5 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Transfer belt cleaning motor (M5)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 20-P)
3. Replace M5
4. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.5.35 C-0120

Code

C-0120

Classification

Main body: Drive

Cause

Paper exit conveyance motor (M31) speed abnormality.

The M31EM error detection signal is detected twice in succession within a specified period of time after M31 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper exit conveyance motor (M31)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 22-P)
3. Replace M31
4. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.5.36 C-0121

Code

C-0121

Classification

Main body: Drive

Cause

Paper exit motor (M20) speed abnormality.

The M20EM error detection signal is detected twice in succession within a specified period of time after M20 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper exit motor (M20)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 21-P)
3. Replace M20
4. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.5.37 C-0130

Code

C-0130

Classification

PF: Power abnormality

Cause

PF-703 coupling conveyance motor /1 (M4) power abnormality.

An error detection signal (blowout of ICP) of M4 is detected when M4 is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Coupling conveyance motor /1 (M4: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-703: 20-L)
3. Replace M4 and PFUDB at a time

Faulty part isolation DIPSW

Control while detached

2.5.38 C-0131

Code

C-0131

Classification

PF: Power abnormality

Cause

PF-703 coupling conveyance motor /2 and /3 (M5 and M6) power abnormality.

An error detection signal (blowout of ICP) of M5 and M6 is detected when M5 and M6 are turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Coupling conveyance motor /2 (M5: PF-703)
- Coupling conveyance motor /3 (M6: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-703: 21-L)
3. Replace PFUDB.
4. Replace M5, M6 and PFUDB at a time

Faulty part isolation DIPSW

Control while detached

2.5.39 C-0132

Code

C-0132

Classification

PF: Power abnormality

Cause

Abnormality of the power for the PF drive board (PFUDB) SD/CL of the 2nd tandem PF-703/706.

At the start, the error detection signal of the PFUDB solenoid/clutch ICP blowout is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality
2. Check the drive and the coupling of the solenoid and the clutch connected to PFUDB, repair/replace it if any abnormality, and then replace PFUDB
3. Replace PFUDB.
4. If the same error cord occurs even after replacing PFUDB, replace the connected solenoid, the clutch and PFUDB at a time

Faulty part isolation DIPSW

Control while detached

2.5.40 C-0133**Code**

C-0133

Classification

PF: Drive

Cause

1st tandem PF-703 paper feed belt motor (M2) speed abnormality.

An error detection signal is detected twice in succession within a specified period of time after M2 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed belt motor (M2: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 5-L)
3. Replace M2
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.5.41 C-0134****Code**

C-0134

Classification

PF: Drive

Cause

2nd tandem PF-703 paper feed belt motor (M2) speed abnormality.

An error detection signal is detected twice in succession within a specified period of time after M2 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed belt motor (M2: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 5-L)
3. Replace M2
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.5.42 C-0140****Code**

C-0140

Classification

PI-PFU: Drive

Cause

Paper feed motor speed abnormality of PI-PFU (PF-703) tandem PF.

An error detection signal is detected twice in succession within a specified period of time after M1 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed motor (M1: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-L)
3. Replace M1
4. Replace PFUDB

Faulty part isolation DIPSW

Control while detached**2.5.43 C-0141****Code**

C-0141

Classification

PI-PFU: Power abnormality

Cause

PI-PFU (PF-703) PF exit conveyance motor (M3) power abnormality.

An error detection signal (blowout of ICP) of M3 is detected when M3 is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF exit conveyance motor (M3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-703: 8-L)
3. Replace M3 and PFUDB at a time

Faulty part isolation DIPSW**Control while detached****2.5.44 C-0142****Code**

C-0142

Classification

PI-PFU: Power abnormality

Cause

PI-PFU (PF-703) coupling conveyance motor /1 (M4) power abnormality.

An error detection signal (blowout of ICP) of M4 is detected when M4 is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Coupling conveyance motor /1 (M4: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-703: 20-L)
3. Replace M4 and PFUDB at a time

Faulty part isolation DIPSW**Control while detached****2.5.45 C-0143****Code**

C-0143

Classification

PI-PFU: Power abnormality

Cause

PI-PFU (PF-703) coupling conveyance motor /2 and /3 (M5 and M6) power abnormality.

An error detection signal (blowout of ICP) of M5 and M6 is detected when M5 and M6 are turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Coupling conveyance motor /2 (M5: PF-703)
- Coupling conveyance motor /3 (M6: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality

2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace the PFUDB (Wiring diagram: PF-703: 21-L)
3. Replace PFUDB.
4. Replace M5, M6 and PFUDB at a time

Faulty part isolation DIPSW**Control while detached****2.5.46 C-0144****Code**

C-0144

Classification

PI-PFU: Power abnormality

Cause

PI-PFU (PF-703) SD/CL power abnormality.

At the start, the error detection signal of the PFUDB solenoid/clutch ICP blowout is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality
2. Check the drive and the coupling of the solenoid and the clutch connected to PFUDB, repair/replace it if any abnormality, and then replace PFUDB
3. Replace PFUDB.
4. If the same error cord occurs even after replacing PFUDB, replace the connected solenoid, the clutch and PFUDB at a time

Faulty part isolation DIPSW**Control while detached****2.5.47 C-0145****Code**

C-0145

Classification

PI-PFU: Drive

Cause

PI-PFU (PF-703) paper feed belt motor (M2) speed abnormality.

An error detection signal is detected twice in succession within a specified period of time after M2 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed belt motor (M2: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 5-L)
3. Replace M2
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.5.48 C-0150(LU)****Code**

C-0150

Classification

LU

Cause

An abnormal speed signal of the paper feed motor (M101) is checked.

An error detection signal is detected twice in succession a specified period of time after M101 was turned ON (the first signal is ignored).

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed motor (M101)
- LU drive board (LUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LU: 6-C)
3. Replace M101.
4. Replace LUDB.

Faulty part isolation DIPSW**Control while detached****2.5.49 C-0151(LU)****Code**

C-0151

Classification

LU

Cause

The locking of the paper lift motor (M100) is detected.

When M100 is ON, an error detection signal of the M100 is detected in succession for 1 second.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper lift motor (M100)
- Lower limit sensor (PS101)
- Upper limit sensor (PS109)
- LU drive board (LUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the tray, and repair it if any abnormality
2. Check the connector connection and the wiring between LUDB and motor/sensor, and repair it if any abnormality.
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LU: 4-G, 6-G)
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LU: 5-C)
5. Replace PS109 and PS101.
6. Replace M100.
7. Replace LUDB.

Faulty part isolation DIPSW

DIPSW47-0

Control while detached

Paper feed in LU is unavailable (Shaded on the control panel)

2.5.50 C-0152(LU)**Code**

C-0152

Classification

LU: Power source abnormality

Cause

Abnormality of the paper lift motor (M100) power in the LU drive board (LUDB).

An error detection signal (blowout of ICP) of M100 is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper lift motor (M100)
- LU drive board (LUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between LUDB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, repair/replace it if any abnormality, and then replace M100 (Wiring diagram: LU: 5-C)
3. Replace LUDB.
4. Replace M100 and LUDB at a time.

Faulty part isolation DIPSW**Control while detached****2.5.51 C-0153(LU)****Code**

C-0153

Classification

LU: Power source abnormality

Cause

Abnormality of the solenoid and clutch power in the LU drive board (LUDB).

An error detection signals (blowout of ICP) of the pick up solenoid (SD100), the paper feed clutch (CL101), and the preregistration clutch (CL102) are detected after the print is started.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Pick-up solenoid (SD100)
- Paper feed clutch (CL101)
- Pre-registration clutch (CL102)
- LU drive board (LUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between LUDB and solenoid/clutch, and repair it if any abnormality.
2. Check the I/O drive of the solenoid/clutch and the coupling of the gear, repair/replace it if any abnormality, and then replace SD100, CL101 and CL102 (Wiring diagram: LU: 7-G, 6-G)
3. Replace LUDB.
4. Replace SD100/CL101/CL102 and LUDB at a time

Faulty part isolation DIPSW

Control while detached

2.5.52 C-0201

Code

C-0201

Classification

Main body: Tray1

Cause

Tray1: up abnormality

When the upper limit sensor /1 (PS6) is OFF, PS6 does not turn ON within 20 seconds after the tray lift-up motor /1 (M25) turns ON for lifting operation. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /1 (PS6)
- Tray lift-up motor /1 (M25)
- Printer control board (PRCB)
- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate condition of the tray1, and repair it if any abnormality
2. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 16-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 13-A)
5. Replace PS6
6. Replace M25
7. Replace PRCB.
8. Replace DCPS /2

Faulty part isolation DIPSW

DIPSW18-0

Control while detached

Paper feed in tray1 is unavailable (The operation panel is displayed in hatching)

2.5.53 C-0203

Code

C-0203

Classification

Main body: Tray1

Cause

Tray1 up abnormality 2.

When the upper limit sensor /1 (PS6) is OFF, PS6 does not turn ON within 20 seconds after the tray lift-up motor /1 (M25) turns ON for lifting operation. At this time, an error detection signal is not detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /1 (PS6)
- Tray lift-up motor /1 (M25)
- Printer control board (PRCB)
- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate condition of the tray1, and repair it if any abnormality
2. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 16-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 13-A)
5. Replace PS6
6. Replace M25
7. Replace PRCB.
8. Replace DCPS /2

Faulty part isolation DIPSW

DIPSW18-0

Control while detached

Paper feed in tray1 is unavailable (The operation panel is displayed in hatching)

2.5.54 C-0204**Code**

C-0204

Classification

Main body: Tray1

Cause

The locking of the tray lift-up motor /1 (M25) is detected.

An error detection signal of M25 is detected while M25 is ON.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Tray lift-up motor /1 (M25)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 16-A)
3. Replace M25
4. Replace PRCB.

Faulty part isolation DIPSW

DIPSW18-0

Control while detached

Paper feed in tray1 is unavailable (The operation panel is displayed in hatching)

2.5.55 C-0205**Code**

C-0205

Classification

Main body: Tray2

Cause

Tray2 up abnormality 1.

When the upper limit sensor /2 (PS10) is OFF, PS10 does not turn ON within 20 seconds after the tray lift-up motor /2 (M34) turns ON for lifting operation. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /2 (PS10)
- Tray lift-up motor /2 (M34)
- Printer control board (PRCB)
- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate condition of the tray2, and repair it if any abnormality
2. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 21-A)

4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 18-A)
5. Replace PS10.
6. Replace M34
7. Replace PRCB.
8. Replace DCPS /2

Faulty part isolation DIPSW

DIPSW18-1

Control while detached

Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)

2.5.56 C-0207**Code**

C-0207

Classification

Main body: Tray2

Cause

Tray /2 up abnormality 2.

When the upper limit sensor /2 (PS10) is OFF, PS10 does not turn ON within 20 seconds after the tray lift-up motor /2 (M34) turns ON for lifting operation. At this time, an error detection signal is not detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /2 (PS10)
- Tray lift-up motor /2 (M34)
- Printer control board (PRCB)
- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate condition of the tray2, and repair it if any abnormality
2. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 21-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 18-A)
5. Replace PS10.
6. Replace M34
7. Replace PRCB.
8. Replace DCPS /2

Faulty part isolation DIPSW

DIPSW18-1

Control while detached

Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)

2.5.57 C-0208**Code**

C-0208

Classification

Main body: Tray2

Cause

The locking of the tray lift-up motor /2 (M34) is detected.

When M34 is ON, an error detection signal of the M34 is detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Tray lift-up motor /2 (M34)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- "Please call service" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 21-A)
3. Replace M34.
4. Replace PRCB.

Faulty part isolation DIPSW

DIPSW18-1

Control while detached

Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)

2.5.58 C-0222**Code**

C-0222

Classification

PF: Tray3

Cause

1st tandem PF-703/706 upper tray up abnormality.

PF-703: When the upper limit sensor /1 (PS5) is OFF, PS5 does not turn ON within 20 seconds after the paper lift motor /1 (M7) turns ON for lifting operation. Or, the paper suction sensor /Fr1 and /Rr1 (PS25 and PS26) turn ON before PS5 turns ON while in tray lifting.

PF-706: When the upper limit sensor /1 (PS2) is OFF, PS2 does not turn ON within 20 seconds after the paper lift motor /1 (M42) turns ON for the lifting operation.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /1 (PS5: PF-703)
- Upper limit sensor /1 (PS2: PF-706)
- Paper lift motor /1 (M7: PF-703)
- Paper lift motor /1 (M42: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the upper tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-F, PF-706: 5-C)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality (Wiring diagram: PF-703: 3-F, PF-706: 3-C)
5. Replace PS5: PF-703 or PS2: PF-706
6. Replace M7: PF-703 or M42: PF-706
7. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-2

Control while detached

Paper feed in tray /3, /6, /7 and /8 is unavailable (The operation panel is displayed in hatching)

2.5.59 C-0223**Code**

C-0223

Classification

PF: Tray3

Cause

The locking of the paper lift motor /1 of the 1st tandem PF-703/706 upper tray (M7: PF-703, M42: PF-706) is detected.

When M7 and M42 are ON, error detection signals of the M7 and M42 are detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /1 (M7: PF-703)
- Paper lift motor /1 (M42: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-F, PF-706: 5-C)
3. Replace M7: PF-703 or M42: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-2

Control while detached

Paper feed in tray /3, /6, /7 and /8 is unavailable (The operation panel is displayed in hatching)

2.5.60 C-0226**Code**

C-0226

Classification

PF: Tray4

Cause

1st tandem PF-703/706 middle tray up abnormality.

PF-703: When the upper limit sensor /2 (PS9) is OFF, PS9 does not turn ON within 20 seconds after the paper lift motor /2 (M8) turns ON for lifting operation. Or, the paper suction sensor /Fr2 and /Rr2 (PS27 and PS28) turn ON before PS9 turns ON while in tray lifting.

PF-706: When the upper limit sensor /2 (PS6) is OFF, PS6 does not turn ON within 20 seconds after the paper lift motor /2 (M43) turns ON for the lifting operation.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /2 (PS9: PF-703)
- Upper limit sensor /2 (PS6: PF-706)
- Paper lift motor /2 (M8: PF-703)
- Paper lift motor /2 (M43: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the middle tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 12-F, PF-706: 7-C)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 9-F, PF-706: 5-C)
5. Replace PS9: PF-703 or PS6: PF-706
6. Replace M8: PF-703 or M43: PF-706
7. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-3

Control while detached

Paper feed in tray /4 is unavailable (The operation panel is displayed in hatching)

2.5.61 C-0227

Code

C-0227

Classification

PF: Tray4

Cause

The locking of the paper lift motor /2 of the 1st tandem PF-703/706 middle tray (M8: PF-703, M43: PF-706) is detected.

When M8 and M43 are ON, error detection signals of the M8 and M43 are detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /2 (M8: PF-703)
- Paper lift motor /2 (M43: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 12-F, PF-706: 7-C)
3. Replace M8: PF-703 or M43: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-3

Control while detached

Paper feed in tray /4 is unavailable (The operation panel is displayed in hatching)

2.5.62 C-0230

Code

C-0230

Classification

PF: Tray5

Cause

1st tandem PF-703/706 lower tray up abnormality.

PF-703: When the upper limit sensor /3 (PS13) is OFF, PS13 does not turn ON within 20 seconds after the paper lift motor /3 (M9) turns ON for lifting operation. Or, the paper suction sensor /Fr3 and /Rr3 (PS29 and PS30) turn ON before PS13 turns ON while in tray lifting.

PF-706: When the upper limit sensor /3 (PS10) is OFF, PS10 does not turn ON within 20 seconds after the paper lift motor /3 (M44) turns ON for the lifting operation.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /3 (PS13: PF-703)
- Upper limit sensor /3 (PS10: PF-706)
- Paper lift motor /3 (M9: PF-703)
- Paper lift motor /3 (M44: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the lower tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 16-F, PF-706: 7-C)
5. Replace PS13: PF-703 or PS10: PF-706
6. Replace M9: PF-703 or M44: PF-706
7. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW20-4

Control while detached

Paper feed in tray /5 is unavailable (The operation panel is displayed in hatching)

2.5.63 C-0231

Code

C-0231

Classification

PF: Tray5

Cause

The locking of the paper lift motor /3 of the 1st tandem PF-703/706 lower tray (M9: PF-703, M44: PF-706) is detected. When M9 and M44 are ON, error detection signals of the M9 and M44 are detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /3 (M9: PF-703)
- Paper lift motor /3 (M44: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-706: 9-C, PF-703: 19-F)
3. Replace M44: PF-706 or M9: PF-703
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW20-4

Control while detached

Paper feed in tray /5 is unavailable (The operation panel is displayed in hatching)

2.5.64 C-0240

Code

C-0240

Classification

PF: Tray6

Cause

2nd tandem PF-703/706 upper tray up abnormality.

PF-703: When the upper limit sensor /1 (PS5) is OFF, PS5 does not turn ON within 20 seconds after the paper lift motor /1 (M7) turns ON for lifting operation. Or, the paper suction sensor /Fr1 and /Rr1 (PS25 and PS26) turn ON before PS5 turns ON while in tray lifting.

PF-706: When the upper limit sensor /1 (PS2) is OFF, PS2 does not turn ON within 20 seconds after the paper lift motor /1 (M42) turns ON for the lifting operation.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /1 (PS5: PF-703)
- Upper limit sensor /1 (PS2: PF-706)
- Paper lift motor /1 (M7: PF-703)
- Paper lift motor /1 (M42: PF-706)

- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the upper tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-F, PF-706: 5-C)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 3-F, PF-706: 3-C)
5. Replace PS5: PF-703 or PS2: PF-706
6. Replace M7: PF-703 or M42: PF-706
7. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW20-5

Control while detached

Paper feed in tray /6 is unavailable (The operation panel is displayed in hatching)

2.5.65 C-0241**Code**

C-0241

Classification

PF: Tray6

Cause

The locking of the paper lift motor /1 of the 2nd tandem PF-703/706 upper tray (M7: PF-703, M42: PF-706) is detected.
When M7 and M42 are ON, error detection signals of the M7 and M42 are detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /1 (M7: PF-703)
- Paper lift motor /1 (M42: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-F, PF-706: 5-C)
3. Replace M7: PF-703 or PF-706: 5-C
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW20-5

Control while detached

Paper feed in tray /6 is unavailable (The operation panel is displayed in hatching)

2.5.66 C-0242**Code**

C-0242

Classification

PF: Tray7

Cause

2nd tandem PF-703/706 middle tray up abnormality.

PF-703: When the upper limit sensor /2 (PS9) is OFF, PS9 does not turn ON within 20 seconds after the paper lift motor /2 (M8) turns ON for lifting operation. Or, the paper suction sensor /Fr2 and /Rr2 (PS27 and PS28) turn ON before PS9 turns ON while in tray lifting.

PF-706: When the upper limit sensor /2 (PS6) is OFF, PS6 does not turn ON within 20 seconds after the paper lift motor /2 (M43) turns ON for the lifting operation.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /2 (PS9: PF-703)
- Upper limit sensor /2 (PS6: PF-706)
- Paper lift motor /2 (M8: PF-703)
- Paper lift motor /2 (M43: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the middle tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 12-F, PF-706: 7-C)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 9-F, PF-706: 5-C)
5. Replace PS9: PF-703 or PF-706: 5-C
6. Replace M8: PF-703 or PF-706: 5-C
7. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-5

Control while detached

Paper feed in tray /7 is unavailable (The operation panel is displayed in hatching)

2.5.67 C-0243**Code**

C-0243

Classification

PF: Tray7

Cause

The locking of the paper lift motor /2 of the 2nd tandem PF-703/706 middle tray (M8: PF-703, M43: PF-706) is detected.
When M8 and M43 are ON, error detection signals of the M8 and M43 are detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /2 (M8: PF-703)
- Paper lift motor /2 (M43: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 12-F, PF-706: 7-C)
3. Replace M8: PF-703 or M43: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-5

Control while detached

Paper feed in tray /7 is unavailable (The operation panel is displayed in hatching)

2.5.68 C-0244**Code**

C-0244

Classification

PF: Tray8

Cause

2nd tandem PF-703/706 lower tray up abnormality.

PF-703: When the upper limit sensor /3 (PS13) is OFF, PS13 does not turn ON within 20 seconds after the paper lift motor /3 (M9) turns ON for lifting operation. Or, the paper suction sensor /Fr3 and /Rr3 (PS29 and PS30) turn ON before PS13 turns ON while in tray lifting.
PF-706: When the upper limit sensor /3 (PS10) is OFF, PS10 does not turn ON within 20 seconds after the paper lift motor /3 (M44) turns ON for the lifting operation.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /3 (PS13: PF-703)
- Upper limit sensor /3 (PS10: PF-706)
- Paper lift motor /3 (M9: PF-703)
- Paper lift motor /3 (M44: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the lower tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 16-F, PF-706: 7-C)
5. Replace PS13: PF-703 or PS10: PF-706
6. Replace M9: PF-703 or M44: PF-706

7. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-6

Control while detached

Paper feed in tray /8 is unavailable (The operation panel is displayed in hatching)

2.5.69 C-0245**Code**

C-0245

Classification

PF: Tray8

Cause

The locking of the paper lift motor /3 of the 2nd tandem PF-703/706 lower tray (M9: PF-703, M44: PF-706) is detected.
When M9 and M44 are ON, error detection signals of the M9 and M44 are detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /3 (M9: PF-703)
- Paper lift motor /3 (M44: PF-706)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
3. Replace M9: PF-703 or M44: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-6

Control while detached

Paper feed in tray /8 is unavailable (The operation panel is displayed in hatching)

2.5.70 C-0250**Code**

C-0250

Classification

PI-PFU: PI Tray1

Cause

PI-PFU (PF-703) upper tray up abnormality.

When the upper limit sensor /1 (PS5) is OFF, PS5 does not turn ON within 20 seconds after the paper lift motor /1 (M7) turns ON for lifting operation. Or, the paper suction sensor /Fr1 and /Rr1 (PS25 and PS26) turn ON before PS5 turns ON while in tray lifting.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /1 (PS5: PF-703)
- Paper lift motor /1 (M7: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the upper tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 3-F)
5. Upper limit sensor /1 (PS5: PF-703)
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.5.71 C-0251****Code**

C-0251

Classification

PI-PFU: PI Tray1

Cause

The locking of the upper tray paper lift motor /1 (M7) is detected.
When M7 is ON, an error detection signal of the M7 is detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /1 (M7: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 6-F)
3. Replace M7: PF-703
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.5.72 C-0252****Code**

C-0252

Classification

PI-PFU: PI Tray2

Cause

PI-PFU (PF-703) middle tray up abnormality.

When the upper limit sensor /2 (PS9) is OFF, PS9 does not turn ON within 20 seconds after the paper lift motor /2 (M8) turns ON for lifting operation. Or, the paper suction sensor /Fr2 and /Rr2 (PS27 and PS28) turn ON before PS9 turns ON while in tray lifting.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /2 (PS9: PF-703)
- Paper lift motor /2 (M8: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the middle tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 12-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 9-F)
5. Replace PS9: PF-703
6. Replace M8: PF-703
7. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW37-0

Control while detached

Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)

2.5.73 C-0253**Code**

C-0253

Classification

PI-PFU: PI Tray2

Cause

The locking of the upper tray paper lift motor /2 (M8) is detected.

When M8 is ON, an error detection signal of the M8 is detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /2 (M8: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 12-F)
3. Replace M8: PF-703
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW37-0

Control while detached

Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)

2.5.74 C-0254**Code**

C-0254

Classification

PI-PFU: PI Tray3

Cause

PI-PFU (PF-703) lower tray up abnormality.

When the upper limit sensor /3 (PS13) is OFF, PS13 does not turn ON within 20 seconds after the paper lift motor /3 (M9) turns ON for lifting operation. Or, the paper suction sensor /Fr3 and /Rr3 (PS29 and PS30) turn ON before PS13 turns ON while in tray lifting.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Upper limit sensor /3 (PS13: PF-703)
- Paper lift motor /3 (M9: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper loaded condition and the rear end restriction plate misaligned of the lower tray, and repair it if any abnormality
2. Check the connector connection and the wiring between PFUDB and motor/sensor, and repair it if any abnormality
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PF-703: 16-F)
5. Replace PS13: PF-703
6. Replace M9: PF-703
7. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW37-1

Control while detached

Paper feed in tray /3 is unavailable (The operation panel is displayed in hatching)

2.5.75 C-0255**Code**

C-0255

Classification

PI-PFU: PI Tray3

Cause

The locking of the upper tray paper lift motor /3 (M9) is detected.

When M9 is ON, an error detection signal of the M9 is detected.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC. Since the lifting operation of the tray is not completed, "Set paper in the tray x" is displayed on the operation panel.

Estimated abnormal parts

- Paper lift motor /3 (M9: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-F)
3. Replace M9: PF-703
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW37-1

Control while detached

Paper feed in tray /3 is unavailable (The operation panel is displayed in hatching)

2.5.76 C-0261**Code**

C-0261

Classification

PF: Tray3

Cause

1st tandem PF-703 shutter motor /1 (M10) operation time abnormality 1.

The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /1 (M10: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 15-L)
3. Replace M10
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-2

Control while detached

Paper feed in tray /3, /6, /7 and /8 is unavailable (The operation panel is displayed in hatching)

2.5.77 C-0262

Code

C-0262

Classification

PF: Tray3

Cause

1st tandem PF-703 shutter motor /1 (M10) operation time abnormality 2.

The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /1 (M10: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 15-L)
3. Replace M10 and PFUDB at a time

Faulty part isolation DIPSW

DIPSW18-2

Control while detached

Paper feed in tray /3, /6, /7 and /8 is unavailable (The operation panel is displayed in hatching)

2.5.78 C-0263

Code

C-0263

Classification

PF: Tray4

Cause

1st tandem PF-703 shutter motor /2 (M11) operation time abnormality 1.

The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /2 (M11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 17-L)
3. Replace M11.
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-3

Control while detached

Paper feed in tray /4 is unavailable (The operation panel is displayed in hatching)

2.5.79 C-0264**Code**

C-0264

Classification

PF: Tray4

Cause

1st tandem PF-703 shutter motor /2 (M11) operation time abnormality 2.

The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /2 (M11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 17-L)
3. Replace M11 and PFUDB at a time.

Faulty part isolation DIPSW

DIPSW18-3

Control while detached

Paper feed in tray /4 is unavailable (The operation panel is displayed in hatching)

2.5.80 C-0265**Code**

C-0265

Classification

PF: Tray5

Cause

1st tandem PF-703 shutter motor /3 (M12) operation time abnormality 1.

The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /3 (M12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-L)
3. Replace M12.
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW20-4

Control while detached

Paper feed in tray /5 is unavailable (The operation panel is displayed in hatching)

2.5.81 C-0266**Code**

C-0266

Classification

PF: Tray5

Cause

1st tandem PF-703 shutter motor /3 (M12) operation time abnormality 2.

The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /3 (M12: PF-703)

- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-L)
3. Replace M12 and PFUDB at a time.

Faulty part isolation DIPSW

DIPSW20-4

Control while detached

Paper feed in tray /5 is unavailable (The operation panel is displayed in hatching)

2.5.82 C-0271**Code**

C-0271

Classification

PF: Tray6

Cause

2nd tandem PF-703 shutter motor /1 (M10) operation time abnormality 1.

The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /1 (M10: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 15-L)
3. Replace M10
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW20-5

Control while detached

Paper feed in tray /6 is unavailable (The operation panel is displayed in hatching)

2.5.83 C-0272**Code**

C-0272

Classification

PF: Tray6

Cause

2nd tandem PF-703 shutter motor /1 (M10) operation time abnormality 2.

The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /1 (M10: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 15-L)
3. Replace M10 and PFUDB at a time

Faulty part isolation DIPSW

DIPSW20-5

Control while detached

Paper feed in tray /6 is unavailable (The operation panel is displayed in hatching)

2.5.84 C-0273**Code**

C-0273

Classification

PF: Tray7

Cause

2nd tandem PF-703 shutter motor /2 (M11) operation time abnormality 1.

The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /2 (M11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 17-L)
3. Replace M11.
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-5

Control while detached

Paper feed in tray /7 is unavailable (The operation panel is displayed in hatching)

2.5.85 C-0274**Code**

C-0274

Classification

PF: Tray7

Cause

2nd tandem PF-703 shutter motor /2 (M11) operation time abnormality 2.

The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /2 (M11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 17-L)
3. Replace M11 and PFUDB at a time.

Faulty part isolation DIPSW

DIPSW18-5

Control while detached

Paper feed in tray /7 is unavailable (The operation panel is displayed in hatching)

2.5.86 C-0275**Code**

C-0275

Classification

PF: Tray8

Cause

2nd tandem PF-703 shutter motor /3 (M12) operation time abnormality 1.

The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /3 (M12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-L)
3. Replace M12.
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW18-6

Control while detached

Paper feed in tray /8 is unavailable (The operation panel is displayed in hatching)

2.5.87 C-0276**Code**

C-0276

Classification

PF: Tray8

Cause

2nd tandem PF-703 shutter motor /3 (M12) operation time abnormality 2.

The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /3 (M12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-L)
3. Replace M12 and PFUDB at a time.

Faulty part isolation DIPSW

DIPSW18-6

Control while detached

Paper feed in tray /8 is unavailable (The operation panel is displayed in hatching)

2.5.88 C-0281**Code**

C-0281

Classification

PI-PFU: PI Tray1

Cause

PI-PFU (PF-703)shutter motor /1 (M10) operation time abnormality 1.

The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /1 (M10: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 15-L)
3. Replace M10
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.5.89 C-0282****Code**

C-0282

Classification

PI-PFU: PI Tray1

Cause

PI-PFU (PF-703)shutter motor /1 (M10) operation time abnormality 2.

The M10EM error detection signal is detected twice in succession within a specified period of time after M10 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /1 (M10: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 15-L)
3. Replace M10 and PFUDB at a time

Faulty part isolation DIPSW**Control while detached****2.5.90 C-0283****Code**

C-0283

Classification

PI-PFU: PI Tray2

Cause

PI-PFU (PF-703) shutter motor /2 (M11) operation time abnormality 1.

The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /2 (M11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 17-L)
3. Replace M11.
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW37-0

Control while detached

Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)

2.5.91 C-0284**Code**

C-0284

Classification

PI-PFU: PI Tray2

Cause

PI-PFU (PF-703) shutter motor /2 (M11) operation time abnormality 2.

The M11EM error detection signal is detected twice in succession within a specified period of time after M11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /2 (M11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF: PF-703: 17-L)
3. Replace M11 and PFUDB at a time.

Faulty part isolation DIPSW

DIPSW37-0

Control while detached

Paper feed in tray /2 is unavailable (The operation panel is displayed in hatching)

2.5.92 C-0285**Code**

C-0285

Classification

PI-PFU: PI Tray3

Cause

PI-PFU (PF-703) shutter motor /3 (M12) operation time abnormality 1.

The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of fan ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /3 (M12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-L)
3. Replace M12.
4. Replace PFUDB.

Faulty part isolation DIPSW

DIPSW37-1

Control while detached

Paper feed in tray /3 is unavailable (The operation panel is displayed in hatching)

2.5.93 C-0286**Code**

C-0286

Classification

PI-PFU: PI Tray3

Cause

PI-PFU (PF-703) shutter motor /3 (M12) operation time abnormality 2.

The M12EM error detection signal is detected twice in succession within a specified period of time after M12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Shutter motor /3 (M12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: PF-703: 19-L)
3. Replace M12 and PFUDB at a time.

Faulty part isolation DIPSW

DIPSW37-1

Control while detached

Paper feed in tray /3 is unavailable (The operation panel is displayed in hatching)

2.6 Solution 2 (C-0301_0400)**2.6.1 C-0304****Code**

C-0304

Classification

Main body: Fan abnormality

Cause

Paper exit cooling fan /Up (FM4) rotation abnormality + 24V power abnormality.

The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- AC drive board (ACDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.6.2 C-0306****Code**

C-0306

Classification

Main body: Fan abnormality

Cause

Paper exit cooling fan /Up (FM4) rotation abnormality.

The FM4 EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper exit cooling fan /Up (FM4)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 10-A)
4. Replace FM4
5. Replace PRCB.
6. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.6.3 C-0307****Code**

C-0307

Classification

Main body: Fan abnormality

Cause

Paper exit cooling fan /Lw1 (FM10) rotation abnormality + 24V power abnormality.

The FM10EM error detection signal is detected twice in succession within a specified period of time after FM10 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- AC drive board (ACDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.6.4 C-0309****Code**

C-0309

Classification

Main body: Fan abnormality

Cause

Paper exit cooling fan /Lw1 (FM10) rotation abnormality.

The FM10EM error detection signal is detected twice in succession within a specified period of time after FM10 was turned ON. In addition, error detection signal (24 V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper exit cooling fan /Lw1 (FM10)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 9-A)
4. Replace FM10.
5. Replace PRCB.
6. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.6.5 C-0310****Code**

C-0310

Classification

Main body: Fan abnormality

Cause

Paper exit cooling fan /Lw2 (FM28) rotation abnormality + 24V power abnormality.

The FM28EM error detection signal is detected twice in succession within a specified period of time after FM28 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- AC drive board (ACDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.6.6 C-0312****Code**

C-0312

Classification

Main body: Fan abnormality

Cause

Paper exit cooling fan /Lw2 (FM28) rotation abnormality.

The FM28 EM error detection signal is detected twice in succession within a specified period of time after FM28 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper exit cooling fan /Lw2 (FM28)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 9-A)
4. Replace FM28.
5. Replace PRCB.
6. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.6.7 C-0320****Code**

C-0320

Classification

Main body: Fan abnormality

Cause

Paper feed assist fan /Rr1 (FM20) rotation abnormality + 24V power abnormality.

The FM20 EM error detection signal is detected twice in succession within a specified period of time after FM20 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.6.8 C-0322****Code**

C-0322

Classification

Main body: Fan abnormality

Cause

Paper feed assist fan /Rr1 (FM20) rotation abnormality.

The FM20 EM error detection signal is detected twice in succession within a specified period of time after FM20 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Rr1 (FM20)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 17-A)
3. Replace FM20.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.6.9 C-0323****Code**

C-0323

Classification

Main body: Fan abnormality

Cause

Paper feed assist fan /Fr1 (FM21) rotation abnormality + 24V power abnormality.

The FM21 EM error detection signal is detected twice in succession within a specified period of time after FM21 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached**

2.6.10 C-0325**Code**

C-0325

Classification

Main body: Fan abnormality

Cause

Paper feed assist fan /Fr1 (FM21) rotation abnormality.

The FM21 EM error detection signal is detected twice in succession within a specified period of time after FM21 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM21)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 18-A)
3. Replace FM21.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.6.11 C-0326****Code**

C-0326

Classification

Main body: Fan abnormality

Cause

Paper feed assist fan /Rr2 (FM24) rotation abnormality + 24V power abnormality.

The FM24 EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.6.12 C-0328****Code**

C-0328

Classification

Main body: Fan abnormality

Cause

Paper feed assist fan /Rr2 (FM24) rotation abnormality.

The FM24 EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Rr2 (FM24)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (3/4): 23-A)
3. Replace FM24.

4. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.6.13 C-0329

Code

C-0329

Classification

Main body: Fan abnormality

Cause

Paper feed assist fan /Fr2 (FM23) rotation abnormality + 24V power abnormality.

The FM23 EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.6.14 C-0331

Code

C-0331

Classification

Main body: Fan abnormality

Cause

Paper feed assist fan /Fr2 (FM23) rotation abnormality.

The FM23 EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Fr2 (FM23)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (3/4): 23-A)
3. Replace FM23.
4. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.6.15 C-0341

Code

C-0341

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Fr1 (FM1) power abnormality.

The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM1: PF-703/706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F, PF-706: 4-C)
3. Replace FM1 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.16 C-0342****Code**

C-0342

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Fr1 (FM1) rotation abnormality.

The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM1: PF-703/706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and FM1, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F, PF-706: 4-C)
3. Replace FM1.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.17 C-0344****Code**

C-0344

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Rr1 (FM2) power abnormality.

The EM error detection signal of FM2 is detected twice in succession within a specified period of time after FM2 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Rr1 (FM2: PF-703/PF-706)
- printer control board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM2 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.18 C-0345****Code**

C-0345

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Rr1 (FM2) rotation abnormality.

The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM2: PF-703/PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM2.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.19 C-0347****Code**

C-0347

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Fr2 (FM5: PF-703, FM3: PF-706) power abnormality.

The FM5 EM and FM3 EM error detection signals are detected twice in succession within a specified period of time after FM5 and FM3 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Fr2 (FM5: PF-703)
- Paper feed assist fan /Fr2 (FM3: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-F, PF-706: 7-C)
3. Replace FM5 and PFUDB at a time: PF-703
Replace FM3 and PFUDB at a time: PF-706

Faulty part isolation DIPSW**Control while detached****2.6.20 C-0348****Code**

C-0348

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Fr2 (FM5: PF-703, FM3: PF-706) rotation abnormality.

The FM5 EM and FM3 EM error detection signals are detected twice in succession within a specified period of time after FM5 and FM3 were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Fr2 (FM5: PF-703)
- Paper feed assist fan /Fr2 (FM3: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-F, PF-706: 7-C)
3. Replace FM5: PF-703
Replace FM3: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.21 C-0350****Code**

C-0350

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Rr2 (FM6: PF-703, FM4: PF-706) power abnormality.

The FM6 EM and FM4 EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM4 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Rr2 (FM6: PF-703)
- Paper feed assist fan /Rr2 (FM4: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F, PF-706: 7-C)
3. Replace FM6 and PFUDB at a time: PF-703
Replace FM4 and PFUDB at a time: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.6.22 C-0351

Code

C-0351

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Rr2 (FM6: PF-703, FM4: PF-706) rotation abnormality.

The FM6 EM and FM4 EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM4 were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Rr2 (FM6: PF-703)
- Paper feed assist fan /Rr2 (FM4: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F, PF-706: 7-C)
3. Replace FM6: PF-703
Replace FM4: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.6.23 C-0353

Code

C-0353

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Fr3 (FM9: PF-703, FM5: PF-706) power abnormality.

The FM9 EM and FM5 EM error detection signals are detected twice in succession within a specified period of time after FM9 and FM5 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Fr3 (FM9: PF-703)
- Paper feed assist fan /Fr3 (FM5: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 18-F, PF-706: 9-C)
3. Replace FM9 and PFUDB at a time: PF-703
Replace FM5 and PFUDB at a time: PF-706

Faulty part isolation DIPSW

Control while detached**2.6.24 C-0354****Code**

C-0354

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Fr3 (FM9: PF-703, FM5: PF-706) rotation abnormality.

The FM9 EM and FM5 EM error detection signals are detected twice in succession within a specified period of time after FM9 and FM5 were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Fr3 (FM9: PF-703)
- Paper feed assist fan /Fr3 (FM5: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 18-F, PF-706: 9-C)
3. Replace FM9: PF-703
Replace FM5: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.25 C-0356****Code**

C-0356

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Rr3 (FM10: PF-703, FM6: PF-706) power abnormality.

The FM10 EM and FM6 EM error detection signals are detected twice in succession within a specified period of time after FM10 and FM6 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Rr3 (FM10: PF-703)
- Paper feed assist fan /Rr3 (FM6: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
3. Replace FM10 and PFUDB at a time: PF-703
Replace FM6 and PFUDB at a time: PF-706

Faulty part isolation DIPSW**Control while detached****2.6.26 C-0357****Code**

C-0357

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 paper feed assist fan /Rr3 (FM10: PF-703, FM6: PF-706) rotation abnormality.

The FM10 EM and FM6 EM error detection signals are detected twice in succession within a specified period of time after FM10 and FM6 were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Rr3 (FM10: PF-703)
- Paper feed assist fan /Rr3 (FM6: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
3. Replace FM10: PF-703
Replace FM6: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.27 C-0359****Code**

C-0359

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 cooling fan power abnormality.

PF-703: The FM19EM and FM20EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

PF-706: The FM7 EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan (FM7) was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF cooling fan /1 (FM19: PF-703)
- PF cooling fan (FM7: PF-706)
- PF cooling fan /2 (FM20: PF-703)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 22-F, 23-F, PF-706: 8-H)
3. Replace FM7 and PFUDB at a time: PF-706

Faulty part isolation DIPSW**Control while detached****2.6.28 C-0360****Code**

C-0360

Classification

PF : fan abnormality

Cause

1st tandem PF-703/706 cooling fan rotation abnormality 1.

PF-703: The FM19 EM and FM20 EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. However, an error detection signal (blowout of ICP) is not detected.

PF-706: The FM20 EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan (FM7) turns ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF cooling fan (FM7: PF-706)
- PF cooling fan /1 (FM19: PF-703)
- PF cooling fan /2 (FM20: PF-703)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 22-F, 23-F, PF-706: 8-H)
3. Replace FM19 and FM20: PF-703
Replace FM7: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.29 C-0361****Code**

C-0361

Classification

PF : fan abnormality

Cause

1st tandem PF-703 cooling fan rotation abnormality 2.

The FM21EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan /3 (FM21) was turned ON with the front door closed. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF cooling fan /3 (FM21: PF-703)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 23-F)
3. Replace FM21 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.30 C-0370****Code**

C-0370

Classification

PF : fan abnormality

Cause

2st tandem PF-703/706 paper feed assist fan /Fr1 (FM1) power abnormality.

The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM1: PF-703/706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F, PF-706: 4-C)
3. Replace FM1 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.31 C-0371****Code**

C-0371

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Fr1 (FM1) rotation abnormality.

The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM1: PF-703/706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and FM1, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F, PF-706: 4-C)
3. Replace FM1.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached**

2.6.32 C-0372**Code**

C-0372

Classification

PF : fan abnormality

Cause

Paper feed assist fan /Fr1 (FM2: PF-703)

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM2: PF-703)
- printer control board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM2 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.33 C-0373****Code**

C-0373

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Rr1 (FM2) rotation abnormality.

The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM2: PF-703)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM2.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.34 C-0374****Code**

C-0374

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Fr2 (FM5: PF-703, FM3: PF-706) power abnormality.

The FM5 EM and FM3 EM error detection signals are detected twice in succession within a specified period of time after FM5 and FM3 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Fr2 (FM5: PF-703)
- Paper feed assist fan /Fr2 (FM3: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-F, PF-706: 7-C)
3. Replace FM5 and PFUDB at a time: PF-703
Replace FM3 and PFUDB at a time: PF-706

Faulty part isolation DIPSW

Control while detached

2.6.35 C-0375

Code

C-0375

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Fr2 (FM5: PF-703, FM3: PF-706) rotation abnormality.

The FM5 EM and FM3 EM error detection signals are detected twice in succession within a specified period of time after FM5 and FM3 were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper feed assist fan /Fr2 (FM5: PF-703)
- Paper feed assist fan /Fr2 (FM3: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-F, PF-706: 7-C)
3. Replace FM5: PF-703
Replace FM3: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.6.36 C-0376

Code

C-0376

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Rr2 (FM6: PF-703, FM4: PF-706) power abnormality.

The FM6 EM and FM4 EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM4 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- paper feed assist fan /Rr2 (FM6: PF-703)
- Paper feed assist fan /Rr2 (FM4: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F, PF-706: 7-C)
3. Replace FM6 and PFUDB at a time: PF-703
Replace FM4 and PFUDB at a time: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.6.37 C-0377

Code

C-0377

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Rr2 (FM6: PF-703, FM4: PF-706) rotation abnormality.

The FM6 EM and FM4 EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM4 were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- paper feed assist fan /Rr2 (FM6: PF-703)
- Paper feed assist fan /Rr2 (FM4: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F, PF-706: 7-C)
3. Replace FM6: PF-703
Replace FM4: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.38 C-0378****Code**

C-0378

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Fr3 (FM9: PF-703, FM5: PF-706) power abnormality.

The FM9 EM and FM5 EM error detection signals are detected twice in succession within a specified period of time after FM9 and FM5 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- paper feed assist fan /Fr3 (FM9: PF-703)
- Paper feed assist fan /Fr3 (FM5: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 18-F, PF-706: 9-C)
3. Replace FM9 and PFUDB at a time: PF-703
Replace FM5 and PFUDB at a time: PF-706

Faulty part isolation DIPSW**Control while detached****2.6.39 C-0379****Code**

C-0379

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Fr3 (FM9: PF-703, FM5: PF-706) rotation abnormality.

The FM9 EM and FM5 EM error detection signals are detected twice in succession within a specified period of time after FM9 and FM5 were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- paper feed assist fan /Fr3 (FM9: PF-703)
- Paper feed assist fan /Fr3 (FM5: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 18-F, PF-706: 9-C)
3. Replace FM9: PF-703
Replace FM5: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.40 C-0380****Code**

C-0380

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Rr3 (FM10: PF-703, FM6: PF-706) power abnormality.

The FM10 EM and FM6 EM error detection signals are detected twice in succession within a specified period of time after FM10 and FM6 were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- paper feed assist fan /Rr3 (FM10: PF-703)
- Paper feed assist fan /Rr3 (FM6: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
3. Replace FM10 and PFUDB at a time: PF-703
Replace FM6 and PFUDB at a time: PF-706

Faulty part isolation DIPSW**Control while detached****2.6.41 C-0381****Code**

C-0381

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 paper feed assist fan /Rr3 (FM10 PF-703, FM6: PF-706) rotation abnormality.

The FM6EM and FM10EM error detection signals are detected twice in succession within a specified period of time after FM6 and FM10 were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- paper feed assist fan /Rr3 (FM10: PF-703)
- Paper feed assist fan /Rr3 (FM6: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
3. Replace FM10: PF-703
Replace FM6: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.42 C-0382****Code**

C-0382

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 cooling fan power abnormality.

PF-703: The FM19EM and FM20EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

PF-706: The FM7 EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan (FM7) was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF cooling fan /1 (FM19: PF-703)
- PF cooling fan (FM7: PF-706)
- PF cooling fan /2 (FM20: PF-703)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.

2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 22-F, 23-F, PF-706: 8-H)
3. Replace FM19, FM20 and PFUDB at a time: PF-703
Replace FM7 and PFUDB at a time: PF-706

Faulty part isolation DIPSW
Control while detached

2.6.43 C-0383

Code

C-0383

Classification

PF : fan abnormality

Cause

2nd tandem PF-703/706 cooling fan rotation abnormality 1.

PF-703: The FM19 EM and FM20 EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. However, an error detection signal (blowout of ICP) is not detected.

PF-706: The FM20 EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan (FM7) turns ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF cooling fan (FM7: PF-706)
- PF cooling fan /1 (FM19: PF-703)
- PF cooling fan /2 (FM20: PF-703)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 22-F, 23-F, PF-706: 8-H)
3. Replace FM19 and FM20: PF-703
Replace FM7: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.6.44 C-0384

Code

C-0384

Classification

PF : fan abnormality

Cause

2nd tandem PF-703 cooling fan rotation abnormality 2.

The FM21EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan /3 (FM21) was turned ON with the front door closed. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF cooling fan /3 (FM21: PF-703)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 23-F)
3. Replace FM21 and PFUDB.

Faulty part isolation DIPSW
Control while detached

2.6.45 C-0385

Code

C-0385

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Fr1 (FM1) power abnormality.

The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM1: PF-703/706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F, PF-706: 4-C)
3. Replace FM1 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.46 C-0386****Code**

C-0386

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Fr1 (FM1) rotation abnormality.

The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM1: PF-703/706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and FM1, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F, PF-706: 4-C)
3. Replace FM1.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.47 C-0387****Code**

C-0387

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Rr1 (FM2) power abnormality.

The EM error detection signal of FM2 is detected twice in succession within a specified period of time after FM2 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM2: PF-703)
- printer control board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM2 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.48 C-0388****Code**

C-0388

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Rr1 (FM2) rotation abnormality.

The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr1 (FM2: PF-703)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM2.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.49 C-0389****Code**

C-0389

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Fr2 (FM5) power abnormality.

The FM5EM error detection signal is detected twice in succession within a specified period of time after FM5 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr2 (FM5: PF-703)
- Paper feed assist fan /Fr2 (FM3: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-F, PF-706: 7-C)
3. Replace FM5 and PFUDB at a time: PF-703
Replace FM3 and PFUDB at a time: PF-706

Faulty part isolation DIPSW**Control while detached****2.6.50 C-0390****Code**

C-0390

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Fr2 (FM5) rotation abnormality.

The FM5EM error detection signal is detected twice in succession within a specified period of time after FM5 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper feed assist fan /Fr2 (FM5: PF-703)
- Paper feed assist fan /Fr2 (FM3: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-F, PF-706: 7-C)
3. Replace FM5: PF-703
Replace FM3: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached**

2.6.51 C-0391**Code**

C-0391

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Rr2 (FM6) power abnormality.

The FM6EM error detection signal is detected twice in succession within a specified period of time after FM6 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- paper feed assist fan /Rr2 (FM6: PF-703)
- Paper feed assist fan /Rr2 (FM4: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F, PF-706: 7-C)
3. Replace FM6 and PFUDB at a time: PF-703
Replace FM4 and PFUDB at a time: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.52 C-0392****Code**

C-0392

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Rr2 (FM6) rotation abnormality.

The FM6EM error detection signal is detected twice in succession within a specified period of time after FM6 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- paper feed assist fan /Rr2 (FM6: PF-703)
- Paper feed assist fan /Rr2 (FM4: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F, PF-706: 7-C)
3. Replace FM6: PF-703
Replace FM4: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.53 C-0393****Code**

C-0393

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Fr3 (FM9) power abnormality.

The FM9EM error detection signal is detected twice in succession within a specified period of time after FM9 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- paper feed assist fan /Fr3 (FM9: PF-703)
- Paper feed assist fan /Fr3 (FM5: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 18-F, PF-706: 9-C)
3. Replace FM9 and PFUDB at a time: PF-703
Replace FM5 and PFUDB at a time: PF-706

Faulty part isolation DIPSW**Control while detached****2.6.54 C-0394****Code**

C-0394

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Fr3 (FM9) rotation abnormality.

The FM9EM error detection signal is detected twice in succession within a specified period of time after FM9 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- paper feed assist fan /Fr3 (FM9: PF-703)
- Paper feed assist fan /Fr3 (FM5: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 18-F, PF-706: 9-C)
3. Replace FM9: PF-703
Replace FM5: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.6.55 C-0395****Code**

C-0395

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Rr3 (FM10) power abnormality.

The EM error detection signal of FM10 is detected twice in succession within a specified period of time after FM10 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- paper feed assist fan /Rr3 (FM10: PF-703)
- Paper feed assist fan /Rr3 (FM6: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
3. Replace FM10 and PFUDB at a time: PF-703
Replace FM6 and PFUDB at a time: PF-706

Faulty part isolation DIPSW**Control while detached****2.6.56 C-0396****Code**

C-0396

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) paper feed assist fan /Rr3 (FM10) rotation abnormality.

The FM10EM error detection signal is detected twice in succession within a specified period of time after FM10 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- paper feed assist fan /Rr3 (FM10: PF-703)
- Paper feed assist fan /Rr3 (FM6: PF-706)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F, PF-706: 9-C)
3. Replace FM10: PF-703
Replace FM6: PF-706
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.6.57 C-0397

Code

C-0397

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) cooling fan power abnormality.

The FM19EM and FM20EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF cooling fan (FM7: PF-706)
- PF cooling fan /1 (FM19: PF-703)
- PF cooling fan /2 (FM20: PF-703)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 22-F, 23-F, PF-706: 8-H)
3. Replace FM19, FM20 and PFUDB at a time: PF-703
Replace FM7 and PFUDB at a time: PF-706

Faulty part isolation DIPSW

Control while detached

2.6.58 C-0398

Code

C-0398

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) cooling fan rotation abnormality 1.

The FM19EM and FM20EM error detection signals are detected twice in succession within a specified period of time after the PF cooling fan /1 and /2 (FM19 and FM20) were turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF cooling fan (FM7: PF-706)
- PF cooling fan /1 (FM19: PF-703)
- PF cooling fan /2 (FM20: PF-703)
- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 22-F, 23-F, PF-706: 8-H)
3. Replace FM19 and FM20: PF-703
PF-706: 8-H

4. Replace PFUDB.

Faulty part isolation DIPSW Control while detached

2.6.59 C-0399

Code

C-0399

Classification

PI-PFU : Fan abnormality

Cause

PI-PFU (PF-703) cooling fan rotation abnormality 2.

The FM21EM error detection signal is detected twice in succession within a specified period of time after the PF cooling fan /3 (FM21) was turned ON with the front door closed. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF cooling fan /3 (FM21: PF-703)
- PF drive board (PFUDB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 23-F)
3. Replace FM21 and PFUDB.

Faulty part isolation DIPSW Control while detached

2.7 Solution 3 (C-0401_0700)

2.7.1 C-0403

Code

C-0403

Classification

Main body:Power abnormality

Cause

12V power abnormality in the printer control board (PRCB).

An error detection signal of the 12V in PFDB (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PRCB, and repair it if any abnormality.
2. Replace PRCB.
3. Replace DCPS /2

Faulty part isolation DIPSW Control while detached

2.7.2 C-0404

Code

C-0404

Classification

Main body:Power abnormality

Cause

5V power abnormality in the printer control board (PRCB).

An error detection signal of the 5V in PRCB (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PRCB, and repair it if any abnormality.
2. Replace PRCB.
3. Replace DCPS /2

Faulty part isolation DIPSW
Control while detached

2.7.3 C-0410

Code

C-0410

Classification

Main body:Power abnormality

Cause

12V power abnormality in the ADU drive board (ADUDB).
 An error detection signal of the ADUDB (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- ADU drive board /1 (ADUDB1)
- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on ADUDB1, and repair it if any abnormality.
2. Replace ADUDB1.
3. Replace DCPS /2.

Faulty part isolation DIPSW
Control while detached

2.7.4 C-0411

Code

C-0411

Classification

Main body:Power abnormality

Cause

ADU drive board (ADUDB) power abnormality 1.
 An error detection signal (blowout of ICP) of the transfer paper correction sensor (PS4), transfer exposure lamp (L4) or SD is detected. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- ADU drive board /1 (ADUDB1)
- DC power supply /1 (DCPS/1)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on ADUDB1, and repair it if any abnormality.
2. Check the connector connection and the wiring between ADUDB1 and DCPS /1, and repair it if any abnormality.
3. Replace ADUDB1.
4. Replace DCPS /1.

Faulty part isolation DIPSW
Control while detached

2.7.5 C-0412

Code

C-0412

Classification

Main body:Power abnormality

Cause

ADU drive board (ADUDB) power abnormality 2.
 An error detection signal (blowout of ICP) of the transfer paper correction sensor (PS4), transfer exposure lamp (L4) or SD is detected.
 However, an error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- ADU lock solenoid (SD6)
- Reverse/exit solenoid (SD7)
- De-curler solenoid /Up (SD8)
- De-curler solenoid /Lw (SD5)
- Centering sensor(PS4)
- ADU drive board /1 (ADUDB1)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on ADUDB1, and repair it if any abnormality.
2. Check the connector connection and the wiring between ADUDB1 and sensor/solenoid/TSL, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 13-J, 11-P, 12-P, 14-J).
3. Check the drive and the coupling of the sensor and the solenoid, and repair it if any abnormality.
4. Replace ADUDB1.

Faulty part isolation DIPSW**Control while detached****2.7.6 C-0413****Code**

C-0413

Classification

Main body: Power abnormality

Cause

Interlock power abnormality of the ADU drive board (ADUDB).

An error signal of the 24V interlock power is detected in the door detection closed status.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- ADU drive board /1 (ADUDB1)
- DC power supply /1 (DCPS/1)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on ADUDB1, and repair it if any abnormality.
2. Check the connector connection and the wiring between ADUDB1 and DCPS /1, and repair it if any abnormality.
3. Replace ADUDB1
4. Replace DCPS /1.

Faulty part isolation DIPSW**Control while detached****2.7.7 C-0414****Code**

C-0414

Classification

Main body: Centering sensor abnormality

Cause

During the centering sensor (PS4) is ON, the centering data does not sent from the ADU drive board though more than 5 sheets are processed in succession.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Centering sensor(PS4)
- ADU drive board /1 (ADUDB1)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ADUDB1 and the sensor, and repair it if any abnormality.
2. Check I/O of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 14-J)
3. Replace PS4.
4. Replace ADUDB1.

Faulty part isolation DIPSW**Control while detached****2.7.8 C-0420****Code**

C-0420

Classification

PF: PF power source abnormality

Cause

PF drive board (PFUDB: PF-703/706)

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality.
2. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.9 C-0421****Code**

C-0421

Classification

PF: PF power source abnormality

Cause

Abnormality of the 12V power for the PF drive board (PFUDB) of the 2nd tandem PF-703/706.
An error detection signal of the PFUDB (blowout of 12V ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality.
2. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.10 C-0422****Code**

C-0422

Classification

PF: PF power source abnormality

Cause

Abnormality of the 24V power for the PF drive board (PFUDB) of the 1st tandem PF-703/706.
While in printing, an error detection signal (24V power DOWN) of the PFUDB is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality.
2. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.11 C-0423****Code**

C-0423

Classification

PF: PF power source abnormality

Cause

Abnormality of the 24V power for the PF drive board (PFUDB) of the 2nd tandem PF-703/706.
While in printing, an error detection signal (24V power DOWN) of the PFUDB is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF drive board (PFUDB: PF-703/706)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality.
2. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.12 C-0424****Code**

C-0424

Classification

PI-PFU: Power abnormality

Cause

Abnormality of the 12V power for the PF drive board (PFUDB) of PI-PFU (PF-703).
An error detection signal of the PFUDB (blowout of 12V ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality.
2. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.13 C-0425****Code**

C-0425

Classification

PI-PFU: Power abnormality

Cause

Abnormality of the 24V power for the PF drive board (PFUDB) of PI-PFU (PF-703).
While in printing, an error detection signal (24V power DOWN) of the PFUDB is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Abnormality of the 24V power for the PF drive board (PFUDB) of PI-PFU (PF-703).
While in printing, an error detection signal (24V power DOWN) of the PFUDB is detected.

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on PFUDB, and repair it if any abnormality.
2. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.14 C-0501****Code**

C-0501

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Fr1 (FM3) power abnormality.
The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr1 (FM3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM3 and PFUDB.

Faulty part isolation DIPSW

Control while detached**2.7.15 C-0502****Code**

C-0502

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Fr1 (FM3) rotation abnormality.

The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr1 (FM3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM3.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.16 C-0503****Code**

C-0503

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Fr2 (FM7) power abnormality.

The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr2 (FM7: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM7 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.17 C-0504****Code**

C-0504

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Fr2 (FM7) rotation abnormality.

The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr2 (FM7: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.

2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM7.
4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.18 C-0505

Code

C-0505

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Fr3 (FM11) power abnormality.
 The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr3 (FM11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM11 and PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.19 C-0506

Code

C-0506

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Fr3 (FM11) rotation abnormality.
 The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr3 (FM11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM11.
4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.20 C-0507

Code

C-0507

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Rr1 (FM4) power abnormality.
 The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr1 (FM4: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM4 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.21 C-0508****Code**

C-0508

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Rr1 (FM4) rotation abnormality.

The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr1 (FM4: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM4
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.22 C-0509****Code**

C-0509

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Rr2 (FM8) power abnormality.

The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr2 (FM8: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM8 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.23 C-0510****Code**

C-0510

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Rr2 (FM8) rotation abnormality.

The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr2 (FM8: PF-703)

- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM8.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.24 C-0511****Code**

C-0511

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Rr3 (FM12) power abnormality.

The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr3 (FM12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM12 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.25 C-0512****Code**

C-0512

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper leading edge separation fan /Rr3 (FM12) rotation abnormality.

The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr3 (FM12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM12.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.26 C-0513****Code**

C-0513

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /1 (FM13) power abnormality.

The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /1 (FM13: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-F)
3. Replace FM13 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.27 C-0514****Code**

C-0514

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /1 (FM13) rotation abnormality.

The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /1 (FM13: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-F)
3. Replace FM13.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.28 C-0515****Code**

C-0515

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /3 (FM15) power abnormality.

The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /3 (FM15: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM15 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.29 C-0516****Code**

C-0516

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /3 (FM15) rotation abnormality.

The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /3 (FM15: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM15.
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.30 C-0517

Code

C-0517

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /5 (FM17) power abnormality.

The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /5 (FM17: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM17 and PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.31 C-0518

Code

C-0518

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /5 (FM17) rotation abnormality.

The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /5 (FM17: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM17.
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.32 C-0519

Code

C-0519

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /1 (FM14) power abnormality.

The EM error detection signal of FM14 is detected twice in succession within a specified period of time after FM14 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /2 (FM14: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-L)
3. Replace FM14 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.33 C-0520****Code**

C-0520

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /1 (FM14) rotation abnormality.

The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /2 (FM14: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-L)
3. Replace FM14.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.34 C-0521****Code**

C-0521

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /3 (FM16) power abnormality.

The FM16 EM error detection of FM16 is detected twice in succession within a specified period of time after FM16 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper suction fan /4 (FM16: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM16 and PFUDB.

Faulty part isolation DIPSW**Control while detached**

2.7.35 C-0522**Code**

C-0522

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /3 (FM16) rotation abnormality.

The FM16EM error detection signal is detected twice in succession within a specified period of time after FM16 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /4 (FM16: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM16.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.36 C-0523****Code**

C-0523

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /5 (FM18) power abnormality.

The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /6 (FM18: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM18 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.37 C-0524****Code**

C-0524

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 paper suction fan /5 (FM18) rotation abnormality.

The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /6 (FM18: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM18.

4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.38 C-0525

Code

C-0525

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Fr1 (FM3) power abnormality.

The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr1 (FM3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM3 and PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.39 C-0526

Code

C-0526

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Fr1 (FM3) rotation abnormality.

The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr1 (FM3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM3.
4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.40 C-0527

Code

C-0527

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Fr2 (FM7) power abnormality.

The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr2 (FM7: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM7 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.41 C-0528****Code**

C-0528

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Fr2 (FM7) rotation abnormality.

The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr2 (FM7: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM7.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.42 C-0529****Code**

C-0529

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Fr3 (FM11) power abnormality.

The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr3 (FM11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM11 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.43 C-0530****Code**

C-0530

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Fr3 (FM11) rotation abnormality.

The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr3 (FM11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM11.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.44 C-0531****Code**

C-0531

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Rr1 (FM4) power abnormality.
 The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr1 (FM4: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM4 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.45 C-0532****Code**

C-0532

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Rr1 (FM4) rotation abnormality.
 The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr1 (FM4: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM4
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.46 C-0533****Code**

C-0533

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Rr2 (FM8) power abnormality.
 The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr2 (FM8: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM8 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.47 C-0534****Code**

C-0534

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Rr2 (FM8) rotation abnormality.

The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr2 (FM8: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM8.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.48 C-0535****Code**

C-0535

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Rr3 (FM12) power abnormality.

The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr3 (FM12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM12 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.49 C-0536****Code**

C-0536

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper leading edge separation fan /Rr3 (FM12) rotation abnormality.

The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr3 (FM12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM12.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.50 C-0537****Code**

C-0537

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /1 (FM13) power abnormality.

The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /1 (FM13: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-F)
3. Replace FM13 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.51 C-0538****Code**

C-0538

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /1 (FM13) rotation abnormality.

The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /1 (FM13: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-F)
3. Replace FM13.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.52 C-0539****Code**

C-0539

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /3 (FM15) power abnormality.

The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /3 (FM15: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM15 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.53 C-0540****Code**

C-0540

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /3 (FM15) rotation abnormality.

The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /3 (FM15: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM15.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.54 C-0541****Code**

C-0541

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /5 (FM17) power abnormality.

The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /5 (FM17: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM17 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.55 C-0542****Code**

C-0542

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /5 (FM17) rotation abnormality.

The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /5 (FM17: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM17.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.56 C-0543****Code**

C-0543

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /1 (FM14) power abnormality.

The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /2 (FM14: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-L)
3. Replace FM14 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.57 C-0544****Code**

C-0544

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /1 (FM14) rotation abnormality.

The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /2 (FM14: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-L)
3. Replace FM14.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached**

2.7.58 C-0545**Code**

C-0545

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /3 (FM16) power abnormality.

The FM16 EM error detection of FM16 is detected twice in succession within a specified period of time after FM16 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper suction fan /4 (FM16: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM16 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.59 C-0546****Code**

C-0546

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /3 (FM16) rotation abnormality.

The FM16EM error detection signal is detected twice in succession within a specified period of time after FM16 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /4 (FM16: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM16.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.60 C-0547****Code**

C-0547

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /5 (FM18) power abnormality.

The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /6 (FM18: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)

3. Replace FM18 and PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.61 C-0548

Code

C-0548

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 paper suction fan /5 (FM18) rotation abnormality.

The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /6 (FM18: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM18.
4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.62 C-0561

Code

C-0561

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Fr1 (FM3) power abnormality.

The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr1 (FM3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM3 and PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.63 C-0562

Code

C-0562

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Fr1 (FM3) rotation abnormality.

The FM3EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr1 (FM3: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM3.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.64 C-0563****Code**

C-0563

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Fr2 (FM7) power abnormality.

The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr2 (FM7: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM7 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.65 C-0564****Code**

C-0564

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Fr2 (FM7) rotation abnormality.

The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr2 (FM7: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM7.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.66 C-0565****Code**

C-0565

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Fr3 (FM11) power abnormality.

The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr3 (FM11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM11 and PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.67 C-0566

Code

C-0566

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Fr3 (FM11) rotation abnormality.

The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Fr3 (FM11: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM11.
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.68 C-0567

Code

C-0567

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Rr1 (FM4) power abnormality.

The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr1 (FM4: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM4 and PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.69 C-0568

Code

C-0568

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Rr1 (FM4) rotation abnormality.

The FM4EM error detection signal is detected twice in succession within a specified period of time after FM4 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr1 (FM4: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 6-F)
3. Replace FM4
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.70 C-0569****Code**

C-0569

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Rr2 (FM8) power abnormality.

The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr2 (FM8: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM8 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.71 C-0570****Code**

C-0570

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Rr2 (FM8) rotation abnormality.

The FM8EM error detection signal is detected twice in succession within a specified period of time after FM8 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr2 (FM8: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-F)
3. Replace FM8.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.72 C-0571****Code**

C-0571

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Rr3 (FM12) power abnormality.

The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr3 (FM12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM12 and PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.73 C-0572

Code

C-0572

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper leading edge separation fan /Rr3 (FM12) rotation abnormality.

The FM12EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper leading edge separation fan /Rr3 (FM12: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-F)
3. Replace FM12.
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.74 C-0573

Code

C-0573

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /1 (FM13) power abnormality.

The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /1 (FM13: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-F)
3. Replace FM13 and PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.75 C-0574

Code

C-0574

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /1 (FM13) rotation abnormality.

The FM13EM error detection signal is detected twice in succession within a specified period of time after FM13 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /1 (FM13: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-F)
3. Replace FM13.
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.76 C-0575

Code

C-0575

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /3 (FM15) power abnormality.

The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /3 (FM15: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM15 and PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.77 C-0576

Code

C-0576

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /3 (FM15) rotation abnormality.

The FM15EM error detection signal is detected twice in succession within a specified period of time after FM15 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /3 (FM15: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM15.
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.78 C-0577**Code**

C-0577

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /5 (FM17) power abnormality.

The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /5 (FM17: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM17 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.79 C-0578****Code**

C-0578

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /5 (FM17) rotation abnormality.

The FM17EM error detection signal is detected twice in succession within a specified period of time after FM17 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /5 (FM17: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM17.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.80 C-0579****Code**

C-0579

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /1 (FM14) power abnormality.

The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /2 (FM14: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-L)
3. Replace FM14 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.81 C-0580****Code**

C-0580

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /1 (FM14) rotation abnormality.

The FM14EM error detection signal is detected twice in succession within a specified period of time after FM14 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /2 (FM14: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 14-L)
3. Replace FM14.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.82 C-0581****Code**

C-0581

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /3 (FM16) power abnormality.

The FM16 EM error detection of FM16 is detected twice in succession within a specified period of time after FM16 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Paper suction fan /4 (FM16: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM16 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.83 C-0582****Code**

C-0582

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /3 (FM16) rotation abnormality.

The FM16EM error detection signal is detected twice in succession within a specified period of time after FM16 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /4 (FM16: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 16-L)
3. Replace FM16.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.84 C-0583****Code**

C-0583

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /5 (FM18) power abnormality.

The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /6 (FM18: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM18 and PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.85 C-0584****Code**

C-0584

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) paper suction fan /5 (FM18) rotation abnormality.

The FM18EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Paper suction fan /6 (FM18: PF-703)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 19-L)
3. Replace FM18.
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.86 C-0601****Code**

C-0601

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 dehumidifier fan /Rt1 (FM22) rotation abnormality.

The FM22EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt1 (FM22: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 9-B)
3. Replace the fan heater (FM22).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.87 C-0602****Code**

C-0602

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) dehumidifier fan /Lt1 (FM23) rotation abnormality.

The FM23EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt1 (FM23: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-C)
3. Replace the fan heater (FM23).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.88 C-0603****Code**

C-0603

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 dehumidifier fan /Rt2 (FM24) rotation abnormality.

The FM24EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt2 (FM24: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-C)
3. Replace the fan heater (FM24).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.89 C-0604****Code**

C-0604

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 dehumidifier fan /Lt2 (FM25) rotation abnormality.

The FM25EM error detection signal is detected twice in succession within a specified period of time after FM25 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt2 (FM25: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-C)
3. Replace the fan heater (FM25).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.90 C-0605****Code**

C-0605

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 dehumidifier fan /Rt3 (FM26) rotation abnormality.

The FM26EM error detection signal is detected twice in succession within a specified period of time after FM26 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt3 (FM26: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-D)
3. Replace the fan heater (FM26).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.91 C-0606****Code**

C-0606

Classification

PF: PF power source abnormality

Cause

1st tandem PF-703 dehumidifier fan /Lt3 (FM27) rotation abnormality.

The FM27EM error detection signal is detected twice in succession within a specified period of time after FM27 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt3 (FM27: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 12-D)
3. Replace the fan heater (FM27).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.92 C-0611****Code**

C-0611

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 dehumidifier fan /Rt1 (FM22) rotation abnormality.

The FM22EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt1 (FM22: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 9-B)
3. Replace the fan heater (FM22).
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.93 C-0612

Code

C-0612

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 dehumidifier fan /Lt1 (FM23) rotation abnormality.

The FM23EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt1 (FM23: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-C)
3. Replace the fan heater (FM23).
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.94 C-0613

Code

C-0613

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 dehumidifier fan /Rt2 (FM24) rotation abnormality.

The FM24EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt2 (FM24: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-C)
3. Replace the fan heater (FM24).
4. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.95 C-0614**Code**

C-0614

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 dehumidifier fan /Lt2 (FM25) rotation abnormality.

The FM25EM error detection signal is detected twice in succession within a specified period of time after FM25 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt2 (FM25: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-C)
3. Replace the fan heater (FM25).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.96 C-0615****Code**

C-0615

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 dehumidifier fan /Rt3 (FM26) rotation abnormality.

The FM26EM error detection signal is detected twice in succession within a specified period of time after FM26 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt3 (FM26: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-D)
3. Replace the fan heater (FM26).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.97 C-0616****Code**

C-0616

Classification

PF: PF power source abnormality

Cause

2nd tandem PF-703 dehumidifier fan /Lt3 (FM27) rotation abnormality.

The FM27EM error detection signal is detected twice in succession within a specified period of time after FM27 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt3 (FM27: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 12-D)

3. Replace the fan heater (FM27).
4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.98 C-0621

Code

C-0621

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) dehumidifier fan /Rt1 (FM22) rotation abnormality.

The FM22EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt1 (FM22: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 9-B)
3. Replace the fan heater (FM22).
4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.99 C-0622

Code

C-0622

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) dehumidifier fan /Lt1 (FM23) rotation abnormality.

The FM23EM error detection signal is detected twice in succession within a specified period of time after FM23 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt1 (FM23: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-C)
3. Replace the fan heater (FM23).
4. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.100 C-0623

Code

C-0623

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) dehumidifier fan /Rt2 (FM24) rotation abnormality.

The FM24EM error detection signal is detected twice in succession within a specified period of time after FM24 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt2 (FM24: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 10-C)
3. Replace the fan heater (FM24).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.101 C-0624****Code**

C-0624

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) dehumidifier fan /Lt2 (FM25) rotation abnormality.

The FM25EM error detection signal is detected twice in succession within a specified period of time after FM25 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt2 (FM25: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-C)
3. Replace the fan heater (FM25).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.102 C-0625****Code**

C-0625

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) dehumidifier fan /Rt3 (FM26) rotation abnormality.

The FM26EM error detection signal is detected twice in succession within a specified period of time after FM26 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Rt3 (FM26: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 11-D)
3. Replace the fan heater (FM26).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.103 C-0626****Code**

C-0626

Classification

PF: PF power source abnormality

Cause

PI-PFU (PF-703) dehumidifier fan /Lt3 (FM27) rotation abnormality.

The FM27EM error detection signal is detected twice in succession within a specified period of time after FM27 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Dehumidifier fan /Lt3 (FM27: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PF-703: 12-D)
3. Replace the fan heater (FM27).
4. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.104 C-0631****Code**

C-0631

Classification

PF: Heater high temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality.
After turned ON, the temperature sensor /5 (TEMS/5) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.105 C-0632****Code**

C-0632

Classification

PF: Heater high temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /2 (HTR2) high temperature hardware abnormality.
After turned ON, the temperature sensor /6 (TEMS/6) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.106 C-0633****Code**

C-0633

Classification

PF: Heater high temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /3 (HTR3) high temperature hardware abnormality.
 After turned ON, the temperature sensor /7 (TEMS/7) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.107 C-0634****Code**

C-0634

Classification

PF: Heater high temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality.
 After turned ON, the temperature sensor /5 (TEMS/5) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.108 C-0635****Code**

C-0635

Classification

PF: Heater high temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /2 (HTR2) high temperature software abnormality.
 After turned ON, the temperature sensor /6 (TEMS/6) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.

2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.109 C-0636

Code

C-0636

Classification

PF: Heater high temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /3 (HTR3) high temperature software abnormality.
 After turned ON, the temperature sensor /7 (TEMS/7) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.110 C-0637

Code

C-0637

Classification

PF: Heater low temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality.
 The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.111 C-0638

Code

C-0638

Classification

PF: Heater low temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /2 (HTR2) low temperature software abnormality.

The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.112 C-0639

Code

C-0639

Classification

PF: Heater low temperature abnormality

Cause

1st tandem PF-703 dehumidification heater /3 (HTR3) low temperature software abnormality.

The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.113 C-0640

Code

C-0640

Classification

PF: Heater temperature rise abnormality

Cause

1st tandem PF-703 dehumidification heater /1 (HTR1) temperature rise abnormality.

The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.114 C-0641****Code**

C-0641

Classification

PF: Heater temperature rise abnormality

Cause

1st tandem PF-703 dehumidification heater /2 (HTR2) temperature rise abnormality.
 The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.115 C-0642****Code**

C-0642

Classification

PF: Heater temperature rise abnormality

Cause

1st tandem PF-703 dehumidification heater /3 (HTR3) temperature rise abnormality.
 The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached**

2.7.116 C-0651**Code**

C-0651

Classification

PF: Heater high temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality.
 After turned ON, the temperature sensor /5 (TEMS/5) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.117 C-0652****Code**

C-0652

Classification

PF: Heater high temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /2 (HTR2) high temperature hardware abnormality.
 After turned ON, the temperature sensor /6 (TEMS/6) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.118 C-0653****Code**

C-0653

Classification

PF: Heater high temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /3 (HTR3) high temperature hardware abnormality.
 After turned ON, the temperature sensor /7 (TEMS/7) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached
2.7.119 C-0654**Code**

C-0654

Classification

PF: Heater high temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /1 (HTR1) high temperature hardware abnormality.
 After turned ON, the temperature sensor /5 (TEMS/5) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached
2.7.120 C-0655**Code**

C-0655

Classification

PF: Heater high temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /2 (HTR2) high temperature software abnormality.
 After turned ON, the temperature sensor /6 (TEMS/6) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached
2.7.121 C-0656**Code**

C-0656

Classification

PF: Heater high temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /3 (HTR3) high temperature software abnormality.

After turned ON, the temperature sensor /7 (TEMS/7) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.122 C-0657

Code

C-0657

Classification

PF: Heater low temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /1 (HTR1) low temperature hardware abnormality.

The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.123 C-0658

Code

C-0658

Classification

PF: Heater low temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /2 (HTR2) low temperature software abnormality.

The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.

3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.124 C-0659

Code

C-0659

Classification

PF: Heater low temperature abnormality

Cause

2nd tandem PF-703 dehumidification heater /3 (HTR3) low temperature software abnormality.

The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.125 C-0660

Code

C-0660

Classification

PF: Heater temperature rise abnormality

Cause

2nd tandem PF-703 dehumidification heater /1 (HTR1) temperature rise abnormality.

The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.126 C-0661

Code

C-0661

Classification

PF: Heater temperature rise abnormality

Cause

2nd tandem PF-703 dehumidification heater /2 (HTR2) temperature rise abnormality.

The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.127 C-0662****Code**

C-0662

Classification

PF: Heater temperature rise abnormality

Cause

2nd tandem PF-703 dehumidification heater /3 (HTR3) temperature rise abnormality.

The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.128 C-0671****Code**

C-0671

Classification

PF: Heater high temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /1 (HTR) high temperature hardware abnormality.

After turned ON, the temperature sensor /5 (TEMS/5) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.129 C-0672****Code**

C-0672

Classification

PF: Heater high temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /2 (HTR2) high temperature hardware abnormality.
After turned ON, the temperature sensor /6 (TEMS/6) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.130 C-0673****Code**

C-0673

Classification

PF: Heater high temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /3 (HTR3) high temperature hardware abnormality.
After turned ON, the temperature sensor /7 (TEMS/7) detects a heater abnormality signal.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.131 C-0674****Code**

C-0674

Classification

PF: Heater high temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /1 (HTR) high temperature software abnormality.
After turned ON, the temperature sensor /5 (TEMS/5) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.132 C-0675****Code**

C-0675

Classification

PF: Heater high temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /2 (HTR2) high temperature software abnormality.
After turned ON, the temperature sensor /6 (TEMS/6) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.
5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.133 C-0676****Code**

C-0676

Classification

PF: Heater high temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /3 (HTR3) high temperature software abnormality.
After turned ON, the temperature sensor /7 (TEMS/7) detects the heater temperature exceeding 105°C.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
2. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
3. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
4. Replace the fan heater.

5. Replace ACDB/2.
6. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.134 C-0677

Code

C-0677

Classification

PF: Heater low temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /1 (HTR1) low temperature software abnormality.

The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.135 C-0678

Code

C-0678

Classification

PF: Heater low temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /2 (HTR2) low temperature software abnormality.

The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW
Control while detached

2.7.136 C-0679

Code

C-0679

Classification

PF: Heater low temperature abnormality

Cause

PI-PFU (PF-703) dehumidification heater /3 (HTR3) low temperature software abnormality.

The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 0°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.137 C-0680

Code

C-0680

Classification

PF: Heater temperature rise abnormality

Cause

PI-PFU (PF-703) dehumidification heater /1 (HTR1) temperature rise abnormality.

The temperature sensor /5 (TEMS/5) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Upper tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW

Control while detached

2.7.138 C-0681

Code

C-0681

Classification

PF: Heater temperature rise abnormality

Cause

PI-PFU (PF-703) dehumidification heater /2 (HTR2) temperature rise abnormality.

The temperature sensor /6 (TEMS/6) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Middle tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.7.139 C-0682****Code**

C-0682

Classification

PF: Heater temperature rise abnormality

Cause

PI-PFU (PF-703) dehumidification heater /3 (HTR3) temperature rise abnormality.

The temperature sensor /7 (TEMS/7) detects the heater temperature lower than 40°C a specified period of time after the heater is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Lower tray fan heater (HT-505)
- AC drive board /2 (ACDB/2: HT-505)
- PF drive board (PFUDB: PF-703)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connection between ACDB/2 and the noise filter of PF-703.
2. Check the connector connection and the wiring between ACDB /2 and the fan heater, and repair it if any abnormality.
3. Check the connector connection and the wiring between PFUDB and the fan heater, and repair it if any abnormality.
4. Check the connector connection and the wiring between PFUDB and ACDB /2, and repair it if any abnormality.
5. Check the temperature and the installation of the fan heater, and repair it if any abnormality.
6. Replace the fan heater.
7. Replace ACDB/2.
8. Replace PFUDB.

Faulty part isolation DIPSW**Control while detached****2.8 Solution 4 (C-1001_1181)****2.8.1 C-1001****Code**

C-1001

Classification

Finishing: Communication error

Cause

Serial communication error between the main body and the finishing option.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

-

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch, and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW**Control while detached****2.8.2 C-1005****Code**

C-1005

Classification

FS: FS-532 abnormality

Cause

Communication error.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Printer control board (PRCB)
- FNS control board (FNSCB)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch, and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW

Control while detached

2.8.3 C-1006

Code

C-1006

Classification

FD: FD abnormality

Cause

Communication error.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Printer control board (PRCB)
- FD control board (FDCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch, and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW

Control while detached

2.8.4 C-1007

Code

C-1007

Classification

SD: SD-506 abnormality

Cause

Communication error.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Printer control board (PRCB)
- SD control board (SDCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch, and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW

Control while detached

2.8.5 C-1009**Code**

C-1009

Classification

PB: PB abnormality

Cause

Communication error between Main CPU in the PB control board (PBCB) and Sub CPU1.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- Control program

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection of the control board and the drive board in PB, and repair it if any abnormality.
3. Rewrite the firmware of PB.
4. Replace PBCB.

Faulty part isolation DIPSW**Control while detached****2.8.6 C-1010****Code**

C-1010

Classification

PB: PB abnormality

Cause

Communication error between Main CPU in the PB control board (PBCB) and Sub CPU2.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- Control program

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection of the control board and the drive board in PB, and repair it if any abnormality.
3. Rewrite the firmware of PB.
4. Replace PBCB.

Faulty part isolation DIPSW**Control while detached****2.8.7 C-1011****Code**

C-1011

Classification

PB control board (PBCB)

Cause

Paper feed error between the main body and PB.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- Control program

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW

Control while detached

2.8.8 C-1012

Code

C-1012

Classification

GP : GP-501 abnormality

Causes

Communication abnormality.

Resulting operation

The main body and the GP stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Printer control board (PRCB)
- Punch Controller PCB

Correction

Error conditions are cleared by turning OFF/ON the sub power switch (SW2) of the main body.

Note

- "Please call service" is displayed on the touch panel.

Procedure

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the all the power plugs. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

DipSW

Control during separation

2.8.9 C-1013

Code

C-1013

Classification

RU: RU-509 abnormality

Cause

Communication error.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Printer control board (PRCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch, and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW

Control while detached

2.8.10 C-1014

Code

C-1014

Classification

RU: RU-510 abnormality

Cause

Communication error.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Printer control board (PRCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch, and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW**Control while detached****2.8.11 C-1017****Code**

C-1017

Classification

GP : GP-502 abnormality

Causes

Communication abnormality.

Resulting operation

The main body and the GP stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Printer control board (PRCB)
- Main PCB

Correction

Error conditions are cleared by turning OFF/ON the sub power switch (SW2) of the main body.

Note

- "Please call service" is displayed on the touch panel.

Procedure

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the all the power plugs. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

DipSW**Control during separation****2.8.12 C-1102****Code**

C-1102

Classification

FS: FS-532 abnormality

Cause

The tray up down motor (M11) does not turn OFF even when a specified period of time elapses after it starts operations. Or, it operates for more than the allowed time at a speed out of the specified one.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Main tray up down motor (M11)
- Main tray upper limit sensor (PS14)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the tray up/down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
3. Check the sensor operation, LED emission and light-receiving path, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 7-B)
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 7-B)
5. Replace LED1 and PS14.
6. Replace M11.
7. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-1

Control while detached

FS main tray and stapling are not available

2.8.13 C-1103**Code**

C-1103

Classification

FS: FS-532 abnormality

Cause

The stacker alignment home sensor (PS12) does not turn ON within a specified period of time after the home position search operation of the stacker alignment motor (M9) starts.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Stacker alignment motor (M9)
- Stacker alignment home sensor (PS12)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 5-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 10-B)
5. Replace PS12.
6. Replace M9.
7. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.14 C-1105

Code

C-1105

Classification

FS: FS-532 abnormality

Cause

The paper exit opening unit does not get to the specified opening position within a specified period of time after the paper exit opening motor (M10) starts operations.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Paper exit opening motor (M10)
- Paper exit home sensor (PS13)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the paper exit opening section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 3-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 4-B)
5. Replace PS13.
6. Replace M10.
7. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-1

Control while detached

FS main tray and stapling are not available

2.8.15 C-1106

Code

C-1106

Classification

FS: FS-532 abnormality

Cause

The stapler movement home sensor (PS22) does not turn ON within a specified period of time after the home position search operation of the stapler movement motor (M14) starts.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Stapler movement motor (M14)
- Stapler movement home sensor (PS22)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stapler movement section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FNCSB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 5-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 10-B)
5. Replace PS22.
6. Replace M14.
7. Replace FNCSB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.16 C-1109**Code**

C-1109

Classification

FS: FS-532 abnormality

Cause

The stapler home sensor (PS40) does not turn ON within a specified period of time after the stapler motor (M31) starts operations.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNCSB)
- Stapler unit

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNCSB and the stapler, and repair it if any abnormality.
2. Replacing the stapler assy
3. Replace FNCSB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.17 C-1113**Code**

C-1113

Classification

FS: FS-532 abnormality

Cause

The stacker rear stopper home sensor (PS27) does not turn ON within a specified period of time after the home position search operation of the stacker movement motor (M19) starts.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNCSB)
- Stacker movement motor (M19)
- Stacker rear stopper home sensor (PS27)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stapler rotation section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FNCSB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 5-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 11-B)
5. Replace PS27.
6. Replace M19.
7. Replace FNCSB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.18 C-1114**Code**

C-1114

Classification

FS: FS-532 abnormality

Cause

The rewind paddle release home sensor (PS38) does not turn ON even after a specified period of time after the rewind paddle release home motor (M28) starts the home position search operation.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Rewind paddle release home sensor (PS38)
- Rewind paddle release motor (M28)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 2-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 12-B)
5. Replace PS38.
6. Replace M28.
7. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.19 C-1115**Code**

C-1115

Classification

FS: FS-510 abnormality

Cause

The 1st folding knife home sensor (PS110) does not turn ON within a specified period of time after the 1st folding knife motor (M107) turns ON.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)
- 1st folding knife motor (M107)
- 1st folding knife home sensor (PS110)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the half-fold/fold&staple/tri-fold section, and repair it if any abnormality
2. Check the connector connection and the wiring between FNSCB and SDCB, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDCB and motor/sensor, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 8-B)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 9-B)
6. Replace PS110.
7. Replace M107.
8. Replace SDCB.
9. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.8.20 C-1124**Code**

C-1124

Classification

PI: PI abnormality

Cause

The tray upper limit sensor /Lw (PS209) or the tray lower limit sensor /Lw (PS210) does not turn ON within a specified period of time after the tray lift motor /Lw (M202) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- PI drive board (PIDB)
- Tray lift motor /Lw (M202)
- Tray upper limit sensor /Lw (PS209)

- Tray lower limit sensor /Lw (PS210)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the PI lower tray section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PIDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between FNSCB and PIDB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:PI: 5-B)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PI: 6-B)
6. Replace M202.
7. Replace PS209.
8. Replace PS210.
9. Replace PIDB.
10. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-3

Control while detached

PI unusable

(PI unconnected)

2.8.21 C-1125**Code**

C-1125

Classification

PI: PI abnormality

Cause

The tray upper limit sensor /Up (PS205) or the tray lower limit sensor /Up (PS204) does not turn ON within a specified period of time after the tray up down motor /Up (M201) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- PI drive board (PIDB)
- Tray up down motor /Up (M201)
- Tray upper limit sensor /Up (PS205)
- Tray lower limit sensor /Up (PS204)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the PI lower tray section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PIDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between FNSCB and PIDB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PI: 4-B)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: PI: 4-B)
6. Replace M201.
7. Replace PS204.
8. Replace PS205.
9. Replace PIDB.
10. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-3

Control while detached

PI unusable

(PI unconnected)

2.8.22 C-1127**Code**

C-1127

Classification

PK: PK abnormality

Cause

The punch shift home sensor (PS303) does not turn ON within a specified period of time after the punch shift motor (M302) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Punch drive board (PDB)
- Punch shift motor (M302)
- Punch shift home sensor (PS303)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the punch kit, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between FNCSB and PDB and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PK:7-B)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality.
6. Replace M302.
7. Replace PS303.
8. Replace PDB.
9. Replace FNCSB.

Faulty part isolation DIPSW

DIPSW35-2

Control while detached

The use of FS, SD, PK is unavailable.

2.8.23 C-1130**Code**

C-1130

Classification

ZU: ZU-608 abnormality

Cause

1st folding stopper home sensor (PS603) does not turned ON within a specified period of time after the 1st folding stopper motor (M602) starts the home position search operation.

Measures to take when alert occurs

The main body and the ZU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- ZU control board (ZUCB)
- 1st folding stopper motor (M602)
- 1st folding stopper home sensor (PS603)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ZUCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 2-B)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 3-B)
4. Replace PS603.
5. Replace M602.
6. Replace ZUCB.

Faulty part isolation DIPSW

DIPSW47-5

Control while detached

The use of Z-folding and punch is unavailable.

2.8.24 C-1131**Code**

C-1131

Classification

ZU: ZU-608 abnormality

Cause

2nd folding stopper home sensor (PS604) does not turned ON within a specified period of time after the 2nd folding stopper motor (M603) starts the home position search operation.

Measures to take when alert occurs

The main body and the ZU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- ZU control board (ZUCB)
- 2nd folding stopper motor (M603)
- 2nd folding stopper home sensor (PS604)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ZUCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 2-B)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 3-B)
4. Replace PS604.
5. Replace M603.
6. Replace ZUCB.

Faulty part isolation DIPSW

DIPSW47-5

Control while detached

The use of Z-folding and punch is unavailable.

2.8.25 C-1132**Code**

C-1132

Classification

PK: PK abnormality

Cause

The punch home sensor (PS301) does not turn ON within a specified period of time after the punch motor (M301) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Punch drive board (PDB)
- Punch motor (M301)
- Punch HP sensor /1 (PS301)
- Punch HP sensor /2 (PS307)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the punch kit, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between FNSCB and PDB and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PK:5-B)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality.
6. Replace M301.
7. Replace PS301 and PS302.
8. Replace PDB.
9. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-2

Control while detached

The use of FS, SD, PK is unavailable.

2.8.26 C-1133**Code**

C-1133

Classification

ZU: ZU-608 abnormality

Cause

The punch shift home sensor (PS605) does not turn ON even after a specified period of time after the punch shift motor (M605) starts the home position search operation.

Measures to take when alert occurs

The main body and the ZU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- ZU control board (ZUCB)
- Punch shift motor (M605)
- Punch shift home sensor (PS605)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ZUCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 1-B)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 4-B)
4. Replace PS605.
5. Replace M605.
6. Replace ZUCB.

Faulty part isolation DIPSW

DIPSW47-5

Control while detached

The use of Z-folding and punch is unavailable.

2.8.27 C-1134**Code**

C-1134

Classification

ZU: ZU-608 abnormality

Cause

An error detection signal of FM601 is detected continuously for a specified period of time while the main motor cooling fan (FM601) is ON.

Measures to take when alert occurs

The main body and the ZU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- ZU control board (ZUCB)
- Main motor cooling fan (FM601)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ZUCB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: ZU-608: 6-B)
3. Replace FM601.
4. Replace ZUCB.

Faulty part isolation DIPSW**Control while detached****2.8.28 C-1135****Code**

C-1135

Classification

ZU: ZU-608 abnormality

Cause

After the punch motor (M604) turns ON, M604 does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the ZU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- ZU control board (ZUCB)
- Punch motor (M604)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ZUCB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 5-B)
3. Replace M604.
4. Replace ZUCB.

Faulty part isolation DIPSW**Control while detached****2.8.29 C-1136****Code**

C-1136

Classification

ZU: ZU-608 abnormality

Cause

After the punch switchover motor (M608) turns ON, punch switchover switch (MS601) does not turn ON from OFF, or not turn OFF from ON within a specified period of time.

Measures to take when alert occurs

The main body and the ZU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- ZU control board (ZUCB)
- Punch switchover motor (M608)
- Punch switchover switch (MS601)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ZUCB and motor/switch, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 5-B)
3. Check I/O and the operation of the punch hole switching, and repair/replace it if any abnormality. (Wiring diagram: ZU-608: 5-B)
4. Replace MS601.
5. Replace M608.
6. Replace ZUCB.

Faulty part isolation DIPSW

DIPSW47-5

Control while detached

The use of Z-folding and punch is unavailable.

2.8.30 C-1137**Code**

C-1137

Classification

FS: FS-532 abnormality

Cause

The conveyance gate home sensor (PS31) does not turn ON within a specified period of time after the conveyance gate motor (M22) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Conveyance gate motor (M22)
- Conveyance gate home sensor (PS31)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 1-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 2-B)
4. Replace PS31.
5. Replace M22.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-2

Control while detached

The use of FS, SD, PK is unavailable.

2.8.31 C-1141**Code**

C-1141

Classification

FS: FS-532 abnormality

Cause

After the stack assist motor (M8) turns ON, the stack assist home sensor (PS11) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Stack assist motor (M8)
- Stack assist home sensor (PS11)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 6-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 12-B)
4. Replace PS11.
5. Replace M8.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.32 C-1144**Code**

C-1144

Classification

FS: FS-532 abnormality

Cause

The paper exit alignment plate home sensor (PS20) does not turn ON within a specified period of time after the paper exit alignment plate motor (M12) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Paper exit alignment plate motor (M12)
- Paper exit alignment plate home sensor (PS20)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 4-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 5-B)
4. Replace PS20.
5. Replace M12.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-1

Control while detached

FS main tray and stapling are not available

2.8.33 C-1147**Code**

C-1147

Classification

FS: FS-532 abnormality

Cause

The paper exit alignment plate up down home sensor (PS21) does not turn ON within a specified period of time after the paper exit alignment plate up down motor (M13) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Paper exit alignment plate up down motor (M13)
- Paper exit alignment plate up down home sensor (PS21)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 4-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 5-B)
4. Replace PS21.
5. Replace M13.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-1

Control while detached

FS main tray and stapling are not available

2.8.34 C-1153**Code**

C-1153

Classification

FS: FS-532 abnormality

Cause

The main tray home sensor (PS23) does not turn ON within a specified period of time after the tray shift roller motor (M15) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Tray shift roller motor (M15)
- Main tray home sensor (PS23)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 3-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 6-B)
4. Replace PS23.
5. Replace M15.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-1

Control while detached

FS main tray and stapling are not available

2.8.35 C-1154**Code**

C-1154

Classification

FS: FS-532 abnormality

Cause

After the gripper exit sensor /Lw (M16) turns ON, the gripper home sensor /Up (PS24) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Gripper paper exit motor /Up (M16)
- Gripper home sensor /Up (PS24)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 2-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 4-B)
4. Replace PS24.
5. Replace M16.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-1

Control while detached

FS main tray and stapling are not available

2.8.36 C-1155**Code**

C-1155

Classification

FS: FS-532 abnormality

Cause

After the gripper exit sensor /Lw (M17) turns ON, the gripper home sensor /Lw (PS25) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Gripper paper exit motor /Lw (M17)
- Gripper home sensor /Lw (PS25)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 3-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 6-B)
4. Replace PS25.
5. Replace M17.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-1

Control while detached

FS main tray and stapling are not available

2.8.37 C-1156**Code**

C-1156

Classification

FS: FS-532 abnormality

Cause

After the stacker rear stopper motor (M20) turns ON, the stacker rear stopper home sensor (PS29) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Stacker rear stopper motor (M20)
- Stacker rear stopper home sensor (PS29)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNCSB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 5-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 11-B)
4. Replace PS29.
5. Replace M20.
6. Replace FNCSB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.38 C-1157**Code**

C-1157

Classification

FS: FS-532 abnormality

Cause

After the stacker paper press motor (M21) turns ON, the stacker paper press home sensor (PS30) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNCSB)
- Stacker paper press motor (M21)
- Stacker paper press home sensor (PS30)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNCSB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 6-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 11-B)
4. Replace PS30.
5. Replace M21.
6. Replace FNCSB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.39 C-1158**Code**

C-1158

Classification

FS: FS-532 abnormality

Cause

After the roller pressure motor (M27) turns ON, the roller pressure motor home sensor (PS34) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNCSB)
- Roller pressure motor (M27)
- Roller pressure motor home sensor (PS34)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNCSB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 6-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 11-B)
4. Replace PS34.
5. Replace M27.
6. Replace FNCSB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.40 C-1159**Code**

C-1159

Classification

FS: FS-532 abnormality

Cause

The bypass gate home sensor (PS36) does not turn ON within a specified period of time after the bypass gate motor (M25) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Bypass gate motor (M25)
- Bypass gate home sensor (PS36)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 1-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 2-B)
4. Replace PS36.
5. Replace M25.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-0, DIPSW47-2

Control while detached

The use of staple, half-fold, fold&staple and tri-fold is unavailable.

2.8.41 C-1170**Code**

C-1170

Classification

FS: FS-532 abnormality

Cause

The exit paper press home sensor (PS37) does not turn ON within a specified period of time after the exit paper press motor (M26) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Exit paper press motor (M26)
- Exit paper press home sensor (PS37)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 3-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 7-B)
4. Replace PS37.
5. Replace M26.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-1

Control while detached

FS main tray and stapling are not available

2.8.42 C-1171**Code**

C-1171

Classification

FS: FS-532 abnormality

Cause

The small size paper alignment home sensor (PS26) does not turn ON within a specified period of time after the small size paper alignment motor (M18) turns ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Small size paper alignment motor (M18)
- Small size paper alignment home sensor (PS26)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 5-F)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FS-532: 11-B)
4. Replace PS26.
5. Replace M18.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.43 C-1172**Code**

C-1172

Classification

FS: FS-532 abnormality

Cause

An error detection signal of FM1 is detected continuously for a specified period of time while the large size paper alignment fan (FM1) is ON.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- Large size paper alignment fan (FM1)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between FNSCB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: FS-532: 6-F)
3. Replace FM1.
4. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW35-0

Control while detached

The use of staple is unavailable

2.8.44 C-1173**Code**

C-1173

Classification

FS: FS-510 abnormality

Cause

The stapler shift home sensor (PS105) does not turn ON within a specified period of time after the stapler movement motor (M103) turns ON.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)
- Stapler movement motor (M103)
- Stapler shift home sensor (PS105)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDCB and motor/sensor, and repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and SDCB, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 2-G)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 3-B)
5. Replace PS105.
6. Replace M103.
7. Replace SDCB.
8. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.8.45 C-1174**Code**

C-1174

Classification

FS: FS-510 abnormality

Cause

The operation does not complete within a specified period of time after the SD saddle stapler motor (M102) starts operations,

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)
- SD stapler motor (M102)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDCB and the motor, and repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and SDCB, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 4-G)
4. Replace M102.
5. Replace SDCB.
6. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.8.46 C-1175**Code**

C-1175

Classification

FS: FS-510 abnormality

Cause

After the stopper motor (M105) turns ON, the stopper home sensor (PS107) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)
- Stopper motor (M105)
- Stopper home sensor (PS107)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDCB and motor/sensor, and repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and SDCB, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 1-G)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 6-B)
5. Replace PS107.
6. Replace M105.
7. Replace SDCB.
8. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.8.47 C-1176**Code**

C-1176

Classification

FS: FS-510 abnormality

Cause

After the center paddle motor (M106) turns ON, the center paddle home sensor (PS108) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)

- Center paddle motor (M106)
- Center paddle home sensor (PS108)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDCB and motor/sensor, and repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and SDCB, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 3-G)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 4-B)
5. Replace PS108.
6. Replace M106.
7. Replace SDCB.
8. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.8.48 C-1177**Code**

C-1177

Classification

FS: FS-510 abnormality

Cause

The 2nd folding knife home sensor (PS111) does not turn ON within a specified period of time after the 2nd folding knife motor (M110) turns ON.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)
- 2nd folding knife motor (M110)
- 2nd folding knife home sensor (PS111)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDCB and motor/sensor, and repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and SDCB, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 5-G)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 6-G)
5. Replace PS111.
6. Replace M110.
7. Replace SDCB.
8. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.8.49 C-1179**Code**

C-1179

Classification

FS: FS-532 abnormality

Cause

RUKA communication error

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch, and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.

5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW**Control while detached****2.8.50 C-1180****Code**

C-1180

Classification

FS: FS-510 abnormality

Cause

The alignment home sensor (PS106) does not turn ON within a specified period of time after the saddle stitching alignment motor (M104) turns ON.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)
- Saddle stitching alignment motor (M104)
- Alignment home sensor (PS106)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDCB and motor/sensor, and repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and SDCB, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 3-G)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 4-B)
5. Replace PS106.
6. Replace M104.
7. Replace SDCB.
8. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.8.51 C-1181**Code**

C-1181

Classification

FS: FS-510 abnormality

Cause

After the lower paddle motor (M109) turns ON, the lower paddle home sensor (PS114) does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)
- Lower paddle motor (M109)
- Lower paddle home sensor (PS114)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDCB and motor/sensor, and repair it if any abnormality.
2. Check the connector connection and the wiring between FNSCB and SDCB, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 8-B)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-510: 7-B)
5. Replace PS114.
6. Replace M109.
7. Replace SDCB.
8. Replace FNSCB.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.9 Solution 5 (C-1201_1216)**2.9.1 C-1201****Code**

C-1201

Classification

LS (1st tandem): LS abnormality

Cause

The stacker tray encoder sensor (PS2) does not turn ON within a specified period of time after the stacker tray up down motor (M1) turns ON. Or, the initial operation or the stacker tray down operation is not completed within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
5. Replace PS2.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.2 C-1202**Code**

C-1202

Classification

LS (1st tandem): LS abnormality

Cause

The shift unit home sensor (PS11) does not turn ON within a specified period of time after the shift unit motor (M5) turns ON. Or, PS11 does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Shift unit motor (M5)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the shift unit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 6-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-H)
5. Replace PS11.
6. Replace M5.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.3 C-1203**Code**

C-1203

Classification

LS (1st tandem): LS abnormality

Cause

The alignment plate home sensor (PS12) does not turn ON within a specified period of time after the alignment motor (M7) turns ON. Or, PS12 does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Alignment motor (M7)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-H)
5. Replace PS12.
6. Replace M7.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.4 C-1204**Code**

C-1204

Classification

LS (1st tandem): LS abnormality

Cause

The grip conveyance home sensor (PS5) does not turn ON within a specified period of time after the grip conveyance motor (M4) turns ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Grip conveyance motor (M4)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the grip conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 6-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 2-H)
5. Replace PS5.
6. Replace M4.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.5 C-1205**Code**

C-1205

Classification

LS (1st tandem): LS abnormality

Cause

The stacker tray upper limit switch (MS2) is ON when the stacker tray up down motor (M1) is in the up operation.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- Stacker tray upper limit switch (MS2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/switch, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-A)
4. Check the operation of the switch, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
5. Replace MS2.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.6 C-1206**Code**

C-1206

Classification

LS (1st tandem): LS abnormality

Cause

The stacker tray lower limit switch (MS3) is ON when the stacker tray up down motor (M1) is in the down operation.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- Stacker tray lower limit switch (MS3)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/switch, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
4. Check the operation of the switch, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
5. Replace MS3.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.7 C-1211**Code**

C-1211

Classification

LS (2nd tandem): LS abnormality

Cause

The stacker tray encoder sensor (PS2) does not turn ON within a specified period of time after the stacker tray up down motor (M1) turns ON. Or, the initial operation or the stacker tray down operation is not completed within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
5. Replace PS2.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.8 C-1212**Code**

C-1212

Classification

LS (2nd tandem): LS abnormality

Cause

The shift unit home sensor (PS11) does not turn ON within a specified period of time after the shift unit motor (M5) turns ON. Or, PS11 does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Shift unit motor (M5)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the shift unit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 6-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-H)
5. Replace PS11.
6. Replace M5.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.9 C-1213**Code**

C-1213

Classification

LS (2nd tandem): LS abnormality

Cause

The alignment plate home sensor (PS12) does not turn ON within a specified period of time after the alignment motor (M7) turns ON. Or, PS12 does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Alignment motor (M7)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-H)
5. Replace PS12.
6. Replace M7.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.10 C-1214**Code**

C-1214

Classification

LS (2nd tandem): LS abnormality

Cause

The grip conveyance home sensor (PS5) does not turn ON within a specified period of time after the grip conveyance motor (M4) turns ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Grip conveyance motor (M4)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the grip conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 6-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 2-H)
5. Replace PS5.
6. Replace M4.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.11 C-1215**Code**

C-1215

Classification

LS (2nd tandem): LS abnormality

Cause

The stacker tray upper limit switch (MS2) is ON when the stacker tray up down motor (M1) is in the up operation.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- Stacker tray upper limit switch (MS2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/switch, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
4. Check the operation of the switch, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
5. Replace MS2.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.9.12 C-1216**Code**

C-1216

Classification

LS (2nd tandem): LS abnormality

Cause

The stacker tray lower limit switch (MS3) is ON when the stacker tray up down motor (M1) is in the down operation.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- Stacker tray lower limit switch (MS3)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/switch, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
4. Check the operation of the switch, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
5. Replace MS3.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

LS (1st tandem) unusable

2.10 Solution 6 (C-1221_1235)**2.10.1 C-1221****Code**

C-1221

Classification

FD: FD abnormality

Cause

The 1st folding cam home sensor (PS55) does not turn ON within a specified period of time after the 1st folding release motor (M14) turns ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- 1st folding release motor (M14)
- Folding drive board (FDB)
- 1st folding cam home sensor (PS55)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the 1st folding section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 1-B)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 2-B)
5. Replace PS55.
6. Replace M14.
7. Replace FDB.

Faulty part isolation DIPSW

DIPSW6-0

Control while detached

The use of the folding function and the punch section is unavailable

2.10.2 C-1222**Code**

C-1222

Classification

FD: FD abnormality

Cause

The 2nd folding cam home sensor (PS56) does not turn ON within a specified period of time after the 2nd folding release motor (M15) turns ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- 2nd folding release motor (M15)
- Folding drive board (FDB)
- 2nd folding cam home sensor (PS56)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the 2nd folding section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 1-B)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 2-B)
5. Replace PS56.
6. Replace M15.
7. Replace FDB.

Faulty part isolation DIPSW

DIPSW6-0

Control while detached

The use of the folding function and the punch section is unavailable

2.10.3 C-1223**Code**

C-1223

Classification

FD: FD abnormality

Cause

The 3rd folding cam home sensor (PS57) does not turn ON within a specified period of time after the 3rd folding release motor (M16) turns ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- 3rd folding release motor (M16)
- Folding drive board (FDB)
- 3rd folding cam home sensor (PS57)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the 3rd folding section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 1-B)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 2-B)
5. Replace PS57.
6. Replace M16.
7. Replace FDB.

Faulty part isolation DIPSW

DIPSW6-0

Control while detached

The use of the folding function and the punch section is unavailable

2.10.4 C-1224

Code

C-1224

Classification

FD: FD abnormality

Cause

The 2 holes punch home sensor (PS8) does not turn OFF within a specified period of time after the 2-holes punch home position return operation starts. Or, after the punch motor (M10) turns ON, the 2 holes punch home sensor (PS8) does not turn OFF.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Punch motor (M10)
- Punch drive board (PDB)
- 2 holes punch home sensor (PS8)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the 2-hole punch section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:FD-503:5-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 5-E)
5. Replace PS8.
6. Replace M10.
7. Replace PDB.

Faulty part isolation DIPSW

DIPSW6-0

Control while detached

The use of the folding function and the punch section is unavailable

2.10.5 C-1225

Code

C-1225

Classification

FD: FD abnormality

Cause

The 3 holes/4 holes punch home sensor (PS9) does not turn OFF within a specified period of time after the 3 holes/4 holes punch home position return operation starts. Or, after the punch motor (M10) turns ON, the 3 holes/4 holes punch home sensor (PS9) does not turn OFF.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Punch motor (M10)
- Punch drive board (PDB)
- 3 holes/4 holes home sensor (PS9)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the 3-hole/4-hole punch section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:FD-503:5-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:FD-503:5-E)
5. Replace PS9.
6. Replace M10.
7. Replace PDB.

Faulty part isolation DIPSW

DIPSW6-0

Control while detached

The use of the folding function and the punch section is unavailable

2.10.6 C-1226

Code

C-1226

Classification

FD: FD abnormality

Cause

The alignment plate home sensor (PS10) does not turn ON within a specified period of time after the alignment plate home position return operation starts. Or, after the alignment motor (M12) turns ON, the alignment plate home sensor (PS10) does not turn OFF.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Alignment motor (M12)
- Punch drive board (PDB)
- Alignment plate home sensor (PS10)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the punch alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:FD-503:3-D)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:FD-503:5-D)
5. Replace PS10.
6. Replace M12.
7. Replace PDB.

Faulty part isolation DIPSW

DIPSW6-0

Control while detached

The use of the folding function and the punch section is unavailable

2.10.7 C-1227

Code

C-1227

Classification

FD: FD abnormality

Cause

The punch registration home sensor (PS11) does not turn ON within a specified period of time after the punch registration claw home position return operation starts. Or, after the punch registration motor (M13) turns ON, the punch registration home sensor (PS11) does not turn OFF.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Punch registration motor (M13)
- Punch drive board (PDB)
- Punch registration home sensor (PS11)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the punch alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:FD-503:5-F)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 5-E)
5. Replace PS11.
6. Replace M13.
7. Replace PDB.

Faulty part isolation DIPSW

DIPSW6-0

Control while detached

The use of the folding function and the punch section is unavailable

2.10.8 C-1228

Code

C-1228

Classification

FD: FD abnormality

Cause

The main tray upper limit sensor (PS20) does not turn ON within a specified period of time after the main tray home position search starts. Or, after the tray up down motor (M11) turns ON, the main tray upper limit sensor (PS20) does not turn OFF.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Tray up down motor (M11)
- Main tray upper limit sensor (PS20)
- Punch drive board (PDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the punch alignment section, and clean/repair it if any abnormality.

2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 3-D)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 6-D)
5. Replace PS20.
6. Replace M11.
7. Replace PDB.

Faulty part isolation DIPSW

DIPSW6-1

Control while detached

Main tray unusable

2.10.9 C-1229**Code**

C-1229

Classification

FD: FD abnormality

Cause

The main tray lower limit sensor (PS22) does not turn ON within a specified period of time after the tray up down motor (M11) is in the down operation.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Tray up down motor (M11)
- Punch drive board (PDB)
- Main tray lower limit sensor (PS22)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the punch alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between FDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 3-D)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 3-D)
5. Replace PS22.
6. Replace M11.
7. Replace PDB.

Faulty part isolation DIPSW

DIPSW6-1

Control while detached

Main tray unusable

2.10.10 C-1230**Code**

C-1230

Classification

FD: FD abnormality

Cause

After the FD paper lift motor /Up (M8) is in the down operation, the PI lift plate home sensor /Up (PS34) does not turn ON within a specified period of time. Or, after the paper lift motor /Up (M8) is in the up operation, the PI tray upper limit sensor /Up (PS32) does not turn ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper lift motor /Up (M8)
- PI drive board (PIDB)
- PI lift plate home sensor /Up (PS34)
- PI upper limit sensor /Up (PS32)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the PI upper tray section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PIDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 9-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 8-A, 9-A)
5. Replace PS32 or PS34.
6. Replace M8.
7. Replace PIDB.

Faulty part isolation DIPSW

DIPSW6-2

Control while detached

The use of the PI section unavailable

2.10.11 C-1231**Code**

C-1231

Classification

FD: FD abnormality

Cause

After the FD paper lift motor /Lw (M9) is in the down operation, the PI lift plate home sensor /Lw (PS40) does not turn ON within a specified period of time. Or, after the paper lift motor /Lw (M9) is in the up operation, the PI upper limit sensor /Lw (PS38) does not turn ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper lift motor /Lw (M9)
- PI drive board (PIDB)
- PI lift plate home sensor /Lw (PS40)
- PI upper limit sensor /Lw (PS38)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the PI lower tray section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PIDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 9-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 7-A, 8-A)
5. Replace PS38 or PS40.
6. Replace M9.
7. Replace PIDB.

Faulty part isolation DIPSW

DIPSW6-2

Control while detached

The use of the PI section unavailable

2.10.12 C-1232**Code**

C-1232

Classification

FD: FD abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the entrance conveyance motor (M1) is ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper lift motor /Lw (M9)
- PI drive board (PIDB)
- PI lift plate home sensor /Lw (PS40)
- PI upper limit sensor /Lw (PS38)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the entrance conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PDB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 3-D)
4. Replace M1.
5. Replace PDB.

Faulty part isolation DIPSW**Control while detached****2.10.13 C-1233****Code**

C-1233

Classification

FD: FD abnormality

Cause

An error detection signal of M3 is detected continuously for a specified period of time while the intermediate conveyance motor (M3) is ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Intermediate conveyance motor (M3)
- Punch drive board (PDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the intermediate conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PDB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 4-D)
4. Replace M3.
5. Replace PDB.

Faulty part isolation DIPSW**Control while detached****2.10.14 C-1234****Code**

C-1234

Classification

FD: FD abnormality

Cause

An error detection signal of M7 is detected continuously for a specified period of time while the PI conveyance motor (M7) is ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PI conveyance motor (M7)
- PI drive board (PIDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the PI conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PIDB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 9-A)
4. Replace M7.
5. Replace PIDB.

Faulty part isolation DIPSW

DIPSW6-2

Control while detached

The use of the PI section unavailable

2.10.15 C-1235**Code**

C-1235

Classification

FD: FD abnormality

Cause

An error detection signal of M17 is detected continuously for a specified period of time while the main tray exit motor (M17) is ON.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Main tray exit motor (M17)
- Punch drive board (PDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the main tray exit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PDB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: FD-503: 4-D)
4. Replace M17.
5. Replace PDB.

Faulty part isolation DIPSW**Control while detached****2.11 Solution 7 (C-1241_1275)****2.11.1 C-1241****Code**

C-1241

Classification

SD: SD-506 abnormality

Cause

The scraps press home sensor (PS48) does not turn ON within a specified period of time after the bundle exit motor (M5) starts the home position search operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle exit motor (M5)
- Scraps press home sensor (PS48)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle exit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 22-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 24-D)
6. Replace PS48.
7. Replace M5.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.2 C-1242**Code**

C-1242

Classification

SD: SD-506 abnormality

Cause

The folding main scan alignment home sensor /Fr1 (PS18) does not turn ON within a specified period of time after the folding main scan alignment motor /Fr (M7) starts the home position search operation. Or, even after a specified period of time after M7 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Folding main scan alignment motor /Fr (M7)
- Folding main scan alignment home sensor /Fr1 (PS18)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the folding main scan alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 8-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 13-D)
6. Replace PS18.
7. Replace M7.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-2

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding, multi tri-folding and trimmer unavailable

2.11.3 C-1243**Code**

C-1243

Classification

SD: SD-506 abnormality

Cause

The folding exit home sensor (PS24) does not turn ON within a specified period of time after the folding sub scan alignment exit motor (M8) starts the home position search operation. Or, even after a specified period of time after M8 starts to decelerate, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Folding sub scan alignment exit motor (M8)
- Folding exit home sensor (PS24)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the folding sub scan alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 10-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 14-D)
6. Replace PS24.
7. Replace M8.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-2

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable

2.11.4 C-1244

Code

C-1244

Classification

SD: SD-506 abnormality

Cause

The saddle stitching alignment home sensor /Rt (PS28) does not turn ON within a specified period of time after the saddle stitching alignment motor /Rt (M9) starts the home position search operation. Or, even after a specified period of time after M9 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Saddle stitching alignment motor /Rt (M9)
- Saddle stitching alignment home sensor /Rt (PS28)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the saddle stitching alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 19-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 17-D)
6. Replace PS28.
7. Replace M9.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.5 C-1245

Code

C-1245

Classification

SD: SD-506 abnormality

Cause

The bundle arm home sensor (PS32) does not turn ON within a specified period of time after the bundle arm motor (M10) starts the home position search operation. Or, even after a specified period of time after M10 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle arm motor (M10)
- Bundle arm home sensor (PS32)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle arm section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 19-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 17-D)
6. Replace PS32.
7. Replace M10.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.6 C-1246**Code**

C-1246

Classification

SD: SD-506 abnormality

Cause

The bundle clip upper limit sensor (PS33) does not turn ON within a specified period of time after the bundle clip motor (M11) starts the home position search operation. Or, even after a specified period of time after M11 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle clip motor (M11)
- Bundle clip upper limit sensor (PS33)
- Bundle clip lower limit sensor (PS30)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle clip section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:SD-506:16-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:SD-506:19-D)
6. Replace PS33.
7. Replace M11.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.7 C-1247**Code**

C-1247

Classification

SD: SD-506 abnormality

Cause

The bundle registration home sensor (PS34) does not turn ON within a specified period of time after the bundle registration motor (M12) starts the home position search operation. Or, even after a specified period of time after M12 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle registration motor (M12)

- Bundle registration home sensor (PS34)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle registration section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 27-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 21-D)
6. Replace PS34.
7. Replace M12.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.8 C-1248**Code**

C-1248

Classification

SD: SD-506 abnormality

Cause

The overlap home sensor (PS17) does not turn ON within a specified period of time after the overlap motor (M13) starts the home position search operation. Or, even after a specified period of time after M13 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Overlap motor (M13)
- Overlap home sensor (PS17)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the overlap section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 2-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 2-D)
6. Replace PS17.
7. Replace M13.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-2

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable

2.11.9 C-1249**Code**

C-1249

Classification

SD: SD-506 abnormality

Cause

The folding main scan alignment home sensor /Rr (PS19) does not turn ON within a specified period of time after the folding main scan alignment motor /Rr (M14) starts the home position search operation. Or, even after a specified period of time after M14 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Folding main scan alignment motor /Rr (M14)
- Folding main scan alignment home sensor /Rr (PS19)

- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the folding main scan alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 11-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 12-D)
6. Replace PS19.
7. Replace M14.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0
DIPSW7-1
DIPSW7-2
DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable

2.11.10 C-1250**Code**

C-1250

Classification

SD: SD-506 abnormality

Cause

The stapler movement home sensor (PS25) does not turn ON within a specified period of time after the home position search operation of the stapler movement motor (M15) starts. Or, even after a specified period of time after M15 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stapler movement motor (M15)
- Stapler movement home sensor (PS25)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stapler movement section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 15-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 18-D)
6. Replace PS25.
7. Replace M15.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0
DIPSW7-1
DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.11 C-1251**Code**

C-1251

Classification

SD: SD-506 abnormality

Cause

The saddle stitching alignment home sensor /Lt (PS29) does not turn ON within a specified period of time after the saddle stitching alignment motor /Lt (M16) starts the home position search operation. Or, even after a specified period of time after M16 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Saddle stitching alignment motor /Lt (M16)
- Saddle stitching alignment home sensor /Lt (PS29)
- SD control board (SDCB)

- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the saddle stitching alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 15-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 17-D)
6. Replace PS29.
7. Replace M16.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.12 C-1252**Code**

C-1252

Classification

SD: SD-506 abnormality

Cause

The bundle press movement home sensor (PS36) does not turn ON within a specified period of time after the bundle press movement motor (M17) starts the home position search operation. Or, even after a specified period of time after M17 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle press movement motor (M17)
- Bundle press movement home sensor (PS36)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle press movement section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:SD-506:26-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:SD-506:22-D)
6. Replace PS36.
7. Replace M17.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.13 C-1253**Code**

C-1253

Classification

SD: SD-506 abnormality

Cause

The 1st folding blade home sensor (PS21) does not turn ON within a specified period of time after the 1st folding blade motor (M18) starts the home position search operation. Or 1st folding blade home sensor /1 (PS20) does not turned ON within a specified period of time after M18 starts the operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- 1st folding blade motor (M18)
- 1st folding blade home sensor /1 (PS20), /2 (PS21)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the 1st folding section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 11-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 12-D)
6. Replace PS20.
7. Replace M18.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-2

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable

2.11.14 C-1254**Code**

C-1254

Classification

SD: SD-506 abnormality

Cause

The 2nd folding blade home sensor /2 (PS23) does not turn ON within a specified period of time after the 2nd folding blade motor (M19) starts the home position search operation. Or the 2nd folding blade home sensor /1 (PS22) does not turned ON within a specified period of time after M19 starts the operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- 2nd folding blade motor (M19)
- 2nd folding blade home sensor /1 (PS22), /2 (PS23)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the 2nd folding section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:SD-506:11-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:SD-506:12-D, 13-D)
6. Replace PS22.
7. Replace M19.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-2

Control while detached

The use of the multi-tri-folding unavailable

2.11.15 C-1255**Code**

C-1255

Classification

SD: SD-506 abnormality

Cause

The clincher up down home sensor (PS26) does not turn ON even after a specified period of time after the clincher up down motor (M20) starts the home position search. Or, even after a specified period of time after M20 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Clincher up down motor (M20)
- Clincher up down home sensor (PS26)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the clincher up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 16-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 18-D)
6. Replace PS26.
7. Replace M20.
8. Replace SDDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.16 C-1256**Code**

C-1256

Classification

SD: SD-506 abnormality

Cause

The saddle stitching press home sensor (PS27) does not turn ON within a specified period of time after the saddle stitching press motor (M21) starts the home position search operation. Or, even after a specified period of time after M21 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Saddle stitching press motor (M21)
- Saddle stitching press home sensor (PS27)
- SD control board (SDCB)
- SD drive board (SDDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the saddle stitching press section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 16-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 16-D)
6. Replace PS27.
7. Replace M21.
8. Replace SDDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0

DIPSW7-1

DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.17 C-1257**Code**

C-1257

Classification

SD: SD-506 abnormality

Cause

The bundle arm rotation home sensor (PS31) does not turn ON within a specified period of time after the bundle arm rotation motor (M22) starts the home position search operation. Or, even after a specified period of time after M22 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle arm rotation motor (M22)
- Bundle arm rotation home sensor (PS31)
- SD control board (SDCB)
- SD drive board (SDDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle arm rotation section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 27-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 24-D)
6. Replace PS31.
7. Replace M22.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0
DIPSW7-1
DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.18 C-1258**Code**

C-1258

Classification

SD: SD-506 abnormality

Cause

The bundle press home sensor (PS37) does not turn ON within a specified period of time after the bundle press motor (M23) starts the home position search operation. Or, even after a specified period of time after M23 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle press motor (M23)
- Bundle press home sensor (PS37)
- Bundle press lower limit sensor (PS47)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle press section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 20-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 23-D)
6. Replace PS37 or PS47.
7. Replace M23.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0
DIPSW7-1
DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.19 C-1259**Code**

C-1259

Classification

SD: SD-506 abnormality

Cause

The bundle press home sensor (PS35) does not turn ON within a specified period of time after the bundle press stage up down motor (M24) starts the home position search operation. Or PS35 or the bundle press stage up down upper limit sensor (PS45) does not turned ON after a specified period of time M24 starts the operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle press stage up down motor (M24)
- Bundle press stage up down home sensor (PS35)
- Bundle press stage up down limit sensor (PS45)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle press stage up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 21-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 24-D, 25-D)
6. Replace PS35 or PS45.
7. Replace M24.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0
DIPSW7-1
DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.20 C-1260**Code**

C-1260

Classification

SD: SD-506 abnormality

Cause

The guide shaft home sensor (PS46) does not turn ON even after a specified period of time after the guide shaft motor (M25) starts the home position search operation. Or, even after a specified period of time after M25 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Guide shaft motor (M25)
- Guide shaft home sensor (PS46)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the guide shaft, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:SD-506:11-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:SD-506:15-D)
6. Replace PS46.
7. Replace M25.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-1, DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.21 C-1261**Code**

C-1261

Classification

SD: SD-506 abnormality

Cause

The stapler home sensor /Rt (HS1) or the clincher start sensor /Rt (HS2) does not turn ON even after a specified period of time after the stapler motor /Rt (M29) starts the operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stapler assembly /Rt
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stapler unit /Rt, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and the stapler unit /Rt, and repair it if any abnormality.
3. Replacing the stapler assy /Rt
4. Replace SDDB.
5. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-3

Control while detached

The use of the saddle stitching and trimmer unavailable

2.11.22 C-1262**Code**

C-1262

Classification

SD: SD-506 abnormality

Cause

The stapler home sensor /Lt (HS3) or the clincher start sensor /Lt (HS4) does not turn ON even after a specified period of time after the stapler motor /Lt (M30) starts the operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stapler assembly /Lt
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stapler unit /Rt, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and the stapler unit /Rt, and repair it if any abnormality.
3. Replacing the stapler assy /Rt
4. Replace SDDB.
5. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-3

Control while detached

The use of the saddle stitching and trimmer unavailable

2.11.23 C-1263**Code**

C-1263

Classification

SD: SD-506 abnormality

Cause

It does not stop even after a specified period of time after the trimmer blade motor (M31) starts the operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Trimmer blade motor (M31)
- Trimmer blade home sensor (PS50)
- Trimmer blade upper limit sensor (PS51)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the trimmer blade, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:SD-506:22-R)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 23-R)
6. Replace PS50 or PS51.
7. Replace M31.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-3

Control while detached

The use of the trimmer unavailable

2.11.24 C-1264**Code**

C-1264

Classification

SD: SD-506 abnormality

Cause

It does not stop even after a specified period of time after the trimmer press motor (M32) starts the operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Trimmer press motor (M32)
- Trimmer press home sensor (PS53)
- Trimmer press upper limit sensor (PS52)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the trimmer press section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:SD-506:22-R)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:SD-506:23-R)
6. Replace PS52 or PS53.
7. Replace M32.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-1, DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.25 C-1265

Code

C-1265

Classification

SD: SD-506 abnormality

Cause

It does not stop even after a specified period of time after the bundle arm assist motor (M26) starts the operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle arm assist motor (M26)
- Bundle arm assist home sensor (PS38)
- Bundle arm assist upper limit sensor (PS39)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle arm assist section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 16-D)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 17-D)
6. Replace PS38 or PS39.
7. Replace M26.
8. Replace SDDB.
9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-1, DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.26 C-1266

Code

C-1266

Classification

SD: SD-506 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the entrance conveyance motor (M1) is driving.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Entrance conveyance motor (M1)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the entrance conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDDB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:SD-506:2-D)
5. Replace M1.
6. Replace SDDDB.
7. Replace SDCB.

Faulty part isolation DIPSW**Control while detached****2.11.27 C-1267****Code**

C-1267

Classification

SD: SD-506 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the horizontal conveyance motor (M2) is driving.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Horizontal conveyance motor (M2)
- SD control board (SDCB)
- SD drive board (SDDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the horizontal conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDDB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 7-D)
5. Replace M2.
6. Replace SDDDB.
7. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-4

Control while detached

Sub tray, paper exit to subsequent stage and FS unavailable

2.11.28 C-1268**Code**

C-1268

Classification

SD: SD-506 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the folding entrance motor (M3) is driving.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Folding entrance motor (M3)
- SD control board (SDCB)
- SD drive board (SDDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the folding entrance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDDB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 9-D)
5. Replace M3.
6. Replace SDDDB.
7. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-1, DIPSW7-2, DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable

2.11.29 C-1269

Code

C-1269

Classification

SD: SD-506 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the folding transfer motor (M4) is driving.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Folding transfer motor (M4)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the folding conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 9-D)
5. Replace M4.
6. Replace SDDB.
7. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-1, DIPSW7-2, DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable

2.11.30 C-1270

Code

C-1270

Classification

SD: SD-506 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the bundle exit motor (M5) is driving.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Bundle exit motor (M5)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the bundle exit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 22-D)
5. Replace M5.
6. Replace SDDB.
7. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-1, DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding and trimmer unavailable

2.11.31 C-1271

Code

C-1271

Classification

SD: SD-506 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the folding sub scan alignment exit motor (M8) is driving.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Folding sub scan alignment exit motor (M8)
- SD control board (SDCB)

- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the folding sub scan alignment exit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 10-D)
5. Replace M8.
6. Replace SDDB.
7. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-0, DIPSW7-1, DIPSW7-2, DIPSW7-3

Control while detached

The use of the saddle stitching, multi-center folding, multi-tri-folding and trimmer unavailable

2.11.32 C-1272**Code**

C-1272

Classification

SD: SD-506 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the trimmer paddle motor (M33) is driving.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Trimmer paddle motor (M33)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the trimmer paddle, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 11-W)
4. Replace M33.
5. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-3

Control while detached

The use of the trimmer unavailable

2.11.33 C-1273**Code**

C-1273

Classification

SD: SD-506 abnormality

Cause

The trimmer completion sensor (PS62) does not turn ON even after a specified period of time after the trimmer blade motor (M31) is in the up operation.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Trimmer blade motor (M31)
- Trimmer completion sensor (PS62)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the trimmer blade upper limit, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and motor/sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 22-R)
5. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 10-U)
6. Replace PS62.
7. Replace M31.
8. Replace SDDB.

9. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-3

Control while detached

The use of the trimmer unavailable

2.11.34 C-1275

Code

C-1275

Classification

SD: SD-506 abnormality

Cause

The wire slack sensor (PS66) detected the slack of the trimmer edge drive wire.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Wire slack prevention sensor (PS66)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the wire slack, and repair the trimmer blade if any abnormality.
2. Check the connector connection and the wiring between SDCB and the sensor, and repair it if any abnormality.
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: SD-506: 10-U)
4. Replace PS66.
5. Replace SDCB.

Faulty part isolation DIPSW

Control while detached

2.12 Solution 8 (C-1281_1299)

2.12.1 C-1281

Code

C-1281

Classification

RU: RU-510 abnormality

Cause

FD alignment motor (M3) drive abnormality.

The CD alignment home sensor (PS3) does not turn ON even after a specified period of time after M3 starts the home position search operation. Or, even after a specified period of time after M3 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FD alignment home sensor (PS3)
- FD alignment motor (M3)
- RU control board (RUCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the FD alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between RUCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: RU-510: 1-B)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: RU-510: 1-B)
5. Replace PS3.
6. Replace M3.
7. Replace RUCB

Faulty part isolation DIPSW

Control while detached

2.12.2 C-1282

Code

C-1282

Classification

RU: RU-510 abnormality

Cause

CD alignment motor (M4): drive abnormality.

The CD alignment home sensor (PS4) does not turn ON even after a specified period of time after M4 starts the home position search operation. Or, even after a specified period of time after M4 starts the operation, it does not stop.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- CD alignment home sensor (PS4)
- CD alignment motor (M4)
- RU control board (RUCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between RUCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: RU-510: 2-B)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: RU-510: 5-B)
5. Replace PS4.
6. Replace M4.
7. Replace RUCB

Faulty part isolation DIPSW

Control while detached

2.12.3 C-1290

Code

C-1290

Classification

RU: RU-509 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the de-curler conveyance motor (M3) is driving.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- De-curler conveyance motor (M3)
- RU control board (RUCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the de-curler section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between RUCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: RU-509: 11-F)
4. Replace M3.
5. Replace RUCB

Faulty part isolation DIPSW

Control while detached

2.12.4 C-1291

Code

C-1291

Classification

RU: RU-509 abnormality

Cause

The home position search operation of the de-curler pressure motor /Lw (M5) does not complete within a specified period of time.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- De-curler pressure motor /Lw (M5)
- RU control board (RUCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the de-curler section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between RUCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: RU-509: 10-F)
4. Replace M5.
5. Replace RUCB

Faulty part isolation DIPSW

Control while detached

2.12.5 C-1292

Code

C-1292

Classification

RU: RU-509 abnormality

Cause

The home position search operation of the de-curler pressure motor /Up (M6) does not complete within a specified period of time.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- De-curler pressure motor /Up (M6)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the de-curler section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between RUCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: RU-509: 11-F)
4. Replace M6.
5. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.12.6 C-1293****Code**

C-1293

Classification

RU: RU-509 abnormality

Cause

Rotation abnormality is detected for a specified period of time in succession while the humidification section conveyance motor (M8) is driving.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Humidification section conveyance motor (M8)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the humidification section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: RU-509: 13-O)
5. Replace M8.
6. Replace RUDB.
7. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.12.7 C-1294**Code**

C-1294

Classification

RU: RU-509 abnormality

Cause

The home position search operation of the humidification section roller pressure motor /Rt (M9) does not complete within a specified period of time.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Humidification section roller pressure motor /Rt (M9)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the humidification section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and the motor, and repair it if any abnormality.

3. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: RU-509: 15-O)
5. Replace M9.
6. Replace RUDB.
7. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.12.8 C-1295**Code**

C-1295

Classification

RU: RU-509 abnormality

Cause

The home position search operation of the humidification section roller pressure motor /Lt (M10) does not complete within a specified period of time.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Humidification roller pressure motor /Lt (M10)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the humidification section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: RU-509: 15-O)
5. Replace M10.
6. Replace RUDB.
7. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.12.9 C-1299**Code**

C-1299

Classification

RU: RU-509 abnormality

Cause

The water tank full sensor (PS13) detects ON continuously for more than a specified period of time.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Drain path
- Water tank full sensor (PS13)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the drain path, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring of RUDB, the pump motor (1) and the sensor, and repair it if any abnormality.
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: RU-509: 16-O)
4. Replace PS13.
5. Replace RUDB.

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.13 Solution 9 (C-1301_1334)**2.13.1 C-1301****Code**

C-1301

Classification

LS (1st tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /Fr (FM1) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Fr (FM1)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 4-A)
3. Replace FM1.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.2 C-1302****Code**

C-1302

Classification

LS (1st tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /1 (FM2) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /1 (FM2)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 6-H)
3. Replace FM2 or FM6.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.3 C-1303****Code**

C-1303

Classification

LS (1st tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor/Mi (FM3) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Mi (FM3)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 5-A)
3. Replace FM3
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.4 C-1304****Code**

C-1304

Classification

LS (1st tandem): LS abnormality

Cause

An error detection signal of FM4 is detected continuously for a specified period of time while the motor cooling fan motor (FM4) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Motor cooling fan motor (FM4)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 7-H)
3. Replace FM4
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.5 C-1305****Code**

C-1305

Classification

LS (1st tandem): LS abnormality

Cause

An error detection signal of FM5 is detected continuously for a specified period of time while the paper cooling fan motor /Rr (FM5) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Rr (FM5)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 5-A)
3. Replace FM5.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.6 C-1306****Code**

C-1306

Classification

LS (2nd tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /Fr (FM1) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Fr (FM1)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 4-A)
3. Replace FM1.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.7 C-1307****Code**

C-1307

Classification

LS (2nd tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor/1 (FM2) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /1 (FM2)

- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 6-H)
3. Replace FM2 or FM6.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.8 C-1308****Code**

C-1308

Classification

LS (2nd tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /Mi (FM3) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Mi (FM3)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 5-A)
3. Replace FM3
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.9 C-1309****Code**

C-1309

Classification

LS (2nd tandem): LS abnormality

Cause

An error detection signal of FM4 is detected continuously for a specified period of time while the motor cooling fan motor (FM4) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Motor cooling fan motor
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 7-H)
3. Replace FM4
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.10 C-1310****Code**

C-1310

Classification

LS (2nd tandem): LS abnormality

Cause

An error detection signal of FM5 is detected continuously for a specified period of time while the paper cooling fan motor /Rr (FM5) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Rr (FM5)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 5-A)
3. Replace FM5.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.11 C-1311****Code**

C-1311

Classification

SD: SD-506 abnormality

Cause

A rotation error detection signal is detected continuously for specified period of time while the scraps removal fan motor (FM1) is started or driving.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Scraps removal fan motor (FM1)
- SD control board (SDCB)
- SD drive board (SDDB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDDB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: SD-506: 26-D)
4. Replace FM1.
5. Replace SDDB.
6. Replace SDCB.

Faulty part isolation DIPSW

DIPSW7-3

Control while detached

The use of the trimmer unavailable

2.13.12 C-1316**Code**

C-1316

Classification

LS (3rd tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan motor /Fr (FM1) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Fr (FM1)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 4-A)
3. Replace FM1.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.13 C-1317****Code**

C-1317

Classification

LS (3rd tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan /1 (FM2) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /1 (FM2)
- LS control board (LSCB)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 6-H)
3. Replace FM2 or FM6.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.14 C-1318****Code**

C-1318

Classification

LS (3rd tandem): LS abnormality

Cause

An error detection signal is detected continuously for a specified period of time while the paper cooling fan /Mi (FM3) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Mi (FM3)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 5-A)
3. Replace FM3.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.15 C-1319****Code**

C-1319

Classification

LS (3rd tandem): LS abnormality

Cause

An error detection signal of FM4 is detected continuously for a specified period of time while the motor cooling fan motor (FM4) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Motor cooling fan motor
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 7-H)
3. Replace FM4
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.16 C-1320****Code**

C-1320

Classification

LS (3rd tandem): LS abnormality

Cause

An error detection signal of FM5 is detected continuously for a specified period of time while the paper cooling fan /Rr (FM5) is ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Paper cooling fan motor /Rr (FM5)
- LS control board (LSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LSCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: LS-505: 5-A)
3. Replace FM5.
4. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.13.17 C-1330****Code**

C-1330

Classification

PB: PB abnormality

Cause

A rotation error detection signal is detected continuously for specified time period while the cover paper tray fan /1 (FM71) is started or driving.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper tray fan /1 (FM71)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PBDB/PBDB1 and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PB-503: 21-D)
3. Replace FM71.
4. Replace PBDB1.

Faulty part isolation DIPSW

DIPSW7-5

Control while detached

Paper feed from the PB is unavailable.

2.13.18 C-1331**Code**

C-1331

Classification

PB: PB abnormality

Cause

A rotation error detection signal is detected continuously for specified time period while the cover paper tray fan /2 (FM72) is started or driving.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper tray fan /2 (FM72)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PBDB/PBDB1 and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PB-503: 21-D)
3. Replace FM72.
4. Replace PBDB1.

Faulty part isolation DIPSW

DIPSW7-5

Control while detached

Paper feed from the PB is unavailable.

2.13.19 C-1332**Code**

C-1332

Classification

PB: PB abnormality

Cause

A rotation error detection signal is detected continuously for a specified time period while the exhaust fan /1 (FM80) is started or driving.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

1. PB control board (PBCB)
2. PB drive board (PBDB)
3. Exhaust fan /1 (FM80)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PBDB/PBDB1 and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PB-503: 3-D, 19-U)
3. Replace FM80, FM97 and FM98.
4. Replace PBDB1 and PBDB3.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.13.20 C-1333**Code**

C-1333

Classification

PB: PB abnormality

Cause

A rotation error detection signal is detected continuously for a specified time period while the exhaust fan /2 (FM81) is started or driving.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- PB control board (PBCB)
- PB drive board (PBDB)
- Exhaust fan /2 (FM81)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PBDB/PBDB1 and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PB-503:3-D)
3. Replace FM81.
4. Replace PBDB1.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.13.21 C-1334**Code**

C-1334

Classification

PB: PB abnormality

Cause

A rotation error detection signal is detected continuously for specified period of time while the pellet supply cooling fan (FM4) is started or driving.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- PB control board (PBCB)
- PB drive board (PBDB)
- Pellet supply cooling fan (FM4)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PBDB/PBDB1 and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: PB-503: 4-D)
3. Replace FM4
4. Replace PBDB1.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.14 Solution 10 (C-1341_1364)**2.14.1 C-1341****Code**

C-1341

Classification

RU: RU-510 abnormality

Cause

Stack assist fan /Fr (FM1) rotation abnormality.

Rotation abnormality detected continuously for the specified time during FM1 operation.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Stack assist fan /Fr (FM1)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUCB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: RU-510: 9-F, 3-B)
3. Replace FM1.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.14.2 C-1342****Code**

C-1342

Classification

RU: RU-510 abnormality

Cause

Stack assist fan /Rr (FM2) rotation abnormality.

Rotation abnormality detected continuously for the specified time during FM2 operation.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Stack assist fan /Rr (FM2)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUCB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: RU-510: 9-F, 3-B)
3. Replace FM2.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.14.3 C-1351****Code**

C-1351

Classification

RU: RU-509 abnormality

Cause

Error detection signals of FM/1, FM/2 and FM/3 are detected continuously for a specified period of time while the entrance paper fans /1 (FM1), /2 (FM2) and /3 (FM3) are ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Entrance paper fan /1 (FM1)
- Entrance paper fan /2 (FM2)
- Entrance paper fan /3 (FM3)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair or replace it if any abnormality. (Wiring diagram: RU-509: 8-F, 9-F)
3. Replace FM1, FM2 and FM3.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached**

2.14.4 C-1352**Code**

C-1352

Classification

RU: RU-509 abnormality

Cause

Error detection signals of FM4 and FM5 are detected continuously for a specified period of time while the ventilation assist fans /1 (FM4) and /2 (FM5) are ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Ventilation assist fan /1 (FM4)
- Ventilation assist fan /2 (FM5)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 9-F, 8-H)
3. Replace FM4 and FM5.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.14.5 C-1353****Code**

C-1353

Classification

RU: RU-509 abnormality

Cause

Error detection signals of FM15, FM16 and FM17 are detected continuously for a specified period of time while the entrance paper fans /4 (FM15), /5 (FM16) and /6 (FM17) are ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Entrance paper fan /4 (FM15)
- Entrance paper fan /5 (FM16)
- Entrance paper fan /6 (FM17)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 17-L, 18-L)
3. Replace FM15, FM16 and FM17.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.14.6 C-1354****Code**

C-1354

Classification

RU: RU-509 abnormality

Cause

Error detection signals of FM18, FM19 and FM20 are detected continuously for a specified period of time while the entrance paper fans /7 (FM18), /8 (FM19) and /9 (FM20) are ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Entrance paper fan /7 (FM18)
- Entrance paper fan /8 (FM19)
- Entrance paper fan /9 (FM20)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 18-L)
3. Replace FM18, FM19 and FM20.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.14.7 C-1355****Code**

C-1355

Classification

RU: RU-509 abnormality

Cause

Error detection signals of FM21 is detected continuously for a specified period of time while the ventilation assist fan /3 (FM21) is ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Jumper connector CN108
- Ventilation assist fan /3 (FM21)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. When HM-102 is not connected, check if the jumper connector CN108 is connected. Connect the connector if it is not connected.
2. Check the connector connection and the wiring between RUCB and the fan, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 19-L)
4. Replace FM21.
5. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.14.8 C-1356****Code**

C-1356

Classification

RU: RU-509 abnormality

Cause

An error detection signal of FM6 is detected continuously for a specified period of time while the humidification section paper fan /1 (FM6) is ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Humidification section paper fan /1 (FM6)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUDB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 19-O)
4. Replace FM6.
5. Replace RUDB.
6. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.14.9 C-1357**Code**

C-1357

Classification

RU: RU-509 abnormality

Cause

An error detection signal of FM7 is detected continuously for a specified period of time while the humidification section paper fan /2 (FM7) is ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Humidification section paper fan /2 (FM7)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUDB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 19-O)
4. Replace FM7.
5. Replace RUDB.
6. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.14.10 C-1358**Code**

C-1358

Classification

RU: RU-509 abnormality

Cause

An error detection signal of FM8 is detected continuously for a specified period of time while the humidification section paper fan /3 (FM8) is ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Humidification section paper fan /3 (FM8)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUDB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 19-O)
4. Replace FM8.
5. Replace RUDB.
6. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.14.11 C-1359**Code**

C-1359

Classification

RU: RU-509 abnormality

Cause

An error detection signal of FM9 is detected continuously for a specified period of time while the humidification section paper fan /4 (FM9) is ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Humidification section paper fan /4 (FM9)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUDB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 16-O)
4. Replace FM9.
5. Replace RUDB.
6. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.14.12 C-1360**Code**

C-1360

Classification

RU: RU-509 abnormality

Cause

An error detection signal of FM10 is detected continuously for a specified period of time while the humidification section paper fan /5 (FM10) is ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Humidification section paper fan /5 (FM10)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUDB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 17-O)
4. Replace FM10.
5. Replace RUDB.
6. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.14.13 C-1361**Code**

C-1361

Classification

RU: RU-509 abnormality

Cause

An error detection signal of FM11 is detected continuously for a specified period of time while the humidification section paper fan /6 (FM11) is ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Humidification section paper fan /6 (FM11)
- RU control board (RUCB)
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between RUDB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 17-O)
4. Replace FM11.
5. Replace RUDB.
6. Replace RUCB

Faulty part isolation DIPSW

DIPSW13-2

Control while detached

Humidification unusable

2.14.14 C-1364**Code**

C-1364

Classification

RU: RU-509 abnormality

Cause

An error detection signal of FM14 is detected continuously for a specified period of time while the humidification section paper fan (FM14) is ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Power supply fan (FM14)
- DC power supply (DCPS)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DCPS and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between RUDB and RUCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: RU-509: 6-I)
4. Replace FM14.
5. Replace DCPS.

Faulty part isolation DIPSW

Control while detached

2.15 Solution 11 (C-1402_1499)

2.15.1 C-1402

Code

C-1402

Classification

FS: FS-532 abnormality

Cause

Non-volatile memory abnormality.

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of FNSCB, and repair it if any abnormality.
3. Reinstalling FS firmware
4. Replace FNSCB.

Faulty part isolation DIPSW

Control while detached

2.15.2 C-1403

Code

C-1403

Classification

FD: FD abnormality

Cause

Non-volatile memory abnormality.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FD control board (FDCB)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of FDCB, and repair it if any abnormality.
3. Reinstalling FD firmware
4. Replace FDCB.

Faulty part isolation DIPSW

Control while detached

2.15.3 C-1404

Code

C-1404

Classification

SD: SD-506 abnormality

Cause

Non-volatile memory abnormality.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- SD control board (SDCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of SDCB, and repair it if any abnormality.
3. Reinstalling SD firmware
4. Replace SDCB.

Faulty part isolation DIPSW**Control while detached****2.15.4 C-1406****Code**

C-1406

Classification

PB: PB abnormality

Cause

Non-volatile memory abnormality in the PB control board (PBCB)

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- Control program

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of PBCB, and repair it if any abnormality.
3. Reinstalling PB firmware
4. Replace PBCB.

Faulty part isolation DIPSW**Control while detached****2.15.5 C-1407****Code**

C-1407

Classification

RU: RU-509 abnormality

Cause

Non-volatile memory abnormality.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of RUCB, and repair it if any abnormality.
3. Reinstall the RU firmware.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.15.6 C-1408****Code**

C-1408

Classification

RU: RU-510 abnormality

Cause

Non-volatile memory abnormality.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- RU control board (RUCB: RU-510)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of RUCB, and repair it if any abnormality.
3. Reinstall the RU firmware.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.15.7 C-1411****Code**

C-1411

Classification

SD: SD-506 abnormality

Cause

5V power abnormality in the SD drive board (SDDB)

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- SD drive board (SDDB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring of SDDB, and repair it if any abnormality.
2. Check the connector connection and the wiring between SDDB and SDCB, and repair it if any abnormality.
3. Replace SDDB.
4. Replace SDCB.

Faulty part isolation DIPSW**Control while detached****2.15.8 C-1412****Code**

C-1412

Classification

FS: FS-532 abnormality

Cause

24V activation failure

Measures to take when alert occurs

The main body and the FS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Power source
- FNS control board (FNSCB)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Confirm the connection from the main body to FS and if the power source is supplied. Modify if any abnormality.
2. Check FNSCB, and replace it if any abnormality.

Faulty part isolation DIPSW**Control while detached****2.15.9 C-1432****Code**

C-1432

Classification

FD: FD abnormality

Cause

Communication error in FD

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Software bug

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.

2. Check the connector connection and the wiring of FDCB, and repair it if any abnormality.
3. Reinstalling FD firmware
4. Replace FDCB.

Faulty part isolation DIPSW
Control while detached

2.15.10 C-1433

Code

C-1433

Classification

SD: SD-506 abnormality

Cause

Communication error in SD

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Software bug

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of SDCB, and repair it if any abnormality.
3. Reinstalling SD firmware
4. Replace SDCB.

Faulty part isolation DIPSW
Control while detached

2.15.11 C-1435

Code

C-1435

Classification

PB: PB abnormality

Cause

Message queue full or the control abnormality of Sub CPU1 in the PB control board (PBCB)

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- Control program

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of PBCB, and repair it if any abnormality.
3. Reinstalling PB firmware
4. Replace PBCB.

Faulty part isolation DIPSW
Control while detached

2.15.12 C-1436

Code

C-1436

Classification

PB: PB abnormality

Cause

Message queue full or the control abnormality of Sub CPU2 in the PB control board (PBCB)

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- Control program

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of PBCB, and repair it if any abnormality.
3. Reinstalling PB firmware

4. Replace PBCB.

Faulty part isolation DIPSW
Control while detached

2.15.13 C-1437

Code

C-1437

Classification

PB: PB abnormality

Cause

Message queue of the communication among tasks in the PB is full.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Control program

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of PBCB, and repair it if any abnormality.
3. Reinstalling PB firmware
4. Replace PBCB.

Faulty part isolation DIPSW
Control while detached

2.15.14 C-1438

Code

C-1438

Classification

RU: RU-509 abnormality

Cause

Communication error in RU

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Software bug

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of RUCB, and repair it if any abnormality.
3. Reinstall the RU firmware.
4. Replace RUCB

Faulty part isolation DIPSW
Control while detached

2.15.15 C-1439

Code

C-1439

Classification

RU: RU-510 abnormality

Cause

Communication error in RU

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Software bug

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of RUCB, and repair it if any abnormality.
3. Reinstall the RU firmware.
4. Replace RUCB

Faulty part isolation DIPSW
Control while detached

2.15.16 C-1442**Code**

C-1442

Classification

FS: FS-532/SD-510 abnormality

Cause

Communication error between FS-532 and SD-510.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNS control board (FNSCB)
- SD control board (SDCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch, and then turn OFF the main power switch. Then unplug all the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the connector connection of the control board and the drive board in each option, and repair it if any abnormality.
4. Rewrite the firmware of the option.
5. Replace the control board of the option corresponds to the malfunction code.

Faulty part isolation DIPSW

DIPSW47-2

Control while detached

The use of half-fold, fold&staple and tri-fold is unavailable.

2.15.17 C-1451**Code**

C-1451

Classification

FD: FD abnormality

Cause

When the FD is unready, a signal to start operations is received from the main body.

Measures to take when alert occurs

The main body and the FD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Software bug

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of FDCB, and repair it if any abnormality.
3. Reinstalling FD firmware
4. Replace FDCB.

Faulty part isolation DIPSW**Control while detached****2.15.18 C-1452****Code**

C-1452

Classification

SD: SD-506 abnormality

Cause

When the SD is unready, a signal to start operations is received from the main body.

Measures to take when alert occurs

The main body and the SD stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Software bug

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of SDCB, and repair it if any abnormality.
3. Reinstalling SD firmware
4. Replace SDCB.

Faulty part isolation DIPSW

Control while detached**2.15.19 C-1454****Code**

C-1454

Classification

PB: PB abnormality

Cause

PB operation prohibition abnormality.

PB received operation start signal from the main body when the PB is unready.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Control program

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of PBCB, and repair it if any abnormality.
3. Reinstalling PB firmware
4. Replace PBCB.

Faulty part isolation DIPSW**Control while detached****2.15.20 C-1455****Code**

C-1455

Classification

RU: RU-509 abnormality

Cause

When RU is unready, a signal to start operations is received from the main body.

Measures to take when alert occurs

The main body and the RU stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Software bug

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of RUCB, and repair it if any abnormality.
3. Reinstall the RU firmware.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.15.21 C-1456****Code**

C-1456

Classification

RU: RU-510 abnormality

Cause

When RU is unready, a signal to start operations is received from the main body.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Software bug

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of RUCB, and repair it if any abnormality.
3. Reinstall the RU firmware.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached**

2.15.22 C-1499**Code**

C-1499

Classification

RU: RU-510 abnormality

Cause

Logical contradiction error

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Software bug

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Turn OFF the sub power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring of RUCB, and repair it if any abnormality.
3. Reinstall the RU firmware.
4. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.16 Solution 12 (C-1501_1656)****2.16.1 C-1501****Code**

C-1501

Classification

PB: PB abnormality

Cause

The entrance conveyance has not been completed within a specified period of time after the entrance conveyance motor (M1) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Entrance conveyance motor (M1)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the entrance conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 1-D)
5. Replace M1.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.2 C-1502**Code**

C-1502

Classification

PB: PB abnormality

Cause

A rotation error detection signal is detected for a specified period of time in succession while the intermediate conveyance motor (M2) is driving.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Intermediate conveyance motor (M2)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the intermediate conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.

3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503:2-D)
5. Replace M2.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.3 C-1504**Code**

C-1504

Classification

PB: PB abnormality

Cause

The SC entrance conveyance has not been completed within a specified period of time after the SC entrance conveyance motor (M11) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- SC entrance conveyance motor (M11)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the SC entrance conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 4-D)
5. Replace M11.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.4 C-1505**Code**

C-1505

Classification

PB: PB abnormality

Cause

The switchback conveyance has not been completed within a specified period of time after the SC switchback conveyance motor (M12) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- SC switchback conveyance motor (M12)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the SC switchback conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 4-D)
5. Replace M12.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.5 C-1506**Code**

C-1506

Classification

PB: PB abnormality

Cause

The switchback roller release operation has not been completed within a specified period of time after the SC switchback release motor (M13) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- SC switchback release motor (M13)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the SC switchback release section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 6-D)
5. Replace M13.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.6 C-1507

Code

C-1507

Classification

PB: PB abnormality

Cause

The SC alignment has not been completed within a specified period of time after SC alignment motor (M15) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- SC alignment motor (M15)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the SC alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503:5-D)
5. Replace M15.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.7 C-1508

Code

C-1508

Classification

PB: PB abnormality

Cause

The SC paper bundle conveyance has not been completed within a specified period of time after the SC bundle conveyance motor (M17) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- SC bundle conveyance motor (M17)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the SC bundle conveyance section, and clean/repair it if any abnormality.

2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503:5-D)
5. Replace M17.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.8 C-1509**Code**

C-1509

Classification

PB: PB abnormality

Cause

The SC roller release operation has not been completed within a specified period of time after the SC roller release motor (M18) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- SC roller release motor (M18)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the SC roller release section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 6-D)
5. Replace M18.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.9 C-1510**Code**

C-1510

Classification

PB: PB abnormality

Cause

The SC entrance movement operation has not been completed within a specified period of time after the clamp entrance movement motor (M19) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Clamp entrance movement motor (M19)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the clamp entrance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 5-D)
5. Replace M19.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.10 C-1511**Code**

C-1511

Classification

PB: PB abnormality

Cause

The clamp entrance roller release operation has not been completed within a specified period of time after the clamp entrance roller release motor (M20) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Clamp entrance roller release motor (M20)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the clamp entrance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 7-D)
5. Replace M20.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.11 C-1512

Code

C-1512

Classification

PB: PB abnormality

Cause

The clamp alignment has not been completed within a specified period of time after clamp alignment motor (M21) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Clamp alignment motor (M21)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the clamp alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 7-D)
5. Replace M21.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.12 C-1513

Code

C-1513

Classification

PB: PB abnormality

Cause

The clamp section open/close operation has not been completed within a specified period of time after the clamp motor (M22) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Clamp motor (M22)

Correction

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the clamp section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.

3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 8-D)
5. Replace M22.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.13 C-1514**Code**

C-1514

Classification

PB: PB abnormality

Cause

The clamp rotation operation has not been completed within a specified period of time after the clamp rotation motor (M23) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Clamp rotation motor (M23)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the clamp section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503:8-D)
5. Replace M23.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.14 C-1515**Code**

C-1515

Classification

PB: PB abnormality

Cause

The glue tank movement operation has not been completed within a specified period of time after the glue tank movement motor (M31) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Glue tank movement motor (M31)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the glue tank movement section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 8-D)
5. Replace M31.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.15 C-1516**Code**

C-1516

Classification

PB: PB abnormality

Cause

A rotation error detection signal is detected for a specified period of time in succession while the glue apply roller motor (M32) is driving.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the glue apply section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503:9-D)
5. Replace M32.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.16 C-1517**Code**

C-1517

Classification

PB: PB abnormality

Cause

The count of a specified number of pellets, which is counted by the pellet supply passage sensor (PS37), has not been reached after the pellet supply pipe motor (M33) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Pellet supply pipe motor (M33)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the pellet supply section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 10-D)
5. Replace M33.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.17 C-1518**Code**

C-1518

Classification

PB: PB abnormality

Cause

The operation of the pellet supply arm has not been completed within a specified period of time after the pellet supply arm motor (M34) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Pellet supply arm motor (M34)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the pellet supply section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.

3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 10-D)
5. Replace M34.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.18 C-1519**Code**

C-1519

Classification

PB: PB abnormality

Cause

The alignment in the cover paper table up/down section has not been completed within a specified period of time after the cover paper alignment motor (M41) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper alignment motor (M41)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503:12-D)
5. Replace M41.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.19 C-1520**Code**

C-1520

Classification

PB: PB abnormality

Cause

The booklet exit has not been completed within a specified period of time after the booklet exit motor (M42) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Booklet exit motor (M42)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the booklet exit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 12-D)
5. Replace M42.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.20 C-1521**Code**

C-1521

Classification

PB: PB abnormality

Cause

The driven arm /Rt swing operation start has not been completed within a specified period of time after the cover paper conveyance arm motor /Rt (M43) turns ON

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper conveyance arm motor /Rt (M43)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503:12-D)
5. Replace M43.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.21 C-1522**Code**

C-1522

Classification

PB: PB abnormality

Cause

The driven arm /Lt swing operation start has not been completed within a specified period of time after the cover paper conveyance arm motor /Lt (M44) turns ON

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper conveyance arm motor /Lt (M44)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 13-D)
5. Replace M44.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.22 C-1523**Code**

C-1523

Classification

PB: PB abnormality

Cause

The cover paper conveyance start has not been completed within a specified period of time after cover paper conveyance motor (M45) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper conveyance motor (M45)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper conveyance section, and clean/repair it if any abnormality.

2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 13-D)
5. Replace M45.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.23 C-1524**Code**

C-1524

Classification

PB: PB abnormality

Cause

The cover paper table up or down movement has not been completed within a specified period of time after the cover paper table up down motor /Fr (M46) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper table up down motor /Fr (M46)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper table up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:PB-503: 11-D)
5. Replace M46.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.24 C-1525**Code**

C-1525

Classification

PB: PB abnormality

Cause

The cover paper table up or down movement has not been completed within a specified period of time after the cover paper table up down motor /Rr (M47) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper table up down motor /Rr (M47)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper table up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:PB-503: 11-D)
5. Replace M47.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.25 C-1526**Code**

C-1526

Classification

PB: PB abnormality

Cause

The movement of the cover paper folding plate /Rt has not been completed within a specified period of time after the cover paper folding motor /Rt (M48) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper folding motor /Rt (M48)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper folding section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:PB-503: 14-D)
5. Replace M48.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.26 C-1527**Code**

C-1527

Classification

PB: PB abnormality

Cause

The movement of the cover paper folding plate /Lt has not been completed within a specified period of time after the cover paper folding motor /Lt (M49) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper folding motor /Lt (M49)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper folding section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:PB-503: 14-D)
5. Replace M49.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.27 C-1528**Code**

C-1528

Classification

PB: PB abnormality

Cause

The trimming of the cover paper has not been completed within a specified period of time after the cutter motor (M50) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cutter motor (M50)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the trimmer section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:PB-503: 14-D)
5. Replace M50.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.28 C-1530**Code**

C-1530

Classification

PB: PB abnormality

Cause

The booklet movement of the booklet conveyance section has not been completed within a specified period of time after the booklet conveyance belt motor (M61) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Booklet conveyance belt motor (M61)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the booklet conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:PB-503: 15-D)
5. Replace M61.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.29 C-1531**Code**

C-1531

Classification

PB: PB abnormality

Cause

The size changing operation of the carriage section has not been completed within a specified period of time after the booklet conveyance belt movement motor (M62) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Booklet conveyance belt movement motor (M62)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the booklet conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:PB-503: 15-D)
5. Replace M62.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.30 C-1532**Code**

C-1532

Classification

PB: PB abnormality

Cause

The up/down movement operation of the carriage section has not been completed within a specified period of time after the booklet conveyance belt up down motor (M63) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Booklet conveyance belt up down motor (M63)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the booklet conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 16-D)
5. Replace M63.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.31 C-1534**Code**

C-1534

Classification

PB: PB abnormality

Cause

The booklet rear edge pressing process has not been completed within a specified period of time after the booklet stopper motor (M65) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Booklet stopper motor (M65)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the booklet conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 16-D)
5. Replace M65.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-6

Control while detached

Ejecting onto the sub tray is possible.

2.16.32 C-1537**Code**

C-1537

Classification

PB: PB abnormality

Cause

The tray moving up process has not been completed within a specified period of time after the cover paper tray lift motor (M73) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper tray lift motor (M73)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper tray section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 19-D)
5. Replace M73.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-5

Control while detached

Paper feed from the PB is unavailable.

2.16.33 C-1538**Code**

C-1538

Classification

PB: PB abnormality

Cause

The cover paper feed has not been completed within a specified period of time after the cover paper feed motor (M74) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB control board (PBCB)
- PB drive board (PBDB)
- Cover paper feed motor (M74)

Correction**Note**

- The message "Please call service" is displayed on the panel.

Solution

1. Check the cover paper feed section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB/PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB/PBDB1 and PBCB, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 17-D)
5. Replace M74.
6. Replace PBDB1.
7. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-5

Control while detached

Paper feed from the PB is unavailable.

2.16.34 C-1540**Code**

C-1540

Classification

PB: PB abnormality

Cause

After the warm-up is started, temperature detected by the glue tank temperature sensor /Md (TH3) has not risen to a prescribed level within a specified time period.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Md (TH3)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH3.
6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.35 C-1541**Code**

C-1541

Classification

PB: PB abnormality

Cause

After the warm-up is started, temperature detected by the glue tank temperature sensor /Lw (TH4) has not risen to a prescribed level within a specified time period.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Lw (TH4)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH4.
6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.36 C-1542**Code**

C-1542

Classification

PB: PB abnormality

Cause

After the warm-up is started, temperature detected by the glue apply roller temperature sensor (TH1) has not risen to a prescribed level within a specified time period.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue apply roller temperature sensor (TH1)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue apply heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH1.
6. Replace H2.
7. Replace ACDB.

8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.37 C-1543

Code

C-1543

Classification

PB: PB abnormality

Cause

After the pellet supply, temperature detected by the glue tank temperature sensor /Up (TH2) has not risen to a prescribed level within a specified period of time.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Up (TH2)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH2.
6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.38 C-1544

Code

C-1544

Classification

PB: PB abnormality

Cause

During standby, after the glue tank heater (H1) is turned ON, temperature detected by the glue tank temperature sensor /Md (TH3) has not risen to a prescribed level within a specified time period.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Md (TH3)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH3.
6. Replace H1.

7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.39 C-1545**Code**

C-1545

Classification

PB: PB abnormality

Cause

When the prescribed temperature is obtained and after the glue tank heater (H1) is turned ON, temperature detected by the glue tank temperature sensor /Lw (TH4) has not risen to a prescribed level within a specified time period.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Lw (TH4)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH4.
6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.40 C-1546**Code**

C-1546

Classification

PB: PB abnormality

Cause

When the prescribed temperature is obtained and after the glue tank heater (H1) is turned ON, temperature detected by the glue apply roller temperature sensor (TH1) has not risen to a prescribed level within a specified time period.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue apply roller temperature sensor (TH1)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue apply heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH1.

6. Replace H2.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.41 C-1547**Code**

C-1547

Classification

PB: PB abnormality

Cause

The glue apply roller temperature sensor (TH1) detects an abnormal high temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue apply roller temperature sensor (TH1)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue apply heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH1.
6. Replace H2.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.42 C-1548**Code**

C-1548

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Up (TH2) detects an abnormal high temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Up (TH2)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH2.
6. Replace H1.

7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.43 C-1549**Code**

C-1549

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Md (TH3) detects an abnormal high temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Md (TH3)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH3.
6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.44 C-1550**Code**

C-1550

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Lw (TH4) detects an abnormal high temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Lw (TH4)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH4.
6. Replace H1.
7. Replace ACDB.

8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.45 C-1551

Code

C-1551

Classification

PB: PB abnormality

Cause

The glue apply roller temperature sensor (TH1) detects an abnormal high temperature (hardware) TH1 detects an abnormal high temperature of the glue apply roller.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue apply roller temperature sensor (TH1)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue apply heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH1.
6. Replace H2.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.46 C-1552

Code

C-1552

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Up (TH2) detects an abnormal high temperature (hardware). TH2 detects an abnormal high temperature of the glue tank.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Up (TH2)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH2.
6. Replace H1.

7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.47 C-1553**Code**

C-1553

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Md (TH3) detects an abnormal high temperature (hardware). TH3 detects an abnormal high temperature of the glue tank.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Md (TH3)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH3.
6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.48 C-1554**Code**

C-1554

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Lw (TH4) detects an abnormal high temperature (hardware). TH4 detects an abnormal high temperature of the glue tank.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Lw (TH4)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH4.

6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.49 C-1555**Code**

C-1555

Classification

PB: PB abnormality

Cause

After warming-up is completed, the glue apply roller temperature sensor (TH1) detects an abnormal low temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue apply roller temperature sensor (TH1)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue apply heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH1.
6. Replace H2.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.50 C-1556**Code**

C-1556

Classification

PB: PB abnormality

Cause

When glue supply control temperature is reached, the glue tank temperature sensor /Up (TH2) detects an abnormal low temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Up (TH2)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH2.
6. Replace H1.

7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.51 C-1557**Code**

C-1557

Classification

PB: PB abnormality

Cause

After warming-up is completed, the glue tank temperature sensor /Md (TH3) detects an abnormal low temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Md (TH3)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH3.
6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.52 C-1558**Code**

C-1558

Classification

PB: PB abnormality

Cause

After warming-up is completed, the glue tank temperature sensor /Lw (TH4) detects an abnormal low temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Lw (TH4)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH4.
6. Replace H1.
7. Replace ACDB.

8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.53 C-1559

Code

C-1559

Classification

PB: PB abnormality

Cause

The glue apply roller temperature sensor (TH1) detects an abnormal low temperature (hardware). After warming-up is completed, TH1 detects the glue apply roller error signal of abnormal low temperature.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue apply roller temperature sensor (TH1)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue apply heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH1.
6. Replace H2.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.54 C-1560

Code

C-1560

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Up (TH2) detects an abnormal low temperature (hardware). After glue supply control temperature is reached, TH2 detects the glue tank error signal of abnormal low temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Up (TH2)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 9-U)
5. Replace TH2.
6. Replace H1.

7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.55 C-1561**Code**

C-1561

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Md (TH3) detects an abnormal low temperature (hardware). After warming-up is completed, TH3 detects the glue tank error signal of abnormal low temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Md (TH3)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH3.
6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.56 C-1562**Code**

C-1562

Classification

PB: PB abnormality

Cause

The glue tank temperature sensor /Lw (TH4) detects an abnormal low temperature (hardware). After warming-up is completed, TH4 detects the glue tank error signal of abnormal low temperature.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- AC drive board (ACDB)
- Glue tank heater (H1)
- Glue apply roller heater (H2)
- PB control board (PBCB)
- PB drive board (PBDB)
- Glue apply roller motor (M32)
- Glue tank temperature sensor /Lw (TH4)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

WARNING

- If DipSW3-1 is set to 0 before defective parts are fixed, it causes fire.

Solution

1. Check the glue tank heater, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBCB and the temperature sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and the heater, and repair it if any abnormality.
4. Check the installation conditions of the heater and the temperature sensor, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 27-Q, 10-U)
5. Replace TH4.

6. Replace H1.
7. Replace ACDB.
8. Replace PBCB.

Faulty part isolation DIPSW

DIPSW7-7

Control while detached

The use of the PB is unavailable

2.16.57 C-1565**Code**

C-1565

Classification

PB: PB abnormality

Cause

Relay conveyance motor drive abnormality

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

The relay conveyance does not start within the specified period of time after M92 turns ON.

Estimated abnormal parts

- Relay conveyance motor (M92)
- PB control board (PBCB)
- PB drive board (PBDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Solution

1. Check the relay conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB2 and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 23-V)
4. Replace M92.
5. Replace PBDB2.
6. Replace PBCB.

Faulty part isolation DIPSW**Control while detached****2.16.58 C-1566****Code**

C-1566

Classification

PB: PB abnormality

Cause

Relay conveyance exit motor drive abnormality

A rotation error detection signal is detected for a specified period of time in succession while the relay conveyance exit motor (M91) is driving.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Relay conveyance exit motor (M91)
- PB control board (PBCB)
- PB drive board (PBDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Solution

1. Check the relay conveyance paper exit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB1 and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between PBDB2 and the motor, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 26-W)
5. Replace M91.
6. Replace PBDB2.
7. Replace PBDB1.
8. Replace PBCB.

Faulty part isolation DIPSW**Control while detached****2.16.59 C-1567****Code**

C-1567

Classification

PB: PB abnormality

Cause

Pellet supply pipe motor drive abnormality

The pellet supply pipe has not completed the operations within a specified period of time after the pellet supply pipe motor (M33) turns ON.

Measures to take when alert occurs

The main body and the PB stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Pellet supply pipe motor (M33)
- PB control board (PBCB)

- PB drive board (PBDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Solution

1. Check the pellet supply section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PBDB1 and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: PB-503: 10-D)
4. Replace M33.
5. Replace PBDB1.
6. Replace PBCB.

Faulty part isolation DIPSW**Control while detached****2.16.60 C-1651****Code**

C-1651

Classification

LS (3rd tandem): LS abnormality

Cause

The stacker tray encoder sensor (PS2) does not turn ON within a specified period of time after the stacker tray up down motor (M1) turns ON. Or, the initial operation or the stacker tray down operation is not completed within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram:LS-505:5-A)
5. Replace PS2.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

The use of the tandem (3rd) LS is unavailable

2.16.61 C-1652**Code**

C-1652

Classification

LS (3rd tandem): LS abnormality

Cause

The shift unit home sensor (PS11) does not turn ON within a specified period of time after the shift unit motor (M5) turns ON. Or, PS11 does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Shift unit motor (M5)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the shift unit section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 6-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-H)
5. Replace PS11.
6. Replace M5.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

The use of the tandem (3rd) LS is unavailable

2.16.62 C-1653**Code**

C-1653

Classification

LS (3rd tandem): LS abnormality

Cause

The alignment plate home sensor (PS12) does not turn ON within a specified period of time after the alignment motor (M7) turns ON. Or, PS12 does not turn ON within a specified period of time.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Alignment motor (M7)
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the alignment section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-H)
5. Replace PS12.
6. Replace M7.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

The use of the tandem (3rd) LS is unavailable

2.16.63 C-1654**Code**

C-1654

Classification

LS (3rd tandem): LS abnormality

Cause

The grip conveyance home sensor (PS5) does not turn ON within a specified period of time after the grip conveyance motor (M4) turns ON.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Grip conveyance motor (M4)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the grip conveyance section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/sensor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 6-A)
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 2-H)
5. Replace PS5.
6. Replace M4.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

The use of the tandem (3rd) LS is unavailable

2.16.64 C-1655**Code**

C-1655

Classification

LS (3rd tandem): LS abnormality

Cause

The stacker tray upper limit switch (MS2) is ON when the stacker tray up down motor (M1) is in the up operation.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- Stacker tray upper limit switch (MS2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/switch, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-A)
4. Check the operation of the switch, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
5. Replace MS2.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

The use of the tandem (3rd) LS is unavailable

2.16.65 C-1656**Code**

C-1656

Classification

LS (3rd tandem): LS abnormality

Cause

The stacker tray lower limit switch (MS3) is ON when the stacker tray up down motor (M1) is in the down operation.

Measures to take when alert occurs

The main body and the LS stop immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Stacker tray up down motor (M1)
- Stacker tray lower limit switch (MS3)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the stacker tray up down section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between LSCB and motor/switch, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 5-A)
4. Check the operation of the switch, and repair/replace it if any abnormality. (Wiring diagram: LS-505: 7-A)
5. Replace MS3.
6. Replace M1.
7. Replace LSCB.

Faulty part isolation DIPSW

DIPSW6-6

Control while detached

The use of the tandem (3rd) LS is unavailable

2.17 Solution 13 (C-2101_2300)**2.17.1 C-2101****Code**

C-2101

Classification

Main body: Wire cleaning abnormality

Cause

Charger cleaning motor (M23) operation time abnormality.

- When the charger cleaning home sensor (PS26) is OFF with the main power switch (SW1) ON, PS26 does not turn ON within 20 seconds after the M23 turns ON for home position research operation (return operation). At this time, an error detection signal (blowout of ICP) is not detected.
- PS26 does not turn OFF within 5 seconds after the reverse operation (return operation) is started. At this time, an error detection signal (blowout of ICP) is not detected.
- The charge cleaning limit sensor (PS27) does not turn ON within a specified period of time after the reverse operation (return operation) is started for detection of PS26 being OFF. Or, PS26 does not turn ON within a specified period of time after PS27 turns ON. At this time, an error detection signal (blowout of ICP) is not detected.
- When PS26 and PS27 are ON at the start of cleaning operation

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Charger cleaning limit sensor (PS26)
- Charger cleaning limit sensor (PS27)
- Charger cleaning motor (M23)
- Web motor (M24)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 16-I, 3-A)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 16-I, 17-I)
4. Replace PS26 or PS27.
5. Replace M23 or M24.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.2 C-2102****Code**

C-2102

Classification

Main body : Wire cleaning abnormality

Cause

Charger cleaning motor (M23) power abnormality.

- When the charger cleaning home sensor (PS26) is OFF with the main power switch (SW1) ON, PS26 does not turn ON within 20 seconds after the M23 turns ON for home position research operation (return operation). And at this time, an error detection signal (blowout of ICP) is detected.
- PS26 does not turn OFF within 5 seconds after the reverse operation (return operation) is started. And at this time, an error detection signal (blowout of ICP) is detected.
- The charge cleaning limit sensor (PS27) does not turn ON within a specified period of time after the reverse operation (return operation) is started for detection of PS26 being OFF. Or, PS26 does not turn ON within a specified period of time after PS26 turns ON. At this time, an error detection signal (blowout of ICP) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Charger cleaning motor (M23)
- Web motor (M24)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 16-I, Main body (2/4): 3-A)
3. Replace M23, M24 and PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.3 C-2103****Code**

C-2103

Classification

Main body: Wire cleaning abnormality

Cause

Charger cleaning motor (M23) drive abnormality.

A motor lock signal is detected while moving from the charger cleaning limit sensor (PS27) side to the charge cleaning home sensor (PS26) side, and after a retry operation, a fifth motor lock signal is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Charger cleaning motor (M23)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 16-I)
3. Replace M23.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.4 C-2201****Code**

C-2201

Classification

Main body: Motor abnormality

Cause

Toner bottle motor (M6) speed abnormality.

An error detection signal is detected twice in succession within a specified period of time after M6 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Toner bottle motor (M6)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the toner bottle installation section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 7-D, 9-P)
4. Replace M6.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.5 C-2202****Code**

C-2202

Classification

Main body: Motor abnormality

Cause

Developing motor (M3) speed abnormality.

Since an error detection signal is detected a second after M3 turns ON, turn OFF M3 for 0.5 seconds. Then, an error detection signal is detected again a second after it is turned ON again.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Developing motor (M3)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the developing sleeve, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 16-P)
4. Replace M3.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.6 C-2203****Code**

C-2203

Classification

Main body: Motor abnormality

Cause

The locking of the blade motor (M22) is detected.

The error detection signal (over current) of M22 is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Blade motor (M22)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the trimmer blade operation, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 14-I)

4. Replace M22.
5. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.17.7 C-2204

Code

C-2204

Classification

Main body: Motor abnormality

Cause

Drum motor (M2) drive abnormality + 24V power abnormality.

The drum READY1 signal (READY condition) cannot be detected within a specified period of time after the drum motor (M2) turns ON. Or, the drum READY1 signal (READY release condition) cannot be detected within a specified period of time after M2 turns OFF. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- DC power supply /1 (DCPS/1)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /1, and repair it if any abnormality.
2. Replace PRCB.
3. Replace DCPS /1.

Faulty part isolation DIPSW
Control while detached

2.17.8 C-2205

Code

C-2205

Classification

Main body: Motor abnormality

Cause

Drum motor (M2) power abnormality.

The drum READY1 signal (READY condition) cannot be detected within a specified period of time after the drum motor (M2) turns ON. Or, the drum READY1 signal (READY release condition) cannot be detected within a specified period of time after M2 turns OFF. At this time, an error detection signal (blowout of ICP) of the blade motor (M22) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum motor (M2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 17-P)
3. Replace M2.
4. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.17.9 C-2206

Code

C-2206

Classification

Main body: Motor abnormality

Cause

Drum motor (M2) drive abnormality.

- The drum READY1 signal (READY condition) cannot be detected within a specified period of time after the drum motor (M2) turns ON. Or, the drum READY1 signal (READY release condition) cannot be detected within a specified period of time after M2 turns OFF. At this time, an error detection signal is not detected.
- The blade sensors /1 (PS24) and /2 (PS25) detect the condition of pressure or replacement position before the blade pressure signal turns ON.
- The blade sensors /1 (PS24) and /2 (PS25) detect the condition of replacement position when the blade pressure signal turns READY.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Blade sensor /1 (PS24)
- Blade sensor /2 (PS25)
- Drum motor (M2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 14-I, 15-I)
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 17-P)
4. Replace PS24 or PS25.
5. Replace M2.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.10 C-2207****Code**

C-2207

Classification

Main body: Motor abnormality

Cause

Drum motor (M22) drive abnormality + 24V power abnormality.

The blade READY signal (READY condition) cannot be detected within a specified period of time after the blade replacement signal turns ON. Or, the blade READY signal (READY release condition) cannot be detected within a specified period of time after the blade replacement signal turns OFF. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Replace PRCB.
3. Replace DCPS /2

Faulty part isolation DIPSW**Control while detached****2.17.11 C-2208****Code**

C-2208

Classification

Main body: Motor abnormality

Cause

Blade motor (M22) power abnormality.

The blade READY signal (READY condition) cannot be detected within a specified period of time after the blade replacement signal turns ON. Or, the blade READY signal (READY release condition) cannot be detected within a specified period of time after the blade replacement signal turns OFF. At this time, an error detection signal (blowout of ICP) of the blade motor (M22) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Blade motor (M22)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 14-I)
3. Replace M22 and PRCB at a time.

Faulty part isolation DIPSW**Control while detached**

2.17.12 C-2209**Code**

C-2209

Classification

Main body: Motor abnormality

Cause

It is checked that the movement of the blade motor (M22) is not completed.

The blade READY signal (READY condition) cannot be detected within a specified period of time after the blade replacement signal turns ON. Or, the blade READY signal (READY release condition) cannot be detected within a specified period of time after the blade replacement signal turns OFF. At this time, an error detection signal is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Blade motor (M22)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the trimmer blade operation, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 14-I)
4. Replace M22.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.13 C-2210****Code**

C-2210

Classification

Main body: Motor abnormality

Cause

The drum motor (M2) does not start.

The drum READY2 signal (READY signal) is not detected within a specified period of time after M2 turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum motor (M2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 17-P)
3. Replace M2.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.14 C-2211****Code**

C-2211

Classification

Main body: Motor abnormality

Cause

Intermediate hopper motor (M11) power abnormality.

An error detection signal (blowout of ICP) is detected when M11 turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Intermediate hopper motor (M11)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 2-P)
3. Replace M11 and PRCB at a time.

Faulty part isolation DIPSW**Control while detached****2.17.15 C-2212****Code**

C-2212

Classification

Main body: Motor abnormality

Cause

Air separation motor (M10) power abnormality.

An error detection signal (blowout of ICP) is detected when M10 turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Air separation motor (M10)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 2-P)
3. Replace M10 and PRCB at a time.

Faulty part isolation DIPSW**Control while detached****2.17.16 C-2213****Code**

C-2213

Classification

Main body: Motor abnormality

Cause

Air separation motor (M10) rotation abnormality.

Since an error is detected when M10 turns ON, turn it OFF. An error is still detected when turn it ON again.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Air separation motor (M10)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the air separation section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 2-P)
4. Replace M10.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.17 C-2214****Code**

C-2214

Classification

Main body: Motor abnormality

Cause

The toner conveyance abnormality is detected.

When executing the toner supply operation for 8 minutes, the intermediate hopper toner remaining sensor (PS39) does not turn ON and the hopper toner remaining sensor /2 (PS33) detects ON in succession for 15 seconds.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Intermediate hopper toner remaining sensor (PS39)
- Hopper toner remaining sensor /2 (PS33)
- Printer control board (PRCB)

Correction

Turn OFF/ON the power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the hopper section and the intermediate hopper section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the sensor, and repair it if any abnormality.
3. Check the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 6-D, 8-P, 3-P)
4. Replace PS39.
5. Replace PS33.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.18 C-2215****Code**

C-2215

Classification

Main body: Motor abnormality

Cause

Hopper toner remaining sensor /2 (PS33) abnormality.

When the toner is supplied for 8minutes, it is found that the toner remaining sensor /1 (PS32) does not turn ON and the hopper toner remaining sensor /2 (PS33) turns OFF for the last 15 seconds in succession.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Hopper toner remaining sensor /1 (PS32)
- Hopper toner remaining sensor /2 (PS33)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the hopper section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the sensor, and repair it if any abnormality.
3. Check the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 6-D, 7-P, 8-P)
4. Replace PS32.
5. Replace PS33.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.19 C-2217****Code**

C-2217

Classification

Main body: Motor abnormality

Cause

Leakage at the mixing section is detected.

When the toner pump motor (M28) is operating, the cup section toner remaining sensor (PS34) detects the toner being provided in succession for seconds.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Cup section toner remaining sensor (PS34)
- Toner pump motor (M28)
- Printer control board (PRCB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the toner mixing section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality.
3. Check the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 7-D, 8-P)
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 3-P)
5. Replace PS34.
6. Replace M28.
7. Replace PRCB.

Faulty part isolation DIPSW**Control while detached**

2.17.20 C-2220**Code**

C-2220

Classification

Main body: Motor abnormality

Cause

Toner pump motor (M28) rotation abnormality + 24V power abnormality.

While M28 is rotating, an error detection signal (abnormal rotation/24V cut off) is detected for more than 1second.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Replace DCPS /2.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.21 C-2221****Code**

C-2221

Classification

Main body: Motor abnormality

Cause

Toner pump motor (M28) power abnormality.

While M28 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an abnormality signal (blowout of ICP) is detected, but no abnormality signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Toner pump motor (M28)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 3-P)
3. Replace M28 and PRCB at a time.

Faulty part isolation DIPSW**Control while detached****2.17.22 C-2222****Code**

C-2222

Classification

Main body: Motor abnormality

Cause

Toner pump motor (M28) rotation abnormality.

While M28 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an error detection signal (blowout of ICP/24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Toner pump motor (M28)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- **The message "Please call service" is displayed on the panel.**

Solution

1. Check the toner pump section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.

3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 3-P)
4. Replace M28.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.23 C-2224****Code**

C-2224

Classification

Main body: Motor abnormality

Cause

Air pump motor (M29) rotation abnormality + 24V power abnormality.

While M29 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an error signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Replace DCPS /2.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.24 C-2225****Code**

C-2225

Classification

Main body: Motor abnormality

Cause

Air pump motor (M29) power abnormality.

While M29 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an abnormality signal (blowout of ICP) is detected, but no abnormality signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Air pump motor (M29)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 4-P)
3. Replace M29 and PRCB at a time.

Faulty part isolation DIPSW**Control while detached****2.17.25 C-2226****Code**

C-2226

Classification

Main body: Motor abnormality

Cause

Air pump motor (M29) rotation abnormality.

While M29 is rotating, an error detection signal (abnormal rotation) is detected for more than 1second. At this time, an error detection signal (blowout of a fuse/24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Air pump motor (M29)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the air pump section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 4-P)
4. Replace M29.
5. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.17.26 C-2227

Code

C-2227

Classification

Main body: Motor abnormality

Cause

Developing screw motor (M21) rotation abnormality.

The M21EM error detection signal is detected twice in succession within a specified period of time after M21 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Developing screw motor (M21)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the developing screw section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 19-P)
4. Replace M21.
5. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.17.27 C-2228

Code

C-2228

Classification

Main body: Motor abnormality

Cause

The transfer belt motor (M30) rotation abnormality.

The M30EM error detection signal is detected twice in succession within a specified period of time after M30 was turned ON. However, an error detection signal (blowout of ICP) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Transfer belt motor (M30)
- ADU drive board (ADUDB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the transfer belt, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ADUDB and the motor, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (2/4): 6-P)
5. Replace M30.
6. Replace PRCB.
7. Replace ADUDB.

Faulty part isolation DIPSW

Control while detached

2.17.28 C-2230**Code**

C-2230

Classification

Main body: Motor abnormality

Cause

Waste toner box swing motor (M19) drive abnormality.

The waste toner box swing sensor (PS15) ON or OFF is not detected twice in succession within a specified period of time after M19 turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Waste toner box swing sensor (PS15)
- Waste toner box swing motor (M19)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the waste toner box swing section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality.
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 7-P)
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 11-P)
5. Replace PS15.
6. Replace M19.
7. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.29 C-2231****Code**

C-2231

Classification

Main body: Motor abnormality

Cause

De-curler motor (M32) rotation abnormality.

The M32EM error detection signal is detected twice in succession within a specified period of time after M32 was turned ON, and the main door detection is Close.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- De-curler motor (M32)
- ADU drive board (ADUDB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the de-curler section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the connector connection and the wiring between ADUDB and the motor, and repair it if any abnormality.
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 4-P)
5. Replace M32.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.30 C-2233****Code**

C-2233

Classification

Main body: Motor abnormality

Cause

Waste toner box swing motor (M19) rotation abnormality.

The M19EM error detection signal is not detected twice in succession within a specified period of time after M19 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Waste toner box swing motor (M19)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the waste toner box swing section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 11-P)
4. Replace M19.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.31 C-2234****Code**

C-2234

Classification

Main body: Motor abnormality

Cause

Transfer belt pressure release motor (M26) operation time abnormality 1.

When M26 moves from the HP position to the pressure position, the transfer pressure position sensor /1 or /2 (PS55 or PS56) does not turn ON within a specified period of time. At this time, the main door detection is Close.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Transfer pressure position sensor /1 (PS55)
- Transfer pressure position sensor /2 (PS56)
- Transfer belt pressure release motor (M26)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the transfer belt pressure release section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between ADUDB and motor/sensor, and repair it if any abnormality.
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 20-J)
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (2/4): 20-P)
5. Replace PS55 or PS56.
6. Replace M26.
7. Replace ADUDB.

Faulty part isolation DIPSW**Control while detached****2.17.32 C-2235****Code**

C-2235

Classification

Main body: Motor abnormality

Cause

Transfer belt pressure release motor (M26) operation time abnormality 2.

- The transfer pressure home sensor (PS54) ON is not detected within a specified period of time after the main power turns ON. At this time, the main door detection is Close.
- When M26 moves from the pressure position to the HP position, PS54 does not turn ON within a specified period of time. At this time, the main door detection is Close.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Transfer pressure home sensor (PS54)
- Transfer belt pressure release motor (M26)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the transfer belt pressure release section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between ADUDB and motor/sensor, and repair it if any abnormality.
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 19-J)
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (2/4): 20-P)
5. Replace PS54.

6. Replace M26.
7. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.17.33 C-2236

Code

C-2236

Classification

Main body: Motor abnormality

Cause

Abnormality of the transfer belt pressure release motor (M26) IC in the ADU drive board (ADUDB).
 An error detection signal of M26 is detected after the print is started.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Transfer belt pressure release motor (M26)
- ADU drive board /1 (ADUDB1)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ADUDB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 20-P)
3. Replace M26 and ADUDB at a time.

Faulty part isolation DIPSW
Control while detached

2.17.34 C-2237

Code

C-2237

Classification

Main body: Motor abnormality

Cause

Waste toner motor (M9) rotation abnormality.
 The M9EM error detection signal is detected twice in succession within a specified period of time after M9 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Waste toner motor (M9)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the waste toner section, and clean/repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 20-P)
4. Replace M9.
5. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.17.35 C-2238

Code

C-2238

Classification

Main body: Motor abnormality

Cause

Blade motor (M22) abnormality.
 Waste blade motor does not move to the weak pressure position within a specified period of time after M22 turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Blade sensor /1 (PS24)
- Blade sensor /2 (PS25)
- Blade motor (M22)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 14-I)
3. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 14-I, 15-I)
4. Replace PS24 or PS25.
5. Replace M22.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.17.36 C-2241****Code**

C-2241

Classification

Main body: Motor abnormality

Cause

Abnormality of the intermediate hopper motor (M11) drive in the printer control board (PRCB).

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Intermediate hopper motor (M11)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 2-P)
3. Replace M11 and PRCB at a time.

Faulty part isolation DIPSW**Control while detached****2.17.37 C-2242****Code**

C-2242

Classification

Main body: Motor abnormality

Cause

Drum cleaner motor (M35) abnormality

The M35 EM error detection signal is detected twice in succession within a specified period of time after M35 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum cleaner motor (M35)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Rotate the motor by I/O or hand, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 15-P)
3. Replace M35.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18 Solution 14 (C-2301_3999)****2.18.1 C-2304****Code**

C-2304

Classification

Main body: Fan abnormality

Cause

Developing suction fan (FM22) rotation abnormality + 24V power abnormality.

The FM5 EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.2 C-2306****Code**

C-2306

Classification

Main body: Fan abnormality

Cause

Developing suction fan (FM22) rotation abnormality.

The FM5 EM error detection signal is detected twice in succession within a specified period of time after FM22 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Developing suction fan (FM22)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 13-A)
3. Replace FM22.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.3 C-2307****Code**

C-2307

Classification

Main body: Fan abnormality

Cause

Developing cooling fan /Up (FM31) rotation abnormality + 24V power abnormality.

The FM31EM error detection signal is detected twice in succession within a specified period of time after FM31 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.4 C-2309****Code**

C-2309

Classification

Main body: Fan abnormality

Cause

Developing cooling fan (FM31) rotation abnormality.

The FMx EM error detection signal is detected twice in succession within a specified period of time after FMx was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Developing cooling fan (FM31)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 11-A)
3. Replace FM31.
4. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.18.5 C-2311

Code

C-2311

Classification

Main body: Fan abnormality

Cause

Developing cooling fan (FM11) rotation abnormality + 24V power abnormality.

The FM11EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- AC drive board (ACDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace ACDB.

Faulty part isolation DIPSW

Control while detached

2.18.6 C-2313

Code

C-2313

Classification

Main body: Fan abnormality

Cause

Pump cooling fan (FM11) rotation abnormality.

The FM11 EM error detection signal is detected twice in succession within a specified period of time after FM11 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Pump cooling fan (FM11)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 11-A)
4. Replace FM11.
5. Replace PRCB.
6. Replace ACDB.

Faulty part isolation DIPSW

Control while detached

2.18.7 C-2317**Code**

C-2317

Classification

Main body: Fan abnormality

Cause

Charger exhaust fan (FM44) rotation abnormality + 24V power abnormality.

The FM44 EM error detection signal is detected twice in succession within a specified period of time after FM44 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- AC drive board (ACDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.8 C-2318****Code**

C-2318

Classification

Main body: Fan abnormality

Cause

Charger exhaust fan (FM44) rotation abnormality.

The FM44 EM error detection signal is detected twice in succession within a specified period of time after FM44 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Charger exhaust fan (FM44)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 13-A)
4. Replace FM44.
5. Replace PRCB.
6. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.9 C-2401****Code**

C-2401

Classification

Main body: Power abnormality

Cause

The fall-off of the erase lamp (EL) CN is detected.

When turning ON the power, an error detection signal (fall-off) is detected a specified period of time after the fall-off detection control signal of the EL CN turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Erase lamp (EL)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the EL section, and clean/repair it if any abnormality. (Wiring diagram: Main body: 15-I)
2. Check the connector connection and the wiring between PRCB and EL, and repair it if any abnormality.
3. Replace EL.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.10 C-2402****Code**

C-2402

Classification

Main body: Drum

Cause

Drum temperature sensor wiring harness breakage.

When the change in temperature of the drum temperature sensor (TH5) is less than -2°C a specified period of time after the main power switch (SW1) turns ON to start the control of the dehumidification heater /1 (HTR1) and the drum temperature is below 10°C after 1minute.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum temperature sensor (TH5)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and TH5, and repair it if any abnormality.
2. Check TH5, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 20-I)
3. Replace TH5.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.11 C-2403****Code**

C-2403

Classification

Main body: Drum

Cause

Drum temperature sensor wiring harness breakage.

When the main power switch (SW1) turns ON with the fusing temperature below 50°C, the detected temperature of the drum temperature sensor (TH5) is more than 52°C, and when the detected temperature is above 52°C after a specified period of time.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum temperature sensor (TH5)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and TH5, and repair it if any abnormality.
2. Check TH5, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 20-I)
3. Replace TH5.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.12 C-2411****Code**

C-2411

Classification

Main body: Drum

Cause

TCR sensor (TCRS) output abnormality 1.

The TCRS output is detected more than 3.0V (153step) in printing.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- TCR sensor (TCRS)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the TCRS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 20-l)
2. Check the developing section, and clean/repair it if there is sensor dirt or any abnormality.
3. Check the connector connection and the wiring between PRCB and TCRS, and repair it if any abnormality.
4. Replace TCRS.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.13 C-2412****Code**

C-2412

Classification

Main body: Drum

Cause

TCR sensor (TCRS) output abnormality 2.

The TCRS output is detected more than 0.5V (25step) in printing.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- TCR sensor (TCRS)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the TCRS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 20-l)
2. Check the developing section, and clean/repair it if there is sensor dirt or any abnormality.
3. Check the connector connection and the wiring between PRCB and TCRS, and repair it if any abnormality.
4. Replace TCRS.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.14 C-2413****Code**

C-2413

Classification

Main body: Drum

Cause

TCR sensor (TCRS) output abnormality 3.

- The mode does not return from the toner supply mode to the normal mode within a specified period of time after the toner automatic supply is executed in printing.
- The TCRS output is detected more than 2.6V (132ndep).

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- TCR sensor (TCRS)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the TCRS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 20-l)
2. Check the developing section, and clean/repair it if there is sensor dirt or any abnormality.
3. Check the connector connection and the wiring between PRCB and TCRS, and repair it if any abnormality.
4. Replace TCRS.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.15 C-2701****Code**

C-2701

Classification

Main body: High voltage power source abnormality

Cause

A charge leak is detected.

After a charge EM signal abnormality is detected while in the charge ON, up to 5 charge ON/OFF operations occur in succession while in 10 prints.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Charging corona
- High voltage unit /1 (HV1)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Clean the power feed section for the charger.
2. Check the charger (charging wire and the grid), and clean/repair it if there is any dirt or abnormality.
3. Check the connector connection and the wiring between HV1 and the charger, and repair it if any abnormality. (Wiring diagram: Main body (3/4): 22-K).
4. Replace HV1.

Faulty part isolation DIPSW

Control while detached

2.18.16 C-2702

Code

C-2702

Classification

Main body: High voltage power source abnormality

Cause

A transfer leak is detected.

After a transfer EM signal abnormality is detected while in the charge ON, up to 5 transfer ON/OFF operations occur in succession while in 10 prints.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Transfer roller
- High voltage unit /2 (HV2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the transfer roller section, and clean/repair it if there is sensor dirt or any abnormality.
2. Clean the power feed section for the transfer roller.
3. Check the transfer roller pressure section, and clean/repair it if there is sensor dirt or any abnormality.
4. Check the connector connection and the wiring between HV2 and the power feed section, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 3-N)
5. Replace HV2.

Faulty part isolation DIPSW

Control while detached

2.18.17 C-2704

Code

C-2704

Classification

Main body: High voltage power source abnormality

Cause

24V high voltage power abnormality.

An error detection signal (blowout of ICP) of 24V high voltage power is detected. At this time, the main door detection and the PFU door detection are Close.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- High voltage unit /2 (HV2)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ADUDB and HV2, and repair/replace it if any abnormality.
2. Replace ADUDB and HV2 at a time.

Faulty part isolation DIPSW

Control while detached

2.18.18 C-2705**Code**

C-2705

Classification

Main body: High voltage power source abnormality

Cause

PCC leak is detected.

After a PCC EM signal abnormality is detected while in the PCC ON, up to 5 transfer ON/OFF operations occur in succession while in 10 prints.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- PCC unit
- High voltage unit /3 (HV3)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the discharging wire of the PCC unit and replace it if the wire is cut
2. Check the installation condition of the PCC unit and install it again if any abnormality.
3. Check the connector connection and the wiring between HV3 and the power feed section, and repair/replace it if any abnormality.
(Wiring diagram: Main body (3/4): 21-K)
4. Replace HV3.

Faulty part isolation DIPSW**Control while detached****2.18.19 C-2801****Code**

C-2801

Classification

Main body: Process abnormality

Cause

IDC sensor (TCB) dirt correction abnormality.

While in the maximum density correction (Dmax), the IDC sensor (TCB) dirt correction abnormality is detected 10 times in succession.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Toner control board (TCB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check TCB, and clean it with alcohol if there is IDC sensor dirt or any abnormality. (Wiring diagram: Main body (3/4): 18-I)
Be sure to clean TCB with alcohol, otherwise replacement of TCB is required.
2. Check the developing section, and clean/repair it if there is sensor dirt or any abnormality.
3. Check the connector connection and the wiring between PRCB and TCB, and repair it if any abnormality.
4. Replace TCB.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.20 C-2802****Code**

C-2802

Classification

Main body: Process abnormality

Cause

The maximum density correction (Dmax) is not completed.

While in Dmax, the number of rotations of the developing sleeve gets to the maximum.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Developing motor (M3)
- Toner control board (TCB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check TCB, and clean it with alcohol if there is IDC sensor dirt or any abnormality. (Wiring diagram: Main body (3/4): 18-I)
Be sure to clean TCB with alcohol, otherwise replacement of TCB is required.
2. Check the connector connection and the wiring between PRCB and TCB, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and clean/repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 16-P)
4. Replace TCB.
5. Replace M3.
6. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.18.21 C-2803

Code

C-2803

Classification

Main body: Process abnormality

Cause

The IDC sensor (TCB) output abnormality.

While in the maximum density correction (Dmax), a patch for control is not output. (No output is made from the gamma sensor.)

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Toner control board (TCB)
- LPH board (LPHB)
- Overall control board (OACB)
- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check TCB, and clean it with alcohol if there is IDC sensor dirt or any abnormality. (Wiring diagram: Main body (3/4): 18-I)
Be sure to clean TCB with alcohol, otherwise replacement of TCB is required.
2. Check the LPH section, and clean/repair it if any dirt or abnormality. (Wiring diagram: Main body (4/4): 17-A)
3. Check the connector connection and the wiring between OACB and IPB, and repair it if any abnormality.
4. Check the connector connection and the wiring between LPHB and IPB, and repair it if any abnormality.
5. Replace LPHB.
6. Replace IPB.
7. Replace OACB.

Faulty part isolation DIPSW
Control while detached

2.18.22 C-2804

Code

C-2804

Classification

Main body: Process abnormality

Cause

The dirt correction of the IDC sensor is not completed.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Toner control board (TCB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check TCB, and clean it with alcohol if there is IDC sensor dirt or any abnormality. (Wiring diagram: Main body (3/4): 18-I)
Be sure to clean TCB with alcohol, otherwise replacement of TCB is required.
2. Check the developing section, and clean/repair it if there is any dirt or abnormality.
3. Check the connector connection and the wiring between PRCB and TCB, and repair it if any abnormality.
4. Replace TCB.
5. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.18.23 C-2807

Code

C-2807

Classification

Main body: Process abnormality

Cause

Drum potential sensor (DPS) output abnormality 1.

The DPS detects the value less than the potential specified value of the unexposed part 5 times in succession.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum potential sensor (DPS)
- Drum potential sensor board (DPSB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the DPS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 19-J)
2. Check the connector connection and the wiring between PRCB and DPS, and repair it if any abnormality.
3. Replace DPS.
4. Replace DPSB.
5. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.18.24 C-2808

Code

C-2808

Classification

Main body: Process abnormality

Cause

Dot diameter correction abnormality.

While in the dot diameter correction, the correction is terminated with an abnormal value.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Drum potential sensor (DPS)
- Drum potential sensor board (DPSB)
- Image processing board (IPB)
- Printer control board (PRCB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the DPS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 19-J)
2. Check the connector connection and the wiring between PRCB and OACB, and repair it if any abnormality.
3. Check the connector connection and the wiring between OACB and IPB, and repair it if any abnormality.
4. Replace DPS.
5. Replace DPSB.
6. Replace IPB.
7. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.18.25 C-2809

Code

C-2809

Classification

Main body: Process abnormality

Cause

Drum potential sensor (DPS) output abnormality 2.

While in the 0V check of the DPS, more than 100V of the drum surface potential is detected more than 5 times. When this condition is detected 5 times in succession, the error code is displayed.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum potential sensor (DPS)
- Drum potential sensor board (DPSB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the DPS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 19-J)
2. Check the connector connection and the wiring between PRCB and DPS, and repair it if any abnormality.

3. Replace DPS.
4. Replace DPSB.
5. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.18.26 C-2810

Code

C-2810

Classification

Main body: Process abnormality

Cause

Drum potential sensor (DPS) output abnormality 3.

While in the drum potential correction, a patch for control is not output with the V1 getting to more than 350V. When this condition is detected 5 times in succession, the error code is displayed.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum potential sensor (DPS)
- Drum potential sensor board (DPSB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the DPS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 19-J)
2. Check the connector connection and the wiring between PRCB and DPS, and repair it if any abnormality.
3. Replace DPS.
4. Replace DPSB.
5. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.18.27 C-2811

Code

C-2811

Classification

Main body: Process abnormality

Cause

Drum potential sensor (DPS) data abnormality.

While in the drum potential correction, no convergence is obtained even after correction is made more than 10 times. When this condition is detected 5 times in succession, the error code is displayed.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum potential sensor (DPS)
- Drum potential sensor board (DPSB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the DPS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 19-J)
2. Check the connector connection and the wiring between PRCB and DPS, and repair it if any abnormality.
3. Replace DPS.
4. Replace DPSB.
5. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.18.28 C-2812

Code

C-2812

Classification

Main body: Process abnormality

Cause

Transfer current auto adjustment abnormality.

The auto adjustment of the transfer current has not completed.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Transfer roller

- High voltage unit /2 (HV2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the transfer roller section, and clean/repair it if there is sensor dirt or any abnormality.
2. Clean the power feed section for the transfer roller.
3. Check the connector connection and the wiring between HV2 and the power feed section, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 3-N)
4. Replace HV2.

Faulty part isolation DIPSW**Control while detached****2.18.29 C-2815****Code**

C-2815

Classification

Main body: Process abnormality

Cause

Developing bias auto adjustment abnormality.

The auto adjustment of the developing bias has not completed.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Developer
- High voltage unit /1 (HV1)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Clean the power feed section for the developing sleeve.
2. Check the developer, and clean/repair it if there is any adhesion or abnormality.
3. Check the connector connection and the wiring between HV1 and the developing sleeve, and repair it if any abnormality. (Wiring diagram: Main body (3/4): 22-K).
4. Replace HV1.

Faulty part isolation DIPSW**Control while detached****2.18.30 C-2816****Code**

C-2816

Classification

Main body: Process abnormality

Cause

Drum charger capacity deterioration.

When the charger grid/developing bias is in excess of the limit of correction, lower the developing potential/fogging margin potential in steps of 50V. As a result, less than 50V of the difference with the target charger potential is detected 10 times in succession.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Drum potential sensor (DPS)
- Drum potential sensor board (DPSB)
- Charging corona
- High voltage unit /1 (HV1)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Clean the power feed section for the charger.
2. Check the DPS, and clean/replace it if any abnormality or dirt on sensor (Wiring diagram: Main body (3/4): 19-J)
3. Check the charger (charging wire and the grid), and clean/repair it if there is any dirt or abnormality.
4. Check the drum, and clean/repair it if there is any dirt or abnormality.
5. Check the connector connection and the wiring between HV1 and the charger, and repair it if any abnormality. (Wiring diagram: Main body (3/4): 22-K).
6. Replace DPS.
7. Replace DPSB.
8. Replace the drum.
9. Replace HV1.

Faulty part isolation DIPSW**Control while detached**

2.18.31 C-2821**Code**

C-2821

Classification

Main body: Process abnormality

Cause

The toner supply prohibition status is not released 1.

Even though the TCR sensor (TCRS) output increases, the number of the toner supply prohibition status continuity is detected 30 times, and more than 2.5V of the TCRS output value is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Developing unit
- TCR sensor (TCRS)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the developing section, and clean/repair it if there is any dirt or abnormality.
2. Check the connector connection and the wiring between PRCB and TCRS, and repair it if any abnormality.
3. Replacing the developing unit
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.32 C-2822****Code**

C-2822

Classification

Main body: Process abnormality

Cause

The toner supply prohibition status is not released 2.

The number of the toner supply prohibition status continuity becomes 100 times.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Developing unit
- TCR sensor (TCRS)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the developing section, and clean/repair it if there is any dirt or abnormality.
2. Check the connector connection and the wiring between PRCB and TCRS, and repair it if any abnormality.
3. Replacing the developing unit
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.33 C-3102****Code**

C-3102

Classification

Main body: Motor abnormality

Cause

Fusing pressure release motor (M33) operation time abnormality 1.

When M33 moves from the release position to the pressure position, the fusing pressure home sensor (PS58) does not turn ON within a specified period of time.(PRO 951 is unimplemented)

The same abnormality occurs when the fusing unit exclusively for PRO 951 is set to PRESS 1250/1250P/1052.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing unit
- Fusing pressure position sensor (PS58)
- Fusing pressure release motor (M33)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check that the proper fusing unit is installed, and replace it if the wrong one is installed
2. Check the fusing pressure release section, and clean/repair it if any abnormality.
3. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality.
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 7-I).
5. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4):7-I)
6. Replace PS58.
7. Replace M33.
8. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.34 C-3103****Code**

C-3103

Classification

Main body: Motor abnormality

Cause

Fusing pressure release motor (M33) operation time abnormality 2.

The fusing pressure home sensor (PS58) ON is not detected within a specified period of time after the main power turns ON. When M33 moves from the pressure position to the release position, PS58 does not turn ON within a specified period of time.(PRO 951 is unimplemented)

The same abnormality occurs when the fusing unit exclusively for PRO 951 is set to PRESS 1250/1250P/1052.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing unit
- Fusing pressure position sensor (PS58)
- Fusing pressure release motor (M33)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check that the proper fusing unit is installed, and replace it if the wrong one is installed
2. Check the fusing pressure release section, and clean/repair it if any abnormality.
3. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality.
4. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4): 7-I)
5. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (3/4):7-I)
6. Replace PS58.
7. Replace M33.
8. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.18.35 C-3104****Code**

C-3104

Classification

Main body: Fusing set abnormality

Cause

Abnormality when the fusing unit used exclusively for PRESS1250/1250P/1052 or EF-120 is set to PRO 951.

An error is detected in the following conditions with the fusing unit used exclusively for PRESS1250/1250P/1052 or EF-102 is set to PRO 951.

In case that either of the fusing pressure home sensor (PS58), fusing pressure position sensor /1 (PS59), fusing pressure position sensor / 2 (PS60) and fusing pressure position sensor /3 (PS61) turns ON when both the ADU knob set and the fusing unit set are detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing unit
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check that the proper fusing unit is installed, and replace it if the wrong one is installed
2. Check the connector connection and the wiring between PRCB and motor/sensor, and repair it if any abnormality
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached**

2.18.36 C-3201**Code**

C-3201

Classification

Main body: Motor abnormality

Cause

Drum motor (M24) power abnormality + 24V power abnormality.

When M24 turns ON, error detection signals (blowout of ICP and the 24V cut off) are detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS /2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW**Control while detached****2.18.37 C-3202****Code**

C-3202

Classification

Main body: Motor abnormality

Cause

Web motor (M24) power abnormality.

An error detection signal (blowout of ICP) is detected when M24 turns ON. At this time, an error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Web motor (M24)
- Charger cleaning motor (M23)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 3-A, Main body (3/4): 16-I)
3. Replace M24, M23 and PRCB at a time.

Faulty part isolation DIPSW**Control while detached****2.18.38 C-3501****Code**

C-3501

Classification

Main body: Fusing high temperature abnormality

Cause

Thermistor /1 (TH1) high temperature abnormality (software).

TH1 detects a temperature of 244°C or above 10 times in a period of 0.5second.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /1 (TH1)
- Fusing heater lamp /1 (L1)
- Fusing heater lamp /2 (L2)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /1 and /2 (L1 and L2), and clean/repair them if any abnormality. (Wiring diagram: Main body (1/4): 2-A, Main body (1/4): 3-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L1/L2, and repair it if any abnormality.
4. Check TH1 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 11-I (S1/S2), 11-F (S3)).
5. Replace TH1.
6. Replace L1 and L2.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.39 C-3502****Code**

C-3502

Classification

Main body: Fusing high temperature abnormality

Cause

Thermistor /3 (TH3) high temperature abnormality (software).
 TH3 detects a temperature of 230°C or above 5 times in a period of 1second.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /3 (TH3)
- Fusing heater lamp /3 (L3)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /3 (L3), and repair it if any abnormality. (Wiring diagram: Main body (1/4): 4-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L3, and repair it if any abnormality.
4. Check TH3 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 10-I (S1/S2), 10-F (S3)).
5. Replace TH3.
6. Replace L3.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.40 C-3503****Code**

C-3503

Classification

Main body: Fusing high temperature abnormality

Cause

Thermistor /1 (TH1) high temperature abnormality (hardware).
 TH1 detects the fusing abnormality detection 1.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /1 (TH1)
- Fusing heater lamp /1 (L1)
- Fusing heater lamp /2 (L2)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /1 and /2 (L1 and L2), and clean/repair them if any abnormality. (Wiring diagram: Main body (1/4): 2-A, 3-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L1/L2, and repair it if any abnormality.
4. Check TH1 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 11-I (S1/S2), 11-F (S3)).
5. Replace TH1.

6. Replace L1 and L2.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW
Control while detached

2.18.41 C-3504

Code

C-3504

Classification

Main body: Fusing high temperature abnormality

Cause

Thermistor /3 (TH3) high temperature abnormality (hardware).
 TH3 detects the fusing abnormality detection 4.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /3 (TH3)
- Fusing heater lamp /3 (L3)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /3 (L3), and repair it if any abnormality. (Wiring diagram: Main body (1/4): 4-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L3, and repair it if any abnormality.
4. Check TH3 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (1/4): 23-B)
5. Replace TH3.
6. Replace L3.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW
Control while detached

2.18.42 C-3801

Code

C-3801

Classification

Main body: Fusing low temperature abnormality

Cause

Thermistor /1 (TH1) high temperature abnormality (software).
 TH1 does not get to 50°C when a specified period of time has elapsed after the main power switch (SW1) turns ON for the fusing ON control.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /1 (TH1)
- Fusing heater lamp /1 (L1)
- Fusing heater lamp /2 (L2)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /1 and /2 (L1 and L2), and clean/repair them if any abnormality. (Wiring diagram: Main body (1/4): 2-A, Main body (1/4): 3-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L1/L2, and repair it if any abnormality.
4. Check TH1 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 11-I (S1/S2), 11-F (S3)).
5. Replace TH1.
6. Replace L1 and L2.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW
Control while detached

2.18.43 C-3802**Code**

C-3802

Classification

Main body: Fusing low temperature abnormality

Cause

Thermistor /3 (TH3) high temperature abnormality (software).

TH3 does not get to 50°C when a specified period of time has elapsed after the main power switch (SW1) turns ON for the fusing ON control.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /3 (TH3)
- Fusing heater lamp /3 (L3)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /3 (L3), and repair it if any abnormality. (Wiring diagram: Main body (1/4): 4-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L3, and repair it if any abnormality.
4. Check TH3 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 10-I (S1/S2), 10-F (S3))
5. Replace TH3.
6. Replace L3.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.44 C-3901****Code**

C-3901

Classification

Main body: Fusing sensor abnormality

Cause

Thermistor /1 (TH1) high temperature abnormality (long time/software).

TH1 detects a temperature of 240°C or above 60 times in a period of 0.5second.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /1 (TH1)
- Fusing heater lamp /1 (L1)
- Fusing heater lamp /2 (L2)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /1 and /2 (L1 and L2), and clean/repair them if any abnormality. (Wiring diagram: Main body (1/4): 2-A, Main body (1/4): 3-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L1/L2, and repair it if any abnormality.
4. Check TH1 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 11-I (S1/S2), 11-F (S3)).
5. Replace TH1.
6. Replace L1 and L2.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.45 C-3902****Code**

C-3902

Classification

Main body: Fusing sensor abnormality

Cause

Thermistor /3 (TH3) high temperature abnormality (long time/software).
TH3 detects a temperature of 220°C or above 30 times in a period of 1second.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /3 (TH3)
- Fusing heater lamp /3 (L3)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /3 (L3), and repair it if any abnormality. (Wiring diagram: Main body (1/4): 4-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L3, and repair it if any abnormality.
4. Check TH3 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 10-I (S1/S2), 10-F (S3))
5. Replace TH3.
6. Replace L3.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.46 C-3903****Code**

C-3903

Classification

Main body: Fusing sensor abnormality

Cause

Thermistor /1 (TH1) high temperature abnormality 1 (hardware).
TH1 detects the fusing abnormality detection signal 2.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /1 (TH1)
- Fusing heater lamp /1 (L1)
- Fusing heater lamp /2 (L2)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /1 and /2 (L1 and L2), and clean/repair them if any abnormality. (Wiring diagram: Main body (1/4): 2-A, Main body (1/4): 3-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L1/L2, and repair it if any abnormality.
4. Check TH1 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 11-I (S1/S2), 11-F (S3)).
5. Replace TH1.
6. Replace L1 and L2.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.47 C-3904****Code**

C-3904

Classification

Main body: Fusing sensor abnormality

Cause

Thermistor /3 (TH3) high temperature abnormality (hardware).
TH3 detects the fusing abnormality detection 5.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /3 (TH3)

- Fusing heater lamp /3 (L3)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /3 (L3), and repair it if any abnormality. (Wiring diagram: Main body (1/4): 4-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L3, and repair it if any abnormality.
4. Check TH3 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 10-I (S1/S2), 10-F (S3))
5. Replace TH3.
6. Replace L3.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.48 C-3905****Code**

C-3905

Classification

Main body: Fusing sensor abnormality

Cause

Thermistor /1 (TH1) high temperature abnormality 1 (hardware).
TH1 detects the fusing abnormality detection signal 3.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /1 (TH1)
- Fusing heater lamp /1 (L1)
- Fusing heater lamp /2 (L2)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /1 and /2 (L1 and L2), and clean/repair them if any abnormality. (Wiring diagram: Main body (1/4): 2-A, Main body (1/4): 3-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L1/L2, and repair it if any abnormality.
4. Check TH1 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 11-I (S1/S2), 11-F (S3)).
5. Replace TH1.
6. Replace L1 and L2.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.18.49 C-3906****Code**

C-3906

Classification

Main body: Fusing sensor abnormality

Cause

Thermistor /3 (TH3) high temperature abnormality (hardware).
TH3 detects the fusing abnormality detection 6.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing temperature sensor /3 (TH3)
- Fusing heater lamp /3 (L3)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Be sure to change the software DIPSW3-1 from 1 to 0 and turn OFF/ON the sub power switch (SW2) of the main body after fixing the defective parts.

Note

- If DIPSW3-1 is set to 0 before defective parts are fixed, it may cause fire.

Solution

1. Check the fusing heater lamp /3 (L3), and repair it if any abnormality. (Wiring diagram: Main body (1/4): 4-A)
2. Check the connector connection and the wiring between PRCB and TH1, and repair it if any abnormality.
3. Check the connector connection and the wiring between ACDB and L3, and repair it if any abnormality.
4. Check TH3 to see the installed position or distance to the fusing roller /Up, and adjust/replace it if any abnormality. (Wiring diagram: Main body (3/4): 10-I (S1/S2), 10-F (S3))
5. Replace TH3.
6. Replace L3.
7. Replace PRCB.
8. Replace ACDB.

Faulty part isolation DIPSW**Control while detached****2.19 Solution 15 (C-4000_6801)****2.19.1 C-4301****Code**

C-4301

Classification

Main body: Fan abnormality

Cause

Image processing cooling fan (FM12) rotation abnormality + 24V power abnormality.

The abnormal status is detected twice in succession after FM12 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW**Control while detached****2.19.2 C-4303****Code**

C-4303

Classification

Main body: Fan abnormality

Cause

Image processing cooling fan (FM12) rotation abnormality 1.

The FM12 EM error detection signal is detected twice in succession within a specified period of time after FM12 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing cooling fan (FM12)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 8-A)
3. Replace FM12.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.3 C-4304****Code**

C-4304

Classification

Main body: Fan abnormality

Cause

Image processing cooling fan (FM12) rotation abnormality 2.

When the print is started, the EM signal of FM12 turns ON.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Image processing cooling fan (FM12)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 8-A)
4. Replace FM12.
5. Replace PRCB.
6. Replace ACDB.

Faulty part isolation DIPSW

Control while detached

2.19.4 C-4305

Code

C-4305

Classification

Main body: Fan abnormality

Cause

Charger suction fan (FM3) rotation abnormality + 24V power abnormality.

The abnormal status is detected twice in succession after FM3 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW

Control while detached

2.19.5 C-4307

Code

C-4307

Classification

Main body: Fan abnormality

Cause

Charger suction fan (FM3) rotation abnormality 1.

The FM3 EM error detection signal is detected twice in succession within a specified period of time after FM3 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Charger suction fan (FM3)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 10-A)
3. Replace FM3.
4. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.19.6 C-4314

Code

C-4314

Classification

Main body: Fan abnormality

Cause

Front cooling fan (FM18) rotation abnormality + 24V power abnormality.

The abnormal status is detected twice in succession after FM18 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW**Control while detached****2.19.7 C-4316****Code**

C-4316

Classification

Main body: Fan abnormality

Cause

Front cooling fan (FM18) rotation abnormality.

The FM26 EM error detection signal is detected twice in succession within a specified period of time after FM18 was turned ON. However, error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Front cooling fan (FM18)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 8-A)
3. Replace FM18.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.8 C-4701****Code**

C-4701

Classification

Main body: Image processing abnormality

Cause

FIFO address abnormality for the printer.

While in the image write, the expansion processing of image data that is read in is not correctly terminated.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
2. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.9 C-4702****Code**

C-4702

Classification

Main body: Image processing abnormality

Cause

Compression input FIFO abnormality.

An error interrupt occurs with the compression/expansion chip FIFO.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
2. Replace IPB.

Faulty part isolation DIPSW

Control while detached

2.19.10 C-4703

Code

C-4703

Classification

Main body: Image processing abnormality

Cause

Elongation abnormality.

Due to the elongation of data the compression of which is not completed, the destruction of the compressed data and the abnormal length of data, an elongation abnormality is detected.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
2. Replace IPB.

Faulty part isolation DIPSW

Control while detached

2.19.11 C-4705

Code

C-4705

Classification

Main body: Image processing abnormality

Cause

Printer time out.

- While in the image write, the expansion processing from the memory to the printer does not terminate within a specified period of time.
- The output from the page memory to the printer does not terminate within a specified period of time.
- The PVV is not detected within a specified period of time.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Printer control board (PRCB)
- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
2. Check the connector connection and the wiring on PRCB, and repair it if any abnormality.
3. Check the connector connection and the wiring between IPB and PRCB, and repair it if any abnormality.
4. Replace IPB.
5. Replace PRCB.

Faulty part isolation DIPSW

Control while detached

2.19.12 C-4706**Code**

C-4706

Classification

Main body: Image processing abnormality

Cause

Expansion device access abnormality.

While in the image write, despite of no resource provided, an inappropriate processing such as accessing to the elongation device is made.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
2. Rewrite the firmware for image control.
3. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.13 C-4708****Code**

C-4708

Classification

Main body: Image processing abnormality

Cause

Expansion device access abnormality.

When accessing to the memory device, a defective software is detected.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
2. Rewrite the firmware for image control.
3. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.14 C-4709****Code**

C-4709

Classification

Main body: Image processing abnormality

Cause

Memory time out.

- The expansion processing from the memory to the page memory does not terminate.
- The compression processing from the page memory to the memory does not terminate.
- The development from the memory to the page memory does not terminate.
- The transmission of the compressed data from memory to memory does not terminated.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Overall control board (OACB)
- Printer control board (PRCB)
- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring on IPB and OACB, and repair it if any abnormality.

2. Check the connector connection and the wiring on PRCB, and repair it if any abnormality.
3. Check the connector connection and the wiring between IPB and OACB/between OACB and PRCB, and repair it if any abnormality.
4. Rewrite the firmware for image control.
5. Replace IPB.
6. Replace OACB.
7. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.19.15 C-4720

Code

C-4720

Classification

Main body: Image processing abnormality

Cause

Shift amount abnormality while in the repeat.

When the shift amount (used for cutting margin, etc.) while in the repeat is negative (-).

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
2. Rewrite the firmware for image control.
3. Replace IPB.

Faulty part isolation DIPSW
Control while detached

2.19.16 C-4721

Code

C-4721

Classification

Main body: Image processing abnormality

Cause

The Centering Adjustment is too late.

The print operation starts before the paper centering adjustment is terminated. (The Centering Adjustment is too late)

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Printer control board (PRCB)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on ADUCB and PRCB, and repair it if any abnormality.
2. Replace PRCB.
3. Replace ADUDB.

Faulty part isolation DIPSW
Control while detached

2.19.17 C-4722

Code

C-4722

Classification

Main body: Image processing abnormality

Cause

The creation of the PWM gamma curve failed.

A PWM gamma curve is not created properly.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Toner control board (TCB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check TCB, and clean it with alcohol if there is IDC sensor dirt or any abnormality.
* Be sure to clean TCB with alcohol, otherwise replacement of TCB is required.
2. Check the developing section, and clean/repair it if there is sensor dirt or any abnormality.
3. Check the connector connection and the wiring between PRCB and TCB, and repair it if any abnormality.
4. Replace TCB.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.18 C-4725****Code**

C-4725

Classification

Main body: Image processing abnormality

Cause

LPH board (LPHB) connection abnormality.

Due to the disconnection of the LPHB connector, no connection is available with the overall control board.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- LPH board (LPHB)
- Relay board /A (RBA)
- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between LPHB and RBA, and repair it if any abnormality.
2. Check the connector connection and the wiring between IPB and RBA, and repair it if any abnormality.
3. Check LPHB, and repair/replace it if any abnormality. (Wiring diagram: Main body (4/4): 17-A)
4. Rewrite the firmware for image control.
5. Replace LPHB.
6. Replace RBA.
7. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.19 C-4850****Code**

C-4850

Classification

Main body: Image processing abnormality

Cause

Segmentation abnormality.

The overall control software accesses an illegal address.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
2. Rewrite the firmware for image control.
3. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.20 C-5010****Code**

C-5010

Classification

Main body: Image processing abnormality

Cause

Communication error between the overall control board (OACB) and the printer control board (PRCB).

Any of the following error is detected during data reception between OACB and PRCB.

- Data head error
- Data checksum error
- Undefined command reception error
- Occurrence of communication GA error vector

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on OACB, and repair it if any abnormality.
3. Check the connector connection and the wiring on PRCB, and repair it if any abnormality.
4. Check the connector connection and the wiring between OACB and PRCB, and repair it if any abnormality.
5. Replace OACB.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.21 C-5101****Code**

C-5101

Classification

Main body:Power abnormality

Cause

Fusing motor (M1) speed abnormality.

An error detection signal is detected twice in succession within a specified period of time after M1 was turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Fusing motor (M1)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the fusing drive section, and repair it if any abnormality.
2. Check the connector connection and the wiring between PRCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram:Main body (3/4): 18-P)
4. Replace M1.
5. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.22 C-5102****Code**

C-5102

Classification

Main body: Main relay operation malfunction

Cause

Monitor the detection signal of RL1 turning ON and 24 VICP blowout since the main tray (RL1) firstly turns ON after the power source turns ON, and detect the abnormality 5 times in a row during a specified period of time.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Main relay (RL1)
- AC drive board (ACDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the damage of PL1, and repair it if any abnormality. (Wiring diagram: Main body (1/4): 7-L)
2. Check the connector connection and the damage of ADCB, and repair it if any abnormality. (Wiring diagram: Main body (1/4): 1-F, 5-P, 22-M)
3. Replace RL1.
4. Replace ACDB.

Faulty part isolation DIPSW**Control while detached**

2.19.23 C-5311**Code**

C-5311

Classification

Main body: Fan abnormality

Cause

Suction cooling fan /1 (FM6) rotation abnormality + 24V power abnormality.

The FM6EM error detection signal is detected twice in succession within a specified period of time after FM6 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW**Control while detached****2.19.24 C-5313****Code**

C-5313

Classification

Main body: Fan abnormality

Cause

Suction cooling fan /1 (FM6) rotation abnormality 1.

The FM6EM error detection signal is detected twice in succession within a specified period of time after FM6 was turned ON. At this time, an error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Suction cooling fan /1 (FM6)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 7-A)
3. Replace FM6.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.25 C-5317****Code**

C-5317

Classification

Main body: Fan abnormality

Cause

Cooling fan /1 (FM1) rotation abnormality + 24V power abnormality.

The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW**Control while detached**

2.19.26 C-5319**Code**

C-5319

Classification

Main body: Fan abnormality

Cause

Cooling fan /1 (FM1) rotation abnormality 1.

The FM1EM error detection signal is detected twice in succession within a specified period of time after FM1 was turned ON. At this time, an error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Cooling fan /1 (FM1)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 11-A)
3. Replace FM1.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.27 C-5320****Code**

C-5320

Classification

Main body: Fan abnormality

Cause

Cooling fan /2 (FM2) rotation abnormality + 24V power abnormality.

The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW**Control while detached****2.19.28 C-5322****Code**

C-5322

Classification

Main body: Fan abnormality

Cause

Cooling fan /1 (FM1) rotation abnormality 1.

The FM2EM error detection signal is detected twice in succession within a specified period of time after FM2 was turned ON. At this time, an error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Cooling fan /2 (FM2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 12-A)
3. Replace FM2.
4. Replace PRCB.

Faulty part isolation DIPSW

Control while detached**2.19.29 C-5326****Code**

C-5326

Classification

Main body: Fan abnormality

Cause

Cooling fan /1 (FM1) rotation abnormality 2.

When the print is started, the EM signal of FM1 turns ON.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Cooling fan /1 (FM1)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 11-A)
3. Replace FM1.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.30 C-5327****Code**

C-5327

Classification

Main body: Fan abnormality

Cause

Cooling fan /1 (FM1) rotation abnormality 2.

When the print is started, the EM signal of FM2 turns ON.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Cooling fan /2 (FM2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 12-A)
3. Replace FM2.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.31 C-5328****Code**

C-5328

Classification

Main body: Fan abnormality

Cause

Suction cooling fan /1 (FM6) rotation abnormality 2.

When the print is started, the EM signal of FM6 turns ON.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Suction cooling fan /1 (FM6)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 7-A)
3. Replace FM6.

4. Replace PRCB.

Faulty part isolation DIPSW
Control while detached

2.19.32 C-5329

Code

C-5329

Classification

Main body: Fan abnormality

Cause

Abnormality of the fan connected to ADU drive board.

The EM error detection signal is detected twice in succession within a specified period of time after ADU cooling fan /1 (FM14), /3 (FM13), sensor cooling fan /1 (FM16) and registration cooling fan (FM17) connected to ADU drive board were turned ON. At this time, the door close detection of the door open/close sensor /1 (PS1), /2 (PS2) and PF door open/close sensor (PS70) is detected 10 times in succession.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Cooling fan /1 (FM14)
- Cooling fan /3 (FM13)
- Sensor cooling fan (FM16)
- Registration cooling fan (FM17)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ADUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality.
3. Replace the fan.
4. Replace ADUDB.

Faulty part isolation DIPSW
Control while detached

2.19.33 C-5330

Code

C-5330

Classification

Main body: Fan abnormality

Cause

Suction cooling fan /2 (FM7) rotation abnormality + 24V power abnormality.

The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW
Control while detached

2.19.34 C-5332

Code

C-5332

Classification

Main body: Fan abnormality

Cause

Suction cooling fan /2 (FM6) rotation abnormality.

The FM7EM error detection signal is detected twice in succession within a specified period of time after FM7 was turned ON. At this time, an error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Suction cooling fan /2 (FM7)
- Printer control board (PRCB)
- AC drive board (ACDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 7-A)
4. Replace FM7.
5. Replace PRCB.
6. Replace ACDB.

Faulty part isolation DIPSW

Control while detached

2.19.35 C-5337

Code

C-5337

Classification

Main body: Fan abnormality

Cause

De-curler fan /1 (FM29) rotation abnormality.

The FM29EM error detection signal is detected twice in succession within a specified period of time after FM29 was turned ON. At this time, the door close is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- de-curler fan /1 (FM29)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ADUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 9-P)
3. Replace FM29.
4. Replace ADUDB.

Faulty part isolation DIPSW

Control while detached

2.19.36 C-5338

Code

C-5338

Classification

Main body: Fan abnormality

Cause

De-curler fan /2 (FM30) rotation abnormality.

The FM30EM error detection signal is detected twice in succession within a specified period of time after FM30 was turned ON. At this time, the door close is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- de-curler fan /2 (FM30)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ADUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 8-P)
3. Replace FM30.
4. Replace ADUDB.

Faulty part isolation DIPSW

Control while detached

2.19.37 C-5339

Code

C-5339

Classification

Main body: Fan abnormality

Cause

Transfer belt cleaning fan (FM27) rotation abnormality.

When the print is started, the EM signal of FM27 turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Transfer belt cleaning fan (FM27)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ADUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality.
3. Replace FM27.
4. Replace ADUDB.

Faulty part isolation DIPSW**Control while detached****2.19.38 C-5340****Code**

C-5340

Classification

Main body: Fan abnormality

Cause

Rotation abnormality of fans equipped in ADU.

The EM error signal is detected twice in succession within a specified period of time after ADU cooling fan /2 (FM15), belt cooling fan (FM37) and reverse cooling fan (FM38) was turned ON. At this time, the door close is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- ADU cooling fan /2 (FM15)
- Belt cooling fan (FM37)
- Reverse cooling fan (FM38)
- ADU drive board (ADUDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ADUDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 10-P, 22-J, 21-J)
3. Replace FM15.
4. Replace FM37.
5. Replace FM38.
6. Replace ADUDB.

Faulty part isolation DIPSW**Control while detached****2.19.39 C-5341****Code**

C-5341

Classification

Main body: Fan abnormality

Cause

Collection pipe cooling fan (FM34) rotation abnormality + 24V power abnormality.

The FM34EM error detection signal is detected twice in succession within a specified period of time after FM34 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2
3. Replace PRCB.

Faulty part isolation DIPSW**Control while detached**

2.19.40 C-5343**Code**

C-5343

Classification

Main body: Fan abnormality

Cause

Collection pipe cooling fan (FM34) rotation abnormality 1.

The FM34EM error detection signal is detected twice in succession within a specified period of time after FM34 was turned ON. At this time, an error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Collection pipe cooling fan (FM34)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 14-A)
3. Replace FM34.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.41 C-5344****Code**

C-5344

Classification

Main body: Fan abnormality

Cause

Collection pipe cooling fan (FM34) rotation abnormality 2.

When the print is started, the EM signal of FM34 turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Collection pipe cooling fan (FM34)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 14-A)
3. Replace FM34.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.42 C-5345****Code**

C-5345

Classification

Main body: Fan abnormality

Cause

Toner bottle cooling fan (FM35) rotation abnormality + 24V power abnormality.

The FM35EM error detection signal is detected twice in succession within a specified period of time after FM35 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /2 (DCPS/2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ACDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2

Faulty part isolation DIPSW**Control while detached**

2.19.43 C-5347**Code**

C-5347

Classification

Main body: Fan abnormality

Cause

Toner bottle cooling fan (FM35) rotation abnormality 1.

The FM35EM error detection signal is detected twice in succession within a specified period of time after FM35 was turned ON. At this time, an error detection signal (24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Toner bottle cooling fan (FM35)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 15-A)
3. Replace FM35.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.44 C-5348****Code**

C-5348

Classification

Main body: Fan abnormality

Cause

Toner bottle cooling fan (FM35) rotation abnormality 2.

When the print is started, the EM signal of FM35 turns ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Toner bottle cooling fan (FM35)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between PRCB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (2/4): 15-A)
3. Replace FM35.
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.45 C-6101****Code**

C-6101

Classification

Main body: Scanner abnormality

Cause

Scanner motor (M27) movement time abnormality + 24V power abnormality.

The scanner home sensor (PS51) or the APS sensor /1 (PS52) does not turn ON within a specified period of time after the home position search is started. At this time, an error detection signal (24V cut off) of M27 is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DC power supply /1 (DCPS/1)
- Scanner drive board (SCDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDB and DCPS /1, and repair it if any abnormality.
2. Replace DCPS /1.

3. Replace SDB.

Faulty part isolation DIPSW
Control while detached

2.19.46 C-6102

Code

C-6102

Classification

Main body: Scanner abnormality

Cause

Scanner motor (M27) power abnormality.

The scanner home sensor (PS51) or the APS sensor /1 (PS52) does not turn ON within a specified period of time after the home position search is started. At this time, 24V is normal, but an error detection signal (blowout of a fuse) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Scanner motor (M27)
- Scanner drive board (SDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDB and the motor, and repair it if any abnormality.
2. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: Main body (2/4): 21-J)
3. Replace M27 and SDB at a time.

Faulty part isolation DIPSW
Control while detached

2.19.47 C-6103

Code

C-6103

Classification

Main body: Scanner abnormality

Cause

Scanner motor (M27) movement time abnormality.

The scanner home sensor (PS51) or the APS sensor /1 (PS52) does not turn ON within a specified period of time after the home position search is started. At this time, an error detection signal (blowout of a fuse/24V cut off) of M27 is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Scanner home sensor (PS51)
- APS sensor /1 (PS52)
- Scanner motor (M27)
- Scanner drive board (SDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the scanner drive section, and repair it if any abnormality.
2. Check the connector connection and the wiring between SDB and motor/sensor, and repair it if any abnormality.
3. Check the I/O and drive of the sensor, and repair/replace it if any abnormality (Wiring diagram: Main body (4/4): 18-K, 20-N)
4. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality (Wiring diagram: Main body (4/4): 15-K)
5. Replace PS51 and PS52.
6. Replace M27.
7. Replace SDB.

Faulty part isolation DIPSW
Control while detached

2.19.48 C-6301

Code

C-6301

Classification

Main body: Fan abnormality

Cause

Scanner cooling fan (FM19) rotation abnormality + 24V power abnormality.

The FM19EM error detection signal is detected twice in succession within a specified period of time after FM19 was turned ON. At this time, an error detection signal (24V cut off) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- DC power supply /2 (DCPS/2)
- Scanner drive board (SCDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDB and DCPS /2, and repair it if any abnormality.
2. Replace DCPS /2.
3. Replace SDB.

Faulty part isolation DIPSW**Control while detached****2.19.49 C-6302****Code**

C-6302

Classification

Main body: Fan abnormality

Cause

Scanner cooling fan (FM19) power abnormality.

The FM19EM error detection signal is detected twice in succession within a specified period of time after FM19 was turned ON. At this time, 24V is normal, but an error detection signal (blowout of a fuse) is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Scanner cooling fan (FM19)
- Scanner drive board (SDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 15-K)
3. Replace FM19 and SDB.

Faulty part isolation DIPSW**Control while detached****2.19.50 C-6303****Code**

C-6303

Classification

Main body: Fan abnormality

Cause

Scanner cooling fan (FM19) rotation abnormality.

The FM19EM error detection signal is detected twice in succession within a specified period of time after FM19 was turned ON. At this time, an error detection signal (blowout of a fuse/24V cut off) is not detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Scanner cooling fan (FM19)
- Scanner drive board (SDB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between SDB and the fan, and repair it if any abnormality.
2. Check the connector connection and the wiring between SDB and PRCB, and repair it if any abnormality.
3. Rotate the fan or I/O by hand, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 15-K)
4. Replace FM19.
5. Replace SDB.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.51 C-6701****Code**

C-6701

Classification

Main body: Image processing abnormality

Cause

Filter coefficient abnormality.

When processing images, a filter coefficient cannot be created normally.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW

Control while detached

2.19.52 C-6702

Code

C-6702

Classification

Main body: Image processing abnormality

Cause

Scanner FIFO abnormality.

FIFO address abnormality for compression is indicated.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW

Control while detached

2.19.53 C-6703

Code

C-6703

Classification

Main body: Image processing abnormality

Cause

SVV length abnormality.

After negation of SVV, the compression of images that are read in and their development into the page memory are not terminated within a specified period of time.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW

Control while detached

2.19.54 C-6704**Code**

C-6704

Classification

Main body: Image processing abnormality

Cause

Scanner time out.

- While in the image read, the compression processing from the scanner into the memory does not terminate within a specified period of time.
- The development from the scanner into the page memory does not terminate within a specified period of time.
- The SVV is not detected within a specified period of time.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)
- Overall control board (OACB)
- Printer control board (PRCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between IPB and OACB, and repair it if any abnormality.
3. Check the connector connection and the wiring between OACB and PRCB, and repair it if any abnormality.
4. Replace IPB.
5. Replace OACB.
6. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.19.55 C-6705****Code**

C-6705

Classification

Main body: Image processing abnormality

Cause

Compression device access abnormality.

When writing images, in spite of no resource provided, an inappropriate processing such as an access to the compression device is made.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.56 C-6706****Code**

C-6706

Classification

Main body: Image processing abnormality

Cause

SVV OFF abnormality.

While in the image read, SVV does not turn OFF within a specified period of time and the preparation for scanning the next page cannot be started.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW

Control while detached

2.19.57 C-6707

Code

C-6707

Classification

Main body: Image processing abnormality

Cause

Shading correction abnormality (GA abnormality)

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW

Control while detached

2.19.58 C-6708

Code

C-6708

Classification

Main body: Image processing abnormality

Cause

AOC/AGC adjustment level abnormality.

AOC/AGC adjustment error occurs due to the abnormality related to the exposure lamp or the trouble of the read section.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Exposure lamp (L4)
- L4 inverter (L4_INVB)
- Scanner drive board (SDB)
- CCD board (CCDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the reading section, and repair it if any abnormality such as cover off.
2. Check the connector connection and the wiring between IPB and CCDB, and repair it if any abnormality.
3. Check the connector connections and the wirings between SDB and L4_INVB, and L15_INVB and L16, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 15-M, 16-J, 17-J)
4. When L4 is high-light intensity, low-light intensity or does not light, replace L4.
5. When L4 is high-light intensity, low-light intensity or does not light after replacing L4, replace L4_INVB.
6. Replace CCDB.

Faulty part isolation DIPSW

Control while detached

2.19.59 C-6709

Code

C-6709

Classification

Main body: Image processing abnormality

Cause

Abnormality of the adjustment data by resolutions.
The adjustment data evacuated by resolutions is not available.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.60 C-6710****Code**

C-6710

Classification

Main body: Image processing abnormality

Cause

Density conversion gamma curve creation abnormality.
A density conversion gamma curve cannot be created normally.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.61 C-6717****Code**

C-6717

Classification

Main body: Image processing abnormality

Cause

N-in-1 page area abnormality.
Due to an image area abnormality of the memory, images cannot be developed on the memory.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on IPB, and repair it if any abnormality.
3. Rewrite the firmware for image control.
4. Replace IPB.

Faulty part isolation DIPSW**Control while detached****2.19.62 C-6719****Code**

C-6719

Classification

Main body: Image processing abnormality

Cause

The original skew adjustment is too late.

The scan operation starts before the original skew adjustment is terminated.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Original skew sensor /Fr (PS312: DF-615/616)
- Original skew sensor /Rr (PS311: DF-615/616)
- DF control board (DFCB: DF-615/616)
- Overall control board (OACB: main body)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the original skew sensor, and repair it if any abnormality. (Wiring diagram: DF-615/616: 2-E, 1-E)
2. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
3. Check the connector connection and the wiring between DFCB and OACB, and repair it if any abnormality.
4. Conduct the DF paper skew adjustment of the mechanical adjustment to correct the original skew.
5. Conduct [Service mode]→[Process adjustment]→[ADF Skew Offset Adj.]
6. Replace PS311 or PS312.
7. Replace DFCB
8. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.19.63 C-6721****Code**

C-6721

Classification

Main body: Image processing abnormality

Cause

AGC retry.

The AGC is retried due to the decreased light volume of the exposure lamp. However, no error occurs.

Measures to take when alert occurs

Error code is not displayed on the operation panel, but displayed only on the data collection, the list output and CSRC.

Estimated abnormal parts

- Exposure lamp (L4)
- L4 inverter (L4_INVB)
- Scanner drive board (SDB)
- CCD board (CCDB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the reading section, and repair it if any abnormality such as cover off.
2. Check the connector connection and the wiring between IPB and CCDB, and repair it if any abnormality.
3. Check the connector connections and the wirings between SDB and L4_INVB, and L15_INVB and L16, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 15-M, 16-J, 17-J)
4. When L4 is high-light intensity, low-light intensity or does not light, replace L4.
5. When L4 is high-light intensity, low-light intensity or does not light after replacing L4, replace L4_INVB.
6. Replace CCDB.

Faulty part isolation DIPSW**Control while detached****2.19.64 C-6801****Code**

C-6801

Classification

Main body: Image processing abnormality

Cause

Initial communication error between the image processing board (OACB) and the operation board /1 (OB1).

An initial communication from the main body to the operation panel is not sent within 30 seconds after the power is turned ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Operation board /1 (OB1)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between OB1 and OACB, and repair it if any abnormality.
3. Check the connector connection and the wiring of the operation panel, and repair it if any abnormality.
4. Replace OACB.
5. Replace OB1.

Faulty part isolation DIPSW**Control while detached****2.20 Solution 16 (C-8001_C-C108)****2.20.1 C-8001****Code**

C-8001

Classification

DF: DF abnormality

Cause

Sending error between the main body and DF.

Although the main body sent out data according to the data transmission request by the DF, the same request is received again.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- DF control board (DFCB: DF-615/616)
- Overall control board (OACB: main body)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between DFCB and OACB, and repair it if any abnormality.
2. Replace DFCB
3. Replace OACB.

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.2 C-8002**Code**

C-8002

Classification

DF: DF abnormality

Cause

Reception error between the main body and DF.

Checksum error or SRGA reception error is detected twice in succession while in the reception in serial communication.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- DF control board (DFCB: DF-615/616)
- Overall control board (OACB: main body)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between DFCB and OACB, and repair it if any abnormality.
2. Replace DFCB
3. Replace OACB.

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.3 C-8003**Code**

C-8003

Classification

DF: DF abnormality

Cause

Initial communication error between the main body and DF.

When the main power switch (SW1) is ON, there is no response to the initial communication request from the main body to the DF even after a specified period of time elapses.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- DF control board (DFCB: DF-615/616)
- Overall control board (OACB: main body)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check the connector connection and the wiring between DFCB and OACB, and repair it if any abnormality.
2. Replace DFCB
3. Replace OACB.

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.4 C-8201**Code**

C-8201

Classification

DF: DF abnormality

Cause

Tray up-down motor (M305) abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Tray up down motor (M305: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the original tray up/down section, and repair it if any abnormality.
2. Check the connector connection and the wiring between DFCB and the motor, and repair it if any abnormality.
3. Check the I/O drive of the motor and the coupling of the gear, and repair/replace it if any abnormality. (Wiring diagram: DF-615/616 : 5-C)
4. Replace M305.
5. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.5 C-8301**Code**

C-8301

Classification

DF: DF abnormality

Cause

Cooling fan /Lt (FM301) and /Rt (FM302) abnormality

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Cooling fan /Lt (FM301: DF-615/616)
- Cooling fan /Rt (FM302: DF-615/616)
- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the fan, and repair it if any abnormality.
2. Rotate the fan by I/O or hand, and repair it if any abnormality. (Wiring diagram: RU-615/616: 7-F, 8-B)
3. Replace FM301 or FM302.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.6 C-8401**Code**

C-8401

Classification

DF: DF abnormality

Cause

Original registration sensor /Lt (PS306) abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Original registration sensor /Lt (PS306: DF-615/616)
- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: DF-615/616: 1-C)
3. Replace PS306
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.7 C-8402**Code**

C-8402

Classification

DF: DF abnormality

Cause

Original conveyance sensor (PS308) abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Original conveyance sensor (PS308: DF-615/616)
- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: DF-615/616: 2-E)
3. Replace PS308.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.8 C-8403**Code**

C-8403

Classification

DF: DF abnormality

Cause

Original reverse sensor (PS309) abnormality

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Original reverse sensor (PS309: DF-615/616)
- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: DF-615/616: 1-D)
3. Replace PS309.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.9 C-8404**Code**

C-8404

Classification

DF: DF abnormality

Cause

Non-volatile memory error

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on DFCB, and repair it if any abnormality.
3. Rewrite the firmware of DF-615/616.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.10 C-8405**Code**

C-8405

Classification

DF: DF abnormality

Cause

Reverse jam sensor (PS304) abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Reverse jam sensor (PS304: DF-615/616)
- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: DF-615/616: 1-D)
3. Replace PS304.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.11 C-8406**Code**

C-8406

Classification

DF: DF abnormality

Cause

Original reverse-exit sensor (PS313) abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Original reverse-exit sensor (PS313: DF-615/616)
- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: DF-615/616: 2-A)
3. Replace PS313.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.12 C-8407**Code**

C-8407

Classification

DF: DF abnormality

Cause

Original skew sensor /Fr (PS312) abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Original skew sensor /Fr (PS312: DF-615/616)
- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: DF-615/616: 1-E)
3. Replace PS312.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.13 C-8408**Code**

C-8408

Classification

DF: DF abnormality

Cause

Original skew sensor /Rr (PS311) abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Original skew sensor /Rr (PS311: DF-615/616)
- DF control board (DFCB: DF-615/616)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: DF-615/616: 2-E)
3. Replace PS311.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.14 C-8409**Code**

C-8409

Classification

DF: DF abnormality

Cause

Original registration sensor /Rt (PS318) abnormality.(DF-615 only)

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Original registration sensor /Rt (PS318: DF-615)
- DF control board (DFCB: DF-615)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check I/O and the operation of the sensor, and repair/replace it if any abnormality. (Wiring diagram: DF-615: 1-C)
3. Replace PS318.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.15 C-8410**Code**

C-8410

Classification

DF: DF abnormality

Cause

Centering sensor /Fr (PS320) abnormality.(DF-615 only)

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Centering LED sensor /Fr (PS319: DF-615)
- Centering sensor /Fr (PS320: DF-615)
- DF control board (DFCB: DF-615)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check the sensor to see LED emission and light-receiving path, and repair/replace it if any abnormality. (Wiring diagram: DF-615: 1-F, 1-E)
3. Replace PS319 and PS320.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.16 C-8411**Code**

C-8411

Classification

DF: DF abnormality

Cause

Centering sensor /Rr (PS321) abnormality.(DF-615 only)

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Centering LED sensor /Rr (PS322: DF-615)
- Centering sensor /Rr (PS321: DF-615)
- DF control board (DFCB: DF-615)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the sensor, and repair it if any abnormality.
2. Check the sensor to see LED emission and light-receiving path, and repair/replace it if any abnormality. (Wiring diagram: DF-615: 1-F, 2-E)
3. Replace PS321 and PS322.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.17 C-8412**Code**

C-8412

Classification

DF: DF abnormality

Cause

Multi feed detection boards /S (MFDBS) and /R (MFDBR) abnormality(DF-615 only)

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Multi feed detection boards /S (MFDBS: DF-615)
- Multi feed detection boards /R (MFDBR: DF-615)
- DF control board (DFCB: DF-615)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between DFCB and the multi-feed detection board, and repair it if any abnormality.
2. Check the multi-feed detection board to see emission and receiving path, and repair/replace it if any abnormality. (Wiring diagram: DF-615: 1-B, 7-A)
3. Replace MFDBS or MFDBR.
4. Replace DFCB

Faulty part isolation DIPSW

DIPSW18-4

Control while detached

DF mode unavailable (DF connection not recognized)

2.20.18 C-A001**Code**

C-A001

Classification

Main Body: IC Controller abnormality

Cause

Transfer error to the main body image memory

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- IC board (ICB)
- PCI relay board (PCIRB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ICB and PCIRB/between PCIRB and OACB, and repair it if any abnormality.
2. Replace ICB.
3. Replace PCIRB.
4. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.20.19 C-A002****Code**

C-A002

Classification

Main Body: IC Controller abnormality

Cause

Hard disk /2 (HDD2) abnormality.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- IC board (ICB)
- PCI relay board (PCIRB)
- Hard disk /2 (HDD2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ICB and HDD2/between PCIRB and HDD2, and repair it if any abnormality.
2. Format HDD2.
3. Replace HDD2.
4. Replace PCIRB.
5. Replace ICB.

Faulty part isolation DIPSW

Control while detached

2.20.20 C-A003

Code

C-A003

Classification

Main Body: IC Controller abnormality

Cause

IC cooling fan (FM39) lock abnormality.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- IC cooling fan (FM39)
- IC board (ICB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ICB and the fan, and repair it if any abnormality.
2. Rotate the fan or I/O by hand, and repair/replace it if any abnormality. (Wiring diagram: Main body (4/4): 22-E)
3. Replace FM39.
4. Replace ICB.

Faulty part isolation DIPSW

Control while detached

2.20.21 C-A004

Code

C-A004

Classification

Main Body: IC Controller abnormality

Cause

Unregulations IC error occurs.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- IC board (ICB)
- PCI relay board (PCIRB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring on ICB, and repair it if any abnormality.
3. Check the connector connection and the wiring between ICB and PCIRB/between PCIRB and OACB, and repair it if any abnormality.
4. Replace ICB.

Faulty part isolation DIPSW

Control while detached

2.20.22 C-A005

Code

C-A005

Classification

Main Body: IC Controller abnormality

Cause

Version abnormality between SSD (SSD) and hard disk /2 (HDD2).
The SSD version is different from the version information in HDD2.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- IC board (ICB)
- Hard disk /2 (HDD2)
- SSD (SSD)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the firmware versions of SSD and HDD2 and rewrite if the versions are improper.
2. Replace SSD.

Note

- After replacing SSD, be sure to rewrite the FW to the latest version.

3. Replace HDD2.

Faulty part isolation DIPSW**Control while detached****2.20.23 C-A006****Code**

C-A006

Classification

Main Body: IC Controller abnormality

Cause

Hard disc /2 (HDD2) abnormality 1 while in the security ON.

While in the security ON, the unlocking of the HDD results in a failure due to the mismatched password of the hard disk /2 (HDD2).

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Hard disk /2 (HDD2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check to see that HDD2 password for the security mode is properly set, and repair it if any abnormality.

Faulty part isolation DIPSW**Control while detached****2.20.24 C-A007****Code**

C-A007

Classification

Main Body: IC Controller abnormality

Cause

Hard disc /2 (HDD2) abnormality 2 while in the security ON.

Unlocked HDD2 is detected while in the security ON.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Hard disk /2 (HDD2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check to see that HDD2 password for the security mode is properly set, and repair it if any abnormality.

Faulty part isolation DIPSW**Control while detached****2.20.25 C-A008****Code**

C-A008

Classification

Main Body: IC Controller abnormality

Cause

Hard disk /2 (HDD2) is unformatted.

An unformatted HDD2 is detected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Hard disk /2 (HDD2)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Format HDD2.
2. Replace HDD2.

Faulty part isolation DIPSW**Control while detached****2.20.26 C-A009****Code**

C-A009

Classification

Main Body: IC Controller abnormality

Cause

Controller memory abnormality.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DIMM (DIMM)
- IC board (ICB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. Check DIMM on ICB, and reinstall it if any abnormality. (Wiring diagram: Main body (4/4): 22-F)
2. Replace DIMM.
3. Replace ICB.

Faulty part isolation DIPSW**Control while detached****2.20.27 C-A101****Code**

C-A101

Classification

Main Body: IC Controller abnormality

Cause

Controller initial communication abnormality.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- IC board (ICB)
- PCI relay board (PCIRB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between ICB and PCIRB/between PCIRB and OACB, and repair it if any abnormality.
2. Replace ICB.
3. Replace PCIRB.
4. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.20.28 C-C101****Code**

C-C101

Classification

Main body: Communication error

Cause

Initial communication error between the overall control board (OACB) and the printer control board (PRCB).

No response is returned from PRCB even after a specified period of time after the main power switch (SW1) and the sub power switch (SW2) turn ON. Or ISW information is not written on PRCB.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and OACB, and repair it if any abnormality.
3. Replace PRCB.
4. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.20.29 C-C102****Code**

C-C102

Classification

Main body: Communication error

Cause

Initial communication error between the overall control board (OACB) and the printer control board (PRCB).
Communication error from PRCB is detected. Or transmission is not completed.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Printer control board (PRCB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between PRCB and OACB, and repair it if any abnormality.
3. Replace PRCB.
4. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.20.30 C-C103****Code**

C-C103

Classification

Main body: Communication error

Cause

Communication error between the overall control board (OACB) and the operation board /1 (OB1).
Communication error from OB1 is detected. Or transmission is not completed.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Operation board /1 (OB1)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between OB1 and OACB, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 3-D, Main body (1/4): 11-N)
3. Check the connector connection and the wiring of the operation panel, and repair it if any abnormality.
4. Replace OB1.
5. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.20.31 C-C104*****Code**

C-C104*

Classification

Main body: Communication error

Cause

ISW write abnormality 1 of the printer control board.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)
- Printer control board (PRCB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the I/F connector connection and the wiring for ISW on IPB, and repair it if any abnormality.
2. Check the connector connection and the wiring between IPB and PRCB, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 9-G, Main body (1/4): 23-B)
3. Reinstalling firmware
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.20.32 C-C105****Code**

C-C105

Classification

Main body: Communication error

Cause

ISW write abnormality 2 of the printer control board.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)
- Printer control board (PRCB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the I/F connector connection and the wiring for ISW on IPB, and repair it if any abnormality.
2. Check the connector connection and the wiring between IPB and PRCB, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 9-G, Main body (1/4): 23-B)
3. Reinstalling firmware
4. Replace PRCB.

Faulty part isolation DIPSW**Control while detached****2.20.33 C-C106****Code**

C-C106

Classification

Main body: Communication error

Cause

ISW time out error.

No normal header is transmitted within a specified period of time after ISW is started.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the I/F connector connection and the wiring for ISW on IPB, and repair it if any abnormality.
2. Check the connector connection and the wiring between IPB and OACB, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 9-G, Main body (1/4): 11-N)
3. Reinstalling firmware
4. Replace OACB.

Faulty part isolation DIPSW**Control while detached**

2.20.34 C-C107**Code**

C-C107

Classification

Main body: Communication error

Cause

ISW download abnormality.

An error is detected while downloading ISW.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the I/F connector connection and the wiring for ISW on IPB, and repair it if any abnormality.
2. Check the connector connection and the wiring between IPB and OACB, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 9-G, Main body (1/4): 11-N)
3. Reinstalling firmware
4. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.20.35 C-C108****Code**

C-C108

Classification

Main body: Communication error

Cause

ISW write abnormality on the overall control board.

An error is detected because ISW data cannot be written on the overall control board (OACB).

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Image processing board (IPB)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the I/F connector connection and the wiring for ISW on IPB, and repair it if any abnormality.
2. Check the connector connection and the wiring between IPB and OACB, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 9-G, Main body (1/4): 11-N)
3. Reinstalling firmware
4. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.21 Solution 17 (C-C109_C-C124)****2.21.1 C-C109****Code**

C-C109

Classification

FS: FS-532 ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the FS firmware.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FNSCB firmware
- FNS control board (FNSCB)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstall the FNSCB firmware.

2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RBU and OACB, and repair it if any abnormality.
5. Replace FNSCB.

Faulty part isolation DIPSW**Control while detached****2.21.2 C-C111****Code**

C-C111

Classification

LS: LS ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the LS firmware (1st tandem).

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- LSCB firmware
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstall the LSCB firmware.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RUB and OACB, and repair it if any abnormality.
5. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.21.3 C-C112****Code**

C-C112

Classification

LS: LS ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the LS firmware (2nd tandem).

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- LSCB firmware
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstall the LSCB firmware.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RUB and OACB, and repair it if any abnormality.
5. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.21.4 C-C113****Code**

C-C113

Classification

FD: FD ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the FD firmware.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- FDCB firmware
- FD control board (FDCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstall the FDCB firmware.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RUB and OACB, and repair it if any abnormality.
5. Replace FDCB.

Faulty part isolation DIPSW**Control while detached****2.21.5 C-C114****Code**

C-C114

Classification

SD: SD-506 ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the SD firmware.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- SDCB firmware
- SD control board (SDCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstalling SDCB firmware
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RUB and OACB, and repair it if any abnormality.
5. Replace SDCB.

Faulty part isolation DIPSW**Control while detached****2.21.6 C-C116****Code**

C-C116

Classification

PB: PB ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the PB firmware.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- PB firmware
- PB control board (PBCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstalling PBCB firmware
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RUB and OACB, and repair it if any abnormality.
5. Replace PBCB.

Faulty part isolation DIPSW**Control while detached****2.21.7 C-C117****Code**

C-C117

Classification

GP: GP-501 ISW unwritten

Causes

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the GP firmware.

Resulting operation

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- GP firmware
- Punch Controller PCB

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Procedure

1. Reinstall the GP firmware.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring of RBU, OB4 and OACB, and repair it if any abnormality.
5. Replace punch controller PCB.

DipSW**Control during separation****2.21.8 C-C118****Code**

C-C118

Classification

RU: RU-510 ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the RU firmware.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Firmware of RUCB
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstall the RUCB firmware.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RBU and OACB, and repair it if any abnormality.
5. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.21.9 C-C119****Code**

C-C119

Classification

RU: RU-509 ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the RU program.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- RU firmware
- RU control board (RUCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstall the RU firmware.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RUB and OACB, and repair it if any abnormality.
5. Replace RUCB

Faulty part isolation DIPSW**Control while detached****2.21.10 C-C120****Code**

C-C120

Classification

DF: Communication error

Cause

ISW write abnormality on DF.

When the main power switch (SW1) is ON, unwritten area by the ISW is detected in the DF control program.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- DF control board (DFCB)

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between the main body and DF, and repair it if any abnormality.
2. Reinstalling DF firmware
3. Replace DFCB
4. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.21.11 C-C121****Code**

C-C121

Classification

LS: LS ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the LS firmware (3rd tandem).

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- LSCB firmware
- LS control board (LSCB)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstall the LSCB firmware.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RBU and OACB, and repair it if any abnormality.
5. Replace LSCB.

Faulty part isolation DIPSW**Control while detached****2.21.12 C-C123****Code**

C-C123

Classification

GP: GP-502 ISW unwritten

Causes

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the GP firmware.

Resulting operation

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- GP firmware
- Main PCB

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Procedure

1. Reinstall the GP firmware.
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring of RBU, OB4 and OACB, and repair it if any abnormality.
5. Replace punch controller PCB.

DipSW**Control during separation****2.21.13 C-C124****Code**

C-C124

Classification

FS: SD-510 ISW unwritten

Cause

When the sub power switch (SW2) turns ON, ISW unwritten area is detected in the SD firmware.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Firmware of SD
- SD control board (SDCB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Reinstalling SDCB firmware
2. Check the connector connection and the wiring between the main body and each option, and repair it if any abnormality.
3. Check the I/F connector connection and the wiring for ISW on RBU, and repair it if any abnormality.
4. Check the connector connection and the wiring between RBU and OACB, and repair it if any abnormality.
5. Replace SDCB.

Faulty part isolation DIPSW**Control while detached****2.22 Solution 18 (C-C125_E007)****2.22.1 C-C125****Code**

C-C125

Classification

IC: Communication error

Cause

ISW write abnormality of controller.

The firmware is not written on ICB or an error is detected during the ROM check.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- IC board (ICB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the I/F connector connection and the wiring for ISW on ICB, and repair it if any abnormality.
2. Reinstall the firmware related to the controller.
3. Replace ICB.

Faulty part isolation DIPSW**Control while detached****2.22.2 C-C130****Code**

C-C130

Classification

IC: Communication error

Cause

Wrong serial number.

The serial number for the different machine is specified.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

-

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Specify the proper serial number.

Faulty part isolation DIPSW**Control while detached****2.22.3 C-C131****Code**

C-C131

Classification

DF wrong installation

Cause

DF-615 is installed to PRO 951. Or, DF-615 is installed to PRESS1250/1052.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- DF

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check DF, and repair it if any abnormality.

Faulty part isolation DIPSW

Control while detached

2.22.4 C-C132

Code

C-C132

Classification

Wrong installation of image processing board

Cause

The image processing board (IPB) used exclusively for PRESS1250/1250P/1052 is installed to PRO951. Or, IPB used exclusively for PRO951 is installed to PRESS1250/1250P/1052.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Image processing board (IPB)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check that the proper IPB is installed, and replace it if the wrong one is installed.
2. Check the connector and the wiring connected to IPB, and repair it if any abnormality.
3. Replace IPB.

Faulty part isolation DIPSW

Control while detached

2.22.5 C-C136

Code

C-C136

Classification

Common API unmatched version

Cause

When the version differs between Common API for the overall control and IC controller.

Measures to take when alert occurs

The main body stops immediately to turn OFF the main relay (RL1).

Estimated abnormal parts

- Overall control board (OACB)
- IC board (ICB)

Correction

Turn OFF/ON the sub power switch of the main body.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the I/F connector connection and the wiring for ISW on ICB, and repair it if any abnormality.
2. Check the connector connection and the wiring between ICB and OACB, and repair it if any abnormality. (Wiring diagram: Main body (4/4): 21-D, Main body (1/4): 11-N)
3. Reinstall the firmware of the image control (I1) and the IC controller (P).
4. Replace ICB or OACB.

Faulty part isolation DIPSW

Control while detached

2.22.6 C-D001

Code

C-D001

Classification

HDD: Communication error

Cause

Hard disk /1 (HDD1) initialization abnormality.

HDD1 is defective, or the connector is poorly connected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Hard disk /1 (HDD1)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Check the connector connection and the wiring between OACB and HDD1, and repair it if any abnormality.
2. Execute output check code "99-03" in I/O check mode.
3. Replace HDD1.

Faulty part isolation DIPSW**Control while detached****2.22.7 C-D002****Code**

C-D002

Classification

HDD: Communication error

Cause

JOB_RAM storage abnormality.
The JOB information cannot be stored on the hard disk /1 (HDD1).

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Hard disk /1 (HDD1)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between OACB and HDD1, and repair it if any abnormality. (Wiring diagram: Main body (1/4): 11-N, Main body (4/4): 10-D)
3. Reinstall the firmware related to the overall control.
4. Replace HDD1.

Faulty part isolation DIPSW**Control while detached****2.22.8 C-D003****Code**

C-D003

Classification

HDD: Communication error

Cause

Hard disk /1 (HDD1) periodic cleaning abnormality.
While in a periodical cleaning, opening the rote to hard disk is not succeeded.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Hard disk /1 (HDD1)
- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between OACB and HDD1, and repair it if any abnormality. (Wiring diagram: Main body (1/4): 11-N, Main body (4/4): 10-D)
3. Reinstall the firmware related to the overall control.
4. Replace HDD1.

Faulty part isolation DIPSW**Control while detached****2.22.9 C-D004****Code**

C-D004

Classification

HDD: Communication error

Cause

Hard disk /1 (HDD1) access defective.
HDD1 is defective, or the connector is poorly connected.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Hard disk /1 (HDD1)

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Check the connector connection and the wiring between OACB and HDD1, and repair it if any abnormality. (Wiring diagram: Main body (1/4): 11-N, Main body (4/4): 10-D)
3. Reinstall the firmware related to the overall control.
4. Replace HDD1.

Faulty part isolation DIPSW**Control while detached****2.22.10 C-D010****Code**

C-D010

Classification

HDD: Communication error

Cause

Hard disk /1 (HDD1) overwrite erase execution.
HDD1 overwrite erase is executed.

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay) .

Estimated abnormal parts

- Hard disk /1 (HDD1)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Execute output check code "99-03" in I/O check mode.
2. Replace HDD1.

Faulty part isolation DIPSW**Control while detached****2.22.11 C-D080****Code**

C-D080

Classification

Common API related HDD file crushed

Cause

The common API related HDD file on the hard disk /1 (HDD1) is crushed

Measures to take when alert occurs

The main body and option stop immediately to turn OFF the RL1 (the main relay).

Estimated abnormal parts

- Hard disk /1 (HDD1)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please call service" is displayed on the panel.

Solution

1. Execute output check code "99-03" in I/O check mode.
2. Replace HDD1.

Faulty part isolation DIPSW**Control while detached****2.22.12 C-E001****Code**

C-E001

Classification

HDD: Communication error

Cause

Message queue error.
The message queue is insufficient or destroyed.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Reinstall the firmware related to the overall control.
3. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.22.13 C-E002****Code**

C-E002

Classification

HDD: Communication error

Cause

Message parameter value error.
The parameter value is in excess of the permissible limits.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Reinstall the firmware related to the overall control.
3. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.22.14 C-E003****Code**

C-E003

Classification

HDD: Communication error

Cause

Source task error.
The ID of the task that sends the message queue is undefined.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Reinstall the firmware related to the overall control.
3. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.22.15 C-E004****Code**

C-E004

Classification

HDD: Communication error

Cause

Receiving event error.
The receiving event of the message is undefined.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Reinstall the firmware related to the overall control.
3. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.22.16 C-E005****Code**

C-E005

Classification

HDD: Communication error

Cause

Memory access abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Reinstall the firmware related to the overall control.
3. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.22.17 C-E006****Code**

C-E006

Classification

HDD: Communication error

Cause

Header readout address abnormality.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Reinstall the firmware related to the overall control.
3. Replace OACB.

Faulty part isolation DIPSW**Control while detached****2.22.18 C-E007****Code**

C-E007

Classification

HDD: Communication error

Cause

DRAM memory abnormality.

An error is detected in the DRAM memory check at the start.

Measures to take when alert occurs

If there is a sheet of paper being printed, the main body completes the paper exit before stopping operations and turning OFF the RL1 (the main relay).

Estimated abnormal parts

- Overall control board (OACB)

Correction

Turn OFF/ON the sub power switch (SW2) of the main body when releasing an abnormal condition.

Note

- The message "Please turn on power again" is displayed on the touch panel.

Solution

1. After turning OFF the sub power switch, turn OFF the main power switch and unplug the power plug. Restart the main body after 10 seconds.
2. Reinstall the firmware related to the overall control.
3. Replace OACB.

Faulty part isolation DIPSW**Control while detached**

3. TROUBLES THAT DO NOT DISPLAY THE MALFUNCTION CODE

3.1 The power of main body does not turn ON

3.1.1 Turn ON the main power switch but the power LED of the operation panel does not light up in red.

Target parts for trouble				
Noise filter /2 (NF2) Main power switch (SW1) Circuit breaker (CBR)		DC power supply /1 (DCPS/1) Overall control board (OACB)		
Procedure	Check item	Location (Electrical parts)	Result	Action
1	Disconnect the plug from the outlet. Ask the administrator on the user side to check the state of the power of the outlet, and the power has no trouble. * Be sure not to overuse the power of the outlet including the other connected machines.	Main body (1/4):1-K	NO	Ask the administrator on the user side for the repair.
2	Wiring from the plug to CBR is connected properly.	Main body (1/4):1-K	NO	Repair the wiring.
3	Wiring from CBR to DCPS/1 is connected properly.	Main body (1/4):2-K	NO	Repair the wiring.
4	After checking that the plug is not connected to the outlet, scale the resistance value on both edge of the plug and it is 0Ω.	Main body (1/4):1-K	YES	Check the cause of the short on the wiring from the plug to the DC power supply board, and repair it.
5	The switch of CBR is OFF.	-	YES	Go on to step 6.
			NO	Go on to step 7.
6	Turn ON the switch of CBR.	-	NO	Replace CBR
7	Connect the plug to the outlet and find that any irregular sound from the machine or the error on the board does not occur.	-	NO	Remove the plug from the outlet, check the cause of the error, and repair it.
8	The fuse of DCPS/1 has the conduction.	-	NO	Replace DCPS/1
9	The voltage of CN77-1 and CN77-2 of DCPS/1 is DC36V.	Main body (1/4):20-K	NO	Replace DCPS/1
10	The voltage of CN74-1 to CN74-18 of DCPS/1 is 24VDC.	Main body (1/4):17-K	NO	Replace DCPS/1
11	The voltage of CN73-2 and CN73-3 of DCPS/1 is 12VDC.	Main body (1/4):16-K	NO	Replace DCPS/1
12	The voltage of CN72-1 and CN72-2 of DCPS/1 is 5VDC.	Main body (1/4):15-K	NO	Replace DCPS/1
13	Wiring from DCPS/1 to OACB is connected properly.	-	NO	Repair the wiring.
14	Wiring from OACB to the operation panel is connected properly.	Main body (4/4): 1-H, 2-H, 3-H, 4-H, 5-H	YES	Replace OACB
			NO	Repair the wiring inside the operation panel. Replace the board inside the operation panel.

3.1.2 Turn ON the main power switch and the sub power switch, but the touch panel does not display anything.

- The power save LED is lighting/blinking, but the main power LED does not light in green (but lights in red).

Target parts for trouble				
Main power switch (SW1)		Overall control board (OACB)		
Procedure	Check item	Location (Electrical parts)	Result	Action
1	The power save LED blinks in green.	-	YES	Processing ISW Do not turn OFF the main power.
2	The power save LED blinks in orange.	-	YES	Reinstall the firmware because of the firmware writing error of the OACB.
			NO	Check "Turn ON the main power switch but the power LED of the operation panel does not light up in red".

3.1.3 Turn ON the sub power switch but the power LED does not switch from red to green.

Target parts for trouble	
Sub power switch (SW2)	Overall control board (OACB)

Procedure	Check item	Location (Electrical parts)	Result	Action
1	The power LED is lighting in red.	-	NO	Refer to the main power switch related trouble
2	The terminal voltage of the red wiring of SW2 changes from DC5V to DC0V by turning ON SW-2 from OFF.	Main Body (4/4): 16-C	YES	Replace OACB
			NO	Repair the wiring between OACB and SW2.

3.2 The power is not supplied to DF-615/616.

Target parts for trouble				
DC power supply /2 (DCPS/2: main body)		DF control board (DFCB: DF)		
Procedure	Check item	Location (Electrical parts)	Result	Action
1	The voltage of CN1-3 of DFCB is 24VDC.	DF: 4-A	YES	Trouble in DF Confirmation of DFCB connector Replace DFCB
2	The voltage of CN21-1 of DCPS/2 is 24VDC.	Main body (1/4):17-A	YES	Repair the wiring from DCPS/2 to DF.
			NO	Replace DCPS/2

3.3 The power is not supplied to the paper feed option.

3.3.1 PF-703/706

Target parts for trouble				
DC power supply /1 (DCPS/1: main body)		PF drive board (PFUDB: PF)		
DC power supply /2 (DCPS/2: main body)		-		
Procedure	Check item	Location (Electrical parts)	Result	Action
1	The front door of PF is open.	-	YES	Close the front door.
2	Using the tandem PF.	-	YES	Go on to step 3.
			NO	Go on to step 9.
3	The PF connecting terminal of the 1st tandem has voltage outputs for DC36V, DC24V, DC12V and DC5V.	PF: 2-G	YES	Go on to step 9.
			NO	Go on to step 4.
4	The PF connecting terminal of the main body has voltage outputs for DC24V, DC12V, and DC5V.	Main body (1/4): 20-D	YES	Go on to step 5.
			NO	Go on to step 7.
5	The PF connecting terminal of the main body has voltage output for DC36V.	Main body (1/4): 20-D	YES	Go on to step 8.
			NO	Go on to step 6.
6	The wiring from DCPS /1 to the PF connecting terminal is connected properly.	Main body (1/4):16-K	YES	Repair the wiring.
			NO	Replace DCPS1
7	The wiring from DCPS /2 to the PF connecting terminal is connected properly.	Main body (1/4): 15-A, 18-A	YES	Repair the wiring.
			NO	Replace DCPS2
8	The wiring from the main body connecting terminal in the 1st PF-703 to the PF connecting terminal in the 2nd PF is connected properly.	PF: 2-B	NO	Repair the wiring.
			NO	Repair the wiring.
9	The wiring from PF connecting terminal to PFUDB is connected properly.	PF: 3-I	YES	Repair the wiring.
			NO	Replace PFUDB

3.3.2 LU-409/410

Target parts for trouble				
DC power supply /2 (DCPS/2: main body)		LU drive board (LUDB: LU)		
Procedure	Check item	Location (Electrical parts)	Result	Action
1	The front door of LU is open.	-	YES	Close the front door.
2	The LU connecting terminal of the Main Body has voltage outputs for 24VDC and 5VDC.	LU: 2-G	YES	Go on to step 5.
			NO	Go on to step 3.
3	The LU connecting terminal of the main body has voltage outputs for 24VDC and 5VDC.	Main body (1/4): 20-D	YES	Go on to step 5.
			NO	Go on to step 4.
4	The wiring from DCPS /2 to the LU connecting terminal is connected properly.	Main body (1/4): 15-A, 18-A	YES	Repair the wiring.
			NO	Replace DCPS2

5	The wiring from LU connecting terminal to LUDB is connected properly.	LU: 3-I	YES	Repair the wiring.
			NO	Replace LUDB.

3.4 The power is not supplied to the finishing option.

3.4.1 PF-703 + FA-501

Target parts for trouble				
DC power supply /1 (DCPS/1: main body)		PF drive board (PFUDB: PF)		
DC power supply /2 (DCPS/2: main body)		-		
Procedure	Check item	Location (Electrical parts)	Result	Action
1	The front door of PF is open.	-	YES	Close the front door.
2	The PI-PFU connecting terminal of the main body has voltage outputs for DC24V, DC12V, and DC5V.	Main body (1/4): 20-B	YES	Go on to step 3.
			NO	Go on to step 4.
3	The PI-PFU connecting terminal of the main body has voltage outputs for DC36V.	Main body (1/4): 20-B	YES	Go on to step 5.
			NO	Go on to step 6.
4	The wiring from DCPS /1 to the PI-PFU connecting terminal is connected properly.	Main body (1/4): 16-K	YES	Repair the wiring.
			NO	Replace DCPS1
5	The wiring from DCPS /2 to the PI-PFU connecting terminal is connected properly.	Main body (1/4): 17-A, 18-A	YES	Repair the wiring.
			NO	Replace DCPS2
6	The wiring from the main body connecting terminal to PFUDB is connected properly.	PF: 16-A	YES	Repair the wiring.
			NO	Replace PFUDB

3.4.2 RU-509

Target parts for trouble				
DC power supply (DCPS: RU-509)		RU control board (RUCB: RU-509)		
Step	Check item	Wiring diagram location	Result	Action
1	The front door of RU-509 is open.	-	YES	Close the front door.
2	The voltage of CN1-5 of RUCB is 5V DC.	RU: 4-D	YES	Trouble in RU Confirmation of RUCB connector Replace RUCB
3	Wiring from the main body to RU is connected properly.	-	NO	Repair the wiring.
4	The wiring from RU-509 AC power supply to DCPS and the wiring switchover have no trouble.	-	NO	Repair the AC power supply wiring.
5	The switch of CBR is OFF.	-	YES	Go on to step 6.
			NO	Go on to step 7.
6	Turn ON CBR.	-	NO	Replace CBR
7	The fuse of DCPS has the conduction.	-	NO	Replace DCPS
8	Connect the plug of the main body to the outlet and ensure that any irregular sound inside RU or the error on the board does not occur.	-	NO	Remove the plug from the outlet, check the cause of the error, and repair it.
9	The voltage between CN1-1 and CN1-2 of RUCB is DC24V.	RU: 4-D	YES	Replace RUCB.
			NO	Replace DCPS

3.4.3 RU-510

Target parts for trouble				
DC power supply /2 (DCPS/2: main body)		RU control board (RUCB: RU)		
Procedure	Check item	Location (Electrical parts)	Result	Action
1	The front door of RU is open.	-	YES	Close the front door.
2	The voltages of CN1-4 and CN1-5 of RUCB are 5V DC.	RU: 7-F	YES	Trouble in RU Confirmation of RUCB connector Replace RUCB
3	Wiring from the main body to RU is connected properly.	-	NO	Repair the wiring.

3.4.4 FS-532

Target parts for trouble				
DC power supply /2 (DCPS/2: main body)		FNS control board (FNSCB: FS)		

Procedure	Check item	Location (Electrical parts)	Result	Action
1	The front door of FS is open.	-	YES	Close the front door.
2	The voltage of CN2-1 and CN2-4 of FNSCB is 24VDC.	FS: 7-E	YES	Trouble in FS Confirmation of FNSCB connector Replace FNSCB.
3	Wiring from the main body to FS is connected properly.	-	NO	Repair the wiring.
4	The voltage of CN21-2 of DCPS2 is DC24V and the voltage of CN14-2 to 4 of DCPS2 is DC5V.	Main body (1/4): 17-A, 18-A	YES	Repair the wiring from DCPS2 to the finishing option connecting terminal.
			NO	Replace DCPS2

3.4.5 LS-505

Target parts for trouble				
DC power supply (DCPS: LS)		LS control board (LSCB: LS)		
Procedure	Check item	Wiring diagram location	Result	Action
1	The voltage between CN26-2 and CN26-3 of LSCB is DC5V.	LS: 8-F	NO	Repair the wiring between the main body and LS.
2	The wiring from the main body AC power supply to LS DCPS and the wiring switchover have no trouble.	LS: 9-F	NO	Repair the AC power supply wiring.
3	The switch of CBR is OFF.	-	YES	Go on to step 4.
			NO	Go on to step 5.
4	Turn ON CBR.	-	NO	Replace CBR
5	The fuse of DCPS has the conduction.	-	NO	Replace DCPS
6	Connect the plug of the main body to the outlet and ensure that any irregular sound inside LS or the error on the board does not occur.	-	NO	Remove the plug from the outlet, check the cause of the error, and repair it.
7	The voltage of CN27-1 and 2 of LSCB is DC24V.	LS: 8-F	YES	Replace LSCB
			NO	Replace DCPS
8	The voltage among the relay board, CN2-1 and CN2-2 is DC5V.	LS-9:-H	NO	Repair the wiring between the board and the relay.

3.4.6 FD-503

Target parts for trouble				
Circuit breaker /1 (CBR1: FD) Circuit breaker /2 (CBR2: FD)		DC power supply (DCPS: FD) FD control board (FDCB: FD)		
Procedure	Check item	Wiring diagram location	Result	Action
1	The front door of FD is open.	-	YES	Close the front door.
2	The voltage between CN20-1 and CN20-3 of FDCB is DC5V.	FD: 5-G	NO	Repair the wiring between the main body and FD.
3	The wiring from the main body AC power supply to FD DCPS and the wiring switchover have no trouble.	FD: 1-H	NO	Repair the AC power supply wiring.
4	The switches of CBR1 and CBR2 are OFF.	FD: 2-H	YES	Go on to step 5.
			NO	Go on to step 6.
5	Turn ON the switches of CBR1 and CBR2 from OFF.	-	NO	Replace CBR1 or CBR2
6	The fuse of DCPS has the conduction.	-	NO	Replace DCPS
7	Connect the plug of the main body to the outlet and find that any irregular sound inside FD or the error on the board does not occur.	-	NO	Remove the plug from the outlet, check the cause of the error, and repair it.
8	The voltage of CN205-1 and 2 or 3 and 4 of FDCB are 24VDC.	FD: 7-F	YES	Replace FDCB
			NO	Replace DCPS

3.4.7 SD-506

Target parts for trouble	
Circuit breaker /1 (CBR1: SD) Circuit breaker /2 (CBR2: SD)	DC power supply /1 (DCPS1: SD) DC power supply /2 (DCPS2: SD) DC power supply /3 (DCPS3: SD) SD control board (SDCB: SD)

SD drive board (SDDB: SD)				
Procedure	Check item	Wiring diagram location	Result	Action
1	The front door of SD is open.	-	YES	Close the front door.
2	The voltage between CN20-1 and CN20-3 of SDCB is DC5V.	SD: 5-D	NO	Repair the wiring between the main body and SD.
3	The wiring from the main body AC power supply to SD DCPS and the wiring switchover have no trouble.	SD: 12-T	NO	Repair the AC power supply wiring.
4	The switches of CBR1 and CBR2 are OFF.	SD: 13-T	YES	Go on to step 5.
			NO	Go on to step 6.
5	Turn ON the switches of CBR1 and CBR2 from OFF.	-	NO	Replace CBR1 or CBR2
6	The fuses of DCPS1, DCPS2 and DCPS3 have the conduction.	-	NO	Replace the DC power supply without conduction of the fuse.
7	Connect the plug of the main body to the outlet and ensure that any irregular sound inside SD or the error on the board does not occur.	-	NO	Remove the plug from the outlet, check the cause of the error, and repair it.
8	The voltage of CN101-1 to CN101-3 of SDDB is DC24V.	SD: 19-M	NO	Replace DCPS1
9	The voltage of CN162-1 to CN162-3 of SDDB is DC24V.	SD: 20-M	NO	Replace DCPS2
10	The voltage of CN163-1 to CN163-3 of SDDB is DC24V.	SD: 21-M	YES	Replace SDDB
			NO	Replace DCPS3

3.4.8 PB-503

Target parts for trouble				
Circuit breaker (CBR: PB-503) DC power supply /1 (DCPU/1: PB-503) DC power supply /2 (DCPU/2: PB-503) DC power supply /3 (DCPU/3: PB-503)		PB drive board /1 (PBDB1: PB-503) PB drive board /2 (PBDB2: PB-503) PB drive board /3 (PBDB3: PB-503) PB control board (PBCB: PB-503) AC drive board (ACDB: PB-503)		
Step	Check item	Wiring diagram location	Result	Action
1	The front door of PB is open.	-	YES	Close the front door.
2	The voltage between CN1-1 and CN1-3 of PBCB is DC5V.	PB:25-N	NO	Repair the wiring between the main body and PB.
3	Wiring from the plug of PB to CBR is connected properly.	PB:24-B	NO	Repair the AC power supply wiring.
4	The switch of CBR is OFF.	PB:25-B	YES	Go on to step 5.
			NO	Go on to step 6.
5	Turn ON CBR.	-	NO	Replace CBR
6	The fuses of DCPU/1, DCPU/2 and DCPU/3 have the conduction.	-	NO	Replace the DC power supply without conduction of the fuse.
7	The wiring from PBDB1 to DCPU/1, DCPU/2 and DCPU/3 has no trouble.	PB:24-F	NO	Repair the wiring.
8	There is power output of DC 24V for CN45-2 and 3 of PB ACDB.	PB:28-M	NO	Check the wiring. Replace ACDB (PB).
9	Connect the plug of the main body to the outlet and find that any irregular sound inside the main body or the error on the board does not occur.	-	NO	Remove the plug from the outlet, check the cause of the error, and repair it.
10	The voltage of CN51-1 and CN51-2 of PBDB1 is DC24V.	PB: 25-J	NO	Repair the wiring from DCPU /1 to PBDB1. Replace DCPU/1
11	The voltage of CN51-1 to CN52-3 of PBDB1 is DC24V.	PB:24-J	NO	Repair the wiring from DCPU /2 to PBDB1. Replace DCPU 2
12	The voltage of CN50-1 and CN50-2 of PBDB1 is DC5V.	PB:26-J	YES	Replace PBDB1
			NO	Repair the wiring from DCPU /3 to PBDB1. Replace DCPU/3

3.4.9 GP-501

Target parts for trouble				
Line filter (GP) Power supply (GP)		Punch controller PCB (GP)		
Step	Check item	Wiring diagram location	Result	Action

1	The front door of GP is open.	GP: 5-F	YES	Close the front door.
2	The voltage between P39-4 and P39-5 of punch controller PCB is DC5V.	GP: 8-E	NO	Repair the wiring between the main body and GP.
3	Disconnect the plug of GP from the outlet. The voltage of the outlet is the power supply voltage. * Be sure not to overuse the power of the outlet including the other connected machines.	-	NO	Ask the administrator on the user side to check the state of the power of the outlet.
4	Wiring from the punch controller PCB to power supply is connected properly.	GP: 4-E	NO	Repair the wiring.
5	After checking that the plug of GP is not connected to the outlet, scale the resistance value on the both edge of the plug and it is 0.	GP: 3-E	YES	Check the cause of the short on the wiring from the plug to punch controller PCB.
6	Connect the plug of GP to the outlet and find that any irregular sound or the error on the board does not occur.	-	NO	Remove the plug from the outlet, check the cause of the error, and repair it.
7	The fuse of power supply has the conduction.	-	NO	Replace power supply.
8	The voltage of P14-1 and P14-3 of punch controller PCB is DC24V.	GP: 5-E	YES	Replace punch controller PCB.
			NO	Replace power supply.

4. IMAGE TROUBLE

4.1 Initial check point

4.1.1 Initial check items

- Judge whether the cause of the image trouble is from the scanner system, the printer system, or the controller system.
- For the troubles of stripe and band, conduct the test print with the half tone image to judge whether it is the scanner system or the printer system.
- For the other image troubles, judge it from the copy from the original glass and the print from PC.

Scanner system

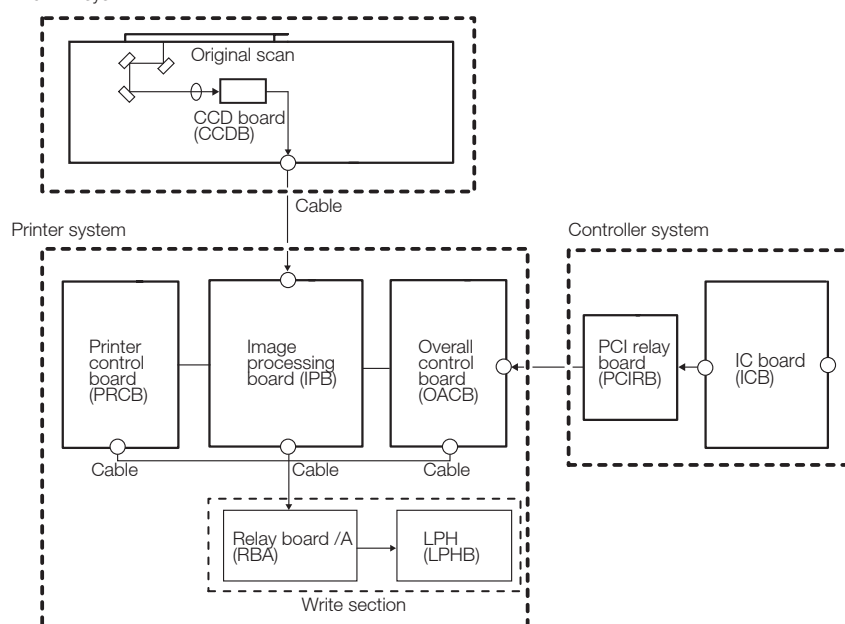


IMAGE TROUBLE	Action	Judgment	Cause	Next step
Stripe, band	Select [Service Mode] → [Test Mode] → [Test Pattern Output Mode] and enter "1" to print out the half tone with the density setting "60". Then the stripe or the band occurs.	YES	Printer system	Printer system procedure
		NO	Scanner system	Scanner system procedure
Others	The image trouble occurs only on the copy from the original glass.	YES	Scanner system	Scanner system procedure
	The same image trouble occurs on the copy from the original glass and the print from PC.	YES	Printer system	Printer system procedure
		NO	Controller system	Controller system procedure

4.2 Printer system procedure

4.2.1 OUTLINE

When it is judged as the printer system trouble from the initial check items, conduct the image stabilization after checking the printer check items.

Note

- The following sample images on each procedures are when printing in A3.

4.2.2 Check the printer

- Check the damage or the dirt on each section parts.

Procedure	Section	Check item	Result	Action
1	Paper	The paper setting of the machine and the paper to be printed are the same type.	NO	Check the paper type setting of the machine, and fix it.
2	Roller *1	There is dirt on rollers.	YES	Cleaning
3	Write section	The surface of LPH has dirt.	YES	Cleaning
4	Photo conductor section	Drum has dirt on its outward.	YES	Cleaning
5		Drum has the damage or the stripe on the upper side.	YES	Check the touching of the drum claw, Clean Replacing of the drum
6	Developing section	The developing bias contacting terminal surely touches.	NO	Clean the contacting terminal, Check the terminal position
7	Charging section	Charging wire or charging control plate has dirt.	YES	Cleaning

8	Transferring section	Transfer belt has dirt.	YES	Cleaning
9	Cleaning section	Cleaning blade surely touches to the drum.	NO	Check, clean, or replace the cleaning blade
10	Conveyance section, duplex section	Dirt or the foreign material is on the paper conveyance path.	YES	Cleaning
11	Fusing section	Fusing roller has dirt.	YES	Cleaning Check the cleaning web
12	Paper exit section	The paper exit roller and the de-curler roller have dirt.	YES	Cleaning

*1 The roller is likely to be dirty when printing on all-image area. When using thick paper, the roller is especially likely to be dirty by the toner which is adhered on the trimming side of the paper. When custom size paper is in use, it is printed on all-image area.

4.2.3 Image Stabilization

- Conduct the image stabilization to check whether the trouble is solved.

Procedure	Section	Check item	Result	Action
1	Service mode →Process adjustment→Drum Peculiarity Adjustment→Automatic Drum Potential	Conduct the auto charging potential adjustment and the problem is solved.	NO	Go on to the next step.
2	Service mode →Process adjustment→Drum Peculiarity Adjustment→Auto Maximum Density Adj.	Conduct the auto maximum density adjustment and the problem is solved.	NO	Go on to the next step.
3	Service mode →Process adjustment→Drum Peculiarity Adjustment→Auto Dot Diameter Adj.	Conduct the auto dot diameter adjustment and the problem is solved.	NO	Go on to the next step.
4	Service mode →Process adjustment→Drum Peculiarity Adjustment→Cartridge set mode	Conduct the cartridge set mode and the problem is solved.	NO	Go on to the next step.

4.2.4 Printer system: White lines in sub scan direction, White bands in sub scan direction, Black lines in sub scan direction, Black bands in sub scan direction

(1) Typical faulty images

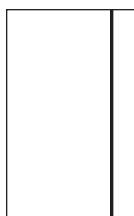
White lines in sub scan direction



White bands in sub scan direction



Black lines in sub scan direction



Black bands in sub scan direction



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	User mode →MACHINE	"Charge Manual Cleaning" solves the trouble.	YES	Conduct "Charge Manual Cleaning".

	→Adjustment →Charge Manual Cleaning			
3	Write section	The dirt adheres to the surface of LPH.	YES	Clean LPH
4	Charging section	Charger wire and charger control plate have foreign objects.	YES	Cleaning Replace the charger wire.
5	Cleaning section	Some parts on the cleaning blade are left to wipe.	YES	Cleaning Replace the cleaning blade
6	Photo conductor section	Drum separation claws have dirt.	YES	Cleaning Check the drum separation claws action
7	Fusing section	Fusing separation claws have dirt.	YES	Cleaning Check the fusing separation claws action
8	Check the printer	Check the transferring section, the developing section and the conveyance section.	NO	Clean, Replace
9	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
10	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
11	Service mode → Machine Adjustment → LPH Adjustment	Conduct the gap adjustment between LPH chips, conduct the black lines adjustment, and the problem is solved.	NO	Go on to the next step.
12		The problem has been eliminated through the checks of steps up to 11.	NO	Replace LPH → Check or replace the charging section → Replacing of the drum → Check or replace the transferring section → Check or replace the developing section → Replace the image processing board

4.2.5 Printer system: White lines in main scan direction, White bands in main scan direction, Black lines in main scan direction, Black bands in main scan direction

(1) Typical faulty images

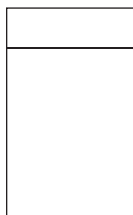
White lines in main scan direction



White bands in main scan direction



Black lines in main scan direction



Black bands in main scan direction



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type, and fix it.
2	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, developing section, and fusing section.	NO	Clean, Replace
3	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
4	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.

5		The problem has been eliminated through the checks of steps up to 4.	NO	Replacing of the drum → Check or replace the charging section → Check or replace the transferring section → Check or replace the developing section → Replace the image processing board
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4.2.6 Printer system: Uneven density in sub scan direction

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type, and fix it.
2	Setting menu → Function setting → Density setting → Image density selection	Change the setting value of the image density to the plus, and the trouble is solved.	NO	Go on to the next step.
3	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, and the developing section.	NO	Clean, Replace
4	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
5		The problem has been eliminated through the checks of steps up to 4.	NO	Replacing of the drum → Check or replace the charging section → Replace LPH → Check or replace the transferring section → Check or replace the developing section → Replace the image processing board → Replace the high voltage unit /2

4.2.7 Printer system: Uneven density in main scan direction

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type, and fix it.
2	Setting menu → Function setting	Change the setting value of the image density to the plus, and the trouble is solved.	NO	Go on to the next step.

	→ Density setting → Image density selection			
3	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, and the developing section.	NO	Clean, Replace
4	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
5	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
6	Tray setting → Change Set → Process adjustment → Transfer current offset adjustment	Conduct the transfer current offset adjustment and the problem is solved.	YES	Select the side and part which abnormal condition occurs, and lower the transfer current offset value every 5 steps.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Check or replace the charging section → Replace the drum → Replace LPH → Check or replace the transferring section → Check or replace the developing section → Replace the image processing board → Replace the high voltage unit /1 → Replace the high voltage unit /2

4.2.8 Printer system: Light density (ID lowering)

(1) Typical faulty images



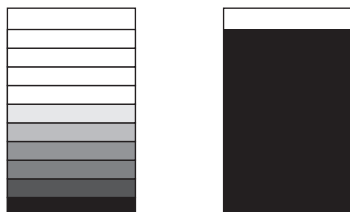
(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type, and fix it.
2	Setting menu → Function setting → Density setting → Image density selection	Change the setting value of the image density to the plus, and the trouble is solved.	NO	Go on to the next step.
3	IDC sensor	IDC sensor has dirt.	YES	Clean the IDC sensor with alcohol.
4	Toner supply section	The setting of toner bottle is appropriate.	NO	Reset
5		Toner is supplied to the intermediate hopper normally.	NO	Clean, Replace
6	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, developing section, and toner supply section.	NO	Clean, Replace
7	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
8	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
9	Individual support action adjustment → Image density adjustment	[Darker] on the image density adjustment solves the trouble.	NO	Go on to the next step.

10		The problem has been eliminated through the checks of steps up to 9.	NO	Check or replace the charging section → Replace the drum → Replace LPH → Check or replace the transferring section → Check or replace the developing section → Replace the image processing board → Replace the high voltage unit /1 → Replace the high voltage unit /2
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4.2.9 Printer system: Gradation error

(1) Typical faulty images

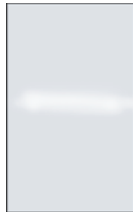


(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Gradation pattern	Print out the test pattern No.3 or No.5 and the gradation pattern is without any trouble.	YES	Check the other density errors of the printer system.
2	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type, and fix it.
3	Density	It occurs on the particular image (such as picture).	YES	Check Copy Setting → Image Setting (letters, light letters, picture).
4	Setting menu → Function setting → Density setting → Image density selection	The setting value adjustment of the image density solves the trouble. Too light: Change the setting value to the plus. Too dark: Change the setting value to the minus.	NO	Go on to the next step.
5	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, and the developing section.	NO	Clean, Replace
6	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
7	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
8		The problem has been eliminated through the checks of steps up to 7.	NO	Check or replace the charging section → Replace the drum → Check or replace the transferring section → Check or replace the developing section → Replace the image processing board → Replace the high voltage unit /2

4.2.10 Printer system: Half tone overall diagonal stripe**(1) Typical faulty images****(2) Troubleshooting procedure**

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Developer	The developer is new.	YES	Go on to step 3.
		The developer is old.	YES	Go on to step 4.
3	Setting menu → Administrator setting → System Setting → Expert adjustment → Scan quality adjustment → Texture Elimination	When the developer is new, check the setting data of [Texture Elimination], and it is "OFF".	YES	Change the setting data to "ON". Note Because the gradation peculiarity deteriorates with "ON" of [Texture Elimination], be sure to use "ON" only when the developer is new.
4	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, and the developing section.	NO	Clean, Replace
5	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
6		The problem has been eliminated through the check of step 5.	NO	Replace developer → Check or replace the developing section

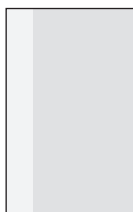
4.2.11 Printer system: Half tone repelling**(1) Typical faulty images****(2) Troubleshooting procedure**

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Transferring section	Transfer belt or the power feeding section of transfer roller has dirt.	YES	Remove dirt
3	Check the printer	Check mainly on the transferring section, the charging section, photo conductor section, and the developing section.	NO	Clean, Replace
4	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
5	Tray setting → Change Set → Process adjustment → Transfer current offset adjustment	Conduct the transfer current offset adjustment and the problem is solved.	YES	Select the side and part which abnormal condition occurs, and lower the transfer current offset value every 5 steps.

6		The problem has been eliminated through the check of step 5.	NO	Check or replace the transferring section → Replace the drum → Check or replace the charging section → Check or replace the developing section → Replace the high voltage unit /2 → Replace the image processing board
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4.2.12 Printer system: Size memory

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Paper usage	The trouble occurs after using small-size paper.	YES	Go on to step 3.
			NO	Go on to step 4.
3	User mode → Machine → Adjustment → Size memory recovery mode	Conduct the size memory recovery mode after using small-size paper.	YES	Conduct the size memory recovery mode.
4	Check the printer	Check mainly on the transfer section, photo conductor section, charging section, and PCC section.	NO	Clean, Replace
5	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
6		The problem has been eliminated through the check of step 5.	NO	Replace the fusing roller → Replace fusing heater lamp

4.2.13 Printer system: Short diagonal lines, wrinkling of paper

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Paper usage	The trouble occurs after using small-size paper.	YES	Go on to step 3.
			NO	Go on to step 4.
3	Service mode → System Setting → Software DIPSW DIPSW_8-7	Setting is "1".	NO	Change the setting value of software DIPSW_8-7 to "1" (with initial rotation).
4	Check the printer	Check mainly on the fusing section.	NO	Clean, Replace

5	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
6		The problem has been eliminated through the check of step 5.	NO	Replace the fusing roller → Replace fusing heater lamp

4.2.14 Printer system: Wax unevenness

(1) Typical faulty images

Trails with exit rollers

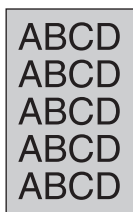


(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Output job	Output the job (light density) other than the job which occurs the trouble in first.	YES	Go on to the next step.
3	Fusing section	Check dirt of the paper exit roller.	YES	Remove dirt
4	Check the printer	Check mainly on the fusing section.	NO	Clean, Replace
5	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
6	Service mode → System Setting → Software DIPSW DIPSW_19-0 to 19-3	The wax unevenness is solved by lowering the fusing temperature.	YES	Change the setting of software DIPSW_19-0 to 19-3 to lower the fusing temperature.
7		The problem has been eliminated through the check of step 6.	NO	Check or replace the paper exit roller → Check or replace the fusing roller → Replace the fusing temperature sensor → Replace fusing heater lamp → Replace the overall control board

4.2.15 Printer system: Gray background

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Service mode → Process adjustment → Drum Peculiarity Adjustment	Conduct the cartridge set mode and the trouble is solved.	NO	Go on to the next step.

	→ Cartridge set mode			
3	Setting menu → Function setting → Density setting → Image density selection	Change the setting value of the image density to the minus, and the trouble is solved.	YES	Change the setting value to the minus.
4	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, developing section, and write section.	NO	Clean, Replace
5	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
6	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
7	Service mode → System Setting → Software DIPSW5-5/6/7	Changing the developer toner density lighter solves the trouble.	YES	Change the settings of software DIPSW_5-5/6/7 to lighten the developer toner density.
8		The problem has been eliminated through the checks of steps up to 7.	NO	Check or replace the charging section → Replace the drum → Check or replace the transferring section → Check or replace the developing section → Replace LPH → Replace the image processing board → Replace the high voltage unit /1 → Replace the high voltage unit /2

4.2.16 Printer system: Density decrease of solid black

(1) Typical faulty images



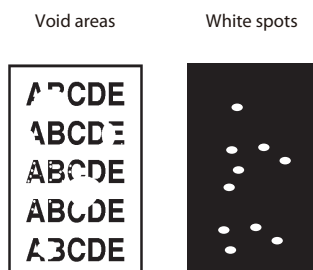
(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Transferring section	Check dirt on the transfer belt and power feeding section of the transfer roller.	YES	Remove dirt
3	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
4	Tray setting → Change Set → Process adjustment → Transfer current offset adjustment	Check the offset value of the transfer current offset adjustment.	NO	Select the side and part which abnormal condition occurs, and raise the transfer current offset value every 5 steps.
5	Check the printer	Check mainly on the transferring section, the charging section, photo conductor section, and the developing section.	NO	Clean, Replace

6		The problem has been eliminated through the check of step 5.	NO	Check or replace the transferring section → Replace the drum → Check or replace the charging section → Check or replace the developing section → Replace the image processing board → Replace the high voltage unit /2
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4.2.17 Printer system: Void areas, White spots

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Developing section	Developing section has the foreign object or the solid toner in it.	YES	Remove foreign object Replace developer
3	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, developing section, and fusing section.	NO	Clean, Replace
4	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
5	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Check or replace the charging section → Replace the drum → Check or replace the transferring section → Check or replace the developing section → Replace LPH → Replace the image processing board → Replace the high voltage unit /1 → Replace the high voltage unit /2

4.2.18 Printer system: Black spots

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Photo conductor section	Conduct the cartridge set mode and the trouble is solved.	NO	Go on to the next step.
3	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, developing section, conveyance section, and fusing section.	NO	Clean, Replace
4	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
5	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
6	Service mode → Process adjustment Drum Peculiarity Manual	The value of [Maximum density adj.] is smaller than 250.	YES	Go on to step 7.
			NO	Go on to step 8.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Check or replace the charging section → Replace the drum → Check or replace the transferring section → Check or replace the developing section → Replace LPH

4.2.19 Printer system: Image blurring**(1) Typical faulty images****(2) Troubleshooting procedure**

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type, and fix it.
2	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, developing section, and write section.	NO	Clean, Replace
3	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
4	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
5	Write section	The LPH is installed at proper position (inserted fully).	NO	Installation
6		The problem has been eliminated through the checks of steps up to 5.	NO	Check or replace the charging section → Replace the drum → Check or replace the transferring section → Check or replace the developing section → Replace LPH → Replace the image processing board

4.2.20 Printer system: Poor fusing performance, Offset**(1) Typical faulty images**

Poor fusing performance



Offset

**(2) Troubleshooting procedure**

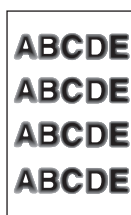
Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type, and fix it.
2	Cleaning section (Offset)	Some parts on the cleaning blade are left to wipe.	YES	Cleaning Replace the cleaning blade
3	Fusing section	The fusing temperature sensor is installed properly.	NO	Check the installation position.
4	Check the printer	Check mainly on the cleaning section and the fusing section.	NO	Clean, Replace
5	Connector, wiring	There is no problem on the connector of the printer control board, and the wiring.	NO	Reconnect the connector Replace the wiring
6	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
7	Service mode → System Setting → Software DIPSW DIPSW_19-0 to 19-3	Changing the fusing temperature eliminates the poor fusing performance and the offset.	YES	Conduct the fusing temperature setting
8		The problem has been eliminated through the checks of steps up to 7.	NO	Fusing temperature sensor → Replace fusing heater lamp → Replace the printer control board

4.2.21 Printer system: Brush effect, Image bleeding**(1) Typical faulty images**

Brush effect



Blurred image

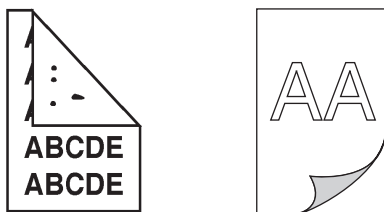
**(2) Troubleshooting procedure**

Procedure	Section	Check item	Result	Action
1	Paper	Paper is moisturized.	YES	Replace to the paper that has just opened.
2		It occurs on the particular paper.	YES	Check the setting of the paper type, and fix it.
3	Fusing section	Clean the cleaning web properly.	NO	Check the cleaning web Replace the cleaning web
4	Check the printer	Check mainly on the transferring section, fusing section, and conveyance section.	NO	Clean, Replace

5	Connector, wiring	There is no problem on the connector of the printer control board, and the wiring.	NO	Reconnect the connector Replace the wiring
6	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Fusing temperature sensor → Replace fusing heater lamp → Replace the printer control board

4.2.22 Printer system: Inky backside

(1) Typical faulty images

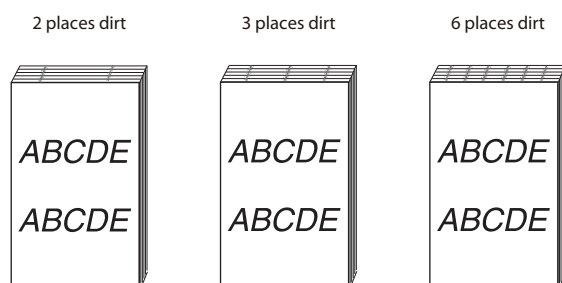


(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper path	There are foreign objects or dirt on the paper path.	YES	Remove the foreign object or dirt
2	Transferring section	Check dirt on the transferring belt and check the transferring belt cleaning section.	YES	Clean, Replace
3	Fusing section	Fusing guide plate has dirt.	YES	Remove dirt
4		Fusing roller /Lw has the damage or dirt.	YES	Cleaning or replacing the fusing roller /Lw
5	Paper exit section	Exit roller had dirt.	YES	Remove dirt
6	Check the printer	Check mainly on the transferring section, conveyance section, and the fusing section.	NO	Clean, Replace
7	Connector, wiring	There is no problem on the connector of the printer control board, and the wiring.	NO	Reconnect the connector Replace the wiring
8	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
9		The problem has been eliminated through the checks of steps up to 8.	NO	Check or replace the transferring section Check or replace the fusing section Check or replace the paper exit section → Replace the image processing board

4.2.23 Printer system: Leading edge face dirt in paper feed direction

(1) Typical faulty images



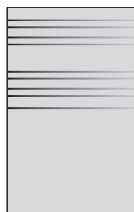
(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.

				Change the paper storage direction in the tray when paper is curled or burred.
2	Occurrence location Fusing guide plate	Dirt appears on 2 parts, at the center and 108mm shifted to both sides.	YES	Go on to step 8.
			NO	Go on to step 3.
3	Occurrence location Drum Separation claws	Dirt appears on 3 parts, at the center and 85mm shifted to both sides.	YES	Go on to step 7.
			NO	Go on to step 4.
4	Occurrence location Fusing claws	Dirt appears on 6 parts, at the center and 40mm, 81mm or 119mm shifted to both sides.	YES	Go on to step 5.
			NO	Go on to step 9.
5	Leading edge blank space	Set the leading edge blank space 3mm or more, and the trouble is solved.	YES	Set the leading edge blank space 3mm or more.
6	Fusing section	Check dirt on the fusing separation claws.	YES	Remove dirt
7	Tray setting → Change Set → Process adjustment → Transfer current offset adjustment	Check the offset value of the leading edge1 by the transfer current offset adjustment.	NO	1. Raise the leading edge1 offset value of the side which abnormal condition occurs every 5 steps. 2. When the problem is not solved, lower the leading edge1 offset value every 5 steps.
8	Fusing section	Check dirt on the fusing guide plate.	YES	Remove dirt
9	Paper path	Check foreign objects and dirt on the paper path.	YES	Remove the foreign object or dirt
10	Check the printer	Check mainly on the transferring section, conveyance section, and the fusing section.	NO	Clean, Replace
11		The problem has been eliminated through the checks of steps up to 10.	NO	Check or replace the separation claws → Replace the printer control board → Replace the high voltage unit /2

4.2.24 Printer system: Transfer jitter

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Paper	It occurs on the particular paper.	YES	Check the setting of the paper type.
2	Occurrence interval	It occurs at the position 124mm from the leading edge. It occurs at the position 120mm from the trail edge. It occurs at the position 160mm from the trail edge. It occurs at the position 265mm from the trail edge. It randomly occurs at the position 150mm from the leading edge on the 2nd sheet.	YES	Go on to step 3.
		It occurs at intervals other than above mentioned.	YES	Go on to step 5.
3	Service mode → Machine adjustment → Magnification adjustment	Confirm that according to the transfer jitter adjustment. (Refer to 1. 8.2.10 Transfer jitter adjustment)	YES	Conduct one of "Fusing Speed Adjustment", "Registration Line Speed Adjustment" or "Transfer Belt Speed Adjustment".
4	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, developing section, write section, and fusing section.	NO	Clean, Replace

5		The problem has been eliminated through the checks of steps up to 4.	NO	Check or replace the charging section → Check or replace the transferring section → Check or replace the developing section → Replace LPH
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4.2.25 Printer system: Blank print, Black print

(1) Typical faulty images

Blank print



Black print



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Image check	Blank copy occurs.	YES	Check the connection of the connector in the write section.
2	Check the printer	Check mainly on the charging section, transferring section, photo conductor section, developing section, and write section.	NO	Clean, Replace
3	Connector, wiring	There is no problem on the image processing board, the overall control board, the write section, and the connector/wiring of the printer control board.	NO	Reconnect the connector Replace the wiring
4	Image Stabilization	The image stabilization solves the trouble.	NO	Go on to the next step.
5		The problem has been eliminated through the check of step 4.	NO	Check or replace the charging section → Replace the drum → Check or replace the transferring section → Check or replace the developing section → Replace LPH → Replace the image processing board → Replace the high voltage unit /1 → Replace the high voltage unit /2

4.3 Scanner system procedure

4.3.1 OUTLINE

When it is judged as the trouble of the scanner system from the initial check items, check the scanner check items.

Note

- The following sample images on each procedures are when printing in A3.

4.3.2 Scanner check items

- Check the damage on the parts of the scanner system.

Procedure	Section	Check item	Result	Action
1	Original	Original has the damage or dirt.	YES	Original change
2	ADF	Original guide cover has dirt.	YES	Cleaning
3	Original glass	Original glass has dirt.	YES	Clean with the soft cloth.
4	Slit glass	Slit scan glass for reading DF has dirt.	YES	Clean with the soft cloth.
5	Shading correction plate	Shading correction plate has dirt.	YES	Clean with the soft cloth.

6	Mirror/Lens/ Exposure lamp/ Reflective mirror	Mirror has dirt.	YES	Cleaning
		Lens has dirt.	YES	Cleaning
		Exposure lamp has dirt.	YES	Cleaning
		Reflective mirror has dirt.	YES	Cleaning

4.3.3 Scanner system: White lines in sub scan direction, White bands in sub scan direction, Black lines in sub scan direction, Black bands in sub scan direction

(1) Typical faulty images

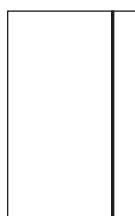
White lines in sub scan direction



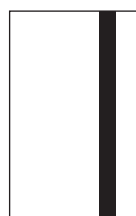
White bands in sub scan direction



Black lines in sub scan direction



Black bands in sub scan direction



(2) Troubleshooting procedure

1. When using original glass

Procedure	Section	Check item	Result	Action
1	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
2	Service mode → Machine adjustment → Centering adjustment	The adjustment value of [Scanner Centering Adjustment] is within the standard.	NO	Conduct the scanner Centering Adjustment.
3		The problem has been eliminated through the checks of steps up to 2.	NO	Replace exposure unit → Replace CCD unit

2. When the DF is in use

Procedure	Section	Check item	Result	Action
1	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
2	Service mode → Machine adjustment → Centering adjustment	The adjustment value of [ADF Centering Adjustment] is within the standard.	NO	Conduct ADF Centering Adjustment.
3	Service mode → Machine adjustment → ADF Adjustment	The adjustment value of [ADF Skew Offset Adj.] is within the standard.	NO	Conduct ADF skew offset adjustment.
4	MECHANICAL ADJUSTMENT → DF → Paper skew adjustment	Adjustment position is proper.	NO	Conduct the paper skew adjustment.
5		The problem has been eliminated through the checks of steps up to 4.	NO	Replace exposure unit → Replace CCD unit

4.3.4 Scanner system: White lines in main scan direction, White bands in main scan direction, Black lines in main scan direction, Black bands in main scan direction

(1) Typical faulty images

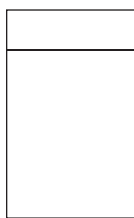
White lines in main scan direction



White bands in main scan direction



Black lines in main scan direction



Black bands in main scan direction



(2) Troubleshooting procedure

1. When using original glass

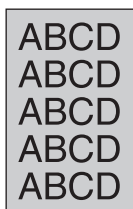
Procedure	Section	Check item	Result	Action
1	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
2	Service mode → Machine adjustment → Timing adjustment	The adjustment value of [Scanner Restart Timing Adjustment] is within the standard.	NO	Conduct the scanner restart timing adjustment.
3	Service mode → Machine adjustment → Centering adjustment	The adjustment value of [Scanner Centering Adjustment] is within the standard.	NO	Conduct the scanner Centering Adjustment.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Replace exposure unit → Replace CCD unit

2. When the DF is in use

Procedure	Section	Check item	Result	Action
1	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
2	Service mode → Machine adjustment → Timing adjustment	The adjustment value of [ADF Restart Timing Adjustment] is within the standard.	NO	Conduct ADF restart timing adjustment.
3	Service mode → Machine adjustment → Centering adjustment	The adjustment value of [ADF Centering Adjustment] is within the standard.	NO	Conduct ADF Centering Adjustment.
4	Service mode → Machine adjustment → ADF Adjustment	The adjustment value of [ADF Skew Offset Adj.] is within the standard.	NO	Conduct ADF skew offset adjustment.
5	MECHANICAL ADJUSTMENT → DF → Paper skew adjustment	Adjustment position is proper.	NO	Conduct the paper skew adjustment.
6		The problem has been eliminated through the checks of steps up to 5.	NO	Replace exposure unit → Replace CCD unit

4.3.5 Scanner system: Black spots**(1) Typical faulty images****(2) Troubleshooting procedure**

Procedure	Section	Check item	Result	Action
1	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
2		The problem has been eliminated through the check of step 1.	NO	Replace exposure unit → Replace CCD unit

4.3.6 Scanner system: Gray background**(1) Typical faulty images****(2) Troubleshooting procedure**

Procedure	Section	Check item	Result	Action
1	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
2	DF unit	DF unit changes the shape or the hinge is damaged.	YES	Replace DF unit
3	MECHANICAL ADJUSTMENT → DF → Height adjustment	DF unit is not at proper position.	YES	Conduct DF height adjustment.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Replace exposure unit → Replace CCD unit

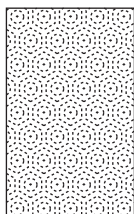
4.3.7 Scanner system: Blurred image, Brush effect**(1) Typical faulty images****(2) Troubleshooting procedure**

Procedure	Section	Check item	Result	Action
1	Original	Original has bumps.	YES	Original change
2	DF unit	DF unit changes the shape or the hinge is damaged.	YES	Replace DF unit
3	MECHANICAL ADJUSTMENT → DF → Height adjustment	DF unit is not at proper position.	YES	Conduct DF height adjustment.

4	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
5	Scanner section	Original glass leans or is not at proper position.	YES	Install it at proper position.
6		The install positions of V-mirror unit and the exposure unit are proper.	NO	Conduct the readjustment with using the optics unit positioning jig.
7		The problem has been eliminated through the checks of steps up to 6.	NO	Replace exposure unit → Replace CCD unit

4.3.8 Scanner system: Moire

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Original	Moire does not occur after changing the direction of original set.	YES	Original set direction change
2	Basic setting → Quality Adj.	Moire does not occur after changing the quality of the original.	YES	Change to the other types of original (Text, Text/Photo, Photo).
3	Basic screen → Zoom	Changing the magnification solves moire.	YES	Change the magnification.
4	Setting menu → Administrator setting → System Setting → Expert adjustment → Scan quality adjustment → Texture Elimination	Check the setting value of "Texture Elimination", and it is "OFF".	YES	Turn the setting value "ON". Note Because the gradation peculiarity deteriorates with "ON" of "Texture Elimination", be sure to use "ON" only when moire occurs.
5	Service mode → System Setting → Software DIPSW DIPSW_27-6	Change the dot complement in skew adjustment and the trouble is solved.	YES	Change the setting value to "0" (reduce moire in the dot section).
6		The problem has been eliminated through the checks of steps up to 5.	NO	Replace CCD unit

4.3.9 Scanner system: Leaning image

(1) Typical faulty images



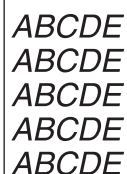
(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Original	Original is leaning.	YES	Setting original Replacing original
2	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
3	Scanner section	Original glass leans or is not at proper position.	YES	Install it at proper position.

4		The install positions of V-mirror unit and the exposure unit are proper.	NO	Conduct the readjustment with using the optics unit positioning jig.
5		The problem has been eliminated through the checks of steps up to 4.	NO	Replace exposure unit → Replace CCD unit

4.3.10 Scanner system: Image distortion

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	State of the machine installed	The main body is installed on the horizontal place.	NO	Re-install
2	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
3	Service mode → Machine adjustment → Warp adjustment	Conduct the warp adjustment and the trouble is solved.	NO	Conduct the warp adjustment.
4	Scanner section	The install positions of V-mirror unit and the exposure unit are proper.	NO	Conduct the readjustment with using the optics unit positioning jig.
5		The problem has been eliminated through the checks of steps up to 4.	NO	Replace exposure unit → Replace CCD unit

4.3.11 Scanner system: Low image density, Rough image

(1) Typical faulty images

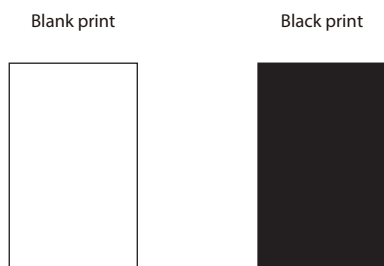


(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
2	Scanner section	Exposure lamp has dirt.	YES	Cleaning
3		The problem has been eliminated through the checks of steps up to 2.	NO	Replace exposure unit → Replace CCD unit

4.3.12 Scanner system: Blank copy, Black copy

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Gradation pattern	Print out the test pattern No.3 or No.5 and the gradation pattern is without any trouble.	NO	Check the image trouble of the printer system.
2	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
3	Connector, wiring	There is no trouble on CCD unit, connector of the overall control board, and wiring.	NO	Reconnect the connector Replace the wiring
4		The problem has been eliminated through the checks of steps up to 3.	NO	Replace CCD unit → Replace the overall control board

4.3.13 Scanner system: Uneven density

(1) Typical faulty images



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Scanner check	There is no problem on scanner check items.	NO	Clean, Replace
2	Scanner section	V-mirror unit and the exposure unit moves smoothly.	NO	Check the scanner wire
3		The install positions of V-mirror unit and the exposure unit are proper.	NO	Conduct the readjustment with using the optics unit positioning jig.
4		The problem has been eliminated through the checks of steps up to 3.	NO	Replace exposure unit → Replace CCD unit

4.4 Controller system procedure

4.4.1 OUTLINE

When it is judged as the controller system trouble from the initial check items, check the controller check items.

Note

- The following sample images on each procedures are when printing in A3.

4.4.2 Controller check item

- Check the network connection of the controller system.

Procedure	Section	Check item	Result	Action
1	Network cable	Network cable is properly connected.	NO	Reconnect
2	Network connection	Green LED next to the LAN connector is ON.	NO	Ask the system administrator on the user side to check if the output of HUB has trouble.

				→ Without any trouble, go on to the next step
3	Network Setting	Network setting of the administrator setting is set properly.	NO	Ask the system administrator on the user side to set.

4.4.3 Controller system: Blank print, Black print

(1) Typical faulty images

Blank print



Black print



(2) Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Controller check	There is no problem on the controller check item.	NO	Recover the network connection
2	IC board (ICB)	Connector of IC board is surely set.	NO	Reconnect the connector
3	PCI relay board (PCIRB)	Connector on the PCI relay board is surely set.	NO	Reconnect the connector
4	Overall control board (OACB)	Connector of overall control board is surely set.	NO	Reconnect the connector
5		The problem has been eliminated through the checks of steps up to 4.	NO	Replace the IC board. → Replace the PH relay board. → Replace the overall control board.

5. CONTROLLER TROUBLE

5.1 Even if the power of the main body is turned ON, [Data can be received.] is not displayed on the operation panel.

5.1.1 Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	IC Unit	IC unit is connected securely to the main body.	NO	Check the connection of IC unit and then connect it again.
2	IC Unit	Each connector in the IC board is connected securely.	NO	Connect the connector again.
		The problem has been eliminated through the checks of steps up to 2.	NO	Replace the IC board.

5.2 The print jobs on the PC side are completed, but no printing starts.

5.2.1 Troubleshooting procedure

Procedure	Section	Check item	Result	Action
1	Main body	Sub power switch of main body is ON.	NO	Turn ON the sub power switch and check it again.
2	Main body	Network cable or USB cable is disconnected from the main body.	YES	Connect the cable to the main body and then check it again.
3	Main body	An error occurs on the main body side.	YES	Check the operation panel of the main body and check it again after returning it to the normal condition.
4	Main body	Jobs are placed in a wait condition.	YES	Check the operation panel of the main body and then check the sequence of jobs.
5	PC	Printing is indicated as [Save in the box] or [Secure Print].	YES	Setting it to [Print] and make printing again.
6	Main body/PC	When an authentication setting is made, user name (account name)/password that has not been registered is entered.	YES	Enter a correct user name (account name)/password and then conduct printing again.
7	Main body/PC	[Enhanced Security mode] is set on the main body.	YES	After consulting with the administrator of the main body, make an authentication setting.
		The problem has been eliminated through the checks of steps up to 7.	NO	Replace the IC board.

6. TROUBLESHOOTING (GP-501)

6.1 TROUBLESHOOTING (GP-501)

Also called Repair Analysis Procedures, this section contains the basic troubleshooting information that a technician needs to isolate the root cause of a specific symptom.

6.2 Troubleshooting

6.2.1 Troubleshooting

The tables that follow are arranged in order of the normal operational sequence.

6.2.2 General

One of the first rules of troubleshooting is to first understand the normal operating sequence of the machine (Refer to [PQ THEORY OF OPERATION GP-501](#)). Then carefully listen to the key operator's description of the problem or complaint. Follow this by your own visual observation. The cause of the problem can be determined by noting at which point in the operating cycle the problem occurred. To pinpoint the problem to a defective electrical component or mechanical part, use the Troubleshooting Guide and the OVERALL WIRING DIAGRAM. During any service call, it is a good practice to check the cable connections for fit and alignment.

Table 4.1 General Troubleshooting

Symptom	Probable Cause	Corrective Action
No indication of power (None of the three green LED's on Punch controller PCB or illuminated)	Not plugged in	Ensure that power cord is properly connected to the machine as well as the supply voltage.
	Power from outlet not correct	Check the power supplied from the outlet.
No indication of power, unit is plugged in.	Punch controller PCB, a minimum of 2 of the 3 LEDs on this board should be lit, if not, PCB is bad.	Replace Punch controller PCB.
	Display panel or cable.	Inspect or replace.
	Door not making interlocks.	Inspect or replace.
	Die Set not making switch.	Inspect or replace.
	Communication cables between GP- 501 and Printer	Check communication cables between printer and GP-501
Indication of power, yet GP-501 does not function (One or two LED's on the Punch controller PCB are illuminated, yet all three not illuminated.	5V from printer is not received at GP- 501	Connect all required communication cables from GP-501 to upstream device. The check to see if all LED's are illuminated.
	Door is not closed	Close door, then check to see if all LED's are illuminated. If door is closed, make sure door switch is being actuated.
	24V power supply is not functioning or not connected	Check to make certain AC is applied to power supply. Also check to make sure 24V is outputted from power supply.
	AC is not connected correctly	See above.
Machine will not start, GP-501 is shown on printer interface screen	Check Power supply board LED, if not lit, board is bad.	Inspect cable connections, replace Power supply board as needed.
	Check Punch controller PCB LEDs, if a minimum of two of the three are not lit, board is bad.	Inspect cable connections, replace Punch controller PCB as needed.
	Door is not closed or properly making the interlock.	Inspect and correct.
GP-501 does not appear on printer interface screen	LED's not illuminated on GP-501 Punch controller PCB.	See above.
	Communication cables between printer and upstream device not connected or faulty	Connect all required communication cables from GP-501 to upstream device.
	Firmware version not correct	Upgrade to the latest firmware for both the printer and GP-501
Paper misfeed is shown on printer interface screen, customer or operator has been unable to locate the misfeed.	Small piece of paper has become torn and is blocking sensor in paper path.	Check each sensor to make certain that they are not blocked.
Paper misfeed, not able to find any large sheets, removed sheets are torn.	Suspect a small piece of paper is hidden somewhere in the paper path.	Run a heavy cover stock through the system by hand. This process may drive any small torn pieces out of the paper path.
Punch does not cycle.	Punch clutch out of adjustment or defective.	Adjust or replace.
	Punch controller PCB.	
	Punch motor.	
Paper misfeed and/or punch shaft does not return to the home position.	Punch brake is not performing properly.	Adjust or replace.
Paper misfeed and/or punch continues to cycle.	Punch Flag sensor (S9) is broken or misaligned.	Adjust or replace.
Paper will not enter the punch area, runs through bypass only.	Divert solenoid malfunction.	Adjust or replace.

Paper is punched in the middle of the sheet.	Back Gauge solenoid is malfunctioning.	Adjust or replace.
Punch paper path is not operable, system will only bypass.	Transport motor not functioning.	Adjust or replace.
	Main control board not functioning properly.	Check connections, replace.
	Exit stepper motor or Entrance stepper motor is not functioning correctly.	Adjust or replace.
	Exit stepper motor or Entrance stepper motor controller boards are not functioning correctly.	Check connections, replace.
Punched holes are not centered.	Die Set positioning bracket is out of adjustment.	Inspect and adjust as required, see adjustment procedure.
Punched holes are not parallel to the edge of the paper.	Back Gauge is not functioning properly.	Inspect and adjust as required, see adjustment procedure.

6.2.3 Back Gauge

Table 4.2 Back Gauge Troubleshooting

Symptom	Probable Cause	Corrective Action
Deep punch or angled deep punch from leading edge of the paper.	Broken weld on paper stop, Back Gauge paddle.	Replace the unit. (Refer to F.21.3.30 Solenoid Spring Replacement)
	Broken or missing Back Gauge linkage springs.	Replace the springs. (Refer to F.21.3.30 Solenoid Spring Replacement)
Cannot remove the Die Set.	Back Gauge paddle is not in the fully opened position and is contacting the Die Set.	Turn the Punch Cycle Knob to ensure the punch drive indicator is lined up with the position indicator.
	Broken weld on paper stop, Back Gauge paddle.	Replace the unit. (Refer to F.21.3.30 Solenoid Spring Replacement)
	Broken or missing linkage spring or springs.	Replace the spring. (Refer to F.21.3.30 Solenoid Spring Replacement)
	Solenoid plunger stuck.	Clean the solenoid. (Refer to F.21.3.12 Cleaning and Checking the Back Gauge Solenoid)
	Solenoid plunger worn.	Replace Back Gauge. (Refer to F.21.3.28 Replacing the back gauge mechanism)
Punches occur 2 to 4" into the sheet.	One or more broken or missing linkage springs.	Replace springs. (Refer to F.21.3.30 Solenoid Spring Replacement)
	Back Gauge paddle is not fully closing, leaving a gap that the paper can slip through especially when using paper with heavy curl.	Adjust Back Gauge adjustment. (Refer to F.21.3.32 Back Gauge Assembly Adjustment)

6.2.4 Die Set

Under normal conditions, the GP-501 punch may experience one mis-feed in 5000. Excessive mis-feeding, such as one in every 1000, requires servicing. The cause may be the Die Set.

Symptom	Probable Cause	Corrective Action
Excessive mis-feeding. Paper does not exit after being punched.	Worn Die Set.	Replace Die Set if it is worn out, greater than 500K cycles.
	Defective Die Set.	Replace.
	Excessive oil on punch pins. Chad and paper dust sticks to the punch pin tip.	Clean pins to remove excess oil. Lubricate with approved lubricants only. (Refer to F.21.2.5 Checking and lubricating the Die Set pins and Die Set shoulder bolts)
	Floating pressure bar not retracting.	Replace pressure bar springs when applicable. (Refer to F.21.2.3.(5) Floating Pressure Bar Spring Replacement)

6.3 Initial Service Action

6.3.1 Initial Service Action

At the start of every service call, you should perform the following.

1. If called for a problem, determine the exact nature of the service complaint.
2. Estimate the cycle life on the Die Sets. Determine if any of the Die Set life cycles have exceeded 500k sheets (cycles).
3. Determine if the customer uses only one Die Set pattern (style) or if they switch between different patterns.
4. Determine the last time the Die Set was lubricated.
5. Determine the date of the last preventative maintenance performed on the punch system.
6. Determine the paper type and quality, especially as it relates to curl and identify if any media changes correlate with the emergence of the customer issue.

6.4 Mis-Feed Service Action

6.4.1 Mis-Feed Service Action

To clear a misfeed, first check the printer screen to see the area of the misfeed.

To clear a mis-feed in the punch:

1. Open the punch cabinet door.
2. Ensure the Chip Bin is not overflowing.
3. Turn punch knob [1] clockwise until the punch is in its home position [2].

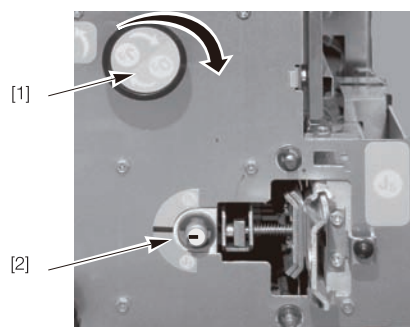


Figure 4.3 Setting the Punch to Its Home Position.

4. Open the Bypass panel cover [1] and check for obstructions in the Bypass [2].
5. Ensure the Entrance Guide is clear [3].
6. Ensure the Diverter is clear [4].

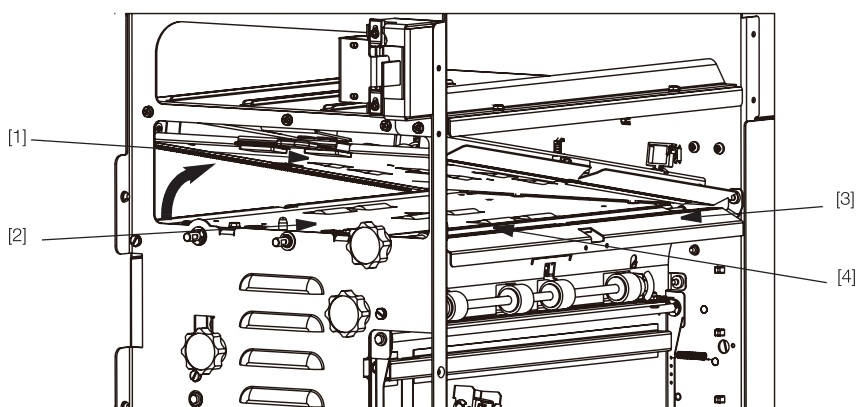


Figure 4.4 Clearing The Bypass.

7. Open the entrance paper Aligner panel latch [1] and clear obstructions in the Aligner.
8. Open the exit paper Aligner panel latch [2] and clear obstructions in each Aligner.

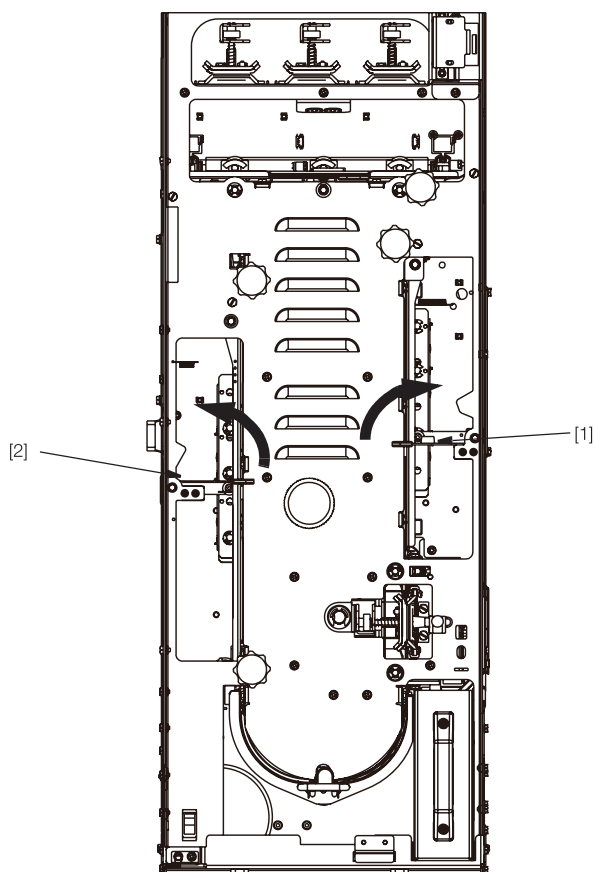


Figure 4.5 Checking Paper Path Through the Punch.

9. Open the bottom U-channel by pressing the lever in [1] and lower the U-channel [2] and clear the path.

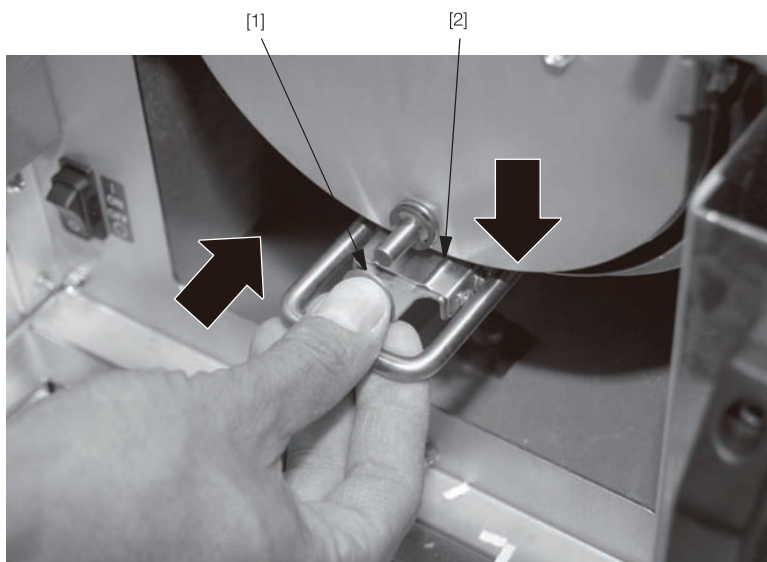


Figure 4.6 Opening the Bottom U-Channel

10. When all the paper is cleared, close the U-channel, Aligner Panels, and Bypass.
11. Shut the cabinet door.
12. Verify on the printer screen that the misfeed has been cleared. If not, repeat the above steps.
13. Press the Start button on the printer. The printing operation should resume.

6.5 Final Service Action

6.5.1 Final Service Action

This section explains the actions a technician should take at the end of every service call. With each step, verify that the system runs smoothly and misfeed free.

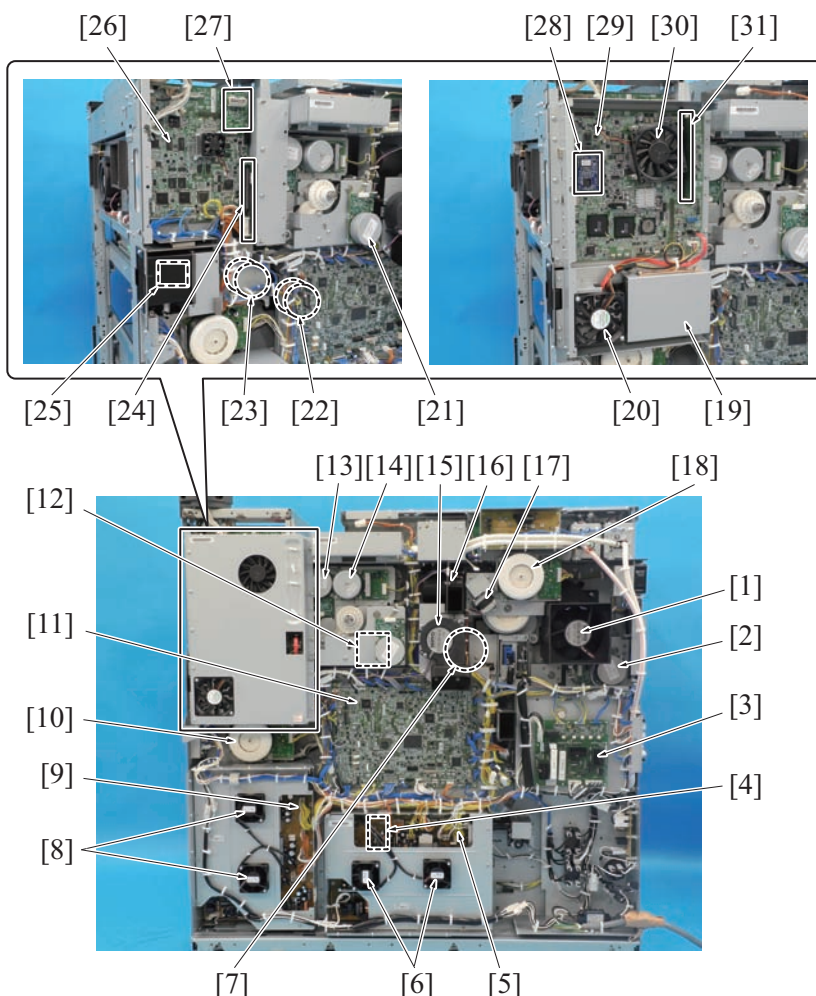
1. Inspect each Die Set visually and lubrication as needed. (Refer to [F.21.2.5 Checking and lubricating the Die Set pins and Die Set shoulder bolts](#))
2. Using the customer's primary Die Set pattern, run 200 simplex printed test sheets through the punch mode and examine the output for clean hole quality and even hole alignment.
3. Using the customer's primary Die Set pattern, run 200 duplex printed test sheets through the punch mode and examine the output for clean hole quality and even hole alignment.
4. Using any of the customer's secondary Die Set pattern, run 100 simplex printed test sheets through the punch mode and examine the output for clean hole quality and even hole alignment.
5. Run 100 sheets simplex and 100 sheets duplex through the punch bypass mode.
6. Clean out all paper chips (chad) and paper dust from the chip tray, the bottom of the machine and from the floor around the bottom of the machine. (Refer to [F.21.3.6 Cleaning the base](#))
7. Explain to the customer the service work that was performed and ensure they are satisfied before you close the call.

L PARTS/CONNECTOR LAYOUT DRAWING

1. PARTS LAYOUT DRAWING

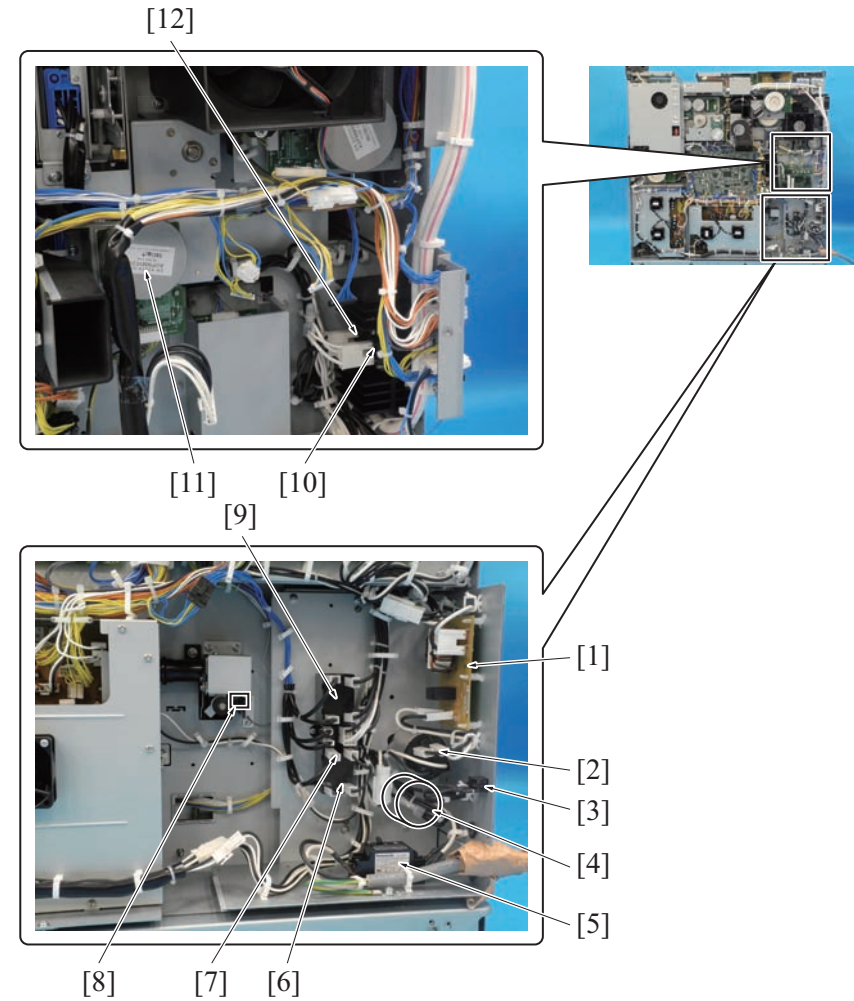
1.1 bizhub PRESS 1250/1250P/1052/PRO 951

1.1.1 Main body rear side 1



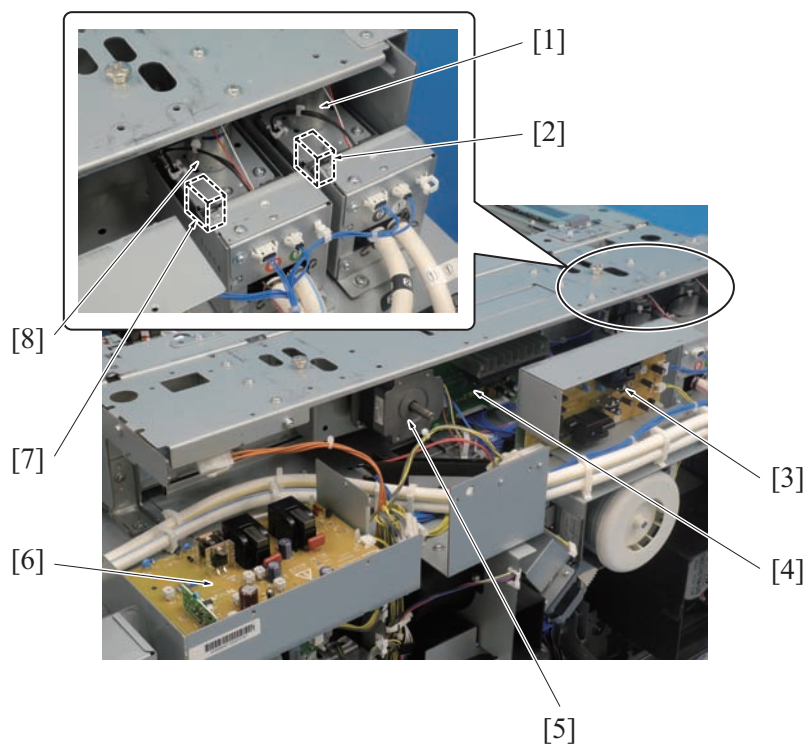
[1] Cooling fan /1 (FM1)	[2] Paper exit motor (M20)
[3] AC drive board (ACDB)	[4] Waste toner motor (M9)
[5] DC power supply /2 (DCPS2)	[6] DC power supply /2 cooling fan (FM42)
[7] Transfer belt cleaning motor (M5)	[8] DC power supply /1 cooling fan (FM41)
[9] DC power supply /1 (DCPS1)	[10] Paper feed motor (M4)
[11] Printer control board (PRCB)	[12] Drum motor (M2)
[13] Developing screw motor (M21)	[14] Developing motor (M3)
[15] Charger exhaust fan (FM44)	[16] Cooling fan /2 (FM2)
[17] Web motor (M24)	[18] Fusing motor (M1)
[19] Hard disk /2 (HDD2)	[20] IC exhaust fan (FM43)
[21] Drum cleaner motor (M35)	[22] Collection pipe cooling fan (FM34)
[23] Developing suction fan (FM22)	[24] PCI relay board (PCIRB)
[25] Vertical conveyance motor (M8)	[26] Overall control board (OACB)
[27] NVRAM board (NRB)	[28] SSD
[29] IC board (ICB)	[30] IC cooling fan (FM39)
[31] DIMM	-

1.1.2 Main body rear side 2



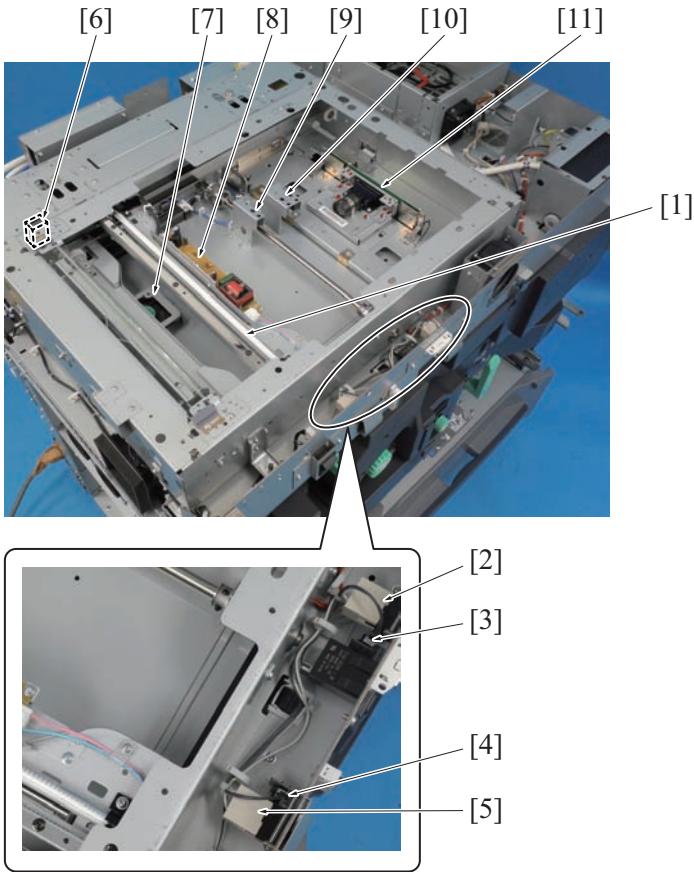
[1]	Noise filter /3 (NF3)	[2]	Noise filter /1 (NF1)
[3]	Dehumidification heater switch (SW3)	[4]	Noise filter /2 (NF2)*1
[5]	Circuit breaker (CBR)	[6]	Relay /1 (RL2)
[7]	Relay /2 (RL3)	[8]	Waste toner full sensor /2 (PS62)
[9]	Main relay (RL1)	[10]	Triac /1 (TRC1)
[11]	Paper exit conveyance motor (M31)	[12]	Triac /2 (TRC2)

*1 PRO 951 is unimplemented.

1.1.3 Main body rear side 3

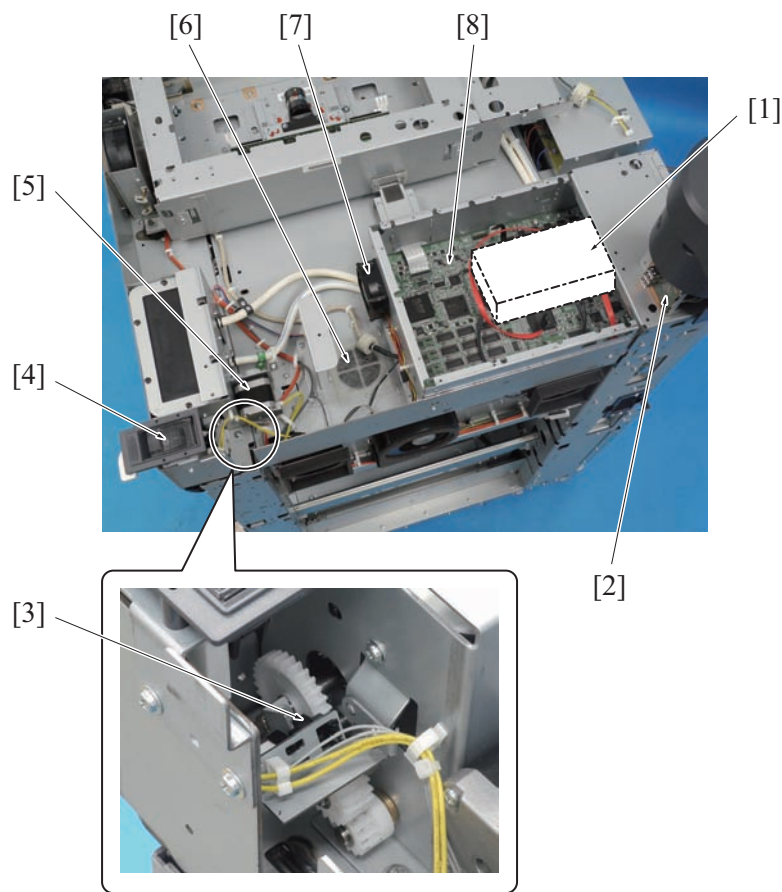
[1]	Toner pump motor (M28)	[2]	Toner pump encoder sensor (PS28)
[3]	High voltage unit /3 (HV3)	[4]	Scanner drive board (SDB)
[5]	Scanner motor (M27)	[6]	High voltage unit /1 (HV1)
[7]	Air pump encoder sensor (PS29)	[8]	Air pump motor (M29)

1.1.4 Main body upper surface 1



[1]	Exposure lamp (L4)	[2]	Interlock switch /1 (MS1)
[3]	Door open/close sensor /1 (PS1)	[4]	Door open/close sensor /2 (PS2)
[5]	Interlock switch /2 (MS2)	[6]	Scanner home sensor (PS51)
[7]	Scanner cooling fan (FM19)	[8]	L4 inverter (L4 INVB)
[9]	APS sensor /1 (PS52)	[10]	APS sensor /2 (PS53)
[11]	CCD board (CCDB)	-	

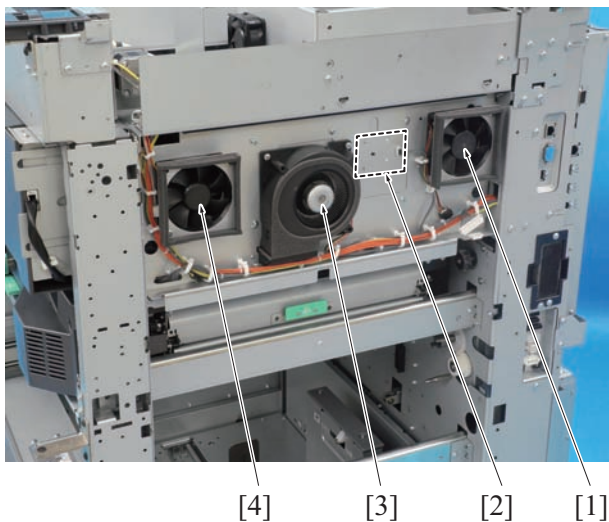
1.1.5 Main body upper surface 2



[1]	Hard disk /1 (HDD1)	[2]	Relay board /U (RBU)*1
[3]	Air separation motor encoder sensor (PS30)	[4]	Sub power switch (SW2)
[5]	Air separation motor (M10)	[6]	Charger suction fan (FM3)
[7]	Image processing cooling fan (FM12)	[8]	Image processing board (IPB)

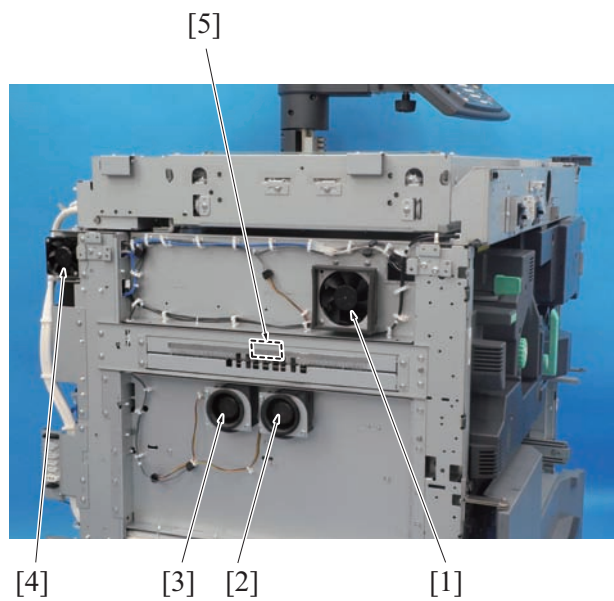
*1 PRO 951 is unimplemented.

1.1.6 Main body right side



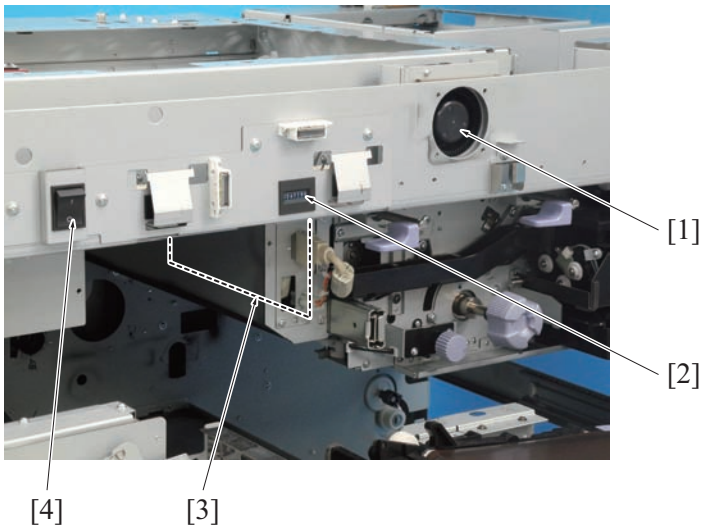
[1]	Suction cooling fan /1 (FM6)	[2]	Temperature-humidity sensor /1 (TEM/HUM1)
[3]	Developing cooling fan (FM31)	[4]	Suction cooling fan /2 (FM7)

1.1.7 Main body left side



[1]	Paper exit cooling fan /Up (FM4)	[2]	Paper exit cooling fan /Lw2 (FM28)
[3]	Paper exit cooling fan /Lw1 (FM10)	[4]	Pump cooling fan (FM11)
[5]	Paper exit sensor (PS3)	-	

1.1.8 Main body front side



[1]	Front cooling fan (FM18)	[2]	Total counter (CNT1)
[3]	Relay board /A (RBA)	[4]	Main power switch (SW1)

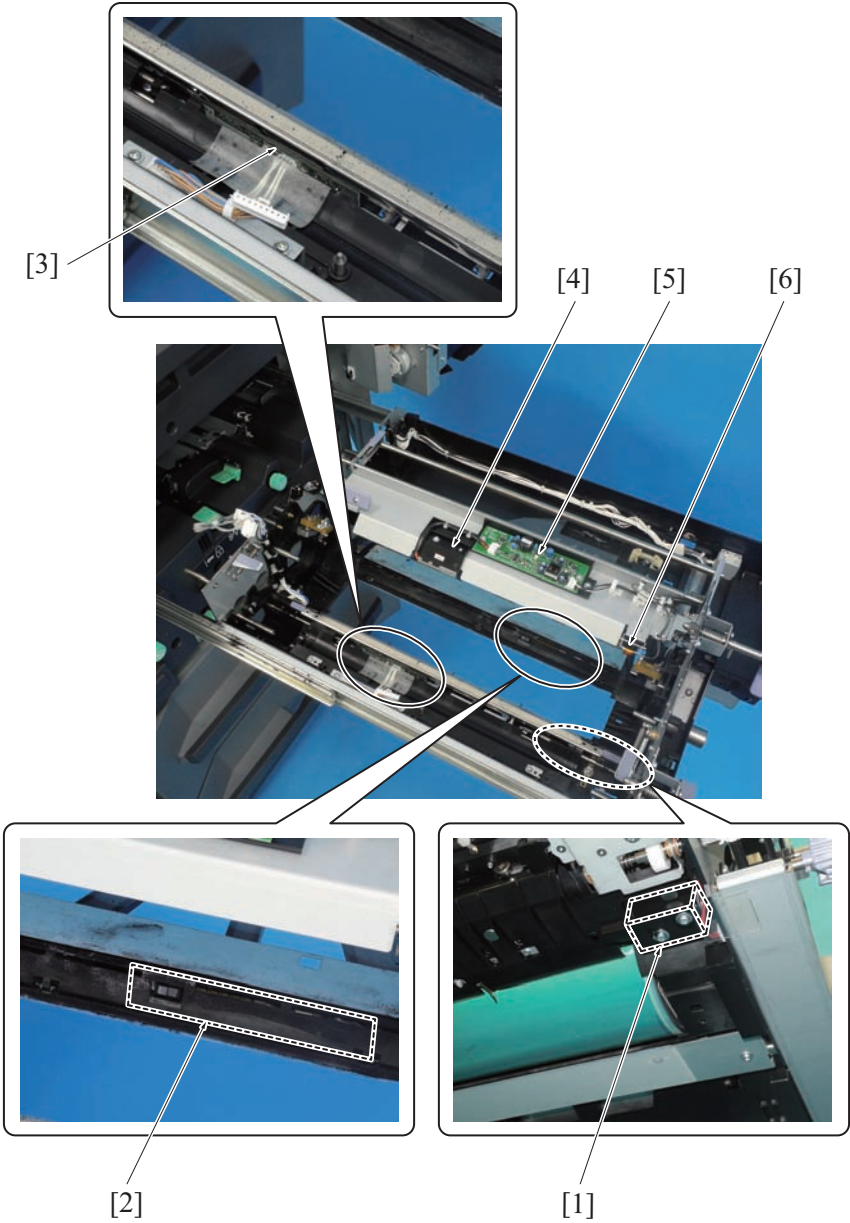
1.1.9 Write section (LPH)



[1]

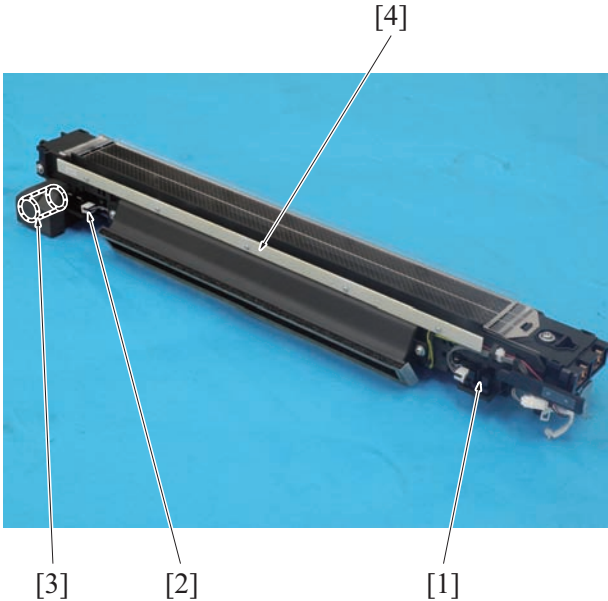
[1]	LPH board (LPHB)	-
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1.1.10 Photo conductor section



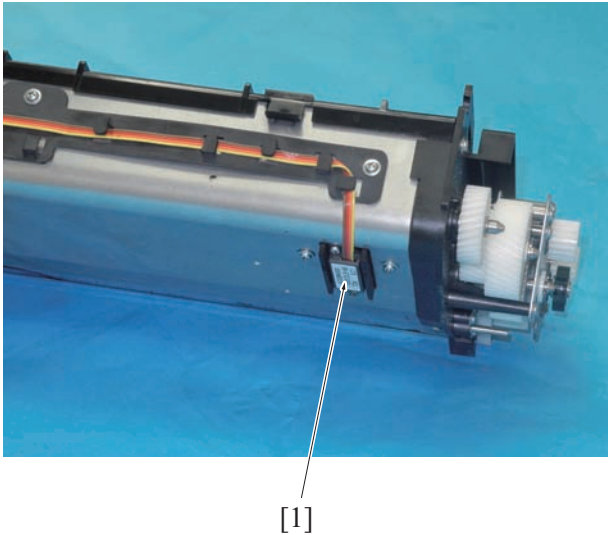
[1]	Drum claw solenoid (SD10)	[2]	Toner control board (TCB)
[3]	JAM sensor board (JAMB)	[4]	Drum potential sensor (DPS)
[5]	Drum potential sensor board (DPSB)	[6]	Drum temperature sensor (TH5)

1.1.11 Charging section



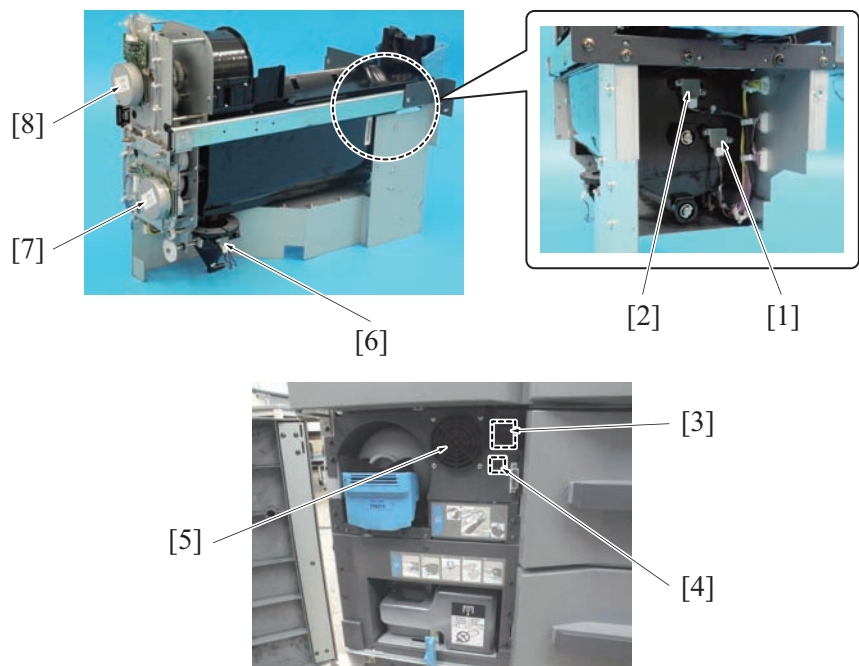
[1]	Charger cleaning home sensor (PS26)	[2]	Charger cleaning limit sensor (PS27)
[3]	Charger cleaning motor (M23)	[4]	Erase lamp (EL)

1.1.12 Developing section



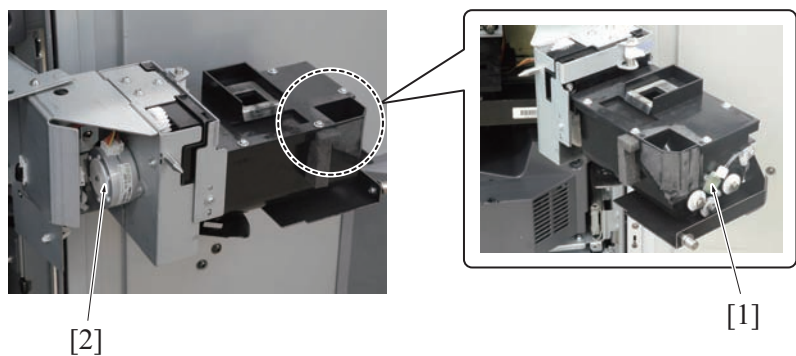
[1]	TCR sensor (TCRS)	-
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1.1.13 Toner supply section 1



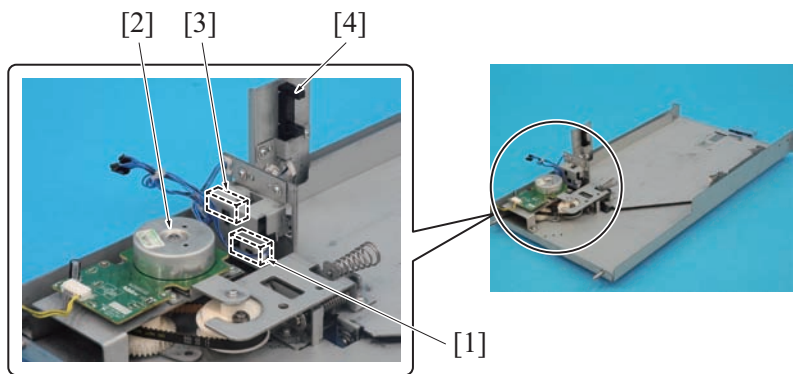
[1]	Hopper toner remaining sensor /1 (PS32)	[2]	Hopper toner remaining sensor /2 (PS33)
[3]	Door switch /2 (SW5)	[4]	Temperature-humidity sensor /2 (TEM/HUM2)
[5]	Toner bottle cooling fan (FM35)	[6]	Cup section toner remaining sensor (PS34)
[7]	Toner hopper motor (M7)	[8]	Toner bottle motor (M6)

1.1.14 Toner supply section 2



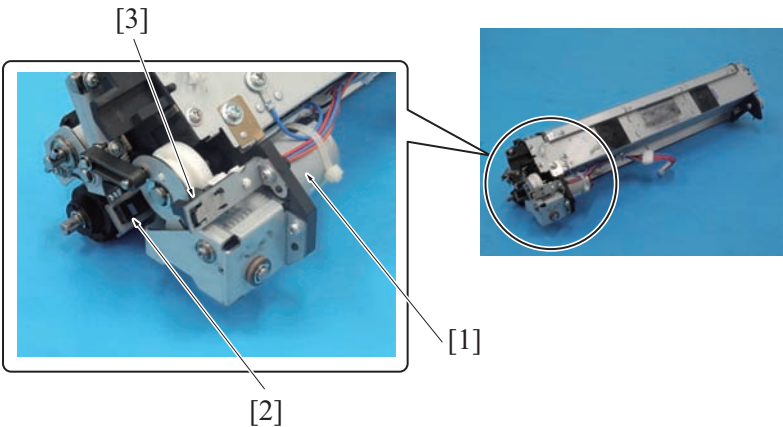
[1]	Intermediate hopper toner remaining sensor (PS39)	[2]	Intermediate hopper motor (M11)
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1.1.15 Toner collection section



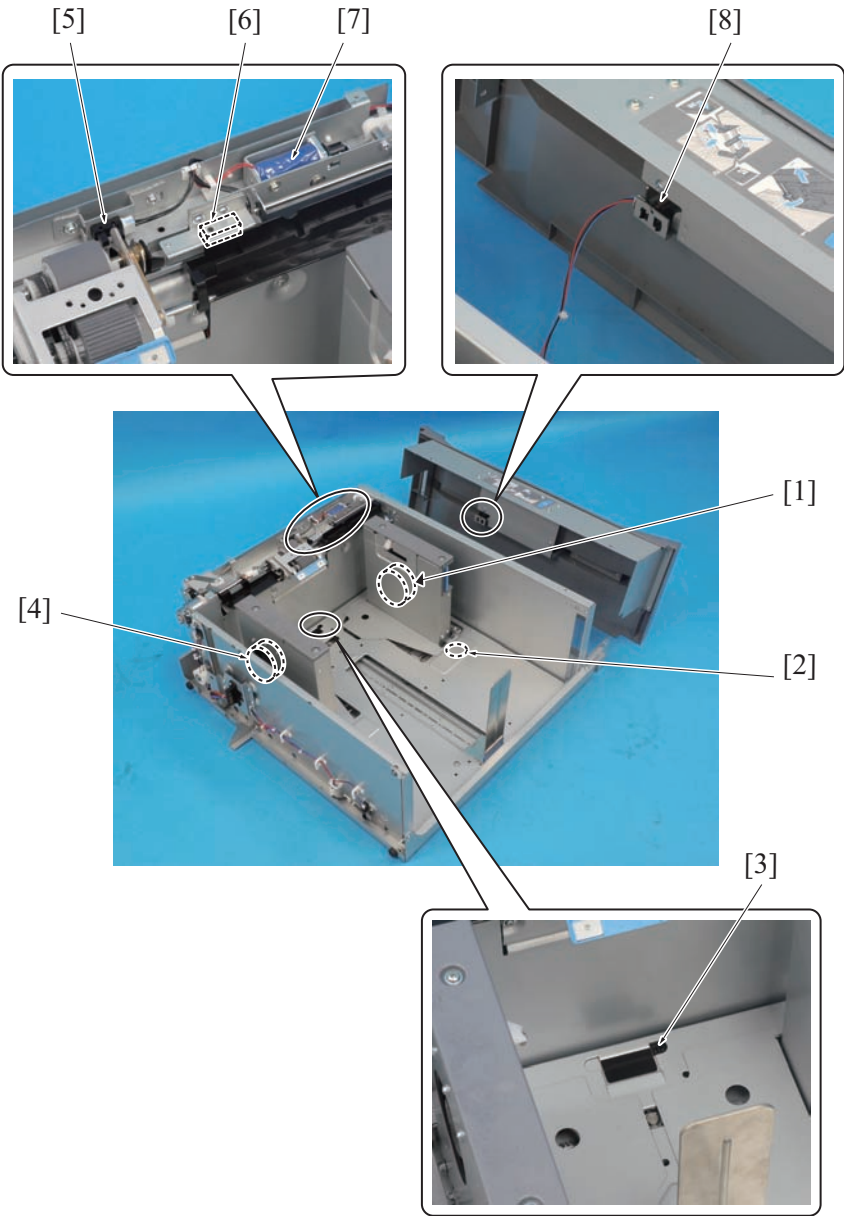
[1]	Waste toner box set sensor (PS14)	[2]	Waste toner box swing motor (M19)
[3]	Waste toner box swing sensor (PS15)	[4]	Waste toner full sensor /1 (PS37)

1.1.16 Cleaning section



[1]	Blade motor (M22)	[2]	Blade sensor /1 (PS24)
[3]	Blade sensor /2 (PS25)	-	

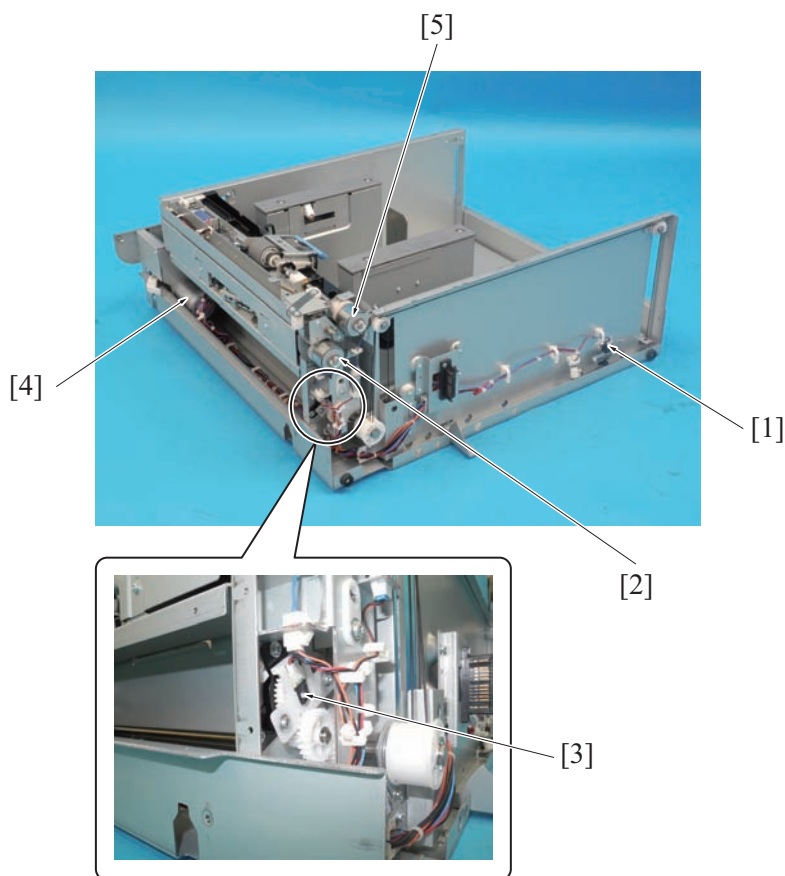
1.1.17 Paper feed section 1



[1] Paper feed assist fan /Fr1 (FM21), /Fr2 (FM23)*1	[2] CD paper size VR/1 (VR2), /2 (VR5)
[3] Paper empty sensor /1 (PS8), /2 (PS12)	[4] Paper feed assist fan /Rr1 (FM20), /Rr2 (FM24)*1
[5] Upper limit sensor /1 (PS6), /2 (PS10)	[6] Paper feed sensor /1 (PS7), /2 (PS11)
[7] Pick-up solenoid /1 (SD3), /2 (SD4)	[8] Handle release sensor /1 (PS9), /2 (PS13)

*1 PRO 951 is unimplemented.

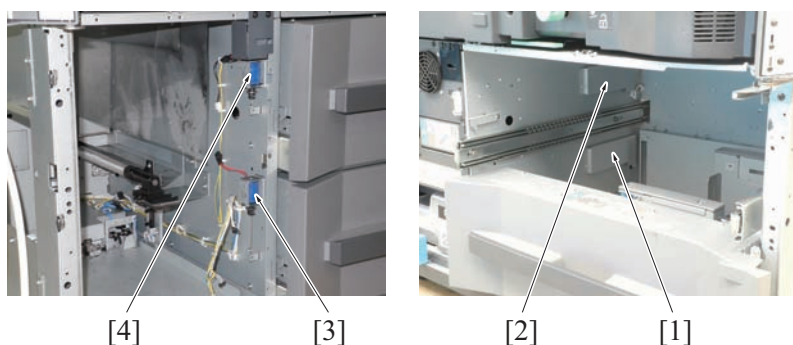
1.1.18 Paper feed section 2



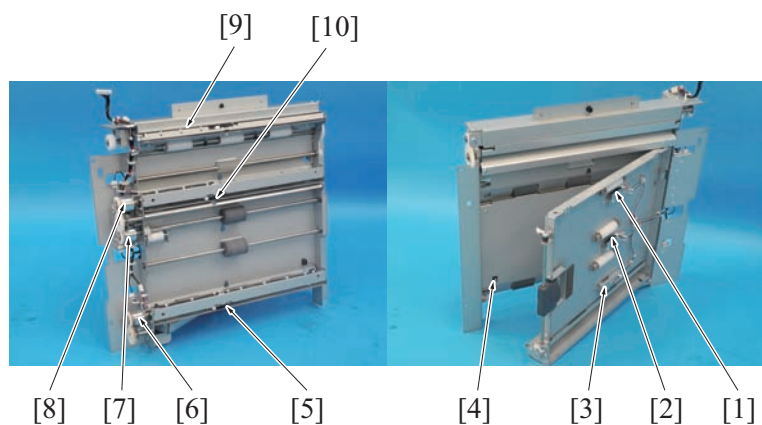
[1] FD paper size VR/1 (VR3), /2 (VR6)	[2] Separation clutch /1 (CL5), /2 (CL7) *1
[3] Remaining paper VR/1 (VR1) and VR/2 (VR4)	[4] Tray lift-up motor /1 (M25), /2 (M34)
[5] Paper feed clutch /1 (CL4), /2 (CL6)	-

*1 PRO 951 is unimplemented.

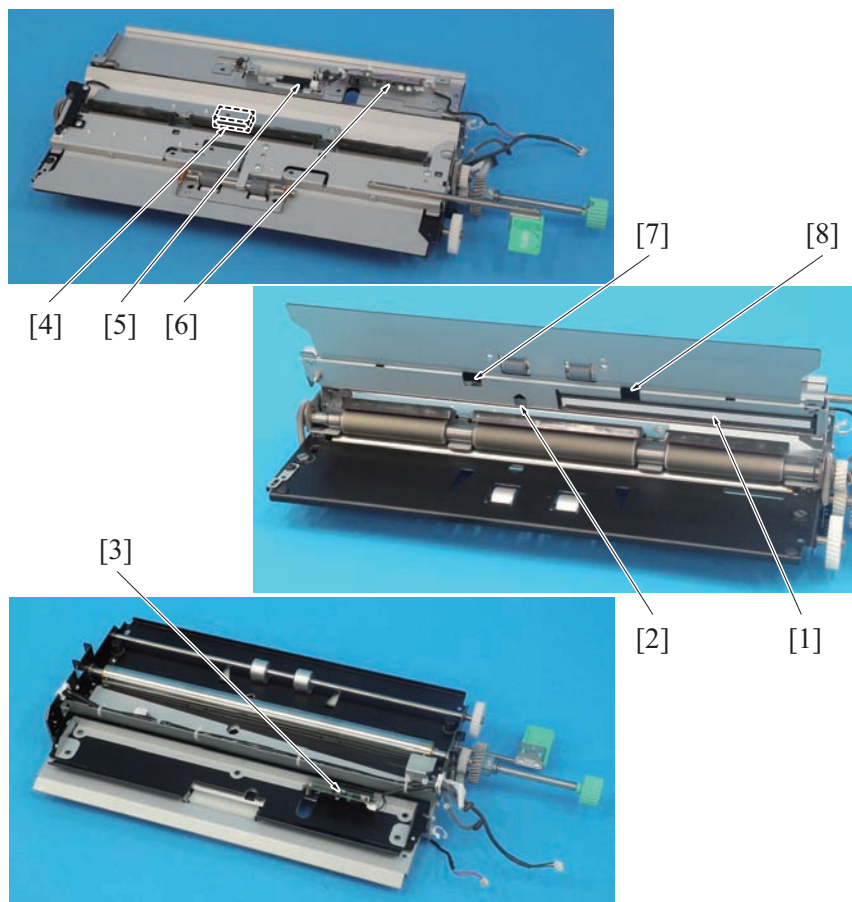
1.1.19 Paper feed section 3



[1] Dehumidification heater /1 (HTR1)	[2] Dehumidification heater /2 (HTR2)
[3] Tray lock solenoid /2 (SD2)	[4] Tray lock solenoid /1 (SD1)

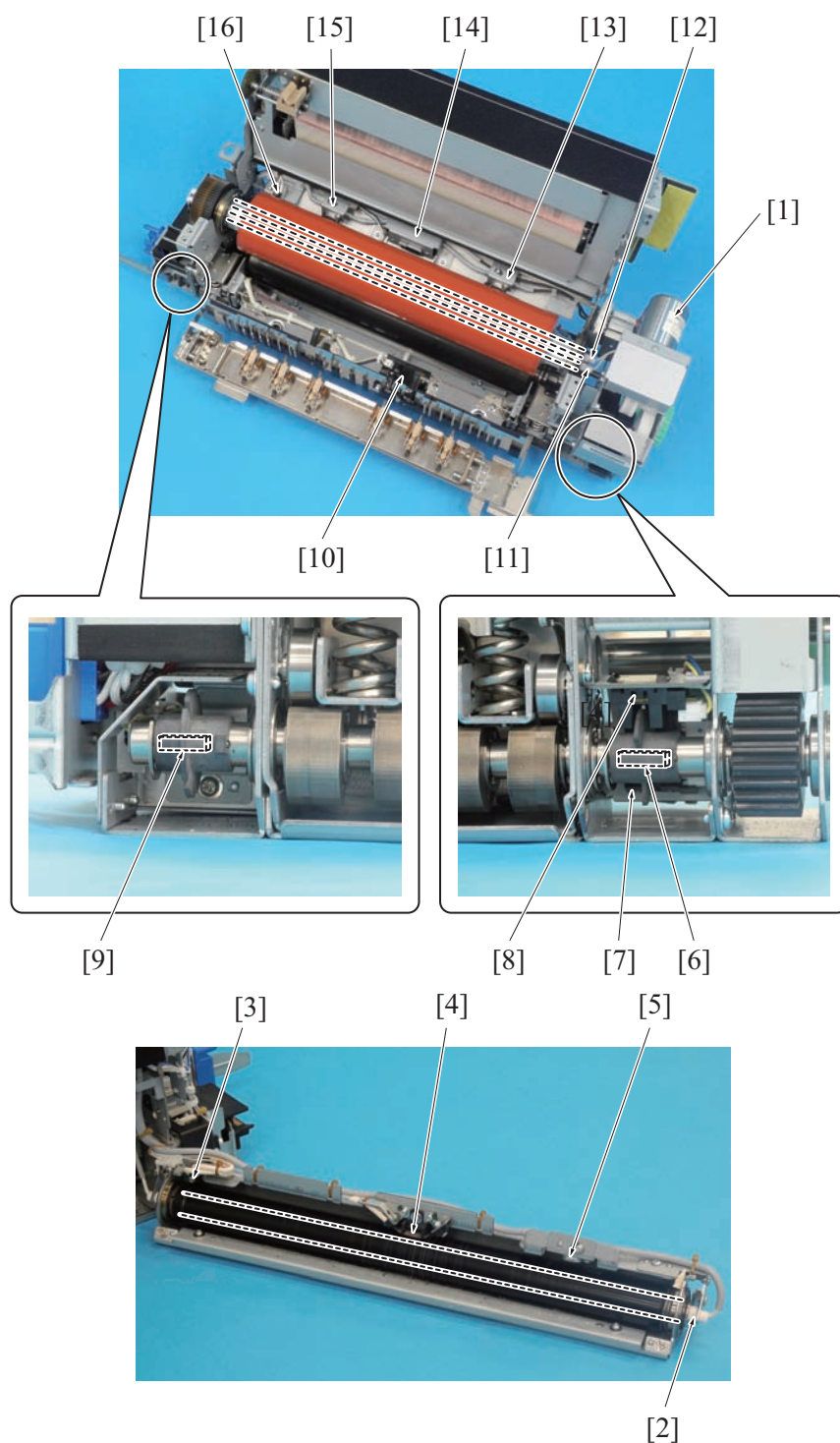
1.1.20 Vertical conveyance section

[1]	Vertical conveyance sensor /1 (PS19)	[2]	Vertical conveyance sensor /2 (PS20)
[3]	Vertical conveyance sensor /3 (PS21)	[4]	Door switch /1 (SW4)
[5]	Pre-registration sensor /2 (PS18)	[6]	Pre-registration clutch /2 (CL3)
[7]	Vertical conveyance clutch (CL2)	[8]	Pre-registration clutch /1 (CL1)
[9]	Loop sensor (PS16)	[10]	Pre-registration sensor /1 (PS17)

1.1.21 Registration section

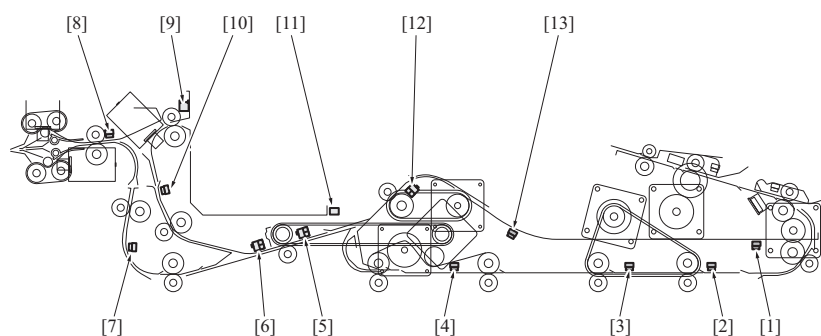
[1]	Centering sensor(PS4)	[2]	Paper leading edge sensor (PS41)
[3]	Multi-feed detection board /S (MFDBS) *1	[4]	Registration sensor (PS40)
[5]	ADU deceleration sensor (PS42)	[6]	Multi-feed detection board /R (MFDBR) *1
[7]	Paper skew sensor /Rr (PS66) *1	[8]	Paper skew sensor /Fr (PS65) *1

*1 PRO 951 is unimplemented

1.1.22 Fusing section

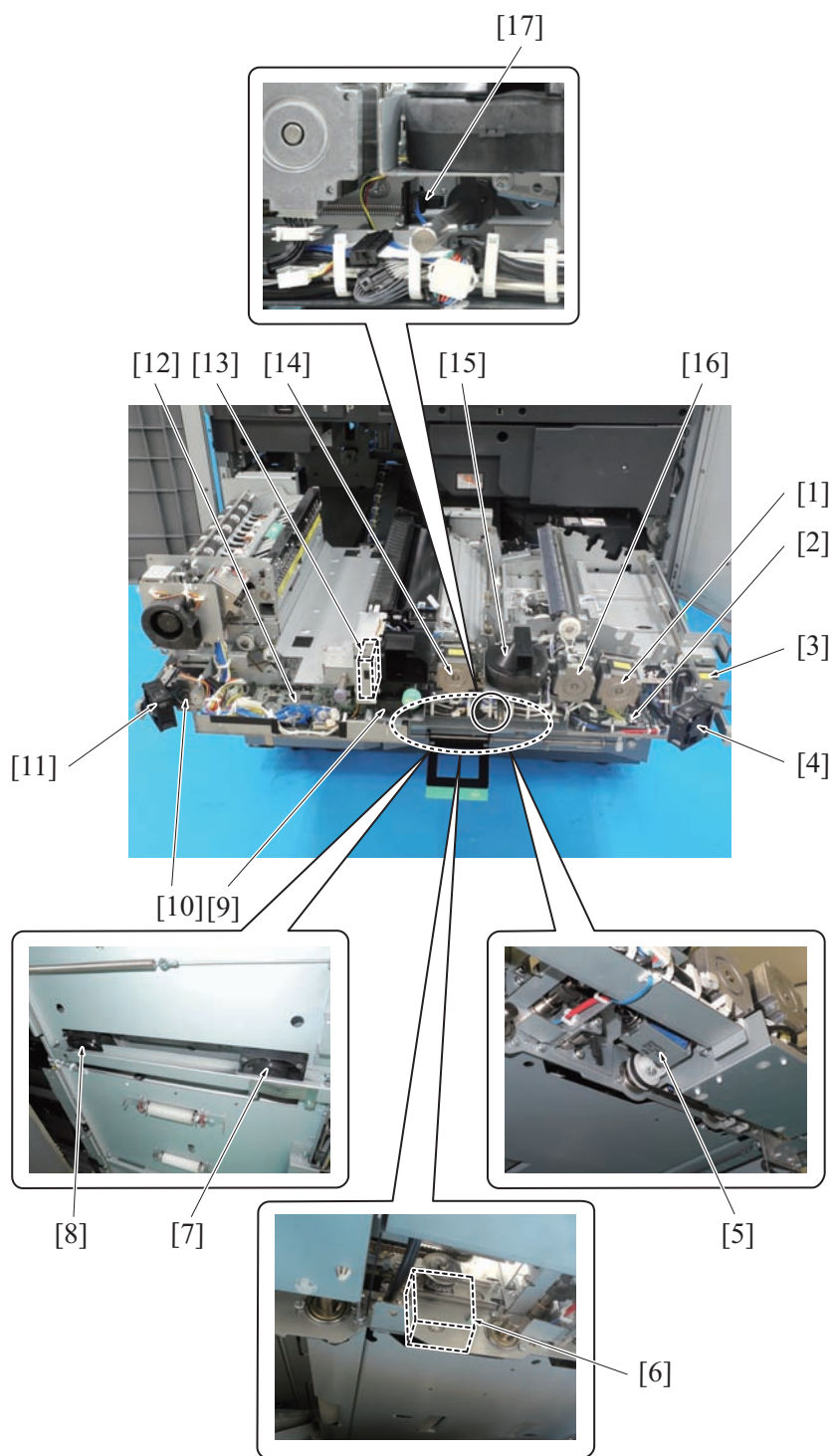
[1]	Fusing pressure release motor (M33) *1	[2]	Fusing heater lamp /3 (L3)
[3]	Fusing temperature sensor /4 (TH4)	[4]	Fusing temperature sensor /3 (TH3)
[5]	Thermostat /3 (TS3)	[6]	Fusing pressure position sensor /3 (PS61)*1
[7]	Fusing pressure position sensor /1 (PS59)*1	[8]	Fusing pressure position sensor /2 (PS60)*1
[9]	Fusing pressure home sensor (PS58)*1	[10]	Fusing jam sensor (PS38)
[11]	Fusing heater lamp /2 (L2)	[12]	Fusing heater lamp /1 (L1)
[13]	Thermostat /1 (TS1)	[14]	Fusing temperature sensor /1 (TH1)
[15]	Thermostat /2 (TS2)	[16]	Fusing temperature sensor /2 (TH2)

*1 PRO 951 is unimplemented.

1.1.23 Duplex section 1

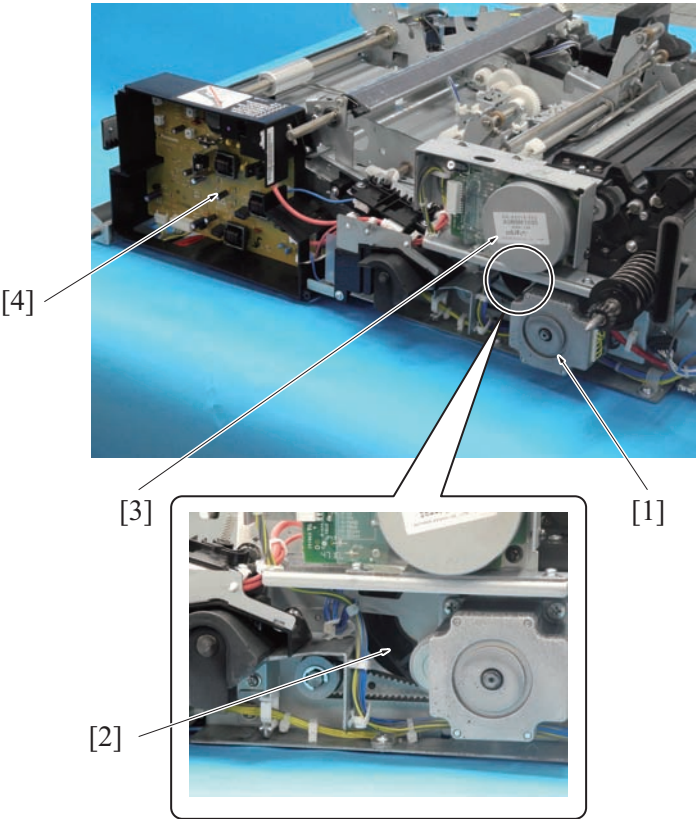
[1]	Paper stay sensor /2 (PS63)	[2]	ADU exit sensor (PS43)
[3]	ADU conveyance sensor /2 (PS36)	[4]	ADU conveyance sensor /1 (PS35)
[5]	Reverse sensor /2 (PS47)	[6]	Reverse sensor /1 (PS48)
[7]	ADU reverse paper exit sensor (PS50)	[8]	De-curler entrance sensor (PS23)
[9]	Fusing exit sensor (PS22)	[10]	ADU accelerate sensor (PS49)
[11]	Temperature sensor (TEM)	[12]	ADU reverse sensor /2 (PS45)
[13]	Paper stay sensor /1 (PS64)	-	

1.1.24 Duplex section 2



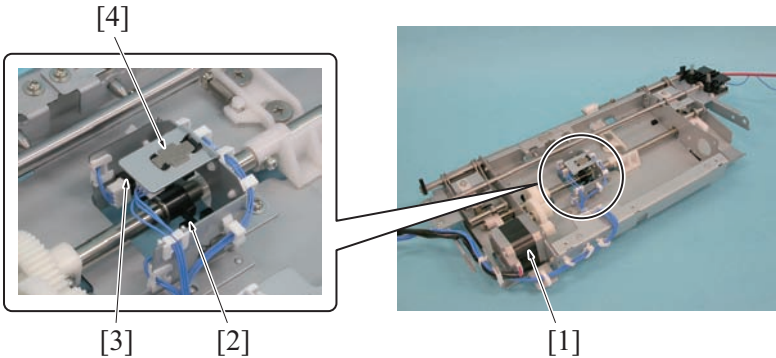
[1]	Registration motor (M17)	[2]	ADU drive board /2 (ADUDB2)
[3]	Loop motor (M18)	[4]	Registration cooling fan (FM17)
[5]	ADU lock solenoid (SD6)	[6]	Reverse/exit motor (M13)
[7]	Sensor cooling fan /1 (FM16)	[8]	Sensor cooling fan /2 (FM40)
[9]	Reverse cooling fan (FM38)	[10]	ADU acceleration motor (M14)
[11]	ADU cooling fan /1 (FM14)	[12]	ADU drive board /1 (ADUDB1)
[13]	Transfer belt cleaning fan (FM27)	[14]	ADU reverse motor (M12)
[15]	Belt cooling fan (FM37)	[16]	ADU conveyance motor /2 (M16)
[17]	ADU handle release sensor (PS44)	-	

1.1.25 Duplex section 3



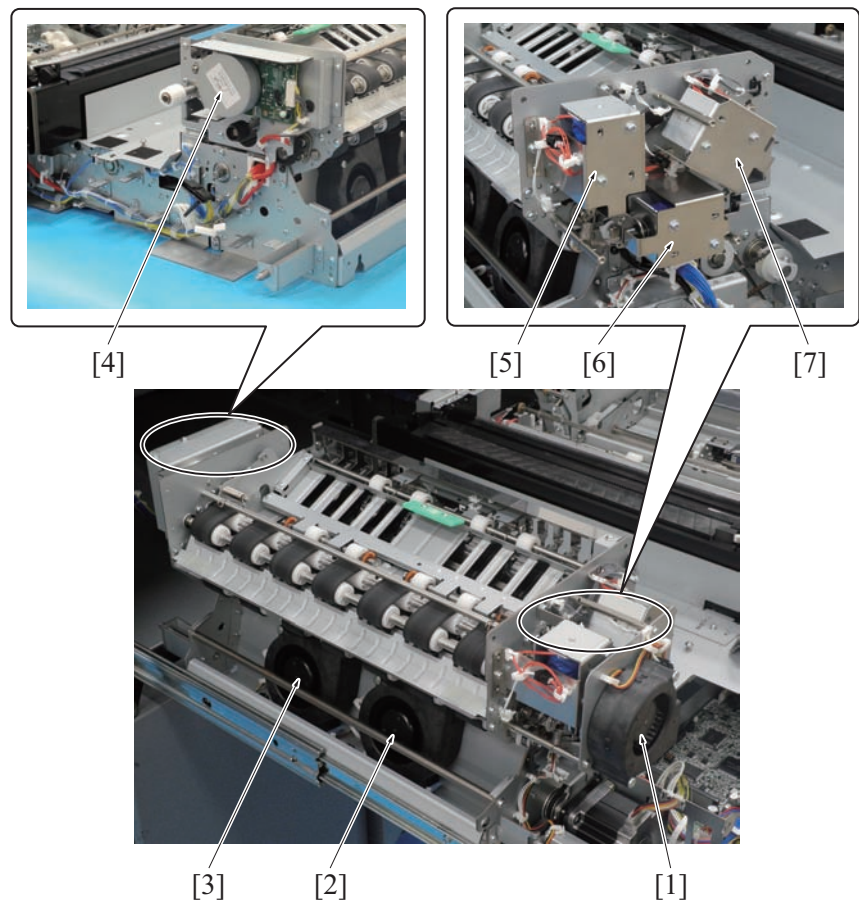
[1]	ADU conveyance motor /1 (M15)	[2]	ADU cooling fan /2 (FM15)
[3]	Transfer belt motor (M30)	[4]	High voltage unit /2 (HV2)

1.1.26 Duplex section 4



[1]	Transfer belt pressure release motor (M26)	[2]	Transfer pressure home sensor (PS54)
[3]	Transfer pressure position sensor /2 (PS56)	[4]	Transfer pressure position sensor /1 (PS55)

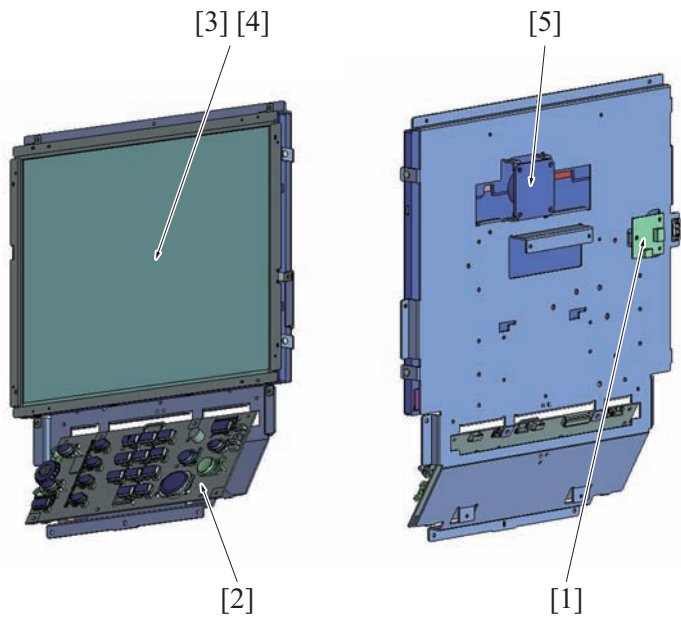
1.1.27 Reverse/exit section



[1]	ADU cooling fan /3 (FM13)	[2]	De-curler fan /1 (FM29)
[3]	De-curler fan /2 (FM30)	[4]	De-curler motor (M32)
[5]	De-curler solenoid /Up (SD8)	[6]	De-curler solenoid /Lw (SD5)*1
[7]	Reverse/exit solenoid (SD7)	-	

*1 PRO 951 is unimplemented.

1.1.28 Operation panel section

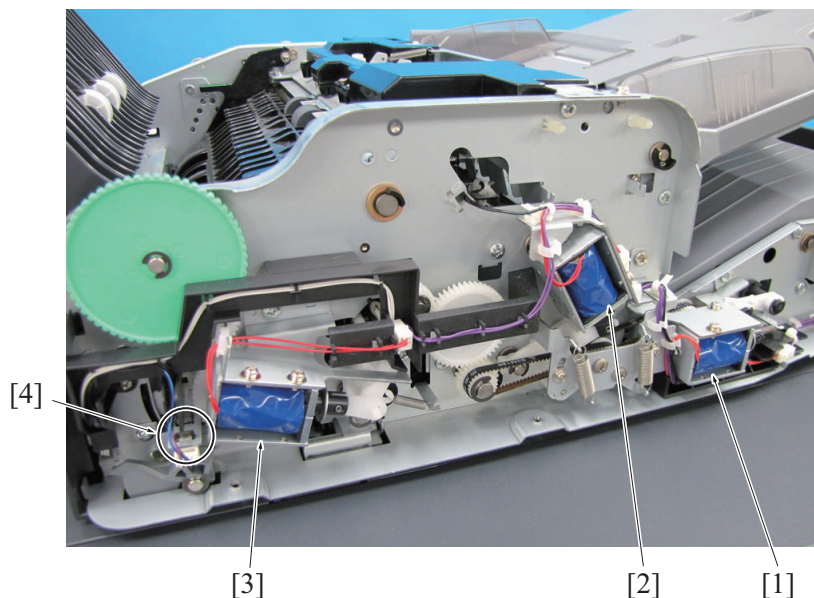


[1]	Operation board /3 (OB3)	[2]	Operation board /1 (OB1)
[3]	LCD board (LCDB)	[4]	Operation board /2 (OB2)

[5]	Speaker (SP)	-
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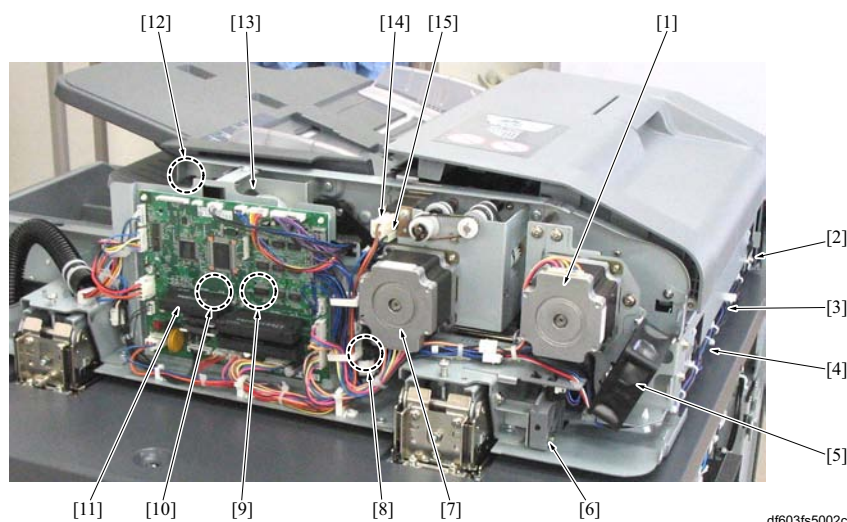
1.2 DF-615 /616

1.2.1 Front side

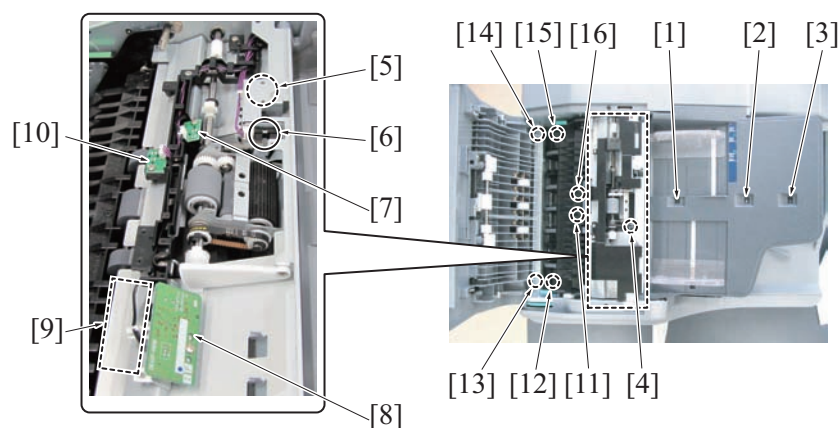


[1]	Exit gate solenoid (SD304)	[2]	Pressure roller release solenoid (SD302)
[3]	Gate solenoid (SD303)	[4]	DF open-close sensor (PS301)

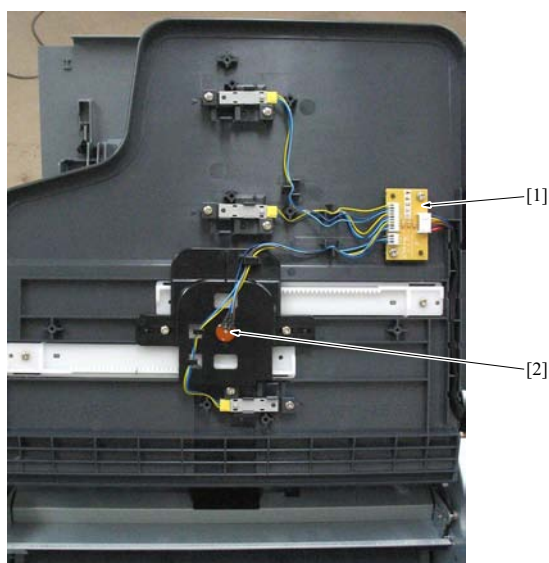
1.2.2 Rear side



[1]	Original conveyance motor (M302)	[2]	Original skew sensor /Fr (PS312)
[3]	Original conveyance sensor (PS308)	[4]	Original skew sensor /Rr (PS311)
[5]	Cooling fan /Lt (FM301)	[6]	APS timing sensor (PS317)
[7]	Original feed motor (M301)	[8]	SDF switching solenoid (SD301)
[9]	Original exit motor /1 (M303)	[10]	Original exit motor /2 (M304)
[11]	DF control board (DFCB)	[12]	Cooling fan /Rt (FM302)
[13]	Tray up-down motor (M305)	[14]	Cover open-close switch (MS301)
[15]	Tray lower limit sensor (PS316)	-	

1.2.3 Upper surface

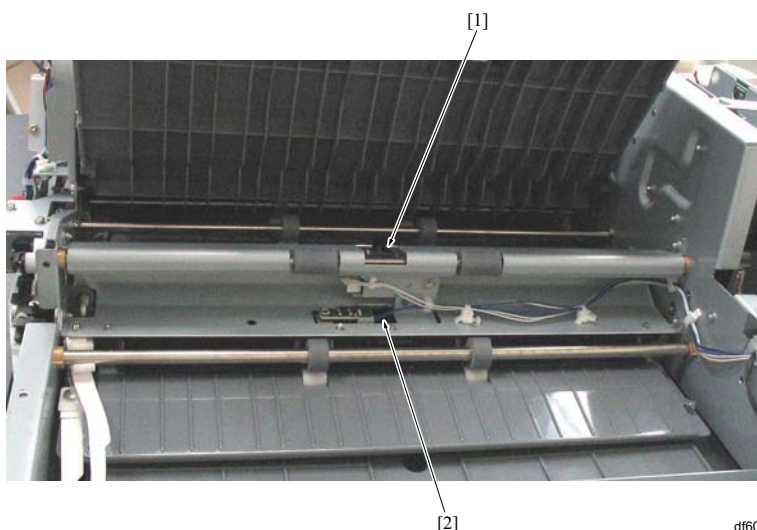
[1] Original count sensor (PS310)	[2] Original size sensor /Lt (PS303)
[3] Original size sensor /Rt (PS302)	[4] Reverse jam sensor (PS304)
[5] Original empty sensor (PS305)	[6] Tray upper limit sensor (PS315)
[7] Original registration sensor /Rt (PS318) (DF-615 only)	[8] Multi feed detection board /R (MFDBR) (DF-615 only)
[9] Multi feed detection board /S (MFDBS) (DF-615 only)	[10] Original registration sensor /Lt (PS306)
[11] Original reverse sensor (PS309)	[12] Centering LED sensor /Fr (PS319) (DF-615 only)
[13] Centering sensor /Fr (PS320) (DF-615 only)	[14] Centering sensor /Rr (PS321) (DF-615 only)
[15] Centering LED sensor /Rr (PS322) (DF-615 only)	[16] Original exit sensor /Lt (PS307)

1.2.4 Upper tray rear side

df603fs5004c

[1] Tray board (TB)	[2] Original size VR (VR301)
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1.2.5 Reverse tray rear side

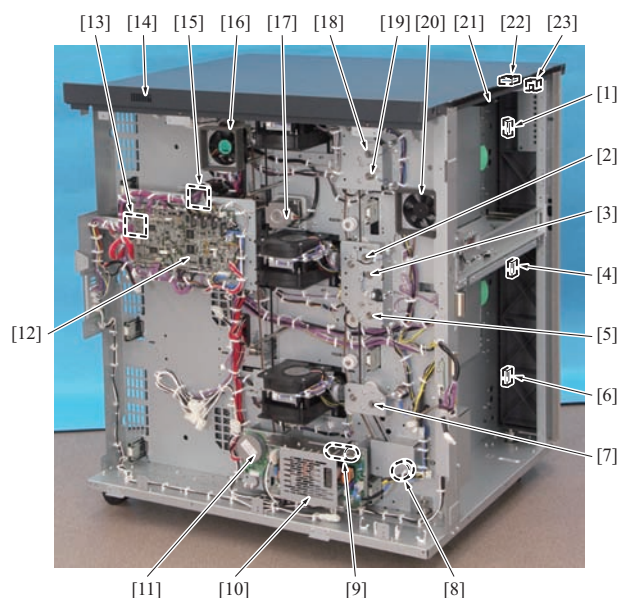


df603fs5005c

[1] Original exit sensor/Rt (PS314)	[2] Original reverse-exit sensor (PS313)
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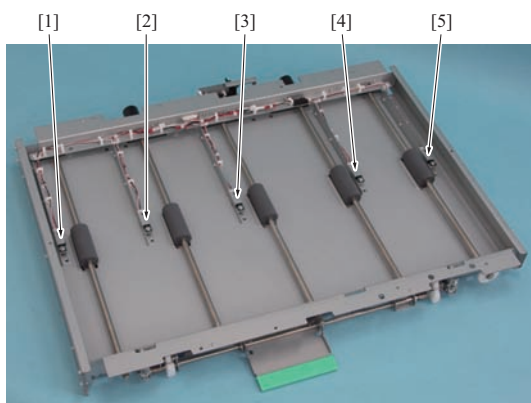
1.3 PF-703/HT-505/FA-501

1.3.1 Configuration section



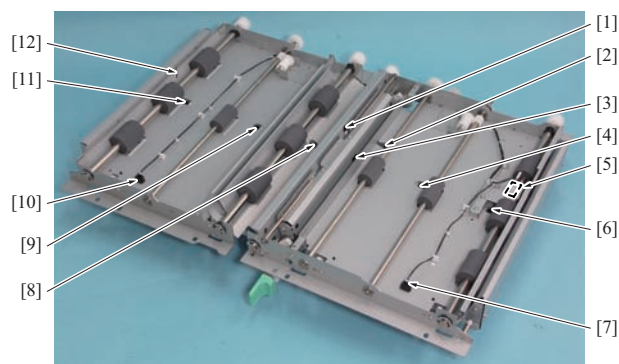
a0g6f5c200ca

[1] Tray lock solenoid /1 (SD1)	[2] Horizontal conveyance exit clutch (CL6)
[3] Pre-registration clutch /2 (CL3)	[4] Tray lock solenoid /2 (SD2)
[5] Intermediate clutch /2 (CL4)	[6] Tray lock solenoid /3 (SD3)
[7] Pre-registration clutch /3 (CL15)	[8] Paper feed motor (M1)
[9] Noise filter (NF)	[10] DC power supply /1 (DCPS/1)
[11] Paper feed belt motor (M2)	[12] PF drive board (PFUDB)
[13] Coupling conveyance motor /1 (M4)	[14] Temperature-humidity sensor (TEM/HUMS)
[15] Coupling conveyance motor /2 (M5)	[16] PF cooling fan /2 (FM20)
[17] Coupling conveyance motor /3 (M6)	[18] Pre-registration clutch /1 (CL1)
[19] Intermediate clutch /1 (CL2)	[20] PF cooling fan /1 (FM19)
[21] PF cooling fan /3 (FM21)	[22] Interlock switch (MS1)
[23] Door open/close sensor (PS1)	-

1.3.2 Horizontal conveyance section

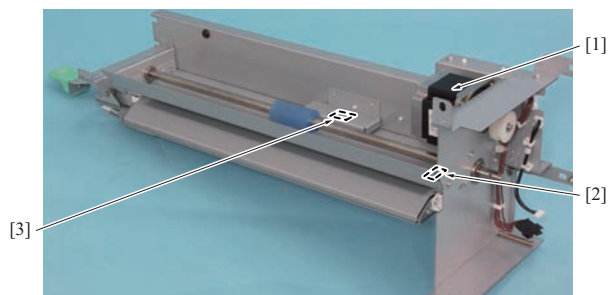
a0g6f5c201ca

[1]	Horizontal conveyance sensor /5 (PS35)	[2]	Horizontal conveyance sensor /4 (PS34)
[3]	Horizontal conveyance sensor /3 (PS33)	[4]	Horizontal conveyance sensor /2 (PS32)
[5]	Horizontal conveyance sensor /1 (PS31)	-	

1.3.3 Vertical conveyance section

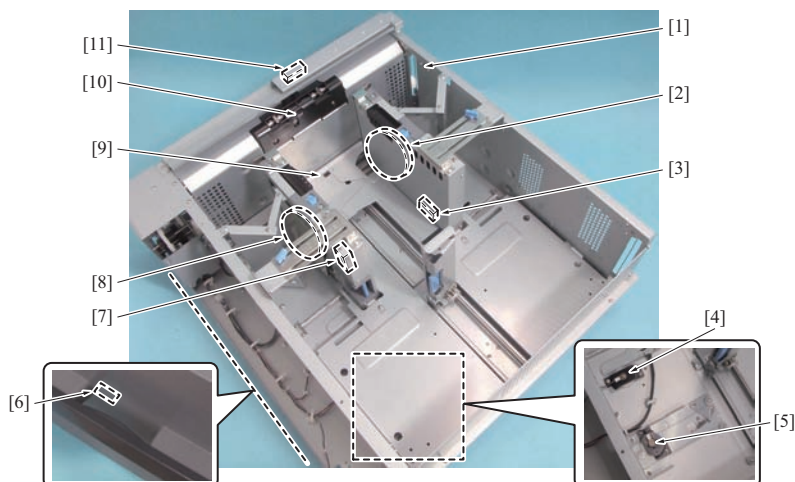
a0g6f5c202ca

[1]	Pre-registration sensor /2 (PS18)	[2]	Loop sensor /3 (PS23)
[3]	Loop sensor /2 (PS19)	[4]	Intermediate sensor /Lw (PS22)
[5]	Pre-registration sensor /3 (PS20)	[6]	Vertical conveyance sensor /3 (PS21)
[7]	Vertical conveyance door switch /Lw (SW2)	[8]	Loop sensor /1 (PS17)
[9]	Intermediate sensor /Up (PS16)	[10]	Vertical conveyance door switch /Up (SW1)
[11]	Vertical conveyance sensor /1 (PS15)	[12]	Pre-registration sensor /1 (PS14)

1.3.4 EXIT CONVEYANCE SECTION

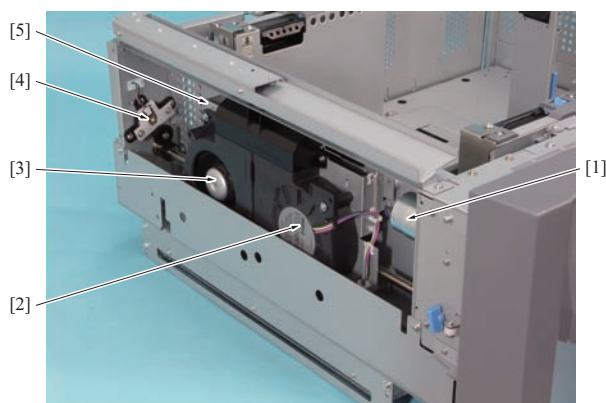
a0g6f5c203ca

[1]	PF exit conveyance motor (M3)	[2]	Horizontal conveyance door switch (SW3)
[3]	PF exit conveyance sensor (PS24)	-	

1.3.5 Paper feed tray section 1

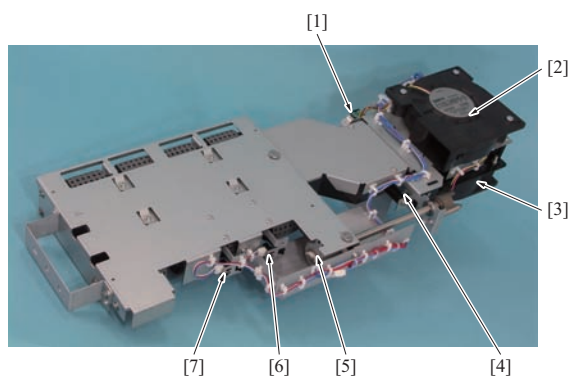
a0g6f5c204ca

[1]	Temperature sensors /1 (TEMS/1), /2 (TEMS/2), /3 (TEMS/3)	[2]	Paper feed assist fan /Rr1 (FM2), /Rr2 (FM6), /Rr3 (FM12)
[3]	Shutter solenoid /Rr1 (SD5), /Rr2 (SD7), /Rr3 (SD9)	[4]	CD paper size VR/1 (VR2), /2 (VR5), /3 (VR8)
[5]	FD paper size VR/1 (VR3), /2 (VR6), /3 (VR9)	[6]	Handle release sensors /1 (PS4), /2 (PS8), /3 (PS12)
[7]	Shutter solenoid /Fr1 (SD4), /Fr2 (SD6), /Fr3 (SD8)	[8]	Paper feed assist fan /Fr1 (FM1), /Fr2 (FM5), /Fr3 (FM9)
[9]	Paper empty sensors /1(PS3), /2 (PS7), /3 (PS11)	[10]	Paper feed sensors /1 (PS5), /2 (PS9), /3 (PS13)
[11]	Paper feed sensor /1 (PS2), /2 (PS6), /3 (PS10)	-	

1.3.6 Paper feed tray section 2

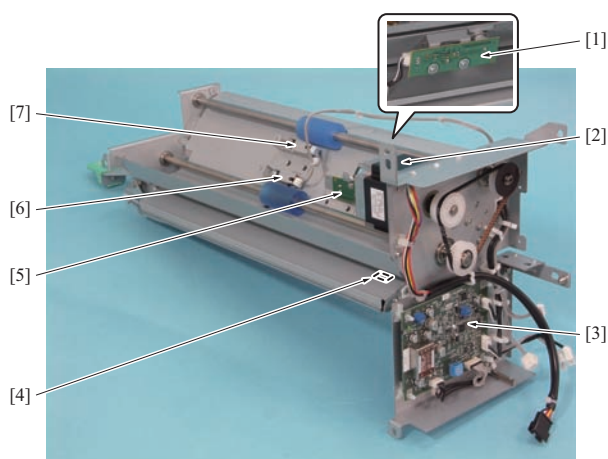
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[1]	Paper lift motor /1 (M7), /2 (M8), /3 (M9)	[2]	Paper leading edge separation fan /Fr1 (FM3), /Fr2 (FM7), /Rr3 (FM11)
[3]	Paper leading edge separation fan /Rr1 (FM4), /Rr2 (FM8), /Rr3 (FM12)	[4]	Remaining paper VR /1 (VR1), /2 (VR4), /3 (VR7)
[5]	Paper leading edge shutter solenoid /1 (SD10), /2 (SD11), /3 (SD12)	-	

1.3.7 Paper feed suction section

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[1] Shutter motor /1 (M10), /2 (M11), /3 (M12)	[2] Paper suction fan /1 (FM13), /3 (FM15), /5 (FM17)
[3] Paper suction fan /2 (FM14), /4 (FM16), /6 (FM18)	[4] Shutter home sensor /1 (PS37), /2 (PS38), /3 (PS39)
[5] Paper feed clutch /1 (CL7), /2 (CL8), /3 (CL9)	[6] Paper suction sensors /Rr1 (PS26), /Rr2 (PS28), /Rr3 (PS30)
[7] Paper suction sensors /Fr1 (PS25), /Fr2 (PS27), /Fr3 (PS29)	-

1.3.8 FA-501 (Option) 1

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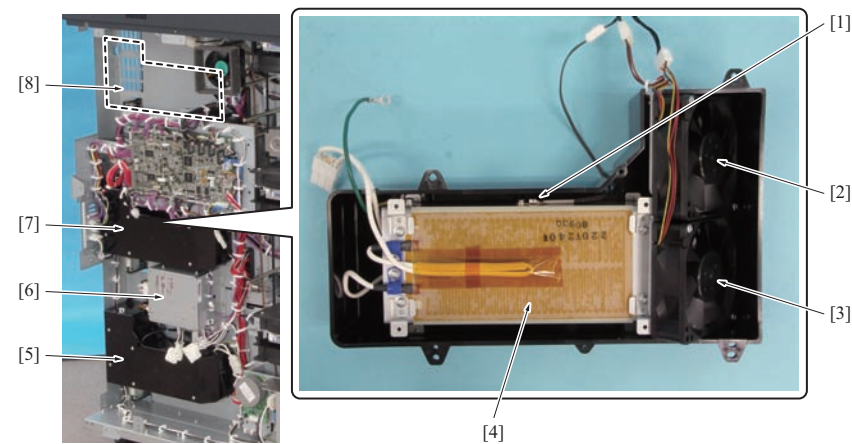
[1] Multi feed detection board /S (MFDBS)	[2] PF exit conveyance motor (M3)
[3] Multi feed detection drive board (MFDDDB)	[4] Horizontal conveyance door switch (SW3)
[5] Multi feed detection board /R (MFDBR)	[6] PF exit conveyance sensor /1 (PS24)
[7] PF exit conveyance sensor /2 (PS36)	-

1.3.9 FA-501 (Option) 2

a0g6f5c208ca

[1] DC power supply /2 (DCPS/2)	-
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1.3.10 HT-505 (Option)



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[1]	Temperature sensor /5 (TEMS/5), /6 (TEMS/6), /7 (TEMS/7)	[2]	Dehumidifier fans /Rt1 (FM22), /Rt2 (FM24), /Rt3 (FM26)
[3]	Dehumidifier fans /Lt1 (FM23), /Lt2 (FM25), /Lt1 (FM27)	[4]	Dehumidification heaters /1 (HTR1), /2 (HTR2), /3 (HTR3)
[5]	Dehumidifier fan heater unit /3	[6]	AC drive board /2 (ACDB/2)
[7]	Dehumidifier fan heater unit /2	[8]	Dehumidifier fan heater unit /1

1.4 PF-706/PP-701

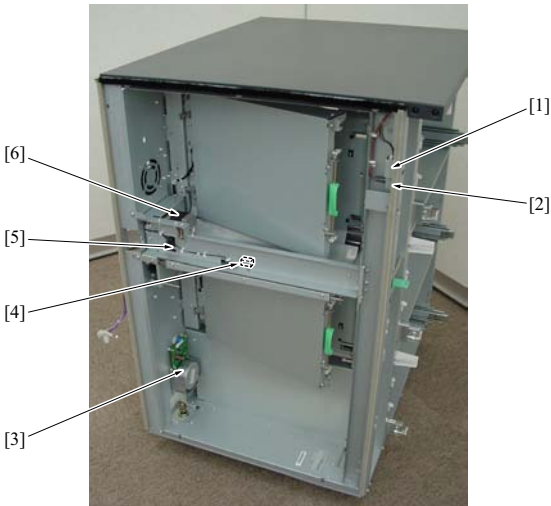
1.4.1 Configuration front side



pf701fs5001c

[1]	Dehumidification heater /1 (HTR1)	[2]	Dehumidification heater /2 (HTR2)
[3]	Dehumidification heater /3 (HTR3)	[4]	Tray lock solenoid /3 (SD3)
[5]	Tray lock solenoid /2 (SD2)	[6]	Tray lock solenoid /1 (SD1)

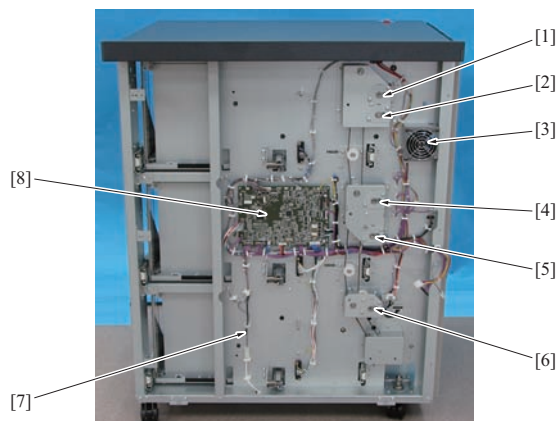
1.4.2 Configuration left side/exit conveyance section



pf701fs5002c

[1] Door open/close sensor (PS1)	[2] Interlock switch (MS1)
[3] Paper feed motor (M1)	[4] PF exit conveyance sensor (PS24)
[5] Horizontal conveyance door switch (SW3)	[6] PF exit conveyance motor (M2)

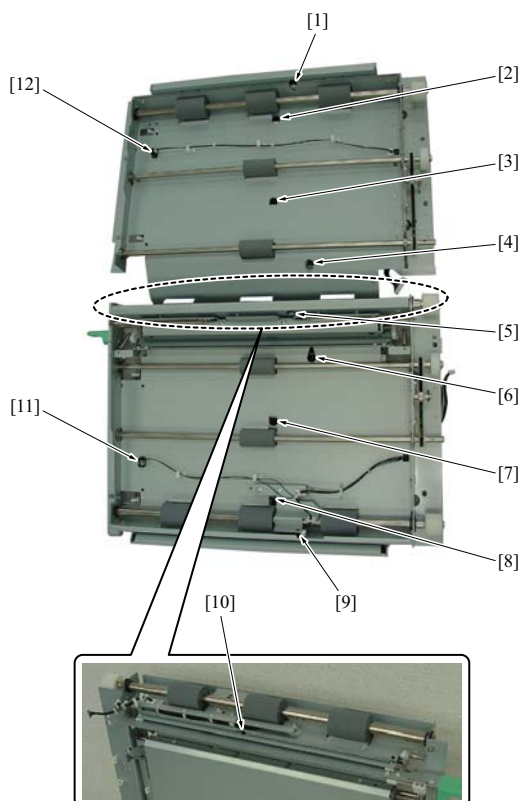
1.4.3 Configuration rear side



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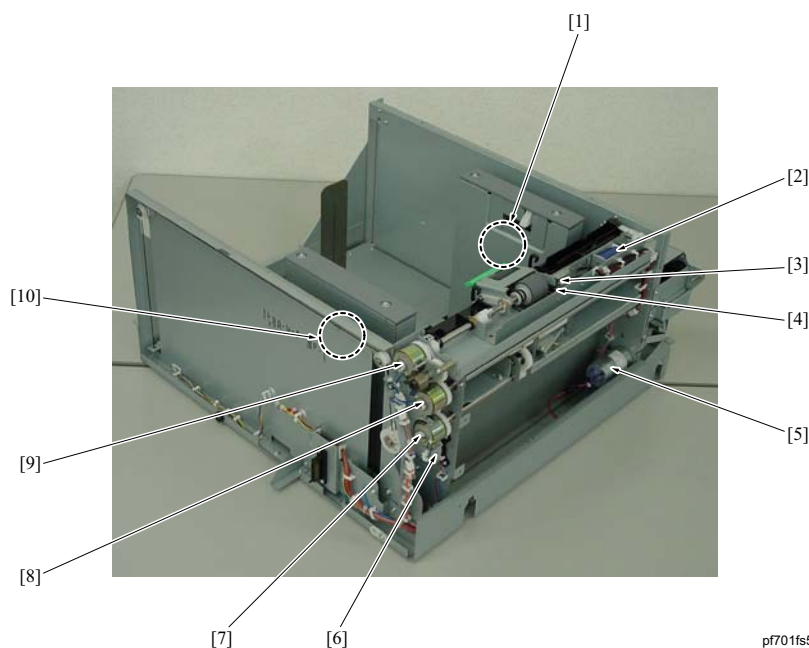
[1] Pre-registration clutch /1 (CL1)	[2] Intermediate clutch /Up (CL2)
[3] PF cooling fan (FM7)	[4] Pre-registration clutch /2 (CL3)
[5] Intermediate clutch /Lw (CL4)	[6] Pre-registration clutch /3 (CL5)
[7] Temperature sensor (TEMS)	[8] PF drive board (PFUDB)

1.4.4 Vertical conveyance section



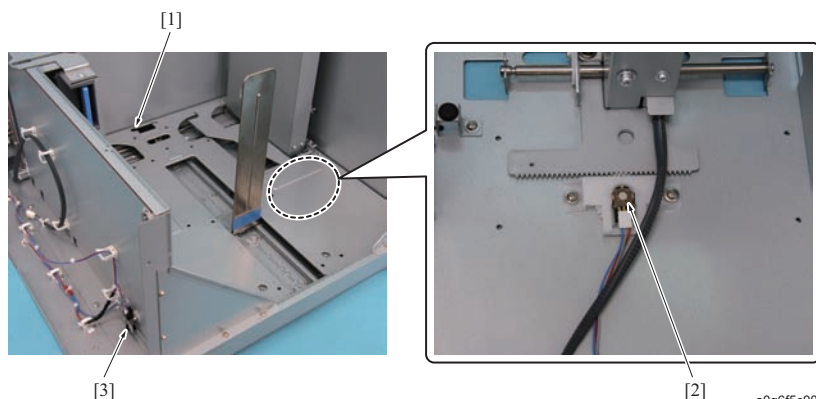
pf701fs5004c

[1] Pre-registration sensor /1 (PS14)	[2] Vertical conveyance sensor /1 (PS15)
[3] Intermediate sensor /Up (PS16)	[4] Loop sensor /1 (PS17)
[5] Pre-registration sensor /2 (PS18)	[6] Loop sensor /3 (PS23)
[7] Intermediate sensor /Lw (PS22)	[8] Vertical conveyance sensor /2 (PS21)
[9] Pre-registration sensor /3 (PS20)	[10] Loop sensor /2 (PS19)
[11] Vertical conveyance door switch /Lw (SW2)	[12] Vertical conveyance door switch /Up (SW1)

1.4.5 Tray section 1

pf701fs5005c

[1]	Paper feed assist fan /Fr1 (FM1), /Fr2 (FM3), /Fr3 (FM5)	[2]	Pick-up solenoid /1 (SD4), /2 (SD5), /3 (SD6)
[3]	Paper feed sensor /1 (PS3), /2 (PS7), /3 (PS11)	[4]	Upper limit sensor /1 (PS2), /2 (PS6), /3 (PS10)
[5]	Paper lift motor /1 (M42), /2 (M43), /3 (M44)	[6]	Remaining paper VR /1 (VR1), /2 (VR4), /3 (VR7)
[7]	Forced separation clutch /1 (CL8), /2 (CL11), /3 (CL14)	[8]	Separation clutch /1 (CL7), /2 (CL10), /3 (CL13)
[9]	Paper feed clutch /1 (CL6), /2 (CL9), /3 (CL12)	[10]	Paper feed assist fan /Rr1 (FM2), /Rr2 (FM4), /Rr3 (FM6)

1.4.6 Tray section2

a0g6f5c002ca

[1]	Paper empty sensor /1 (PS4), /2 (PS8), /3 (PS12)	[2]	CD paper size VR /1 (VR2), /2 (VR5), /3 (VR8)
[3]	FD paper size VR /1 (VR3), /2 (VR6), /3 (VR9)	-	

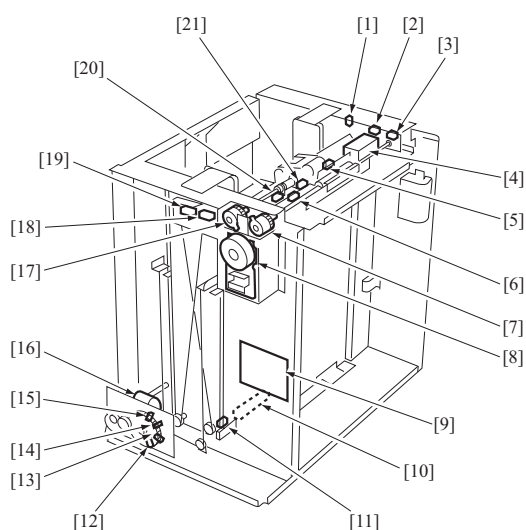
1.4.7 PP-701 (Option)

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[1]	Paper trailing edge separation fan /1 (FM8)	[2]	Paper trailing edge separation fan /2 (FM9)
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[3] Paper trailing edge separation fan /3 (FM10)	[4] Front side direction
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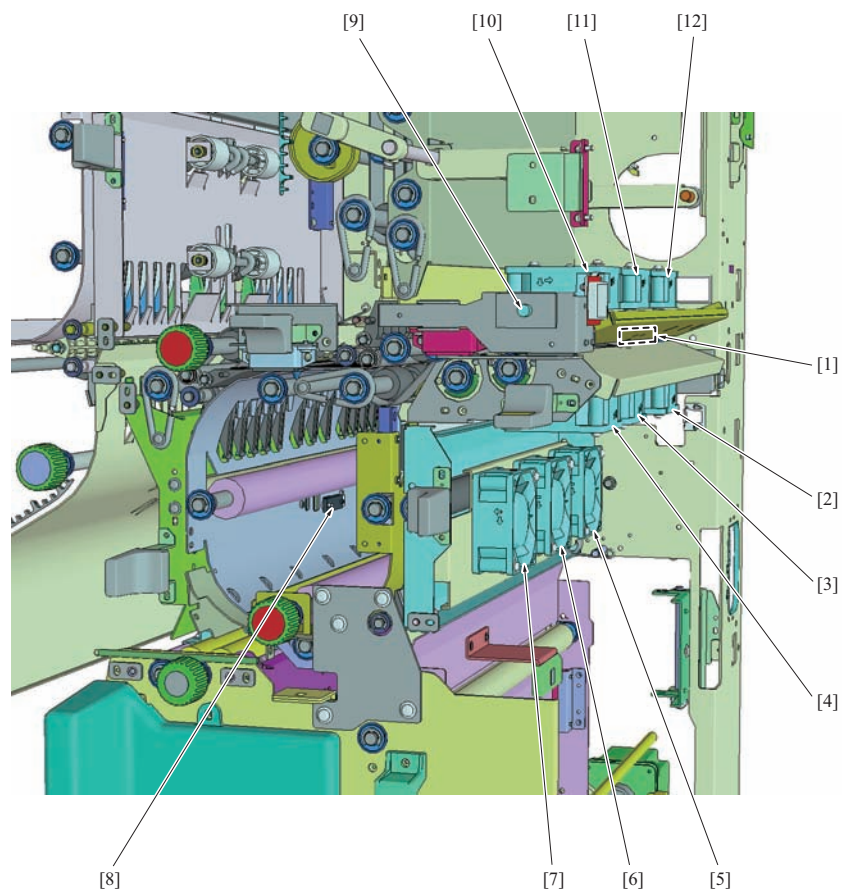
1.5 LU-409/410



[1] Tray down switch (SW100)	[2] Front door interlock switch (MS101)
[3] Front door open/close sensor (PS110)	[4] Pick-up solenoid (SD100)
[5] Upper limit sensor (PS109)	[6] LU exit sensor (PS106)
[7] Pre-registration clutch (CL102)	[8] Paper feed motor (M101)
[9] LU drive board (LUDB)	[10] Dehumidification heater (HTR101)
[11] Lower limit sensor (PS101)	[12] Remaining paper sensor /4 (PS105)
[13] Remaining paper sensor /3 (PS104)	[14] Remaining paper sensor /2 (PS103)
[15] Remaining paper sensor /1 (PS102)	[16] Paper lift motor (M100)
[17] Paper feed clutch (CL101)	[18] Upper door open/close sensor (PS100)
[19] Upper door interlock switch (MS102)	[20] Pre-registrations sensor (PS107)
[21] Paper empty sensor (PS108)	-

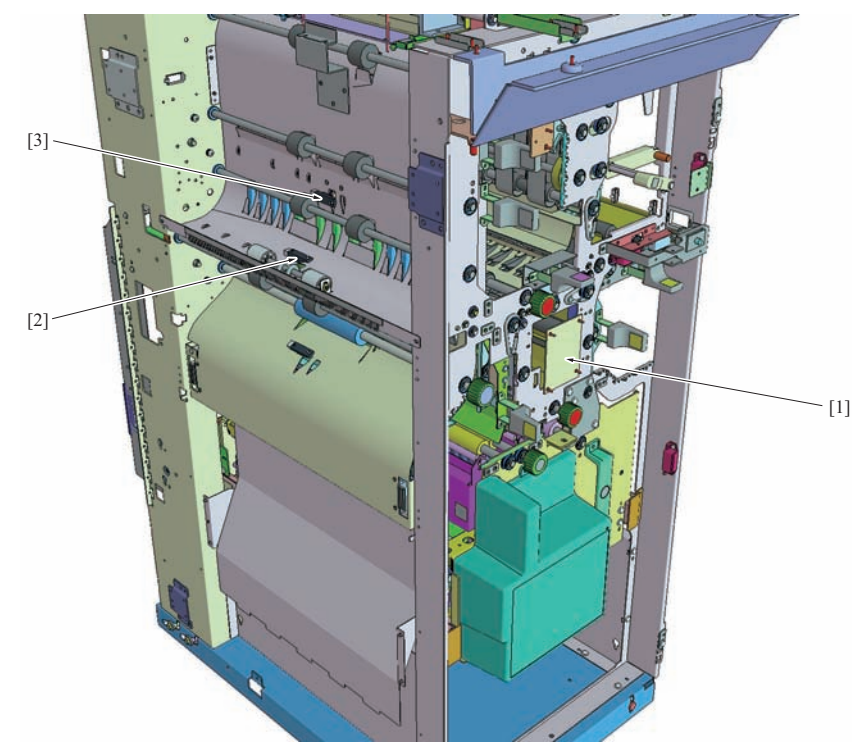
1.6 EF-102

For details, refer to "[L.1.1.22 Fusing section](#)".

1.7 RU-509/HM-102**1.7.1 Right side**

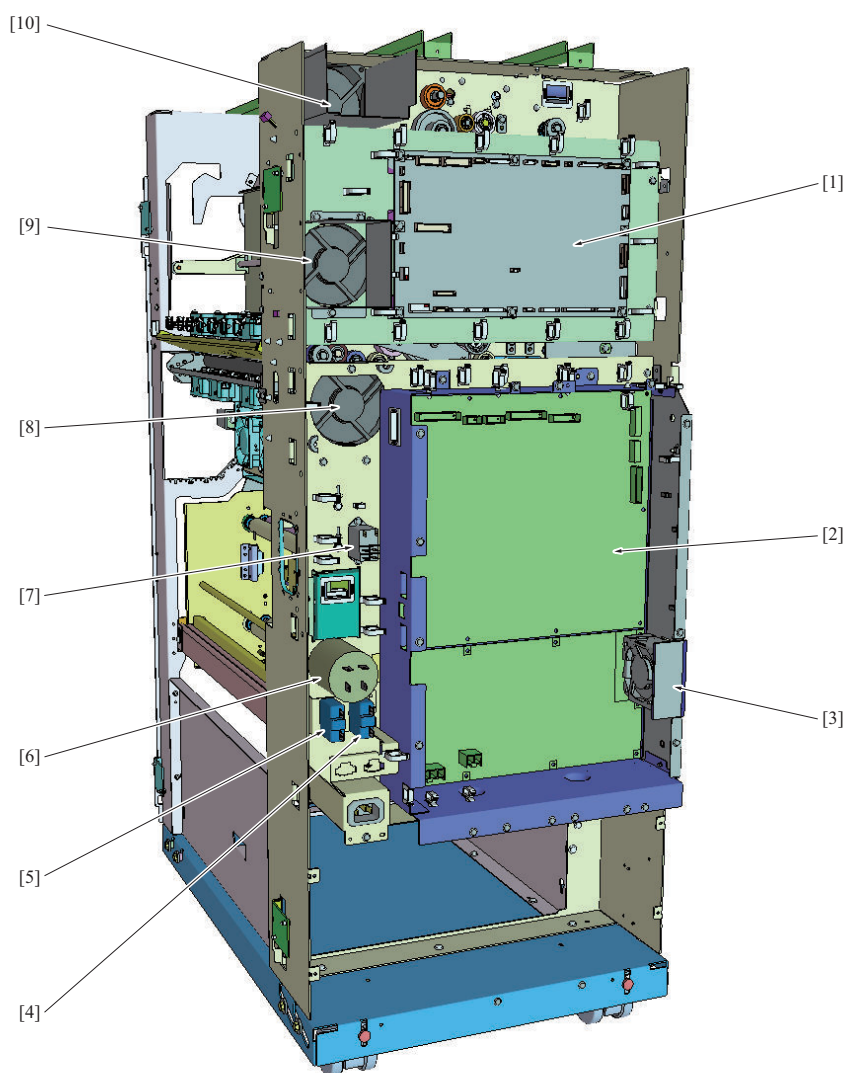
[1]	Entrance sensor (PS1)	[2]	Entrance paper fan /6 (FM17)
[3]	Entrance paper fan /5 (FM16)	[4]	Entrance paper fan /4 (FM15)
[5]	Entrance paper fan /9 (FM20)	[6]	Entrance paper fan /8 (FM19)
[7]	Entrance paper fan /7 (FM18)	[8]	De-curler entrance sensor (PS2)
[9]	Door switch (SW1)	[10]	Entrance paper fan /1 (FM1)
[11]	Entrance paper fan /2 (FM2)	[12]	Entrance paper fan /3 (FM3)

1.7.2 Left-side view



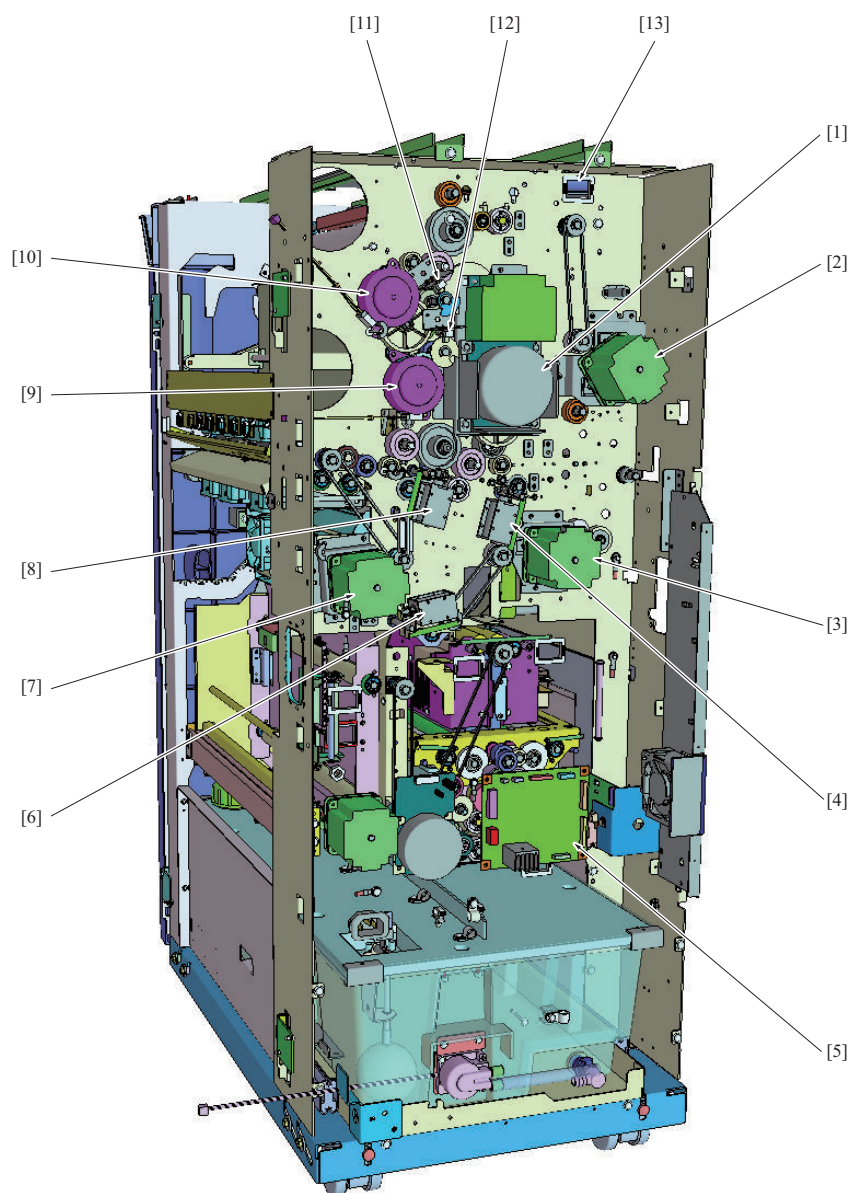
[1]	Jam indication board (JAMIB)	[2]	Paper exit sensor (PS12)
[3]	Paper exit conveyance sensor (PS4)	-	

1.7.3 Rear side 1

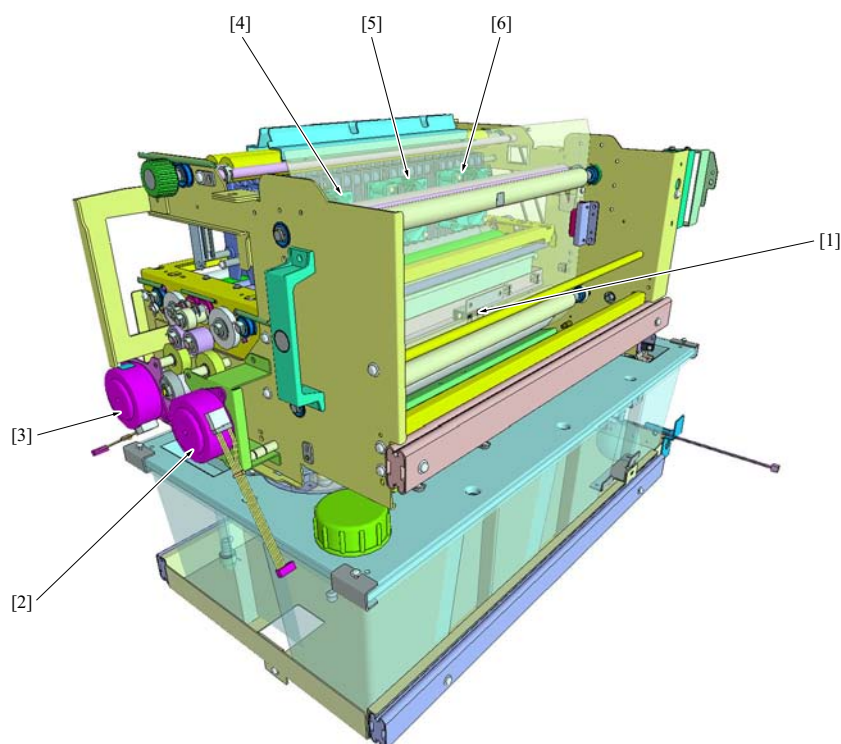


[1]	RU control board (RUCB)	[2]	DC power supply (DCPS)
[3]	Power supply fan (FM14)	[4]	Circuit breaker /2 (CBR2)
[5]	Circuit breaker /1 (CBR1)	[6]	Noise filter /1 (NF1)
[7]	Relay (RL)	[8]	Ventilation assist fan /3 (FM21)
[9]	Ventilation assist fan /2 (FM5)	[10]	Ventilation assist fan /1 (FM4)

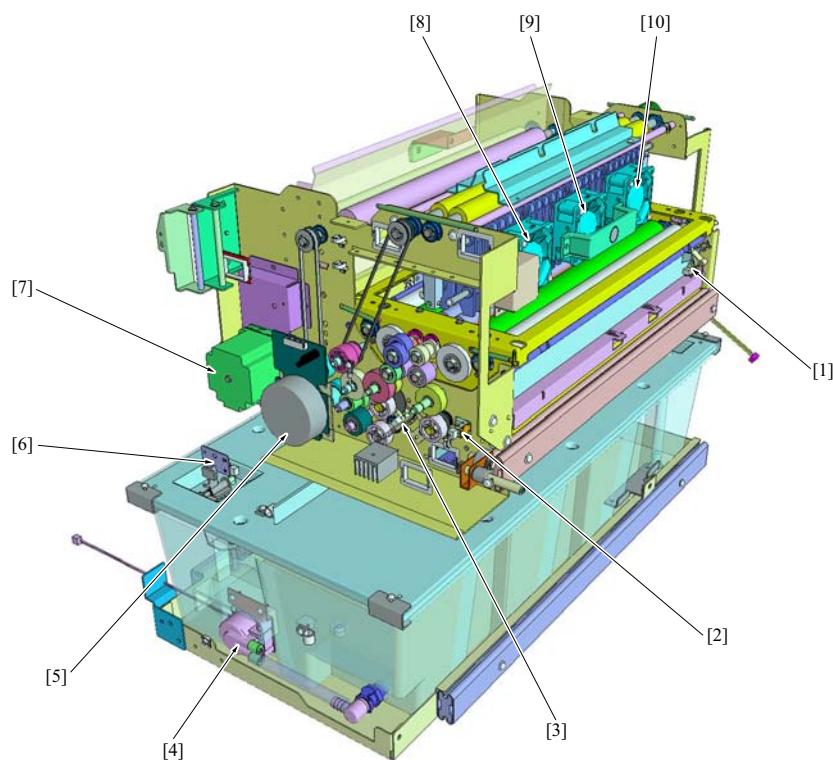
1.7.4 Rear side2



[1]	De-curler conveyance motor (M3)	[2]	Paper exit motor (M4)
[3]	Intermediate conveyance motor (M2)	[4]	De-curler gate solenoid /1 (SD2)
[5]	HM drive board (HMDB)	[6]	Humidification section gate solenoid (SD1)
[7]	Entrance conveyance motor (M1)	[8]	De-curler gate solenoid /2 (SD3)
[9]	De-curler pressure motor /Lw (M5)	[10]	De-curler pressure motor /Up (M6)
[11]	De-curler pressure home sensor /Up (PS6)	[12]	De-curler pressure home sensor /Lw (PS5)
[13]	Shutter solenoid (SD5)	-	

1.7.5 Humidification section front side

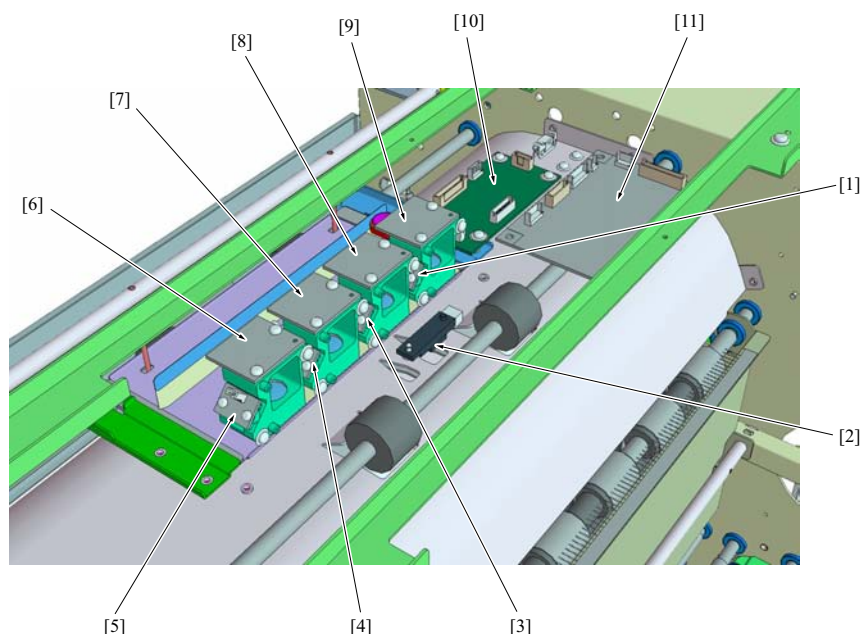
[1]	Humidification section entrance sensor (PS7)	[2]	Humidification section roller pressure motor /Rt (M9)
[3]	Humidification roller pressure motor /Lt (M10)	[4]	Humidification section paper fan /6 (FM11)
[5]	Humidification section paper fan /5 (FM10)	[6]	Humidification section paper fan /4 (FM9)

1.7.6 Humidification section rear side

[1]	Water tank full sensor (PS13)	[2]	Humidification section roller pressure home sensor /Lt (PS10)
[3]	Humidification section roller pressure home sensor /Rt (PS9)	[4]	Pump motor (P1)
[5]	Humidification section conveyance motor (M8)	[6]	Water tank empty sensor (PS8)

[7]	Humidification entrance conveyance motor (M7)	[8]	Humidification section paper fan /1 (FM6)
[9]	Humidification section paper fan /2 (FM7)	[10]	Humidification section paper fan /3 (FM8)

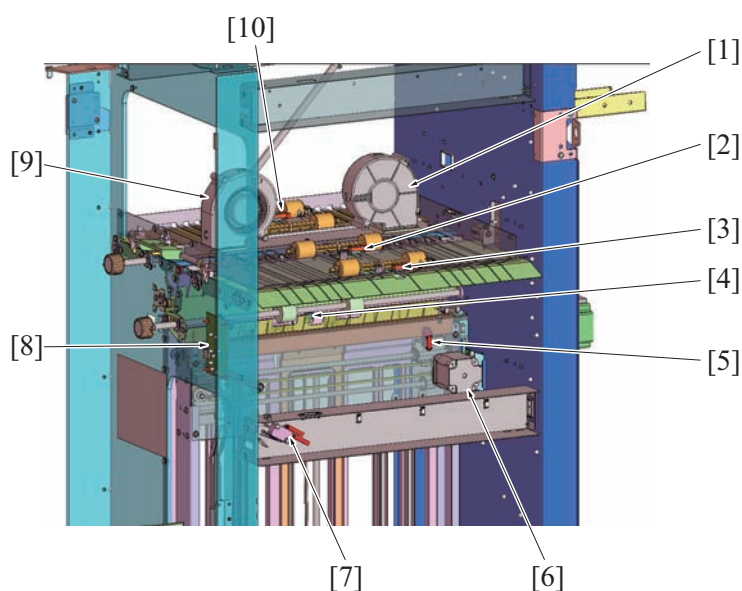
1.7.7 Output paper density detection section



[1]	Color density LED /K (CDLEDK)	[2]	Color density detection timing sensor (PS3)
[3]	Color density LED /C (CDLEDC)	[4]	Color density LED /M (CDLEDM)
[5]	Color density LED /Y (CDLEDY)	[6]	Color density detection board /Y (CDDBY)
[7]	Color density detection board /M (CDDBM)	[8]	Color density detection board /C (CDDBC)
[9]	Color density detection board /K (CDDBK)	[10]	Color density relay board (CDRLB)
[11]	Color density control board (CDCB)	-	

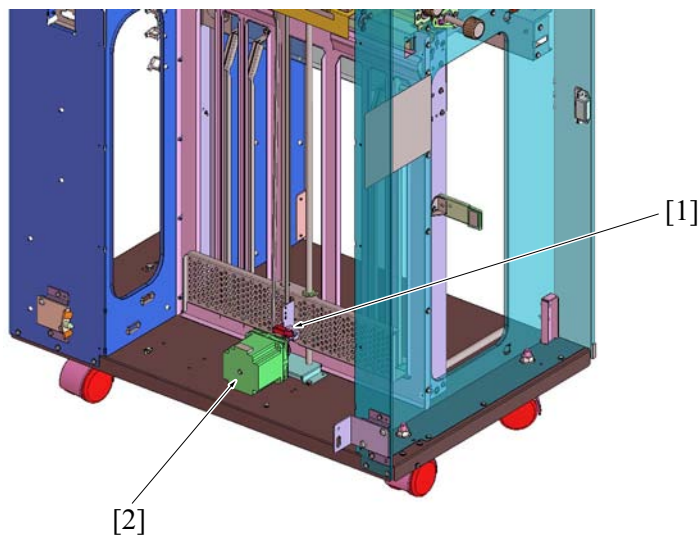
1.8 RU-510

1.8.1 Right side



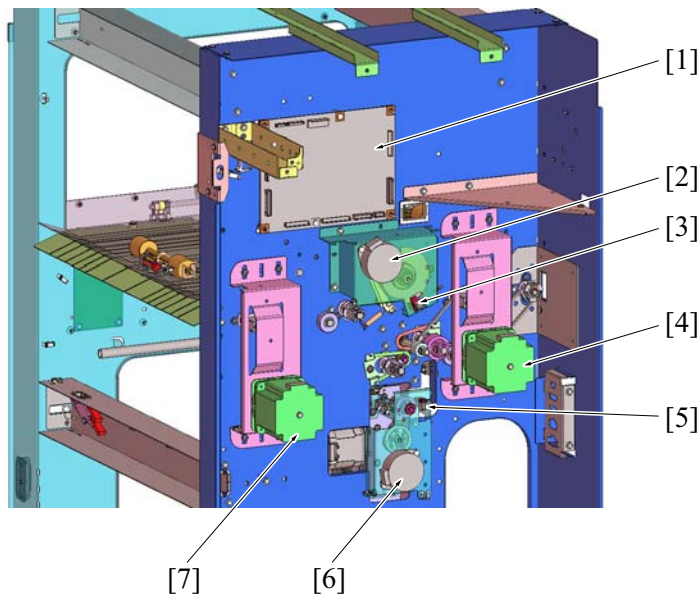
[1]	Stack assist fan /Rr (FM2)	[2]	Entrance sensor (PS1)
[3]	Entrance jam sensor (PS6)	[4]	Stacker jam sensor (PS5)
[5]	CD alignment home sensor (PS4)	[6]	CD alignment motor (M4)
[7]	Interlock switch (MS1)	[8]	Jam indication board (JAMIB)
[9]	Stack assist fan /Fr (FM 1)	[10]	Paper exit sensor (PS2)

1.8.2 Left-side view

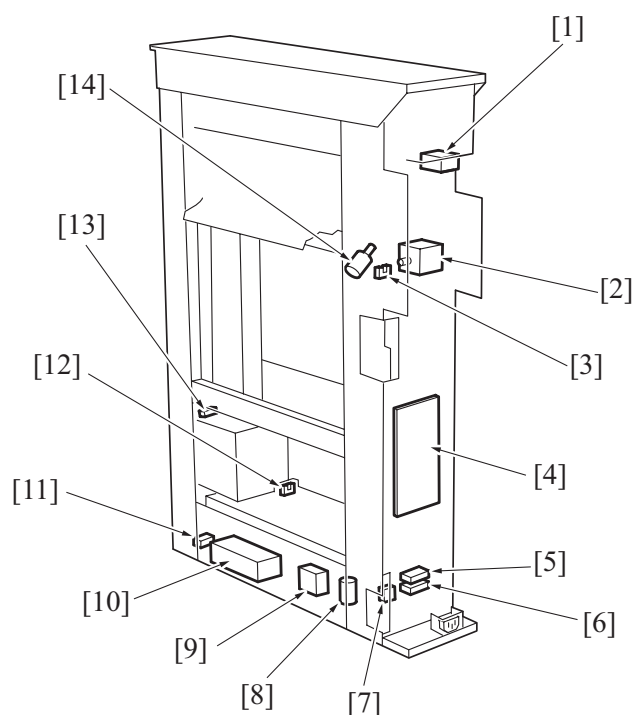


[1]	FD alignment home sensor (PS3)	[2]	FD alignment motor (M3)
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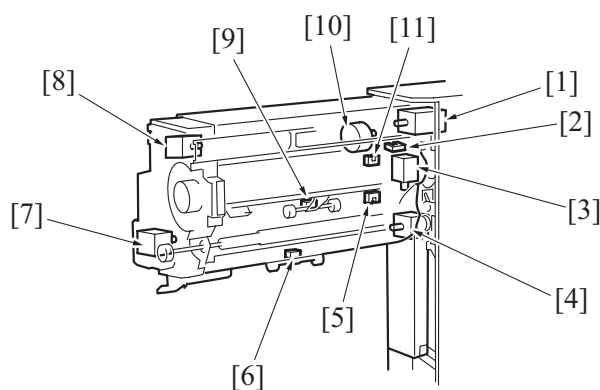
1.8.3 Rear side



[1]	RU control board (RUCB)	[2]	Gate motor (M5)
[3]	Gate home sensor (PS7)	[4]	Paper exit motor (M2)
[5]	Stack switch home sensor (PS8)	[6]	Stack switch motor (M6)
[7]	Entrance motor (M1)	-	

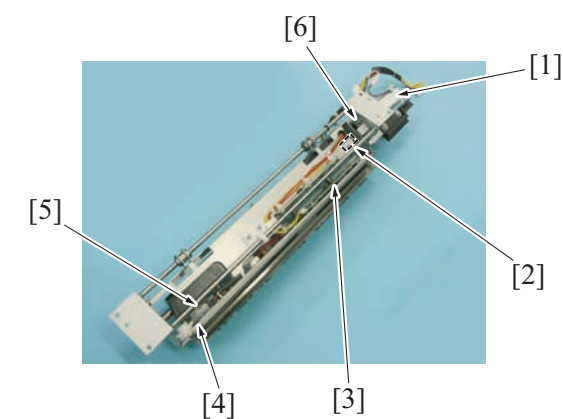
1.9 ZU-608**1.9.1 Rear side/bottom**

[1]	Main motor cooling fan (FM601)	[2]	Punch shift motor (M605)
[3]	Punch shift motor (M605)	[4]	ZU control board (ZUCB)
[5]	Circuit breaker /2 (CBR2)	[6]	Circuit breaker /1 (CBR1)
[7]	Power relay (RL1)	[8]	Noise filter (NF1)
[9]	Coil (L1)	[10]	DC power supply (DCPS)
[11]	Door switch (MS602)	[12]	Punch scraps box set sensor (PS607)
[13]	Punch scraps full sensor (PS608)	[14]	Punch scraps conveyance motor (M607)

1.9.2 Conveyance/exit section

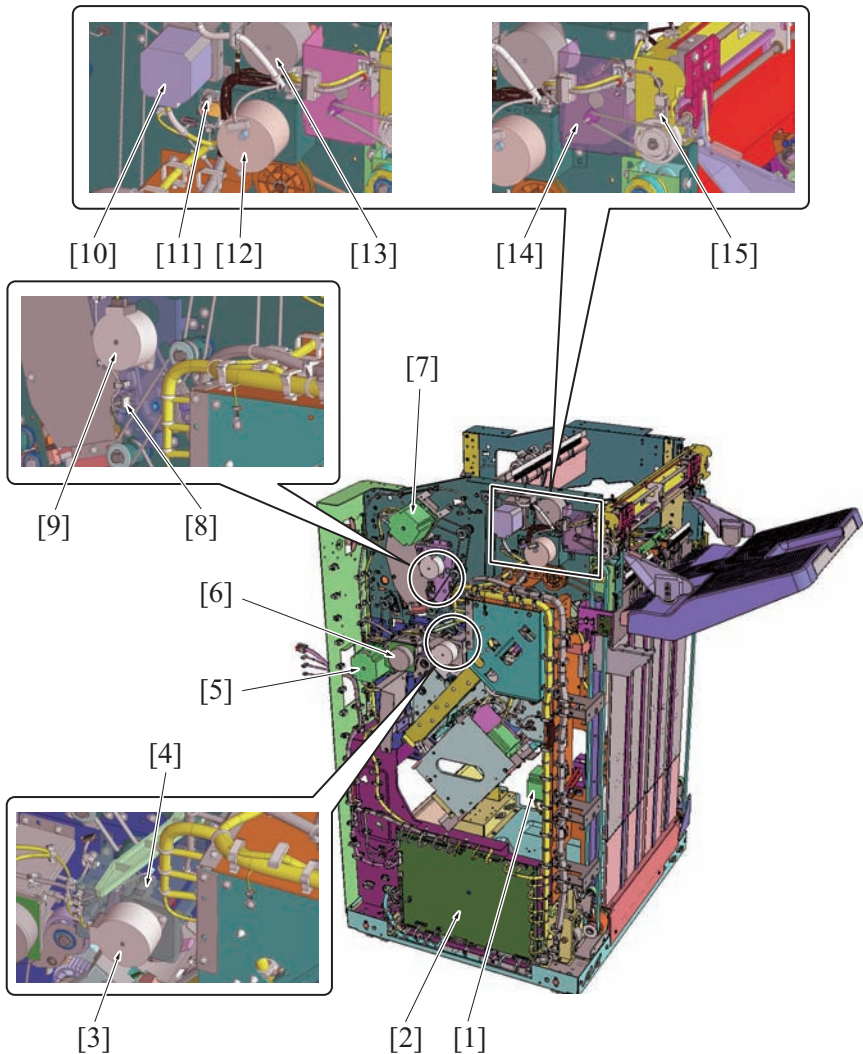
[1]	Main motor (M606)	[2]	Conveyance encoder sensor (PS610)
[3]	Gate solenoid/Lw (SD601)	[4]	Registration motor (M601)
[5]	2nd folding stopper home sensor (PS604)	[6]	Exit sensor (PS609)
[7]	2nd folding stopper motor (M603)	[8]	Gate solenoid/Up (SD602)
[9]	Conveyance sensor (PS601)	[10]	1st folding stopper motor (M602)
[11]	1st folding stopper home sensor (PS603)	-	

1.9.3 Punch section



[1]	Punch motor (M604)	[2]	Punch home sensor (PS606)
[3]	Paper edge sensor board (PESB)	[4]	Punch switchover switch (MS601)
[5]	Punch switchover motor (M608)	[6]	Punch clutch (CL601)

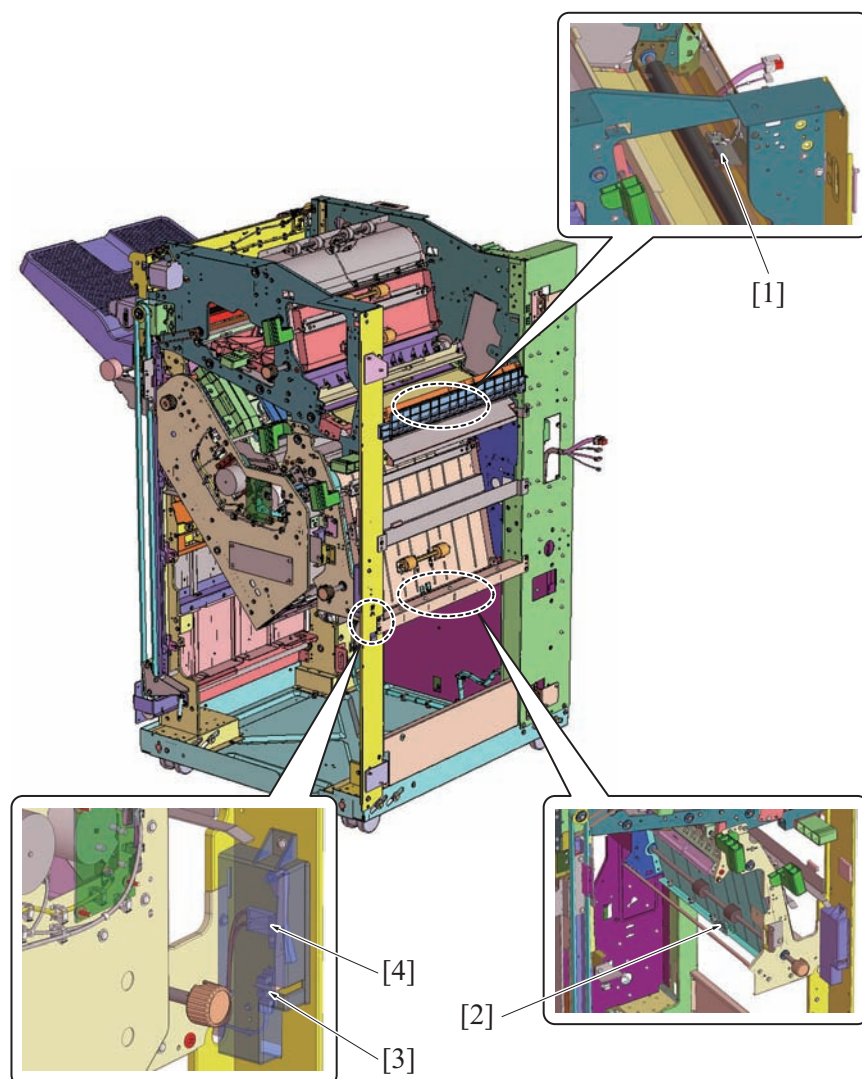
1.10 FS-532
1.10.1 Rear side



[1]	Tray shift roller motor (M15)	[2]	FNS control board (FNSCB)
[3]	Bypass gate motor (M25)	[4]	Bypass gate home sensor (PS36)
[5]	FNS entrance motor (M1)	[6]	Stacker entrance motor (M5)
[7]	FNS conveyance motor /2 (M2)	[8]	Conveyance gate home sensor (PS31)

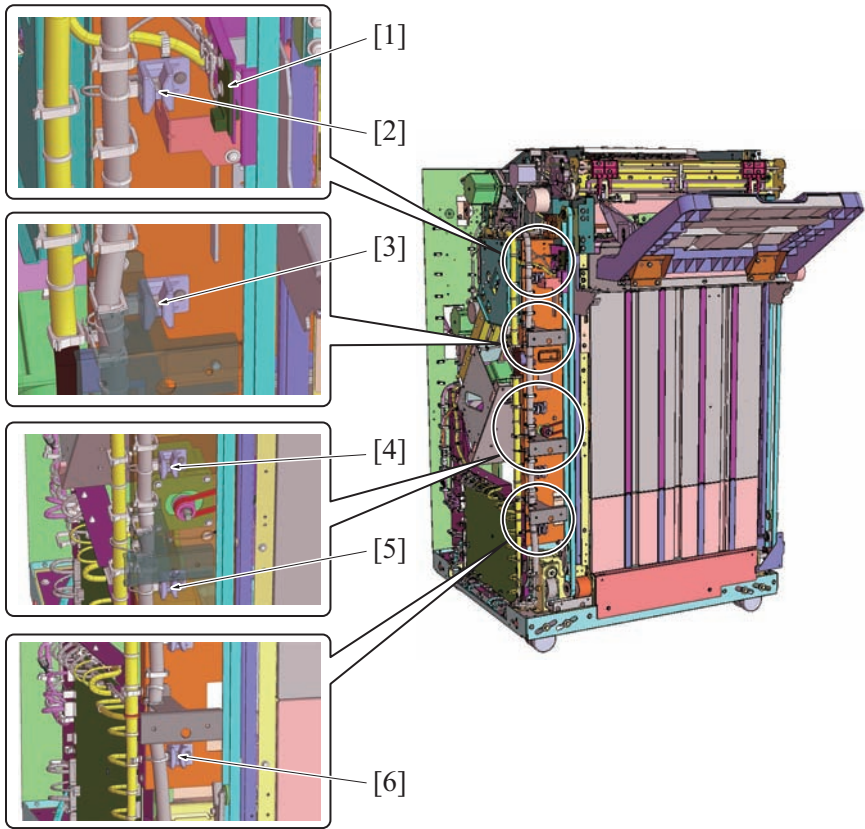
[9]	Conveyance gate motor (M22)	[10]	FNS conveyance motor /3 (M3)
[11]	Paper exit opening sensor (PS13)	[12]	Paper exit motor (M6)
[13]	Paper exit opening motor (M10)	[14]	Paper exit alignment plate up down motor (M13)
[15]	Paper exit alignment plate up down home sensor (PS21)	-	

1.10.2 Right side



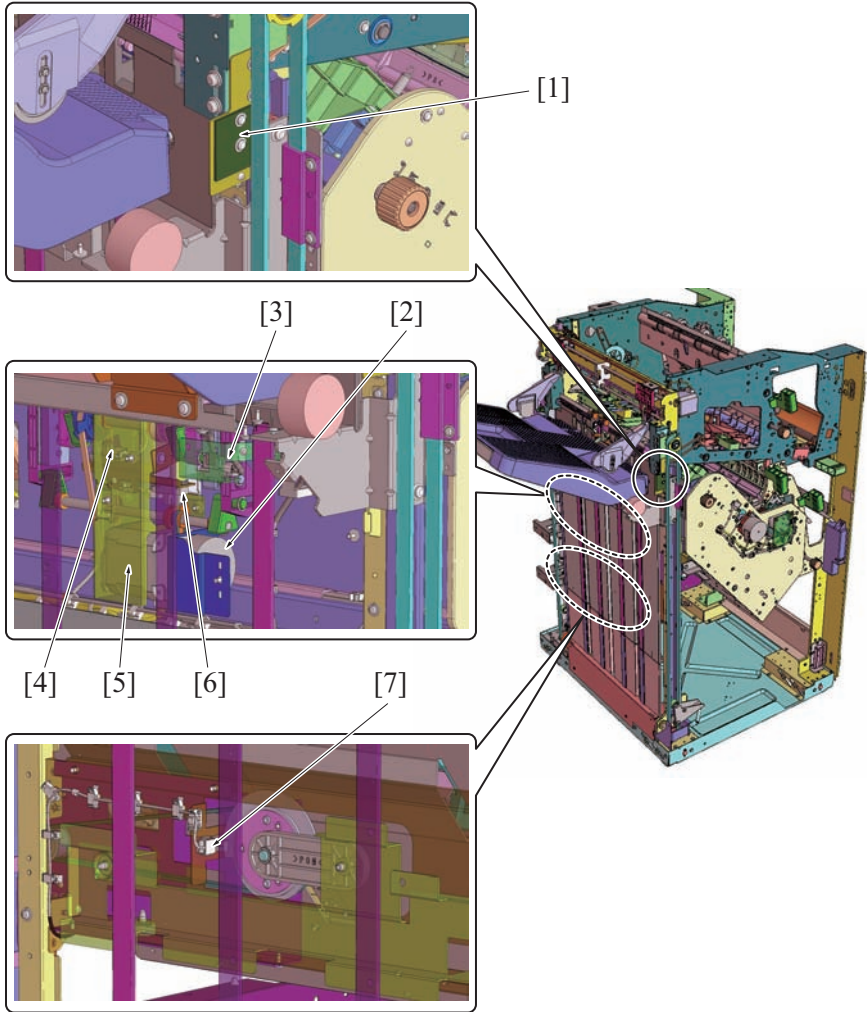
[1]	FNS entrance sensor (PS1)	[2]	Paper overlap sensor /3 (PS5)
[3]	Door sensor (PS45)	[4]	Door switch (MS1)

1.10.3 Left side 1

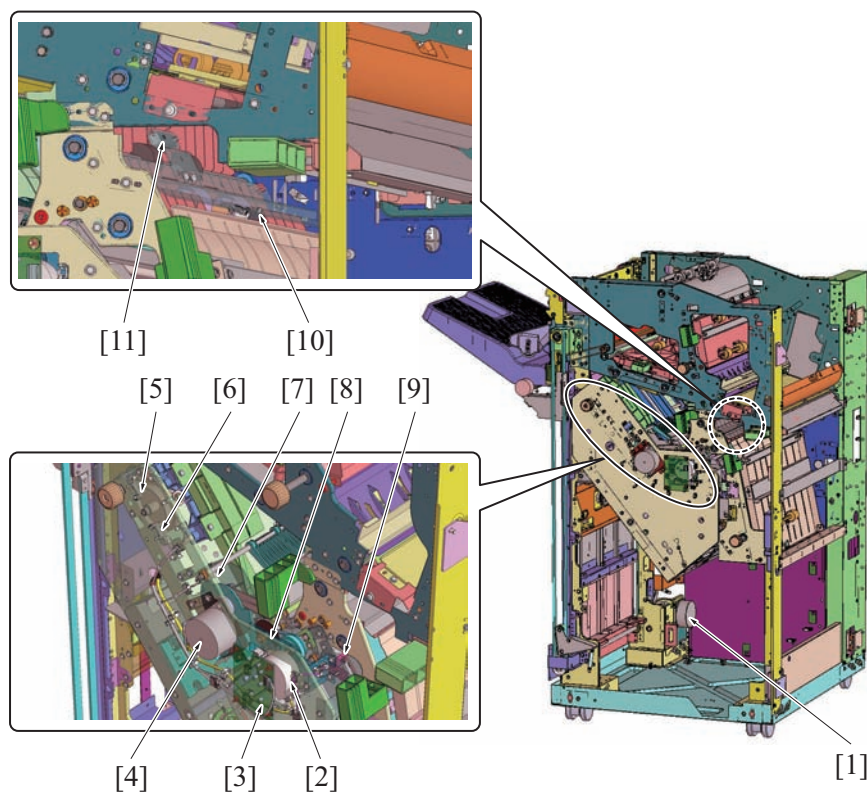


[1]	Main tray upper limit sensor (PS14)	[2]	Main tray near empty sensor (PS46)
[3]	Main tray quarter position sensor (PS17)	[4]	Main tray middle position sensor (PS18)
[5]	3000 sheets sensor (PS16)	[6]	4000 sheets sensor (PS19)

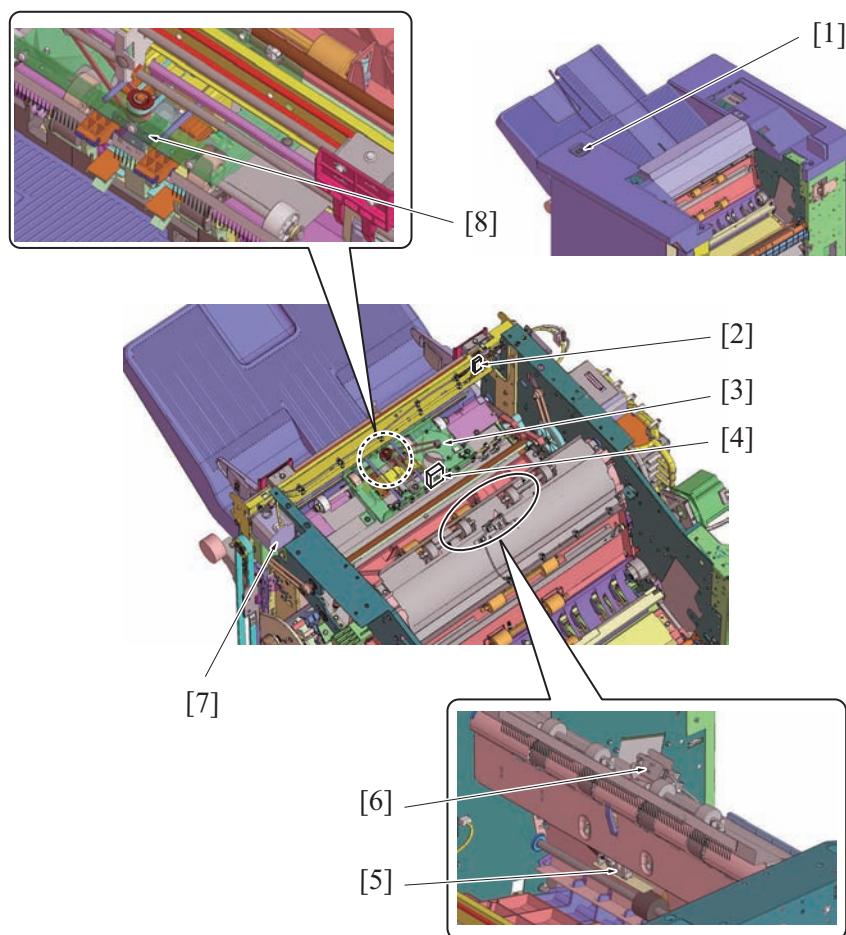
1.10.4 Left side 2



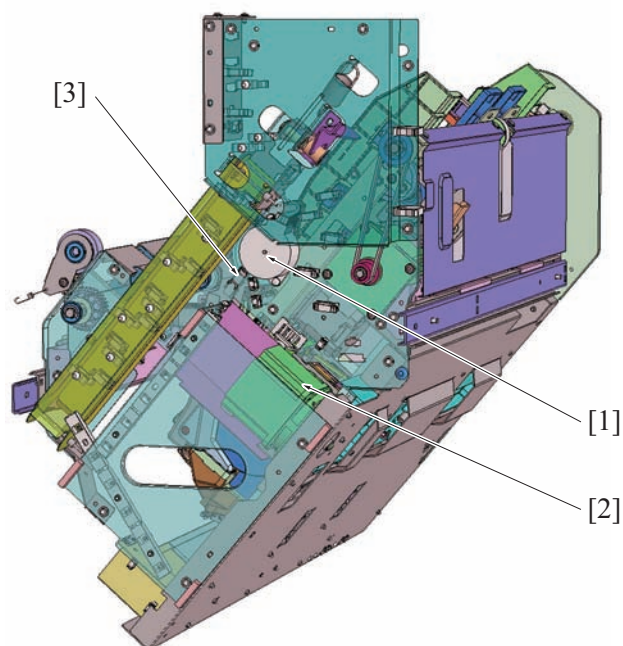
[1]	Tray upper limit LED (LED1)	[2]	Exit paper press motor (M26)
[3]	Paper removal sensor (PS15)	[4]	Gripper home sensor /Lw (PS25)
[5]	Gripper exit motor /Lw (M17)	[6]	Exit paper press home sensor (PS37)
[7]	Main tray home sensor (PS23)	-	

1.10.5 Front side

[1]	Main tray up down motor (M11)	[2]	Rewind paddle release motor (M28)
[3]	Jam indication board (JAMIB)	[4]	Roller pressure motor (M27)
[5]	Small size paper alignment home sensor (PS26)	[6]	Stacker rear alignment sensor (PS44)
[7]	Roller pressure motor home sensor (PS34)	[8]	Rewind paddle release home sensor (PS38)
[9]	Stacker paper press home sensor (PS30)	[10]	Paper overlap sensor /2 (PS33)
[11]	Paper overlap sensor /1 (PS32)	-	

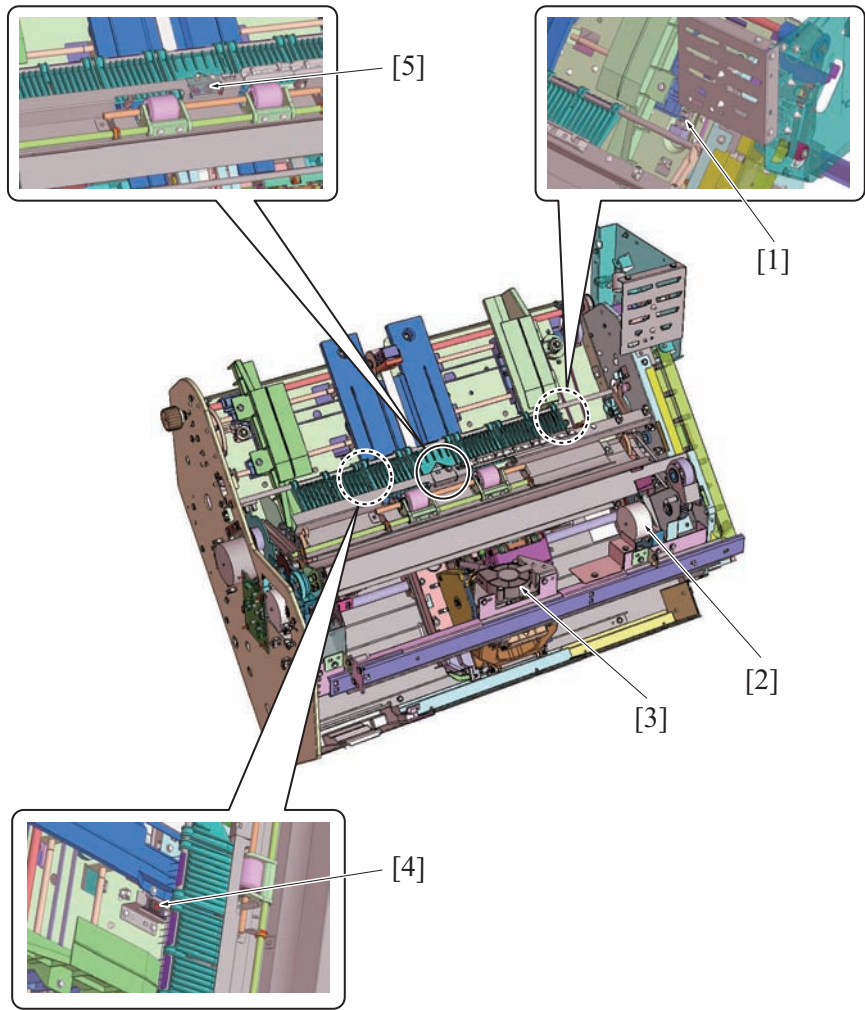
1.10.6 Upper surface

[1]	Paper exit switch (SW1)	[2]	Paper exit alignment plate home sensor (PS20)
[3]	Gripper exit motor /Up (M16)	[4]	Gripper home sensor /Up (PS24)
[5]	Sub tray paper full sensor (PS9)	[6]	Sub tray exit sensor (PS8)
[7]	Paper exit alignment plate motor (M12)	[8]	Main tray paper exit sensor (PS10)

1.10.7 Stacker 1

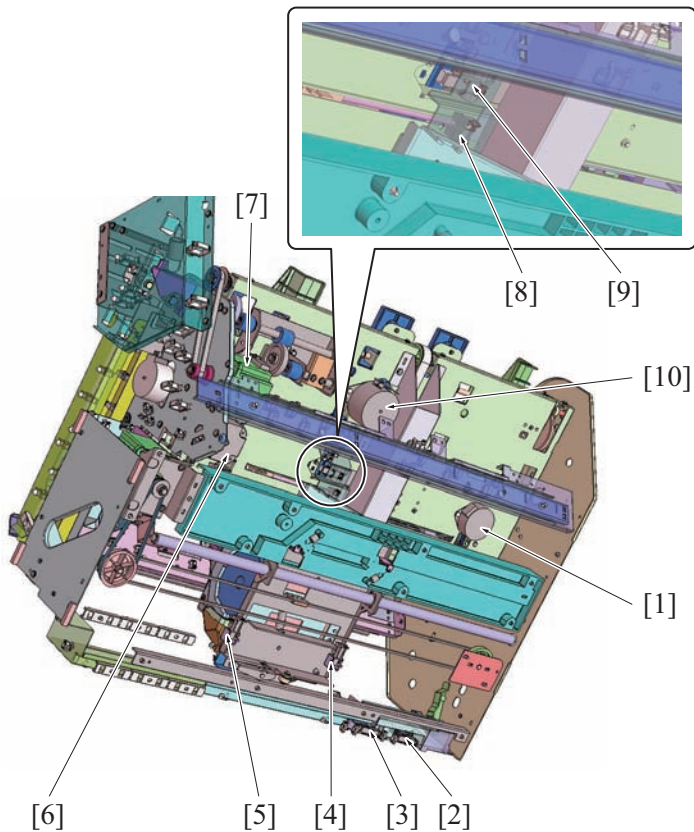
[1]	Stack assist motor (M8)	[2]	Stapler movement motor (M14)
[3]	Stack assist home sensor (PS11)		-

1.10.8 Stacker 2



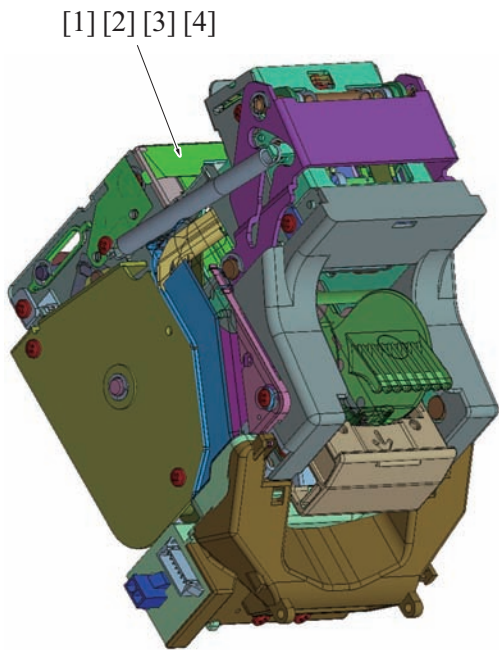
[1]	Stacker alignment home sensor (PS12)	[2]	Stacker paper press motor (M21)
[3]	Large size paper alignment fan (FM1)	[4]	Stacker empty sensor (PS28)
[5]	Stacker upper sensor (PS43)		-

1.10.9 Stacker 3



[1]	Stacker movement motor (M19)	[2]	Staple scraps box full sensor (PS7)
[3]	Staple scraps box set sensor (PS35)	[4]	Staple center position sensor (PS6)
[5]	Stapler movement home sensor (PS22)	[6]	Stacker alignment motor (M9)
[7]	Small size paper alignment motor (M18)	[8]	Stacker rear stopper home sensor (PS27)
[9]	Stacker rear stopper home sensor (PS29)	[10]	Stacker rear stopper motor (M20)

1.10.10 Stapler

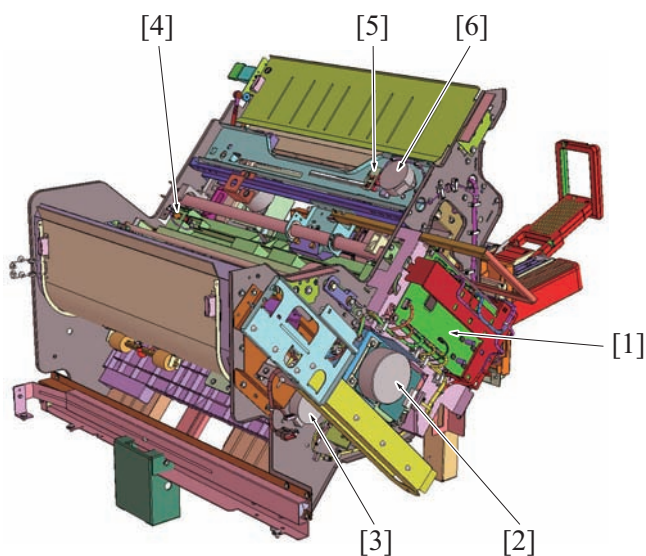


[1]	Stapler motor (M31)	[2]	Stapler home sensor (PS40)
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[3] Staple empty sensor (PS41)	[4] Cartridge set sensor (PS42)
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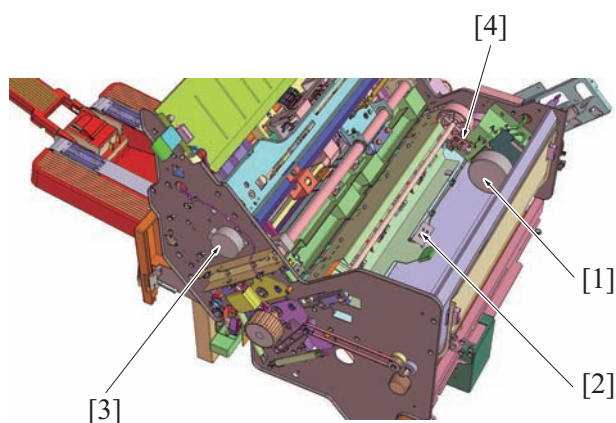
1.11 SD-510

1.11.1 Rear side



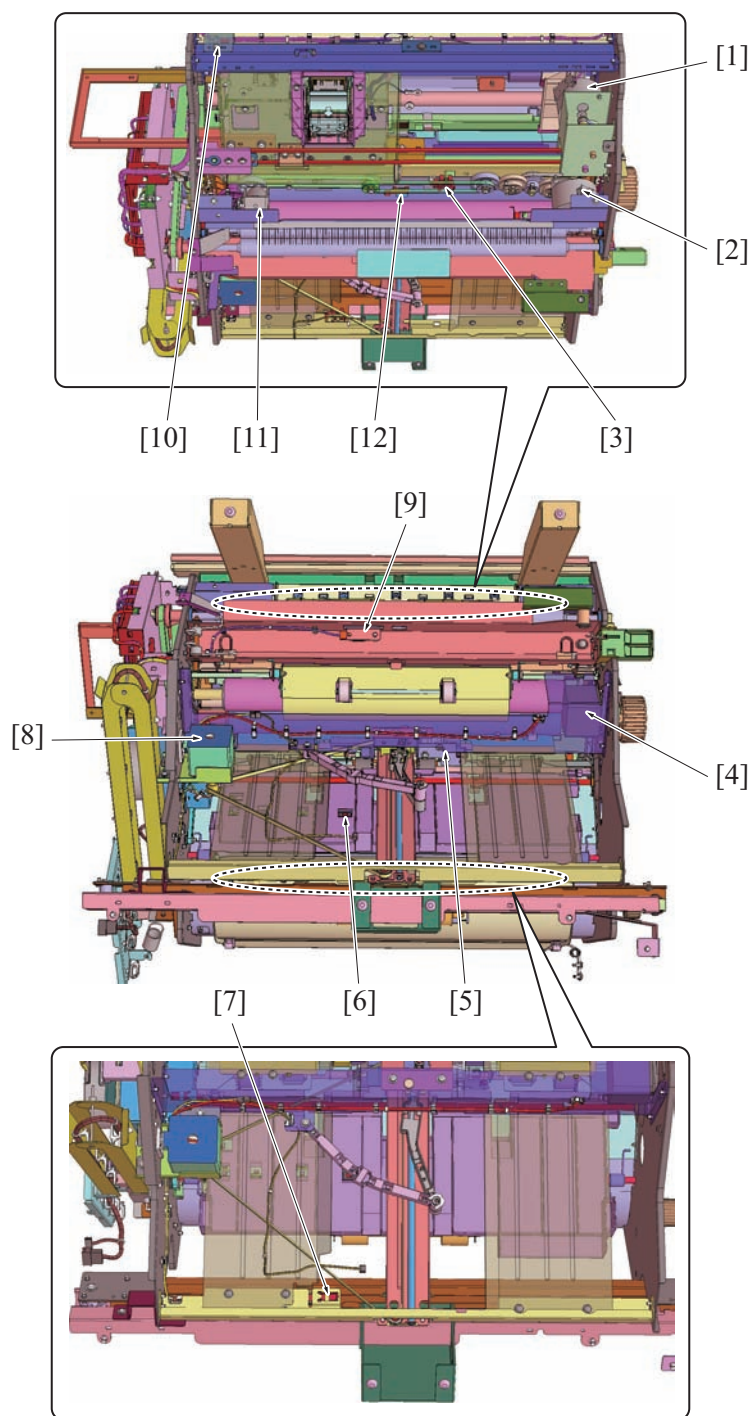
[1] SD control board (SDCB)	[2] Folding roller motor (M108)
[3] Lower paddle motor (M109)	[4] Center paddle home sensor (PS108)
[5] Alignment home sensor (PS106)	[6] Saddle stitching alignment motor (M104)

1.11.2 Front side



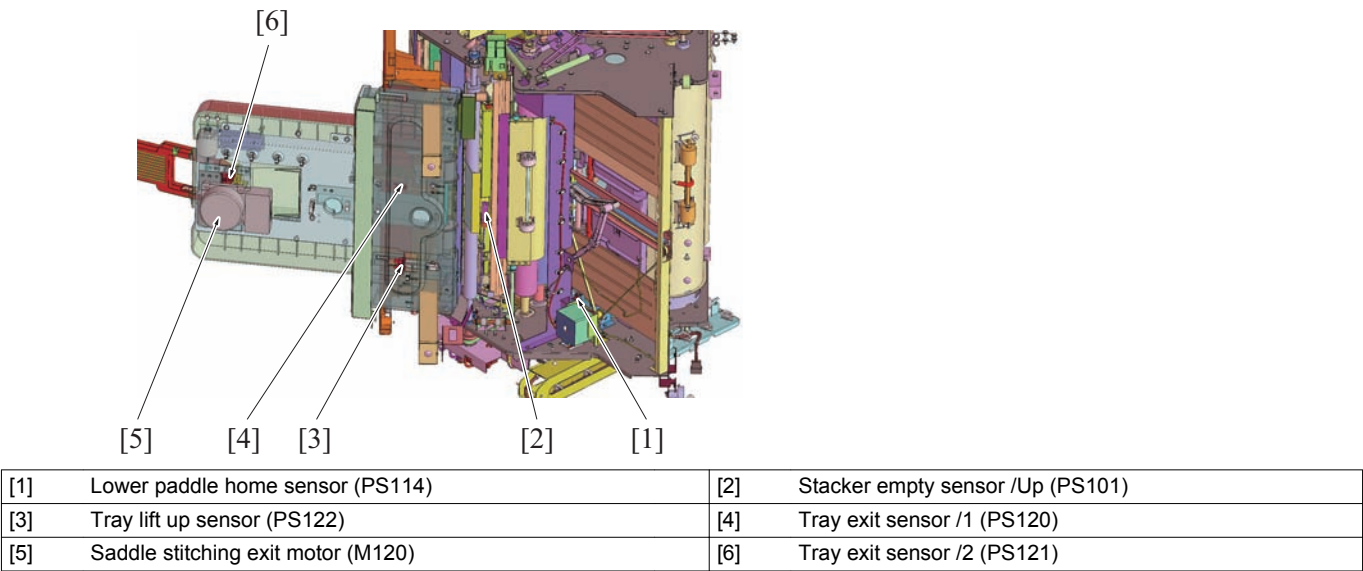
[1] 1st folding knife motor (M107)	[2] SD entrance sensor (PS102)
[3] Center paddle motor (M106)	[4] 1st folding knife home sensor (PS110)

1.11.3 Bottom 1

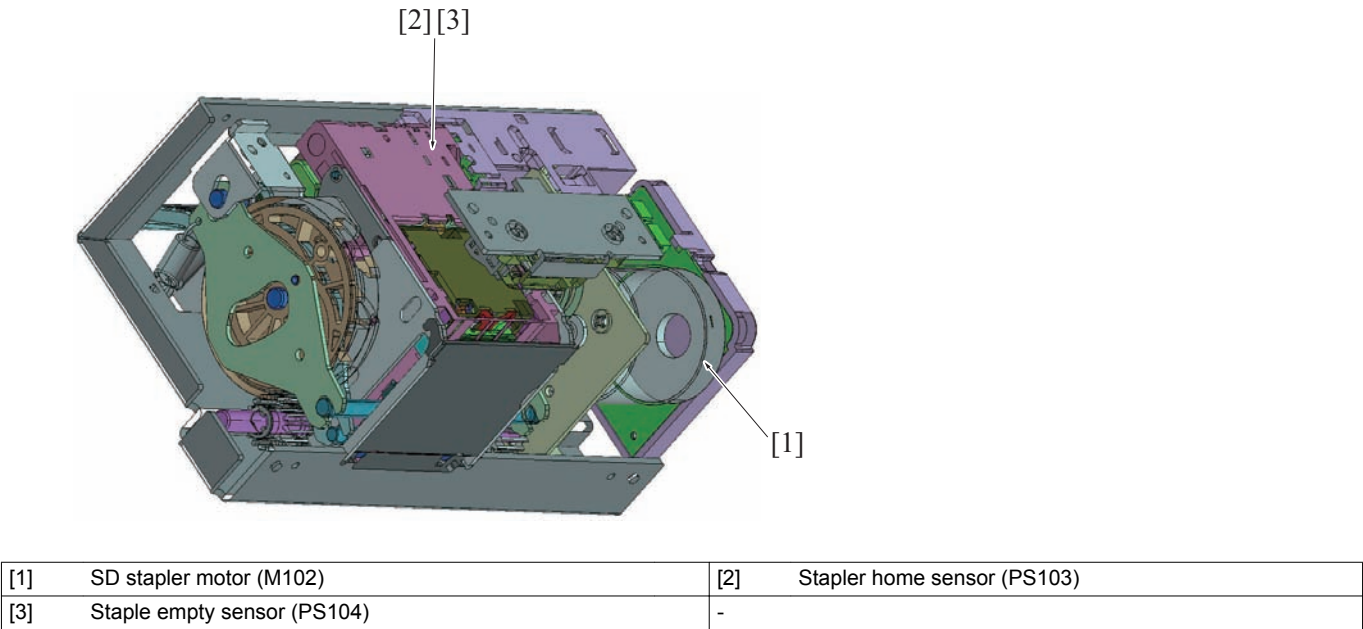


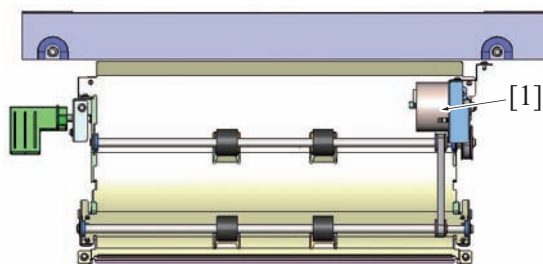
[1]	Stapler movement motor (M103)	[2]	2nd folding knife motor (M110)
[3]	2nd folding knife home sensor (PS111)	[4]	SD entrance motor (M101)
[5]	Rear gripper solenoid (SD102)	[6]	Stacker empty sensor /Lw (PS115)
[7]	Stopper home sensor (PS107)	[8]	Stopper motor (M105)
[9]	Folding exit sensor (PS113)	[10]	Stapler shift home sensor (PS105)
[11]	2nd folding gate solenoid (SD101)	[12]	2nd folding sensor (PS112)

1.11.4 Bottom 2

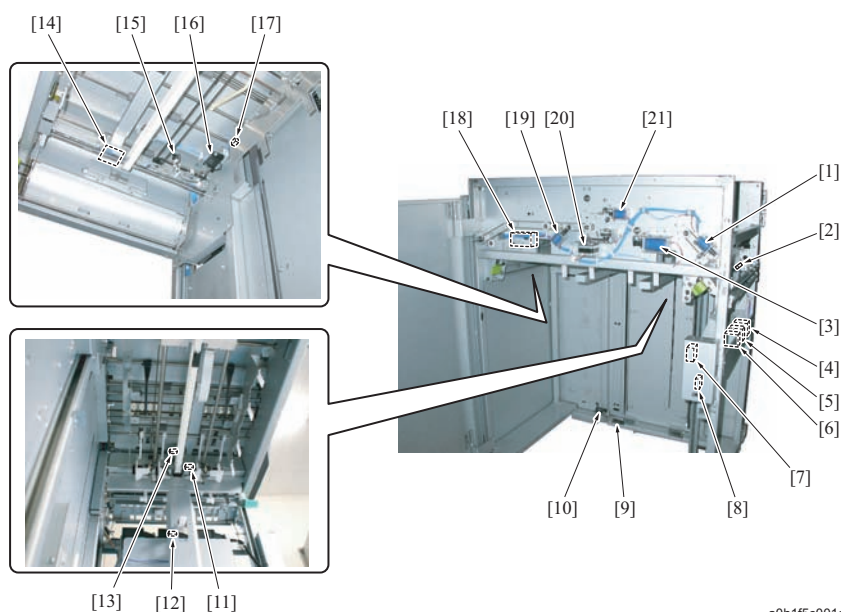


1.11.5 Stapler



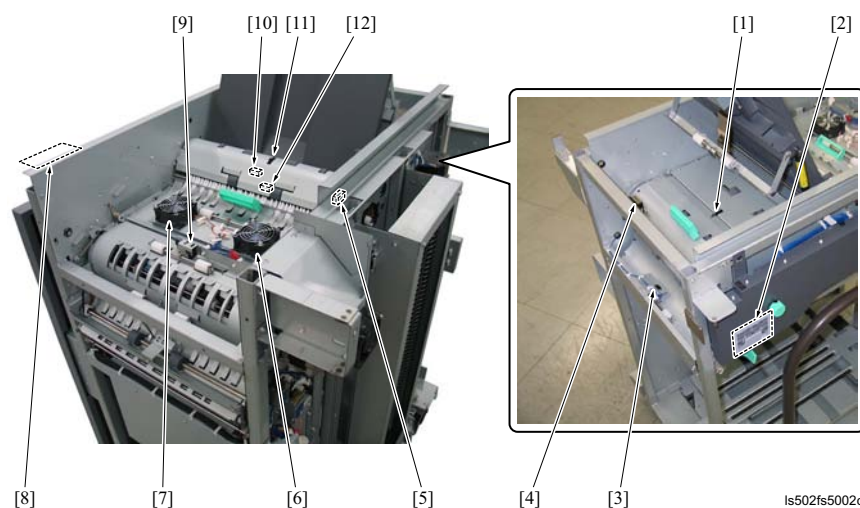
1.14 MK-732

[1]	FNS conveyance motor /4 (M4)	-
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1.15 LS-505**1.15.1 Front side**

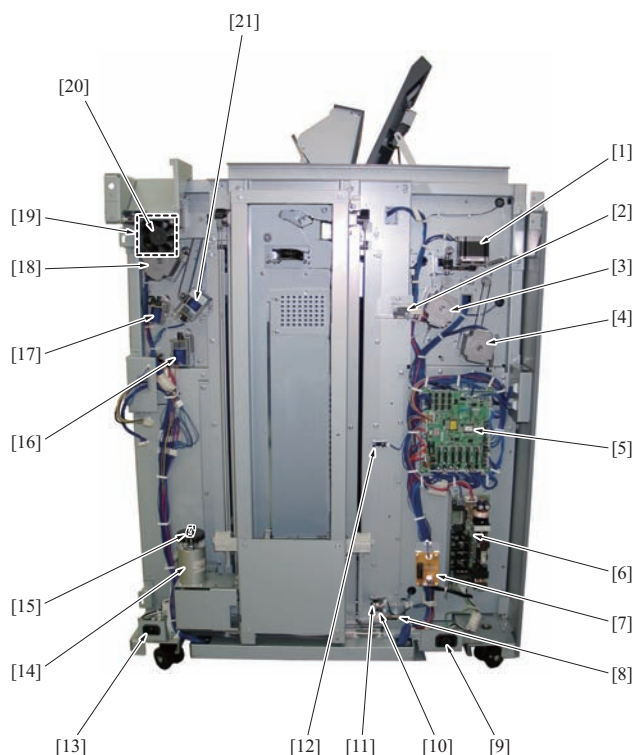
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[1]	Entrance conveyance lock solenoid (SD5)	[2]	Entrance sensor (PS4)
[3]	Paper press solenoid /1 (SD6)	[4]	Paper cooling fan motor /Rr (FM5)
[5]	Paper cooling fan motor /Mi (FM3)	[6]	Paper cooling fan motor /Fr (FM1)
[7]	Front door lock solenoid (SD4)	[8]	Front door switch (MS1)
[9]	Hand cart set switch (RS1)	[10]	Stacker tray set LED (LED1)
[11]	Stacker tray upper limit sensor (PS3)	[12]	Paper detection sensor (PS19)
[13]	Grip conveyance home sensor (PS5)	[14]	Relay board /1 (RLB/1)
[15]	Shift unit home sensor (PS11)	[16]	Stacker tray set sensor (PS1)
[17]	Alignment plate home sensor (PS12)	[18]	Coupling conveyance lock solenoid (SD11)
[19]	Paper press solenoid /2 (SD7)	[20]	Alignment motor (M7)
[21]	2nd gate solenoid (SD10)		-

1.15.2 Upper surface

Is502fs5002c

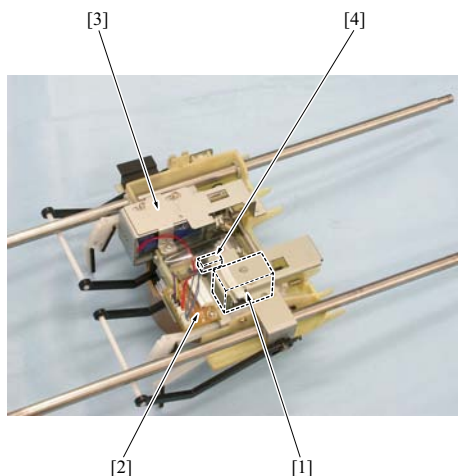
[1] Conveyance sensor /3 (PS17)	[2] Jam indication board (JAMIB)
[3] Coupling exit sensor (PS18)	[4] JAM door switch (RS2)
[5] Subtray door sensor (PS8)	[6] Paper cooling fan motor /2 (FM6)
[7] Paper cooling fan motor /1 (FM2)	[8] Stacker tray operation board (TOB)
[9] Conveyance sensor /1 (PS7)	[10] Sub tray full sensor (PS9)
[11] Sub tray exit sensor (PS10)	[12] Conveyance sensor /2 (PS16)

1.15.3 Rear side

[1] Shift unit motor (M5)	[2] Stacker tray upper limit switch (MS2)
[3] Grip conveyance motor (M4)	[4] Coupling conveyance motor (M6)
[5] LS control board (LSCB)	[6] DC power supply (DCPS)
[7] Relay board (RLB)	[8] Stacker tray lower limit switch (MS3)
[9] Outlet	[10] Stacker tray arm release sensor (PS15)
[11] 5,000 sheets stacked sensor (PS14)	[12] 2,000 sheets stacked sensor (PS13)
[13] Inlet	[14] Stacker tray up down motor (M1)
[15] Stacker tray encoder sensor (PS2)	[16] Rear stopper solenoid (SD3)
[17] 1st gate solenoid (SD1)	[18] Conveyance motor (M2)
[19] Sub tray exit motor (M3)	[20] Motor cooling fan motor (FM4)

[21]	Job partition solenoid (SD2)	-
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1.15.4 Shift unit

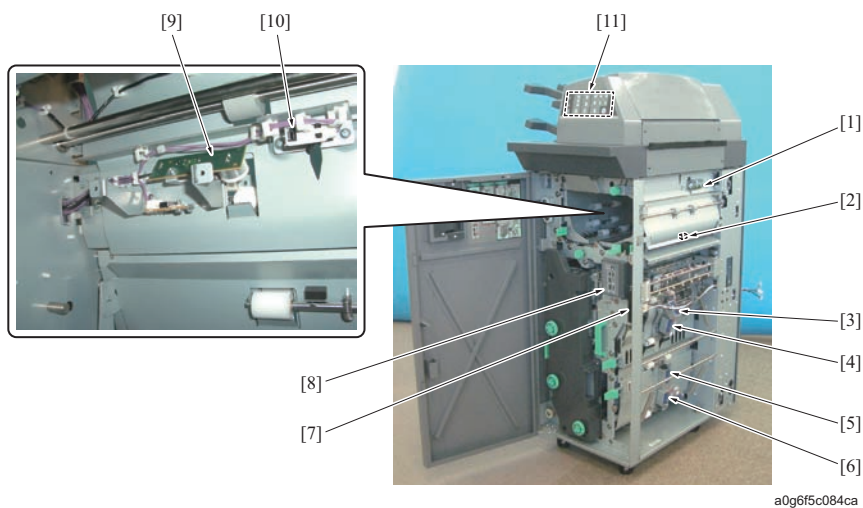


Is502fs5004c

[1]	Front stopper solenoid (SD9)	[2]	Relay board /2 (RLB/2)
[3]	Paper press solenoid /3 (SD8)	[4]	Paper empty sensor (PS6)

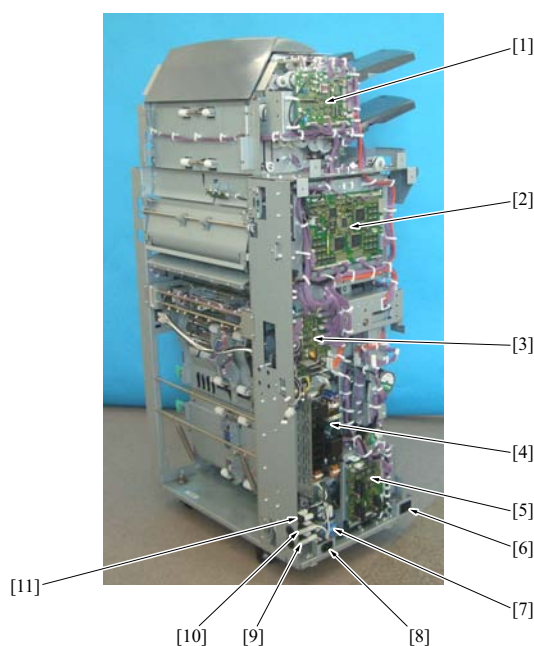
1.16 FD-503

1.16.1 Conveyance section front side/right side



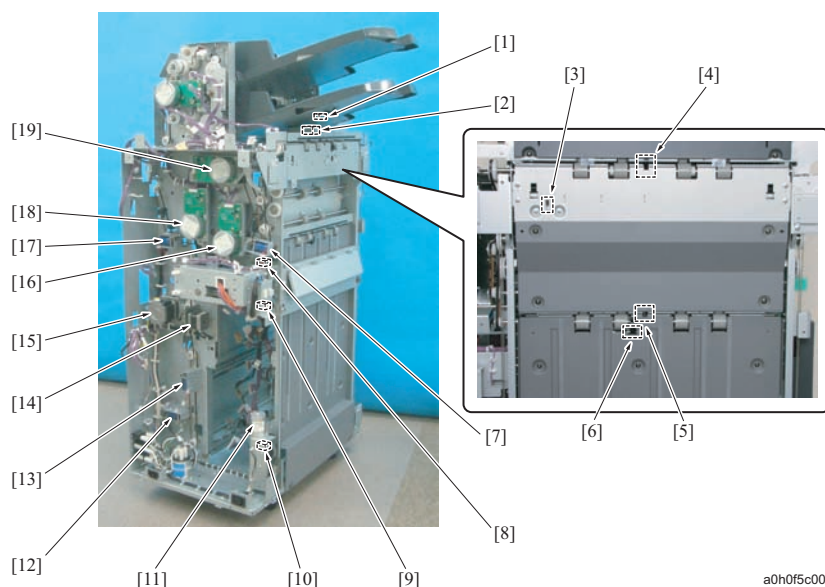
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[1]	Multi-feed detection board /1 (MFDB1)	[2]	FD entrance sensor (PS1)
[3]	Roller solenoid /1 (SD5)	[4]	Roller solenoid /2 (SD6)
[5]	Roller solenoid /3 (SD7)	[6]	Roller solenoid /4 (SD8)
[7]	Door switch (MS1)	[8]	Jam indication board (JAMIB)
[9]	Multi-feed detection board /2 (MFDB2)	[10]	PI exit sensor (PS4)
[11]	FD operation board (FDOB)	-	

1.16.2 Major boards in the power source section

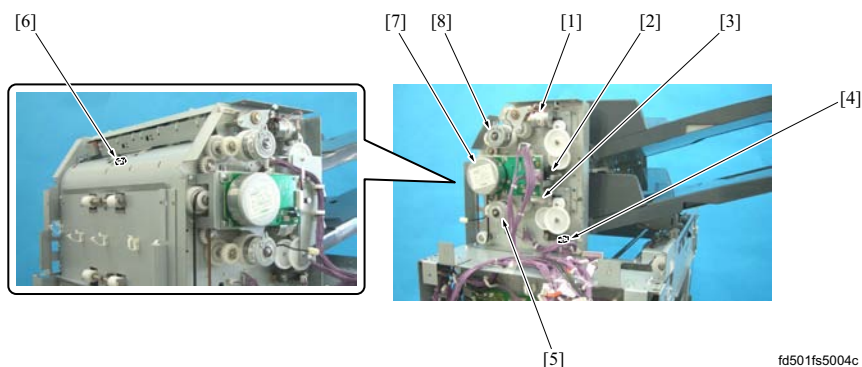
fd501fs5002c

[1]	PI drive board (PIDB)	[7]	Noise filter /1 (NF1)
[2]	FD control board (FDCB)	[8]	Inlet
[3]	Punch drive board (PDB)	[9]	Circuit breaker /1 (CBR1)
[4]	DC power supply (DCPS)	[10]	Circuit breaker /2 (CBR2)
[5]	Folding drive board (FDB)	[11]	Relay (RL1)
[6]	Outlet	-	

1.16.3 Conveyance section rear side/left side

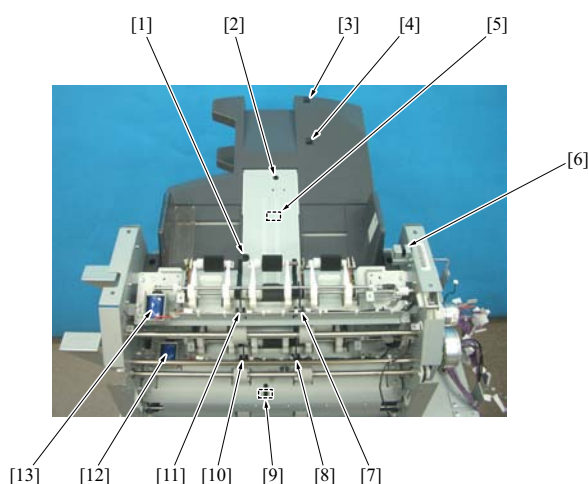
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[1]	Sub tray folding paper full sensor (PS46)	[2]	Paper exit solenoid (SD12)
[3]	Sub tray paper full sensor (PS17)	[4]	Subtray exit sensor (PS16)
[5]	Main tray paper exit sensor (PS18)	[6]	Main tray upper limit sensor (PS20)
[7]	Sub tray gate solenoid (SD9)	[8]	Main tray empty sensor (PS23)
[9]	Main tray folding paper full sensor (PS7)	[10]	Main tray lower limit sensor (PS22)
[11]	Tray up down motor (M11)	[12]	L size gate solenoid (SD4)
[13]	S size gate solenoid (SD3)	[14]	Alignment motor (M12)
[15]	Punch conveyance motor (M2)	[16]	Intermediate conveyance motor (M3)
[17]	Entrance gate solenoid (SD1)	[18]	Entrance conveyance motor (M1)
[19]	Main tray exit motor (M17)	-	

1.16.4 PI rear side

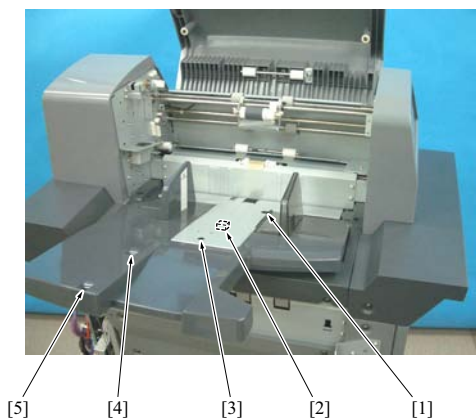
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[1] Paper lift motor /Up (M8)	[2] PI lift plate home sensor /Up (PS34)
[3] Paper lift motor /Lw (M9)	[4] PI lift plate home sensor /Lw (PS40)
[5] PI registration clutch /Lw (CL2)	[6] PI conveyance sensor /Up (PS31)
[7] PI conveyance motor (M7)	[8] PI registration clutch /Up (CL1)

1.16.5 PI upper surface

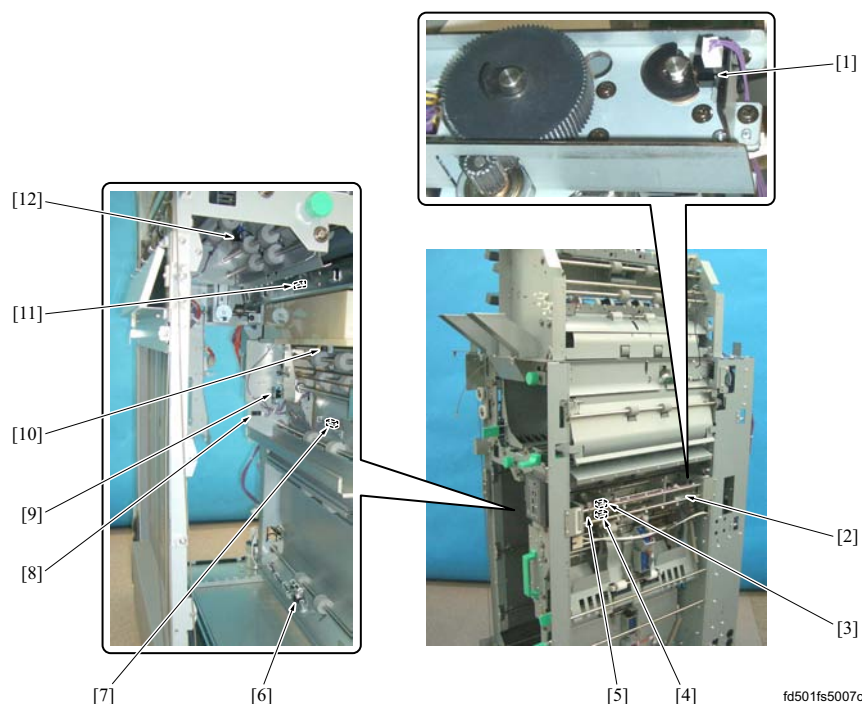
fd501fs5005c

[1] PI paper set sensor /Up (PS44)	[2] S size sensor /Up (PS36)
[3] PI max paper size sensor /Up (PS47)	[4] L size sensor /Up (PS35)
[5] Paper size VR /Up (VR31)	[6] PI cover open/close sensor (PS43)
[7] PI paper empty sensor /Up (PS33)	[8] PI paper empty sensor /Lw (PS39)
[9] PI conveyance sensor /Lw (PS37)	[10] PI upper limit sensor /Lw (PS38)
[11] PI upper limit sensor /Up (PS32)	[12] PI pick-up solenoid /Lw (SD14)
[13] PI pick-up solenoid /Up (SD13)	-

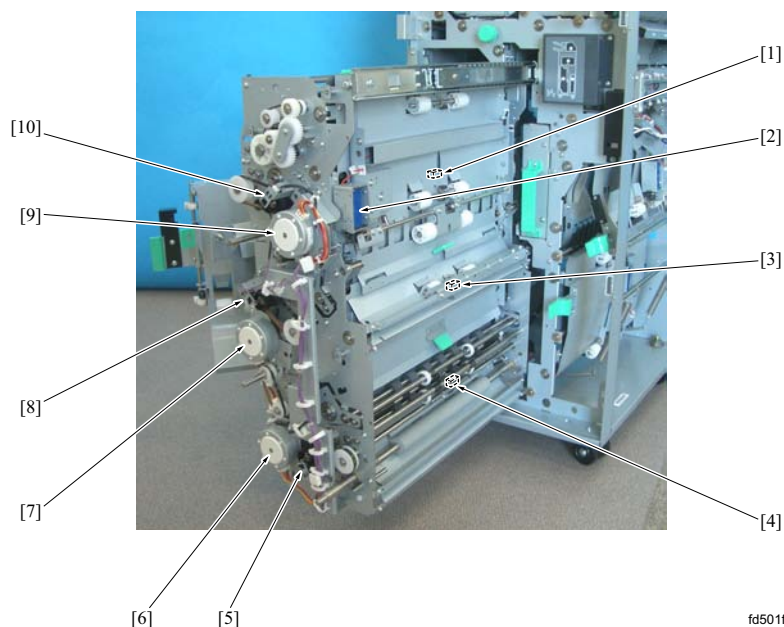
1.16.6 PI lower tray

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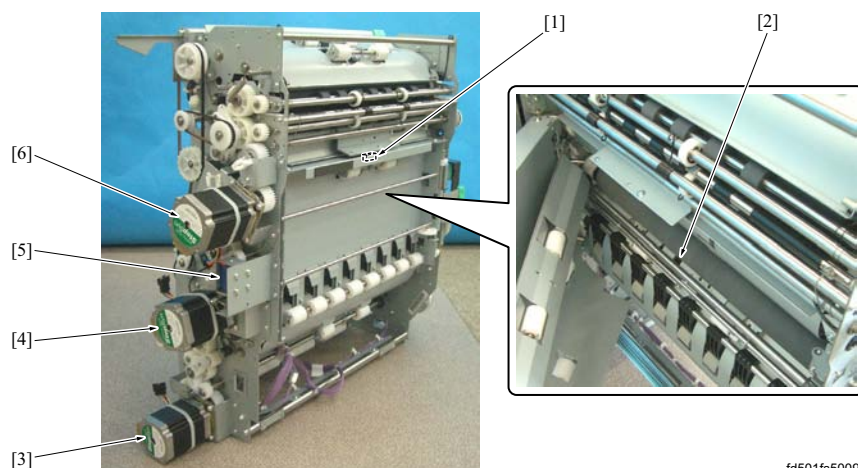
[1] PI paper set sensor /Lw (PS45)	[2] Paper size VR /Lw (VR32)
[3] S size sensor /Lw (PS42)	[4] L size sensor /Lw (PS41)
[5] PI max paper size sensor /Lw (PS48)	-

1.16.7 Punch section

[1] Punch registration home sensor (PS11)	[2] Punch motor (M10)
[3] 3 holes/4 holes home sensor (PS9)	[4] 2 holes home sensor (PS8)
[5] Punch registration motor (M13)	[6] Punch registration sensor (PS6)
[7] Punch conveyance sensor (PS5)	[8] Punch scraps box set sensor (PS12)
[9] Alignment plate home sensor (PS10)	[10] Punch scraps full sensor (PS26)
[11] Folding exit sensor (PS2)	[12] Intermediate conveyance sensor (PS13)

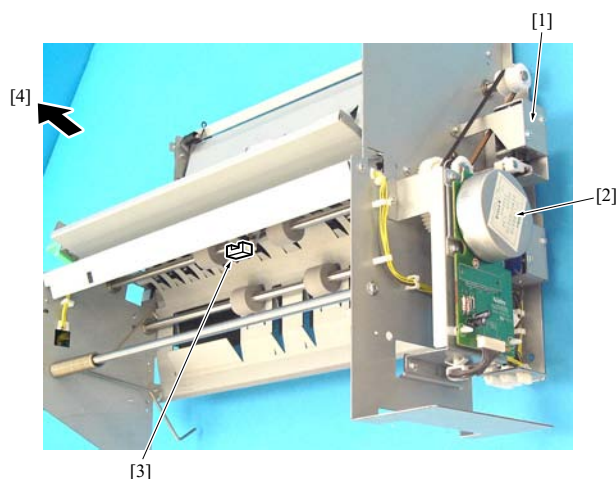
1.16.8 Folding unit front side/right side

[1] S size conveyance sensor (PS58)	[2] 2nd folding roller solenoid (SD18)
[3] Folding entrance sensor (PS52)	[4] 1st folding conveyance sensor (PS51)
[5] 1st folding cam home sensor (PS55)	[6] 1st folding release motor (M14)
[7] 2nd folding release motor (M15)	[8] 2nd folding cam home sensor (PS56)
[9] 3rd folding release motor (M16)	[10] 3rd folding cam home sensor (PS57)

1.16.9 Folding unit rear side/left side

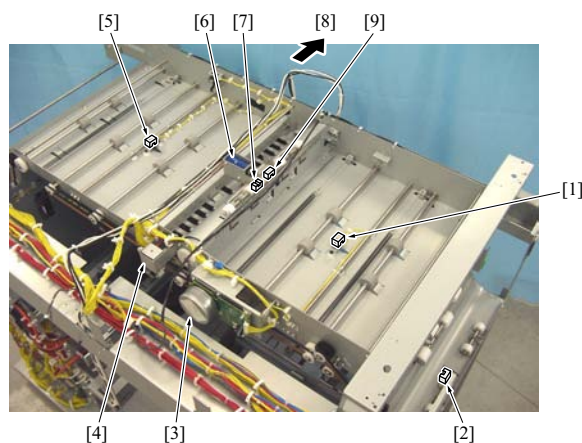
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[1]	3rd folding conveyance sensor (PS54)	[2]	2nd folding conveyance sensor (PS53)
[3]	1st folding motor (M4)	[4]	2nd folding motor (M5)
[5]	Folding gate solenoid (SD15)	[6]	3rd folding motor (M6)

1.17 SD-506**1.17.1 Horizontal conveyance section****(1) Entrance conveyance**

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[1]	Entrance gate solenoid (SD1)	[2]	Entrance conveyance motor (M1)
[3]	Entrance sensor (PS1)	[4]	Right-side direction

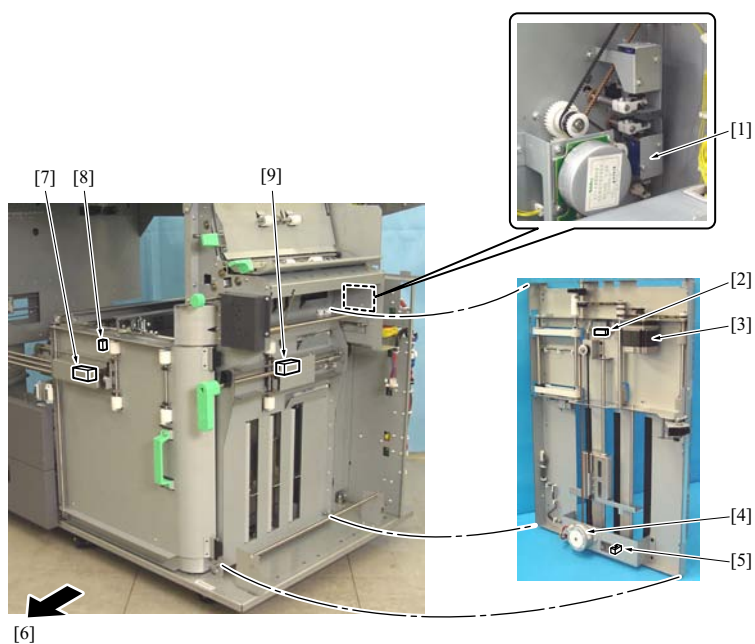
(2) Horizontal conveyance

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[1]	Horizontal conveyance sensor /2 (PS3)	[2]	Horizontal conveyance exit sensor (PS4)
[3]	Horizontal conveyance motor (M2)	[4]	Horizontal conveyance gate solenoid (SD3)
[5]	Horizontal conveyance sensor /1 (PS2)	[6]	Roller release solenoid /4 (SD4)
[7]	Sub tray exit sensor (PS11)	[8]	Front side direction

[9]	Sub tray paper full sensor (PS12)	-
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1.17.2 Right angle conveyance section

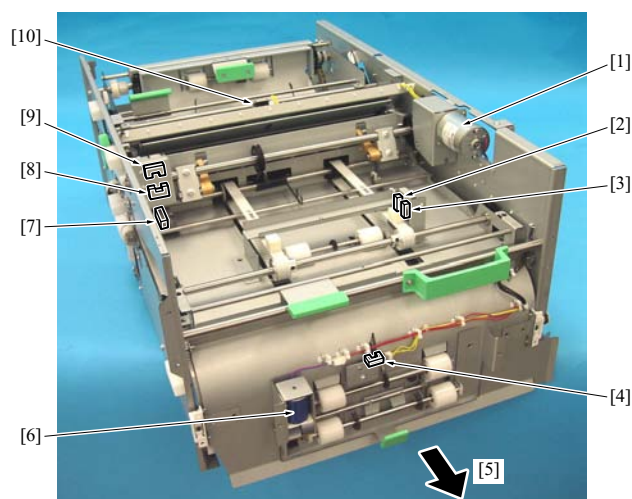


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[1]	Right angle conveyance gate solenoid (SD2)	[2]	Right angle conveyance sensor /1 (PS5)
[3]	Right angle conveyance motor (M6)	[4]	Overlap motor (M13)
[5]	Overlap home sensor (PS17)	[6]	Front side direction
[7]	Roller release solenoid /2 (SD6)	[8]	Right angle conveyance sensor /2 (PS6)
[9]	Roller release solenoid /1 (SD5)	-	

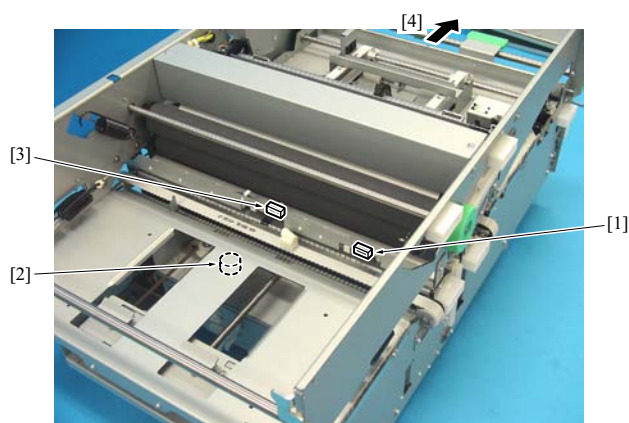
1.17.3 Folding section

(1) Top side /1



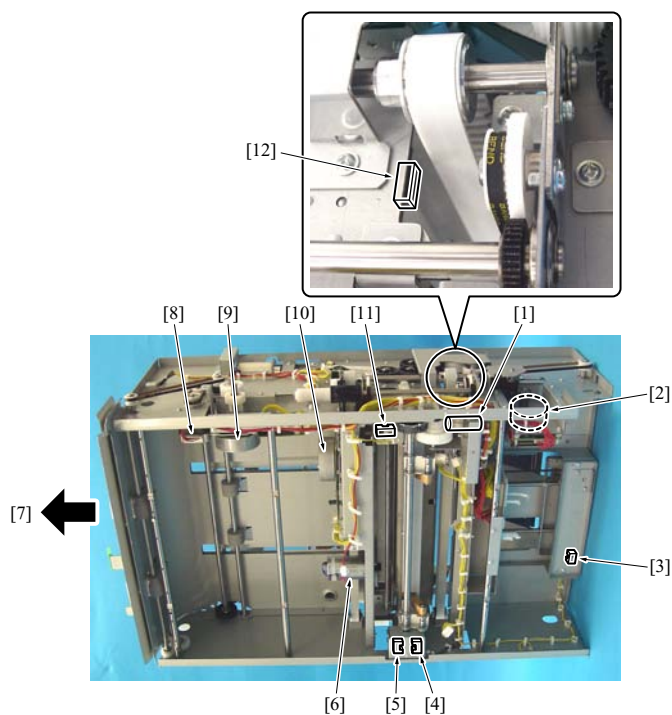
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[1]	2nd folding blade motor (M19)	[2]	Folding main scan alignment home sensor /Fr2 (PS49)
[3]	Folding main scan alignment home sensor /Fr1 (PS18)	[4]	Folding entrance sensor (PS60)
[5]	Front side direction	[6]	Roller release solenoid /3 (SD7)
[7]	Folding sensor /2 (PS44)	[8]	2nd folding blade home sensor /2 (PS23)
[9]	2nd folding blade home sensor /1 (PS22)	[10]	Folding passage sensor (PS8)

(2) Top side /2

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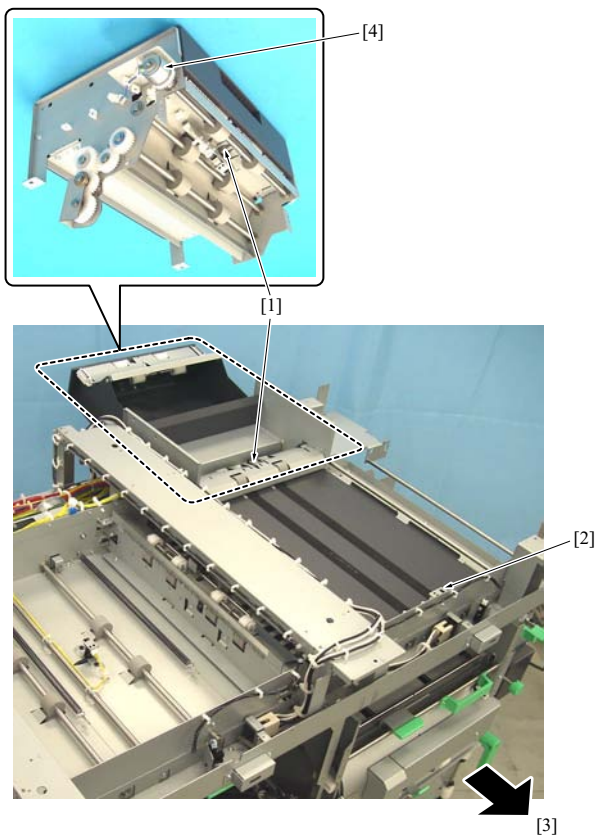
[1]	Folding sub scan alignment home sensor (PS56)	[2]	Folding main scan alignment motor /Rr (M14)
[3]	Folding sensor /1 (PS7)	[4]	Front side direction

(3) Bottom side

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[1]	1st folding blade motor (M18)	[2]	Folding transfer motor (M4)
[3]	Folding main scan alignment home sensor /Rr (PS19)	[4]	1st folding blade home sensor /2 (PS21)
[5]	1st folding blade home sensor /1 (PS20)	[6]	Guide shaft motor (M25)
[7]	Front side direction	[8]	Folding main scan alignment motor /Fr (M7)
[9]	Folding entrance motor (M3)	[10]	Folding sub scan alignment exit motor (M8)
[11]	Guide shaft home sensor (PS46)	[12]	Folding exit home sensor (PS24)

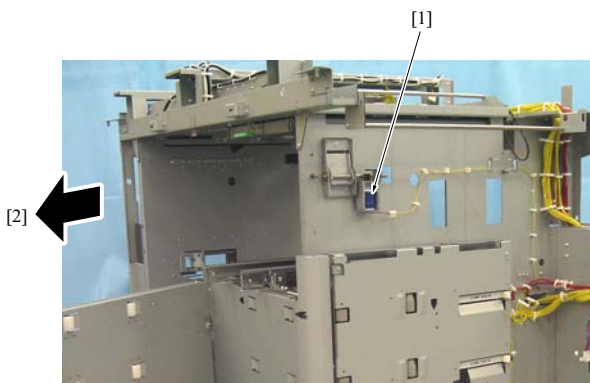
(4) Tri-folding exit



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[1]	Tri-folding exit sensor (PS9)	[2]	Tri-folding paper full sensor (PS10)
[3]	Front side direction	[4]	Tri-folding exit clutch (CL1)

(5) Others

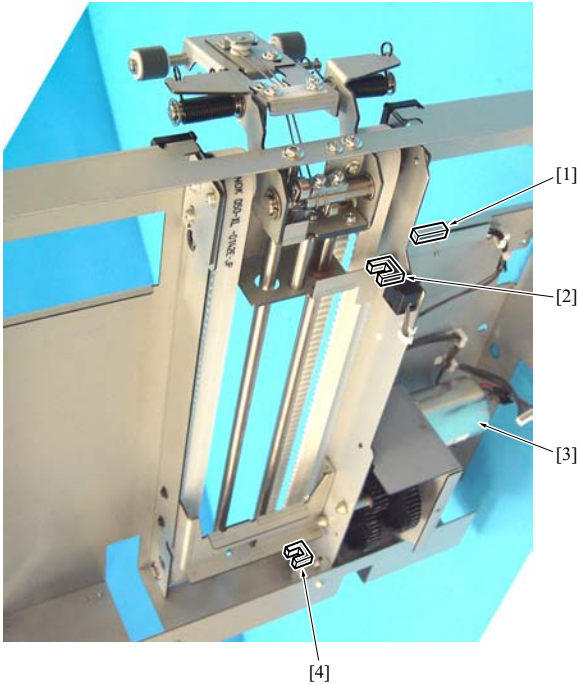


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[1]	Folding unit lock solenoid (SD8)	[2]	Front side direction
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1.17.4 Saddle stitching section

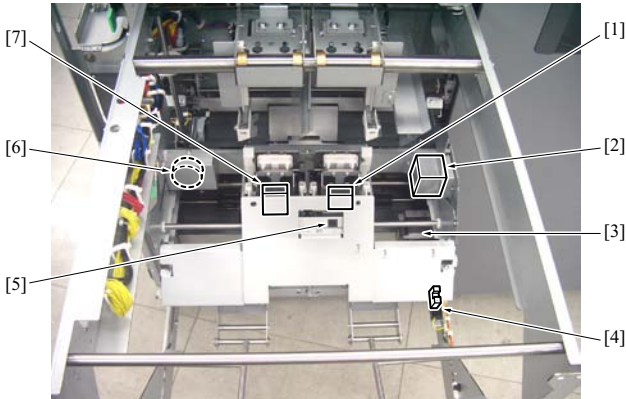
(1) Bundle clip



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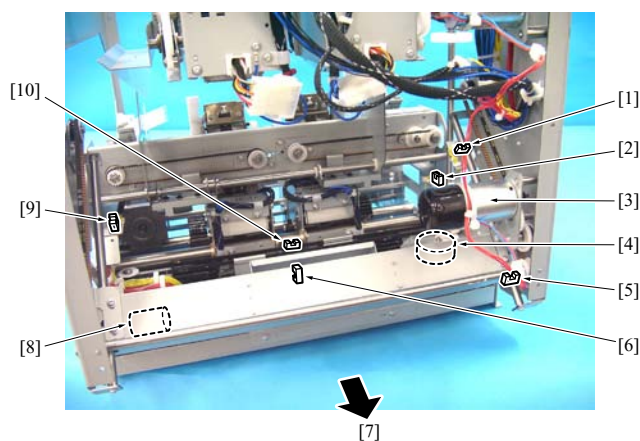
[1]	Bundle sensor /1 (PS14)	[2]	Bundle clip upper limit sensor (PS33)
[3]	Bundle clip motor (M11)	[4]	Bundle clip lower limit sensor (PS30)

(2) Front side



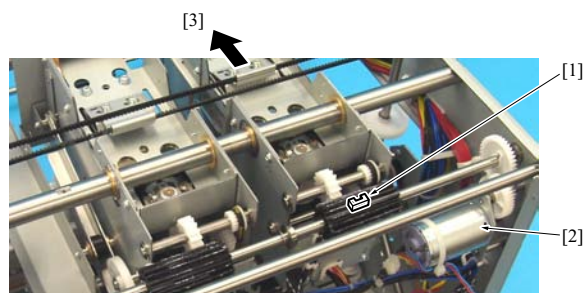
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[1]	Clincher solenoid /Rt (SD9)	[2]	Saddle stitching alignment motor /Rt (M9)
[3]	Bundle arm motor (M10)	[4]	Bundle arm home sensor (PS32)
[5]	Saddle stitching paper sensor (PS13)	[6]	Saddle stitching alignment motor /Lt (M16)
[7]	Clincher solenoid /Lt (SD10)	-	

(3) Rear side /1

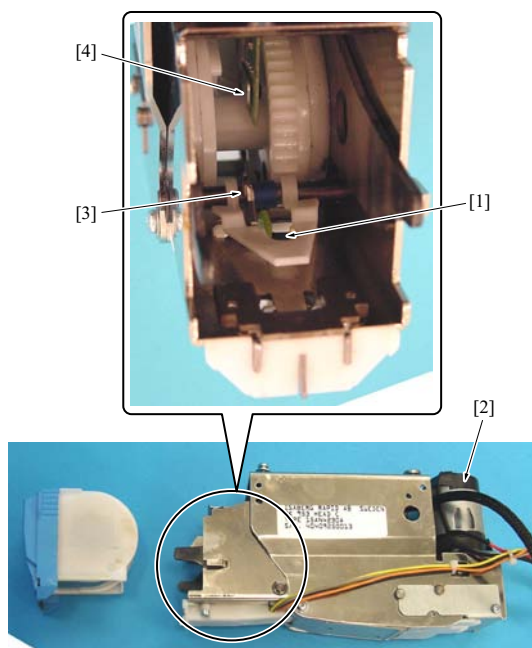
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[1] Bundle arm assist upper limit sensor (PS39)	[2] Saddle stitching alignment home sensor /Lt (PS29)
[3] Bundle arm assist motor (M26)	[4] Stapler movement motor (M15)
[5] Bundle arm assist home sensor (PS38)	[6] Stapler movement home sensor (PS25)
[7] Back side direction	[8] Clincher up down motor (M20)
[9] Saddle stitching alignment home sensor /Rt (PS28)	[10] Clincher up down home sensor (PS26)

(4) Rear side /2

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[1] Saddle stitching hold home sensor (PS27)	[2] Saddle stitching press motor (M21)
[3] Front side direction	-

(5) Stapler

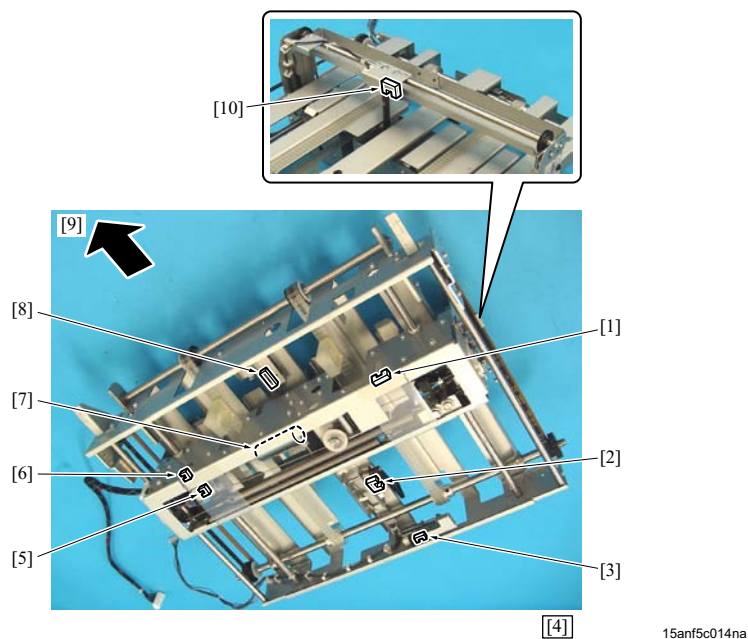
15anf5c013na

[1] Stapler empty switch /Rt (SW1), /Lt (SW2)	[2] Stapler motor /Rt (M29), /Lt (M30)
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[3] Stapler home sensor /Rt (HS1), /Lt (HS3)	[4] Clincher start sensor /Rt (HS2), /Lt (HS4)
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1.17.5 Bundle processing section

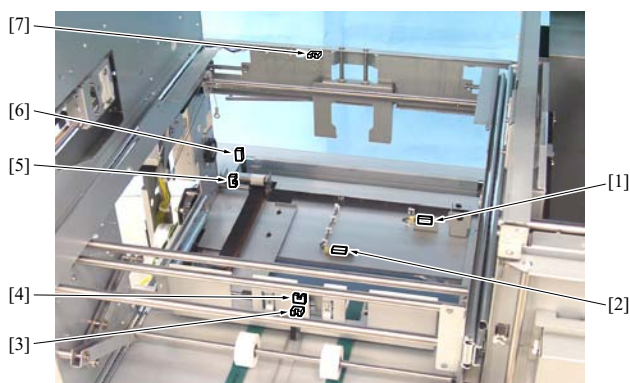
(1) Bundle press stage/bundle press bottom side



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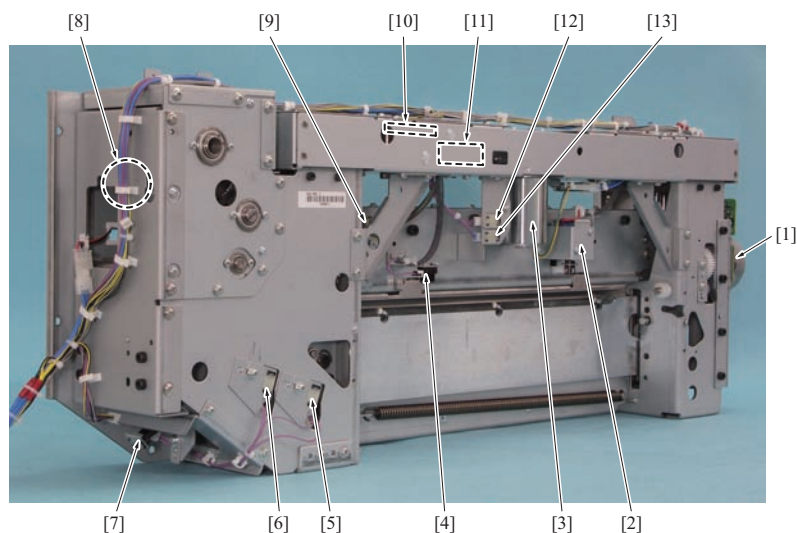
[1] Bundle press movement home sensor (PS36)	[2] Bundle sensor /4 (PS54)
[3] Bundle registration home sensor (PS34)	[4] Bottom side view
[5] Bundle press lower limit sensor (PS47)	[6] Scraps press home sensor (PS37)
[7] Bundle press motor (M23)	[8] Bundle sensor /2 (PS15)
[9] Front side direction	[10] Trimmer registration sensor (PS55)

(2) Bundle exit



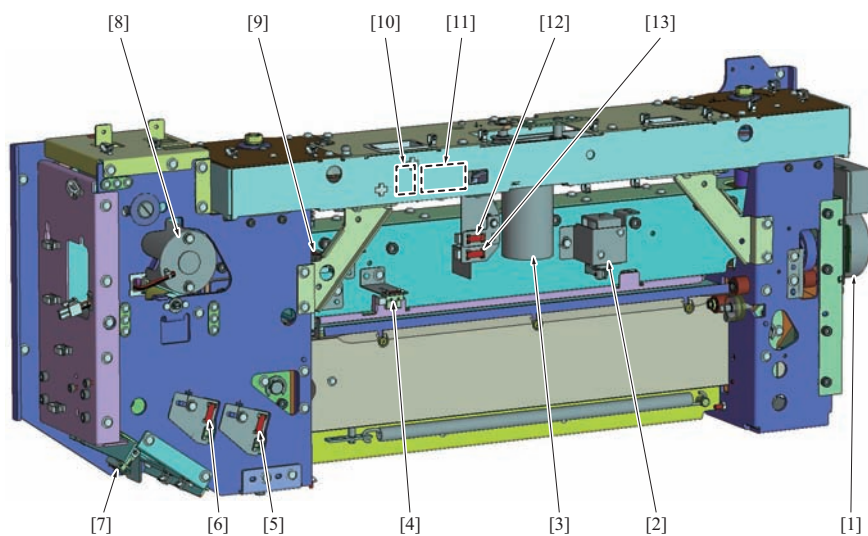
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[1] Bundle tray set sensor (PS58)	[2] Trimmer scraps full sensor (PS41)
[3] Bundle tray paper full sensor (PS61)	[4] Bundle exit sensor /2 (PS57)
[5] Scraps box set sensor (PS40)	[6] Scraps press home sensor (PS48)
[7] Bundle registration plate home sensor (PS16)	-

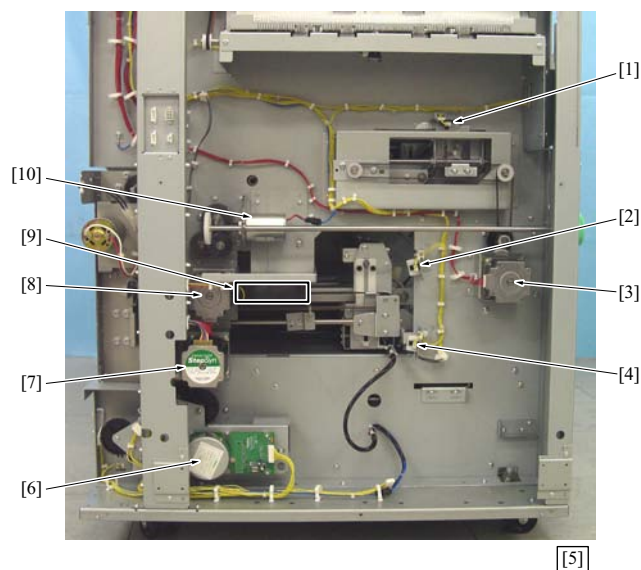
1.17.6 Trimmer section**(1) Previous trimmer unit**

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[1] Trimmer paddle motor (M33)	[2] Trimmer board solenoid (SD11)
[3] Trimmer press motor (M32)	[4] Trimmer board replacement sensor (PS59)
[5] Trimmer blade home sensor (PS50)	[6] Trimmer blade upper limit sensor (PS51)
[7] Wire slack prevention sensor (PS66)	[8] Trimmer blade motor (M31)
[9] Trimmer completion sensor (PS62)	[10] SD drive board /2 (SDDB/2)
[11] Brake solenoid (SD12)	[12] Trimmer press upper limit sensor (PS52)
[13] Trimmer press home sensor (PS53)	-

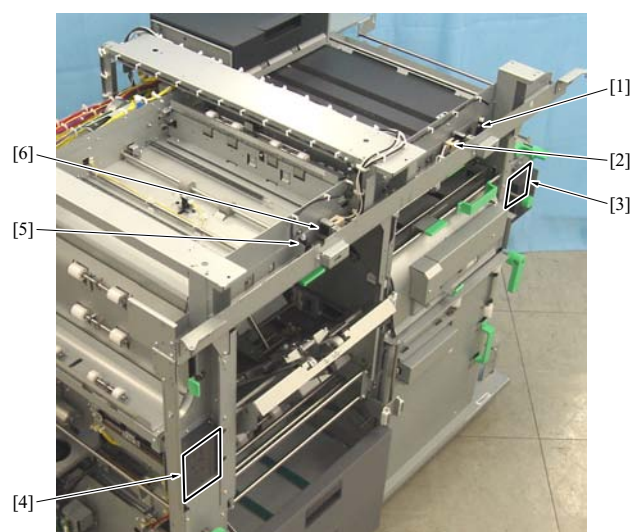
(2) New trimmer unit

[1] Trimmer paddle motor (M33)	[2] Trimmer board solenoid (SD11)
[3] Trimmer press motor (M32)	[4] Trimmer board replacement sensor (PS59)
[5] Trimmer blade upper limit sensor (PS50)	[6] Trimmer blade upper limit sensor (PS51)
[7] Wire slack prevention sensor (PS66)	[8] Trimmer blade motor (M31)
[9] Trimmer completion sensor (PS62)	[10] SD drive board /2 (SDDB/2)
[11] Brake solenoid (SD12)	[12] Trimmer press upper limit sensor (PS52)
[13] Trimmer press home sensor (PS53)	-

1.17.7 Left-side view

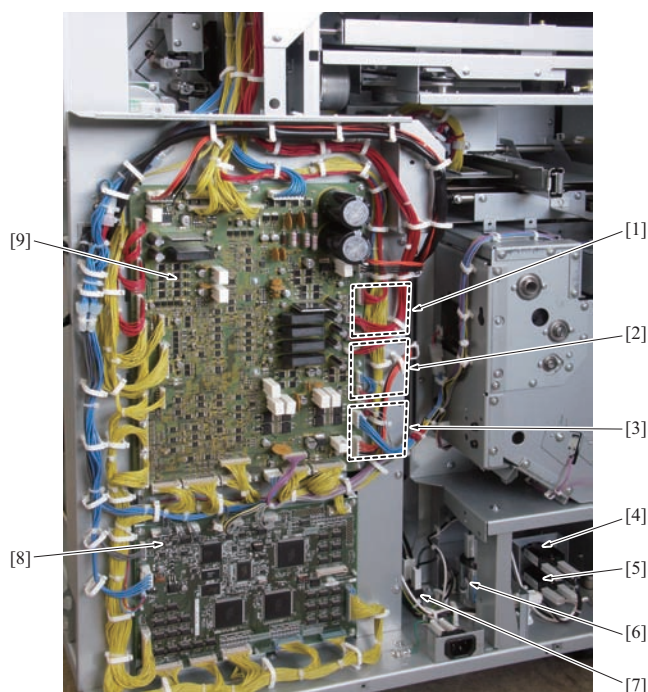
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[1]	Bundle arm rotation home sensor (PS31)	[2]	Bundle press stage up down upper limit sensor (PS45)
[3]	Bundle arm rotation motor (M22)	[4]	Bundle press stage up down home sensor (PS35)
[5]	Left-side view	[6]	Bundle exit motor (M5)
[7]	Bundle press movement motor (M17)	[8]	Bundle registration motor (M12)
[9]	Scraps removal fan motor (FM1)	[10]	Bundle press stage up down motor (M24)

1.17.8 Front side

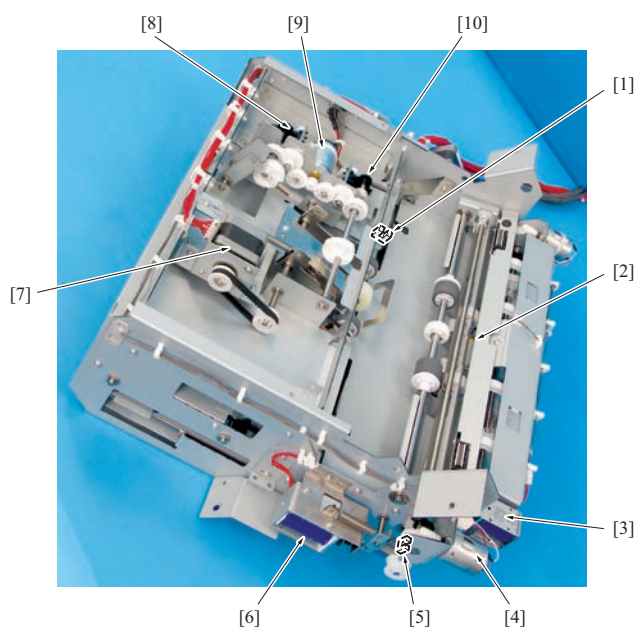
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[1]	Front door sensor /Rt (PS42)	[2]	Front door switch /Rt (MS1)
[3]	Jam indication board /1 (JAMIB/1)	[4]	Jam indication board /2 (JAMIB/2)
[5]	Front door sensor /Lt (PS43)	[6]	Front door switch /Lt (MS2)

1.17.9 Rear side

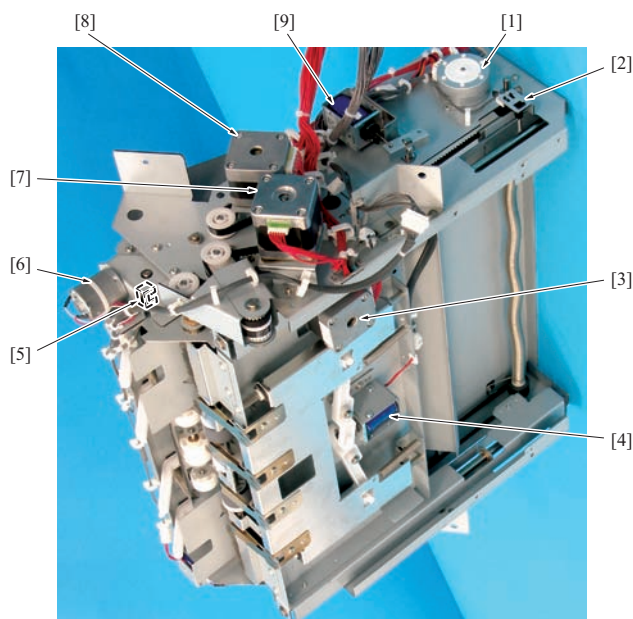
15anf5c019nb

[1]	DC power supply /1 (DCPS1)	[2]	DC power supply /2 (DCPS2)
[3]	DC power supply /3 (DCPS3)	[4]	Circuit breaker /1 (CBR1)
[5]	Circuit breaker /2 (CBR2)	[6]	Noise filter (NF1)
[7]	Power relay /1 (RL1)	[8]	SD control board (SDCB)
[9]	SD drive board (SDDB)	-	

1.18 PB-503**1.18.1 SC section****(1) Front side / Top side**

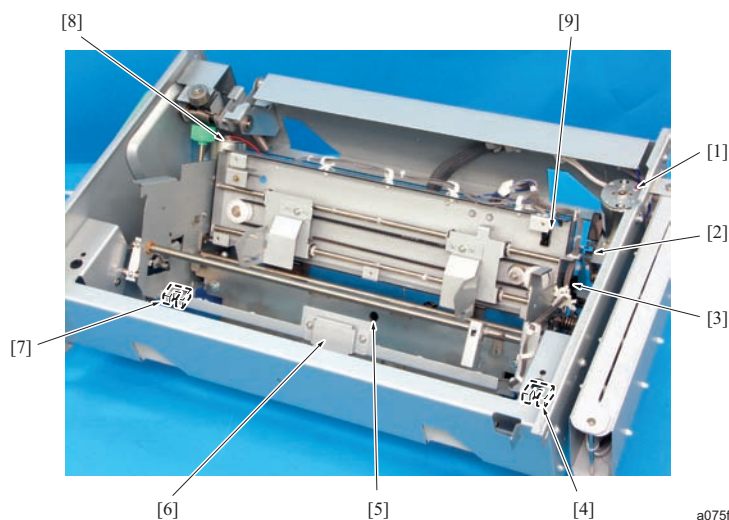
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[1]	SC alignment plate home sensor (PS14)	[2]	SC paper detection sensor (PS16)
[3]	SC pressure arm solenoid (SD13)	[4]	SC roller release motor (M18)
[5]	SC roller release sensor (PS17)	[6]	SC stopper solenoid (SD12)
[7]	SC switchback conveyance motor (M12)	[8]	SC switchback spring pressure detection sensor (PS13)
[9]	SC switchback release motor (M13)	[10]	SC switchback arm pressure detection sensor (PS12)

(2) Rear side/Bottom side

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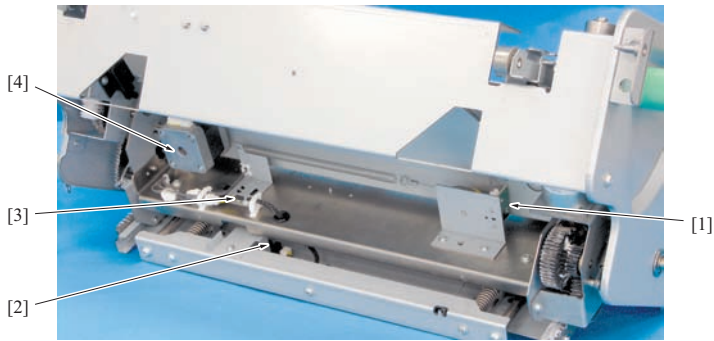
[1]	Clamp entrance movement motor (M19)	[2]	Clamp entrance movement HP sensor (PS18)
[3]	SC alignment motor (M15)	[4]	FD alignment solenoid (SD11)
[5]	Clamp entrance roller release sensor (PS19)	[6]	Clamp entrance roller release motor (M20)
[7]	SC bundle conveyance motor (M17)	[8]	SC entrance conveyance motor (M11)
[9]	Straight gate solenoid (SD91)	-	

1.18.2 Clamp section**(1) Top side**

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[1]	Clamp rotation motor (M23)	[2]	Clamp rotation HP sensor (PS24)
[3]	Clamp rotation pressure sensor (PS25)	[4]	Cover paper table upper limit sensor /Rr (PS27)
[5]	Clamp paper sensor (PS28)	[6]	Clamp paper LED (LED21)
[7]	Cover paper table upper limit sensor /Fr (PS26)	[8]	Clamp motor (M22)
[9]	Clamp alignment HP sensor (PS21)	-	

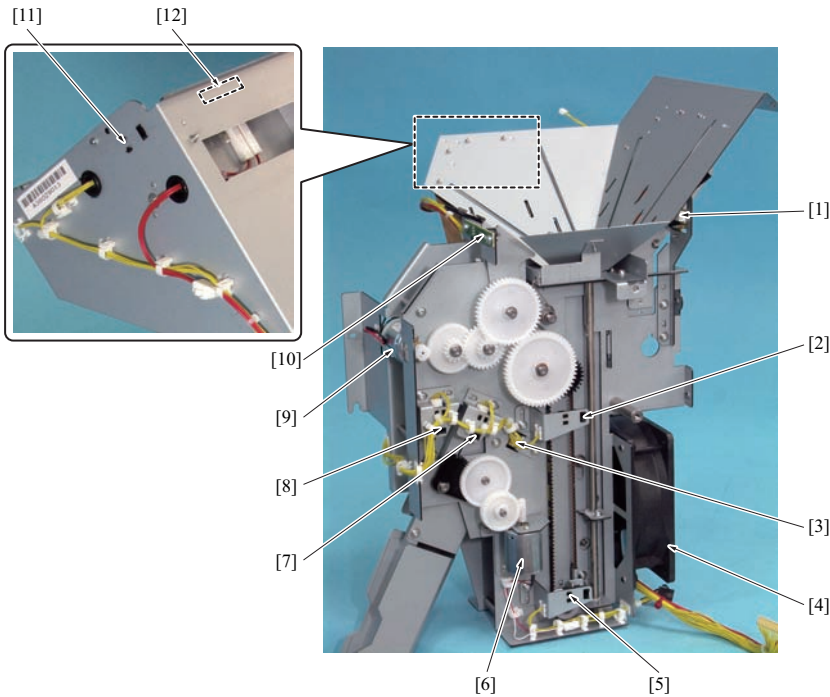
(2) Left side



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[1]	Booklet thickness sensor (PS29)	[2]	Clamp pressure sensor (PS23)
[3]	Clamp HP sensor (PS22)	[4]	Clamp alignment motor (M21)

1.18.3 Pellet supply section

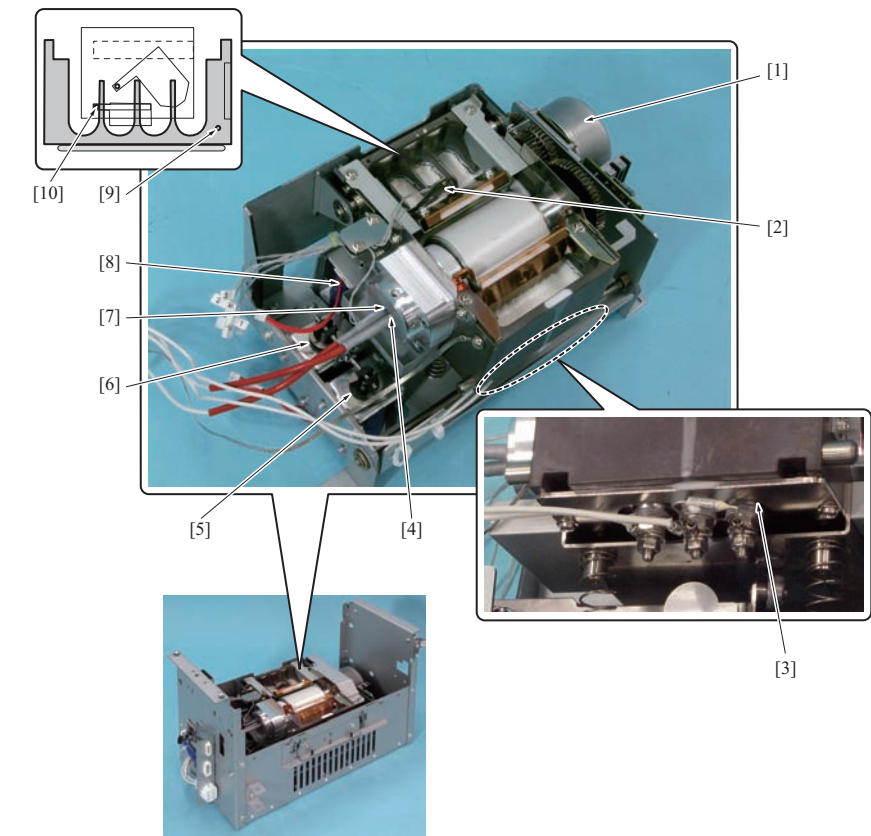


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[1]	Pellet remaining LED (LED32)	[2]	Pellet supply pipe upper limit sensor (PS95)
[3]	Pellet supply passage sensor (PS37)	[4]	Exhaust fan /1 (FM80)
[5]	Pellet supply pipe home sensor (PS96)	[6]	Pellet supply arm motor (M34)
[7]	Pellet supply arm upper limit sensor (PS38)	[8]	Pellet supply arm home sensor (PS39)
[9]	Pellet supply pipe motor (M33)	[10]	Pellet supply remaining sensor (PS36)
[11]	Pellet supply door sensor (PS40)	[12]	Pellet supply door switch (MS1)

1.18.4 Glue tank section

(1) Glue tank



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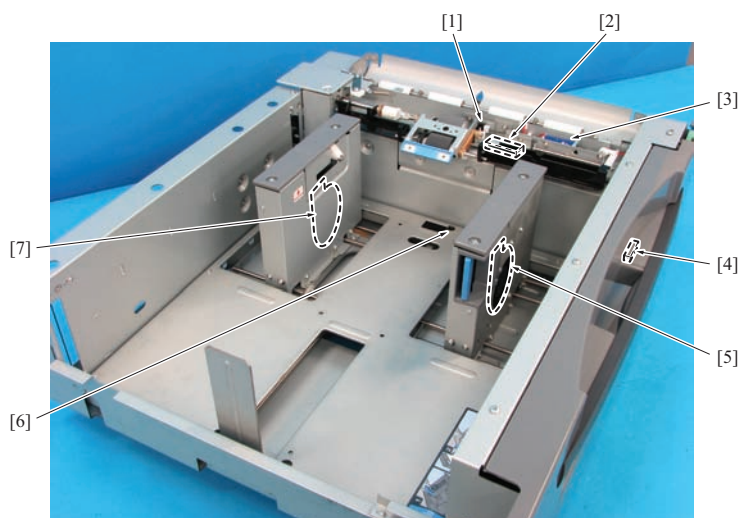
[1]	Glue apply roller motor (M32)	[2]	Glue tank temperature sensor /Up (TH2)
[3]	Glue tank heater (H1)	[4]	Glue apply roller heater (H2)
[5]	Glue tank up solenoid /2 (SD33)	[6]	Glue tank up solenoid /1 (SD31)
[7]	Glue apply roller temperature sensor (TH1)	[8]	Cover paper glue up solenoid (SD32)
[9]	Glue tank temperature sensor /Lw (TH4)	[10]	Glue tank temperature sensor /Md (TH3)

(2) Glue tank unit movement motor



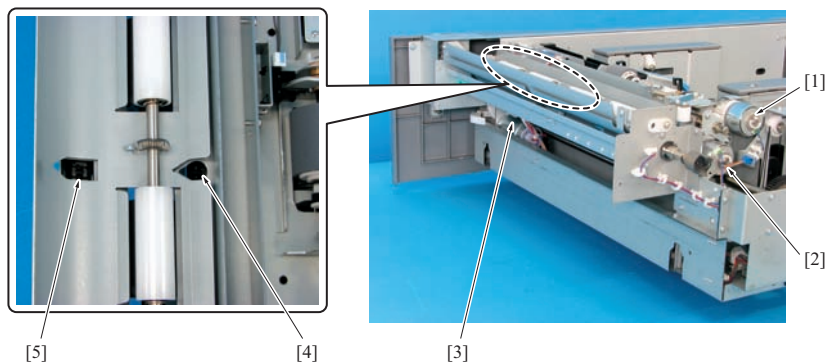
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[1]	Glue tank HP sensor (PS33)	-
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1.18.5 Cover paper supply section**(1) Inside**

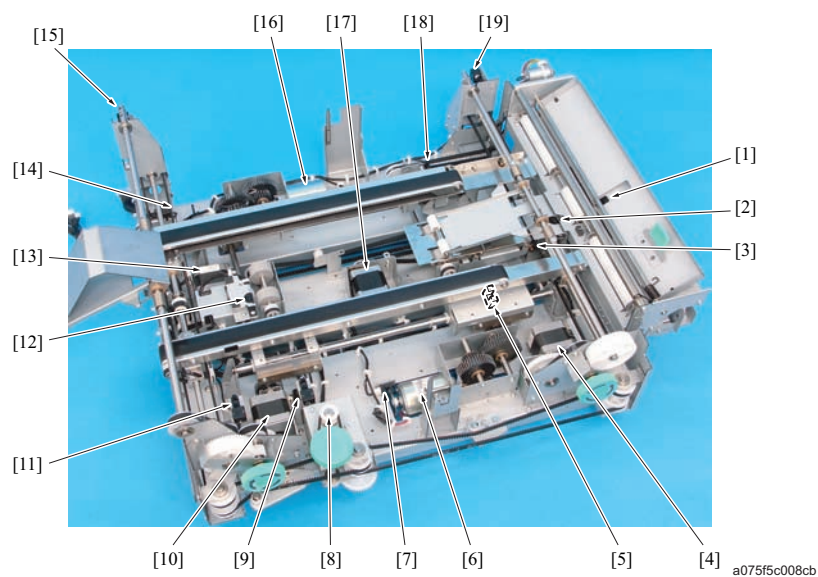
a075f5c019ca

[1]	Cover paper tray upper limit sensor (PS74)	[2]	Cover paper conveyance sensor /1 (PS75)
[3]	Cover paper pick up solenoid (SD71)	[4]	Cover paper tray knob sensor (PS82)
[5]	Cover paper tray fan /1 (FM71)	[6]	Cover paper empty sensor (PS71)
[7]	Cover paper tray fan /2 (FM72)	-	

(2) Rear side

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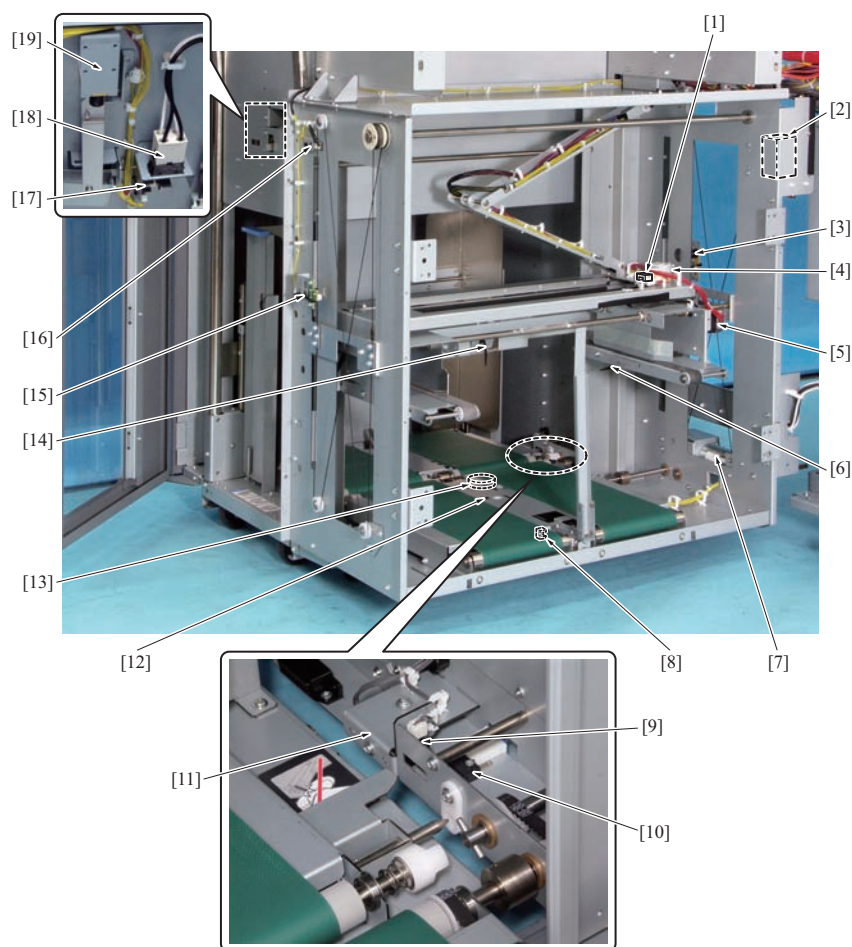
[1]	Cover paper feed clutch (CL71)	[2]	Cover paper separation clutch (CL72)
[3]	Cover paper tray lift motor (M73)	[4]	Cover paper conveyance sensor /2 (PS76)
[5]	Cover paper conveyance sensor /3 (PS77)	-	

1.18.6 Cover paper table section**(1) cover paper table unit**

[1] Cover paper switchback sensor (PS44)	[2] Cover paper sensor /Rt (PS45)
[3] Cover paper lift solenoid (SD41)	[4] Cover paper conveyance arm motor /Rt (M43)
[5] Cover paper folding pressure sensor (PS52)	[6] Cover paper folding motor /Rt (M48)
[7] Cover paper folding plate encoder sensor (PS50)	[8] Cover paper alignment motor (M41)
[9] Cover paper folding plate home sensor /Lt (PS49)	[10] Cover paper conveyance arm motor /Lt (M44)
[11] Cover paper folding plate position sensor (PS51)	[12] Cover paper sensor /Lt (PS46)
[13] Booklet exit motor (M42)	[14] Cover paper alignment home sensor (PS41)
[15] Cover paper conveyance arm home sensor /Lt (PS43)	[16] Cover paper folding motor /Lt (M49)
[17] Cover paper conveyance motor (M45)	[18] Cover paper folding plate home sensor /Rt (PS48)
[19] Cover paper conveyance arm home sensor /Rt (PS42)	-

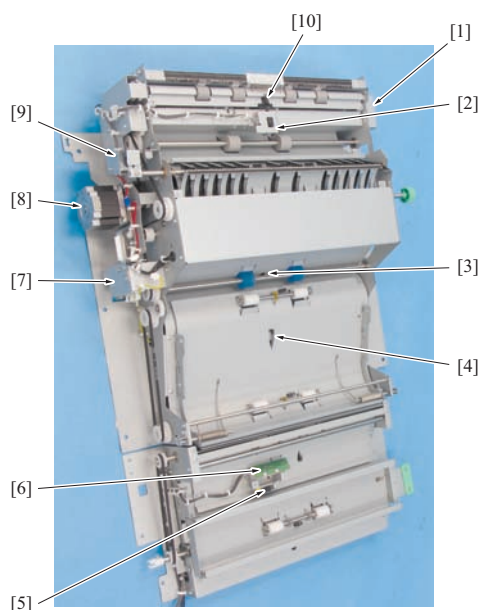
(2) Roller cutter assy

[1] Cutter home switch (SW41)	[2] Cutter end switch (SW42)
[3] Cutter motor (M50)	-

1.18.7 Book stock section**(1) Rear side**

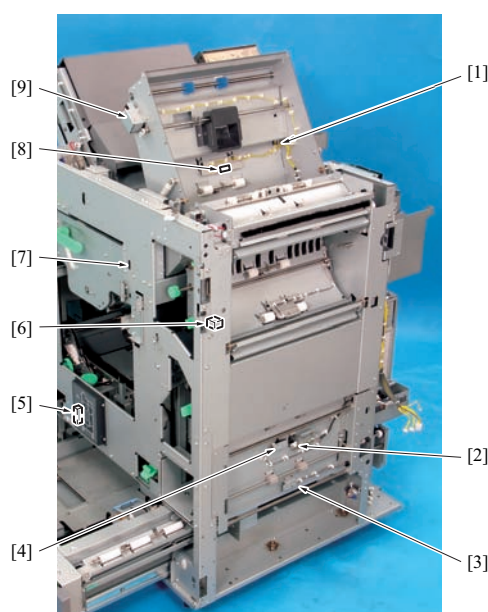
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[1] Booklet conveyance belt movement home sensor (PS62)	[2] Booklet conveyance belt up down motor (M63)
[3] Booklet upper limit sensor (PS65)	[4] Booklet conveyance belt movement motor (M62)
[5] Booklet conveyance belt motor (M61)	[6] Booklet conveyance belt lower limit sensor (PS64)
[7] Booklet conveyance belt movement motor (M64)	[8] Booklet stopper HP sensor (PS68)
[9] Cart set sensor (PS69)	[10] Hand cart set switch (MS2)
[11] Booklet sensor /2 (PS67)	[12] Booklet sensor /1 (PS66)
[13] Booklet stopper motor (M65)	[14] Booklet end sensor (PS61)
[15] Booklet upper limit LED (LED61)	[16] Booklet conveyance belt home sensor (PS63)
[17] Booklet door sensor (PS57)	[18] Booklet door switch (SW3)
[19] Booklet door lock solenoid (SD61)	-

1.18.8 Conveyance section and framework section**(1) Rear side**

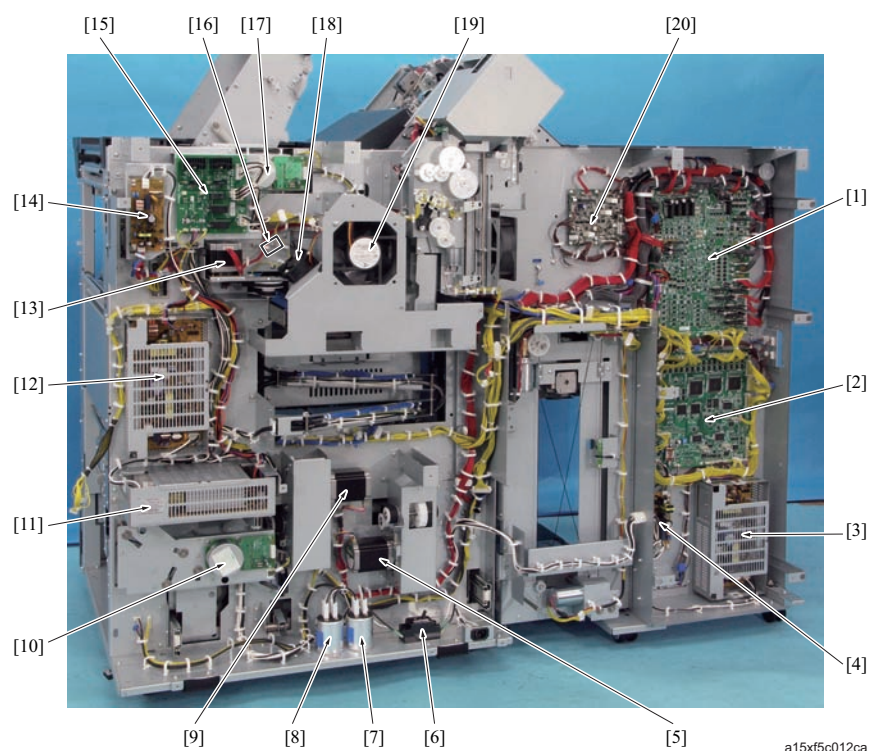
a075f5c012cb

[1] Sub tray paper exit solenoid (SD4)	[2] Sub tray full sensor (PS5)
[3] Entrance sensor (PS1)	[4] Cover paper entrance sensor (PS3)
[5] Waste box full sensor (PS80)	[6] Multi-feed detection board /R (MFDBR)
[7] Entrance gate solenoid (SD1)	[8] Entrance conveyance motor (M1)
[9] Sub tray gate solenoid (SD3)	[10] Sub tray exit sensor (PS4)

(2) Right side

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[1] Upper door switch /2 (SW4)	[2] Multi-feed detection board /S (MFDBS)
[3] Cover paper conveyance sensor /5 (PS79)	[4] Cover paper conveyance sensor /4 (PS78)
[5] Cover paper tray solenoid (SD72)	[6] Front door lock solenoid (SD80)
[7] Front door switch (SW2)	[8] SC entrance sensor (PS2)
[9] Bypass gate solenoid (SD2)	-

(3) Rear side

[1] PB drive board /1 (PBDB1)	[2] PB control board (PBCB)
[3] DC power supply /4 (DCPU/4)	[4] DC power supply /5 (DCPU/5)
[5] Cover paper table up down motor /Fr (M46)	[6] Circuit breaker (CBR)
[7] Noise filter /1 (NF1)	[8] Noise filter /2 (NF2)
[9] Cover paper table up down motor /Rr (M47)	[10] Cover paper feed motor (M74)
[11] DC power supply /1 (DCPU/1)	[12] DC power supply /2 (DCPU/2)
[13] Glue tank movement motor (M31)	[14] DC power supply /3 (DCPU/3)
[15] AC drive board (ACDB)	[16] Upper door switch /1 (SW1)
[17] Intermediate conveyance motor (M2)	[18] Pellet supply cooling fan (FM4)
[19] Exhaust fan /2 (FM81)	[20] PB drive board /2 (PBDB2)

(4) Inside

[1] Cover paper table home sensor /Fr (PS47)	[2] Cover paper table home sensor /Fr (PS47)
[3] Waste box set sensor (PS81)	-

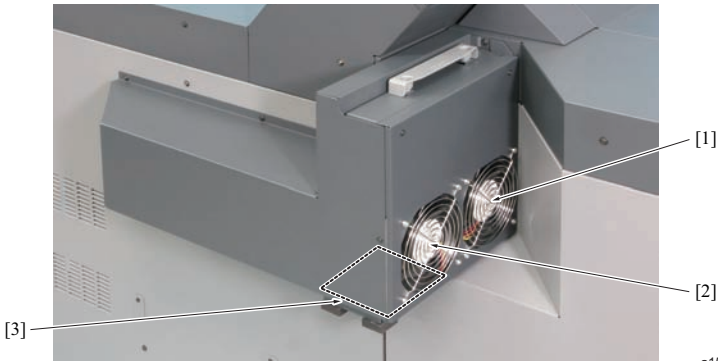
(5) External section



a15xf5c013ca

[1]	Manual operation board (OB1)	[2]	Jam indication board /1 (JAMB1)
[3]	Jam indication board /2 (JAMB2)	[4]	Booklet stock operation board (OB2)

(6) Deodorant unit

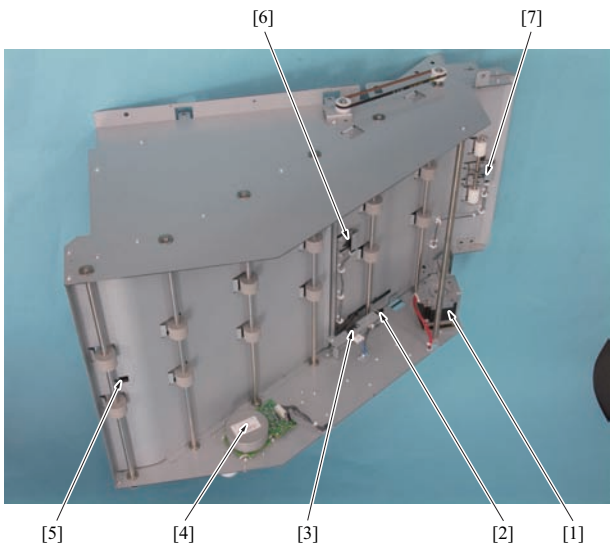


a15xf5c014ca

[1]	Deodorant fan /1 (FM97)	[2]	Deodorant fan /2 (FM98)
[3]	PB drive board /3 (PBDB3)	-	

1.18.9 Relay conveyance section

(1) Relay conveyance unit



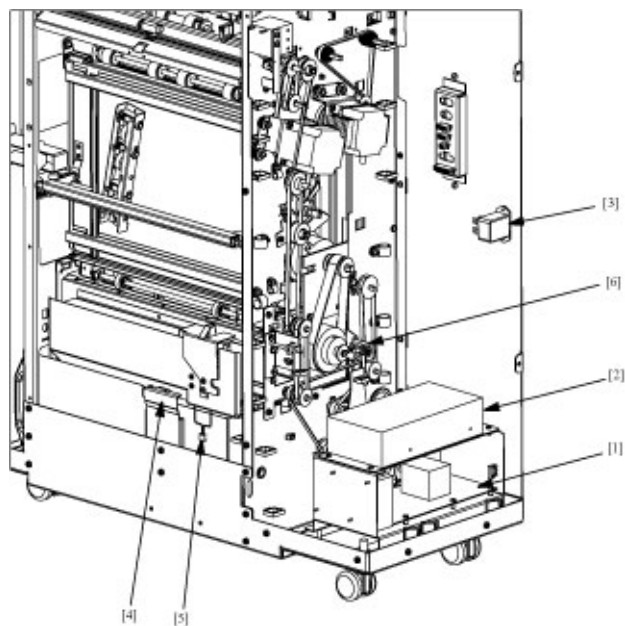
a15xf5c015ca

[1]	Relay conveyance motor (M92)	[2]	Relay conveyance door sensor (PS92)
[3]	Relay conveyance door switch (MS3)	[4]	Relay conveyance paper exit motor (M91)

[5] Relay conveyance paper exit sensor (PS94)	[6] Relay conveyance intermediate sensor (PS91)
[7] Relay conveyance entrance sensor (PS93)	-

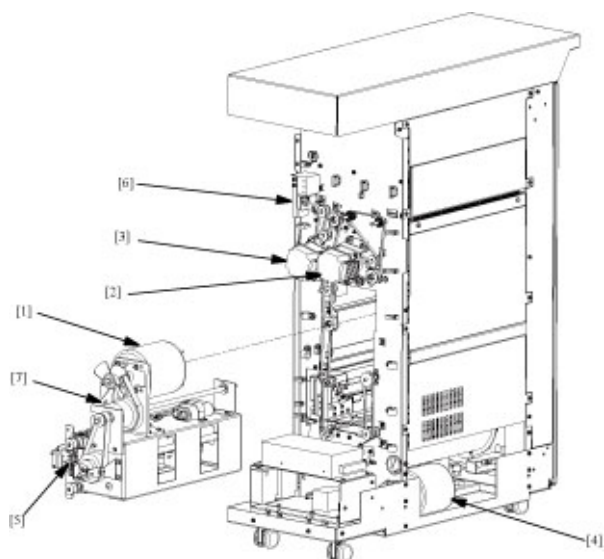
1.19 GP-501

1.19.1 Rear side 1/Right side 1



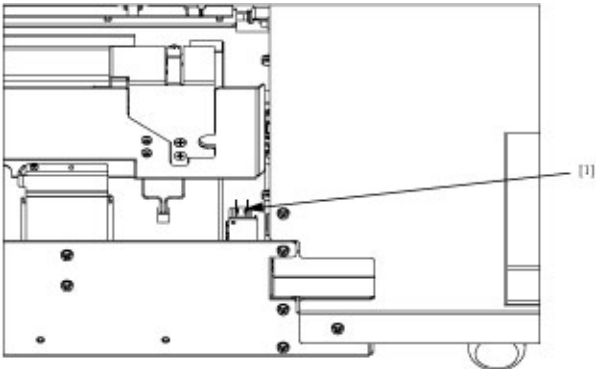
[1] Punch Controller PCB	[2] Power Supply
[3] Power Inlet	[4] Chip Tray Full Sensor
[5] Back Gauge Solenoid	[6] Punch Flag Sensor (S9)

1.19.2 Rear side 2/Left side



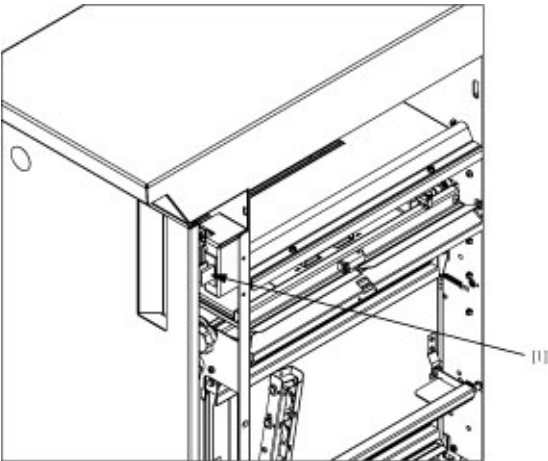
[1] Punch Motor	[2] Exit Stepper Motor
[3] Entrance Stepper Motor	[4] Transport Motor
[5] Die Set Switch	[6] Divert Solenoid
[7] Punch Clutch	-

1.19.3 Right side 2



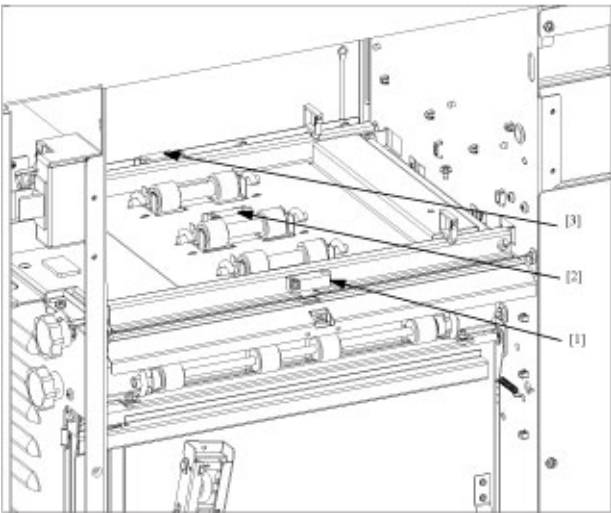
[1]	Chip Tray Switch	-
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1.19.4 Front side



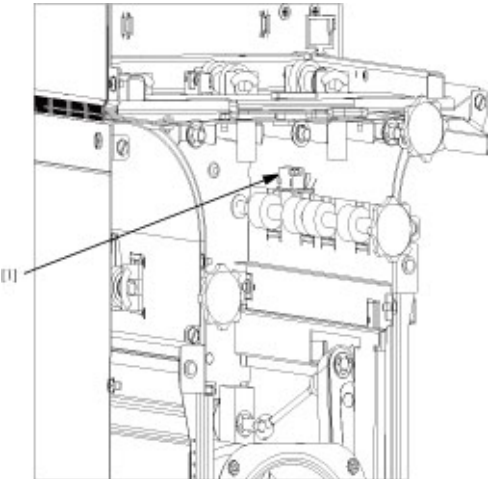
[1]	Door Switch	-
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1.19.5 Bypass conveyance section

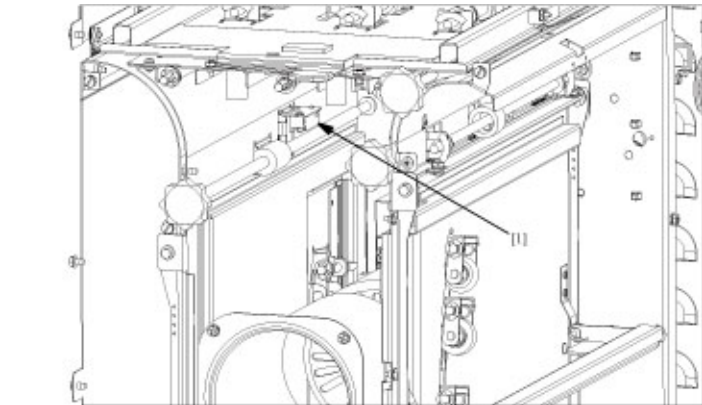


[1]	Enter Sensor (S1)	[2]	Bypass Sensor (S8)
[3]	Exit Sensor (S7)		-

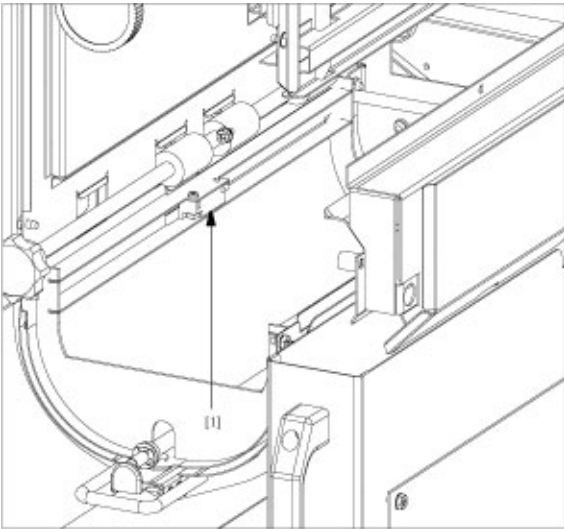
1.19.6 Punch conveyance section



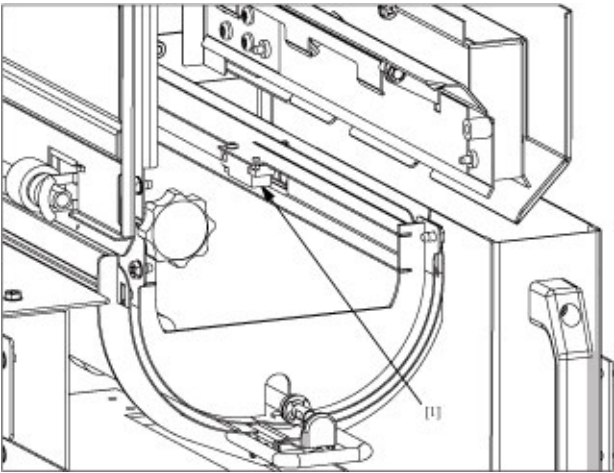
[1]	Stepper 1 Speed Sensor (S2)	-
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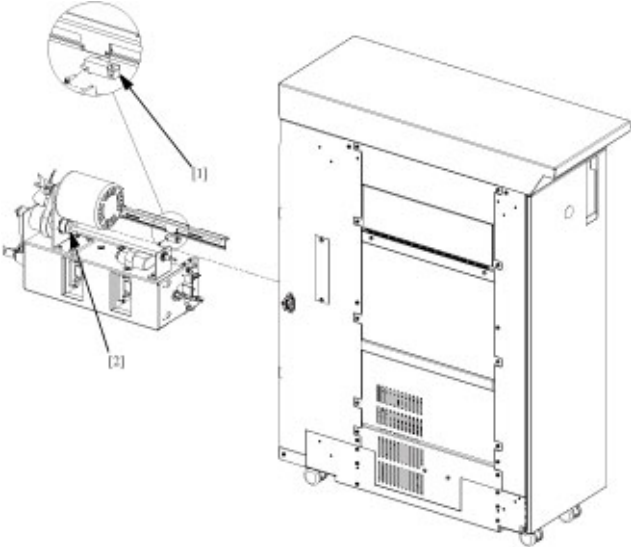
[1]	Stepper 2 Speed Sensor (S6)	-
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[1]	Back Gauge Sensor (S5)	-
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[1]	U-Channel Sensor (S4)	-
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[1]	Punch Module Sensor (S3)	[2]	Punch Brake
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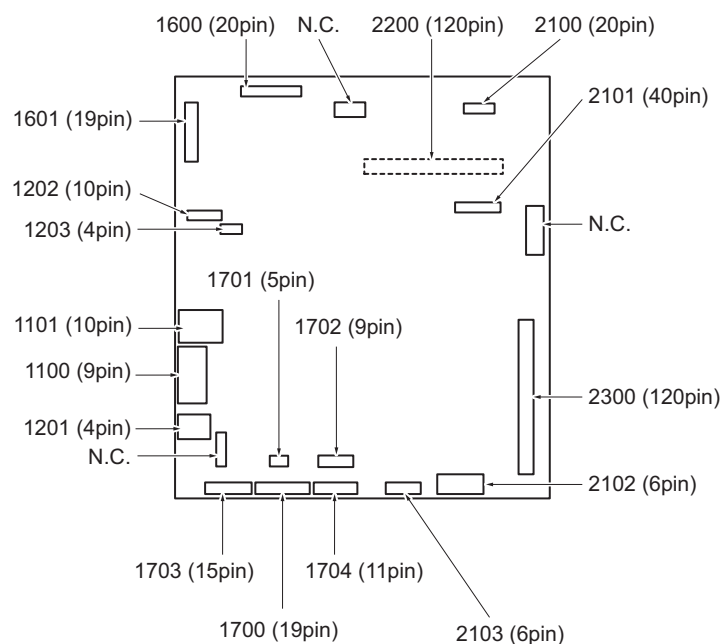
1.20 GP-502

The parts layout of GP-502 is mentioned in the GP-502 service manual.

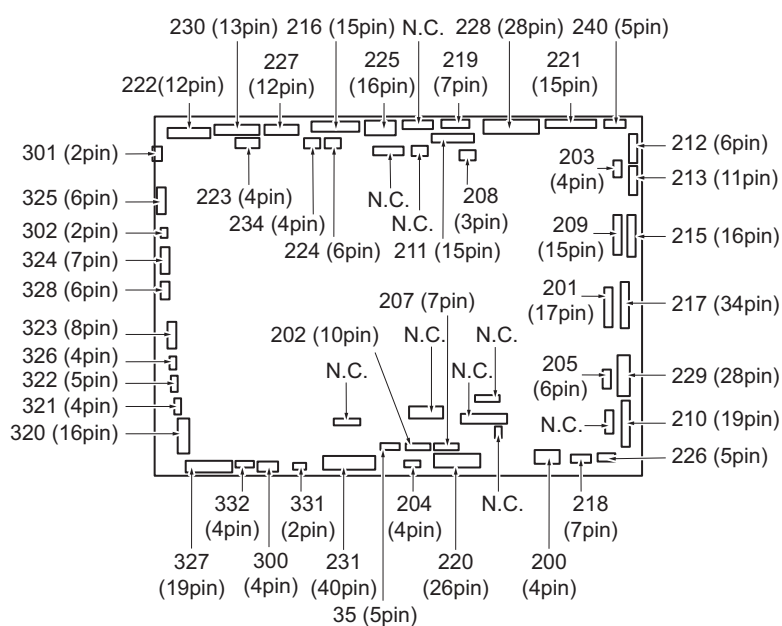
2. CONNECTOR LAYOUT DRAWING IN BOARD

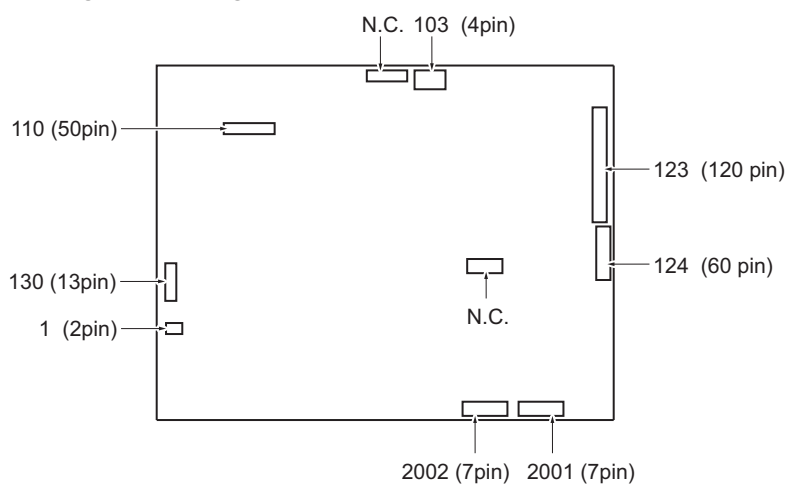
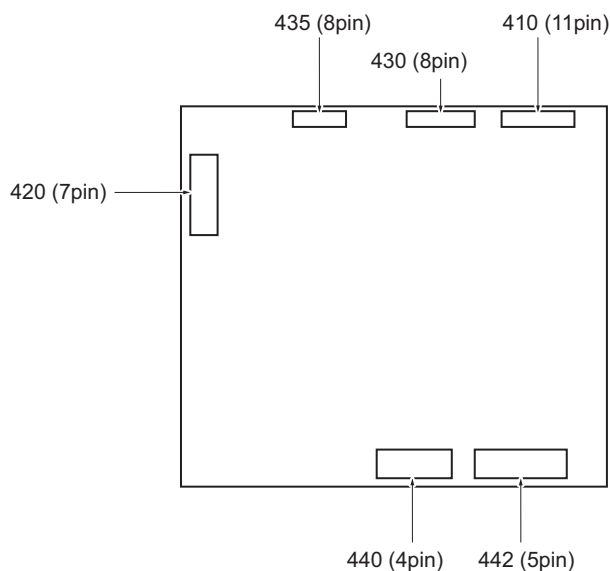
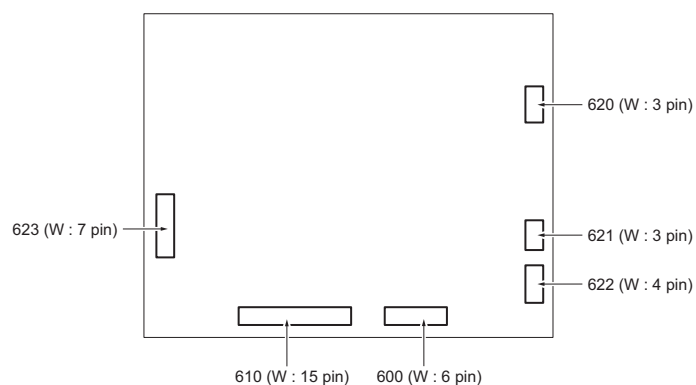
2.1 bizhub PRESS 1250/1250P/1052/PRO 951

2.1.1 Overall control board



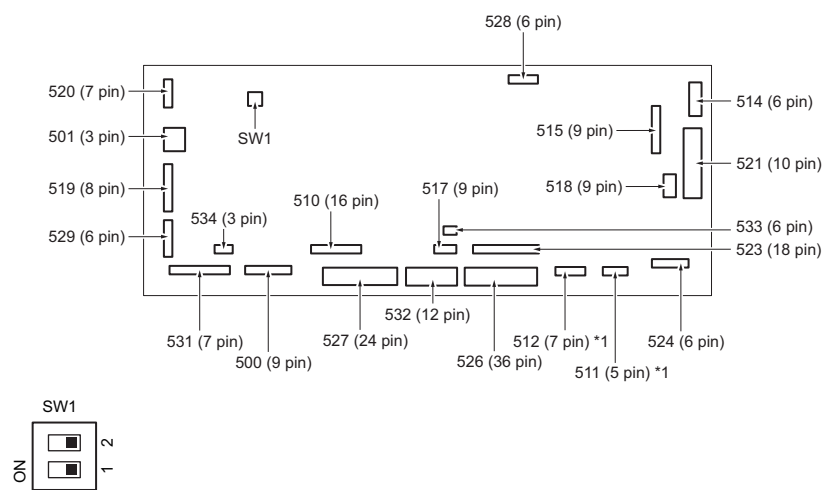
2.1.2 Printer control board



2.1.3 Image-processing board**2.1.4 AC drive board****2.1.5 Scanner drive board**

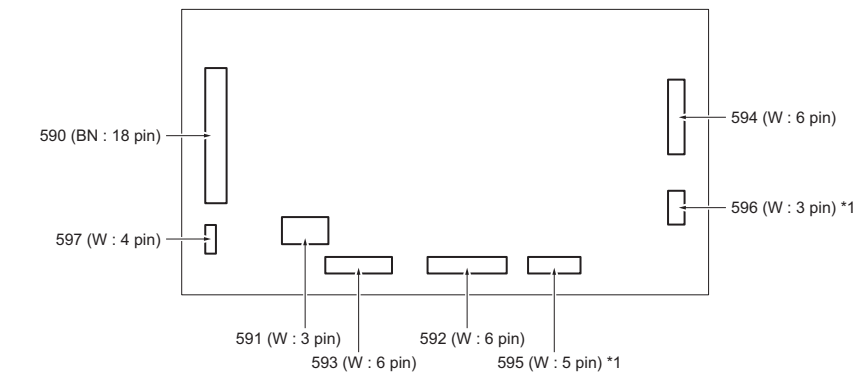
1050fs5037c

2.1.6 ADU drive board /1



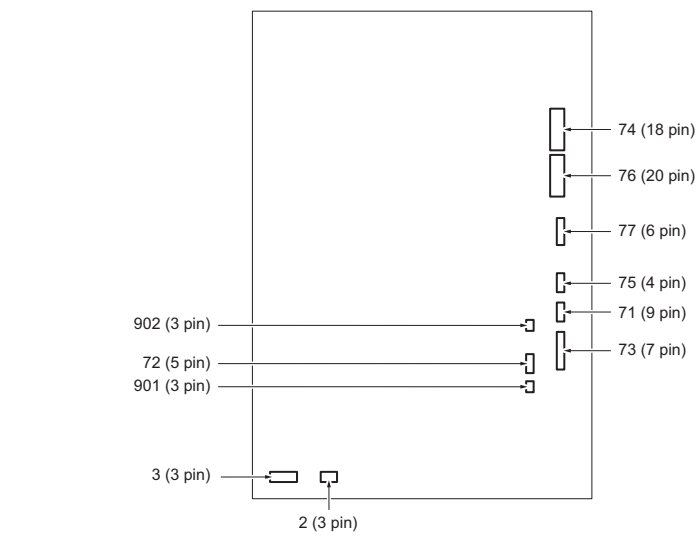
*1 N.C. for PRO 951.

2.1.7 ADU drive board /2

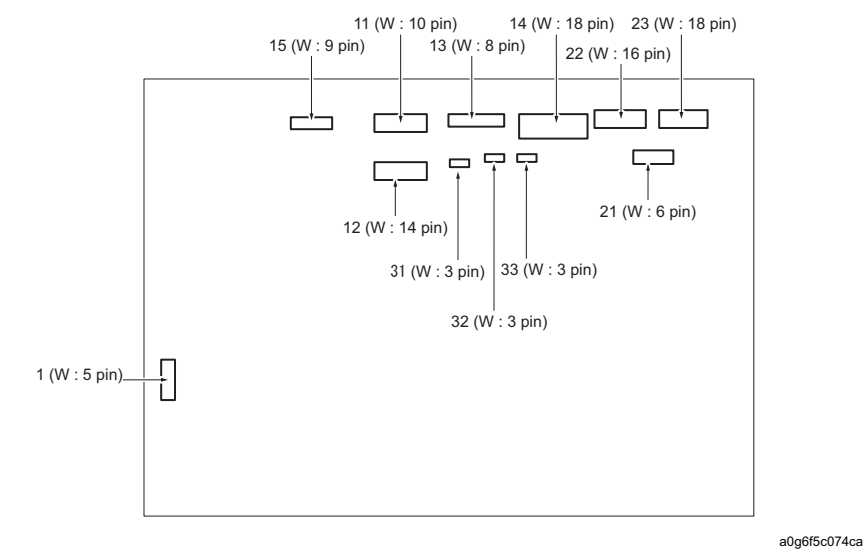


*1 N.C. for PRO 951.

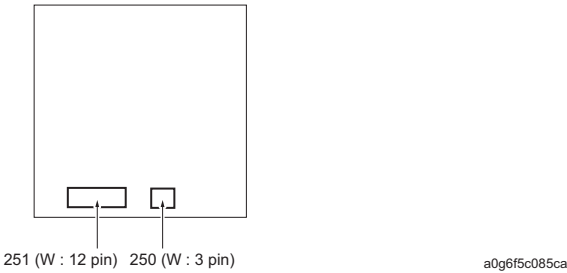
2.1.8 DC power supply /1



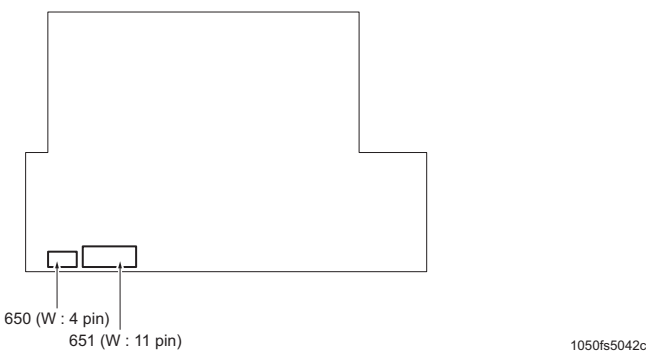
2.1.9 DC power supply /2



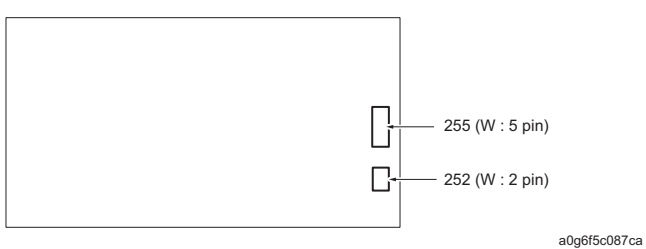
2.1.10 high voltage unit /1



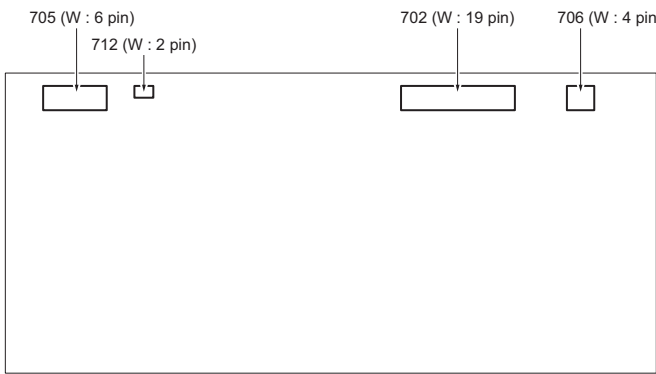
2.1.11 High voltage unit /2



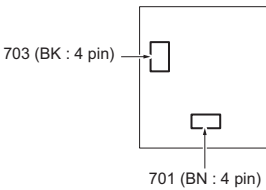
2.1.12 High voltage unit /3



2.1.13 Operation board /1

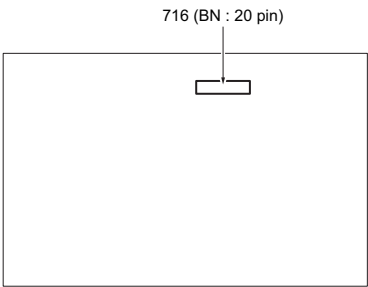


2.1.14 Operation board /3



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2.1.15 LCD board



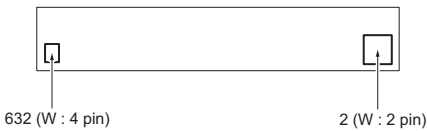
a0g6f5c078ca

2.1.16 CCD board



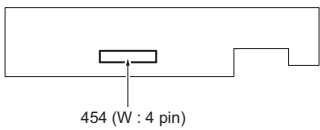
1050fs5047c

2.1.17 L4 inverter



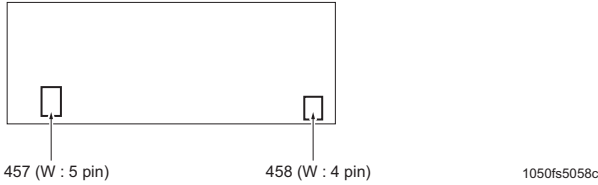
1050fs5051c

2.1.18 JAM sensor board

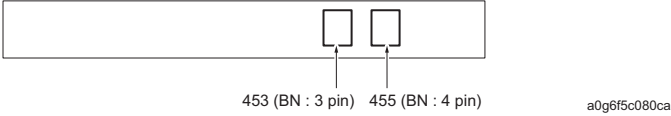


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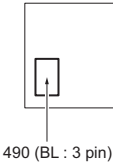
2.1.19 Drum potential sensor board



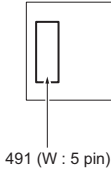
2.1.20 Toner control board



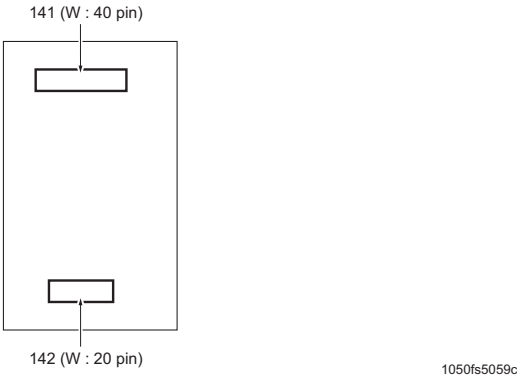
2.1.21 Multi feed detection board /S



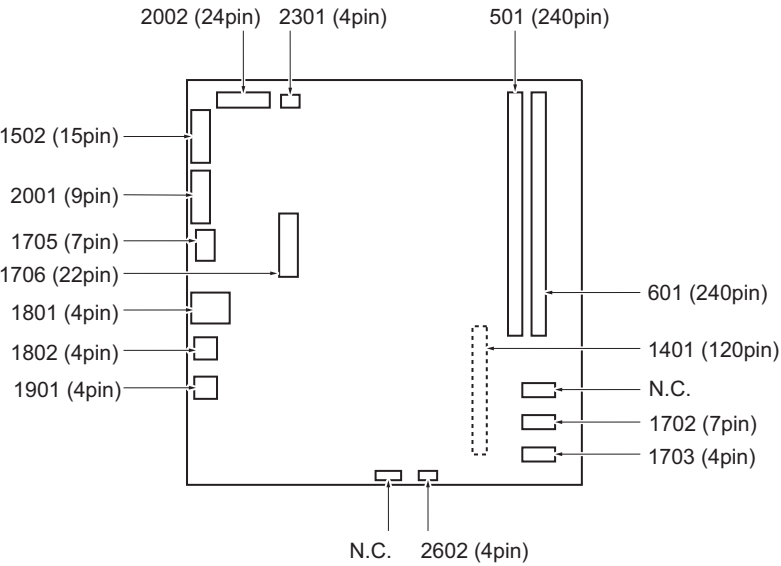
2.1.22 Multi feed detection board /R



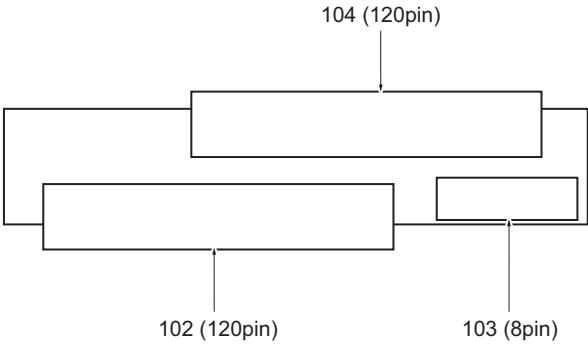
2.1.23 NVRAM board



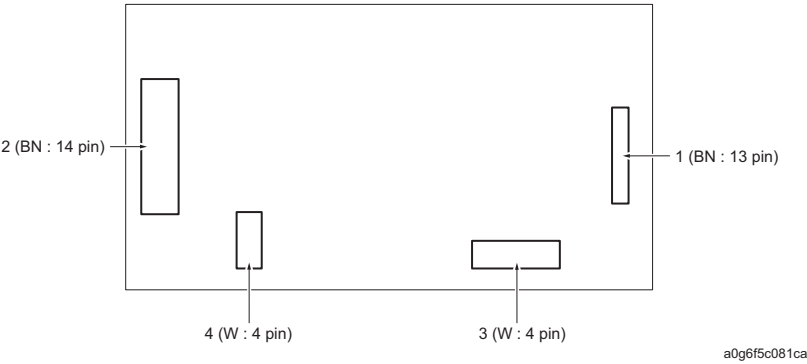
2.1.24 IC board



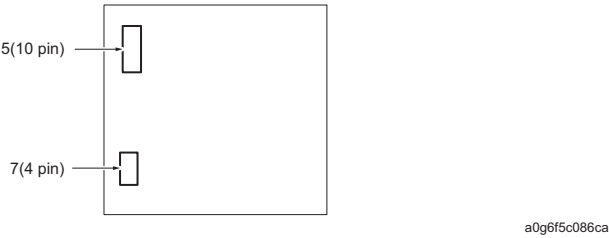
2.1.25 PCI relay board



2.1.26 Relay board /A



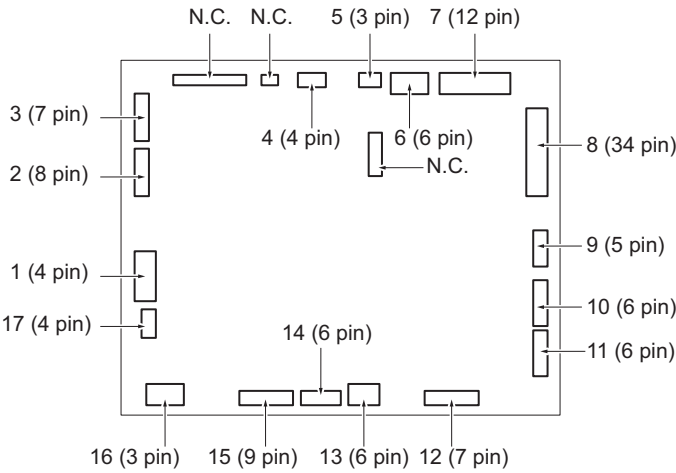
2.1.27 Relay board /U



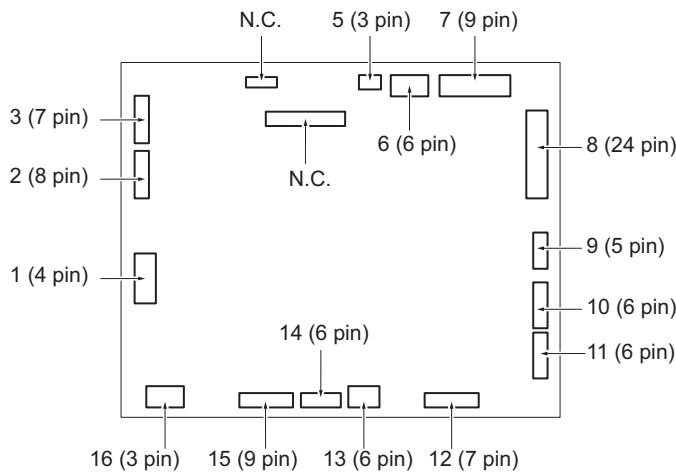
2.2 DF-615 /616

2.2.1 DF control board (DFCB)

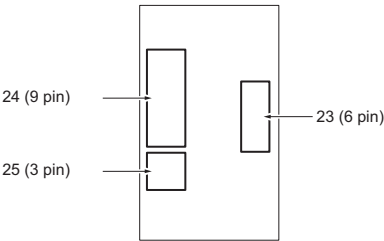
(1) DF-615



(2) DF-616

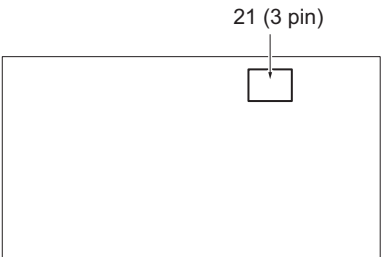


2.2.2 Tray board (TB)

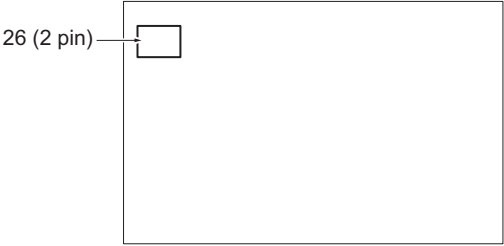


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2.2.3 Multi feed detection board /R (MFDBR) (DF-615 only)

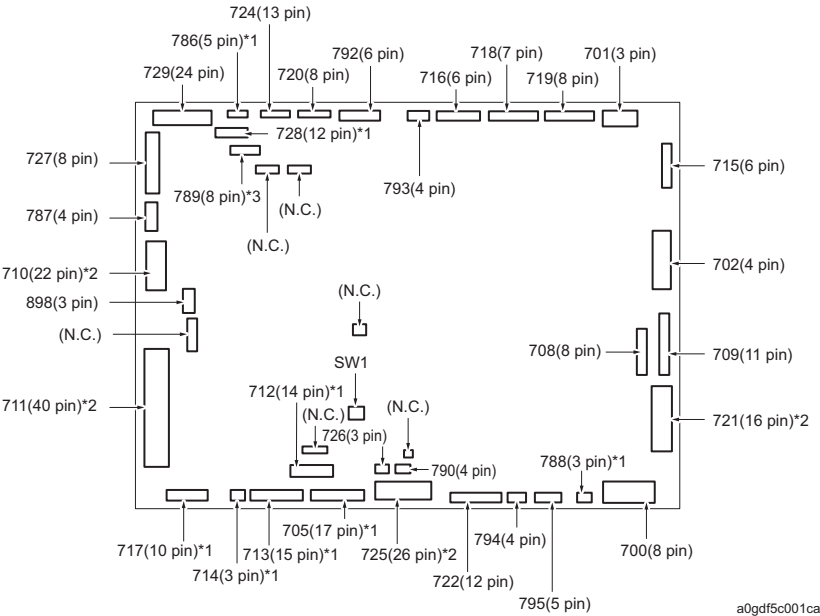


2.2.4 Multi feed detection board /S (MFDBS) (DF-615 only)



2.3 PF-703/HT-505/FA-501

2.3.1 PF drive board (PFDB)



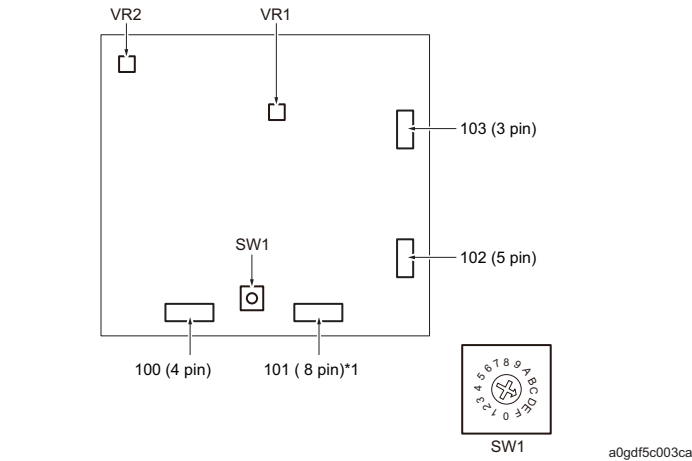
- *1 The connector of the wiring harness side is black.
- *2 The connector of the wiring harness side is gray.
- *3 The connector of the wiring harness side is blown.

2.3.2 DC power supply /1 (DCPS/1)



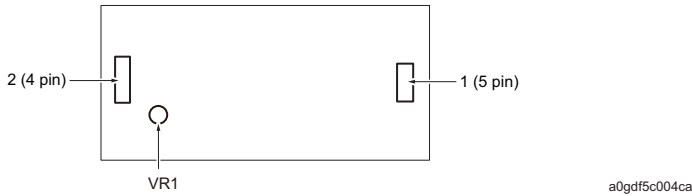
- *1 The connector of the wiring harness side is black.

2.3.3 Multi feed detection drive board (MFDDb) (FA-501)

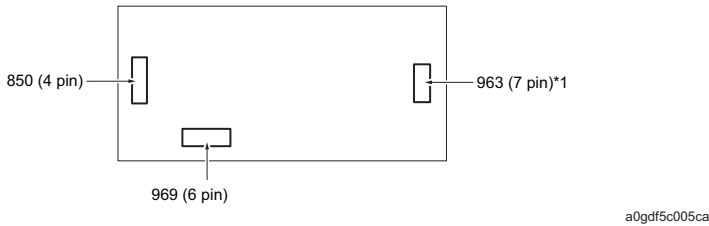


*1 The connector of the wiring harness side is black.

2.3.4 DC power supply /2 (DCPS/2) (FA-501)



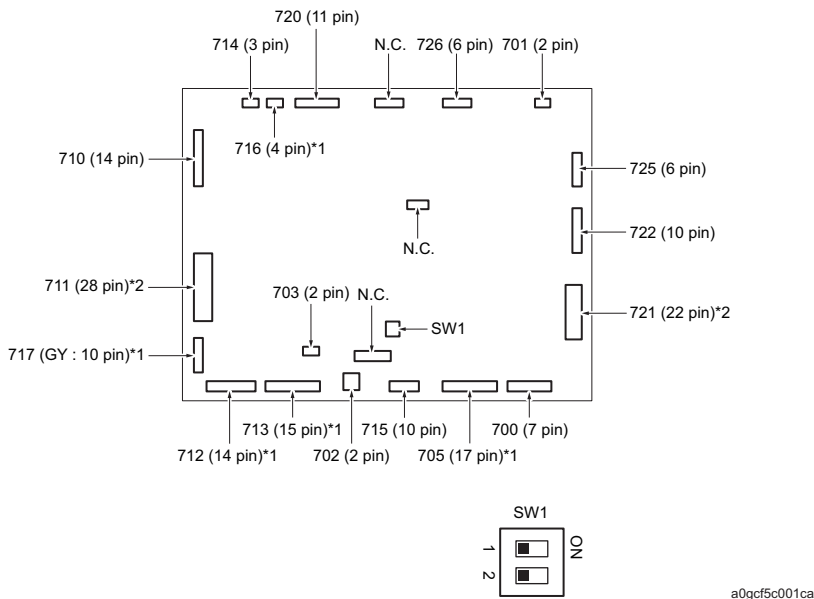
2.3.5 AC drive board/2 (ACDB/2) (HT-505)



*1 The connector of the wiring harness side is blown.

2.4 PF-706/PP-701

2.4.1 PF drive board (PFDB)



*1 The connector of the wiring harness side is black.

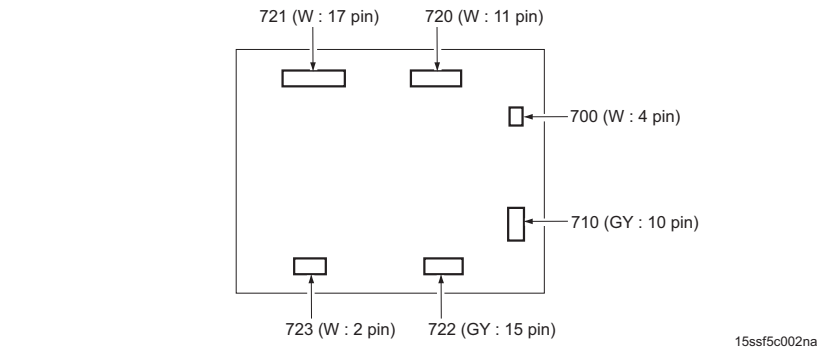
*2 The connector of the wiring harness side is gray.

Note

- Since the setting of DIP switch (SW1) is peculiar to the type, be sure not to change its setting.

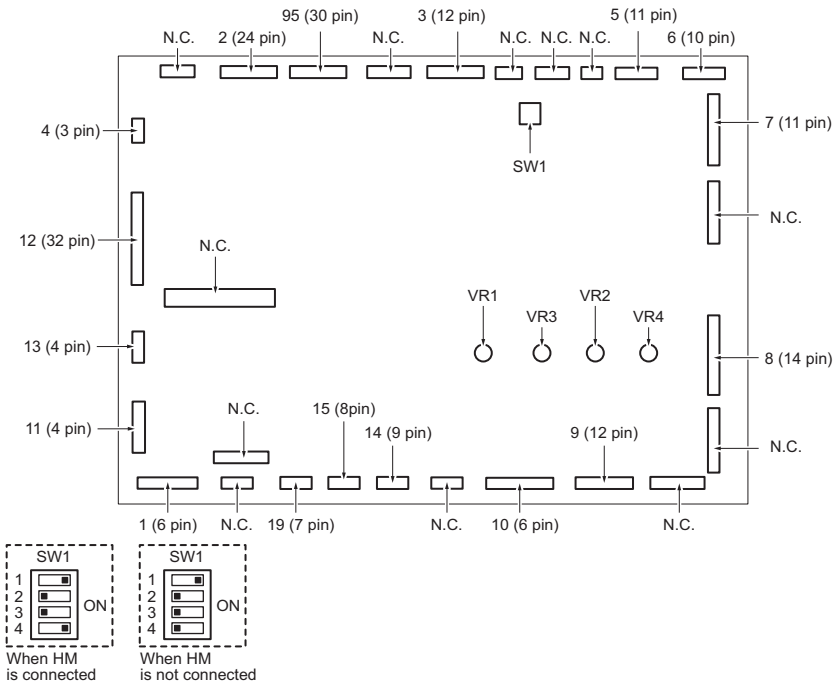
2.5 LU-409/410

2.5.1 LU drive board (LUDB)

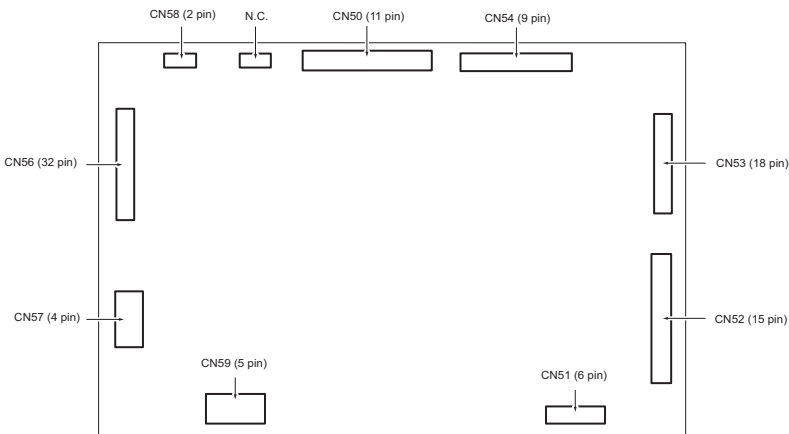


2.6 RU-509/HM-102

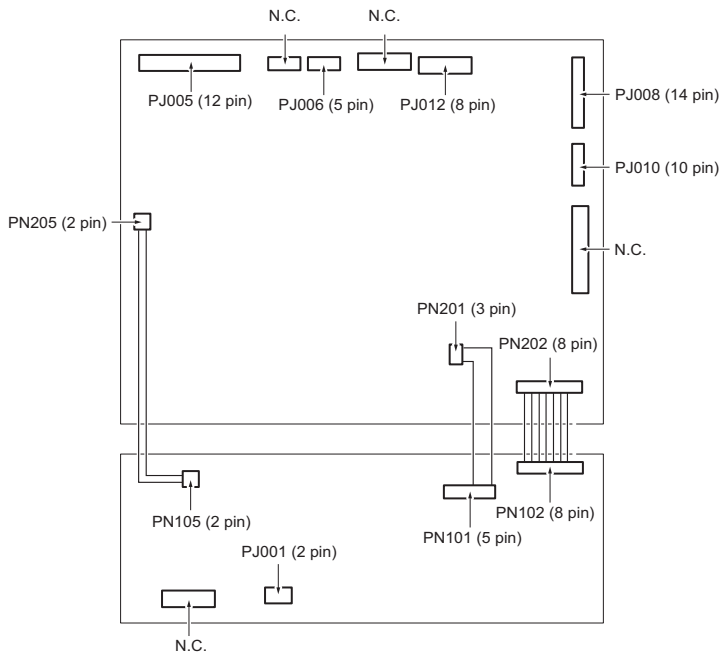
2.6.1 RU control board (RUCB)



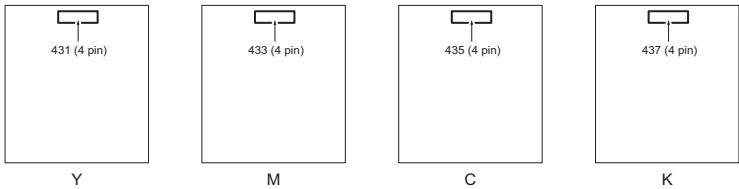
2.6.2 HM drive board (HMDB)



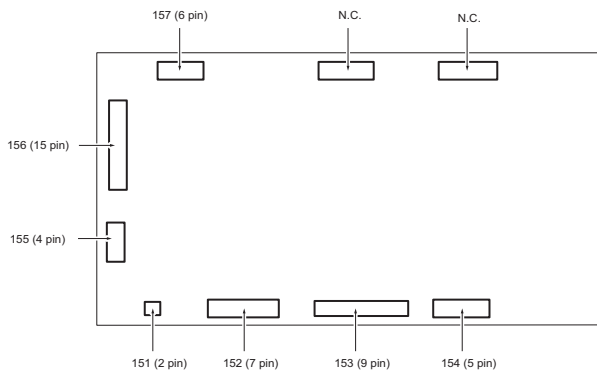
2.6.3 DC power supply (DCPS)



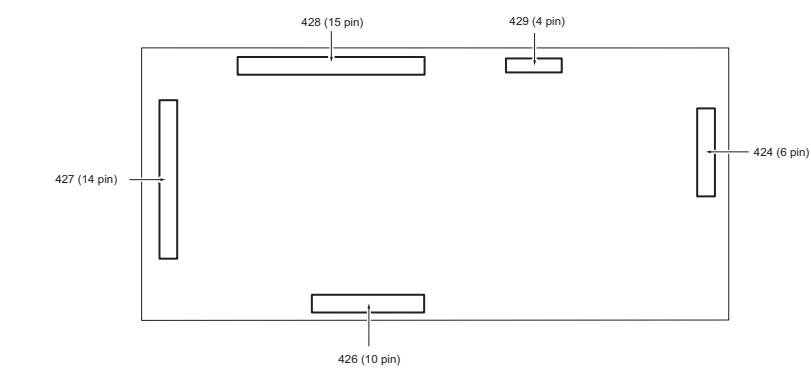
2.6.4 Color density detection board /Y, /M, /C, /K (CDDBY, CDDBM, CDDBC, CDDBK)



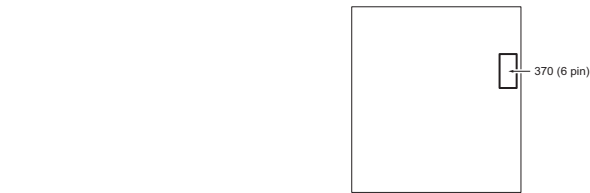
2.6.5 Color density control board (CDCB)



2.6.6 Color density relay board (CDRLB)

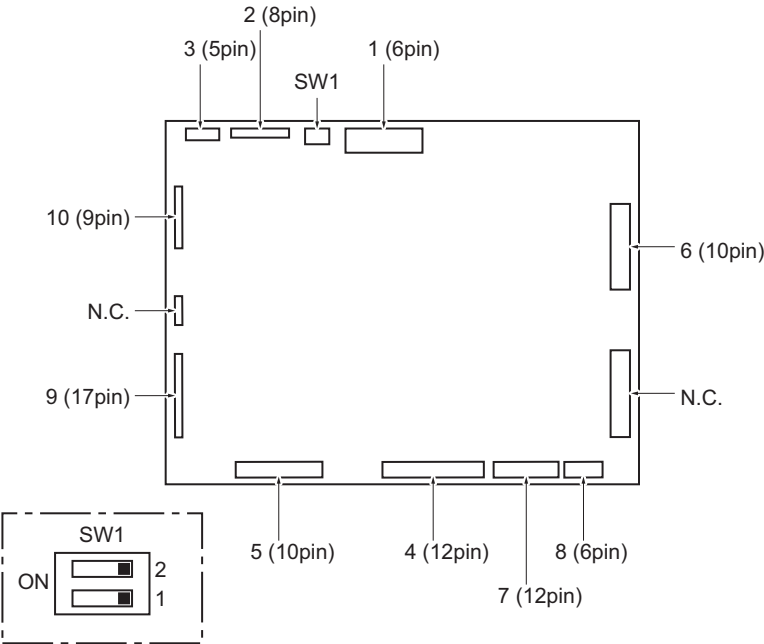


2.6.7 Jam indication board (JAMIB)

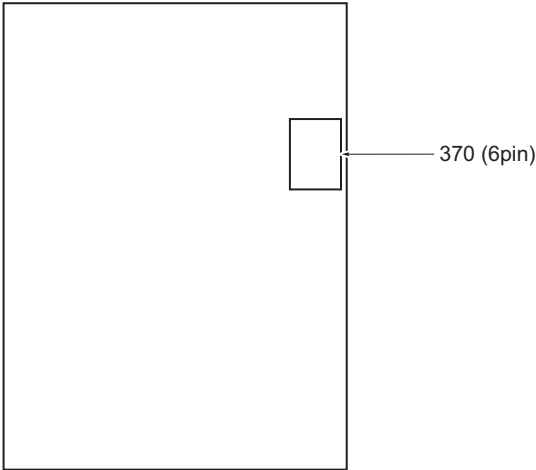


2.7 RU-510

2.7.1 RU control board (RUCB)

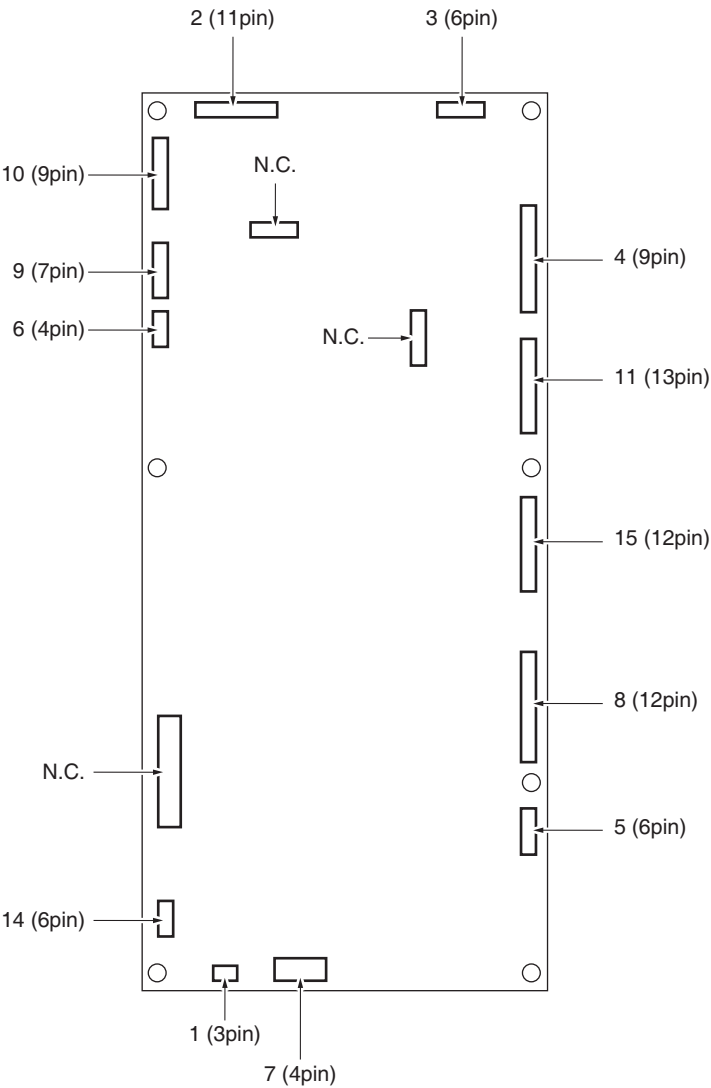


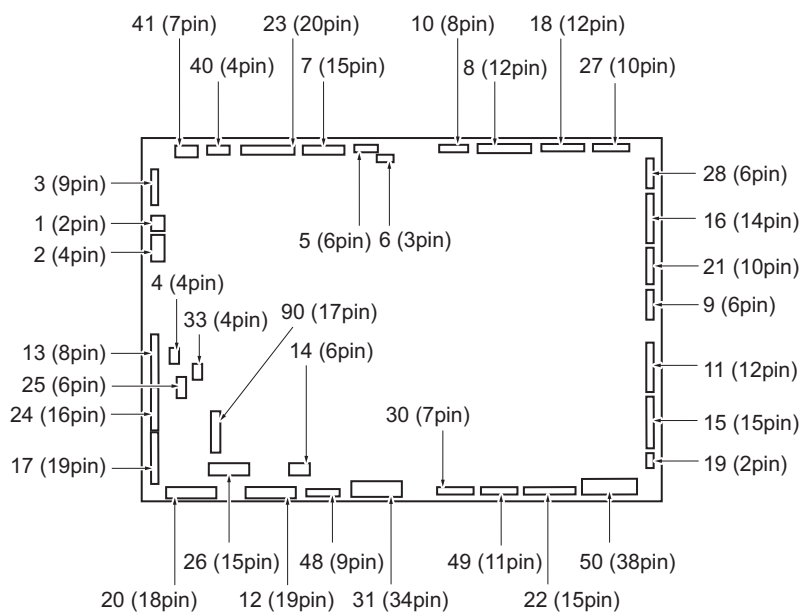
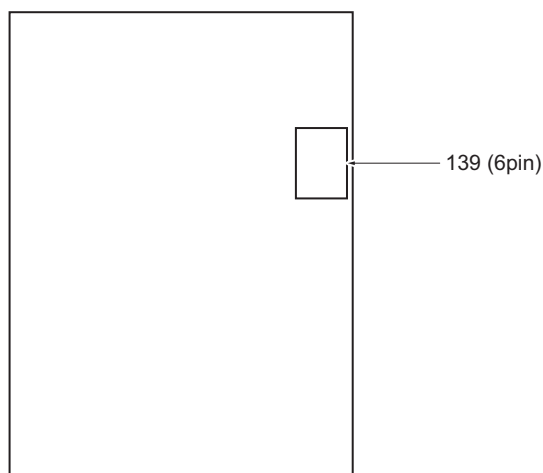
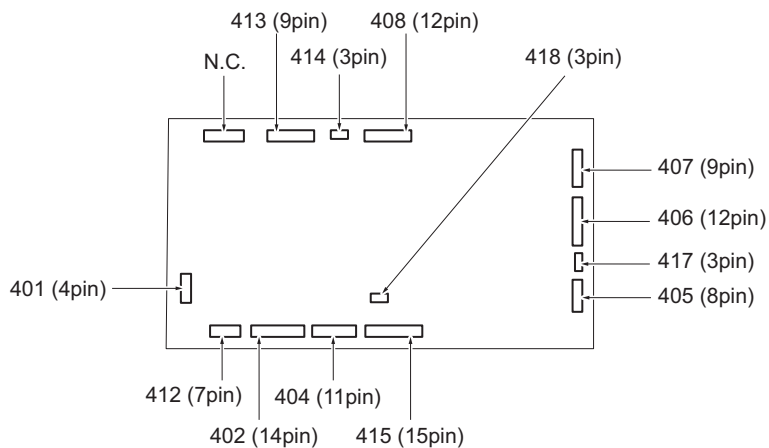
2.7.2 Jam indication board (JAMIB)



2.8 ZU-608

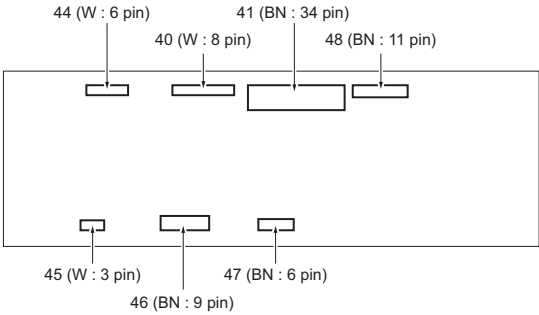
2.8.1 ZU control board (ZUCB)



2.9 FS-532**2.9.1 FNS control board****2.9.2 Jam indication board****2.10 SD-510****2.10.1 SD control board**

2.11 PK-522

2.11.1 Punch drive board (PDB)



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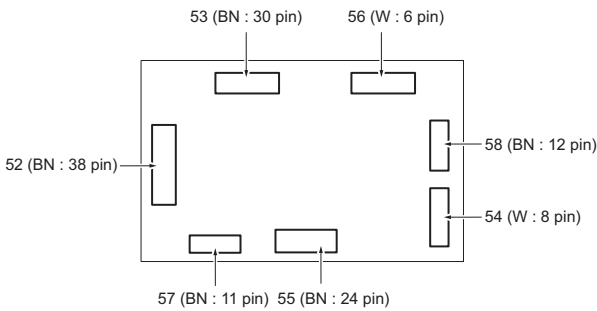
2.11.2 Paper size sensor board



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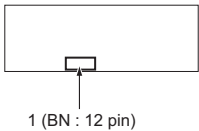
2.12 PI-502

2.12.1 PI drive board (PIDB)



a04hf5c001ca

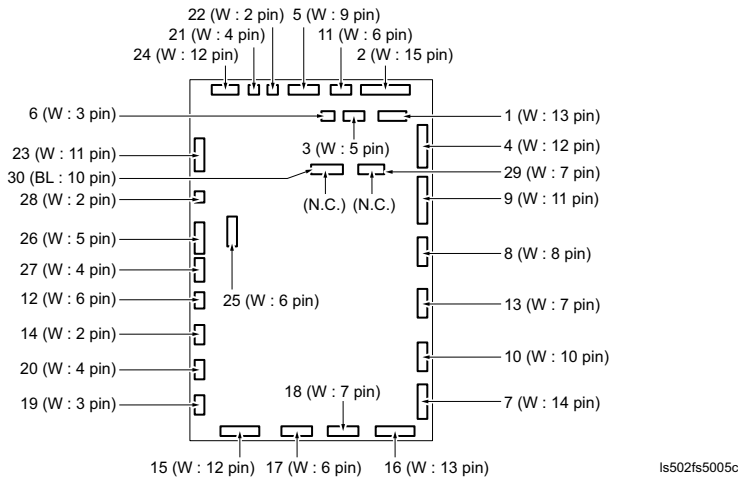
2.12.2 PI operation board (PIOB)



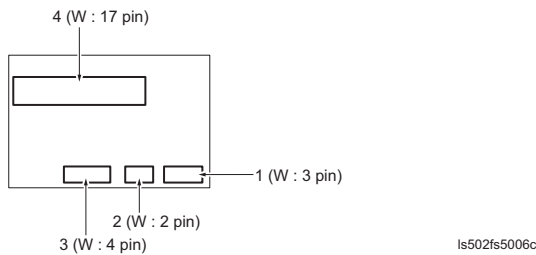
a04hf5c002ca

2.13 LS-505

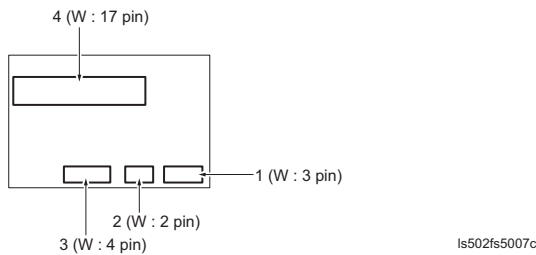
2.13.1 LS control board (LSCB)



2.13.2 Relay board /1 (RLB/1)



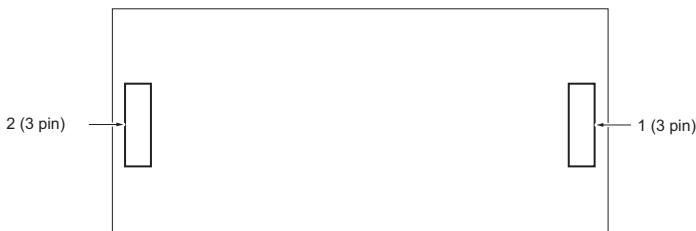
2.13.3 Relay board /2 (RLB/2)



2.13.4 DC power supply (DCPS)

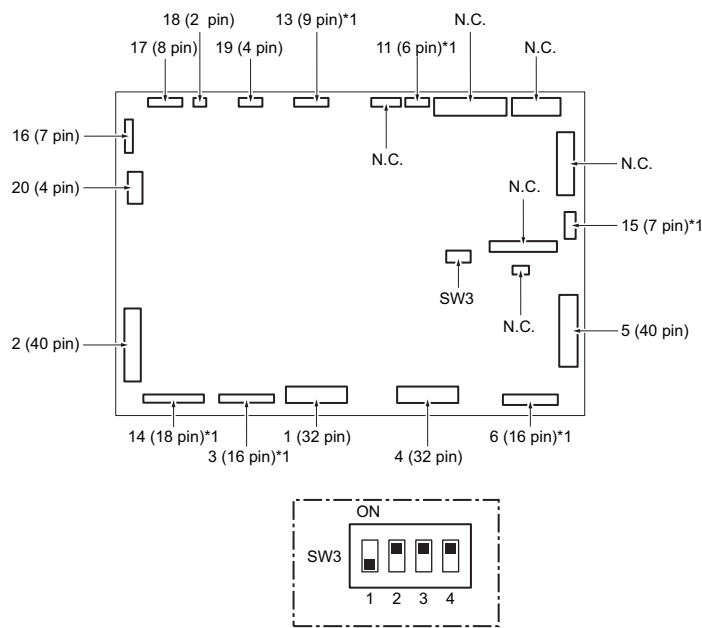


2.13.5 Relay board (RLB)



2.14 FD-503

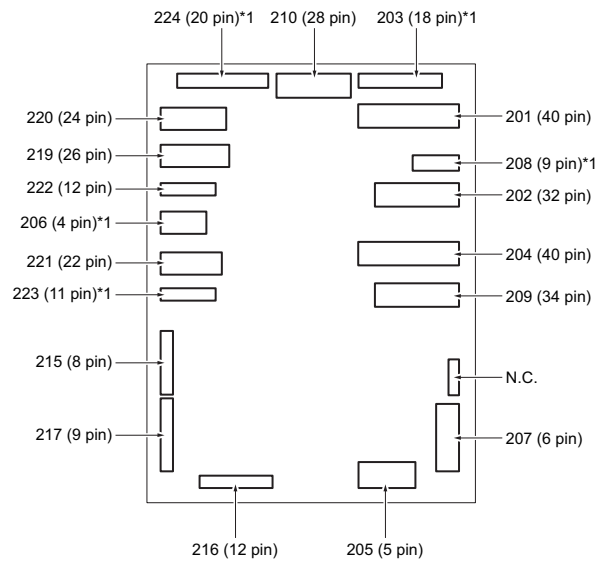
2.14.1 FD control board (FDCB)



a0h0f5c002cb

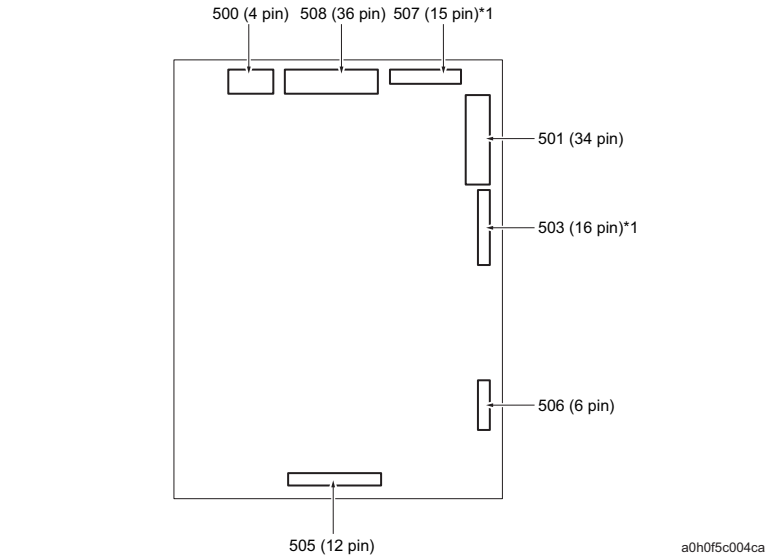
*1 The connector of the wiring harness side is blown.

2.14.2 Punch drive board (PDB)



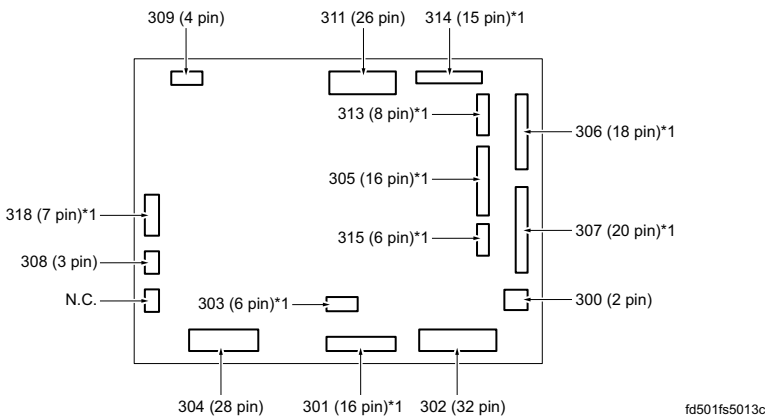
a0h0f5c003cb

2.14.3 Folding drive board (FDB)



*1 The connector of the wiring harness side is blown.

2.14.4 PI drive board (PIDB)

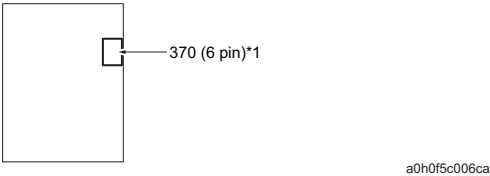


*1 The connector of the wiring harness side is blown.

2.14.5 FD operation board (FDOB)

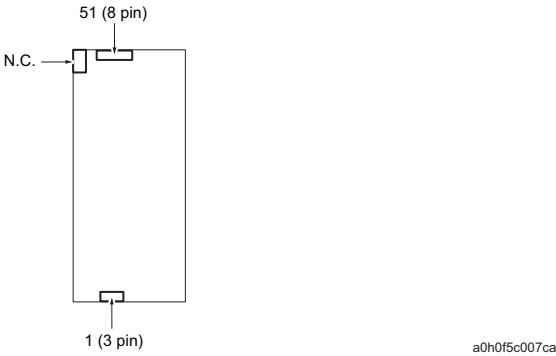


2.14.6 Jam indication board (JAMIB)

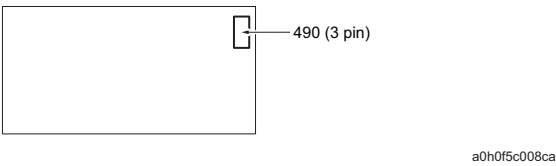


*1 The connector of the wiring harness side is blown.

2.14.7 DC power supply (DCPS)

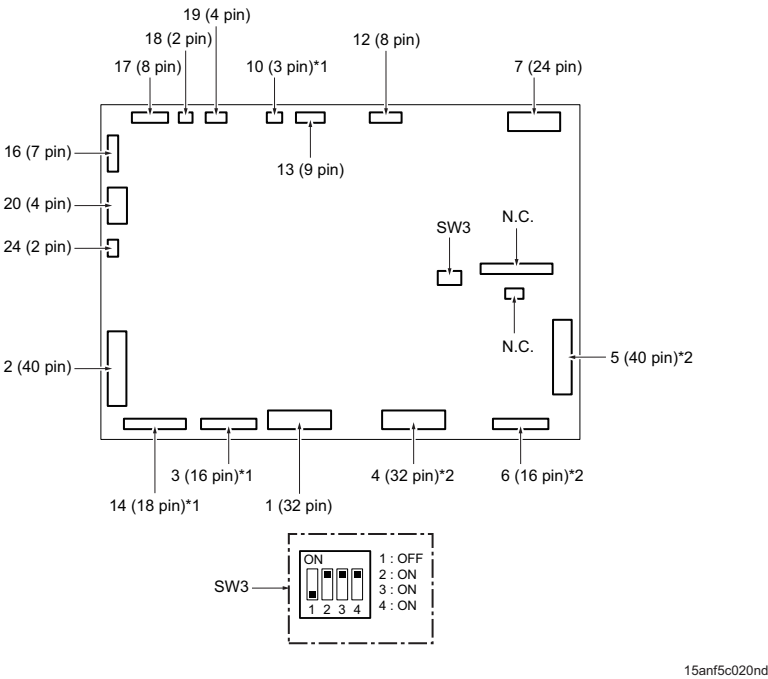


2.14.8 Multi feed detection board /1, /2 (MFDB1, 2)



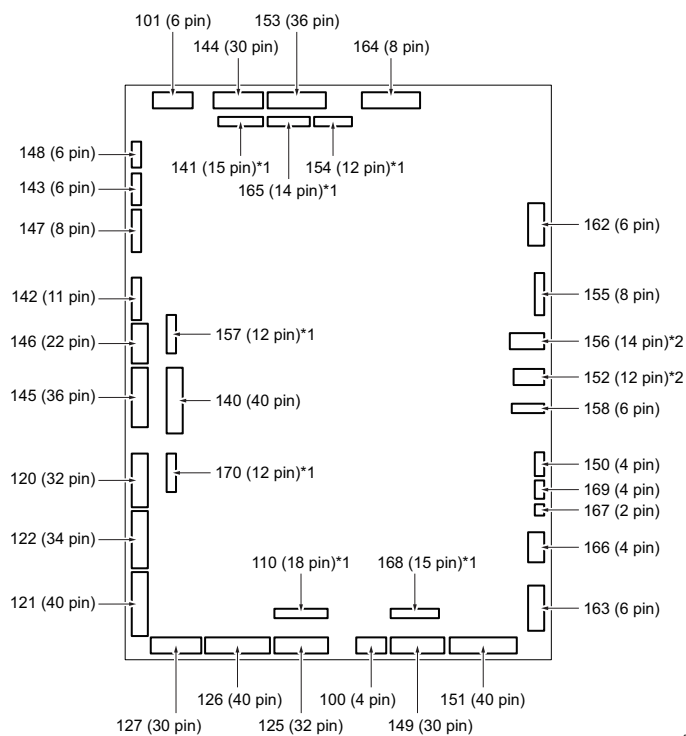
2.15 SD-506

2.15.1 SD control board (SDCB)



*1 The connector of the wiring harness side is blown.
*2 The connector of the wiring harness side is blue.

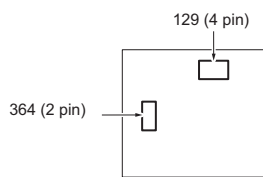
2.15.2 SD drive board (SDDB)



15anf5c021nb

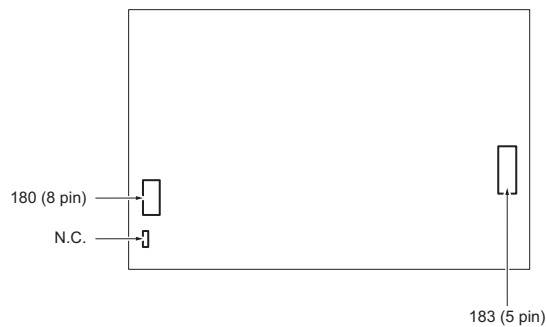
*1 The connector of the wiring harness side is blown.
*2 The connector of the wiring harness side is gray.

2.15.3 SD drive board /2 (SDDB/2)



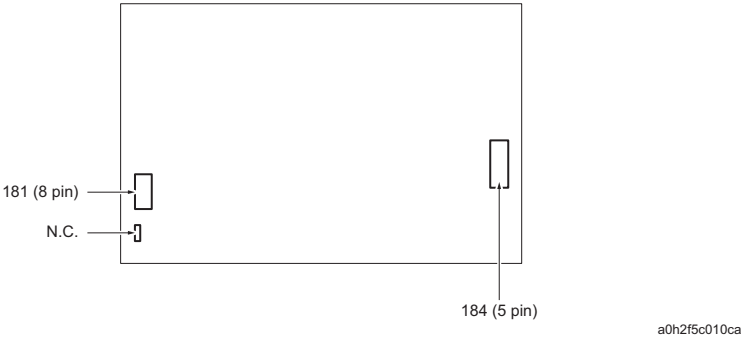
a0h2f5c008ca

2.15.4 DC power supply /1 (DCPS1)

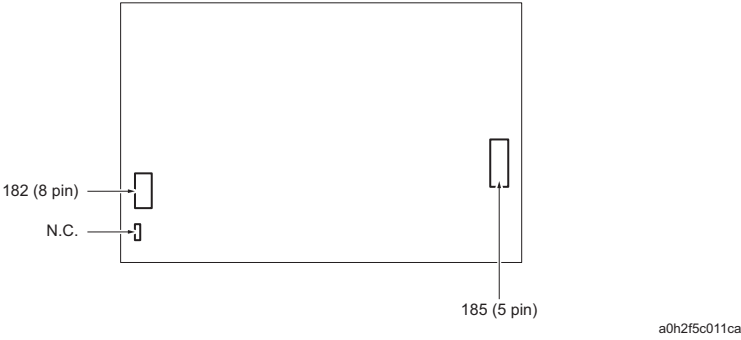


a0h2f5c009ca

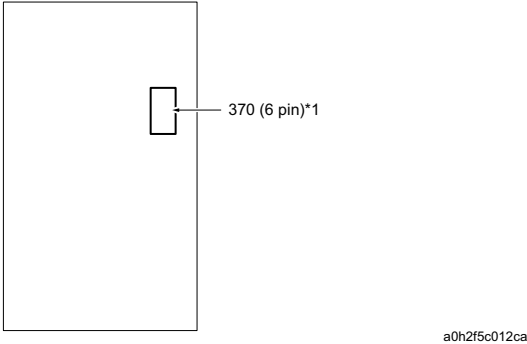
2.15.5 DC power supply /2 (DCPS2)



2.15.6 DC power supply /3 (DCPS3)

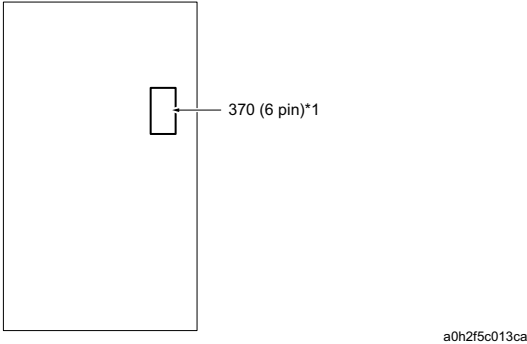


2.15.7 Jam indication board /1 (JAMIB/1)



*1 The connector of the wiring harness side is blown.

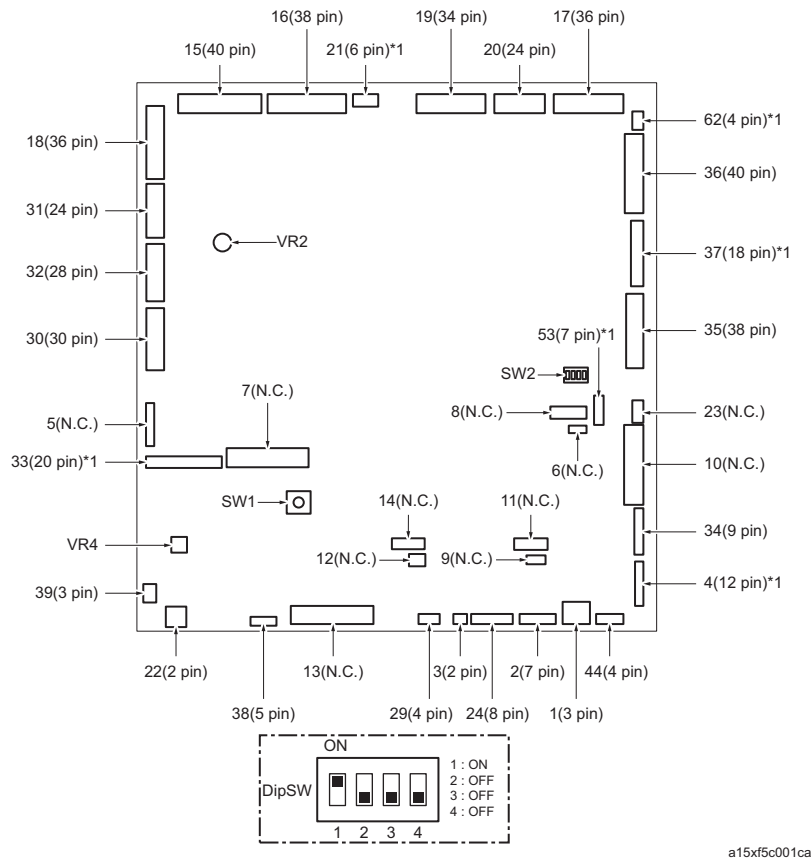
2.15.8 Jam indication board /2 (JAMIB/2)



*1 The connector of the wiring harness side is blown.

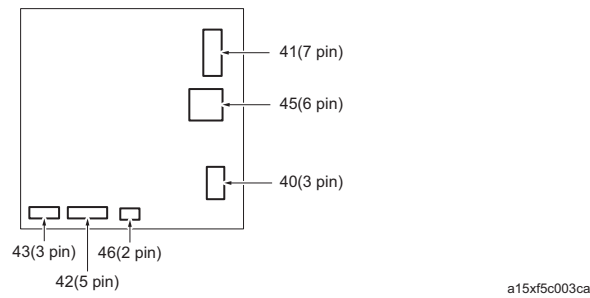
2.16 PB-503

2.16.1 PB control board (PBCB)

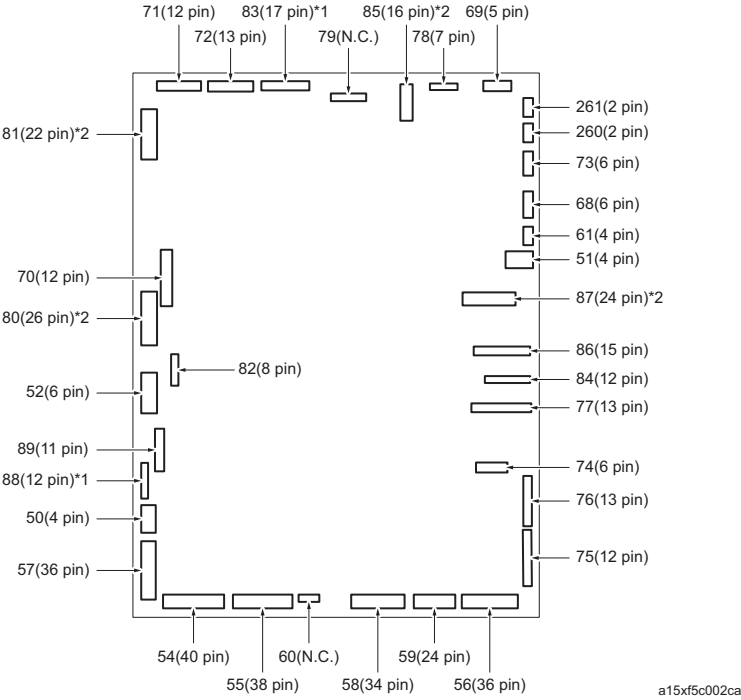


*1 The connector of the wiring harness side is blown.

2.16.2 AC drive board (ACDB)

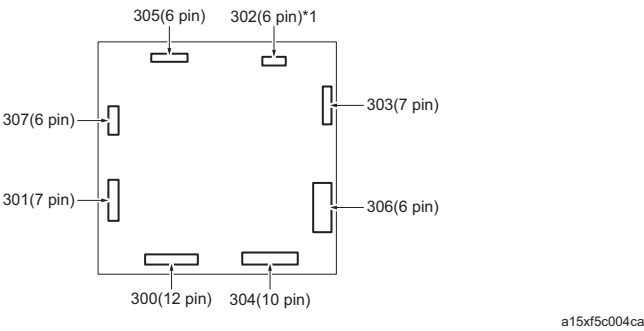


2.16.3 PB drive board /1 (PBDB1)



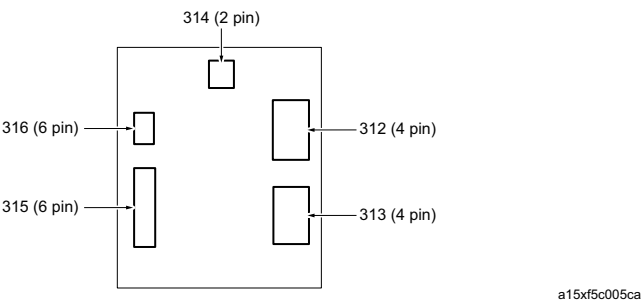
*1 The connector of the wiring harness side is blown.
*2 The connector of the wiring harness side is gray.

2.16.4 PB drive board /2 (PBDB2)

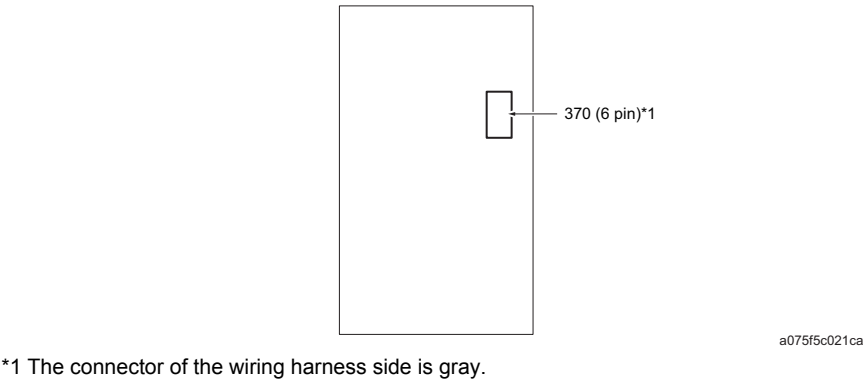


*1 The connector of the wiring harness side is blown.

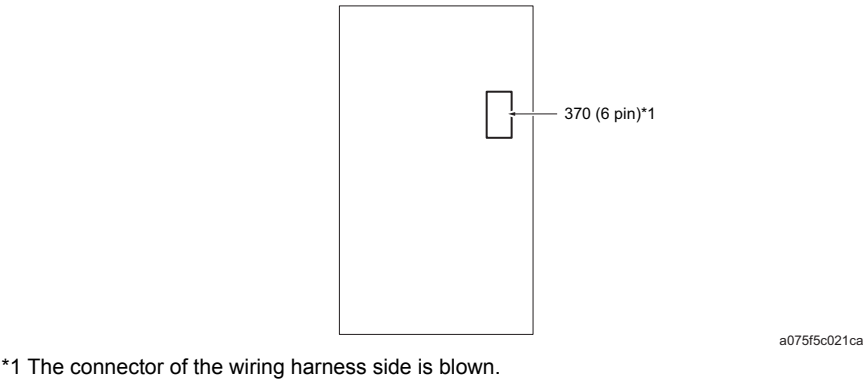
2.16.5 PB drive board /3 (PBDB3)



2.16.6 Jam indication board /1 (JAMB1)



2.16.7 Jam indication board /2 (JAMB2)



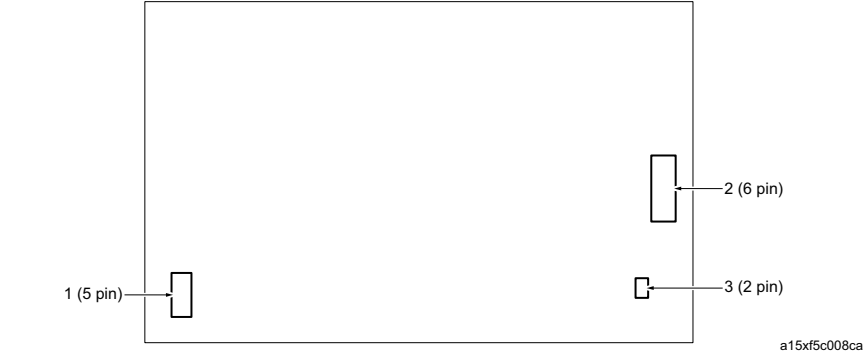
2.16.8 Manual operation board (OB1)



2.16.9 Booklet stock operation board (OB2)



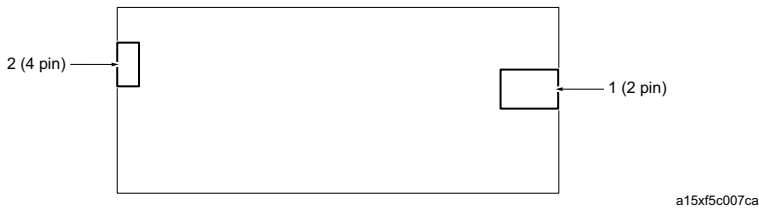
2.16.10 DC power supply /1 (DCPU/1)



2.16.11 DC power supply /2 (DCPU/2)



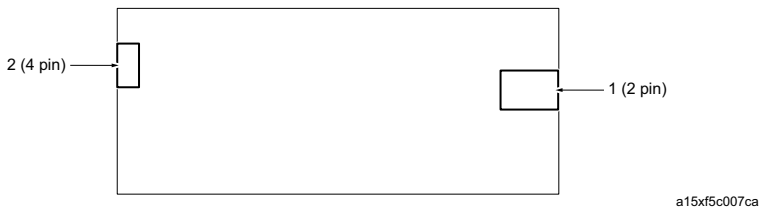
2.16.12 DC power supply /3 (DCPU/3)

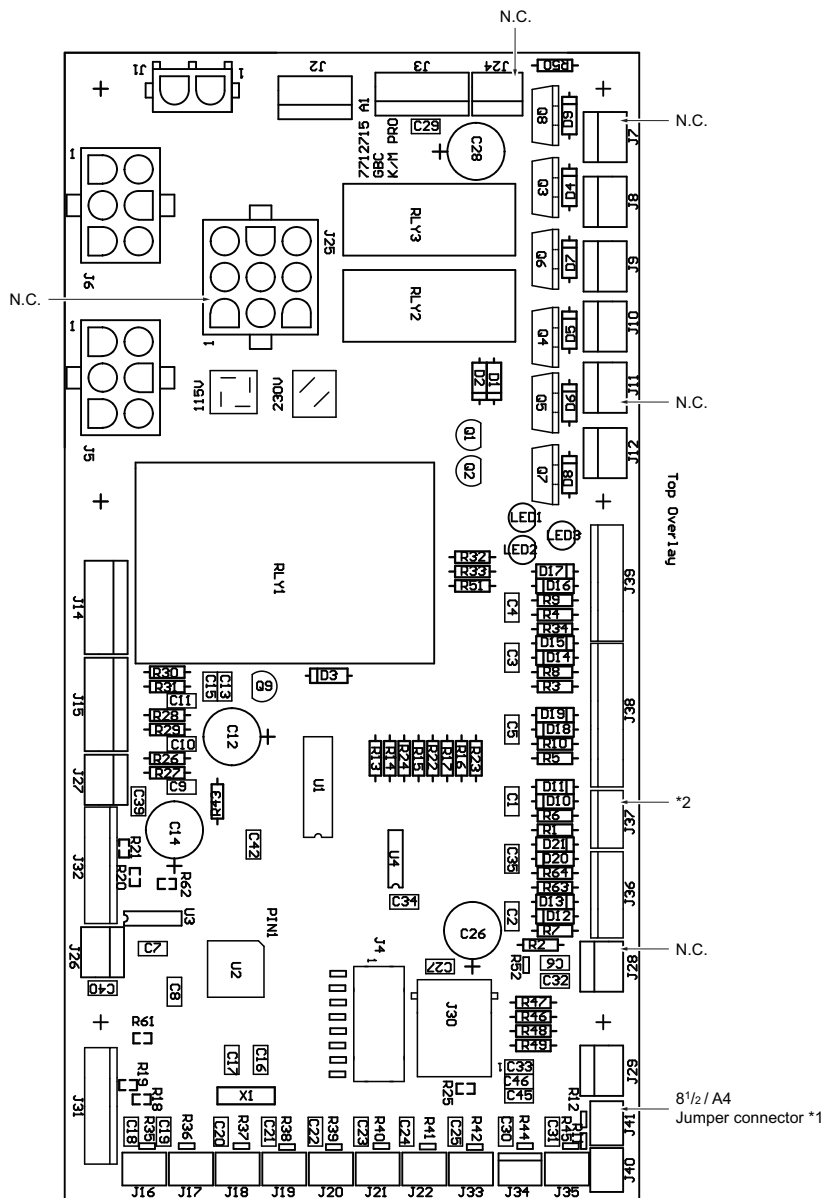


2.16.13 DC power supply /4 (DCPU/4)



2.16.14 DC power supply /5 (DCPU/5)



2.17 GP-501**2.17.1 Punch Controller PCB**

*1 Only for A4 base. On A4 base unit, jumper shorts 2 pins to designate A4 paper size to processor.

*2 1200/1200P/1051/1250/1250P/1052/951/950: Use 4-pin connector (Default)

C6501/C6501P/C65hc/C8000/C7000/C7000P/C70hc/C6000/C6000L: Use 2-pin connector

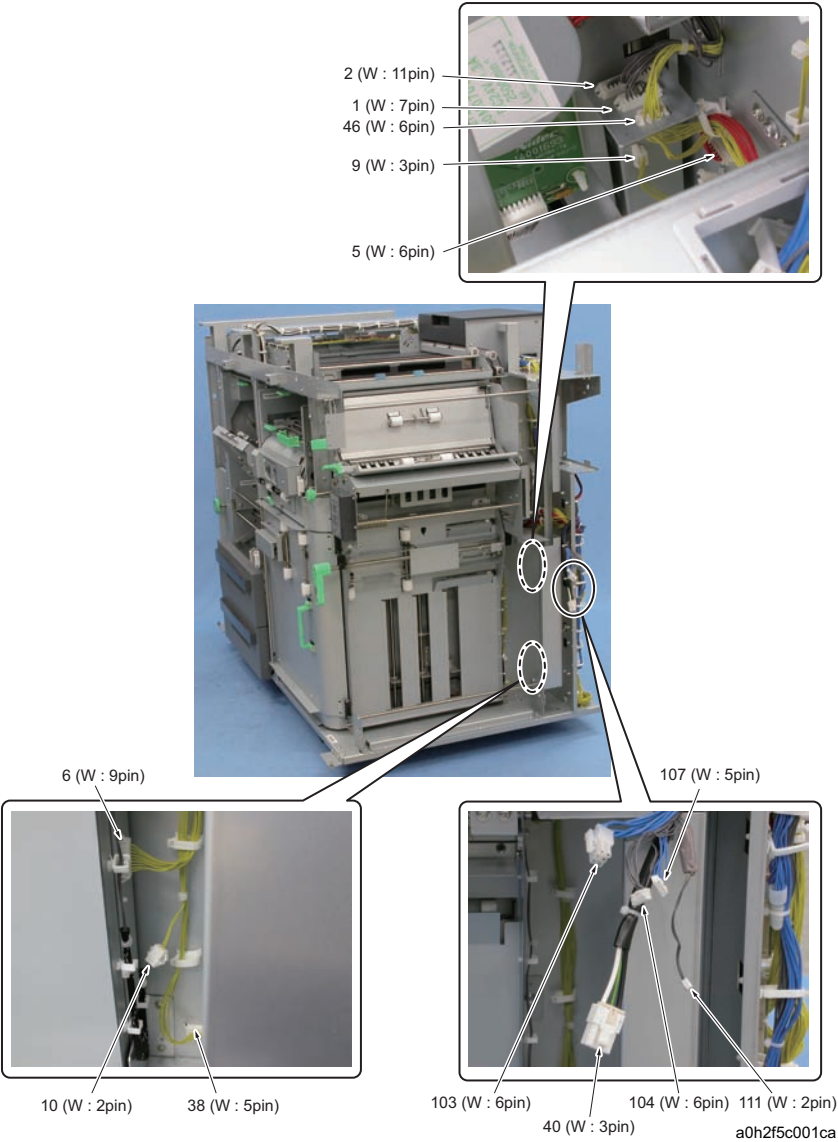
2.18 GP-502

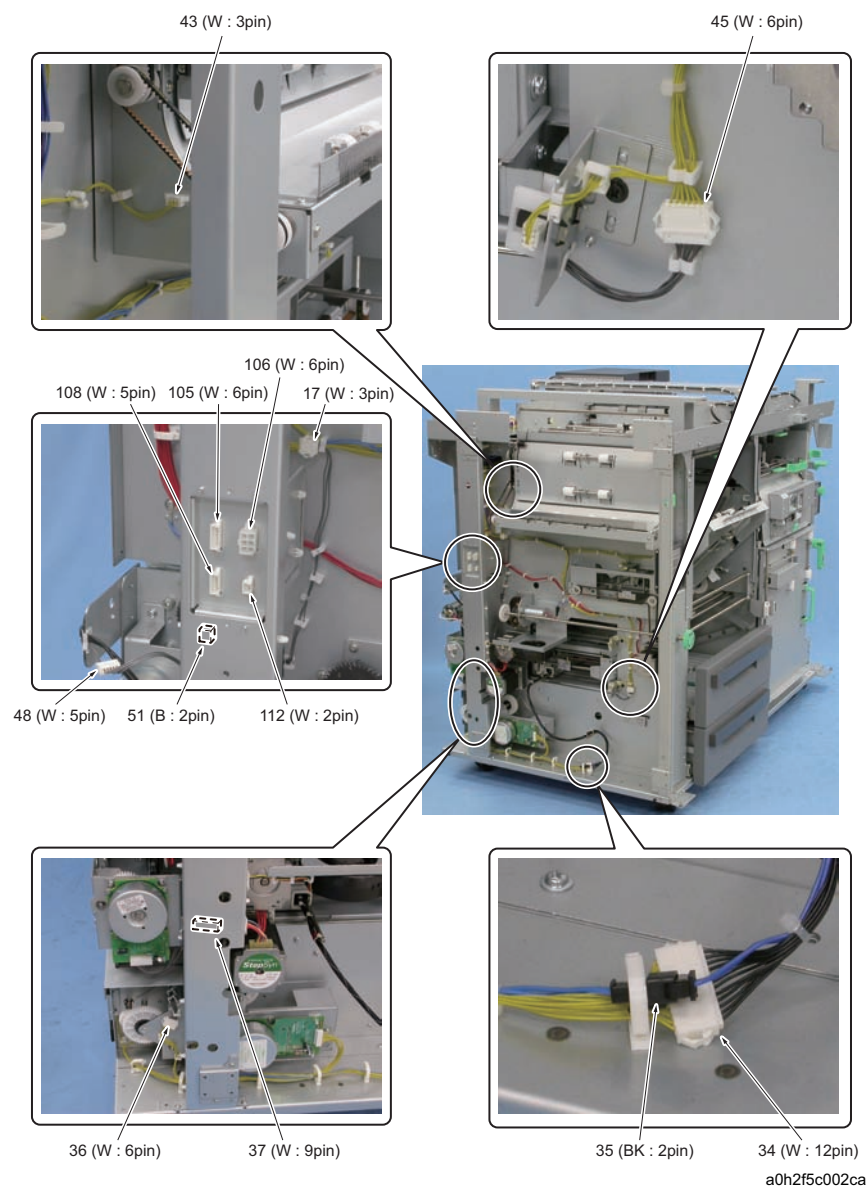
The connector layout in the boards of GP-502 is mentioned in the GP-502 service manual.

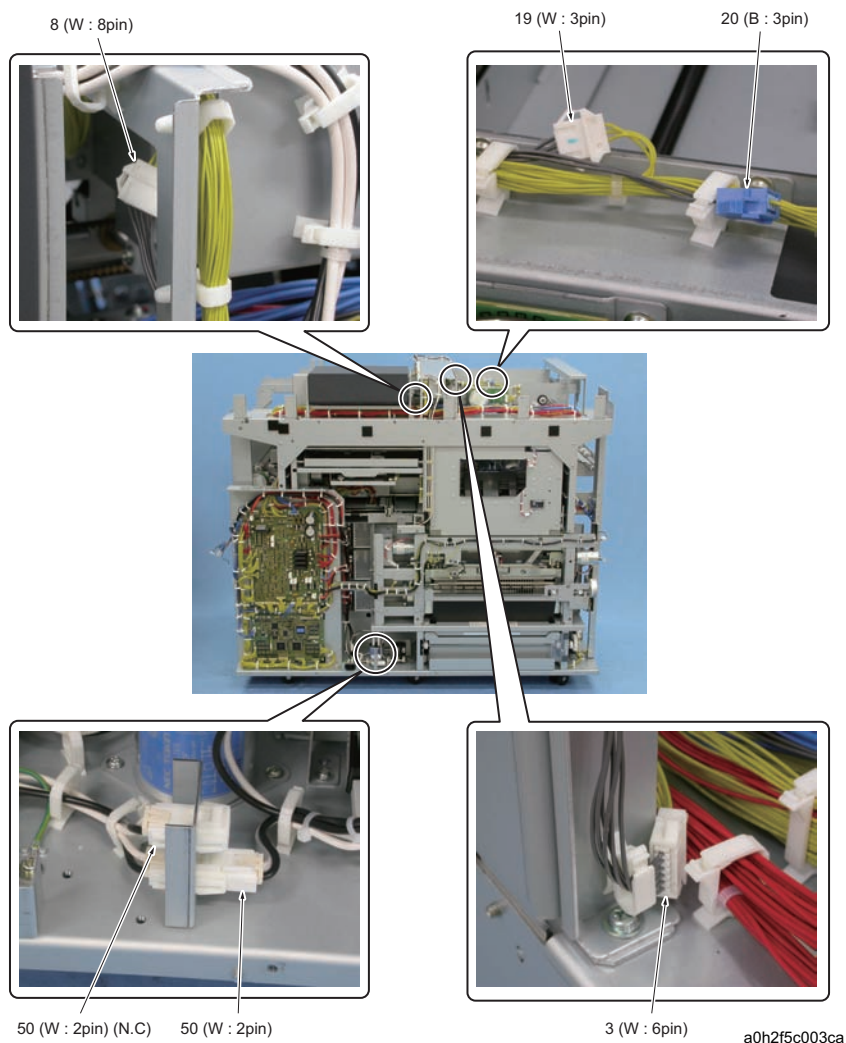
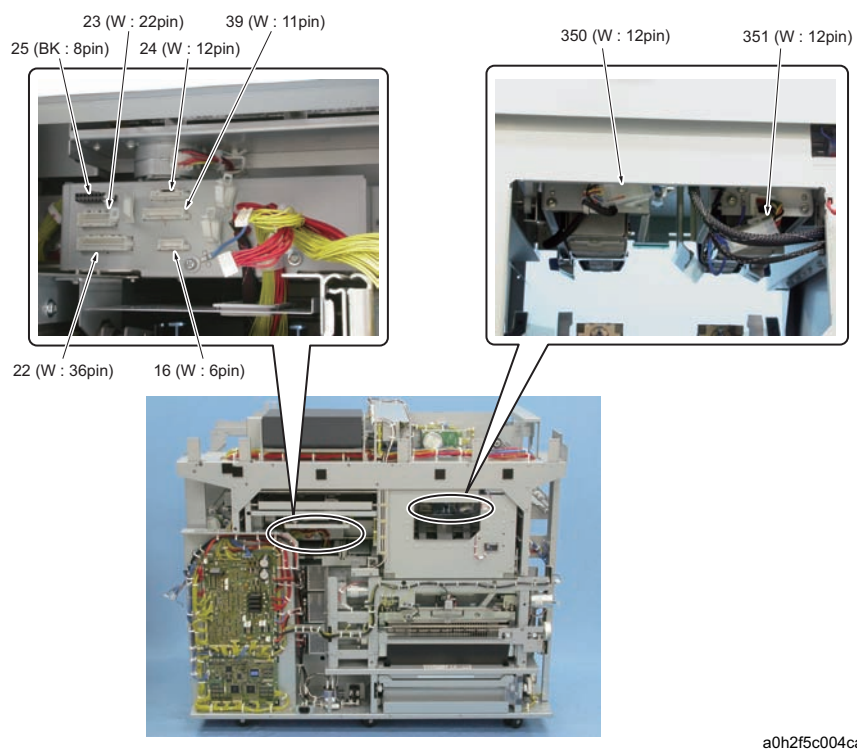
3. RELAY CONNECTOR LAYOUT DRAWING

3.1 SD-506

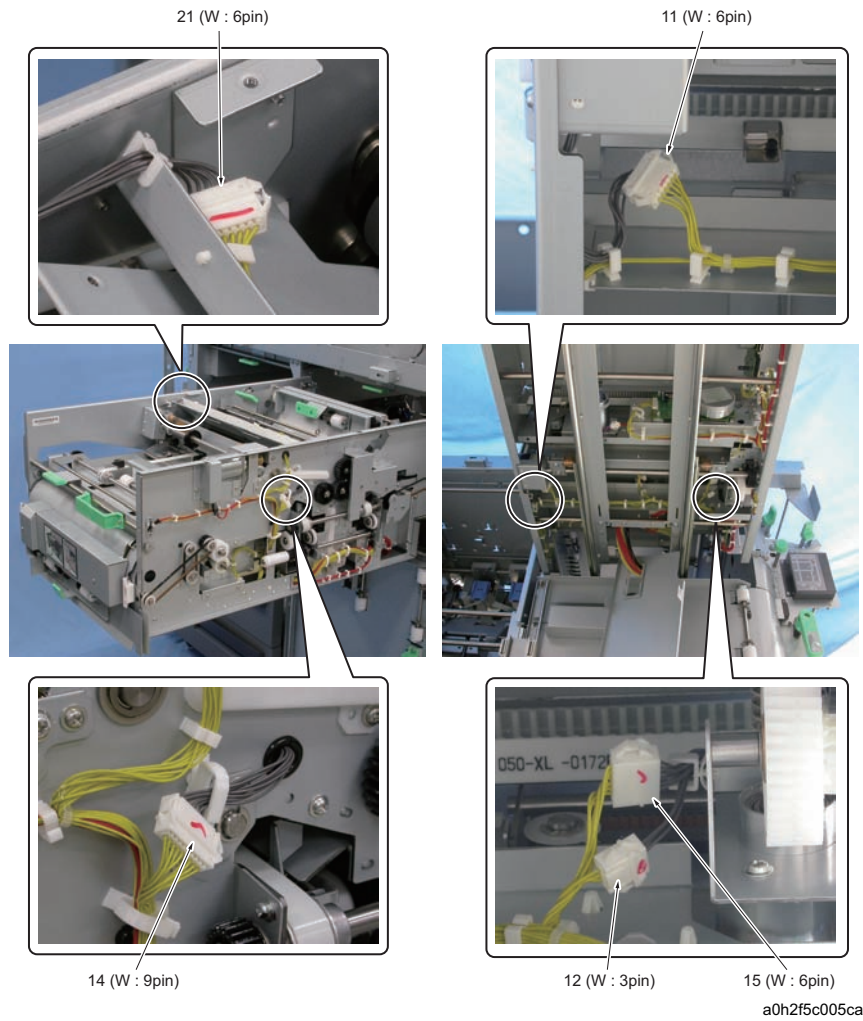
3.1.1 Right side



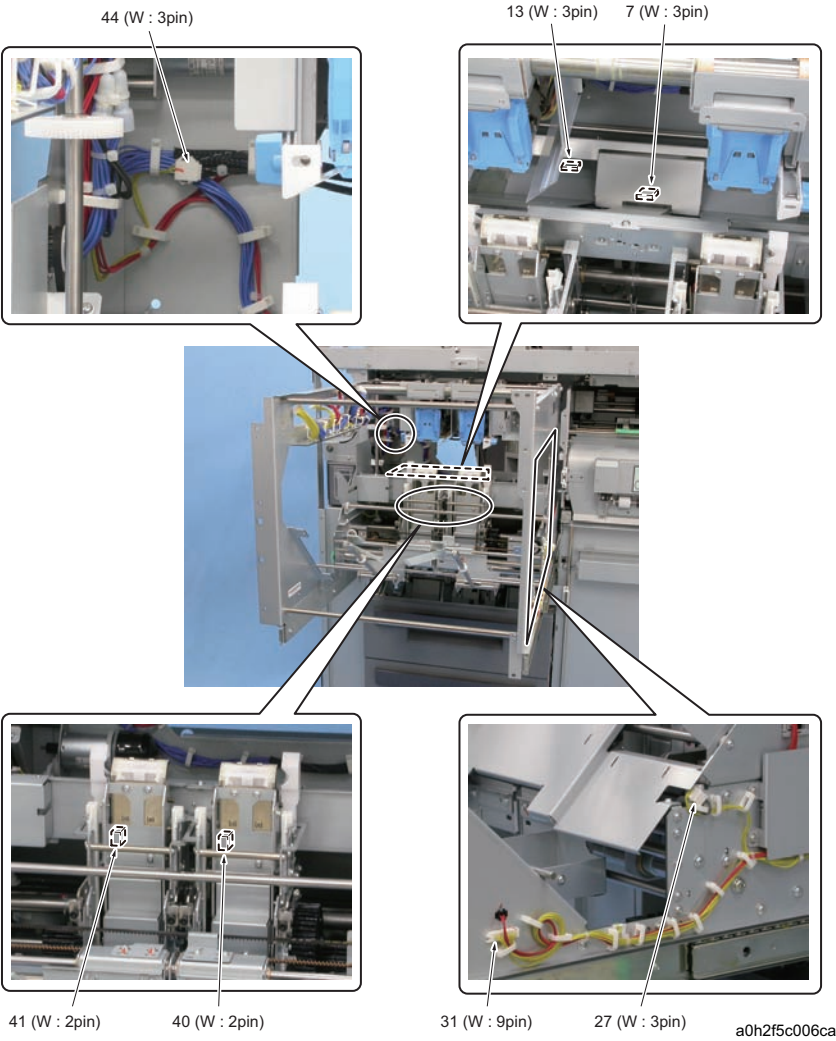
3.1.2 Left side

3.1.3 Rear side-1**3.1.4 Rear side-2**

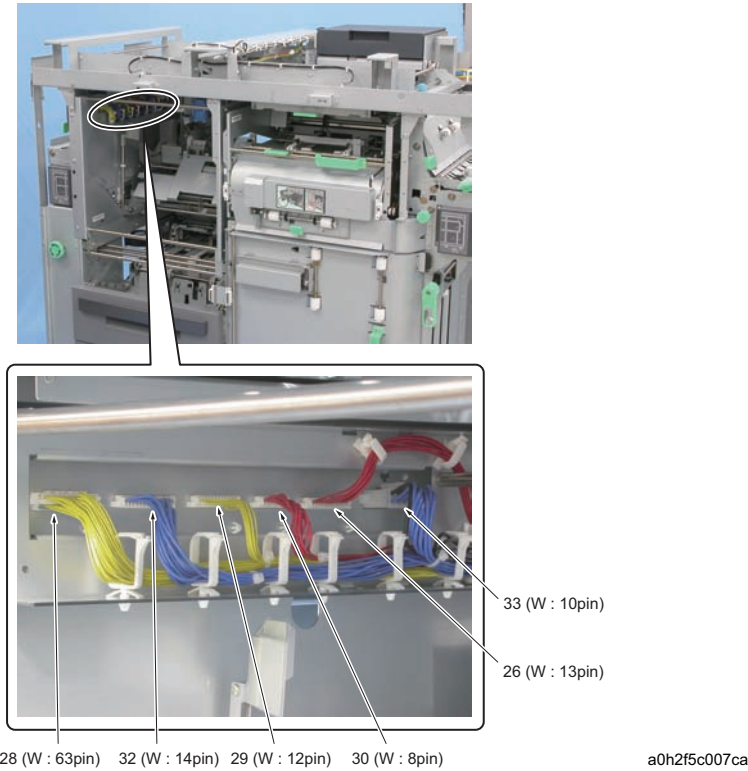
3.1.5 Folding section

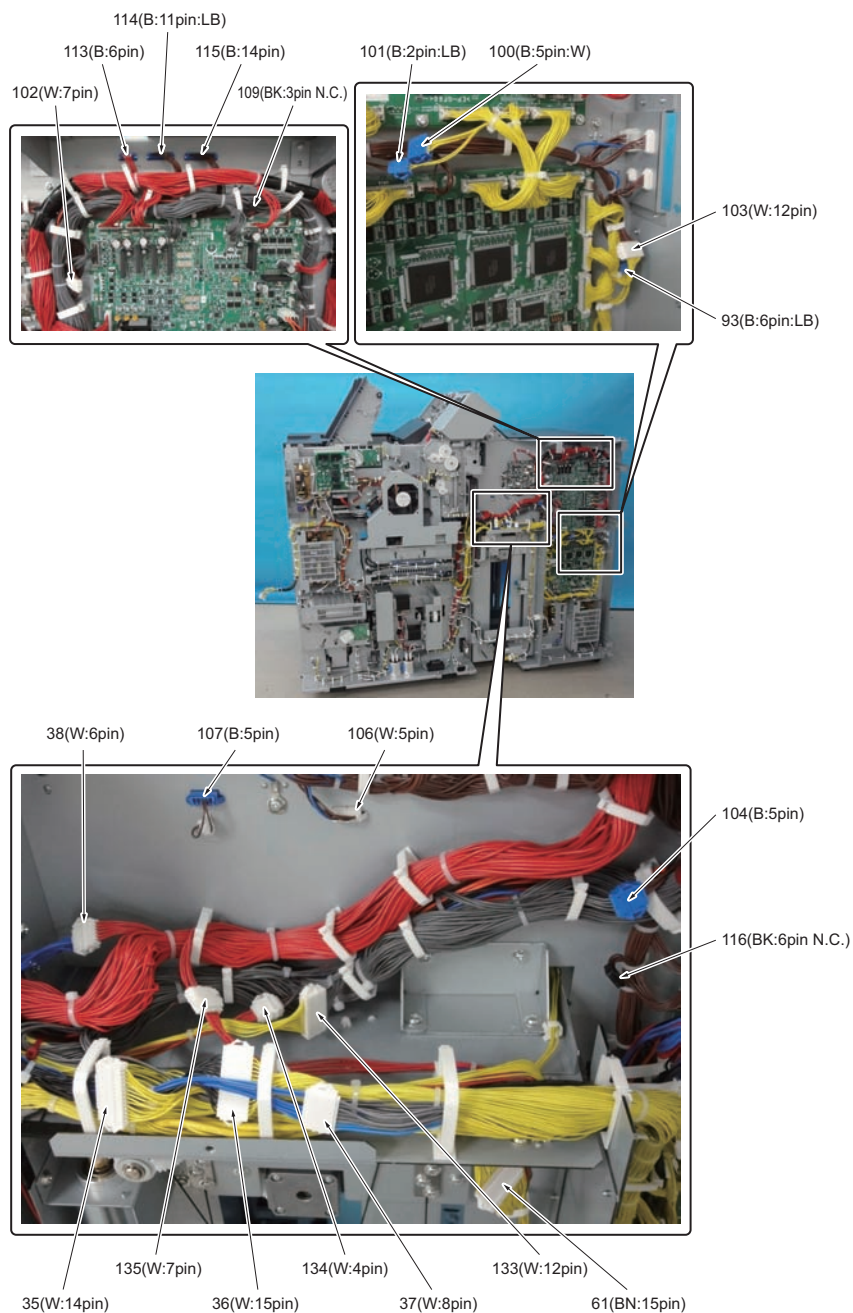


3.1.6 Saddle stitching section-1

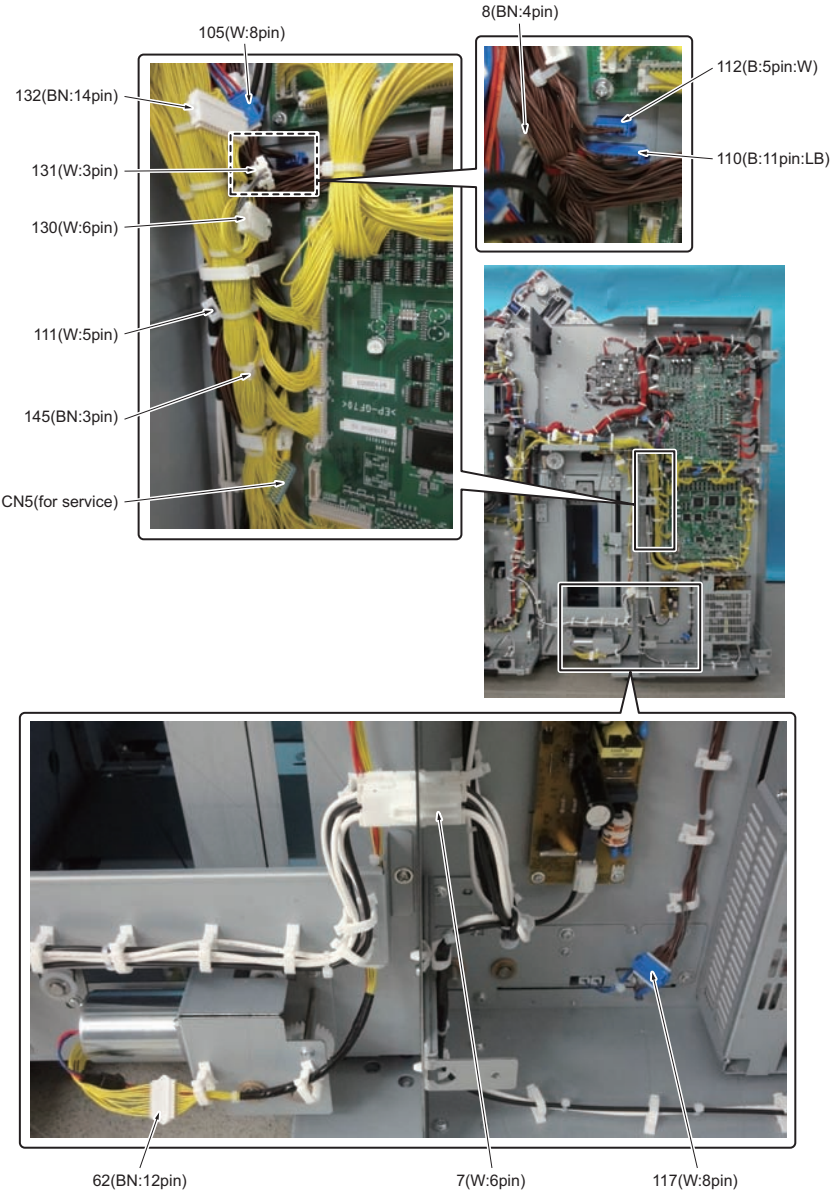


3.1.7 Saddle stitching section-2

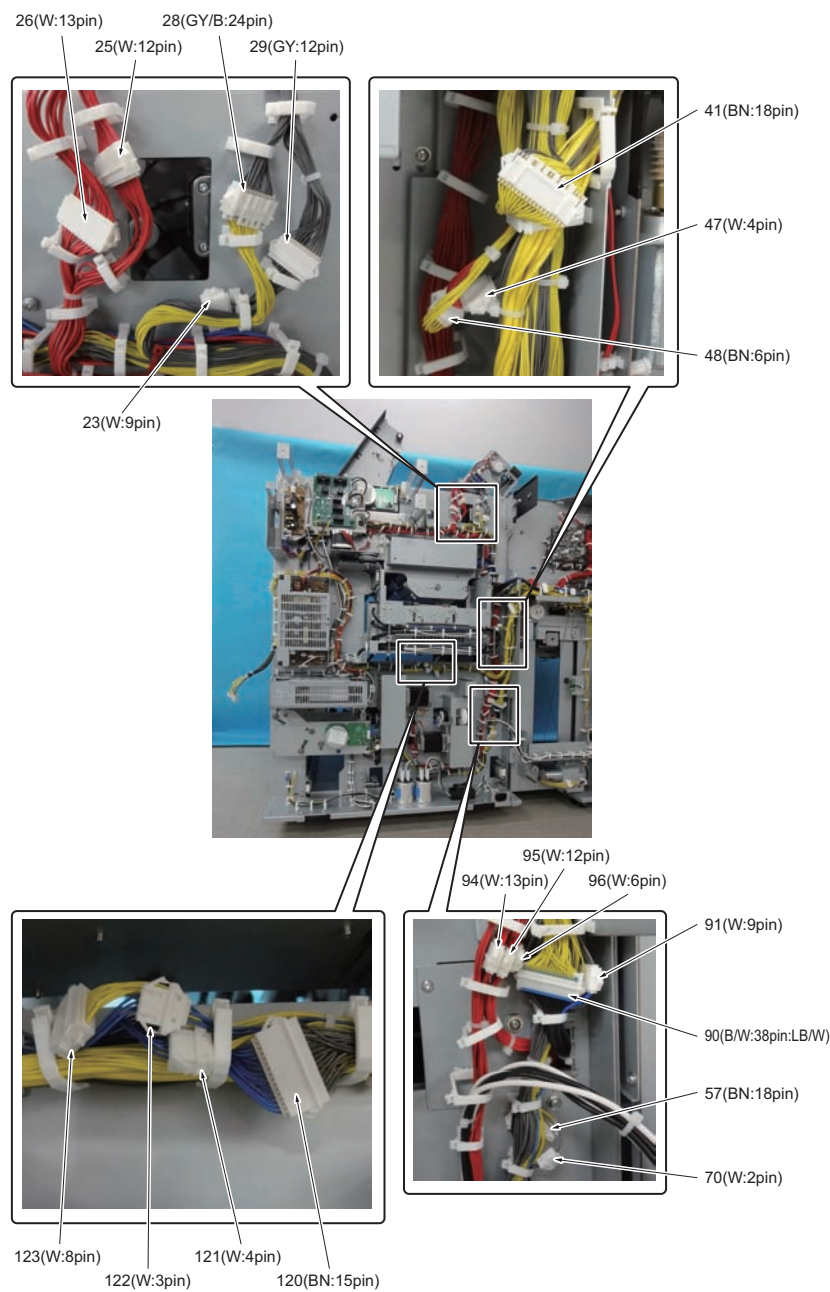


3.2 PB-503**3.2.1 Rear side-1**

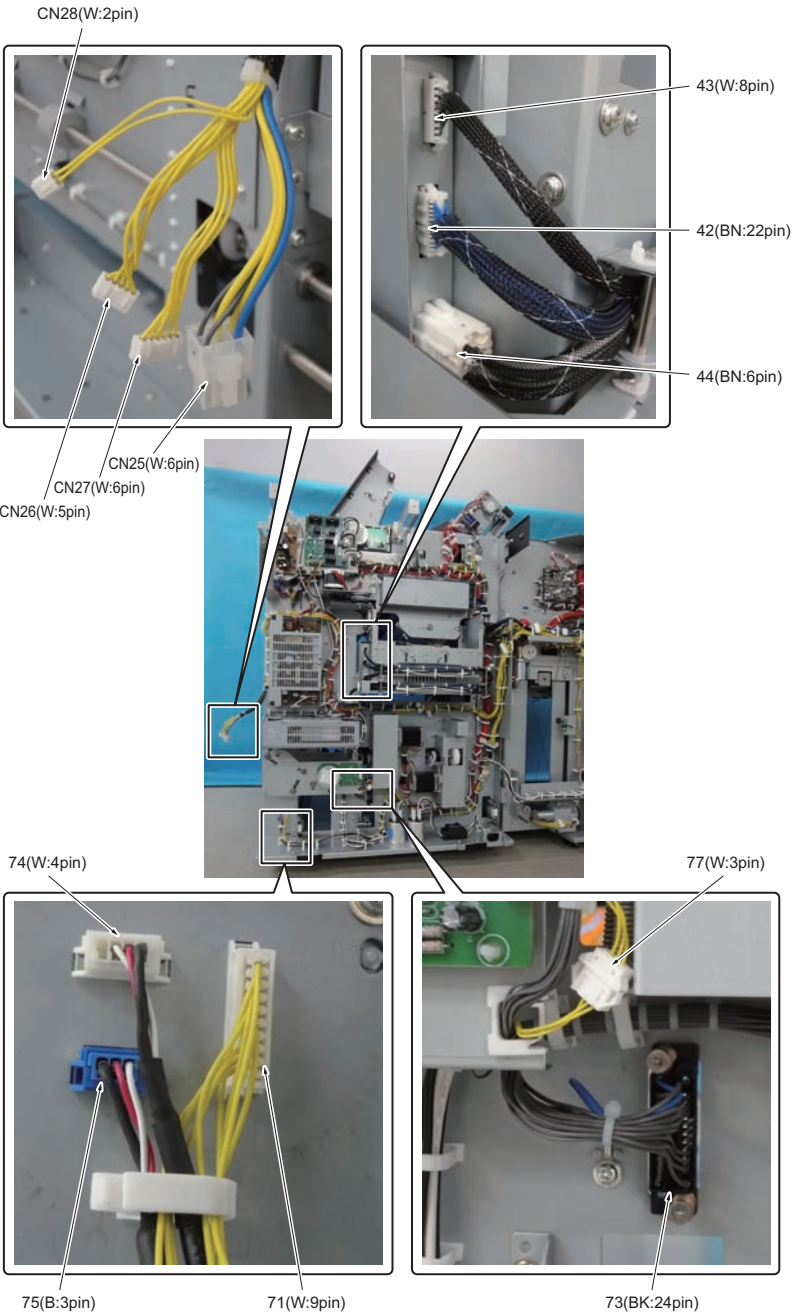
3.2.2 Rear side 2

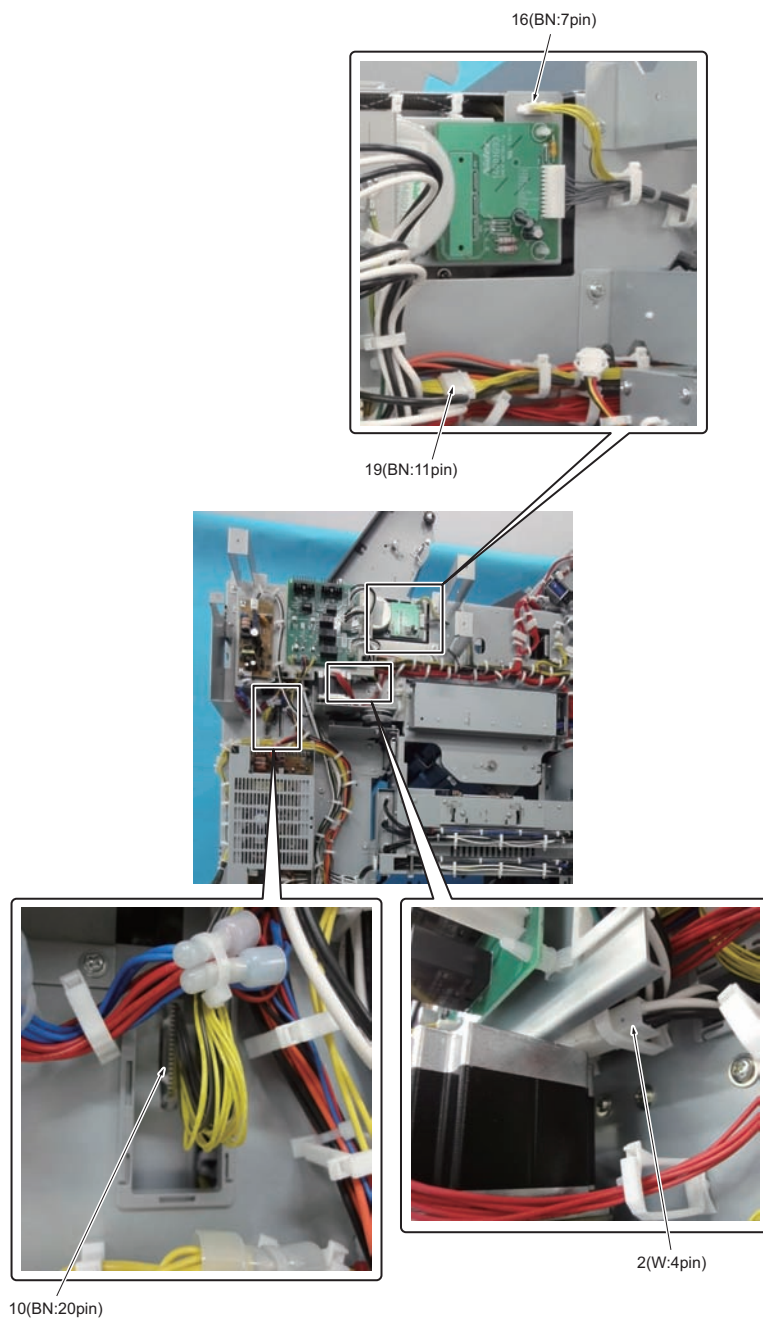


3.2.3 Rear side 3

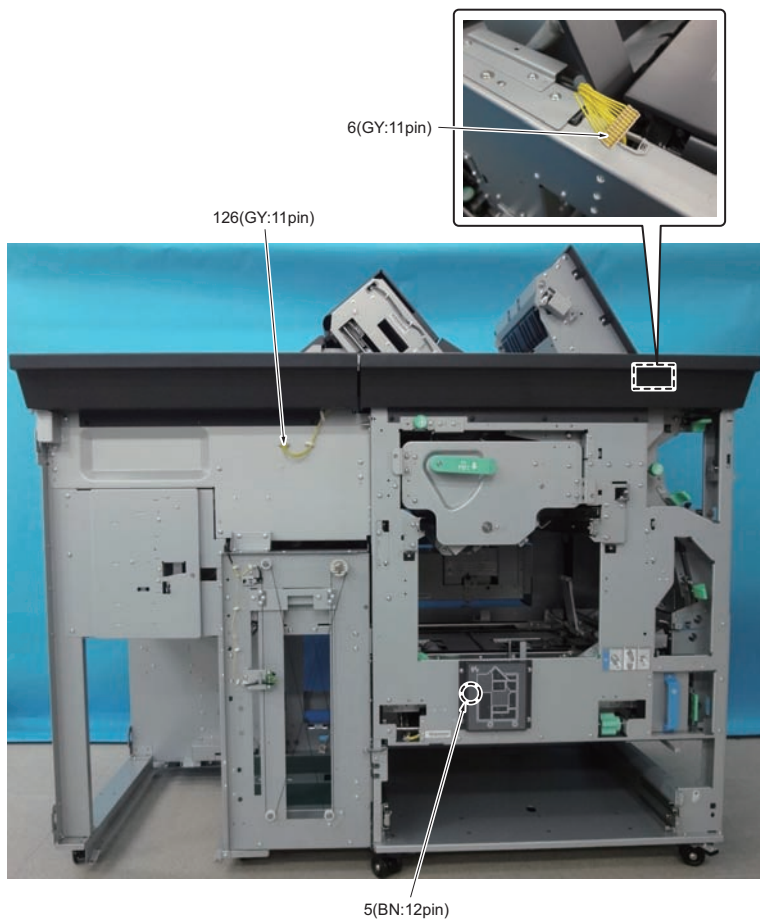


3.2.4 Rear side 4

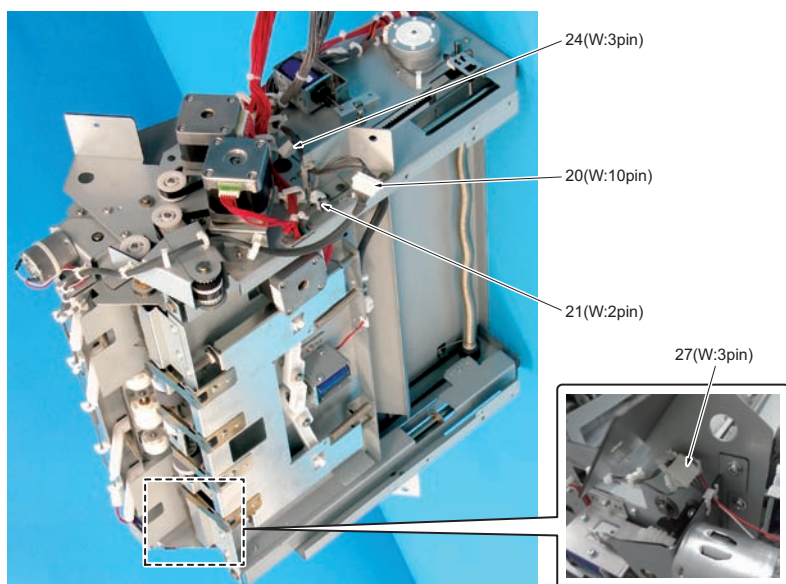


3.2.5 Rear side 5

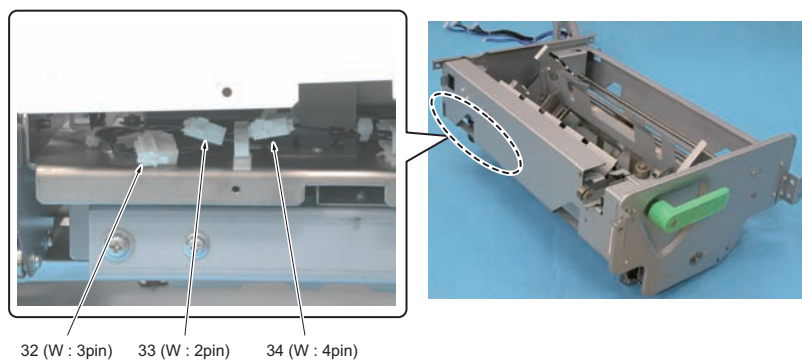
3.2.6 Front side



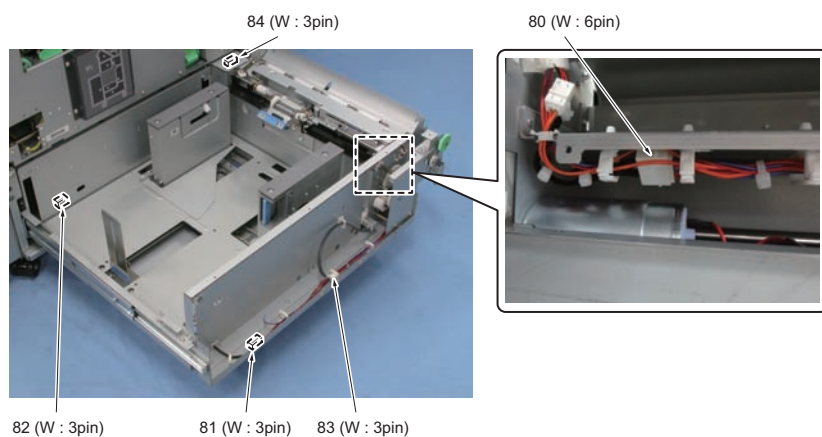
3.2.7 Sub compile (SC) section



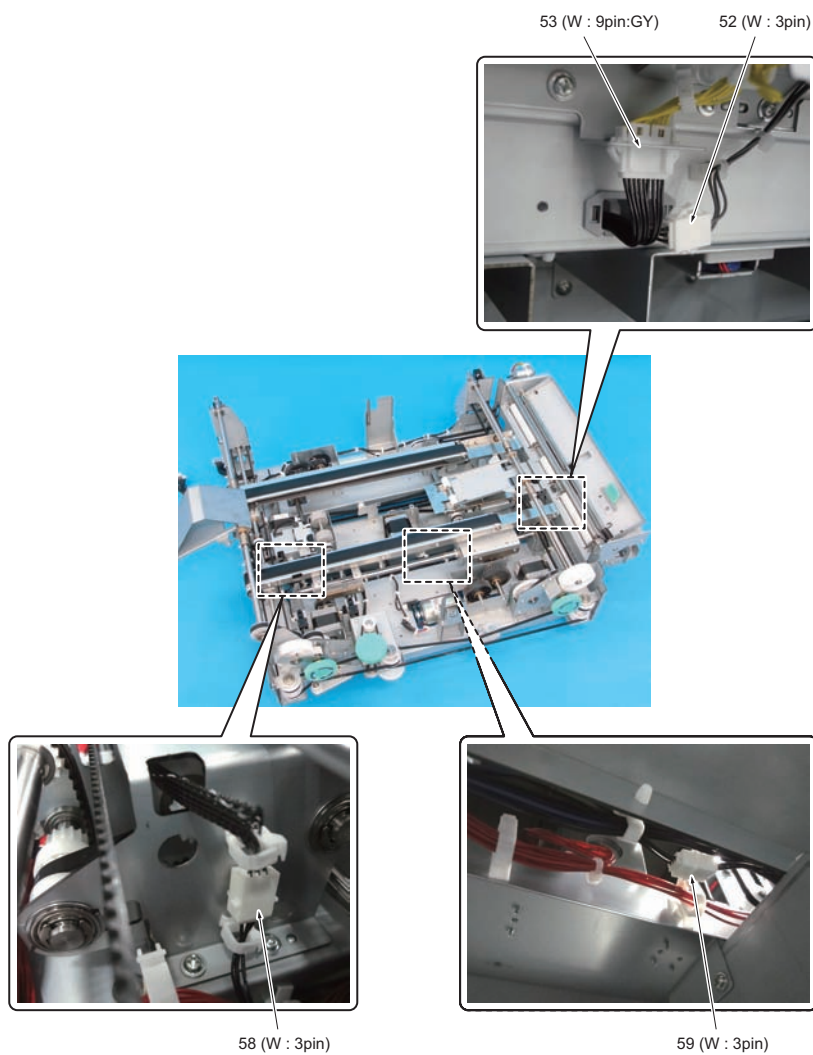
3.2.8 Clamp section



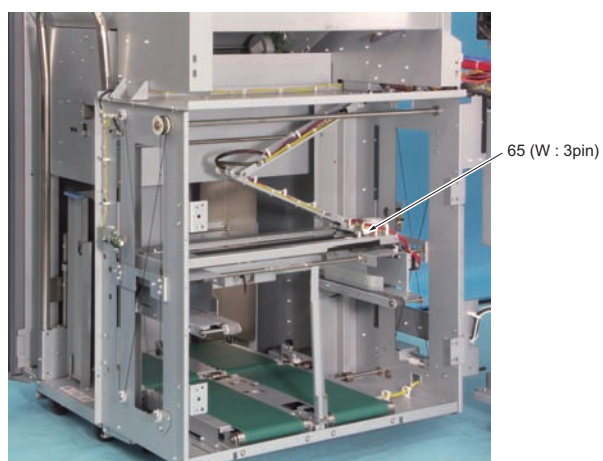
3.2.9 Cover paper supply section



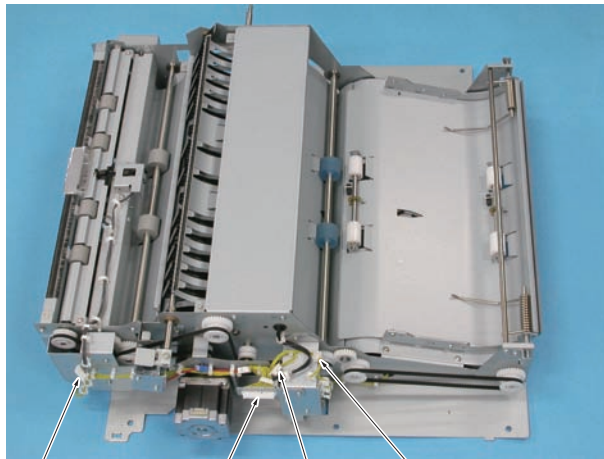
3.2.10 Cover paper table section



3.2.11 Book stock section

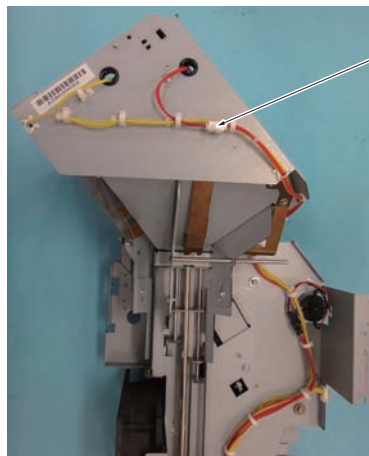


3.2.12 Conveyance section



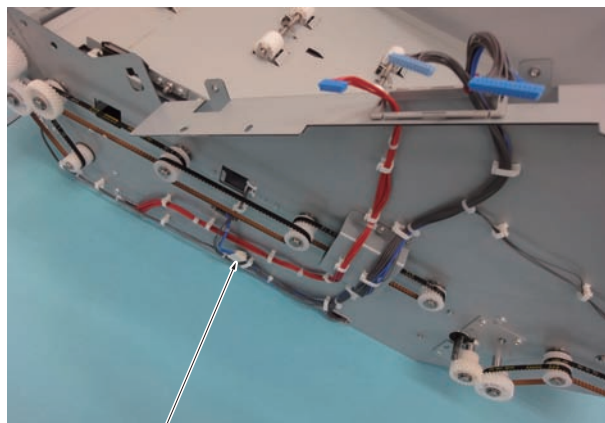
17 (W : 6pin) 10 (BN : 20pin) 11 (W : 3pin) 12 (BN : 3pin)

3.2.13 Pellet supply section



49 (W : 2pin)

3.2.14 Relay conveyance section

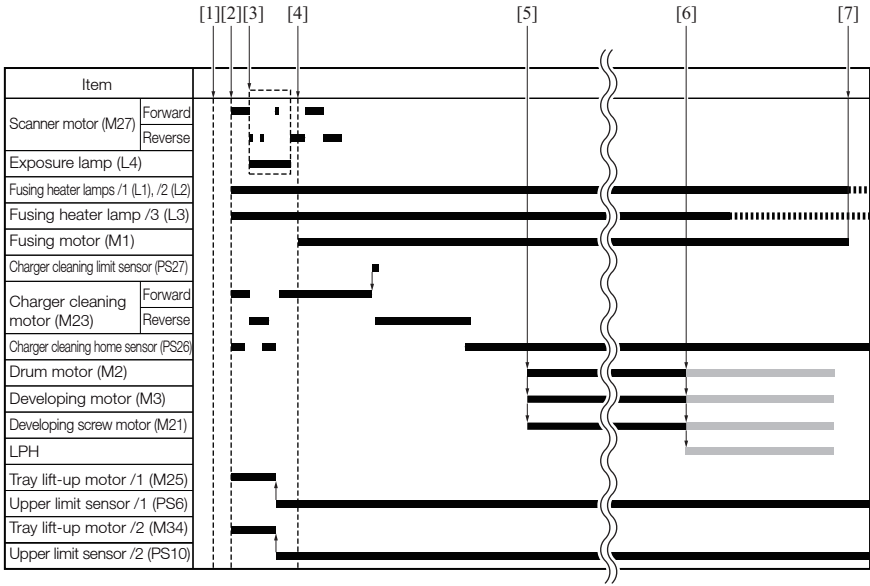


127 (W : 5pin)

M TIMING CHART

1. bizhub PRESS 1250/1250P/1052

1.1 Timing chart when sub power switch turns ON



a0g6f5e800ca

[1]	Sub power switch (SW2) ON	[2]	Initial communication between the overall control board (OACB) and the printer control board (PRCB)
[3]	Shading correction starts	[4]	Fusing temperature sensors /1 (TH1) and /3 (TH3) get to the specified temperature
[5]	Start of consumable stabilization control	[6]	Image stabilization control starts (batch modification for drum rotation)
[7]	Warming-up completed	-	

Note

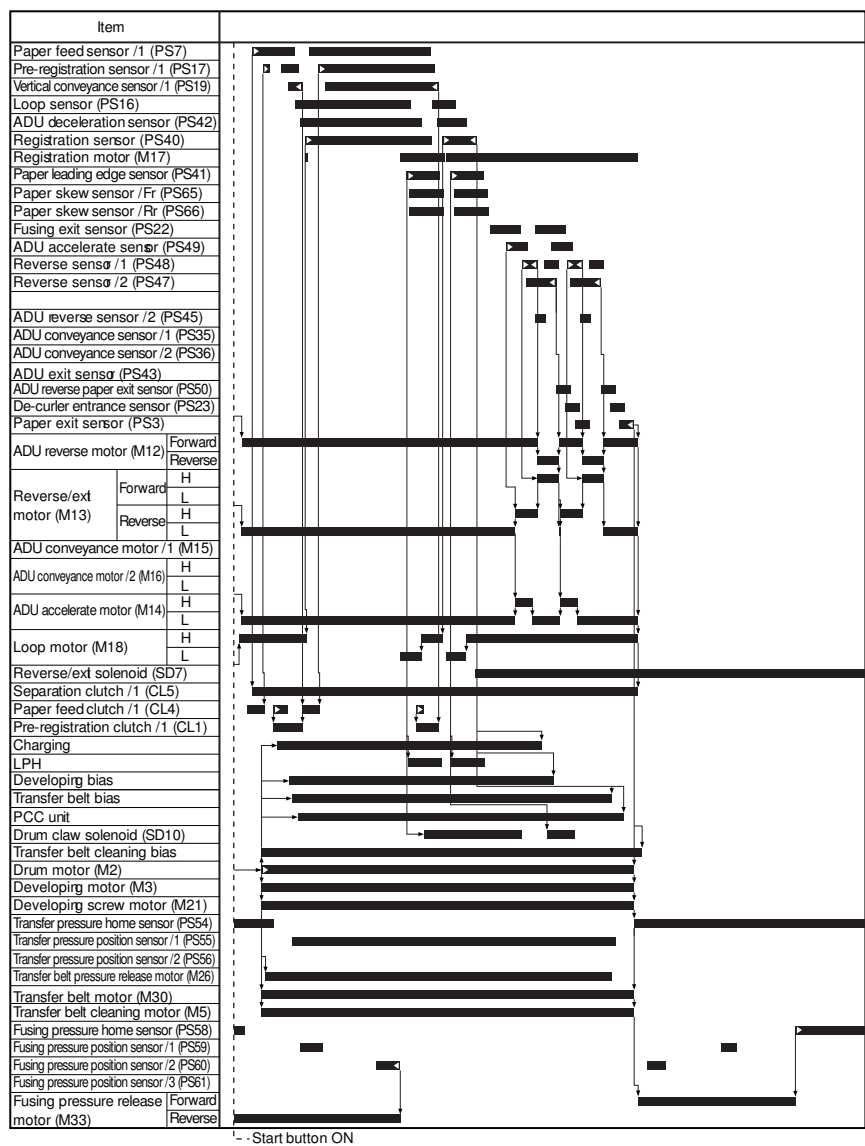
- Various types of operations vary depending on the software DIPSW setting and the environmental settings in the service mode.
- The power is ON with the DF closed.
- The power is turned ON with the paper lift plate of the tray brought down.

1.2 Timing chart of the simplex mode

1.2.1 Operation condition

A4, x1.0, 2 simplex originals, 1Set simplex copy, Reversal Output, Feed Tray1

1.2.2 Timing chart

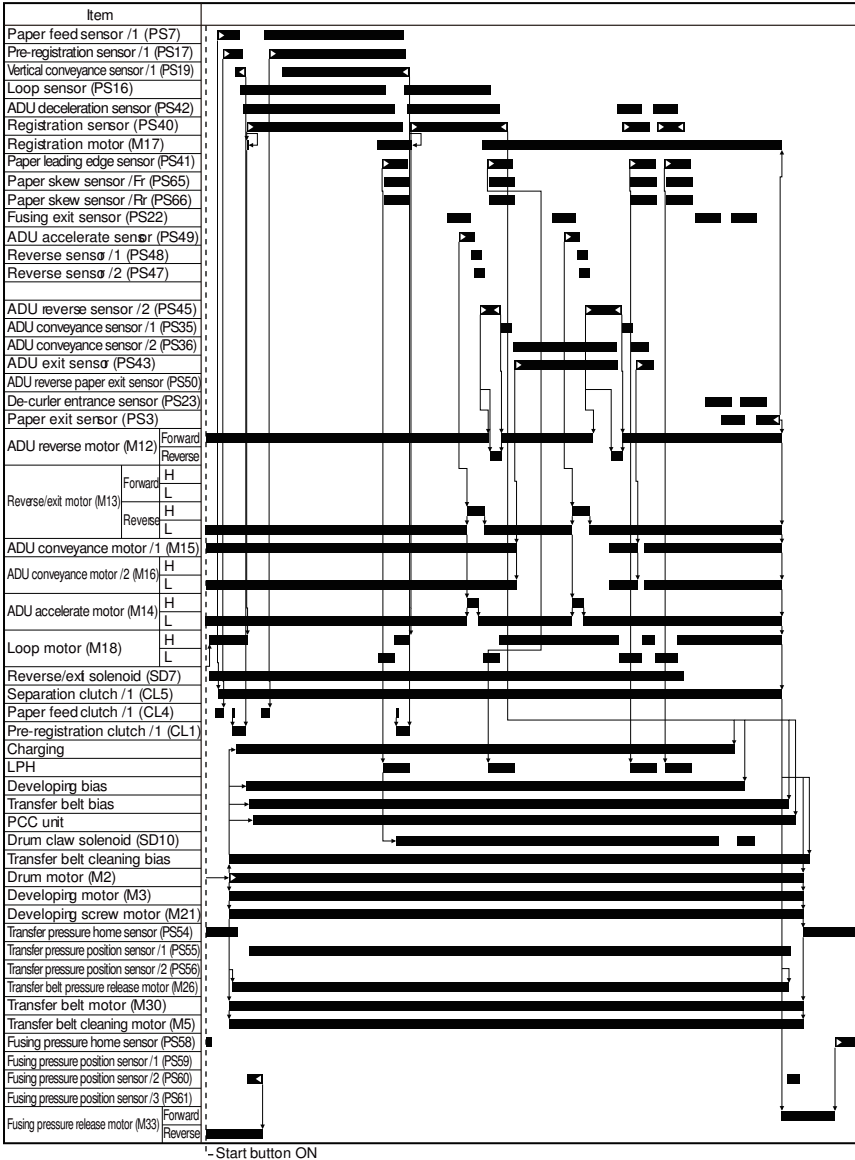


1.3 Timing chart of the duplex mode

1.3.1 Operation condition

A4, x1.0, 2 duplex originals, 1Set duplex copy, straight paper exit, Feed Tray1

1.3.2 Timing chart



2. bizhub PRO 951

2.1 Timing chart when sub power switch turns ON

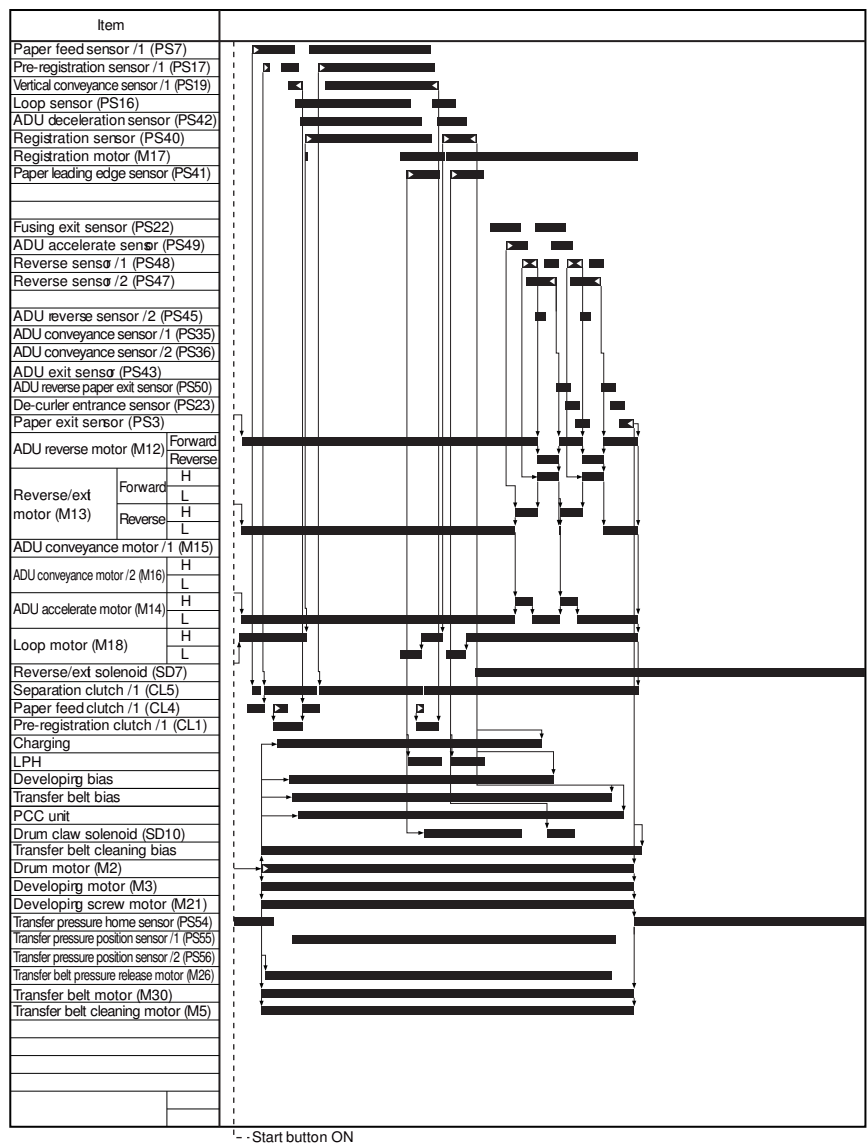
Same as "M.1.1 Timing chart when sub power switch turns ON".

2.2 Timing chart of the simplex mode

2.2.1 Operation condition

A4, x1.0, 2 simplex originals, 1Set simplex copy, Reversal Output, Feed Tray1

2.2.2 Timing chart



2.3 Timing chart of the duplex mode

2.3.1 Operation condition

A4, x1.0, 2 duplex originals, 1Set duplex copy, straight paper exit, Feed Tray1

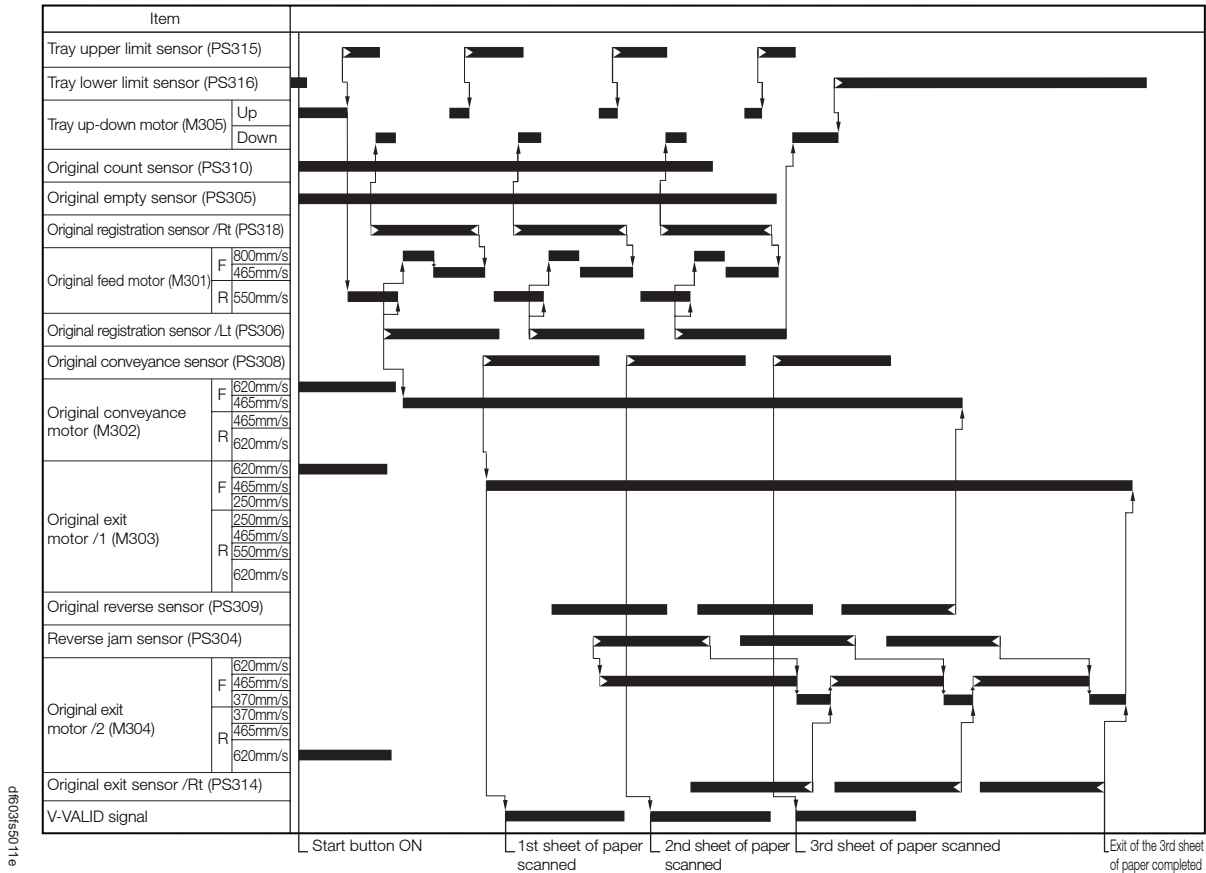
3. DF-615

3.1 Timing chart of the simplex mode

3.1.1 Operation condition

A4, life size, single-sided original, 3 originals

3.1.2 Timing chart

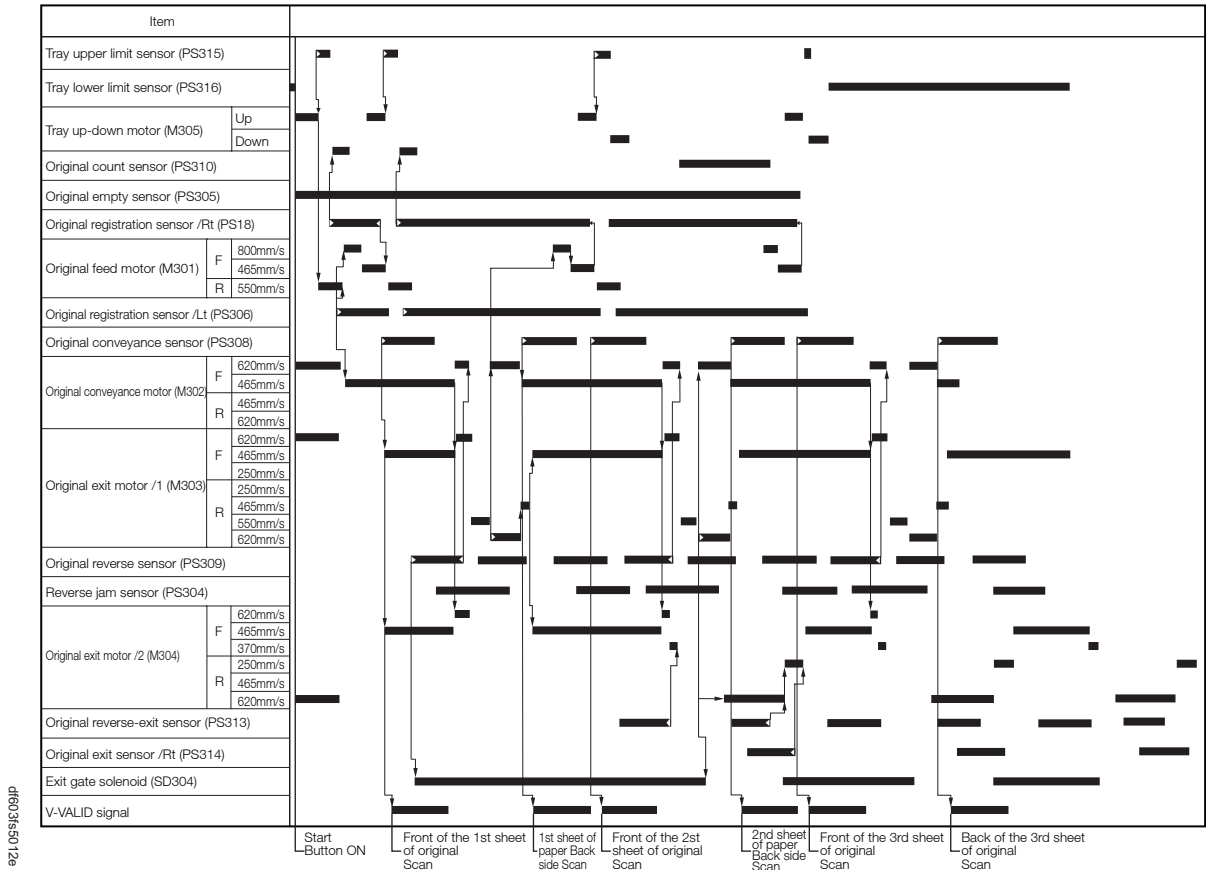


3.2 Timing chart of the duplex mode

3.2.1 Operation condition

A4, life size, duplex original, 3 originals

3.2.2 Timing chart



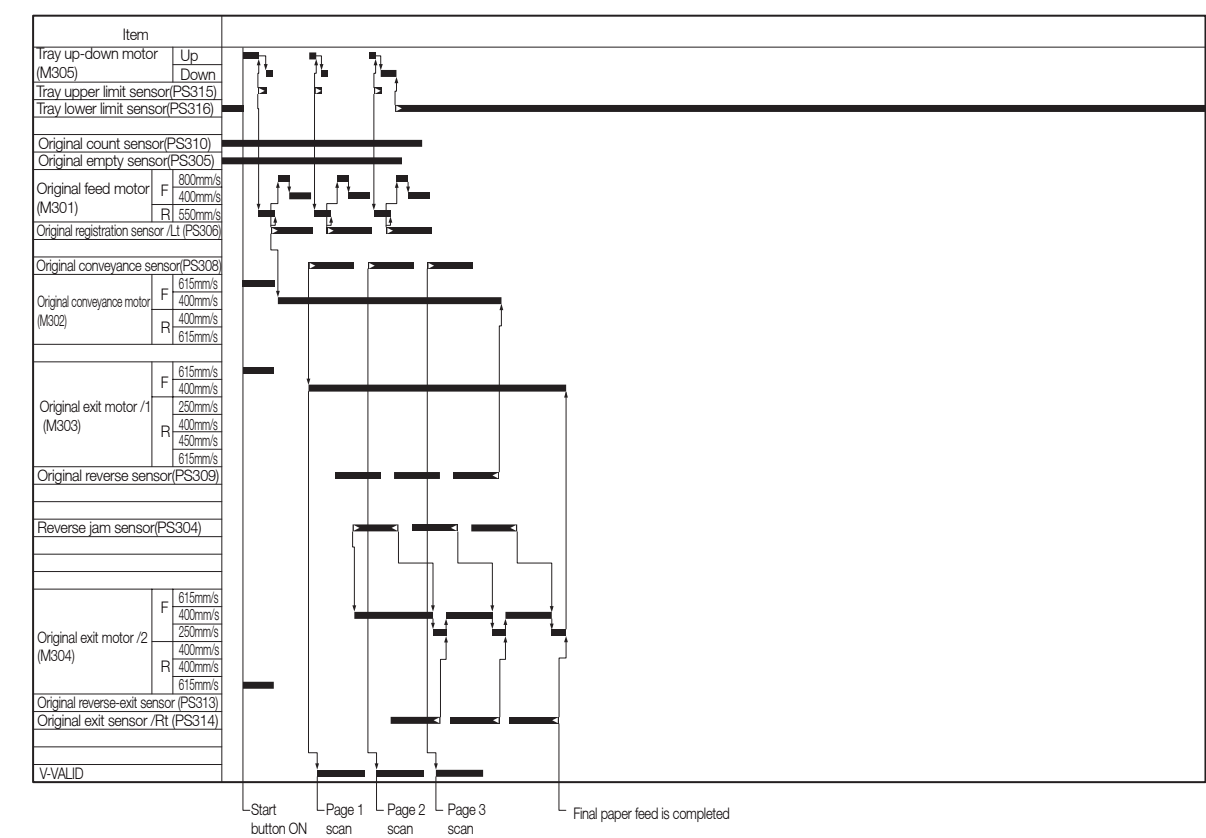
4. DF-616

4.1 Timing chart of the simplex mode

4.1.1 Operation condition

A4, life size, single-sided original, 3 originals

4.1.2 Timing chart

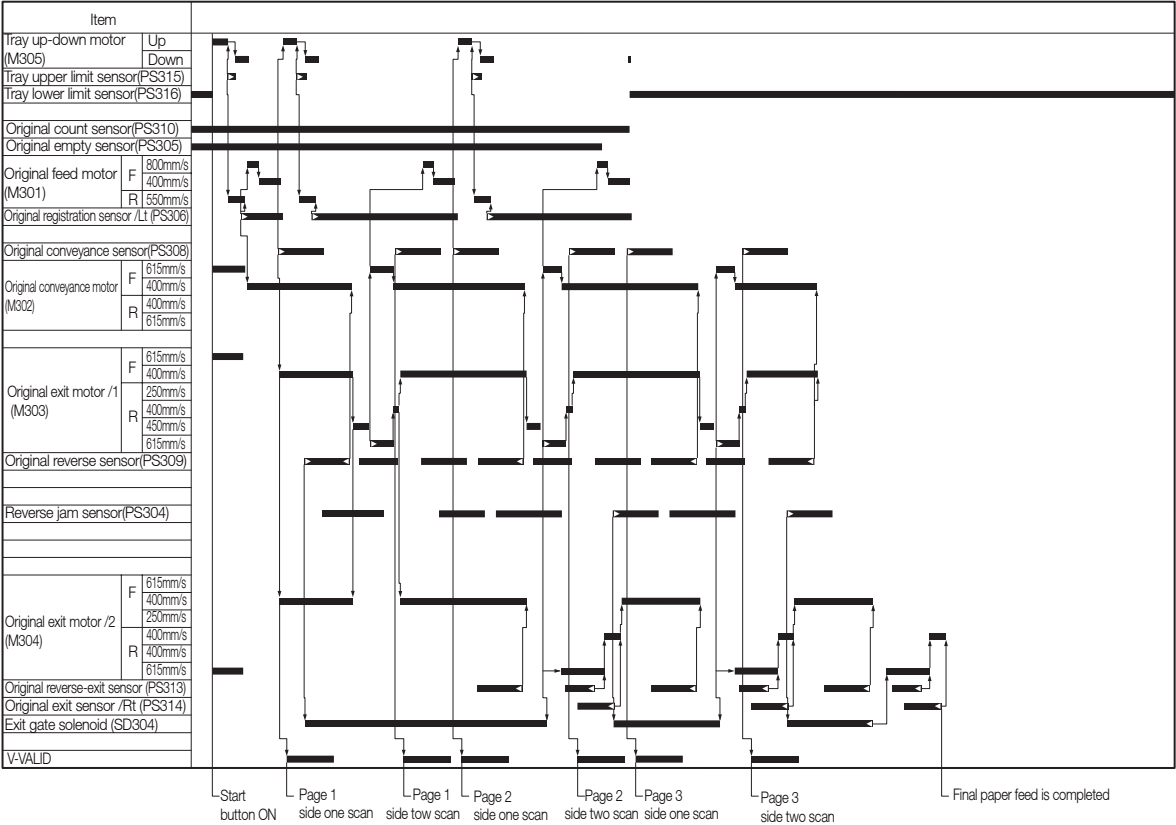


4.2 Timing chart of the duplex mode

4.2.1 Operation condition

A4, life size, duplex original, 3 originals

4.2.2 Timing chart



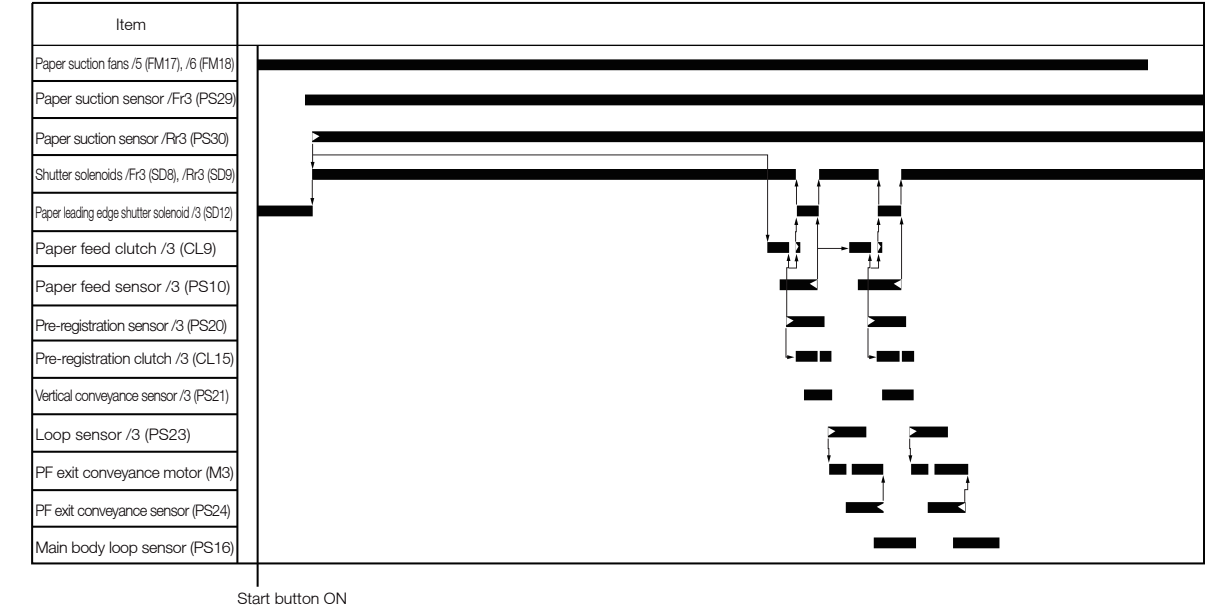
5. PF-703

5.1 Timing chart of the simplex mode

5.1.1 Operation condition

Tray3, A4, 2 originals

5.1.2 Timing chart



p7703160001e

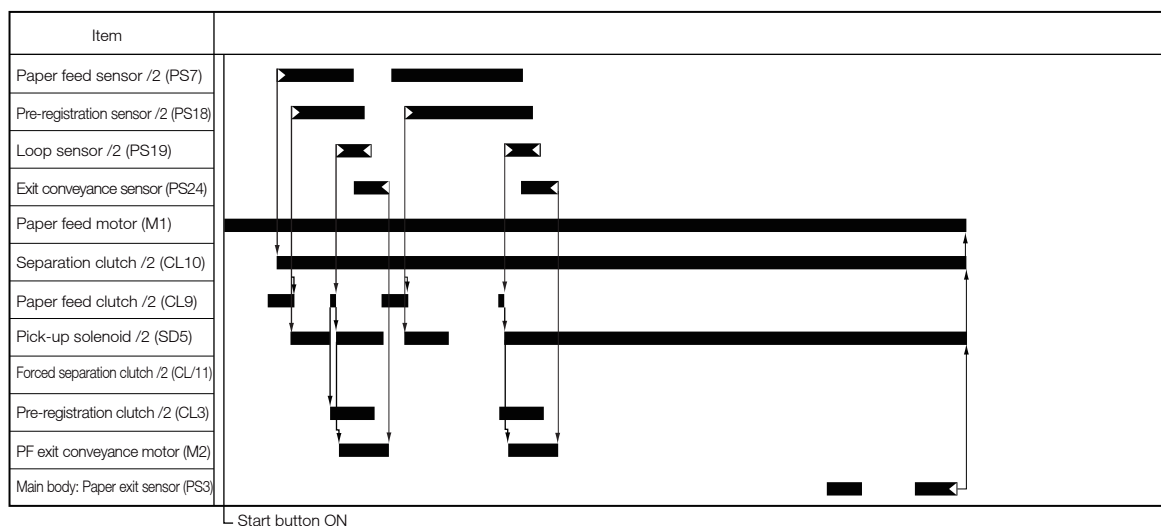
6. PF-706

6.1 Timing chart of the simplex mode

6.1.1 Operation condition

Tray4, A4, 2 originals

6.1.2 Timing chart



Start button ON

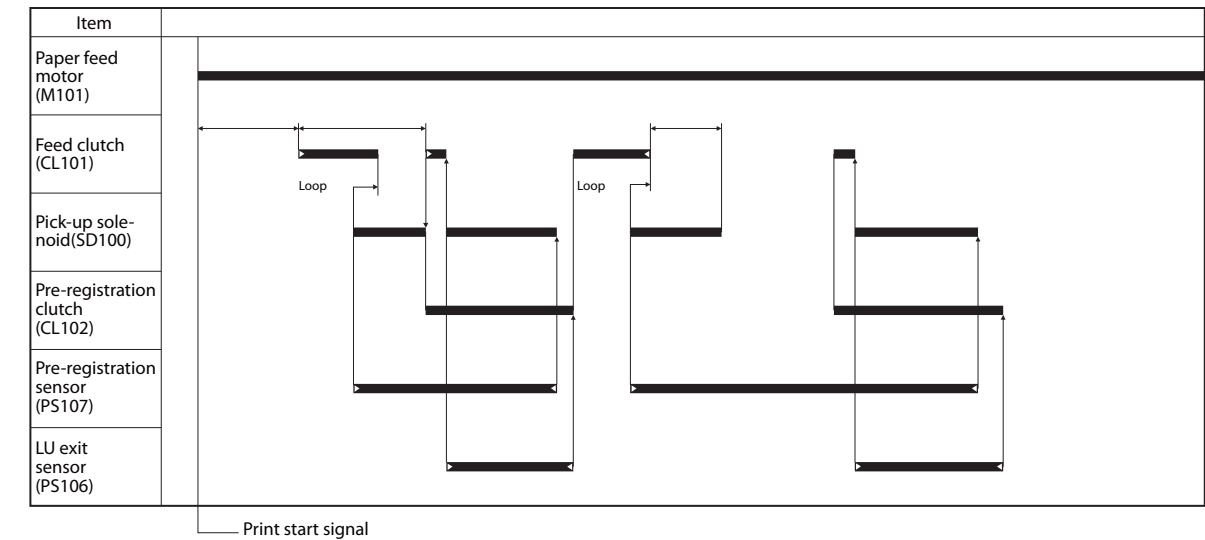
7. LU-409/410

7.1 Timing chart of the simplex mode

7.1.1 Operation condition

A4, life-size, 1-1 mode, 2 single-sided originals

7.1.2 Timing chart



15s5f5a800na

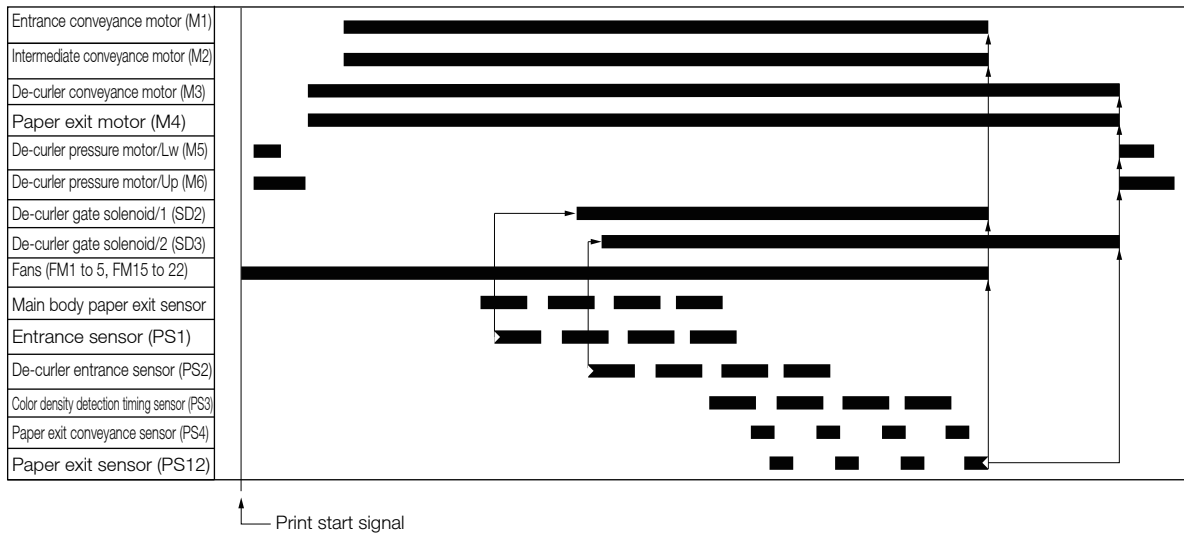
8. RU-509/HM-102

8.1 Timing chart of the humidifier OFF mode (bypass conveyance)

8.1.1 Operation condition

Bypass conveyance, humidifier OFF, A4, 2 originals, 2 copies, 1 side (face down)

8.1.2 Timing chart



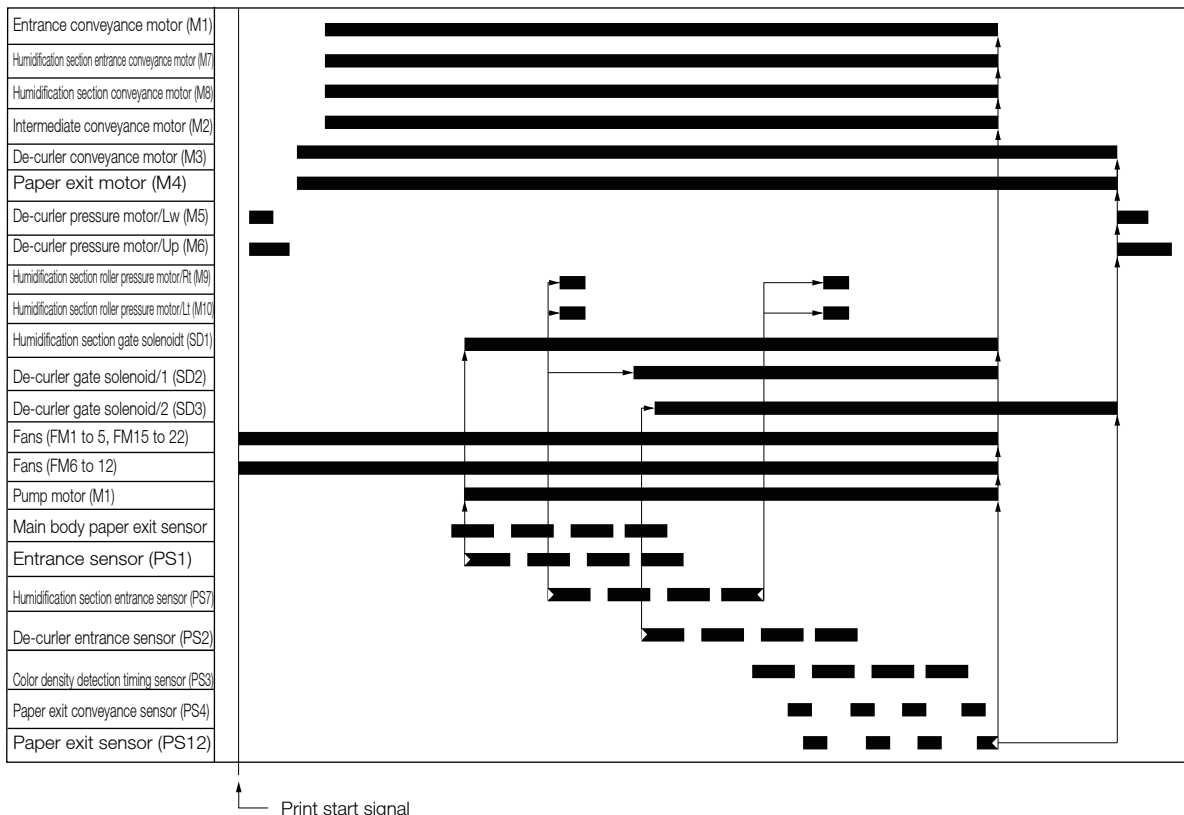
The controls of the de-curler gate solenoids /1 (SD2) and /2 (SD3) vary depending on the condition of the de-curler paper feed pattern.

8.2 Timing chart of the humidification mode

8.2.1 Operation condition

With humidification, A4, 2 originals, 2Sets, simplex

8.2.2 Timing chart



The controls of the de-curler gate solenoids /1 (SD2) and /2 (SD3) vary depending on the condition of the de-curler paper feed pattern.

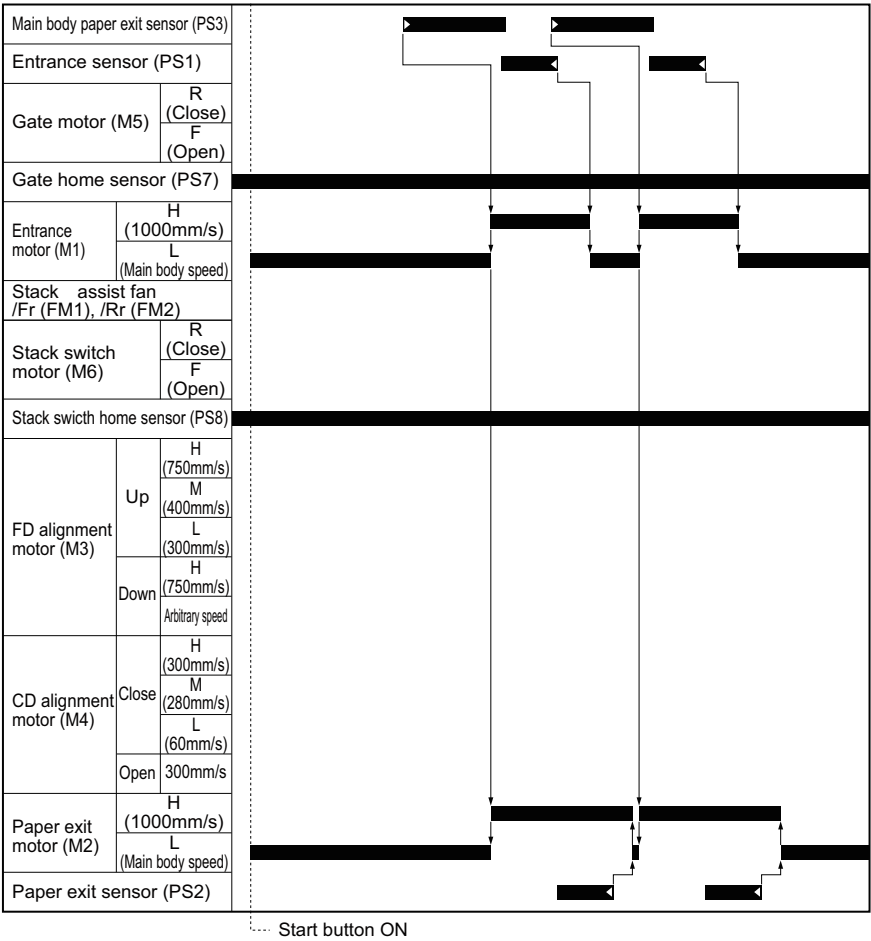
9. RU-510

9.1 Timing chart of the straight exit mode

9.1.1 Operation condition

A3, 2 sheets of paper, 2 copies, duplex print

9.1.2 Timing chart

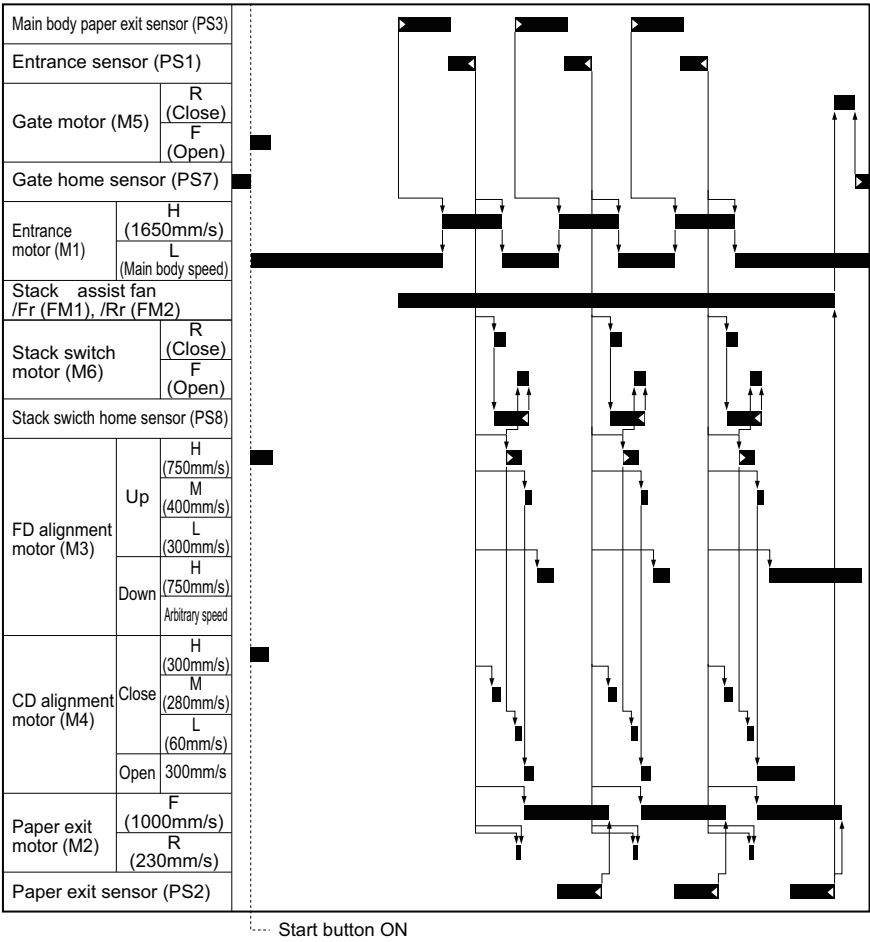


9.2 Timing chart of the single sheet reverse/exit mode

9.2.1 Operation condition

A4, 1 sheet of paper, 3 copies

9.2.2 Timing chart

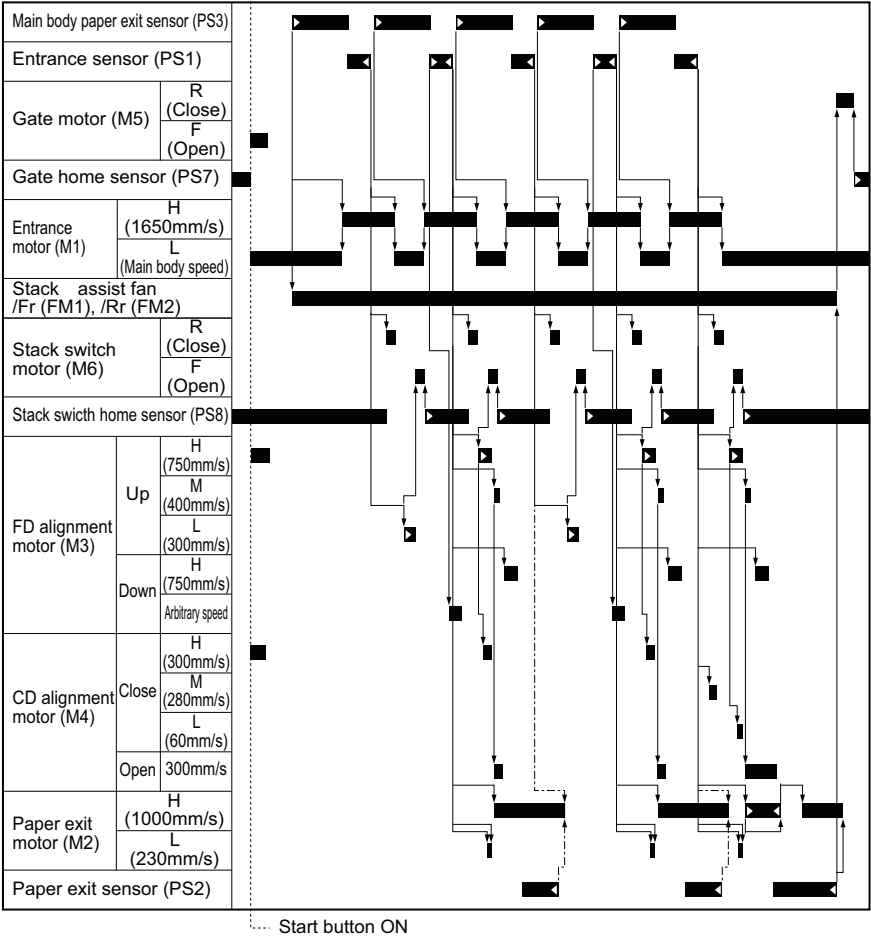


9.3 Timing chart of the double sheets reverse/exit conveyance mode

9.3.1 Operation condition

A4, 1 sheets of paper, 5 copies

9.3.2 Timing chart



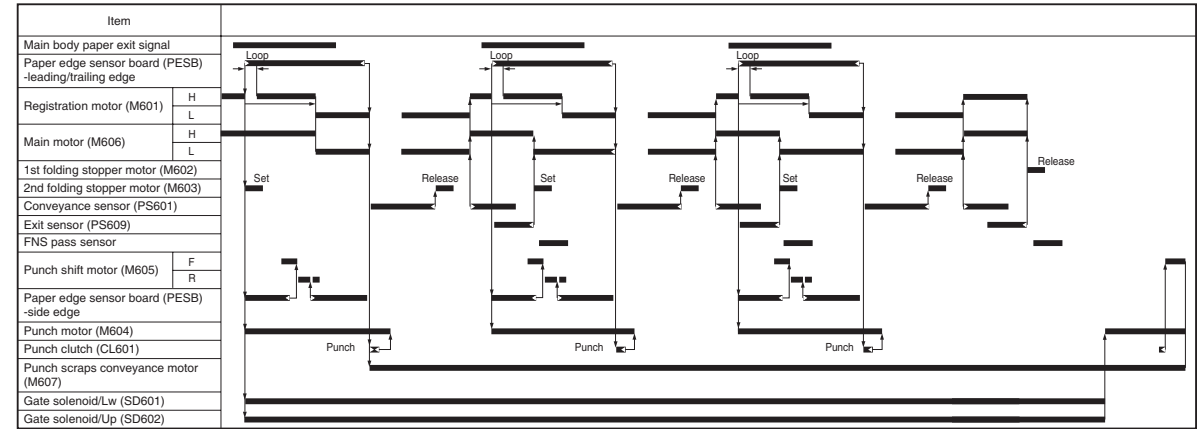
10. ZU-608

10.1 Timing chart of the Z-Folding and the punch mode

10.1.1 Operation condition

A3, 3 originals, 1Sets, simplex

10.1.2 Timing chart



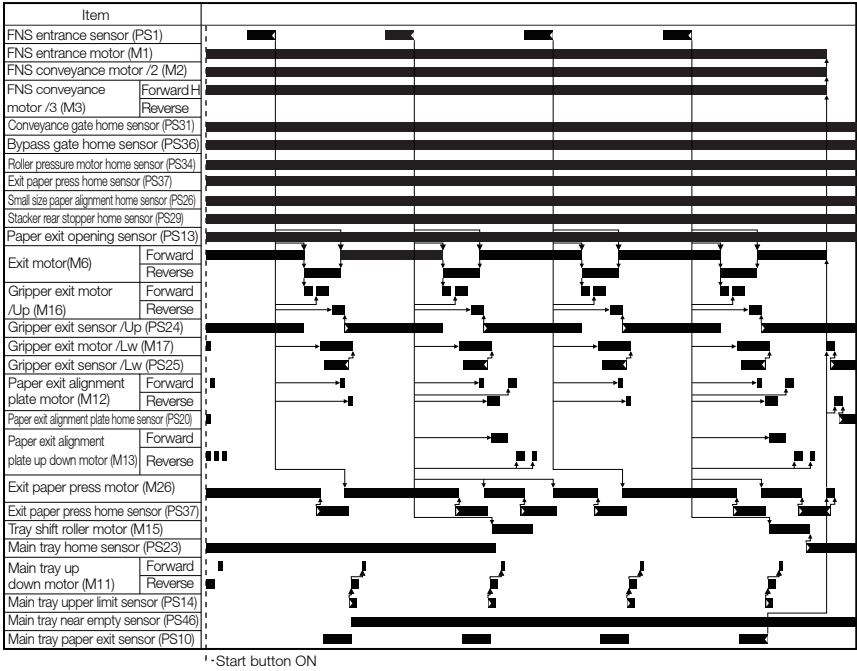
11. FS-532

11.1 Timing chart of the straight mode

11.1.1 Operation condition

OffsetSort, A4, 2 originals, 2 copies, Single side

11.1.2 Timing chart

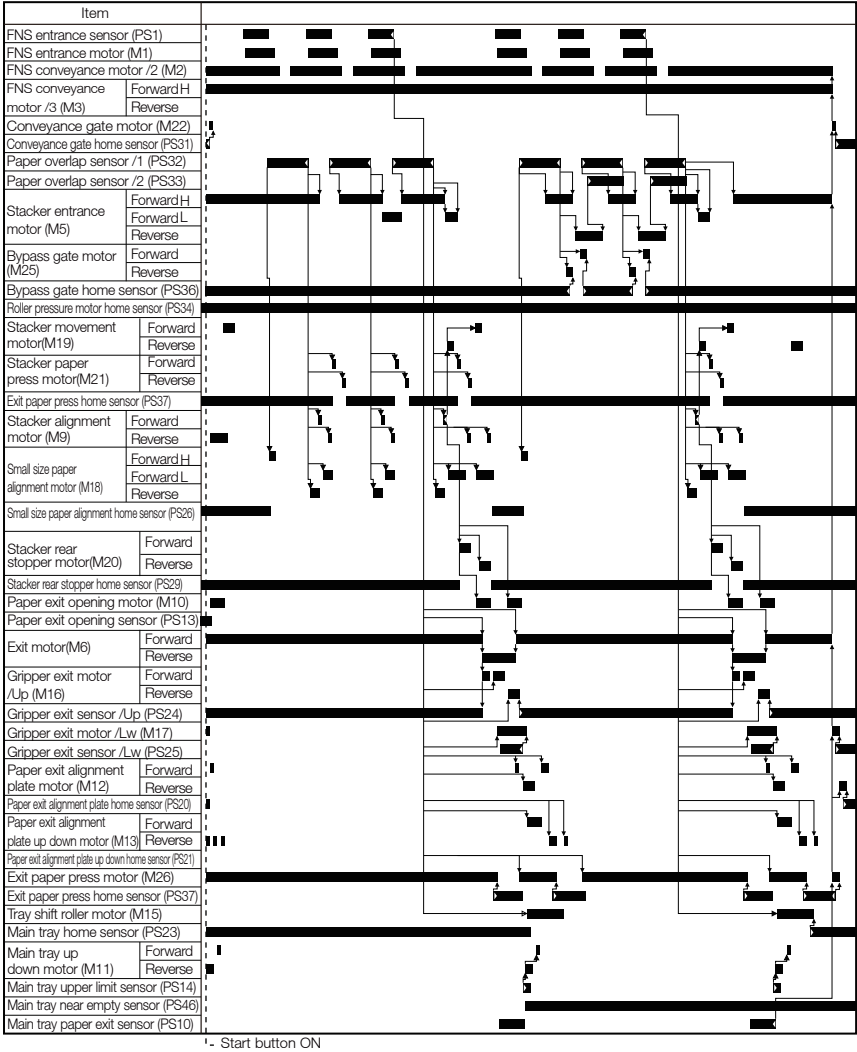


11.2 Timing chart of the staple mode

11.2.1 Operation condition

Staple, A4, 3 originals, 2Sets, simplex

11.2.2 Timing chart



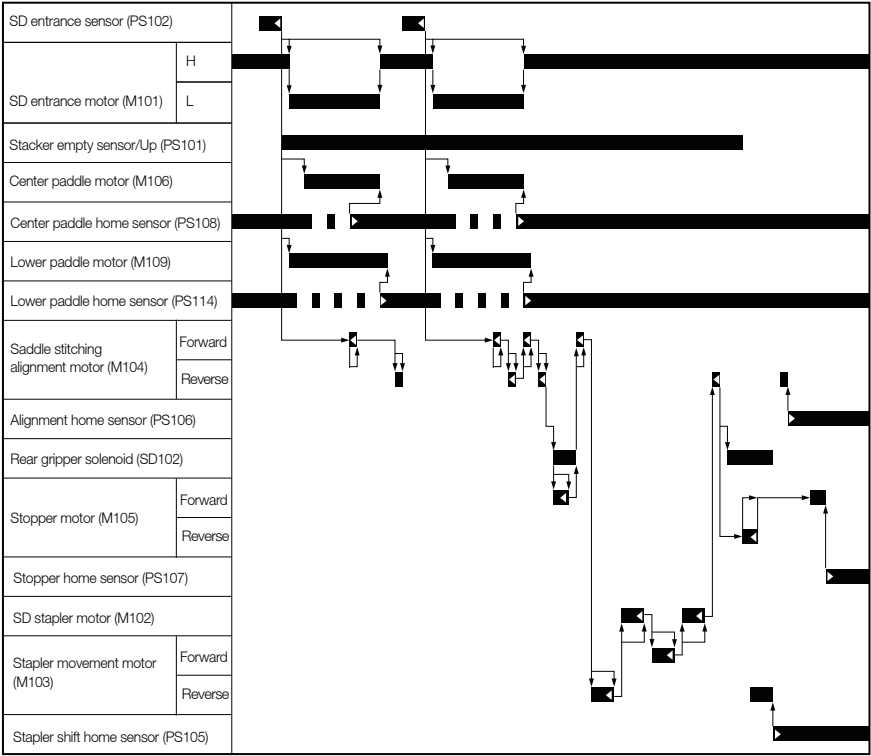
12. SD-510

12.1 Time chart of the saddle stitching mode

12.1.1 Operation condition

Fold&Staple, A4, 2 originals, 1Set, 2 points staple

12.1.2 Timing chart

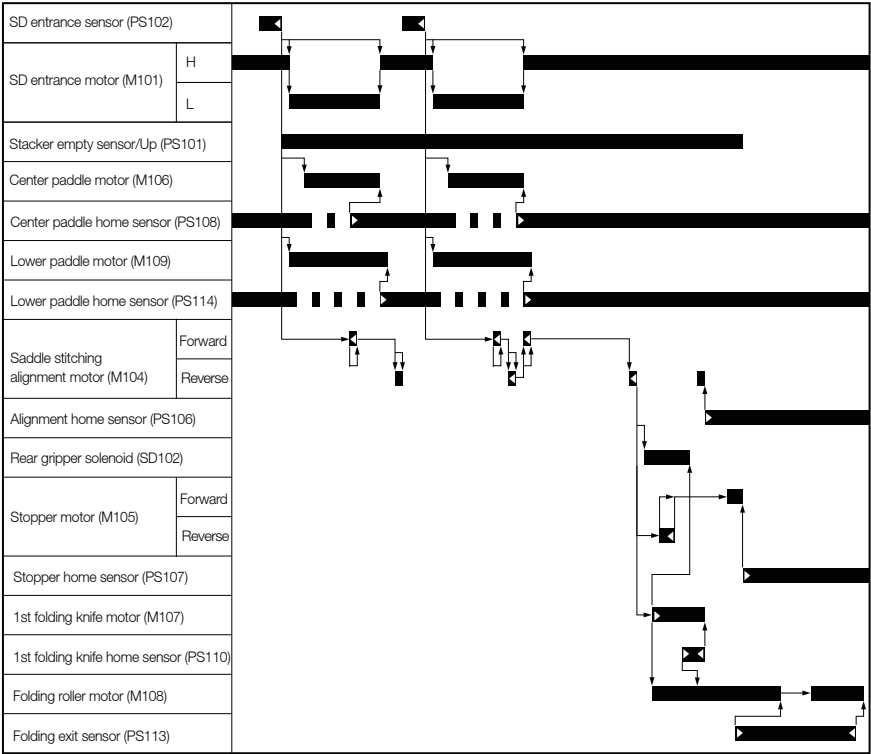


12.2 Timing chart of the folding mode

12.2.1 Operation condition

Half-Fold, A4, 2 originals, 1Set

12.2.2 Timing chart

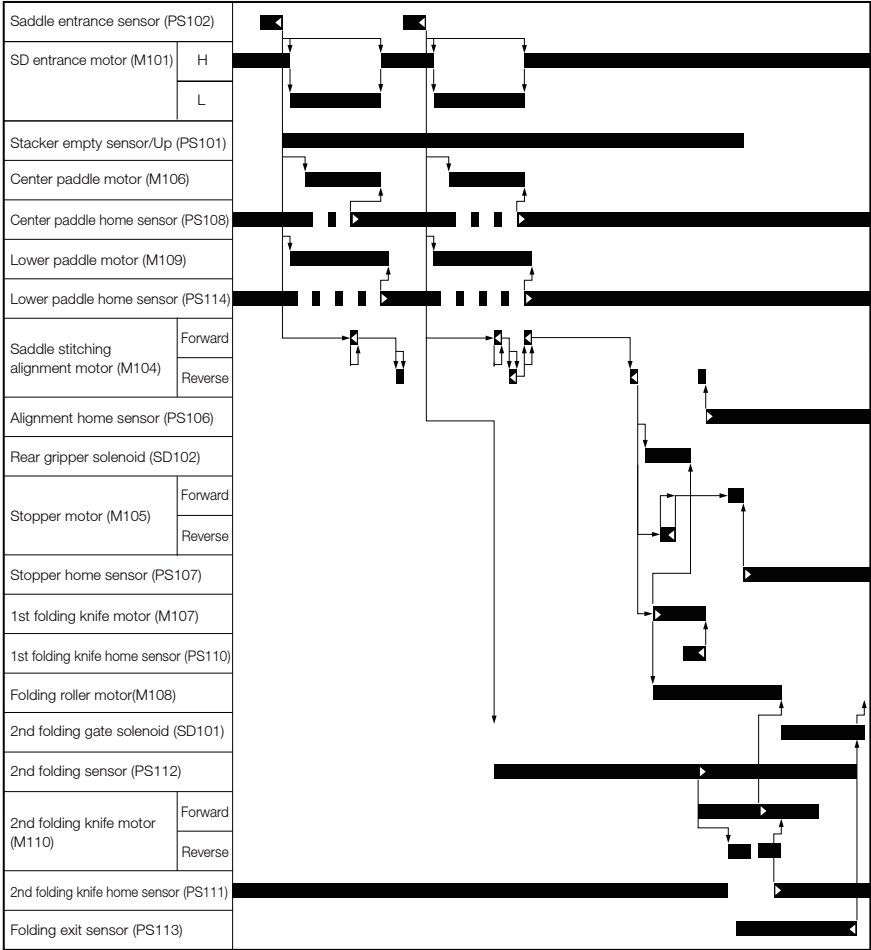


12.3 Timing chart of the tri-folding mode

12.3.1 Operation condition

Tri-folding mode, A4, 2 originals, 1 set

12.3.2 Timing chart



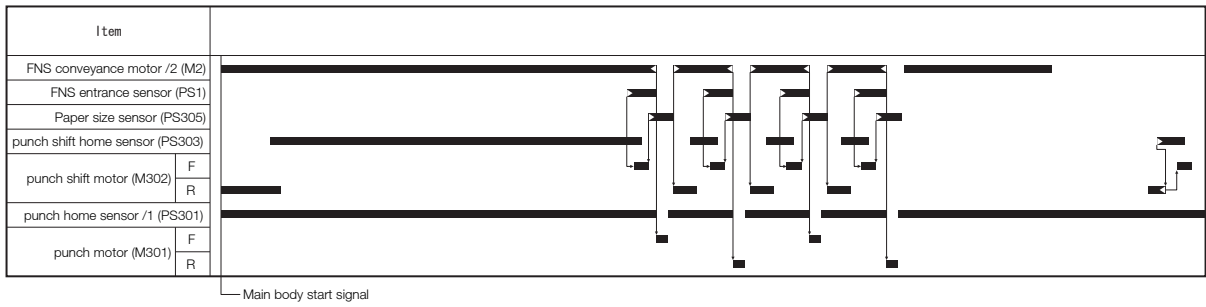
13. PK-522

13.1 Timing chart of the punch mode

13.1.1 Operation condition

Punch, A4, 2 originals, 2Sets, simplex

13.1.2 Timing chart



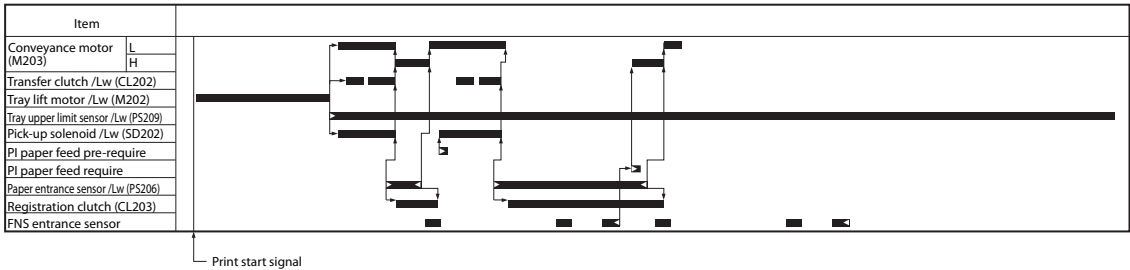
14. PI-502

14.1 Timing chart of the PI automatic paper feed mode

14.1.1 Operation condition

PI automatic paper feed (lower step), 2 position flat-staple, A4, 2 originals, 2 copies, simplex

14.1.2 Timing chart



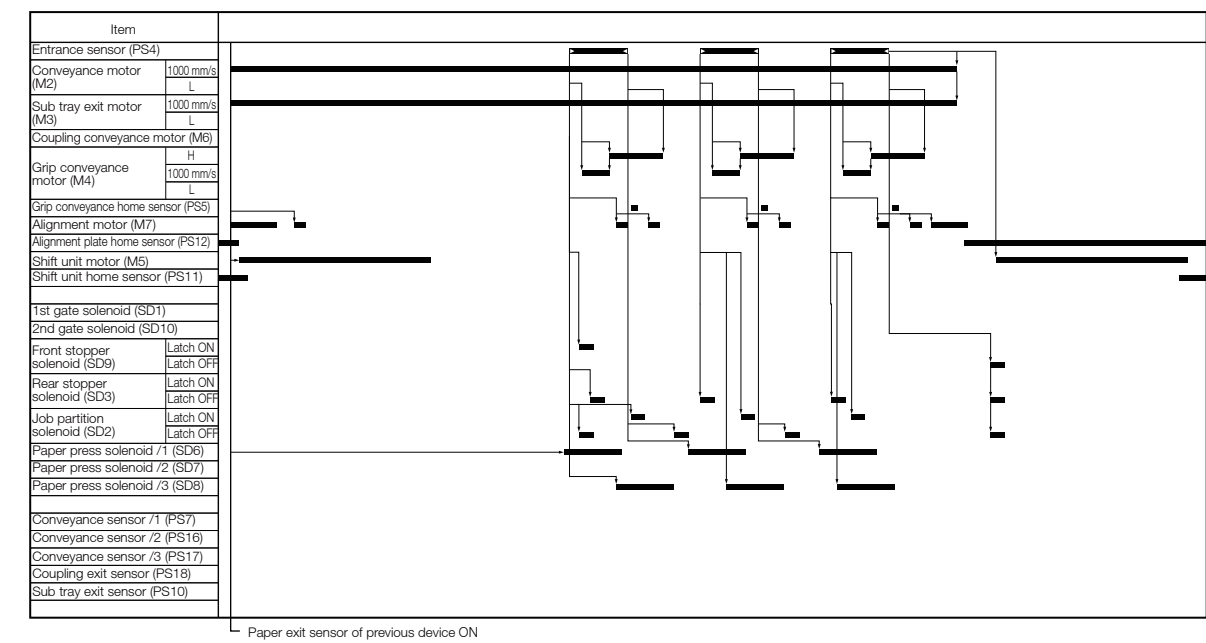
15. LS-505

15.1 Timing chart of the straight mode

15.1.1 Operation condition

A4, straight mode, 3 originals, 1 copy setting

15.1.2 Timing chart



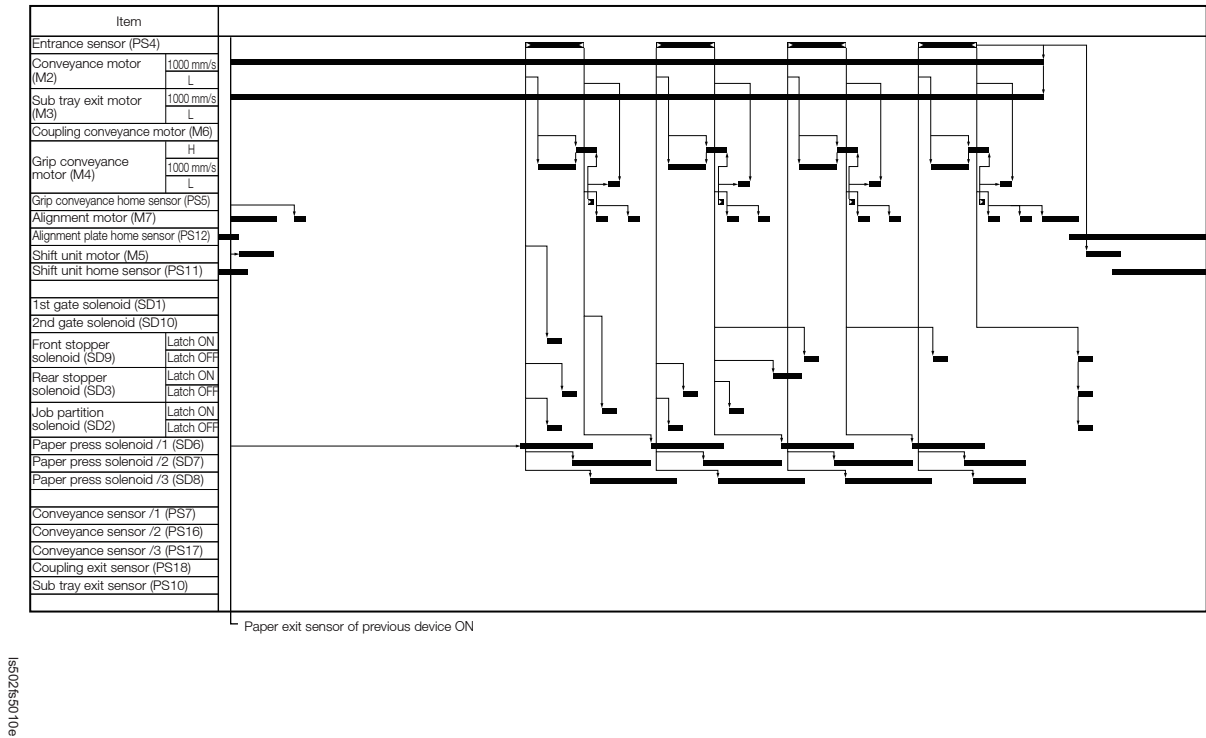
Is502Is5009e

15.2 Timing chart of the shift mode

15.2.1 Operation condition

A3, shift mode, 2 originals, 2copies setting

15.2.2 Timing chart

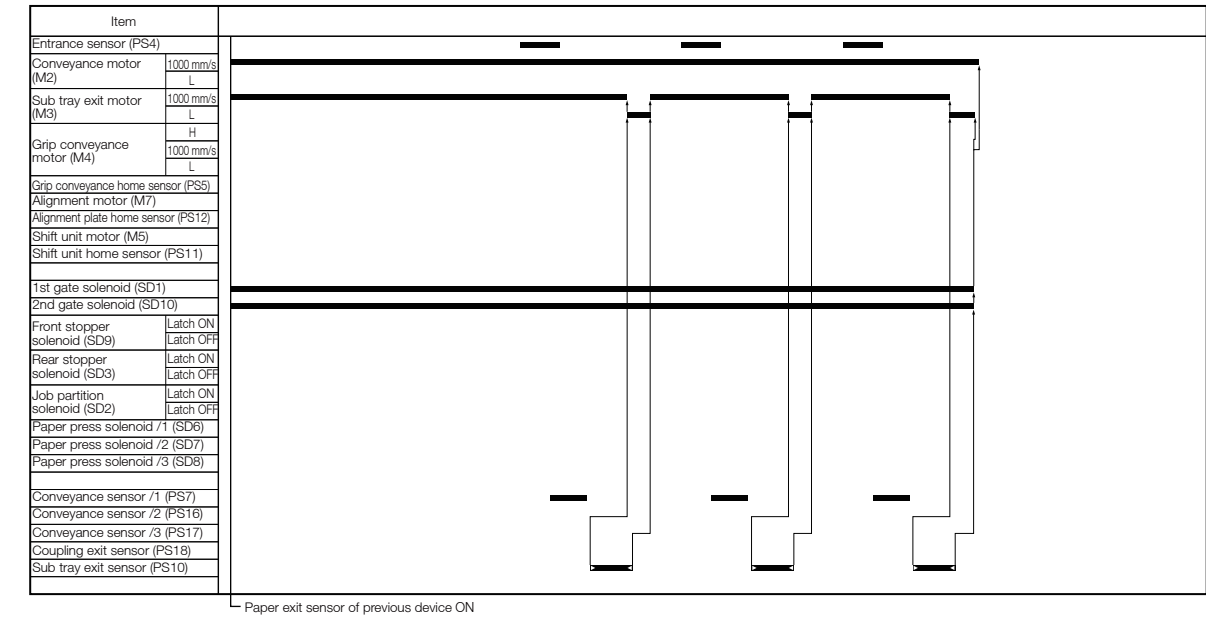


15.3 Timing chart of the sub tray mode

15.3.1 Operation condition

A4, sub tray mode, 3 originals, 1 copy setting

15.3.2 Timing chart



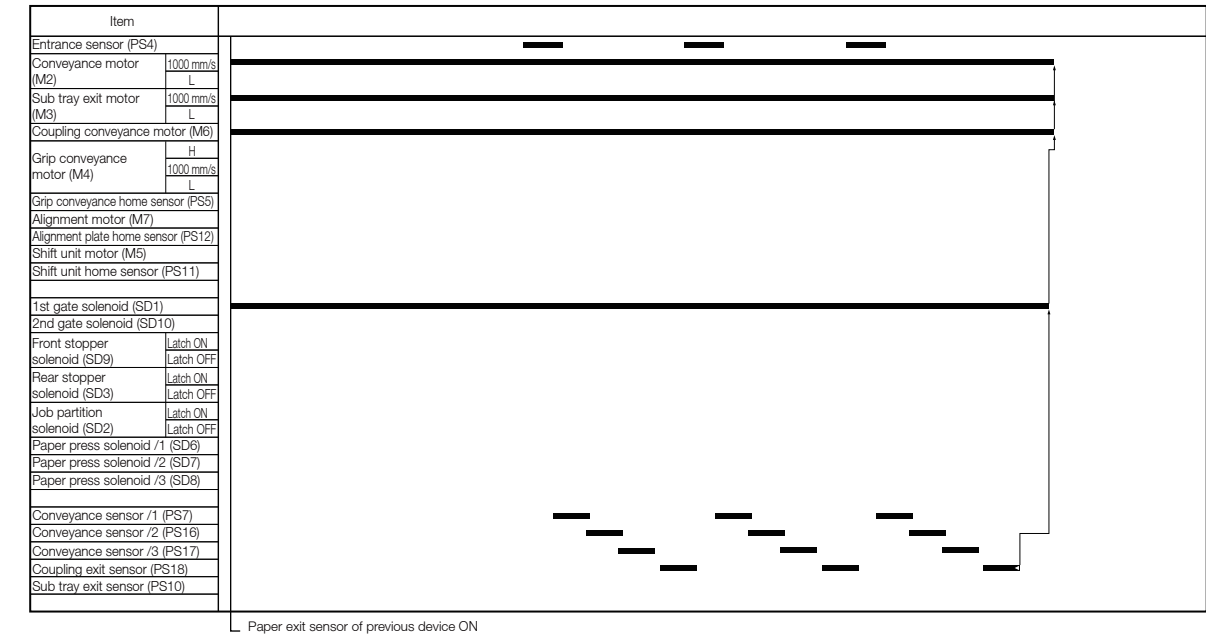
ls502ts5011de

15.4 Timing chart of the coupling mode

15.4.1 Operation condition

A4, coupling mode, 3 originals, 1 copy setting

15.4.2 Timing chart



IS502/IS5012de

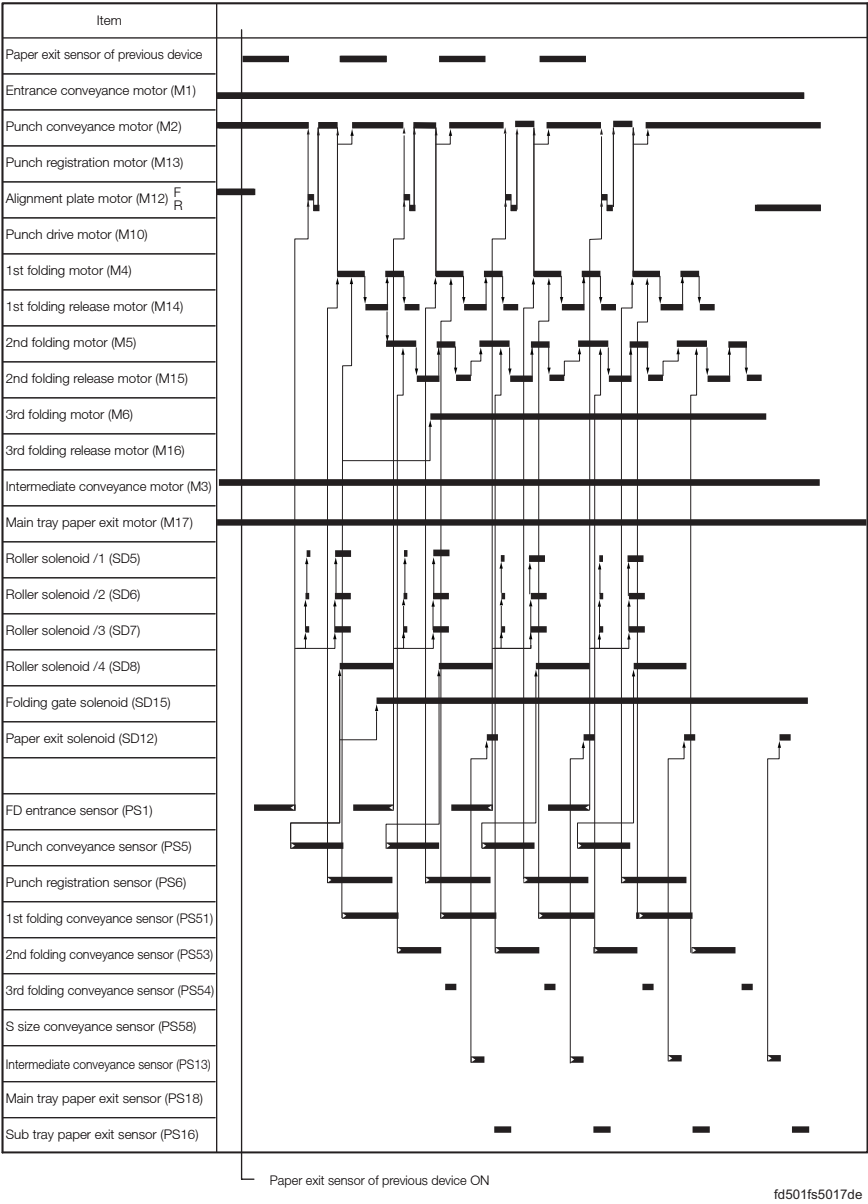
16. FD-503

16.1 Timing chart of the letter fold-in mode

16.1.1 Operation condition

Tri-folding in, A3, 2 originals, 2 copies, sub tray paper exit

16.1.2 Timing chart

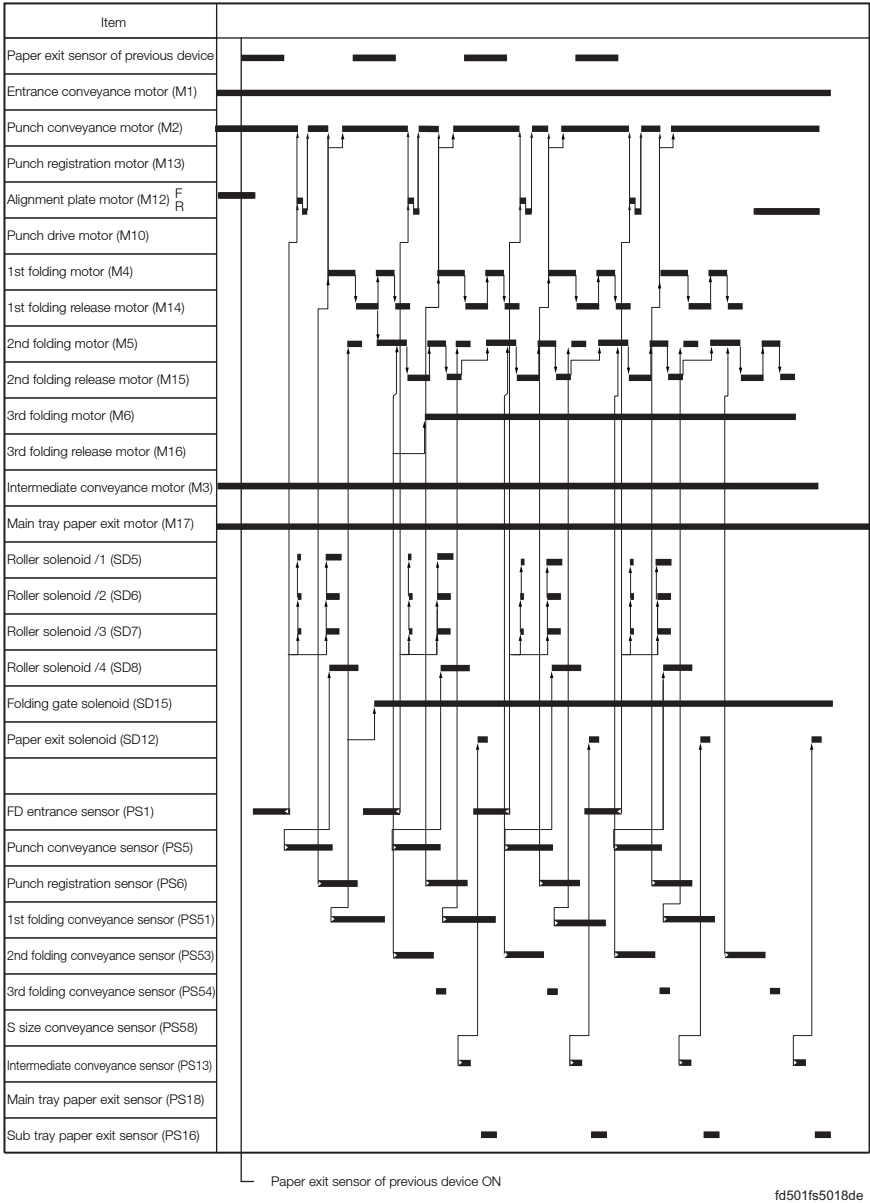


16.2 Timing chart of the letter fold-out mode

16.2.1 Operation condition

Tri-folding out, A3, 2 originals, 2 copies, sub tray paper exit

16.2.2 Timing chart

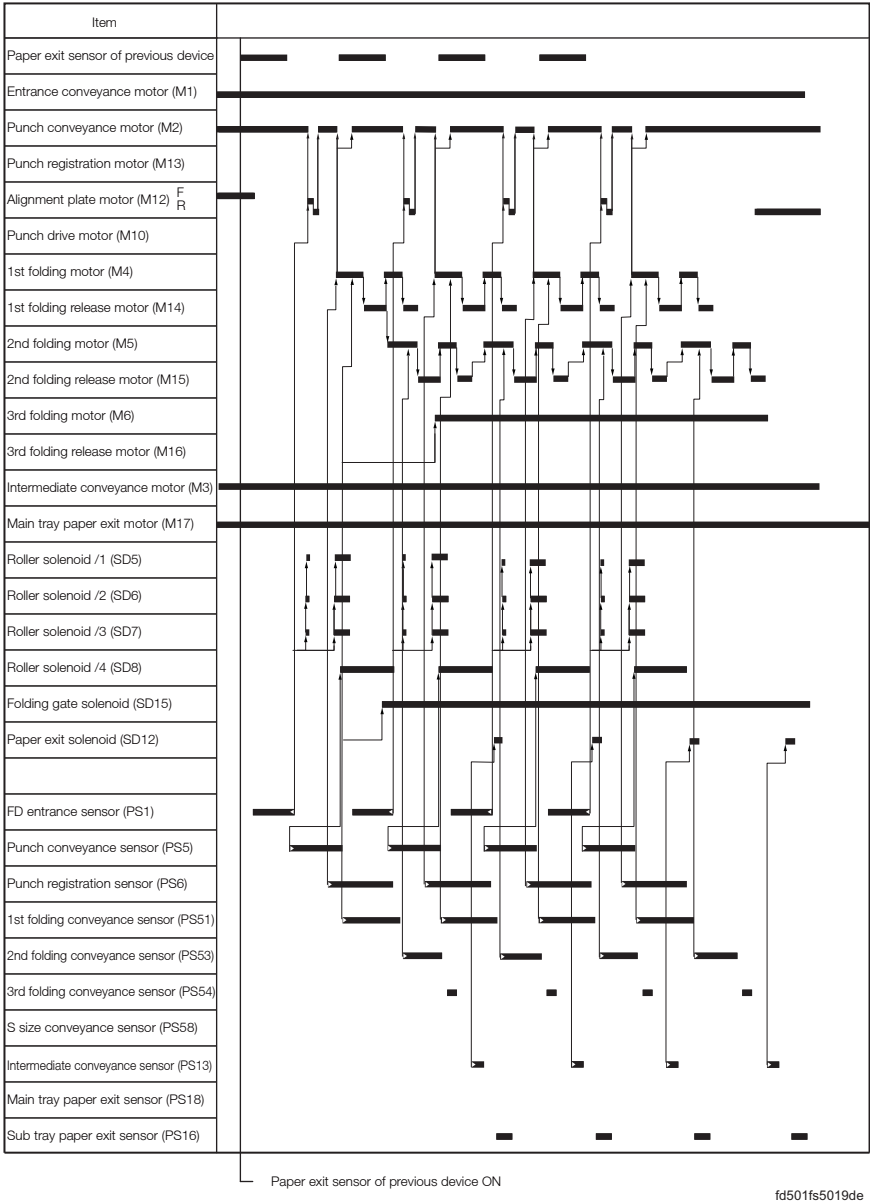


16.3 Timing chart of the double parallel mode

16.3.1 Operation condition

Double parallel, A3, 2 originals, 2 copies, sub tray paper exit

16.3.2 Timing chart

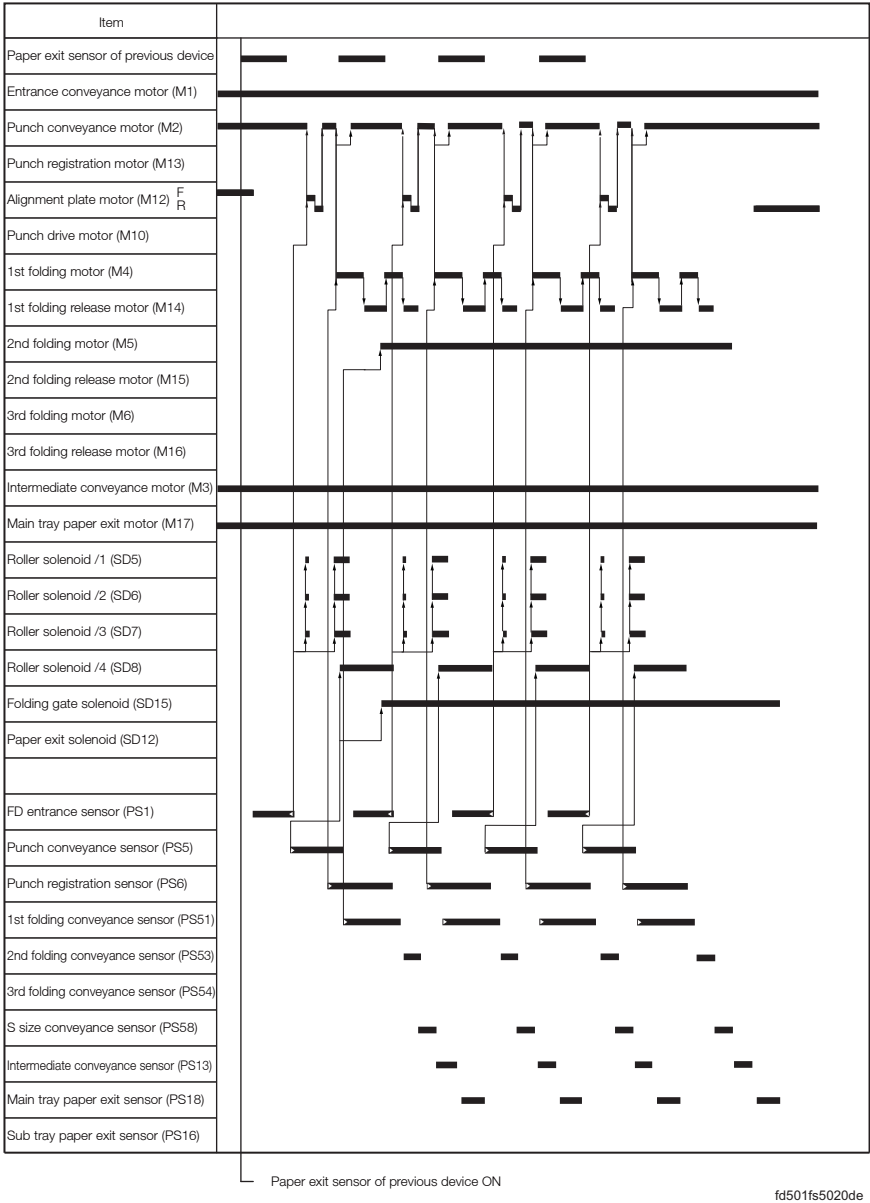


16.4 Timing chart of the half-folding mode

16.4.1 Operation condition

Half-folding, A3, 2 originals, 2 copies, sub tray paper exit

16.4.2 Timing chart

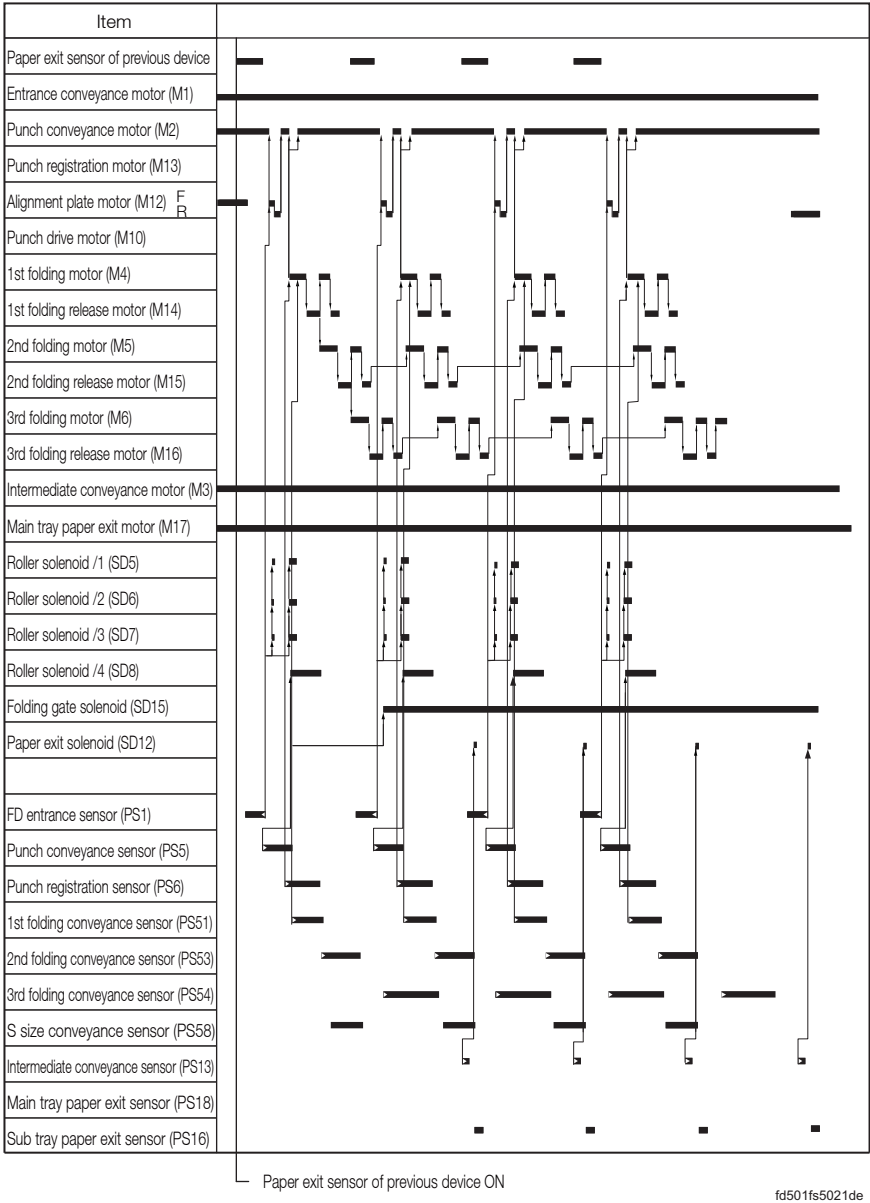


16.5 Timing chart of the gate fold mode

16.5.1 Operation condition

Gate folding, A3, 2 originals, 2 copies, sub tray paper exit

16.5.2 Timing chart

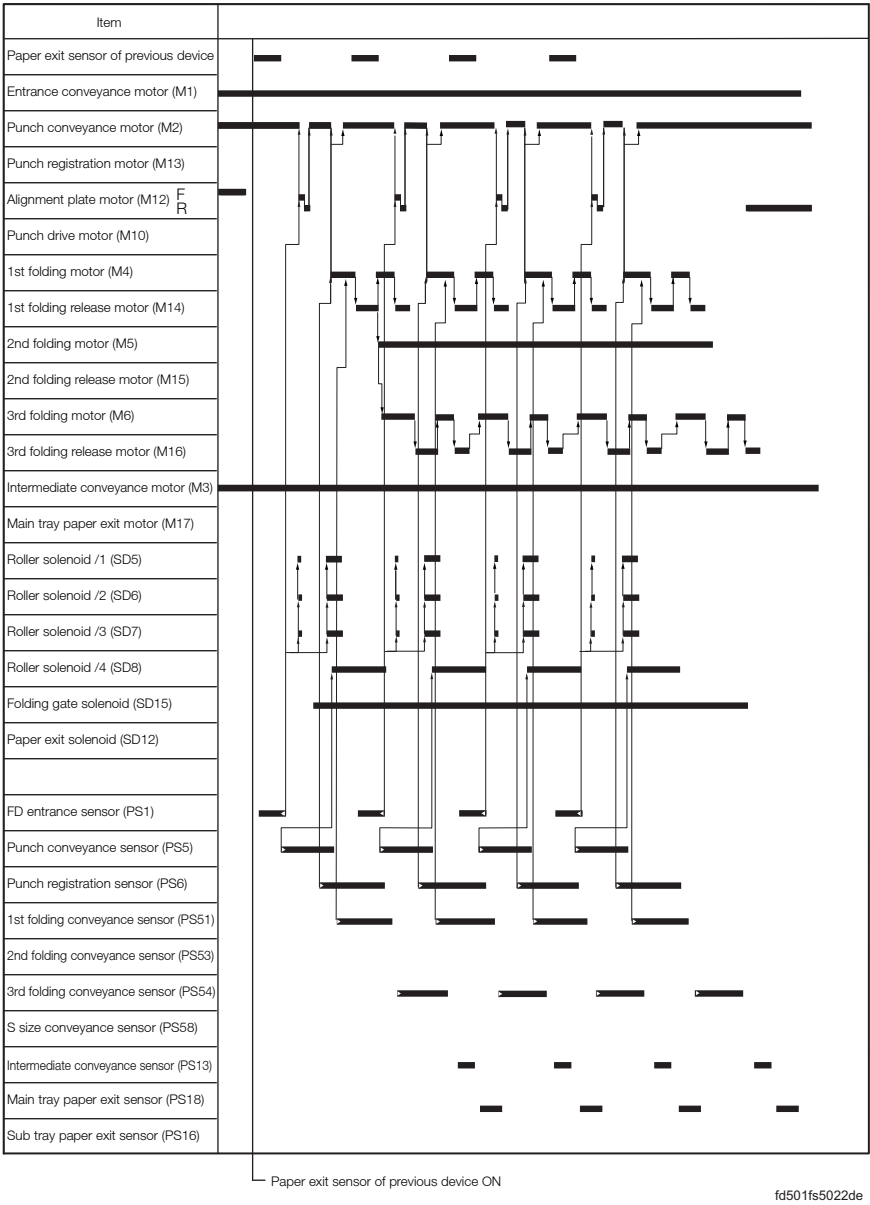


16.6 Timing chart of the Z-fold mode

16.6.1 Operation condition

Z-folding, A3, 2 originals, 2 copies, sub tray paper exit

16.6.2 Timing chart

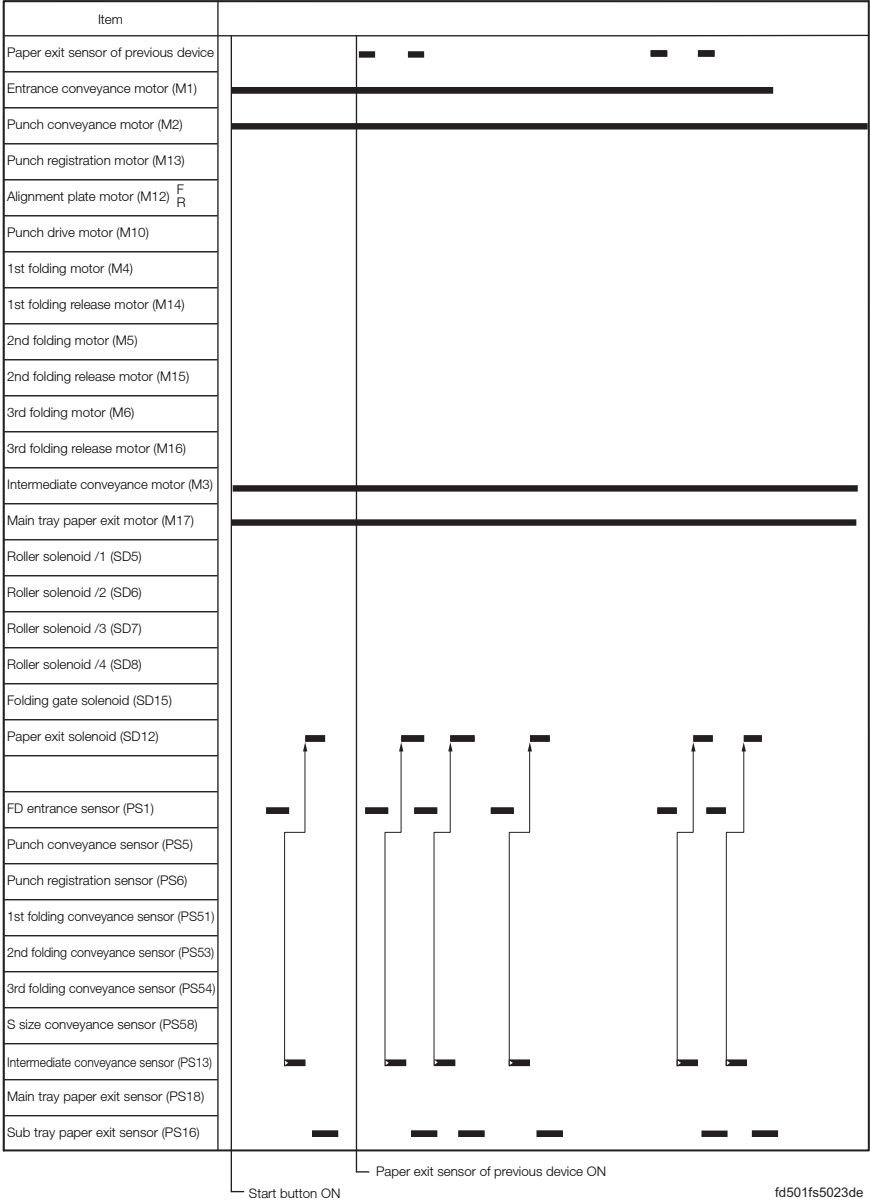


16.7 Timing chart of the PI cover paper insertion mode

16.7.1 Operation condition

PI cover insertion, A4, 2 originals, 2 copies, sub tray paper exit

16.7.2 Timing chart

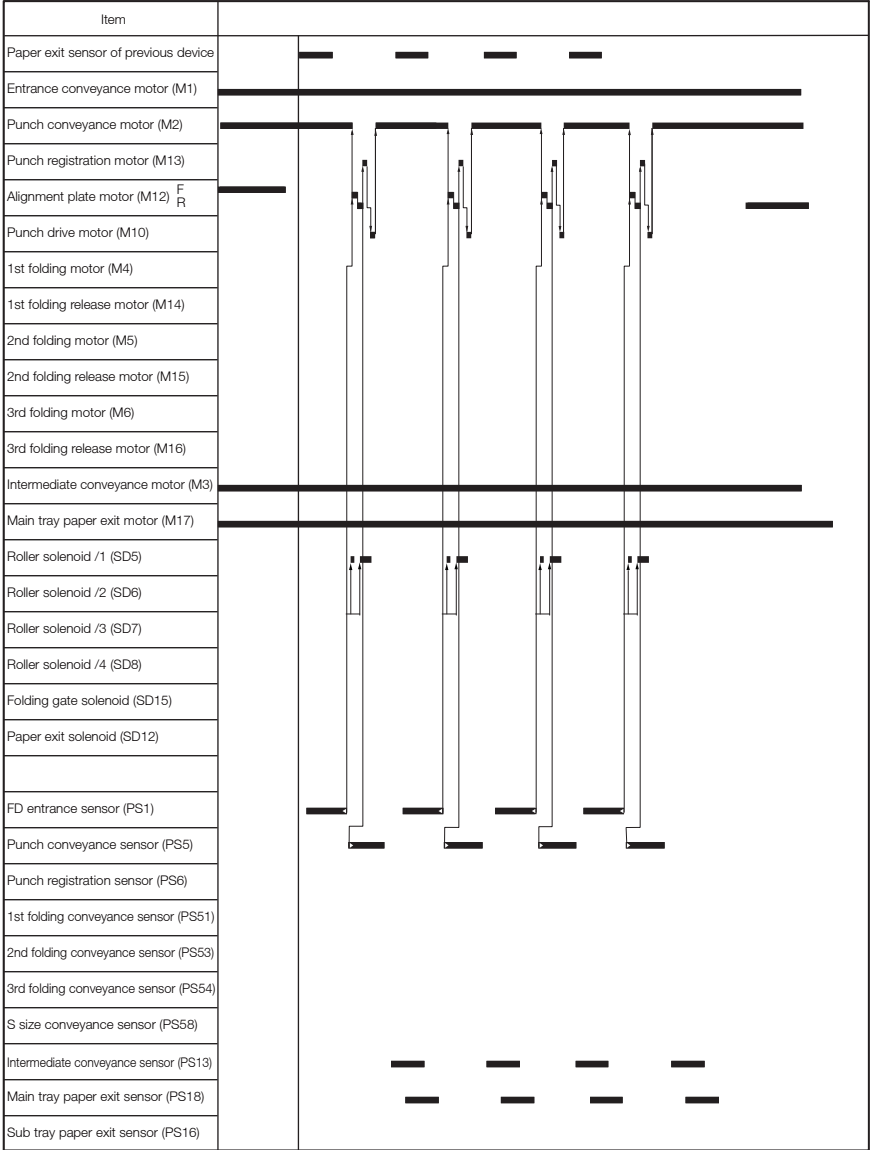


16.8 Timing chart of the punch mode

16.8.1 Operation condition

Punch, A4, 2 originals, 2 copies, sub tray paper exit

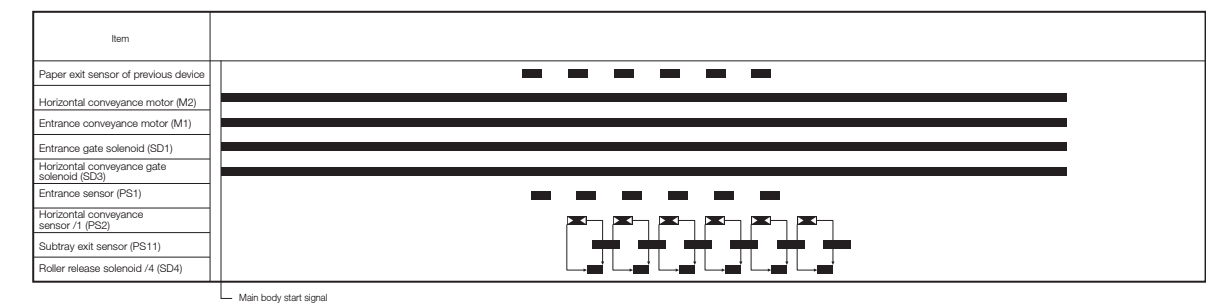
16.8.2 Timing chart



Paper exit sensor of previous device ON

fd501fs5024de

17.2.2 Timing chart



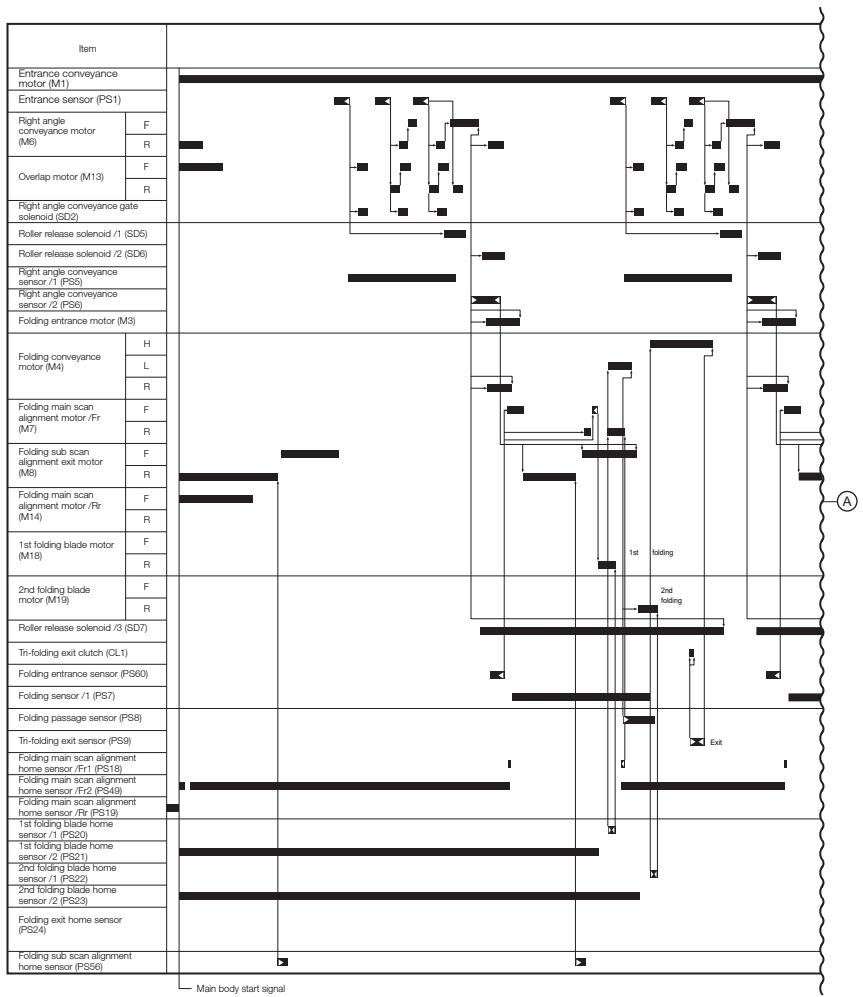
15mm/500 1mb

17.3 Timing chart of the overlap tri-folding mode

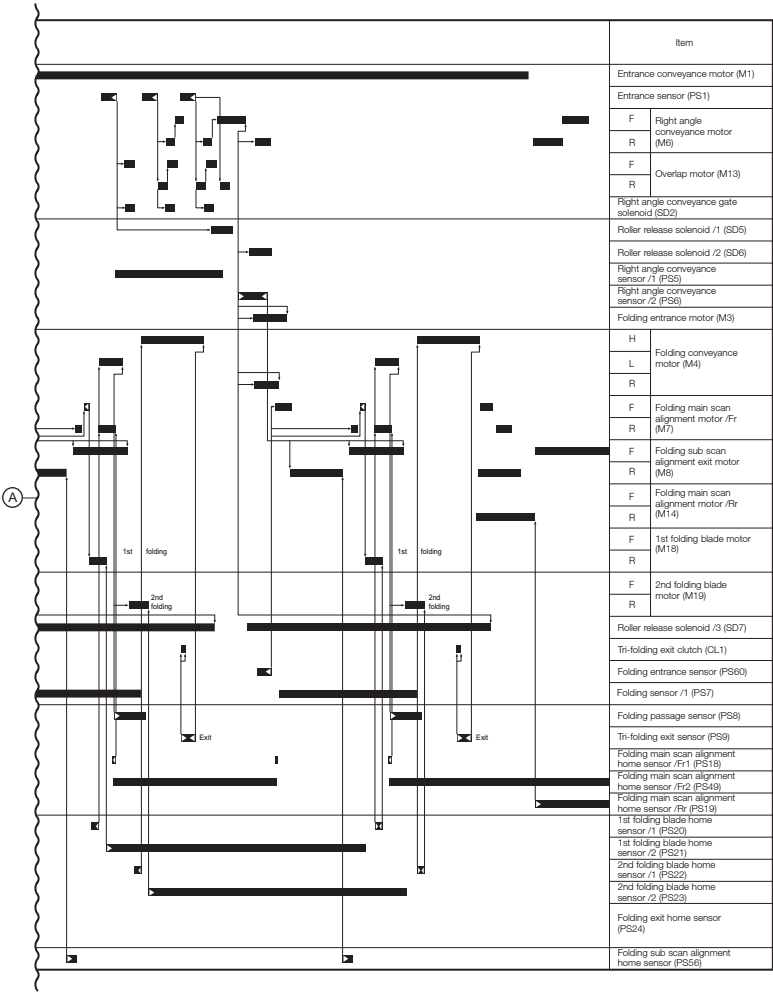
17.3.1 Operation condition

Multi-tri-folding, A4S, 3 originals, 3 copies

17.3.2 Timing chart



15anf5e802nb



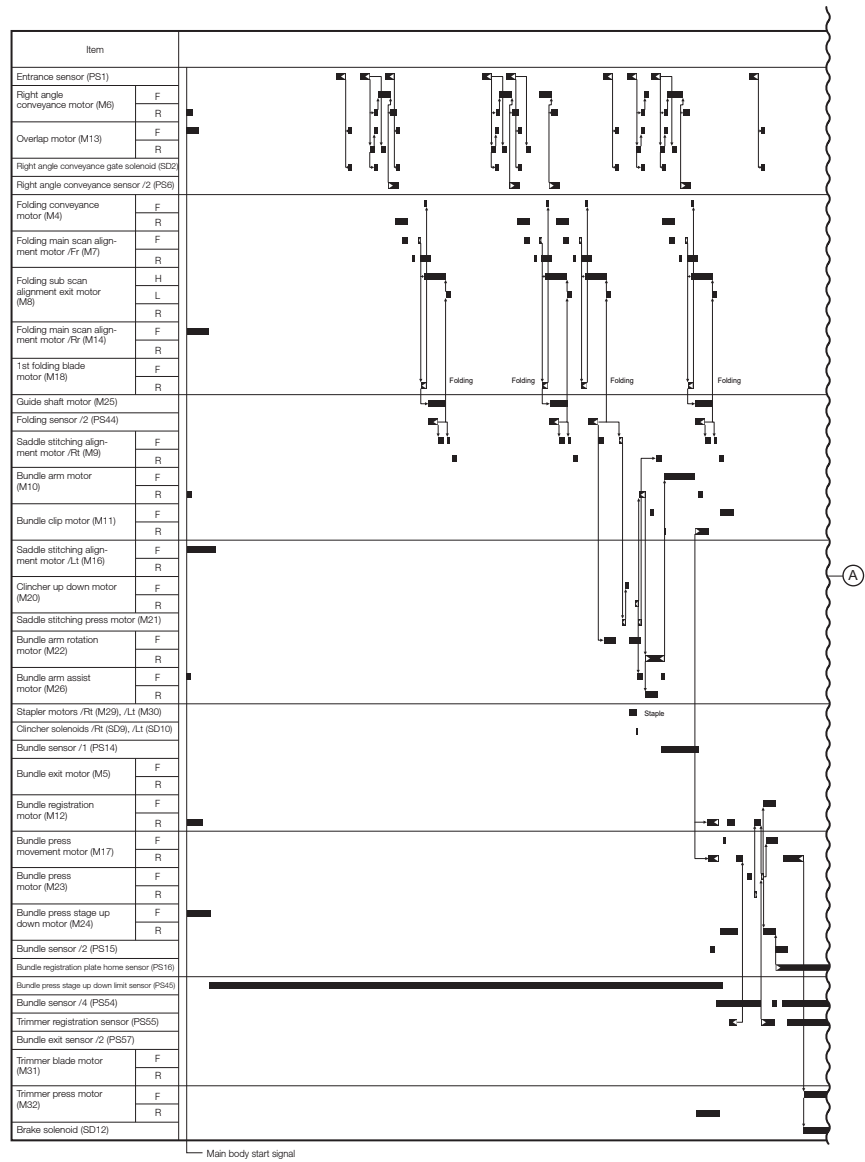
15anf5e803nb

17.4 Timing chart of the saddle stitching (trimmer) mode

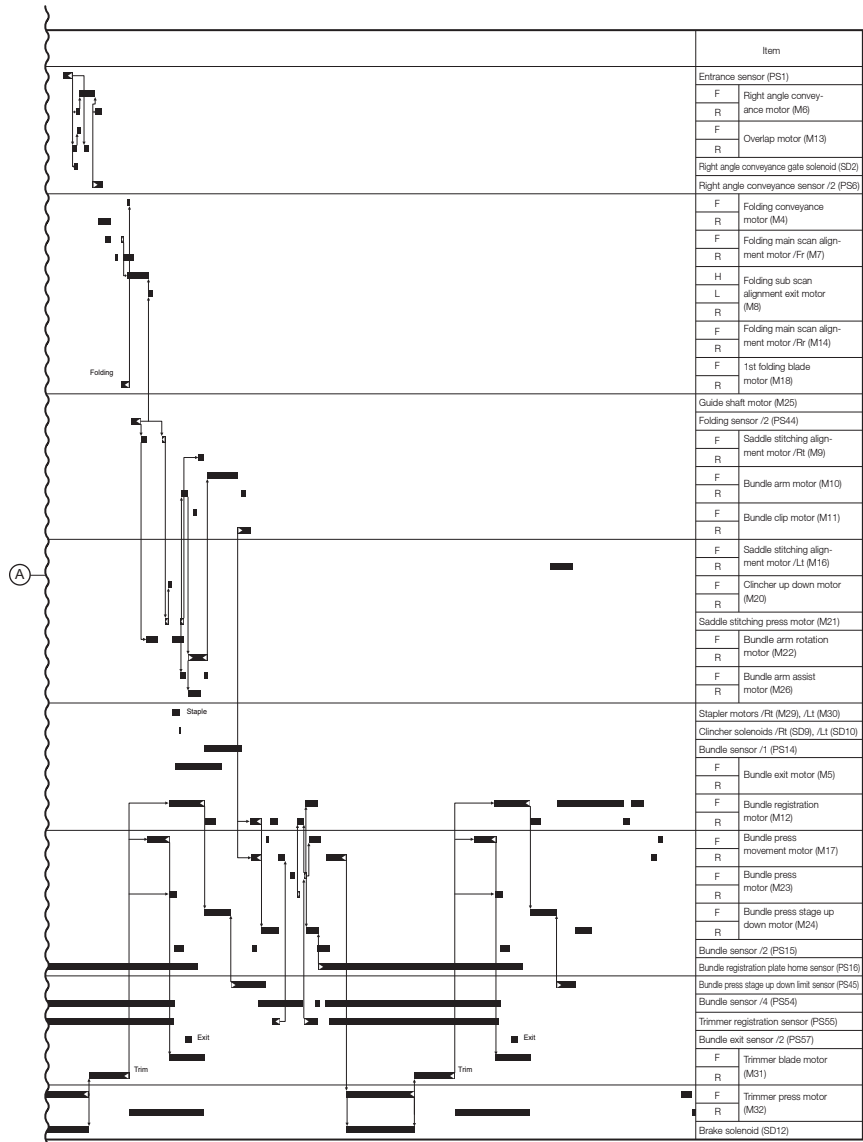
17.4.1 Operation condition

Saddle stitching (with trimming), A3, 5 originals, 2 copies

17.4.2 Timing chart



15anf5e804nb



15anf5e805nb

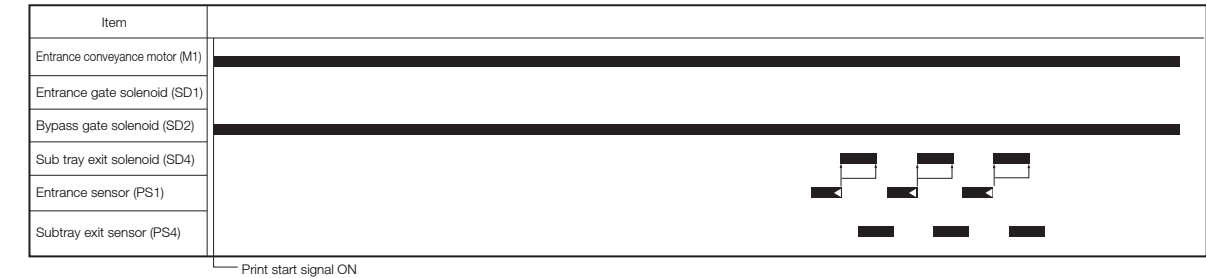
18. PB-503

18.1 Timing chart of the sub tray paper exit mode

18.1.1 Operation condition

Sub tray paper exit, A4, 3 originals, simplex

18.1.2 Timing chart



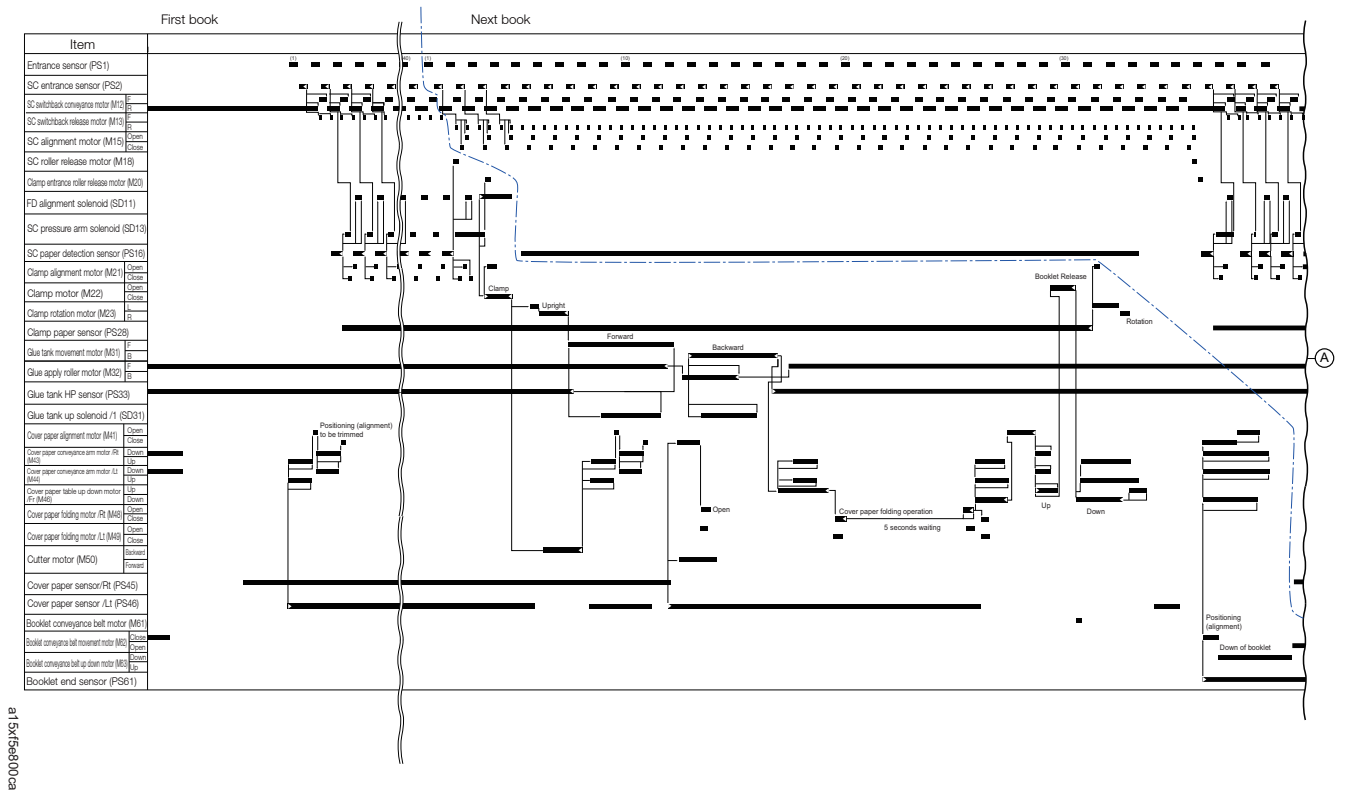
15ar1f5a800ca

18.2 Timing chart of the perfect binding mode (PB cover paper supply)

18.2.1 Operation condition

Perfect Binding, A4, 40 originals, 2 copies, single side, PB cover paper supply

18.2.2 Timing chart

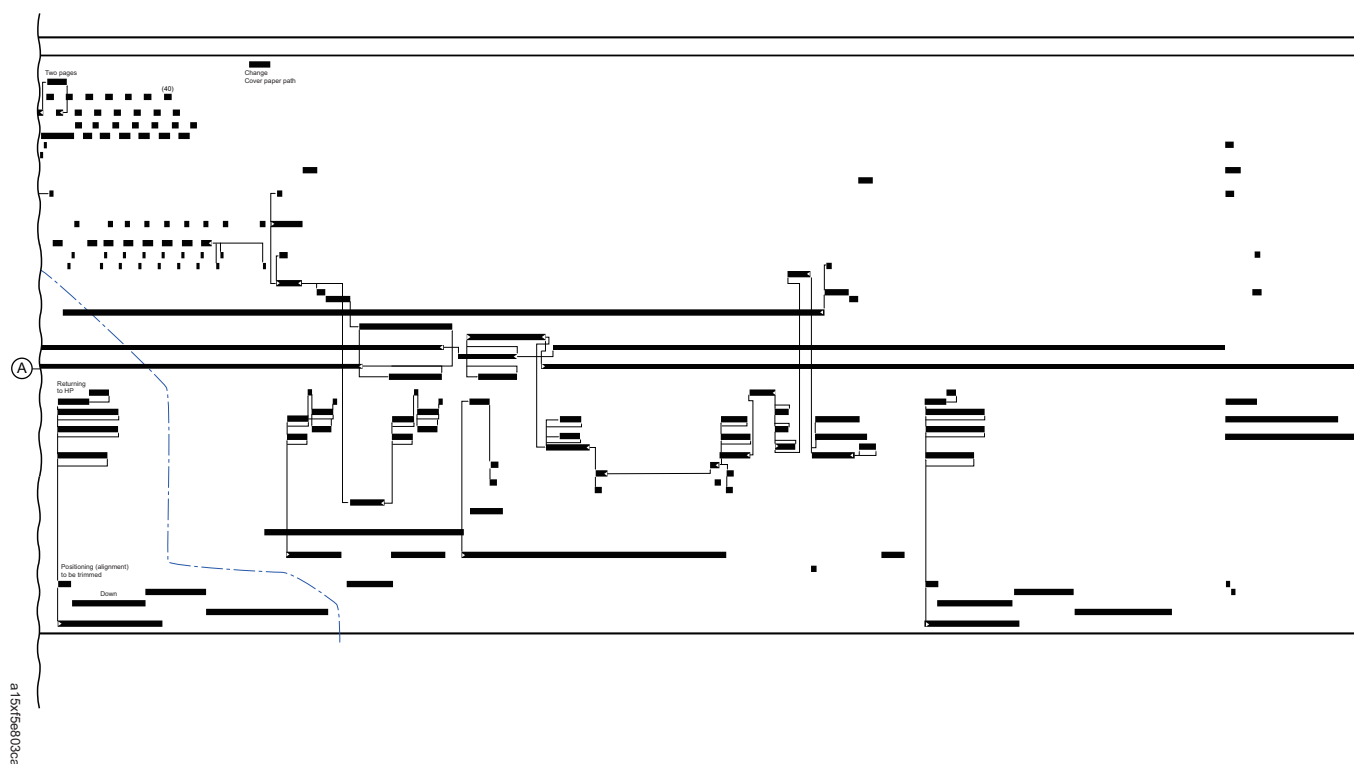
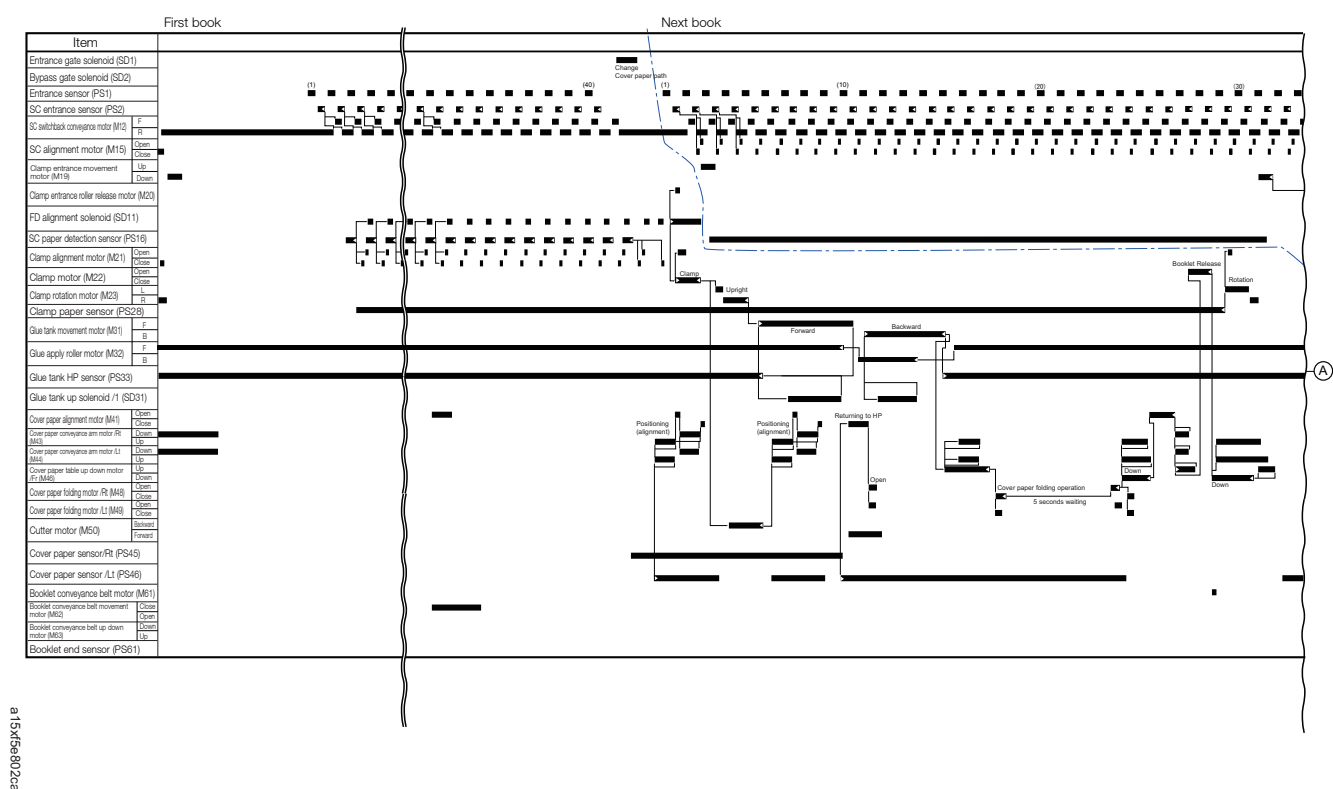


18.3 Timing chart of the perfect binding mode (Main body cover paper supply)

18.3.1 Operation condition

Perfect Binding, A4, 40 originals, 2 copies, single side, main body cover paper supply

18.3.2 Timing chart



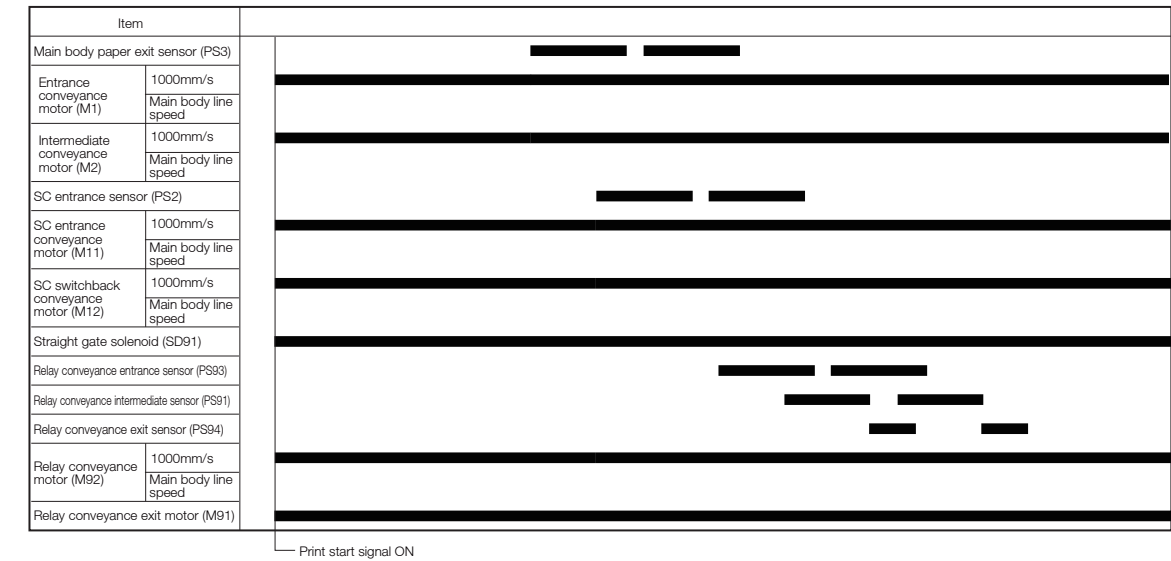
18.4 Timing chart of the relay conveyance mode

18.4.1 Operation condition

Relay conveyance, A3, 2 originals, simplex

* C8000/1200/1200P/1250/1250P/C7000/C7000P/C70hc/C6000

18.4.2 Timing chart

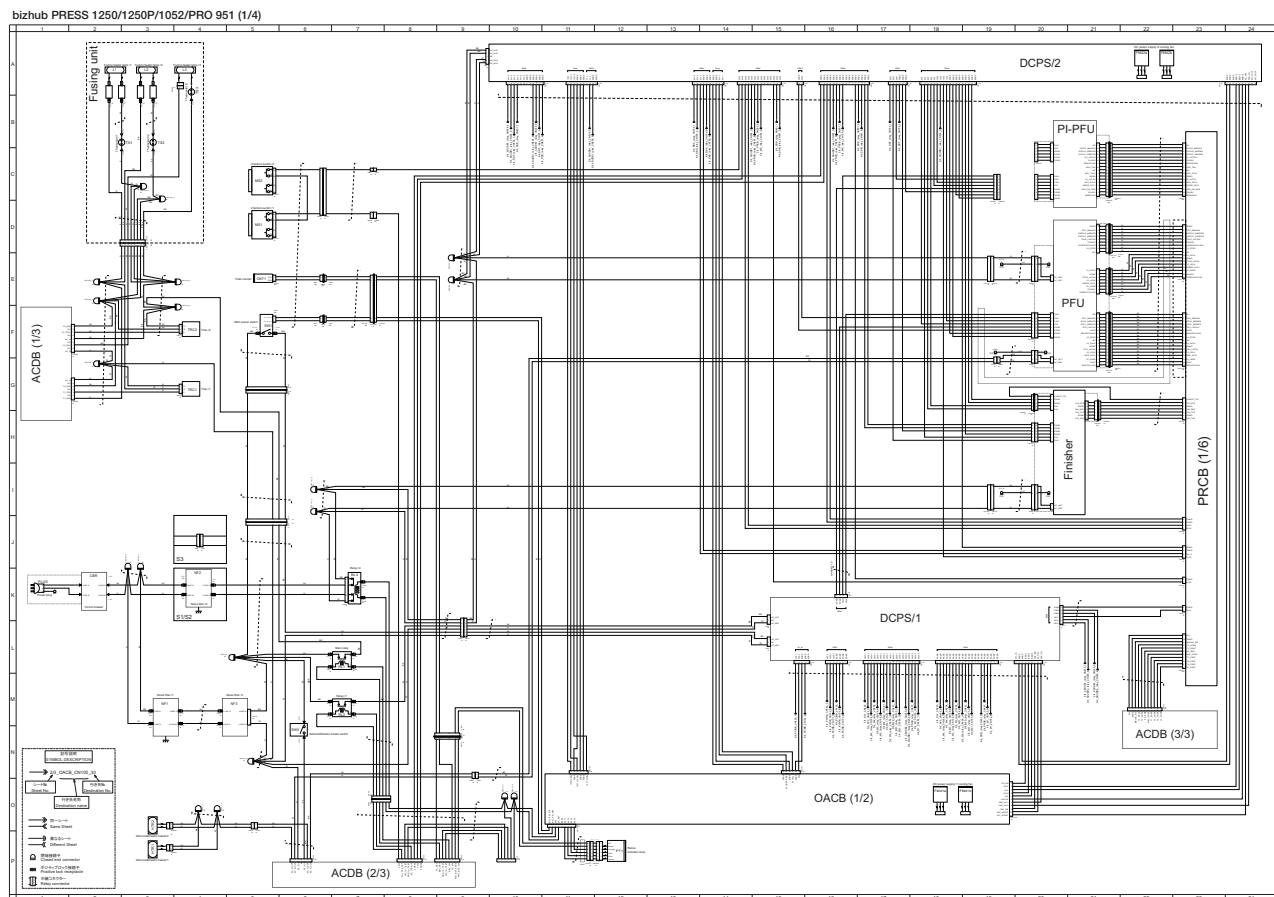


a15x45a804ca

N WIRING DIAGRAM

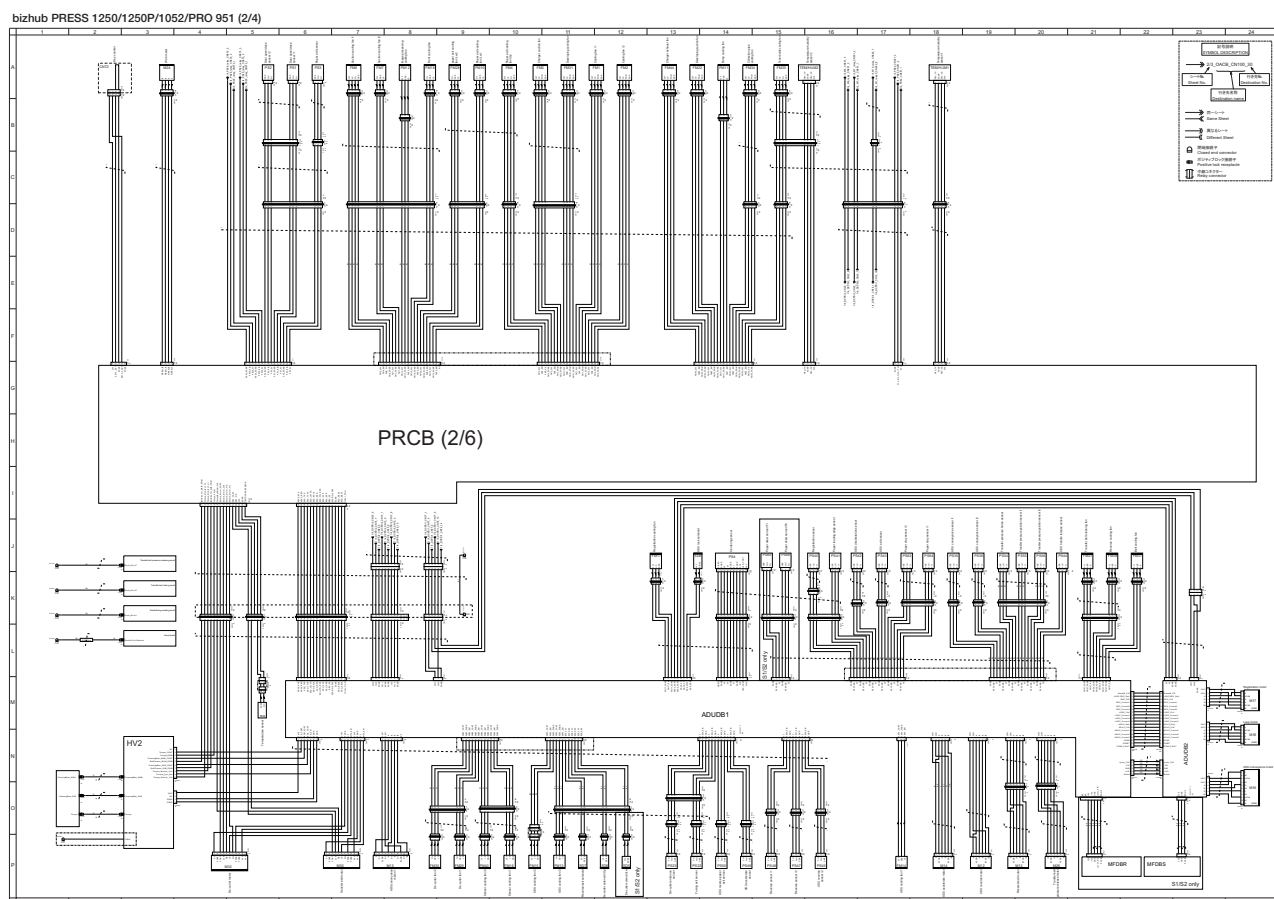
1. PRESS 1250/1250P/1052/PRO 951

1.1 PRESS 1250/1250P/1052/PRO 951 (1/4)



- bizhub PRESS 1250/1250P/1052/PRO 951 (1/4)_A4EUM0NE001CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (1/4-1)_A4EUM0NE011CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (1/4-2)_A4EUM0NE012CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (1/4-3)_A4EUM0NE013CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (1/4-4)_A4EUM0NE014CA

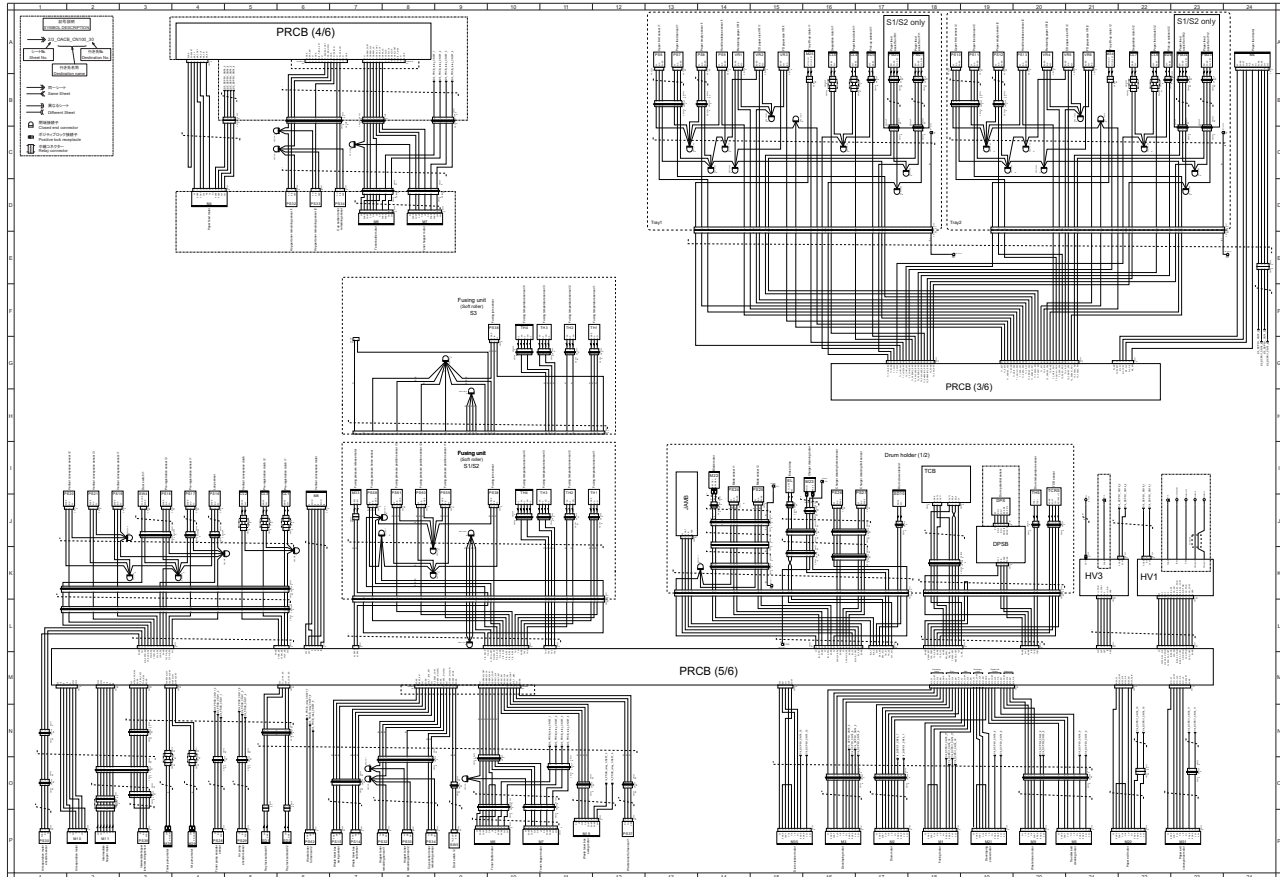
1.2 PRESS 1250/1250P/1052/PRO 951 (2/4)



- bizhub PRESS 1250/1250P/1052 — RO 951 (2/4)_A4EUM0NE002CA
- bizhub PRESS 1250/1250P/1052 — RO 951 (2/4-1)_A4EUM0NE021CA
- bizhub PRESS 1250/1250P/1052 — RO 951 (2/4-2)_A4EUM0NE022CA
- bizhub PRESS 1250/1250P/1052 — RO 951 (2/4-3)_A4EUM0NE023CA
- bizhub PRESS 1250/1250P/1052 — RO 951 (2/4-4)_A4EUM0NE024CA

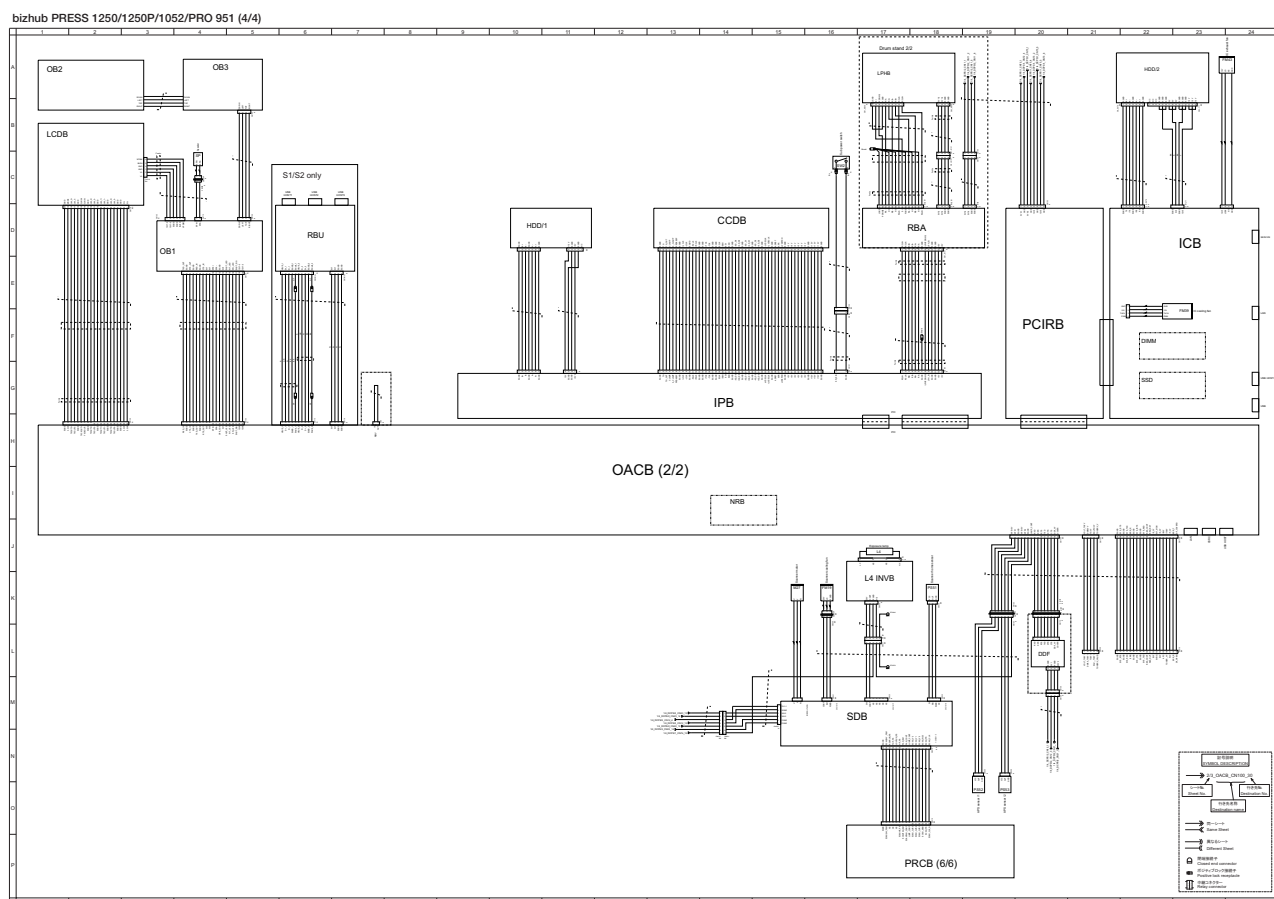
1.3 PRESS 1250/1250P/1052/PRO 951 (3/4)

bizhub PRESS 1250/1250P/1052/PRO 951 (3/4)



- bizhub PRESS 1250/1250P/1052/PRO 951 (3/4)_A4EUM0NE003CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (3/4-1)_A4EUM0NE031CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (3/4-2)_A4EUM0NE032CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (3/4-3)_A4EUM0NE033CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (3/4-4)_A4EUM0NE034CA

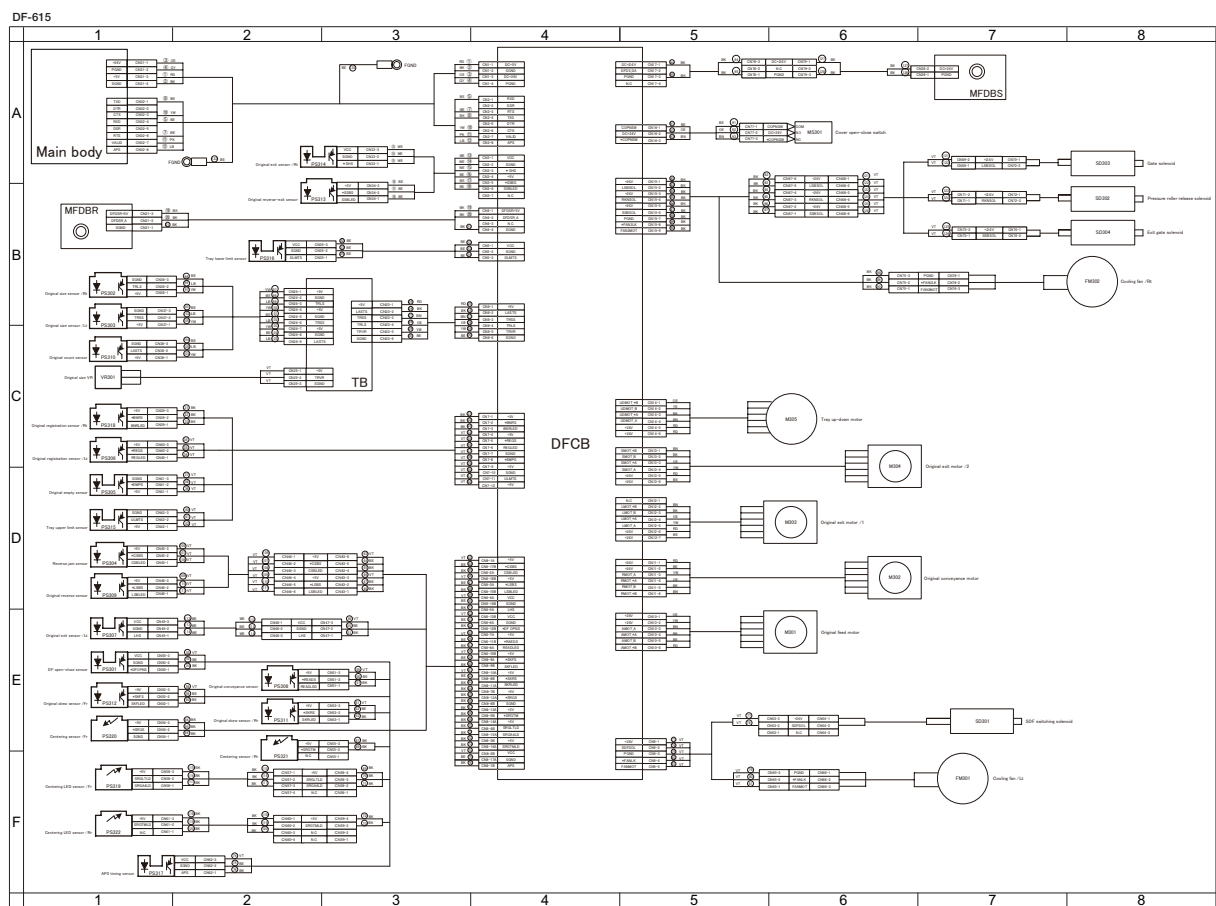
1.4 PRESS 1250/1250P/1052/PRO 951 (4/4)



- bizhub PRESS 1250/1250P/1052/PRO 951 (4/4)_A4EUM0NE004CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (4/4-1)_A4EUM0NE041CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (4/4-2)_A4EUM0NE042CA
- bizhub PRESS 1250/1250P/1052/PRO 951 (4/4-3)_A4EUM0NE043CA

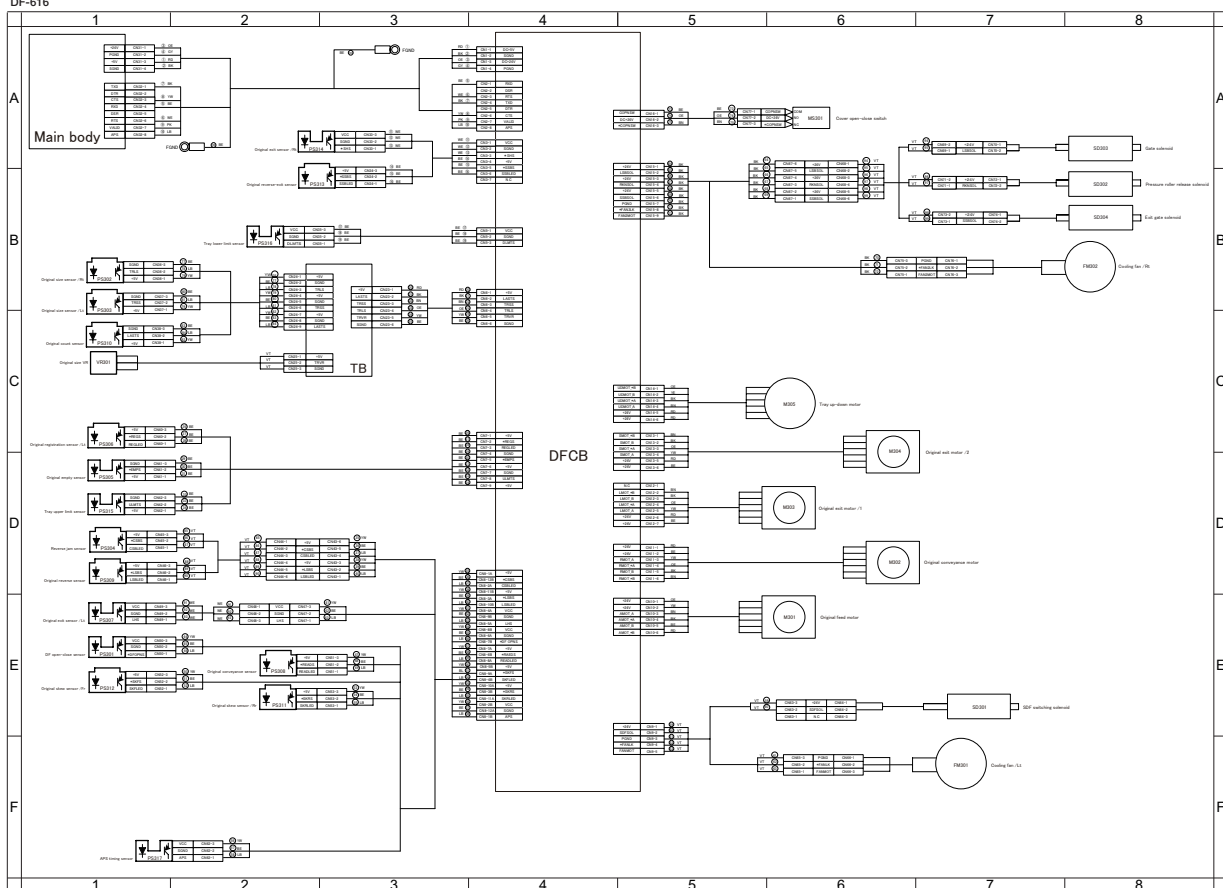
2. DF-615 /616

2.1 DF-615



- DF-615_A0 MONE001CA

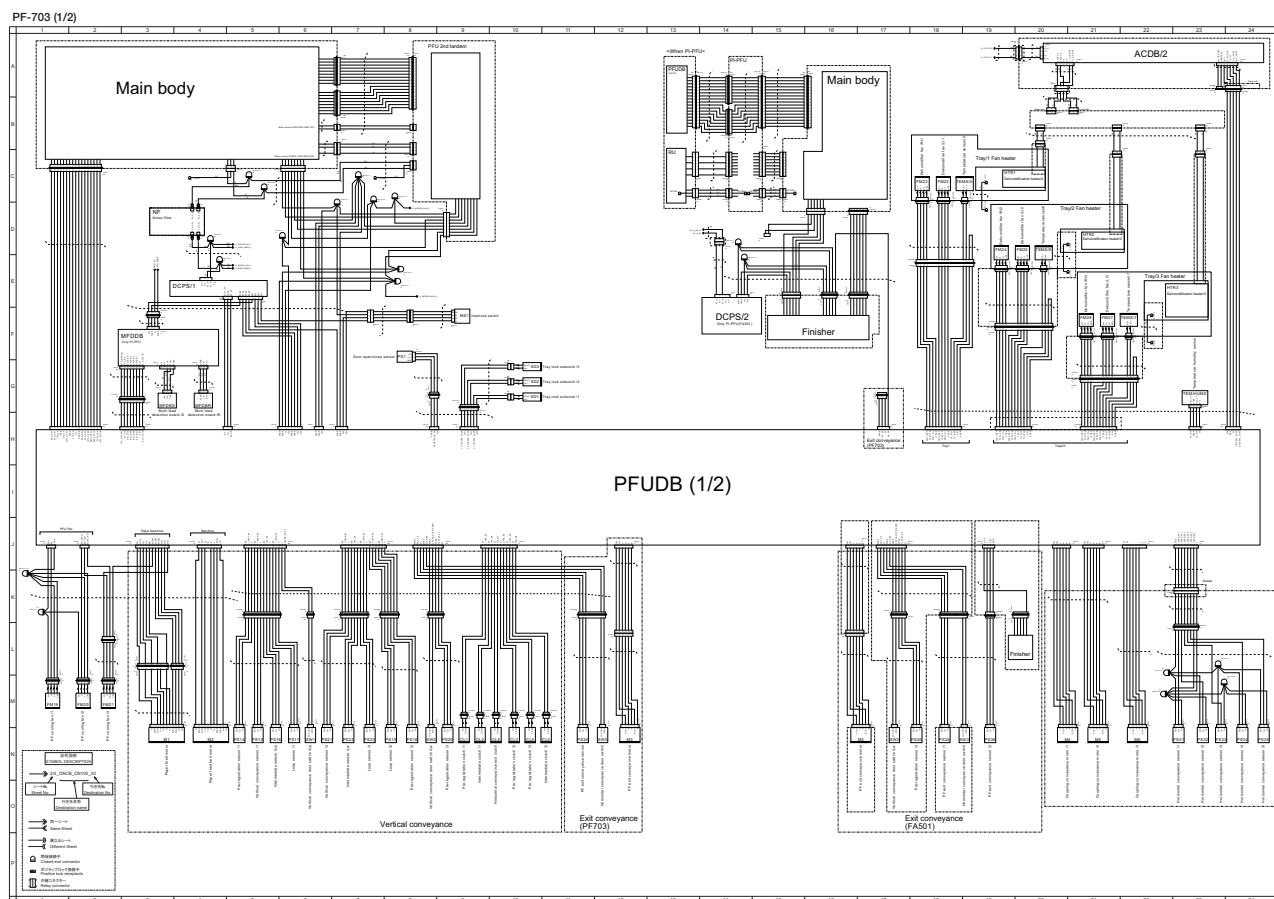
DF-616



- DF-616_A10M0NJ001CA

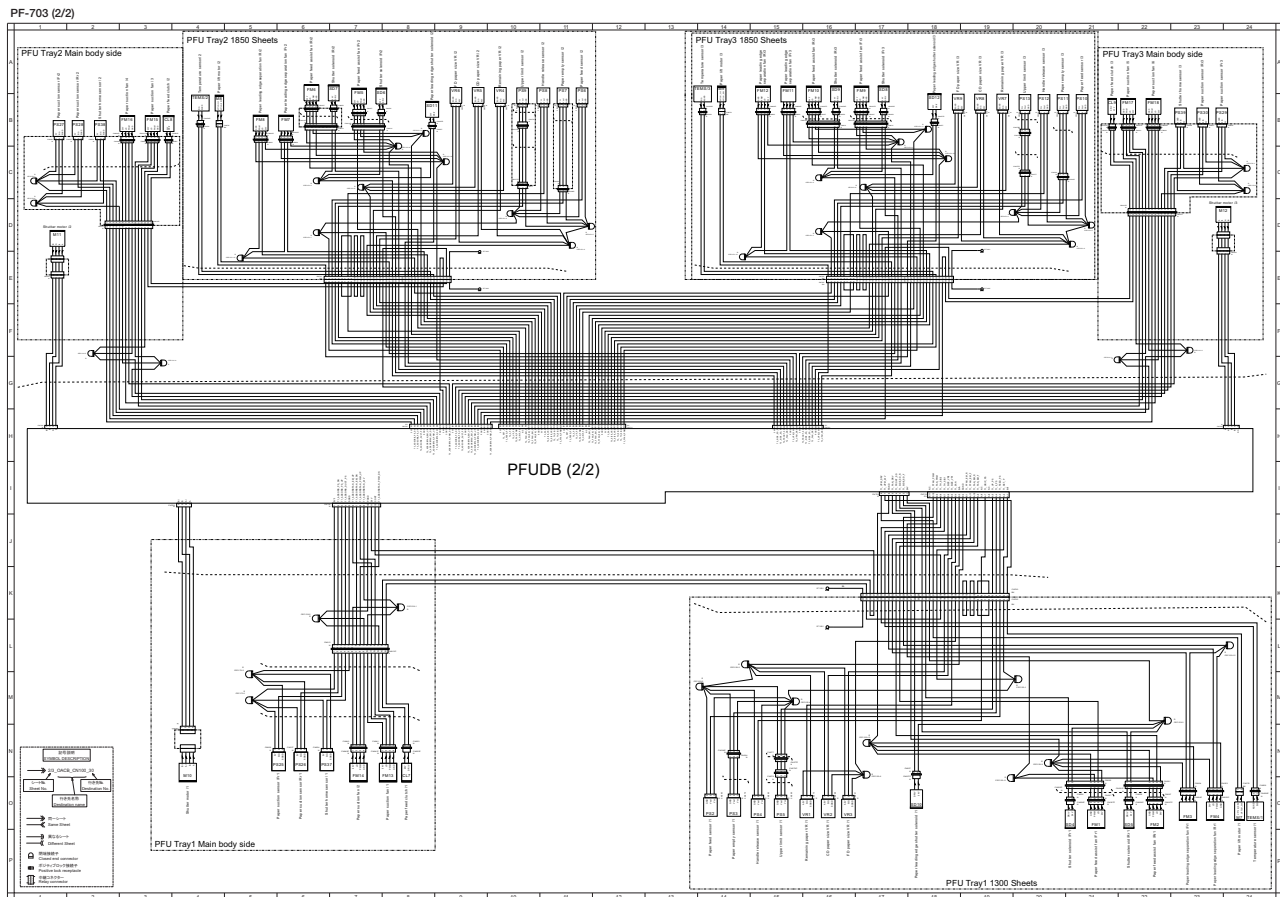
3. PF-703/706

3.1 PF-703 (1/2)



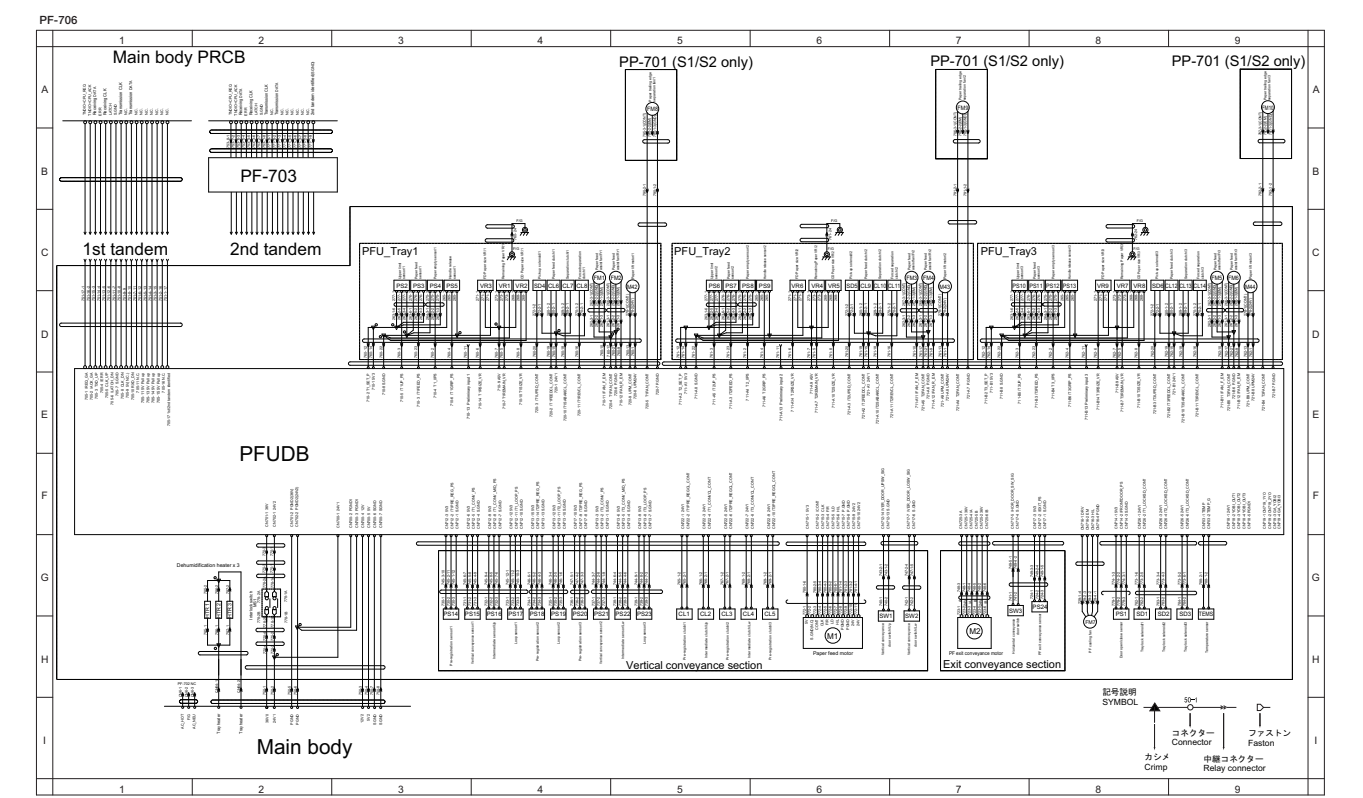
- PF-703 (1/2)_A DM0NE001CA
- PF-703 (1/2-1)_B DM0NE011CA
- PF-703 (1/2-2)_C DM0NE012CA
- PF-703 (1/2-3)_D DM0NE013CA
- PF-703 (1/2-4)_E DM0NE014CA

3.2 PF-703 (2/2)



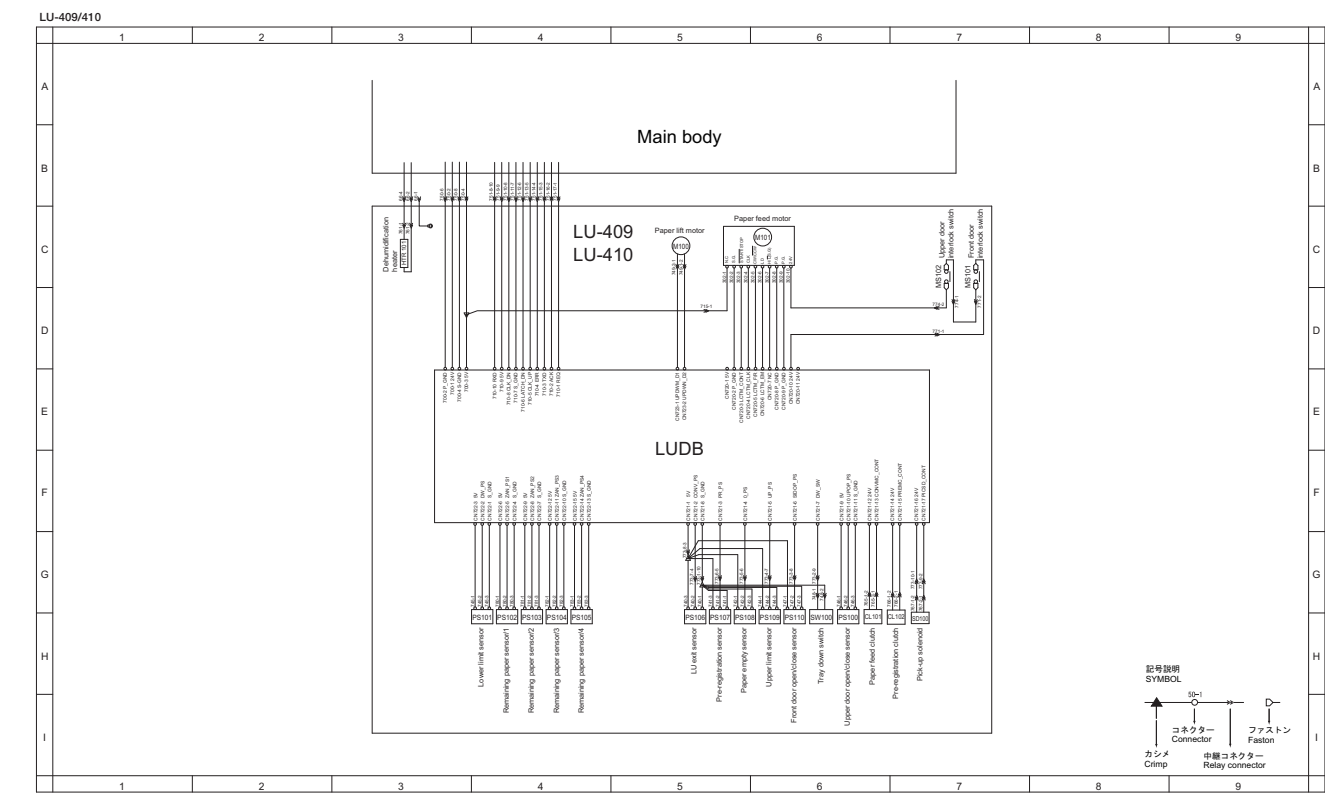
- PF-703 (2/2)_A DM0NE002CA
- PF-703 (2/2-1)_A DM0NE021CA
- PF-703 (2/2-2)_A DM0NE022CA
- PF-703 (2/2-3)_A DM0NE023CA
- PF-703 (2/2-4)_A DM0NE024CA

3.3 PF-706



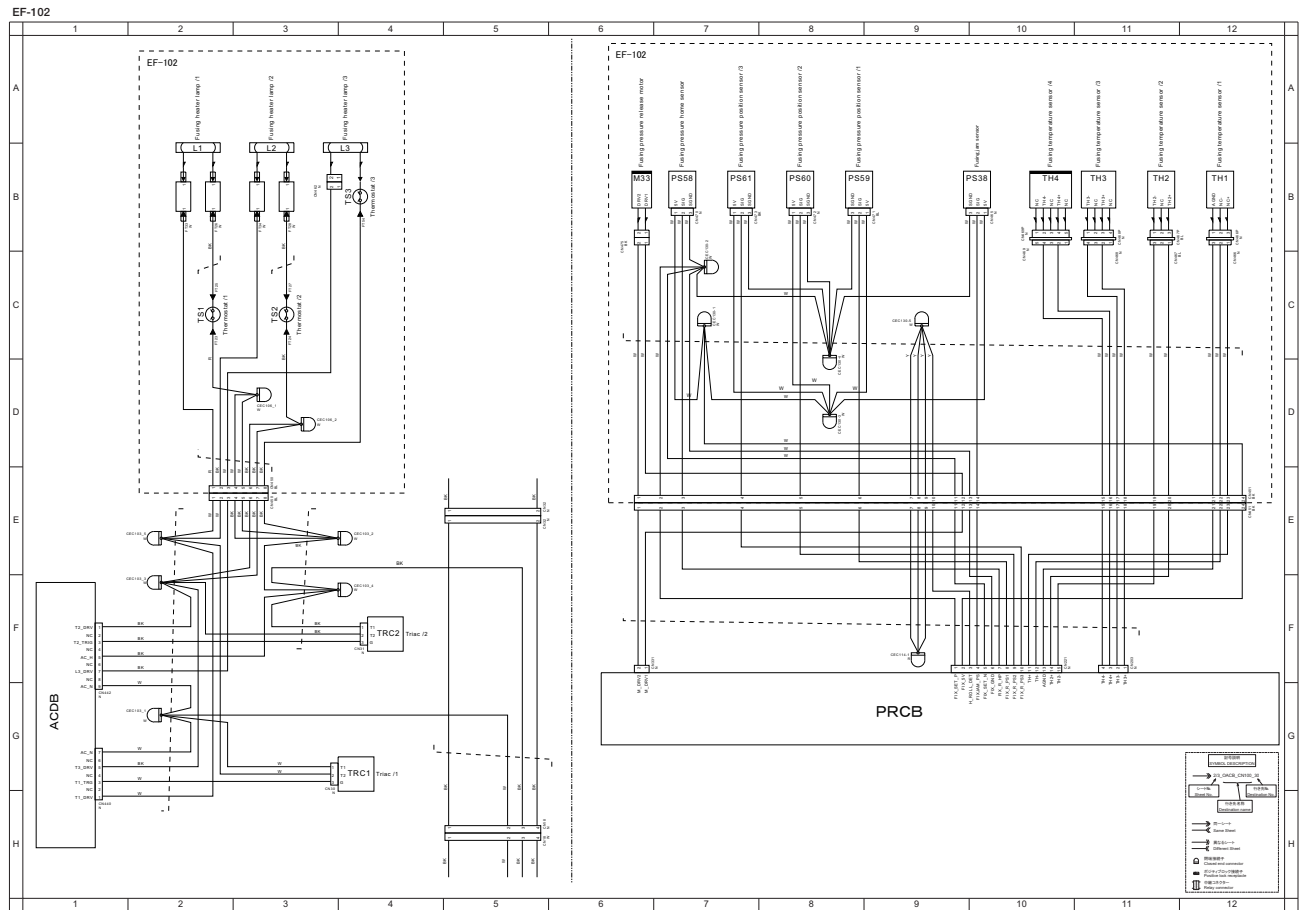
- PF-706_A4  M0NE001CA

4. LU-409/410



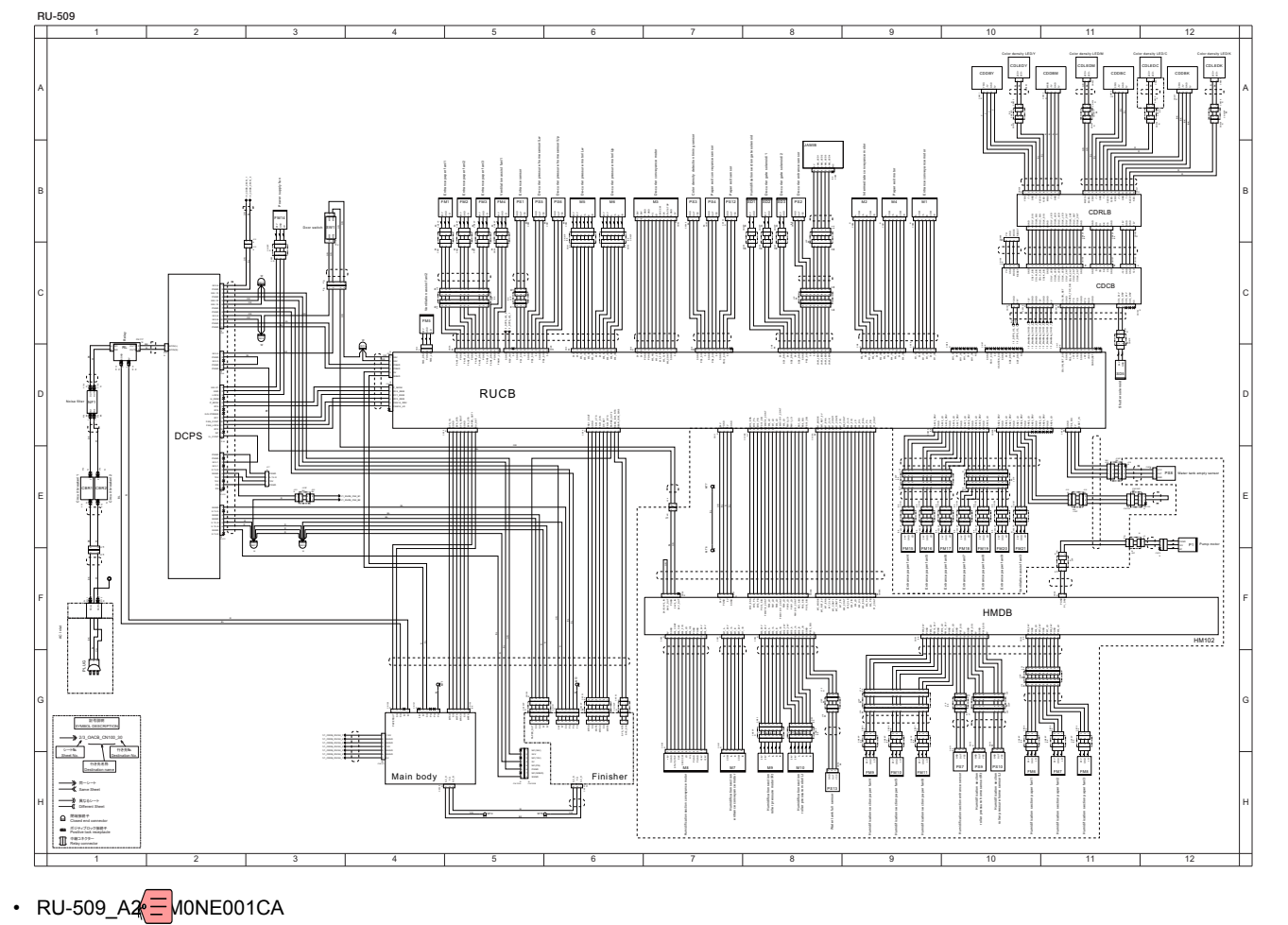
- LU-409/410_#M0NE001CA

5. EF-102

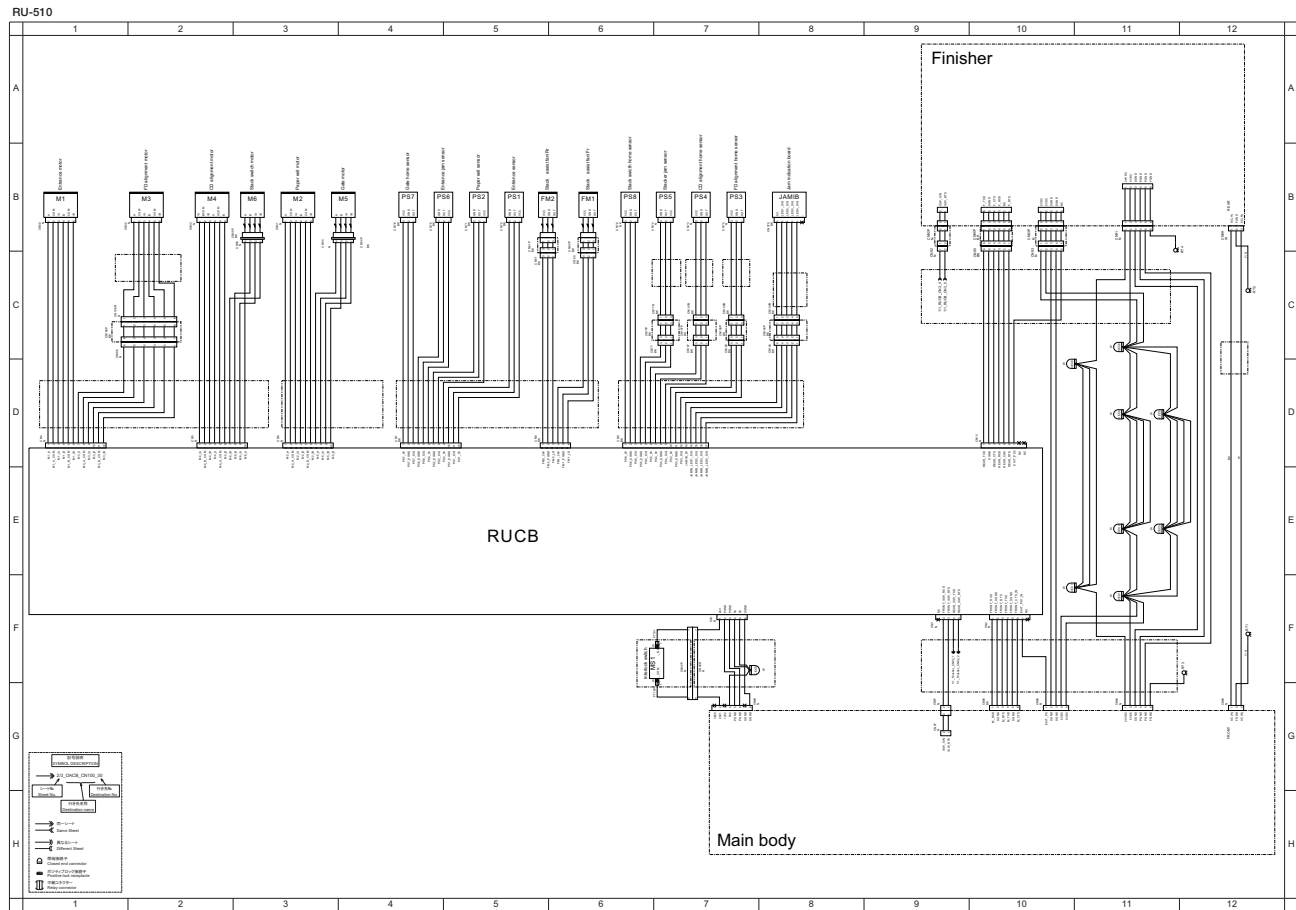


- EF-102_A4 10NE001CA

6. RU-509

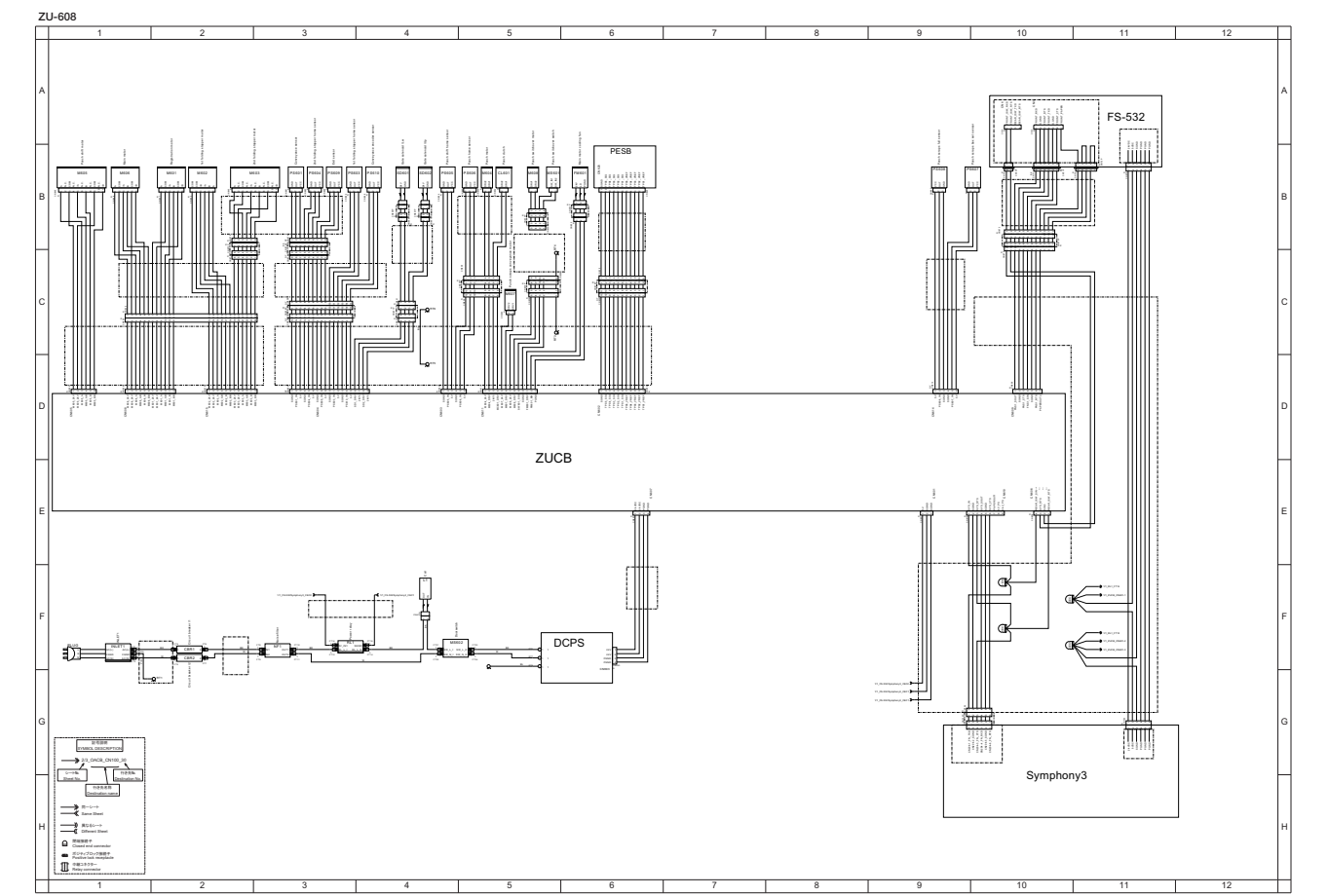


7. RU-510



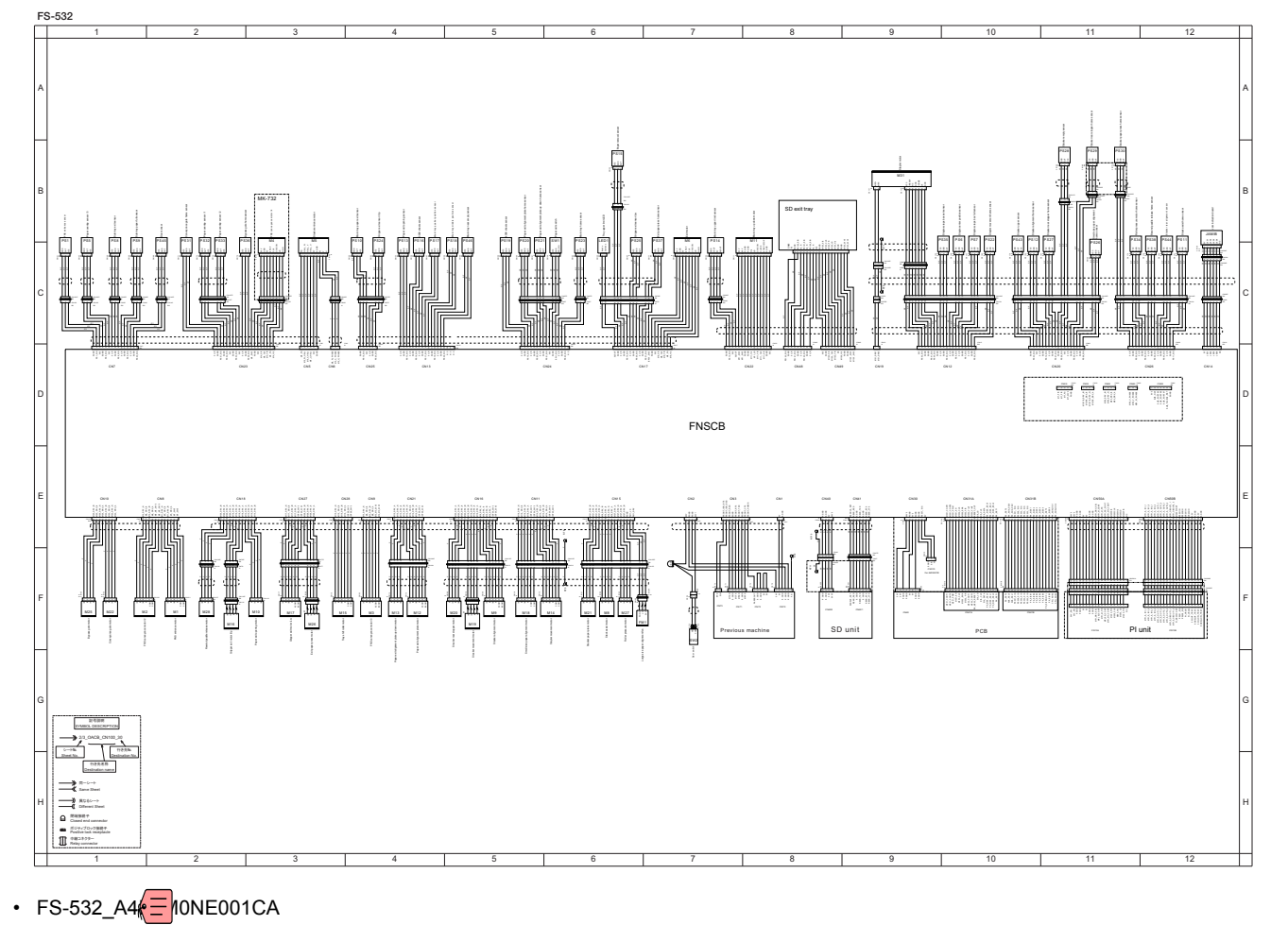
- RU-510_A4 M0NJ001CA

8. ZU-608

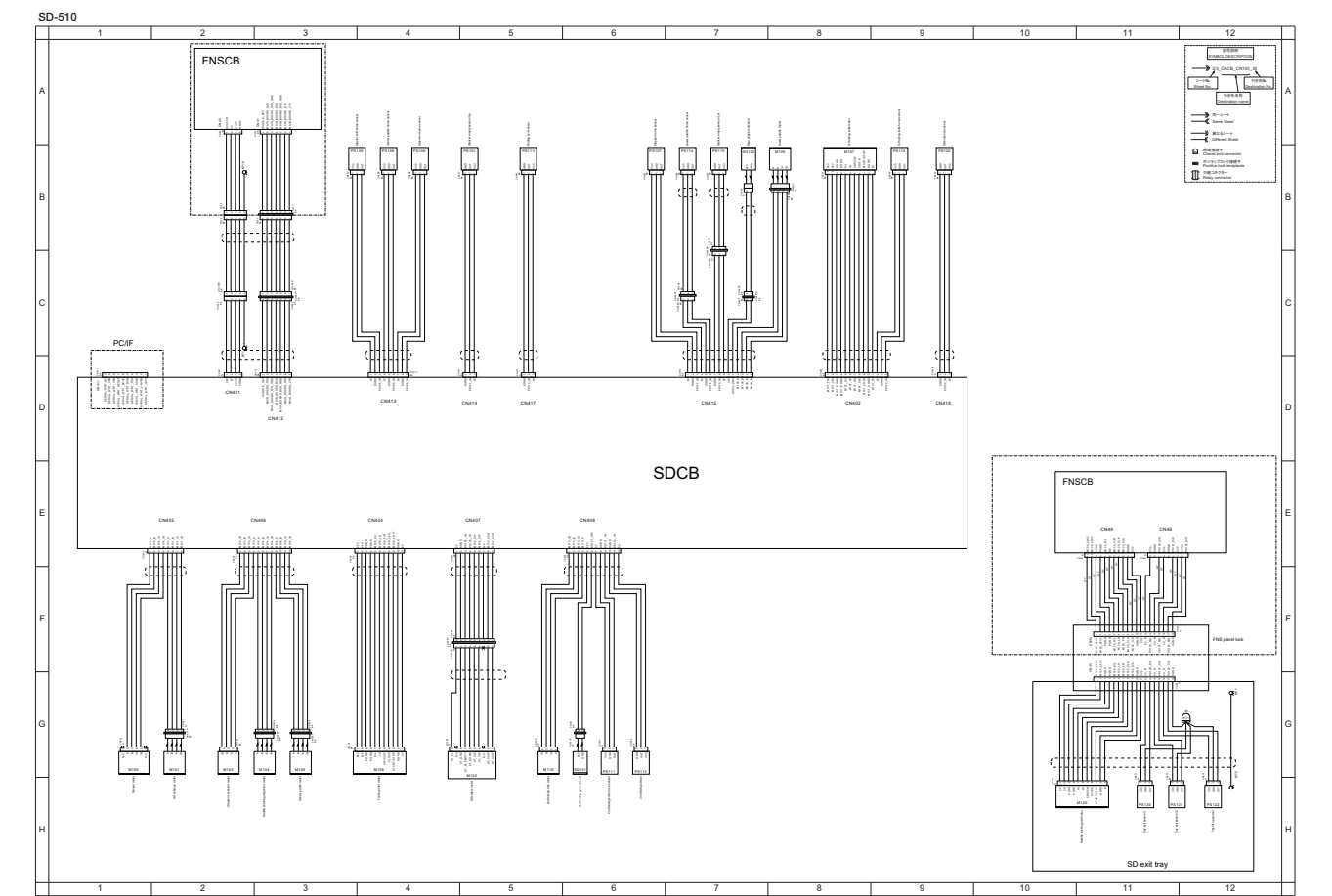


- ZU-608_A4  M0NE001CA

9. FS-532



10. SD-510

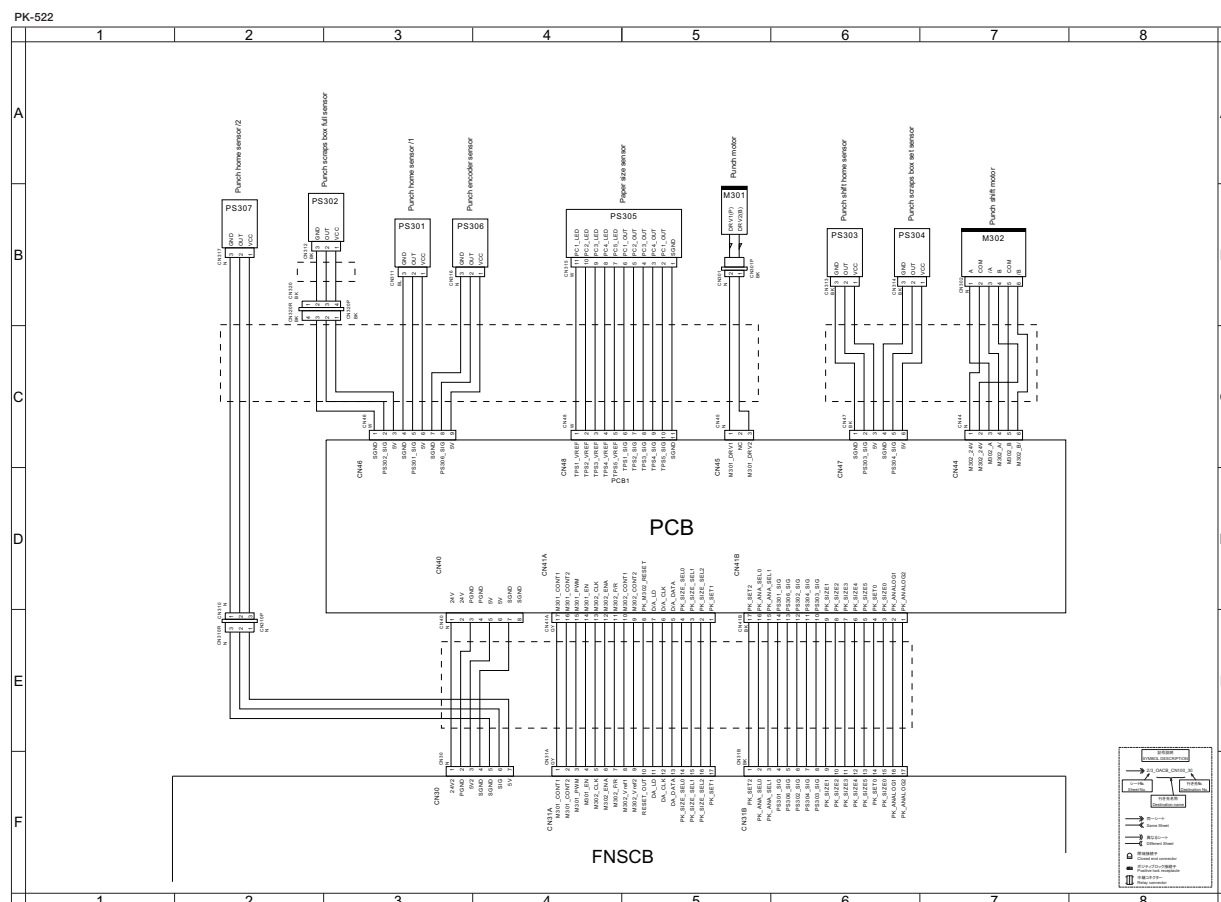


- SD-510_A4 MONE001CA

PI-502

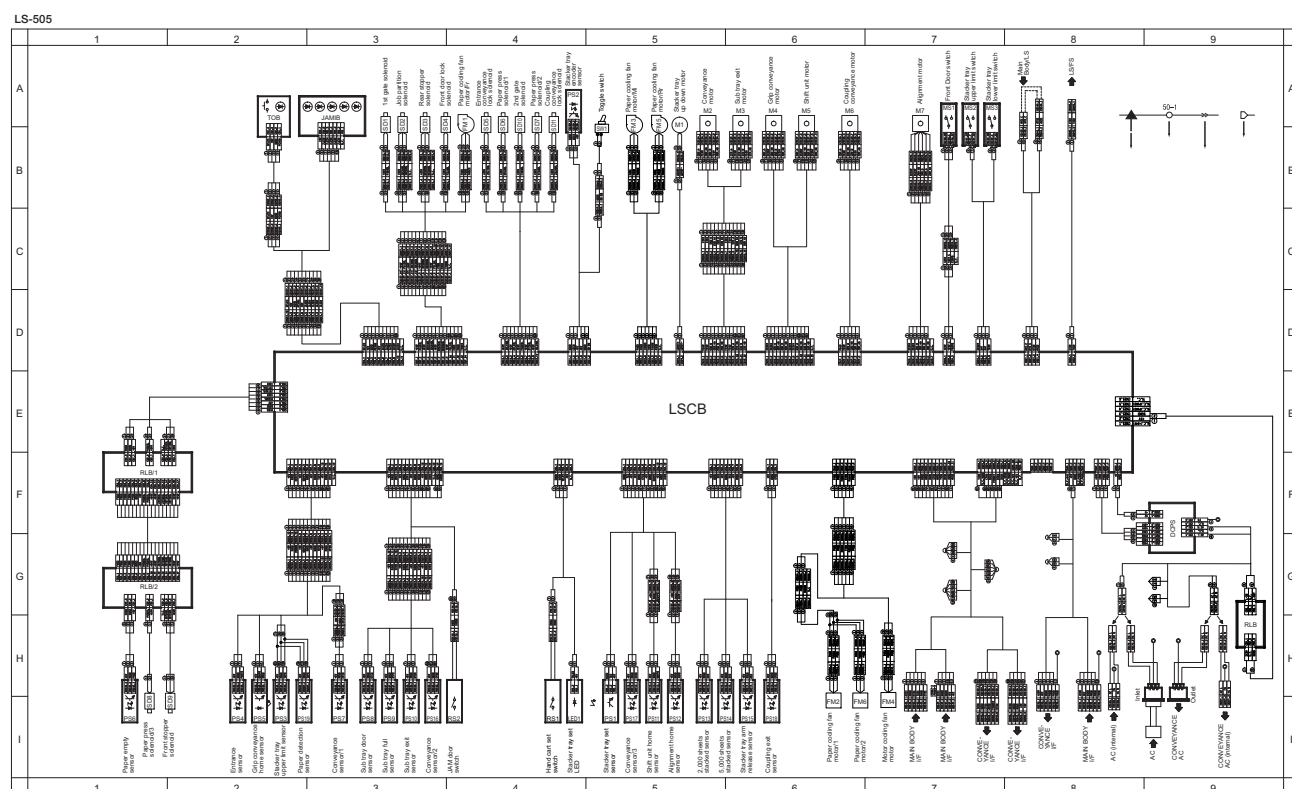


12. PK-522



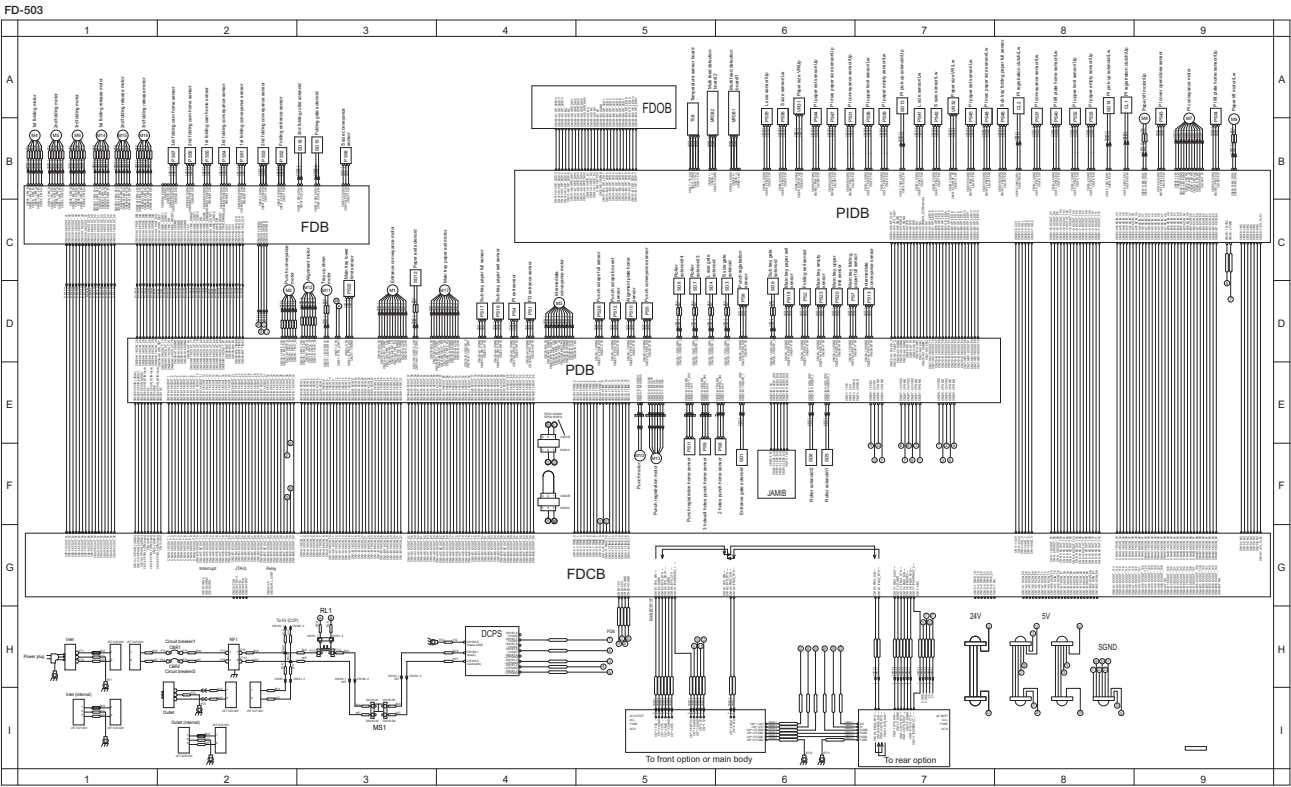
- PK-522_A4 MONE001CA

13. LS-505



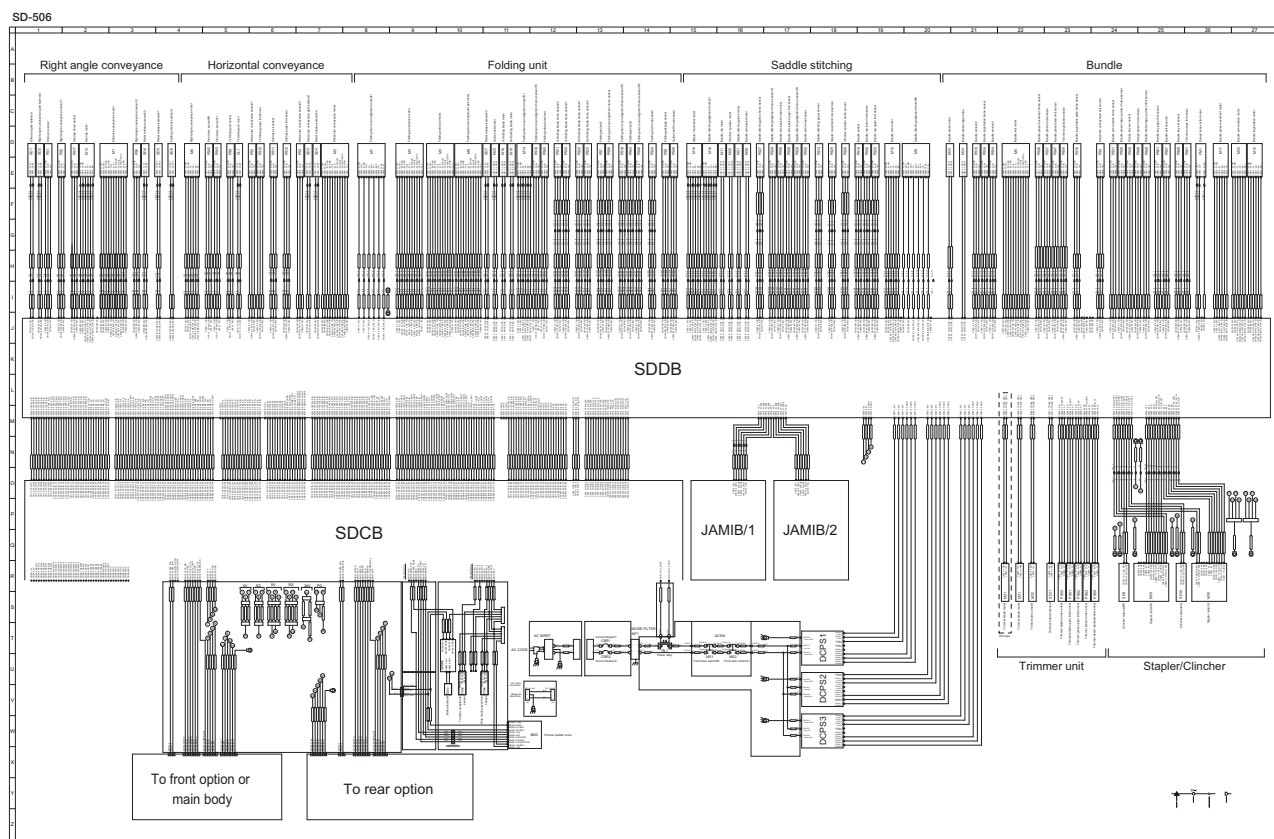
- LS-505_A0E MONE001CA

14. FD-503



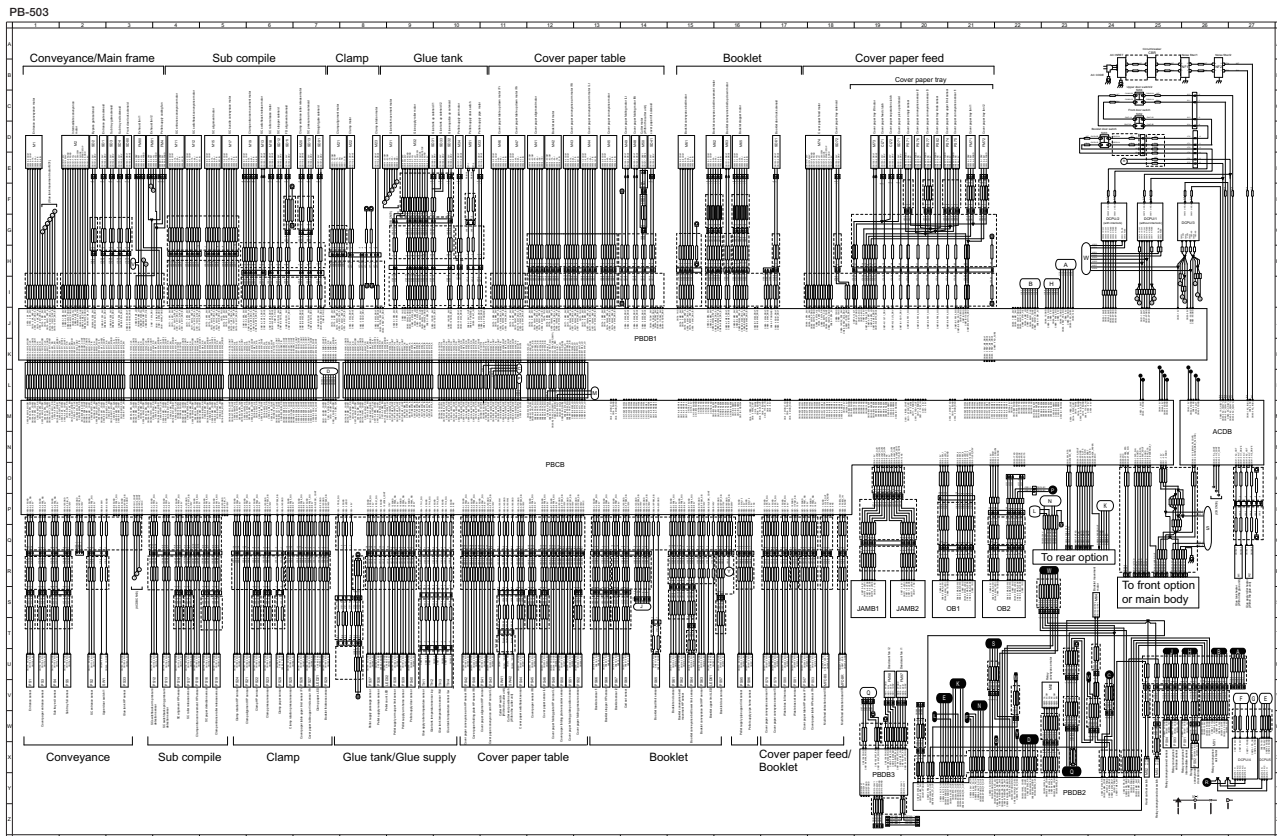
• FD-503_A0E MONE001CA

15. SD-506



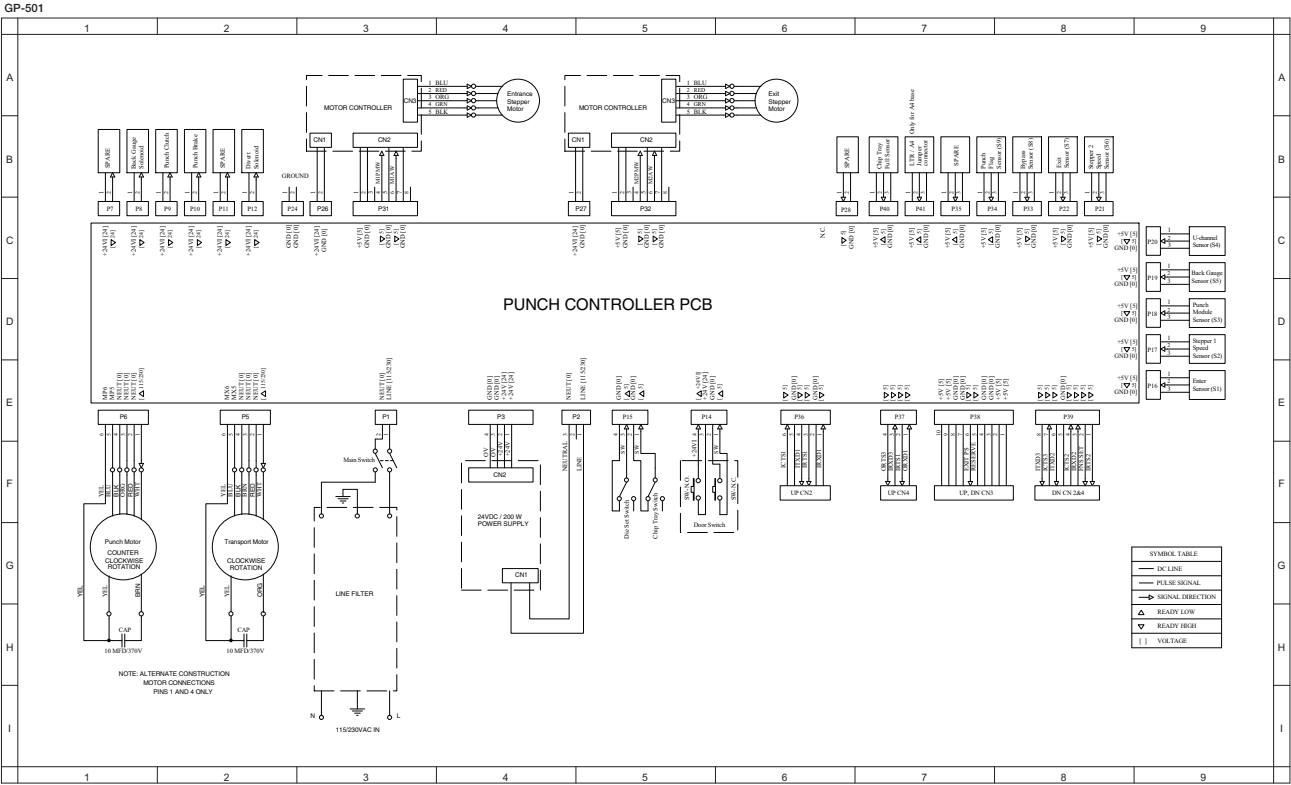
- SD-506_A4_UM0NE001CA
- SD-506 (1/4)_UM0NE011CA
- SD-506 (2/4)_UM0NE012CA
- SD-506 (3/4)_UM0NE013CA
- SD-506 (4/4)_UM0NE014CA

16. PB-503



- PB-503_A4_UM0NE001CA
- PB-503 (1/4)_A4_UM0NE011CA
- PB-503 (2/4)_A4_UM0NE012CA
- PB-503 (3/4)_A4_UM0NE013CA
- PB-503 (4/4)_A4_UM0NE014CA

17. GP-501



• GP-501_AQ MONE301CA

18. GP-502

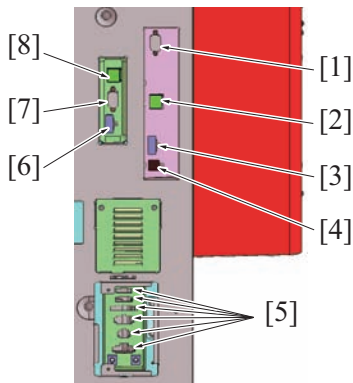
The wiring diagram of GP-502 is mentioned in the GP-502 service manual.

O THEORY OF OPERATION bizhub PRESS 1250/1250P/1052/PRO 951

1. INTERFACE SECTION

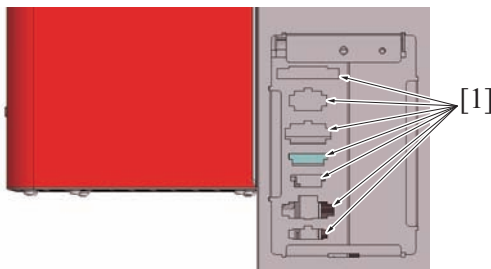
1.1 Configuration

1.1.1 Main body right side



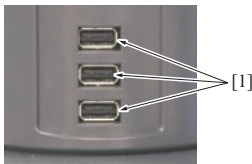
	Item	Specifications
[1]	Serial port (RS-232C) for the image controller	Not used
[2]	RJ45 Ethernet connector for the image controller	For the network connection of the image controller
[3]	USB port (USB TypeA) for the image controller	For service (Log information acquisition) /For ISW of the image controller
[4]	USB port (USB TypeB) for the image controller	For the USB connection of the image controller/For the local print
[5]	Pre-processing unit connecting connector	For the pre-processing unit connection
[6]	Service port (USB TypeA)	For ISW of main body, option For service (Log information acquisition)
[7]	Serial port (RS-232C)	For CS Remote Care
[8]	RJ45 Ethernet connector	For Internet ISW/Web Utilities/Mail remote notification system

1.1.2 Main body left side



	Item	Specifications
[1]	Post-processing unit connecting connector	For the post-processing unit connection

1.1.3 Main body upper side



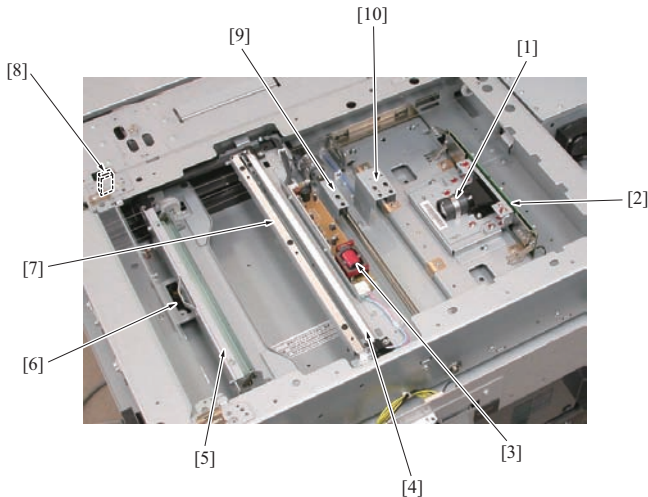
a0g6t2c006ca

	Item	Specifications
[1]	Connecting port (TypeA)*1	Keyboard, mouse and BoxExplorer (USB Memory, USB-HDD) for ISW of the copier/printer program

*1 PRO 951 is unimplemented.

2. SCANNER SECTION

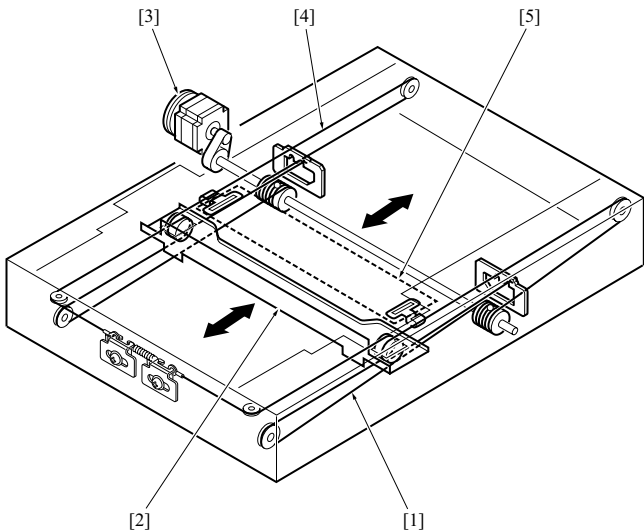
2.1 Configuration



1050to2006c

[1]	CCD lens	[2]	CCD board (CCDB)
[3]	L4 inverter (L4 INVB)	[4]	Exposure lamp (L4)
[5]	V-mirror unit	[6]	Scanner cooling fan (FM19)
[7]	Exposure unit	[8]	Scanner home sensor (PS51)
[9]	APS sensor /1 (PS52)	[10]	APS sensor /2 (PS53)

2.2 Drive



1050to2007c

[1]	Scanner wire /Fr	[2]	V-mirror unit
[3]	Scanner motor (M27)	[4]	Scanner wire /Rr
[5]	Exposure unit	-	

2.3 Operation

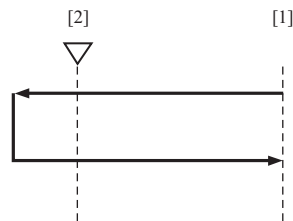
2.3.1 Control when the sub power is turned ON

- When the power switch (SW2) is turned ON, the exposure unit conducts the home position search and the shading correction.

(1) Home position search

- The operation of the home position search varies depending on the ON/OFF condition of the scanner home sensor (PS51) [2].

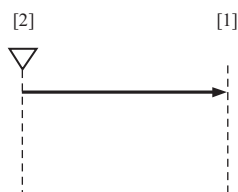
(a) When the scanner home sensor (PS51) is OFF



1050to2008c

[1]	Position at which the original glass APS is read	[2]	Scanner home sensor (PS51)
-----	--	-----	----------------------------

(b) When the scanner home sensor (PS51) is ON

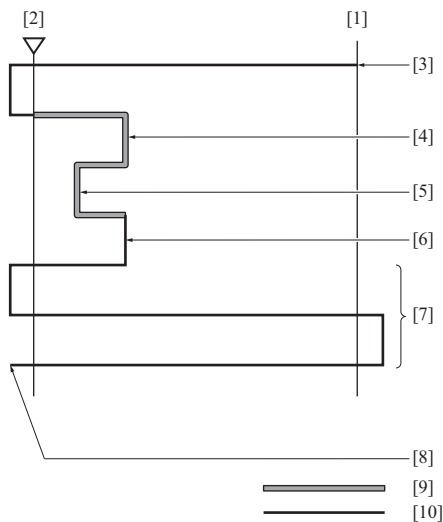


1050to2009c

[1]	Position at which the original glass APS is read	[2]	Scanner home sensor (PS51)
-----	--	-----	----------------------------

(2) Shading correction

- After completion of the home position search [3], the exposure unit conducts shading corrections.
- There are 3 types of shading corrections: white correction 1 [4], white correction 2 [5] and black correction [6].
- For the shading correction at the time of the power ON, each correction is carried out in a series of operations.



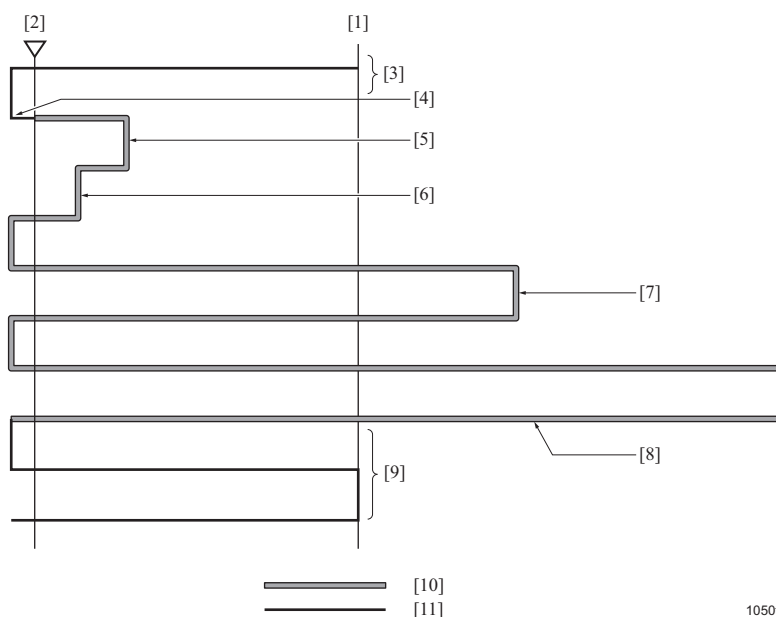
1050to2010c

[1]	Position at which the APS is read	[2]	Scanner home sensor (PS51)
[3]	Home position search terminated	[4]	White correction 1
[5]	White correction2	[6]	Black correction
[7]	Home position search	[8]	Standby position while in the DF mode
[9]	Exposure lamp (L4) ON	[10]	Movement of the exposure lamp

2.3.2 Control when the start button is turned ON

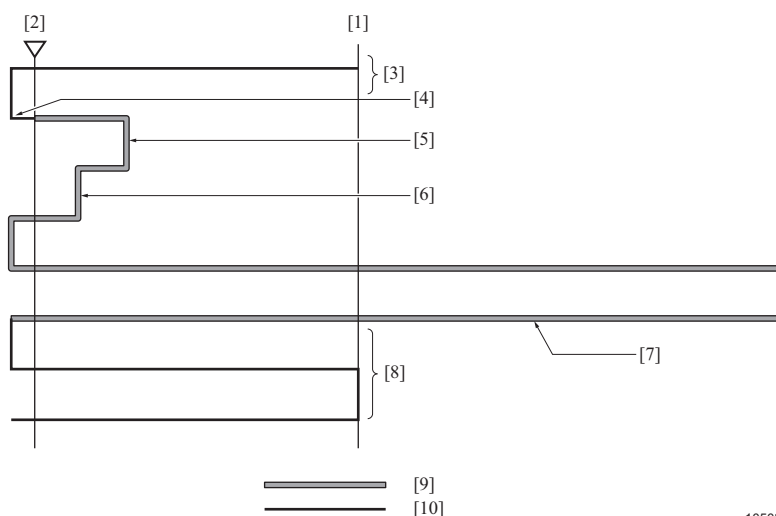
(1) When using original glass

- When the start button is turned ON, the exposure unit conducts the shading correction and then the exposure scan.
- When the AE/AES is selected, the AE/AES scan [7] is made before the exposure scan is made.
- For the shading correction while in the exposure scan, the black correction is not conducted because of the exposure lamp being left turned on.

(a) While in the AE/AES copy

1050to2011c

[1]	Position at which the APS is read	[2]	Scanner home sensor (PS51)
[3]	DF close	[4]	Start key ON
[5]	White correction 1	[6]	White correction2
[7]	AE/AES scan	[8]	Position at which the original is read
[9]	Home position search	[10]	Exposure lamp (L4) ON
[11]	Movement of the exposure lamp	-	

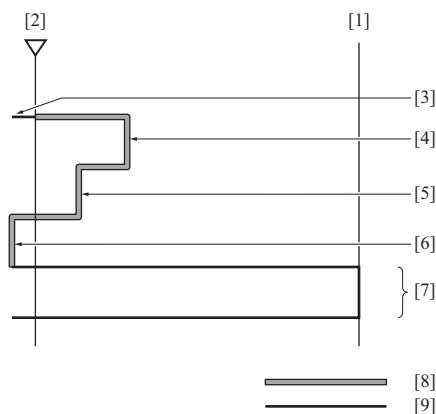
(b) While in the manual copy

1050to2012c

[1]	Position at which the APS is read	[2]	Scanner home sensor (PS51)
[3]	DF close	[4]	Start key ON
[5]	White correction 1	[6]	White correction2
[7]	Position at which the original is read	[8]	Home position search
[9]	Exposure lamp (L4) ON	[10]	Movement of the exposure lamp

(2) When the DF is in use

- When the start button is turned ON [3], the exposure unit conducts the shading correction and then moves to the position at which the DF is read.
- The same operations are made when the AE/AES is selected.
- For the shading correction in the DF mode, the black correction is not made because of the exposure lamp being left turned on.



1050to2013c

[1]	Position at which the APS is read	[2]	Scanner home sensor (PS51)
[3]	Start key ON	[4]	White correction 1
[5]	White correction2	[6]	Position at which the original is read
[7]	Home position search	[8]	Exposure lamp (L4) ON
[9]	Movement of the exposure lamp	-	

2.3.3 Original size detection control

(1) Detection method

- The DF mode and the original glass mode is different.

(a) DF mode

- Refer to: [DF-615/616 Size Detection Control](#)

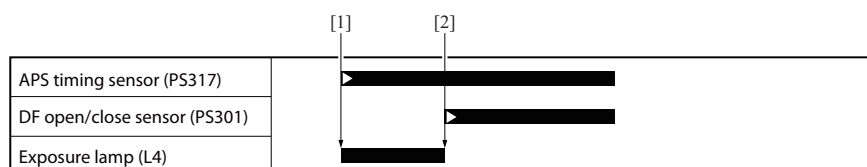
(b) In original glass mode

- In the direction of the main scan : CCD sensor
- In the direction of the sub-scan: the combination of the ON/OFF of the APS sensor /1 (PS52) and the APS sensor /2 (PS53).

Original size	CCD sensor (Length of detection: mm)	PS52 ON/OFF	PS53 ON/OFF
Smallest	102. 0	OFF	OFF
B6S	128. 0	OFF	OFF
B5S	182. 0	ON	OFF
B5	257. 0	OFF	OFF
B4	257. 0	-	ON
A5S	148. 0	OFF	OFF
A5	210. 0	OFF	OFF
A4S	210. 0	ON	OFF
A4	297. 0	OFF	OFF
A3	297. 0	-	ON
Wide paper	304. 8	-	ON
5 ¹ / ₂ x 8 ¹ / ₂ S	139. 7	OFF	OFF
5 ¹ / ₂ x 8 ¹ / ₂	215. 9	OFF	OFF
8 ¹ / ₂ x 14	215. 9	-	ON
8 ¹ / ₂ x 11S	215. 9	ON	OFF
8 ¹ / ₂ x 11	279. 4	OFF	OFF
11 x 17	279. 4	-	ON

* For "-" in the table above, either of ON and OFF is acceptable as a result of the detection.

(2) Detection timing



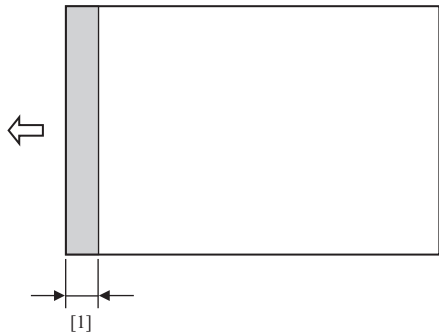
1050to2016e

[1] 1st original size detection (with DF closed)	[2] 2nd original size detection
--	---------------------------------

2.3.4 AE control

- When the AE/AES is selected, the density level of the original is detected automatically to adjust it to an appropriate density.
- The sampling range of the original density when the AE/AES is controlled is different for the original glass mode and the DF mode.

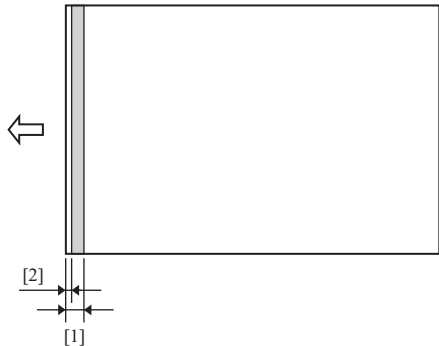
(1) AE/AES sampling range In original glass mode



1050to2014c

[1] 30mm	-
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(2) AE/AES sampling range in the DF mode



1050to2015c

[1] 4mm	[2] 1mm
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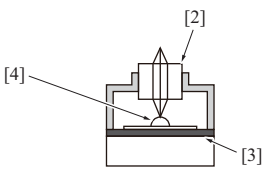
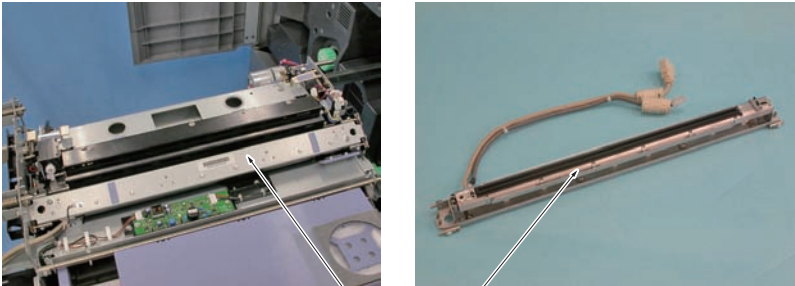
2.3.5 IMAGE PROCESSING

There are following items for the image processing. For details, refer to [O.18. IMAGE PROCESSING](#).

- Shading correction
- AE/AES processing
- Area discrimination
- Brightness/density conversion
- Filter/magnification
- Density gamma (conversion)
- Halftone processing (error diffusion)
- Skew correction
- Compression
- Storage of image data

3. WRITING SECTION (LPH)

3.1 Configuration

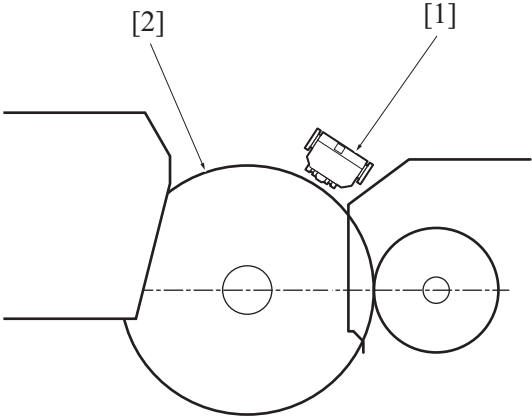


[1]	LPH	[2]	SELFOC Lens Array
[3]	LPH board (LPHB)	[4]	LED

3.2 Operation

3.2.1 Exposure path

- An analog image data read by the CCD sensor is AD converted by the CCD board (CCDB) before being sent out to the image processing board (IPB) for data processing.
- The processed data is transmitted to the LPH board (LPHB) via the relay board /A (RBA) and then converted to the LED light emission signal.
- The LED light emission signal controls the length of time of the LED light radiation to the drum.
- LPH is an exposure device of solid-scanning type which consists of the LED devices and the SELFOC lens through which the light irradiated from the LED device forms an image on the drum.
- The LPHB is mounted on the photo conductor section and forms an electrostatic latent image by irradiating the LED light at a certain angle to the drum.



[1]	LPH	[2]	Drum
-----	-----	-----	------

3.2.2 IMAGE STABILIZATION CONTROL

(1) Auto dot diameter adjustment

- (a) Purpose
- Correction for the change of the drum sensitivity.
 - Retaining of the reproducibility of thin line.
 - Correction of the LED light volume of LPH.
- (b) Control outline
1. The drum potential sensor (DPS) measures the charged potential of the unexposed part before making a patch.
 2. It forms a specified number of patches with different LPH exposure time setting and calculates the exposure time that it takes to obtain the preset value of the charged potential for each patch.

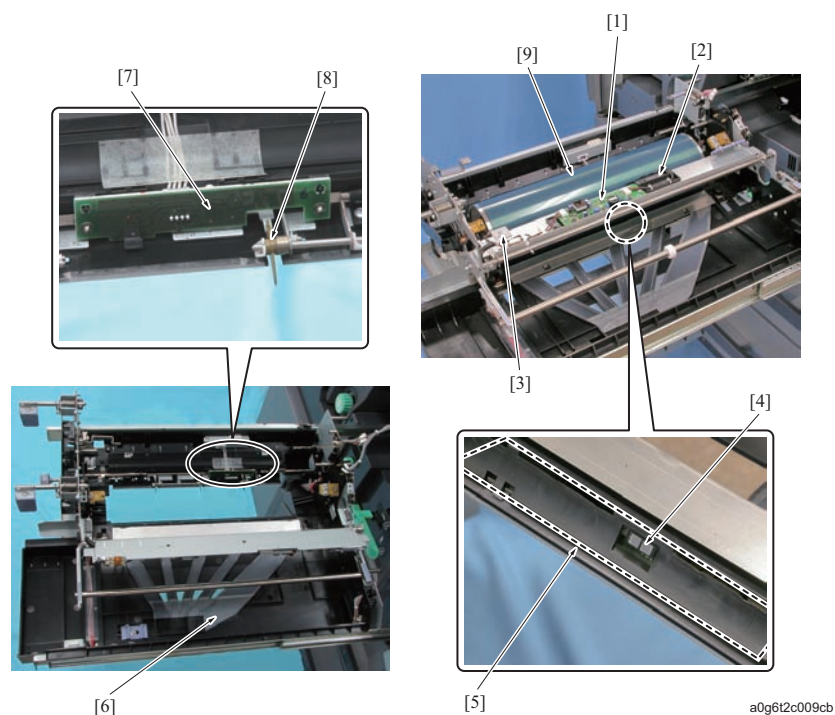
It performs the operation at the line speed 570 mm/s (common to PRO1250/1250P/1052).

(c) Execution timing

- When performing the auto dot diameter adjustment in the service mode.

4. PHOTO CONDUCTOR SECTION

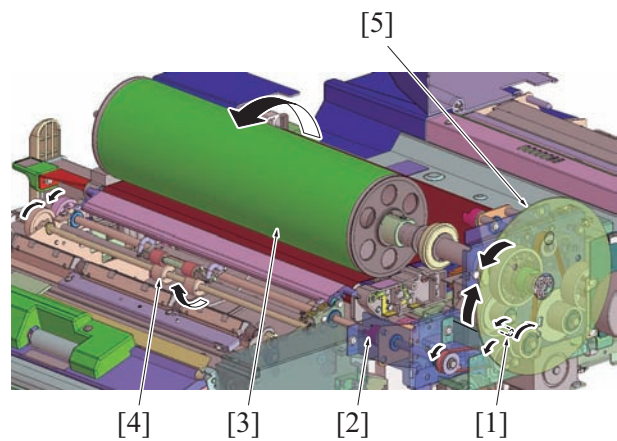
4.1 Configuration



[1]	Drum potential sensor board (DPSB)	[2]	Drum potential sensor (DPS)
[3]	Drum temperature sensor (TH5)	[4]	IDC sensor
[5]	Toner control board (TCB)	[6]	Duct
[7]	JAM sensor board (JAMB)	[8]	Drum claw
[9]	Drum	-	

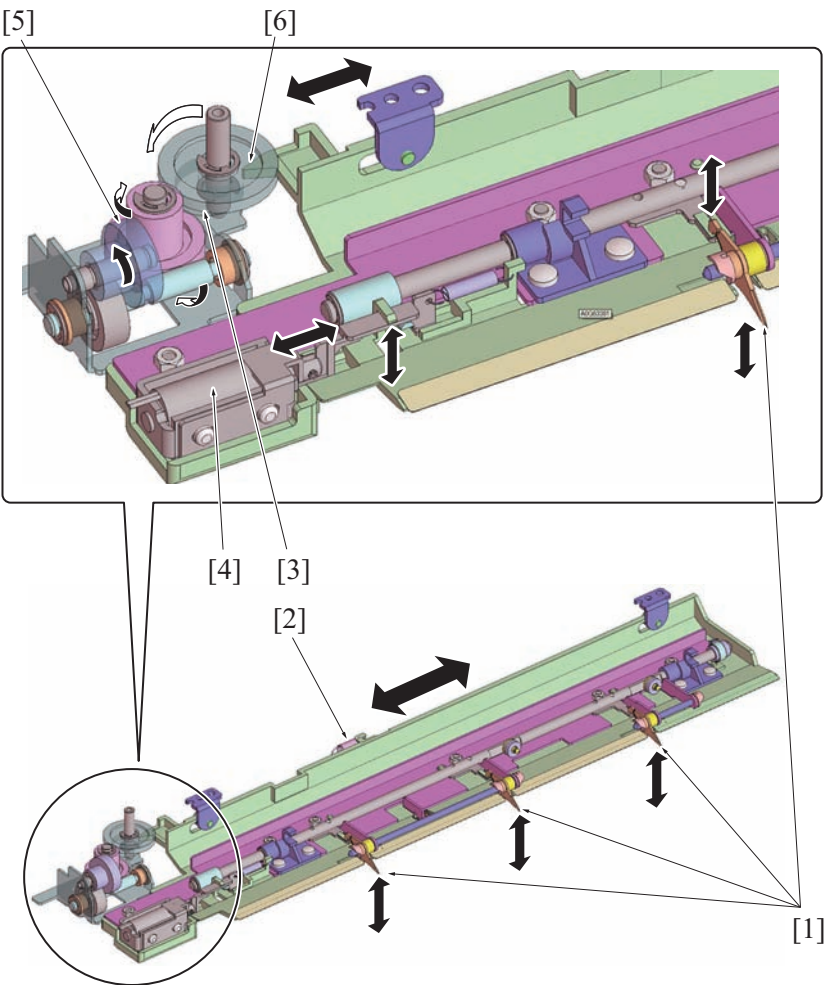
4.2 Drive

4.2.1 Drum drive



[1]	Drum motor (M2)	[2]	Registration exit roller drive coupling
[3]	Drum	[4]	Registration exit roller
[5]	Flywheel	-	

4.2.2 Drum claw drive



[1]	Drum claw	[2]	Spring
[3]	Cam	[4]	Drum claw solenoid (SD10)
[5]	Drum cleaner motor (M35) drive input gear via cleaning section	[6]	Projection

4.3 Operation

4.3.1 Drum claw drive

(1) Purpose

- To prevent the occurrence of a drum wrap jam, 3 drum claws are employed to prevent the drum from being wrapped with the copy paper.
- The contact and the release of contact of the drum claws onto the drum is made by turning ON/OFF the drum claw solenoid (SD10).

(2) Oscillation operation

- To prevent the transfer paper from getting soiled in certain areas and the drum from being damaged, the drum claws oscillate front to rear on the drum surface about 8mm.
- There is a projection on the rear side of the drum claw unit. A cam provided on the gear presses this projection to push the drum claw unit to the front side.
- When the gear rotation releases the cam, the drum claw unit is returned to its former position by the spring.
- Repeating the above operation oscillates the drum claws.

4.3.2 IMAGE STABILIZATION CONTROL

(1) Drum potential correction

- The drum potential is controlled to keep the image quality at a fixed level at all times, regardless of the operating environment and the number of prints.
- For the drum potential correction control, it measures the potential of the exposed part (black) to adjust the charging current, the grid voltage and the developing bias potential so.
- For details, refer to "O.17. Image stabilization control."

(a) Execution timing

- When the fusing temperature is below 50°C with the power switch (SW2) ON.
- When the prescribed condition (number of prints) is met.

(2) Environmental decision control

- The drum temperature sensor (TH5) and the temperature sensor /3 of PF (TEMS/3) detect the temperature of the environment in which the main body is installed, and the temperature-humidity sensor /1 (TEM/HUM1) and /2 (TEM/HUM2) detect the environmental humidity.
- Each detected data is used as information to keep the image quality at a fixed level.
- For details, refer to "[O.17. Image stabilization control.](#)"

(a) Execution timing

- When the prescribed conditions are met with the SW2 ON.

(3) Drum rotation control

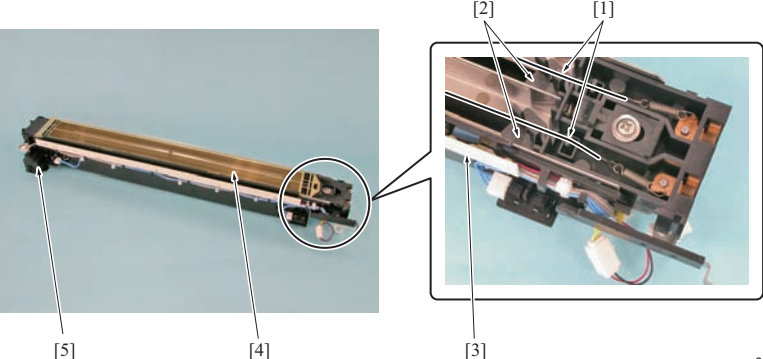
- Under the environments of low humidity and normal humidity and an blurred image in high humidity, the drum surface that borders the developing unit and the cleaning unit has different surface sensitivity from that borders nothing.
- When printing is made under this condition, uneven printing is made in the sub scan direction of the paper.
- To prevent this uneven printing, the drum is rotated at a fixed cycle for a prescribed period of time to obtain a uniform surface sensitivity.
- For details, refer to "[O.17. Image stabilization control.](#)"

(a) Execution timing

- Once every 3minutes while in idling
- Once every hour while in the low-power mode
- When the prescribed conditions are met with the SW2 ON

5. CHARGING SECTION

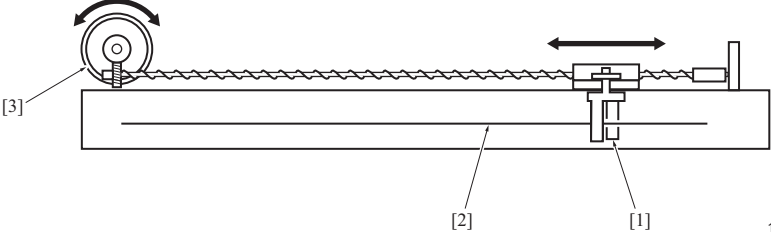
5.1 Configuration



a0g6t2c012ca

[1]	Charging wire	[2]	Charger cleaning member
[3]	Erase lamp (EL)	[4]	Charger control plate
[5]	Charger cleaning motor (M23)		-

5.2 Drive



1050to2024c

[1]	Charger cleaning member	[2]	Charging wire
[3]	Charger cleaning motor (M23)		-

5.3 Operation

5.3.1 Charging control

- (1) Charging wire
 - The high voltage unit /1 (HV1) uses 24V DC to create a negative charge current to the charging wire to charge the drum.
 - Charging output range: -350μA to -1150μA x 2 power source
- (2) Charging grid
 - To make the discharge of the charging wire uniform, a minus (-) high voltage is sent from the high voltage unit /1 (HV1) to the charging grid.
 - Charging grid voltage output range: -300V to -1000V

5.3.2 Wire cleaning control

- (1) Purpose
 - The wire is cleaned periodically to prevent the deterioration of the discharging characteristics caused by soil adhered to the charging wire.
- (2) Timing

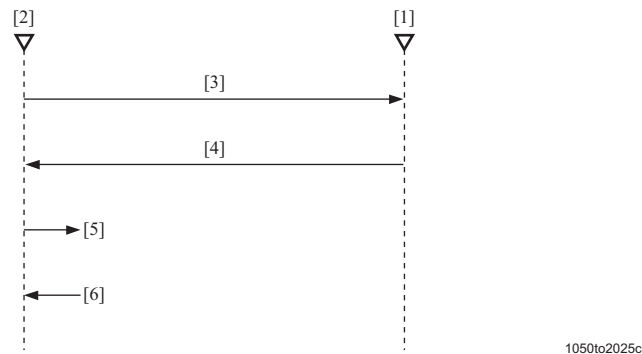
The charging wire is cleaned under the following conditions:

 - The cleaning is made when the number of prints counted from the execution of the previous cleaning is in excess of the specified number with the power switch (SW2) ON, and when the fusing temperature is below 50°C.
 - While in the print, executed after completion of each job of the prescribed print counts.
 - After completion of the automatic replacement of the cleaning blade.
 - When executing [04 Charge Manual Cleaning] in the Adjustment screen.

Note

- The software DIPSW in the service mode specifies the number of prints at which the cleaning operation is conducted.

- (3) Cleaning operation
 - The home position of the cleaning member is provided on the rear side of the machine. It operates as following.



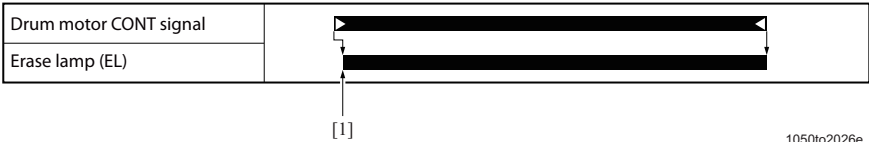
[1]	Charger cleaning limit sensor (PS27)	[2]	Charger cleaning home sensor (PS26)
[3]	Cleaning (going)	[4]	Cleaning (returning)
[5]	Home search (going)	[6]	Home search (returning)

5.3.3 Erase lamp control

(1) Purpose

- To neutralize the residual potential on the drum surface and to make the potential on the drum surface uniform, the erase lamp (EL) is turned on before charging.

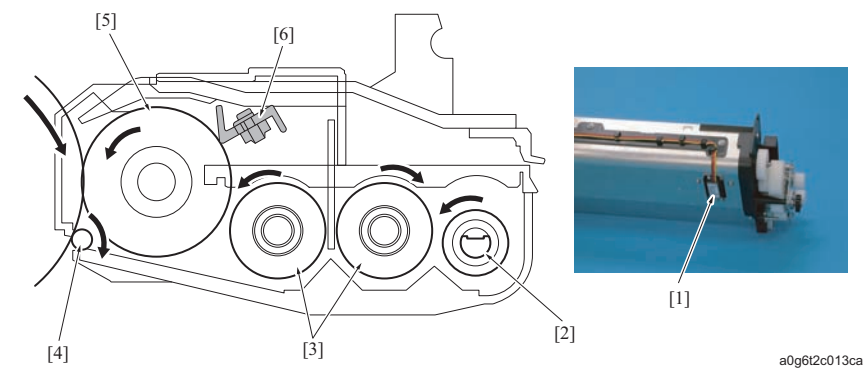
(2) Timing for the erase lamp to be turned on



[1]	Drum motor (M2) ON	-
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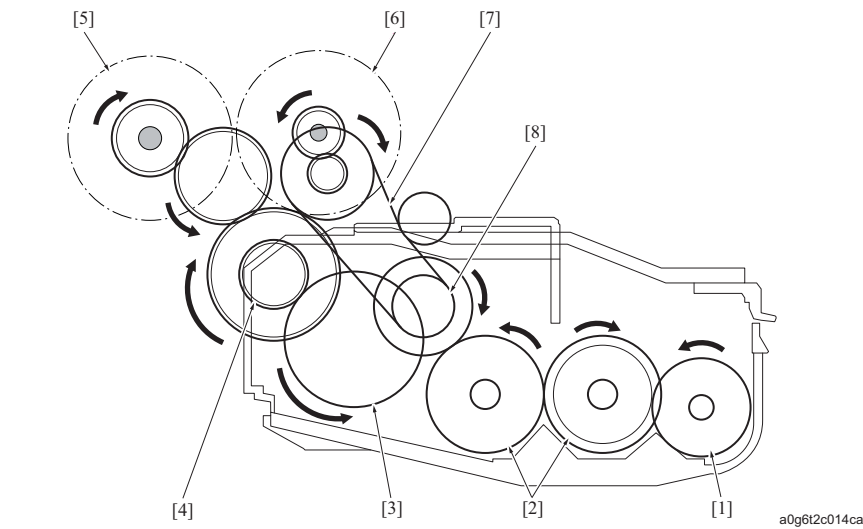
6. DEVELOPING SECTION

6.1 Configuration



[1]	TCR sensor (TCRS)	[2]	Agitator plate
[3]	Agitator screw	[4]	Toner recycle roller
[5]	Developing roller	[6]	Developer regulation blade

6.2 Drive

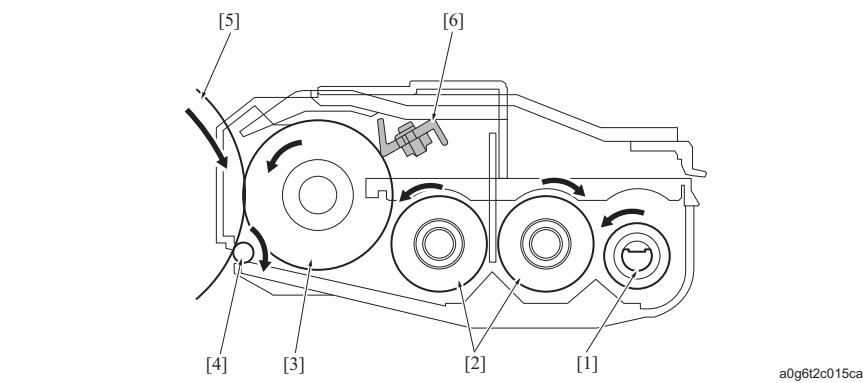


[1]	Gear for the agitator plate	[2]	Gear for the agitator screw
[3]	Gear for the developing roller	[4]	Developing roller drive coupling
[5]	Developing motor (M3)	[6]	Developing screw motor (M21)
[7]	Belt	[8]	Agitator screw drive coupling

6.3 Operation

6.3.1 Flow of developer

- Developer in the developing unit is supplied to the developing roller [3] by the agitator screws [2] and its level is kept at a fixed height by the developer regulation blade [6].
- There are 2 agitator screws equipped.
- The agitator plate [1] furthest from the developing roller is used to stabilize the charging characteristics of toner supplied to the developing unit.
- The toner recycle roller [4] collects the toner scattered and recovers it to the developing unit.

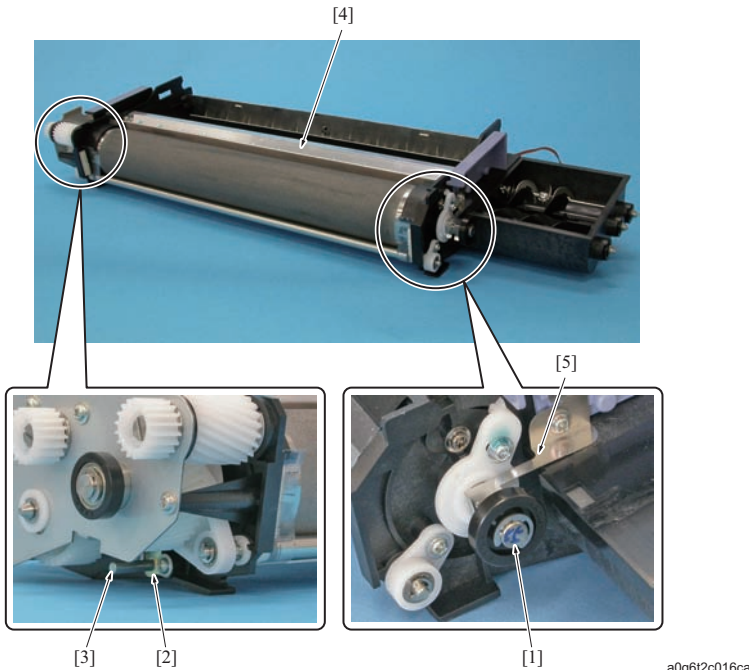


[1]	Agitator plate	[2]	Agitator screw
[3]	Developing roller	[4]	Toner recycle roller
[5]	Drum	[6]	Developer regulation blade

6.3.2 Developing bias

(1) Purpose

- A developing bias voltage is impressed onto the developing roller to expose latent images on the drum.
- The developing bias is provided by the developing bias pin [3] and is applied also to the developing regulation blade [4].
- There are 2 types of voltage applying route; applying to the developing roller shaft [1] and applying from the section /Rr [2] to the developing roller via the bearing.



[1]	Developing roller shaft	[2]	Section /Rr
[3]	Developing bias pin	[4]	Developer regulation blade
[5]	Section /Fr	-	

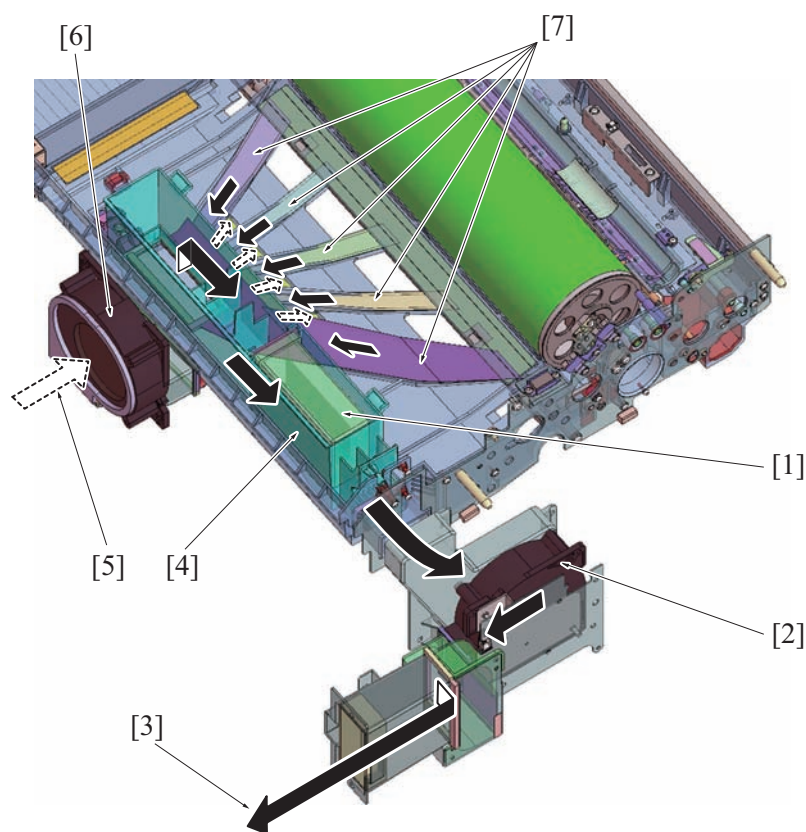
(2) Timing

- To prevent unnecessary carriers from adhering to the drum, developing bias turns ON a specified period of time before charging is ON, and it turns OFF a specified period of time after charging is OFF.

6.3.3 Developing suction

(1) Purpose

- The duct [7] partitioned one above the other is provided for the installing section of the developing unit.
- The lower tray of the duct is the suction path of air suctioned [5] by the developing cooling fan (FM31) [6]. It cools around the drum and the developing unit.
- The upper tray of the duct is the suction path for the toner scattering around the developing unit and the drum.
- The upper tray of the duct is connected to the developing suction assy [4]. It collects the toner scattering to the suction filter [1] in the developing suction assy by the suctioning of the developing suction fan (FM22) [2].
- Air passing through the suction filter is exhausted to the outside [3]

(2) Flow of air

[1]	Suction filter	[2]	Developing suction fan (FM22)
[3]	Exhaust	[4]	Developing suction assy
[5]	Suction	[6]	Developing cooling fan (FM31)
[7]	Duct	-	

(3) Developing suction fan control

- While in the print, the developing suction fan (FM22) turns ON when the drum motor (M2) turns ON, and it turns OFF a specified period of time after the M2 turns OFF.

(4) Developing cooling fan control

- While in the warm-up and the print, the developing cooling fan (FM31) turns ON when the drum motor (M2) turns ON, and it turns OFF a specified period of time after the M2 turns OFF.

6.3.4 Toner supply control

- It detects the toner density in the developing unit by the TCR sensor (TCRS) and supplies the toner when the toner density becomes low.

(1) Toner density detection control

- It monitors the output value of the TCR sensor (TCRS) at certain intervals while agitating the developer.

(2) Toner supply control

- The toner hopper motor (M7) turns ON according to the output value of the TCR sensor (TCRS).

6.3.5 IMAGE STABILIZATION CONTROL**(1) Maximum density control**

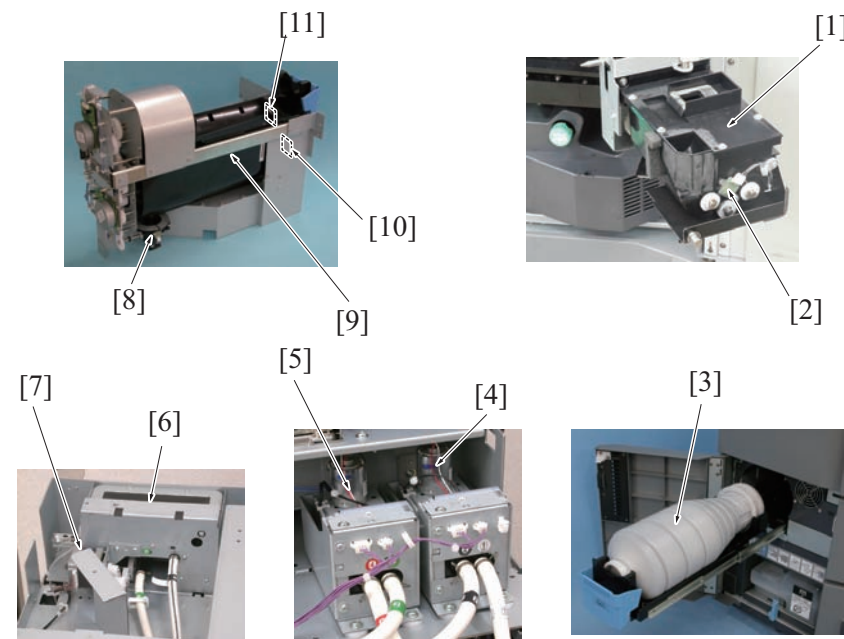
- The maximum density correction control is a control in which the patch, in images written under a fixed condition is developed while changing the speed of rotation of the developing roller. The resulting developed patch densities are compared to a reference density and when the developed patches are the same density as the reference patch, the developer roll speed is memorized.
- For details, refer to "[O.17. Image stabilization control.](#)"

(a) Execution timing

- When the fusing temperature is below 50°C with the SW2 ON.
- When the prescribed condition (number of prints) is met.

7. TONER SUPPLY SECTION

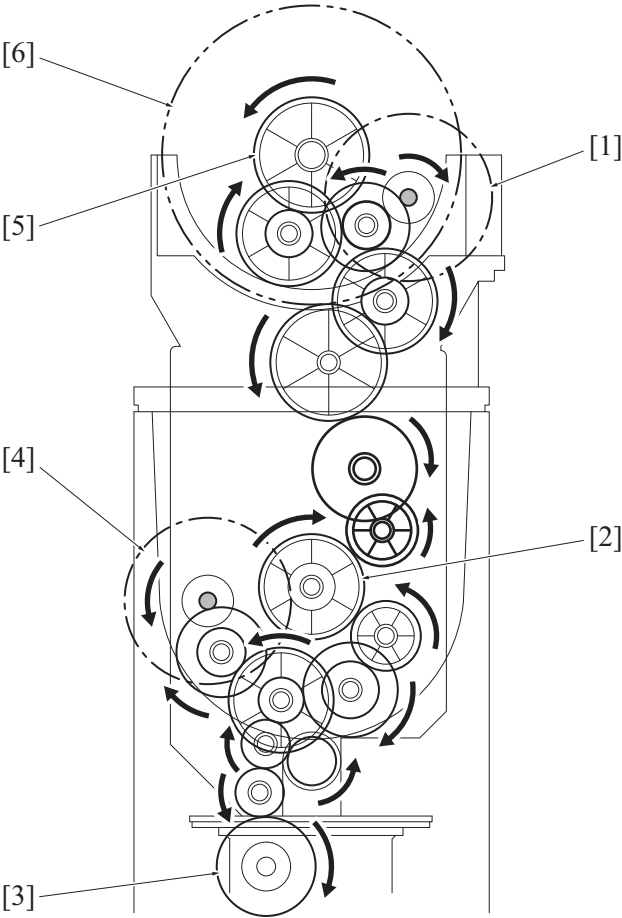
7.1 Configuration



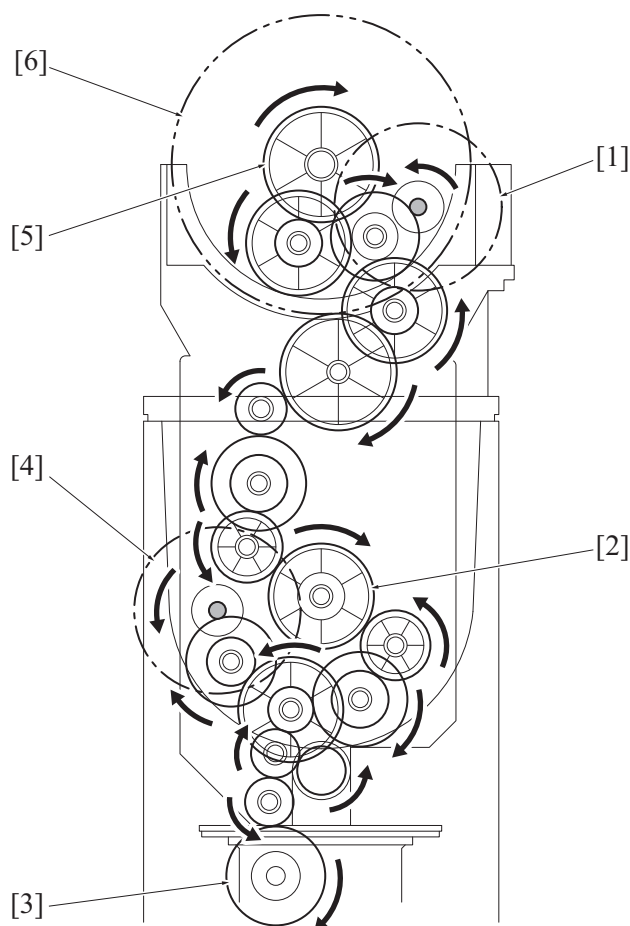
[1]	Intermediate toner hopper	[2]	Intermediate hopper toner remaining sensor (PS39)
[3]	Toner bottle	[4]	Toner pump motor (M28)
[5]	Air pump motor (M29)	[6]	Air separation unit
[7]	Air separation motor (M10)	[8]	Cup section toner remaining sensor (PS34)
[9]	Toner hopper	[10]	Hopper toner remaining sensor /2 (PS33)
[11]	Hopper toner remaining sensor /1 (PS32)	-	

7.2 Drive

7.2.1 Toner bottle/large capacity hopper drive (1250/1250P/1052)

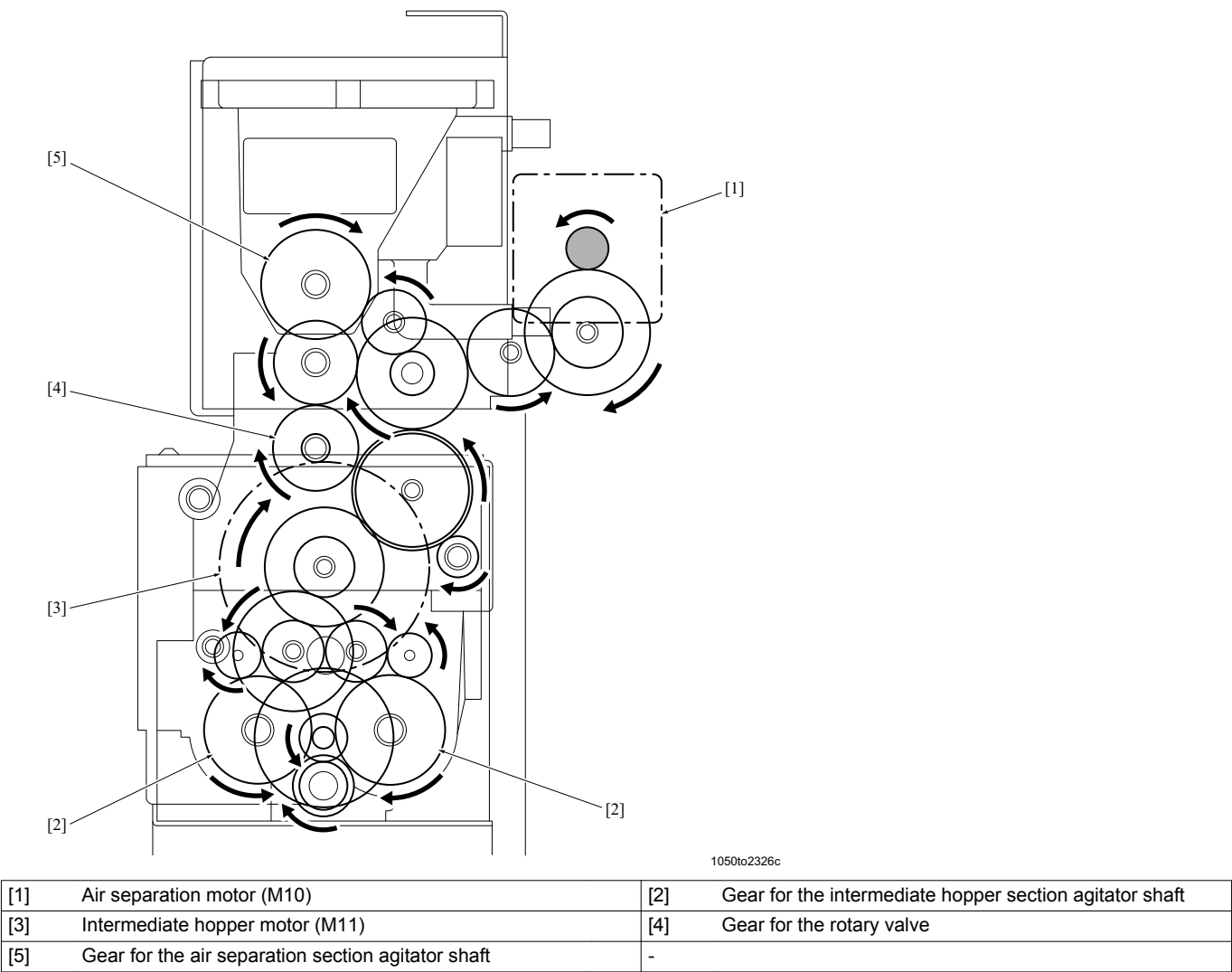


[1]	Toner bottle motor (M6)	[2]	Gear for the large capacity hopper agitator shaft
[3]	Mixing section agitator shaft gear	[4]	Toner hopper motor (M7)
[5]	Gear for the toner bottle rotation shaft	[6]	Toner bottle

7.2.2 Toner bottle/large capacity hopper drive (PRO951)

[1]	Toner bottle motor (M6)	[2]	Gear for the large capacity hopper agitator shaft
[3]	Mixing section agitator shaft gear	[4]	Toner hopper motor (M7)
[5]	Gear for the toner bottle rotation shaft	[6]	Toner bottle

7.2.3 Intermediate hopper/air separation drive



7.3 Operation

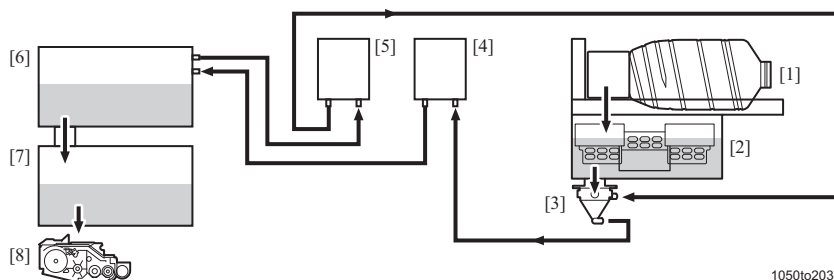
7.3.1 Toner supply to the toner hopper

(1) Purpose

- The toner supply section of the intermediate and low speed machines is equipped near the developing unit. For the high speed machine that deals with a large number of prints, a toner supply section of a large capacity is required and it is not possible to secure a sufficient space near the developing unit.
- So, it is inevitable to place the toner supply section in a location away from the developing unit. As a result, because the distance up to the toner supply section gets extended, a toner conveyance mechanism to deal with the long distance is required.
- As a toner conveyance device for the long distance, this machine employs the air conveyance method using the toner pump and the air pump.

(2) Toner conveyance path

1. Toner put in from the bottle [1] is conveyed to the large capacity hopper [2] by the agitator operation.
 2. When the toner supply operation starts, toner is guided to the mixing section [3], where it is mixed with air from the air pump [5].
 3. Toner mixed with air is conveyed to the air separation section [6] by the pressure from the toner pump [4].
 4. Toner conveyed to the air separation section drops off by its own weight to be separated from the air.
 5. Toner separated from the air at the air separation section is conveyed to the intermediate hopper [7] with the agitator operation.
 6. When the toner supply operation starts, toner in the intermediate hopper is conveyed to the developing unit [8] with the agitator operation.
 7. Finally, air passing through the air separation section is sent to the mixing section by the air pump.
- In this manner, a toner conveyance path is formed that circulates between the large capacity hopper and the developing unit.



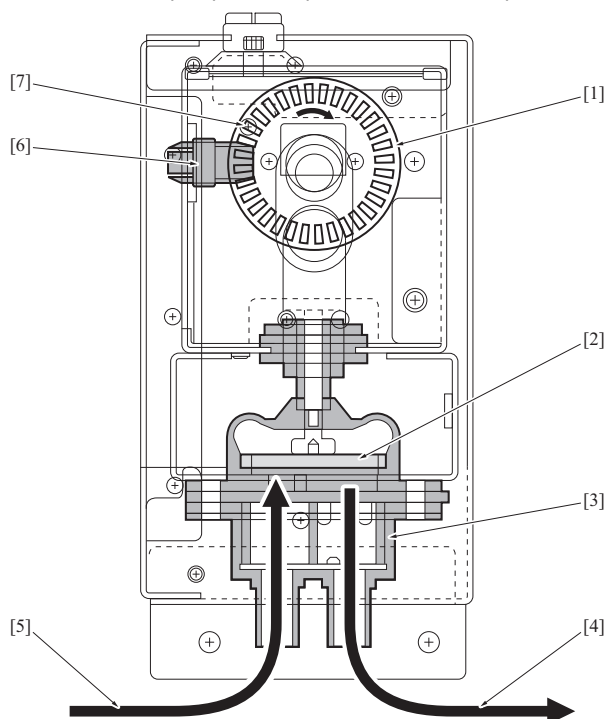
1050to2038c

[1] Toner bottle	[2] Large capacity hopper
[3] Mixing section	[4] Toner pump
[5] Air pump	[6] Air separation section
[7] Intermediate hopper	[8] Developing unit

(3) Pump control

(a) Configuration

- In both the toner pump and the air pump, the toner pump motor (M28) or the air pump motor (M29) reciprocates the diaphragm [2] to circulate air in the pump room [3].
- In this manner, air in the pump room is pressurized to be output.



1050to2039c

[1] Motor	[2] Diaphragm
[3] Pump room	[4] Output air
[5] Input air	[6] Pump encoder sensor
[7] Encoder	-

(b) Control

Each pump motor is equipped with the pump encoder sensor to monitor the speed of the motor.

- When the pump motor is ON and the speed of the motor fails to get to 85% of the prescribed speed within a specified period of time, this speed is deemed to be an error.
- While in operation, if a low speed rotation below a prescribed value is detected a specified number of times in succession, this speed rotation is deemed to be an error.

7.3.2 Toner supply to the developing section

(1) Purpose

- Supply toner, in case toner supply is judged to be required as a result of the toner density control.
- It conducts the toner supply during printing at a prescribed time interval.
- It controls the time for toner supply in accordance with the condition detected by the TCR sensor (TCRS).

(2) Timing

- Toner is supplied when the trailing edge of paper in printing is detected.

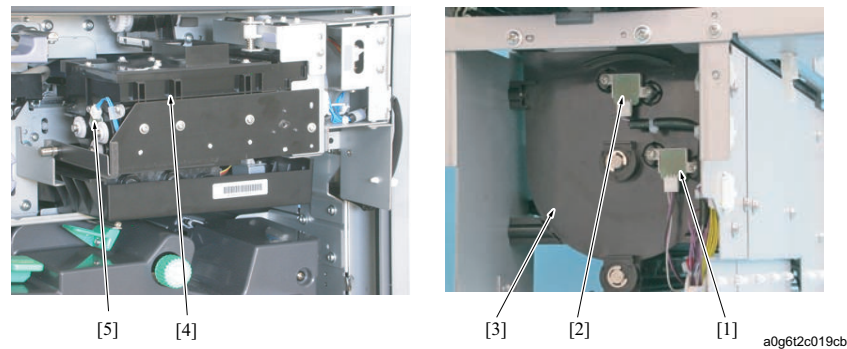
- The toner supply time varies depending on the result of the toner density control and the paper size. This time is normally controlled between 0 to 0.55sec.

7.3.3 Toner remaining detection

(1) Toner remaining detection

- The intermediate hopper section [4] is equipped with the intermediate hopper toner remaining sensor (PS39) [5], and the large capacity hopper [3] is equipped with the hopper toner remaining sensor /1 (PS32) [2], /2 (PS33) [1]. Depending on the ON/OFF condition of each sensor, the toner level is displayed on the operation panel.

(a) Sensor position



[1]	Hopper toner remaining sensor /2 (PS33)	[2]	Hopper toner remaining sensor /1 (PS32)
[3]	Large capacity hopper	[4]	Intermediate hopper
[5]	Intermediate hopper toner remaining sensor (PS39)	-	

(b) Toner remaining display

操作部表示				
PS39	ON	ON	ON	OFF
PS32	ON	OFF	OFF	OFF
PS33	ON	ON	OFF	OFF

1050to2041c

*1 However, the determination is finally made a specified period of time after the toner supply door is closed.

(c) Error detection

- When the error SC-1-0 which is related to the toner supply occurs, the main body gets into an error latch condition. Be sure to repair the defective part before setting the software DIPSW 3-1 to 0.
- Setting the DIPSW3-1 to 0 without repairing defective parts causes toner to overflow inside and outside of the machine.

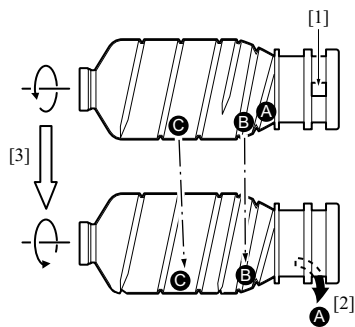
(2) Detection timing

(a) Timing

- The detection timing is as following:
- When the sub power switch (SW2) turns ON
 - When the front doors /Ft and /Rt, and the toner supply door are opened and closed.
 - At all times when the printing.

(b) Toner bottle

- When the toner bottle is rotated, toner moves to the exit of the bottle [1] along the spiral groove carved on the surface of the bottle.
- When the bottle exit turns to the bottom, toner flows into the large capacity hopper [2].

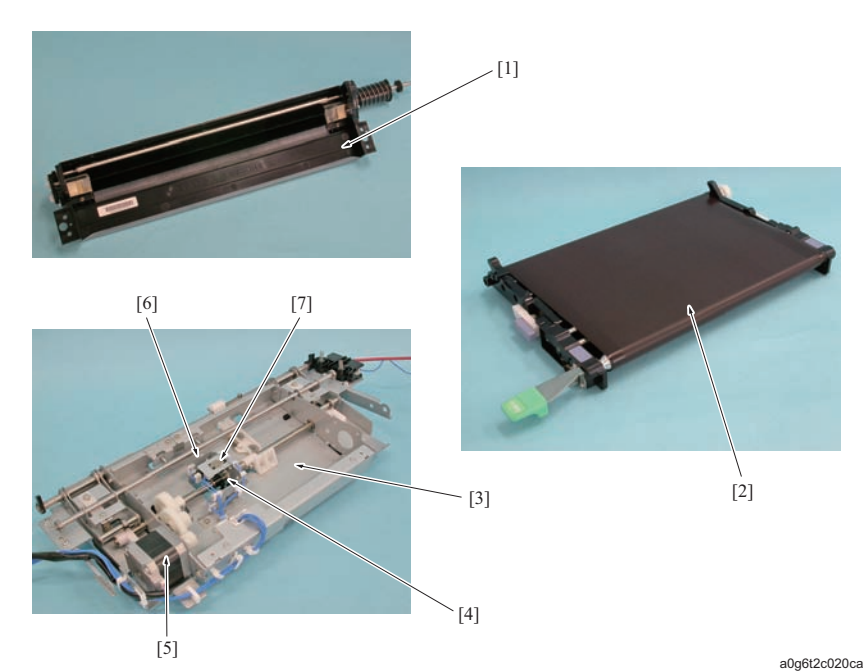


1050to2042c

[1]	Exit	[2]	Into the large capacity hopper
[3]	Rotated to 90	-	

8. TRANSFER/SEPARATION SECTION

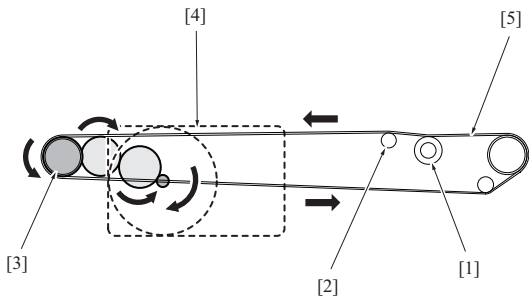
8.1 Configuration



[1]	Transfer belt cleaning unit	[2]	Transfer belt
[3]	Transfer belt pressure unit	[4]	Transfer pressure home sensor (PS54)
[5]	Transfer belt pressure release motor (M26)	[6]	Transfer pressure position sensor /1 (PS55)
[7]	Transfer pressure position sensor /2 (PS56)	-	

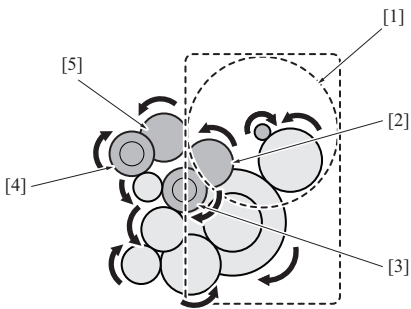
8.2 Drive

8.2.1 Transfer belt drive



[1]	Transfer roller	[2]	Rear nip roller
[3]	Transfer belt roller	[4]	Transfer belt motor (M30)
[5]	Transfer belt	-	

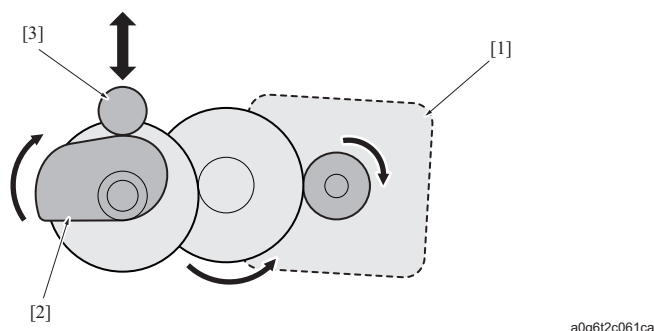
8.2.2 Transfer belt cleaning drive



[1]	Transfer belt cleaning motor (M5)	[2]	2nd cleaning brush gear
-----	-----------------------------------	-----	-------------------------

[3]	2nd cleaning shaft gear	[4]	1st cleaning shaft gear
[5]	1st cleaning brush gear	-	

8.2.3 Transfer belt pressure release drive



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[1]	Transfer belt pressure release motor (M26)	[2]	Cam
[3]	Pressure arm roller	-	

8.3 Operation

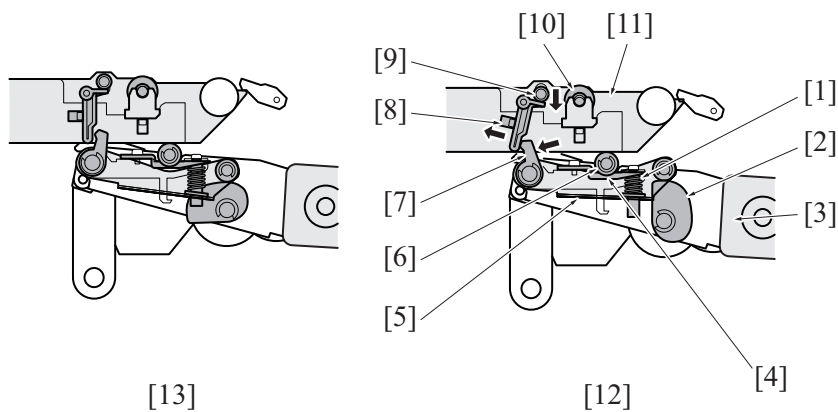
8.3.1 Transfer belt pressure position control

(1) OUTLINE

- There are 2 steps for the transfer belt pressure position: the pressure 1 and the pressure 2.
- Change the 2nd pressure position according to the paper types (paper type, paper weight) which is set for each tray.
- When the specified tray switches during printing for sheet insertion and so on, switch the pressure position to suitable one for paper types in each tray.
- The timing of switching is when the transfer belt turns OFF after transferring to the preceding paper.
- When switching the pressure position, the next paper stays at the registration section.
- When the switching of the pressure position completes, the paper through resumes.
- The rear nip roller position control is interlocked with the transfer belt pressure operation.

(2) Pressure mechanism

- The cam [2] of the transfer pressure unit [3] switches the pressure position of the transfer belt unit [11] between the pressure 1 [13] and the pressure 2 [12].
- The pressure power of the cam [2] is transmitted to the transfer belt unit [11] through the pressure arm [5], the pressure spring [4], the pressure plate and the pressure roller [6].
- Because of its shape, the cam [2] presses the pressure arm [5] up to the different height depending on the pressure position (pressure 1 [13] or pressure 2 [12]). Therefore the pressure to the transfer belt unit [11] also differs.
- The rear nip roller release lever /1 [7] can be moved at the pressure 2 position [12] to release the rear nip roller release lever /2 [8] and then the rear nip roller [9] comes down.



[1]	Pressure spring	[2]	Cam
[3]	Transfer pressure unit	[4]	Pressure plate
[5]	Pressure arm	[6]	Pressure roller
[7]	Rear nip roller release lever /1	[8]	Rear nip roller release lever /2
[9]	Rear nip roller	[10]	Transfer roller
[11]	Transfer belt unit	[12]	Pressure 2 position
[13]	Pressure 1 position	-	

(3) pressure position detection

- The pressure position of the transfer belt is controlled by the transfer pressure home sensor (PS54), the transfer pressure position sensor /1 (PS55) and /2 (PS56) which are mounted in the transfer pressure unit.

(4) Returning operation to the home position

- When the ADU handle release sensor (PS44) detects the /2-side print set and the door open/close sensor /1 (PS1) and /2 (PS2) turn ON, the transfer pressure home sensor (PS54) is checked. When it is OFF, the transfer belt pressure release motor (M26) turns ON and moves the pressure position to its home position.
- When PS54 is ON, M26 does not function.

(5) Pressure position table

g/m ²	40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 2	Pressure 2	Pressure 2	Pressure 2	Pressure 2	Pressure 2
PrePrinted	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 2	Pressure 2	Pressure 2	Pressure 2
Fine	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 2	Pressure 2	Pressure 2	Pressure 2
Plain paper	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 2	Pressure 2	Pressure 2	Pressure 2
Book/ News	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 2	-	-	-
Embossed	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 2	-	-	-
Inserting sheet (not printed)	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 1	Pressure 2	Pressure 2	Pressure 2	Pressure 2

8.3.2 Transfer/separation control**(1) Transfer belt bias control**

- It applies the DC bias on the transfer belt to enhance its transferability and to prevent dirt on it.
- The DC bias is applied from the transfer roller to the transfer belt.

(2) Bias control in image area

- For the image area (when the paper passes through the transfer nip), it applies the positive DC bias to enhance the transferability.
- The transfer bias switches at 4 points on the paper image area to divide the image area into 5. The divided 5 image areas independently control the transfer output power for each section.

Image area name: Lead 1, Lead 2, Lead 3, Center, Rear

(3) Bias control at the paper interval

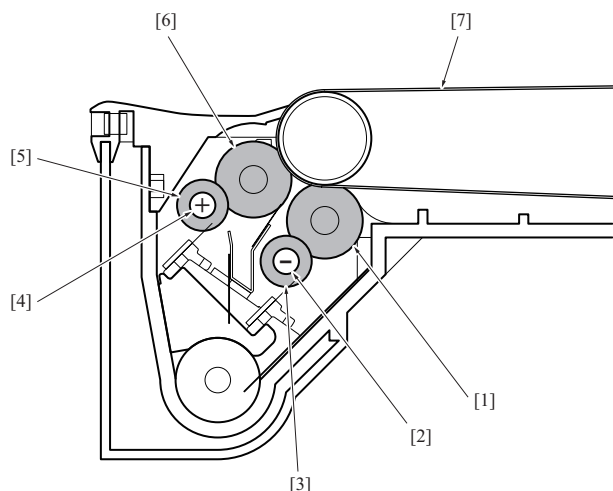
- At the paper interval, It applies the negative DC bias to prevent the toner from adhering.

(4) Separating paper

- For discharging from paper, the saw-tooth electrode that is grounded via the specified resistance is installed at the separation position of the belt.

8.3.3 Transfer belt cleaning brush voltage apply control**(1) Purpose**

- It is equipped with the cleaning shaft to clean the toner collected with the cleaning brush.
- The 1st cleaning shaft [4] is positively-biased [5] to collect the toner which adheres to the transfer belt [7] via the 1st brush [6].
- Then, the 2nd cleaning shaft [3] is positively-biased [2] to collect the toner which adheres to the transfer belt [7] via the 2nd brush [1].
- In this manner, it collects the toner adheres to the transfer belt [7].



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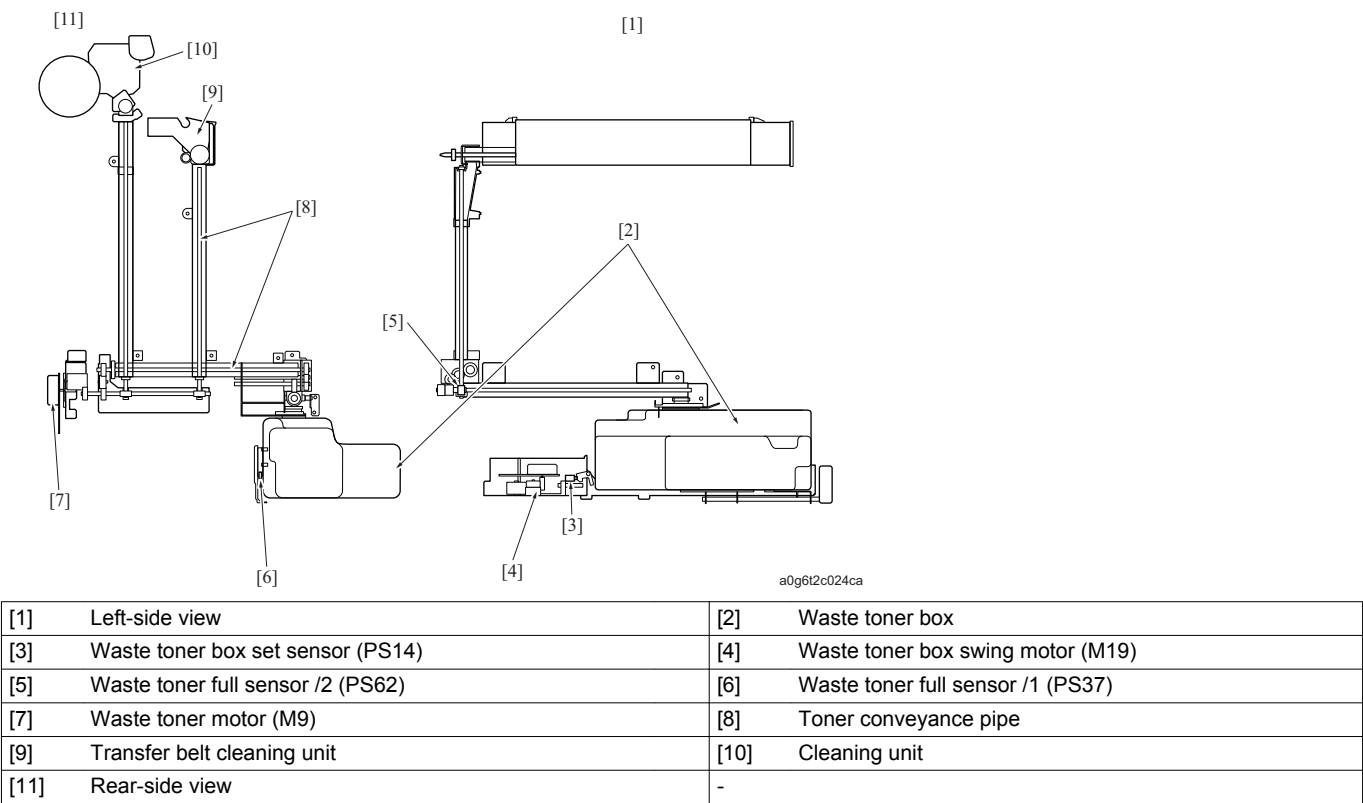
[1]	2nd cleaning brush	[2]	Negative voltage
[3]	2nd cleaning shaft	[4]	1st cleaning shaft
[5]	Positive voltage	[6]	1st cleaning brush
[7]	Transfer belt	-	

(2) ON/OFF timing

- It turns ON/OFF in sync with ON/OFF of the transfer belt motor (M30).

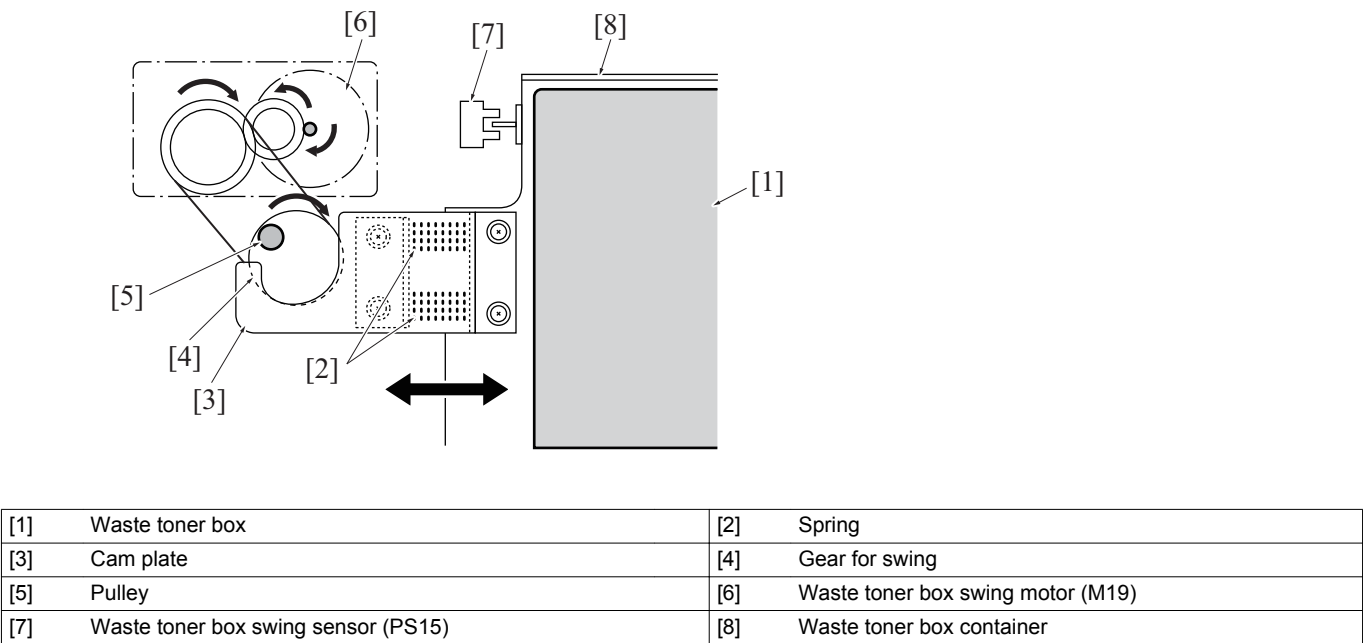
9. TONER COLLECTION SECTION

9.1 Configuration

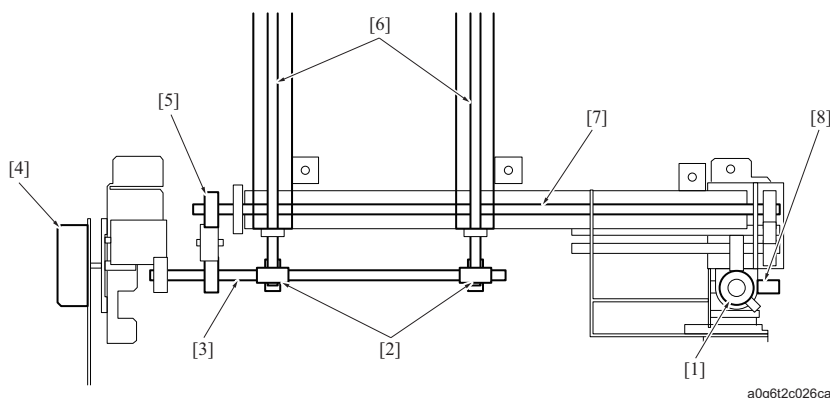


9.2 Drive

9.2.1 Waste toner box swing drive motor



9.2.2 Waste toner conveyance drive

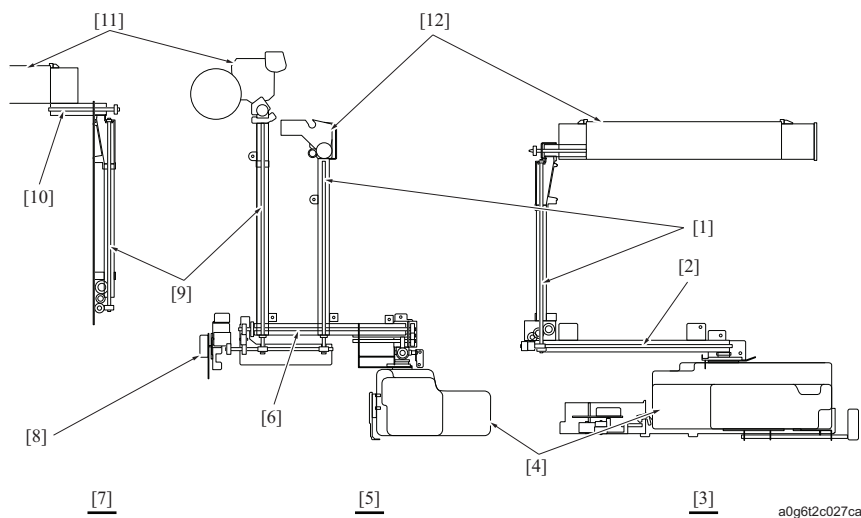


[1] Torque limiter	[2] Drive gear for vertical conveyance screw
[3] Vertical conveyance drive shaft	[4] Waste toner motor (M9)
[5] Drive gear for horizontal conveyance screw	[6] Vertical conveyance screw
[7] Horizontal conveyance screw	[8] Waste toner full sensor /2 (PS62)

9.3 Operation

9.3.1 Waste toner conveyance path

- To maintain the image quality, it does not recycle the toner collected in the drum cleaning section [11] and the transfer belt cleaning section [12] but convey it to the waste toner box [4] to dispose.
- The toner collected in the drum cleaning section [11] is conveyed to the vertical conveyance section for drum cleaning [9] via the drum cleaner connection section [10].
- The toner collected in the transfer belt cleaning section [12] is conveyed directly to the vertical conveyance section for transfer belt cleaning [1].
- Each vertical conveyance section is connected to the horizontal conveyance section [6]. The toner is conveyed to waste toner box [4] through the horizontal conveyance section and the waste toner box connection section [2].
- Each conveyance pipe has the built-in screws. The waste toner motor (M9) [8] drives each screw excluding one of the drum cleaner connection section [10] for both vertical and horizontal conveyance operation.
- The drum motor (M2) drives the drum cleaner connection section [10].



[1] Vertical conveyance section for transfer belt cleaning	[2] Waste toner box connection section
[3] Left inside	[4] Waste toner box
[5] Rear side	[6] Horizontal conveyance section
[7] Right inside	[8] Waste toner motor (M9)
[9] Vertical conveyance section for drum cleaning	[10] Drum cleaner connection section
[11] Drum cleaning section	[12] Transfer belt cleaning section

9.3.2 Waste toner box swing control

(1) Purpose

- The swing mechanism is provided to flatten uniformly the toner collected into the waste toner box.

(2) Operation

- The waste toner box swing motor (M19) drives the swing pulley.
- There is a bearing that is installed near the periphery of the swing pulley.

- The waste toner box container is equipped with the cam plate. When the swing pulley rotates, the bearing rotates with the notch of the cam plate interlocked.
- In this manner, the waste toner box container which is stopped at the fixed position by the spring is pulled toward the swing pulley according to the shape of the notch of the cam plate.
- When the shaft passes the notch, the waste toner box container returns to the original position by the force of the spring.
- In this manner, it enables the waste toner box swing operation.

(3) Operation timing

- For 120 seconds when the drum motor (M2) turns ON after the morning correction.
- For 30 seconds at every 500 prints.
- For 120 seconds at every 10000 prints.

9.3.3 Waste toner box detection control

- The waste toner box set sensor (PS14) detects the setting condition of the waste toner box.
- When the PS14 is OFF, the print job is not conducted but it displays the warning message to set the waste toner box on the operation panel.

9.3.4 Waste toner box full detection control

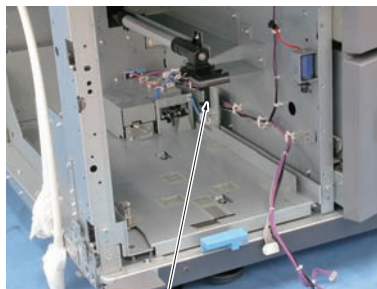
- There are 2 steps for the waste toner box full detection control.

(1) 1st waste toner box full detection control

- The waste toner box is made of transparent material and there is a projection on it [2] for the waste toner full sensor /1 (PS37) [1].
- PS37 is a photo-interrupting type sensor. When the waste toner box is set on its position, the projection is inserted between the light-emitting part and the light-receiving part of PS37.
- As the waste toner box is transparent, the light from the light-emitting part normally reaches to the light-receiving part and it turns PS37 ON.
- When the toner collected in the waste toner box reaches to the projection, the light is interrupted by the toner and PS37 turns OFF.
- By this condition it detects that the toner amount in the waste toner box reaches a predetermined value.



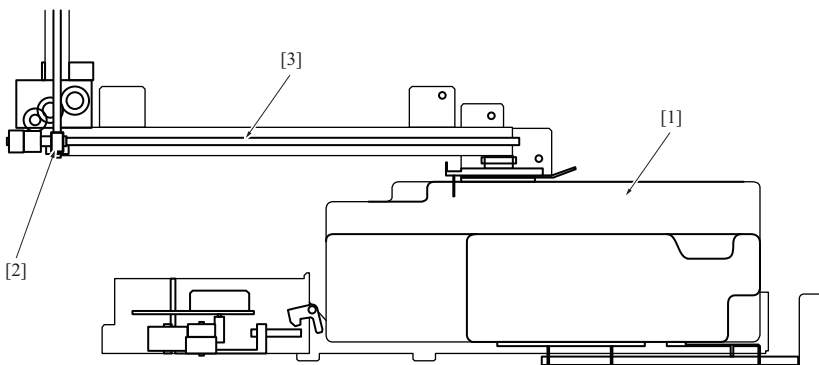
[2]



[1]

(2) 2nd waste toner box full detection control

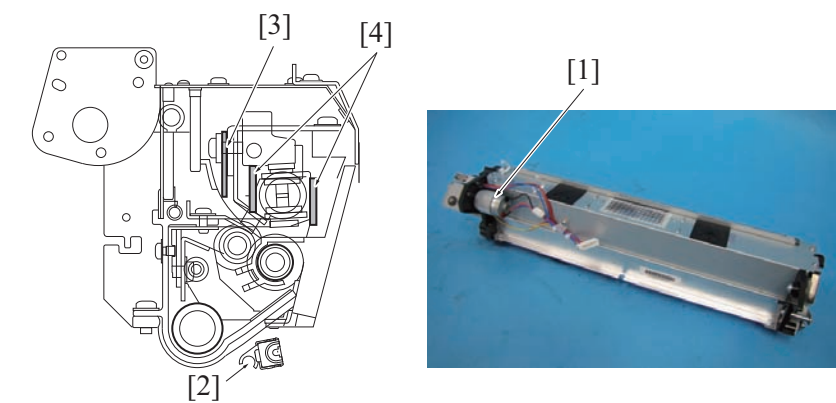
- The waste toner full sensor /2 (PS62) repeats turning ON/OFF according to the rotation of the screw in the waste toner conveyance pipe.
- By the PS62 sensor signal, it detects that the waste toner screw functions normally.
- When the printing continues after the waste toner full sensor /1 (PS37) detects the waste toner box full, the toner which is over the capacity of the waste toner box [1] accumulates in the waste toner box connection section [3].
- The conveyance pipe in the waste toner box connection section [3] has a torque limiter [2] installed on its screw section.
- When the accumulated toner weight applies specified level of load on the screw, the torque limiter [2] functions to prevent transmitting of the drive power of the waste toner motor (M9) to the screw in the waste toner box connection section.
- In this manner, the light blocking plate on the screw stops and the waste toner full sensor /2 (PS62) stops repetition of turning ON/OFF to indicate the waste toner full condition.



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10. CLEANING SECTION

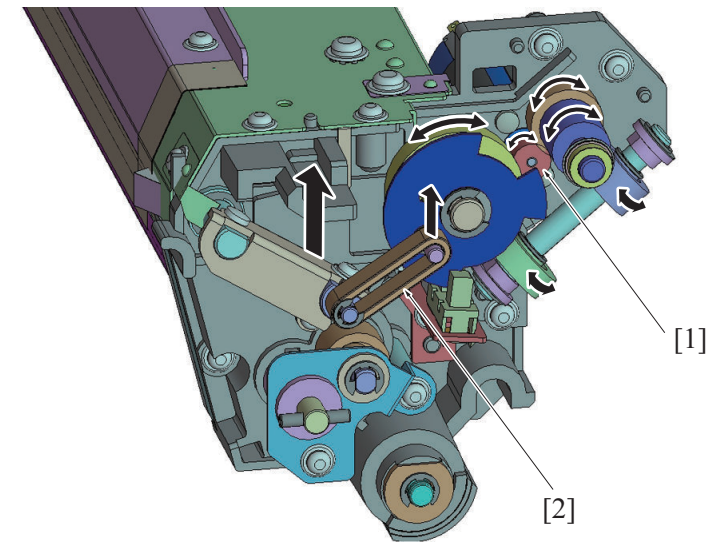
10.1 Configuration



[1]	Blade motor (M22)	[2]	PCC unit
[3]	Weight plate	[4]	Cleaning blade

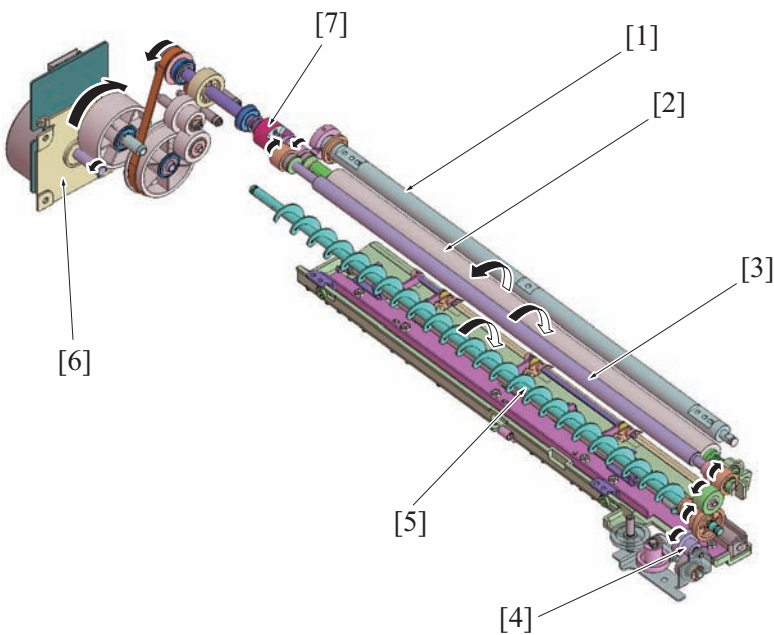
10.2 Drive

10.2.1 Cleaning blade drive



[1]	Trimmer blade motor (M22)	[2]	Blade release arm
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10.2.2 Toner guide brush drive



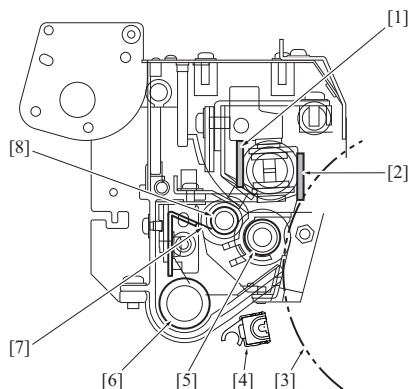
[1]	Cleaning blade drive shaft	[2]	Toner guide brush
[3]	Toner guide shaft	[4]	Separation claw oscillating drive gear
[5]	Toner conveyance screw	[6]	Drum cleaner motor (M35)
[7]	Drive coupling	-	

10.3 Operation

10.3.1 Cleaning operation

(1) Assist mechanism

- Toner scraped off by the cleaning blade [2] is collected by the toner guide brush [5]. Then it is scraped by the toner guide shaft [8] and guided to the toner conveyance screw [6].
- At this time, toner remaining on the toner guide shaft is scraped off by the toner collection scraper [7].
- The drum cleaner motor (M35) drives the toner guide brush, the toner guide shaft and the toner conveyance screw.



1050to2046d

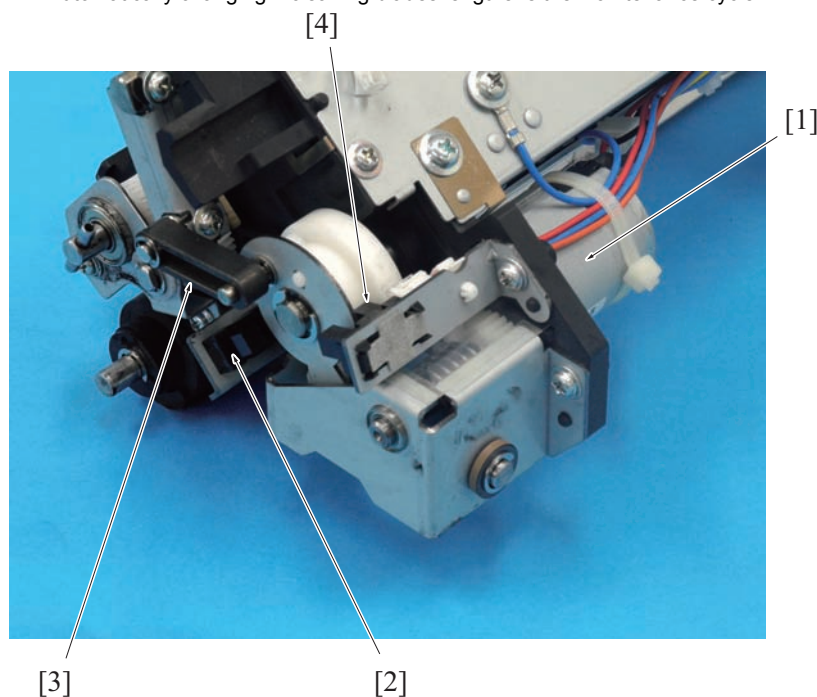
[1]	Cleaning blade /2	[2]	Cleaning blade /1
[3]	Drum	[4]	PCC unit
[5]	Toner guide brush	[6]	Toner conveyance screw
[7]	Toner collection scraper	[8]	Toner guide shaft

(2) PCC unit

- The toner blush is equipped with the PCC unit on the upstream to improve the cleaning ability by weakening the toner adhesion to the drum.
- The high voltage unit /3 (HV3) supplies the power (DC) to the PCC and decreases the charged potential of the remaining toner which attaches to the drum surface.

(3) Automatic replacement of the blade

- The cleaning section is equipped with 2 cleaning blades.
- The 2nd cleaning blade pushes up the blade release arm [3] as the blade motor (M22) [1] rotates.
- At the time, the ratchet on the cleaning blade axis is released so that the charged spring is also released. Then the cleaning blade axis rotates to change the blade /1 to /2.
- Automatically changing 2 cleaning blades lengthens the maintenance cycle.



[1] Trimmer blade motor (M22)	[2] blade sensor /1 (PS24)
[3] Blade release arm	[4] blade sensor /2 (PS25)

(4) Blade pressure release operation

- To enhance the increased durability of the drum and the cleaning blade, the cleaning blade conducts the pressure release operation to the drum by the blade motor (M22).
- The M22 operates in accord with the ON/OFF of the drum motor (M2).
- The pressure release and the replacement position of the cleaning blade are controlled by the blade sensor /1 (PS24) and the blade sensor /2 (PS25).

(5) Blade setting mode

- As an operation conducted after replacing the cleaning blade for the maintenance purpose, there is the blade set mode in the service mode.
- Executing the blade set mode prevents the curling-up of the cleaning blade by cleaning the drum with the cleaning blade after letting toner adhere to the drum.

Note

- **Perform this process only after changing the cleaning blade. Otherwise, the cleaning blade special parts counter is reset, thus making it impossible to implement the auto blade change in the right timing.**

10.3.2 IMAGE STABILIZATION CONTROL**(1) Black band creation control**

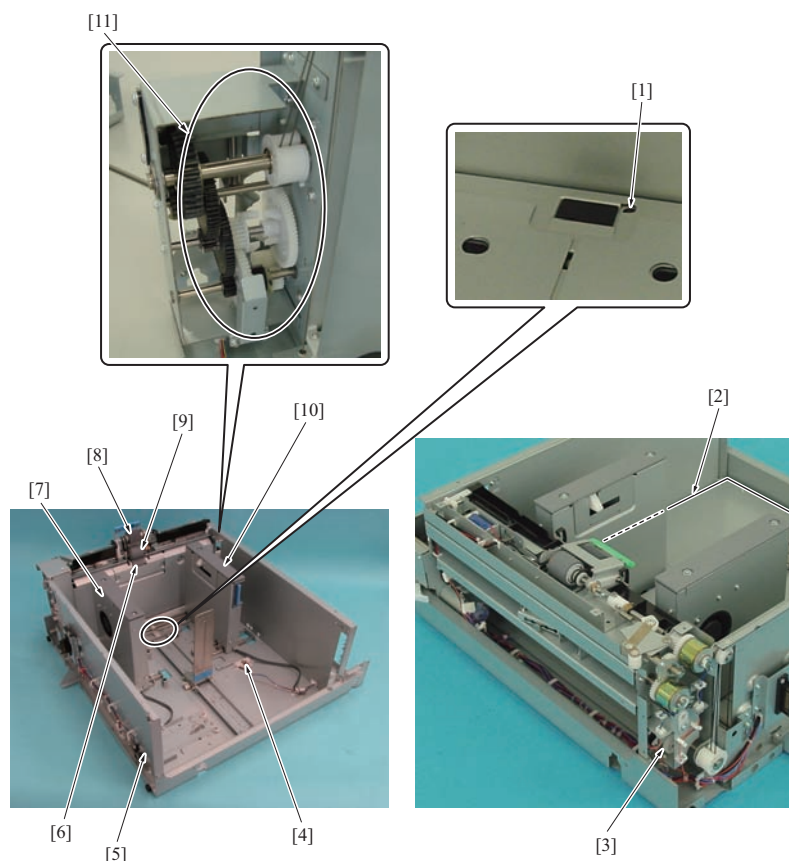
- In order to provide lubrication of the cleaning blade while in the low printing ratio, and to prevent the deterioration of toner while in the increasing driving distance, the LPH is turned ON at prescribed intervals to create black band patterns on the drum.
- For details, refer to "[O.17. Image stabilization control.](#)"

(a) Execution timing

- 3 times every 5 prints

11. PAPER FEED SECTION

11.1 Configuration



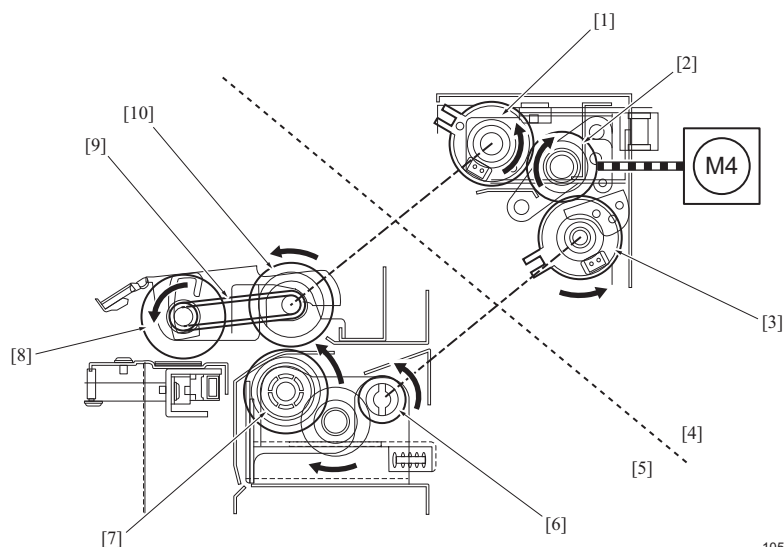
1050to2300c

[1]	Paper empty sensor /1 (PS8), /2 (PS12)	[2]	Paper lift plate
[3]	Remaining paper VR /1 (VR1), remaining paper VR /2 (VR4)	[4]	CD paper size VR /1 (VR2), CD paper size VR /2 (VR5)
[5]	FD paper size VR /1 (VR3), FD paper size VR /2 (VR6)	[6]	Separation roller
[7]	Paper feed assist fans /Rr1 (FM20), /Rr2 (FM24)*1	[8]	Pick-up roller
[9]	Paper feed roller	[10]	Paper feed assist fans /Fr1 (FM21), /Fr2 (FM23)*1
[11]	Paper up/down assist mechanism	-	

*1 PRO 951 is unimplemented.

11.2 Drive

11.2.1 Paper feed drive



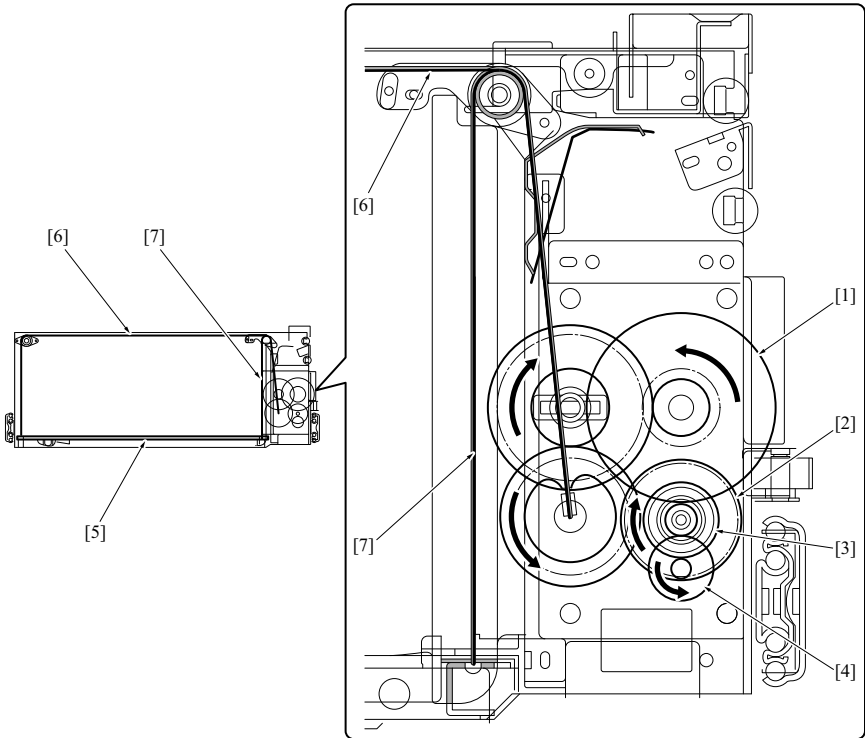
1050to2302c

[1]	Paper feed clutch /1 (CL4), /2 (CL6)	[2]	Coupling
-----	--------------------------------------	-----	----------

[3]	Separation clutch /1 (CL5), /2 (CL7) *1	[4]	Tray rear section
[5]	Tray central section	[6]	Torque limiter
[7]	Separation roller	[8]	Pick-up roller
[9]	Belt	[10]	Paper feed roller

*1 PRO 951 is unimplemented.

11.2.2 Tray lift drive

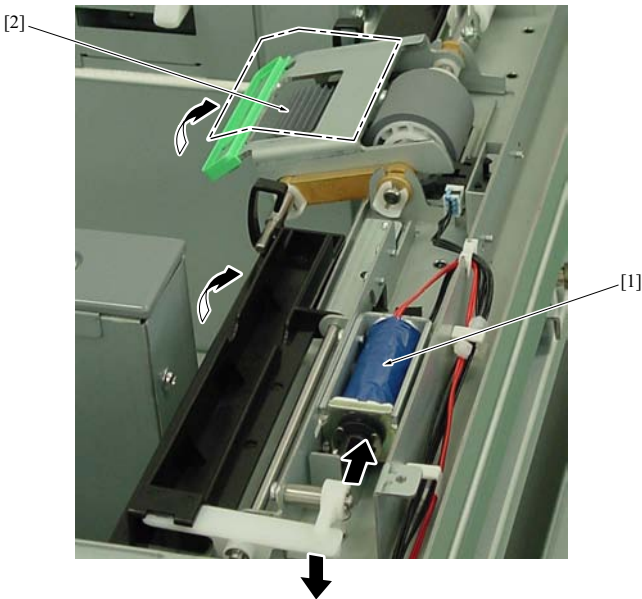


1050to2301c

[1]	Lift release coupling gear	[2]	Tray lift-up motor /1 (M25), /2 (M34)
[3]	Torque restriction gear (oil damper)*1	[4]	One-way clutch
[5]	Paper lift plate	[6]	Lift wires /Fr1, /Rr1
[7]	Lift wires /Fr2 and /Rr2	-	

*1 PRO 951 is unimplemented.

11.2.3 Pick-up drive



1050to2303c

[1]	Pick-up solenoid /1 (SD3), /2 (SD4)	[2]	Pick-up roller
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11.3 Operation

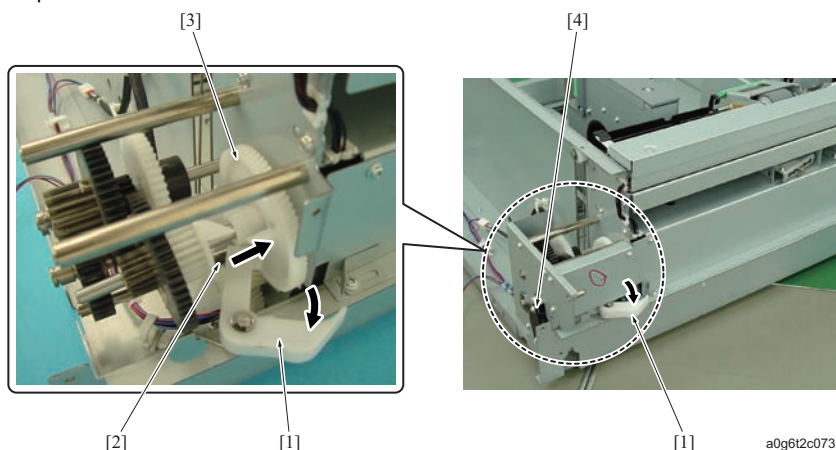
11.3.1 Up/down control

(1) Up operation

- Tray lift-up motor /1 (M25), /2 (M34) take up the lift wires with the pulley and raise the paper lift plate.

(2) Down operation

- When pulling out the tray, the coupling gear [3] that transmits the drive force from the motor shaft [2] of the tray lift-up motor /1 (M25) and /2 (M34) to the pulley is disengaged by the release lever [1].
- The paper lift plate goes down slowly by its own weight through the torque restriction gear [4] that is activated only while in the down operation.*1



[1]	Release lever	[2]	Motor shaft of the tray lift-up motor /1 (M25) and /2 (M34)
[3]	Coupling gear	[4]	Torque restriction gear*1

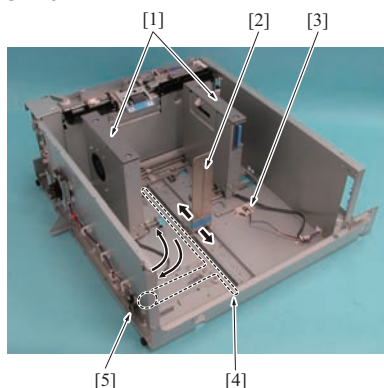
*1 PRO 951 is unimplemented.

(3) Operation timing

- When the tray is set, the tray lift-up motor /1 (M25) and /2 (M34) turn ON to raise the paper lift plate.
- The M25 and M34 motors are stopped when the upper limit sensors /1 (PS6) and /2 (PS10) detect the uppermost status of the paper lift plate.
- When PS6/PS10 turn OFF from ON during the print operation, M25/M34 turn ON again. When the paper lift plate is raised until the PS6/PS10 turn ON, M25/M34 turn OFF again.

11.3.2 Paper size detection control

- The FD paper size VR /1 (VR3) and /2 (VR6) detect the paper size in the sub scan direction.
- The FD paper size VR is interlocked with the paper rear guide through the link wire.
- The CD paper size VR /1 (VR2) and /2 (VR5) detect the paper size in the sub scan direction.
- The CD paper size VR is interlocked directly with the paper guide.
- After a specified period of time since the tray is set to the main body, each VR informs the detected size data to the control program of the main body.
- For the resistance value of each VR, a default is set by "Tray Adjustment" in the service mode.
- For the paper sizes shown below, it is necessary to set the paper size on the operation panel.
 - Select A5 or $5\frac{1}{2} \times 8\frac{1}{2}$
 - Select $8\frac{1}{2} \times 14$, $8\frac{1}{2} \times 13$, $8\frac{1}{4} \times 13$, $8\frac{1}{8} \times 13\frac{1}{4}$ or 8×13
 - Select 12×18 or SRA3

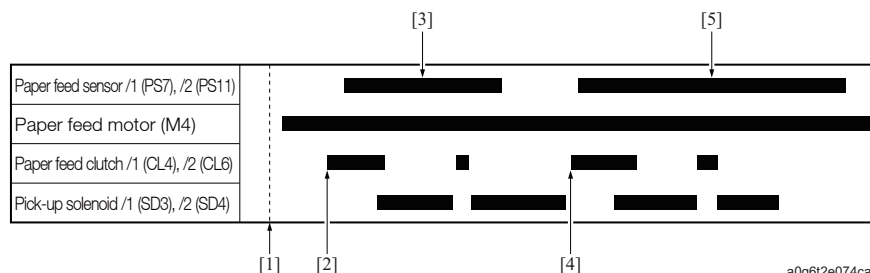


[1]	Paper guide	[2]	Paper rear guide
[3]	FD paper size VR/1 (VR3) , /2 (VR6)	[4]	Link wire

[5]	CD paper size VR/1 (VR2), /2 (VR5)	-
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11.3.3 Pick-up mechanism

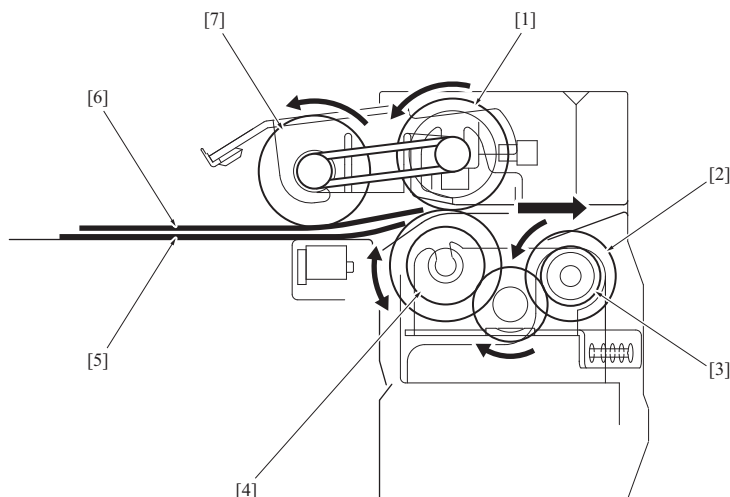
- The pick-up solenoids /1 (SD3) and /2 (SD4) turn OFF to pick up the paper.
- When the SD3/SD4 turn OFF, the pick-up roller goes down and pressurizes paper by its own weight.
- When the paper feed clutches /1 (CL4) and /2 (CL6) turn ON, the pick-up roller rotates to convey the paper to the paper feed roller.



[1]	Start button ON	[2]	Pick-up of the 1st sheet of paper
[3]	Conveyance of the 1st sheet of paper	[4]	Pick-up of the 2nd sheet of paper
[5]	Conveyance of the 2nd sheet of paper		-

11.3.4 Separation mechanism

- For the transmission of the drive force to the separation roller [4], the drive force of the paper feed motor (M4) is transmitted by the ON/OFF operation of the separation clutches /1 (CL5) and /2 (CL7) [2] through the torque limiter [3].
- The separation roller [4] is driven in the direction opposite to the paper conveyance.
- When no paper is conveyed, and when only 1 sheet of paper is conveyed, the frictional force generating between the paper feed roller [1] and the separation roller [4] or the paper and the separation roller is greater than the frictional force of the torque limiter [3]. Accordingly, the separation roller rotates in the direction of the paper conveyance to convey paper to the vertical conveyance section.
- When 2 or more sheets of paper are conveyed, the frictional force between these sheets of paper is smaller than the frictional force of the torque limiter and the separation roller rotates in the reverse direction to prevent the lower most paper from being conveyed.



[1]	Paper feed roller	[2]	Separation clutch /1 (CL5), /2 (CL7) *1
[3]	Torque limiter	[4]	Separation roller
[5]	2nd sheet of paper	[6]	1st sheet of paper
[7]	Pick-up roller		-

*1 PRO 951 is unimplemented.

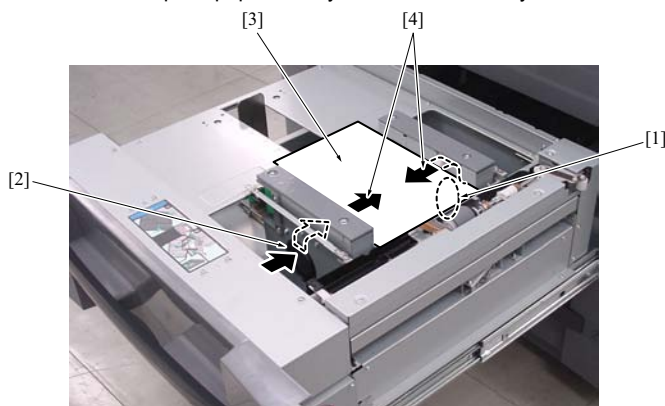
(1) Separation clutch control

- When paper is slippery (or, when the power for conveyance is insufficient), paper conveyed from the pick-up roller may be unable to pass through the handling sections of the paper feed roller and the separation roller.
- To alleviate this kind of condition, turn OFF the separation clutches /1 (CL5) and /2 (CL7) until paper gets to the handling section to cut off the drive force to the separation roller, and make it function as a driven roller to the paper feed roller. After paper gets to the handling section, turn ON the CL5 and CL7 and to conduct the normal handling operation.
- This control is made unconditionally for the 1st sheet of paper. For the 2nd and the succeeding sheets of paper, the control is made as follows.
 - Type of paper: Preprinted paper: Made unconditionally.
 - Type of paper: Other than Preprinted paper: Made automatically judging from the condition of conveyance at the handling section. *1

*1 For the paper type other than the coated paper, DIPSW39-0/1:1 conducts the control unconditionally. At this time, the control is made unconditionally for the coated paper only in the low temperature.

11.3.5 Air assist mechanism (1250/1250P/1052 only)

- The trays /1 and /2 are provided with the paper feed assist fan that assists the paper separation by blowing air [4] on paper [3] from the paper guides, 1 provided at front and rear.
- The tray /1 is provided with the paper feed assist fans /Fr1 (FM21) [2] and /Rr1 (FM20) [1] and tray /2 with paper feed assist fans /Fr2 (FM23) [2] and /Rr2 (FM24) [1].
- Each of the paper feed assist fans is effective especially for thick paper, and paper with a high degree of adhesion (such as coated paper). However, in the case of plain paper, it may not be fed smoothly.



1050to2309c

[1]	Paper feed assist fans /Rr1 (FM20) and / Rr2 (FM24)	[2]	Paper feed assist fans /Fr1(FM21) and /Fr2 (FM23)
[3]	Paper	[4]	Blow-out of air

(1) Operation timing

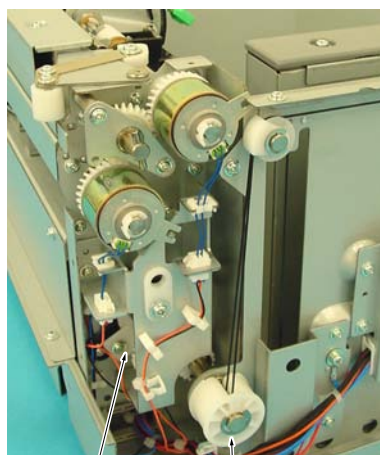
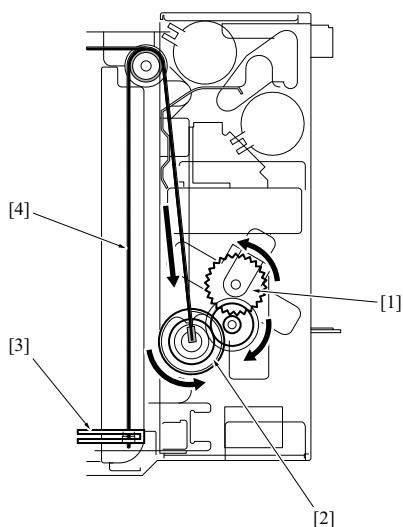
- The operation of the paper feed assist fans /Fr1 (FM21), /Rr1 (FM20), /Fr2 (FM23) and /Rr2 (FM24) can be selected from among the following 3 modes: Always ON, Always OFF and Auto.
- While in the Auto mode, the paper feed assist fan is normally turned OFF. However, when the coated paper or the preprinted paper is selected for the type of paper on the operation panel, the paper feed assist fan of the corresponding tray is turned ON.

11.3.6 Remaining paper detection control**(1) Paper empty detection**

- The paper empty sensors /1 (PS8) and /2 (PS12) carry out the paper empty detection in the tray.

(2) Remaining paper detection control

- The remaining paper detection is made by the remaining paper VR/1 (VR1) and /2 (VR3) [1] that are interlocked through the pulley [2] and the gear with the paper lift plate [4].
- The level of the paper remaining is detected in 4 steps according to the resistance value and sent to the main body after being AD converted.
- At this time, the following are displayed on the operation panel:
 - No Paper (↓ Flashing) : 0
 - 1st step (displayed in red): 13.3% or less
 - 1st step (displayed in white): 25% or less
 - 2nd step (displayed in white): 50% or less
 - 3rd step (displayed in white): 75% or less
 - 4th step (displayed in white): 76% or more



1050to2310c

[1]	Remaining paper VR/1 (VR1) and VR/2 (VR4)	[2]	Lift pulley /Rr
[3]	Paper lift plate	[4]	Lift wire

11.3.7 Tray lock control

- Each tray is locked by the tray lock lever.
- When the handle release sensors /1 (PS9) and /2 (PS13) of either of the tray /1 and /2 are OFF, the tray lock solenoids /1 (SD1) and /2 (SD2) of the corresponding tray turn on and the tray lock lever is pulled up to release the lock, thus allowing you to pull out the tray.
- If another OFF is detected while one of PS9 or PS13 is OFF, nothing but SD1 and SD2 which have already turned ON turns ON. This process is to prohibit 2 trays from being pulled out at the same time.
- When a jam that affects the tray and the exit conveyance section occurs, the tray remains being locked until the jammed paper is removed.
- Doing this prevents the paper from being torn.

11.3.8 Dehumidification heater control

- The tray /1 and the tray /2 are provided with the dehumidification heater /1 (HTR1) and /2 (HTR2), 1 each respectively, below each tray. They are turned on when the dehumidification heater switch (SW3) of the main body is turned ON.

11.4 Individual support

11.4.1 Corresponding to overlay printing (1250/1250P/1052 only)

- The following are available as the individual support parts for overlay printing.
 - Cleaning brush
 - Paper feed assist plate

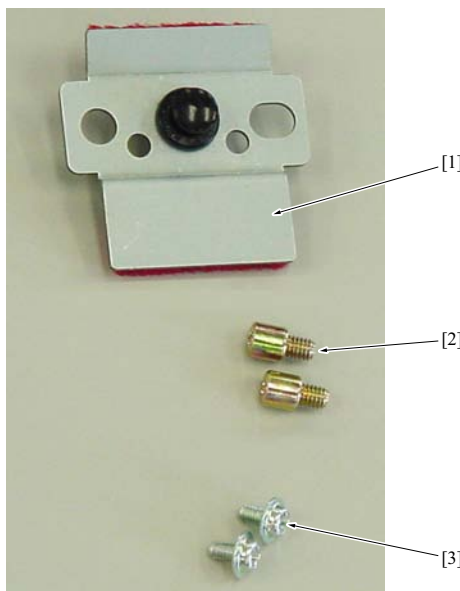
(1) Cleaning brush

(a) Purpose

- When performing overlay printing (refer to [1.8.2.11 Overlay printing adjustment](#)) on coated paper on which offset printing has been made, the conveyance force of the pick-up roller and the paper feed roller is remarkably reduced by powder that is used to prevent the blocking (back transfer) during the offset printing, thus causing a no feed jam.
- The cleaning brush is a part used to remove this powder to realize the improved feedability of paper.
- The cleaning brush is attachable to the paper feed tray on the main body.
- The cleaning brush can clean the pick-up roller and the paper feed roller.
- Do not use the cleaning brush for the paper with many paper powders.
- If the cleaning brush is used in the manner described above, the paper powder clogs the cleaning brush and reduces the conveyance power.

(b) Configuration

- The package contains the following as a set.
 - [1] Brush main body: 1 pc.
 - [2] Positioning screw: 2 pcs.
 - [3] Screw: 2 pcs. (M3 x 6)
- Only 1 brush is packaged with this machine. When required additionally, brushes can be purchased as service parts.



1050to2311c

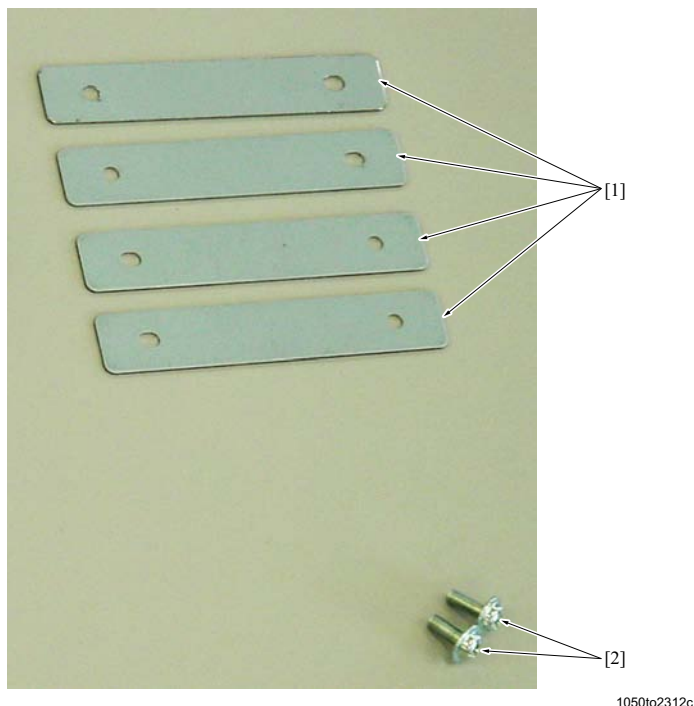
(2) Paper feed assist plate

(a) Purpose

- The paper feed assist plate is used to adjust the pick-up pressure on paper by changing the load on the pick-up roller.
- Adjustments can be made according to the type of paper to increase the paper feed performance.
- It is possible to improve a no feed condition that is apt to occur when a highly adhesive paper like thick paper or coated paper is fed.
- The paper feed assist plate weighs about 10g and up to 4 plates can be attached to 1 pick-up roller in normal condition (refer to [1.8.2.14 User setting of each paper brand](#)). When the surface of the cover paper is powdery, up to 3 plates can be attached (refer to [1.8.2.11 Overlay printing adjustment](#)).
- Increasing or decreasing the number of plates allows you to adjust the pick-up pressure corresponding to the type of paper.

(b) Configuration

- The package contains the following as a set.
 - [1] Paper feed assist plate: 4 pcs.
 - [2] Screw: 2 pcs. (M3 x 8)
- Only 4 paper feed assist plates are packaged together with the main body. When required additionally, can be purchased as service parts.

**11.4.2 Correspond to postcard**

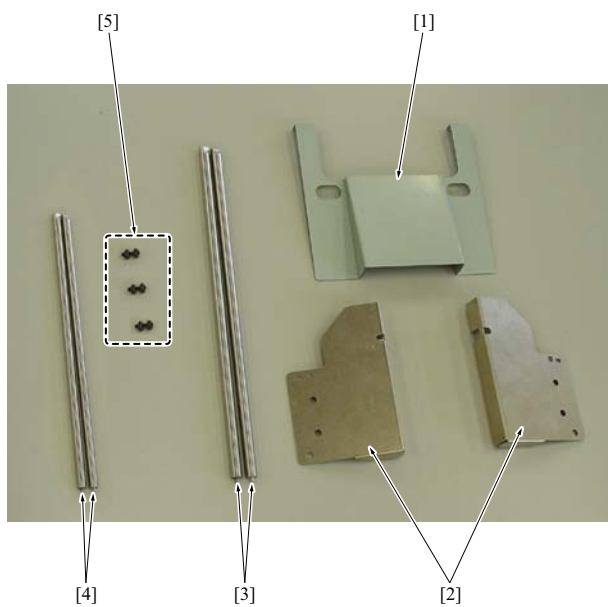
- The following parts are available as the individual support parts for postcard.
 - Postcard kit

(1) Postcard kit**(a) Purpose**

- Since the available size for the paper feed on the tray of the main body is A5 size at minimum in standard, it cannot feed the postcard.
- Postcard kit is the adopter and is set as the service parts to make it enable to feed the postcard from the tray.
- The tray of the main body can keep about 600 sheets of postcard.

(b) Configuration

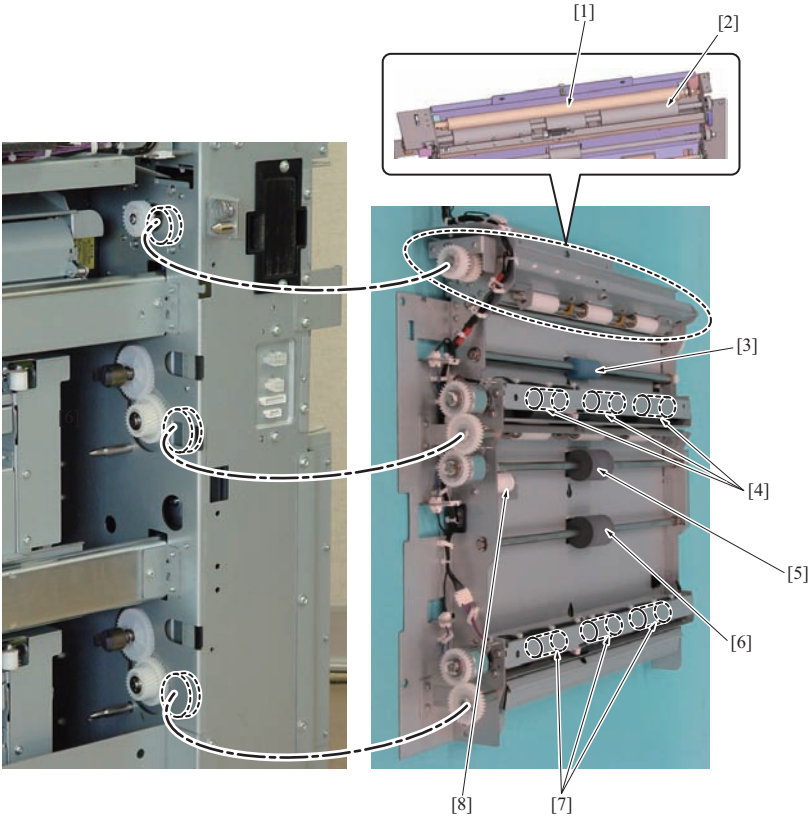
- Postcard kit bundles different length of regulation shafts but be sure to use the shorter one.
- The package contains the following as a set.
 - [1] Bottom plate: 1
 - [2] Upper plate /Fr, /Rr: 1 each (2 in total)
 - [3] Regulation shaft /L (not used): 2
 - [4] Regulation shaft /S: 2
 - [5] Screw: 6 pcs. (TP3 x 6)



1050to2313c

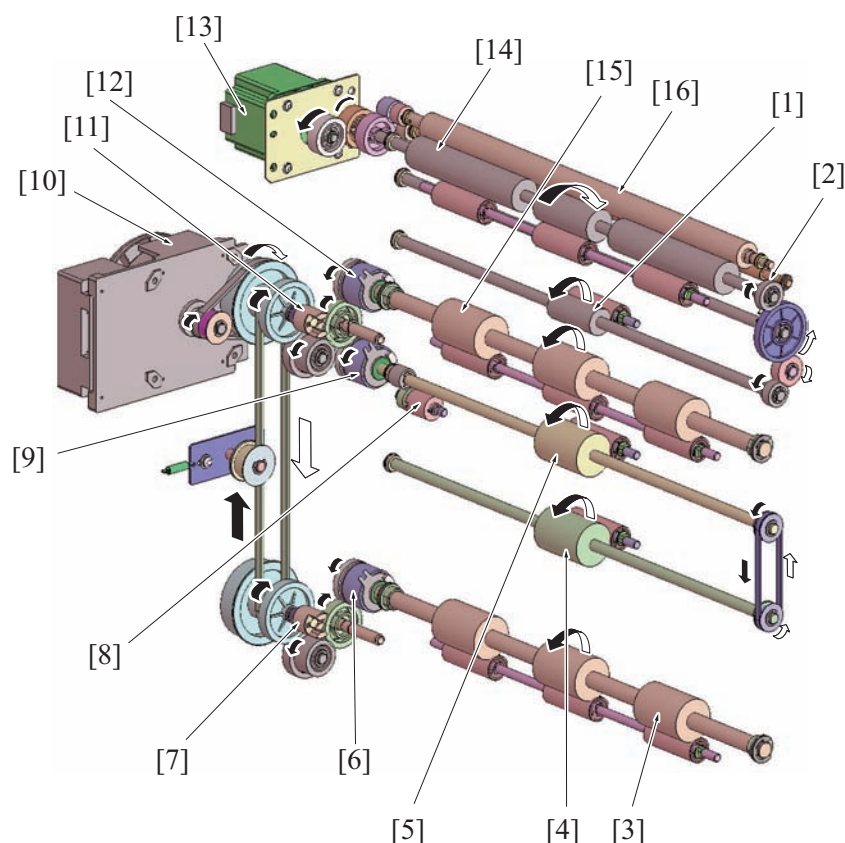
12. VERTICAL CONVEYANCE SECTION

12.1 Configuration



[1]	Paper dust guide brush	[2]	Conveyance exit roller
[3]	Conveyance roller /1	[4]	Pre-registration roller /1
[5]	Conveyance roller /2	[6]	Conveyance roller /3
[7]	Pre-registration roller /2	[8]	Torque limiter

12.2 Drive



[1]	Conveyance roller /1	[2]	Scraper shaft
[3]	Pre-registration roller /2	[4]	Conveyance roller /3
[5]	Conveyance roller /2	[6]	Pre-registration clutch /2 (CL3)
[7]	Coupling (transmission of driving force to the tray /2)	[8]	Torque limiter
[9]	Vertical conveyance clutch (CL2)	[10]	Paper feed motor (M4)
[11]	Coupling (transmission of driving force to the tray /1)	[12]	Pre-registration clutch /1 (CL1)
[13]	Vertical conveyance motor (M8)	[14]	Conveyance exit roller
[15]	Pre-registration roller /1	[16]	Paper dust guide brush

12.3 Operation

12.3.1 Pre-registration control

- When the paper feed starts, paper is sent out to the pre-registration roller by the pick-up roller and the paper feed roller.
- When the paper strikes the pre-registration roller that is stopped, a loop is formed to adjust paper skew.
- When the pre-registration clutches /1 (CL1) and /2 (CL3) turn on, the driving force of the paper feed motor (M4) is transmitted to the pre-registration rollers /1 and /2 to convey paper.

12.3.2 Conveyance control

- Paper fed from the tray /1 is conveyed to the conveyance roller /1 which is also driven by the vertical conveyance motor (M8) by the pre-registration roller /1.
- Paper fed from the tray /2 is conveyed to the conveyance rollers /3 and /2, which are in turn driven by the pre-registration roller /2 and the paper feed motor (M4) through the vertical conveyance clutch (CL2), and then conveyed finally to the conveyance roller /1.
- Since the line speeds of the pre-registration rollers /1 and /2 and the conveyance rollers /3 and /2 that are driven by the M4 are fixed at a high speed, the pre-registration clutches /1 (CL1) and /2 (CL3), and the CL2, while in the transfer/conveyance in a low speed, are turned off to cut off the transmission of the driving force.
- At this time, the conveyance roller /1 driven by the M8 rotates at a low speed. However, it starts to rotate in a high speed when the loop sensor (PS16) detects the trailing edge of paper.

12.3.3 Exit conveyance control

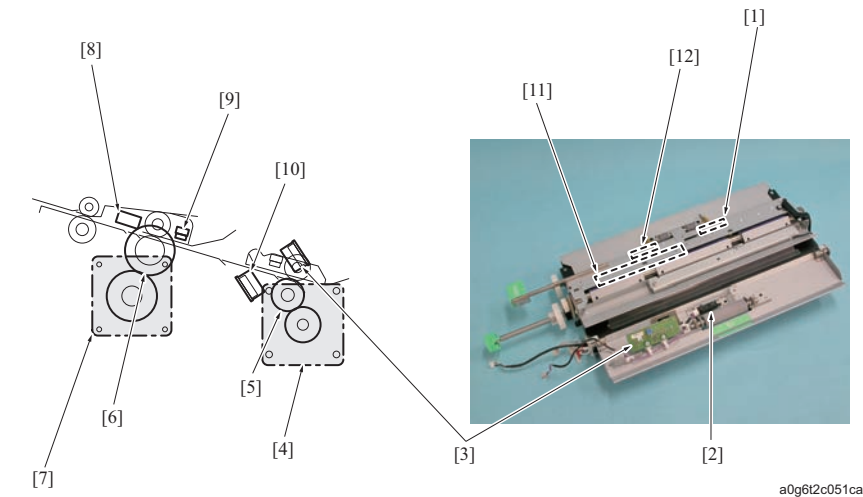
- For the exit conveyance, the vertical conveyance motor (M8) drives the conveyance exit roller and conveyance roller /1.

12.3.4 Paper dust removing mechanism

- At the exit of the vertical conveyance section, paper dust is removed with the paper dust guide brush.
- When paper dust adhering to the conveyance exit roller is removed by the paper dust guide brush (raising brush), it then adheres to the scraper shaft (metal roller) to be removed by the scraper (sheet) that touches the scraper shaft.

13. REGISTRATION SECTION

13.1 Configuration

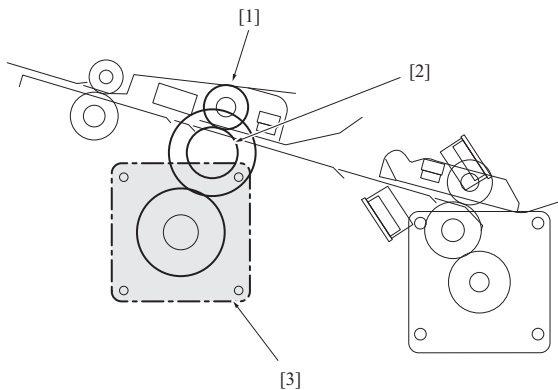


[1] Paper skew sensor /Rr (PS66)*1	[2] ADU deceleration sensor (PS42)
[3] Multi-feed detection board /R (MFDBR)*1	[4] Loop motor (M18)
[5] Loop roller	[6] Registration roller
[7] Registration motor (M17)	[8] Paper leading edge sensor (PS41)
[9] Registration sensor (PS40)	[10] Multi-feed detection board /S (MFDBS)*1
[11] Centering sensor (PS4)	[12] Paper skew sensor /Fr (PS65) *1

*1 PRO 951 is unimplemented.

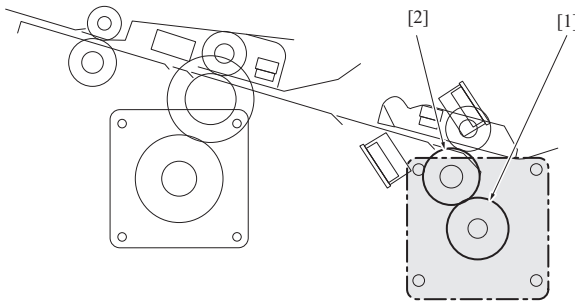
13.2 Drive

(1) Registration roller drive



[1] Registration roller /Up	[2] Registration roller /Lw
[3] Registration motor (M17)	-

(2) Loop roller drive



[1] Loop motor (M18)	[2] Loop roller
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13.3 Operation

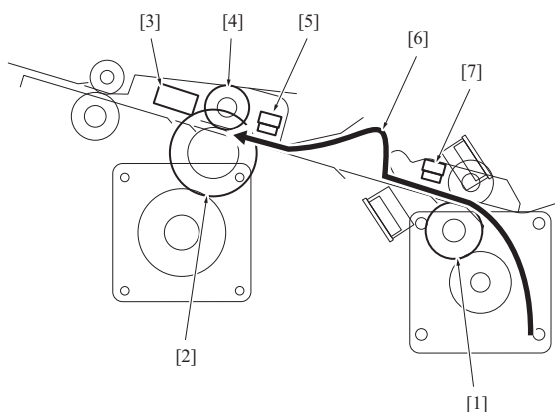
13.3.1 Multi feed detection control (1250/1250P/1052 only)

- To detect the multi feed of paper while in the paper conveyance, the multi feed sensor is provided at the exit of the loop roller.
- The multi feed sensor is an acoustic sensor made up of a pair of a sender and a receiver.
- In the multi feed sensor, the multi-feed detection board /R (MFDBR) receives the ultrasonic sent from the multi-feed detection board /S (MFDBS).
- When a single sheet of paper passes between MFDBS and MFDBR, it is possible to receive a sound wave, but when plural sheets of paper pass through, it is not possible to receive sound waves.
- In this way, a detection is made to check to see if paper is multi fed.
- The multi feed detection is guaranteed for paper that is 160mm or longer in the main scan direction.

13.3.2 Loop control

- When paper conveyed to the loop roller [1] strikes the registration rollers /Up [4] and /Lw [2] which rotate in the reverse direction, a loop [6] is formed before the loop roller turns OFF.
- In this way, a paper skew is adjusted.
- When paper is heavier than 163g/m^2 , it has a stronger repulsive force and occurs a transfer jitter due to the increased partial line speed caused by the force by which the loop tends to go back to its original form. Therefore, it is controlled so that the loop amount becomes smaller than the amount of the paper of 162g/m^2 .
- When paper is 49g/m^2 or lighter, it has a weaker repulsive force. It has a possibility of creating a loop too much or not creating a loop at all. Therefore, it is controlled so that the loop amount becomes smaller.
- The registration roller stops rotating in the reverse direction and then it rotates in the forward direction to stop its motion.

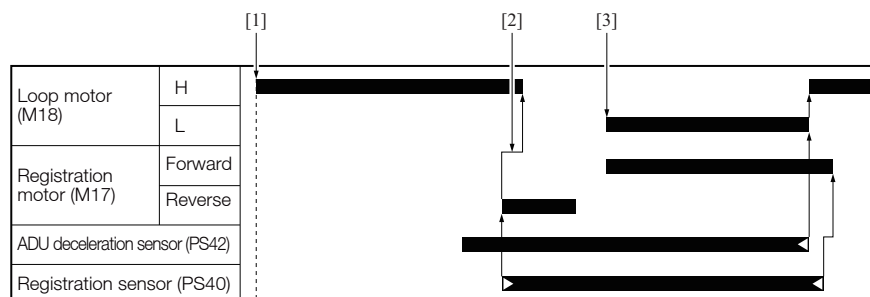
(1) Registration path



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[1]	Loop roller	[2]	Registration roller /Lw
[3]	Paper leading edge sensor (PS41)	[4]	Registration roller /Up
[5]	Registration sensor (PS40)	[6]	Loop
[7]	ADU deceleration sensor (PS42)	-	

(2) Registration operation



a0g6l2e075ca

[1]	Start button ON	[2]	Loop creation
[3]	Registration starts	-	

13.3.3 Paper centering correction control

- To detect the centering of paper after registration, the centering sensor (PS4) is provided at the exit of the registration roller.
- The PS4 is a contact image sensor of about 200dpi and the centering information detected by the PS4 is processed at the image-processing section and adjusted during writing so that the image data corresponds to the position.
- The centering amount can be adjusted up to $\pm 5\text{mm}$.
- When the centering amount is in excess of 5mm, the paper is output with same correction condition as the preceding output from that tray applies.

13.3.4 Paper leading edge timing adjustment control

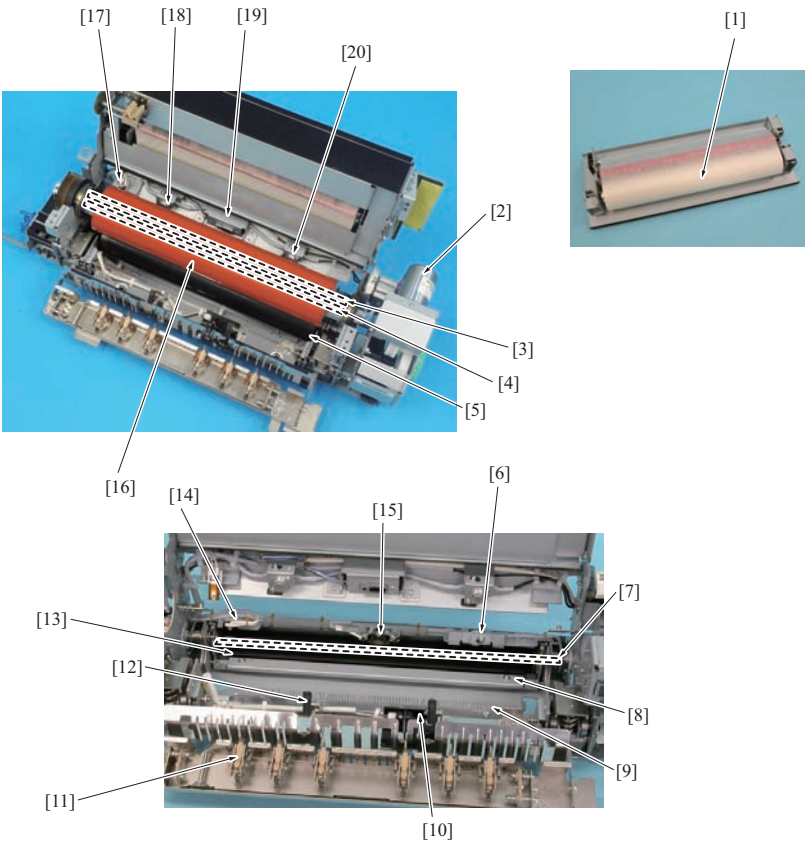
- To detect the paper leading edge timing after registration, the paper leading edge sensor (PS41) is provided at the exit of the registration roller.
- Based on the paper leading edge position detected by the PS41, adjustments are made during writing so that the image data corresponds to the position.

13.3.5 Paper skew detection control (1250/1250P/1052 only)

- To detect the centering of paper after registration, the paper skew sensor /Fr (PS65) and /Rr (PS66) are provided.
- It detects the time when the paper passes PS65 and PS66 and determines the paper skew amount according to the time difference. When the amount is excess of the paper skew amount detection threshold (set from the touch panel), the man body gets into JAM and stops.
- Paper skew detection control does not function for the paper under 130mm or less as the length in the main scan direction.

14. FUSING SECTION

14.1 Configuration

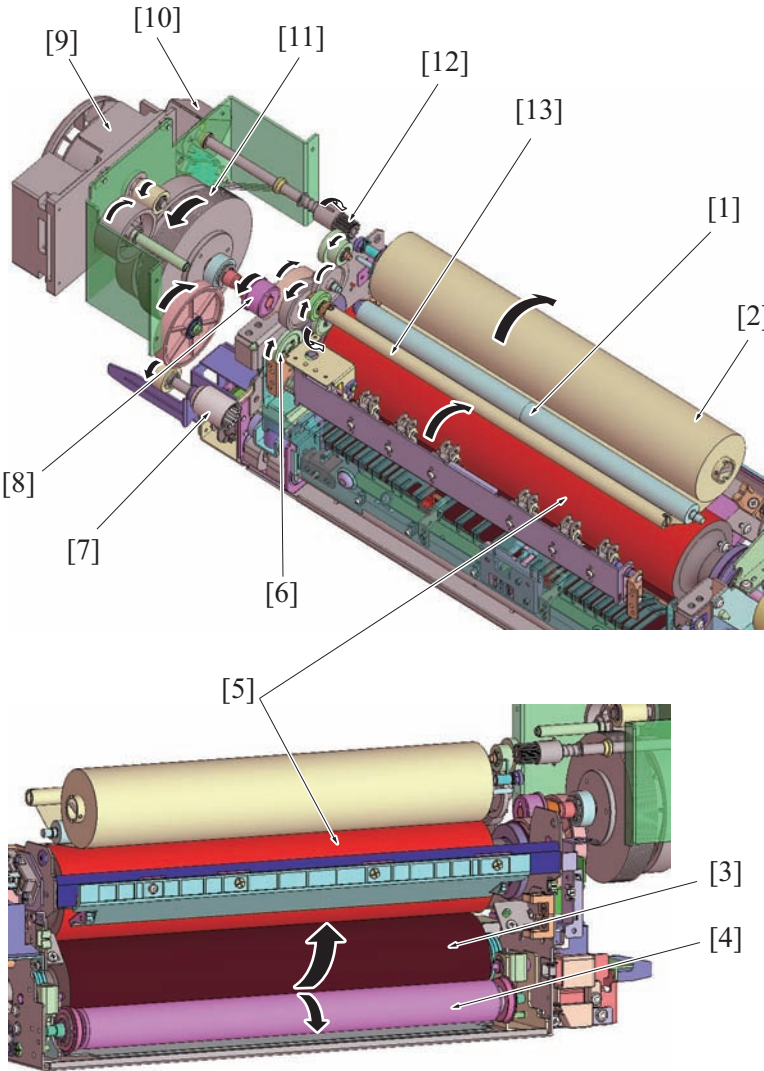


[1]	Cleaning web	[2]	Fusing pressure release motor (M33) *1
[3]	Fusing heater lamp /1 (L1)	[4]	Fusing heater lamp /2 (L2)
[5]	Fusing roller /Lw	[6]	Thermostat /3 (TS3)
[7]	Fusing heater lamp /3 (L3)	[8]	Scraper
[9]	Non-contact neutralizing brush	[10]	Fusing jam sensor (PS38)
[11]	Fusing claw /Up	[12]	Fusing claw /Lw
[13]	Fusing heating roller	[14]	Fusing temperature sensor /4 (TH4)
[15]	Fusing temperature sensor /3 (TH3)	[16]	Fusing roller /Up
[17]	Fusing temperature sensor /2 (TH2)	[18]	Thermostat /1 (TS1)
[19]	Fusing temperature sensor /1 (TH1)	[20]	Thermostat /2 (TS2)

*1 PRO 951 is unimplemented.

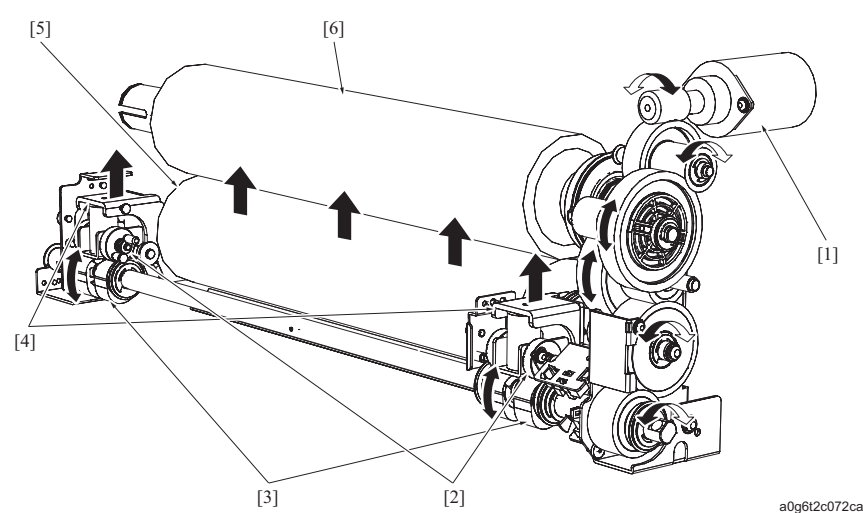
14.2 Drive

14.2.1 Fusing roller/web drive



[1]	Pressure roller	[2]	Web unwinding shaft
[3]	Fusing roller /Lw	[4]	Fusing heating roller
[5]	Fusing roller /Up	[6]	Fusing claw /Up oscillating drive gear
[7]	Fixing exit roller drive coupling	[8]	Fusing roller /Up drive coupling
[9]	Fusing motor (M1)	[10]	Web motor (M24)
[11]	Flywheel	[12]	Web drive coupling
[13]	Web wind-up shaft	-	

14.2.2 Fusing roller /Lw pressure drive (1250/1250P/1052 only)



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[1] Fusing pressure release motor (M33)	[2] Pressure roller
[3] Pressure cam	[4] Pressure arm
[5] Fusing roller /Lw	[6] Fusing roller /Up

14.3 Operation

14.3.1 Fusing roller drive control

(1) Speed changeover control

- According to the relationship between the type of paper and the paper weight, the process speed is controlled with 3 steps or 2 steps.

Machine type	High speed	Medium speed	Low speed
1250/1250P	570mm/s	490mm/s	330mm/s
1052	490mm/s	-	330mm/s
PRO 951	460mm/s	-	290mm/s

(2) Preparative rotation control

(a) Control when the power is turned ON

- When the fusing temperature is less than 50°C with the sub power switch (SW2) turned ON and the detection temperature of the fusing temperature sensor /1 (TH1) of the fusing roller /Up gets to a specified temperature, the fusing motor (M1) starts the preparatory rotation and stops after a specified period of time or when the TH1 detects a specified temperature.
- When the fusing temperature is between 50°C or more and less than 185°C with the SW2 turned ON or while in the warm-up after cleaning jam and the detection temperature of the TH1 of the fusing roller /Up gets to a specified temperature, the M1 starts the preparatory rotation. Then, the M1 stops after a specified period of time or when the TH1 detects a specified temperature.
- The software DIPSW8-2/3 allows you to make a selection between the execution and the non-execution of this preparatory rotation. Also the software DIPSW8-4/5 allows you to change the length of the preparatory rotation time.

(b) Print control

- It conducts the preparatory rotation for a specified period of time before the printing starts.
- The length of the preparatory rotation time is previously specified in accordance with the type of paper and the paper weight.
- It does not conduct the preparatory rotation when the next printing starts within 3 seconds after the previous printing.

(c) Control after the small-size paper printing

- The preparatory rotation time for the next printing differs from the normal time when printing 100 or more sheets continuously on the paper with appropriate width, and the next printing starts within 240 seconds using either type of paper (must be wider than the paper used in the preceding job); weight 91g/m² or less, paper size A3, B4 or 11 x 17.
- The paper width as an object to perform the preparatory rotation varies depending on models.

Machine type	Paper width
1250/1250P/1052	Less than 279.4mm (11in.)
PRO 951	216mm (8.5in.) or less

- This preparatory rotation time differs according to the idling time.
- Either of longer one is applied; this arranged preparatory rotation time or the normal preparatory rotation time.
- The software DIPSW 8-7 allows you to make a selection between the execution and the non-execution of this preparatory rotation.

(d) Control while in idling (1250/1250P/1052 only)

- The M1 stops while in idling, however, it conducts the preparatory rotation when the prescribed condition is met.
- The preparatory rotation is conducted for a specified period of time when the TH1 detects 230°C or more while in idling.
- When a print is reserved while in idling, the preparatory rotation is not conducted. Even when the TH1 detects 230°C or more.
- When a print is executed during the preparatory rotation while in idling, the preparatory rotation is stopped to print.

(e) Control while in idling P

- The M1 stops while in idling, however, it conducts the preparatory rotation when the prescribed condition is met.
- The preparatory rotation is conducted for a specified period of time when the fusing temperature sensor /2 (TH2) detects 220°C or more.
- When a print is reserved while in idling, the preparatory rotation is not conducted even when the TH2 detects 220°C or more.
- When a print is executed during the preparatory rotation while in idling, the preparatory rotation is stopped to print.

(3) Main motor control when left unused (PRO951 only)

- To avoid the condition that the fusing roller /Up contacts with the fusing roller /Lw for long time, if the main motor is idling or in the sleep mode when 6 hours has passed since the rollers are left unused, rotates the fusing motor (M3) at low process speed for a specified period of time.
- The count value of the left unused time is the stopping time of the drum motor (M1).
- When the drum rotates to print or to correct processes, the count value of the left unused time is reset.
- Also when the sub power switch (SW2) is turned OFF or the auto shut-off mode is entered, the count value of the left unused time is reset.
- Do not perform this control if the front door is open or the maintenance mode is activated, when the count value of the left unused time becomes 6 hours.
- When a print is executed while in performing this control, the preparatory rotation is stopped for the print.

(4) Speed stabilization

- To stabilize the speed, the gear shaft between the M1 and the fusing roller /Up is equipped with a flywheel. The inertia force of the flywheel stabilizes the speed of the fusing roller to minimize the transfer jitter on thick paper.

14.3.2 Pressure release drive control (1250/1250P/1052 only)**(1) Purpose**

- The pressure release control of the fusing roller /Lw enhances the following performance.
 - Enhancement of the durability of the fusing roller /Up and /Lw.
 - Reducing the curl amount and enhancement of fusibility in printing.
 - Warming up of the fusing roller /Lw in the warm-up preparatory rotation.
 - Improvement of the productivity and the durability of the pressure release mechanism.

(2) Operation**(a) Pressure position**

- The pressure position has five positions from position1 to 5.
- Pressure position 1 "Very strong" can be set to be used in software DIPSW setting, however it is not usually used.
- The pressure positions differ depending on the paper type and weight, the speed, and the environment for each 1250/1250P and 1052.

Pressure position	Position 1	Position 2	Position 3	Position 4	Position 5
Pressure power	Very strong	Strong	Medium	Weak	Weak

(b) During the preparatory rotation in warming-up

- The pressure position switches to the position3. The pressure position switches to the position 5 after the pre-rotation.

(c) When starting the printing

- The pressure position switches to the position in accordance with the paper type at the same time the preparatory rotation for the printing starts.

(d) While in the print

- The pressure position changes for each paper type.
- After the print completes, it keeps the current pressure position for the next print. When there is no next job input, the pressure position switches to the position 5.
- When the pressure position for the next print differs from the previous one, the pressure position switches when the preparatory rotation for the next print starts.

(e) Tray individual setting

- By the tray individual setting (process setting), it is possible to make the individual settings for each tray.

(f) Switching of the pressure position

- For each 1250/1250P and 1052, there is no regulation and the position switches to either of the position 2 to 5.
- When position 1 is set to be used by the software DIPSW, the position switched to either of the position 1 to 5.

(g) Improvement of the fusibility at the starting of printing.

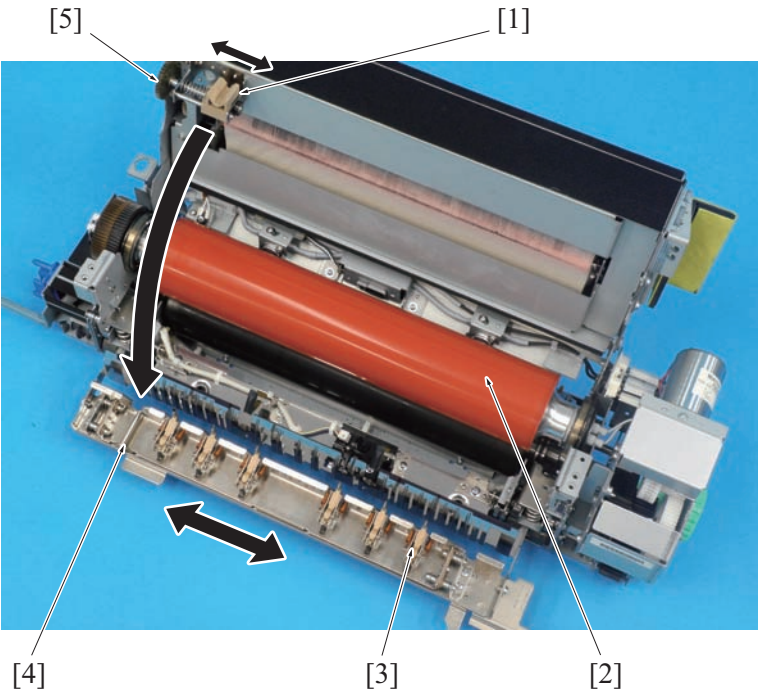
- At the starting of printing, the pressure position can be temporary boosted to 1 step upper level from the prescribed position to enhance the fusibility.
- The software DIPSW 19-5 enables to make a selection between the execution and the non-execution of this control.

14.3.3 Web drive control

- Web motor (M24) rotation time is controlled according to the paper size, coverage, environment and web count to maintain the web movement value per one print.
- The software DIPSW changes the control of the web movement value.

14.3.4 Separation claw oscillating mechanism

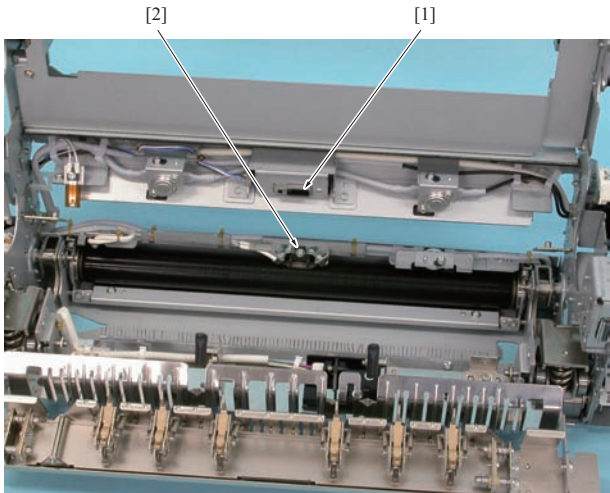
- The fusing claw oscillating mechanism is provided to avoid damaging the fusing roller /Up [2] with the fusing claw /Up.
- The drive shaft [4] of the fusing claw unit [3] is engaged with the holder [1] to which the drive force of the web motor (M24) is transmitted via the fusing claw /Up oscillating drive gear [5].
- This process allows the fusing claw unit to shake in synchronization with the motor drive.



[1]	Holder	[2]	Fusing roller /Up
[3]	Separation claw unit	[4]	Drive shaft
[5]	Fusing claw /Up oscillating drive gear	-	

14.3.5 Fusing temperature control

- The heating of the fusing roller /Up is made by the fusing heater lamps /1 (L1) and /2 (L2) and the heating of the fusing roller /Lw made by the fusing heater lamp /3 (L3) through the fusing heating roller.
- The surface temperature of the fusing roller /Up is detected at fixed intervals by thermistor /1 (TH1) [1] provided at the center, and controlled by turning L1 and L2 ON/OFF through the AC drive board (ACDB) so that it becomes a prescribed temperature.
- The surface temperature of the fusing heating roller is detected at fixed intervals by fusing temperature sensor /3 (TH3) [2] provided at the center and the temperature of the fusing heating roller is controlled by turning L3 ON/OFF via ACDB.



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[1]	Fusing temperature sensor /1 (TH1)	[2]	Fusing temperature sensor /3 (TH3)
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(1) Warm-up

- The fusing heater lamps /1 (L1), /2 (L2) and /3 (L3) turn ON while in the warm-up, and they turn OFF at a prescribed temperature.

(2) While in the print

(a) 1250/1250P/1052

- For the fusing roller /Up, the temperature setting varies according to the type of paper, paper weight, environment and time elapsed after starting print. The fusing heater lamp /1 (L1) and /2 (L2) is turned ON/OFF so that the temperature comes to a prescribed temperature.
- ON/OFF controls of L1 and L2 vary depending on the process speed.
- For the fusing roller, the temperature setting varies according to the type of paper and the paper weight. The fusing heater lamp /3 (L3) is turned ON/OFF so that the temperature comes to a prescribed temperature.

(b) PRO 951

- For the fusing roller /Up, the temperature setting varies according to the type of paper and the paper weight. The fusing heater lamp /1 (L1) and /2 (L2) is turned ON/OFF so that the temperature comes to a prescribed temperature.
- For the fusing roller, the temperature setting varies according to the type of paper and the paper weight. The fusing heater lamp /3 (L3) is turned ON/OFF so that the temperature comes to a prescribed temperature.

(3) Non-paper through section temperature control (1250/1250P/1052 only)

- To prevent the temperature of the non-paper through section of the fusing roller /Up from raising, decrease the set temperature by the prescribed value while in the print when the edge temperature of the fusing roller /Up exceeds a prescribed value.
- After decreasing the set temperature, monitor the edge temperature of the fusing roller /Up when the fusing heater lamp /1 (L1) turns OFF/ON. Then, increase or decrease the set temperature while in the print by a prescribed value depending on detected temperature.

(4) Alarm control

- To prevent the fusing under, stop the printing and conduct the warm-up when the fusing roller /Up detects a prescribed temperature while in the print.
- When the warm-up is completed, the printing is restarted automatically.

(5) While in standby

- The fusing roller /Up is heated by the fusing heater lamp /1 (L1) when the temperature is 3°C lower than a prescribed temperature and turns OFF L1 when it reaches 2°C higher than a prescribed value.
- The fusing heating roller is heated by the fusing heater lamp /3 (L3) when the temperature is 1°C lower than a set temperature, and lamp /3 (L3) turns OFF when the temperature is 1°C higher than a set value.
- The heater lamp /2 (L2) is for flicker and does not turn ON.

(6) Control for improvement of the fusibility at the starting of printing.(1250/1250P/1052 only)

- The printing starts after the specified period of time after the start button is pressed on the condition that the temperature of the fusing roller /Up is higher than the prescribed temperature.
- When the detected temperature is lower than the prescribed value, it conducts warming-up until the temperature reaches the prescribed value.
- The software DIPSW36-2 can change the condition for conducting this control.

(7) Temperature down/up control (PRO 951 only)

- When the start button is pressed while the prescribed difference in temperature occurs between the detected temperature of the fusing roller /Up and the set temperature which is set depending on type of paper and weight, perform the temperature down or up control. Then, start printing when the difference in temperature meets a prescribed value.

(a) Temperature down control

- For the paper whose weight is 91g/m^2 , conduct this control when the detected temperature of the fusing roller /Up is higher than the set temperature by a prescribed temperature.
- Turns ON the fusing motor (M3) and rotates the fusing roller /Up, /Lw until the detected temperature of the fusing roller /Up becomes 6°C lower than a prescribed temperature.
- Do not conduct when the sheet insertion is selected.
- The software DIPSW enables to make a selection between the execution and the non-execution of this control.

(b) Temperature up control

- For all weight of paper, conduct this control when the detected temperature of the fusing roller /Up is lower than the set temperature by a prescribed temperature.
- Turns ON the fusing heater lamp /1 (L1), /2 (L2), /3 (L3), and heats the fusing roller /Up, /Lw until the detected temperature of the fusing roller /Up becomes -6°C higher than a prescribed temperature.

(8) Preparatory rotation after printing

- It conducts the preparatory rotation for 10 seconds when the temperature of the fusing roller /Up reaches the prescribed value while in idling.
- After printing, turns OFF the fusing heater lamp /1 (L1), /2 (L2) forcefully.
- When there is a print reservation, this control does not function but the printing operation takes priority.
- Also when the next print job is inputted while conducting this control, the printing operation takes priority.

(9) Power save

- The timer starts to count when the last printing completes. When the operation button is not pressed within a specified period of time, the mode switches to the low-power mode or the shut-off mode.
- The length of time which elapses before switching to the low-power mode or the shut-off mode can be specified arbitrarily.
- When the setting time of the low-power mode and the shut-off mode coincides, the shut-off mode is selected.

(a) Low-power mode

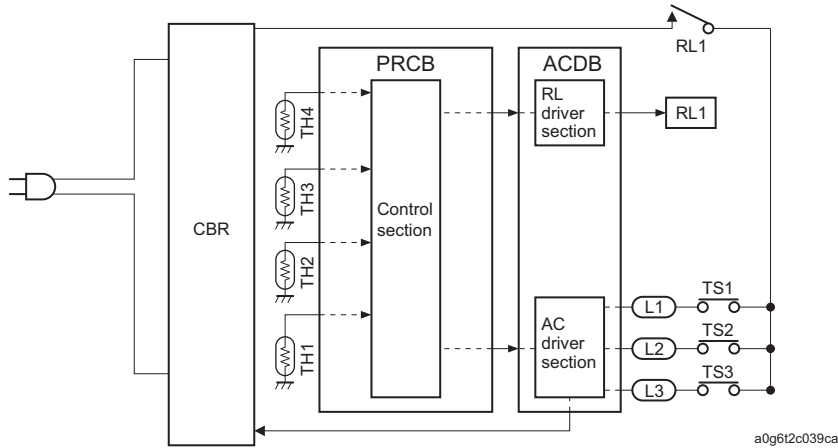
- The fusing roller /Up controls ON/OFF of the fusing heater lamp /1 (L1) to a prescribed temperature.
- The fusing heating roller controls ON/OFF of the fusing heater lamp /3 (L3) to a prescribed temperature.
- The heater lamp /2 (L2) is for flicker and does not turn ON.

(b) Shut-OFF mode

- When switching to the shut-off mode, the energization to the fusing heater lamp /1 (L1), /2 (L2) and /3 (L3) turns OFF.

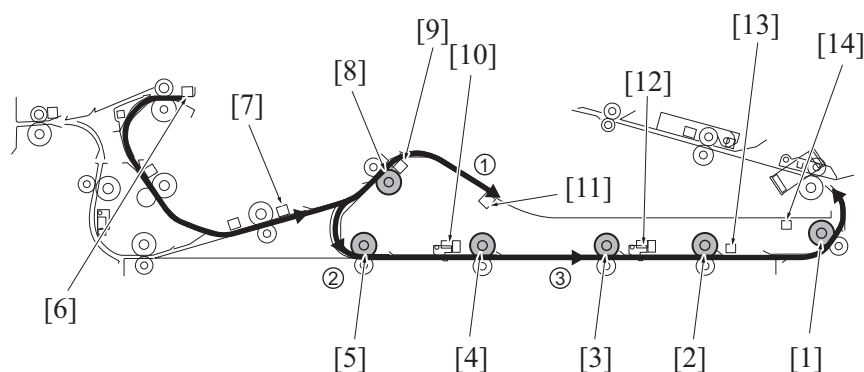
14.3.6 Protection against temperature abnormality

- When the fusing temperature sensor /1 (TH1) detects a prescribed temperature (244°C or more) 10 times at a specified intervals, or the fusing temperature sensor /2 (TH2) detects a prescribed temperature (249°C or more), a message is displayed on the operation panel. The fusing heater lamps /1 (L1), /2 (L2) and /3 (L3) turn OFF and the operations stop.
- Thermostats /1 (TS1) and /2 (TS2) also monitor an abnormal temperature rise. TS1 and TS2 cut off the fusing heater lamps /1 (L1) and /2 (L2) at a prescribed temperature.
- When the fusing temperature sensor /3 (TH3) detects a prescribed temperature (220°C or more) 5 times at a specified intervals, or the fusing temperature sensor /4 (TH4) detects a prescribed temperature (240°C or more), a message is displayed on the operation panel. The fusing heater lamps /1 (L1), /2 (L2) and /3 (L3) turn OFF and the operations stop.
- Thermostat /3 (TS3) also monitors an abnormal temperature rise. TS3 cuts off the fusing heater lamp /3 (L3) at a prescribed temperature.
- When TH1/TH3 do not reach a prescribed temperature a specified period of time after the main power switch (SW1) turns ON and the temperature of the roller become normal again, L1/L2/L3 turn OFF and the operation stop.
- When those fusing temperature abnormalities occur, the system gets into an SC latch condition. So, after identifying the cause of the error and repairing it, it is necessary to make the release and recovery operations with the software DIPSW 3-1.



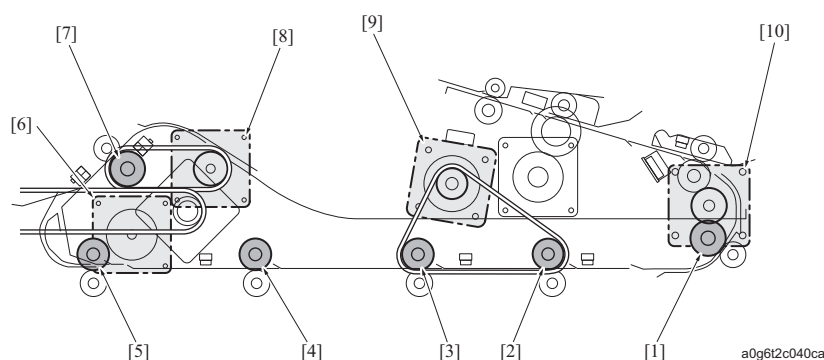
15. DUPLEX SECTION

15.1 Configuration



[1] ADU exit roller	[2] ADU conveyance roller /4
[3] ADU conveyance roller /3	[4] ADU conveyance roller /2
[5] ADU conveyance roller /1	[6] Fusing exit sensor (PS22)
[7] Reverse sensor /2 (PS47)	[8] ADU reversal roller
[9] ADU reverse sensor /2 (PS45)	[10] ADU conveyance sensor /1 (PS35)
[11] Paper stay sensor /1 (PS64)	[12] ADU conveyance sensor /2 (PS36)
[13] ADU exit sensor (PS43)	[14] Paper stay sensor /2 (PS63)

15.2 Drive



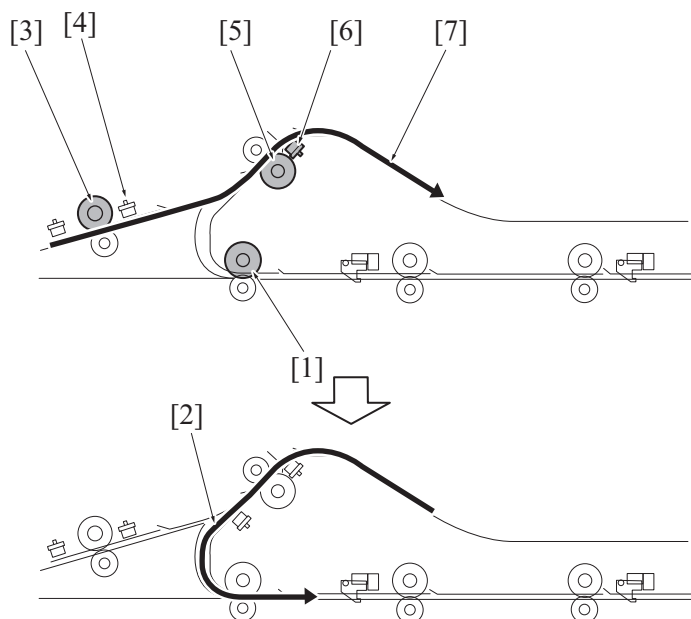
[1] ADU exit roller	[2] ADU conveyance roller /4
[3] ADU conveyance roller /3	[4] ADU conveyance roller /2
[5] ADU conveyance roller /1	[6] ADU conveyance motor /1 (M15)
[7] ADU reversal roller	[8] ADU reverse motor (M12)
[9] ADU conveyance motor /2 (M16)	[10] Loop motor (M18)

15.3 Operation

15.3.1 Conveyance control

(1) ADU paper feed mechanism

- Paper conveyed from the reversal output section is conveyed to the duplex reverse section by the reversal output roller [3] and the ADU reverse roller [4].
- When the reverse sensor /2 (PS47) [4] detects the trailing edge of paper and turns OFF, the ADU reverse roller rotates in the reverse direction to send paper back in the direction in which it was conveyed.
- At this time, the paper is conveyed to the ADU conveyance roller /1 [1] side, not to the reverse/exit roller side, according to the form of the metal frame of the conveyance path.

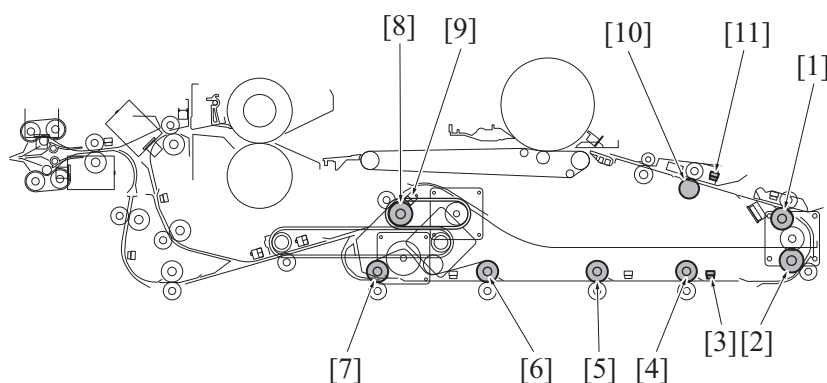


[1]	ADU conveyance roller /1	[2]	ADU reversed paper
[3]	Reversal output roller	[4]	Reverse sensor /2 (PS47)
[5]	ADU reversal roller	[6]	ADU reverse sensor /2 (PS45)
[7]	ADU feed paper	-	

15.3.2 Duplex circulation control

(1) OUTLINE

- The length of the conveyance path in the duplex section including the registration section is kept at the enough length to circular the 3 sheets of paper, regardless of the paper size.
- When in duplex printing, it is controlled so that 3 sheets of paper always circular in these conveyance paths.
- There are 3 paper stop points in the paper circulation.
- The 3 points are; the registration sensor (PS40), ADU reverse sensor /2 (PS45) and the ADU exit sensor (PS43).

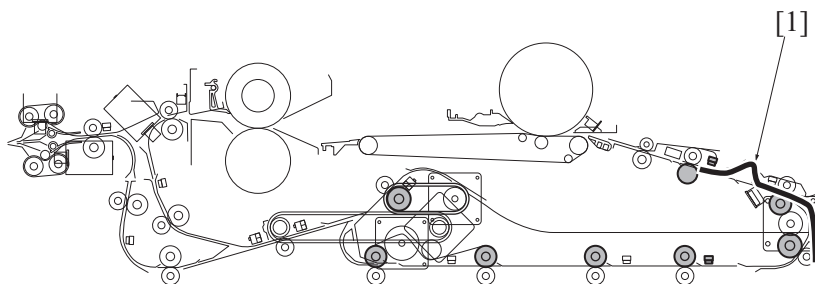


[1]	Loop roller	[2]	ADU exit roller
[3]	ADU exit sensor (PS43)	[4]	ADU conveyance roller /4
[5]	ADU conveyance roller /3	[6]	ADU conveyance roller /2
[7]	ADU conveyance roller /1	[8]	ADU reversal roller
[9]	ADU reverse sensor /2 (PS45)	[10]	Registration roller
[11]	Registration sensor (PS40)	-	

(2) Paper conveyance control

(a) The registration starting up for the front side of the 1st sheet of paper

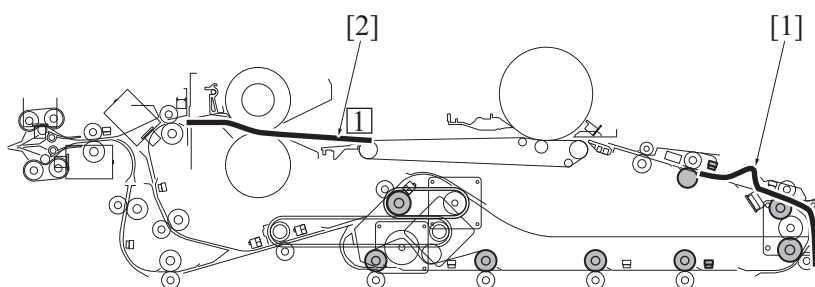
- When the registration sensor (PS40) turns ON for the 1st sheet of paper, the registration roller rotates to register the front side of the 1st paper after the loop formed.



[1]	Front of the 1st sheet of original (1st page)	-
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(b) The registration starting up for the front side of the 2nd sheet of paper

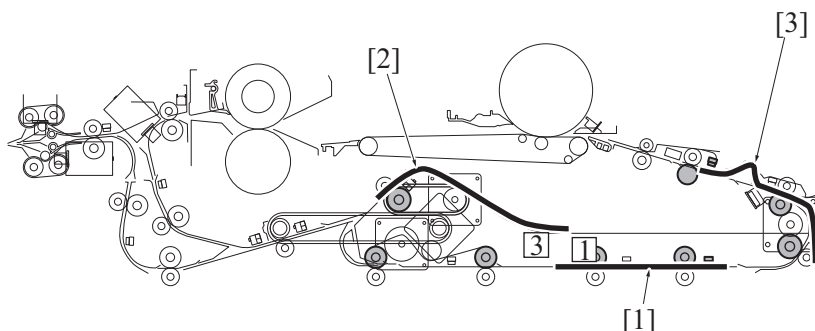
- A specified period of time after the registration of the front side of the 1st sheet of paper, the 2nd sheet of paper is fed. Another specified period of time after, it conducts the registration of the front side of the 2nd sheet of paper.



[1]	Front of the 2nd sheet of original (3rd page)	[2]	Front of the 1st sheet of original (1st page)
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(c) The registration starting up for the front side of the 3rd sheet of paper

- A specified period of time after the registration of the front side of the 2nd sheet of paper, the 3rd sheet of paper is fed.
- When the trailing edge of the 1st sheet of paper with its front side printed passes the reverse sensor /2 (PS47), the ADU reversal roller rotates in the reverse direction to feed the 1st sheet toward the ADU conveyance roller /1 after the specified time.
- This operation turns the paper from front side to the back side.
- When the leading edge of the 1st sheet of paper turns ON the ADU exit sensor (PS43), the ADU conveyance roller /4 stops and enters the stand-by.
- At this time, the registration is conducted on the front side of the 3rd sheet of paper which already stands by at the registration section.
- When the trailing edge of the 2nd sheet of paper with its front side printed passes PS47, the ADU reverse roller stops after the specified time.



[1]	Front of the 1st sheet (reversed)	[2]	Front of the 2nd sheet of original (3rd page)
[3]	Front of the 3rd sheet of original (5th page)	-	

(d) Starting up of the 1st sheet of paper from the ADU conveyance roller /4 stop point

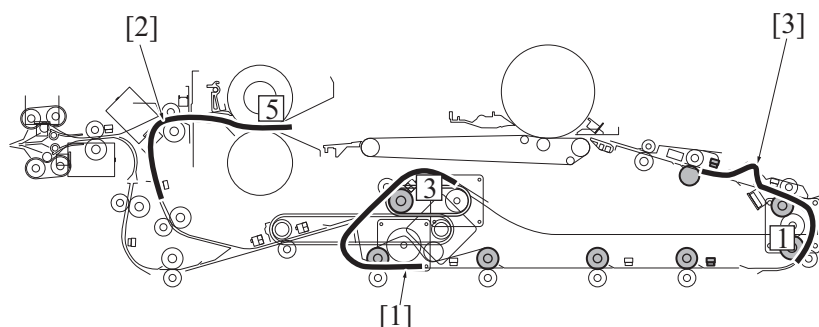
- A specified period of time after the registration of the front side of the 3rd sheet of paper, the 1st sheet of paper stopping at the ADU conveyance roller /4 starts up.

(e) Starting up of the 2nd sheet of paper from the ADU reverse roller stop point

- A specified period of time after the 1st sheet of paper starts up from the ADU conveyance roller /4 stop point, the ADU reverse roller rotates in the reverse direction to feed the 2nd sheet of paper toward the ADU conveyance roller /1.

(f) The registration starting up for the back side of the 1st sheet of paper

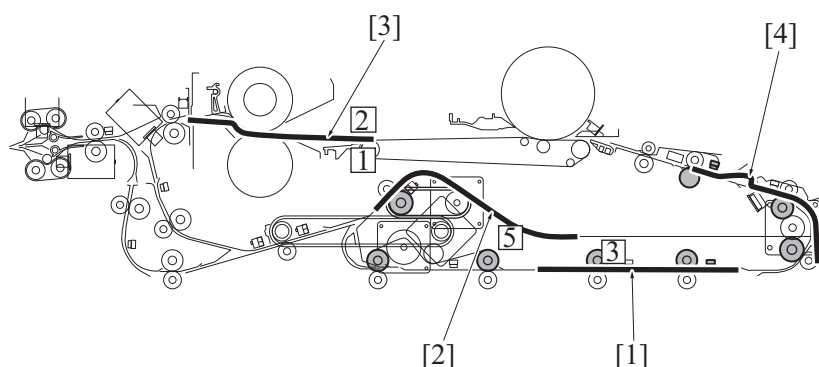
- When PS40 turns ON for the 1st sheet of paper, the registration roller rotates to register the back side of the 1st paper after the loop formed.



[1]	Front of the 2nd sheet of original (being reversed)	[2]	Front of the 3rd sheet of original (5th page)
[3]	Back of the 1st sheet of original (2nd page)	-	

(g) The registration starting up for the front side of the 4th sheet of paper

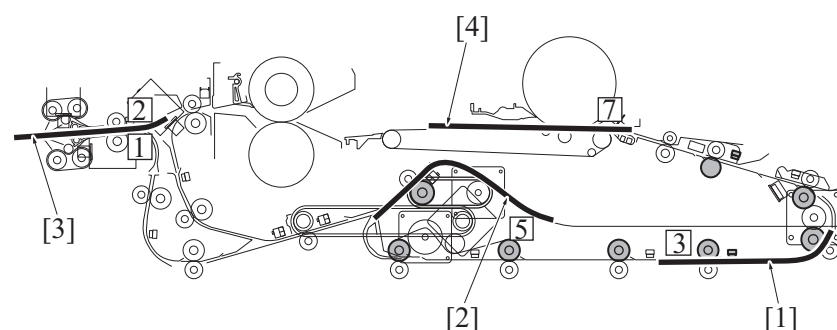
- The registration of the front side of the 4th sheet of paper is conducted at the minimum paper interval position from the registration starting up for the back side of the 1st sheet of paper.



[1]	Front of the 2nd sheet of original (being reversed)	[2]	Front of the 3rd sheet of original (5th page)
[3]	Back of the 1st sheet (both side printed)	[4]	Front of the 4th sheet of original (7th page)

(h) Starting up of the 2nd sheet of paper from the ADU conveyance roller /4 stop point Starting up of the 3rd sheet of paper from the ADU reverse roller stop point Paper exit of 1st sheet

- A specified period of time after the registration of the front side of the 4th sheet of paper, the 2nd sheet of paper stopping at the ADU conveyance roller /4 starts up.
- A specified period of time after the 2nd sheet of paper starts up from the ADU conveyance roller /4, the ADU reverse roller rotates in the reverse direction to feed the 3rd sheet of paper toward the ADU conveyance roller /1.
- The 1st sheet of paper with its back side printed is conveyed to a post-process option through the paper exit section.



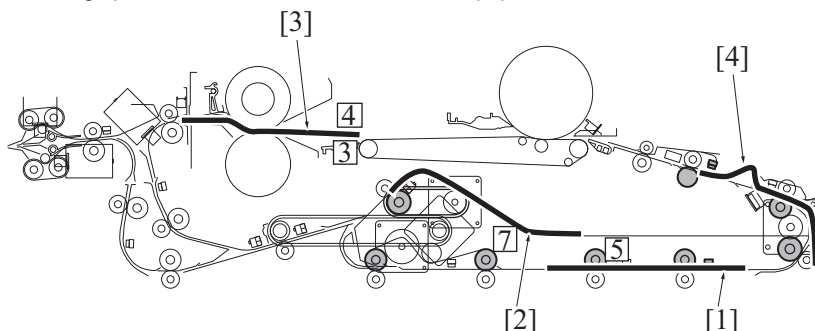
[1]	Front of the 2nd sheet of original (being reversed)	[2]	Front of the 3rd sheet (being reversed)
[3]	Back of the 1st sheet (both side printed)	[4]	Front of the 4th sheet of original (7th page)

(i) The registration starting up for the back side of the 2nd sheet of paper

- When the registration sensor (PS40) turns ON for the back side of the 2nd sheet of paper, the registration roller rotates to register the back side of the 2nd sheet of paper after the loop formed.

(j) The registration starting up for the front side of the 5th sheet of paper

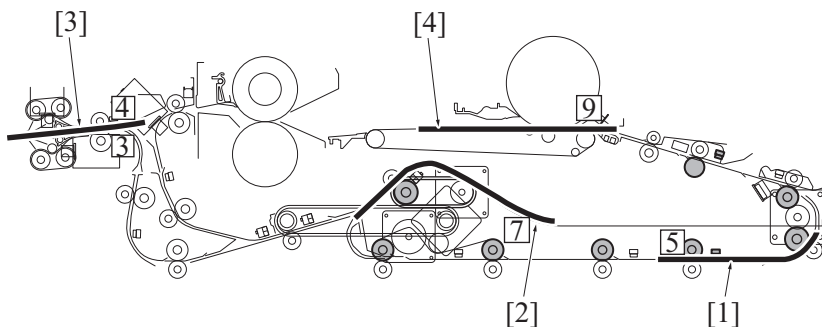
- The registration of the front side of the 5th sheet of paper is conducted at the minimum paper interval position from the registration starting up for the back side of the 2nd sheet of paper.



[1]	Front of the 3rd sheet of original (being reversed)	[2]	Front of the 4th sheet of original (7th page)
[3]	Back of the 2nd sheet (both side printed)	[4]	Front of the 5th sheet of original (9th page)

(k) Starting up of the 3rd sheet of paper from the ADU conveyance roller /4 stop point**Starting up of the 4th sheet of paper from the ADU reverse roller stop point****Paper exit of 2nd sheet**

- A specified period of time after the registration of the front side of the 5th sheet of paper, the 3rd sheet of paper stopping at the ADU conveyance roller /4 starts up.
- A specified period of time after the 3rd sheet of paper starts up from the ADU conveyance roller /4, the ADU reverse roller rotates in the reverse direction to feed the 4th sheet of paper toward the ADU conveyance roller /1.
- The 2nd sheet of paper with its back side printed is conveyed to a post-process option through the paper exit section.



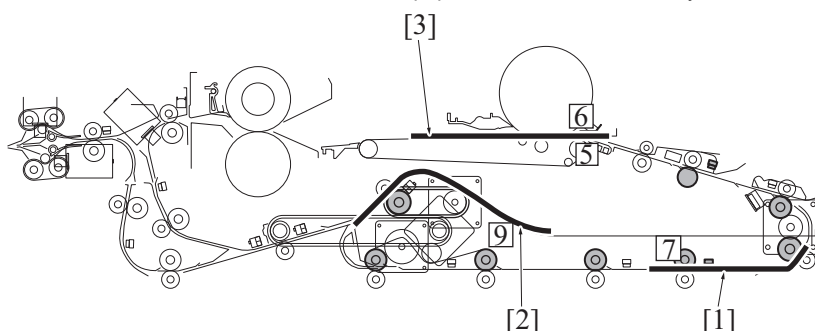
[1]	Front of the 3rd sheet of original (being reversed)	[2]	Front of the 4th sheet of original (being reversed)
[3]	Back of the 2nd sheet (both side printed)	[4]	Front of the 5th sheet of original (9th page)

(l) The registration starting up for the back side of the 3rd sheet of paper

- When the registration sensor (PS40) turns ON for the back side of the 3rd sheet of paper, the registration roller rotates to register the back side of the 3rd sheet of paper after the loop formed.

(m) Starting up of the 4th sheet of paper from the ADU conveyance roller /4 stop point**Starting up of the 5th sheet of paper from the ADU reverse roller stop point**

- A specified period of time after the registration of the back side of the 3rd sheet of paper, the 4th sheet of paper stopping at the ADU conveyance roller /4 starts up.
- A specified period of time after the 4th sheet of paper starts up from the ADU conveyance roller /4, the ADU reverse roller rotates in the reverse direction to feed the 5th sheet of paper toward the ADU conveyance roller /1.



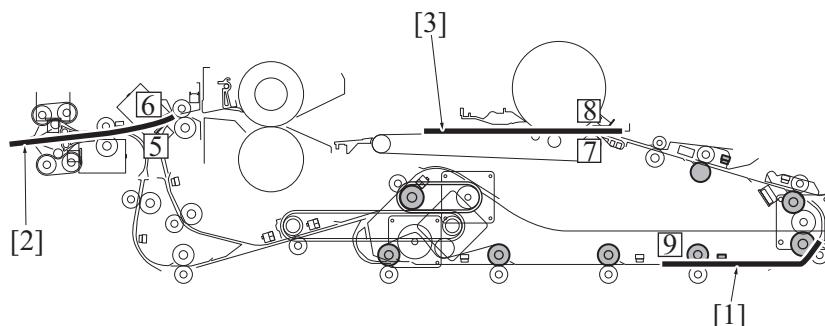
[1]	Front of the 4th sheet of original (being reversed)	[2]	Front of the 5th sheet of original (being reversed)
[3]	Back of the 3rd sheet of original (6th page)	-	

(n) The registration starting up for the back side of the 4th sheet of paper

- When PS40 turns ON for the 4th sheet of paper, the registration roller rotates to register the back side of the 4th sheet of paper after the loop formed.

(o) **Starting up of the 5th sheet of paper from the ADU conveyance roller /4 stop point
3rd paper exit**

- A specified period of time after the registration of the back side of the 4th sheet of paper, the 5th sheet of paper stopping at the ADU conveyance roller /5 starts up.
- The 3rd sheet of paper with its back side printed is conveyed to a post-process option through the paper exit section.



[1]	Front of the 5th sheet of original (being reversed)	[2]	Back of the 3rd sheet (both side printed)
[3]	Back of the 4th sheet of original (8th page)	-	

(p) The registration starting up for the back side of the 5th sheet of paper
4th paper exit

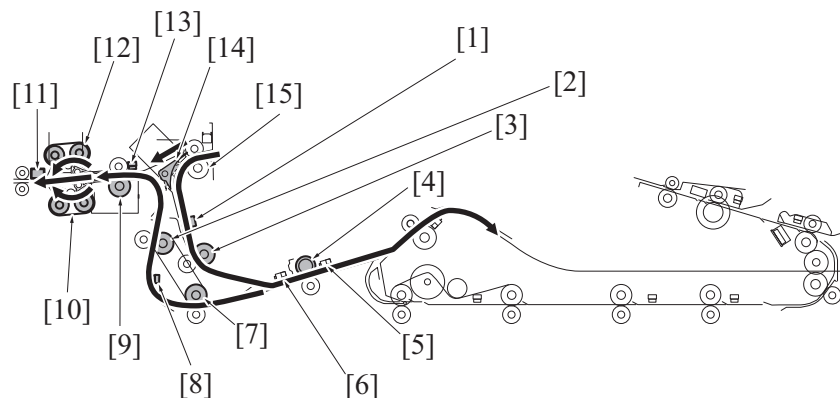
- When PS40 turns ON for the 5th sheet of paper, the registration roller rotates to register the back side of the 5th sheet of paper after the loop formed.
- The 4th sheet of paper with its back side printed is conveyed to a post-process option through the paper exit section.

(q) 5th paper exit

- The 5th sheet of paper is conveyed to a post-process option through the paper exit section.
- When printing more than 5 sheets continuously, it repeats steps (i) to (n).

16. REVERSE/EXIT SECTION

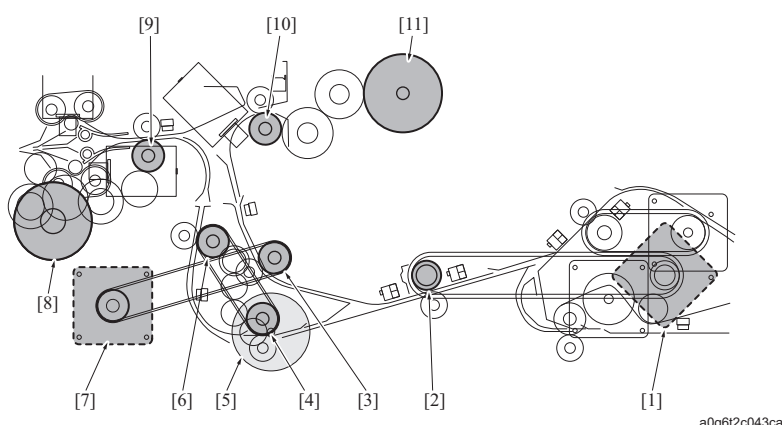
16.1 Configuration



[1] ADU accelerate sensor (PS49)	[2] Output convey roller /2
[3] ADU accelerator roller	[4] Reversal output roller
[5] Reverse sensor /2 (PS47)	[6] Reverse sensor /1 (PS48)
[7] Output convey roller /1	[8] ADU reverse paper exit sensor (PS50)
[9] Decurler entrance roller	[10] De-curler belt /Lw*1
[11] Paper exit sensor (PS3)	[12] De-curler belt /Up
[13] De-curler entrance sensor (PS23)	[14] Reverse gate
[15] Fixing exit roller	-

*1 PRO 951 is unimplemented.

16.2 Drive



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[1] Reverse/exit motor (M13)	[2] Reversal output roller
[3] ADU accelerator roller	[4] Output convey roller /1
[5] Paper exit conveyance motor (M31)	[6] Output convey roller /2
[7] ADU accelerate motor (M14)	[8] Paper exit motor (M20)
[9] Decurler entrance roller	[10] Fixing exit roller
[11] Gear for the fusing roller /Up	-

16.3 Operation

16.3.1 Conveyance control

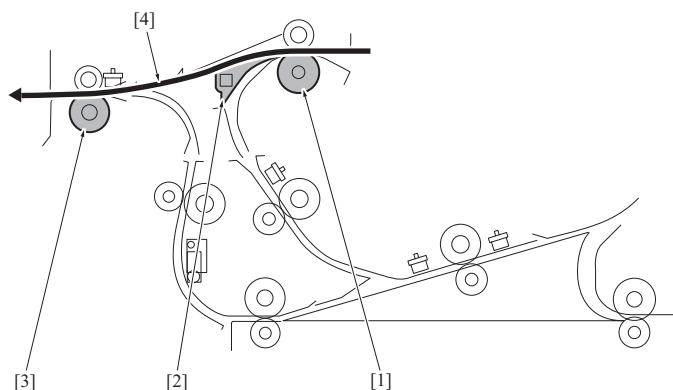
(1) Reverse gate

- The reverse gate is turned ON/OFF by the reverse/exit solenoid (SD7) and switches the conveyance path for paper exited from the fusing section over to either the straight paper exit or the reverse paper exit/ADU paper feed.

(2) Conveyance path

(a) Straight paper exit

- While in the straight paper exit, the reverse gate is closed when the reverse/exit solenoid (SD7) turns ON. The paper exited from the fusing exit roller [1] is conveyed to the de-curler roller [3] passing over the reverse gate [2].

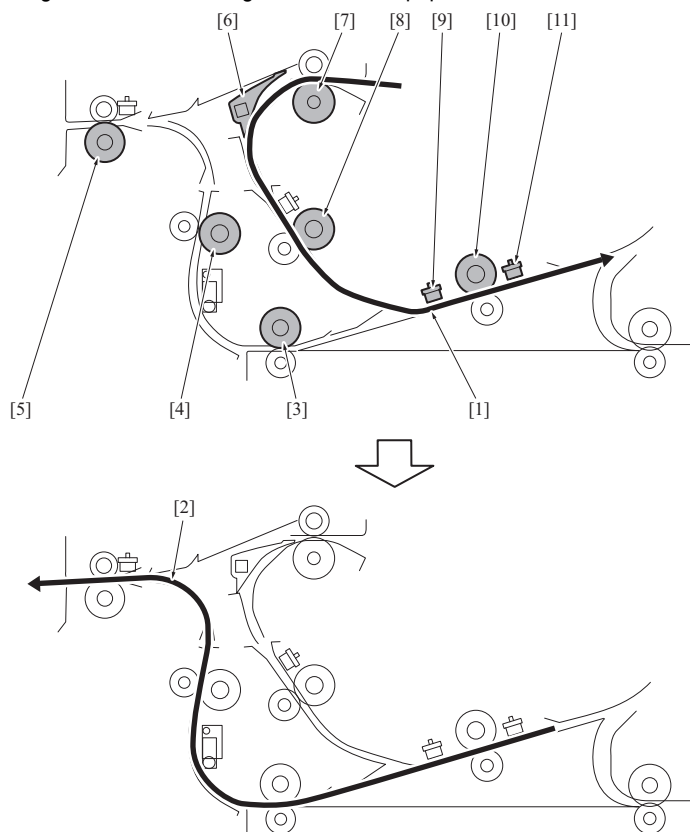


1050to2064

[1]	Fixing exit roller	[2]	Reverse gate
[3]	De-curler entrance roller		-

(b) Reverse paper exit

- When in the reverse paper exit and the ADU paper feed, the reverse gate [6] is opened when the reverse/exit solenoid (SD7) is OFF, and paper is conveyed to the ADU acceleration roller [8].
- The paper that passed through the ADU acceleration roller is conveyed to the reverse/exit roller [10] according to the shape of the metal frame.
- The reverse/exit roller, when the reverse sensor /1 (PS48) [9] detects the trailing edge of paper turns OFF, and then rotates in reverse to get the paper back in the original direction.
- While in the ADU paper feed, paper is conveyed to the ADU paper feed section passing through the reverse/exit roller.
- Paper sent back by the reverse/exit roller is conveyed to the paper exit roller /1 [3], not to the ADU acceleration roller along the form of the metal frame.
- In this way, the paper is turned over to be conveyed to the de-curler roller [5] through the paper exit roller /2 [4].
- While paper is being conveyed to this paper exit roller, the reverse/exit sensor /2 [11] detects the trailing edge of paper to determine a timing to switch the rotating direction of the paper exit roller to the introducing direction.

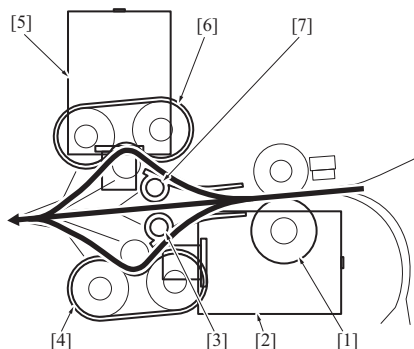


1050to2065

[1]	Paper entering the reverse section	[2]	Paper exiting the reverse section
[3]	Output convey roller /1	[4]	Output convey roller /2
[5]	De-curler entrance roller	[6]	Reverse gate
[7]	Fixing exit roller	[8]	ADU accelerator roller
[9]	Reverse sensor /1 (PS48)	[10]	Reversal output roller
[11]	Reverse sensor /2 (PS47)		-

16.3.2 Decurler switching control**(1) In case of 1250/1250P/1052**

- The de-curler mechanism is provided for correction of the paper curl.
- The de-curler section is provided with the guide members /Up [7] and /Lw [3]. The de-curler solenoids /Up (SD8) [5] and /Lw (SD5) [2] turn ON/OFF the corresponding guide member.
- When either of the solenoids turns ON, the corresponding guide member turns ON to guide the paper which is conveyed from the de-curler entrance roller [1] so that the paper passes through either the de-curler belt /Up [6] or /Lw [4].
- At this time, the paper curl is corrected by belt stroking action.
- The correcting directions of the de-curler belt /Up [6] and /Lw [4] are 180° opposite.
- The de-curler roller /Up or /Lw can be selected from the operation panel and the straight exit is also selectable.
- The paper weight 244g/m² or less paper is available for the de-curler.
- Even though selecting the de-curler setting for the 245g/m² paper from the operation panel, the paper is automatically processed with the straight exit.



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[1] De-curler entrance roller	[2] De-curler solenoid /Lw (SD5)
[3] Guide member /Lw	[4] De-curler belt /Lw
[5] De-curler solenoid /Up	[6] De-curler belt /Up
[7] Guide member /Up	-

(2) In case of PRO 951

- The de-curler mechanism is provided for correcting the paper curl.
- The de-curler section is provided with the guide member /Up, and the de-curler solenoid /Up (SD8) turns it ON/OFF.
- When SD8 turns ON, the guide member /Up guides the paper which is conveyed from the de-curler entrance roller so that the paper passes through the de-curler belt /Up.
- At this time, the belt stroking action corrects the paper curl.
- Others are the same as 1250/1250P/1052.

17. IMAGE STABILIZATION CONTROL

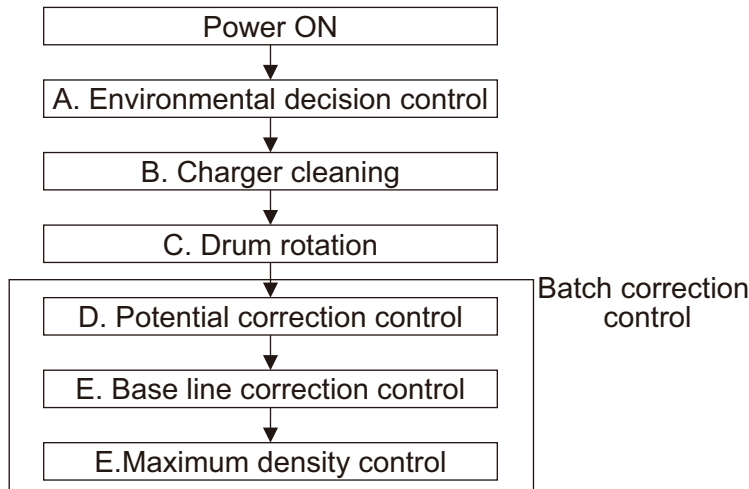
17.1 OUTLINE

- In order to realize the top quality print images at all times, this machine conducts various types of control for image stabilization.
- The operation of the image stabilization control varies according to the power switch (SW2) being turned ON or the print being in operation.

17.2 Operation flow

17.2.1 Image stabilization control flow when the power switch (SW2) is ON

- The following shows the flow of the operation of the image stabilization control when the power switch (SW2) turns ON.



(1) Environmental decision control

(a) Purpose

- To detect the ambient temperature and humidity and feed back the findings to the various types of controls to maintain the image at a fixed quality.
- Also it detects the environmental temperature and humidity in real time to adjust accordingly the environmental changes which occurs after the sub power switch (SW2) turns ON.

(b) Method

- The drum temperature sensor (TH5), the temperature sensor (TEM), the temperature-humidity sensors /1 (TEM/HUM1) and /2 (TEM/HUM2) of the main body and the temperature sensor of PF-703*1/706 detect the environmental temperature and humidity. The detected condition is reflected to the controls related to fusing, transfer, charging, exposure and developing.

*1 PF-703 is attachable only to 1250/1250P/1052.

(c) Execution timing

- There are 3 methods for the environmental decision control; the morning temperature and humidity decision, the real-time temperature decision and the real-time humidity decision. Each control uses different sensor.
- Morning temperature and humidity decision
 - When the sub power switch (SW2) turns ON 8 hours or more after from previous OFF, it performs this control.
 - The drum temperature sensor (TH5) and the temperature-humidity sensors /1 (TEM/HUM1) and /2 (TEM/HUM2) detect the environmental temperature and humidity. The detected condition is reflected to all controls related to fusing, charging, exposure and developing.
 - The detected temperature is classified into 3 levels and the humidity is classified into 4 levels.
 - The reference temperature and the humidity used for the classification differs in accordance with the period of time elapsing between the previous SW2 OFF and the next ON.
 - When the time elapsed is less than 8 hours, it does not perform the environmental decision but applies the conditions of the previous decision.
- Real-time temperature decision
 - The temperature sensor of PF-703*1/706 detects the environmental temperature. The detected condition is reflected to the fusing-related controls.
 - These detections are performed at the prescribed intervals in real time.
 - The reflection of the condition to the fusing-related controls is performed when the temperature level detected by this decision differs from the level detected by the morning decision prescribed times in succession.
 - When the detected temperature is under or over the prescribed temperature, it regards PF-703*1/706 as not connected and applies the temperature level detected by the morning temperature and humidity decision.
- Real-time humidity decision
 - The temperature-humidity sensors /1 (TEM/HUM1) and /2 (TEM/HUM2) detect the humidity. The detected condition is reflected to the control related to the transferring.
 - These detections are performed at the prescribed intervals in real time. The detected humidity is classified into 4 levels, however the reference humidity value used for this classification differs in accordance with the humidity level classified by the morning temperature and humidity decision.
 - The reflection to each control is performed when the drum motor (M2) turns ON after print start.

*1 PF-703 is attachable to 1250/1205P/1052 only.

(2) Charger cleaning control**(a) Purpose**

- It cleans the charging wire of the charger periodically to make the discharge uniform.

(b) Method

- The charger cleaning motor (M23) drives the charger cleaning unit which cleans the charging wire by its shuttle operation.

(c) Execution timing

- When the fusing temperature is 50°C or less with the sub power switch (SW2) ON, and the PM count value is over the prescribed value (The DIPSW2-1/2/3 allows to change the cycle)
- Every prints from the above timing.
- When the count value reaches the prescribed value during a job, it stops that job to perform the charger cleaning. After completing the cleaning, it resumes the job (The DIPSW2-4/5 allows to change the cycle)

(3) Drum rotation control**(a) Purpose**

- To prevent drum charge dissipation such as an blurred image at a high humidity.
- When left unused at a low or normal humidity, to prevent an uneven density due to the difference in sensitivity between the cleaning unit area and the developing unit area on the drum.

(b) Method

- When the fusing temperature is 50°C or less with the sub power switch (SW2) ON, perform this operation at the same time as the fusing unit is in the warm-up.

(4) Package correction control**(a) Purpose**

- When the default condition is met, conduct the control reserve to perform the several corrections collectively in response to long-term fluctuation such as in the morning.
- When the performance condition is met after the reserve of the batch correction control is made, the corrections specified in advance are performed in order automatically.

(b) Correction controls as an object of the package correction control

- Items as follows are the object of the package correction control. They are performed in this order.
 1. Potential stabilization control
 2. Base line correction control
 3. Maximum density control

(c) Performance reserve condition

- When the fusing temperature is 50°C or less with the sub power switch (SW2) ON.
- When the PM count value is over the prescribed value. (The DIPSW6-5/6 allows to change the cycle.)

(d) Execution timing

- Perform this operation at the same time as the fusing unit is in the warm-up.

(5) Potential correction control**(a) Purpose**

- To maintain the developing potential difference and gray background margin potential difference at a fixed condition at all times without being influenced by the drum used history (number of prints) and the environmental conditions, it controls the developing bias, the charging grid voltage and the charging current.
- To perform these controls, the drum potential sensor (DPS) is equipped.

(b) Method

- It creates a latent patch with the conditions same as those applied in the last-performed dot diameter correction control (exposure time, the charging output and the developing bias). Then the drum potential sensor (DPS) detects that patch.
- It calculates the developing potential difference and the gray background margin potential difference according to the detected potential value, and then correct the developing bias, the charging grid and the charging current so that the potential differences become a prescribed value.

(c) Execution timing

- The same as the package correction control.

(6) Base line correction control**(a) Purpose**

- Correct the detection standard value of the IDC sensor which detects the patch density on the drum.

(b) Operations

- Correct the applied voltage of the IDC sensor so that the amount of the reflective light from the bared surface becomes uniform.

(c) Execution timing

- The same as the package correction control.

(7) Maximum density control**(a) Purpose**

- It is provided to maintain the maximum density of the image at a fixed condition at all times without being influenced by the environmental conditions and the number of prints, and also this function stabilizes the toner consumption.

(b) Method

- Create several toner patches on the drum surface by changing the speed of rotation of the developing roller.
- Read this patch by the IDC sensor in the toner control board (TCB) and store the number of rotations of the developing roller when the sensor output gets to the specified value, and create the image at this number of rotations.

(c) Execution timing

- The same as the package correction control.

17.2.2 Image stabilization control during printing**(1) Outline**

- Count the print quantity since the sub power switch (SW2) ON, and conduct the prescribed image stabilization control in the paper interval by every 100 prints.
- The image stabilization control performed in the paper interval is conducted while the print speed in progress is kept.

(2) Type of the image stabilization control

- The image stabilization control performed in the paper interval has 5 types that are listed as follows.
 - Charge grid voltage correction between images
 - Development bias correction between images
 - Maximum density control between images
 - Black band creation control 1 (main scan direction width 280mm)
 - Black band creation control 2 (main scan direction width 316mm)
- The image stabilization control performed in the paper interval conducts different description depending on the Print quantity.
- The image stabilization control performed in the paper interval is selected only one item from 5 types of items at one time.

(3) Charge modification between images

- Measures the patch created in the paper interval by the surface electrometer and corrects the charge grid voltage so that the development field and the surface potential becomes the target.

(4) Charge grid voltage correction between images

- Measures the surface potential of the drum with the surface electrometer and corrects the charge grid voltage so that the surface potential becomes the target.

(5) Maximum density control between images

- Reads the patch created in the paper interval by the IDC sensor and corrects the number of drive rotation of the developing roller so that the patch density becomes the target.

(6) Black band creation control 1 (main scan direction width 280mm)

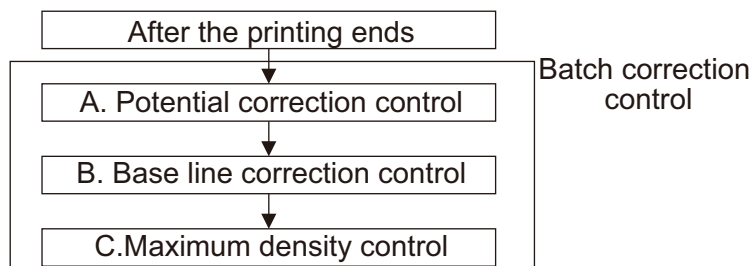
- Creates a black band which is 280mm width in the main scan direction to prevent the developer and the toner from deterioration.

(7) Black band creation control 2 (main scan direction width 316mm)

- In order to supply the tonner to the edge of the cleaning brade, create a black band which is 316mm width in the main scan direction.

17.2.3 Image stabilization control after the printing ends

- Conducts the image stabilization control after the printing ends, when the PM count exceeds the specified number while in the print.
- The following shows the flow of the operation of the image stabilization control after the printing ends.

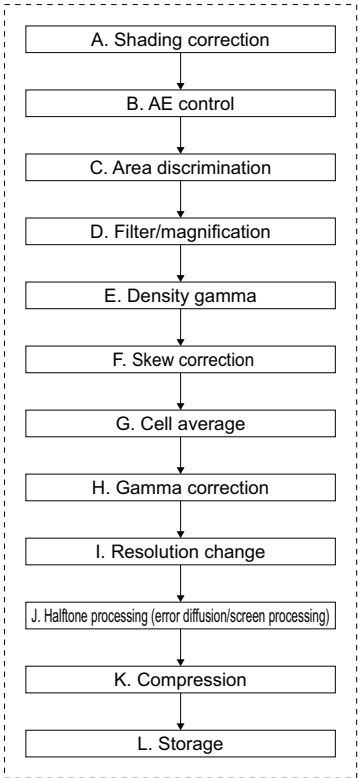


- DIPSW enables to change the PM count value which conducts the image stabilization control.

18. IMAGE PROCESSING

18.1 Image processing in the scanner section

18.1.1 Image processing flow in the scanner section



18.1.2 Shading correction

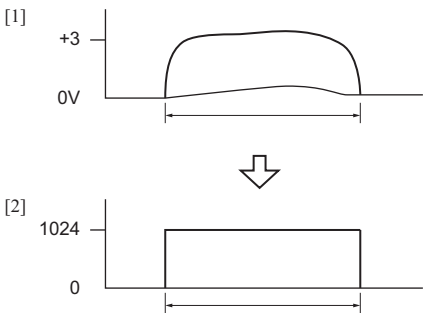
- This is a measure to obtain an even distribution from light of the CCD.
- The following corrections are made at the prescribed timing.

a. White correction

- The output voltage of each pixel of the CCD sensor when the white reference plate is exposed to the exposure lamp is stored as the maximum output of the pixel.

b. Black correction

- The output voltage of each pixel of the CCD sensor when the exposure lamp is turned off is stored as the minimum output of the pixel.
- Conduct calculation to find out what step in this range falls on the image data read from the original based on the difference between the black and white data for each pixel stored in the steps a. and b. stated above, and output the results of the calculation in the 10bits accuracy.

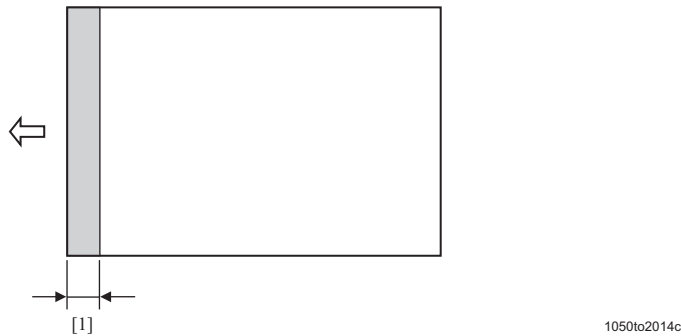


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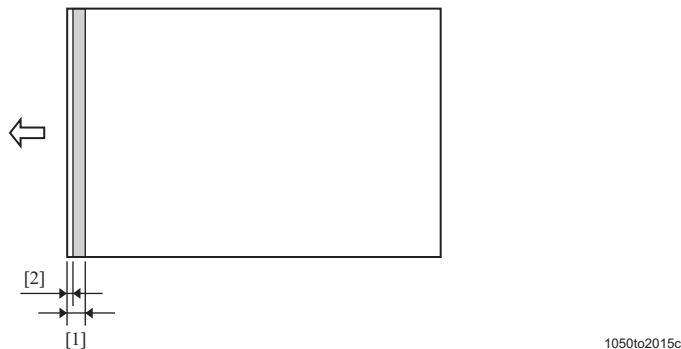
[1] AD conversion input	[2] Shading correction output
-------------------------	-------------------------------

18.1.3 AE control

- Through the AE control, a density suitable for the original density is automatically selected and the copy is made properly.

(1) Sampling area**(a) In original glass mode**

[1]	30mm	-
-----	------	---

(b) While in the DF print

[1]	4mm	[2]	1mm
-----	-----	-----	-----

(2) Execution timing

- In original glass print : At the pre-scan before the actual scan when the print or the read starts.
- While in the DF print: At the same time as when the original is read.

18.1.4 Area discrimination

- To make a copy of the original under the correct condition (to make a correct filter processing), check the read section to see if it is a character or a dot picture, and use the results at the image-processing unit at the later stage.

18.1.5 Filter/magnification**(1) Filter processing**

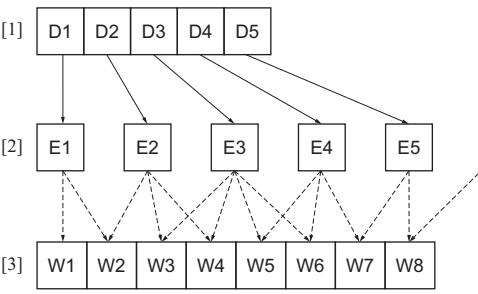
- An appropriate filter processing is made according to the type of an original and the magnification selected.
 - Character: Make the shading of an original conspicuous.
 - Dot section: Suppress moire.
 - Picture: Increase the reproducibility of gradation.

(2) Magnification processing

- For this machine, the sub scan direction magnification is made by the scan speed of the exposure unit (original glass mode) or by the conveyance speed of the DF (DF mode), and the main scan direction magnification is made by processing images electrically.

(a) Main scan magnification processing while in enlargement

- In the following example, if the data of each pixel obtained by reading the original with the CCD are D1 to D5, the positions of the read data in enlarged are E1 to E5.
- When the writing is made only with the data thus read, the following problems occur.
 - It occurs a clearance between data, and this result in a distorted image.
 - The data position does not fall in exactly with the write position.
- As shown with dotted lines in the following drawing, when there is no read data that corresponds exactly to the write position, a density is decided for writing as following and appropriate processing is made.

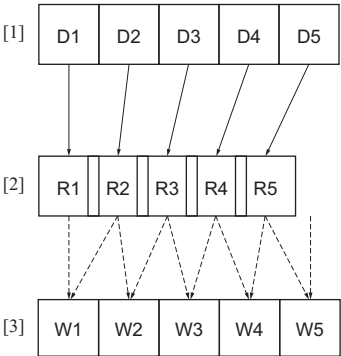


1050to2332c

[1]	Position at which the original is read	[2]	Data position while in enlargement
[3]	Write position		-

(b) Main scan magnification processing while in reduction

- In the following example, if the data of each pixel obtained by reading the original with the CCD are D1 to D5, the positions of the read data in reduced are R1 to R5. They are overlapping each other and do not correspond to the write position.
- Therefore, a density is decided for writing as following and an appropriate processing is made.

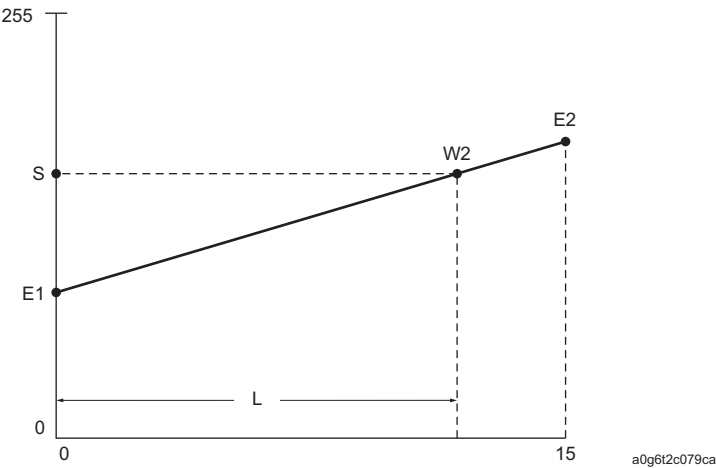


1050to2333c

[1]	Position at which the original is read	[2]	Data position while in enlargement
[3]	Write position		-

(c) Density adjustment

- With the density shown in the axis of coordinate and the position shown in the abscissa axis, when E2-E1 in the drawing of "(1) Vertical magnification while in enlargement" is shown in 16 steps to the direction of the abscissa axis, the following drawing is obtained.
- When the position to the written data W2 is "l," the density S can be obtained in the following expression.
$$S = E1 + \{(E2 - E1) / 16\} \times L$$



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18.1.6 Scanner gamma correction

- To the data obtained after the filter/magnification processing, select a density curve corresponding to the density button selected on the operation panel.
- An appropriate density curve is provided for each of the character/picture/character and the picture/thin character modes.

18.1.7 Skew correction

(1) DF original skew auto adjustment

- Detect an uneven original skew amount for each DF original by the original skew sensors /Fr (PS312) and /Rr (PS311) and adjust the skew amount detected by the sensors by rotating the image data while in the image processing.

18.1.8 Cell average (only for picture mode)

- When performing the screen output, it performs the smoothing process to prevent the moire caused by the contact of the original and the screen process.

18.1.9 Gamma correction (only for picture mode)

- The inputted image data density and the density at printing are unproportional because of the characteristics of the photo conductor or the developing section, therefore the correction is performed to make the print gradation closer to linear one.

18.1.10 Resolution change

- It changes the 600 dpi scanned data to 1200 dpi.

18.1.11 Halftone processing (error diffusion/screen processing)

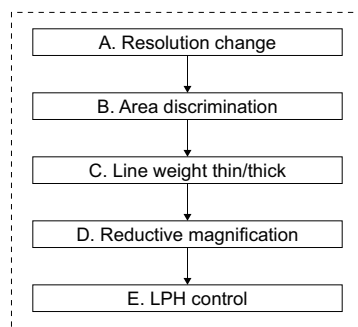
- To make effective use of the installed memory and obtain an excellent copy image, error diffusion processing is employed, which is one of the pseudo-intermediate processing methods.
- In picture mode, the screen processing is conducted.

18.1.12 Compression

- To store more image data, data is stored temporarily in the image memory after the images has been compressed.
- 2 types of memories are provided.
- A part of the hard disk is used as an extended memory of the above.
- In this manner, more than 10,000 pages can be stored in the average word processor documents.

18.1.13 Store

- The image/setting of the originals read by the scanner or the images sent from the IC can be stored as a file in the hard disk in the main body.

18.2 Image processing in the write section**(1) Convert the resolution (600 dpi, only for anti-shaggy)**

- Convert the shaggy image to the one outlined in a curved line.

(2) Area discrimination

- It performs the area discrimination on the edges of the letters and lines, and in accordance with the results performs an image process.
- It uses the same process as the area discrimination of the scanner but this function is used for the letter area discrimination for the operation for making line weight thinner/thicker.

(3) Line weight thin/thick**(a) Making line weight thinner**

- To reduce the letter growing due to the dot gain or the toner spillage at printing, it output the lines thinner using the image process.

(b) Making line weight thicker

- When processing the outline letters, the letters are slimmed down by the surrounding dots due to the dot gain or the toner spillage at printing. To prevent this condition, it output the lines thicker using the image process.

(4) Reductive magnification

- When in the duplex printing, the paper shrinks due to the heat fusing for the front side print, and it makes a magnification error for the back side print.
- To reduce this error, it performs the image process to adjust the proportion between the front side and the back side, by reducing the print magnification for the back side, or enlarging for the front side.

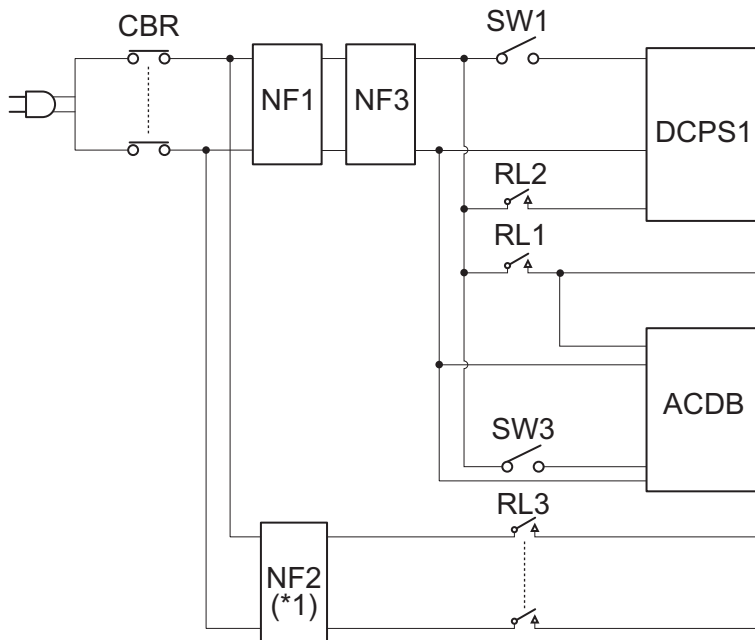
(5) LPH control

- To prepare an image data to process with the LED light, the image data is rearranged the and the correction data is transmitted.
- adjusting the variation of each LED device enables to obtain the uniform light emission volume.

19. POWER SOURCE SECTION

19.1 Operating parts with the connection of the power cord

19.1.1 Configuration



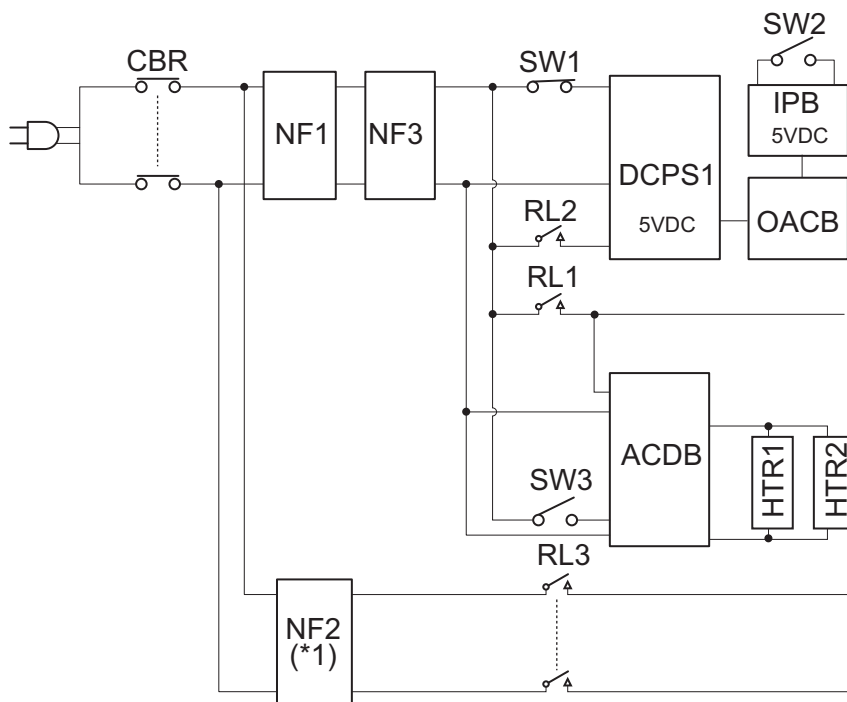
*1 PRO 951 is unimplemented.

19.1.2 Operation

- The AC line is provided with a circuit breaker (CBR) which cuts off the AC line by itself when an excessive current flows due to a short circuit while in setting the power plug.
- Also, it reduces the noise which comes from the power line with the noise filters /1 (NF1), /2 (NF2) and /3 (NF3).

19.2 Operating parts with the main power switch (SW1) ON

19.2.1 Configuration



*1 PRO 951 is unimplemented.

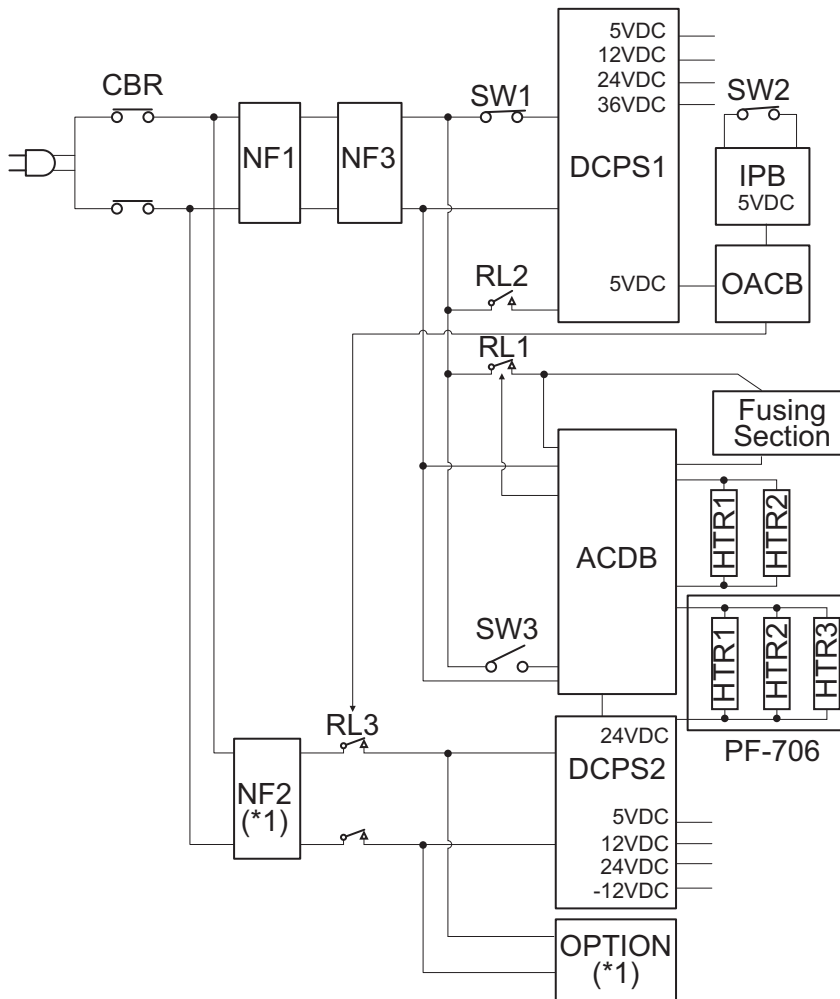
19.2.2 Operation

- When the main power switch (SW1) is turned ON, the AC power is supplied to the DC power supply /1 (DCPS1).

- In this manner, DCPS1 generates 5VDC and 12VDC and supplies them to the overall control board (OACB) and image processing board (IPB).
- This operation puts the sub power switch (SW2) connected to IPB in the standby for input.
- The AC line is provided with a circuit breaker (CBR) which cuts off the AC line by itself when an excessive current flows due to a short circuit while in SW1 ON.

19.3 Operating parts with the sub power switch (SW2) ON

19.3.1 Configuration



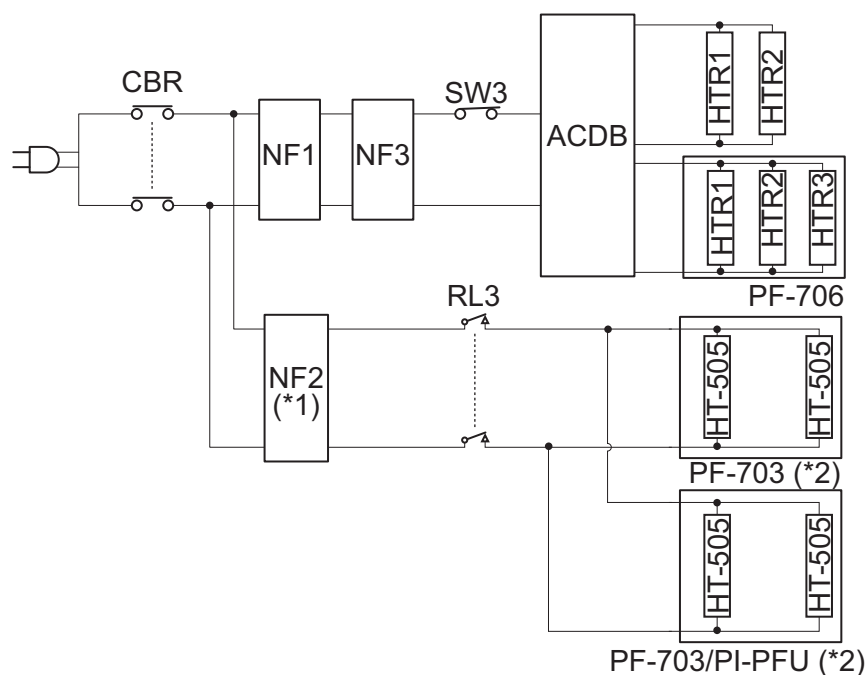
*1 PRO 951 is unimplemented.

19.3.2 Operation

- When turning on the sub power switch (SW2) the moment the main power switch (SW1) is turned on, the DC power supply /1 (DCPS1) supplies 24V DC power system to each of the boards, the FS and the DF.
- The overall control board (OACB) turns ON the relay /2 (RL3) and it supplies AC power supply to the DC power supply /2 (DCPS2).
- DCPS1 and DCPS2 supply each DC power supplies to the optional devices and each board.
- After 24VDC is supplied to the AC drive board (ACDB) from DCPS2, the main relay (RL1) turns ON to supply AC power supply to the fusing heater lamps /1 (L1), /2 (L2) and /3 (L3).
- By this operation, power is supplied to each boards and starts the initial operation of the main body.

19.4 Operating parts with the dehumidification heater switch (SW3) ON

19.4.1 Configuration



*1 PRO 951 is unimplemented.

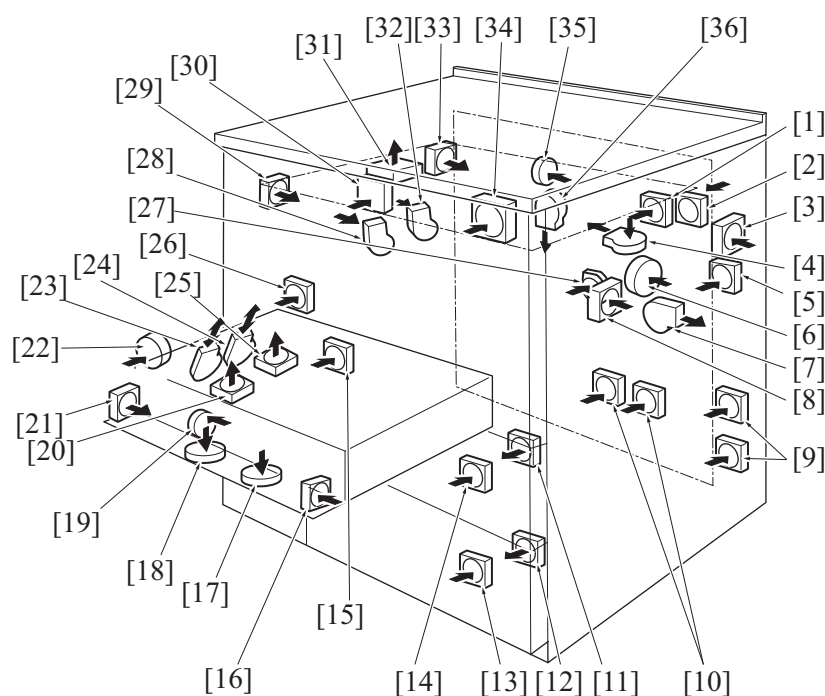
*2 PF-703/HT-505/PI-PFU can be connected to 1250/1250P/1052 only.

19.4.2 Operation

- Once the power plug is set to the outlet while the dehumidification heater switch (SW3) is ON and the sub power switch (SW2) is OFF, the dehumidification heaters /1 (HTR1) and /2 (HTR2) and the dehumidification heaters /1 (HTR1), /2 (HTR2) and /3 (HTR3) of PF-706 turn ON.
- HT-505, which is the optional dehumidification heater for PF-703 and PI-PFU (PF-703 + FA-501), turns ON/OFF in accordance with the status of the relay 2 (RL3), regardless whether SW3 is ON or OFF.
- Up to 2 HT-505s can be installed for each PF-703.
- When using multiple PF-703s for tandem of PF-703 or PI-PFU, up to 4 are available for a whole system.

20. FAN CONTROL

20.1 Configuration



[1] Image processing cooling fan (FM12)	[2] IC cooling fan (FM39)
[3] Suction cooling fan /1 (FM6)	[4] Charger suction fan (FM3)
[5] IC exhaust fan (FM43)	[6] Developing cooling fan (FM31)
[7] Developing suction fan (FM22)	[8] Suction cooling fan /2 (FM7)
[9] DC power supply /1 cooling fan (FM41)	[10] DC power supply /2 cooling fan (FM42)
[11] Paper feed assist fan /Rr1 (FM20)*1	[12] Paper feed assist fan /Rr2 (FM24)*1
[13] Paper feed assist fan /Fr2 (FM23)*1	[14] Paper feed assist fan /Fr1 (FM21)*1
[15] ADU cooling fan /2 (FM15)	[16] Registration cooling fan (FM17)
[17] Belt cooling fan (FM37)	[18] Reverse cooling fan (FM38)
[19] Transfer belt cleaning fan (FM27)	[20] Sensor cooling fan /1 (FM16)
[21] ADU cooling fan /1 (FM14)	[22] ADU cooling fan /3 (FM13)
[23] De-curler fan /1 (FM29)	[24] De-curler fan /2 (FM30)
[25] Sensor cooling fan /2 (FM40)	[26] Toner bottle cooling fan (FM35)
[27] Collection pipe cooling fan (FM34)	[28] Paper exit cooling fan /Lw2 (FM28)
[29] Paper exit cooling fan /Up (FM4)	[30] Front cooling fan (FM18)
[31] Scanner cooling fan (FM19)	[32] Paper exit cooling fan /Lw1 (FM10)
[33] Pump cooling fan (FM11)	[34] Cooling fan /1 (FM1)
[35] Cooling fan /2 (FM2)	[36] Charger exhaust fan (FM44)

*1 PRO 951 is unimplemented.

20.2 Operation

20.2.1 Cooling fan /1 (FM1) control

(1) Purpose

- To exhaust around the photo conductor section and the fusing section.

(2) Low Speed/High Speed switch timing

- Rotates at low speed during the standby and low power mode.
- Rotates at high speed during warming up.
- Switches to high speed upon starting of printing.
- Switches to low speed a specified period of time after printing is finished.

20.2.2 Cooling fan /2 (FM2) control**(1) Purpose**

- To exhaust around the photo conductor section and the fusing section.

(2) Low Speed/High Speed switch timing

- Rotates at low speed during the standby and low power mode.
- Rotates at high speed during warming up.
- Switches to high speed upon starting of printing.
- Switches to low speed a specified period of time after printing is finished.

20.2.3 Charger suction fan (FM3) control**(1) Purpose**

- To cool down around the photo conductor section.

(2) Low Speed/High Speed switch timing

- Rotates at low speed during the warm-up and print operation, and turns OFF after a specified period of time.
- Turns OFF during standby and low power mode.

20.2.4 Paper exit cooling fan /Up (FM4) control**(1) Purpose**

- To cool down around the paper exit section with suction.

(2) ON/OFF timing

- Rotates at high speed during warming up.
- Turns OFF during standby and low power mode.

20.2.5 Suction cooling fan /1 (FM6) control**(1) Purpose**

- To cool down around the LPH section with suction.

(2) Low Speed/High Speed switch timing

- Rotates at low speed during the standby and low power mode.
- Rotates at high speed during warming up.
- Switches to high speed upon starting of printing.
- Switches to low speed a specified period of time after printing is finished.

20.2.6 Suction cooling fan /2 (FM7) control**(1) Purpose**

- To cool down around the developing section and the photo conductor section with suction.

(2) ON/OFF timing

- Rotates at high speed during warming up.
- Turns OFF a specified period of time after the print completes
- Turns OFF during standby and low power mode.

20.2.7 Paper exit cooling fan /Lw1 (FM10), /Lw2 (FM28) control**(1) Purpose**

- To cool down around the paper exit section with suction.

(2) ON/OFF timing

- Turns ON during printing.
- Turns OFF during standby, low power mode and warming up.

20.2.8 Pump cooling fan (FM11) control**(1) Purpose**

- To cool down the toner pump motor (M28) and the air pump motor (M29) with suction.

(2) ON/OFF timing

- Rotates at high speed during warming up.
- Turns OFF a specified period of time after the print completes
- Turns OFF during standby and low power mode.

20.2.9 Image processing cooling fan (FM12) control**(1) Purpose**

- To cool down around the overall control board (OACB) and the image processing board (IPB) with suction.

(2) ON/OFF timing

- Turns ON/OFF in accordance with the ON/OFF of the sub power switch (SW2).

20.2.10 ADU cooling fan /3 (FM13) control**(1) Purpose**

- To cool down around the reverse section with suction.

(2) ON/OFF timing

- Turns ON during printing.
- Turns OFF during standby, low power mode and warming up.

20.2.11 ADU cooling fan /1 (FM14) control**(1) Purpose**

- To cool down around the duplex section with suction.

(2) ON/OFF timing

- Turns ON during printing.
- Turns OFF during standby, low power mode and warming up.

20.2.12 ADU cooling fan /2 (FM15) control**(1) Purpose**

1. To exhaust around the duplex section.

(2) ON/OFF timing

- Turns ON during printing and warming up.
- Turns OFF a specified period of time after the print completes
- Turns OFF during standby and low power mode.

20.2.13 Sensor cooling fan /1 (FM16), /2 (FM40) control**(1) Purpose**

- To cool down around the ADU reverse section with suction.

(2) ON/OFF timing

- Turns ON during printing.
- Turns OFF during standby, low power mode and warming up.

20.2.14 Registration cooling fan (FM17) control**(1) Purpose**

- To cool down around the registration section with suction.

(2) ON/OFF timing

- Turns ON during printing.
- Turns OFF during standby, low power mode and warming up.

20.2.15 Front cooling fan (FM18) control**(1) Purpose**

- Cool down around the drum cleaner with suction.

(2) ON/OFF timing

- Turns ON during printing.
- During warm-up, the fan is activated in synchronization with the drum motor (M2).
- Turns OFF a specified period of time after the print completes
- Turns OFF during standby and low power mode.

20.2.16 Scanner cooling fan (FM19) control**(1) Purpose**

- To cool down around the exposure lamp (L4) and the scanner.

(2) ON/OFF timing

- Turns ON during printing.
- Turns OFF during standby, low power mode and warming up.

20.2.17 Paper feed assist fan /Fr1 (FM21), /Rr1 (FM20) control (1250/1250P/1052 only)**(1) Purpose**

- To assist the paper feed from the tray /1.

(2) ON/OFF timing

- During printing, the fan is activated depending on the type of paper.
- Turns OFF during standby, low power mode and warming up.

20.2.18 Developing suction fan (FM22) control**(1) Purpose**

- To collect toner scattered around the developing unit.

(2) ON/OFF timing

- Turns ON during printing and warming up.
- During warm-up, the fan is activated in synchronization with the drum motor (M2).
- Turns OFF during standby, low power mode.

20.2.19 Paper feed assist fan /Fr2 (FM23), /Rr2 (FM24) control (1250/1250P/1052 only)**(1) Purpose**

- To assist the paper feed from the tray /2.

(2) ON/OFF timing

- During printing, the fan is activated depending on the type of paper.
- Turns OFF during standby, low power mode and warming up.

20.2.20 Transfer belt cleaning fan (FM27) control**(1) Title**

- To cool down around the transfer belt section with suction.

(2) Title

- Rotates at high speed during the print and warm-up.
- Switches to low speed a specified period of time after printing is finished.
- Rotates at low speed during the standby and low power mode.

20.2.21 De-curler fan /1 (FM29), /2 (FM30) control**(1) Title**

- To cool down the de-curler section with suction and exhaust.

(2) Title

- Turns ON during printing.
- Turns OFF during standby, low power mode and warming up.

20.2.22 Developing cooling fan (FM31) control**(1) Purpose**

- To cool down around the developing section with suction.

(2) ON/OFF timing

- During warm-up, the fan is activated in synchronization with the drum motor (M2).
- Turns OFF a specified period of time after the print completes
- Turns OFF during standby and low power mode.

20.2.23 Collection pipe cooling fan (FM34) control**(1) Purpose**

- To cool down around the toner collection section with suction.

(2) Low Speed/High Speed switch timing

- Rotates at high speed during warming up.
- Switches to high speed upon starting of printing.
- Turns OFF during standby and low power mode.

20.2.24 Toner bottle cooling fan (FM35) control**(1) Purpose**

- To cool down around the toner bottle section with suction.

(2) Low Speed/High Speed switch timing

- Rotates at high speed during the print and warm-up.
- Switches to low speed a specified period of time after printing is finished.
- Turns OFF during low power.
- Rotates at low speed during standby.

20.2.25 Belt cooling fan (FM37) control**(1) Purpose**

- To cool down around the transfer belt section with suction.

(2) ON/OFF timing

- Turns ON during the print and warm-up.
- Turns OFF a specified period of time after the print completes
- Turns OFF during standby and low power mode.

20.2.26 Reverse cooling fan (FM38) control**(1) Purpose**

- To cool down around the ADU reverse section with suction.

(2) ON/OFF timing

- Turns ON during the print and warm-up.
- Turns OFF a specified period of time after the print completes
- Turns OFF during standby and low power mode.

20.2.27 IC cooling fan (FM39) control**(1) Purpose**

- Conduct the cooling around the IC board (ICB).

(2) ON/OFF timing

- Rotates at low speed during the standby, warm-up, and low power mode.
- Rotates at high speed during the print.
- Switches to low speed a specified period of time after printing is finished.

20.2.28 DC power supply /1 cooling fan (FM41) control**(1) Purpose**

- To exhaust around the DC power supply /1 (DCPS1).

(2) Low Speed/High Speed switch timing

- Rotates at low speed during standby, low power mode and warming up.
- Switches to high speed upon starting of printing.
- Switches to low speed a specified period of time after printing is finished.

20.2.29 DC power supply /2 cooling fan (FM42) control**(1) Purpose**

- To exhaust around the DC power supply /2 (DCPS2).

(2) Low Speed/High Speed switch timing

- Rotates at low speed during standby, low power mode and warming up.
- Switches to high speed upon starting of printing.
- Switches to low speed a specified period of time after printing is finished.

20.2.30 Controller exhaust fan (FM43) control**(1) Purpose**

- To exhaust around the hard disk /2 (HDD2).

(2) ON/OFF timing

- Turns ON/OFF in accordance with the ON/OFF of the sub power switch (SW2).

20.2.31 Charger exhaust fan (FM44) control**(1) Purpose**

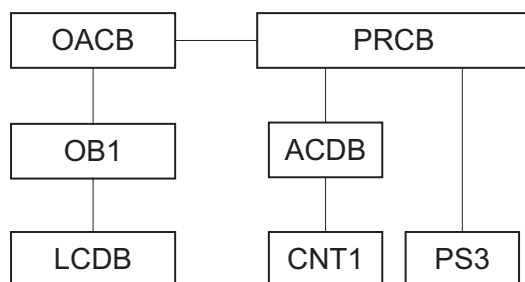
- To exhaust around the charging corona.

(2) ON/OFF timing

- Rotates at high speed during the print and warm-up.
- Turns OFF a specified period of time after the print completes
- Turns OFF during standby and low power mode.

21. COUNTER CONTROL

21.1 Configuration



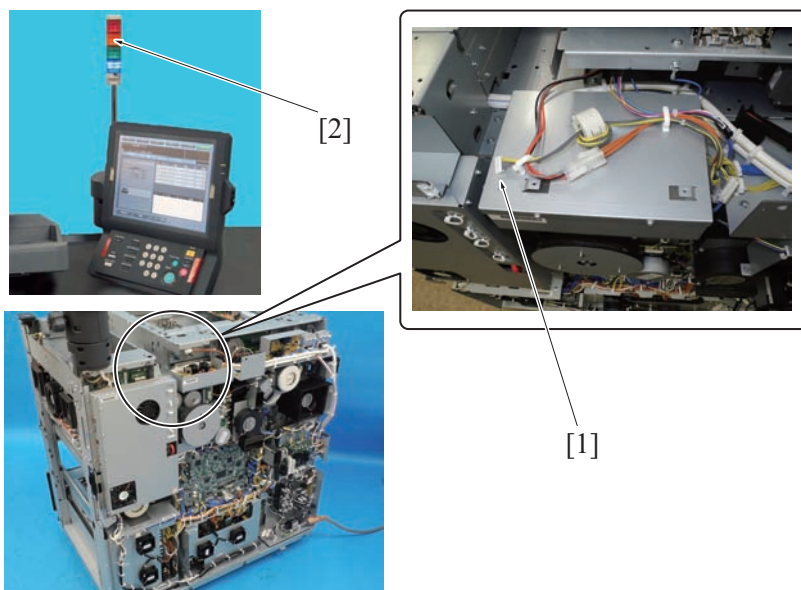
21.2 Operation

Item	Specification/mechanism
Total counter (CNT1)	Displays the cumulative number of prints in all copy/print modes Mechanical counter driven by the electronic signal. Counts up for each paper exit signal.
Electronic counter	<ul style="list-style-type: none"> Displays the cumulative number of copies/prints on the operation panel. PM count/cycle, data collection *1, and copy count by parts that require to be replaced. Counts up for each paper exit signal.

*1 Refer to "1.5.5.2 Collection Data."

(1) Status indicator light

- Installing a status indicator light allows the machine status to be monitored at a place away from the machine according to the condition of the light.



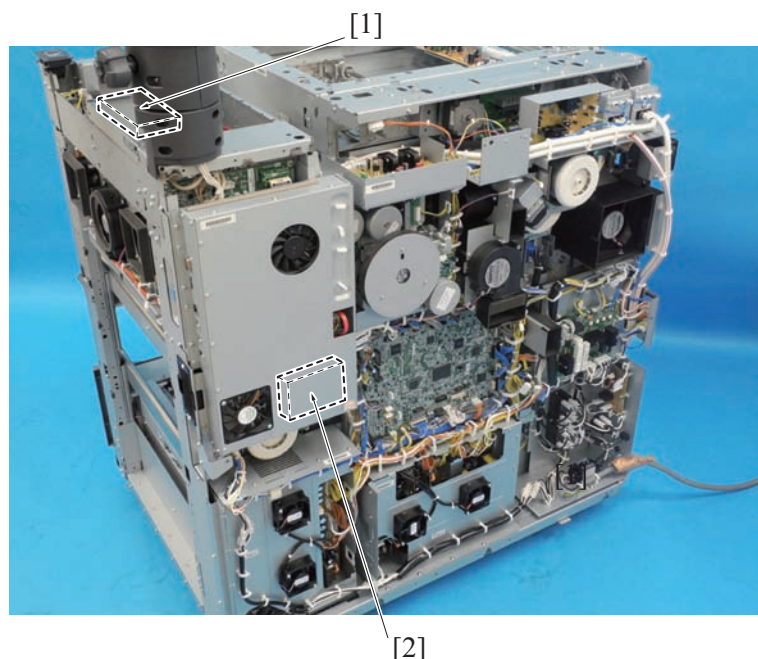
[1] Connector				[2] Status indicator light	
Connector	Pin Number	Signal name	Description	Output timing	Type of signal
160	1	PAT1	Light ON signal	L signal output when the printing available	Open collector
	2	PAT2		L signal output while in the scanning or printing operation	
	3	PAT3		L signal output when an abnormal stop occurs due to jams, error codes, no paper, or no toner	
	4	PAT4		L signal output when the toner supply message is displayed	
	5	24V	24V DC source	At all times	24V, 500mA
	6	P.GND	Power ground	-	-

Note

- A signal is output from the PAT3 when an error code occurs. However, the light does not turn on since the power source of the 24V status indicator light is cut off.

22. HDD CONTROL

22.1 Configuration



Symbol	Item	Specification/mechanism
[1]	Hard disk /1 (HDD1)	<ul style="list-style-type: none"> · Hard disk for the main body · Capacity: 250GB · Storage of formatted stamp, watermark and registered overlay image data · Storage of image data · Temporary storage of image data (image memory)
[2]	Hard disk /2 (HDD2)	<ul style="list-style-type: none"> · Hard disk for the IC controller · Capacity: 250GB

22.2 Removable hard disk

22.2.1 OUTLINE

- By installing the option (RH-101), the hard disks /1 (HDD1) and /2 (HDD2) can be used as removable disks.
- To secure the primary data stored in HDD, any user can remove the HDD.

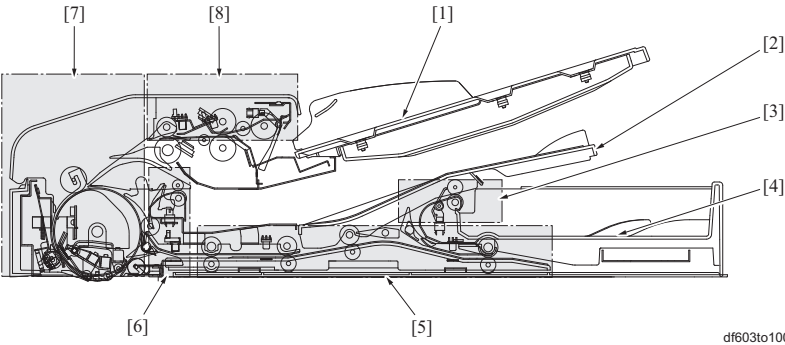
22.2.2 Operation

- Move the hard disk /1 (HDD1) for the main body and the hard disk /2 (HDD2) for the IC controller to the removable cassette of RH-101.
- This operation enables to remove each hard disk after using the main body to put them in a high-security place such as a safe.

PA THEORY OF OPERATION DF-615 /616

1. OUTLINE

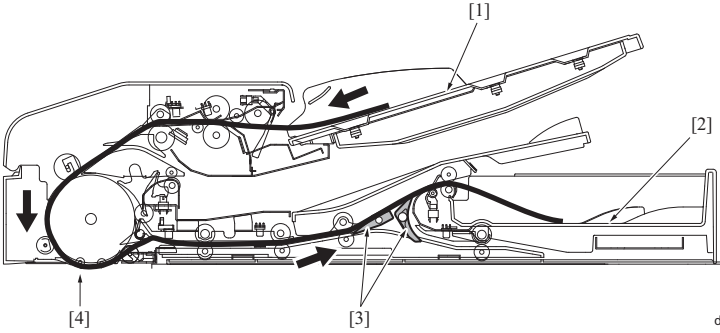
1.1 Unit configuration



[1]	Original feed tray	[2]	Original exit tray (for large size)
[3]	Original exit section (for small size)	[4]	Original exit tray (for small size)
[5]	Reverse section	[6]	Original exit section (for large size)
[7]	Conveyance section	[8]	Paper feed section

1.2 PAPER PATH

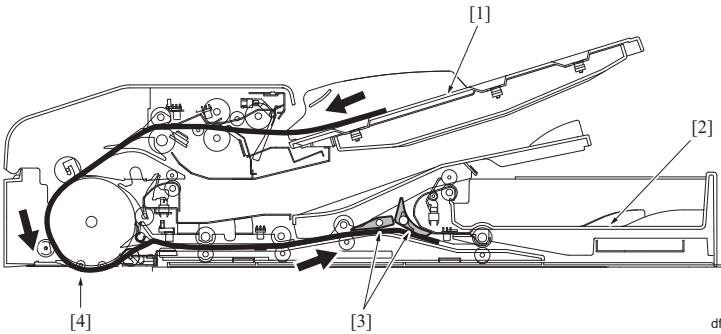
1.2.1 Simplex mode (Small Size)



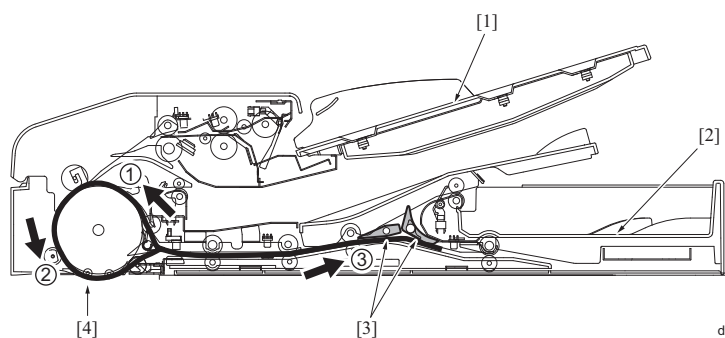
[1]	Original feed tray	[2]	Original exit tray (for small size)
[3]	Paper exit gate	[4]	Image read position (slit glass section)

1.2.2 Duplex mode (Small Size)

(1) Front side scanning

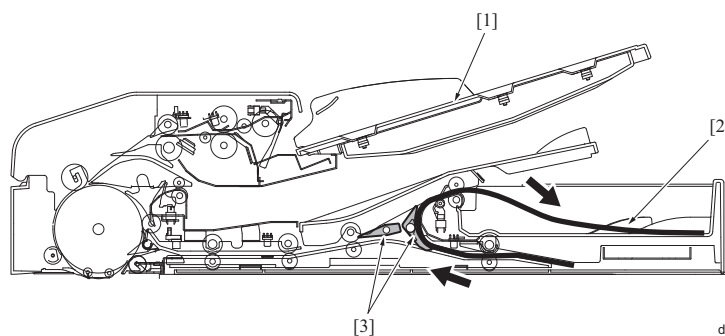


[1]	Original feed tray	[2]	Original exit tray (for small size)
[3]	Paper exit gate	[4]	Image read position (slit glass section)

(2) Back side scanning

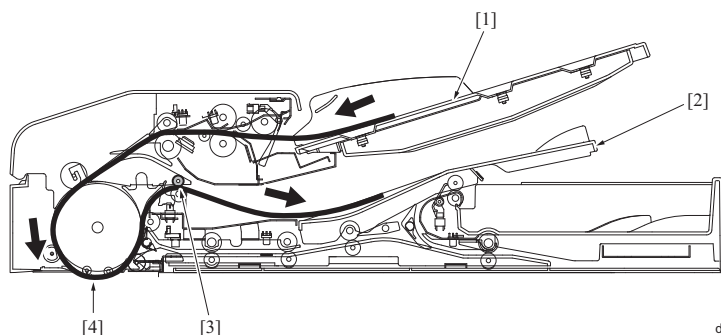
df603to1005c

[1] Original feed tray	[2] Original exit tray (for small size)
[3] Paper exit gate	[4] Image read position (slit glass section)

(3) Paper exit

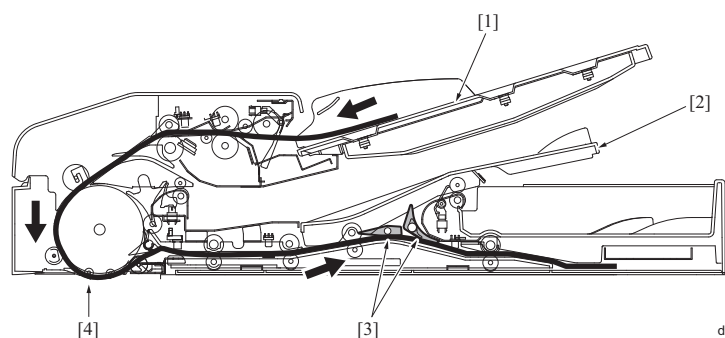
df603to1006c

[1] Original feed tray	[2] Original exit tray (for small size)
[3] Paper exit gate	-

1.2.3 Single-sided copy mode (large size)

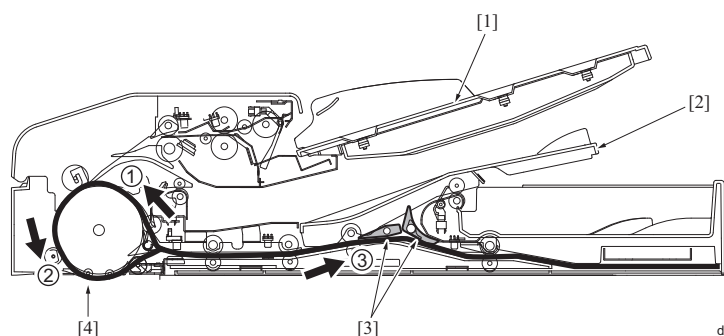
df603to1007c

[1] Original feed tray	[2] Original exit tray (for large size)
[3] Exit roller	[4] Image read position (slit glass section)

1.2.4 Double-sided copy mode (large size)**(1) Front side scanning**

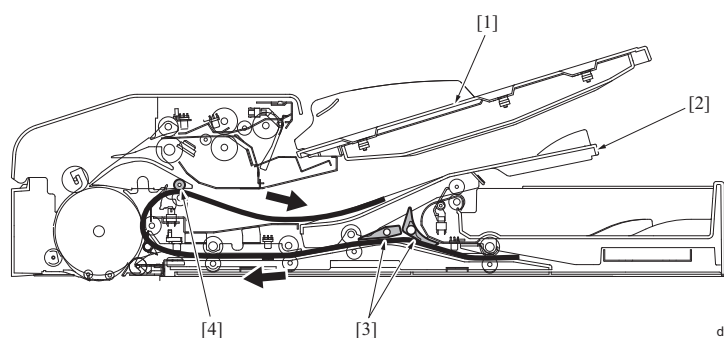
df603to1008c

[1] Original feed tray	[2] Original exit tray (for large size)
[3] Paper exit gate	[4] Image read position (slit glass section)

(2) Back side scanning

df603to1009c

[1] Original feed tray	[2] Original exit tray (for large size)
[3] Paper exit gate	[4] Image read position (slit glass section)

(3) Paper exit

df603to1010c

[1] Original feed tray	[2] Original exit tray (for large size)
[3] Paper exit gate	[4] Exit roller

1.2.5 Mixed original mode**(1) When the Auto Zoom is not in use**

- Single-sided original mode: Same as the normal single-sided original mode
- Double-sided original mode: Same as the normal double-sided original mode

(2) When the Auto Zoom is in use (Single or double-sided)

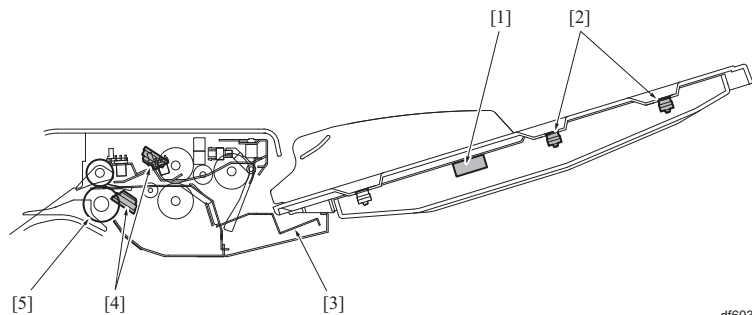
- Since the mixed copy mode makes the size detection in the sub scan direction of the original according to the ON time of the original registration sensor /Rt (PS318) (in case of DF-615) or the original registration sensor /Lt (PS306) (in case of DF-616), the size detection operation is made before the scan operation.
- The following shows the operations after that.
 - Single-sided original mode: Same as the normal single-sided original mode
 - Double-sided original mode: Same as the normal double-sided original mode
- For details of the size detection control, refer to "[PA.2.3.1 Size detection control](#)".

(3) Z-Folded original mode

- Only for the 1st sheet, since the Z-Folded original mode makes the same size detection as the mixed original mode in the sub scan direction of the original according to the ON time of the original registration sensor /Rt (PS318) (in case of DF-615) or the original registration sensor /Lt (PS-306) (in case of DF-616), the size detection operation is made before the scan operation.
- The following shows the operations after that.
 - Single-sided original mode: Same as the normal single-sided original mode
 - Double-sided original mode: Same as the normal double-sided original mode
- For details of the size detection control, refer to "[PA.2.3.1 Size detection control](#)".

2. PAPER FEED SECTION

2.1 Configuration

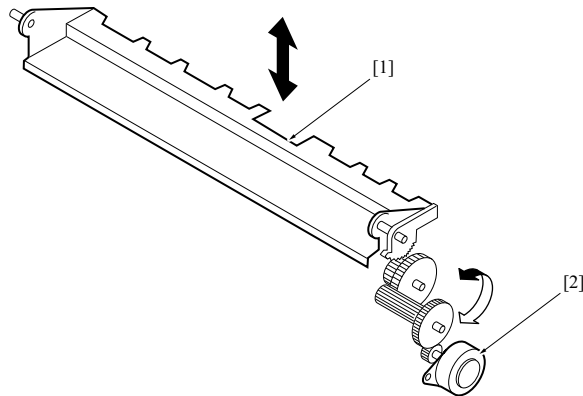


df603to2001c

	Item	Specification/mechanism
[1]	Original size detection in the main scan direction	Guide plate + VR
[2]	Original size detection in the sub scan direction	Photo sensor
[3]	Original feed tray up-down method	Up-down plate + motor
[4]	Multi feed detection (DF-615 only)	Ultrasonic sensor (DF-615 only)
[5]	Registration method	Roller + motor

2.2 Drive

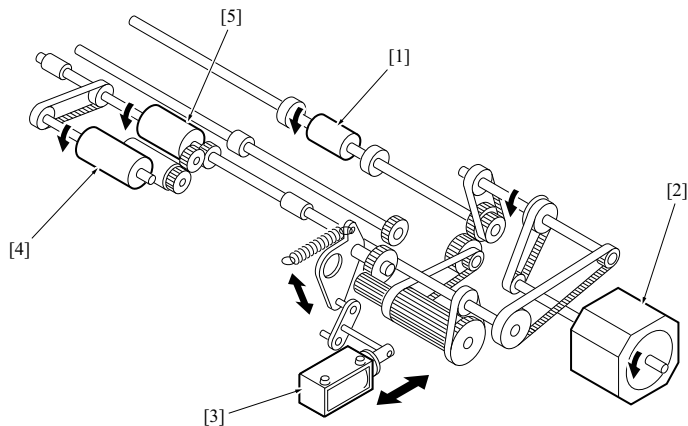
2.2.1 Tray up-down drive



df603to2002c

[1]	Up-down plate	[2]	Tray up-down motor (M305)
-----	---------------	-----	---------------------------

2.2.2 Paper feed drive



df603to2003c

[1]	Registration roller	[2]	Original feed motor (M301)
[3]	SDF switching solenoid (SD301)	[4]	Pick-up roller
[5]	Paper feed roller		-

2.3 Operation

2.3.1 Size detection control

(1) Nomal original mode

(a) Size detection in the main scan direction

- The size in the main scan direction of the original is detected according to the position of the guide plate that is connected to the original size VR (VR301).

(b) Size detection in the sub scan direction

- The size in the sub scan direction of the original is detected according to the ON/OFF combination of the original size sensor /Rt (PS302) and the Original size sensor /Lt (PS303).

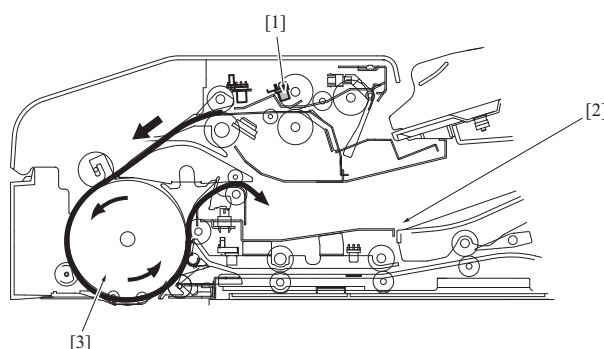
(2) Mixed original mode

(a) Size detection in the main scan direction

- The front and rear dimensions of the maximum mixed original are detected according to the position of the guide plate of the original size VR (VR301).

(b) Size detection in the sub scan direction (DF-615)

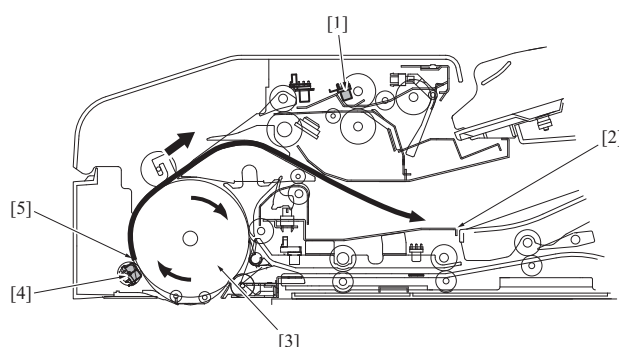
- The conveyance roller [3] rotates in the forward direction to convey the original to the paper exit tray (for large size) [2].
- The conveyance roller stops rotation a specified period of time after the original registration sensor /Rt (PS318) [1] detects the trailing edge of the original.
- At this time, the size in the sub scan direction of the original is detected depending on the ON time period of the PS318.



df603to2004c

[1]	Original registration sensor /Rt (PS318)	[2]	Paper exit tray (for large size)
[3]	Conveyance roller	-	

- A specified period of time after the original registration sensor /Rt (PS318) [1] turns OFF, the conveyance roller [3] rotates in the reverse direction to get the leading edge of the original conveyed to the paper exit section back to the scan standby position [5].
- The trailing edge of the original returned is conveyed to the paper exit tray (for large size) [2] according to the form of the conveyance guide plate.
- The reverse rotation of the conveyance roller stops a specified period of time after the original conveyance sensor (PS308) [4] detects the leading edge of the original.



df603to2005c

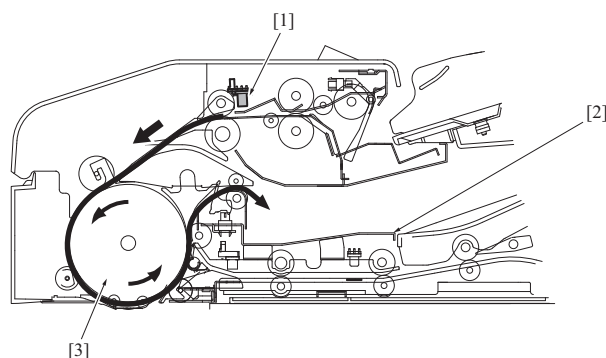
[1]	Original registration sensor /Rt (PS318)	[2]	Paper exit tray (for large size)
[3]	Conveyance roller	[4]	Original conveyance sensor (PS308)
[5]	Scan standby position	-	

- After that, the same read (scan) operation as in the normal mode is made.
- The original size detection operation for the second and succeeding originals varies according to a copy mode employed: the single-sided copy mode or the double-sided copy mode.
 - Single-sided copy mode: After the scan operation of the preceding original starts.
 - Double-sided copy mode: After the scan operation of the back side of the preceding original starts.

(c) Size detection in the sub scan direction (DF-616)

- The conveyance roller [3] rotates in the forward direction to convey the original to the paper exit tray (for large size) [2].
- The conveyance roller stops rotation a specified period of time after the original registration sensor /Lt (PS306) [1] detects the trailing edge of the original.

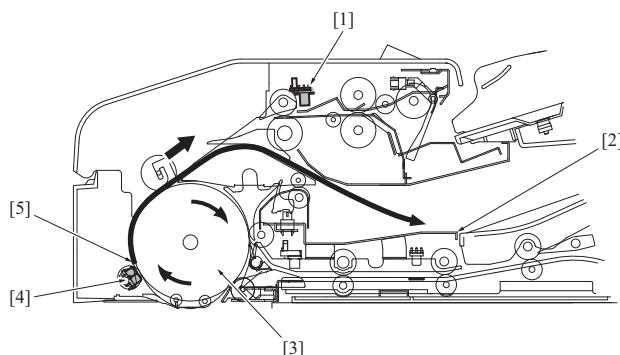
- At this time, the size in the sub scan direction of the original is detected depending on the ON time period of the PS306.



15sat2c004na

[1]	Original registration sensor /Lt (PS306)	[2]	Paper exit tray (for large size)
[3]	Conveyance roller		-

- A specified period of time after the original registration sensor /Lt (PS306) [1] turns OFF, the conveyance roller [3] rotates in the reverse direction to get the leading edge of the original conveyed to the paper exit section back to the scan standby position [5].
- The trailing edge of the original returned is conveyed to the paper exit tray (for large size) [2] according to the form of the conveyance guide plate.
- The reverse rotation of the conveyance roller stops a specified period of time after the original conveyance sensor (PS308) [4] detects the leading edge of the original.



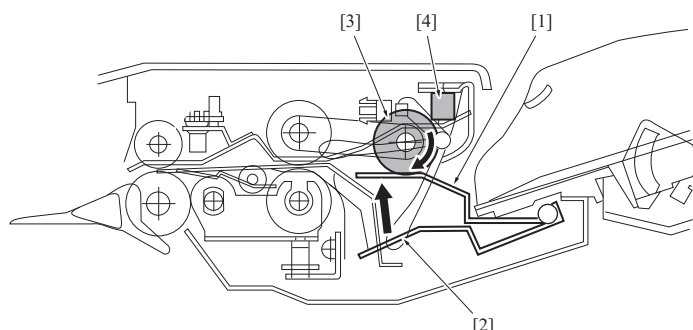
15sat2c005na

[1]	Original registration sensor /Lt (PS306)	[2]	Paper exit tray (for large size)
[3]	Conveyance roller	[4]	Original conveyance sensor (PS308)
[5]	Scan standby position		-

- After that, the same read (scan) operation as in the normal mode is made.
- The original size detection operation for the second and succeeding originals varies according to a copy mode employed: the single-sided copy mode or the double-sided copy mode.
 - Single-sided copy mode: After the scan operation of the preceding original starts.
 - Double-sided copy mode: After the scan operation of the back side of the preceding original starts.

2.3.2 Pick-up mechanism

- The tray up-down motor (M305) sends up the up-down plate [2] to move the original to the pick-up roller position [1].
- When the tray upper limit sensor (PS315) [4] turns ON, the M305 turns OFF to the standby condition with the up-down plate left raised.
- The original comes into contact with the pick-up roller [3] to conduct the pick-up (paper feed) operation.



df603to2006c

[1]	Pick-up roller position	[2]	Up-down plate
[3]	Pick-up roller	[4]	Tray upper limit sensor (PS315)

2.3.3 Separation mechanism

(1) Separation control

- Of the originals fed by the pick-up roller, only 1 sheet of original is conveyed to the registration roller side by the original feed roller and the separation roller.

- Even when plural sheets of originals are fed, the separation roller makes a reverse rotation to convey a single sheet of original.

(2) SDF (single document feeder) control

- In the single document feeder mode, to improve the paper feedability of thick paper and other originals the paper feed of which is not guaranteed, the SDF switching solenoid (SD301) cuts off the drive of the separation roller to conduct the paper feed operation.

(3) Multi feed detection control (DF-615 only)

- The multi feed detection is made by using the multi feed detection board /R (MFDBR) and the multi feed detection board /S (MFDBS) which employ a method to check originals if they are multi fed based on the amount of the transmission of ultrasonic waves.
- The accuracy in the multi feed detection has been improved by using the multi feed sensor of the ultrasonic sensor, which supports the speed-up in the paper feed.
- The multi feed detection board is made up of a pair of a sender and a receiver.
- The following are originals the multi feed of which can be detected.
 - Originals the main scan direction of which is in excess of 210mm. Originals the main scan direction of which is less than 210mm cannot be recognized due to the position of the multi feed detection board.
 - Originals the weighing of which is between 50g/m² and 128g/m². Originals the weighing of which is beyond the above-mentioned range are not recognized even when multi fed.

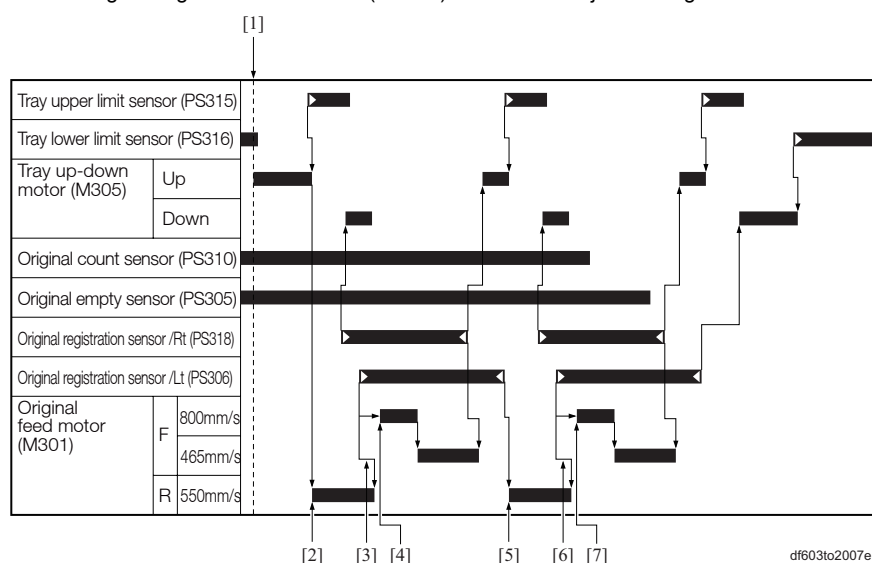
2.3.4 Original empty detection control

- The original empty sensor (PS305) detects the presence of original in the original tray section while in the scan stop.
- The original count sensor (PS310) makes the original empty detection while in the scan to stop the paper feed from the trays/1, /2, PF, or LU (DF-616 only) after PS310 detects the trailing edge of the last original.

2.3.5 Registration control

(1) DF-615

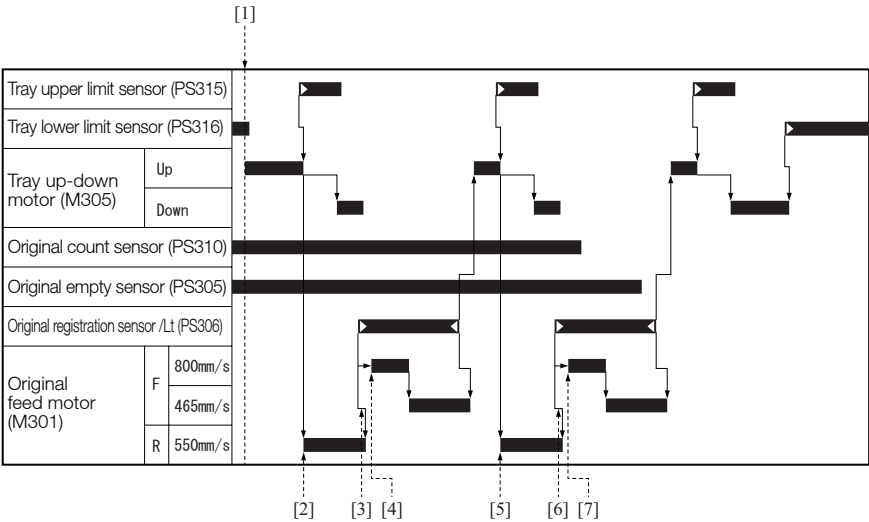
- When the start button is turned ON [1], the tray up-down motor (M305) brings up the up-down plate until the tray upper limit sensor (PS315) turns ON [2].
- A specified period of time after the PS315 turns ON, the original feed motor (M301) is driven in a reverse rotation to convey the original to the registration roller.
- When the original registration sensor /Rt (PS318) turns ON, the up-down plate comes down by a fixed distance and a loop is formed until the original registration sensor /Lt (PS306) turns ON to adjust an original skew.



[1]	Start button ON	[2]	Feed of the 1st sheet of paper
[3]	Loop formation of the 1st sheet of paper	[4]	Pre-feed of the 1st sheet of paper
[5]	Feed of the 2nd sheet of paper	[6]	Loop formation of the 2nd sheet of paper
[7]	Pre-feed of the 2nd sheet of paper	-	

(2) DF-616

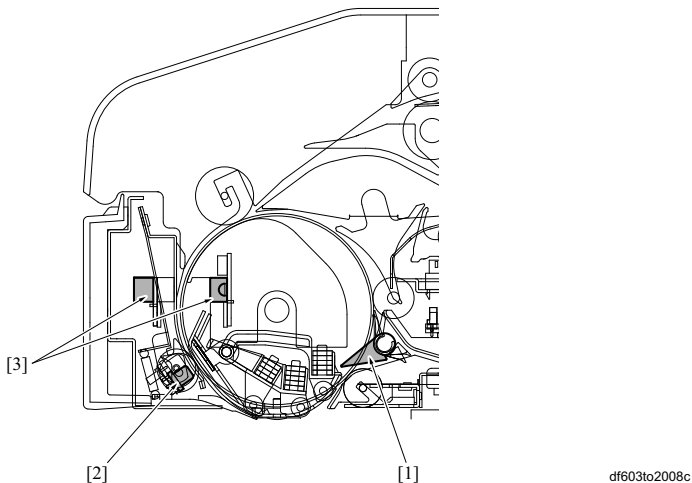
- When the start button is turned ON [1], the tray up-down motor (M305) brings up the up-down plate until the tray upper limit sensor (PS315) turns ON [2].
- A specified period of time after the PS315 turns ON, the original feed motor (M301) is driven in a reverse rotation to convey the original to the registration roller.
- When the specified period of time has passed, the up-down plate comes down by a fixed distance and a loop is formed until the original registration sensor /Lt (PS306) turns ON to adjust an original skew.



[1]	Start button ON	[2]	Feed of the 1st sheet of paper
[3]	Loop formation of the 1st sheet of paper	[4]	Pre-feed of the 1st sheet of paper
[5]	Feed of the 2nd sheet of paper	[6]	Loop formation of the 2nd sheet of paper
[7]	Pre-feed of the 2nd sheet of paper	-	

3. CONVEYANCE SECTION

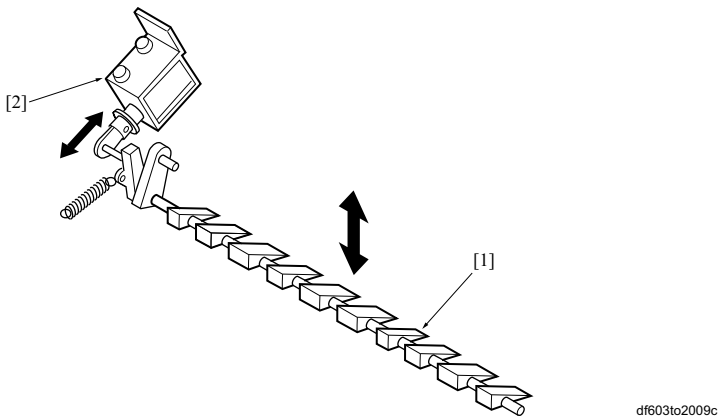
3.1 Configuration



	Item	Specification/mechanism
[1]	Conveyance path switching method	Flapper + solenoid
[2]	Original skew detection method	Photo sensor
[3]	Original centering detection method	LED sensor

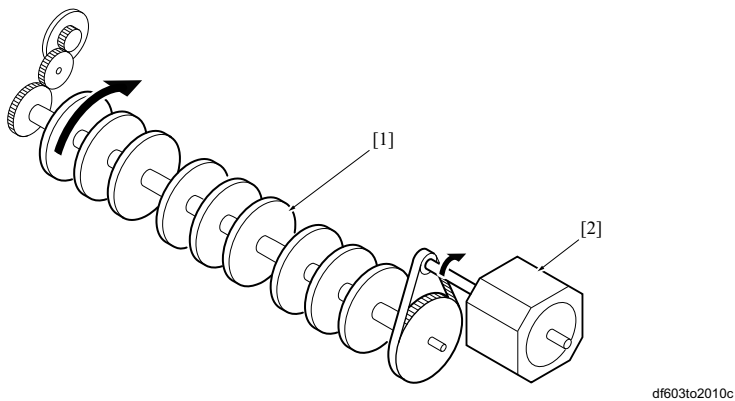
3.2 Drive

3.2.1 Flapper up-down drive



[1]	Flapper	[2]	Gate solenoid (SD303)
-----	---------	-----	-----------------------

3.2.2 Conveyance drive

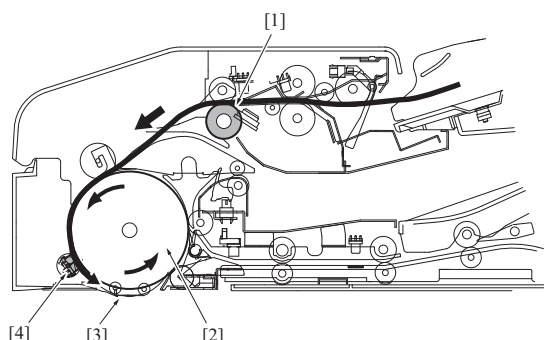


[1]	Conveyance roller	[2]	Original conveyance motor (M302)
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3.3 Operation

3.3.1 Conveyance control

- The originals that have been fed up to the registration roller [1] by the separation mechanism are pre-fed by the registration roller to be conveyed to the conveyance roller [2] at a high speed.
- A specified period of time after the original conveyance sensor (PS308) [4] turns ON, the conveyance roller is switched into the scan speed to convey the original onto the slit glass (original scan position) [3].
- The originals are read when they pass through the slit glass.



df603to2011c

[1]	Registration roller	[2]	Conveyance roller
[3]	Slit glass (original scan position)	[4]	Original conveyance sensor (PS308)

3.3.2 Mixed original mode control

(1) DF-615

- The mixed original sizes copy mode is applicable to both the same size originals and the different size originals.
- Since the size detection in the sub scan direction of the original is made according to the ON time of the original registration sensor /Rt (PS318), the size detection operation is made before the scan operation for each original.

(2) DF-616

- The mixed original sizes copy mode is applicable to both the same size originals and the different size originals.
- Since the size detection in the sub scan direction of the original is made according to the ON time of the original registration sensor /Lt (PS306), the size detection operation is made before the scan operation for each original.

3.3.3 Z-Fold original mode control

- In the Z-Fold mode, the same detection operation as in the mixed original sizes copy mode is made on the 1st sheet of original to determine the original size. For the 2nd and succeeding originals, the normal original conveyance is made.

3.3.4 Skew correction control

- The original skew sensor /Rr (PS311) and the original skew sensor /Fr (PS312) are provided to make adjustments when the original is conveyed with its leading edge skewed.
- PS311 and PS312 are provided on the front side and the rear side of the conveyance path before scan to detect the amount of skew based on the time difference when the leading edge of the original turns ON these sensors.
- The amount of skew detected is adjusted by image processing.
- The relationship of the distance between the 2 sensors makes it effective only on original larger than A4S in width and the correction of the tilt angle up to 1.5° is made.

3.3.5 Centering correction control (DF-615 only)

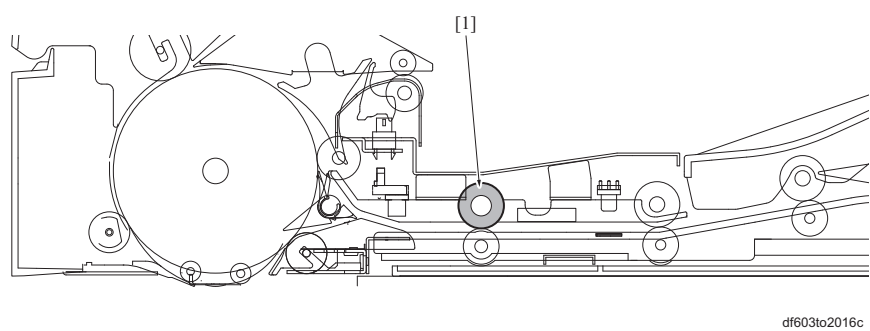
- The centering sensor /Rr (PS321) and the centering LED sensor /Rr (PS322) detect the leading edge of the original pre-fed.
- According to the timing of this detection, the centering sensor /Fr (PS320) and the centering LED sensor /Fr (PS319) detect the side edge of the original to determine the effective read area in the main scan direction.
- The width of the original size that can be detected is restricted only to A4 or 11inch. PS320 needs to be positioned to the width of the original you want to detect.
- The maximum range that can be corrected is within $\pm 3\text{mm}$. When in excess of this range, only 3mm is corrected.
- The centering adjustment control is invalid for original sizes other than A4 and 11inch and in the mixed original mode.
- The sensor can detect any color in the original.

3.3.6 Cooling fan control

- The cooling fan /Lt (FM301) cools the original conveyance motor (M302) to prevent getting too hot while in operation.
- The FM301 turns ON when the original feed is started, and it turns OFF when the original exit is completed.
- The cooling fan /Rt (FM302) cools the original exit motor /1 (M303), the original exit motor /2 (M304), the DF control board (DFCB) and the tray up-down motor (M305) to prevent them from getting too hot while in operation.

4. REVERSE SECTION

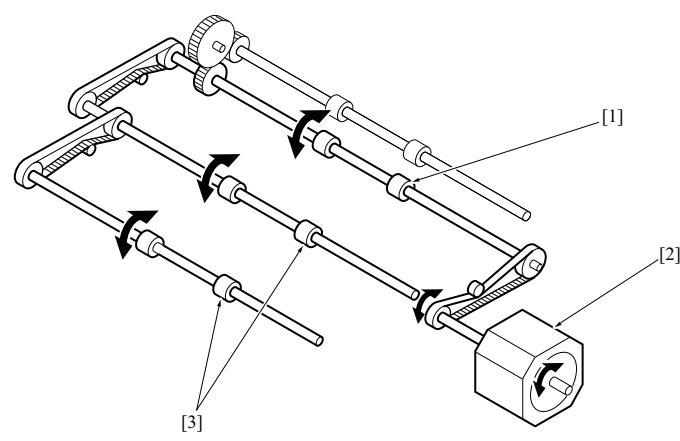
4.1 Configuration



	Item	Specification/mechanism
[1]	Stabilization of scan speed	Pressure roller release method
-	Reverse method	Paper exit gate + solenoid

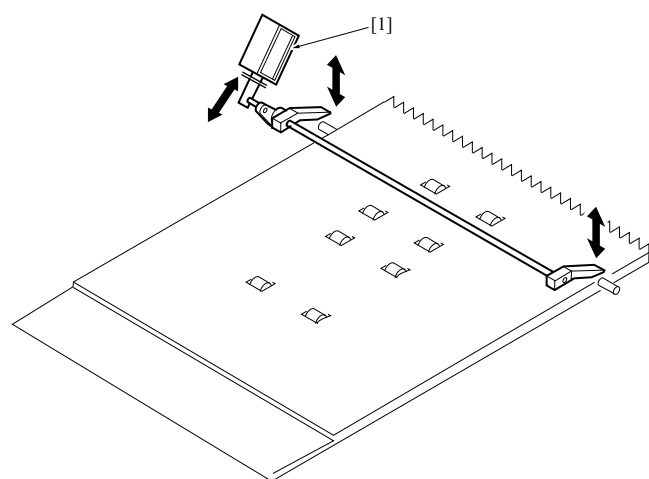
4.2 Drive

4.2.1 Reverse drive



[1]	Reverse roller	[2]	Original exit motor /1 (M303)
[3]	Reverse conveyance roller	-	

4.2.2 Pressure roller release drive



[1]	Pressure roller release solenoid (SD302)	-
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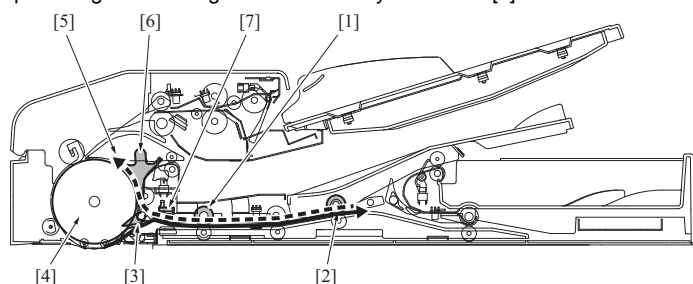
4.3 Operation

4.3.1 Reverse mechanism

(1) Small-size original

- When the gate solenoid (SD303) starts up, the flapper [3] closes and originals the front of which has been scanned are conveyed [2] to the reverse section by the reverse roller [1].

- A specified period of time after the original reverse sensor (PS309) [7] turns OFF by detecting the trailing edge of the original, SD303 opens the paper exit gate [6] and the reverse paper feed [5] is made while rotating in the reverse direction at a low speed and then at a high speed to guide the original to the conveyance roller [4].

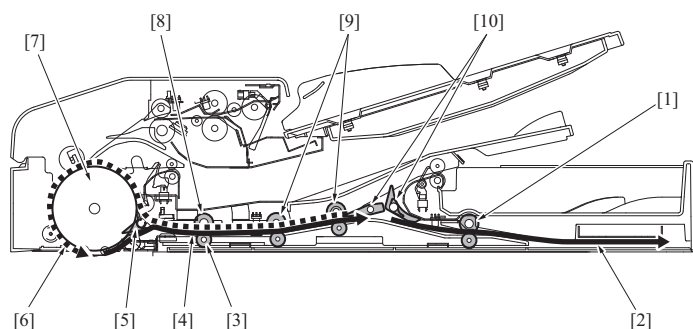


df603to2027c

[1] Reverse roller	[2] Conveyance to the reverse section
[3] Flapper	[4] Conveyance roller
[5] Reverse feed	[6] Paper exit gate
[7] Original reverse sensor (PS309)	-

(2) Large-size original

- When the gate solenoid (SD303) starts up, the flapper [5] closes and originals the front of which has been scanned are conveyed [4] to the reverse section by the reverse roller [8].
- The original conveyed to the reverse section, because it cannot be contained in the reverse section, is conveyed to the paper exit reverse section [2] by the reverse conveyance roller [9], the paper exit reverse roller [1].
- At this time, the exit gate solenoid (SD304) closes the exit gate [10].
- The originals that have been conveyed to the reverse section and the paper exit reverse section are fed in reverse [6] in the same manner as small-size originals.
- At this time, since the originals do not yet pass through the reverse roller, the reverse conveyance roller even if they reach the conveyance roller [7], after the reverse roller makes the reverse rotation, the pressure roller release solenoid (SD302) activates to release the pressure roller [3] for the reverse roller.
- The originals are released from the pressure roller and guided to the conveyance roller.



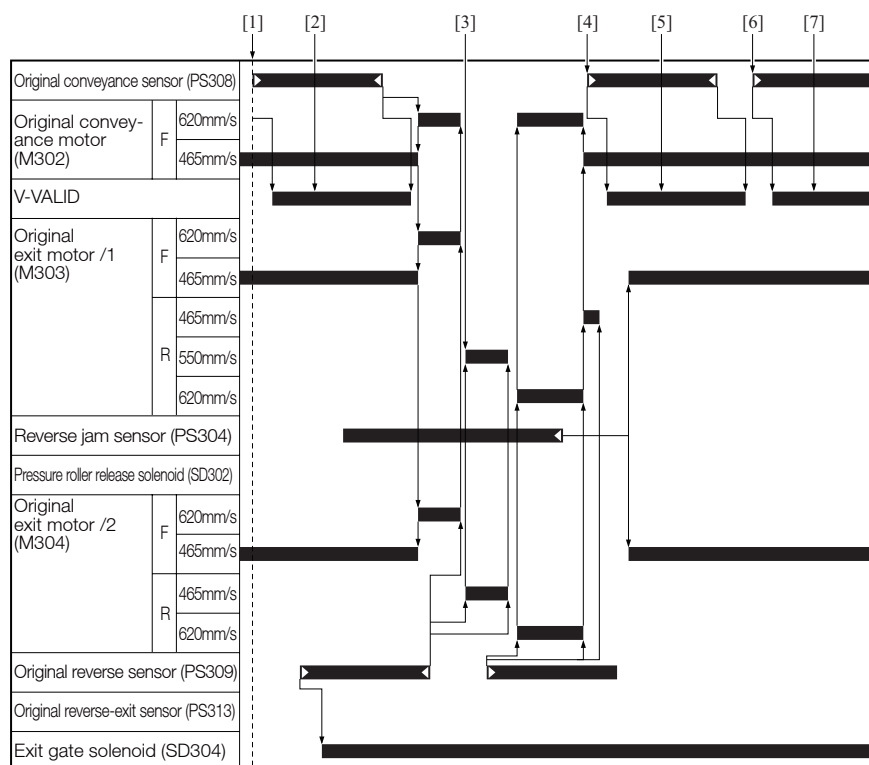
df603to2028c

[1] Paper exit reverse roller	[2] Conveyance to the paper exit reverse section
[3] Pressure roller	[4] Conveyance to the reverse section
[5] Flapper	[6] Reverse feed
[7] Conveyance roller	[8] Reverse roller
[9] Reverse conveyance roller	[10] Paper exit gate

4.3.2 Registration control

(1) Small-size original

- A specified period of time after the start of the conveyance [1] of the 1st original, the front of the 1st original is read [2].
- The 1st original conveyed to the reverse section stops temporarily after the original exit motor /2 (M304) and the original exit motor /1 (M303) accelerated it.
- M303 and M304 start a reverse rotation [3] to let the original hit against the conveyance roller for registration.
- For the original that has been registered, a specified period of time after the original conveyance sensor (PS308) turn ON [4], the back of the 1st original is read [5].

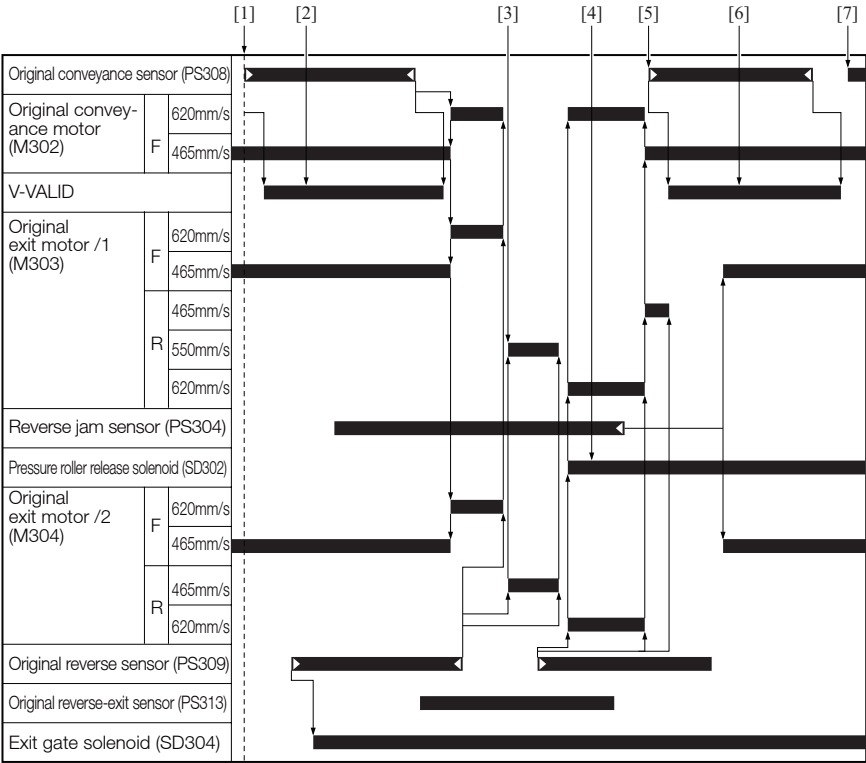


df603to2020e

[1]	Front side of the 1st sheet	[2]	Reading of the front side of the 1st sheet
[3]	Reversal of the 1st sheet of paper	[4]	Back side of the 1st sheet
[5]	Reading of the back side of the 1st sheet	[6]	Front side of the 2nd sheet
[7]	Reading of the front side of the 2nd sheet	-	

(2) Large-size original

- A specified period of time after the start of the conveyance [1] of the 1st original, the front of the 1st original is read [2].
- The 1st original conveyed to the reverse section stops temporarily after the original exit motor /2 (M304) and the original exit motor /1 (M303) accelerated it.
- M303 and M304 start a reverse rotation [3] to let the original hit against the conveyance roller for registration.
- For the back of the original that has been registered, a specified period of time after the original reverse sensor (PS309) turns ON, the pressure roller release solenoid (SD302) is turned ON [4] to release the pressure roller, and then release the conveyance force of the reverse section.
- A specified period of time after the original conveyance sensor (PS308) turns ON [5], the back of the 1st original is read [6].



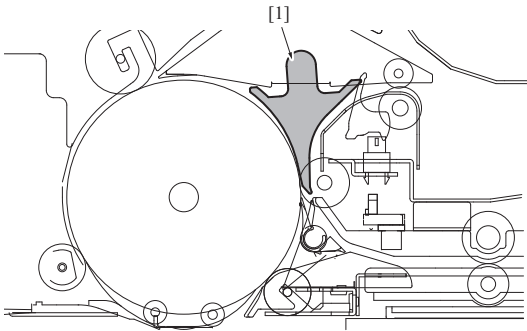
df603to2021e

[1]	Front side of the 1st sheet	[2]	Reading of the front side of the 1st sheet
[3]	Reversal of the 1st sheet of paper	[4]	Pressure roller release
[5]	Back side of the 1st sheet	[6]	Reading of the back side of the 1st sheet
[7]	Front side of the 2nd sheet	-	

5. PAPER EXIT SECTION

5.1 Configuration

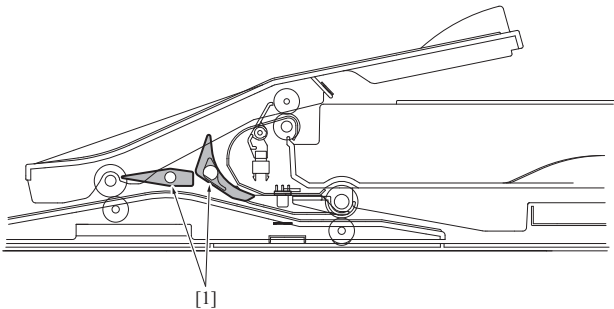
(1) Paper exit section (large size)



df603to2022c

	Item	Specification/mechanism
[1]	Conveyance path switching method	Paper exit gate + solenoid

(2) Paper exit section (small size)

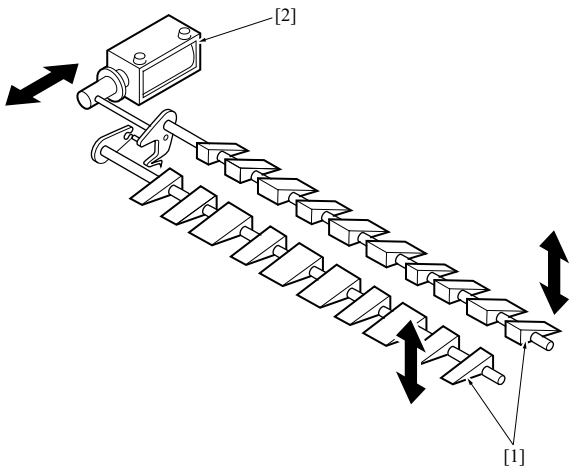


df603to2023c

	Item	Specification/mechanism
[1]	Conveyance path switching method	Paper exit gate + solenoid

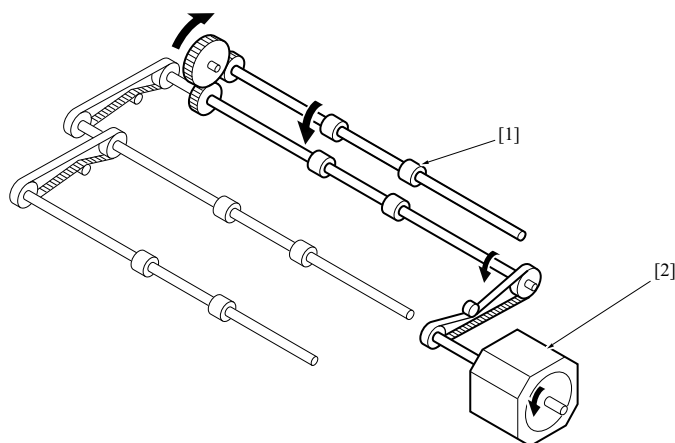
5.2 Drive

5.2.1 Exit gate drive



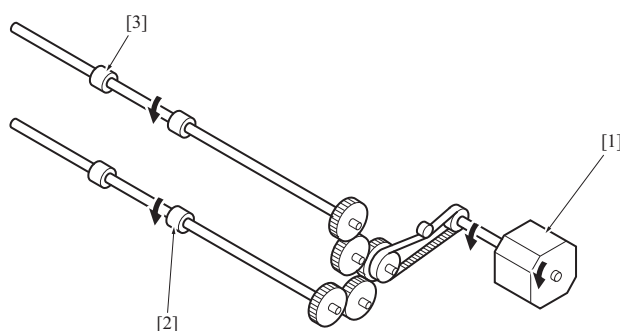
df603to2024c

[1]	Paper exit gate	[2]	Exit gate solenoid (SD304)
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5.2.2 Paper exit drive (for large size)

df603to2025c

[1] Paper exit roller /1	[2] Original exit motor /1 (M303)
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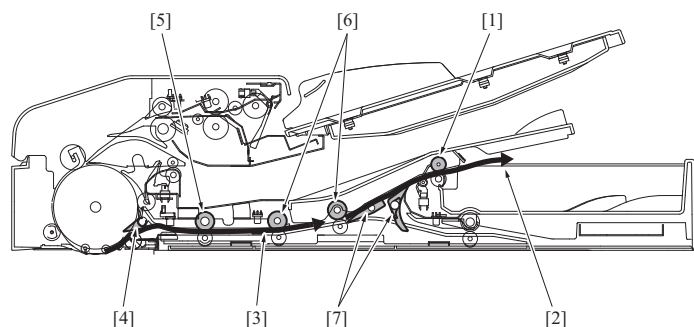
5.2.3 Paper exit drive (for small size)

df603to2026c

[1] Original exit motor /2 (M304)	[2] Paper exit reverse roller
[3] Paper exit roller /2	-

5.3 Operation**5.3.1 Paper exit mechanism****(1) Paper exit operation of small-size original****(a) Single-sided original**

- The originals that have been scanned are conveyed to the reverse section [3] because the flapper [4] is closed by the gate solenoid (SD303).
- The originals conveyed to the reverse section are conveyed to the exit gate [7] by the reverse roller [5] and the reverse conveyance roller [6].
- The originals are conveyed to the paper exit roller /2 [1] through the exit gate that has been opened by the exit gate solenoid (SD304).
- The paper exit roller /2 exits the originals to the original exit tray (for small size) [2] with their copied side down.



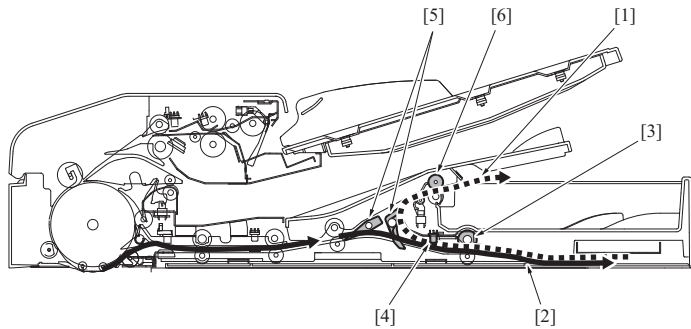
df603to2029c

[1] Paper exit roller /2	[2] Exits the originals to the original exit tray (for small-size)
[3] Conveyance to the reverse section	[4] Flapper
[5] Reverse roller	[6] Reverse conveyance roller
[7] Paper exit gate	-

(b) Double-sided original

- The originals the back side of which has been scanned are conveyed to the exit gate [5] in the same manner as with the single-sided originals.

- At this time, the exit gate solenoid (SD304) closes the exit gate, so the originals are conveyed to the paper exit reverse section [2] through the paper exit reverse roller [3].
- When the original reverse-exit sensor (PS313) [4] of the paper exit reverse section detects the originals, the paper exit reverse roller stops.
- When SD304 opens the paper exit gate, the paper exit reverse roller starts to make a high speed reverse rotation to send back the conveyed originals.
- At this time, the exit gate is open and the originals are exited to the original exit tray (for small size) [1] with their front face down.



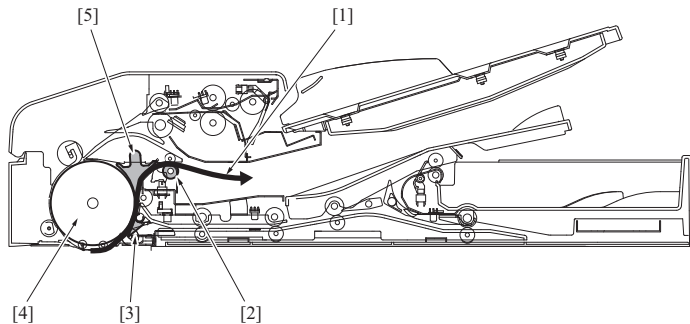
df603to2030c

[1]	Exits the originals to the original exit tray (for small-size)	[2]	Conveyance to the paper exit reverse section
[3]	Paper exit reverse roller	[4]	Original reverse-exit sensor (PS313)
[5]	Paper exit gate	[6]	Paper exit roller /2

(2) Paper exit operation of large-size original

(a) Single-sided original

- The originals that have been scanned are conveyed to the paper exit roller /1 [2] by the conveyance roller [4] because of the flapper [3] and the paper exit gate [5] being opened by the gate solenoid (SD303).
- The paper exit roller /1 makes a low speed forward rotation to exit the originals to the original exit tray (for large size) [1] with their copied face down.

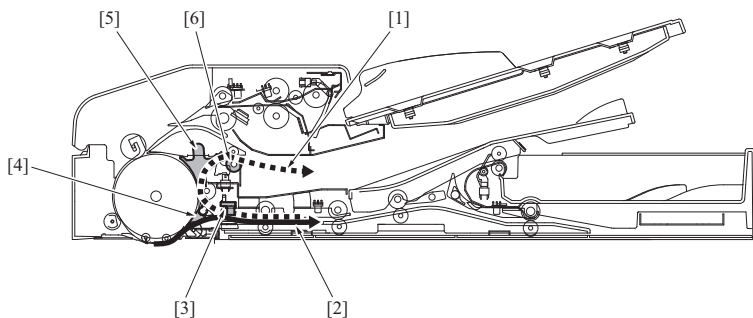


df603to2031c

[1]	Exits the originals to the original exit tray (for large size)	[2]	Paper exit roller /1
[3]	Flapper	[4]	Conveyance roller
[5]	Paper exit gate	-	

(b) Double-sided original

- The originals the rear face of which has been scanned are conveyed to the reverse section [2] because of the flapper [4] being closed by the gate solenoid (SD303).
- When the original reverse sensor (PS309) [3] detects the trailing edge of the originals conveyed, SD303 opens the flapper and the paper exit gate [5].
- The originals are exited to the original exit tray (for large size) [1] by the paper exit roller /1 [6] through the flapper that is open.



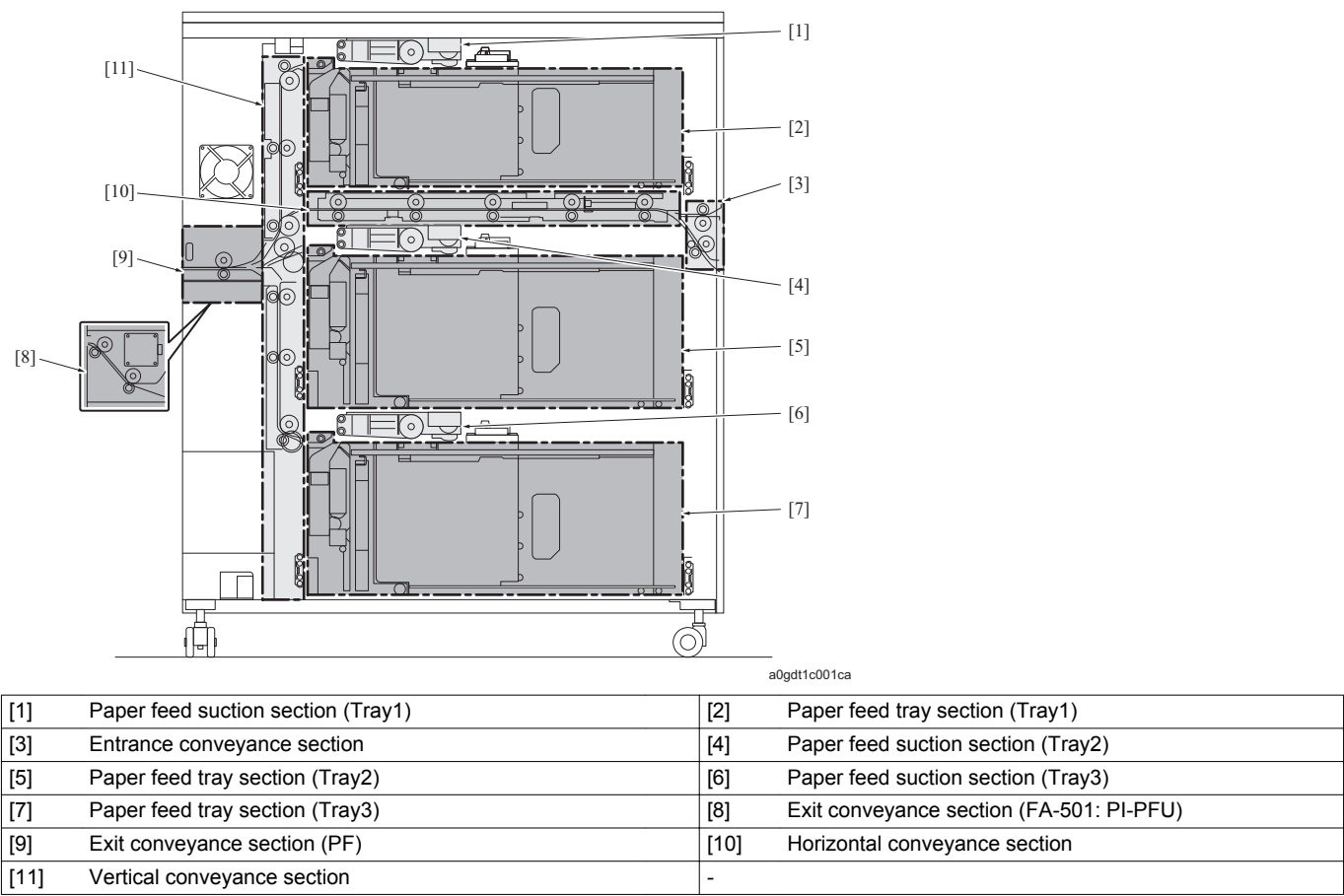
df603to2032c

[1]	Exits the originals to the original exit tray (for large size)	[2]	Conveyance to the reverse section
[3]	Original reverse sensor (PS309)	[4]	Flapper
[5]	Paper exit gate	[6]	Paper exit roller /1

PB THEORY OF OPERATION PF-703/HT-505/FA-501

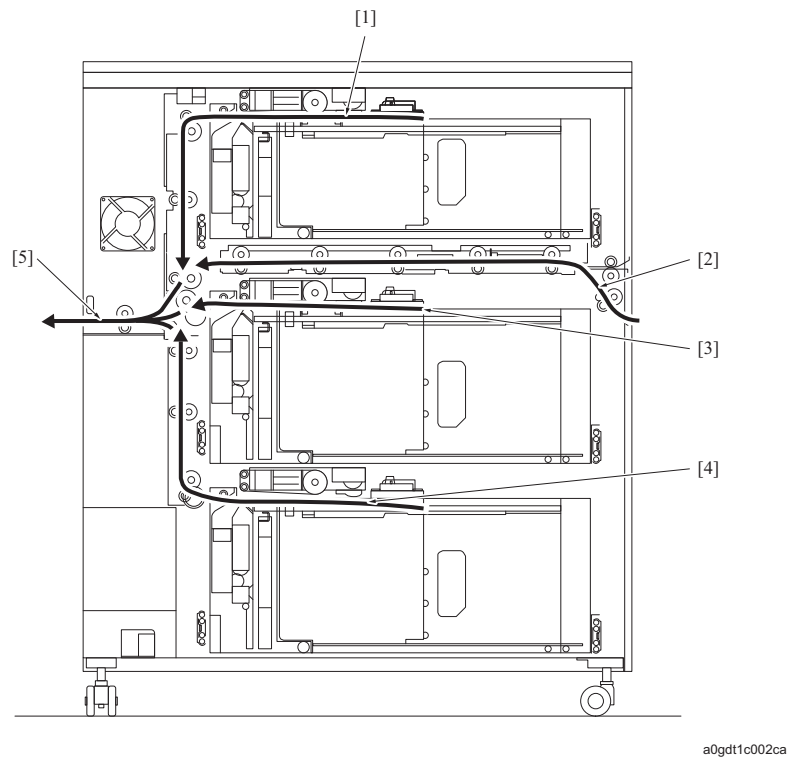
1. OUTLINE

1.1 Unit configuration



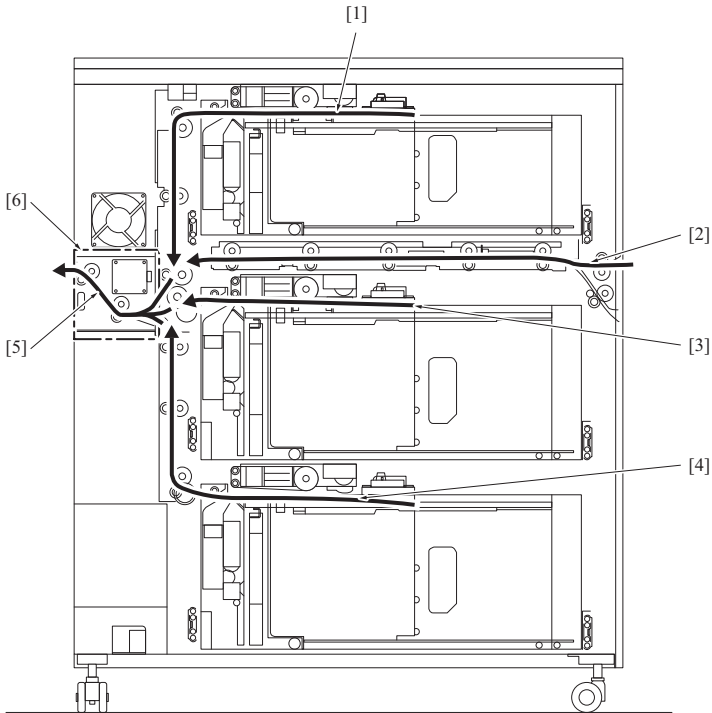
1.2 PAPER PATH

(1) PF



[1]	Paper path of the tray 1	[2]	PF coupling conveyance path
[3]	Paper path of the tray2	[4]	Paper path of the tray3
[5]	Paper path to the main body	-	

(2) PI-PFU

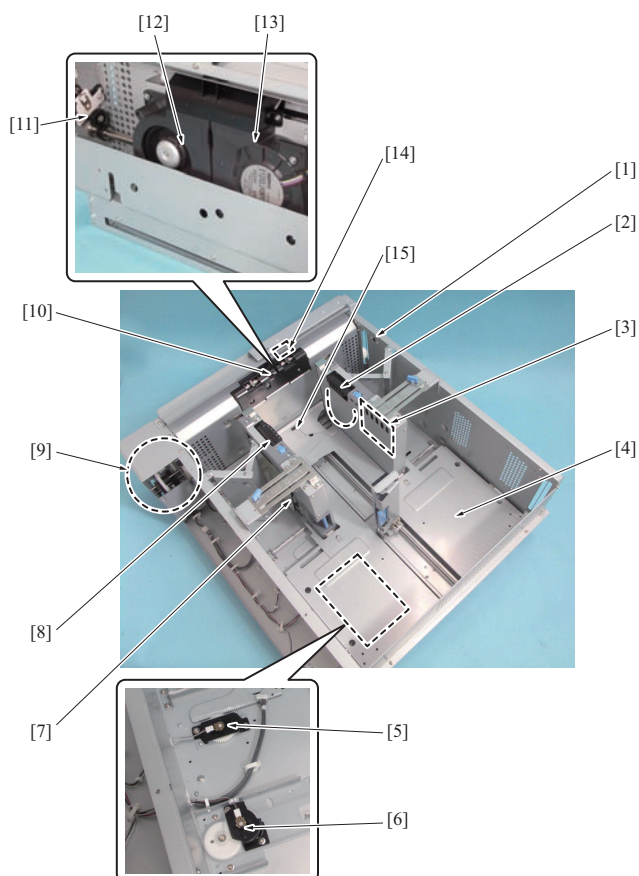


a0gdt1c003ca

[1]	Paper path of the tray 1	[2]	PI-PFU coupling conveyance path
[3]	Paper path of the tray2	[4]	Paper path of the tray3
[5]	Paper path to the finisher	[6]	FA-501 (Option)

2. PAPER FEED TRAY SECTION

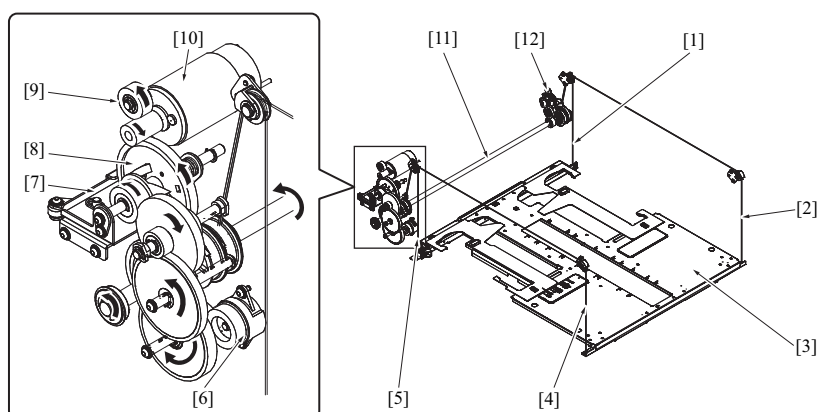
2.1 Configuration



[1] Temperature sensors /1 (TEMS/1), /2 (TEMS/2), /3 (TEMS/3)	[2] Paper feed assist fan /Rr1 (FM2), /Rr2 (FM6), /Rr3 (FM10)
[3] Shutter solenoid /Rr1 (SD5), /Rr2 (SD7), /Rr3 (SD9)	[4] Paper lift plate
[5] CD paper size VR/1 (VR2), /2 (VR5), /3 (VR8)	[6] FD paper size VR/1 (VR3), /2 (VR6), /3 (VR9)
[7] Shutter solenoid /Fr1 (SD4), /Fr2 (SD6), /Fr3 (SD8)	[8] Paper feed assist fan /Fr1 (FM1), /Fr2 (FM5), /Fr3 (FM9)
[9] Paper lift motor /1 (M7), /2 (M8), /3 (M9)	[10] Paper feed sensors /1 (PS5), /2 (PS9), /3 (PS13)
[11] Remaining paper VR /1 (VR1), /2 (VR4), /3 (VR7)	[12] Paper leading edge separation fan /Rr1 (FM4), /Rr2 (FM8), /Rr3 (FM12)
[13] Paper leading edge separation fan /Fr1 (FM3), /Fr2 (FM7), /Fr3 (FM11)	[14] Paper feed sensor /1 (PS2), /2 (PS6), /3 (PS10)
[15] Paper empty sensor /1(PS3), /2 (PS7), /3 (PS11)	[16] -

2.2 Drive

(1) Tray lift drive

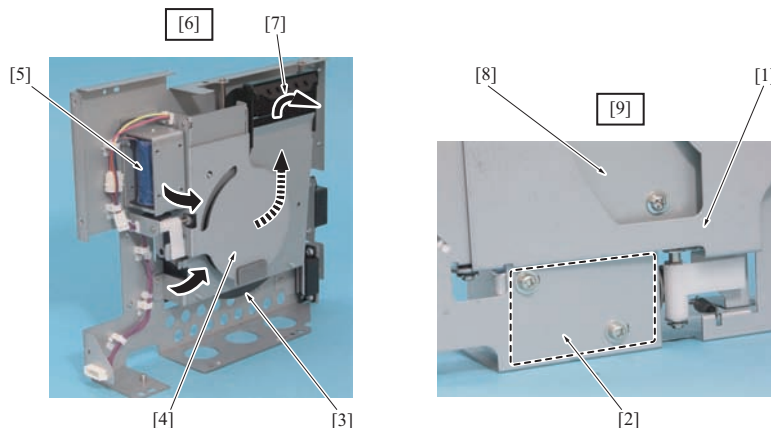


a0gdt2c001ca

[1] Lift wire /RrLt	[2] Lift wire /RrRt
---------------------	---------------------

[3]	Paper lift plate	[4]	Lift wire /FrRt
[5]	Lift wire /FrLt	[6]	Up-down damper (oil damper)
[7]	Regulating plate	[8]	Lift release coupling gear
[9]	Lock idler	[10]	Paper lift motor /1 (M7), /2 (M8), /3 (M9)
[11]	Wire winding shaft	[12]	Remaining paper VR /1 (VR1), /2 (VR4), /3 (VR7)

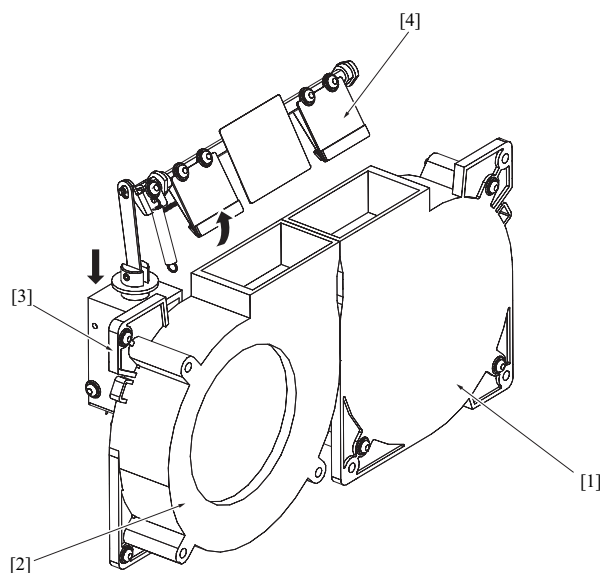
(2) Side guide shutter drive



a0gdt2c002ca

[1]	Side guide shutter /Rr	[2]	Shutter solenoid /Rr1 (SD5), /Rr2 (SD7), /Rr3 (SD9)
[3]	Paper feed assist fan /Fr1 (FM1), /Fr2 (FM5), /Fr3 (FM9)	[4]	Side guide shutter /Fr
[5]	Shutter solenoid /Fr1 (SD4), /Fr2 (SD6), /Fr3 (SD8)	[6]	Side guide /Fr
[7]	Flow of air	[8]	Paper feed assist fan /Rr1 (FM2), /Rr2 (FM6), /Rr3 (FM10)
[9]	Side guide /Rr	-	

(3) Paper leading edge shutter drive



a0gdt2c003ca

[1]	Paper leading edge separation fan /Fr1 (FM3), /Fr2 (FM7), /Fr3 (FM11)	[2]	Paper leading edge separation fan /Rr1 (FM4), /Rr2 (FM8), /Rr3 (FM12)
[3]	Shutter solenoids /1 (SD10), /2 (SD11), /3 (SD12)	[4]	Paper leading edge shutter

2.3 Operation

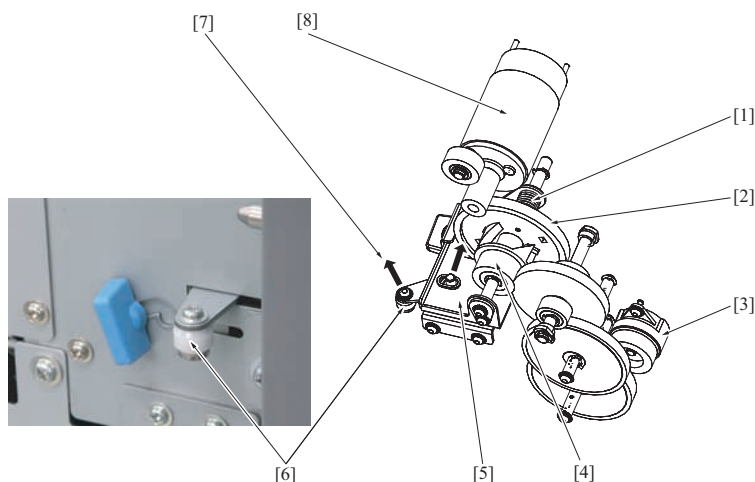
2.3.1 Up/down control

(1) Up operation

- The paper lift motors /1 (M7), /2 (M8) and /3 (M9) wind up the lift wires through the pulleys to lift up the paper lift plate.

(2) Down operation

- When the tray is pulled out, the release lever [6] returns to the direction of arrow [7] and the regulation plate [5] moves to the direction which for loosening the pressure of the spring [1].
- By this operation, the coupling gear /1 [2] which transmits the drive of the paper lift motors /1 (M7), /2 (M8), and /3 (M9) [8] is separated from the coupling gear /2 [4].
- With the up-down damper (oil damper) [3] which operates only in going down, the paper lift plate goes down slowly with its own weight.



a0gdt2c004ca

[1]	Spring	[2]	Coupling gear /1
[3]	Up-down damper (oil damper)	[4]	Coupling gear /2
[5]	Regulating plate	[6]	Release lever
[7]	Coupling gear release direction	-	

(3) Operation timing

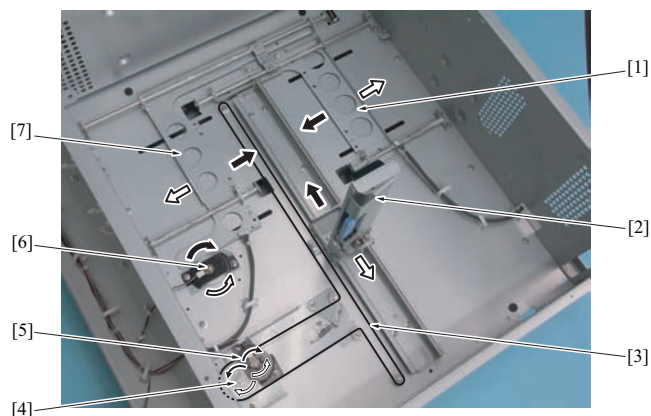
- Once the tray is set and the paper empty sensors /1 (PS3), /2 (PS7), and /3 (PS11) detect the paper, the paper lift motors /1 (M7), /2 (M8), and /3 (M9) turn ON and move up the paper lift plate.
- When the upper limit sensors /1 (PS5), /2 (PS9), and /3 (PS13) turn ON, M7, M8, and M9 stop.
- When PS5, PS9, and PS13 turn OFF from ON during printing operation, M7, M8, and M9 turn ON again. The paper lift plate goes up until PS5, PS9, and PS13 turn ON, and then M7, M8, and M9 turn OFF.

2.3.2 Size detection control

There are 2 types of the paper size detection: detection in the main scan direction and detection in the sub scan direction.

(1) Detection mechanism

- The CD paper size VR /1 (VR2), /2 (VR5), and /3 (VR8) [6] detect the size in the main scan direction.
- The paper side guide /Fr mounting plate [7] rotates the gears of VR2, VR5, and VR8 directly to change the resistance value and detects the wide 0.628mm (0.314mm at one side of the paper side guide) for each 1° rotation.
- The FD paper size VR /1 (VR3), /2 (VR6), and /3 (VR9) [5] detect the size in the sub scan direction.
- When the paper trailing edge guide [2] is moved, the wire [3] rotates the pulley [4], changes the resistance value of VR3, VR6, and VR9, and detects 1.129mm for each 1° rotation.
- For the paper sizes shown below, it is necessary to set the paper size in the user mode, selecting [Tray Setting] - [Size Setting] - [Detection Size Setting].
 - A5, 5 1/2 x 8 1/2
 - 8 x 13, 8 1/4 x 13, 8 1/2 x 13, 8 1/8 x 13 1/4, or 8 1/2 x 14
 - SRA3, 12 x 18



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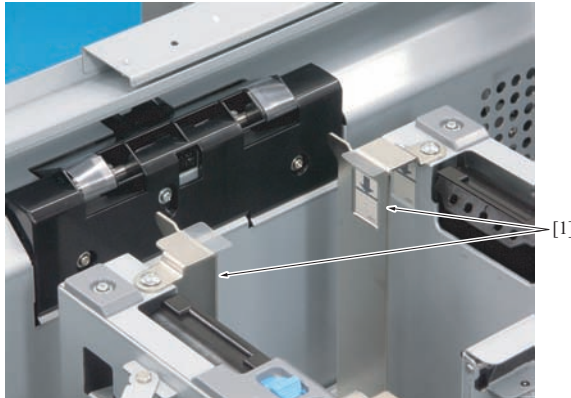
[1] Paper side guide /Rr mounting plate	[2] Paper rear guide
[3] Wire	[4] Pulley
[5] FD paper size VR/1 (VR3), /2 (VR6), /3 (VR9)	[6] CD paper size VR/1 (VR2), /2 (VR5), /3 (VR8)
[7] Paper side guide /Fr mounting plate	-

(2) Guide shift amount

- The following list shows the shift amount of the paper side guide and the paper trailing edge guide.

	Minimum position	Maximum position	Changeable amount
Gap between paper side guides	140mm *1	324mm	190mm
Paper rear guide	133mm	463mm	359.4mm

- *1 When the wide is shorter than 140mm, use the small size guides [1]. The gap between the small size guides is 95mm.



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[1] Small size guide	-
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(3) Operation timing

- It is informed to the main body after specified time when tray is set.

2.3.3 Air control

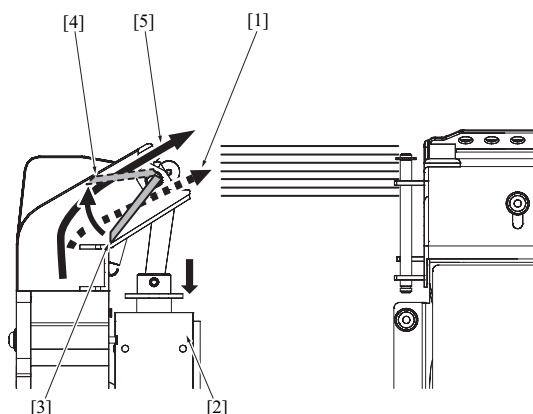
- Each tray has 4 fans; the paper assist fans /Fr and /Rr, and the paper leading edge separation fans /Fr and /Rr.

(1) Air mechanism in the main scan direction

- The paper side guides /Fr and /Rr have the paper assist fans /Fr and /Rr. It blows the air to the paper from both sides (back and forth) in the main scan direction to float the paper to be fed. It can control the rotation number of the paper feed assist fans /Fr and /Rr. It controls the number by the paper type/weight.
Tray1: Paper feed assist fan /Fr1 (FM1), /Rr1 (FM2)
Tray2: Paper feed assist fan /Fr2 (FM5), /Rr2 (FM6)
Tray3: Paper feed assist fan /Fr3 (FM9), /Rr3 (FM10)
- The intake of the paper assist fans /Fr and /Rr has the shutters /Fr and /Rr which are opened by each of the shutter solenoids /Fr and /Rr and control the air volume up or down.
When the shutter solenoid turns ON, the shutter closes to reduce the air volume.
Tray1: Shutter solenoid /Fr1 (SD4), /Rr1 (SD5)
Tray2: Shutter solenoid /Fr2 (SD6), /Rr2 (SD7)
Tray3: Shutter solenoid /Fr3 (SD8), /Rr3 (SD9)

(2) Air mechanism in the sub scan direction

- The paper leading edge separation fans /Fr and /Rr are at the paper leading edge side. It blows the air to the paper leading edge to float and separate the paper.
Tray1: Paper leading edge separation fan /Fr1 (FM3), /Rr1 (FM4)
Tray2: Paper leading edge separation fan /Fr2 (FM7), /Rr2 (FM8)
Tray3: Paper leading edge separation fan /Fr3 (FM11), /Rr3 (FM12)
- The paper leading edge shutter is at the duct exit, and the paper leading edge shutter solenoid /1 (SD10), /2 (SD11), and /3 (SD12) [2] control the angle of blowing air.
- When SD10, SD11, and SD12 are OFF [3], it blows the air to the upper side of paper [5] to separate the paper.
- When SD10, SD11, and SD12 are ON [4], it blows the air from the leading edge side [1] to float the paper.



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[1] Air when it is ON	[2] Paper leading edge shutter solenoid /1 (SD10), /2 (SD11), /3 (SD12)
[3] Paper leading edge shutter when it is OFF	[4] Paper leading edge shutter when it is ON
[5] Air when it is OFF	-

- When the paper is floating with SD10, SD11, SD12 ON, the paper side guide shutter opens and increases the air volume with the shutter solenoids /Fr1 (SD4), /Rr1 (SD5), /Fr2 (SD6), /Rr2 (SD7), /Fr3 (SD8), and /Rr3 (SD9) turning OFF.
- When SD10, SD11, and SD12 are OFF, SD4, SD5, SD6, SD7, SD8, and SD9 turn ON and assist the separation by closing the paper side guide shutter and decreasing the air volume.
- This operation brings the stable floating, separation, and suction.

(3) Air volume control by paper

- The air volume control of the paper assist fans /Fr and /Rr and the paper leading edge separation fans /Fr and /Rr is automatically set by the paper type, the size and the weight in the following table. This setting can be set manually with the operation panel. The number 1 to 9 on the operation panel applies to 20% to 100%.

(4) Air-blow setting table by paper type

(a) Paper length: less than 160mm

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	6	6	4	7	9	9	9	9	9	9
	Side	0	0	4	4	4	7	9	9	9	9
PrePrinted	Edge	6	6	4	4	7	9	9	9	9	9
	Side	0	0	4	4	4	7	7	9	9	9
Fine/Plain	Edge	6	6	4	4	7	9	9	9	9	9
	Side	0	0	4	4	4	7	7	9	9	9
Book/News /Embossed	Edge	6	6	4	4	7	9	9	Unable to select		
	Side	0	0	4	4	4	7	7			

(b) Paper length: 160mm or longer, B5 (182mm) or shorter

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	1	2	4	7	9	9	9	9	9	9
	Side	2	2	4	4	4	7	9	9	9	9
PrePrinted	Edge	1	2	4	4	7	9	9	9	9	9
	Side	2	2	4	4	4	7	7	9	9	9
Fine/Plain	Edge	1	2	4	4	7	9	9	9	9	9
	Side	2	2	4	4	4	7	7	9	9	9
Book/News /Embossed	Edge	1	2	4	4	7	9	9	Unable to select		
	Side	2	2	4	4	4	7	7			

(c) Paper length: B5 (182mm) or longer, A4S (297mm) or shorter

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	1	2	4	7	9	9	9	9	9	9
	Side	2	2	4	4	4	7	9	9	9	9
PrePrinted	Edge	1	1	2	4	7	9	9	9	9	9
	Side	2	2	2	4	4	7	7	9	9	9
Fine/ Plain	Edge	1	1	2	7	7	9	9	9	9	9
	Side	2	2	2	2	4	7	7	9	9	9
Book/ News / Embossed	Edge	1	1	2	7	7	9	9	Unable to select		
	Side	2	2	2	2	4	7	7			

(d) Paper length: longer than A4S (297mm)

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	1	2	4	7	9	9	9	9	9	9
	Side	2	2	4	4	4	7	9	9	9	9
PrePrinted	Edge	1	1	2	4	7	9	9	9	9	9
	Side	2	2	2	4	4	7	7	9	9	9
Fine/ Plain	Edge	1	1	2	4	6	9	9	9	9	9
	Side	2	2	2	2	4	7	7	9	9	9
Book/ News / Embossed	Edge	1	1	2	4	6	9	9	Unable to select		
	Side	2	2	2	2	4	7	7			

(e) Paper wide 138mm or less (use small guide)

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	1	2	4	4	7	9	9	9	9	9
	Side	2	2	4	4	4	7	9	9	9	9
PrePrinted	Edge	1	1	2	4	7	9	9	9	9	9
	Side	2	2	2	2	2	7	7	9	9	9
Fine/ Plain	Edge	1	1	2	4	7	9	9	9	9	9
	Side	2	2	2	2	2	7	7	9	9	9
Book/ News / Embossed	Edge	1	1	2	4	7	9	9	Unable to select		
	Side	2	2	2	2	2	7	7			

(f) Paper wide 138mm or less (use small guide) and paper length less than 160mm

Type of paper	Air-blow setting	Paper weight (g/m ²)									
		40 to 49	50 to 61	62 to 74	75 to 91	92 to 135	136 to 162	163 to 216	217 to 244	245 to 300	301 to 350
Coat	Edge	6	6	6	4	7	9	9	9	9	9
	Side	0	0	0	4	4	7	9	9	9	9
PrePrinted	Edge	6	6	6	4	7	9	9	9	9	9
	Side	0	0	0	2	2	7	7	9	9	9
Fine/ Plain	Edge	6	6	6	4	7	9	9	9	9	9
	Side	0	0	0	2	2	7	7	9	9	9
Book/ News / Embossed	Edge	6	6	6	4	7	9	9	Unable to select		
	Side	0	0	0	2	2	7	7			

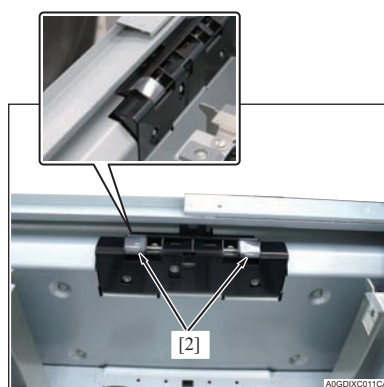
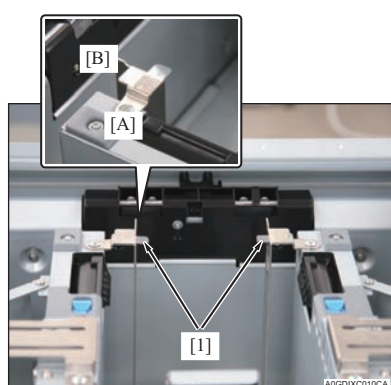
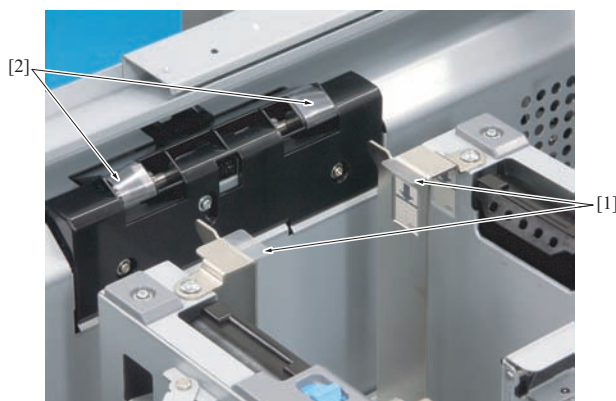
(g) For Envelope (1250/1250P/1052+EF-102)

Length of Envelope	Air-blow setting	Width of Envelope		
		138mm or less	138mm to 200mm	201mm or more
Less than 160mm	Edge	0	1	9
	Side	0	7	4
160mm to 182mm	Edge	0	1	9
	Side	0	7	4
182mm to 297mm	Edge	0	1	9
	Side	0	7	4
297mm or more	Edge	0	1	9
	Side	0	7	4
Less than 160mm	Edge	4	0	0
	Side	2	0	0
160mm or more	Edge	4	0	0
	Side	2	0	0

- When using the paper in the small size (paper width 138mm or shorter) or in the short size (paper length 160mm or shorter), apply 2 kinds of regulation sheets to enhance the feedability.
- For the short size, apply the regulation sheet /2 [2] to adjust the air volume. For the small size, apply the regulation sheet /1 [1] to regulate the paper floating.

Note

- For the small size, be sure to use not only the regulation sheet /1 but also the duct lock.
- Make sure to put the regulation sheet /1 in using the small-size paper.
- Make sure to put the regulation sheet /2 only when a trouble occurs in using the short-size paper.



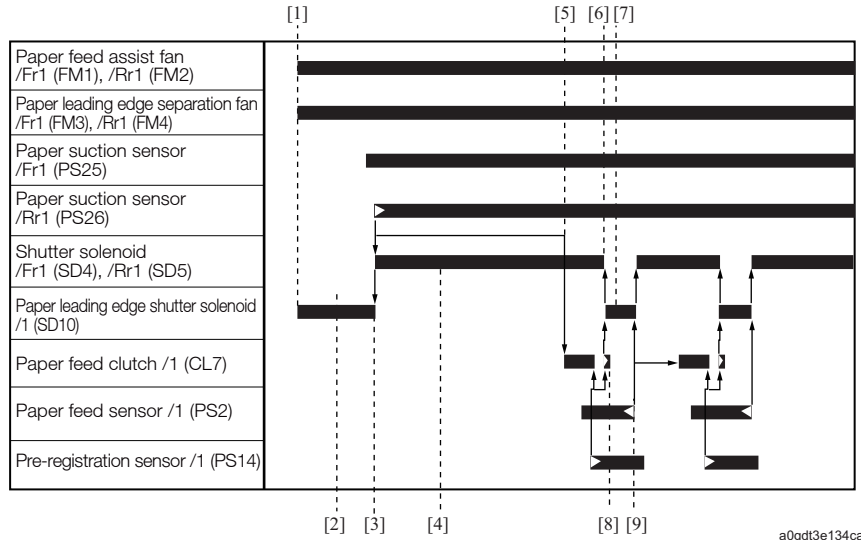
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- Application basis of the regulation sheets /1 [1] and /2 [2]
 - Be sure to apply the position A as the basis.
 - Be sure that the sticking area of the sheet does not come out from the position B.

(5) Operation timing

- It explains the operation timing by taking the tray1 as an example.
- When receiving a print job [1], the paper leading edge separation fans /Fr1 (FM3), /Rr1 (FM4), the paper leading edge shutter solenoid /1 (SD10), and the paper feed assist fans /Fr1 (FM1), /Rr (FM2) turn ON and float the paper [2].

- When the paper suction sensors /Fr1 (PS25), /Rr1 (PS26) on the paper feed suction section turn ON with paper floating, SD10 turns OFF and the shutter solenoids /Fr1 (SD4) and /Rr1 (SD5) turn ON and decreases the air volume of the paper side guide [3] to separate the paper [4].
- For the 1st sheet, the conveyance by the paper feed belt starts [5] with the paper feed clutch /1 (CL7) turning ON after the specified time when the fan air volume gets stabilized.
- To assist the conveyance by the pre-registration roller nipping the paper, after the specified time when CL7 turns ON, SD10 turns ON again and SD4 and SD5 turn OFF [6] to float the 2nd sheet [7]. At this time, CL7 turns OFF [8] right after the operation to prevent the double feed.
- When the paper feed sensor /1 (PS2) detects the trailing edge of the 1st sheet, SD10 turns OFF and SD4 and SD5 turn ON to separate the 2nd sheet [9].
- FM1 and FM2 turn OFF when the image writing completes. FM3 and FM4 turn OFF when the printing completes.



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[1] Start button ON	[2] Floating paper
[3] Switch to paper separation air	[4] Separating paper
[5] Start of paper feed belt conveyance	[6] Switch to paper float air
[7] Floating 2nd paper	[8] Stop of double feed prevention
[9] Separation of 2nd paper	-

2.3.4 Paper empty detection control

- The paper empty sensors /1 (PS3), /2 (PS7) and /3 (PS11) detect the paper empty in the tray.

2.3.5 Remaining paper detection control

The remaining paper VR/1 (VR1), /2 (VR4) and /3 (VR7) that are interlocked through the pulley and the gear with the paper lift plate detects the remaining paper.

The remaining paper quantity is detected in the following 6 stages according to the resistance value, and the main body is informed of the detection.

(1) Tray1

- No Paper (↓ Flashing) : 0
- 1st step (displayed in yellow): 14.8% or less
- 1st step (displayed in white): 25% or less
- 2nd step (displayed in white): 50% or less
- 3rd step (displayed in white): 75% or less
- 4th step (displayed in white): 76% or more

(2) Tray2, 3

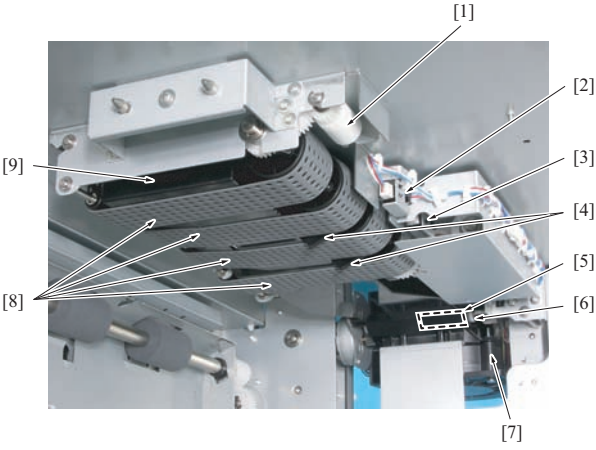
- No Paper (↓ Flashing) : 0
- 1st step (displayed in yellow): 10.8% or less
- 1st step (displayed in white): 25% or less
- 2nd step (displayed in white): 50% or less
- 3rd step (displayed in white): 75% or less
- 4th step (displayed in white): 76% or more

2.3.6 Tray lock control

- Each tray is locked by the tray lock lever.
- When it detects that either of the handle release sensors /1 (PS4), /2 (PS8) and /3 (PS12) of the trays 1 to 3 turns OFF, either of the tray lock solenoids /1 (SD1), /2 (SD2) and /3 (SD3) of the corresponding tray turns ON to bring up the tray lock lever and release the lock, thus allowing the tray to be pulled out.
- When it finds that any other sensor turns OFF while either of the sensors PS4, PS8 and PS12 is OFF, any of the solenoids SD1, SD2 and SD3 other than the one that has already turned ON does not turn ON. It prevents 2 or more trays from being pulled out at the same time.
- When a jam that affects the tray and the exit conveyance section occurs, the tray remains being locked until the jammed paper is removed. Doing this prevents the paper from being torn.

3. PAPER FEED SUCTION SECTION

3.1 Configuration

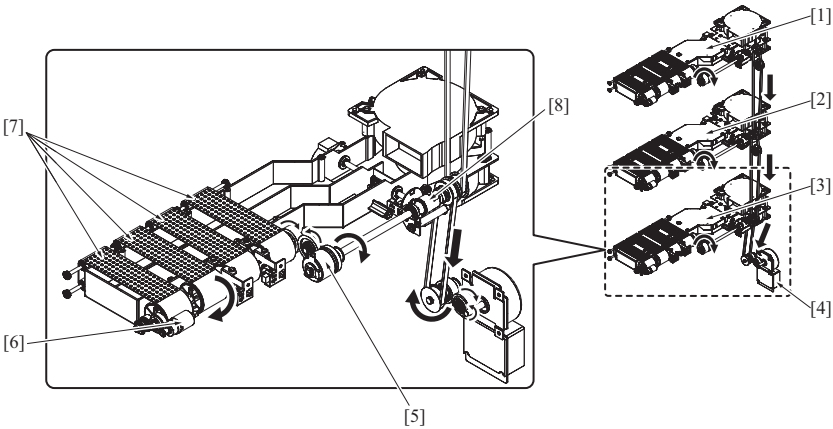


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[1]	Torque limiter	[2]	Paper suction sensor /Fr1 (PS25), /Fr2 (PS27), /Fr3 (PS29)
[3]	Paper suction sensor /Rr1 (PS26), /Rr2 (PS28), /Rr3 (PS30)	[4]	Actuator (paper suction detection)
[5]	Duct shutter	[6]	Paper suction fan /1 (FM13), /3 (FM15), /5 (FM17)
[7]	Paper suction fan /2 (FM14), /4 (FM16), /6 (FM18)	[8]	Paper feed belt
[9]	Suction duct		-

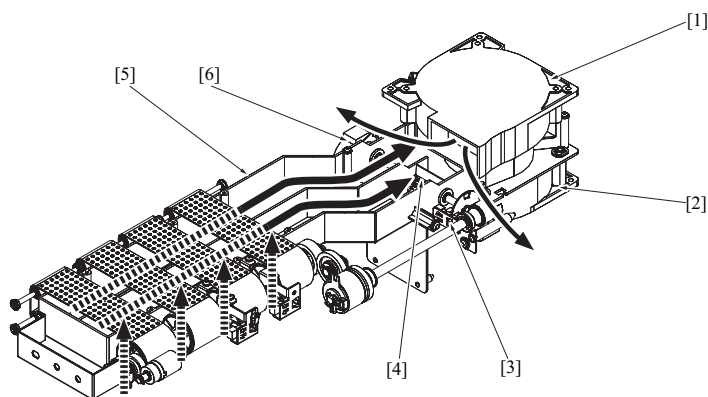
3.2 Drive

(1) Paper feed drive



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[1]	Paper feed suction unit /1	[2]	Paper feed suction unit /2
[3]	Paper feed suction unit /3	[4]	Paper feed belt motor (M2)
[5]	Paper feed clutch /1 (CL7), /2 (CL8), /3 (CL9)	[6]	Torque limiter
[7]	Paper feed belt	[8]	Coupling

(2) Paper feed suction/shutter drive

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[1] Paper suction fan /1 (FM13), /3 (FM15), /5 (FM17)	[2] Paper suction fan /2 (FM14), /4 (FM16), /6 (FM18)
[3] Shutter home sensor /1 (PS37), /2 (PS38), /3 (PS39)	[4] Suction shutter
[5] Suction duct	[6] Shutter motor /1 (M10), /2 (M11), /3 (M12)

3.3 Operation**3.3.1 Suction control****(1) Shutter operation**

- The inside of the paper feed suction duct is separated into 2 and the duct at the trailing edge side has the suction shutter.
- Shutter motors /1 (M10), /2 (M11), and /3 (M12) drive the suction shutter to control the absorption area.
- By closing the suction shutter to stop suctioning at the trailing edge side, it enables the suction applied to the paper size and prevents the double feed in the small size.
- When the shutter home sensors /1 (PS37), /2 (PS38), and /3 (PS39) turn ON, the suction shutter opens fully in a horizontal position to conduct the suctioning.

(2) Shutter control

- 2 kinds of controls are conducted depending on the paper size.

		Paper length in the sub scan direction		
		150mm or less	More than 150mm but less than 210mm	210mm or more
Paper length in the main scan direction	138mm or less	Control B	Control A	Control B
	138mm or more	Control A	Control A	Control B

(a) Control A

- When the start button is turned ON, the shutter motors /1 (M10), /2 (M11), and /3 (M12) turn ON from the position where the shutter home sensors /1 (PS37), /2 (PS38), and /3 (PS39) are ON (open), and turn OFF after specified time. They stop at the suction shutter close position and the paper is fed.

(b) Control B

- When the start button turns ON, the paper feed is conducted while PS37, PS38, and PS39 are at ON position (open).

(3) Suction fan control

- The paper suction fans /1 (FM13), /3 (FM15), /5 (FM17), /2 (FM14), /4 (FM16), /6 (FM18) turn ON when receiving a print job, and turn OFF when the printing completes.
- It does not control the rotation number of the suction fan.

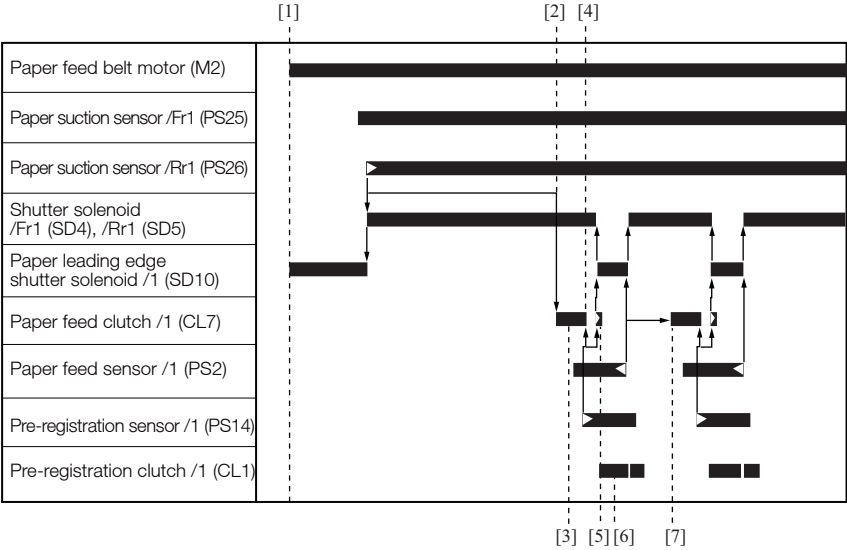
3.3.2 Paper feed belt control**(1) Operation**

- The paper feed belt motor (M2) drives the paper feed belt via the paper feed clutches /1 (CL7), /2 (CL8), and /3 (CL9).

(2) Control

- It explains the operation timing by taking the tray1 as an example.
- When the start button turns ON, M2 turns ON [1].
- After the specified time [2] since the paper suction sensors /Fr1 (PS25), /Rr1 (PS26) turn ON, CL7 turns ON with suctioning paper and drives the paper feed belt to feed the paper [3].
- After the specified time since the pre-registration sensor /1 (PS14) detects the leading edge of paper, the pre-registration roller forms the loop to adjust the skew and CL7 turns OFF [4].
- After the specified time since it turns OFF, it turns ON again to assist the nipping of the pre-registration roller [5], and then it turns OFF.

- With this operation, the 2nd sheet of paper which already sticks to the paper feed belt is not conveyed by CL7 turning OFF. Only the 1st sheet of paper is conveyed [6] by the pre-registration roller /1 which already receives the drive from the paper feed motor (M1) by the pre-registration clutch /1 (CL1) turning ON.
- After the specified time since PS2 detects the trailing edge of the 1st sheet, CL7 turns ON again [7] to feed the 2nd sheet.
- When one of PS25 or PS26 is ON or when both of PS25 and PS26 are OFF, it stands by for specified time and CL7 does not turn ON. This is the standby to complete the suctioning.

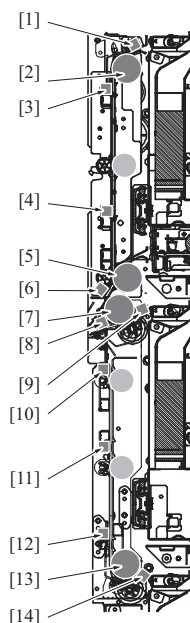
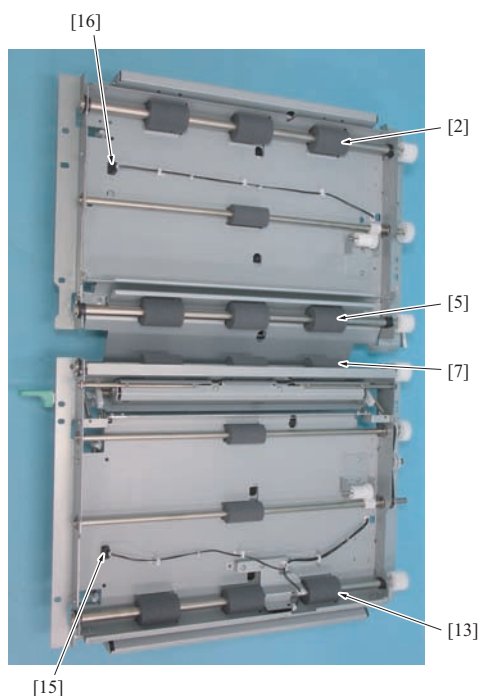


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[1]	Start button ON	[2]	Start of paper feed belt conveyance
[3]	Paper feed belt conveyance	[4]	Pause of skew adjustment
[5]	Assist to the registration roller	[6]	Registration roller conveyance
[7]	Start of 2nd sheet of paper conveyance	-	

4. VERTICAL CONVEYANCE SECTION

4.1 Configuration

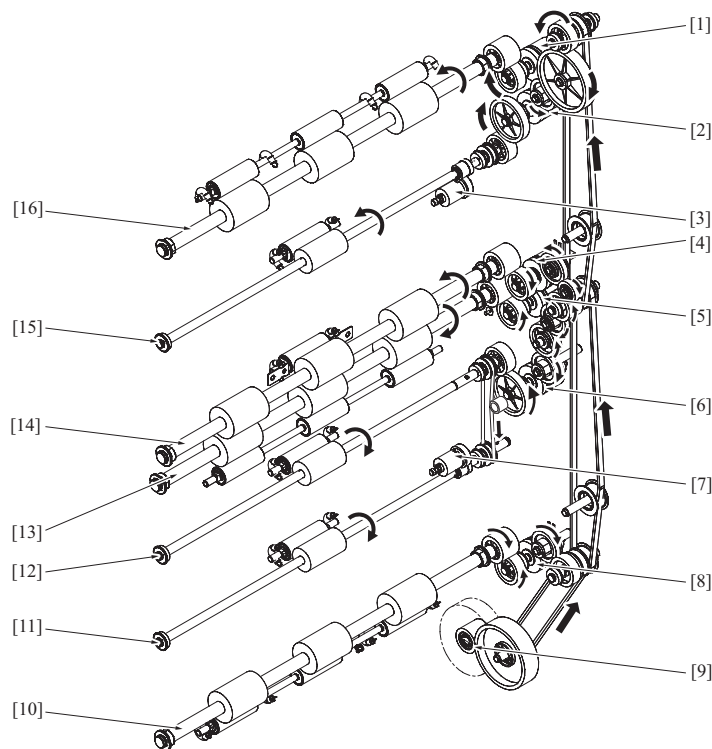


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[1]	Pre-registration sensor /1 (PS14)	[2]	Pre-registration roller (Tray1)
[3]	Vertical conveyance sensor /1 (PS15)	[4]	Intermediate sensor /Up (PS16)
[5]	Horizontal registration roller	[6]	Loop sensor /1 (PS17)
[7]	Pre-registration roller (Tray2)	[8]	Loop sensor /2 (PS19)
[9]	Pre-registration sensor /2 (PS18)	[10]	Loop sensor /3 (PS23)
[11]	Intermediate sensor /Lw (PS22)	[12]	Vertical conveyance sensor /3 (PS21)
[13]	Pre-registration roller (Tray3)	[14]	Pre-registration sensor /3 (PS20)
[15]	Vertical conveyance door switch /Lw (SW2)	[16]	Vertical conveyance door switch /Up (SW1)

4.2 Drive

(1) Operation



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[1] Pre-registration clutch /1 (CL1)	[2] Intermediate clutch /1 (CL2)
[3] Torque limiter /Up	[4] Horizontal conveyance exit clutch (CL6)
[5] Pre-registration clutch /2 (CL3)	[6] Intermediate clutch /2 (CL4)
[7] Torque limiter /Lw	[8] Pre-registration clutch /3 (CL15)
[9] Paper feed motor (M1)	[10] Pre-registration roller /3 (Tray3)
[11] Intermediate conveyance roller /3	[12] Intermediate conveyance roller /2
[13] Pre-registration roller /2 (Tray2)	[14] Horizontal registration roller
[15] Intermediate conveyance roller /1	[16] Pre-registration roller /1 (Tray1)

4.3 Operation

4.3.1 Pre-registration control

- When the paper feed starts, paper is sent out to the pre-registration roller by the paper feed belt.
- When the paper strikes the pre-registration roller that is stopped, a loop is formed to adjust paper skew.
- When the pre-registration clutches /1 (CL1), /2 (CL3) and /3 (CL5) turn ON, the driving force of the paper feed motor (M1) is transmitted to the pre-registration rollers 1/, /2 and /3 to convey paper in the direction of the main body.

4.3.2 Conveyance control

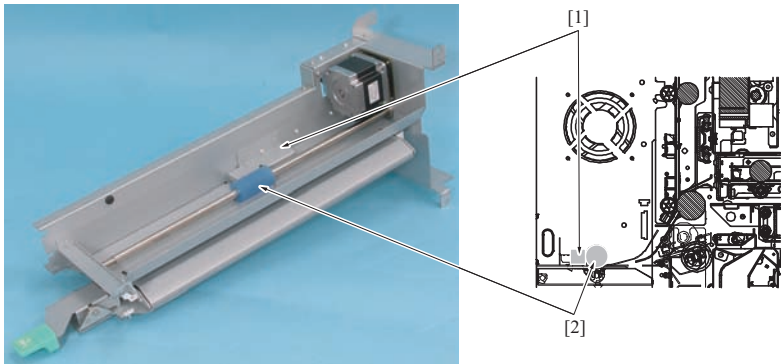
- For the vertical conveyance, the driving force of the paper feed motor (M1) is transmitted by turning ON and OFF the intermediate clutches /1 (CL2) and /2 (CL4), and the pre-registration clutches /1 (CL1), /2 (CL3) and /3 (CL5).
- For the conveyance from the horizontal conveyance section, the driving force of the paper feed motor (M1) is transmitted by turning ON and OFF the horizontal conveyance exit clutch (CL6).
- Paper that is fed from tray1 is conveyed to the intermediate conveyance rollers /1 driven through the pre-registration roller /1 and CL2 which are driven by the CL1, and then conveyed to the exit conveyance roller. When the vertical conveyance roller /1 (PS15) detects the trailing edge of paper, CL2 turns off.
- Paper that is fed from tray2 is conveyed to the exit conveyance roller by the pre-registration roller /2 that is driven via CL3.
- Paper that is fed from tray3 is conveyed to the intermediate conveyance rollers /3 and /2 driven through the pre-registration roller /3 and CL4 which are driven by CL5, and then conveyed to the exit conveyance roller.
- When the vertical conveyance roller /2 (PS21) detects the trailing edge of paper, CL4 turns off.
- For the paper from the horizontal conveyance, CL6 turns ON when the horizontal conveyance sensor /5 (PS35) turns ON, and CL6 turns OFF when PS17 detects the trailing edge of the paper.
- A torque limiter is provided on the gear of each intermediate conveyance rollers /1 and /3.
- This prevents paper that is temporarily stopping on the vertical paper feed path from falling off the path and causing a paper jam.
- Since the line speed is different between PF and PI-PFU, the rotation number of the paper feed motor (M1) varies.

PF: 1943.3rpm

PI-PFU: 1559.4rpm

5. EXIT CONVEYANCE SECTION

5.1 Configuration

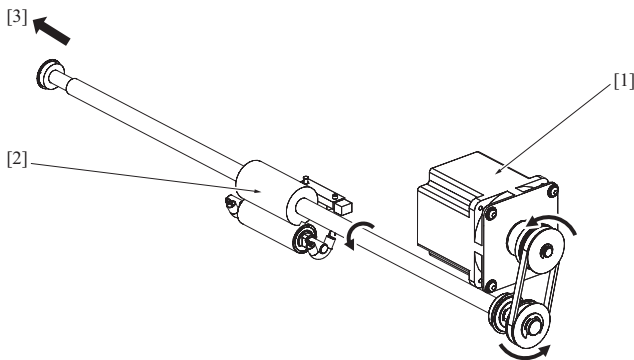


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[1] PF exit conveyance sensor	[2] PF paper exit roller
-------------------------------	--------------------------

5.2 Drive

(1) PF exit conveyance drive



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[1] PF exit conveyance motor (M3)	[2] PF paper exit roller
[3] Front side	-

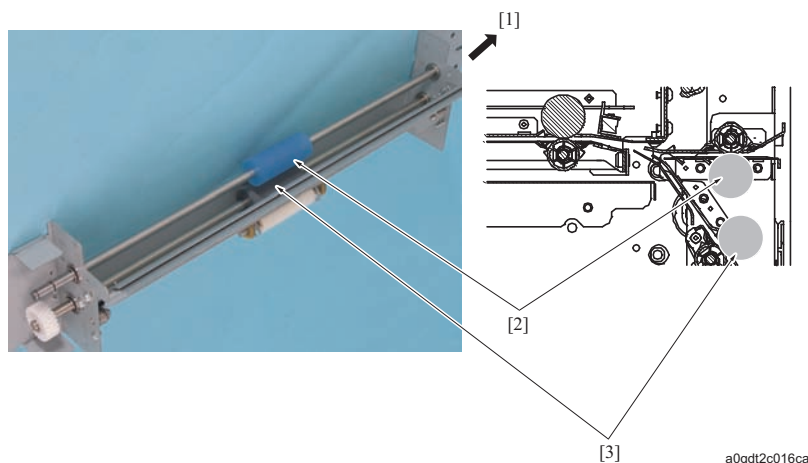
5.3 Operation

5.3.1 Exit conveyance control

- The PF paper exit roller is driven by the PF exit conveyance motor (M3). It starts to rotate at a fixed speed when the loop sensors /1 (PS17), 2/ (PS19) and /3 (PS23) detect paper, and turns OFF when the PF exit sensor (PS24) detects the trailing edge of paper.

6. ENTRANCE CONVEYANCE SECTION

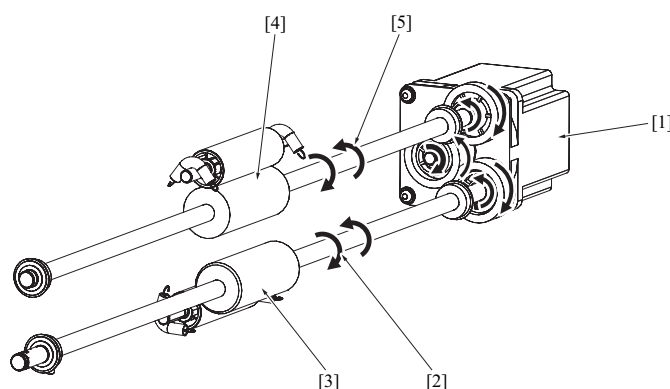
6.1 Configuration



[1]	Front side	[2]	Entrance conveyance roller /Up
[3]	Entrance conveyance roller /Lw	-	

6.2 Drive

(1) Entrance conveyance drive



[1]	Coupling conveyance motor /1 (M4)	[2]	Rotation direction when PF
[3]	Entrance conveyance roller /Lw	[4]	Entrance conveyance roller /Up
[5]	Rotation direction when PI-PFU	-	

6.3 Operation

6.3.1 Entrance conveyance control

- The rotation direction of the coupling conveyance motor /1 (M4) is different between multiple PF and PI-PFU since the conveyance paths of them are different.

(1) Control in the case of multiple PF

- The coupling conveyance motor /1 (M4) conveys at a constant speed of 1250mm/s.

(2) Control in the case of PI-PFU

(a) Main body straight paper exit

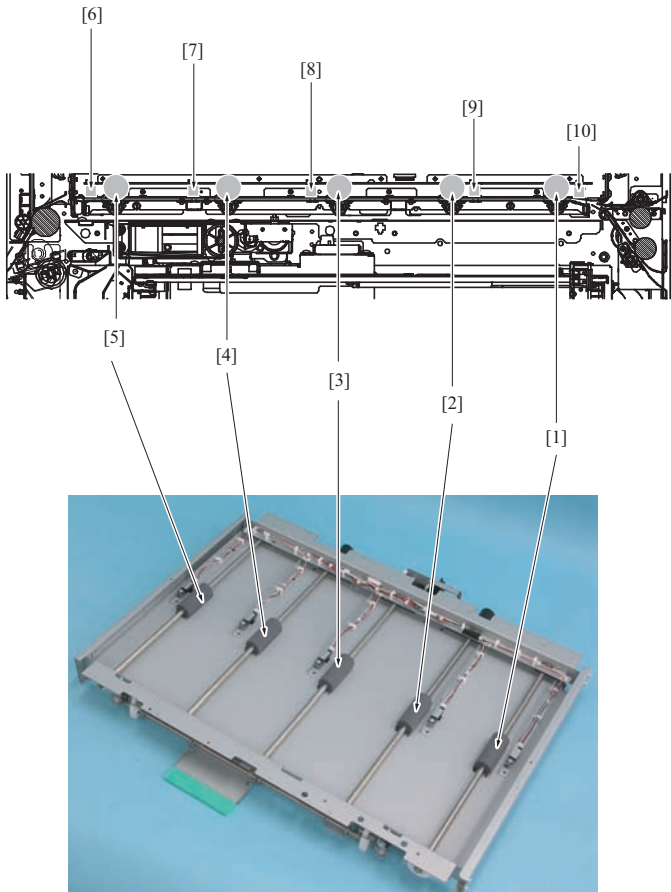
- The coupling conveyance motor /1 (M4) speeds up to , 1000mm/s after specified time (the specified time is depending on main body paper exit 570mm/s, 490mm/s, or 330mm/s) since the paper exit sensor (PS3) of the main body detects the leading edge and turns ON.

(b) Main body reverse paper exit

- The coupling conveyance motor /1 (M4) conveys at a constant speed of 1250mm/s.

7. HORIZONTAL CONVEYANCE SECTION

7.1 Configuration

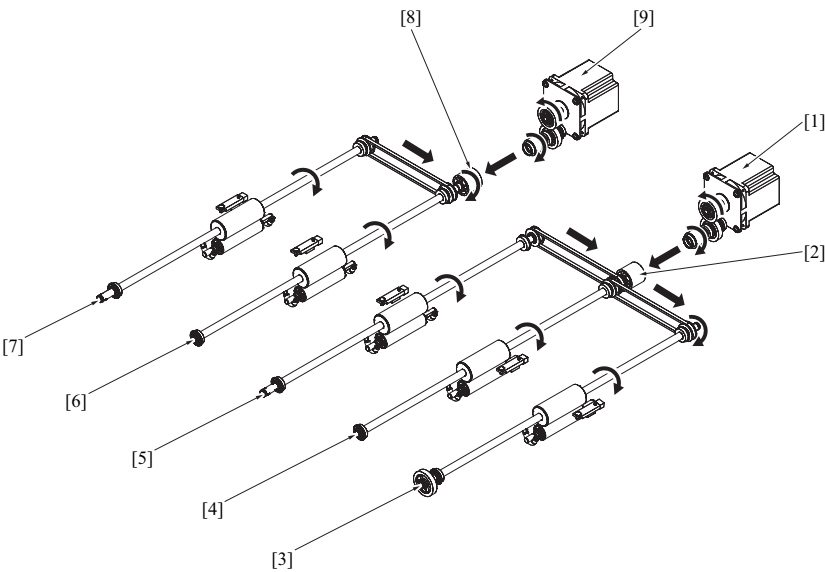


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[1]	Horizontal conveyance roller /1	[2]	Horizontal conveyance roller /2
[3]	Horizontal conveyance roller /3	[4]	Horizontal conveyance roller /4
[5]	Horizontal conveyance roller /5	[6]	Horizontal conveyance roller /5 (PS35)
[7]	Horizontal conveyance roller /4 (PS34)	[8]	Horizontal conveyance roller /3 (PS33)
[9]	Horizontal conveyance roller /2 (PS32)	[10]	Horizontal conveyance roller /1 (PS31)

7.2 Drive

(1) Horizontal conveyance drive



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[1] Coupling conveyance motor /2 (M5)	[2] Coupling
[3] Horizontal conveyance roller /1	[4] Horizontal conveyance roller /2
[5] Horizontal conveyance roller /3	[6] Horizontal conveyance roller /4
[7] Horizontal conveyance roller /5	[8] Coupling
[9] Coupling conveyance motor /3 (M6)	-

7.3 Operation

7.3.1 Horizontal conveyance control

- Since the horizontal conveyance section is unified with the tray1, the tray1 cannot be pulled out during the horizontal conveyance.

(1) Control in the case of multiple PF

- The coupling conveyance motors /2 (M5) and /3 (M6) convey at a constant speed of 1250mm/s.

(2) Control in the case of PI-PFU

(a) Main body straight paper exit

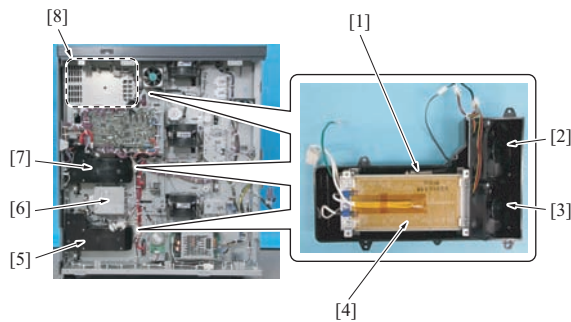
- When the paper length in the sub scan direction is 217mm or longer in main body straight page exit, the coupling conveyance motor /2 (M5) speeds up to, 1000mm/s after specified time (the specified time is depending on main body paper exit 570mm/s, 490mm/s, or 330mm/s) since the paper exit sensor (PS3) detects the leading edge and turns ON.
- The coupling conveyance motor /3 (M6) conveys at a constant speed of 1000mm/s.

(b) Main body reverse paper exit

- The coupling conveyance motors /2 (M5) and /3 (M6) starts at 1000mm/s and speeds up to 1250mm/s to accommodate to the speed of main body paper exit when the paper exit sensor (PS3) of the main body turns ON and detects the leading edge of the 1st sheet.
- It slows down to 1000mm/s when the horizontal conveyance sensor /5 (PS35) turns ON and detects the leading edge of the paper.
- When the paper trailing edge of the 1st sheet turns OFF PS35, M6 increases the speed to 1250mm/s again.
- When the paper leading edge of the 2nd sheet turns ON the horizontal conveyance sensor /1 (PS31), M5 increases the speed to 1250mm/s again.

8. HT-505 (OPTIONAL)

8.1 Configuration



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[1] Temperature sensor /5 (TEMS/5), /6 (TEMS/6), /7 (TEMS/7)	[2] Dehumidifier fans /Rt1 (FM22), /Rt2 (FM24), /Rt3 (FM26)
[3] Dehumidifier fan /Lt1 (FM23), /Lt2 (FM25), /Lt3 (FM27)	[4] Dehumidification heaters /1 (HTR1), /2 (HTR2), /3 (HTR3)
[5] Dehumidifier fan heater unit /3	[6] AC drive board /2 (ACDB/2)
[7] Dehumidifier fan heater unit /2	[8] Dehumidifier fan heater unit /1

8.2 Operation

8.2.1 Dehumidifier fan heater control

- 2 units of HT can be installed to PF at maximum. 4 units of HT can be installed to the coupling of 2 PF at maximum (up to 2 units for each PF).
- 6 units can be installed in total if HT is installed to PI-PFU, but ON setting (automatic/forced ON) is available to 4 units at maximum.
- The following order is the priority of ON setting, when 6 units of HT are installed.
 - PFU1 > PFU2 > PI-PFU
 - Tray1 > Tray2 > Tray3
- In this case, [Dehumidify Mode Setting] of PFU1 and PFU2 turns to [Auto] and [Dehumidify Mode] of PI-PFU turns to [Forced Off].
- At this time, [Auto] and [Forced On] of PI-PFU is unselectable.
- However, when [Dehumidify Mode] is set to [Forced Off] on one of the trays of PFU1 or PFU2, [Dehumidify Mode] can be changed to [Auto] or [Forced On] on the tray of PI-PFU.

(1) Dehumidifier fan heater preliminary dry control

- The dehumidification heaters /1 (HTR1), /2 (HTR2), and /3 (HTR3) and the dehumidifier fans /Rt1 (FM22), /Lt1 (FM23), /Rt2 (FM24), /Lt2 (FM25), /Rt3 (FM26), and /Lt3 (FM27) control the dehumidifying with the hot air circulation and prevent the jam occurred in paper feed section.
- When the temperature-humidity sensor (TEM/HUMS) of PF detects the outer humidity 56% or more, HTR1, HTR2, HTR3, and FM22, FM23, FM24, FM25, FM26, FM27 turn ON.
- It can control "Paper Feed Wait during Pre-Drying" from [UTILITY] - [Function Setting] - [PFU Preliminary Dry Setting].

The following table shows the operations.

Setting	Paper feed operation
None	It does not conduct the print wait operation for the preliminary dry. It starts the paper feed operation if it is in the print wait condition.
Provided	When the sub power switch (SW2) turns ON and when the tray is set, it conducts the paper feed wait operation for the preliminary dry. It takes about 6 minutes to 10 minutes for the paper feed wait.

(2) Start condition of the dehumidification mode control

- The dehumidification control can be set to [Auto], [Forced On], or [Forced Off] from [MACHINE] - [Tray Setting] - [Dehumidify Mode Setting].
- The following table shows the operations.

Dehumidify Mode Setting	Paper Feed Wait during Pre-Drying	Paper feed operation
Automatic	None	It conducts the dehumidification heater/ dehumidification fan control by the humidity which the temperature-humidity sensor (TEM/HUMS) detects. However, it does not conduct the paper feed wait during pre-drying.
	Provided	It conducts the dehumidification heater/ dehumidification fan control by the humidity which TEM/HUMS detects. When the sub power switch (SW2) turns ON or when the tray is set, it conducts the paper feed wait during pre-drying depending on the detected humidity.

Forced On	None	It conducts the dehumidification heater/ dehumidification fan control regardless of the detected humidity by TEM/HUMS. It does not conduct the paper feed wait during pre-drying.
	Provided	It conducts the dehumidification heater/ dehumidification fan control regardless of the detected humidity by TEM/HUMS. When SW2 turns ON or when the tray is set, it conducts the paper feed wait during pre-drying depending on the detected humidity.
Forced Off	-	It does not conduct the dehumidification heater/ dehumidification fan control nor the paper feed wait during pre-drying.

(3) Operation contents

- The print operation of the corresponding tray differs depending on the setting of "Paper Feed Wait during Pre-Drying" during dehumidification control.

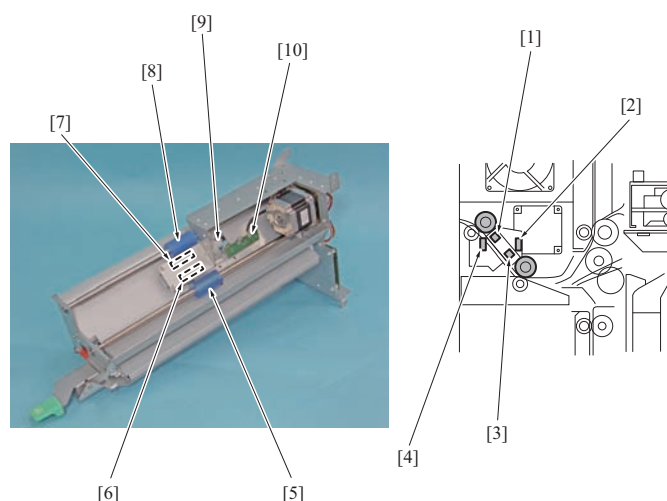
Outer humidity	Paper feed wait control time
55% or less	0 minute
56% to 60%	6 minutes
61 to 65%	
66 to 70%	8 minutes
71 to 75%	
76% or more	10 minutes

(4) Stop condition of the dehumidification mode control

- When the dehumidify mode setting is changed to [Forced Off] during dehumidification control.

9. FA-501 (OPTIONAL)

9.1 Configuration

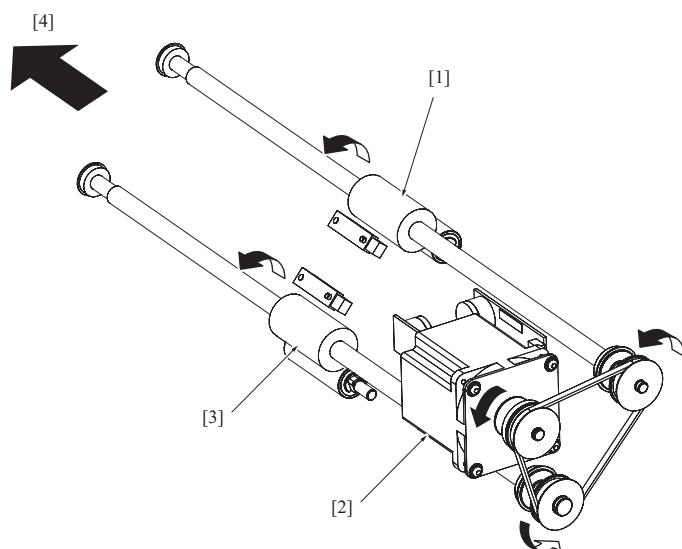


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[1]	PF exit conveyance sensor /2 (PS36)	[2]	Multi feed detection board /R (MFDBR)
[3]	PF exit conveyance sensor /1 (PS24)	[4]	Multi feed detection board /S (MFDBS)
[5]	PF paper exit roller	[6]	PF exit conveyance sensor /1 (PS24)
[7]	PF exit conveyance sensor /2 (PS36)	[8]	PF Paper exit roller /2
[9]	Multi feed detection board /S (MFDBS)	[10]	Multi feed detection board /R (MFDBR)

9.2 Drive

(1) Exit conveyance drive



a0gdt2c022ca

[1]	PF Paper exit roller /2	[2]	PF exit conveyance motor (M3)
[3]	PF paper exit roller	[4]	Front side

9.3 Operation

9.3.1 Exit conveyance control

- PF exit conveyance motor (M3) drives the PF paper exit roller and PF paper exit roller /2.
- M3 drives at a constant speed of 1000mm/s.

9.3.2 Multi feed detection control

- The following table shows the paper types and the weight for which the multi-feed detection is available.

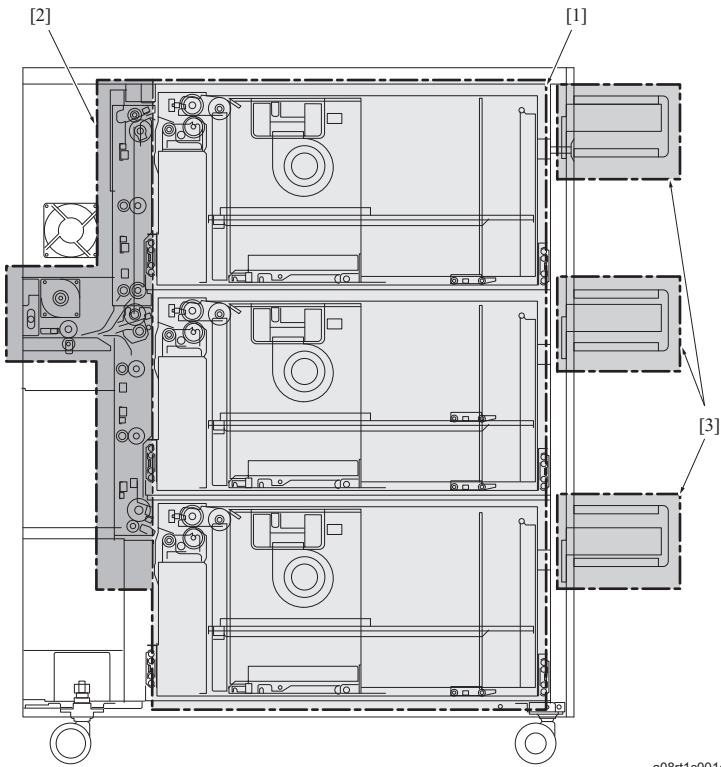
	40g/m2 to 49g/m ²	50g/m2 to 61g/m ²	62 to 74 g/ m ²	75 to 91 g/ m ²	92 to 135 g/m ²	136 to 162 g/m ²	163 to 216 g/m ²	217g/m2 to 244g/ m ²	245g/m2 to 300g/ m ²	301g/m2 to 350g/ m ²
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Coat	<div>Multi feed detection control: provided</div>	
PrePrinted		
Fine		
Plain paper		
Book/ News		
Embossed		
Inserting sheet (not printed)		Unable to select

PC THEORY OF OPERATION PF-706/PP-701

1. OUTLINE

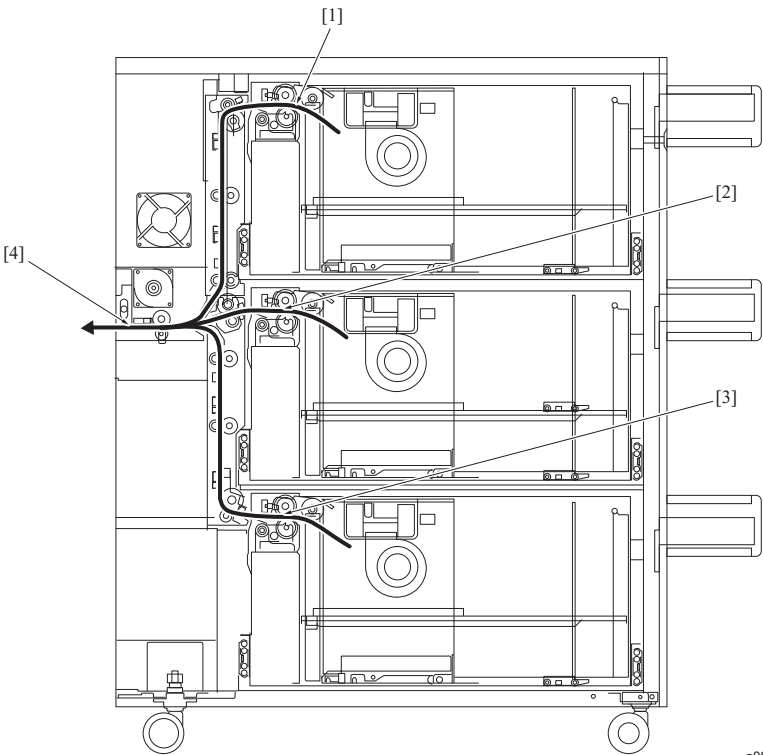
1.1 Unit configuration



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[1] Paper feed section	[2] Conveyance section
[3] PP-701 (Option)	-

1.2 PAPER PATH

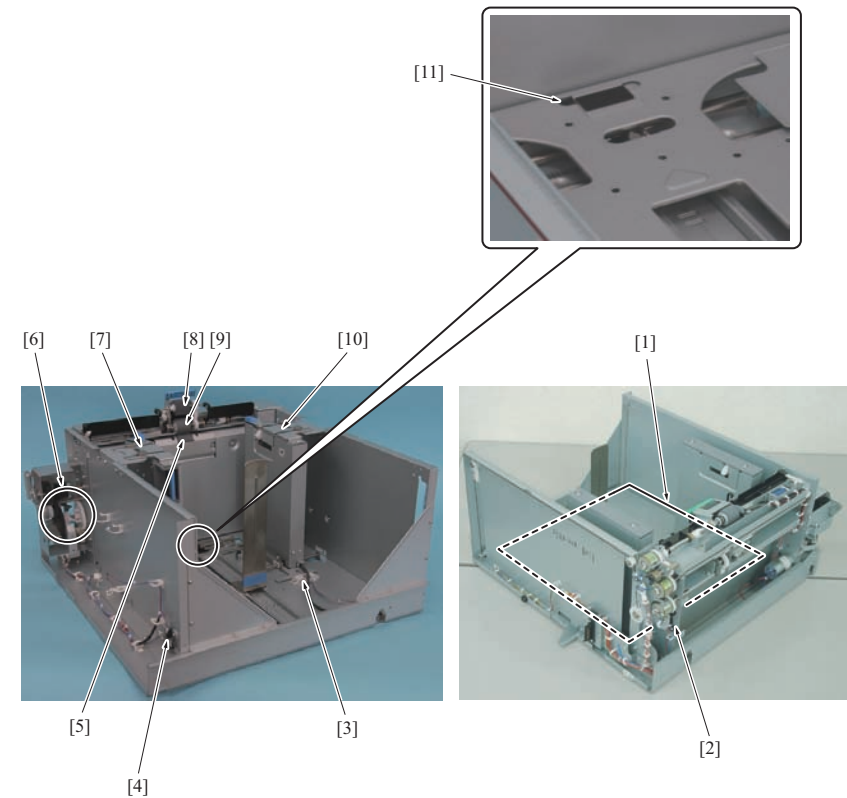


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[1] Paper path of the tray 1	[2] Paper path of the tray2
[3] Paper path of the tray3	- From tray1, 2, 3 to the main body

2. PAPER FEED SECTION

2.1 Configuration

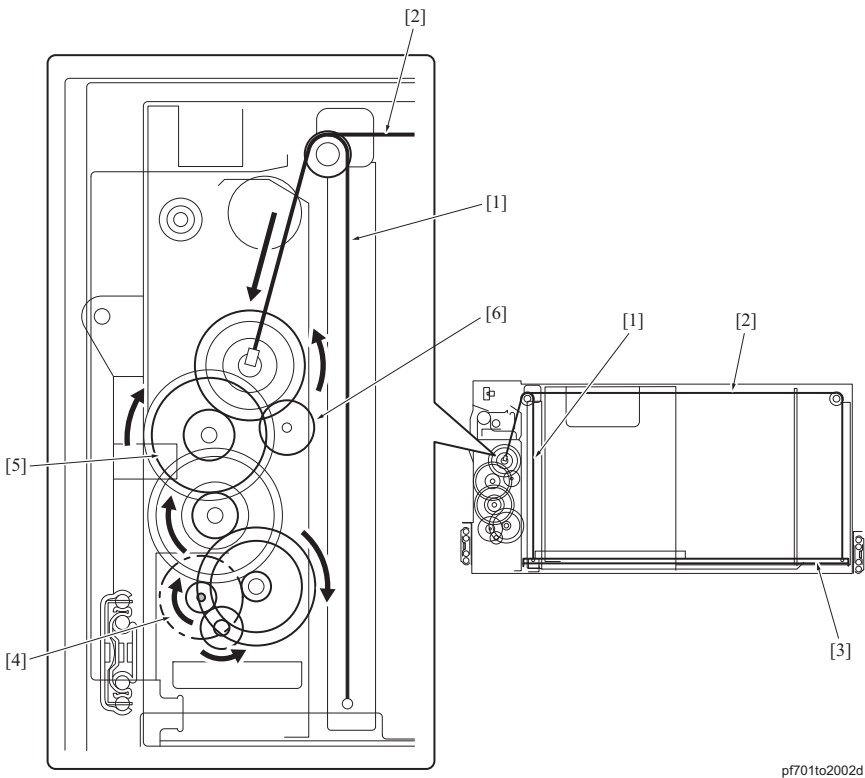


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[1]	Paper lift plate	[2]	Remaining paper VR /1 (VR1), /2 (VR4), /3 (VR7)
[3]	CD paper size VR/1 (VR2), /2 (VR5), /3 (VR8)	[4]	FD paper size VR/1 (VR3), /2 (VR6), /3 (VR9)
[5]	Separation roller	[6]	Paper up/down assist mechanism
[7]	Paper feed assist fan /Fr1 (FM1), /Fr2 (FM3), /Fr3 (FM5)	[8]	Pick-up roller
[9]	Paper feed roller	[10]	Paper feed assist fan /Rr1 (FM2), /Rr2 (FM4), /Rr3 (FM6)
[11]	Paper empty sensor /1(PS4), /2 (PS8), /3 (PS12)	-	

2.2 Drive

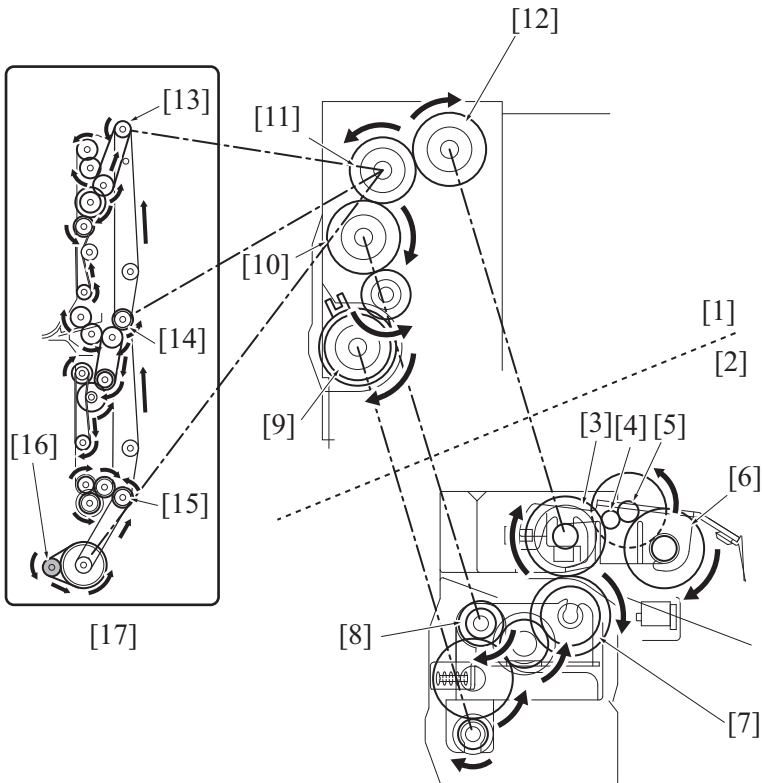
2.2.1 Tray lift drive



pf701to2002d

[1]	Lift wires /Fr2 and /Rr2	[2]	Lift wires /Fr1, /Rr1
[3]	Paper lift plate	[4]	Paper lift motor /1 (M42), /2 (M43), /3 (M44)
[5]	Lift release coupling gear	[6]	Torque restriction gear (oil damper)

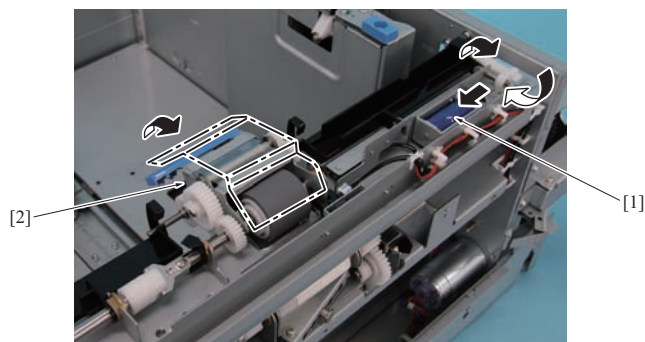
2.2.2 Paper feed drive



[1]	Tray rear section	[2]	Tray central section
[3]	Paper feed roller	[4]	Paper fur brush
[5]	Scraper shaft	[6]	Pick-up roller

[7] Separation roller	[8] Torque limiter
[9] Forced separation clutch /1 (CL8), /2 (CL11), /3 (CL14)	[10] Separation clutch /1 (CL7), /2 (CL10), /3 (CL13)
[11] Coupling	[12] Paper feed clutch /1 (CL6), /2 (CL9), /3 (CL12)
[13] Coupling (transmission of driving force to the tray1)	[14] Coupling (transmission of driving force to the tray2)
[15] Coupling (transmission of driving force to the tray3)	[16] Paper feed motor (M1)
[17] PF rear section	-

2.2.3 Pick-up drive



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[1] Pick-up solenoid /1 (SD4), /2 (SD5), /3 (SD6)	[2] Pick-up roller
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2.3 Operation

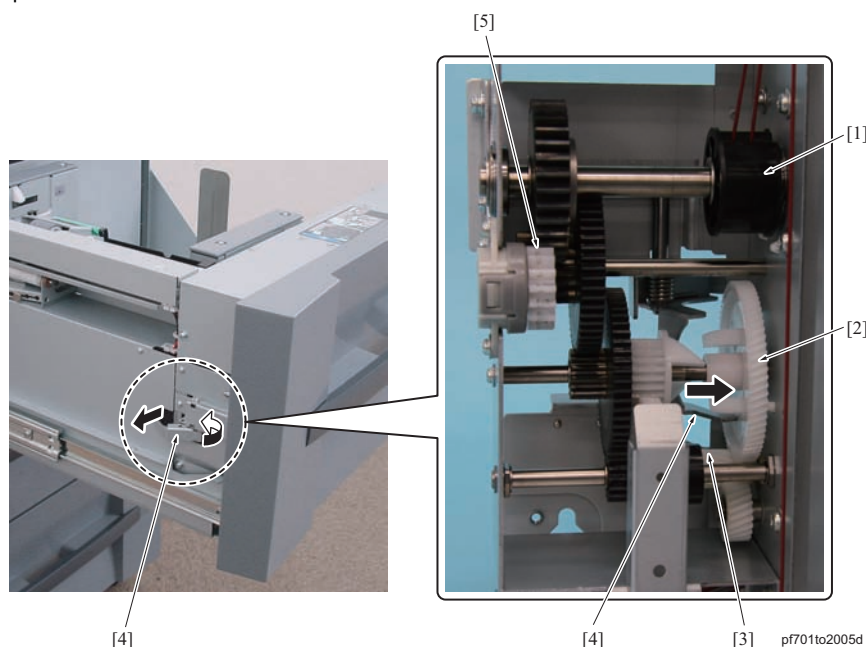
2.3.1 Up/down control

(1) Up operation

- The paper lift motors /1 (M42), /2 (M43) and /3 (M44) wind up the lift wires through the pulleys to lift up the paper lift plate.

(2) Down operation

- When pulling out the tray, the coupling gear [2] that transmits the drive force from the motor shaft [3] to the pulley [1] is detached by the release lever [4].
- The paper lift plate goes down slowly by its own weight through the torque restriction gear [5] that is activated only while in the down operation.



pf701to2005d

[1] Pulley	[2] Coupling gear
[3] Motor shaft	[4] Release lever
[5] Torque restriction gear	-

(3) Operation timing

- When the tray is set, the paper lift motors /1 (M42), /2 (M43) and /3 (M44) turn ON to raise the paper lift plate.
- When the upper limit sensors /1 (PS2), /2 (PS6), and /3 (PS10) turns ON, M42, M43, and M44 stop.

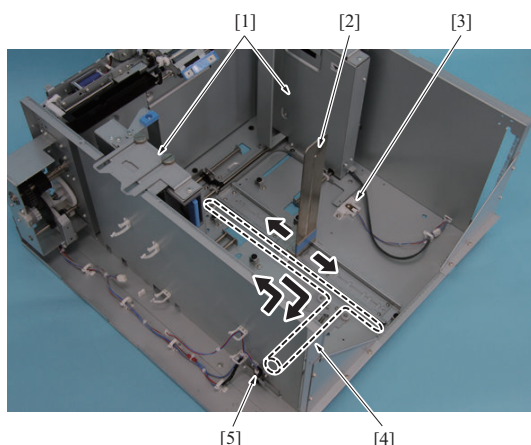
- When the sensors PS2, PS6 and PS10 turn OFF from ON during printing, the motors M42, M43 and M44 turn ON again to bring up the paper lift plate until the sensors PS2, PS6 and PS10 turn ON, and the motors M42, M43 and M44 turn OFF.

2.3.2 Size detection control

There are 2 types of the paper size detection: detection in the main scan direction and detection in the sub scan direction.

(1) Detection mechanism

- The FD paper size VR/1 (VR3), /2 (VR6), /3 (VR9) detect the paper size in the sub scan direction. The FD paper size VR is interlocked with the paper rear guide through the link wire.
- The CD paper size VR/1 (VR2), /2 (VR5), /3 (VR8) detect the paper size in the sub scan direction. The CD paper size VR is interlocked directly with the paper guide.
- After a specified period of time since the tray is set to PF, each VR informs the detected size data to the control program of the main body. For the resistance value, a default is set by "Tray Adjustment" in the service mode.
- For the paper sizes shown below, it is necessary to set the paper size in the user mode, selecting [Tray Setting] - [Size Setting] - [Detection Size Setting].
 - A5, $5\frac{1}{2} \times 8\frac{1}{2}$
 - 8×13 , $8\frac{1}{4} \times 13$, $8\frac{1}{2} \times 13$, $8\frac{1}{8} \times 13\frac{1}{4}$, or $8\frac{1}{2} \times 14$
 - SRA3, 12×18

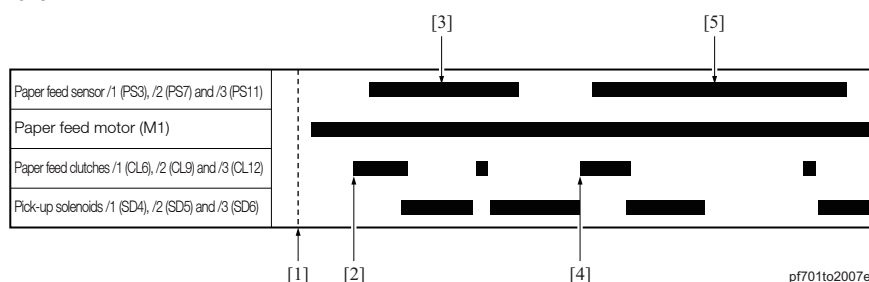


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[1] Paper guide	[2] Paper rear guide
[3] CD paper size VR/1 (VR2), /2 (VR5), /3 (VR8)	[4] Link wire
[5] FD paper size VR/1 (VR3), /2 (VR6), /3 (VR9)	-

2.3.3 Pick-up mechanism

- The pick-up solenoids /1 (SD4), /2 (SD5) and /3 (SD6) turn OFF to pick up the paper.
- When the solenoids SD4, SD5 and SD6 turn OFF, the pick-up roller goes down to press paper by its own weight.
- When the paper feed clutches /1 (CL6), /2 (CL9) and /3 (CL12) turn ON, the pick-up roller rotates to convey the paper to the paper feed roller.



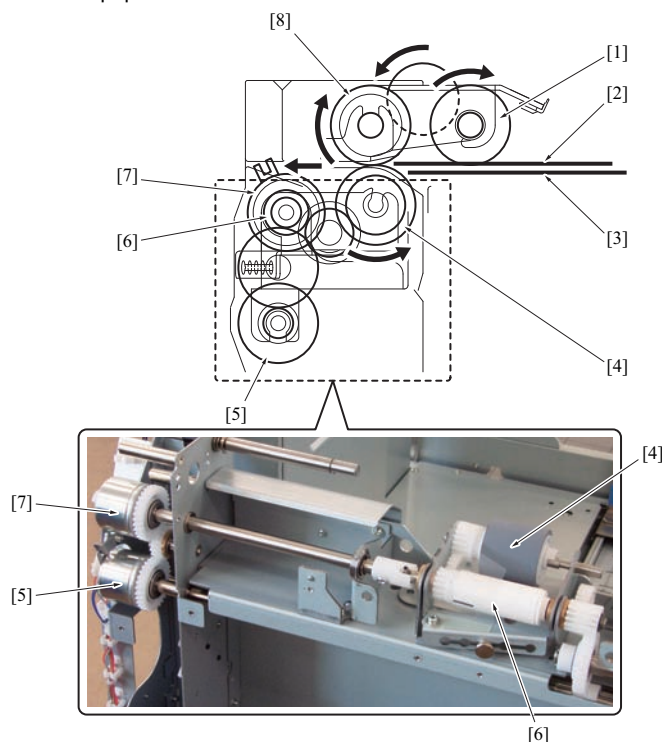
pf701to2007e

[1] Start button ON	[2] Pick-up of the 1st sheet of paper
[3] Conveyance of the 1st sheet of paper	[4] Pick-up of the 2nd sheet of paper
[5] Conveyance of the 2nd sheet of paper	-

2.3.4 Separation mechanism

- For the transmission of the drive force to the separation roller [4], the drive force of the paper feed motor (M1) is transmitted by the ON/OFF operation of the separation clutches /1 (CL7), /2 (CL10) and /3 (CL13) [8] through the torque limiter [7].
- The drive force can be transmitted directly, not through the torque limiter [7], to the separation roller by the ON/OFF operation of the forced separation clutches /1 (CL8), /2 (CL11) and /3 (CL14) [5].
- The separation roller [4] is driven in the direction opposite to the paper conveyance. However, when no paper is conveyed and only 1 sheet of paper is conveyed, the frictional force generating between the paper feed roller [1] and the separation roller [4] or the paper and the separation roller is greater than the frictional force of the torque limiter [3]. Accordingly, the separation roller rotates in the direction of the paper conveyance to convey paper to the vertical conveyance section.
- When 2 or more sheets of paper are conveyed, the frictional force between these sheets of paper is smaller than the frictional force of the torque limiter and the separation roller rotates in the reverse direction to prevent the lower most paper from being conveyed.

- When paper is slippery, it rotates the separation roller [4] momentarily in the reverse direction independent of the torque limiter [7] for greater separation of paper.



a08r12c003cb

[1]	Pick-up roller	[2]	1st sheet of paper
[3]	2nd sheet of paper	[4]	Separation roller
[5]	Forced separation clutch /1 (CL8), /2 (CL11), /3 (CL14)	[6]	Torque limiter
[7]	Forced separation clutch /1 (CL7), /2 (CL10), /3 (CL13)	[8]	Paper feed roller

(1) Separation clutch control

- When paper is slippery (or, when the power for conveyance is insufficient), paper conveyed from the pick-up roller may be unable to pass through the handling sections of the paper feed roller and the separation roller.
 - To alleviate this kind of condition, turn OFF the separation clutches /1 (CL7), /2 (CL10) and /3 (CL13) until paper gets to the handling section to cut off the drive force to the separation roller, and make it function as a driven roller to the paper feed roller. After paper gets to the handling section, turn ON the CL7, CL10 and CL13 to conduct the normal separation operation.
 - This control is made unconditionally for the 1st sheet of paper. For the 2nd and the succeeding sheets of paper, the control is made as follows.
 - Type of paper: Preprinted paper: Made unconditionally.
 - Type of paper: Other than Preprinted paper: Made automatically judging from the condition of conveyance at the handling section. ^{*1}
- ^{*1} For the paper type other than the coated paper, the DIPSW39-2/3/4/5/6/7:1 enables the control unconditionally. At this time, the control is made unconditionally for the coated paper only in the low temperature.
Set the DIPSW 39-2/3/4/5/6/7 to "1" corresponding to the selected tray .

(2) Forced separation clutch control

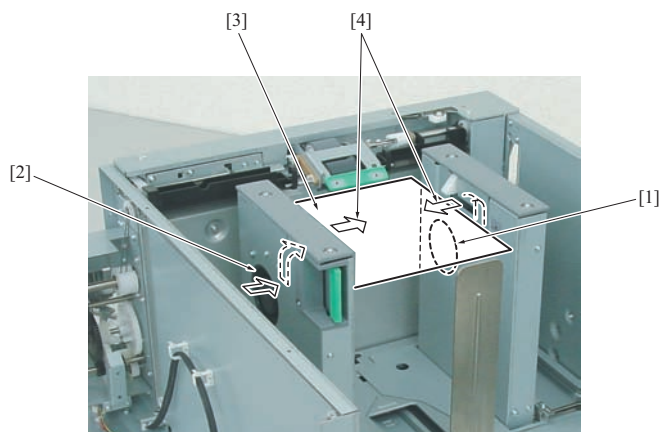
- If the paper is slippery, when paper is conveyed to the separation roller, it rotates the separation roller momentarily in the reverse direction independent of the torque limiter for greater separation of paper.
- This control is automatically made only in the high temperature condition for the coated paper and the preprinted paper more than 72g/m².
However, the DIPSW26-4 can be used to select only for a high temperature as a condition for control.

2.3.5 Paper dust removing mechanism

- This mechanism is provided to remove paper dust from the paper feed roller.
- Paper dust adhered to the paper feed roller is removed by the paper dust removal brush (raising brush) and transferred to the scraper shaft (metal roller). Then the scraper (sheet) scrapes off the paper dust from the shaft.

2.3.6 Air assist mechanism

- Trays1 to 3 are provided with paper feed assist fans that blow air [4] onto paper [3] from a pair of paper guides attached both in front and in the rear and assist the separation of paper.
- The tray1 is provided with the paper feed assist fans /Fr1 (FM1) [2] and /Rr1 (FM2) [1], the tray2 with paper feed assist fans /Fr2 (FM3) [2] and /Rr2 (FM4) [1], and tray3 with paper feed assist fans /Fr3 (FM5) [2] and /Rr3 (FM6) [1].
- Each of the paper feed assist fans is effective especially for thick paper, and paper with a high degree of adhesion (such as coated paper). However, in the case of plain paper, it may not be fed smoothly.



pf701to2010c

[1]	Paper feed assist fan /Rr1 (FM2), /Rr2 (FM4), /Rr3 (FM6)	[2]	Paper feed assist fan /Fr1 (FM1), /Fr2 (FM3), /Fr3 (FM5)
[3]	Paper	[4]	Blow-out of air

(1) Operation timing

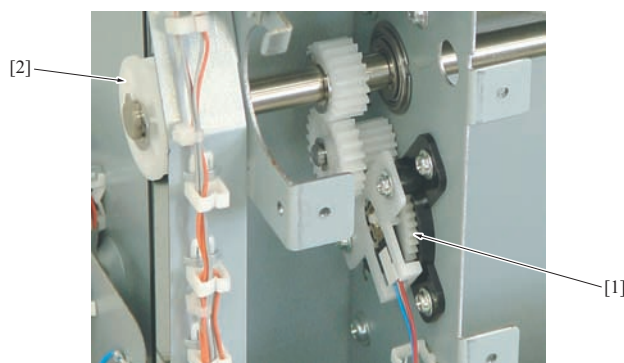
- The operation of the paper feed assist fans /Fr1 (FM1), /Rr1 (FM2), /Fr2 (FM3), /Rr2 (FM4), /Fr3 (FM5) and /Rr3 (FM6) can be selected among the following 3 modes in the user mode, selecting [Tray Setting] - [Air Assist].
- Always ON, Always OFF and Auto.
- While in the Auto mode, the paper feed assist fan is normally turned OFF, but when the coated paper or the preprinted paper is selected for the type of paper on the operation panel, the paper feed assist fan of the corresponding tray is turned ON.

2.3.7 Paper empty detection control

- The paper empty sensors /1 (PS4), /2 (PS8) and /3 (PS12) detect the paper empty in the tray.

2.3.8 Remaining paper detection control

- The remaining paper VR/1 (VR1), /2 (VR4) and /3 (VR7) that are interlocked through the pulley and the gear with the paper lift plate detects the remaining paper.
- The remaining paper quantity is detected in the following 6 stages according to the resistance value, and the main body is informed of the detection.
 - No Paper (↓ Flashing) : 0
 - 1st step (displayed in red): 10% or less
 - 1st step (displayed in white): 25% or less
 - 2nd step (displayed in white): 50% or less
 - 3rd step (displayed in white): 75% or less
 - 4th step (displayed in white): 76% or more



pf701to2011c

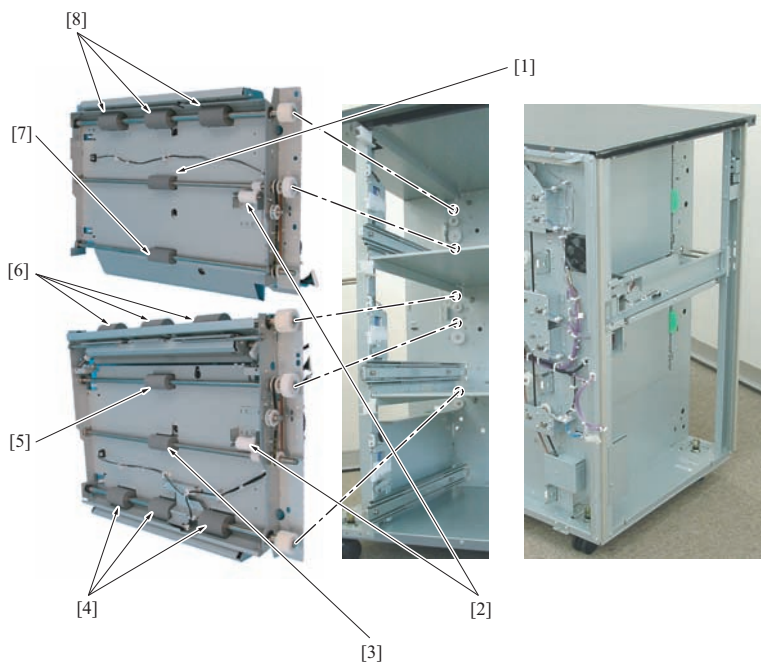
[1]	Remaining paper VR /1 (VR1), /2 (VR4), /3 (VR7)	[2]	Lift pulley /Rr
-----	---	-----	-----------------

2.3.9 Tray lock control

- Each tray is locked by the tray lock lever.
- When it detects that either of the handle release sensors /1 (PS5), /2 (PS9) and /3 (PS13) of the trays 1 to 3 turns OFF, either of the tray lock solenoids /1 (SD1), /2 (SD2) and /3 (SD3) of the corresponding tray turns ON to bring up the tray lock lever and release the lock, thus allowing the tray to be pulled out.
- When it finds that any other sensor turns OFF while either of the sensors PS5, PS9 and PS13 is OFF, any of the solenoids SD1, SD2 and SD3 other than the one that has already turned ON does not turn ON. It prevents 2 or more trays from being pulled out at the same time.
- When a jam that affects the tray and the exit conveyance section occurs, the tray remains being locked until the jammed paper is removed. Doing this prevents the paper from being torn.

3. CONVEYANCE SECTION

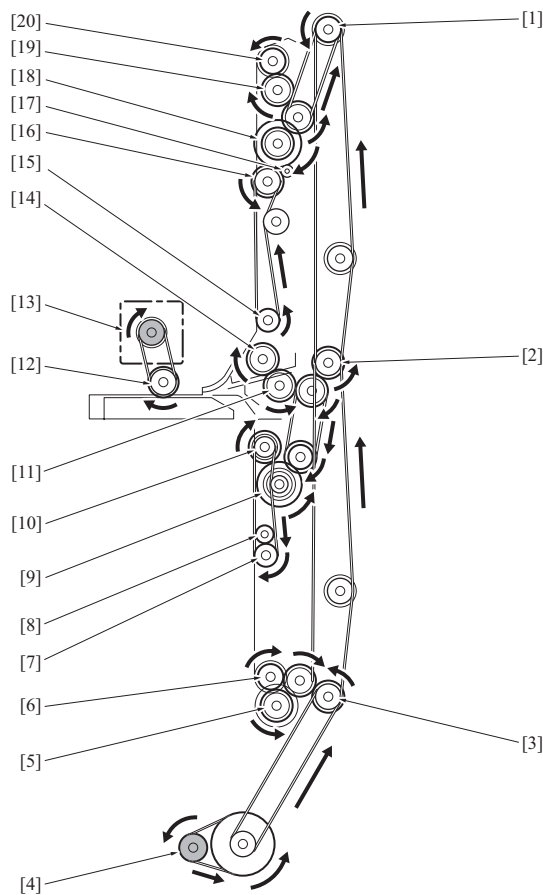
3.1 Configuration



a08rt2e004ca

[1]	Conveyance roller /1	[2]	Torque limiter
[3]	Conveyance roller /4	[4]	Pre-registration roller /5
[5]	Conveyance roller /3	[6]	Pre-registration roller /4
[7]	Conveyance roller /2	[8]	Pre-registration roller /3

3.2 Drive



[1]	Coupling (transmission of driving force to the tray1)	[2]	Coupling (transmission of driving force to the tray2)
-----	---	-----	---

[3]	Coupling (transmission of driving force to the tray3)	[4]	Paper feed motor (M1)
[5]	Pre-registration clutch /3 (CL5)	[6]	Pre-registration roller /5
[7]	Conveyance roller /4	[8]	Torque limiter
[9]	Intermediate clutch /Lw (CL4)	[10]	Conveyance roller /3
[11]	Pre-registration clutch /2 (CL3)	[12]	Exit conveyance roller
[13]	PF exit conveyance motor (M2)	[14]	Pre-registration roller /4
[15]	Conveyance roller /2	[16]	Conveyance roller /1
[17]	Torque limiter	[18]	Intermediate clutch /Up (CL2)
[19]	Pre-registration clutch /1 (CL1)	[20]	Pre-registration roller /3

3.3 Operation

3.3.1 Pre-registration control

- When the paper feed starts, paper is sent out to the pre-registration roller by the pick-up roller and the paper feed roller.
- When the paper strikes the pre-registration roller that is stopped, a loop is formed to adjust paper skew.
- When the pre-registration clutches /1 (CL1), /2 (CL3) and /3 (CL5) turn on, the driving force of the paper feed motor (M1) is transmitted to the pre-registration rollers 3/, /4 and /5 to convey paper in the direction of the main body.

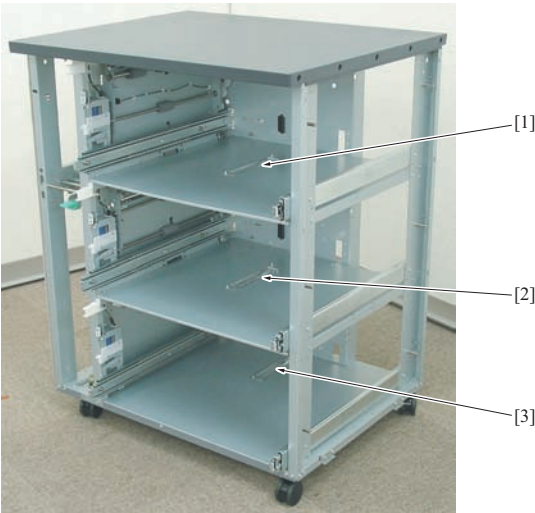
3.3.2 Conveyance control

- For the vertical conveyance, the driving force of the paper feed motor (M1) is transmitted by turning on and off the intermediate clutches /Up (CL2) and /Lw (CL4), and the pre-registration clutches /1 (CL1), /2 (CL3) and /3 (CL5).
- The PF exit conveyance motor (M2) operates the exit conveyance.
- Paper that is fed from tray1 is conveyed to the conveyance rollers /1 and /2 driven through the pre-registration roller /3 and CL2 that are in turn driven by the CL/1, and then conveyed to the exit conveyance roller. When the loop sensor /1 (PS17) detects the trailing edge of paper, the CL2 turns OFF.
- Paper that is fed from tray 2 is conveyed to the exit conveyance roller by the pre-registration roller /4 that is in turn driven by the CL3.
- Paper that is fed from tray /3 is conveyed to the conveyance rollers /5 and /3 through the pre-registration roller /5, CL4 that is in turn driven by the CL/4, and then conveyed to the exit conveyance roller. When the loop sensor /3 (PS23) detects the trailing edge of paper, the CL4 turns OFF.
- The exit conveyance roller is driven by the PF exit conveyance motor (M2). It starts to rotate at a low speed when the loop sensors /1 (PS17), 2/ (PS19) and /3 (PS23) detect paper, and turns off when the PF exit conveyance sensor (PS24) detects the trailing edge of paper.
- A torque limiter is provided on the gear of each conveyance roller /1 and /4 to prevent the rollers from rotating when the clutches are released. This prevents paper that is temporarily stopping on the vertical paper feed path from falling off the path and causing a paper jam.

4. OTHERS

4.1 Dehumidification heater control

- Trays1 to 3 are provided with the dehumidification heaters /1 (HTR/1), /2 (HTR2) and /3 (HTR3), 1 each respectively, below each tray. They are turned on when the dehumidification heater switch (SW3) of the main body is turned ON.



pf701to2014c

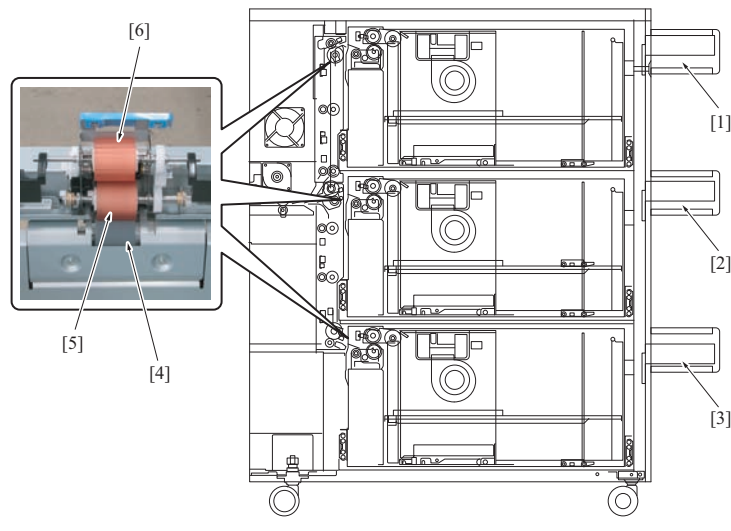
[1]	Dehumidification heater /1 (HTR1)	[2]	Dehumidification heater /2 (HTR2)
[3]	Dehumidification heater /3 (HTR3)	-	

4.2 Main body temperature rise prevention assist mechanism

- To enhance cooling in the main body, air drawn by the PF cooling fan (FM7) is distributed inside the main body.

5. PP-701 (OPTIONAL)

5.1 Configuration

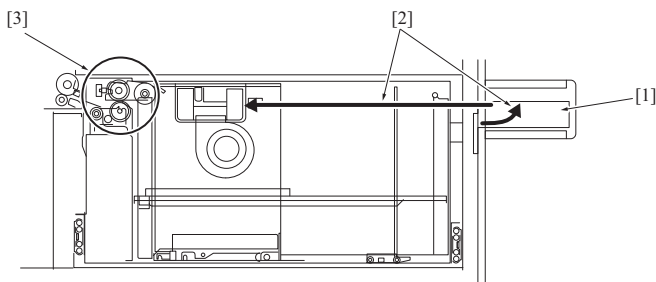


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[1]	Paper trailing edge separation fan /1 (FM8)	[2]	Paper trailing edge separation fan /2 (FM9)
[3]	Paper trailing edge separation fan /3 (FM10)	[4]	Separation roller
[5]	Paper feed roller	[6]	Pick-up roller

5.2 Operation

- The paper trailing edge separation fans /1 (FM8), /2 (FM9) and /3 (FM10) [1] provided on the right side of the PF blow air [2] to the stacked papers to assist the paper separation.
- Operating timing of FM8, FM9, FM10 are the same that of the paper feed assist fans provided inside the tray.
- Urethane rollers are used for feeding papers for overprinting since urethane is less affected by powders used for overlay printing.
- The assist fans [3] and urethane rollers ensure paper feed accuracy when overlay printing.



a08rt2c007ca

[1]	paper trailing edge separation fan /1 (FM8), /2 (FM9) and /3 (FM10)	[2]	Air
[3]	Paper feed section	-	

6. INDIVIDUAL SUPPORT PARTS

6.1 Corresponding to overlay printing

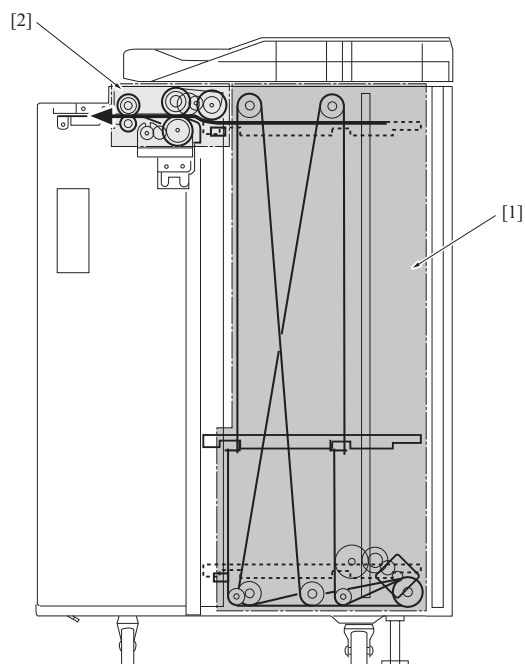
- The following are available as the individual support parts for overlay printing.
 - Paper feed assist plate (refer to [G.24. INDIVIDUAL SUPPORT PARTS](#))

PD THEORY OF OPERATION LU-409/410

1. OUTLINE

1.1 Unit configuration

EX. : LU-409

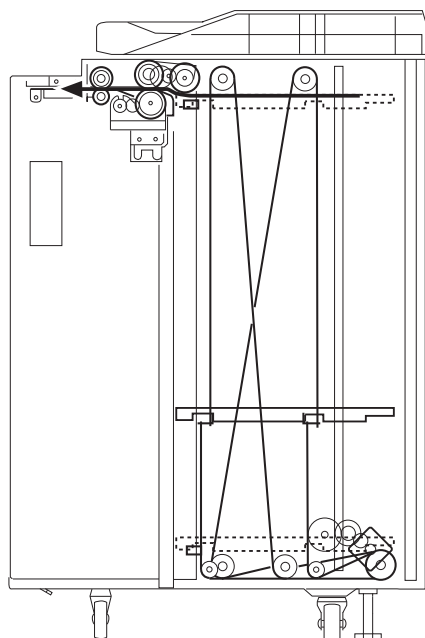


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[1] Up-down section	[2] Paper feed section
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1.2 PAPER PATH

EX. : LU-409

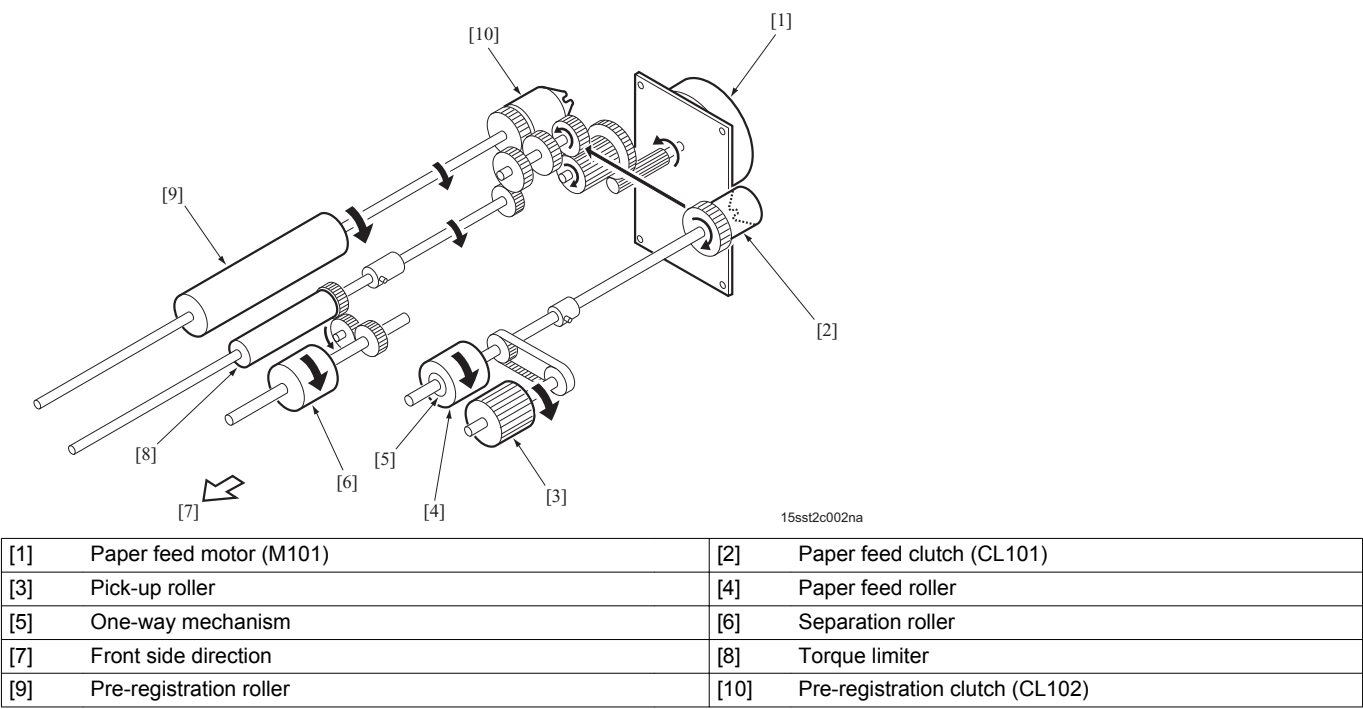


15sst1e001na

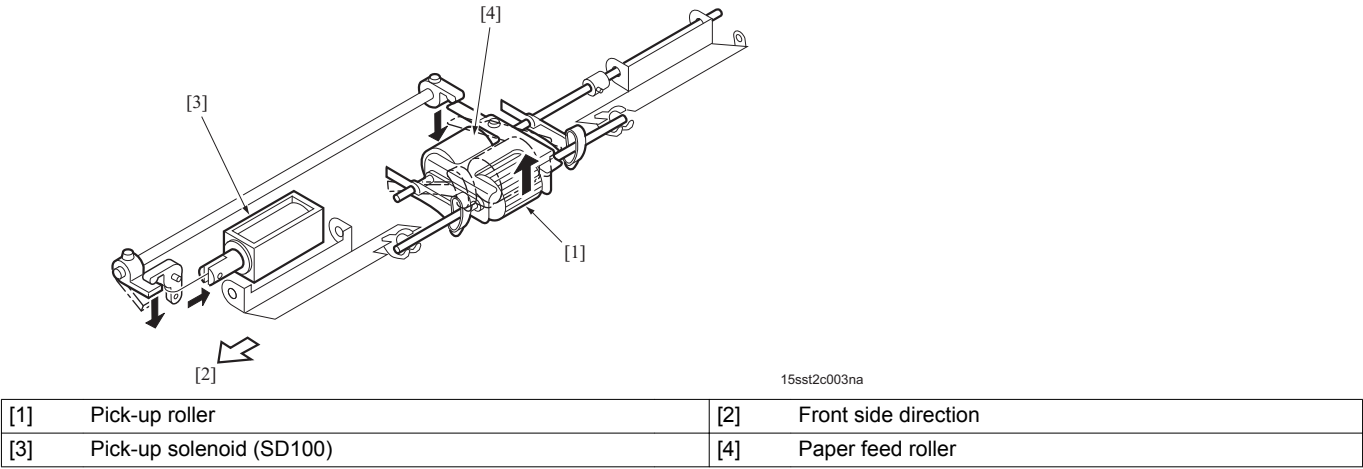
2. PAPER FEED SECTION

2.1 Drive

2.1.1 Paper feed drive



2.1.2 Pick-up drive

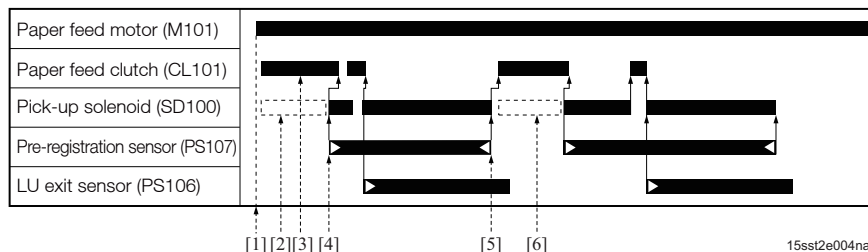


2.2 Operation

2.2.1 Paper feed control

(1) Pick-up control

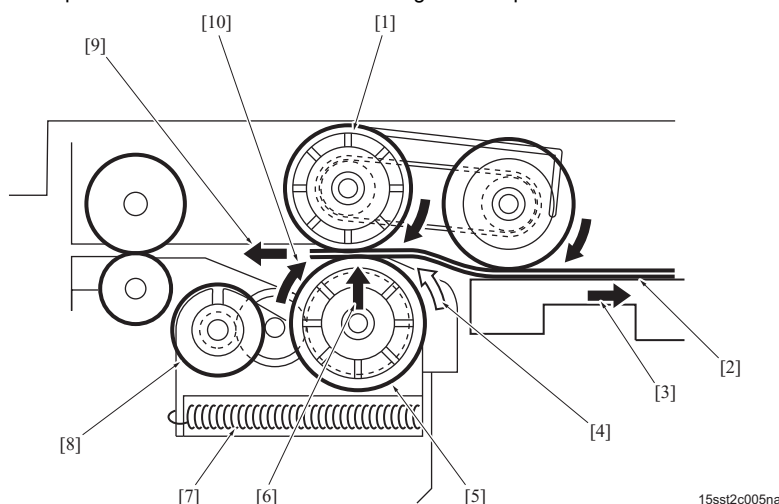
- The pick-up solenoids (SD100) turn OFF to pick up the paper.
- When SD100 turns OFF [2], the pick-up roller descends and presses the paper with its own weight.
- Then the paper feed clutch (CL101) turns ON [3] to transmit drive force of the paper feed motor (M101) to the pick-up roller, and the pick-up roller starts to rotate and picks up a sheet of paper to be fed by the paper feed roller.
- Paper feed roller rotates with the pick-up roller so that the paper is conveyed to the pre-registration roller.
- When the pre-registration sensor (PS107) provided short of the pre-registration roller turns ON [4], the SD100 also turns ON to evacuate the pick-up roller, and then it turns OFF CL101 after a specified period of time to stop the rotation of the paper feed roller and the pick-up roller.
- When the 1st sheet of paper turns OFF [5] after passing through PS107, SD100 also turns OFF to let the pickup roller go down and pick up [6] the 2nd sheet of paper.



[1] Start button ON	[2] Pick-up roller presses paper with its own weight.
[3] Drive force transmission to the pick-up roller and paper feed roller.	[4] Pick-up roller separates from loaded paper
[5] Pick-up roller goes down	[6] Pick-up of the 2nd sheet of paper

(2) Separation mechanism

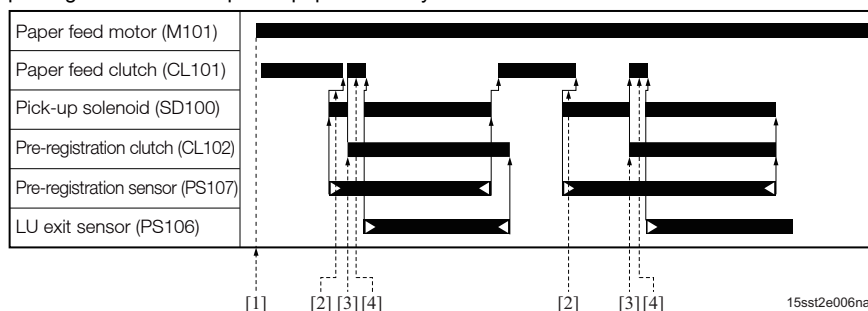
- Papers are separated by the separation roller [5].
- The separation roller [5] rotates in the direction [10] opposite to the paper conveyance direction [9] by means of the torque limiter [8]. The roller is pressed against the paper feed roller by force exerted by the spring [7] and the torque limiter.
- The friction force between the separation roller and the paper feed roller is limited by the torque limiter in order to prevent multi-feed.
- When no paper exists between the separation roller and the paper feed roller or when the only one sheet of paper is present, the separation roller is driven by the paper feed roller in the direction of arrow [4] since the torque is over the limit.
- When multiple sheets of paper are fed, the separation roller reverses the direction of rotation [10] (opposite to the paper feed roller) and feeds the lower paper [2] that contacts with the separation roller back to the tray [3]. The drop in frictional force between the two rollers due to the multiple sheets causes the counter rotating of the separation roller.



[1] Paper feed roller	[2] 2nd paper
[3] Tray direction	[4] Driven rotation
[5] Separation roller	[6] Pressure
[7] Spring	[8] Torque limiter
[9] Conveyance direction	[10] Rotation in separation direction

(3) Pre-registration control

- The pre-registration roller is driven by the paper feed motor (M101) via the pre-registration clutch (CL102).
- M1 drive force is transmitted/shut off by CL102 to rotate/stop the roller.
- Paper fed by the paper feed roller hits against the pre-registration roller that is stopping due to the off-status [2] of CL102, and the skew of paper is corrected.
- Then, after a predetermined time period has elapsed, CL102 turns on [3] to rotate the pre-registration roller to convey the paper.
- At this time, the paper feed clutch (CL101) turns ON [4] for a short period of time to rotate the feed roller to assist the conveyance until the pre-registration roller nips the paper securely.



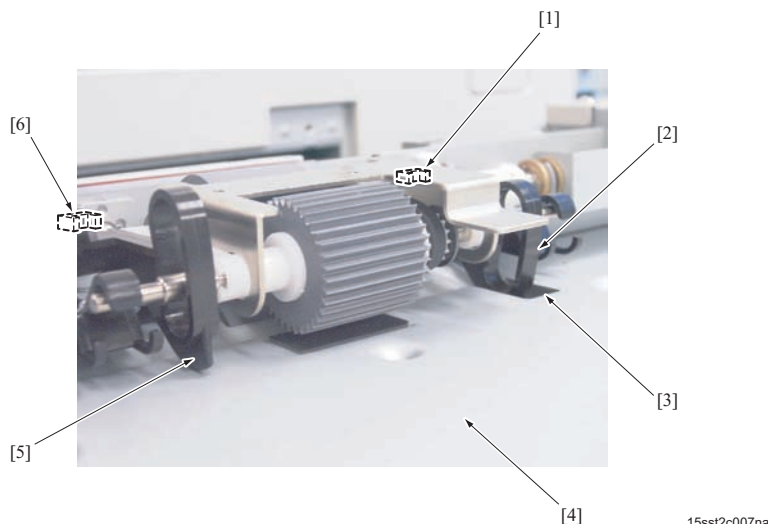
[1] Start button ON	[2] Skew corrected by forming a loop
---------------------	--------------------------------------

[3] Paper conveyance into the main body

[4] Paper conveyance assisted

2.2.2 Paper empty detection control

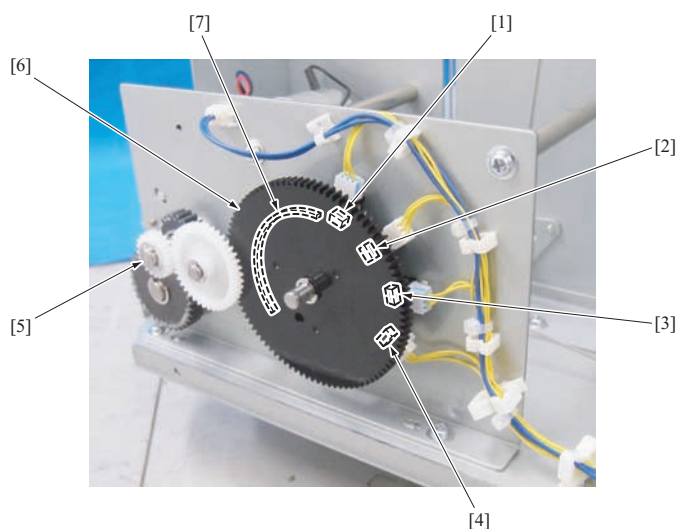
- A paper empty status can be detected by on/off statuses of the upper limit sensor (PS109) [6] and the paper empty sensor (PS108) [1].
- When the paper lift plate [4] goes up while paper is on the tray, the paper pushes up the actuator [2] and then the PS108 [1] are turned off.
- When it goes further up, the actuator [5] is pushed up to turn ON PS109 [6].
- When there remains no paper, the actuator [2] gets in the hole [3] of the paper lift plate [4] and it cannot be pushed up, and as a result, the actuator [5] only is pushed up to allow PS109 [6] to turn ON.
- If only PS109 turns ON, it is determined that the paper is empty and the main body displays the message on its operation panel.
- While in the paper feed operation, PS108 turns OFF from ON with PS109 ON to detect a paper empty condition.



[1] Paper empty sensor (PS108)	[2] Actuator of PS108
[3] Hole	[4] Paper lift plate
[5] Actuator of PS109	[6] Upper limit sensor (PS109)

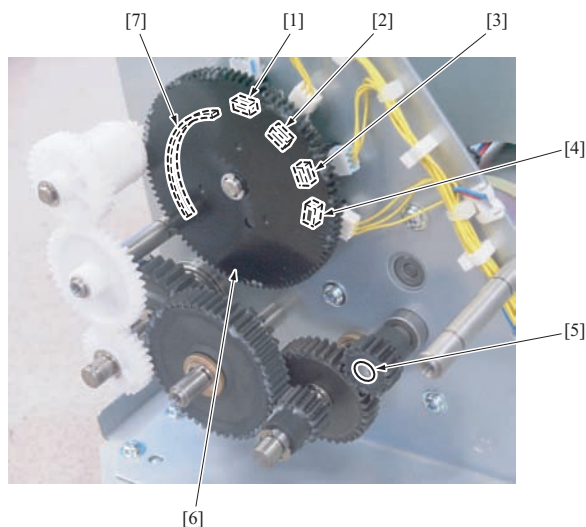
2.2.3 Remaining paper detection control

- The remaining amount of paper is detected by the position of the remaining paper detection gear [6] moved together with the shaft [5] of the paper lift motor (M100) which drives the paper lift plate.
- The remaining paper detection gear incorporates the actuator [7], and the actuator position is detected by the 4 remaining paper sensors; /1 (PS102) [1], /2 (PS103) [2], /3 (PS104) [3], and /4 (PS105) [4].
- According to on/off statuses of the 4 sensors, the remaining amount of paper can be figured out.
 - LU-409



[1] Remaining paper sensor /1 (PS102)	[2] Remaining paper sensor /2 (PS103)
[3] Remaining paper sensor /3 (PS104)	[4] Remaining paper sensor /4 (PS105)
[5] Shaft of the paper lift motor (M100)	[6] Remaining paper detection gear
[7] Actuator	-

- LU-410



15swt2c001na

[1]	Remaining paper sensor /1 (PS102)	[2]	Remaining paper sensor /2 (PS103)
[3]	Remaining paper sensor /3 (PS104)	[4]	Remaining paper sensor /4 (PS105)
[5]	Shaft of the paper lift motor (M100)	[6]	Remaining paper detection gear
[7]	Actuator	-	

- It is possible to know the remaining paper in 8 steps by the 4 sensors that turn ON and OFF. However, the remaining paper is displayed in 5 steps on the main body operation panel.
- The remaining paper amount is shown on the main body operation panel by the number of crossbars or their flashing in the tray mark.

Remaining paper sensor /1, /2, /3, /4 statuses and remaining amount of paper					
Number of loading sheets	PS102	PS103	PS104	PS105	Remaining amount Indication on the operation panel
0 to 800	OFF	OFF	OFF	OFF	1 crossbar flashing
801 to 1300	ON	OFF	OFF	OFF	1 lit
1301 to 1900	ON	ON	OFF	OFF	2 lit
1901 to 2400	ON	ON	ON	OFF	2 lit
2401 to 3000	ON	ON	ON	ON	3 lit
3001 to 3500	OFF	ON	ON	ON	3 lit
3501 to 4100	OFF	OFF	ON	ON	4 lit
4101 or more	OFF	OFF	OFF	ON	4 lit

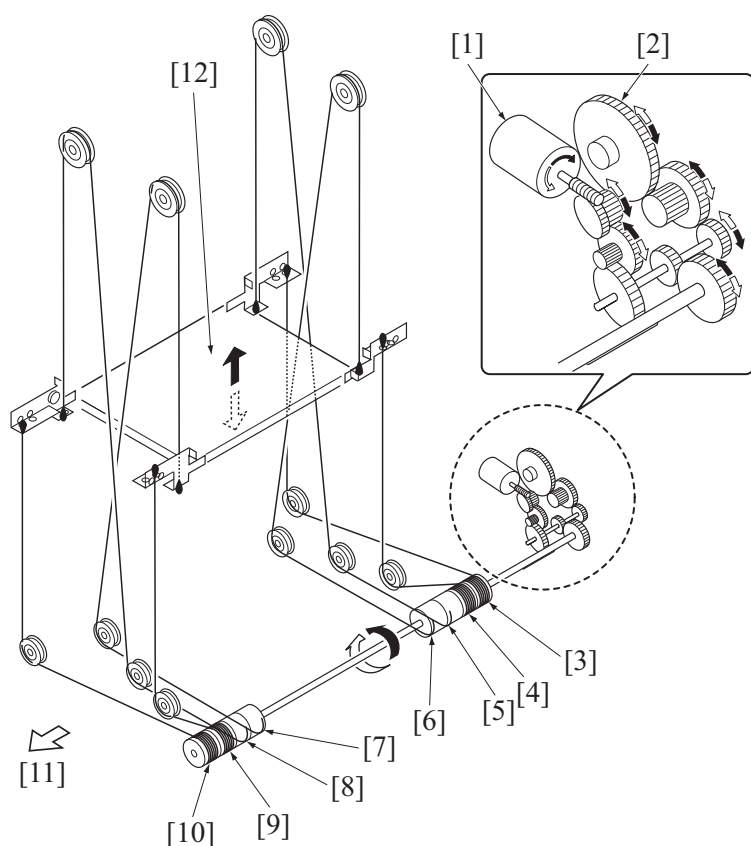
Note

- The number of sheets shown on the table is approximate values when the paper weight (thickness) is 64g/m². The number of sheets loadable varies depending on the thickness of paper

3. UP/DOWN SECTION

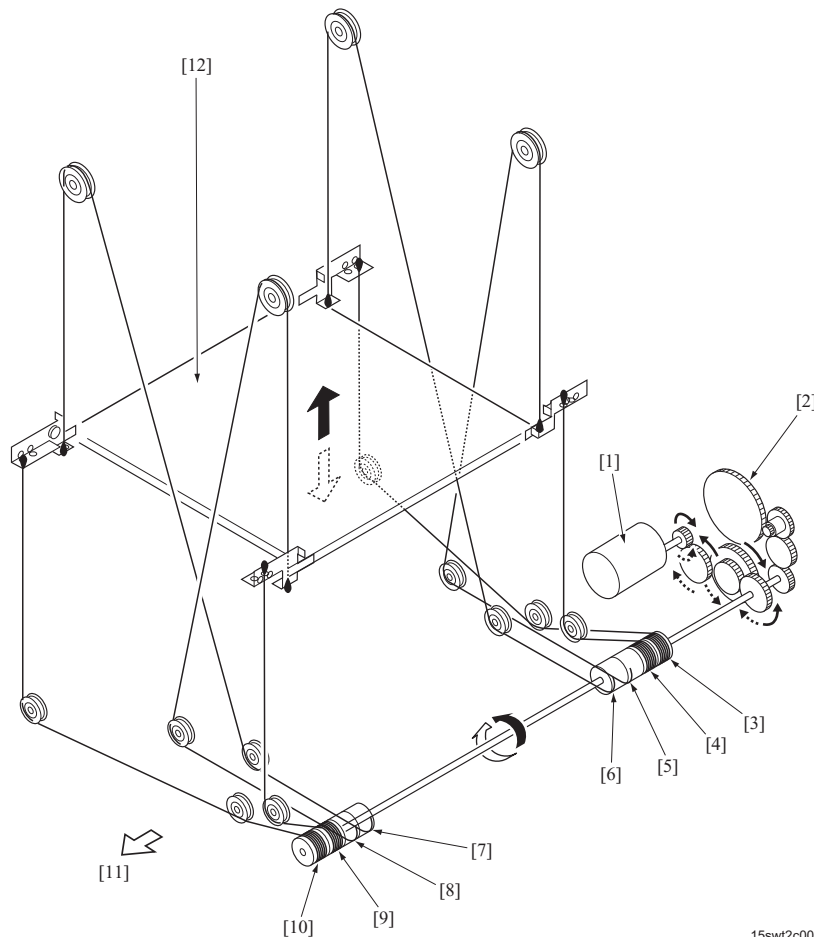
3.1 Drive

3.1.1 LU-409



[1]	Paper lift motor (M100)	[2]	Remaining paper detection gear
[3]	Lift wire/Rr1	[4]	Lift wire/Rr2
[5]	Lift wire/Rr3	[6]	Lift wire/Rr4
[7]	Lift wire/Fr4	[8]	Lift wire/Fr3
[9]	Lift wire/Fr2	[10]	Lift wire/Fr1
[11]	Front side direction	[12]	Paper lift plate

3.1.2 LU-410



15swt2c002na

[1] Paper lift motor (M100)	[2] Remaining paper detection gear
[3] Lift wire/Rr1	[4] Lift wire/Rr2
[5] Lift wire/Rr3	[6] Lift wire/Rr4
[7] Lift wire/Fr4	[8] Lift wire/Fr3
[9] Lift wire/Fr2	[10] Lift wire/Fr1
[11] Front side direction	[12] Paper lift plate

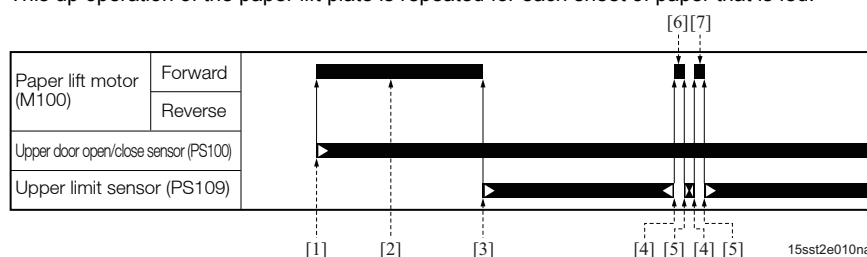
3.2 Operation

3.2.1 Up/down control

- Moving the paper lift plate up/down is made by winding/releasing the lift wires with the pulleys driven by the paper lift motor (M100).
- The paper lift plate is tied up with four lift wires each at front and rear. The lift wires /Fr3, /Fr4, /Rr3 and /Rr4 are tied in the direction in which the paper lift plate is brought up, and the lift wires /Fr1, /Fr2, /Rr1 and /Rr2 tied in the direction in which it is brought down.
- When the paper lift plate is brought up, the lift wires /Fr3, /Fr4, /Rr3 and /Rr4 are wound up around the pulley, and each two lift wires /Fr1, /Fr2, /Rr1 and /Rr2 at front and rear are wound off from the pulley.
- When it is brought down, the lift wires that were wound up while it was brought up are wound off and the lift wire that were wound off while it was brought up are wound up to bring down the paper lift plate.

(1) Up operation

- When the upper door open/close sensor (PS100) turns ON [1] with the upper door closed, the paper lift motor (M100) also turns ON (in normal rotation) to bring up [2] the paper lift plate.
- M100 turns OFF when the paper lift plate turns the upper limit sensor (PS109) ON [3].
- While in the print operation, when PS109 turns OFF [4] from ON due to the insufficient height of paper caused by paper being fed, M100 turns ON again (in normal rotation).
- The paper lift plate goes up, and M100 turns OFF when PS109 turns on [5].
- This up operation of the paper lift plate is repeated for each sheet of paper that is fed.

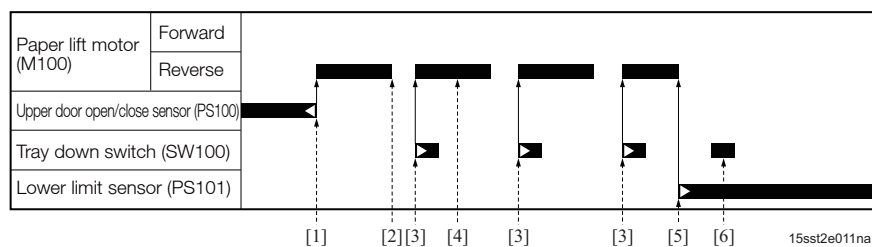


15sst2e010na

[1]	Closing of upper door	[2]	Paper lift plate goes up
[3]	Paper lift plate stops at the upper limit position	[4]	The height of stacked paper lowers due to paper feeding
[5]	Paper lift plate reaches the upper limit position	[6]	Feed of the 1st sheet of paper
[7]	Feed of the 2nd sheet of paper	-	

(2) Down operation

- The upper door open/close sensor (PS100) turns OFF [1] by opening the upper door. At this time, the paper lift motor (M100) turns ON (in reverse rotation) and the paper lift plate goes down.
- When the paper lift plate goes down about 120mm, M100 turns OFF and stop [2].
- When the tray down switch (SW100) is pressed [3] with the upper door open, M100 turns ON and the paper lift plate goes down about 120mm.
- The paper lift plate goes down about 120mm each time SW100 is pressed until the lower limit sensor (PS101) turns ON.
- Even SW 100 is pressed, the paper lift plate does not go down [6] after PS10 turns ON [5] at the lower limit position.



[1]	Closing of upper door	[2]	Stop of the paper lift plate
[3]	Start of the down operation when SW100 turns ON	[4]	120 mm down
[5]	Stop at the lower limit position	[6]	Disregard of SW100 being turned ON when PS101 turns ON

4. OTHERS

4.1 Dehumidification heater control

- The LU is equipped with the dehumidification heater (HTR101) to reduce the moisture inside the LU.
- HTR101 is provided with AC200 to 240 V from the main body, and the dehumidification heater switch (SW3) of the main body turns ON/OFF HTR101.

4.2 Interlock switch control

- The front door interlock switch (MS101) and the front door open/close sensor (PS110), and the upper door interlock switch (MS102) and the upper door open/close sensor (PS100) are provided in the inside of the LU.
- The power source of the paper feed motor (M101) is supplied through MS101 and MS102. When the front door or upper door is opened, MS101 or MS102 turns OFF to shut off the power supply to M101.
- When PS110 or PS100 turns OFF while in the paper feed operation, the LU drive board (LUDB) turns OFF a drive signal to M101 to stop the paper feed operation.

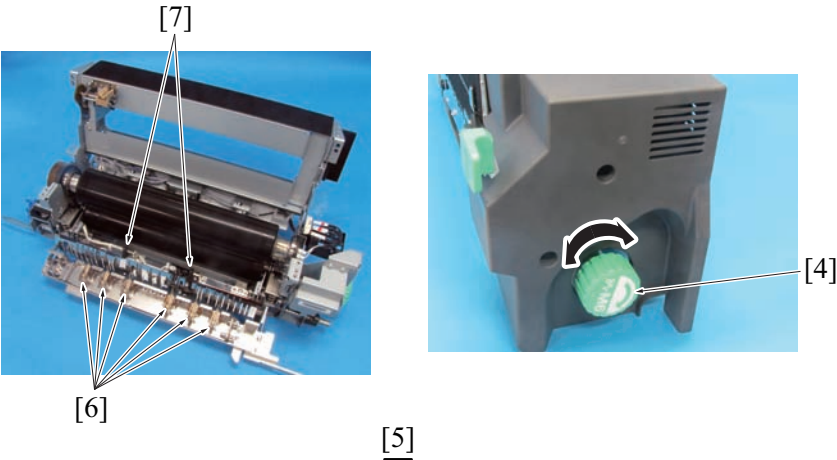
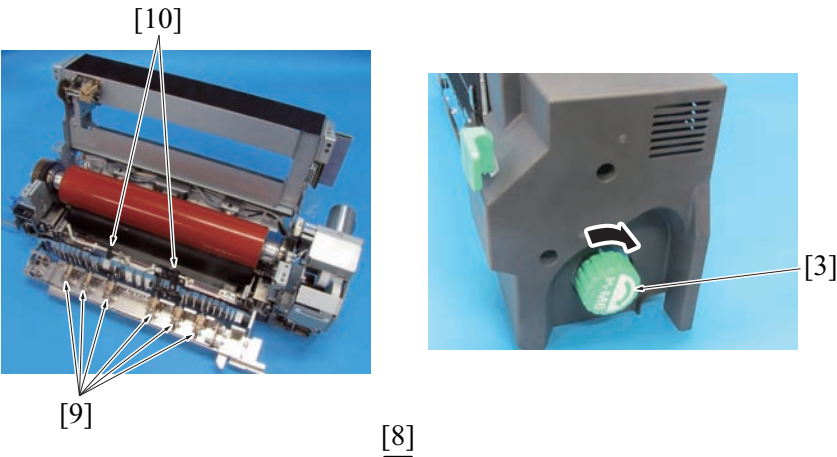
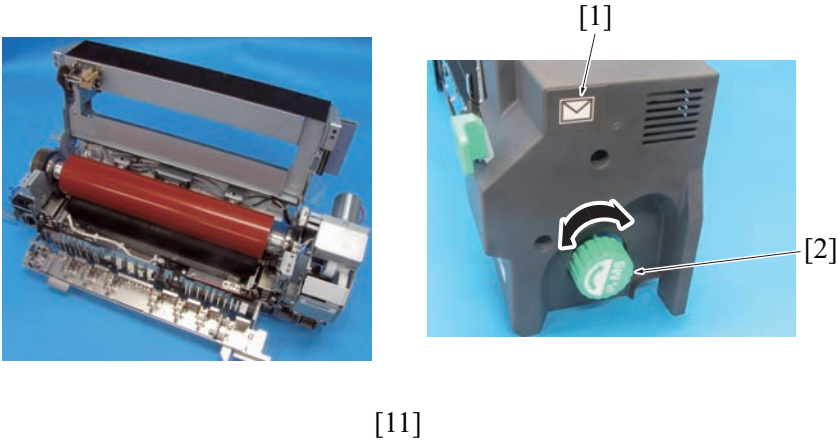
PE THEORY OF OPERATION EF-102

1. OUTLINE

1.1 Way to distinguish the fusing unit between 1250/1052/951 and EF-102.

Note

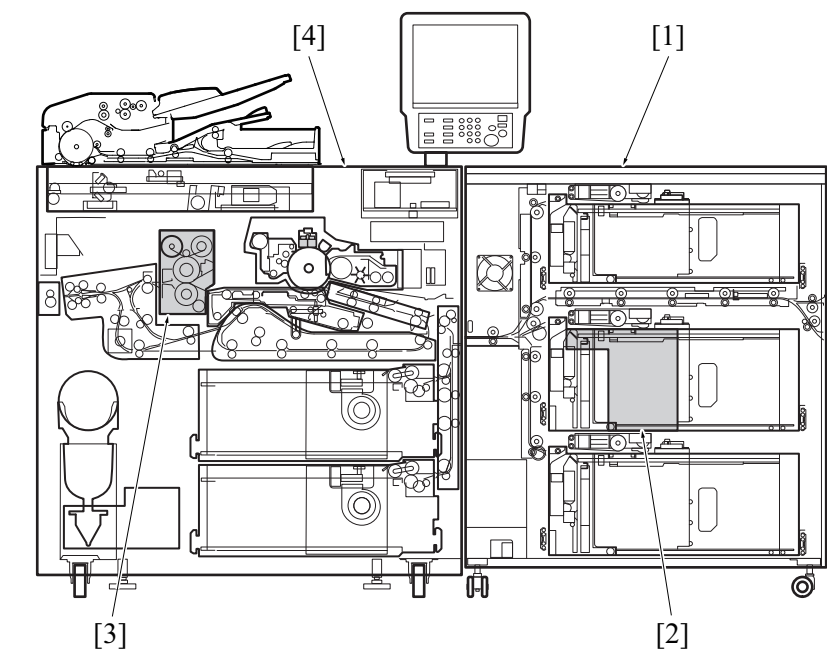
- The fusing unit of 1250/1052/951 and the fusing unit of EF-102 differs whether it has envelope label or not, which direction to rotate the jam release knob, and whether it has separation claw /Up, /Lw or not.
- EF-102 is provided with the envelope label [1].
- The jam release knobs of EF-102 [2] and 951 [4] rotate both clockwise and counterclockwise.
- The jam release knob [3] of 1250/1052 rotates only clockwise.
- EF-102 is not equipped with the separation claws /Up and /Lw.



[1]	Envelope label	[2]	Jam release knob (EF-102)
[3]	Jam release knob (1250/1052)	[4]	Jam release knob (951)
[5]	951	[6]	Separation claw /Lw (951)

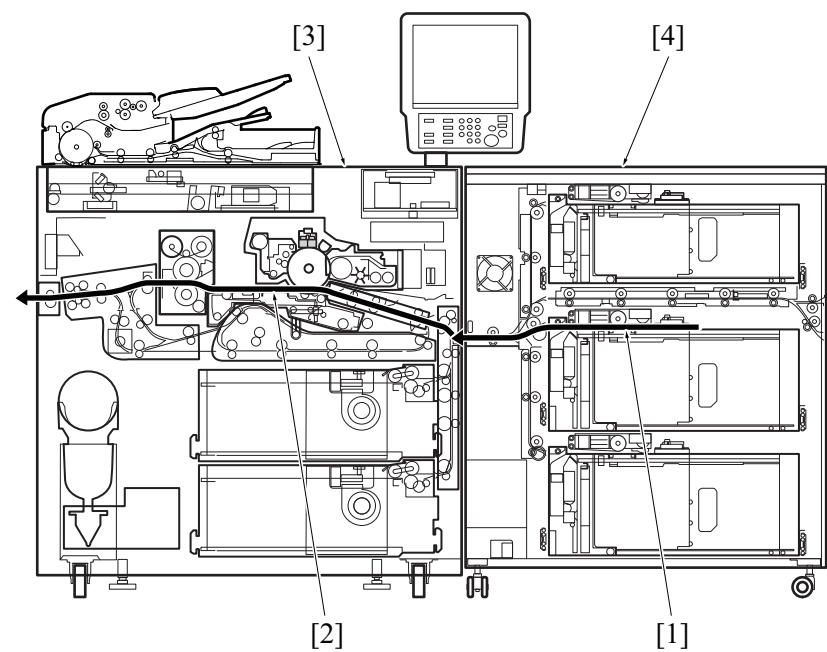
[7]	Separation claw /Up (951)	[8]	1250/1052
[9]	Separation claw /Lw (1250/1052)	[10]	Separation claw /Up (1250/1052)
[11]	EF-102		-

1.2 Unit configuration



[1]	PF-703	[2]	Paper feed assist section
[3]	Fusing section	[4]	Main body

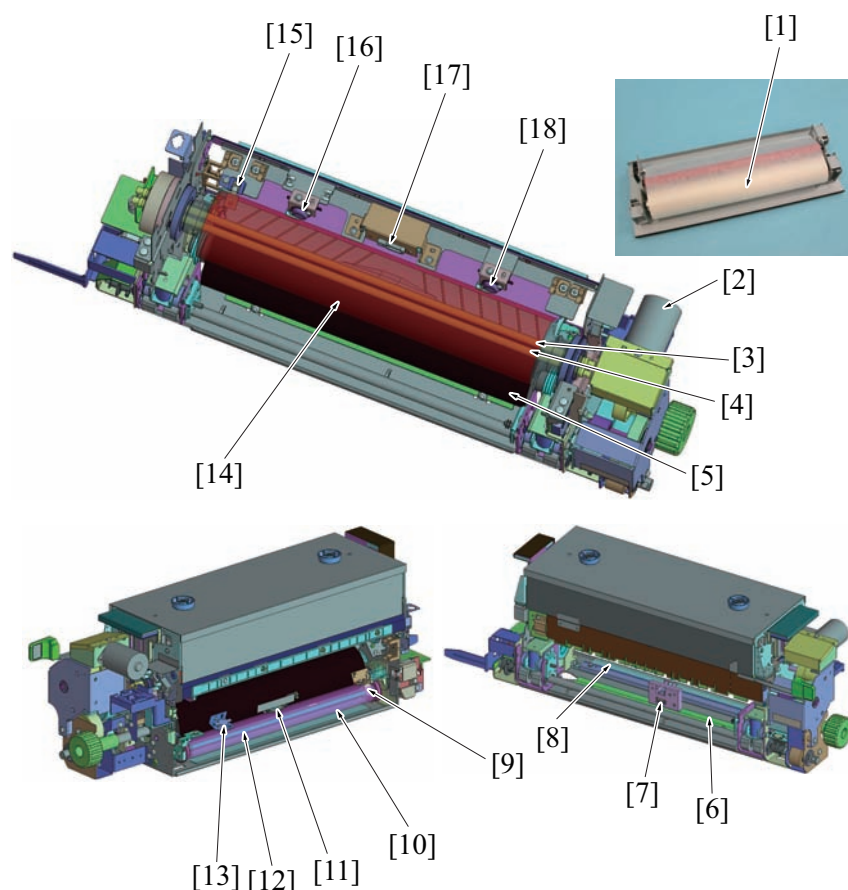
1.3 Paper path



[1]	The conveyance path inside of the PF	[2]	The conveyance path inside of the main body
[3]	Main body	[4]	PF-703

2. FUSING SECTION

2.1 Configuration



[1]	Cleaning web	[2]	Fusing pressure release motor (M33)
[3]	Fusing heater lamp /1 (L1)	[4]	Fusing heater lamp /2 (L2)
[5]	Fusing roller /Lw	[6]	Non-contact neutralizing brush
[7]	Fusing jam sensor (PS38)	[8]	Scraper
[9]	Fusing temperature sensor /4 (TH4)	[10]	Fusing heating roller
[11]	Fusing temperature sensor /3 (TH3)	[12]	Fusing heater lamp /3 (L3)
[13]	Thermostat /3 (TS3)	[14]	Fusing roller /Up
[15]	Fusing temperature sensor /2 (TH2)	[16]	Thermostat /1 (TS1)
[17]	Fusing temperature sensor /1 (TH1)	[18]	Thermostat /2 (TS2)

2.2 Drive

2.2.1 Fusing roller/web drive

For details, refer to [O.14.2.1 Fusing roller/web drive](#).

2.2.2 Fusing roller /Lw pressure drive

For details, refer to [O.14.2.2 Fusing roller /Lw pressure drive \(1250/1250P/1052 only\)](#).

2.3 Operation

2.3.1 Fusing roller drive control

(1) Speed changeover control

- The process speed is controlled with 1 step at 330mm/s.

(2) Preparative rotation control

(a) Control when the power is turned ON

- When the fusing temperature is less than 50°C with the sub power switch (SW2) turned ON and the detection temperature of the fusing temperature sensor /1 (TH1) of the fusing roller /Up gets to a specified temperature, the fusing motor (M1) starts the preparatory rotation and stops after a specified period of time or when the TH1 detects a specified temperature.
- When the fusing temperature is between 50°C or more and less than 185°C with the SW2 turned ON or while in warm-up after cleaning jam and the detection temperature of the TH1 of the fusing roller /Up gets to a specified temperature, the M1 starts the preparatory rotation. Then, the M1 stops after a specified period of time or when the TH1 detects a specified temperature.

- The software DIPSW8-2/3 allows you to make a selection between the execution and the non-execution of this preparatory rotation. Also the software DIPSW8-4/5 allows you to change the length of the preparatory rotation time.

(b) Print control

- It conducts the preparatory rotation for a specified period of time before the printing starts.
- The length of the preparatory rotation time is previously specified in accordance with the type of paper and the paper weight.
- It does not conduct the preparatory rotation when the next printing starts within 3 seconds after the previous printing.

(c) Control while in idling

- The M1 stops while in idling, however, it conducts the preparatory rotation when the prescribed condition is met.
- The preparatory rotation is conducted for a specified period of time when the TH1 detects 230°C or more while in idling.
- The preparatory rotation is conducted for a specified period of time when the fusing temperature sensor /2 (TH2) detects 220°C or more.
- When a print is reserved while in idling, the preparatory rotation is not conducted even when the TH1, TH2 detect the temperature which is the condition to start the preparatory rotation.
- When a print is executed during the preparatory rotation while in idling, the preparatory rotation is stopped for the print.

(3) Speed stabilization

- To stabilize the speed, the gear shaft between the M1 and the fusing roller /Up is equipped with a flywheel. The inertia force of the flywheel stabilizes the speed of the fusing roller to minimize the transfer jitter on thick paper.

2.3.2 Pressure release drive control

(1) Purpose

- The pressure release control of the fusing roller /Lw enhances the following performance.
 - Enhancement of the durability of the fusing roller /Up and fusing roller /Lw.
 - Reducing the curl amount and enhancement of fusibility in printing.
 - Warming up of the fusing roller /Lw in the warm-up preparatory rotation.
 - Improvement of the productivity and the durability of the pressure release mechanism.

(2) Operation

(a) Pressure position

- The pressure position has 5 types of position 1 to 5.
- Pressure position 4 is usually used when printing.
- Pressure position 1 "Very strong" can be set to be used in software DIPSW setting, however it is not usually used.

Pressure position	Position 1	Position 2	Position 3	Position 4	Position 5
Pressure power	Very strong	Strong	Medium	Weak	Very weak

(b) During the preparatory rotation in warming-up

- The pressure position switches to the position 4. The pressure position switches to the position 5 after the pre-rotation.

(c) When starting the printing

- The pressure position switches to the printing position at the same time the preparatory rotation for the printing starts.

(d) While in the print

- After the print completes, it keeps the current pressure position for the next print. When there is no next job input, the pressure position switches to the pressure position (position 5).

(e) Switching of the pressure position

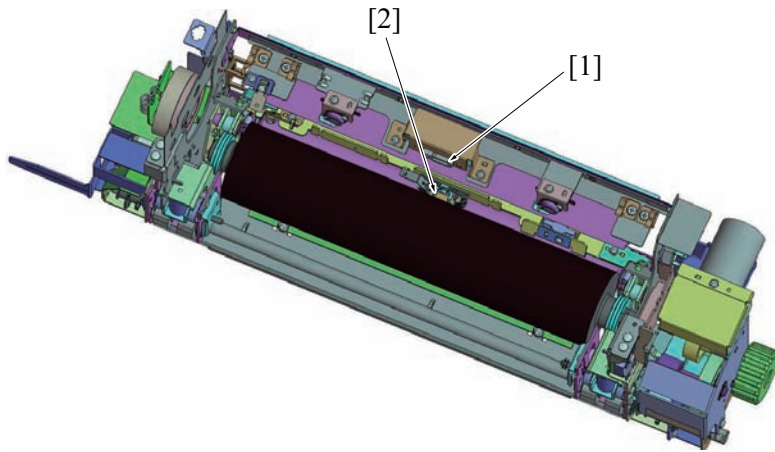
- Pressure position 4 is usually used when printing, but other pressure positions can also be used by setting [Tray Setting]-[Pressure Power Setting].

2.3.3 Web drive control

For details, refer to [O.14.3.3 Web drive control](#).

2.3.4 Fusing temperature control

- The heating of the fusing roller /Up is made by the fusing heater lamps /1 (L1) and /2 (L2) and the heating of the fusing roller /Lw made by the fusing heater lamp /3 (L3) through the fusing heating roller.
- The surface temperature of the fusing roller /Up is detected at fixed intervals by thermistor /1 (TH1) [1] provided at the center, and controlled by turning L1 and L2 ON/OFF through the AC drive board (ACDB) so that it becomes a prescribed temperature.
- The surface temperature of the fusing heating roller is detected at fixed intervals by fusing temperature sensor /3 (TH3) [2] provided at the center and the temperature of the fusing heating roller is controlled by turning L3 ON/OFF via ACDB.



[1]	Fusing temperature sensor /1 (TH1)
[2]	Fusing temperature sensor /3 (TH3)

(1) Warm-up

- The fusing heater lamps /1 (L1), /2 (L2) and /3 (L3) turn ON while in the warm-up, and they turn OFF at a prescribed temperature.

(2) While in the print

- For the fusing roller /Up, the fusing heater lamp /1 (L1) and /2 (L2) are turned ON/OFF so that the temperature comes to a prescribed temperature.
- For the fusing heating roller, the fusing heater lamp /3 (L3) is turned ON/OFF so that the temperature comes to a prescribed temperature.

(3) Non paper-through section temperature control

- To prevent the fusing roller /Up temperature from increasing, decreases the target temperature by the prescribed value when the fusing roller /Up edge temperature exceeds the prescribed value while in the print.
- After the target temperature is decreased, the fusing roller /Up temperature is monitored at every the fusing heater lamp /1 (L1) turns OFF/ON. Thus, the temperature during printing operation is increased or decreased by the prescribed value according to the detected temperature.

(4) Alarm control

- To prevent the fusing under, the printing operation is stopped and warm-up is performed when the detected temperature of the fusing roller /Up becomes the prescribed temperature.
- Restarts printing automatically when the warm-up is completed.

(5) While in standby

- For the fusing roller /Up, the fusing heater lamp /1 (L1) turns ON when the temperature is 3°C lower than a prescribed temperature and turns OFF when the temperature is 2°C higher than a prescribed temperature.
- For the fusing heating roller, the fusing heater lamp /3 (L3) turns ON when the temperature is 1°C lower than a prescribed temperature and turns OFF when the temperature is 1°C higher than a prescribed temperature.
- The heater lamp /2 (L2) does not turn ON to prevent flicker.

(6) Control for improvement of the fusibility at the starting of printing.

- The printing starts after the specified period of time after the start button is pressed on the condition that the temperature of the fusing roller /Up is higher than the prescribed temperature.
- When the detected temperature is lower than the prescribed value, it conducts warming-up until the temperature reaches the prescribed value.
- The software DIPSW36-2 can change the condition for conducting this control.

(7) Preparatory rotation after printing

- It conducts the preparatory rotation for 10 seconds when the temperature of the fusing roller /Up reaches the prescribed value while in idling.
- The fusing heater lamp /1 (L1) and /2 (L2) is forcibly turned OFF when printing is completed.
- When there is a print reservation, this control does not function but the printing operation takes priority.
- Also when the next print job is inputted while conducting this control, the printing operation takes priority.

(8) Power save

- The timer starts to count when the last printing completes. When the operation button is not pressed within a specified period of time, the mode switches to the low-power mode or the shut-off mode.
- The length of time which elapses before switching to the low-power mode or the shut-off mode can be specified arbitrarily.
- When the setting time of the low-power mode and shut-off mode coincide, the shut-off mode is selected.

(a) Low-power mode

- For the fusing roller /Up, the fusing heater lamp /1 (L1) is turned ON/OFF so that the temperature comes to a prescribed temperature.

- For the fusing heating roller, the fusing heater lamp /3 (L3) is turned ON/OFF so that the temperature comes to a prescribed temperature.
- The heater lamp /2 (L2) does not turn ON to prevent flicker.

(b) Shut-OFF mode

- When switching to the shut-off mode, the energization to the fusing heater lamp /1 (L1), /2 (L2) and /3 (L3) turns OFF.

2.3.5 Protection against temperature abnormality

For details, refer to [O.14.3.6 Protection against temperature abnormality](#).

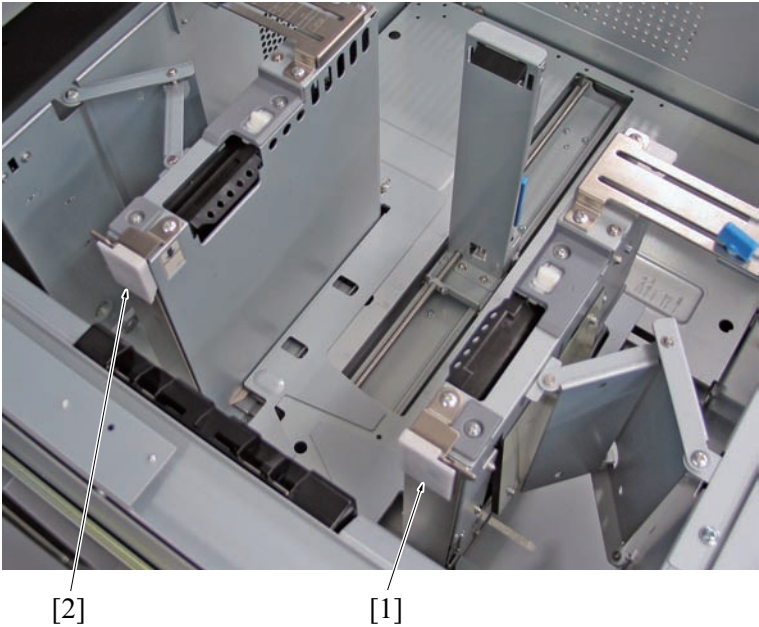
3. PAPER FEED ASSIST SECTION

3.1 Configuration

- Reinstall the paper feed assist parts to the tray4 of PF-703.
- The used paper feed assist parts differ according to the envelope size.

(1) When using large size envelope

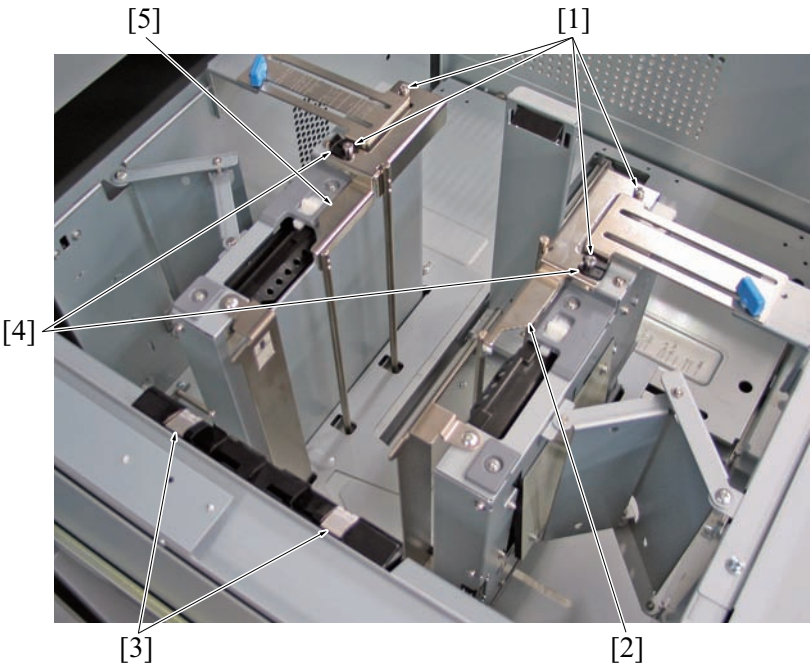
- When the envelope is 141 to 245mm in the main scan direction.



[1] Regulation guide /Fr	[2] Regulation guide /Rr
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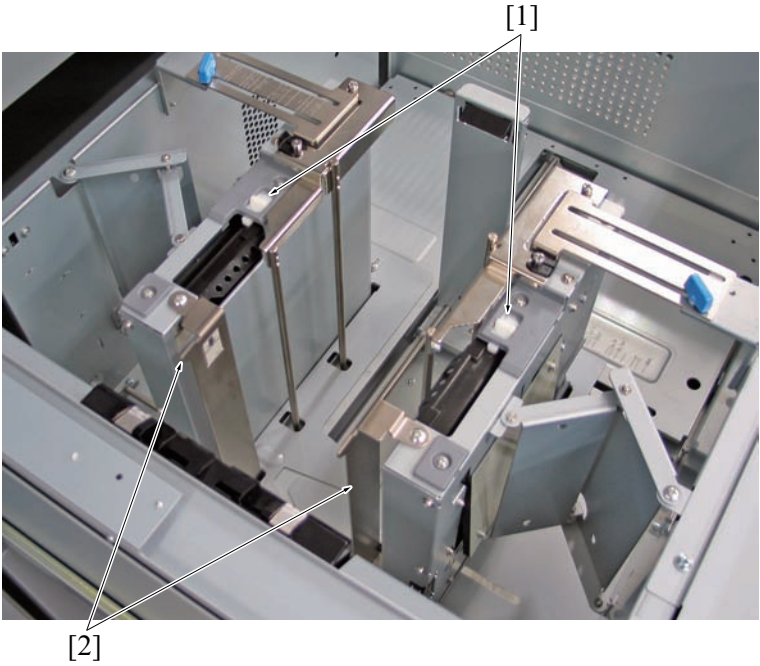
(2) When using small size envelope

- When the envelope is 100 to 140mm in the main scan direction. However this function does not work when the envelope is between 120mm and 135mm.



[1] Positioning screw	[2] Assist guide /Fr
[3] Duct cover	[4] Stopper
[5] Assist guide /Rr	-

- Use the duct lock [1] and small size guide [2] of PF-703.

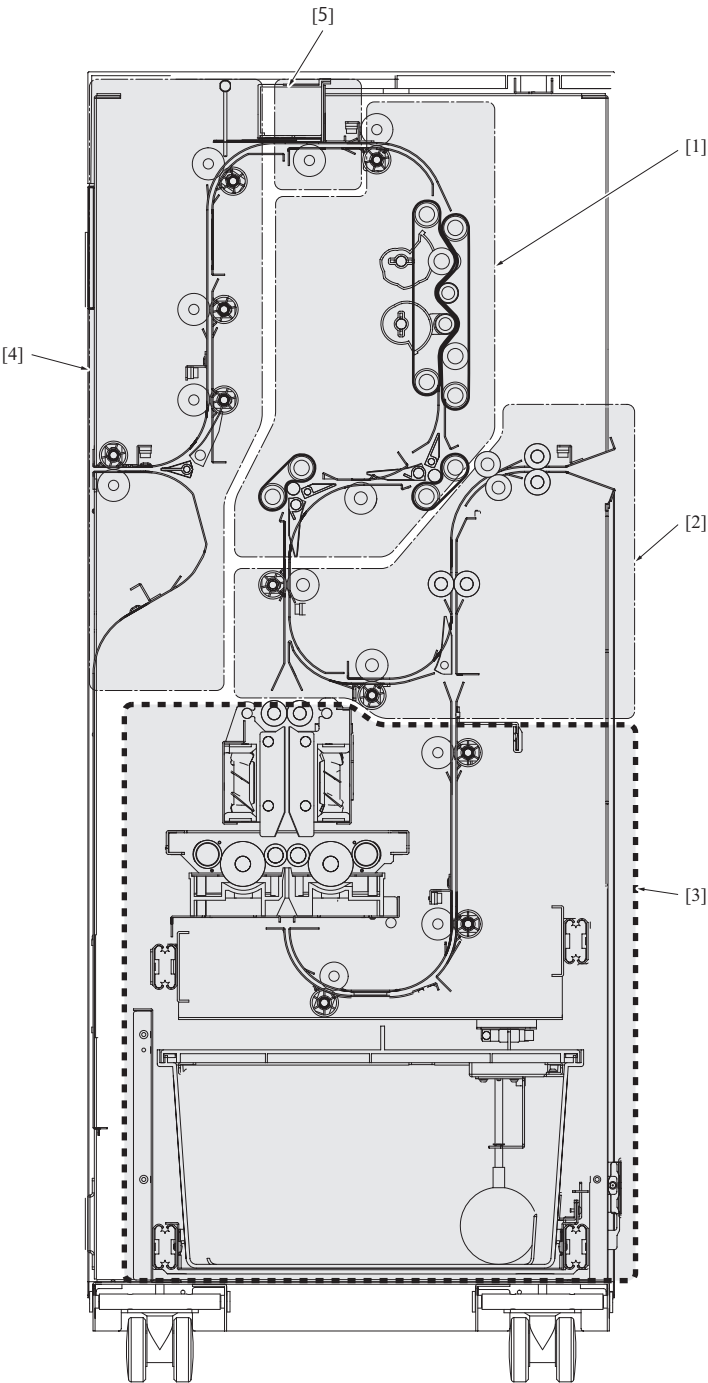


[1]	Duct lock	[2]	Small size guide
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PF THEORY OF OPERATION RU-509/HM-102

1. OUTLINE

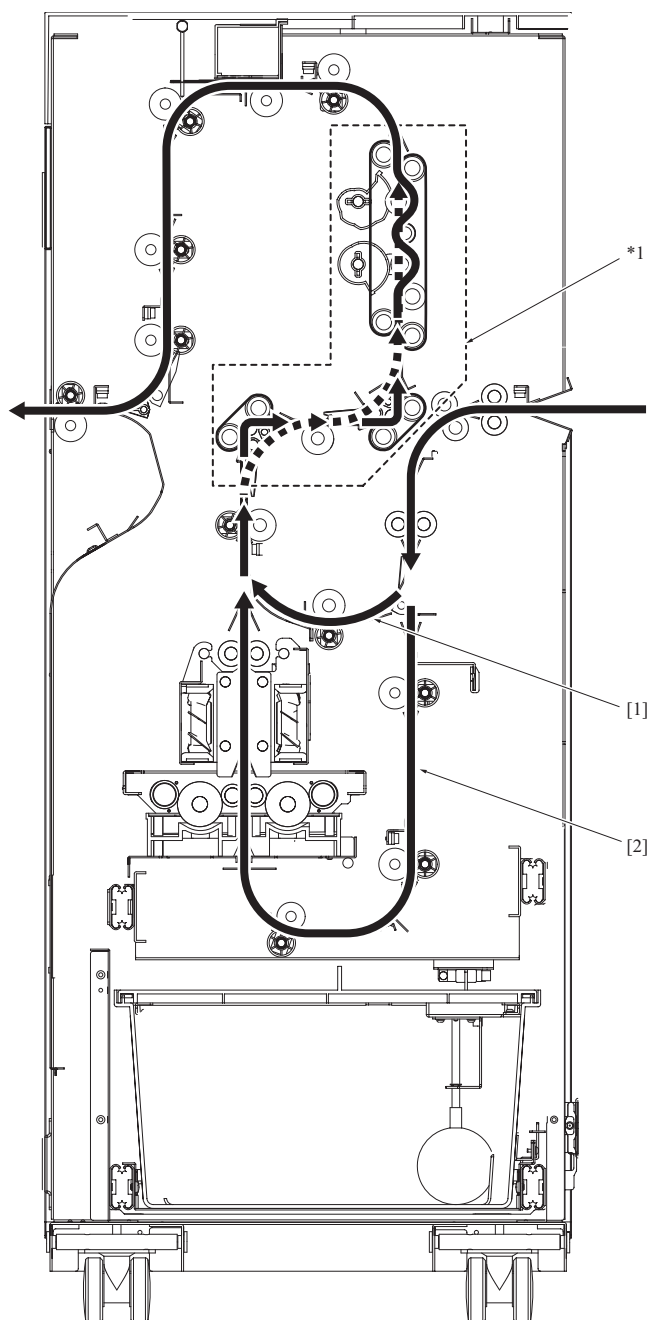
1.1 Unit configuration



[1]	De-curler section	[2]	Entrance conveyance section
[3]	HT-102 (HM-102 option)	[4]	Paper exit section
[5]	Output paper density detection section	-	

1.2 Paper path

1.2.1 Straight conveyance/de-curler conveyance/humidification conveyance mode

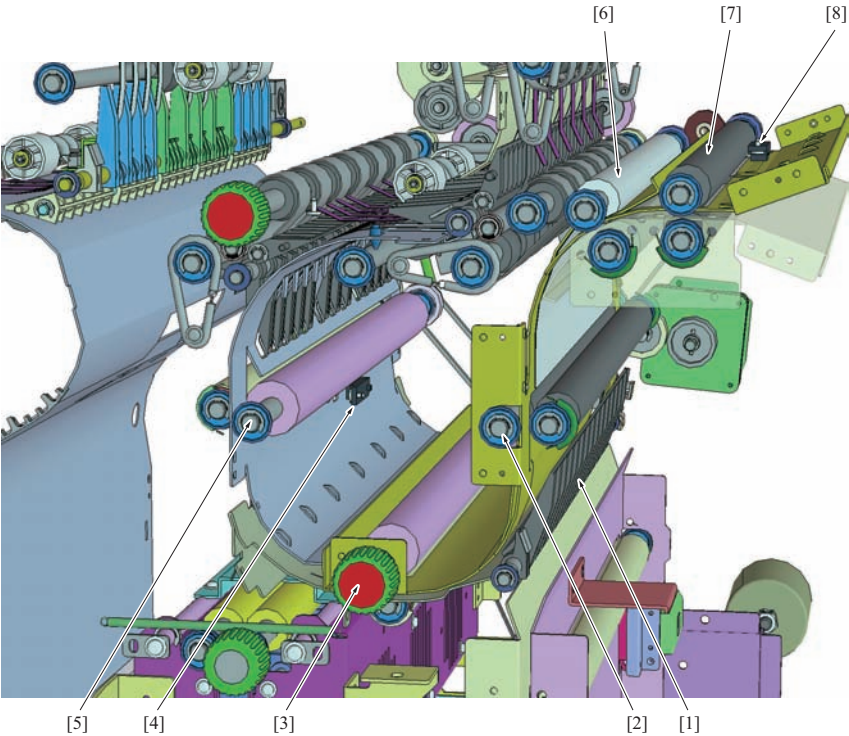


[1] Bypass conveyance path	[2] Humidification conveyance path
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*1 The paper path of the de-curler section differs depending on the operation pattern of the de-curler.

2. ENTRANCE CONVEYANCE SECTION

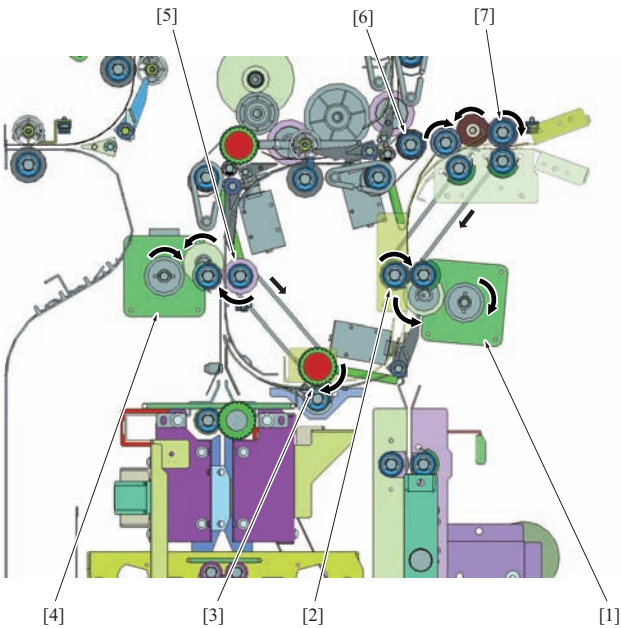
2.1 Configuration



[1]	Humidification conveyance gate	[2]	Entrance conveyance roller /3
[3]	Intermediate conveyance roller /1	[4]	De-curler entrance sensor (PS2)
[5]	Intermediate conveyance roller /2	[6]	Entrance conveyance roller /2
[7]	Entrance conveyance roller /1	[8]	Entrance sensor (PS1)

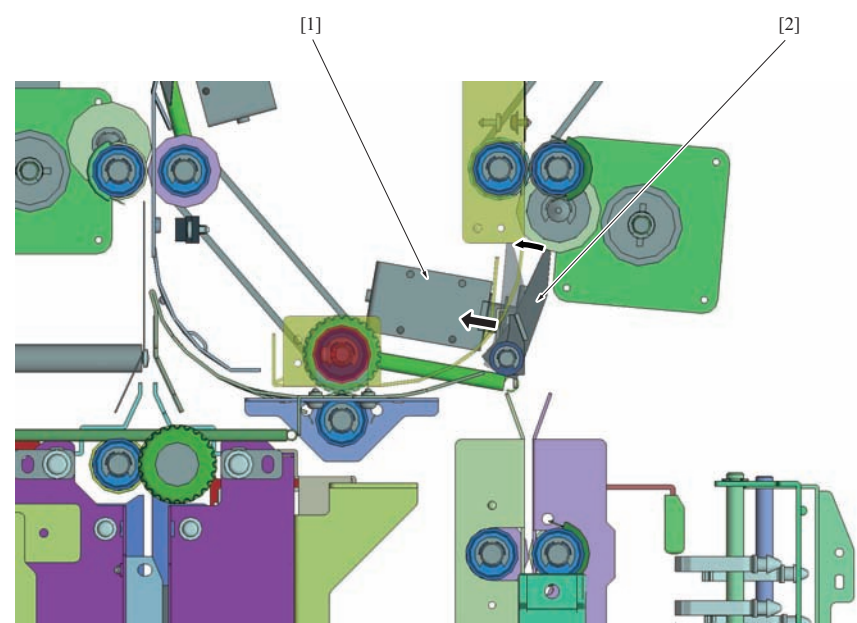
2.2 Drive

2.2.1 Conveyance drive



[1]	Entrance conveyance motor (M1)	[2]	Entrance conveyance roller /3
[3]	Intermediate conveyance roller /1	[4]	Intermediate conveyance motor (M2)
[5]	Intermediate conveyance roller /2	[6]	Entrance conveyance roller /2
[7]	Entrance conveyance roller /1	-	

2.2.2 Humidification section gate drive



[1] Humidification section gate solenoid (SD1)	[2] Humidification section gate
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2.3 Operation

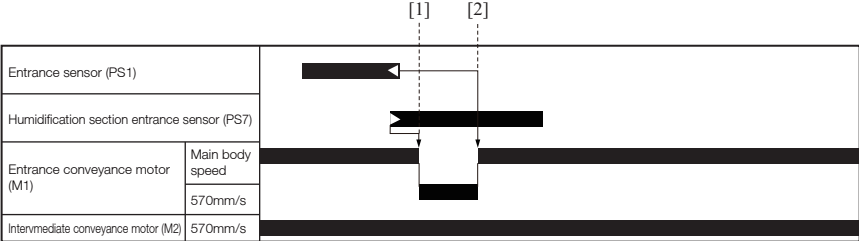
2.3.1 Conveyance control

(1) Mechanism

- The entrance conveyance motor (M1) and the intermediate conveyance motor (M2) conduct the conveyance.
- M1 drives the entrance conveyance rollers /1, /2 and /3 via the gear and the belt.
- The entrance conveyance roller /3 has the one-way clutch and it makes up the conveyance speed gap between the humidification section entrance conveyance motor (M7) and M1.
- M2 drives the intermediate conveyance rollers /1 and /2 via the gear and the belt.
- The intermediate conveyance roller /2 receives the paper conveyed from the humidification section and conveys it to the de-curler section.

(2) Entrance conveyance control of humidifier ON Mode

1. When the start button turns ON, the entrance conveyance motor (M1) turns ON at the same line speed as the paper exit from the main body, and the intermediate conveyance motor (M2) turns ON at 570 mm/s. Controls the speed of M1 only in following cases. In other cases, it drives at the constant speed during printing.
 - When the exit line speed of the main body is 1250mm/s, 1000mm/s or 750mm/s and the paper is conveyed whose length in the direction of the sub-scan is 301mm to 488mm.
 - When the exit line speed of the main body is 490mm/s, or 330mm/s and the paper is conveyed whose length in the direction of the sub-scan is 431mm to 488mm.
2. After a specified period of time since the humidification section entrance sensor (PS7) detects the leading edge of paper and turns ON, M1 switches to 570mm/s [1].
3. After a specified period of time since PS1 turns OFF, M1 returns to the exit line speed of the main body [2].
4. When the paper exit sensor (PS12) detects the trailing edge of the last paper and turns OFF, M1 and M2 turn OFF.



[1] M1 switches to 570mm/s	[2] M1 switches to the same line speed as the main body for the next paper
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*The picture shows the case of paper 301mm to 488mm in sub scan direction conveyed at 1000mm/s.

(3) Entrance conveyance control of humidifier OFF Mode

- When the start button turns ON, the entrance conveyance motor (M1) and the intermediate conveyance motor (M2) turn ON at the same line speed as the main body.
- Controls the speed of M1 and M2 only when the paper is conveyed from the main body at the line speed of 750mm/s, 1000mm/s, 1250 mm/s. In other cases, it drives at the constant speed during printing.

- When the 139mm to 260mm length of paper in the sub scan direction is conveyed at 750 mm/s, 1000 mm/s, and 1250 mm/s only M2 reduces its speed to 570 mm/s after a specified period of time when the de-curler entrance solenoid (PS2) detects the leading edge of paper, and M2 returns to the speed of the main body after a specified period of time when PS2 detects the trailing edge of the paper.
- When the paper whose length in the sub scan direction is 261mm to 488mm is conveyed at the line speed of 750 mm/s, 1000 mm/s, and 1250 mm/s, M1 and M2 reduce its speed to 570 mm/s after a specified period of time since PS2 detects the leading edge of paper. M1 returns to the speed of the main body after a specified period of time since the entrance sensor (PS1) detects the trailing edge of paper, and M2 returns to the speed of the main body after a specified period of time since PS2 detects the trailing edge of paper.

2.3.2 Humidification section gate control

(1) Mechanism

- The humidification section gate solenoid (SD1) drives the humidification section gate. The gate is set to the bypass route when it is turned OFF and is set to the conveyance route to the humidification section when it is turned ON.
- The conveyance route to the humidification section is selected for humidifying paper.

(2) Humidification section gate control

(a) Humidifier mode

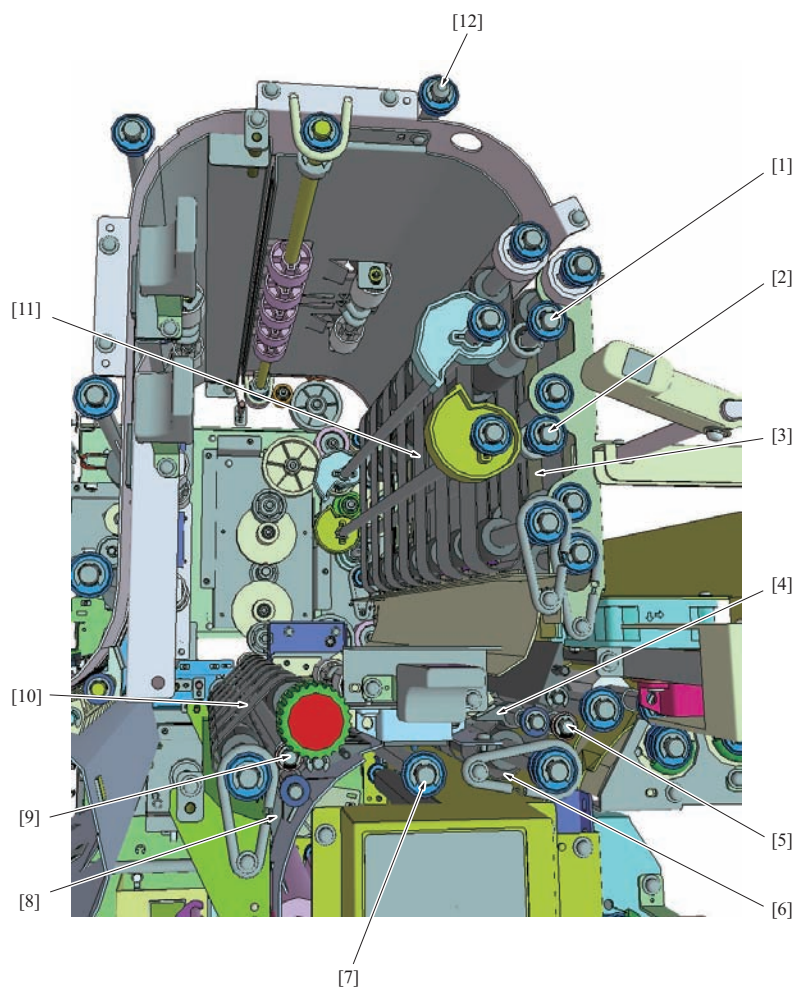
1. A specified period of time after the entrance sensor (PS1) detects the leading edge of the paper and turns ON, the humidification gate solenoid (SD1) turns ON and switches the path to the humidification section.
2. When the paper exit sensor (PS12) detects the trailing edge of the last paper and turns OFF, SD1 turns OFF.

(b) Humidifier OFF mode

- In the Humidifier OFF mode, SD1 does not turn ON.

3. DE-CURLER SECTION

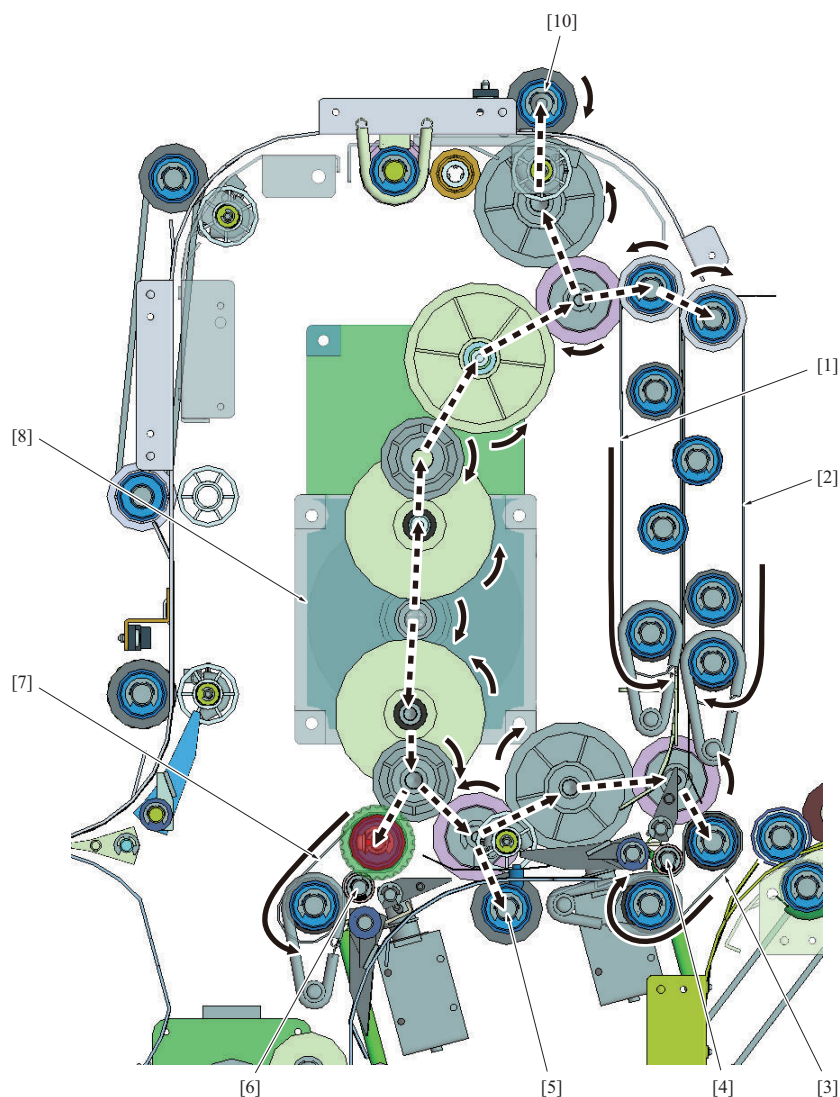
3.1 Configuration



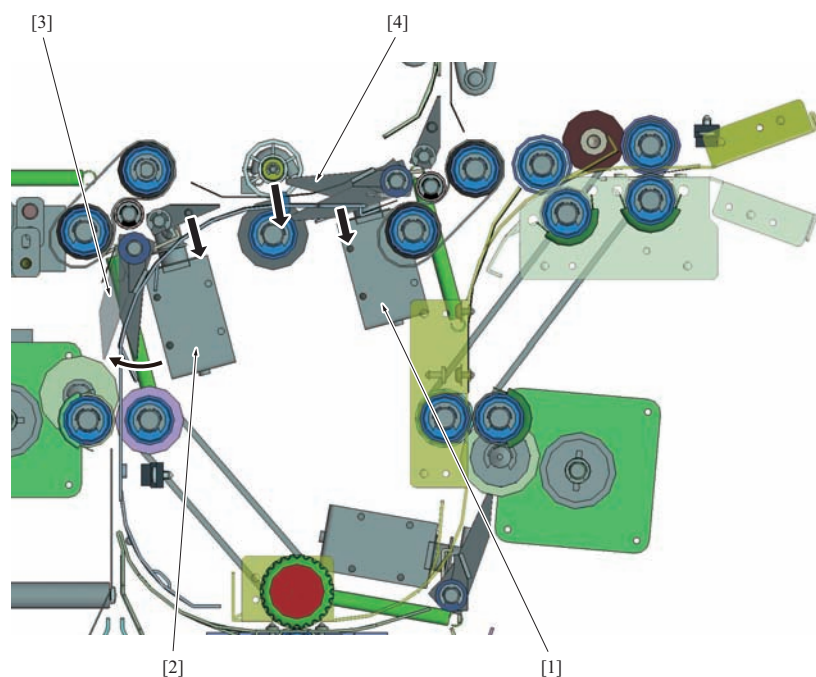
[1]	De-curler roller /4	[2]	De-curler roller /3
[3]	De-curler belt /Rt	[4]	De-curler gate /2
[5]	De-curler roller /2	[6]	De-curler belt /2
[7]	De-curler conveyance roller /1	[8]	De-curler gate /1
[9]	De-curler roller /1	[10]	De-curler belt /1
[11]	De-curler belt /Lt	[12]	De-curler conveyance roller /2

3.2 Drive

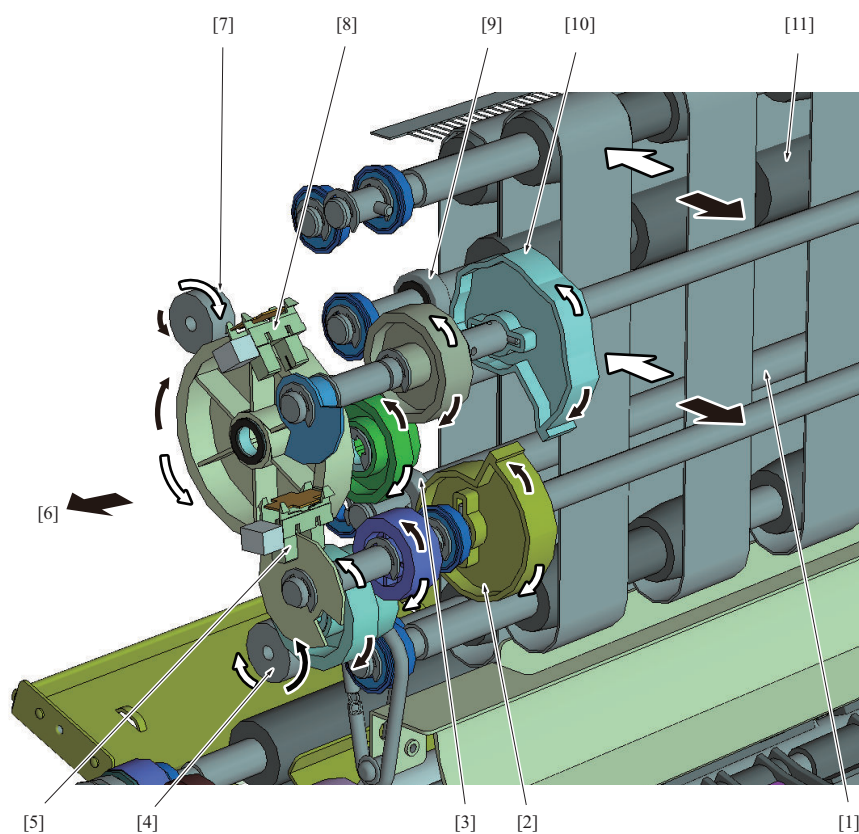
3.2.1 De-curler section conveyance drive



[1]	De-curler belt /Lt	[2]	De-curler belt /Rt
[3]	De-curler belt /2	[4]	De-curler roller /2
[5]	De-curler conveyance roller /1	[6]	De-curler roller /1
[7]	De-curler belt /1	[8]	De-curler conveyance motor (M3)
[9]	De-curler conveyance roller /2	-	

3.2.2 De-curler gates /1 and /2 drive

[1]	De-curler gate solenoid /2 (SD3)	[2]	De-curler gate solenoid /1 (SD2)
[3]	De-curler gate /1	[4]	De-curler gate /2

3.2.3 De-curlers /3 and /4 pressure drive

[1]	De-curler roller /3	[2]	De-curler pressure cam /Lw
[3]	De-curler pressure roller /Lw	[4]	Drive gear of the de-curler pressure motor /Lw (M5) shaft
[5]	De-curler pressure home sensor /Lw (PS5)	[6]	Rear side
[7]	Drive gear of the de-curler pressure motor /Up (M6) shaft	[8]	De-curler pressure home sensor /Up (PS6)
[9]	De-curler pressure roller /Up	[10]	De-curler pressure cam /Up

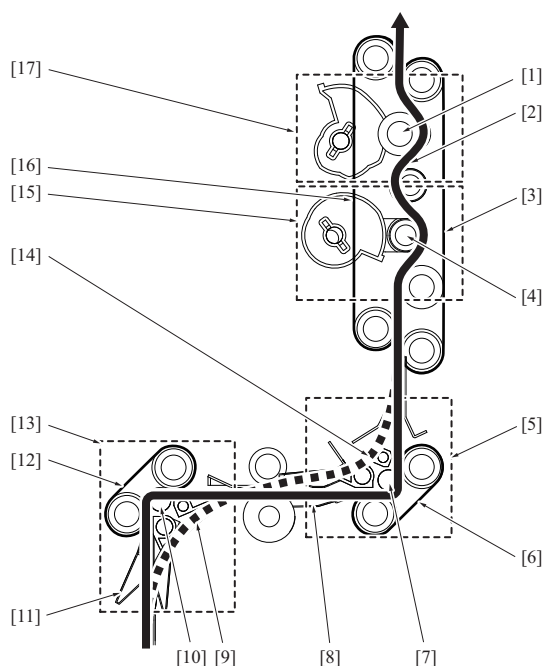
[11] De-curler roller /4	-
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3.3 Operation

3.3.1 Outline of de-curler

(1) Outline of de-curler

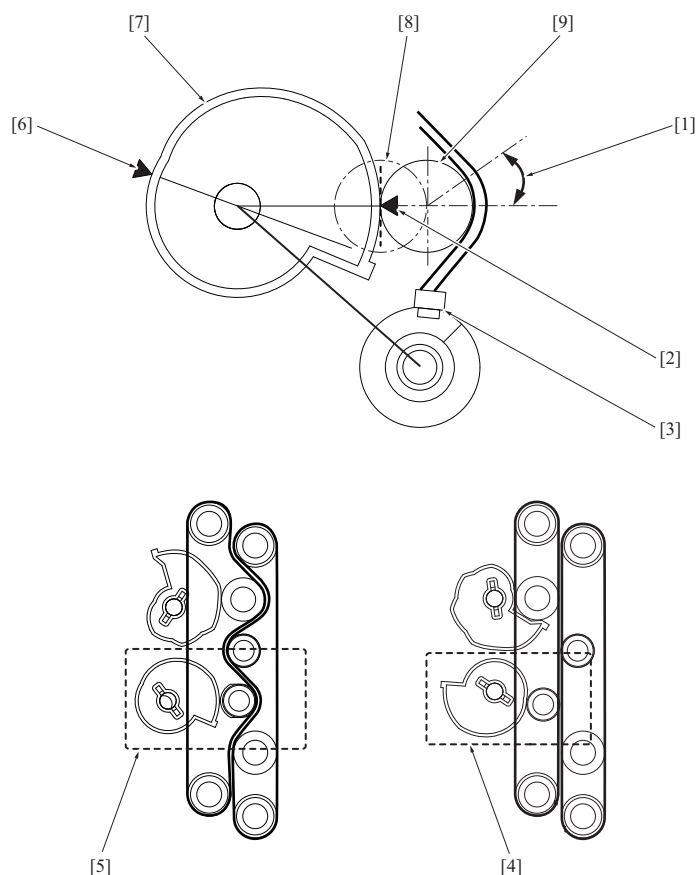
- The de-curler section consists of the de-curlers /1 [13], /2 [5], /3 [15] and /4 [17]. The de-curlers /3 and /4 correct the paper curl through the zigzag path [2] that can change the flexion strength.
- The de-curler /1 corrects the large convex curled paper with the de-curler roller /1 [10] of curvature R5 and the de-curler belt /1 [12].
- The de-curler /2 corrects the large concave curled paper with the de-curler roller /2 [7] of curvature R5 and the de-curler belt /2 [6].
- When the de-curler/1, /2 is not used, the de-curler gate solenoid/1 (SD2), /2 (SD3) drives the de-curler gate/1 [11], /2 [8] and switches to the bypass path [9], [14].
- The de-curler/3, /4 corrects the convex-concave curled paper by changing the shapes of 2 de-curler belts /Rt [3] and /Lt [16] pressing with the de-curler roller/3 [4], /4 [1].



[1] De-curler roller /4	[2] Zigzag path
[3] De-curler belt /Rt	[4] De-curler roller /3
[5] De-curler /2	[6] De-curler belt /2
[7] De-curler roller /2	[8] De-curler gate /2
[9] Bypass path	[10] De-curler roller /1
[11] De-curler gate /1	[12] De-curler belt /1
[13] De-curler /1	[14] Bypass path
[15] De-curler /3	[16] De-curler belt /Lt
[17] De-curler /4	-

(2) De-curler /3 mechanism

- The de-curler pressure motor /Lw (M5) drives the pressure of the de-curler roller /3 [9] via the de-curler pressure cam /Lw [7].
- The de-curler pressure home sensor /Lw (PS5) [3] detects the home position.
- When the de-curler pressure cam /Lw is at the home position, the de-curler roller pressure roller is pressed at the position [2]. At this time, the belt is at the push out position [5], and the wrap angle of the belt of the de-curler roller /3 is 22.5° [1].
- When the de-curler pressure cam /Lw presses the de-curler roller pressure roller at the position [6], the de-curler roller /3 is at the position [8] and the belt is parallel [4].



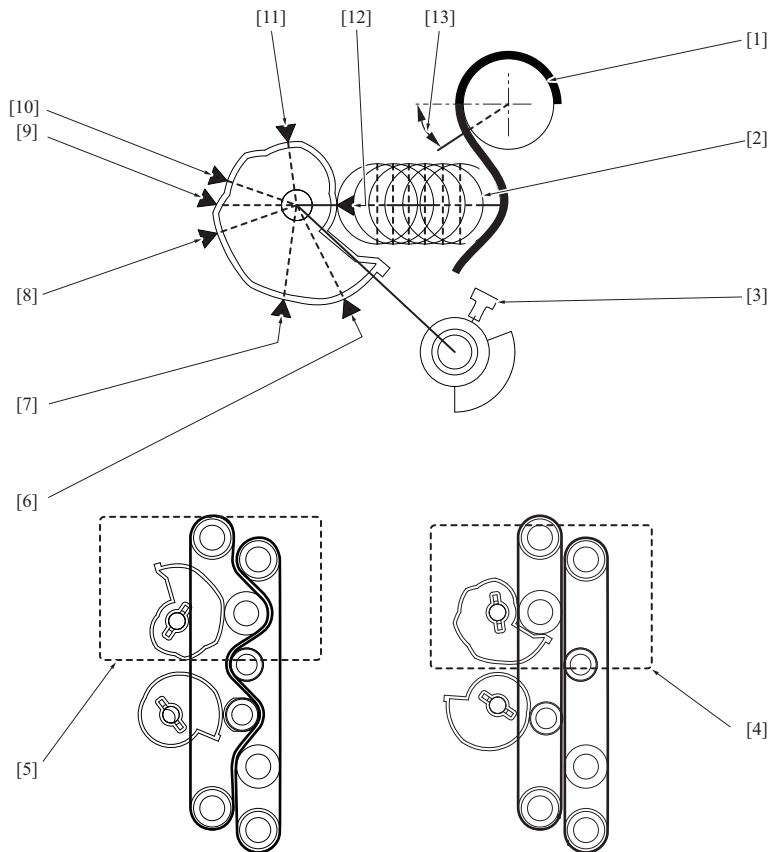
[1] Wrap angle	[2] Home position
[3] De-curler pressure home sensor /Lw (PS6) [3]	[4] De-curler belt /Rt, /Lt parallel
[5] De-curler belt /Rt, /Lt pressed	[6] De-curler belt /Rt, /Lt pressing position in parallel
[7] De-curler pressure cam /Lw	[8] De-curler roller /3 in parallel
[9] De-curler roller /3	-

(3) De-curler /4 mechanism

1. The de-curler pressure motor /Up (M6) drives the pressure [5] of the de-curler roller /4 [2] via the de-curler pressure cam /Up [9].
2. The de-curler pressure home sensor /Up (PS6) [3] detects the home position.
3. The belt exit wrap angle [13] of the belt roller /Up [1] changes depending on the pressing position of the de-curler roller /4. It has 6 patterns of angle; 0°, 15°, 22.5°, 30°, 37.5°, 45°.
4. The de-curler pressure roller is pressed when the belt exit wrap angle 30° is the home position and the position of the de-curler pressure cam /Up [8]. 30° is the angle that paper exits from the de-curl section keeping the correction effect of the de-curler /1, /2.
5. The belt is parallel [4] when the belt exit wrap angle is 0° and the pressing position of the de-curler pressure cam /Up is [12].
6. The following list shows the positional relation between the belt exit wrap angle and the de-curler cam/Up.

Belt wrap angle	De-curler pressure cam rotation angle (from home position)
0° (parallel)	- 202.5° [12]
15°	- 100° [11]
22.5°	- 50° [10]
30° (home position)	0° [8]
37.5°	50° [7]
45°	100° [6]

7. When the de-curler roller /4 is other than parallel by being pushed out, the de-curler roller /3 is also at the push out position increasing the flexing number.



[1]	Belt roller /Up	[2]	De-curler roller /4
[3]	De-curler pressure home sensor /Up (PS6)	[4]	Parallel
[5]	Pressed status	[6]	De-curler pressure cam angle 100°
[7]	De-curler pressure cam 50°	[8]	De-curler pressure cam angle 0°
[9]	De-curler pressure cam	[10]	De-curler pressure cam angle -50°
[11]	De-curler pressure cam angle -100°	[12]	De-curler pressure cam angle -202.5°
[13]	Belt exit wrap angle	-	

(4) De-curler paper feed pattern

- The method to adjust the curl depends on the paper type and weight.
- The paper feed pattern has 2 types; the default mode and the individual setting mode.
- The de-curlers /1 and /2 which adjust strongly with small curvature are effective for thin paper.
- The de-curlers /3 and /4 which adjust to the exit wrap angle after flexing concavity and convexity some times are effective for thick paper.

(a) Default mode

It is the default when "0" is selected on the "Curl Adjustment screen" of the operation panel.

HM Provided or not provided	Paper Size	Paper weight (g/m ²)	Humidification	De-curler			
				/1	/2	/3	/4
Not provided	All Size	40 to 162	×	○	○	Pressure	30°
		163 to 300	x	x	x	Pressure	30°
		301 to 350	x	x	x	Pressure	30°
Provided		50 to 162	○ *1	○	○	Pressure	30°
		163 to 300	○	x	x	Pressure	30°
		301 to 350	○	x	x	Pressure	30°

The following shows the meaning of ○ and x.

○: Use the function

x: Not use the function

*1 Humidifier Setting is not available when the paper weight is 135 g/m² or less for Coated, PrePrinted, Blank Insert Sheet, Embossed, and Embossed2.

(b) Individual setting mode

The individual setting mode can be set on the "Curl Adjustment screen" of the operation panel.

The following list shows the relationship between "Strength of correction" and "Curl Adjustment screen."

Strength of correction "Strong": Setting value "+2 or -2"

Strength of correction "Weak": Setting value "+1 or -1"

HM	Paper Size	Paper weight (g/m ²)	Curl		Humidification	De-curler			
			Direction	Strength of correction		/1	/2	/3	/4
Not provided	All Size	40 to 135	Convex	Strong	x	○	x	Parallel	0 ° (parallel)
				Weak	x	○	x	Pressure	30°
			Concave	Strong	x	x	○	Parallel	0 ° (parallel)
				Weak	x	x	○	Pressure	30°
		136 to 162	Convex	Strong	x	○	○	Pressure	45°
				Weak	x	○	○	Pressure	37.5°
			Concave	Strong	x	○	○	Pressure	15°
				Weak	x	○	○	Pressure	22.5°
	Other than postcard/A6	163 to 300	Convex	Strong	x	x	x	Pressure	45°
				Weak	x	x	x	Pressure	37.5°
			Concave	Strong	x	x	x	Pressure	15°
				Weak	x	x	x	Pressure	22.5°
	Postcard/A6	163 to 300	Convex	Strong	x	○	x	Pressure	45°
				Weak	x	x	x	Pressure	45°
			Concave	Strong	x	x	○	Pressure	15°
				Weak	x	x	x	Pressure	15°
	All Size	301 to 350	-	-	x	x	x	Pressure	30°
Provided	All Size	50 to 135	Convex	Strong	○ / x *1	○	x	Parallel	0 ° (parallel)
				Weak	○ / x *1	○	x	Pressure	30°
			Concave	Strong	○ / x *1	x	○	Parallel	0 ° (parallel)
				Weak	○ / x *1	x	○	Pressure	30°
		136 to 162	Convex	Strong	○ / x	○	○	Pressure	45°
				Weak	○ / x	○	○	Pressure	37.5°
			Concave	Strong	○ / x	○	○	Pressure	15°
				Weak	○ / x	○	○	Pressure	22.5°
	Other than postcard/A6	163 to 300	Convex	Strong	○ / x	x	x	Pressure	45°
				Weak	○ / x	x	x	Pressure	37.5°
			Concave	Strong	○ / x	x	x	Pressure	15°
				Weak	○ / x	x	x	Pressure	22.5°
	Postcard/A6	163 to 300	Convex	Strong	○ / x	○	x	Pressure	45°
				Weak	○ / x	x	x	Pressure	45°
			Concave	Strong	○ / x	x	○	Pressure	15°
				Weak	○ / x	x	x	Pressure	15°
	All Size	301 to 350	-	-	○ / x	x	x	Pressure	30°

The following shows the meaning of ○ and x.

○: Use the function

x: Not use the function

*1 Humidifier Setting is not available when the paper weight is 135 g/m² or less for Coated, PrePrinted, Blank Insert Sheet, Embossed, and Embossed2.

3.3.2 De-curler section conveyance control

(1) Mechanism

The de-curler conveyance motor (M3) drives the de-curler conveyance rollers /1 and /2, and the de-curler belts /Rt and /Lt.

(2) Conveyance control

- In the humidification ON mode, or when the paper is conveyed from the main body at the speed of 1000mm/s, the de-curler conveyance motor (M3) turns ON at the line speed of 570mm/s after a print job is received.
In other than the case above, M3 turns ON at the paper exit line speed of the main body when receiving a print job.
- After a specified period of time since the paper exit sensor (PS12) detects the trailing edge of the last paper and turns OFF, M3 turns OFF.

3.3.3 De-curlers /1 and /2 control

(1) When the de-curler control is not switched during printing

- When the de-curlers /1 and /2 are the bypass route, the de-curler solenoids /1 (SD2) and /2 (SD3) turn ON with receiving a print job.
- When the paper exit sensor (PS12) detects the trailing edge of the last paper and turns OFF, SD2 turns OFF, then SD3 turns OFF after a specified period of time.

(2) When the de-curler control is switched during printing

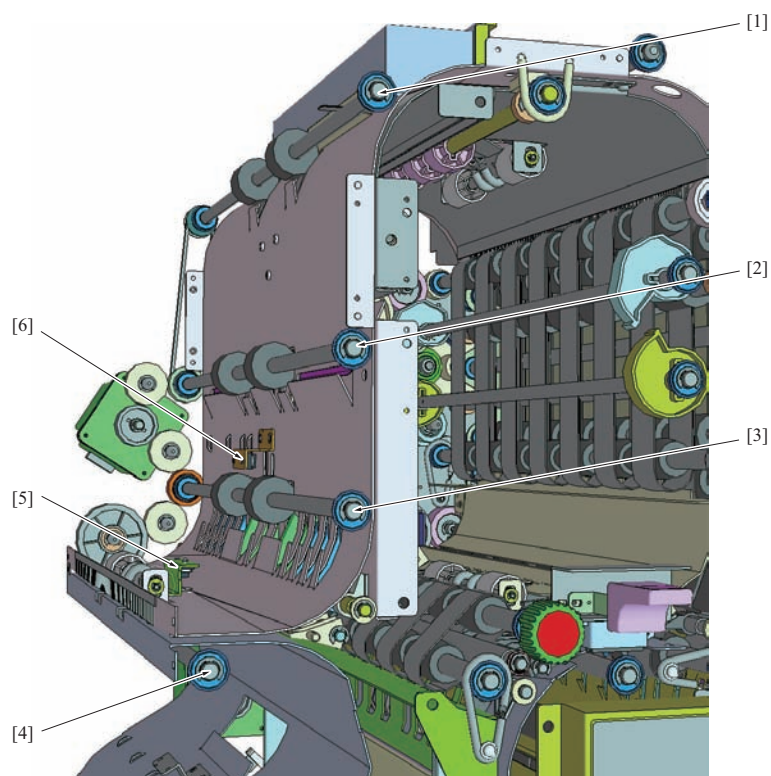
1. After a specified period of time since the humidification section entrance sensor(PS7)(in humidifier ON mode) or the entrance sensor (PS1) (in humidifier OFF mode) detects the leading edge of the paper and turns ON, the de-curler gate solenoid /1 (SD2) switches ON and OFF.
2. After a specified period of time since the de-curler entrance sensor (PS2) detects the leading edge of the paper and turns ON, the de-curler gate solenoid /2 (SD3) switches ON and OFF.
3. When the paper exit sensor (PS12) detects the trailing edge of the last paper and turns OFF, SD2 turns OFF, then SD3 turns OFF after a specified period of time.

3.3.4 De-curlers /3 and /4 control

1. When receiving a print job, the de-curler pressure motors /Lw (M5) and /Up (M6) turn ON, move the de-curler pressure cams /Up and /Lw to the prescribed position, and turn OFF.
2. If the de-curl condition changes during printing, M5 and M6 turn ON and move the de-curler pressure cam to the pressing position after a specified period of time since the color density detection timing sensor (PS3) detects the trailing edge of paper, and turn OFF.
3. After a specified period of time since the paper exit sensor (PS12) detects the trailing edge of the last paper and turns OFF, M5 and M6 turn ON and start the returning operation to the home position.
4. When the de-curler pressure home sensor /Lw (PS5) and /Up (PS6) turn ON, M5 and M6 turn OFF.

4. PAPER EXIT SECTION

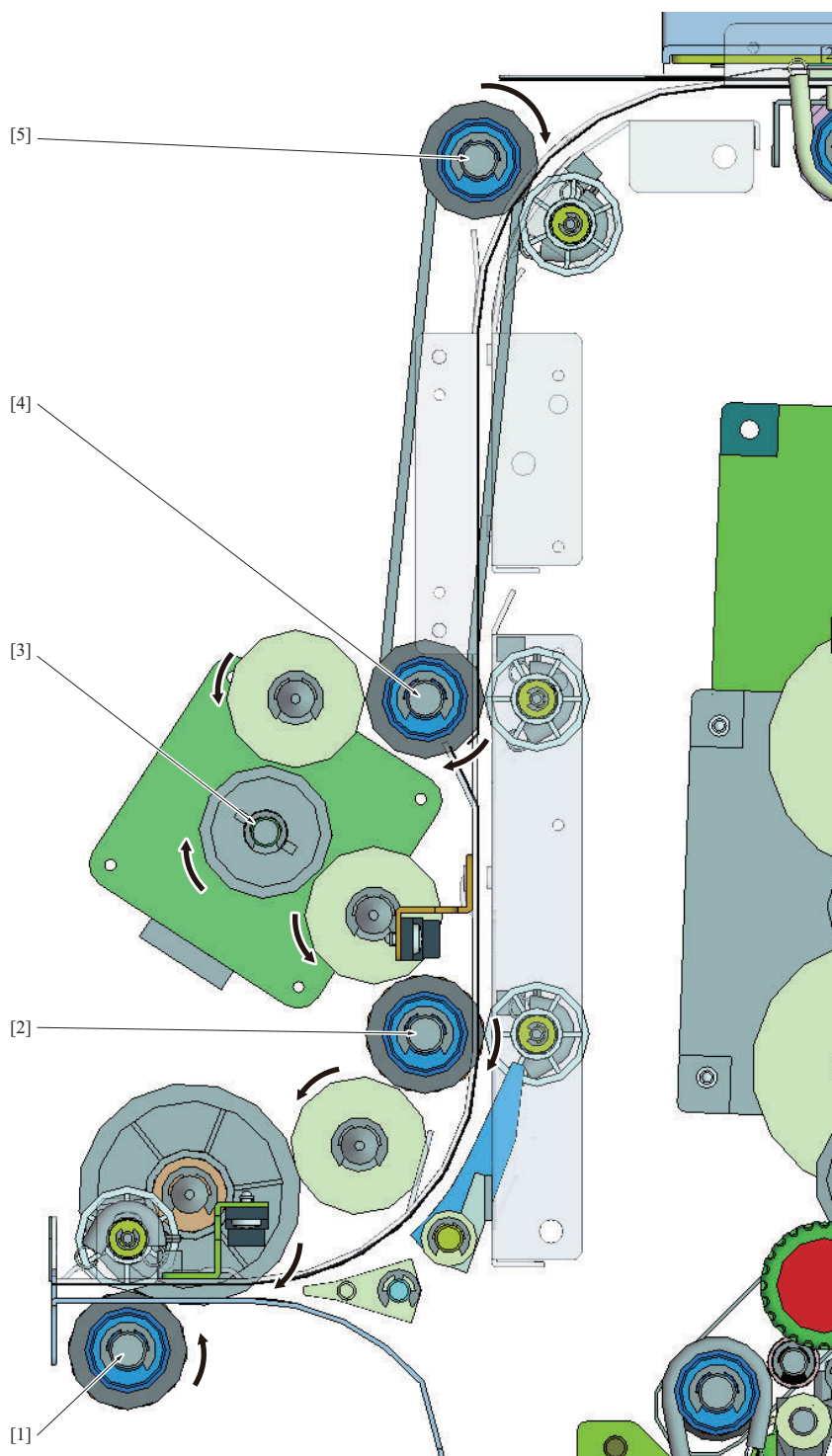
4.1 Configuration



[1]	Paper exit roller /1	[2]	Paper exit roller /2
[3]	Paper exit roller /3	[4]	Paper exit roller /4
[5]	Paper exit sensor (PS12)	[6]	Paper exit conveyance sensor (PS4)

4.2 Drive

4.2.1 Paper exit conveyance drive



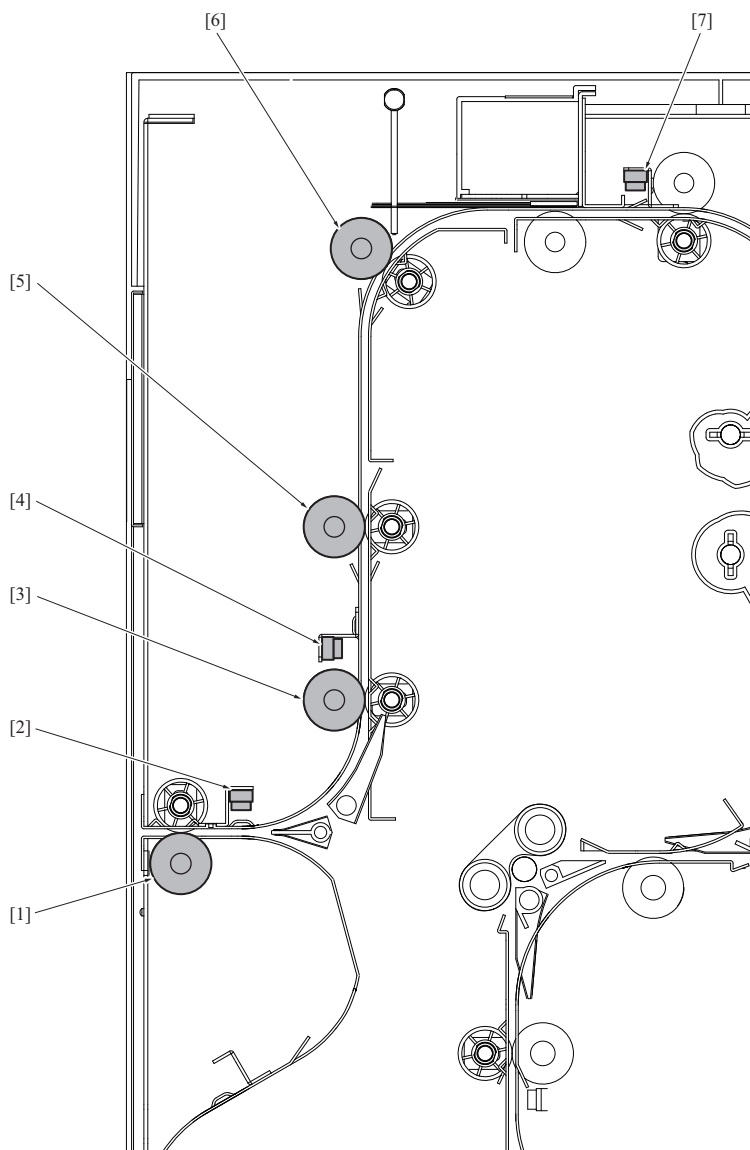
[1]	Paper exit roller /4	[2]	Paper exit roller /3
[3]	Paper exit motor (M4)	[4]	Paper exit roller /2
[5]	Paper exit roller /1	-	

4.3 Operation

4.3.1 Paper exit conveyance control

(1) Mechanism

- The paper exit motor (M4) drives the paper exit rollers /1 [6], /2 [5], /3 [3], and /4 [1].
- The paper exit rollers /3 and /4 have the one-way clutch to narrow the conveyance line speed gap.
- The color density detection timing sensor (PS3) [7], the paper exit conveyance sensor (PS4) [4], and the paper exit sensor (PS12) [2] detect the paper.



[1] Paper exit roller /4	[2] Paper exit sensor (PS12)
[3] Paper exit roller /3	[4] Paper exit conveyance sensor (PS4)
[5] Paper exit roller /2	[6] Paper exit roller /1
[7] Color density detection timing sensor (PS3)	-

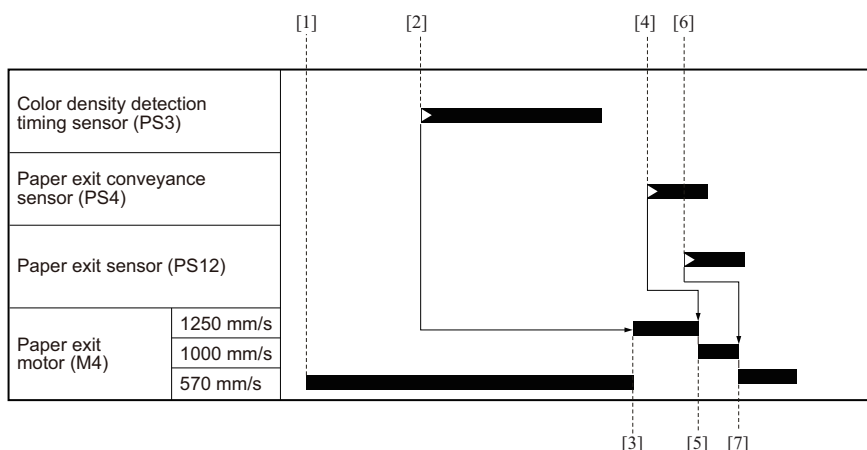
(2) Straight conveyance

- The control differs according to the paper size.

(a) Paper length:133mm to 220 mm (when the de-curler conveyance motor (M3) is 570mm/s and the paper weight is 244g/m² or less)

1. In the humidification ON mode, or when the paper is conveyed from the main body at the speed of 1250mm/s, 1000mm/s, 750mm/s, 570mm/s, the paper exit motor (M4) turns ON at the line speed of 570mm/s after a print job is received.
2. After a specified period of time since the color density detection timing sensor (PS3) detects the leading edge of paper and turns ON [2], M4 switches to 1250mm/s [3].
3. After a specified period of time since the paper exit conveyance sensor (PS4) detects the leading edge of paper and turns ON [4], M4 switches to 1000mm/s [5].

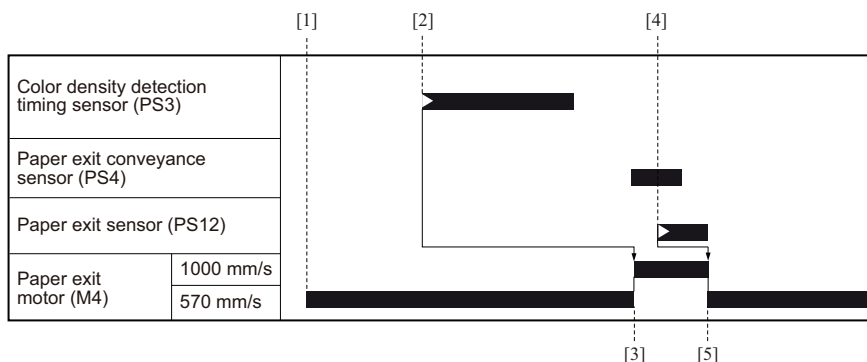
4. After a specified period of time since the paper exit sensor (PS12) detects the paper leading edge and turns ON [6], M4 switches to the same line speed as the paper exit from the main body or 570mm/s for the succeeding paper [7].



[1]	Print start ON	[2]	Detection of the leading edge by PS3
[3]	M4 switches to 1250mm/s	[4]	Detection of the leading edge by PS4
[5]	M4 switches to 1000mm/s	[6]	M4 switches to 570mm/s

(b) Paper length: 133mm to 220mm (except the case (a))

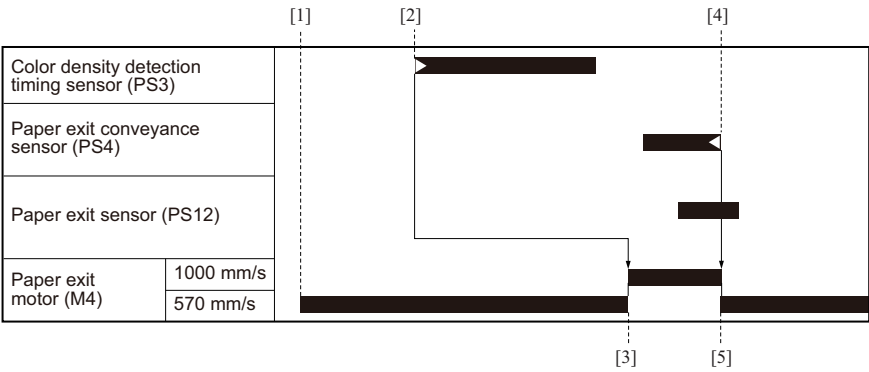
- When the start button turns ON, the paper exit motor (M4) turns ON at 570mm/s [1].
- After a specified period of time since the color density detection timing sensor (PS3) detects the leading edge of paper and turns ON [2], M4 switches the line speed to 1000mm/s [3].
- After a specified period of time since the paper exit sensor (PS12) detects the paper leading edge and turns ON [4], M4 switches to the same line speed as the paper exit from the main body or 570 mm/s for the succeeding paper [5].



[1]	Print start ON	[2]	Detection of the leading edge by PS3
[3]	M4 switches to 1000mm/s	[4]	Detection of the leading edge by PS12
[5]	M4 switches for the succeeding paper	-	

(c) Paper length: 221mm to 488mm

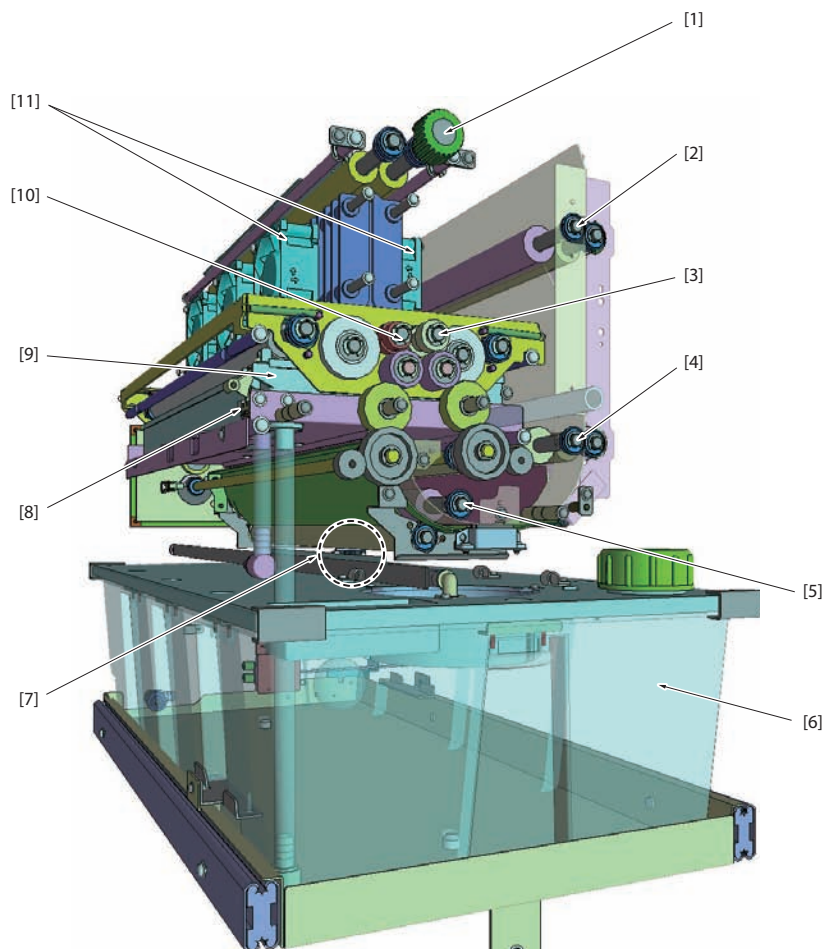
- In the humidification ON mode, in the output paper density detection mode or when the paper is conveyed from the main body at the speed of 1000mm/s, the paper exit motor (M4) turns ON at the line speed of 570mm/s after a print job is received [1]. During other modes, M4 turns ON at the line speed. (The figure shows the case when M4 turns ON at 570mm/s.)
- After a specified period of time since the color density detection timing sensor (PS3) detects the leading edge of paper and turns ON [2], M4 switches the line speed to 1000mm/s [3].
- When the paper exit sensor (PS4) detects the paper trailing edge and turns OFF, M4 switches to the same line speed as the paper exit from the main body or 570mm/s for the succeeding paper [4].



[1]	Print start ON	[2]	Detection of the leading edge by PS3
[3]	M4 switches to 1000mm/s	[4]	Paper trailing edge detection by PS4
[5]	M4 switches for the succeeding paper	-	

5. HUMIDIFICATION SECTION (HM-102)

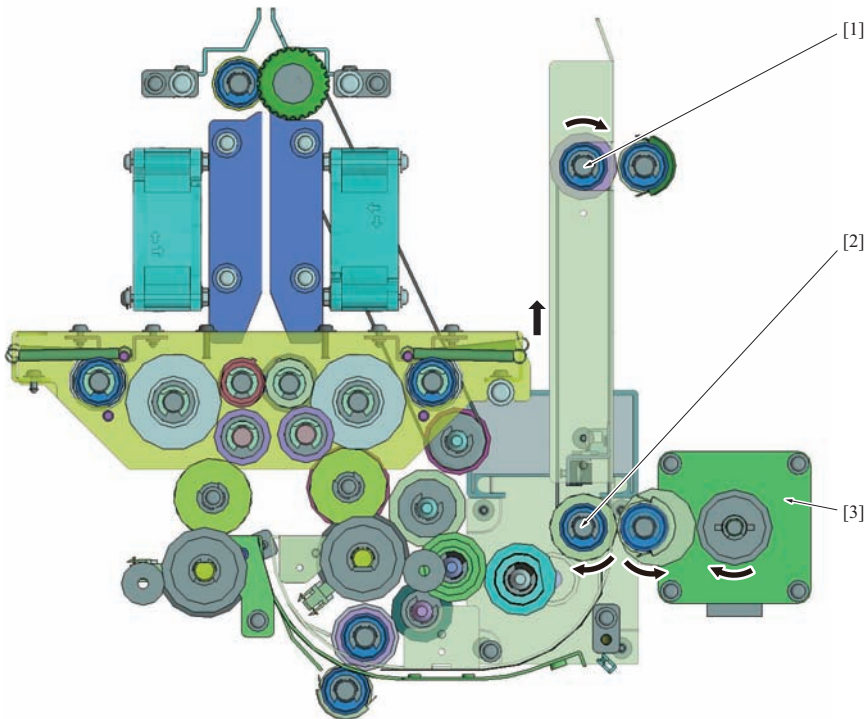
5.1 Configuration



[1]	Humidification section conveyance roller /2	[2]	Humidification section entrance conveyance roller /1
[3]	Humidification roller /Rt	[4]	Humidification section entrance conveyance roller /2
[5]	Humidification section conveyance roller /1	[6]	Water feed tank
[7]	Water tank empty sensor (PS8)	[8]	Water tank full sensor (PS13)
[9]	Water tank assy	[10]	Humidification roller /Lt
[11]	Humidification section paper fan /1 to /6 (FM6 to FM11)	-	

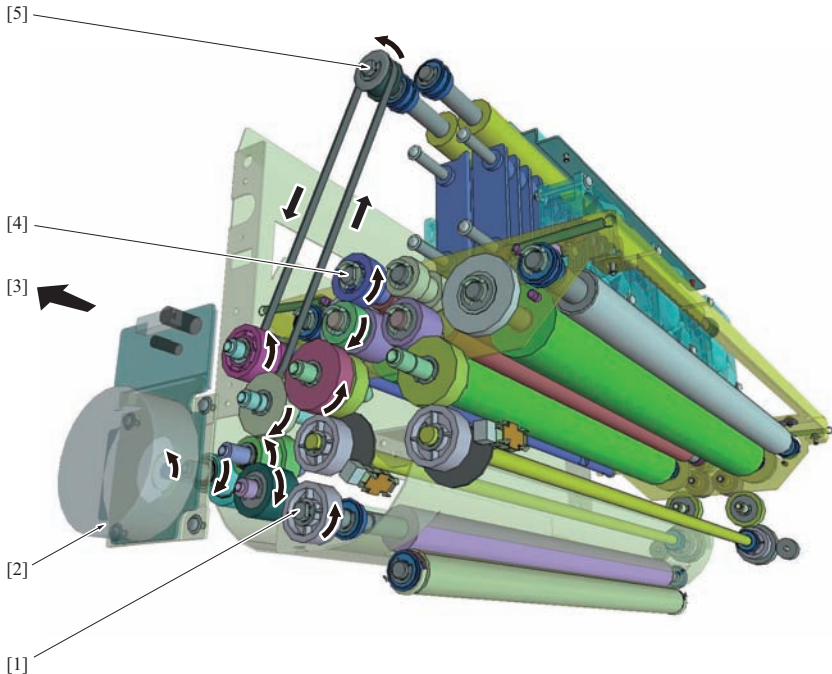
5.2 Drive

5.2.1 Humidification section entrance conveyance drive



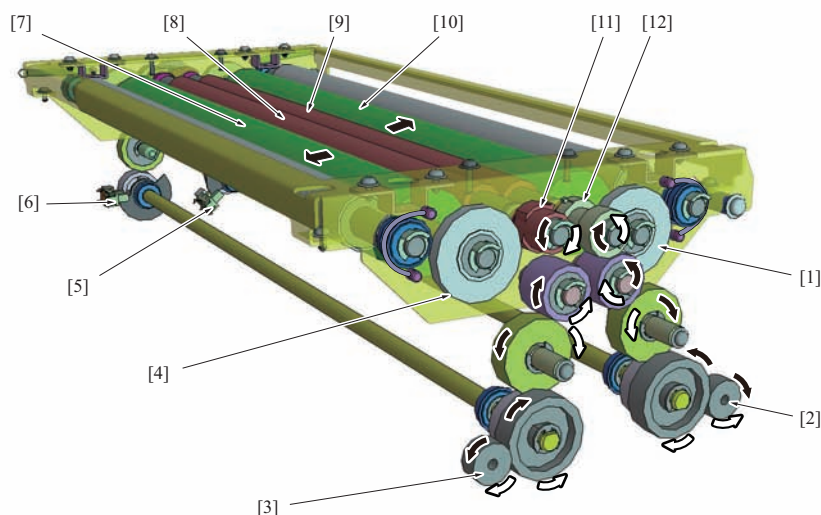
[1]	Humidification section entrance conveyance roller /1	[2]	Humidification section entrance conveyance roller /2
[3]	Humidification entrance conveyance motor (M7)	-	

5.2.2 Humidification section conveyance drive



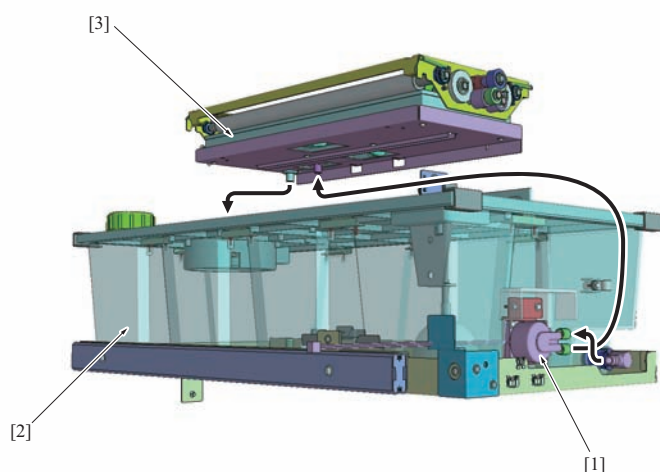
[1]	Humidification section conveyance roller /1	[2]	Humidification section conveyance motor (M8)
[3]	Back side direction	[4]	Humidification roller /Rt
[5]	Humidification section conveyance roller /2	-	

5.2.3 Humidification roller pressure drive (HM-101)



[1]	Pressure roller /FrRt	[2]	Drive gear of the humidification roller pressure motor /Rt (M9) shaft
[3]	Drive gear of the humidification roller pressure motor /Lt (M10) shaft	[4]	Pressure roller /FrLt
[5]	Humidification roller pressure home sensor /Rt (PS9)	[6]	Humidification roller pressure home sensor /Lt (PS10)
[7]	Water feed roller /Lt	[8]	Humidification roller /Lt
[9]	Humidification roller /Rt	[10]	Water feed roller /Rt
[11]	Humidification pressure cam /FrLt	[12]	Humidification pressure cam /FrRt

5.2.4 Water feed pump drive

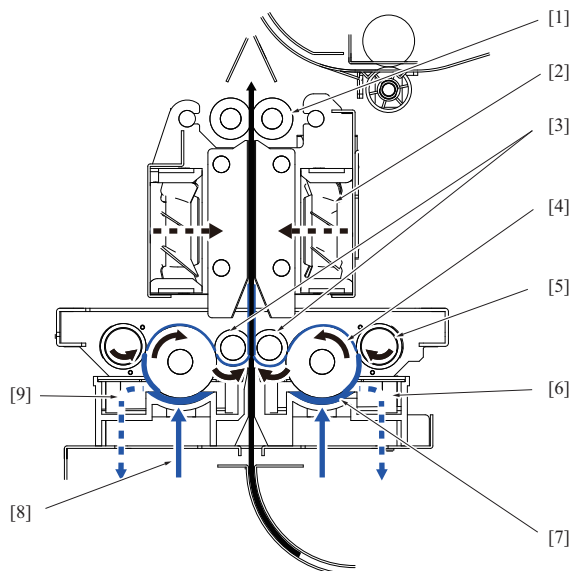


[1]	Pump motor (P1)	[2]	Water feed tank
[3]	Water tank assy	-	

5.3 Operation

5.3.1 Outline of humidification section

1. In the humidification mode, the pump motor (P1) always feeds water [8] into the water tank [7] for the amount 450cc/min (5 times or more than the water tank capacity + humidification). Flooded water is flowed back to the water feed tank [9] through the collection groove [6], and water is kept at the constant depth in the water tank.
2. The water feed roller [4] sunk in the water tank is coated by water. The thickness of coated water is uniformed by the pressed control roller [5] then transferred to the humidification rollers /Rt and /Lt [3].
3. Uniformed water is fed to paper passed through between the humidification rollers /Rt and /Lt and the water content of paper is increased about 2%.
4. After water that is not sank into paper but remains on the surface is removed by the humidification section paper fans /1 to /6 (FM6 to FM11) [2], paper is conveyed by the humidification section conveyance roller /2 [1].



[1]	Humidification section conveyance roller /2	[2]	Humidification section paper fan /1 to /6 (FM6 to FM11)
[3]	Humidification roller /Rt and /Lt	[4]	Water feed roller
[5]	Control roller	[6]	Collection groove
[7]	Water tank	[8]	Water feed
[9]	Reflux		

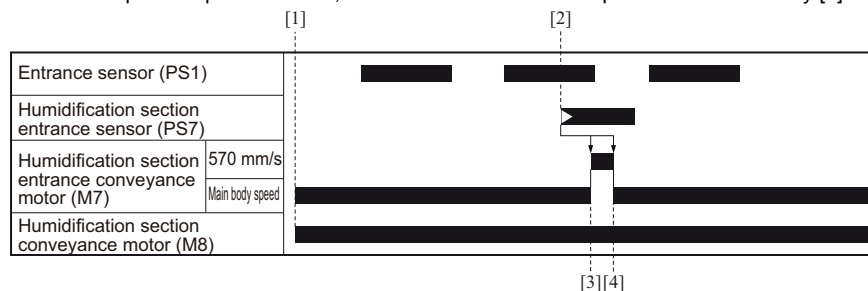
5.3.2 Humidification section conveyance control

(1) Mechanism

- The humidification section entrance conveyance motor (M7) and the humidification section conveyance motor (M8) drive the conveyance in the humidifier section.
- M7 drives the humidification section entrance conveyance rollers /1 and /2.
- M8 drives the humidification section conveyance rollers /1 and /2 and the humidification roller /Rt.
- M8 drives at the constant speed of 570mm/s to stabilize the water feed amount to paper.

(2) Humidifier ON mode(270mm or less length of paper)

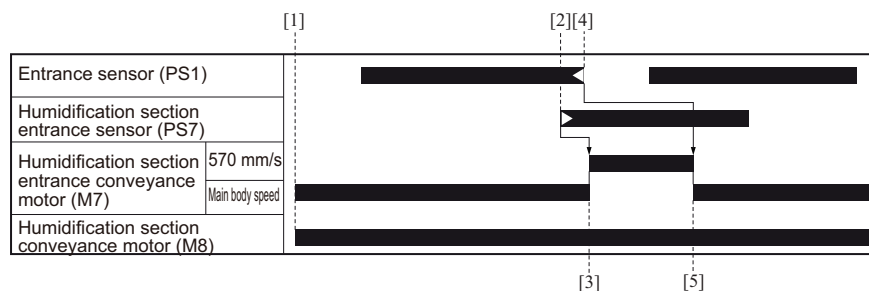
- When the start button turns ON, the humidification section entrance conveyance motor (M7) turns ON at the same line speed as the paper exit of the main body, and the humidification section conveyance motor (M8) turns ON at 570 mm/s [1].
- After a specified period of time since the humidification section entrance sensor (PS7) detects the leading edge of paper and turns ON [2], M7 switches the line speed to 570mm/s [3] to align to the conveyance line speed of M8.
- After a specified period of time, M7 returns to the exit line speed of the main body [4].



[1]	Print start ON	[2]	Detection of the leading edge by PS7
[3]	M7 switches the humidifier speed to 570 mm/s	[4]	M7 switches to the paper exit speed of the main body

(3) Humidifier ON mode(271mm or more length of paper)

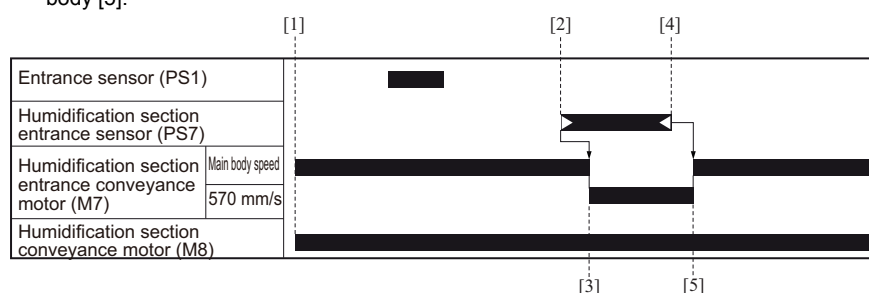
- When the start button turns ON, the humidification section entrance conveyance motor (M7) turns ON at the same line speed as the paper exit of the main body, and the humidification section conveyance motor (M8) turns ON at 570 mm/s [1].
- After a specified period of time since the humidification section entrance sensor (PS7) detects the leading edge of paper and turns ON [2], M7 switches the line speed to 570mm/s [3] to align to the conveyance line speed of M8.
- After a specified period of time since the entrance sensor (PS1) turns OFF by detecting the paper trailing edge [4], M7 returns to the exit line speed of the main body[5].



[1]	Print start ON	[2]	Detection of the leading edge by PS7
[3]	M7 switches the humidifier speed to 570mm/s	[4]	Paper trailing edge detection by PS1
[5]	M7 switches to the paper exit speed of the main body	-	

(4) Humidifier ON mode (paper exit line speed of the main body is 1250mm/s, 1000mm/s, 750mm/s)

- When the start button turns ON, the humidification section entrance conveyance motor (M7) turns ON at the same line speed as the paper exit of the main body, and the humidification section conveyance motor (M8) turns ON at 570 mm/s [1].
- After a specified period of time since the humidification section entrance sensor (PS7) detects the leading edge of paper and turns ON [2], M7 switches the line speed to 570 mm/s [3] to align to the conveyance line speed of M8.
- After a specified period of time since PS7 turns OFF [4] by detecting the paper trailing edge, M7 returns to the exit line speed of the main body [5].



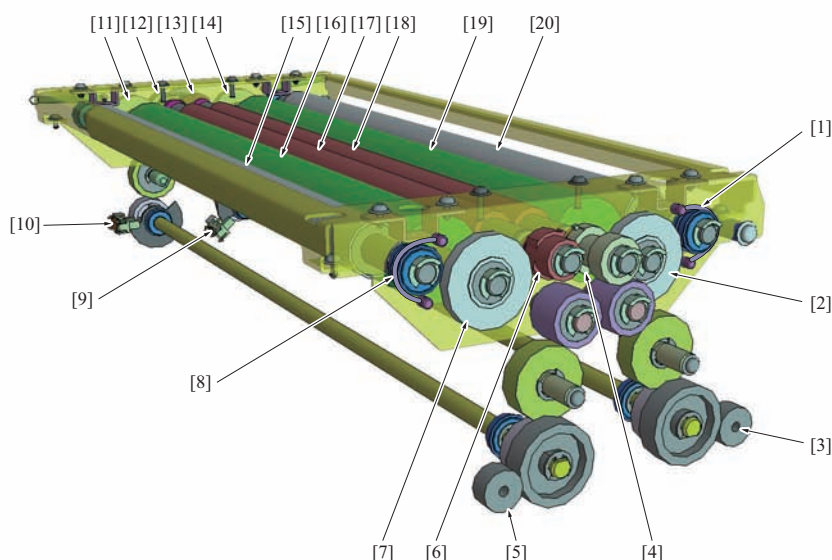
[1]	Print start ON	[2]	Detection of the leading edge by PS7
[3]	M7 switches the humidifier speed to 570mm/s	[4]	Paper trailing edge detection by PS7
[5]	M7 switches to the paper exit speed of the main body	-	

5.3.3 Humidification roller / water feed roller pressure control

(1) Mechanism

(a) OUTLINE

- The springs [1] and [8] on the shafts of the control rollers /Rt [20] and /Lt [15] press the humidification rollers /Rt [18], /Lt [17] and the water feed rollers /Rt [19], /Lt [16] to the paper path side.
- Press the humidification pressure cams /FrRt [4] and /RrRt [13], /FrLt [6] and /RrLt [12] driven by the humidification section roller pressure motors /Rt (M9) [3] and /Lt (M10) [5] to the pressure rollers /FrRt [2] and /RrRt [14], /FrLt [7] and /RrLt [11] to execute the press/release.
- The humidification section roller pressure home sensors /Rt (PS9) [9] and /Lt (PS10) [10] detect the pressed position.



[1] Spring	[2] Pressure roller /FrRt
[3] Drive gear of the humidification roller pressure motor /Rt (M9) shaft	[4] Humidification pressure cam /FrRt
[5] Drive gear of the humidification roller pressure motor /Lt (M10) shaft	[6] Humidification pressure cam /FrLt
[7] Pressure roller /FrLt	[8] Spring
[9] Humidification roller pressure home sensor /Rt (PS9)	[10] Humidification roller pressure home sensor /Lt (PS10)
[11] Pressure roller /RrLt	[12] Humidification pressure cam /RrLt
[13] Humidification pressure cam /RrRt	[14] Pressure roller /RrRt
[15] Control roller /Lt	[16] Water feed roller /Lt
[17] Humidification roller /Lt	[18] Humidification roller /Rt
[19] Water feed roller /Rt	[20] Control roller /Rt

(b) Patterns of pressure/release of humidification roller and water feed roller

- Depending on the angle of the claws [8] on the humidification pressure cams /Rt [10] and /Lt [9], the status differs between the home position and humidification ON.

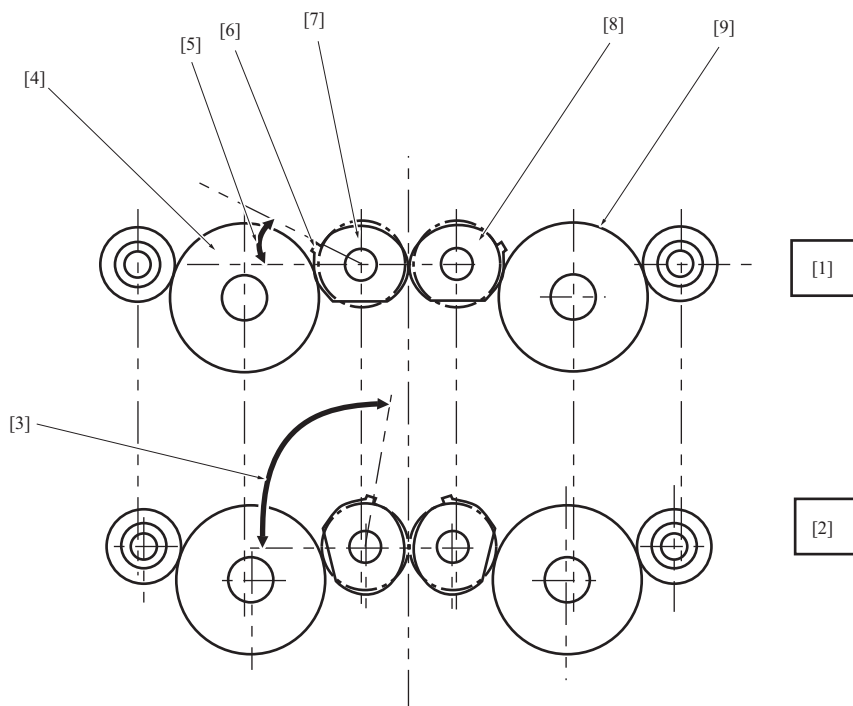
Status	Angle of the humidification pressure cam	Gap between the humidification rollers /Rt and /Lt	Gap between the humidification roller /Rt and the water feed roller /Rt Gap between the humidification roller /Lt and the water feed roller /Lt
Home position	23°	Release	Release
Humidification ON	100°	Pressure	Pressure (Feed water to the humidification roller)

<Home position>

- The angle of the humidification pressure cam is 23° [7].
- The humidification pressure cams /Rt [10] and /Lt [9] push each other to release the humidification rollers /Rt and /Lt.
- The humidification pressure cam /Rt and the pressure roller /Rt [11], the humidification pressure cam /Lt and the pressure roller /Lt [6] push each other to release the humidification roller /Rt and the water feed roller /Rt, the humidification roller /Lt and the water feed roller /Lt.

<Humidification ON position>

- The angle of the humidification pressure cam is 100° [5].
- Since not all humidification pressure cams and the pressure rollers press each other, the humidification rollers /Rt and /Lt, the humidification rollers and the water feed rollers are pressed.

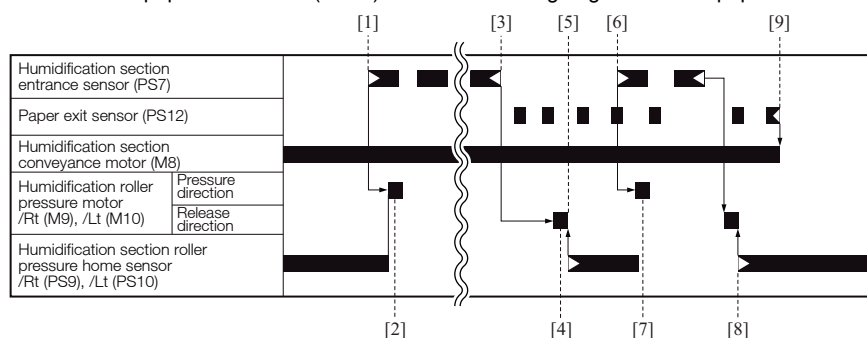


[1]	Home position	[2]	Humidification ON position
[3]	100°	[4]	Pressure roller /Lt
[5]	23°	[6]	Claw
[7]	Humidification pressure cam /Lt	[8]	Humidification pressure cam /Rt
[9]	Pressure roller /Rt	-	

(2) Control

(a) With humidification

- After a specified period of time since the humidification section entrance sensor (PS7) detects the leading edge of the 1st sheet and turns ON [1], the humidification section roller pressure motors /Rt (M9) and /Lt (M10) turn ON and move from the home position to the humidification ON position [2]. (The picture is for the case when the main body process speed is not 1000mm/s)
- When the interval between the paper exit of the main body is long (such as large size) and the specified time passes since PS10 detects the trailing edge and turns OFF [3], M9 and M10 turn ON and start returning to the home position to release the humidification rollers [4].
- When the humidification section roller pressure home sensors /Rt (PS9) and /Lt (PS10) turn ON, M9 and M10 turn OFF [5].
- After a specified period of time since the humidification section entrance sensor (PS7) detects the leading edge of the succeeding paper and turns ON [6], M9 and M10 turn ON again and move to the humidification ON position.
- A specified period of time after PS7 turns OFF, M9 and M10 turn ON to return to the home position [8].
- When the paper exit sensor (PS12) detects the trailing edge of the last paper and turns OFF [9], M8 turns OFF.



[1]	Detection of the leading edge of the 1st sheet	[2]	Move to the humidification ON position
[3]	Detection of the trailing edge in the exit interval	[4]	Releasing the humidification roller started (The exit interval is long.)
[5]	Returning to the home position	[6]	Detection of the leading edge of the succeeding paper
[7]	Move to the humidification ON position	[8]	Returning to the home position
[9]	Detecting the trailing edge of the last paper	-	

(b) Switch control from humidification ON to humidification OFF

- After a specified period of time since the de-curler entrance sensor (PS7) detects the trailing edge of the last humidified paper and turns OFF, the humidification section roller pressure motors /Rt (M9) and /Lt (M10) turn ON to move from the humidification ON position to the home position.

2. After a specified period of time since PS1 turns ON, the humidification gate solenoid (SD1) turns OFF and switches to the bypass route.

(c) Switch control from humidification OFF to humidification ON

1. After a specified period of time since the entrance sensor (PS1) detects the leading edge of the first humidification paper and turns ON, humidification section gate solenoid (SD1) turns ON and switches the paper path to the humidification section.
2. After a specified period of time since the humidification section entrance sensor (PS7) detects the leading edge of the paper and turns ON, the humidification section roller pressure motors /Rt (M9) and /Lt (M10) turn ON and move from the home position to the humidification ON position.

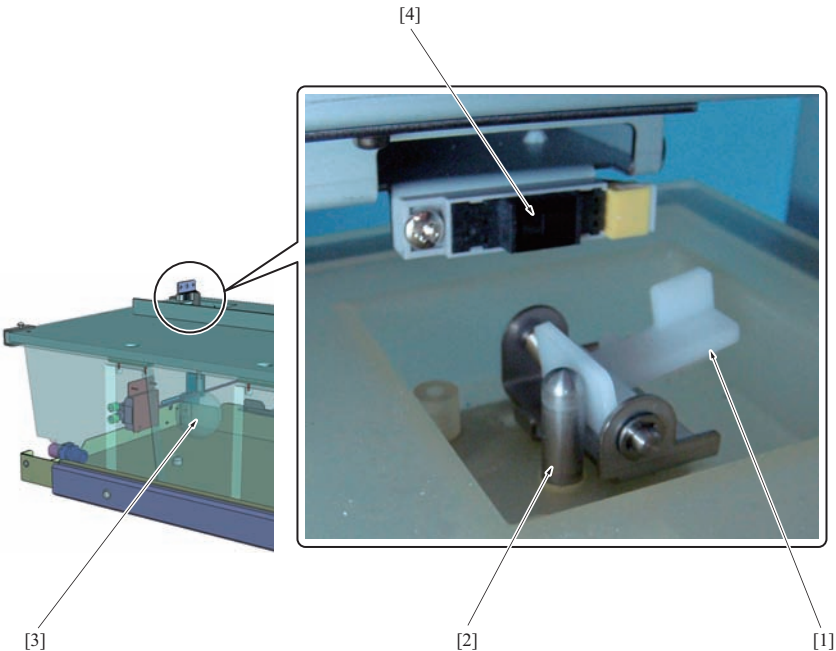
5.3.4 Water feed control

(1) Pump motor control

- As the initial operation, the pump motor (P1) turns ON for the specified time and supplies water for the amount lost due to evaporation to fill the water tank.
- When with the humidifier, P1 turns ON a specified period of time after the entrance sensor (PS1) detects the leading edge of the paper and turns ON. P1 turns OFF when the paper exit sensor (PS12) detects the trailing edge of paper and turns OFF.
- When without the humidifier, P1 does not turn ON.

(2) Water feed tank empty detection control

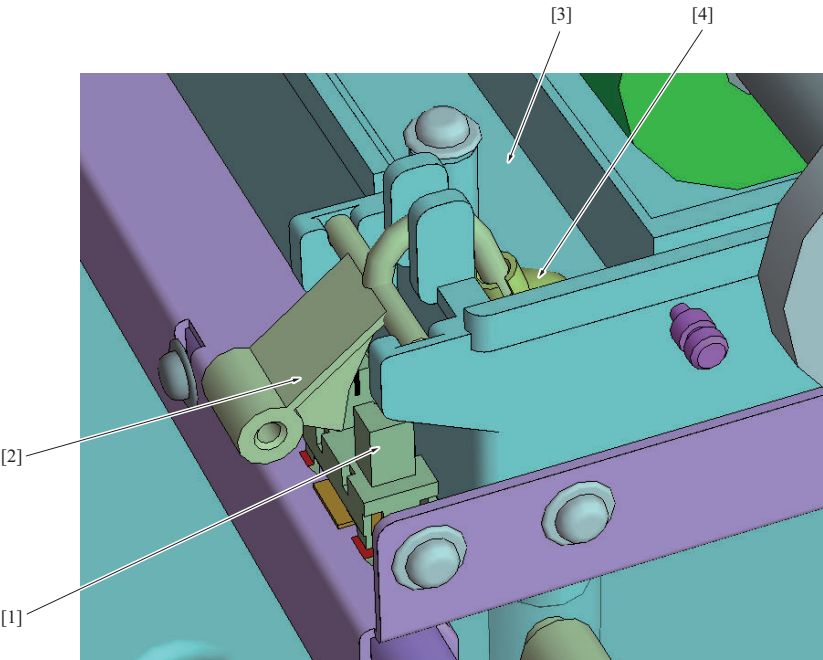
- When the water level in the water feed tank goes down, the coupling bar [2] of the float [3] goes down. Then the actuator [1] turns ON the water tank empty sensor (PS8) [4] to disable the humidifier function.
- When PS8 turns ON in the humidifier ON mode, a message appears on the operation panel of the main body.
- When any print is in progress with PS8 turned ON, the main body stops after completion of the exit of up to 10 sheets.



[1]	Actuator	[2]	Coupling bar
[3]	Float	[4]	Water tank empty sensor (PS8)

(3) Water tank full detection control

- When the reflux route from the water tank closes and the collection groove [3] exceeds the specified water level, the float [4] comes up. Then, the actuator [2] turns OFF the water tank full sensor (PS13) [1] and the pump motor (P1) turns OFF.
- When detecting the water tank full, an error code appears on the operation panel of the main body to disable the humidifier function.

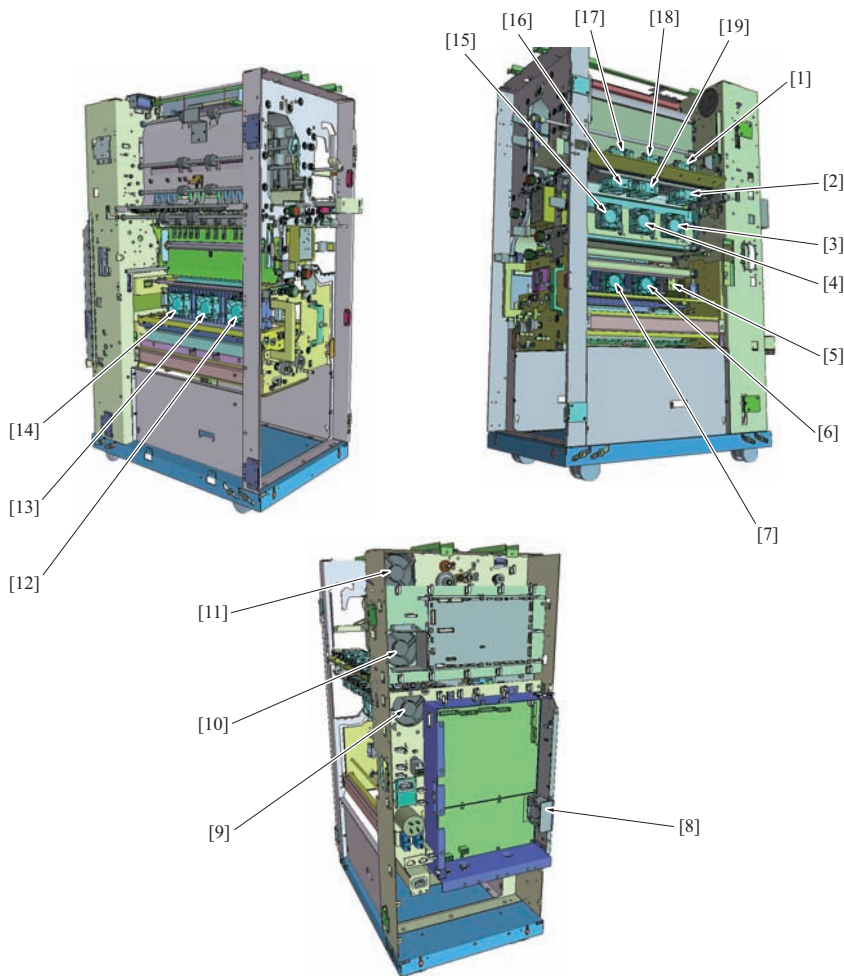


[1]	Water tank full sensor (PS13)	[2]	Actuator
[3]	Collection groove	[4]	Float

6. OTHER CONTROLS

6.1 Fan control

6.1.1 Configuration



[1]	Entrance paper fan /3 (FM3)	[2]	Entrance paper fan /6 (FM17)
[3]	Entrance paper fan /9 (FM20)	[4]	Entrance paper fan /8 (FM19)
[5]	Humidification section paper fan /4 (FM9)	[6]	Humidification section paper fan /5 (FM10)
[7]	Humidification section paper fan /6 (FM11)	[8]	Power supply fan (FM14)
[9]	Ventilation assist fan /3 (FM21)	[10]	Ventilation assist fan /2 (FM5)
[11]	Ventilation assist fan /1 (FM4)	[12]	Humidification section paper fan /3 (FM8)
[13]	Humidification section paper fan /2 (FM7)	[14]	Humidification section paper fan /1 (FM6)
[15]	Entrance paper fan /7 (FM18)	[16]	Entrance paper fan /4 (FM15)
[17]	Entrance paper fan /1 (FM1)	[18]	Entrance paper fan /2 (FM2)
[19]	Entrance paper fan /5 (FM16)	-	

6.1.2 Control

(1) Entrance paper fan

(a) Purpose

- The entrance paper fans /1 (FM1), /2 (FM2), and /3 (FM3) blow air to the entrance conveyance rollers /1 and /2 and the conveyance guide plate to cool down.
- The entrance paper fans /4 (FM15), /5 (FM16), and /6 (FM17) blow air to the driven roller of the entrance conveyance rollers /1 and /2, and the conveyance guide plate to cool down.
- The entrance paper fans /7 (FM18), /8 (FM19), and /9 (FM20) blow air to the driven roller of the entrance conveyance roller /3, and the guide plate to cool down.
- The equally-spaced rollers which are mounted in the main scan direction area cool paper uniformly to prevent the wax unevenness.

(b) Operation timing

- Each fan turns ON when receiving a print job and turns OFF at printing end.

(2) Humidification section paper fan**(a) Purpose**

- In humidifier ON mode, the humidification section paper fans /1 (FM6), /2 (FM7), /3 (FM8), /4 (FM9), /5 (FM10), and /6 (FM11) blow air to paper to remove water which remains on paper.
- In humidifier OFF mode, it cools paper.

(b) Operation timing

- Each fan turns ON when receiving a print job and turns OFF at printing end.

(3) Ventilation assist fan**(a) Purpose**

- The ventilation assist fans /1 (FM4), /2 (FM5), and /3 (FM21) exhaust heat remains in the RU.

(b) Operation timing

- Each fan turns ON when receiving a print job and turns OFF at printing end.

(4) Power supply fan**(a) Purpose**

- The power supply fan (FM14) exhausts heat in the DC power supply (DCPS).

(b) Operation timing

- FM14 turns ON when the sub power switch turns ON. It decelerates to 50% during standby and switches to 100% when receiving a print job.

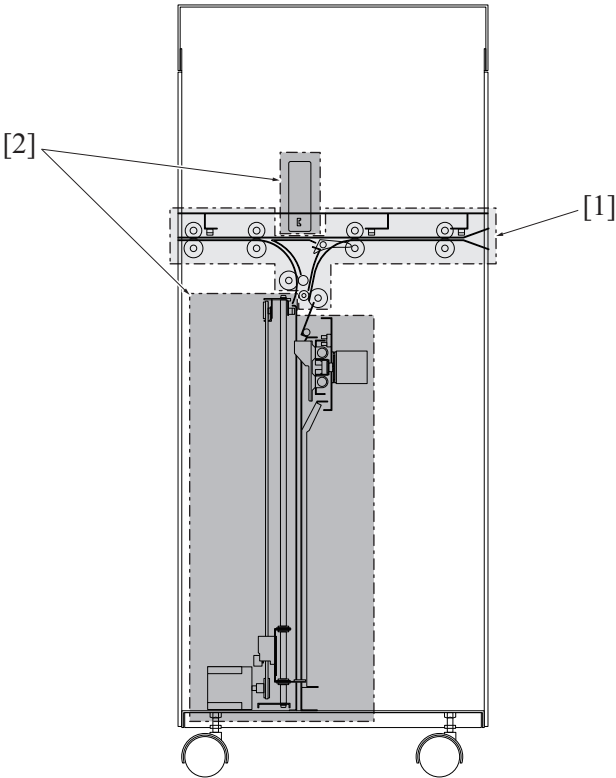
6.2 Door detection control

- When the front door opens and the door switch (SW1) turns OFF, the 24V power source of the RU control board (RUCB) is shut down and the operation stops.

PG THEORY OF OPERATION RU-510

1. OUTLINE

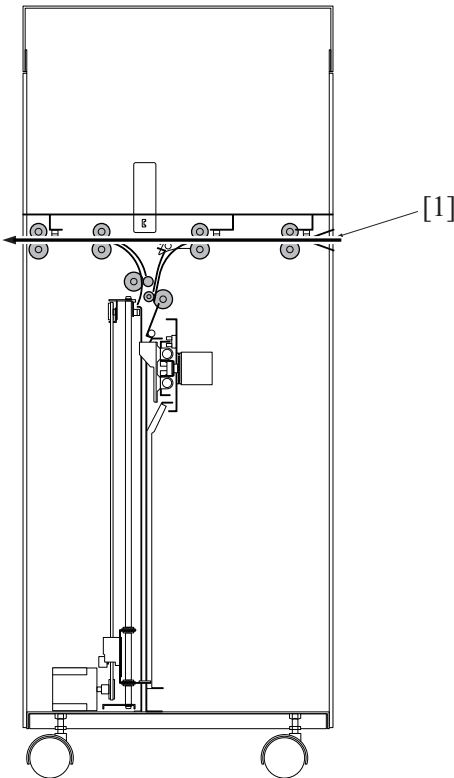
1.1 Unit configuration



[1] Conveyance section	[2] Stacker section
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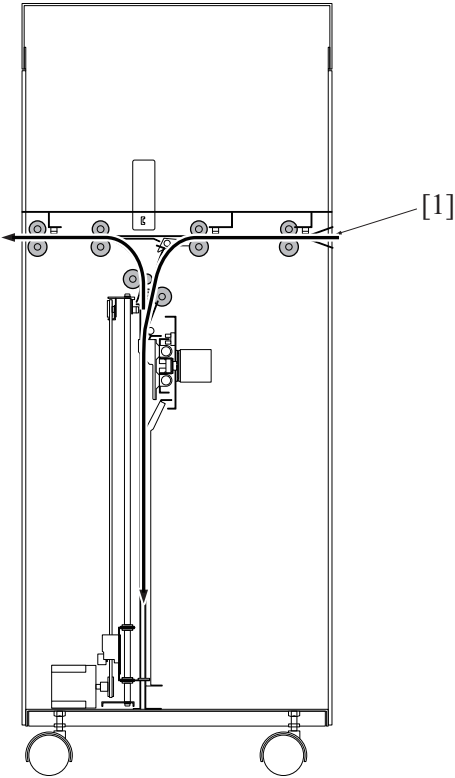
1.2 PAPER PATH

1.2.1 Straight conveyance



[1] Straight conveyance path	-
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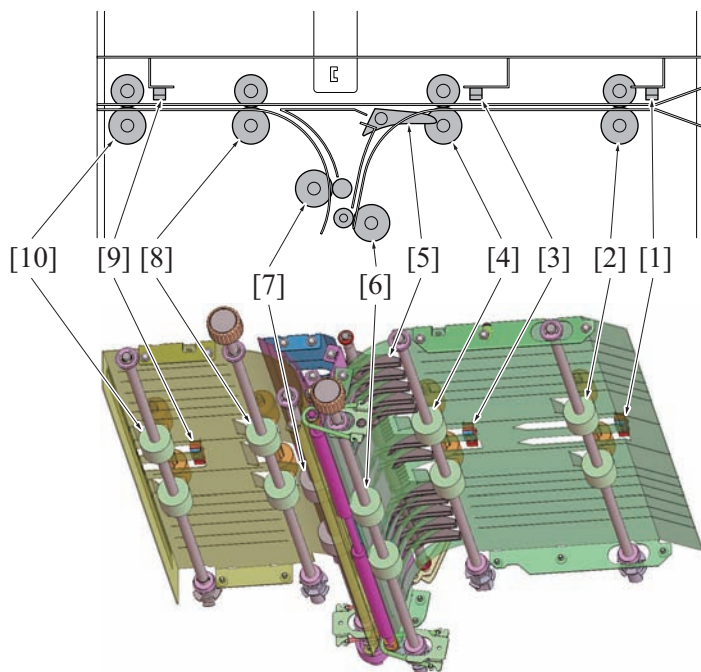
1.2.2 Reverse/exit conveyance



[1]	Reverse/exit conveyance path	-
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2. CONVEYANCE SECTION

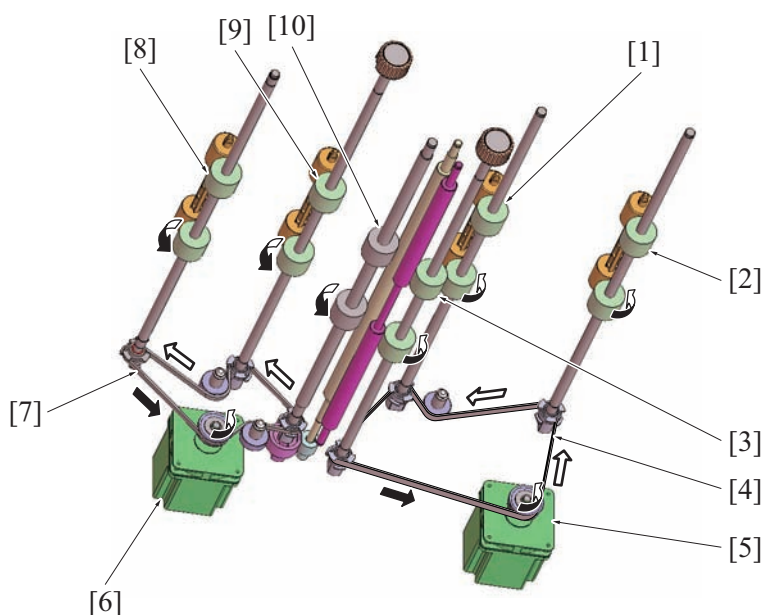
2.1 Configuration



[1]	Entrance jam sensor (PS6)	[2]	Entrance roller /1
[3]	Entrance sensor (PS1)	[4]	Entrance roller /2
[5]	Straight gate	[6]	Stacker entrance roller
[7]	Paper re-feed roller	[8]	Junction roller
[9]	Paper exit sensor (PS2)	[10]	Exit roller

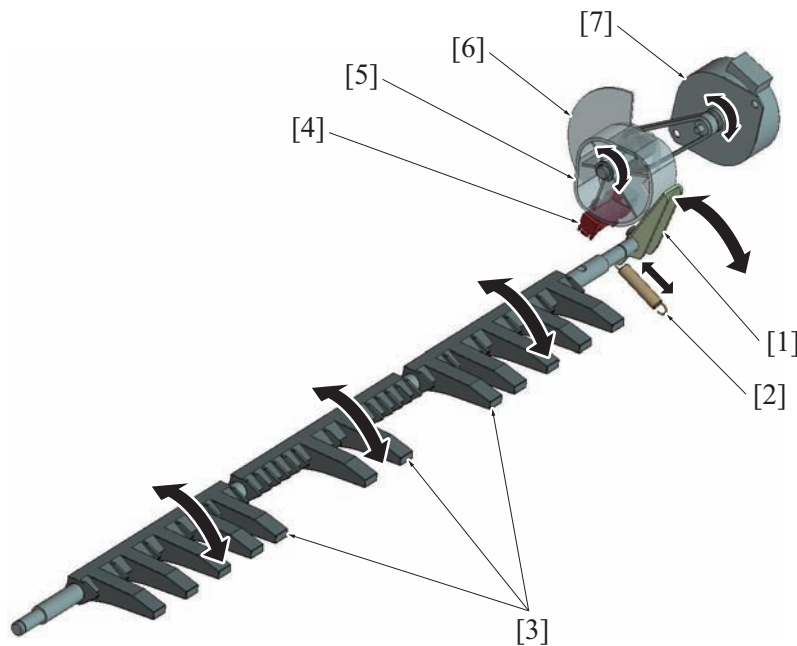
2.2 Drive

2.2.1 Conveyance drive



[1]	Entrance roller /2	[2]	Entrance roller /1
[3]	Stacker entrance roller	[4]	Timing belt
[5]	Entrance motor (M1)	[6]	Paper exit motor (M2)
[7]	Timing belt	[8]	Exit roller
[9]	Merging section roller	[10]	Paper re-feed roller

2.2.2 Straight gate drive

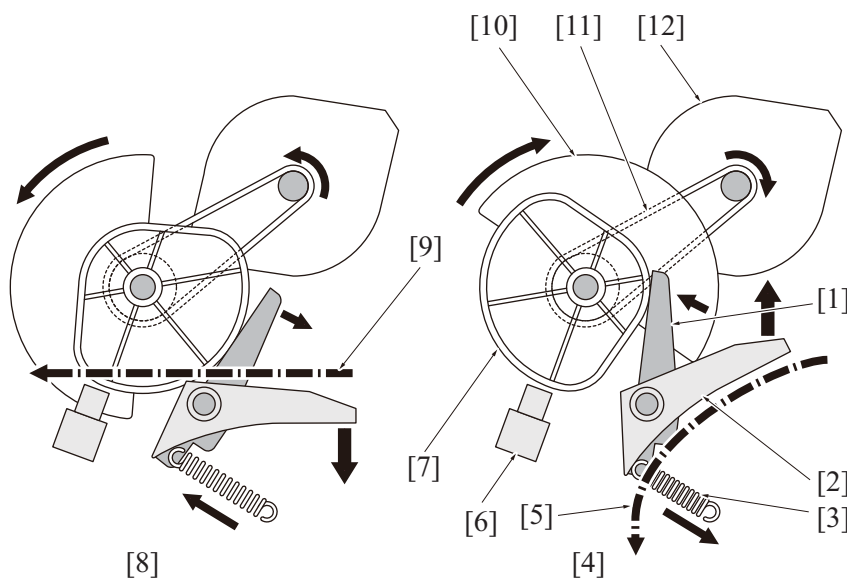


[1]	Lever	[2]	Spring
[3]	Straight gate	[4]	Gate home sensor (PS7)
[5]	Cam	[6]	Actuator
[7]	Gate motor (M5)	-	

2.3 Operation

2.3.1 Conveyance path switching control

- Straight gate [2] switches the straight conveyance path [8] and reverse/exit path [4].
- The straight gate is equipped with the lever [1] and the lever contacts with the cam [7] all the time by the spring [3].
- When the cam rotates, the distance between the shaft of the cam and the lever changes. Thus, the position of the straight gate changes to 2 steps.
- Cam is driven by the rotation of the gate motor [12].
- The cam is equipped with the actuator [10] and the gate home sensor (PS7) [6] controls the rotation position.
- During the straight conveyance, the cam stops at the home position. At this time, the lever contacts with the periphery of the cam which has long distance from the shaft, so the straight gate is closed.
- When the straight gate is closed, the paper [9] exited over the upper side of the straight gate.
- During the reverse/exit conveyance, the lever contacts with the periphery which is close to the shaft, so the straight gate is opened.
- When the straight gate is opened, the paper [5] contacts with the bottom side of the straight gate and conveyed to the stacker section.
- During the straight conveyance, M5 does not operate and the straight gate keeps being closed.
- During the reverse/exit conveyance, M5 rotates in the forward direction when the start button turns ON and then M5 turns OFF after a specified period of time since PS7 turns OFF. Thus, the straight gate keeps being opened until the job is completed.
- When the paper exit sensor (PS2) detects the trailing edge of the last sheet of paper and turns OFF, M5 rotates in reverse direction and turns OFF after a specified period of time since PS7 turns ON. Thus, the straight gate is closed and enters the stand-by.



[1]	Lever	[2]	Straight gate
[3]	Spring	[4]	Reverse/exit conveyance
[5]	Paper (Reverse/exit conveyance)	[6]	Gate home sensor (PS7)
[7]	Cam	[8]	Straight conveyance
[9]	Paper (Straight conveyance)	[10]	Actuator
[11]	Timing belt	[12]	Gate motor (M5)

2.3.2 Paper feed mechanism

- The entrance motor (M1) and the paper exit motor (M2) conduct the conveyance.
- M1 drives the entrance roller /1, /2 and stacker entrance roller through the timing belt.
- The M2 drives the re-feed roller, merging section roller and paper exit roller via the timing belt.
- M1, M2 are equipped with the damper to make the machine calm.

2.3.3 Line speed switch control

- The paper which is conveyed to RU at the line speed 1250mm/s, 570mm/s, 490mm/s or 330mm/s is exited at the line speed 1250mm/s and 1000mm/s.
- In the simplex mode, the double sheets reverse/exit conveyance is performed to the paper which is conveyed at the speed of 1250mm/s or 570mm/s.
- In the simplex mode, either of the straight conveyance or the single sheet reverse/exit conveyance is performed (depending on the configuration and the mode of the finisher) to the paper which is conveyed at the speed of 490mm/s or 330mm/s.
- In the duplex mode, straight conveyance is performed regardless of the paper size which is conveyed.

2.3.4 Conveyance control

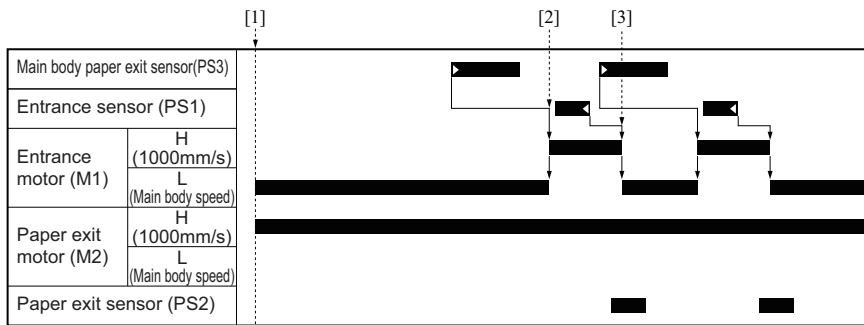
(1) Straight conveyance

- The operation of the straight conveyance differs according to the paper length in the feed direction whether it is less than 210mm or 210mm or longer.
- When the paper length in the feed direction is 210mm or longer, trigger of the operation for the entrance motor (M1) and output motor (M2) differs according to the relationship between the line speed of the machine and the length in the feed direction.
- For tab paper, the operation is the same as when the paper length in the feed direction is 210mm or longer.

(a) When the paper length in the feed direction is less than 210mm

- When the start button turns ON [1], the entrance motor (M1) turns ON at the same low line speed as the machine, and the paper exit motor (M2) turns ON at high line speed 1000mm/s which is the same speed as the RU.
- M1 turns ON at low speed and the entrance roller/1 and /2 rotate at the same speed as the main body so that paper ejected from the main body is conveyed to the RU smoothly.
- When the paper exit sensor (PS3) detects the leading edge of the 1st sheet of paper, M1 switches from low speed to high speed [2] after a specified period of time and the line speed inside of the RU is accelerated.
- When M1 switches from low speed to high speed, the trailing edge of the 1st sheet of paper already passes the output roller. Therefore, M1 is not effected when the line speed of the RU is accelerated.
- When the entrance sensor (PS1) detects the trailing edge of the 1st sheet of paper, M1 switches to low speed again [3] after a specified period of time and is ready to accept the next sheet.
- When M1 switches to low speed again to accept the 2nd sheet of paper, the trailing edge of the 1st sheet of paper already passes the entrance roller 2/. Therefore, M1 is not effected when M1 slows the line speed.
- M2 is ON at high speed so the paper arrives at the junction roller which M2 drives is exited through the output roller, maintaining the line speed 1000mm/2.
- For paper after the 2nd sheet, the same operation as the 1st sheet of paper is performed.

- When the paper exit sensor (PS2) detects the trailing edge of the last sheet of paper, M1 and M2 turn OFF after a specified period of time.



[1]	Print start	[2]	Speed up the line speed for the 1st sheet of paper
[3]	Switching to the line speed for acceptance the 2nd sheet	-	

(b) When the paper length in the feed direction is 210mm or longer

- When the start button turns ON [1], the entrance motor (M1) and the output motor (M2) turn ON at the same low line speed as the machine.
- M1 turns ON at low speed and the entrance roller/1 and /2 rotate at the same speed as the main body so that paper ejected from the main body is conveyed to the RU smoothly.
- When the paper exit sensor (PS3) detects the leading edge of the 1st sheet of paper, M1 and M2 switch from low speed to high speed after a specified period of time [2] and the line speed of the RU is accelerated to 1000mm/s.
- When M1 switches from low speed to high speed, the trailing edge of the 1st sheet of paper already passes the output roller. Therefore, M1 is not effected when the line speed of the RU is accelerated.
- When the trailing edge of the 1st sheet of paper passes the output roller, the leading edge of the paper arrives at the junction roller which M2 drives, so M2 turns ON at low speed the same as M1 in advance. Then M2 accelerates at the same time as M1.
- Depending on the line speed of the machine and the paper length in the feed direction, it sometimes occur that the speed of M1 or M2 is changed before PS3 turns ON.
- When the entrance sensor (PS1) detects the trailing edge of the 1st sheet of paper, M1 switches to low speed again after a specified period of time [4] and is ready to accept the next sheet.
- For tab paper, the time, which is added for a specified period of time to ON time of PS1 [3], is a starting point for the above operation.
- When M1 switches to low speed again to accept the 2nd sheet of paper, the trailing edge of the 1st sheet of paper already passes the entrance roller 2/. Therefore, M1 is not effected when M1 slows the line speed.
- M2 remains at high speed so the paper arrives at the junction roller which M2 drives is exited through the output roller, maintaining the line speed 1000mm/s.
- The 2nd sheet of paper is conveyed to RU at low speed during the exiting the 1st sheet of paper. However, it does not reach the junction roller which M2 drives so the paper exit operation at high speed is not effected.
- When the paper exit sensor (PS2) detects the trailing edge of the 1st sheet of paper, M2 switches to low speed again after a specified period of time[5] and is ready to accept the next sheet.
- For paper after the 2nd sheet, the same operation as the 1st sheet of paper is performed.
- When the paper exit sensor (PS2) detects the trailing edge of the last sheet of paper, M1 and M2 turn OFF after a specified period of time.

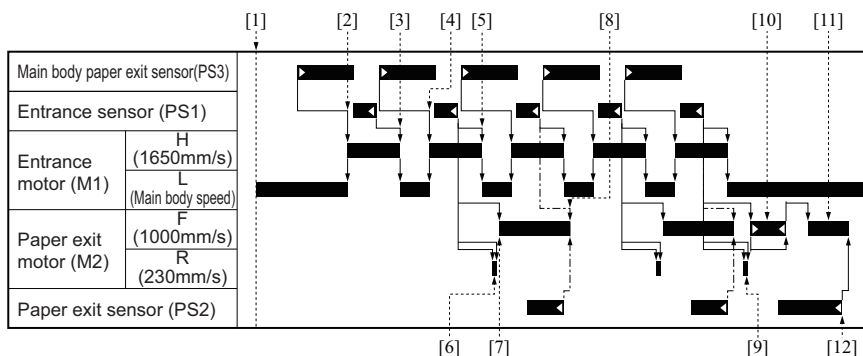


[1]	Print start	[2]	Speed up the line speed for the 1st sheet of paper
[3]	Sheet detection time	[4]	Switching the line speed of M1 to accept the 2nd sheet of paper
[5]	Switching the line speed of M2 to accept the 2nd sheet of paper (The 1st sheet of paper is exited)	-	

(2) Double sheets reverse/exist conveyance

- When the start button turns ON[1], the entrance motor (M1) turns ON at the same low line speed as the machine.
- M1 turns ON at low speed and the entrance roller/1, /2 and the stacker entrance roller rotate at the same speed as the main body so that paper ejected from the main body is conveyed to the RU smoothly.
- When the paper exit sensor (PS3) detects the leading edge of the 1st sheet of paper, M1 switches from low speed to high speed of 1650mm/s after a specified period of time [2] and the line speed inside of the RU is accelerated.

- When M1 switches from low speed to high speed, the trailing edge of the 1st sheet of paper already passes the output roller. Therefore, M1 is not effected when the line speed of the RU is accelerated.
- When the entrance sensor (PS1) detects the trailing edge of the 1st sheet of paper, M1 switches to low speed again [3] after a specified period of time and is ready to accept the next sheet.
- When M1 switches from high speed to low speed, the conveyance of the 1st sheet of paper to the stacker section is completed.
- When the PS3 detects the leading edge of the 2nd sheet of paper, M1 switches from low speed to high speed [4] after a specified period of time as the same for the 1st sheet of paper. Then M1 accelerates the line speed.
- When the PS1 detects the trailing edge of the 2nd sheet of paper, M1 switches from high speed to low speed after a specified period of time [5] as the operation for the 1st sheet of paper and is ready to accept the 3rd sheet.
- The 2nd sheet of paper is stacked to the stacker section the same as the 1st sheet.
- After a specified period of time since the PS1 detects the trailing edge of the 2nd sheet of paper, the output motor (M2) rotates in the reverse direction [6]. Thus the output motor prevents the paper from nipping by the paper re-feed roller during alignment is operated for the 1st and 2nd sheet of paper.
- When the alignment operation is completed, M2 rotates in forward direction [7] after a specified period of time since PS1 detects the trailing edge of the 2nd sheet of paper and drives refeed roller, merging section roller, output roller at the line speed 1000mm/s.
- The 1st and 2nd sheets of papers have been pulled against the refeed roller after the alignment operation is applied. Thus, the rotation of M2 in the forward direction nips the papers so that 2 sheets of papers are exited being overlapped.
- 2 sheets of paper exited at a time reverses because they are conveyed from the side which was trailing edge when they were accepted to the stacker.
- During the double sheets reverse paper exit of the 1st and 2nd sheets of paper, the acceptance operation for the 3rd paper is performed at the same timing of the 1st and 2nd sheets.
- After a specified period of time since PS1 detects the trailing edge of the 3rd sheet of paper, M2 turns off the rotation in the forward direction [8] and completes the double reverse/exit conveyance for the 1st and 2nd sheet of paper.
- When the paper exit sensor (PS2) detects the trailing edge of the double sheets of reverse paper exit before a specified period of time starting on the time when PS1 detects the trailing edge of the 3rd sheet of paper, the former have a priority to be as the timing of completing the paper exiting of M2.
- For papers after the 3rd sheet, the operation for the 1st and 2nd sheets of papers is repeated and 2 sheets of papers are reversely exited being overlapped.
- When the number of total sheets of paper is odd, M2 rotates in forward [9] and reverse [10] direction since the PS1 detects the trailing edge of the last sheet of paper, and the reverse/exit conveyance only for the last page is performed.
- When only a sheet of paper is fed as a last sheet of paper, M2 turns OFF the reverse/exit conveyance in the forward rotation a specified period of time after M2 turns ON, and turns ON [11] again after a specified period of time to restart the reverse/exit conveyance.
- When only a sheet of paper is fed as a last sheet of paper, the reverse/exit conveyance stops temporarily so that the paper is transferred a fixed distance away from the former exited paper.
- M2 turns OFF after a specified period of time since the PS2 detects [12] the trailing edge of the last sheet of paper in both case of double and single reverse/exit conveyance.

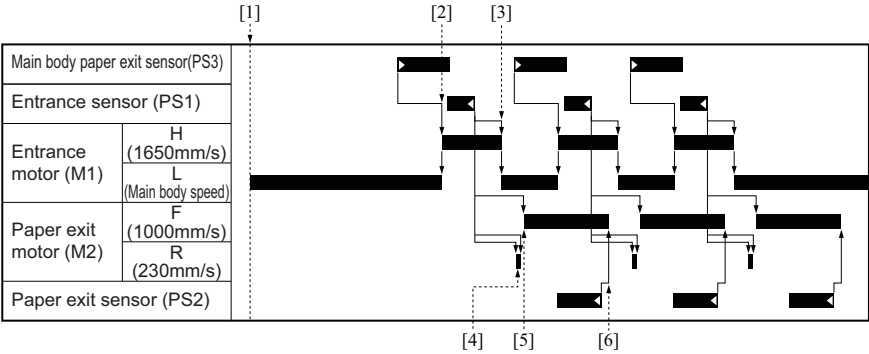


[1]	Print start	[2]	Speed up the line speed for the 1st sheet of paper
[3]	Switching to the line speed for acceptance the 2nd sheet	[4]	Speed up the line speed for the 2nd sheet of paper
[5]	Switching the line speed to accept the 3rd sheet	[6]	Alignment operation for the 1st and 2nd sheets of paper assist
[7]	Double sheets reverse/exit for the 1st and 2nd sheets start	[8]	Double sheets reverse/exit for the 1st and 2nd sheets completion
[9]	Assist the alignment operation of the last sheet of paper when the number of sheets is odd.	[10]	Reversing/exiting conveyance of the last sheet of paper when the number of sheets is odd (Start)
[11]	Reversing/exiting conveyance of the last sheet of paper when the number of sheets is odd (Restart)	[12]	Detecting the trailing edge of the last paper

(3) Single sheet reverse/exit conveyance

- When the start button turns ON [1], the entrance motor (M1) turns ON at the same low speed as the machine.
- M1 turns ON at low speed and the entrance roller/1, /2 and the stacker entrance roller rotate at the same speed as the main body so that paper ejected from the main body is conveyed to the RU smoothly.
- When the paper exit sensor (PS3) detects the leading edge of the 1st sheet of paper, M1 switches from low speed to high speed of 1650mm/s after a specified period of time [2] and the line speed inside of the RU is accelerated.
- When M1 switches from low speed to high speed, the trailing edge of the 1st sheet of paper already passes the output roller. Therefore, M1 is not effected when the line speed of the RU is accelerated.
- When the entrance sensor (PS1) detects the trailing edge of the 1st sheet of paper, M1 switches to low speed again [3] after a specified period of time and is ready to accept the next sheet.
- When M1 switches from high speed to low speed, the conveyance of the 1st sheet of paper to the stacker section is completed.

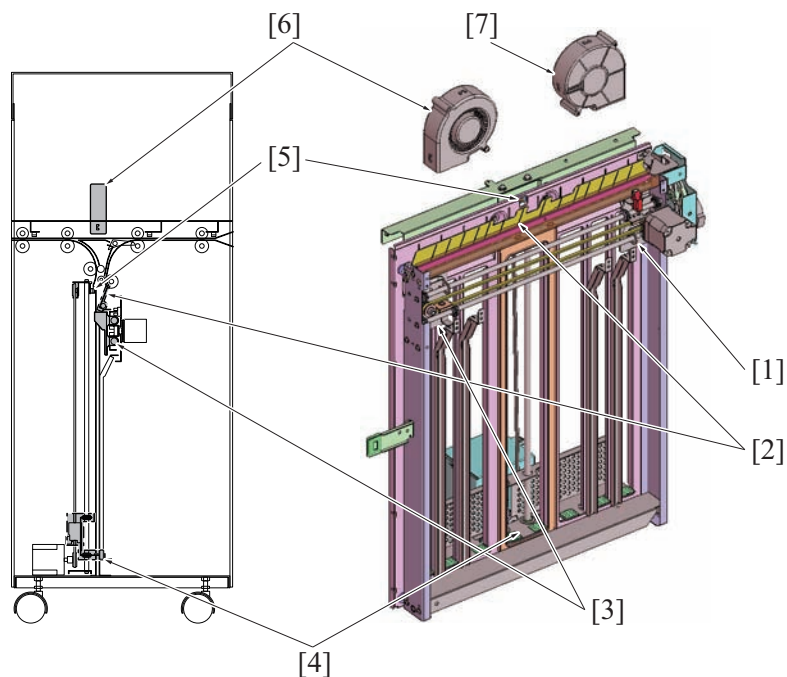
- After a specified period of time since the PS1 detects the trailing edge of the 1st sheet of paper, the output motor (M2) rotates in the reverse direction [4]. Thus the output motor prevents the paper from nipping by the paper re-feed roller during alignment is operated for the 1st sheet of paper.
- When the alignment operation is completed, M2 rotates in forward direction [5] after a specified period of time since PS1 detects the trailing edge of the 1st sheet of paper and drives refeed roller, merging section roller, output roller at the line speed 1000mm/s.
- The 1st sheet of paper after the alignment operation contacts with the refeed roller, so it is nipped by the rotation in forward direction of M2 and ejected.
- Exited paper is reversed because they are conveyed from the side which was trailing edge when they were stacked to the stacker.
- When the paper exit sensor (PS2) detects the trailing edge of the 1st sheet of paper, M2 turns off the rotation in the reverse direction [6] and completes the reverse/exit conveyance for the 1st sheet of paper.
- For paper after the 2nd sheet, the same operation as the 1st sheet of paper is performed.



[1]	Print start	[2]	Speed up the line speed for the 1st sheet of paper
[3]	Switching to the line speed for acceptance the 2nd sheet	[4]	Alignment operation for the 1st sheet of paper assist
[5]	Reverse paper exit for the 1st sheet of paper start	[6]	1st sheet of paper completion

3. STACKER SECTION

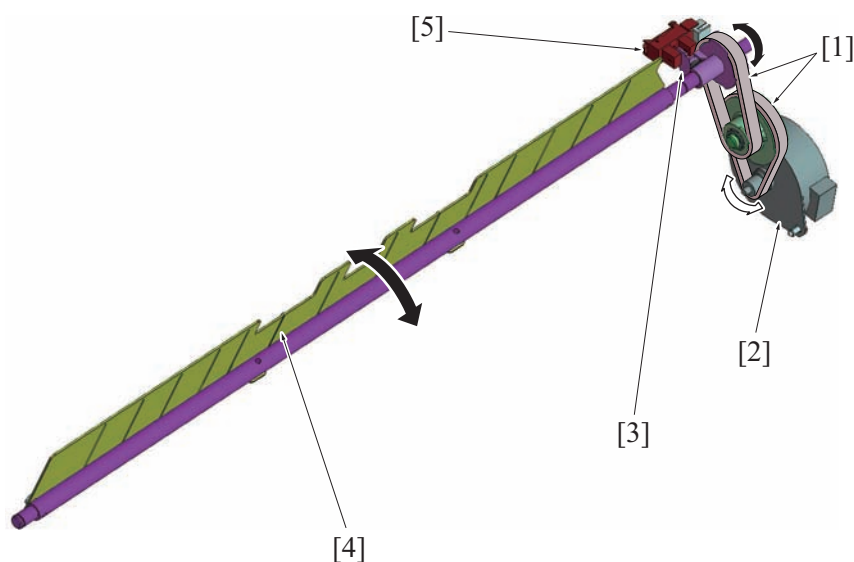
3.1 Configuration



[1]	CD alignment plate /Rr	[2]	Assist guide
[3]	CD alignment plate /Fr	[4]	FD alignment plate
[5]	Stacker jam sensor (PS5)	[6]	Stack assist fan /Fr (FM1)
[7]	Stack assist fan /Rr (FM2)	-	

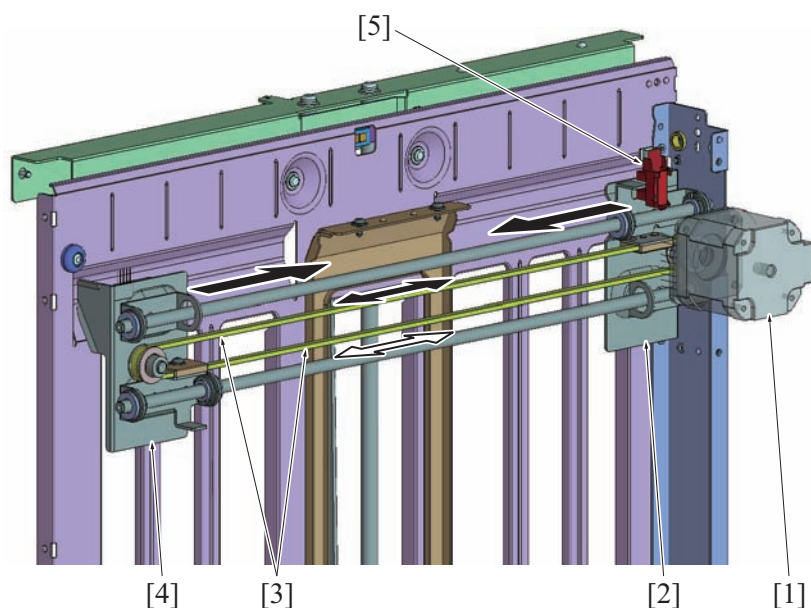
3.2 Drive

3.2.1 Assist guide drive



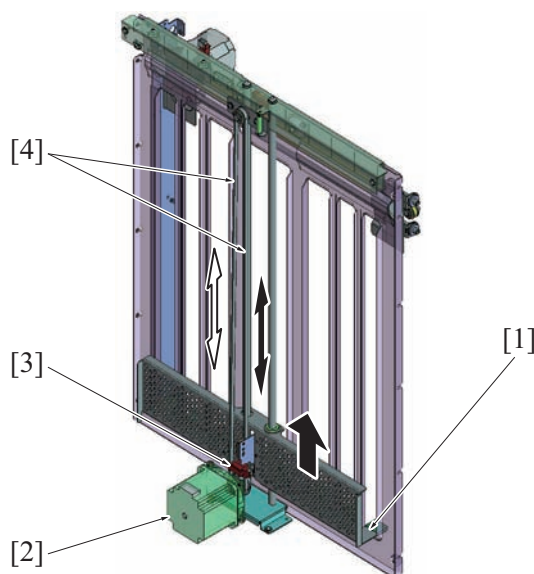
[1]	Timing belt	[2]	Stack switch motor (M6)
[3]	Actuator	[4]	Assist guide
[5]	Stack switch home sensor (PS8)	-	

3.2.2 CD alignment drive



[1]	CD alignment motor (M4)	[2]	CD alignment plate /Rr
[3]	Timing belt	[4]	CD alignment plate /Fr
[5]	CD alignment home sensor (PS4)	-	

3.2.3 FD alignment drive



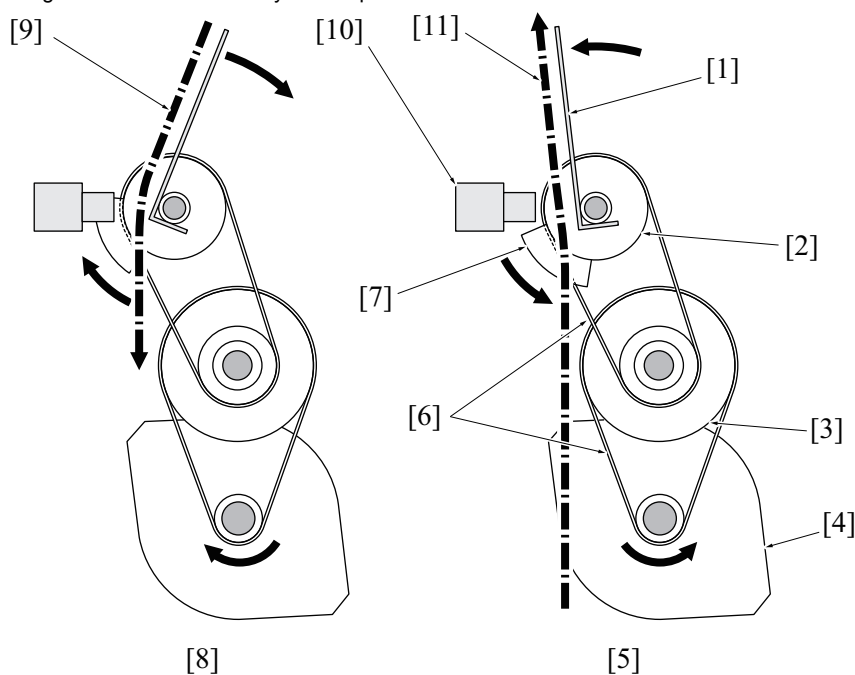
[1]	FD alignment plate	[2]	FD alignment motor (M3)
[3]	FD alignment home sensor (PS3)	[4]	Timing belt

3.3 Operation

3.3.1 Conveyance path switching control

- The assist guide [1] switches the paper accepting path to the stacker section [8] and paper exit path from the stacker section [5].
- The angle of the assist guide changes according to the rotation of the pulley /2 [2].
- The stack switch motor (M6) [4] drives the pulley /2 via the timing belt [6] and the pulley /1 [3].
- The pulley /2 is equipped with the actuator [7], and the stack switch home sensor (PS8) [10] controls the rotation position. Thus, the assist guide has 2 set stopping positions.
- Pulley /2 stops at the home position when the stacker section accepts paper. At this time, the assist guide is opened.
- When the assist guide is opened, the conveyance path is made between the stacker entrance roller and the stacker section. Thus, the paper [9] which passed through the stacker entrance roller to perform the reverse paper exit is conveyed to the stacker section.

- When paper is ejected from the stacker section, the assist guide is closed and the conveyance path to the stacker entrance roller is blocked. The conveyance path of the paper re-feed roller leads so that the paper is exited. This operation reverses the paper.
- When the stacker section accepts paper, M6 does not operate and the assist guide keeps being opened.
- When the entrance sensor (PS1) detects the trailing edge of paper and turns OFF, M6 rotates in the reverse direction and closes the assist guide after a specified period of time. At this time, the trailing edge of the paper has passed the assist guide.
- When the paper conveyed to the stacker section is moved up by the vertical alignment operation, the closed assist guide conveys the paper is conveyed to the paper re-feed roller.
- After a specified period of time since the start of vertical alignment operation, M6 rotates in the forward direction and opens the assist guide again to enter the stand-by to accept the next sheet.

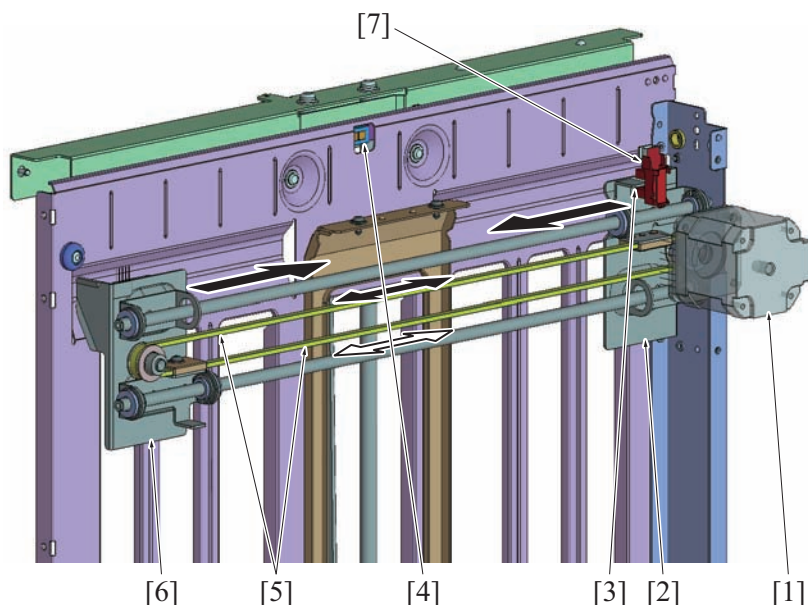


[1]	Assist guide	[2]	Pulley /2
[3]	Pulley /1	[4]	Stack switch motor (M6)
[5]	Paper exit path	[6]	Timing belt
[7]	Actuator	[8]	Paper accepting path
[9]	Paper (accepting conveyance)	[10]	Stack switch home sensor (PS8)
[11]	Paper (exit conveyance)	-	

3.3.2 Horizontal alignment control

(1) Horizontal alignment mechanism

- The CD alignment plates /Fr [6] and /Rr [2] align the paper in the cross direction.
- The CD alignment plates /Fr and /Rr are connected to the timing belt [5], and the drive of the CD alignment motor (M4) [1] moves them.
- M4 is equipped with the damper to make itself calm.
- The CD alignment plate /Rr is equipped with the actuator [3]. The CD alignment home sensor (PS4) controls the movement position of the CD alignment plate /Fr, /Rr.



[1]	CD alignment motor (M4)	[2]	CD alignment plate /Fr
[3]	Actuator	[4]	Stacker jam sensor (PS5)
[5]	Timing belt	[6]	CD alignment plate /Fr
[7]	CD alignment home sensor (PS4)		-

(2) Alignment timing

- When paper is accepted, the CD alignment plate /Fr and /Rr stand by at the position where 10mm distance from the edge of the paper.
- The operation for lining up edges of the CD alignment plate /Fr and /Rr is performed for 2 steps when single sheet reverse paper exit and 1 step when double sheets reverse paper exit.
- In the single sheet reverse paper exit, the edges are lined up for 8mm at mid speed after a specified period of time since entrance sensor (PS1) detects the trailing edge of the sheet.
- When vertical alignment is started after the operation described as above, the edges are lined up for 2mm at low speed in addition after a specified period of time.
- In the double sheets reverse paper exit, the edges are lined up for 10mm at high speed after a specified period of time since PS1 detects the trailing edge of the sheet.
- After a specified period of time since vertical alignment starts, the edges are lined up for 10mm for each at high speed by the CD alignment plate /Fr and /Rr. This operation is same for single sheet reverse paper exit and double sheets reverse paper exit.

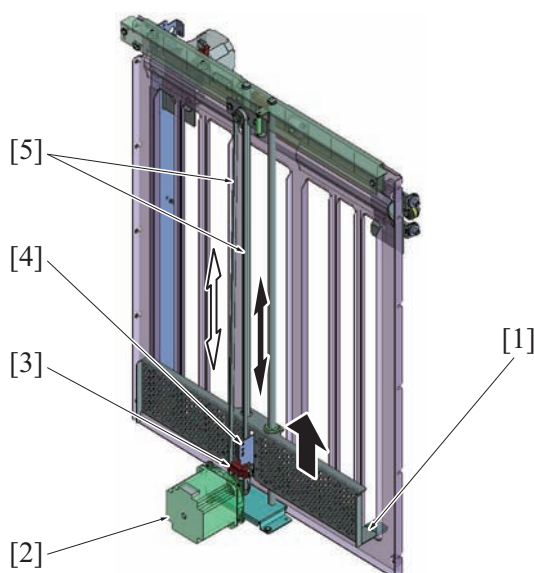
(3) Paper in the stacker detection control

- The stack side of the stacker is equipped with the stacker jam sensor (PS5). It detects whether paper remains in the stacker or not.

3.3.3 Vertical alignment control

(1) Vertical alignment mechanism

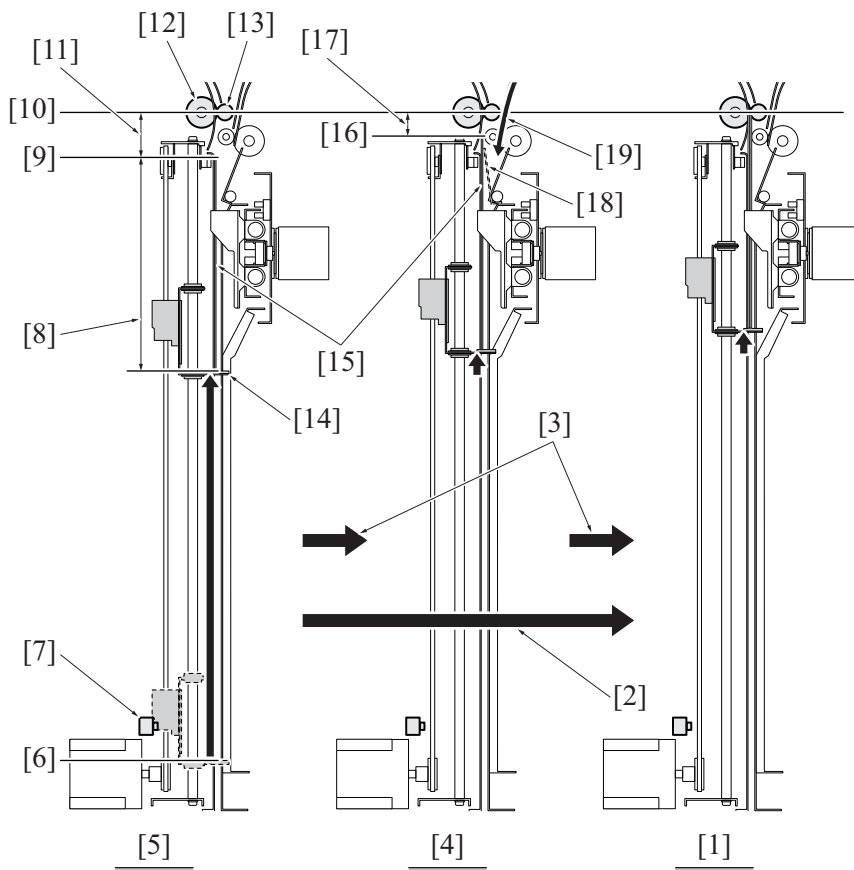
- The FC alignment plate [1] aligns the paper in the feed direction.
- When the FD alignment plate goes up, the stacked paper strikes the paper re-feed roller. Then, the alignment in the feed direction is performed.
- The FD alignment motor (M3) [2] drives the FD alignment plate via the timing belt [5].
- M3 is equipped with the damper to make Machine calm.
- The timing belt is equipped with the actuator [4], and the FD alignment home sensor (PS3) [3] controls the moving position.



[1]	FD alignment plate	[2]	FD alignment motor (M3)
[3]	FD alignment home sensor (PS3)	[4]	Actuator
[5]	Timing belt	-	

(2) Alignment timing

- Vertical alignment operation is different for single sheet reverse paper exit and double sheets reverse paper exit.
- Single sheet reverse paper exit
 - For single sheet reverse paper exit, the FD alignment motor (M3) turns ON upon receiving a print job and the FD alignment plate [14] goes up from the home position [6] to the position [9] where the paper trailing edge is at a distant of 35mm [11] from the center [10] of the paper re-feed roller [12]. Then, the FD alignment plate remains at the position.
 - When the paper is conveyed to the stacker section, the FD alignment plate goes further up a specified period of time after the entrance sensor (PS1) detects the paper trailing edge. Then, the FD alignment plate strikes the paper trailing edge to the paper re-feed roller and paper re-feed driven roller [13] and performs alignment in the feed direction.
 - After another period of time, the FD alignment plate goes up again when the paper exit motor (M2) turns ON and the FD alignment plate assists the paper exit operation by the paper re-feed roller for a specified period of time.
 - After another period of time, the FD alignment plate goes down to the position where is at a distant of 35mm from the center of the paper re-feed roller. Then, the FD alignment plate enters the stand-by to receive the next paper.
- Double sheets reverse paper exit
 - For single sheet reverse paper exit, the FD alignment motor (M3) turns ON upon receiving a print job and the FD alignment plate [14] goes up from the home position [6] to the position [9] where the paper trailing edge is at a distant of 35mm [11] from the center [10] of the paper re-feed roller [12]. Then, the FD alignment plate remains at the position.
 - After a specified period of time since the entrance sensor (PS1) detects the trailing edge of the 1st sheet, the FD alignment plate goes further up to lift the trailing edge of the 1st sheet to the position [16] where is at a distant of 15mm [17] from the center of the paper re-feed roller.
 - Receives the 2nd sheet on the above condition.
 - After a specified period of time since the PS1 detects the trailing edge of the 2nd sheet, the FD alignment plate goes further up and hit the paper trailing edge against the paper re-feed roller and paper re-feed driven roller [13] to perform alignment in the feed direction.
 - The above operation shortens the time from receiving the 2nd sheet and completing the alignment.
 - Following operations are same as the single sheet reverse paper exit.



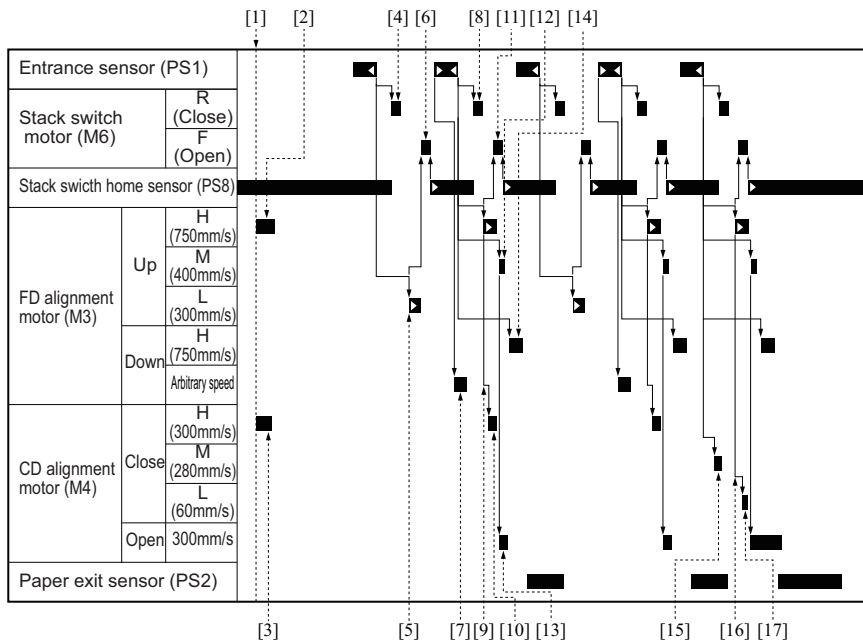
[1]	Vertical alignment position	[2]	Changes of single sheet reverse paper exit
[3]	Change of double sheets reverse paper exit	[4]	2nd sheet receiving position
[5]	1st sheet receiving position	[6]	Home position
[7]	FD alignment home sensor (PS3)	[8]	Paper length in the feed direction
[9]	Paper trailing edge for 1st sheet receiving	[10]	Center of the paper re-feed roller
[11]	35mm	[12]	Paper re-feed roller
[13]	Paper re-feed driven roller	[14]	FD alignment plate
[15]	1st sheet of paper	[16]	Paper trailing edge for 2nd sheet receiving
[17]	15mm	[18]	Assist guide
[19]	2nd sheet of paper	-	

3.3.4 Reverse/exit control

(1) Double sheets reverse/exit conveyance control

- When the start button turns ON [1], the FD alignment motor (M3) also turns on [2] and moves up the FD alignment plate to the position where the upper edge of paper to be stacked is 35mm distance from the center of the refeed roller at high speed.
- When the start button turns ON, the CD alignment motor (M4) also turns on [3]. The motor closes the CD alignment plate /Fr, /Rr to the position at high speed to the position where the both edges of the paper to stack are 10mm distance from the plate at high speed.
- The standby position to accept paper for both FD alignment plate and CD alignment plate/Fr, /Rr is as mentioned above.
- The 1st sheet of paper which is conveyed to the RU is conveyed to the stacker section via the straight gate and the stacker entrance roller from the entrance roller/2.
- When PS1 detects the trailing edge of the 1st sheet of paper, the stack switch motor [6] rotates in the reverse direction [4] and closes the assist guide after a specified period of time.
- When the assist guide is closed, the conveyance of the 1st sheet of paper to the stacker section is completed.
- After a specified period of time since PS1 detects the trailing edge of the 1st sheet of paper, M3 turns ON [5] and moves up the FD alignment plate at low speed to the position where the upper edge of stacked paper is 15mm distance from the center of the refeed roller.
- The standby position to accept the 2nd sheet of paper for the double sheets reverse paper exit is as mentioned above.
- When the 1st sheet of paper moves up, the assist guide is close and the conveyance path to the stacker entrance roller side is blocked, so the paper is conveyed to the re-feed roller side.
- After a specified period of time since M3 turn ON the position movement to accept the 2nd sheet of paper, M6 rotates in forward direction [6] and opens assist guide, and stands by to accept the 2nd sheet of paper.
- When the PS1 detects the trailing edge of the 2nd sheet of paper, M3 turns ON [7] after a specified period of time and moves down the FD alignment plate at arbitrary speed. Then M3 accepts the 2nd sheet of paper to the stacker position.
- When the PS1 detects the trailing edge of the 2nd sheet of paper, M6 rotates again in the reverse direction [8] and closes the assist guide after a specified period of time.
- After a specified period time since the PS1 detects the trailing edge of the 2nd sheet of paper, M3 turns ON [9] and moves up the FD alignment plate at high speed to perform vertical alignment for the 1st and 2nd stacked sheet of paper by contacting with the refeed roller.
- When the 1st and 2nd sheets of paper are moved up, the assist guide is closed and the conveyance path to the stacker entrance roller is blocked, so the paper is conveyed to the re-feed roller.

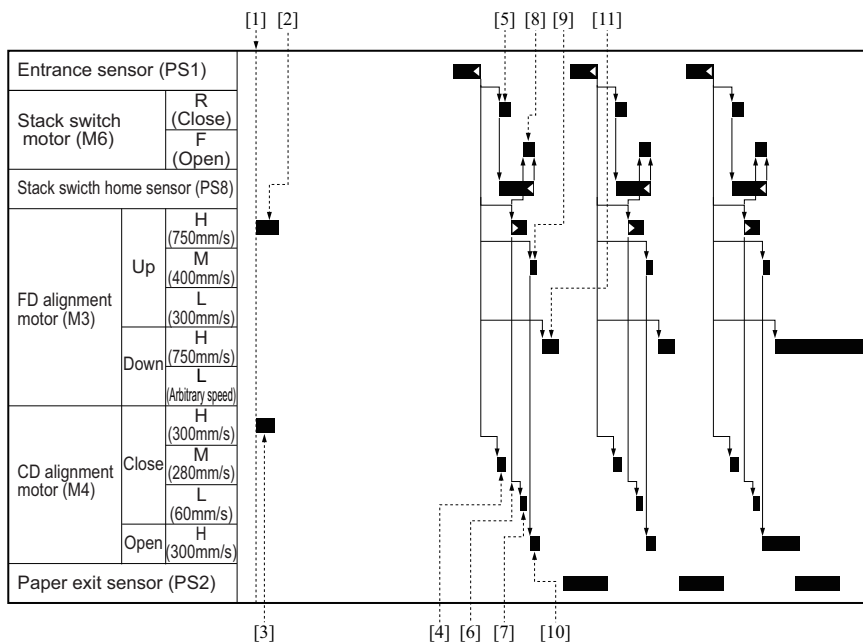
- M4 turns ON [10] after a specified period of time since M3 turns ON the vertical alignment. Then M4 closes the CD alignment plate /Fr and /Rr at high speed to perform horizontal alignment for the 1st and 2nd stacked sheets of paper.
- After a specified period of time since M3 turns ON the vertical alignment, M6 rotates in forward direction [11] and opens the assist guide to enter the stand-by for accepting the 3rd sheet of paper.
- After a specified period of time since PS1 detects the trailing edge of the 2nd sheet of paper, M3 turns ON [12] and moves up the FD alignment plate at mid speed so that the paper re-feed roller nips the aligned 1st and 2nd sheet of paper.
- Moving up distance for nip assistance operation of M3 is 10mm at the speed 400mm/s for plain and 23mm at the speed 600mm/s for tab paper.
- Aligned 2 sheets of paper are conveyed from the side which was trailing edge when they were stacked to the stacker. Therefore they reverses.
- M4 turns ON [13] at the same timing when M3 performs nip assist operation and opens the FD alignment plate /Fr, /Rr to enter the stand-by for accepting the 3rd sheet of paper.
- After a specified period of time since PS1 detects the trailing edge of 2nd sheet of paper, M3 turns ON [14] and moves down the FD alignment plate at high speed to enter the stand-by for accepting the 3rd sheet of paper.
- The position to standby for accepting the 1st and 3rd sheets of paper of FD alignment plate are the same.
- For papers after the 3rd sheet, the operation for the 1st and 2nd sheets of paper is repeated and 2 sheets of papers are reversely exited overlapped.
- When the number of total sheets of paper is odd, M4 turns ON [15] a specified period of time after PS1 detects the trailing edge of the last sheet of paper and closes the CD alignment plate /Fr and /Rr by 8mm for each at mid speed to perform the horizontal alignment of a sheet of paper.
- The position where the CD alignment plate /Fr and /Rr stop after they move at mid speed is 2mm from the paper edges. The horizontal alignment is not completed.
- After a specified period time since the PS1 detects the trailing edge of the last sheet of paper, M3 turns ON [16] and moves up the FD alignment plate at mid speed to perform vertical alignment for the stacked last sheet of paper by contacting it with the paper refeed roller.
- When the last sheet of paper moves up, the assist guide is close so that the conveyance path to the stacker entrance roller side is blocked and the paper is conveyed to the refeed roller side.
- M4 turns ON [17] a specified period of time after M3 turns ON the vertical alignment. Then, M4 closes the CD alignment plate /Fr and /Rr by 2mm for each to complete the horizontal alignment for the last stacked sheet of paper.
- The following operation for exiting papers is the same as the double reverse/exit conveyance.



[1]	Print start	[2]	FD alignment plate position movement to accept the 1st sheet
[3]	CD alignment plate /Fr, /Rr position movement to accept the 1st sheet	[4]	Assist the moving up the 1st sheet of paper of assist guide
[5]	FD alignment plate position movement to accept the 2nd sheet	[6]	Assist guide standby for accepting the 2nd sheet
[7]	FD alignment plate position movement to accept the 3rd sheet	[8]	Alignment assist for the 1st and 2nd sheets of paper of the assist guide
[9]	Vertical alignment of alignment FD alignment plate	[10]	Horizontal alignment of CD alignment plate /Fr, /Rr
[11]	Assist guide standby for accepting the 3rd sheet	[12]	FD alignment nip assist
[13]	CD alignment plate /Fr, /Rr position movement to accept the 3rd sheet	[14]	FD alignment plate position movement to accept the 3rd sheet
[15]	Horizontal alignment by the CD alignment plate /Fr, /Rr when the number of sheets is odd (1st step)	[16]	Vertical alignment by the FD alignment plate when the number of sheets is odd
[17]	Horizontal alignment by the CD alignment plate /Fr, /Rr when the number of sheets is odd (2nd step)	-	

(2) Single sheet reverse/exit control

- When the start button turns ON [1], the FD alignment motor (M3) also turns on [2]. Then the motor moves up the FD alignment plate at high speed to the position where the upper edge of the paper to stack is 35mm distance from the center of the refeed roller at.
- When the start button turns ON, the CD alignment motor (M4) also turns on [3]. The motor closes the CD alignment plate /Fr, /Rr to the position at high speed to the position where the both edges of the paper to stack are 10mm distance from the plate at high speed.
- The standby position to accept paper for both FD alignment plate and CD alignment plate /Fr, /Rr is as mentioned above.
- The 1st sheet of paper which is conveyed to the RU is conveyed to the stacker section via the straight gate and the stacker entrance roller from the entrance roller/2.
- When the entrance sensor (PS1) detects the trailing edge of the 1st sheet of paper, M4 turns OFF after a specified period of time. Then M4 closes the CD alignment plate /Fr and /Rr by 8mm for each at mid speed to perform horizontal alignment.
- The position where the CD alignment plate /Fr, /Rr stops after they move at mid speed is 2mm from the paper edges. The horizontal alignment is not completed.
- When PS1 detects the trailing edge of the 1st sheet of paper, the stack switch motor (M6) rotates in the reverse direction [5] after a specified period of time to close the assist guide.
- When the assist guide is closed, the conveyance of the 1st sheet of paper to the stacker section is completed.
- After a specified period time since the PS1 detects the trailing edge of the 1st sheet of paper, M3 turns ON [6] and lifts the FD alignment plate at high speed to perform the vertical alignment for the 1st stacked sheet of paper by contacting it with the paper refeed roller.
- When the 1st sheet of paper moves up, the assist guide is close and the conveyance path to the stacker entrance roller side is blocked, so the paper is conveyed to the re-feed roller side.
- M4 turns ON [7] after a specified period of time since M3 turns ON the vertical alignment. Then M4 closes the CD alignment plate /Fr and /Rr by 2mm for each to complete the horizontal alignment for the 1st stacked sheet of paper.
- After a specified period of time since M3 turns ON the vertical alignment, M6 rotates in forward direction [8] and opens the assist guide to enter the stand-by for accepting the 2nd sheet of paper.
- After a specified period of time since PS1 detects the trailing edge of the 1st sheet of paper, M3 turns on [9] and moves up the FD alignment plate at mid speed so that the paper re-feed roller nips the aligned 1st sheet of paper.
- Moving up distance for nip assistance operation of M3 is 10mm at the speed 400mm/s for plain and 23mm at the speed 600mm/s for tab paper.
- Aligned paper is conveyed from the side which was trailing edge when they were stacked to the stacker. Therefore they reverses.
- M4 turns ON [10] at the same timing when M3 performs nip assist operation and opens the FD alignment plate /Fr, /Rr to enter the stand-by for accepting the 2nd sheet of paper.
- After a specified period of time since PS1 detects the trailing edge of the 1st sheet of paper, M3 turns ON [11] and moves down the FD alignment plate at high speed to enter the stand-by for accepting the 2nd sheet of paper.
- The position to standby for accepting the 1st and 2nd sheets of paper of FD alignment plate are the same.
- For paper after the 2nd sheet, the same operation as the 1st sheet of paper is performed.

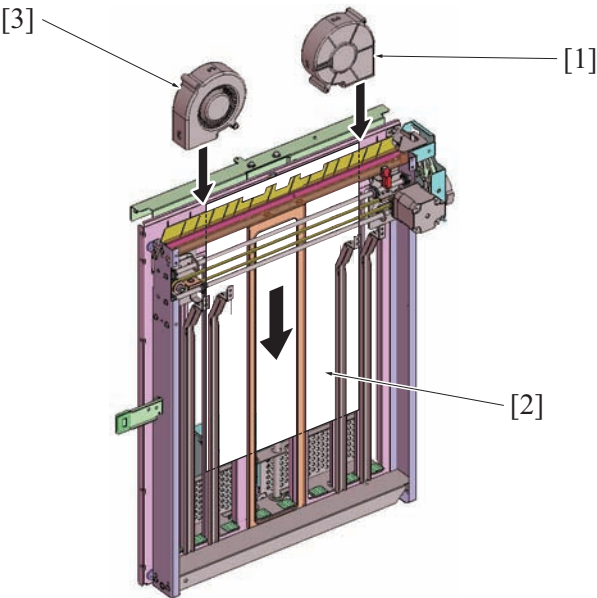


[1] Print start	[2] FD alignment plate position movement to accept the 1st sheet
[3] CD alignment plate /Fr, /Rr position movement to accept the 1st sheet	[4] Horizontal alignment of the CD alignment plate /Fr, /Rr (1st step)
[5] Alignment assist for the 1st sheet of paper of assist guide	[6] Vertical alignment of the FD alignment plate
[7] Horizontal alignment of the CD alignment plate /Fr, /Rr (2nd step)	[8] Assist guide standby for accepting the 2nd sheet
[9] FD alignment nip assist	[10] CD alignment plate /Fr, /Rr position movement to accept the 2nd sheet
[11] FD alignment plate position movement to accept the 2nd sheet	-

3.3.5 Stack assist fan control

- Stack assist fan /Fr (FM1) [3], /Rr (FM2) [1] is equipped to improve the performance of stacked paper separation.
- FM1, FM2 operates only in the reverse/exit mode.

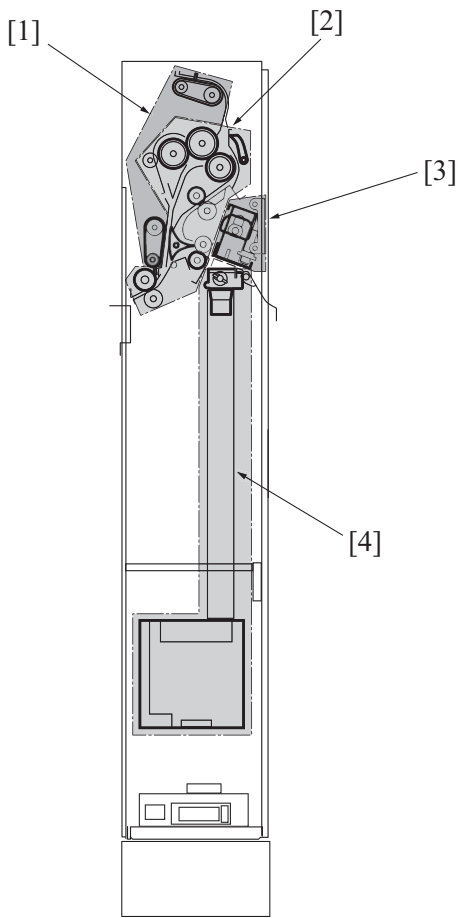
- FM1, FM2 turns ON at the same time when the paper exit sensor (PS3) turns ON, and turns OFF at the same time when the paper exit sensor (PS2) detects the trailing edge of the last sheet of paper and turns OFF.



[1]	Stack assist fan /Rr (FM2)	[2]	Paper
[3]	Stack assist fan /Fr (FM1)	-	

PH THEORY OF OPERATION ZU-608

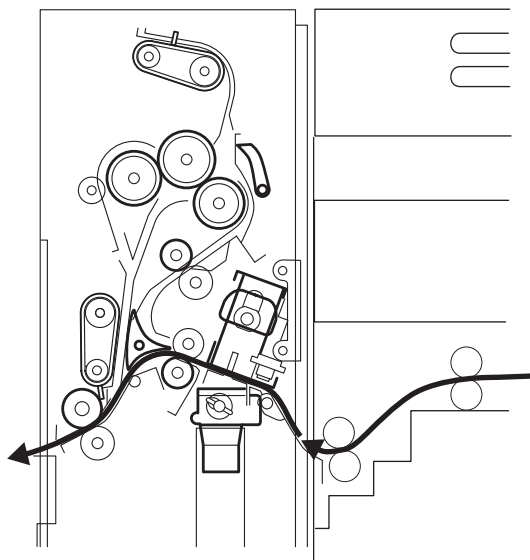
1. UNIT CONFIGURATION



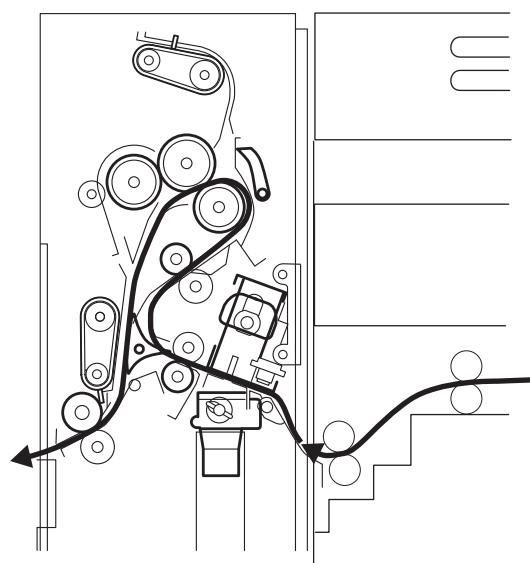
[1]	Z-folding section	[2]	Conveyance section
[3]	Punch section	[4]	Punch scraps conveyance section

2. PAPER PATH

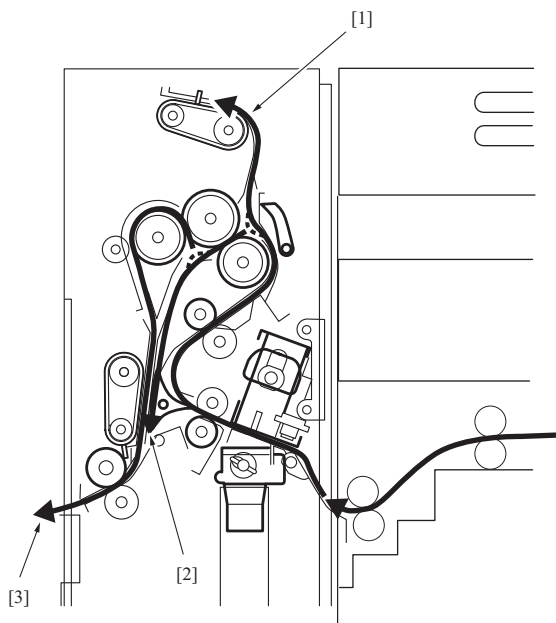
2.1 Straight mode/punch mode(for the small size paper : A5, 5-1/2 x 8-1/2)



2.2 Punch mode (excluding the small size paper)



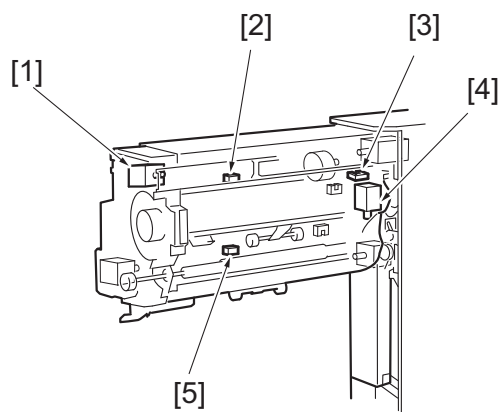
2.3 Z-folding mode/punch + Z-folding mode



[1]	From the main body to the 1st folding	[2]	1st folding to the 2nd folding
[3]	From the 2nd folding to the paper exit		

3. CONVEYANCE/EXIT SECTION

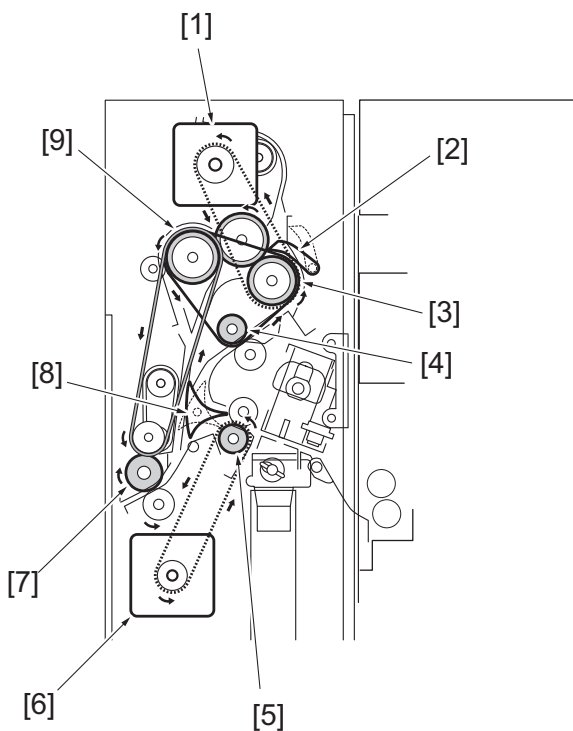
3.1 Configuration



[1]	Gate solenoid/Up (SD602)	[2]	Conveyance sensor (PS601)
[3]	Conveyance encoder sensor (PS610)	[4]	Gate solenoid/Lw (SD601)
[5]	Exit sensor (PS609)		

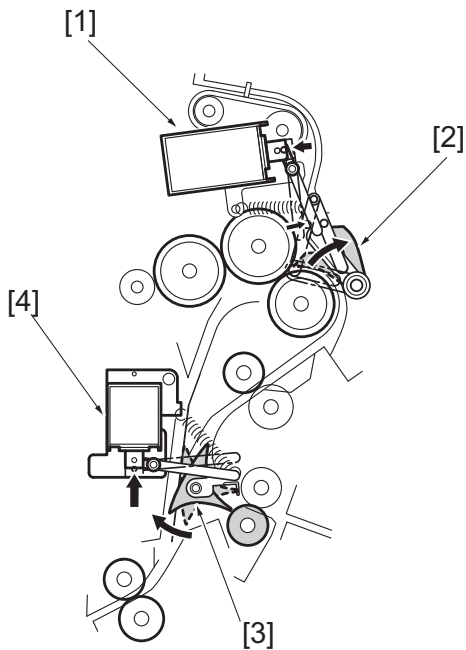
3.2 Drive

3.2.1 Conveyance drive



[1]	Main motor (M606)	[2]	Gate /Up
[3]	1st folding roller	[4]	Conveyance roller
[5]	Registration roller	[6]	Registration motor (M601)
[7]	Exit roller	[8]	Gate /Lw
[9]	2nd folding roller		

3.2.2 Gate drive



[1]	Gate solenoid/Up (SD602)	[2]	Gate /Up
[3]	Gate /Lw	[4]	Gate solenoid/Lw (SD601)

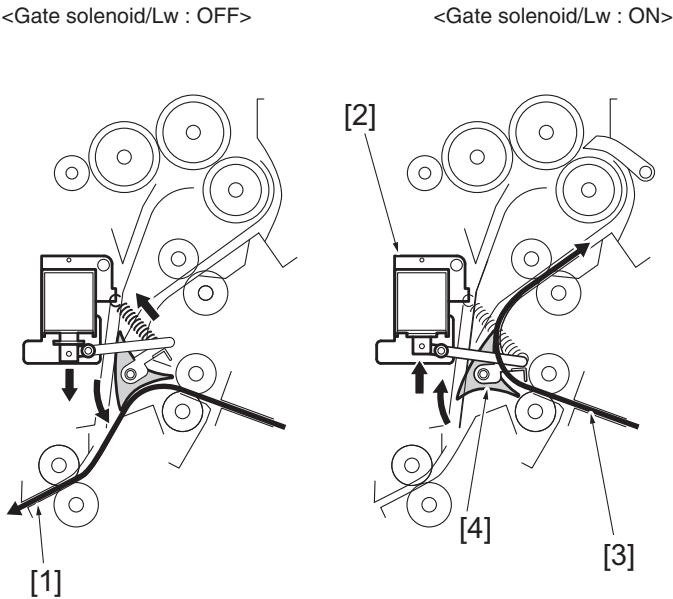
3.3 Operation

3.3.1 Conveyance path switching

- The gates/Lw and /Up switch the conveyance path.
- The gate solenoid/Lw drives the gate/Lw respectively.
- The gate solenoid/Up drive the gate/Up respectively.

(1) Gate /Lw

- The gate/Lw switches the paper path between the straight conveyance path and the upper conveyance path.
- The gate/Lw is set to the straight conveyance path when the gate solenoid/Lw turns OFF.
- The gate/Lw is set to the upper conveyance path when gate solenoid/Lw turns ON.

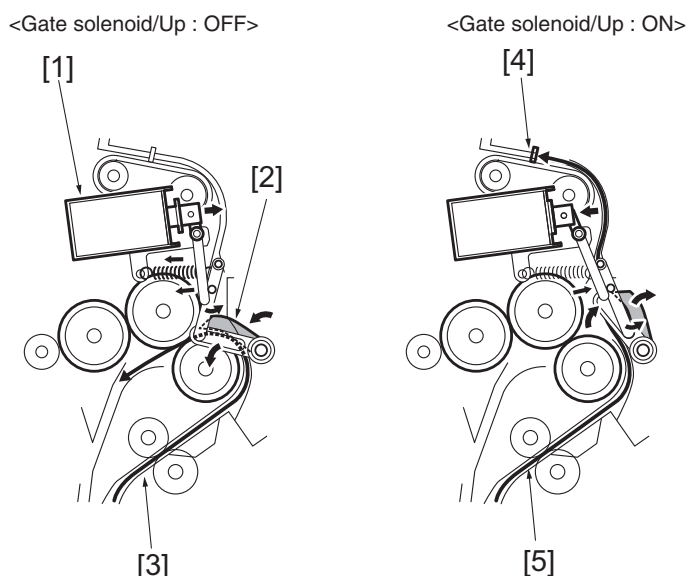


[1]	Straight conveyance path	[2]	Gate solenoid/Lw (SD601)
-----	--------------------------	-----	--------------------------

[3] Upper conveyance path	[4] Gate /Lw
---------------------------	--------------

(2) Gate /Up

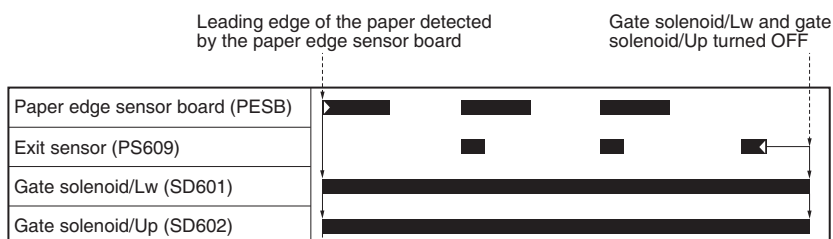
- The gate/Up switches the paper path of the paper that was conveyed to the upper conveyance path by the gate/Lw.
- The gate/Up is set to the paper path to the exit side when the gate solenoid/Up turns OFF.
- The gate/Up is set to the paper path to the 1st folding stopper when gate solenoid/Up turns ON.



[1] Gate solenoid/Up (SD602)	[2] Gate /Up
[3] Paper exit conveyance path	[4] 1st folding stopper
[5] Conveyance path to the 1st folding stopper	

(3) Operation timing**(a) Z-Folding**

1. In the Z-folding mode for the all paper size, the gate solenoid/Lw and the gate solenoid/Up turn ON when the paper edge sensor board detects the leading edge of the paper.
2. The gate/Lw is set to the upper conveyance path and the gate/Up is set to the conveyance path to the 1st folding stopper.
3. The gate solenoid/Lw and the gate solenoid/Up turn OFF a specified period of time after the last paper turns OFF the exit sensor.

**(b) Punch mode for the small size paper (A5, 5-1/2 x 8-1/2)**

- Gate solenoids/Lw and gate solenoids/Up always remain OFF, and never turn ON.
- The gate/Lw remains being set to the straight conveyance path.

(c) Punch mode for the large size paper (other than the small size paper)

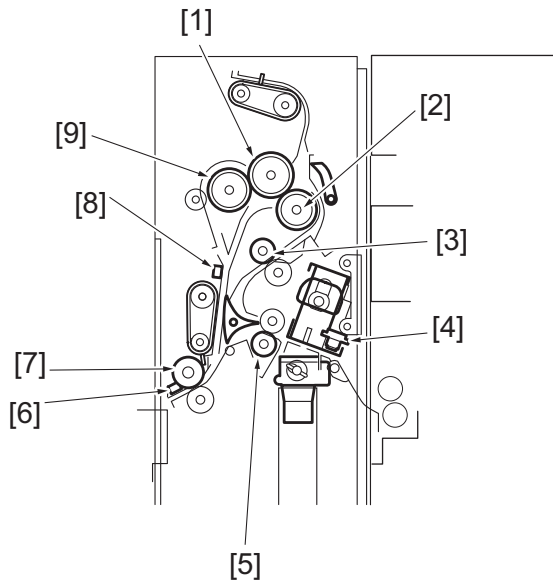
- The gate solenoid/Lw turns ON when the paper edge sensor board detects the leading edge of the paper.
- The gate/Lw is set to the upper conveyance path.
- The gate solenoid/Up remains OFF and the gate/Up remains being set to the paper path to the exit side.
- The gate solenoid/Lw turns OFF a specified period of time after the last paper turns OFF the exit sensor.

(d) Straight paper exit

- Gate solenoids/Lw and gate solenoids/Up always remain OFF, and never turn ON.
- The gate/Lw remains being set to the straight conveyance path.

3.3.2 Conveyance line speed switching

- The main motor drives the conveyance drive roller, the 1st folding roller, and the 2nd folding roller, which perform the folding operation, as well as the conveyance roller and the exit roller.
- The paper edge sensor board, the conveyance sensor, and the exit sensor detect the paper.

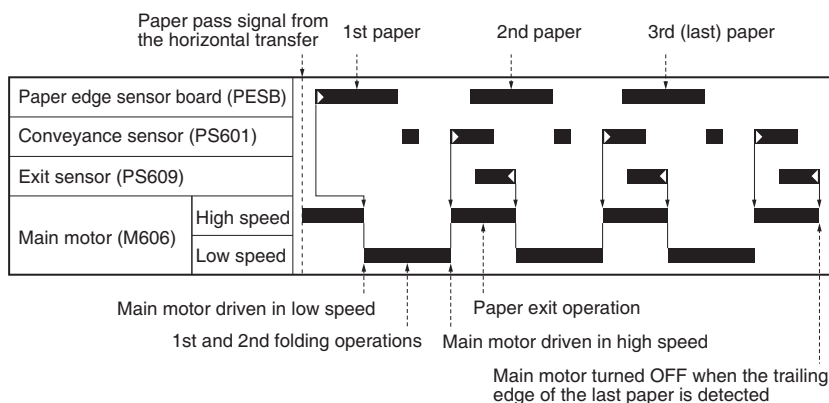


[1]	Conveyance drive roller	[2]	1st folding roller
[3]	Conveyance roller	[4]	Paper edge sensor board (PESB)
[5]	Registration roller	[6]	Exit sensor (PS609)
[7]	Exit roller	[8]	Conveyance sensor (PS601)
[9]	2nd folding roller		

(1) Operation timing

(a) Z-Folding

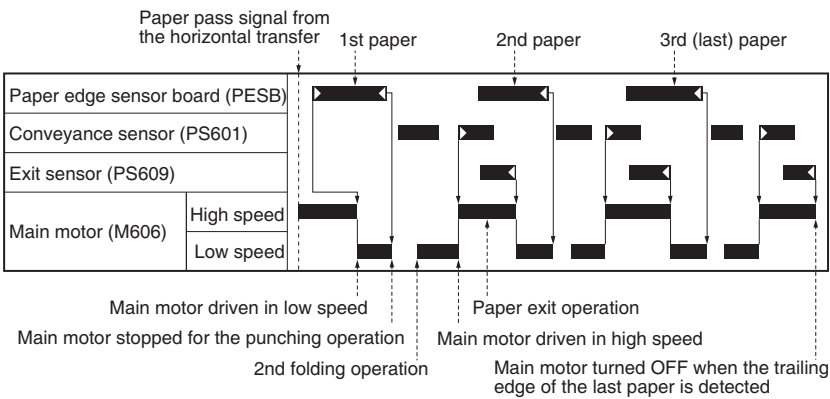
1. Transmitting the paper pass signal from the horizontal transfer, the main motor turns ON and rotates in high speed.
2. The main motor rotates in low speed and perform the 1st and 2nd folding operations a specified period of time after the paper edge sensor board detects the leading edge of the paper.
3. The main motor rotates in high speed to perform the paper exit operation of the 1st paper and to convey the 2nd paper in sync with the paper exit speed of the main body when the conveyance sensor detects the leading edge of the paper and turns ON after the 2nd folding operation.
4. The main motor turns OFF when the exit sensor detects the trailing edge of the last paper.



(b) Punch + Z-folding

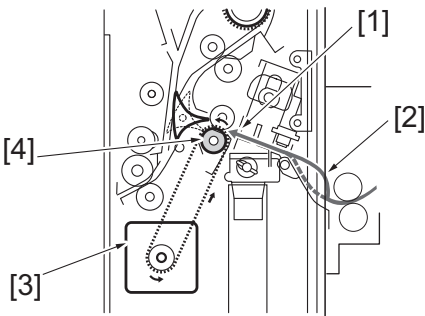
1. Transmitting the paper pass signal from the horizontal transfer, the main motor turns ON and rotates in high speed.
2. The main motor rotates in low speed and perform the 1st folding operations a specified period of time after the paper edge sensor board detects the leading edge of the paper.
3. The main motor turns OFF for the punching operation a specified period of time after paper edge sensor board detects the trailing edge of the paper.
4. The main motor turns OFF when the exit sensor detects the trailing edge of the last paper.

5. The main motor rotates in high speed to perform the paper exit operation of the 1st paper and to convey the 2nd paper in sync with the paper exit speed of the main body when the conveyance sensor detects the leading edge of the paper and turns ON after the 2nd folding operation.
6. The main motor turns OFF when the exit sensor detects the trailing edge of the last paper.



3.3.3 Registration control

- Registration control corrects the tilt of paper during the Z-folding or the punching.
- The paper exited from the main body is pressed against the stopped registration roller and forms a loop to correct skew of the paper, and then the paper is conveyed with its leading edge nipped.
- The registration motor drives the registration roller.

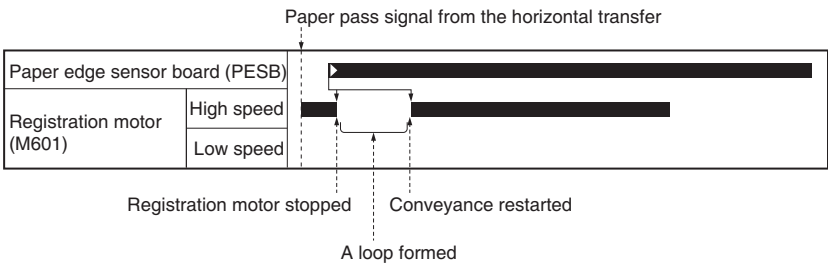


[1]	Paper leading edge	[2]	Loop
[3]	Registration motor (M601)	[4]	Registration roller

(1) Operation timing

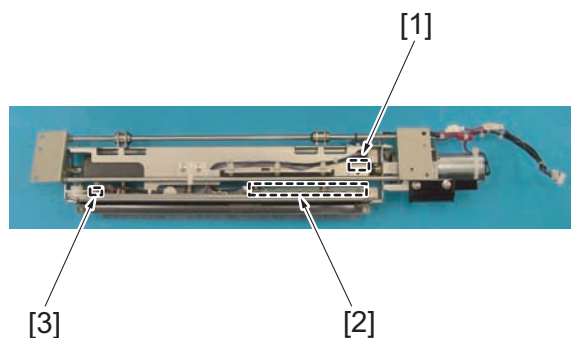
(a) Punch + Z-folding

1. Transmitting the paper pass signal from the horizontal transfer, the registration motor turns ON.
2. The registration motor stops a specified period of time after the paper edge sensor board detects the leading edge of the paper conveyed from the main body.
3. The paper is pressed against the registration roller and forms a loop to correct paper skew.
4. The registration motor turns ON and the conveyance is restarted a specified period of time after the paper contacts with the registration roller.
5. The registration motor turns OFF a specified period of time after the paper is exited.
- No registration control is conducted in the straight mode.



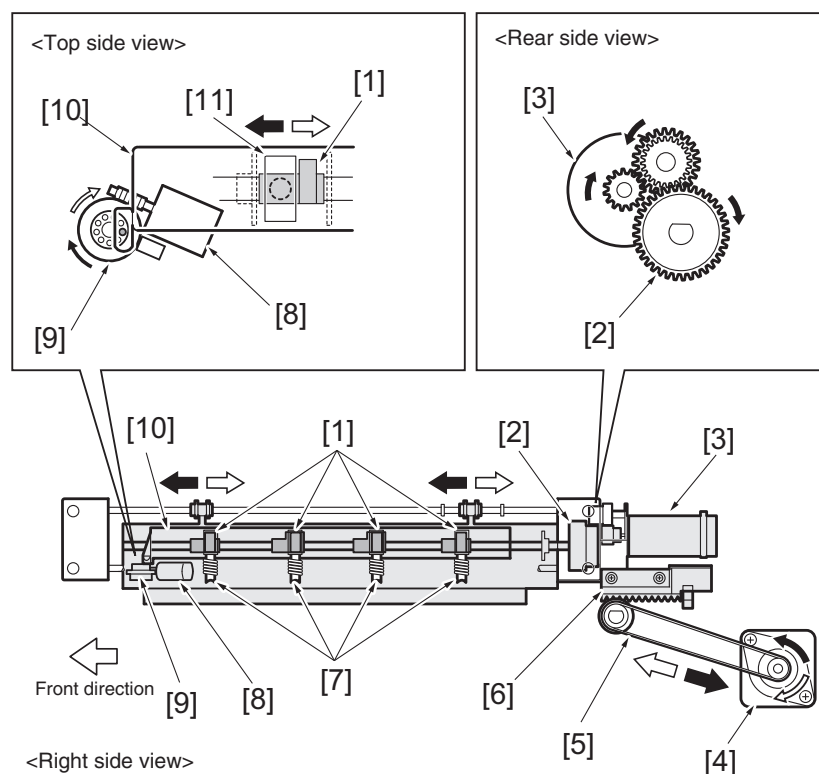
4. PUNCH SECTION

4.1 Configuration



[1] Punch home sensor (PS606)	[2] Paper edge sensor board (PESB)
[3] Punch switchover switch (MS601)	

4.2 Drive



[1] Eccentric cam	[2] Punch clutch (CL601)
[3] Punch motor (M604)	[4] Punch shift motor (M605)
[5] Belt	[6] Rack
[7] Punch blade	[8] Punch switchover motor (M608)
[9] Punch switchover cam	[10] Cam cover
[11] Cam holder	

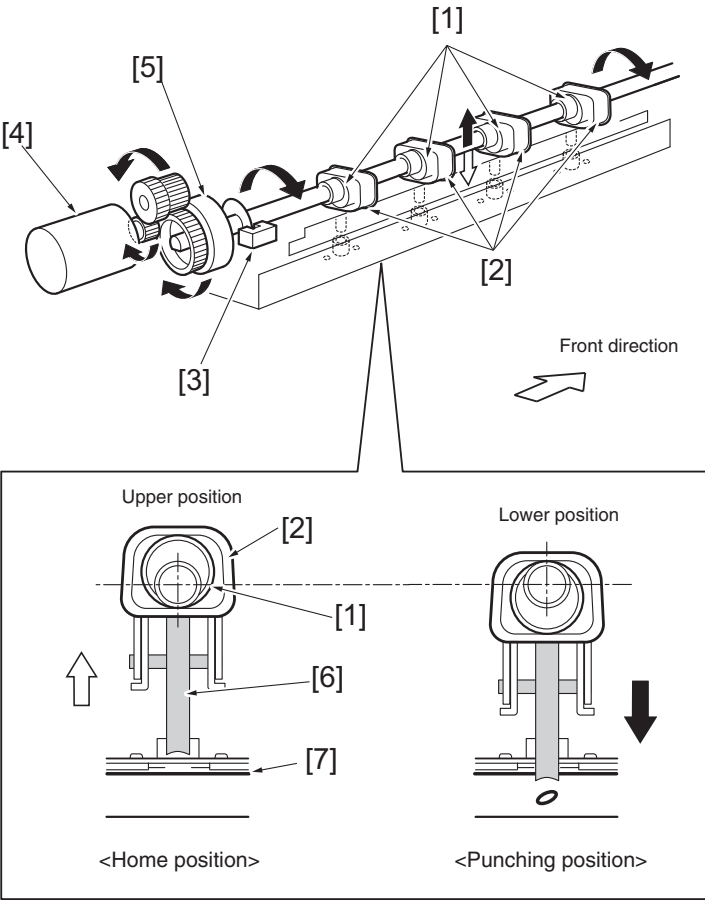
4.3 Operation

- The punch operation is conducted for every paper.
- The controls related to the punch operation is the punch control, the punch position movement control, and the punch hole switching control.

4.3.1 Punch control

- The punch operation is conducted by transmitting the rotation of the punch motor to the eccentric cam by the punch clutch and reciprocating the punch blades connected to the cam holder once.
- The punch motor drives the eccentric cam and performs the punch operation when punch clutch turns ON.

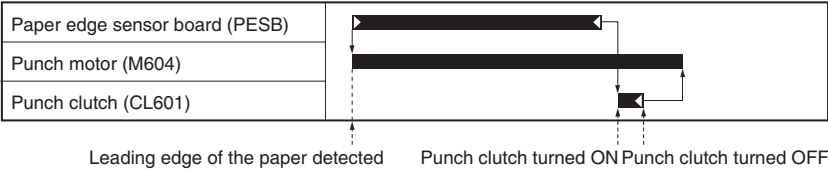
- The punch motor rotates clockwise from the view of the rear.
- The punch motor keeps rotating during the punch operation.
- The punch home sensor detects the home position of the punch blades.



[1]	Eccentric cam	[2]	Cam holder
[3]	Punch home sensor (PS606)	[4]	Punch motor (M604)
[5]	Punch clutch (CL601)	[6]	Punch blade
[7]	Paper		

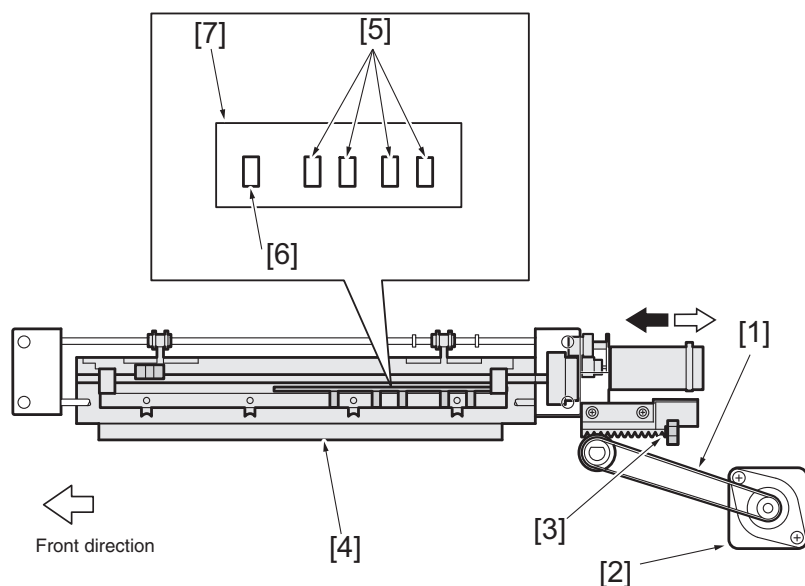
(1) Operation timing

- The registration motor and the main motor turn OFF to stop the conveyance during the punch operation.
1. The punch motor turns ON when the paper edge sensor board detects the leading edge of the paper.
 2. The punch clutch turns ON and performs the punch operation a specified period of time after the paper edge sensor board detects the trailing edge of the paper.
 3. The punch clutch turns OFF after a specified period of time.
 4. The punch motor turns OFF a specified period of time after the punch clutch turns OFF.
 5. After the punch operation, the registration motor and the main motor turn ON to exit the paper.



4.3.2 Punch unit position movement control

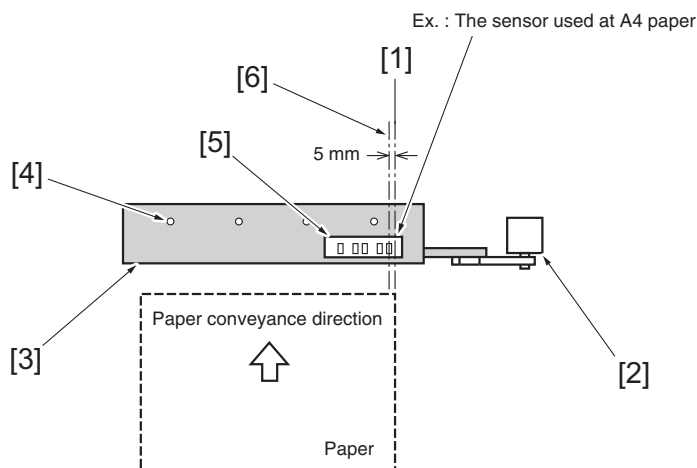
- The punch shift motor moves the punch unit to move the punch hole position in the main scan direction.
- The registration motor controls the punch position in the sub scan direction by its stop position.
- The sensors of the paper edge sensor board detects the punch hole position.
- The front side sensor among 5 sensors detects the leading/trailing/side edge of the paper and the other 4 sensors detect the side edge of the paper. The different sensor is used depending on the paper size.
- The punch shift home sensor detects the home position.



[1]	Belt	[2]	Punch shift motor (M605)
[3]	Punch shift home sensor (PS605)	[4]	Punch unit
[5]	Side edge sensors	[6]	Leading/trailing/side edge sensor
[7]	Paper edge sensor board (PESB)		

(1) Standby position movement of the punch unit

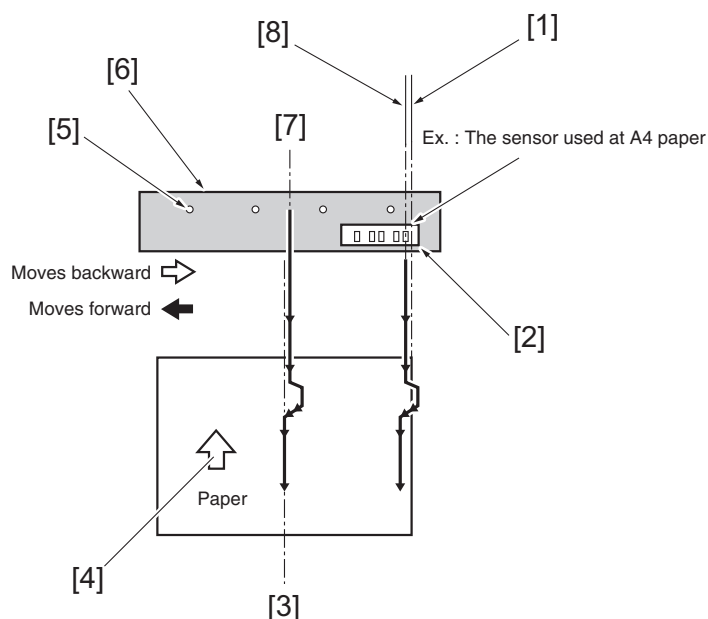
- In the punch mode, the punch unit is set to the standby position in accordance with the paper size before the paper is conveyed.
- The punch shift motor moves the punch unit so that the sensor corresponding to the paper size among 5 sensors of the paper edge sensor board (in case of A4 paper, the sensor is used) is positioned 5 mm inward from the side edge of the paper.
- This operation is not conducted in the no punch mode.



[1]	Side edge of the paper	[2]	Punch shift motor (M605)
[3]	Punch unit	[4]	Punch blade
[5]	Paper edge sensor board (PESB)	[6]	Standby position

(2) Punch position correction

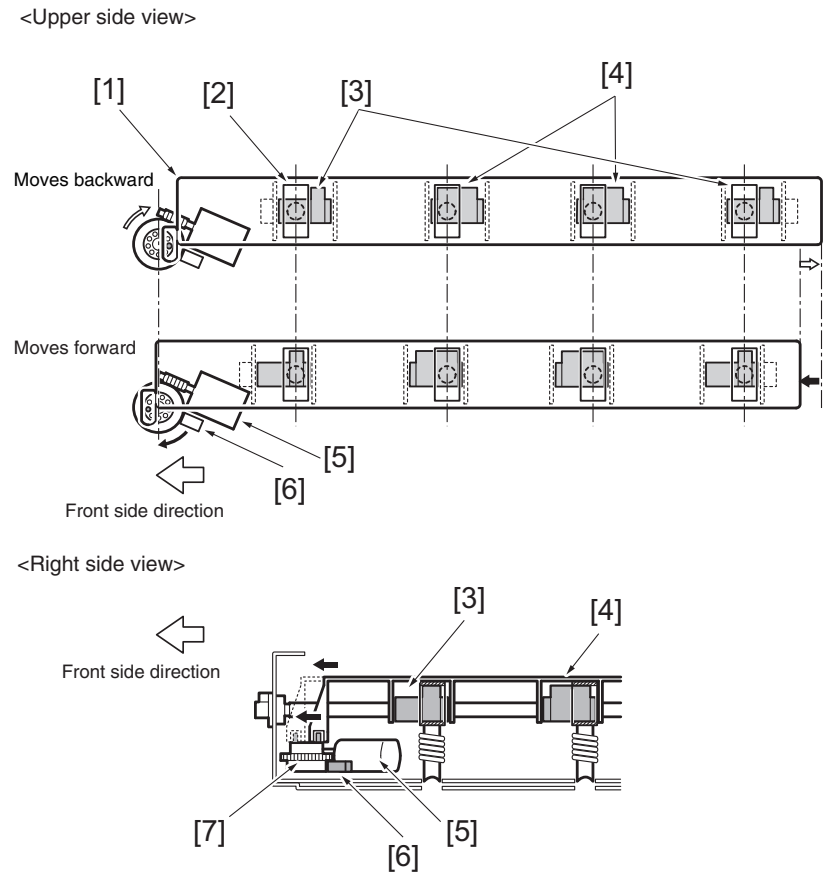
- The punch unit positioned 5 mm inward from the side edge of the paper conducts the punch position correction operation by moving the punch unit back and forth while conveying the paper to correct the misalignment between the conveyed paper and the punch position.
1. Move the punch unit backward until the certain side edge sensor (in case of A4 paper) detects the side edge of the paper.
 2. Then, move the punch unit forward until the side edge sensor detects the side edge of the paper (the side edge reference position detection).
 3. Move the punch unit forward further so that the center of the punch blades is positioned to the center of the paper.



[1]	Side edge of the paper	[2]	Paper edge sensor board (PESB)
[3]	Center of the paper	[4]	Paper conveyance direction
[5]	Punch blade	[6]	Punch unit
[7]	Center of the punch	[8]	Standby position

4.3.3 Punch hole switching control

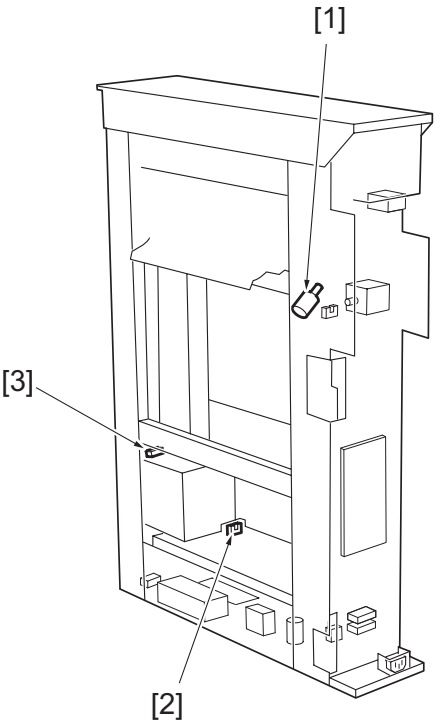
1. Transmitting the paper pass signal from the horizontal transfer, the punch switchover motor switches the number of holes in the punch mode.
2. The punch switchover motor rotates the punch switchover cam clockwise and moves the eccentric cams and back and forth via the cam cover.
3. When switching between the 2 holes punching and the 4 holes punching in Metric Type, 2 eccentric cams in the middle remain being held in the cam holders because they are shared in both cases.
4. When the cam cover moves forward, the eccentric cams at the outside for the 4 holes punching are held in the cam holder so that the total of 4 eccentric cams are driven.
5. When the cam cover move backward, 2 outside eccentric cams are disengaged.
6. For the switchover between the 2 holes punching and the 3 holes punching in Inch Type, the 2 holes eccentric cams and the 3 holes eccentric cams work exclusively.
7. When the cam cover moves forward, the 3 holes eccentric cams are held in the cam holder and the 2 holes eccentric cams are disengaged.
8. This operation is not conducted if the number of holes is same with the previous printing.



[1]	Cam cover	[2]	Cam holder
[3]	Eccentric cam (4 holes)	[4]	Eccentric cam (2 holes/4 holes)
[5]	Punch switchover motor (M608)	[6]	Punch switchover switch (MS601)
[7]	Punch switchover cam		

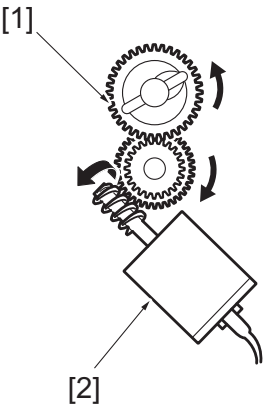
5. PUNCH-HOLE SCRAPS CONVEYANCE SECTION

5.1 Configuration



[1]	Punch scraps conveyance motor (M607)	[2]	Punch scraps box set sensor (PS607)
[3]	Punch scraps full sensor (PS608)		

5.2 Drive

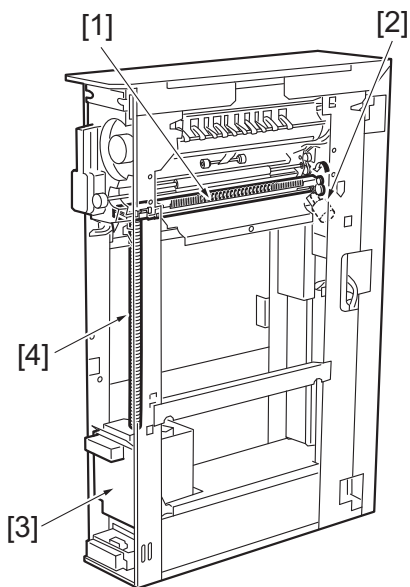


[1]	Punch scraps conveyance screw gear	[2]	Punch scraps conveyance motor (M607)
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5.3 Operation

5.3.1 Punch-hole scraps conveyance control

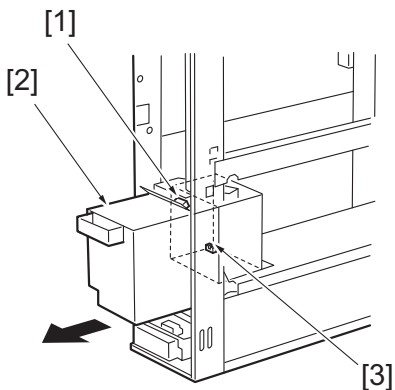
- The punch scraps are conveyed by the punch scraps conveyance screw driven by the punch scraps conveyance motor.
- The punch scraps conveyance motor turns ON to rotate the punch scraps conveyance screw a specified period of time after the paper edge sensor detects the trailing edge of the paper in the punch mode.
- The punch scraps are sent to the forward by the rotation of the screw and collected in the punch scraps box via the punch scraps collective duct.



[1]	Punch scraps conveyance screw	[2]	Punch scraps conveyance motor (M607)
[3]	Punch waste box	[4]	Punch scraps collective duct

5.3.2 Punch-hole scraps box control

- The punch scraps box set sensor and the punch scraps full sensor monitor the punch scraps box.



[1]	Punch scraps full sensor (PS608)	[2]	Punch waste box
[3]	Punch scraps box set sensor (PS607)		

(1) Punch-hole scraps box full detection

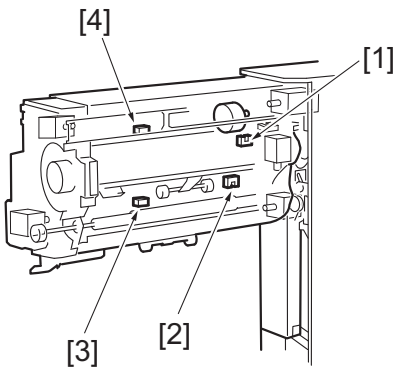
- The punch scraps full sensor detects whether the punch scraps box is full or not.
- The punch scraps full sensor turns ON and transmits the punch scraps full signal to the main body when the punch scraps box becomes full of punch scraps, and then the main body displays the message on its operation panel.

(2) Punch-hole scraps box detection

- The punch scraps box set sensor detects whether the punch scraps box is housed or not.
- The punch scraps box set sensor and the punch scraps full sensor monitor the punch scraps box.

6. Z-FOLDING

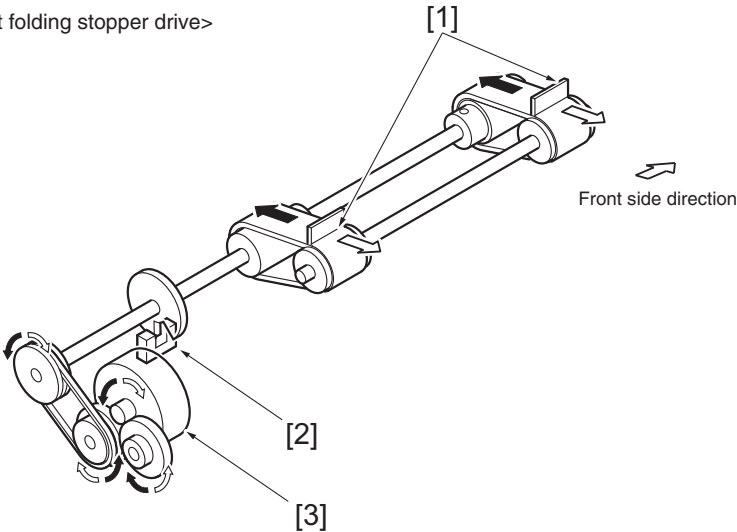
6.1 Configuration



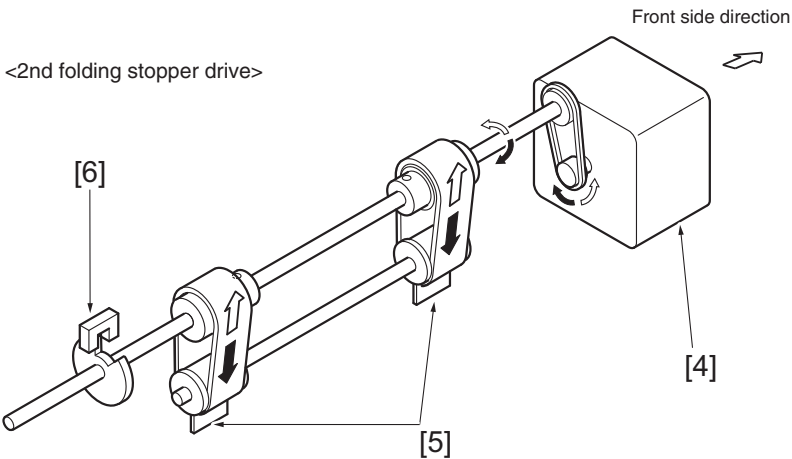
[1]	1st folding stopper home sensor (PS603)	[2]	2nd folding stopper home sensor (PS604)
[3]	Exit sensor (PS609)	[4]	Conveyance sensor (PS601)

6.2 Drive

<1st folding stopper drive>



<2nd folding stopper drive>

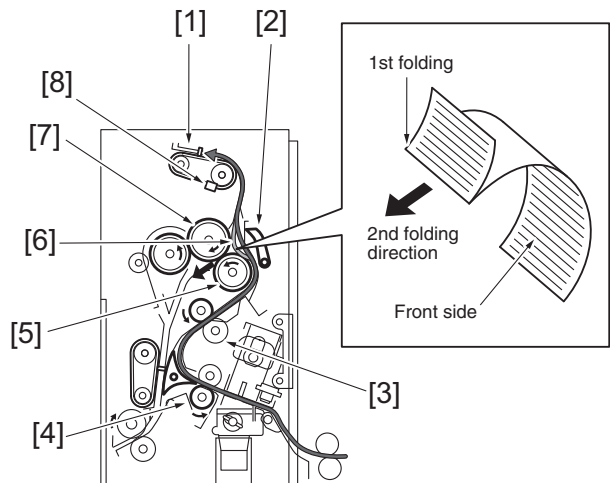


[1]	1st folding stopper	[2]	1st folding stopper home sensor (PS603)
[3]	1st folding stopper motor (M602)	[4]	2nd folding stopper motor (M603)
[5]	2nd folding stopper	[6]	2nd folding stopper home sensor (PS604)

6.3 Operation

6.3.1 1st folding control

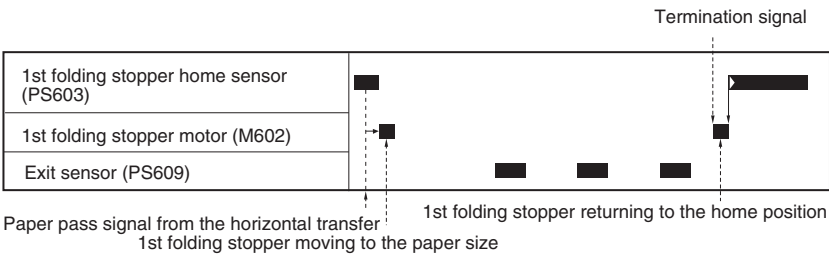
1. The registration roller, the conveyance roller, and the 1st folding roller convey the paper to the 1st folding stopper section via the gate/Up.
2. A loop is formed between the 1st folding roller and the conveyance drive roller when the leading edge of the paper is pressed against the 1st folding stopper.
3. The loop grows, and then it is caught by these rollers and the 1st folding is conducted.
4. The paper is then conveyed to the 2nd folding stopper section.
5. The position of the 1st folding depends on the position of the 1st folding stopper.
6. In the Z-folding mode with the punch mode, the registration motor and the main motor stops to conduct the punch operation after the 1st folding operation. Then the registration motor and the main motor turns ON to conduct the 2nd folding operation.



[1]	1st folding stopper	[2]	Gate /Up
[3]	Conveyance roller	[4]	Registration roller
[5]	1st folding roller	[6]	Loop
[7]	Conveyance drive roller	[8]	1st folding stopper home sensor (PS603)

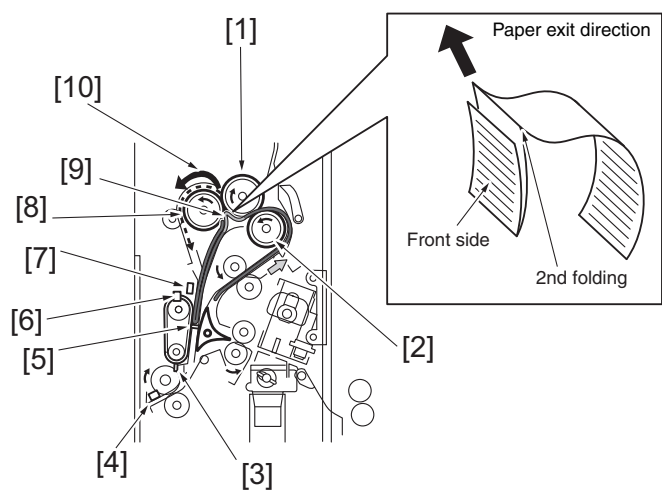
(1) Operation timing

1. The 1st folding stopper motor turns ON to drive the 1st folding stopper to the appropriate position in accordance with the paper size a specified period of time after transmitting the paper pass signal from the horizontal transfer.
2. Transmitting the termination signal from the main body, the 1st folding stopper motor replaces the 1st folding stopper to the home position.



6.3.2 2nd folding control

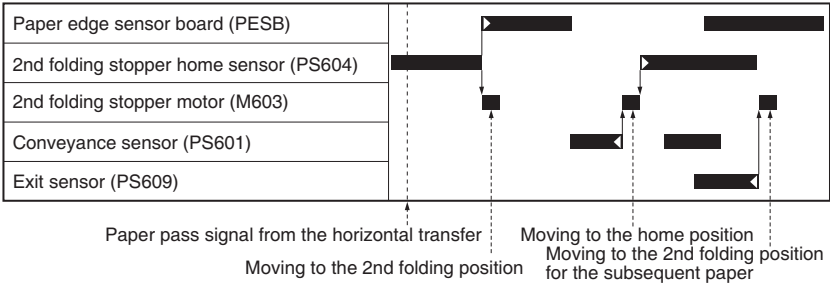
1. The paper conveyed from the 1st folding section to the 2nd folding section is stopped by the 2nd folding stopper.
2. Form a loop between conveyance drive roller and the 2nd folding roller.
3. The loop grows, and then it is caught by these rollers and the 2nd folding is conducted.
4. The 2nd folding stopper motor turns ON when the trailing edge of the paper (1st folding) conveyed to the paper exit direction passes the conveyance sensor.



[1]	Conveyance drive roller	[2]	1st folding roller
[3]	2nd folding stopper (Home position)	[4]	Exit sensor (PS609)
[5]	2nd folding stopper (Folding position)	[6]	2nd folding stopper home sensor (PS604)
[7]	Conveyance sensor (PS601)	[8]	2nd folding roller
[9]	Loop	[10]	Direction of paper exit

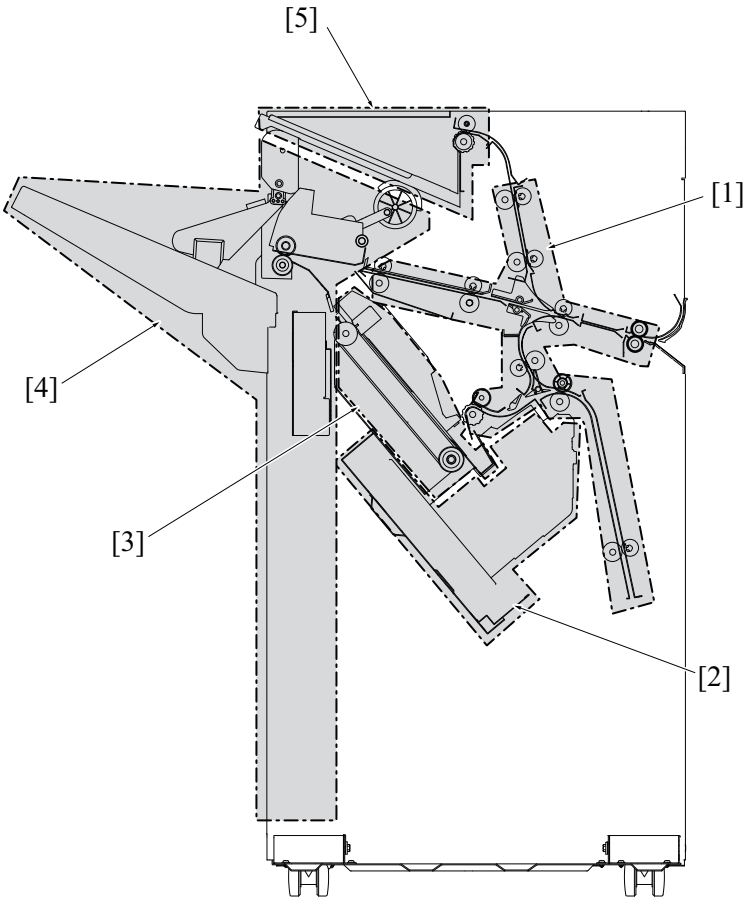
(1) Operation timing

1. The 2nd folding stopper motor turns ON to drive the 2nd folding stopper to the appropriate position in accordance with the paper size when the paper edge sensor board detects the leading edge of the paper.
2. The 2nd folding stopper motor rotates in the reverse direction to move the 2nd folding stopper to the home position when the conveyance sensor detects the trailing edge of the paper after the 2nd folding. It opens the paper exit path.
3. The 2nd folding stopper motor turns ON to replace the stopper to the original position for the subsequent Z-folding when the exit sensor detects the trailing edge of the paper.



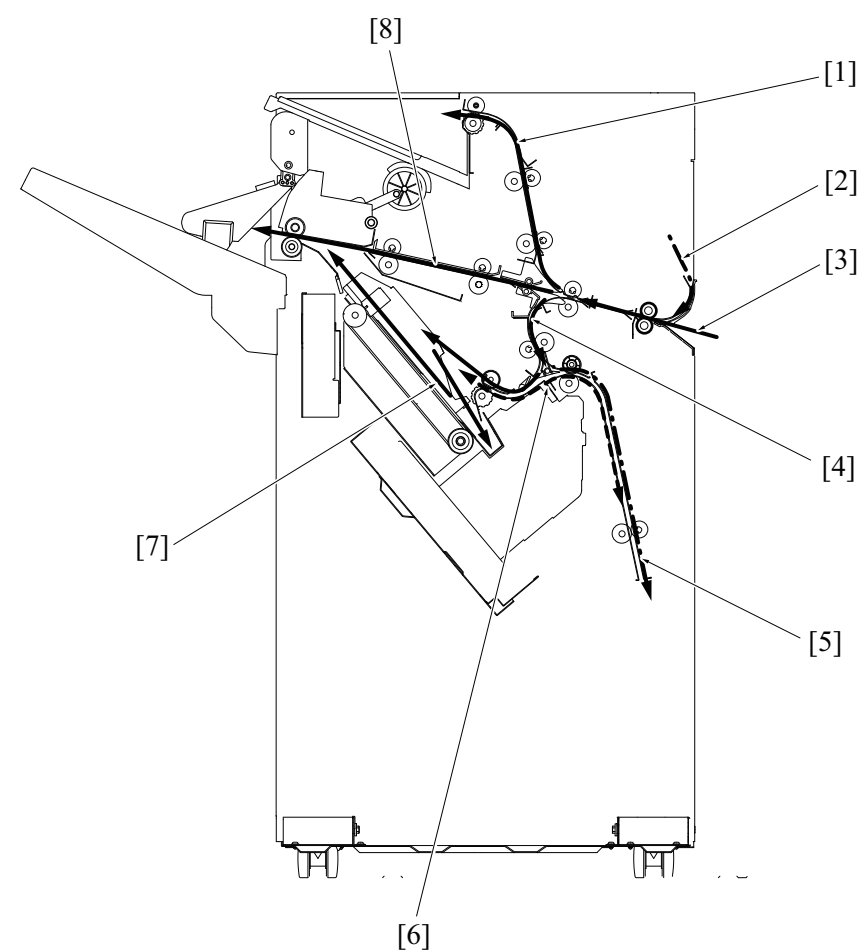
PI THEORY OF OPERATION FS-532

1. UNIT CONFIGURATION



[1]	Paper conveyance section	[2]	Stapler section
[3]	Stacker section	[4]	Main tray section
[5]	Sub tray section	-	

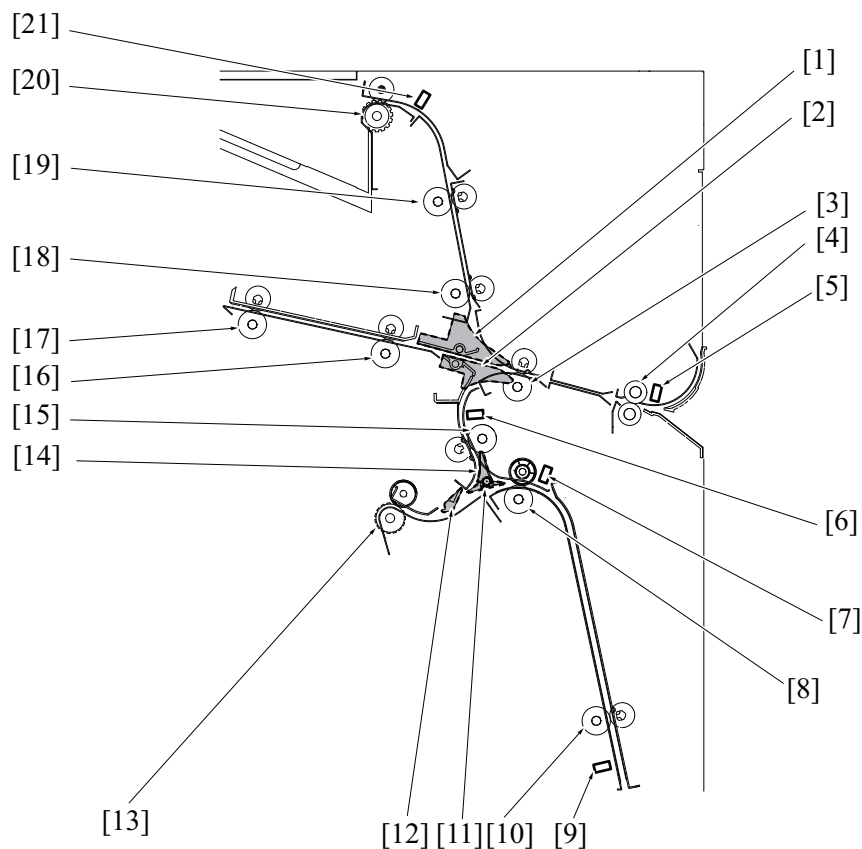
2. PAPER PATH



[1]	Sub tray paper path	[2]	PI paper feed path (when PI or MK is installed)
[3]	Entrance conveyance path	[4]	Stacker/SD intermediate conveyance path
[5]	SD conveyance path (when SD is installed)	[6]	Overlap paper conveyance path (while in stapling plural sheets)
[7]	Main tray paper path (while in stapling)	[8]	Main tray paper path (while in straight or sort exit)

3. PAPER CONVEYANCE SECTION

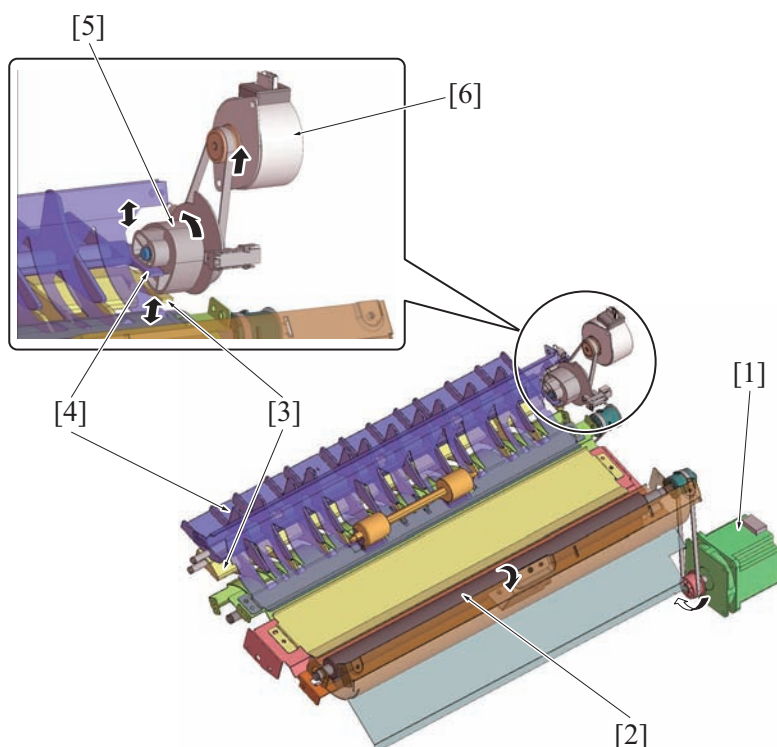
3.1 Configuration



[1] Conveyance gate /Up	[2] Conveyance gate /Lw
[3] PK exit roller	[4] FNS entrance roller
[5] FNS entrance sensor (PS1)	[6] Paper overlap sensor /1 (PS32)
[7] Paper overlap sensor /2 (PS33)	[8] Bypass conveyance roller /1
[9] Paper overlap sensor /3 (PS5)	[10] Bypass conveyance roller /2
[11] Bypass fix gate	[12] Bypass gate /Lt
[13] Stacker entrance roller	[14] Bypass gate /Rt
[15] Stacker conveyance roller	[16] Horizontal conveyance roller /1
[17] Horizontal conveyance roller /2	[18] Sub tray conveyance roller /1
[19] Sub tray conveyance roller /2	[20] Sub tray exit roller
[21] Sub tray exit sensor (PS8)	-

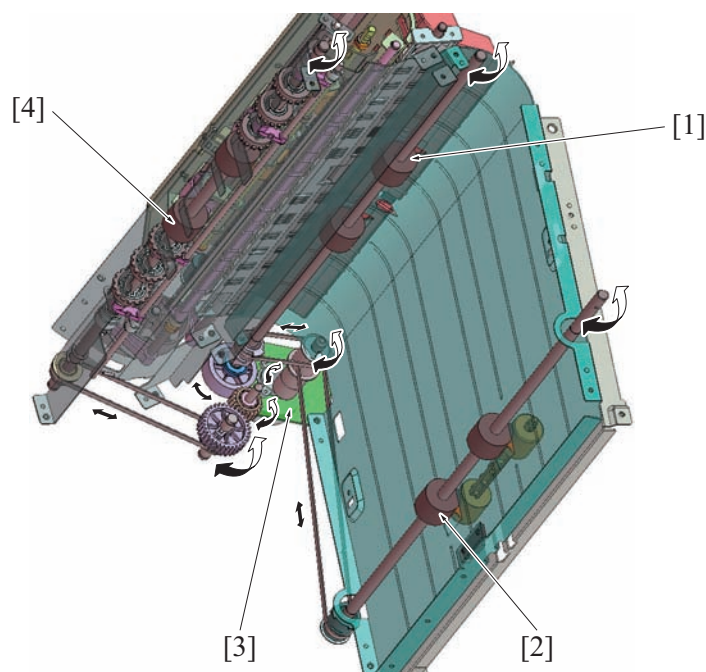
3.2 Drive

3.2.1 FNS entrance roller drive/conveyance gate drive



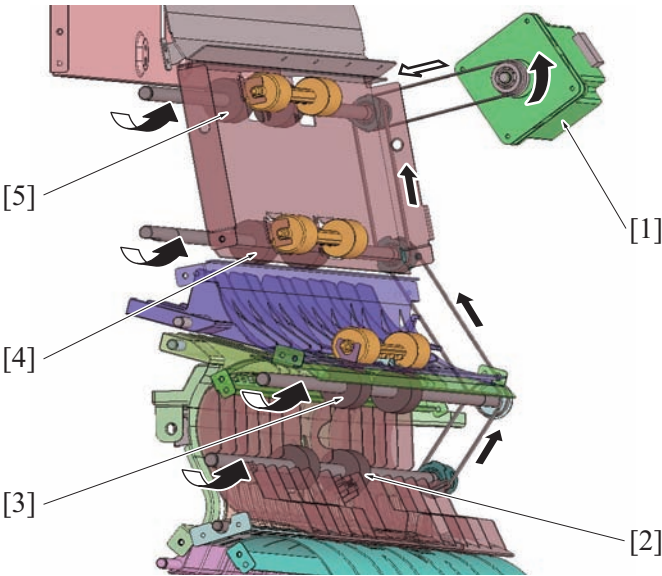
[1]	FNS entrance motor (M1)	[2]	FNS entrance roller
[3]	Conveyance gate /Lw	[4]	Conveyance gate /Up
[5]	Cam	[6]	Conveyance gate motor (M22)

3.2.2 Bypass conveyance roller/stacker entrance roller drive



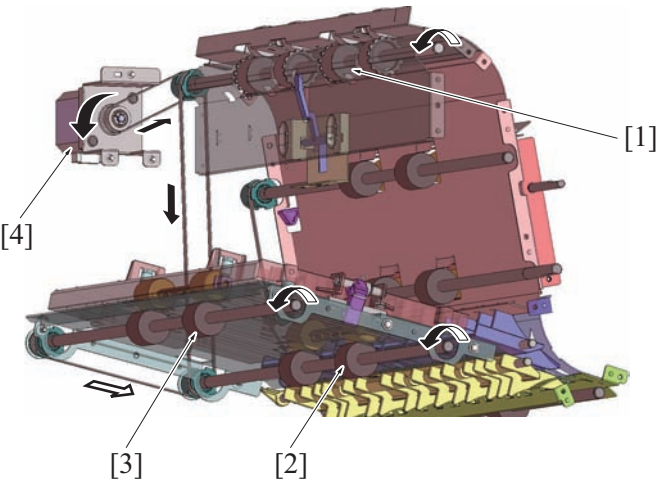
[1]	Bypass conveyance roller /1	[2]	Bypass conveyance roller /2
[3]	Stacker entrance motor (M5)	[4]	Stacker entrance roller

3.2.3 Sub tray conveyance roller/PK exit roller/stacker conveyance roller drive



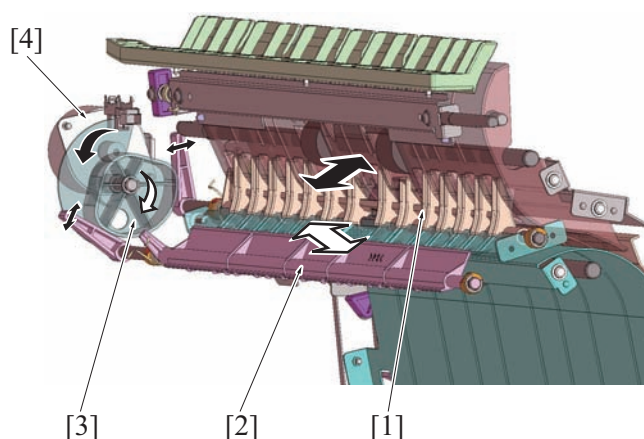
[1]	FNS conveyance motor /2 (M2)	[2]	Stacker conveyance roller
[3]	PK exit roller	[4]	Sub tray conveyance roller /1
[5]	Sub tray conveyance roller /2	-	

3.2.4 Sub tray exit roller/horizontal conveyance roller drive



[1]	Sub tray exit roller	[2]	Horizontal conveyance roller /1
[3]	Horizontal conveyance roller /2	[4]	FNS conveyance motor /3 (M3)

3.2.5 Bypass gate drive



[1]	Bypass gate /Rt	[2]	Bypass gate /Lt
[3]	Cam	[4]	Bypass gate motor (M25)

3.3 Operation

3.3.1 Line speed switch control

- The line speed of FS-532 is 1000 mm/s.
- When the line speed of paper conveyed to FS-532 is slower than 1000mm/s, the speed is reduced at receiving the paper.
- Refer to the following table for basic line speed. However, the deceleration of the line speed varies according to the print mode, weight or the type of the main body which connects FS-532.

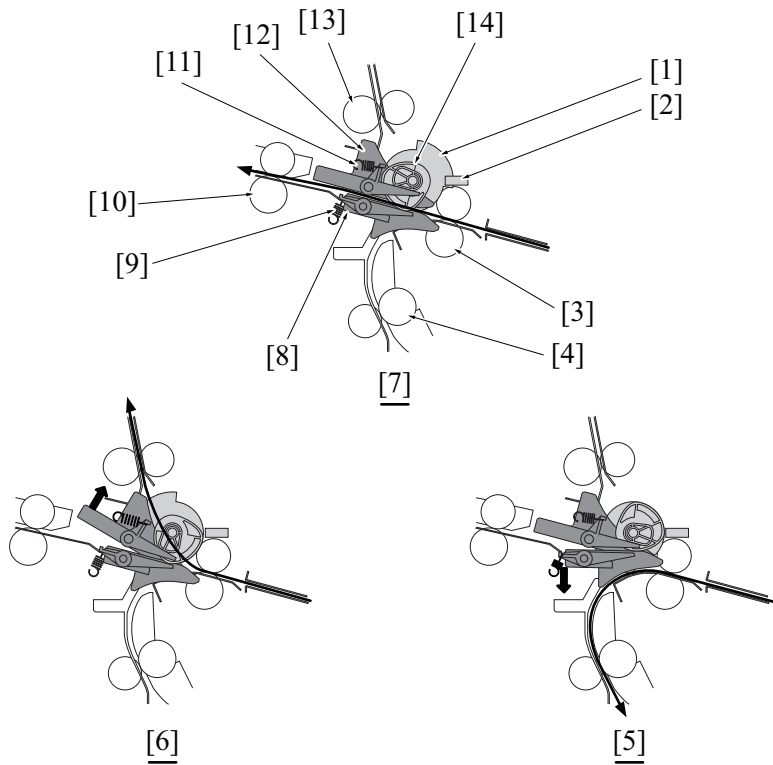
Machine name	CPM	Print mode				
		Simplex (Face up)	1 side reverse (Face down)	Duplex	Thick Simplex/Duplex	Thick 1 side reverse
1250/1250P	125	1000mm/s	1000mm/s	1000mm/s	1000mm/s	1000mm/s
1052	105	490mm/s	1000mm/s	490mm/s	330mm/s	750mm/s
951	95	460mm/s	1000mm/s	460mm/s	290mm/s	600mm/s

- When the line speed is 1000mm/s print mode, the line speed is not switched.
- The deceleration timing of the line speed is after a specified period of time since the FNS entrance sensor (PS1) detects the leading edge of paper.
- The reduced line speed is returned to 1000mm/s by the acceleration enable signal that is given from the main body.
- The timing when the acceleration enable signal is given varies depending on the previous option type and whether the main body decurler is used or not.
- When the acceleration enable signal is given, the speed of the motor that drives the roller to which the paper leading edge does not reach is not changed but fixed to 1000mm/s to rotate.

3.3.2 Conveyance path switching control

(1) Conveyance gate control

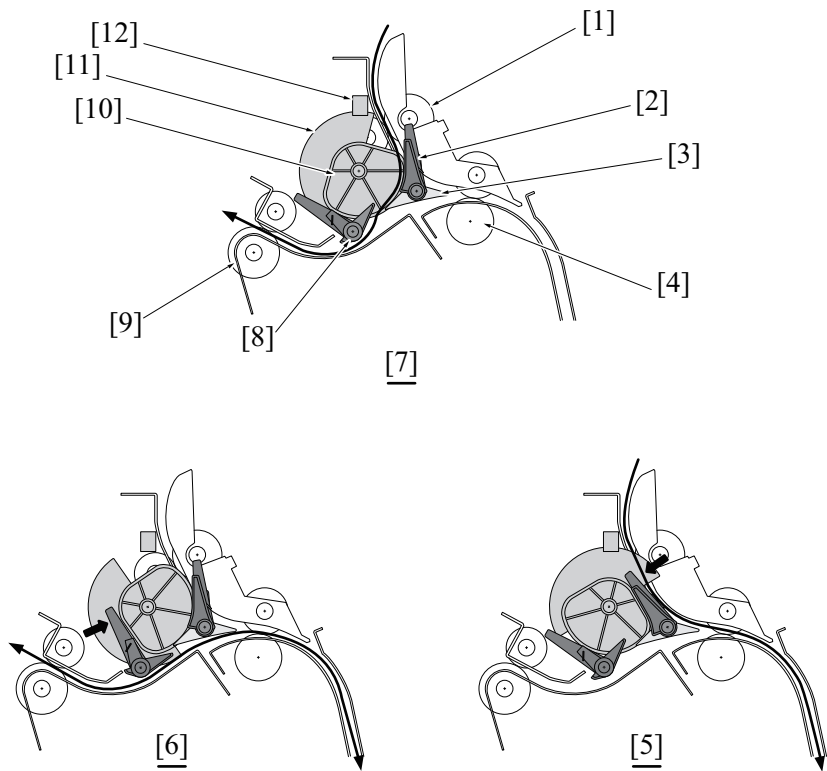
- Conveyance gate switches the straight conveyance path [7], the sub tray conveyance path [6], and the stacker/SD conveyance path [5].
- The conveyance gate consists of the conveyance gates /Up [12] and /Lw [8]. It has 3 patterns to be changed according to the rotation of the cam [14].
- The conveyance gate motor (M22) drives the cam.
- The cam is equipped with the actuator [1]. The conveyance gate home sensor (PS31) [2] controls the rotation position.
- In the straight conveyance, both of the conveyance gates /Up and /Lw are open according to the home position of the cam.
- Paper that is reached the PK exit roller [3] is conveyed to the horizontal conveyance roller /1 [10] through the space between the conveyance gates /Up and /Lw.
- In the sub tray conveyance, the cam depresses the tip of the conveyance gate /Up.
- Since the conveyance gate /Lw keeps the same position as the straight conveyance, the conveyance gate is closed.
- Paper that is conveyed from the PK exit roller is conveyed to the sub tray conveyance roller /1 [13] led by the conveyance gate /Up.
- In the stacker/SD conveyance, the depression force by the cam is released. Therefore, the force of the spring [9] lifts up the tip of the conveyance gate /Lw.
- Since the conveyance gate /Up keeps the same position as the straight conveyance, the conveyance gate is closed.
- Paper that is conveyed from the PK exit roller is conveyed to the stacker conveyance roller [4] led by the conveyance gate /Lw.
- The timing to switch the conveyance path of M22 varies depending on whether it is at the start of the job or during the job.
- In case the conveyance path is switched at starting the job, it is executed when the main body starts the paper feed operation.
- In case the conveyance path is switched during the job, it is executed after a specified period of time since the FNS entrance sensor (PS1) detects the trailing edge of the last page of the previous job.



[1] Actuator	[2] Conveyance gate home sensor (PS31)
[3] PK exit roller	[4] Stacker conveyance roller
[5] Stacker/SD conveyance path	[6] Sub tray conveyance path
[7] Straight conveyance path	[8] Conveyance gate /Lw
[9] Spring	[10] Horizontal conveyance roller /1
[11] Spring	[12] Conveyance gate /Up
[13] Sub tray conveyance roller /1	[14] Cam

(2) Bypass gate control

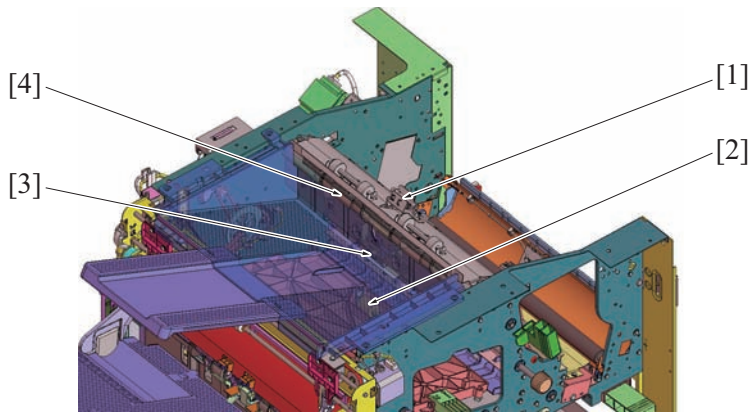
- The bypass gate switches the path of the paper that is reached the stacker/SD conveyance path to the stacker conveyance path, the overlap paper conveyance path, or the SD conveyance path.
- The bypass gate consists of the bypass gates /Rt [2] and /Lt [8]. It has 3 patterns to be changed according to the rotation of the cam [10].
- The bypass gate motor (M25) drives the cam.
- The cam is equipped with the actuator [11]. The bypass gate home sensor (PS36) [12] controls the rotation position.
- In the stacker conveyance, both of the bypass gates /Rt and /Lt are open according to the home position of the cam.
- Paper that reaches the stacker conveyance roller [1] is conveyed to the stacker entrance roller [9] via the left side of the bypass gate /Rt and the bypass fix gate [3] and the lower side of the bypass gate /Lt.
- In the overlap paper conveyance, the depression of the cam is released and the tip of the bypass gate /Lt is depressed.
- The bypass gate /Rt is open but the conveyance path between the stacker conveyance roller and the stacker entrance roller is closed.
- The stacker entrance roller switches back paper. The paper is conveyed to the bypass conveyance roller /1 [4] via the lower side of the bypass fix gate.
- In the SD conveyance, the pressure of the cam is released and the tip of the bypass gate /Rt moves to the left.
- The bypass gate /Lt is open but the conveyance path between the stacker conveyance roller and the stacker entrance roller is closed.
- Paper that is reached the stacker conveyance roller is conveyed to the bypass conveyance roller /1 via the right side of the bypass gate /Rt and the right side of the bypass fix gate.
- The timing to switch the conveyance path of M25 varies depending on the print mode. For details, refer to "[PI.5. Stacker section](#)".



[1]	Stacker conveyance roller	[2]	Bypass gate /Rt
[3]	Bypass fix gate	[4]	Bypass conveyance roller /1
[5]	SD conveyance path	[6]	Overlap paper conveyance path
[7]	Stacker conveyance path	[8]	Bypass gate /Lt
[9]	Stacker entrance roller	[10]	Cam
[11]	Actuator	[12]	Bypass gate home sensor (PS36)

4. SUB TRAY SECTION

4.1 Configuration



[1]	Sub tray exit sensor (PS8)	[2]	Sub tray
[3]	Sub tray paper full sensor (PS9)	[4]	Sub tray exit roller

4.2 Drive

For details, refer to "PI.3.2.3 Sub tray conveyance roller/PK exit roller/stacker conveyance roller drive" and "PI.3.2.4 Sub tray exit roller/horizontal conveyance roller drive".

4.3 Operation

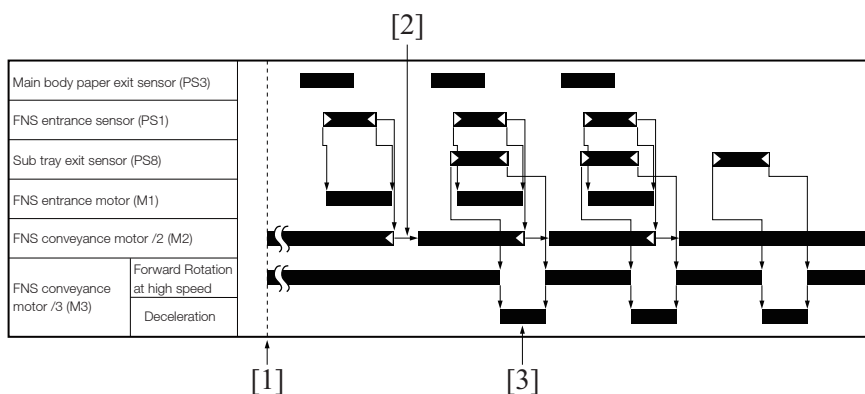
4.3.1 Sub tray paper exit control

(1) Normal mode

- The FNS entrance motor (M1) that drives the FNS entrance roller, the FNS conveyance motor /2 (M2) that drives the PK exit roller and the sub tray conveyance rollers /1 and /2, and the FNS conveyance motor /3 (M3) that drives the sub tray paper exit roller turn ON simultaneously by the print start signal.
- When the sub tray exit sensor (PS8) detects the leading edge of the conveyed paper and turns ON, M3 reduces the rotation speed after a specified period of time.
- When PS8 detects the trailing edge of the paper and turns OFF, M3 returns to the high speed rotation after a specified period of time.
- M3 reduces the speed for each sheet, and it prevents the misalignment of paper that is ejected on the sub tray.
- M1, M2 and M3 keep turning ON during printing. However, each motor turns OFF after a specified period of time when there is no conveyance paper from the main body and there is no paper in the drive conveyance path of M1, M2 or M3.

(2) Punch mode

- In the punch mode, the FNS conveyance motors /2 (M2) turns ON by the print start signal [1].
- The FNS entrance motor (M1) turns ON after a specified period of time since the FNS entrance sensor (PS1) detects the leading edge of paper and turns ON.
- When PS1 detects the trailing edge of the paper and turns OFF, M1 and M2 turn OFF after a specified period of time.
- When the conveyed paper stops and the punch is executed [2], M2 turns ON again.
- During punching, the operation of M3 varies depending on the paper length in the feed direction.
- When the paper length in the feed direction is 336.8mm or shorter, M3 keeps ON state.
- When the paper length in the feed direction is 336.8mm or longer, M3 turns OFF/ON in synchronization with turning OFF/ON of M2.
- When the paper is conveyed to the sub tray exit sensor (PS8), M3 reduces the speed [3] according to the ON/OFF of PS8.
- A decelerating operation prevents the misalignment of paper ejected on the sub tray.

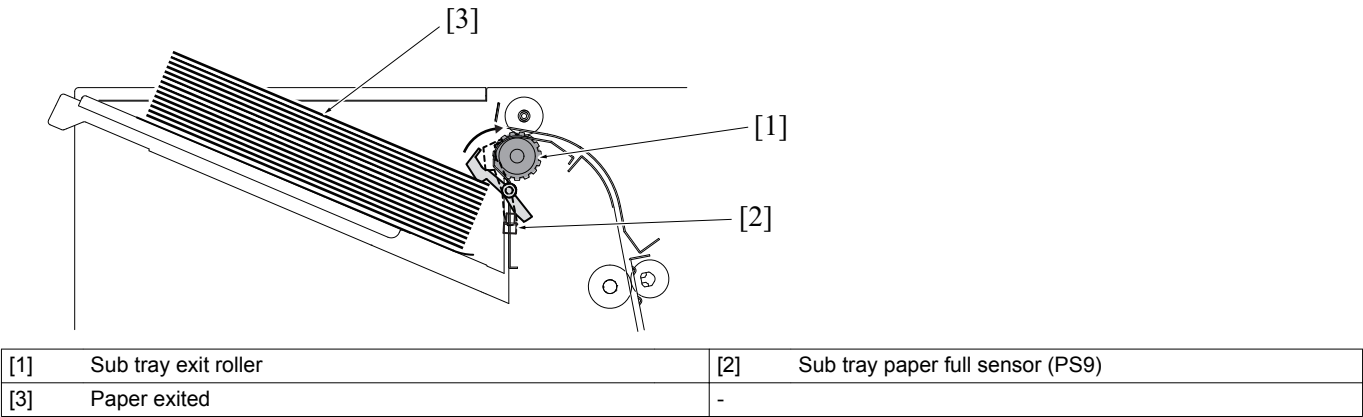


[1]	Print start signal	[2]	Punch
-----	--------------------	-----	-------

[3]	1st sheet of paper Deceleration	-
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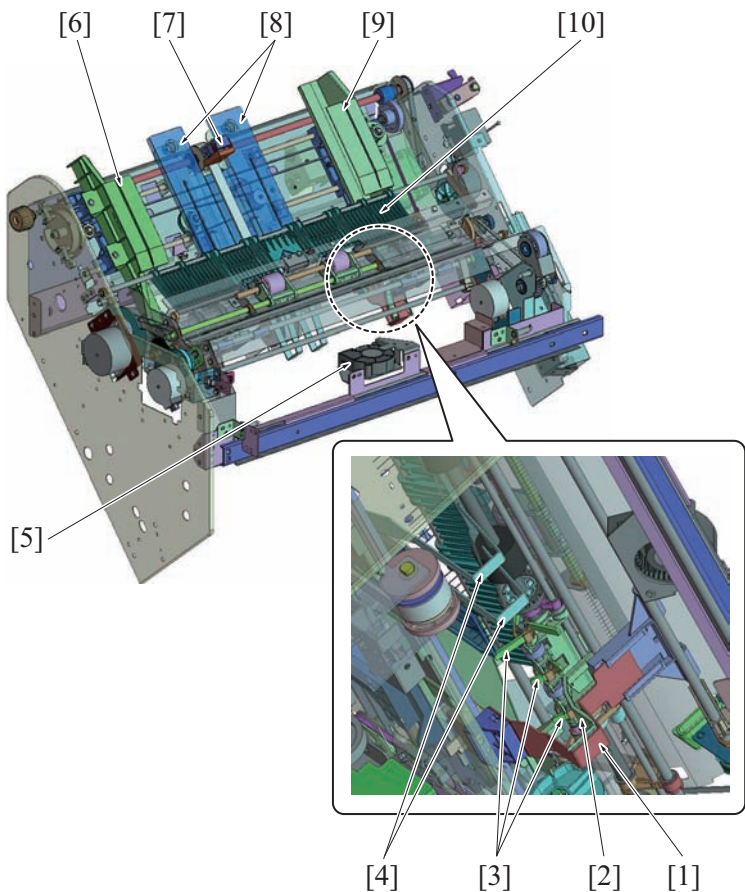
4.3.2 Sub tray paper full detection control

- The sub tray paper full sensor (PS9) [2] turns ON when paper that has been exited into the sub tray gets to the specified thickness or fixed output quantity (thin paper) continuously
- When PS9 turns ON, "Sub tray paper full" is displayed on the main body control panel.
- When output quantity is over the fixed quantity while in the thin paper exit, "Sub tray paper full" is displayed on the main body control even PS9 does not turn ON.



5. STACKER SECTION

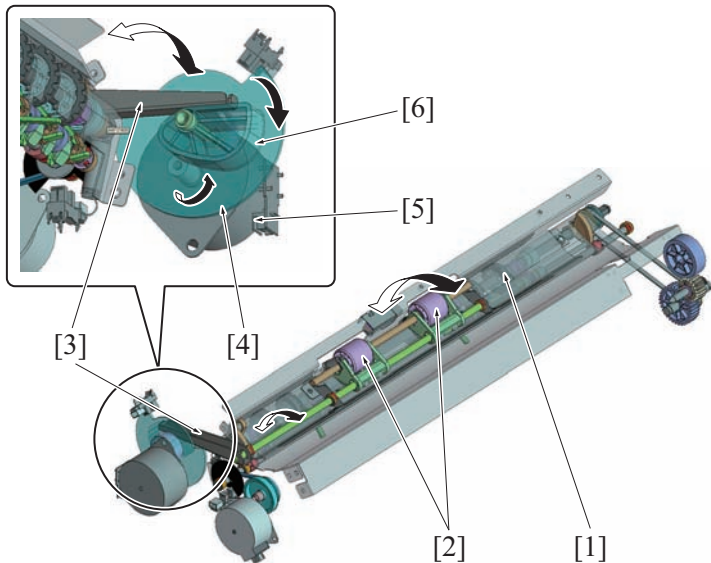
5.1 Configuration



[1]	Rear stopper /Rr	[2]	Rear presser /Rr
[3]	Rewind paddle	[4]	Rear stopper /Md
[5]	Large size paper alignment fan (FM1)	[6]	CD alignment plate /Fr
[7]	FD alignment plate	[8]	Stack plate
[9]	CD alignment plate /Rr	[10]	Stack assist plate

5.2 Drive

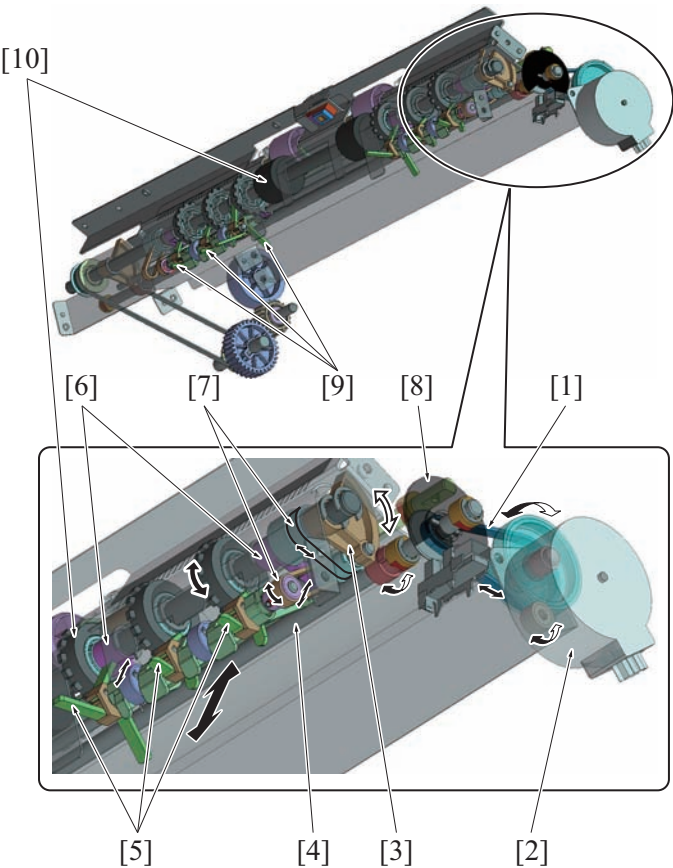
5.2.1 Stacker entrance roller pressure release drive



[1]	Stacker entrance roller *1	[2]	Stacker entrance driven roller
[3]	Arm	[4]	Actuator
[5]	Roller pressure motor (M27)	[6]	Cam

*1 For the drive of the stacker entrance roller, refer to [PI.3.2.2 Bypass conveyance roller/stacker entrance roller drive](#).

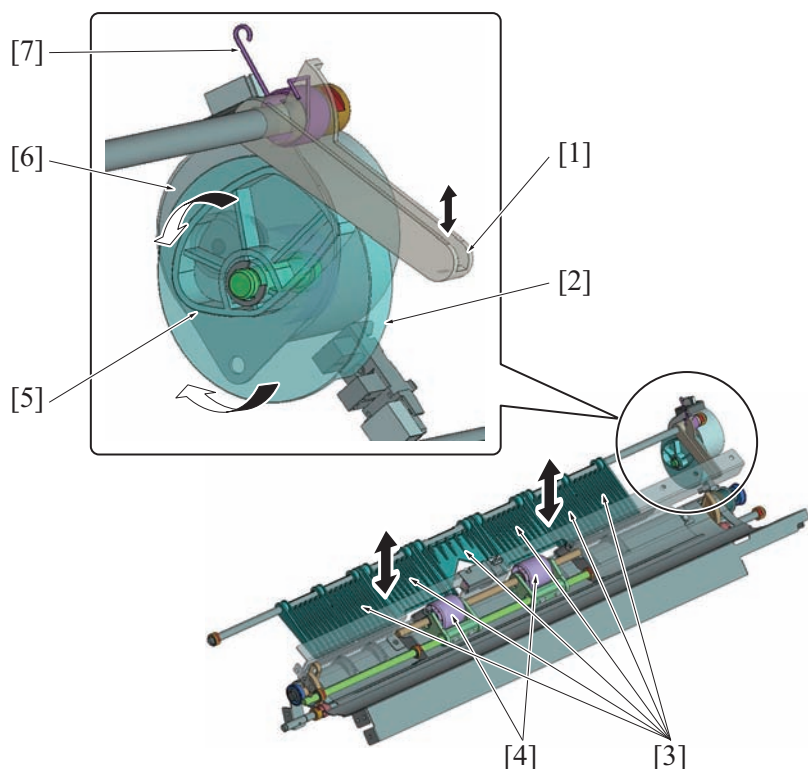
5.2.2 Rewind paddle pressure release/rewind paddle drive



[1]	Timing belt (for driving the pressure release)	[2]	Rewind paddle release motor (M28)
[3]	Pressure release gear	[4]	Pressure release drive shaft
[5]	Rewind paddle	[6]	Pressure release support arm
[7]	Timing belt (for driving the rewind paddle)	[8]	Actuator
[9]	Rewind paddle	[10]	Stacker entrance roller *1

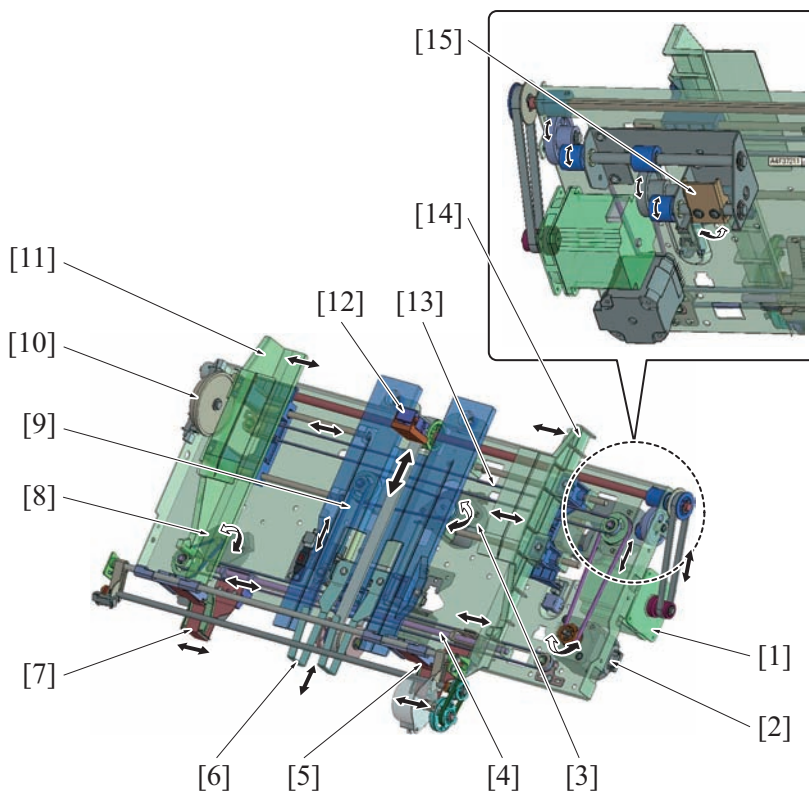
*1 For the drive of the stacker entrance roller, refer to [PI.3.2.2 Bypass conveyance roller/stacker entrance roller drive](#).

5.2.3 Stack assist plate drive



[1]	Arm	[2]	Actuator
[3]	Stack assist plate	[4]	Stacker entrance driven roller
[5]	Cam	[6]	Stack assist motor (M8)
[7]	Spring	-	

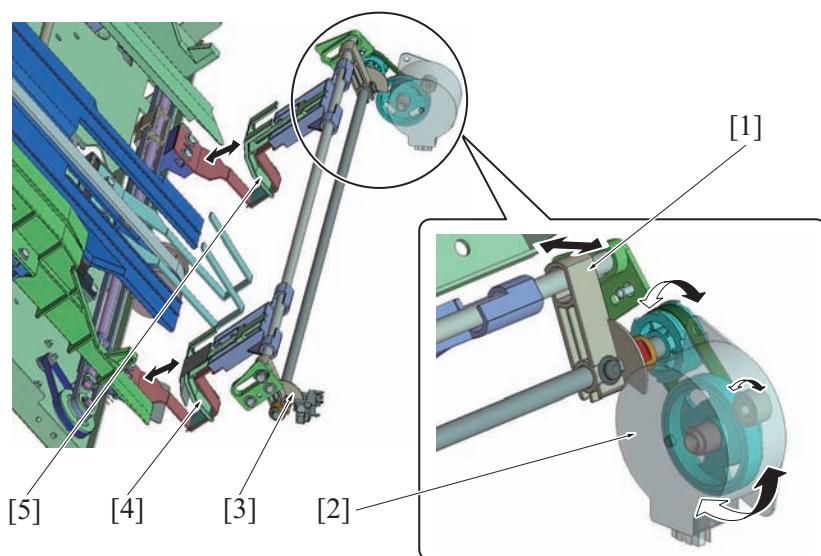
5.2.4 Alignment plate/rear stopper drive/bundle exit claw drive



[1]	Small size paper alignment motor (M18)	[2]	Stacker alignment motor (M9)
[3]	Stacker rear stopper motor (M20)	[4]	Timing belt (for driving the rear stopper /Fr, /Rr)
[5]	Rear stopper /Rr	[6]	Rear stopper /Md
[7]	Rear stopper /Fr	[8]	Stacker movement motor (M19)

[9]	Timing belt (for driving the rear stopper /Md)	[10]	Actuator
[11]	CD alignment plate /Fr	[12]	FD alignment plate
[13]	Timing belt (for driving the CD alignment plate /Fr, /Rr)	[14]	CD alignment plate /Rr
[15]	Bundle exit claw	-	

5.2.5 Paper pressure drive



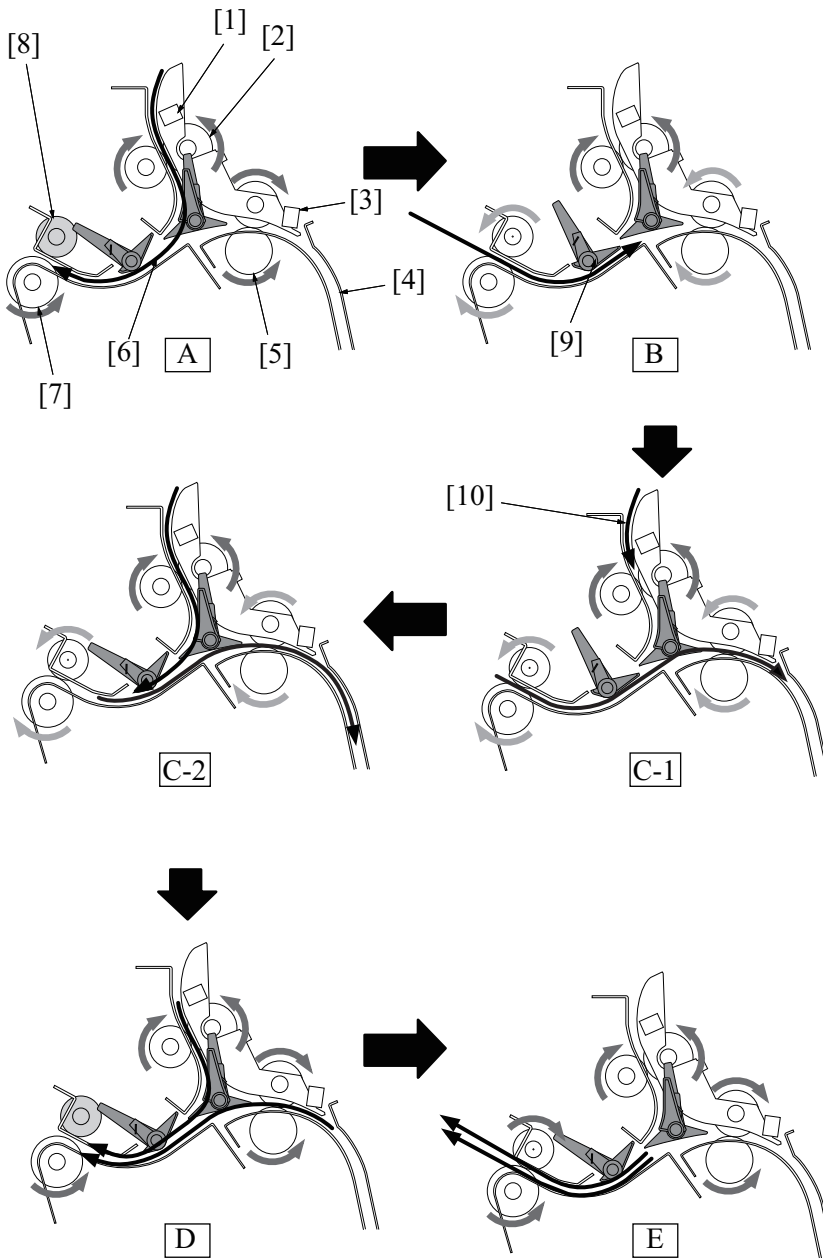
[1]	Pressure lever	[2]	Stacker paper press motor (M21)
[3]	Actuator	[4]	Rear presser /Fr
[5]	Rear presser /Rr	-	

5.3 Operation

5.3.1 Paper overlap control

(1) Switchback control

- In the staple mode, the subsequent sheets to be stapled are overlapped and stacked in the bypass conveyance section [4] during the waiting period. It shortens the time for starting the subsequent stapling.
- The 1st sheet of the overlapped paper is conveyed from the stacker conveyance roller [2] that is driven by the FNS conveyance motor /2 (M2) to the stacker entrance roller [7] that is driven by the stacker entrance motor (M5). (A)
- When the paper overlap sensor /1 (PS32) [1] detects the trailing edge of the paper and turns OFF, the rotation of M5 is switched from reverse to forward after a specified period of time to convey the paper in the reverse direction.
- Since the bypass gate /Lt is closed, the paper is conveyed to the bypass conveyance roller /1 that is driven by M5. (B)
- The stacker conveyance roller keeps the forward rotation while the stacker entrance roller and the bypass conveyance roller /1 turn reverse. Therefore, the 2nd sheet of the overlapped paper [10] is conveyed. (C-1, C-2)
- When the paper overlap sensor /2 (PS33) [3] detects the trailing edge of the 1st sheet and turns OFF, the reverse rotation of M5 turns OFF after a specified period of time.
- When PS32 detects the leading edge of the 2nd sheet and turns ON, M5 turns forward after a specified period of time.
- When M5 turns forward, the 1st sheet is conveyed to the stacker entrance roller side again. (D)
- The 2nd sheet that is conveyed from the stacker conveyance roller and the 1st sheet that is conveyed from the bypass conveyance roller /1 are overlapped. (E)
- These operations are repeated to overlap paper during stapling.
- The overlap conveyance is available only for the Plain, Fine, Coated, and Book/News paper.
- By using the DIPSW, the weight of paper for the overlap conveyance can be selected; 50 to 91g/m² or 92 to 216g/m².
- The overlap conveyance is not executed in the mixed mode.
- The feed length of paper for the overlap conveyance is 297mm or shorter.
- The feed length of paper for the overlap conveyance is 229mm or shorter in the punch staple mode.



[1] Paper overlap sensor /1 (PS32)	[2] Stacker conveyance roller
[3] Paper overlap sensor /2 (PS33)	[4] Bypass conveyance path
[5] Bypass conveyance roller /1	[6] 1st sheet of paper
[7] Stacker entrance roller	[8] Stacker entrance driven roller
[9] Bypass gate /Lt	[10] 2nd sheet of paper

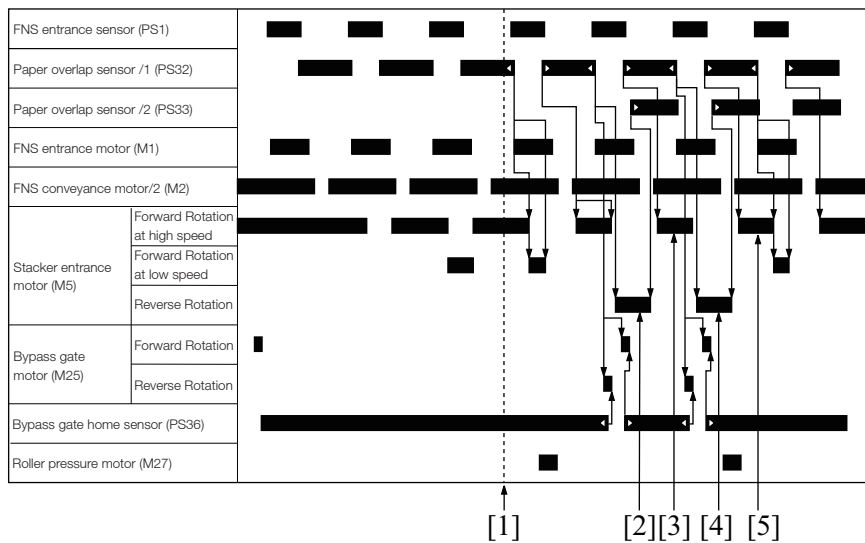
(2) Stacker entrance roller pressure release control

- By releasing the pressure, the stacker entrance driven roller moves up and down.
- The arm moves the stacker entrance driven roller up and down.
- In the overlap control of paper whose feed length is 229mm or shorter, the roller pressure motor (M27) turns ON after specified period of time since the FNS entrance sensor (PS1) detects the leading edge of the paper and turns ON. Then the pressure of the stacker entrance roller is released.
- The cam is equipped with the actuator. The roller pressure motor home sensor (PS34) controls the rotation position.

(3) Overlap control (Feed length 229mm or shorter)

- When the paper overlap sensor /1 (PS32) detects the leading edge of the 2nd sheet and turns OFF, the stacker entrance motor (M5) rotates in the reverse direction to switch back the paper after a specified period of time.
- When the paper overlap sensor /2 (PS33) [1] detects the trailing edge of the 1st sheet and turns ON according to the switch back, the reverse rotation of M5 turns OFF after a specified period of time.
- When PS32 detects the leading edge of the 2nd sheet and turns ON, M5 turns forward to convey the 1st sheet back in the original direction. The 1st sheet is conveyed with being overlapped on the 2nd sheet at this time.

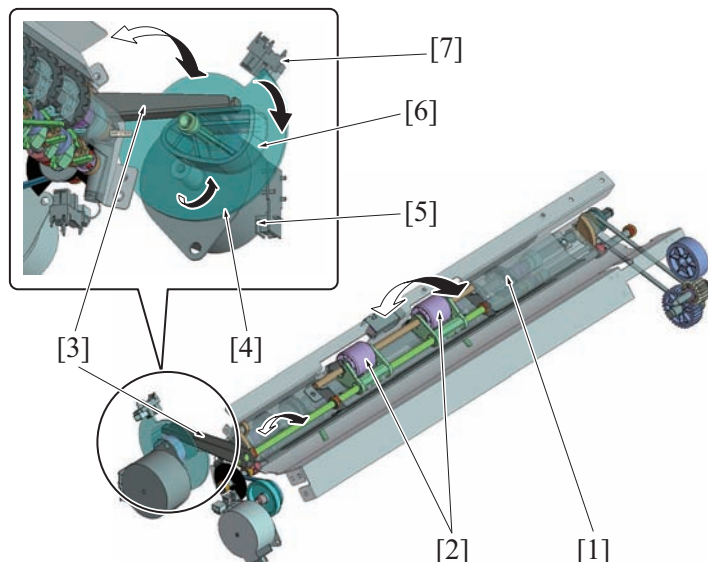
- When PS32 detects the leading edge of the 2nd sheet and turns OFF, M5 rotates in the reverse direction to switch back the 1st sheet and the 2nd sheet overlap each other after a specified period of time.
- When PS32 detects the leading edge of the 3rd sheet and turns ON, it conducts the same operation. Then convey the 3 sheets at a time to the stacker section.



[1]	End of the front staple conveyance	[2]	Switch back the 1st sheet
[3]	Conveyance of 2 pages at a time	[4]	Switch back the 1st and 2nd sheet
[5]	Conveyance of 3 sheets at a time	-	

5.3.2 Stacker entrance roller pressure release control

- When the paper whose feed length is 230mm or longer is fed in the punch staple mode, the pressure of the stacker entrance roller [1] is released during the punching operation.
- By releasing the pressure, the stacker entrance driven roller [2] moves up and down.
- The arm [3] moves the stacker entrance driven roller up and down.
- The roller pressure motor (M27) [5] turns ON after specified period of time since the FNS entrance sensor (PS1) detects the leading edge of the paper and turns ON. Then the pressure of the stacker entrance roller is released.
- The cam [6] is equipped with the actuator [4]. The roller pressure motor home sensor (PS34) [7] controls the rotation position.

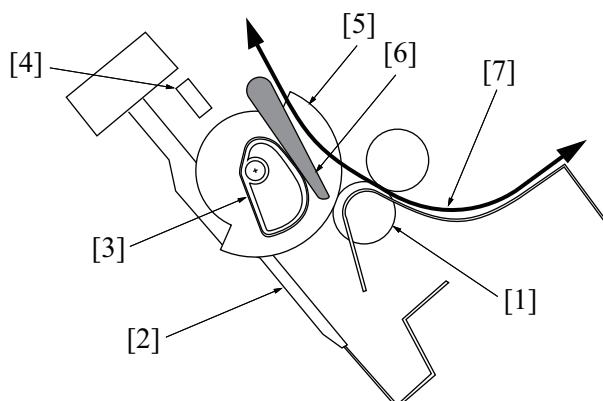


[1]	Stacker entrance roller	[2]	Stacker entrance driven roller
[3]	Arm	[4]	Actuator
[5]	Roller pressure motor (M27)	[6]	Cam
[7]	Roller pressure motor home sensor (PS34)	-	

5.3.3 Stack assist control

(1) During the overlap conveyance

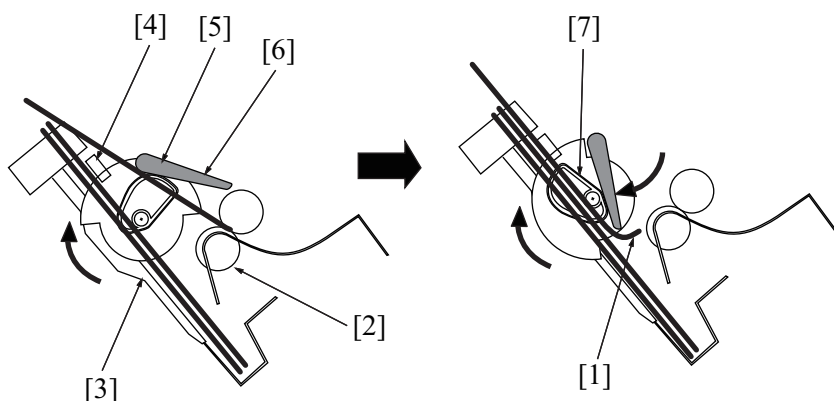
- During the overlap conveyance, the stack assist plate [6] is set at the position lower than the stacker entrance roller [1]. It prevents the tip of paper [7] that is switched back from dropping in the stacker [2].
- The position of the stack assist plate is changed according to the shape of the cam [3].
- The stack assist motor (M8) drives the cam.
- The cam is equipped with the actuator [5]. The stacker assist home sensor (PS11) [4] controls the rotation position.



[1]	Stacker entrance roller	[2]	Stacker
[3]	Cam	[4]	Stacker assist home sensor (PS11)
[5]	Actuator	[6]	Stack assist plate
[7]	Overlapped paper	-	

(2) During stacking

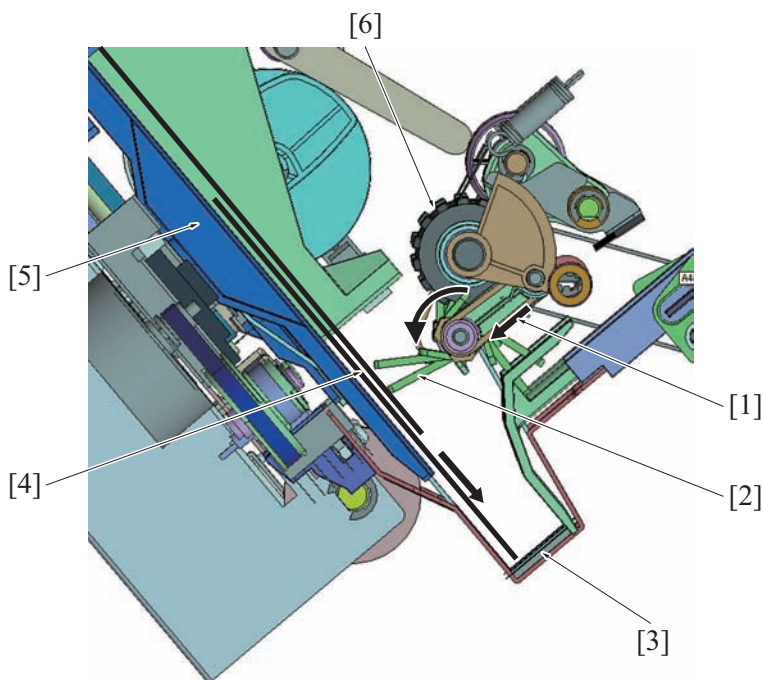
- During stacking, the stack assist plate [6] leads the paper [1] ejected from the stacker entrance roller [2] into the stacker [3].
- The stack assist plate presses the paper while the cam [7] rotates once.



[1]	Stack paper	[2]	Stacker entrance roller
[3]	Stacker	[4]	Stacker assist home sensor (PS11)
[5]	Actuator	[6]	Stack assist plate
[7]	Cam	-	

5.3.4 Paper stopper control

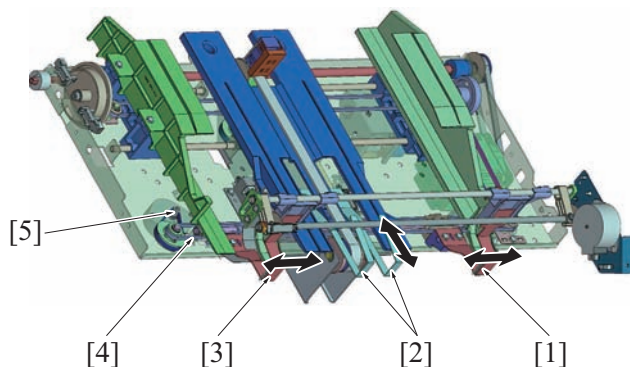
- The rewind paddle [2] is equipped for striking the paper [4] conveyed from the stacker entrance roller [6] against the rear stopper [3] of the stacker [5].
- The stacker entrance motor (M5) that is transmitted via the stacker entrance roller drives the rewind paddle.
- The rewind paddle is equipped with a pressure release mechanism [1] against paper.
- The rewind release motor (M28) drives the pressure release of the rewind paddle.
- The pressure release drive shaft of the rewind paddle is equipped with the actuator. The rewind paddle release home sensor (PS38) controls the pressing position.
- The pressing distance of the rewind paddle is changed according to the number of sheets loaded in the stacker.



[1]	Pressure release	[2]	Rewind paddle
[3]	Rear stopper	[4]	Paper
[5]	Stacker	[6]	Stacker entrance roller

5.3.5 Rear stopper position control

- It is equipped with the rear stopper to align the trailing edge of paper stacked in the stacker.
- There are 3 types of rear stoppers; rear stoppers /Fr [3], /Md [2], and /Rr [1]. They are positioned on the center and both ends in the cross direction.
- The 3 stoppers keep the rear edge of the stacked paper to prevent the deformation as a paper bundle and improve the quality after the stapling.
- The rear stoppers /Fr and /Rr are connected to the timing belt [4]. The drive of the stacker movement motor (M19) [5] moves them.
- The rear stoppers /Fr and /Rr move to the symmetry direction based on the center of the rear stopper /Md.
- The shift amount of the rear stoppers /Fr and /Rr varies depending on the paper size and the print mode. However, they always keep the edge of paper.
- In the staple mode, when the stop positions of the rear stoppers /Fr and /Rr conflict with the stapling position, the position is moved right before the stapling.
- The rear stopper /Md does not move in the cross direction. But it assists the paper ejection.

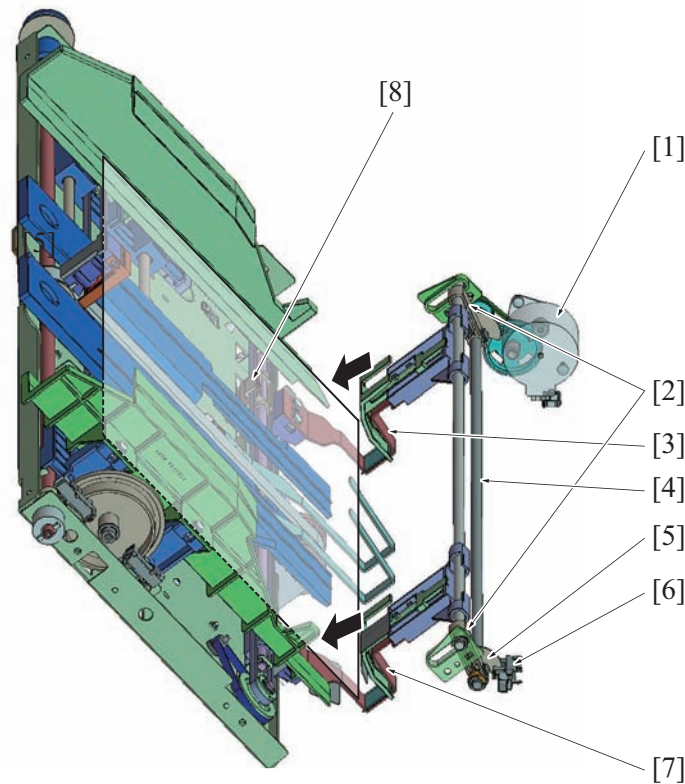


[1]	Rear stopper /Rr	[2]	Rear stopper /Md
[3]	Rear stopper /Fr	[4]	Timing belt
[5]	Stacker movement motor (M19)	-	

5.3.6 Paper pressure control

- It is equipped with the rear pressers /Fr [7] and /Rr [3] to press the trailing edge of paper stacked in the stacker.
- The rear presser corrects the paper curl to prevent the paper misalignment at stapling.
- The rear presser suppresses the air layer between sheets and keeps the paper load capacity.
- The drive of the stacker paper press motor (M21) that is transmitted via the pressure lever [2] drives the rear pressers /Fr and /Rr.
- The rear pressers /Fr and /Rr are equipped with the spring, and the pressure volume is changed according to the paper thickness.
- The pressure lever is equipped with the actuator [5]. The exit paper press home sensor (PS37) [6] controls the pressing position.

- The rear pressers /Fr and /Rr are positioned at the rear stoppers /Fr and /Rr. They are driven according to the movement of the rear stoppers /Fr and /Rr.

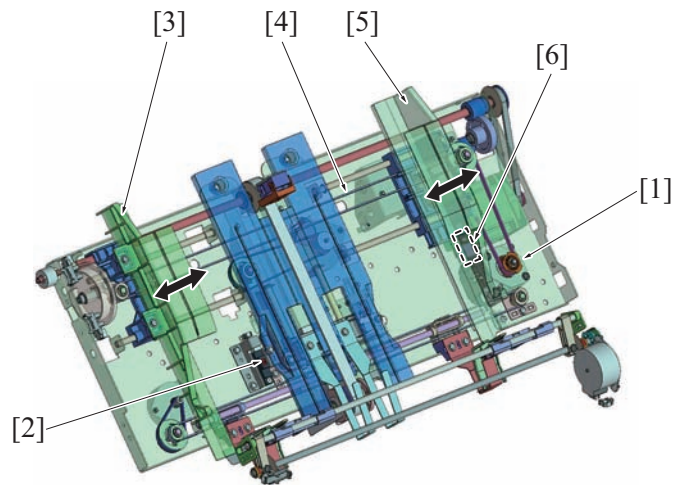


[1]	Stacker paper press motor (M21)	[2]	Pressure lever
[3]	Rear presser /Rr	[4]	Drive shaft
[5]	Actuator	[6]	Stacker paper press home sensor (PS30)
[7]	Rear presser /Fr	[8]	Paper

5.3.7 Horizontal alignment control

(1) Horizontal alignment mechanism

- The CD alignment plates /Fr [3] and /Rr [5] align the paper in the cross direction.
- The CD alignment plates /Fr and /Rr are connected to the timing belt [4]. The drive of the stacker alignment motor (M9) [1] moves them.
- The CD alignment plate has a projection on the top. The projection is used as a guide for the overlap conveyance.
- The CD alignment plate is equipped with the actuator. The stacker alignment home sensor (PS12) [6] controls the movement position of the CD alignment plate /Fr, /Rr.



[1]	Stacker alignment motor (M9)	[2]	Stacker empty sensor (PS28)
[3]	CD alignment plate /Fr	[4]	Timing belt
[5]	CD alignment plate /Rr	[6]	Stacker alignment home sensor (PS12)

(2) Alignment timing

- The alignment is basically executed once for each sheet or bundle.
- When all of the following conditions are met, the alignment is executed twice for each sheet or bundle.
 - When the 1-position stapling is executed for 2 sheets or more
 - When the 2-position stapling is executed for 5 sheets or more
 - When the paper length in the feed direction is 231mm or longer
 - When the FNS entrance sensor (PS1) is OFF at finishing the alignment initial operation

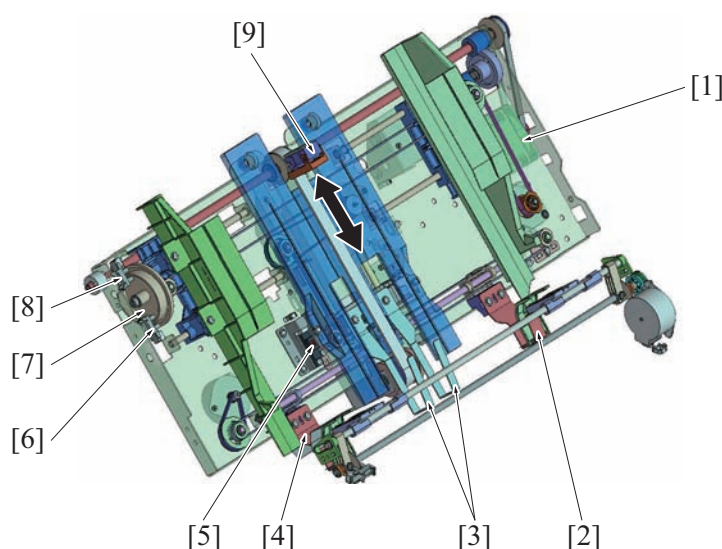
(3) Paper in the stacker detection control

- The stack side of the stacker is equipped with the stacker empty sensor (PS28). It detects whether paper remains in the stacker or not.

5.3.8 Vertical alignment control

(1) Vertical alignment mechanism

- For the paper whose length in the feed direction is 230mm or shorter, the alignment is executed with the FD alignment plate [9] pushing the paper against the rear stoppers /Fr [4], /Md [3], and /Rr [2].
- The small size paper alignment motor (M18) [1] drives the FD alignment plate.
- The drive section of the FD alignment board is equipped with the actuator [7]. The small size paper alignment home sensor (PS26) [8] and the stacker rear alignment sensor (PS44) [6] control the drive position.



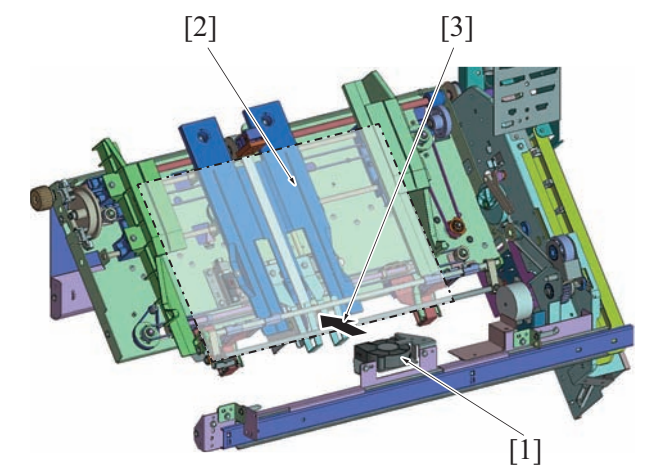
[1]	Small size paper alignment motor (M18)	[2]	Rear stopper /Rr
[3]	Rear stopper /Md	[4]	Rear stopper /Fr
[5]	Stacker empty sensor (PS28)	[6]	Stacker rear alignment sensor (PS44)
[7]	Actuator	[8]	Small size paper alignment home sensor (PS26)
[9]	FD alignment plate	-	

(2) Alignment timing

- The alignment operation starts after a specified period of time since the paper overlap sensor /1 (PS32) detects the trailing edge of paper.
- The duration of time after PS32 turns OFF and before the small size paper alignment motor (M18) that drives the FD alignment board turns ON varies depending on the paper size and the stop position of the FD alignment board.
- In the alignment operation, the reverse rotation of M18 presses paper. Then, it rotates forward after a pause to move to the standby position.

(3) Air assist control

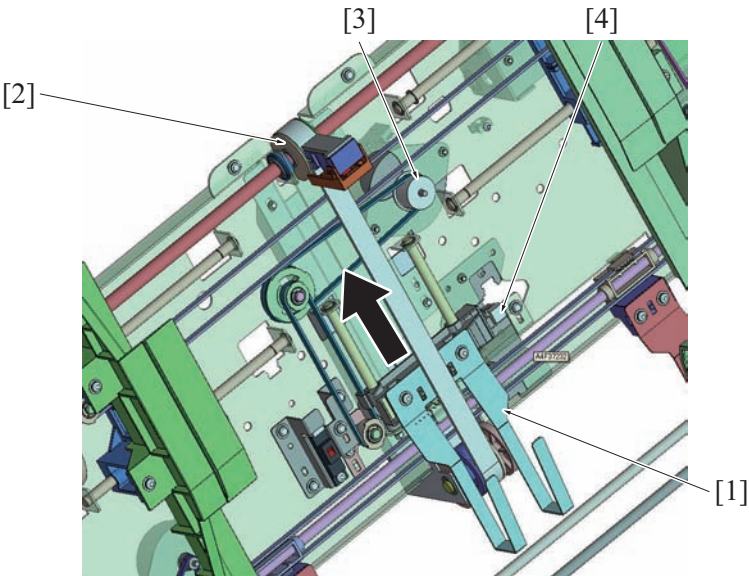
- For the paper whose length in the feed direction is 231mm or more, the alignment is executed only with the air assist [3] from the large size paper alignment fan (FM1) [1].
- Air layer is created between the sheets to which air is blown. By reducing the resistance between the sheets, it helps the paper fall with its own weight.



[1]	Large size paper alignment fan (FM1)	[2]	Paper
[3]	Air assist		-

5.3.9 Small-size paper exit auxiliary control

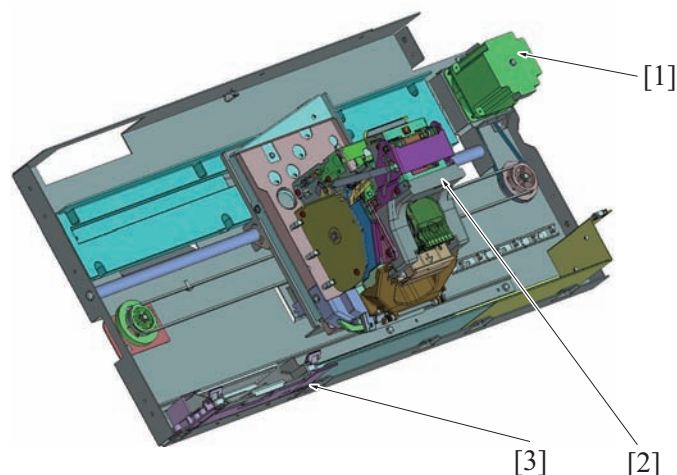
- The FD alignment plate [2] ejects the stapled bundle of paper, but the trailing edge of the bundle of paper is lower than the movable range of the FD alignment plate. Therefore, the paper cannot be conveyed at this position.
- It lifts the rear stopper /Md [1] and raises the trailing edge of the bundle of paper to the movable range of the FD alignment plate.
- The stacker rear stopper motor (M20) [3] drives the rear stopper /Md.
- The stacker rear stopper home sensor (PS29) controls the drive position of the rear stopper /Md.



[1]	Rear stopper /Md	[2]	FD alignment plate
[3]	Stacker rear stopper motor (M20)	[4]	Stacker rear stopper home sensor (PS29)

6. STAPLER SECTION

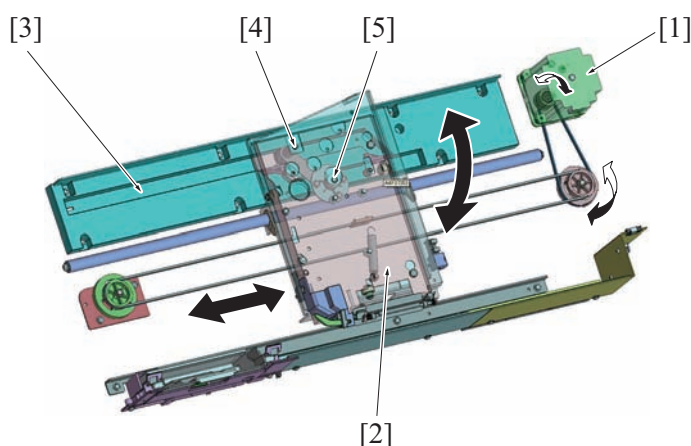
6.1 Configuration



[1]	Stapler movement motor (M14)	[2]	Stapler
[3]	Staple scraps box	-	

6.2 Drive

6.2.1 Stapler movement/rotation control



[1]	Stapler movement motor (M14)	[2]	Stapler movable base
[3]	Guide	[4]	Stapler position shaft
[5]	Rotation fulcrum shaft	-	

6.3 Operation

6.3.1 Stapler movement control

(1) Stapler movement mechanism

- There are 2 types for the stapler movement; parallel and rotational.
- The stapler movement motor (M14) operates the parallel and rotational movements.
- The stapler fixed base is equipped with the rotation fulcrum shaft and the position control shaft. Once these shafts move parallel and pass the guide, it rotates along the groove of the guide.
- One stapler staples at 2 positions.
- The stapler movement home sensor (PS22) and the staple center position sensor (PS6) control the stapler movement position.

(2) Staple 1-position control

- When the print start signal is turned ON, the stapler movement motor (M14) also turns ON to move the stapler to the position according to the paper size.
- Once the stapling finishes, the stapler remains at the position.

(3) Staple 2-position control

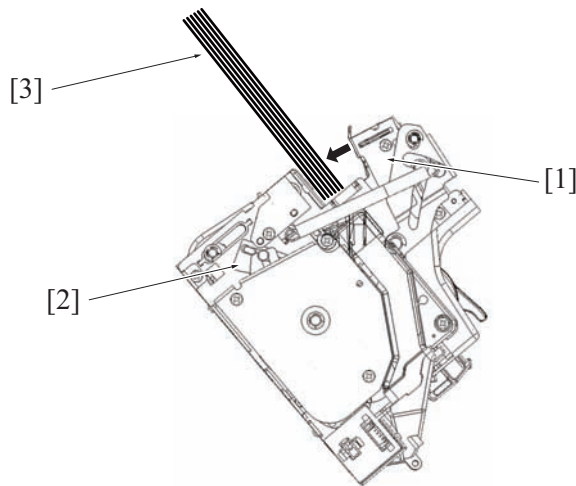
- When the print start signal is turned ON, the stapler movement motor (M14) also turns ON to move the stapler to the 1st stapling position according to the paper size.
- Once the 1st stapling finishes, the stapler moves parallel to the 2nd stapling position.

- Once the 2nd stapling finishes, the stapler remains at the position until the subsequent bundle of paper is reached.
- When the subsequent bundle of paper is reached, the 1st stapling is executed.
- Once the 1st stapling finishes, the stapler moves parallel to the 2nd stapling position.
- The operations are repeated.

6.3.2 Staple control

(1) Staple operation

- Stapler is integral structure, and it has the stapler section [2] and the clincher section [1].
- Stapler motor (M31) drives the clincher section and then press the paper [3].
- M31 pushes out the staple from the cartridge of the stapler section.
- The staple which has passed through the pressed paper is cut its overhang which is over a certain length.
- The staple which has been cut is folded its edge by hitting the clincher section to staple the paper together.



[1]	Clincher section	[2]	Stapler section
[3]	Paper	-	

(2) Staple control

- After the CD alignment plate /Fr, Rr and the FD alignment plate finish the alignment of the paper, the stapler motor (M31) turns ON and drive the clincher section of the stapler to press the paper.
- M31 continues to turn ON after it driven the clincher. M31 pushes out the staple from the cartridge, and cut the overhang of the staple.
- After M31 finishes pushing the staple and stapling the paper, it releases the pressure toward the paper by the clincher section.
- The stapler home sensor (PS40) controls the rotation position of M31.
- When PS40 turns OFF after M31 turns ON, M31 turns OFF after a specified period of time. M31 executes pressing the paper with the clincher section, pushing out and cutting the staple and releasing the press with the clincher section in a series of operations by it turns OFF.

(3) Clogged staple detection

- When the stapler home sensor (PS40) does not turn OFF within a specified period of time after the stapler motor (M31) turns ON, the stapler home sensor (PS40) judges that the staples have been clogged and turns M31 OFF.

(4) Cartridge detection

- The cartridge set sensor (PS42) detect the presence of a cartridge or the incorrect setting of a cartridge.
- When there is no cartridge or the cartridge is set incorrectly, an error message is displayed on the operation section.

(5) Staple detection

- When the staples run short, the staple empty sensor (PS41) detect this condition and display an error message on the operation section.

(6) Staple scraps box detection

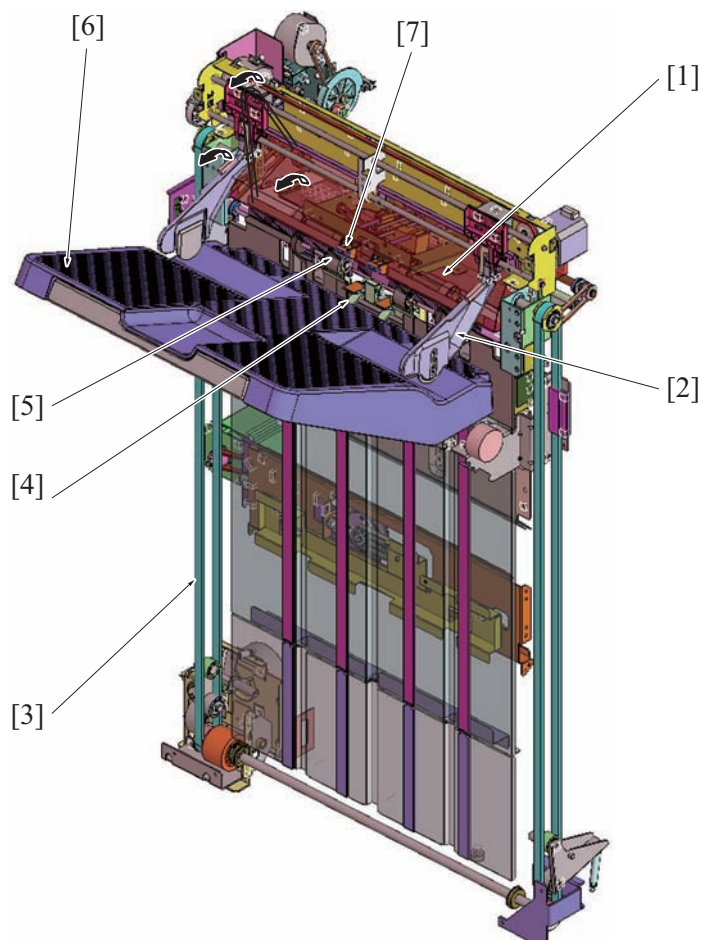
- The stapler scraps box set sensor (PS35) detects the presence of a staple scraps box or the incorrect setting of a box.
- When there is no staple scraps box or it is set incorrectly, an error message is displayed on the operation section.

(7) Staple scraps box detection

- The staple scraps box full sensor (PS7) detects the rest of the capacity of the staple scraps box.
- The error message is displayed on the operation panel, when the staple scraps box full is detected.

7. MAIN TRAY SECTION

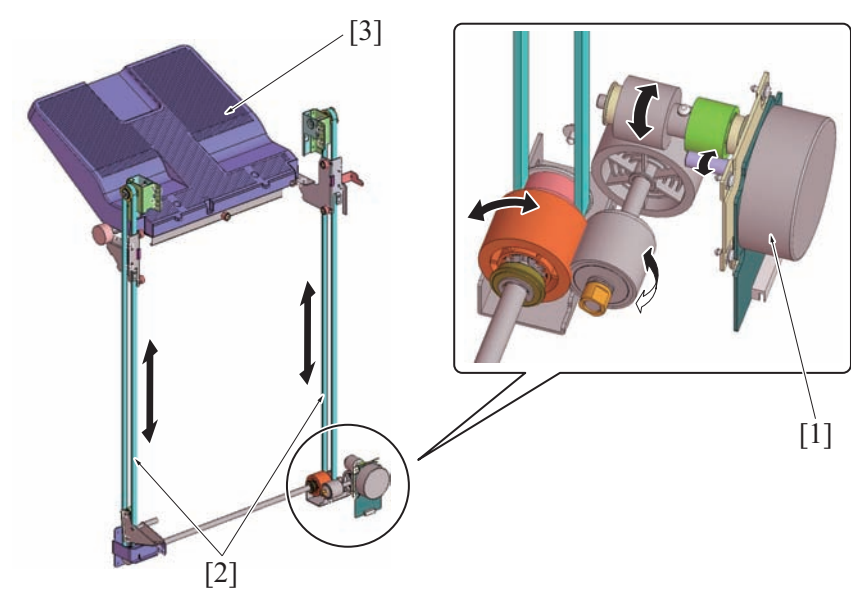
7.1 Configuration



[1]	Paper exit opening	[2]	Paper exit alignment plate
[3]	Up/down belt	[4]	Gripper /Lw
[5]	Paper exit roller /Lw	[6]	Main tray
[7]	Gripper /Up	-	

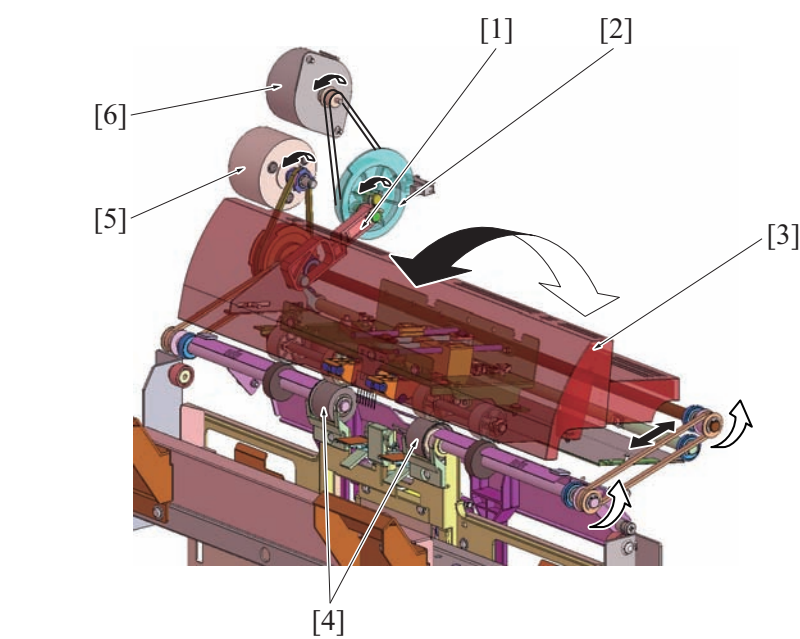
7.2 Drive

7.2.1 Main tray up-down drive



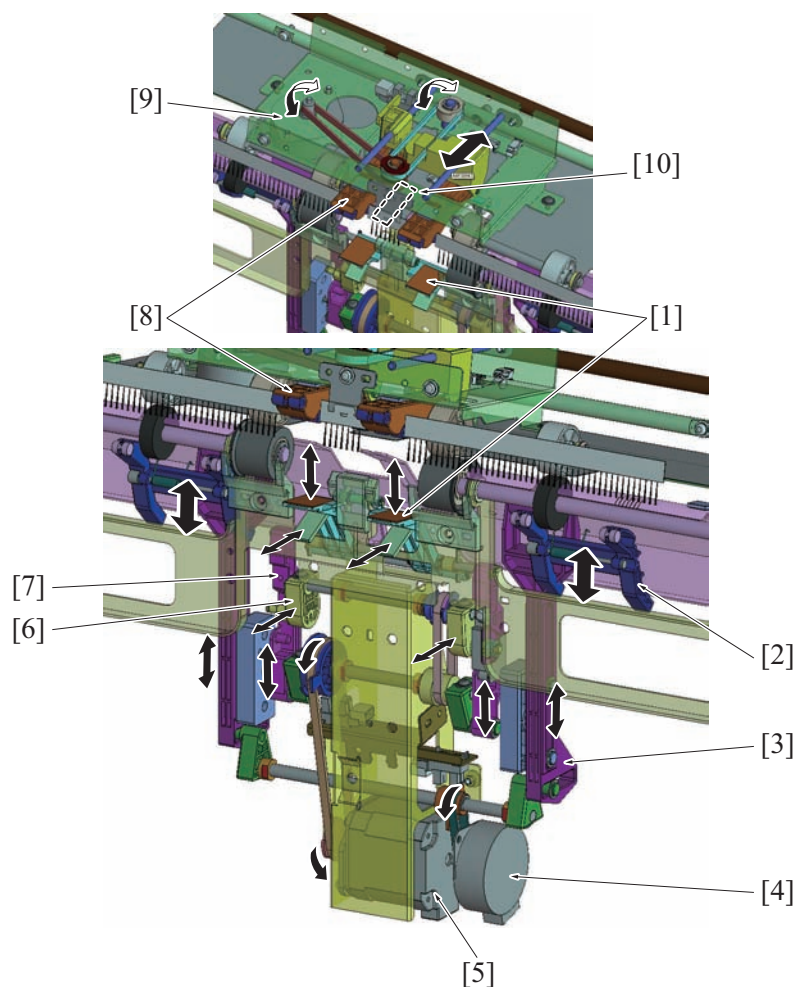
[1]	Main tray up down motor (M11)	[2]	Up/down belt
[3]	Main tray	-	

7.2.2 Paper exit roller/paper exit opening drive



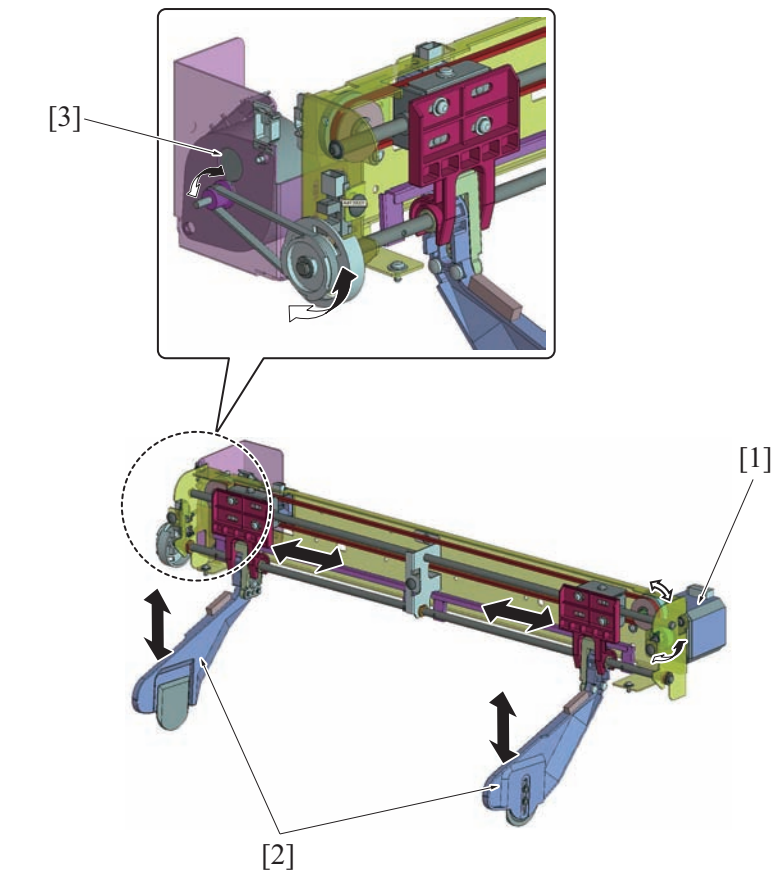
[1]	Arm	[2]	Pulley
[3]	Paper exit opening	[4]	Exit roller
[5]	Paper exit motor (M6)	[6]	Paper exit opening motor (M10)

7.2.3 Gripper/paper exit pressure drive



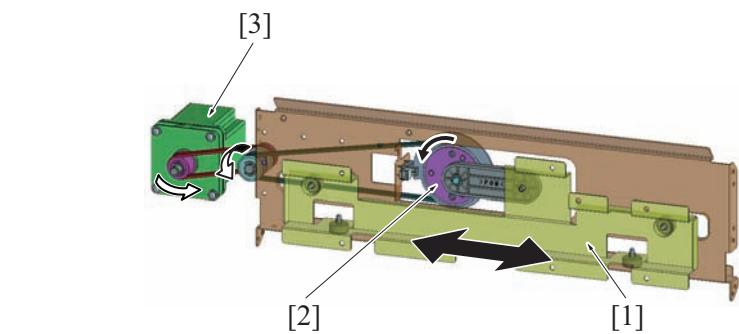
[1]	Gripper /Lw	[2]	Holding material
[3]	Paper holding arm	[4]	Exit paper press motor (M26)
[5]	Gripper exit motor /Lw (M17)	[6]	Link arm swing material
[7]	Link arm	[8]	Gripper /Up
[9]	Gripper exit motor /Up (M16)	[10]	Main tray paper exit sensor (PS10)

7.2.4 Paper exit alignment plate drive



[1]	Paper exit alignment plate motor (M12)	[2]	Paper exit alignment plate
[3]	Paper exit alignment plate up down motor (M13)	-	

7.2.5 Main tray shift drive

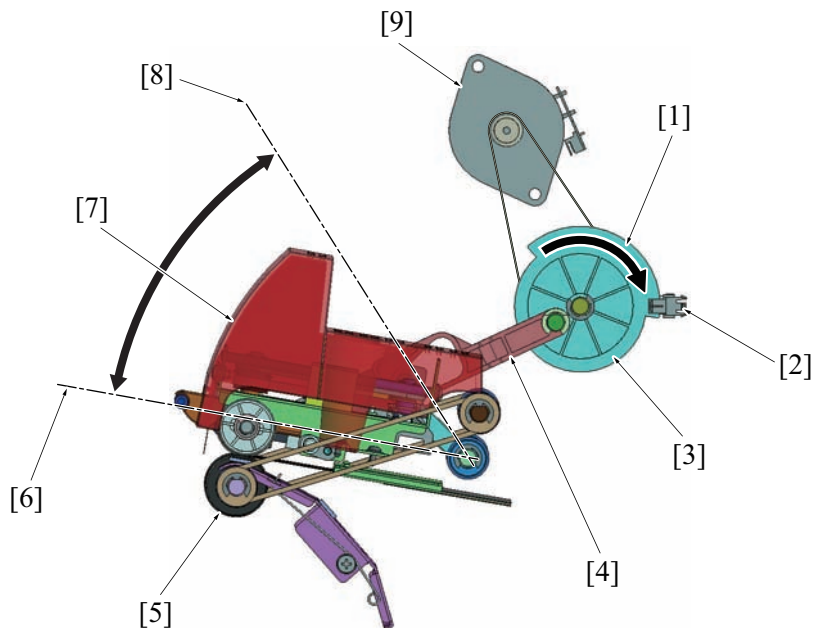


[1]	Back board (main tray connecting section)	[2]	Pulley
[3]	Tray shift roller motor (M15)	[4]	

7.3 Operation

7.3.1 Paper exit opening control

- The paper exit opening motor (M10) [9] drives the paper exit opening [7] via the arm [4] and the pulley [3].
- The arm is connected to the offset position from the center of the pulley. It opens and closes the paper exit opening while the pulley rotates once.
- The pulley is equipped with the actuator [1], and the paper exit opening sensor (PS13) [2] controls the rotation position.
- The home position [6] is where the paper exit opening is closed.
- The release position [8] is where the paper exit opening opens about 50 degrees.

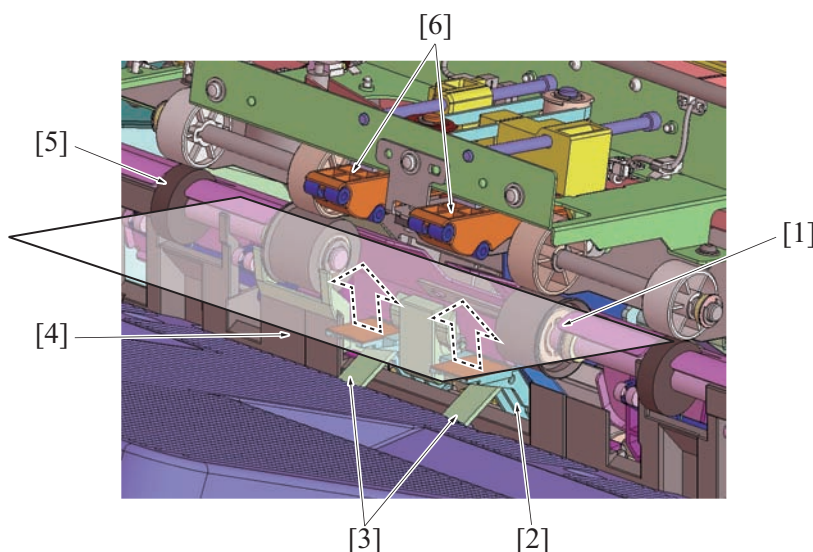


[1]	Actuator	[2]	Paper exit opening sensor (PS13)
[3]	Pulley	[4]	Arm
[5]	Paper exit roller	[6]	Home position
[7]	Paper exit opening	[8]	Release position
[9]	Paper exit opening motor (M10)	-	

7.3.2 Gripper control

(1) Gripper mechanism

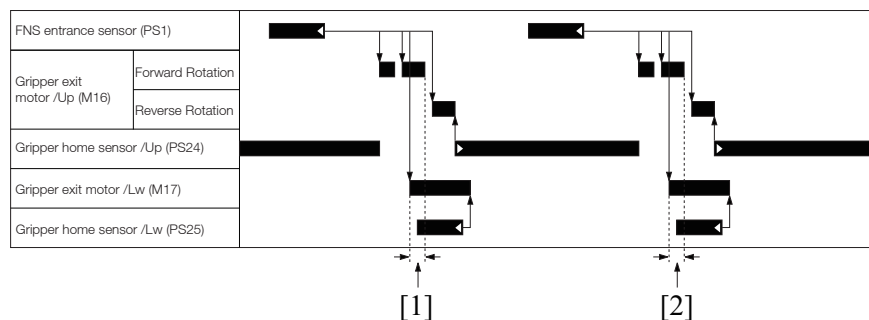
- The gripper is equipped for preventing the misalignment of paper on the main tray by stabilizing the time duration of paper dropping from the exit roller to the main tray.
- The grippers /Up [6] and /Lw [2] nip the top and bottom of the ejected paper [1]. The paper is struck against the paper exit stopper plate [4] and is pulled in.
- The paddle [3] is equipped on the bottom of the tip of the gripper /Lw. It returns the paper on the top that has been ejected to the paper exit stopper plate.
- The gripper exit motor /Up (M16) drives the gripper /Up.
- The gripper home sensor /Up (PS24) is equipped on the M16 drive path. It controls the operation condition of the gripper /Up.
- The gripper exit motor /Lw (M17) drives the gripper /Lw.
- The gripper home sensor /Lw (PS25) is equipped on the M17 drive path. It controls the operation condition of the gripper /Lw.



[1]	Paper	[2]	Gripper /Lw
[3]	Paddle	[4]	Paper exit stopper plate
[5]	Exit roller	[6]	Gripper /Up

(2) Operation timing

- After a specified period of time since the FNS entrance sensor (PS1) detects the paper trailing edge and turns OFF, the gripper exit motor /Up (M16) rotates forward and the gripper exit motor /Lw (M17) turns ON.
- The grippers /Up and /Lw grip the paper [1], and the paper is ejected on the main tray.
- When the grip of paper is released, M16 switches the rotation from forward to reverse. Then, M16 turns OFF and turns in a standby condition when the gripper home sensor /Up (PS24) turns ON.
- M17 turns OFF after a specified period of time since the gripper home sensor /Lw (PS25) turns OFF, and turns in a standby condition.
- These operations are repeated for each paper.



[1]	1st sheet grip	[2]	2nd sheet grip
-----	----------------	-----	----------------

7.3.3 Paper pressure control

- The holding material [1] is equipped for preventing the curling of the paper [2] that has been ejected on the main tray and the pushing out by the subsequent pages.
- The exit paper press motor (M26) drives the holding material.
- The actuator is equipped on the drive path from M26 to the holding material. The exit paper press home sensor (PS37) controls the operation condition.
- When a print job is received, M26 turns ON and the holding material is pressed against the paper.
- When FNS entrance sensor (PS1) detects the trailing edge of the 1st sheet of paper, M26 turns OFF after a specified period of time.
- The pressure of the holding material is released once. But it returns to the pressure status after a specified period of time.
- These operations are repeated for each conveyed paper.



[1]	Holding material	[2]	Paper
[3]	Exit roller	-	

7.3.4 Main tray up/down control

(1) Up/down mechanism

- The forward or reverse rotation of the main tray up down motor (M11) drives the up/down belt to move the main tray up or down.
- The main tray upper limit sensor (PS14) and the tray upper limit LED (LED1) detect the top surface of paper on the main tray.

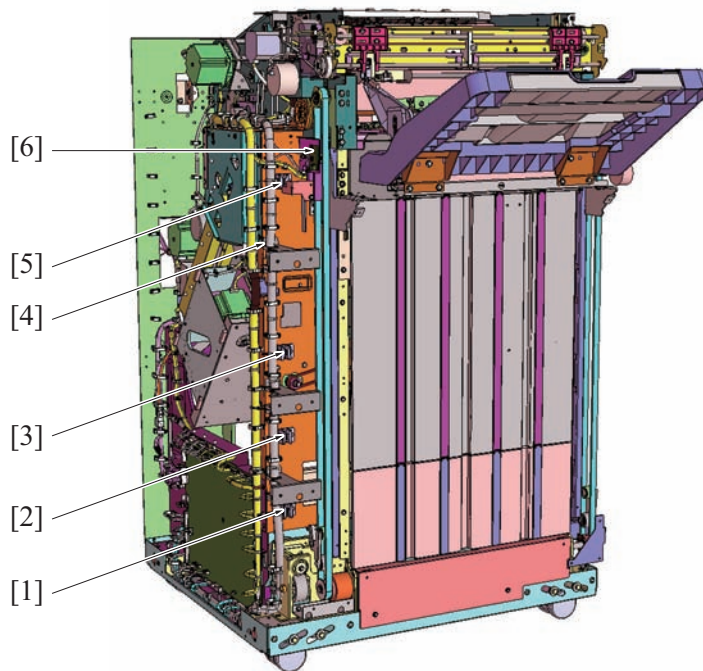
(2) Tray full-status detection alarm control

- When the operation panel section is informed the tray full-status detection alarm for the main tray, the main tray upper limit sensor (PS14) and the main tray near empty sensor (PS46) turns ON after the paper on the main tray is removed. Then, the tray full-status detection alarm is released.
- When the PS46 turns OFF, the tray full-status detection alarm is not released even PS14 turns ON.

(3) Main tray loading volume detection control

- The maximum stacking capacity of paper on the main tray varies depending on the paper size and whether the SD is installed or not.
- When the SD is not installed, the maximum capacity of the main tray is where the 4000 sheets sensor (PS19) [1] turns ON.
- When the SD is installed, the maximum capacity of the main tray is where the 3000 sheets sensor (PS16) [2] turns ON.

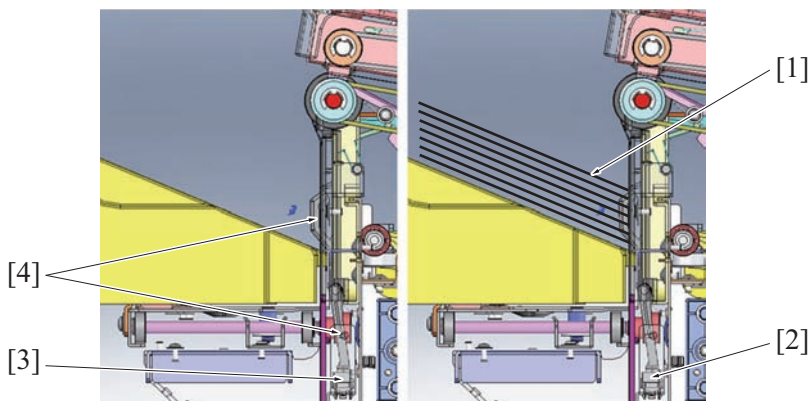
- When the size of loaded paper is large size, the maximum capacity of the main tray is where the main tray middle position sensor (PS18) [3] turns ON.
- When the size of loaded paper is small size, the maximum capacity of the main tray is where the main tray quarter position sensor (PS17) [4] turns ON.



[1]	4000 sheets sensor (PS19)	[2]	3000 sheets sensor (PS16)
[3]	Main tray middle position sensor (PS18)	[4]	Main tray quarter position sensor (PS17)
[5]	Main tray near empty sensor (PS46)	[6]	Main tray upper limit sensor (PS14)

(4) Paper extraction detection control

- The paper removal sensor (PS15) detects paper that is loaded on the main tray.
- PS15 detects the presence or absence of paper with the actuator.
- When paper is loaded on the main tray, the actuator is pushed and PS15 turns OFF.
- When paper is removed from the main tray, the actuator is tilted to the main tray side and PS15 turns ON.



[1]	Loaded paper	[2]	Paper removal sensor (PS15) OFF
[3]	Paper removal sensor (PS15) ON	[4]	Actuator

(5) Paper exit switch

- When the paper exit switch (SW1) is pushed for 0.5 second or more while paper is ejected to the main tray in the straight mode or the shift mode, the ejection is temporary stopped.
- Press the start button on the main body or the paper exit switch (SW1) to restart the ejection.

(6) Main tray output detection

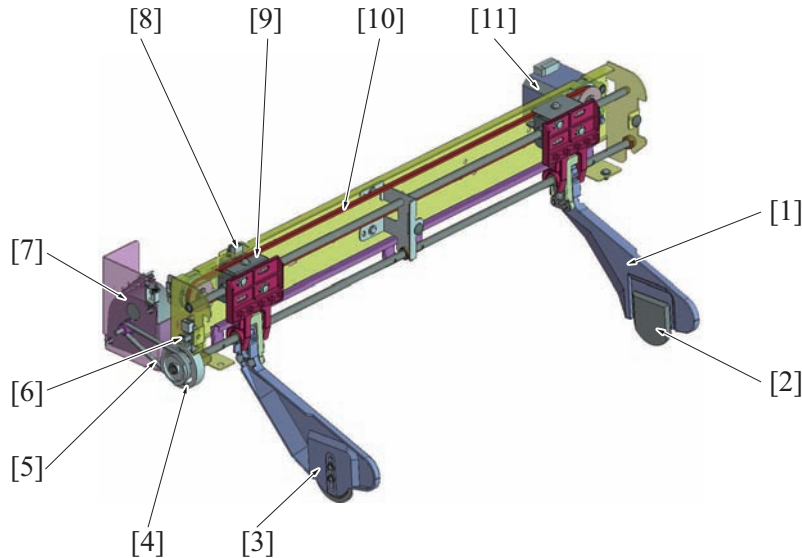
- The main tray paper exit sensor (PS10) detects the main tray output.

7.3.5 Paper exit alignment control

(1) Paper exit alignment mechanism

- The paper exit alignment plates /Fr [1] and /Rr [3] are equipped for aligning the paper that is ejected on the main tray.

- The paper exit alignment plates /Fr and /Rr are connected to the timing belt [10]. The drive of the paper exit alignment plate motor (M12) [11] moves them.
- The paper exit alignment plates /Fr and /Rr move symmetrically based on the center of the paper exit opening.
- The support section [9] of the paper exit alignment plate /Rr is equipped with the actuator. The paper exit alignment plate home sensor (PS20) [8] controls the alignment position.
- Since the main tray shifts, the paper exit alignment plates /Fr and /Rr are lifted and removed from paper when the shift position is switched.
- The paper exit alignment plate up down motor (M13) [7] lifts the paper exit alignment plates /Fr and /Rr.
- The actuator [4] is equipped on the pulley [5] that transmits the drive of M13. The paper exit alignment plate up down home sensor (PS21) [6] controls the shift position of the paper exit alignment plates /Fr and /Rr.
- The movable alignment plate [2] is equipped on each paper exit alignment plate. It prevents the shock that is given to the tray or paper.



[1] Paper exit alignment plate /Fr	[2] Paper exit alignment plate
[3] Paper exit alignment plate /Rr	[4] Actuator
[5] Pulley	[6] Paper exit alignment plate up down home sensor (PS21)
[7] Paper exit alignment plate up down motor (M13)	[8] Paper exit alignment plate home sensor (PS20)
[9] Support section	[10] Timing belt
[11] Paper exit alignment plate motor (M12)	-

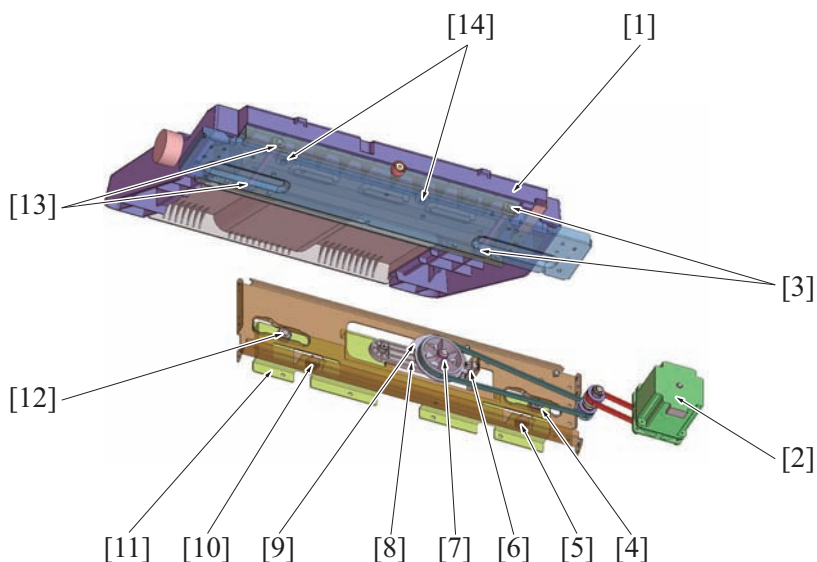
(2) Operation timing

- The paper exit alignment plate motor (M12) turns forward and reverse after a specified period of time since the FNS entrance sensor (PS1) detects the trailing edge of paper. Then, the paper exit alignment plate motor drives the paper exit alignment plates /Fr and /Rr.
- The paper exit alignment plates /Fr and /Rr align each sheet of paper that has been sent.
- The paper exit alignment plate up down motor (M13) turns reverse when the tray shift roller motor (M15) turns ON, and lifts the paper exit alignment plates /Fr and /Rr.
- The main tray is shifted during the operation.
- When the shift of the main tray finishes, M13 turns toward after a specified period of time since PS1 turns OFF. It lowers the paper exit alignment plates /Fr and /Rr.
- M13 executes those operations for each last sheet.

7.3.6 Main tray shift control

(1) Main tray shift mechanism

- The paper eject position of the alignment mechanism for ejected paper is fixed based on the center. Therefore, the shift mechanism that sorts paper into each set is provided on the main tray side.
- The drive unit of the shift mechanism is equipped inside the FNS. The moving part of the main tray [1] is connected to the back board [11] in the drive unit.
- Both of the back board in the drive unit and the moving part of the main tray consist of the roller and the bearing.
- The tray shift roller motor (M15) [2] drives the back board in the drive unit via the arm [8] and the pulley [7].
- The arm is connected to the offset position from the center of the pulley. It shifts the back board while the pulley rotates a half turn.
- The cam is equipped with the actuator [9]. The main tray home sensor (PS23) [6] controls the rotation position.



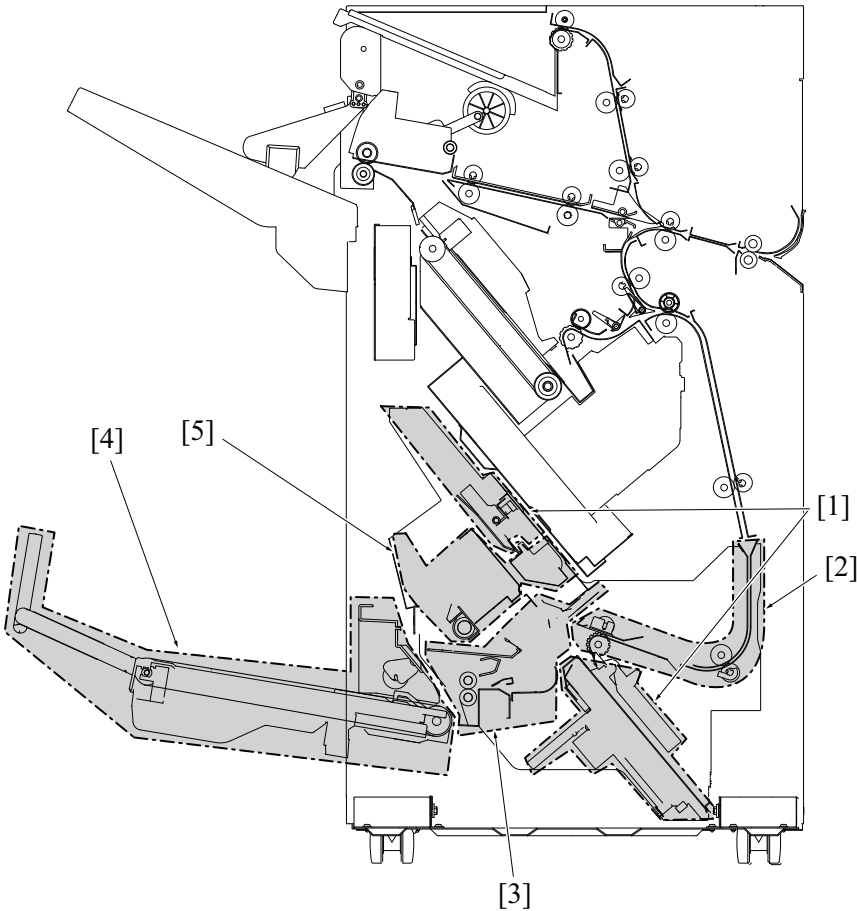
[1]	Main tray	[2]	Tray shift roller motor (M15)
[3]	Bearing	[4]	Bearing
[5]	Roller	[6]	Main tray home sensor (PS23)
[7]	Pulley	[8]	Arm
[9]	Actuator	[10]	Roller
[11]	Back board	[12]	Bearing
[13]	Bearing	[14]	Roller

(2) Main tray shift timing

- The tray shift roller motor (M15) turns ON after a specified period of time since the FNS entrance sensor (PS1) detects the trailing edge of last sheet in the set. It shifts the main tray.
- The main tray home sensor (PS23) turns OFF when M15 turns ON. When PS23 turns ON again and detects the home position, M15 turns OFF and turns in the standby condition.
- According to this operation, the first sheet of the subsequent set is ejected on the shifted position.
- The same operations are repeated when PS1 detects the trailing edge of the last sheet of the subsequent set.

PJ THEORY OF OPERATION SD-510

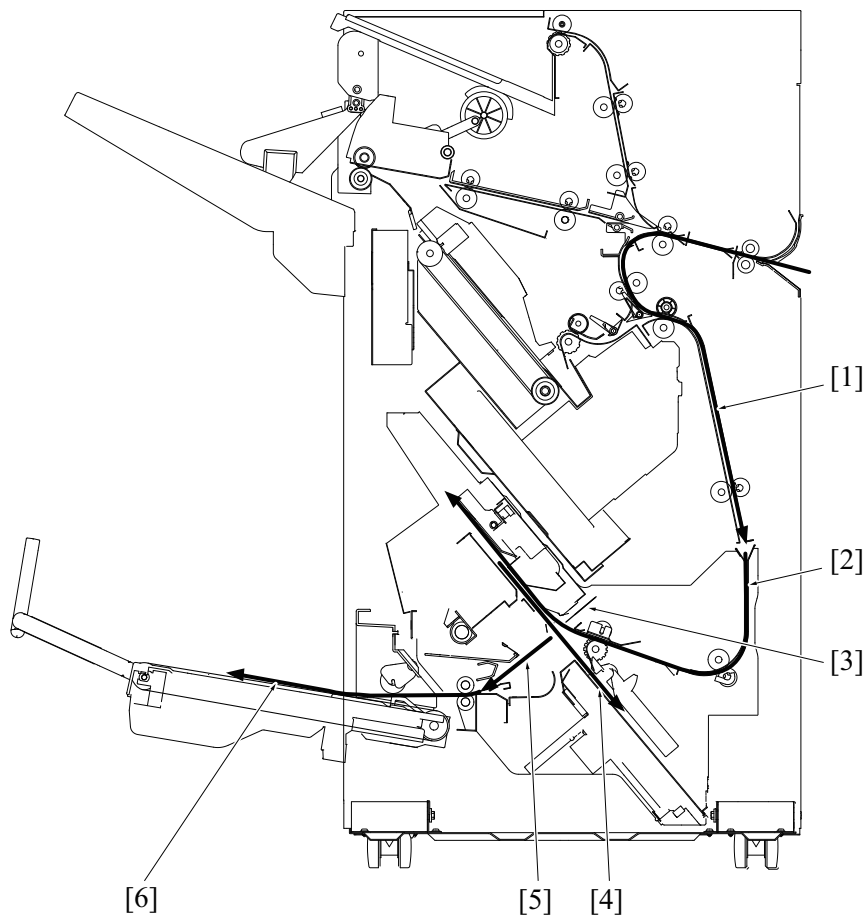
1. UNIT CONFIGURATION



[1]	Alignment section	[2]	Paper conveyance section
[3]	Half-folding/saddle stitching/tri-folding section	[4]	Paper exit section
[5]	Stapler section	-	

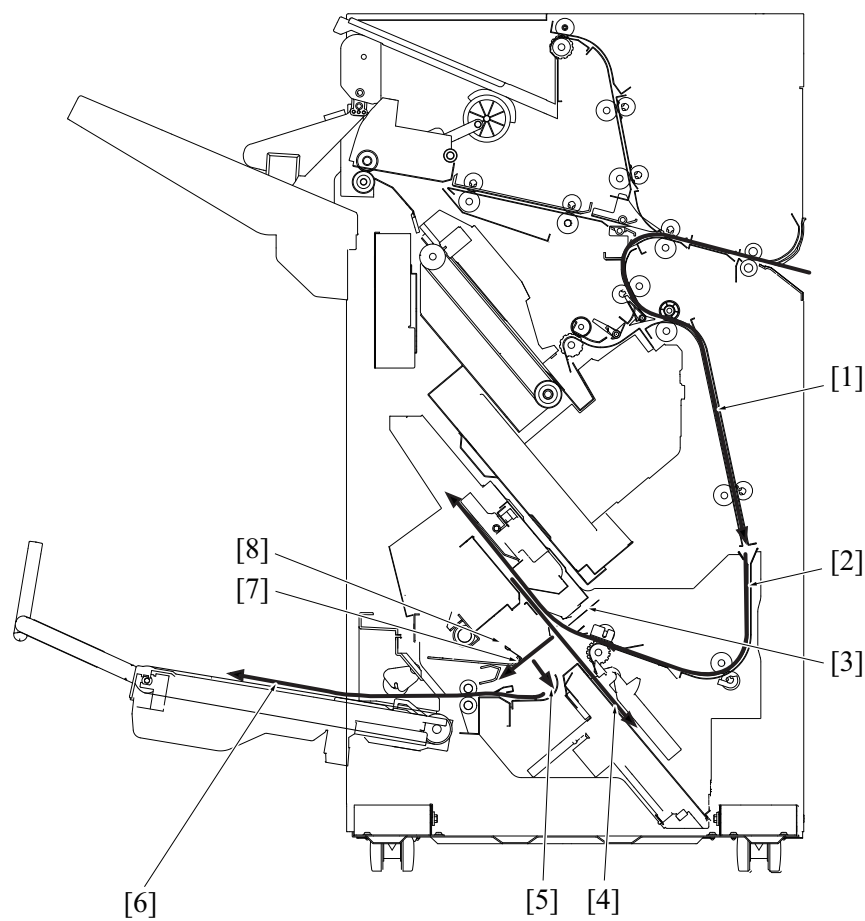
2. PAPER PATH

2.1 Half-folding/saddle stitching



[1]	SD conveyance path	[2]	SD entrance conveyance path
[3]	1st folding knife	[4]	Alignment conveyance path
[5]	1st folding conveyance path	[6]	Paper exit path

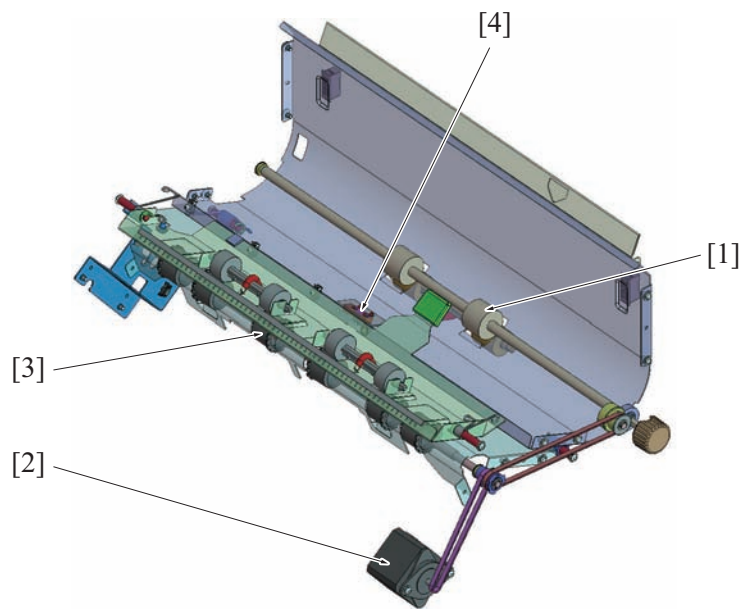
2.2 Tri-folding



[1]	SD conveyance path	[2]	SD entrance conveyance path
[3]	1st folding knife	[4]	Alignment conveyance path
[5]	2nd folding conveyance path	[6]	Paper exit path
[7]	1st folding conveyance path	[8]	2nd folding knife

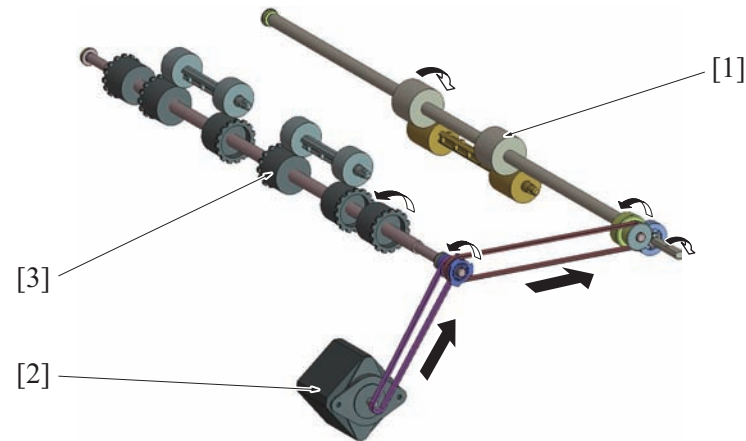
3. PAPER CONVEYANCE SECTION

3.1 Configuration



[1]	SD conveyance roller	[2]	SD entrance motor (M101)
[3]	SD stacker entrance roller	[4]	SD entrance sensor (PS102)

3.2 Drive



[1]	SD conveyance roller	[2]	SD entrance motor (M101)
[3]	SD stacker entrance roller	-	

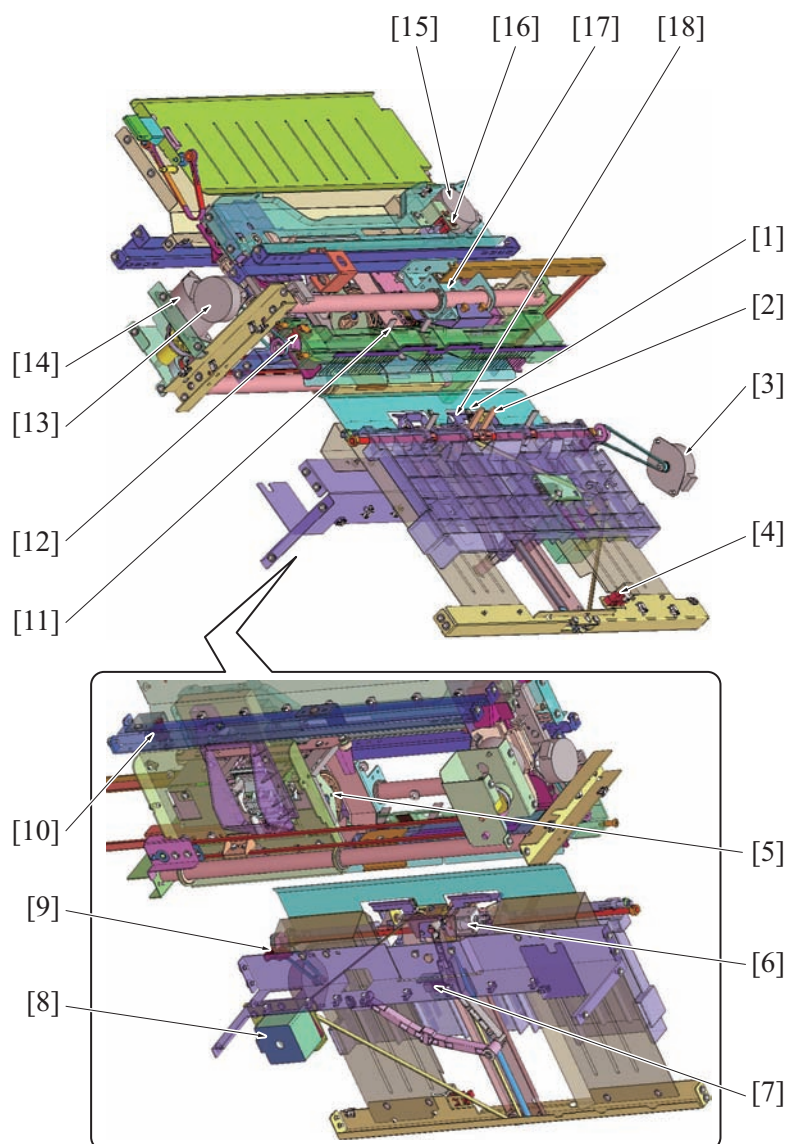
3.3 Operation

3.3.1 SD entrance conveyance

- The SD conveyance roller and the SD stacker entrance roller convey paper that is conveyed from the SD conveyance path of the FNS into the SD.
- The SD entrance motor (M101) drives the SD conveyance roller and the SD stacker entrance roller.
- The SD entrance sensor (PS102) is equipped on just before the SD stacker entrance roller.
- PS102 triggers the operations of M101, the saddle stitching alignment motor (M104), the center paddle motor (M106), and the lower paddle motor (M109).
- PS102 detects the paper which remains in the entrance conveyance section.

4. ALIGNMENT SECTION

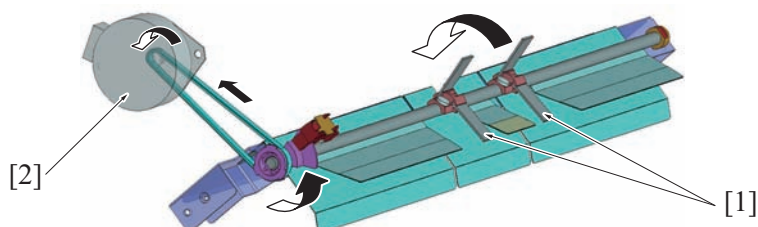
4.1 Configuration



[1] Rear guide	[2] Paddle /Lw
[3] Lower paddle motor (M109)	[4] Stopper home sensor (PS107)
[5] Stapler	[6] Rear gripper solenoid (SD102)
[7] Stacker empty sensor /Lw (PS115)	[8] Stopper motor (M105)
[9] Lower paddle home sensor (PS114)	[10] Stapler shift home sensor (PS105)
[11] Stacker empty sensor /Up (PS101)	[12] Center paddle home sensor (PS108)
[13] Center paddle motor (M106)	[14] Stapler movement motor (M103)
[15] Saddle stitching alignment motor (M104)	[16] Alignment home sensor (PS106)
[17] Clincher	[18] Rear gripper

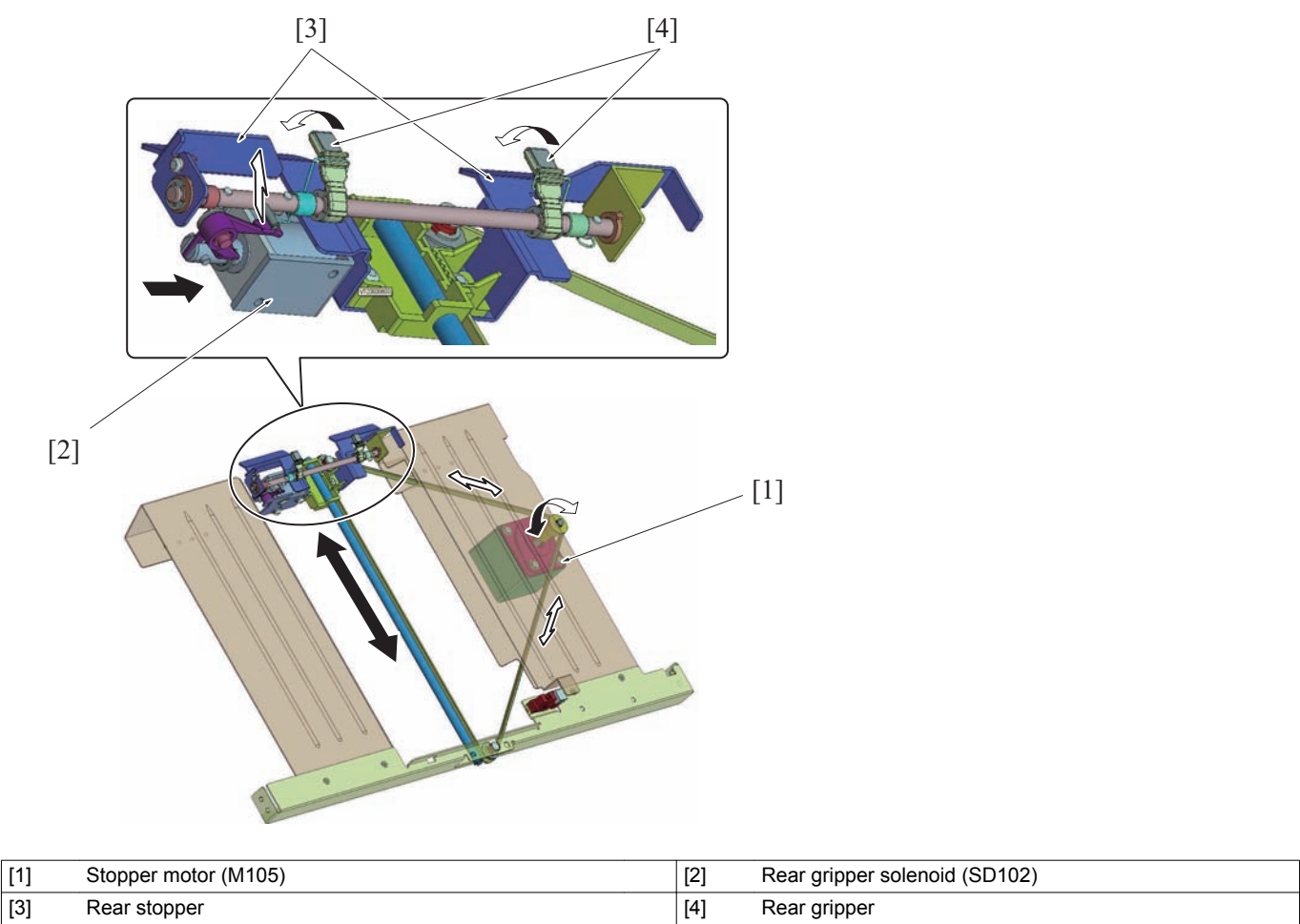
4.2 Drive

4.2.1 Paddle /Md drive

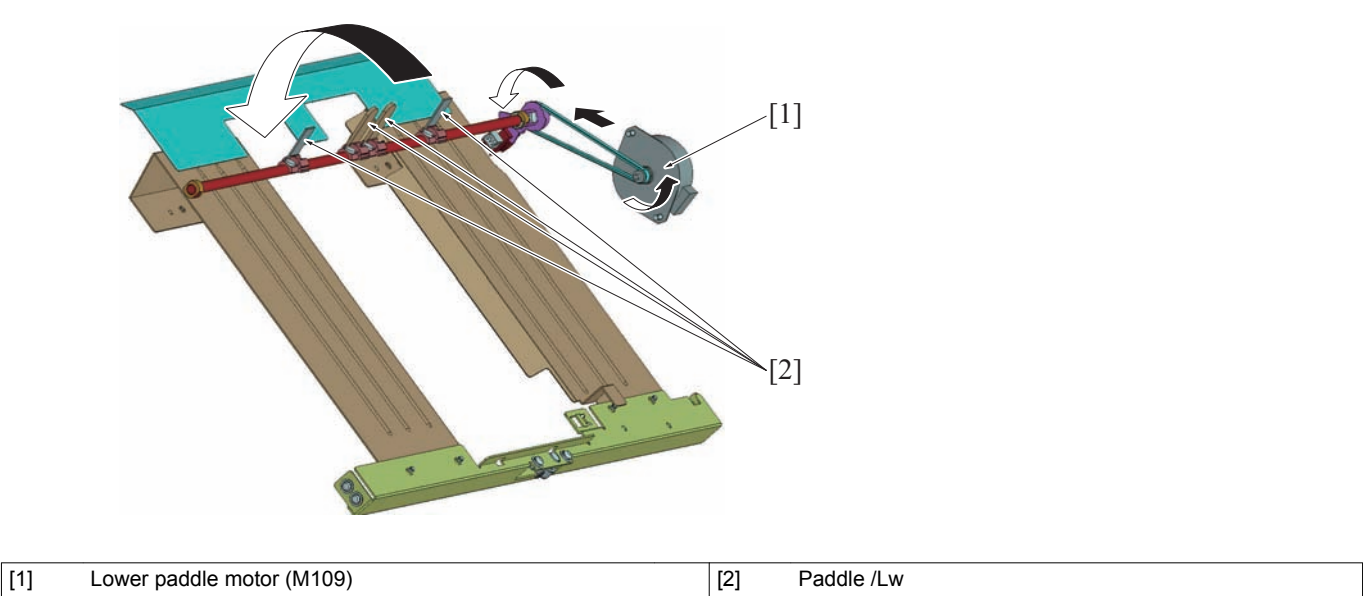


[1]Paddle /Md	[2]Center paddle motor (M106)
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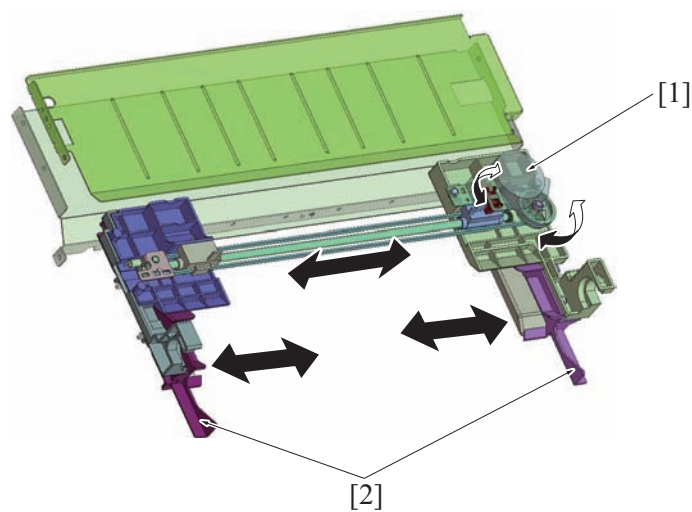
4.2.2 Rear stopper/rear gripper drive



4.2.3 Paddle /Lw drive



4.2.4 Alignment Plate drive

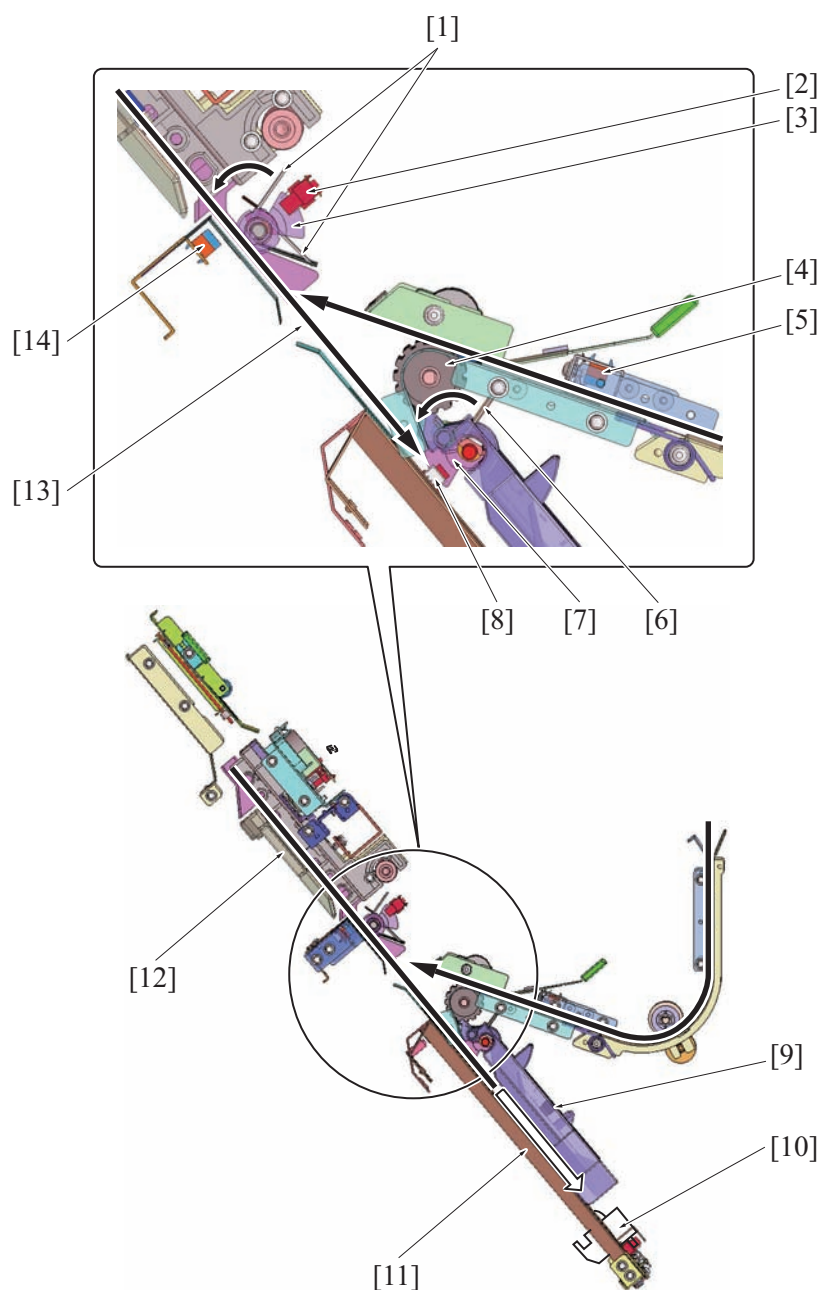


[1]	Saddle stitching alignment motor (M104)	[2]	Alignment plate
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4.3 Operation

4.3.1 Paper stopper control mechanism

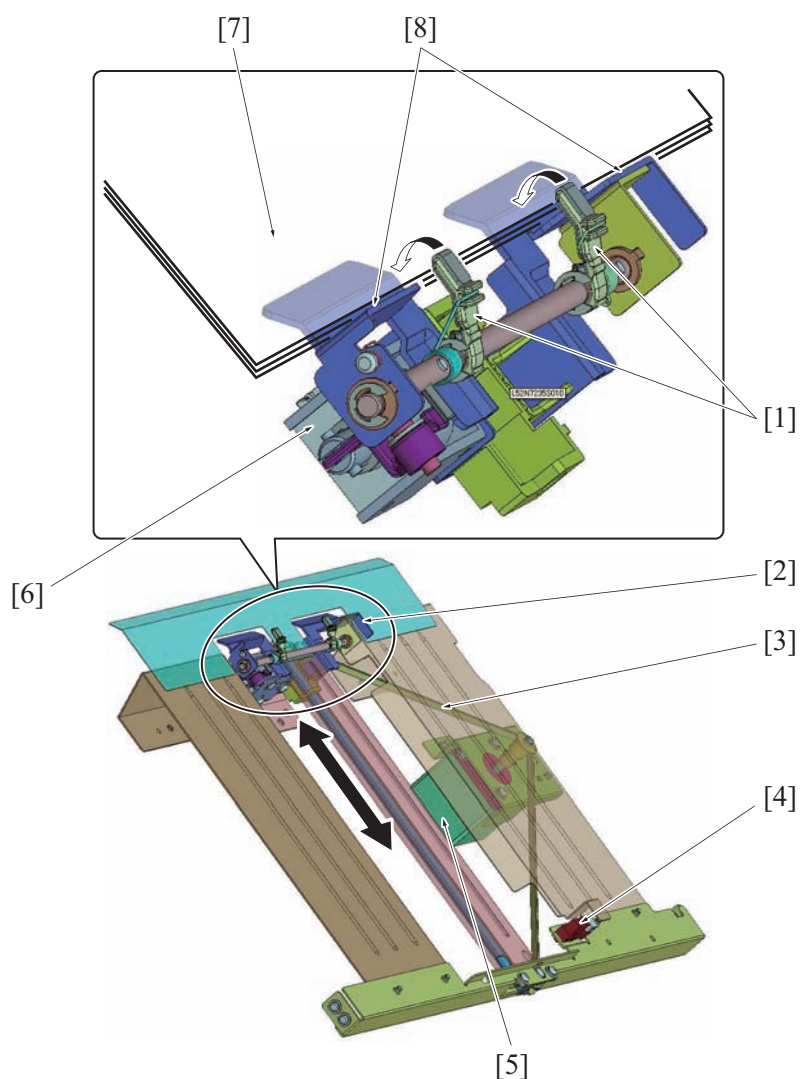
- The paper [13] conveyed from the SD stacker entrance roller [4] is conveyed to the alignment part /Up [12]. Then, the paddles /Md [1] and /Lw [6] align the paper to the rear stopper [10] of the alignment part /Lw [11].
- The center paddle motor (M106) drives the paddle /Md. The lower paddle motor (M109) drives the paddle /Lw.
- The paddles /Md and /Lw are installed at the specified position on the circle of the drive shaft.
- When paper is conveyed to the alignment section or to the half-folding section after the alignment, the paddles /Md and /Lw move to the position where they do not block the conveyance path.
- The actuators [3] and [7] are equipped on the drive shaft of each paddle. The center paddle home sensor (PS108) [2] and the lower paddle home sensor (PS114) [8] control the rotation position.
- The stacker empty sensor /Up (PS101) [14] and the stacker empty sensor /Lw (PS115) [9] are equipped on the alignment parts /Up and /Lw. They detect the remained sheet.



[1]	Paddle /Md	[2]	Center paddle home sensor (PS108)
[3]	Actuator	[4]	SD stacker entrance roller
[5]	SD entrance sensor (PS102)	[6]	Paddle /Lw
[7]	Actuator	[8]	Lower paddle home sensor (PS114)
[9]	Stacker empty sensor /Lw (PS115)	[10]	Rear stopper
[11]	Alignment part /Lw	[12]	Alignment part /Up
[13]	Paper	[14]	Stacker empty sensor /Up (PS101)

4.3.2 Rear stopper mechanism

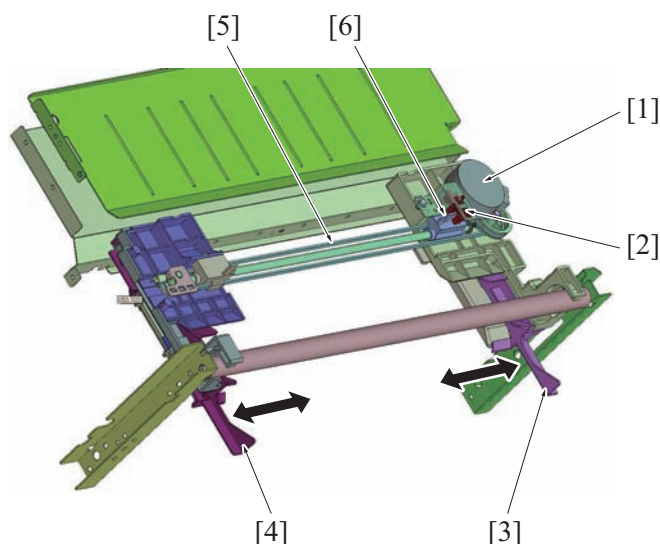
- The rear stopper [8] is equipped for aligning the rear edge of paper [7] stacked on the alignment section.
- The stopper motor (M105) [3] drives the rear stopper via the timing belt [5].
- The actuator [2] is equipped on the rear stopper. The stopper home sensor (PS107) [4] controls the stop position.
- The rear gripper [1] is equipped for preventing the misalignment of the stacked paper that is caused when the rear stopper moves.
- The rear gripper solenoid (SD102) [6] drives the rear gripper.
- Once SD102 turns ON, the rear gripper goes down to press paper against the rear stopper and keep the paper.



[1]	Rear gripper	[2]	Actuator
[3]	Timing belt	[4]	Stopper home sensor (PS107)
[5]	Stopper motor (M105)	[6]	Rear gripper solenoid (SD102)
[7]	Paper	[8]	Rear stopper

4.3.3 Alignment mechanism

- The alignment plates /Fr [4] and /Rr [3] align paper that is stacked on the alignment section in the cross direction.
- The alignment plates /Fr and /Rr are connected to the timing belt [5], and the drive of the saddle stitching alignment motor (M104) [1] moves them.
- The alignment plates /Fr and /Rr move to the symmetry direction based on the center of paper.
- The Alignment Plate /Rr is equipped with the actuator. The alignment home sensor (PS106) [2] controls the movement amount of the Alignment Plate /Fr and /Rr.



[1]	Saddle stitching alignment motor (M104)	[2]	Alignment home sensor (PS106)
[3]	Alignment plate /Rr	[4]	Alignment plate /Fr
[5]	Timing belt	[6]	Actuator

4.3.4 Alignment control

(1) Initial operation at starting the print job

- When the print start signal turns ON, the sensors which are equipped on each conveyance path detect the presence of paper.
- When any of the sensor other than the stacker empty sensor /Lw (PS115) detects paper, a message to release the JAM is displayed on the control panel of the main body while the FNS is stopped.
- When PS115 detects paper, the initial operation of the stopper motor (M105) is performed to check whether PS115 switches from ON to OFF. When PS115 continues to turn ON, the FNS is stopped and a message to release the JAM is displayed on the control panel of the main body.
- When any of the sensor does not detect paper, turn ON the SD entrance motor (M101), the folding roller motor (M108) and the saddle stitching exit motor (M120). Then check whether any of the sensor does not detect paper again.
- When any of the sensor detects paper, the FNS is stopped and a message to release the JAM is displayed on the control panel of the main body.
- When any of the sensor does not detect paper, the initial operation of each load is performed.
- The initial operation of each load is a home position search operation of each load.
- The home position search operation varies depending on the stop position of each load.

(2) Standby position movement

- After the initial operation, the saddle stitching alignment motor (M104) and the stopper motor (M105) move to the standby position from each home position.
- The standby position varies depending on the paper size.

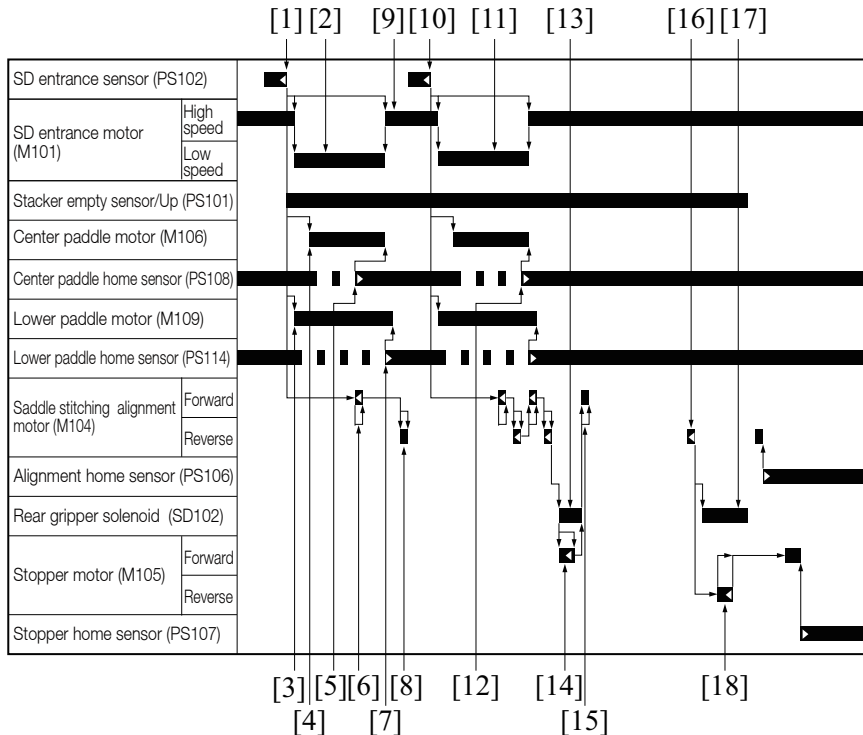
(3) Initial operation during continuous printing

- During the continuous printing, when the subsequent print is in the same print mode but the paper size differs or when the subsequent print is in the different print mode, the saddle stitching alignment motor (M104) and the stopper motor (M105) perform the initial operation.
- In the initial operations of M104 and M105, the home position is searched once. Then, it moves to the standby position according to the subsequent print.

(4) Alignment control of saddle stitching mode

- After a specified time since the SD entrance sensor (PS102) detects the trailing edge [1] of the 1st paper, the SD entrance motor (M101) switches the rotation speed from high speed to low speed [2].
- After a specified time since PS102 detects the trailing edge of the 1st paper, the lower paddle motor (M109) rotates [3] the paddle /Lw. This operation is the preparation to contact paper to the rear stopper.
- After the paper conveyance to the alignment part /Up is completed, the center paddle motor (M106) rotates [4] the paddle /Md.
- After a specified period of time since the center paddle home sensor (PS108) detects the second ON [5], M106 turns OFF to finish the paper alignment operation by the paddle /Md.
- The alignment plates /Fr and /Rr wait at the position that has been specified according to the paper size.
- After a specified period of time since PS102 detects the trailing edge of the 1st paper, the saddle stitching alignment motor (M104) rotates forward [6] and closes the alignment plates /Fr and /Rr to align paper.
- After a specified time since M109 turns ON and the lower paddle home sensor (PS114) detects the fourth ON [7], M109 turns OFF to finish the paper alignment operation of the paddle /Lw.
- After a specified time since M104 finishes the alignment, it reverses [8] to return to the standby position.
- M101 switches the rotation speed from low to high speed [9] after a specified period of time has passed. The timing when the rotation speed is switches differs depending on the paper size.
- When PS102 detects the trailing edge of the 2nd paper, M101 switches the rotation speed from high to low speed.
- M106, M109, and M104 perform the paper alignment operation to the 2nd paper that is the same as to the 1st paper. However, M106 turns OFF after a specified time since M106 turns ON and PS108 detects the third ON [12].
- For the 3rd and the subsequent sheets, the process that is the same as the 2nd sheet is performed.

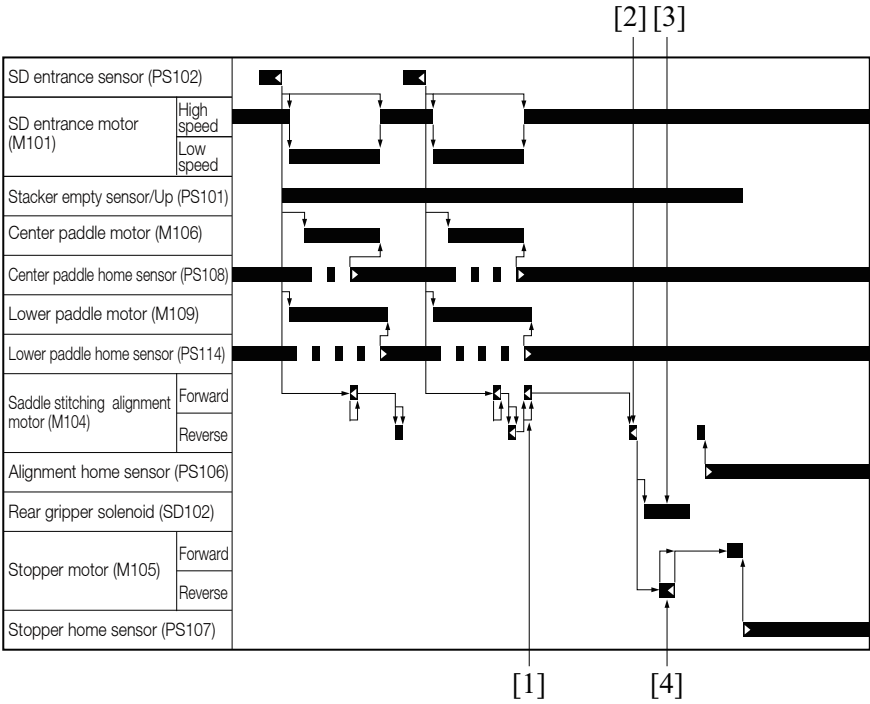
- When PS102 detects the trailing edge of the last paper and turns OFF, M104 performs the alignment operation twice.
- After a specified period of time since M104 performs the second alignment operation and returns to the standby position, the rear gripper solenoid (SD102) turns ON [13] to grip the bundle of paper.
- The stopper motor (M105) rotates forward [14] and move the bundle of paper to the staple position.
- During the stapling, M104 rotates forward [15] to close the alignment plates /Fr and /Rr.
- When the stapling finishes, M104 reverses [16] to move the alignment plates /Fr and /Rr to the standby position.
- After a specified period of time since the Alignment Plate /Fr, /Rr move to the standby position, SD102 turns ON again [17] to grip the bundle of paper.
- M105 rotates in the reverse direction [18] and move the bundle of paper which is performed Fold & Staple to the Half position.
- When a series of operations finishes, M104 and M105 perform the initial operation.



[1]	Trailing edge of the 1st saddle stitching sheet detected	[2]	Paper conveyance section low speed conveyance
[3]	Paddle /Lw drive	[4]	Paddle /Md drive
[5]	Paddle /Md home position detected (second)	[6]	Alignment of 1st saddle stitching sheet
[7]	Paddle /Lw home position detected (fourth)	[8]	Moved to the alignment plates /Fr and /Rr standby positions
[9]	Paper conveyance section high speed conveyance	[10]	Trailing edge of the 2nd or last saddle stitching sheet detected
[11]	Paper conveyance section low speed conveyance	[12]	Paddle /Md home position detected (third)
[13]	Rear gripped for moving the stapling position	[14]	Moved to the rear stopper stapling position
[15]	Alignment for stapling	[16]	Alignment for stapling released
[17]	Rear gripped for moving the half-folding position	[18]	Moved to the rear stopper half-folding position

(5) Alignment control of half-folding/tri-folding mode

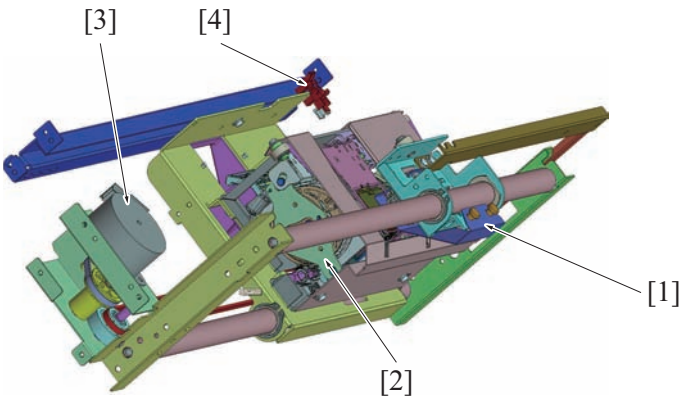
- The processes of the half-folding and the tri-folding before the last sheet are the same as the process of the saddle stitching mode.
- When the SD entrance sensor (PS102) detects the trailing edge of the last folding paper and turns OFF, the saddle stitching alignment motor (M104) performs the alignment once. Then, it keeps the alignment plates /Fr and /Rr at the alignment position [1].
- After a specified period of time since the Alignment Plate /Fr, /Rr move to the alignment position, M104 rotates in the reverse direction [2] to move them to the standby position.
- After a specified period of time since the Alignment Plate /Fr, /Rr move to the standby position, the rear gripper solenoid (SD102) turns ON [3] to grip the bundle of paper.
- The stopper motor (M105) reverses [4] to move the aligned bundle of paper to the half-folding position or the 1st folding position of the tri-folding.
- When a series of operations finishes, M104 and M105 perform the initial operation.



[1]	Alignment	[2]	Alignment released
[3]	Rear gripped for moving the folding position	[4]	Moved to the rear stopper folding position

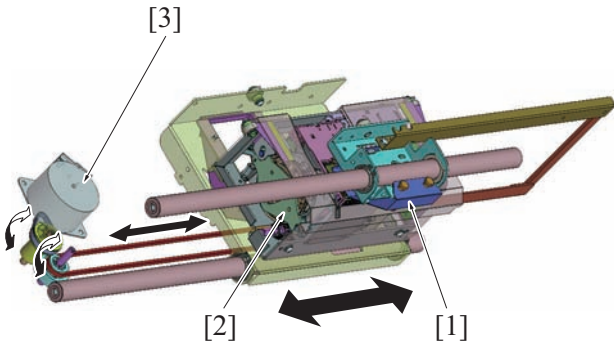
5. STAPLER SECTION

5.1 Configuration



[1]	Clincher	[2]	Stapler
[3]	Stapler movement motor (M103)	[4]	Stapler shift home sensor (PS105)

5.2 Drive



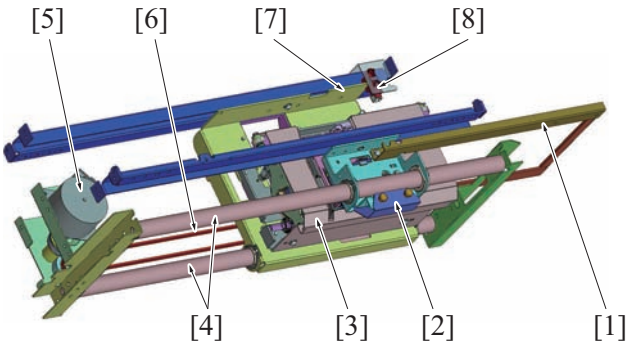
[1]	Clincher	[2]	Stapler
[3]	Stapler movement motor (M103)	-	

5.3 Operation

5.3.1 Stapler movement control

(1) Stapler movement mechanism

- The stapler [3] and the clincher [2] are divided. The dedicated stapler guides [4] hold each of them.
- The stapler is fixed on the timing belt [6] and the stapler movement motor (M103) [5] drives it.
- Since the clincher is connected with the stapler by the connecting bracket [1], it moves together with the stapler.
- The actuator [7] is equipped with the stapler. The stapler shift home sensor (PS105) [8] controls the movement position.

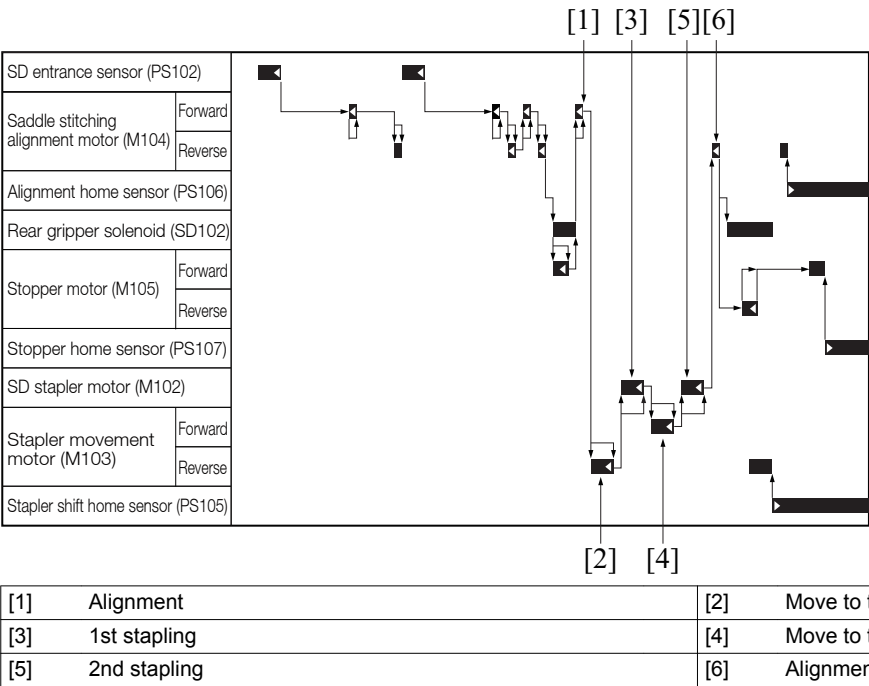


[1]	Connecting bracket	[2]	Clincher
[3]	Stapler	[4]	Stapler guide
[5]	Stapler movement motor (M103)	[6]	Timing belt
[7]	Actuator	[8]	Stapler shift home sensor (PS105)

(2) Standby position movement

- After the initial operation, the stapler movement motor (M103) that drives the stapler moves from each home position to the standby position.

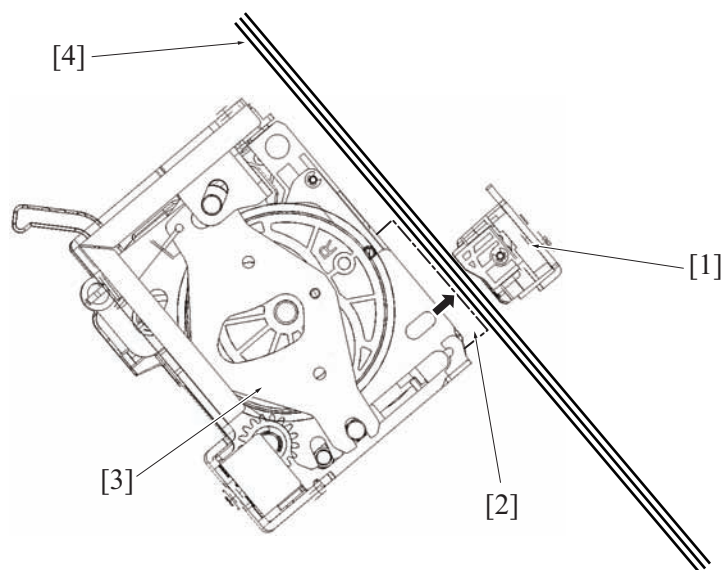
- The standby position varies depending on the paper size.
- (3) Initial operation during continuous printing**
- During the continuous printing or when the subsequent print is in the Fold & Staple mode, the stapler movement motor (M103) performs the initial operation.
 - Otherwise, M103 does not perform the initial operation.
 - In the initial operation of M103, the home position is searched once. Then, it moves to the standby position according to the subsequent print.
- (4) Staple 2-position control**
- When the saddle stitching alignment motor (M104) completes [1] the alignment, the stapler movement motor (M103) rotates in the reverse direction [2].
 - Move the stapler to the 1st staple position.
 - After a specified period of time since the movement completes, the SD stapler motor (M102) turns ON [3] and performs the 1st stapling.
 - After a specified period of time since the 1st stapling is completed, M103 rotates in the forward direction.
 - Move the stapler to the 2nd staple position.
 - After a specified period of time since the movement completes, M102 turns ON [3] and performs the 2nd stapling.
 - When the 2nd stapling completes, M104 rotates in the reverse direction [6] and releases the alignment.



5.3.2 Staple control

(1) Staple operation

- The stapler section [3] and the clincher section [1] is separated in the structure of the stapler.
- The SD stapler motor (M102) lift up the cartridge [2], and press the paper against the clincher section.
- M102 pushes out the staple from the cartridge.
- The staple which has passed through the pressed paper is folded its edge by hitting the clincher section. Thus the paper is stapled together.



[1]	Clincher section	[2]	Cartridge
[3]	Stapler section	[4]	Paper

(2) Staple control

- After the Alignment Plate /Fr, /Rr finish the alignment of the paper, the SD stapler motor (M102) turns ON and lift up the cartridge of the stapler section to press the paper against the clincher section.
- M102 pushes out the staple after it finishes pressing the paper.
- After M102 finishes pushing the staple and stapling the paper, it moves back the cartridge to the original position and releases the pressure toward the paper.
- The stapler home sensor (PS103) controls the rotation position of M102.
- When PS103 turns OFF after M102 turns ON, M102 turns OFF after a specified period of time. M102 executes lifting up the cartridge, pushing out the staple and moving back the cartridge in a series of operation by it turns OFF.

(3) Clogged staple detection

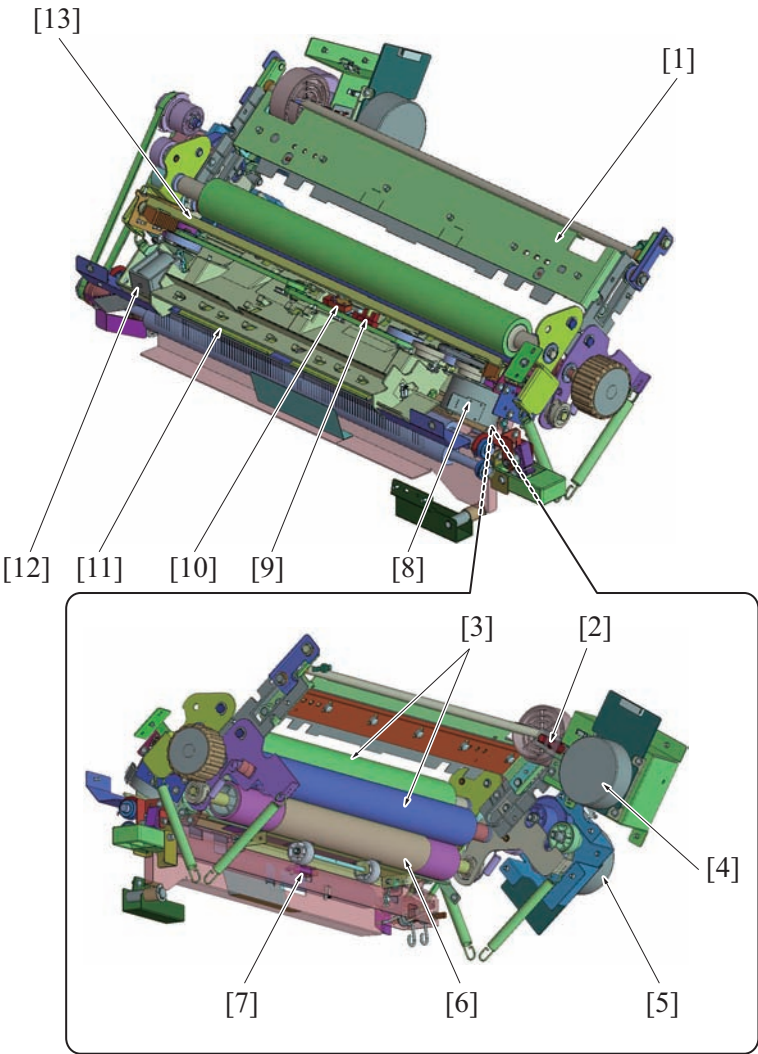
- When the stapler home sensor (PS103) does not turn OFF within a specified period of time after the SD stapler motor (M102) turns ON, PS103 judges that the staples have been clogged and turns M102 OFF.

(4) Staple and cartridge detection

- When the staples run short, the staple empty sensor (PS104) detect this condition and display an error message on the operation section.
- PS104 detects the presence of a cartridge or the incorrect setting of a cartridge.

6. HALF-FOLD/FOLD&STAPLE/TRI-FOLDING SECTION

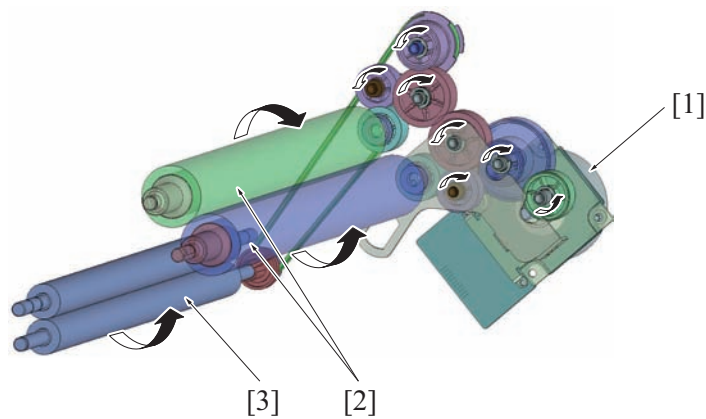
6.1 Configuration



[1]	1st folding knife	[2]	1st folding knife home sensor (PS110)
[3]	1st folding roller	[4]	1st folding knife motor (M107)
[5]	Folding roller motor (M108)	[6]	2nd folding roller
[7]	Folding exit sensor (PS113)	[8]	2nd folding knife motor (M110)
[9]	2nd folding knife home sensor (PS111)	[10]	2nd folding sensor (PS112)
[11]	2nd folding gate	[12]	2nd folding gate solenoid (SD101)
[13]	2nd folding knife	-	

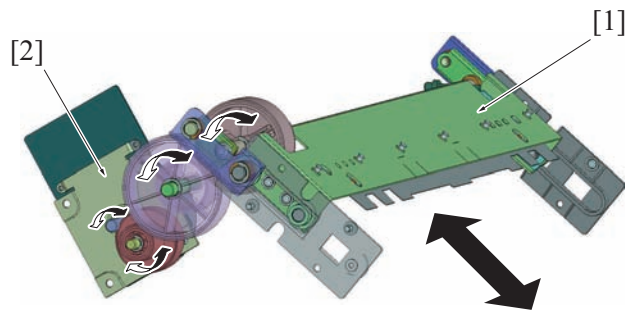
6.2 Drive

6.2.1 Folding roller drive



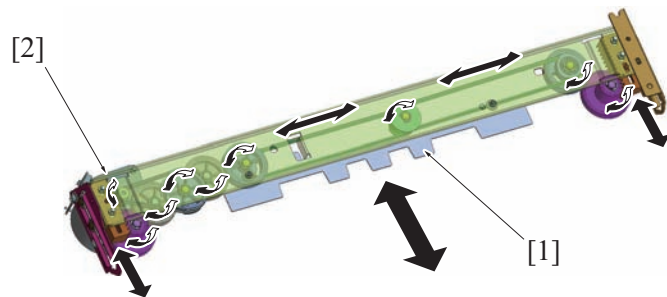
[1]	Folding roller motor (M108)	[2]	1st folding roller
[3]	SD paper exit roller		-

6.2.2 1st Fold knife drive



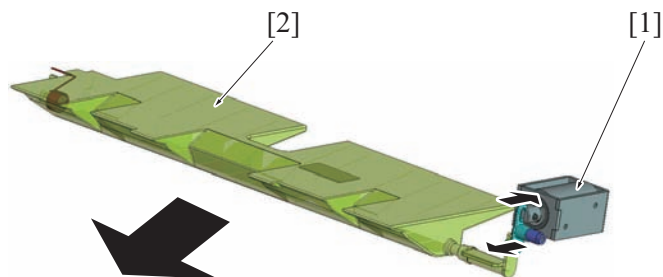
[1]	1st folding knife	[2]	1st folding knife motor (M107)
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6.2.3 2nd folding knife drive



[1]	2nd folding knife	[2]	2nd folding knife motor (M110)
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6.2.4 2nd Fold gate drive



[1] 2nd folding gate solenoid (SD101)	[2] 2nd folding gate
---------------------------------------	----------------------

6.3 Operation

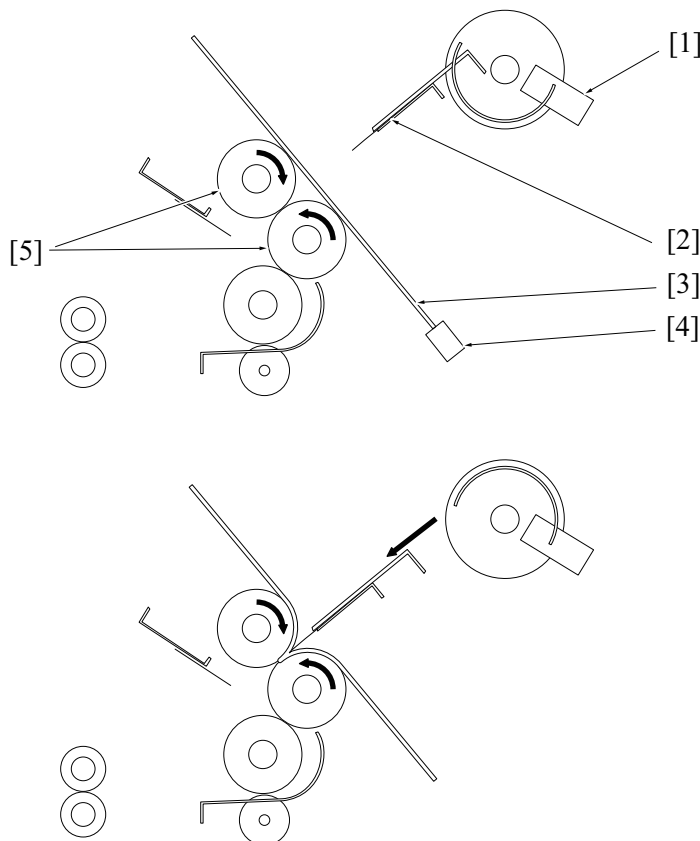
6.3.1 1st Fold knife control

(1) 1st folding knife mechanism

- The 1st folding knife motor (M107) drives the 1st folding knife.
- The drive gear of the 1st folding knife is equipped with the actuator. The 1st folding knife home sensor (PS110) controls the movement amount of the 1st folding knife.
- The 1st folding knife is used in the half-folding, saddle stitching, and tri-folding modes.
- In the tri-folding mode, it is used for the 1st folding.

(2) 1st folding knife operation

- The 1st folding knife [2] pushes paper [3] stacked on the alignment section to the position where the 1st folding roller [5] nips the paper.
- The 1st folding roller pulls in the paper and presses and folds it between the rollers.
- The folding position is controlled depending on the stop position of the rear stopper [4].



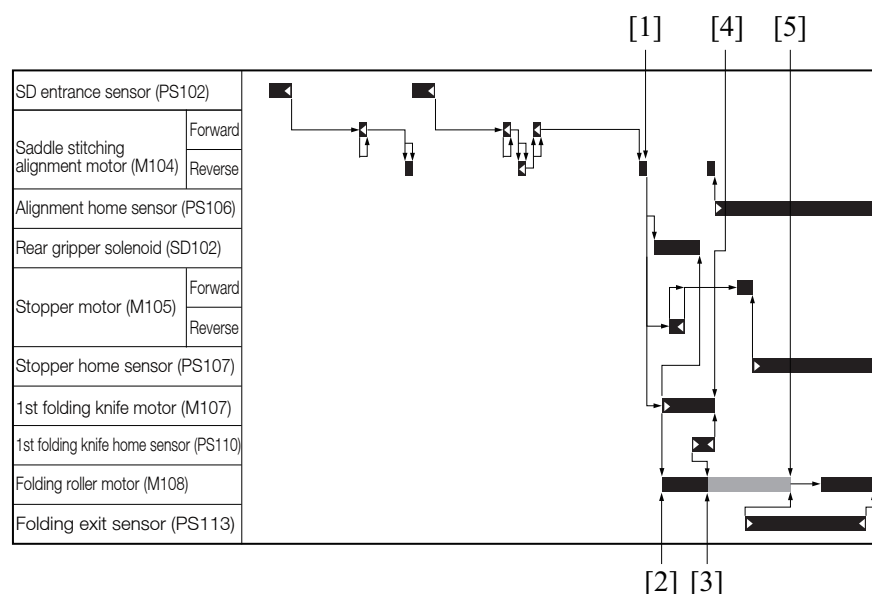
[1] 1st folding knife home sensor (PS110)	[2] 1st folding knife
[3] Paper	[4] Rear stopper
[5] 1st folding roller	-

(3) 1st folding knife control

- The 1st folding knife motor (M107) turns ON after a specified period of time since the saddle stitching alignment motor (M104) completes the alignment of the last paper.
- When M107 turns ON, the 1st folding knife comes out and pushes paper against the 1st folding roller.
- When the 1st folding knife home sensor (PS110) turns ON, M107 turns OFF after a specified period of time.

6.3.2 Half-folding/saddle stitching conveyance control

- When the saddle stitching alignment motor (M104) completes [1] the alignment of the last sheet, the 1st folding knife motor (M107) and the folding roller motor (M108) turn ON [2] after a specified period of time.
- When M107 turns ON, the 1st folding knife starts pushing the paper.
- When the 1st folding knife home sensor (PS110) turns ON, M108 switches the conveyance speed from low speed to high speed [3].
- When PS110 turns OFF [4], M107 completes the 1st folding operation.
- When the folding exit sensor (PS113) detects the leading edge of ejected paper, M108 turns OFF [5] after a specified period of time.

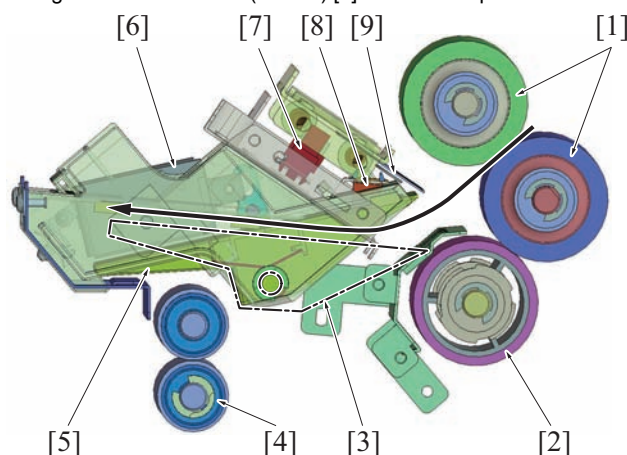


[1]	Alignment released	[2]	1st folding operation started
[3]	Speed up the conveyance speed	[4]	1st folding operation completed
[5]	High speed conveyance completed	-	

6.3.3 2nd folding gate control

(1) 2nd folding gate mechanism

- To switch the conveyance path for the half-folding, saddle stitching and the tri-folding, the 2nd folding gate is equipped.
- The 2nd folding gate solenoid (SD101) [6] drives the 2nd folding gate.
- SD101 turns OFF while in the Half or the Fold & Staple mode.
The 1st folded paper is conveyed to the SD exit roller [4] through the space under the 2nd folding gate.
- In the tri-folding mode, SD101 turns ON and closes the 2nd folding gate [3].
The 1st folded paper is conveyed to the upper side of the 2nd folding gate. Then the 2nd folding knife [9] executes the tri-folding.
- The 2nd folding sensor (PS112) [8] is equipped for judging the tri-folding position accurately.
- The 2nd folding knife home sensor (PS111) [7] controls the position where the 2nd folding knife pushes in.



[1]	1st folding roller	[2]	2nd folding roller
[3]	2nd folding gate (in the tri-folding mode)	[4]	SD exit roller
[5]	2nd folding gate (in the half-folding or saddle stitching mode)	[6]	2nd folding gate solenoid (SD101)
[7]	2nd folding knife home sensor (PS111)	[8]	2nd folding sensor (PS112)
[9]	2nd folding knife	-	

(2) 2nd folding gate control

- The 2nd folding gate solenoid (SD101) turns ON at the same time when the saddle stitching alignment motor (M104) turns ON for the last sheet.
- SD101 turns OFF when the folding exit sensor (PS113) detects the trailing edge of the bundle of paper.

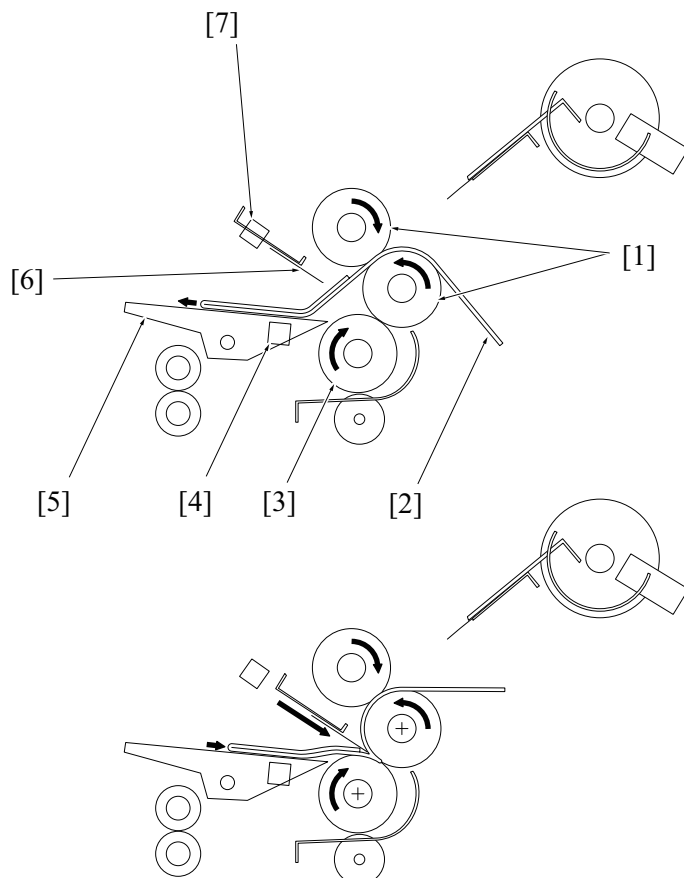
6.3.4 2nd Folding knife control

(1) 2nd folding knife mechanism

- The 2nd folding knife operates by the 2nd folding knife motor (M110).
- The actuator [2] is equipped on the 2nd knife, and the 2nd folding knife home sensor (PS111) controls how far the 2nd folding knife moves.
- The 2nd folding knife is used for the 2nd folding in the 3rd folding mode.

(2) 2nd folding knife operation

- Push the 1st folded paper [2] conveyed by the 1st folding roller [1] to the place where the roller at the bottom of the 1st folding roller and the 2nd folding roller [3] are nipped by the 2nd folding knife [6].
- The 2st folding roller pulls in the paper and presses and conduct the 2nd fold between the rollers.
- The 2nd folding place is controlled according to the period since the 2nd folding sensor (PS112) [4] detects the leading edge of the paper until the 2nd folding knife is pushed out.



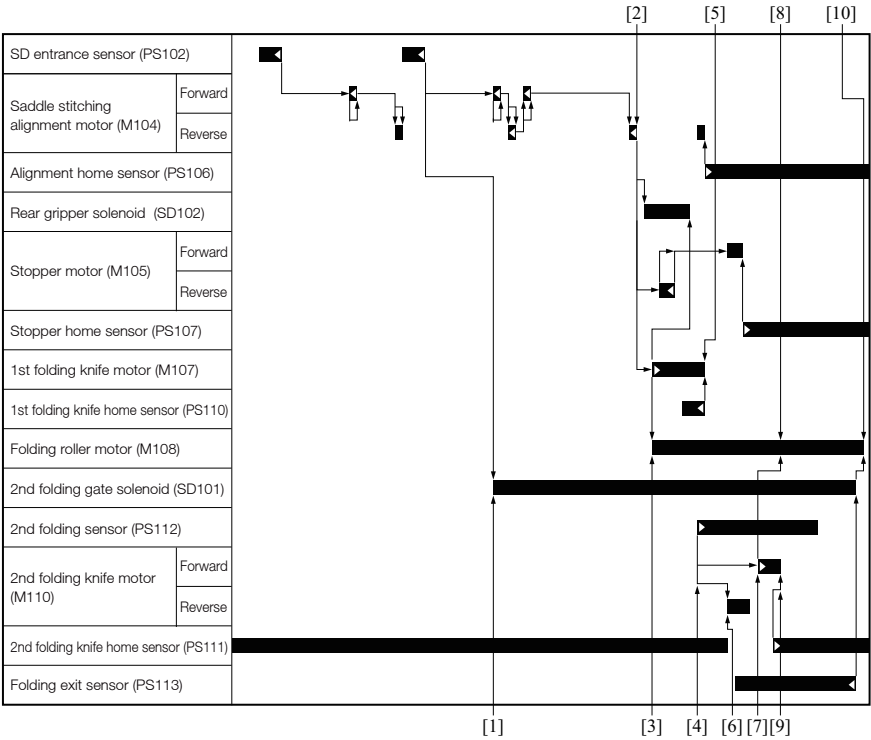
[1]	1st Folding Roller	[2]	Paper
[3]	2st Folding Roller	[4]	2nd folding sensor (PS112)
[5]	2nd folding gate	[6]	2nd folding knife
[7]	2nd folding knife home sensor (PS111)	-	

(3) 2nd Folding knife control

- When the 2nd folding sensor (PS112) detects the leading edge of the paper after the 1st folding and turns ON, the 2nd folding knife motor (M110) turns ON (in reverse rotation) after a specified period of time.
- The 2nd folding knife starts operating after M110 turns ON (in reverse rotation), and push the paper to the roller at the bottom of the 1st folding roller and the 2nd folding roller.
- When the 2nd folding knife starts operating, the 2nd folding knife home sensor (PS111) turns OFF.
- When PS111 turns ON, M110 turns OFF to stop the forward rotation after a specified period of time.

6.3.5 Tri-folding conveyance control

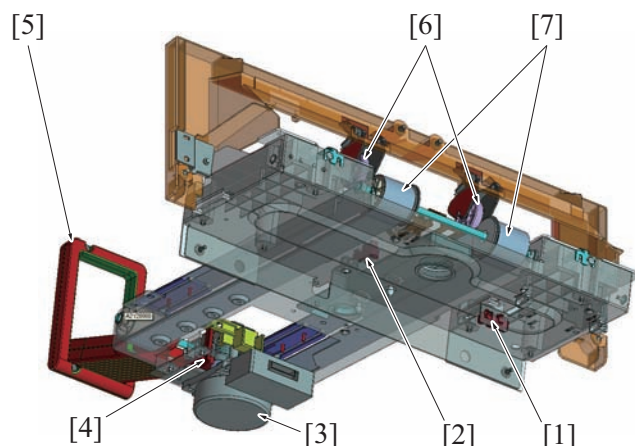
- When the SD entrance sensor (PS102) detects the trailing edge of the last paper and turns OFF, the 2nd folding gate solenoid (SD101) turns ON after a specified period of time and switches the 2nd folding gate to tri-folding conveyance path.
- When the saddle stitching alignment motor (M104) completes [2] the alignment of the last sheet, the 1st folding knife motor (M107) and the folding roller motor (M108) turn ON [3] after a specified period of time.
- When the 2nd folding sensor detects [4] the leading edge of the paper after the 1st folding, the 2nd folding knife motor (M110) turns ON [6] after a specified period of time.
- When M110 turns ON, the 2nd folding knife starts pushing the paper.
- When M110 switches the rotation from reverse to forward [7], M108 switches the conveyance speed from low to high [8].
- When the 2nd folding knife home sensor (PS111) turns ON, M110 finishes the 2nd folding after a specified period of time [9].
- When the folding exit sensor (PS113) detects the trailing edge of the paper, SD101 turns OFF. At this time, M108 turns OFF [10] after a specified period of time.



[1]	2nd folding gate conveyance path switching	[2]	Alignment released
[3]	1st folding operation started	[4]	Detection of the leading edge of the paper by the 2nd folding sensor (PS112)
[5]	1st folding operation completed	[6]	2nd folding operation started
[7]	2nd folding returning operation started	[8]	Speed up the conveyance speed
[9]	2nd folding operation completed	[10]	High speed conveyance completed

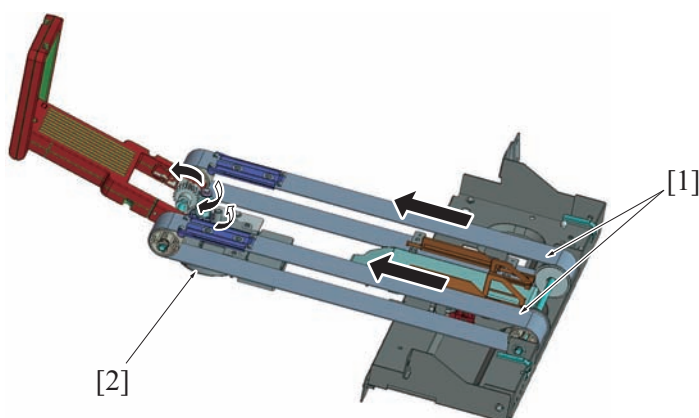
7. PAPER EXIT SECTION

7.1 Configuration



[1]	Tray lift up sensor (PS122)	[2]	Tray exit sensor /1 (PS120)
[3]	Saddle stitching exit motor (M120)	[4]	Tray exit sensor /2 (PS121)
[5]	Lift up handle	[6]	Exit auxiliary roller
[7]	Paper exit belt	-	

7.2 Drive



[1]	Paper exit belt	[2]	Saddle stitching exit motor (M120)
-----	-----------------	-----	------------------------------------

7.3 Operation

7.3.1 Paper exit control

(1) Paper exit mechanism

- When the bundle of paper is on the Output Tray, the actuator turns ON the tray exit sensor /1 (PS120) and the tray exit sensor /2 (PS121).
- The saddle stitching exit motor (M120) drives the paper exit belt to move the ejected bundle of paper.

(2) Paper exit operation

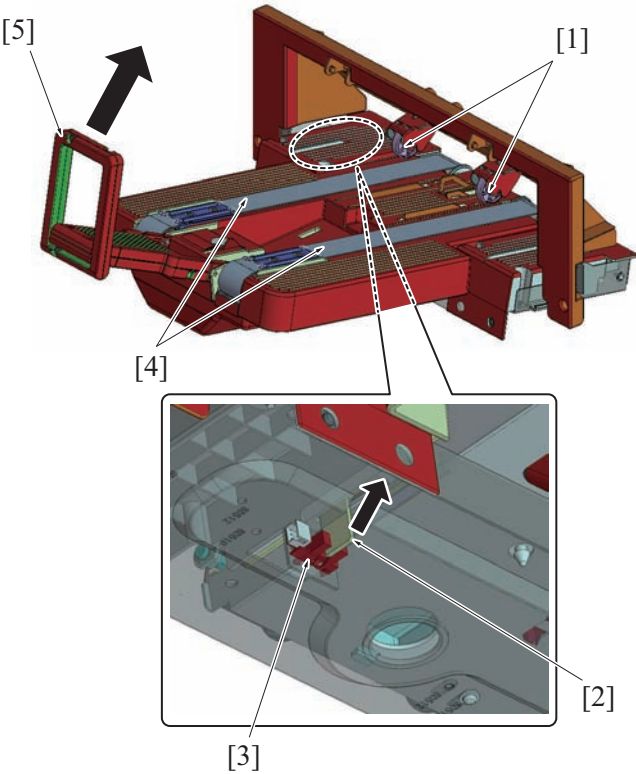
- When PS120 turns ON by exiting the bundle of paper, M120 turns ON after a specified period of time.
- When M120 turns ON, the paper exit belt conveys the bundle of paper to the rear side.

(3) Exit tray full detection

- When both of PS120 and PS121 are ON for more than the specified time period, the tray is judged as full.

7.3.2 Output tray lift up control

- When the bundle of ejected sheets are stacked around the paper exit opening, lifting the lift up handle [5] moves the sheets to the rear automatically.
- The tray lift up sensor (PS122) [3] is equipped on the bottom of the Output Tray.
- When the Output Tray is positioned horizontally, the actuator [2] turns ON PS122.
- When the output tray is lifted, the actuator is also lifted. It turns OFF PS122.
- When PS122 turns OFF, the saddle stitching exit motor (M120) turns ON and rotates the paper exit belt.
- The rotation of the paper exit belt moves the bundle of paper around the paper exit opening to the rear of the output tray.
- When the output tray is lifted, the exit auxiliary roller [1] pushes the bundle of paper against the paper exit belt. Therefore, the conveyance performance is improved.

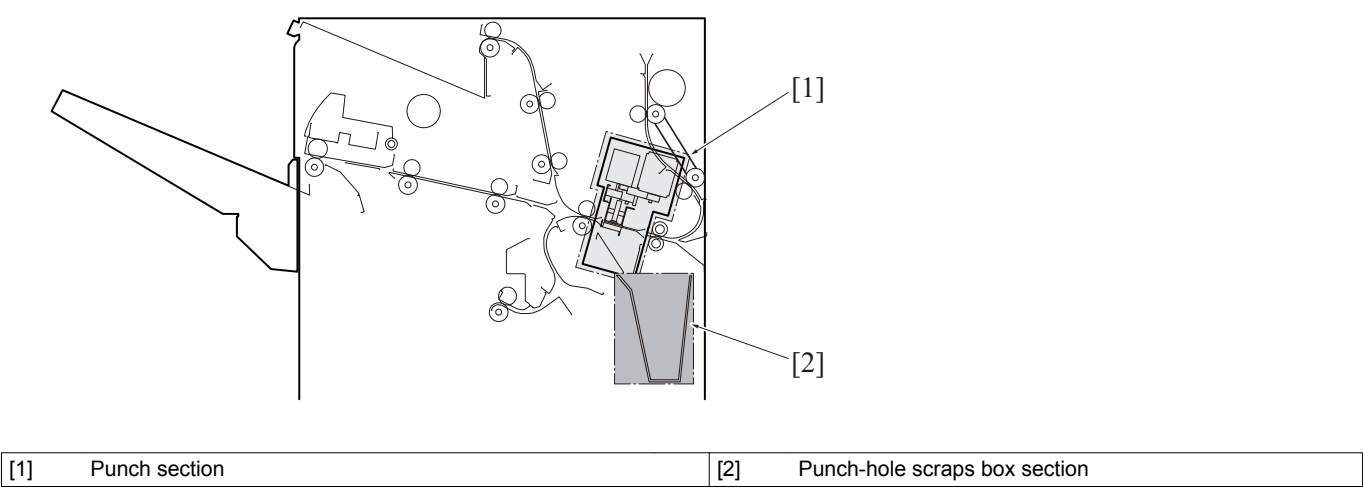


[1]	Exit auxiliary roller	[2]	Actuator
[3]	Tray lift up sensor (PS122)	[4]	Paper exit belt
[5]	Lift up handle		-

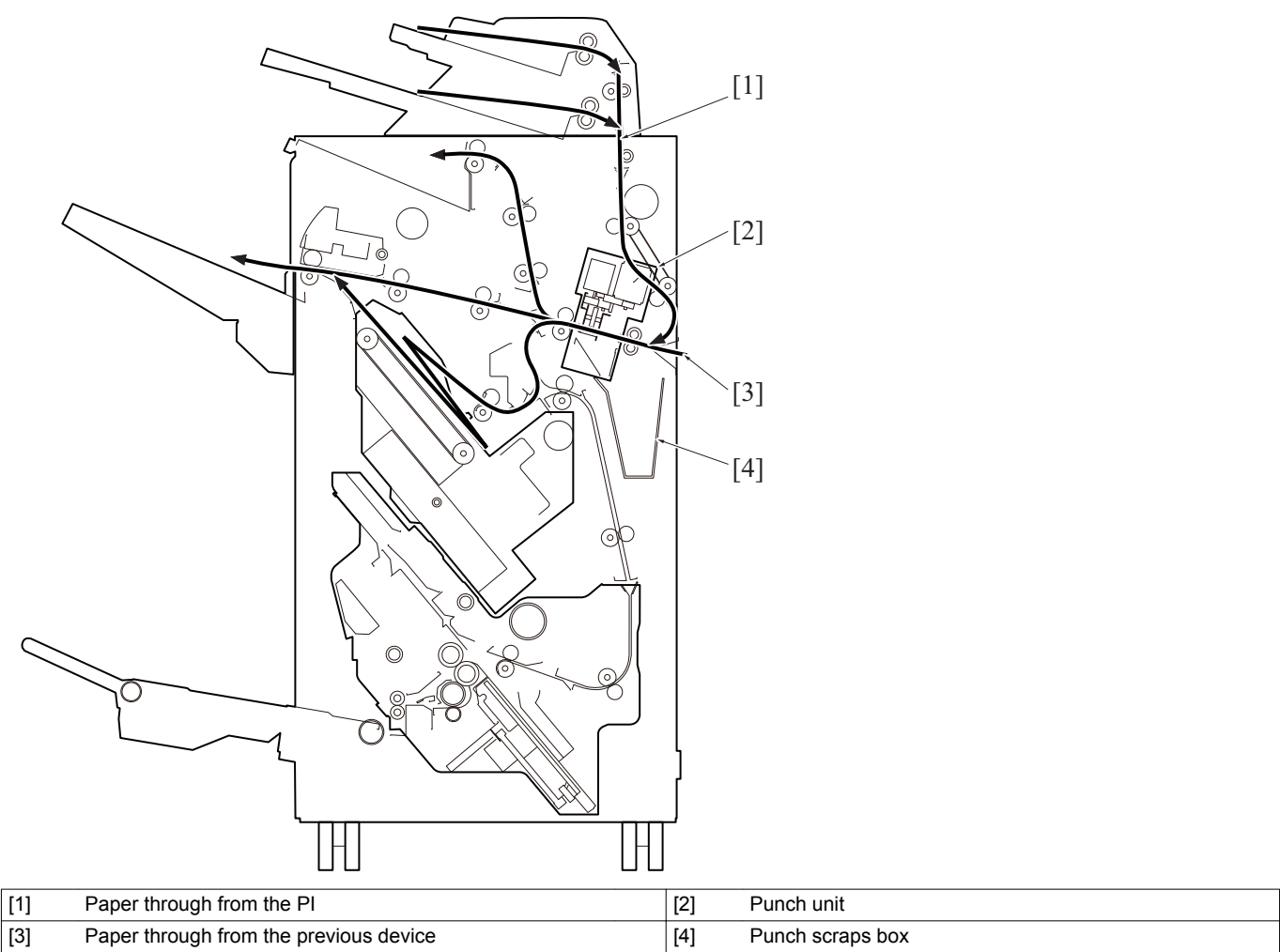
PK THEORY OF OPERATION PK-522

1. OUTLINE

1.1 Unit configuration

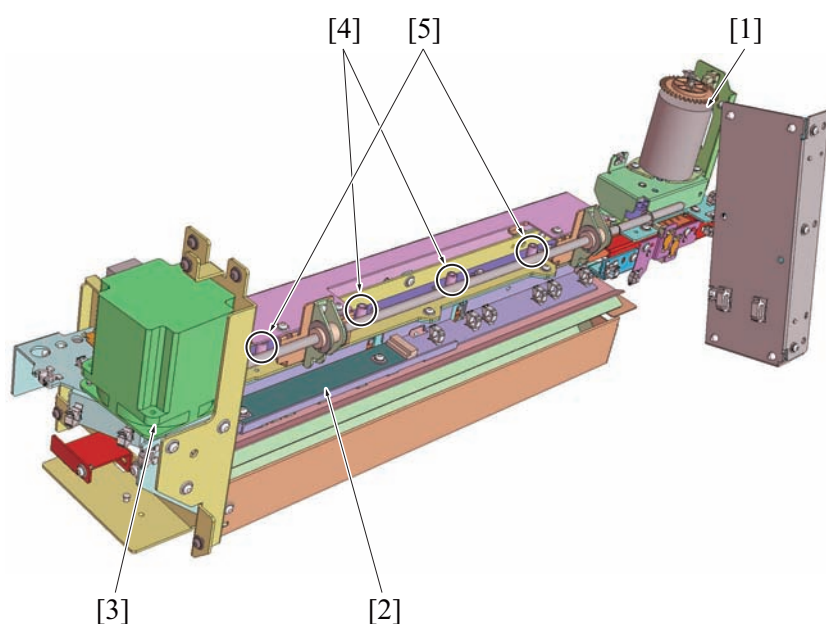


1.2 PAPER PATH



2. PUNCH SECTION

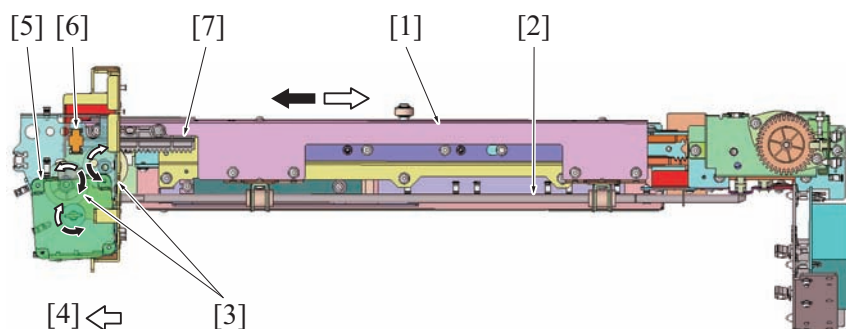
2.1 Configuration



[1]	Punch motor (M301)	[2]	Paper Size detection board (PS305)
[3]	Punch shift motor (M302)	[4]	Punch blade

2.2 Drive

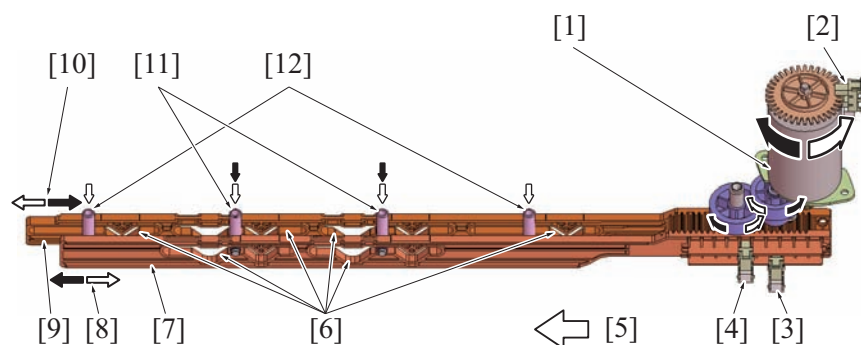
2.2.1 Punch shift drive



[1]	Punch unit	[2]	Guide shaft
[3]	Punch shift drive gear	[4]	Front side
[5]	Punch shift motor (M302)	[6]	Punch shift home sensor (PS303)
[7]	Rack	-	

2.2.2 Punch drive

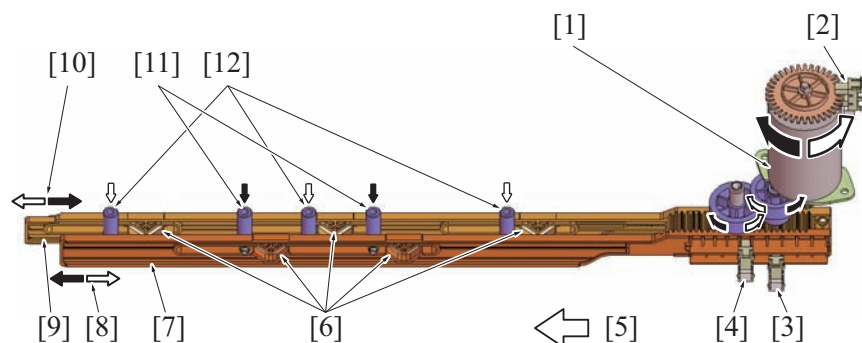
(1) 2/4-Hole



[1]	Punch motor (M301)	[2]	Punch encoder sensor (PS306)
[3]	Punch home sensor /1 (PS301)	[4]	Punch home sensor /2 (PS307)
[5]	Front side	[6]	Wavy groove

[7] Punch drive board (for 2-Hole)	[8] Punch drive board (for 2-Hole) drive direction
[9] Punch drive board (for 4-Hole)	[10] Punch drive board (for 4-Hole) drive direction
[11] Punch blade (for 2/4-Hole)	[12] Punch blade (for 4-Hole)

(2) 3/4-hole



[1] Punch motor (M301)	[2] Punch encoder sensor (PS306)
[3] Punch home sensor /1 (PS301)	[4] Punch home sensor /2 (PS307)
[5] Front side	[6] Wavy groove
[7] Punch drive board (for 2-Hole)	[8] Punch drive board (for 2-Hole) drive direction
[9] Punch drive board (for 3-Hole)	[10] Punch drive board (for 3-Hole) drive direction
[11] Punch blade (for 2-Hole)	[12] Punch blade (for 3-Hole)

2.3 Operation

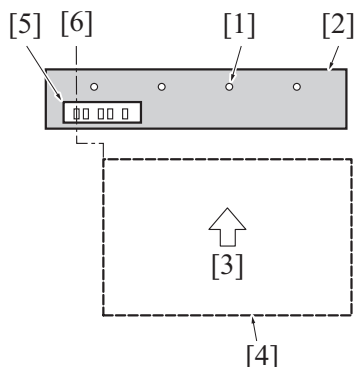
2.3.1 Punch ready position movement control

- When the power is ON, the punch shift motor (M302) rotates to move the punch unit [2] to the home position until the punch shift home sensor (PS303) turns ON.
- When the punch mode is selected, M302 rotates to move the punch unit [2] so that the paper size sensor (PS305) [5] of the punch unit [2] is positioned on the front side [6] of the paper.
- PS305 consists of 5 sensors. Each sensor detects the following paper.

Sensor	Paper size
1	8 ¹ / ₂ x 11, A3, A4
2	9 x 11, 11 x 17
3	ISO-B4, ISO-B5, B5, 16K, B4, 8K
4	16KS, A4S, A5, 8 ¹ / ₂ x 11S, 5 ¹ / ₂ x 8 ¹ / ₂ , SRA4S, 8 x 13, 8 ¹ / ₄ x 13, 8 ¹ / ₂ x 13, 8 ¹ / ₈ x 13 ¹ / ₄ , ISO-B5S, 8 ¹ / ₂ x 14S
5	5 ¹ / ₂ x 8 ¹ / ₂ S, A5S, B5S

* The sensors are numbered 1 to 5 from the front side.

- The punch unit returns to the home position at the end of the job.

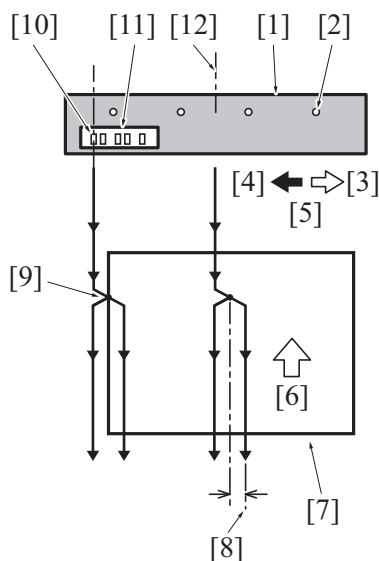


[1] Punch blade	[2] Punch unit
[3] Paper conveyance direction	[4] Paper
[5] Paper size sensor (PS305)	[6] Front side

2.3.2 Punch position correction control

For the punch unit positioned from the side edge of the paper to the inside (Refer to "[PK.2.3.1 Punch ready position movement control](#)"), the punch position is adjusted in the following procedure so that punching is made symmetrically to the center of paper at all times. The punch position correction is operated by moving the punch unit back and forth while conveying the paper.

- When the specified sensor [10] which is for the paper size in the paper size sensor (PS305) [11] detects paper and turns ON after the specified time since FNS entrance sensor (PS4) detects the leading edge of paper, it judges that paper side edge is on the rear side than the sensor. When the sensor remains being OFF without detecting paper, it judges that the paper side edge is on front side than the sensor. For punching on the paper conveyed from PI, it is started when the paper pass-through sensor /Up (PS201) or /Lw (PS206) detects the leading edge of the paper.
- When it judges that the paper side edge is on the front side than the sensor [1], the punch shift motor (M302) rotates in reverse to move the punch unit [13] to the front side [4]. After the specified time since PS305 turns OFF, M302 turns OFF. Then, M302 turns forward rotation ON to move back the punch unit to the rear side [3] for the specified distance. When PS305 turns ON from OFF, it detects as the side edge [9] and is the side edge reference position.
- When it judges that the paper side edge is on the rear side than the sensor, M302 rotates in forward to move the punch unit to the rear side. When PS305 turns ON from OFF, it detects the side edge. It is the side edge reference position.
- Once it detects the side edge reference position [9], the punch unit [13] is moved further so that the center of the punch blade [12] is positioned to the center of the paper [8]. The moving distance and its direction are depending on the paper size. It stops temporarily at the side edge reference position if the moving distance is a little.

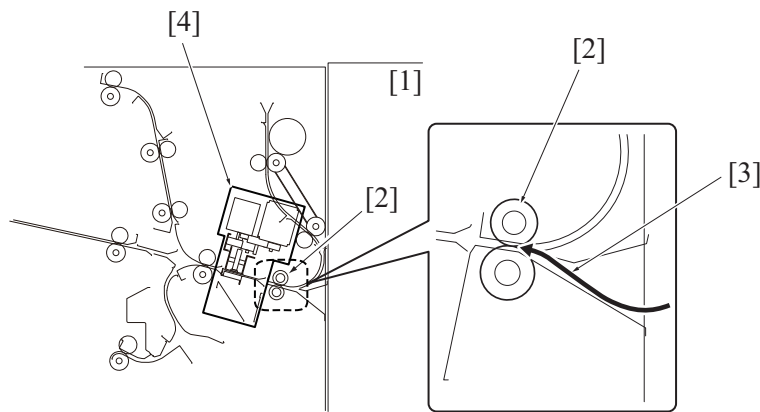


[1]	When side edge is on rear side	[2]	When side edge is on front side
[3]	Rear side	[4]	Front side
[5]	Punch unit moving direction	[6]	Paper conveyance direction
[7]	Paper	[8]	Center of paper
[9]	Detecting side edge reference position	[10]	Sensor for paper size
[11]	Paper size sensor (PS305)	[12]	Center of punch blade
[13]	Punch unit	[14]	Punch blade

2.3.3 Punch control

(1) Registration loop control

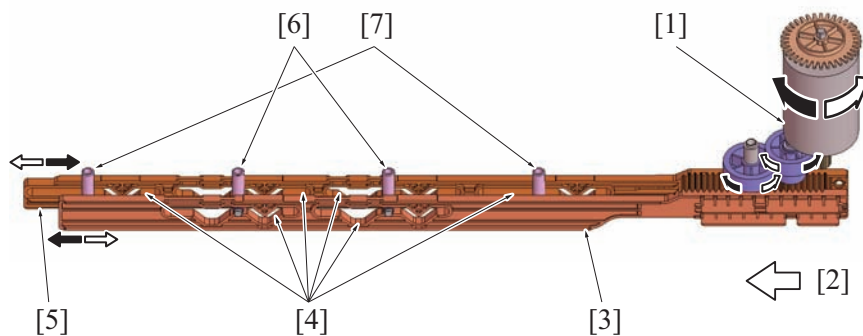
- When the FNS entrance sensor (PS1) detects the trailing edge of paper, the FNS conveyance motor (M1) stops temporarily. Thus the paper is pressed against the entrance roller forming a loop [3] to correct the bend. When the specified time has passed, M1 turns ON to restart conveying the paper.
- This operation is not performed for paper that weights 136 g/m² or more or that is fed from PI. It is also not performed during the through mode (non-punch mode).
- When punching the paper conveyed from PI, the loop is formed on the PI side. For details, refer to [PL Theory of Operation PI-502](#).



[1]	Previous device	[2]	Entrance roller
[3]	Loop	[4]	PK

(2) Punch control (for 2/4-Hole)

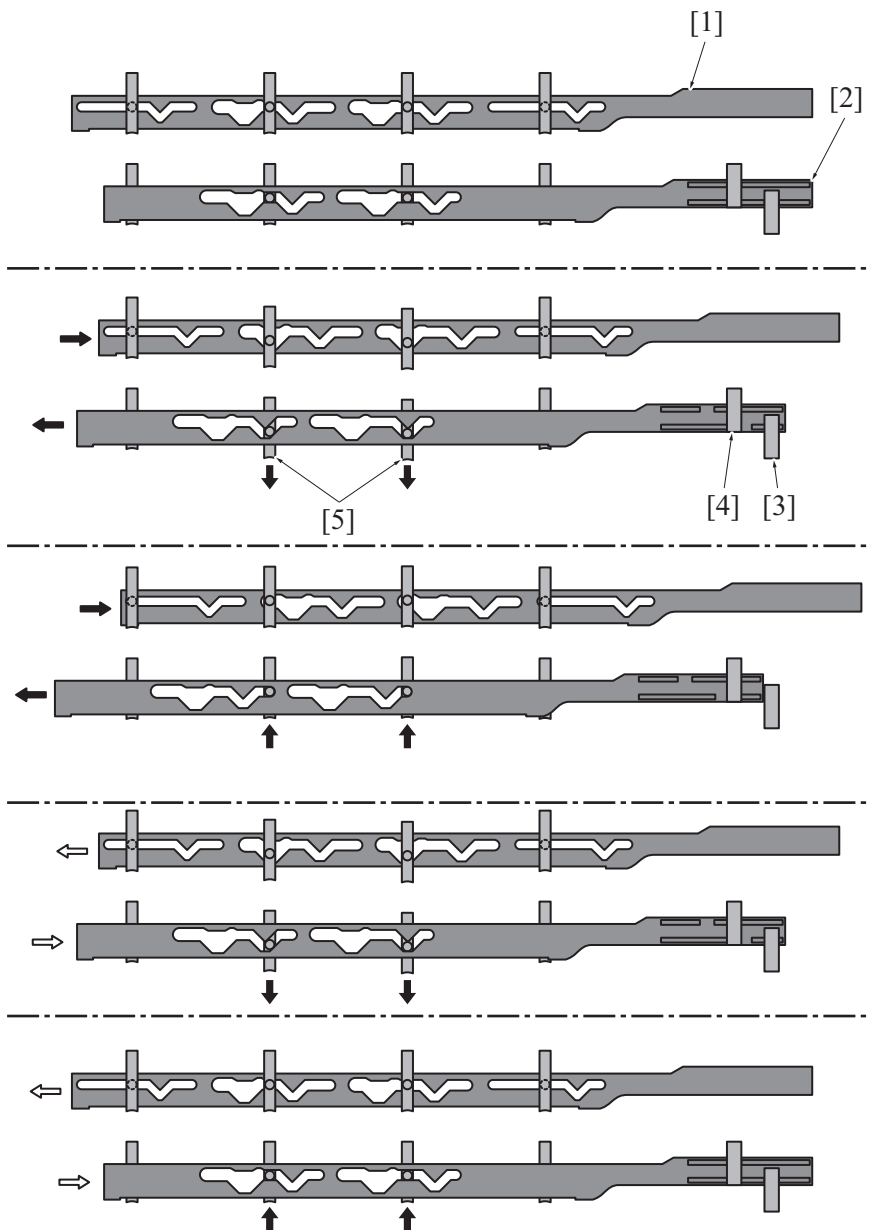
- The main body start signal drives the FNS conveyance motor /2 (M2).
- In the punching mode, the motor (M2) stops temporarily after the FNS entrance sensor (PS1) detects the trailing edge of paper.
- At the same time, the punch motor (M301) [1] drives to move the punch drive board (for 2-Hole) [3] and the punch drive board (for 4-Hole) [5] horizontally.
- Punch drive board has a wavy groove [4], and the punch blades [6] and [7] move up and down along it. When the punch blade goes down, it performs a punch.
- The FNS conveyance motor /2 (M2) restarts rotating to convey paper after the specified time since it stops temporary.



[1]	Punch motor (M301)	[2]	Front side
[3]	Punch drive board (for 2-Hole)	[4]	Wavy groove
[5]	Punch drive board (for 3-Hole)	[6]	Punch blade (for 2/4-Hole)
[7]	Punch blade (for 4-Hole)	-	

(a) Punch control for 2-Hole

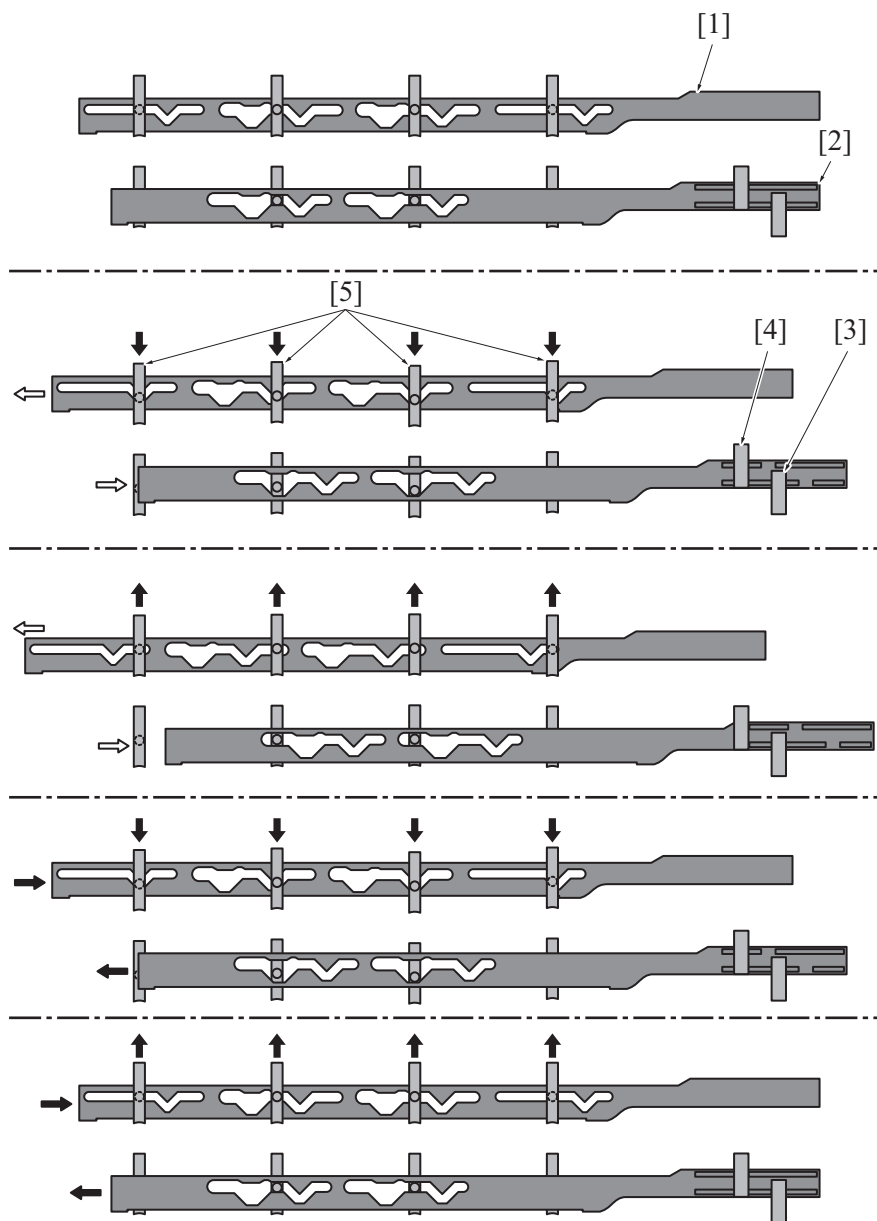
- When the punch drive board motor turns forward, the punch drive board (for 2-Hole) [2] moves horizontally to the front and the punch drive board (for 4-Hole) [1] moves horizontally to the rear.
- As the punch drive board (for 2-Hole) [2] moves horizontally, the punch home sensors /1 (PS301) [3] and /2 (PS307) [4] are shaded and turned OFF.
- The punch blade (for 2/4-Hole) [5] moves down along with the wavy groove on the punch drive board (for 2-Hole) [2] to perform the 2-Hole punch.
- When the punch drive board (for 2-Hole) [2] moves horizontally again, the punch blade (for 2/4-Hole) [5] moves back to the original position. Then, the punch home sensor /1 (PS301) [3] turns ON.
- At this time, the punch home sensor /2 (PS307) [4] remains OFF.
- When the punch home sensor /1 (PS301) [3] turns ON and the punch home sensor /2 (PS307) [4] turns OFF, the punch drive motor stops to complete the punching operation.
- To perform the punching operation on the subsequent paper, the punch drive motor reverses and performs the punching operation again.
- When the punch home sensors /1 (PS301) [3] and /2 (PS307) [4] turn ON, the punch motor (M301) stops to complete the punching operation.



[1]	Punch drive board (for 4-Hole)	[2]	Punch drive board (for 2-Hole)
[3]	Punch home sensor /1 (PS301)	[4]	Punch home sensor /2 (PS307)
[5]	Punch blade (for 2/4-Hole)	-	

(b) Punch control for 4-Hole

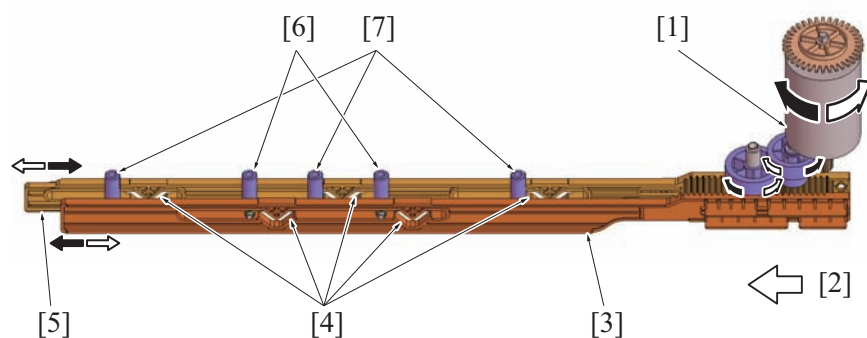
- When the punch drive board motor reverses, the punch drive board (for 2-Hole) [2] moves horizontally to the rear and the punch drive board (for 4-Hole) [1] moves horizontally to the front.
- As the punch drive board (for 2-Hole) [2] moves horizontally, the punch home sensors /1 (PS301) [3] and /2 (PS307) [4] are shaded and turned OFF.
- The punch blade (for 4-Hole) [5] moves down along with the wavy groove on the punch drive board (for 4-Hole) [1] to perform the 4-Hole punch.
- When the punch drive board (for 4-Hole) [1] moves horizontally again, the punch blade [3] moves back to the original position. Then, the punch home sensor /2 (PS307) [4] turns ON.
- When the punch home sensor /1 (PS301) [3] turns OFF and the punch home sensor /2 (PS307) [4] turns ON, the punch drive motor stops to complete the punching operation.
- To perform the punching operation on the subsequent paper, the punch drive motor turns forward and performs the punching operation again.
- When the punch home sensors /1 (PS301) [3] and /2 (PS307) [4] turn ON, the punch motor (M301) stops to complete the punching operation.



[1]	Punch drive board (for 4-Hole)	[2]	Punch drive board (for 2-Hole)
[3]	Punch home sensor /1 (PS301)	[4]	Punch home sensor /2 (PS307)
[5]	Punch blade (for 4-Hole)	-	

(3) Punch control (2/3-Hole)

- The main body start signal drives the FNS conveyance motor /2 (M2).
- In the punching mode, the motor (M2) stops temporarily after the FNS entrance sensor (PS1) detects the trailing edge of paper.
- At the same time, the punch motor (M301) [1] drives to move the punch drive board (for 2-Hole) [3] and the punch drive board (for 3-Hole) [5] horizontally.
- Punch drive board has a wavy groove [4], and the punch blades [6] and [7] move up and down along it. When the punch blade goes down, it performs a punch.
- The FNS conveyance motor /2 (M2) restarts rotating to convey paper after the specified time since it stops temporary.

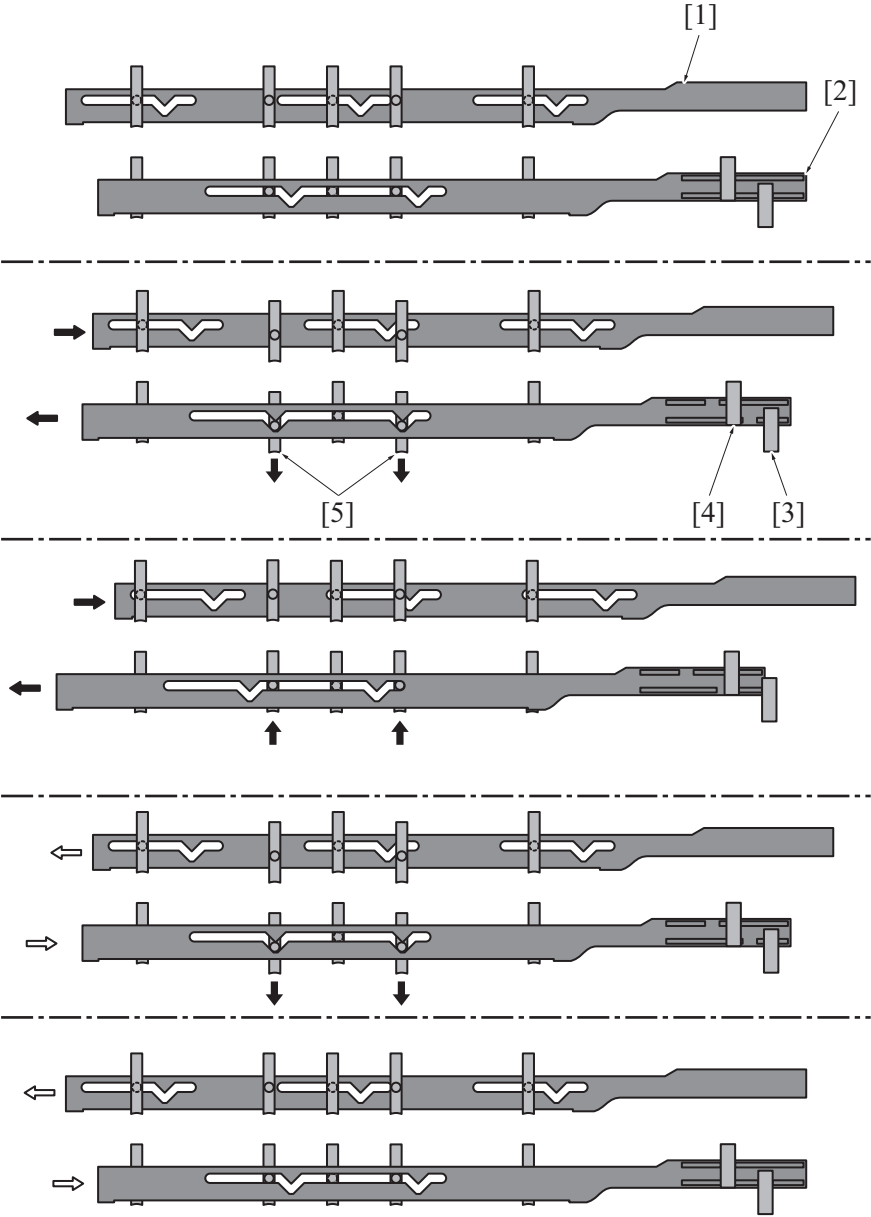


[1]	Punch motor (M301)	[2]	Front side
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[3]	Punch drive board (for 2-Hole)	[4]	Wavy groove
[5]	Punch drive board (for 3-Hole)	[6]	Punch blade (for 2-Hole)
[7]	Punch blade (for 3-Hole)	-	

(a) Punch control for 2-Hole

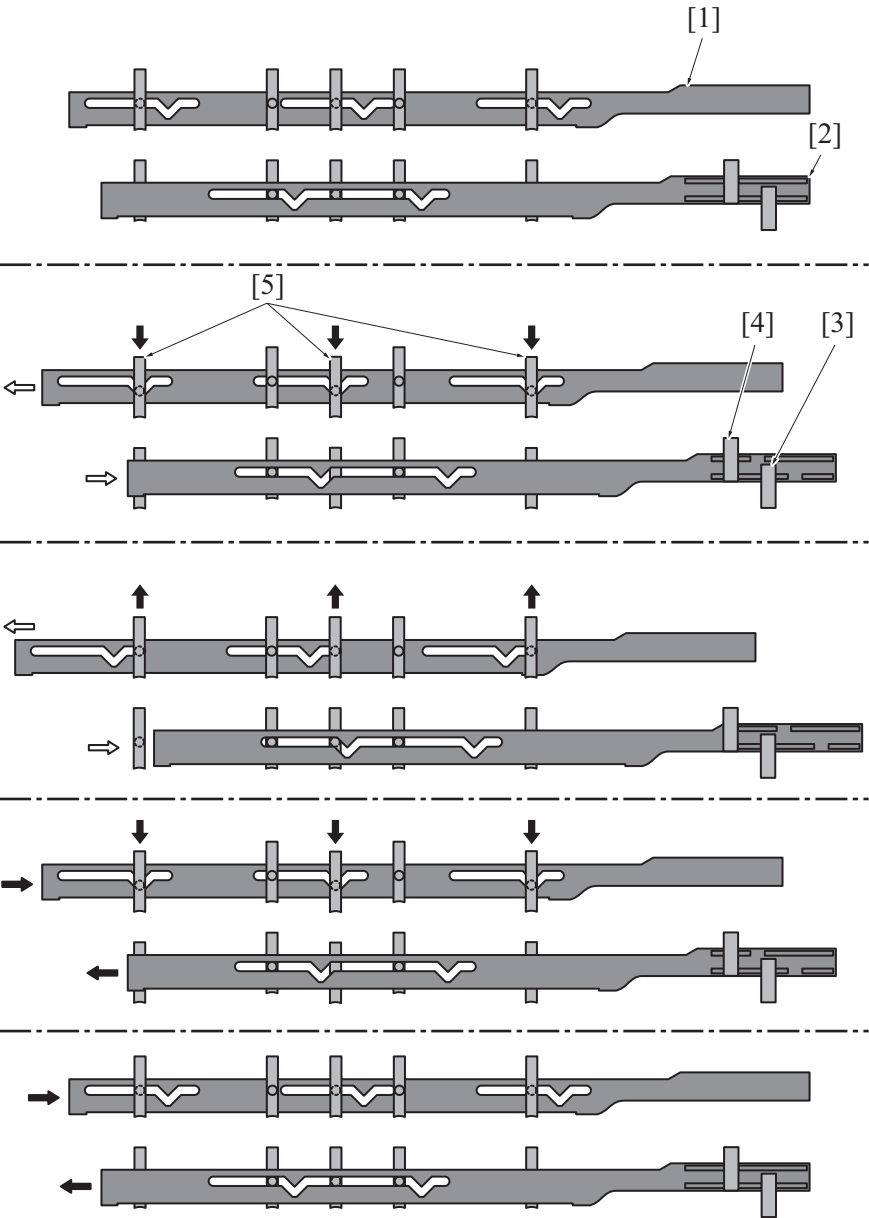
- When the punch drive board motor turns forward, the punch drive board (for 2-Hole) [2] moves horizontally to the front and the punch drive board (for 3-Hole) [1] moves horizontally to the rear.
- As the punch drive board (for 2-Hole) [2] moves horizontally, the punch home sensors /1 (PS301) [3] and /2 (PS307) [4] are shaded and turned OFF.
- The punch blade (for 2-Hole) [5] moves down along with the wavy groove on the punch drive board (for 2-Hole) [2] to perform the 2-Hole punch.
- When the punch drive board (for 2-Hole) [2] moves horizontally again, the punch blade (for 2-Hole) [5] moves back to the original position. Then, the punch home sensor /1 (PS301) [3] turns ON.
- At this time, the punch home sensor /2 (PS307) [4] remains OFF.
- When the punch home sensor /1 (PS301) [3] turns ON and the punch home sensor /2 (PS307) [4] turns OFF, the punch drive motor stops to complete the punching operation.
- To perform the punching operation on the subsequent paper, the punch drive motor reverses and performs the punching operation again.
- When the punch home sensors /1 (PS301) [3] and /2 (PS307) [4] turn ON, the punch motor (M301) stops to complete the punching operation.



[1]	Punch drive board (for 3-Hole)	[2]	Punch drive board (for 2-Hole)
[3]	Punch home sensor /1 (PS301)	[4]	Punch home sensor /2 (PS307)
[5]	Punch blade (for 2-Hole)	-	

(b) Punch control for 4-Hole

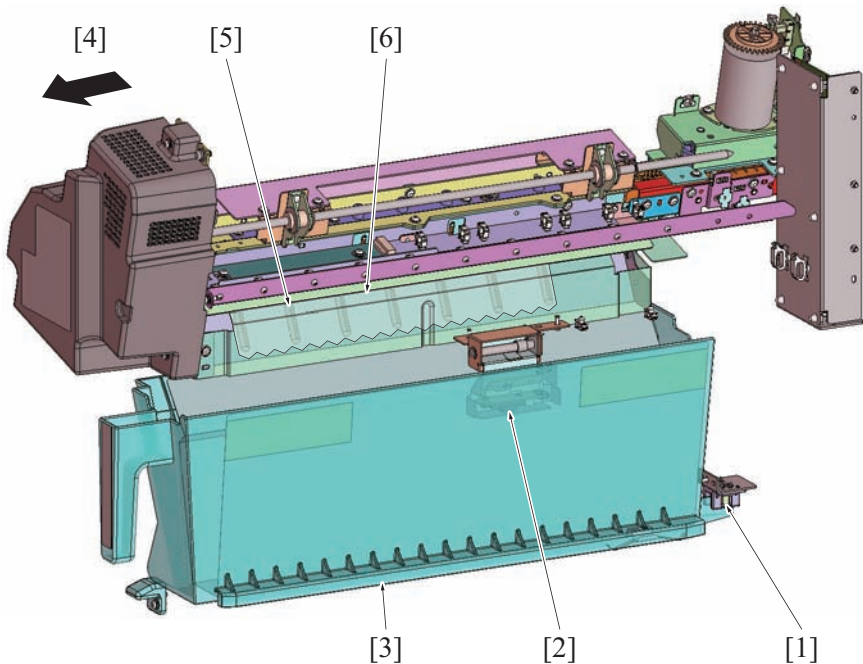
- When the punch drive board motor reverses, the punch drive board (for 2-Hole) [2] moves horizontally to the rear and the punch drive board (for 3-Hole) [1] moves horizontally to the front.
- As the punch drive board (for 2-Hole) [2] moves horizontally, the punch home sensors /1 (PS301) [3] and /2 (PS307) [4] are shaded and turned OFF.
- The punch blade (for 3-Hole) [5] moves down along with the wavy groove on the punch drive board (for 3-Hole) [1] to perform the 3-Hole punch.
- When the punch drive board (for 3-Hole) [1] moves horizontally again, the punch blade [5] moves back to the original position. Then, the punch home sensor /2 (PS307) [4] turns ON.
- When the punch home sensor /1 (PS301) [3] turns OFF and the punch home sensor /2 (PS307) [4] turns ON, the punch drive motor stops to complete the punching operation.
- To perform the punching operation on the subsequent paper, the punch drive motor turns forward and performs the punching operation again.
- When the punch home sensors /1 (PS301) [3] and /2 (PS307) [4] turn ON, the punch motor (M301) stops to complete the punching operation.



[1]	Punch drive board (for 3-Hole)	[2]	Punch drive board (for 2-Hole)
[3]	Punch home sensor /1 (PS301)	[4]	Punch home sensor /2 (PS307)
[5]	Punch blade (for 3-Hole)	-	

3. PUNCH-HOLE SCRAPS BOX SECTION

3.1 Configuration



[1]	Punch scraps box set sensor (PS304)	[2]	Punch scraps box full sensor (PS302)
[3]	Punch scraps box	[4]	Front side
[5]	Projection	[6]	Conductive PET

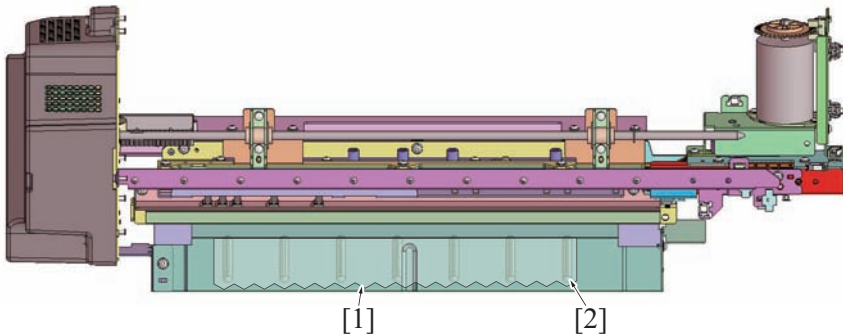
3.2 Drive

The punch scraps box section comprises no moving parts.

3.3 Operation

3.3.1 Punch scraps dropping

- The conductive PET [1] is attached on the lower part of the punch unit. It swings together with the punch unit.
- The chute does not swing. Therefore, the conductive PET and the projection [2] of the chute make contact with each other to shake the conductive PET and drop the punch scraps.



[1]	Conductive PET	[2]	Projection
-----	----------------	-----	------------

3.3.2 Punch scraps box control

(1) Punch scraps box full detection

The punch scraps generated by the punch operation falls in the punch scraps box [3]. The punch scraps box full sensor (PS302) [1] turns ON and transmits the "no punch scraps box" information to the main body when the punch scraps box becomes full of punch scraps.

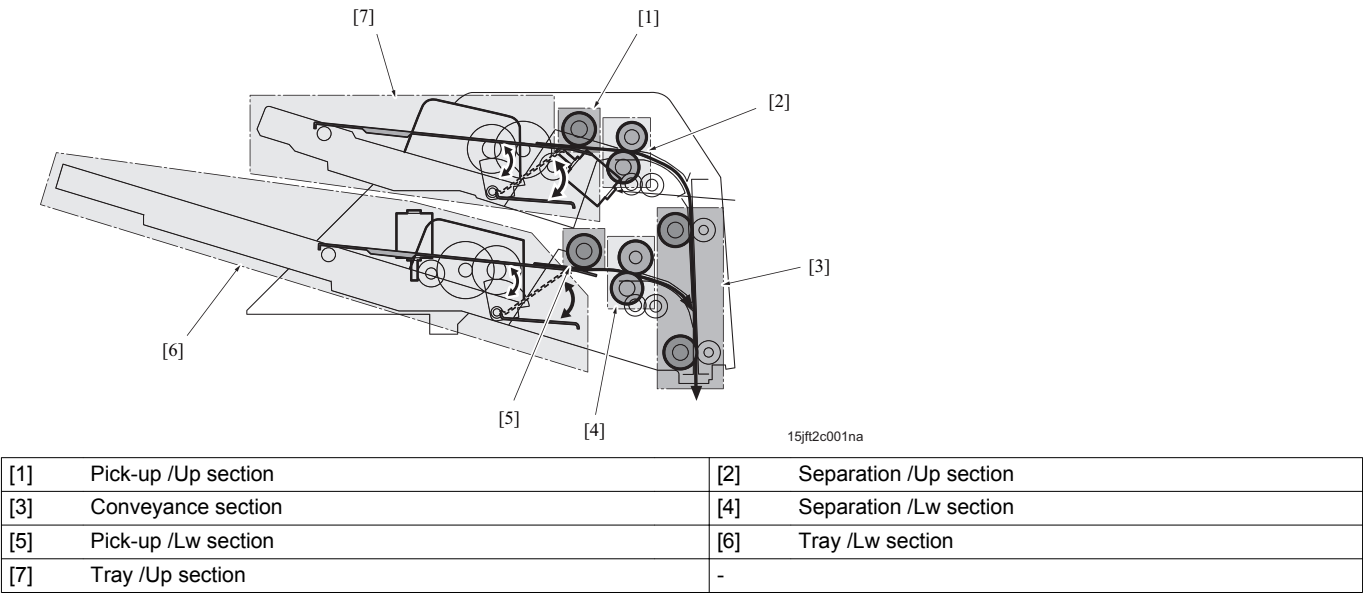
(2) Punch scraps box detection

The punch scraps box set sensor (PS304) detects whether the punch scraps box is set or not. PS304 turns OFF and transmits the "no punch scraps box" information to the main body if the punch scraps box is not set.

PL THEORY OF OPERATION PI-502

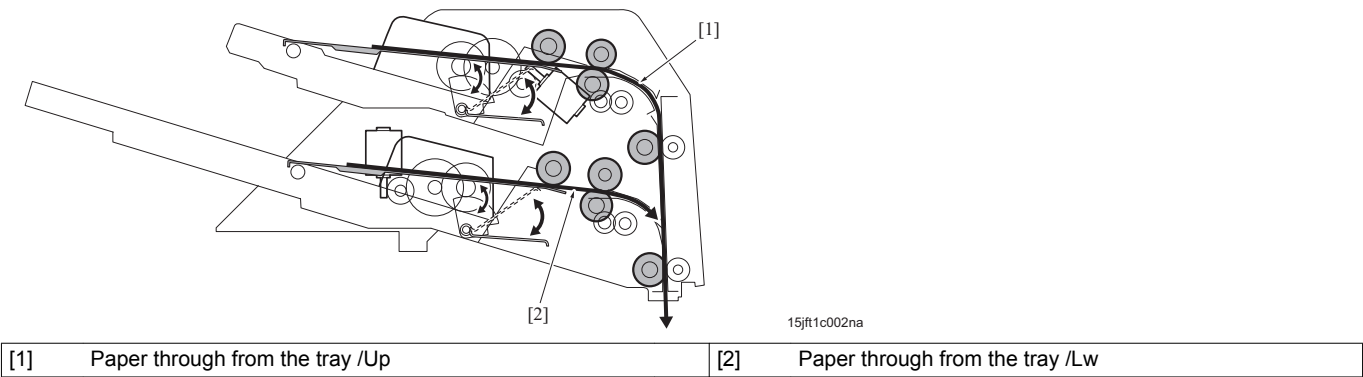
1. OUTLINE

1.1 Unit configuration

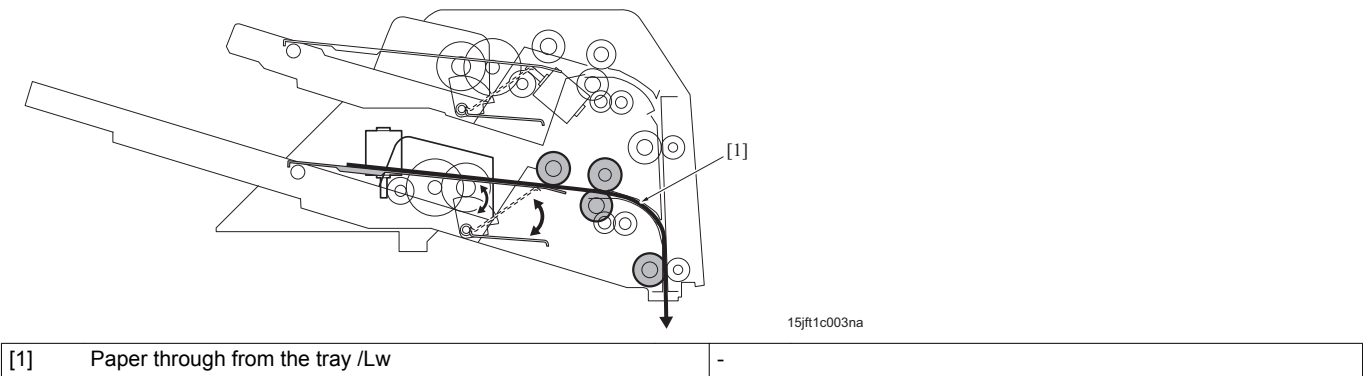


1.2 Paper path

1.2.1 Automatic sheet feed (Online operation)

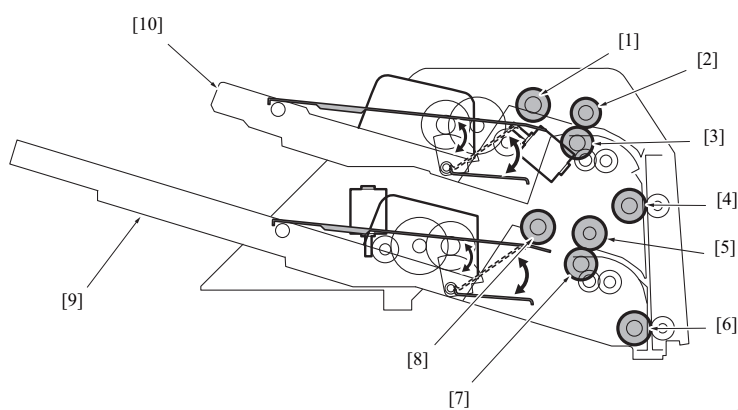


1.2.2 Manual sheet feed (Offline operation)



2. PAPER FEED SECTION

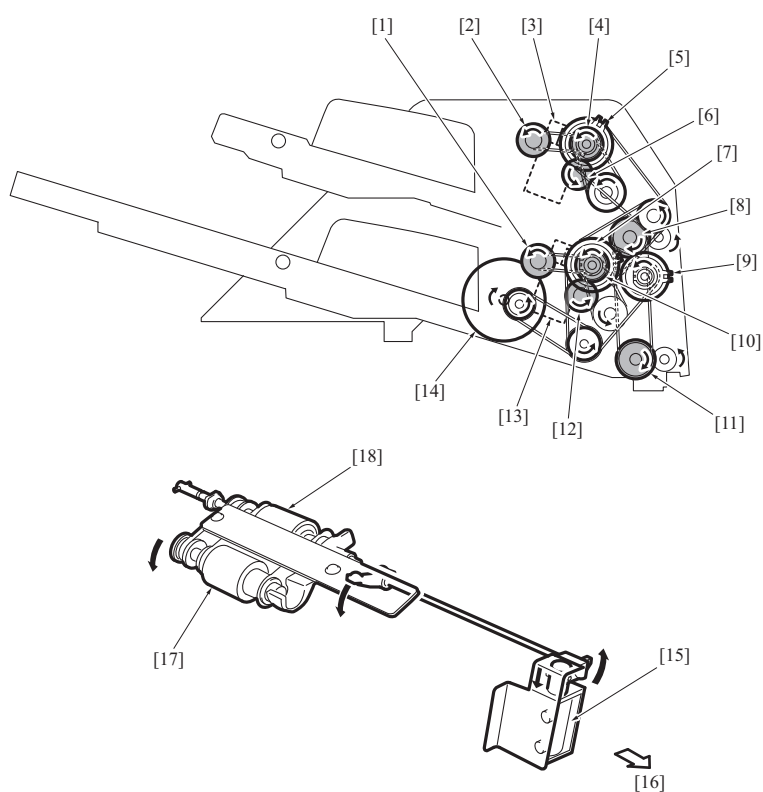
2.1 Configuration



[1] Pick-up roller /Up	[2] Paper feed roller /Up
[3] Separation roller /Up	[4] Conveyance roller /Up
[5] Paper feed roller /Lw	[6] Conveyance roller /Lw
[7] Separation roller /Lw	[8] Pick-up roller /Lw
[9] Tray /Lw	[10] Tray /Up

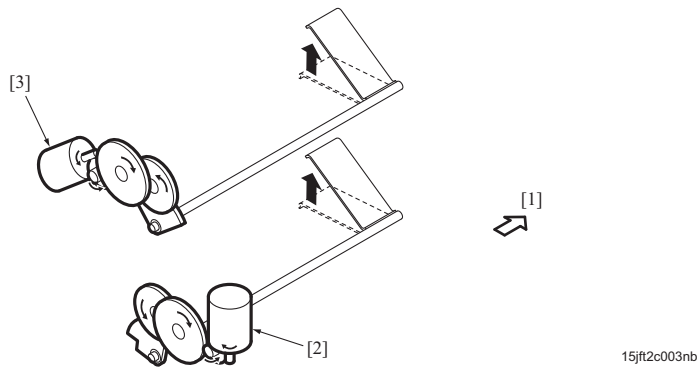
2.2 Drive

2.2.1 Paper feed drive



[1] Pick-up roller /Lw	[2] Pick-up roller /Up
[3] Pick-up solenoid /Up (SD201)	[4] Paper feed roller /Up
[5] Conveyance clutch /Up (CL201)	[6] Separation roller /Up
[7] Conveyance clutch /Lw (CL202)	[8] Conveyance roller /Up
[9] Registration clutch (CL203)	[10] Paper feed roller /Lw
[11] Conveyance roller /Lw	[12] Separation roller /Lw
[13] Pick-up solenoid /Lw (SD202)	[14] Conveyance motor (M203)
[15] Pick-up solenoid /Up (SD201), /Lw (SD202)	[16] Front side
[17] Pick-up roller /Up, /Lw	[18] Paper feed roller /Up, /Lw

2.2.2 Tray lift drive



15jft2c003nb

[1]	Front side	[2]	Tray lift motor /Lw (M202)
[3]	Tray lift motor /Up (M201)	-	

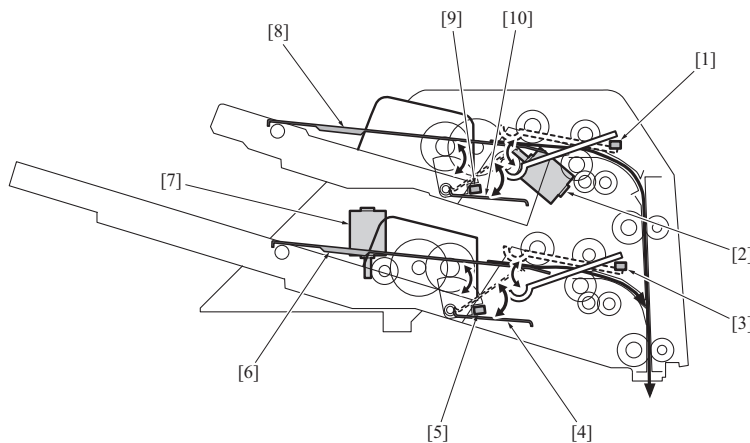
2.3 Operation

2.3.1 Tray lift mechanism

The tray lift motors /Up (M201) [2] and /Lw (M202) [7] move up and down the trays /Up and /Lw by rotating in the forward and reverse direction to drive the lift arms /Up [10] and /Lw [4] and move up and down the lift plates /Up [8] and /Lw [6], respectively.

At the upper limit positions, the tray upper limit sensors /Up (PS205) [1] and /Lw (PS209) [3] detect the actuators lifted up by the lift plates.

At the lower position of the tray, the tray lower limit sensors /Up (PS204) [9] and /Lw (PS210) [5] detect the actuators coupled with the lift arms /Up and /Lw.

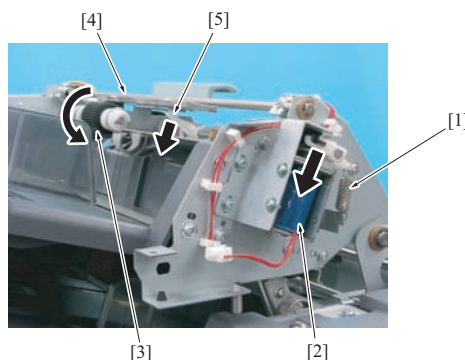


15jft2c004na

[1]	Tray upper limit sensor /Up (PS205)	[2]	Tray lift motor /Up (M201)
[3]	Tray upper limit sensor /Lw (PS209)	[4]	Lift arm /Lw
[5]	Tray lower limit sensor /Lw (PS210)	[6]	Tray lift plate /Lw
[7]	Tray lift motor /Lw (M202)	[8]	Tray lift plate /Up
[9]	Tray lower limit sensor /Up (PS204)	[10]	Lift arm /Up

2.3.2 Pick-up mechanism

The pick-up solenoids /Up (SD201) and /Lw (SD202) [2] turn ON to pick up the paper. The release arm [5] held upward by the spring [1] lifts up the pick-up roller mounting plate [4] to release the pick-up roller [3]. When SD201 and SD202 turn ON, the release arm moves backward, and then the pick-up roller mounting plate and the pick-up roller fall down by their own weight. The pick-up roller driven by the transfer motor (M203) presses the paper and picks it up to transfer it to the separation section.



15jft2c005nb

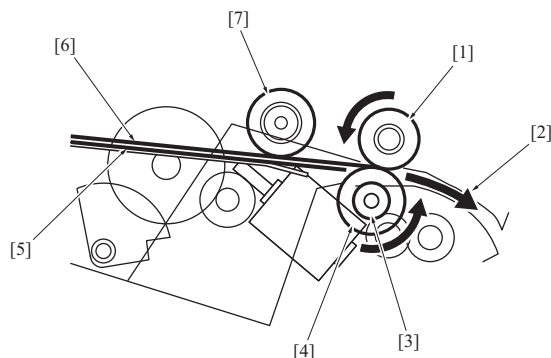
[1]	Spring	[2]	Pick-up solenoid /Up (SD201)
[3]	Pick-up roller	[4]	Pick-up roller mounting plate

[5]	Release arm	-
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2.3.3 Separation mechanism

The separation roller [4] is driven to rotate in the opposite direction from the paper transfer direction [2]. However, when no paper is conveyed or only 1 sheet of paper is conveyed, the frictional force generating between the paper feed roller [1]/paper and the separation roller [4] is greater than the frictional force of the torque limiter [3]. Accordingly, the separation roller [4] rotates in the direction of the paper conveyance [2] to convey paper to the vertical conveyance section.

When 2 or more sheets of paper are conveyed, the frictional force between these sheets of paper is smaller than the frictional force of the torque limiter [3] and the separation roller rotates in the reverse direction to prevent the lower most paper from being conveyed.



15jft2c006na

[1]	Paper feed roller	[2]	Paper conveyance direction
[3]	Torque limiter	[4]	Separation roller
[5]	2nd sheet of paper	[6]	1st sheet of paper
[7]	Pick-up roller	-	

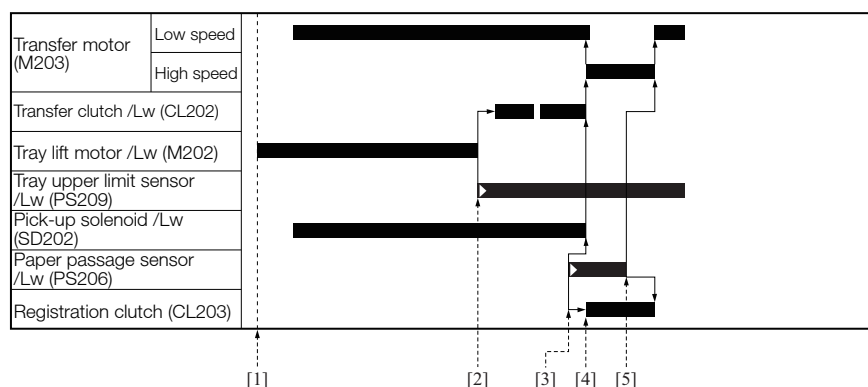
2.3.4 Registration control

Transmitting the FS start signal [1], the transfer motor (M203) rotates in low speed and the pick-up solenoids /Up (SD201) and /Lw (SD202) turn ON. At the time, the tray lift motors /Up (M201) and /Lw (M202) rotate in the forward direction to lift up the trays /Up and /Lw.

M201 and M202 stop when the tray upper limit sensors /Up (PS205) and /Lw (PS209) turn ON [2], and after a specified period of time, the transfer clutch /Up (CL201) and /Lw (CL202) turn ON and the paper is picked up from the tray. Only 1 sheet of paper is transferred by the transfer roller because of the separation roller.

M203 rotates in high speed when the paper reaches the paper passage sensors /Up (PS201) and /Lw (PS206) [3]. At the time, the paper is pressed against the transfer roller and forms a loop because the registration clutch (CL203) is OFF. After a specified period of time, CL203 turns ON [4] and M203 drives the paper to FS.

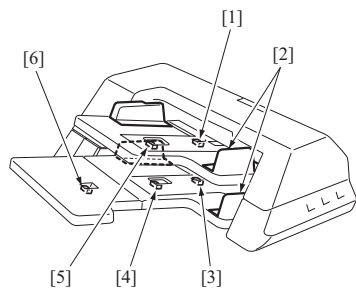
M203 switches to rotate in low speed to feed the subsequent paper since the paper passed PS201/PS206 [5], and then CL203 turns OFF after a specified period of time.



[1]	FS operation start signal ON	[2]	Tray reached at the upper limit
[3]	Paper reached the paper passage sensors /Up (PS201) and /Lw (PS206)	[4]	Registration clutch (CL203) ON
[5]	Trailing edge of the paper passed the paper passage sensors /Up (PS201) and /Lw (PS206)	-	

2.3.5 Paper size detection control

The paper size VRs /Up (VR201) [1] and /Lw (VR202) [3] coupled with the side guide [2] detects the paper size in the main scan direction. The paper set sensors /Up (PS203) [5] and /Lw (PS212) [4] and the L size sensor /Lw (PS208) [6] detects the paper size in the sub scan direction.



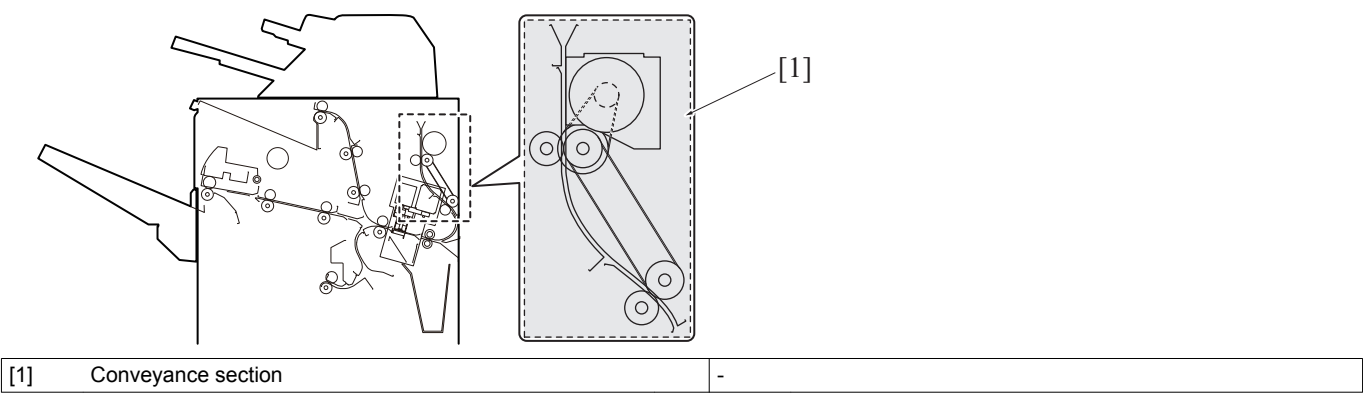
15jft2c008na

[1]	Paper size VR /Up (VR201)	[2]	Side guide plate
[3]	Paper size VR /Lw (VR202)	[4]	Paper set sensor /Lw (PS212)
[5]	Paper set sensor /Up (PS203)	[6]	L size sensor /Lw (PS208)

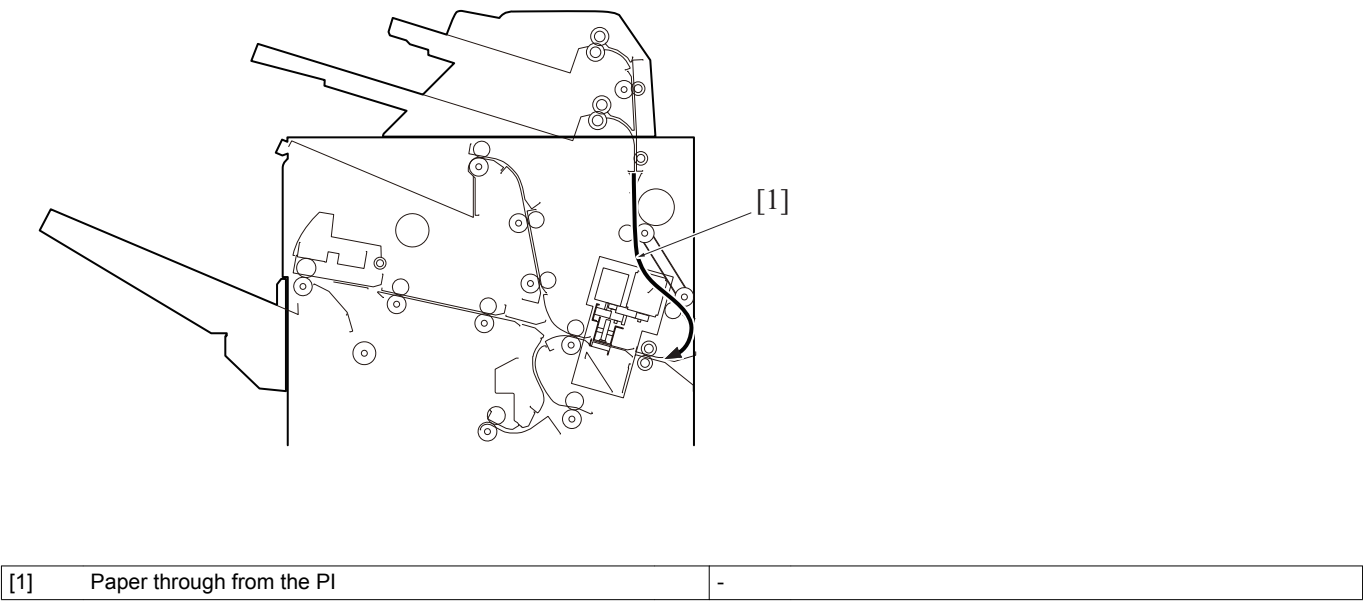
PM THEORY OF OPERATION MK-732

1. OUTLINE

1.1 Unit configuration

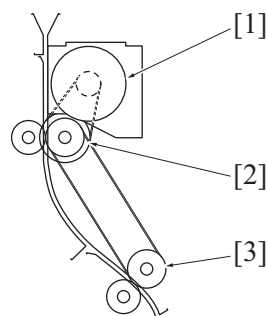


1.2 PAPER PATH



2. CONVEYANCE SECTION

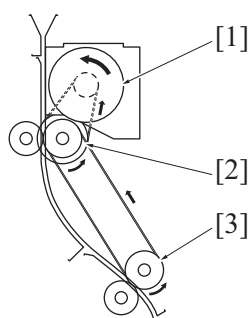
2.1 Configuration



[1]	FNS conveyance motor /4 (M4)	[2]	Conveyance roller /1
[3]	Conveyance roller /2	-	

2.2 Drive

2.2.1 Conveyance drive

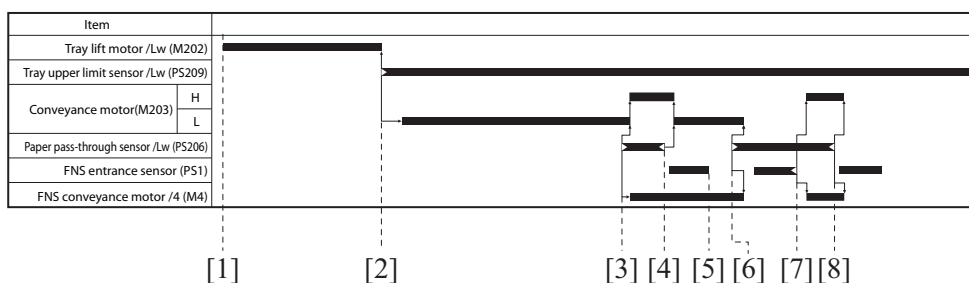


[1]	Conveyance drive motor	[2]	Conveyance roller /1
[3]	Conveyance roller /2	-	

2.3 Operation

2.3.1 Conveyance control

- Upon receiving of a print job, the tray lift motors /Up (M201) and /Lw (M202) are driven to move up the trays /Up and /Lw.
- After the tray upper limit sensors /Up (PS205) and /Lw (PS209) turn ON [2], M201/M202 stop and the conveyance motor (M203) drives at low speed after the specified time.
- After the specified time since the 1st sheet reaches the paper passage sensor /Lw (PS206) [3], M203 switches to high speed, and the FNS conveyance motor /4 (M4) drives.
- After the specified time since the 1st sheet passes PS206 [4], M203 switches to low speed.
- After a specified period of time since the 2nd paper gets to PS206 [6], M203 and M4 stop. They drive again after a specified period of time since the paper that fed from the main body passes the FNS entrance sensor (PS1) [7].
- After the specified time since the 2nd paper passes PS206 [8], M203 and M4 stop.

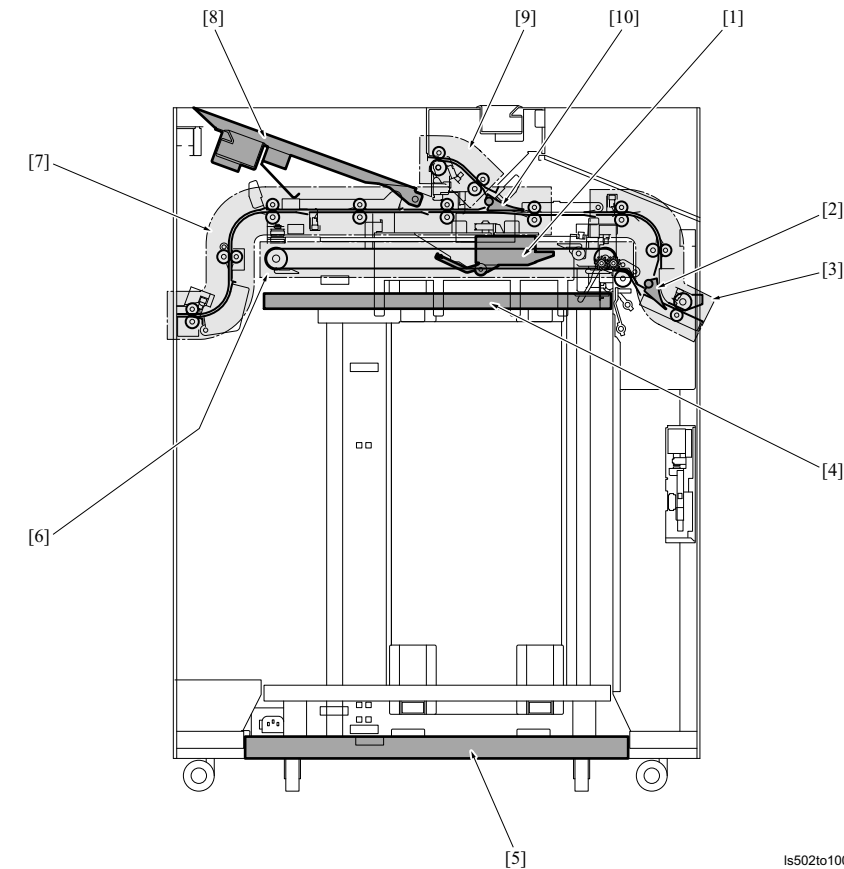


[1]	Print start signal	[2]	Tray upper limit sensor /Up (PS205), /Lw (PS209) ON
[3]	The 1st sheet reaches the paper passage sensor /Lw (PS206)	[4]	The 1st sheet passes the paper passage sensor /Lw (PS206)
[5]	The 1st sheet passes the FNS entrance sensor (PS1)	[6]	The 2nd sheet reaches the paper passage sensor /Lw (PS206)
[7]	The paper that is fed from the main body passes the FNS entrance sensor (PS1)	[8]	The 2nd sheet passes the paper passage sensor /Lw (PS206)

PN THEORY OF OPERATION LS-505

1. OUTLINE

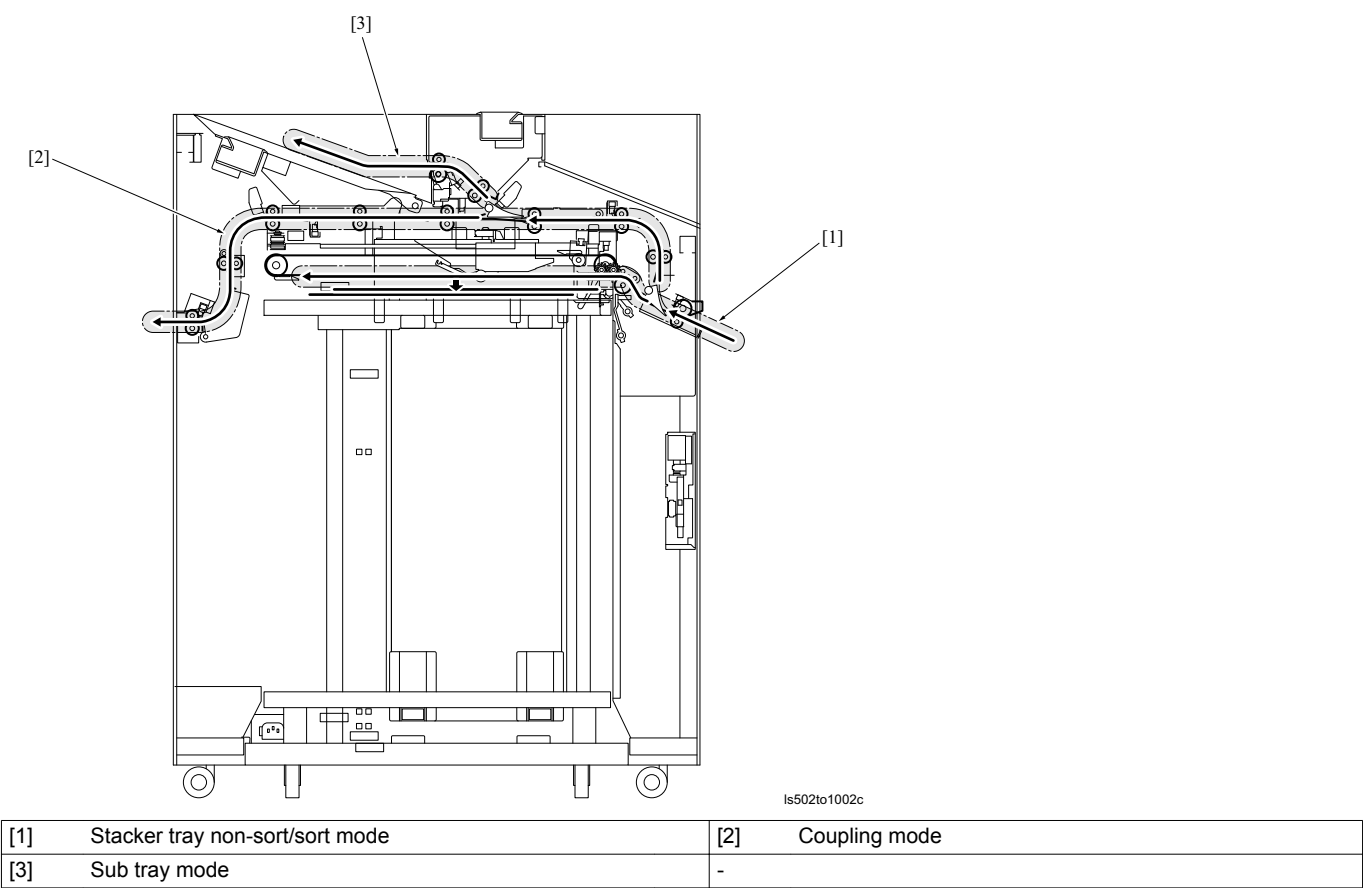
1.1 Unit configuration



Is502to1001c

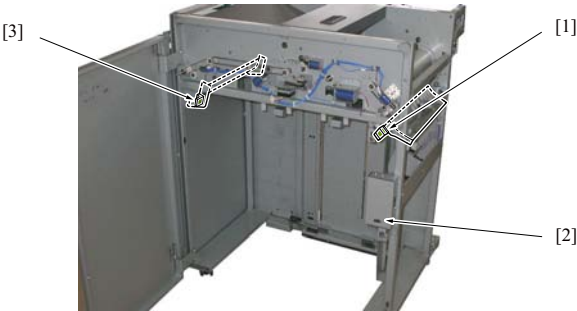
[1]	Conveyance unit	[2]	1st gate
[3]	Entrance conveyance section	[4]	Stacker tray
[5]	Hand cart	[6]	Stacker tray conveyance section
[7]	Coupling conveyance section	[8]	Sub tray
[9]	Sub tray conveyance section	[10]	2nd gate

1.2 Paper path



2. COUPLING CONVEYANCE SECTION

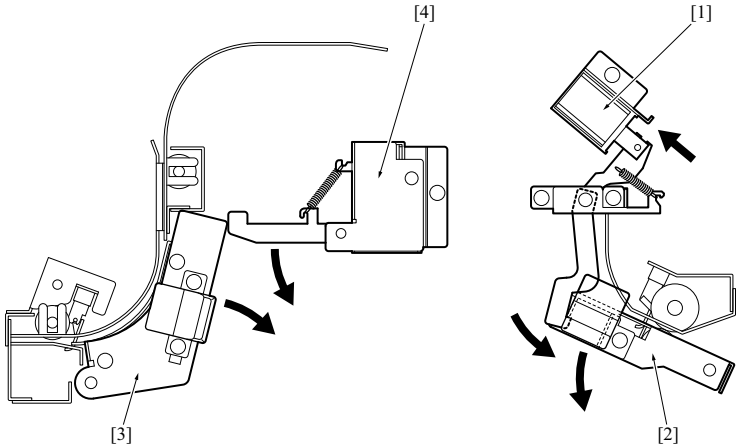
2.1 Configuration



Is502to2001c

[1]	Entrance conveyance lock solenoid (SD5)	[2]	Front door lock solenoid (SD4)
[3]	Coupling conveyance lock solenoid (SD11)		-

2.2 Drive



Is502to2002c

[1]	Entrance conveyance lock solenoid (SD5)	[2]	Entrance jam release lever
[3]	Coupling jam release lever	[4]	Coupling conveyance lock solenoid (SD11)

2.3 Operation

2.3.1 Door open/close mechanism

While the LS is in operation, the front door lock solenoid (SD4) locks the front door, thus making it impossible to open and close it. However, while in the coupling conveyance (coupling mode) or while exiting paper into the sub tray (sub tray mode), the front door can be opened and closed.

Pressing the paper removing switch on the stacker tray operation board (TOB) brings down the stacker tray. When the stacker tray arm release sensor (PS15) is turn ON, SD4 turns OFF immediately.

The lock is released due to SD4 being turned off and the front door can be opened and closed.

2.3.2 Jam release lever lock mechanism

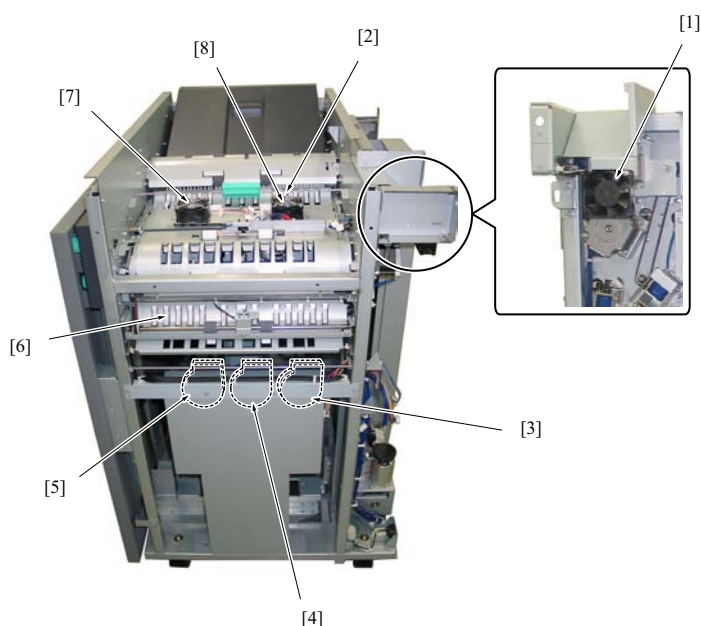
The entrance guide plate and the coupling guide plate are provided with a jam release lever to release jams. The entrance conveyance lock solenoid (SD5) and the coupling conveyance lock solenoid (SD11) operate each of the jam release levers.

- ON/OFF timing of SD5 and SD11

	Operation timing
ON (Lock)	When the stacker tray goes up, and while in printing
OFF (Release)	While in standing by, when the stacker tray goes down after completion of printing, and when the front door is open (except in coupling mode and in sub tray mode)

3. ENTRANCE CONVEYANCE SECTION

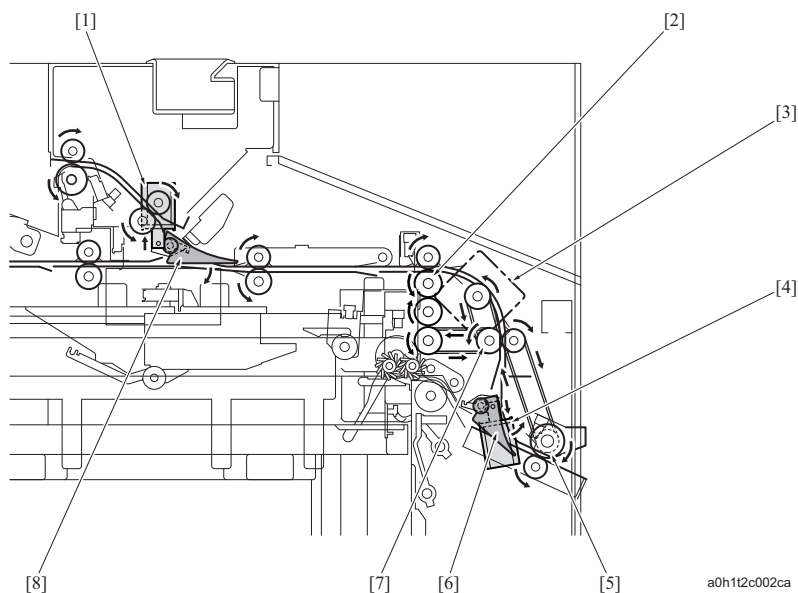
3.1 Configuration



ls502to2003c

[1]	Motor cooling fan motor (FM4)	[2]	2nd gate
[3]	Paper cooling fan motor /Rr (FM5)	[4]	Paper cooling fan motor /Mi (FM3)
[5]	Paper cooling fan motor /Fr (FM1)	[6]	1st gate
[7]	Paper cooling fan motor /1 (FM2)	[8]	Paper cooling fan motor /2 (FM6)

3.2 Drive



a0h1t2c002ca

[1]	2nd gate solenoid (SD10)	[2]	Coupling conveyance roller /2
[3]	Conveyance motor (M2)	[4]	1st gate solenoid (SD1)
[5]	Entrance roller	[6]	1st gate
[7]	Coupling conveyance roller /1	[8]	2nd gate

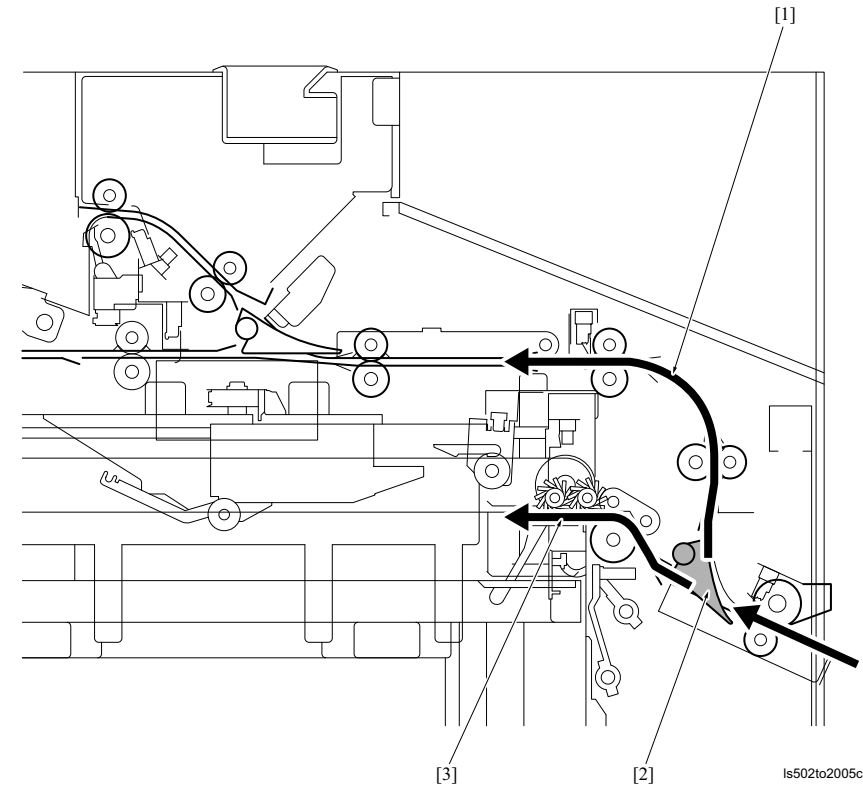
3.3 Operation

3.3.1 Path switching

The path along which paper conveyed to the entrance guide plate is conveyed varies according to the operation mode. The 1st gate and the 2nd gate switch the conveyance path.

(1) 1st gate

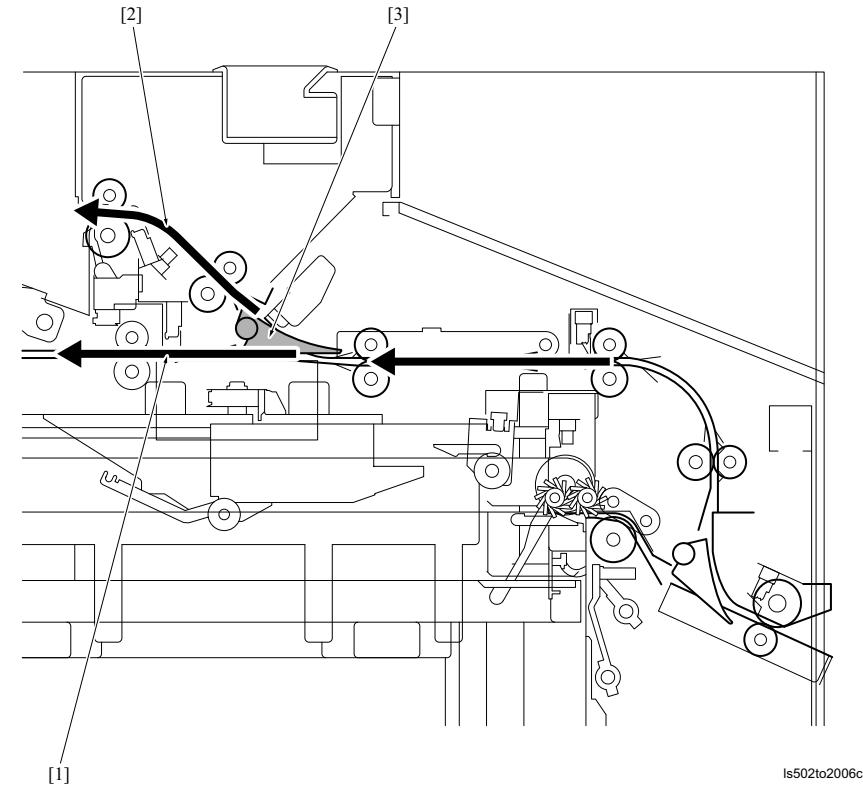
The switching of the conveyance path is made between the stacker tray output (stacker tray non-sort mode and stacker tray sort mode) and the sub tray paper exit (sub tray mode) and the coupling conveyance (coupling mode).



[1]	Sub tray mode/coupling mode	[2]	1st gate
[3]	Stacker tray non-sort mode/stacker tray sort mode		

(2) 2nd gate

The conveyance path is switched between the sub tray paper exit (sub tray mode) and the coupling conveyance (coupling mode).

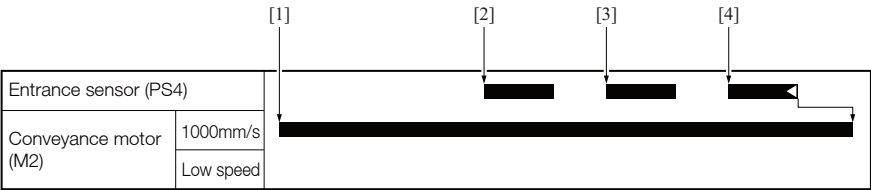


[1]	Coupling mode	[2]	Sub tray mode
[3]	2nd gate		-

3.3.2 Conveyance line speed control

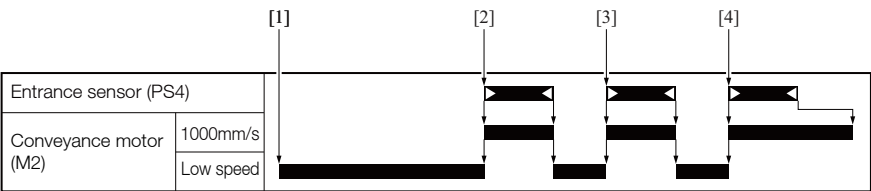
The conveyance process speed of the entrance roller and the coupling conveyance rollers 1/ and /2 that are driven by the conveyance motor (M/2) varies according to the exit line speed of the previous device (main body or post processing machine). These operations are common to all the modes.

(1) When the exit line speed of the previous device is 1000mm/s



[1]	Paper exit sensor of previous device ON	[2]	1st sheet of paper
[3]	2nd sheet of paper	[4]	3rd sheet of paper

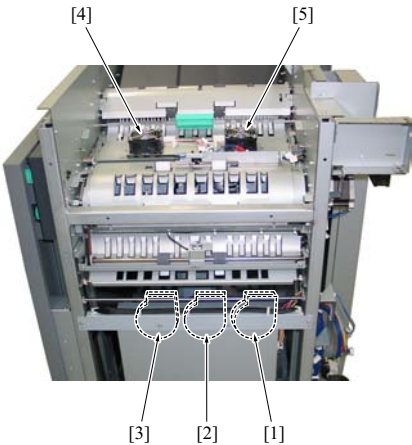
(2) When the exit line speed of the previous device is other than 1000mm/s



[1]	Paper exit sensor of previous device ON	[2]	1st sheet of paper
[3]	2nd sheet of paper	[4]	3rd sheet of paper

3.3.3 Paper cooling mechanism

Paper conveyed to the LS is likely to curl up due to fusing heat. Heat storage accumulated in paper stacked during continuous printing causes tacking (sheets of paper sticking hard each other by toner) when toner that has been fused is refused and adheres. So, fresh air is blown on the paper from under the entrance guide plate and above the path guide of the upper surface of the paper stack section, thus cooling down the paper to correct curling and prevent tacking.

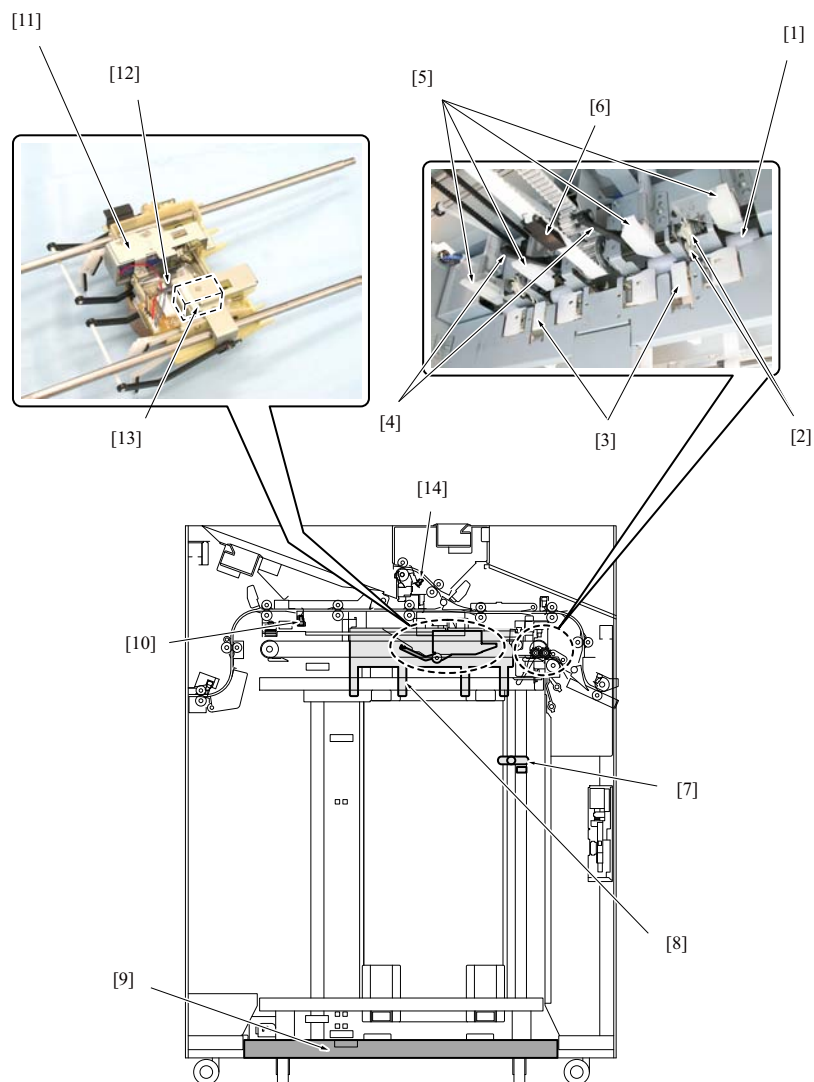


Is502to2028c

[1]	Paper cooling fan motor /Rr (FM5)	[2]	Paper cooling fan motor /Mi (FM3)
[3]	Paper cooling fan motor /Fr (FM1)	[4]	Paper cooling fan motor /1 (FM2)
[5]	Paper cooling fan motor /2 (FM6)		-

4. CONVEYANCE SECTION

4.1 Configuration

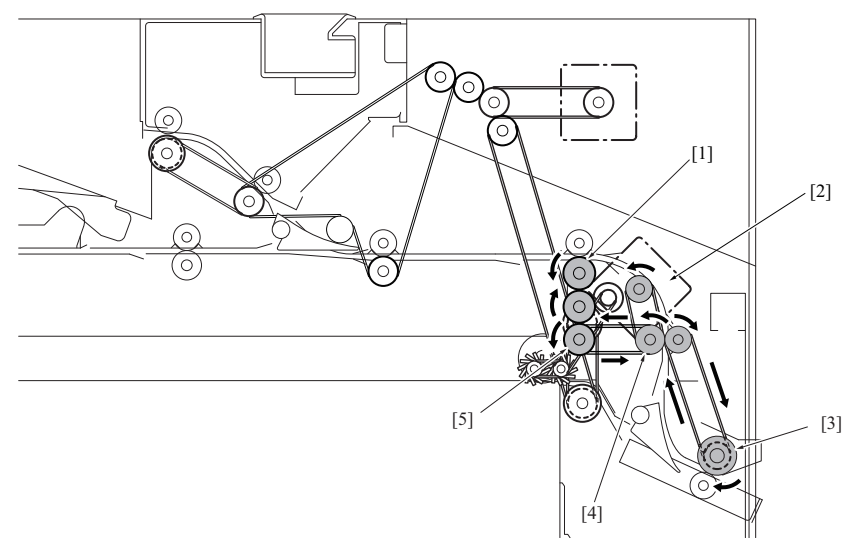


Is502to2009c

[1] De-curler roller	[2] Paddler
[3] Job partition plate	[4] Paper empty detection actuator
[5] Paper press arm /1	[6] Grip belt
[7] Paper detection sensor (PS19)	[8] Guide plate
[9] Hand cart	[10] Conveyance sensor /3 (PS17)
[11] Paper press solenoid /3 (SD8)	[12] Paper empty sensor (PS6)
[13] Front stopper solenoid (SD9)	[14] Sub tray full sensor (PS9)

4.2 Drive

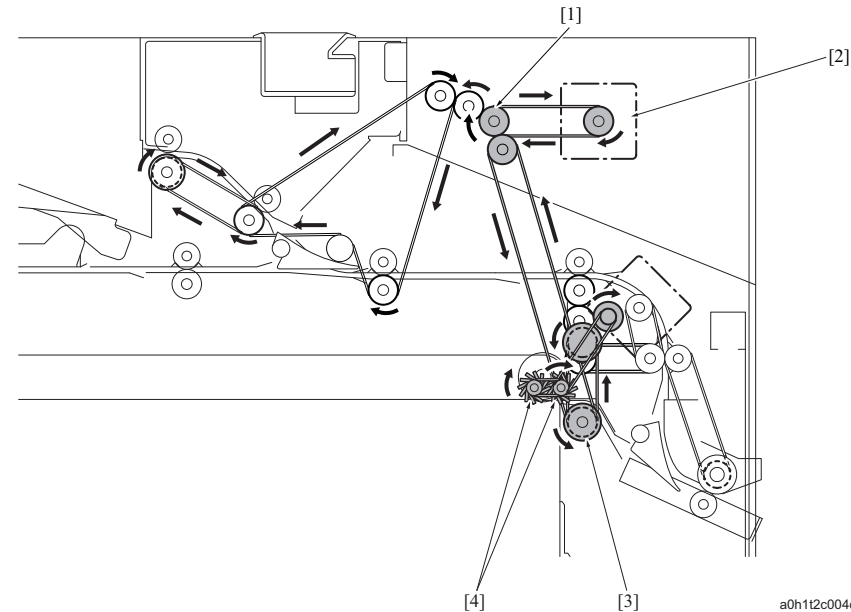
4.2.1 Entrance conveyance drive



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[1]	Coupling conveyance roller /2	[2]	Conveyance motor (M2)
[3]	Entrance roller	[4]	Coupling conveyance roller /1
[5]	One-way clutch	-	

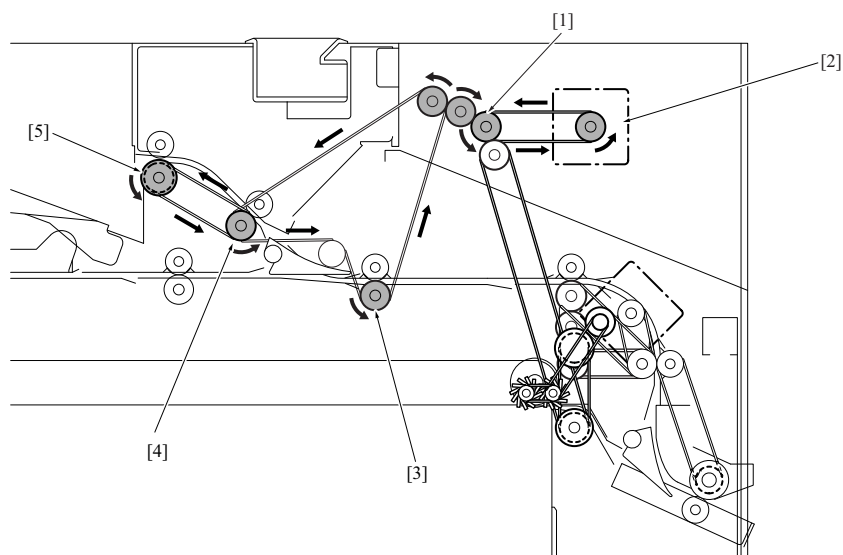
4.2.2 Stacker tray conveyance drive (M3 reverse)



a0h1t2c004ca

[1]	One-way clutch	[2]	Sub tray exit motor (M3)
[3]	De-curler roller	[4]	Paddler

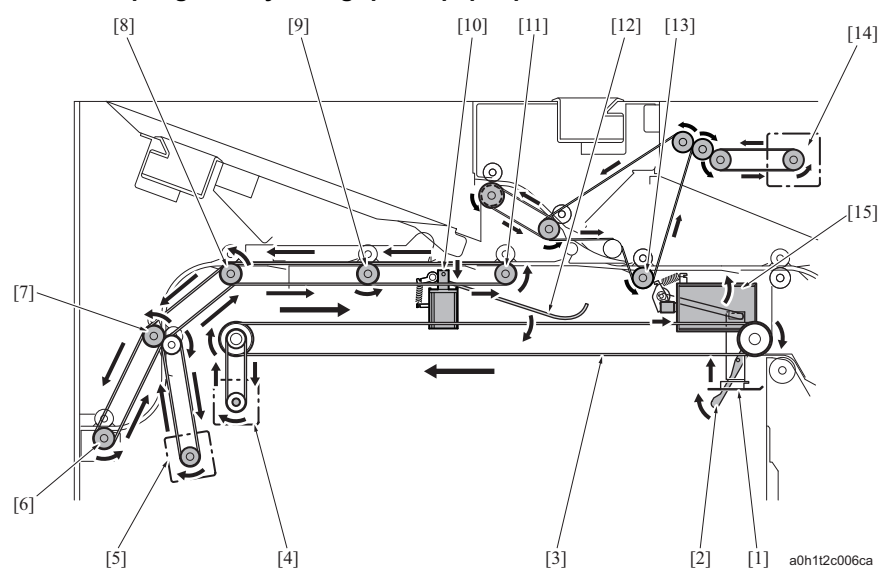
4.2.3 Sub tray conveyance drive (M3 forward)



a0h1t2c005ca

[1]	One-way clutch	[2]	Sub tray exit motor (M3)
[3]	Coupling conveyance roller /3	[4]	Sub tray conveyance roller
[5]	Sub tray exit roller	-	

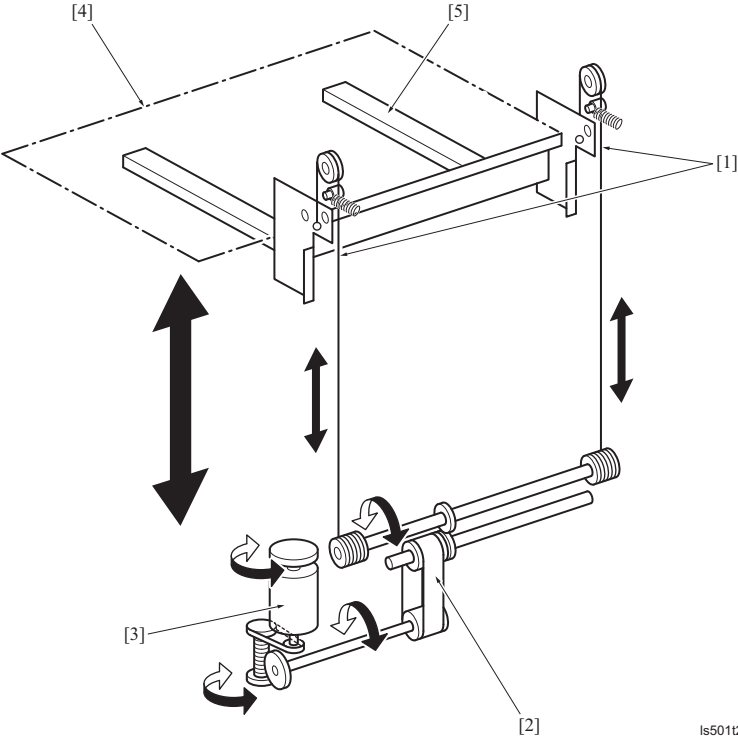
4.2.4 Coupling conveyance/grip belt/paper press arm drive



a0h1t2c006ca

[1]	Paper press arm /1	[2]	Stacker tray paper empty detection actuator
[3]	Grip belt	[4]	Grip conveyance motor (M4)
[5]	Coupling conveyance motor (M6)	[6]	Coupling paper exit roller
[7]	Coupling conveyance roller /7	[8]	Coupling conveyance roller /6
[9]	Coupling conveyance roller /5	[10]	Paper press solenoid /2 (SD7)
[11]	Coupling conveyance roller /4	[12]	Paper press arm /2
[13]	Coupling conveyance roller /3	[14]	Sub tray exit motor (M3)
[15]	Paper press solenoid /1 (SD6)	-	

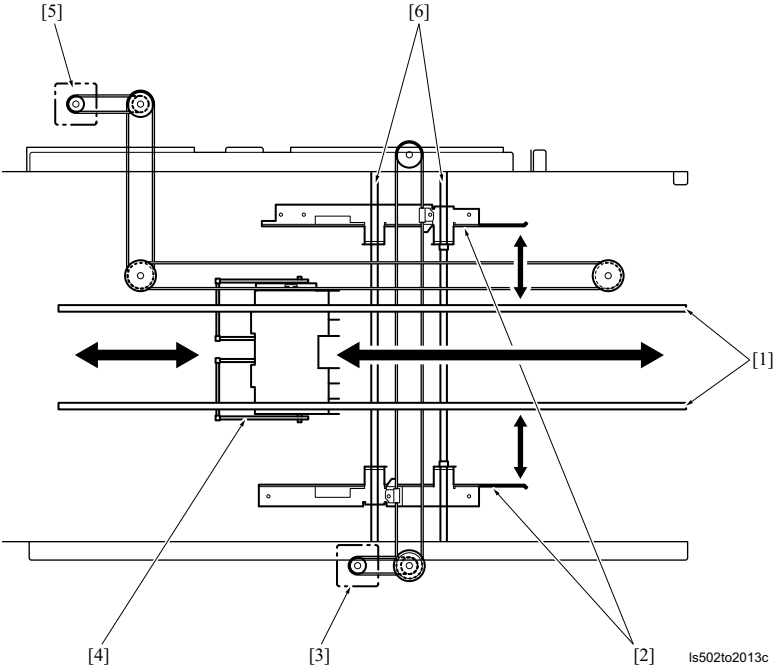
4.2.5 Stacker tray up down drive



[1]	Wire	[2]	Belt
[3]	Stacker tray up down motor (M1)	[4]	Stacker tray
[5]	Stacker tray up down arm	-	

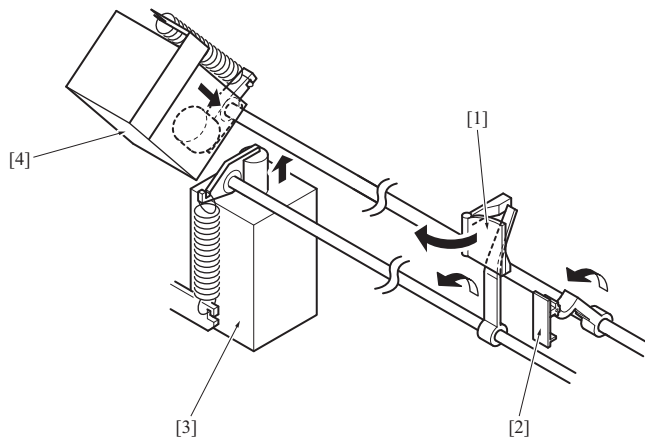
4.2.6 Shift unit/alignment plate drive

LS drawing as seen from above. On the right-side is the main body.



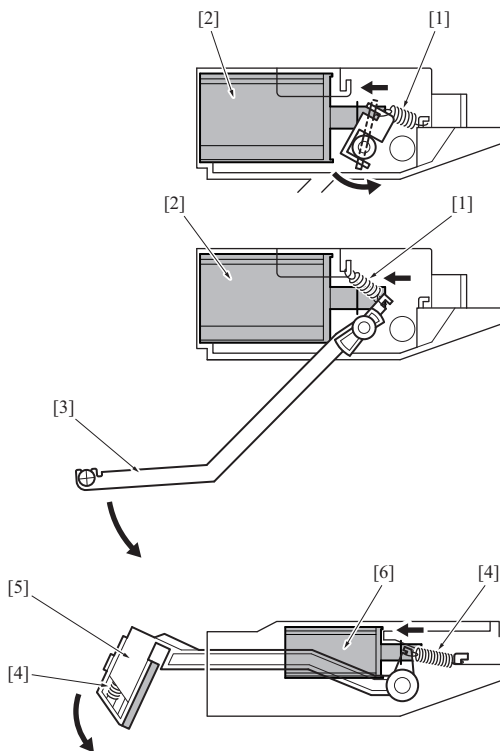
[1]	Guide rail	[2]	Alignment plate
[3]	Alignment motor (M7)	[4]	Conveyance unit
[5]	Shift unit motor (M5)	[6]	Guide rail

4.2.7 Rear stopper/job partition plate drive



[1]	Rear stopper	[2]	Job partition plate
[3]	Rear stopper solenoid (SD3)	[4]	Job partition solenoid (SD2)

4.2.8 Front stopper/paper press arm drive



[1]	Spring	[2]	Paper press solenoid /3 (SD8)
[3]	Paper press arm /3	[4]	Spring
[5]	Front stopper	[6]	Front stopper solenoid (SD9)

4.3 Operation

4.3.1 Stacker tray conveyance

While in the stacker tray non-sort mode and the stacker tray sort mode, paper is conveyed into the stacker tray.

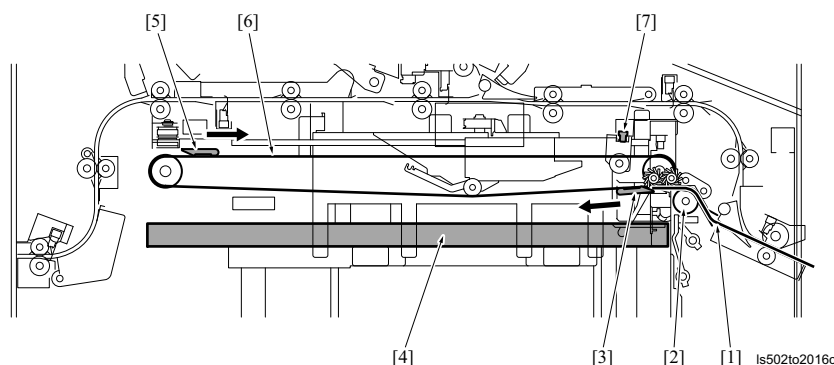
(1) De-curler

Paper that has passed through the 1st gate is conveyed to the grip belt by the de-curler roller. At this time, the de-curler roller corrects the curled paper.

(2) Grip conveyance

Paper conveyed by the de-curler roller enters and is held by the grip provided on the grip belt. The paper held by the grip is conveyed to the section above the stacker tray by the rotation of the grip belt.

2 grips are provided on the grip belt and each one of them conveys paper one after the other. The grip conveyance home sensor (PS5) controls the position where the grip is waiting for paper from the de-curler roller.



[1] Paper	[2] De-curler roller
[3] Grip	[4] Stacker tray
[5] Grip	[6] Grip belt
[7] Grip conveyance home sensor (PS5)	-

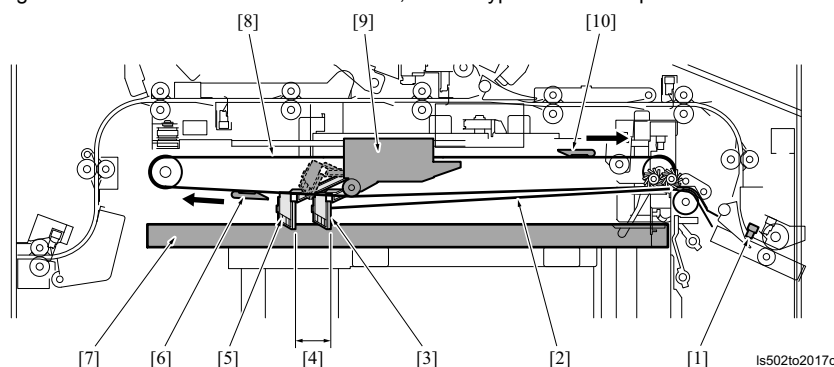
(3) Front stopper control

Paper conveyed by the grip strikes against the front stopper equipped to the shift unit and is released from the grip. At this time, the shift unit has been moved to the position specified in advance for each paper size.

2 types of the front stoppers, more specifically, a movable type and a stationary type, are employed. In stacker tray non-sort mode, only the movable type front stopper is employed. A distance of 20mm is kept between the position where the movable type front stopper stops and the position in which the stationary type front stopper is, which is the shift distance.

When stacking tab paper, paper is aligned by either stationary type front stopper or movable type front stopper. Therefore, it is impossible to shift tab paper for stacking.

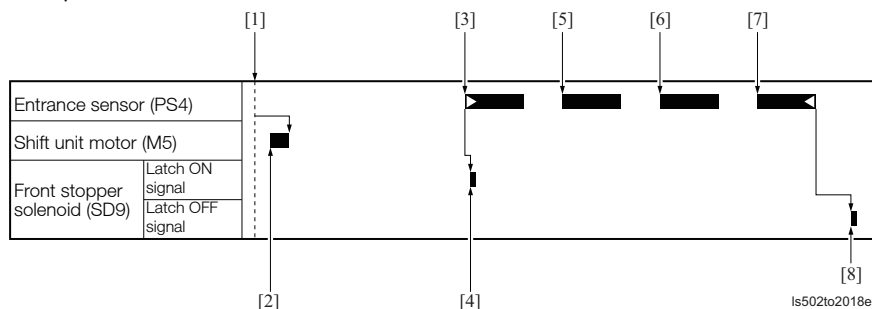
For the front stopper solenoid (SD9) that drives the movable type front stopper, a latch-type solenoid is employed that is not required to be energized to maintain the ON state. However, a latch-type solenoid requires a different control signal for each ON and OFF action.



[1] Entrance sensor (PS4)	[2] Paper
[3] Movable type front stopper	[4] 20mm
[5] Stationary type front stopper	[6] Grip
[7] Stacker tray	[8] Grip belt
[9] Conveyance unit	[10] Grip

(a) Stacker tray non-sort mode

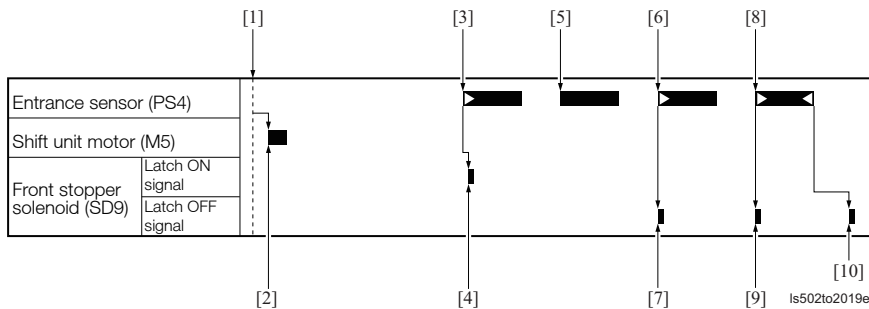
Example: A4 4 sheets, 1 set



[1] Paper exit sensor of previous device ON	[2] The conveyance unit starts to move
[3] 1st sheet of paper	[4] Movable type front stopper ON
[5] 2nd sheet of paper	[6] 3rd sheet of paper
[7] Last sheet of paper	[8] Movable type front stopper OFF

(b) Stacker tray sort mode

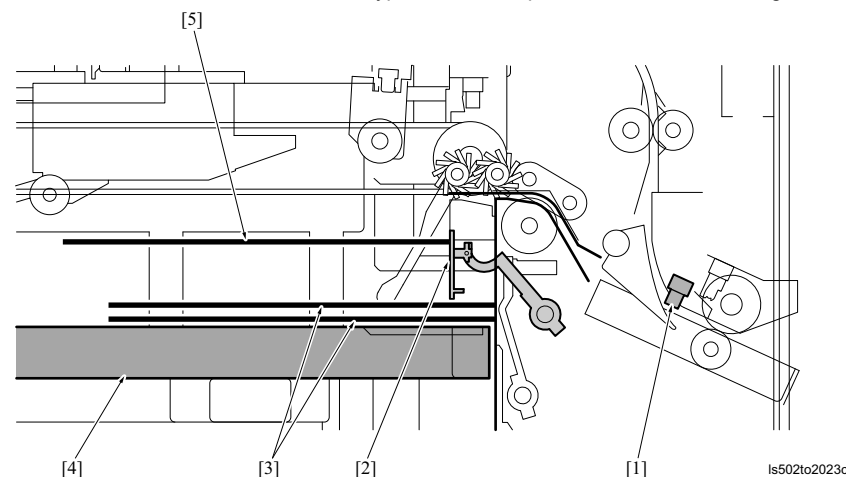
Example: A4 2 sheets, 2 sets



[1] Paper exit sensor of previous device ON	[2] The conveyance unit starts to move
[3] Shift of the 1st sheet of paper	[4] Movable type front stopper ON
[5] Shift of the 2nd sheet of paper	[6] Non-shift of the 1st sheet of paper
[7] Movable type front stopper OFF	[8] Non-shift of the 2nd sheet of paper
[9] Movable type front stopper OFF secured	[10] Movable type front stopper OFF secured

(4) Job partition plate

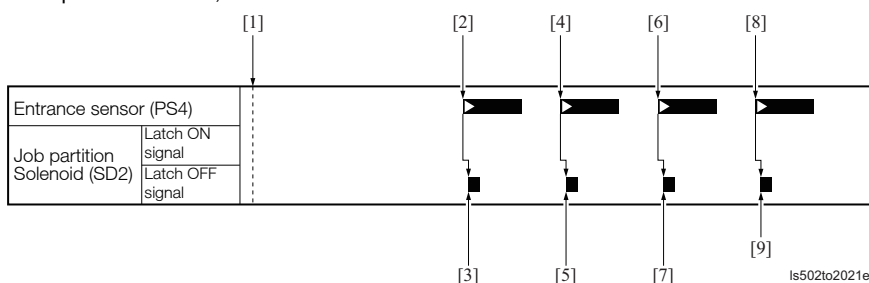
In stacker tray sort mode, the trailing edge of the shift paper is restricted by the job partition plate and the paper is exited onto the stacker tray 20mm shifted from the non-shift paper. At this time, the upper surface of the non-shift paper does not come to the same level as the lower edge of the job partition plate and the 1st sheet of the shift paper is in possibility of getting into the lower side of the job partition plate. To prevent this, the job partition plate is attached to the upper surface of the non-shift paper that has been exited to restrict the entry of the paper. For the job partition solenoid (SD2) that drives the job partition plate, a latch-type solenoid is employed that is not required to be energized to maintain the ON state. However, a latch-type solenoid requires a different control signal for each ON and OFF action.



[1] Entrance sensor (PS4)	[2] Job partition plate
[3] Non-shift paper	[4] Stacker tray
[5] Shift paper	-

(a) Stacker tray non-sort mode

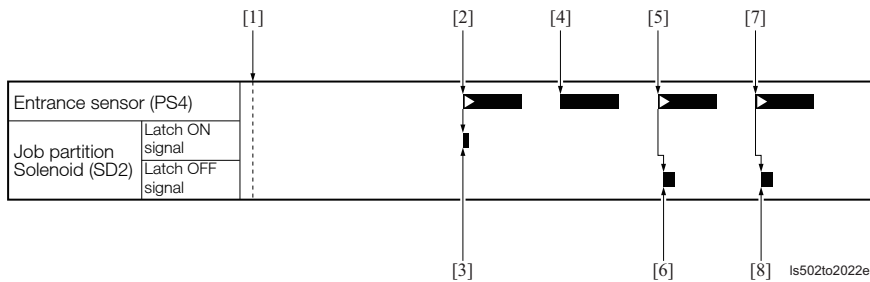
Example: A4 4 sheets, 1 set



[1] Paper exit sensor of previous device ON	[2] 1st sheet of paper
[3] Job partition plate close	[4] 2nd sheet of paper
[5] Job partition plate close	[6] 3rd sheet of paper
[7] Job partition plate close	[8] Last sheet of paper
[9] Job partition plate close	-

(b) Stacker tray sort mode

Example: A4 2 sheets, 2 sets



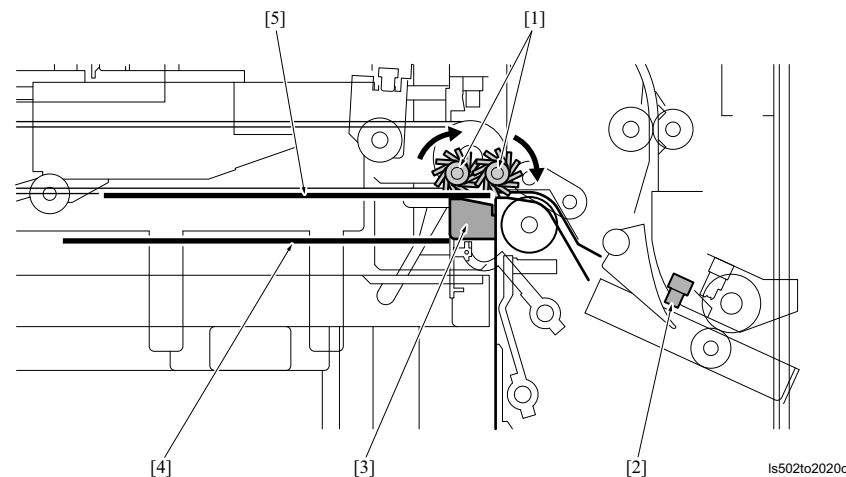
[1] Paper exit sensor of previous device ON	[2] Shift of the 1st sheet of paper
[3] Job partition plate open (shift amount: 20mm)	[4] Shift of the 2nd sheet of paper
[5] Non-shift of the 1st sheet of paper	[6] Job partition plate close
[7] Non-shift of the 2nd sheet of paper	[8] Job partition plate close

(5) Rear stopper control

While in the stacker tray sort mode is in shifting, the rear stopper is left open and this plays as a guide for the trailing edge of paper.

To assist the separation of paper released from the grip, the paddle is rotated at a high speed.

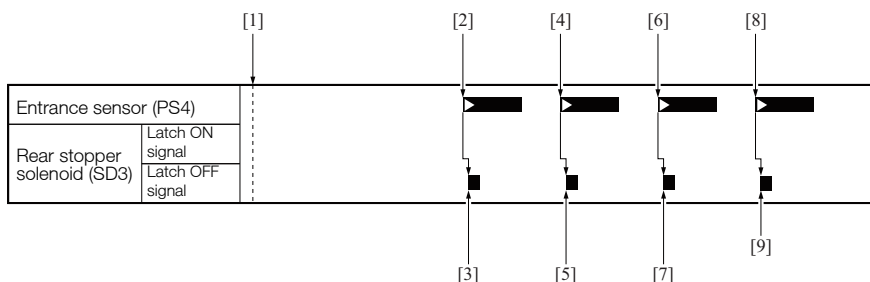
For the rear stopper solenoid (SD3) that drives the rear stopper, a latch-type solenoid is employed that does not need to be energized to maintain the ON state. However, a latch-type solenoid requires a different control signal for each ON and OFF action.



[1] Paddler	[2] Entrance sensor (PS4)
[3] Rear stopper	[4] Paper position while in the stacker tray sort mode
[5] Paper position while in the stacker tray non-sort mode	-

(a) Stacker tray non-sort mode

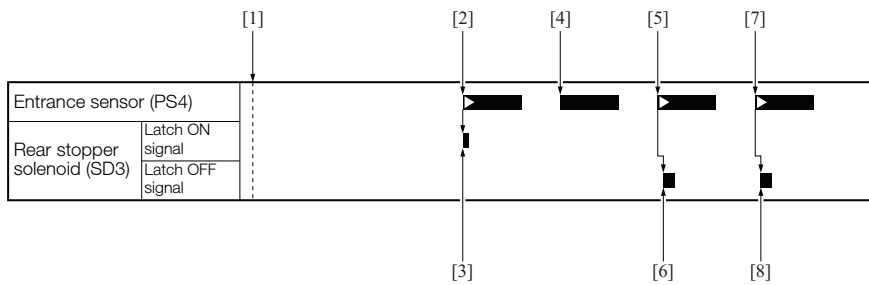
Example: A4 4 sheets, 1 set



[1] Paper exit sensor of previous device ON	[2] 1st sheet of paper
[3] Rear stopper close	[4] 2nd sheet of paper
[5] Rear stopper close	[6] 3rd sheet of paper
[7] Rear stopper close	[8] Last sheet of paper
[9] Rear stopper close	-

(b) Stacker tray sort mode

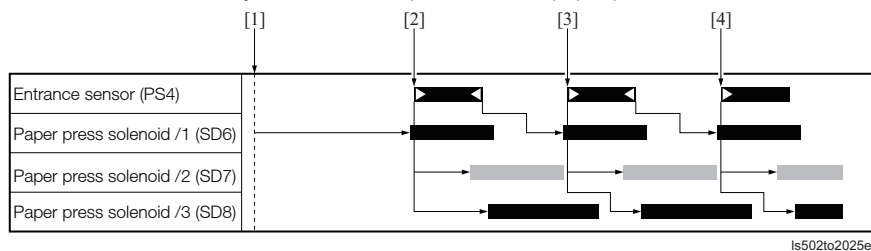
Example: A4 2 sheets, 2 sets



[1] Paper exit sensor of previous device ON	[2] Shift of the 1st sheet of paper
[3] Rear stopper open	[4] Shift of the 2nd sheet of paper
[5] Non-shift of the 1st sheet of paper	[6] Rear stopper close
[7] Non-shift of the 2nd sheet of paper	[8] Rear stopper close

(6) Paper press arm

The paper that has been released from the grip is pressed one at a time onto the stacker tray by the paper pressure arms /1, /2 and /3 to be loaded on the stacker tray. However, the operation of the paper pressure arm /2 is limited only to the paper size larger than B4.

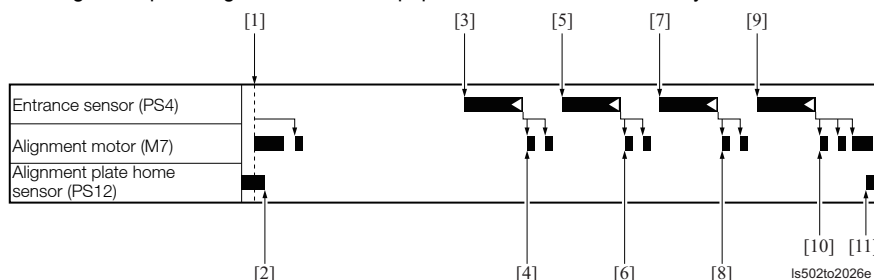


Is502to2025e

[1] Paper exit sensor of previous device ON	[2] 1st sheet of paper
[3] 2nd sheet of paper	[4] Last sheet of paper

(7) Alignment plate control

The alignment plate aligns each sheet of paper loaded on the stacker tray.



Is502to2026e

[1] Paper exit sensor of previous device ON	[2] Movement to a position specified for each paper size
[3] 1st sheet of paper	[4] Alignment of the 1st sheet of paper
[5] 2nd sheet of paper	[6] Alignment of the 2nd sheet of paper
[7] 3rd sheet of paper	[8] Alignment of the 3rd sheet of paper
[9] Last sheet of paper	[10] Alignment of the last sheet of paper
[11] Returning to the home position	-

(8) Stacker tray up down control

The paper empty sensor (PS6) detects the upper surface of paper loaded on the stacker tray through the paper press arm /3. When PS6 is turned off by loading exited paper, the stacker tray up down motor (M1) turns on to lower the stacker tray down to the position at which PS6 turns on. The stacker tray is thus held at a fixed height when paper is being exited.

The number of sheets of paper loaded on the stacker tray is detected by the 2,000 sheets stacked sensor (PS13) and the 5,000 sheets stacked sensor (PS14) provided on the up down path of the stacker tray and displayed on the operation panel. (The main unit makes 3,000 sheets stacked detection.)

When the hand cart once pulled out is put back to its original position, the stacker tray moves up to return to its home position. If the paper detection sensor (PS19) detects that paper is loaded on the stacker tray, the tray stops moving up in order to prevent the uplifted paper from damaging the alignment plate.

(9) Hand cart detection mechanism

The hand cart set switch (RS1) detects the set condition of the hand cart. The set condition of the stacker tray is detected by checking to see if the light from the stacker tray set LED (LED1) gets to the stacker tray set sensor (PS1).

4.3.2 Coupling conveyance

In coupling mode, paper is conveyed to the device connected to the subsequent stage of the LS through the coupling conveyance section.

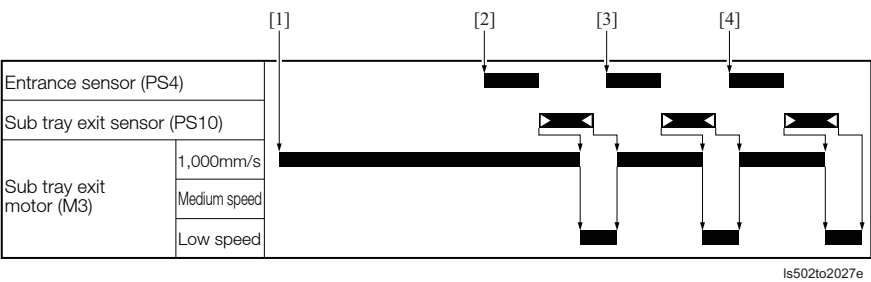
(1) Line speed switching

When paper is conveyed from the main body, the conveyance motor (M2) at the entrance conveyance section is rotated at the same speed as the conveyance speed of the main body. When paper is conveyed to the LS, the speed of rotation of M2 is increased up to 1,000mm/s to convey paper.

4.3.3 Sub tray conveyance

In sub tray mode, paper is exited into the sub tray.

(1) Line speed switching



[1]	Paper exit sensor of previous device ON	[2]	1st sheet of paper
[3]	2nd sheet of paper	[4]	Last sheet of paper

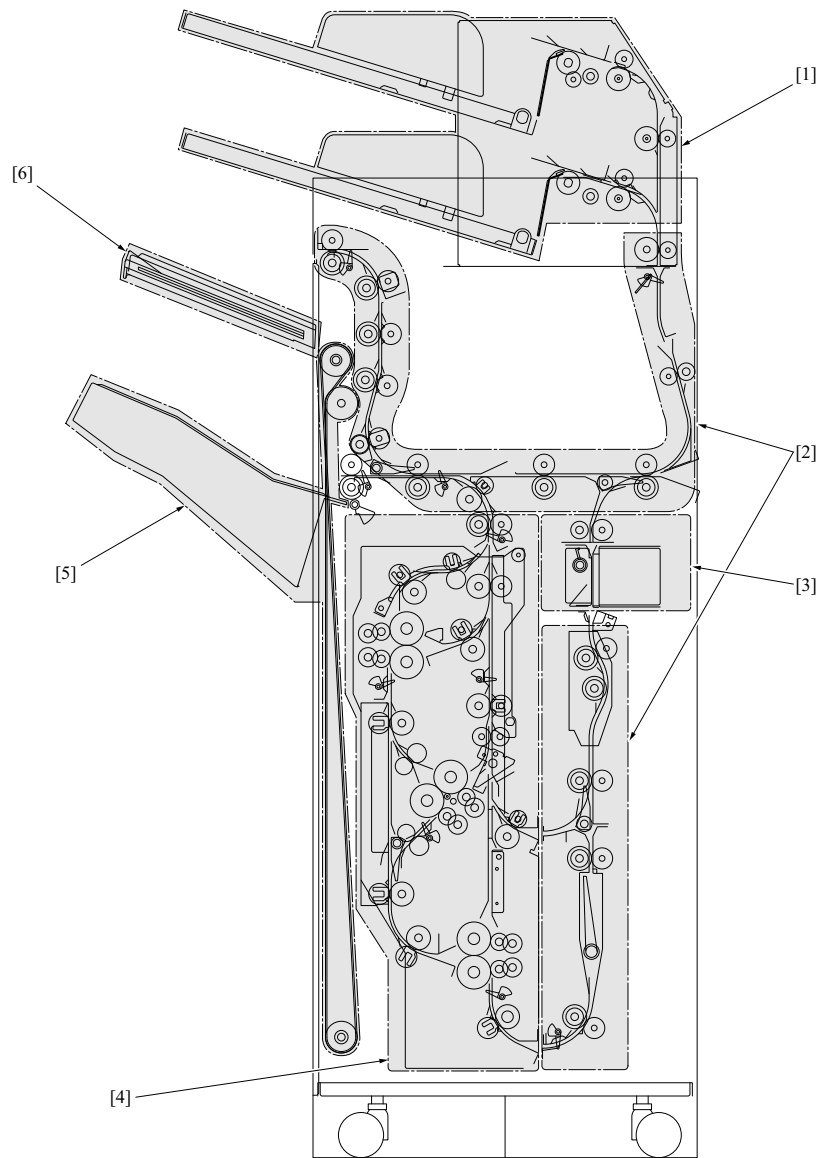
(2) Paper full control

When the number of the sheets of paper discharged on the sub-tray gets to 200, the sub tray full sensor (PS9) turns ON to give indication of "paper full" on the operation panel.

PO THEORY OF OPERATION FD-503

1. OUTLINE

1.1 Unit configuration

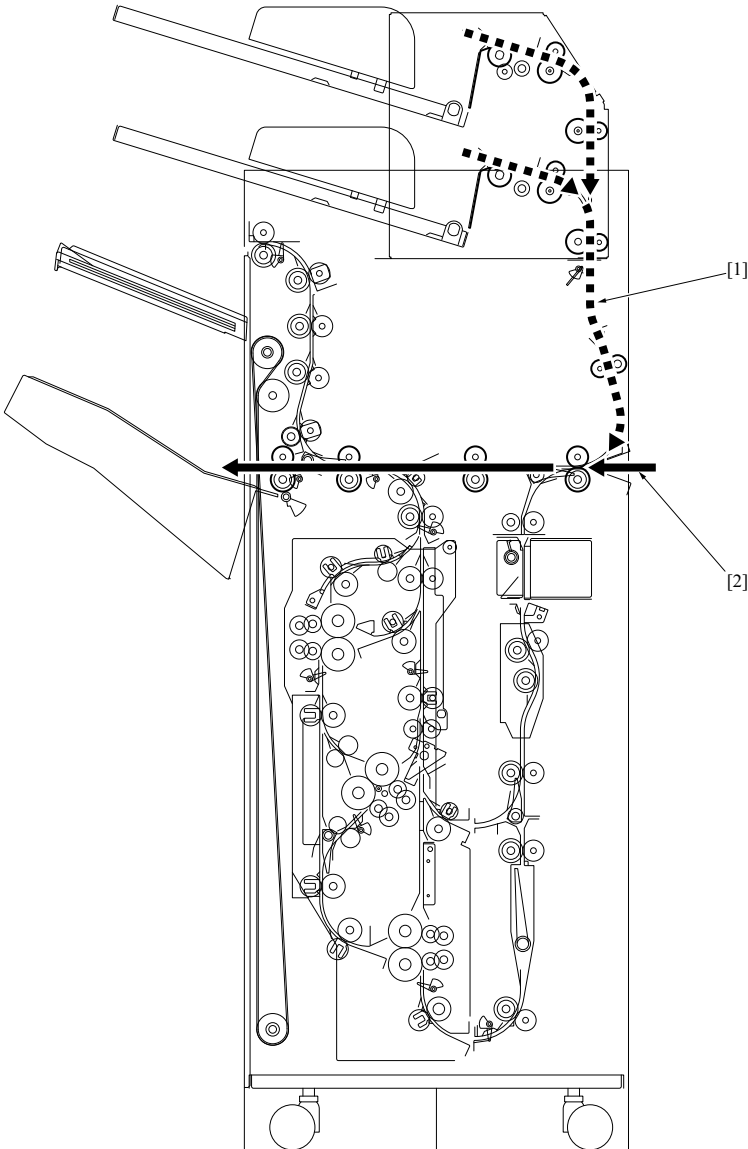


fd501to1001c

[1]	PI section	[2]	Conveyance section
[3]	Punch section	[4]	Folding conveyance section
[5]	Main tray section	[6]	Sub tray section

1.2 Paper path

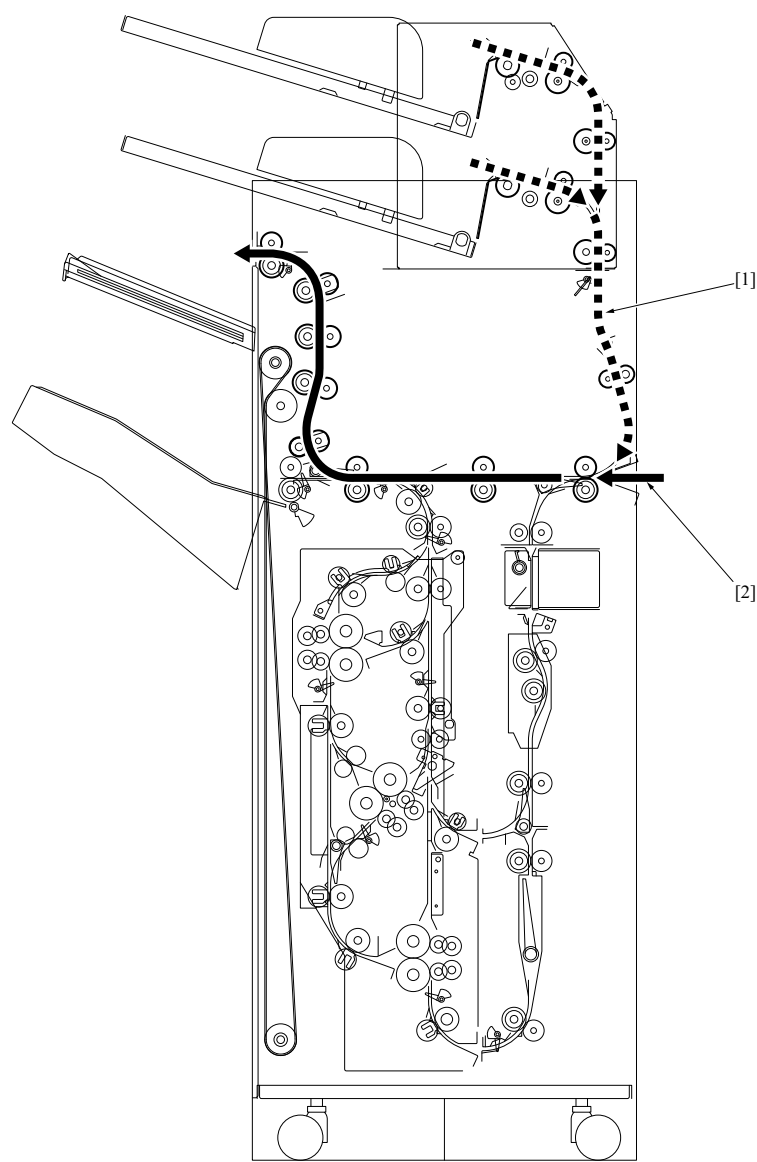
(1) Straight mode



fd501to1002c

[1] Paper through from the PI	[2] Paper through from the previous device
-------------------------------	--

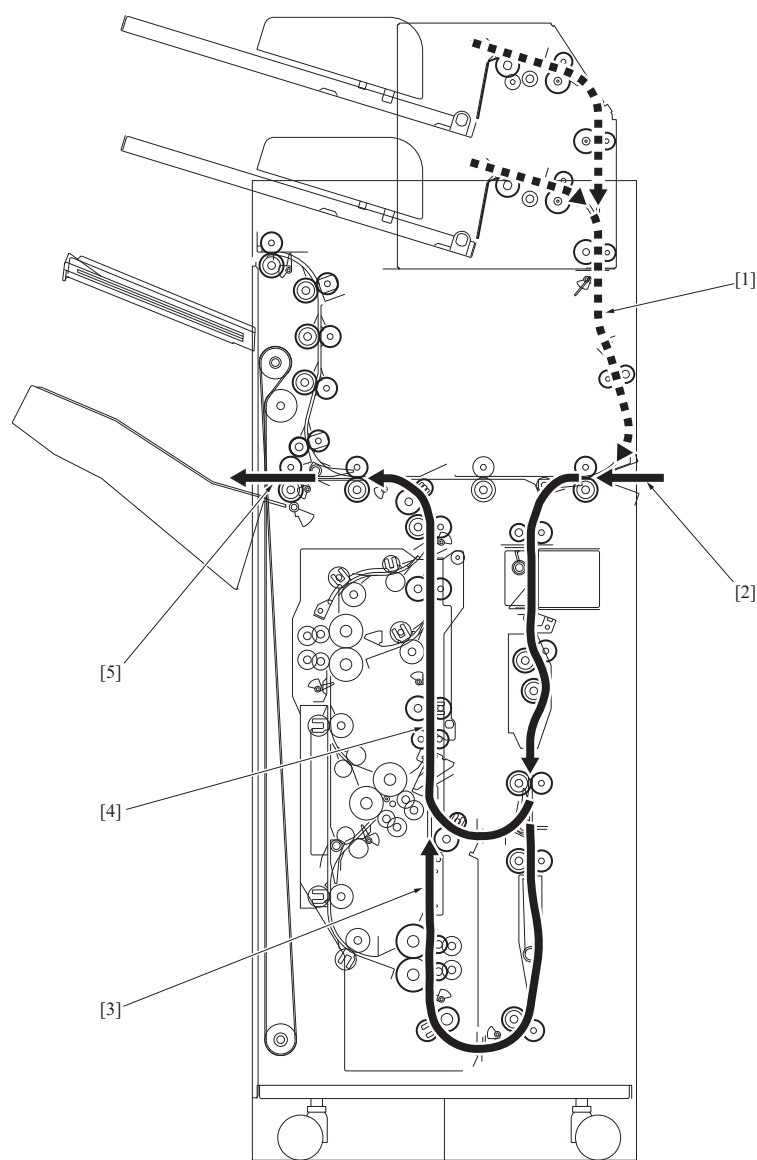
(2) Sub tray mode



fd501to1003c

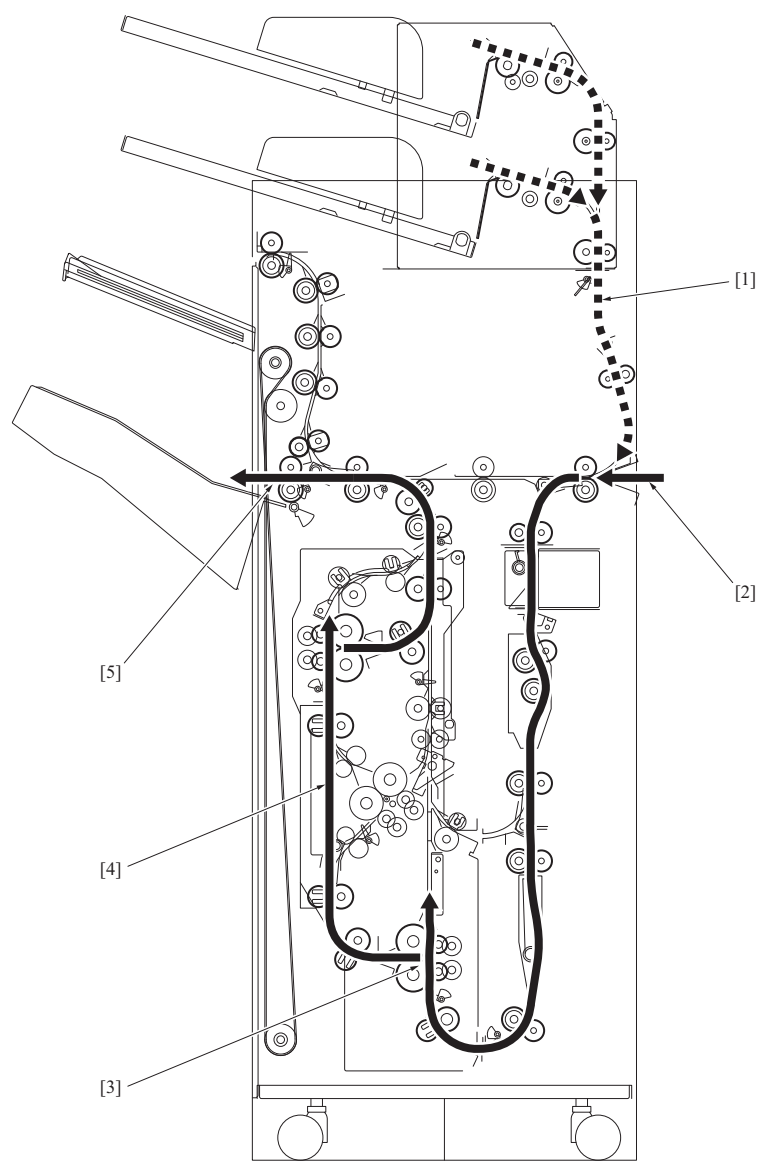
[1]	Paper through from the PI	[2]	Paper through from the previous device
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(3) Punch mode (L and S sizes)



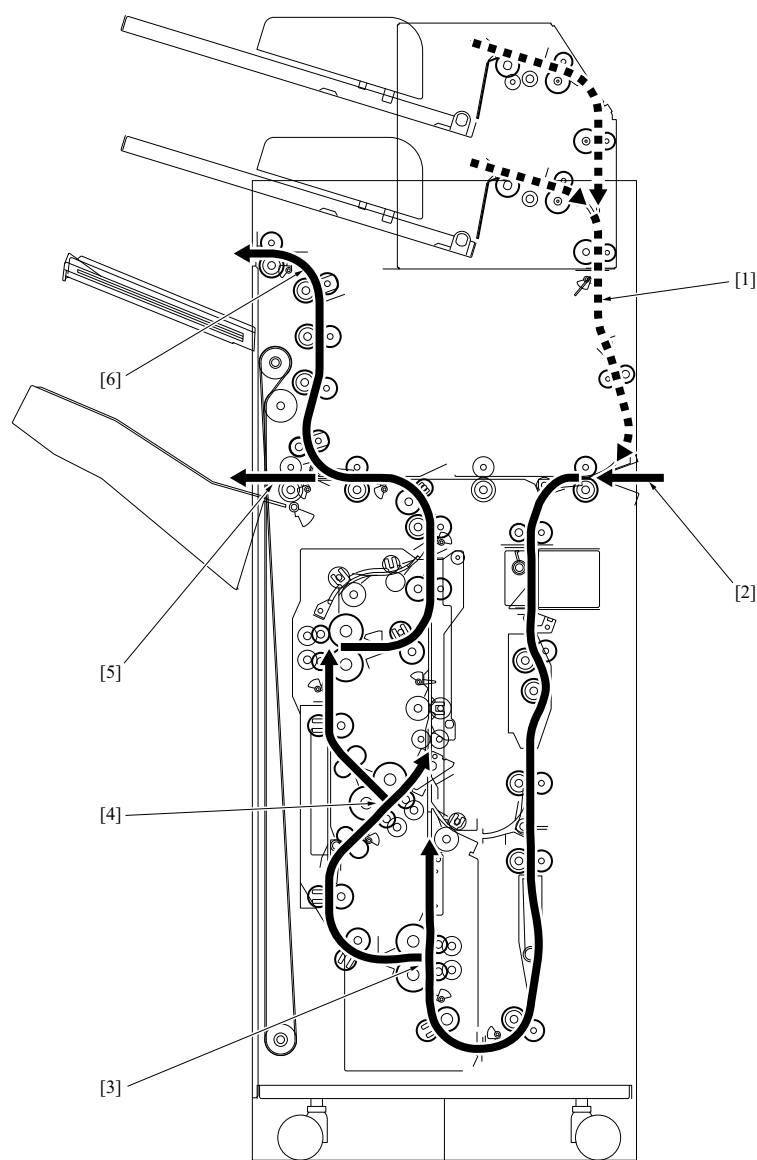
[1]	Paper through from the PI	[2]	Paper through from the previous device
[3]	For L size	[4]	For S size
[5]	Paper exit to the main tray, paper through to the next option	-	

(4) Z-Fold mode



[1]	Paper through from the PI	[2]	Paper through from the previous device
[3]	1st folding	[4]	2nd folding
[5]	Paper exit to the main tray, paper through to the next option	-	

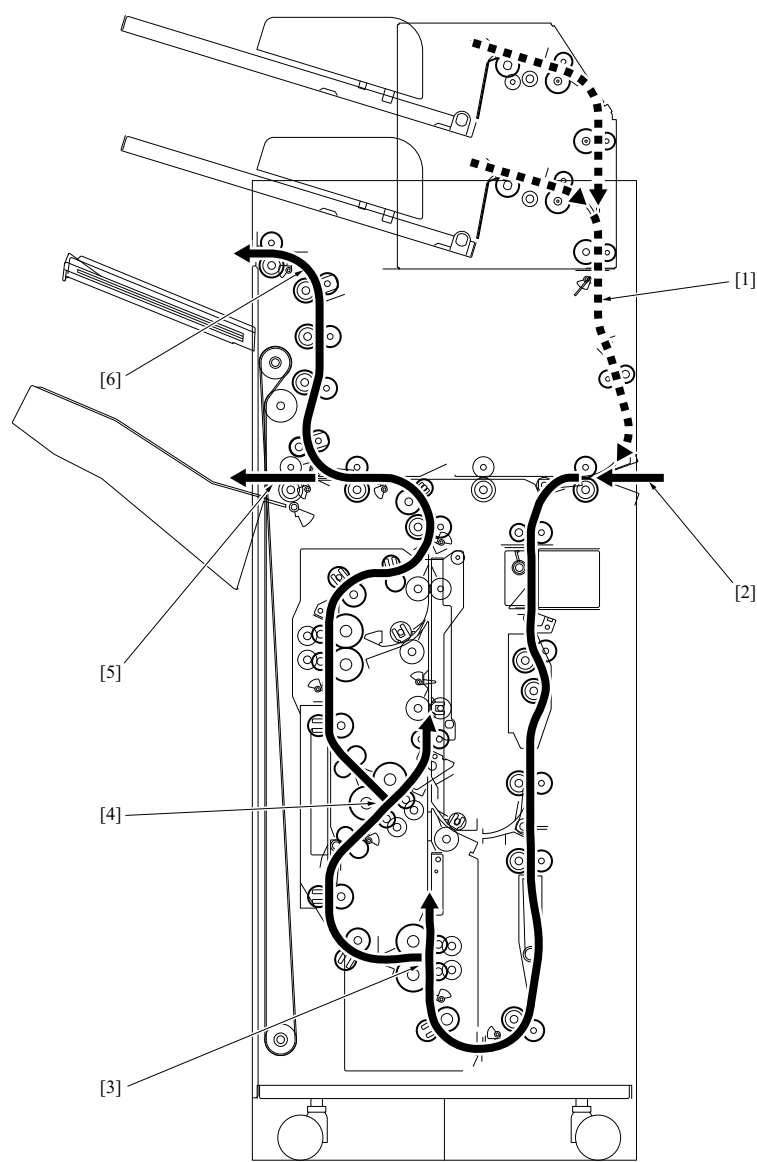
(5) Letter fold-out mode



fd501to1006c

[1]	Paper through from the PI	[2]	Paper through from the previous device
[3]	1st folding	[4]	2nd folding
[5]	Paper exit to the main tray	[6]	Paper exit to the sub tray

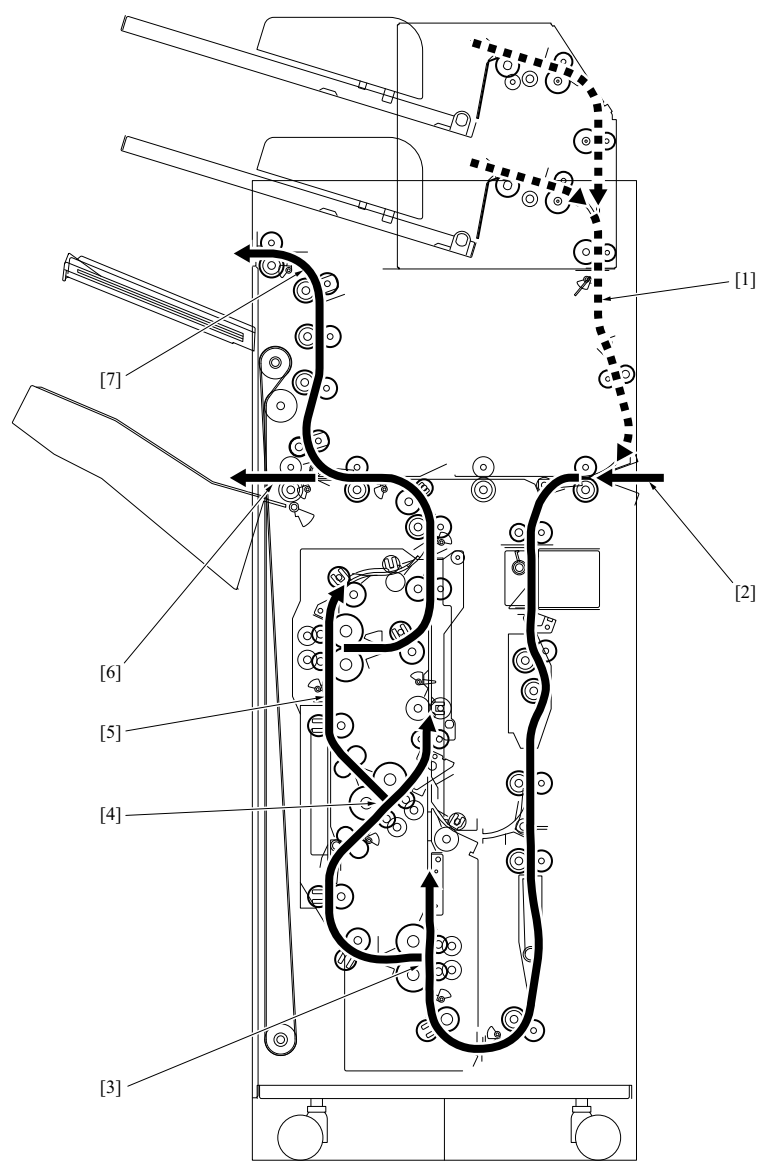
(6) Tri-Fold-in/double parallel mode



fd501to1007c

[1]	Paper through from the PI	[2]	Paper through from the previous device
[3]	1st folding	[4]	2nd folding
[5]	Paper exit to the main tray	[6]	Paper exit to the sub tray

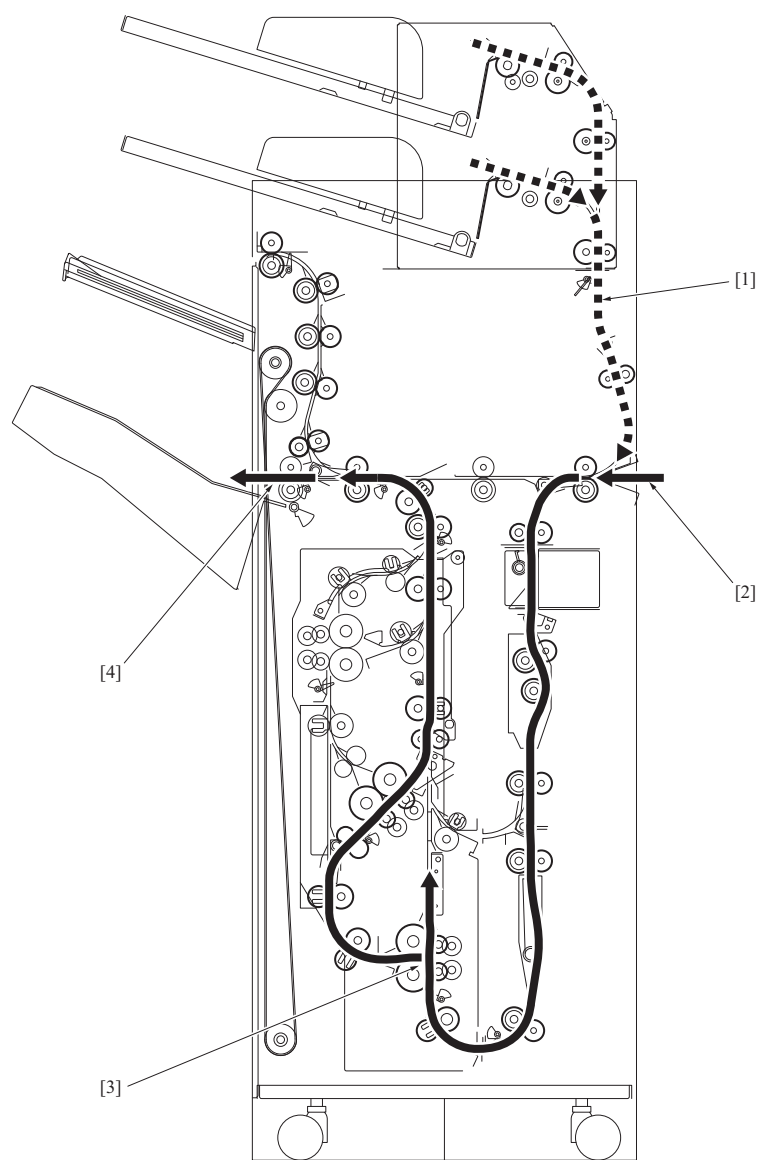
(7) Gate fold mode



fd501to1008c

[1]	Paper through from the PI	[2]	Paper through from the previous device
[3]	1st folding	[4]	2nd folding
[5]	3rd folding	[6]	Paper exit to the main tray
[7]	Paper exit to the sub tray	-	

(8) Half-Fold mode

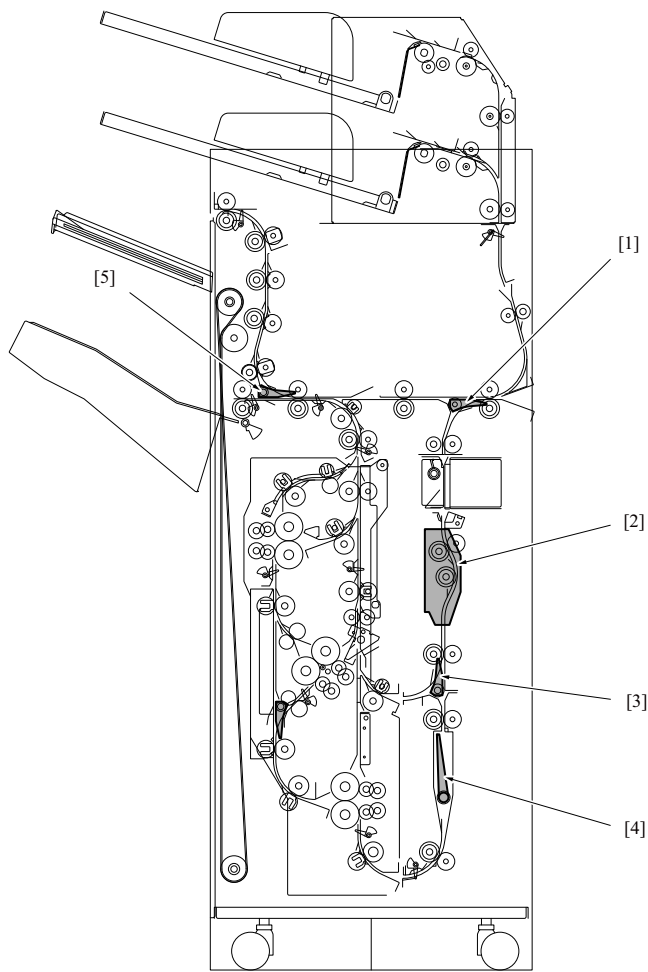


fd501to1009c

[1]	Paper through from the PI	[2]	Paper through from the previous device
[3]	Folding	[4]	Paper exit to the main tray, paper through to the next option
[5]	Paper exit to the sub tray	-	

2. CONVEYANCE SECTION

2.1 Configuration

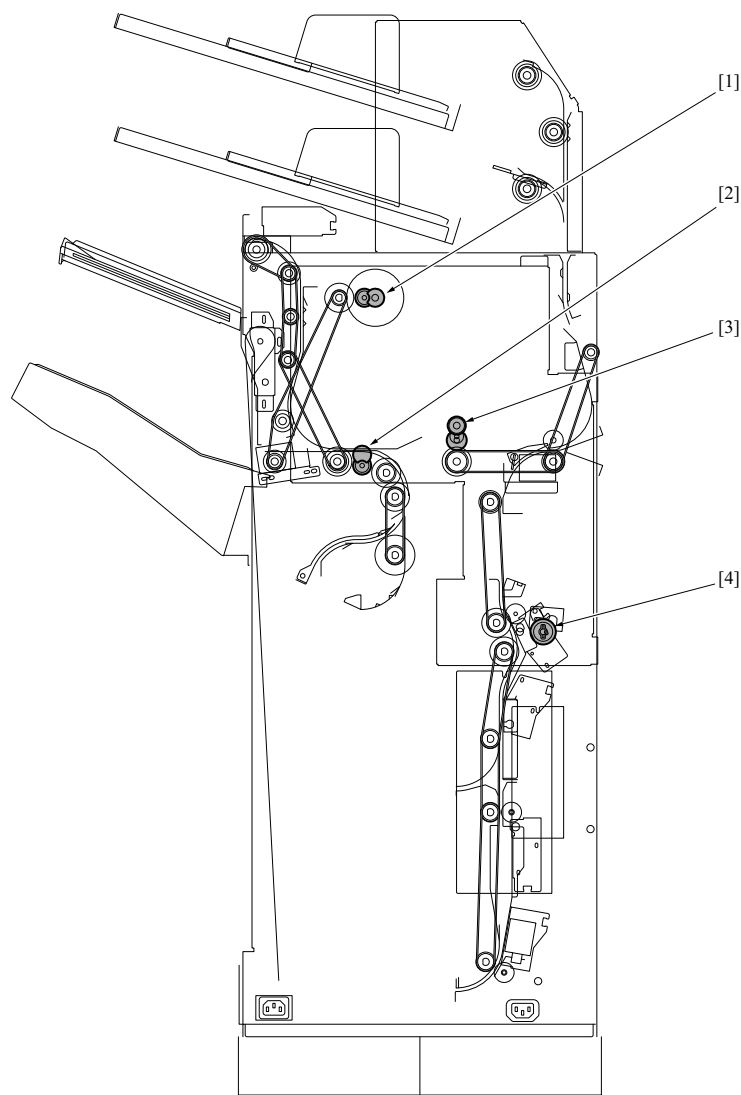


fd501to2001c

[1]	Entrance gate	[2]	Alignment plate /Fr, /Rr
[3]	S size gate	[4]	L size gate
[5]	Sub tray gate	-	

2.2 Drive

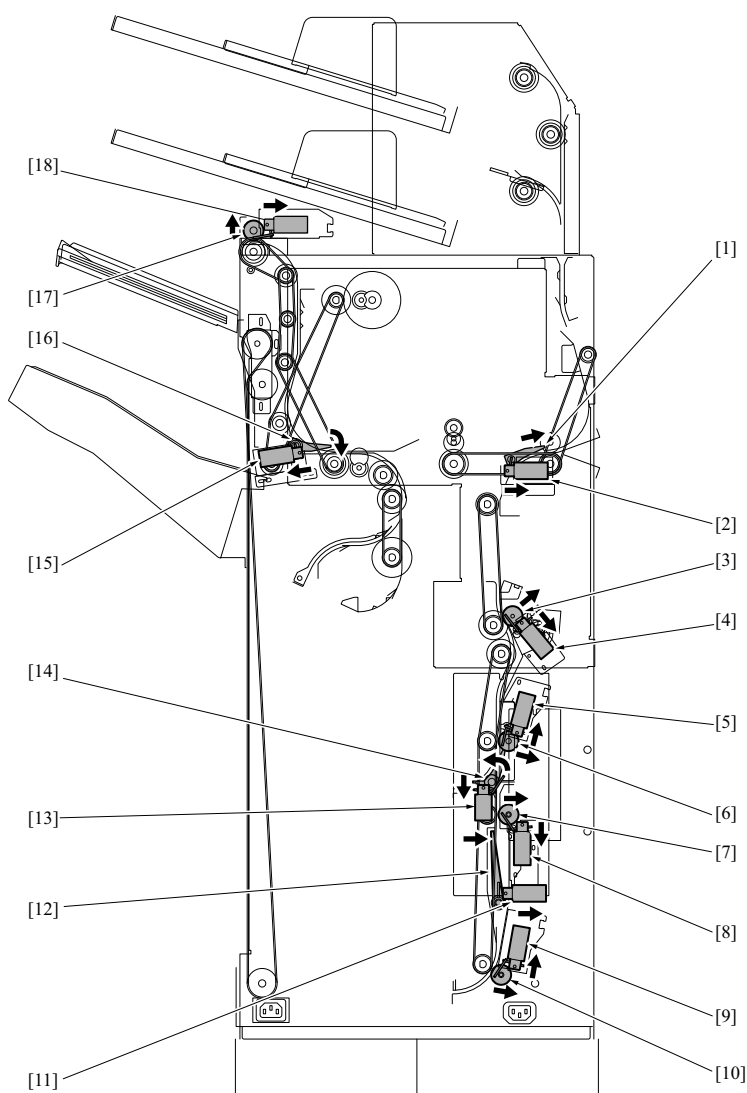
2.2.1 Conveyance drive



fd501to2002c

[1]	Main tray exit motor (M17)	[2]	Intermediate conveyance motor (M3)
[3]	Entrance conveyance motor (M1)	[4]	Punch conveyance motor (M2)

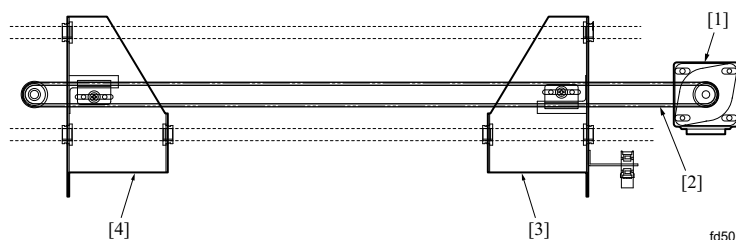
2.2.2 Gate drive



fd501to2003c

[1] Entrance gate	[2] Entrance gate solenoid (SD1)
[3] Vertical conveyance roller /Rt	[4] Roller solenoid /1 (SD5)
[5] Roller solenoid /2 (SD6)	[6] Vertical conveyance roller /2
[7] Vertical conveyance roller /3	[8] Roller solenoid /3 (SD7)
[9] Roller solenoid /4 (SD8)	[10] Vertical conveyance roller /4
[11] L size gate solenoid (SD4)	[12] L size gate
[13] S size gate solenoid (SD3)	[14] S size gate
[15] Sub tray gate solenoid (SD9)	[16] Sub tray gate
[17] Sub tray paper exit roller	[18] Paper exit solenoid (SD12)

2.2.3 Alignment drive



fd501to2004c

[1] Alignment motor (M12)	[2] Belt
[3] Alignment plate /Rr	[4] Alignment plate /Fr

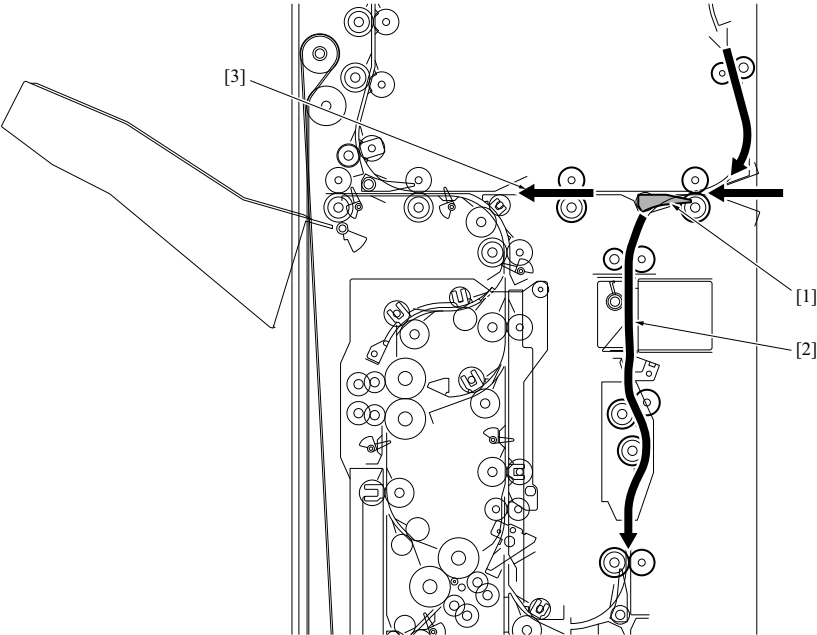
2.3 Operation

2.3.1 Conveyance path switching

The conveyance path of the paper that has been conveyed to the entrance guide plate varies according to the presence of a punch or folding, the tray into which paper is exited, and the paper size. The entrance gate, the sub tray gate, the S size gate, the L size gate and the folding gate make the switching of the conveyance path. (For details of the folding gate, refer to [PL.4. FOLDING CONVEYANCE SECTION](#))

(1) Entrance gate

The entrance gate solenoid (SD1) switches between the straight conveyance and the punch/folding conveyance by. In the straight mode, the SD1 remains OFF.
When conveying the 1st sheet of paper for punching/folding operation, SD1 is energized a specified period of time after the start button is turned ON.
For the 2nd and the succeeding sheets of paper, SD1 is energized in accord with the conveyance direction of the succeeding page after the preceding page passes through the FD entrance sensor (PS1).

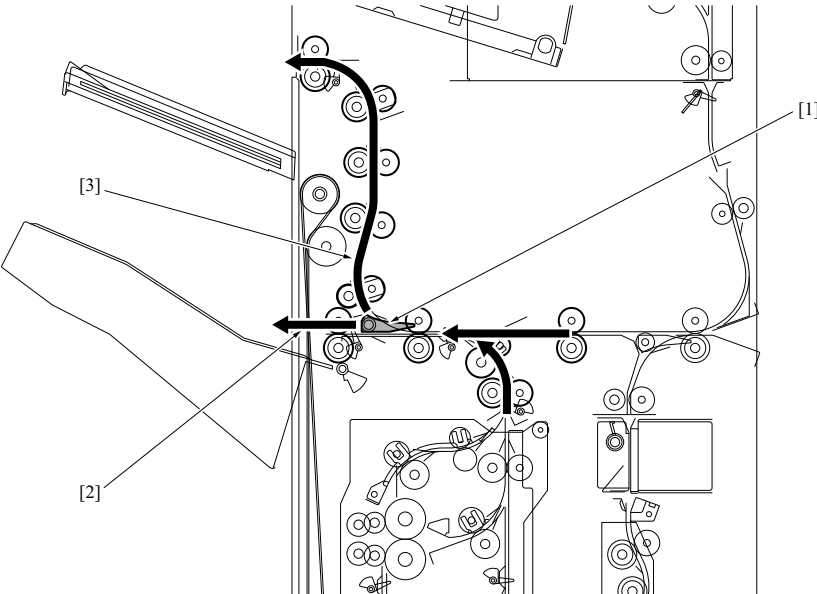


fd501to2005c

[1]	Entrance gate	[2]	Punch mode or folding mode
[3]	Straight mode	-	

(2) Sub tray gate

The sub tray gate solenoid (SD9) switches between the main tray paper exit and the sub tray paper exit. In the mode of the main tray paper exit, the SD9 remains OFF.
When exiting the 1st sheet of paper into the sub tray, switch the SD9 a specified period of time after the start button is turned ON.
For the 2nd and the succeeding sheets of paper, SD9 is energized in accord with the paper exit direction of the succeeding page after the preceding page passes through the intermediate conveyance sensor (PS13).



fd501to2006c

[1]	Sub tray gate	[2]	Main tray exit
[3]	Sub tray exit		-

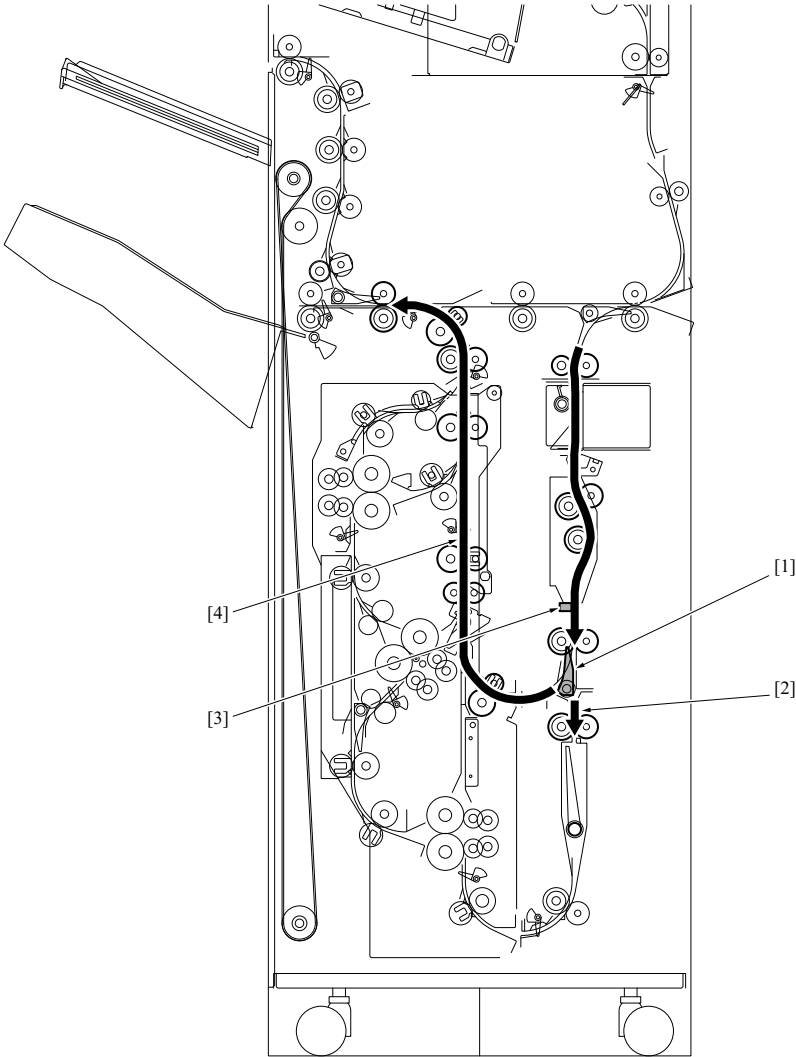
(3) S size gate

Switching is made according to the paper size and the presence of folding. S size gate solenoid (SD3) makes the drive of the gate. In the punch mode with no folding and in the case of the S size paper, SD3 remains OFF.

When conducting the folding operation or when feeding the 1st sheet of large-size paper, switch SD3 a specified period of time after the start button is turned ON.

For the 2nd and the succeeding sheets of paper, switch the sub tray gate solenoid (SD9) in accord with the paper exit direction of the succeeding page after the preceding page passes through the punch conveyance sensor (PS5).

S size paper: The length in the sub scan direction is 216mm or less.



fd5011to2007c

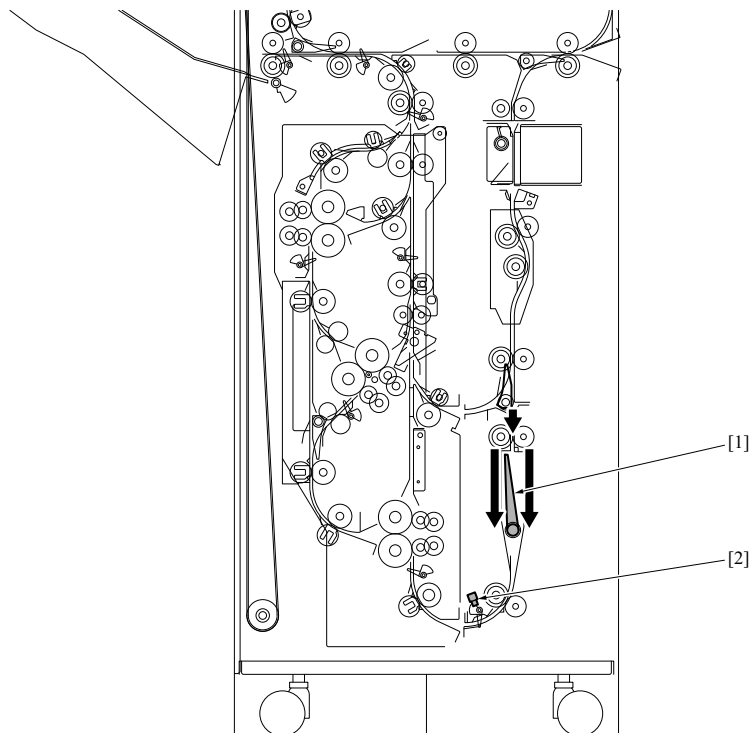
[1]	S size gate	[2]	For the folding mode (regardless of the presence of a punch)
[3]	Punch conveyance sensor (PS5)	[4]	For the S size paper with a punch only

(4) L size gate

When folding the paper, the conveyance path is switched back and forth for each paper conveyance to prevent the succeeding paper from coming into contact with the trailing edge of the L size paper that is in folding process.

L size gate solenoid (SD4) makes the drive of the gate.

L size paper: The length in the sub scan direction is 217mm or more.

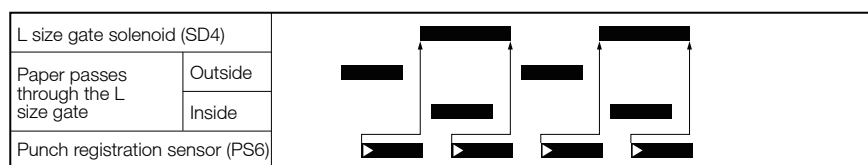


fd501to2008c

[1] L size gate (SD4-OFF position)	[2] Punch registration sensor (PS6)
------------------------------------	-------------------------------------

For the control of the L size gate, SD4 stands by at the OFF position (outer path) for the 1st sheet of paper to pass through. The 1st sheet of paper turns ON SD4 a specified period of time after the punch registration sensor (PS6) turns ON, and makes the switch to the inner path.

When the 2nd sheet of paper turns ON PS6, SD4 turns OFF after a specified period of time to make the switch to the outer path. The above operations are repeated for each sheet of paper.



fd501to2039e

2.3.2 Conveyance line speed control

The conveyance line speed of each conveyance section varies according to the type of paper and paper weight.

(1) Line speed switching

The following list shows each of conveyance sections and the range of the conveyance line speed.

Conveyance section	Conveyance line speed
Entrance conveyance section	290mm/s to 1000mm/s
Intermediate conveyance section	800mm/s to 1000mm/s
Punch conveyance section	490mm/s to 1000mm/s
Main tray paper exit section	205mm/s to 1000mm/s
Sub tray paper exit section	500mm/s

2.3.3 Alignment control

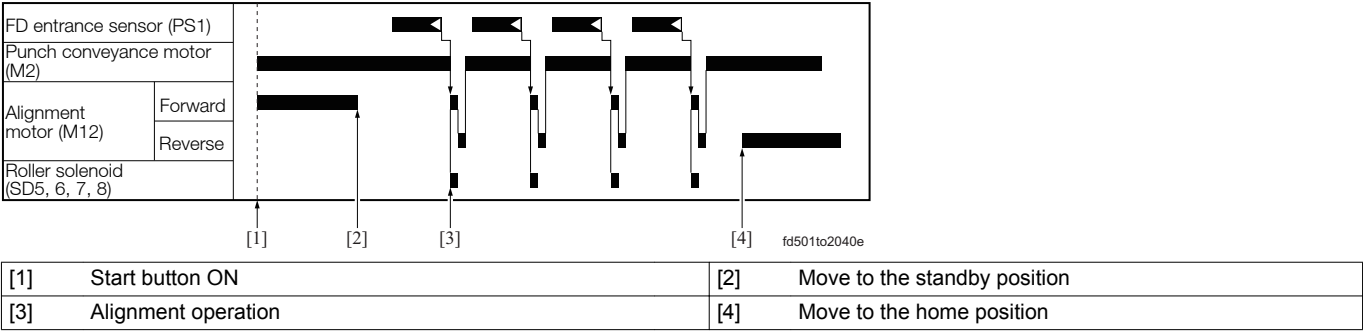
On paper conveyed to the punching position, the 2 alignment plates make a alignment operation to improve the accuracy of the punch hole positioning and the folding. The forward and reverse rotation of the alignment motor (M12) drives the alignment plate. The alignment plate home sensor (PS10) detects its home position.

When the start button is turned ON, M12 rotates in the forward direction to move the alignment plates /Fr and /Rr to the standby position of the paper size.

When the paper is conveyed to the punch position in a specified number of steps after it passes through the FD entrance sensor (PS1), the roller solenoid /1 (SD5), the roller solenoid /2 (SD6), the roller solenoid /3 (SD7) and the roller solenoid /4 (SD8) release the pressure of each roller and M12 conducts the alignment operation.

The roller solenoids that release each of the rollers from pressure are modified according to the size and the direction of paper aligned.

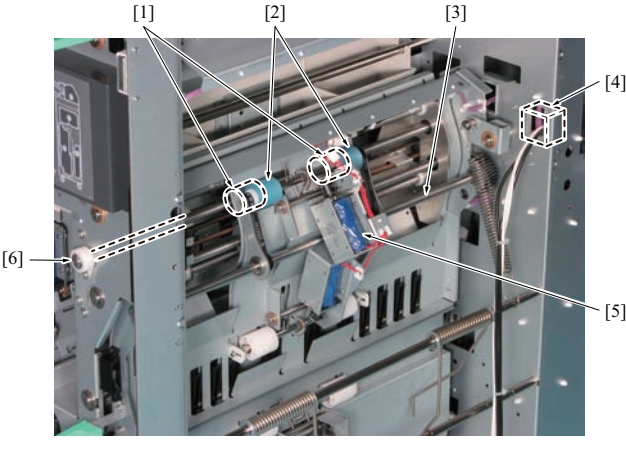
A specified period of time after completion of punching the last paper, M12 rotates in the reverse direction to bring the alignment plate back to the home position.



2.3.4 Gap recovery control

When conveying 2 pages at a time, conduct the gap recovery control after alignment.

- Note**
- The gap recovery control is only for 1200/1200P/1051 and 1250/1250P/1052.



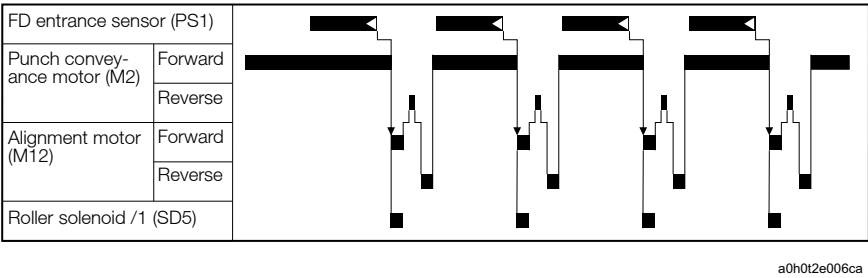
a0h0t2c005ca

[1]	Vertical conveyance roller /Lt	[2]	Vertical conveyance roller /Rt
[3]	Drive shaft	[4]	Punch conveyance motor (M2)
[5]	Roller solenoid /1 (SD5)	[6]	One-way clutch

(1) Small-size paper

Once the roller solenoid /1 (SD5) turns OFF after the alignment and presses each roller, the punch conveyance motor (M2) [4] rotates in the reverse.

The drive of the punch conveyance motor (M2) [4] is passed to the vertical conveyance roller /Rt [2] to rotate it in the reverse. At this time, the vertical conveyance roller /Lt [1] does not rotate in the reverse but keeps stopping since it has the one-way clutch [6]. According to this operation, only the vertical conveyance roller /Rt [2] side of the overlapped paper is returned to adjust the gap of paper.

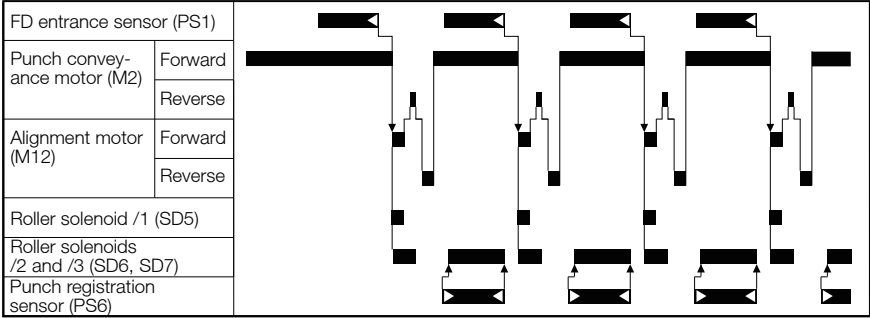


(2) Large-size paper

Once the roller solenoids /1 (SD5) turns OFF after the alignment and presses each roller, the punch conveyance motor (M2) [4] rotates in the reverse.

The drive of the punch conveyance motor (M2) [4] is passed to the vertical conveyance roller /Rt [2] to rotate it in the reverse. At this time, the vertical conveyance roller /Lt [1] does not rotate in the reverse but keeps stopping since it has the one-way clutch [6]. According to this operation, only the vertical conveyance roller /Rt [2] side of the overlapped paper is returned to adjust the gap of paper.

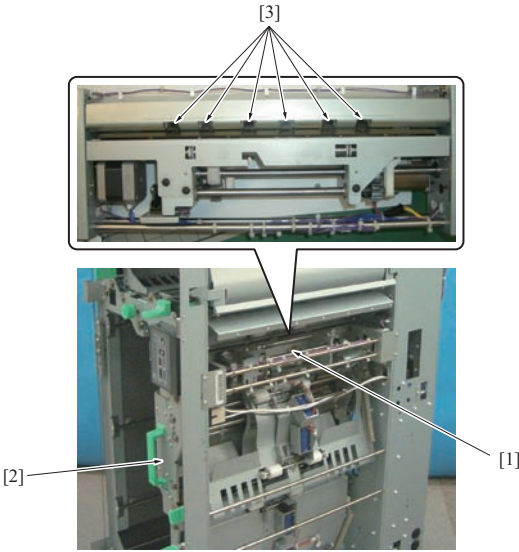
At the same time as the punch conveyance motor (M2) [4] stops, the roller solenoids /2 and /3 (SD6/SD7) turn OFF and press each roller.



a0h0t2e007ca

3. PUNCH SECTION

3.1 Configuration

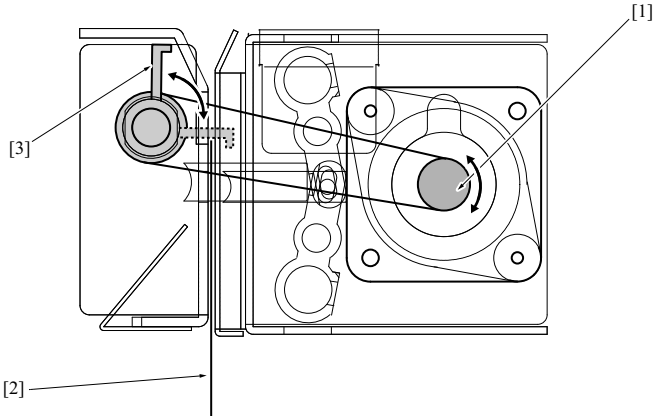


[1]	Punch hole switching mechanism	[2]	Punch scraps box
[3]	Punch rear claw	-	

3.2 Drive

3.2.1 Rear registration drive

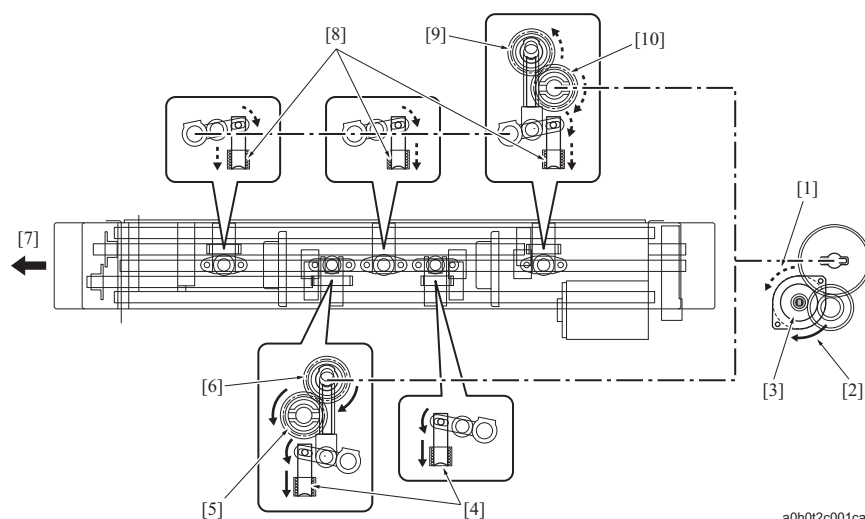
(1) Rear registration drive



fd501to2010c

[1]	Punch registration motor (M13)	[2]	Paper
[3]	Punch rear claw	-	

3.2.2 Punch drive



a0h0t2c001ca

[1]	Rotation when punching 3 holes (as seen from the front)	[2]	Rotation when punching 2 holes (as seen from the front)
[3]	Punch motor (M10)	[4]	2-hole punch edge
[5]	One-way clutch (2-hole punch)	[6]	Eccentric cam
[7]	Front side direction	[8]	3-hole punch edge
[9]	Eccentric cam	[10]	One-way clutch (3-hole punch)

3.3 Operation

(1) Punch control

The punch registration motor (M13) drives the punch rear claw to hold down the trailing edge of paper, and the punch motor (M10) drives the eccentric cam for punching.

After alignment operations, the roller solenoids /1 to /4 are turned ON to let paper be placed in the unfixed condition. The paper, however, is held by the curvature of the conveyance section. Then, the punch registration motor (M13) rotates a specified number of steps and the punch rear claw holds the trailing edge of paper to move it to the punching position. After a specified period of time, the punch motor (M10) drives for punching. After completion of punching, M13 returns the punch rear claw to the home position. The position of the home position is detected by the punch registration home sensor (PS11).

(2) Punch hole switching control

The punch hole is switched according to the rotational direction of the punch motor (M10).

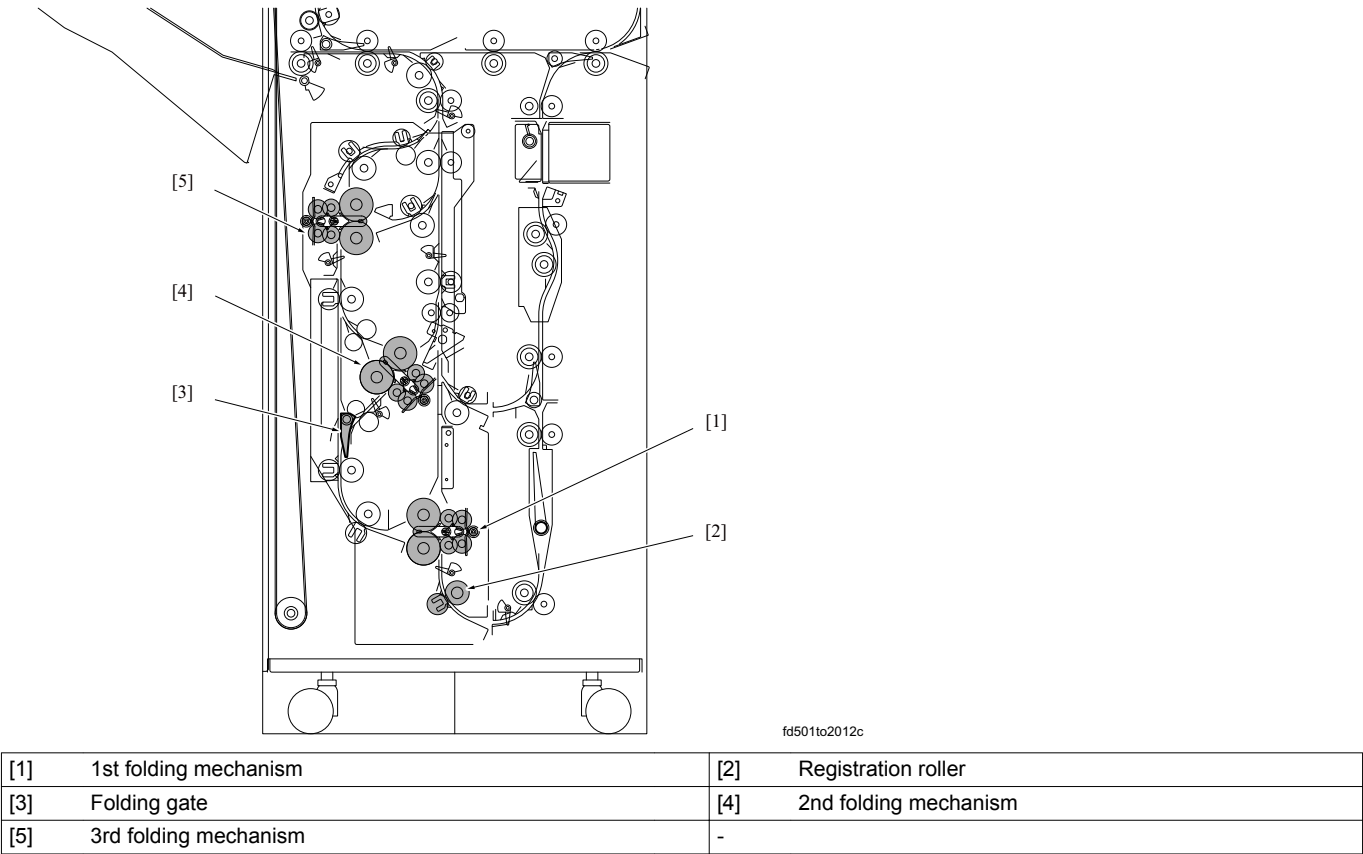
For 2-hole, M10 rotates counterclockwise to drive the 2-hole punch edge. For 3-hole, M10 rotates clockwise to drive the 3-hole punch edge. The 2-hole punch home sensor (PS8) detects the position of the 2-hole punch edge, and the 3-hole/4-hole punch home sensor (PS9) detects the position of the 3-hole punch edge.

(3) Punch-hole scraps box control

The punch scraps box set sensor (PS12) detects the setting of the punch scraps box, and the punch scraps full sensor (PS26) detects the full condition of the punch scraps box.

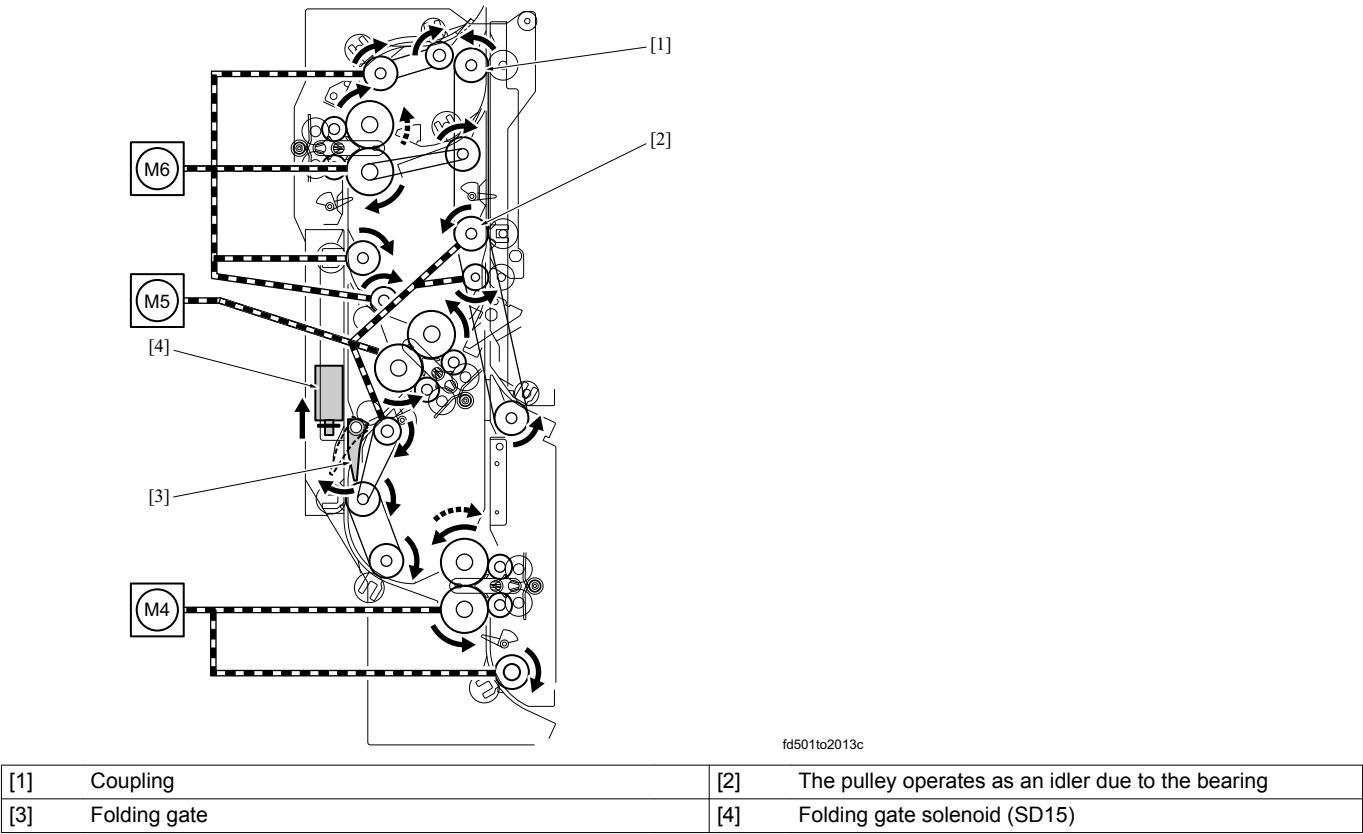
4. FOLDING CONVEYANCE SECTION

4.1 Configuration

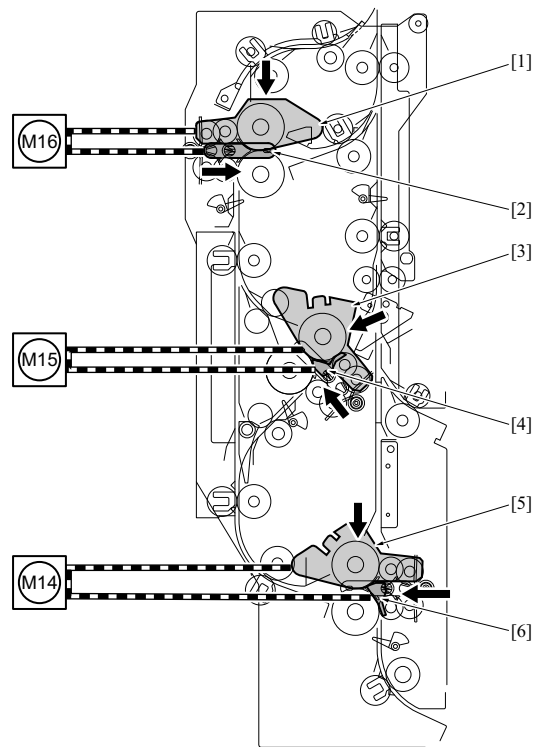


4.2 Drive

4.2.1 Conveyance drive



4.2.2 Folding drive



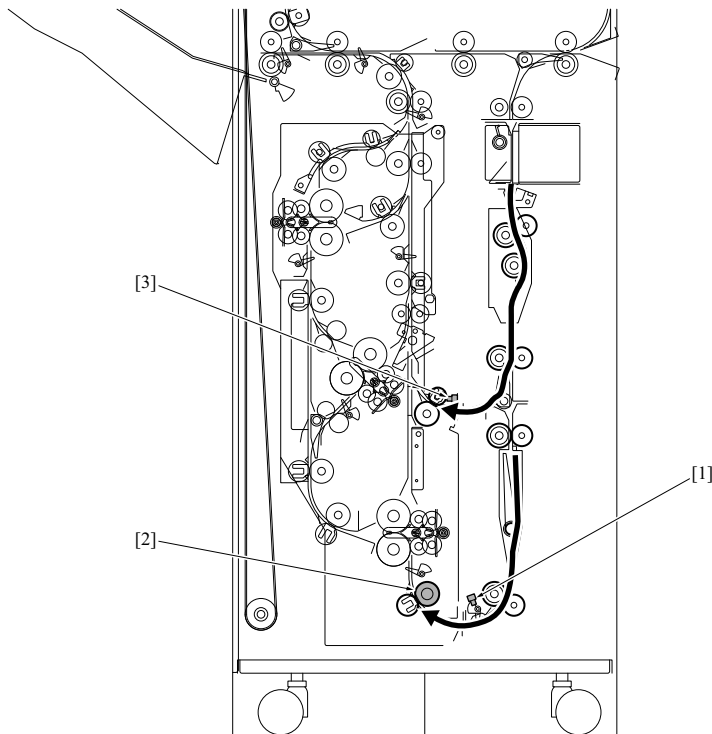
fd501to2014c

[1]	3rd folding roller /1 mounting board	[2]	3rd folding guide
[3]	2nd folding roller /1 mounting board	[4]	2nd folding guide
[5]	1st folding roller /1 mounting plate	[6]	1st folding guide

4.3 Operation

4.3.1 Registration control

The paper that has passes through the punch registration sensor (PS6) and arrives at the folding conveyance section is pressed against the registration roller to make adjustments for skew. A specified period of time after the PS6 turns ON, the 1st folding motor (M4) resumes the conveyance of paper. When no folding operation is made, no registration control is made. However, no folding is made on the paper that has entered the folding conveyance section from the folding entrance sensor side. The paper is conveyed vertically as is and exited to the main tray or the sub tray.



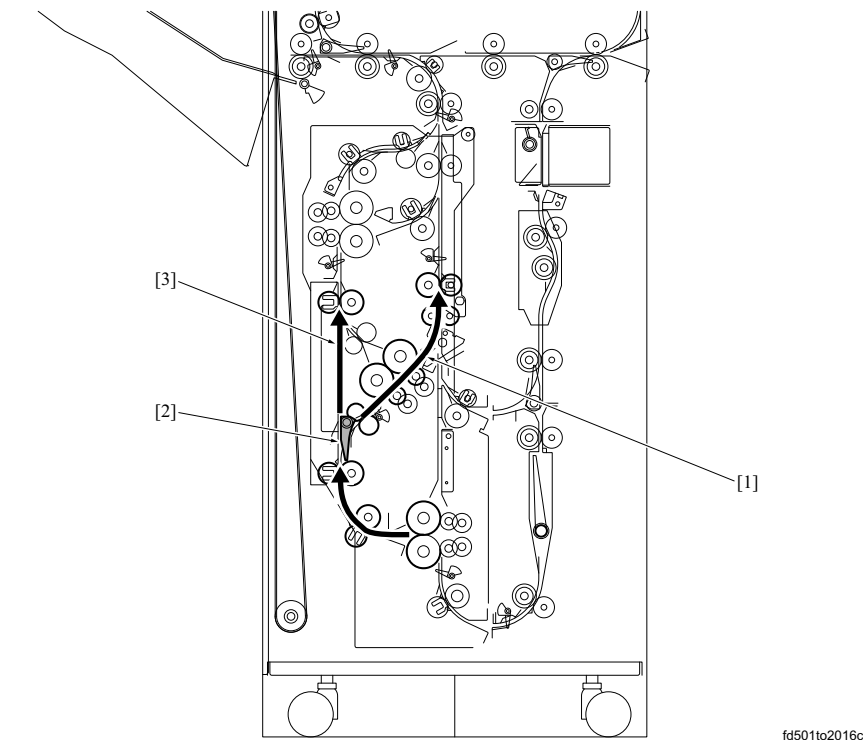
fd501to2015c

[1]	Punch registration sensor (PS6)	[2]	Registration roller
-----	---------------------------------	-----	---------------------

[3]	Folding entrance sensor (PS52)	-
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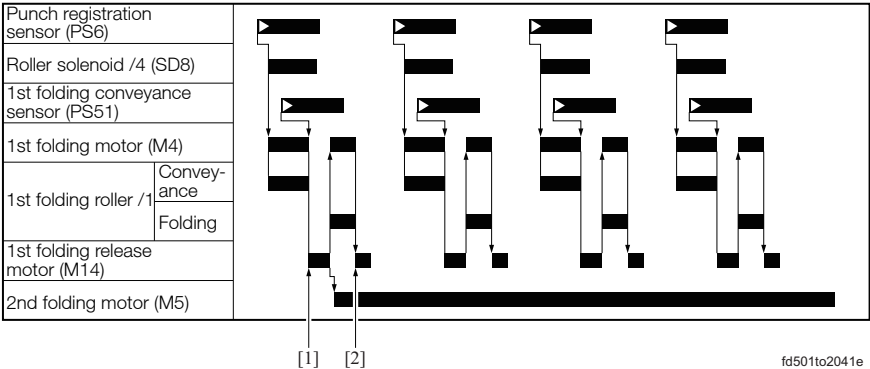
4.3.2 Conveyance path switching

The folding gate solenoid (SD15) switches the conveyance path between the 2nd folding and the 3rd folding.
Except for the Z-Fold mode, a specified period of time after the 1st folding conveyance sensor (PS51) turns ON, SD15 turns ON to convey the paper to the 2nd folding after the 1st folding. In the Z-Fold mode, SD15 remains OFF and the paper is conveyed to the 3rd folding after the 1st folding.



[1]	Except for the Z-Fold mode	[2]	Folding gate
[3]	In the Z-Fold mode		-

It shows the time chart of the 1st folding roller /1, but the other folding rollers are controlled as well.

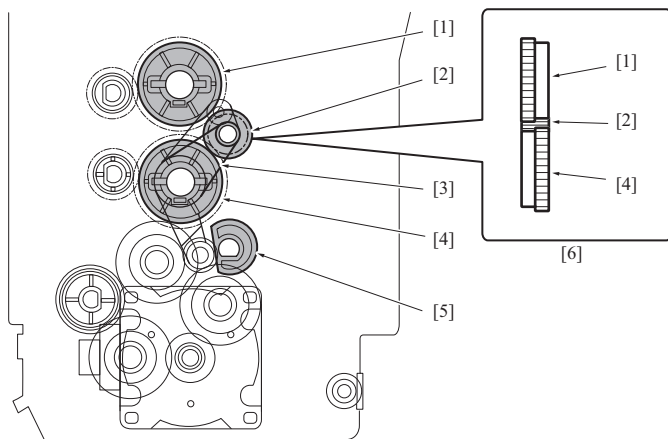


[1]	Change of the 1st folding roller /1 to the folding position	[2]	Change of the 1st folding roller /1 to the conveyance position
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4.3.3 1st folding control

(1) Conveyance/folding switching control

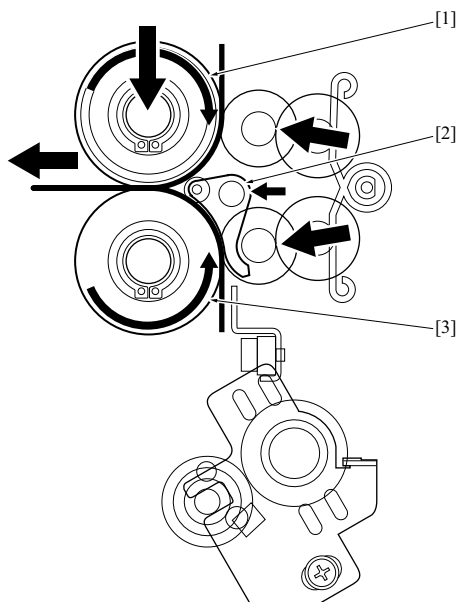
The switching between conveyance and folding is made by moving the 1st folding roller /1. The 1st folding release motor (M14) drives the eccentric cam for this switching.
After the 1st folding conveyance sensor (PS51) turns ON, the paper is conveyed by a specified number of steps. While the paper is being conveyed, the 1st folding roller gears /1 [1] and /2 [4] rotate in the same direction since these 2 gears are interlocked each other through the idle gear [2].
After conveying the paper by the prescribed number of steps, M14 rotates until it gets to a specified number of steps. It rotates the eccentric cam [5] to allow the idle gear arm [3] to separate the idle gear [2] from the 1st folding roller gears /1 [1] and /2 [4]. At the same time, when M14 starts up, the cam provided on the inside of the 1st roller gear /2 [4] rotates to allow the 1st roller /1 and 1st roller /2 to contact each other closely to rotate 1st roller /1. get the gears engaged.
The phases of the 1st folding roller gears /1 [1] and the 1st folding roller gears /2 [3] are not aligned in the depth direction. Therefore, they do not engage with each other the idle gear [2] has been separated.



fd501to2017c

[1]	1st folding roller gear /1	[2]	Idle gear
[3]	Idle gear arm	[4]	1st folding roller gear /2
[5]	Eccentric cam	[6]	Seen from the FD side

In parallel with this, when the 1st folding release motor (M14) starts up, the winding-up of the wire that pulls the folding guide [2] to the right side is loosened to allow the folding guide [2] to push out the paper in the clearance between the 1st folding rollers /1 [1] and /2 [3]. As a result, the paper gets caught in the rollers to be folded.



fd501to2018c

[1]	1st folding roller /1	[2]	Folding guide
[3]	1st folding roller /2	-	

4.3.4 2nd folding control

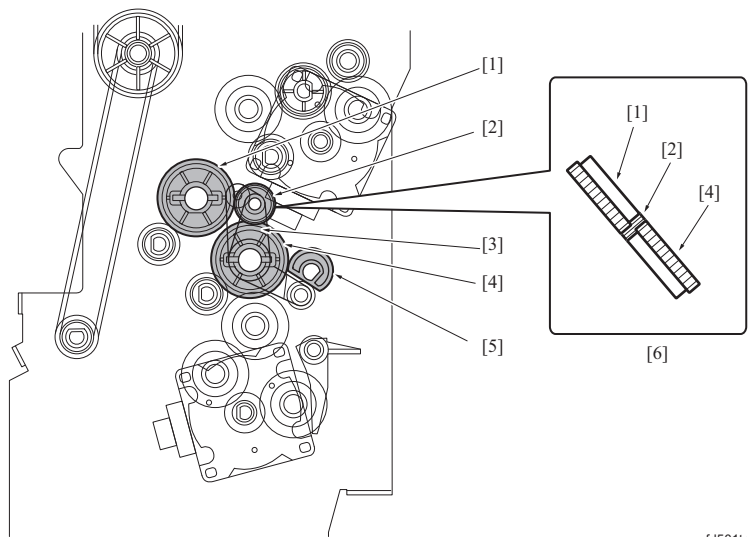
(1) Conveyance/folding switching control

The switching between conveyance and folding is made by moving the 2nd folding roller /1. The 2nd folding release motor (M15) drives the eccentric cam for this switching.

After the 2nd folding conveyance sensor (PS53) turns ON, the paper is conveyed by a specified number of steps. While the paper is being conveyed, the 2nd folding roller gears /1 [1] and /2 [4] rotate in the same direction since these 2 gears are interlocked each other through the idle gear [2].

After conveying the paper by the prescribed number of steps, M15 rotates until it gets to a specified number of steps. It rotates the eccentric cam [5] to allow the idle gear arm [3] to separate the idle gear [2] from the 2nd folding roller gears /1 [1] and /2 [4]. At the same time, when M14 starts up, the cam provided on the inside of the 2nd roller gear /2 [4] rotates to allow the 2nd roller /1 [1] and 2nd roller /2 to contact each other closely to rotate the 2nd roller /1.

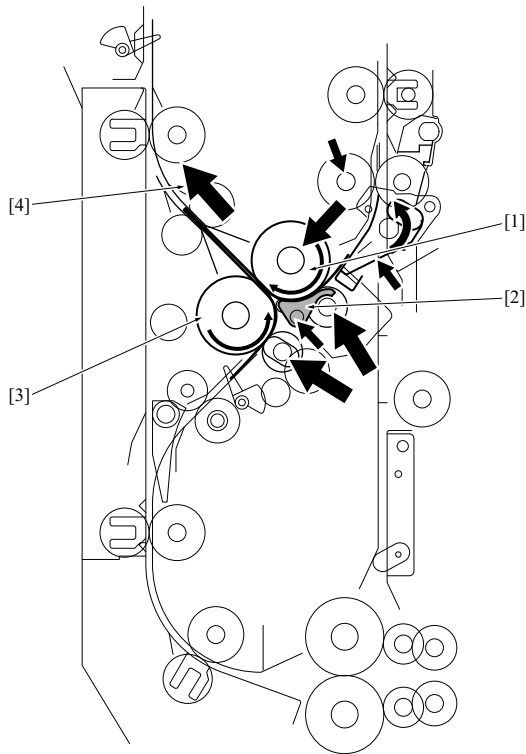
The phases of the 2nd folding roller gears /1 [1] and the 2nd folding roller gears /2 [3] are not aligned in the depth direction. Therefore, they do not engage with each other the idle gear [2] has been separated.



fd501to2019c

[1]	2nd folding roller gear /1	[2]	Idle gear
[3]	Idle gear arm	[4]	2nd folding roller gear /2
[5]	Eccentric cam	[6]	Seen from the FD side

In parallel with this, when the 2nd folding release motor (M15) starts up, the winding-up of the wire that pulls the folding guide [2] to the right side is loosened to allow the folding guide [2] to push out the paper in the clearance between the 2nd folding rollers /1 [1] and /2 [3]. As a result, the paper gets caught in the rollers to be folded.

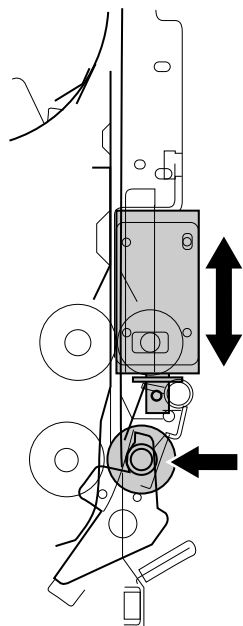


fd501to2020c

[1]	2nd folding roller /1	[2]	Folding guide
[3]	2nd folding roller /2	[4]	Direction of paper exit

(2) Gate fold assist control

In the Gate fold mode, the 2nd folding roller solenoid (SD18) turns ON a specified period of time after the 1st folding motor (M4) starts folding. When SD18 starts up, the 2nd roller is pressed firmly. This is a measure taken to avoid a multiple fold that is apt to occur at the folding section of paper when the 2nd folding is made.



fd501to2021c

4.3.5 3rd folding control

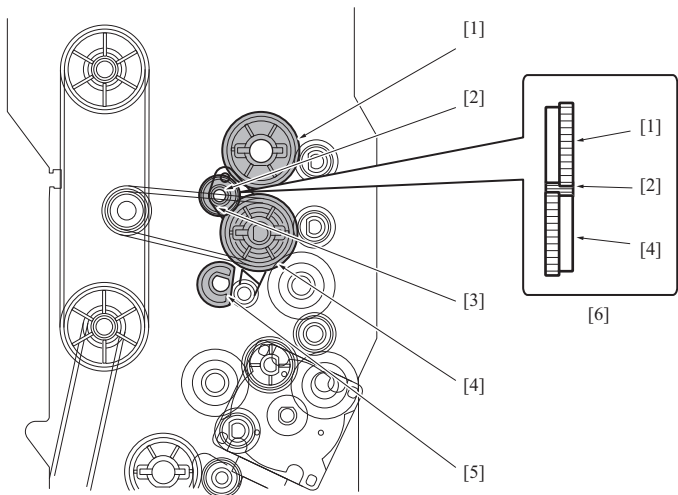
(1) Conveyance/folding switching control

The switching between conveyance and folding is made by moving the 3rd folding roller /1. The 3rd folding release motor (M16) drives the eccentric cam for this switching.

After the 3rd folding conveyance sensor (PS54) turns ON, the paper is conveyed by a specified number of steps. While the paper is being conveyed, the 3rd folding roller gears /1 [1] and /2 [4] rotate in the same direction since these 2 gears are interlocked each other through the idle gear [2].

After conveying the paper by the prescribed number of steps, M16 rotates until it gets to a specified number of steps. It rotates the eccentric cam [5] to allow the idle gear arm [3] to separate the idle gear [2] from the 3rd folding roller gears /1 [1] and /2 [4]. At the same time, when M16 starts up, the cam provided on the inside of the 3rd roller gear /2 [4] rotates to allow the 3rd roller /1 [1] and 3rd roller /2 to contact each other closely to rotate the 3rd roller /1.

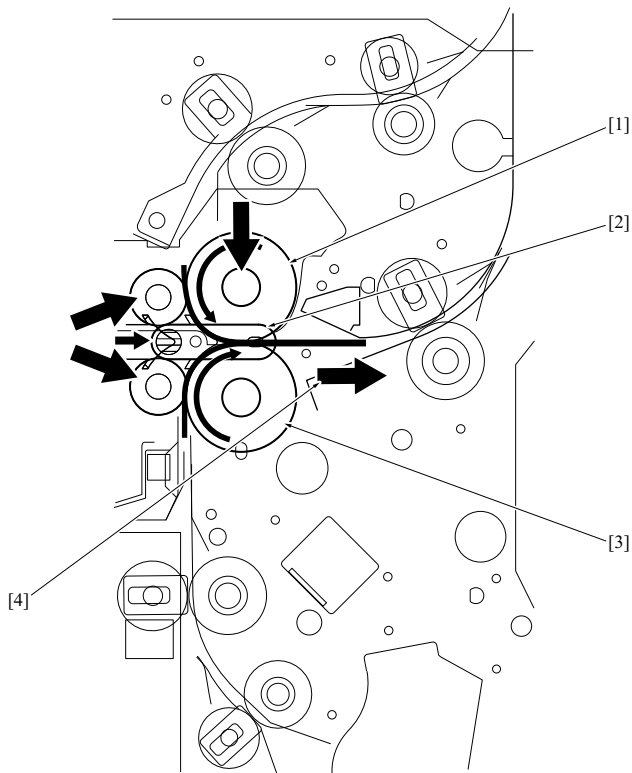
The phases of the 3rd folding roller gears /1 [1] and the 3rd folding roller gears /2 [4] are not aligned in the depth direction. Therefore, they do not engage with each other the idle gear [2] has been separated.



fd501to2022c

[1]	3rd folding roller gear /1	[2]	Idle gear
[3]	Idle gear arm	[4]	3rd folding roller gear /2
[5]	Eccentric cam	[6]	Seen from the FD side

In parallel with this, when the 3rd folding release motor (M16) starts up, the winding-up of the wire that pulls the folding guide [2] to the left side is loosened to allow the folding guide [2] to push out the paper in the clearance between the 3rd folding rollers /1 [1] and /2 [3]. As a result, the paper gets caught in the rollers to be folded.

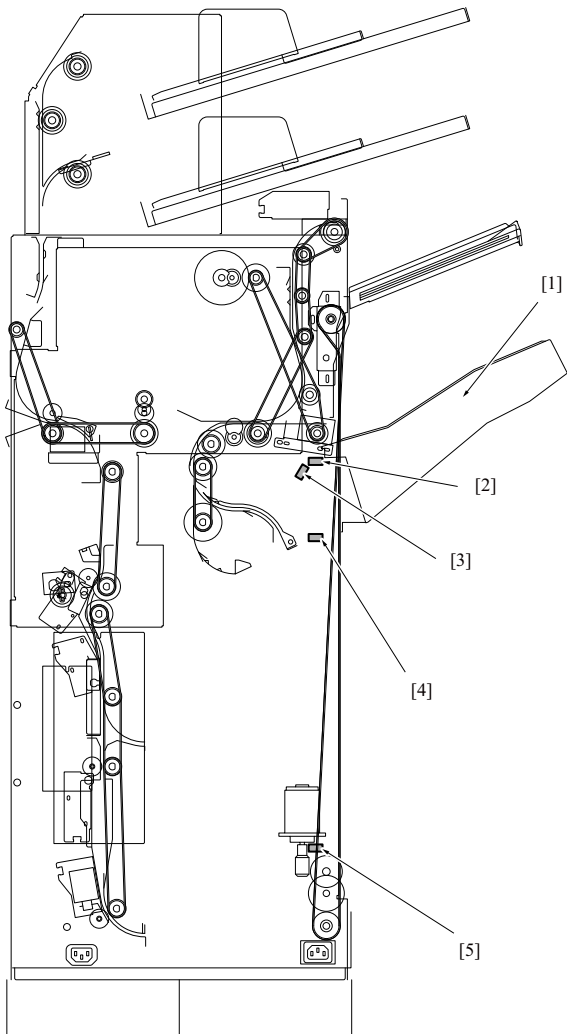


fd501to2023

[1]	3rd folding roller /1	[2]	Folding guide
[3]	3rd folding roller /2	[4]	Direction of paper exit

5. MAIN TRAY SECTION

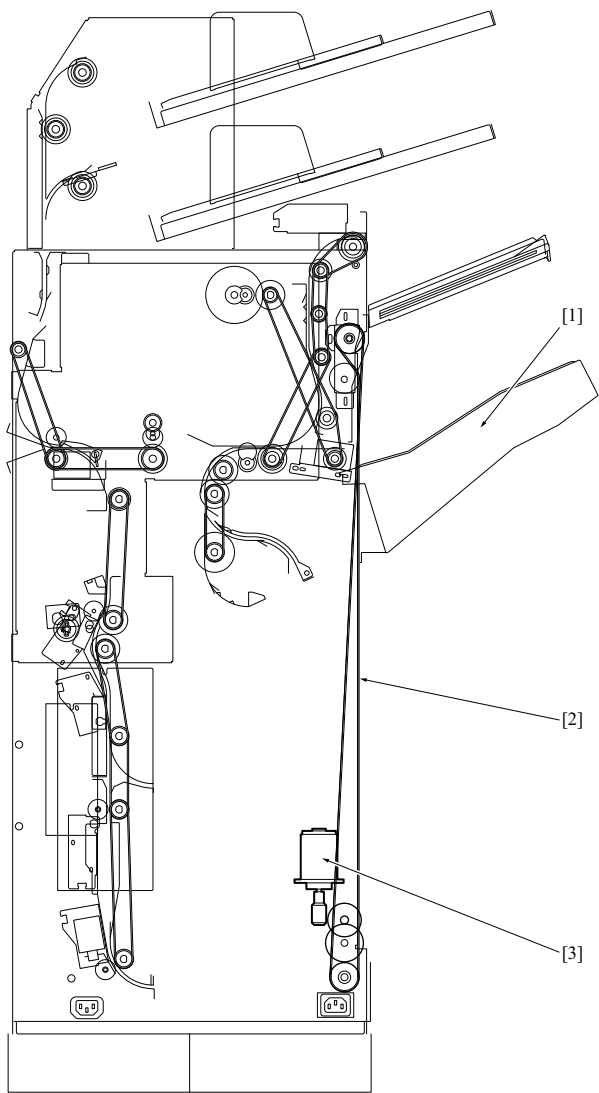
5.1 Configuration



fd501to2035c

[1]	Main tray	[2]	Main tray paper exit sensor (PS18)
[3]	Main tray upper limit sensor (PS20)	[4]	Main tray folding paper full sensor (PS7)
[5]	Main tray lower limit sensor (PS22)	-	

5.2 Drive



fd501to2036c

[1]	Main tray	[2]	Up/down wire
[3]	Tray up down motor (M11)	-	

5.3 Operation

5.3.1 Main tray up/down control

The up/down operation of the main tray is controlled by rotating the tray up/down motor (M11) in the normal or reverse direction.

(1) Main tray paper detection

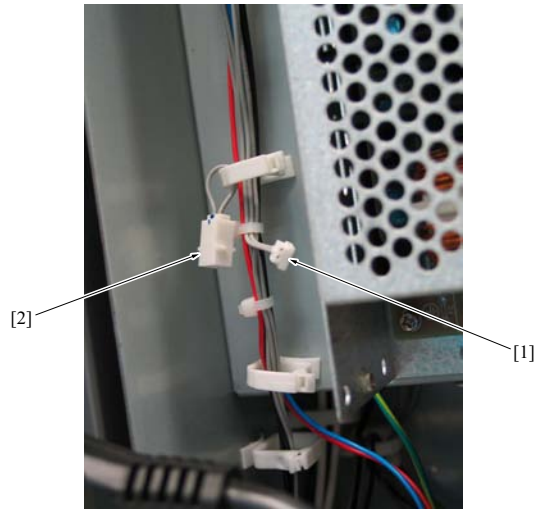
A specified period of time after the main tray paper exit sensor (PS18) turns ON, M11 starts up to bring down the main tray until the main tray upper limit sensor (PS20) turns OFF, and then bring it up again until PS20 turns ON. After the paper is exited, PS20 maintains the distance between the upper surface of the paper exited in the main tray (the surface of the main tray when no paper exited) and the paper exit opening at a fixed distance to prevent the paper exited from having an uneven edge.

(2) Switching the operation of the main tray

The main tray is set so that it normally does not operate. When letting the main tray operate, insert the short connector [2] into the CN90 [1].

⚠ CAUTION

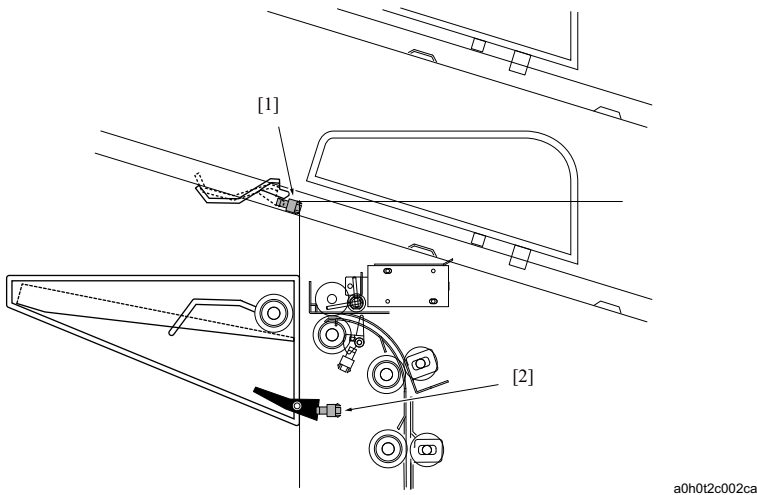
- Letting the main tray operate with the next option connected has a risk of damaging the machine. Be sure not to connect the short connector.



fd501to2037c

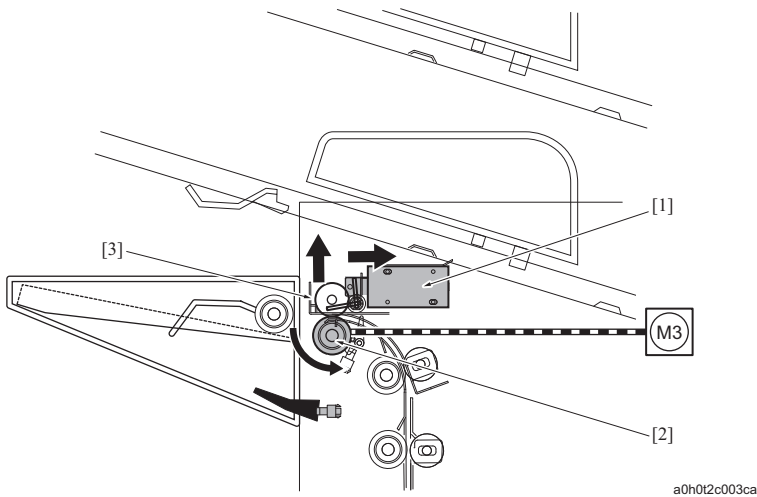
6. SUB TRAY SECTION

6.1 Configuration



[1]	Sub tray folding paper full sensor (PS46)	[2]	Sub tray paper full sensor (PS17)
-----	---	-----	-----------------------------------

6.2 Drive

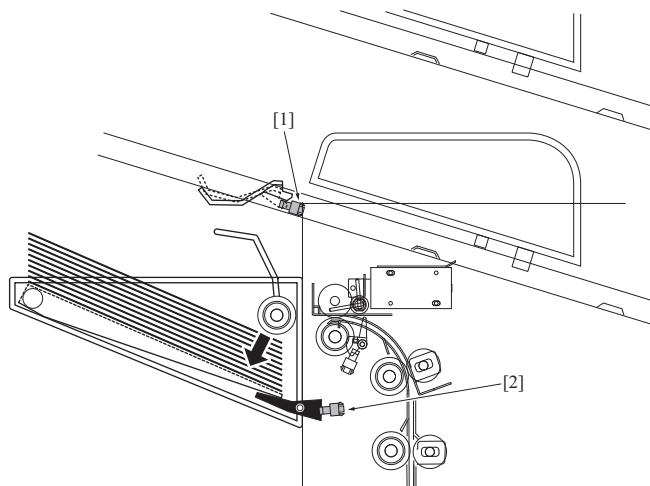


[1]	Paper exit solenoid (SD12)	[2]	Sub tray paper exit roller (drive)
[3]	Sub tray paper exit roller (driven)		-

6.3 Operation

6.3.1 Sub tray full-status detection control

The plate of the sub tray (with folding tray) has lift structure, so it moves down with its left edge as the axis of the movement when the paper is exited to the sub tray. When paper that has been exited into the sub tray gets to the specified thickness, the sub tray paper full sensor (PS17) [2] turns ON to send the "sub tray paper full" information to the main body. Then, the main body displays the message on its operation panel. When the folded paper on the sub tray is unfolded and the sub tray paper full sensor (PS46) [1] turns ON, the "sub tray paper full" information is also sent to the main body.

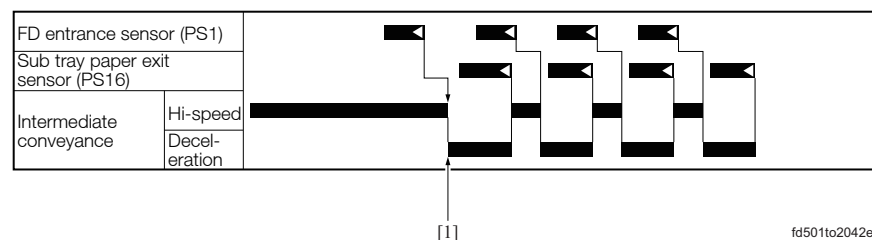


a0h0t2c004ca

[1]	Sub tray folding paper full sensor (PS46)	[2]	Sub tray paper full sensor (PS17)
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6.3.2 Line speed switching

Paper conveyed by the intermediate conveyance motor (M3) is decelerated for each sheet of paper to be exited into the sub tray.

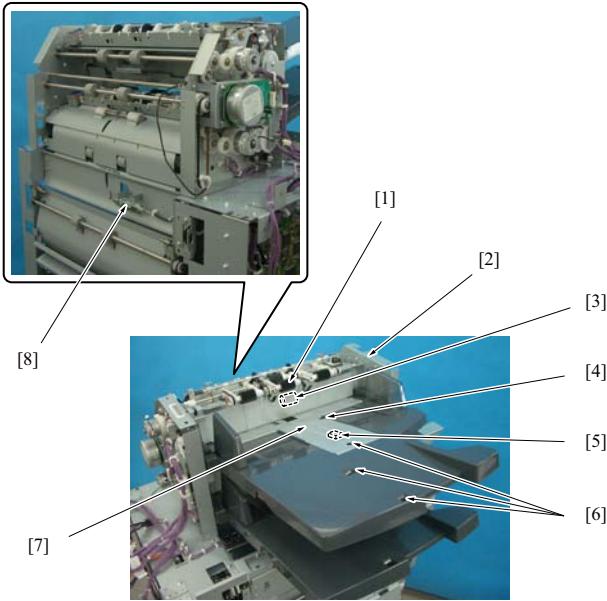


fd501to2042e

[1]	Deceleration of the intermediate conveyance motor (M3)	-
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7. PI SECTION

7.1 Configuration

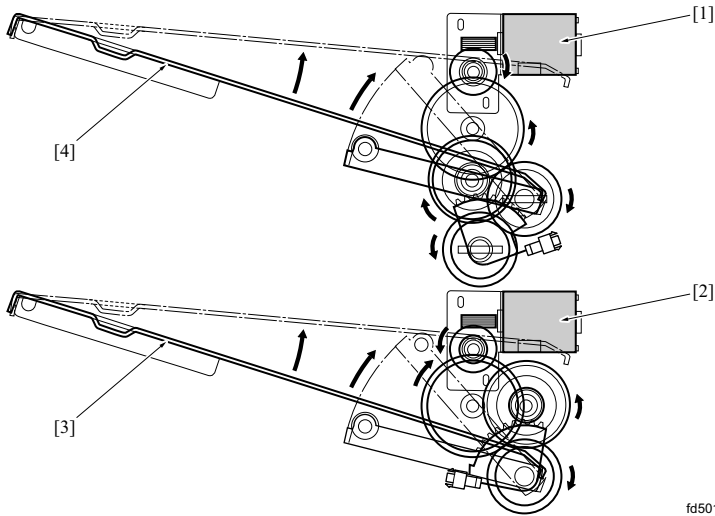


fd501to2027c

[1]	Paper pick-up mechanism	[2]	Manual operation
[3]	Paper separation mechanism	[4]	Paper set sensor
[5]	Paper size VR (main scan direction)	[6]	Paper size sensor (sub scan direction)
[7]	Lift plate	[8]	Multi-feed sensor

7.2 Drive

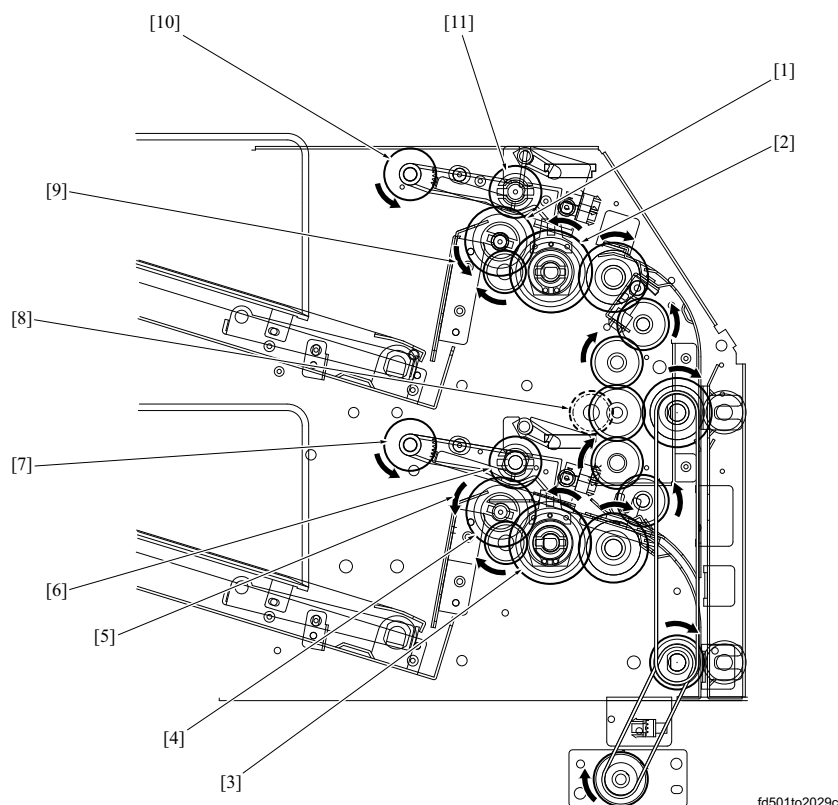
7.2.1 Tray lift drive



fd501to2028c

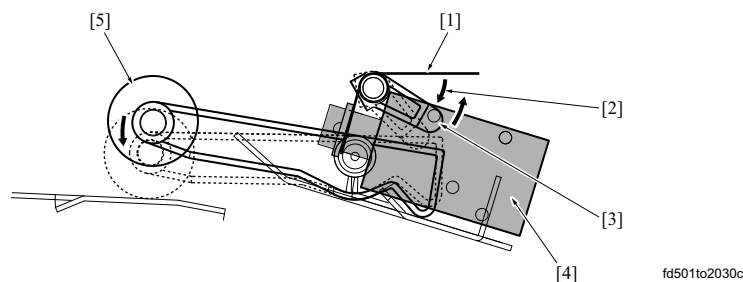
[1]	Paper lift motor /Up (M8)	[2]	Paper lift motor /Lw (M9)
[3]	PI lift plate /Lw	[4]	PI lift plate /Up

7.2.2 Paper feed drive



[1]	Separation roller /Up	[2]	PI registration clutch /Up (CL1)
[3]	PI registration clutch /Lw (CL2)	[4]	Separation roller /Lw
[5]	Rotational direction of separation roller /Lw	[6]	Paper feed roller /Lw
[7]	Pick-up roller /Lw	[8]	PI conveyance motor (M7)
[9]	Rotational direction of separation roller /Up	[10]	Pick-up roller /Up
[11]	Paper feed roller /Up	-	

7.2.3 Pick-up drive



[1]	Spring	[2]	Direction of the spring load
[3]	Release arm	[4]	PI pick-up solenoid /Up (SD13), /Lw (SD14)
[5]	Pick-up roller /Up, /Lw	-	

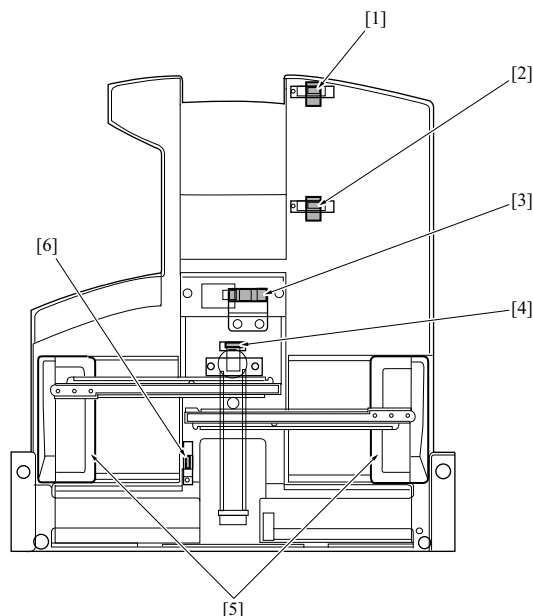
7.3 Operation

7.3.1 Size detection control

For the size detection of a paper, there are the following 2 directions for each of the tray /Up and the tray /Lw: that is, the main scan direction and the sub scan direction.

The following 3 sensors: PI maximum size sensors /Up (PS47) and /Lw (PS48) [1], L size sensors /Up (PS35) and /Lw (PS41) [2] and S size sensors /Up (PS36) and /Lw (PS42) [3], detect the size in the sub scan when the PI paper set sensors /Up (PS44) and /Lw (PS45) [6] turn ON. When the PS44 and PS45 are OFF, the tray is judged "paper empty."

The paper size VR /Up (VR31) and /Lw (VR32) [4] which are interlocked with the paper regulation plate [5] detect the size in the main scan.



fd501to2031c

[1]	PI maximum size sensor /Up (PS47), /Lw (PS48)	[2]	L size sensor /Up (PS35), /Lw (PS41)
[3]	S size sensor /Up (PS36), /Lw (PS42)	[4]	Paper size VR /Up (VR31), /Lw (VR32)
[5]	Paper regulation plate	[6]	PI paper set sensor /Up (PS44), /Lw (PS45)

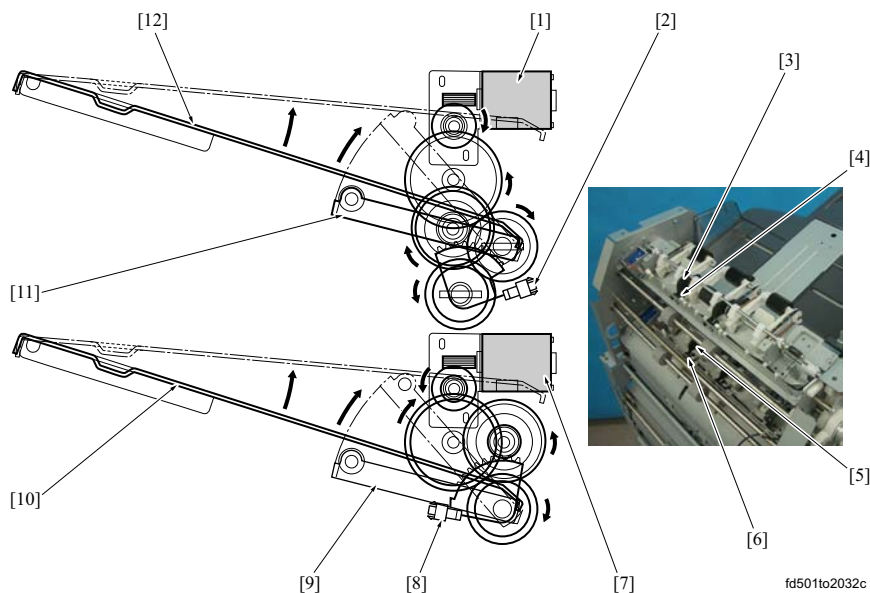
7.3.2 Up/down control

For the up/down of the tray, when the paper lift motors /Up (M8) [1] and /Lw (M9) [7] rotate in the normal and reverse directions, the lift arms /Up [11] and /Lw [9] start up to bring up and down the PI lift plates /Up [12] and /Lw [10]. The PI lift plate home sensors /Up (PS34) [2] and /Lw (PS40) [8] detect the lower limit position. The PI upper limit sensors /Up (PS32) [4] and /Lw (PS38) [6] detect the upper limit position at the position to which the actuators /Up [3] and /Lw [5] are pushed up by the PI lift plate.

When the PI paper set sensors /Up (PS44) and /Lw (PS45) are ON with the main body start button ON, M8 and M9 turn ON to bring up the PI lift plate. When PS32 and PS38 turn ON, M8 and M9 stop.

While in the copy/print operation, when PS32 and PS38 turn OFF from ON, M8 and M9 turn ON again to bring up the plate until PS32 and PS38 turn ON.

When PS44 and PS45 turn OFF with no paper left, M8 and M9 make a reverse rotation to move down the PI lift plate until PS34 and PS40 turn ON.



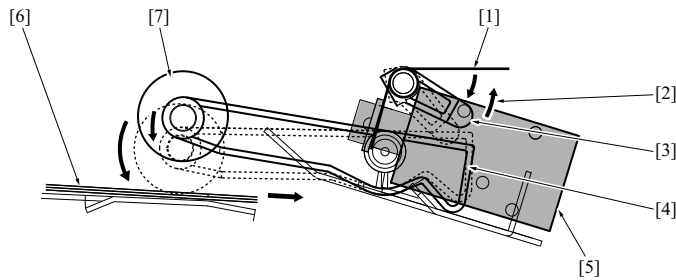
fd501to2032c

[1]	Paper lift motor /Up (M8)	[2]	PI lift plate home sensor /Up (PS34)
[3]	Actuator /Up	[4]	PI upper limit sensor /Up (PS32)
[5]	Actuator /Lw	[6]	PI upper limit sensor /Lw (PS38)
[7]	Paper lift motor /Lw (M9)	[8]	PI lift plate home sensor /Lw (PS40)
[9]	Lift arm /Lw	[10]	PI lift plate /Lw
[11]	Lift arm /Up	[12]	PI lift plate /Up

7.3.3 Pick-up mechanism

The picking-up of the paper [6] is made when the PI pick-up solenoids /Up (SD13) and /Lw (SD14) [5] turn ON. The release arm that is pressed down by the spring [1] in the direction of [2] presses down the paper feed arm [4] to place the pick-up rollers /Up and /Lw [7] in the release

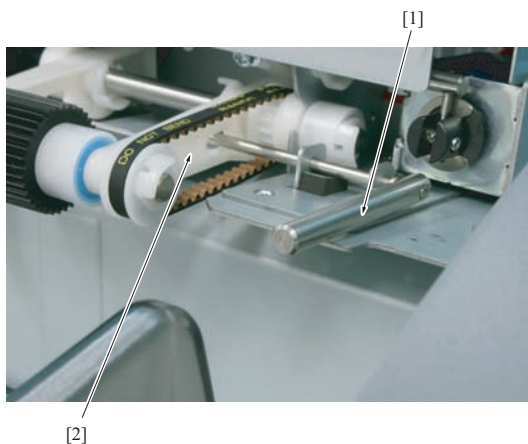
condition. When SD13 and SD14 [5] turn ON, the release arm is released upward and the pick-up rollers /Up and /Lw [7] go down by their own weight. The pick-up roller that is rotated by the PI conveyance motor (M7) presses down the paper to pick it up.



fd501to2033c

[1]	Spring	[2]	Direction of the spring load
[3]	Release arm	[4]	Paper feed arm
[5]	PI pick-up solenoid /Up (SD13), /Lw (SD14)	[6]	Paper
[7]	Pick-up roller /Up, /Lw	-	

Paper feed arm retaining lever [1] is provided in the pick-up roller section to prevent multi-feed. By moving the paper feed arm retaining levers [1] on the front and back to inside, the pick-up rollers on the front and back are secured while the roller in the middle presses against paper. Multi-feed is prevented by reducing the pressure against paper when feeding papers.



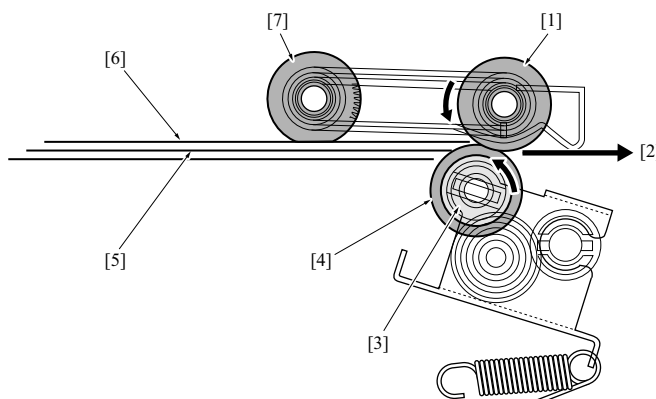
fd501to2044c

7.3.4 Separation mechanism

The separation roller [4] is driven in the direction opposite to the paper conveyance [2]. However, when no paper is conveyed or only 1 sheet of paper is conveyed, the frictional force generating between the paper feed roller [1] and the separation roller [4] or the paper and the separation roller is greater than the frictional force of the torque limiter [3]. Accordingly, the separation roller [4] rotates in the direction of the paper conveyance [2] to convey paper to the vertical conveyance section.

When 2 or more sheets of paper are conveyed, the frictional force between these sheets of paper is smaller than the frictional force of the torque limiter [3] and the separation roller [4] rotates in the reverse direction to prevent the lower most paper from being conveyed.

When the PI registration clutches /Up (CL1) and /Lw (CL2) turn ON according to the PI paper feed demand signal, the paper feed roller [1], the separation roller [4] and the pick-up roller [7] rotate to convey the paper one at a time.

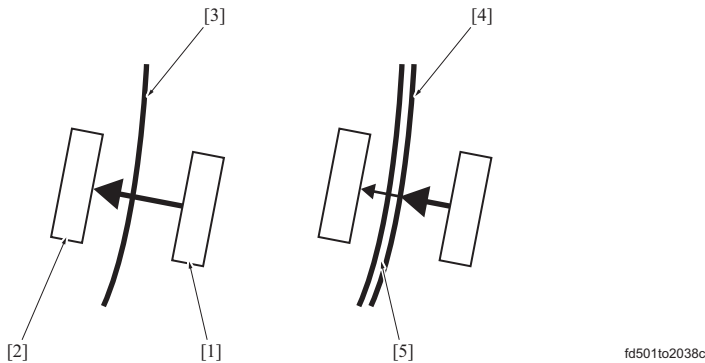


fd501to2034c

[1]	Paper feed roller /Up, /Lw	[2]	Paper conveyance direction
[3]	Torque limiter	[4]	Separation roller /Up, /Lw
[5]	2nd sheet of paper	[6]	1st sheet of paper
[7]	Pick-up roller /Up, /Lw	-	

7.3.5 Multi feed detection control

To detect a multi-feed while in the PI paper feed, the PI conveyance path is provided with the multi-feed sensor. The multi-feed sensor is an ultrasonic sensor made up of a pair of a sender and a receiver. This sensor receives ultrasonic waves sent from the multi-feed detection board /1 (MFDB1) [1] by the multi-feed detection board /2 (MFDB2) [2]. Based on the difference in the amount of ultrasonic waves received when a single sheet of paper [1] and the plural sheets of paper [4] pass through between the sender and the receiver, a check is made to see if paper has been multi-fed or not. The multi-feed detection function turns ON (operates) when the LED on the lower side is turned on by the multi-feed detection function selection button on the FD operation board (FDOB) and when no selection is made. It turns OFF (does not operate) when the LED on the upper side is turned on.



[1]	Multi-feed detection board /1 (MFDB1)	[2]	Multi-feed detection board /2 (MFDB2)
[3]	1 sheet of paper	[4]	More than 1 sheet of paper
[5]	Layer of air	-	

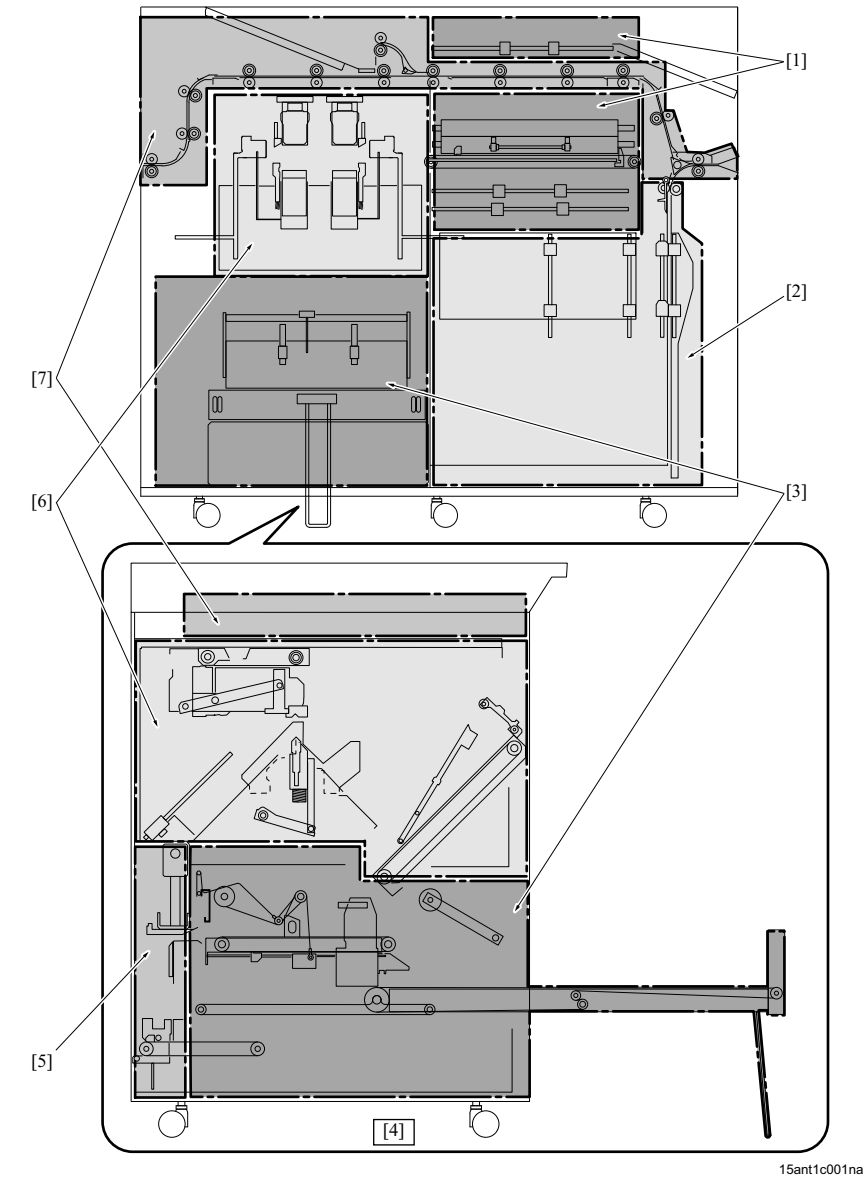
7.3.6 Paper empty detection control

The PI empty sensors /Up (PS33) and /Lw (PS39) detect the presence of paper in the tray section while in the print stop. PI set sensors /Up (PS44) and /Lw (PS45) detect the paper empty while in the print to stop the paper feed from the trays /1 to /5 when PS44 and PS45 detect the trailing edge of the last paper.

PP THEORY OF OPERATION SD-506

1. OUTLINE

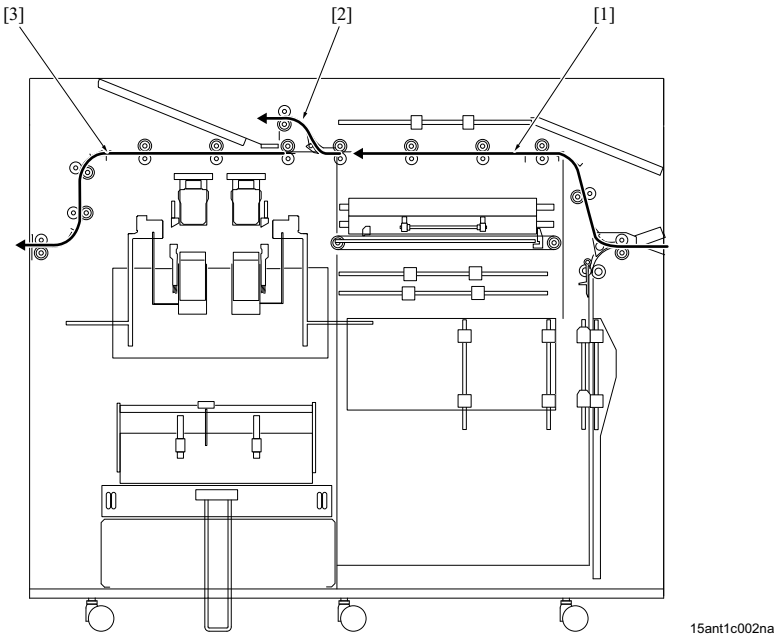
1.1 Unit configuration



[1]	Folding section	[2]	Right angle conveyance section
[3]	Bundle processing section	[4]	Left-side view
[5]	Trimmer section	[6]	Saddle stitching section
[7]	Horizontal conveyance section	-	

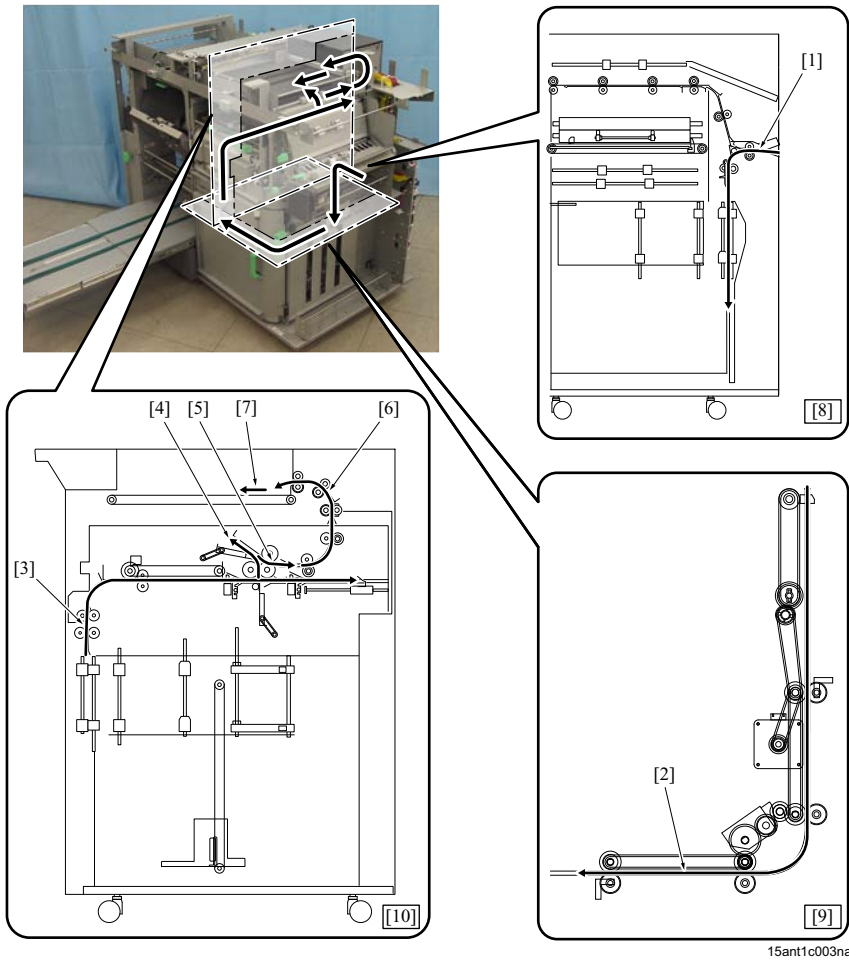
1.2 Paper path

(1) Coupling exit/subtray exit mode



[1]	Horizontal conveyance	[2]	Sub tray exit
[3]	Coupling exit		-

(2) Overlap tri-folding mode

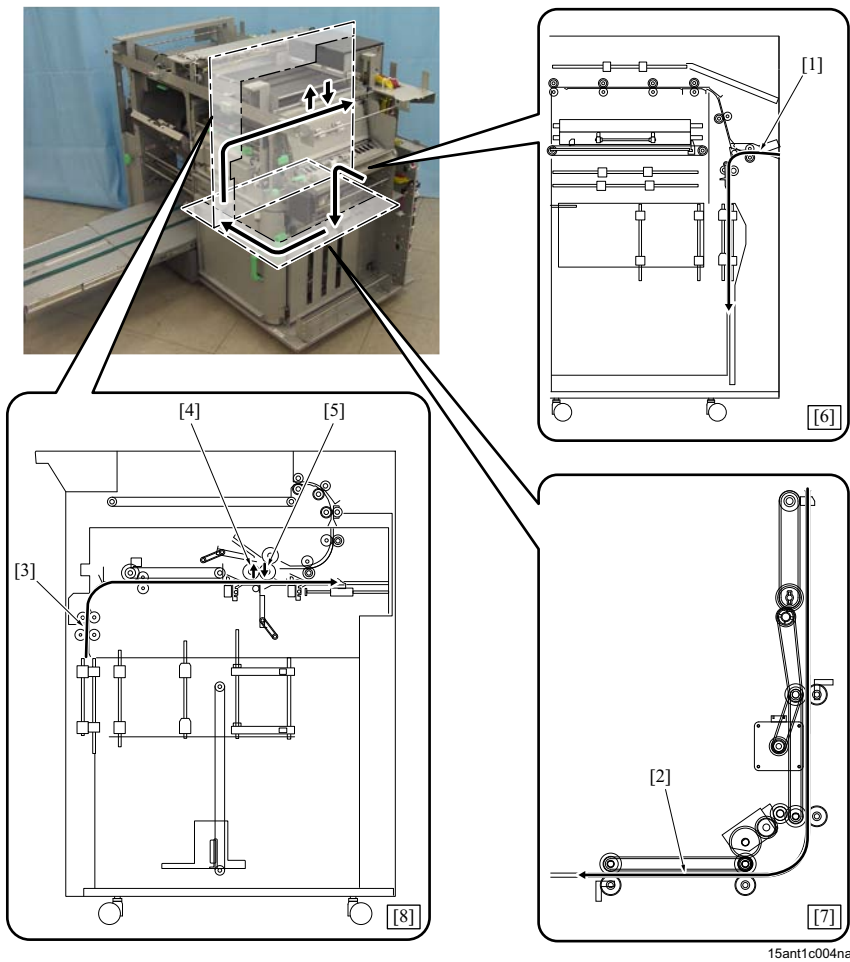


[1]	Stack to the angle conveyance section	[2]	Right angle conveyance
[3]	Conveyance to the folding section	[4]	1st folding
[5]	2nd folding	[6]	Paper exit
[7]	Stack movement of the paper exit	[8]	Front side view

[9] Top side view	[10] Right-side view
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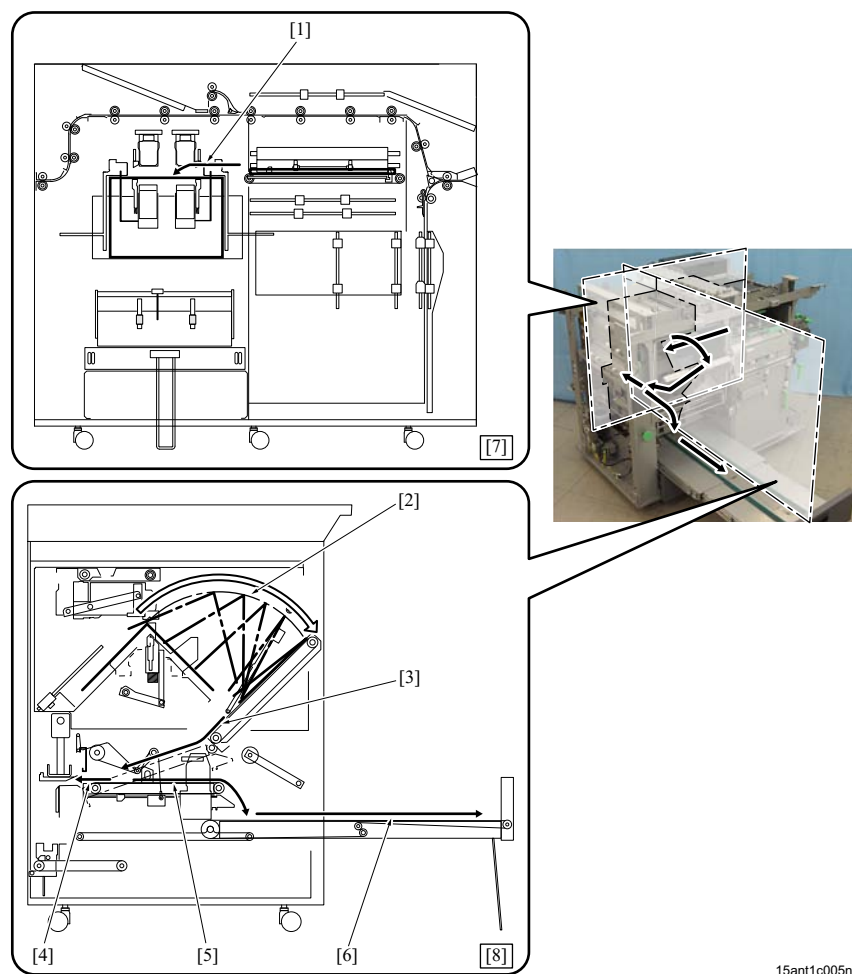
(3) Center folding/saddle stitching mode

(a) From the paper exit from the main body to the center folding



[1] Stack to the angle conveyance section	[2] Right angle conveyance
[3] Conveyance to the folding section	[4] Center folding (1st folding)
[5] Release from the folding roller	[6] Front side view
[7] Top side view	[8] Right-side view

(b) From the center folding to the paper exit

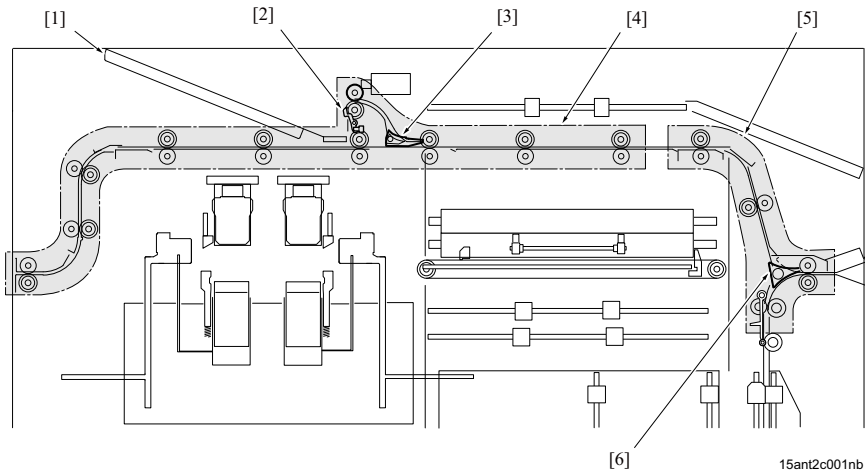


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[1]	Conveyance from the folding section to the saddle stitching section	[2]	Movement by the bundle arm
[3]	Movement by the clip	[4]	Conveyance to the trimmer section (only for saddle stitching mode)
[5]	Paper exit	[6]	Stack movement of the paper exit
[7]	Front side view	[8]	Left-side view

2. HORIZONTAL CONVEYANCE SECTION

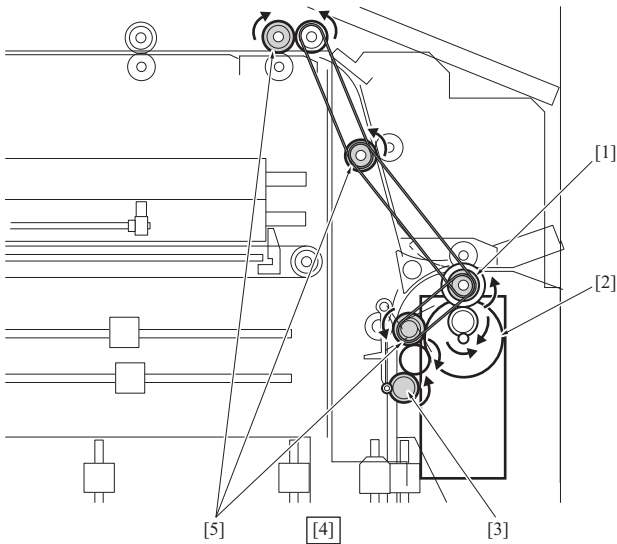
2.1 Configuration



[1]	Sub tray	[2]	Sub tray paper full sensor (PS12)
[3]	Horizontal conveyance gate	[4]	Horizontal conveyance
[5]	Entrance conveyance	[6]	Entrance gate

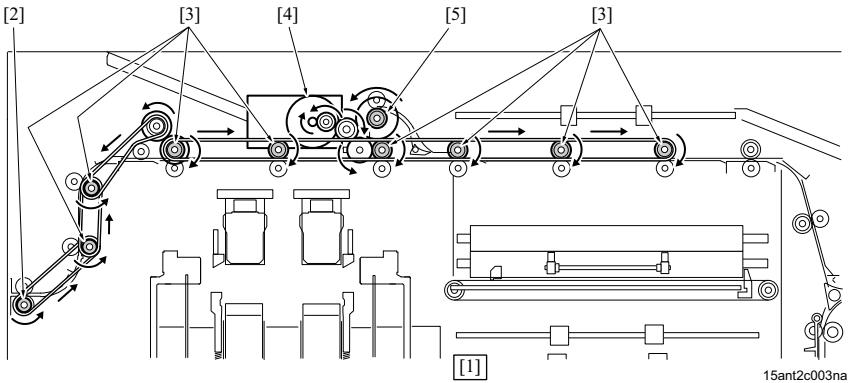
2.2 Drive

2.2.1 Entrance conveyance drive



[1]	Entrance roller	[2]	Entrance conveyance motor (M1)
[3]	Overlap assist roller	[4]	Front side view
[5]	Conveyance roller	-	

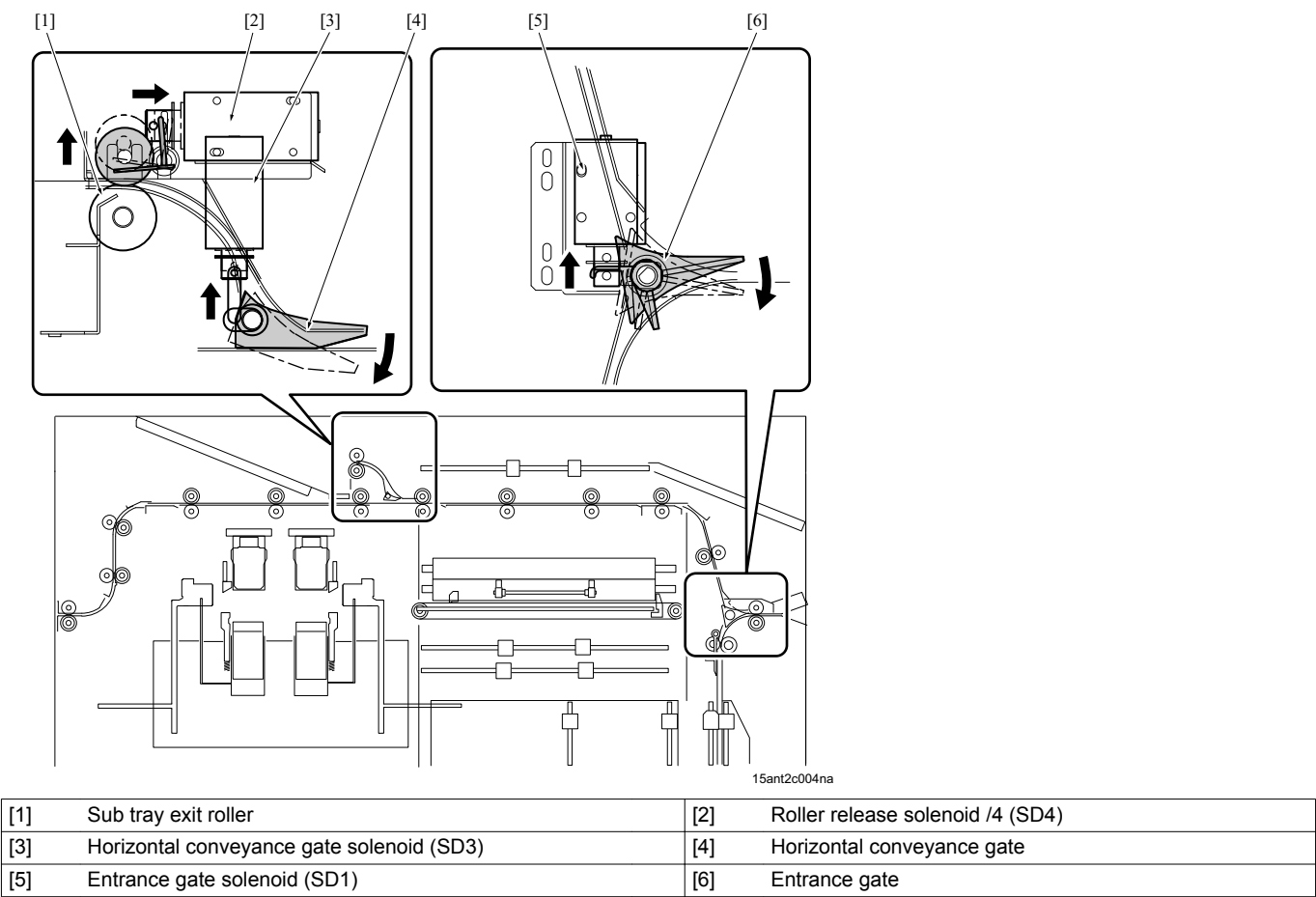
2.2.2 Horizontal conveyance drive



[1]	Front side view	[2]	Exit roller
[3]	Conveyance roller	[4]	Horizontal conveyance motor (M2)

[5]	Sub tray exit roller	-
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2.2.3 Gate drive/sub tray pressure release drive



2.3 Operation

2.3.1 Conveyance path switching control

(1) Entrance gate solenoid control

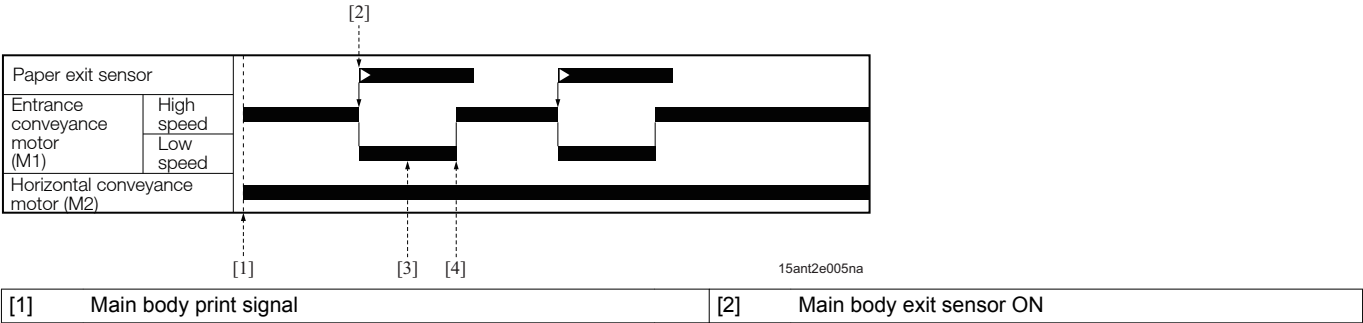
The entrance gate switches the path to the horizontal conveyance section and one to the right angle conveyance section. The entrance gate solenoid (SD1) switches them. The right angle conveyance path is selected when SD1 turns OFF and the horizontal conveyance path is selected when it turns ON.
In the coupling exit mode and the sub tray exit mode, SD1 turns ON and sets the entrance gate to the horizontal conveyance section when the main body print signal turns ON. SD1 turns OFF after the paper exit.

(2) Horizontal conveyance gate control

The horizontal conveyance gate switches the path to the sub tray section and the coupling conveyance path to the succeeding device. The horizontal conveyance gate solenoid (SD3) switches them. The coupling conveyance path is selected when SD3 turns OFF and the sub tray path is selected when it turns ON.

2.3.2 Conveyance line speed switch control

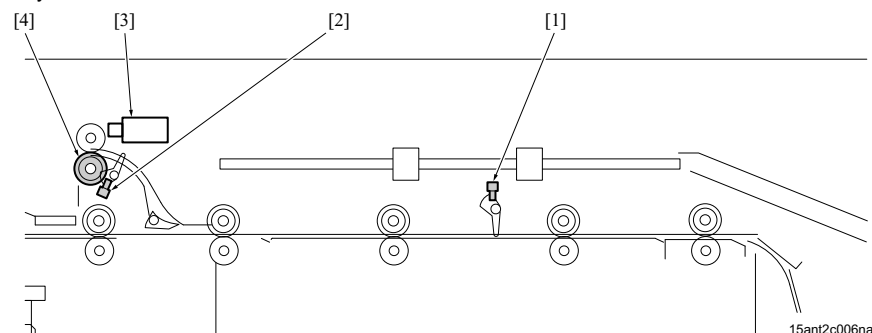
The entrance conveyance motor (M1) and the horizontal conveyance motor (M2) convey them.
M1 and M2 turn ON when the main body start signal [1] turns ON. M1 switches its rotational speed in accordance with the main body line speed [2] when the main body paper exit sensor turns ON [3]¹. Then it switches its rotational speed to high speed [4] to convey the paper when it receives the paper trailing edge signal (when the paper trailing edge passes through the fusing).
^{*1} C6501/C6501P only. For C8000/1200/1200P/1250/1250P/C7000/C7000P/C70hc/C6000, the speed is not switched.



[3] M1 switching to low speed	[4] Main body paper trailing edge signal
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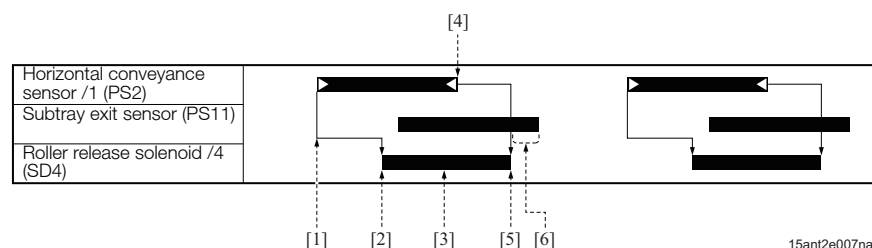
2.3.3 Sub tray paper exit control

When exiting the paper to the sub tray, the paper misalignment is prevented by releasing the nipping of the sub tray exit roller by the roller release solenoid /4 (SD4) to nip the paper only at the trailing edge and slowing down the paper by the sub tray exit roller that is rotating in low speed for every paper. The horizontal conveyance sensor /1 (PS2) [1] and the sub tray exit sensor (PS11) [2] detect the paper exited to the sub tray.



[1] Horizontal conveyance sensor /1 (PS2)	[2] Sub tray exit sensor (PS11)
[3] Roller release solenoid (SD4)	[4] Sub tray exit roller

The roller release solenoid /4 (SD4) turns ON [2] to release the nipping of the sub tray exit roller [3] after a specified period of time since the horizontal conveyance sensor /1 (PS2) detects the leading edge of paper [1]. SD4 turns OFF [5] and the subtray exit roller nips the trailing edge of paper [6] after a specified period of time since PS2 detects the trailing edge of paper [4]. This control is conducted for every paper exited to the sub tray.



[1] Detection of the leading edge of paper	[2] SD4 ON
[3] Releasing nip	[4] Detection of the trailing edge of paper
[5] SD4 OFF	[6] Nipping the trailing edge of paper

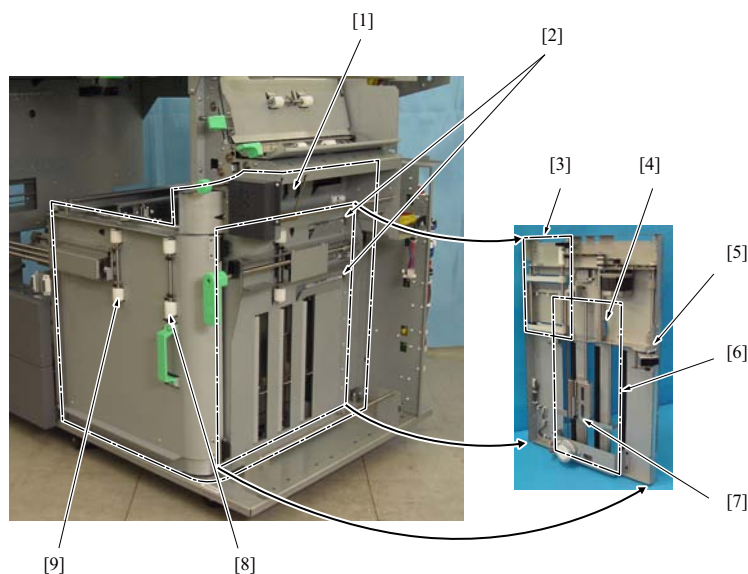
2.3.4 Sub tray paper full detection control

The sub tray paper full sensor (PS12) detects the sub tray paper full via the actuator.

PS12 turns ON under normal circumstances. The sub tray paper full condition is detected and the sub tray paper full signal is transmitted to the main body when stacked paper presses the actuator and PS12 turns OFF. Then, the main body displays the message on its operation panel.

3. RIGHT ANGLE CONVEYANCE SECTION

3.1 Configuration

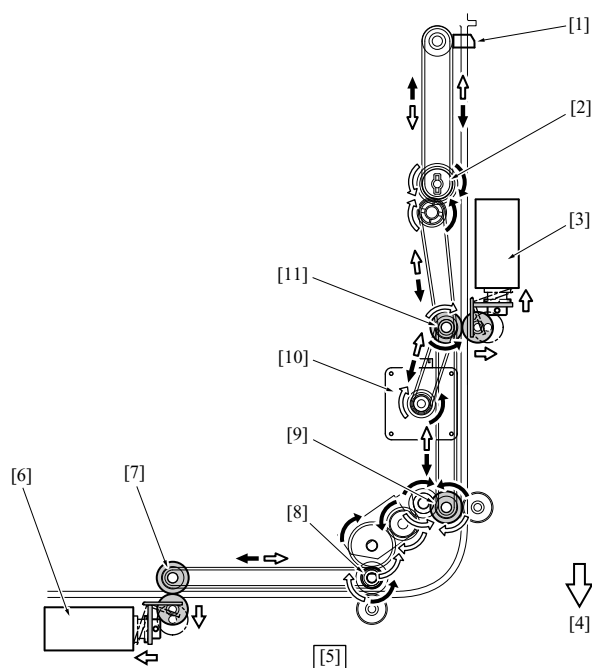


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[1]	Right angle conveyance gate	[2]	Alignment claws
[3]	Alignment section	[4]	Right angle conveyance roller /1
[5]	Right angle conveyance roller /2	[6]	Overlap section
[7]	Overlap stopper	[8]	Right angle conveyance roller /3 (driven)
[9]	Right angle conveyance roller /1 (driven)	-	

3.2 Drive

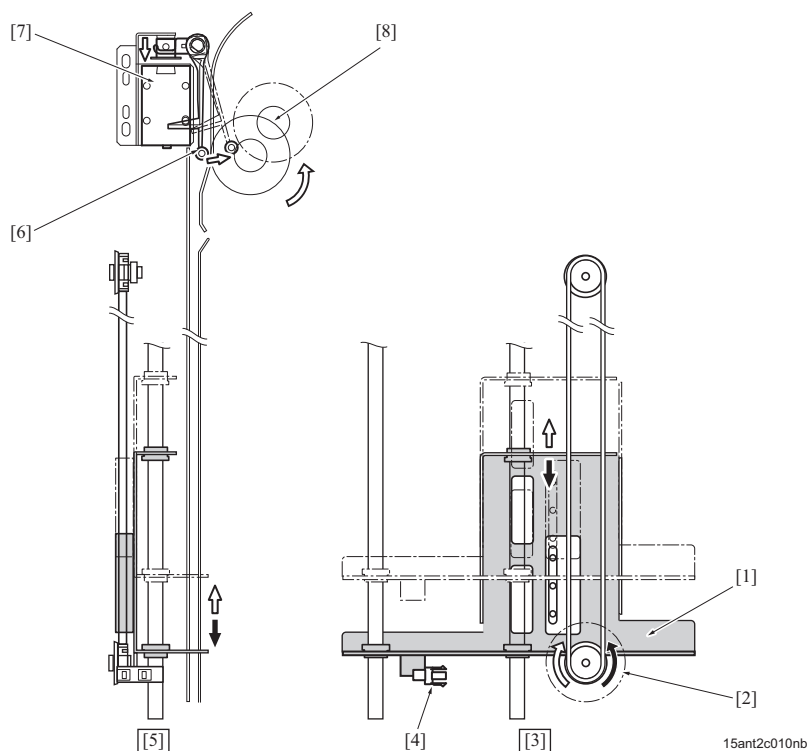
3.2.1 Right angle conveyance drive/alignment drive



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[1]	Alignment claws	[2]	Torque limiter
[3]	Roller release solenoid /1 (SD5)	[4]	Front side direction
[5]	Top side view	[6]	Roller release solenoid /2 (SD6)
[7]	Right angle conveyance roller /4	[8]	Right angle conveyance roller /3
[9]	Right angle conveyance roller /2	[10]	Right angle conveyance motor (M6)
[11]	Right angle conveyance roller /1	-	

3.2.2 Overlap drive



[1]	Overlap stopper	[2]	Overlap motor (M13)
[3]	Right-side view	[4]	Overlap home sensor (PS17)
[5]	Front side view	[6]	Right angle conveyance gate
[7]	Right angle conveyance gate solenoid (SD2)	[8]	Overlap assist roller

3.3 Operation

3.3.1 Paper overlap control

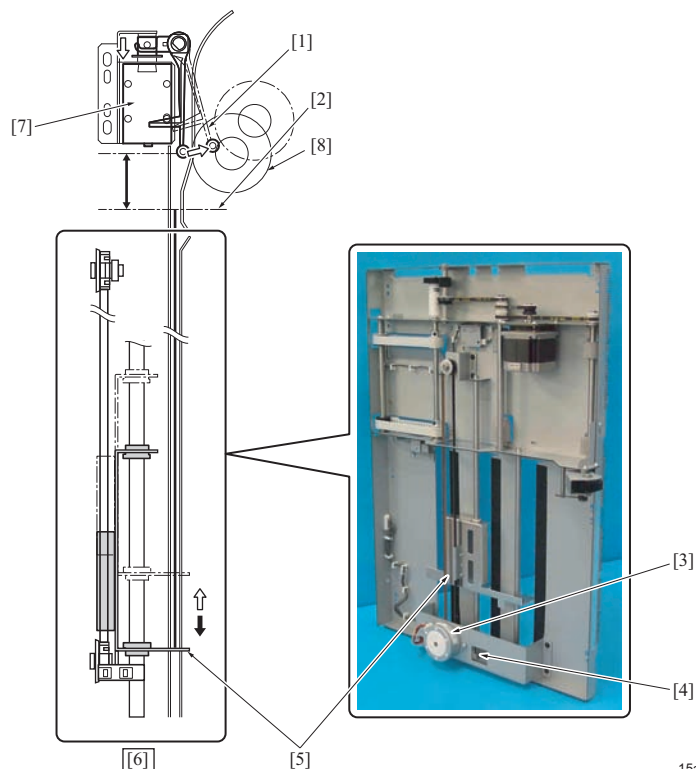
(1) Overlap mechanism

When the folding operation is conducted for more than 1 sheet of paper, they are overlapped in the right angle conveyance section, and then conveyed to the folding section.

The overlap mechanism is the mechanism to overlap the paper in adequate paper conveyance order. The right angle conveyance gate [1] driven by the right angle conveyance gate solenoid (SD2) [7] and the overlap stopper [5] driven by the overlap motor (M13) [3] conduct the operation. The overlap home sensor (PS17) [4] detects the home position of the overlap stopper.

The overlap stopper [5] is positioned at the position where the trailing edge of paper [2] is positioned 20mm under from the right angle conveyance gate [1] in accordance with the paper size when it stands by for the paper.

The paper from the main body is conveyed into between the right-angle conveyance gate [1] and the overlap assist roller [8]. Then the paper is conveyed further by the overlap assist roller [8] driven by the entrance conveyance motor (M1) and stopped by the overlap stopper.



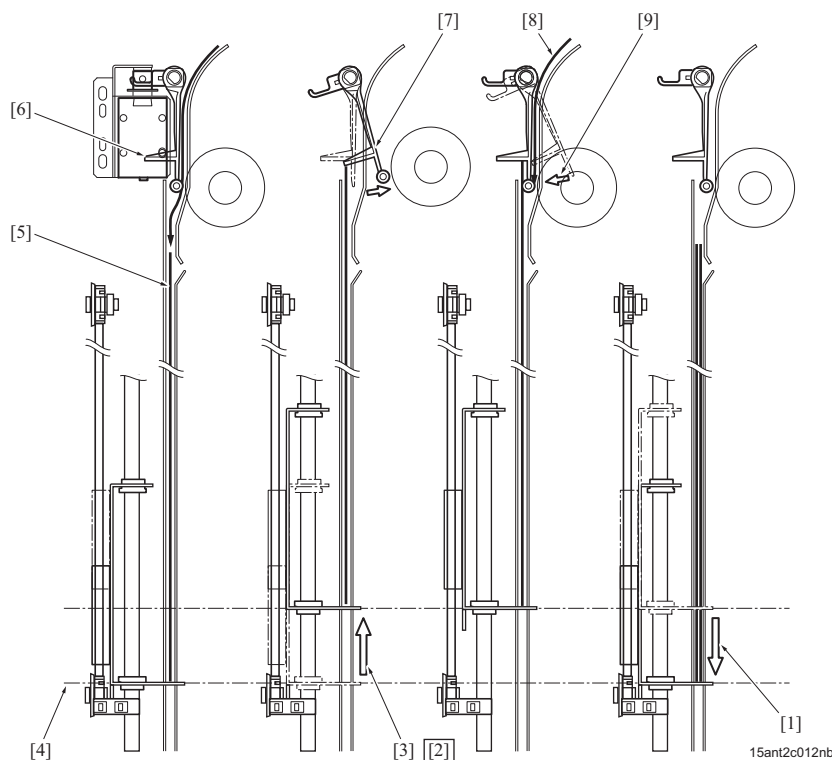
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[1]	Right angle conveyance gate	[2]	Position of the trailing edge of paper
[3]	Overlap motor (M13)	[4]	Overlap home sensor (PS17)
[5]	Overlap stopper	[6]	Front side view
[7]	Right angle conveyance gate solenoid (SD2)	[8]	Overlap assist roller

The first stacked sheet of paper [5] is conveyed while the overlap stopper is located at the standby position [4].

Before conveying the second paper, right angle conveyance gate solenoid (SD2) turns ON to move the right angle conveyance gate [6] to the right [7]. At the time, overlap motor (M13) moves the overlap stopper 30mm upward [3]. It transfers the stacked paper to the left-side of the right angle conveyance gate. The right angle conveyance gate is replaced [9] to clear the conveyance path. The subsequent paper [8] passes the right-side of the right angle conveyance gate and the paper is overlapped in adequate order. Then, M13 moves the overlap stopper downward [1].

The same as the second sheet is conducted until all of sheets are stacked.



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[1]	Overlap stopper descending 30mm down	[2]	Front side view
[3]	Overlap stopper moving 30mm upward	[4]	Standby position of the overlap stopper
[5]	1st paper	[6]	Right angle conveyance gate

[7] Movement of the right angle conveyance gate	[8] 2nd paper
[9] Replacement of the right angle conveyance gate	-

(2) Overlap control

(a) Overlap tri-folding mode control

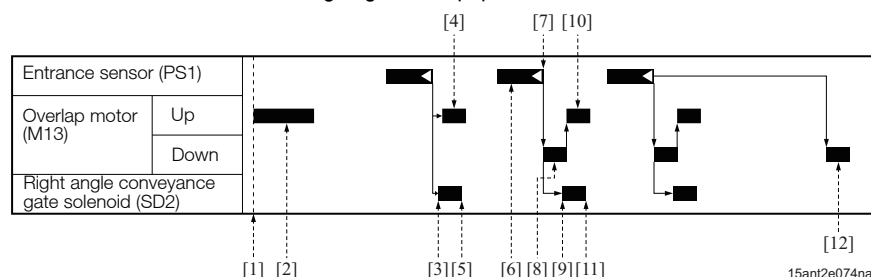
In the overlap tri-folding mode, up to 5 sheets are stacked in the right angle conveyance section and conveyed to the folding section. The overlap tri-folding is available only with paper of 50g/m² to 91g/m² in weight and is unavailable with others.

The overlap motor (M13) turns ON when the main body start signal [1] turns ON and moves the overlap stopper upward to its standby position.

Turning ON the right angle conveyance gate solenoid (SD2) [3] after a specified period of time since the entrance sensor (PS1) detects the trailing edge of the paper, the right angle conveyance gate is switched, M13 moves the paper upward [4], and isolate the paper from the conveyance gate by transferring it to the left-side of the right angle conveyance gate. Turning OFF SD2 [5], the conveyance gate opens and waits for the subsequent paper.

Conveying the subsequent paper through the right-side of the right angle conveyance gate [6] and detecting the trailing edge of paper by the entrance sensor (PS1) [7], M13 descends the overlap stopper down [8]. When the trailing edge of paper passes under the right angle conveyance gate, SD2 turns ON [9] to switch the right angle conveyance gate and M13 moves up the overlap stopper [10] to send the conveyed sheets of paper to the left-side of the right angle conveyance gate. Then, SD2 turns OFF [11] and stands by for the subsequent paper.

The overlap stopper moves down to the standby position and stands by for the 1st paper of the subsequent set [12] after a specified period of time since PS1 detects the trailing edge of last paper of the set.



[1] Main body start signal	[2] Movement to the standby position
[3] Switching the right conveyance gate	[4] Separating paper
[5] Securing conveyance path	[6] Conveyance of the subsequent paper
[7] Trailing edge of the subsequent paper detected	[8] Descent of paper
[9] Switching the right conveyance gate	[10] Separating paper
[11] Securing conveyance path	[12] Movement to the standby position

(b) Center folding/saddle stitching mode control

In the center folding/saddle stitching mode, 1, 2, or 3 sheets of paper are stacked and conveyed to the folding section. The number of the stacked sheets is different depending on its paper weight and the conveyance pattern.

Plain paper (less than 131g/m²): up to 3 sheets are stacked and conveyed to the folding section.

Thick paper (131g/m² or more): due to the limit of the folding performance, up to 2 sheets are stacked and conveyed to the folding section.

- Plain paper

The first 3 sheets of paper of the set are stacked before being conveyed to the folding section. After that, 2 sheets of paper are stacked before being conveyed to the folding section. The number of sheets conveyed together at the last conveyance for that set is one of the followings; 3 sheets (when the total number of sheets is 6 or more even number), 2 sheets (when the total number of sheets is odd) or 1 sheet (when the total number of sheets is 4).

- Thick paper

Up to 2 sheets of paper can be stacked for the thick paper.

For every set, 2 sheets of paper are stacked and conveyed to the folding section at first. Similarly, 2 sheets of paper are stacked and conveyed to the folding section for the subsequent sheets. At the final conveyance, 2 sheets are conveyed (if the total number of the paper is even) or 1 sheet is conveyed (if the number is odd).

- Using PI function

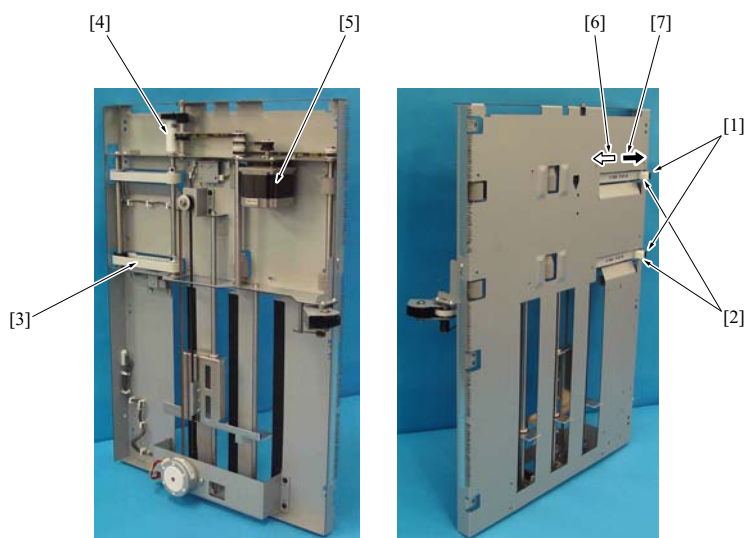
The same as the thick paper control is conducted because the paper type information cannot be obtained in the print job using PI.

3.3.2 Alignment control

(1) Alignment mechanism

The alignment is conducted by driving the alignment claws [2] by the right angle conveyance motor (M6) [5] through the belt [3] and the torque limiter [4].

The alignment claws move to the rear of the shelter direction [7] and stops at the mechanical stoppers [1] through the torque limiter when M6 is rotating toward the paper conveyance direction. Rotating M6 in the reverse direction, the alignment claws push the edge of paper to conduct the alignment [6].



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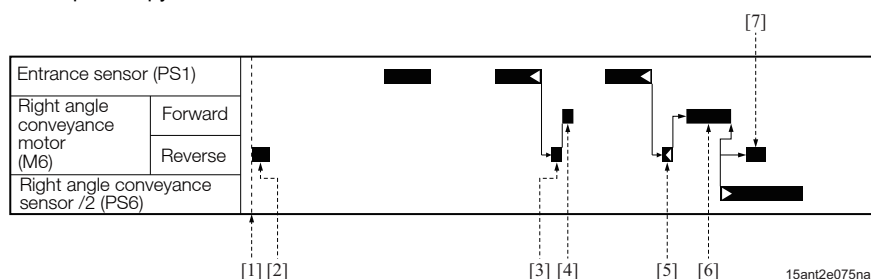
[1]	Mechanical stoppers	[2]	Alignment claws
[3]	Belt	[4]	Torque limiter
[5]	Right angle conveyance motor (M6)	[6]	Aligning direction
[7]	Shelter direction	-	

(2) Alignment control

The right angle conveyance motor (M6) rotates in the reverse direction when the main body start signal [1] turns ON and the alignment claws move to the standby position [2] in accordance with the paper size.

No alignment operation is conducted for the 1st paper. M6 rotates in the reverse direction to align paper with the alignment claws [3] after a specified period of time since the entrance sensor (PS1) detects the trailing edge of 2nd paper. Then, M6 rotates in the forward direction to replace the alignment claws to the standby position [4].

M6 rotates to convey the paper to the folding section [6] and evacuate the alignment claws to the home position after a specified period of time after the alignment operation [5] for the last paper of the set. After a specified period of time after the right angle conveyance sensor /2 (PS6) detects the leading edge of paper, M6 rotates in the reverse direction to move the alignment claws to the standby position [7] for the subsequent copy.



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[1]	Main body start signal	[2]	Standby position movement
[3]	Alignment operation	[4]	Return to the standby position
[5]	Alignment operation	[6]	Paper conveyance to the folding section
[7]	Return to the standby position	-	

3.3.3 Right angle conveyance control

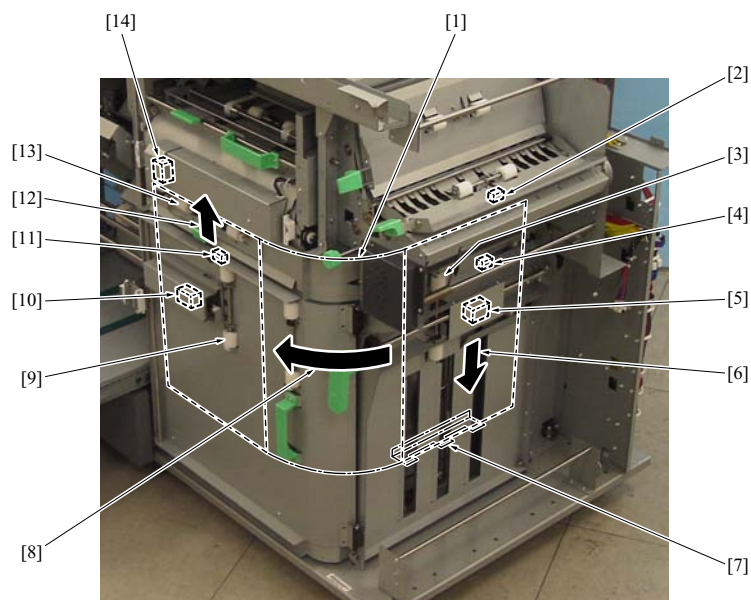
(1) Right angle conveyance mechanism

In the right angle conveyance, the right angle conveyance motor (M6) and the roller release solenoids /1 (SD5) [5] and /2 (SD6) [10] convey the paper.

When conveying the paper to the overlap section, the paper falls vertically [6] to the overlap stopper [7] by its own weight after conveyed by the overlap assist roller. At the time, the press by the right angle conveyance roller /1 [3] is released by default since the conveyance direction is not the rotational direction of the right angle conveyance roller /1 [3] but the axial direction of the right angle conveyance roller /1.

After stacking and aligning the specified number of papers, the roller release solenoid /1 (SD5) [5] turns ON to nip the paper and convey the paper to the position rotated 90 degrees from the right side to the front side [8]. The roller release solenoid /3 (SD7) [14] is OFF to release the pressure of the folding entrance roller by default since the upper edge of the paper [1] passes over the folding entrance roller [13].

When conveying the paper from the right angle conveyance section to the folding section [12], the roller release solenoid /2 (SD6) [10] turns ON to release the pressure of the right angle conveyance roller /4 [9] and convey the paper to the folding section by nipping the paper with the folding entrance roller [13].



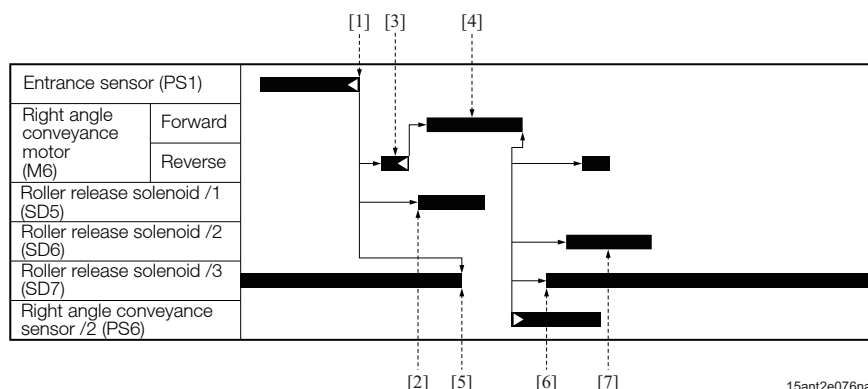
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[1]	Upper edge of the paper path	[2]	Entrance sensor (PS1)
[3]	Right angle conveyance roller /1	[4]	Right angle conveyance sensor /1 (PS5)
[5]	Roller release solenoid /1 (SD5)	[6]	Paper conveyance to the overlap section
[7]	Overlap stopper	[8]	Right angle conveyance
[9]	Right angle conveyance roller /4	[10]	Roller release solenoid /2 (SD6)
[11]	Right angle conveyance sensor /2 (PS6)	[12]	Paper conveyance to the folding section
[13]	Folding entrance roller	[14]	Roller release solenoid /3 (SD7)

(2) Conveyance control

The roller release solenoid /1 (SD5) turns ON to press the right angle conveyance roller /1 [2] after a specified period of time since the entrance sensor (PS1) detects the trailing edge of last paper of the set [1]. After the alignment operation [3], the right angle conveyance motor (M6) rotates in the forward direction to convey the paper to the front side [4] by rotating 90 degrees. At this time, the roller release solenoid (SD7) turns OFF a specified period of time after the entrance sensor (PS1) detects the trailing edge of paper and releases the pressure of the folding entrance roller /1 [5].

A specified period of time after the right angle conveyance sensor /2 (PS6) detects the leading edge of paper, SD7 turns ON to pressure the folding entrance roller /1 and nip [6] the upper section of paper that has been conveyed to the front side. Also, a specified period of time after that, when the roller release solenoid /2 (SD6) turns ON [7] to release the right angle conveyance roller /4 and convey the paper to the folding section.

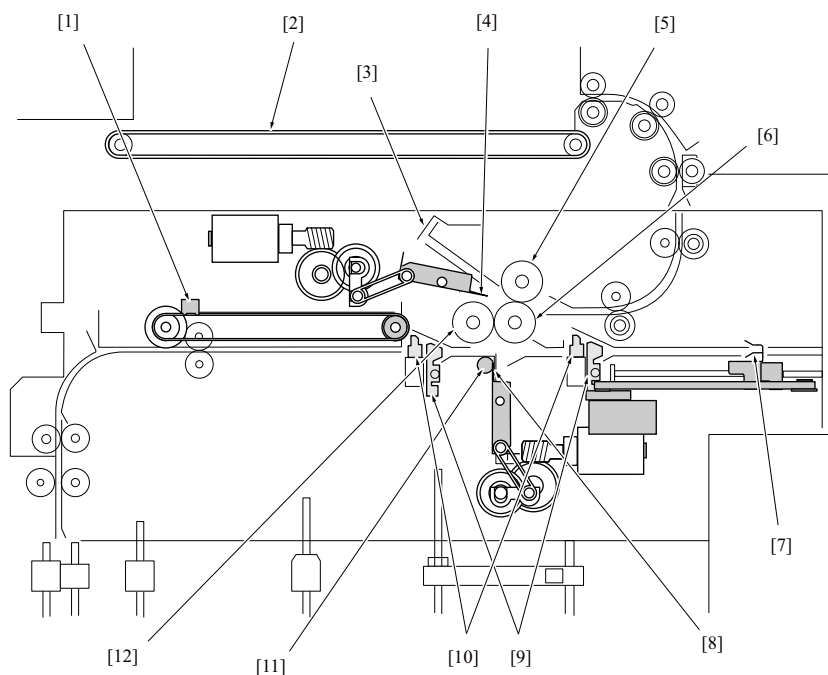


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[1]	Trailing edge of the last paper of the set detected	[2]	Right angle conveyance roller /1 pressure
[3]	Paper alignment	[4]	Paper conveyance
[5]	Folding entrance roller pressure release	[6]	Folding entrance roller pressure
[7]	Right angle conveyance roller /4 pressure release	-	

4. FOLDING SECTION

4.1 Configuration

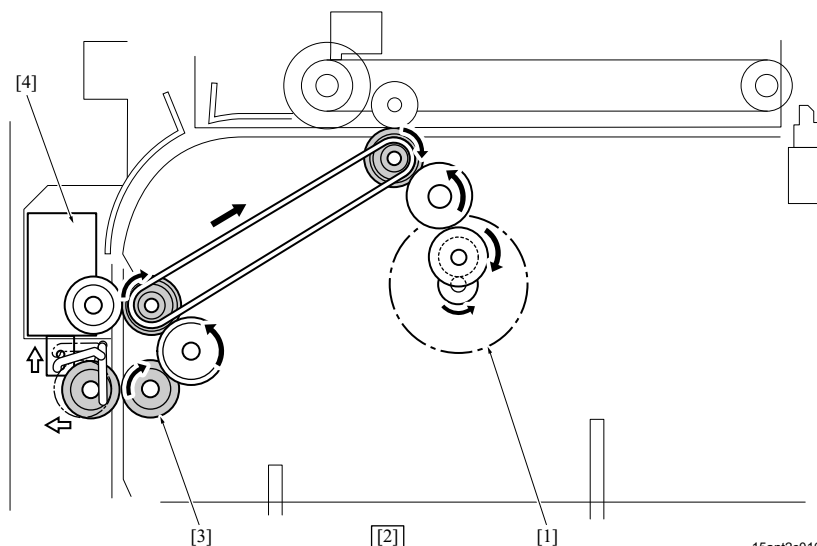


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[1]	Alignment claw /Fr (main scan)	[2]	Conveyance belt (tri-folding)
[3]	2nd folding stopper	[4]	2nd folding blade
[5]	Folding roller /3	[6]	Folding roller /2
[7]	Alignment stopper /Rr (main scan)	[8]	1st folding blade
[9]	Folding alignment stopper /Rt (sub scan)	[10]	Folding exit claws (same as for sub scan alignment)
[11]	Guide shaft (folding exit)	[12]	Folding roller /1

4.2 Drive

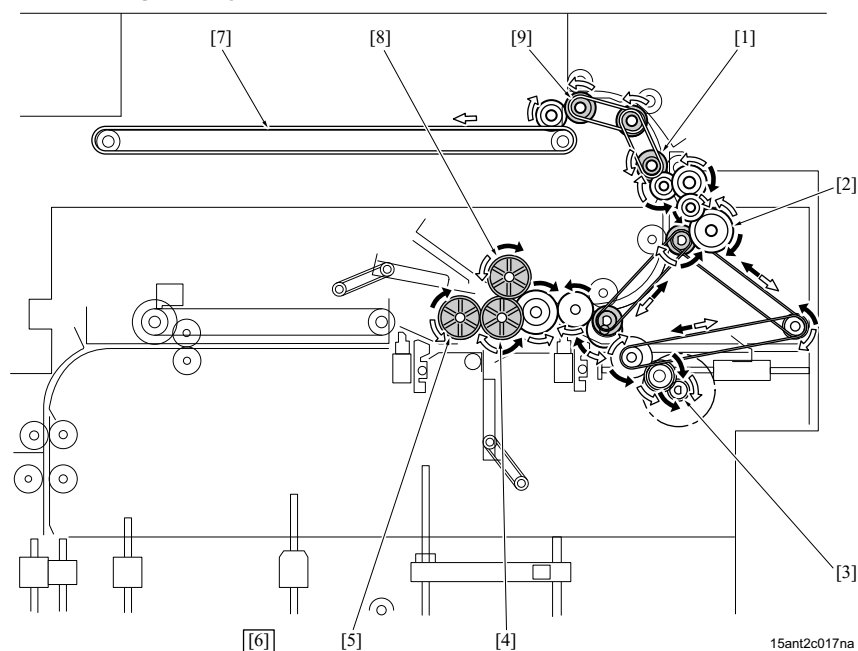
4.2.1 Folding entrance drive



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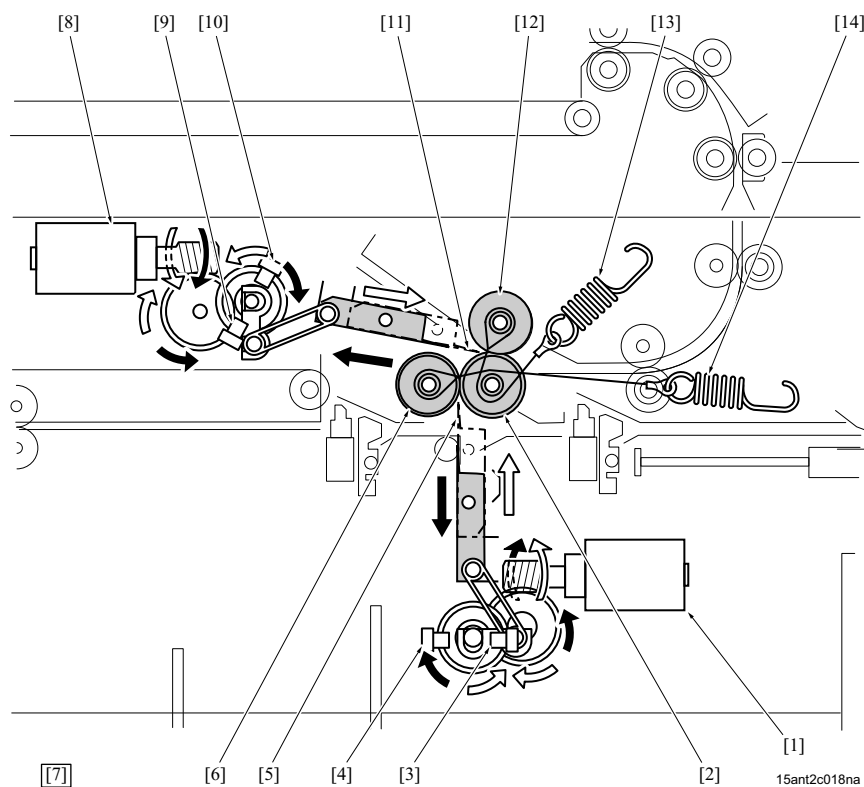
[1]	Folding entrance motor (M3)	[2]	Right-side view
[3]	Folding entrance roller /1	[4]	Roller release solenoid /3 (SD7)

4.2.2 Folding conveyance drive



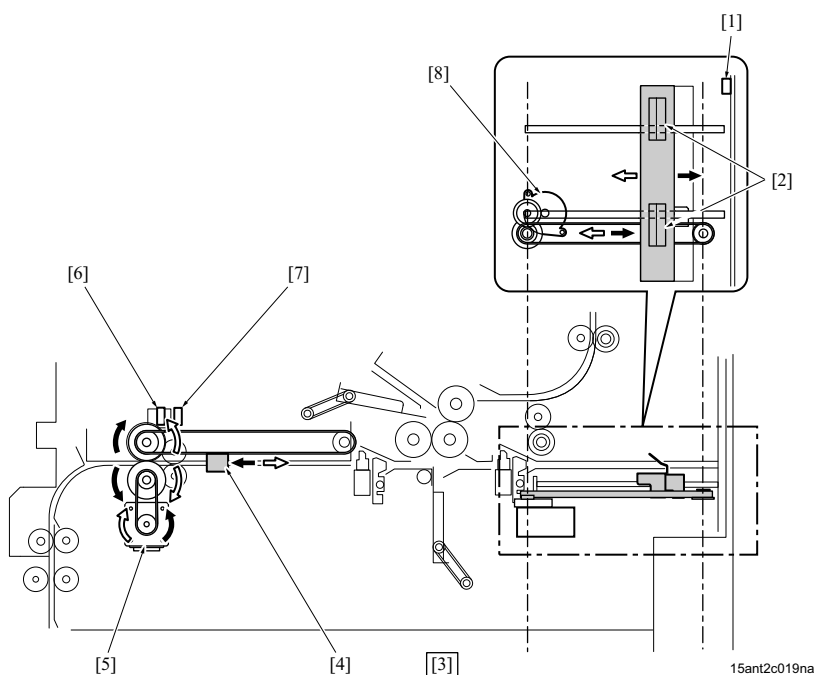
[1]	One-way clutch	[2]	Oscillation connecting gear
[3]	Folding transfer motor (M4)	[4]	Folding roller /2
[5]	Folding roller /1	[6]	Right-side view
[7]	Paper exit belt	[8]	Folding roller /3
[9]	Tri-folding exit clutch (CL1)	-	

4.2.3 Folding blade drive



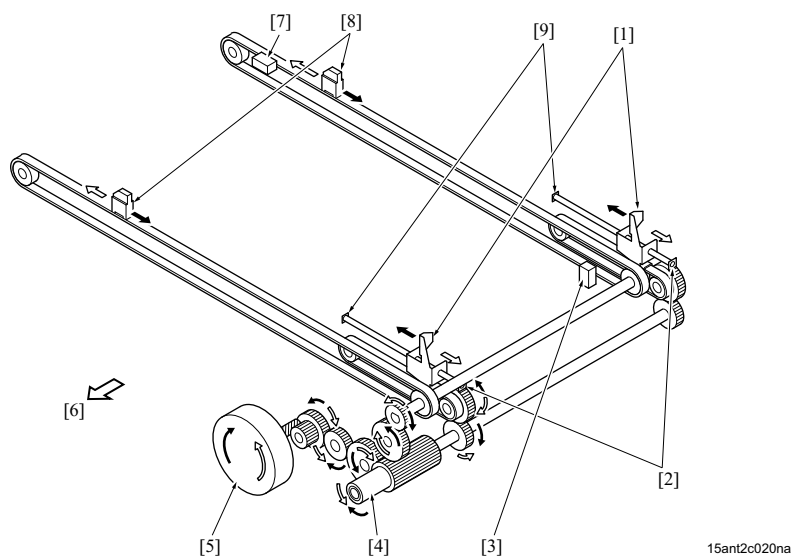
[1]	1st folding blade motor (M18)	[2]	Folding roller /2
[3]	1st folding blade home sensor /2 (PS21)	[4]	1st folding blade home sensor /1 (PS20)
[5]	1st folding blade	[6]	Folding roller /1
[7]	Right-side view	[8]	2nd folding blade motor (M19)
[9]	2nd folding blade home sensor /2 (PS23)	[10]	2nd folding blade home sensor /1 (PS22)
[11]	2nd folding blade	[12]	Folding roller /3
[13]	Spring (Connect folding rollers /2 and /3)	[14]	Spring (Connect folding rollers /1 and /2)

4.2.4 Folding main scan alignment drive



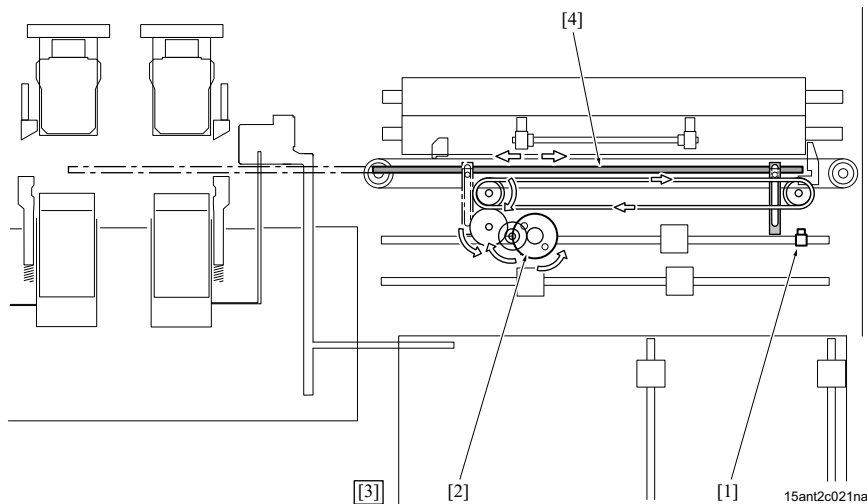
[1]	Folding main scan alignment home sensor /Rr (PS19)	[2]	Alignment stopper /Rr
[3]	Right-side view	[4]	Alignment claw /Fr
[5]	Folding main scan alignment motor /Fr (M7)	[6]	Folding main scan alignment home sensor /Fr1 (PS18)
[7]	Folding main scan alignment home sensor /Fr2 (PS49)	[8]	Folding main scan alignment motor /Rr (M14)

4.2.5 Folding sub scan alignment/center folding exit drive



[1]	Folding alignment stoppers /Rt	[2]	Home position stoppers /Rt
[3]	Folding exit home sensor (PS24)	[4]	Torque limiter
[5]	Folding sub scan alignment exit motor (M8)	[6]	Front side direction
[7]	Folding sub scan alignment home sensor (PS56)	[8]	Folding exit claws
[9]	Alignment stoppers /Lt	-	

4.2.6 Guide shaft drive



[1]	Guide shaft home sensor (PS46)	[2]	Guide shaft motor (M25)
[3]	Front side view	[4]	Guide shaft

4.3 Operation

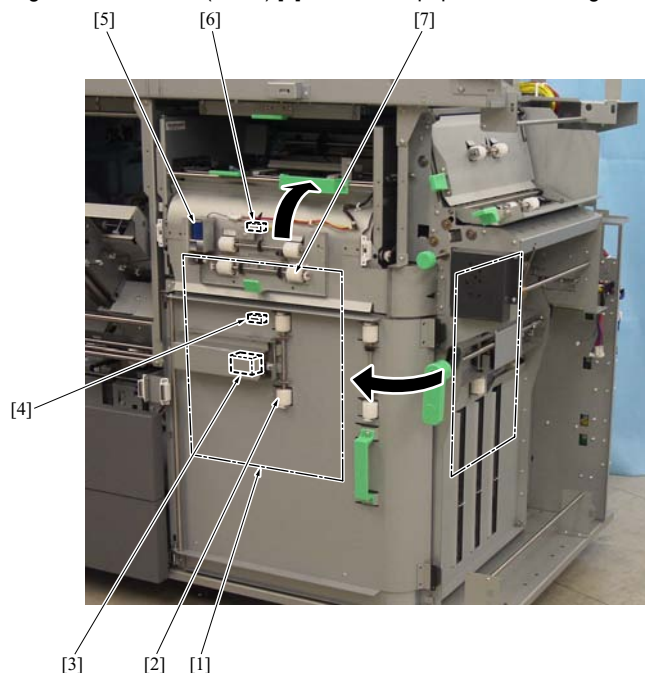
4.3.1 Folding entrance conveyance control

(1) Mechanism

The folding entrance motor (M3) and the roller release solenoid /3 (SD7) [5] conduct the folding entrance conveyance operation.

The paper [1] conveyed from the right angle conveyance section is conveyed to the folding entrance with the pressure of the folding entrance roller /1 [7] released. Once the right angle conveyance is completed, SD7 [5] turns ON to pressure the nipping of the folding entrance roller /1 and the roller release solenoid /2 (SD6) [3] turns ON to release the right angle conveyance roller /4, M3 convey the paper to the folding section.

The folding entrance sensor (PS60) [6] detects the paper at the folding entrance.



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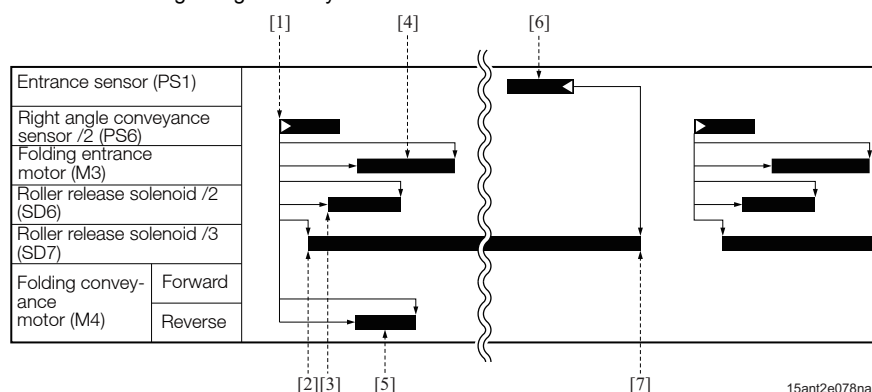
[1]	Paper	[2]	Right angle conveyance roller /4
[3]	Roller release solenoid /2 (SD6)	[4]	Right angle conveyance sensor /2 (PS6)
[5]	Roller release solenoid /3 (SD7)	[6]	Folding entrance sensor (PS60)
[7]	Folding entrance roller /1	-	

(2) Control

The roller release solenoid /3 (SD7) turns ON to nip the paper with the folding entrance roller [2] after a specified period of time since the right angle conveyance sensor /2 (PS6) detects the leading edge of paper [1], and then the roller release solenoid /2 (SD6) turns ON to release the nip of the right angle conveyance roller /4 after a specified period of time. Then the folding entrance motor (M3) turns ON and conveys the paper to the folding section [4].

At the time, the folding transfer motor (M4) rotates in the reverse direction [5] to prevent the paper from being caught between the folding rollers /1 and /2.

SD7 turns OFF to release the pressure of the folding entrance roller [7] after a specified period of time since the entrance sensor (PS1) detects the trailing edge of last paper of the subsequent set [6] and it stands by for the paper of the subsequent set being conveyed to the front side of the right angle conveyance section.



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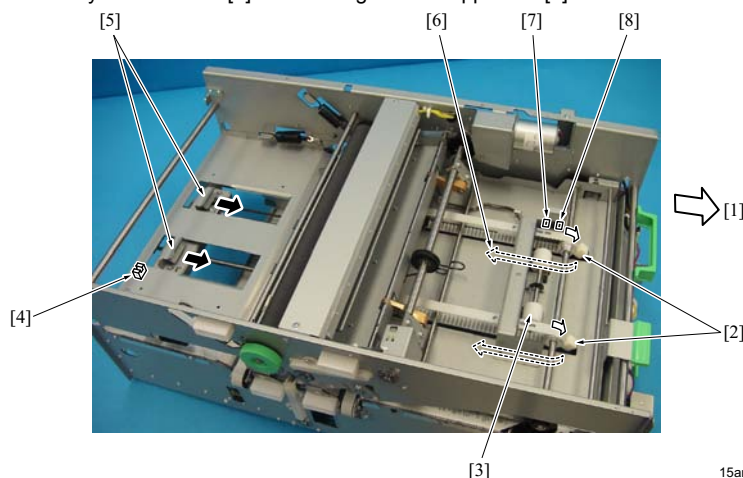
[1]	Last paper of the 1st set	[2]	Folding entrance roller nipped
[3]	Nip of the right angle conveyance roller /4 released	[4]	Folding entrance conveyance
[5]	Caught-protection to the folding section	[6]	Last paper of the subsequent set
[7]	Nip of the folding entrance roller released	-	

4.3.2 Folding main scan alignment control

(1) Mechanism

In the folding main scan alignment, the alignment stoppers /Rr [5] driven by the folding main scan alignment motor /Rr (M14) stop at the appropriate position in accordance with the paper size, and then the alignment claws /Fr [2] driven by the folding main scan alignment motor /Fr (M7) conduct the alignment operation. The folding main scan alignment home sensors /Fr1 (PS18) [8] and /Fr2 (PS49) [7] detect the home position of the alignment claws /Fr and the folding main scan alignment home sensor /Rr (PS19) [4] detects the home position of the alignment stopper /Rr.

The alignment claws /Fr [2] convey [6] the paper by pushing its trailing edge once the paper passes through the folding entrance roller /3 [3] and until the leading edge of paper contacts with the alignment stopper /Rr because there is no conveyance roller between the folding entrance conveyance roller /3 [3] and the alignment stopper /Rr [5].



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[1]	Front side direction	[2]	Alignment claw /Fr
[3]	Folding entrance roller /3	[4]	Folding main scan alignment home sensor /Rr (PS19)
[5]	Alignment stopper /Rr	[6]	Paper conveyance
[7]	Folding main scan alignment home sensor /Fr2 (PS49)	[8]	Folding main scan alignment home sensor /Fr1 (PS18)

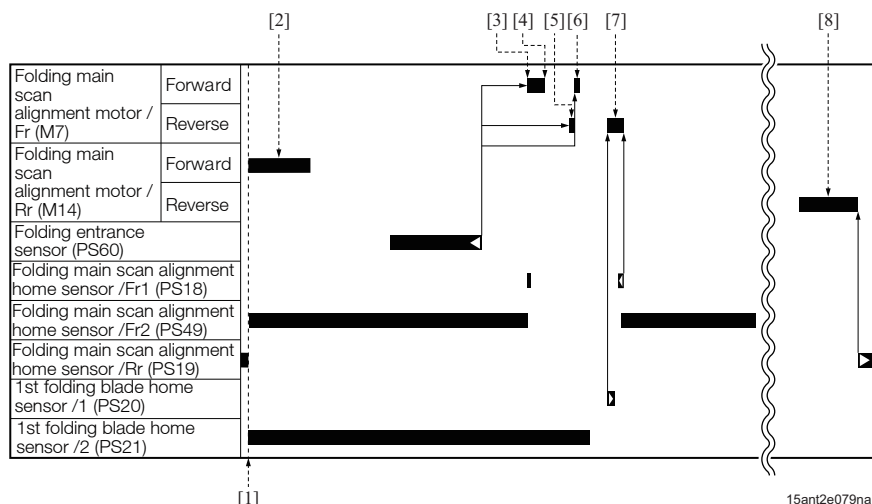
(2) Control

The folding main scan alignment motor /Rr (M14) drives the alignment stoppers /Rr to the appropriate position in accordance with the paper size [2] when the main body start signal [1] turns ON.

The folding main scan alignment motor /Fr (M7) rotates in the forward direction [3] to let the alignment claws /Fr push the trailing edge of paper for conveyance after a specified period of time since the folding entrance sensor (PS60) detects the trailing edge of paper, and then M7 stops after a specified period of time [4]. The alignment stoppers /Rr push the leading edge of paper to conduct the alignment. M7 rotates in the reverse direction [5], and after a specified period of time it rotates in the forward direction to conduct the alignment again [6].

M7 rotates in the reverse direction to replace the alignment claws to the home position [7] when the 1st folding blade home sensor /1 (PS20) detects the completion of the folding operation. M7 starts rotating to replace the alignment claws to the home position for subsequent set when PS21 detects the completion of the folding operation since the 1st folding blade conducts the reciprocal operation in which the 1st folding blade home sensor /1 (PS20) and the 1st folding blade home sensor /2 (PS21) counter changes their positions at each folding operation. M7 stops rotating when the folding main scan alignment home sensor /Fr1 (PS18) detects the home position of the alignment claw /Fr.

Transmitting the print termination signal from SD, M14 rotates to move the alignment stoppers to the home position [8]. It stops rotating when the folding main scan alignment home sensor /Rr (PS19) detects the home position of the alignment stoppers.



4.3.3 Folding control

(1) Mechanism

Folding has the 1st folding and 2nd folding.

The 1st folding is conducted in the overlap tri-folding mode, the overlap tri-folding mode, and the saddle stitching mode.

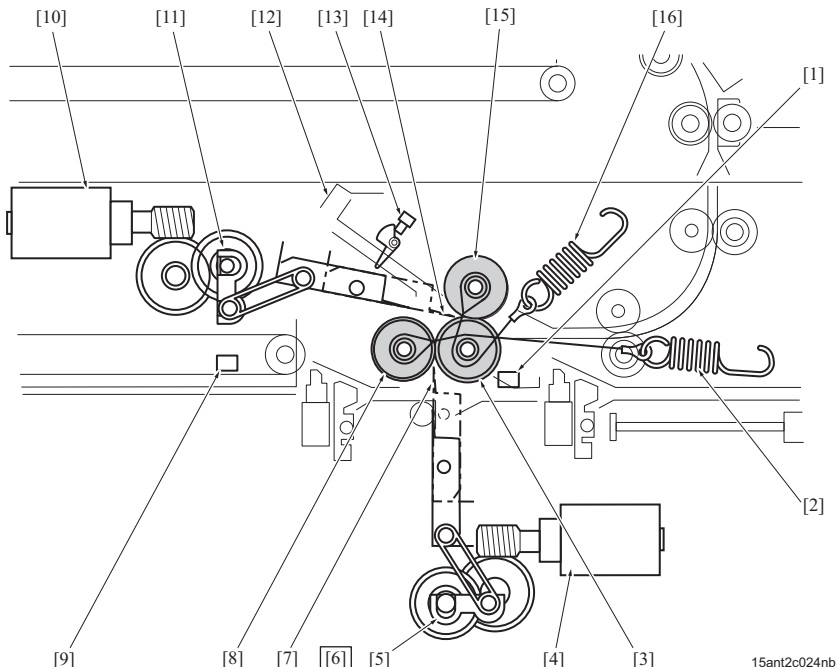
In the 1st folding operation, the 1st folding blade [7] pushes and inserts the paper between the folding rollers /1 [8] and /2 [3].

The folding rollers /1 and /2 are pressured each other by the spring [2]. The 1st blade motor (M18) [4] drives the 1st folding blade via the crank mechanism [5].

In the 2nd folding operation, as well, the 2nd folding blade [14] pushes and inserts the paper between the folding rollers /2 [3] and /3 [15]. The 2nd folding operation has an adjustable stopper [12] which defines the fold from the 1st folding and accurizes the 2nd folding position.

The folding rollers /2 and /3 are pressured each other by the spring [16]. The 2nd blade motor (M19) [10] drives the 2nd folding blade via the crank mechanism [11].

The folding sensors /2 (PS44) [9], /1 (PS7) [1], and the folding passage sensor (PS8) [13] detect paper.



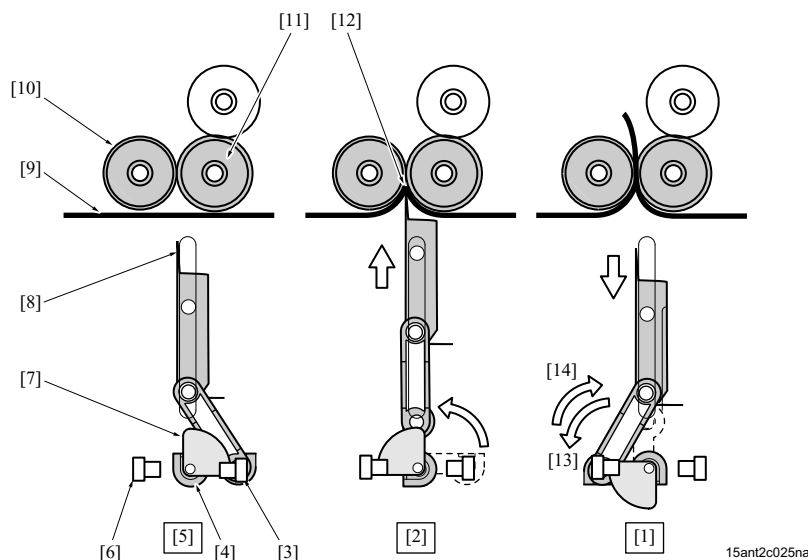
(2) Tri-folding control

(a) Operation

After the initial operation, the 1st folding blade [8] is at the standby position /1 [5]. In the actuator [7], the 1st folding blade home sensor /2 (PS21) [3] turns ON and the 1st folding blade home sensor /1 (PS20) [6] turns OFF. When paper [9] is conveyed to the folding section and the 1st folding blade motor (M18) is rotated [2], the crank [4] rotates 90 degrees to project the 1st folding blade to the paper and push the paper [12] between the folding roller /1 [10] and /2 [11] with its edge. At the time, the actuator also rotates 90 degrees so that PS21 [3] turns OFF and PS20 [6] turns ON.

M18 keeps rotating in the same direction [13], and then the crank [4] stops when it reaches at the standby position /2 [1] (PS20 turns OFF) where is 180 degrees opposite from the standby position /1. In the 1st folding operation for the subsequent set, M18 rotates in the reverse direction [14] and the crank [4] also rotates 180 degrees in the reverse direction to conduct the 1st folding operation.

The 2nd folding operation is operated as in the 1st folding operation.



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[1]	Standby position /2	[2]	Projecting position
[3]	1st folding blade home sensor /2 (PS21)	[4]	Crank
[5]	Standby position /1	[6]	1st folding blade home sensor /1 (PS20)
[7]	Actuator	[8]	1st folding blade
[9]	Paper	[10]	Folding roller /1
[11]	Folding roller /2	[12]	Insert paper
[13]	Rotational direction to the standby position /2	[14]	1st folding for the subsequent set

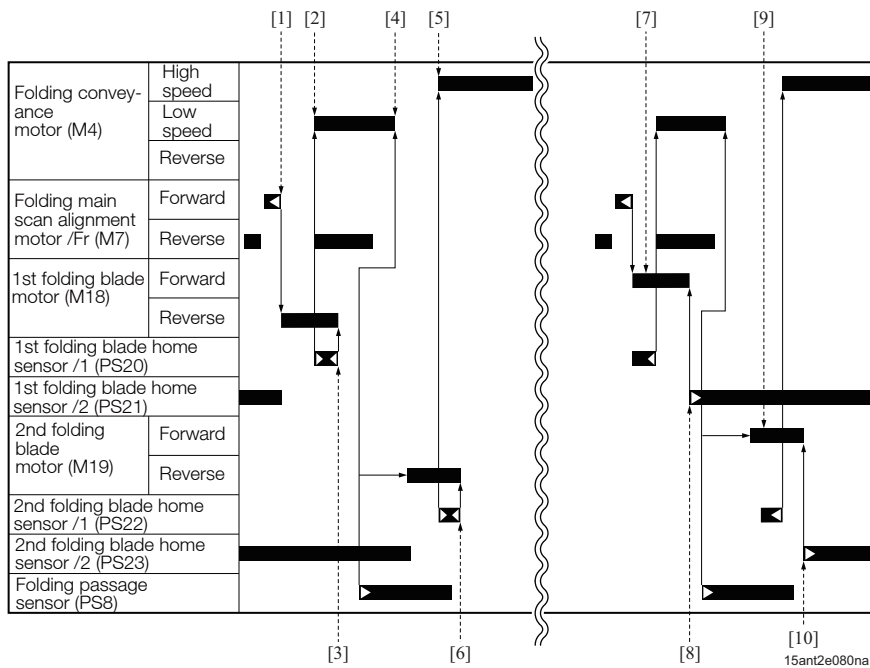
(b) Control

When the folding main scan alignment motor /Fr (M7) stops rotating at the completion of the paper alignment operation, the 1st folding blade motor (M18) turns ON and starts rotating in the reverse direction [1]. The 1st folding blade folds and inserts the paper between the folding rollers /1 and /2. When the 1st folding blade home sensor /1 (PS20) turns ON, the folding transfer motor (M4) turns ON [2] to conduct the 1st folding. M18 stops when PS20 turns OFF [3]. Then, M4 turns OFF and the 1st folding operation is completed [4] after a specified period of time since the folding passage sensor (PS8) detects the leading edge of paper.

After a specified period of time since PS8 turns ON, the 2nd folding blade motor (M19) turns ON and rotates in the reverse direction to start the 2nd folding operation.

When the 2nd folding blade home sensor /1 (PS22) turns ON, M4 rotates [5] in high speed to perform the 2nd folding, and then the tri-folded paper is conveyed to the tri-folding exit. M19 stops when PS22 turns OFF [6].

The 1st folding operation for the subsequent set, M18 rotates in the forward direction to conduct the 1st folding [7] and stops rotating [8] when the 1st folding blade home sensor /2 (PS21) turns ON. In the 2nd folding operation, M19 rotates in the forward direction to conduct the 2nd folding [9] and stops rotating when the 2nd folding blade home sensor /2 (PS23) turns ON [10].

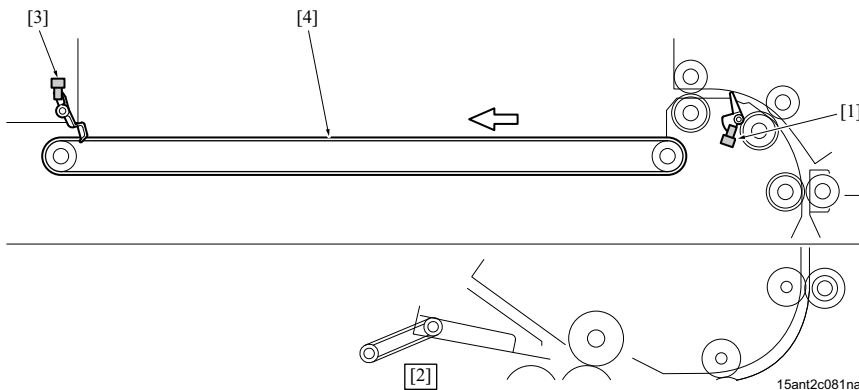


[1] Paper alignment operation completed	[2] 1st folding
[3] 1st folding blade motor (M18) stopped	[4] 1st folding completed
[5] 2nd folding	[6] 2nd folding blade motor (M19) stopped
[7] 1st folding by M18 rotating the forward direction	[8] M18 stopped
[9] 2nd folding by M19 rotating the forward direction	[10] M19 stopped

(3) Tri-folding exit control

(a) Operation

In the multi-letter folding exit, the driving force of the folding transfer motor (M4) is transmitted via the tri-folding exit clutch (CL1). CL1 turns ON and the exit belt [4] is driven approximately 7mm to convey the paper to the front side for every paper exit. The tri-folding paper full sensor (PS10) [3] detects the paper when it is reached at the front, and then the main body displays the message on the operation panel.

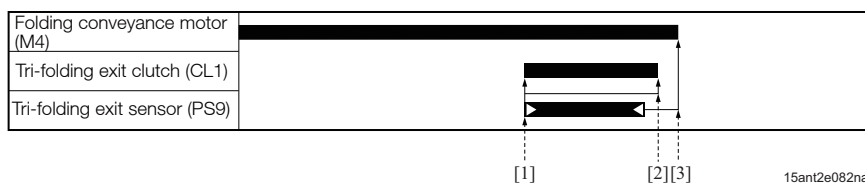


[1] Tri-folding exit sensor (PS9)	[2] Right-side view
[3] Tri-folding paper full sensor (PS10)	[4] Paper exit belt

(b) Control

The tri-folding exit clutch (CL1) turns ON and drives the exit belt [1] and stops it [2] after a specified period of time when the tri-folding exit sensor (PS9) detects the leading edge of paper.

The folding transfer motor (M4) stops [3] after a specified period of time since PS9 detects the trailing edge of paper.

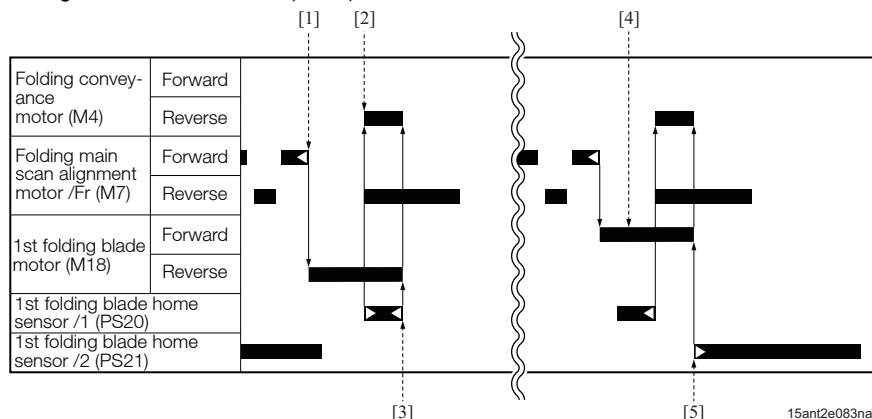


[1] Exit belt drive	[2] Exit belt stop
[3] Folding transfer motor (M4) stopped	-

(4) Center folding control

When the folding main scan alignment motor /Fr (M7) stops at the completion of the paper alignment operation, the 1st folding blade motor (M18) turns ON and rotates in the reverse direction [1] to let the 1st folding blade insert the paper between the folding rollers /1 and /2. When the 1st folding blade home sensor /1 (PS20) turns ON, the folding transfer motor (M4) rotates in the reverse direction [2] to rotate the folding rollers /1 and /2 in the reverse direction to release the paper. When PS20 turns OFF, M18 and M4 stop rotating [3].

The folding operation for the subsequent set, M18 rotates in the forward direction to conduct the folding [4] and stops rotating [8] when the 1st folding blade home sensor /2 (PS21) turns ON.



[1]	1st folding blade is projected with the paper	[2]	Folding transfer motor (M18) rotating the reverse direction
[3]	M18 and M4 stopped	[4]	M18 rotating the forward direction
[5]	M18 stopped	-	

4.3.4 Folding sub scan alignment control

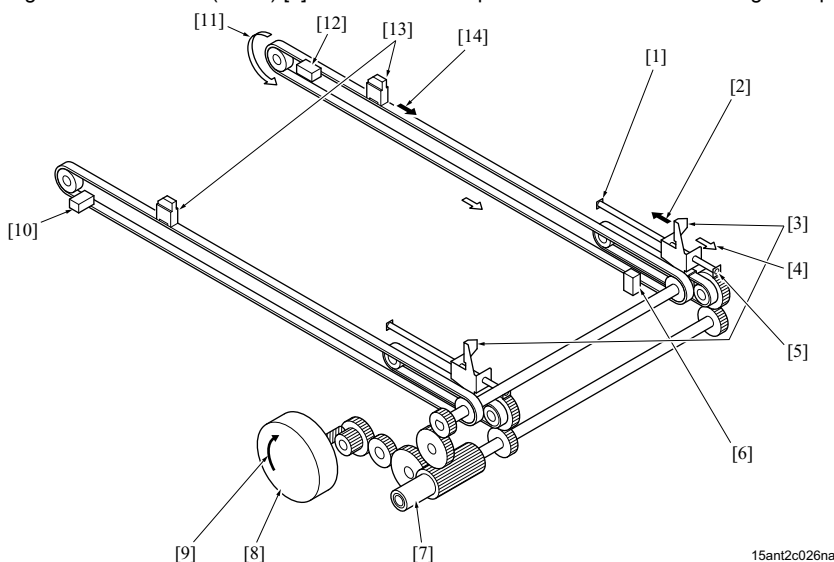
(1) Mechanism

The folding sub scan alignment operation is conducted in the multi letter folding mode and is conducted with the folding exit claws [13] and the folding alignment stoppers /Rt [3] driven by the folding sub scan alignment exit motor (M8) [8].

The folding exit claws move to the right [14] and the folding alignment stoppers /Rt move to the left [2] when M8 rotates in the reverse direction [9]. The folding alignment stoppers /Rt are contacted with the alignment stopper [1] and stopped by the torque limiter [7]. The folding exit claws move to the positions for the paper width of A4S or 8 1/2 x 11S and conduct the folding sub scan alignment operation, and then the folding is conducted.

In the multi center folding mode and the saddle stitching mode, M8 rotates in the forward direction to move the folding exit claws to the left [11] after the folding operation. Once the folding exit claws make a round, they conduct the paper exit operation to the saddle stitching section. At the time, the folding alignment stoppers /Rt moving to the right [4] are contacted with the alignment stopper [5] and stopped by the torque limiter [7].

The folding sub scan alignment home sensor (PS56) [12] detects the home position of the folding exit claws in the alignment operation. The folding exit home sensor (PS24) [6] detects the initial position and the center folding exit operation.

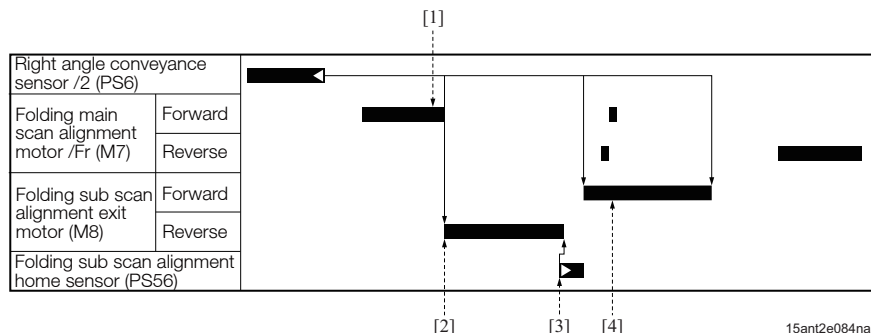


[1]	Alignment stopper	[2]	Alignment direction (Left)
[3]	Folding alignment stoppers /Rt	[4]	Movement in the center folding exit operation (Right)
[5]	Home position stopper	[6]	Folding exit home sensor (PS24)
[7]	Torque limiter	[8]	Folding sub scan alignment exit motor (M8)
[9]	M8 rotated in the reverse direction	[10]	Folding sensor /2 (PS44)
[11]	Direction at the center folding exit operation	[12]	Folding sub scan alignment home sensor (PS56)
[13]	Folding exit claws	[14]	Alignment direction (Right)

(2) Folding sub scan alignment control

The folding sub scan alignment exit motor (M8) rotates in the reverse direction to conduct the alignment operation in the sub scan direction [2] after a specified period of time since the right angle conveyance sensor /2 (PS6) detects the trailing edge of paper and the alignment operation in the main scan direction is conducted [1]. When the folding sub scan alignment home sensor (PS56) detects the folding exit claws, M8 conducts the alignment by pressing the side of the paper, and then it stops [3].

The M8 conducts the shelter operation and stops [4] after a specified period of time since PS6 detects the trailing edge of paper.



[1]	Alignment operation in the main scan direction	[2]	Alignment operation in the sub scan direction
[3]	M8 stopped	[4]	Shelter operation

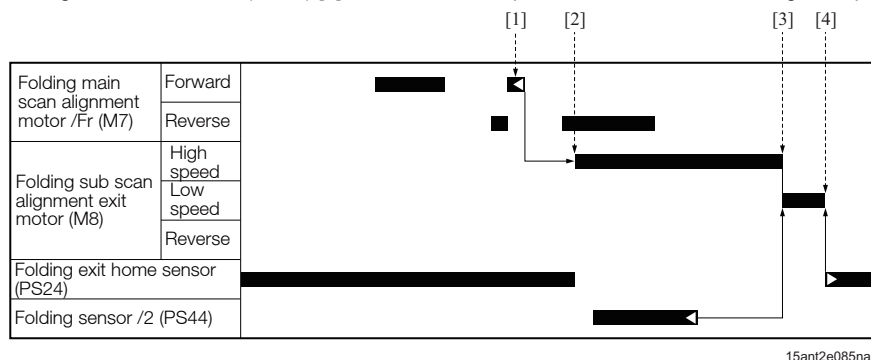
(3) Center folding exit operation

The folding sub scan alignment operation is conducted in the multi-letter folding mode and is conducted with the folding exit claws [13] and the folding alignment stoppers /Rt [3] driven by the folding sub scan alignment exit motor (M8) [8].

The folding exit claws move to the right [14] and the folding alignment stoppers /Rt move to the left [2] when M8 rotates in the reverse direction [9]. The folding alignment stoppers /Rt are contacted with the alignment stopper [1] and stopped by the torque limiter [7]. The folding exit claws move to the positions for the paper width of A4S or 8 1/2 x 11S and conduct the folding sub scan alignment operation, and then the folding is conducted.

In the multi-center folding mode and the saddle stitching mode, M8 rotates in the forward direction to move the folding exit claws to the left [11] after the folding operation. Once the folding exit claws make a round, they conduct the paper exit operation to the saddle stitching section. At the time, the folding alignment stoppers /Rt moving to the right [4] are contacted with the alignment stopper [5] and stopped by the torque limiter [7].

The folding sub scan alignment home sensor (PS56) [12] detects the home position of the folding exit claws in the alignment operation. The folding exit home sensor (PS24) [6] detects the initial position and the center folding exit operation.



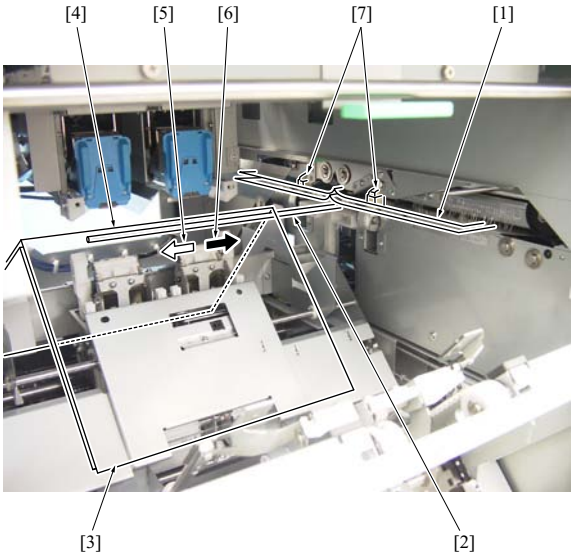
[1]	Realignment operation in the main scan direction	[2]	Paper exit operation started
[3]	Switched to the low speed	[4]	Stopped at home position

4.3.5 Guide shaft control

(1) Mechanism

The guide shaft [2] holds the fold line [4] from the bottom and makes certain of the stack [3] in the saddle stitching section when the folding exit claws [7] exit the folded paper [1] to the saddle stitching section.

The guide shaft is projected [5] in sync with the paper exit only when the first folded paper for each set is exited and put away immediately to the folding section [6]. In the subsequent paper exit, the guide shaft does not operate because the paper [3] stacked in the saddle stitching section works as the guide.

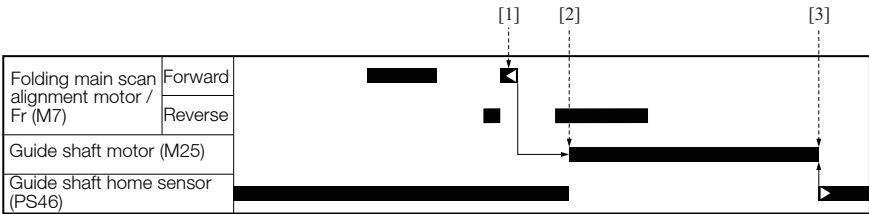


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[1]	Folded paper	[2]	Guide shaft
[3]	Stacked paper	[4]	Fold line
[5]	Projection direction of the guide shaft	[6]	Storage direction of the guide shaft
[7]	Folding exit claws	-	

(2) Guide shaft control

The guide shaft motor (M25) turns ON [2] and the guide shaft is projected after a specified period of time since the folding main scan alignment motor /Fr (M7) completes the realignment operation in the main scan direction [1] (after the center folding operation). The guide shaft conducting the back and forth operation by the belt rotation stops when the guide shaft home sensor (PS46) turns ON [3].



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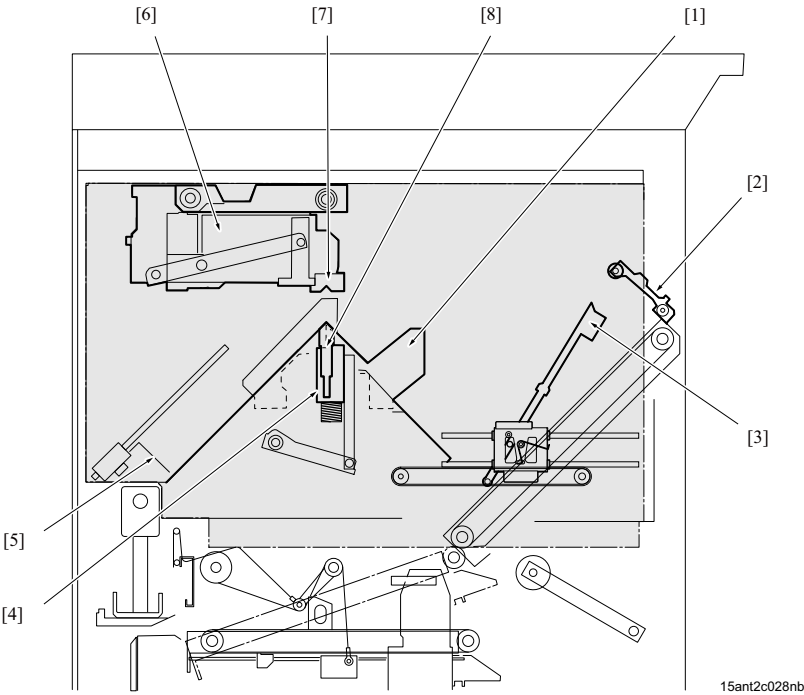
[1]	Realignment operation in the main scan direction	[2]	Guide shaft projecting started
[3]	Guide shaft motor (M25) stopped	-	

(3) Folding unit lock control

During the print operation, the folding unit lock solenoid (SD8) locks the folding unit to prevent the guide shaft or the folding exit claws from damage due to pulling out the folding unit by mistake. When the paper gets jammed, the positions of the guide shaft and the folding exit claws are monitored. SD8 turns OFF and releases the lock only when both the folding exit home sensor (PS24) and the guide shaft home sensor (PS46) detect the home position.

5. SADDLE STITCHING SECTION

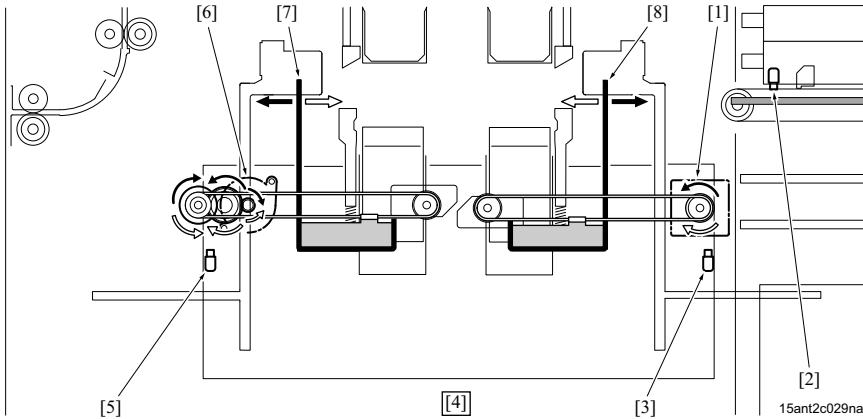
5.1 Configuration



[1]	Saddle stitching alignment plate	[2]	Clip
[3]	Bundle arm	[4]	Clincher
[5]	Bundle arm assist plate	[6]	Stapler
[7]	Saddle stitching hold /Up	[8]	Saddle stitching hold /Lw

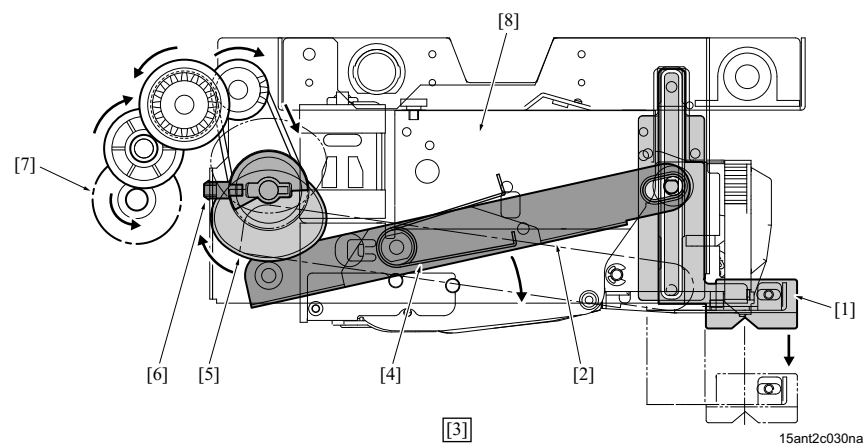
5.2 Drive

5.2.1 Saddle stitching alignment drive



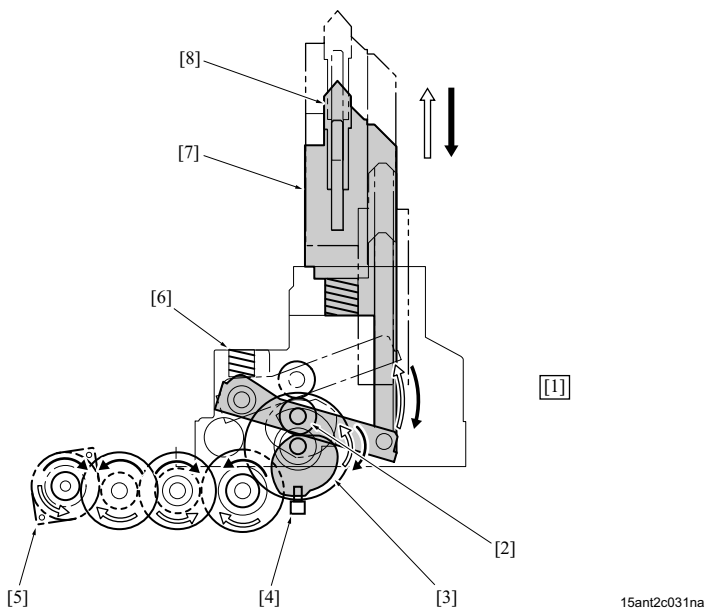
[1]	Saddle stitching alignment motor /Rt (M9)	[2]	Folding sensor /2 (PS44)
[3]	Saddle stitching alignment home sensor /Rt (PS28)	[4]	Front side view
[5]	Saddle stitching alignment home sensor /Lt (PS29)	[6]	Saddle stitching alignment motor /Lt (M16)
[7]	Saddle stitching alignment plate /Lt	[8]	Saddle stitching alignment plate /Rt

5.2.2 Saddle stitching hold drive



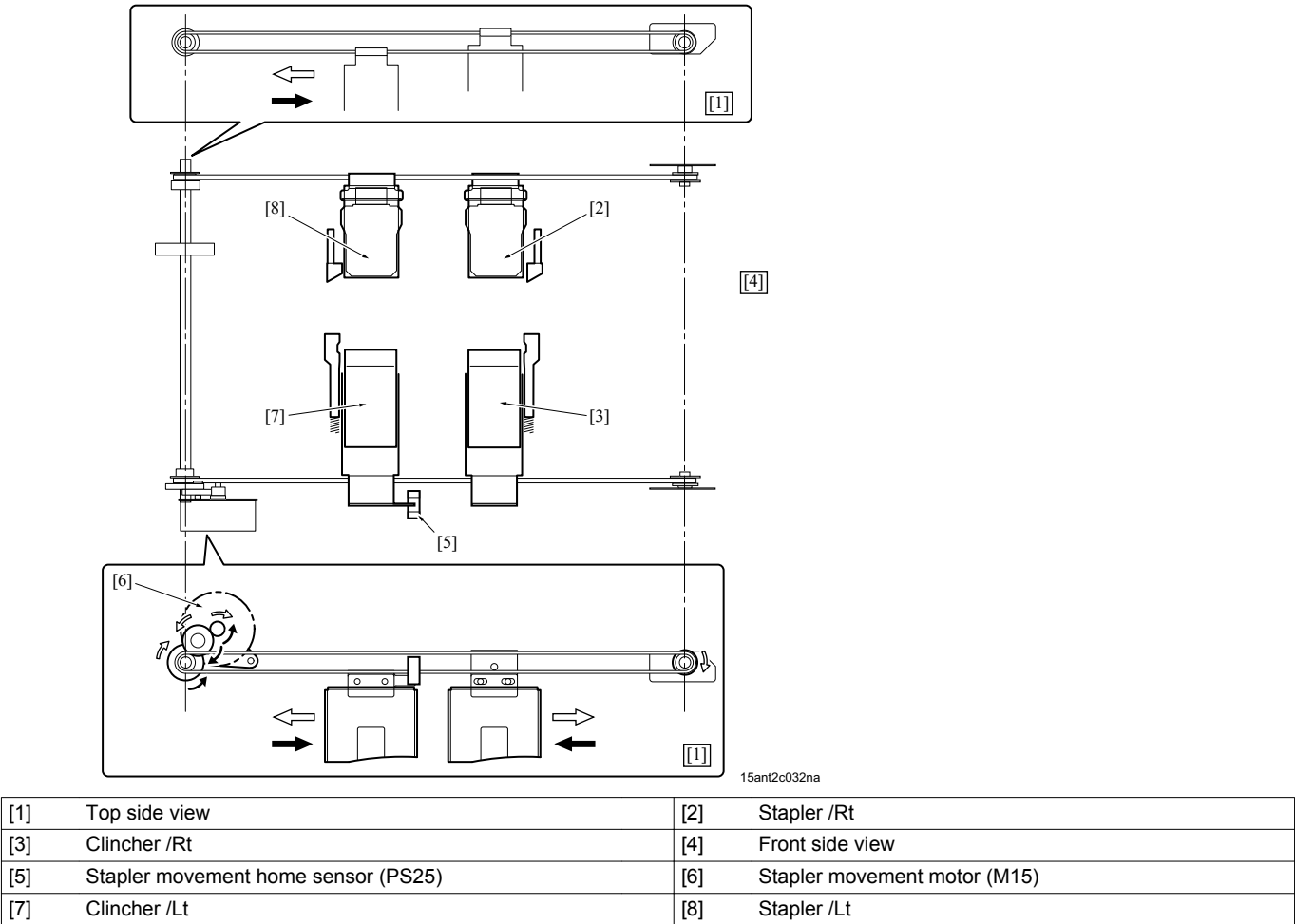
[1]	Saddle stitching hold /Up	[2]	Arm
[3]	Left-side view	[4]	Spring
[5]	Eccentric cam	[6]	Saddle stitching hold home sensor (PS27)
[7]	Saddle stitching press motor (M21)	[8]	Stapler

5.2.3 Clincher up down drive

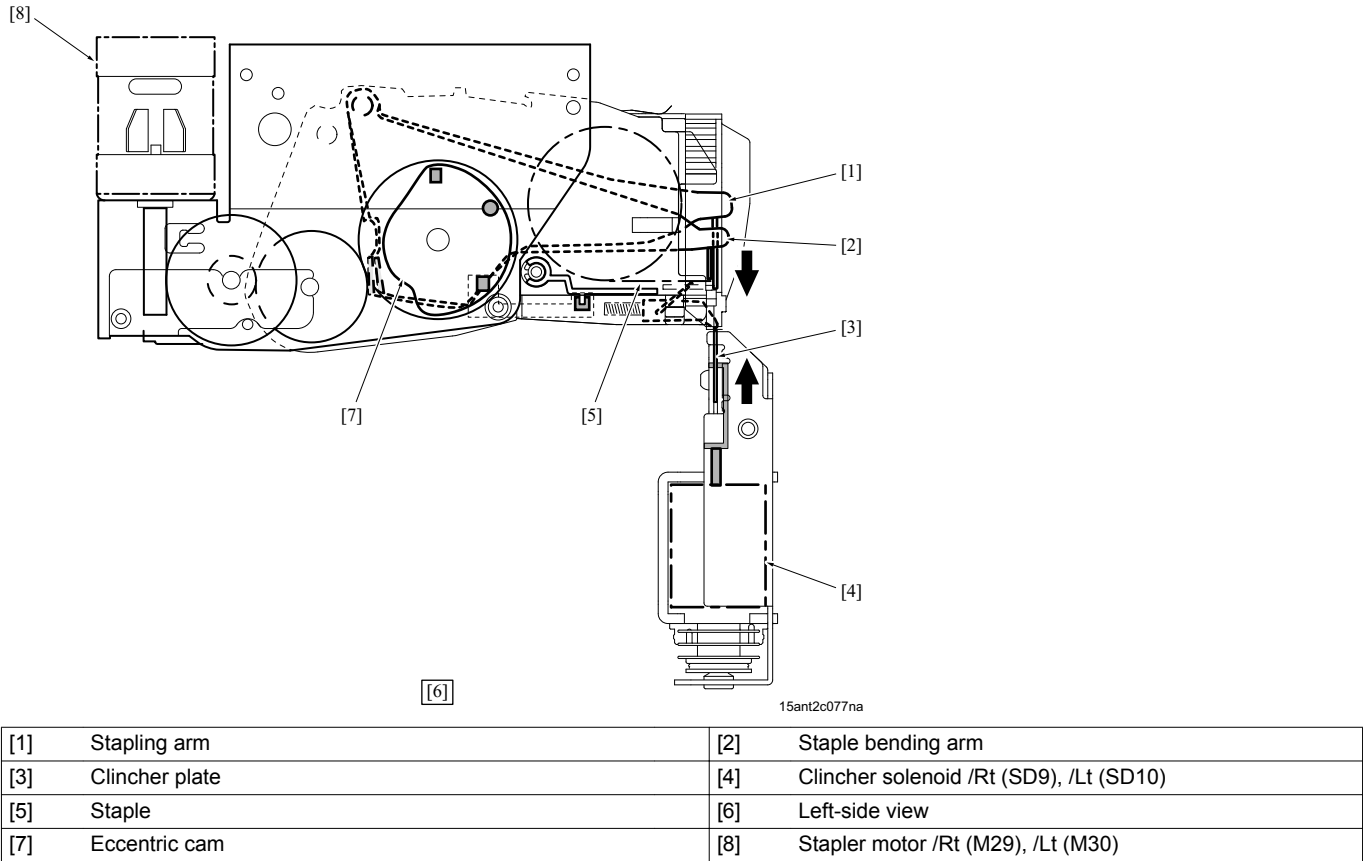


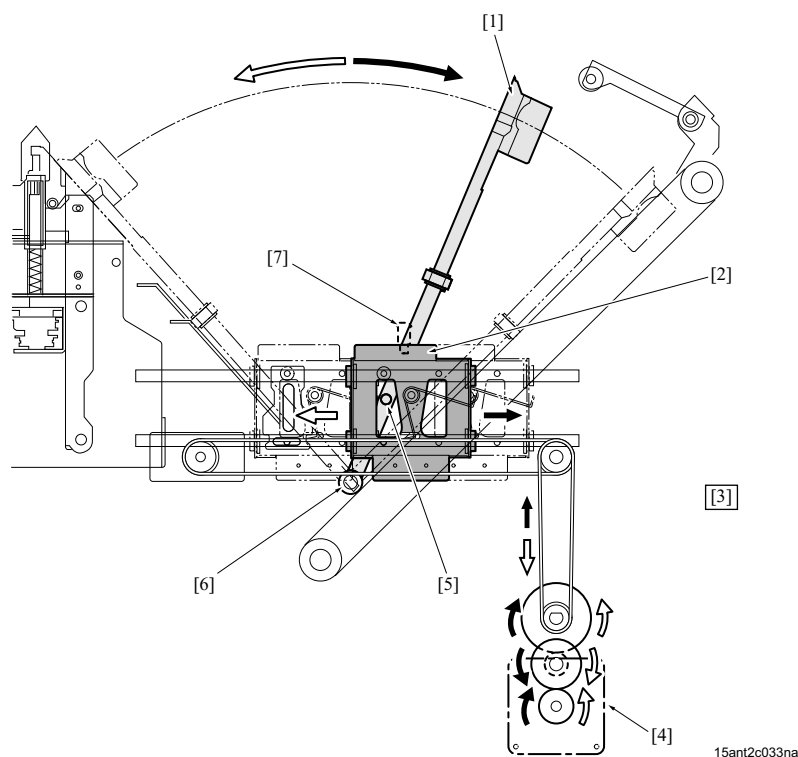
[1]	Left-side view	[2]	Roller
[3]	Eccentric cam	[4]	Clincher up down home sensor (PS26)
[5]	Clincher up down motor (M20)	[6]	Spring
[7]	Clincher /Rt, /Lt	[8]	Saddle stitching hold /Lw

5.2.4 Stapler/clincher movement drive

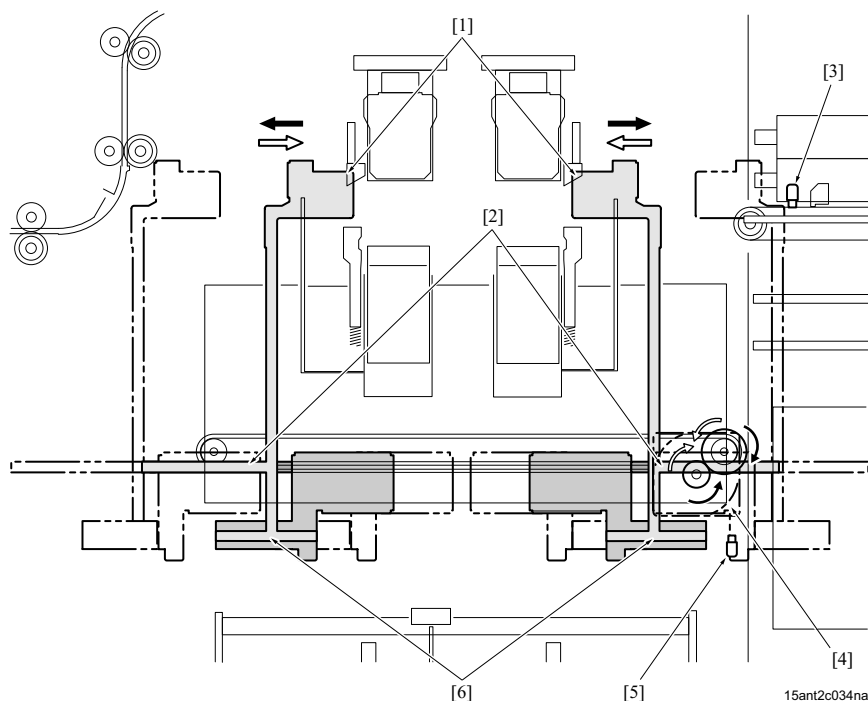


5.2.5 Stapler/clincher drive



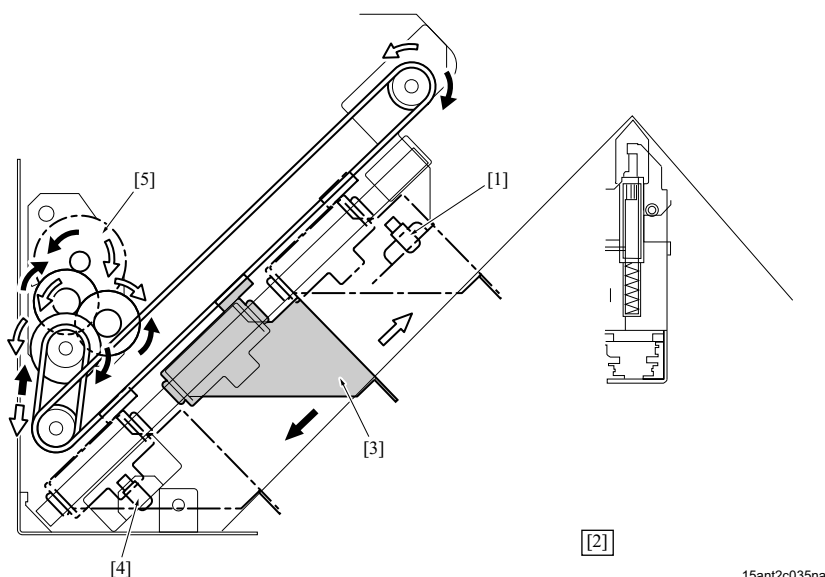
5.2.6 Bundle arm rotation drive

[1]	Bundle arm	[2]	Slide guide
[3]	Left-side view	[4]	Bundle arm rotation motor (M22)
[5]	Guide shaft	[6]	Fulcrum shaft
[7]	Bundle arm rotation home sensor (PS31)	-	

5.2.7 Bundle arm movement drive

[1]	Bundle arm	[2]	Guide shaft
[3]	Folding sensor /2 (PS44)	[4]	Bundle arm motor (M10)
[5]	Bundle arm home sensor (PS32)	[6]	Fulcrum shaft

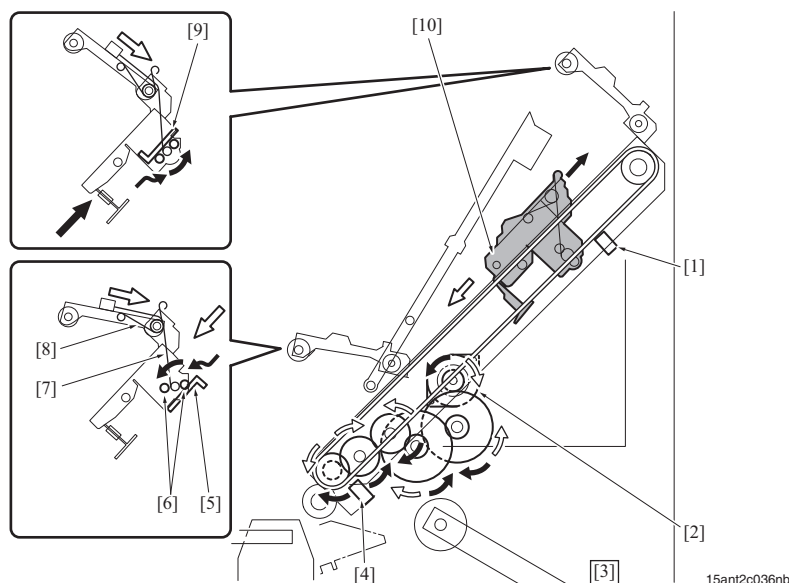
5.2.8 Bundle arm assist drive



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[1]	Bundle arm assist upper limit sensor (PS39)	[2]	Left-side view
[3]	Bundle arm assist plate	[4]	Bundle arm assist home sensor (PS38)
[5]	Bundle arm assist motor (M26)	-	

5.2.9 Bundle clip drive



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[1]	Bundle clip upper limit sensor (PS33)	[2]	Bundle clip motor (M11)
[3]	Left-side view	[4]	Bundle clip lower limit sensor (PS30)
[5]	Release plate /Lw	[6]	Release roller
[7]	Wire	[8]	Spring
[9]	Release plate /Up	[10]	Clip

5.3 Operation

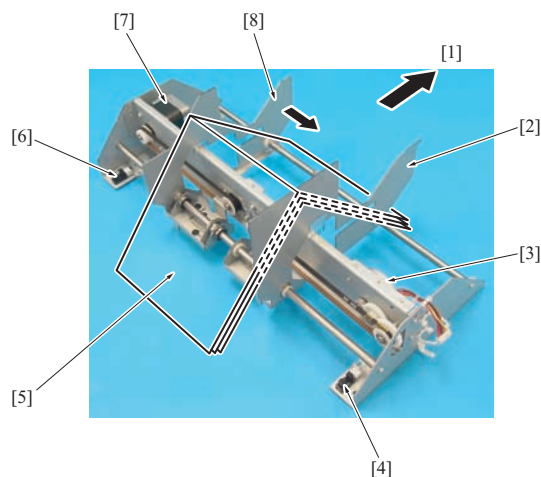
5.3.1 Saddle stitching alignment control

(1) Mechanism

In the saddle stitching alignment, the saddle stitching alignment plates /Lt [2] and /Rt [8] align the center folded paper [5] in the sub scan direction.

The saddle stitching alignment motor /Lt (M16) [3] drives the saddle stitching alignment plate /Lt [2] in the sub scan direction via the belt by rotating in the forward and reverse directions. The saddle stitching alignment plate /Lt moves to the position for the appropriate paper size when the main body start signal turns ON, and it does not move during the print operation. It return to the position at the saddle stitching alignment home sensor /Lt (PS29) [4] after the print operation.

The saddle stitching alignment motor /Rt (M9) [7] drives the saddle stitching alignment plate /Rt [8] in the sub scan direction via the belt by rotating in the forward and reverse directions. The alignment operation is conducted by M9 by rotating in the forward/reverse directions every time the center folded paper is conveyed. It return to the position at the saddle stitching alignment home sensor /Rt (PS28) [6] after the print operation.



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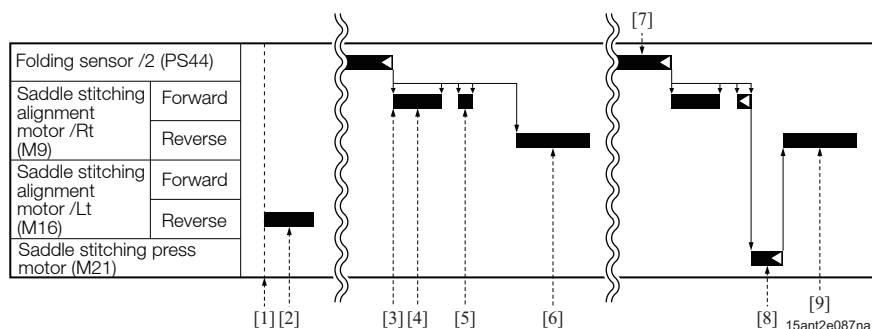
[1]	Front side direction	[2]	Saddle stitching alignment plate /Lt
[3]	Saddle stitching alignment motor /Lt (M16)	[4]	Saddle stitching alignment home sensor /Lt (PS29)
[5]	Paper	[6]	Saddle stitching alignment home sensor /Rt (PS28)
[7]	Saddle stitching alignment motor /Rt (M9)	[8]	Saddle stitching alignment plate /Rt

(2) Control

The saddle stitching alignment motor /Lt (M16) rotates in the reverse direction when the main body start signal [1] turns ON and the saddle stitching alignment plate /Lt moves to the position for the appropriate paper size [2].

The saddle stitching alignment motor /Rt (M9) rotates in the forward direction and the saddle stitching alignment plate /Rt conducts the preliminary alignment operation [4] when the folding sensor /2 (PS44) at the exit of the folding section detects the trailing edge of the paper [3]. Then, M9 rotates in the forward direction to conduct the alignment operation [5] when the paper is stacked at the stapler position. After a specified period of time, M9 rotates in the reverse direction to go back the saddle stitching alignment plate to its home position and stands by for the subsequent set [6].

For the last paper of the set [7], M9 rotates in the reverse direction to go back the saddle stitching alignment plate to its home position when the saddle stitching press motor (M21) is completed with holding the paper [8].



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[1]	Main body print signal	[2]	Moved for appropriate paper size
[3]	Detected the trailing edge of paper	[4]	Preliminary alignment operation
[5]	Alignment operation	[6]	Moved to the home position
[7]	Last paper of the set	[8]	Held the paper with the saddle stitching hold
[9]	Moved to the home position		

5.3.2 Stapler/clinchers movement control

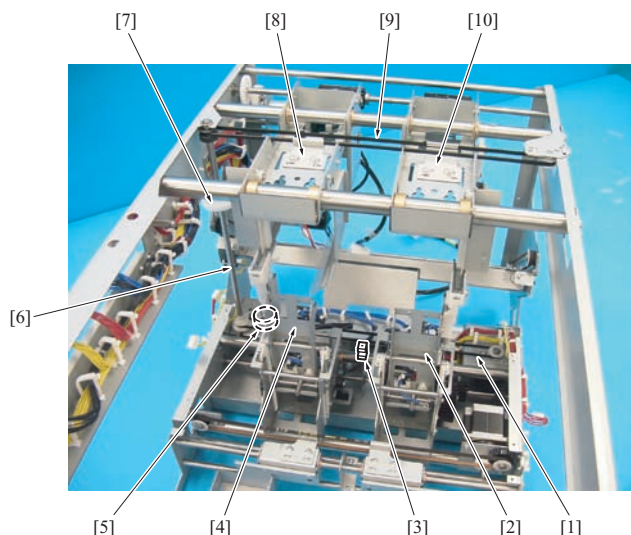
(1) Mechanism

The staplers/clinchers move to the stapling position in accordance with the paper size.

The stapling position is different for every paper size to make the stapling distance half of the paper size.

The staplers /Rt [10] and /Lt [8] are fixed to the belt /Up [9] and the clinchers /Rt [2] and /Lt [4] to the belt /Lw [1]. The stapler movement motor (M15) [5] moves them in the sub scan direction via the connecting shaft [6].

To prevent the tooth skipping of the belts /Up and /Lw at the maintenance, the gear-shaped rotating knob [7] is provided on the connecting shaft [6]. By rotating the knob manually, the staplers /Rt and /Lt and the clinchers /Rt and /Lt move simultaneously.



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[1] Belt /Lw	[2] Clincher /Rt
[3] Stapler movement home sensor (PS25)	[4] Clincher /Lt
[5] Stapler movement motor (M15)	[6] Connecting shaft
[7] Rotating knob	[8] Stapler /Lt
[9] Belt /Up	[10] Stapler /Rt

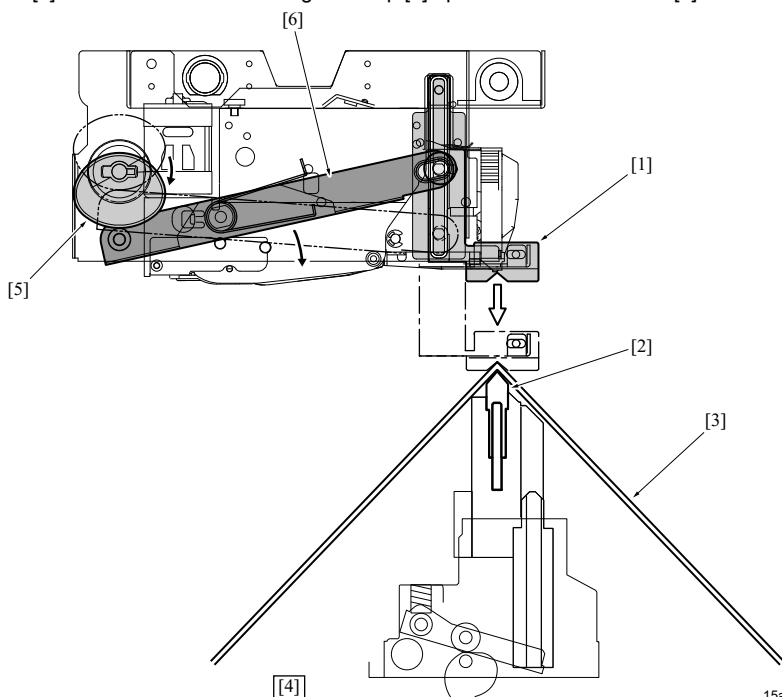
(2) Control

The stapler movement motor (M15) rotates in the forward direction when the main body start signal turns ON and moves the staplers and the clinchers to the position for the appropriate paper size. They go back to their home position at the end of the printing operation.

5.3.3 Saddle stitching hold control

(1) Mechanism

The saddle stitching hold is the mechanism to prevent the paper misalignment at stapling. The saddle stitching hold /Up [1] moves down to the saddle stitching hold /Lw [2] at its lower position and hold the center folded paper [3] at the fold line from both up and down. The eccentric cam [5] moves the saddle stitching hold /Up [1] up and down via the arm [6].



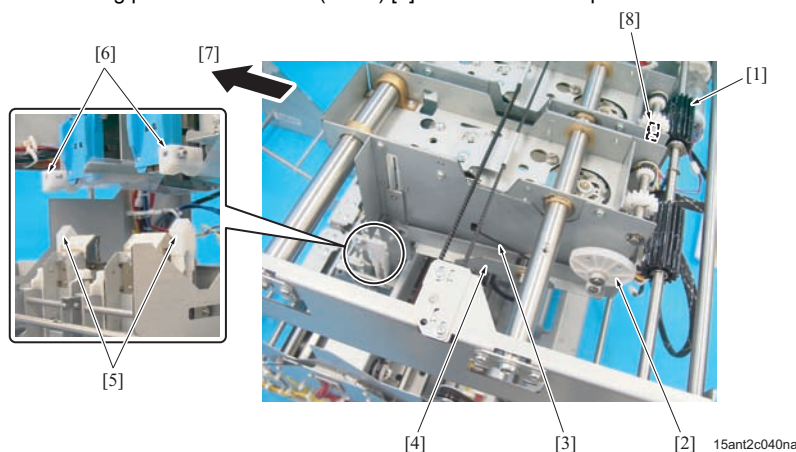
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[1] Saddle stitching hold /Up	[2] Saddle stitching hold /Lw
[3] Center folded paper	[4] Left-side view
[5] Eccentric cam	[6] Arm

The spring [3] enforces the saddle stitching hold /Up [6] toward the saddle stitching hold /Lw [5]. When the saddle stitching press motor (M21) rotates the eccentric cam [2] via the gear [1], the arm [4] moves along with the shape of the eccentric cam and the spring [3] lowers the saddle stitching hold /Up.

The saddle stitching hold /Up [6] holding the center folded paper at its lower position is pushed up to its upper position by the saddle stitching hold /Lw [5] during the stapling operation. This allows the paper to be moved from the lower position to the upper position without any misalignment.

The saddle stitching press home sensor (PS27) [8] detects the home position of the eccentric cam.

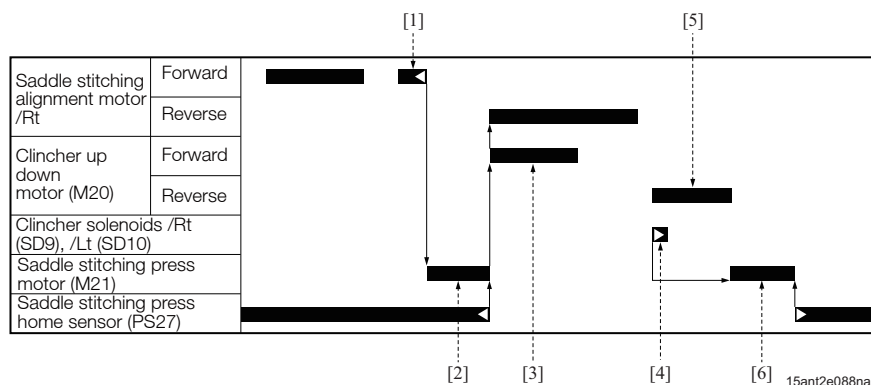


[1] Gear	[2] Eccentric cam
[3] Spring	[4] Arm
[5] Saddle stitching hold /Lw	[6] Saddle stitching hold /Up
[7] Front side direction	[8] Saddle stitching hold home sensor (PS27)

(2) Control

(a) Saddle stitching mode

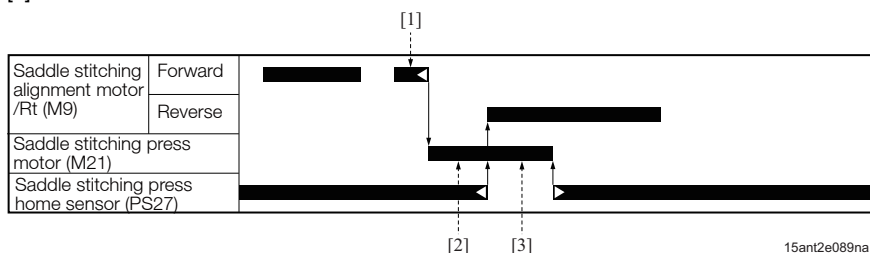
At the end of the paper alignment operation [1], the saddle stitching press motor (M21) rotates to move the saddle stitching hold /Up downward [2] and hold the paper between the saddle stitching holds /Up and /Lw. Then, the clincher up down motor (M20) starts rotating and the saddle stitching hold /Up is pushed up by the saddle stitching hold /Lw while holding the paper [3]. M20 rotates in the reverse direction and lowers the saddle stitching hold /Lw [5] when the clinching operation [4] is started. Also the spring lowers The saddle stitching hold /Up. M21 turns ON and go back the saddle stitching hold /Up to its standby position [6] after a specified period of time since the clinching operation is started.



[1] Alignment operation	[2] Saddle stitching hold /Up moved down
[3] Saddle stitching hold /Lw moved up	[4] Clinching operation
[5] Saddle stitching hold /Lw moved down	[6] Saddle stitching hold /Up moved up

(b) Multi-center folding mode

At the end of the paper alignment operation [1], the saddle stitching press motor (M21) rotates to move the saddle stitching hold /Up downward [2] and stack the paper securely. Then, M21 keeps rotating to move the saddle stitching hold /Up upward to its standby position [3].



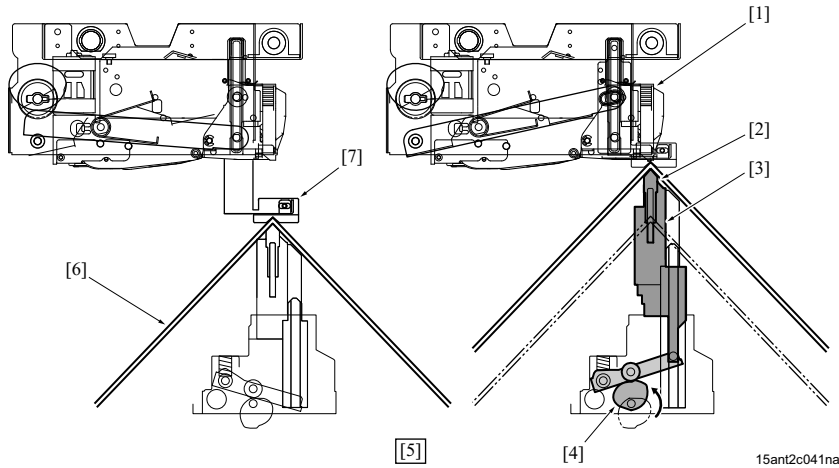
[1] Alignment operation	[2] Saddle stitching hold /Up moved down
[3] Saddle stitching hold /Up moved up	-

5.3.4 Clincher up down control

(1) Mechanism

The clincher shelters at the lower position to obtain space between the stapler and the clincher when the paper is conveyed between them.

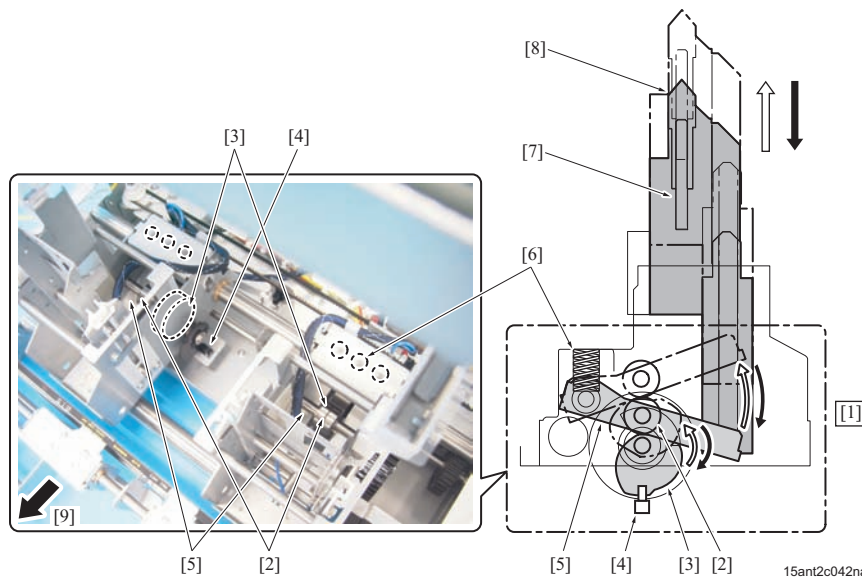
After the alignment operation, the saddle stitching hold /Up [7] moves down and holds the center folded paper [6]. Then the eccentric cam [4] drives the saddle stitching hold /Lw [2] and the clincher [3] to push up the saddle stitching hold /Up [7] to the position where the stapler [1] is positioned while holding the center folded paper.



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[1]	Stapler	[2]	Saddle stitching hold /Lw
[3]	Clincher	[4]	Eccentric cam
[5]	Left-side view	[6]	Center folded paper
[7]	Saddle stitching hold /Up	-	

The clincher [7] moves down to the lower position by its own weight and moves upward by the clincher up down motor (M20). The roller [2] attached to the arm [5] is pushed up and the clincher is contacted with the stapler when M20 rotates the eccentric cam [3]. The paper between the clincher and the stapler is held securely by the spring [6]. Once the stapling operation is completed, M20 rotates in the reverse direction to go back the eccentric cam, and then the clincher moves down by its own weight.



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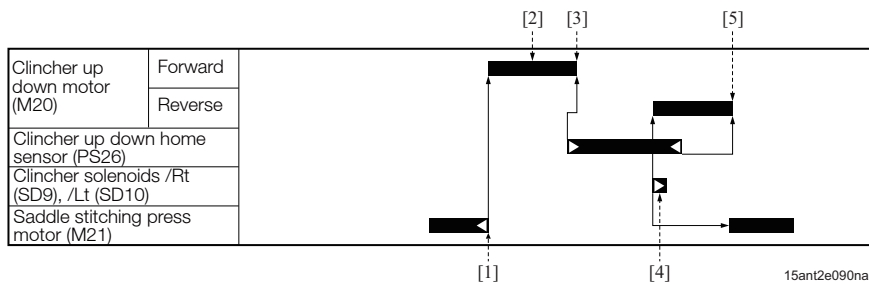
[1]	Left-side view	[2]	Roller
[3]	Eccentric cam	[4]	Clincher up down home sensor (PS26)
[5]	Arm	[6]	Spring
[7]	Clincher /Rt, /Lt	[8]	Saddle stitching hold /Lw
[9]	Front side direction	-	

(2) Control

The clincher moves up or down only in the saddle stitching mode.

Once the saddle stitching press motor (M21) moves down the saddle stitching hold /Up [1], the clincher up down motor (M20) rotates in the forward direction to move up the clinchers /Rt and /Lt and the saddle stitching hold /Lw [2]. M20 is stopped when the clincher up down home sensor (PS26) turns ON.

M20 rotates in the reverse direction to move down the clinchers /Rt and /Lt and the saddle stitching hold /Lw when the clincher solenoids /Rt (SD9) and /Lt (SD10) starts the clinching operation [4]. They are stopped at the lower position [5] when PS26 turns OFF.

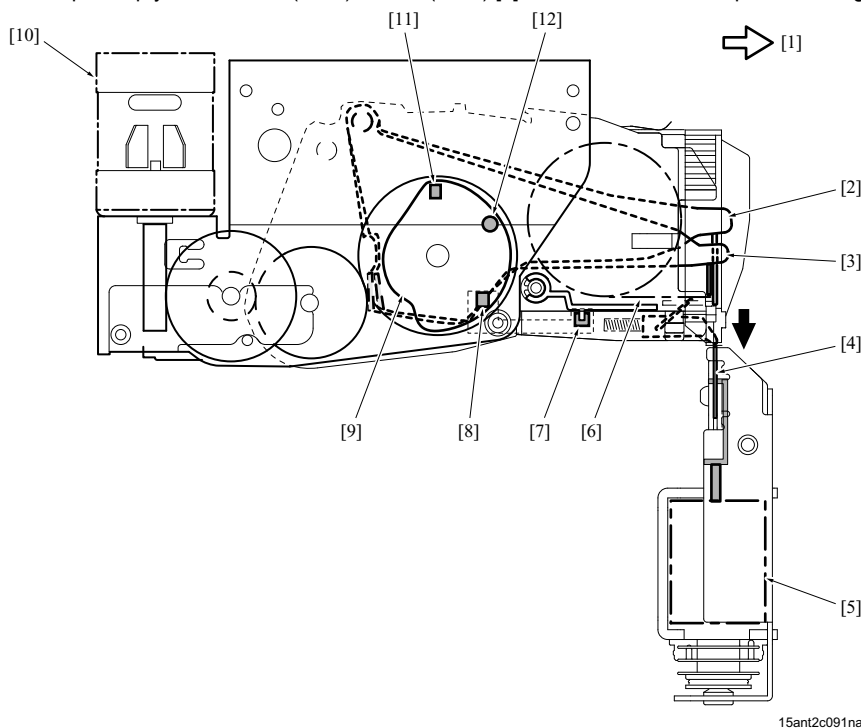


[1]	Saddle stitching hold /Up moving down stopped	[2]	Clinchers /Rt and /Lt moved up
[3]	Clinchers /Rt and /Lt stopped at the upper position	[4]	Clinching operation
[5]	Clinchers /Rt and /Lt stopped at lower position	-	

5.3.5 Stapler control

(1) Mechanism

The stapler motors /Rt (M29) and /Lt (M30) [10] and the clincher solenoids /Rt (SD9) and /Lt (SD10) [5] operate the stapler operation. The stapler home sensors /Rt (HS1) and /Lt (HS3) [8] and the clincher start sensors /Rt (HS2) and /Lt (HS4) [11] detect the stapler operation. HS1, HS2, HS3, and HS4 are hall element sensors and control the position of the magnet [12] of the rotating eccentric cam [9]. M29 and M30 [10] drive the staple bending arm [3] and the stapling arm [2] via the eccentric cam [9]. The staple bending arm bends the rolled staple [6] into the U-shape and the stapling arm staples it toward the clincher. Then the clincher solenoids /Rt (SD9) and /Lt (SD10) bend the staple by driving the clincher plate [4]. The stapling operation is completed with these operations. The staple empty switches /Rt (SW1) and /Lt (SW2) [7] detect whether the staple or cartridge is set or not.



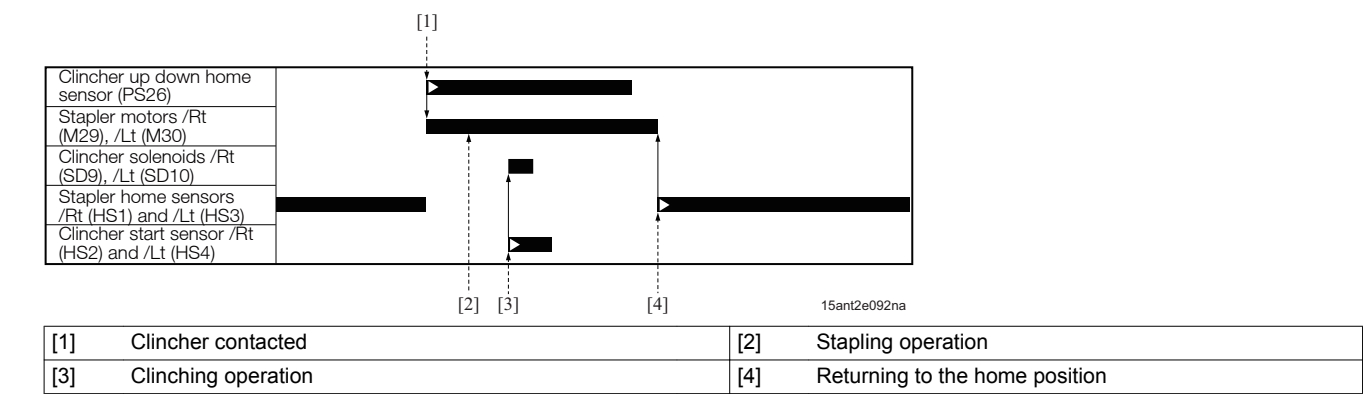
[1]	Front side direction	[2]	Stapling arm
[3]	Staple bending arm	[4]	Clincher plate
[5]	Clincher solenoid /Rt (SD9), /Lt (SD10)	[6]	Staple
[7]	Stapler empty switch /Rt (SW1), /Lt (SW2)	[8]	Stapler home sensor /Rt (HS1), /Lt (HS3)
[9]	Eccentric cam	[10]	Stapler motor /Rt (M29), /Lt (M30)
[11]	Clincher start sensor /Rt (HS2), /Lt (HS4)	[12]	Magnet

(2) Control

(a) Stapler control

The stapler motors /Rt (M29) and /Lt (M30) start the stapling operation [2] when the clincher up down home sensor (PS26) detects that the clinchers /Rt and /Lt are contacted with the stapler assy [1].

The clincher solenoids /Rt (SD9) and /Lt (SD10) bend the staple and the stapling operation is completed when the clincher start sensors /Rt (HS1) and /Lt (HS3) in the stapler assy turn ON [3]. M29 and M30 stop and return to the home position [4] when the stapler home sensors /Rt (HS1) and /Lt (HS3) detects the home position.



(b) Staple and cartridge detection

When the remaining amount of the staple becomes 20 or the cartridge is not set, the staple empty switches /Rt (SW1) and /Lt (SW2) turn ON and the main body displays the message on its operation panel.

5.3.6 Bundle arm control

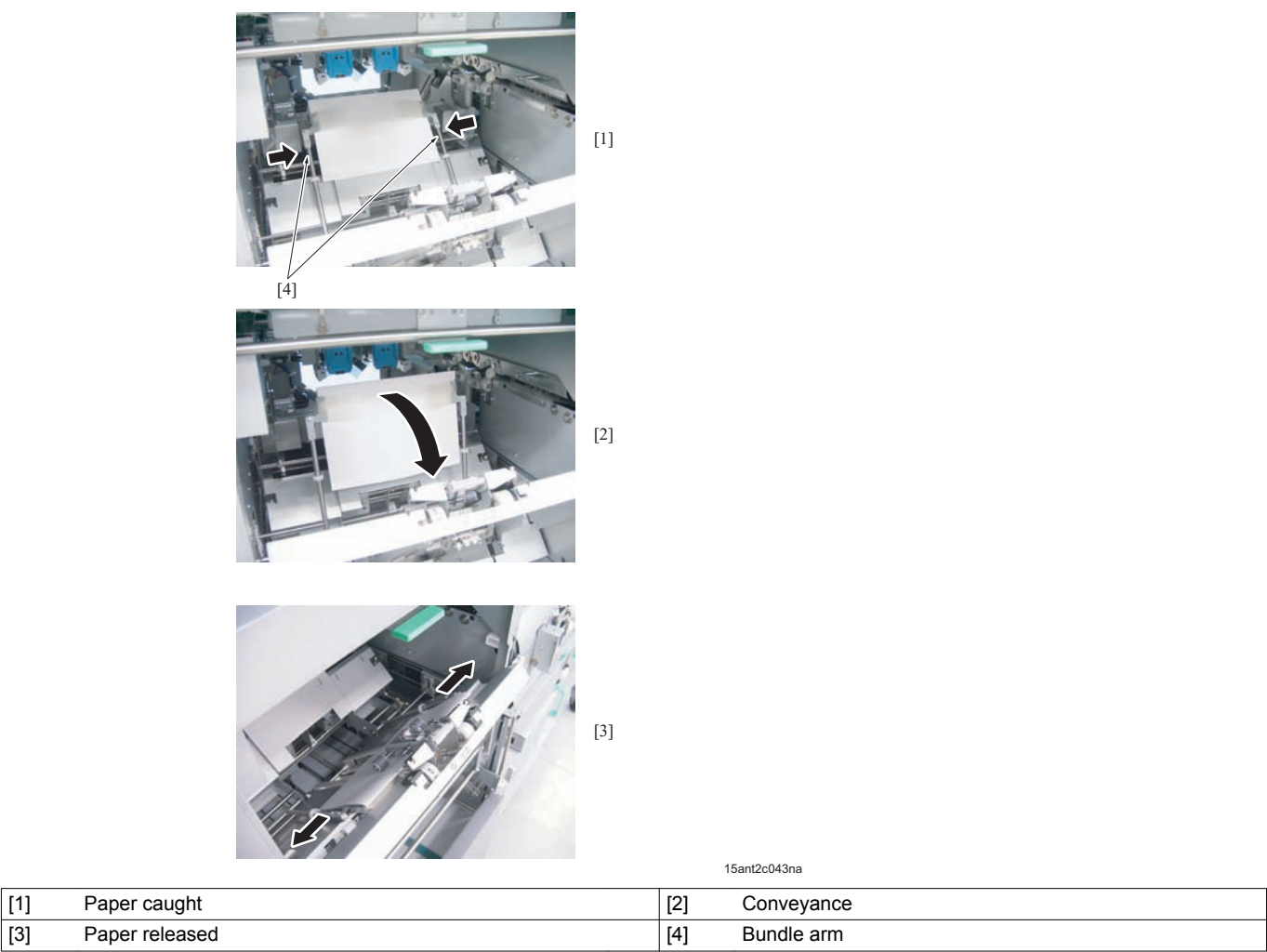
The bundle arm [4] rotates and moves in the sub scan direction.

It rotates to convey the paper from the stapling section to the bundle clip section and moves in the sub scan direction to catch/release the paper.

In the multi center folding mode, the bundle arm rotates to the stapling position after the last paper of the set is conveyed. In the saddle stitching mode, it rotates after the stapling operation.

By moving the bundle arm, the tip of the bundle arm is inserted under the fold line of the paper and the paper is caught [1].

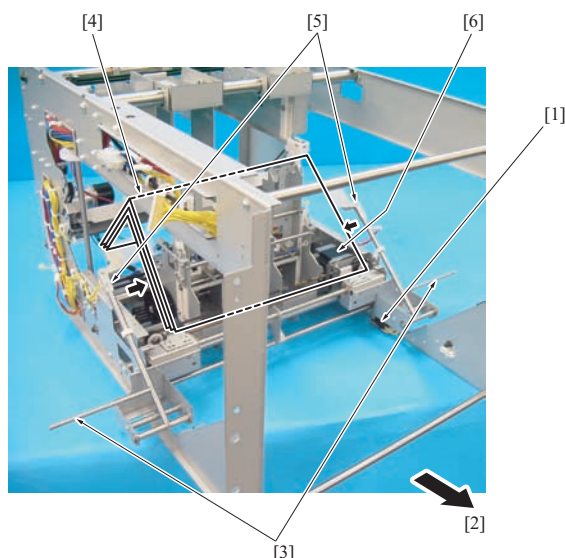
The caught paper is conveyed to the bundle clip section [2] by the rotation of the bundle arm. The bundle arm moves in the outside of the sub scan direction and releases the paper [3] when the bundle clip holds the paper at the folding side.



(1) Bundle arm movement mechanism

The bundle arm motor (M10) [6] drives the bundle arm [5] to catch/release the paper [4] in the sub scan direction via the belt.

The bundle arm home sensor (PS32) [1] detects the home position of the bundle arm.



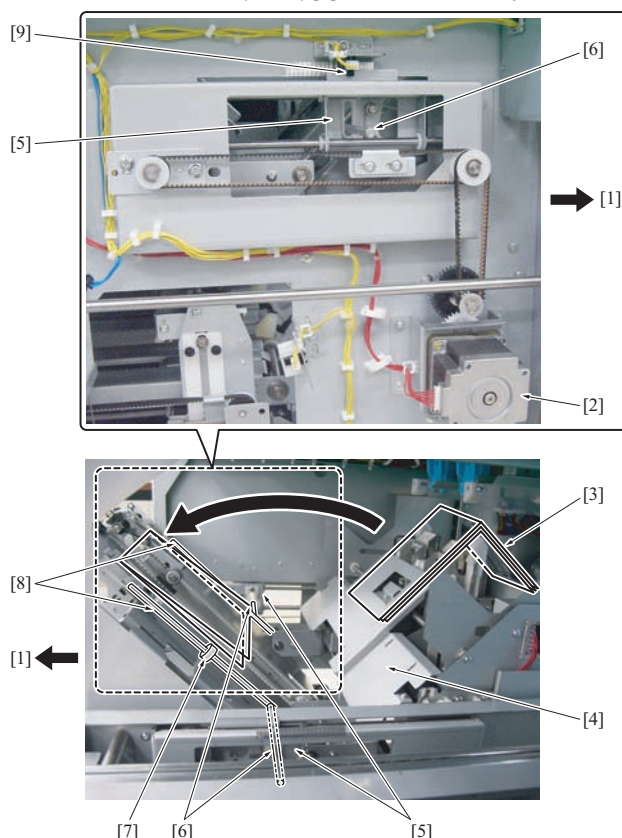
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[1]	Bundle arm home sensor (PS32)	[2]	Front side direction
[3]	Guide shaft	[4]	Paper
[5]	Bundle arm	[6]	Bundle arm motor (M10)

(2) Bundle arm rotation mechanism

The bundle arm rotation motor (M22) [2] drives the bundle arm [8] via the belt, slide guide [5], and guide shaft [6]. When M22 drives the slide guide [5] in the main scan direction, the guide shaft [6] passing through the long hole of the slide guide is rotated, and then the bundle arm [8] is rotated around the fulcrum. When it is driven to the paper [3] side, M22 stops where the ring [7] is contacted with the guide plate [4].

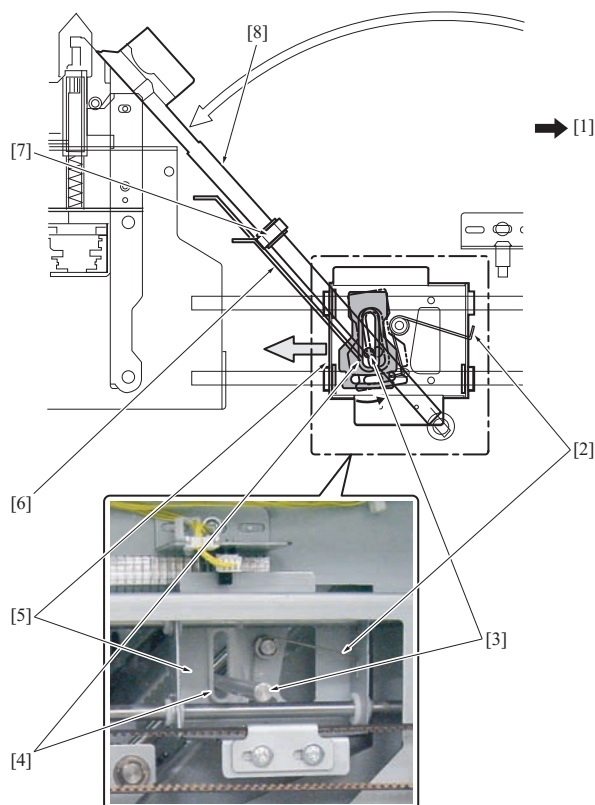
The bundle arm rotation home sensor (PS31) [9] detects the home position of the bundle arm.



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[1]	Front side direction	[2]	Bundle arm rotation motor (M22)
[3]	Paper	[4]	Guide plate
[5]	Slide guide	[6]	Guide shaft
[7]	Ring	[8]	Bundle arm
[9]	Bundle arm rotation home sensor (PS31)	-	

In the rotation drive of the bundle arm [8], the slide guide [5] has to be overrun to be sure to make the ring [7] of the bundle arm contact with the guide plate [4]. To prevent any parts from damage due to the overrun, the guide shaft [3] is movable with the shock absorbing guide [4] and the spring [2].



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[1]	Front side direction	[2]	Spring
[3]	Guide shaft	[4]	Shock absorbing guide
[5]	Slide guide	[6]	Guide plate
[7]	Ring	[8]	Bundle arm

(3) Bundle arm control

The bundle arm motor (M10) rotates in the reverse direction when the main body start signal [1] turns ON and moves the bundle arm to the appropriate position in accordance with the paper size.

The bundle arm rotation motor (M22) rotates in the forward direction to rotate the bundle arm to the stapling section [3] after a specified period of time since the folding sensor /2 (PS44) detects the trailing edge of paper of the last set. It stops the bundle arm in an upright position [4] when the bundle arm rotation home sensor (PS31) turns OFF.

Then, M22 rotates again [5] to drive the bundle arm until it is contacted with the guide plate on the stapling section [6]. The timing for M22 to restart the rotation [5] is different between in the multi-center folding mode and in the saddle stitching mode. (The picture shows the time chart of the saddle stitching mode)

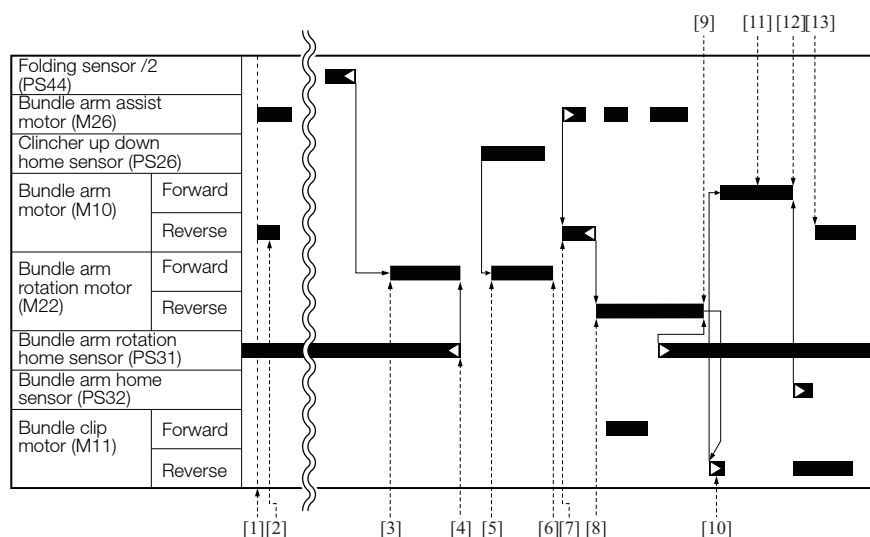
- Multi center folding mode: When the saddle stitching press home sensor (PS27) detects the saddle stitching hold /Up has been moved to its upper position.
- Saddle stitching mode: After a specified period of time since the clincher up down home sensor (PS26) detects that the clinchers are contacted with the staplers.

M10 inserts the tip of the bundle arm under the fold line of the paper [7] when the bundle arm assist motor (M26) starts the assisting operation by pushing up the trailing edge of paper at the back side and M10 stops after a specified period of time [8].

M22 rotates in the reverse direction to convey the paper to the bundle clip section when M10 stops [8]. It stops after a specified period of time since PS31 turns ON.

M10 rotates in the forward direction to pull out the bundle arm from the paper and take shelter it from the conveyance path [11] after a specified period of time since the bundle clip motor (M11) starts to catch the paper [10]. M10 stops when the bundle arm home sensor (PS32) turns ON [12].

M10 rotates in the reverse direction to go back the bundle arm to its standby position [13] for the subsequent set after a specified period of time since it stops.



[1] Main body start signal	[2] Moved for appropriate paper size
[3] Bundle arm started to rotate	[4] Bundle arm stopped in an upright position
[5] Bundle arm restarted to rotate	[6] Bundle arm contacted with the guide plate
[7] Bundle arm inserted under the fold line	[8] Insertion completed and conveyance started
[9] Conveyance completed	[10] Paper clip caught paper
[11] Bundle arm shelter operation	[12] Shelter completed
[13] Bundle arm moved for the subsequent set	-

* The picture shows the time chart of the saddle stitching mode

5.3.7 Bundle arm assist control

(1) Mechanism

The bundle arm assist mechanism is the mechanism to assist the paper conveyance of the bundle arm rotation drive to be conducted without fault. It pushes up the fore edge side of the paper [6] with the bundle arm assist plate [4] to tilt it to the front.

The bundle arm assist motor (M26) [2] drives the bundle arm plate [4] via the belt.

The bundle arm assist upper limit sensor (PS39) [1] detects the upper home position and the bundle arm assist home sensor (PS38) [3] detects the lower home position.

The bundle arm assist plate [4] waits at the position 5mm below the fore edge side of the paper during standby. To keep the error to a minimum, the small-size paper (less than 314mm) and the large-size paper (314mm or more) are moved to the standby position from the position of PS39 and PS38 respectively since the driving time of M26 (DC brush motor) positions the standby position for the paper.

In the bundle arm assist operation, the fore edge side of the paper is pushed up 35mm (or until PS39 turns ON).



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[1] Bundle arm assist upper limit sensor (PS39)	[2] Bundle arm assist motor (M26)
[3] Bundle arm assist home sensor (PS38)	[4] Bundle arm assist plate
[5] Front side direction	[6] Paper

(2) Control

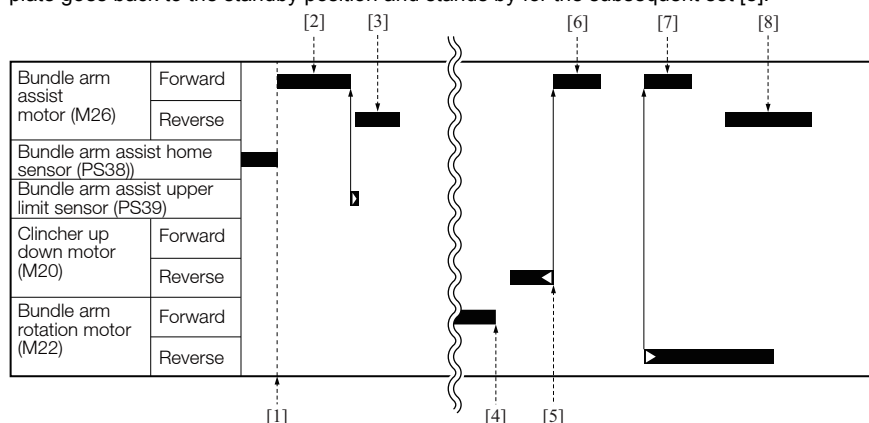
(a) Small-size paper (less than 314mm)

For the small-size paper, the bundle arm assist motor (M26) rotates in the forward direction when the main body start signal [1] turns ON to drive the bundle arm assist plate at the home position to the position at the bundle arm assist upper limit sensor (PS39) [2]. After a specified period of time, M26 rotates in the reverse direction to drive the bundle arm assist plate from the upper limit position to the standby position in accordance with the paper size [3] and stands by for the paper.

Then, M26 rotates in the forward direction to push up the fore edge side of the paper [6] for assisting the bundle arm to be inserted under the fold line of the paper. The operation timing [6] of M26 is different between in the multi center folding mode and in the saddle stitching mode. (The picture shows the time chart of the saddle stitching mode)

- Multi-center folding mode: When the bundle arm is contacted with the guide plate of the stapler section [4] by the bundle arm rotation motor (M22).
- Saddle stitching mode: When the clincher moves downward [5] at the end of the stapling operation.

M26 rotates in the forward direction to assist the bundle arm to convey the paper [7] after a specified period. Then the bundle arm assist plate goes back to the standby position and stands by for the subsequent set [8].



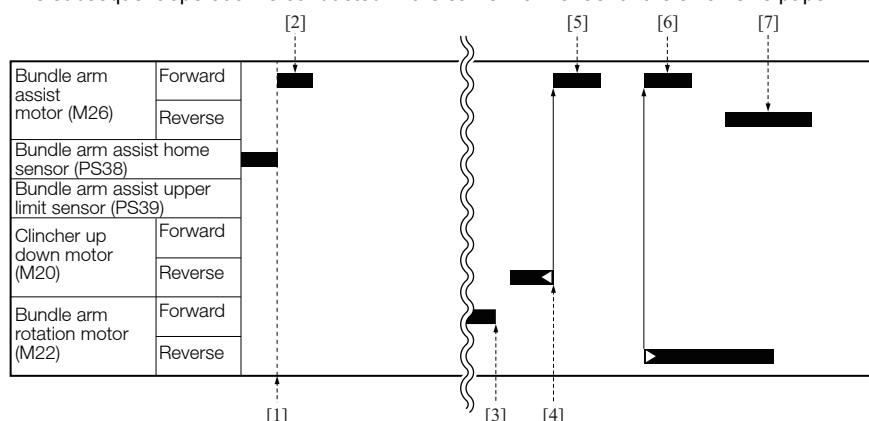
[1]	Main body start signal	[2]	Movement to the upper limit
[3]	Moved for appropriate paper size	[4]	Bundle arm contacted with the guide plate
[5]	Clincher moved down	[6]	Assist of the insertion of the bundle arm
[7]	Assist of the bundle arm conveyance	[8]	Moved for appropriate paper size

* The picture shows the time chart of the saddle stitching mode

(b) Large-size paper (314mm or more)

For the large-size paper, the bundle arm assist motor (M26) rotates in the forward direction when the main body start signal [1] turns ON to drive the bundle arm assist plate to the standby position in accordance with the paper size [2] and stands by for the paper.

The subsequent operation is conducted in the same manner as for the small-size paper.



[1]	Main body start signal	[2]	Moved for appropriate paper size
[3]	Bundle arm contacted with the guide plate	[4]	Clincher moved down
[5]	Assist of the insertion of the bundle arm	[6]	Assist of the bundle arm conveyance
[7]	Moved for appropriate paper size	-	

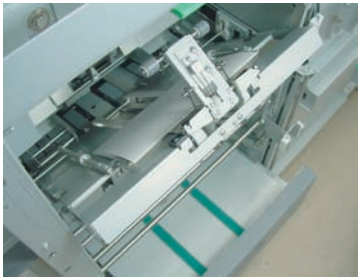
* The picture shows the time chart of the saddle stitching mode

5.3.8 Bundle clip control

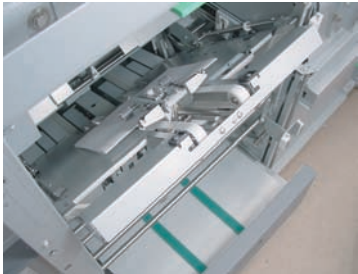
(1) Mechanism

The bundle clip is the mechanism to hold the paper that the bundle arm conveyed to the slope and convey the paper to the bundle press stage with its fore edge side to the trimmer section.

The bundle clip catches, releases, and conveys the paper. It catches the paper at the upper limit position [1], conveys it [2], and then release it at the lower limit position [3].



[1]



[2]

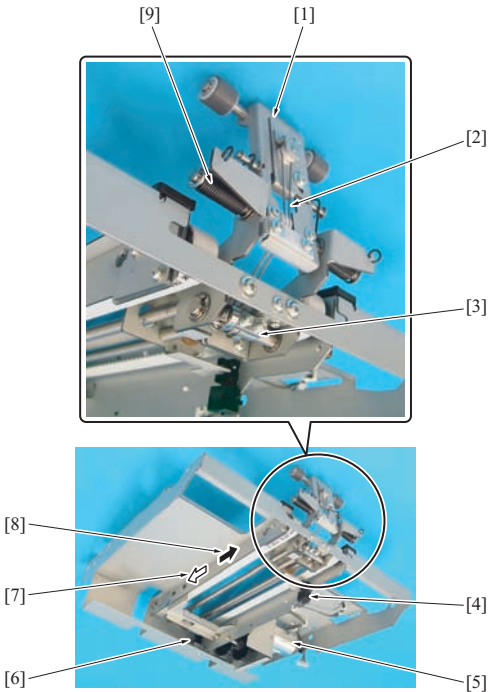


[3]

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[1] Catching	[2] Conveyance
[3] Releasing	-

The bundle clip motor (M11) [5] drives the bundle clip [1] up [8] and down [7] via the gear and belt. The spring [9] provides the bundle clip the force to catch the paper, and the wire [2] and the winding shaft [3] open the bundle clip to release the paper. The bundle clip upper limit sensor (PS33) [4] detects the upper limit of the bundle clip and the bundle clip lower limit sensor (PS30) [6] detects the lower limit.



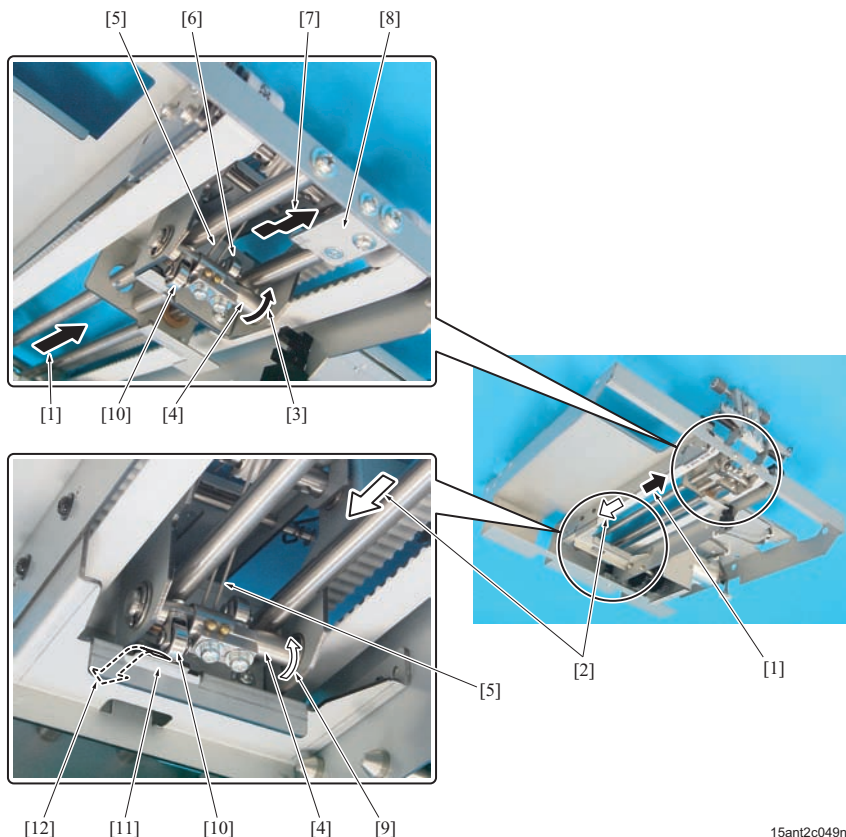
15ant2c048na

[1] Clip	[2] Wire
[3] Winding shaft	[4] Bundle clip upper limit sensor (PS33)
[5] Bundle clip motor (M11)	[6] Bundle clip lower limit sensor (PS30)

[7] Down	[8] Up
[9] Spring	-

The bundle clip is closed all the time except when it is located at the upper and lower limit position. When the bundle clip moves up [1], the release roller /Up [6] gets onto [7] the release plate /Up [8]. Then the wire winding shaft [4] rotates [3] and takes up the wire [5] to open the bundle clip.

In the same way, when the bundle clip moves down [2], the release roller /Lw [10] gets onto [12] the release plate /Lw [11] and then the wire winding shaft [4] rotates [9] and takes up the wire [5] to open the bundle clip.



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[1] Up	[2] Down
[3] Wire winding rotation	[4] Wire winding shaft
[5] Wire	[6] Release roller /Up
[7] Getting over at up	[8] Release plate /Up
[9] Wire winding rotation	[10] Release roller /Lw
[11] Release plate /Lw	[12] Getting over at down

(2) Control

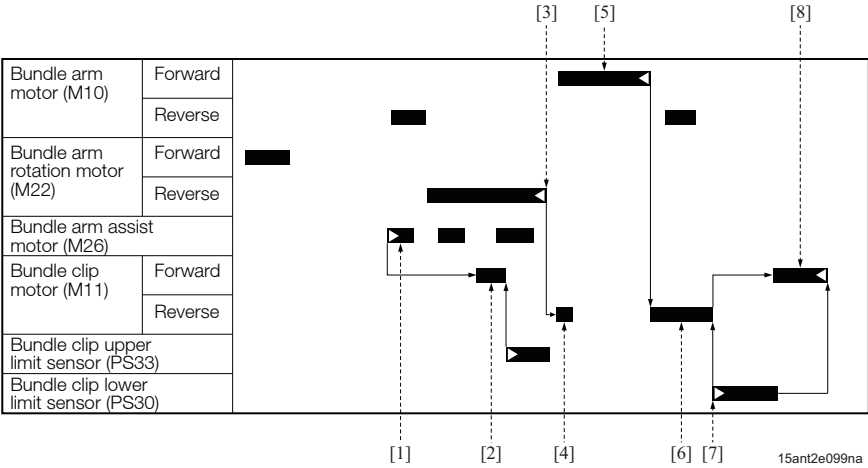
The bundle clip motor (M11) rotates in the forward direction to move up the bundle clip until the bundle clip upper limit sensor (PS33) turns ON [2] after a specified period of time since the bundle assist motor (M26) starts the assisting operation [1]. Then, the bundle clip stops with its clip opened.

The bundle arm conveys the paper from the stapling section to the bundle clip section, and then the bundle arm rotation motor (M22) stops [3]. After a specified period of time, M11 rotates in the reverse direction to move down the bundle clip and close the bundle clip to catch the paper, and then M11 stops after a specified period of time [4].

When the bundle arm motor (M10) completes the shelter operation [5], M11 rotates in the reverse direction to move down the bundle clip [6].

The bundle clip opens the clip to release the paper [7] and M11 stops when the bundle clip lower limit sensor (PS30) turns ON.

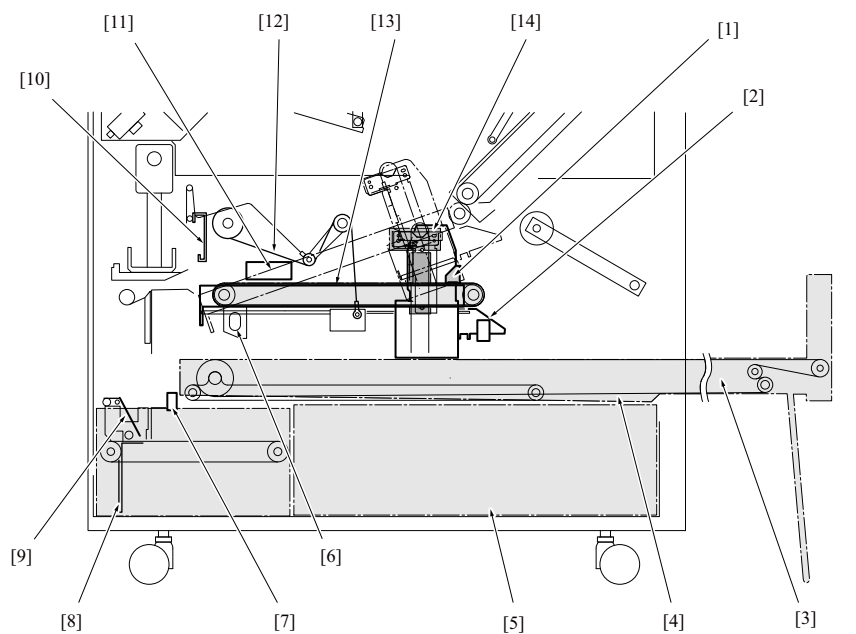
M11 rotates in the forward direction to move up the bundle clip after a specified period of time since M11 stops. Then, M11 stops to move the bundle clip at the standby position for the subsequent set after a specified period of time since PS30 turns OFF [8].



[1]	Assisting operation by the bundle arm	[2]	Bundle clip opened
[3]	Paper conveyance by the bundle arm completed	[4]	Paper caught
[5]	Bundle arm shelter operation	[6]	Conveyed by the bundle clip
[7]	Paper released	[8]	Returned to the standby position

6. BUNDLE PROCESSING SECTION

6.1 Configuration

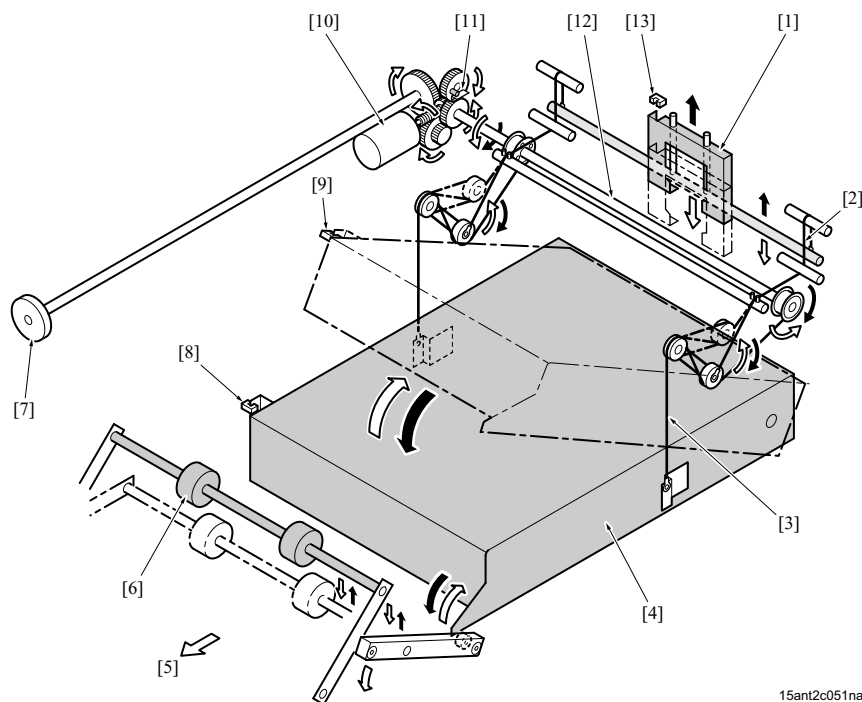


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[1] Exit claws	[2] Bundle tray paper full sensor (PS61)
[3] Bundle exit tray	[4] Bundle exit conveyance belt
[5] Scraps box	[6] Registration claw
[7] Trimmer scraps full sensor (PS41)	[8] Trimmer scraps press plate
[9] Shutter	[10] Bundle registration plate
[11] Trimmer scraps removal fan (FM1)	[12] Lift wire
[13] Bundle press stage	[14] Bundle press plate

6.2 Drive

6.2.1 Bundle press stage lift drive

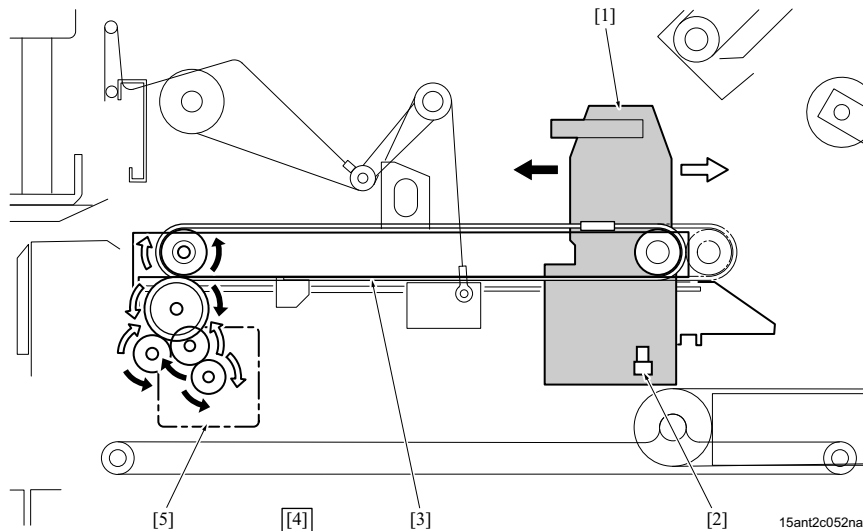


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[1] Bundle registration plate	[2] Bundle registration plate wire
[3] Lift wire	[4] Bundle press stage
[5] Front side direction	[6] Bundle exit auxiliary roller
[7] Knob	[8] Bundle press stage up down home sensor (PS35)
[9] Bundle press stage up down upper limit sensor (PS45)	[10] Bundle press stage up down motor (M24)

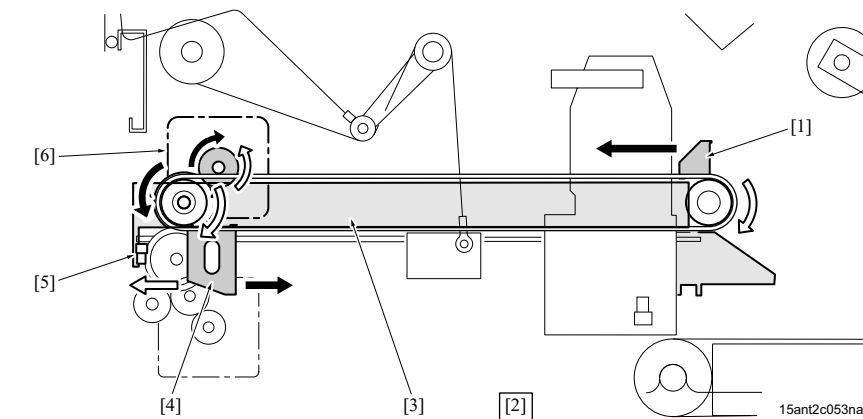
[11]	Over-winding-prevention stopper	[12]	Wire winding shaft
[13]	Bundle registration plate home sensor (PS16)	-	

6.2.2 Bundle press movement drive



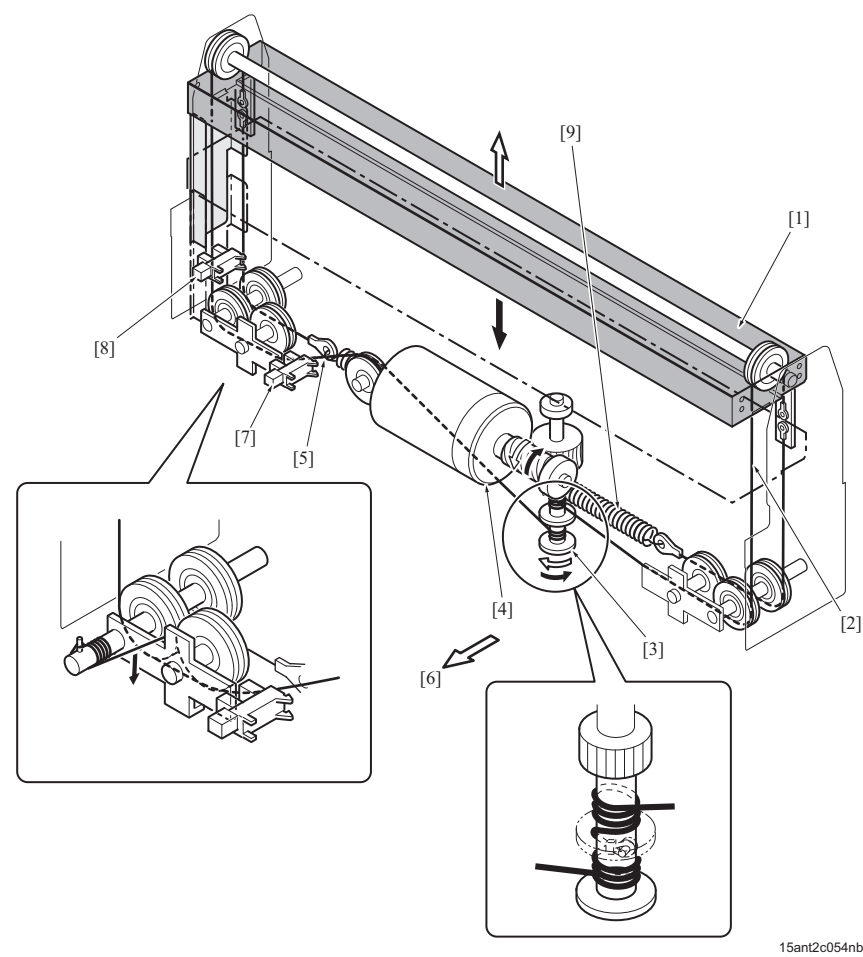
[1]	Bundle press	[2]	Bundle press movement home sensor (PS36)
[3]	Bundle press stage	[4]	Left-side view
[5]	Bundle press movement motor (M17)	-	

6.2.3 Bundle registration drive



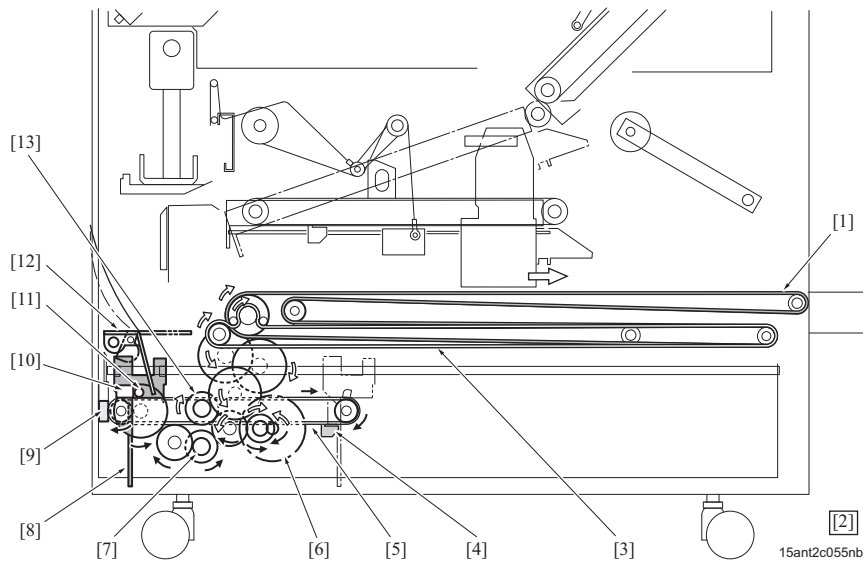
[1]	Exit claws	[2]	Left-side view
[3]	Bundle press stage	[4]	Registration claws
[5]	Bundle registration home sensor (PS34)	[6]	Bundle registration motor (M12)

6.2.4 Bundle press drive



[1]	Press plate	[2]	Release wire /Rt
[3]	Wire winding shaft	[4]	Bundle press motor (M23)
[5]	Release wire /Lt	[6]	Front side direction
[7]	Bundle press lower limit sensor (PS47)	[8]	Bundle press home sensor (PS37)
[9]	Spring	-	

6.2.5 Bundle exit drive



[1]	Bundle exit conveyance belt	[2]	Left-side view
[3]	Bundle exit drive belt	[4]	Actuator
[5]	Belt	[6]	Bundle exit motor (M5)
[7]	One-way clutch (for the bundle exit conveyance belt)	[8]	Trimmer scraps press plate
[9]	Scraps press home sensor (PS48)	[10]	Trimmer scraps press claws

[11]	Pin	[12]	Shutter
[13]	One-way clutch (for pressing the trimmer scraps)	-	

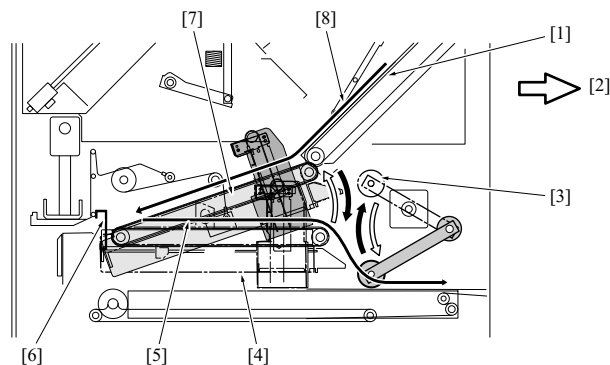
6.3 Operation

6.3.1 Bundle press stage up down control

The bundle press stage conducts the up and down operation to convey and exit the paper by the switch back method.

The bundle press stage is moved up [7] to decrease the angle difference when receiving the paper [8] conveyed by the bundle clip from the slope [1]. The bundle press stage exits the paper [5] to the bundle exit tray at the horizontal position [4] at the paper exit.

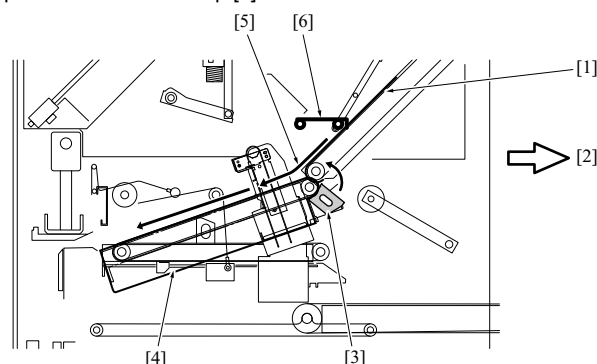
The bundle registration plate [6] and the bundle exit auxiliary roller [3] move up and down together with the up and down operation of the bundle press stage.



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[1]	Slope	[2]	Front side direction
[3]	Bundle exit auxiliary roller	[4]	Bundle press stage (horizontal position)
[5]	Paper path at the paper exit	[6]	Bundle registration plate
[7]	Bundle press stage (upper position)	[8]	Paper path to the bundle press stage

The registration claws [3] push in the paper to make sure that the paper is conveyed to the bundle press stage when the bundle press stage [4] receives the paper from the bundle clip [6].



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[1]	Slope	[2]	Front side direction
[3]	Registration claws	[4]	Bundle press stage
[5]	Paper conveyance	[6]	Bundle clip

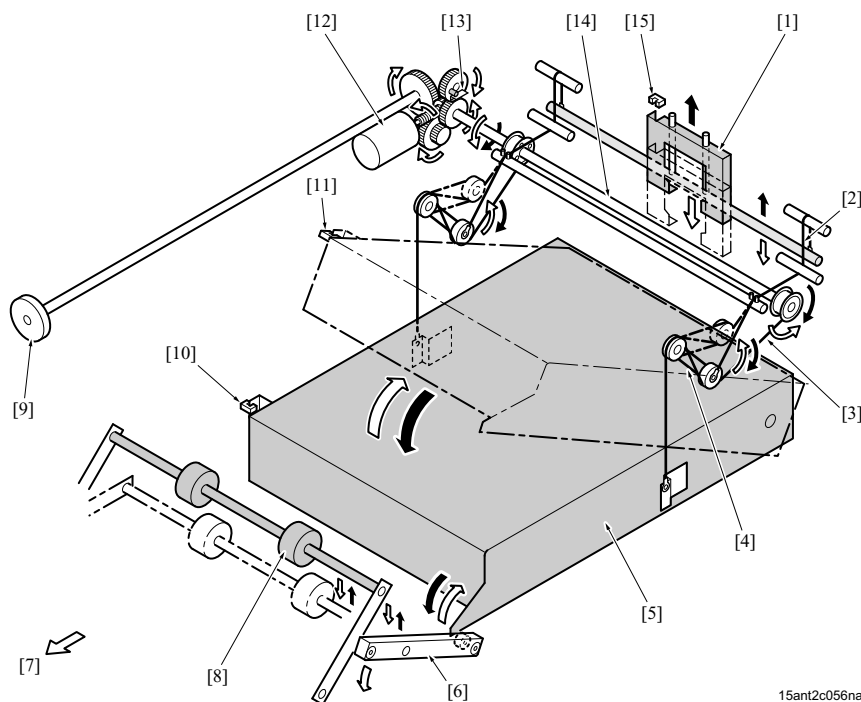
(1) Mechanism

The bundle press stage up down motor (M24) [12] rotates the wire winding shaft [14] and winds up the lift wire [3]. During the initial phase, the wire is tightened and the wire arm [4] comes to the horizontal position but the bundle press stage [5] does not move up. At the time, as the wire arm comes horizontal, the bundle registration plate wire [2] is loosened and the bundle registration plate [1] moves down and works as the stopper against the registration operation.

Then, the bundle press stage moves up as the wire winding shaft [14] rotates and winds up the up down wire [3] and it stops when the bundle press stage up down limit sensor (PS45) [11] turns ON.

The bundle registration plate home sensor (PS16) [15] detects the home positions (shelter position) for the bundle registration plate, and the bundle press stage up down home sensor (PS35) [10] detects the home position of the bundle press stage.

The over-winding-prevention stopper [13] prevents the over winding since you can move up and down the bundle press stage manually by rotating the knob [9].



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[1] Bundle registration plate	[2] Bundle registration plate wire
[3] Lift wire	[4] Wire arm
[5] Bundle press stage	[6] Bundle exit auxiliary roller arm
[7] Front side direction	[8] Bundle exit auxiliary roller
[9] Jam clearing knob	[10] Bundle press stage up down home sensor (PS35)
[11] Bundle press stage up down upper limit sensor (PS45)	[12] Bundle press stage up down motor (M24)
[13] Over-winding-prevention stopper	[14] Wire winding shaft
[15] Bundle registration plate home sensor (PS16)	-

(2) Control

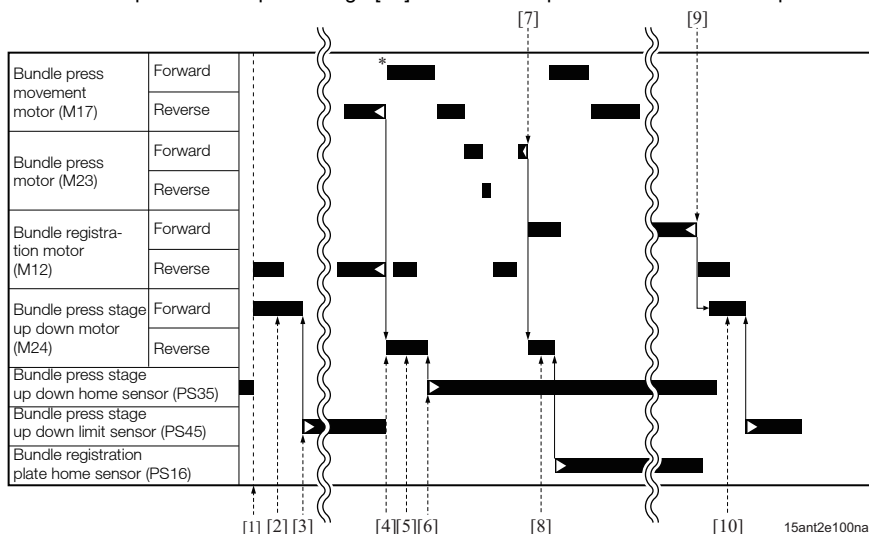
(a) Trimming mode

The bundle press stage up down motor (M24) rotates in the forward direction to move up the bundle press stage [2] when the main body start signal [1] turns ON. M24 stops while holding the bundle press stage in slanting position when the bundle press stage up down limit sensor (PS45) turns ON [3].

M24 rotates in the reverse direction to move down the bundle press stage [5] after the bundle clip releases the paper, the bundle registration motor (M12) assists the paper conveyance operation, and the bundle press movement motor (M17) conveys the paper to the paper conveyance position [4]. M24 stops when the bundle press stage up down home sensor (PS35) turns ON [6].

M24 starts to rotate in the forward direction and moves up the bundle registration plate [8] to open the paper path to the trimmer section when the bundle press motor (M23) completes the paper press operation [7] after the registration operation.

M24 moves up the bundle press stage [10] for the subsequent set when M12 completes the paper exit [9].



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[1] Main body start signal	[2] Bundle press stage moved up
[3] Stopped at the upper limit	[4] Paper conveyance assisting operation completed
[5] Bundle press stage moved down	[6] Returning to the home position
[7] Paper press operation completed	[8] Bundle registration plate moved up

[9] Paper exit completed

[10] Bundle press stage moved up

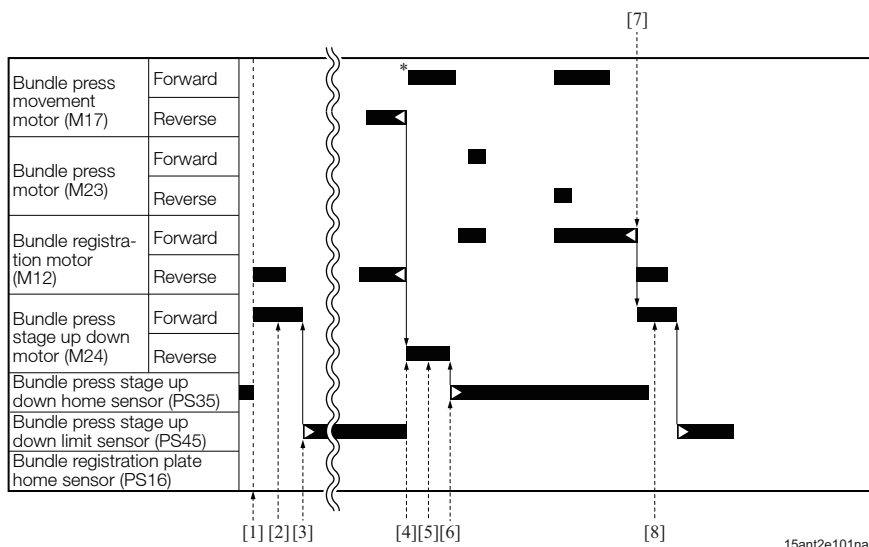
* Only for paper of 297mm or more (before folding)

(b) No trimming mode

The bundle press stage up down motor (M24) rotates in the forward direction to move up the bundle press stage [2] when the main body start signal [1] turns ON. M24 stops while holding the bundle press stage in slanting position when the bundle press stage up down upper limit sensor (PS45) turns ON [3].

M24 rotates in the reverse direction to move down the bundle press stage [5] after the bundle clip releases the paper, the bundle registration motor (M12) assists the paper conveyance operation, and the bundle press movement motor (M17) conveys the paper to the paper conveyance position [4]. M24 stops when the bundle press stage up down home sensor (PS35) turns ON [6].

M24 moves up the bundle press stage [8] for the subsequent set when M12 completes the paper exit [7].



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[1] Main body start signal	[2] Bundle press stage moved up
[3] Stopped at the upper limit	[4] Paper conveyance assisting operation completed
[5] Bundle press stage moved down	[6] Returning to the home position
[7] Paper exit completed	[8] Bundle press stage moved up

* Only for paper of 297mm or more (before folding)

6.3.2 Bundle press movement control

The bundle press movement is the mechanism to convey the paper to the trimmer section by pressing the paper with the press section to prevent the trimming skew at the trimmer operation after the paper registration operation.

(1) Mechanism

The bundle press movement motor (M17) drives the bundle press section [9] in the main scan direction.

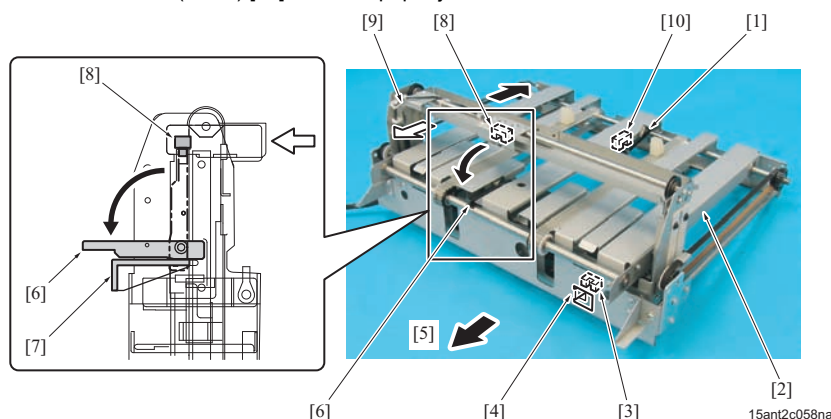
When receiving the paper with the bundle press stage [2], the bundle press section [9] moves 100mm backward from the home position to obtain the paper conveyance path.

When conducting the bundle registration operation, the bundle press section moves to the appropriate position in accordance with the paper size.

The bundle press movement home sensor (PS36) [3] detects the home position of the bundle press section.

When the bundle press section moves to the home position, the metal plate [7] gets down the actuator [6] for the trimmer registration sensor (PS55) [8] and obtains the paper conveyance path.

The bundle sensor /4 (PS54) [10] is for the paper jam detection.



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[1] Actuator	[2] Bundle press stage
[3] Bundle press movement home sensor (PS36)	[4] Actuator

[5] Front side direction	[6] Actuator
[7] Metal plate	[8] Trimmer registration sensor (PS55)
[9] Bundle press section	[10] Bundle sensor /4 (PS54)

(2) Control

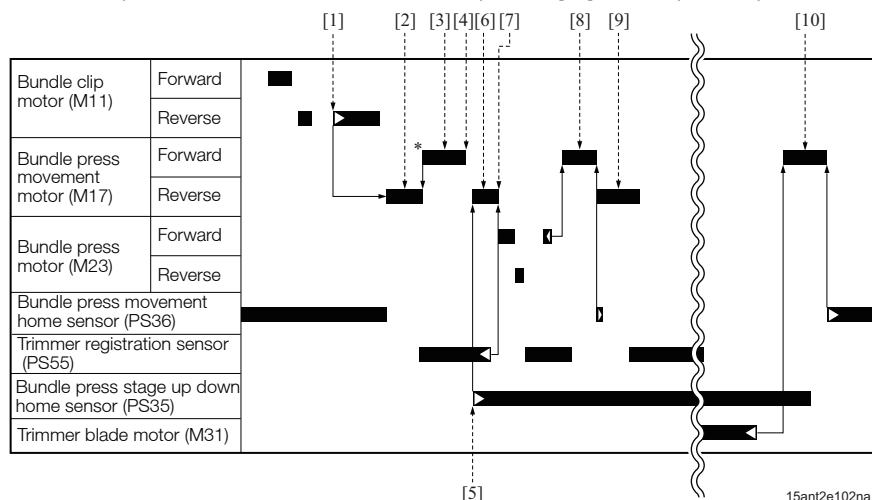
(a) Trimming mode

The bundle press movement motor (M17) rotates in the reverse direction to move the bundle press section to the paper conveyance position [2] after specified period of time since the bundle clip motor (M11) starts conveying the paper [1]. Then M17 rotates in the forward direction to move the bundle press section to the appropriate press standby position in accordance with the paper size [3].

M17 rotates in the reverse direction and searches for the press position [6] for the paper when the bundle press stage up down home sensor (PS35) detects that the bundle press stage has been moved down [5]. M17 stops the bundle press section at the appropriate position in accordance with the paper size [7] after a specified period of time since the trimmer registration sensor (PS55) turns OFF.

M17 searches the home position [8] and then moves the bundle press section to the paper trimming position [9] after a specified period of time since the bundle press motor (M23) completes the paper press operation.

The bundle press section is returned to the home position [10] after a specified period of time since the trimming operation is completed.



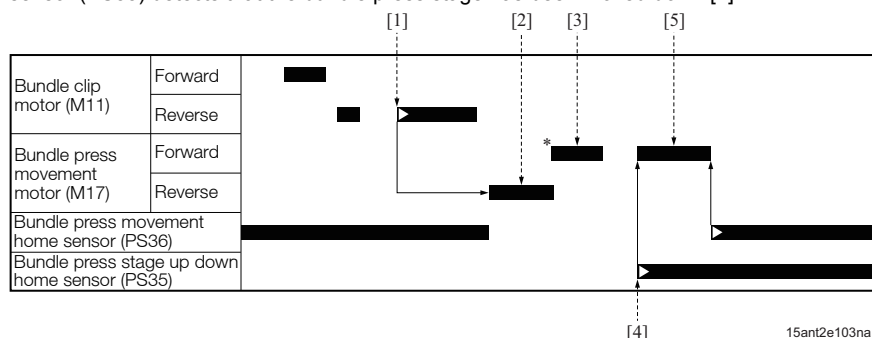
[1] Conveyed by the bundle clip	[2] Moved to the paper conveyance position
[3] Moved to the press standby position	[4] Home position detected
[5] Bundle press stage moving down completed	[6] Searching the press position
[7] Press position stop	[8] Home position search
[9] Moved to the trimming position	[10] Returning to the home position

* Only for paper of 297mm or more (before folding)

(b) No trimming mode

The bundle press movement motor (M17) rotates in the reverse direction to move the bundle press section to the paper conveyance position [2] after a specified period of time since the bundle clip motor (M11) starts conveying the paper [1]. Then M17 rotates in the forward direction to move the bundle press section to the appropriate press position in accordance with the paper size [3].

M17 rotates in the forward direction to return the bundle press section to the home position [5] when the bundle press stage up down home sensor (PS35) detects that the bundle press stage has been moved down [4].



[1] Conveyed by the bundle clip	[2] Moved to the shelter position
[3] Moved to the press position	[4] Bundle press stage up down home position
[5] Returning operation to the home position	-

* Only for paper of 297mm or more (before folding)

6.3.3 Bundle press control

The bundle press is the mechanism to hold the paper during trim operation to prevent the trimming skew after the paper registration operation.

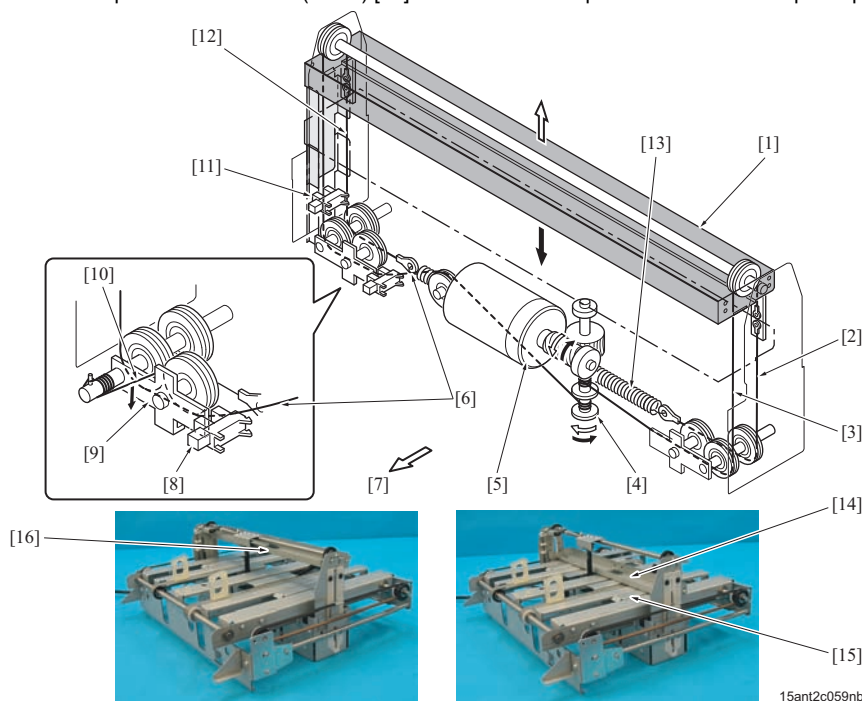
(1) Mechanism

The bundle press plates /Up [1] and /Lw [15] hold the paper. The bundle press plate /Up is pulled to the bundle press plate /Lw [15] (to the direction to hold and press the paper) by the spring [13] via the press wires /Rt [2] and /Lt [12]. The bundle press plate /Up [1] moves down with the force of the spring [13] when the bundle press motor (M23) [5] rotates the wire winding shaft [4] and releases the release wires /Rt [3] and /Lt [6]. The force of the spring presses the paper.

When M23 keeps rotating, the press wire /Lt [6] is loosened and the bundle press lower limit sensor (PS47) [8] turns OFF by the actuator [9] due to the spring [10], and then the paper press position is detected.

The wire winding shaft [4] winds the release wires /Rt [3] and /Lt [6] to move up the bundle press plate /Up [1] for releasing the press the paper [16] when M23 rotates in reverse.

The bundle press home sensor (PS37) [11] detects the home position of the bundle press plate /Up [1].



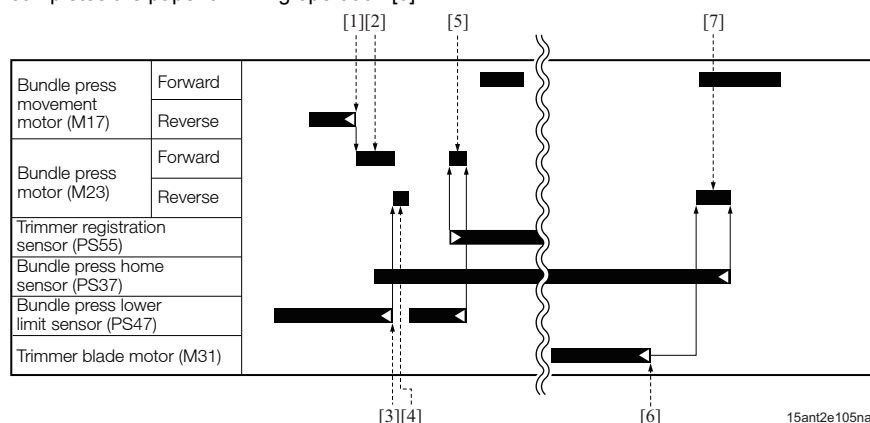
[1]	Bundle press plate /Up	[2]	Press wire /Rt
[3]	Release wire /Rt	[4]	Wire winding shaft
[5]	Bundle press motor (M23)	[6]	Release wire /Lt
[7]	Front side direction	[8]	Bundle press lower limit sensor (PS47)
[9]	Actuator	[10]	Spring
[11]	Bundle press home sensor (PS37)	[12]	Press wire /Lt
[13]	Spring	[14]	Bundle press plate /Up (down)
[15]	Bundle press plate /Lw	[16]	Bundle press plate /Up (up)

(2) Control

The bundle press motor (M23) rotates in the forward direction to conduct the paper press operation [2] to press the paper properly when the bundle press movement motor (M17) completes the press position search [1]. M23 rotates in the reverse direction to move up the bundle press plate /Up slightly to prevent the paper from becoming loose [4] when the bundle press lower limit sensor (PS47) detects the lower limit [3] and turns OFF.

M23 rotates in the forward direction to press the paper [5] after a specified period of time since the trimmer registration sensor (PS55) detects the completion of the registration operation.

M23 rotates in the reverse direction to return the bundle press plate /Up to the home position [7] when the trimmer blade motor (M31) completes the paper trimming operation [6].



[1]	Searching the press position completed	[2]	Press operation
-----	--	-----	-----------------

[3]	Lower limit detected	[4]	Press release
[5]	Press	[6]	Trimming completed
[7]	Returning to the home position	-	

6.3.4 Bundle registration control

The paper registration operation reforms the skew at trimming.

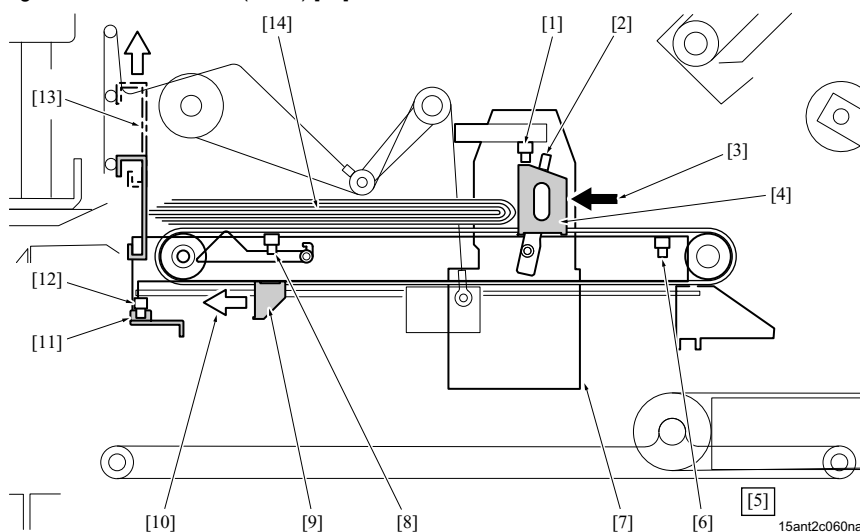
(1) Mechanism

The bundle registration motor (M12) drives the registration claws [4].

2 registration claws [4] conduct the registration by making the paper [14] contact [3] with the bundle registration plate [13] from the gutter side. In the registration operation, the bundle press section [7] conducts the pressing by moving to the appropriate position in accordance with the paper size. To conduct the bundle registration, the registration claws [4] press the paper until the actuator [2] on the bundle press section comes in the upright position and the trimmer registration sensor (PS55) [1] turns ON.

The bundle exit claws [9] are located at the 180 degrees opposite to the registration claws on the belt. M12 rotates in the reverse direction [10] to exit the paper at the paper exit.

The home position of the registration claws [4] is detected when the registration claws push the actuator [11] and turns ON the bundle registration home sensor (PS34) [12].



[1]	Trimmer registration sensor (PS55)	[2]	Actuator
[3]	Registration direction	[4]	Registration claws
[5]	Left-side view	[6]	Bundle sensor /2 (PS15)
[7]	Bundle press section	[8]	Bundle sensor /4 (PS54)
[9]	Bundle exit claws	[10]	Drive direction of the bundle exit tabs
[11]	Actuator	[12]	Bundle registration home sensor (PS34)
[13]	Bundle registration plate	[14]	Paper

(2) Control

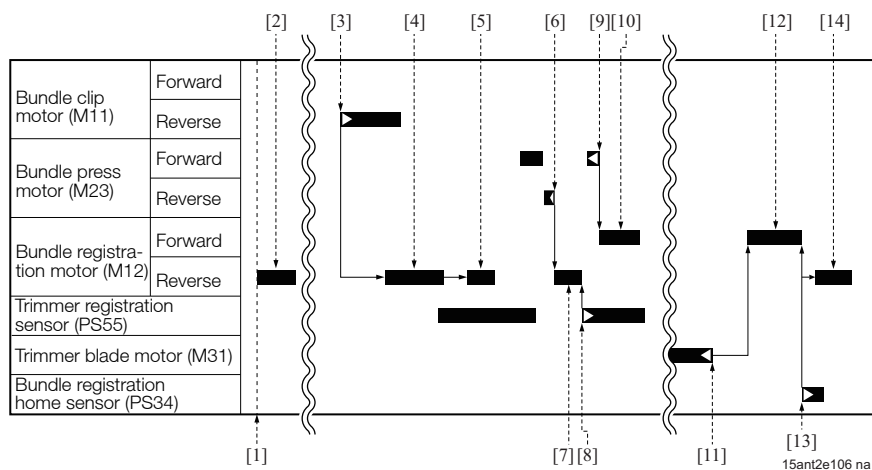
The bundle registration motor (M12) rotates in the reverse direction when the main body start signal turns ON [1] and the registration claws move to the standby position in accordance with the paper size [2].

The bundle registration motor (M12) rotates in the reverse direction to conduct the paper conveyance assisting operation [4] and the pre-registration operation [5] after a specified period of time since the bundle clip motor (M11) starts conveying the paper [3]. Then M12 stops when the registration claws reach at the specified position.

M12 rotates in the reverse direction and conducts the registration operation [7] with the registration claws when the bundle press motor (M23) completes the press releasing operation [6]. The registration claws stop when the trimmer registration sensor (PS55) turns ON [8].

M12 rotates in the forward direction to move the registration claws to the specified shelter position [10] when M23 completes the press operation [9].

M12 rotates in the forward direction to let the bundle exit claws push the paper to conduct the paper exit operation [12] after a specified period of time since the trimmer blade motor (M31) completes the trimming operation [11]. M12 stops when the bundle registration home sensor (PS34) turns ON [13]. M12 rotates in the reverse direction to move the bundle exit claws to the standby position [14] after a specified period of time. Then it stands by for the subsequent set.



[1] Main body start signal	[2] Standby position movement
[3] Conveyance by the bundle clip started	[4] Assist of the paper conveyance
[5] Pre-registration	[6] Press release
[7] Registration	[8] Registration operation completed
[9] Paper press operation completed	[10] Shelter operation
[11] Trimming completed	[12] Paper exit operation
[13] Home position detected	[14] Standby position movement

6.3.5 Bundle exit control

(1) Mechanism

(a) Bundle exit mechanism

The paper is exited to the bundle exit tray [12].

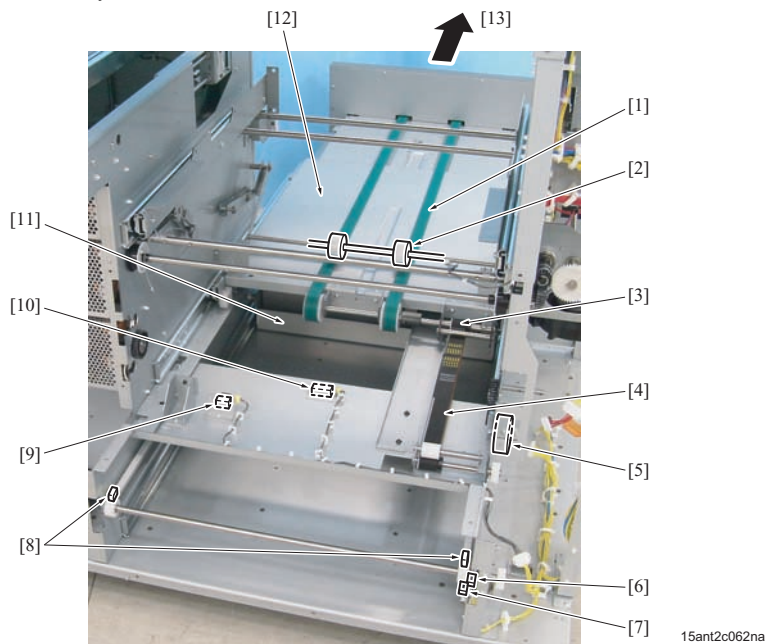
The paper exited to the bundle exit tray is conveyed to the front by the bundle exit conveyance belt [1] and stacked.

The bundle exit motor (M5) [5] drives the bundle exit conveyance belt [1] via the bundle exit drive belt [4] and the bundle exit belt drive shaft [3].

M5 drives the bundle exit conveyance belt for a specified period of time to convey the paper to the front [13] for every paper exit. The bundle exit tray is expandable.

The bundle tray set sensor (PS58) [9] detects whether the bundle exit tray is stored or not.

M5 also drives the scrap press plate [11]. In each drive path from M5 to the bundle exit drive belt and the scraps press plate, there is a one-way clutch respectively that switches the rotational direction of M5. Therefore, the bundle exit drive and the scraps press plate are not driven simultaneously.

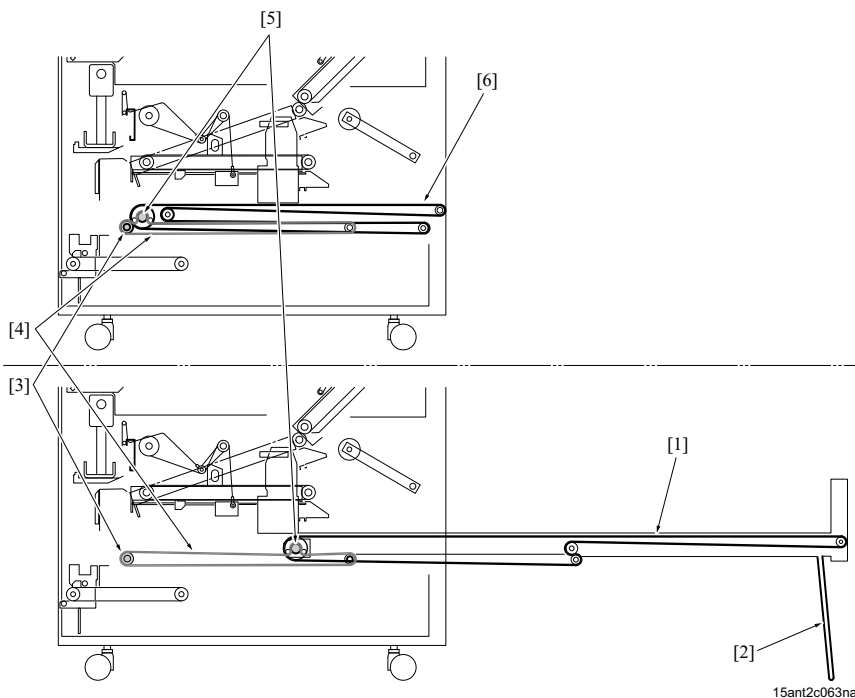


[1] Bundle exit conveyance belt	[2] Bundle exit auxiliary roller
[3] Bundle exit belt drive shaft	[4] Bundle exit drive belt
[5] Bundle exit motor (M5)	[6] Scraps press home sensor (PS48)
[7] Scraps box set sensor (PS40)	[8] Scraps press claws
[9] Bundle tray set sensor (PS58)	[10] Trimmer scraps full sensor (PS41)
[11] Scraps press plate	[12] Bundle exit tray

[13]	Front side direction	-
------	----------------------	---

(b) Bundle exit tray expanding mechanism

The bundle exit tray is expandable. The folded bundle exit conveyance belt [6] is also expanded [1] when the bundle exit tray is expanded. At the time, it also moves the bundle exit conveyance belt drive shaft [5] for the bundle exit conveyance belt [1] and [6].



[1]	Bundle exit conveyance belt (expanded)	[2]	Folding stand
[3]	Drive shaft	[4]	Bundle exit drive belt
[5]	Bundle exit conveyance belt drive shaft	[6]	Bundle exit conveyance belt (folded)

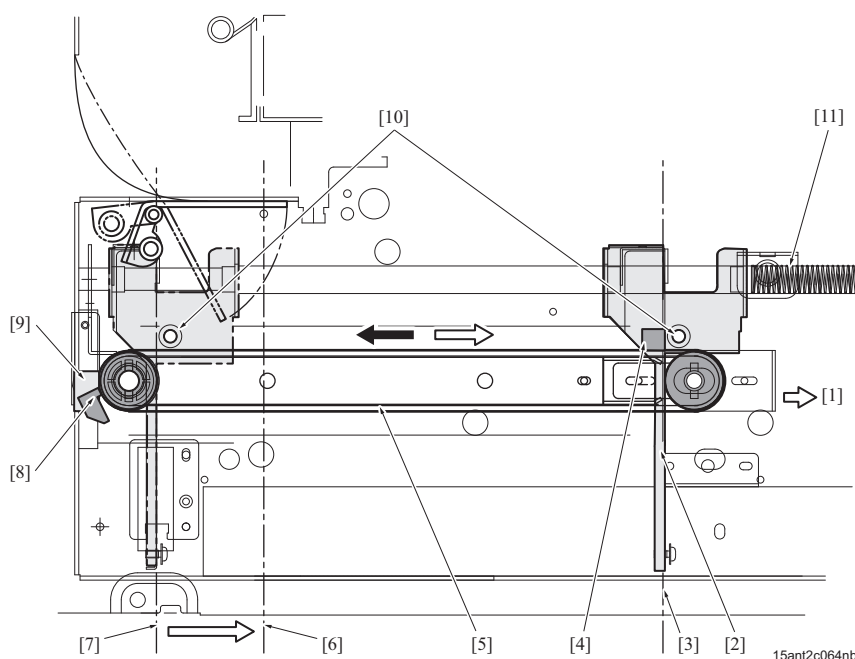
(c) Trimmer scraps press mechanism

Trimmer scraps press is executed by driving the bundle exit motor (M5). M[5 drives the pins [10] via the scraps press claws [4] on the belt [5] to move the scraps press plate [2] forward [1], then the plate presses the trimmer scraps. The spring [11] pushes the scraps press plate to put it back.

The trimmer scraps press is carried out when the actuator [8] turns ON the scraps press home sensor (PS48) [9] with the press position [3] of the scraps press plate is at the home position

The maximum displacement of the scraps press plate is 200mm.

The trimmer scraps press is carried out when the trim is performed 5 times or when the total trimmed number of sheets becomes 60 sheets (30 sheets before folding) or more.



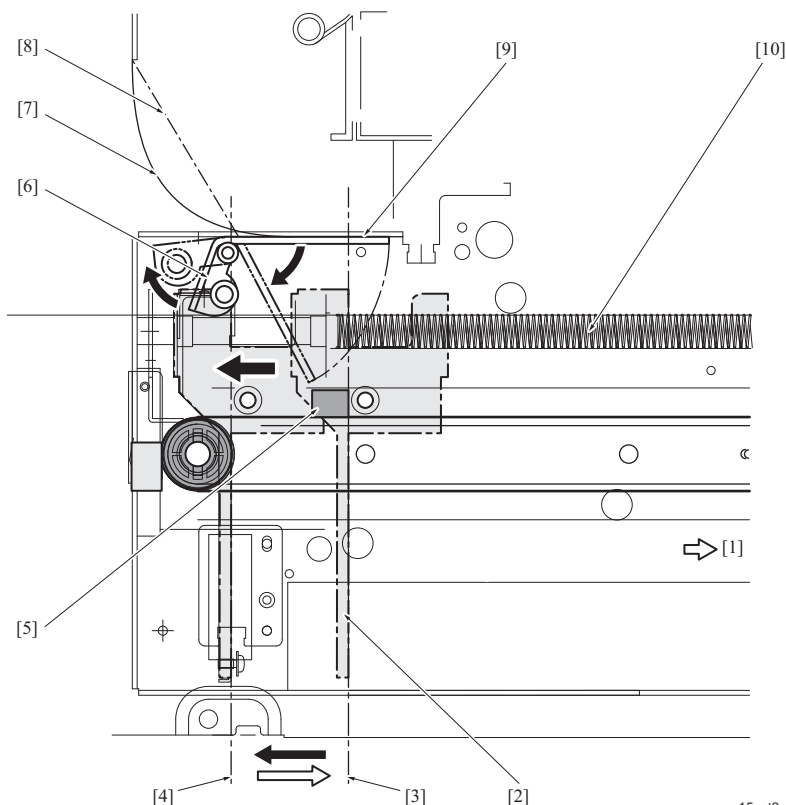
[1]	Front side direction	[2]	Scraps press plate
[3]	Press position	[4]	Scraps press claws

[5]	Belt	[6]	Scraps press plate home position (trimming position)
[7]	Backmost position	[8]	Actuator
[9]	Scraps press home sensor (PS48)	[10]	Pin
[11]	Spring		-

(d) Shutter mechanism

When the bundle exit motor (M5) moves the scraps press claw [5] backward and the spring [10] pushes the scraps press plate [2] to its backmost position [4], the shutter arm [6] is pushed up and the shutter [9] is opened. On the other hand, the shutter is closed when the scraps press plate is moved forward from the back most position to the position [3] by the spring of the shutter arm. Opening the shutter allows the guide sheet [7], which is attached to the shutter, to be straightened [8] due to the tension. Closing the shutter allows slack in the guide sheet to widen the dropping path of scraps.

Before trimming, the scraps press plate moves 50mm [3] from the backmost position and stops to be ready for trimming. The shutter repeats opening/closing operation by shuttling the scraps press plate 50mm back and forth in each trimming operation. This shutter operation creates vibration with the guide sheet to shake off the trimmer scraps.

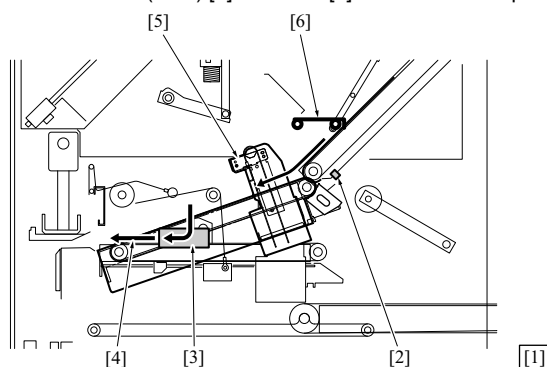


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[1]	Front side direction	[2]	Scraps press plate
[3]	Shutter closing position	[4]	Shutter opening position
[5]	Scraps press claws	[6]	Shutter arm
[7]	Guide sheet	[8]	Guide sheet (straightened)
[9]	Shutter	[10]	Spring

(2) Trimmer scraps removal control

The scraps removal fan motor (FM1) [3] blows air [4] to make sure to put the trimmer scraps to the scraps box.

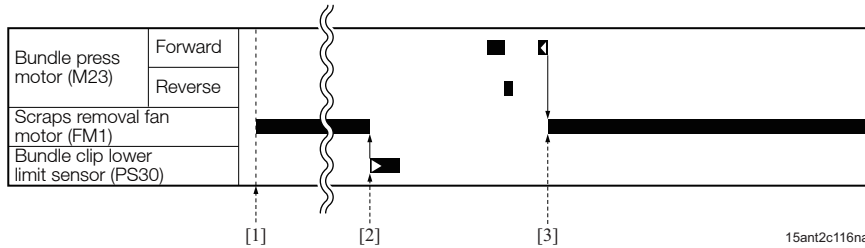


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[1]	Left-side view	[2]	Bundle clip lower limit sensor (PS30)
[3]	Scraps removal fan motor (FM1)	[4]	Air
[5]	Bundle press	[6]	Bundle clip

The trimmer scraps removal fan (FM1) operates only in the trimmer mode.

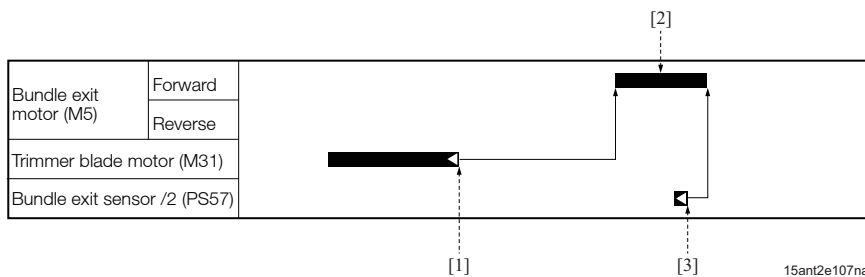
When the main body start signal [1] turns ON, FM1 is rotated and the bundle clip releases [2] the paper, FM1 stops for a time to prevent the paper from having the uneven edge. When the bundle press motor (M23) completes the paper press [3], FM1 is rotated again to send air so that sheet trimming scraps get in the scraps box without fail.



[1]	Main body start signal	[2]	Bundle clip released the paper
[3]	Paper press operation completed		-

(3) Bundle exit control

The bundle exit motor (M5) rotates in the forward direction and the bundle exit conveyance belt conveys the exit paper [2] after a specified period of time since the trimmer blade motor (M31) completes the trimming [1]. M5 stops after a specified period of time since the bundle exit sensor /2 (PS57) detects the trailing edge of paper [3].



[1]	Trimming completed	[2]	Bundle exit conveyance
[3]	Trailing edge of paper detected		-



[1]

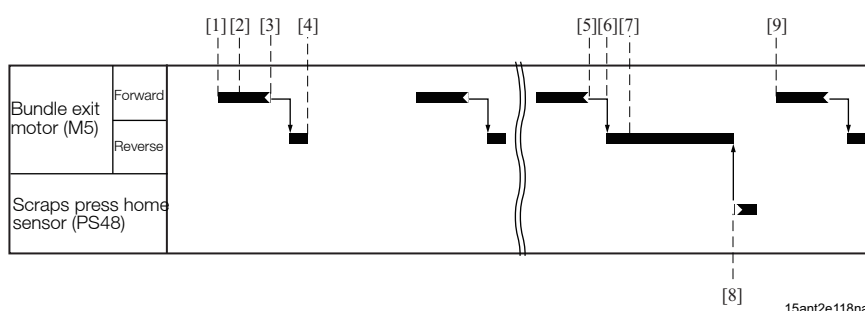
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[1]	Bundle paper exit sensor /2 (PS57)		-
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(4) Shutter/trimmer scraps press control

When the trimming is executed with the shutter closed, the bundle exit motor (M5) starts rotating forward to exit paper [1]. Then the scraps press plate moves backward to drop the trimmer scraps with the shutter opened [2]. After a specified period of time since the paper exit is finished [3], the M5 motor rotates in reverse to move the scraps press plate frontward 50mm and stops [4] with the shutter closed. Then the next trimming is excused in this condition.

After a specified period of time from paper exit when the trimming is performed 5 times or when the total trimmed number of sheets becomes 60 sheets or more after the previous scraps press operation [5], the M5 motor starts rotating in reverse to start the press operation [6]. When the press operation is started, the shutter opened by the paper exit operation is closed again [7]. When the scraps press home sensor (PS48) is ON (at the position where pressing trimmer scraps), the M5 motor stops [8] and next operation of the trimming and paper exit [9] is performed.

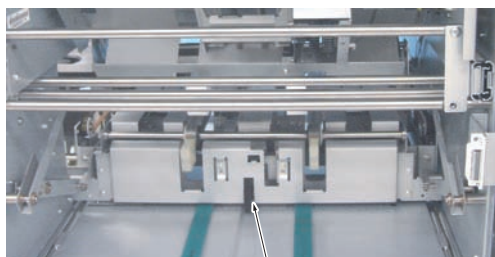


[1]	Start of paper exit	[2]	Shutter is opened
[3]	Finish of paper ejection	[4]	Shutter is closed

[5] Finish of paper ejection	[6] Start of press operation
[7] Shutter is closed	[8] Press position stop
[9] Paper exit	-

(5) Bundle exit paper full control

The bundle tray paper full sensor (PS61) [1] detects the bundle exit paper full. The main body displays the message on its operation panel when the paper full is detected.



[1]

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[1] Bundle tray paper full sensor (PS61)	-
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(6) Trimmer scraps full control

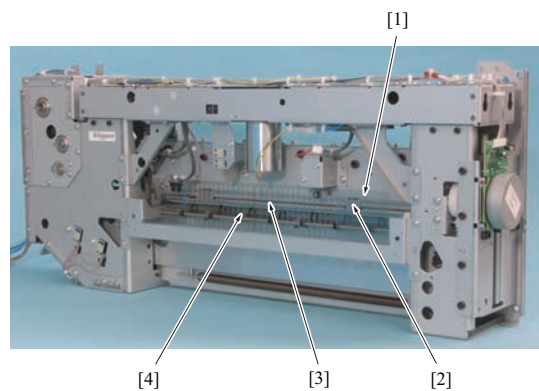
The trimmer scraps full sensor (PS41) detects the paper scraps full of the scraps box. When the PS 41 is turned ON for 3 seconds after the paper exit operation driven by the bundle exit motor (M5) is finished, the scraps are detected as full. The main body displays the message on its operation panel when the scrap full is detected.

(7) Trimmer scraps tray set detection

The scraps box set sensor (PS40) detects whether the scraps box is set or not. The main body displays the message on its operation panel when the scraps box is not set.

7. TRIMMER SECTION

7.1 Configuration

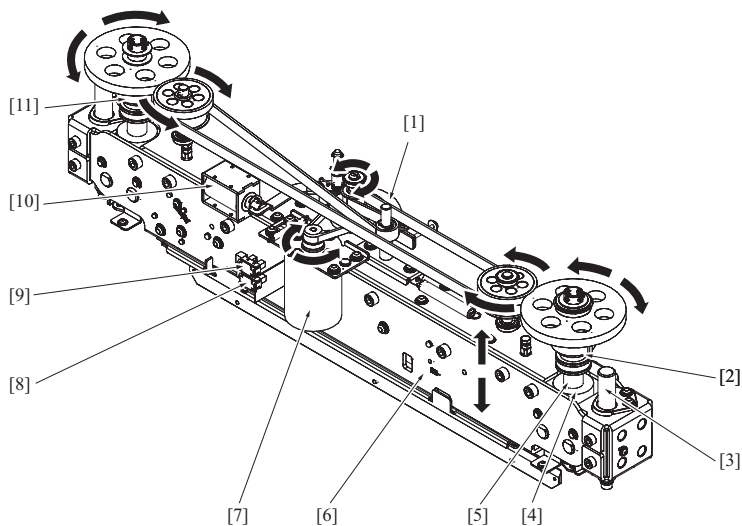


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[1]	Trimmer press plate	[2]	Trimmer board
[3]	Trimmer blade	[4]	Trimmer paddle

7.2 Drive

7.2.1 Trimmer press drive

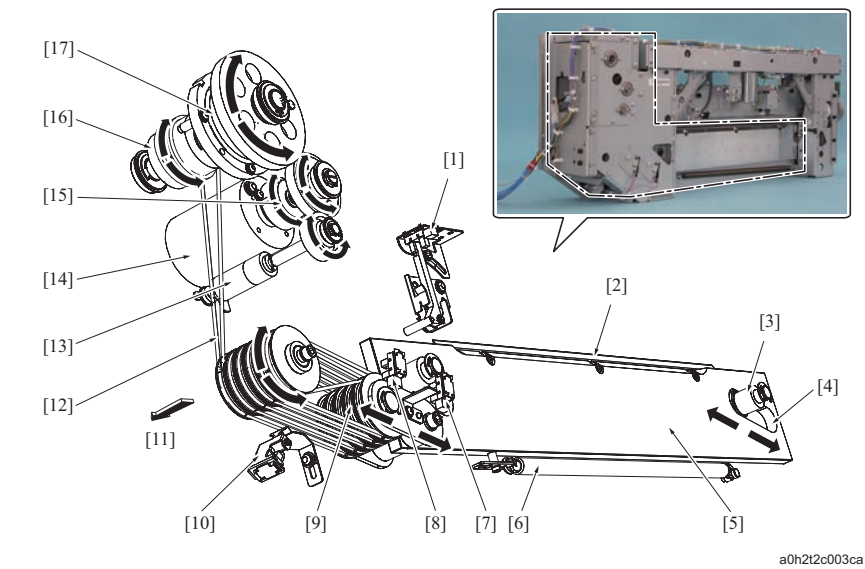


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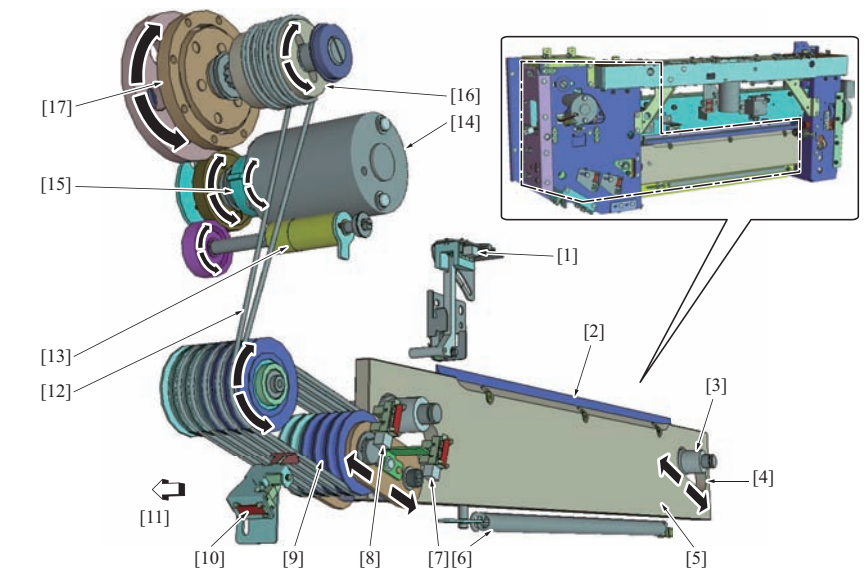
[1]	Trimmer brake	[2]	Planetary gear
[3]	Slide guide shaft	[4]	Nut
[5]	Press drive screw	[6]	Trimmer press plate
[7]	Trimmer press motor (M32)	[8]	Trimmer press home sensor (PS53)
[9]	Trimmer press upper limit sensor (PS52)	[10]	Brake solenoid (SD12)
[11]	Planetary gear	-	

7.2.2 Trimmer blade drive

- Previous trimmer unit

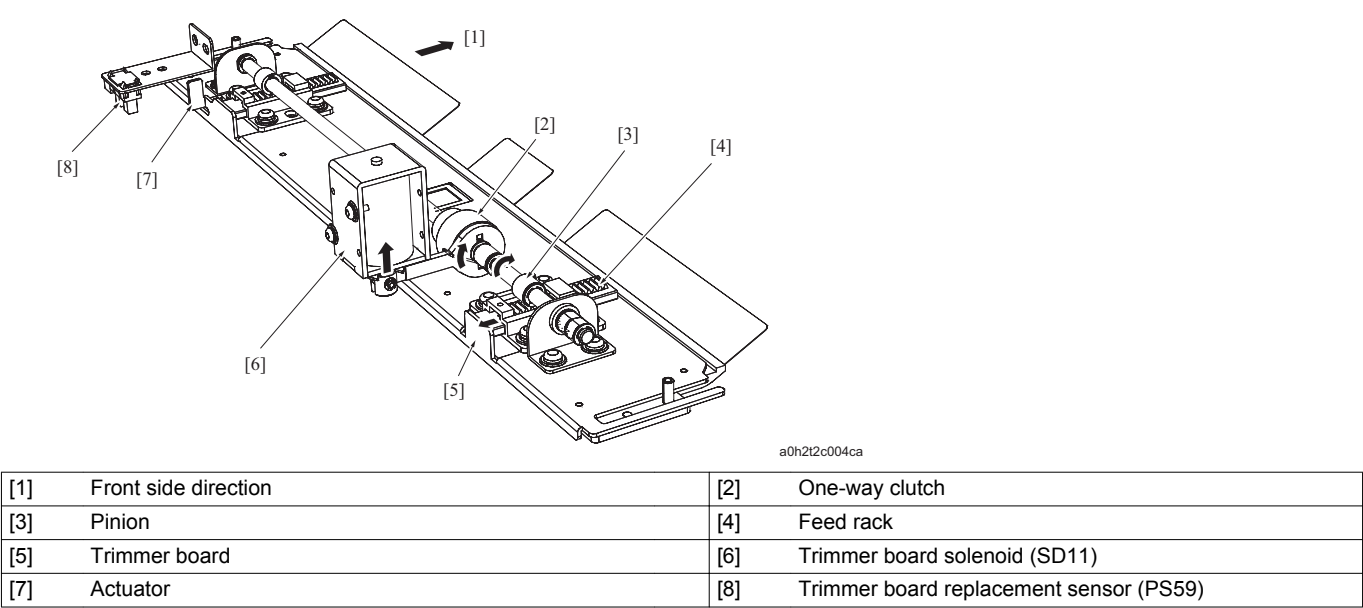


• New trimmer unit

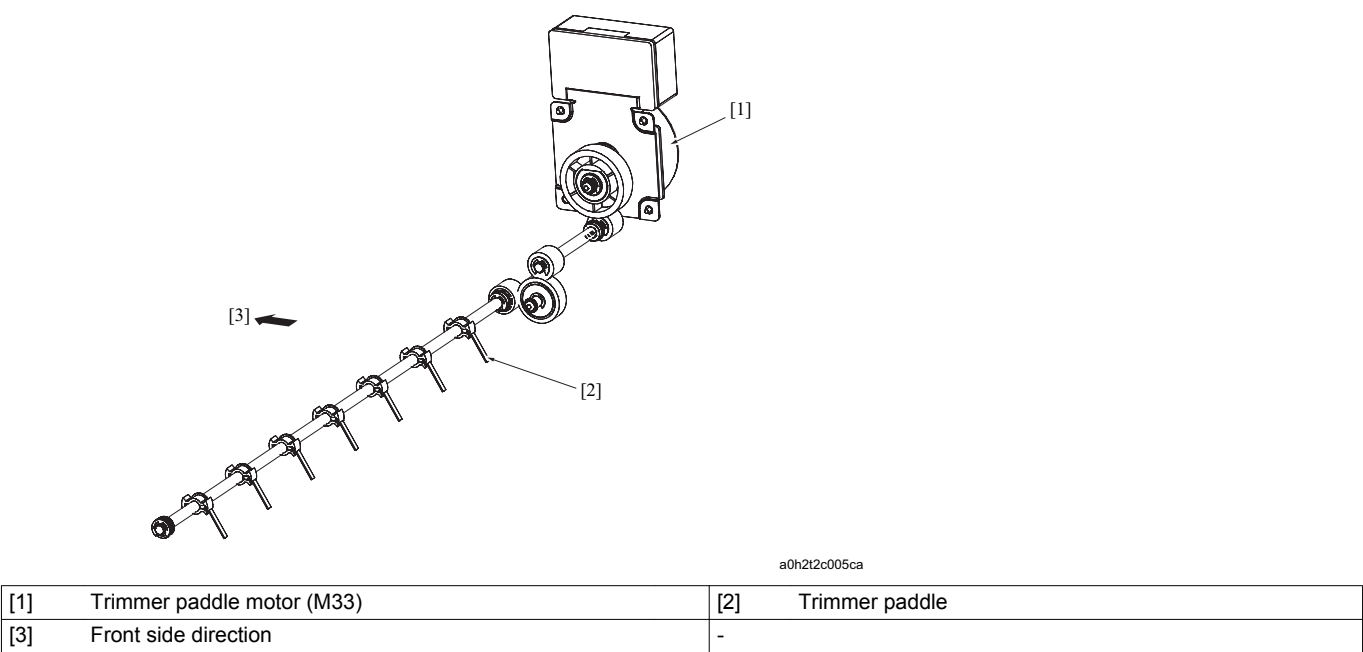


[1]	Trimmer completion sensor (PS62)	[2]	Trimmer blade
[3]	Guide shaft	[4]	Guide hole
[5]	Trimmer blade retaining plate	[6]	Spring
[7]	Trimmer blade home sensor (PS50)	[8]	Trimmer blade upper limit sensor (PS51)
[9]	Movable pulley	[10]	Wire slack prevention sensor (PS66)
[11]	Front side direction	[12]	Wire
[13]	Torque limiter	[14]	Trimmer blade motor (M31)
[15]	Planetary gear	[16]	Winding pulley
[17]	Planetary gear	-	

7.2.3 Trimmer board drive



7.2.4 Paddle drive

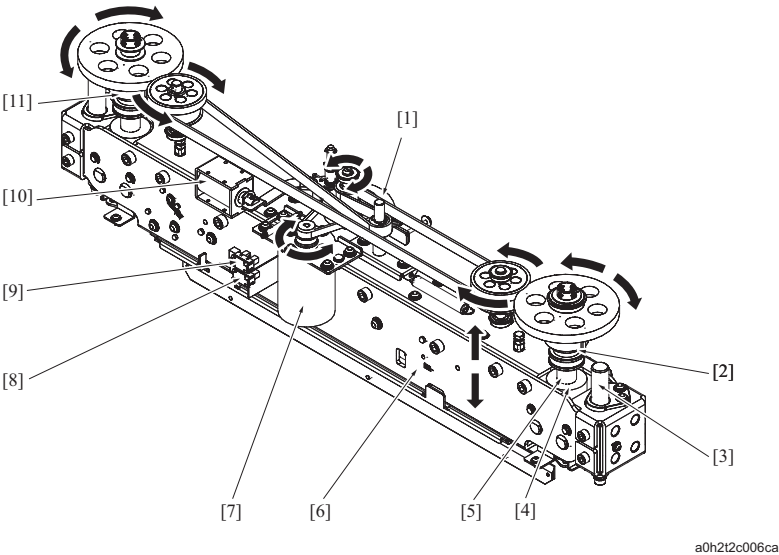


7.3 Operation

7.3.1 Trimmer press control

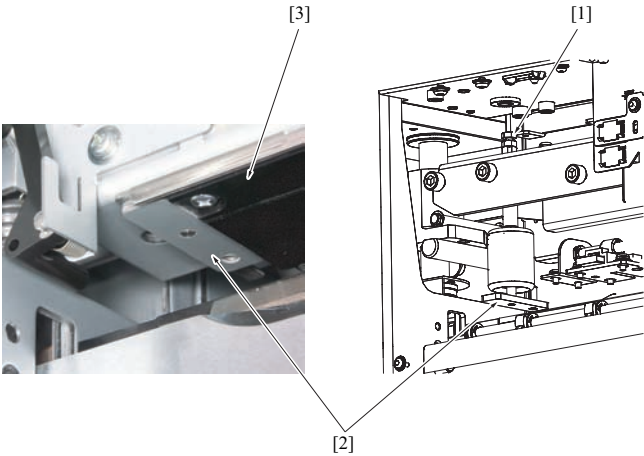
(1) Mechanism

The trimmer press is the mechanism to hold the paper at its fore-edge side to prevent the trimming misalignment. It opens about 6mm at the home position and drives the planetary gears [2] and [11] by the driving of the trimmer press motor (M32) [7]. The output shaft of the planetary gear rotates the press drive screw (trapezoidal screw) [5] and drives the nut [4] up and down. By this operation, the trapezoidal nut drives the trimmer press retaining plate [6] along the shaft [3] and presses paper. M32 detects the completion of the paper press via overcurrent. M32 rotates in the reverse direction to widen the opening to approximately 20mm before conveying the paper to the trimmer section, in case the number of the print paper is 16 or more (32 or more for the saddle stitched paper). The trimmer press home sensor (PS53) [8] and the trimmer press upper limit sensor (PS52) [9] detect the home position and 20mm of opening respectively. The brake solenoid (SD12) [10] drives the trimmer brake [1]. It presses the timing belt from M32 with ON to prevent the inverse rotation caused by the pushing of the trimmer blade.



[1]	Trimmer brake	[2]	Planetary gear
[3]	Slide guide shaft	[4]	Nut
[5]	Press drive screw (trapezoidal screw)	[6]	Trimmer press plate
[7]	Trimmer press motor (M32)	[8]	Trimmer press home sensor (PS53)
[9]	Trimmer press upper limit sensor (PS52)	[10]	Brake solenoid (SD12)
[11]	Planetary gear	-	

When changing the trimming position of the trimmer board or replacing the trimmer board via the I/O check mode, M32 rotates in the reverse direction to move up the trimmer press section higher than the position of the trimmer press upper limit sensor (PS52) and release the trimmer board [3] by pushing the shaft [1] of the trimmer board fixing plate [2] to the upper plate. At the time, the opening is approximately 23mm. The position is detected via overcurrent.



[1]	Shaft	[2]	Trimmer board fixing plate
[3]	Trimmer board	-	

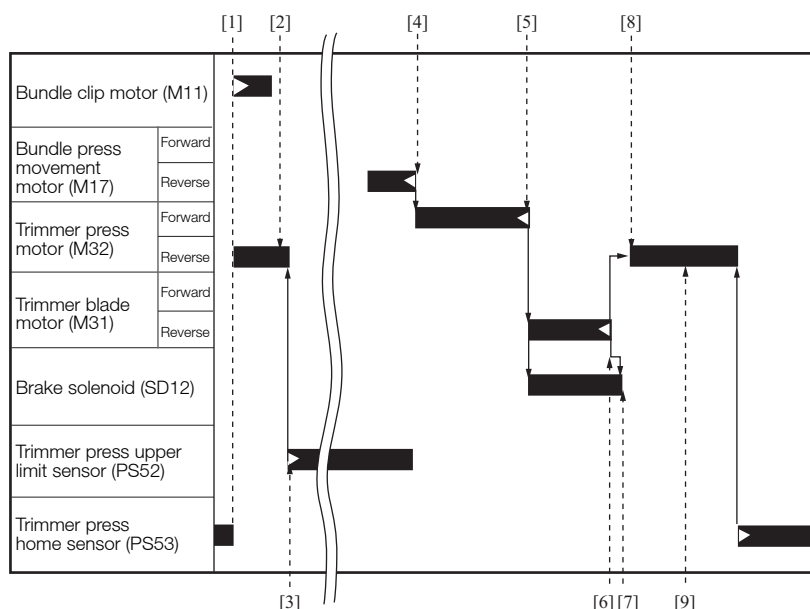
(2) Control

(a) The number of the print paper is 16 or more (32 or more for the saddle stitched paper)

The trimmer press motor (M32) rotates in the reverse direction [2] when the bundle clip motor starts conveying the paper [1]. When the trimmer press upper limit sensor (PS52) [3] detects upper limit position of the trimmer board, M32 opens the opening to 20mm and is stopped to wait for the paper.

When the conveyance of the bundle press movement motor (M17) completes [4], M32 rotates in the forward direction to press paper and stops when detecting the over current of M32 [5]. The brake solenoid (SD12) turns ON when M32 stops, and keeps the belt to prevent the trimmer press board from being pushed up by the trimmer blade.

When the trimmer blade motor (M31) completes trimming [6], SD12 turns OFF [7] and M32 rotates in the reverse direction to start opening [8]. When the print is completed, the returning operation to the home position [9] of M32 stops by PS53 ON.



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[1]	Conveyance by the bundle clip started	[2]	Opening operation
[3]	Stopped when the opening is approx. 20mm	[4]	Conveyance of the trimmed paper completed
[5]	Trimmer press completed	[6]	Trimming completed
[7]	Brake release	[8]	Opening operation started
[9]	Returning operation to the home position	-	

(b) The number of the print paper is 15 or less (30 for the saddle stitched paper)

The trimmer press motor (M32) rotates in the forward direction to press the paper without widening the opening when the paper is conveyed to the opening.

7.3.2 Trimmer blade control

(1) Mechanism

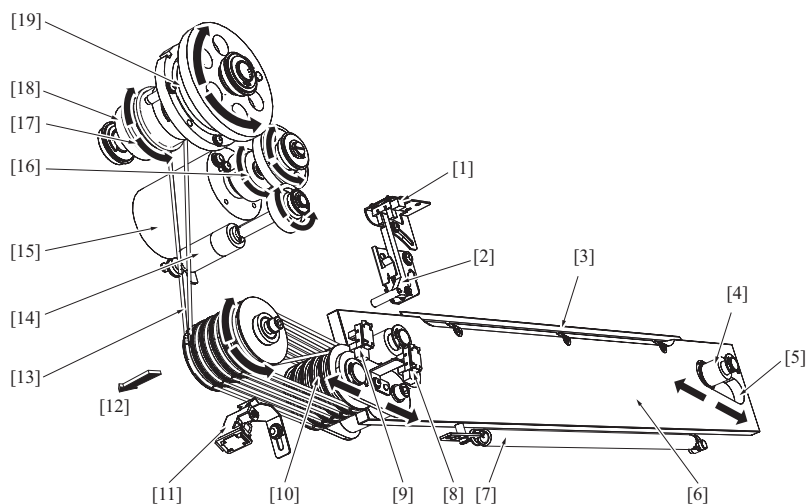
The trimmer blade [3] driven by the trimmer blade motor (M31) [15] conducts the trimming while trimmer press presses the paper.

When the trimmer blade [3] goes up, M31 drives the winding pulley [18] in the direction of winding [17] to wind up the wire [13]. The planetary gears [16] and [19] are between M31 and the winding pulley [18] and it enables the high output by high gear ratio.

Once the wire [13] is wound up, the trimmer blade retaining plate [6] goes up in a slanting direction since the movable pulley is pulled and the guide hole [5] is controlled by the guide shaft [4]. It trims the paper with the trimmer blade [3] attached on the trimmer blade retaining plate [6]. The completion of the trimming is detected when the upper surface of the trimmer blade retaining plate [6] pushes up the actuator [2] and the trimmer completion sensor (PS62) [1] turns ON. When PS62 cannot detect it, the overcurrent of M31 detects the completion of the trimming. If the overcurrent of M31 is not detected even if the trimmer blade keeps moving up, the trimmer blade upper limit sensor (PS51) [9] detects the upper limit.

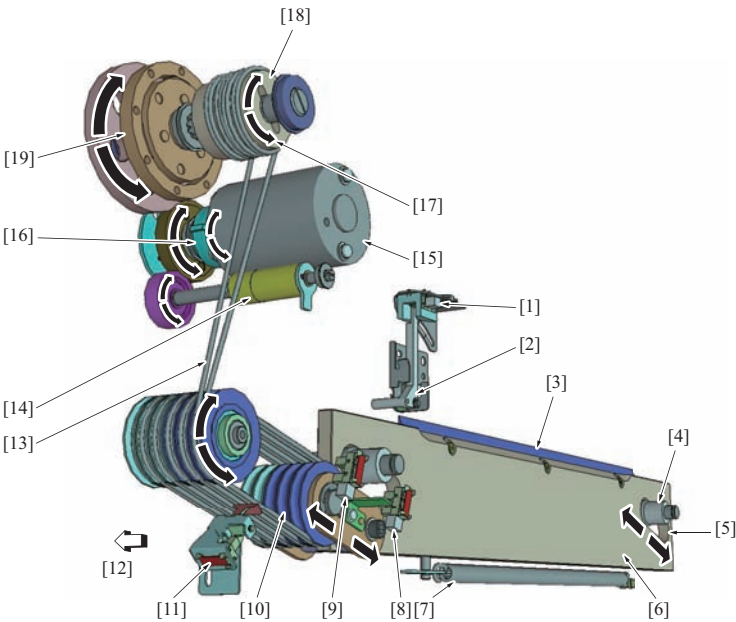
For moving down the trimmer blade, M31 rotates in the reverse direction to loosen the wire and the spring [7] lowers the trimmer blade retaining plate [6]. The trimmer blade home sensor (PS50) [8] detects the lower limit. The torque limiter is equipped to prevent the wire from being slacking inertially when moving down. Wire slack prevention sensor (PS66) [11] detects the slack of the wire.

- Previous trimmer unit



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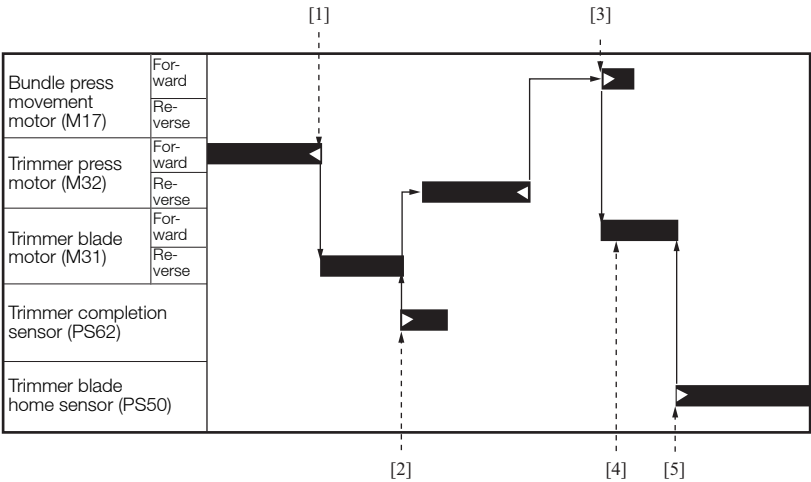
- New trimmer unit



[1]	Trimmer completion sensor (PS62)	[2]	Actuator
[3]	Trimmer blade	[4]	Guide shaft
[5]	Guide hole	[6]	Trimmer blade retaining plate
[7]	Spring	[8]	Trimmer blade home sensor (PS50)
[9]	Trimmer blade upper limit sensor (PS51)	[10]	Movable pulley
[11]	Wire slack prevention sensor (PS66)	[12]	Front side direction
[13]	Wire	[14]	Torque limiter
[15]	Trimmer blade motor (M31)	[16]	Planetary gear
[17]	Winding direction	[18]	Winding pulley
[19]	Planetary gear	-	

(2) Control

The trimmer blade motor (M31) starts trimming when the trimmer press motor (M32) completes the press and stops [1]. M31 stops when the trimming completes with the trimmer completion sensor (PS62) ON [2]. M31 starts the returning operation to the home position [4] when the bundle press motor (M17) starts releasing the press [3]. M31 stops when the trimmer blade home sensor (PS50) turns ON [5].



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[1]	Trimming started when trimmer press completed	[2]	Trimming completed
[3]	Paper exit operation started	[4]	Returning operation to the home position
[5]	Home position detected	-	

7.3.3 Trimmer board control

(1) Mechanism

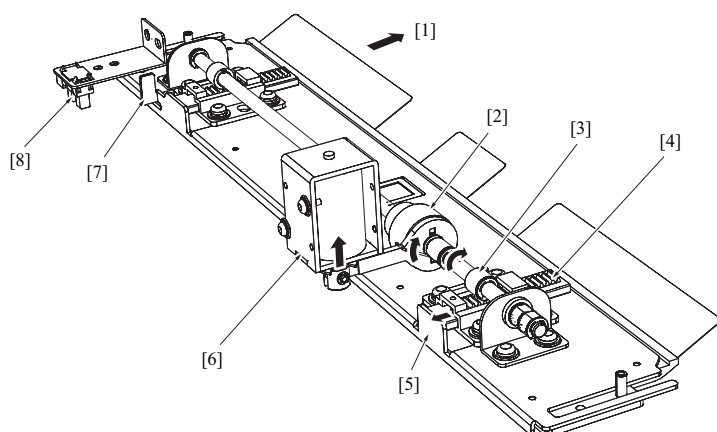
If the trimmer board gets the trimmer blade to the same position many times, the trimmer operation is carried out improperly due to the damage on the board. For this reason, the trimmer board is slid 1mm backward for sheet cutting each time a job of 700 times trimming is completed.

The trimmer board solenoid (SD11) [6] slides the trimmer board [5] to backward with its fixing released by the trimmer press motor (M32). The pinion [3] pushes the feed rack [4] 0.5mm every time SD11 turns ON. The rotation of the pinion [3] is transmitted to the rack by the one-way clutch [2] and pushes the trimmer board when SD2 turns ON. The pinion [3] does not rotate and push the trimmer board when SD11 turns OFF by the one-way clutch.

Each time a job of 700 times trimming is completed, SD11 is turned on twice to move the trimmer board 1mm. The trimmer board can be slid up to approximately 26mm. The main body displays the message on its operation panel when the trimmer board replacement sensor (PS59) [8] is turned ON by the actuator [7]. The trimmer operation is prohibited when the trimming is conducted 700 times since PS59 turns ON.

Note

- The operation timing of the trimmer board solenoid can be selected among 500/300/700 (700 by default), and the travel distance can be selected among 1.0/1.5/2.0mm (1.0 by default) from "Finisher Adjustment" in service mode.
- If 1050, if the DIPSW22-5 setting in service mode is changed to 1, the operation timing of the trimmer board solenoid becomes selectable among 700/500/300 (700 by default) on the adjustment screen in the user mode.
- The burr occurs on the trimmed edge of the paper before the movement cycle of the trimmer board and that depends on the paper type.

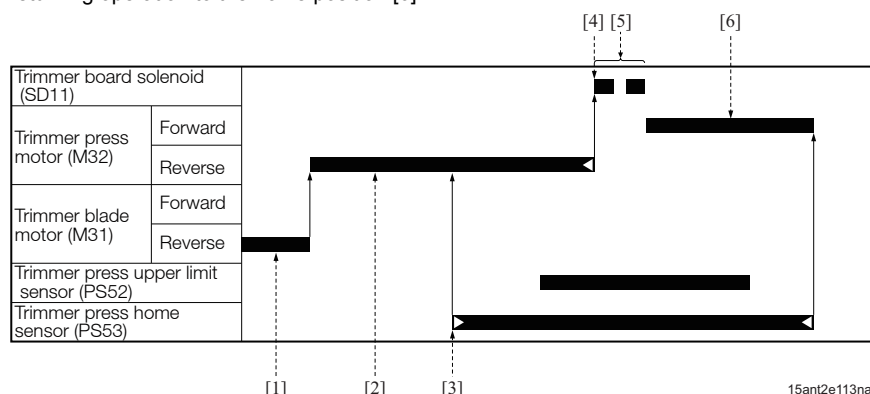


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[1]	Front side direction	[2]	One-way clutch
[3]	Pinion	[4]	Feed rack
[5]	Trimmer board	[6]	Trimmer board solenoid (SD11)
[7]	Actuator	[8]	Trimmer board replacement sensor (PS59)

(2) Control

The trimmer press motor (M32) starts the returning operation [2] to the home position when the 700th trimmer operation [1] is completed. M32 does not stop by defection of the trimmer press home sensor (PS53) [3]. The opening keeps widening until the overcurrent of M32 is detected [4]. When M32 stops, the trimmer board solenoid (SD11) turns ON/OFF twice [5] to move the trimmer board 1mm. Then, M32 starts the returning operation to the home position [6].



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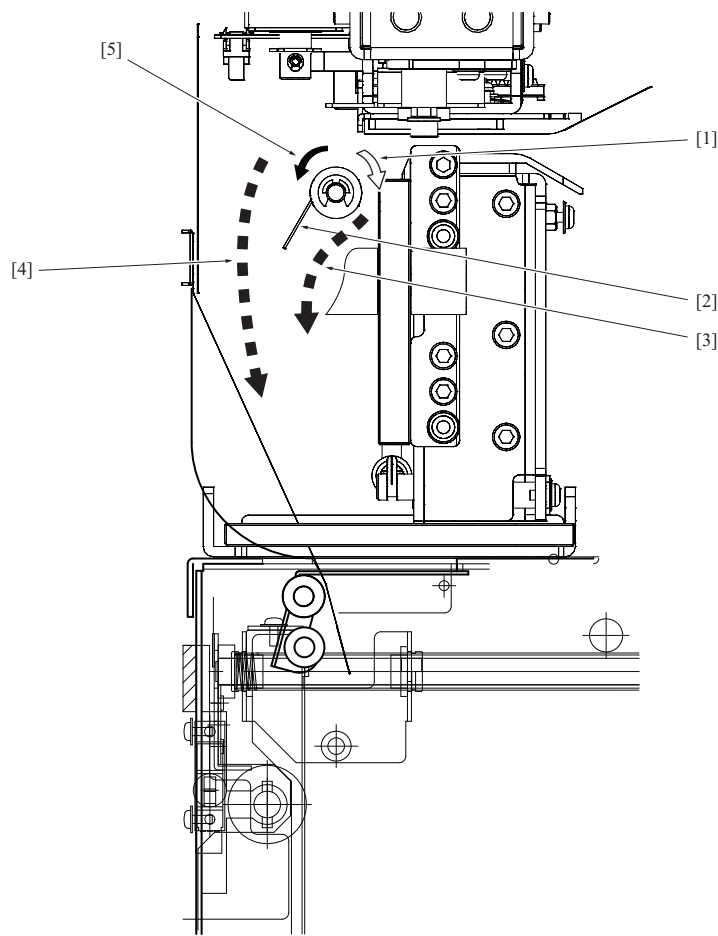
[1]	700th trimmer operation	[2]	Opening operation of the trimmer press
[3]	Home position detected	[4]	Overcurrent of M32 detected
[5]	Trimmer board moved 1mm	[6]	Returning operation to the home position

7.3.4 Trimmer paddle control

(1) Mechanism

The trimmer paddle [2] is provided to prevent the saddle-stitched paper from creating trails with scraps by getting into the paper during the press operation, and to drop the scraps forcibly. The trimmer paddle motor (M33) drives the trimmer paddle.

Trimming amount is 15mm or less: M33 rotates forward [1] to drop [3] the trimming scraps with the trimming paddle. Trimming amount is more than 15mm: The M33 motor rotates in the reverse direction [5] to rake and to drop the scraps to the wider dropping path [4].



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[1]	Trimmer paddle motor (M33) forward direction	[2]	Trimmer paddle
[3]	Dropping path (Trimming amount is 15mm or less)	[4]	Dropping path (Trimming amount is more than 15mm)
[5]	Trimmer paddle motor (M33) reverse direction	-	

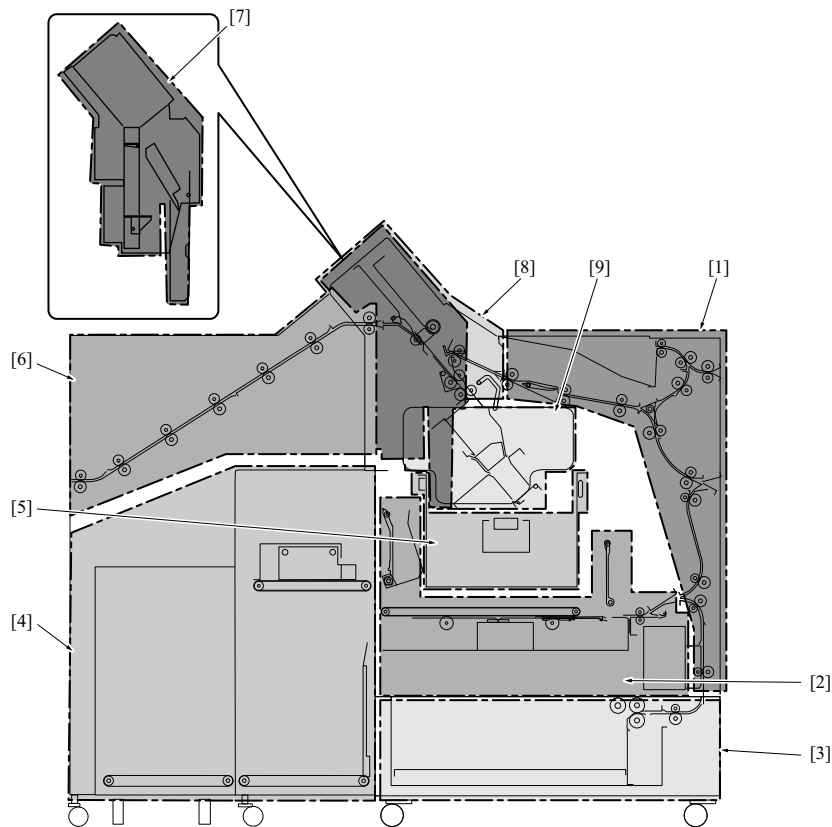
(2) Control

In trimming mode, the trimmer paddle motor (M33) starts forward/reverse rotation after the bundle clip motor (M11) operates paper clipping, and then the M33 motor stops when the trimming JOB is finished.
If the trimming amount value is specified by the "Trimming adjustment" in service mode, the forward/reverse rotation of motor is controlled by the trimming amount that adds the adjusted value. (Edges of standard-sized paper are trimmed by 3mm even when the adjustment value is specified to 0.)

PQ THEORY OF OPERATION PB-503

1. OUTLINE

1.1 Unit configuration

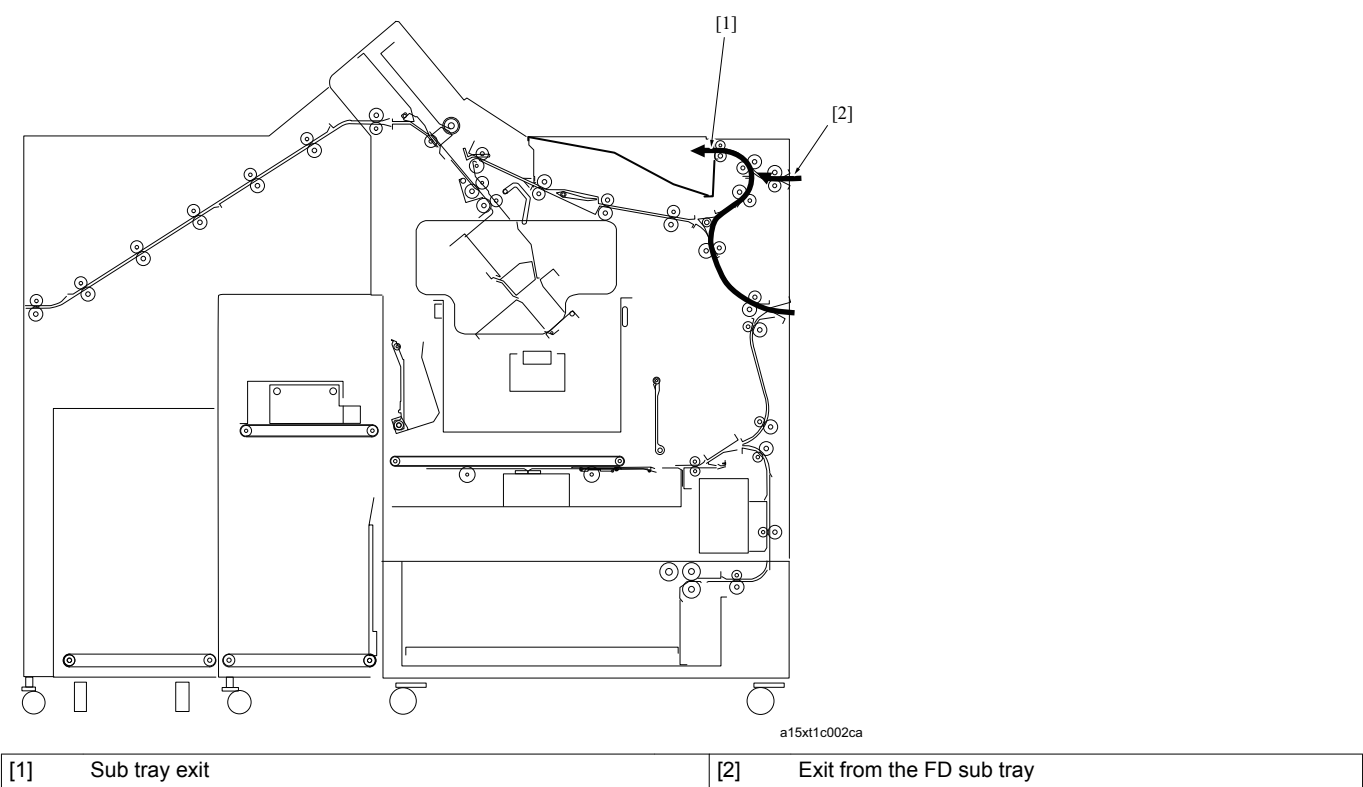


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[1]	Conveyance section	[2]	Cover paper table section
[3]	Cover paper supply section	[4]	Book stock section
[5]	Glue tank section	[6]	Relay conveyance section
[7]	Pellet supply section	[8]	Sub compile (SC) section
[9]	Clamp section	-	

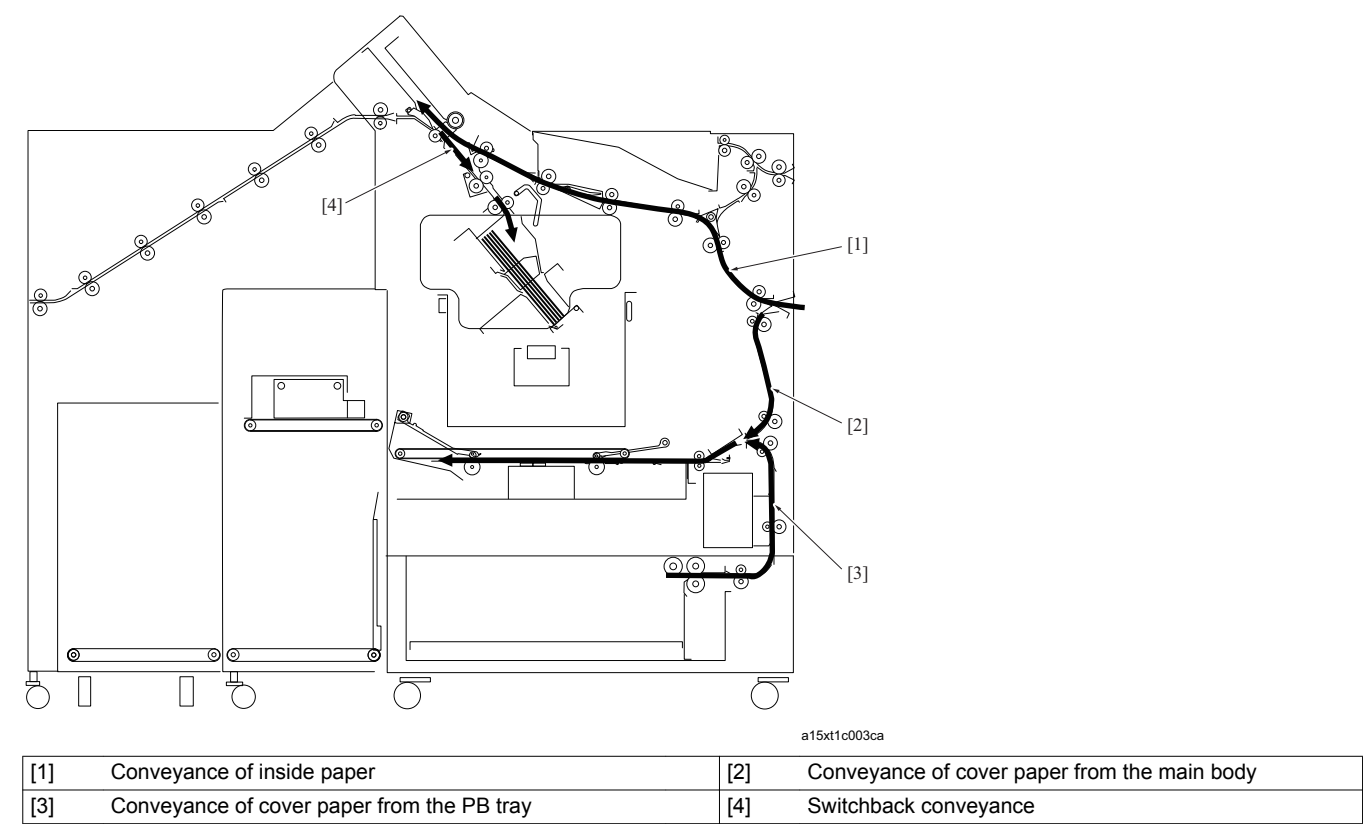
1.2 Paper path

1.2.1 Sub tray exit

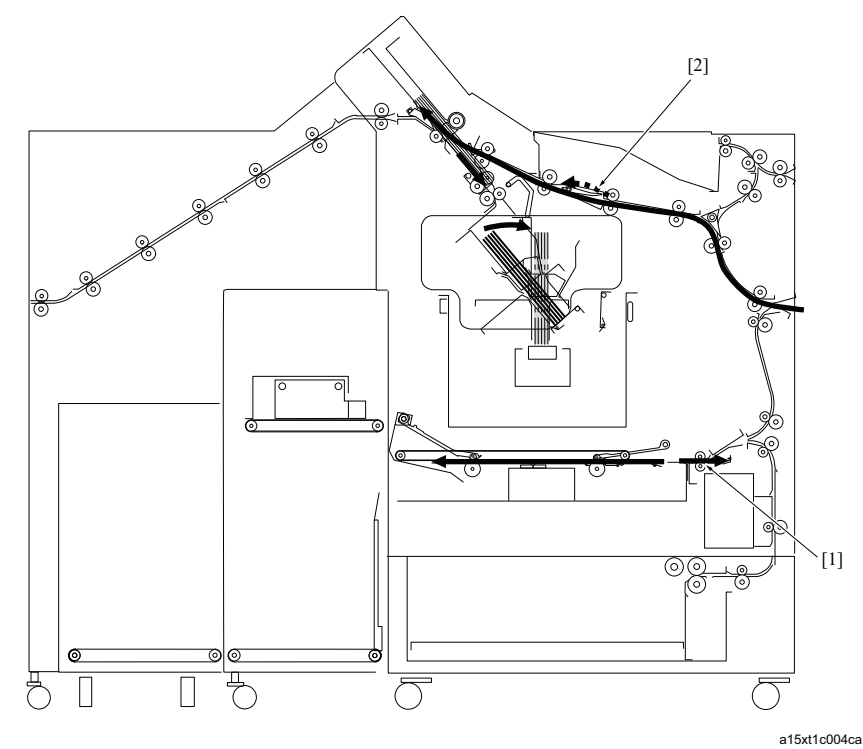


1.2.2 Perfect binding mode

(1) Conveyance of inside papers to the clamp section and conveyance of cover paper

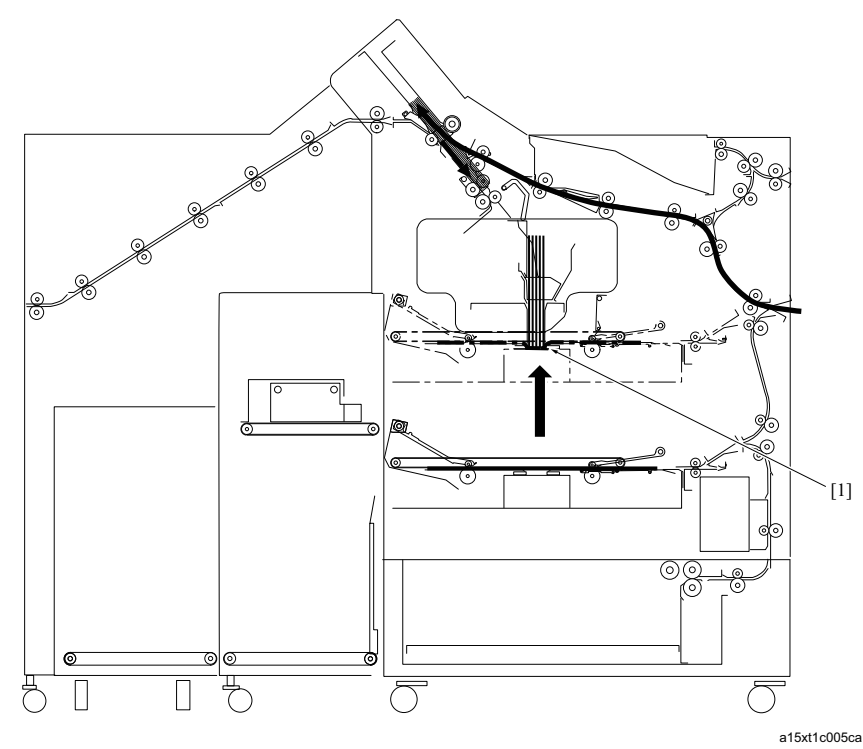


(2) Clamping and glue application



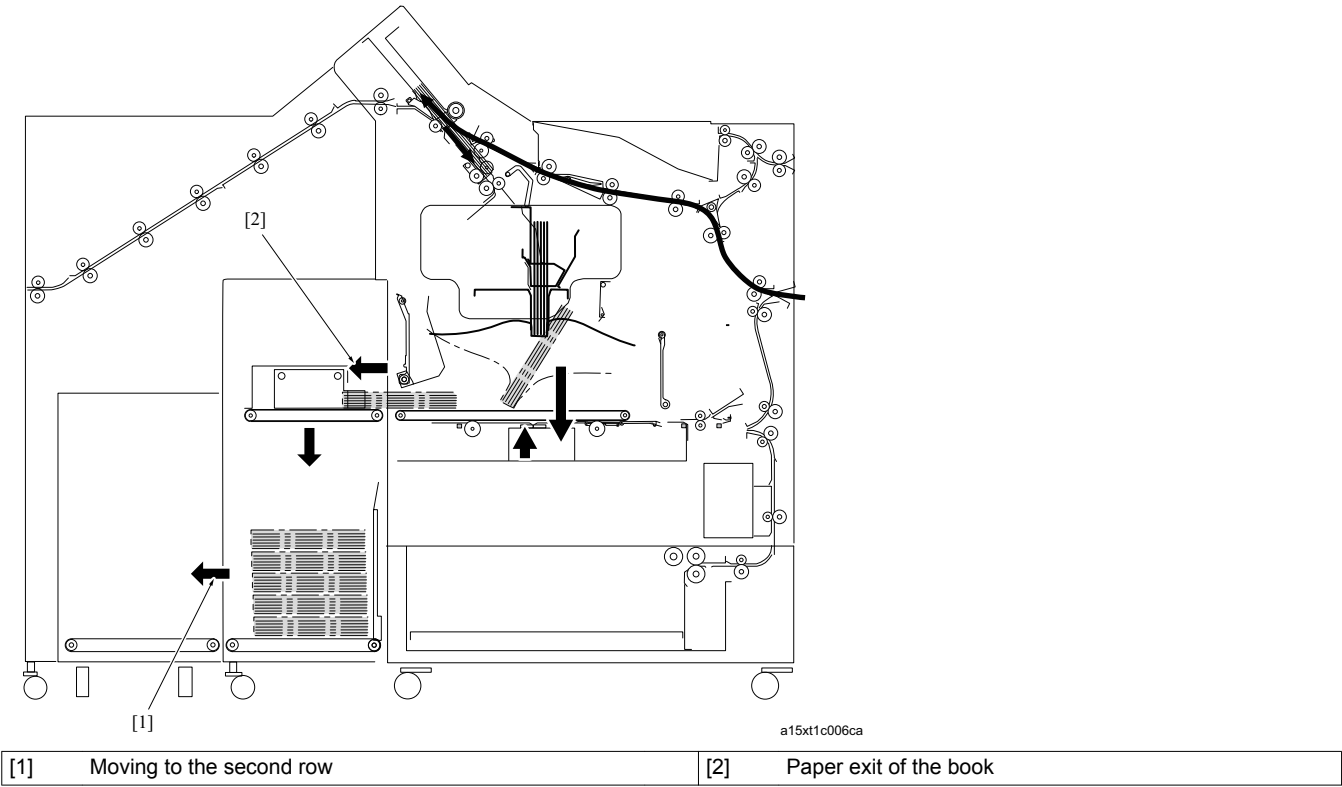
[1] Switchback conveyance	[2] Bypass conveyance
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(3) Glue application to cover paper and cover paper folding operation

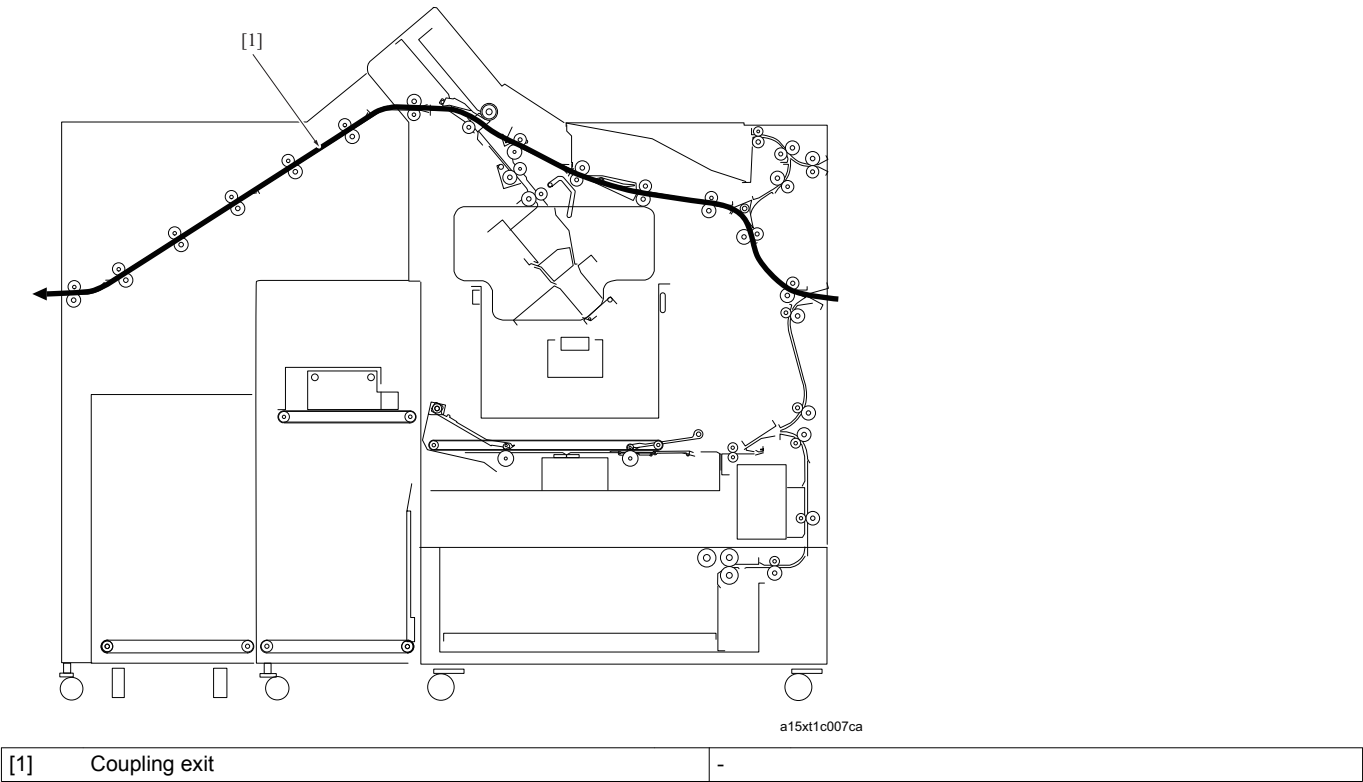


[1] Cover paper folding operation	-
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(4) Book stock

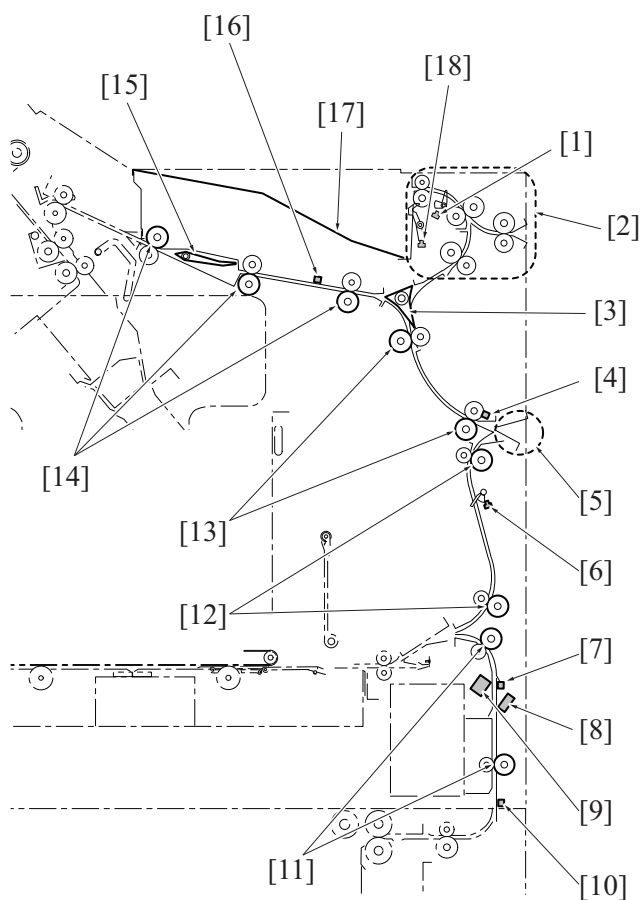


1.2.3 Relay conveyance mode



2. CONVEYANCE SECTION

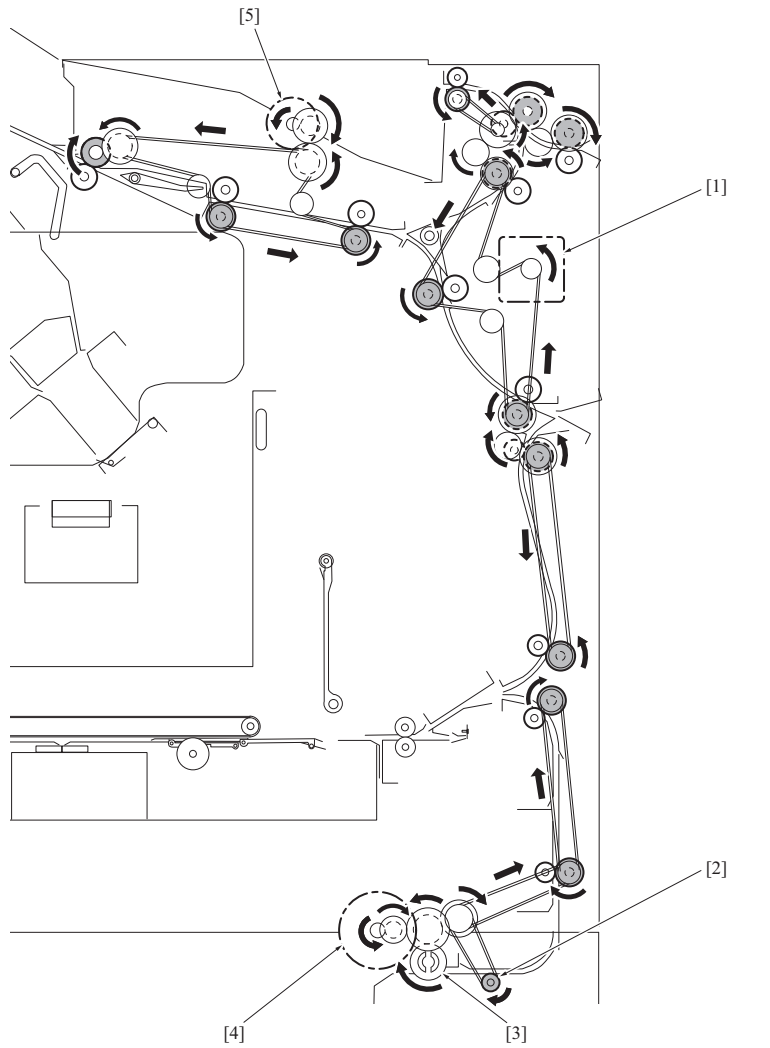
2.1 Configuration



[1] Sub tray exit sensor (PS4)	[2] Sub tray conveyance roller
[3] Sub tray gate	[4] Entrance sensor (PS1)
[5] Entrance gate	[6] Cover paper entrance sensor (PS3)
[7] Cover paper conveyance sensor /4 (PS78)	[8] Cover paper multi-feed detection board /1 (MFDTB71)
[9] Cover paper multi-feed detection board /2 (MFDTB72)	[10] Cover paper conveyance sensor /5 (PS79)
[11] Cover paper feed roller	[12] Cover paper conveyance roller
[13] Entrance conveyance roller	[14] Intermediate conveyance roller
[15] Bypass gate	[16] SC entrance sensor (PS2)
[17] Sub tray	[18] Sub tray full sensor (PS5)

2.2 Drive

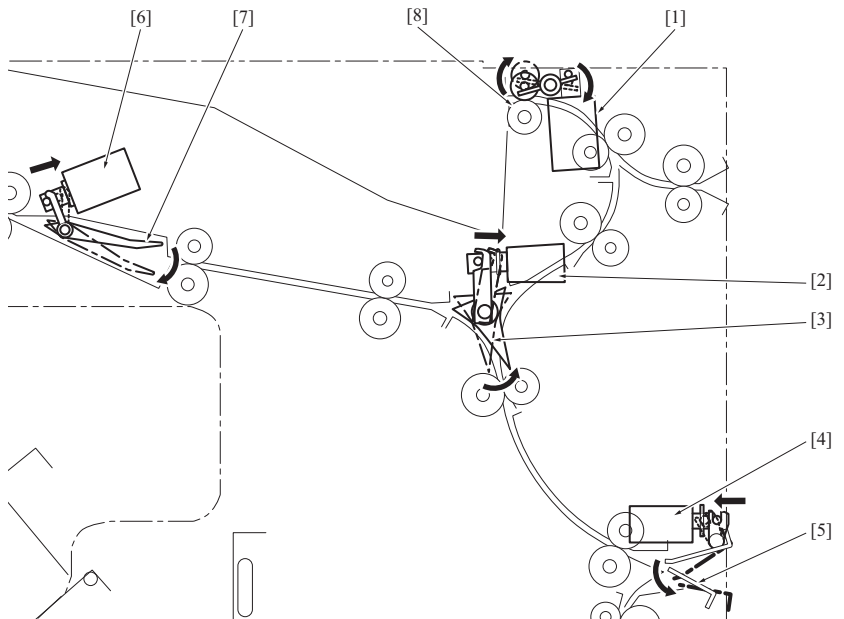
2.2.1 Entrance conveyance drive/Intermediate conveyance drive/Cover paper conveyance drive



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[1]	Entrance conveyance motor (M1)	[2]	Registration roller (to the cover paper supply section)
[3]	Paper feed roller (to the cover paper supply section)	[4]	Cover paper feed motor (M74)
[5]	Intermediate conveyance motor (M2)	-	

2.2.2 Entrance gate drive/Bypass gate drive/Sub tray gate drive/Sub tray exit and separation drive



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[1] Sub tray paper exit solenoid (SD4)	[2] Sub tray gate solenoid (SD3)
[3] Sub tray gate	[4] Entrance gate solenoid (SD1)
[5] Entrance gate	[6] Bypass gate solenoid (SD2)
[7] Bypass gate	[8] Paper exit driven roller

2.3 Operation

2.3.1 Gate control

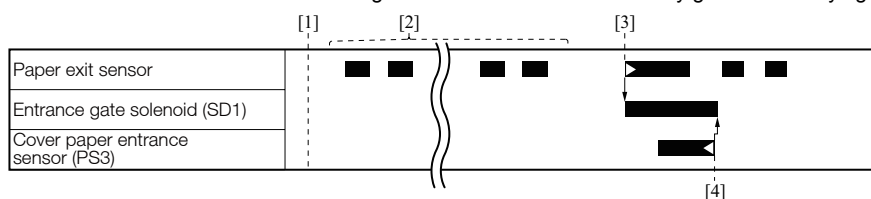
(1) Entrance gate control

- The entrance gate switches the paper path for the cover paper used for perfect binding so that the paper conveyed from the main body, PI-PFU*¹ or the PI of FD is conveyed to the cover paper table section.
- The entrance gate solenoid (SD1) activates the gate. When the SD1 turns OFF, the gate is opened to convey the cover paper toward the sub tray gate, and when the SD1 turns ON, the gate is changed to make a paper path toward the cover paper table section.
- The SD1 turns OFF while the inside paper for perfect binding is conveyed, relay conveyed, or exited on the sub tray. It turns ON while cover paper is conveyed from the main body, PI-PFU*¹, or PI of FD.

*1 1200/1200P/1250/1250P only.

(a) When cover paper being conveyed from the main body

- When a print job is received, the entrance gate solenoid (SD1) turns OFF [1] to open the entrance gate toward the sub tray gate.
- Cover paper is conveyed through the entrance gate [2].
- When the paper exit sensor of the previous device (main body or post processing machine) detects the leading edge of the cover paper, the SD1 turns ON to switch the entrance gate direction toward the cover table section [4].
- Once a prescribed time period has elapsed after the cover paper entrance sensor (PS3) detects the trailing edge of cover paper [4], the SD1 turns OFF to switch the entrance gate direction toward the sub tray gate for conveying paper to the SC section.



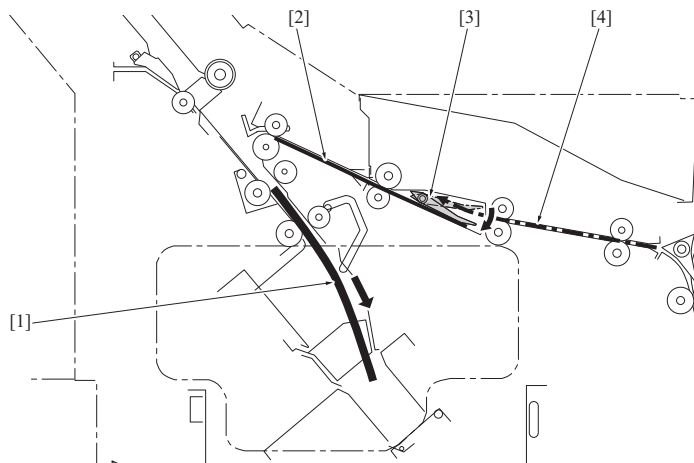
[1] Print start signal ON	[2] Paper conveyance
[3] Cover paper leading edge detection	[4] Cover paper trailing edge detection

(2) Sub tray gate control

- The sub tray gate is provided for switching the path to the SC section which conveys the inside paper for the perfect binding and the relay conveyance paper and the path to the sub tray paper exit.
- The sub tray gate solenoid (SD3) activates the sub tray gate. When the SD3 is OFF, the gate is opened toward the SC section, and when the SD3 becomes ON, the gate direction is switched toward the sub tray to exit inside papers.
- While inside papers are exit on the sub tray, the SD3 turns ON upon receiving a print job, and turns OFF when the job is finished.

(3) Bypass gate control

- The SC section is designed to stack a certain number of inside papers (n) of the subsequent book while the pages of previous book is glued at the clamp section. The bypass gate [3] operates to lay next 2 sheets of inside paper ("n+1"th and "n+2"th) one on top of another and keep them until the stacked "n"th sheet of inside paper at the SC section is conveyed to the clamp section [1]. It saves time for conveying the inside paper and increases productivity.
- The bypass gate solenoid (SD2) activates the bypass gate.
- The bypass gate is not driven in the relay conveyance mode.



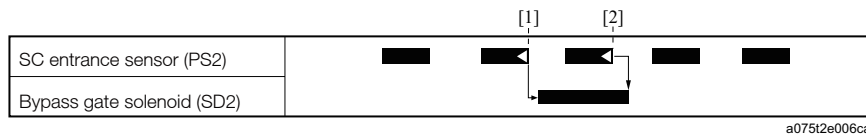
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[1] Paper bundle from the first page to the "n"th page of the 2nd and subsequent copies	[2] "n+1"th paper of subsequent book
---	--------------------------------------

[3] Bypass gate	[4] "n+2"th paper of subsequent book
-----------------	--------------------------------------

(a) Control

1. The bypass gate solenoid (SD2) turns ON when a specified period of time has elapsed after the SC entrance sensor (PS2) detects the trailing edge [1] of the "n+1"th inside paper of subsequent book.
2. The solenoid turns OFF when a prescribed time period has elapsed after the "n+2"th inside paper is laid over the "n+1"th inside paper, and the SC entrance sensor (PS2) detects the trailing edge of the "n+2"th inside paper [2].



[1] Detection of trailing edge of "n+1"th paper of subsequent book	[2] Detection of trailing edge of "n+2"th paper
--	---

2.3.2 Entrance conveyance control

- The entrance conveyance motor (M1) drives the entrance conveyance roller, sub tray conveyance roller, main body cover paper conveyance roller, and the cover paper conveyance roller. The drive force is transmitted via the gear and the timing belt.

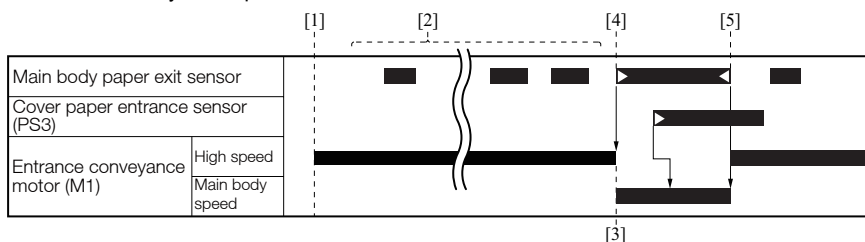
(1) Perfect binding mode**(a) When feeding cover paper from the PB cover paper tray**

- The entrance conveyance motor (M1) starts to turn at high speed upon receiving a print job.
- The M1 stops when the JOB is finished.

(b) When feeding cover paper from the main body

1. When detecting that the print start signal turns ON, the entrance conveyance motor (M1) turns ON [1] (starts to turn at high speed).
2. When the main body paper exit sensor is turned ON [4] by the leading edge of the cover paper, the M1 starts to turn at the same speed as the main unit. *1
3. Upon detection of the trailing edge of the cover paper by the main body paper exit sensor, the M1 starts to turn at high speed [5] to convey the paper.

*1 1051/1052 only. The speed of M1 is not switched for C8000/1200/1200P/1250/1250P/C7000/C7000P/C70hc/C6000.

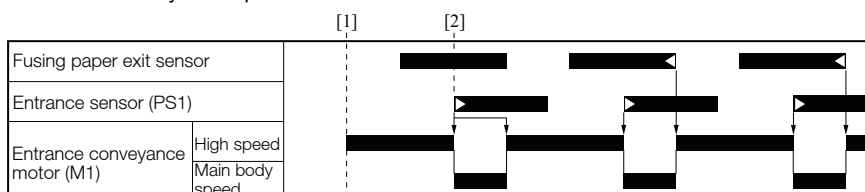


[1] Print start signal ON	[2] Paper
[3] Change of main body process speed	[4] Change to the same speed as the main unit
[5] Change to high speed rotation	-

(2) Sub tray paper exit mode/Relay conveyance mode**(a) Large-size double-sided mode, single-sided main body straight mode (320mm or longer in the sub scan direction)**

1. The entrance conveyance motor (M1) starts to turn at high speed [1] upon receiving a print job, and starts to decelerate [2] in accordance with the main body process speed when the main body exit sensor detects the leading edge of paper. *1
2. After turning OFF the fusing exit sensor, switches M1 to the high speed rotation.

*1 1051/1052 only. The speed of M1 is not switched for C8000/1200/1200P/1250/1250P/C7000/C7000P/C70hc/C6000.



[1] Print start signal ON	[2] Change to the main body process speed
---------------------------	---

(b) Small-size all modes, large-size main body reverse paper exit mode (320mm or shorter in the sub scan direction)

- When detecting that the print start signal turns ON, the entrance conveyance motor (M1) turns ON (starts to turn at high speed).

2.3.3 Intermediate conveyance control

- The intermediate conveyance roller is driven by the drive force of the intermediate conveyance motor (M2) transmitted via the gear and the timing belt.

(1) Perfect binding mode

- The intermediate conveyance motor (M2) starts to rotate when a print job is received.

(2) Sub tray paper exit mode

- The intermediate conveyance motor (M2) does not work.

(3) Relay conveyance mode

- The intermediate conveyance motor (M2) starts to rotate when a print job is received.

2.3.4 Cover paper conveyance control

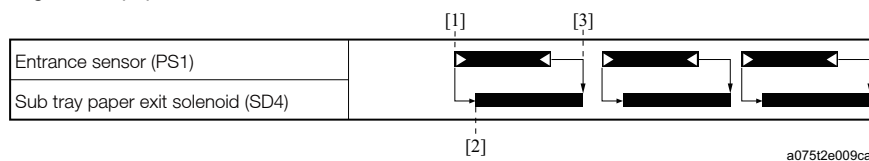
- The cover paper conveyance section and the cover paper conveyance roller are driven by the drive force of the cover paper feed motor (M74) transmitted via the gear, timing belt, and the coupling.
- The M74 stops when a prescribed time period has elapsed after the cover paper conveyance sensor /4 (PS78) detects the trailing edge of the cover paper.
- For details of the feeding operation, refer to [PN.7. COVER PAPER SUPPLY SECTION](#).

2.3.5 Sub tray paper exit release control

- The sub tray release operation is performed to align edges of papers exit onto the sub tray.
- The sub tray exit solenoid (SD4) activates the operation. The sub tray exit roller separates from the spring when the SD4 becomes On, and the roller moves to push the spring when the SD4 turns Off.

(1) Large-size (320mm or longer in the sub scan direction)

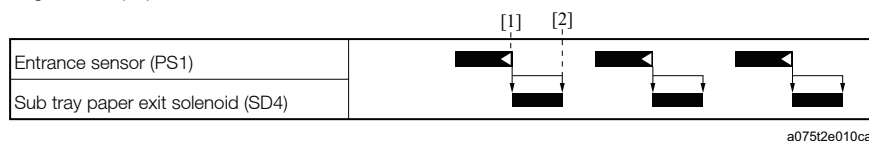
- When a prescribed time period has elapsed after the entrance sensor (PS1) detects the leading edge of paper [1], the sub tray exit solenoid (SD4) turns ON to release the sub tray exit roller from the spring [2].
- The SD4 turns OFF to make the roller push the spring [3] when a prescribed time period has elapsed after the PS1 detects the trailing edge of the paper.



[1]	Paper leading edge detection	[2]	The sub tray exit roller separates from the spring
[3]	The sub tray exit roller pushes against the spring	-	

(2) Small-size (320mm or shorter in the sub scan direction)

- After the entrance sensor (PS1) detects the trailing edge of paper, the sub tray exit solenoid (SD4) turns ON to make the sub tray exit roller separate from the spring [1].
- The SD4 turns OFF to make the roller push the spring [2] when a prescribed time period has elapsed after the PS1 detects the trailing edge of the paper.



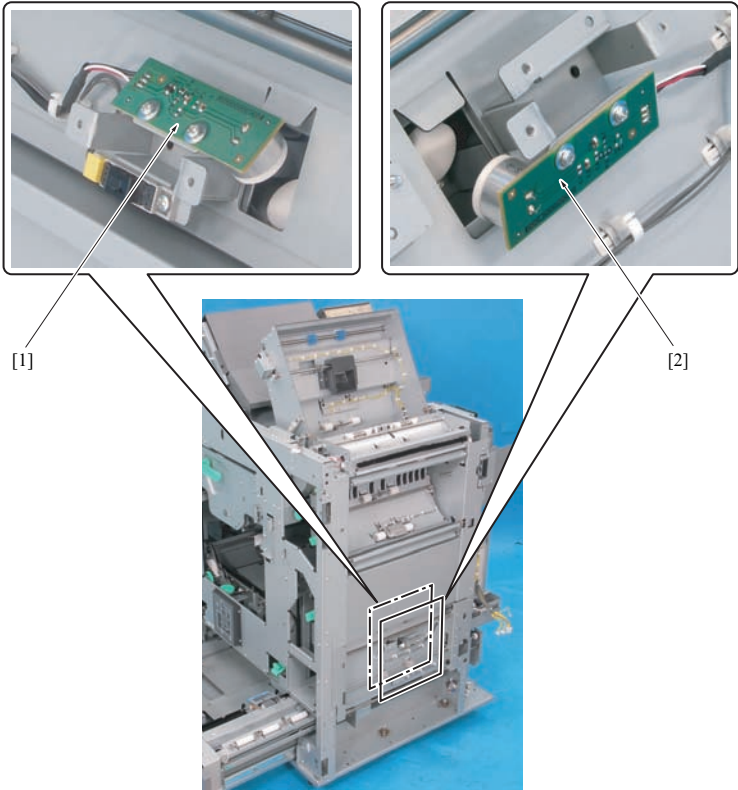
[1]	The sub tray exit roller separates from the spring	[2]	The sub tray exit roller pushes against the spring
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2.3.6 Sub tray full-status detection control

- When the sub tray becomes full, the sub tray full sensor (PS5) detects the full-status.

2.3.7 Cover paper multi feed detection control

- When multiple papers are conveyed from the PB cover paper tray at a time, the supersonic sensors; multi-feed detection board /S (MFDBS) [2] and /R (MFDBR) [1] detect the error. The MFDBS transmits a supersonic wave and the MFDBR receives it.

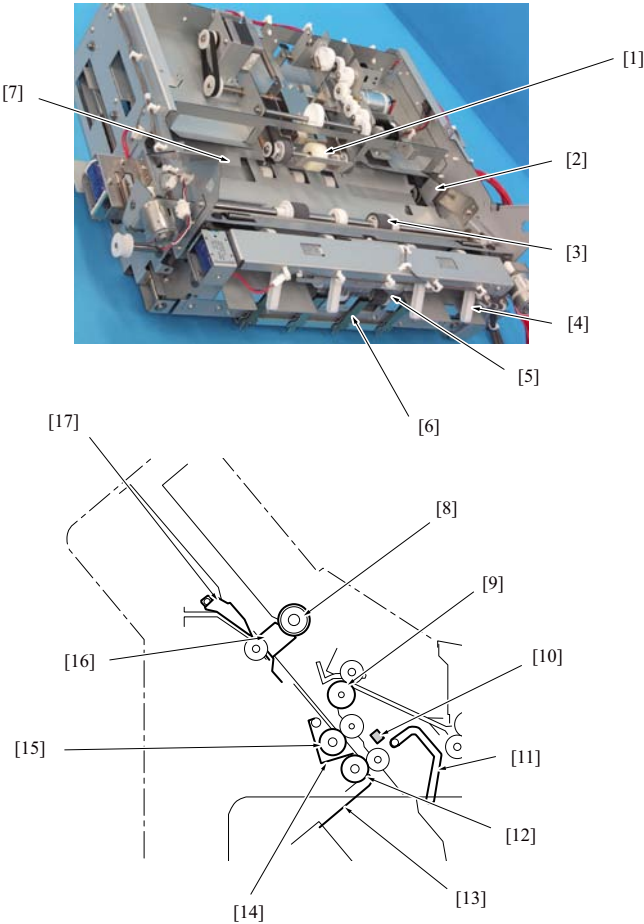


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[1]	MFDBR	[2]	MFDBS
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3. SUB COMPILE (SC) SECTION

3.1 Configuration

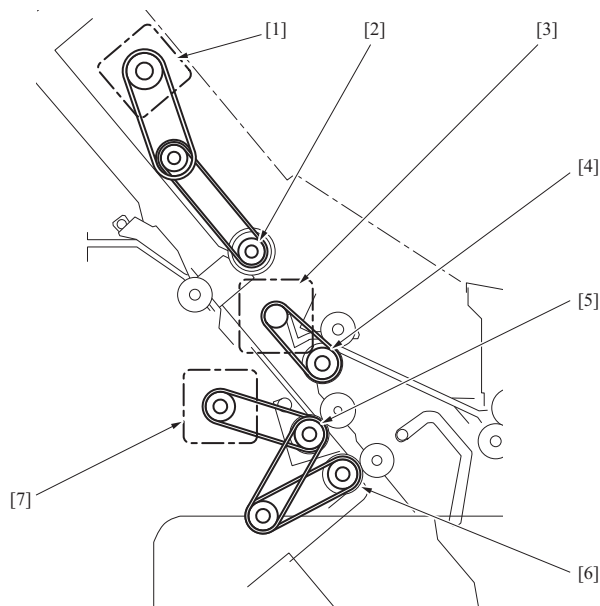


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[1]	Switchback roller	[2]	SC alignment plate
[3]	SC entrance roller	[4]	Pressure arm
[5]	Clamp entrance roller	[6]	FD alignment plate
[7]	Straight gate	[8]	Switchback roller
[9]	SC entrance roller	[10]	SC paper detection sensor (PS16)
[11]	Pressure arm	[12]	Clamp entrance roller
[13]	FD alignment plate	[14]	SC stopper
[15]	SC roller	[16]	SC alignment plate
[17]	Straight gate	-	

3.2 Drive

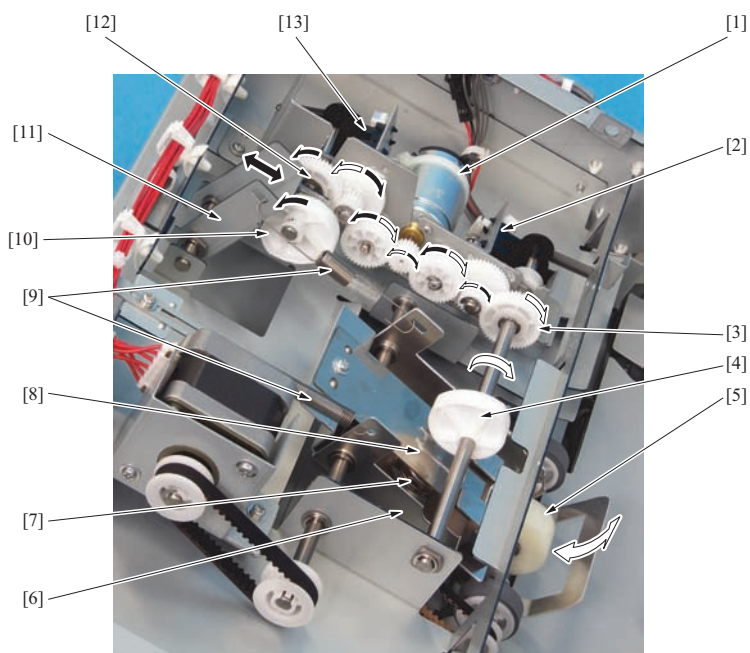
3.2.1 SC entrance conveyance drive/Switchback conveyance drive/Paper bundle conveyance drive



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[1]	SC switchback conveyance motor (M12)	[2]	SC switchback roller
[3]	SC entrance conveyance motor (M11)	[4]	SC entrance roller
[5]	SC roller	[6]	Clamp entrance roller
[7]	SC bundle conveyance motor (M17)	-	

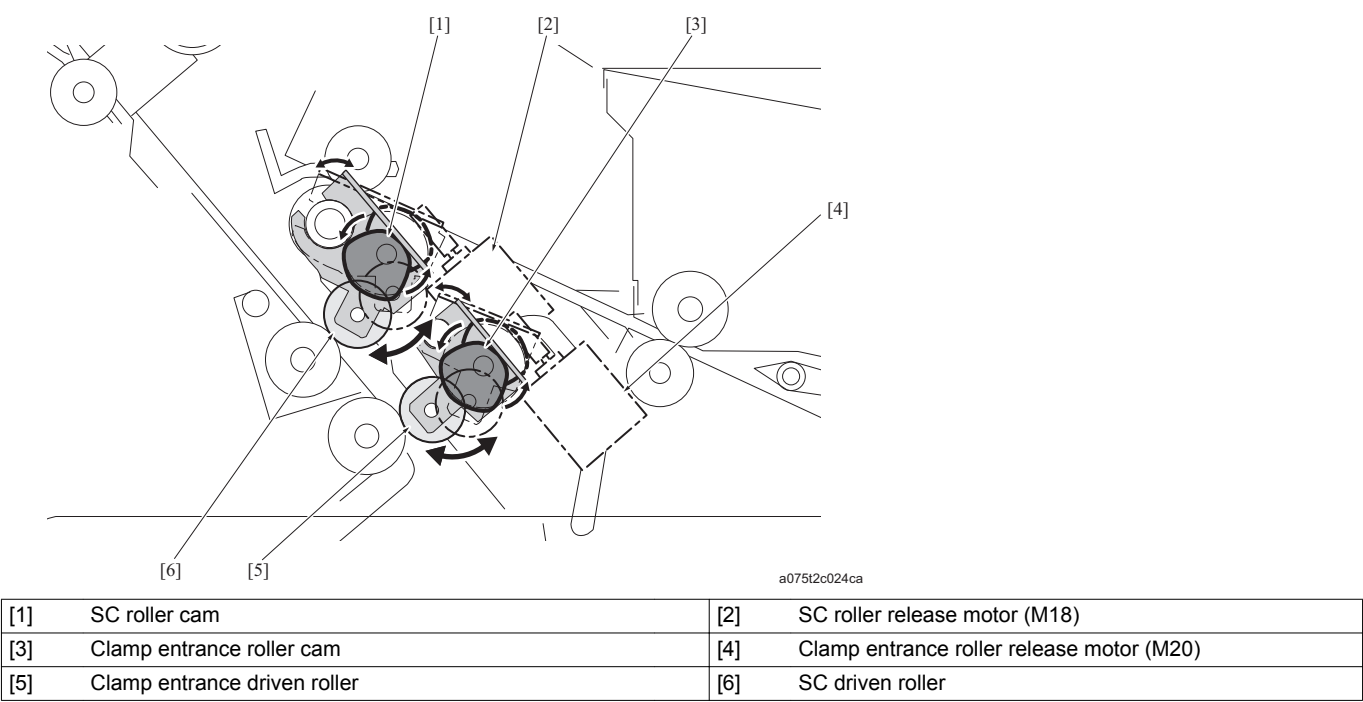
3.2.2 Switchback release drive



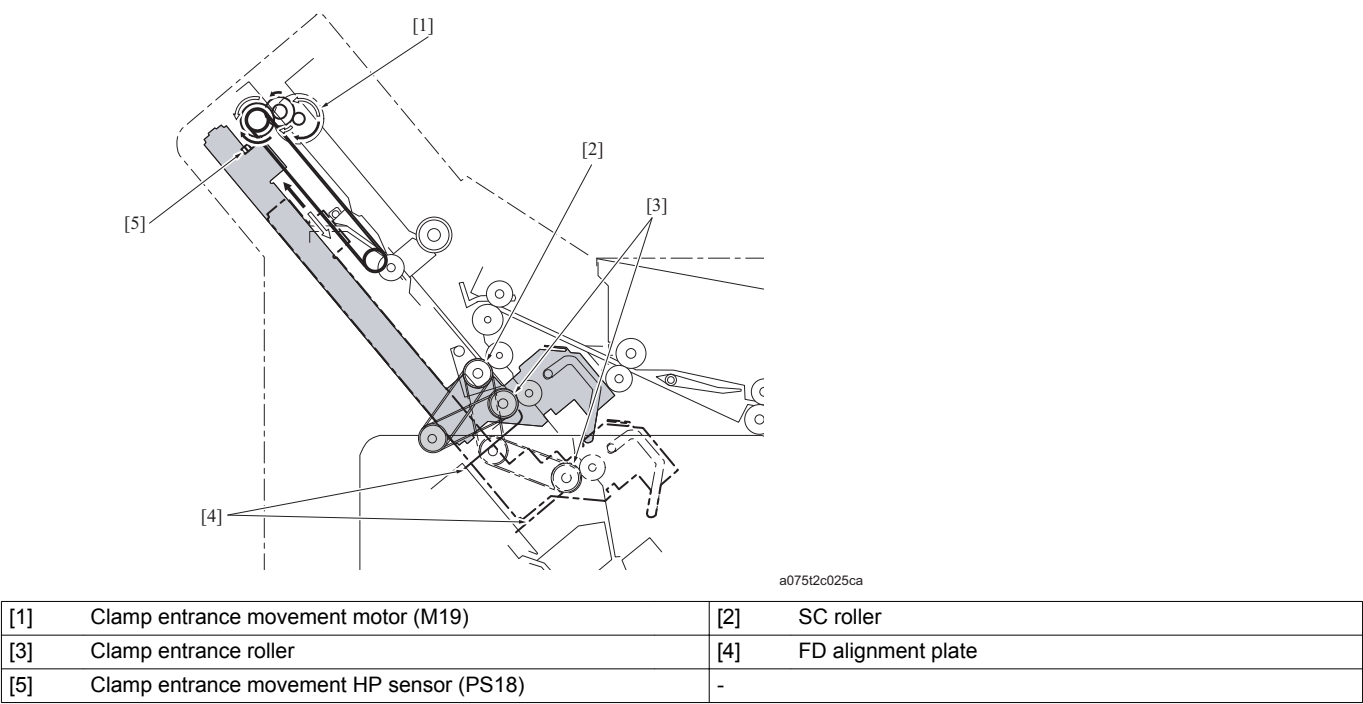
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[1]	SC switchback release motor (M13)	[2]	SC switchback arm pressure detection sensor (PS12)
[3]	One-way clutch	[4]	Press cam
[5]	SC switchback roller	[6]	Pressure bracket
[7]	Pressure spring	[8]	Pressure plate
[9]	Switchback spring	[10]	Switchback cam
[11]	Switchback arm	[12]	One-way clutch
[13]	SC switchback spring pressure detection sensor (PS13)	-	

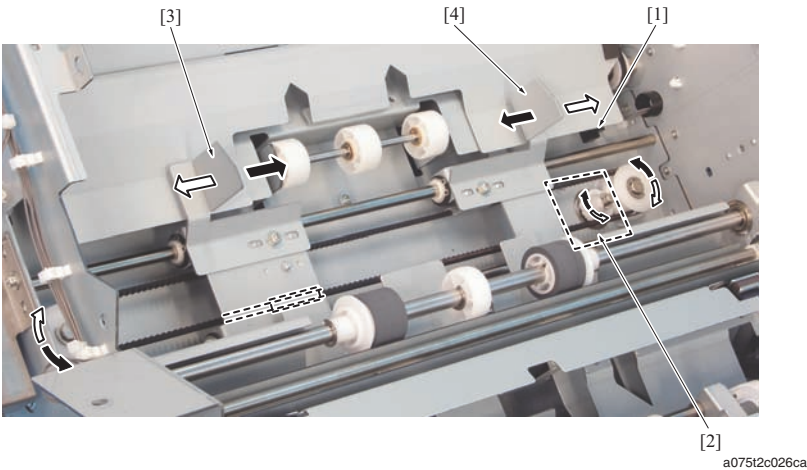
3.2.3 SC roller release drive/Clamp entrance release drive



3.2.4 Clamp entrance movement drive

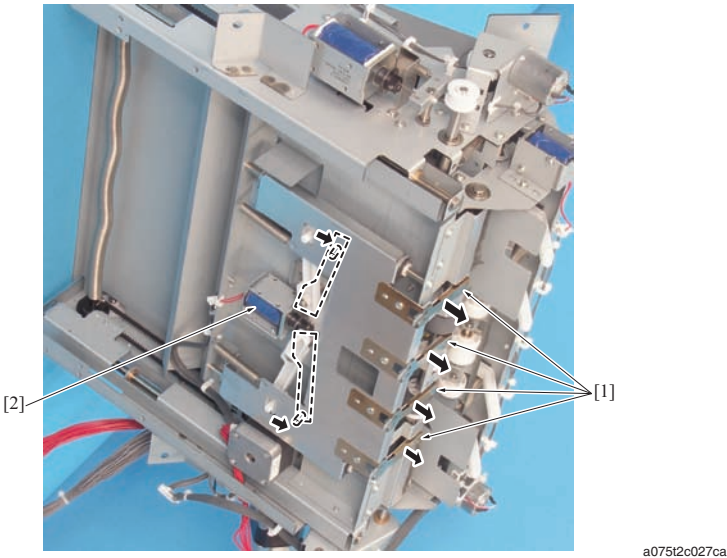


3.2.5 SC main scan alignment drive



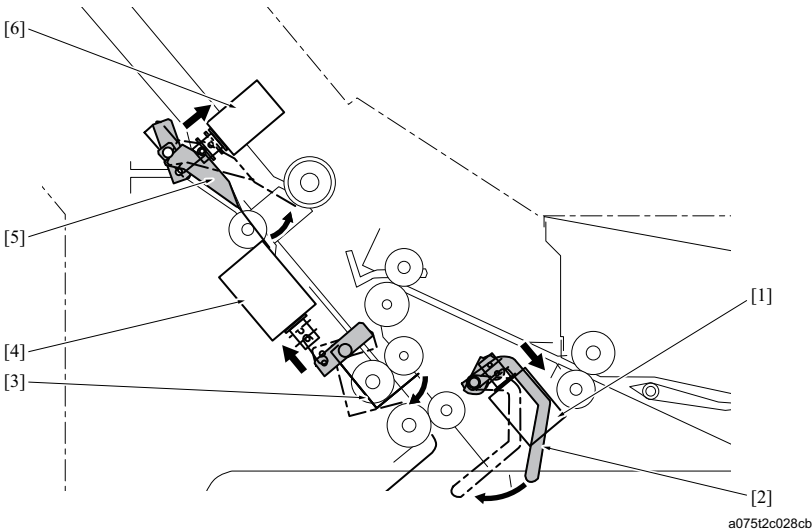
[1]	SC alignment plate home sensor (PS14)	[2]	SC alignment motor (M15)
[3]	SC alignment plate /Fr	[4]	SC alignment plate /Rr

3.2.6 Sub scan alignment drive



[1]	FD alignment plate	[2]	FD alignment solenoid (SD11)
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3.2.7 SC stopper drive/SC pressure arm drive/Straight gate drive



[1]	SC pressure arm solenoid (SD13)	[2]	SC pressure arm
[3]	SC stopper	[4]	SC stopper solenoid (SD12)

[5] Straight gate	[6] Straight gate solenoid (SD91)
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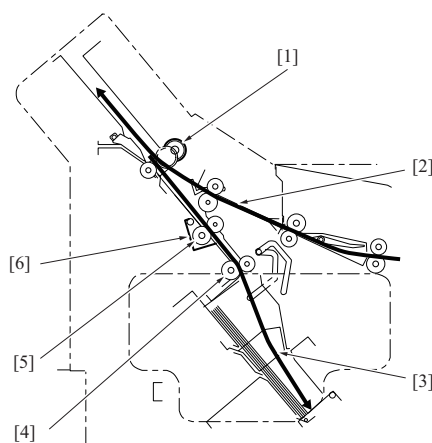
3.3 Operation

3.3.1 SC section operation overview

- The SC section is provided to stack a certain number of paper for subsequent book while papers for the previous book being glued at the clamp section and the glue tank section.
- The number of papers stacked in the SC section varies depending on the print mode and paper size.
- In the relay conveyance mode, the straight gate is driven and the paper is conveyed to the relay conveyance section.

(1) Perfect binding mode overview

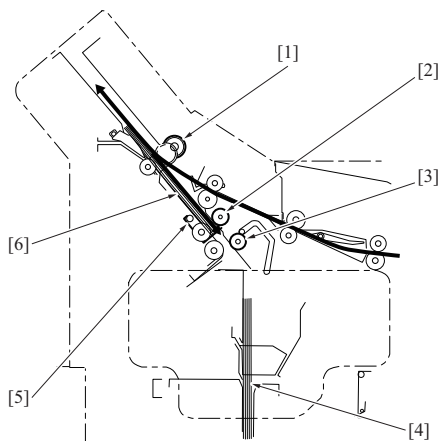
1. A page [2] for the first book [3] goes to the SC section and then goes to the clamp section. Once the paper [2] is set in the SC section, the SC stopper [6] is released, and the paper is conveyed to the clamp section by the SC switchback roller [1], SC roller [5] and the clamp entrance roller [4]. All inside papers for the first book are conveyed to the clamp section in this manner one by one.



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[1] Switchback roller	[2] Paper
[3] Page for the first book	[4] Clamp entrance roller
[5] SC roller	[6] SC stopper

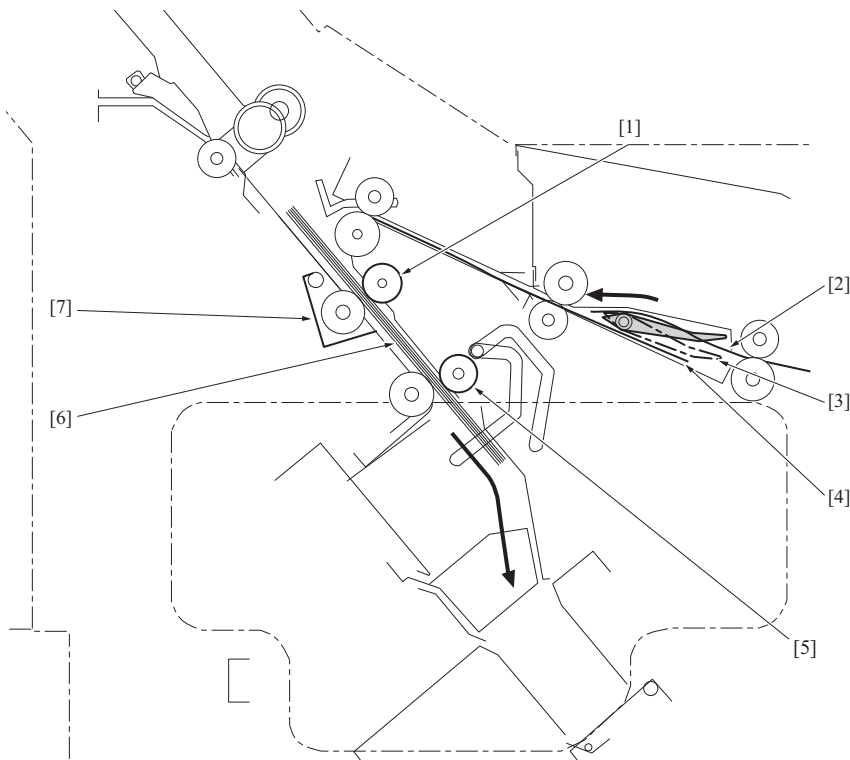
2. When the last page of the first book reaches the clamp section, the SC stopper [5] moves back to its original position, and the SC driven roller [2] and the clamp entrance driven roller [3] move away from their paper-feed position. A certain number of papers (n) for the next book are stacked in the SC section by the SC switchback roller [1].



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[1] Switchback roller	[2] SC driven roller
[3] Clamp entrance driven roller	[4] All inside papers for the first book
[5] SC stopper	[6] Page for the next book

3. When binding of the first book is finished, the clamp unit inclines from its upright position to receive paper for the next book. At the same time, the SC stopper [7] moves to open the path, and the SC driven roller [1] and clamp entrance driven roller [5] go into the position to convey the paper (n) [6] stacked in the SC section. During the above operation, the 2nd paper ("n+1"th [4] and "n+2"th [2]) are set in the bypass gate [3].
4. The 2 sheets of paper are conveyed to the clamp section at a time.
5. The rest of the papers for the book are conveyed to the clamp section one by one in the same manner as for the first book.

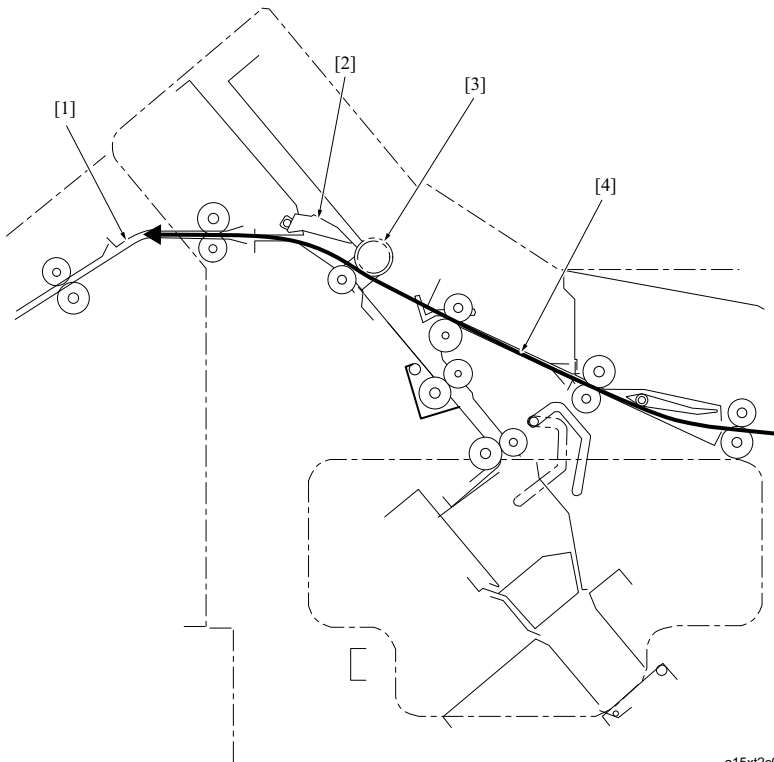


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[1]	SC driven roller	[2]	"n+2"th page
[3]	Bypass gate	[4]	"n+1"th page
[5]	Clamp entrance driven roller	[6]	Paper bundle "n"
[7]	SC stopper	-	

(2) Relay conveyance mode

1. The conveyed paper [4] is switched to the path to the relay conveyance section by the straight gate [2] and conveyed to the relay conveyance section one by one by the switchback roller [3] that is in the high pressing mode.



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[1]	Relay conveyance section	[2]	Straight gate
[3]	Switchback roller	[4]	Paper

3.3.2 Gate control of the relay conveyance

- The straight gate solenoid (SD91) drives the straight gate.
- The perfect binding mode keeps SD91 being OFF and does not switch the straight gate.
- In the relay conveyance mode, SD91 turns ON upon receiving a print job and switches the straight gate to the path to the relay conveyance section.

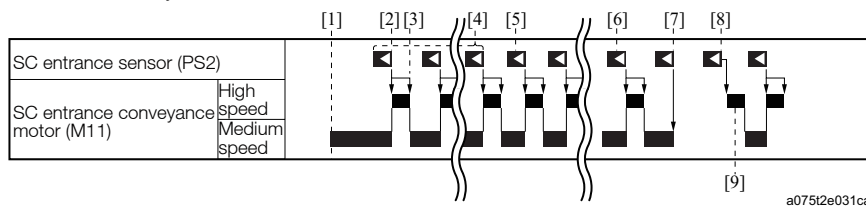
3.3.3 SC entrance conveyance control

- The SC entrance roller is driven by the drive force of the SC entrance conveyance motor (M11) transmitted via the belt.

(1) Control

(a) Perfect binding mode

1. The SC entrance conveyance motor (M11) starts to turn at low speed [1] upon receiving a print job.
2. The M11 speed changes to high speed when the SC entrance sensor (PS2) detects the trailing edge of paper [2].
3. When a prescribed time has elapsed after the M11 acceleration, the M11 returns to low speed [3] before the paper goes through the SC entrance roller.
4. The above conveyance operation is carried out for the last paper of the first book [4] and the first page [5] to the "n"th page [6] of the next book (n=37 to 38 when the papers are A4 sized and one-side printed).
5. The M11 stops to stop the SC entrance roller when the PS2 detects [7] the trailing edge of "n+1"th page.
6. When the PS2 detects [8] "n+2"th paper trailing edge, the M11 starts to turn at high speed [9] to convey the "n+1"th and "n+2"th papers at a time.
7. The rest of the papers for the second book are conveyed in the same manner as for the first book, and the papers for the subsequent books are conveyed in the same manner as for the second book.

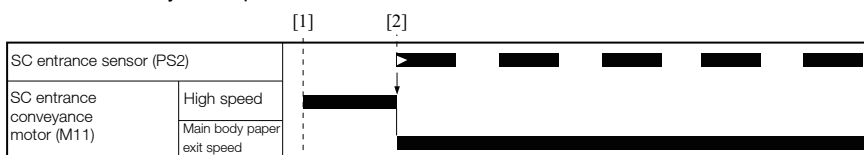


[1]	Print start signal ON	[2]	Detection of the trailing edge of paper
[3]	Change M11 to low speed	[4]	Last page of the first book
[5]	First page of the second book	[6]	"n"th page of the second book
[7]	Trailing edge detection of "n+1"th page of second book	[8]	Trailing edge detection of "n+2"th page of second book
[9]	M11 turns at high speed	-	

(b) Relay conveyance mode

1. The SC entrance conveyance motor (M11) starts to turn at high speed upon receiving a print job [1].
2. Once the SC entrance sensor (PS2) detects [2] the leading edge of the 1st sheet, M11 switches to the speed of the main body paper exit.^{*1}

^{*1} 1051/1052 only. The speed of M1 is not switched for C8000/1200/1200P/1250/1250P/C7000/C7000P/C70hc/C6000.



[1]	Print start signal ON	[2]	Paper leading edge detection
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3.3.4 SC switchback conveyance control

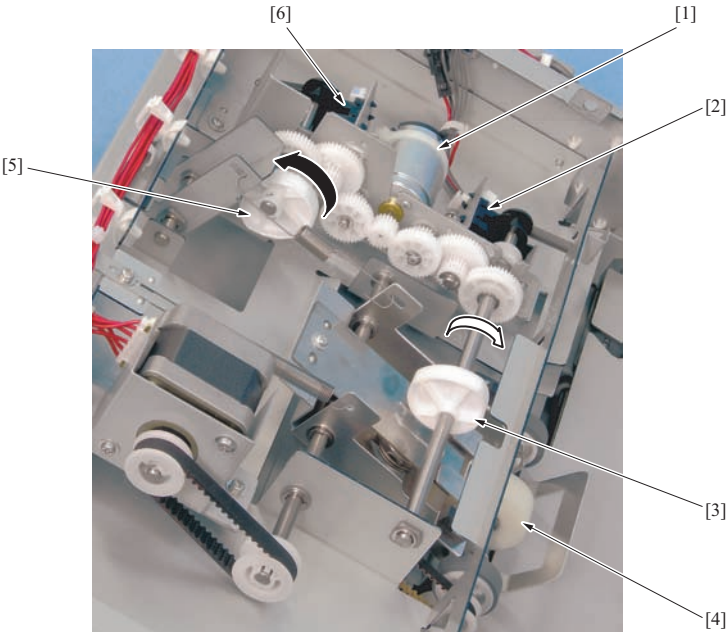
- The SC switchback conveyance motor (M12) drives the SC switchback roller. The SC switchback release motor (M13) drives the releasing operation of the roller.

(1) SC switchback roller release mechanism

- The SC switchback release motor (M13) drives the pressure cam [3] and the switchback cam [5]. The forward rotation of the motor drives the pressure cam [3] and the reverse rotation of the motor drives the switchback cam [5].
- The SC switchback roller [4] has 3 preset positions for releasing (kept away from the driven roller), pressing strongly or slightly against the driven roller.
- The "pressing strongly" status of the SC switchback roller [4] is used when conveying inside paper to the clamp section and for the relay conveyance, and the roller becomes the "pressing slightly" status when conveying inside paper to the SC section so that the SC stopper stops the papers properly.
- The SC switchback arm pressure detection sensor (PS12) [2] detects the pressure cam position, and the SC switchback spring pressure detection sensor (PS13) [6] detects the position of the switchback cam. The PS12 is ON when the pressure cam is at its home position, and the PS13 is OFF when the switchback cam is at its home position.

PS12	PS13	SC switchback roller status (position)
ON	OFF	Release
OFF	OFF	Press strongly

ON	ON	Press slightly
OFF	ON	Not used ("press strongly" status)

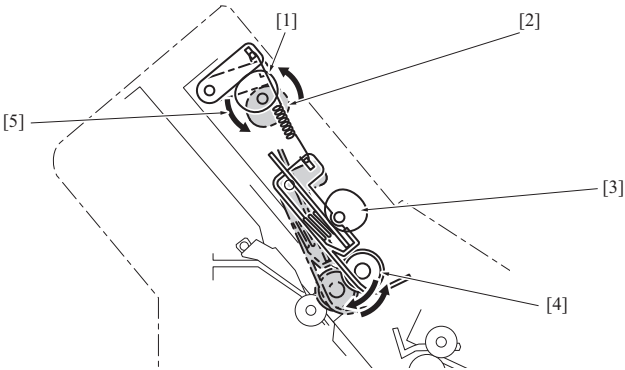


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[1]	SC switchback release motor (M13)	[2]	SC switchback arm pressure detection sensor (PS12)
[3]	Pressure cam	[4]	SC switchback roller
[5]	Switchback cam	[6]	SC switchback spring pressure detection sensor (PS13)

(a) Switchback cam drive (light pressure)

- The switchback cam [1] rotates counterclockwise [5] to switch the SC switchback roller [4] position between releasing and light pressing while the pressure cam [3] is at its home position.
- While the SC switchback spring pressure detection sensor (PS13) is OFF, the SC switchback roller is in the release position (kept away from the driven roller).
- When the PS13 is ON [2], the SC switchback roller moves to press slightly against the driven roller.
- The PS13 is kept OFF while the switchback cam is at its home position.

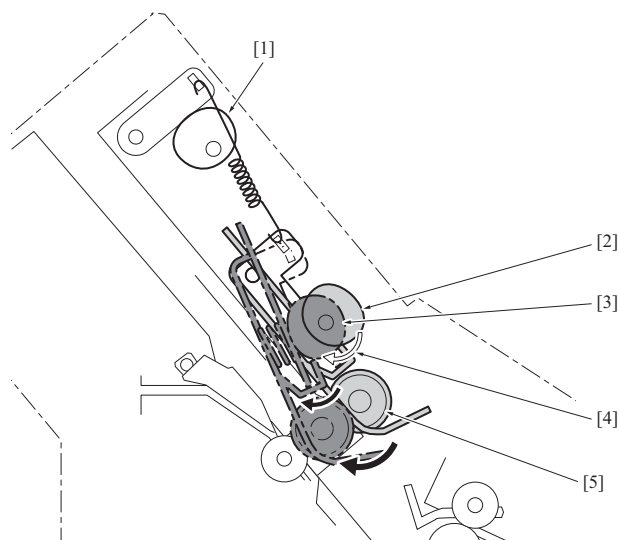


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[1]	Switchback cam (home position)	[2]	Switchback cam (press slightly)
[3]	Pressure cam	[4]	SC switchback roller
[5]	Rotating direction of the switchback cam	-	

(b) Pressure cam drive (strong pressure)

- The pressure cam [2] rotates clockwise [4] to switch the SC switchback roller [5] position between releasing and strong pressing. The switch operation of the pressure cam is made while the switchback cam [1] is at its home position.
- While the SC switchback arm pressure detection sensor (PS12) is ON, the SC switchback roller is in the release position (kept away from the driven roller).
- When the PS12 is OFF [3], the SC switchback roller moves to press strongly against the driven roller.



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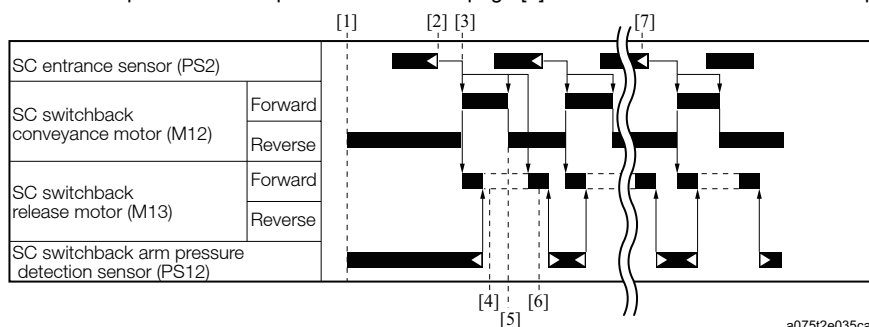
[1]	Switchback cam (home position)	[2]	Pressure cam (home position)
[3]	Pressure cam (PS12 turns OFF)	[4]	Rotation direction of the pressure cam
[5]	SC switchback roller	-	

(2) SC switchback roller control (Perfect binding mode)

- Inside papers of the first book are conveyed to the clamp section one by one without being stacked at the SC section.
- When conveying inside papers to the clamp section without stacking them in the SC section, the SC switchback roller position is switched between releasing and strong pressing. The rotation direction of the roller is also switched between forward and reverse.
- When conveying inside papers of the next and subsequent books, a certain number of papers (n) are first stacked in the SC section, and the stacked inside papers are conveyed to the clamp section at a time. "n+1"th paper and the subsequent papers are conveyed to the clamp section one by one without being stacked at the SC section.
- When stacking papers in the SC section, the SC switchback roller position is switched between releasing and light pressing. During the stacking, the SC switchback roller rotates in the reverse direction.

(a) First book

- The SC switchback conveyance motor (M12) starts to turn in the reverse direction [1] when detecting that the print start signal turns ON. The switchback roller is in its release position to make paper go to the SC section.
- The M12 reverses the direction of rotation (starts to turn in the forward direction) after the SC entrance sensor (PS2) detects the trailing edge of paper [2]. At the same time, the SC switchback release motor (M13) starts to rotate in the forward direction. When the SC switchback arm pressure detection sensor (PS12) turns OFF, the M13 stops and the switchback roller is strongly pressed against the driven roller [4].
- The inside papers are nipped between the switchback roller and the driven roller strongly [4] and conveyed to the SC section by the forward rotation of the roller.
- When a prescribed time has elapsed after the PS2 detects the trailing edge of the paper, the M12 reverses the direction of rotation [5] to convey inside papers to the clamp section.
- When a prescribed time has elapsed after the PS2 detects the trailing edge of the paper, the M13 starts to turn in the forward direction again to move the switchback roller away from the driven roller [6], and when the PS12 turns On, the motor stops.
- The above operations are repeated until the last page [7] of the first book reaches the clamp section.



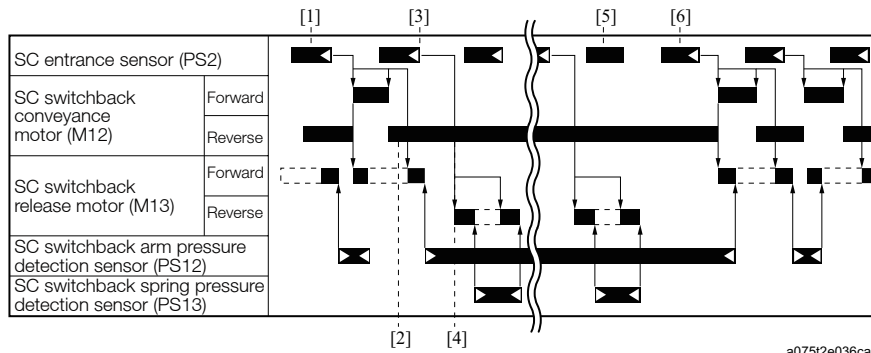
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[1]	Print start signal ON	[2]	Detection of the trailing edge of paper
[3]	M12 forward rotation and strong pressure	[4]	Strong pressure status
[5]	Switchback conveyance start	[6]	Release
[7]	Last page of the first book	-	

(b) The second and subsequent books

- The SC switchback conveyance motor (M12) continues to turn in the reverse direction after the last page [1] of the previous book is conveyed to the clamp section [2].
- When a prescribed time has elapsed after the SC entrance sensor (PS2) detects the trailing edge of the first page of the next book [3], the SC switchback release motor (M13) starts to rotate in the reverse direction [4].

- When the SC switchback spring pressure detection sensor (PS13) turns ON, the M13 stops and the switchback roller is lightly pressed against the driven roller. The inside papers are then conveyed to the SC section and stopped by the SC stopper.
- After the PS2 detects the trailing edge of the paper, the M13 reverses the direction of rotation again. Then the switchback roller is moved away from the driven roller to accept the next page.
- The above operations are repeated until a certain number of papers (n) are stacked in the SC section. (every books)
- While the next 2 papers ("n+1"th page [5] and "n+2"th page [6]) are set in the bypass gate, the stacked n papers are conveyed to the clamp section at a time.
- When the PS2 detects the trailing edge of the "n+2"th page, the M12 starts to turn in the forward direction. At the same time, the M13 also starts to turn in the forward direction to push strongly the switchback roller against the driven roller. After the "n+1"th page and the "n+2"th page are conveyed to the clamp section through the SC section at a time, the following papers are conveyed to the clamp section one by one in the same manner as for the first book.



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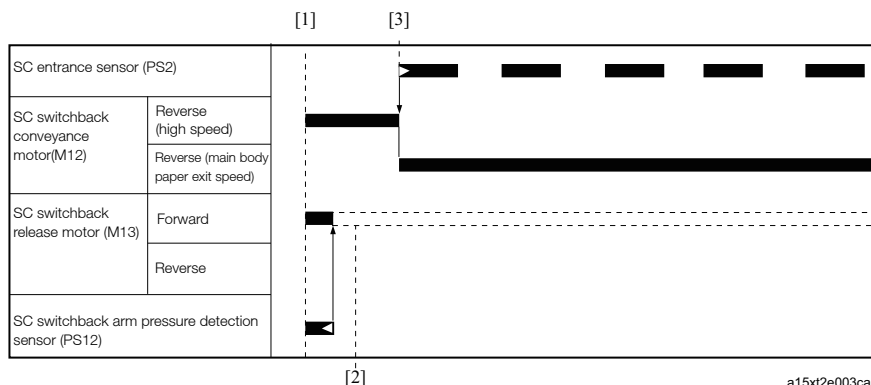
[1]	The last page of the previous book	[2]	Conveyance of the last page of the first book
[3]	Detection of the first page of the next book	[4]	Light pressing start
[5]	"n+1"th page	[6]	"n+2"th page

(3) SC switchback roller control (Relay conveyance mode)

- The SC switchback roller is set to "pressing strongly" and the release operation is not conducted.
 - The SC switchback roller rotates reverse and it conducts the deceleration control to the line speed of the main body paper exit. *1
- *1 1051/1052 only. The speed is not switched for C8000/1200/1200P/1250/1250P/C7000/C7000P/C70hc/C6000.

(a) Control

- The SC switchback conveyance motor (M12) starts to turn in the reverse direction at high speed [1] upon receiving of a print job. At the same time, the SC switchback release motor (M13) starts to rotate in the forward direction.
- When the SC switchback arm pressure detection sensor (PS12) turns OFF, the M13 stops and the switchback roller is strongly pressed against the driven roller [2].
- Once the SC entrance sensor (PS2) detects [3] the leading edge, M12 decelerates [3] to the speed of the main body paper exit.
- Paper is conveyed to the relay conveyance section.



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[1]	Print start signal ON	[2]	Press strongly
[3]	Paper leading edge detection		-

3.3.5 SC main scan alignment control

- The SC alignment motor (M15) drives the SC alignment plates /Fr and /Rr via the belt to move them by 9mm as they are oscillated. This movement aligns the edges of the papers stacked in the SC section in the main scan direction.
- The alignment operation is carried out every time a page is stacked in the SC section when stacking a certain number of papers of the second or subsequent books.
- While inside papers are conveyed to the clamp section without being stacked in the clamp section, this alignment operation is not performed.

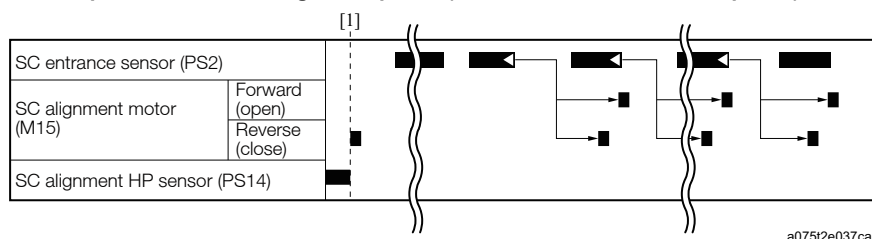
(1) Control

- Upon receiving of a print job, the SC alignment motor (M15) starts to turn in the reverse direction to shift the SC alignment plates /Fr and /Rr to the position 9mm outer the paper edges [1].
- After the SC entrance sensor (PS2) detects the trailing edge of the first page of the second or subsequent book, the M15 starts to turn in the reverse direction to carry out the main scan direction alignment with the SC alignment plates /Fr and /Rr.

3. When a prescribed time has elapsed after the PS2 detection, the M15 starts to turn in the forward direction to move the SC alignment plates /Fr and /Rr back to their standby positions.
4. Every time a page is stacked in the SC section, this alignment operation is performed.

Note

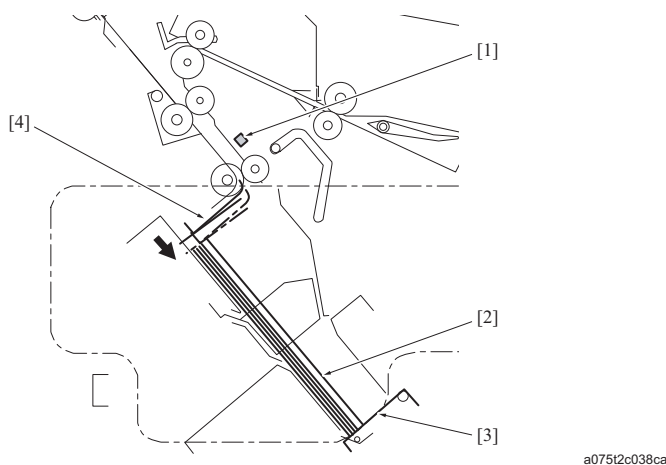
- The set positions of the 2 alignment plates (the distance between the 2 plates) can be adjusted in the service mode.



[1]	Print start signal ON	-
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3.3.6 Sub scan alignment control

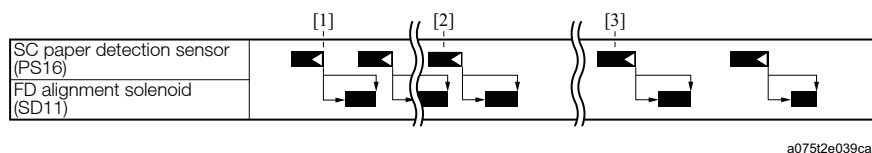
- The FD alignment solenoid (SD11) drives the FD alignment plate [4] so that the inside papers [2] are hit against the reference plate [3] of the clamp section to be aligned in the sub scan direction.
- The SC paper detection sensor (PS16) detects the timing of the movement.



[1]	SC paper detection sensor (PS16)	[2]	Paper
[3]	Reference plate	[4]	FD alignment plate

(1) Control

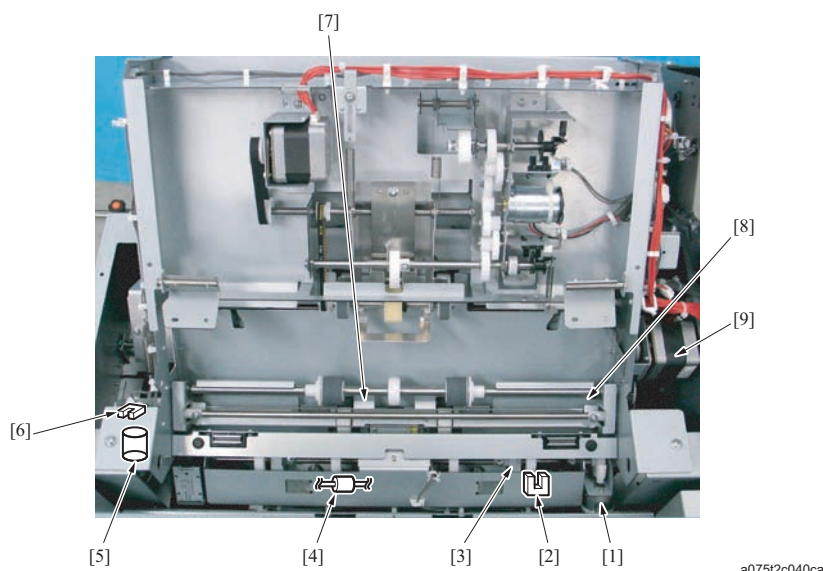
1. When a prescribed time has elapsed after the PS16 detects the trailing edge of the first page of the first book [1], if the clamp alignment plate /Fr and /Rr are closed for alignment operation, the SD11 turns ON.
2. The SD11 turns OFF after a prescribed time has passed since it became ON, and waits for the next page.
3. Until the last page [2] reaches the clamp section, the sub-scan-direction alignment is performed every time a page comes to the section.
4. After the PS16 detects trailing edge of n paper (from the first page to the "n"th page) of the second book [3], the alignment operation is performed.
5. The alignment operation is also carried out for the 2 papers ("n+1"th and "n+2"th page) laid one on top of another at the bypass gate.



[1]	Paper trailing edge detection by PS16	[2]	Last page of the first book
[3]	Paper set		-

3.3.7 SC paper bundle conveyance control

- The SC bundle conveyance motor (M17) [9] drives the SC roller and the clamp entrance roller.
- The SC roller release motor (M18) [5] drives the SC driven roller [7] via the cam [8] to move the roller away from (release) or contact with (press) the opposite roller.
- The SC roller release sensor (PS17) [6] detects the press/release operation of the roller. While the roller is pressed against the opposite roller, the PS17 is kept ON.
- The clamp entrance roller release motor (M20) [1] drives the cam [3] and the clamp entrance roller [4] to move them away from (release) or contact with (press) the opposite roller.
- The clamp entrance roller release sensor (PS19) [2] detects the press/release operation of the roller. While the roller and the cam are in the pressed status, the PS19 is kept ON.

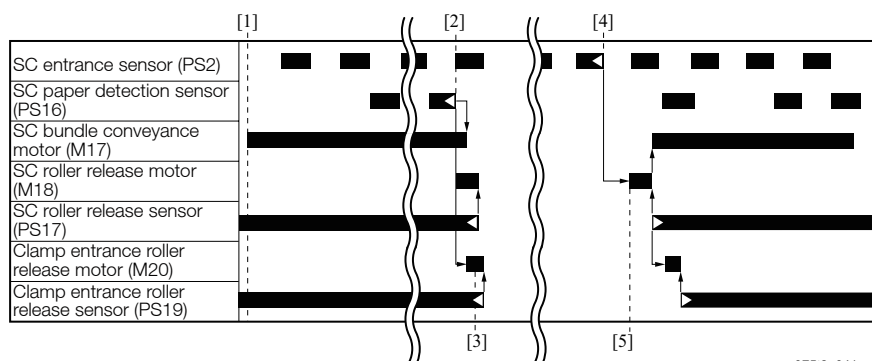


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[1]	Clamp entrance roller release motor (M20)	[2]	Clamp entrance roller release sensor (PS19)
[3]	Cam	[4]	Clamp entrance driven roller
[5]	SC roller release motor (M18)	[6]	SC roller release sensor (PS17)
[7]	SC driven roller	[8]	Cam
[9]	SC bundle conveyance motor (M17)	-	

(1) Control

- Upon receiving of a print job, the SC bundle conveyance motor (M17) starts to rotate [1], and the inside paper are conveyed to the clamp section one by one with the SC roller and the clamp entrance roller.
- When the SC paper detection sensor (PS16) detects the trailing edge of the last paper [2], the SC roller release motor (M18) starts to rotate to start stacking paper in the SC section. When a prescribed time has elapsed after the M18 starts to rotate, the M17 stops to stop conveying paper to the clamp section. The clamp entrance roller release motor (M20) also starts to rotate to release the clamp entrance roller [3].
- The M18 stops when the PS17 becomes OFF, and the M20 stops when the PS19 becomes OFF. The next bundle of paper is kept stacked in the SC section until the clamp section is ready for them.
- The M18 turns ON and starts to rotate again [5] after a specified period of time after the SC entrance sensor (PS2) detects [4] the trailing edge of the last page of the stacked paper in the SC section.
- When the pressing of the SC roller is finished after the PS17 turns ON, the M17 turns ON and starts to convey the stacked paper.
- When the leading edges of the paper go through the clamp entrance, the M20 starts to rotate to convey the paper to the clamp section.
- Then the next 2 pages set in the bypass gate are conveyed to the clamp section at a time. All the above operations are repeated for the subsequent books.

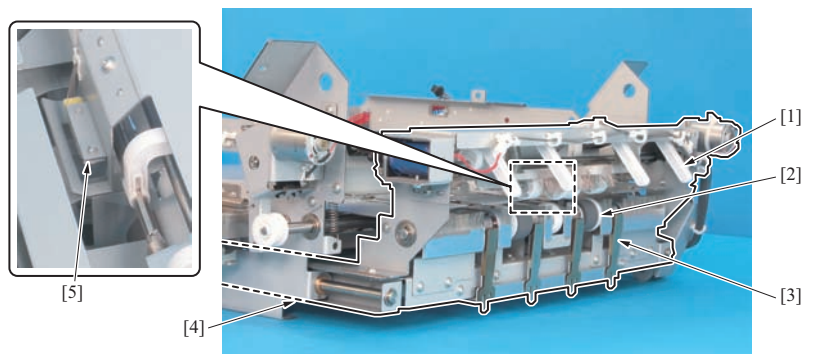


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[1]	Print start signal ON	[2]	Trailing edge of the last page of each book detection
[3]	Clamp entrance roller moves away from the paper conveyance position	[4]	Trailing edge of "n'th" page detection
[5]	The SC roller is set in the position for paper conveyance	-	

3.3.8 Clamp entrance movement control

- The clamp entrance movement motor (M19) drives the clamp entrance assy [4] via the belt.
- The clamp entrance assy consists of the clamp entrance roller [2], FD alignment plate [3], SC pressure arm [1], and the SC paper detection sensor (PS16) [5].
- The clamp entrance assy movement moves the FD alignment plate in accordance with the paper size.

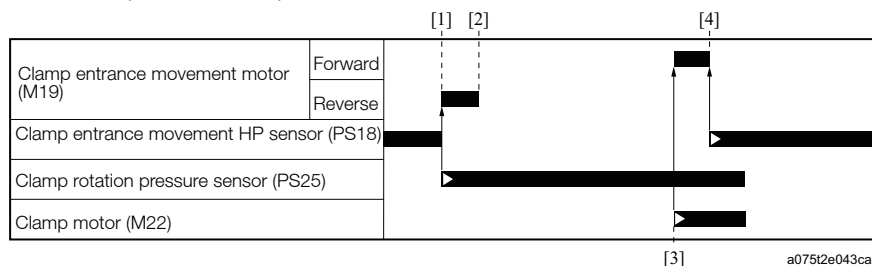


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[1]	SC pressure arm	[2]	Clamp entrance roller
[3]	FD alignment plate	[4]	Clamp entrance assy
[5]	SC paper detection sensor (PS16)		-

(1) Control

- When the clamp rotation pressure sensor (PS25) turns ON [1] and the clamp section is set at the compiling position, the clamp entrance movement motor (M19) reverses its rotation direction to lower the clamp assy. The motor stops [2] when the clamp assy is set at the position corresponding to the paper size, and the clamp assy becomes ready for accepting the next paper.
- When the clamp motor (M22) initiates clamping operation [3], the M19 starts to turn in the forward direction to lift the clamp entrance assy until the assy reaches the position out of way of the clamping operation. The clamp entrance movement HP sensor (PS18) detects that the assy reaches the position (the sensor becomes ON, and the M19 is stopped [5].
- The above operations are repeated for each book.



[3] a075t2e043ca

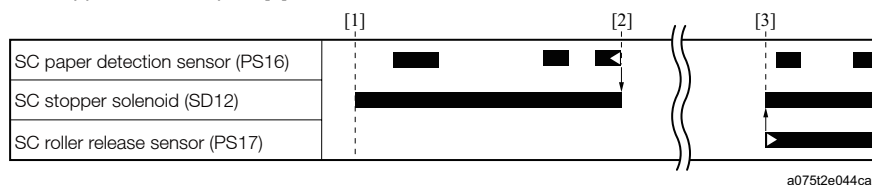
[1]	Clamp section is set at the compiling position	[2]	Movement of clamp entrance assy in accordance with paper size
[3]	Clamping starts	[4]	Clamp entrance assy home position

3.3.9 SC stopper control

- In order to stack paper in the SC section, the SC stopper is activated by the SC stopper solenoid (SD12) and closes the paper feed path toward the clamp section.

(1) Control

- When detecting that the print start signal turns ON [1], the SC stopper solenoid (SD12) turns ON to release the SC stopper.
- When the SC paper detection sensor (PS16) detects the trailing edge of the last page of each book, the SD12 turns OFF to set the SC stopper to close the path [2].
- When the SC roller release sensor (PS17) becomes ON and the SC roller holds down a bundle of paper, the SD12 turns ON to move the SC stopper out of the path [3].

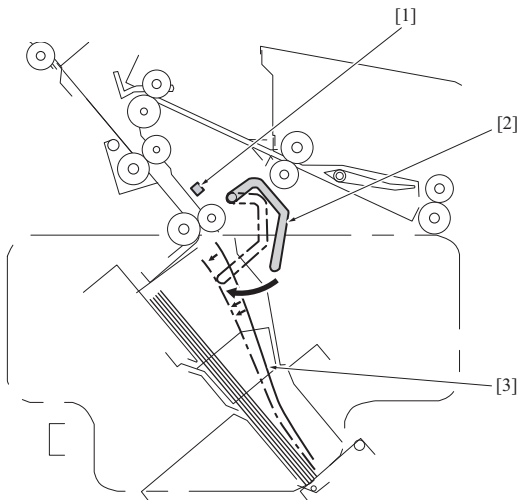


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[1]	Print start signal ON	[2]	Set SC stopper
[3]	Move SC stopper out of the paper path		-

3.3.10 SC pressure arm control

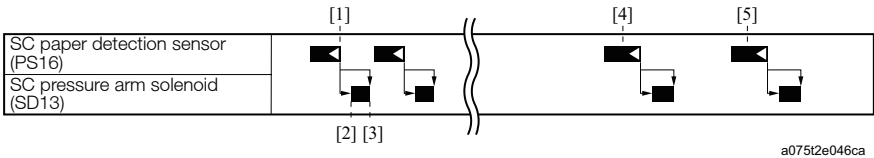
- The SC pressure arm [2] presses paper [3] conveyed from the SC section to stack paper neatly in the clamp section. The SC pressure arm assists to stack paper to the clamp section.
- The SC paper detection sensor (PS16) [1] detects the timing of the movement.



[1]	SC paper detection sensor (PS16)	[2]	SC pressure arm
[3]	Paper		-

(1) Control

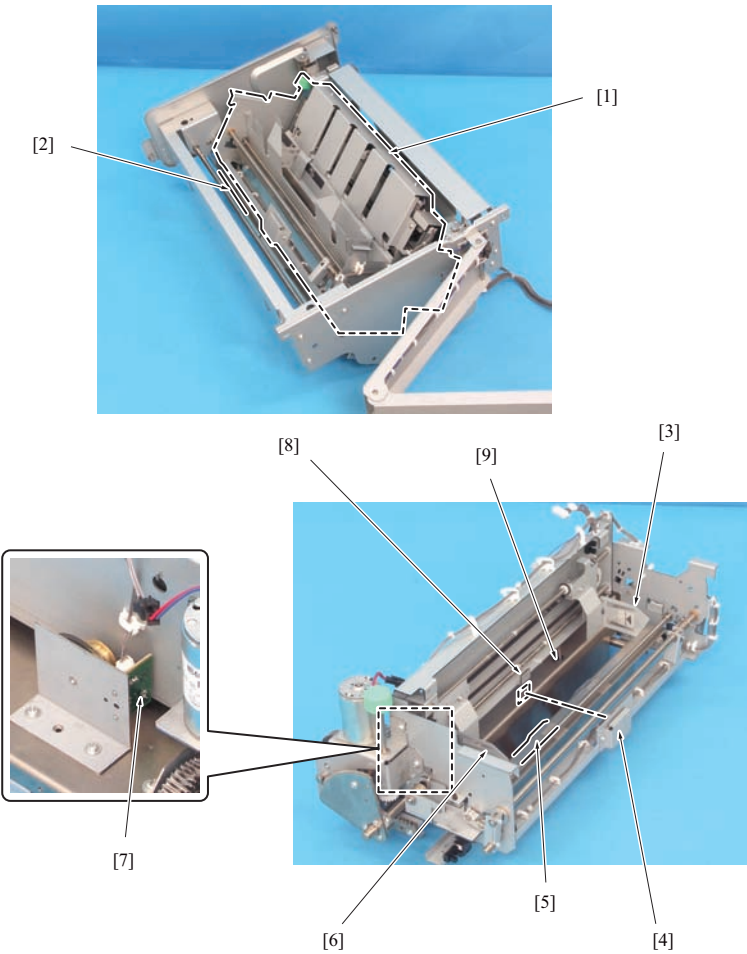
- 1. When a prescribed time has elapsed after the SC paper detection sensor (PS16) detects the paper trailing edge [1], the SC pressure arm solenoid (SD13) turns ON to make the SC pressure arm press paper [2].
- 2. The SD13 becomes OFF to move the SC pressure arm back to its original position [3] after a prescribed time has passed since the PS2 detected the trailing edge of the paper.
- 3. The above operations are also performed when a bundle of paper [4] or 2 sheets of paper [5] are conveyed to the clamp section.



[1]	Trailing edge of paper detected	[2]	Pressure arm presses paper
[3]	SC pressure arm goes back to its original position	[4]	Conveyance of a bundle of paper
[5]	Conveyance of 2 pages at a time		-

4. CLAMP SECTION

4.1 Configuration

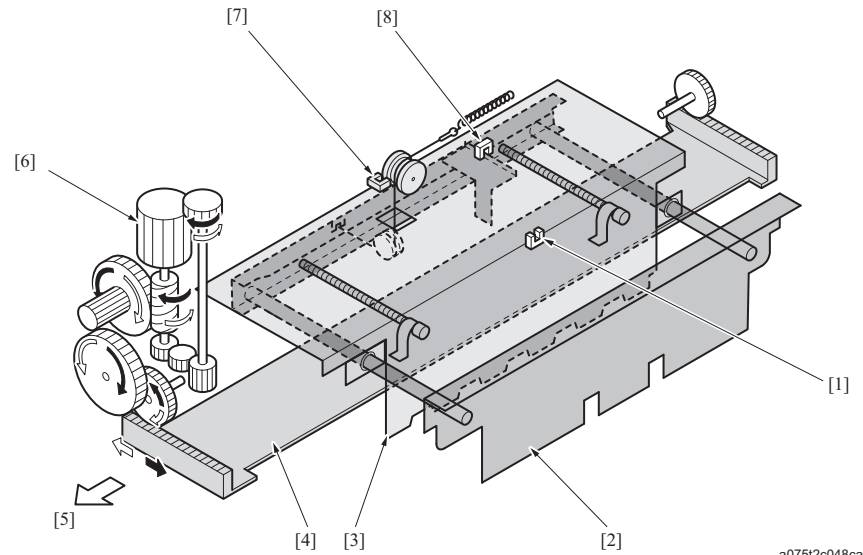


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[1]	Clamp rotation assy	[2]	Reference plate
[3]	Clamp alignment plate /Rr	[4]	Clamp paper LED (LED21)
[5]	Clamp pressure plate	[6]	Clamp alignment plate /Fr
[7]	Booklet thickness sensor (PS29)	[8]	Clamp paper sensor (PS28)
[9]	Clamp fixing plate	-	

4.2 Drive

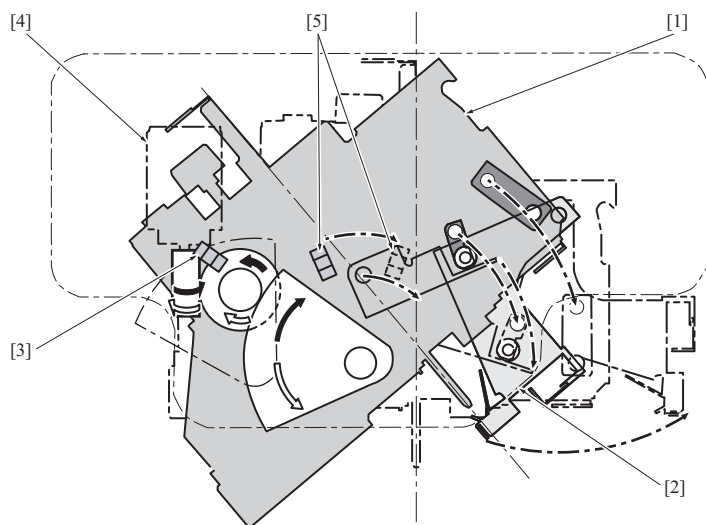
4.2.1 Clamp drive



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[1]	Clamp pressure sensor (PS23)	[2]	Clamp pressure plate
[3]	Clamp fixing plate	[4]	Pressure drive plate
[5]	Front side	[6]	Clamp motor (M22)
[7]	Booklet thickness sensor (PS29)	[8]	Clamp HP sensor (PS22)

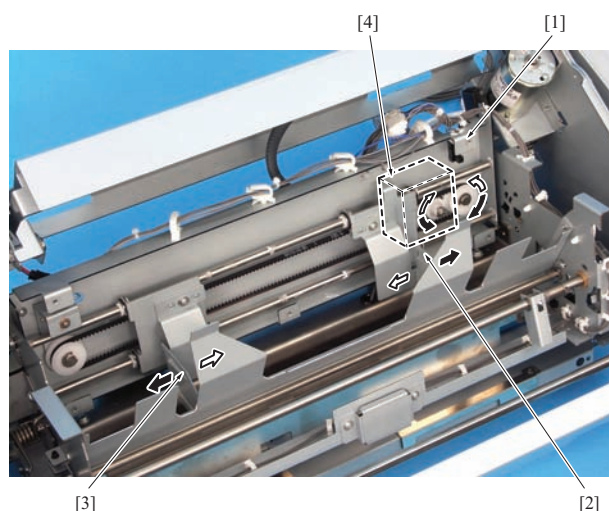
4.2.2 Clamp rotation drive



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[1]	Clamp rotation assy	[2]	Reference plate
[3]	Clamp rotation HP sensor (PS24)	[4]	Clamp rotation motor (M23)
[5]	Clamp rotation pressure sensor (PS25)	-	

4.2.3 Clamp alignment drive



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[1]	Clamp alignment HP sensor (PS21)	[2]	Clamp alignment plate /Rr
[3]	Clamp alignment plate /Fr	[4]	Clamp alignment motor (M21)

4.3 Operation

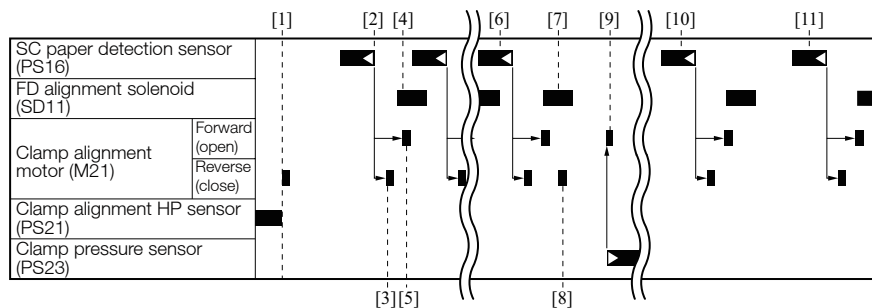
4.3.1 Clamp alignment control

- In order to line up edges of paper stacked in the clamp section in the main scan direction, the clamp alignment motor (M21) drives the clamp alignment plates /Fr and /Rr via the belt.
- The main-scan-direction alignment operation is performed when the following paper are set in the clamp section; all inside paper of the first book, "n"paper of the subsequent books stacked in the SC section, the next 2 pages ("n+1"th and "n+2"th paper) of the subsequent books, and "n+3"th and the subsequent page.

(1) Control

1. Upon receiving a print job, the clamp alignment motor (M21) starts to turn in the reverse direction to shift the clamp alignment plates /Fr and /Rr offset 9mm from the paper edges [1].
2. When a prescribed time has elapsed after the SC paper detection sensor (PS16) detects [2] the trailing edge of the first page of the first book, the M21 starts reverse rotation again to perform the main-scan-direction alignment [3] with the clamp alignment plates /Fr and /Rr.

3. Then, while the FD alignment solenoid (SD11) turns ON and paper edges in the sub scan direction are lined up [4], the M21 turns in the forward direction to move the clamp alignment plates /Fr and /Rr away from the paper [5].
4. The SD11 is kept ON until the sub-scan-direction alignment for the last page of the first book [6] is finished. When the SD11 turns OFF and the pressure toward the papers is released, the M21 starts to turn in the reverse direction to press the bundle of paper from its front and back sides [8].
5. When the clamp pressure sensor (PS23) turns ON and clamping the paper is finished, the M21 starts to turn in the forward direction to release the paper [9].
6. After a prescribed time has passed since the PS16 detects the trailing edge of the "n"th paper [10] stacked in the SC section, the alignment operations are performed.
7. The alignment operation is also carried out for the 2 sheets of paper ("n+1"th and "n+2"th page) laid one on top of another [11] at the bypass gate.



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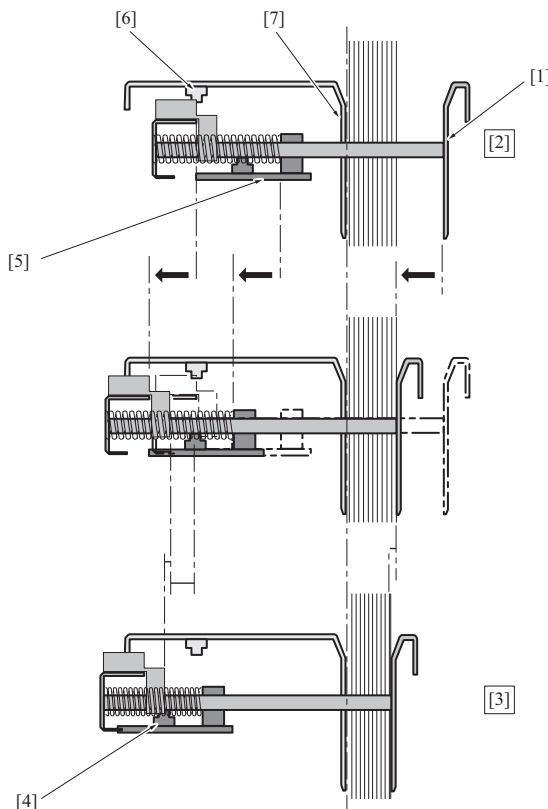
[1]	Movement of clamp plates in accordance with paper size	[2]	Trailing edge of the first page
[3]	Line up edges in main scan direction	[4]	Alignment in sub scan direction is in progress
[5]	Standby position movement	[6]	Last page of the first book
[7]	Alignment in sub scan direction is in progress	[8]	Standby position movement
[9]	A bundle of "n"paper	[10]	2 sheets of paper

4.3.2 Clamp control

- The clamp fixing plate and the clamp pressure plate clamp a bundle of paper stacked in the clamp section.

(1) Mechanism

1. The gap between the clamp fixing plate [7] and the clamp pressure plate [1] is 45mm when the clamp HP sensor (PS22) [6] is ON [2].
2. Before applying pressure by the clamp motor (M22), the pressure drive plate [5] is move to the left side.
3. The clamp pressure plate moves together with the pressure drive plate [5].
4. When the clamp pressure sensor (PS23) [4] becomes ON after applying pressure to the papers, the clamping operation is finished [3].



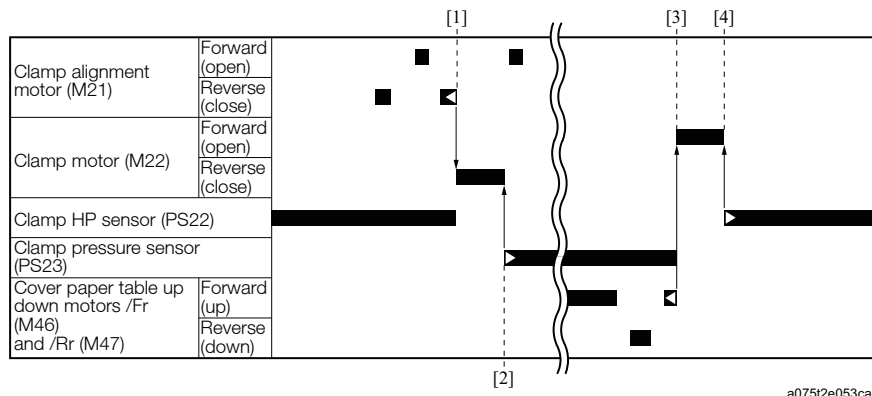
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[1]	Clamp pressure plate	[2]	Home position
[3]	Finish of clamping	[4]	Clamp pressure sensor (PS23)

[5] Pressure drive plate	[6] Clamp HP sensor (PS22)
[7] Clamp fixing plate	-

(2) Control

- When alignment of the last page is finished [1] by the clamp alignment motor (M21), the clamp motor (M22) starts to turn in the reverse direction to close the clamp pressure plate.
- Upon completion of clamping, the clamp pressure sensor (PS23) turns ON and the M22 stops [2].
- After the spine edges of the compressed inside paper is evened up, the cover paper table up down motors /Fr (M46) and /Rr (M47) lift the cover paper table, and the M22 starts to turn in the forward direction. Then, the clamp pressure plate opening operation is started [3].
- M22 stops when the clamp home sensor (PS22) becomes ON.



[1] Start to close of the clamp pressure plate	[2] Completion of clamping
[3] Start to open	[4] Returning to the home position

4.3.3 Clamp rotation control

- A bundle of inside papers of a book is clamped and rotated to be glued on its spine.

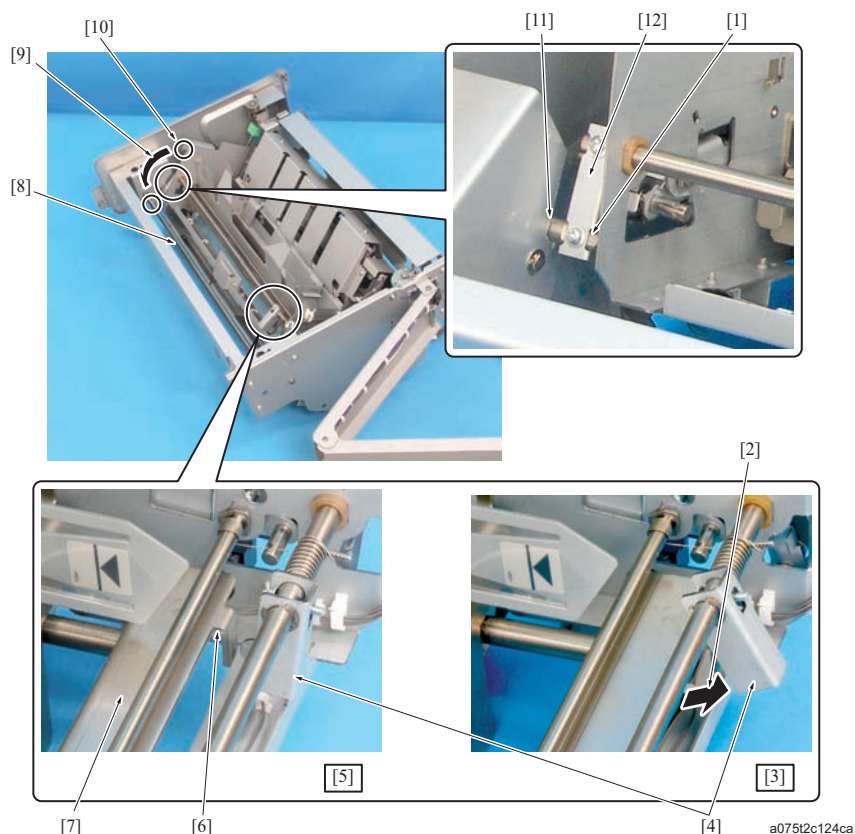
(1) Clamp assy angle change /fixing mechanism

- The drive force of the clamp rotation motor (M23) rotates the clamp rotation assy.
- There are 3 preset tilt angles of the clamp rotation assy as following.

Home position	45 degrees
Clamped	50 degrees
Glue applied	90 degrees

(a) Angle change mechanism

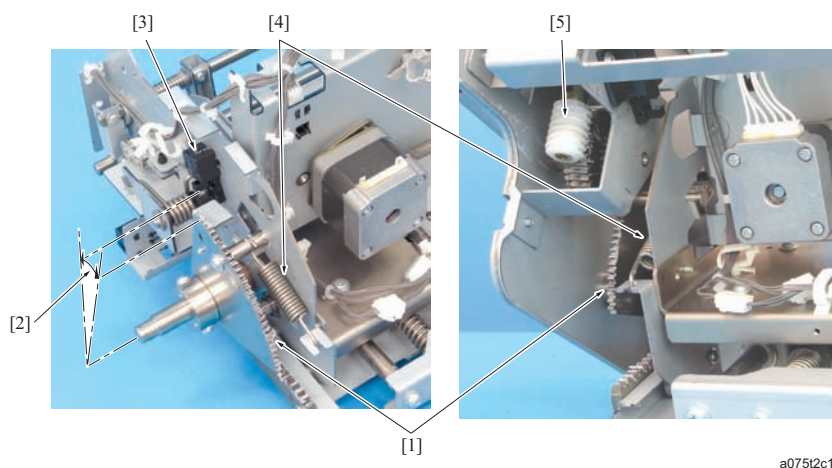
- The tilt angle of the clamp assy is changed for clamping and gluing as following.
- When the clamp rotation assy is in its home position and the clamp pressure plate [7] is also in its home position [3], the tab [6] of the pressure plate presses [2] the release cover [4], and the pin [1] of the switch arm [12] is inserted in the clamp angle stopper notch [11] to stop the rotation of the clamp rotation assy at the angle for clamping.
- When the clamp rotation assy is in its home position, and the clamp pressure plate is not [5], the switch arm drops by its own weight as the tab of the clamp pressure plate is not pressing the release cover. For this reason, the switch arm pin is not inserted in the clamp angle stopper notch, and the clamp rotation assy keeps rotating until the glue angle stopper notch [10] is inserted over the shaft [8] [9].
- The tilt angle of the clamp assy cannot be changed directly between the clamping angle and the gluing angle. To change the angle, the assy first must go back to the home position to release the stoppers.



[1]	Pin	[2]	Release
[3]	Clamp pressure plate is at its home position	[4]	Release bar
[5]	Clamp pressure plate is out of its home position	[6]	Tab of the clamp pressure plate
[7]	Clamp pressure plate	[8]	Regulation shaft
[9]	Engaging of notch and shaft to stop at glueing angle	[10]	Glueing angle stopper notch
[11]	Clamping angle stopper notch	[12]	Switch arm

(b) Fixing of the clamp rotation assy

- While clamping or glueing is performed, the corresponding stopper locks the clamp rotation assy. Moreover, in order to reinforce the fixing state of the assy, the clamp rotation motor (M23) [5] rotates the gear [1] 10 degrees [2] to pull the spring [4] applying the spring load to the assy. The operations fix the clamp rotation assy securely.
- The clamp rotation pressure sensor (PS25) detects that the prescribed pressure is applied to the clamp rotation assy and becomes ON.



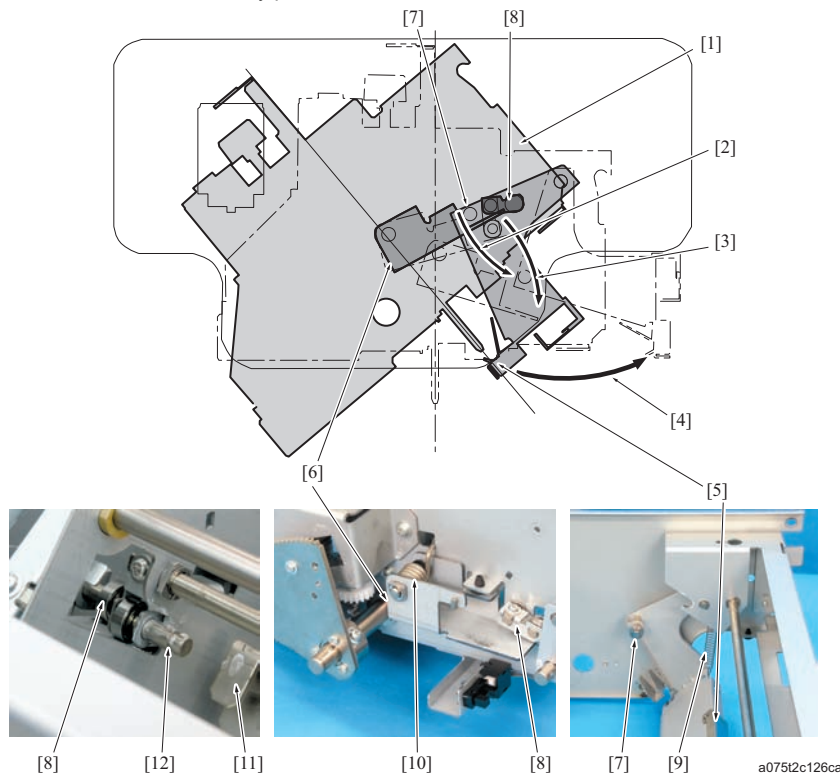
[1]	Gear	[2]	Gear rotates 10 degrees to apply spring load to the assy
[3]	Clamp rotation pressure sensor (PS25)	[4]	Spring
[5]	Clamp rotation motor (M23)	-	

(2) Reference plate opening/closing mechanism

(a) Opening/closing of the reference plate

- The reference plate [5] opens/closes in synchronization with the rotation of the clamp rotation assy [1].

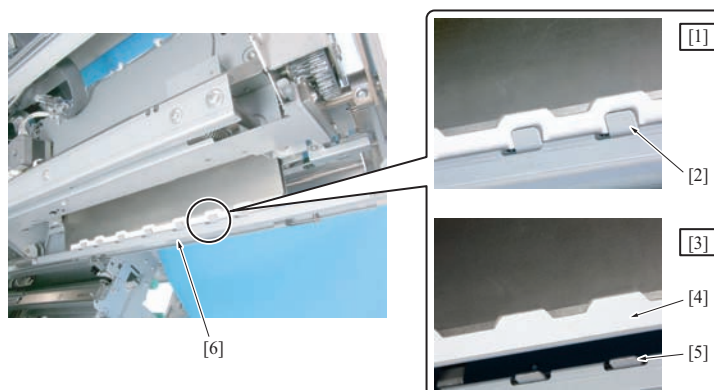
1. When the clamp rotation assy stops at the angle for glueing, the release arm [8] presses down the reference plate mounting bracket [6], and the reference plate is separated from a bundle of inside papers. The separation of the reference plate prevents the plate from damaging the paper edges when the clamp rotation assy is upstanding.
2. Further rotation [3] of the reference plate mounting bracket [6] makes the pin [7] go down [2], and the reference plate is released [4] from the spring [9].
3. The reference plate goes back to its home position with the reference mounting bracket [6] which pushes up the pin [7].
4. While clamping operation is in progress, the reference plate is fixed at the upper position with the spring [10].
5. When the clamp pressure plate returns to its home position, the release arm [8] is pushed up by the tab [11] of the clamp pressure plate and moved back to its standby position.



[1]	Clamp rotation assy	[2]	Pin of the reference plate goes down
[3]	Rotation of the reference plate mounting bracket	[4]	Release of the reference plate
[5]	Reference plate	[6]	Reference plate mounting bracket
[7]	Pin	[8]	Release arm
[9]	Spring (for release)	[10]	Spring (for applying pressure)
[11]	Tab of the clamp pressure plate	[12]	Pin

(b) Paper guard tabs mechanism for clamping

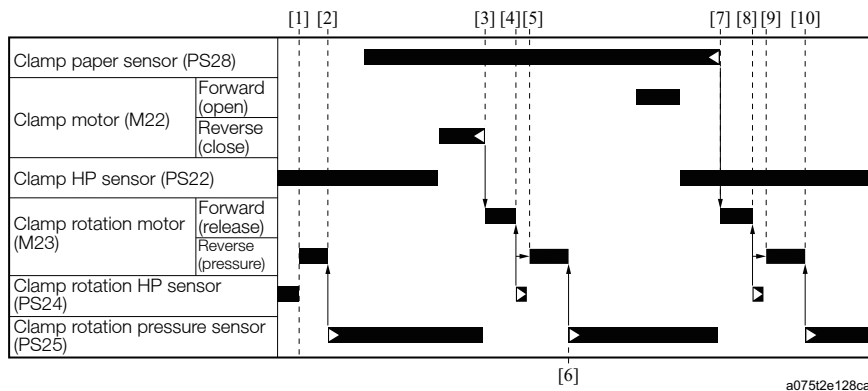
- The reference plate [6] has paper guard tabs [2] to prevent inside papers [4] from going off the reference plate while they are clamped [1].
- While the reference plate contacts with the stopper, the paper guard tabs are protruding.
- When the reference plate is opened [3], the paper guard tabs are retracted [5] so as not to damage the paper edges.



[1]	Clamped	[2]	Paper guard tabs
[3]	When the reference plate is opened	[4]	Inside paper
[5]	Paper guard tabs retracted	[6]	Reference plate

(3) Control

1. When detecting that the print start signal turns ON [1], the clamp rotation motor (M23) starts to turn in the reverse direction.
2. The M23 stops when the clamp rotation pressure sensor (PS25) becomes ON, and the clamp rotation assy is set at the compiling position [2].
3. When clamping of the inside papers by the clamp motor (M22) is finished [3], the M23 starts to turn in the forward direction to rotate the clamp rotation assy 15 degrees counterclockwise.
4. The M23 stops [4] when the clamp rotation home sensor (PS24) becomes ON. The tilt angle of the gear is 15 degrees when the assy returns to the home position, however, the clamp rotation assy rotates 5 degrees as the gear has rotated 10 degrees more separately for fixing the assy. As the result, the clamp rotation assy tilt angle changes from 50 degrees for clamping to 45 degrees (home position). At this time, since the clamp pressure plate is out of the home position, the pin is free from the clamp angle stopper notch, which allows the clamp rotation assy to rotate to the gluing angle.
5. After a prescribed time has elapsed, the M23 starts to turn in the reverse direction to rotate the clamp rotation assy clockwise [5].
6. When the PS25 turns ON, the spring fixes the assy, and the M23 stops [6]. At this time, the gear has rotated 55 degrees, however, in order to secure the assy, it has rotated 10 degrees more than the clamp rotation assy, the clamp rotation assy rotates 45 degrees clockwise from its home position and becomes upright state (90 degrees).
7. When the clamp paper sensor (PS28) detects [7] that the bundle of paper is released from the clamp, the M23 starts to turn in the forward direction to return the clamp rotation assy to the home position.
8. The M23 stops [8] when the PS24 becomes ON, and the clamp rotation assy stops at its home position (tilt angle of 45 degrees). At this time, since the clamp pressure plate is in the home position, the pin is engaged with the clamp angle stopper notch, which allows the clamp rotation assy to rotate to the clamping angle.
9. Then, the M23 starts to turn in the reverse direction [9] to move the clamp rotation assy to the clamping position [10] and stops when the PS25 becomes ON.



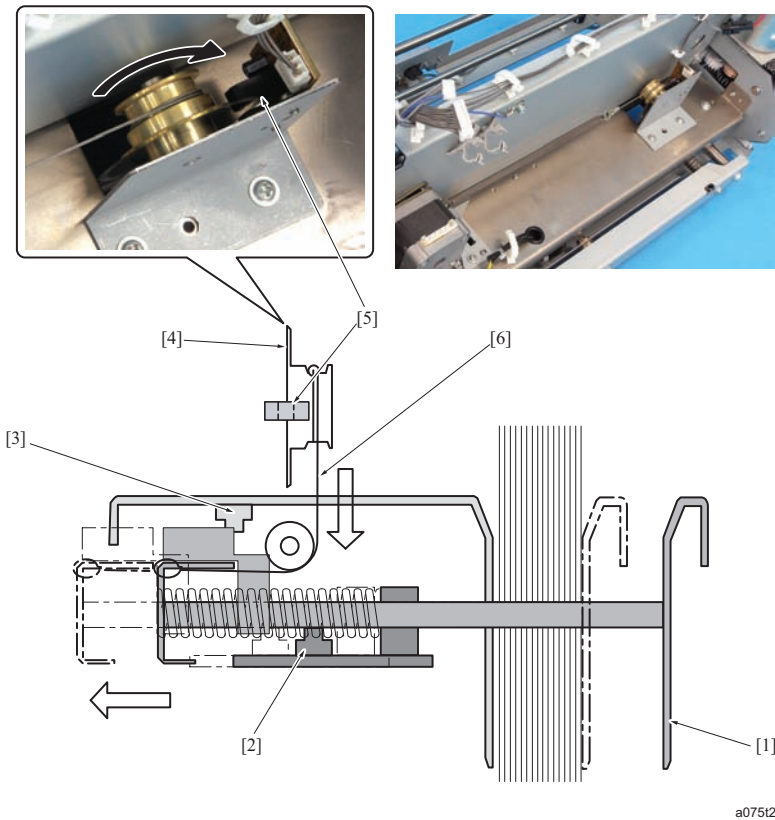
[1]	Print start signal ON	[2]	Set at the compiling position
[3]	Completion of clamp	[4]	M23 stopped
[5]	M23 starts to apply pressure	[6]	Upright state completion
[7]	Paper release	[8]	Home position
[9]	M23 starts to apply pressure	[10]	Clamp position

4.3.4 Book thickness detection control

- The booklet thickness sensor (PS29) detects the book thickness.
- The detected thickness is used to determine the trimming amount of the cover paper.

(1) Mechanism

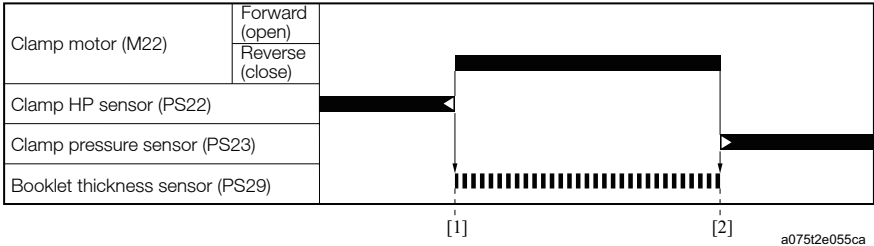
- The clamp pressure plate [1] is moved by winding up the wire[6].
- When the wire [6] is wound up, the encoder plate [4] rotates.
- The booklet thickness sensor (PS29) [5] detects and counts how much the encoder scale is rotated.
- The sensor continue the counting until the clamp pressure sensor (PS23) [2] turns ON.



[1]	Clamp pressure plate	[2]	Clamp pressure sensor (PS23)
[3]	Clamp HP sensor (PS22)	[4]	Encoder scale
[5]	Booklet thickness sensor (PS29)	[6]	Wire

(2) Control

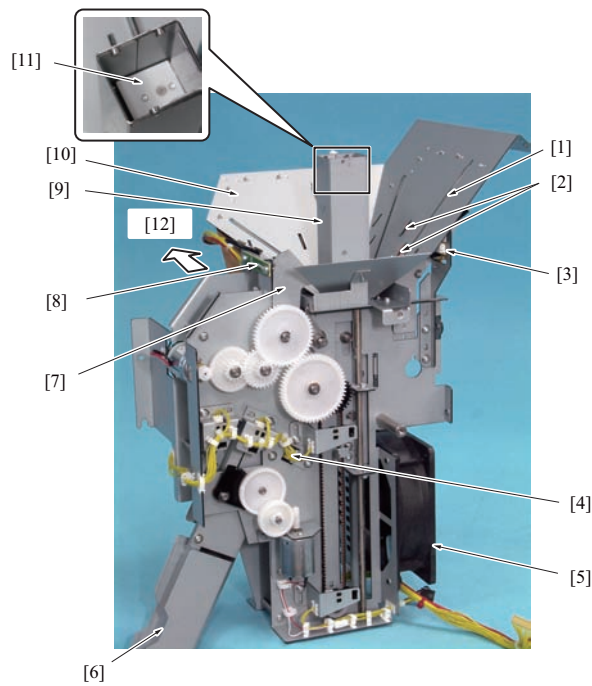
1. When the clamp home sensor (PS22) switches to ON from OFF, pulse count by the booklet thickness sensor (PS29) is started [1].
2. The pulse count is stopped [2] when the clamp pressure sensor (PS23) turns ON.
3. During the initial operation at power-ON, the no paper status data is detected and memorized as an initial data. The book thickness is determined according to the difference.



[1]	Count start	[2]	Count end
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5. PELLET SUPPLY SECTION

5.1 Configuration

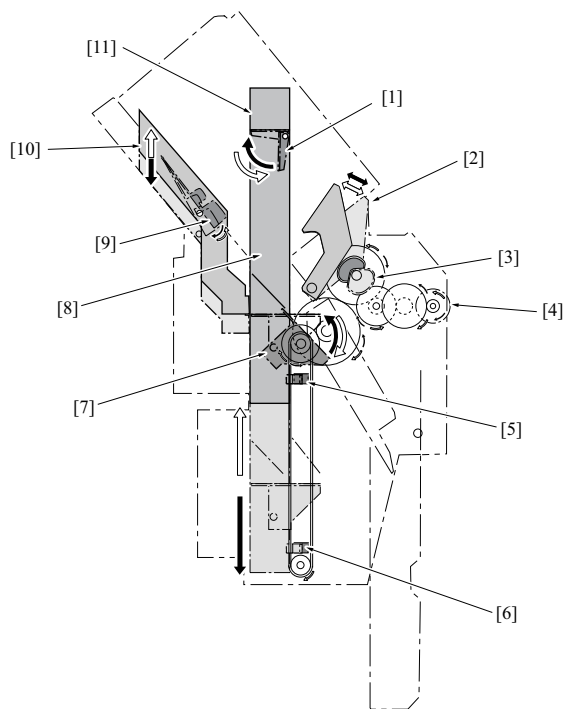


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[1]	Agitator blade /1	[2]	Agitator blade /3
[3]	Pellet remaining LED (LED32)	[4]	Pellet supply passage sensor (PS37)
[5]	Exhaust fan /1	[6]	Pellet supply arm
[7]	Agitator blade /2	[8]	Pellet supply remaining sensor (PS36)
[9]	Pellet supply pipe	[10]	Hopper
[11]	Fixed measure	[12]	Front side

5.2 Drive

5.2.1 Pellet supply drive

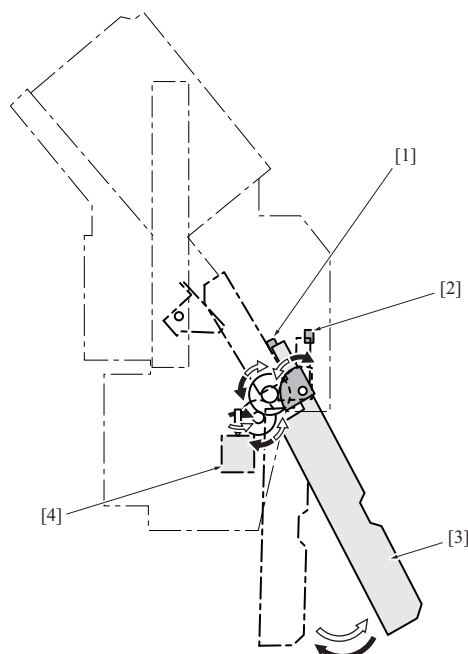


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[1]	Measure bottom plate	[2]	Agitator blade /2
[3]	Agitator blade cam	[4]	Pellet supply pipe motor (M33)
[5]	Pellet supply pipe upper limit sensor (PS95)	[6]	Pellet supply pipe home sensor (PS96)
[7]	Pellet supply pipe shutter	[8]	Pellet supply pipe

[9] Agitator blade /3	[10] Agitator blade /1
[11] Fixed measure	-

5.2.2 Pellet supply arm drive



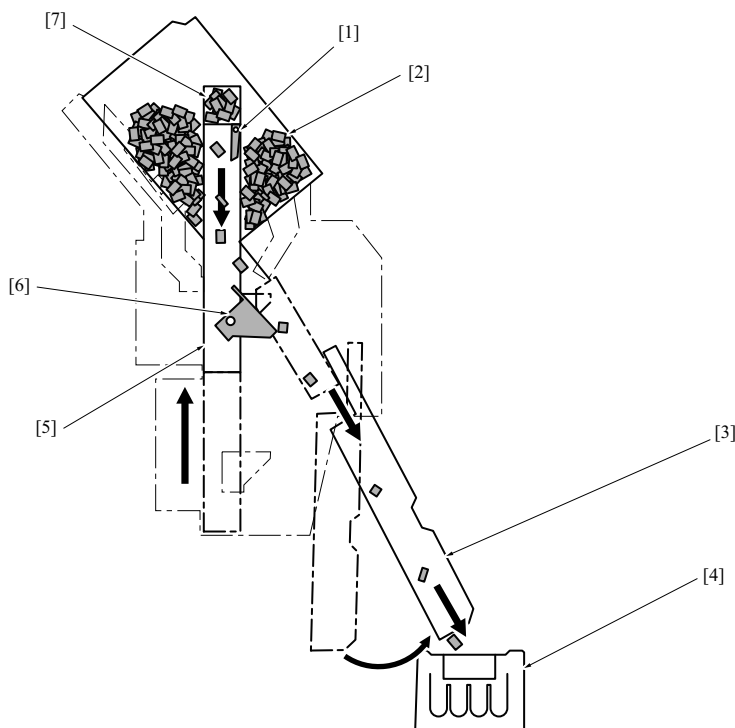
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[1] Pellet supply arm upper limit sensor (PS38)	[2] Pellet supply arm home sensor (PS39)
[3] Pellet supply arm	[4] Pellet supply arm motor (M34)

5.3 Operation

5.3.1 Pellet supply operation overview

- The pellet supply arm [3] is moved above the glue tank [4] to supply pellets [2]. Next, it moves up the pellet supply pipe and scoop the fixed amount of pellet with the fixed measure [7] on the top. Then, it opens the measure bottom plate [1] and the pellet supply pipe shutter [6] to drop the pellet.
- The glue tank temperature sensor /Up (TH2) provided in the glue tank unit determines the timing to supply pellets into the glue tank. As the molten glue inside the glue tank decreases, the TH2 surface not soaked in the glue becomes wider. It finally causes the TH2 temperature lower than a prescribed level, and it is judged that the glue is getting low and another pellets must be supplied.
- Checking the TH2 temperature is carried out in the following timing.
 - a. When the glue tank HP sensor (PS33) turns ON after gluing operation.
- The interval of the pellet supply changes since the amount of glue depends on the thickness of the book. However, the forced supply operation is conducted if the temperature of TH2 does not turn to be under the specified temperature even the expected amount of glue is much.
- The maximum stacking capacity of the hopper is 1.2kg.
- To prevent the overflowing of glue from the glue tank, pellet supply is forbidden for 2 minutes after the pellet supply is conducted.



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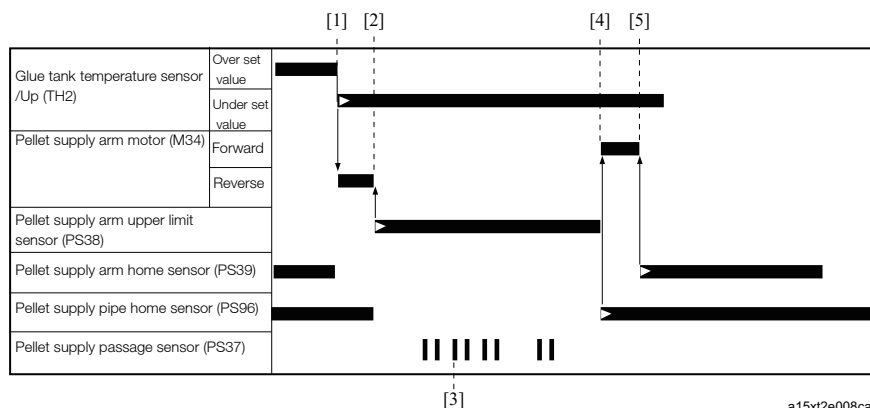
[1]	Measure bottom plate	[2]	Pellet
[3]	Pellet supply arm	[4]	Glue tank
[5]	Pellet supply pipe	[6]	Pellet supply pipe shutter
[7]	Fixed measure	-	

5.3.2 Pellet supply arm control

- The pellet supply arm motor (M34) activates the pellet supply arm. Once the pellet supply arm moves to the top of the glue tank, the pellet supply pipe motor (M33) conducts the pellet supply operation.
- In order to prevent the arm from the evaporated glue or radiant heat rose from the glue tank, the arm is kept at its home position except when supplying pellets.

(1) Control

- When the glue tank temperature sensor /Up (TH2) detects temperature lower than the set temperature, the pellet supply arm motor (M34) starts to turn in the reverse direction [1].
- When the pellet supply arm reaches the pellet supply position (above the glue tank) and the pellet supply arm upper limit sensor (PS38) becomes ON, the M34 stops [2].
- Once the pellet supply pipe home sensor (PS96) detects that the pellet supply pipe returns to the home position after the pellet is supplied [3], M34 turns in the forward direction and starts the shelter operation [4].
- When the pellet supply arm home sensor (PS39) turns ON and the pellet supply arm reaches the home position, M34 turns OFF.



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[1]	Pellet supply arm motor (M34) ON	[2]	Pellet supply position stop
[3]	Pellet supply	[4]	Start to evacuate
[5]	Evacuation complete	-	

(2) Stop operation during pellet supply

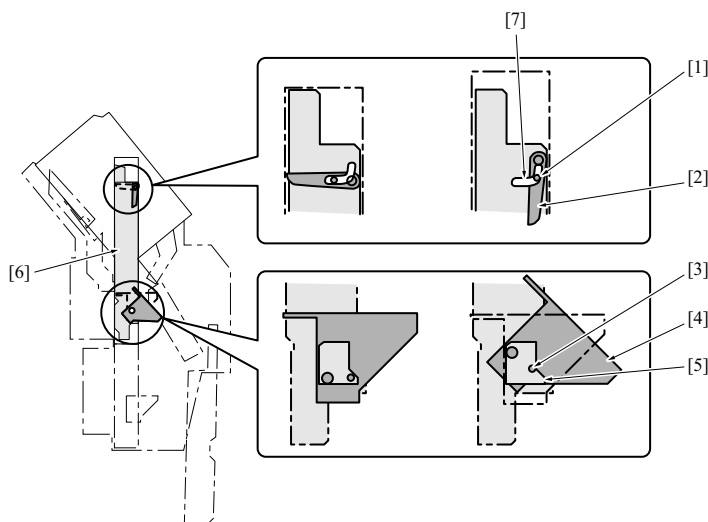
- When all the inside papers have stacked up, while the pellet supply arm motor (M34) is turning in the reverse direction, the M34 reverses the rotation direction to the forward to move the pellet supply arm back to the home position.

5.3.3 Pellet supply amount control**(1) Mechanism**

- It scoops the pellet in the hopper with the fixed measure on the top of the pellet supply pipe and supplies the specified amount of pellet.
- 19g of pellet is supplied by 1 scoop with the fixed measure.
- The pellet supply pipe motor (M33) drives the pellet supply pipe and the agitator blade.

(a) Pellet supply pipe

- The pellet supply pipe has the fixed measure on the top and the supply pipe shutter on the bottom.
- The measure bottom plate [2] and the pellet supply pipe shutter [4] of the fixed measure are driven via the plate cam [6] and operate the opening operation.
- The plate cam is driven between the position 10mm lower from the upper limit of the pellet supply pipe (ON position of the pellet supply pipe upper limit sensor (PS95)) and the upper limit position.
- Once the pellet supply pipe [6] moves up upper than the position 10mm lower from the upper limit, the pin [1] of the measure bottom plate [2] moves along the guide hole [7] of the plate cam and opens the measure bottom plate [2]. It opens fully at the upper limit position.
- The pin [3] of the pellet supply pipe shutter [4] moves along the guide hole [5] and is set to the path to the pellet supply arm.

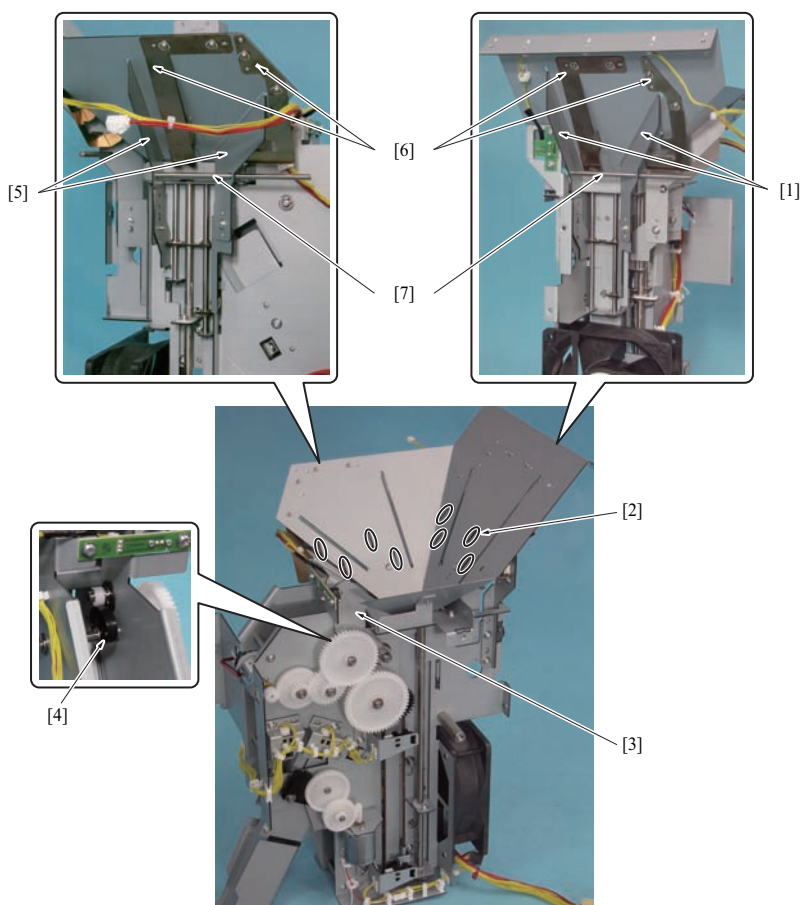


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[1]	Pin of measure bottom plate	[2]	Measure bottom plate
[3]	Pin of pellet supply pipe shutter	[4]	Pellet supply pipe shutter
[5]	Guide hole	[6]	Plate cam
[7]	Guide hole	-	

(b) Agitator blade

- There are 3 types of agitator blade; /1, /2 and /3. They are pushed out from the bottom of the hopper and agitate and separate the stuck pellet.
- There are 4 agitator blades /1 in total; 2 each [1] and [5] on the bottom of 2 hoppers. They are pushed when the pellet supply pipe moves up to the top.
- There is 1 agitator blade /2 [3] and the agitator blade cam [4] drives it. The agitator blade cam rotates 5 times while the pellet supply pipe moves up to the top and swings the agitator blade /2 for 5 laps.
- There are 8 agitator blades /3 [2] in total; 2 each on 2 each of brackets [6] on the bottom of 2 hoppers. They swing by being pushed by the shaft [7] installed on the agitator blade /1.



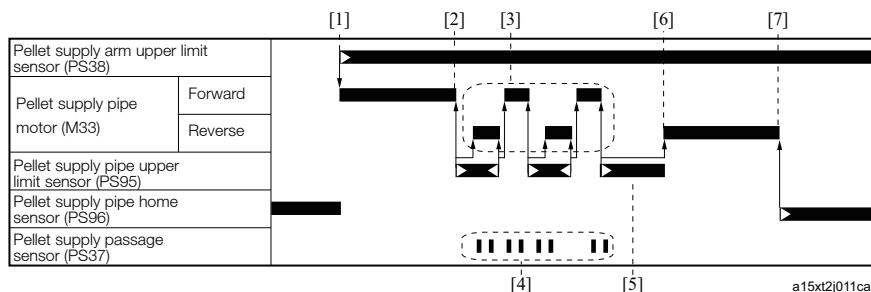
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[1]	Agitator blade /1	[2]	Agitator blade /3
[3]	Agitator blade /2	[4]	Agitator blade cam
[5]	Agitator blade /1	[6]	Bracket of agitator blade /2
[7]	Shaft	-	

(2) Control

(a) Supply control

- When the pellet supply arm moves to the pellet supply position and the pellet supply arm upper limit sensor (PS38) turns ON, the pellet supply pipe motor (M33) turns forward rotation ON [1] and lifts the pellet supply pipe.
- When the pellet supply pipe upper limit sensor (PS95) detects that it reaches to the upper limit, M33 turns OFF.
- To swing the pellet supply pipe, M33 turns reverse rotation ON a specified period of time after M33 turns OFF. It stops again when PS95 turns OFF and turns forward rotation ON to move up again. It conducts this swing operation twice.
- After conducting this swing operation twice, it waits [5] for the pellet dropping [4]. M33 turns reverse rotation ON after a specified period of time and starts the home position return operation [6].
- M33 turns OFF [7] when the pellet supply pipe home sensor (PS96) turns ON.



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[1]	Starting lifting the pellet supply pipe	[2]	Reaching to the upper limit of the pellet supply pipe
[3]	Swing of the pellet supply pipe	[4]	Pellet supply
[5]	Standby for the pellet dropping	[6]	Starting home position return operation
[7]	Completing home position return operation	-	

(b) Pellet passage detection

- The pellet supply passage sensor (PS37) monitors the passage of the pellet on the pellet supply path. It monitors it for the period between when the pellet supply pipe motor (M33) starts the supply operation turning ON the pellet supply pipe upper limit sensor (PS95) for the first time and when the supply operation finishes with turning ON the pellet supply pipe home sensor (PS96) by the home

position search of the M33. When PS37 detects the glue passage without turning ON once, it displays the glue supply alarm. When PS37 detects the glue passage without turning ON more than twice, it displays C-1517.

5.3.4 Pellet remaining amount detection control

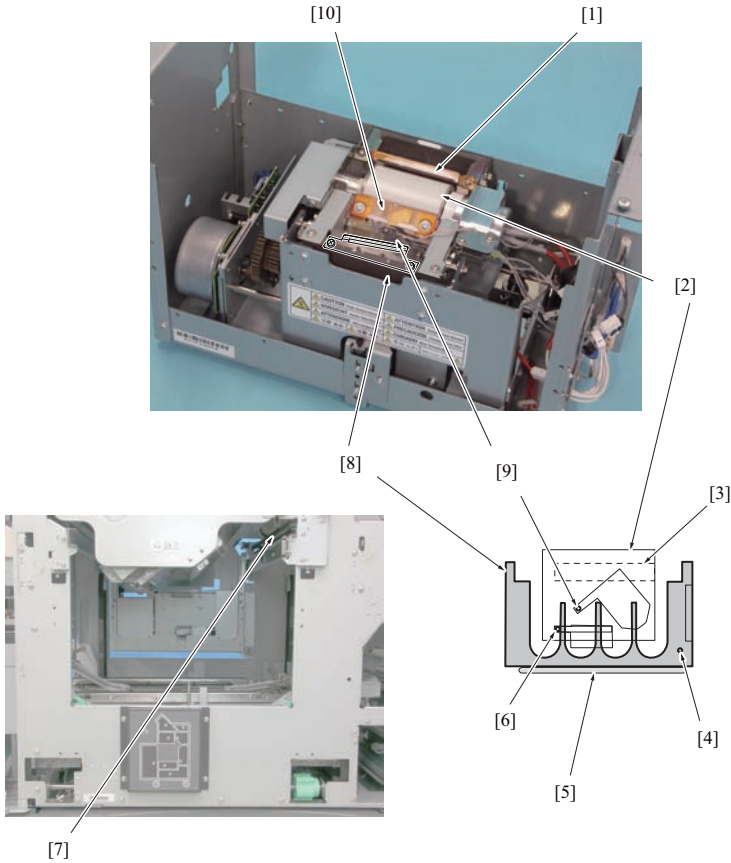
- The pellet remaining LED (LED32) and the pellet supply remaining sensor (PS36) detect the remaining amount of the pellet.
- While the pellet supply arm is in the home position turning the pellet supply arm lower limit sensor (PS39) ON, the detection of remaining number of pellets inside the pellet supply hopper is carried out.
- When the remaining amount of pellet becomes 150g or less, the pellet supply hopper is detected as empty.
- When 1 second has elapsed after the pellet supply remaining sensor (PS36) switches to OFF from ON, a message to notify the empty status appears on the main body touch panel.

5.3.5 Pellet supply door opening/closing detection control

- The pellet supply door switch (MS1) [1] and the pellet supply door sensor (PS40) [2] detect the open/close of the pellet supply door.
- When the MS1 is turned OFF, 24VDC supplied to the pellet supply motor (M33) is shut off to stop the motor.
- When the PS40 detects the above status, a message appears on the main body touch panel.

6. GLUE TANK SECTION

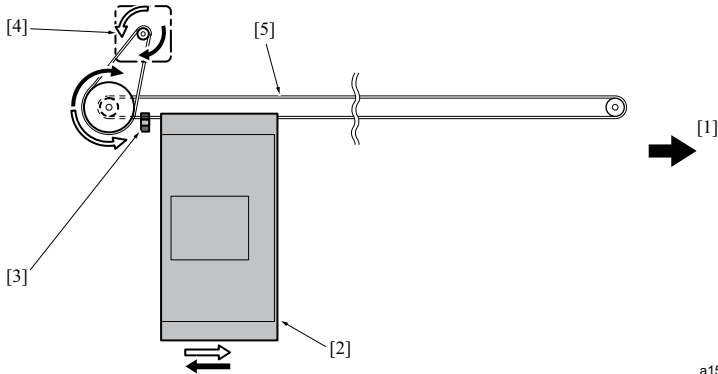
6.1 Configuration



[1]	Scrape plate /Rr	[2]	Glue apply roller
[3]	Glue apply roller heater (H2)	[4]	Glue tank temperature sensor /Lw (TH4)
[5]	Glue tank heater (H1)	[6]	Glue tank temperature sensor /Md (TH3)
[7]	Timing belt	[8]	Glue tank
[9]	Glue tank temperature sensor /Up (TH2)	[10]	Scrape plate /Fr

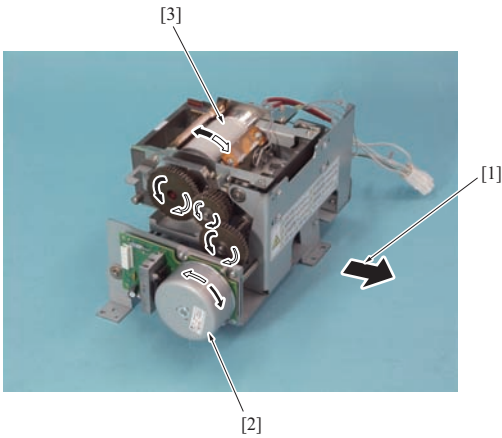
6.2 Drive

6.2.1 Drive



[1]	Front side	[2]	Glue tank unit
[3]	Glue tank HP sensor (PS33)	[4]	Glue tank movement motor (M31)
[5]	Timing belt	-	

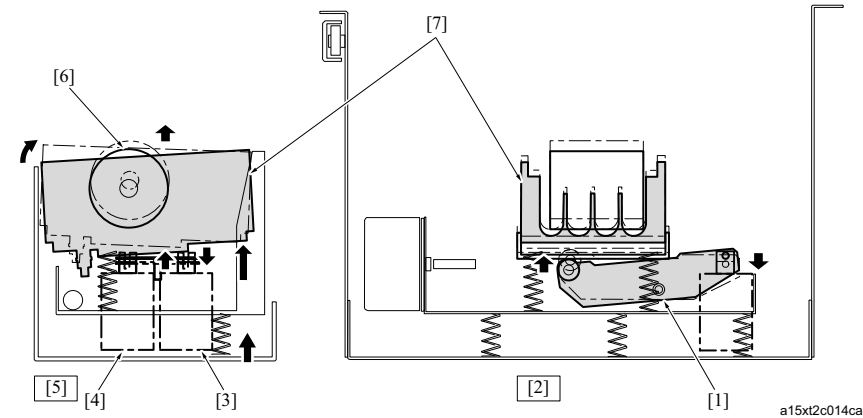
6.2.2 Glue apply roller drive



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[1]	Front side	[2]	Glue apply roller motor (M32)
[3]	Glue apply roller		-

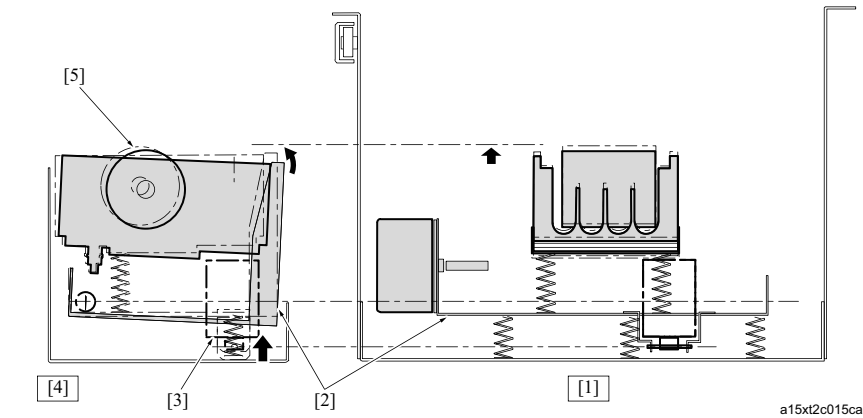
6.2.3 Tank up drive



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[1]	Arm	[2]	Front side view
[3]	Glue tank up solenoid /1 (SD31)	[4]	Glue tank up solenoid /2 (SD33)
[5]	Left-side view	[6]	Glue apply roller
[7]	Glue tank		-

6.2.4 Cover paper glue lifting drive



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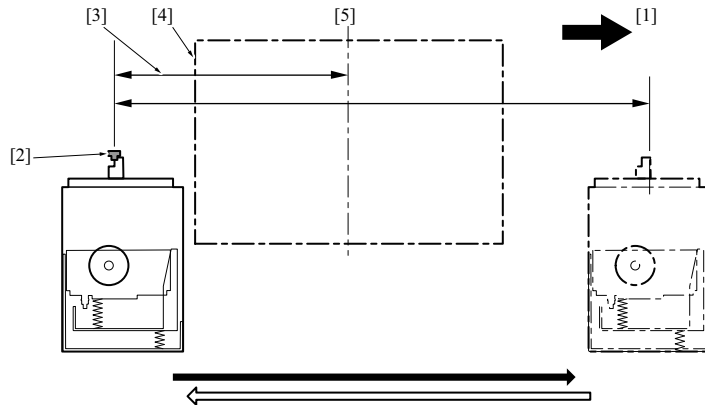
[1]	Front side view	[2]	Glue tank base plate
[3]	Cover paper glue up solenoid (SD32)	[4]	Left-side view
[5]	Glue apply roller		-

6.3 Operation

6.3.1 Glue tank unit movement control

(1) Mechanism

- The glue tank unit is moved by the drive force of the glue tank movement motor (M31) transmitted via the timing belt. The gap [3] between the glue tank HP sensor (PS33) and the center [5] of the inside papers [4] is 322.5mm.
- It conducts the gluing operation by shuttling (going back and forward).

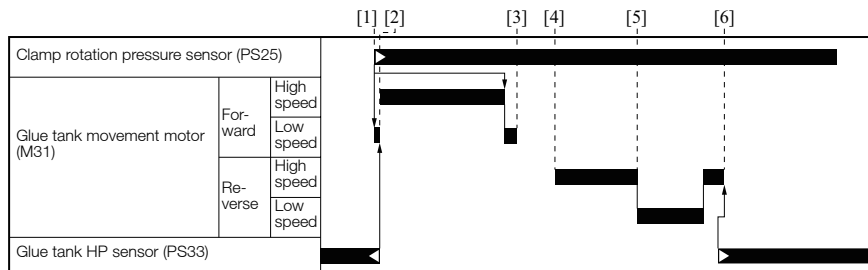


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[1]	Front side	[2]	Glue tank HP sensor (PS33)
[3]	322.5mm	[4]	Inside paper
[5]	Center of the inside papers	-	

(2) Control

- When the upright movement of the clamp section finishes turning the clamp rotation pressure sensor (PS25) ON, the glue tank movement motor (M31) starts to turn in the forward direction at low speed to move the glue tank forward [1].
- M31 switches [2] to the high speed when the glue tank HP sensor (PS33) turns OFF and conducts the gluing operation to the inside paper during forward movement.
- After a specified period of time since the gluing operation during forward movement completes, M31 switches to the low speed and stops [3].
- After a specified period of time, M31 turns ON (turns in reverse at low speed) [4] and starts going back.
- After a specified period of time, it switches to the high speed drive [5] and conducts the gluing operation during going back.
- After a specified period of time, M31 stops [6] at the position where the glue tank HP sensor (PS33) turns ON and passes 2mm after it switches to the low speed at the timing of the completing of gluing.



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[1]	Clamp rotation assy is upright	[2]	Switch to high speed
[3]	Stop going forward	[4]	Start going back
[5]	Switch to high speed	[6]	Stop at the position where 2mm over from home position

6.3.2 Glue apply roller control

(1) Mechanism

- The glue apply roller motor (M32) drives the glue apply roller via the gear.
- As the glue apply roller rotates, a layer of molten glue is formed on the roller metal surface due to the viscosity of the glue.
- The thickness of glue layer can be changed by changing the rotation number of the glue apply roller. The glue layer turns to be thicker by rotating at high speed. *1

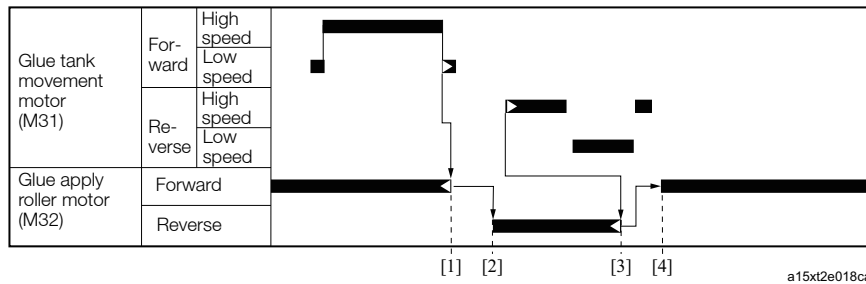
*1 The standard glue layer of the glue apply roller is about 2.0mm.

(2) Control

(a) Operation during printing

- After a specified period of time since the glue tank movement motor (M31) moves forward, conducts the gluing operation for the outward and switches to the low speed, the glue apply roller motor (M32) which has turned ON turns OFF [1] and the glue apply roller stops.
- After a specified period of time since it turns OFF, it turns reverse rotation ON [2] before M31 starts going back.
- When M31 turns ON to start going back, the gluing operation during the glue tank going back for return. After a specified period of time since M31 turns ON, M32 turns OFF [3].

4. After a specified period of time since M32 turns OFF, M32 turns forward rotation ON preparing for the next book.



[1]	Forward rotation OFF by the completion of the gluing for outward	[2]	Reverse rotation ON for return
[3]	Reverse rotation OFF for return	[4]	Forward rotation ON of the next book

(b) Operation during warming up

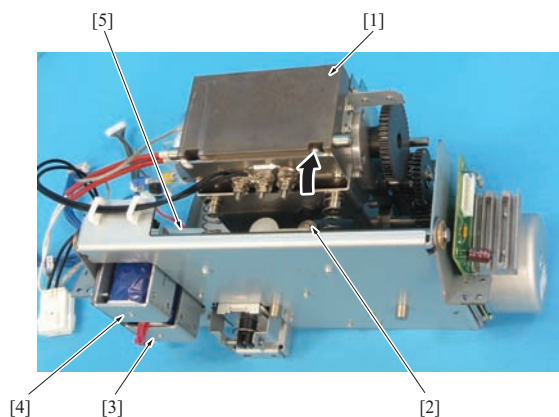
- Once the glue tank temperature sensor /Md (TH3) reaches to the specified temperature (100 °C), the glue apply roller motor (M32) turns forward rotation ON and turns OFF after a specified period of time (3 seconds).
- After a specified period of time (3 seconds) since it turns OFF, it turns forward rotation ON again.
- It repeats the above mentioned interval operation until TH3 reaches to the specified temperature *1.
- Once TH3 reaches to the specified temperature, M32 turns ON at all times (forward rotation).
- When the glue applying mode is switched to standby mode, the M32 stops.

*1 Default setting: 145 °C (It can be changed by "Glue Tank -Mid" of "I.5.13.45 PB-503 Temperature Adjustment (Perfect Binder Adjustment).")

6.3.3 Glue tank lifting control

(1) Mechanism

- When the glue tank up solenoids /1 (SD31) [3] and /2 (SD33) [4] turn ON, the arm [5] lifts the roller [2] and the glue tank [1] moves up. Then, the glue apply roller moves up to the glue apply position.



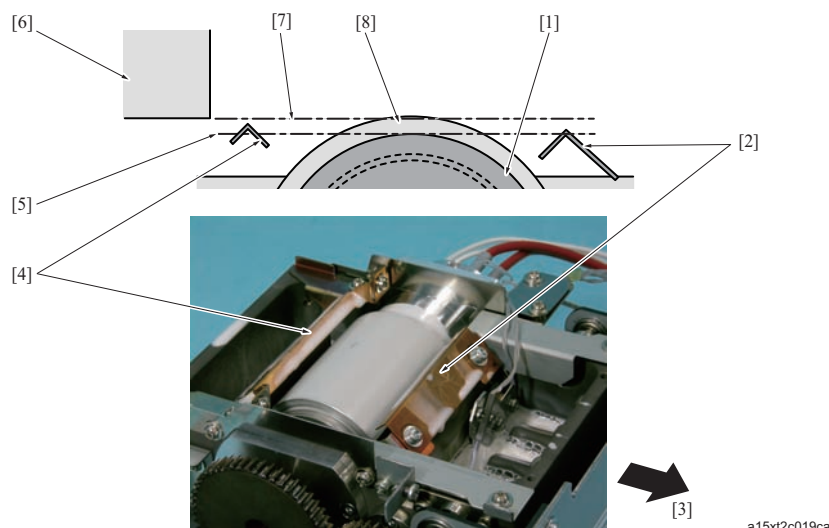
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[1]	Glue tank	[2]	Roller
[3]	Glue tank up solenoid /1 (SD31)	[4]	Glue tank up solenoid /2 (SD33)
[5]	Arm	-	

- When the glue tank up solenoids /1 (SD31) and /2 (SD33) are ON, the gap between the level tangent line [5] of the metal surface [1] of the glue apply roller and the spine surface [7] of inside paper [6] is the gap of the glue apply roller. *1
- The scrape plates /Fr [2] and /Rr [4] scrape off excess glue from the spine of inside papers.
- When SD31, SD33 and the cover paper glue up solenoid (SD32) are ON, the scrape plate /Fr is placed 1.5mm under the spine surface [7], and 2.5mm when SD32 turns OFF. *2
- When SD31, SD33 and SD32 are ON, the scrape plate /Rr is placed 1.0mm *2 under the spine surface [7].

*1 The standard of the glue apply roller gap is 1.8mm and it can be changed by the mechanical adjustment "I.24.4 Glue apply roller gap adjustment".

*2 The mechanical adjustment "I.24.5 Cover paper glue gap adjustment" can adjust the scraped-off glue amount.



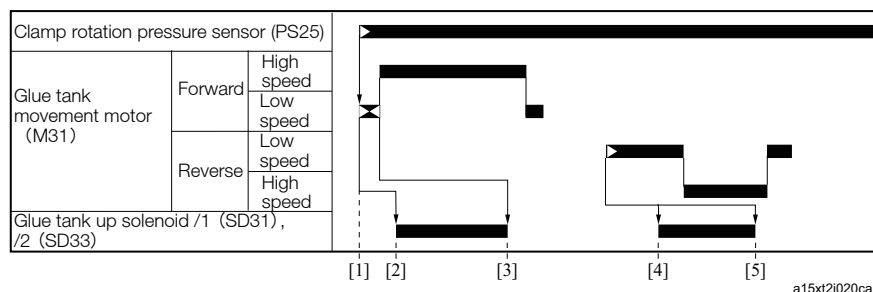
[1]	Metal surface of the glue apply roller	[2]	Scrape plate /Fr
[3]	Front side	[4]	Scrape plate /Rr
[5]	Level tangent line	[6]	Inside paper
[7]	Spine surface	[8]	Layer of molten glue

(2) Control

- When the upright movement of the clamp section finishes [1] by turning the clamp rotation pressure sensor (PS25) ON, the glue tank movement motor (M31) turns ON and the glue tank assy starts moving forward. While the glue tank assy is moving, the glue tank up solenoids /1 (SD31) and /2 (SD33) turn ON to lift the glue apply roller to apply glue to the spine of inside paper [2] after a specified period of time since M31 turns ON.
- When the glue has applied along the inside paper spine by a length of 5mm longer than the paper length after a specified period of time since M31 has turned to high speed, SD31 and SD33 turn OFF to lower the glue apply roller [3].
- After a specified period of time since the going back starts by the reverse rotation ON of M31, SD31 and SD33 turn ON at the timing when the glue apply roller passes the paper edge 4mm and conduct the gluing operation for going back [4].
- After a specified period of time, SD31 and SD33 turn OFF [5] at the position the glue apply roller passed trailing edge of the inside paper through by 4mm.

Note

- The sensors ON/OFF timing can be changed in the service mode.



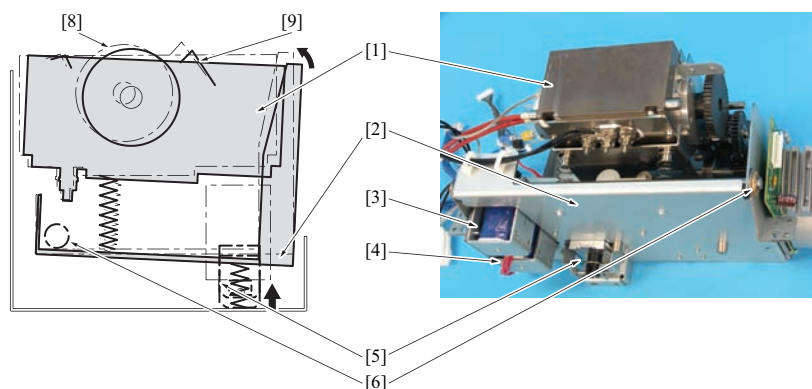
[1]	Clamp rotation assy is upright	[2]	Glue application during frontward movement
[3]	Completion of glue application	[4]	Glue application during backward movement
[5]	Completion of glue application	-	

6.3.4 Cover paper glue control

(1) Mechanism

- The cover paper glue up solenoid (SD32) [5] lifts the scrape plate /Fr side [9] of the glue tank base plate [2].
- The glue tank up solenoid /1 (SD31) [4] and /2 (SD33) [3], which lift the glue apply roller [8] side of the glue tank, are also attached to the glue tank base plate, and as the result, the whole glue tank assy is lifted.
- Changing the height of the scrape plate with SD32 turning ON/OFF controls the thickness of the glue layer. Switches the thick coat mode and the thin coat mode. The thick coat mode is for keeping the book strength. *1
 - Thin coat mode (SD32: ON)
Thickness of paper is less than 7mm: The glue apply thickness is 0.8mm
 - Thick coat mode (SD32: OFF)
Thickness of paper is 7mm or more: The glue apply thickness is 1.2mm

*1 In the case of 1200/1200P/1051/1250/1250P/1052, only the thin coat mode is used no matter how thick the paper bundle is.



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[1]	Glue tank	[2]	Glue tank base plate
[3]	Glue tank up solenoid /2 (SD33)	[4]	Glue tank up solenoid /1 (SD31)
[5]	Cover paper glue up solenoid (SD32)	[6]	Fulcrum shaft
[7]	Left-side view	[8]	Glue apply roller
[9]	Scrape plate /Fr	-	

(2) Control

- The control differs depending on the glue apply thickness mode. *1
 - Thin coat mode
The cover paper glue up solenoid (SD32) turns ON a specified time before turning ON the tank up solenoids /1 (SD31) and /2 (SD33) and turns OFF at the same time when SD31 and SD33 turn OFF.
 - Thick coat mode
Always OFF.
- *1 In the case of 1200/1200P/1051/1250/1250P/1052, only the thin coat mode is used no matter how thick the paper bundle is.

6.3.5 Glue temperature control

(1) Mechanism

- The glue tank heater (H1) heats the glue tank bottom to melt the pellets.
- The glue apply roller heater (H2) heats the glue apply roller to keep the glue adhered to the roller surface at a constant viscosity.

(2) Temperature detection

The glue apply roller temperature sensor (TH1) [7] detects the temperature of the glue apply roller [8], and the glue tank temperature sensor / Up (TH2) [6], /Md (TH3) [3], and /Lw (TH4) [2] detects the temperature of the glue tank [5].

(a) TH1

- Detects temperature of the center portion of the glue apply roller, and the glue apply roller heater (H2) [9] is controlled according to the detected temperature.
- The target temperature is 165°C. *1
*1 It can be changed by "Adjustment screen" or "Apply Roller" of Service Mode "[I.5.13.45 PB-503 Temperature Adjustment \(Perfect Binder Adjustment\)](#)". "

(b) TH2

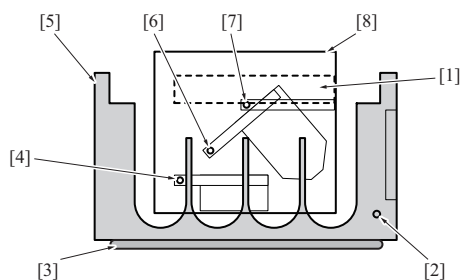
- This sensor is provided on the inner surface of the glue tank, at the position 29mm above the bottom of the tank, in order to detect glue level.
- When the glue runs low, the glue surface becomes lower, and finally the TH2 comes out of the glue. It causes a sudden drop in temperature of the TH2. The temperature drop is detected as a low glue level, and activates the pellet supply operation.
- The target temperature is 132°C. *1
*1 It can be changed by "Glue Tank -Top" of Service Mode "[I.5.13.45 PB-503 Temperature Adjustment \(Perfect Binder Adjustment\)](#)". "

(c) TH3

- This sensor is also provided on the inner surface of the glue tank, at the position 15.4mm above the tank bottom, to detect the viscosity of the molten glue. According to the detected result, rotating or not rotating the glue apply roller is determined.
- The target temperature is 145°C. *1
*1 It can be changed by "Glue Tank -Mid" of Service Mode "[I.5.13.45 PB-503 Temperature Adjustment \(Perfect Binder Adjustment\)](#)". "

(d) TH4

- The glue tank temperature sensor /Lw (TH4) is provided on the inner bottom surface of the glue tank and detects temperature of the glue tank heater (H1) [3] to control the heater.
- The target temperature is 185°C. *1
*1 It can be changed by "Adjustment screen" or "Glue Tank -Low" of Service Mode "[I.5.13.45 PB-503 Temperature Adjustment \(Perfect Binder Adjustment\)](#)". "



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[1]	Glue apply roller heater (H2)	[2]	Glue tank temperature sensor /Lw (TH4)
[3]	Glue tank heater (H1)	[4]	Glue tank temperature sensor /Md (TH3)
[5]	Glue tank	[6]	Glue tank temperature sensor /Up (TH2)
[7]	Glue apply roller temperature sensor (TH1)	[8]	Glue apply roller

(3) Control

(a) Glue apply roller heater (H2) control

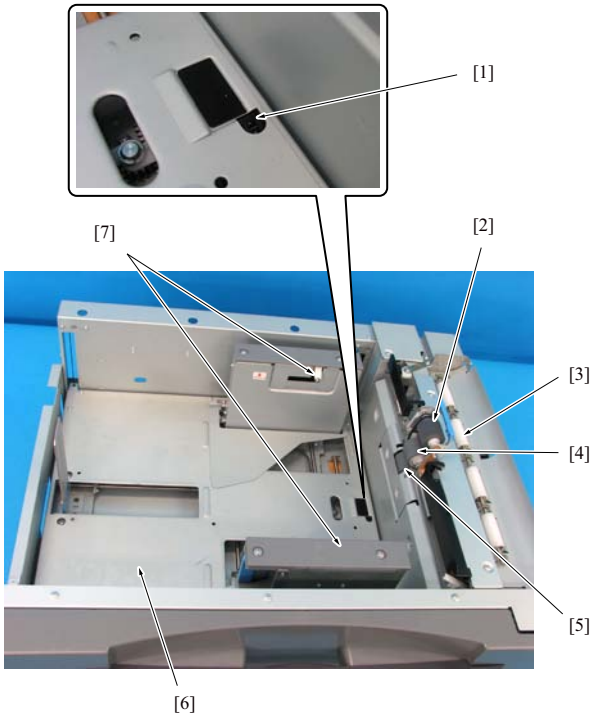
- During warming up, H2 turns ON so that the glue apply roller temperature sensor (TH1) is 180 °C. It lowers to 165 °C when the warming up completes.
- After the completion of the warming up, it controls ON/OFF of H2 so that the glue apply roller temperature sensor (TH1) is 165 °C.
- When the temperature drops/rises 1°C from the target temperature, the H1 turns ON/OFF.

(b) Glue tank heater (H1) control

- The H1 is turned ON/OFF according to a temperature detected by the glue tank temperature sensor /Lw (TH4) in order to keep 185 °C.
- When the temperature drops/rises 1°C from the target temperature, the H1 turns ON/OFF.

7. COVER PAPER SUPPLY SECTION

7.1 Configuration

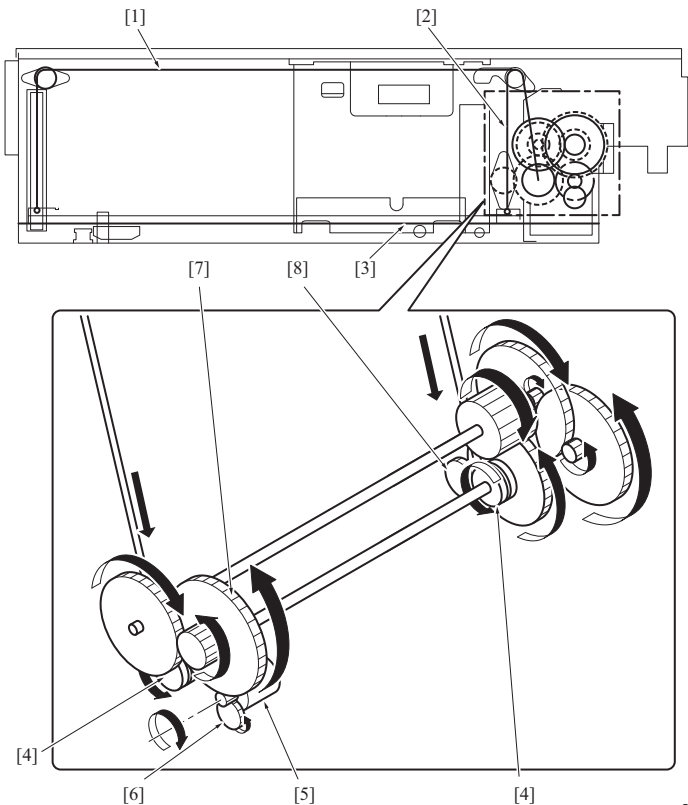


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[1]	Cover paper empty sensor (PS71)	[2]	Pick-up roller
[3]	Conveyance roller	[4]	Paper feed roller
[5]	Separation roller	[6]	Cover paper tray lift plate
[7]	Cover paper tray fan		-

7.2 Drive

7.2.1 Cover paper tray lift drive

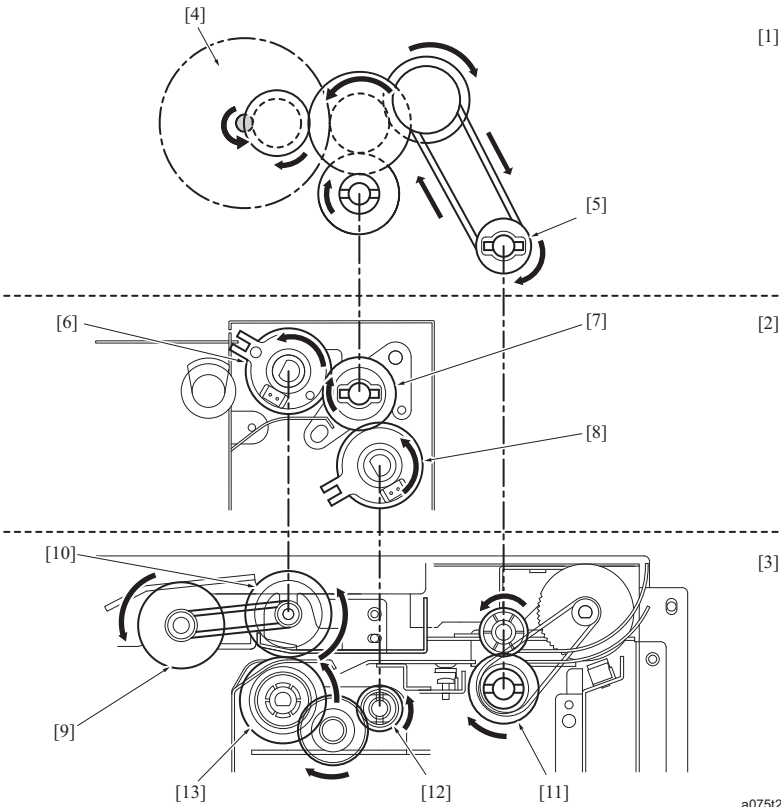


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[1]	Cover paper tray lift wire /Fr1, /Rr1	[2]	Cover paper tray lift wire /Fr2, /Rr2
[3]	Cover paper tray lift plate	[4]	Pulley

[5]	Cover paper tray lift motor (M73)	[6]	One-way clutch
[7]	Lift release coupling gear	[8]	Torque restriction gear (oil damper)

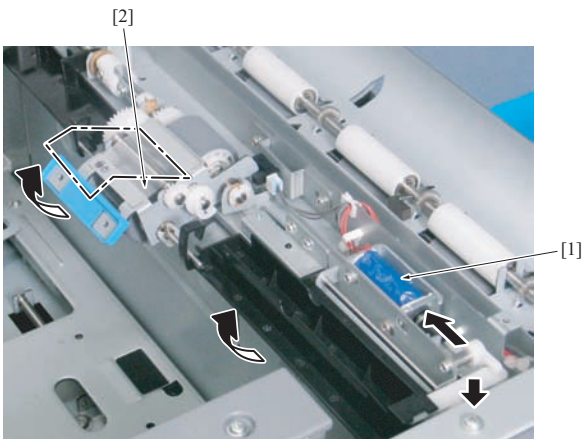
7.2.2 Paper feed drive



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[1]	PB backside	[2]	Backside of cover paper tray
[3]	Center of cover paper tray	[4]	Cover paper feed motor (M74)
[5]	Coupling	[6]	Cover paper feed clutch (CL71)
[7]	Coupling	[8]	Cover paper separation clutch (CL72)
[9]	Pick-up roller	[10]	Paper feed roller
[11]	Conveyance roller	[12]	Torque limiter
[13]	Separation roller		-

7.2.3 Pick-up drive



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[1]	Cover paper pick up solenoid (SD71)	[2]	Pick-up roller
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7.3 Operation

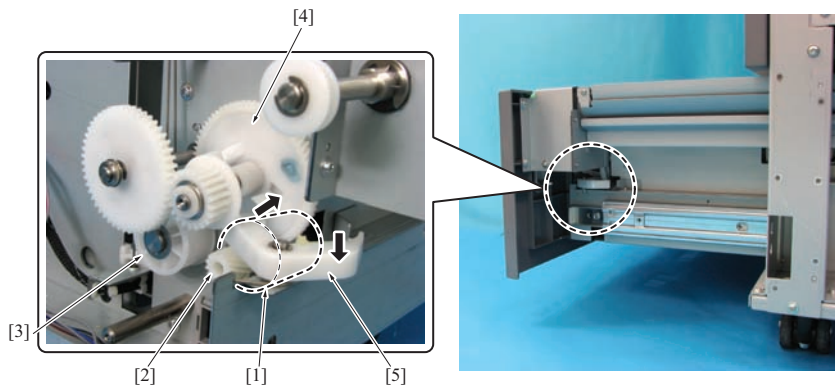
7.3.1 Up/down control

(1) Up operation

- The cover paper tray lift plate is lifted with the cover paper tray lift wire wound up around the pulley by the drive force of the cover paper tray lift motor (M73) [1].

(2) Down operation

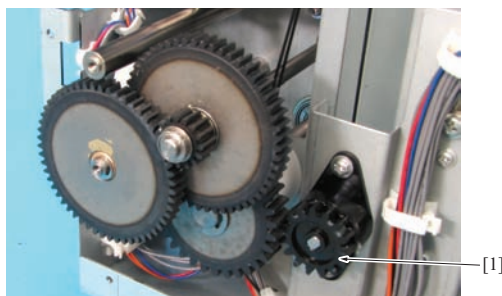
- When the cover paper tray is pulled out, the release lever [5] separates the coupling gear [4] that transmits the motor drive force from the motor shaft [2] to the pulley [3]. (goes down by its own weight)



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[1]	Cover paper tray lift motor (M73)	[2]	Motor shaft
[3]	Pulley	[4]	Coupling gear
[5]	Release lever	-	

- In order to lower the plate slowly by its own weight, the torque limiting gear [1] works only when lowering the cover paper tray lift plate.



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[1]	Torque restriction gear	-	
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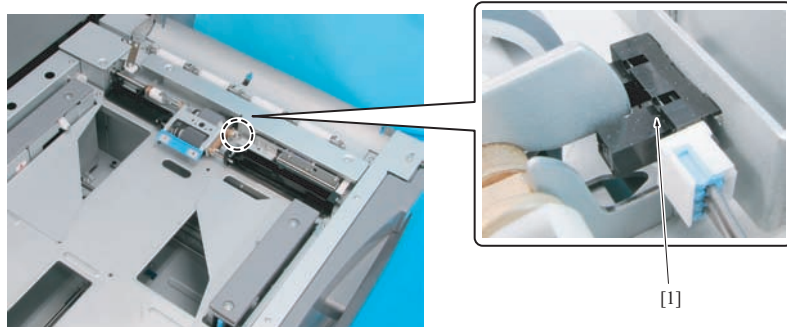
(3) Operation timing

(a) When cover paper is set

- When cover papers are loaded on the tray, the cover paper tray lift motor (M73) starts to rotate to lift the cover paper lift plate.
- The M73 stops when the cover paper tray upper limit sensor (PS74) turns ON.

(b) While feeding cover paper

- While cover papers being fed, the PS74 turns OFF due to a decrease in stacking height of papers, and the M73 starts to rotate again.
- The M73 keeps rotating to lift the cover paper lift plate until the PS74 turns ON again.



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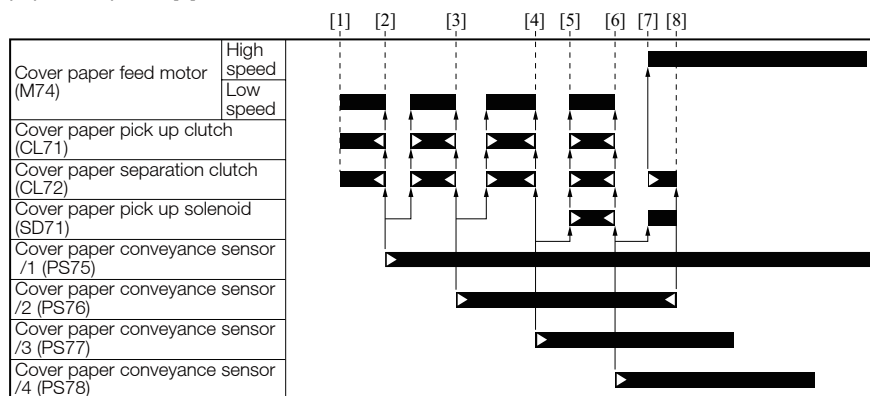
[1]	Cover paper tray upper limit sensor (PS74)	-	
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7.3.2 Pick-up mechanism

- Picking up the cover paper is activated when the cover paper pick-up solenoid (SD71) turns OFF.

(1) Control

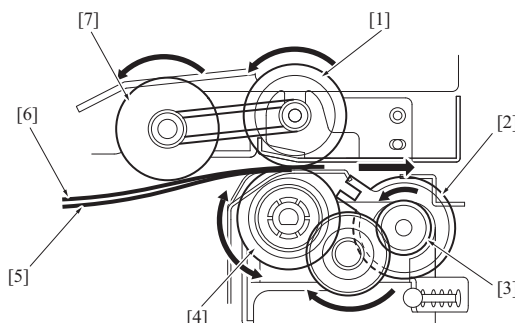
- With cover paper feed signal, cover paper feed motor (M74), cover paper feed clutch (CL71) and cover paper separation clutch (CL72) turn ON, and rotate the pick-up roller which is pressing down the cover paper with its own weight, and starts the paper feeding of the cover paper [1].
- When the cover paper conveyance sensor /1 (PS75) is turned ON by the leading edge of the cover paper, M74, CL71, CL72 are temporary turned OFF, and cover paper feeding is stopped [2].
- After the specified time, M74, CL71, CL72 are turned back ON, and the leading edge of the cover paper is sent to the cover paper conveyance sensor /2 (PS76), then M74, CL71 are turned OFF again [3].
- After the specified time, M74, CL71, CL72 are turned back ON, and the leading edge of the cover paper is sent to the cover paper conveyance sensor /3 (PS77), then M74, CL71, and CL72 are turned OFF again [4].
- After the specified time, M74, CL71, CL72 and the cover paper pick up solenoid (SD71) are turned ON, the pick up roller is put back to its original position, and the cover paper is conveyed by only the paper feed roller and the conveyance roller [5].
- When the leading edge of the cover paper turns ON the cover paper conveyance sensor /4 (PS78), M74, CL71, CL72, SD71 turn OFF [6].
- After the specified time, M74 rotates at high speed, cover paper is conveyed by only the conveyance roller while CL72 turns ON and the next cover paper is sent to the reverse direction to be separated [7].
- After the back edge of the cover paper has passed the PS76, CL72 and SD71 turn OFF, and the paper feeding of the first sheet of cover paper completes [8].



[1]	Cover paper supply signal on	[2]	Conveyed to PS75
[3]	Conveyed to PS76	[4]	Conveyed to PS77
[5]	Pick up roller goes back to its original position	[6]	Conveyed to PS78
[7]	Conveyance of conveyance roller only	[8]	Pick up paper feeding of first sheet of cover paper complete

7.3.3 Separation mechanism

- The drive force of the cover paper feed motor (M74) is transmitted to the separation roller [4] via the torque limiter [3] when the cover paper separation clutch (CL72) [2] is ON/OFF.
- The separation roller [4] is driven in the direction opposite to the cover paper feeding direction. However, the roller rotates in the same direction with the paper feed direction as long as 1 sheet of cover paper or no paper is fed because the friction force between the cover paper feed roller [1] and separation roller [4], or paper and the separation roller is larger than the torque limited by the torque limiter [3].
- When multi-feed occurs, the separation roller reverses the rotation direction to feed the lower sheet that contacts with the roller back to the tray because the friction force drops due to the multi-feed and becomes lower than the torque limited by the torque limiter.



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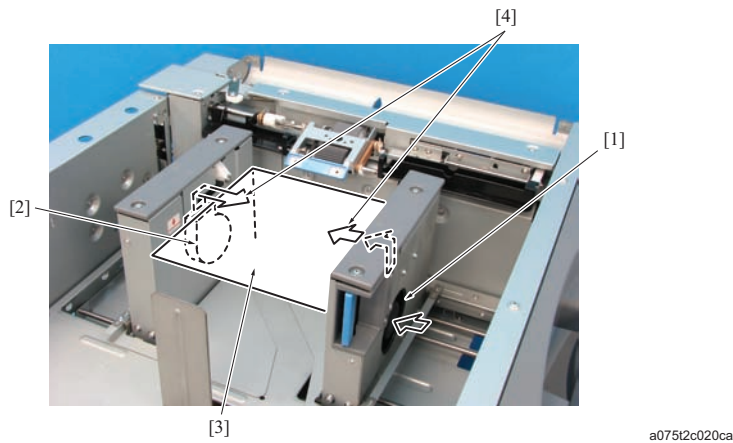
[1]	Paper feed roller	[2]	Cover paper separation clutch (CL72)
[3]	Torque limiter	[4]	Separation roller
[5]	Second sheet of cover paper	[6]	First sheet of cover paper
[7]	Pick-up roller	-	

7.3.4 Paper feed mechanism

- The cover paper feed motor (M74) drives the conveyance roller. Cover papers fed from the feeding section are conveyed to the conveyance section by the conveyance roller.

7.3.5 Air assist mechanism

- The cover paper tray is equipped with the cover paper tray fan /1 (FM71) and /2 (FM72), which blow air [4] to the cover paper [3] from the front and back cover paper guides.
- Using the tray fans is effective especially when feeding heavy paper or coated paper. However, in the case of plain paper, it may not be fed smoothly.



[1]	Cover paper tray fan /1 (FM71)	[2]	Cover paper tray fan /2 (FM72)
[3]	Cover paper	[4]	Blow-out of air

(1) Operation timing

- When receiving a print job, cover paper tray fans /1 (FM71) and /2 (FM72) turn ON, and after the specified time, cover paper feed motor (M74) turns ON.

7.3.6 Cover paper empty detection control

- The cover paper empty sensor (PS71) detects an empty status of the cover paper tray.

7.3.7 Paper feed assist plate

(1) Purpose

The paper feed assist plate (P/N: 56UA4070) can be attached to the pick-up roller to adjust the pressure to cover paper applied from the roller. By changing the number of plates to be attached to the roller depending on the cover paper type, paper feed accuracy can be improved.

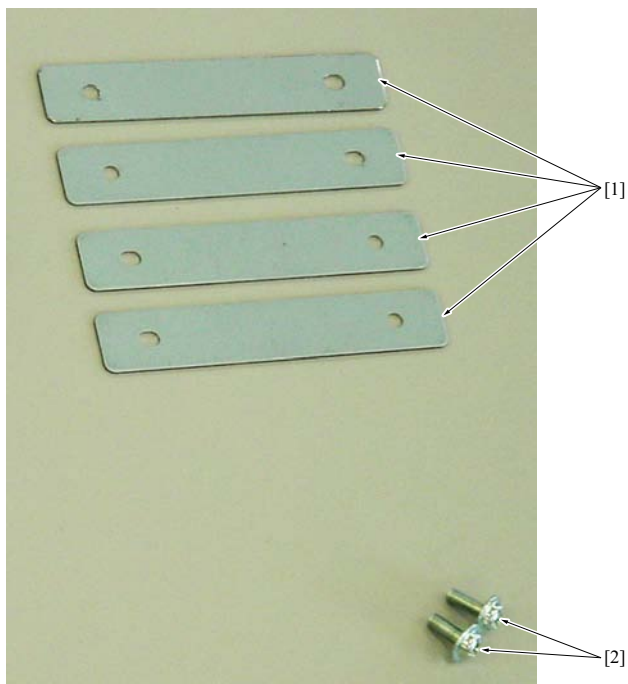
Using the plates is effective especially when feeding coated cover paper or similar type that is likely to stick tightly causing no-feed trouble. The paper feed assist plate weighs about 10g and up to 4 plates can be attached to 1 pick-up roller in normal condition. When the surface of the cover paper is powdery, up to 8 plates can be attached. Increase or decrease the number of plates according to paper type or condition to improve cover paper feed accuracy.

(2) Configuration

The package contains the following as a set.

[1] Paper feed assist plate	4 plates
[2] Screws	2 screws (M3 x 8)

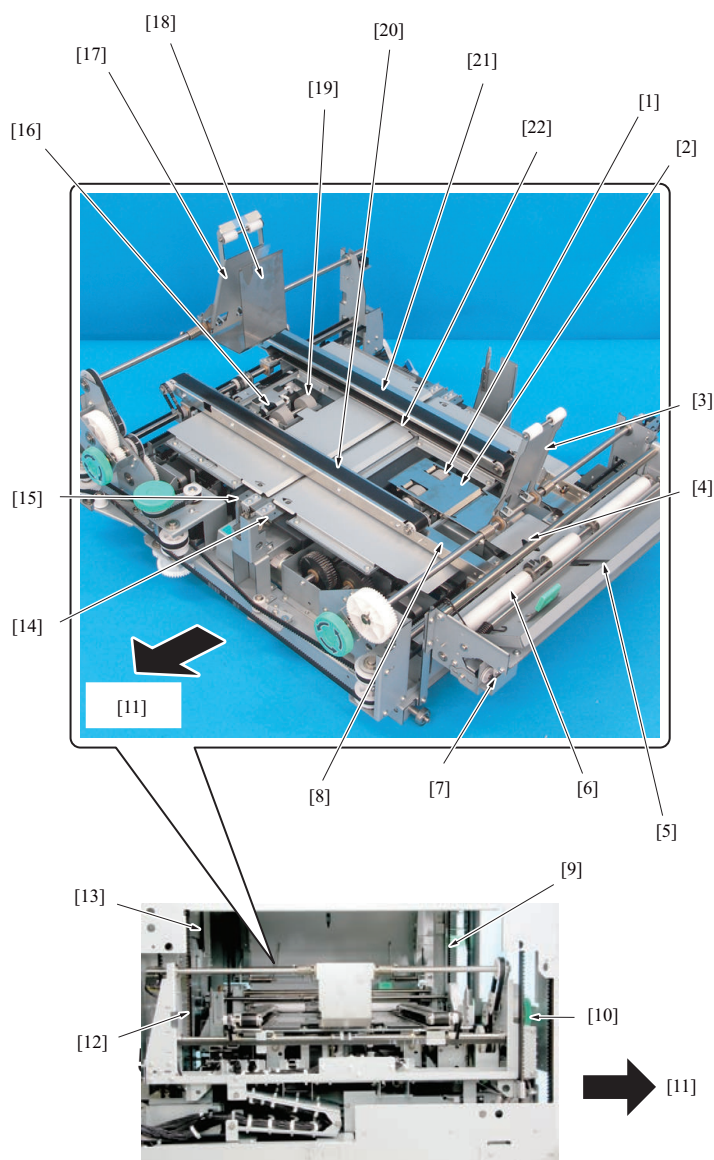
It can be purchased as the service part if necessary.



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8. COVER PAPER TABLE SECTION

8.1 Configuration

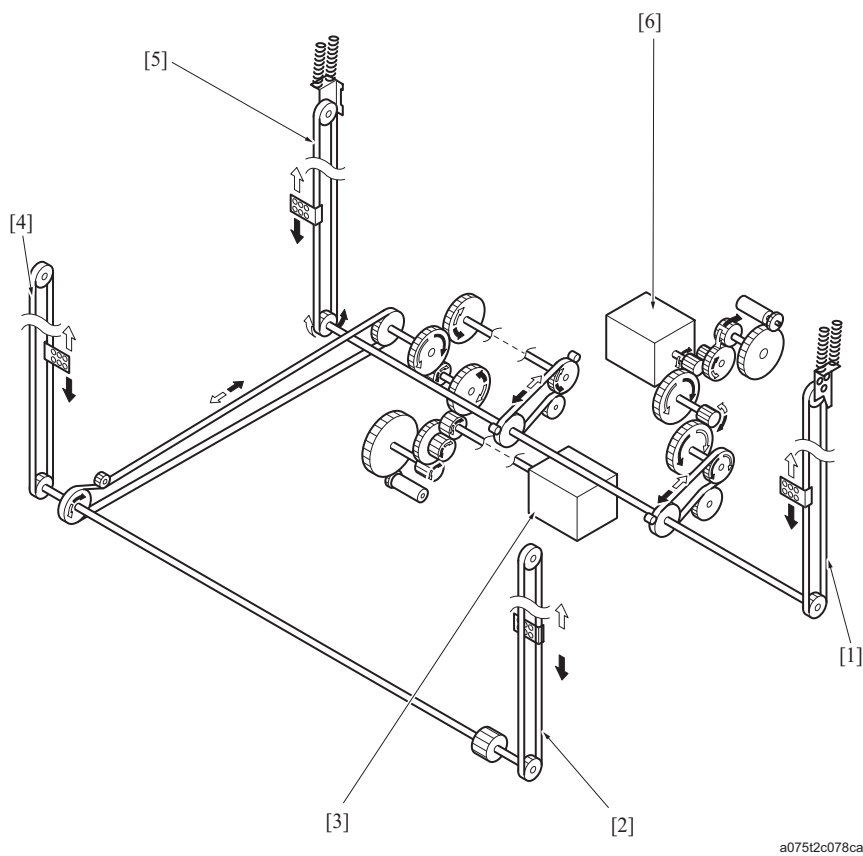


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[1]	Cover paper conveyance roller /Rt	[2]	Cover paper lift plate /Rt
[3]	Cover paper conveyance arm /Rt	[4]	Cover paper sensor /Rt (PS45)
[5]	Cover paper switchback sensor (PS44)	[6]	Cover paper table entrance roller
[7]	Cutter	[8]	Cover paper alignment plate /Fr
[9]	Cover paper table up down belt /Fr_Rr	[10]	Cover paper table up down belt/Fr_Lt
[11]	Front side	[12]	Cover paper table up down belt /Rr_Lt
[13]	Cover paper table up down belt /Rr_Rt	[14]	Cover paper folding plate /Rt
[15]	Cover paper folding plate /Lt	[16]	Cover paper sensor /Lt (PS46)
[17]	Cover paper conveyance arm /Lt	[18]	Cover paper lift plate /Lt
[19]	Cover paper conveyance roller /Lt	[20]	Book exit belt /Fr
[21]	Book exit belt /Rr	[22]	Cover paper alignment plate /Rr

8.2 Drive

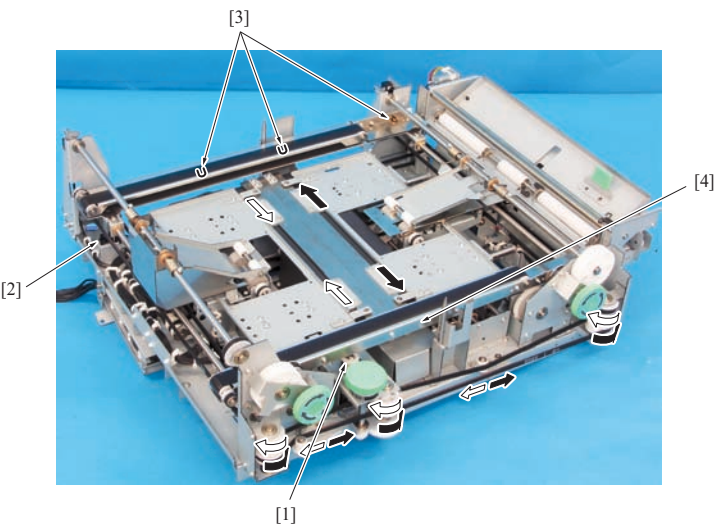
8.2.1 Cover paper table up down/Fr and /Rr drive



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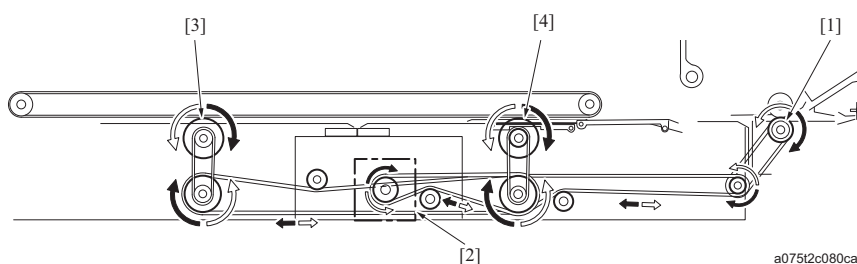
[1]	Cover paper table up down belt /Rr_Rt	[2]	Cover paper table up down belt /Fr_Rt
[3]	Cover paper table up down motor /Fr (M46)	[4]	Cover paper table up down belt /Fr_Lt
[5]	Cover paper table up down belt /Rr_Lt	[6]	Cover paper table up down motor /Rr (M47)

8.2.2 Cover paper alignment drive



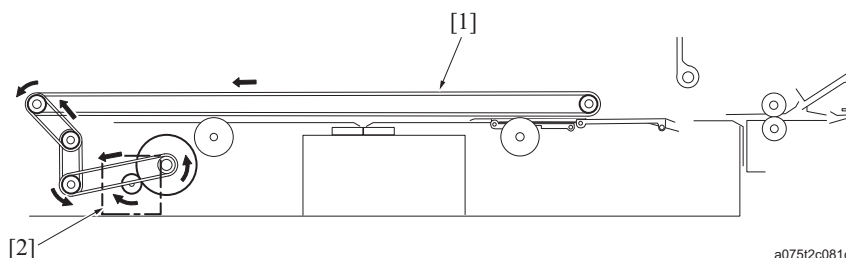
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[1]	Cover paper alignment motor (M41)	[2]	Cover paper alignment home sensor (PS41)
[3]	Cover paper alignment plate /Rr	[4]	Cover paper alignment plate /Fr

8.2.3 Cover paper conveyance drive

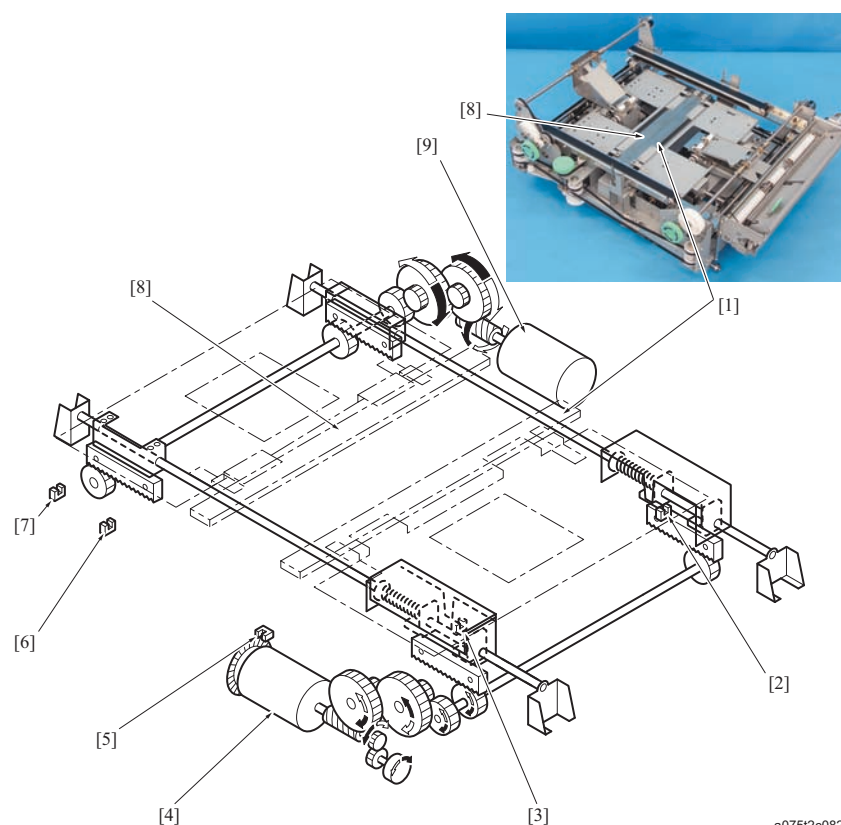
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[1]	Cover paper table entrance roller	[2]	Cover paper conveyance motor (M45)
[3]	Cover paper conveyance roller /Lt	[4]	Cover paper conveyance roller /Rt

8.2.4 Book exit drive

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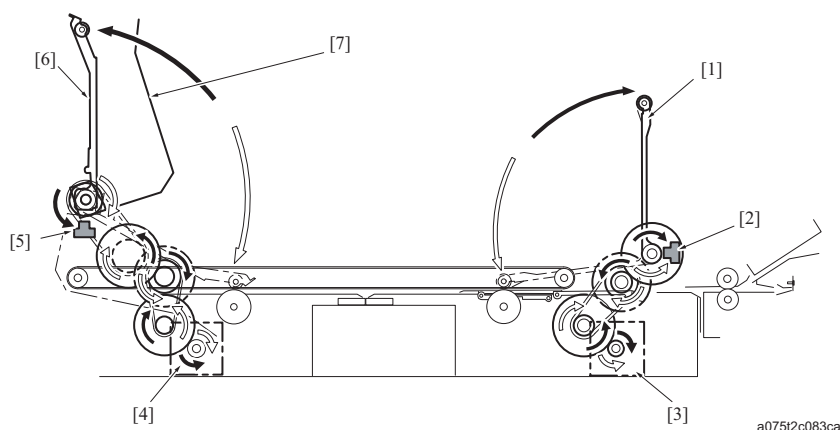
[1]	Book exit belt /Fr, /Rr	[2]	Booklet exit motor (M42)
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8.2.5 Cover paper folding plate /Rt and /Lt drive

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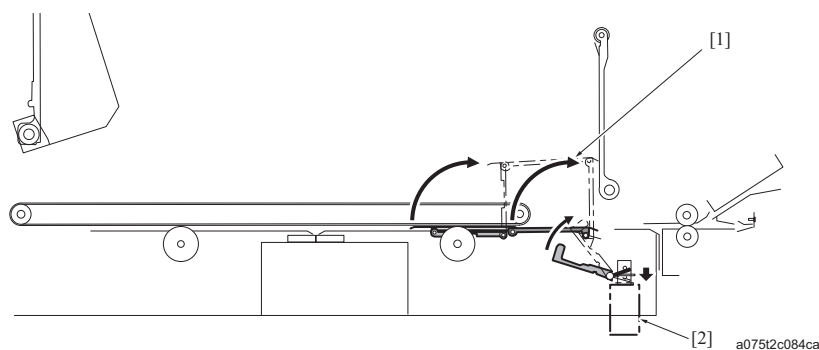
[1]	Cover paper folding plate /Rt	[2]	Cover paper folding plate home sensor /Rt (PS48)
[3]	Cover paper folding pressure sensor (PS52)	[4]	Cover paper folding motor /Rt (M48)
[5]	Cover paper folding plate encoder sensor (PS50)	[6]	Cover paper folding plate home sensor /Lt (PS49)
[7]	Cover paper folding plate position sensor (PS51)	[8]	Cover paper folding plate /Lt
[9]	Cover paper folding motor /Lt (M49)	-	

8.2.6 Cover paper conveyance arm /Rr and /Lt drive



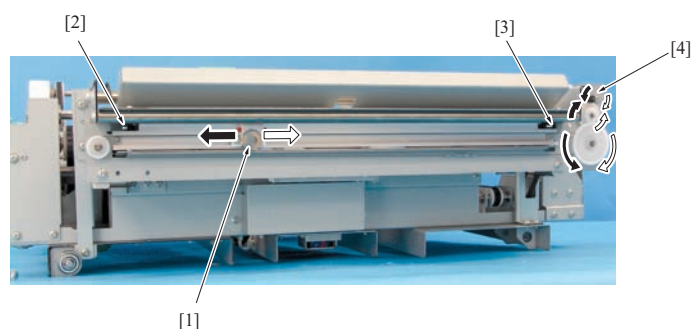
[1]	Cover paper conveyance arm /Rt	[2]	Cover paper conveyance arm home sensor /Rt (PS42)
[3]	Cover paper conveyance arm motor /Rt (M43)	[4]	Cover paper conveyance arm motor /Lt (M44)
[5]	Cover paper conveyance arm home sensor /Lt (PS43)	[6]	Cover paper conveyance arm /Lt
[7]	Cover paper lift plate /Lt	-	

8.2.7 Cover paper lift drive



[1]	Cover paper lift plate /Rt	[2]	Cover paper lift solenoid (SD41)
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8.2.8 Cutter drive



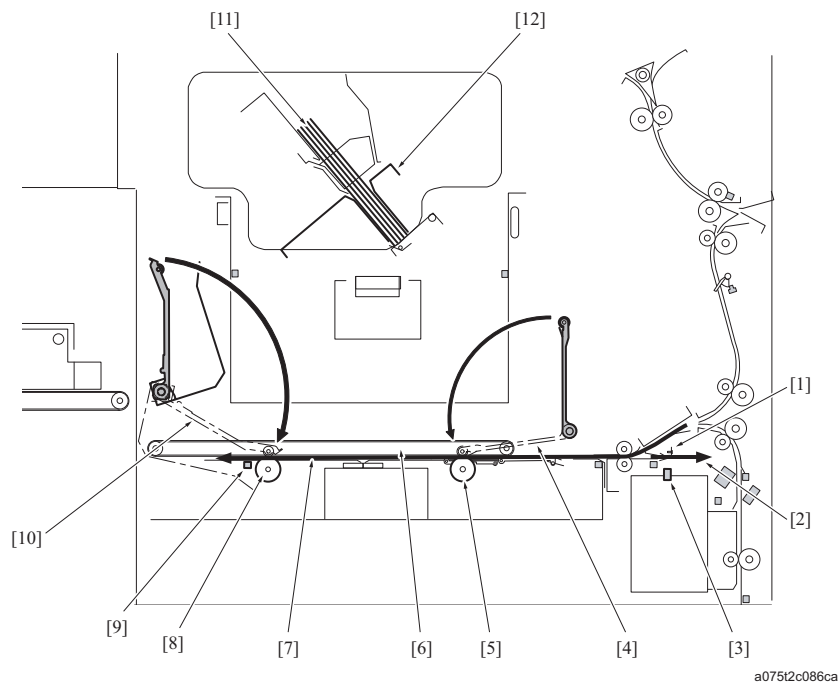
[1]	Cutter	[2]	Cutter home switch (SW41)
[3]	Cutter end switch (SW42)	[4]	Cutter motor (M50)

8.3 Operation

8.3.1 Cover paper table section operation overview

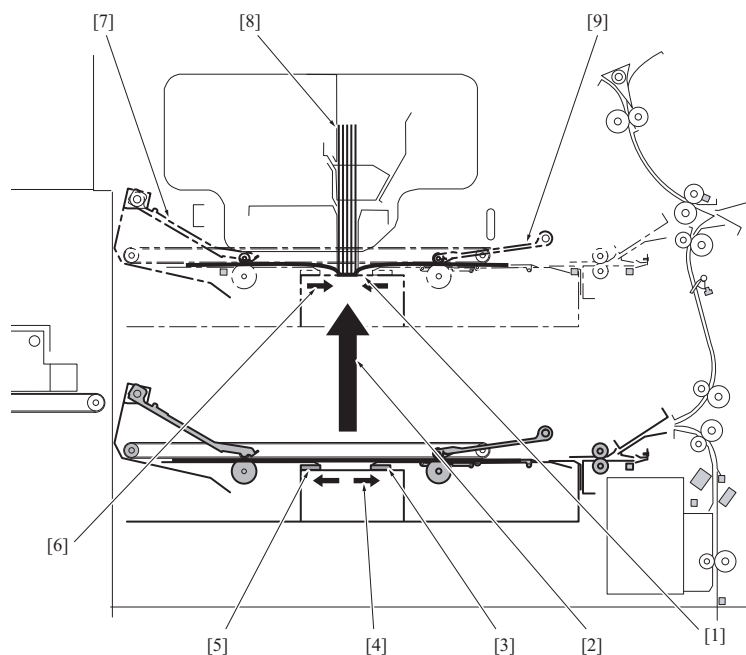
1. The cover paper conveyance arms /Rt [4] and /Lt [10] are activated when detecting that the print start signal turns ON, and they are pressed against the cover paper conveyance rollers /Rt [5] and /Lt [8].
2. When a cover paper is fed [7], alignment operation is carried out by the cover paper alignment plate /Rr and /Fr [6].
3. After the thickness of inside papers [11] is detected by clamping operation made by the clamp pressure plate [12], the cover paper is fed backward (switchback) [2].
4. The backward feeding is made to feed the cover paper to the roller cutter assy so that the paper edge protrudes away from the cover paper switchback sensor (PS44) [3] by the trimming amount.
5. The roller cutter [1] trims the cover paper edge and then the paper is conveyed to the left side again.
6. Alignment operation to attach the cover paper to the inside papers is carried out.

7. The cover paper is moved to left and right by the reverse/forward rotation of the cover paper conveyance rollers /Rt and /Lt for positioning properly with reference to the cover paper sensor /Lt (PS46) [9] as starting point.



[1]	Roller cutter	[2]	Switchback conveyance
[3]	Cover paper switchback sensor (PS44)	[4]	Cover paper conveyance arm /Rt
[5]	Cover paper conveyance roller /Rt	[6]	Cover paper alignment plate /Rr, /Fr
[7]	Cover paper conveyance	[8]	Cover paper conveyance roller /Lt
[9]	Cover paper sensor /Lt (PS46)	[10]	Cover paper conveyance arm /Lt
[11]	Bundle of inside papers	[12]	Clamp pressure plate

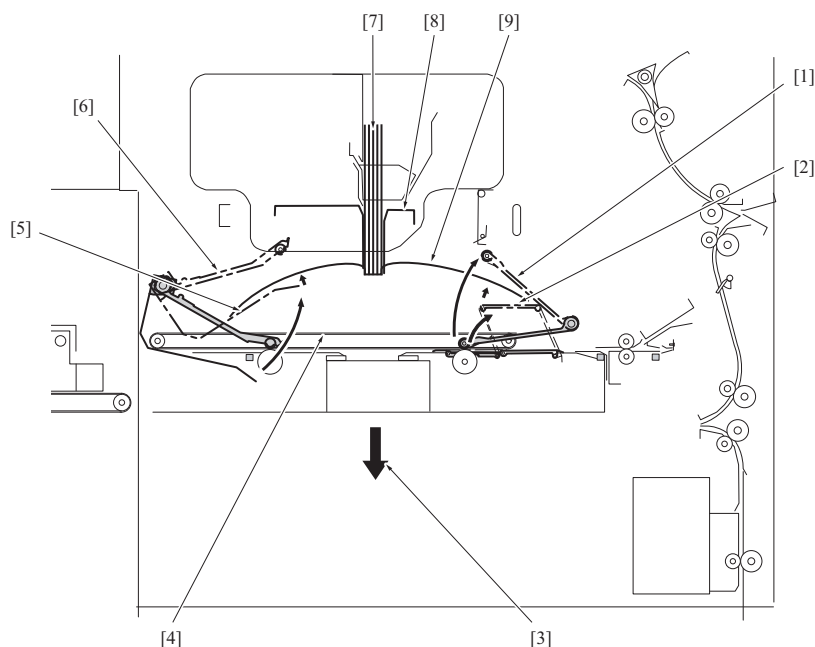
8. When the alignment operation of the cover paper completes and CD alignment plate returns to home position, the cover paper folding plates /Rt [3] and /Lt [5] are opened [4].
9. When the cover paper on the lifted unit attaches to the spine of inside papers [8], the book spine backing plate [1] presses against the spine to attach the cover paper securely.
10. The cover paper folding plates /Rt and /Lt are moved inward to press [6] both edge surfaces of the spine to create the perfect corners. During up and down operation of the cover paper table unit, the cover paper conveyance arms /Rt [9] and /Lt [7] are moved away from the cover paper so as not to let the paper pulled by the arms.
11. The pressures to the spine are applied for 3 seconds for the glue to harden fully.



[1]	Book spine backing plate	[2]	Lift of cover paper table unit
[3]	Cover paper folding plate /Rt	[4]	Opening

[5]	Cover paper folding plate /Lt	[6]	Pressurize
[7]	Cover paper conveyance arm /Lt	[8]	Bundle of inside papers
[9]	Cover paper conveyance arm /Rt	-	

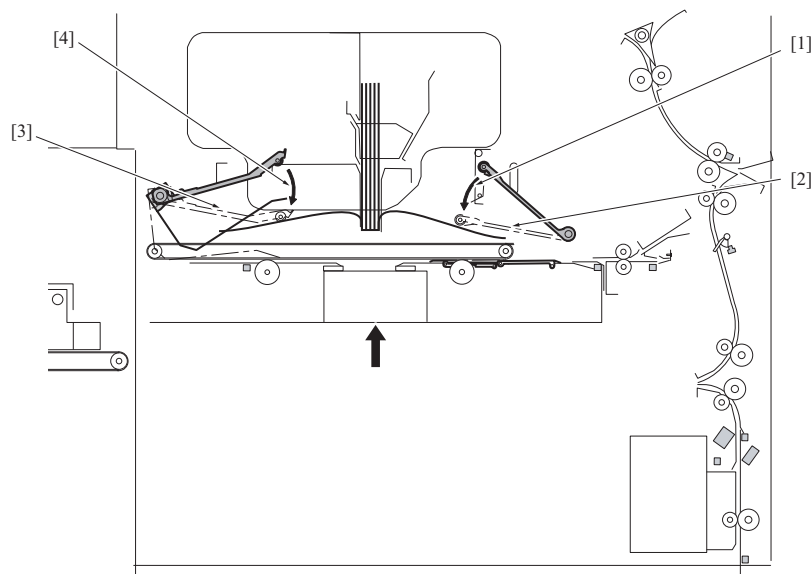
12. The cover paper folding plates /Rt and /Lt are opened, and the cover paper table unit is lowered [3].
13. While the cover paper table is going down, the inside papers of the book [7] are held by the clamp pressure plate [8]. Since both sides of the cover paper [9] bow, the cover paper lift plate /Lt [5] integrated with the cover paper conveyance arm /Lt [6] supports the left-side of the cover paper. The right-side of the paper triggers the cover lift plate /Rt [2] and supports the cover. The cover paper conveyance arm /Rt [1] is moved away from the cover paper lift plate /Rt.
14. The book exit belt [4] is moved to the position to receive the book.



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[1]	Cover paper conveyance arm /Rt	[2]	Cover paper lift plate /Rt
[3]	Down	[4]	Book exit belt
[5]	Cover paper lift plate /Lt	[6]	Cover paper conveyance arm /Lt
[7]	Book	[8]	Clamp pressure plate
[9]	Cover paper	-	

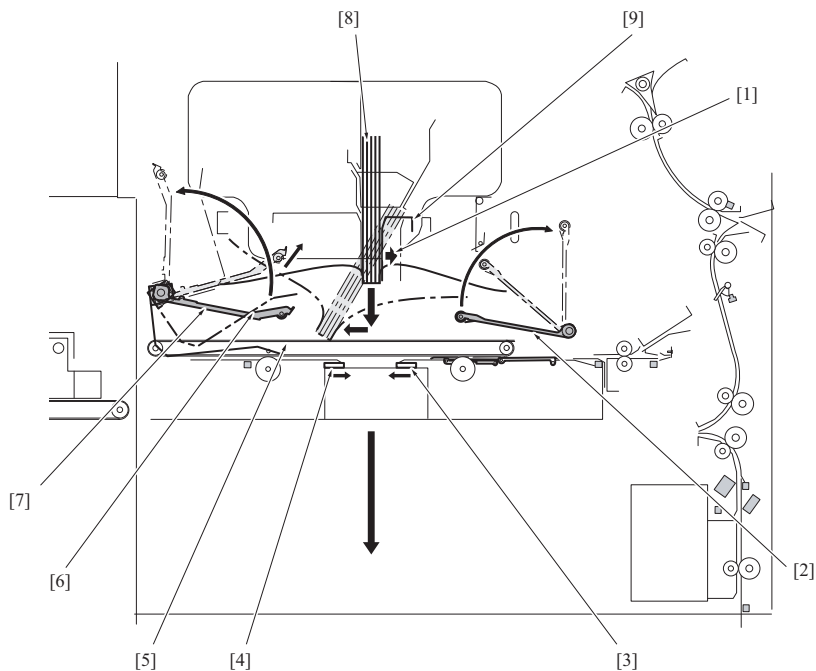
15. When the book exit belt is set at the receiving position, the cover paper table unit is lifted again.
16. When lifting the unit is started, the cover paper conveyance arms /Rt [2] and /Lt [3] are folded [1] [4] to keep them from contact with the clamp section.



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[1]	The arm is folded	[2]	Cover paper conveyance arm /Rt
[3]	Cover paper conveyance arm /Lt	[4]	The arm is folded

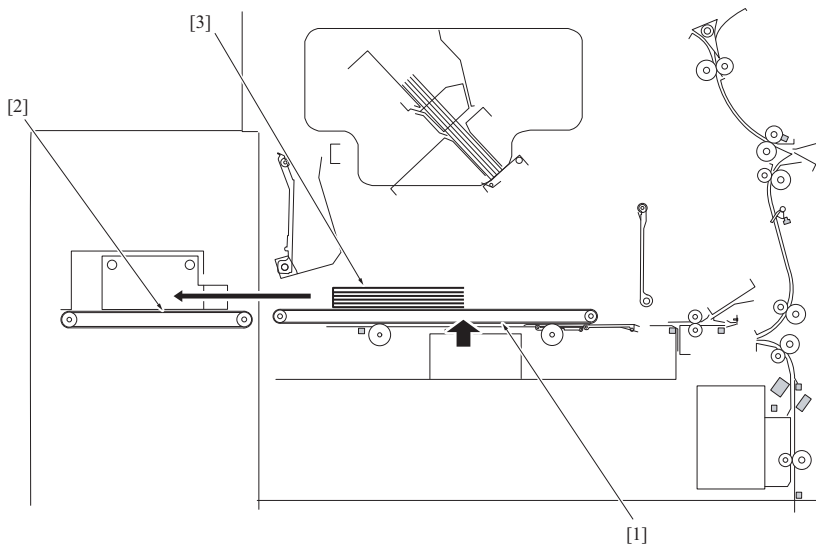
17. When the book (inside papers) [8] is released from the clamp pressure plate [9], the cover paper table unit is lowered.
18. At the start of the unit lowering operation, the cover paper conveyance arm /Rt [2], /Lt [7], and the cover paper folding plate /Rt [3], /Lt [4] are returned to their home positions. When the cover paper lift plate /Lt [6] returns to its home position, it flips up the left-side of the cover paper toward the inside papers.
19. The book exit belt [5] is activated after a prescribed time has elapsed since the table unit lowering operation is started so that the belt starts to move at the same time the book contacts with the belt and the book is laid down on the belt.



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[1]	Book exit belt	[2]	Cover paper conveyance arm /Rt
[3]	Cover paper folding plate /Rt	[4]	Cover paper folding plate /Lt
[5]	Book exit belt	[6]	Cover paper lift plate /Lt
[7]	Cover paper conveyance arm /Lt	[8]	Book
[9]	Clamp pressure plate	-	

20. The cover paper table unit goes down to its home position, and then goes up until the book exit belt surface becomes horizontal to the book conveyance belt [3] surface.
21. The book exit belt [1] starts to move again to convey the book [3] on it to the book stock section.



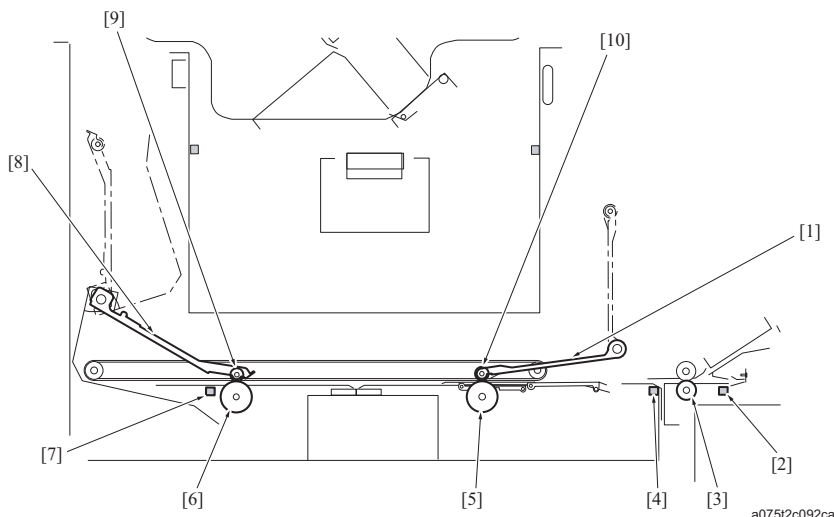
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[1]	Book exit belt	[2]	Book conveyance belt
[3]	Book	-	

8.3.2 Cover paper conveyance control

(1) Mechanism

- The cover paper conveyance motor (M45) drive force transmitted via the gear and the belt drives the cover paper table entrance roller [3], the cover paper conveyance rollers /Rt [5] and /Lt [6].
- A cover paper is conveyed being nipped between the driven rollers [9] and [10] provided on the tips of the cover paper conveyance rollers /Rt and /Lt and the cover paper conveyance arms /Rt [1] and /Lt [8].
- On the cover paper conveyance path, the cover paper sensor /Rt (PS45) [4], /Lt (PS46) [7] and the cover paper switchback sensor (PS44) [2] are provided.
- The PS44 is used to position the cover paper for trimming.
- PS45 is the starting point of when carrying in cover paper to the up/down cover paper section. Cover paper is carried in after specified time from when PS45 detected the leading edge of the paper, cover paper stops and alignment operation is carried out.
- The PS46 is used to position the cover paper to be attached to the spine of inside papers.



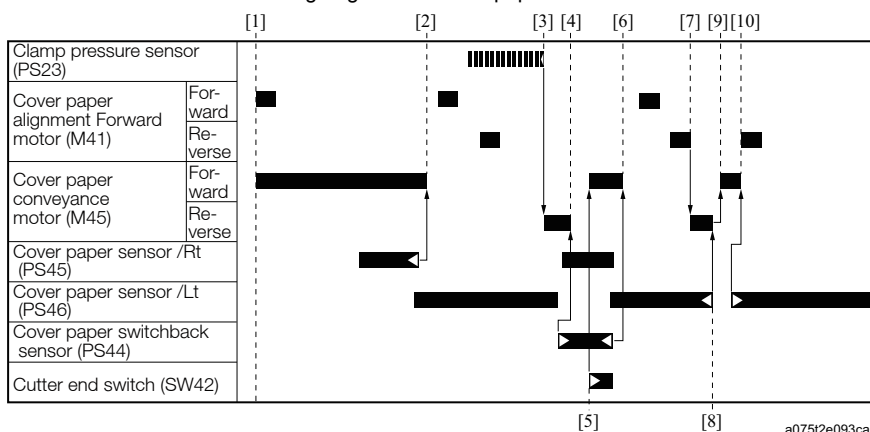
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[1] Cover paper conveyance arm /Rt	[2] Cover paper switchback sensor (PS44)
[3] Cover paper table entrance roller	[4] Cover paper sensor /Rt (PS45)
[5] Cover paper conveyance roller /Rt	[6] Cover paper conveyance roller /Lt
[7] Cover paper sensor /Lt (PS46)	[8] Cover paper conveyance arm /Lt
[9] Driven roller /Rt	[10] Driven roller /Lt

(2) Control

(a) When conveying cover paper from the PB cover paper tray

- Upon receiving of a print job, the cover paper conveyance motor (M45) starts to turn in the forward direction [1].
- The M45 stops [2] when a prescribed time has elapsed after the cover paper sensor /Rt (PS45) detects the leading edge of the cover paper.
- When clamping the inside papers is finished, the booklet thickness sensor (PS29) detects the last pulse and the book thickness information is obtained. Then the M45 starts reverse rotation [3] to convey the cover paper toward the roller cutter assy.
- The cover paper moves until it reaches the position to be trimmed off by the amount determined according to the paper size setting and the book thickness information, and the M45 stops [4].
- When the cutter end position switch (SW42) detects the finish of the cutting operation [5], the M45 starts forward rotation to convey the cover paper to the left-hand for the alignment.
- The M45 stops [6] when a prescribed time has elapsed after the PS44 detects the trailing edge of the cover paper.
- When the alignment operation by the cover paper alignment motor (M41) is finished [7], the cover paper is conveyed to the right-hand by the M45 reverse rotation for the next positioning operation.
- The M45 keeps rotating to position the cover paper properly to be attached to the inside papers until the cover paper sensor /Lt (PS46), the reference sensor for the positioning, turns OFF [8].
- After a prescribed time has elapsed, the M45 starts forward rotation to convey the cover paper to the left hand [9] and stops [10] after the PS46 detects the leading edge of the cover paper.



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[1]	Print start signal ON	[2]	Cover paper conveyance to the cover paper table is finished
[3]	Starting conveyance toward the roller cutter assy	[4]	Stop after conveying trimming amount
[5]	Trimming is completed	[6]	Cover paper stops for alignment
[7]	Cover paper alignment is completed	[8]	Cover paper positioning reference search
[9]	Starting cover paper positioning	[10]	Cover paper positioning is completed

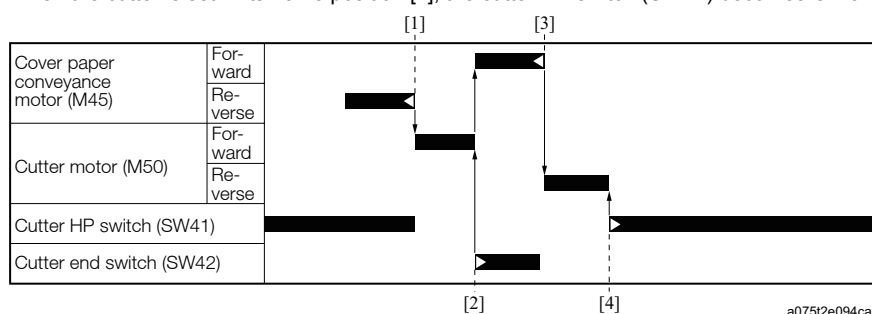
8.3.3 Cover paper trimming control

(1) Mechanism

- The cutter motor (M50) drives the roller cutter via the pulley and the wire.
- The front side is the home position and the trimming is carried out when the cover paper is moved to the back side from the front side.

(2) Control

1. When the cover paper is conveyed to the roller cutter assy by the cover paper conveyance motor (M45), the motor stops [1] and the cutter motor (M50) starts forward rotation to start the trimming operation.
2. When the cutter blade cut the paper and reaches the limit position, the cutter end position switch (SW42) turns ON and the M50 stops. At the same time, the M45 starts forward rotation to convey the cover paper.
3. When the conveyance by the M45 is finished [3], the M50 starts to rotate again to make the cutter return to its home position.
4. When the cutter is set in its home position [4], the cutter HP switch (SW41) becomes ON and the M50 stops.

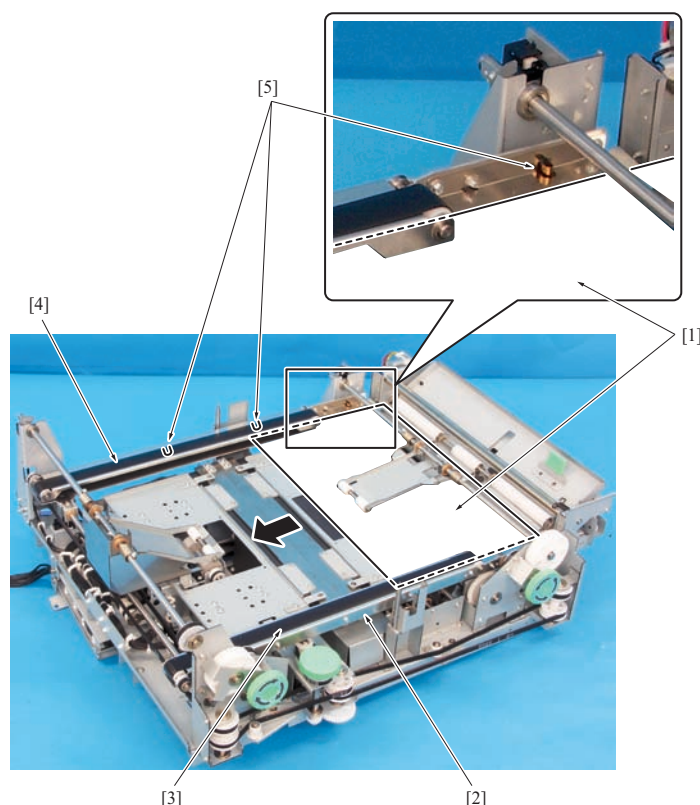


[1]	Start of cutting	[2]	Trimming is completed
[3]	Starting home position return operation	[4]	Cutter is set in its home position

8.3.4 Cover paper alignment drive

(1) Mechanism

- The cover paper alignment motor (M41) drives the cover paper alignment plates /Fr [2] and /Rr [5], the book exit belts /Fr [3] and /Rr [4] for changing their positions.
- The cover paper alignment plate /Rr presses the cover paper against the cover paper alignment plate /Fr to position the cover paper properly, and the cover paper alignment /Fr judges the alignment accuracy.



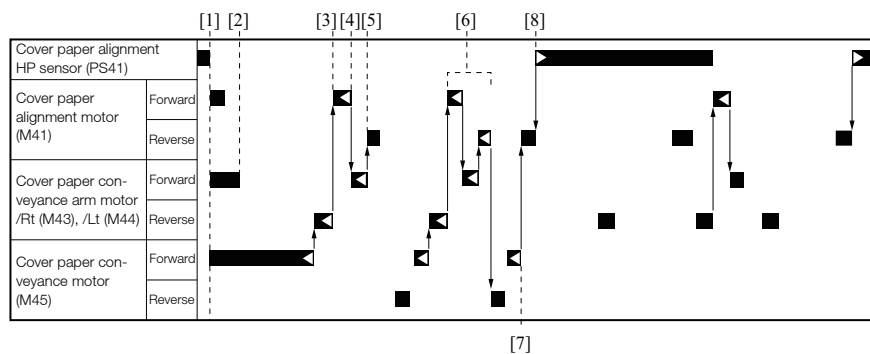
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[1]	Cover paper	[2]	Cover paper alignment plate /Fr
[3]	Book exit belt /Fr	[4]	Book exit belt /Rr
[5]	Cover paper alignment plate /Rr	-	

(2) Control

(a) Cover paper trimming mode

- When detecting that the print start signal turns ON [1], the cover paper alignment motor (M41) starts forward rotation to set the alignment parts in the positions for the alignment operation, and stops [2].
- After the conveyance arms /Rt and /Lt move away from the cover paper conveyance rollers /Rt and /Lt by the cover paper conveyance arm motors /Rt (M43) and /Lt (M44), and the arms stops, the M41 starts forward rotation to position the cover paper to be trimmed [3].
- When the cover paper is set at the trimming position with the cover paper alignment plates /Rr and /Fr holding down both sides of the paper, the M41 stops [4].
- The conveyance arms /Rt and /Lt are pressed against the cover paper conveyance rollers /Rt and /Lt [5] by the M43 and M44 drive force. Then the M41 starts reverse rotation to move the cover paper alignment plates /Rr and /Fr away from the cover paper, and stops.
- When the cover paper trimming is finished, the cover paper alignment operation [6] to be attached to the inside papers is performed in the same manner as for the trimming.
- When positioning the cover paper by the cover paper conveyance motor (M45) is finished, the M41 starts reverse rotation to perform preparation operation [7] for the next cover paper table lifting operation.
- The M41 stops [8] when the cover paper alignment home sensor (PS41) becomes ON.



[7]

[1]	Print start signal ON	[2]	Setting the plates and belts ready for the conveyance
[3]	Positioning (alignment) for cover paper trimming	[4]	Stops at the trimming position
[5]	Positioning (alignment) cover paper to be attached to inside papers	[6]	Starting preparation for cover table lifting operation
[7]	Alignment-related parts return to its home position	[8]	Returning to the home position

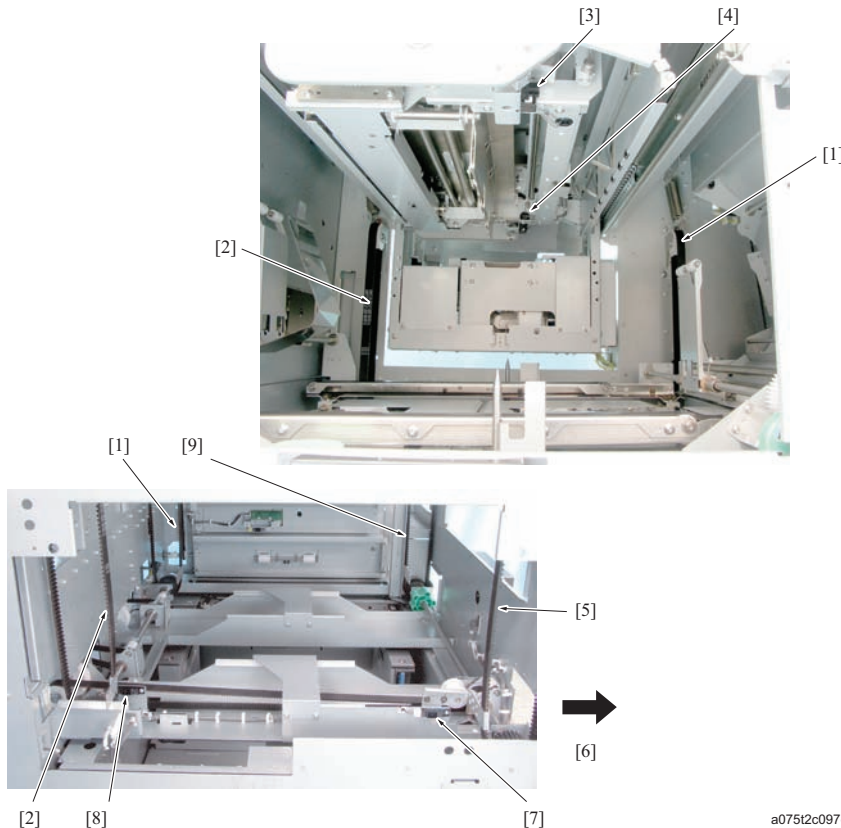
(b) Cover paper Not trimming mode

When the sub-scanning direction length of inside papers is over 182mm, the first positioning operation for trimming is not performed. Only the positioning operation for attaching the cover to the inside papers is performed.

However, when the inside paper is smaller than B5 size, alignment is done twice. Once when cover paper is carried in, and once after leading edge positioning is done.

8.3.5 Cover paper table up down control**(1) Mechanism**

- The cover paper table up down motor /Fr (M46) drives the cover paper table up down belts /Fr_Rt [9] and /Fr_Lt [5], and the cover paper table up down motor /Rr (M47) drives the cover paper table up down belts /Rr_Rt [1] and /Rr_Lt [2].
- The cover paper table upper limit sensor /Fr (PS26) [3] detects that the front side of the cover paper table that is driven by the M46 reaches the upper limit.
- The cover paper table upper limit sensor /Rr (PS27) [4] detects that the rear side of the cover paper table that is driven by the M47 reaches the upper limit.
- The cover paper table home sensor /Fr (PS47) [7] detects that the front side of the cover paper table is in its home position, and the cover paper table home sensor /Rr (PS53) [8] detects that the rear side of the cover paper table is in the home position.



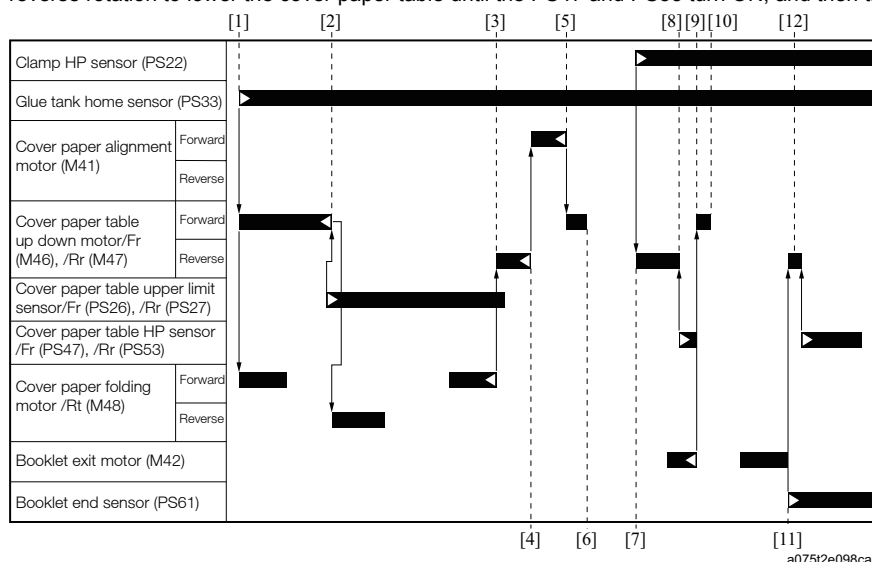
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[1]	Cover paper table up down belt /Rr_Rt	[2]	Cover paper table up down belt /Rr_Lt
[3]	Cover paper table upper limit sensor /Fr (PS26)	[4]	Cover paper table upper limit sensor /Rr (PS27)
[5]	Cover paper table up down belt/Fr_Lt	[6]	Front side
[7]	Cover paper table home sensor /Fr (PS47)	[8]	Cover paper table home sensor /Rr (PS)
[9]	Cover paper table up down belt /Fr_Rt	-	

(2) Control

- When applying glue to the spine of inside papers is finished and the glue tank HP sensor (PS33) turns ON, the cover paper table up down motors /Fr (M46) and /Rr (M47) start forward rotation to lift the cover paper table [1].
- During a prescribed time period after the cover paper table upper limit sensors /Fr (PS26) and /Rr (PS27) become ON, the cover paper is pressed against the spine of inside papers, and then M46 and M47 stop [2].
- After the book spine ends are neatly folded, the cover paper folding motor /Rt (M48) moves the cover paper folding plate /Rt away from the book and stops, and then the reverse rotation of the M46 and M47 lowers the cover paper table [3].
- The M46 and M47 keeps rotating until the cover paper table reaches the position to receive the book, and they stop [4].
- When the cover paper alignment motor (M41) drives the book exit belt (attached to the cover paper alignment plates /Fr and /Rr) to the position to receive the book, and stops, the M46 and M47 start forward rotation to lift the cover paper table [5].
- The motors stop [6] when the cover paper table reaches to the position to receive the book.
- When the clamp home sensor (PS22) turns ON upon completion of opening movement of the clamp pressure plate (the book is released from the plate), the M46 and M47 starts reverse rotation to lower the cover paper table [7] to receive the book.
- The M46 and M47 stop when the cover paper table home sensors /Fr (PS47) and /Rr (PS53) detect that the cover paper table reaches its home position.
- When the booklet exit motor (M42) drives the book exit belt to convey the book to the predetermined position and stops, the M46 and M47 starts forward rotation to lift the cover paper table [9].
- In order to align the surface of the book exit belt with that of the book conveyance belt in the book stock section, the cover table is lifted by 60mm and the M46 and M47 stop [10].

11. When the booklet end sensor (PS61) turns ON detecting that the book has exit to the book stock section [11], the M46 and M47 starts reverse rotation to lower the cover paper table until the PS47 and PS53 turn ON, and then the motors stop [12].



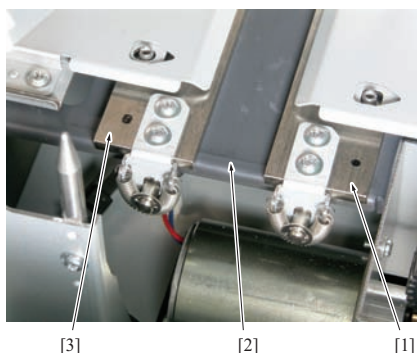
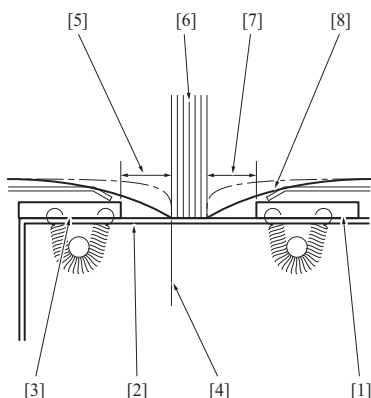
[1]	Completion of glue application	[2]	Completion of pressing the book spine
[3]	Starting to lower the cover paper table for preparing book receiving operation	[4]	Standby for receiving book
[5]	Book exit belt movement is finished	[6]	Going up and stopping at the position to receive book
[7]	Starting book receiving operation	[8]	Stopped at home position
[9]	Starting lifting to the book exit position	[10]	Lifting by 60mm
[11]	Book exit is finished	[12]	Returning to the home position

8.3.6 Cover paper folding plate control

(1) Mechanism

(a) OUTLINE

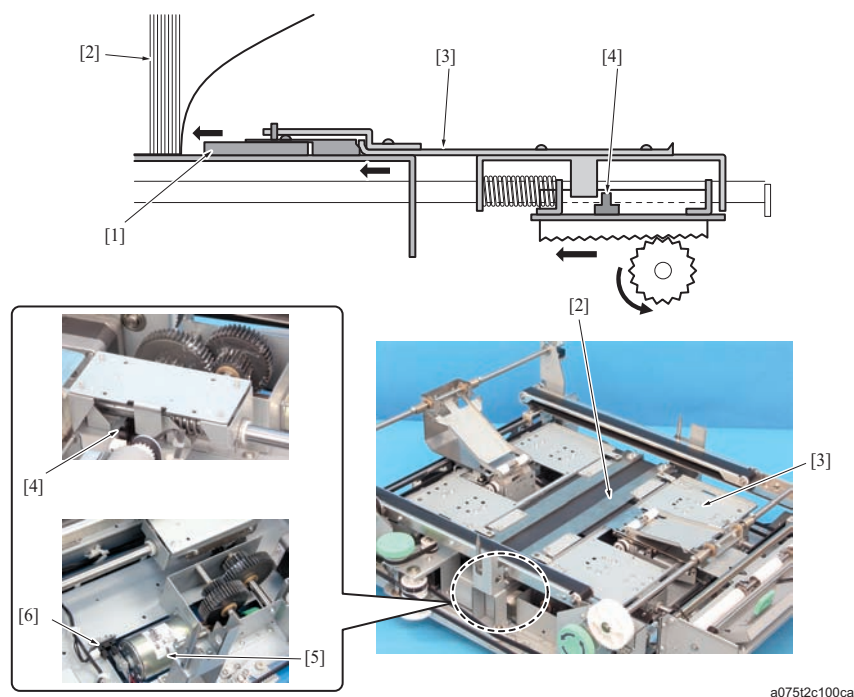
- In order to let the book spin ends to form perfect corners, the cover paper folding motors /Rt (M48) and /Lt (M49) move the cover paper folding plates /Rt [1] and /Lt [3] respectively inward to press the book spine [6] from both left and right side with the spine pressed by the book spine backing plate [2] on the cover paper [8].
- The cover paper folding plate /Lt is used as the reference position [4], and the cover paper folding plate /Rt presses the book against the plate /Lt with spring load.
- The standby position of the cover paper folding plate /Lt is 15mm [5] left from the reference position [4], and that of the cover paper folding plate /Rt is 15mm [7] right from the right end of the book regardless of the book thickness.



[1]	Cover paper folding plate /Rt	[2]	Book spine backing plate
[3]	Cover paper folding plate /Lt	[4]	At the reference position
[5]	15mm	[6]	Book
[7]	15mm	-	

(b) Pressure mechanism

- The cover paper folding motor /Rt (M48) [5] drives the cover paper folding operation via the gear.
- The cover paper folding pressure sensor (PS52) [4] detects the pressure applied to the book.
- The cover paper folding plate encoder sensor (PS50) [6] detects how much the M48 has rotated.

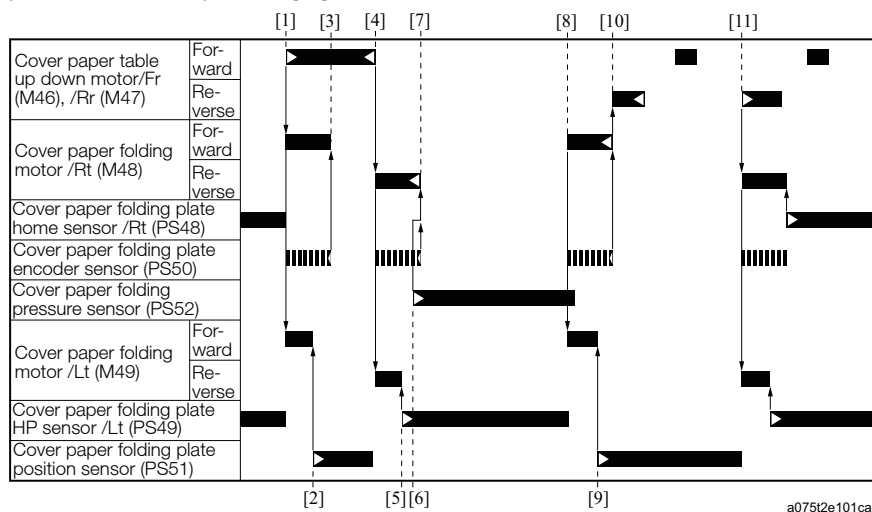


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[1]	Cover paper folding plate /Rt	[2]	Book
[3]	Pressure drive plate /Rt	[4]	Cover paper folding pressure sensor (PS52)
[5]	Cover paper folding motor /Rt (M48)	[6]	Cover paper folding plate encoder sensor (PS50)

(2) Control

- When the cover paper table up down motors /Fr (M46) and /Rr (M47) start to rise to stick the cover paper to the book spine and cover paper alignment completes, when the CD alignment plate returns to home position, the cover paper folding motors /Rt (M48) and /Lt (M49) start forward rotation to move the cover paper folding plates /Rt and /Lt outward [1].
- The M49 stops [2] when a prescribed time has elapsed after the cover paper folding plate position sensor (PS51) turns ON.
- The M48 stops [3] when the cover paper folding plate encoder sensor (PS50) has count certain pulses correspond to the book thickness.
- When the M46 and M47 stop upon completion of pressing the cover paper against the spine of inside papers, the M48 and M49 start reverse rotation to move the cover paper folding plate /Rt and /Lt inward (toward the book) [4].
- When the cover paper folding plate /Lt has moved to the reference position during a prescribed time period after the cover paper folding plate home sensor /Lt (PS49) turns ON, the M49 stops [5].
- When the cover paper folding pressure sensor (PS52) turns ON [6], the PS50 starts to count again until the pressure plate moves 3mm pressing the book, and then the M48 stops [7].
- The M48 and M49 start forward rotation to release the book from the pressure [8].
- The M49 stops [9] when the cover paper folding plate /Lt reaches its standby position after the PS51 turns ON.
- The M48 stops [10] when the cover paper folding plate /Rt reaches its standby position after the PS50 counted certain pulses.
- When the M46 and M47 start to rotate to lower the cover paper table, the M48 and M49 start to drive to return the cover paper folding plates to their home positions [11].



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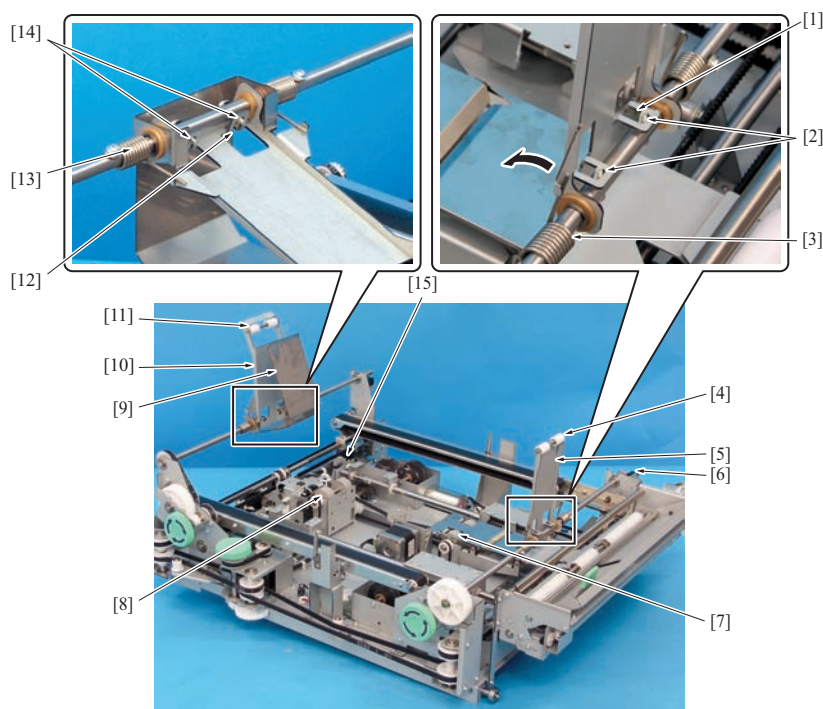
[1]	Movement to the standby position	[2]	Cover paper folding plate /Lt stops at the standby position
[3]	Cover paper folding plate /Rt stops at the standby position	[4]	Starts to fold cover paper

[5]	Cover paper folding plate /Lt stops at the reference position	[6]	Start to apply pressure to the book
[7]	Stops applying a certain pressure to the book	[8]	Releasing book after pressing it for a certain time to harden the glue
[9]	Cover paper folding plate /Lt stops at the standby position	[10]	Cover paper folding plate /Rt stops at the standby position
[11]	Returning to the home position	-	

8.3.7 Cover paper conveyance arm control

(1) Mechanism

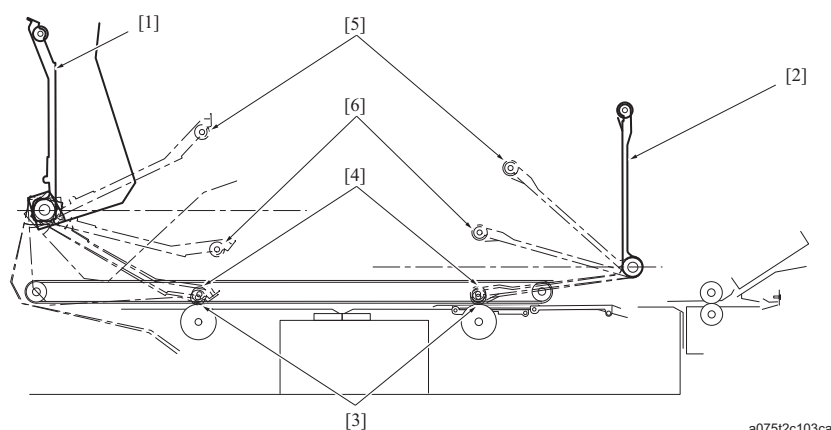
- The cover paper conveyance arms /Rt [5] and /Lt [10] press/separate the driven rollers [4] and [11] against/from the cover paper conveyance rollers /Rt [7] and /Lt [8].
- The cover paper conveyance arm /Lt is equipped with the cover paper lift plate /Lt [9] which lifts the left-side of the cover paper to prevent it from being fold while the cover paper alignment plates (book exit belts) are moved inward to attach the cover paper to the inside papers.
- The cover paper conveyance arm motors /Rt (M43) and /Lt (M44) drive the cover paper conveyance arms /Rt and /Lt via the pins [2] and [14].
- While conveying a cover paper, the pins [2] and [14] come off the notches [1] and [12] of the cover paper conveyance arms, and the cover paper conveyance rollers /Rt and /Lt are pressed against the paper with the spring load [3] and [13].
- The cover paper conveyance arm home sensors /Rt (PS42) [6] and /Lt (PS43) [15] detect that the arms are in their home positions. The upright positions of the paper cover conveyance arm /Lt and /Rt are their home positions.



[1]	Notch of cover paper conveyance arm /Rt	[2]	Pin
[3]	Spring	[4]	Driven roller
[5]	Cover paper conveyance arm /Rt	[6]	Cover paper conveyance arm home sensor /Rt (PS42)
[7]	Cover paper conveyance roller /Rt	[8]	Cover paper conveyance roller /Lt
[9]	Cover paper lift plate /Lt	[10]	Cover paper conveyance arm /Lt
[11]	Driven roller	[12]	Notch of cover paper conveyance arm /Lt
[13]	Spring	[14]	Pin
[15]	Cover paper conveyance arm home sensor /Lt (PS43)	-	

- The following table shows the preset angles of the cover paper conveyance arms for each operation.

Operation	Cover paper conveyance arm / Lt [1]	Cover paper conveyance arm / Rt [2]
Home position [1] [2]	+90 degrees	+90 degrees
Cover paper conveyance [3]	-30.4 degrees	-8 degrees
Cover paper alignment, attachment [4]	-29.4 degrees	-7 degrees
Temporary lowering of cover paper table (for book exit belt preparation) [5]	+25.4 degrees	+41.2 degrees
Re-lifting of cover paper table (to receive book) [6]	-14.1 degrees	+15.3 degrees



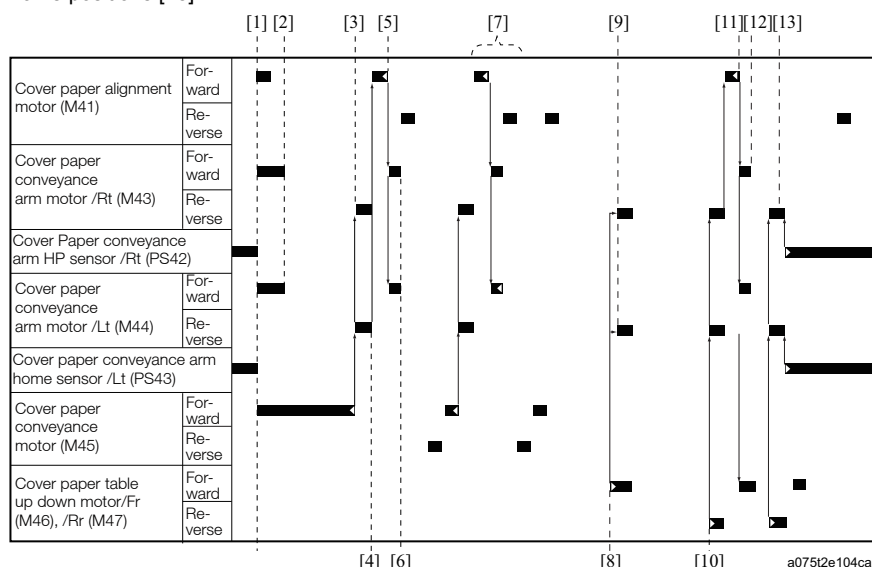
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[1]	Cover paper conveyance arm /Lt	[2]	Cover paper conveyance arm /Rt
[3]	Cover paper conveyance	[4]	Cover paper alignment, attachment
[5]	Temporary lowering of cover paper table (for book exit belt preparation)	[6]	Re-lifting of cover paper table (to receive book)

(2) Control

(a) Cover paper trimming mode

- When detecting that the print start signal turns ON [1], the cover paper conveyance arm motors /Rt (M43) and /Lt (M44) start forward rotating to make the driven rollers provided on the tips of the arms press against the conveyance rollers /Rt and /Lt, and the motors stop [2].
- When the cover paper conveyance motor (M45) stops [3] after conveying the cover paper to the cover paper table, the M43 and M44 start reverse rotation to move the driven rollers away from the paper [4].
- When the cover paper alignment motor (M41) stops [5] after making the arms press against both edges of the cover paper for alignment, the M43 and M44 start forward rotation to press the conveyance rollers /Rt and /Lt with the driven rollers [6] to prevent the paper from moving.
- When the cover paper trimming is finished, the cover paper alignment operation [7] to be attached to the inside papers is performed in the same manner as for the trimming.
- When a prescribed time has elapsed after the cover paper table is lifted [8] by the cover paper table up down motors /Fr (M46) and /Rr (M47), the cover paper folding plates /Rt and /Lt start to move inward to fold the cover paper along the inside papers, and at the same time, the M43 and M44 start reverse rotation to move the driven rollers away from the paper [9].
- When the cover paper table starts temporary lowering to prepare for receiving the book with the M46 and M47 drive forces, the M43 and M44 start reverse rotation [10] to support both sides of the cover paper with the cover paper lift plate /Lt and /Rt. It prevents the cover paper alignment plates /Fr and /Rr from unexpectedly folding the cover paper.
- When the M41 stops [11] after setting the book exit belt /Fr and /Rr at the book receiving position, the cover paper table starts to move upward again, and at the same time, the M43 and M44 start forward rotation to move the arms so that they do not contact with the clamp section.
- When the cover paper table starts downward movement receiving the book, the M43 and M44 drives the arms to return them to the home positions [13].



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[1]	Print start signal ON	[2]	Driven rollers are pressed against the conveyance rollers
[3]	Cover paper conveyance is completed	[4]	Release
[5]	Completion of positioning (alignment) cover paper for trimming	[6]	Driven rollers are pressed against the paper

[7]	Positioning (alignment) cover paper to be attached to inside papers	[8]	Starting lifting the cover paper table
[9]	Driven rollers release the paper for cover paper folding operation	[10]	Temporary lowering of the cover paper table
[11]	Book exit belt is set to standby	[12]	Moving the arms to avoid contact with clamp section
[13]	Returning to the home position	-	

(b) Cover paper Not trimming mode

When the sub-scanning direction length of inside papers is over 182mm, the first positioning operation for trimming is not performed. Only the positioning operation for attaching the cover to the inside papers is performed. However, when the inside paper is smaller than B5 size, alignment is done twice. Once when cover paper is carried in, and once after leading edge positioning is done.

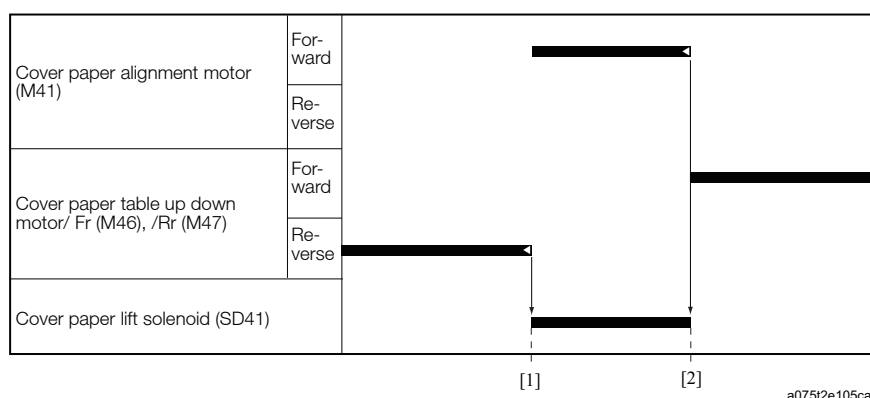
8.3.8 Cover paper lifting (supporting) control

(1) Mechanism

- The cover paper lift solenoid (SD41) activates the cover paper lift plate /Rt.
- The cover paper lift plate /Rt supports the right-side of the cover paper to prevent it from bowing down and being unexpectedly folded when the cover paper table is temporary lowered for setting the book exit belt at the standby position.

(2) Control

- When the cover paper table up down motors /Fr (M46) and /Rr (M47) stop after lowering the table for setting the book exit belt at the standby position, the cover paper lift solenoid (SD41) is activated to move the cover paper lift plate for supporting the right-side of the cover paper. This operation prevents the right-side of the paper from bowing.
- The SD41 turns OFF when the cover paper alignment motor (M41) stops after setting the book exit belt at the standby position.



[1]	Supporting cover page with the cover lift plate	[2]	Ending supporting cover paper
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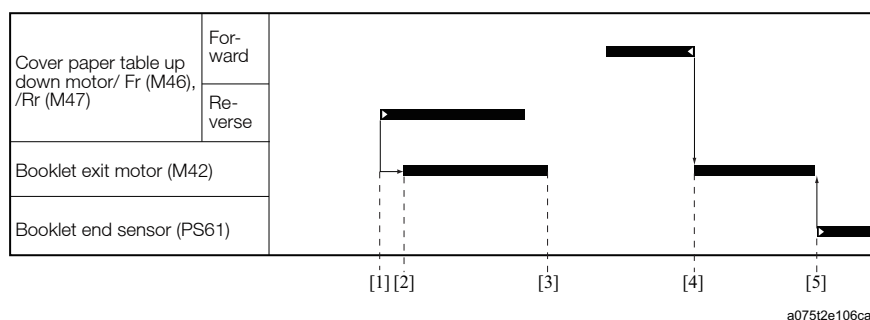
8.3.9 Book paper exit control

(1) Mechanism

- The booklet exit motor (M42) drives the book exit belts /Fr and /Rr.

(2) Control

- After the cover paper is folded along the inside papers, the cover paper table up down motors /Fr (M46) and /Rr (M47) start reverse rotation to lower the cover paper table [1].
- When the book spine corner touches the book exit belt surface (when a prescribed time has elapsed after the table starts to go down), the booklet exit motor (M42) starts to rotate at low speed so that the book is slowly laid down on the belt [2].
- When a prescribed time has elapsed after starting the rotation, the M42 stops [3].
- The M42 starts high-speed rotation to exit the book [4] toward the book stock section when the M46 and M47 have moved the cover paper table upward by 60mm so that the book exit belt horizontally aligns with the book conveyance belt in the book stock section.
- The M42 stops [5] when the booklet end sensor (PS61) turns ON detecting that the book has conveyed to the book stock section.

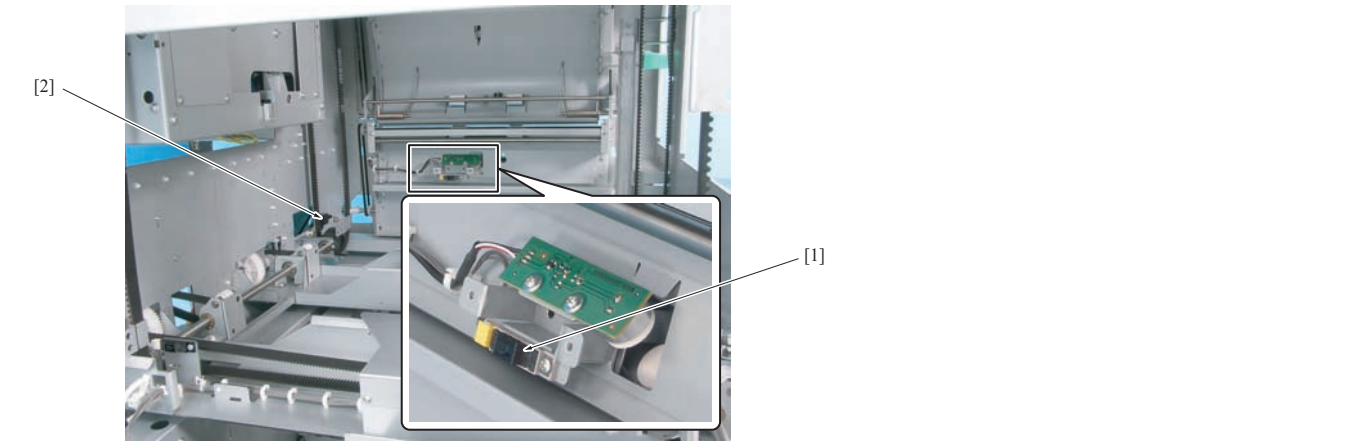


[1]	Cover paper table goes down to convey the book to the belt	[2]	Receiving the book
[3]	Temporary stop	[4]	Paper exit of the book

[5]	Paper exit completed	-
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8.3.10 Waste paper control

- The waste box full sensor (PS80) [1] detects a full status of the waste box by receiving a light reflected off the waste paper in the box.
- The waste box set sensor (PS81) is provided to detect whether the waste box is properly set or not. The actuator of the waste box activates the sensor.

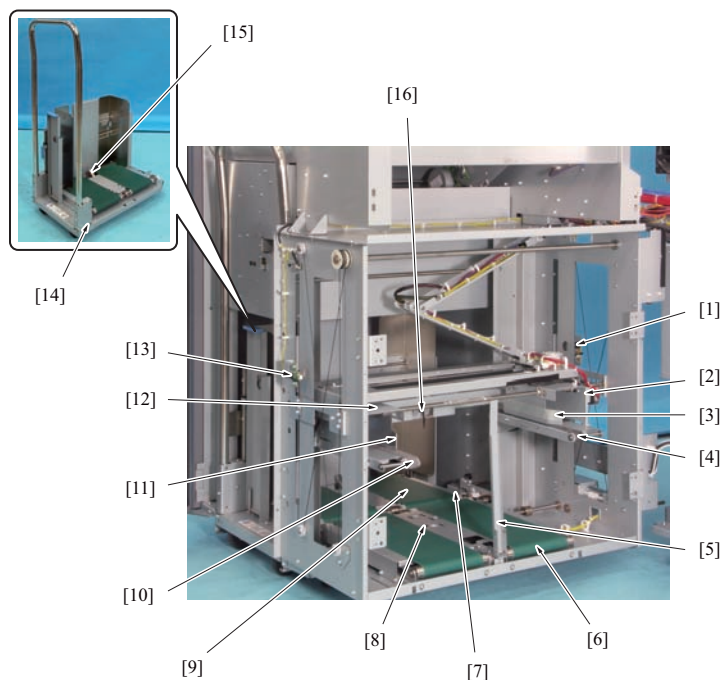


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[1]	Waste box full sensor (PS80)	[2]	Waste box set sensor (PS81)
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9. BOOK STOCK SECTION

9.1 Configuration

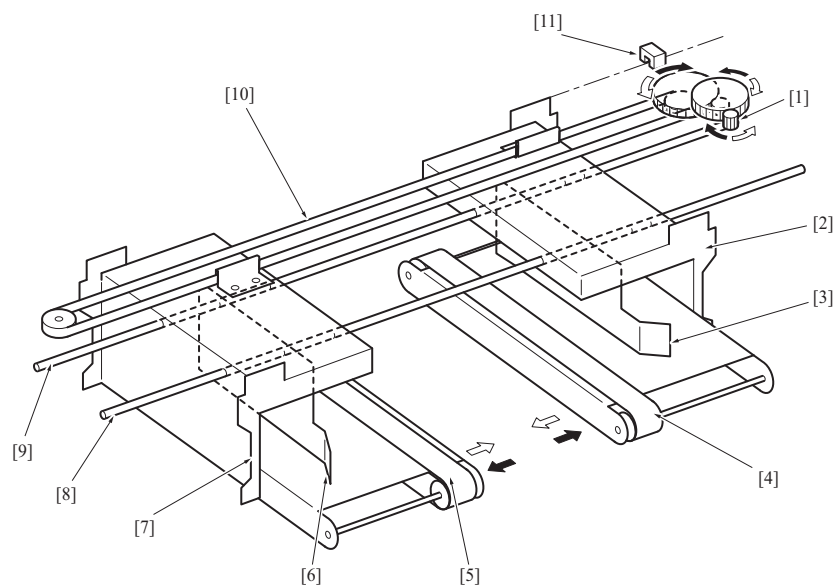


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[1] Booklet upper limit sensor (PS65)	[2] Book conveyance arm /Rr
[3] Book guide /Rr	[4] Book conveyance belt /Rr
[5] Book stopper	[6] Book movement belt /1
[7] Booklet sensor /2 (PS67)	[8] Booklet sensor /1 (PS66)
[9] Book movement belt /2	[10] Book conveyance belt /Fr
[11] Book guide /Fr	[12] Book conveyance arm /Fr
[13] Booklet upper limit LED (LED61)	[14] Handcart
[15] Actuator (for booklet sensor /2)	[16] Booklet end sensor (PS61)

9.2 Drive

9.2.1 Book conveyance drive

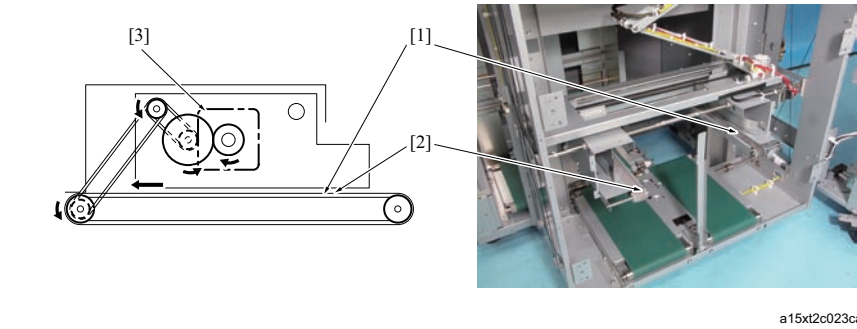


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[1] Booklet conveyance belt movement motor (M62)	[2] Book conveyance arm /Rr
[3] Book guide /Rr	[4] Book conveyance belt /Rr
[5] Book conveyance belt /Fr	[6] Book guide /Fr
[7] Book conveyance arm /Fr	[8] Guide shaft /Rt
[9] Guide shaft /Lt	[10] Timing belt

[11]	Book conveyance belt movement home sensor (PS62)	-
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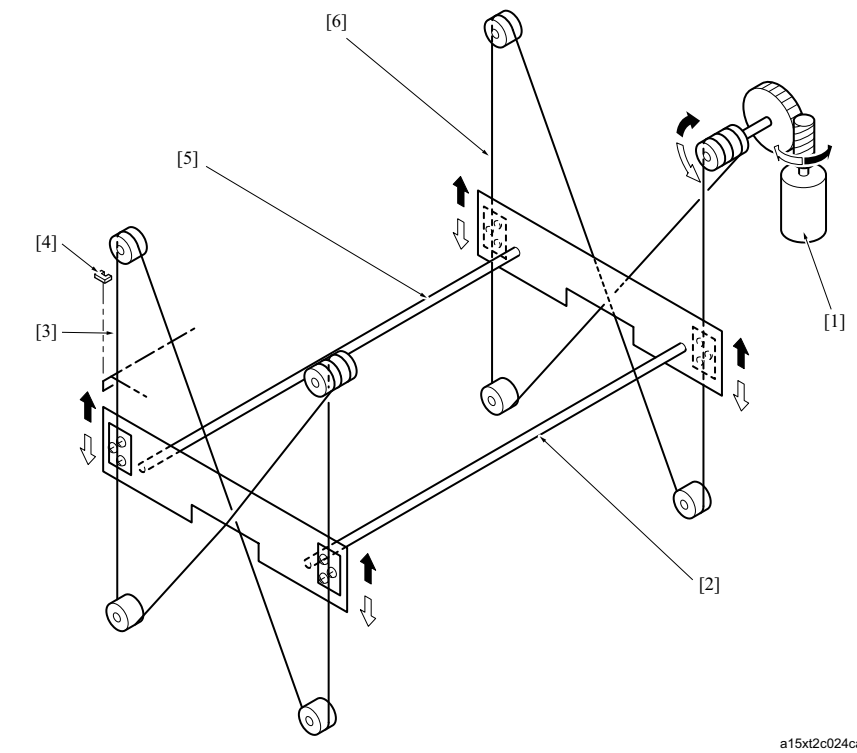
9.2.2 Book conveyance belt drive



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[1]	Book conveyance belt /Rr	[2]	Book conveyance belt /Fr
[3]	Booklet conveyance belt motor (M61)		-

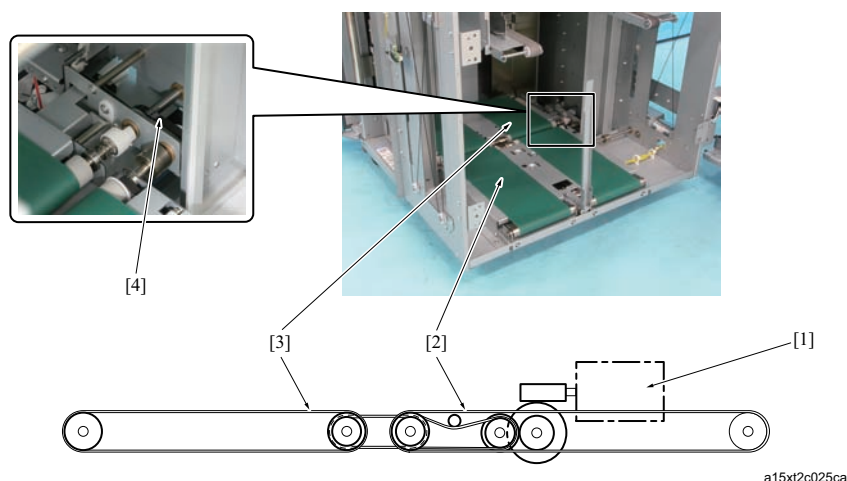
9.2.3 Book conveyance up down drive



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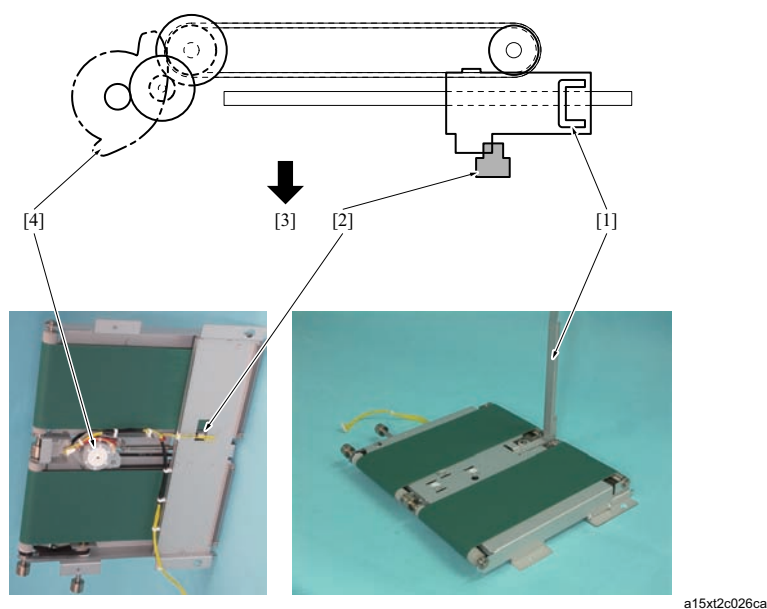
[1]	Booklet conveyance belt up down motor (M63)	[2]	Guide shaft /Rt
[3]	Book lift wire/Rr Book lift wire/Fr	[4]	Book conveyance belt home sensor (PS63)
[5]	Guide shaft /Lt	[6]	Book lift wire /Rr

9.2.4 Book movement drive



[1]	Booklet conveyance belt movement motor (M64)	[2]	Book movement belt /1
[3]	Book movement belt /2	[4]	Timing belt

9.2.5 Book stopper drive

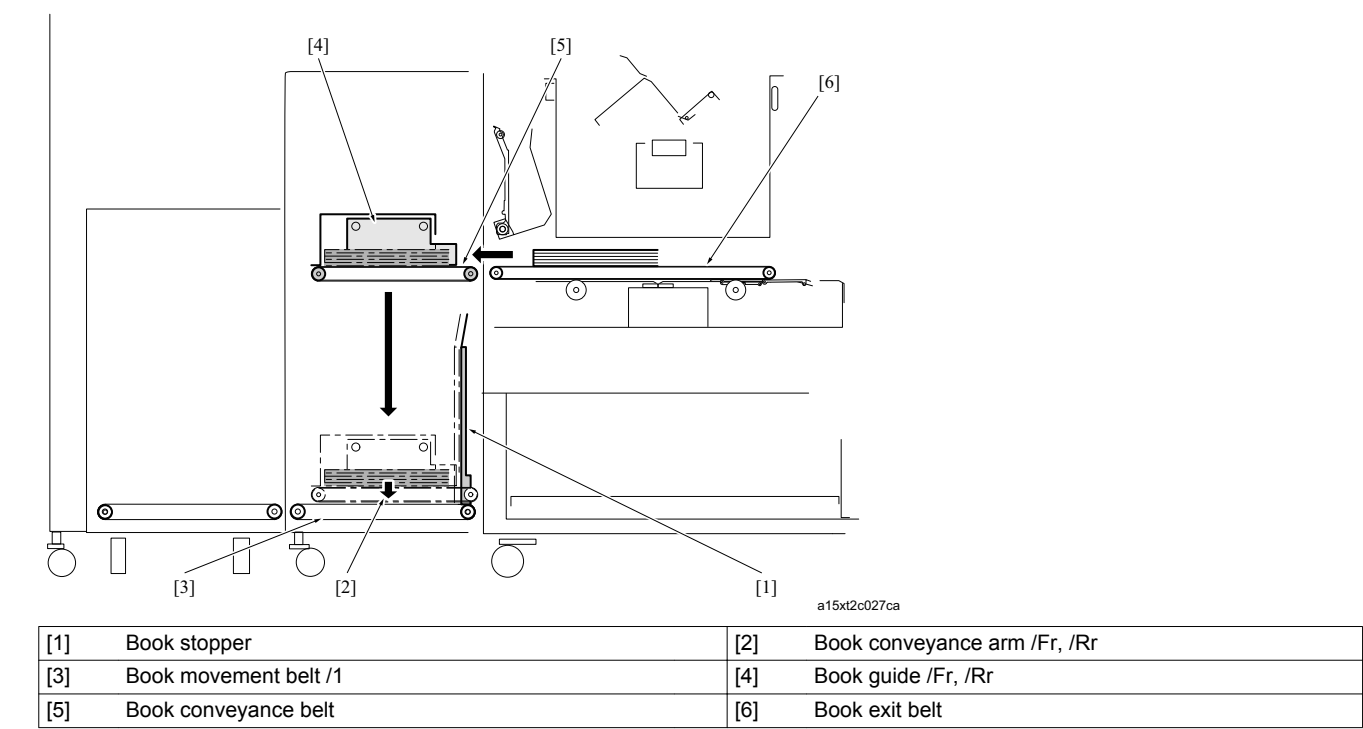


[1]	Book stopper	[2]	Booklet stopper HP sensor (PS68)
[3]	Front side	[4]	Booklet stopper motor (M65)

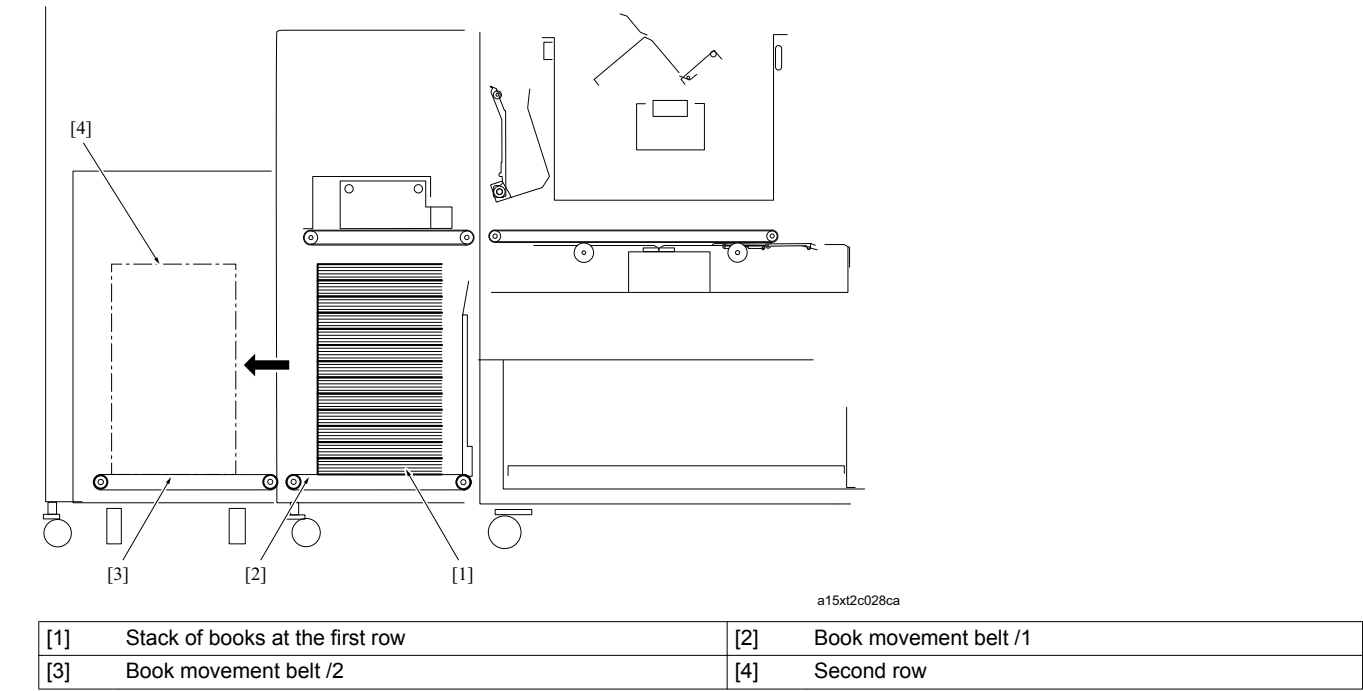
9.3 Operation

9.3.1 Book stock section operation overview

1. When detecting that the print start signal turns ON, the book guides /Fr and /Rr [4] and the book stopper [1] are moved to the positions correspond to the selected paper size.
2. The book conveyance belt [5] is driven in synchronization with the drive of the book exit belt [6] in the cover paper table section, and the conveyance belt receives the book from the exit belt.
3. The book guides /Fr and /Rr [4] are moved to the positions where they contact with the book side edges to align the book.
4. The book is conveyed downward until it reaches to the position to be stacked.
5. The book conveyance arms /Fr and /Rr are opened to drop the book onto the book movement belt /1 [3].



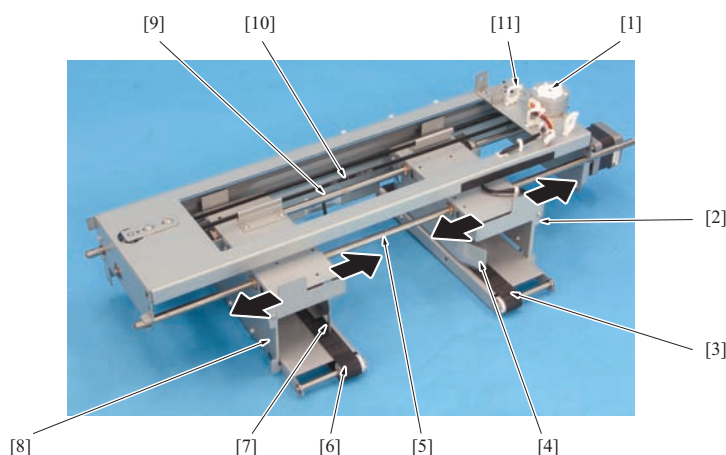
6. When books have been stacked to the upper limit, the stack of books [1] is moved to the second row [4] by the book movement belts /1 [2] and /2 [3], and then it keeps stacking the subsequent books in the first row.



9.3.2 Book conveyance and movement control

(1) Mechanism

- The booklet conveyance belt movement motor (M62) [1] drives the book movement arms /Fr [8] and /Rr [2] via the timing belt [10].
- The book movement arms /Fr and /Rr move in the main scan direction along the guide shaft /Rt [5] and /Lt [9].
- The book conveyance belt movement home sensor (PS62) is provided to detect whether the arms in their home position or not.
- The guide shafts /Fr and /Rr are moved up or down by the booklet conveyance belt up down motor (M63).
- The book movement arms /Fr and /Rr include the book conveyance belts /Fr [6], /Rr [3], and the book guide /Fr [7], /Rr [4].
- Registration regulating plate /Fr [7], /Rr [4] slides along the guide shaft /Rt [5], /Lt [9].

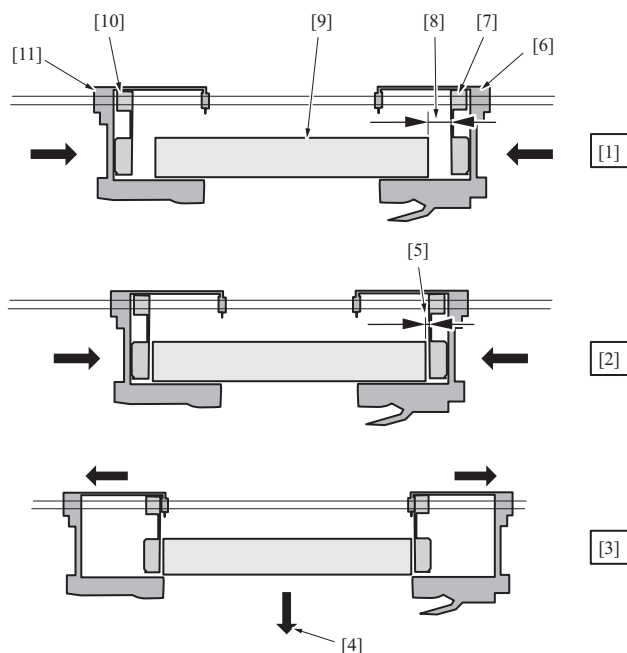


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[1]	Booklet conveyance belt movement motor (M62)	[2]	Book movement arm /Rr
[3]	Book conveyance belt /Rr	[4]	Book guide /Rr
[5]	Guide shaft /Rt	[6]	Book conveyance belt /Fr
[7]	Book guide /Fr	[8]	Book movement arm /Fr
[9]	Guide shaft /Lt	[10]	Timing belt
[11]	Book conveyance belt movement home sensor (PS62)	-	

(a) Operation

- When receiving a book from the cover paper table section [1], the book movement arms /Fr [6] and /Rr [11] are moved to the positions correspond to the book size, and the book guides /Fr [7] and /Rr [10] are set at the positions 17mm outer the book edges [9].
- Then the book guides are moved inward to the positions 2mm away from the book edges to align the book to be stacked.
- When the book is conveyed downward to the position to be stacked, the book movement arm /Fr [6] and /Rr [10] are moved outward to drop the book [3].



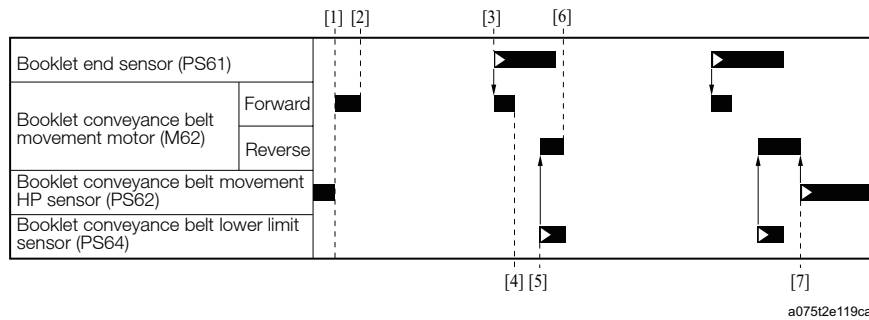
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[1]	Standby/receiving book	[2]	Aligning the book and moving down
[3]	Releasing the book	[4]	Book drops
[5]	Gap between the book edge and the guide is 2mm during alignment	[6]	Book movement arm /Fr
[7]	Book guide /Fr	[8]	Gap between the book edge and the guide is 17mm in the standby status
[9]	Book	[10]	Book guide /Rr
[11]	Book movement arm /Rr	-	

(2) Control

- When detecting that the print start signal turns ON [1], the book conveyance belt movement motor (M62) starts forward rotation to move the book movement arms /Fr and /Rr to the positions correspond to the book size [2].
- When the booklet end sensor (PS61) turns ON [3], the M62 starts forward rotation again to move the regulation plates /Fr and /Rr inward until the gap between the regulation plates and book edges become 2mm to perform alignment [4].

3. When the booklet conveyance belt lower limit sensor (PS64) turns ON [5], the M62 starts reverse rotation to move the arms to home position and stops [6]. However, when there are subsequent books, book conveyance assy moves the book movement arms to standby position after returning to the upper limit home position.
4. After releasing the book, the M62 reverse rotation is continued until the arms stop at their home positions [7] turning ON the book conveyance belt movement home sensor (PS62).



[1] Print start signal ON	[2] Stop the arms at the positions correspond to the book size
[3] Receiving the book is completed	[4] Guides stop at the positions for alignment
[5] Start to move the arms to their standby position	[6] Stopping at the standby position
[7] Returning to the home position	-

9.3.3 Book conveyance belt control

(1) Mechanism

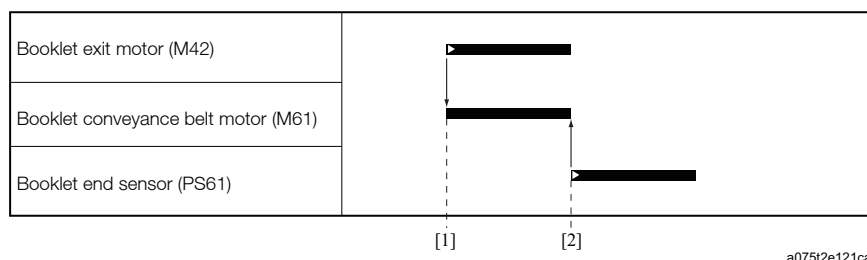
- The booklet conveyance belt motor (M61) drives the book conveyance belt.
- The book conveyance belts /Fr [2] and /Rr [1] receive the book conveyed from the cover paper table section.
- The booklet presses the book end sensor (PS61) [3] and turns it ON. It detects the completion of the receiving operation.



[1] Book conveyance belt /Rr	[2] Book conveyance belt /Fr
[3] Booklet end sensor (PS61)	-

(2) Control

- The booklet conveyance belt motor (M61) starts to drive upon starting of the booklet exit motor (M42) to receive the book [1] conveyed from the cover paper table section.
- The M61 stops [2] when the booklet end sensor (PS61) turns ON.



[1] Book conveyance belt drive	[2] Receiving the book is completed
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9.3.4 Book conveyance up down control

(1) Mechanism

- The booklet conveyance assy [5] is moved up and down with the book lift wires /Fr [4] and /Rr [3] driven by the booklet conveyance belt up down motor (M63) [1].
- The booklet conveyance belt home sensor (PS63) [6] detects whether the book conveyance assy is at its upper limit home position or not. The book conveyance belt lower limit sensor (PS64) [2] provided at the bottom of the book movement arm /Rr detects whether the book conveyance assy is at its lower limit position (top surface of the stacked books or the movement belt position).

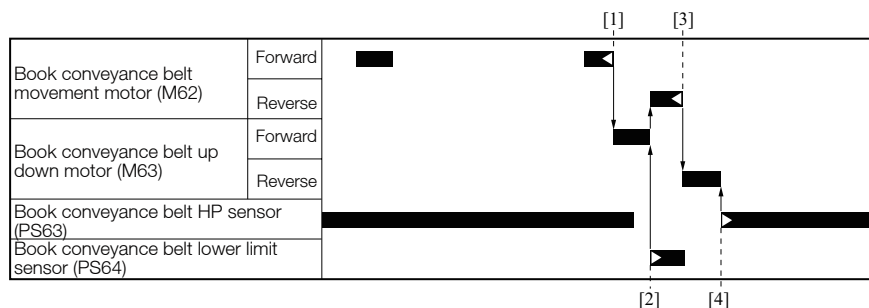


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[1] Booklet conveyance belt up down motor (M63)	[2] Booklet conveyance belt lower limit sensor (PS64)
[3] Book lift wire /Rr	[4] Book lift wire /Rr Book lift wire /Fr
[5] Book conveyance assy	[6] Booklet conveyance belt home sensor (PS63)

(2) Control

- When the book alignment driven by the booklet conveyance belt movement motor (M62) is finished, the booklet conveyance belt up down motor (M63) starts forward rotation to lower the book conveyance assy [1].
- M63 stops when the booklet conveyance belt lower limit sensor (PS64) turns ON [2].
- When the M62 stops [3], the M63 starts reverse rotation to lift the book conveyance assy.
- The M63 stops [4] when the book conveyance belt home sensor (PS63) detects that the assy reaches its upper home position.



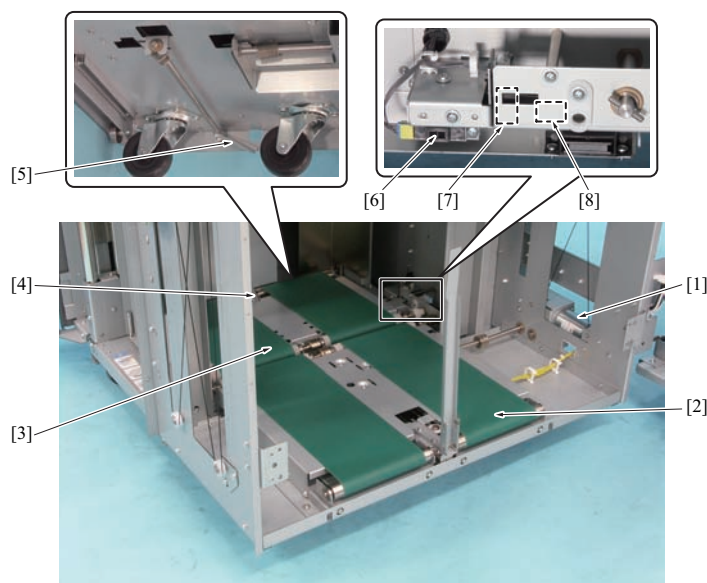
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[1] Book conveyance assy starts to go down	[2] Stopping at the book release position
[3] Releasing book is completed	[4] Returning to the home position

9.3.5 Book movement control

(1) Mechanism

- The booklet movement motor (M64) [1] drives the book movement belts /1 [2] and /2 [3].
- It moves the books of the first row stacked on the book movement belt /1 to the book movement belt /2 of the second row.
- The shielding plate [5] of the actuator [4] on the handcart turns ON the booklet sensor /2 (PS67) [6] and detects whether there is any book stacking on the second row.



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[1] Booklet conveyance belt movement motor (M64)	[2] Book movement belt /1
[3] Book movement belt /2	[4] Actuator

[5] Shielding plate	[6] Booklet sensor /2 (PS67)
[7] Cart set sensor (PS69)	[8] Hand cart set switch (MS2)

(2) Control

(a) While in the print

- The booklet movement motor (M64) is allowed to drive only when the booklet sensor /2 (PS67) is OFF (no stack of books exist at the second row).
- It allows the driving of M64 only when the cart set sensor (PS69) and the hand cart set switch (MS2) are ON.
- When the booklet load limit sensor (PS65) detects that book has been stacked up to the limit at the first row, the M64 starts to drive the belt and stops after the specified period of time when the PS67 turns ON.

(b) Book manual movement

- The booklet movement motor (M64) is allowed to drive only when the booklet sensor /1 (PS66) is ON and the booklet sensor /2 (PS67) is OFF.
- It allows the driving of M64 only when the cart set sensor (PS69) and the hand cart set switch (MS2) are ON.
- It drives the M64 with turning ON the book movement button and stops after the specified period of time when the PS67 turns ON.

9.3.6 Book stopper control

(1) Mechanism

- The book stopper supports the stacked books to prevent them from falling down.
- The booklet stopper motor (M65) drives the book stopper.
- The booklet stopper HP sensor (PS68) detects whether the book stopper is at is home position or not.

(2) Control

- Upon receiving of a print job, the booklet stopper motor (M65) starts forward rotation to move the stopper to the position correspond to the book size.
- When the job is finished, the M65 starts reverse rotation to return the stopper to its home position, and the motor stops when the booklet stopper HP sensor (PS68) turns ON.

9.3.7 Book full status detection control

- When books have been stacked up to the limit at the first row, the full-status is detected by the booklet load limit sensor (PS65) and notified by the booklet upper limit LED (LED61).
- Since any light to the PS65 is blocked while the book conveyance assy is moving up or down, the PS65 status is checked only while the book conveyance belt home sensor (PS63) is ON.
- Even when the PS65 is not detecting the full-status, continuing stacking books cannot be made under the following conditions.

(1) When the stacked book size is the same

- Book thickness is classified into 3 levels; a, b, and c, and allowable number of books to be stacked is determined according to the combination of a, b, and c as shown in the following table.
 - Book a: 10 to 30 sheets
 - Book b: 31 to 150 sheets
 - Book c: 151 to 300 sheets
- Mixing more than 2 among a, b, and c-level books in 1 stack is not allowed.

Books already stacked	Books to be stacked over		
	Book a	Book b	Book c
Book a	50 copies in total	(30 - a)	(20 - a)
Book b	(35 - b) until detected by PS65	35 copies in total or until detected by PS65	(20 - b) copies or until detected by PS65
Book c	Until detected by PS65	Until detected by PS65	Until detected by PS65

*Stacking more books is stopped when the result of the calculations shown in the table become negative value.

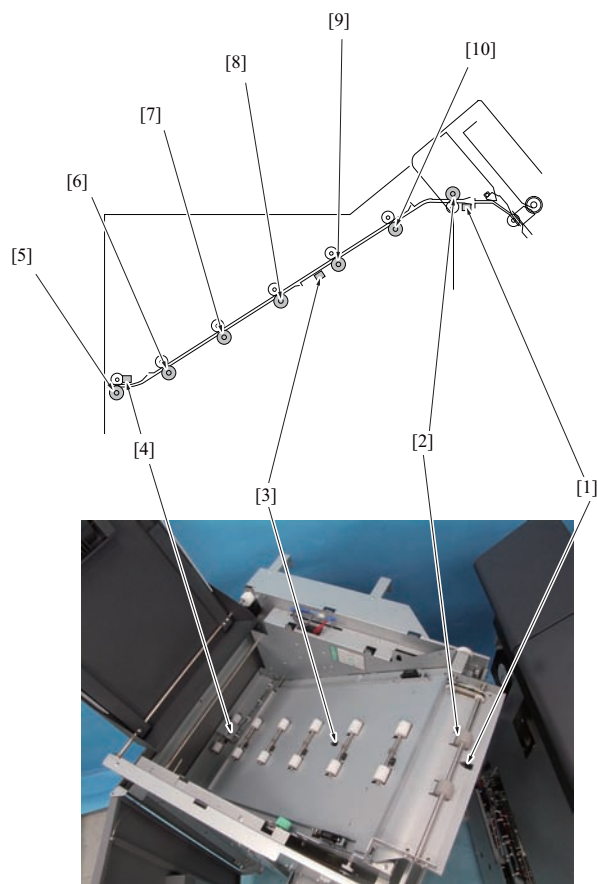
*Stacking more books is stopped when the PS65 detects full status even when the result of the calculations is positive.

(2) When the stacked book size is different from each other

- It moves the stacked books on the first row to the second row, and then stacks the different size books on the open first row. When the handcart is not set, bookbinding is stopped.

10. RELAY CONVEYANCE SECTION

10.1 Configuration

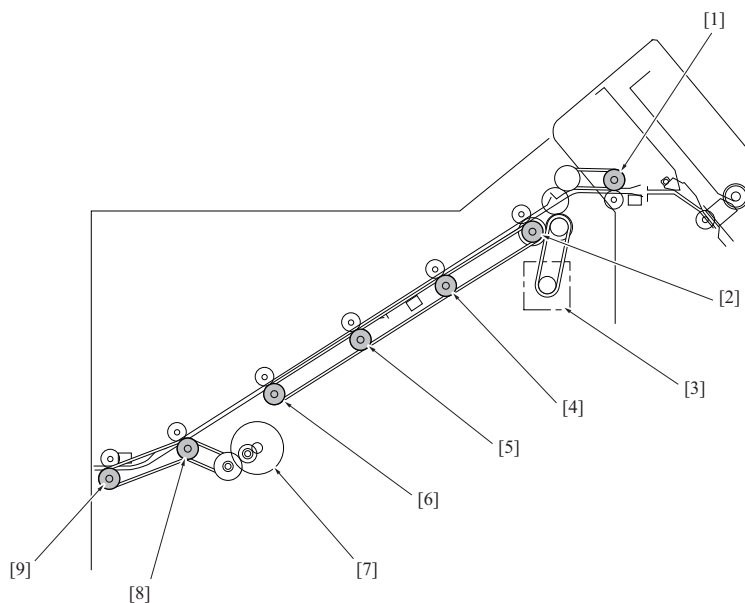


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[1]	Relay conveyance entrance sensor (PS93)	[2]	Relay conveyance roller /1
[3]	Relay conveyance intermediate sensor (PS91)	[4]	Relay conveyance paper exit sensor (PS94)
[5]	Relay paper exit roller /2	[6]	Relay paper exit roller /1
[7]	Relay conveyance roller /5	[8]	Relay conveyance roller /4
[9]	Relay conveyance roller /3	[10]	Relay conveyance roller /2

10.2 Drive

10.2.1 Relay conveyance roller drive / Relay paper exit roller drive



a15xt2c033ca

[1] Relay conveyance roller /1	[2] Relay conveyance roller /2
[3] Relay conveyance motor (M92)	[4] Relay conveyance roller /3 (One-way clutch)
[5] Relay conveyance roller /4	[6] Relay conveyance roller /5 (One-way clutch)
[7] Relay conveyance paper exit motor (M91)	[8] Relay paper exit roller /1
[9] Relay paper exit roller /2	-

10.3 Operation

10.3.1 Relay conveyance control

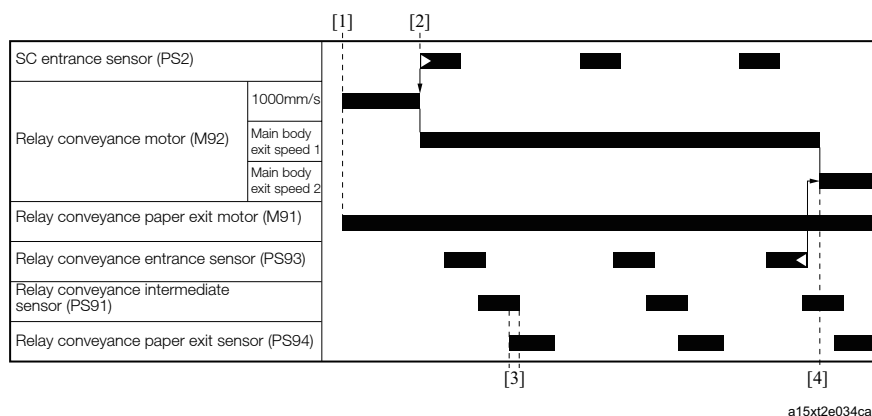
(1) Mechanism

- The relay conveyance motor (M92) switches the relay conveyance rollers /1, /2, /3, /4 and /5 between 1000mm/s and the speed of the main body paper exit, and drives them. *1
- The relay conveyance exit motor (M91) drives the relay paper exit rollers /1 and /2 at the constant speed 1000mm/s.
- The relay conveyance rollers /3 and /5 have the one-way clutch and it applies for the paper pulling out by the relay conveyance paper exit rollers /1 and /2.

*1 The speed is switched only for 1051. For C8000/1200/1200P/1250/1250P/C7000/C7000P/C70hc/C6000, the speed is kept at 1000mm/s and not switched.

(2) Control

- Upon receiving a print job, the relay conveyance motor (M92) and the relay conveyance exit motor (M91) turn ON [1] at the speed 1000mm/s.
- Once the SC entrance sensor (PS2) turns ON and detects the leading edge, M92 decelerates to the speed of the main body paper exit [2].
- During the period [3] between when the relay conveyance exit sensor (PS94) turns ON and the relay conveyance intermediate sensor (PS91) turns OFF, the relay paper exit rollers /2 and /1 pull and convey the paper from the relay conveyance roller.
- If the speed of the main body paper exit for the next paper changes, it switches to the speed of it [4] after a specified period of time since the relay conveyance entrance sensor (PS93) turns OFF and detects the trailing edge of paper.

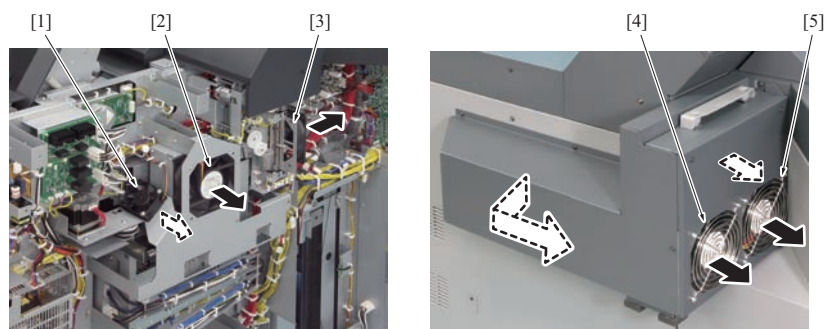


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[1] Print start signal ON	[2] Decelerates to the speed of main body paper exit
[3] Pull out conveyance by the relay paper exit roller	[4] Speed switchover

11. OTHERS

11.1 Fan control



a15xt2c035ca

[1]	Pellet supply cooling fan (FM4)	[2]	Exhaust fan /2 (FM81)
[3]	Exhaust fan /1 (FM80)	[4]	Deodorant fan /2 (FM98)
[5]	Deodorant fan /1 (FM97)	-	

11.1.1

(1) Pellet supply cooling fan (FM4)

(a) Purpose

- The fan cools the air above the molten glue surface in the glue tank for the maintenance of a temperature differential to molten glue. This allows the glue tank temperature sensor /Up (TH2) to detect a drop in temperature precisely when it comes out of the molten glue that is getting low for the notification that pellets need to be supplied.

(b) ON timing

- The M4 turns ON upon completion of warm-up of the glue tank.
- The M4 turns ON when the temperature sensor /Md (TH3) detects the temperature around the middle in the glue tank is higher than the preset temperature.

(c) OFF timing

- The M4 turns OFF when the temperature sensor /Md (TH3) detects the temperature around the middle in the glue tank is lower than the preset temperature.

(2) Exhaust fan /1 (FM80), /2 (FM81)

(a) Purpose

- The fans are provided to prevent an excessive increase in temperature inside the PB-501 exhausting air and deodorize.

(b) ON timing

- The FM80 and FM81 turn ON upon completion of warm-up of the glue tank.
- The FM80 and FM81 turn ON when the temperature sensor /Md (TH3) detects the temperature around the middle in the glue tank is higher than the preset temperature.

(c) OFF timing

- The FM80 and FM81 turn OFF when the temperature sensor /Md (TH3) detects the temperature around the middle in the glue tank is lower than the preset temperature.

(3) Deodorant fan /1 (FM97), /2 (FM98)

(a) Purpose

- Exhausts air from the exhaust fans /1 (FM80) and /2 (FM81) to the outside through the deodorant filter.

(b) ON timing

- Turns ON FM97 and FM98 with turning ON the sub power switch (SW2) of the main body.

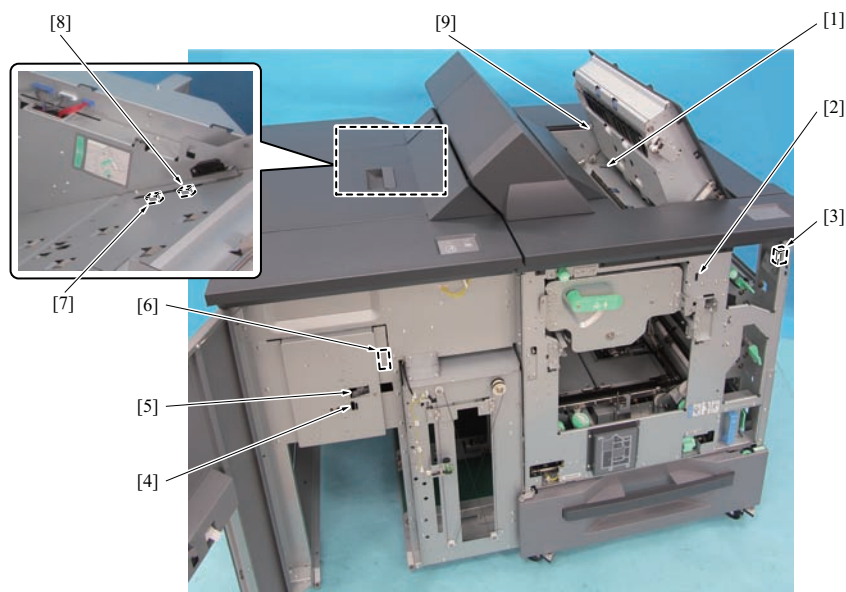
(c) OFF timing

- Turns OFF FM97 and FM98 with turning OFF the sub power switch (SW2) of the main body.

11.2 Door opening/closing control

- When the front door, upper door and the book door are open and the front door switch (SW2) [2], the upper door switch /2 (SW4) [1] and the booklet door switch (SW3) [5] turn OFF, the DC power supply unit /2 (DCPU/2) is shut down to stop all operations instantly.
- When the pellet supply door is opened with the pellet supply door switch (MS1) turned OFF, the pellet supply motor (M33) is stopped instantly.

- During initialization and printing operations, the front door lock solenoid (SD80) [3], booklet door lock solenoid (SD61) [6] turn ON, and disables the front door and the book door to open/close. During idling, jam occurrence or in service mode, SD80 and SD61 turn OFF and open/close of the front door is enabled.
- A message is displayed in the touch panel when the booklet door sensor (PS57) [4], upper door switch /1 (SW1) [9], and relay conveyance door sensor (PS92) [8] switch from ON to OFF.
- When the relay conveyance door is opened with the relay door switch (MS3) [7] turned OFF, the relay conveyance motor (M92) and the relay conveyance exit motor (M91) are stopped instantly.



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[1]	Upper door switch /2 (SW4)	[2]	Front door switch (SW2)
[3]	Front door lock solenoid (SD80)	[4]	Booklet door sensor (PS57)
[5]	Booklet door switch (SW3)	[6]	Booklet door lock solenoid (SD61)
[7]	Relay conveyance door switch (MS3)	[8]	Relay conveyance door sensor (PS92)
[9]	Upper door switch /1 (SW1)	-	

PR THEORY OF OPERATION GP-501

1. PREFACE

1.1 INTRODUCTION

This service manual is provided for use by an authorized service technician for the repair and maintenance of the GP-501 Punch.

The GP-501 Punch is an innovative, labor saving solution for punching paper in-line and includes the following design features:

- Maximum productivity saver with punching in-line at the speed of the printer! Does not slow up or stop the print system.
- Quick-change die sets that are self-latching without tools or levers.
- GP-501 Punch die sets are available in all of the most common hole patterns and include an Identifying Label providing user with the hole pattern and name.
- Convenient storage area for three extra Die Sets located above the sheet bypass.
- Accurate hole punching with consistent alignment.

With each GP-501 Punch, the customer receives a user manual. They are encouraged to keep this manual for future reference.

The information contained in the user manual is also helpful to the service technician.

Please refer to it for detailed information regarding dies sets, operation or specifications.

1.1.1 Setting the Right Expectations

The following excerpts are copied from sales and marketing literature. This customer expectation information is helpful for the service technician.

1.2 PRODUCT POSITIONING

The GP-501 Punch provides a flexible, cost effective punching solution for light to medium level production oriented customers.

- Designed for customers that have the need to punch their documents at a maximum of 60-70% of their overall workflow.
- Recommended punching limit to 200K sheets per month. (600k sheets in bypass mode)
- Die Sets will decrease in performance over time based on the types of stocks and weights that are being punched.
- The expected life of a dieset is 500K punches. However, if paper stock punched is typically 20 lb. bond, then up to 2 million punches can be achieved.
- Should be regarded as a long-term supply item.

1.3 LONG EDGE FEED (LEF) ONLY

The GP-501 Punch is designed to punch LEF only. No exceptions. Attempting to punch a sheet size other than LEF will cause a misfeed.

- Use a colored sheet insert (instead of the tab) in the job workflow for easier tab insertion after the job has been run.

2. OUTLINE

2.1 Unit configuration diagram

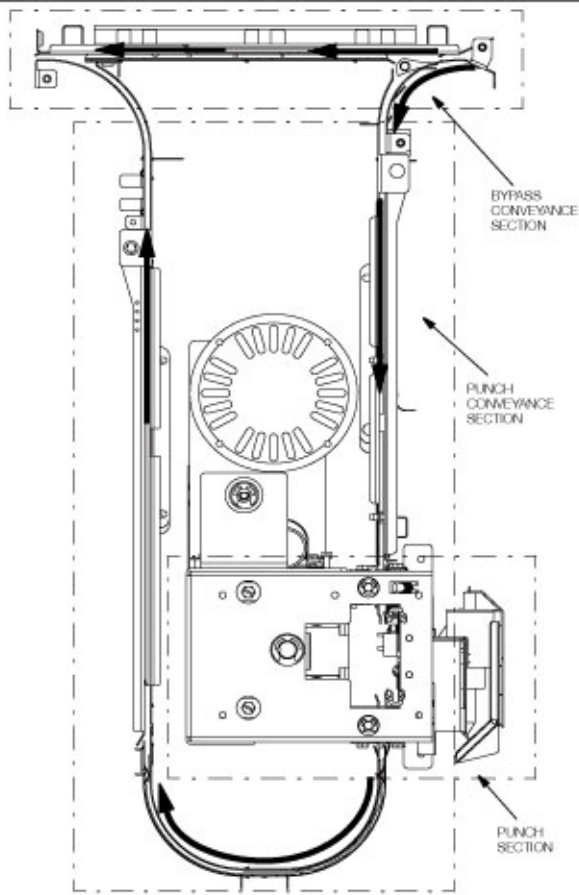


Figure 1.3 Unit Configuration Diagram

2.2 Paper path

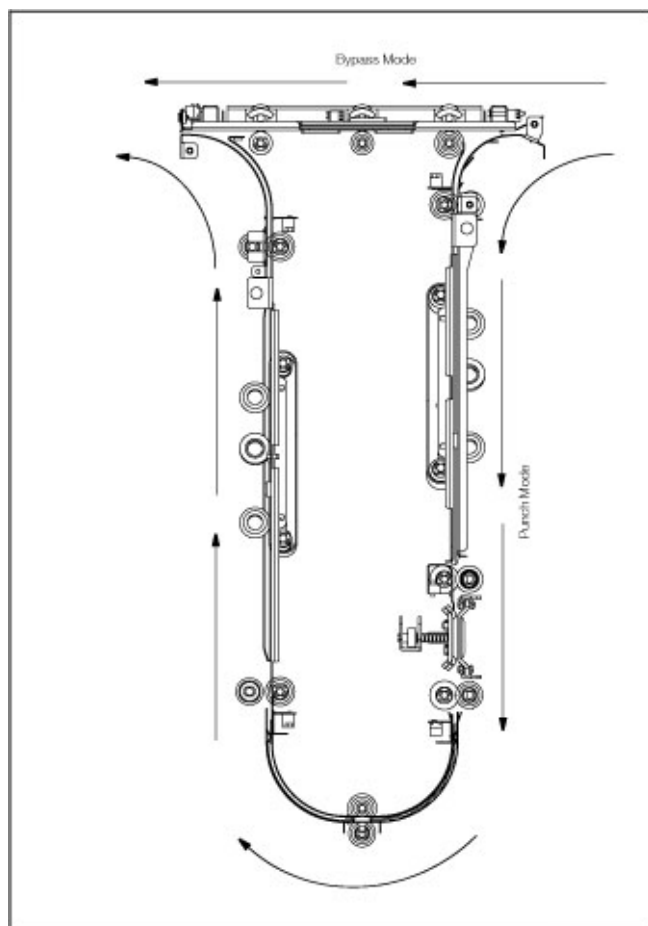
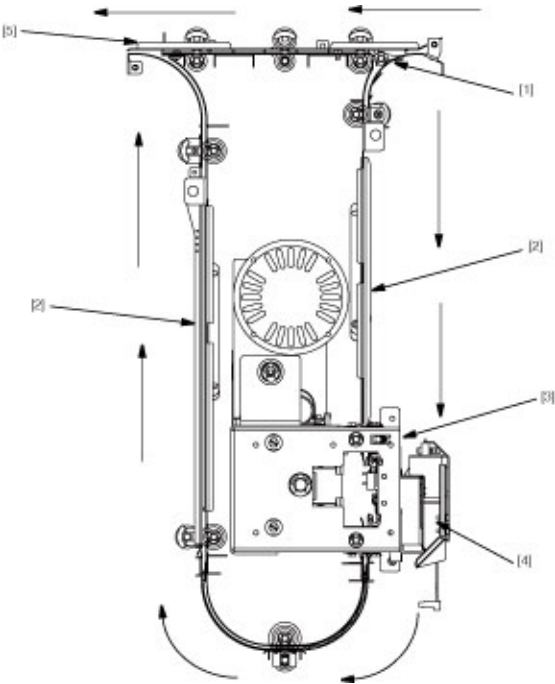


Figure 1.4 Paper Path

3. CONVEYANCE SECTION

3.1 Configuration



[1]	Diverter	[2]	Aligner Panel
[3]	Punch Module	[4]	Back Gauge Mechanism
[5]	Bypass Assembly	-	

4. PRINCIPLE OF OPERATION

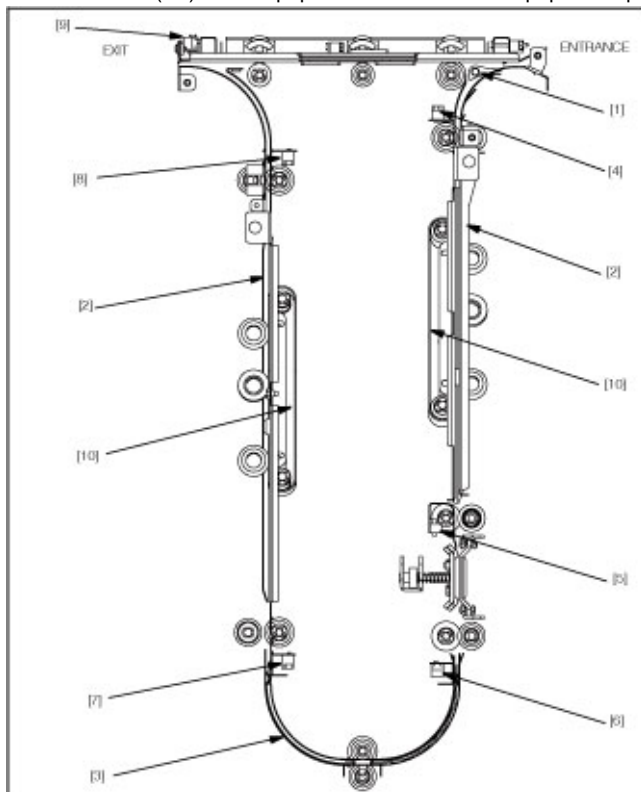
4.1 Punch conveyance control

The GP-501 Punch is a machine that punches various die set hole patterns into single sheets of paper. The machine is placed between a printer and a finisher. The punch has two paper paths.

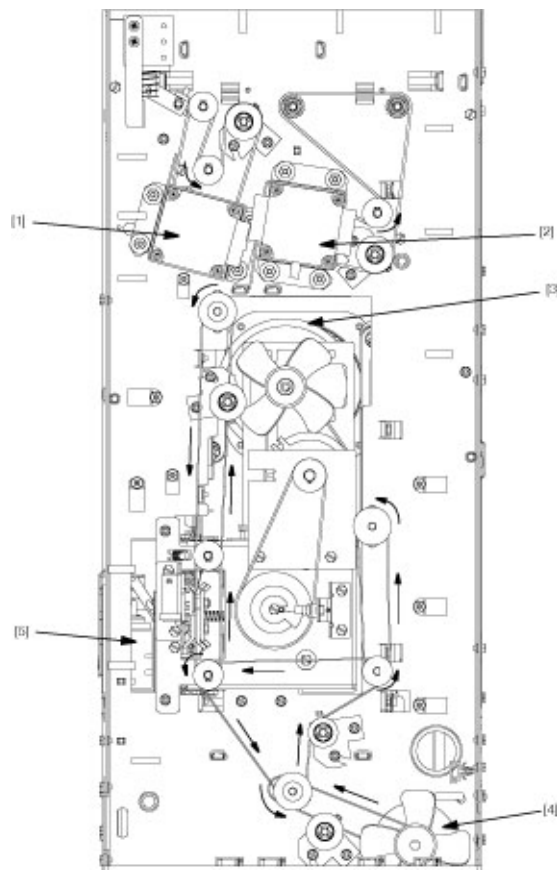
- The punch mode
- The bypass mode

The bypass moves the paper from the printer to the finisher without punching holes. The punch path routes the paper from the printer through the punch to be punched and then routes the paper to the finisher.

1. Communication system alerts the punch machine of the paper entry from the up-stream device.
On receiving the 40 command, AC motors and stepper motor turns on. Diverter gate moves to up position.
2. The paper enters the punch machine through entrance feed section
3. Enter sensor (S1) detects paper and acknowledges transfer of sheet from up-stream device
4. Paper passes through entry guide. Stepper 1 speed sensor (S2) is provided to detect paper jam.
Entrance stepper motor RPM increases to accelerate sheet to aligner path. After trailing edge of sheet leaves S2, entrance stepper motor slows down in preparation for next sheet.
5. Paper enters aligner panel. Entrance stepper motor accelerates to match sheet speed with aligner speed. Paper is edge aligned in preparation for punch.
6. Back gauge solenoid is energized and back gauge pedal blocks the paper path. Sheet arrives at Punch module sensor (S3). Punch module brake disengages and Punch clutch engages. After Punch clutch is engaged punch shaft begin to rotate. Paper punching is done. Leading edge of flag leaves Punch flag sensor (S9). Then Punch module brake engages and back gauge gate comes down. Trailing edge of sheet unblocks S3 and back gauge pedal comes up.
7. Paper passes through U-channel. U-channel sensor (S4) and Back gauge sensor (S5) are provided to detect any paper jam
8. Stepper 2 speed sensor (S6) detects paper and triggers exit stepper motor for speed which decelerates sheet
9. Exit sensor (S7) detects paper and determines the paper has passed through completely for other operation or for stacking purpose



[1] Diverter	[2] Aligner Panels
[3] U-Channel	[4] Stepper 1 Speed Sensor (S2)
[5] Punch Module Sensor (S3)	[6] U-Channel Sensor (S4)
[7] Back Gauge Sensor (S5)	[8] Stepper 2 Speed Sensor(S6)
[9] Exit Sensor (S7)	[10] Aligner Drive Belt

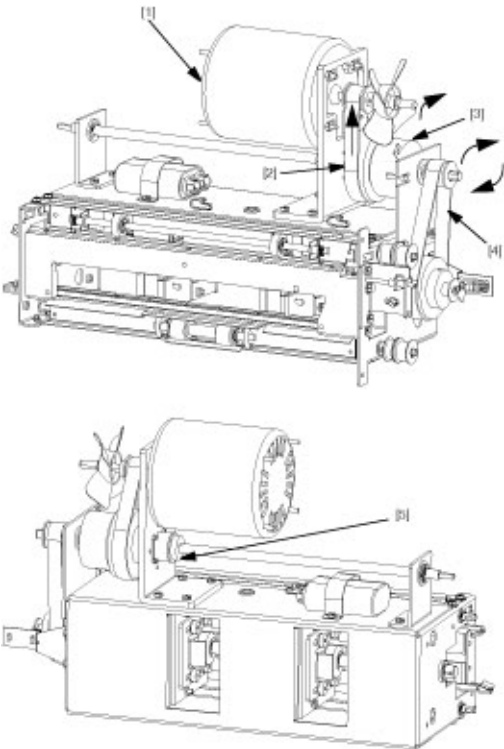


[1]	Entrance Stepper Motor	[2]	Exit Stepper Motor
[3]	Punch Motor	[4]	Transport Motor
[5]	Back Gauge Solenoid	-	

4.2 Punch operation

1. Punch motor (AC motor) rotates continually after receiving start command from printer.
2. Belt turns continually when motor is powered.
3. Punch clutch (Electromagnetic 24V DC clutch) when energized connects Punch motor to the punch mechanism which transmits power.
4. Belt only turns when Punch clutch is energized.
5. Punch module brake is a 24V DC electromagnetic type and is energized when the Punch clutch is not powered.

Punching Operation - Back gauge solenoid is energized and back gauge pedal blocks the paper path. Sheet arrives at Punch module sensor (S3). Punch module brake disengages and Punch clutch engages. After clutch is engaged punch shaft begin to rotate. Paper punching is done through cam mechanism which pushes the pins forward. Leading edge of flag leaves flag sensor. Punch module brake engages and back gauge gate comes down. Trailing edge of sheet unblocks S3 and back gauge pedal comes up.



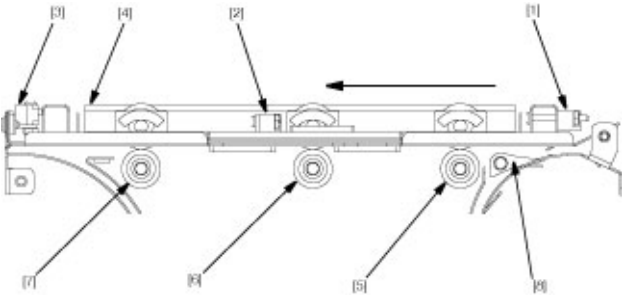
4.3 Chip tray control

Chip tray switch determines when chip tray is present and informs GP-501 processor that chip tray is present. A signal voltage is communicated to Punch Controller PCB. If the chip tray is pulled out GP-501 processor notifies printer that chip tray is out. Printer will show the error message on the screen.

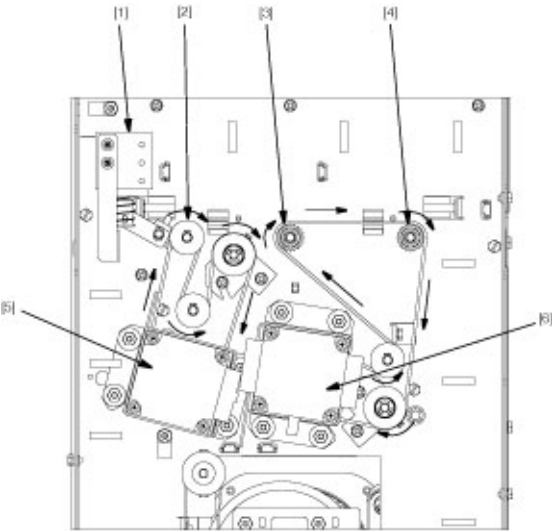
Chip tray full occurs after 5000 punches or is detected by Chip tray full sensor. Clear occurs when chip tray is removed to empty the bin and GP-501 is powered on.

4.4 Bypass conveyance control

1. Communication system alerts the punch machine of the paper entry from the up-stream device.
Motor starts on receiving 40 command from printer, diverter solenoid goes 'ON' on receiving 15 command from printer.
2. Diverter gate remains in closed position
3. Enter sensor (S1) detects paper and acknowledges transfer of sheet from up-stream device
4. Bypass sensor (S8) is provided in bypass panel to detect jam
5. Exit sensor (S7) detects paper and determines the paper has passed through completely for other operation or for stacking purpose



[1]	Enter Sensor (S1)	[2]	Bypass Sensor (S8)
[3]	Exit Sensor (S7)	[4]	Bypass Panel
[5]	Entrance Roller	[6]	Intermediate Roller
[7]	Exit Roller	[8]	Diverter



[1]	Divert Solenoid	[2]	Entrance Roller
[3]	Intermediate Roller	[4]	Exit Roller
[5]	Entrance Stepper Motor	[6]	Exit Stepper Motor

5. PUNCH MODULE

5.1 Tools Required

- Phillips screw driver or 1/4" nut driver
- Hex wrench, 5/64"

NOTE

- Empty the paper chip bin and replace it. This makes it easier to find small parts that you may drop into the bin.

5.2 Procedure

Remove the module to lubricate the cams, or to service or replace the following components.

- Punch motor
- Drive motor belt
- Punch module brake
- Cams
- Flexible drive coupling
- Punch Module drive rollers

The clutch can be replaced without removing the module. (refer to [F.21.3.36 Punch Clutch Replacement](#)).



WARNING

- Disconnect the GP-501 Punch from its power source before removing the Back Gauge assembly. Failure to observe this warning can result in severe injury or death and damage the punch.

PS THEORY OF OPERATION GP-502

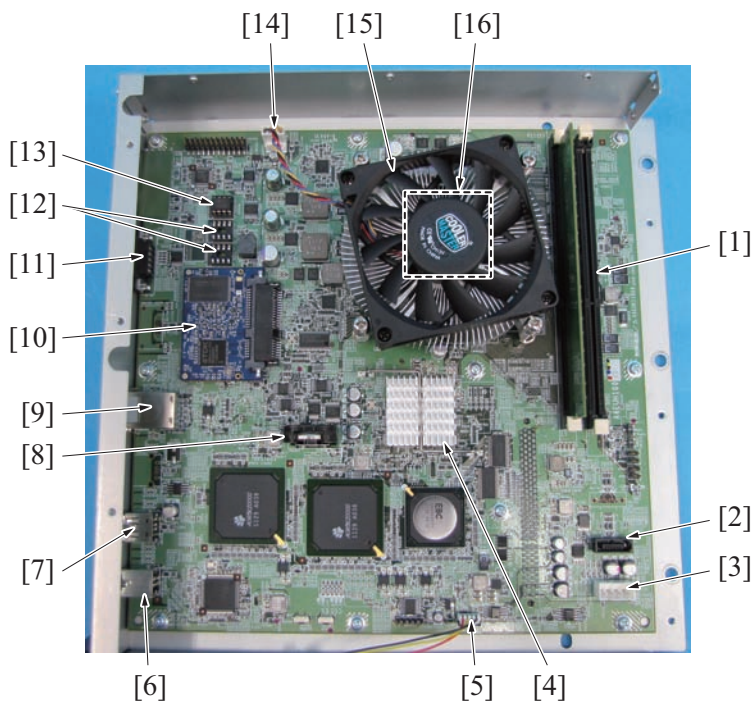
1. THEORY OF OPERATION

The descriptions of the theory of operation GP-502 are mentioned in the GP-502 service manual.

PT THEORY OF OPERATION IC UNIT

1. SYSTEM CONTROL SECTION

1.1 Configuration



[1]	DIMM socket (slot A and slot B) (slot B is for extension, not scheduled yet)	[2]	SATA connector for HDD
[3]	Power connector for HDD	[4]	Cooling fin for the chipset
[5]	Connector for BOX cooling fan	[6]	USB port for USB print (Type B)
[7]	USB port for service (Type A)	[8]	Battery
[9]	RJ45 Ethernet connector for the network print	[10]	Half slim type SSD for saving the firmware
[11]	RS-232C serial port for service	[12]	Socket for UK-205 (One at the lower side is for extension, not scheduled yet)
[13]	EEPROM for storing HDD password.	[14]	Connector for CPU cooling fan
[15]	CPU cooling fan	[16]	CPU (LGA1155 socket)

Q IMAGE POSITION ADJUSTMENT

1. UNDERSTANDING THE CHARACTER OF THE PAPER

1.1 The shrinkage of the paper

- The storage condition affects the paper shrinkage, so be careful when storing papers.
- The shrinkage of the paper that passed the fusing section is affected by the paper type, brand, weight, lot, the operating environment, and the storage environment. Particularly, the paper shrinkage is more likely to be affected in the vertical direction to the grain direction.
- The shape of the paper changes depending on how much time elapses immediately after the paper passes the fusing section and is exited.

1.2 The dimensional accuracy of the paper

- ISO216 defines the dimensional tolerance, and both the Side1 and Side2 adjustments must be conducted for each paper.

Dimensions	Dimensional tolerance
150mm or less	±1.5 mm
More than 150mm, less than 600mm	+/- 2mm

- The paper leading edges that is referred for the image positioning are opposite between Side1 and Side2, so it is important that both the leading and trailing edges are parallel in the conveyance direction.
- The reference position for centering is a side at the front side of the main body, so it is important that both the leading and trailing edges are perpendicular to the side at the front side of the main body.
- The outer diameter of the paper is referred for the image writing, so the variability among the paper outer diameters directly affects the accuracy of the image positioning. Particularly, the accuracy of the image position is significantly affected by the following items: the parallelism between the paper length in the sub scan direction and the paper leading and trailing edges; the squareness between the paper leading and trailing edges and the paper side at the front side of the main body

1.3 Precautions on supplying papers

- When the image writing position is misaligned at every 500 sheets or 1,000 sheets, check the following items.
- When stacking the paper on the tray, check if there is any damage on the upper and lower papers of the paper package.
- When the paper package is changed, stack it in the same direction as for the former paper package.

Note

- **When the papers are trimmed in the same procedure for each paper package, align them in the same direction so that the shapes of the outer diameters are precisely aligned**
- **However, if there are different tendencies with the paper shapes for each paper package, the image writing position could be misaligned.**

2. BASIC OPERATION

2.1 Both sides adjustment (Preparation)

2.1.1 Preparation for papers

- Be sure to prepare for papers in the same temperature and humidity in accordance with the operating environment.
- If the paper does not suit the operating environment, the paper is likely to be curled due to the condensation and the drastic change in the moisture content. For instance, if the installation location is at the high temperature while the paper to be used is stored in the normal temperature and humidity, the condensation could occur depending on the difference in temperature.

Note

- In order to prevent the moisture absorption, be sure not to store papers in the high temperature environment.
- For the recommended requirements for the papers that are used for the Side1 and Side2 position adjustment, refer to the following chart.

Item	Recommended requirements
Paper Size	210mm or longer in the main scan direction, 200mm or longer in the sub scan direction, and the ratio between the paper length in the main scan direction and the paper length in the sub scan direction is within 1:2
	The variability among the paper lengths in the sub scan direction is $3\sigma \leq 0.2 \text{ mm}$
	The grain direction is vertical to the paper feed direction.
Others	The trimming is performed collectively, and the squareness (parallelism) at the paper leading and trailing edges is 0.2mm or less.
	The operating environment is limited to Q zone, and the same environment is applied to the paper storage.

2.1.2 About the adjustment procedure

The adjustment is conducted in the following order.

Note

- As a prerequisite, the position adjustment for the Side1 (Simplex) must be completed.

Classification	Description	Remark
Mechanical adjustment	Skew adjustment	
	Distortion adjustment	Only when required
Software adjustment	Printer Restart Timing Adjustment(Side2) rough adjustment	
	Printer FD-Mag. Adj.(Side2)	
	Printer Restart Timing Adjustment (Side2)	
	Printer CD-Mag. Adjustment (Side2)	
	Both Sides Adj. Image Shift for the upper and lower (Side2)	

2.2 Both sides adjustment (Mechanical adjustment)

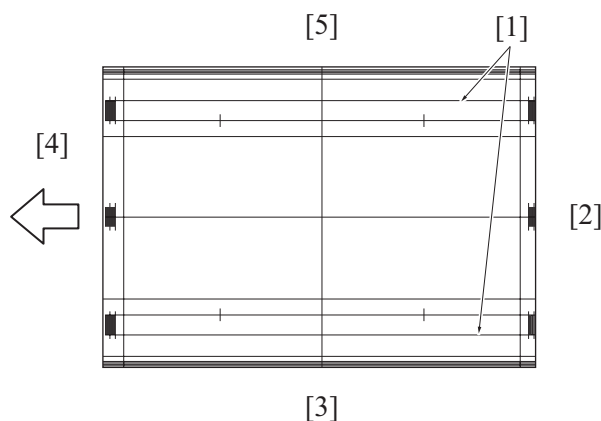
2.2.1 Skew adjustment

(1) Purpose

- In order to match the skews of the lines in the sub scan direction between Side1 and Side2, conduct the mechanical adjustment of the registration unit.
- Print the test pattern No.16 to check the skew.

Note

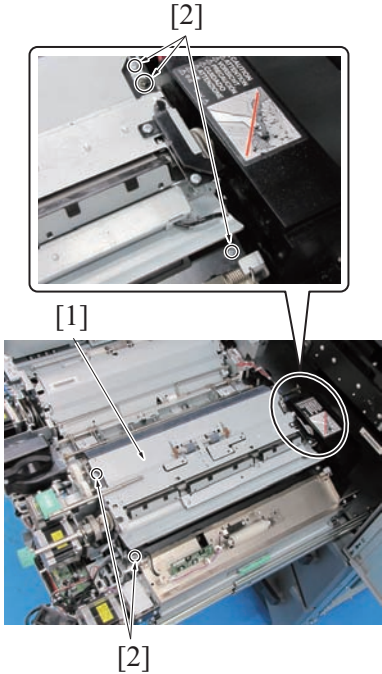
- When the line in the sub scan direction skews at the trailing edge, it is possible that the positions of the transfer belt and fusing unit are skewed.



[1]	Line in the sub scan direction	[2]	Exited paper trailing edge
[3]	The front side of the main body	[4]	Exited paper leading edge
[5]	The back side of the main body	-	

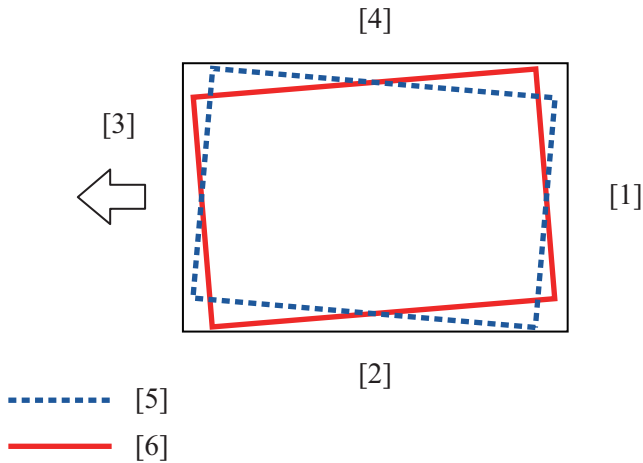
(2) Preparation

1. Print the test pattern No.16, and check the skew.
2. Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
3. Loosen 5 screws [2] of the registration unit [1].



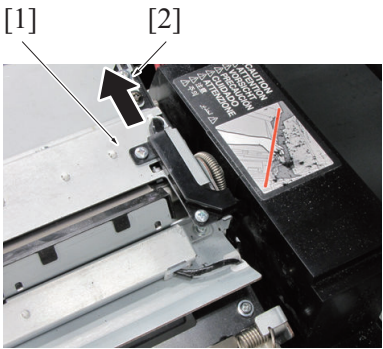
(3) Adjustment procedure

- (a) When Side1 and Side2 are positioned as described in the following chart

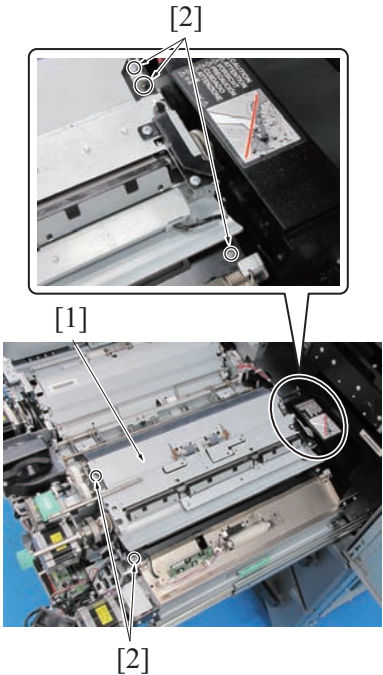


[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

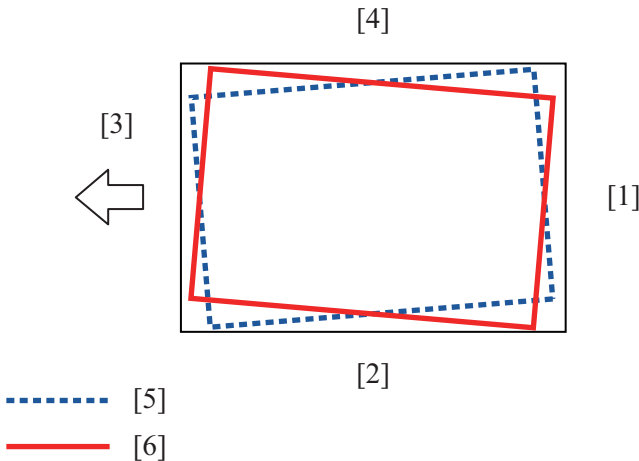
1. Move the back side [1] of the registration unit to the transfer belt side [2].



2. Tighten 5 screws [2] of the registration unit [1].

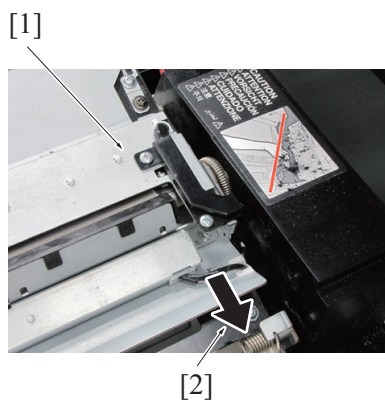


(b) When the positions of Side1 and Side2 are as described in the following chart

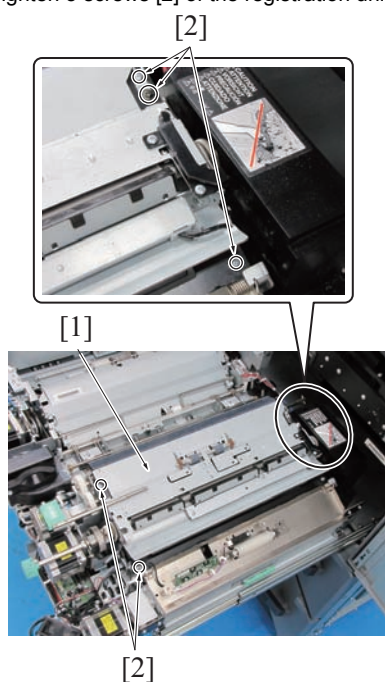


[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

1. Move the back side [1] of the registration unit to the paper feed side [2].



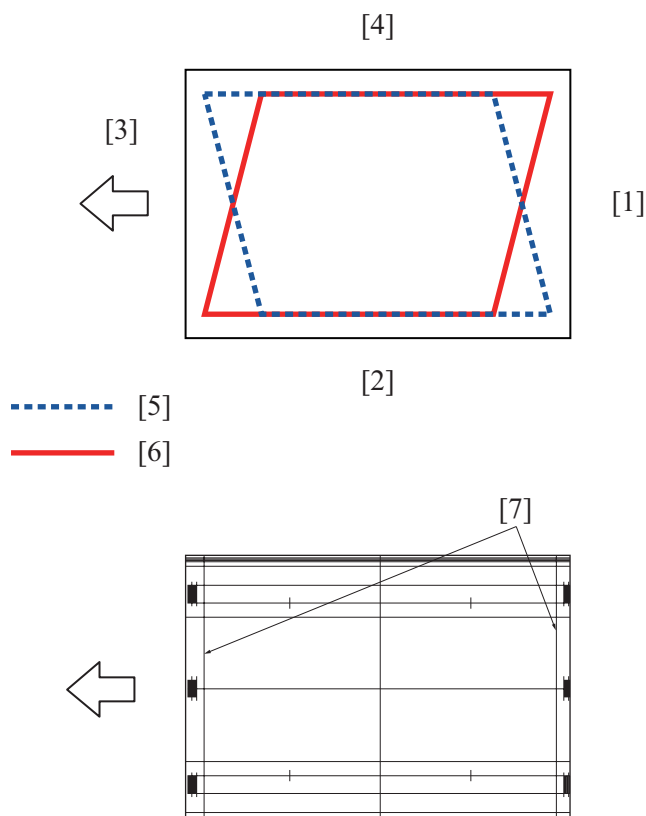
2. Tighten 5 screws [2] of the registration unit [1].



2.2.2 Distortion adjustment

(1) The prerequisites for the adjustment

- "Q.2.2.1 Skew adjustment" is completed, and the lines in the sub scan direction at Side1 and Side2 match each other.
- When the lines in the main scan direction at Side1 and Side2 are located as follows, the leading and trailing edges of the paper that is used are not parallel.
- The mechanical adjustment of the registration unit cannot adjust the line in the main scan direction.



[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2
[7]	Line in the main scan direction	-	

(2) Purpose

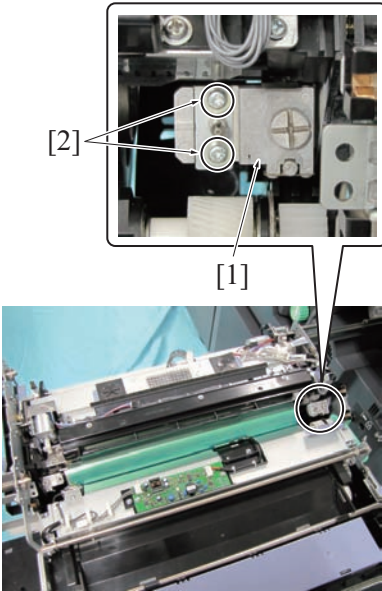
- When the lines in the sub scan direction at Side1 and Side2 must match each other, conduct the mechanical adjustment of the LPH. However, please note that there are some precautions for performing the adjustment.
- For the mechanical adjustment of the LPH, print the test pattern No.16.

Note

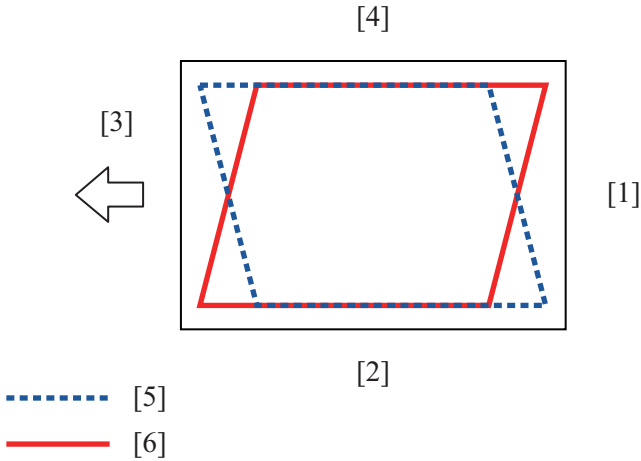
- The mechanical adjustment of the LPH significantly affects the image formation (the deterioration of the image quality etc...).** Therefore, do not conduct this adjustment basically.
- The misalignment of the lines in the main scan direction at Side1 and Side2 is mainly affected by the outer diameter of the paper. Therefore, even the mechanical adjustment of the LPH cannot adjust the lines.**
- When the tilt occurs, do not conduct the LPH adjustment. The paper that has the accurate outline is recommended to be used.**
- Originally, the mechanical adjustment of the LPH is performed by the skew adjustment. Therefore, be careful for the skew of the image when adjusting**

(3) Preparation

- Print the test pattern No.16 and check the skew
- Remove the LPH unit. (Refer to [F.5.3.6 Cleaning the LPH lens](#))
- Loosen 2 screws [2] at the LPH support section /Rr [1].

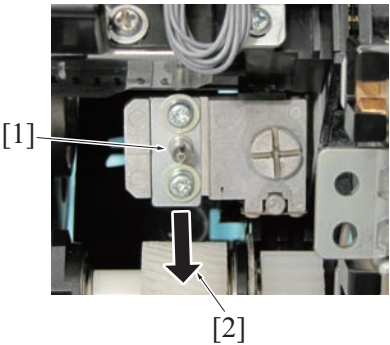


- (4) Adjustment procedure
- (a) When the positions of Side1 and Side2 are as described in the following chart

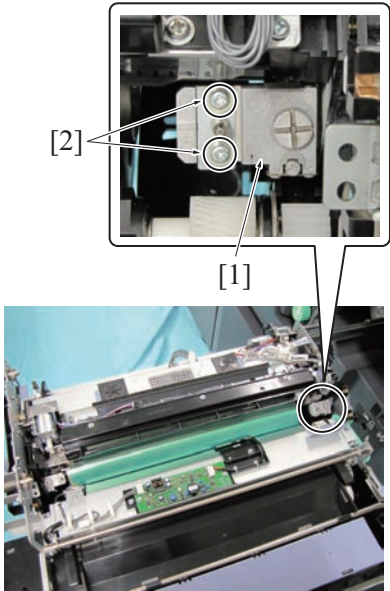


[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

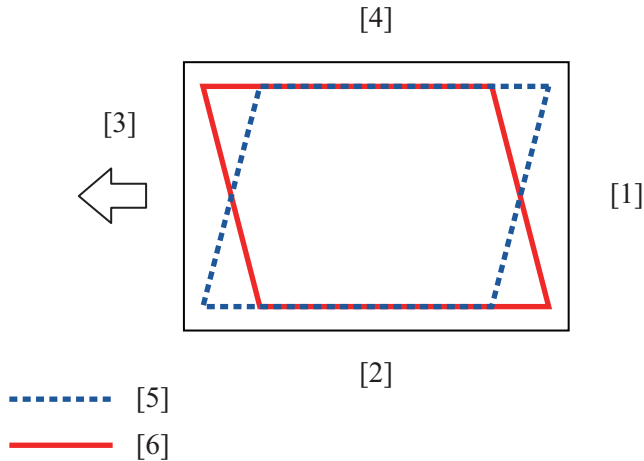
1. Move the metal plate [1] of the LPH support section to the developing unit side [2].
- Note**
- The adjustment must be performed within ± 1 divisions of the scale. If the adjustment is performed too much, the focal distance changes so that the image skew and the out of focus possibly occur.
1 division: 0.5mm



2. Tighten 2 screws [2] at the LPH support section /Rr [1].



(b) When the positions of Side1 and Side2 are as described in the following chart

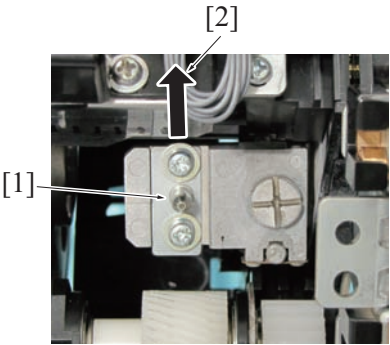


[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

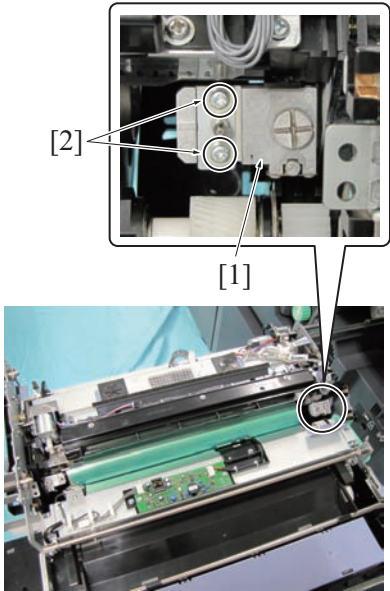
1. Move the metal plate [1] of the LPH support section to the drum side [2].

Note

- The adjustment must be performed within ± 1 divisions of the scale. If the adjustment is performed too much, the focal distance changes so that the image skew and the out of focus possibly occur.
1 division : 0.5mm



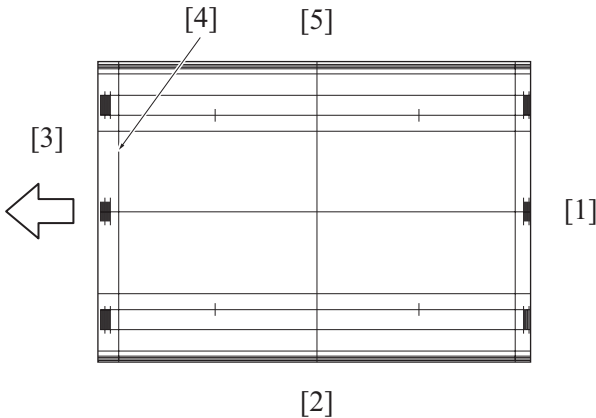
2. Tighten 2 screws [2] at the LPH support section /Rr [1].



2.3 Both sides adjustment (Software adjustment)

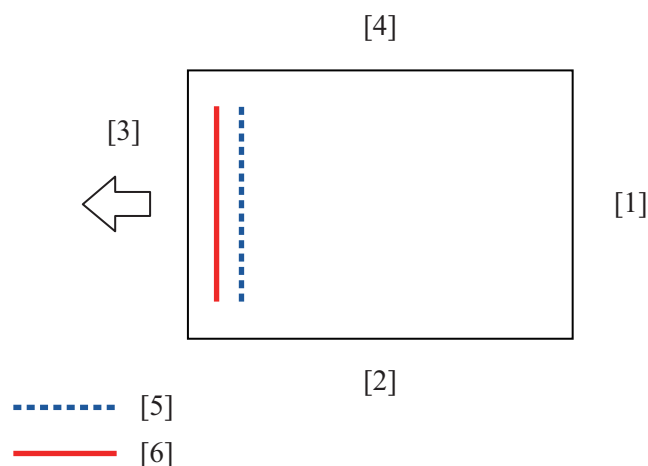
2.3.1 Printer Restart Timing Adjustment(Side2) rough adjustment

- (1) Purpose
- Roughly align the position of the line [4] in the main scan direction at the trailing edge side on Side2 with reference to Side1.
 - Print the test pattern No.16 to check the line in the main scan direction at the trailing edge side.
 - This adjustment is performed by conducting "Printer Restart Timing Adjustment (Side2)" in the service mode.



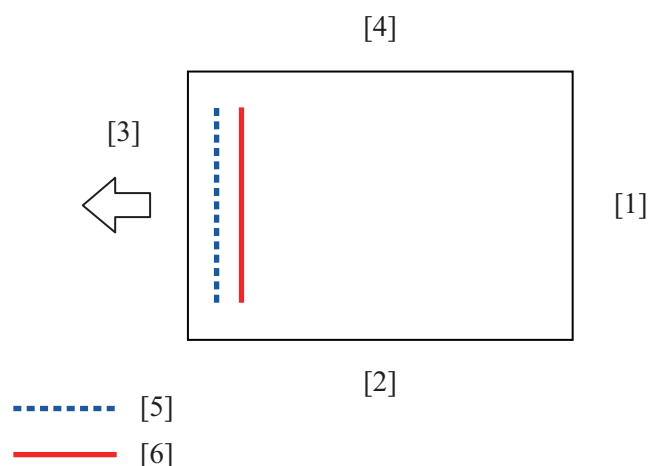
[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The line in the main scan direction at the leading edge side
[5]	The back side of the main body	-	

- Note
- The both side adjustment (software adjustment) ("Printer Restart Timing Adjustment(Side2) rough adjustment", "Printer FD-Mag. Adj.(Side2)", "Printer Restart Timing Adjustment (Side2)", "Printer CD-Mag. Adj. (Side2)", "Both Sides Adj.: Image Shift for the upper and lower (Side2)") must be conducted repeatedly until the image moves to the appropriate position.
 - The variability among the image positions occurs depending on the paper condition, so the test pattern for the confirmation is recommended to be printed on the several sheets.

(2) Adjustment procedure**(a) When Side1 and Side2 are positioned as described in the following chart**

[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

- By conducting "Printer Restart Timing Adjustment (Side2)" of the service mode, adjust the offset value of the tray to be adjusted by 1 step to the positive side.
 - Default setting = 0
 - 1 step = 0.1mm

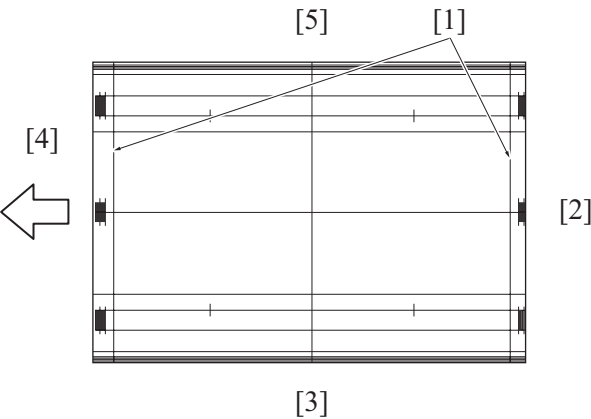
(b) When the positions of Side1 and Side2 are as described in the following chart

[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

- By conducting "Printer Restart Timing Adjustment (Side2)" of the service mode, adjust the offset value of the tray to be adjusted by 1 step to the negative side.
 - Default setting = 0
 - 1 step = 0.1mm

2.3.2 Printer FD-Mag. Adj.(Side2)**(1) Purpose**

- Align the position of the line [1] in the main scan direction at the leading and trailing edge sides at Side2 with reference to Side1.
- Print the test pattern No.16 to check the line in the main scan direction at the leading and trailing edge sides.
- This adjustment is performed by conducting "Printer FD-Mag. Adj.(Side2)" in the service mode.

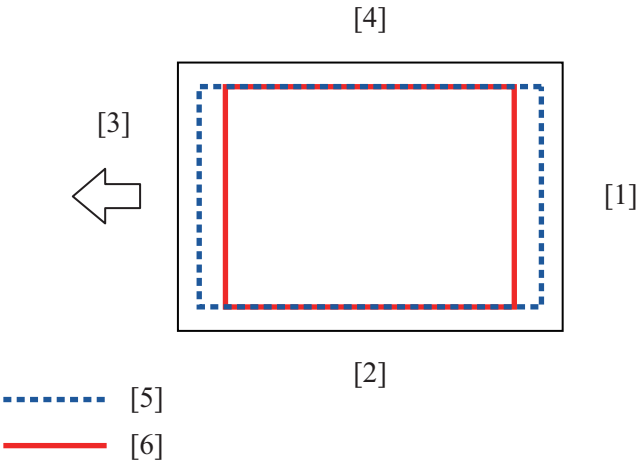


[1]	The line in the main scan direction at the leading and trailing edges	[2]	Exited paper trailing edge
[3]	The front side of the main body	[4]	Exited paper leading edge
[5]	The back side of the main body	-	

- Note**
- The both side adjustment (software adjustment) ("Printer Restart Timing Adjustment(Side2) rough adjustment", "Printer FD-Mag. Adj.(Side2)", "Printer Restart Timing Adjustment (Side2)", "Printer CD-Mag. Adj. (Side2)", "Both Sides Adj.: Image Shift for the upper and lower (Side2)") must be conducted repeatedly until the image moves to the appropriate position.
 - The variability among the image positions occurs depending on the paper condition, so the test pattern for the confirmation is recommended to be printed in the several sheets.

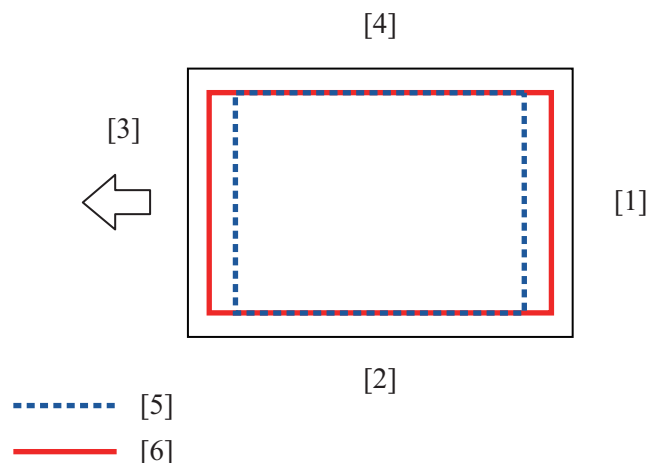
(2) Adjustment procedure

(a) When Side1 and Side2 are positioned as described in the following chart



[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

1. By conducting "Printer FD-Mag. Adj.(Side2)" of the service mode, adjust the offset value of the tray to be adjusted by 1 step to the positive side.
- Default setting = -4
 - 1 step = 0.05 %

(b) When the positions of Side1 and Side2 are as described in the following chart

[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

- By conducting "Printer FD-Mag. Adj.(Side2)" of the service mode, adjust the offset value of the tray to be adjusted by 1 step to the negative side.

- Default setting = -4
- 1 step = 0.05 %

2.3.3 Printer Restart Timing Adjustment (Side2)**(1) Purpose**

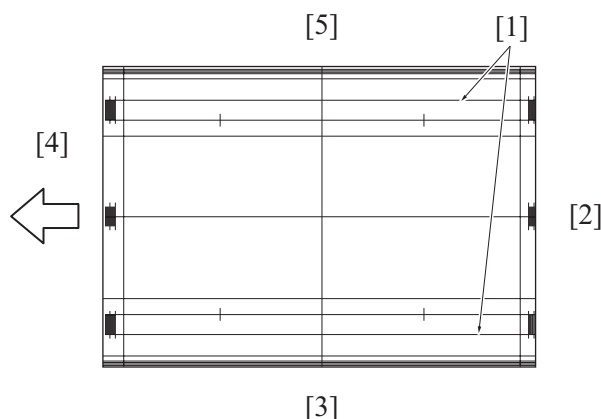
- After "Q.2.3.2 Printer FD-Mag. Adj.(Side2)" is conducted, the position of the line in the main scan direction at Side2 shift, so conduct "Printer Restart Timing Adjustment (Side2)" again.
- The adjustment procedure is the same as "Q.2.3.1 Printer Restart Timing Adjustment(Side2) rough adjustment".

Note

- The both side adjustment (software adjustment) ("Printer Restart Timing Adjustment(Side2) rough adjustment", "Printer FD-Mag. Adj.(Side2)", "Printer Restart Timing Adjustment (Side2)", "Printer CD-Mag. Adj. (Side2)", "Both Sides Adj.: Image Shift for the upper and lower (Side2)") must be conducted repeatedly until the image moves to the appropriate position.
- The variability among the image positions occurs depending on the paper condition, so the test pattern for the confirmation is recommended to be printed on the several sheets.

2.3.4 Printer CD-Mag. Adjustment (Side2)**(1) Purpose**

- Align the position of the lines [1] in the sub scan direction at the front and back side at Side2 with reference to Side1.
- Print the test pattern No.16 to check the lines in the sub scan direction at the front and back side.
- This adjustment is performed by conducting "Printer CD-Mag. Adjustment (Side2)" in the service mode.



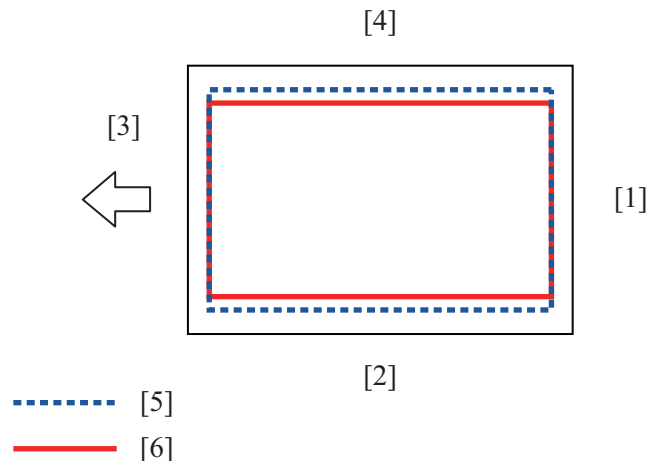
[1]	The lines in the sub scan direction at the front and back side	[2]	Exited paper trailing edge
[3]	The front side of the main body	[4]	Exited paper trailing edge
[5]	The back side of the main body	-	

Note

- The both side adjustment (software adjustment) ("Printer Restart Timing Adjustment(Side2) rough adjustment", "Printer FD-Mag. Adj.(Side2)", "Printer Restart Timing Adjustment (Side2)", "Printer CD-Mag. Adj. (Side2)", "Both Sides Adj.: Image Shift for the upper and lower (Side2)") must be conducted repeatedly until the image moves to the appropriate position.
- The variability among the image positions occurs depending on the paper condition, so the test pattern for the confirmation is recommended to be printed in the several sheets.

(2) Adjustment procedure

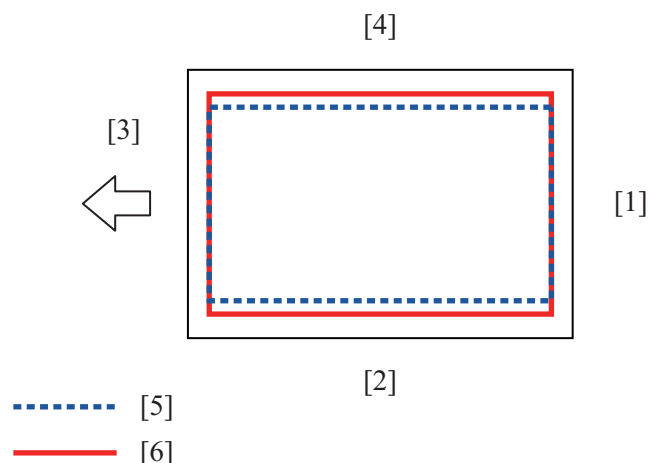
(a) When Side1 and Side2 are positioned as described in the following chart



[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper trailing edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

- By conducting "Printer CD-Mag. Adjustment (Side2)" of the service mode, adjust the offset value of the tray to be adjusted by 1 step to the positive side.
 - Default setting = -4(951), -2(1250/1250P/1052)
 - 1 step = 0.05 %

(b) When the positions of Side1 and Side2 are as described in the following chart



[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper trailing edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

- By conducting "Printer CD-Mag. Adjustment (Side2)" of the service mode, adjust the offset value of the tray to be adjusted by 1 step to the negative side.
 - Default setting = -4(951), -2(1250/1250P/1052)
 - 1 step = 0.05 %

2.3.5 Both Sides Adj. Image Shift for the upper and lower (Side2)**(1) Purpose**

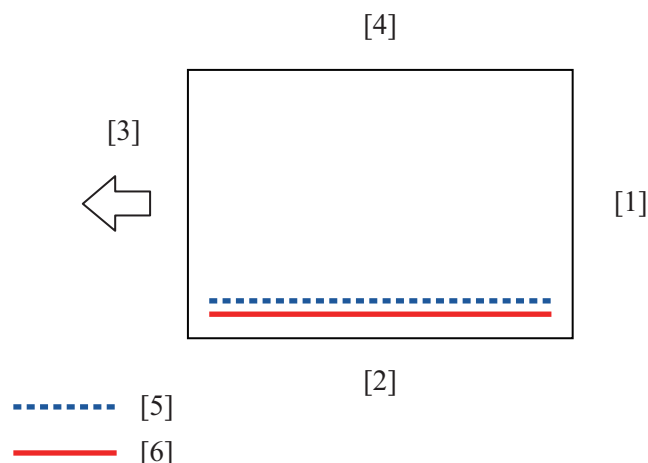
- Align the position of the lines in the sub scan direction at the front side at Side2 with reference to Side1.
- Side1 and Side2 cannot be adjusted respectively with "Printer Centering Adjustment" in the service mode. Therefore, print the image that can be judged to have the image centering on the PC, and adjust it by the image shift function.

Note

- The positions of Side1 and Side2 can be confirmed with the test pattern No.16, but the image shift cannot adjust the inside pattern image.
- The both side adjustment (software adjustment) ("Printer Restart Timing Adjustment(Side2) rough adjustment", "Printer FD-Mag. Adj.(Side2)", "Printer Restart Timing Adjustment (Side2)", "Printer CD-Mag. Adj. (Side2)", "Both Sides Adj.: Image Shift for the upper and lower (Side2)") must be conducted repeatedly until the image moves to the appropriate position.
- The variability among the image positions occurs depending on the paper condition, so the test pattern for the confirmation is recommended to be printed on the several sheets.

(2) Adjustment procedure

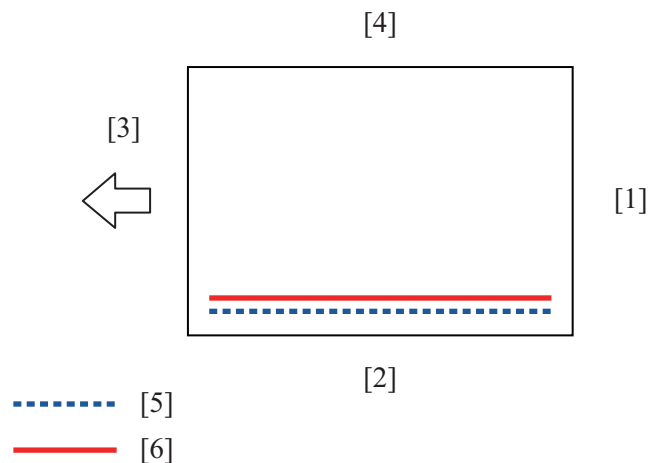
(a) When Side1 and Side2 are positioned as described in the following chart



[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

1. From [Tray Setting] - [Both Sides Adj.], select the [Back] tab.
2. Adjust by 1 step to the positive side with reference to [Up/Down] of [Image Shift] of the tray to be adjusted.
 - Default setting = 0
 - 1 step = 0.1mm

(b) When Side1 and Side2 are positioned as described in the following chart



[1]	Exited paper trailing edge	[2]	The front side of the main body
[3]	Exited paper leading edge	[4]	The back side of the main body
[5]	The image on Side1	[6]	The image on Side2

1. From [Tray Setting] - [Both Sides Adj.], select the [Back] tab.
2. Adjust by 1 step to the negative side with reference to [Up/Down] of [Image Shift] of the tray to be adjusted.
 - Default setting = 0
 - 1 step = 0.1mm

2.4 About the Both Sides Adj.

2.4.1 About "4 Both Sides Adjust" in "User's Guide POD Administrator's Reference" and "I8.2.6 The front and back registration by user (by paper brand) (front and back registration)" in Service Manual

The adjustment value that is specified in the user mode is to be added to the value in the service mode ("[Q.2.3.1 Printer Restart Timing Adjustment\(Side2\) rough adjustment](#)" to "[Q.2.3.4 Printer CD-Mag. Adjustment \(Side2\)](#)") for determining the image position. After adjusting the value in the service mode, it is recommended to finely adjust the value in the user mode by Both Side Adjust.

2.4.2 About the adjustment procedure of "5.2 01 Machine Adjustment" in "User's Guide POD Administrator's Reference".

This adjustment is same as the one in the service mode ("[Q.2.3.1 Printer Restart Timing Adjustment\(Side2\) rough adjustment](#)" to "[Q.2.3.4 Printer CD-Mag. Adjustment \(Side2\)](#)"). It can be adjusted not only in the service mode, but also in the user mode.

2.5 About the line speed adjustment

When the transfer belt speed, registration line speed, and fusing speed are significantly misaligned, it could vary the leading edge timing and vertical magnification as well as the transfer jitter occurs. In this case, the transfer jitter adjustment must be conducted. (Refer to "[I.8.2.10 Transfer jitter adjustment](#)")

2.6 About the transfer belt

Depending on the environment where the transfer belt is used, the belt tension could loosen so that the variability of the vertical magnification could increase. In this case, conduct the following adjustment in "[I.5.3.3 Transfer Belt Speed Adj. \(Magnification Adjustment\)](#)" and increase the transfer belt speed to improve the symptom.

1. Set the line speed to 1 step positive side from current value and select the test pattern [No.9].
2. Repeat this step until the 60mm pitch unevenness and the transfer jitter do not occur.

Note

- Depending on the paper that is used, the 60mm pitch unevenness and the transfer jitter occurs in different values.

2.7 Adjustment mode

- In the adjustment mode, the black band for preventing the toner deterioration is not created. Therefore, if the images in the low coverage like the test pattern No.16 are printed enormously, it causes the overflow toner or image deterioration.
- When printing a number of test patterns in the low coverage in the adjustment mode, be sure to print a hundred of images in the high coverage to consume the toner and pay attentions to the image deterioration.

3. ADVANCED OPERATION

3.1 When the mis-centering unexpectedly occurs

3.1.1 Checkpoint

- Check if there is a trouble with the paper itself, which is one of the general causes of the unexpected paper misalignment.
 - Are the paper edges not folded?
 - Is the outer diameter of the paper not different?
 - Does the foreign object like the glue for the package not stick to the paper?
- When the malfunction occurs after the jam occurs, it is likely that there are remaining papers in the machine, so be sure to check the inside of each conveyance path.

3.1.2 Centering

(1) Mis-centering detection control

- Centering sensor (PS4) detects the side edge at the front side of the main body and determines the position of the image.
- When the unexpected misalignment occurs, there are 2 causes as follows.
 - When the side edge at the front side of the main body is not properly detected.
 - When the centering exceeds the correction range because the paper is considerably misaligned.
- For the paper whose centering exceeds the correction range, the centering correction value that was applied to the former paper must be used.

Example) Print 1st, 2nd, and 3rd paper, and when the centering of the 2nd paper exceeds the correction range.

Number of papers	Centering amount	Correct or not
1st sheet of paper	4mm	Correct 4mm centering, and output the proper image.
2nd sheet of paper	6mm	Use the data of the former paper that has 4mm centering, and output the image that has 2mm centering
3rd sheet of paper	3mm	Correct 3mm centering, and output the proper image.

(2) When the paper edge at the front side of the main body is not properly detected.

- The centering sensor (PS4) detects the border between the paper and the surface of the guide plate facing PS4.
- If the paper to be used is black or almost black (overlay printing is included), the border cannot be detected and the misalignment occurs during the centering correction. In this case, the correction is turned OFF and the adjustment is only conducted by the position alignment of the paper feed tray.
- In addition, when PS4 and the surface of the guide plate facing PS4 is contaminated with the powder, the misalignment occurs during the centering correction. In this case, they must be cleaned.

(3) When the mis-centering exceeds the correction range.

(a) How to judge if the mis-centering exceeds the correction range.

- Go to [UTILITY] - [Administrator Setting] - [System Setting] - [Expert Adjustment] - [Mis-centering Detection JAM Setting], and select [Detect].

Note

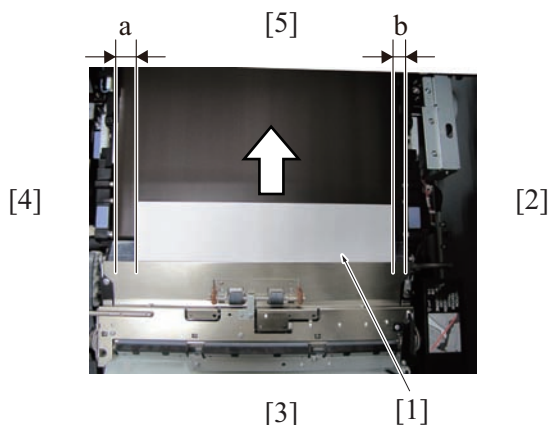
- [Not Detect] is selected as a default setting,

- Execute the print. When the centering sensor (PS4) detects that the mis-centering exceeds the correction range, the operation stops by the jam.

Note

- In this case, the jam code is J-3112.

- Pull out the duplex section from the main body. (Refer to [F.5.9.1 Pulling out/reinstalling the duplex section](#))
- Regarding the paper [1] that stops around the registration section, check the distance "a" at the front side and the distance "b" at the back side. In this illustration, the paper passes through the back side of the main body.



[1] Paper	[2] The back side of the main body
[3] The paper feed side	[4] The front side of the main body
[5] The fusing side	-

(b) When there is a mis-centering with the paper that is fed from the PF-703/706 tray.

If the same mis-centering occurs on the all papers from PF tray /1, /2, /3 during the paper feeding from PF-703/706, it is possible that the PF is not correctly installed to the main body. In this case, conduct the following adjustment.

- PF-703: [I.11.3 Centering Adjustment \(PF\)](#)
- PF-706: [I.12.6 Centering Adjustment \(PF\)](#)

(c) When the papers on each tray are respectively misaligned.

- When the side of the paper is not correctly guided and the mis-centering occurs because the interval between the side guide and the paper is too wide or narrow, conduct the following adjustment.
 - Be sure to press the side guide and the paper rear guide against the paper. (Refer to "5.3 Loadin Paper" in "User's Guide Copier")
- If the different mis-centerings occur with the papers on each tray during the paper feeding from the main body, PF-703/706, and LU-409/410, conduct the following adjustments.
 - The tray of the main body: [I.9.1 Tray Centering Adjustment](#)
 - PF-703: [I.11.2 Centering adjustment \(for each tray\)](#)
 - PF-706: [I.12.5 Centering adjustment \(for each tray\)](#)
 - LU-409/410: [I.13.4 Paper centering adjustment](#)

(d) When the mis-centering occurs during the paper feeding from the PF-703/706 tray (caused by the tilt).

- The paper that is fed from the paper feed unit is so tilted that the registration cannot fully perform the correction and the mis-centering occurs. In this case, conduct the following adjustment.
 - PF-703: [I.11.4 Tilt adjustment](#)
 - PF-706: [I.12.7 Tilt adjustment](#)
 - LU-409/410: [I.13.5 Paper skew adjustment](#)

3.1.3 Skew (Tilt)

(1) Paper skew detection control

- Detects the amount of skew with the paper skew sensor /Fr (PS65) and paper skew sensor /Rr (PS66) of the registration unit. When the amount of skew exceeds the prescribed value (1.0% or 0.5%), the operation stops by the paper skew jam.

Note

- In this case, the jam code is J-3111.

(2) When the PF703/706 and LU-409/410 are not correctly installed to the main body

- The paper that is fed from the paper feed tray is so tilted that the correction cannot be fully performed by the registration and the tilt occurs. In this case, conduct the following adjustment.
 - Main body : [I.5.3.15 Printer Registration Loop Adj. \(Timing Adjustment\)](#)
 - Main body, each tray of PF [I.5.3.16 Printer Pre-registration Adj. \(Timing Adjustment\)](#)
 - PF-703: [I.11.4 Tilt adjustment](#)
 - PF-706: [I.12.7 Tilt adjustment](#)
 - LU-409/410: [I.13.5 Paper skew adjustment](#)

(3) When the papers on each tray are respectively skewed.

- When the side of the paper is not correctly guided and the mis-centering occurs because the interval between the side guide and the paper is too wide or narrow, conduct the following adjustment.
 - Be sure to press the side guide and the paper rear guide against the paper. (Refer to "5.3 Loadin Paper" in "User's Guide Copier")
- When the side of the paper is not correctly guided because the side guide goes down and the paper is skewed, conduct the following adjustment.
 - Make the appropriate interval between the paper from the upper limit position and the side guide.
 - Tighten the guide fixing knob and make sure to fix the side guide.
 - When using the small guide, pay the closer attention and set the side guide.
 - Use parts such as PET when the small guide is in use, envelope guide for PF-703.
 - For PF, use of the middle tray (tray4) is recommended when small size skew occurs.

(4) When the paper is skewed at the PF-703.

- The volume from the lead air and the side air is not appropriate so that the paper is too fanned to be skewed. In this case, conduct the following adjustment.
 - [I.8.2.12 PF-703 air-blow adjustment](#)

(5) When the cause is at the conveyance path.

- When the paper passing the particular place gets skewed, it is possible that there are conveyance troubles due to the guide plate deformation and the roller attrition at the paper conveyance path. Particularly, it is more likely to be caused by the attrition of the registration roller /Up, pick-up roller, paper feed roller, and separation roller. In this case, check the condition of the guide plates and the rollers at the conveyance path.

3.1.4 The trouble with the paper conveyance timing

(1) When the paper leading edge is not properly detected.

When the paper detect sensor is contaminated with the paper powder, it is possible that the sensor makes the wrong detection. It is improved by cleaning the sensor and the sides of the guide plate around the sensor.

(2) When the registration roller cannot ensure the stable supply of the paper.

- Due to the dirt and attrition on the registration roller /Up, the paper cannot be stably conveyed and the time lag occurs.
- Particularly, because PRO 951 apply the EPDM rubber to the registration roller (gray roller), the outer diameter of the roller is deformed when Coated or PrePrinted (not supported by PRO 951) is conveyed.
- Be sure to conduct the roller cleaning when there is a dirt on the registration roller /Up, and replace the roller when there is a trouble with the outer diameter.

3.2 When the particular paper is skewed

3.2.1 Paper types that are easily skewed

The paper types described in the following chart are likely to be skewed.

Regarding the hardness of the paper	Papers that are hard for being bended in the conveyance direction
	Papers that are soft for being bended in the conveyance direction (the extreme case like a 40 g/m ² paper is supposed)
Regarding the paper size	Papers that are less than 166mm in the main scan direction
	Hard papers that are less than 180mm in the sub scan direction

3.2.2 Checkpoint and handling

(1) Checkpoints

- Because most of the skews occur during the paper feeding from the tray, be sure to check "[Q.3.1.3 Skew \(Tilt\)](#)".

(2) Regarding the hardness of the paper

- The skew adjustment of 1250/1250P/1052/951 is conducted in such a procedure that the registration roller presses the paper leading edge and creates the loop.
- Regarding the paper that is too hard for the loop creation or too soft to result in a large loop, the correction is not fully performed.
- It can be improved by optimizing the loop amount by conducting "[I.5.3.15 Printer Registration Loop Adj. \(Timing Adjustment\)](#)" and "[I.5.3.16 Printer Pre-registration Adj. \(Timing Adjustment\)](#)" in the service mode.
- If the grain direction of the paper can be changed, set the hard paper by changing the direction so that the softer side of the paper faces in the conveyance direction, and set the soft paper by changing the direction so that the harder side of the paper faces in the conveyance direction. Then, the symptom can be improved.
- Buckling wrinkle or jam may occur when the loop amount is set large to the paper which is too soft and has possibility that the loop grows.
- For the hard paper which is difficult to loop, the loop value is set small to decrease the trails of rollers. In this case, increase a loop without occurring trails of rollers. The paper surely contacts with the roller and the problem released.

(3) Regarding the paper size

- If the width of the leading edge of the paper that is to be pressed against the registration roller is narrow, it is possible that the correction cannot be properly performed. If the paper direction can be changed, change the direction to widen the width of the leading edge of the paper that is to be pressed against the registration roller.
- Regarding the hard paper that is less than 180mm in the sub scan direction, the power for conveyance is insufficient when the paper is pressed against the registration roller. In this case, the loop is hard to be created. If the paper direction can be changed, change it so that the paper length becomes 180mm or more.

Note

- When the paper is pressed against the registration roller, the sufficient power for conveyance is applied because both the V-convey exit roller and ADU exit roller at the upstream side nip the paper.
- When using the paper that is less than 180mm in the sub scan direction, replace the loop roller (AL roller at the drive side: A0G68192/ A0G68193) with the urethane roller so that the conveyance power increases and the loop creation is stabilized.

Note

- However, it is possible that the trails of the rollers is made at the position 106mm from the paper leading edge.

3.3 When the mis-centering is excessive

3.3.1 Checkpoint and handling

- The followings are the checkpoints and handling for the users who cannot fully perform the adjustment.
- If the paper is always (not unexpectedly) misaligned too much, be sure to check the outer diameter of the paper first. The outer diameter of the paper is referred for the image writing, so the variability among the paper outlines directly affects the accuracy of the image positioning.
- When the both sides adjustment cannot be performed in the user operation, conduct the both sides adjustment in the service mode. (Refer to "[Q.2.3.1 Printer Restart Timing Adjustment\(Side2\) rough adjustment](#)" to "[Q.2.3.4 Printer CD-Mag. Adjustment \(Side2\)](#)") The adjustment value that is specified in the user operation is to be added to the value in the service mode for determining the image position. After adjusting the value in the service mode, the value can be finely adjusted in the user mode.



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