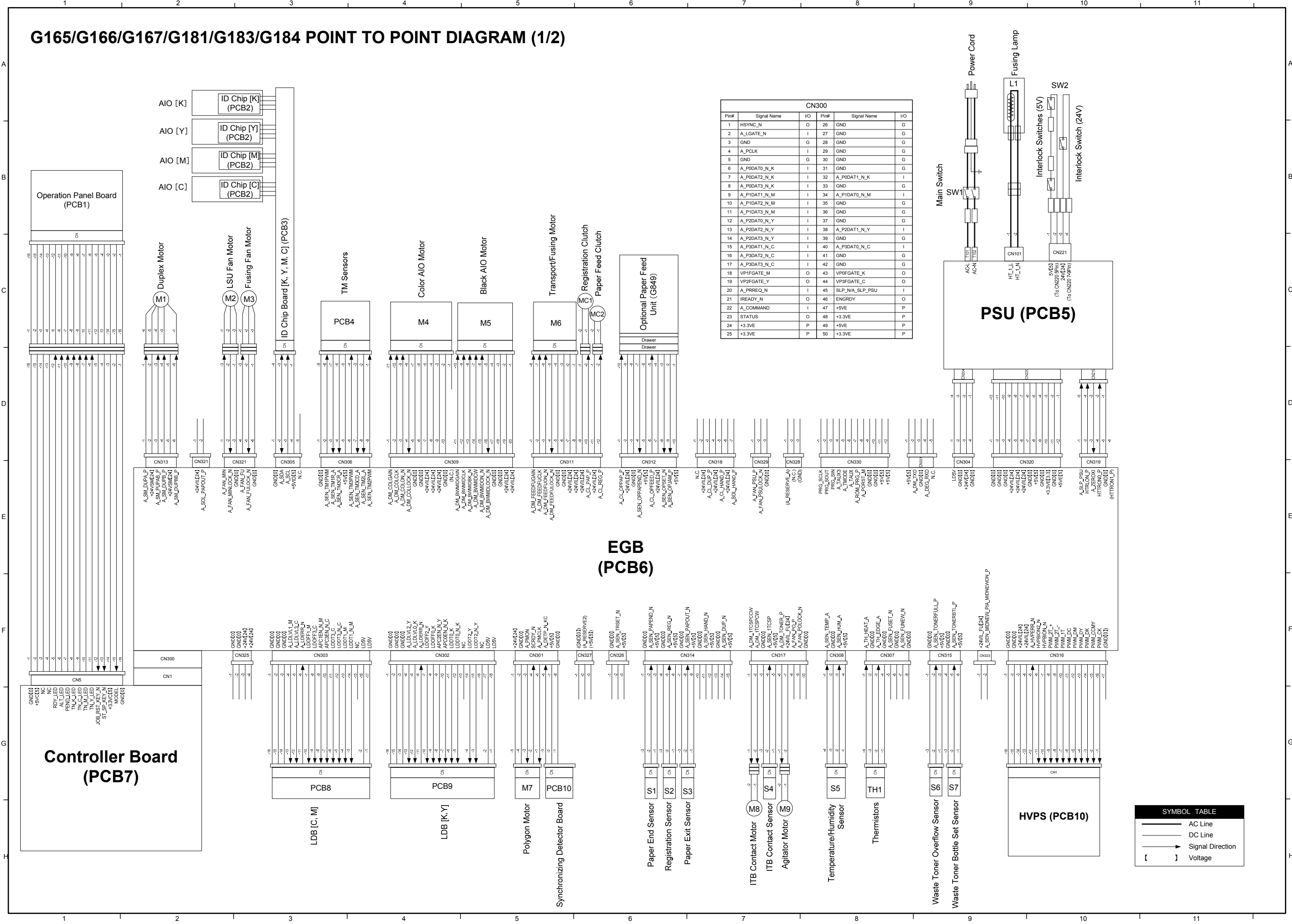


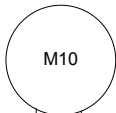
G165/G166/G167/G181/G183/G184 POINT TO POINT DIAGRAM (1/2)



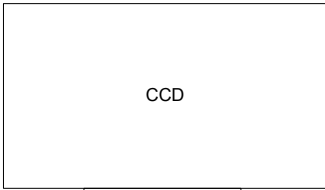
G165/G166/G167/G181/G183/G184 POINT TO POINT DIAGRAM (2/2)

Scanner Unit

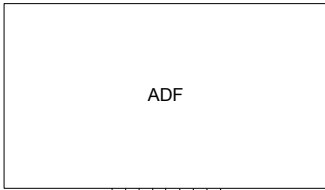
Scanner Motor



CCD



ADF

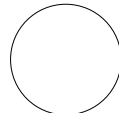


Operation Panel Board

PCB13



Speaker



PDL Board (PCB14)



CON2  
J-PDL1

J-CCD1

| Pin # | Signal Name | I/O | Assert | Pin # | Signal Name | I/O | Assert         |
|-------|-------------|-----|--------|-------|-------------|-----|----------------|
| 1     | LAMP_V      | P   |        | 13    | CCD_SW2     | O   |                |
| 2     | LAMP_V      | P   |        | 14    | CCD_CP      | O   |                |
| 3     | FGND        | G   |        | 15    | CCD_HOME    | O   | H=Home, L=Scan |
| 4     | FGND        | G   |        | 16    | DGND        | I   |                |
| 5     | VCC         | P   |        | 17    | +12V        | P   |                |
| 6     | DGND        | G   |        | 18    | AGND        | G   |                |
| 7     | CCD_PH1     | O   |        | 19    | ROUT        | I   |                |
| 8     | CCD_PH2     | O   |        | 20    | AGND        | G   |                |
| 9     | CCD_SH1     | O   |        | 21    | GOUT        | I   |                |
| 10    | CCD_SH0     | O   |        | 22    | AGND        | G   |                |
| 11    | CCD_SW1     | O   |        | 23    | BOUT        | I   |                |
| 12    | CCD_RS      | O   |        | 24    | AGND        | G   |                |

J-ENG1

| Pin | Signal name | I/O | Initial | Assert | Pin | Signal name | I/O | Initial | Assert |
|-----|-------------|-----|---------|--------|-----|-------------|-----|---------|--------|
| 1   | Hsync       | I   | H       |        | 26  | GND         | G   | --      | --     |
| 2   | LGATE       | O   | Hi-Z    | L      | 27  | GND         | G   | --      | --     |
| 3   | GND         | G   | --      | --     | 28  | GND         | G   | --      | --     |
| 4   | PCLK        | O   | Hi-Z    | --     | 29  | GND         | G   | --      | --     |
| 5   | GND         | G   | --      | --     | 30  | GND         | G   | --      | --     |
| 6   | KDAT[0]     | O   | Hi-Z    | --     | 31  | GND         | G   | --      | --     |
| 7   | KDAT[2]     | O   | Hi-Z    | --     | 32  | KDAT[1]     | O   | Hi-Z    | --     |
| 8   | KDAT[3]     | O   | Hi-Z    | --     | 33  | GND         | G   | --      | --     |
| 9   | MDAT[1]     | O   | Hi-Z    | --     | 34  | MDAT[0]     | O   | Hi-Z    | --     |
| 10  | MDAT[2]     | O   | Hi-Z    | --     | 35  | GND         | G   | --      | --     |
| 11  | MDAT[3]     | O   | Hi-Z    | --     | 36  | GND         | G   | --      | --     |
| 12  | YDAT[0]     | O   | Hi-Z    | --     | 37  | GND         | G   | --      | --     |
| 13  | YDAT[2]     | O   | Hi-Z    | --     | 38  | YDAT[1]     | O   | Hi-Z    | --     |
| 14  | YDAT[3]     | O   | Hi-Z    | --     | 39  | GND         | G   | --      | --     |
| 15  | CDAT[1]     | O   | Hi-Z    | --     | 40  | CDAT[0]     | O   | Hi-Z    | --     |
| 16  | CDAT[2]     | O   | Hi-Z    | --     | 41  | GND         | G   | --      | --     |
| 17  | CDAT[3]     | O   | Hi-Z    | --     | 42  | GND         | G   | --      | --     |
| 18  | MFGATE      | I   | H       | L      | 43  | KFGATE      | I   | H       | L      |
| 19  | YFGATE      | I   | H       | L      | 44  | CFGATE      | I   | H       | L      |
| 20  | PRREQ       | O   | Hi-Z    | L      | 45  | SLP         | O   | L       | L      |
| 21  | /READY      | I   | H       | L      | 46  | ENGRDY      | I   | L       | H      |
| 22  | COMMAND     | O   | Hi-Z    | L      | 47  | VCC         | P   | --      | --     |
| 23  | STATUS      | I   | H       | L      | 48  | 3.3VC       | P   | --      | --     |
| 24  | 3.3VC       | P   | --      | --     | 49  | VCC         | P   | --      | --     |
| 25  | 3.3VC       | P   | --      | --     | 50  | 3.3VC       | P   | --      | --     |

J-ENG1

CN300

J-24V1

CN325

EGB (PCB6)

Main Controller Board (PCB12)

DGND  
ADF\_COVER [5A]   
ADF\_FEED [5A]   
ADF\_ENTRY [5A]   
VCC  
/ADF\_B  
/ADF\_A  
/ADF\_A

VCC  
GND  
GND  
GND

J-PDL1

| Pin | Signal   | I/O | Pin | Signal   | I/O | Pin | Signal     | I/O | Pin | Signal   | I/O |
|-----|----------|-----|-----|----------|-----|-----|------------|-----|-----|----------|-----|
| 1   | PCL_AD31 | -   | 16  | SERR#    | -   | 31  | DGND       | P   | 46  | PCL_AD17 | -   |
| 2   | PCL_AD29 | -   | 17  | C/BE1#   | -   | 32  | PCL_RST#   | O   | 47  | STOP#    | -   |
| 3   | PCL_AD28 | -   | 18  | PAR#     | -   | 33  | M_IRQ#     | O   | 48  | IRDY#    | -   |
| 4   | PCL_AD26 | -   | 19  | PCL_AD13 | -   | 34  | PDL_IRQ#   | I   | 49  | PCL_AD11 | -   |
| 5   | PCL_AD25 | -   | 20  | PCL_AD4  | -   | 35  | PDL_status | I   | 50  | PCL_AD15 | -   |
| 6   | PCL_AD24 | -   | 21  | PCL_AD3  | -   | 36  | PCL_REQ#   | I   | 51  | C/BE0#   | -   |
| 7   | C/BE3#   | -   | 22  | PCL_AD0  | -   | 37  | PCL_GNT#   | O   | 52  | PCL_AD12 | -   |
| 8   | PCL_AD22 | -   | 23  | PCL_AD7  | -   | 38  | PCL_AD30   | -   | 53  | PCL_AD6  | -   |
| 9   | PCL_AD20 | -   | 24  | PCL_AD5  | -   | 39  | PCL_AD27   | -   | 54  | PCL_AD8  | -   |
| 10  | PCL_AD19 | -   | 25  | PCL_AD1  | -   | 40  | IDSEL#     | I   | 55  | PCL_AD0  | -   |
| 11  | PCL_AD16 | -   | 26  | PCL_AD2  | -   | 41  | PCL_AD23   | -   | 56  | PCL_AD9  | -   |
| 12  | C/BE2#   | -   | 27  | SV       | P   | 42  | PCL_AD21   | -   | 57  | PCICLK   | -   |
| 13  | TRDY#    | -   | 28  | DGND     | P   | 43  | PCL_AD18   | -   | 58  | PCL_AD1  | -   |
| 14  | DEVDEL#  | -   | 29  | SV       | P   | 44  | DGND       | P   | 59  | DGND     | P   |
| 15  | PERR#    | -   | 30  | DGND     | P   | 45  | FRAME#     | -   | 60  | M-status | O   |

J-FAX1

| Pin # | Signal  | Pin # | Signal  |
|-------|---------|-------|---------|
| 1     | +3.3V   | 2     | +3.3V   |
| 3     | +3.3V   | 4     | +3.3V   |
| 5     | FA0     | 6     | SD0     |
| 7     | FA1     | 8     | SD1     |
| 9     | FA2     | 10    | SD2     |
| 11    | FA3     | 12    | SD3     |
| 13    | FA4     | 14    | SD4     |
| 15    | FA5     | 16    | SD5     |
| 17    | NC      | 18    | SD6     |
| 19    | /SCS3   | 20    | /SCS3   |
| 21    | SD7     | 22    | /SRD    |
| 23    | /SRD    | 24    | IRON    |
| 25    | IRQN    | 26    | /SWR    |
| 27    | /SWR    | 28    | NC      |
| 29    | /RESET  | 30    | GND     |
| 31    | GND     | 32    | NC      |
| 33    | NC      | 34    | GND     |
| 35    | GND     | 36    | GND     |
| 37    | GND     | 38    | NC      |
| 39    | SSD_PWM | 40    | SSD_PWM |

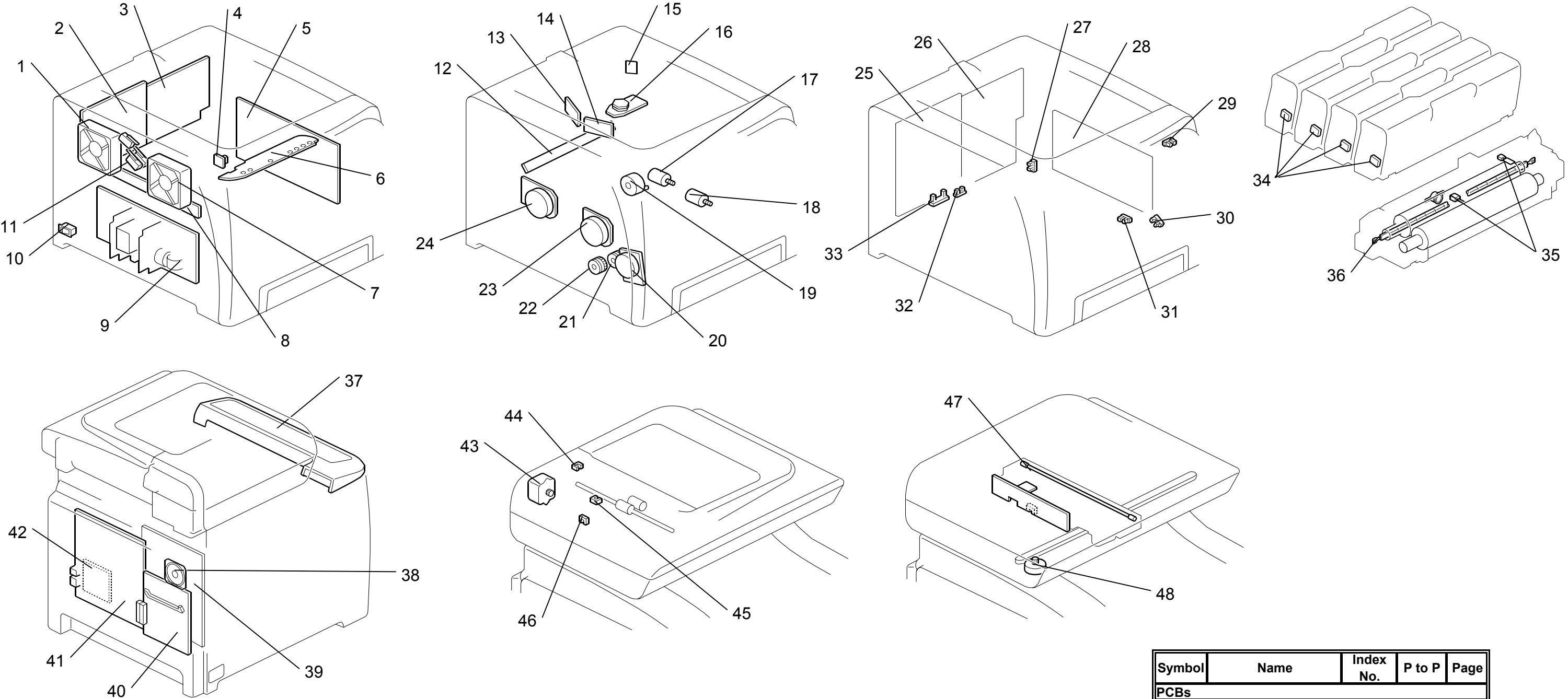
J-FAX1

J1

FAX Board (PCB15)

| SYMBOL TABLE |                  |
|--------------|------------------|
|              | AC Line          |
|              | DC Line          |
|              | Signal Direction |
| [   ]        | Voltage          |

MODEL PE-P1/MF1 (G165/G166/G167/G181/G183/G184) ELECTRICAL COMPONENT LAYOUT



| Symbol        | Name              | Index No. | P to P | Page |
|---------------|-------------------|-----------|--------|------|
| <b>Motors</b> |                   |           |        |      |
| M1            | Duplex Motor      | 19        | C2     | 1/2  |
| M2            | LSU Fan Motor     | 1         | C2     | 1/2  |
| M3            | Fusing Fan Motor  | 7         | C3     | 1/2  |
| M4            | Color AIO Motor   | 24        | C4     | 1/2  |
| M5            | Black AIO Motor   | 23        | C5     | 1/2  |
| M6            | Transport/Fusing  | 20        | C5     | 1/2  |
| M7            | Polygon Motor     | 16        | G5     | 1/2  |
| M8            | ITB Contact Motor | 17        | H7     | 1/2  |
| M9            | Agitator Motor    | 18        | H7     | 1/2  |
| M10           | Scanner Motor     | 48        | B2     | 2/2  |
| M11           | ADF Motor         | 43        | -      | -    |

| Symbol         | Name                          | Index No. | P to P | Page |
|----------------|-------------------------------|-----------|--------|------|
| <b>Sensors</b> |                               |           |        |      |
| S1             | Paper End Sensor              | 31        | G6     | 1/2  |
| S2             | Registration Sensor           | 30        | G6     | 1/2  |
| S3             | Paper Exit Sensor             | 29        | G7     | 1/2  |
| S4             | ITB Contact Sensor            | 27        | G7     | 1/2  |
| S5             | Temperature/Humidity Sensor   | 4         | G8     | 1/2  |
| S6             | Waste Toner Overflow Sensor   | 33        | G9     | 1/2  |
| S7             | Waste Toner Bottle Set Sensor | 32        | G9     | 1/2  |
| S8             | ADF Cover Open                | 44        | -      | -    |
| S9             | Original Set Sensor           | 45        | -      | -    |
| S10            | ADF Feed Sensor               | 46        | -      | -    |

| Symbol                   | Name                | Index No. | P to P | Page |
|--------------------------|---------------------|-----------|--------|------|
| <b>Magnetic Clutches</b> |                     |           |        |      |
| MC1                      | Registration Clutch | 21        | C6     | 1/2  |
| MC2                      | Paper Feed Clutch   | 22        | C6     | 1/2  |
| <b>Switches</b>          |                     |           |        |      |
| SW1                      | Main Switch         | 10        | B9     | 1/2  |
| SW2                      | Interlock Switches  | 11        | B10    | 1/2  |
| <b>Others</b>            |                     |           |        |      |
| L1                       | Fusing Lamp         | 36        | A9     | 1/2  |
| L2                       | Exposure Lamp       | 47        | -      | -    |
| TH1                      | Thermistors         | 35        | G8     | 1/2  |
| SP1                      | Speaker             | 38        | B8     | 2/2  |

| Symbol      | Name                            | Index No.        | P to P        | Page       |
|-------------|---------------------------------|------------------|---------------|------------|
| <b>PCBs</b> |                                 |                  |               |            |
| PCB1        | Operation Panel Board (Printer) | 6                | B1            | 1/2        |
| PCB2        | ID Chip [B, Y, M, C]            | 34               | B3            | 1/2        |
| PCB3        | ID Chip Board                   | 8                | C3            | 1/2        |
| PCB4        | TM Sensor Board                 | 12               | C3            | 1/2        |
| PCB5        | PSU                             | 9                | C9-10         | 1/2        |
| PCB6        | EGB                             | 2 (P)<br>39 (MF) | E2-10<br>G2-5 | 1/2<br>2/2 |
| PCB7        | Controller Board                | 3                | G1-2          | 1/2        |
| PCB8        | LD Board - C/M                  | 13               | G3            | 1/2        |
| PCB9        | LD Board - K/Y                  | 14               | G4            | 1/2        |
| PCB10       | Synchronizing Detector Board    | 15               | G5            | 1/2        |
| PCB11       | High Voltage Power Supply Board | 28               | H10           | 1/2        |
| PCB12       | Main Controller Board           | 41               | D2-10         | 2/2        |
| PCB13       | Operation Panel Board (MF)      | 37               | B6            | 2/2        |
| PCB14       | PDL Board                       | 40               | B9-10         | 2/2        |
| PCB15       | Fax Board                       | 42               | F9-10         | 2/2        |