

JAM CODE LIST

	Classification	Jam Code	Cause	Machine response	Countermeasure
Main body	By-pass	J10-1	PS44 (registration) does not turn ON within the predefined time after M6 (loop roller) has turned ON.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed .	Pull the paper out of the by-pass feed tray temporarily and remove the jammed paper.
		J10-2	PS44 (registration) has turned ON when by-pass feed starts.		
	Tray 1	J11-1	PS1 (paper feed /1) does not turn ON within the predefined time after MC3 (paper feed MC/1) has turned ON.		Open the vertical conveyance door on the main body and remove the jammed paper. Pull out the tray and remove the jammed paper.
		J11-2	PS1 (paper feed /1) is ON and PS36 (loop) is OFF for the predefined time after MC4 (pre-registration MC/1) has turned ON.		
		J11-3	PS25 (vertical conveyance /1) is turned ON while in the idling status.		Open the vertical conveyance door on the main body and remove the jammed paper.
		J11-5	PS1 (paper feed /1) is turned ON while in the idling status.		Pull out the tray and remove the jammed paper.
	Tray 2	J12-1	PS7 (paper feed /2) does not turn ON within the predefined time after MC5 (paper feed MC/2) has turned ON.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed .	Open the vertical conveyance door on the main body and remove the jammed paper.
		J12-2	PS7 (paper feed /2) is ON and PS26 (vertical conveyance /2) is OFF for the predefined time after MC6 (pre-registration MC/2) has turned ON.		Pull out the tray and remove the jammed paper.
		J12-3	PS26 (vertical conveyance /2) is turned ON while in the idling status.		Open the vertical conveyance door on the main body and remove the jammed paper.
		J12-5	PS7 (paper feed /2) is turned ON while in the idling status.		Pull out the tray and remove the jammed paper.

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Main body	Tray 3	J13-1	Operating	PS13 (paper feed 3) does not turn ON within the predefined time after MC7 (paper feed MC/3) has turned ON.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed.	Open the vertical conveyance door on the main unit and remove the jammed paper. Pull out the tray and remove the jammed paper.
		J13-2		PS13 (paper feed /3) does not turn OFF, within the predefined time after MC8 (pre-registration MC/3) has turned ON.		
		J13-3	Stationary	PS27 (vertical conveyance /3) is turned ON while in the idling status.		Open the vertical conveyance door on the main body and remove the jammed paper.
		J13-5		PS13 (paper feed PS/3) is turned ON while in the idling status.		Pull out the tray and remove the jammed paper.
		LCT	LCT	J15-1	Operating	PS107 (LT first paper feed) does not turn ON within the predefined time after MC102 (LT first paper feed MC) has turned ON.
J15-2	PS106 (LT paper feed) does not turn ON within the predefined time after MC101 (LT paper feed MC) has turned ON.					
J15-3	Stationary			PS106 (LT paper feed) is turned ON while in the idling status.		
J15-4				PS107 (LT first paper feed) is turned ON while in the idling status.		
Main body	Paper conveyance (all trays)			J17-1	Operating	PS44 (registration) does not turn ON within the predefined time after PS36 (loop) or PS50 (ADU pre-registration) has turned ON.
	Paper conveyance (tray 1)	J17-2	PS36 (loop) does not turn ON within the predefined time after PS1 (paper feed PS/1) has turned ON.			

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Main body	Paper conveyance (tray 2/3)	J17-3	Operating	PS36 (loop) does not turn ON within the predefined time after PS26 (vertical conveyance /2) has turned ON.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed.	Open the vertical conveyance door on the main body and remove the jammed paper.
	Paper conveyance (tray 2)	J17-4		PS26 (vertical conveyance /2) does not turn ON within the predefined time after PS7 (paper feed /2) has turned ON.		
	Paper conveyance (tray 3)	J17-5		PS26 (vertical conveyance /2) does not turn ON within the predefined time after MC8 (pre-registration MC/3) has turned ON.		
LCT	LCT	J17-8		PS36 (loop) does not turn ON within the predefined time after PS106 (LT paper feed) has turned ON.		Open the LT jam door and remove the jammed paper.
Main body	Paper feed/conveyance	J17-9	Stationary	PS43 (leading edge) is turned ON while in the idling status.	-	Open the vertical conveyance door and/or the front door on the main body and remove the jammed paper.
		J17-10		PS44 (registration) is turned ON while in the idling status.		
		J17-12		PS36 (loop) is turned ON while in the idling status.		
Main body	Vertical conveyance door	J19-1	Operating	The vertical conveyance door is opened while copying.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed	Open the vertical conveyance door on the main body and remove the jammed paper.
	LCT	J19-2		The jam access door or the top cover is opened while copying.		
	Drum	J21-1		Dmax has detected a paper while the print sequence is in motion.		
Main body		J21-2	Stationary	Dmax sensor has detected a paper while in the idling status.	-	Open the front door and pull out the ADU stand and remove the jammed paper.

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Main body	Second paper feed conveyance	J31-1	PS43 (leading edge) does not turn ON within the predefined time after MC1 (registration MC) has turned ON.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed	Open the front door and pull out the ADU stand and remove the jammed paper.
		J31-2	PS30 (fixing exit) does not turn ON within the predefined time after PS43 (leading edge) has turned ON.		
	Fixing/paper exit	J32-1	PS37 (paper exit) does not turn ON within the predefined time after PS30 (fixing exit) has turned ON.		
		J32-2	PS42 (paper reverse) does not turn ON within the predefined time after PS30 (fixing exit) has turned ON.		
		J32-3	PS42 (paper reverse) does not turn OFF within the predefined time after PS42 has turned ON.		
	Fixing/paper exit	J32-4	PS37 (paper exit) does not turn ON within the predefined time after PS42 (paper reverse) has turned OFF.		
		J32-5	PS37 (paper exit) does not turn OFF within the predefined time after PS37 has turned ON.		
		J32-6	PS37 (paper exit) is turned ON while in the idling status.		
		J32-8	PS42 (paper reverse) is turned ON while in the idling status.		
		J32-9	PS30 (fixing exit) is turned ON while in the idling status.		
RADF	DF-316	J61-1	Open/close cover was opened while RADF is in motion.	RADF stops immediately. The machine stops after paper ejection if copying/copied paper is present.	Open the open/close cover and the paper feed unit to remove the jammed paper.
		J61-2	RADF was opened while RADF is in motion.		
		J62-1	PS304 (original registration /1) does not turn OFF within the predefined time after feeding of the single-side original has started.		
	Front door	J51-1	Front door on the right or on the left is opened while a job is being processed.	The machine stops immediately.	

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RADF	DF-316	J62-2	PS304 (original registration /1) does not turn OFF within the pre-defined time after feeding of the double-side original has started.	RADF stops immediately. The machine stops after paper ejection if copying/copied paper is present.	Open the open/close cover and the paper feed unit to remove the jammed paper.
		J62-3	PS305 (original registration /2) does not turn ON within the pre-defined time after feeding of the single-side original has started.		
		J62-4	PS305 (original registration /2) does not turn ON within the pre-defined time since reverse paper feed of the back side of the double-side copy has started.		
		J62-5	PS305 (original registration /2) does not turn ON within the pre-defined time since reverse paper feed of the front side of the double-side copy has started.		
		J62-6	PS305 (original registration /2) does not turn OFF within the pre-defined time since it has turned ON when feeding the paper for the single-side copy.		
		J62-7	PS305 (original registration /2) does not turn OFF within the pre-defined time since it has turned ON when processing the reverse paper feed for copying the back side of the double-side original.		
		J62-8	PS305 (original registration /2) does not turn OFF within the pre-defined time since it has turned ON when processing the reverse paper feed for copying the front side of the double-side original.		
		J62-9	PS306 (original conveyance) does not turn ON within the predefined time after re-feeding of the single-side original has started.		
		J62-10	PS306 (original conveyance) does not turn ON within the predefined time since reverse paper feed of the double-side copy has started.		
			Operating		

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RADF	DF-316	J63-1	PS306 (original conveyance) does not turn OFF within the predefined time since it has turned ON when feeding the paper for the single-side copy.	RADF stops immediately. The machine stops after paper ejection if copying/copied paper is present.	Open the open/close cover and the paper feed unit to remove the jammed paper.
		J63-2	PS306 (original conveyance) does not turn OFF within the predefined time since it has turned ON when processing the reverse paper feed for copying the back side of the double-side original.		
		J63-3	PS306 (original conveyance) does not turn OFF within the predefined time since it has turned ON when processing the reverse paper feed for copying the front side of the double-side original.		
		J63-4	PS303 (original exit) does not turn ON within the predefined time after PS306 (original conveyance PS) has turned ON.		
		J63-5	PS303 (original exit PS) does not turn OFF within the predefined time since it has turned ON.		
		J65-1	PS304 (original registration) is turned ON while in the idling status.		
		J65-2	PS306 (original conveyance) is turned ON while in the idling status.		
		J65-4	PS303 (original exit) is turned ON while in the idling status.		
		J65-8	PS305 (original registration /2) is turned ON while in the idling status.		
		J65-10	PS307 (original skew /F) is turned ON while in the idling status.		
		J65-20	PS308 (original skew /R) is turned ON while in the idling status.		

	Classification	Jam Code	Cause	Machine response	Countermeasure
FNS	FS-110/210	J71-1	Front door of FNS or the top cover of PI has opened while a job is being processed.	Machine stops immediately.	Remove the jammed paper from the FNS or the main body.
		J72-16	PS704 (FNS entrance) does not turn ON within the predefined time after PS37 (paper exit) has turned ON.		
		J72-17	PS706 (main tray paper exit) does not turn ON within the predefined time after PS704 (FNS entrance) has turned ON.		
		J72-18	PS705 (stacker entrance) does not turn ON within the predefined time after PS704 (FNS entrance) has turned ON. (Staple mode)		
		J72-19	PS705 (stacker rotation) does not turn OFF within the predefined time after M713 (stacker entrance) has turned ON.		
		J72-20	PS706 (main tray paper exit) does not turn ON within the predefined time after the paper ejection has started. (Staple mode)		
		J72-21	PS706 (main tray paper exit) does not turn OFF within the predefined time since it has turned ON. (Staple mode large-size paper)		
		J72-23	PS701 (sub-tray paper exit) does not turn OFF within the predefined time since it has turned ON. (Sub-tray paper exit mode)		
		J72-24	PS726 (folding passage) does not turn ON within the predefined time since stapling has completed.		
		J72-25	PS725 (folding exit) does not turn ON within the predefined time since M719 (folding knife) has turned ON.		
		J72-26	PS725 (folding exit) does not turn OFF within the predefined time since it has turned ON.		
		J72-27	PS720 (stacker no paper) is turned OFF when stapling starts.		
		J72-28	PS705 (stacker entrance) does not turn OFF within the predefined time since it has turned ON.		

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FNS	FS-110/210	J72-29	PS706 (main tray paper exit) does not turn OFF within the predefined time since it has turned ON. (non-stapling mode)	Machine stops immediately.	Remove the jammed paper from the FNS or the main body.
		J72-30	PS706 (main tray paper exit) does not turn OFF within the predefined time since it has turned ON. (Staple mode small-size paper)		
	PI-110	J72-35	PS206 (PI passage /L) does not turn ON within the predefined time after MC202 (conveyance MC/L) has turned ON.		
	PK-110	J72-43	PS801 (punch HP) does not turn ON within the predefined time after M801 (punch) has turned ON.		
	FS-110/210	J72-48	PS726 (folding passage) does not turn OFF within the predefined time since it has turned ON.		
	PI-110	J72-49	PS201 (PI passage /U) does not turn ON within the predefined time after MC201 (conveyance MC/U) has turned ON.		Open the top cover of PI and remove the jammed paper.
		J72-50	PS704 (FNS entrance) does not turn ON within the predefined time after PS201 (PI passage /U) has turned ON.		
		J72-51	PS704 (FNS entrance) does not turn ON within the predefined time after PS206 (PI passage /L) has turned ON.		
	FS-110/210	J72-81	PS730 (stapler HP /R) and PS732 (clincher HP /R) do not turn ON within the predefined time after M709 (stapler /R) and M710 (clincher /R) have turned ON.		Remove the jammed paper from the FNS or the main body.
		J72-82	PS731 (stapler HP /F) and PS733 (clincher HP /F) do not turn ON within the predefined time after M714 (stapler /F) and M715 (clincher /F) have turned ON.		
		J72-83	PS730/731 (stapler HP /R, /F) and PS732/733 (clincher HP /R, /F) do not turn ON within the predefined time after M709/714 (stapler/R, /F) and M710/715 (clincher /R, /F) have turned ON.		

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FNS	FS-110/210	J72-90	Operating	FNS does not stop within the pre-defined time since the stop signal has been transmitted to FNS from the main unit.	Machine stops immediately.	Remove the jammed paper from the FNS or the main body.
		J73-1	Stationary	PS706 (main tray paper exit) is turned ON while in the idling status.		
		J73-2		PS705 (stacker entrance) is turned ON while in the idling status.		
		J73-5		PS704 (FNS entrance) is turned ON while in the idling status.		
		J73-7		PS701 (sub-tray paper exit) is turned ON while in the idling status.		
		J73-8		PS720 (stacker no paper) is turned ON when paper jam has occurred during paper ejection.		
		J73-9		PS726 (folding passage) is turned ON while in the idling status.		
		J73-10		PS725 (folding exit) is turned ON while in the idling status.		
	PI-110	J73-14		PS206 (PI passage /L) is turned ON while in the idling status.		
		J73-17		PS201 (PI passage /U) is turned ON while in the idling status.		
Main body	ADU	J92-1	Operating	PS46 (reverse/exit) does not turn ON within the predefined time after PS42 (paper reverse) has turned ON.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed	Open the front door and pull out the ADU unit and remove the jammed paper.
		J92-3	Stationary	PS45 (ADU paper reverse) is turned ON while in the idling status.	-	
		J93-1	Operating	PS48 (ADU conveyance /2) does not turn ON within the predefined time after PS46 (reverse /exit) has turned OFF.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed	
		J93-2	Stationary	PS48 (ADU conveyance /2) is turned ON while in the idling status.		
		J93-3		PS50 (ADU pre-registration) is turned ON while in the idling status.		

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Main body	ADU	J94-1	Operating	PS49 (ADU deceleration) does not turn ON within the predefined time after PS48 (ADU conveyance /2) has turned ON.	The machine stops immediately after paper ejection has completed when jamming occurs while a job is being processed	Open the front door and pull out the ADU stand and remove the jammed paper.
		J94-2		PS50 (ADU pre-registration) does not turn ON within the predefined time after PS49 (ADU deceleration) has turned ON again.		
		J94-3	Stationary	PS49 (ADU deceleration) is turned ON while in the idling status.	-	

ERROR CODE LIST

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
Main body	Drive	F13-01	Error detection signal is detected continuously for one second when two seconds have passed since M1 (paper feed) has turned ON.	The machine stops immediately and turns OFF RL1 (main).	M1 (paper feed) PRCB (printer control board)
		F13-02	Error detection signal is detected continuously for one second when two seconds have passed since M101 (LT paper feed) has turned ON.		M101 (LT paper feed) LTDB (LT drive board)
	Tray 1	F18-10	Error detection signal for M16 (tray up drive /1) is detected while M16 is turned ON.		M16 (tray up drive /1) PRCB (printer control board) PS2 (tray upper limit/1)
		F18-11	PS2 (tray upper limit/1) does not turn ON within 20 seconds since the lifting motion triggered by activating M16 (tray up drive /1) has started while PS2 is turned OFF.		
	Tray 2	F18-20	Error detection signal for M17 (tray up drive /2) is detected while M17 is turned ON.		M17 (tray up drive /2) PRCB (printer control board) PS8 (tray upper limit/2)
		F18-21	PS8 (tray upper limit/2) does not turn ON within 20 seconds since the lifting motion triggered by activating M17 (tray up drive /2) has started while PS8 is turned OFF.		
	Tray 3	F18-30	Error detection signal for M18 (tray up drive /3) is detected while M18 is turned ON.		M18 (tray up drive /3) PRCB (printer control board) PS14 (tray upper limit/3)
		F18-31	PS14 (tray upper limit/3) does not turn ON within 20 seconds since the lifting motion triggered by activating M18 (tray up drive /3) has started while PS14 is turned OFF.		
LCT	LCT	F18-50	Error detection signal for M100 (LT up/down) is detected continuously for one second while M100 is turned ON.	The machine stops immediately and turns OFF RL1 (Main).	M100 (LT up/down) LTDB (LT drive board) PS101 (LT lower limit detection) PS109 (LT upper limit detection)
		F18-51	PS109 (LT upper limit detection) or PS101 (LT lower limit detection) does not turn ON within 35 seconds since the lifting or descent motion triggered by activating M100 (LT up/down) has started while PS109 or PS101 is turned OFF.		

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Main body	By-pass feed	F18-60	PS34 (tray upper limit/BP) or PS35 (tray lower limit/BP) does not turn ON within 10 seconds since the upward or downward motion triggered by activating M20 (up/down/BP) has started while PS34 or PS35 is turned OFF.	No error code is displayed on the operation panel. The code is registered in data collection, list output and KRDS.	M20 (up/down/BP) PRCB (printer control board) PS34 (tray upper limit/BP) PS35 (tray lower limit/BP)
	Wirecleaning abnormality	F21-01	The lock signal for M14 (charger cleaning) is not detected when more than 25 seconds have passed since the return motion (back to front) of M14 has started.	The machine stops immediately and turns OFF RL1 (main).	M14 (charger cleaning) PRCB (printer control board)
		F21-02	The lock signal for M14 (charger cleaning) is detected within 2 seconds since the return motion (back to front) of M14 has started.		M14 (charger cleaning) PRCB (printer control board)
		F21-03	The lock signal for M14 (charger cleaning) is not detected when more than 25 seconds have passed since the return motion (back to front) of M14 has started while re-try process is in motion after lock detection.		
		F21-05	The lock signal for M10 (transfer/separation cleaning) is not detected when more than 25 seconds have passed since the return motion (back to front) of M10 has started.		M10 (transfer/separation cleaning) ADUDB (ADU drive board) PRCB (printer control board)
		F21-06	The lock signal for M10 (transfer/separation cleaning) is detected within 2 seconds since the return motion (back to front) of M10 has started.		
		F21-07	The lock signal for M10 (transfer/separation cleaning) is not detected when more than 25 seconds have passed since the return motion (back to front) of M10 has started while re-try process is in motion after lock detection.		

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Main body	Fan abnormality	F22-01	An error for SFAN_EM signal is detected when 2 seconds have passed since FM4 (developing suction) has turned ON. The error does not clear after 2 seconds from the OFF/ON operation.	The machine stops immediately and turns OFF RL1 (main).	FM4 (developing suction) PRCB (printer control board)
		F22-02	An error for CLEAN_EM signal is detected when 2 seconds have passed since FM5 (cleaner cooling) has turned ON. The error does not clear after 2 seconds from the OFF/ON operation.		FM5 (cleaner cooling) ADUDB (ADU drive board) PRCB (printer control board)
	Motor abnormality	F23-01	An error for TONERM_EM signal is detected when 7 seconds have passed since M13 (toner bottle) has turned ON.		M13 (toner bottle) PRCB (printer control board)
		F23-02	An error for DEVM_EM signal is detected when more than 1 second has passed since M3 (developing) has turned ON.		M3 (developing) PRCB (printer control board)
		F23-03	An error for DRUM_EM signal is detected when more than 3 seconds have passed since M2 (drum) has turned ON.		M2 (drum) PRCB (printer control board)
	High-voltage power error	F28-01	5 consecutive charging ON/OFF operations have been executed since the charging error detection signal has been detected while charging is turned ON.		HV (high-voltage unit)
		F28-02	5 consecutive transfer ON/OFF operations have been executed since the transfer error detection signal has been detected while transfer is turned ON.		
		F28-03	5 consecutive separation ON/OFF operations have been executed since the separation error detection signal has been detected while separation is turned ON.		

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Main Unit	Process abnormality	F29-01	Dirt correction failure of the Dmax sensor during maximum density adjustment. If this error is detected 10 successive times, the error code is displayed.	The machine stops immediately and turns OFF RL1 (main).	TSCB (toner control sensor board) PRCB (printer control board)
		F29-03	Control patches are not output while Dmax correction is in process. (No output from the Dmax sensor.)	No error code is displayed on the operation panel. The code is registered in data collection, list output and KRDS. Main body control is performed using previous data.	TSCB (toner control sensor board) PRCB (printer control board)
		F29-04	Dirt correction failure of the γ sensor during γ adjustment. If this error is detected 10 successive times, the error code is displayed.	The machine stops immediately and turns OFF RL1 (main).	
		F29-05	Control patches are not output while γ correction is in process. (No output from the γ sensor.)	No error code is displayed on the operation panel. The code is registered in data collection, list output and KRDS. Main body control is performed using previous data.	
		F29-06	A recurrence error occurred when carry out γ curve for γ correction.		
		F29-07	Dirt correction failure of the γ sensor during dot diameter adjustment. If this error is detected 10 successive times, the corresponding error code is displayed.	The machine stops immediately and turns OFF RL1 (main).	
		F29-08	The dot diameter correction ended with error value.	No error code is displayed on the operation panel. The code is registered in data collection, list output and KRDS. Main body control is performed using previous data.	TSCB (toner control sensor board) PRCB (printer control board)
	Fan abnormality	F32-01	An error for SUC_EM signal is detected when 2 seconds have passed since FM3 (conveyance suction) has turned ON. The error does not clear after 2 seconds from the OFF/ON operation.	The machine stops immediately and turns OFF RL1 (main).	FM3 (conveyance suction) ADUDB (ADU drive board) PRCB (printer control board)

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Main body	Fan abnormality	F32-02	An error for FIXFAN1_EM signal is detected when 2 seconds have passed since FM8 (main unit cooling /2) has turned ON. The error does not clear after 2 seconds from the OFF/ON operation.	The machine body stops immediately and turns OFF RL1 (main).	FM8 (main cooling /2) PRCB (printer control board)
		F32-03	An error for FIXFAN2_EM signal is detected when 2 seconds have passed since FM7 (paper exit /R) has turned ON. The error does not clear after 2 seconds from the OFF/ON operation.		FM7 (paper exit /R) PRCB (printer control board)
		F32-04	An error for FIXFAN3_EM signal is detected when 2 seconds have passed since FM6 (paper exit /F) has turned ON. The error does not clear after 2 seconds from the OFF/ON operation.		FM6 (paper exit /F) PRCB (printer control board)
	Motor abnormality	F33-01	Error detection signal is detected continuously for 1 second when 2 seconds have passed since M5 (conveyance) has turned ON.		M5 (conveyance) PRCB (printer control board)
	High fixing temperature abnormality	F34-01	TH1 (fixing temperature /1) detects more than 220°C for five consecutive times in 1 second cycle.		PRCB (printer control board) DCPS (DC power supply unit) L2 (fixing heater lamp/1) L3 (fixing heater lamp/2) TH1 (fixing temperature /1) TH2 (fixing temperature /2)
		F34-02	The output voltage of TH1 (fixing temperature /1) and TH2 (fixing temperature /2) is detected as abnormally high at the comparator circuit (more than 228°C).		
	Low fixing temperature abnormality	F35-01	TH1 (fixing temperature /1) has not reached the predefined temperature when the specified time has passed since the fixing ON control has been processed after SW2 (sub power) is turned on.		
		F35-02	TH1 (fixing temperature /1) detects less than 120°C for 5 consecutive times in 1 second cycle while the fixing ON control is processed after warm-up operation is complete.		
		F35-03	The output voltage of TH1 (fixing temperature /1) is detected as abnormality low at the comparator circuit (less than -6°C).		

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Main body	Fixing sensor abnormality	F36-01	TH1 (fixing temperature /1) has not reached 50°C when the specified time has passed since the fixing ON control has been processed after SW2 (sub power) is turned on.	The machine body stops immediately and turns OFF RL1 (main).	PRCB (printer control board) DCPS (DC power supply unit) L2 (fixing heater lamp/1) L3 (fixing heater lamp/2) TH1 (fixing temperature /1) TH2 (fixing temperature /2)
		F36-02	The output voltage of TH2 (fixing temperature /2) is detected as abnormality low (less than -6°C) or abnormally high (more than 240.5°C) at the comparator circuit.		
	Scanner abnormality	F41-01	PS61 (scanner HP) does not turn ON within 5 seconds since M11 (scanner) has turned ON.		M11 (scanner) PS61 (scanner HP) SCDB (scanner drive board) PRCB (printer control board)
	Motor abnormality	F41-02	The lock signal for M15 (polygon) is not detected within 25 seconds from the switch drive when M15 starts or when switching the rotation speed.		M15 (polygon) PMD (polygon drive board) PRCB (printer control board)
	Fan abnormality	F42-01	An error for EM signal is detected when 2 seconds have passed since FM9 (scanner cooling) has turned ON. The error does not clear after 2 seconds from the OFF/ON operation.		FM9 (scanner cooling) SCDB (scanner drive board) PRCB (printer control board)
		F42-02	An error for WRFAN1_EM signal is detected when 2 seconds have passed since FM2 (write section cooling) has turned ON. The error does not clear after 2 seconds from the OFF/ON operation.		FM2 (write section cooling) PRCB (printer control board)

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
Main body	Image control abnormality	E46-01	During image write, APC cannot be performed for sub-scanning beam correction. The 12 VDC power for driving the laser is not supplied. The laser does not turn ON due to defective laser, or MPC value is different. The index sensor cannot detect the laser because the polygon mirror does not rotate, the index sensor is displaced, or the index sensor is defective.	If copy operation is being performed, the machine stops after paper ejection. RL1 (main) is turned OFF.	Write section ICB (image control board) power connector
		E46-02	Illegal address of FIFO for scanner. During image read, image data compression is not completed normally.		ICB (image control board) MU-401/402
		E46-03	Illegal address of FIFO for printer. During image read, image data decompression is not completed normally.		
		E46-05	The FIFO of the compression / expansion chip caused an error interrupt.		
		E46-06	Decompression error of image data.		
		E46-08	When APC is performed, the index sensor output does not change.		Write section ICB (image control board) power connector
		E46-12	Compression of the read image and decompression in the page memory are not completed within the specified time after negation of SW.		ICB (image control board)
		E46-13	During image read, image data compression from the scanner to the memory is not completed within the specified time. Image data decompression from the scanner to the page memory is not completed within the specified time. SVV is not detected within the specified time.		PRCB (printer control board) ICB (image control board)

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
Main body	Image control abnormality	E46-14	During image read, image data decompression from the memory to the printer is not completed within the specified time. Image data output from the page memory to the printer is not completed within the specified time. PVV is not detected within the specified time.	If copy operation is being performed, the machine stops after paper ejection. RL1 (main) is turned OFF.	PRCB (printer control board) ICB (image control board)
		E46-15	During image write, improper processing was performed. For example, the decompression device was accessed although there was no resource.		ICB (image control board) ICB program
		E46-16	During image read, improper processing was performed. For example, the compression device was accessed although there was no resource.		
		E46-17	During image processing, a filter coefficient could not be generated properly.		
		E46-19	During access to the memory device, a software error was detected.		
		E46-21	Decompression from the memory to the page memory is not completed within the specified time. Compression from the page memory to the memory is not completed within the specified time. Decompression from the memory to the page memory is not completed within the specified time. Compressed data transfer between memories is not completed within the specified time.		PRCB (printer control board) ICB (image control board) ICB program
		E46-23	During image read, SVV is not turned OFF within the specified time and therefore preparation for next page scanning cannot be started.		ICB (image control board)
		E46-24	Shading correction error (GA error)		ICB (image control board) ICB program

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
Main body	Image control abnormality	E46-25	AOC/AGC error <ul style="list-style-type: none"> • The light blocking cover and lens cover are removed from the scanner section. • The A/D converter board connector is disconnected. • The power cable of A/D converter board is disconnected. • The IC protector on the A/D converter board is blown out. • The exposure lamp intensity is excessive. • The exposure lamp does not light. 	If copy operation is being performed, the machine stops after paper ejection. RL1 (main) is turned OFF.	ADB (A/D conversion board) L1 (exposure lamp)
		E46-26	Correction data saved on a resolution basis is not found.	Error code is not displayed on the operation panel. It is displayed only in data collection, list output, and KRDS.	ICB (image control board)
		E46-27	The density correction γ curve cannot be generated properly.		
		E46-29	Calibration start error.	If copy operation is being performed, the machine stops after paper ejection. RL1 (main) is turned OFF.	ICB (image control board) ICB program
		E46-30	Calibration end error		
		E46-31	An attempt was made to perform APC initial sampling before completion of MPC.		
		E46-32	An attempt was made to perform MPC during APC.		
		E46-33	An attempt was made to perform sub-scan beam correction before completion of APC or MPC.		
		E46-34	An attempt was made to perform sub-scan beam interval correction although the image write clock was abnormal.		
		E46-35	Dual page memory area error Due to the image area abnormality on the memory, image is not decompressed on the memory.		
		F46-40	Hard disk initialization abnormality Hard disk failure, or poor connection of connectors	The machine stops immediately and RL1 (main) turns OFF.	ICB (image control board) ICB program HDD (hard disk drive)
		F46-41	Job information could not be stored on the hard disk.		
		F46-42	A route could not be opened during hard disk job automatic deletion.		

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
Main body	Image control abnormality	F46-43	Hard disk access failure Hard disk failure or poor connection of connectors	The machine stops immediately and RL1 (main) turns OFF.	ICB (image control board) ICB program HDD (hard disk drive)
		F46-50	Communication error is detected during the tandem operation.		ICB (image control board) ICB program
		F46-51	An error is detected during the data transfer of tandem image.		Around the tandem cable
		F46-60	Adjustment of the sub-scan beam interval is not completed within the specified number of time for the following reason: • Defective index sensor • Abnormal 12 VDC power supply • M15 (polygon) driving failure	Error code is not displayed on the operation panel. It is displayed only in data collection, list output, and KRDS.	Write section
		F46-61	Scanning started before completion of original auto skew correction. (Skew correction was not in time).		PRCB (printer control board) PS311 (original mis-centering /F) PS311 (original mis-centering /R)
		F46-62	Printing started before correction of auto paper mis-centering. (Mis-centering correction was not in time).		PS1 (paper mis-centering detection PS)
		F46-63	AGC was retried because of reduction in exposure lamp intensity, but no error occurred.		L1 (exposure lamp)
		F46-64	The PWM γ curve could not be generated properly.		TCSB (toner control sensor board)
		E46-80	The message queue was insufficient or destroyed.	If copy operation is being performed, the machine stops after paper ejection. RL1 (main) is turned OFF.	ICB (image control board)
		E46-81	The parameter value is too large.		ICB (image control board) MU-401/402 contact failure
		E46-82	The ID of message queue source task is undefined.		
		E46-83	The message reception event is undefined.		
		E46-90	The access to the memory is illegal.		ICB (image control board) MU-401/402

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
Main body	Image control abnormality	E46-91	The header read address is illegal.	If copy operation is being performed, the machine stops after paper ejection. RL1 (main) is turned OFF.	ICB (image control board) MU-401/402
		E46-99	E-RDH memory initialization error E-RDH memory may not be connected properly.		
	Communication abnormality	E49-01	IP-511 connection was confirmed, but it does not operate normally.		IP-511 system board
		E49-02	Transmission from IP-511 to ICB (Image control board) failed.		
		E49-03	Direct Memory Access error		
		E49-04	IP-511 builtin HDD error.		IP-511 HDD
		E49-05	IP-511 cooling fan lock error.		IP-511 cooling fan motor
		E50-01	Main body drive serial input error 1. Serial data is not received from the main body drive section within 0.5 second after reception of power-on ACK.	The machine stops immediately. RL1 (main) is turned OFF.	PRCB (printer control board)
		E50-02	Main body drive serial input error 2. Serial data is not received from the main body drive section within 0.5 second after reception of power-on ACK.		
		E50-03	Main body drive serial input error 3. Serial data is not received from the main body drive section within 0.5 second after reception of power-on ACK.		
		E50-04	Main body drive serial input error 4. Serial data is not received from the main body drive section within 0.5 second after reception of power-on ACK.		
		E50-05	Drive board communication reception error detection fault. A reception error occurred during reception of drive board serial data, or a data checksum error or ID information error occurred four consecutive times although a resent request had been issued three times.		PRCB (printer control board) Drive boards

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
Main body	Communication abnormality	E50-10	Image control board communication error. Initial data is not received from ICB (image control board) within 10 seconds after power-on.	The machine stops immediately. RL1 (main) is turned OFF.	PRCB (printer control board) ICB (image control board)
		E50-11	Image control board communication serial reception error detection fault.		ICB (image control board)
	Fan abnormality	F52-01	FM13 (power supply cooling) EM signal was abnormal 2 seconds after turning ON FM13. 2 seconds after turning FM13 OFF and ON again, the signal is still abnormal.		FM13 (power supply cooling) DCPS (DC power supply unit)
		F52-02	The MAINFAN_EM signal was abnormal 2 seconds after turning ON FM1 (main body cooling/1). 2 seconds after turning OFF and ON again, the signal is still abnormal.		FM1 (main body cooling/1) PRCB (printer control board)
	Motor abnormality	F53-01	5 seconds or later after turning ON M4 (fixing), an abnormal MAINM_EM signal has been detected for 1 consecutive second.		M4 (fixing) PRCB (printer control board)
	Operation panel abnormality	E56-02	Communication between the ICB (image control board) and OB1 (operation board 1) does not start within 30 seconds after SW2 (sub power) turns ON.	Operation panel does not display normally.	ICB (image control board) OB1 (operation board 1)
RADF	Fan Abnormality	F62-01	FM301 (original conveyance motor cooling) EM signal was abnormal 2 seconds after turning ON FM301. 2 seconds after turning FM301 OFF and ON again, an abnormal detection signal is detected.	The machine stops immediately and RL1 (main) is turned OFF.	SCDB (scanner drive board) FM301 (original conveyance motor cooling)
FNS	FS-110/210 abnormality	E70-1	Communication error		FNSCB (FNS control board) Connector
		E70-2	Start response error.		FNSCB (FNS control board)
		F77-1	The shift unit does not reach the shift position or the HP within the specified time.		M702 (shift) PS718 (shift HP)
		F77-2	After M703 (tray up/down) starts operation, PS702 (tray upper limit) or PS707 (stapler paper exit upper limit) does not turn ON within the specified time.		FNSCB (FNS control board) M703 (tray up/down) PS702 (tray upper limit) PS707 (stapler paper exit upper limit)

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
ENS	FS-110/210 abnormality	F77-3	After M705 (alignment /U) starts operation, PS708 (alignment HP/U) does not turn OFF within the specified time, or does not turns ON after OFF.	The machine stops immediately and RL1 (main) is turned OFF.	FNSCB (FNS control board) RB (relay board) M705 (alignment /U) PS708 (alignment HP/U)
		F77-4	After M707 (paper feed roller) starts operation, it does not reach the prescribed speed within the specified time.		FNSCB (FNS control board) M707 (paper exit roller)
		F77-5	After M708 (paper exit opening) starts operation, its open/close operation does not finish within the specified time. PS712 (paper exit opening HP) does not turn ON or OFF.		FNSCB (FNS control board) M708 (paper exit opening) PS712 (paper exit opening HP)
		F77-6	After M711 (stapler movement) starts operation, PS711 (stapler movement HP) does not turn OFF, or does not turn ON after OFF.		FNSCB (FNS control board) RB (relay board) M711 (stapler movement) PS711 (stapler movement HP)
		F77-7	After M704 (clinch rotation) starts operation, PS714 (clinch rotation HP) does not turn OFF, or does not turn ON after OFF.		FNSCB (FNS control board) RB (relay board) M704 (clinch rotation) PS714 (clinch rotation HP)
		F77-8	After M706 (stapler rotation /R) starts operation, PS713 (stapler rotation HP) does not turn OFF, or does not turn ON after OFF.		FNSCB (FNS control board) RB (relay board) M706 (stopler rotation /R) PS713 (stapler rotation HP)
		F77-11	After M714 (stapler /F) starts operation, PS731 (stapler HP/F) does not turn ON within the specified time.		FNSCB (FNS control board) RB (relay board) M714 (stapler /F) PS731 (stapler HP/F)
		F77-12	After M709 (stapler /R) starts operation, PS730 (stapler HP/R) does not turn ON within the specified time.		FNSCB (FNS control board) RB (relay board) M709 (stapler /R) PS730 (stapler HP/R)
		F77-13	After M715 (clinch /F) starts operation, PS733 (clinch HP/F) does not turn ON within the specified time.		FNSCB (FNS control board) RB (relay board) M715 (clinch /F) PS733 (clinch HP/F)
		F77-14	After M710 (clinch /R) starts operation, PS732 (clinch HP/R) does not turn ON within the specified time.		FNSCB (FNS control board) M710 (clinch /R) PS732 (clinch HP/R)

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
FNS	FS-110/210 abnormality	F77-21	After M718 (folding stopper) starts operation, PS723 (folding stopper HP) does not turn ON within the specified time.	The machine stops immediately and RL1 (main) is turned OFF.	FNSCB (FNS control board) RB (relay board) M718 (folding stopper) PS723 (folding stopper HP)
		F77-22	After M716 (alignment /L) starts operation, PS724 (alignment HP/L) does not turn ON within the specified time.		FNSCB (FNS control board) RB (relay board) M716 (alignment /L) PS724 (alignment /L)
		F77-25	After M719 (folding knife) starts the HP detecting operation, PS722 (folding knife HP) does not turn ON within the specified time.		FNSCB (FNS control board) M719 (folding knife) PS722 (folding knife HP)
		F77-26	After M720 (folding conveyance) starts operation, it does not reach the prescribed speed within the specified time.		FNSCB (FNS control board) M720 (folding conveyance)
	PI-110 abnormality	F77-41	After M202 (tray up/down /L) starts operation, PS209 (tray upper limit /L) or PS210 (tray lower limit /L) do not turn ON within the specified time.		FNSCB (FNS control board) PIDB (PI drive board) M202 (tray up/down /L) M209 (tray upper limit /L) PS210 (tray lower limit /L)
	PI-110 abnormality	F77-42	After M201 (tray up/down /U) starts operation, PS204 (tray upper limit /U) or PS205 (tray lower limit /U) do not turn ON within the specified time.		FNSCB (FNS control board) PIDB (PI drive board) M201 (tray up/down /U) PS204 (tray upper limit /U) PS205 (tray lower limit /U)
		F77-43	After M203 (PI conveyance) starts operation, it does not reach the prescribed speed within the specified time.		FNSCB (FNS control board) M203 (PI conveyance)
	PK-110 abnormality	F77-54	After MC801 (punch) starts operation, PS801 (punch HP) does not turn ON within the specified time.		FNSCB (FNS control board) PKDB (PK drive board) M801 (punch) PS801 (punch HP)
	FS-110/210 abnormality	F77-81	After MC712 (gate drive) starts operation, PS716 (gate HP) does not turn ON within the specified time or does not turn OFF after ON.		FNSCB (FNS control board) RB (relay board) M712 (gate drive) PS716 (gate HP)
		F77-91	Communication abnormality in FNS CB (FNS control board) when sub-CPU receives data.		FNS CB (FNS control board)
		F77-92	Communication abnormality in FNS CB (FNS control board) when main CPU receives data.		

	Classification	Warning Code	Cause	Machine response	Estimated abnormal parts
Main body	Communication abnormality	E80-01	No response from PRCB (printer control board) for 5 seconds after SW2 (sub power) is turned ON.	The machine stops immediately and RL1 (main) is turned OFF.	PRCB (printer control board)
		E80-02	Communication abnormality in PRCB (printer control board).		PRCB (printer control board)
		E80-03	Communication abnormality in operation unit.		OB1 (operation board /1)
	ISW abnormality	F80-11	When SW2 (sub power) was turned ON, an area which had not been written by ISW was detected in the printer control program.		PRCB program
		F80-30	When data is transferred by ISW, normal header information cannot be received within the specified time.		Printer cable PC parallel port
		F80-31	When data is transferred by ISW, a checksum error or header error was detected in the downloaded data.		Printer cable Program file error
		F80-32	When data is transferred by ISW, data cannot be written to the flash ROM properly.		Printer cable Program transfer destination board
		F80-40	When SW2 (sub power) was turned ON, an area which had not been written by ISW was detected in the FNS program.		FNS program
	ADU stand abnormality	E90-01	ADU drive serial input error 1. Serial data from ADUDB (ADU drive board) (ID=0) cannot be received from ACK within 0.5 second when SW2 (sub power) turns ON.		ADUDB (ADU drive board)
		E90-02	ADU drive serial input error 2. Serial data from ADUDB (ADU drive board) (ID=7) cannot be received from ACK within 0.5 second when SW2 (sub power) turns ON.		
	Fan abnormality	F92-01	The FM10 (ADU reverse motor cooling) EM signal was abnormal 2 seconds after turning ON of FM10. 2 seconds after turning FM10 OFF and ON again, the signal is still abnormal.		FM10 (ADU reverse motor cooling) ADUDB (ADU drive board) PRCB (Printer control board)

For the following abnormalities, the user can disconnect the faulty unit temporarily to continue using the machine.

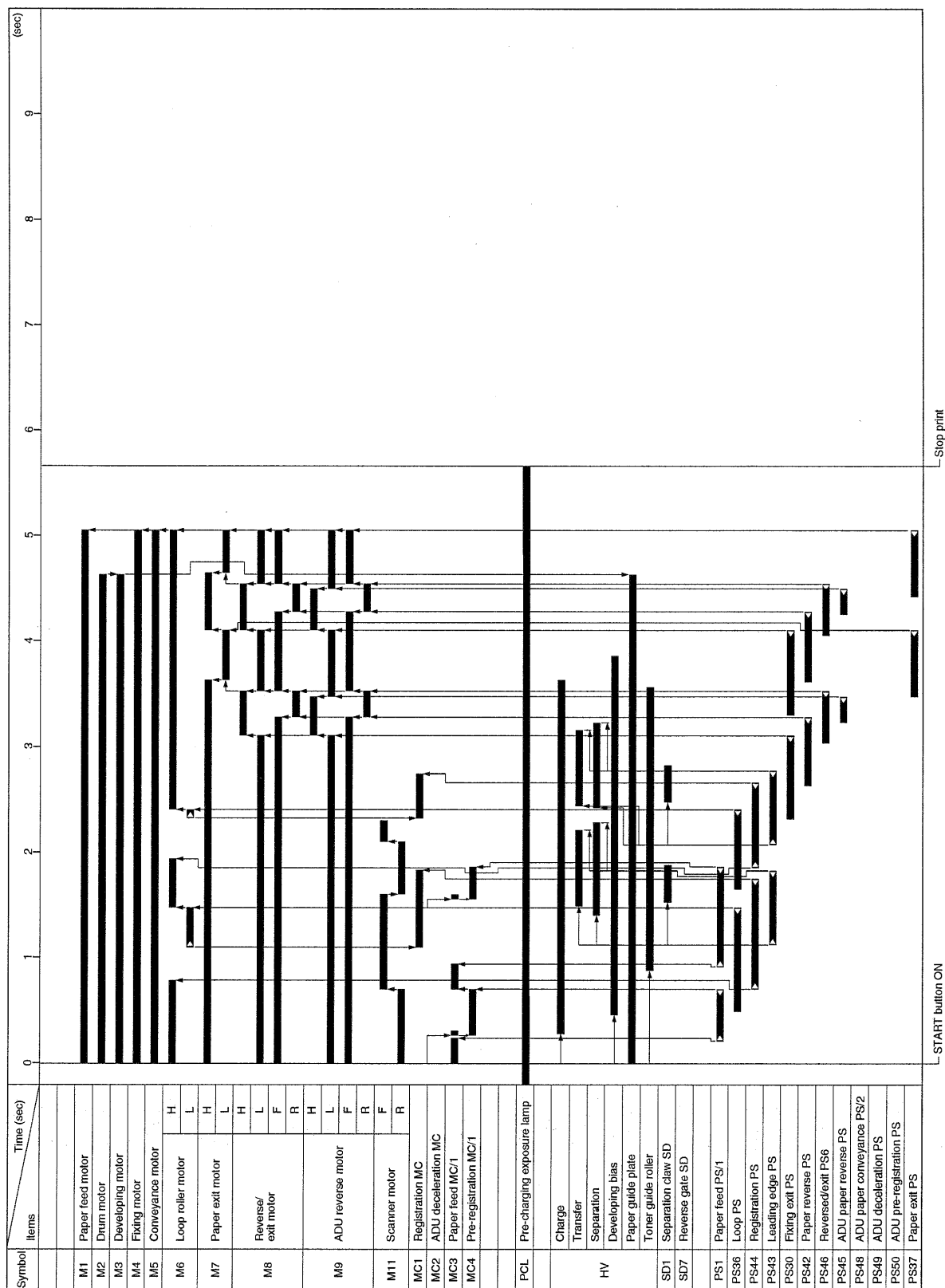
When an abnormality occurs, press the reset button following the LCD message, and turn the SW2 (sub power) OFF/ON. This allows temporary use of machine until the SW2 (sub power) is turned OFF/ON next time.

Warning code	Cause	Unit to be disconnected
F18-10	Tray 1 up drive motor abnormality	Tray 1
F18-11	Tray 1 up abnormality	
F18-20	Tray 2 up drive motor abnormality	Tray 2
F18-21	Tray 2 up abnormality	
F18-30	Tray 3 up drive motor abnormality	Tray 3
F18-31	Tray 3 up abnormality	
F13-02	LCT paper feed motor abnormality	LCT
F18-50	LCT UP/DOWN motor abnormality	
F46-40 to 43	HDD abnormality	HDD
F62-01	DF motor cooling fan abnormality	RADF
F77-22,25,26	Fold, stitch and fold, three-fold abnormality	Fold, stitch and fold, three-fold
F71-41 to 43	PI abnormality	PI

TIMING CHART

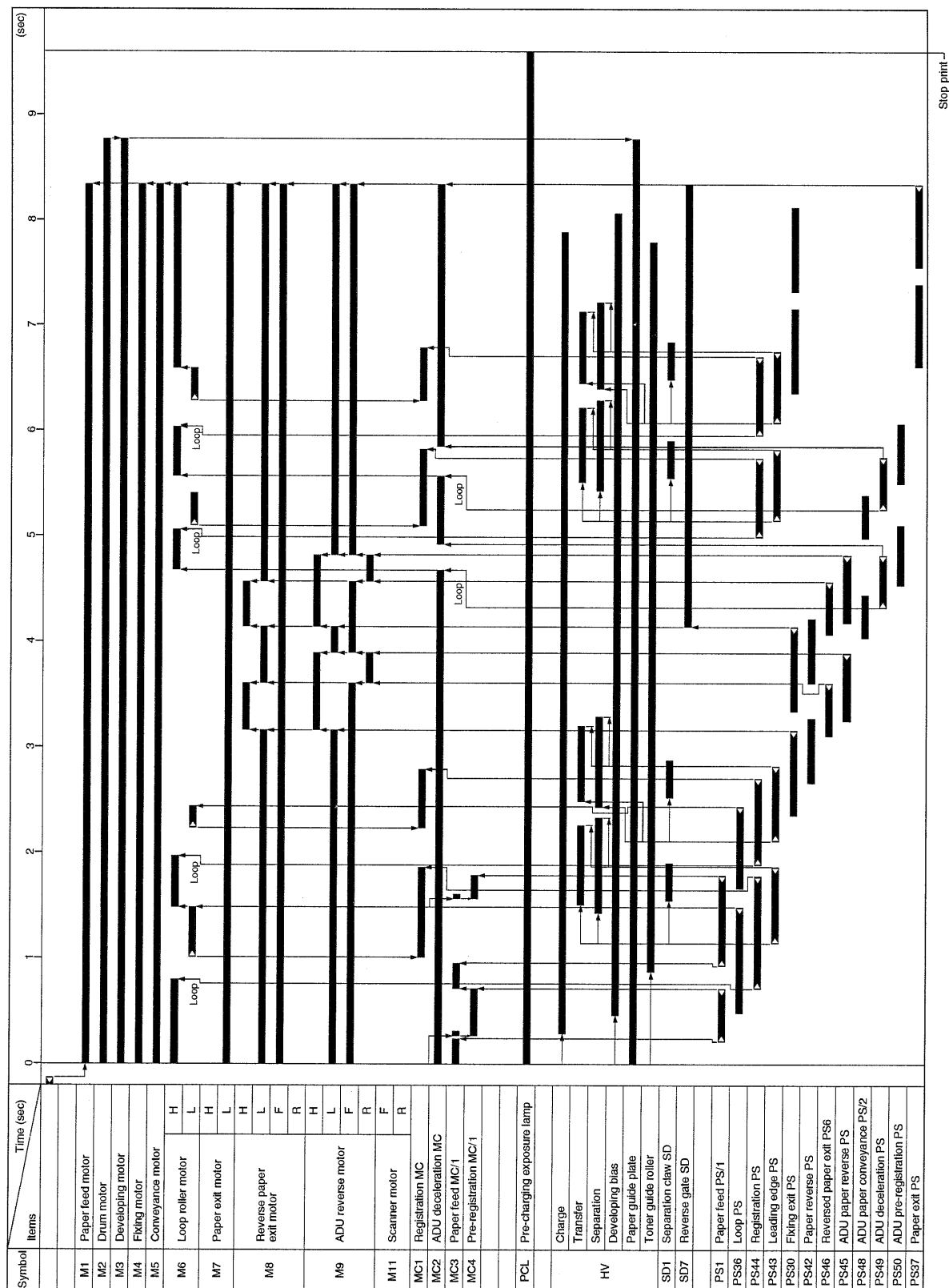
[1] 7165 Timing Chart (1)

A4, life size, 1-1 mode, Tray 1, reversed paper exit, non AE, 2 sets



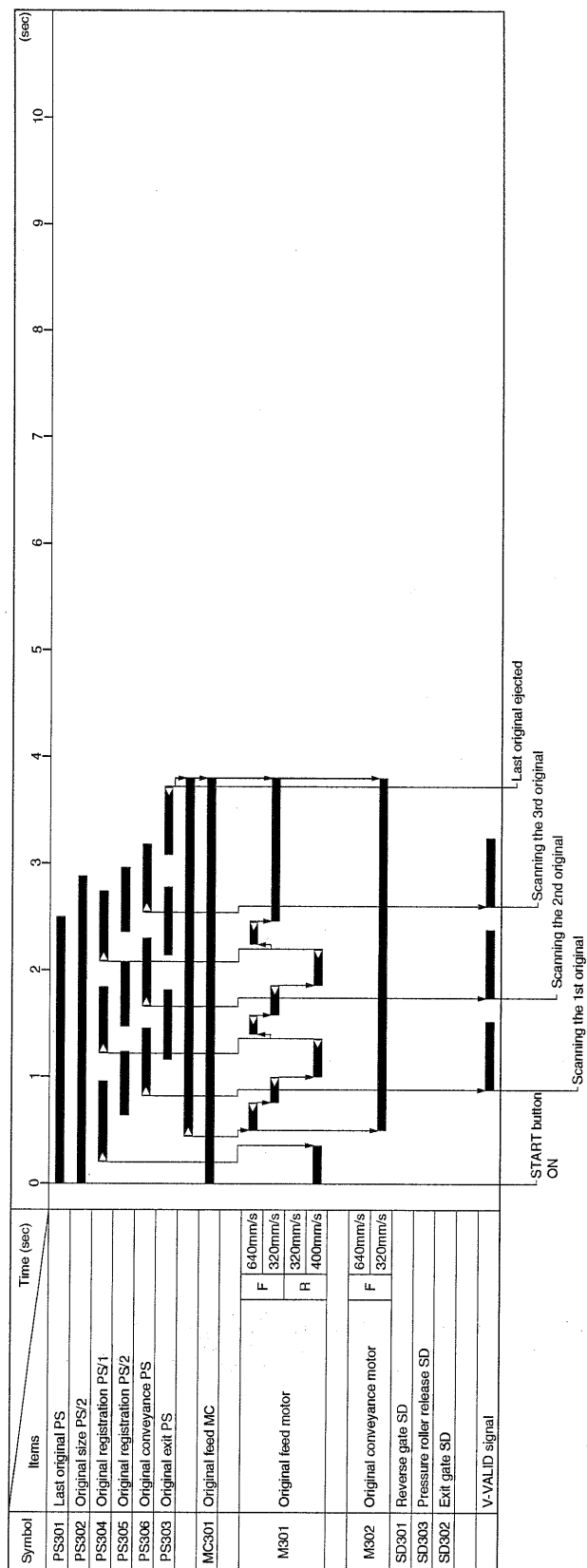
[2] 7165 Timing Chart (2)

A4, life size, 1-2 mode, Tray 1, 2 sets

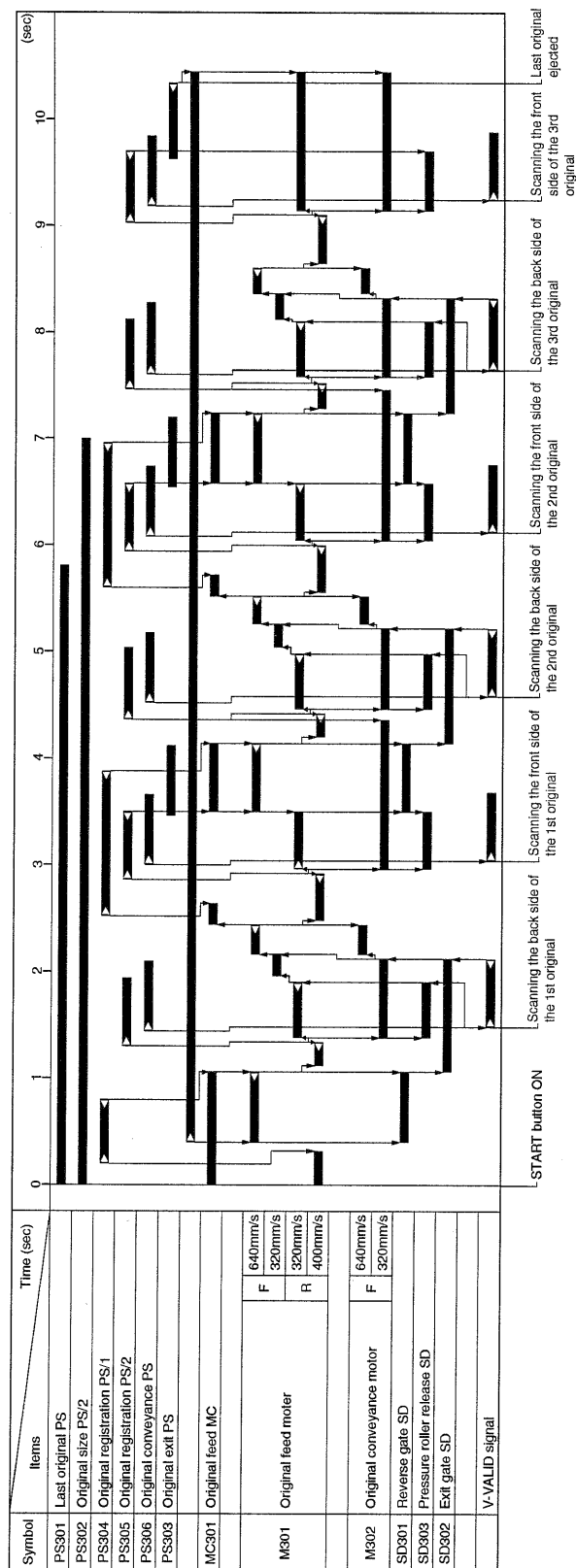


[3] DF-316 Timing Chart (1)

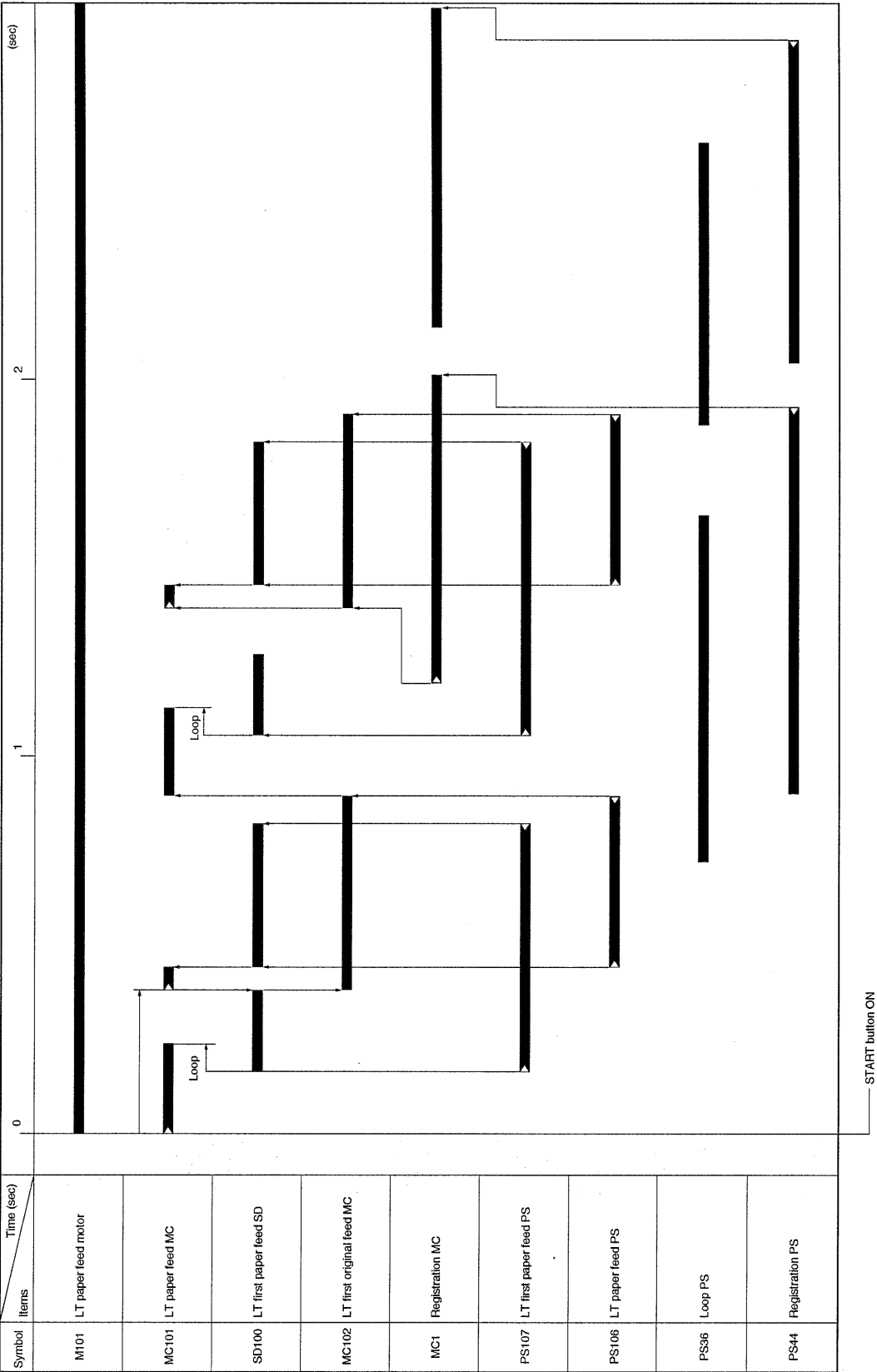
A4, 3 originals (single side)



[4] DF-316 Timing Chart (2)
A4, 3 originals (double side)

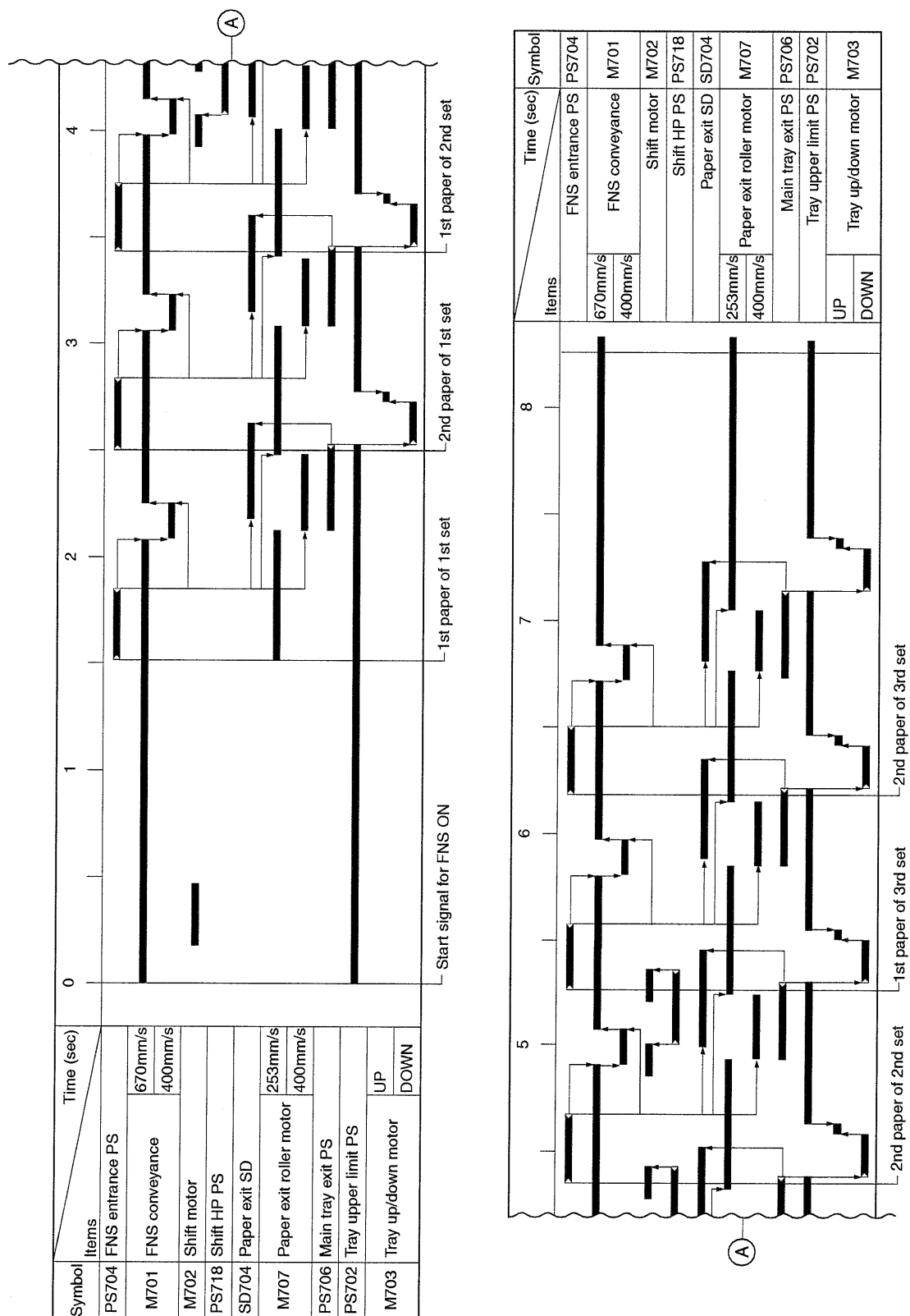


[5] LT-402/LT-412 Timing Chart
A4, life size, 1-1 mode, non AE, 2 sets



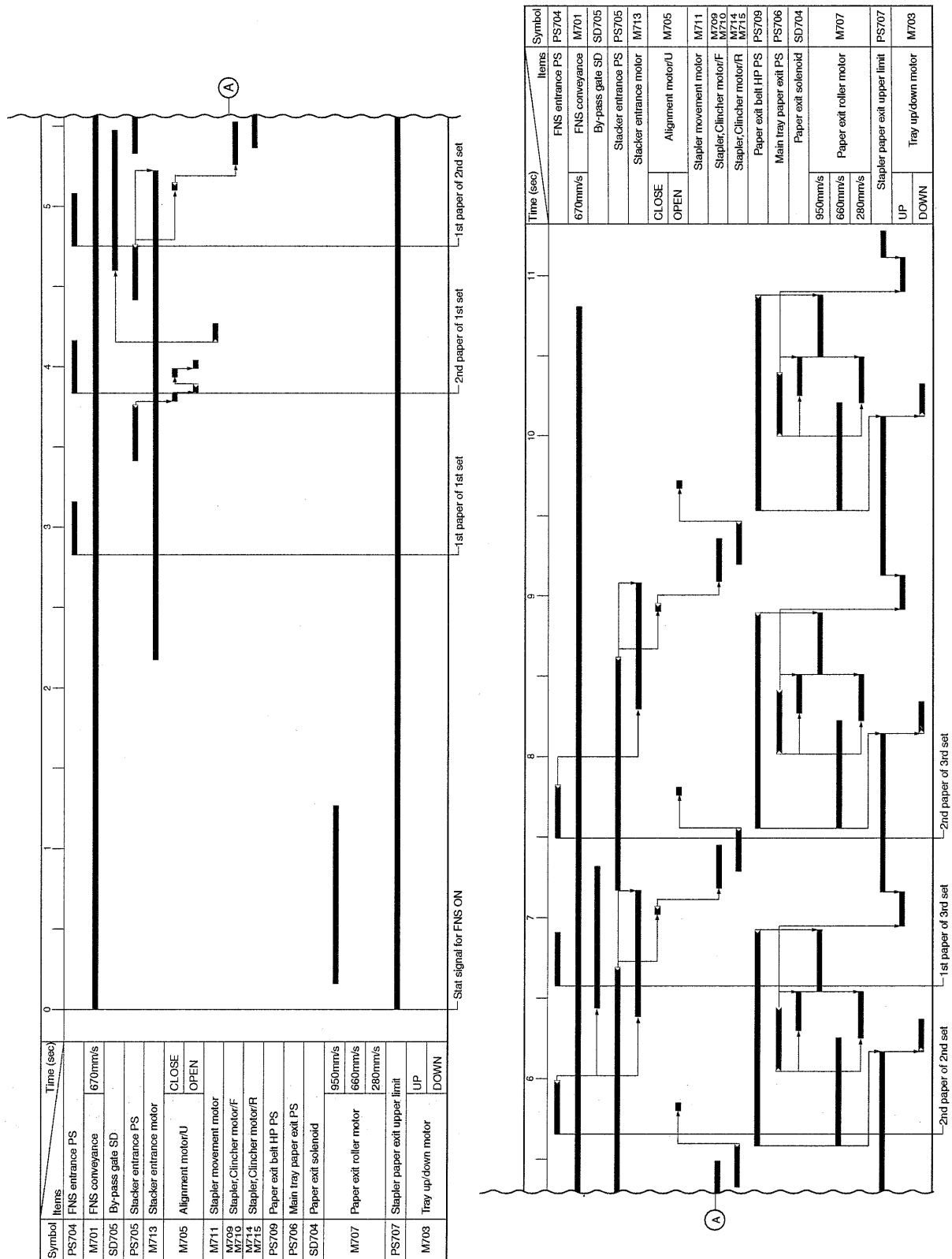
[6] FS-110/FS-210 Timing Chart (1)

Sort, A4, 2 originals (single side), 3 sets



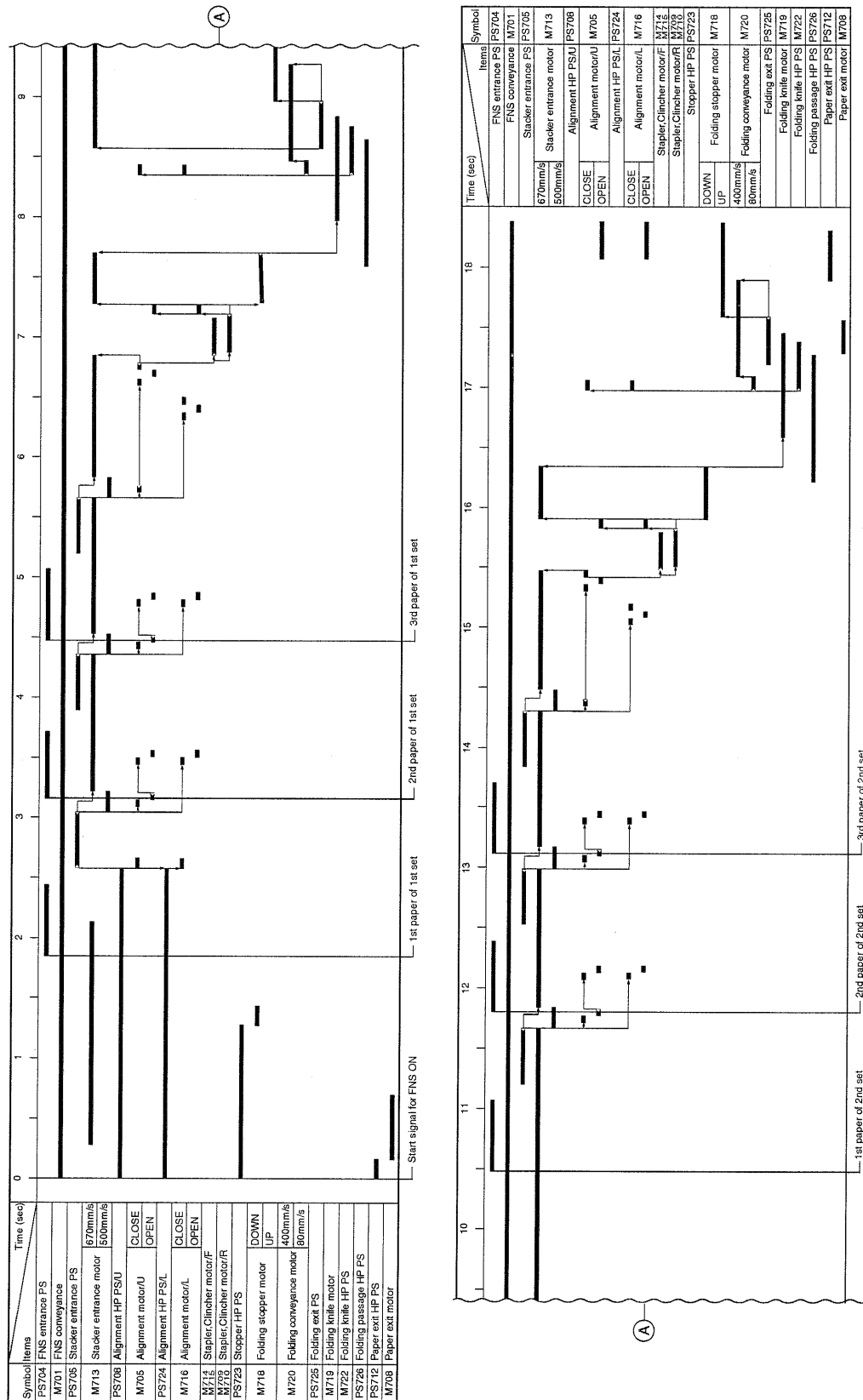
[7] FS-110/FS-210 Timing Chart (2)

2 staples (flat), A4, 2 originals (single side), 6 sheets (single side)



[8] FS-110/FS-210 Timing Chart (3)

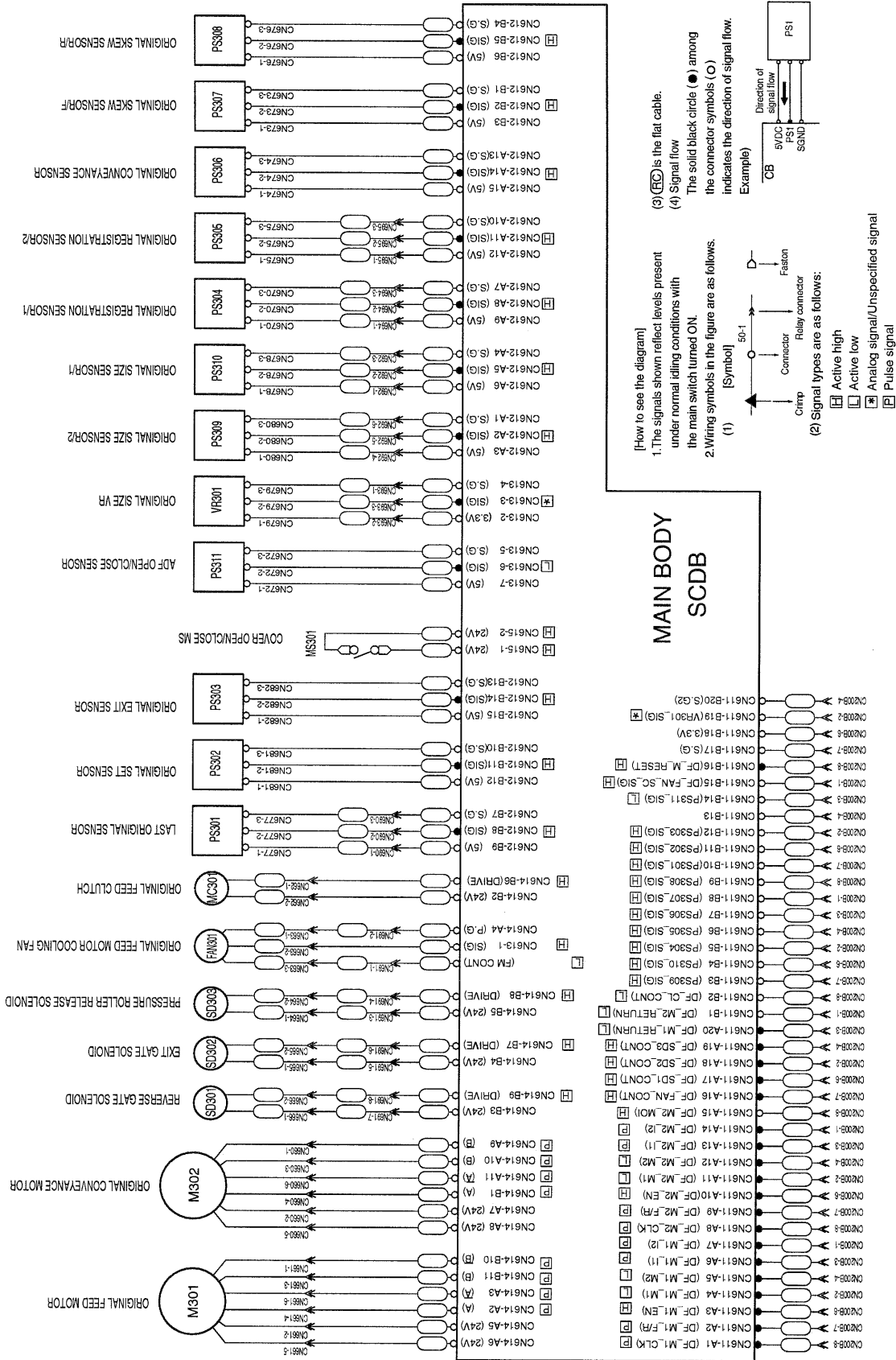
Stitch and fold, A4, 2 originals (single side), 6 sheets (single side)



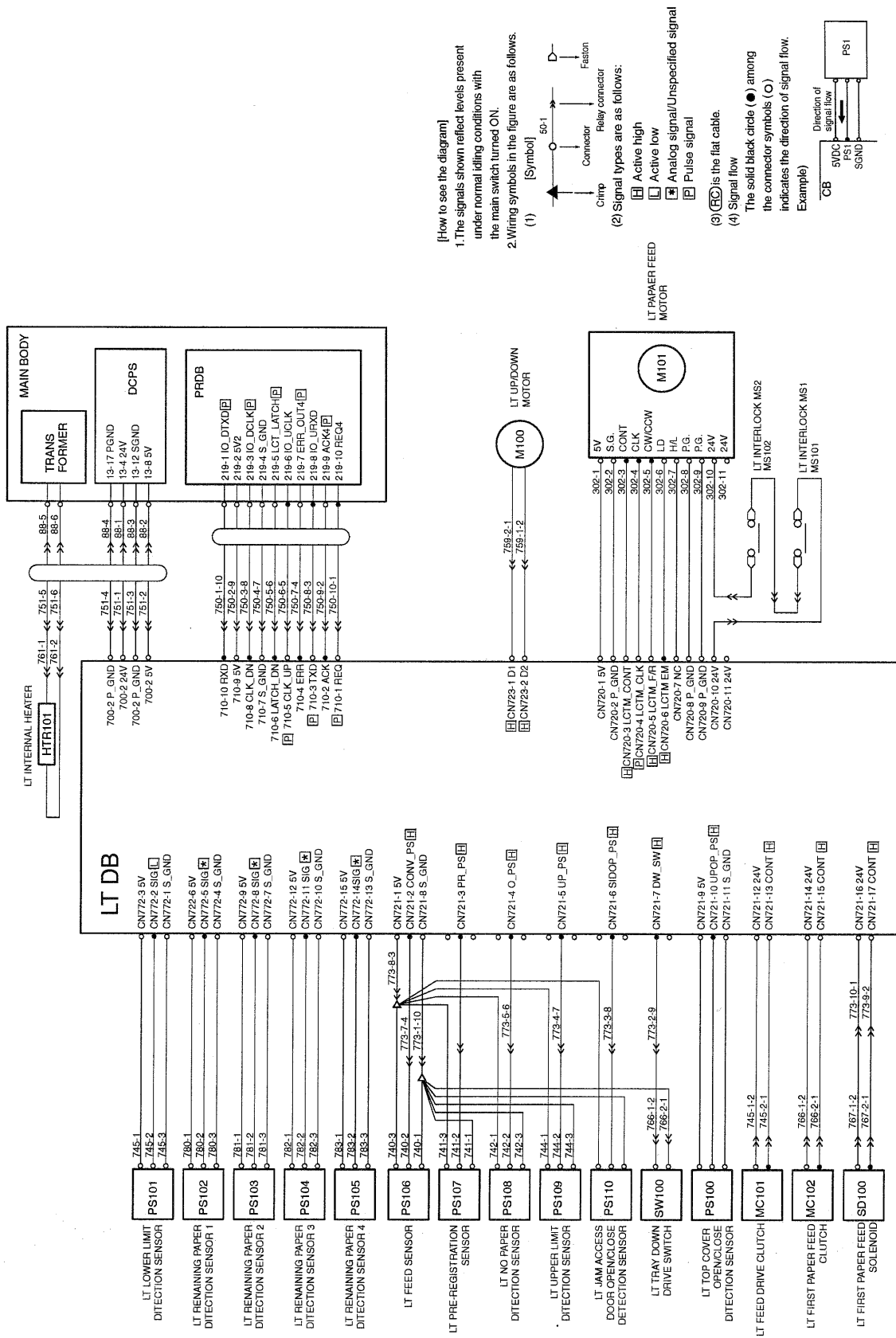
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OVERALL WIRING DIAGRAM

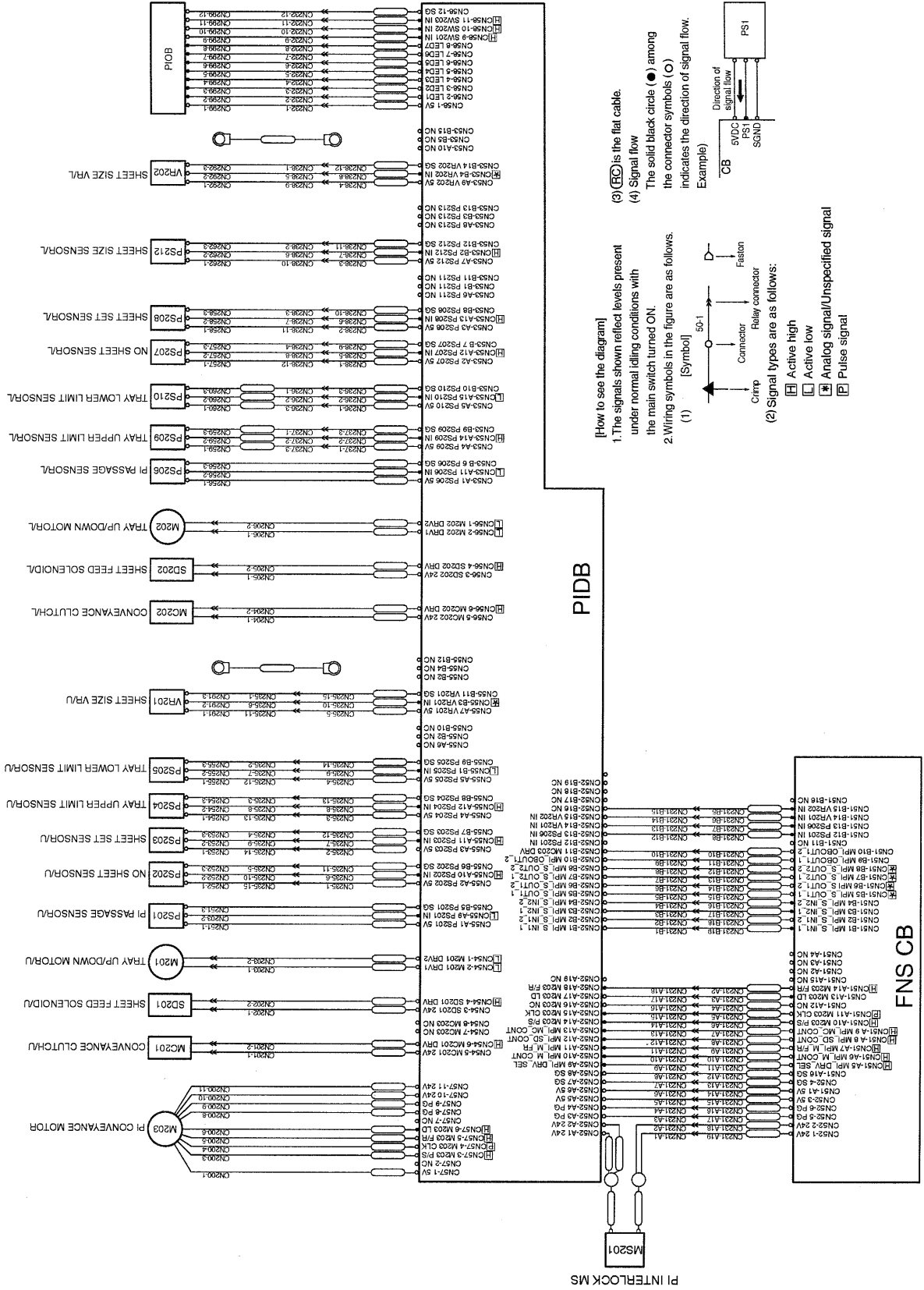
[1] DF-316 Overall Wiring Diagram



[2] LT-402/LT412 Overall Wiring Diagram



[c] PI-110 Overall Wiring Diagram



[4] PK-110 Overall Wiring Diagram

