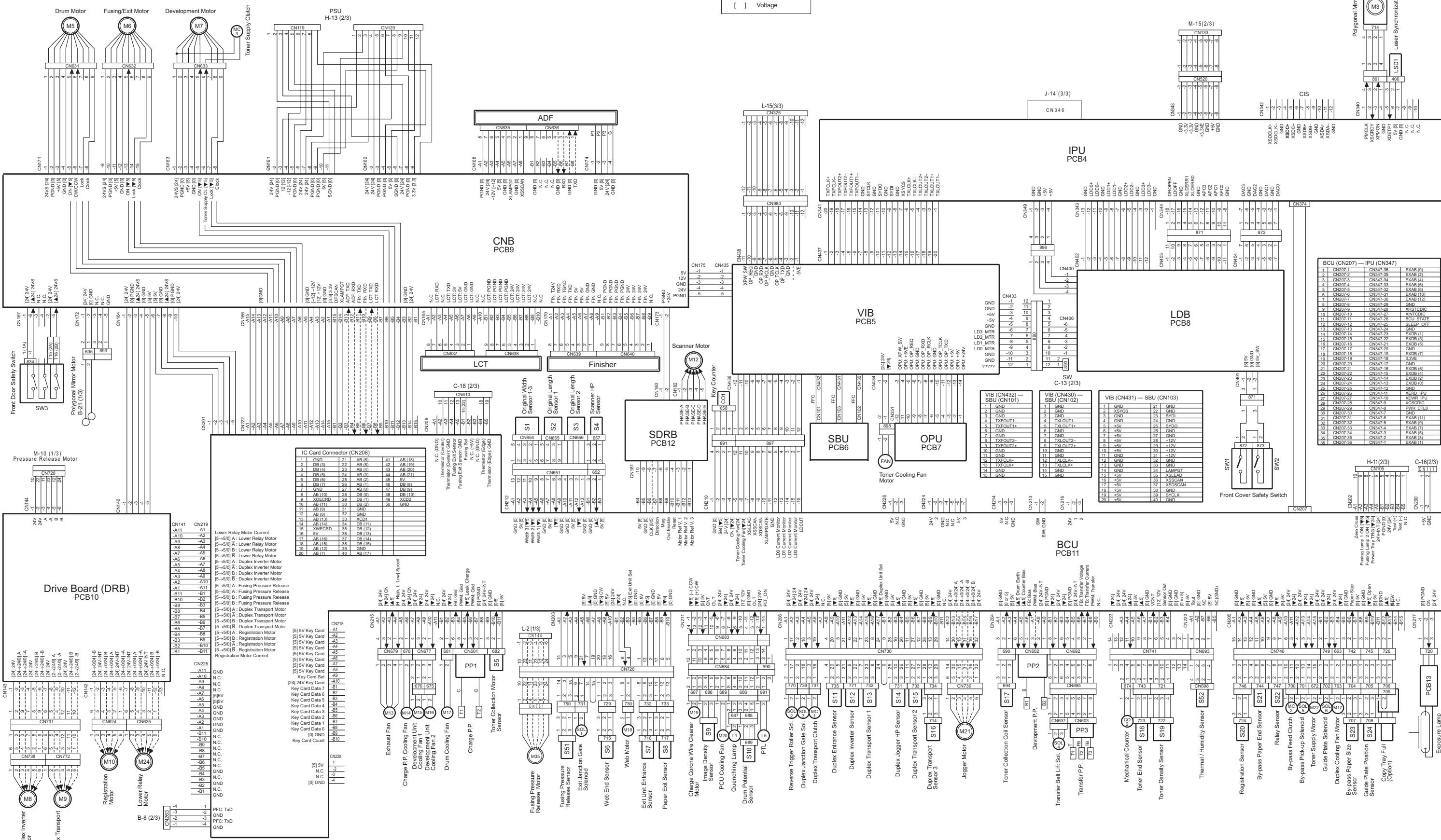
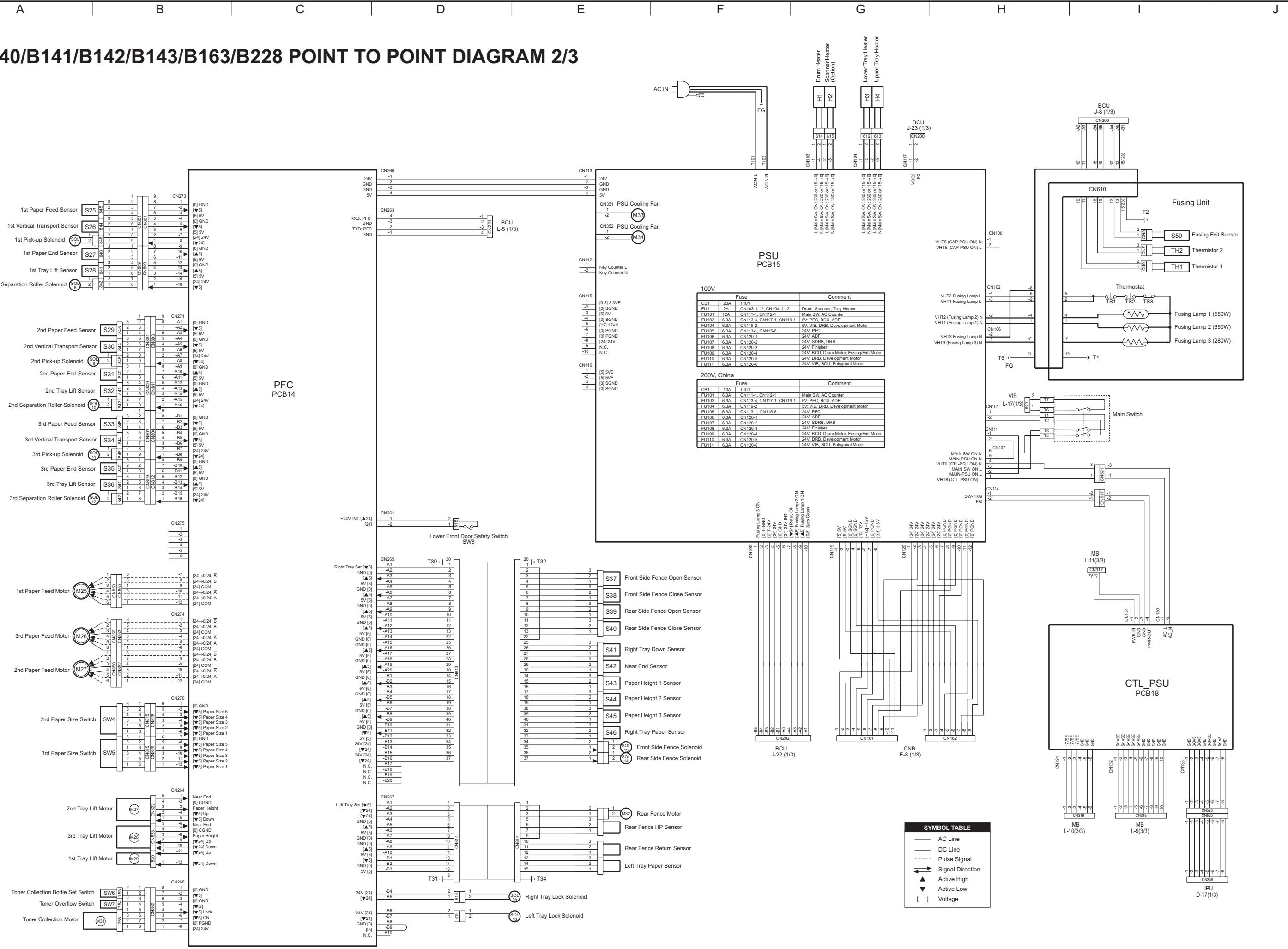


B140/B141/B142/B143/B163/B228 POINT TO POINT DIAGRAM 1/3



# B140/B141/B142/B143/B163/B228 POINT TO POINT DIAGRAM 2/3



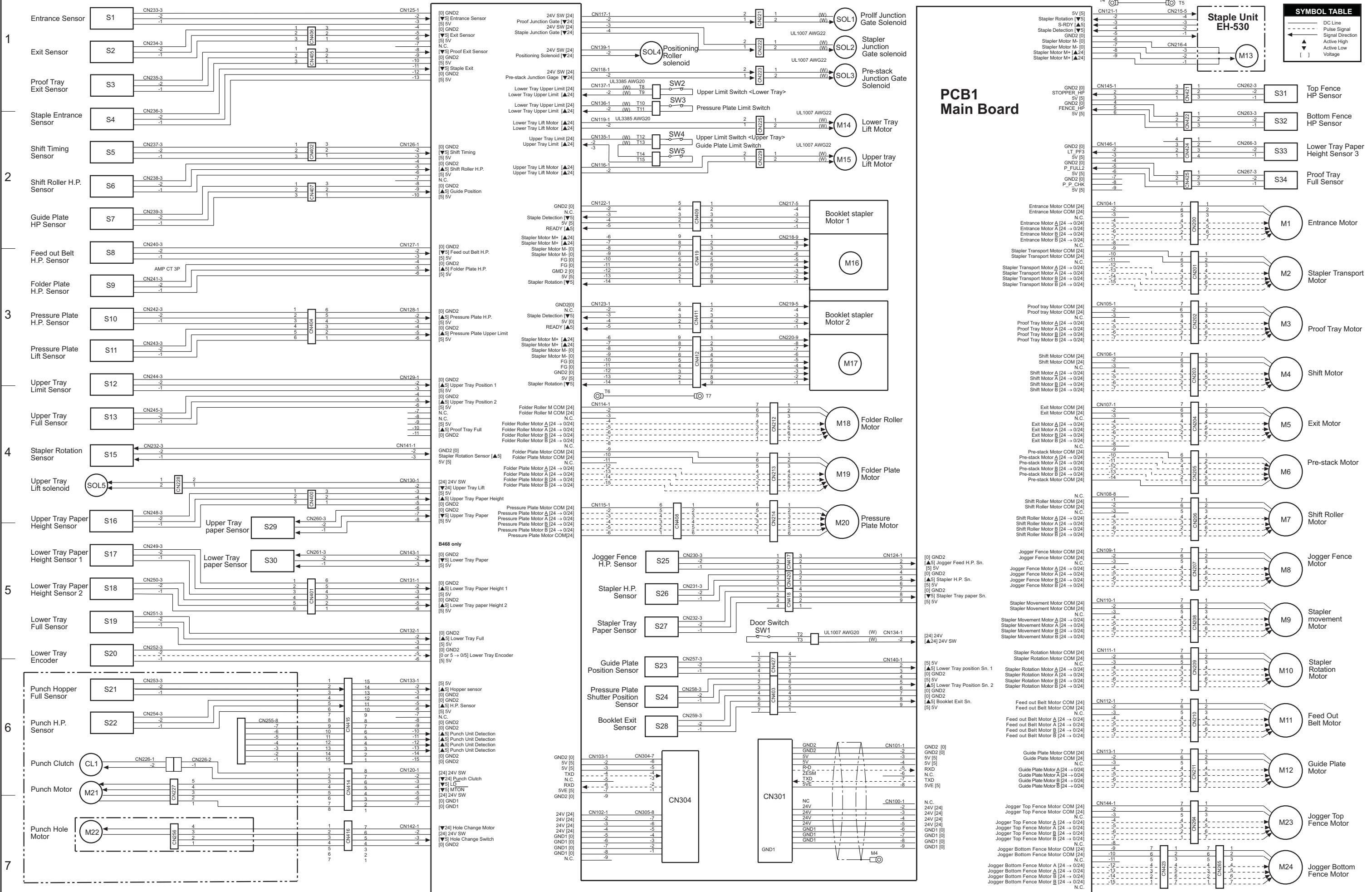
# B140/B141/B142/B163/B228 POINT TO POINT DIAGRAM 3/3

CN101 DDR_SDRAM DIMM_1#					
Pin#	Signal Name	Pin#	Signal Name	Pin#	Signal Name
1	VREF	51	GND	101	MA8 SR(0)
2	VREF	52	GND	102	MA8 SR(1)
3	GND	53	MDT19(9)	103	MDT43(3)
4	GND	54	MDT19(10)	104	MDT43(4)
5	MDT10(1)	55	MDT19(11)	105	MAA SR(7)
6	MDT14(4)	56	MDT19(12)	106	MAA SR(6)
7	MDT11(1)	57	MDT19(13)	107	VCC2.5
8	MDT10(5)	58	MDT19(14)	108	VCC2.5
9	MDT12(2)	59	MDT19(15)	109	MAA SR(5)
10	VCC2.5	60	MDT19(16)	110	MAA SR(2)
11	DQS SR(0)	61	DQS SR(3)	111	MAA SR(1)
12	DQS SR(1)	62	DQS SR(4)	112	MDT10(2)
13	MDT10(3)	63	DQS SR(5)	113	VCC2.5
14	MDT16(6)	64	GND	114	VCC2.5
15	GND	65	MDT16(7)	115	MAA SR(10)
16	GND	66	MDT16(8)	116	MDT16(9)
17	GND	67	MDT16(10)	117	MAA SR(11)
18	GND	68	MDT16(11)	118	RASB SR
19	GND	69	VCC2.5	119	WEA SR
20	GND	70	VCC2.5	120	CASB SR
21	MDT10(1)	71	CS SR(0)	121	MDT10(1)
22	VCC2.5	72	MECC SR(4)	122	CS SR(1)
23	MDT19(1)	73	MECC SR(1)	123	MDT15(4)
24	MDT10(3)	74	MECC SR(5)	124	GND
25	MDT10(4)	75	GND	125	MDT15(5)
26	DM SR(1)	76	GND	126	MDT15(6)
27	GND	77	DQS SR(8)	127	MDT15(7)
28	GND	78	MDT16(2)	128	MDT15(8)
29	MDT10(10)	79	MDT16(3)	129	MDT15(9)
30	MDT14(4)	80	MECC SR(6)	130	MDT15(10)
31	MDT11(1)	81	VCC2.5	131	MDT15(11)
32	MDT15(5)	82	VCC2.5	132	VCC2.5
33	MDT15(6)	83	MDT15(7)	133	MDT15(8)
34	VCC2.5	84	MECC SR(7)	134	DM SR(7)
35	CLK0TH1(1)	85	NC	135	MDT10(4)
36	VCC2.5	86	MDT10(5)	136	MDT10(6)
37	MDT10(11)	87	MDT10(12)	137	MDT10(13)
38	GND	88	GND	138	MDT10(14)
39	GND	89	CLK0TH1(0)	139	MDT10(15)
40	GND	90	GND	140	MDT10(16)
41	GND	91	MDT10(17)	141	GND
42	MDT12(0)	92	VCC2.5	142	MDT14(4)
43	MDT17(7)	93	VCC2.5	143	VCC2.5
44	MDT12(1)	94	VCC2.5	144	SMBUSD
45	MDT12(2)	95	MDT12(3)	145	MDT12(4)
46	VCC2.5	96	CKEA SR	146	MDT14(5)
47	DQS SR(2)	97	A13 NC	147	DQS SR(5)
48	DM SR(2)	98	NC	148	DM SR(5)
49	DM SR(3)	99	MAB SR(12)	149	S2
50	MDT12(2)	100	MAB SR(11)	150	GND

CN102					
Pin#	Signal Name	Pin#	Signal Name	Pin#	Signal Name
1	VREF	51	GND	101	MA8 SR(0)
2	VREF	52	GND	102	MA8 SR(1)
3	GND	53	MDT19(9)	103	MDT43(3)
4	GND	54	MDT19(10)	104	MDT43(4)
5	MDT10(1)	55	MDT19(11)	105	VCC2.5
6	MDT14(4)	56	MDT19(12)	106	MAA SR(7)
7	MDT11(1)	57	MDT19(13)	107	VCC2.5
8	MDT10(5)	58	MDT19(14)	108	MAA SR(6)
9	MDT12(2)	59	MDT19(15)	109	VCC2.5
10	VCC2.5	60	MDT19(16)	110	MAA SR(2)
11	DQS SR(0)	61	DQS SR(3)	111	MAA SR(1)
12	DQS SR(1)	62	DQS SR(4)	112	MDT10(2)
13	MDT10(3)	63	DQS SR(5)	113	VCC2.5
14	MDT16(6)	64	GND	114	VCC2.5
15	GND	65	MDT16(7)	115	MAA SR(10)
16	GND	66	MDT16(8)	116	MDT16(9)
17	GND	67	MDT16(10)	117	MAA SR(11)
18	GND	68	MDT16(11)	118	RASB SR
19	GND	69	VCC2.5	119	WEA SR
20	GND	70	VCC2.5	120	CASB SR
21	MDT10(1)	71	CS SR(0)	121	MDT10(1)
22	VCC2.5	72	MECC SR(4)	122	CS SR(1)
23	MDT19(1)	73	MECC SR(1)	123	MDT15(4)
24	MDT10(3)	74	MECC SR(5)	124	GND
25	MDT10(4)	75	GND	125	MDT15(5)
26	DM SR(1)	76	GND	126	MDT15(6)
27	GND	77	DQS SR(8)	127	MDT15(7)
28	GND	78	MDT16(2)	128	MDT15(8)
29	MDT10(10)	79	MDT16(3)	129	MDT15(9)
30	MDT14(4)	80	MECC SR(6)	130	MDT15(10)
31	MDT11(1)	81	VCC2.5	131	MDT15(11)
32	MDT15(5)	82	VCC2.5	132	VCC2.5
33	MDT15(6)	83	MDT15(7)	133	MDT15(8)
34	VCC2.5	84	MECC SR(7)	134	DM SR(7)
35	CLK0TH1(4)	85	NC	135	MDT10(4)
36	VCC2.5	86	MDT10(5)	136	MDT10(6)
37	MDT10(11)	87	MDT10(12)	137	MDT10(13)
38	GND	88	GND	138	MDT10(14)
39	GND	89	CLK0TH1(0)	139	MDT10(15)
40	GND	90	GND	140	MDT10(16)

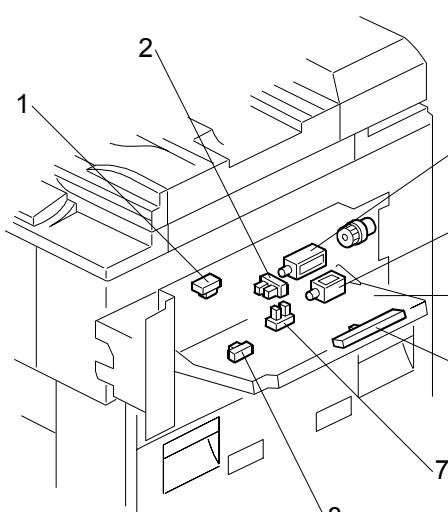
Controller (CN114) - MB (CN312)					
Pin#	Signal Name	Pin#	Signal Name	Pin#	Signal Name
1	VREF	51	GND	101	AGP AD(2)
2	SDI DTOUT0	52	GND	102	GND
3	SDI DTOUT3	43	USBPD	103	XAGP TPDET
4	SDI DTOUT2	44	USBNO	104	AGP AD(10)
5	GND	45	GND	105	AGP CBE(0)
6	GND	46	GND	106	AGP CBE(1)
7	SDCLK	47	EDGE1	107	AGP AD(22)
8	SDI DMOUT	48	EDGE2	108	AGP AD(31)
9	GND	49	GND	109	AGP AD(9)
10	SDI DMIN	50	GND	110	AGP AD(1)
11	VCC2.5	51	CSS_WUP	111	AGP AD(20)
12	SDI DTOR	52	GND	112	AGP AD(21)
13	SDI DTIN0	53	PWRCO	113	AGP AD(18)
14	MDT16(6)	54	PWRCL	114	AGP AD(2)
15	GND	55	PWRCL	115	AGP AD(19)
16	SDI DMIDR	56	WUP_PWRSW	116	AGP AD(23)
17	GND	57	GND	117	AGP AD(17)
18	SDI DTIN1	58	GND	118	AGP AD(19)
19	MDT18(8)	59	CIRST0	119	AGP AD(24)
20	POWERGOOD	60	INTA	120	AGP IRDY
21	SDI DTIN1	61	INTB	121	AGP AD(3)
22	OPMRCLK	62	GND	122	XFRAME
23	CLK0TCLK	63	XAGP_GNT	123	XIDESEL
24	MDT15(1)	64	XAGP PIPE	124	XIDESEL
25	GND	65	XAGP_STOP	125	XIDESEL
26	OPMLD	66	XAGP_STOP	126	XIDESEL
27	GND	67	XAGP_STOP	127	XIDESEL
28	SDI DTIN0	68	XAGP_STOP	128	XIDESEL
29	SDI DTIN0	69	AGP ST0	129	XIDESEL
30	OPMREQ	70	AGP ST0	130	3VDDUAL
31	MDT11(1)	71	GND	131	CBE(2)
32	MDT15(5)	72	GND</		

## **3000-SHEET BOOKLET FINISHER (B674) POINT TO POINT DIAGRAM**

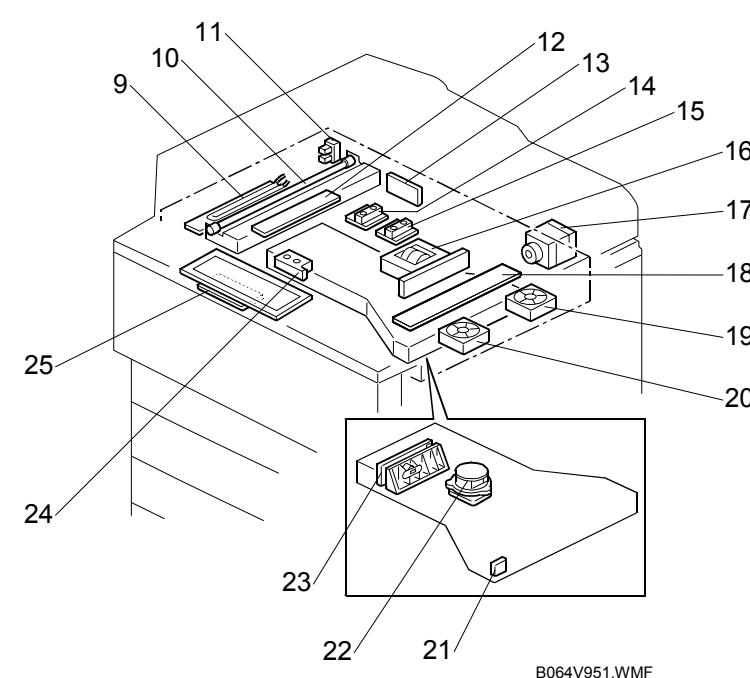


# B140/B141/B142/B143/B163/B228 ELECTRICAL COMPONENT LAYOUT (1/2)

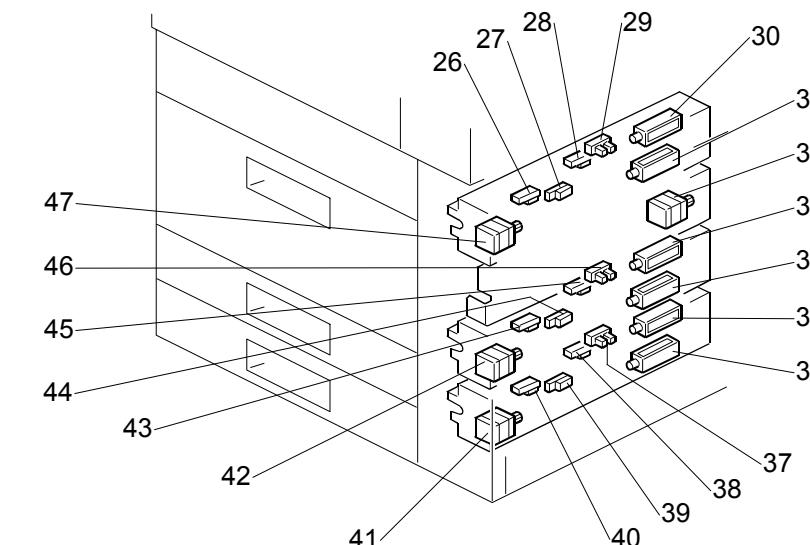
## Main Machine



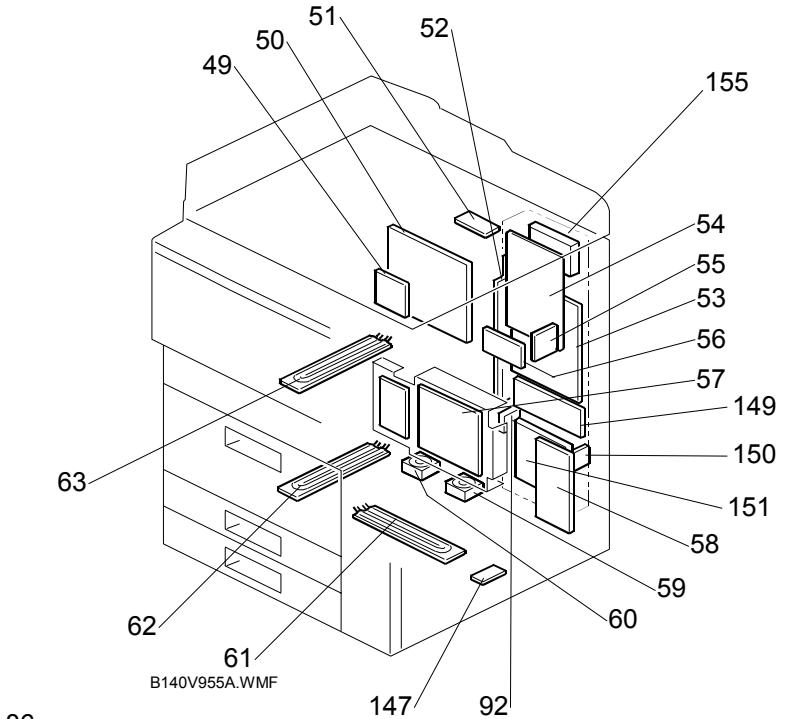
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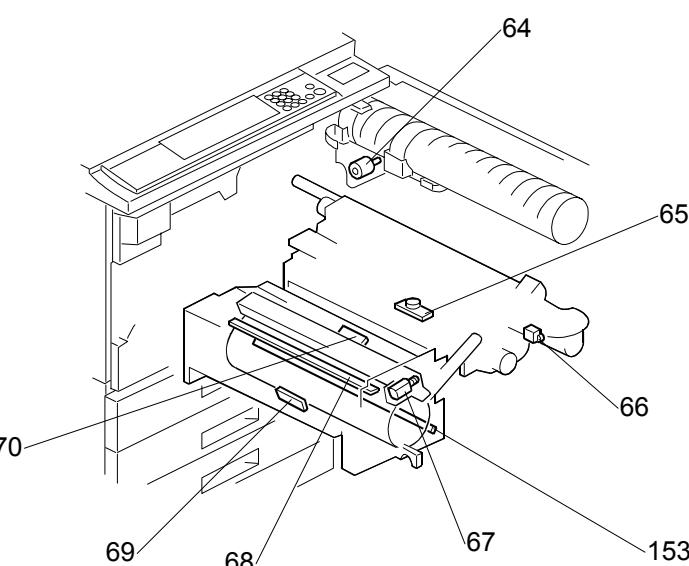
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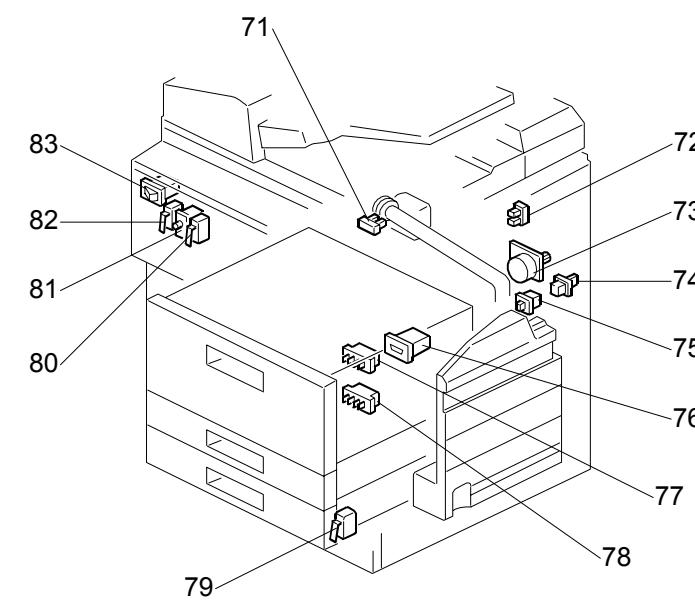
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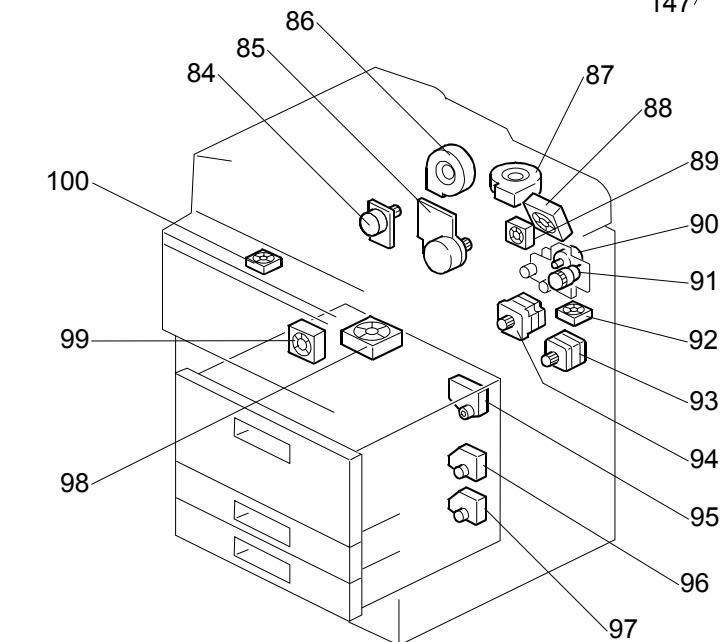
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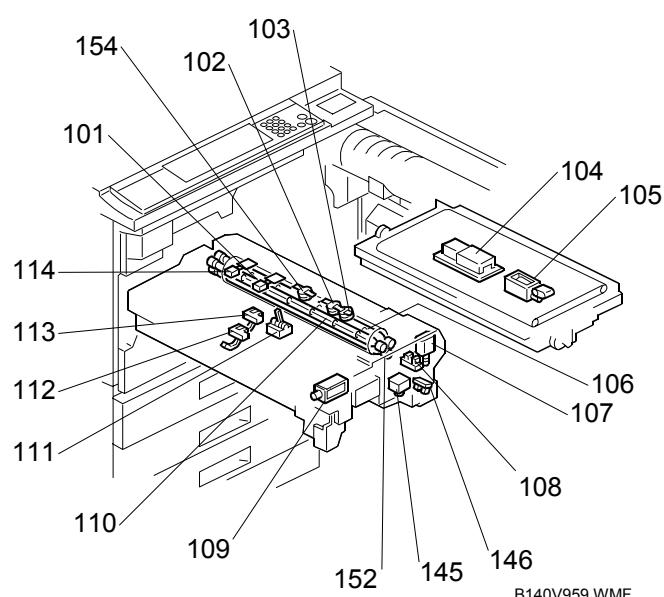
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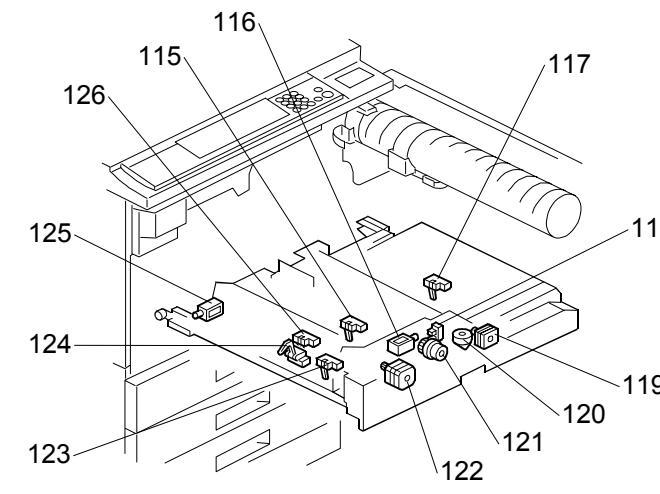
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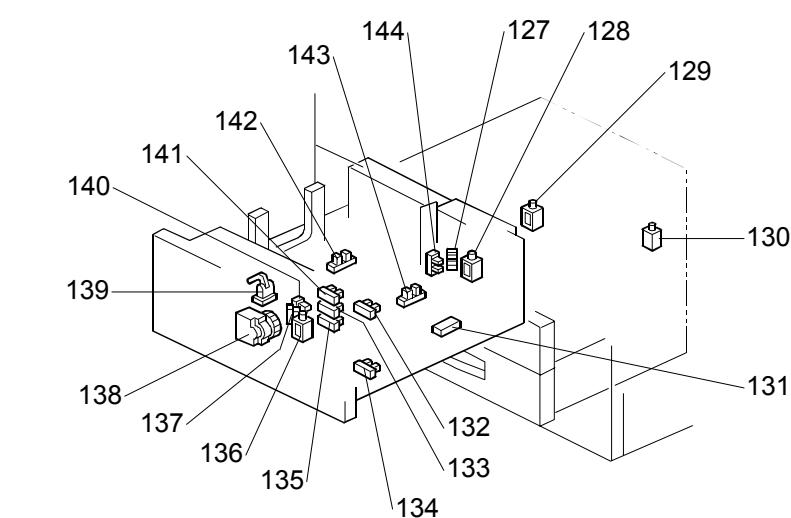
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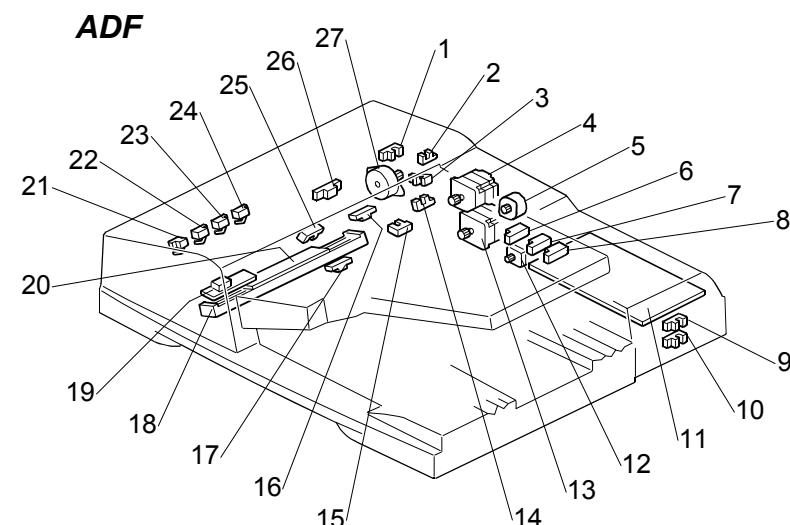
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B064V910.WMF



B064V958.WMF



B064V996.WMF

## ADF

# B140/B141/B142/B143/B163/B228 ELECTRICAL COMPONENT LAYOUT (2/2)

## Main Machine

Symbol	Index No.	Description	P to P
<b>Motors</b>			
M1	92	Bottom Side Cooling Fan	E6 (3/3)
M2	89	CPU Cooling Fan	E3 (3/3)
M3	22	Polygonal Mirror	J1 (1/3)
M4	100	Toner Cooling Fan	G4 (1/3)
M5	85	Drum	A2 (1/3)
M6	84	Fusing/Exit	B2 (1/3)
M7	90	Development	B2 (1/3)
M8	122	Duplex Inverter	A7 (1/3)
M9	120	Duplex Transport	A7 (1/3)
M10	94	Registration	A6 (1/3)
M11	93	By-pass Feed	
M12	17	Scanner	E4 (1/3)
M13	86	Exhaust Fan	C6 (1/3)
M14	87	Charge Power Pack Cooling Fan	C6 (1/3)
M15	19	Development Unit Cooling Fan 1	C6 (1/3)
M16	20	Development Unit Cooling Fan 2	C6 (1/3)
M17	88	Drum Cooling Fan	D6 (1/3)
M18	107	Web	E6 (1/3)
M19	67	Charge Corona Wire Cleaner	E6
M20	99	PCU Cooling Fan	E6 (1/3)
M21	121	Jogger	G6 (1/3)
M22	64	Toner Supply	J6 (1/3)
M23	98	Duplex Cooling Fan	J6 (1/3)
M24	32	Lower Relay	A6 (1/3)
M25	47	1st Paper Feed	C5 (2/3)
M26	41	3rd Paper Feed	C5 (2/3)
M27	42	2nd Paper Feed	C5 (2/3)
M28	96	2nd Tray Lift	B6 (2/3)
M29	97	3rd Tray Lift	B6 (2/3)
M30	95	1st Tray Lift	B7 (2/3)
M31	73	Toner Collection	B7 (2/3)
M32	138	Rear Fence	E6 (2/3)
M33	59	PSU Cooling Fan 1	E2 (2/3)
M34	60	PSU Cooling Fan 2	E2 (2/3)
M35	145	Fusing Pressure Release Motor	D6 (1/3)
<b>Sensors</b>			
S1	24	Original Width	D4 (1/3)
S2	14	Original Length 1	D4 (1/3)
S3	15	Original Length 2	E4 (1/3)
S4	11	Scanner HP	E4 (1/3)
S5	72	Toner Collection Motor	D6 (1/3)
S6	108	Web End	E6 (1/3)
S7	113	Exit Unit Entrance	E6 (1/3)
S8	112	Paper Exit	E6 (1/3)
S9	69	Image Density (ID)	E6 (1/3)
S10	70	Drum Potential	F6 (1/3)
S11	124	Duplex Entrance	F6 (1/3)
S12	126	Duplex Inverter	F6 (1/3)
S13	123	Duplex Transport 1	F6 (1/3)
S14	118	Duplex Jogger HP	G6 (1/3)
S15	115	Duplex Transport 2	G6 (1/3)
S16	117	Duplex Transport 3	G6 (1/3)
S17	71	Toner Collection Coil	G6 (1/3)

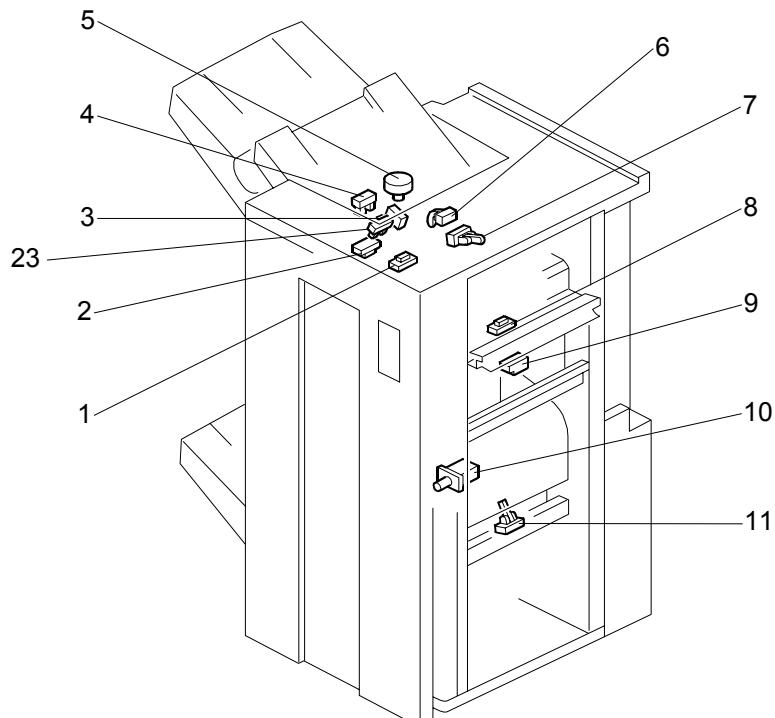
Symbol	Index No.	Description	P to P
<b>Switches</b>			
SW1	80	Front Cover Safety 1	I4 (1/3)
SW2	82	Front Cover Safety 2	I4 (1/3)
SW3	81	Front Door Safety	A4 (1/3)
SW4	77	2nd Paper Size	B6 (2/3)
SW5	78	3rd Paper Size	B6 (2/3)
SW6	75	Toner Collection Bottle Set	B7 (2/3)
SW7	74	Toner Overflow	B7 (2/3)
SW8	79	Lower Front Door Safety	D4 (2/3)
SW9	83	Main	I4 (2/3)
<b>Solenoids</b>			
SOL1	109	Exit Junction Gate	D6 (1/3)
SOL2	117	Reverse Trigger Roller	F6 (1/3)
SOL3	125	Duplex Junction Gate	F6 (1/3)
SOL4	105	Transfer Belt Lift	H6 (1/3)
SOL5	3	By-pass Pick-up	I6 (1/3)
SOL6	4	Guide Plate	J6 (1/3)
SOL7	30	1st Pick-up	A2 (2/3)
SOL8	31	1st Separation Roller	A3 (2/3)
SOL9	32	2nd Pick-up	B3 (2/3)
SOL10	34	2nd Separation Roller	B3 (2/3)

Symbol	Index No.	Description	P to P
<b>Magnetic Clutches</b>			
MC1	122	Duplex Transport	F6 (1/3)
MC2	5	By-pass Feed	I6 (1/3)
MC3	91	Toner Supply	B1 (1/3)
<b>PCBs</b>			
PCB1	52	Mother	E5 (3/3)
PCB3	53	Controller	E4 (3/3)
PCB4	54	IPU (Image Processing Control Unit)	H2 (1/3)
PCB5	18	VIB (Video Interface Board)	G4 (1/3)
PCB6	16	SBU (Sensor Board Unit)	F4 (1/3)
PCB7	25	Operation Panel	G4 (1/3)
PCB8	23	LDB (Laser Drive Board)	H3 (1/3)
PCB9	49	CNB (Connection Board)	C3 (1/3)
PCB10	56	DRB (Drive Board)	A5 (1/3)
PCB11	50	BCU (Base Engine Control Unit)	H5 (1/3)
PCB12	13	SDRB (Scanner Drive Board)	E4 (1/3)
PCB13	12	Lamp Regulator	J6 (1/3)
PCB14	58	PFC (Paper Feed Control)	C3 (2/3)
PCB15	57	PSU	F2 (2/3)
PCB16	149	External Controller Interfase Board	G4 (3/3)
PCB17	150	CSS	F6 (3/3)
PCB18	151	Controller PSU	I5 (3/3)
<b>Lamps</b>			
L1	68	Quenching Lamp	F6 (1/3)
L2	10	Exposure Lamp	J6 (1/3)
L3	110	Fusing Lamp 1	I3 (2/3)
L4	106	Fusing Lamp 2	I3 (2/3)
L5	152	Fusing Lamp 3	I3 (2/3)
L6	153	PTL	F6 (1/3)
<b>Power Packs</b>			
PP1	51	Charge	D6 (1/3)
PP2	55	Development	H6 (1/3)
PP3	104	Transfer	H6 (1/3)
<b>Others</b>			
CO1	—	Key Counter (Option)	E4 (1/3)
CO2	76	Mechanical Counter	H6 (1/3)
H1	63	Drum	G1 (2/3)
H2	9	Scanner (Option)	G1 (2/3)
H3	61	Lower Tray	G1 (2/3)
H4	62	Upper Tray	G1 (2/3)
LSD1	21	Laser Synchronization Detector	J2 (1/3)
TH1	101	Thermistor 1	I2 (2/3)
TH2	114	Thermistor 2	I2 (2/3)
TS1	102	Thermostat 1	I3 (2/3)

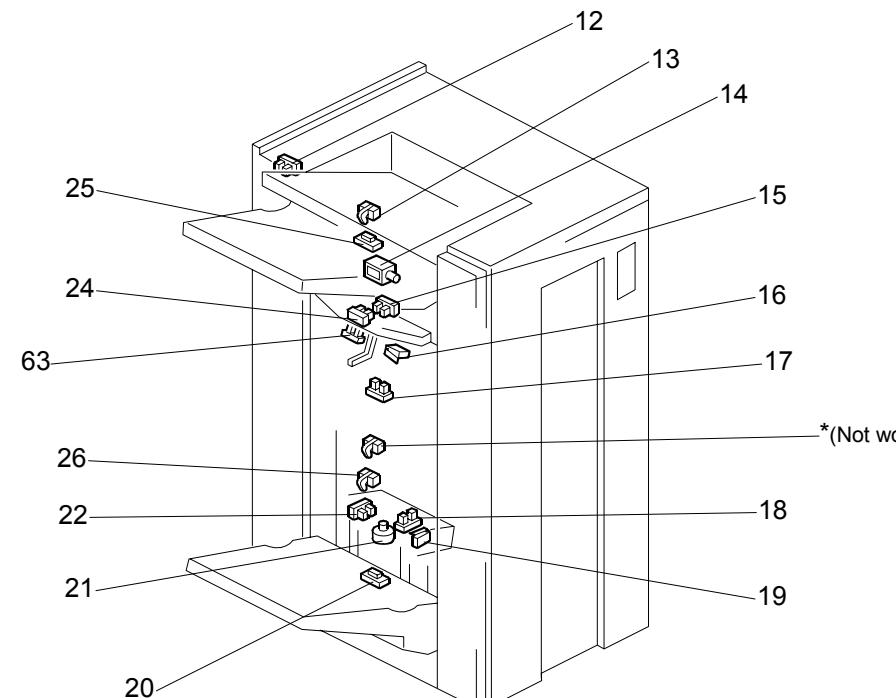
## ADF

Symbol	Index No.	Description	P to P
<b>Motors</b>			
M1	4	Feed	J3
M2	13	Transport	J4
M3	12	Exit	J4
M4	27	Pick-up	J5
M5	5	Bottom Plate	J5
<b>Sensors</b>			
S1	14	Original Set	A1
S2	15	Bottom Plate HP	A1
S3	3	Bottom Plate Position	A2
S4	2	Feed Cover	A2
S5	24	Original Width 1	A2
S6	23	Original Width 2	A3
S7	22	Original Width 3	A3
S8	21	Original Width 4	A3
S9	1	Pick-up Roller HP	A4
S10	8	Original Length 3	A4
S11	7	Original Length 2	A5
S12	6	Original Length 1	A5
S13	9	DF Position	A5
S14	10	APS Start	A6
S15	26	Interval	A6
S16	16	Skew Correction	A6
S17	17	Exit	A7
S18	25	Registration	A7
<b>PCBs</b>			
PCB1	11	DF Main	E4
PCB2	20	CIS	G7
PCB3	19	CIS Power Supply	H7
<b>Lamps</b>			
L1	18	CIS	I7

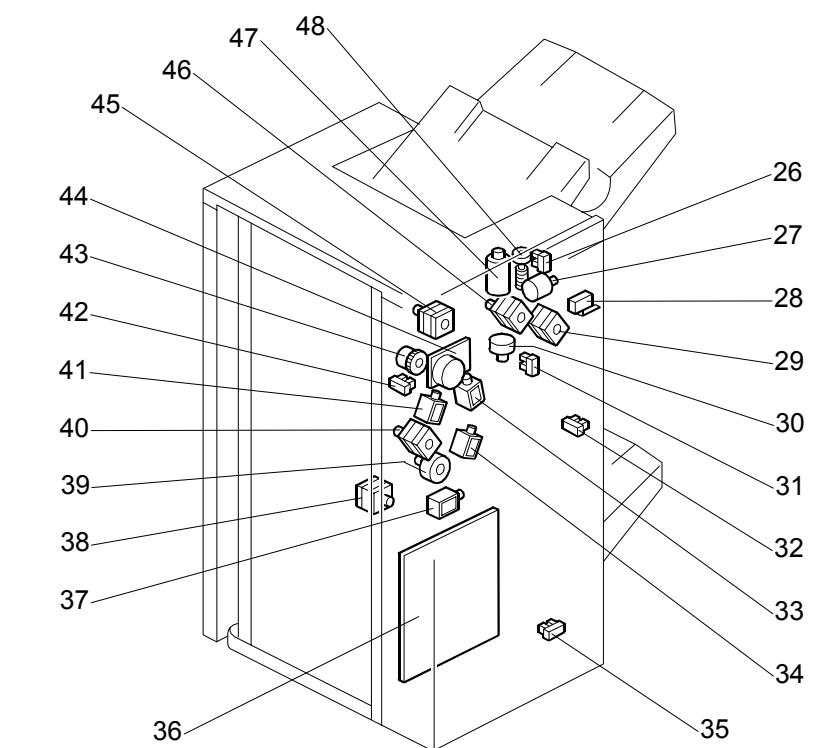
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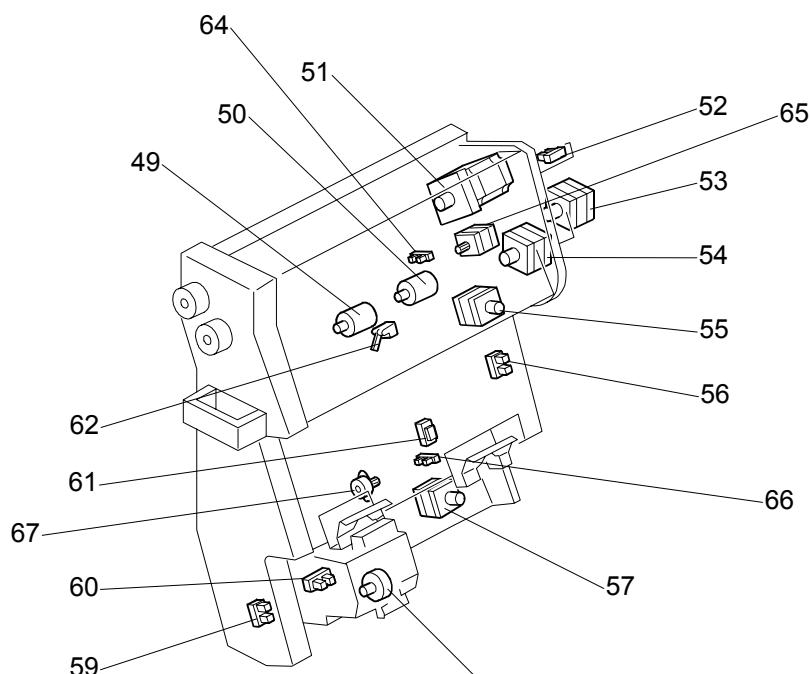
B468V102.WMF



B468V103.WMF



B468V006.WMF



B468V107.WMF

Symbol	Index No.	Description	P to P
<b>Motors</b>			
M1	40	Entrance Motor	J2
M2	38	Stapler Transport Motor	J3
M3	45	Proof Tray Motor	J3
M4	46	Shift Drive Motor	J3
M5	29	Exit Motor	J4
M6	39	Pre-Stack Motor	J4
M7	30	Shift Roller Motor	J5
M8	55	Jogger Motor	J5
M9	57	Stapler Movement Motor	J5
M10	58	Stapler Rotation Motor	J6
M11	54	Feed Out Belt Motor	J6
M12	5	Guide Plate Motor	J6
M14	47	Lower Tray Lift Motor	G2
M15	27	Upper Tray Lift Motor	G2
M16	48	Booklet Stapler Motor 1*	G3
M17	50	Booklet Stapler Motor 2*	G3
M18	51	Folder Roller Motor*	G4
M19	53	Folder Plate Motor*	G4
M20	21	Pressure Plate Motor*	G4
M21	44	Punch Motor	A7
M23	65	Jogger Top Fence Motor	J7
M24	67	Jogger Bottom Fence Motor	J7
<b>Sensors</b>			
S1	8	Finisher Entrance Sensor	A1
S2	2	Exit Sensor	A1
S3	7	Proof Tray Exit Sensor	A1
S4	11	Stapler Entrance Sensor	A2
S5	1	Shift Timing Sensor	A2

Symbol	Index No.	Description	P to P
<b>Sensors</b>			
S6	31	Shift Roller HP Sensor	A2
S7	4	Guide Plate HP Sensor	A2
S8	62	Feed Out Belt HP Sensor	A3
S9	52	Folder Plate HP Sensor*	A3
S10	18	Pressure Plate HP Sensor	A3
S11	22	Pressure Plate Lift Sensor*	A3
S12	12	Upper Tray Limit Sensor	A4
S13	32	Upper Tray Full Sensor	A4
S15	60	Stapler Rotation Sensor	A4
S16	13	Upper Tray Paper Height Sensor*	A5
S17	15	Paper Height Sensor 1* (Lower Tray)	A5
S18	24	Paper Height Sensor 2* (Lower Tray)	A5
S19	35	Lower Tray Full Sensor (Saddle Stitch Mode)	A5
S20	48	Lower Tray Encoder	A6
S21	9	Punch Hopper Full Sensor	A6
S22	42	Punch HP Sensor	A6
S23	23	Guide Plate Position Sensor	E6
S24	26	Pressure Plate Sutter Position Sensor	E6
S25	56	Jogger Fence HP Sensor	E5
S26	59	Stapler HP Sensor	E5
S27	61	Stapler Tray Paper Sensor	E5
S28	17	Booklet Exit Sensor	E6
S29	25	Upper Tray Paper Sensor*	B5
S30	20	Lower Tray Paper Sensor*	B5

Symbol	Index No.	Description	P to P
S31	64	Top Fence HP Sensor	J1
S32	66	Bottom Fence HP Sensor	J2
S33	63	Lower Tray Paper Height Sensor 3	J2
S34	6	Proof Tray Full Sensor	J2
<b>Switches</b>			
SW1	10	Door Switch	F5
SW2	16	Upper Limit Switch (Lower Tray)	E1
SW3	19	Pressure Plate Limit Switch*	E1
SW4	28	Upper Limit Switch* (Upper Tray)	E2
SW5	3	Guide Plate Limit Switch	E2
<b>Solenoids</b>			
SOL1	41	Proof Junction Gate Solenoid	G1
SOL2	33	Stapler Junction Gate Solenoid	G1
SOL3	34	Pre-Stack Junction Gate Solenoid	G1
SOL4	37	Positioning Roller Solenoid	E1
SOL5	14	Upper Tray Lift Solenoid *	A4
<b>Magnetic Clutches</b>			
CL1	43	Punch Clutch	A6
<b>PCBs</b>			
PCB1	36	Main Board	D, H