D146/D147
POINT TO POINT DIAGRAM
(1 / 2)

Fusing Entrance Sensor (SEN 100)
Paper Transfer Unit
Paper Transfer Unit Open/Close Sensor (SEN 101)
Duplex Entrance Motor (MT 100)
Duplex/By-pass Motor (MT 101)
Duplex Unit
Duplex Exit Sensor (SEN 102)
Duplex Unit Open/Close Sensor (SEN 103)
Duplex Unit
Duplex Entrance Sensor (SEN 104)
By-pass Feed Solenoid (SOL 100)
By-pass Unit
By-pass Paper End Sensor (SEN 105)
By-pass Paper Size Sensor (SEN 106)
By-pass Original Length Sensor (SEN 107)
Paper Exit Switching Solenoid (SOL 101)
Paper Exit Unit
Reverse Sensor (SEN 108)
Paper Exit Sensor (SEN 109)
Paper Exit Full Sensor (SEN 110)
Reverse Motor (MT 102)
Paper Feed Solenoid (1st Feed Tray) (SOL 102)
1st Paper Feed Unit
Paper Feed Sensor (1st Feed Tray) (SEN 111)
Transport Sensor (1st Feed Tray) (SEN 112)
Paper End Sensor (1st Feed Tray) (SEN 113)
Limit Sensor (1st Feed Tray) (SEN 114)
Registration Motor (MT 103)
Paper Exit / Pressure Release Motor (MT 104)
Paper Feed Motor (MT 105)
Transport Motor (MT 106)
Fusing Exhaust Heat Fan (FAN 100)
Registration Sensor (SEN 115)
Registration Unit
Fusing Motor (MT 107)
Right Door Open/Close Switch (SW 107)
③ PSU (DC Power) (PCB 100)
Paper Transport IOB (PCB 113)
Lift Motor / Remaining Paper Status Sensor (1st Feed Tray) (MT 108)
Tray Set Switch (1st Feed Tray) (SW 100)
Lift Motor / Remaining Paper Status Sensor (2nd Feed Tray) (MT 109)
Tray Set Switch (2nd Feed Tray) (SW 101)
Size Switch (2nd Feed Tray) (SW 102)
2nd Paper Feed Unit
Paper Feed Solenoid (2nd Feed Tray) (SOL 103)
Paper Feed Sensor (2nd Feed Tray) (SEN 116)
Transport Sensor (2nd Feed Tray) (SEN 117)
Paper End Sensor (2nd Feed Tray) (SEN 118)
Limit Sensor (2nd Feed Tray) (SEN 119)
PSU (AC Controller Board) ⑪ (PCB 101)
PSU Cooling Fan (FAN 101)
IPU ⑤ (PCB 102)
MKB (PCB 103)
Key-Counter
Key-Counter Harness
Ozone Exhaust Fan (FAN 102)
Bank
PSU (DC Power) ① (PCB 100)
1 Bin Tray
1Bin Unit
LED (1Bin) (LED 100)
Pressure Roller HP Sensor (SEN 120)
Thermopile (Center) (TH 100)
Thermopile (Edge) (TH 101)
Fusing Exit Sensor (SEN 121)
Fusing Unit ⑨
PSU (AC Controller Board) ⑩ (PCB 101)
Fusing Shield Position Sensor 1 (SEN 122)
Fusing Shield Position Sensor 2 (SEN 123)
Fusing Shield Drive Motor (MT 110)
Imaging IOB 1/2 (PCB 110)
Toner Bottle Drive Motor/K (MT 111)
Toner Bottle Drive Motor/C (MT 112)
Toner Bottle Drive Motor/M (MT 113)
Toner Bottle Drive Motor/Y (MT 114)
ID Chip (PCB 104)
ID Chip (PCB 105)
ID Chip (PCB 106)
ID Chip (PCB 107)
HVP_TTS ⑲ (PCB 111)
Toner Supply Unit
Toner End Sensor/K (SEN 124)
Toner End Sensor/C (SEN 125)
Toner End Sensor/M (SEN 126)
Toner End Sensor/Y (SEN 127)
ITB Contact and Release Sensor (SEN 128)
Imaging Temperature Sensor (SEN 129)
Bridge Unit / Shift Tray / Side Tray
Bridge Unit / Side Tray
PCU Motor: CMY (MT 115)
Development Motor: CMY (MT 116)
Development Solenoid (SOL 104)
Image Transfer Motor/K (MT 117)
Waste Toner Unit
Waste Toner Capacity Detection Sensor (SEN 130)
Waste Toner Bottle Set Detection Switch (SW 103)
Paper Transfer Roller HP Sensor (SEN 131)
Paper Transfer Contact And Release Motor (MT 118)
HVP-CB ⑰ (PCB 106)
Power Box Cooling Fan (FAN 103)
Toner Supply Cooling Fan (FAN 104)
Imaging IOB 2/2 (PCB 110)
Temperature and Humidity Sensor (SEN 136)
Development Intake Fan/Right (FAN 105)
Development Intake Fan/Left (FAN 106)
Paper Exit Cooling Fan (FAN 107)
Toner Transport Motor/K (MT 119)
Toner Transport Motor/C (MT 120)
Toner Transport Motor/M (MT 121)
Toner Transport Motor/Y (MT 122)
Finisher
PSU (DC Power) ② (PSU 100)
BCU ⑦ (PCB 109)
Laser Unit
Skew Motor: Y (MT 123)
Skew Motor: M (MT 124)
Skew Motor: C (MT 125)
Interlock Switch: Front Cover (LD Safety Switch) (SW 104)
Interlock Switch: Duplex Unit (LD Safety Switch) (SW 105)
PSU (DC Power) ⑧ (PCB 100)
Development Unit
HST Sensor/K (SEN 132)
HST Sensor/C (SEN 133)
HST Sensor/M (SEN 134)
HST Sensor/Y (SEN 135)

Harness (Main)
Harness (Unit)
Harness (Unit)
Turning Point
CT
miniCT
Mi II
Mini Mi II
JST
Other
Unknown

D146/D147
POINT TO POINT DIAGRAM
(2 / 2)

PCB 111 HVP_TTS
T1 No.1 / T2 No.2 / T3 No.3 / T4 No.4 / T5
T6 / T7 / T8 / T9 / T10
30 D1475365
Terminal Blocks (Toner)
Spring plate Contact
ITB Unit
Paper Transfer Unit
CN8027 CN8028
10 D1495324
For Imaging IOB ⑲

PCB 112 SIO
D14952□ GND (Electrical rack)
CN313 CN315 — CN2 CN1 CN3001 — SEN 138 APS Sensor 2; SEN 139 APS Sensor 1; PCB 116 SBU
12 D1495206
CN317 CN319 — CN3501 — LED 101 Exposure Lamp (LED)
60 D1495207
CN318 CN320 — CN1 CN2 — SEN 140 Scanner HP Sensor; SEN 141 DF Position Sensor
14 D1495202
CN314 CN316 — CN1 — MT 126 Scanner Motor
11 D1495204
CN8012 CN8013 — CN1000 — ARDF
61 D1845500
CN3011 CN3012
Scanner Unit
SBU CN3000 — For IPU
84 D1495261

PCB 110 ⑧ Imaging IOB
Interlock Switch: Front Cover (LD Safety Switch) SW 104 CN1
Interlock Switch: Duplex Unit (LD Safety Switch) SW 105 CN2
CN213 CN213
8 D1495321

PCB 100 PSU (DC Power)
CN8017 CN8018

PCB 101 PSU (AC Controller Board)
CN688 CN688 — CN3000 CN3010
25 D1495358
① For Bank
4 D1495306
CN8014 CN8014
② For Finisher
9 D1495322
CN8013 CN8013
CN897 CN897 — CN CN3017
2 D1475301 (2/3)
Tool for Fusing Relay
CN8852 CN8852 — CN8861 CN8861
23 D1495341 (NA only)
27 D1495342 (EU only)
For Fusing Unit ⑩
CN8944 CN8944
2 D1475301
For Paper Transport IOB ⑪
TS1 CN900 CN903 CN901 CN904
24 D1495356
Inlet Power Socket
Power cord

Scanner Harness
CN5 CN1 CN310 CN310
28 D1495209
CN8012 CN8012 — CN8152 CN1502 — PCB 113 Paper Transport IOB ③
CN8011 CN8011 — CN8576 CN8576
7Z D1495205
CN8776 CN8776
CN8775 CN8775
2 D1475301 (3/3)
SW 106 Main Switch CN1 CN11
CN8869 CN8869
6 D1475308 (3/4)
⑤ For Paper Transport IOB
2 D1475301
CN8783 CN8783
For SBU
CN8962 CN8962
CN8969

PCB 102 IPU

PCB 114 CTL
CN8753 CN+ — Board to Board

Options

CN8823 CN1 — CN2 CN2 — CN1 CN+
CN8833 A — B — Spare
77 D1495220
74 D1491433
73 D1491435
Operation Panel

CN8564 CN8564 — CN1 CN11 — CN1 CN+
Laser Unit
75 D1475298
Laser Unit
CN8566 CN8566 — CN3 CN13 — CN1 CN2 CN3 CN+ — Synchronizing Detector Board Y; Synchronizing Detector Board K; MT 127 Polygon Mirror Motor
76 D1475237 (2/2)
74 D1495295 (2/2)
Laser Unit

CN8743 CN8743 — CN1000 CN1000
31 D1495370
CN8993 CN8993 — CN1001 CN1001
21 D1495345

PCB 109 BCU
CN8100 CN8106
6 D1475308 (4/4)
CN8103
33 D1495372
For Imaging IOB ⑦
CN2 CN2 CN1 — SEN 137 TM/ID Sensor
CN3 CN — SEN 137 TM/ID Sensor
CN4 CN — SEN 137 TM/ID Sensor
22 D1495347

Heater Board (Option)
CN8983 CN8983 — CN8822 CN8822
41 D1495394 (NA only)
* D1495396 (EU only)
PCB 115 Heater Board (Option)
Heater Board (Option)
CN8999 CN8999 — CN8830 CN8830
42 D1495395

Paper Feed Heater (Option)
Bank Heater (Option)
CN8889 CN8889 — CN1 CN1
28 D1495361
CN2 — H 100 Paper Feed Heater
39 D1495392
CN2 — H 101 Bank Heater
Scanner / PCU Anti-condensation Heater
CN8869 CN8869 — CN1 — H 102 Scanner Anti-condensation Heater
CN2 — H 103 PCU Anti-condensation Heater
40 D1495393

PCB 108 HVP:CB
CN8960 CN8960
10 D1495324
Charge Unit/K
Charge Unit/C
Charge Unit/M
Charge Unit/Y
Development Unit/K
Development Unit/C
Development Unit/M
Development Unit/Y

⑨ For Paper Transport IOB — CN5
⑨ For Paper Transport IOB — CN6
⑩ For PSU:AC

Fusing Unit
CN4 JCN4 — CN — TH 102 Pressure Thermistor: Center
CN5 JCN5 CN5 — TH 103 Pressure Thermistor: Edge; TH 104 Pressure Thermistor: Full-Bleed Edge
CN6 JCN6 — CN — TH 105 Non-Contact Thermistor (Center)
CN7 JCN7 — CN — TH 106 Non-Contact Thermistor (Edge)
CN8 JCN8 — CN — New Unit Detection Fuse (Fusing Unit)
CN1 (To Drawer) CN1 (To Drawer)
Short-circuit to each destination
Set Detection: GND
Set Detection: NA
Set Detection: EU
Set Detection: Reserved (JPN)
Set Detection: Reserved (TWN)
T1 GND
CN9 — H 104 Heater: Edge; H 105 Heater: Center; H 106 Heater
T4
81 D1494321 (NA)
82 D1494322 (EU)

Harness (Main)
Harness (Unit)
Harness (Unit)
Turning Point
CT / miniCT / MI II / Mini MI II / JST / Other / Unknown

D146/D147 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
1	Paper Transport IOB	CN155	1	FFUEHFNOUT1_O	Fusing Exhaust Heat Fan	CN1	3	
			2	FFUEHFNLOK_N_I			2	
			3	GND			1	
			4	GND	Registration Sensor	CN2	3	
			5	CRG_SNSNS_I			2	Connects to harness No. 51 (D1492556)
			6	+5V			1	
			7	FFU_MTGA	Fusing Motor	CN3	10	
			8	FFU_MTCLK			9	
			9	FFU_MTBRK_N			8	
			10	FFU_MTCW			7	
			11	FFU_MTSTA_N			6	
			12	FFU_MTLOK_N			5	
			13	GND			4	
			14	GND			3	
			15	+24VS2			2	
			16	+24VS2			1	
			17	N.C.	N.C.	-	-	
			18	GND	Right Door Open/Close Switch	CN4	2	
			19	MRDOCSNSW1_I			1	
1	Paper Transport IOB	CN157	1	CRG_MTENC-A_I	Registration Motor	CN5	8	
			2	CRG_MTENC-B_I			7	
			3	+5V			6	
			4	CRG_MTCW_O			5	
			5	CRG_MTPWM_O			4	
			6	CRG_MTBRK_N_O			3	
			7	GND			2	
			8	+24VS2			1	
			9	EEX_MTENC-A_I	Paper Exit Motor	CN6	8	
			10	EEX_MTENC-B_I			7	
			11	+5V			6	
			12	EEX_MTCW_O			5	
			13	EEX_MTPWM_O			4	
			14	EEX_MTBRK_N_O			3	
			15	GND			2	
			16	+24VS2			1	
			17	CFD_MTENC-A_I	Paper Feed Motor	CN7	8	
			18	CFD_MTENC-B_I			7	
			19	+5V			6	
			20	CFD_MTCW_O			5	
			21	CFD_MTPWM_O			4	
			22	CFD_MTBRK_N_O			3	
			23	GND			2	
			24	+24VS2			1	
			25	CTH_MTENC-A_I	Transport Motor	CN8	8	
			26	CTH_MTENC-B_I			7	
			27	+5V			6	
			28	CTH_MTCW_O			5	
			29	CTH_MTPWM_O			4	
			30	CTH_MTBRK_N_O			3	
			31	GND			2	
			32	+24VS2			1	
1	Paper Transport IOB	CN159	1	+24VS2	Paper Feed Solenoid (1st Feed Tray)	CN9	14	
			2	CF1PUSLOUT2_O			13	
			3	GND	Paper Feed Sensor (1st Feed Tray)		12	
			4	CF1_SNSNS_I			11	
			5	+5V			10	
			6	GND	Transport Sensor (1st Feed Tray)		9	
			7	CH1_SNSNS_I			8	
			8	+5V			7	Connects to harness No. 52 (D1492708)
			9	GND	Paper End Sensor (1st Feed Tray)		6	
			10	CT1PESNSNS_I			5	
			11	+5V			4	
			12	GND	Limit Sensor (1st Feed Tray)		3	
			13	CT1ULSNSNS_I			2	
			14	+5V			1	
1	Paper Transport IOB	CN161	1	N.C.		-	-	
			2	N.C.		-	-	
			3	GND	Fusing Entrance Sensor	CN10	3	Connects to harness No. 53 (D1476237)
			4	FFUINSNSNS_I			2	
			5	+5V			1	
			6	GND	Paper Transfer Unit Open/Close Sensor	CN11	3	
			7	TT2OCSNSNS_I			2	
			8	+5V			1	
			9	PPDSC_N_I	N.C.	-	-	
			10	PPDPWM_O	N.C.	-	-	
			11	GND	N.C.	-	-	
			12	+24VS2	N.C.	-	-	
			13	RDPINMTENC-A_I	Duplex Entrance Motor	CN14	8	
			14	RDPINMTENC-B_I			7	
			15	+5V			6	
			16	RDPINMTCW_O			5	
			17	RDPINMTPWM_O			4	
			18	RDPINMTBRK_N_O			3	
			19	GND			2	
			20	+24VS2			1	
			21	HDP_MTENC-A_I	Duplex / By-pass Motor	CN15	18	
			22	HDP_MTENC-B_I			17	
			23	+5V			16	
			24	HDP_MTCW_O			15	
			25	HDP_MTPWM_O			14	
			26	HDP_MTBRK_N_O			13	
			27	GND			12	
			28	+24VS2			11	
			29	GND	Duplex Entrance Sensor		10	Connects to harness No. 54 (D1494696)
			30	RDPINSNSNS_I			9	
			31	+5V			8	
			32	GND	Duplex Exit Sensor		7	
			33	RDPOUSNSNS_I			6	
			34	+5V			5	
			35	GND	Duplex Unit Open / Close Sensor		4	
			36	RGPOCSNSW1_I			3	
			37	RGPOCLEK_O	Duplex Jam Proceeding LED		2	
			38	+5V			1	
			39	N.C.	N.C.	-	-	
			40	N.C.	N.C.	-	-	
1	Paper Transport IOB	CN162	1	HHDPUSLOUT2_O	By-pass Feed Solenoid	CN16	14	
			2	+24VS2			13	
			3	GND	By-pass Paper End Sensor		12	
			4	HHDPESNSNS_I			11	
			5	+5V			10	
			6	HHDMLSNSW2_I	By-pass Paper Size Sensor		9	
			7	HHDMLSNSW1_I			8	
			8	GND			7	
			9	HHDMLSNSW4_I			6	
			10	HHDMLSNSW5_I			5	
			11	HHDMLSNSW3_I			4	
			12	GND	By-pass Original Length Sensor		3	
			13	HHDSLSNSNS_I			2	
			14	+5V			1	
			15	N.C.	N.C.	-	-	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
1	Paper Transport IOB	CN162	16	+24VS2	Paper Exit Switching Solenoid	CN17	15	
			17	EEXDVSLOUT2_O			14	
			18	GND	Reverse Sensor		13	
			19	RRV_SNSNS_I			12	
			20	+5V			11	
			21	GND	Paper Exit Sensor		10	Connects to harness No.57 (D1494485)
			22	EEX_SNSNS_I			9	
			23	+5V			8	
			24	GND	Paper Exit Full Sensor		7	
			25	EEXFLSNSNS_I			6	
			26	+5V			5	
			27	N.C.	N.C.	-	-	
			28	N.C.	N.C.	-	-	
			29	N.C.	N.C.	-	-	
			30	N.C.	N.C.	-	-	
1	Paper Transport IOB	CN167	1	RRV_MTXB_O	Reverse Motor	CN17	4	
			2	RRV_MTB_O			3	
			3	RRV_MTXA_O			2	Connects to harness No.57 (D1494485)
			4	RRV_MTA_O			1	
1	Paper Transport IOB	CN156	A1	FFU_SSTWN_I	Set Detection	CN18A	A18	
			A2	FFU_SSDOM_I			A17	
			A3	FFU_SSEU_I			A16	
			A4	FFU_SSNA_I			A15	
			A5	GND			A14	
			A6	GND			A13	
			A7	N.C.	N.C.		A12	
			A8	FFUNWFU_N	New Unit Detection Fuse (Fusing)		A11	
			A9	GND			A10	
			A10	GND	Fusing Exit Sensor		A9	
			A11	FFUOUSNSNS_I			A8	
			A12	+5V			A7	
			A13	+5V	Thermopile (Edge)		A6	
			A14	GND			A5	
			A15	FFR_TSEG			A4	
			A16	+5V	Thermopile (Center)		A3	For 100V models:
			A17	GND			A2	Connets to harness No. 23 (D1495341)
			A18	FFR_TSCTSN-O			A1	
			B1	GND	Fusing Sheild Position Sensor 2	CN18B	B18	For 200V models:
			B2	FSHPSSN2SNS_I			B17	Connects to harness No. 27 (D1495342)
			B3	+5V			B16	
			B4	GND	Fusing Sheild Position Sensor 1		B15	
			B5	FSHPSSN1SNS_I			B14	
			B6	+5V			B13	
			B7	FFR_TS2_SN-C			B12	
			B8	FFR_TS2_SN-D			B11	
			B9	GND			B10	
			B10	FFR_TS1_SN-C			B9	
			B11	FFR_TS1_SN-D			B8	
			B12	GND			B7	
			B13	FPRNPTSEGSN+	Pressure Thermistor: Full-Bleed Edge		B6	
			B14	GND			B5	
			B15	FPR_TSEGSN+	Pressure Thermistor: Edge		B4	
			B16	GND			B3	
			B17	FPR_TSCTSN+	Pressure Thermistor: Center		B2	
			B18	GND			B1	
1	Paper Transport IOB	CN168	1	FSHDRMTXB_O	Fusing Sheild Drive Motor	CN19	4	For 100V models:
			2	FSHDRMTB_O			3	Connets to harness No. 23 (D1495341)
			3	FSHDRMTA_O			2	For 200V models:
			4	FSHDRMTXA_O			1	Connects to harness No. 27 (D1495342)
			5	N.C.	N.C.	-	-	
2	Paper Transport IOB	CN153	1	+24VSRLY	PSU (AC Controller Board)	CN994	11	
			2	GND			10	
			3	PSU_ZERX1_N			9	
			4	PSU_HTRY1			8	
			5	PSU_HURY			7	
			6	ACV			6	
			7	TRG_HT3			5	
			8	TRG_HT2			4	
			9	TRG_HT1			3	
			10	PSU_HTRY2			2	
			11	PSU_ZERX2_N			1	
			12	QPSCLFNOUT1_O	PSU Cooling Fan	CN2	3	
			13	QPSCLFNLOK_N_I			2	
			14	GND			1	
			15	N.C.	N.C.	-	-	
			16	N.C.	N.C.	-	-	
			17	N.C.	N.C.	-	-	
2	Paper Transport IOB	CN164	1	GND	IPU	CN578	10	
			2	+5VE_LPS			9	
			3	+24V			8	
			4	+24V			7	
			5	GND			6	
			6	GND			5	
			7	GND			4	
			8	+24VS1			3	
			9	+24VS2			2	
			10	GND			1	
2	Paper Transport IOB	CN253	1	+5V	MKB	CN750	13	
			2	KEYCD_SET_N			12	
			3	KEYCD_B0_S1			11	
			4	KEYCD_B1_S2			10	
			5	KEYCD_B2_S3			9	
			6	KEYCD_B3_S4			8	
			7	KEYCD_B4_M1			7	
			8	KEYCD_B5_M2			6	
			9	KEYCD_B6_BT			5	
			10	KEYCD_B7_MT			4	
			11	GND			3	
			12	KEYCD_ON			2	
			13	+24VCNT			1	
2	Paper Transport IOB	CN254	1	GND	Key Counter	CN5	4	
			2	KKY_CTSET1_N			3	
			3	+24VCNT			2	
			4	KKY_CTOUT2			1	
2	Tools	CN1	1	PSU(AC) : JIGU-TRG	PSU (AC Controller Board)	CN997	2	
			2	PSU(AC) : JIGU-24V			1	
2	IPU	CN577	1	PONENG1_N	PSU (DC Power)	CN915	2	
			2	N.C.	N.C.	-	-	
			3	GND	PSU (DC Power)	CN915	1	
2	Harness No.58 D1495209	CN4	1	GND	PSU (DC Power)	CN912	1	
			2	GND			2	
			3	24V			4	
			4	24V			5	
2	Paper Transport IOB	CN152	1	24V	PSU (DC Power)		6	
			2	GND			3	
			3	GND		CN911	4	
			4	5V			8	
	IPU	CN576	1	5V	PSU (DC Power)		7	
			2	5VE			6	
			3	5VE			5	
			4	GND			3	
			5	GND			2	
			6	GND			1	

D146/D147 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
3	Imaging IOB	CN207	1	GND	Paper Transport IOB	CN163	18	
			2	GND			17	
			3	+24VS2			16	
			4	+24VS2			15	
			5	+24VS2			14	
			6	+24VS2			13	
			7	+24VS1			12	
			8	GND			11	
			9	GND			10	
			10	GND			9	
			11	GND			8	
			12	GND			7	
			13	GND			6	
			14	+5V			5	
			15	+24V			4	
			16	+24V			3	
			17	+24V			2	
			18	GND			1	
4				N.C.	Drawer (Bank)	CN1	8	
	Paper Transport IOB	CN256	1	BANK_RXD_I			7	
			2	BANK_TXD_O			6	
			3	GND			5	
			4	GND			4	
			5	+5V			3	
			6	+5V			2	
			7	GND			1	
	PSU（DC Power)	CN914	1	GND	Drawer (Bank)	CN2	7	
			2	GND			6	
			3	GND			5	
			4	24V			4	
			5	24V			3	
			6	24V			2	
			7	24V			1	
5	Paper Transport IOB	CN158	1	CT2UPMTSW2_I	Lift Motor / Remaining Paper Status Sensor (2nd Feed Tray)	CN1	5	
			2	GND			4	
			3	CT2UPMTSW1_I			3	
			4	CT2UPMTOUT2_O			2	
			5	CT2UPMTOUT1_O			1	
			6	GND	Tray Set Switch (2nd Feed Tray)	CN2	2	
			7	CT2STSNSW1_I			1	
			8	CT2SZSNSW1_I	Size Switch (2nd Feed Tray)	CN3	5	
			9	CT2SZSNSW2_I			4	
			10	CT2SZSNSW3_I			3	
			11	GND			2	
			12	CT2SZSNSW4_I			1	
			13	N.C.	N.C.	-	-	
			14	N.C.	N.C.	-	-	
			15	+24VS2	Paper Feed Solenoid (2nd Feed Tray)	CN5	14	
			16	CF2PUSLOUT2_O			13	
			17	GND	Paper Feed Sensor (2nd Feed Tray)		12	
			18	CF2_SNSNS_I			11	
			19	+5V			10	
			20	GND	Transport Sensor (2nd Feed Tray)		9	
			21	CH2_SNSNS_I			8	Connects to harness No.52 (D1492708)
			22	+5V			7	
			23	GND	Paper End Sensor (2nd Feed Tray)		6	
			24	CT2PESNSNS_I			5	
			25	+5V			4	
			26	GND	Limit Sensor (2nd Feed Tray)		3	
			27	CT2ULSNSNS_I			2	
			28	+5V			1	
		CN160	1	CT1UPMTSW2_I	Lift Motor / Remaining Paper Status Sensor (1st Feed Tray)	CN6	5	
			2	GND			4	
			3	CT1UPMTSW1_I			3	
			4	CT1UPMTOUT2_O			2	
			5	CT1UPMTOUT1_O			1	
			6	GND	Tray Set Switch (21st Feed Tray)	CN7	2	
			7	CT1STSNSW1_I			1	
6	BCU	CN105	1	3.3V	TM/ID Sensor	CN2	15	
			2	GND			14	
			3	TIBTPSNL_F			13	
			4	TIBTPSNV_F2			12	
			5	TIBTPSNV_F			11	
			6	3.3V			10	
			7	GND			9	
			8	TIBTPSNL_C			8	Connects to harness No.22 (D1495347)
			9	TIBTPSNV_C2			7	
			10	TIBTPSNV_C			6	
			11	3.3V			5	
			12	GND			4	
			13	TIBTPSNL_R			3	
			14	TIBTPSNV_R2			2	
			15	TIBTPSNV_R			1	
	Paper Transport IOB	CN166	1	GND	Pressure Roller HP Sensor	CN3	3	
			2	FIPHPSNSNS_I			2	
			3	+5V			1	
6	Imaging IOB	CN209	1	MHD_THTH_I	Temprature and Humidity Sensor	CN4	4	
			2	GND			3	
			3	MHD_THRHV_I			2	
			4	+3.3V			1	
			5	MHDEFFNOUT1_O	Main Exhaust Fan / Drive Cooling Fan / Development Intake Fan/Right	CN5	3	
			6	ODVSFFNRLOK_I	Development Intake Fan/Right		2	
			7	GND			1	
			8	ODVSFFNLOUT1_O	Development Intake Fan/Left / Toner Supply Cooling Fan	CN6	3	
			9	ODVSFFNLLOK_I	Development Intake Fan/Left		2	
			10	GND			1	
			11	EEXCLFNOUT1_O	Paper Exit Cooling Fan	CN8	3	
			12	EEXCLFNLOK_I			2	
			13	GND			1	
			14	N.C.	N.C.	-	-	
			15	N.C.	N.C.	-	-	
			16	GND	N.C.	-	-	
			17	TTIECSN_I	N.C.	-	-	
			18	+5V	N.C.	-	-	
			19	N.C.	N.C.	-	-	
	Imaging IOB	CN251	1	RRV_SNSNS	1Bin Tray	CN10	6	
			2	C1TPQSNSNS_I			5	
			3	C1T_SSSET_I			4	
			4	GND			3	
			5	+5VE_LPS			2	
			6	+5V			1	
	IPU	CN589	1	ACSW_STAT_ON_N_ACSW	Main Switch	CN11	2	
			2	GND			1	
	1 Bin LED	CN1	1	CATHODE	1 Bin LED	CN12	2	
			2	ANODE			1	
7	N/A	N/A	N/A	N/A	N/A	N/A		

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
8	PSU (DC Power)	CN917	1	24V (IL:24VS2)	Interlock Switch/1	CN1	1	
			2	24V (IL:24VS1)	Interlock Switch/2	CN2	1	
	Imaging IOB	CN213	1	+24VS1	Interlock Switch/1	CN1	2	
			2	+24VS2	Interlock Switch/2	CN2	2	
9				N.C.	N.C.	CN1	8	
	Imaging IOB	CN217	1	FIN_RXD_I	Finisher		7	
				N.C.	N.C.		6	
			2	FIN_TXD_O	Finisher		5	
				N.C.	N.C.		4	
				N.C.	N.C.		3	
			3	GND	Finisher		2	
			4	GND			1	
	PSU（DC Power)	CN913	1	GND (Finisher)		CN2	9	
			2	GND (Finisher)			8	
			3	GND (Finisher)			7	
			4	GND (Finisher)			6	
			5	24V (Finisher)			5	
			6	24V (Finisher)			4	
			7	24V (Finisher)			3	
			8	24V (Finisher)			2	
				N.C.	N.C.		1	
10	Imaging IOB	CN203	1	NTBDRMTKOUT2_O	Toner Bottle Drive Motor/K	CN1	2	
			2	+24VS1			1	
			3	NTBDRMTCOUT2_O	Toner Bottle Drive Motor/C	CN2	2	
			4	+24VS1			1	
			5	NTBDRMTMOUT2_O	Toner Bottle Drive Motor/M	CN3	2	
			6	+24VS1			1	
			7	NTBDRMTYOUT2_O	Toner Bottle Drive Motor/Y	CN4	2	
			8	+24VS1			1	
			9	N.C.	N.C.			
			10	TAG_SCL_O	ID Chip	CN5	4	
			11	GND			3	
			12	TAG_SDA_IO			2	
			13	+5V_HST			1	
			14	N.C.	N.C.	-	-	
			15	TAG_SCL_O	ID Chip	CN6	4	
			16	GND			3	
			17	TAG_SDA_IO			2	
			18	+5V_HST			1	
			19	TAG_SCL_O	ID Chip	CN7	4	
			20	GND			3	
			21	TAG_SDA_IO			2	
			22	+5V_HST			1	
			23	TAG_SCL_O	ID Chip	CN8	4	
			24	GND			3	
			25	TAG_SDA_IO			2	
			26	+5V_HST			1	
10	Imaging IOB	CN219	1	+24VS2	HVP: TTS	CN802	10	
			2	GND			9	
			3	PPTTSSC_N_I			8	
			4	PPT2-FB_I			7	
			5	PPT2-PWM_O			6	
			6	PPT2+PWM_O			5	
			7	PPTIKPWM_O			4	
			8	PPTICPWM_O			3	
			9	PPTIMPWM_O			2	
			10	PPTIYPWM_O			1	
			11	N.C.	N.C.	-	-	
			12	N.C.	N.C.	-	-	
10	Imaging IOB	CN205	1	GND	Toner End Sensor/K	CN9	3	
			2	NTNEDSNKSNS_N_I			2	Connects to harness No.19 (D1495334)
			3	+5V_TEK			1	
			4	GND	Toner End Sensor/C	CN10	3	
			5	NTNEDSNCSNS_N_I			2	Connects to harness No.19 (D1495334)
			6	+5V_TEFC			1	
			7	GND	Toner End Sensor/M	CN13	3	
			8	NTNEDSNMSNS_N_I			2	Connects to harness No.19 (D1495334)
			9	+5V_TEFC			1	
			10	GND	Toner End Sensor/Y	CN17	3	
			11	NTNEDSNYSNS_N_I			2	Connects to harness No.19 (D1495334)
			12	+5V_TEFC			1	
			13	GND	ITB Contact and Release Sensor	CN14	3	
			14	TTICASN_I			2	Connects to harness No.18 (D1495333)
			15	+5V			1	
			16	GND	Imaging Temperature Sensor	CN18	2	
			17	PDR_TSSN+_I			1	
10	Imaging IOB	CN218	1	GND	Drawer (Bridge Unit / Shift Tray / Left Paper Exit Tray)	CN19	10	
			2	+5V			9	
			3	CBU_SS1SET_I			8	
			4	CBUCVSNSNS_N_I			7	
			5	CBUEPSNSNS_N_I			6	
			6	CBUCVMTRST_N_O			5	
			7	CBUCVMTCTL_O			4	
			8	GND			3	
			9	+24V			2	
					N.C.		1	
			10	+24V	Drawer (Bridge Unit / Left Paper Exit Tray)	CN20	9	
			11	CBU+5VFU_I			8	
			12	CBUCVMTENA_N_O			7	
			13	CBU_SS2SET_I			6	
			14	CBUDVSLPWM_O			5	
			15	CBUCVMTCLK_O			4	
			16	CBU+24VFU_I			3	
			17	CBTOCSNSNS_I			2	
			18	CBEOCSNSNS_I			1	
11	Imaging IOB	CN222	1	NTNSPMTKA_O	Toner Transport Motor/K	CN1	4	
			2	NTNSPMTKXA_O			3	
			3	NTNSPMTKB_O			2	
			4	NTNSPMTKXB_O			1	
			5	NTNSPMTCA_O	Toner Transport Motor/C	CN2	4	
			6	NTNSPMTCXA_O			3	
			7	NTNSPMTCB_O			2	
			8	NTNSPMTCXB_O			1	
			9	NTNSPMTMA_O	Toner Transport Motor/M	CN3	4	
			10	NTNSPMTMXA_O			3	
			11	NTNSPMTMB_O			2	
			12	NTNSPMTMXB_O			1	
			13	NTNSPMTYA_O	Toner Transport Motor/Y	CN4	4	
			14	NTNSPMTYXA_O			3	
			15	NTNSPMTYB_O			2	
			16	NTNSPMTYXB_O			1	
12	Imaging IOB	CN200	1	PDR_MTFCGA_O	PCU Motor: CMY	CN1	10	
			2	PDR_MTFCCLK_O			9	
			3	PDR_MTFCBRK_N_O			8	
			4	PDR_MTFCCW_N_O			7	
			5	PDR_MTFCSTA_N_O			6	
			6	PDR_MTFCLOK_N_I			5	
			7	GND			4	
			8	GND			3	
			9	+24VS1			2	
			10	+24VS1			1	

D146/D147 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
12	Imaging IOB	CN200	11	ODV_MTFCGA_O	Development Motor: CMY	CN2	10	
			12	ODV_MTFCCLK_O			9	
			13	ODV_MTFCBRK_N_O			8	
			14	ODV_MTFCCW_O			7	
			15	ODV_MTFCSTA_N_O			6	
			16	ODV_MTFCLOK_N_I			5	
			17	GND			4	
			18	GND			3	
			19	+24VS1			2	
			20	+24VS1			1	
			21	ODV_SLOUT2_O	Development Solenoid			
			22	ODV_SLOUT1_O				
			23	N.C.	N.C.	-	-	
			24	ODV_MTKGA_O	N.C.	-	-	
			25	ODV_MTKCLK_O	N.C.	-	-	
			26	ODV_MTKBRK_N_O	N.C.	-	-	
			27	ODV_MTKCW_N_O	N.C.	-	-	
			28	ODV_MTKSTA_N_O	N.C.	-	-	
			29	ODV_MTKLOK_N_I	N.C.	-	-	
			30	GND	N.C.	-	-	
			31	GND	N.C.	-	-	
			32	+24VS1	N.C.	-	-	
			33	+24VS1	N.C.	-	-	
			34	N.C.	N.C.	-	-	
			35	N.C.	N.C.	-	-	
			36	N.C.	N.C.	-	-	
			37	N.C.	N.C.	-	-	
			38	GND	N.C.	-	-	
			39	TTSPHSN_I	N.C.	-	-	
			40	+5V	N.C.	-	-	
12	Imaging IOB	CN201	1	TTS_MTCTL_N_O	Image Transfer Motor/K	CN7	15	
			2	TTIECSN_OUT_O			14	
			3	TTS_MTGAB_O			13	
			4	TTS_MTGAA_O			12	
			5	TTS_MTCLK_O			11	
			6	TTS_MTBRK_N_O			10	
			7	TTS_MTCW_O			9	
			8	TTS_MTSTA_N_O			8	
			9	TTS_MTLOK_N_I			7	
			10	+5V			6	
			11	GND			5	
			12	GND			4	
			13	GND			3	
			14	+24VS1			2	
			15	+24VS1			1	
			16	N.C.	N.C.			
			17	GND	Waste Toner Capacity Detection Sensor	CN5	3	
			18	LWSFLSN_I			2	Connects to harness No.16 (D1495330)
			19	+5V			1	
			20	GND	Waste Toner Bottle Set Detection Sensor	CN3	2	
			21	LWBSTSN_N_I			1	
			22	N.C.	N.C.	-	-	
			23	N.C.	N.C.	-	-	
			24	N.C.	N.C.	-	-	
			25	N.C.	N.C.	-	-	
			26	N.C.	N.C.	-	-	
			27	N.C.	N.C.	-	-	
			28	GND	Paper Transfer Roller HP Sensor	CN11	3	
			29	TT2CASN_I			2	
			30	+5V			1	
			31	TT2CAMTOUT2_O	Paper Transfer Contact And Release Motor	CN12	2	
			32	TT2CAMTOUT1_O			1	
12	Imaging IOB	CN204	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	HST_SCL_O	HST Sensor	CN13	14	
			4	HST_SDA_IO			13	
			5	OST_SNKVTCNT_O			12	
			6	+5V_HST			11	
			7	OST_SNKSNS_I			10	
			8	GND			9	
			9	PDR_PLFCK_O	N.C.		8	
			10	+24VS2	N.C.		7	
			11	HST_SCL_O	HST Sensor		6	
			12	HST_SDA_IO			5	
			13	OST_SNCVTCNT_O			4	
			14	+5V_HST			3	
			15	OST_SNCSNS_I			2	
			16	GND			1	
			17	PDR_PLFCK_O	N.C.		32	
			18	+24VS2	N.C.		31	Connects to harness No.14 (D1495328)
			19	HST_SCL_O	HST Sensor		30	
			20	HST_SDA_IO			29	
			21	OST_SNMVTCNT_O			28	
			22	+5V_HST			27	
			23	OST_SNMSNS_I			26	
			24	GND			25	
			25	PDR_PLFCK_O	N.C.		24	
			26	+24VS2	N.C.		23	
			27	HST_SCL_O	HST Sensor		22	
			28	HST_SDA_IO			21	
			29	OST_SNYVTCNT_O			20	
			30	+5V_HST			19	
			31	OST_SNYSNS_I			18	
			32	GND			17	
12	Imaging IOB	CN211	1	PPBDCYPWM_O	HVP: CB	CN800	20	
			2	PPBDCMPWM_O			19	
			3	PPBDCCPWM_O			18	
			4	PPBDCKPWM_O			17	
			5	PPCDCKPWM_O			16	
			6	PPCDCCPWM_O			15	
			7	PPCDCMPWM_O			14	
			8	PPCDCYPWM_O			13	
			9	PPCACKPWM_O			12	
			10	PPCACCPWM_O			11	
			11	PPCACMPWM_O			10	
			12	PPCACYPWM_O			9	
			13	PPCACCLK_O			8	
			14	PPCBSC_N_I			7	
			15	PPCACKFB_I			6	
			16	PPCACCFB_I			5	
			17	PPCACMFB_I			4	
			18	PPCACYFB_I			3	
			19	GND			2	
			20	+24VS2			1	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
12	Imaging IOB	CN216	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	N.C.	N.C.	-	-	
			4	N.C.	N.C.	-	-	
			5	N.C.	N.C.	-	-	
			6	MEBCLFNOUT1_O	Power Box Cooling Fan	CN9	3	
			7	MEBCLFNLOK_I			2	
			8	GND			1	
			9	ODVSFFNLOUT1_O	Development Intake Fan/ Left / Tonner Supply Cooling Fan	CN10	3	
			10	NSPCLNLOK_I	Toner Supply Coolin Fan		2	
			11	GND			1	
			12	N.C.	N.C.	-	-	
			13	N.C.	N.C.	-	-	
			14	N.C.	N.C.	-	-	
13	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
14	Harness No.12 D1495326	CN1	1	PPSRQSNK_I	HST Sensor	CN2	16	
			2	+24VS2			15	
			3	HST_SCL_O			14	
			4	HST_SDA_IO			13	
			5	OST_SNKVTCNT_O			12	
			6	+5V_HST			11	
			7	OST_SNKSNS_I			10	
			8	GND			9	
			9	PDR_PLFCK_O			8	
			10	+24VS2			7	
			11	HST_SCL_O			6	
			12	HST_SDA_IO			5	
			13	OST_SNCVTCNT_O			4	
			14	+5V_HST			3	
			15	OST_SNCSNS_I			2	
			16	GND			1	Connects to harness No.15 (D1495329)
			17	PDR_PLFCK_O			32	
			18	+24VS2			31	
			19	HST_SCL_O			30	
			20	HST_SDA_IO			29	
			21	OST_SNMVTCNT_O			28	
			22	+5V_HST			27	
			23	OST_SNMSNS_I			26	
			24	GND			25	
			25	PDR_PLFCK_O			24	
			26	+24VS2			23	
			27	HST_SCL_O			22	
			28	HST_SDA_IO			21	
			29	OST_SNYVTCNT_O			20	
			30	+5V_HST			19	
			31	OST_SNYSNS_I			18	
			32	GND			17	
15	Harness No.14 D1495328	CN1	1	PPSRQSNK_I	PCU	CN2	8	
			2	+24VS2			7	
			3	HST_SCL_O	HST Sensor		6	
			4	HST_SDA_IO			5	Connects to harness No.59 (D1493173)
			5	OST_SNKVTCNT_O			4	
			6	+5V_HST			3	
			7	OST_SNKSNS_I			2	
			8	GND			1	
			9	PDR_PLFCK_O	N.C.	CN3	8	
			10	+24VS2	N.C.		7	
			11	HST_SCL_O	HST Sensor		6	
			12	HST_SDA_IO			5	Connects to harness No.59 (D1493173)
			13	OST_SNCVTCNT_O			4	
			14	+5V_HST			3	
			15	OST_SNCSNS_I			2	
			16	GND			1	
			17	PDR_PLFCK_O	N.C.	CN4	8	
			18	+24VS2	N.C.		7	
			19	HST_SCL_O	HST Sensor		6	
			20	HST_SDA_IO			5	Connects to harness No.59 (D1493173)
			21	OST_SNMVTCNT_O			4	
			22	+5V_HST			3	
			23	OST_SNMSNS_I			2	
			24	GND			1	
			25	PDR_PLFCK_O	N.C.	CN5	8	
			26	+24VS2	N.C.		7	
			27	HST_SCL_O	HST Sensor		6	
			28	HST_SDA_IO			5	Connects to harness No.59 (D1493173)
			29	OST_SNYVTCNT_O			4	
			30	+5V_HST			3	
			31	OST_SNYSNS_I			2	
			32	GND			1	
16	Harness No.12 D1495326	CN1	1	GND	Waste Toner Capacity Detection Sensor	CN2	3	
			2	LWSFLSN_I			2	
			3	+5V			1	
17								
18	Harness No.10 D1495324	CN1	1	GND	ITB Contact and Release Sensor	CN2	3	
			2	TTICASN_I			2	
			3	+5V			1	
19	Harness No.10 D1495324	CN1	1	GND	Toner End Sensor	CN2	3	
			2	NTNEDSNKSNS_N_I			2	
			3	+5V_TEK			1	
20	BCU	CN101	1	GND	IPU	CN575	26	
			2	5V			25	
			3	G1_SYDO			24	
			4	G1_SYDI			23	
			5	G1_SYCLK			22	
			6	G1_SYHS			21	
			7	G1_SYCS0_N			20	
			8	G1_SYCS1_N			19	
			9	G2_SYDO			18	
			10	G2_SYDI			17	
			11	M2P_RST_N			16	
			12	IPU_RESERVE1			15	
			13	IPU_RESERVE2			14	
			14	IPU_RESERVE3			13	
			15	IPU_RESERVE4			12	
			16	S2M_RST_N			11	
			17	G2_SYCLK			10	
			18	G2_SYCS0_N			9	
			19	ADF_TXD			8	
			20	ADF_RXD			7	
			21	IPU_INT_N			6	
			22	TIMER_UP_N0			5	
			23	TIMER_UP_N1			4	
			24	ENGENABLE_N			3	
			25	FUKKI			2	
			26	IPU_WAKE			1	

D146/D147 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
21	Harness No.6 D1495308	CN1	1	3.3V	TM/ID Sensor: Front	CN2	5	
			2	GND			4	
			3	TIBTPSNL_F			3	
			4	TIBTPSNV_F2			2	
			5	TIBTPSNV_F			1	
			6	3.3V	TM/ID Sensor: CENTER	CN3	5	
			7	GND			4	
			8	TIBTPSNL_C			3	
			9	TIBTPSNV_C2			2	
			10	TIBTPSNV_C			1	
			11	3.3V	TM/ID Sensor: REAR	CN4	5	
			12	GND			4	
			13	TIBTPSNL_R			3	
			14	TIBTPSNV_R2			2	
			15	TIBTPSNV_R			1	
22	Harness No.1 D1495340	CN1	A1	FFU_SSTWN_I	Drawer (Fusing) Set Detection	CN6	11	
			A2	FFU_SSDOM_I			10	
			A3	FFU_SSEU_I			9	
			A4	FFU_SSNA_I			8	
			A5	GND			7	
			A6	GND			6	Connects to harness No.61 (D1494321): NA
				N.C.	N.C.		5	
			A7	N.C.	N.C.			
			A8	FFUNWFU_N	New Unit Detection Fuse (Fusing)		4	
			A9	GND			3	
				N.C.	N.C.		2	
				N.C.	N.C.		1	
			A10	GND	Fusing Exit Sensor	CN2	3	
			A11	FFUOUSNSNS_I			2	
			A12	+5V			1	
				N.C.	N.C.	CN3	4	
			A13	+5V	Thermopile (Edge)		3	
			A14	GND			2	
			A15	FFR_TSEG			1	
				N.C.	N.C.	CN4	4	
			A16	+5V	Thermopile (Center)		3	
			A17	GND			2	
			A18	FFR_TSCTSN-O			1	
			B1	GND	Fusing Shield Position Sensor 2	CN9	3	
			B2	FSHPSSN2SNS_I			2	
			B3	+5V			1	
			B4	GND	Fusing Shield Position Sensor 1	CN8	3	
			B5	FSHPSSN1SNS_I			2	
			B6	+5V			1	
				N.C.	N.C.	CN5	13	
			B7	FFR_TS2_SN-C	Non-Contact Thermistor 2		12	
			B8	FFR_TS2_SN-D			11	
			B9	GND			10	
			B10	FFR_TS1_SN-C	Non-Contact Thermistor 1		9	
			B11	FFR_TS1_SN-D			8	
			B12	GND			7	Connects to harness No.61 (D1494321): NA
			B13	FPRNPTSEGSN+	Pressure Thermistor: Full-Bleed Edge		6	
			B14	GND			5	
			B15	FPR_TSEGSN+	Pressure Thermistor: Edge		4	
			B16	GND			3	
			B17	FPR_TSCTSN+	Pressure Thermistor: Center		2	
			B18	GND			1	
	Paper Transport IOB	CN101	1	FSHDRMTXB_O	Fusing Shield Drive Motor	CN11	4	
			2	FSHDRMTB_O			3	
			3	FSHDRMTA_O			2	
			4	FSHDRMTXA_O			1	
	*Screw	T1		GND(1G)	Drawer (Fusing) Harness No. 61 D1494321 (NA)	CN7	1	
	PSU（AC Controller Board)	CN985	1	HT1,2,3/L			4	
			2	HT1/N			6	
	PSU（AC Controller Board)	CN986	1	HT2/N			5	Connects to harness No.61 (D1494321): NA
			2	HT3/N			2	
				N.C.			3	
23	INLET	INLET	L	AC_IN_L	PSU (AC Controller Board)	T900	1	
			N	AC_IN_N	PSU (AC Controller Board)	T901	1	
			E	EARTH	*Screw	T1		
24	PSU（AC Controller Board)	CN988	1	AC_L_5V_24V	PSU (AC Controller Board)	CN901	1	
			2	AC_N_5V_24V			2	
25	PSU（AC Controller Board)	CN989	1	AC_L_DEHUHT2	PCU Anti-condensation Heater	CN1	1	
			2	AC_L_DEHUHT3	Paper Feed Heater	CN2	1	
			3	AC_L_DEHUHT4	Bank Heater	CN3	1	
			4	AC_N_DEHUHT2	PCU Anti-condensation Heater	CN1	2	
			5	AC_N_DEHUHT3	Paper Feed Heater	CN2	2	
			6	AC_N_DEHUHT4	Bank Heater	CN3	2	
26	Harness No.1 D1495340	CN1	A1	FFU_SSTWN_I	Drawer (Fusing) Set Detection	CN6	11	
			A2	FFU_SSDOM_I			10	
			A3	FFU_SSEU_I			9	
			A4	FFU_SSNA_I			8	
			A5	GND			7	
			A6	GND			6	Connects to harness No.62 (D1494322): EU
				N.C.	N.C.		5	
			A7	N.C.	N.C.			
			A8	FFUNWFU_N	New Unit Detection Fuse (Fusing)		4	
			A9	GND			3	
				N.C.	N.C.		2	
				N.C.	N.C.		1	
26	Harness No.1 D1495340	CN1	A10	GND	Fusing Exit Sensor	CN2	3	
			A11	FFUOUSNSNS_I			2	
			A12	+5V			1	
				N.C.	N.C.	CN3	4	
			A13	+5V	Thermopile (Edge)		3	
			A14	GND			2	
			A15	FFR_TSEG			1	
				N.C.	N.C.	CN4	4	
			A16	+5V	Thermopile (Center)		3	
			A17	GND			2	
			A18	FFR_TSCTSN-O			1	
			B1	GND	Fusing Shield Position Sensor 2	CN9	3	
			B2	FSHPSSN2SNS_I			2	
			B3	+5V			1	
			B4	GND	Fusing Shield Position Sensor 1	CN8	3	
			B5	FSHPSSN1SNS_I			2	
			B6	+5V			1	
				N.C.	N.C.	CN5	13	
			B7	FFR_TS2_SN-C	Non-Contact Thermistor 2		12	
			B8	FFR_TS2_SN-D			11	
			B9	GND			10	
			B10	FFR_TS1_SN-C	Non-Contact Thermistor 1		9	
			B11	FFR_TS1_SN-D			8	
			B12	GND			7	Connects to harness No.62 (D1494322): EU
			B13	FPRNPTSEGSN+	Pressure Thermistor: Full-Bleed Edge		6	
			B14	GND			5	
			B15	FPR_TSEGSN+	Pressure Thermistor: Edge		4	
			B16	GND			3	
			B17	FPR_TSCTSN+	Pressure Thermistor: Center		2	
			B18	GND			1	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
26	Paper Transport IOB	CN101	1	FSHDRMTXB_O	Fusing Shield Drive Motor	CN11	4	
			2	FSHDRMTB_O			3	
			3	FSHDRMTA_O			2	
			4	FSHDRMTXA_O			1	
	*Screw	T1		GND(1G)	Drawer (Fusing)	CN7	1	
	PSU（AC Controller Board)	CN985	1	HT1,2,3/L			4	
			2	HT1/N			6	Connects to harness No.62 (D1494322): EU
			3	HT2/N			5	
			4	HT3/N			2	
				N.C.	N.C.		3	
27	Harness No.39 D1495392 (OP)	CN1	1	AC_L_HUHT	Paper Feed Heater	CN2	1	
			2	AC_N_HUHT			2	
28	PSU（AC Controller Board)	CN990	1	AC_L_SWOUT	SW: Anti-Codensation Heater_L	CN1	1	
			2	AC_L_SWIN	SW: Anti-Codensation Heater_N	CN2	1	
29	HVP:TTS	T1		PWM:T1:1	Image Transfer Unit	T6		
		T2		PWM:T1:2		T7		
		T3		PWM:T1:3		T8		
		T4		PWM:T1:4		T9		
30	BCU	CN1	1	FB_FFC_IPU	IPU	CN2	50	
			2	GND			49	
			3	IPU_A(18)			48	
			4	IPU_A(17)			47	
			5	IPU_A(16)			46	
			6	IPU_A(15)			45	
			7	IPU_A(14)			44	
			8	IPU_A(13)			43	
			9	IPU_A(12)			42	
			10	IPU_A(11)			41	
			11	IPU_A(10)			40	
			12	GND			39	
			13	IPU_A(9)			38	
			14	IPU_A(8)			37	
			15	IPU_A(7)			36	
			16	IPU_A(6)			35	
			17	IPU_A(5)			34	
			18	IPU_A(4)			33	
			19	IPU_A(3)			32	
			20	IPU_A(2)			31	
			21	IPU_A(1)			30	
			22	GND			29	
			23	IPU_D(31)			28	
			24	IPU_D(30)			27	
			25	IPU_D(29)			26	
			26	IPU_D(28)			25	
			27	IPU_D(27)			24	
			28	IPU_D(26)			23	
			29	IPU_D(25)			22	
			30	IPU_D(24)			21	
			31	GND			20	
			32	IPU_D(23)			19	
			33	IPU_D(22)			18	
			34	IPU_D(21)			17	
			35	IPU_D(20)			16	
			36	IPU_D(19)			15	
			37	IPU_D(18)			14	
			38	IPU_D(17)			13	
			39	IPU_D(16)			12	
			40	GND			11	
			41	IPU4_CS_N			10	
			42	IPU3_CS_N			9	
			43	IPU2_CS_N			8	
			44	IPU1_CS_N			7	
			45	IPU0_CS_N			6	
			46	IPU_WS_N			5	
			47	IPU_RD_N			4	
			48	IPU_RD_WR_N			3	
			49	GND			2	
			50	FFC_IPU			1	
31	Imaging IOB	CN1	1	FB_FFC_IOB	Paper Transport IOB	CN2	40	
			2	PON_RST_P_I			39	
			3	IOB_WAKE			38	
			4	IOB3_INT			37	
			5	IOB1_INT			36	
			6	A(19)			35	
			7	A(18)			34	
			8	A(17)			33	
			9	A(16)			32	
			10	A(15)			31	
			11	A(14)			30	
			12	A(13)			29	
			13	A(12)			28	
			14	A(11)			27	
			15	A(10)			26	
			16	A(9)			25	
			17	A(8)			24	
			18	A(7)			23	
			19	A(6)			22	
			20	A(5)			21	
			21	A(4)			20	
			22	A(3)			19	
			23	A(2)			18	
			24	A(1)			17	
			25	A(0)			16	
			26	GND			15	
			27	D(31)			14	
			28	D(30)			13	
			29	D(29)			12	
			30	D(28)			11	
			31	D(27)			10	
			32	D(26)			9	
			33	D(25)			8	
			34	D(24)			7	
			35	GND			6	
			36	IOB3_CS_N			5	
			37	IOB1_CS_N			4	
			38	IOB_RD_N			3	
			39	IOB_WS_N			2	
			40	FFC_IOB			1	

D146/D147 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
32	BCU	CN1	1	FFC_IOB	Imaging IOB	CN2	50	
			2	IOB_WS_N			49	
			3	IOB_RD_N			48	
			4	IOB_RD_WR_N			47	
			5	IOB1_CS_N			46	
			6	IOB2_CS_N			45	
			7	IOB3_CS_N			44	
			8	GND			43	
			9	IOB_D(24)			42	
			10	IOB_D(25)			41	
			11	IOB_D(26)			40	
			12	IOB_D(27)			39	
			13	IOB_D(28)			38	
			14	IOB_D(29)			37	
			15	IOB_D(30)			36	
			16	IOB_D(31)			35	
			17	GND			34	
			18	IOB_A(0)			33	
			19	IOB_A(1)			32	
			20	IOB_A(2)			31	
			21	IOB_A(3)			30	
			22	IOB_A(4)			29	
			23	IOB_A(5)			28	
			24	IOB_A(6)			27	
			25	IOB_A(7)			26	
			26	GND			25	
			27	IOB_A(8)			24	
			28	IOB_A(9)			23	
			29	IOB_A(10)			22	
			30	IOB_A(11)			21	
			31	IOB_A(12)			20	
			32	IOB_A(13)			19	
			33	IOB_A(14)			18	
			34	IOB_A(15)			17	
			35	IOB_A(16)			16	
			36	IOB_A(17)			15	
			37	IOB_A(18)			14	
			38	IOB_A(19)			13	
			39	IOB_A(20)			12	
			40	IOB1_INT			11	
			41	IOB2_INT			10	
			42	IOB3_INT			9	
			43	IOB_WAKE			8	
			44	PON_RST_P			7	
			45	GND			6	
			46	HST_SCL			5	
			47	HST_SDA			4	
			48	TAG_SCL			3	
			49	TAG_SDA			2	
			50	FB_FFC_IOB			1	
51	Harness No.1 D14755300	CN1	1	GND	Registration Sensor	CN2	3	
			2	CRG_SNSNS_I			2	
			3	+5V			1	
52	Harness No.1 D14755300 Harness No.5 D14955307	CN1	1	+24VS2	Paper Feed Solenoid	CN6	2	
			2	CF1PUSLOUT2_O			1	
			3	GND	Paper Feed Sensor	CN2	3	
			4	CF1_SNSNS_I			2	
			5	+5V			1	
			6	GND	Transport Sensor	CN3	3	
			7	CH1_SNSNS_I			2	
			8	+5V			1	
			9	GND	Paper End Sensor	CN4	3	
			10	CT1PESNSNS_I			2	
			11	+5V			1	
			12	GND	Limit Sensor	CN5	3	
			13	CT1ULSNSNS_I			2	
			14	+5V			1	
53	Harness No.1 D14755300	CN1	1	TT2OCLEK_O	Fusing Entrance Sensor	CN2	3	
			2	+5V			2	
			3	GND			1	
54	Harness No.1 D14755300	CN1	1	HDP_MTENC-A_I	Duplex/By-pass Motor	CN3	8	
			2	HDP_MTENC-B_I			7	
			3	+5V			6	
			4	HDP_MTCW_O			5	
			5	HDP_MTPWM_O			4	
			6	HDP_MTBRK_N_O			3	
			7	GND			2	
			8	+24VS2			1	
54	Harness No.1 D14755300	CN1	9	GND	Duplex Entrance Sensor	CN4	5	Connects to harness No.63 (D1494698)
			10	RDPINSNSNS_I			4	
			11	+5V			3	
			12	GND	Duplex Exit Sensor	CN6	3	
			13	RDPOUSNSNS_I			2	
			14	+5V			1	
			15	GND	Duplex Unit Open/Close Sensor	CN5	2	
			16	RGPOCSNSW1_I			1	
			17	RGPOCLEK_O		CN4	2	Connects to harness No.63 (D1494698)
			18	+5V			1	
55	Harness No.1 D14755300	CN1	1	HHDPUSLOUT2_O	By-pass Feed Solenoid	CN2	5	
			2	+24VS2			4	Connects to harness No.64 (D1492659)
			3	GND	By-pass Paper End Sensor		3	
			4	HHDPESNSNS_I			2	
			5	+5V			1	
			6	HHDMLSNSW2_I	By-pass Paper Size Sensor	CN3	9	
			7	HHDMLSNSW1_I			8	
			8	GND			7	
			9	HHDMLSNSW4_I			6	
			10	HHDMLSNSW5_I			5	Connects to harness No.65 (D1492669)
			11	HHDMLSNSW3_I			4	
			12	GND	By-pass Original Length Sensor		3	
			13	HHDSLSNSNS_I			2	
			14	+5V			1	
56	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
57	Harness No.1 D1475340	CN1	1	+24VS2	Paper Exit Switching Solenoid	CN2	2	
			2	EEXDVSLOUT2_O			1	
			3	GND	Reverse Sensor	CN4	3	
			4	RRV_SNSNS_I			2	
			5	+5V			1	
			6	GND	Paper Exit Sensor	CN5	3	
			7	EEX_SNSNS_I			2	
			8	+5V			1	
			9	GND	Paper Exit Full Sensor	CN6	3	
			10	EEXFLSNSNS_I			2	
			11	+5V			1	
			12	RRV_MTXB_O	Reverse Motor	CN3	4	
			13	RRV_MTB_O			3	
			14	RRV_MTXA_O			2	
			15	RRV_MTA_O			1	
58	SIO	CN310	1	PGND	PSU	CN1	1	
			2	PGND_ADF			2	Connects to harness No.2 (D1495301)
			3	+24V_ADF			3	
			4	+24V			4	
59	Harness No.12 D1495326	CN1	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	HST_SCL_O	PCU: HST Sensor	CN2	1	
			4	HST_SDA_IO			2	
			5	OST_SNCVTCNT_O			3	
			6	+5V_HST			4	
			7	OST_SNCSNS_I			5	
			8	GND	PCU		6	
60	Harness No.23 D1495341	CN1	1	GND(1G)	*Screw	T1		
			2	N.C.	N.C.			
			3	N.C.	N.C.			
			4	HT1,2,4/L	*Screw	T4		
			5	HT2/N (EG)	Heater: Edge	CN9	1	
			6	HT1/N (CT)	Heater: Center		2	
		CN2	1	GND	Pressure Thermistor: Center	CN4	2	
			2	FPR_TSCTSN+			1	
			3	GND	Pressure Thermistor: Edge/2	CN5	4	
			4	FPR_TSEGSN+			3	
			5	GND	Pressure Thermistor: Full-Bleed Edge		2	
			6	FPRNPTSEGSN+			1	
			7	GND	Non-Contact Thermistor1	CN6	1	
			8	FFR_TS1_SN-D			2	
			9	FFR_TS1_SN-C			3	
			10	GND	Non-Contact Thermistor2	CN7	1	
			11	FFR_TS2_SN-D			2	
			12	FFR_TS2_SN-C			3	
			13	N.C.	N.C.	-	-	
		CN3	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	GND	New Unit Detection Fuse (Fusing Unit)	CN8	2	
			4	FFUNWFU_N			1	
			5	N.C.	N.C.	-	-	
			6	GND	Set Detection			
			7	GND		CN3	8	
			9	FFU_SSEU_I				
			10	FFU_SSDOM_I				
			11	FFU_SSTWN_I				
61	Harness No.23 D1495341	CN1	1	GND(1G)	*Screw	T1		
			2	N.C.	N.C.			
			3	N.C.	N.C.			
			4	HT1,2,4/L	*Screw	T4		
			5	HT2/N (EG)	Heater: Edge	CN9	1	
			6	HT1/N (CT)	Heater: Center		2	
61		CN2	1	GND	Pressure Thermistor: Center	CN4	2	
			2	FPR_TSCTSN+			1	
			3	GND	Pressure Thermistor: Edge/2	CN5	4	
			4	FPR_TSEGSN+			3	
			5	GND	Pressure Thermistor: Full-Bleed Edge		2	
			6	FPRNPTSEGSN+			1	
			7	GND	Non-Contact Thermistor1	CN6	1	
			8	FFR_TS1_SN-D			2	
			9	FFR_TS1_SN-C			3	
			10	GND	Non-Contact Thermistor2	CN7	1	
			11	FFR_TS2_SN-D			2	
			12	FFR_TS2_SN-C			3	
			13	N.C.	N.C.			
		CN3	1	N.C.	N.C.			
			2	N.C.	N.C.			
			3	GND	New Unit Detection Fuse (Fusing Unit)	CN8	2	
			4	FFUNWFU_N			1	
			5	N.C.				
			6	GND				
			7	GND	Set Detection (100V models)			
			8	FFU_SSEU_I		CN3	8	
			10	FFU_SSDOM_I				
			11	FFU_SSTWN_I				
62	Harness No.27 D1495342	CN1	1	GND(1G)	*Screw	T1		
			2	N.C.	N.C.			
			3	N.C.	N.C.			
			4	HT1,2,4/L	*Screw	T4		
			5	HT2/N (EG)	Heater: Edge	CN9	1	
			6	HT1/N (CT)	Heater: Center		2	
		CN2	1	GND	Pressure Thermistor: Center	CN4	2	
			2	FPR_TSCTSN+			1	
			3	GND	Pressure Thermistor: Edge/2	CN5	4	
			4	FPR_TSEGSN+			3	
			5	GND	Pressure Thermistor: Full-Bleed Edge		2	
			6	FPRNPTSEGSN+			1	
			7	GND	Non-Contact Thermistor1	CN6	1	
			8	FFR_TS1_SN-D			2	
			9	FFR_TS1_SN-C			3	
			10	GND	Non-Contact Thermistor2	CN7	1	
			11	FFR_TS2_SN-D			2	
			12	FFR_TS2_SN-C			3	
			13	N.C.	N.C.	-	-	
		CN3	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	GND	New Unit Detection Fuse (Fusing Unit)	CN8	2	
			4	FFUNWFU_N			1	
			5	N.C.				
			6	GND				
			7	GND	Set Detection (200V models)	CN3	9	
			8	FFU_SSEU_I				
			10	FFU_SSDOM_I				
			11	FFU_SSTWN_I				

D146/D147 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
63	Harness No.54 D1494696	CN1	1	GND	Duplex Entrance Sensor	CN2	3	
			2	RDPINSNSNS_I			2	
			3	+5V			1	
			4	RGPOCLEK_O	Duplex Jam Processing LED	CN3	2	
			5	+5V			1	
64	Harness No.55 D1492661	CN1	1	HHDPUSLOUT2_O	By-pass Feed Solenoid	CN2	3	
				N.C.			2	
		CN1	2	+24VS2			1	
			3	GND	By-pass Paper End Sensor	CN3	3	
			4	HHDPESNSNS_I			2	
			5	+5V			1	
65	Harness No.55 D1492661	CN1	1	HHDMLSNSW3_I	By-pass Paper Size Sensor	CN2	7	
			2	HHDMLSNSW5_I			6	
			3	HHDMLSNSW4_I			5	
				N.C.	N.C.		4	
		CN1	4	GND	By-pass Paper Size Sensor		3	
			5	HHDMLSNSW1_I			2	
			6	HHDMLSNSW2_I			1	
			7	+5V	By-pass Original Length Sensor	CN3	3	
			8	HHDSLSNSNS_I			2	
			9	GND			1	
66	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
67	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
68	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
69	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
70	SIO	CN318	1	DGND	Scanner HP Sensor	CN1	3	
			2	HPS			2	
			3	+5.9V			1	
			4	DGND	DF Position Sensor	CN2	3	
			5	AKS			2	
			6	5VE_AKS			1	
71	SIO	CN314	6	BB	Scanner Motor	CN1	1	
			5	+24VA			2	
			4	B			3	
			3	A			4	
			2	+24VA			5	
			1	AB			6	
72	SIO	CN311	15	HPS_N	IPU	CN579	1	
			14	SMD_VR3			2	
			13	SMD_VR2			3	
			12	SMD_VR1			4	
			11	SMD_RST			5	
			10	SMD_DIR			6	
			9	SMD_CLK_N			7	
			8	SMD_M2			8	
			7	SMD_M1			9	
			6	SMD_SYNC			10	
			5	SMD_ERR			11	
			4	DFGATE_N			12	
			3	ADF_TXD			13	
			2	ADF_RXD			14	
			1	ADF_POW_ON_N			15	
			30	5VE_AKS			16	
			29	AKS			17	
			28	5VE_DOC			18	
			27	DOCSET_N			19	
			26	APS1_N			20	
			25	APS2_N			21	
			24	APS3_N			22	
			23	APS4_N			23	
			22	APS5_N			24	
			21	APS_ON_N			25	
			20	DGND			26	
			19	LED_ON_N			27	
			18	LED_ERR			28	
			17	DGND			29	
			16	SCN_POW_ON_N			30	
73	SIO	CN313	1	DGND	APS Sensor 2	CN2	3	
			2	APS2			2	
			3	+3.4VAPS			1	
			4	DGND	APS Sensor 1	CN1	3	
			5	APS1			2	
			6	+3.4VAPS			1	
	SIO	CN315	1	LED_PWM	SBU	CN301	13	
			2	DGND			12	
			3	DGND			11	
			4	+3.3V			10	
			5	+3.3V			9	
			6	+3.3V			8	
			7	DGND			7	
			8	DGND			6	
			9	+5.9V			5	
			10	+5.9V			4	
			11	DGND			3	
			12	+10V			2	
			13	DGND			1	
74	Harness No.76 D1475237	CN13	11	GND	Synchronizing Detector Board Y	CN1	1	
			10	VCC_DETP			2	
			9	DETP_Y_N			3	
			8	GND	Synchronizing Detector Board K	CN2	1	
			7	VCC_DETP			2	
			6	DETP_K_N			3	
			5	PMCLK	Polygon Mirror Motor	CN3	1	
			4	SCRDY_N			2	
			3	PMON_N			3	
			2	GND			4	
			1	+24V			5	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
74	Harness No.76 D1475237	CN220	15	WWRSWMTCA_O	Skew Motor C	CN6	1	
			14	WWRSWMTCB_O			2	
			13	+24V			3	
			12	WWRSWMTCXB_O			4	
			11	WWRSWMTCXA_O			5	
			10	WWRSWMTMA_O	Skew Motor M	CN5	1	
			9	WWRSWMTMB_O			2	
			8	+24V			3	
			7	WWRSWMTMXB_O			4	
			6	WWRSWMTMXA_O			5	
			5	WWRSWMTYA_O	Skew Motor Y	CN4	1	
			4	WWRSWMTYB_O			2	
			3	+24V			3	
			2	WWRSWMTYXB_O			4	
			1	WWRSWMTYXA_O			5	
75	Harness No.76 D1495237	CN11	16	DATA3_K_N	LDB/KC	CN1	1	
			15	DATA3_K			2	
			14	DATA4_K_N			3	
			13	DATA4_K			4	
			12	DATA1_K_N			5	
			11	DATA1_K			6	
			10	DATA2_K_N			7	
			9	DATA2_K			8	
			8	APC_KC_N			9	
			7	OPDET_K_N			10	
			6	SYCS_KC_N			11	
			5	SYCLK_KC			12	
			4	SYDI_KC			13	
			3	SYDO_KC			14	
			2	GND			15	
			1	GND				
			32	DATA3_C	LDB/YM	CN2	1	
			31	DATA3_C_N			2	
			30	DATA4_C			3	
			29	DATA4_C_N			4	
			28	DATA1_C			5	
			27	DATA1_C_N			6	
			26	DATA2_C			7	
			25	DATA2_C_N			8	
			24	DROPEN_KC			9	
			23	ERR_KC_N			10	
			22	OPDET_FC1_N			11	
			21	+5VS_KC			12	
			20	+5VS_KC			13	
			19	+5VS_KC			14	
			18	N.C.	N.C.	-	-	
			17	N.C.	N.C.	-	-	
76	IPU	CN564	17	DATA_C	* See note	CN1	1	
			16	DATA_C_N			2	
			15	DROPEN_KC			3	
			14	ERR_KC_N			4	
			13	N.C.		-	-	
			12	5VS		CN1	5	
			11	5VS			6	
			10	GND			7	
			9	DATA_K_N			8	
			8	DATA_K			9	
			7	APC_KC_N			10	
			6	N.C.				
			5	SYCS_KC_N		CN1	11	
			4	SYCLK_KC			12	
			3	SYDI_KC			13	
			2	SYDO_KC			14	
			1	GND			15	
				N.C.			16	Connects to harness No.75 (D1475236)
		CN564	34	DATA_M_N			17	
			33	DATA_M			18	
			32	ERR_YM_N			19	
			31	N.C.		-	-	
			30	5VS		CN1	20	
			29	5VS			21	
			28	GND			22	
			27	DATA_Y			23	
			26	DATA_Y_N			24	
			25	APC_YM_N			25	
			24	SYCS_YM_N			26	
			23	SYCLK_YM			27	
			22	SYDI_YM			28	
			21	SYDO_YM			29	
			20	GND			30	
			19	N.C.			31	
			18	N.C.			32	
		CN566	11	GND	Synchronizing Detector Board Y	CN3	1	
			10	VCC_DETP			2	
			9	DETP_Y_N			3	
			8	GND	Synchronizing Detector Board K		4	
			7	VCC_DETP			5	
			6	DETP_K_N			6	Connects to harness No.74 (D1495235)
			5	PMCLK	Polygon Mirror Motor		7	
			4	SCRDY_N			8	
			3	PMON_N			9	
			2	GND			10	
			1	+24V			11	
76	Imaging IOB	CN220	15	WWRSWMTCA_O	Skew Motor: C	CN4	1	
			14	WWRSWMTCB_O			2	
			13	+24V			3	
			12	WWRSWMTCXB_O			4	
			11	WWRSWMTCXA_O			5	
			10	WWRSWMTMA_O	Skew Motor: M		6	
			9	WWRSWMTMB_O			7	
			8	+24V			8	Connects to harness No.74 (D1495235)
			7	WWRSWMTMXB_O			9	
			6	WWRSWMTMXA_O			10	
			5	WWRSWMTYA_O	Skew Motor: Y		11	
			4	WWRSWMTYB_O			12	
			3	+24V			13	
			2	WWRSWMTYXB_O			14	
			1	WWRSWMTYXA_O			15	

D146/D147 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
77	IPU	CN582	1	GND	* See note	CN2	15	
			2	GND			14	
			3	GND			13	
			4	SDMODE_N			12	
			5	LDET_IN_N			11	
			6	ENG_ENABLE_N			10	
			7	PONOPE_N			9	
			8	ECO_SW_N			8	Connects to harness No.78 (D1491433)
			9	POKUSB			7	
			10	OPE_CTLERR_N			6	
			11	OPE_LED_N			5	
			12	5VX			4	
			13	5VX			3	
			14	5VX			2	
			15	5VX			1	
77	IPU	CN583	1	5VE_LPS		MiniB	1	
			2	USBOD			2	
			3	USBOD+			3	Connects to harness No.79 (D1491435)
			4	GND			5	
				N.C.	N.C.		4	
78	Harness No.77 D1495220	CN2	1	GND	Operation Panel	CN1	15	
			2	GND			14	
			3	GND			13	
			4	SDMODE_N			12	
			5	LDET_IN_N			11	
			6	ENG_ENABLE_N			10	
			7	PONOPE_N			9	
			8	ECO_SW_N			8	
			9	POKUSB			7	
			10	OPE_CTLERR_N			6	
			11	OPE_LED_N			5	
			12	5VX			4	
			13	5VX			3	
			14	5VX			2	
			15	5VX			1	
79	Harness No.77 D1495220	MiniB	1	VBUS	Operation Panel	CN1	1	
			2	-DATA			2	
			3	+DATA			3	
			4	N.C.			4	
			5	GND			5	
80	SIO	CN317	1	GND	Exposure Lamp (LED)	CN350	10	
			2	LED_6			9	
			3	LED_5			8	
			4	LED_4			7	
			5	V_LED			6	
			6	V_LED			5	
			7	LED_3			4	
			8	LED_2			3	
			9	LED_1			2	
			10	GND			1	
81	SIO	CN312	1	GND	ARDF	CN100	16	
			2	GND			15	
			3	GND			14	
			4	GND			13	
			5	24V			12	
			6	24V			11	
			7	24V			10	
			8	24V			9	
			9	5VE			8	
			10	ADF_TXD			7	
			11	DOCSET_N			6	
			12	ADF_RXD			5	
			13	DFGATE_N			4	
			14	5V			3	
			15	GND			2	
			16	ADF_POW_ON_N			1	
84	SBU	CN300	1	GND	IPU	CN562	A1	
			2	GND			B10	
			3	F_TA-			A2	
			4	F_TA+			B9	
			5	F_TB-			A3	
			6	F_TB+			B8	
			7	F_TC-			A4	
			8	F_TC+			B7	
			9	F_LVCK-			A5	
			10	F_LVCK+			B6	
			11	F_TD-			A6	
			12	F_TD+			B5	
			13	F_TE-			A7	
			14	F_TE+			B4	
			15	SFGATE_N			A8	
			16	SHGATE_N			B3	
			17	SYDI_SBU			A9	
			18	XSYCS_SBU			B2	
			19	SYDO_SBU			A10	
			20	SYCLK_SBU			B1	

D146/D147 ELECTRICAL COMPONENT LAYOUT

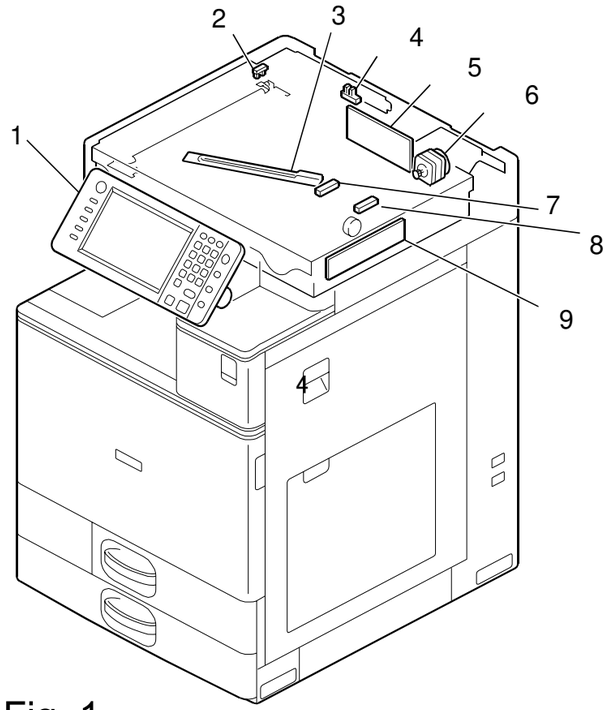


Fig. 1

d177f4540

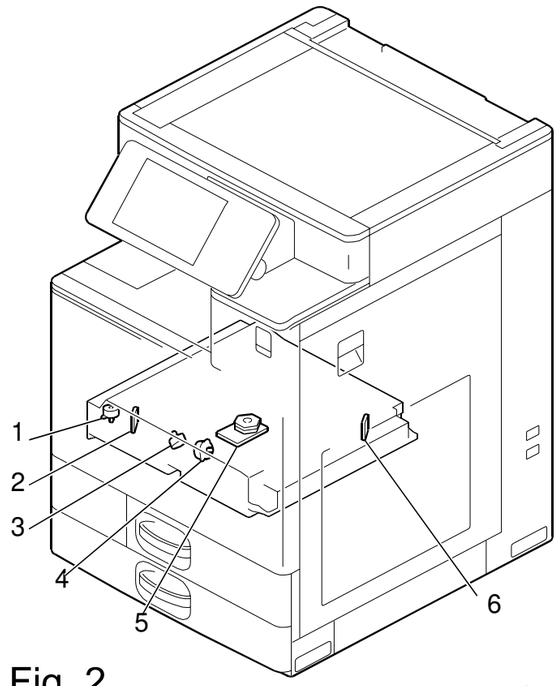


Fig. 2

d 1500914

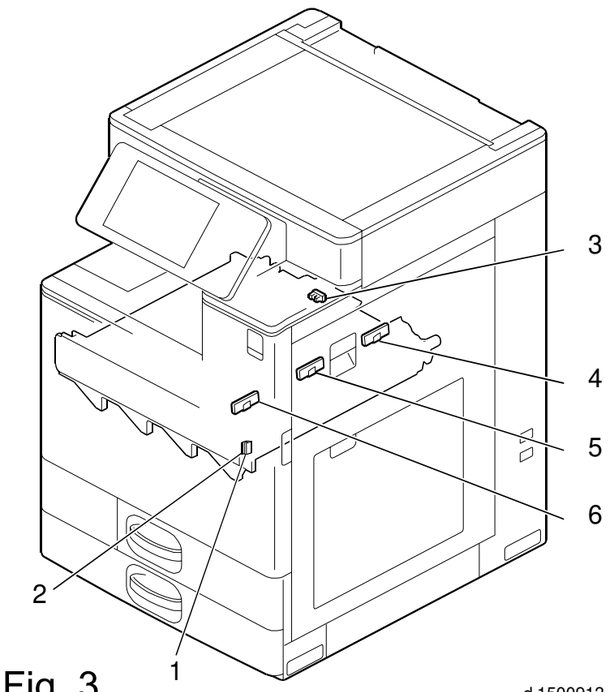


Fig. 3

d 1500913

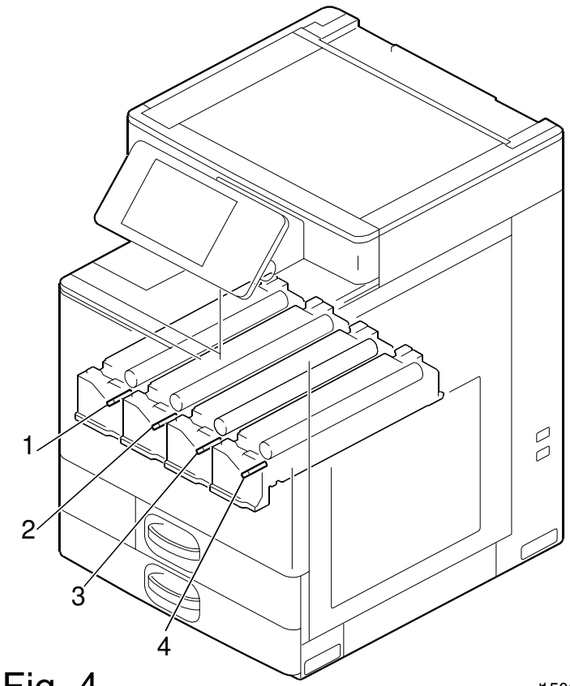


Fig. 4

d1500915

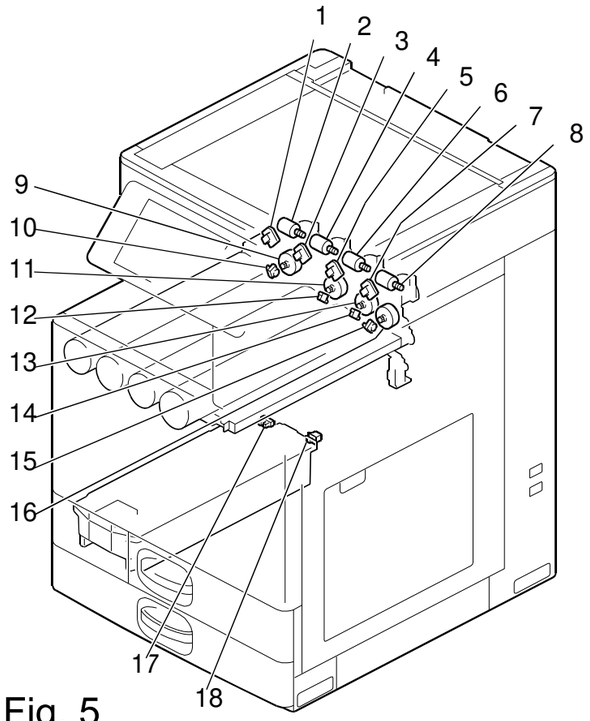


Fig. 5

d 1500919

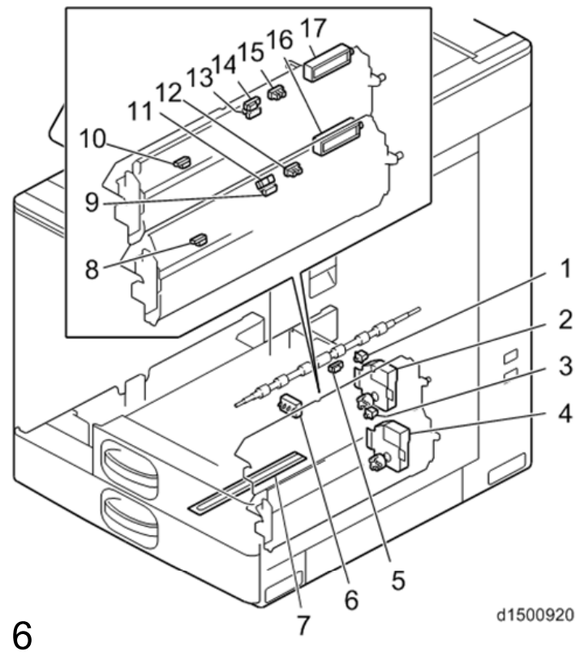


Fig. 6

d1500920

D146/D147 ELECTRICAL COMPONENT LAYOUT

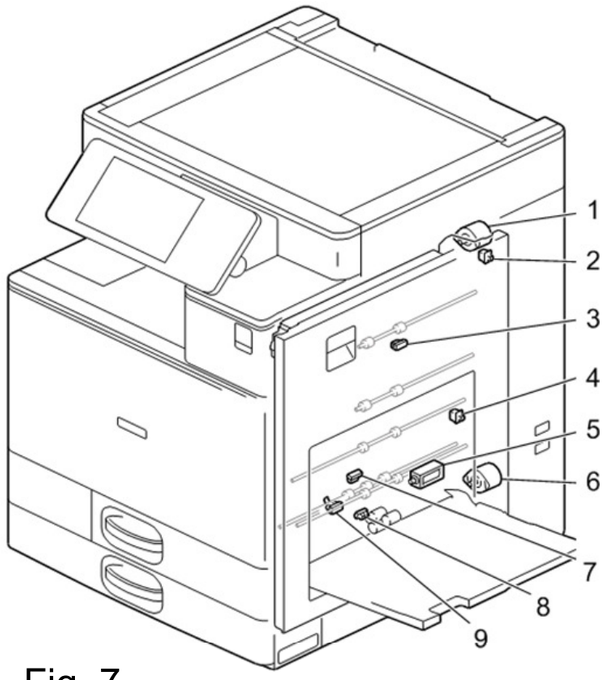


Fig. 7

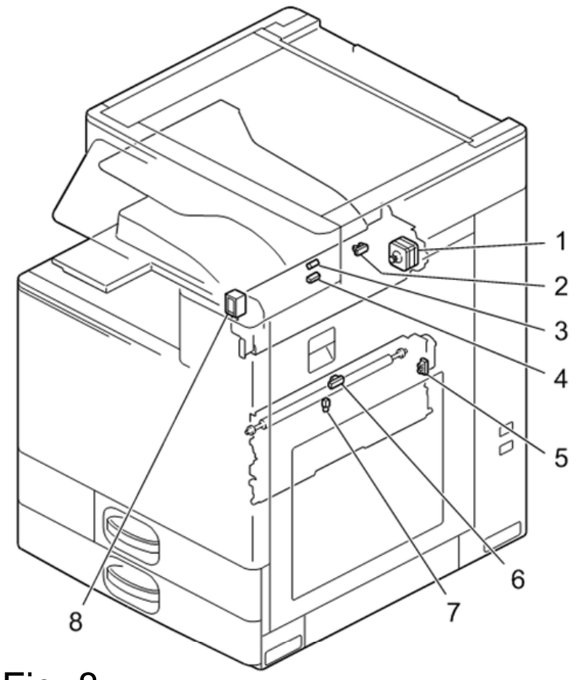


Fig. 8

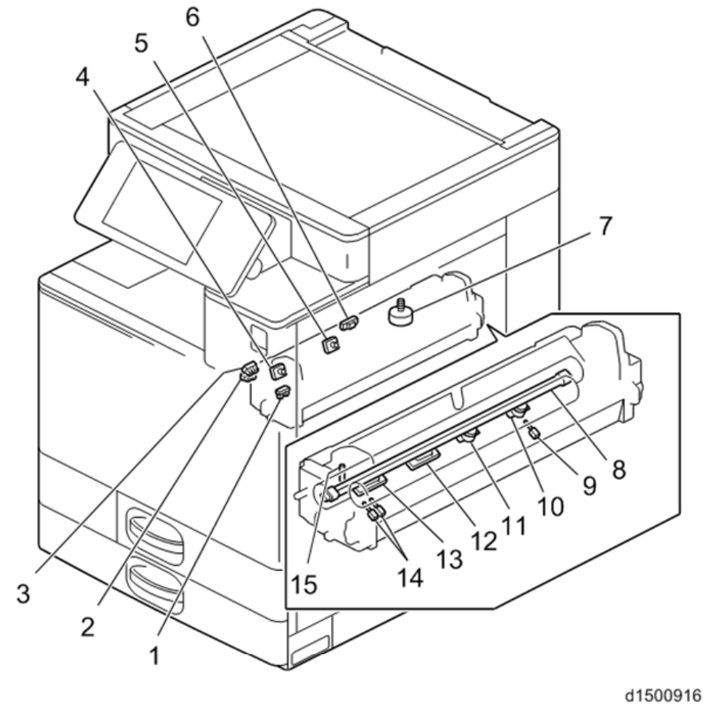


Fig. 9

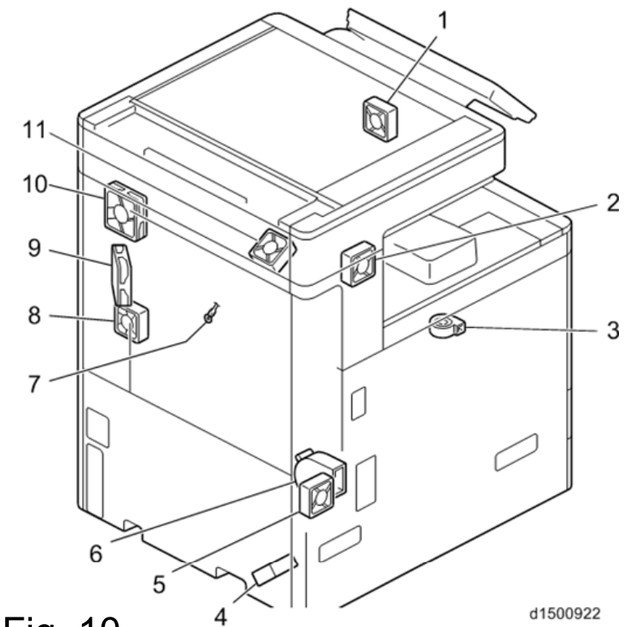


Fig. 10

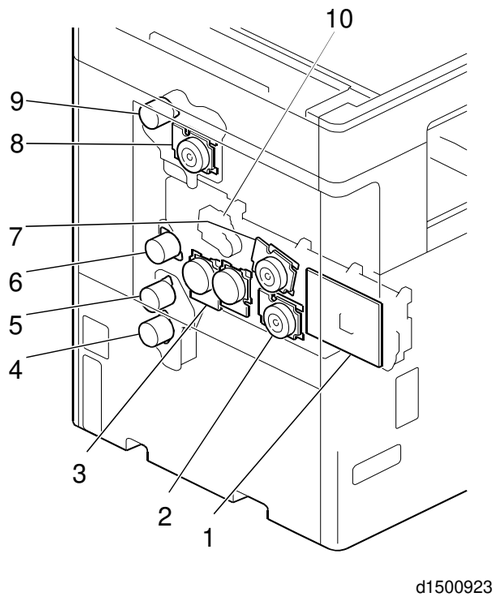


Fig. 11

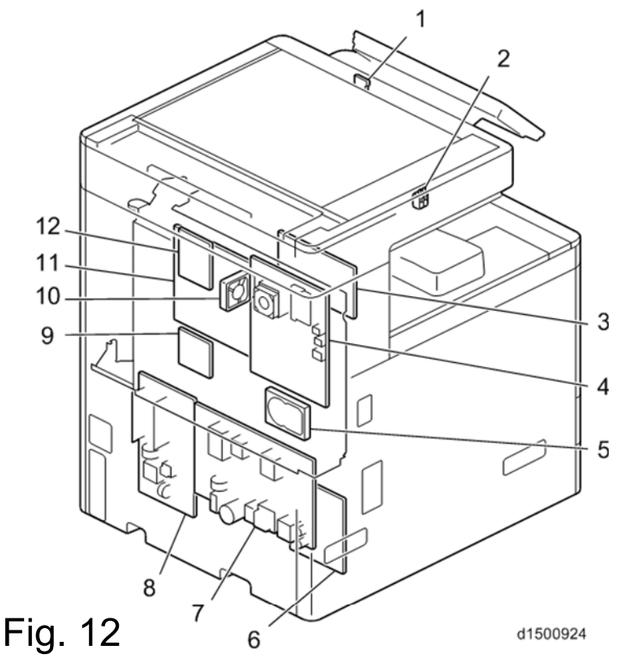


Fig. 12

D146/D147 ELECTRICAL COMPONENT LAYOUT

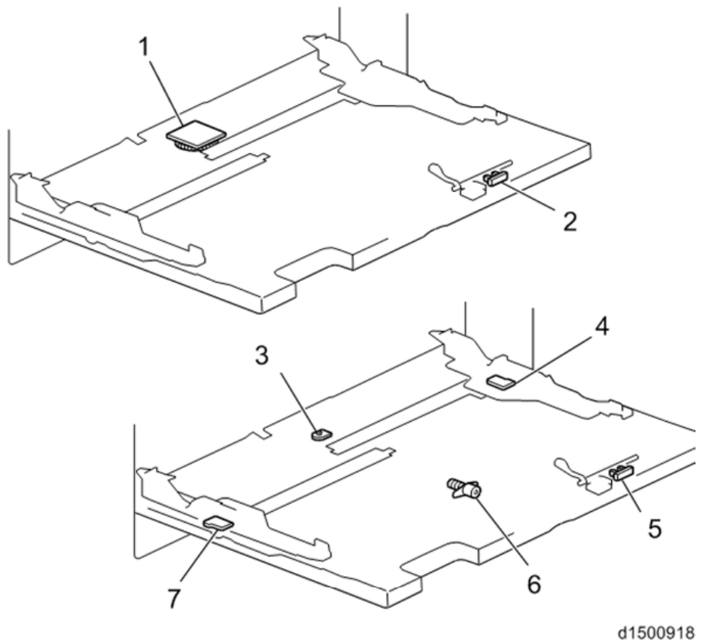


Fig. 13

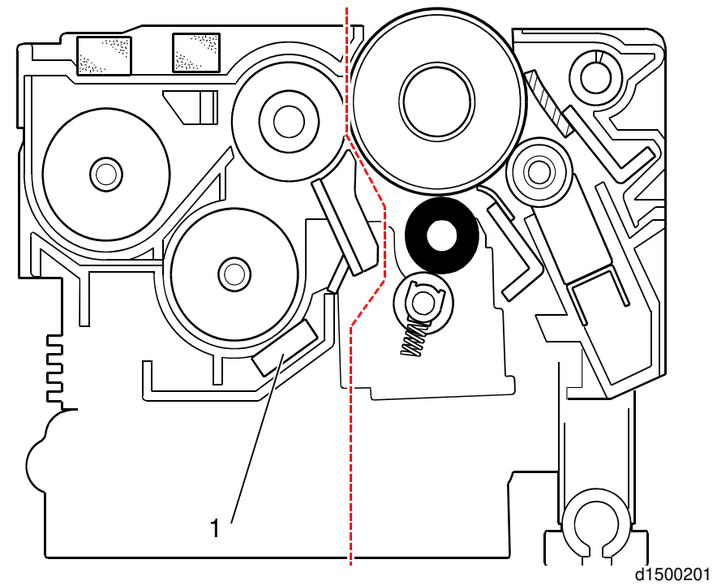


Fig. 14

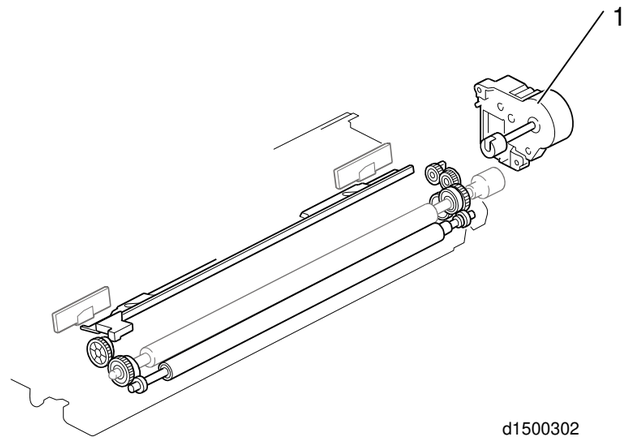


Fig. 15

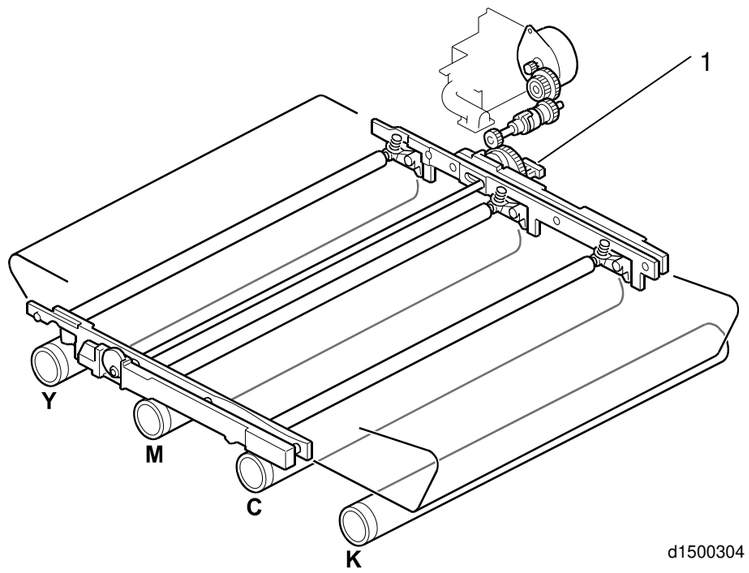


Fig. 16

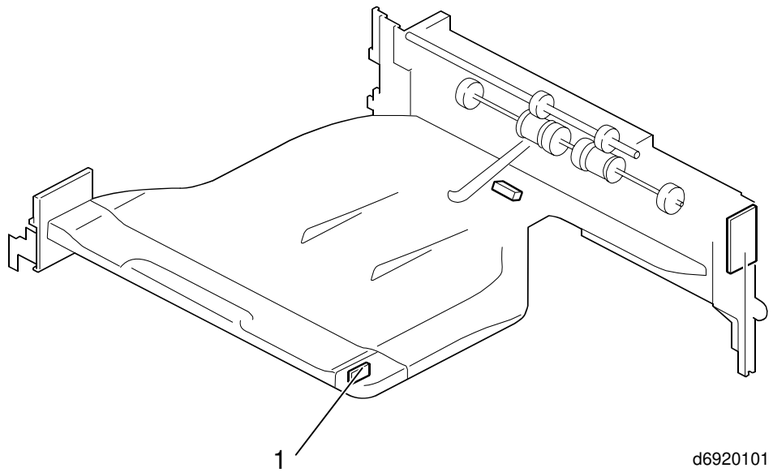


Fig. 17

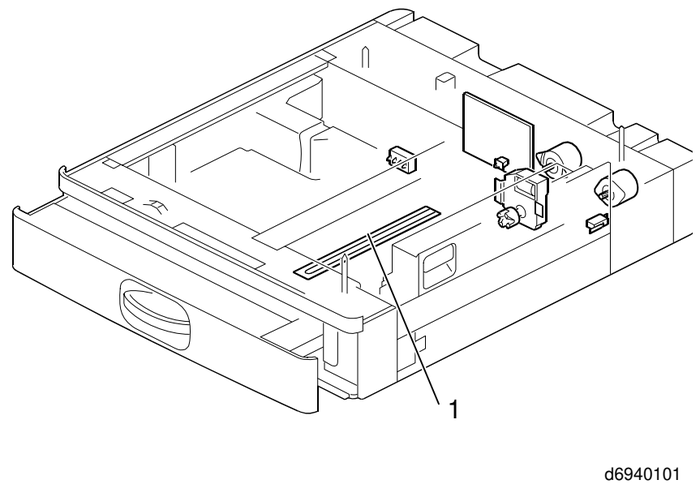


Fig. 18

D146/D147 ELECTRICAL COMPONENT LAYOUT (1 / 2)

Symbol	Index No.	Description	P to P
Sensors			
SEN100	Fig. 8-6	Fusing Entrance Sensor	A-1 (1/2)
SEN101	Fig. 8-5	Paper Transfer Unit Open/Close Sensor	A-1 (1/2)
SEN102	Fig. 7-7	Duplex Exit Sensor	B-1 (1/2)
SEN103	Fig. 7-2	Duplex Unit Open/Close Sensor	B-1 (1/2)
SEN104	Fig. 7-3	Duplex Entrance Sensor	B-1 (1/2)
SEN105	Fig. 7-8	By-pass Paper End Sensor	C-1 (1/2) A-1 (2/2)
SEN106	Fig. 13-1 Fig. 13-3	By-pass Paper Size Sensor	C-1 (1/2)
SEN107	Fig. 13-2 Fig. 13-5	By-pass Original Length Sensor	C-1 (1/2) B-1 (2/2)
SEN108	Fig. 8-3	Reverse Sensor	C-1 (1/2)
SEN109	Fig. 8-4	Paper Exit Sensor	C-1 (1/2)
SEN110	Fig. 8-2	Paper Exit Full Sensor	D-1 (1/2)
SEN111	Fig. 6-10	Paper Feed Sensor (1st Feed Tray)	D-1 (1/2)
SEN112	Fig. 6-13	Transport Sensor (1st Feed Tray)	D-1 (1/2)
SEN113	Fig. 6-14	Paper End Sensor (1st Feed Tray)	D-1 (1/2)
SEN114	Fig. 6-15	Limit Sensor (1st Feed Tray)	E-1 (1/2)
SEN115	Fig. 6-5	Registration Sensor	F-1 (1/2)
SEN116	Fig. 6-8	Paper Feed Sensor (2nd Feed Tray)	B-5 (1/2)
SEN117	Fig. 6-9	Transport Sensor (2nd Feed Tray)	B-5 (1/2)
SEN118	Fig. 6-11	Paper End Sensor (2nd Feed Tray)	C-5 (1/2)
SEN119	Fig. 6-12	Limit Sensor (2nd Feed Tray)	C-5 (1/2)
SEN120	Fig. 9-1	Pressure Roller HP Sensor	E-5 (1/2)
SEN121	Fig. 9-6	Fusing Exit Sensor	F-5 (1/2)
SEN122	Fig. 9-2	Fusing Shield Position Sensor 1	G-5 (1/2)
SEN123	Fig. 9-3	Fusing Shield Position Sensor 2	G-5 (1/2)
SEN124	Fig. 5-15	Toner End Sensor/K	B-7 (1/2)
SEN125	Fig. 5-14	Toner End Sensor/C	B-7 (1/2)
SEN126	Fig. 5-12	Toner End Sensor/M	C-7 (1/2)
SEN127	Fig. 5-10	Toner End Sensor/Y	C-7 (1/2)
SEN128	Fig. 16-1	ITB Contact and Release Sensor	C-7 (1/2)
SEN129	Fig. 3-3	Imaging Temperature Sensor	C-7 (1/2)
SEN130	Fig. 5-17	Waste Toner Capacity Detection Sensor	E-7 (1/2)
SEN131	Fig. 9-1	Paper Transfer Roller HP Sensor	E-7 (1/2)
SEN132	Fig. 14-1	HST Sensor/K	F-7 (1/2)
SEN133	Fig. 14-1	HST Sensor/C	G-7 (1/2)
SEN134	Fig. 14-1	HST Sensor/M	G-7 (1/2)
SEN135	Fig. 14-1	HST Sensor/Y	G-7 (1/2)
SEN136	-	Temperature and Humidity Sensor	A-10 (1/2)
SEN137	Fig. 3-4 Fig. 3-5 Fig. 3-6	TM/ID Sensor	F-8 (2/2)
SEN138	Fig. 1-7	APS Sensor 2	B-6 (2/2)
SEN139	Fig. 1-8	APS Sensor 1	B-6 (2/2)
SEN140	Fig. 1-2	Scanner Home Position Sensor	C-6 (2/2)
SEN141	Fig. 1-4	DF Position Sensor	C-6 (2/2)

Symbol	Index No.	Description	P to P
Motors			
MT100	Fig. 7-1	Duplex Entrance Motor	A-1 (1/2)
MT101	Fig. 7-6	Duplex/By-pass Motor	B-1 (1/2)
MT102	Fig. 8-1	Reverse Motor	D-1 (1/2)
MT103	Fig. 11-7	Registration Motor	E-1 (1/2)
MT104	Fig. 11-11	Paper Exit / Pressure Release Motor	E-1 (1/2)
MT105	Fig. 11-5	Paper Feed Motor	E-1 (1/2)
MT106	Fig. 11-6	Transport Motor	E-1 (1/2)
MT107	Fig. 9-7 Fig. 11-10	Fusing Motor	F-1 (1/2)
MT108	Fig. 6-2	Lift Motor / Remaining Paper Status Sensor (1st Feed Tray)	A-5 (1/2)
MT109	Fig. 6-4	Lift Motor / Remaining Paper Status Sensor (2nd Feed Tray)	A-5 (1/2)
MT110	Fig. 9-7	Fusing Shield Drive Motor	G-5 (1/2)
MT111	Fig. 5-8	Toner Bottle Drive Motor/K	A-7 (1/2)
MT112	Fig. 5-6	Toner Bottle Drive Motor/C	A-7 (1/2)
MT113	Fig. 5-4	Toner Bottle Drive Motor/M	A-7 (1/2)
MT114	Fig. 5-2	Toner Bottle Drive Motor/Y	A-7 (1/2)
MT115	Fig. 11-8	PCU Motor: CMY	D-7 (1/2)
MT116	Fig. 11-2	Development Motor: CMY	D-7 (1/2)
MT117	Fig. 11-4	Image Transfer Motor/K	D-7 (1/2)
MT118	Fig. 11-10 Fig. 15-1	Paper Transfer Contact And Release Motor	E-7 (1/2)
MT119	Fig. 5-16	Toner Transport Motor/K	B-10 (1/2)
MT120	Fig. 5-13	Toner Transport Motor/C	B-10 (1/2)
MT121	Fig. 5-11	Toner Transport Motor/M	B-10 (1/2)
MT122	Fig. 5-9	Toner Transport Motor/Y	B-10 (1/2)
MT123	Fig. 2-1	Skew Motor: Y	C-10 (1/2)
MT124	Fig. 2-3	Skew Motor: M	D-10 (1/2)
MT125	Fig. 2-4	Skew Motor: C	D-10 (1/2)
MT126	Fig. 1-6	Scanner Motor	C-6 (2/2)
MT127	Fig. 2-5	Polygon Mirror Motor	F-6 (2/2)

Solenoids			
SOL100	Fig. 7-5	By-pass Feed Solenoid	B-1 (1/2)
SOL101	Fig. 8-8	Paper Exit Switching Solenoid	C-1 (1/2)
SOL102	Fig. 6-17	Paper Feed Solenoid (1st Feed Tray)	D-1 (1/2)
SOL103	Fig. 6-16	Paper Feed Solenoid (2nd Feed Tray)	B-5 (1/2)
SOL104	-	Development Solenoid	D-7 (1/2)

Switches			
SW100	Fig. 6-1	Tray Set Switch (1st Feed Tray)	A-5 (1/2)
SW101	Fig. 6-3	Tray Set Switch (2nd Feed Tray)	B-5 (1/2)
SW102	Fig. 6-6	Size Switch (2nd Feed Tray)	B-5 (1/2)
SW103	Fig. 5-18	Waste Toner Bottle Set Detection Switch	E-7 (1/2)
SW104	Fig. 3-1	Interlock Switch: Front Cover (LD Safety Switch)	D-10 (1/2)
SW105	Fig. 3-2	Interlock Switch: Duplex Unit (LD Safety Switch)	D-10 (1/2)
SW106	Fig. 12-1	Main Switch	D-3 (1/2)
SW107	Fig. 7-4	Right Door Open/Close Switch	F-1 (1/2)

D146/D147 ELECTRICAL COMPONENT LAYOUT (2 / 2)

Symbol	Index No.	Description	P to P
Thermistors/Thermopiles			
TH100	Fig. 9-5	Thermopile (Center)	F-5 (1/2)
TH101	Fig. 9-4	Thermopile (Edge)	F-5 (1/2)
TH102	Fig. 9-9	Pressure Thermistor: Center	A-10 (2/2)
TH103	Fig. 9-10	Pressure Thermistor: Edge	A-10 (2/2)
TH104	Fig. 9-14	Pressure Thermistor: Full-Bleed Edge	A-10 (2/2)
TH105	Fig. 9-12	Non-Contact Thermistor (Center)	A-10 (2/2)
TH106	Fig. 9-13	Non-Contact Thermistor (Edge)	A-10 (2/2)
Fans			
FAN100	Fig. 10-10	Fusing Exhaust Heat Fan	E-1 (1/2)
FAN101	Fig. 10-4	PSU Cooling Fan	C-5 (1/2)
FAN102	Fig. 10-6	Ozone Exhaust Fan	D-5 (1/2)
FAN103	Fig. 12-10	Power Box Cooling Fan	F-7 (1/2)
FAN104	Fig. 10-9	Toner Supply Cooling Fan	F-7 (1/2)
FAN105	Fig. 10-2	Development Intake Fan/Right	A-10 (1/2)
FAN106	Fig. 10-3	Development Intake Fan/Left	A-10 (1/2)
FAN107	Fig. 10-1	Paper Exit Cooling Fan	A-10 (1/2)
Heaters			
H100	Fig. 6-7	Paper Feed Heater	G-5 (2/2)
H101	Fig. 18-1	Bank Heater	G-5 (2/2)
H102	Fig. 1-3	Scanner Anti-condensation Heater	G-5 (2/2)
H103	-	PCU Anti-condensation Heater	G-5 (2/2)
H104	-	Heater: Edge	C-10 (2/2)
H105	-	Heater: Center	C-10 (2/2)
H106	Fig. 9-8	Heater	C-10 (2/2)
LEDs			
LED100	Fig. 17-1	LED (1 Bin)	E-5 (1/2)
LED101	-	Exposure lamp (LED)	C-6 (2/2)

Symbol	Index No.	Description	P to P
PCBs			
PCB100	Fig. 12-7	PSU (DC Power)	F-1 (1/2)
PCB101	Fig. 12-8	PSU (AC Controller Board)	C-5 (1/2)
PCB102	Fig. 12-11	IPU	C-5 (1/2)
PCB103	-	MKB	D-5 (1/2)
PCB104	Fig. 5-1	ID Chip	A-7 (1/2)
PCB105	Fig. 5-3	ID Chip	B-7 (1/2)
PCB106	Fig. 5-5	ID Chip	B-7 (1/2)
PCB107	Fig. 5-7	ID Chip	B-7 (1/2)
PCB108	-	HVP-CB	E-7 (1/2)
PCB109	Fig. 12-9	BCU	C-10 (1/2)
PCB110	Fig. 11-1	Imaging IOB	A-8 (1/2)
PCB111	Fig. 12-3	HVP TTS	B-7 (1/2)
PCB112	Fig. 1-5	SIO	B-5 (2/2)
PCB113	Fig. 12-6	Paper Transport IOB	A-3 (1/2)
PCB114	Fig. 12-4	CTL	D-5 (2/2)
PCB115	-	Heater Board	G-3 (2/2)
PCB116	Fig. 1-8	SBU	B-6 (2/2)
Other			
-	Fig. 1-1	Operation Panel	E-6 (2/2)
-	Fig. 2-2	Synchronizing Detector Board Y	F-6 (2/2)
-	Fig. 2-8	Synchronizing Detector Board K	F-6 (2/2)
-	-	Key-Counter	D-5 (1/2)
-	-	Bridge Unit / Shift Tray / Side Tray	C-7 (1/2)
-	-	Bank	D-5 (1/2)
-	-	1 Bin Tray	E-5 (1/2)
-	-	Fusing Unit	F-5 (1/2)
-	-	Finisher	C-10 (1/2)
-	-	Inlet Power Socket	E-2 (2/2)
-	-	ARDF	C-6 (2/2)
-	-	New Unit Detection Fuse (Fusing Unit)	B-10 (2/2)
-	-	Set Detection: GND / NA / EU / Reserved (JPN/TWN)	B-10 (2/2)
-	-	Charge Unit (K/C/M/Y)	D-10 (2/2)
-	-	Development Unit (K/C/M/Y)	D-10 (2/2)

D148/D149/D150 POINT TO POINT DIAGRAM (1 / 2)

Paper Transfer Unit Open/Close LED (LED 200) — CN3
Fusing Entrance Sensor (SEN 200) — CN2
Paper Transfer Unit Open/Close Sensor (SEN 201) — CN1
Paper Transfer Unit — CN1 / JOINT1 / CN10 — S5 D1496237
Duplex Entrance Motor (MT 200) — CN14 — CN183 / CN181
Duplex/By-pass Motor (MT 201) — CN5
Duplex Exit Sensor (SEN 202) — CN6
Duplex Unit Open/Close Sensor (SEN 203) — CN5
Duplex Entrance Sensor (SEN 204) — CN2
Duplex Jam Proccessing LED (LED 201) — CN1
Duplex Unit — CN1 / JOINT4 / CN4 / CN15 / CN16 — S3 D1494696 — S4 D1494696
By-pass Feed Solenoid (SOL 200) — CN2
By-pass Paper End Sensor (SEN 205) — CN3
By-pass Paper Size Sensor (SEN 206) — CN2
By-pass Original Length Sensor (SEN 207) — CN3
By-pass Unit — CN1 / JOINT2 / CN2 / CN7 / CN8 — S3 D1494696 — S2 D1482658 — S5 D1482661 (D148,D149only) — S4 D1494696 (D148,D149only)
Paper Exit Switching Solenoid (SOL 201) — CN2
Reverse Sensor (SEN 208) — CN4
Paper Exit Sensor (SEN 209) — CN5
Paper Exit Full Sensor (SEN 210) — CN6
Reverse Motor (MT 202) — CN3
Paper Exit Unit — JOINT2 / CN2 / CN1 / JOINT7 / CN17 — S7 D1494685
Paper Feed Solenoid (1st Feed Tray) (SOL 202) — CN8
Paper Feed Sensor (1st Feed Tray) (SEN 211) — CN2
Transport Sensor (1st Feed Tray) (SEN 212) — CN3
Paper End Sensor (1st Feed Tray) (SEN 213) — CN4
Limit Sensor (1st Feed Tray) (SEN 214) — CN5
1st Paper Feed Unit — CN1 / JOINT8 / CN6 — S2 D1492708
Registration Motor (MT 203) — CN5
Paper Exit / Pressure Release Motor (MT 204) — CN6
Paper Feed Motor (MT 205) — CN7
Transport Motor (MT 206) — CN8
Fusing Exhaust Heat Fan (FAN 200) — JCN1 / CN1
Registration Sensor (SEN 215) — CN2
Registration Unit — CN1 / JOINT3 / CN2 — S1 D1492656
Fusing Motor (MT 207) — CN3
Right Door Open/Close Switch (SW 207) — CN4
1 D1495340 (1/2)
③ PSU (DC Power) (PCB 200) — CN911 / CN912 — CN251 / CN252
2 D1495301
St By-pass Unit ⑳ — CN1 / JOINT1 / CN1 — CN185 / CN186
(※1) Please refer to the next page.
7 D1495311 (D150 Only)

Paper Transport IOB (PCB 213)

3 D1495302 — CN300 / CN301 — CN183 / CN181
32 D1495371 — CN822 / CN821 — CN180 / CN188
Lift Motor / Remaining Paper Status Sensor (1st Feed Tray) (MT 209) — CN6
Tray Set Switch (1st Feed Tray) (SW 200) — CN1
Lift Motor / Remaining Paper Status Sensor (2nd Feed Tray) (MT 210) — CN1
Tray Set Switch (2nd Feed Tray) (SW 201) — CN2
Size Switch (2nd Feed Tray) (SW 202) — CN7
2nd Paper Feed Unit — CN8 / JOINT5 / CN5 / CN1 — S2 D1492708
Paper Feed Solenoid (2nd Feed Tray) (SOL 203) — CN8
Paper Feed Sensor (2nd Feed Tray) (SEN 220) — CN2
Transport Sensor (2nd Feed Tray) (SEN 221) — CN1
Paper End Sensor (2nd Feed Tray) (SEN 222) — CN4
Limit Sensor (2nd Feed Tray) (SEN 223) — CN3
5 D1495307
PSU (AC Controller Board) ⑪ — CN994 — PCB 201
PSU Cooling Fan (FAN 201) — CN2
PSU Exhaust Heat Fan (FAN 202) — CN3
IPU ⑤ — CN578 — PCB 202
MKB — CN790 — PCB 203
Key-Counter — CN5 / JOINT5 / CN* — Key Counter Harness (Option)
2 D1495301 (1/3)
Ozone Exhaust Fan (FAN 203) — CN1
Bank — CN*** / Drawer 1(2)(3)(4) / CN*
PSU (DC Power) ① (PCB 200) — CN914
4 D1495306
1 Bin Tray — CN*** / CN***
1 Bin Unit — CN1 / JOINT1 / CN2 — LED (1Bin) (LED 202)
Pressure Roller HP Sensor (SEN 224) — CN9
6 D1495308 (1/4)
Thermopile (Center) (TH 200) — CN4
Thermopile (Edge) (TH 201) — CN3
Fusing Exit Sensor (SEN 225) — CN2
Fusing Unit ⑨ — CN5 / CN6 / CN7 (Drawer) / CN1 (Drawer) — T1 GND
PSU (AC Controller Board) ⑩ (PCB 201) — CN985 / CN986
Fusing Shield Position Sensor 1 (SEN 226) — CN8
Fusing Shield Position Sensor 2 (SEN 227) — CN9
Fusing Shield Drive Motor (MT 211) — CN11
1 D1495340 (2/2)
23 D1495341 (NA only)
27 D1495342 (EU only)

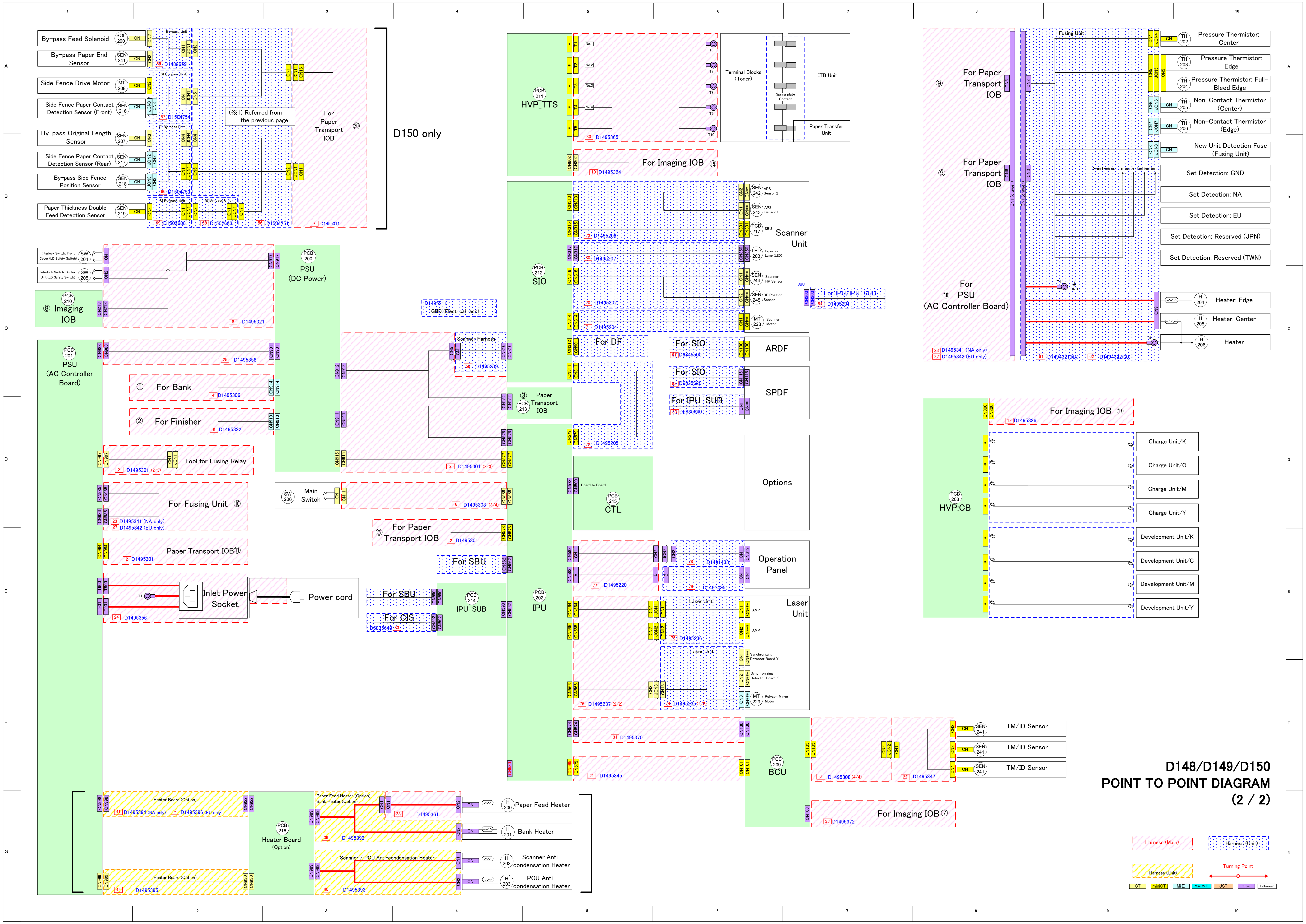
Imaging IOB 1/2 (PCB 210)

Toner Bottle Drive Motor/K (MT 212) — CN — JCN1
Toner Bottle Drive Motor/C (MT 213) — CN — JCN2
Toner Bottle Drive Motor/M (MT 214) — CN — JCN3
Toner Bottle Drive Motor/Y (MT 215) — CN — JCN4
ID Chip (PCB 204) — CN5
ID Chip (PCB 205) — CN6
ID Chip (PCB 206) — CN7
ID Chip (PCB 207) — CN8
HVP_TTS ⑲ (PCB 211) — CN802
Toner Supply Unit — CN9 / JCN2 / CN2 — 19 D1495334
Toner End Sensor/K (SEN 228) — CN1
Toner Supply Unit — CN10 / JCN2 / CN2 — 19 D1495334
Toner End Sensor/C (SEN 229) — CN1
Toner Supply Unit — CN13 / JCN2 / CN2 — 19 D1495334
Toner End Sensor/M (SEN 230) — CN1
Toner Supply Unit — CN17 / JCN2 / CN2 — 19 D1495334
Toner End Sensor/Y (SEN 231) — CN1
18 D1495333
ITB Contact and Release Sensor (SEN 232) — CN**
Imaging Temperature Sensor (SEN 233) — CN
Bridge Unit / Shift Tray / Side Tray — CN*** — Drawer (1)(2)(3)(4)
Bridge Unit / Side Tray — CN***
10 D1495324
PCU Motor: CMY (MT 216) — CN1
Development Motor: CMY (MT 217) — CN2
Development Motor: Black (MT 218) — CN4
Image Transfer Motor/K (MT 219) — CN7
Waste Toner Unit — CN5 / JCN1 / CN1 — 16 D1495330
Waste Toner Capacity Detection Sensor (SEN 234) — CN2
Waste Toner Bottle Set Detection Switch (SW 203) — CN3
Paper Transfer Roller HP Sensor (SEN 235) — CN11
Paper Transfer Contact And Release Motor (MT 220) — CN — JCN1 — CN12
HVP-CB ⑰ (PCB 208) — CN800
Main Exhaust Fan (FAN 204) — CN2
Power Box Cooling Fan (FAN 205) — CN9
Toner Supply Cooling Fan (FAN 206) — CN10
Drive Cooling Fan (FAN 207) — CN14
13 D1495327
12 D1495326
14 D1495328
15 D1495329
Development Unit — CN1 / JCN2 / CN2 — S5 D1493172 — CN*** — HST Sensor/K (SEN 236)
Development Unit — CN2 / JCN3 / CN1 — S5 D1493172 — CN*** — HST Sensor/C (SEN 237)
Development Unit — CN4 / JCN4 / CN1 — S5 D1493172 — CN*** — HST Sensor/M (SEN 238)
Development Unit — CN5 / JCN5 / CN1 — S5 D1493172 — CN*** — HST Sensor/Y (SEN 239)

Imaging IOB 2/2 (PCB 210)

Temperature and Humidity Sensor (SEN 240) — CN4
Development Intake Fan/Right (FAN 208) — CN6
Development Intake Fan/Left (FAN 209) — CN8
Paper Exit Cooling Fan (FAN 210) — CN10
6 D1495308 (2/4)
Toner Transport Motor/K (MT 221) — CN1
Toner Transport Motor/C (MT 222) — CN2
Toner Transport Motor/M (MT 223) — CN3
Toner Transport Motor/Y (MT 224) — CN4
11 D1495325
Finisher — CN1 / Latch1(1)(2)(3)(4) / Latch2 / CN*** / CN***
PSU (DC Power) ② (PCB 200) — CN913
9 D1495322
BCU ⑦ (PCB 209) — CN103
33 D1495372
Laser Unit — CN4 / JCN4 / CN1 / JCN5 / CN2 / JCN6 / CN1
Skew Motor: Y (MT 225) — CN
Skew Motor: M (MT 226) — CN
Skew Motor: C (MT 227) — CN
76 D1495237 (1/2)
75 D1495235 (1/2)
Interlock Switch: Front Cover (LD Safety Switch) (SW 204) — CN*
Interlock Switch: Duplex Unit (LD Safety Switch) (SW 205) — CN**
PSU (DC Power) ⑧ (PCB 200) — CN917
8 D1495321

Harness (Main)
Harness (Unit)
Harness (Unit)
Turning Point
CT / miniCT / Mi II / Mini Mi II / JST / Other / Unknown



D148/D149/D150
POINT TO POINT DIAGRAM
(2 / 2)
D150 only
By-pass Feed Solenoid
By-pass Paper End Sensor
Side Fence Drive Motor
Side Fence Paper Contact Detection Sensor (Front)
By-pass Original Length Sensor
Side Fence Paper Contact Detection Sensor (Rear)
By-pass Side Fence Position Sensor
Paper Thickness Double Feed Detection Sensor
(※1) Referred from the previous page.
For Paper Transport IOB ⑳
HVP_TTS
Terminal Blocks (Toner)
ITB Unit
Paper Transfer Unit
For Imaging IOB ⑲
SIO
Scanner Unit
For IPU/IPU-SUB
For DF
For SIO
ARDF
SPDF
For IPU-SUB
Options
CTL
Operation Panel
Laser Unit
IPU
IPU-SUB
For SBU
For CIS
BCU
TM/ID Sensor
For Imaging IOB ⑦
PSU (DC Power)
⑧ Imaging IOB
PSU (AC Controller Board)
① For Bank
② For Finisher
Tool for Fusing Relay
Main Switch
For Fusing Unit ⑩
⑤ For Paper Transport IOB
Paper Transport IOB⑪
③ Paper Transport IOB
Inlet Power Socket
Power cord
Heater Board (Option)
Heater Board
Paper Feed Heater
Bank Heater
Scanner Anti-condensation Heater
PCU Anti-condensation Heater
⑨ For Paper Transport IOB
⑩ For PSU (AC Controller Board)
Fusing Unit
Pressure Thermistor: Center
Pressure Thermistor: Edge
Pressure Thermistor: Full-Bleed Edge
Non-Contact Thermistor (Center)
Non-Contact Thermistor (Edge)
New Unit Detection Fuse (Fusing Unit)
Set Detection: GND
Set Detection: NA
Set Detection: EU
Set Detection: Reserved (JPN)
Set Detection: Reserved (TWN)
Heater: Edge
Heater: Center
Heater
HVP:CB
For Imaging IOB ⑰
Charge Unit/K
Charge Unit/C
Charge Unit/M
Charge Unit/Y
Development Unit/K
Development Unit/C
Development Unit/M
Development Unit/Y
Harness (Main)
Harness (Unit)
Turning Point

D148/D149/D150 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
1	Paper Transport IOB	CN155	1	FFUEHFNOUT1_O	Fusing Exhaust Heat Fan	CN1	3	
			2	FFUEHFNLOK_N_I			2	
			3	GND			1	
			4	GND	Registration Sensor	CN2	3	
			5	CRG_SNSNS_I			2	Connects to harness No. 51 (D1492556)
			6	+5V			1	
			7	FFU_MTGA	Fusing Motor	CN3	10	
			8	FFU_MTCLK			9	
			9	FFU_MTBRK_N			8	
			10	FFU_MTCW			7	
			11	FFU_MTSTA_N			6	
			12	FFU_MTLOK_N			5	
			13	GND			4	
			14	GND			3	
			15	+24VS2			2	
			16	+24VS2			1	
			17	N.C.	N.C.	-	-	
			18	GND	Right Door Open/Close Switch	CN4	2	
			19	MRDOCSNSW1_I			1	
	Paper Transport IOB	CN157	1	CRG_MTENC-A_I	Registration Motor	CN5	8	
			2	CRG_MTENC-B_I			7	
			3	+5V			6	
			4	CRG_MTCW_O			5	
			5	CRG_MTPWM_O			4	
			6	CRG_MTBRK_N_O			3	
			7	GND			2	
			8	+24VS2			1	
			9	EEX_MTENC-A_I	Paper Exit Motor	CN6	8	
			10	EEX_MTENC-B_I			7	
			11	+5V			6	
			12	EEX_MTCW_O			5	
			13	EEX_MTPWM_O			4	
			14	EEX_MTBRK_N_O			3	
			15	GND			2	
			16	+24VS2			1	
			17	CFD_MTENC-A_I	Paper Feed Motor	CN7	8	
			18	CFD_MTENC-B_I			7	
			19	+5V			6	
			20	CFD_MTCW_O			5	
			21	CFD_MTPWM_O			4	
			22	CFD_MTBRK_N_O			3	
			23	GND			2	
			24	+24VS2			1	
			25	CTH_MTENC-A_I	Transport Motor	CN8	8	
			26	CTH_MTENC-B_I			7	
			27	+5V			6	
			28	CTH_MTCW_O			5	
			29	CTH_MTPWM_O			4	
			30	CTH_MTBRK_N_O			3	
			31	GND			2	
			32	+24VS2			1	
	Paper Transport IOB	CN159	1	+24VS2	Paper Feed Solenoid (1st Feed Tray)	CN9	14	
			2	CF1PUSLOUT2_O			13	
			3	GND	Paper Feed Sensor (1st Feed Tray)		12	
			4	CF1_SNSNS_I			11	
			5	+5V			10	
			6	GND	Transport Sensor (1st Feed Tray)		9	
			7	CH1_SNSNS_I			8	
			8	+5V			7	Connects to harness No. 52 (D1492708)
			9	GND	Paper End Sensor (1st Feed Tray)		6	
			10	CT1PESNSNS_I			5	
			11	+5V			4	
			12	GND	Limit Sensor (1st Feed Tray)		3	
			13	CT1ULSNSNS_I			2	
			14	+5V			1	
	Paper Transport IOB	CN161	1	TT2OCLEK_O	Paper Transfer Unit Open/Close LED	CN10	5	
			2	+5V			4	
			3	GND	Fusing Entrance Sensor		3	Connects to harness No. 53 (D1496237)
			4	FFUINSNSNS_I			2	
			5	+5V			1	
			6	GND	Paper Transfer Unit Open/Close Sensor	CN11	3	
			7	TT2OCSNSNS_I			2	
			8	+5V			1	
			9	PPDSC_N_I	N.C.	-	-	
			10	PPDPWM_O	N.C.	-	-	
			11	GND	N.C.	-	-	
			12	+24VS2	N.C.	-	-	
			13	RDPINMTENC-A_I	Duplex Entrance Motor	CN14	8	
			14	RDPINMTENC-B_I			7	
			15	+5V			6	
			16	RDPINMTCW_O			5	
			17	RDPINMTPWM_O			4	
			18	RDPINMTBRK_N_O			3	
			19	GND			2	
			20	+24VS2			1	
			21	HDP_MTENC-A_I	Duplex / By-pass Motor	CN15	18	
			22	HDP_MTENC-B_I			17	
			23	+5V			16	
			24	HDP_MTCW_O			15	
			25	HDP_MTPWM_O			14	
			26	HDP_MTBRK_N_O			13	
			27	GND			12	
			28	+24VS2			11	
			29	GND	Duplex Entrance Sensor		10	
			30	RDPINSNSNS_I			9	Connects to harness No. 54 (D1494696)
			31	+5V			8	
			32	GND	Duplex Exit Sensor		7	
			33	RDPOUSNSNS_I			6	
			34	+5V			5	
			35	GND	Duplex Unit Open / Close Sensor		4	
			36	RGPOCSNSW1_I			3	
			37	RGPOCLEK_O	Duplex Jam Proceeding LED		2	
			38	+5V			1	
			39	N.C.	N.C.	-	-	
			40	N.C.	N.C.	-	-	
1	Paper Transport IOB	CN162	1	HHDPUSLOUT2_O	By-pass Feed Solenoid	CN16	14	
			2	+24VS2			13	
			3	GND	By-pass Paper End Sensor		12	
			4	HHDPESNSNS_I			11	
			5	+5V			10	D148/D149:
			6	HHDMLSNSW2_I	By-pass Paper Size Sensor		9	Connects to harness No.55 (D1492661)
			7	HHDMLSNSW1_I			8	
			8	GND			7	D150:
			9	HHDMLSNSW4_I			6	Connects to harness No.56 (D1502651)
			10	HHDMLSNSW5_I			5	
			11	HHDMLSNSW3_I			4	
			12	GND	By-pass Original Length Sensor		3	
			13	HHDSLSNSNS_I			2	
			14	+5V			1	
			15	N.C.	N.C.	-	-	
			16	+24VS2	Paper Exit Switching Solenoid	CN17	15	
			17	EEXDVSLOUT2_O			14	
			18	GND	Revers Sensor		13	
			19	RRV_SNSNS_I			12	
			20	+5V			11	
			21	GND	Paper Exit Sensor		10	Connects to harness No.57 (D1494485)
			22	EEX_SNSNS_I			9	
			23	+5V			8	
			24	GND	Paper Exit Full Sensor		7	
			25	EEXFLSNSNS_I			6	
			26	+5V			5	
			27	N.C.	N.C.	-	-	
			28	N.C.	N.C.	-	-	
			29	N.C.	N.C.	-	-	
			30	N.C.	N.C.	-	-	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
1	Paper Transport IOB	CN167	1	RRV_MTXB_O	Reverse Motor	CN17	4	
			2	RRV_MTB_O			3	Connects to harness No.57 (D1494485)
			3	RRV_MTXA_O			2	
			4	RRV_MTA_O			1	
	Paper Transport IOB	CN156	A1	FFU_SSTWN_I	Set Detection	CN18A	A18	
			A2	FFU_SSDOM_I			A17	
			A3	FFU_SSEU_I			A16	
			A4	FFU_SSNA_I			A15	
			A5	GND			A14	
			A6	GND			A13	
			A7	N.C.	N.C.		A12	
			A8	FFUNWFU_N	New Unit Detection Fuse (Fusing)		A11	
			A9	GND			A10	
			A10	GND	Fusing Exit Sensor		A9	
			A11	FFUOUSNSNS_I			A8	
			A12	+5V			A7	
			A13	+5V	Thermopile (Edge)		A6	
			A14	GND			A5	
			A15	FFR_TSEG			A4	
			A16	+5V	Thermopile (Center)		A3	For 100V models:
			A17	GND			A2	Connets to harness No. 23 (D1495341)
			A18	FFR_TSCTSN-O			A1	
			B1	GND	Fusing Sheild Position Sensor 2	CN18B	B18	For 200V models:
			B2	FSHPSSN2SNS_I			B17	Connects to harness No. 27 (D1495342)
			B3	+5V			B16	
			B4	GND	Fusing Sheild Position Sensor 1		B15	
			B5	FSHPSSN1SNS_I			B14	
			B6	+5V			B13	
			B7	FFR_TS2_SN-C	Non-Contact Thermistor 2		B12	
			B8	FFR_TS2_SN-D			B11	
			B9	GND			B10	
			B10	FFR_TS1_SN-C	Non-Contact Thermistor 1		B9	
			B11	FFR_TS1_SN-D			B8	
			B12	GND			B7	
			B13	FPRNPTSEGSN+	Pressure Thermistor: Full-Bleed Edge		B6	
			B14	GND			B5	
			B15	FPR_TSEGSN+	Pressure Thermistor: Edge		B4	
			B16	GND			B3	
			B17	FPR_TSCTSN+	Pressure Thermistor: Center		B2	
			B18	GND			B1	
	Paper Transport IOB	CN168	1	FSHDRMTXB_O	Fusing Sheild Drive Motor	CN19	4	For 100V models:
			2	FSHDRMTB_O			3	Connets to harness No. 23 (D1495341)
			3	FSHDRMTA_O			2	For 200V models:
			4	FSHDRMTXA_O			1	Connects to harness No. 27 (D1495342)
			5	N.C.	N.C.	-	-	
2	Paper Transport IOB	CN153	1	+24VSRLY	PSU (AC Controller Board)	CN994	11	
			2	GND			10	
			3	PSU_ZERX1_N			9	
			4	PSU_HTRY1			8	
			5	PSU_HURY			7	
			6	ACV			6	
			7	TRG_HT3			5	
			8	TRG_HT2			4	
			9	TRG_HT1			3	
			10	PSU_HTRY2			2	
			11	PSU_ZERX2_N			1	
			12	QPSCLFNOUT1_O	PSU Cooling Fan	CN2	3	
			13	QPSCLFNLOK_N_I			2	
			14	GND			1	
			15	QPSCLFNOUT1_O	PSU Exhaust Heat Fan	CN3	3	
			16	QPSEHFNLOK_N_I			2	
			17	GND			1	
	Paper Transport IOB	CN164	1	GND	IPU	CN578	10	
			2	+5VE_LPS			9	
			3	+24V			8	
			4	+24V			7	
			5	GND			6	
			6	GND			5	
			7	GND			4	
			8	+24VS1			3	
			9	+24VS2			2	
			10	GND			1	
2	Paper Transport IOB	CN253	1	+5V	MKB	CN750	13	
			2	KEYCD_SET_N			12	
			3	KEYCD_B0_S1			11	
			4	KEYCD_B1_S2			10	
			5	KEYCD_B2_S3			9	
			6	KEYCD_B3_S4			8	
			7	KEYCD_B4_M1			7	
			8	KEYCD_B5_M2			6	
			9	KEYCD_B6_BT			5	
			10	KEYCD_B7_MT			4	
			11	GND			3	
			12	KEYCD_ON			2	
			13	+24VCNT			1	
	Paper Transport IOB	CN254	1	GND	Key Counter	CN5	4	
			2	KKY_CTSET1_N			3	
			3	+24VCNT			2	
			4	KKY_CTOUT2			1	
	Tools	CN1	1	PSU(AC): JIGU-TRG	PSU (AC Controller Board)	CN997	2	
			2	PSU(AC): JIGU-24V			1	
	IPU	CN577	1	PONENG1_N	PSU (DC Power)	CN915	2	
			2	N.C.	N.C.	-	-	
			3	GND	PSU (DC Power)	CN915	1	
	Harness No.58 D1495209	CN4	1	PSU: PGND	PSU (DC Power)	CN912	1	
			2	PSU: PGND_ADF			2	
			3	PSU: +24V_ADF			4	
			4	PSU: +24V			5	
	Paper Transport IOB	CN152	1	+24V	PSU (DC Power)		6	
			2	GND			3	
			3	GND		CN911	4	
			4	+5V			8	
	IPU	CN576	1	5V	PSU (DC Power)		7	
			2	5VE			6	
			3	5VE			5	
			4	GND			3	
			5	GND			2	
			6	GND			1	
3	Imaging IOB	CN207	1	GND	Paper Transport IOB	CN163	18	
			2	GND			17	
			3	+24VS2			16	
			4	+24VS2			15	
			5	+24VS2			14	
			6	+24VS2			13	
			7	+24VS1			12	
			8	GND			11	
			9	GND			10	
			10	GND			9	
			11	GND			8	
			12	GND			7	
			13	GND			6	
			14	+5V			5	
			15	+24V			4	
			16	+24V			3	
			17	+24V			2	
			18	GND			1	
4					N.C.			
	Paper Transport IOB	CN256	1	BANK_RXD_I	Drawer (Bank)	CN1	8	
			2	BANK_TXD_O			7	
			3	GND			6	
			4	GND			5	
			5	+5V			4	
			6	+5V			3	
			7	GND			2	
							1	

D148/D149/D150 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
4	PSU（DC Power)	CN914	1	GND	Drawer (Bank)	CN2	7	
			2	GND			6	
			3	GND			5	
			4	24V			4	
			5	24V			3	
			6	24V			2	
			7	24V			1	
5	Paper Transport IOB	CN158	1	CT2UPMTSW2_I	Lift Motor / Remaining Paper Status Sensor (2nd Feed Tray)	CN1	5	
			2	GND			4	
			3	CT2UPMTSW1_I			3	
			4	CT2UPMTOUT2_O			2	
			5	CT2UPMTOUT1_O			1	
			6	GND	Tray Set Switch (2nd Feed Tray)	CN2	2	
			7	CT2STSNSW1_I			1	
			8	CT2SZSNSW1_I	Size Switch (2nd Feed Tray)	CN3	5	
			9	CT2SZSNSW2_I			4	
			10	CT2SZSNSW3_I			3	
			11	GND			2	
			12	CT2SZSNSW4_I			1	
			13	N.C.	N.C.	-	-	
			14	N.C.	N.C.	-	-	
			15	+24VS2	Paper Feed Solenoid (2nd Feed Tray)	CN5	14	
			16	CF2PUSLOUT2_O			13	
			17	GND	Paper Feed Sensor (2nd Feed Tray)		12	
			18	CF2_SNSNS_I			11	
			19	+5V			10	
			20	GND	Transport Sensor (2nd Feed Tray)		9	
			21	CH2_SNSNS_I			8	Connects to harness No.52 (D1492708)
			22	+5V			7	
			23	GND	Paper End Sensor (2nd Feed Tray)		6	
			24	CT2PESNSNS_I			5	
			25	+5V			4	
			26	GND	Limit Sensor (2nd Feed Tray)		3	
			27	CT2ULSNSNS_I			2	
			28	+5V			1	
	Paper Transport IOB	CN160	1	CT1UPMTSW2_I	Lift Motor / Remaining Paper Status Sensor (1st Feed Tray)	CN6	5	
			2	GND			4	
			3	CT1UPMTSW1_I			3	
			4	CT1UPMTOUT2_O			2	
			5	CT1UPMTOUT1_O			1	
			6	GND	Tray Set Switch (21st Feed Tray)	CN7	2	
			7	CT1STSNSW1_I			1	
6	BCU	CN105	1	3.3V	TM/ID Sensor	CN2	15	
			2	GND			14	
			3	TIBTPSNL_F			13	
			4	TIBTPSNV_F2			12	
			5	TIBTPSNV_F			11	
			6	3.3V			10	
			7	GND			9	
			8	TIBTPSNL_C			8	Connects to harness No.22 (D1495347)
			9	TIBTPSNV_C2			7	
			10	TIBTPSNV_C			6	
			11	3.3V			5	
			12	GND			4	
			13	TIBTPSNL_R			3	
			14	TIBTPSNV_R2			2	
			15	TIBTPSNV_R			1	
	Paper Transport IOB	CN166	1	GND	Pressure Roller HP Sensor	CN3	3	
			2	FIPHPSNSNS_I			2	
			3	+5V			1	
	Imaging IOB	CN209	1	MHD_THTH_I	Temprature and Humidity Sensor	CN4	4	
			2	GND			3	
			3	MHD_THRHV_I			2	
			4	+3.3V			1	
			5	MHDEFFNOUT1_O	Main Exhaust Fan / Drive Cooling Fan / Development Intake Fan/Right	CN5	3	
			6	ODVSFFNRLOK_I	Development Intake Fan/ Right		2	
			7	GND			1	
			8	ODVSFFNLOUT1_O	Development Intake Fan/Left / Toner Supply Cooling Fan	CN6	3	
			9	ODVSFFNLLOK_I	Development Intake Fan/Left		2	
			10	GND			1	
			11	EEXCLFNOUT1_O	Paper Exit Cooling Fan	CN8	3	
			12	EEXCLFNLOK_I			2	
			13	GND			1	
			14	N.C.	N.C.	-	-	
			15	N.C.	N.C.	-	-	
			16	GND	N.C.	-	-	
			17	TTIECSN_I	N.C.	-	-	
			18	+5V	N.C.	-	-	
			19	N.C.	N.C.	-	-	
	Imaging IOB	CN251	1	RRV_SNSNS	1Bin Tray	CN10	6	
			2	C1TPQSNSNS_I			5	
			3	C1T_SSSET_I			4	
			4	GND			3	
			5	+5VE_LPS			2	
			6	+5V			1	
	IPU	CN589	1	ACSW_STAT_ON_N_ACSW	Main Switch	CN11	2	
			2	GND			1	
	1 Bin LED	CN1	1	CATHODE	1 Bin LED	CN12	2	
			2	ANODE			1	
7	Paper Transport IOB	CN165	1	HSFDRMTXA_O	(By-pass) Side Fence Drive Motor	CN1	19	
			2	HSFDRMTXB_O			18	
			3	HSFDRMTA_O			17	
			4	HSFDRMTB_O			16	
			5	GND	(By-pass) Side Fence Paper Contact Detection Sensor (Front)		15	
			6	HSFPCSNFRSNS_I			14	
			7	+3.3V			13	
			8	HSFPCSNFRINT_I			12	
			9	GND	(By-pass) Side Fence Paper Contact Detection Sensor (Rear)		11	
			10	HSFPCSNBCSNS_I			10	Connects to harness No.56 (D1502651)
			11	+3.3V			9	
			12	HSFPCSNBCINT_I			8	
			13	GND	By-pass Side Fence Position Sensor		7	
			14	HSFPSSNSNS_I			6	
			15	+3.3V			5	
			16	CFDPTSNENC-B_I	Paper Thickness Double Feed Detection Sensor		4	
			17	+3.3V			3	
			18	GND			2	
			19	CFDPTSNENC-A_I			1	
			20	N.C.	N.C.	-	-	
8	PSU（DC Power)	CN917	1	24V (IL: 24VS2)	Interlock Switch/1	CN1	1	
			2	24V (IL: 24VS1)	Interlock Switch/2	CN2	1	
	Imaging IOB	CN213	1	+24VS1	Interlock Switch/1	CN1	2	
			2	+24VS2	Interlock Switch/2	CN2	2	
9				N.C.	N.C.	CN1	8	
	Imaging IOB	CN217	1	FIN_RXD_I	Finisher		7	
				N.C.	N.C.		6	
			2	FIN_TXD_O	Finisher		5	
				N.C.	N.C.		4	
				N.C.	N.C.		3	
			3	GND	Finisher		2	
			4	GND	Finisher		1	
	PSU（DC Power)	CN913	1	GND	PSU (DC Power)	CN2	9	
			2	GND			8	
			3	GND			7	
			4	GND			6	
			5	24V			5	
			6	24V			4	
			7	24V			3	
			8	24V			2	
				N.C.	N.C.		1	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
10	Imaging IOB	CN203	1	NTBDRMTKOUT2_O	Toner Bottle Drive Motor/K	CN1	2	
			2	+24VS1			1	
			3	NTBDRMTCOUT2_O	Toner Bottle Drive Motor/C	CN2	2	
			4	+24VS1			1	
			5	NTBDRMTMOUT2_O	Toner Bottle Drive Motor/M	CN3	2	
			6	+24VS1			1	
			7	NTBDRMTYOUT2_O	Toner Bottle Drive Motor/Y	CN4	2	
			8	+24VS1			1	
			9	N.C.	N.C.	-	-	
			10	TAG_SCL_O	ID Chip	CN5	4	
			11	GND			3	
			12	TAG_SDA_IO			2	
			13	+5V_HST			1	
			14	N.C.	N.C.			
			15	TAG_SCL_O	ID Chip	CN6	4	
			16	GND			3	
			17	TAG_SDA_IO			2	
			18	+5V_HST			1	
			19	TAG_SCL_O	ID Chip	CN7	4	
			20	GND			3	
			21	TAG_SDA_IO			2	
			22	+5V_HST			1	
			23	TAG_SCL_O	ID Chip	CN8	4	
			24	GND			3	
			25	TAG_SDA_IO			2	
			26	+5V_HST			1	
	Imaging IOB	CN219	1	+24VS2	HVP: TTS	CN802	10	
			2	GND			9	
			3	PPTTSSC_N_I			8	
			4	PPT2-FB_I			7	
			5	PPT2-PWM_O			6	
			6	PPT2+PWM_O			5	
			7	PPTIKPWM_O			4	
			8	PPTICPWM_O			3	
			9	PPTIMPWM_O			2	
			10	PPTIYPWM_O			1	
			11	N.C.	N.C.	-	-	
			12	N.C.	N.C.	-	-	
	Imaging IOB	CN205	1	GND	Toner End Sensor/K	CN9	3	
			2	NTNEDSNKSNS_N_I			2	Connects to harness No.19 (D1495334)
			3	+5V_TEK			1	
			4	GND	Toner End Sensor/C	CN10	3	
			5	NTNEDSNCSNS_N_I			2	Connects to harness No.19 (D1495334)
			6	+5V_TEFC			1	
			7	GND	Toner End Sensor/M	CN13	3	
			8	NTNEDSNMSNS_N_I			2	Connects to harness No.19 (D1495334)
			9	+5V_TEFC			1	
			10	GND	Toner End Sensor/Y	CN17	3	
			11	NTNEDSNYSNS_N_I			2	Connects to harness No.19 (D1495334)
			12	+5V_TEFC			1	
			13	GND	ITB Contact and Release Sensor	CN14	3	
			14	TTICASN_I			2	Connects to harness No.18 (D1495333)
			15	+5V			1	
			16	GND	Imaging Temperature Sensor	CN18	2	
			17	PDR_TSSN+_I			1	
	Imaging IOB	CN218	1	GND	Drawer (Bridge Unit / Shift Tray / Left Paper Exit Tray)	CN19	10	
			2	+5V			9	
			3	CBU_SS1SET_I			8	
			4	CBUCVSNSNS_N_I			7	
			5	CBUEPSNSNS_N_I			6	
			6	CBUCVMTRST_N_O			5	
			7	CBUCVMTCTL_O			4	
			8	GND			3	
			9	+24V			2	
				N/A	N/A		1	
			10	+24V	Drawer (Bridge Unit / Left Paper Exit Tray)	CN20	9	
			11	CBU+5VFU_I			8	
			12	CBUCVMTENA_N_O			7	
			13	CBU_SS2SET_I			6	
			14	CBUDVSLPWM_O			5	
			15	CBUCVMTCLK_O			4	
			16	CBU+24VFU_I			3	
			17	CBTOCSNSNS_I			2	
			18	CBEOCSNSNS_I			1	
11	Imaging IOB	CN222	1	NTNSPMTKA_O	Toner Transport Motor/K	CN1	4	
			2	NTNSPMTKXA_O			3	
			3	NTNSPMTKB_O			2	
			4	NTNSPMTKXB_O			1	
			5	NTNSPMTCA_O	Toner Transport Motor/C	CN2	4	
			6	NTNSPMTCXA_O			3	
			7	NTNSPMTCB_O			2	
			8	NTNSPMTCXB_O			1	
			9	NTNSPMTMA_O	Toner Transport Motor/M	CN3	4	
			10	NTNSPMTMXA_O			3	
			11	NTNSPMTMB_O			2	
			12	NTNSPMTMXB_O			1	
			13	NTNSPMTYA_O	Toner Transport Motor/Y	CN4	4	
			14	NTNSPMTYXA_O			3	
			15	NTNSPMTYB_O			2	
			16	NTNSPMTYXB_O			1	
12	Imaging IOB	CN200	1	PDR_MTFCGA_O	PCU Motor: CMY	CN1	10	
			2	PDR_MTFCCLK_O			9	
			3	PDR_MTFCBRK_N_O			8	
			4	PDR_MTFCCW_N_O			7	
			5	PDR_MTFCSTA_N_O			6	
			6	PDR_MTFCLOK_N_I			5	
			7	GND			4	
			8	GND			3	
			9	+24VS1			2	
			10	+24VS1			1	
			11	ODV_MTFCGA_O	Development Motor: CMY	CN2	10	
			12	ODV_MTFCCLK_O			9	
			13	ODV_MTFCBRK_N_O			8	
			14	ODV_MTFCCW_O			7	
			15	ODV_MTFCSTA_N_O			6	
			16	ODV_MTFCLOK_N_I			5	
			17	GND			4	
			18	GND			3	
			19	+24VS1			2	
			20	+24VS1			1	
			21	ODV_SLOUT2_O	N.C.	-	-	
			22	ODV_SLOUT1_O	N.C.	-	-	
			23	N.C.	N.C.	-	-	
			24	ODV_MTKGA_O	Development Motor: Black	CN4	10	
			25	ODV_MTKCLK_O			9	
			26	ODV_MTKBRK_N_O			8	
			27	ODV_MTKCW_N_O			7	
			28	ODV_MTKSTA_N_O			6	
			29	ODV_MTKLOK_N_I			5	
			30	GND			4	
			31	GND			3	
			32	+24VS1			2	
			33	+24VS1			1	
			34	N.C.	N.C.	-	-	
			35	N.C.	N.C.	-	-	
			36	N.C.	N.C.	-	-	
			37	N.C.	N.C.	-	-	
			38	GND	N.C.	-	-	
			39	TTSPHSN_I	N.C.	-	-	
			40	+5V	N.C.	-	-	

D148/D149/D150 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
12	Imaging IOB	CN201	1	TTS_MTCTL_N_O	Image Transfer Motor	CN7	15	
			2	TTIECSN_OUT_O			14	
			3	TTS_MTGAB_O			13	
			4	TTS_MTGAA_O			12	
			5	TTS_MTCLK_O			11	
			6	TTS_MTBRK_N_O			10	
			7	TTS_MTCW_O			9	
			8	TTS_MTSTA_N_O			8	
			9	TTS_MTLOK_N_I			7	
			10	+5V			6	
			11	GND			5	
			12	GND			4	
			13	GND			3	
			14	+24VS1			2	
			15	+24VS1			1	
			16	N.C.	N.C.	-	-	
			17	GND	Waste Toner Capacity Detection Sensor	CN5	3	
			18	LWSFLSN_I			2	Connects to harness No.16 (D1495330)
			19	+5V			1	
			20	GND	Waste Toner Bottle Set Detection Sensor	CN3	2	
			21	LWBSTSN_N_I			1	
			22	N.C.	N.C.	-	-	
			23	N.C.	N.C.	-	-	
			24	N.C.	N.C.	-	-	
			25	N.C.	N.C.	-	-	
			26	N.C.	N.C.	-	-	
			27	N.C.	N.C.	-	-	
			28	GND	Paper Transfer Roller HP Sensor	CN11	3	
			29	TT2CASN_I			2	
			30	+5V			1	
			31	TT2CAMTOUT2_O	Paper Transfer Contact And Release Motor	CN12	2	
			32	TT2CAMTOUT1_O			1	
	Imaging IOB	CN204	1	PPSRQSNK_I	HST Sensor	CN13	16	
			2	+24VS2			15	
			3	HST_SCL_O			14	
			4	HST_SDA_IO			13	
			5	OST_SNKVTCNT_O			12	
			6	+5V_HST			11	
			7	OST_SNKSNS_I			10	
			8	GND			9	
			9	PDR_PLFCK_O	N.C.		8	
			10	+24VS2	N.C.		7	
			11	HST_SCL_O	HST Sensor		6	
			12	HST_SDA_IO			5	
			13	OST_SNCVTCNT_O			4	
			14	+5V_HST			3	
			15	OST_SNCSNS_I			2	Connects to harness No.14 (D1495328)
			16	GND			1	
			17	PDR_PLFCK_O	N.C.		32	
			18	+24VS2	N.C.		31	
			19	HST_SCL_O	HST Sensor		30	
			20	HST_SDA_IO			29	
			21	OST_SNMVTCNT_O			28	
			22	+5V_HST			27	
			23	OST_SNMSNS_I			26	
			24	GND			25	
			25	PDR_PLFCK_O	N.C.		24	
			26	+24VS2	N.C.		23	
			27	HST_SCL_O	HST Sensor		22	
			28	HST_SDA_IO			21	
			29	OST_SNYVTCNT_O			20	
			30	+5V_HST			19	
			31	OST_SNYSNS_I			18	
			32	GND			17	
12	Imaging IOB	CN211	1	PPBDCYPWM_O	HVP: CB	CN800	20	
			2	PPBDCMPWM_O			19	
			3	PPBDCCPWM_O			18	
			4	PPBDCKPWM_O			17	
			5	PPCDCKPWM_O			16	
			6	PPCDCCPWM_O			15	
			7	PPCDCMPWM_O			14	
			8	PPCDCYPWM_O			13	
			9	PPCACKPWM_O			12	
			10	PPCACCPWM_O			11	
			11	PPCACMPWM_O			10	
			12	PPCACYPWM_O			9	
			13	PPCACCLK_O			8	
			14	PPCBSC_N_I			7	
			15	PPCACKFB_I			6	
			16	PPCACCFB_I			5	
			17	PPCACMFB_I			4	
			18	PPCACYFB_I			3	
			19	GND			2	
			20	+24VS2			1	
	Imaging IOB	CN216	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	MHDEFFNOUT1_O	Main Exhaust Fan / Drive Cooling Fan / Development Intake Fan/Right	CN8	3	
			4	MHDEFFNLOK_I	Main Exhaust Fan		2	Connects to harness No.13 (D1495327)
			5	GND			1	
			6	MEBCLFNOUT1_O	Power Box Cooling Fan	CN9	3	
			7	MEBCLFNLOK_I			2	
			8	GND			1	
			9	ODVSFFNLOUT1_O	Development Intake Fan/ Left / Tonner Supply Cooling Fan	CN10	3	
			10	NSPCLNLOK_I	Toner Supply Coolin Fan		2	
			11	GND			1	
			12	MHDEFFNOUT1_O	Main Exhaust Fan / Drive Cooling Fan / Development Intake Fan/Right	CN14	3	
			13	MDVCLFNLOK_I	Drive Cooling Fan		2	
			14	GND			1	
13	Harness No.12 D1495326	CN1	1	MHDEFFNOUT1_O	Main Exhaust Fan	CN2	3	
			2	MHDEFFNLOK_I			2	
			3	GND			1	
14	Harness No.12 D1495326	CN1	1	PPSRQSNK_I	HST Sensor	CN2	16	
			2	+24VS2			15	
			3	HST_SCL_O			14	
			4	HST_SDA_IO			13	
			5	OST_SNKVTCNT_O			12	
			6	+5V_HST			11	
			7	OST_SNKSNS_I			10	
			8	GND			9	
			9	PDR_PLFCK_O			8	
			10	+24VS2			7	
			11	HST_SCL_O			6	
			12	HST_SDA_IO			5	
			13	OST_SNCVTCNT_O			4	
			14	+5V_HST			3	
			15	OST_SNCSNS_I			2	
			16	GND			1	Connects to harness No.15 (D1495329)
			17	PDR_PLFCK_O			32	
			18	+24VS2			31	
			19	HST_SCL_O			30	
			20	HST_SDA_IO			29	
			21	OST_SNMVTCNT_O			28	
			22	+5V_HST			27	
			23	OST_SNMSNS_I			26	
			24	GND			25	
			25	PDR_PLFCK_O			24	
			26	+24VS2			23	
			27	HST_SCL_O			22	
			28	HST_SDA_IO			21	
			29	OST_SNYVTCNT_O			20	
			30	+5V_HST			19	
			31	OST_SNYSNS_I			18	
			32	GND			17	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
15	Harness No.14 D1495328	CN1	1	PPSRQSNK_I	HST Sensor/K	CN2	8	
			2	+24VS2			7	
			3	HST_SCL_O			6	
			4	HST_SDA_IO			5	Connects to harness No.59 (D1493173)
			5	OST_SNKVTCNT_O			4	
			6	+5V_HST			3	
			7	OST_SNKSNS_I			2	
			8	GND			1	
			9	PDR_PLFCK_O	HST Sensor/C	CN3	8	
			10	+24VS2			7	
			11	HST_SCL_O			6	
			12	HST_SDA_IO			5	
			13	OST_SNCVTCNT_O			4	Connects to harness No.59 (D1493173)
			14	+5V_HST			3	
			15	OST_SNCSNS_I			2	
			16	GND			1	
			17	PDR_PLFCK_O	HST Sensor/M	CN4	8	
			18	+24VS2			7	
			19	HST_SCL_O			6	
			20	HST_SDA_IO			5	
			21	OST_SNMVTCNT_O			4	Connects to harness No.59 (D1493173)
			22	+5V_HST			3	
			23	OST_SNMSNS_I			2	
			24	GND			1	
			25	PDR_PLFCK_O	HST Sensor/Y	CN5	8	
			26	+24VS2			7	
			27	HST_SCL_O			6	
			28	HST_SDA_IO			5	
			29	OST_SNYVTCNT_O			4	Connects to harness No.59 (D1493173)
			30	+5V_HST			3	
			31	OST_SNYSNS_I			2	
			32	GND			1	
16	Harness No.12 D1495326	CN1	1	GND	Waste Toner Capacity Detection Sensor	CN2	3	
			2	LWSFLSN_I			2	
			3	+5V			1	
17	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
18	Harness No.10 D1495324	CN1	1	GND	ITB Contact and Release Sensor	CN2	3	
			2	TTICASN_I			2	
			3	+5V			1	
19	Harness No.10 D1495324	CN1	1	GND	Toner End Sensor	CN2	3	
			2	NTNEDSNKSNS_N_I			2	
			3	+5V_TEK			1	
20	BCU	CN101	1	GND	IPU	CN575	22	
			2	5V			21	
			3	G1_SYDO			20	
			4	G1_SYDI			19	
			5	G1_SYCLK			18	
			6	G1_SYHS			17	
			7	G1_SYCS0_N			16	
			8	G1_SYCS1_N			15	
			9	G2_SYDO			14	
			10	G2_SYDI			13	
			11	M2P_RST_N			12	
			12	S2M_RST_N			11	
			13	G2_SYCLK			10	
			14	G2_SYCS0_N			9	
			15	ADF_TXD			8	
			16	ADF_RXD			7	
			17	IPU_INT_N			6	
			18	TIMER_UP_N0			5	
			19	TIMER_UP_N1			4	
			20	ENGENABLE_N			3	
			21	FUKKI			2	
			22	IPU_WAKE			1	
21	Harness No.6 D1495308	CN1	1	3.3V	TM/ID Sensor: Front	CN2	5	
			2	GND			4	
			3	TIBTPSNL_F			3	
			4	TIBTPSNV_F2			2	
			5	TIBTPSNV_F			1	
			6	3.3V	TM/ID Sensor: CENTER	CN3	5	
			7	GND			4	
			8	TIBTPSNL_C			3	
			9	TIBTPSNV_C2			2	
			10	TIBTPSNV_C			1	
			11	3.3V	TM/ID Sensor: REAR	CN4	5	
			12	GND			4	
			13	TIBTPSNL_R			3	
			14	TIBTPSNV_R2			2	
			15	TIBTPSNV_R			1	
22	Harness No.1 D1495340	CN1	A1	FFU_SSTWN_I	Drawer (Fusing) Set Detection	CN6	11	
			A2	FFU_SSDOM_I			10	
			A3	FFU_SSEU_I			9	
			A4	FFU_SSNA_I			8	
			A5	GND			7	
			A6	GND			6	Connects to harness No.61 (D1494321): NA
				N.C.	N.C.		5	
			A7	N.C.	N.C.			
			A8	FFUNWFU_N	New Unit Detection Fuse (Fusing)		4	
			A9	GND			3	
				N.C.	N.C.		2	
				N.C.	N.C.		1	
			A10	GND	Fusing Exit Sensor	CN2	3	
			A11	FFUOUSNSNS_I			2	
			A12	+5V			1	
				N.C.	N.C.	CN3	4	
			A13	+5V	Thermopile (Edge)		3	
			A14	GND			2	
			A15	FFR_TSEG			1	
				N.C.	N.C.	CN4	4	
			A16	+5V	Thermopile (Center)		3	
			A17	GND			2	
			A18	FFR_TSCTSN-O			1	
			B1	GND	Fusing Shield Position Sensor 2	CN9	3	
			B2	FSHPSSN2SNS_I			2	
			B3	+5V			1	
			B4	GND	Fusing Shield Position Sensor 1	CN8	3	
			B5	FSHPSSN1SNS_I			2	
			B6	+5V			1	
				N.C.	N.C.	CN5	13	
			B7	FFR_TS2_SN-C	Non-Contact Thermistor 2		12	
			B8	FFR_TS2_SN-D			11	
			B9	GND			10	
			B10	FFR_TS1_SN-C	Non-Contact Thermistor 1		9	
			B11	FFR_TS1_SN-D			8	
			B12	GND			7	Connects to harness No.61 (D1494321): NA
			B13	FPRNPTSEGSN+	Pressure Thermistor: Full-Bleed Edge		6	
			B14	GND			5	
			B15	FPR_TSEGSN+	Pressure Thermistor: Edge		4	
			B16	GND			3	
			B17	FPR_TSCTSN+	Pressure Thermistor: Center		2	
			B18	GND			1	
	Paper Transport IOB	CN101	1	FSHDRMTXB_O	Fusing Shield Drive Motor	CN11	4	
			2	FSHDRMTB_O			3	
			3	FSHDRMTA_O			2	
			4	FSHDRMTXA_O			1	
	*Screw	T1		GND(1G)	Drawer (Fusing) Harness No. 61 D1494321 (NA)	CN7	1	
	PSU（AC Controller Board)	CN985	1	HT1,2,3/L			4	
			2	HT1/N			6	Connects to harness No.61 (D1494321): NA
	PSU（AC Controller Board)	CN986	1	HT2/N			5	
			2	HT3/N			2	
				N.C.			3	

D148/D149/D150 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
23	INLET	INLET	L	AC_IN_L	PSU (AC Controller Board)	T900	1	
			N	AC_IN_N	PSU (AC Controller Board)	T901	1	
			E	EARTH	Screw	T1		
24	PSU（AC Controller Board)	CN988	1	AC_L_5V_24V	PSU (AC)	CN901	1	
			2	AC_N_5V_24V			2	
25	PSU（AC Controller Board)	CN989	1	AC_L_DEHUHT2	PCU Anti-condensation Heater	CN1	1	
			2	AC_L_DEHUHT3	Paper Feed Heater	CN2	1	
			3	AC_L_DEHUHT4	Bank Heater	CN3	1	
			4	AC_N_DEHUHT2	PCU Anti-condensation Heater	CN1	2	
			5	AC_N_DEHUHT3	Paper Feed Heater	CN2	2	
			6	AC_N_DEHUHT4	Bank Heater	CN3	2	
26	Harness No.1 D1495340	CN1	A1	FFU_SSTWN_I	Drawer (Fusing) Set Detection	CN6	11	
			A2	FFU_SSDOM_I			10	
			A3	FFU_SSEU_I			9	
			A4	FFU_SSNA_I			8	
			A5	GND			7	
			A6	GND			6	Connects to harness No.62 (D1494322): EU
				N.C.	N.C.		5	
			A7	N.C.	N.C.			
			A8	FFUNWFU_N	New Unit Detection Fuse (Fusing)		4	
			A9	GND			3	
				N.C.	N.C.		2	
				N.C.	N.C.		1	
			A10	GND	Fusing Exit Sensor	CN2	3	
			A11	FFUOUSNSNS_I			2	
			A12	+5V			1	
				N.C.	N.C.	CN3	4	
			A13	+5V	Thermopile (Edge)		3	
			A14	GND			2	
			A15	FFR_TSEG			1	
				N.C.	N.C.	CN4	4	
			A16	+5V	Thermopile (Center)		3	
			A17	GND			2	
			A18	FFR_TSCTSN-O			1	
			B1	GND	Fusing Shield Position Sensor 2	CN9	3	
			B2	FSHPSSN2SNS_I			2	
			B3	+5V			1	
			B4	GND	Fusing Shield Position Sensor 1	CN8	3	
			B5	FSHPSSN1SNS_I			2	
			B6	+5V			1	
				N.C.	N.C.	CN5	13	
			B7	FFR_TS2_SN-C	Non-Contact Thermistor 2		12	
			B8	FFR_TS2_SN-D			11	
			B9	GND			10	
			B10	FFR_TS1_SN-C	Non-Contact Thermistor 1		9	
			B11	FFR_TS1_SN-D			8	
			B12	GND			7	Connects to harness No.62 (D1494322): EU
			B13	FPRNPTSEGSN+	Pressure Thermistor: Full-Bleed Edge		6	
			B14	GND			5	
			B15	FPR_TSEGSN+	Pressure Thermistor: Edge		4	
			B16	GND			3	
			B17	FPR_TSCTSN+	Pressure Thermistor: Center		2	
			B18	GND			1	
	Paper Transport IOB	CN101	1	FSHDRMTXB_O	Fusing Shield Drive Motor	CN11	4	
			2	FSHDRMTB_O			3	
			3	FSHDRMTA_O			2	
			4	FSHDRMTXA_O			1	
	*Screw	T1		GND(1G)	Drawer (Fusing)	CN7	1	
	PSU（AC Controller Board)	CN985	1	HT1,2,3/L			4	
			2	HT1/N			6	Connects to harness No.62 (D1494322): EU
			3	HT2/N			5	
			4	HT3/N			2	
				N.C.	N.C.		3	
27	Harness No.39 D1495392 (OP)	CN1	1	AC_L_HUHT	Paper Feed Heater	CN2	1	
			2	AC_N_HUHT			2	
28	PSU（AC Controller Board)	CN990	1	AC_L_SWOUT	SW: Anti-Codensation Heater_L	CN1	1	
			2	AC_L_SWIN	SW: Anti-Codensation Heater_N	CN2	1	
29	HVP: TTS	T1		PWM: T1: 1	Image Transfer Unit	T6		
		T2		PWM: T1: 2		T7		
		T3		PWM: T1: 3		T8		
		T4		PWM: T1: 4		T9		
		T5		PWM: T2: +	Paper Transfer Unit	T10		
30	BCU	CN1	1	FB_FFC_IPU	IPU	CN2	50	
			2	GND			49	
			3	IPU_A(18)			48	
			4	IPU_A(17)			47	
			5	IPU_A(16)			46	
			6	IPU_A(15)			45	
			7	IPU_A(14)			44	
			8	IPU_A(13)			43	
			9	IPU_A(12)			42	
			10	IPU_A(11)			41	
			11	IPU_A(10)			40	
			12	GND			39	
			13	IPU_A(9)			38	
			14	IPU_A(8)			37	
			15	IPU_A(7)			36	
			16	IPU_A(6)			35	
			17	IPU_A(5)			34	
			18	IPU_A(4)			33	
			19	IPU_A(3)			32	
			20	IPU_A(2)			31	
			21	IPU_A(1)			30	
			22	GND			29	
			23	IPU_D(31)			28	
			24	IPU_D(30)			27	
			25	IPU_D(29)			26	
			26	IPU_D(28)			25	
			27	IPU_D(27)			24	
			28	IPU_D(26)			23	
			29	IPU_D(25)			22	
			30	IPU_D(24)			21	
			31	GND			20	
			32	IPU_D(23)			19	
			33	IPU_D(22)			18	
			34	IPU_D(21)			17	
			35	IPU_D(20)			16	
			36	IPU_D(19)			15	
			37	IPU_D(18)			14	
			38	IPU_D(17)			13	
			39	IPU_D(16)			12	
			40	GND			11	
			41	IPU4_CS_N			10	
			42	IPU3_CS_N			9	
			43	IPU2_CS_N			8	
			44	IPU1_CS_N			7	
			45	IPU0_CS_N			6	
			46	IPU_WS_N			5	
			47	IPU_RD_N			4	
			48	IPU_RD_WR_N			3	
			49	GND			2	
			50	FFC_IPU			1	
31	Imaging IOB	CN1	1	FB_FFC_IOB	Paper Transport IOB	CN2	40	
			2	PON_RST_P_I			39	
			3	IOB_WAKE			38	
			4	IOB3_INT			37	
			5	IOB1_INT			36	
			6	A(19)			35	
			7	A(18)			34	
			8	A(17)			33	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
31	Imaging IOB	CN1	9	A(16)	Paper Transport IOB		32	
			10	A(15)			31	
			11	A(14)			30	
			12	A(13)			29	
			13	A(12)			28	
			14	A(11)			27	
			15	A(10)			26	
			16	A(9)			25	
			17	A(8)			24	
			18	A(7)			23	
			19	A(6)			22	
			20	A(5)			21	
			21	A(4)			20	
			22	A(3)			19	
			23	A(2)			18	
			24	A(1)			17	
			25	A(0)			16	
			26	GND			15	
			27	D(31)			14	
			28	D(30)			13	
			29	D(29)			12	
			30	D(28)			11	
			31	D(27)			10	
			32	D(26)			9	
			33	D(25)			8	
			34	D(24)			7	
			35	GND			6	
			36	IOB3_CS_N			5	
			37	IOB1_CS_N			4	
			38	IOB_RD_N			3	
			39	IOB_WS_N			2	
			40	FFC_IOB			1	
32	BCU	CN1	1	FFC_IOB	Imaging IOB	CN2	50	
			2	IOB_WS_N			49	
			3	IOB_RD_N			48	
			4	IOB_RD_WR_N			47	
			5	IOB1_CS_N			46	
			6	IOB2_CS_N			45	
			7	IOB3_CS_N			44	
			8	GND			43	
			9	IOB_D(24)			42	
			10	IOB_D(25)			41	
			11	IOB_D(26)			40	
			12	IOB_D(27)			39	
			13	IOB_D(28)			38	
			14	IOB_D(29)			37	
			15	IOB_D(30)			36	
			16	IOB_D(31)			35	
			17	GND			34	
			18	IOB_A(0)			33	
			19	IOB_A(1)			32	
			20	IOB_A(2)			31	
			21	IOB_A(3)			30	
			22	IOB_A(4)			29	
			23	IOB_A(5)			28	
			24	IOB_A(6)			27	
			25	IOB_A(7)			26	
			26	GND			25	
			27	IOB_A(8)			24	
			28	IOB_A(9)			23	
			29	IOB_A(10)			22	
			30	IOB_A(11)			21	
			31	IOB_A(12)			20	
			32	IOB_A(13)			19	
			33	IOB_A(14)			18	
			34	IOB_A(15)			17	
			35	IOB_A(16)			16	
			36	IOB_A(17)			15	
			37	IOB_A(18)			14	
			38	IOB_A(19)			13	
			39	IOB_A(20)			12	
			40	IOB1_INT			11	
			41	IOB2_INT			10	
			42	IOB3_INT			9	
			43	IOB_WAKE			8	
			44	PON_RST_P			7	
			45	GND			6	
			46	HST_SCL			5	
			47	HST_SDA			4	
			48	TAG_SCL			3	
			49	TAG_SDA			2	
			50	FB_FFC_IOB			1	
51	Harness No.1 D14955300	CN1	1	GND	Registration Sensor	CN2	3	
			2	CRG_SNSNS_I			2	
			3	+5V			1	
52	Harness No.1 D14955300 Harness No.5 D14955307	CN1	1	+24VS2	Paper Feed Solenoid	CN6	2	
			2	CF1PUSLOUT2_O			1	
			3	GND	Paper Feed Sensor	CN2	3	
			4	CF1_SNSNS_I			2	
			5	+5V			1	
			6	GND	Transport Sensor	CN3	3	
			7	CH1_SNSNS_I			2	
			8	+5V			1	
			9	GND	Paper End Sensor	CN4	3	
			10	CT1PESNSNS_I			2	
			11	+5V			1	
			12	GND	Limit Sensor	CN5	3	
			13	CT1ULSNSNS_I			2	
			14	+5V			1	
53	Harness No.1 D14955300	CN1	1	TT2OCLEK_O	Paper Transfer Unit Open/Close LED	CN3	2	
			2	+5V			1	
			3	GND	Fusing Entrance Sensor	CN2	3	
			4	FFUINSNSNS_I			2	
			5	+5V			1	
54	Harness No.1 D14955300	CN1	1	HDP_MTENC-A_I	Duplex/By-pass Motor	CN3	8	
			2	HDP_MTENC-B_I			7	
			3	+5V			6	
			4	HDP_MTCW_O			5	
			5	HDP_MTPWM_O			4	
			6	HDP_MTBRK_N_O			3	
			7	GND			2	
			8	+24VS2			1	
			9	GND	Duplex Entrance Sensor	CN4	5	
			10	RDPINSNSNS_I			4	Connects to harness No.63 (D1494698)
			11	+5V			3	
			12	GND	Duplex Exit Sensor	CN6	3	
			13	RDPOUSNSNS_I			2	
			14	+5V			1	
			15	GND	Duplex Unit Open/Close Sensor	CN5	2	
			16	RGPOCSNSW1_I			1	
			17	RGPOCLEK_O		CN4	2	Connects to harness No.63 (D1494698)
			18	+5V			1	
55	Harness No.1 D14955300	CN1	1	HHDPUSLOUT2_O	By-pass Feed Solenoid	CN2	5	
			2	+24VS2			4	Connects to harness No.64 (D1492659)
			3	GND	By-pass Paper End Sensor		3	
			4	HHDPESNSNS_I			2	
			5	+5V			1	

D148/D149/D150 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
55	Harness No.1 D14955300	CN1	6	HHDMLSNSW2_I	By-pass Paper Size Sensor	CN3	9	
			7	HHDMLSNSW1_I			8	
			8	GND			7	
			9	HHDMLSNSW4_I			6	Connects to harness No.65 (D1492669)
			10	HHDMLSNSW5_I			5	
			11	HHDMLSNSW3_I			4	
			12	GND	By-pass Original Length Sensor		3	
			13	HHDSLSNSNS_I			2	
			14	+5V			1	
56	Harness No.1 D14955300	CN1	1	HHDPUSLOUT2_O	By-pass Feed Solenoid	CN3	5	
			2	+24VS2			4	Connects to harness No.64 (D1492659)
			3	GND	By-pass Paper End Sensor		3	
			4	HHDPESNSNS_I			2	
			5	+5V			1	
			6	N.C.	N.C.	-	-	
			7	N.C.	N.C.	-	-	
			8	N.C.	N.C.	-	-	
			9	N.C.	N.C.	-	-	
			10	N.C.	N.C.	-	-	
			11	N.C.		-	-	
			12	GND	By-pass Original Length Sensor	CN4	3	
			13	HHDSLSNSNS_I			2	Connects to harness No.66 (D1502632)
			14	+5V			1	
56				N.C.	N.C.	CN5	9	
	Harness No.7 D14955311	CN2	1	HSFDRMTXA_O	(By-pass) Side Fence Drive Motor		8	
			2	HSFDRMTXB_O			7	
			3	HSFDRMTA_O			6	Connects to harness No.67 (D1502653)
			4	HSFDRMTB_O			5	
			5	GND	(By-pass) Side Fence Paper Contact Detection Sensor (Front)		4	
			6	HSFPCSNFRSNS_I			3	
			7	+3.3V			2	
			8	HSFPCSNFRINT_I			1	
			9	GND	(By-pass) Side Fence Paper Contact Detection Sensor (Rear)	CN6	7	
			10	HSFPCSNBCSNS_I			6	
			11	+3.3V			5	
			12	HSFPCSNBCINT_I			4	Connects to harness No.66 (D1502632)
			13	GND	By-pass Side Fence Position Sensor		3	
			14	HSFPSSNSNS_I			2	
			15	+3.3V			1	
			16	CFDPTSNENC-B_I	Paper Thickness Double Feed Detection Sensor	CN7	4	
			17	+3.3V			3	Connects to harness No.68 (D1502683)
			18	GND			2	
			19	CFDPTSNENC-A_I			1	
57	Harness No.1 D1495340	CN1	1	+24VS2	Paper Exit Switching Solenoid	CN2	2	
			2	EEXDVSLOUT2_O			1	
			3	GND	Reverse Sensor	CN4	3	
			4	RRV_SNSNS_I			2	
			5	+5V			1	
			6	GND	Paper Exit Sensor	CN5	3	
			7	EEX_SNSNS_I			2	
			8	+5V			1	
			9	GND	Paper Exit Full Sensor	CN6	3	
			10	EEXFLSNSNS_I			2	
			11	+5V			1	
			12	RRV_MTXB_O	Reverse Motor	CN3	4	
			13	RRV_MTB_O			3	
			14	RRV_MTXA_O			2	
			15	RRV_MTA_O			1	
58	SIO	CN310	1	PGND	PSU	CN1	1	
			2	PGND_ADF			2	
			3	+24V_ADF			3	Connects to harness No.2 (D1495301)
			4	+24V			4	
59	Harness No.12 D1495326	CN1	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	HST_SCL_O	HST Sensor	CN2	1	
			4	HST_SDA_IO			2	
			5	OST_SNCVTCNT_O			3	
			6	+5V_HST			4	
			7	OST_SNCSNS_I			5	
			8	GND			6	
60	Harness No.23 D1495341	CN1	1	GND(1G)	*Screw	T1	-	
			2	N.C.	N.C.		-	
			3	N.C.	N.C.		-	
			4	HT1,2,4/L	*Screw	T4	-	
			5	HT2/N (EG)	Heater: Edge	CN9	1	
			6	HT1/N (CT)	Heater: Center		2	
		CN2	1	GND	Pressure Thermistor: Center	CN4	2	
			2	FPR_TSCTSN+			1	
			3	GND	Pressure Thermistor: Edge/2	CN5	4	
			4	FPR_TSEGSN+			3	
			5	GND	Pressure Thermistor: Full-Bleed Edge		2	
			6	FPRNPTSEGSN+			1	
			7	GND	Non-Contact Thermistor1	CN6	1	
			8	FFR_TS1_SN-D			2	
			9	FFR_TS1_SN-C			3	
			10	GND	Non-Contact Thermistor2	CN7	1	
			11	FFR_TS2_SN-D			2	
			12	FFR_TS2_SN-C			3	
			13	N.C.	N.C.	-	-	
		CN3	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	GND	New Unit Detection Fuse (Fusing Unit)	CN8	2	
			4	FFUNWFU_N			1	
			5	N.C.	N.C.			
			6	GND	Set Detection			
			7	GND		CN3	8	
			9	FFU_SSEU_I				
			10	FFU_SSDOM_I				
			11	FFU_SSTWN_I				
61	Harness No.23 D1495341	CN1	1	GND(1G)	*Screw	T1	-	
			2	N.C.	N.C.		-	
			3	N.C.	N.C.		-	
			4	HT1,2,4/L	*Screw	T4	-	
			5	HT2/N (EG)	Heater: Edge	CN9	1	
			6	HT1/N (CT)	Heater: Center		2	
		CN2	1	GND	Pressure Thermistor: Center	CN4	2	
			2	FPR_TSCTSN+			1	
			3	GND	Pressure Thermistor: Edge/2	CN5	4	
			4	FPR_TSEGSN+			3	
			5	GND	Pressure Thermistor: Full-Bleed Edge		2	
			6	FPRNPTSEGSN+			1	
			7	GND	Non-Contact Thermistor1	CN6	1	
			8	FFR_TS1_SN-D			2	
			9	FFR_TS1_SN-C			3	
			10	GND	Non-Contact Thermistor2	CN7	1	
			11	FFR_TS2_SN-D			2	
			12	FFR_TS2_SN-C			3	
			13	N.C.	N.C.	-	-	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
61		CN3	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	GND	New Unit Detection Fuse (Fusing Unit)	CN8	2	
			4	FFUNWFU_N			1	
			5	N.C.	N.C.			
			6	GND	Set Detection			
			7	GND		CN3	8	
			9	FFU_SSEU_I				
			10	FFU_SSDOM_I				
			11	FFU_SSTWN_I				
62	Harness No.27 D1495342	CN1	1	GND(1G)	*Screw	T1		
			2	N.C.	N.C.			
			3	N.C.	N.C.			
			4	HT1,2,4/L	*Screw	T4		
			5	HT2/N (EG)	Heater: Edge	CN9	1	
			6	HT1/N (CT)	Heater: Center		2	
		CN2	1	GND	Pressure Thermistor: Center	CN4	2	
			2	FPR_TSCTSN+			1	
			3	GND	Pressure Thermistor: Edge/2	CN5	4	
			4	FPR_TSEGSN+			3	
			5	GND	Pressure Thermistor: Full-Bleed Edge		2	
			6	FPRNPTSEGSN+			1	
			7	GND	Non-Contact Thermistor1	CN6	1	
			8	FFR_TS1_SN-D			2	
			9	FFR_TS1_SN-C			3	
			10	GND	Non-Contact Thermistor2	CN7	1	
			11	FFR_TS2_SN-D			2	
			12	FFR_TS2_SN-C			3	
			13	N.C.	N.C.	-	-	
		CN3	1	N.C.	N.C.	-	-	
			2	N.C.	N.C.	-	-	
			3	GND	New Unit Detection Fuse (Fusing Unit)	CN8	2	
			4	FFUNWFU_N			1	
			5	N.C.				
			6	GND				
			7	GND	Set Detection	CN3	9	
			8	FFU_SSEU_I				
			10	FFU_SSDOM_I				
			11	FFU_SSTWN_I				
63	Harness No.54 D1494696	CN1	1	GND	Duplex Entrance Sensor	CN2	3	
			2	RDPINSNSNS_I			2	
			3	+5V			1	
			4	RGPOCLEK_O	Duplex Jam Processing LED	CN3	2	
			5	+5V			1	
64	Harness No.55 D1492661(Except D150) Harness No.56 D1502651(D150)	CN1	1	HHDPUSLOUT2_O	By-pass Feed Solenoid	CN2	3	
				N.C.			2	
		CN1	2	+24VS2			1	
			3	GND	By-pass Paper End Sensor	CN3	3	
			4	HHDPESNSNS_I			2	
			5	+5V			1	
65	Harness No.55 D1492661	CN1	1	HHDMLSNSW3_I	By-pass Paper Size Sensor	CN2	7	
			2	HHDMLSNSW5_I			6	
			3	HHDMLSNSW4_I			5	
				N.C.	N.C.		4	
		CN1	4	GND	By-pass Paper Size Sensor		3	
			5	HHDMLSNSW1_I			2	
			6	HHDMLSNSW2_I			1	
			7	+5V	By-pass Original Length Sensor	CN3	3	
			8	HHDSLSNSNS_I			2	
			9	GND			1	
66	Harness No.56 D1502651	CN1	1	GND	Side Fence Paper Contact Detection Sensor (Rear)	CN2	4	
			2	HSFPCSNBCSNS_I			3	
			3	+3.3V			2	
			4	HSFPCSNBCINT_I			1	
			5	GND	By-pass Side Fence Position Sensor	CN3	3	
			6	HSFPSSNSNS_I			2	
			7	+3.3V			1	
		CN4	1	GND	By-pass Original Length Sensor	CN5	3	
			2	HHDSLSNSNS_I			2	
			3	+5V			1	
67	Harness No.56 D1502651	CN1	1	N.C.		-	-	
			2	HSFDRMTXA_O	Side Fence Drive Motor	CN2	4	
			3	HSFDRMTXB_O			3	
			4	HSFDRMTA_O			2	
			5	HSFDRMTB_O			1	
			6	GND	Side Fence Paper Contact Detection Sensor (Front)	CN3	4	
			7	HSFPCSNFRSNS_I			3	
			8	+3.3V			2	
			9	HSFPCSNFRINT_I			1	
68	Harness No.56 D1502651	CN1	1	CFDPTSNENC-B_I	Paper Thickness Double Feed Detection Sensor	CN2	4	
			2	+3.3V			3	Connects to harness No.69 (D1502688)
			3	GND			2	
			4	CFDPTSNENC-A_I			1	
69	Harness No.68 D1502683	CN1	1	CFDPTSNENC-B_I	Paper Thickness Double Feed Detection Sensor	CN2	4	
			2	+3.3V			3	
			3	GND			2	
			4	CFDPTSNENC-A_I			1	
70	SIO	CN318	1	DGND	Scanner HP Sensor	CN1	3	
			2	HPS			2	
			3	+5.9V			1	
			4	DGND	DF Position Sensor	CN2	3	
			5	AKS			2	
			6	5VE_AKS			1	
71	SIO	CN314	6	BB	Scanner Motor	CN1	1	
			5	+24VA			2	
			4	B			3	
			3	A			4	
			2	+24VA			5	
			1	AB			6	

D148/D149/D150 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
72	SIO	CN311	15	HPS_N	IPU	CN579	1	
			14	SMD_VR3			2	
			13	SMD_VR2			3	
			12	SMD_VR1			4	
			11	SMD_RST			5	
			10	SMD_DIR			6	
			9	SMD_CLK_N			7	
			8	SMD_M2			8	
			7	SMD_M1			9	
			6	SMD_SYNC			10	
			5	SMD_ERR			11	
			4	DFGATE_N			12	
			3	ADF_TXD			13	
			2	ADF_RXD			14	
			1	ADF_POW_ON_N			15	
			30	5VE_AKS			16	
			29	AKS			17	
			28	5VE_DOC			18	
			27	DOCSET_N			19	
			26	APS1_N			20	
			25	APS2_N			21	
			24	APS3_N			22	
			23	APS4_N			23	
			22	APS5_N			24	
			21	APS_ON_N			25	
			20	DGND			26	
			19	LED_ON_N			27	
			18	LED_ERR			28	
			17	DGND			29	
			16	SCN_POW_ON_N			30	
73	SIO	CN313	1	DGND	APS Sensor 2	CN2	3	
			2	APS2			2	
			3	+3.4VAPS			1	
			4	DGND	APS Sensor 1	CN1	3	
			5	APS1			2	
			6	+3.4VAPS			1	
	SIO	CN315	1	LED_PWM	SBU	CN301	13	
			2	DGND			12	
			3	DGND			11	
			4	+3.3V			10	
			5	+3.3V			9	
			6	+3.3V			8	
			7	DGND			7	
			8	DGND			6	
			9	+5.9V			5	
			10	+5.9V			4	
			11	DGND			3	
			12	+10V			2	
			13	DGND			1	
74	Harness No.76 D1495237	CN13	11	GND	Synchronizing Detector Board Y	CN1	1	
			10	VCC_DETP			2	
			9	DETP_Y_N			3	
			8	GND	Synchronizing Detector Board K	CN2	1	
			7	VCC_DETP			2	
			6	DETP_K_N			3	
			5	PMCLK	Polygon Mirror Motor	CN3	1	
			4	SCRDY_N			2	
			3	PMON_N			3	
			2	GND			4	
			1	+24V			5	
	Harness No.76 D1495237	CN220	15	WWRSWMTCA_O	Skew Motor C	CN6	1	
			14	WWRSWMTCB_O			2	
			13	+24V			3	
			12	WWRSWMTCXB_O			4	
			11	WWRSWMTCXA_O			5	
			10	WWRSWMTMA_O	Skew Motor M	CN5	1	
			9	WWRSWMTMB_O			2	
			8	+24V			3	
			7	WWRSWMTMXB_O			4	
			6	WWRSWMTMXA_O			5	
			5	WWRSWMTYA_O	Skew Motor Y	CN4	1	
			4	WWRSWMTYB_O			2	
			3	+24V			3	
			2	WWRSWMTYXB_O			4	
			1	WWRSWMTYXA_O			5	
75	Harness No.76 D1495237	CN11	16	DATA3_K_N	LDB/KC	CN1	1	
			15	DATA3_K			2	
			14	DATA4_K_N			3	
			13	DATA4_K			4	
			12	DATA1_K_N			5	
			11	DATA1_K			6	
			10	DATA2_K_N			7	
			9	DATA2_K			8	
			8	APC_KC_N			9	
			7	OPDET_K_N			10	
			6	SYCS_KC_N			11	
			5	SYCLK_KC			12	
			4	SYDI_KC			13	
			3	SYDO_KC			14	
			2	GND			15	
			1	GND			16	
			32	DATA3_C			17	
			31	DATA3_C_N			18	
			30	DATA4_C			19	
			29	DATA4_C_N			20	
			28	DATA1_C			21	
			27	DATA1_C_N			22	
			26	DATA2_C			23	
			25	DATA2_C_N			24	
			24	DROPEN_KC			25	
			23	ERR_KC_N			26	
			22	OPDET_FC1_N			27	
			21	+5VS_KC			28	
			20	+5VS_KC			29	
			19	+5VS_KC			30	
			18	GND			31	
			17	GND			32	
	Harness No.76 D1495237	CN12	15	DATA2_Y	LDB/YM	CN2	1	
			14	DATA2_Y_N			2	
			13	DATA1_Y			3	
			12	DATA1_Y_N			4	
			11	DATA4_Y			5	
			10	DATA4_Y_N			6	
			9	DATA3_Y			7	
			8	DATA3_Y_N			8	
			7	APC_YM_N			9	
			6	SYCS_YM_N			10	
			5	SYCLK_YM			11	
			4	SYDI_YM			12	
			3	SYDO_YM			13	
			2	GND			14	
			1	GND			15	
			30	DATA2_M_N			16	
			29	DATA2_M			17	
			28	DATA1_M_N			18	
			27	DATA1_M			19	
			26	DATA4_M_N			20	
			25	DATA4_M			21	
			24	DATA3_M_N			22	
			23	DATA3_M			23	
			22	ERR_YM_N			24	
			21	OPDET_FC2_N			25	

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
75	Harness No.76 D1495237	CN12	20	+5VS_YM	LDB/YM		26	
			19	+5VS_YM			27	
			18	+5VS_YM			28	
			17	GND			29	
			16	GND			30	
76	IPU	CN564	16	DATA3_K_N	* See Note	CN1	1	
			15	DATA3_K			2	
			14	DATA4_K_N			3	
			13	DATA4_K			4	
			12	DATA1_K_N			5	
			11	DATA1_K			6	
			10	DATA2_K_N			7	
			9	DATA2_K			8	
			8	APC_KC_N			9	
			7	OPDET_K_N			10	
			6	SYCS_KC_N			11	
			5	SYCLK_KC			12	
			4	SYDI_KC			13	
			3	SYDO_KC			14	
			2	GND			15	
			1	GND			16	Connects to harness No.75 (D1495236)
			32	DATA3_C			17	
			31	DATA3_C_N			18	
			30	DATA4_C			19	
			29	DATA4_C_N			20	
			28	DATA1_C			21	
			27	DATA1_C_N			22	
			26	DATA2_C			23	
			25	DATA2_C_N			24	
			24	DROPEN_KC			25	
			23	ERR_KC_N			26	
			22	OPDET_FC_N			27	
			21	5VS			28	
			20	5VS			29	
			19	5VS			30	
			18	GND			31	
			17	GND			32	
76	IPU	CN565	15	DATA2_Y	* See Note	CN2	1	
			14	DATA2_Y_N			2	
			13	DATA1_Y			3	
			12	DATA1_Y_N			4	
			11	DATA4_Y			5	
			10	DATA4_Y_N			6	
			9	DATA3_Y			7	
			8	DATA3_Y_N			8	
			7	APC_YM_N			9	
			6	SYCS_YM_N			10	
			5	SYCLK_YM			11	
			4	SYDI_YM			12	
			3	SYDO_YM			13	
			2	GND			14	
			1	GND			15	Connects to harness No.75 (D1495236)
			30	DATA2_M_N			16	
			29	DATA2_M			17	
			28	DATA1_M_N			18	
			27	DATA1_M			19	
			26	DATA4_M_N			20	
			25	DATA4_M			21	
			24	DATA3_M_N			22	
			23	DATA3_M			23	
			22	ERR_YM_N			24	
			21	OPDET_FC2_N			25	
			20	+5VS_YM			26	
			19	+5VS_YM			27	
			18	+5VS_YM			28	
			17	GND			29	
			16	GND			30	
	IPU	CN566	11	GND	Synchronizing Detector Board Y	CN3	1	
			10	VCC_DETP			2	
			9	DETP_Y_N			3	
			8	GND	Synchronizing Detector Board K		4	
			7	VCC_DETP			5	
			6	DETP_K_N			6	Connects to harness No.74 (D1495235)
			5	PMCLK	Polygon Mirror Motor		7	
			4	SCRDY_N			8	
			3	PMON_N			9	
			2	GND			10	
			1	+24V			11	
	Imaging IOB	CN220	15	WWRSWMTCA_O	Skew Motor: C	CN4	1	
			14	WWRSWMTCB_O			2	
			13	+24V			3	
			12	WWRSWMTCXB_O			4	
			11	WWRSWMTCXA_O			5	
			10	WWRSWMTMA_O	Skew Motor: M		6	
			9	WWRSWMTMB_O			7	
			8	+24V			8	Connects to harness No.74 (D1495235)
			7	WWRSWMTMXB_O			9	
			6	WWRSWMTMXA_O			10	
			5	WWRSWMTYA_O	Skew Motor: Y		11	
			4	WWRSWMTYB_O			12	
			3	+24V			13	
			2	WWRSWMTYXB_O			14	
			1	WWRSWMTYXA_O			15	
77	IPU	CN582	1	GND	* See Note	CN2	15	
			2	GND			14	
			3	GND			13	
			4	SDMODE_N			12	
			5	LDET_IN_N			11	
			6	ENG_ENABLE_N			10	
			7	PONOPE_N			9	
			8	ECO_SW_N			8	
			9	POKUSB			7	Connects to harness No.78 (D1491433)
			10	OPE_CTLERR_N			6	
			11	OPE_LED_N			5	
			12	5VX			4	
			13	5VX			3	
			14	5VX			2	
			15	5VX			1	
	IPU	CN583	1	5VE_LPS	* See Note	MiniB	1	
			2	USBOD-			2	
			3	USBOD+GND			3	Connects to harness No.79 (D1491435)
			4	GND			5	
				N.C.	N.C.		4	
78	Harness No.77 D1495220	CN2	1	GND	Operation Panel	CN1	15	
			2	GND			14	
			3	GND			13	
			4	SDMODE_N			12	
			5	LDET_IN_N			11	
			6	ENG_ENABLE_N			10	
			7	PONOPE_N			9	
			8	ECO_SW_N			8	
			9	POKUSB			7	
			10	OPE_CTLERR_N			6	
			11	OPE_LED_N			5	
			12	5VX			4	
			13	5VX			3	
			14	5VX			2	
			15	5VX			1	

D148/D149/D150 Harness Pin Assignment

Harness No.	Connector (From)			Signal Information	Connector (To)			Note
	To Connector	Addr.	Pin No.		To Connector	Addr.	Pin No.	
79	Harness No.77 D1495220	MiniB	1	VBUS	Operation Panel	CN1	1	
			2	-DATA			2	
			3	+DATA			3	
			4	N.C.			4	
			5	GND			5	
80	SIO	CN317	1	GND	Exposure Lamp (LED)	CN350	10	
			2	LED_6			9	
			3	LED_5			8	
			4	LED_4			7	
			5	V_LED			6	
			6	V_LED			5	
			7	LED_3			4	
			8	LED_2			3	
			9	LED_1			2	
			10	GND			1	
81	SIO	CN312	1	GND	ARDF	CN100	16	
			2	GND			15	
			3	GND			14	
			4	GND			13	
			5	24V			12	
			6	24V			11	
			7	24V			10	
			8	24V			9	
			9	5VE			8	
			10	ADF_TXD			7	
			11	DOCSET_N			6	
			12	ADF_RXD			5	
			13	DFGATE_N			4	
			14	5V			3	
			15	GND			2	
			16	ADF_POW_ON_N			1	
82	SIO	CN312	1	GND	SPDF	CN116	16	
			2	GND			15	
			3	GND			14	
			4	GND			13	
			5	24V			12	
			6	24V			11	
			7	24V			10	
			8	24V			9	
			9	5VE			8	
			10	ADF_TXD			7	
			11	DOCSET_N			6	
			12	ADF_RXD			5	
			13	DFGATE_N			4	
			14	5V			3	
			15	GND			2	
			16	ADF_POW_ON_N			1	
83	CIS	CN1	A1	GND	IPU/IPU-SUB	CN592	A1	
			B15	GND			B15	
			A2	E_SDE-			A2	
			B14	E_SDE+			B14	
			A3	E_SDD-			A3	
			B13	E_SDD+			B13	
			A4	E_SDC-			A4	
			B12	E_SDC+			B12	
			A5	ESCLK-			A5	
			B11	ESCLK+			B11	
			A6	E_SDB-			A6	
			B10	E_SDB+			B10	
			A7	E_SDA-			A7	
			B9	E_SDA+			B9	
			A8	GND			A8	
			B8	GND			B8	
			A9	O_SDE-			A9	
			B7	O_SDE+			B7	
			A10	O_SDD-			A10	
			B6	O_SDD+			B6	
			A11	O_SDC-			A11	
			B5	O_SDC+			B5	
			A12	OSCLK-			A12	
			B4	OSCLK+			B4	
			A13	O_SDB-			A13	
			B3	O_SDB+			B3	
			A14	O_SDA-			A14	
			B2	O_SDA+			B2	
			A15	GND			A15	
			B1	GND			B1	
84	SBU	CN300	1	GND	IPU/IPU-SUB	CN562/ CN592	A1	
			2	GND			B10	
			3	F_TA-			A2	
			4	F_TA+			B9	
			5	F_TB-			A3	
			6	F_TB+			B8	
			7	F_TC-			A4	
			8	F_TC+			B7	
			9	F_LVCK-			A5	
			10	F_LVCK+			B6	
			11	F_TD-			A6	
			12	F_TD+			B5	
			13	F_TE-			A7	
			14	F_TE+			B4	
			15	SFGATE_N			A8	
			16	SHGATE_N			B3	
			17	SYDI_SBU			A9	
			18	SYCS_SBU_N			B2	
			19	SYDO_SBU			A10	
			20	SYCLK_SBU			B1	

D148/D149/D150 ELECTRICAL COMPONENT LAYOUT

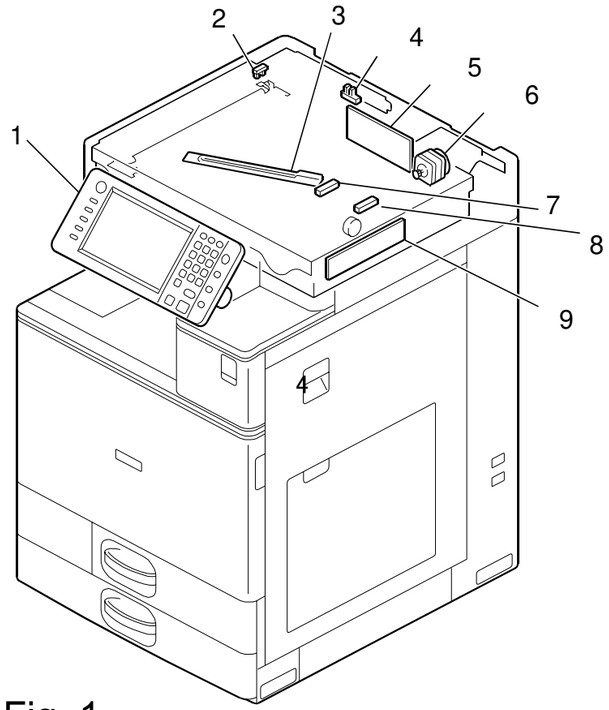


Fig. 1

d177f4540

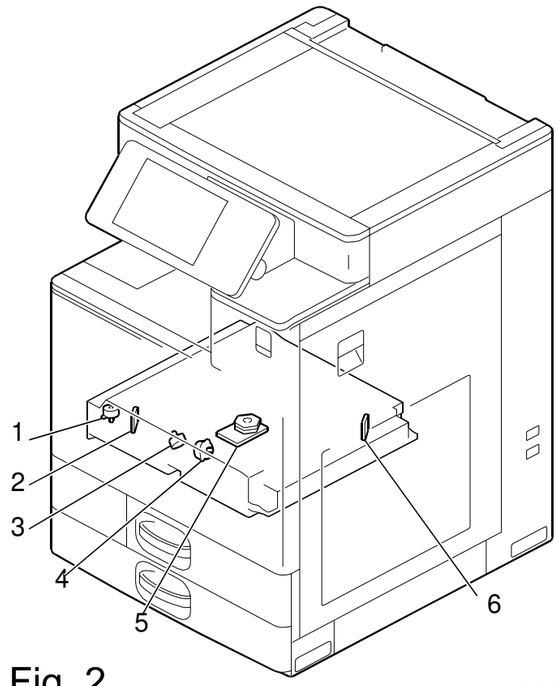


Fig. 2

d 1500914

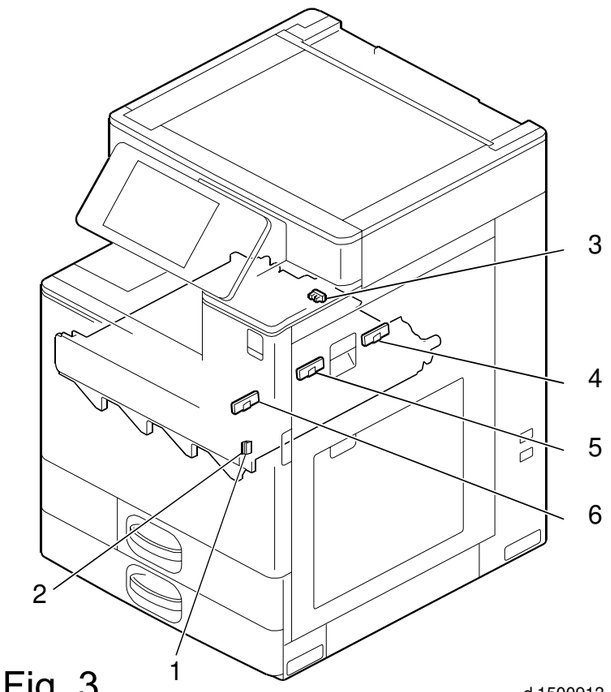


Fig. 3

d 1500913

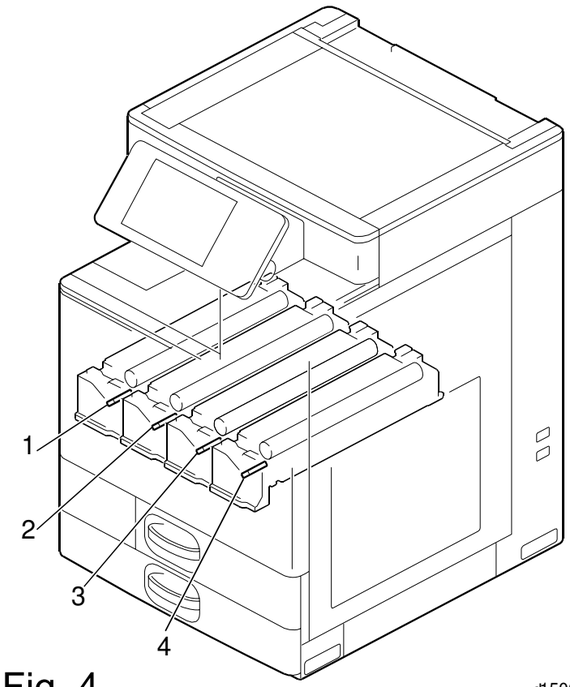


Fig. 4

d1500915

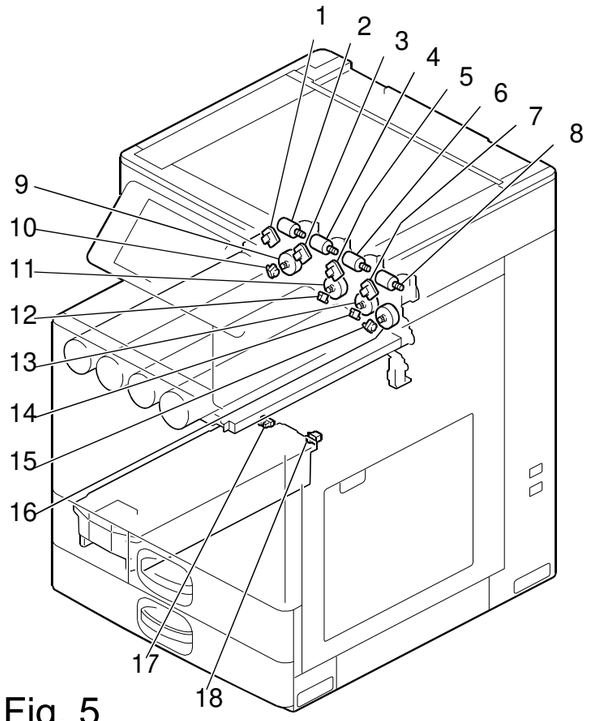


Fig. 5

d 1500919

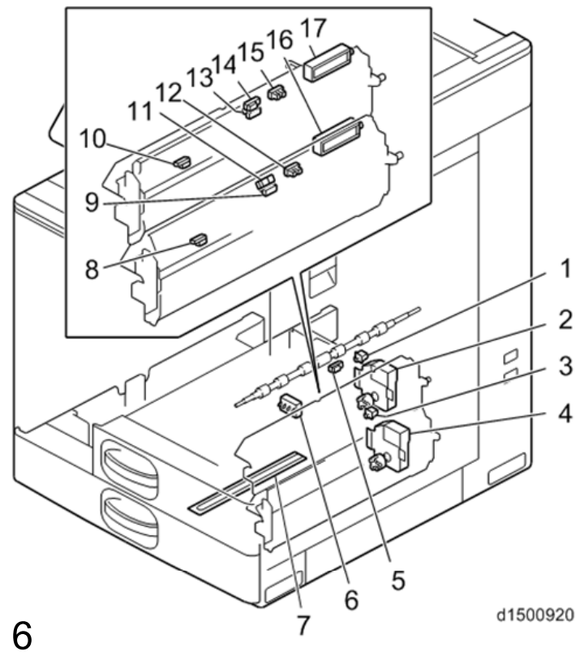


Fig. 6

d1500920

D148/D149/D150 ELECTRICAL COMPONENT LAYOUT

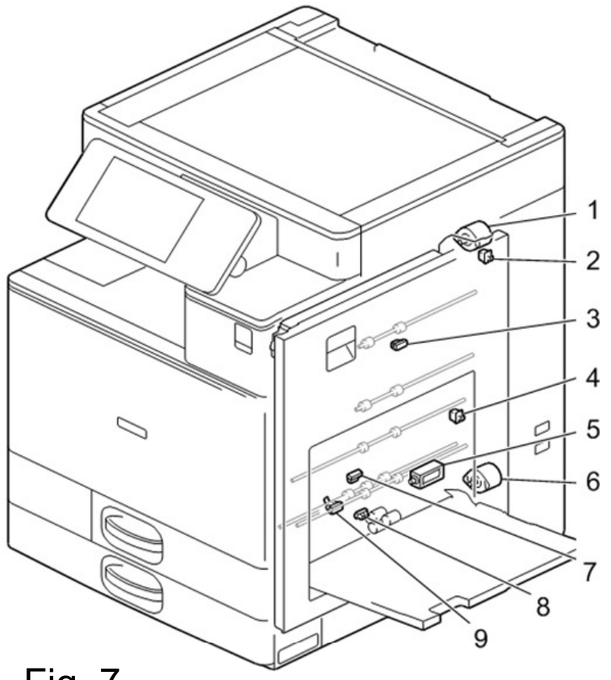


Fig. 7

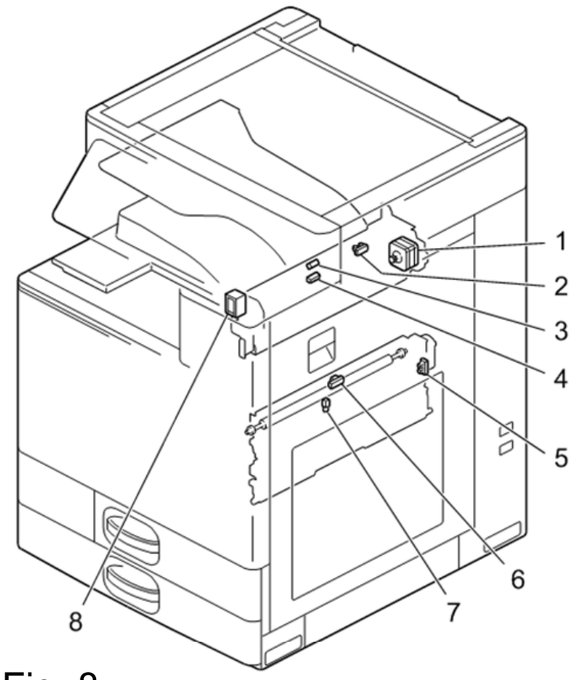


Fig. 8

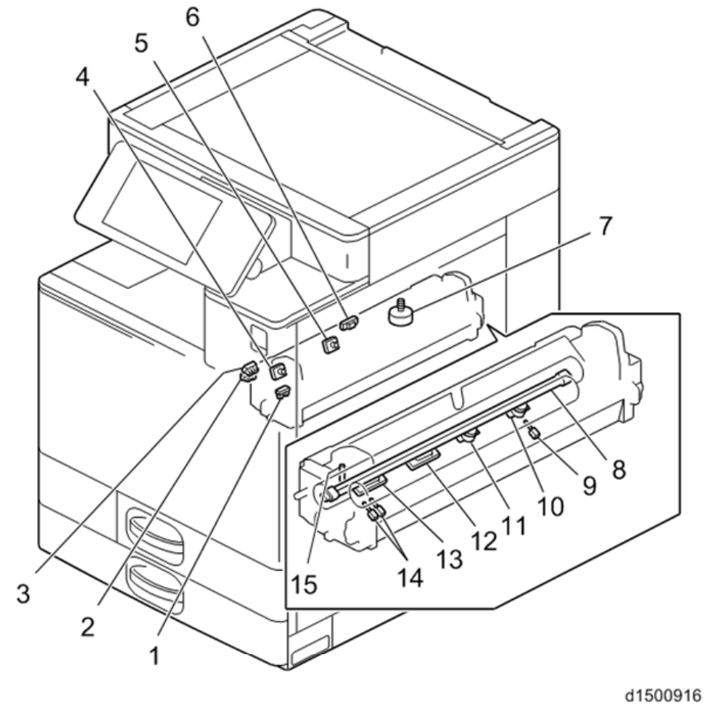


Fig. 9

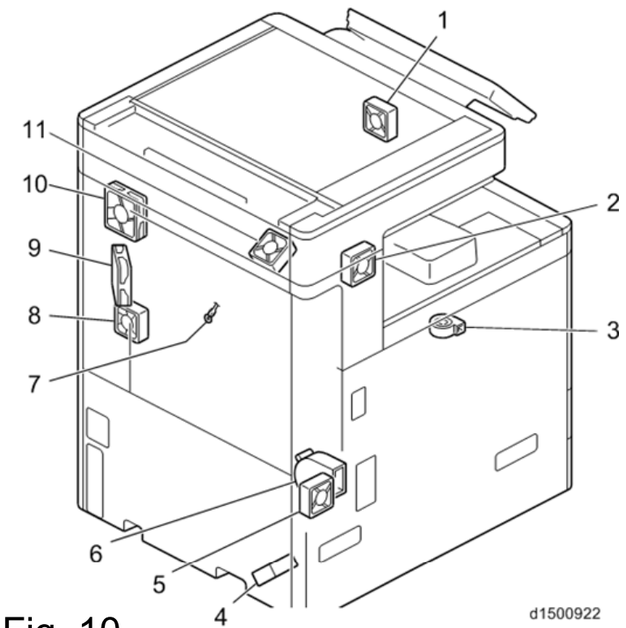


Fig. 10

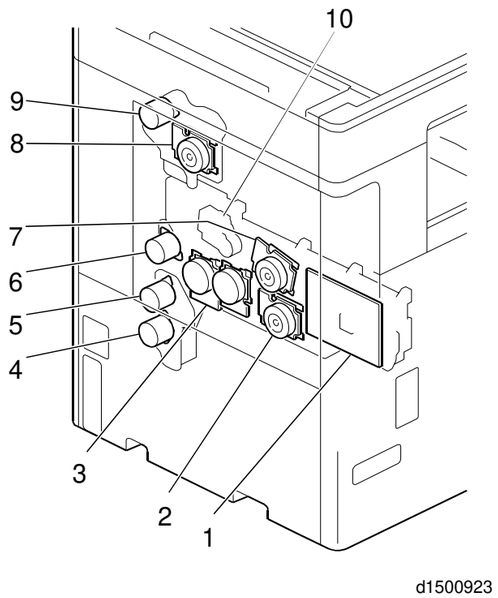


Fig. 11

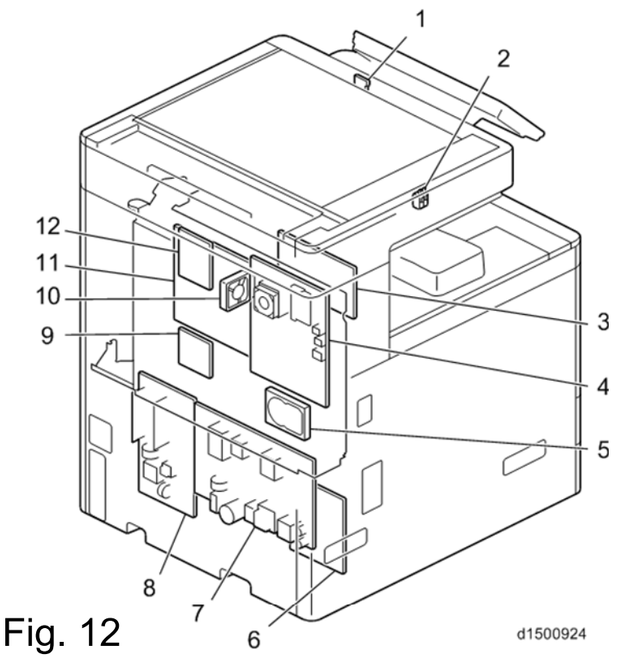


Fig. 12

D148/D149/D150 ELECTRICAL COMPONENT LAYOUT

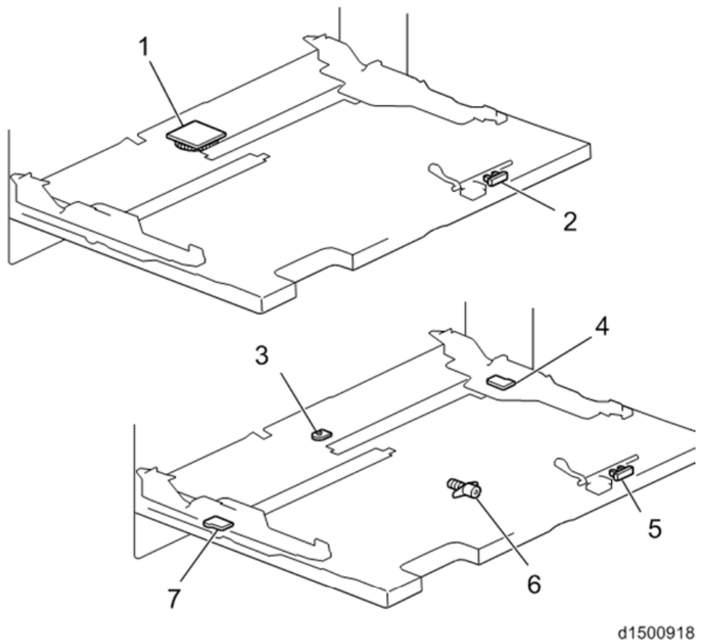


Fig. 13

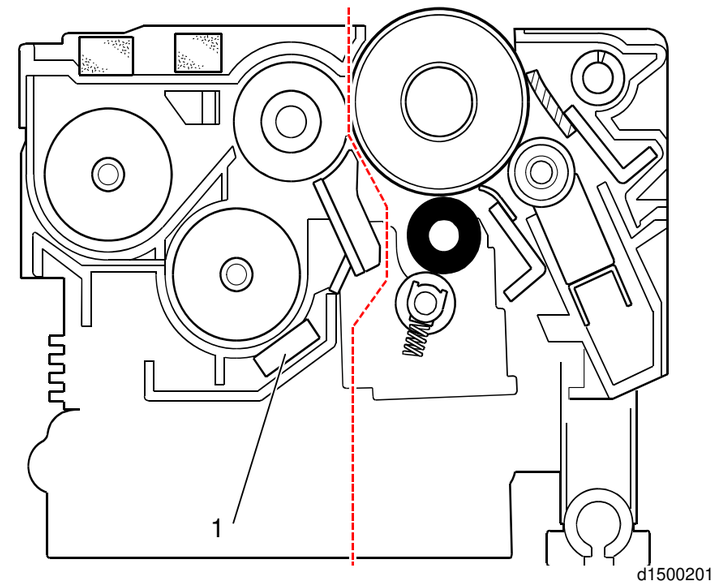


Fig. 14

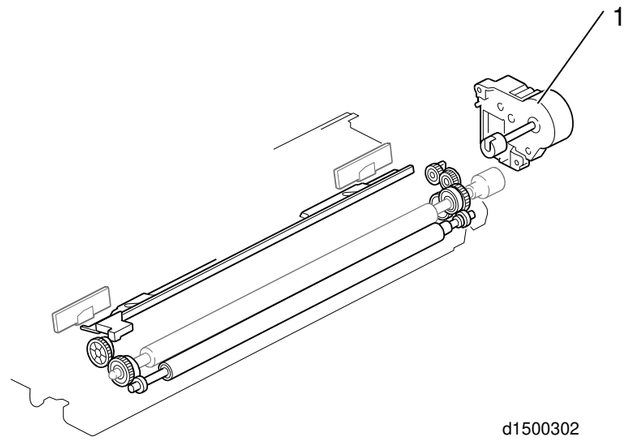


Fig. 15

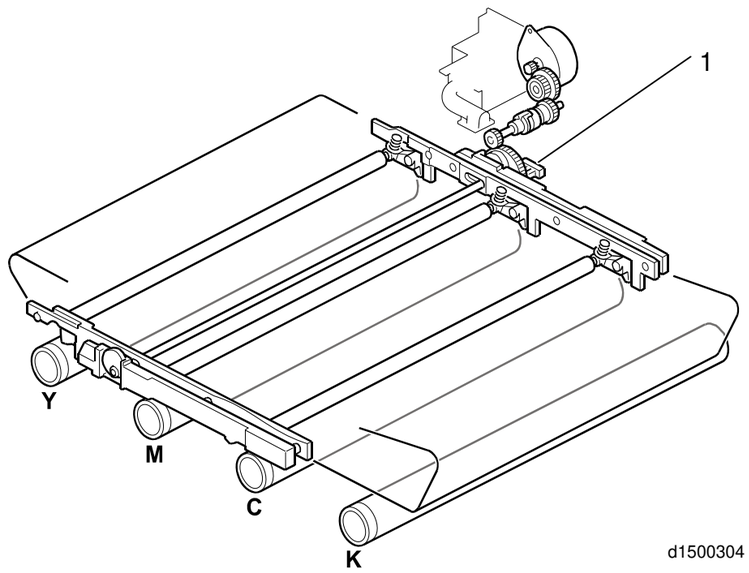


Fig. 16

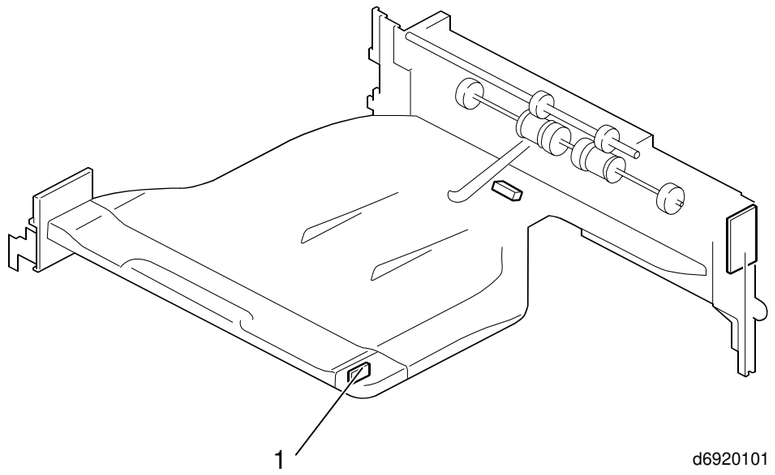


Fig. 17

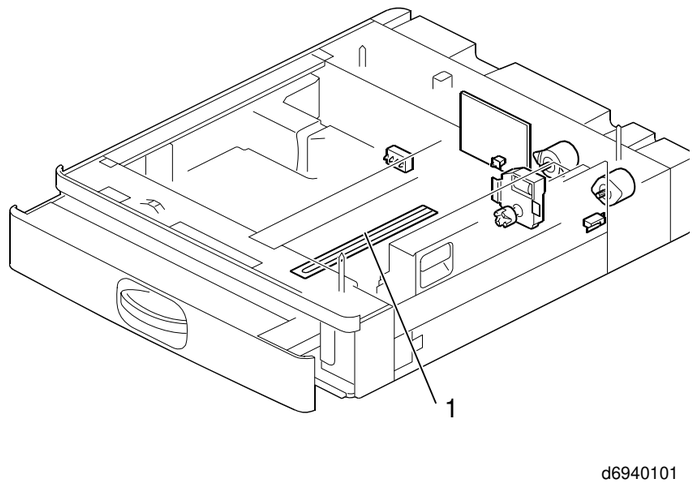


Fig. 18

D148/D149/D150 ELECTRICAL COMPONENT LAYOUT (1 / 2)

Symbol	Index No.	Description	P to P
Sensors			
SEN200	Fig. 8-6	Fusing Entrance Sensor	A-1 (1/2)
SEN201	Fig. 8-5	Paper Transfer Unit Open/Close Sensor	A-1 (1/2)
SEN202	Fig. 7-7	Duplex Exit Sensor	B-1 (1/2)
SEN203	Fig. 7-2	Duplex Unit Open/Close Sensor	B-1 (1/2)
SEN204	Fig. 7-3	Duplex Entrance Sensor	B-1 (1/2)
SEN205	Fig. 7-8	By-pass Paper End Sensor	C-1 (1/2) A-1 (2/2)
SEN206	Fig. 13-1 Fig. 13-3	By-pass Paper Size Sensor	C-1 (1/2)
SEN207	Fig. 13-2 Fig. 13-5	By-pass Original Length Sensor	C-1 (1/2) B-1 (2/2)
SEN208	Fig. 8-3	Reverse Sensor	C-1 (1/2)
SEN209	Fig. 8-4	Paper Exit Sensor	C-1 (1/2)
SEN210	Fig. 8-2	Paper Exit Full Sensor	D-1 (1/2)
SEN211	Fig. 6-10	Paper Feed Sensor (1st Feed Tray)	D-1 (1/2)
SEN212	Fig. 6-13	Transport Sensor (1st Feed Tray)	D-1 (1/2)
SEN213	Fig. 6-14	Paper End Sensor (1st Feed Tray)	D-1 (1/2)
SEN214	Fig. 6-15	Limit Sensor (1st Feed Tray)	E-1 (1/2)
SEN215	Fig. 6-5	Registration Sensor	F-1 (1/2)
SEN216	Fig. 13-7	* Side Fence Paper Contact Detection Sensor (Front)	G-1 (1/2) A-1 (2/2)
SEN217	Fig. 13-4	* Side Fence Paper Contact Detection Sensor (Rear)	G-1 (1/2) B-1 (2/2)
SEN218	-	* By-pass Side Fence Position Sensor	G-1 (1/2) B-1 (2/2)
SEN219	Fig. 7-9	* Paper Thickness Double Feed Detection Sensor	G-1 (1/2) B-1 (2/2)
SEN220	Fig. 6-8	Paper Feed Sensor (2nd Feed Tray)	B-5 (1/2)
SEN221	Fig. 6-9	Transport Sensor (2nd Feed Tray)	B-5 (1/2)
SEN222	Fig. 6-11	Paper End Sensor (2nd Feed Tray)	C-5 (1/2)
SEN223	Fig. 6-12	Limit Sensor (2nd Feed Tray)	C-5 (1/2)
SEN224	Fig. 9-1	Pressure Roller HP Sensor	E-5 (1/2)
SEN225	Fig. 9-6	Fusing Exit Sensor	F-5 (1/2)
SEN226	Fig. 9-2	Fusing Shield Position Sensor 1	G-5 (1/2)
SEN227	Fig. 9-3	Fusing Shield Position Sensor 2	G-5 (1/2)
SEN228	Fig. 5-15	Toner End Sensor/K	B-7 (1/2)
SEN229	Fig. 5-14	Toner End Sensor/C	B-7 (1/2)
SEN230	Fig. 5-12	Toner End Sensor/M	C-7 (1/2)
SEN231	Fig. 5-10	Toner End Sensor/Y	C-7 (1/2)
SEN232	Fig. 16-1	ITB Contact and Release Sensor	C-7 (1/2)
SEN233	Fig. 3-3	Imaging Temperature Sensor	C-7 (1/2)
SEN234	Fig. 5-17	Waste Toner Capacity Detection Sensor	E-7 (1/2)
SEN235	Fig. 9-1	Paper Transfer Roller HP Sensor	E-7 (1/2)
SEN236	Fig. 14-1	HST Sensor/K	F-7 (1/2)
SEN237	Fig. 14-1	HST Sensor/C	G-7 (1/2)
SEN238	Fig. 14-1	HST Sensor/M	G-7 (1/2)
SEN239	Fig. 14-1	HST Sensor/Y	G-7 (1/2)
SEN240	-	Temperature and Humidity Sensor	A-10 (1/2)
SEN241	Fig. 3-4 Fig. 3-5 Fig. 3-6	TM/ID Sensor	F-8 (2/2)
SEN242	Fig. 1-7	APS Sensor 2	B-6 (2/2)
SEN243	Fig. 1-8	APS Sensor 1	B-6 (2/2)
SEN244	Fig. 1-2	Scanner Home Position Sensor	C-6 (2/2)
SEN245	Fig. 1-4	DF Position Sensor	C-6 (2/2)

Symbol	Index No.	Description	P to P
Motors			
MT200	Fig. 7-1	Duplex Entrance Motor	A-1 (1/2)
MT201	Fig. 7-6	Duplex/By-pass Motor	B-1 (1/2)
MT202	Fig. 8-1	Reverse Motor	D-1 (1/2)
MT203	Fig. 11-7	Registration Motor	E-1 (1/2)
MT204	Fig. 11-11	Paper Exit / Pressure Release Motor	E-1 (1/2)
MT205	Fig. 11-5	Paper Feed Motor	E-1 (1/2)
MT206	Fig. 11-6	Transport Motor	E-1 (1/2)
MT207	Fig. 9-7 Fig. 11-10	Fusing Motor	F-1 (1/2)
MT208	Fig. 13-6	* Side Fence Drive Motor	G-1 (1/2) A-1 (2/2)
MT209	Fig. 6-2	Lift Motor / Remaining Paper Status Sensor (1st Feed Tray)	A-5 (1/2)
MT210	Fig. 6-4	Lift Motor / Remaining Paper Status Sensor (2nd Feed Tray)	A-5 (1/2)
MT211	Fig. 9-7	Fusing Shield Drive Motor	G-5 (1/2)
MT212	Fig. 5-8	Toner Bottle Drive Motor/K	A-7 (1/2)
MT213	Fig. 5-6	Toner Bottle Drive Motor/C	A-7 (1/2)
MT214	Fig. 5-4	Toner Bottle Drive Motor/M	A-7 (1/2)
MT215	Fig. 5-2	Toner Bottle Drive Motor/Y	A-7 (1/2)
MT216	Fig. 11-8	PCU Motor: CMY	D-7 (1/2)
MT217	Fig. 11-2	Development Motor: CMY	D-7 (1/2)
MT218	Fig. 11-3	Development Motor: Black	D-7 (1/2)
MT219	Fig. 11-4	Image Transfer Motor/K	D-7 (1/2)
MT220	Fig. 11-10 Fig. 15-1	Paper Transfer Contact And Release Motor	E-7 (1/2)
MT221	Fig. 5-16	Toner Transport Motor/K	B-10 (1/2)
MT222	Fig. 5-13	Toner Transport Motor/C	B-10 (1/2)
MT223	Fig. 5-11	Toner Transport Motor/M	B-10 (1/2)
MT224	Fig. 5-9	Toner Transport Motor/Y	B-10 (1/2)
MT225	Fig. 2-1	Skew Motor: Y	C-10 (1/2)
MT226	Fig. 2-3	Skew Motor: M	D-10 (1/2)
MT227	Fig. 2-4	Skew Motor: C	D-10 (1/2)
MT228	Fig. 1-6	Scanner Motor	C-6 (2/2)
MT229	Fig. 2-5	Polygon Mirror Motor	F-6 (2/2)

Solenoids			
SOL200	Fig. 7-5	By-pass Feed Solenoid	B-1 (1/2)
SOL201	Fig. 8-8	Paper Exit Switching Solenoid	C-1 (1/2)
SOL202	Fig. 6-17	Paper Feed Solenoid (1st Feed Tray)	D-1 (1/2)
SOL203	Fig. 6-16	Paper Feed Solenoid (2nd Feed Tray)	B-5 (1/2)

Switches			
SW200	Fig. 6-1	Tray Set Switch (1st Feed Tray)	A-5 (1/2)
SW201	Fig. 6-3	Tray Set Switch (2nd Feed Tray)	B-5 (1/2)
SW202	Fig. 6-6	Size Switch (2nd Feed Tray)	B-5 (1/2)
SW203	Fig. 5-18	Waste Toner Bottle Set Detection Switch	E-7 (1/2)
SW204	Fig. 3-1	Interlock Switch: Front Cover (LD Safety Switch)	D-10 (1/2)
SW205	Fig. 3-2	Interlock Switch: Duplex Unit (LD Safety Switch)	D-10 (1/2)
SW206	Fig. 12-1	Main Switch	D-3 (1/2)
SW207	Fig. 7-4	Right Door Open/Close Switch	F-1 (1/2)

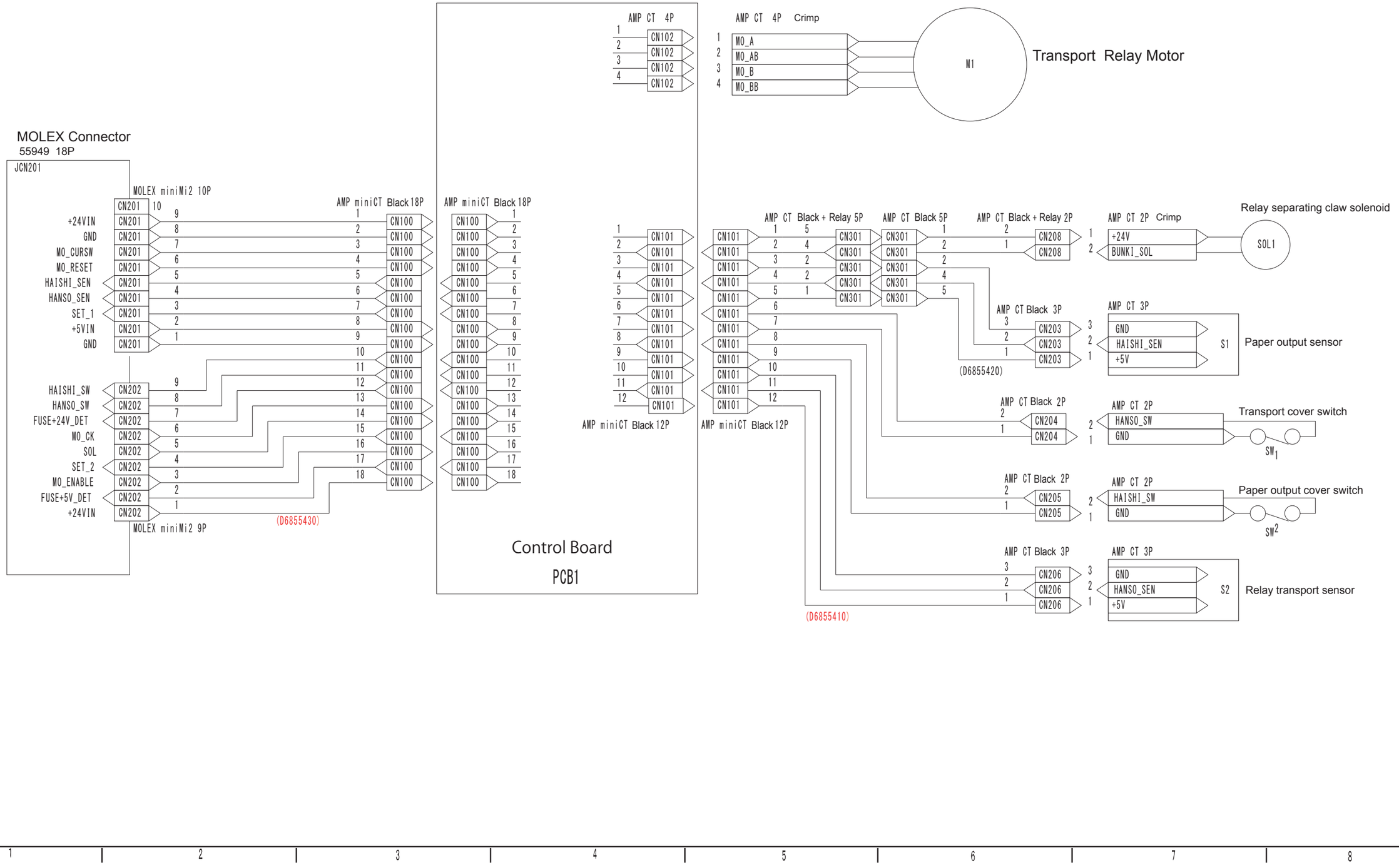
* D150 Only

D148/D149/D150 ELECTRICAL COMPONENT LAYOUT (2 / 2)

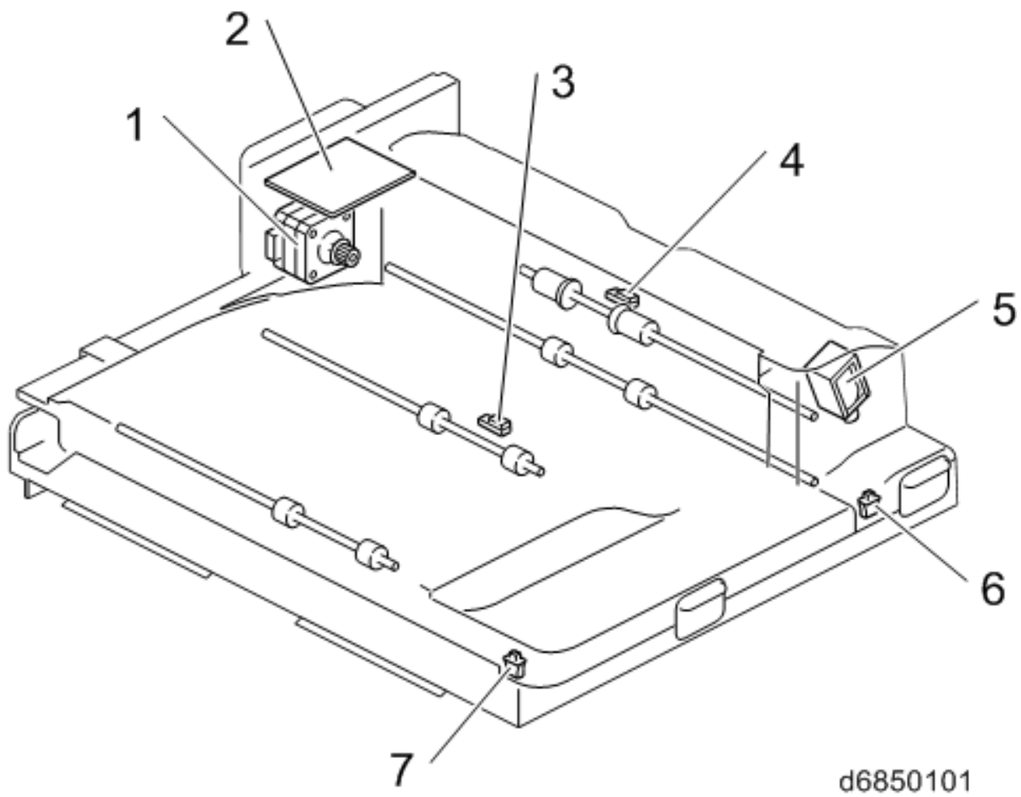
Symbol	Index No.	Description	P to P
Thermistors/Thermopiles			
TH200	Fig. 9-5	Thermopile (Center)	F-5 (1/2)
TH201	Fig. 9-4	Thermopile (Edge)	F-5 (1/2)
TH202	Fig. 9-9	Pressure Thermistor: Center	A-10 (2/2)
TH203	Fig. 9-10	Pressure Thermistor: Edge	A-10 (2/2)
TH204	Fig. 9-14	Pressure Thermistor: Full-Bleed Edge	A-10 (2/2)
TH205	Fig. 9-12	Non-Contact Thermistor (Center)	A-10 (2/2)
TH206	Fig. 9-13	Non-Contact Thermistor (Edge)	A-10 (2/2)
Fans			
FAN200	Fig. 10-10	Fusing Exhaust Heat Fan	E-1 (1/2)
FAN201	Fig. 10-4	PSU Cooling Fan	C-5 (1/2)
FAN202	Fig. 10-5	PSU Exhaust Heat Fan	C-5 (1/2)
FAN203	Fig. 10-6	Ozone Exhaust Fan	D-5 (1/2)
FAN204	Fig. 10-11	Main Exhaust Fan	E-7 (1/2)
FAN205	Fig. 12-10	Power Box Cooling Fan	F-7 (1/2)
FAN206	Fig. 10-9	Toner Supply Cooling Fan	F-7 (1/2)
FAN207	Fig. 10-8	Drive Cooling Fan	F-7 (1/2)
FAN208	Fig. 10-2	Development Intake Fan/Right	A-10 (1/2)
FAN209	Fig. 10-3	Development Intake Fan/Left	A-10 (1/2)
FAN210	Fig. 10-1	Paper Exit Cooling Fan	A-10 (1/2)
Heaters			
H200	Fig. 6-7	Paper Feed Heater	G-5 (2/2)
H201	Fig. 18-1	Bank Heater	G-5 (2/2)
H202	Fig. 1-3	Scanner Anti-condensation Heater	G-5 (2/2)
H203	-	PCU Anti-condensation Heater	G-5 (2/2)
H204	-	Heater: Edge	C-10 (2/2)
H205	-	Heater: Center	C-10 (2/2)
H206	Fig. 9-8	Heater	C-10 (2/2)
LEDs			
LED200	-	Paper Transfer Unit Open/Close LED	A-1 (1/2)
LED201	-	Duplex Jam Proccessing LED	B-1 (1/2)
LED202	Fig. 17-1	LED (1 Bin)	E-5 (1/2)
LED203	-	Exposure lamp (LED)	C-6 (2/2)

Symbol	Index No.	Description	P to P
PCBs			
PCB200	Fig. 12-7	PSU (DC Power)	F-1 (1/2)
PCB201	Fig. 12-8	PSU (AC Controller Board)	C-5 (1/2)
PCB202	Fig. 12-11	IPU	C-5 (1/2)
PCB203	-	MKB	D-5 (1/2)
PCB204	Fig. 5-1	ID Chip	A-7 (1/2)
PCB205	Fig. 5-3	ID Chip	B-7 (1/2)
PCB206	Fig. 5-5	ID Chip	B-7 (1/2)
PCB207	Fig. 5-7	ID Chip	B-7 (1/2)
PCB208	-	HVP-CB	E-7 (1/2)
PCB209	Fig. 12-9	BCU	C-10 (1/2)
PCB210	Fig. 11-1	Imaging IOB	A-8 (1/2)
PCB211	Fig. 12-3	HVP TTS	B-7 (1/2)
PCB212	Fig. 1-5	SIO	B-5 (2/2)
PCB213	Fig. 12-6	Paper Transport IOB	A-3 (1/2)
PCB214	Fig. 12-12	IPU-SUB	E-4 (2/2)
PCB215	Fig. 12-4	CTL	D-5 (2/2)
PCB216	-	Heater Board	G-3 (2/2)
PCB217	Fig. 1-8	SBU	B-6 (2/2)
Other			
-	Fig. 1-1	Operation Panel	E-6 (2/2)
-	Fig. 2-2	Synchronizing Detector Board Y	F-6 (2/2)
-	Fig. 2-8	Synchronizing Detector Board K	F-6 (2/2)
-	-	Key-Counter	D-5 (1/2)
-	-	Bridge Unit / Shift Tray / Side Tray	C-7 (1/2)
-	-	Bank	D-5 (1/2)
-	-	1 Bin Tray	E-5 (1/2)
-	-	Fusing Unit	F-5 (1/2)
-	-	Finisher	C-10 (1/2)
-	-	Inlet Power Socket	E-2 (2/2)
-	-	ARDF/SPDF	C-6 (2/2)
-	-	New Unit Detection Fuse (Fusing Unit)	B-10 (2/2)
-	-	Set Detection: GND / NA / EU / Reserved (JPN/TWN)	B-10 (2/2)
-	-	Charge Unit (K/C/M/Y)	D-10 (2/2)
-	-	Development Unit (K/C/M/Y)	D-10 (2/2)

D685 POINT TO POINT DIAGRAM



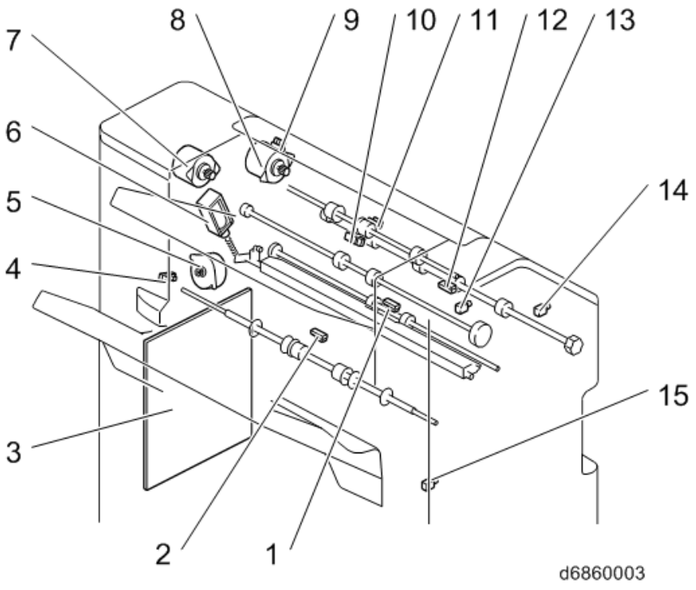
D685 ELECTRICAL COMPONENT LAYOUT

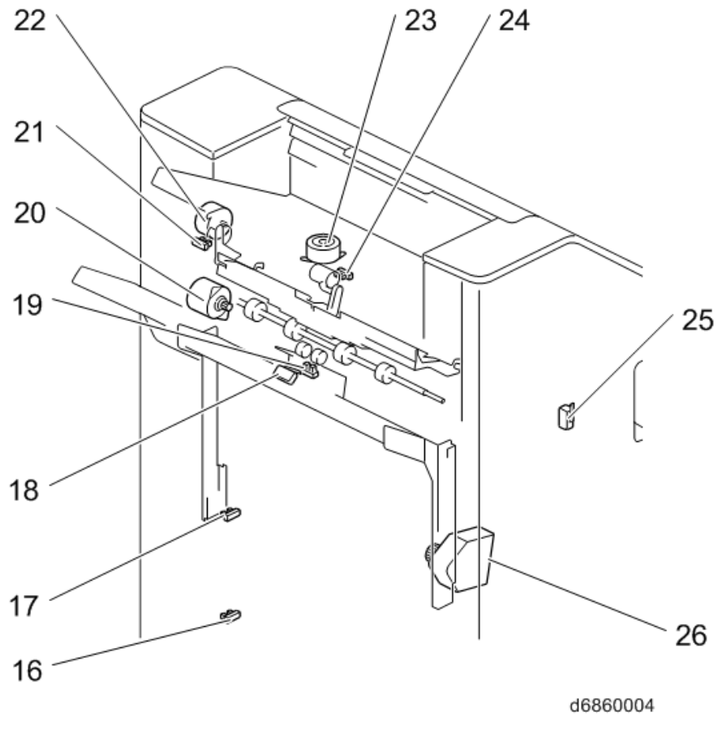


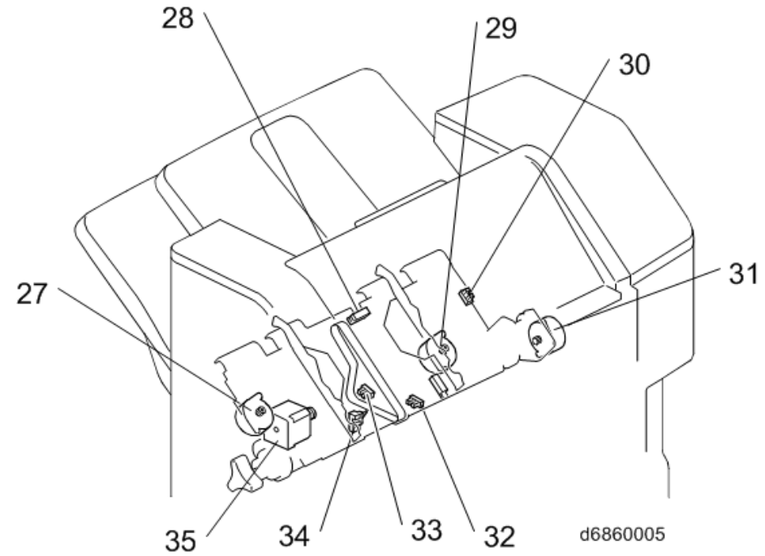
Motors			
Symbol	Index No.	Description	PtoP
M1	1	Transport Relay Motor	B6
Sensors			
Symbol	Index No.	Description	PtoP
S1	4	Paper Output Sensor	C7
S2	3	Relay Transport Sensor	E7
Solenoids			
Symbol	Index No.	Description	PtoP
SOL1	5	Relay Separating Claw Solenoid	C7
Switches			
Symbol	Index No.	Description	PtoP
SW1	7	Transport Cover Switch	D7
SW2	6	Paper Output Cover Switch	D7
PCB			
Symbol	Index No.	Description	PtoP
PCB1	2	Control Board	E4

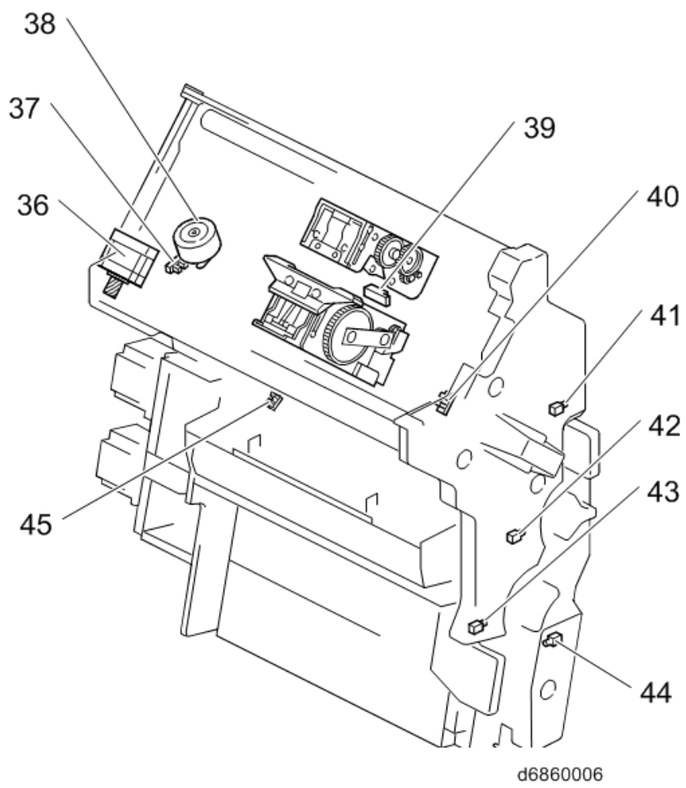

CN400
SW1
Open/Close Door Switch
SW2
Shift Tray Upper Limit Switch
Proof Tray Paper Eject Sensor
Proof Tray Full Sensor
Intermediate Transport Sensor L
Intermediate Transport Sensor R
Paper Guide Plate Open/Close HP Sensor
Shift HP Sensor
Upper Cover Open/Close Sensor
Positioning Roller HP Sensor
Entrance Sensor
Shift Tray Paper Surface Sensor
Shift Tray Lower Limit Sensor (Lower)
Shift Tray Lower Limit Sensor (Upper)
Jogger HP Sensor
Release Claw HP Sensor
Staple Tray Paper Detection Sensor
Shift Tray Paper Eject Sensor
Paper Bundle Transport Upper Pressure Release HP Sensor
Stapler Transfer HP Sensor
Stapler Retreat Sensor
Paper Bundle Transport Lower Pressure Release HP Sensor
Paper Bundle Transport Sensor
Center-Folding Tray Full Sensor 1
Center-Folding Tray Full Sensor 2
D686 ONLY
Staple Tray JAM LED
Intermediate Transport JAM LED
Entrance Transport JAM LED
Punch
PCB: Punch
PCB2
Punch Hopper Full Sensor
Paper Position Sensor
Punch HP Sensor
Punch Rotation Pulse Sensor
Punch Motor
Punch Movement Motor
Punch Movement HP Sensor
Paper Position Sensor Slide Motor
Paper Position Side HP Sensor
Punch Unit
EH-C590R
Stapler Motor
Stapler Transfer HP Sensor (Edge)
Stapler Transfer Motor (Edge)
D687 ONLY
Paper Bundle Transport JAM LED
Folding Blade JAM LED
Folding Roller JAM LED
Trailing Edge Stopper JAM LED
Center-Folding Blade HP Sensor
Center-Folding Cam HP sensor
Trailing Edge Stopper Transport Sensor
Trailing Edge Stopper HP Sensor
Center-Folding Tray Paper Eject Sensor
DEBUG I/F
CPU DEBUG I/F
JTAG I/F
Switching I/F
SPI I/F
Main Control Board (D686)
Main Control Board (D687)
Entrance Transport Motor
Paper Eject Transport Motor
Proof Transport Motor
Junction Solenoid
Shift Motor
Positioning Roller Motor
Paper Guide Plate Open/Close Motor
Tray Lift Motor
FAN Motor I/F
Release Claw Motor
Jogger Moor
Paper Bundle Transport Upper Pressure Release Motor
Paper Bundle Transport Upper Motor
D686 ONLY
Folding Blade Motor
Folding Transport Motor
Stapler Transfer Motor (Mid.)
Paper Bundle Transport Lower Pressure Release Motor
Trailing Edge Stopper Motor
Stapler Unit: EH-581R
Stapler Unit: EH-581R
D687 ONLY
D686 / D687 POINT TO POINT DIAGRAM

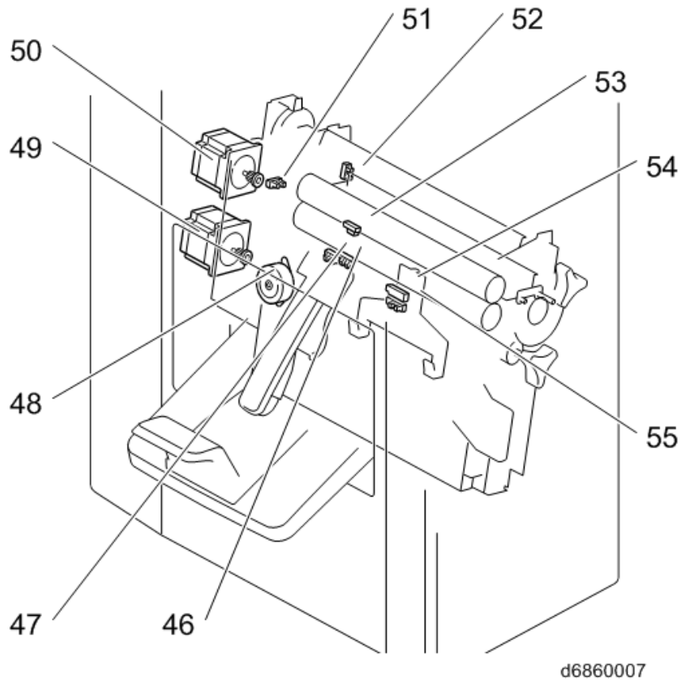
D686 / D687 ELECTRICAL COMPONENT LAYOUT (1/3)

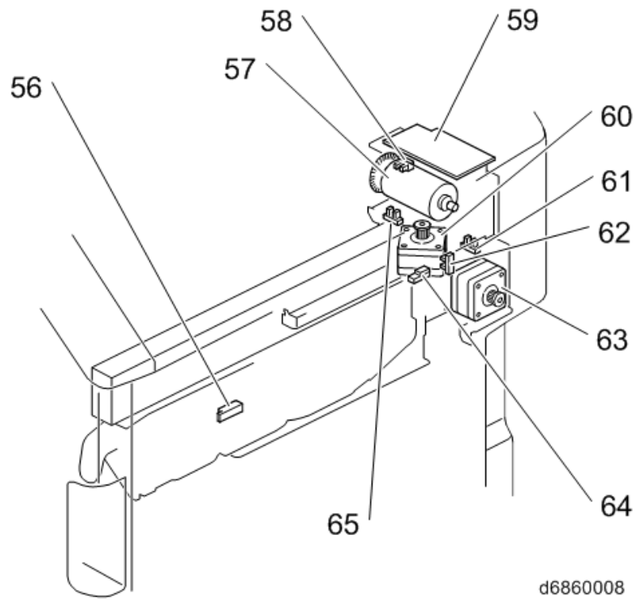




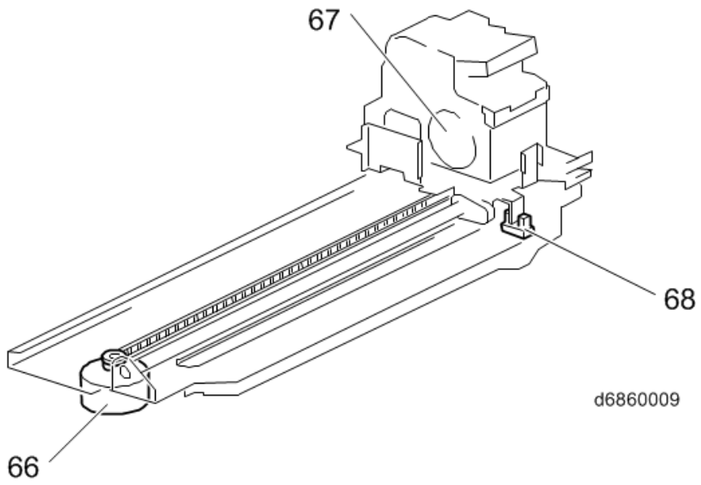








D686 / D687 ELECTRICAL COMPONENT LAYOUT (2/3)



Switches			
Symbol	Index No.	Description	PtoP
SW1	25	Open/Close Door Switch	A-1
SW2	18	Shift Tray Upper Limit Switch	B-1
LEDs			
Symbol	Index No.	Description	PtoP
LED1	15	Staple Tray JAM LED	A-5
LED2	13	Intermediate Transport JAM LED	A-5
LED3	14	Entrance Transport JAM LED	A-5
LED4	41	Paper Bundle Transport JAM LED	D-5
LED5	42	Folding Blade JAM LED	D-5
LED6	43	Folding Roller JAM LED	D-5
LED7	44	Trailing Edge Stopper JAM LED	D-5
Others			
Symbol	Index No.	Description	PtoP
SOL1	6	Junction Solenoid	B-8
PCB1	3	Main Control Board	F-4, F-5
PCB2	59	Controller Board (PUNCH)	B-4

D686 / D687 ELECTRICAL COMPONENT LAYOUT (3/3)

Sensors			
Symbol	Index No.	Description	PtoP
S1	11	Proof Tray Paper Eject Sensor	B-1
S2	10	Proof Tray Full Sensor	B-1
S3	2	Intermediate Transport Sensor L	B-1
S4	1	Intermediate Transport Sensor R	B-1
S5	24	Paper Guide Plate Open/Close HP Sensor	B-1
S6	4	Shift HP Sensor	C-1
S7	9	Upper Cover Open/Close Sensor	C-1
S8	21	Positioning Roller HP Sensor	C-1
S9	12	Entrance Sensor	C-1
S10	19	Shift Tray Paper Surface Sensor	C-1
S11	16	Shift Tray Lower Limit Sensor (Lower)	C-1
S12	17	Shift Tray Lower Limit Sensor (Upper)	D-1
S13	30	Jogger HP Sensor	D-1
S14	34	Release Claw HP Sensor	D-1
S15	32	Staple Tray Paper Detection Sensor	D-1
S16	28	Shift Tray Paper Eject Sensor	D-1
S17	33	Paper Bundle Transport Upper Pressure Release HP Sensor	D-1
S18	40	Stapler Transfer HP Sensor (Mid.)	E-1
S19	45	Stapler Retreat Sensor	E-1
S20	37	Paper Bundle Transport Lower Pressure Release	E-1
S21	39	Paper Bundle Transport Sensor	E-1
S22	46	Center-Folding Tray Full Sensor 1	E-1
S23	47	Center-Folding Tray Full Sensor 2	E-1
S24	52	Center-Folding Blade HP Sensor	E-3
S25	51	Center-Folding Cam HP Sensor	E-3
S26	54	Trailing Edge Stopper Transport Sensor	E-3
S27	55	Trailing Edge Stopper HP Sensor	E-3
S28	53	Center-Folding Tray Paper Eject Sensor	E-3
S29	56	Punch Hopper Full Sensor	A-5
S30	64	Paper Position Sensor	A-5
S31	65	Punch HP Sensor	B-5
S32	58	Punch Rotation Pulse Sensor	B-5
S33	61	Punch Movement HP Sensor	C-5
S34	62	Paper Position Slide HP Sensor	C-5
S35	68	Stapler Transfer HP Sensor (Edge)	D-5

Motors			
Symbol	Index No.	Description	PtoP
M1	57	Punch Motor	B-5
M2	60	Punch Movement Motor	B-5
M3	63	Paper Position Sensor Slide Motor	C-5
M4	67	Stapler Motor	C-5
M5	66	Stapler Transfer Motor (Edge)	D-5
M6	8	Entrance Transport Motor	A-8
M7	20	Paper Eject Transport Motor	A-8
M8	7	Proof Transport Motor	A-8
M9	5	Shift Motor	B-8
M10	22	Positioning Roller Motor	B-8
M11	23	Paper Guide Plate Open/Close Motor	B-8
M12	26	Tray Lift Motor	B-8
M13	35	Release Claw Motor	C-8
M14	27	Jogger Motor	C-8
M15	29	Paper Bundle Transport Upper Pressure Release Motor	C-8
M16	31	Paper Bundle Transport Upper Motor	C-8
M17	49	Folding Blade Motor	D-8
M18	50	Folding Transport Motor	D-8
M19	36	Stapler Transfer Motor (Mid.)	D-8
M20	38	Paper Bundle Transport Lower Pressure Release Motor	D-8
M21	48	Trailling Edge Stopper Motor	E-8

D688 / D689 POINT TO POINT DIAGRAM

Booklet Paper Sensor (Upper) S2
Folding Blade HP Sensor S1
Booklet Guide Sensor S4
Booklet Adjustment HP Sensor S3
Booklet Paper Sensor (Lower) S11
Booklet Jogger HP Sensor S10
Folding Blade Cam HP Sensor S9
Bottom Paper Exit Sensor S6
Booklet Bottom Fence HP Sensor S5
Booklet Paper Full Sensor 1 S7
Booklet Paper Full Sensor 2 S8
Entrance Sensor S17
Shift Tray Lower Limit Sensor 1 S16
Shift Tray Lower Limit Sensor 2 S29
Shift Tray Lower Limit Sensor 3 S30
Shift Tray Lower Limit Sensor 4 S36
Shift Tray Lower Limit Sensor 5 S37
Shift Roller HP Sensor S19
Lower Junction Gate HP Sensor S18
Paper Transport Sensor S15
Switchback Transport Sensor S14
Proof Tray Full Sensor S21
Proof Tray Exit Sensor S20
Staple Tray Paper Sensor S31
Sht Tray Exit Sensor S22
Leading Edge Guide HP Sensor S33
Feed Out Guide HP Sensor S12
Stapler Movement HP Sensor S23
Jogger HP Sensor S25
Stacking Roller HP Sensor S32
Trailing Edge Pressure Plate HP Sensor S24
Shift Tray Paper Sensor S35
Horizontal Transport Sensor S13
Corner Stapling Paper Sensor 1 S26
Corner Stapling Paper Sensor 2 S27
Paper Exit Guide HP Sensor S34
Feed Out Guide HP Sensor S28

Tray Upper Limit Switch SW3
Middle Transport Motor DCM3
Tray Exit Motor DCM4
Feed Out Motor DCM7
Stacking Roller Motor DCM6
Trailing Edge Pressure Plate Motor DCM8
Tray Shift Motor DCM9
Upper Junction Gate Solenoid SOL1
Stapler Movement Motor STM1
Shift Motor STM3
Jogger Motor STM1
Leading Edge Guide Motor STM6
Paper Exit Gate Motor STM4
Positioning Roller Motor STM5
Lower Junction Gate Motor STM2

Front Door Switch SW1
Movement Roller Transport Motor DCM11
Booklet Stapler Motor DCM12
Press Folding Motor STM10
Folding Transport Motor STM9
Booklet Guide Motor STM9
Booklet Jogger Motor STM11
Booklet Fence Motor STM12
Pre Stack Transport Motor DCM5
Horizontal Transport Motor DCM2
Entrance Transport Motor DCM1
Stapler (*5) DCM10
Booklet Staple Unit LED1
Booklet Unit LED2
Booklet Unit LED3
Booklet Unit LED4
Booklet Unit LED5
Booklet Unit LED6
Booklet Unit LED7
Booklet Unit LED8
Paper Exit Guide Limit Switch SW2

Punch Unit (*3)
Punch Hopper Full Sensor S42
Paper Position Side Sensor S43
Punch HP Sensor AWU2108
Punch RPS Sensor S39
Punch Drive Motor DCM13
Punch Movement HP Sensor S40
Paper Position Side HP Sensor S41
Punch Drive Motor STM13
Paper Position Sensor Side Motor STM14
PCB: PUNCH : CONTROL (D688521O)
PCB : MAIN : D688

Output Jogger Unit For D688 (*7)
Drawer
DNTA810 or C/F
T1 Round Terminal M4 F.G.
T2 Round Terminal M4 F.G.
T3 Round Terminal M4 F.G.
T4 Round Terminal W4 F.G.
T5 Round Terminal W4 F.G.
IF: mainframe

(*1) D688 : 07045532
D689 : 07045552

(*2) D688 : 07045420
D689 : 07045429

(*3) D688 : 07045540
D689 : 07045547

(*4) D688 : 07045448
D689 : 07045460

(*5) D688 : 07045526
D689 : 07045536

(*6) D688 : 07045483
D689 : 07045493

(*7) Output Jogger Unit For D688

8. Suffix is omitted.
7. Output Jogger Unit (D702) for D688 is an option and only D702**.
6. The section surrounded by the dashed line is only for D704* and D688**.
5. Interface harness is D688/07045552, D689/D689552. Stapler is D688/D704519S, D689/M3664220.
4. All sections surrounded by the dashed line is for D688 .
3. The Punch Unit is and option, D70600 (NA/3/2 holes), D70601, D70603 (EU/4 holes), D70602, D70604 (NE/4holes).
2. The connector with no indication is press-connect type, and its connector is the natural color.
1. The UL style of electric wire with no indication is UL1007/2, AWG size is AWG26, and its color is purple(M).
(*) 1. The UL style of electric wire with no indication is UL1007/2, AWG size is AWG26, and its color is purple(M).

FINISHER/BOOKLET FINISHER (D688/D689) ELECTRICAL COMPONENT LAYOUT (1/2)

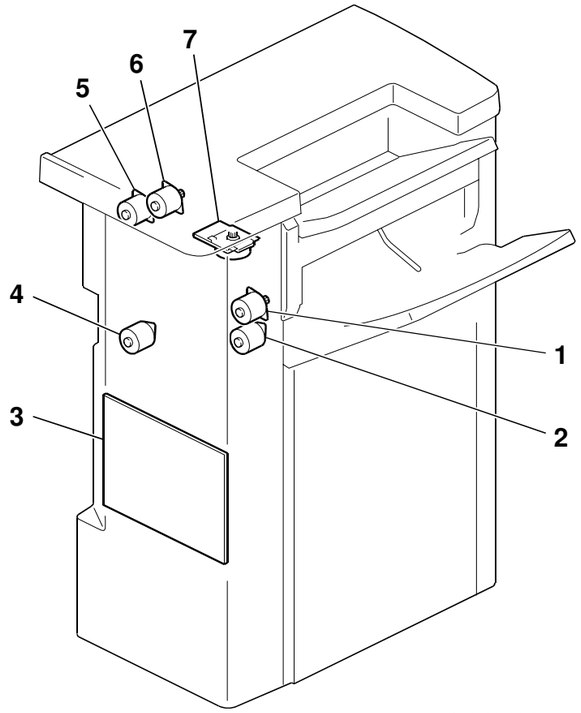


Fig-1 d7049902.wmf

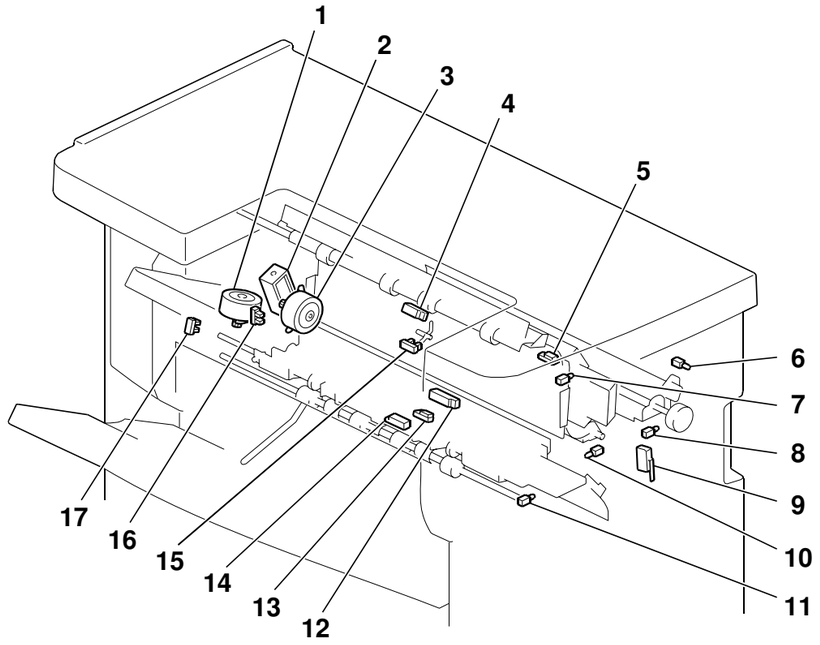


Fig-2 d7049901.wmf

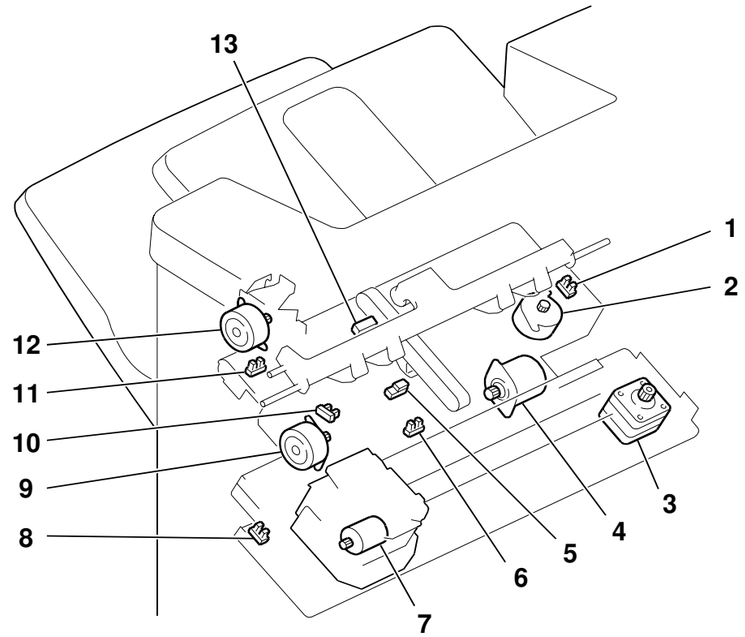


Fig-3 d7049903.wmf

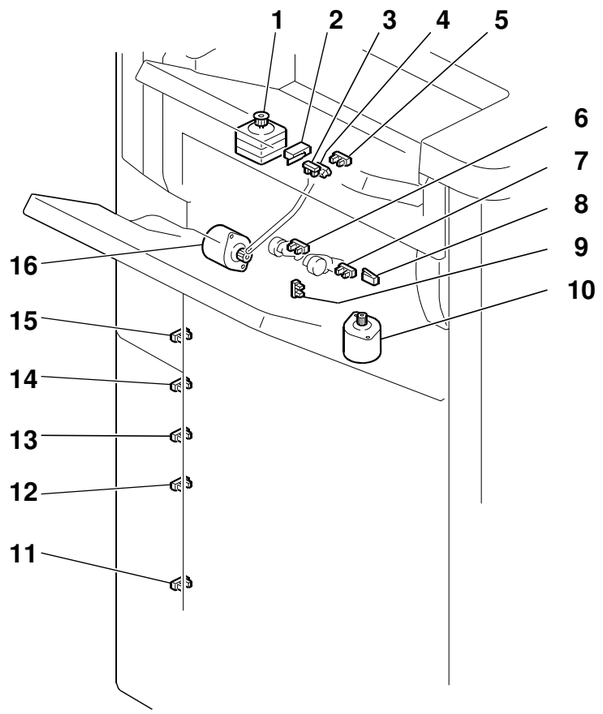


Fig-4 d7049904.wmf

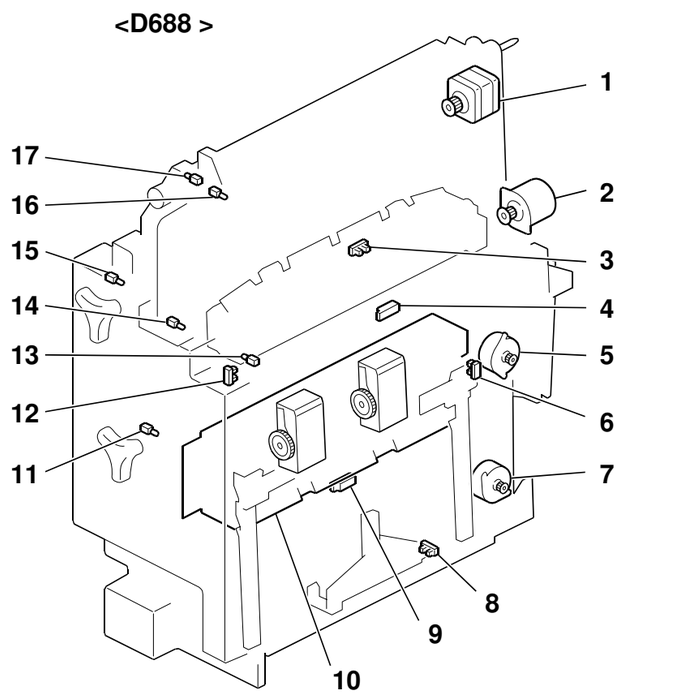


Fig-5 d7049907.wmf

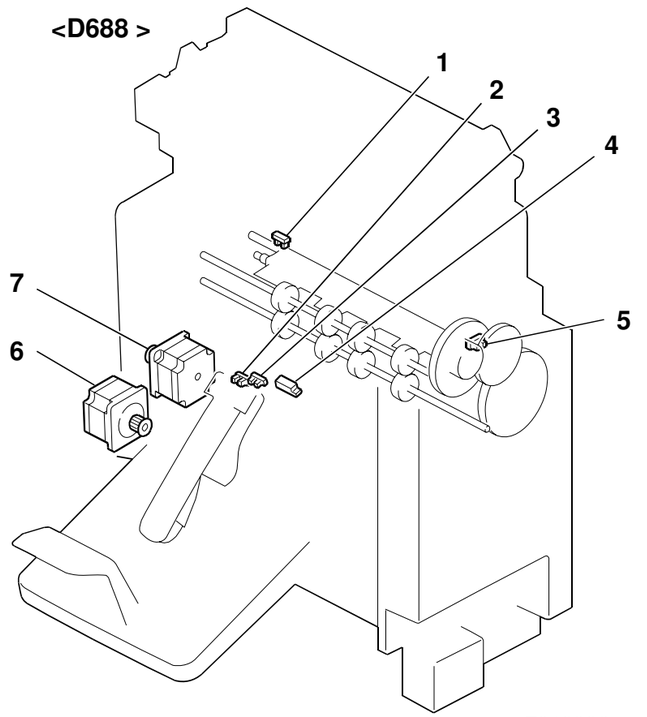


Fig-6 d7049906.wmf

FINISHER/BOOKLET FINISHER (D688/D689) ELECTRICAL COMPONENT LAYOUT (2/2)

< D706 Punch Unit (Option) >

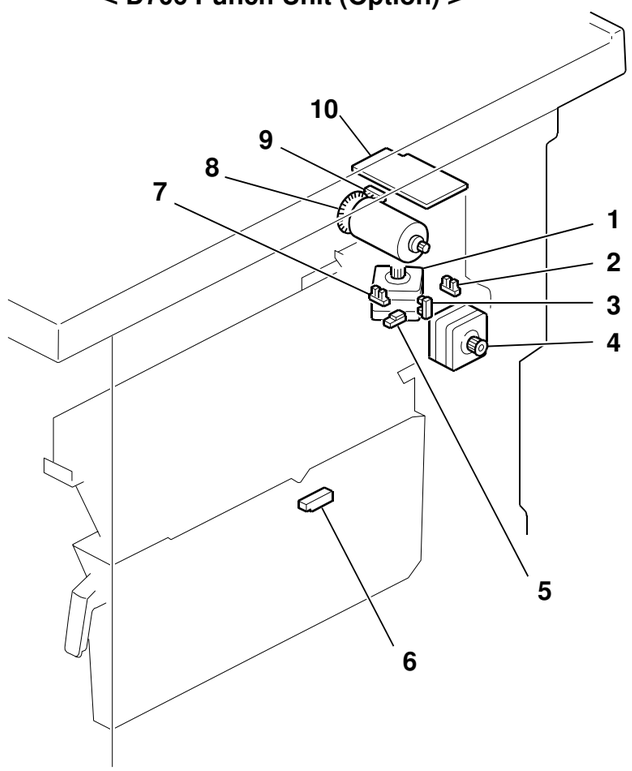


Fig-7

d7049907.wmf

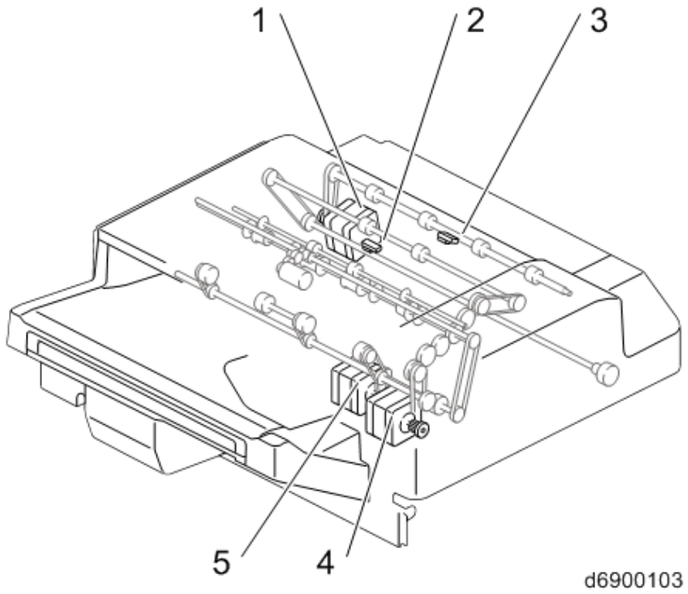
Symbol	Index No.	Description	P to P
PCBs			
PCB1	Fig-1-3	Main Control Board	-
PCB2	Fig-7-10	Main Board (Punch Unit) (D706)	O10
Sensors			
S1	Fig-6-1	Tray Upper Limit Switch (D688)	B2
S2	Fig-5-4	Booklet Paper Sensor (Upper) (D688)	A1
S3	Fig-5-3	Booklet Adjustment HP Sensor (D688)	B2
S4	Fig-5-12	Booklet Guide Sensor (D688)	B1
S5	Fig-5-8	Booklet Bottom Fence HP Sensor (D688)	E2
S6	Fig-6-4	Bottom Paper Exit Sensor (D688)	D1
S7	Fig-6-3	Booklet Paper Full Sensor 1 (D688)	E1
S8	Fig-6-2	Booklet Paper Full Sensor 2 (D688)	F2
S9	Fig-6-5	Folding Blade Cam HP Sensor (D688)	D2
S10	Fig-5-6	Booklet Jogger HP Sensor (D688)	C1
S11	Fig-5-9	Booklet Paper Sensor (Lower) (D688)	E1
S12	Fig-3-6	Feed Out Guide HP Sensor	L1
S13	Fig-2-12	Horizonatal Transport Sensor	O1
S14	Fig-2-13	Switchback Transport Sensor	J1
S15	Fig-2-14	Paper Transport Sensor	J2
S16	Fig-4-15	Shift Tray Lower Limit Sensor 1	G1
S17	Fig-2-5	Entrance Sensor	F2
S18	Fig-2-16	Lower Junction Gate HP Sensor	I1
S19	Fig-2-17	Shift Roller HP Sensor	I2
S20	Fig-2-15	Proof Tray Exit Sensor	K1
S21	Fig-2-4	Proof Tray Full Sensor	J2
S22	Fig-3-13	Shit Tray Exit Sensor	L1
S23	Fig-3-8	Stapler Movement HP Sensor	H2
S24	Fig-4-6	Trailing Edge Pressure Plate HP Sensor	N1
S25	Fig-3-1	Jogger HP Sensor	M1
S26	Fig-4-3	Corner Stapling Paper Sensor 1	O2
S27	Fig-4-4	Corner Stapling Paper Sensor 2	P1
S28	Fig-4-9	Feed Out Guide HP Sensor	P1
S29	Fig-4-14	Shift Tray Lower Limit Sensor 2	G2
S30	Fig-4-13	Shift Tray Lower Limit Sensor 3	H1
S31	Fig-3-5	Staple Tray Paper Sensor	K2
S32	Fig-3-11	Stacking Roller HP Sensor	N2
S33	Fig-3-10	Leading Edge Guide HP Sensor	L2
S34	Fig-4-5	Paper Exit Gate HP Sensor	P2
S35	Fig-4-7	Shift Tray Paper Sensor	N2
S36	Fig-4-12	Shift Tray Lower Limit Sensor 4	H2
S37	Fig-4-11	Shift Tray Lower Limit Sensor 5	H1
S38	Fig-7-7	Punch HP Sensor (D706)	M14
S39	Fig-7-9	Punch RPS Sensor(D706)	M15
S40	Fig-7-2	Punch Movement HP Sensor (D706)	N13
S41	Fig-7-3	Paper Position Side HP Sensor (D706)	O13
S42	Fig-7-6	Punch Hopper Full Sensor (D706)	L15
S43	Fig-7-5	Paper Position Side Sensor (D706)	L16

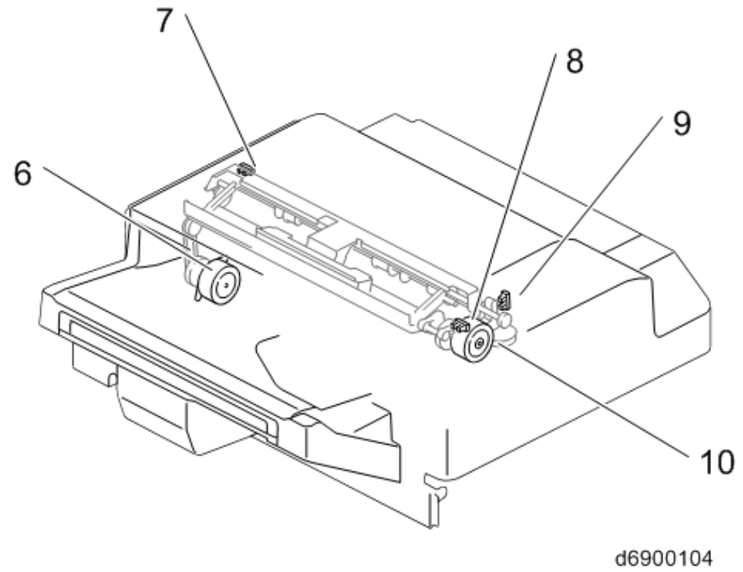
Symbol	Index No.	Description	P to P
Motors			
DCM1	Fig-1-5	Entrance Transport Motor	J22
DCM2	Fig-1-6	Horizontal Transport Motor	I22
DCM3	Fig-1-2	Middle Transport Motor	B12
DCM4	Fig-1-1	Tray Exit Motor	C12
DCM5	Fig-1-4	Pre Stack Transport Motor	H22
DCM6	Fig-3-12	Stacking Roller Motor	E12
DCM7	Fig-3-4	Feed Out Motor	D12
DCM8	Fig-4-10	Trailing Edge Pressure Plate Motor	E12
DCM9	Fig-1-7	Tray Shift Motor	G12
DCM10	Fig-3-7	Stapler	K21
DCM11	Fig-5-2	Movement Roller Transport Motor (D688)	B22
DCM12	Fig-5-10	Booklet Stapler Motor (D688)	C22
DCM13	Fig-7-8	Punch Drive Motor	M11
STM1	Fig-3-2	Jogger Motor	I12
STM2	Fig-2-3	Lower Junction Gate Motor	K12
STM3	Fig-2-1	Shift Motor	I13
STM4	Fig-4-1	Paper Exit Gate Motor	J12
STM5	Fig-4-16	Positioning Roller Motor	K12
STM6	Fig-3-9	Leading Edge Guide Motor	J13
STM7	Fig-3-3	Stapler Movement Motor	H12
STM8	Fig-5-1	Booklet Guide Motor (D688)	F22
STM9	Fig-6-6	Folding Transport Motor (D688)	E22
STM10	Fig-6-7	Press Folding Motor (D688)	D22
STM11	Fig-5-5	Booklet Jogger Motor (D688)	B22
STM12	Fig-5-7	Booklet Fence Motor (D688)	C22
STM13	Fig-7-1	Punch Drive Motor	N15
STM14	Fig-7-4	Paper Position Sensor Side Motor	O15
LEDs			
LED1	Fig-2-7	LED1	L23
LED2	Fig-2-11	LED2	L23
LED3	Fig-2-10	LED3	L23
LED4	Fig-2-8	LED4	M23
LED5	Fig-2-6	LED5	M20
LED6	Fig-5-11	Booklet Unit LED 1	M22
LED7	Fig-5-13	Booklet Unit LED 2	N22
LED8	Fig-5-14	Booklet Unit LED 3	N22
LED9	Fig-5-15	Booklet Unit LED 4	N22
LED10	Fig-5-16	Booklet Unit LED 5	O22
LED11	Fig-5-17	Booklet Unit LED 6	O22
Solenoid			
SOL1	Fig-2-2	Upper Junction Gate Solenoid	H13
Switches			
SW1	Fig-2-9	Front Door Switch	A21
SW2	Fig-4-2	Paper Exit Guide Limit Switch	O21
SW3	Fig-4-8	Tray Upper Limit Switch	A12

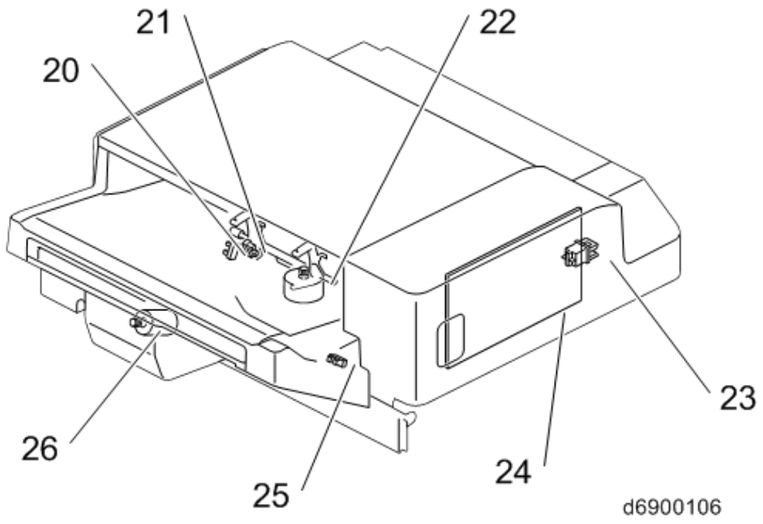
D690 POINT TO POINT DIAGRAM

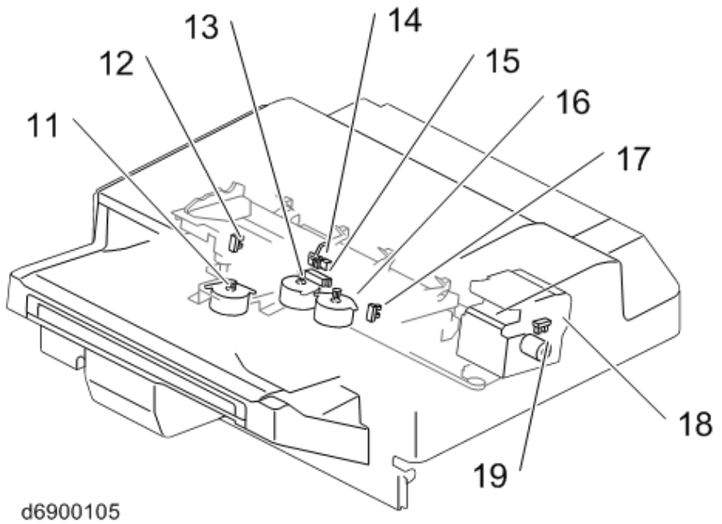


D690 ELECTRICAL COMPONENT LAYOUT (1/3)







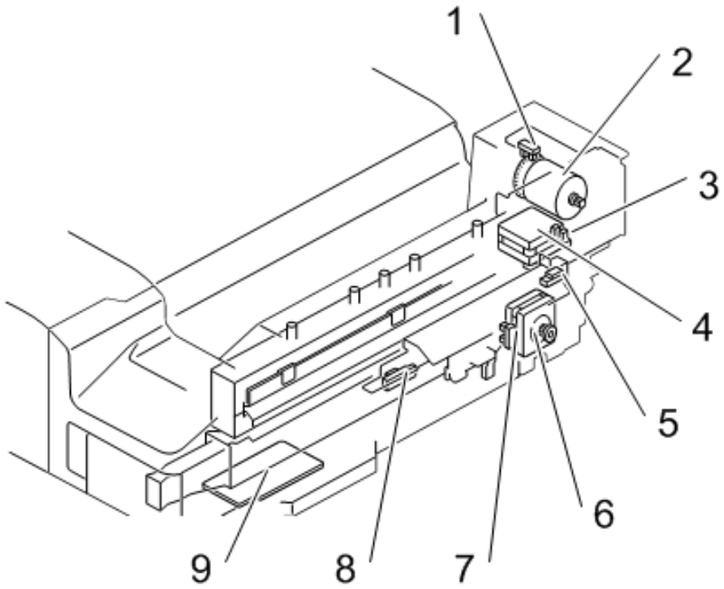


D690 ELECTRICAL COMPONENT LAYOUT (2/3)

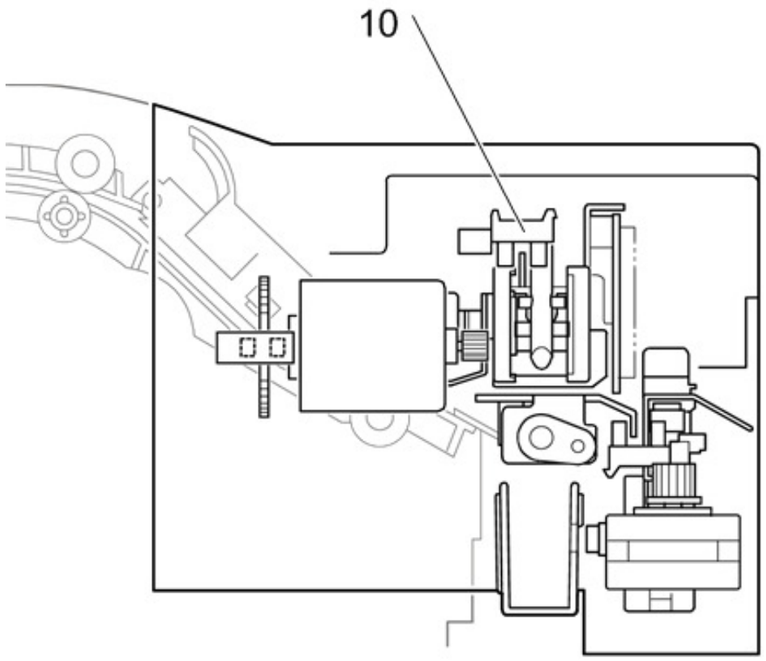
Motors			
Symbol	Index No.	Description	PtoP
M4	26	Tray Lift Motor	J15
M5	22	Paper Bail Motor	I15
M6	13	Jogger Fence Motor (rear)	H15
M7	17	Jogger Fence Motor (front)	H15
M8	11	Stapler Displacement Motor	G15
M9	6	Strike Roller Motor	G15
M10	1	Entrance Motor	F15
M11	19	Shift Motor	E15
M12	10	Paper Exit Guide Plate Motor	E15
M13	4	Transport Motor	D15
M14	5	Paper Output Motor	C15
Sensors			
Symbol	Index No.	Description	PtoP
S7	25	Paper Exit Full Sensor	G2
S8	8	Paper Output Guide Plate Home Position Sensor	F2
S9	7	Strike Roller Home Position Sensor	S2
S10	2	Transport Sensor	E2
S11	9	Shift Roller HP Sensor	E2
S12	18	Staple HP Sensor	D2
S13	3	Entrance Sensor	D2
S14	14	Paper Detection Sensor	D2
S15	12	Jogger Fence HPSensor (rear)	C2
S16	17	Jogger Fence HPSensor (front)	C2
S17	15	Staple Tray Jam Detection Sensor	B2
S18	20	Paper Bail Home Position Sensor	B2
S19	21	Paper Surface Detection Sensor	A2
FANs			
Symbol	Index No.	Description	PtoP
FAN1	-	FAN	F15
Switches			
Symbol	Index No.	Description	PtoP
SW1	23	Cover Open/Close Switch	A15
PCBs			
Symbol	Index No.	Description	PtoP
PCB1	24	Control Board	K11

D690 ELECTRICAL COMPONENT LAYOUT (3/3)

<D587: Punch Unit>



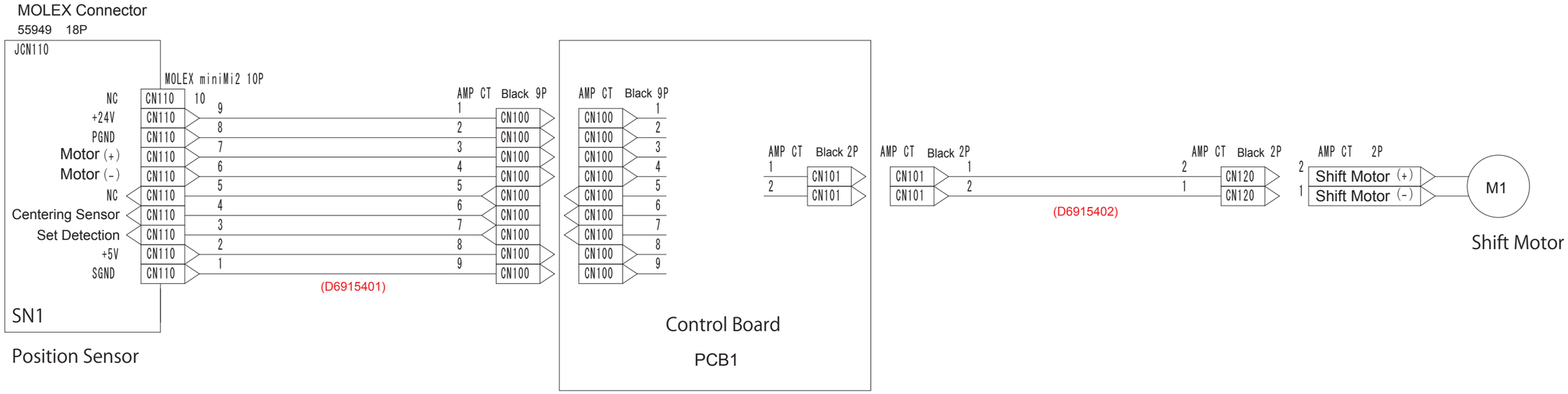
d7160201



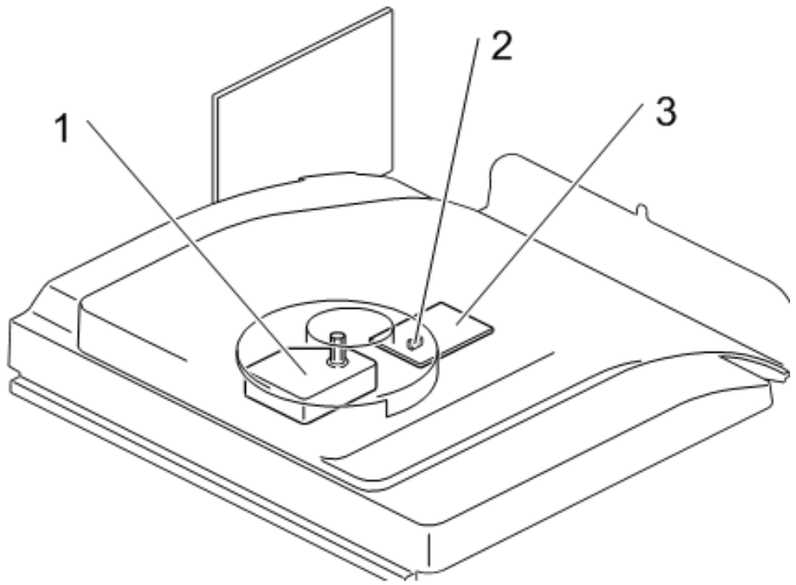
d1467000

Motors			
Symbol	Index No.	Description	PtoP
M1	4	Horizontal Registration Movement Unit	J2
M2	6	Horizontal Registration Detection Unit Motor	K2
M3	2	Punch Motor	K8
Sensors			
Symbol	Index No.	Description	PtoP
S1	5	Horizontal Registration Movement Unit Home Position Sensor	J2
S2	7	Horizontal Registration Detection Unit Home Position Sensor	K2
S3	1	Punch Unit Pulse Detection Sensor	I2
S4	10	Punch Unit Home Position Sensor	I2
S5	3	Horizontal Registration Sensor	H2
S6	8	Punch Hopper Full Sensor	H2
PCB			
Symbol	Index No.	Description	PtoP
PCB2	9	Punch Unit Control Board	K5

D691 POINT TO POINT DIAGRAM



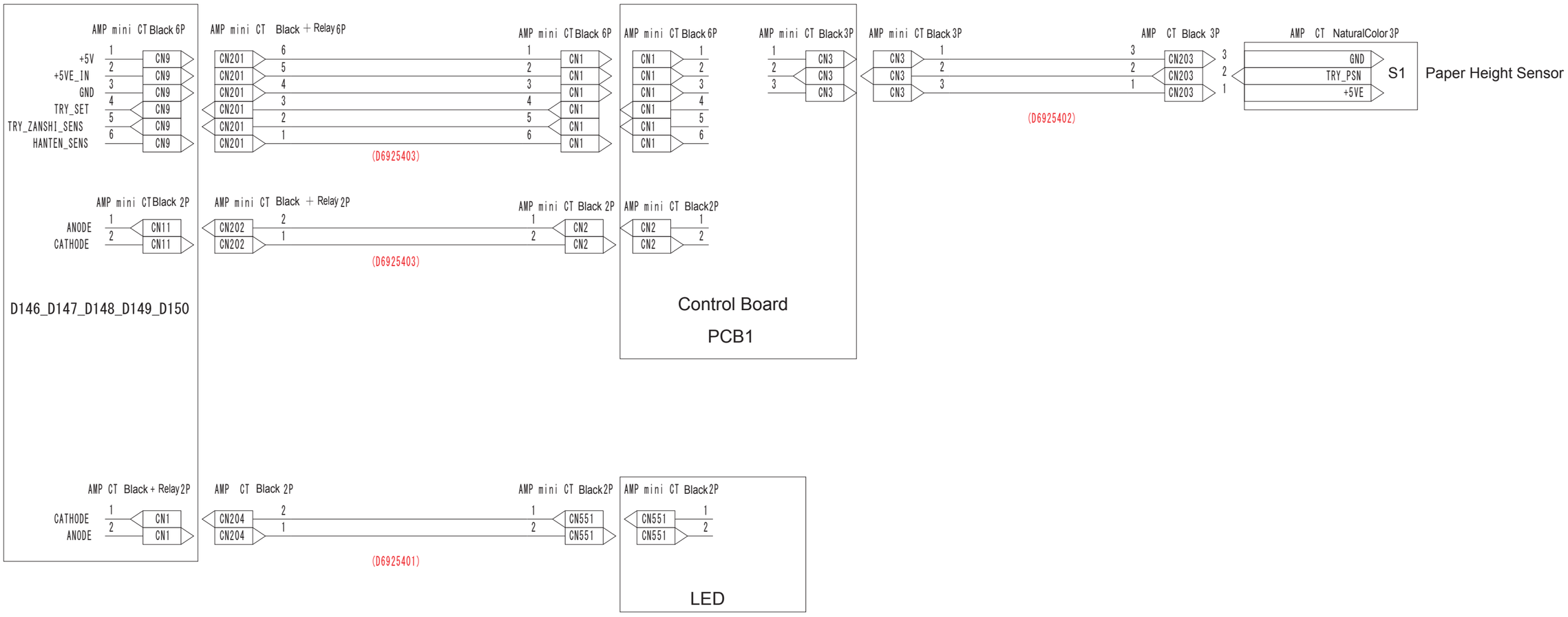
D691 ELECTRICAL COMPONENT LAYOUT



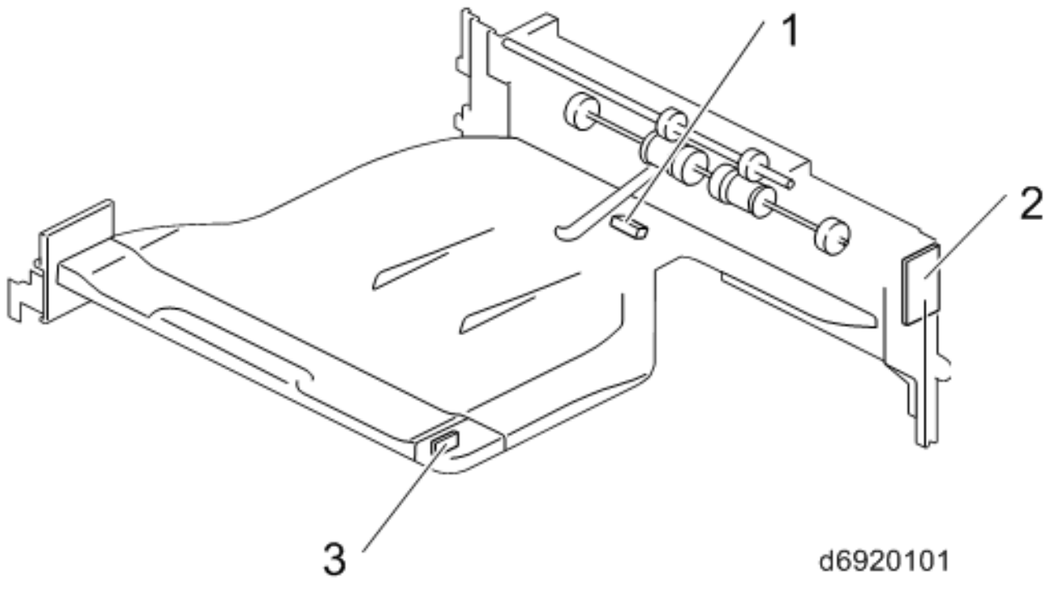
d6910101

Motors			
Symbol	Index No.	Description	PtoP
M1	1	Shift Motor	C8
Sensors			
Symbol	Index No.	Description	PtoP
S1	2	Position Sensor	C1
PCB			
Symbol	Index No.	Description	PtoP
PCB1	3	Control Board	D4

D692 POINT TO POINT DIAGRAM

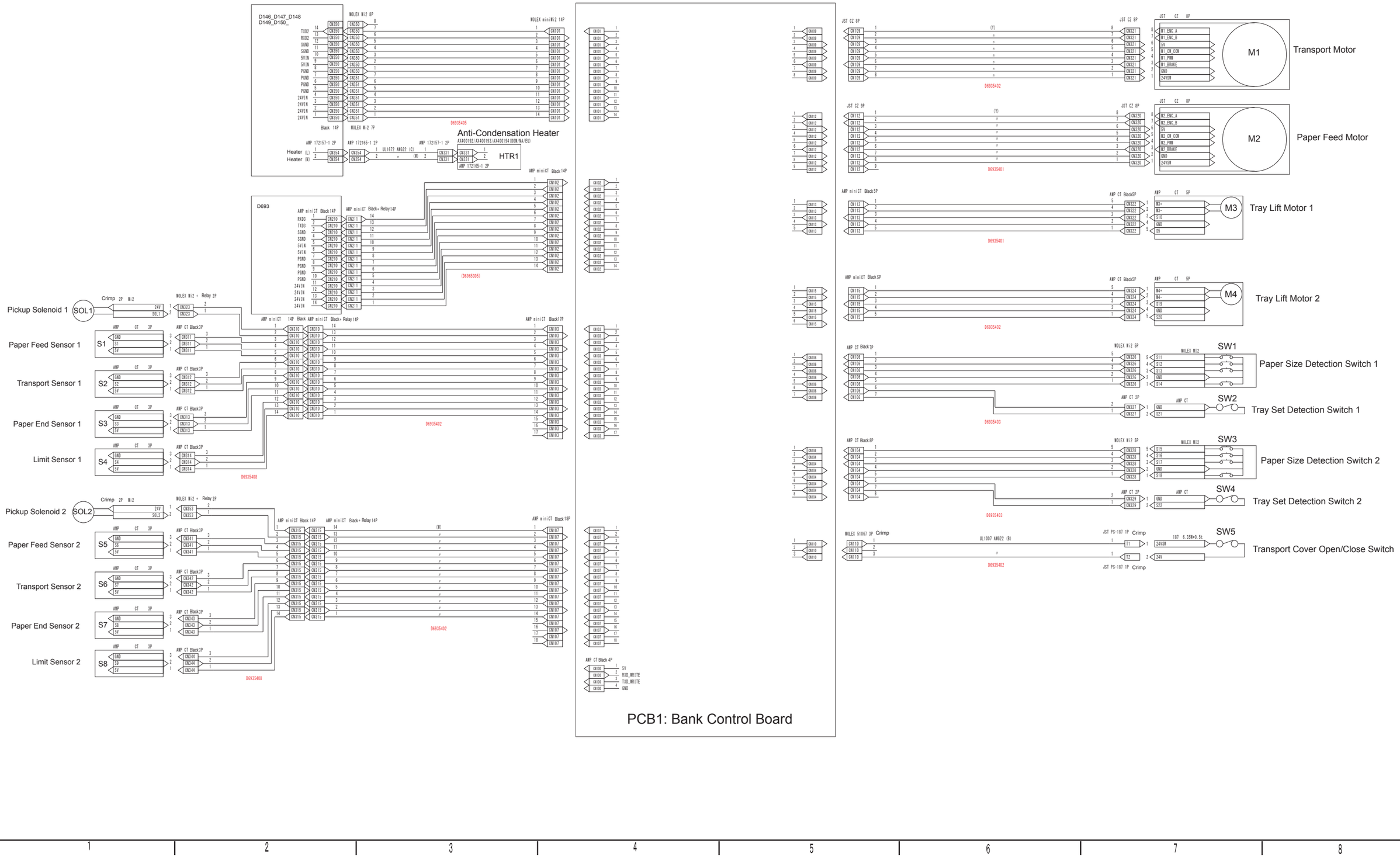


D692 ELECTRICAL COMPONENT LAYOUT



Sensors			
Symbol	Index No.	Description	PtoP
SN1	1	Paper Height Sensor	B7
PCB			
Symbol	Index No.	Description	PtoP
PCB1	2	Control Board	C4
LED			
Symbol	Index No.	Description	PtoP
LED	3	LED	E4

D693 POINT TO POINT DIAGRAM



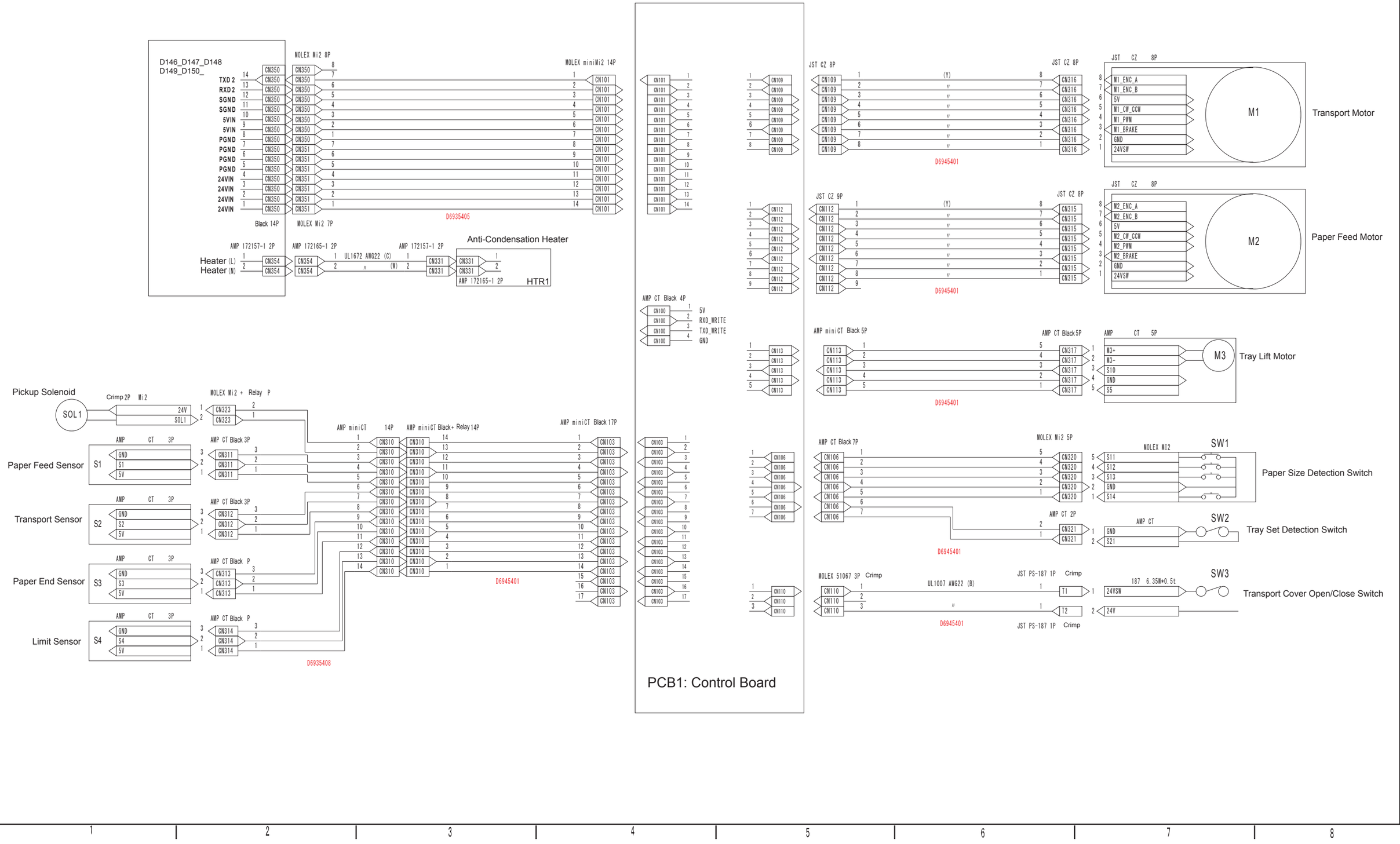
D693 ELECTRICAL COMPONENT LAYOUT

d693f0001

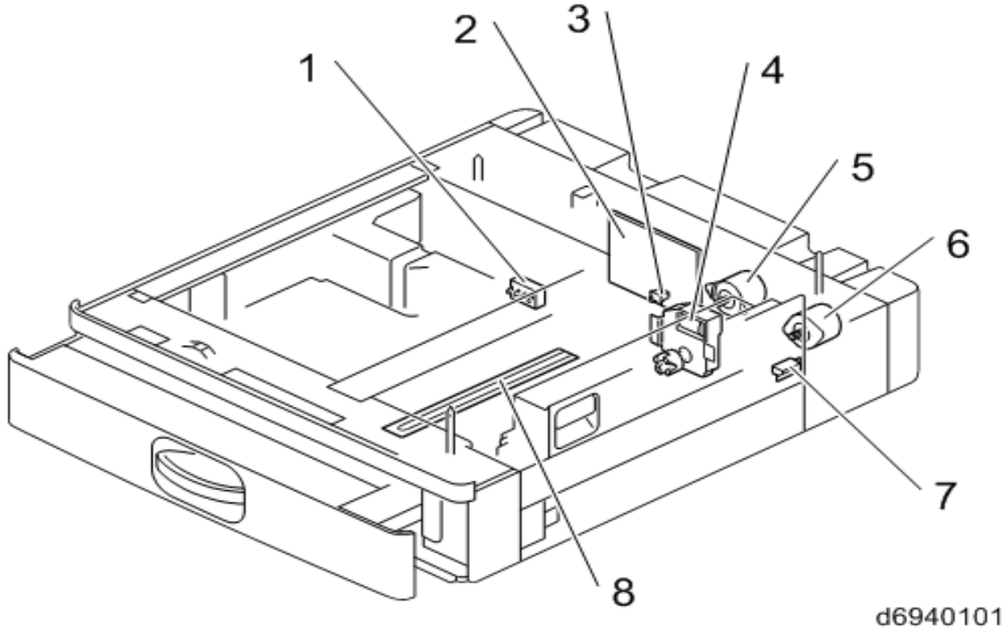
d693f0002

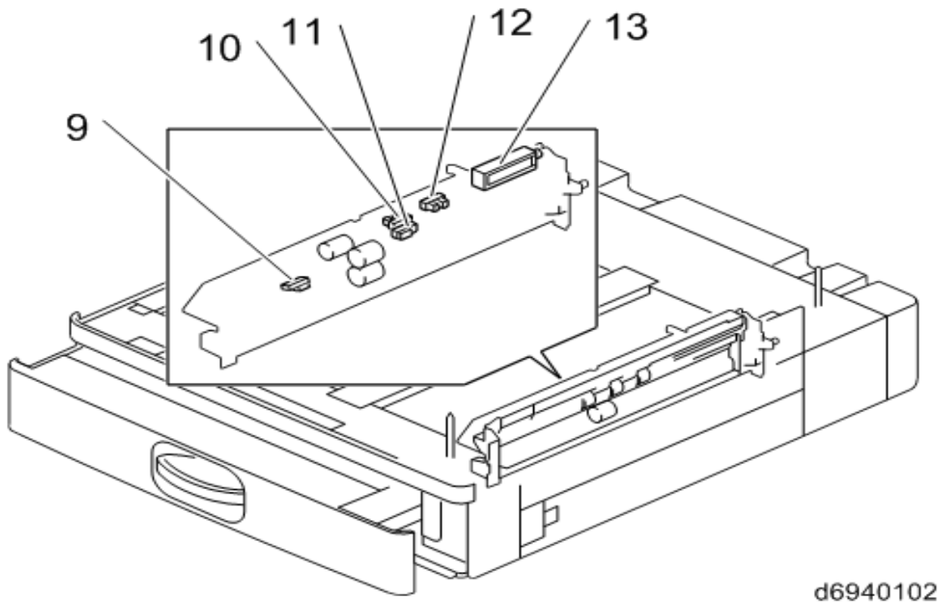
Motors			
Symbol	Index No.	Description	PtoP
M1	7	Transport Motor	B7
M2	6	Paper Feed Motor	B7
M3	5	Tray Lift Motor 1	B7
M4	9	Tray Lift Motor 2	C7
Sensors			
Symbol	Index No.	Description	PtoP
S1	12	Paper Feed Sensor 1	C1
S2	14	Transport Sensor 1	C1
S3	13	Paper End Sensor 1	D1
S4	15	Limit Sensor 1	D1
S5	17	Paper Feed Sensor 2	D1
S6	19	Transport Sensor 2	E1
S7	18	Paper End Sensor 2	E1
S8	20	Limit Sensor 2	E1
Solenoids			
Symbol	Index No.	Description	PtoP
SOL1	16	Pickup Solenoid 1	C1
SOL2	21	Pickup Solenoid 2	D1
Switches			
Symbol	Index No.	Description	PtoP
SW1	2	Paper Size Detection Switch 1	C7
SW2	4	Tray Set Detection Switch 1	D7
SW3	1	Paper Size Detection Switch 2	D7
SW4	10	Tray Set Detection Switch 2	D7
SW5	8	Transport Cover Open/Close	D7
PCB			
Symbol	Index No.	Description	PtoP
PCB1	3	Bank Control Board	E4
Others			
Symbol	Index No.	Description	PtoP
HTR	11	Anti-Condensation Heater	B3

D694 POINT TO POINT DIAGRAM



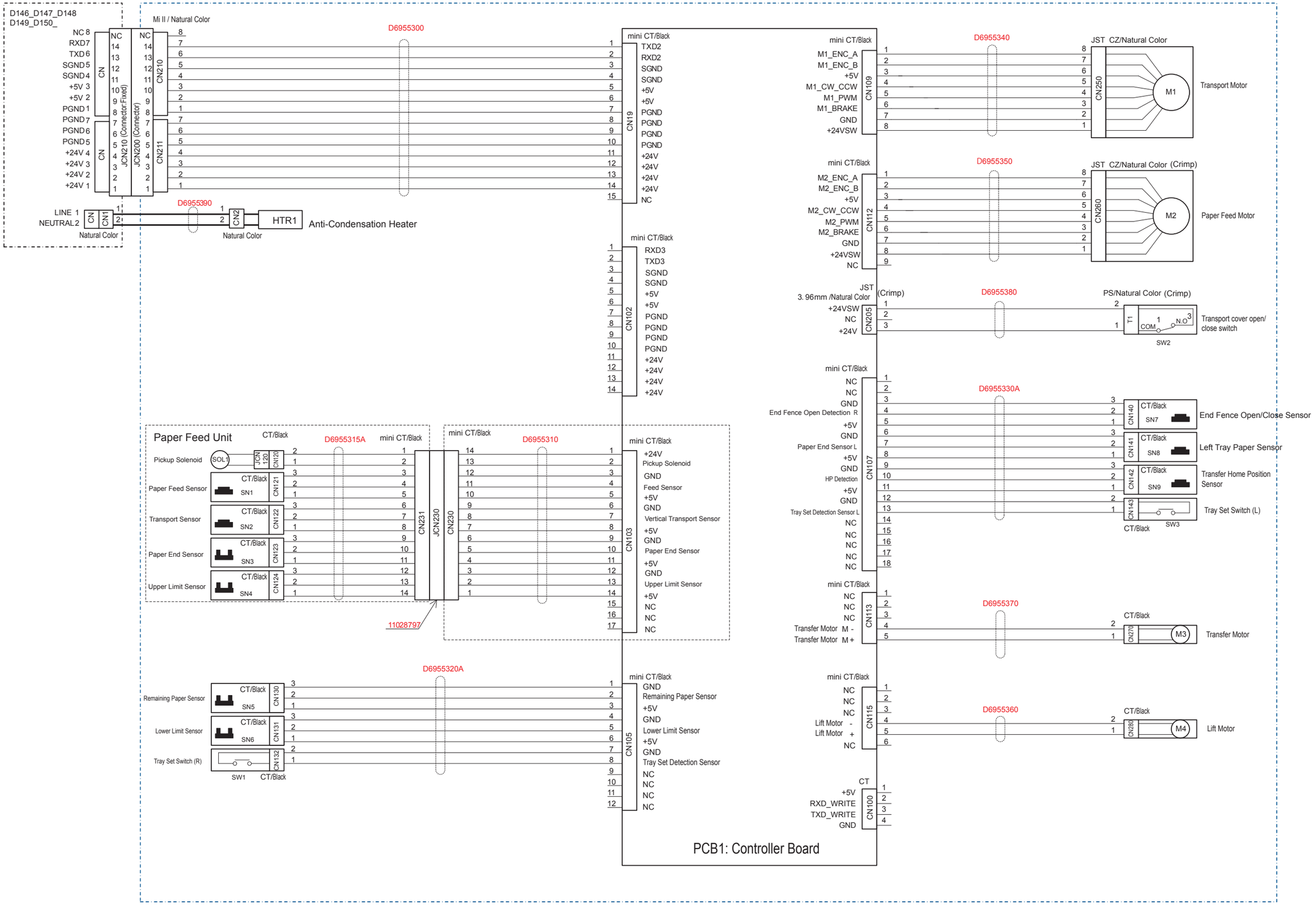
D694 ELECTRICAL COMPONENT LAYOUT



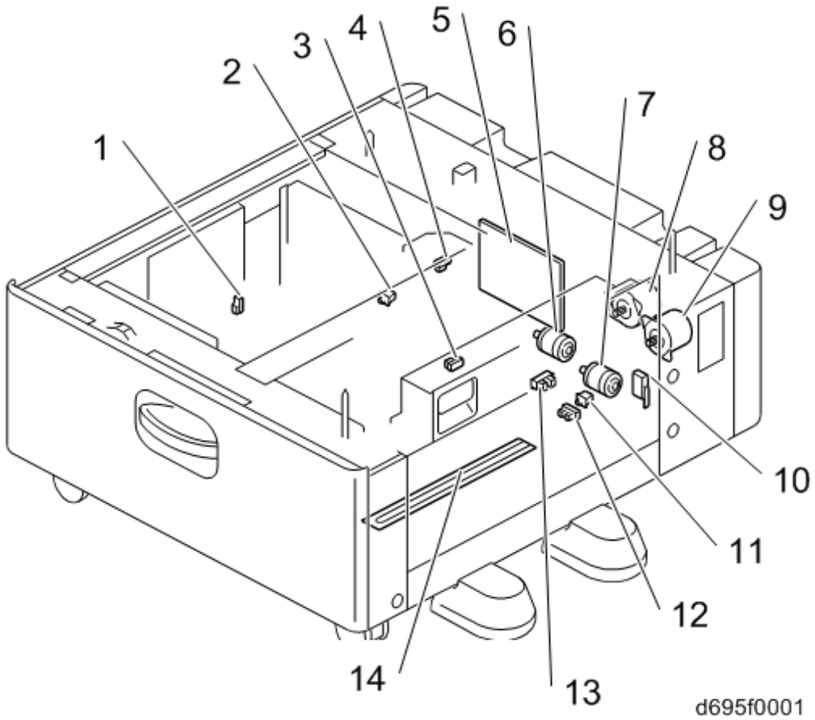


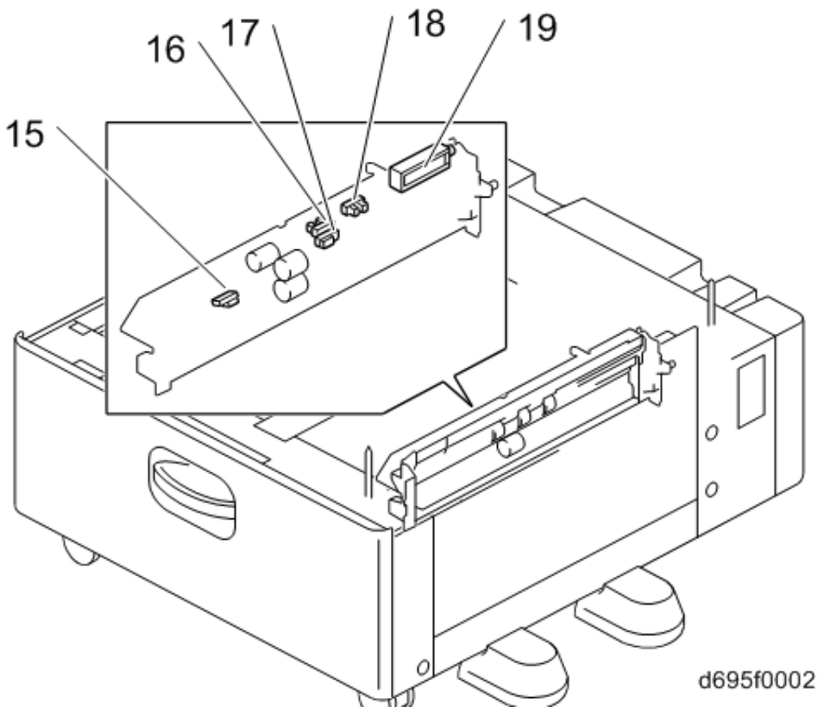
Motors			
Symbol	Index No.	Description	PtoP
M1	6	Transport Motor	B7
M2	5	Paper Feed Motor	C7
M3	4	Tray Lift Motor	C7
Sensors			
Symbol	Index No.	Description	PtoP
S1	9	Paper Feed Sensor	D1
S2	11	Transport Sensor	D1
S3	10	Paper End Sensor	E1
S4	12	Limit Sensor	E1
Solenoids			
Symbol	Index No.	Description	PtoP
SOL1	13	Pickup Solenoid	D1
Switches			
Symbol	Index No.	Description	PtoP
SW1	1	Paper Size Detection Switch	D7
SW2	3	Tray Set Detection Switch	D7
SW3	7	Transport Cover Open/Close	E7
PCB			
Symbol	Index No.	Description	PtoP
PCB1	2	Bank Control Board	E4
Others			
Symbol	Index No.	Description	PtoP
HTR	8	Anti-Condensation Heater	C3

D695 POINT TO POINT DIAGRAM



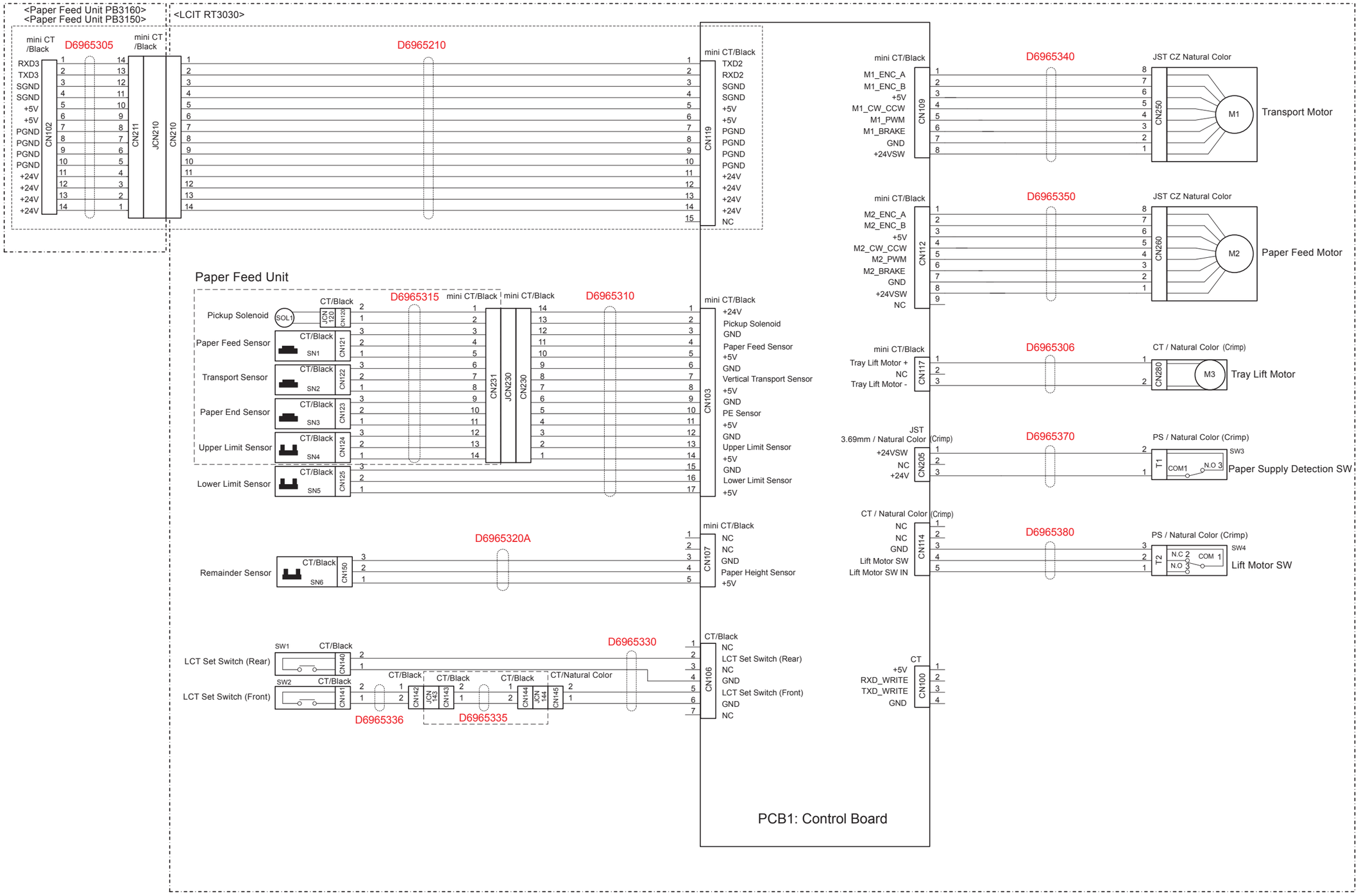
D695 ELECTRICAL COMPONENT LAYOUT



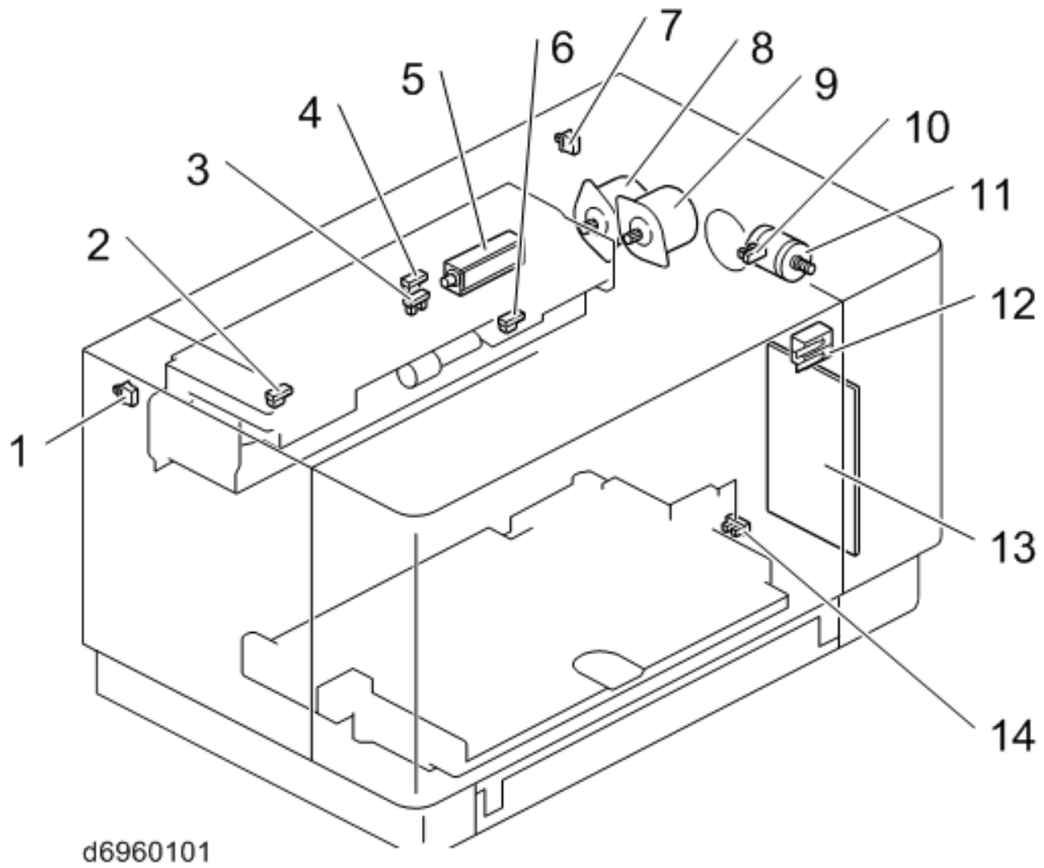


Motors			
Symbol	Index No.	Description	PtoP
M1	6	Transport Motor	B7
M2	8	Paper Feed Motor	B7
M3	6	Transfer Motor	D7
M3	7	Lift Motor	E7
Sensors			
Symbol	Index No.	Description	PtoP
SN1	15	Paper Feed Sensor	D2
SN2	17	Transport Sensor	D2
SN3	16	Paper End Sensor	D2
SN4	18	Upper Limit Sensor	D2
SN5	13	Remaining Paper Sensor	E2
SN6	12	Lower Limit Sensor	E2
SN7	4	End Fence Open/Close Sensor	C7
SN8	3	Left Tray Paper Sensor	C7
SN9	1	Transfer Home Position Sensor	D7
Solenoids			
Symbol	Index No.	Description	PtoP
SOL1	19	Pickup Solenoid	D2
Switches			
Symbol	Index No.	Description	PtoP
SW1	11	Tray Set Switch (R)	E2
SW2	10	Transport Cover Open/Close Switch	C7
SW3			
PCB			
Symbol	Index No.	Description	PtoP
PCB1	5	Controller Board	F5
Others			
Symbol	Index No.	Description	PtoP
HTR	14	Anti-Condensation Heater	B2

D696 POINT TO POINT DIAGRAM

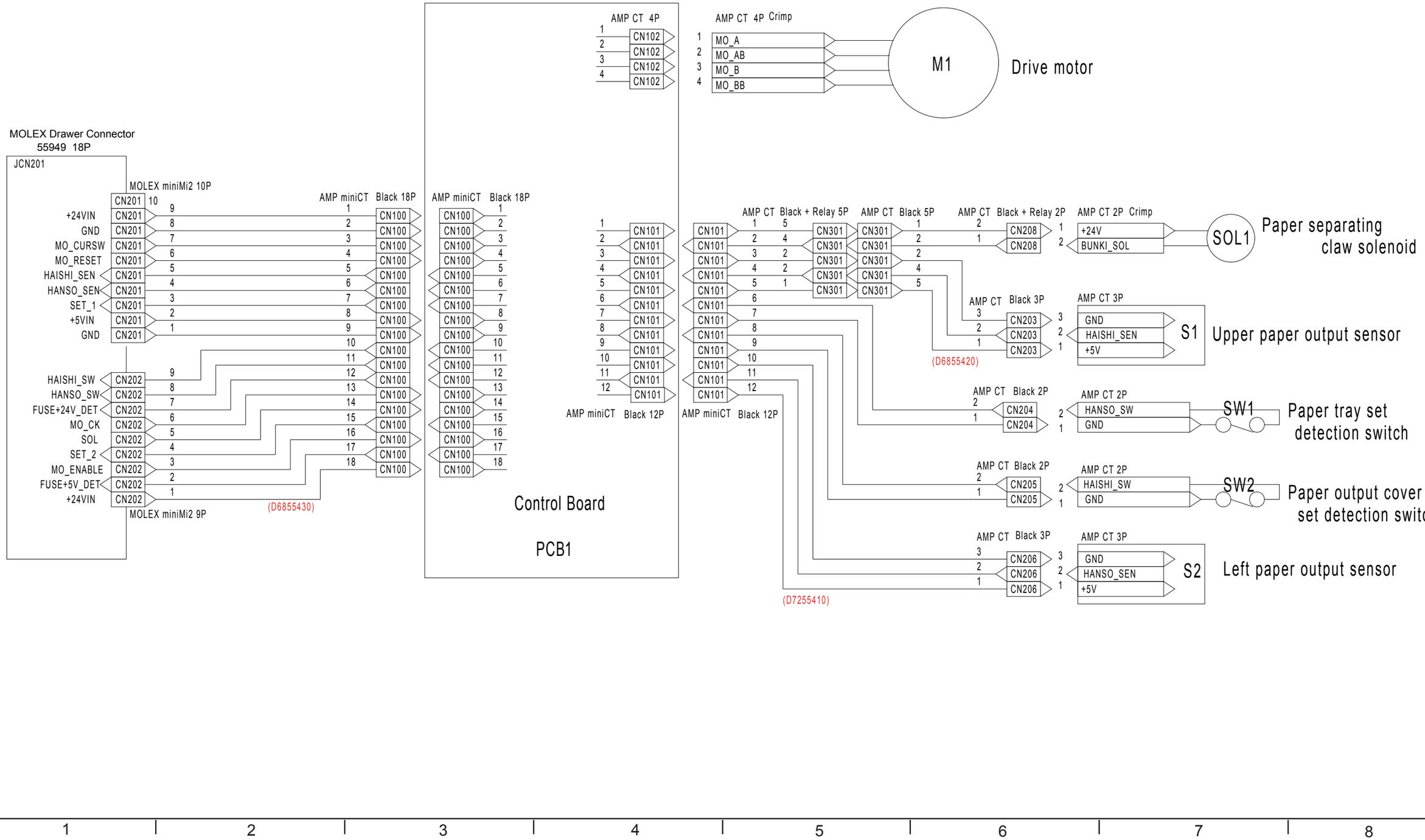


D696 ELECTRICAL COMPONENT LAYOUT

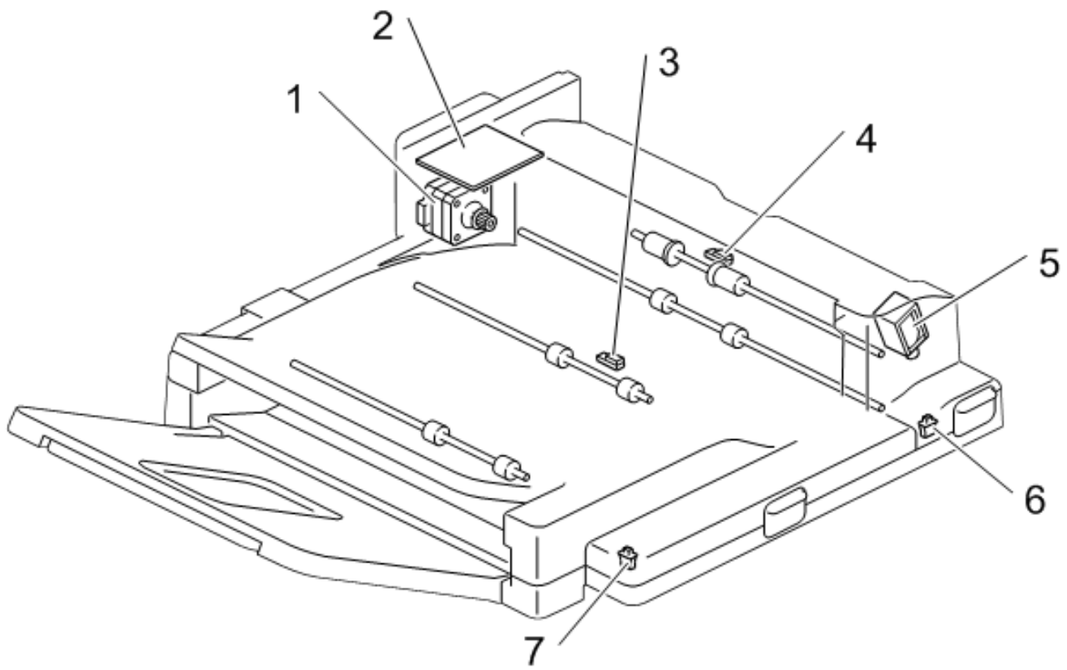


Motors			
Symbol	Index No.	Description	PtoP
M1	8	Transport Motor	B7
M2	9	Paper Feed Motor	C7
M3	11	Tray Lift Motor	C7
Sensors			
Symbol	Index No.	Description	PtoP
SN1	2	Paper Feed Sensor	C2
SN2	4	Transport Sensor	C2
SN3	6	Paper End Sensor	C2
SN4	3	Upper Limit Sensor	C2
SN5	14	Lower Limit Sensor	D2
SN6	10	Remainder Sensor	D2
Solenoids			
Symbol	Index No.	Description	PtoP
SOL1	5	Pickup Solenoid	C2
Switches			
Symbol	Index No.	Description	PtoP
SW1	7	LCT Set Switch (Rear)	E2
SW2	1	LCT Set Switch (Front)	E2
SW3	12	Paper Supply Detection Switch	D7
SW4	12	Lift Motor Switch	D7
PCB			
Symbol	Index No.	Description	PtoP
PCB1	13	Control Board	F5

D725 POINT TO POINT DIAGRAM



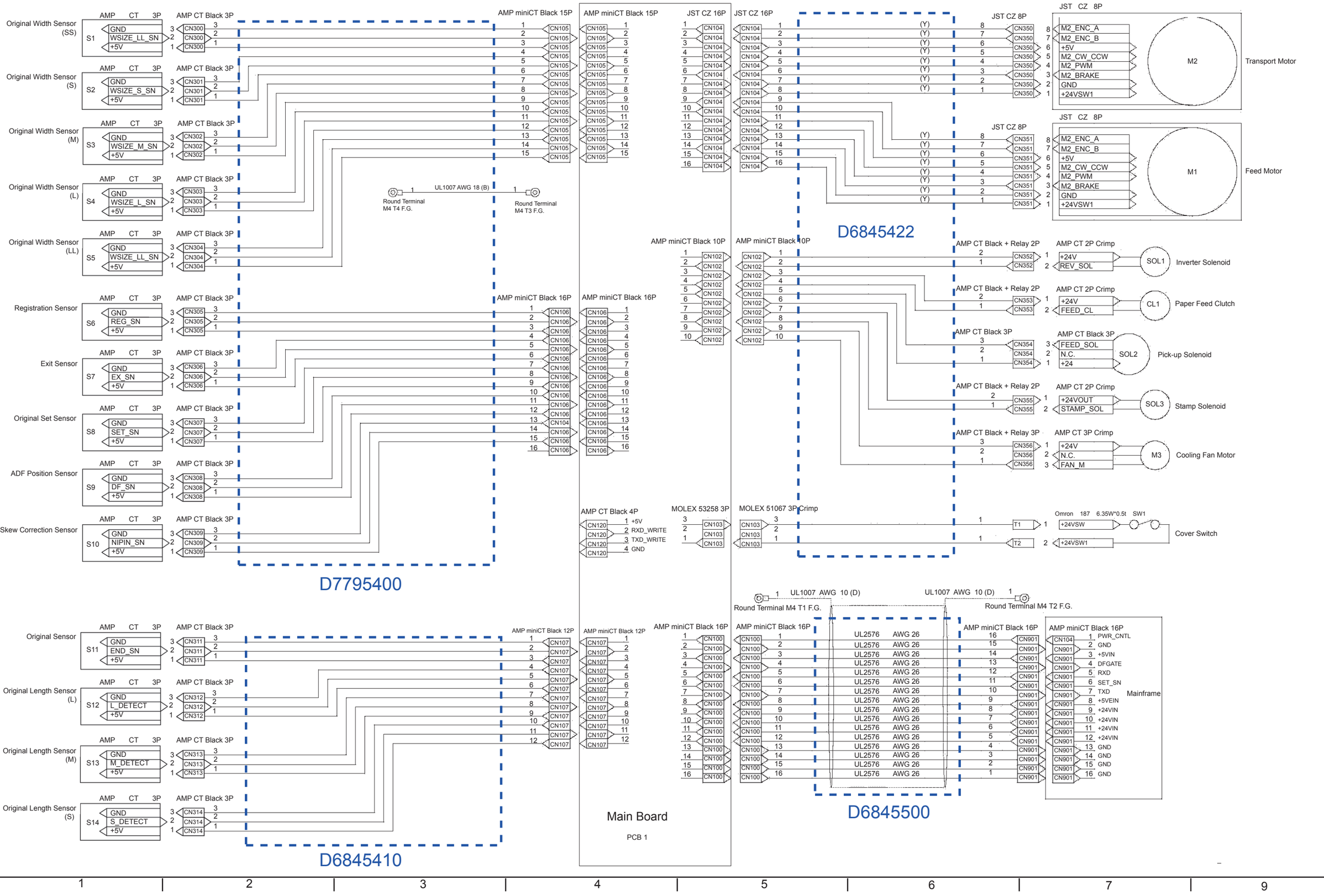
D725 ELECTRICAL COMPONENT LAYOUT



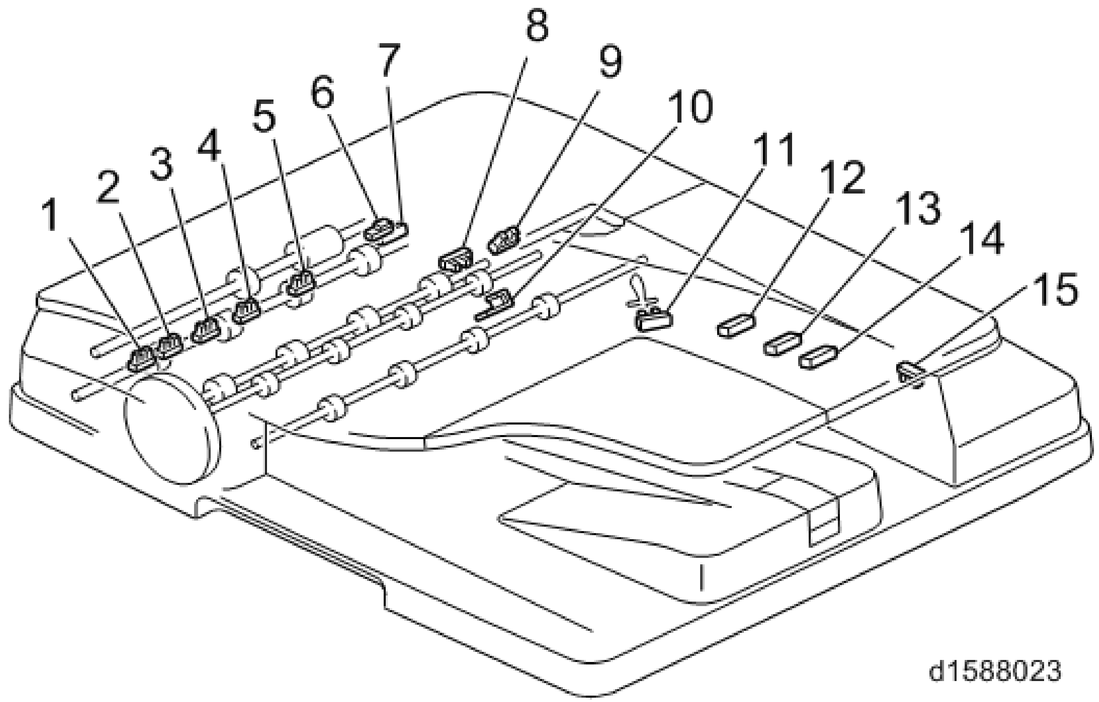
d7250101

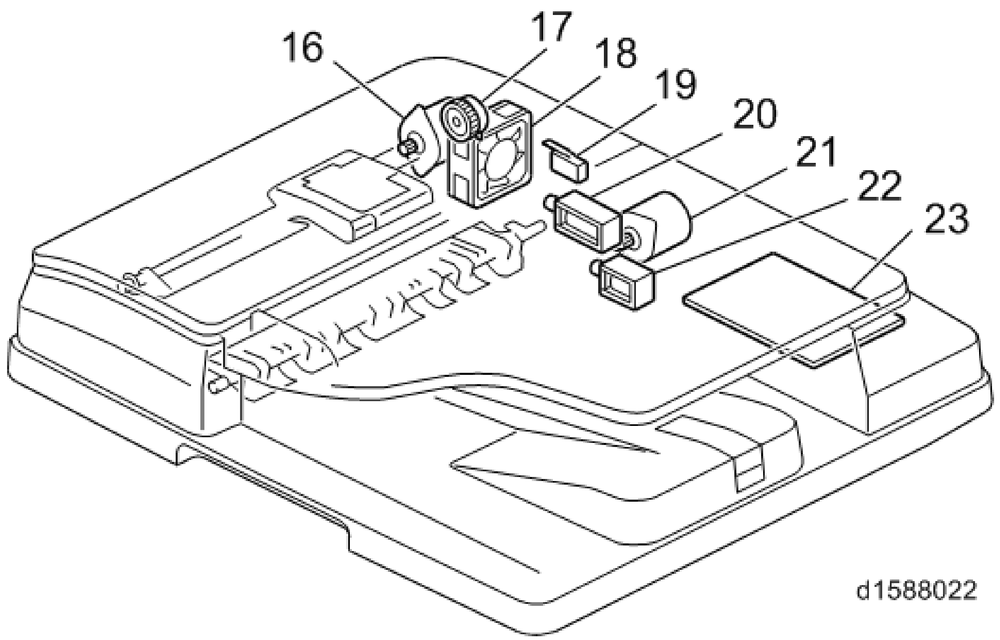
Motors			
Symbol	Index No.	Description	PtoP
M1	1	Drive Motor	B6
Sensors			
Symbol	Index No.	Description	PtoP
S1	4	Upper Paper Output Sensor	C7
S2	3	Left Paper Output Sensor	E7
Solenoids			
Symbol	Index No.	Description	PtoP
SOL1	5	Paper Separating Claw Solenoid	C7
Switches			
Symbol	Index No.	Description	PtoP
SW1	7	Paper Tray Set Detection Switch	D7
SW2	6	Paper Output Cover Set Detection	D7
PCB			
Symbol	Index No.	Description	PtoP
PCB1	2	Control Board	D4

D779 POINT TO POINT DIAGRAM



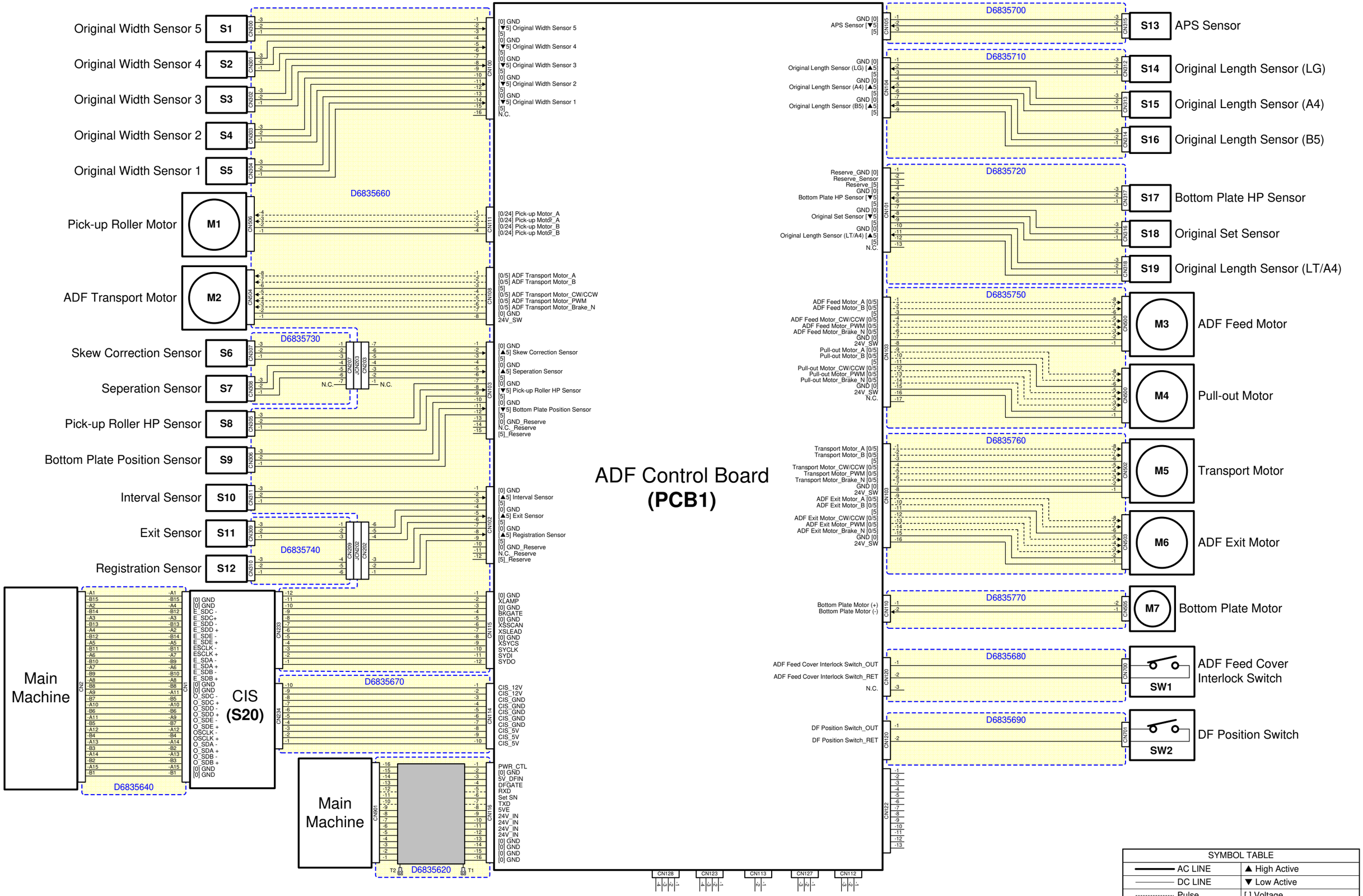
D779 ELECTRICAL COMPONENT LAYOUT



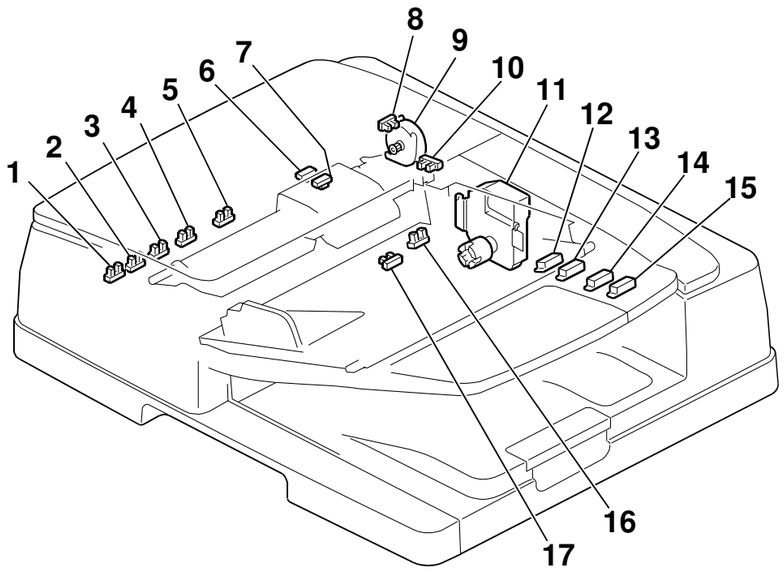


Motors			
Symbol	Index No.	Description	PtoP
M1	21	Feed Motor	B8
M2	16	Transport Motor	A8
M3	18	Cooling Fan Motor	D7
Sensors			
Symbol	Index No.	Description	PtoP
S1	5	Original Width Sensor (SS)	A1
S2	4	Original Width Sensor (S)	A1
S3	3	Original Width Sensor (M)	B1
S4	2	Original Width Sensor (L)	B1
S5	1	Original Width Sensor (LL)	B1
S6	7	Registration Sensor	C1
S7	8	Exit Sensor	C1
S8	9	Original Set Sensor	C1
S9	15	ADF Position Sensor	D1
S10	5	Original Width Sensor (SS)	D1
S11	11	Original Sensor	E1
S12	14	Original Length Sensor (L)	E1
S13	13	Original Length Sensor (M)	E1
Solenoids			
Symbol	Index No.	Description	PtoP
SOL1	22	Inverter Solenoid	B7
SOL2	20	Pick-up Solenoid	C7
SOL3	10	Stamp Solenoid	C7
Clutch			
Symbol	Index No.	Description	PtoP
CL1	17	Paper Feed Clutch	C7
Switches			
Symbol	Index No.	Description	PtoP
SW1	19	Cover Switch	
PCB			
Symbol	Index No.	Description	PtoP
PCB1	23	Main Board	F4

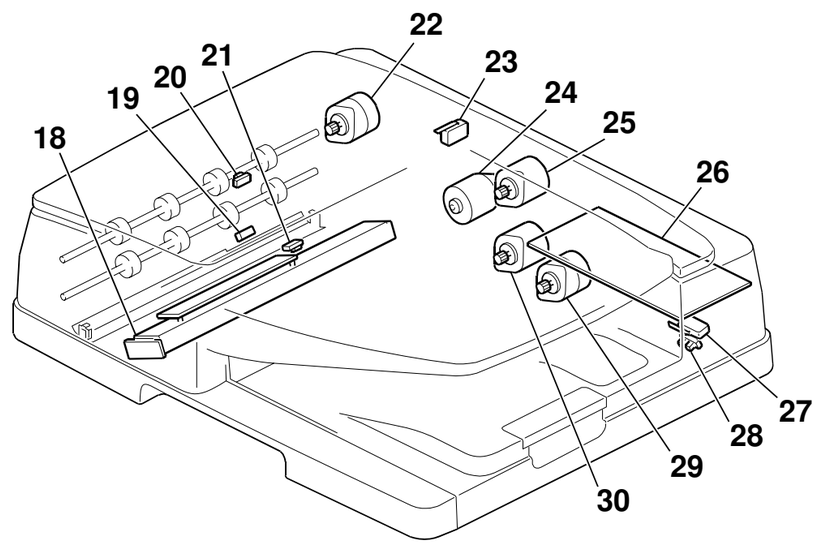
D683 POINT TO POINT DIAGRAM



D683 ELECTRICAL COMPONENT LAYOUT



d1359901.wmf



d1359902.wmf

Symbol	Index No.	Description	P to P
Sensors			
S1	1	Original Width Sensor 5	A2
S2	2	Original Width Sensor 4	A2
S3	3	Original Width Sensor 3	B2
S4	4	Original Width Sensor 2	B2
S5	5	Original Width Sensor 1	B2
S6	7	Skew Correction Sensor	C2
S7	6	Seperation Sensor	D2
S8	10	Pick-up Roller HP Sensor	D2
S9	8	Bottom Plate Position Sensor	D2
S10	19	Interval Sensor	D2
S11	21	Exit Sensor	E2
S12	20	Registration Sensor	E2
S13	28	APS Sensor	A9
S14	15	Original Length Sensor (LG)	A9
S15	14	Original Length Sensor (A4)	B9
S16	13	Original Length Sensor (B5)	B9
S17	17	Bottom Plate HP Sensor	B9
S18	16	Original Set Sensor	B9-C9
S19	12	Original Length Sensor (LT/A4)	C9
S20	18	CIS	F2
Motors			
M1	9	ADF Pick-up Roller Lift Motor	B2
M2	22	ADF Transport Motor	C2
M3	24	ADF Feed Motor	C9
M4	25	ADF Entrance Motor	D9
M5	30	ADF Scanning Motor	D9
M6	29	ADF Exit Motor	E9
M7	11	ADF Bottom Plate Lift Motor	E9
Switches			
SW1	23	ADF Feed Cover Interlock Switch	F9
SW2	27	ADF Lift-up Interlock Switch	F9
PCB			
PCB1	26	ADF Control Board	D5-D6

D146/D147, D148/D149/D150 Revision History

Version	Revised Date	Page	Description
V1.10	2014.04.25	Page 1 - 28	**<D146/D147, D148/D149/D150>** Added pin assignment lists Added electrical component layout diagrams Added missing harness parts numbers
		Page 29, 30	**<D685>** Added electrical component layout diagrams
		Page 31 - 34	**<D686/D687>** Changed the parts name correctly Added electrical component layout diagrams
		Page 35 - 37	**<D688/D689>** Added electrical component layout diagrams
		Page 38 - 41	**<D690>** Changed the parts name correctly Added electrical component layout diagrams
		Page 42, 43	**<D691>** Added electrical component layout diagrams
		Page 44, 45	**<D692>** Added electrical component layout diagrams
		Page 46, 47	**<D693>** Changed the parts name correctly Added electrical component layout diagrams
		Page 48, 49	**<D694>** Added electrical component layout diagrams
		Page 50, 51	**<D695>** Added electrical component layout diagrams
		Page 52, 53	**<D696>** Added electrical component layout diagrams
		Page 54, 55	**<D725>** Added electrical component layout diagrams
		Page 56, 57	**<D779>** Changed the parts name correctly Added electrical component layout diagrams Modified harness parts numbers
V1.11	2014.11.10	Page 1	**<D146/D147>** Changed the parts name correctly
V1.12	2015.04.21	Page 58	**<D683>** Newly added