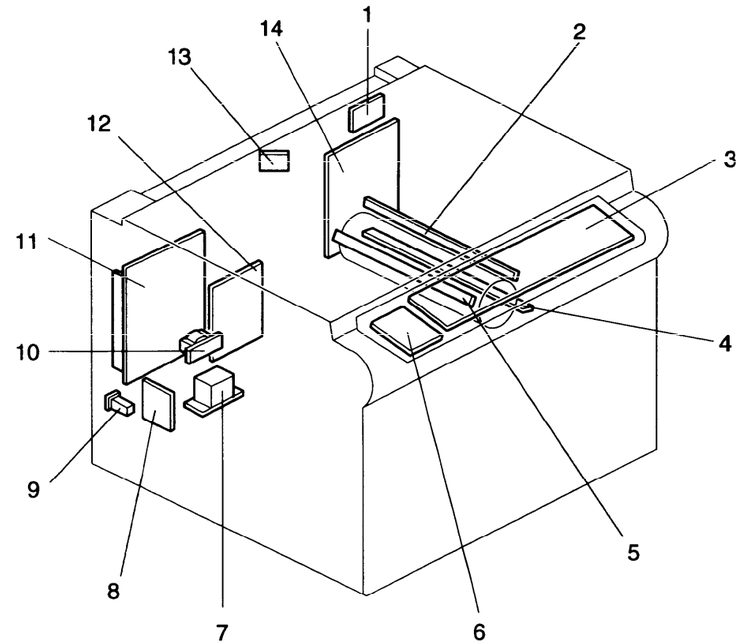
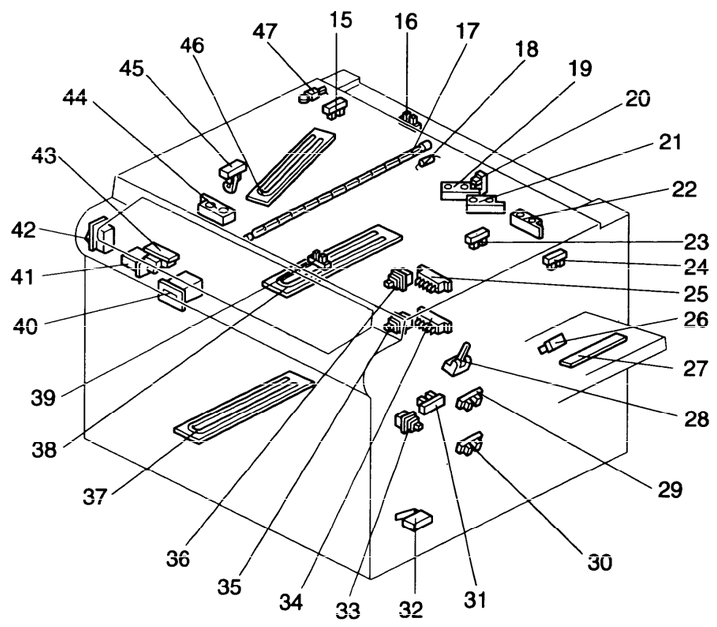
**FT5535/5025/4527/4027/4522/4022**

# COPIER ELECTRICAL COMPONENT LAYOUT

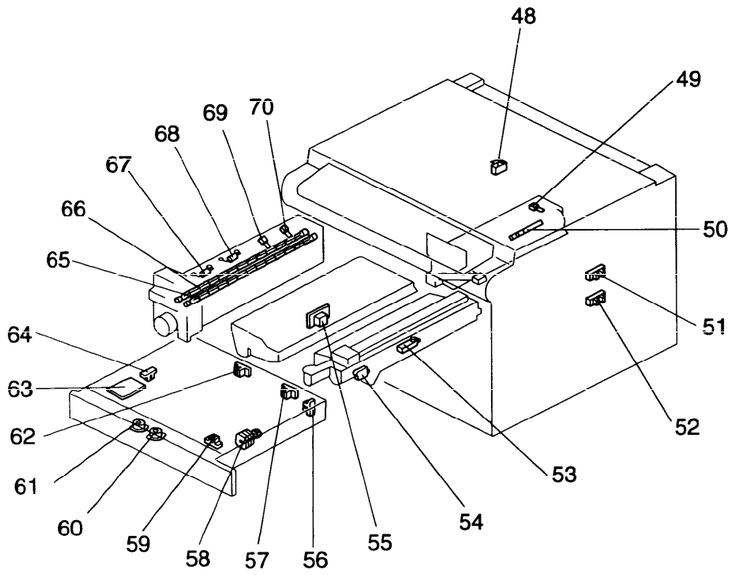
Rev. 7/95

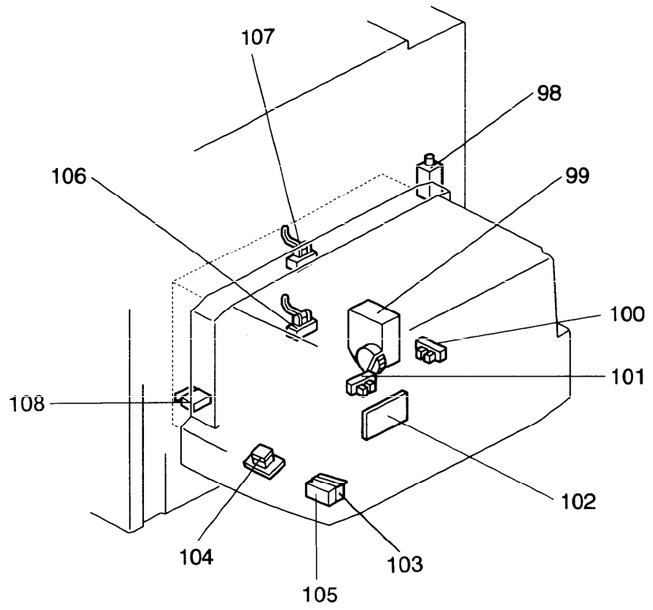


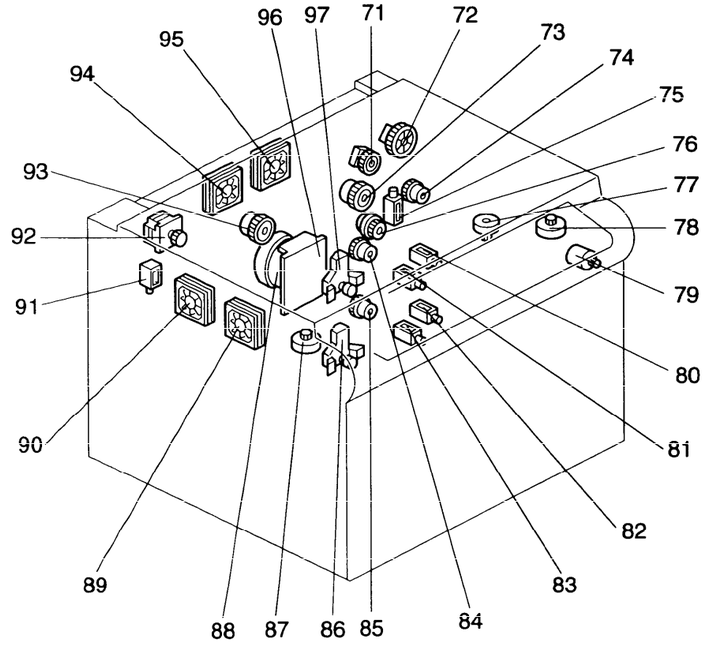




| Description | Index No. | P to P Location |
|---|---|---|
| CB High Voltage Supply Board (PCB5) | 1 | A2 |
| Erase Lamp (L6) | 2 | H2 |
| Operation Panel Board (PCB7) | 3 | F2 |
| Pre-transfer Lamp (L4) | 4 | D13 |
| Quenching Lamp (L5) | 5 | D14 |
| Liquid Crystal Display Board (A156 machines only) (PCB10) | 6 | E2 |
| Transformer (220 ~ 240V machines only) (TR1) | 7 | C3 |
| Noise Filter Board (220 ~ 240V machines only) (PCB8) | 8 | A2 |
| Circuit Breaker (220 ~ 240V machines only) (CB1) | 9 | A2 |
| Choke Coil (CC1) | 10 | B9 |
| DC Power Supply Board (PCB3) | 11 | C9 |
| AC Drive Board (PCB2) | 12 | C6 |
| Auto Image Density Sensor (ADS Sensor) (S25) | 13 | D8 |
| Main Control Board (PCB1) | 14 | F13 |
| Scanner HP Sensor (S17) | 15 | G10 |
| Platen Cover Sensor (S21) | 16 | D13 |
| Exposure Lamp (L1) | 17 | A6 |
| Exposure Lamp Thermofuse (TF3) | 18 | A6 |
| Original Length Sensor-1 (S27) | 19 | D7 |
| Lens Vertical HP Sensor (S16) | 20 | G10 |
| Original Length Sensor-2 (S19) | 21 | D14 |
| Original Length Sensor (Option for N. American models (S33) | 22 | D11 |
| Transfer Belt Contact HP Sensor (S24) | 23 | D12 |
| 3rd Scanner HP Sensor (S18) | 24 | F9 |
| Upper Tray Paper Size Switch (Non-duplex machines only) (SW5) | 25 | G16 |
| LCT Upper Limit Sensor (LCT machines only) (S11) | 26 | J13 |
| By-pass Feed Paper Width Sensor (S1) | 27 | J16 |
| Registration Sensor (S12) | 28 | H10 |

| Description | Index No. | P to P Location |
|---|---|---|
| Upper Tray Upper Limit Sensor (A153/A155 machines only) (S5) | 29 | I16 |
| Lower Tray Upper Limit Sensor (A153/A155/A156 machines only) (S8) | 30 | J16 |
| By-pass Feed Paper End Sensor (S2) | 31 | H10 |
| Vertical Guide Set Switch | 32 | J16 |
| By-pass Feed Table Switch (SW1) | 33 | I10 |
| Lower Tray Paper Size Switch (SW6) | 34 | H16 |
| Lower Tray Switch (SW3) | 35 | G11 |
| Upper Tray Switch (Non-duplex machines only) (SW2) | 36 | G11 |
| Lower Tray Heater (option) (H3) | 37 | A5 |
| Drum Heater (H1) | 38 | A4 |
| Lens Horizontal HP Sensor (S15) | 39 | G10 |
| Total Counter (CO1) | 40 | D11 |
| Front Cover Safety Switch (SW11) | 41 | C10 |
| Main Switch (SW10) | 42 | B8 |
| Auto Response Sensor (S23) | 43 | F1 |
| Original Width Sensor (S26) | 44 | D8 |
| Fusing Exit Sensor (S20) | 45 | D14 |
| Optics Anti-condensation Heater (option) (H2) | 46 | A5 |
| Optics Thermistor (TH3) | 47 | D4 |



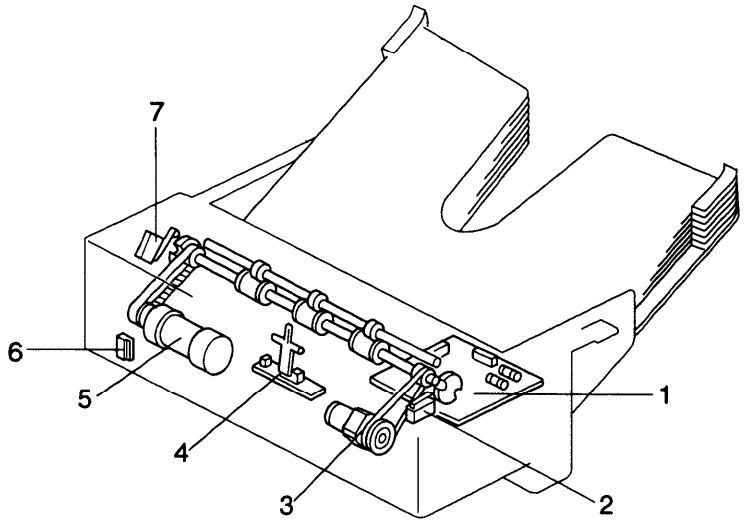




| Description | Index No. | P to P Location |
|---|---|---|
| Exit Cover Safety Switch (A157/A159/A160 machines only) (SW12) | 48 | D10 |
| Drum Charge Thermistor (TH4) | 49 | I2 |
| Image Density Sensor (ID) (S13) | 50 | I3 |
| Upper Tray Paper End Sensor (Non-duplex machines only) (S3) | 51 | H16 |
| Lower Tray Paper End Sensor (S6) | 52 | I16 |
| Toner Density Sensor (TD) (S14) | 53 | I3 |
| Toner End Sensor (S22) | 54 | D13 |
| T High Voltage Supply Board (PCB6) | 55 | B12 |
| Duplex Paper End Sensor (Duplex machines only) (S28) | 56 | K5 |
| Duplex Turn Sensor (Duplex machines only) (S29) | 57 | K5 |
| Duplex Feed Motor (Duplex machines only) (M14) | 58 | J8 |
| Side Fence Jogger HP Sensor (Duplex machines only) (S31) | 59 | K6 |
| Side Fence Jogger Motor (Duplex machines only) (M16) | 60 | K5 |
| End Fence Jogger Motor (Duplex machines only) (M15) | 61 | K4 |
| Duplex Entrance Sensor (Duplex machines only) (S30) | 62 | K6 |
| Duplex Control Board (Duplex machines only) (PCB9) | 63 | J5 |
| End Fence Jogger HP Sensor (Duplex machines only) (S32) | 64 | K6 |
| Main Fusing Lamp (L2) | 65 | A7 |
| Secondary Fusing Lamp (L3) | 66 | A8 |
| Secondary Fusing Thermofuse (TF2) | 67 | B7 |
| Main Fusing Thermofuse (TF1) | 68 | A7 |
| Main Fusing Thermistor (TH1) | 69 | D12 |
| Secondary Fusing Thermistor (TH2) | 70 | C12 |
| Development Clutch (CL2) | 71 | D6 |
| Toner Supply Clutch (CL1) | 72 | D5 |
| Registration Clutch (CL4) | 73 | I10 |
| By-pass Feed Clutch (CL5) | 74 | I10 |

| Description | Index No. | P to P Location |
|---|---|---|
| LCT machines: LCT/By-Pass Pick up Solenoid Non-LCT machines: By-Pass Pick up Solenoid (SOL1) | 75 | I10 |
| Relay Clutch (CL6) | 76 | K16 |
| Lens Horizontal Drive Motor (M13) | 77 | G9 |
| 3rd Scanner Drive Motor (M11) | 78 | G8 |
| Toner Bottle Drive Motor (M2) | 79 | D6 |
| Upper Tray Pick-up Solenoid (A153/A155 machines only) (SOL4) | 80 | E16 |
| Upper Tray Separation Solenoid (A153/A155 machines only) (SOL6) | 81 | F16 |
| Lower Tray Pick-up Solenoid (A153/A155/A156 machines only) (SOL5) | 82 | F16 |
| Lower Tray Separation Solenoid (A153/A155/A156 machines only) (SOL7) | 83 | F16 |
| Upper- Paper Feed Clutch (Non-duplex machines only) (CL7) | 84 | E16 |
| Lower Paper Feed Clutch (CL8) | 85 | E16 |
| Lower Tray Lift Motor (A153/A155/A156 machines only) (M4) | 86 | G16 |
| Lens Vertical Drive Motor (M12) | 87 | G8 |
| Main Motor (M1) | 88 | D10 |
| Exhaust Fan Motor 1 (M8) | 89 | D5 |
| Exhaust Fan Motor 2 (A153/A155/A156 machines only) (M9) | 90 | D5 |
| Junction Gate Solenoid (Duplex machines only) (SOL2) | 91 | G7 |
| Scanner Drive Motor (M10) | 92 | F7 |
| Transfer Belt Contact Clutch (CL3) | 93 | D11 |
| Optics Cooling Fan Motor 1 (M6) | 94 | D4 |
| Optics Cooling Fan Motor 2 (A153/A155/A156 machines only) (M7) | 95 | D5 |
| Main Motor Control Board (PCB4) | 96 | D9 |
| Upper Tray Lift Motor (A153/A155 machines only) (M3) | 97 | F16 |

| Description | Index No. | P to P Location |
|---|---|---|
| LCT Pick-up Solenoid (LCT machines only) (SOL3) | 98 | J14 |
| LCT Lift Motor (LCT machines only) (M5) | 99 | L11 |
| LCT Lower Limit Sensor (LCT machines only) (S9) | 100 | J12 |
| LCT Paper End Sensor (LCT machines only) (S10) | 101 | J13 |
| LCT Interface Board (LCT machines only) (PCB11) | 102 | K12 |
| LCT Cover Switch-2 (LCT machines only) (SW9) | 103 | K12 |
| Tray Down Switch (LCT machines only) (SW4) | 104 | J13 |
| LCT Cover Switch-1 (LCT machines only) (SW8) | 105 | J12 |
| Lower Relay Sensor (S7) | 106 | I16 |
| Upper Relay Sensor (S4) | 107 | H16 |
| Vertical Guide Set Switch (SW7) | 108 | J16 |

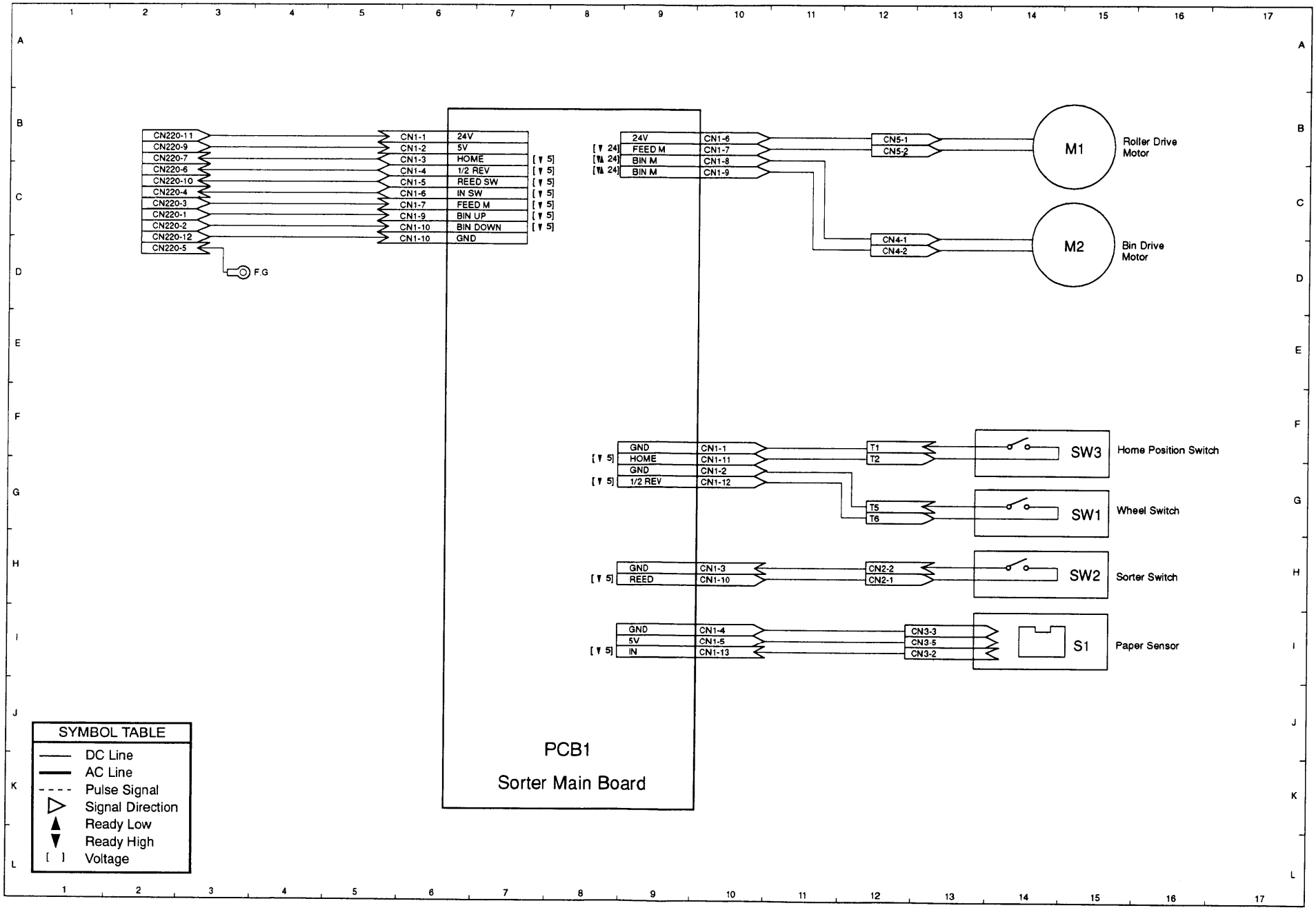
## CS130 (A557) 10 BIN SORTER
## ELECTRICAL COMPONENT LAYOUT



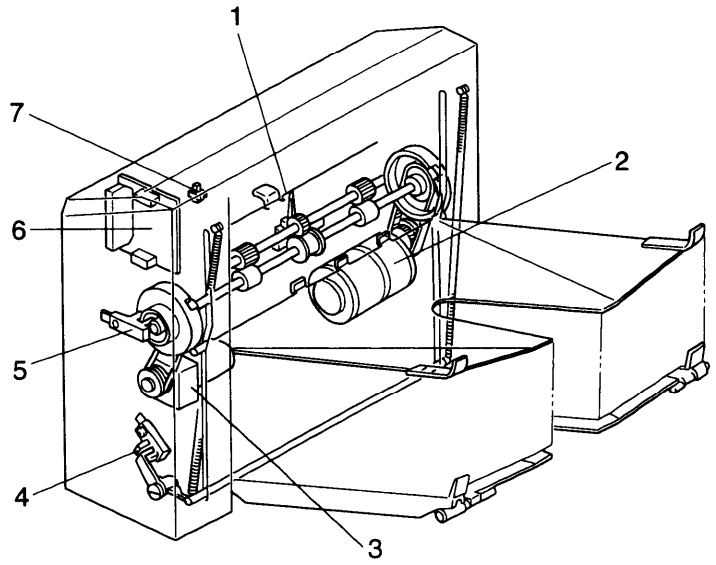

| Description | Index No. | P to P Location |
|---|---|---|
| Sorter Main Board (PCB1) | 1 | F8 |
| Wheel Switch (SW1) | 2 | H14 |
| Roller Drive Motor (M1) | 3 | E14 |
| Paper Sensor (S1) | 4 | J14 |
| Bin Drive Motor (M2) | 5 | C14 |
| Sorter Switch (SW2) | 6 | I14 |
| Home Position Switch (SW3) | 7 | G14 |

# CS130 (A557) 10 BIN SORTER POINT TO POINT DIAGRAM

**Rev. 7/95**



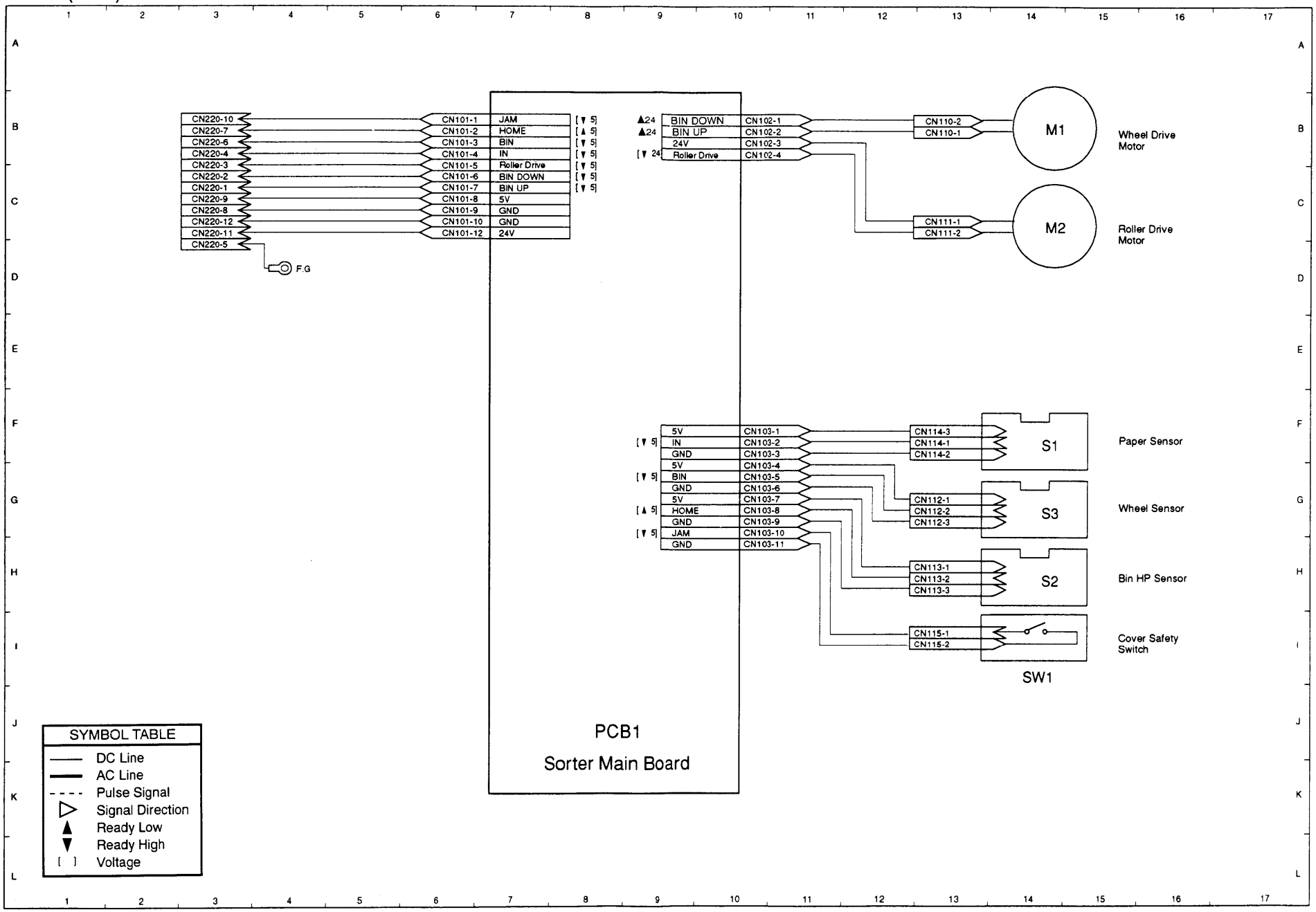
## CS220 (A556) 20 BIN SORTER
## ELECTRICAL COMPONENT LAYOUT




| Description | Index No. | P to P Location |
|---|---|---|
| Paper Sensor (S1) | 1 | G15 |
| Wheel Drive Motor (M1) | 2 | C15 |
| Roller Drive Motor (M2) | 3 | E15 |
| Bin Home Position Sensor (S2) | 4 | I15 |
| Wheel Sensor (S3) | 5 | H15 |
| Sorter Control Board (PCB1) | 6 | F8 |
| Cover Safety Switch (SW1) | 7 | J15 |

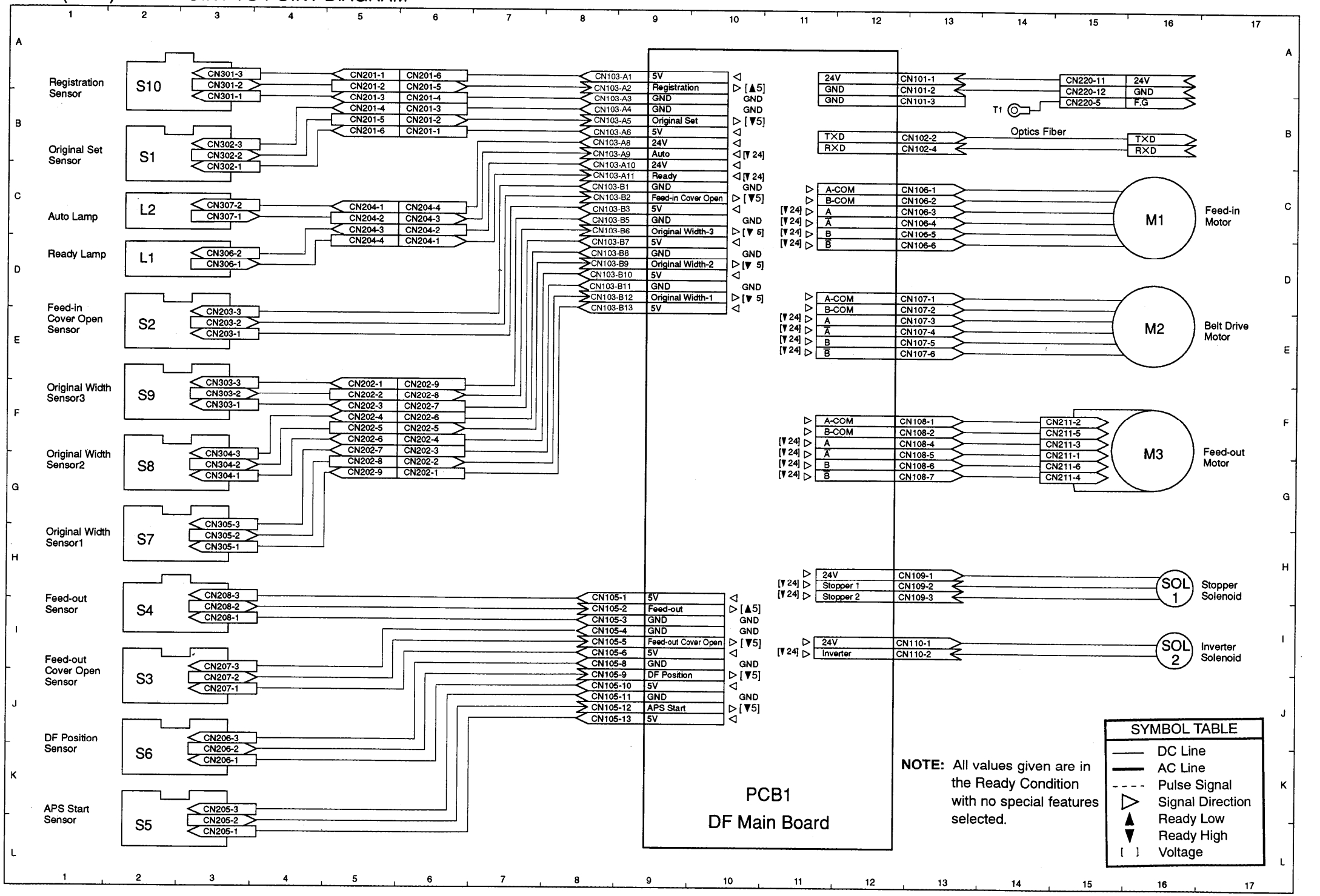
CS220 (A556) POINT TO POINT DIAGRAM

**Rev. 7/95**

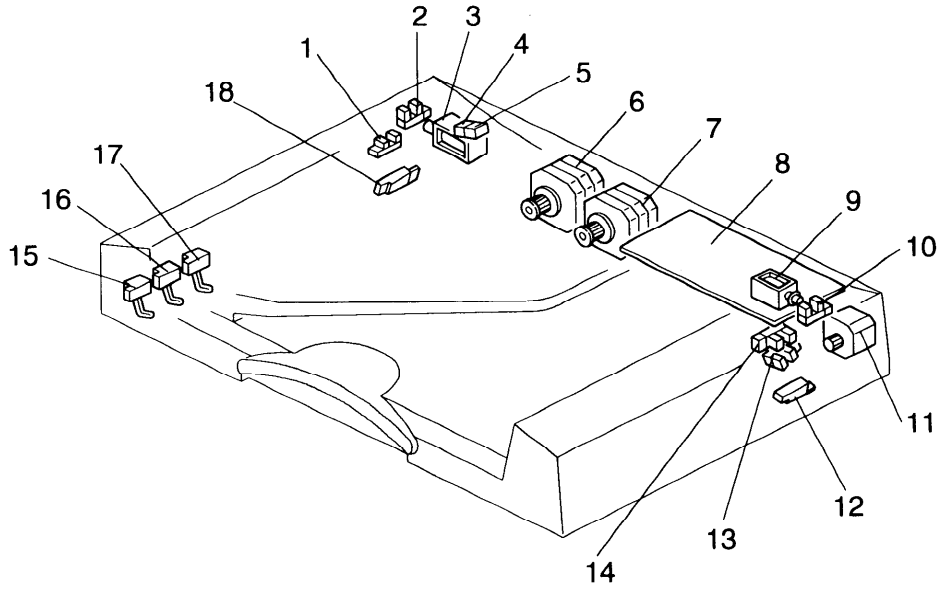


# DF61 (A548) ARDF POINT TO POINT DIAGRAM

**REV. 5/97**



## DF61 (A548) ARDF
## ELECTRICAL COMPONENT LAYOUT




| Description | Index No. | P to P Location |
|---|---|---|
| Original Set Sensor (S1) | 1 | B3 |
| Feed-in Cover Open Sensor (S2) | 2 | E3 |
| Stopper Solenoid (SOL1) | 3 | I16 |
| Ready Lamp (L1) | 4 | D3 |
| Auto Lamp (L2) | 5 | C3 |
| Feed-in Motor (M1) | 6 | C16 |
| Belt Drive Motor (M2) | 7 | E16 |
| DF Main Board (PCB1) | 8 | F11 |
| Inverter Solenoid (SOL2) | 9 | J16 |
| Feed-out Cover Open Sensor (S3) | 10 | J3 |
| Feed-out Motor (M3) | 11 | F16 |
| Feed-out Sensor (S4) | 12 | I3 |
| APS Start Sensor (S5) | 13 | L3 |
| DF Position Sensor (S6) | 14 | K3 |
| Original Width Sensor-1 (S7) | 15 | H3 |
| Original Width Sensor-2 (S8) | 16 | G3 |
| Original Width Sensor-3 (S9) | 17 | F3 |
| Registration Sensor (S10) | 18 | A3 |

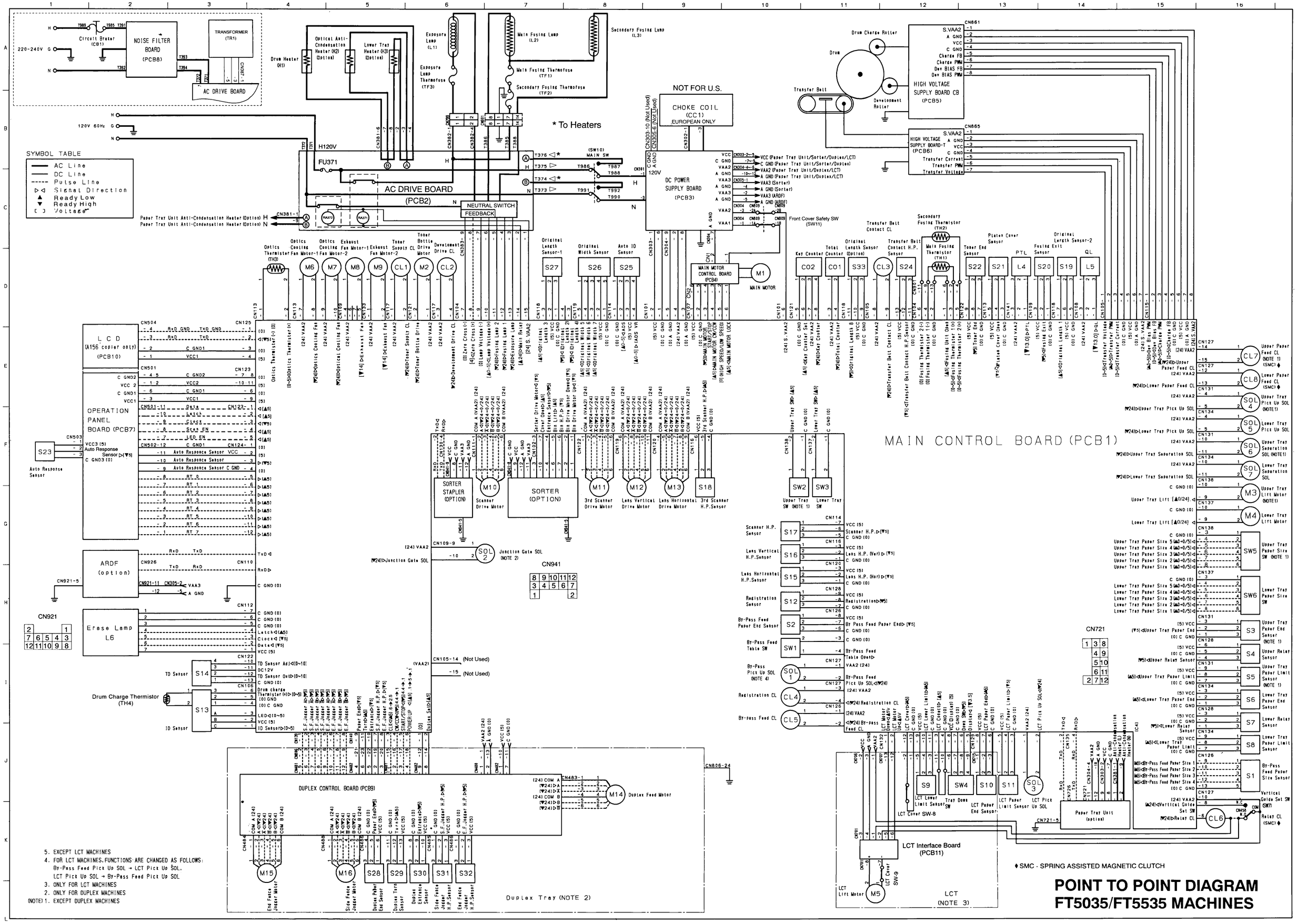
SYMBOL TABLE
- AC Line
- DC Line
- Pulse Line
- Signal Direction
- Ready Low
- Ready High
- Voltage

6. NOT USED ON FT4522/4022
5. EXCEPT LCT MACHINES
4. FOR LCT MACHINES.FUNCTIONS ARE CHANGED AS FOLLOWS:
   By-Pass Feed Pick Up SOL → LCT Pick Up SOL.
   LCT Pick Up SOL → By-Pass Feed Pick Up SOL
3. ONLY FOR LCT MACHINES
2. ONLY FOR DUPLEX MACHINES
(NOTE) 1. -EXCEPT DUPLEX MACHINES

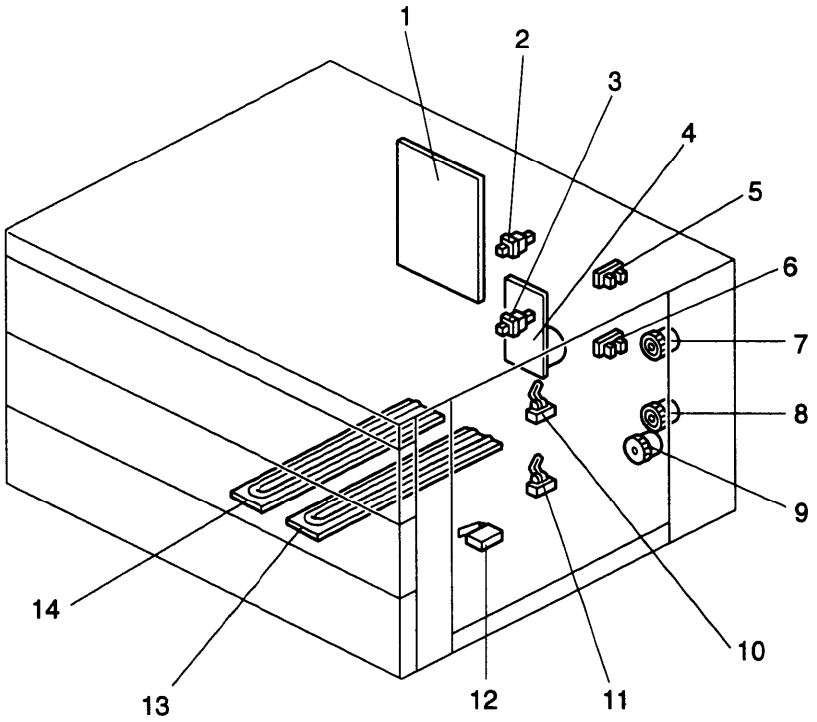
♦SMC - SPRING ASSISTED MAGNETIC CLUTCH
★SW12 FT4527/4522 ONLY

# POINT TO POINT DIAGRAM FT4527/4027/4522/4022 MACHINES

Rev. 7/96


SYMBOL TABLE
AC Line
DC Line
Pulse Line
Signal Direction
Ready Low
Ready High
Voltage
AC DRIVE BOARD (PCB2)
DC POWER SUPPLY BOARD (PCB3)
MAIN MOTOR CONTROL BOARD (PCB4)
NOISE FILTER BOARD (PCB8)
TRANSFORMER (TR1)
Circuit Brator (CB1)
220-240V
120V 60Hz
H120V
FU371
NEUTRAL SWITCH FEEDBACK
CHOKE COIL (CC1) EUROPEAN ONLY
NOT FOR U.S.
* To Heaters
Drum Heater (H1)
Optical Anti-Condensation Heater (H2) (Option)
Lower Tray Heater (H3) (Option)
Exposure Lamp (L1)
Exposure Lamp Thermofuse (TF3)
Main Fusing Lamp (L2)
Main Fusing Thermofuse (TF1)
Secondary Fusing Lamp (L3)
Secondary Fusing Thermofuse (TF2)
Drum
Drum Charge Roller
Development Roller
Transfer Belt
HIGH VOLTAGE SUPPLY BOARD CB (PCB5)
HIGH VOLTAGE SUPPLY BOARD-T (PCB6)
Front Cover Safety SW (SW11)
Paper Tray Unit Anti-Condensation Heater (Option)
Optics Thermistor (TH3)
Optics Cooling Fan Motor-1
Optics Cooling Fan Motor-2
Exhaust Fan Motor-1
Exhaust Fan Motor-2
Toner Supply CL
Toner Bottle Drive Motor
Development Drive CL
Original Length Sensor-1
Original Width Sensor
Auto ID Sensor
Key Counter
Total Counter
Original Length Sensor (Option)
Transfer Belt Contact CL
Transfer Belt Contact H.P. Sensor
Secondary Fusing Thermistor (TH2)
Main Fusing Thermistor (TH1)
Toner End Sensor
Platen Cover Sensor
PTL
Fusing Exit Sensor
Original Length Sensor-2
QL
MAIN MOTOR
MAIN CONTROL BOARD (PCB1)
LCD (A156 copier only) (PCB10)
OPERATION PANEL BOARD (PCB7)
Auto Response Sensor
Erase Lamp L6
ARDF (option)
Drum Charge Thermistor (TH4)
TD Sensor
ID Sensor
SORTER STAPLER (OPTION)
SORTER (OPTION)
Scanner Drive Motor
3rd Scanner Drive Motor
Lens Vertical Drive Motor
Lens Horizontal Drive Motor
3rd Scanner H.P.Sensor
Junction Gate SOL (NOTE 2)
Upper Tray SW (NOTE 1)
Lower Tray SW
Scanner H.P. Sensor
Lens Vertical H.P.Sensor
Lens Horizontal H.P.Sensor
Registration Sensor
By-Pass Feed Paper End Sensor
By-Pass Feed Table SW
By-Pass Pick Up SOL (NOTE 4)
Registration CL
By-pass Feed CL
DUPLEX CONTROL BOARD (PCB9)
Duplex Feed Motor
Duplex Tray (NOTE 2)
LCT Interface Board (PCB11)
LCT Lift Motor
LCT Cover SW-8
LCT Cover SW-9
LCT (NOTE 3)
Paper Tray Unit (option)
Upper Paper Feed CL (NOTE 1) (SMC)♦
Lower Paper Feed CL (SMC)♦
Upper Tray Pick Up SOL (NOTE1)
Lower Tray Pick Up SOL
Upper Tray Separation SOL (NOTE1)
Lower Tray Separation SOL
Upper Tray Lift Motor (NOTE1)
Lower Tray Lift Motor
Upper Tray Paper Size SW (NOTE 1)
Lower Tray Paper Size SW
Upper Tray Paper End Sensor (NOTE 1)
Upper Relay Sensor
Upper Tray Paper Limit Sensor (NOTE 1)
Lower Tray Paper End Sensor
Lower Relay Sensor
Lower Tray Paper Limit Sensor
By-Pass Feed Paper Size Sensor
Vertical Guide Set SW (SW7)
Relay CL (SMC)♦
♦ SMC - SPRING ASSISTED MAGNETIC CLUTCH
5. EXCEPT LCT MACHINES
4. FOR LCT MACHINES, FUNCTIONS ARE CHANGED AS FOLLOWS:
By-Pass Feed Pick Up SOL → LCT Pick Up SOL.
LCT Pick Up SOL → By-Pass Feed Pick Up SOL
3. ONLY FOR LCT MACHINES
2. ONLY FOR DUPLEX MACHINES
(NOTE) 1. EXCEPT DUPLEX MACHINES
POINT TO POINT DIAGRAM
FT5035/FT5535 MACHINES

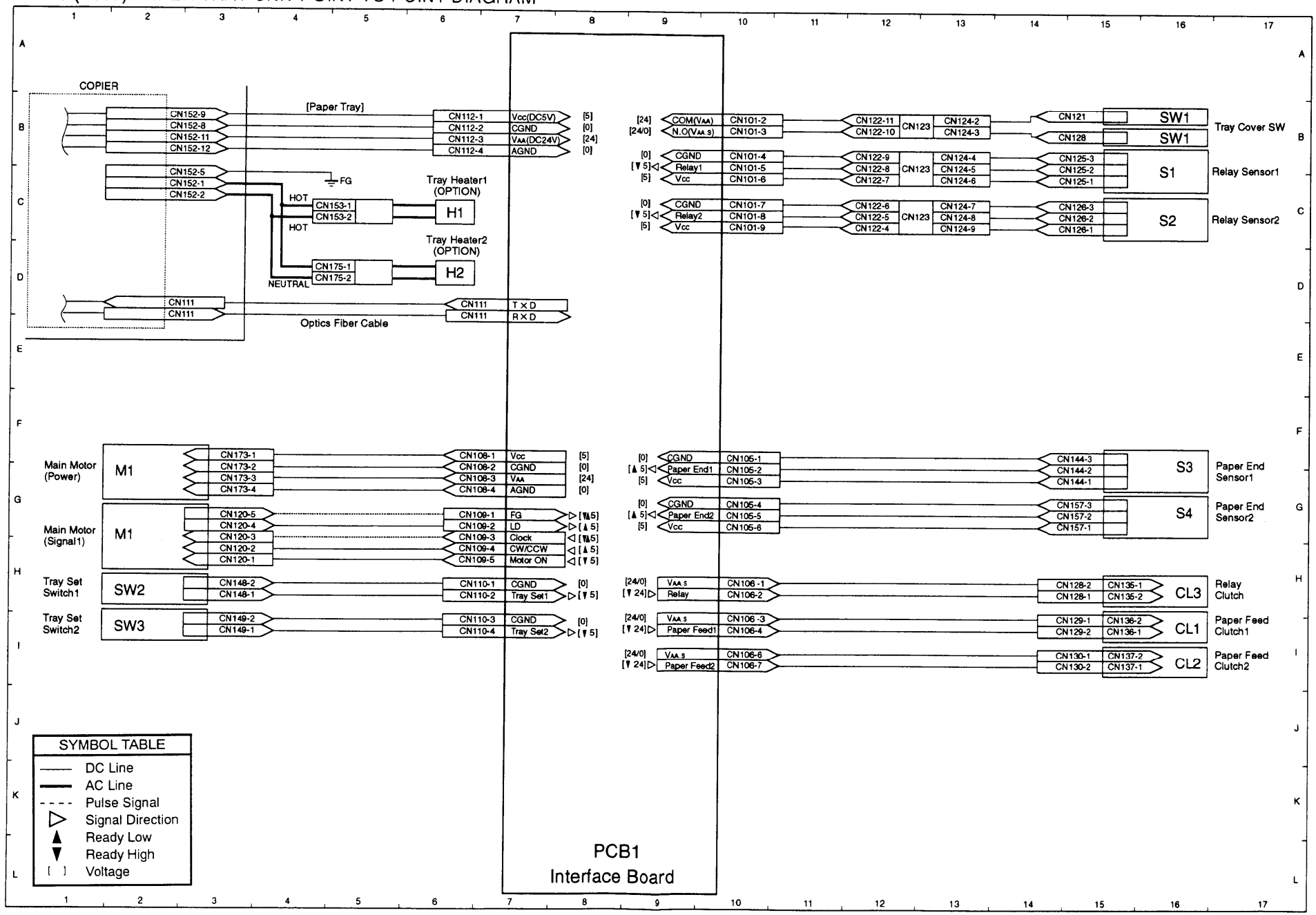
## PS270 (A553) PAPER TRAY UNIT
## ELECTRICAL COMPONENT LAYOUT



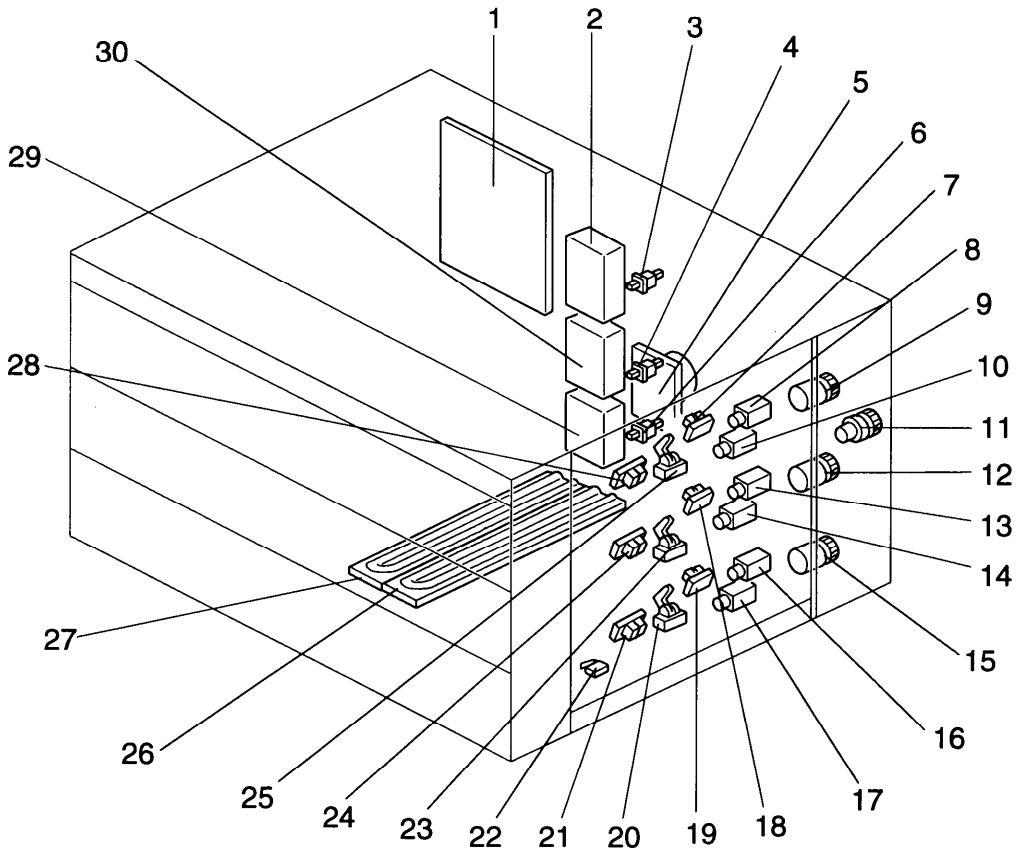

| Description | Index No. | P to P Location |
|---|---|---|
| Interface Board (PCB1) | 1 | F8 |
| Tray Set Switch 1 (SW2) | 2 | H2 |
| Tray Set Switch 2 (SW3) | 3 | I2 |
| Main Motor (M1) | 4 | G2 |
| Paper End Sensor 1 (S3) | 5 | G16 |
| Paper End Sensor 2 (S4) | 6 | G16 |
| Paper Feed Clutch 1 (CL1) | 7 | I16 |
| Paper Feed Clutch 2 (CL2) | 8 | I16 |
| Relay Clutch (CL3) | 9 | H16 |
| Relay Sensor 1 (S1) | 10 | B16 |
| Relay Sensor 2 (S2) | 11 | C16 |
| Tray Cover Switch (SW1) | 12 | B16 |
| Tray Heater (Option) (H1) | 13 | C6 |
| Tray Heater (Option) (H2) | 14 | D6 |

# PS270 (A553) PAPER TRAY UNIT POINT TO POINT DIAGRAM

**Rev. 7/95**



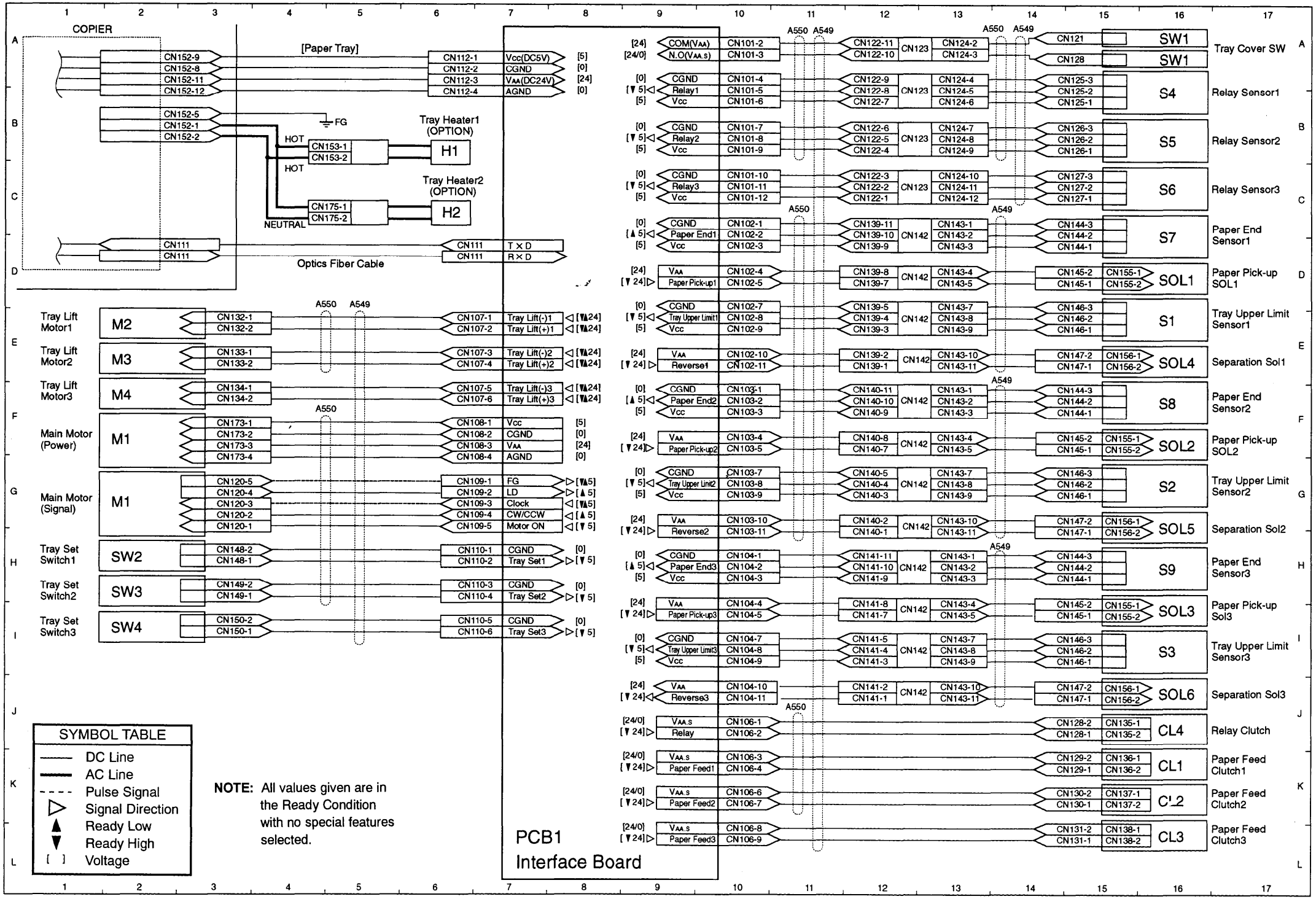
# PS290/280 (A550/549) PAPER TRAY UNIT ELECTRICAL COMPONENT LAYOUT



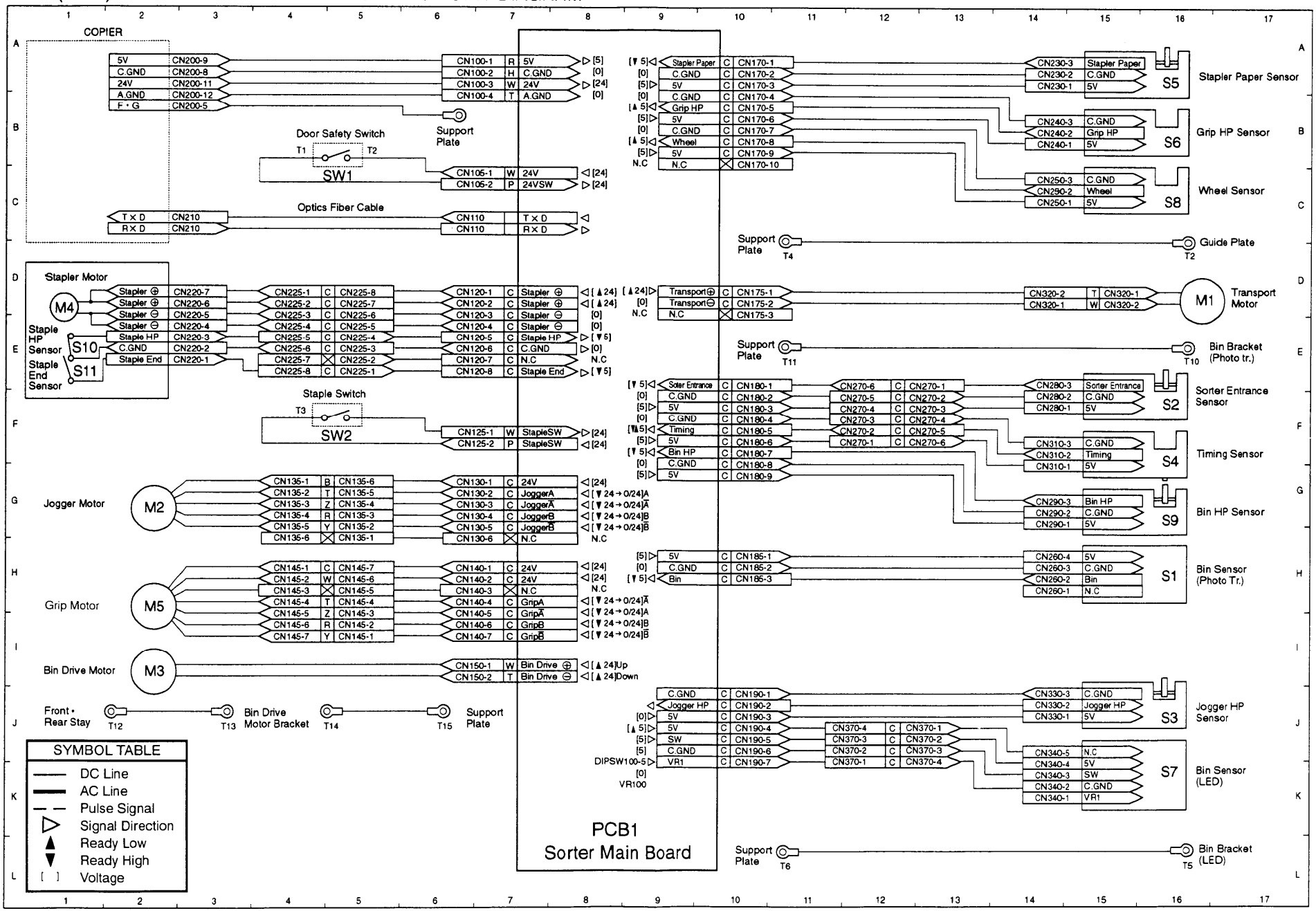

| Description | Index No. | P to P Location |
|---|---|---|
| Interface Board (PCB1) | 1 | F8 |
| Tray Lift Motor 1 (M2) | 2 | E2 |
| Tray Set Switch 1 (SW2) | 3 | H2 |
| Tray Set Switch 2 (SW3) | 4 | H2 |
| Main Motor (M1) | 5 | F2 |
| Tray Set Switch 3 (A549 only) (SW4) | 6 | I2 |
| Tray Upper Limit Sensor 1 (S1) | 7 | E16 |
| Paper Pick-up Solenoid 1 (SOL1) | 8 | D16 |
| Paper Feed Clutch 1 (CL1) | 9 | K16 |
| Separation Solenoid 1 (SOL4) | 10 | E16 |
| Relay Clutch (CL4) | 11 | J16 |
| Paper Feed Clutch 2 (CL2) | 12 | K16 |
| Paper Pick-up Solenoid 2 (SOL2) | 13 | F16 |
| Separation Solenoid 2 (SOL5) | 14 | G16 |
| Paper Feed Clutch 3 (A549 only) (CL3) | 15 | L16 |
| Paper Pick-up Solenoid 3 (A549 only) (SOL3) | 16 | I16 |
| Separation Solenoid 3 (A549 only) (SOL6) | 17 | J16 |
| Tray upper Limit Sensor 2 (S2) | 18 | G16 |
| Tray upper Limit Sensor 3 (A549 only) (S3) | 19 | I16 |
| Relay Sensor 3 (A549 only) (S6) | 20 | C16 |
| Paper End Sensor 3 (A549 only) (S9) | 21 | H16 |
| Tray Cover Switch (SW1) | 22 | A16 |
| Relay Sensor 2 (S5) | 23 | B16 |
| Paper End Sensor 2 (S8) | 24 | F16 |
| Relay Sensor 1 (S4) | 25 | B16 |
| Tray Heater (Option) (H1) | 26 | B6 |
| Tray Heater (Option) (H2) | 27 | C6 |
| Paper End Sensor 1 (S7) | 28 | C16 |
| Tray Lift Motor 3 (A549 only) (M4) | 29 | F2 |
| Tray Lift Motor 2 (M3) | 30 | E2 |

# PS290/280 (A550/549) PAPER TRAY UNIT POINT TO POINT DIAGRAM

**Rev. 10/31/96**

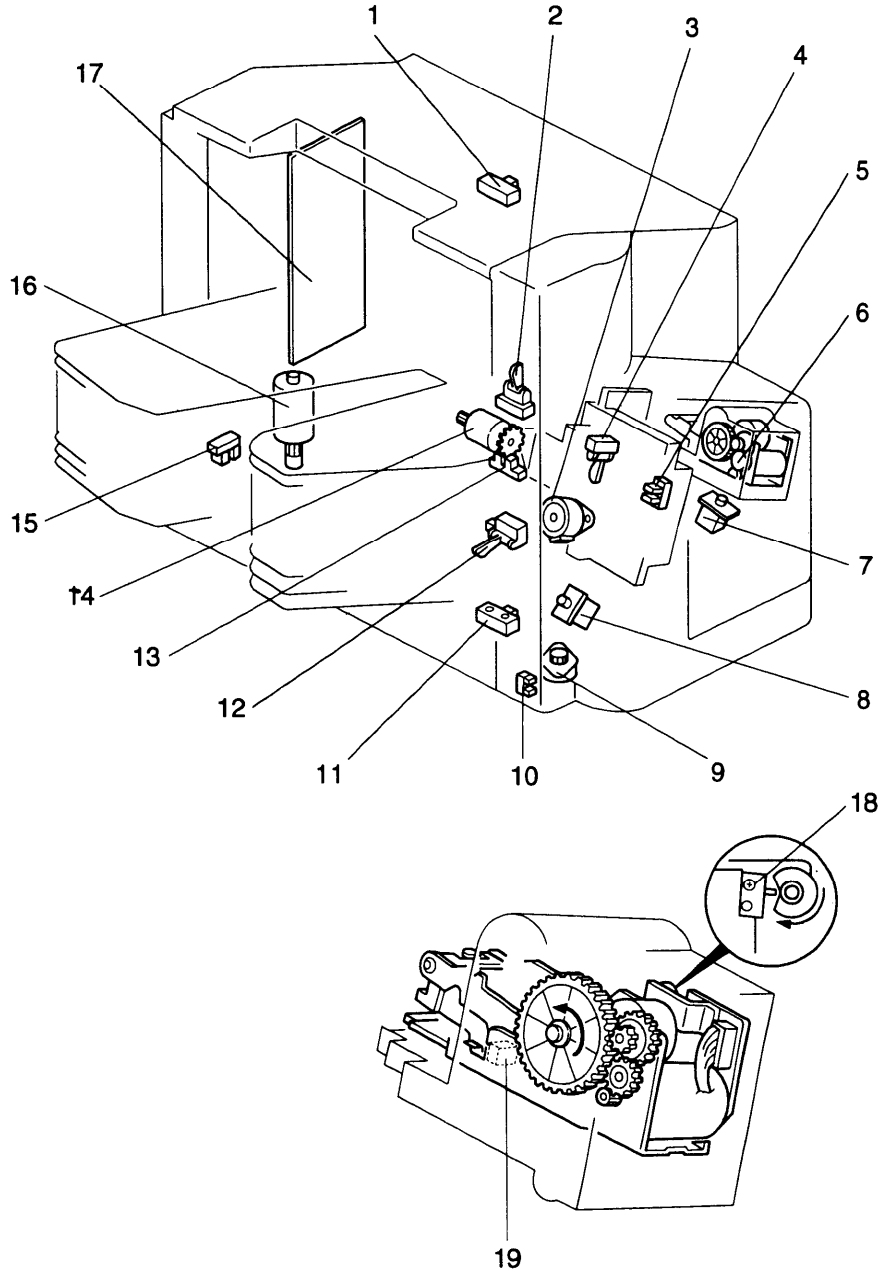


# ST10 (A555) 10 BIN SORTER STAPLER POINT TO POINT DIAGRAM



## ST10 (A555) 10 BIN SORTER STAPLER
## ELECTRICAL COMPONENT LAYOUT

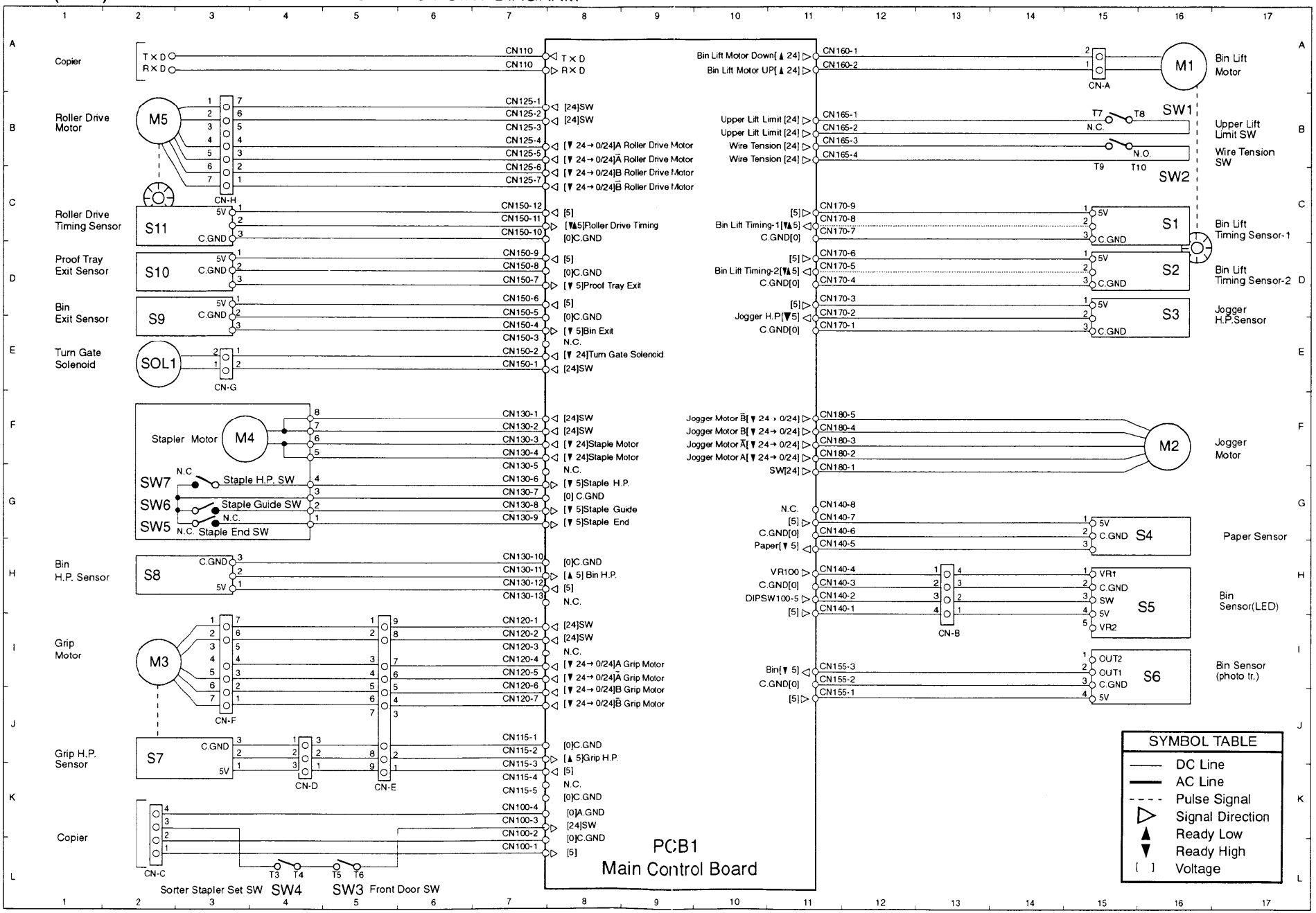
Rev. 7/95



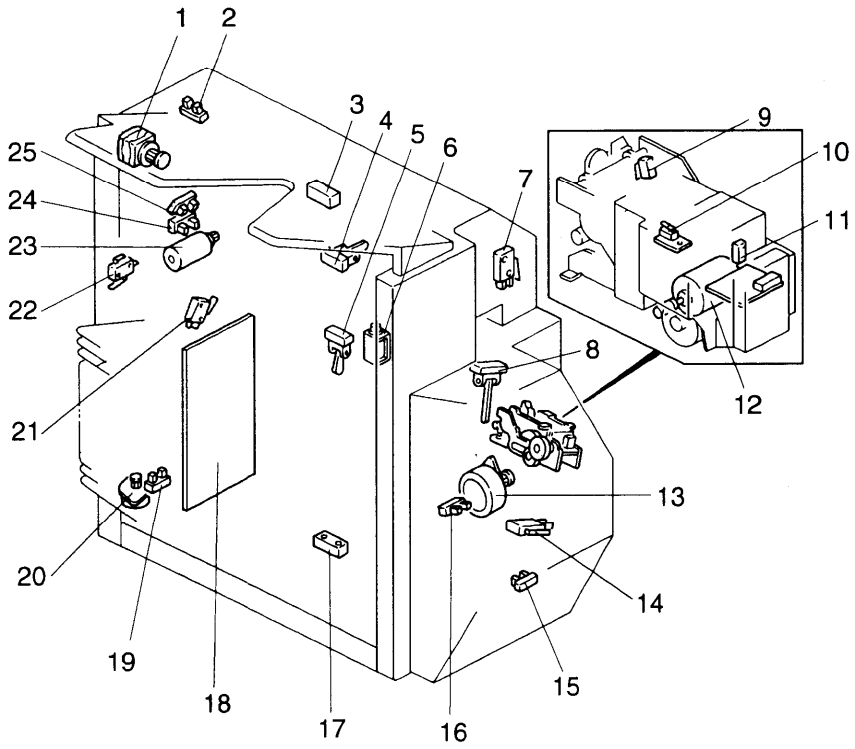

| Description | Index No. | P to P Location |
|---|---|---|
| Bin Sensor (Photo tr.) (S1) | 1 | I15 |
| Sorter Entrance Sensor (S2) | 2 | F15 |
| Grip Motor (M5) | 3 | I2 |
| Stapler Paper Sensor (S5) | 4 | A15 |
| Grip H.P. Sensor (S6) | 5 | B15 |
| Stapler Motor (M4) | 6 | E1 |
| Door Safety Switch (SW1) | 7 | F5 |
| Stapler Switch (SW2) | 8 | C5 |
| Jogger Motor (M2) | 9 | H2 |
| Wheel Sensor (S8) | 10 | C15 |
| Bin Sensor (LED) (S7) | 11 | K15 |
| Bin H.P. Sensor (S9) | 12 | H15 |
| Timing Sensor (S4) | 13 | G15 |
| Transport Motor (M1) | 14 | E16 |
| Jogger H.P. Sensor (S3) | 15 | J15 |
| Bin Drive Motor (M3) | 16 | K2 |
| Main Board (PCB1) | 17 | F8 |
| Staple H.P. Sensor (S10) | 18 | E1 |
| Staple End Sensor (S11) | 19 | E1 |

# ST26 (A554) 20 BIN SORTER STAPLER POINT TO POINT DIAGRAM

**Rev. 7/95**



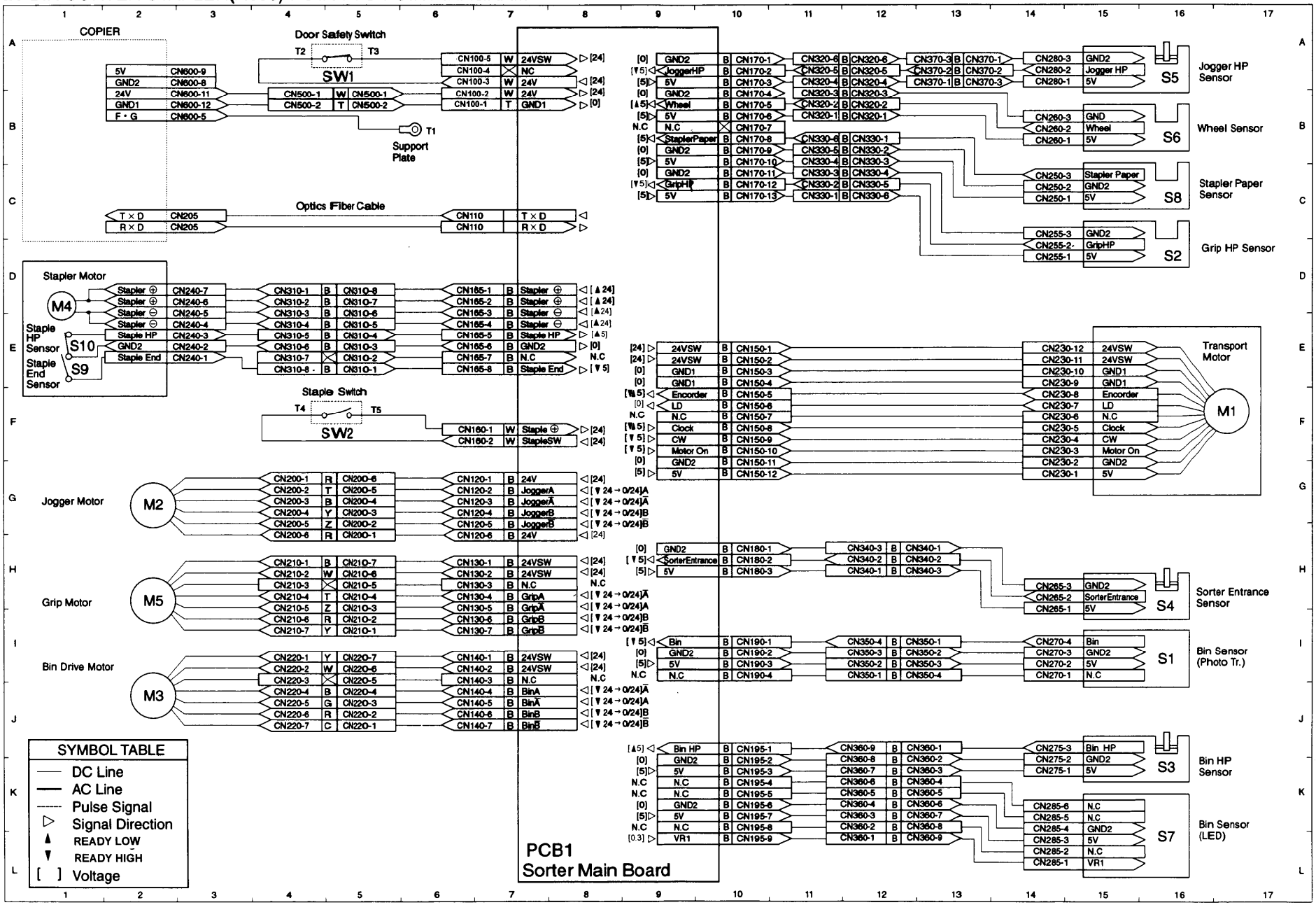
## ST26 (A554) 20 BIN SORTER STAPLER
## ELECTRICAL COMPONENT LAYOUT



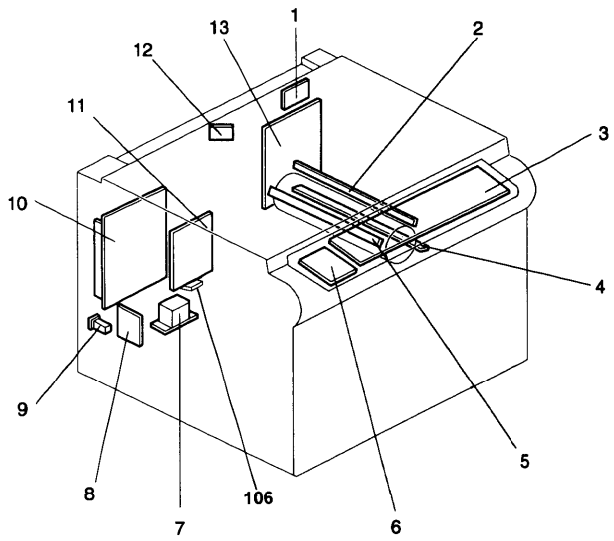

| Description | Index No. | P to P Location |
|---|---|---|
| Roller Drive Motor (M5) | 1 | B2 |
| Roller Drive Timing Sensor (S11) | 2 | C3 |
| Bin Sensor (LED) (S5) | 3 | J16 |
| Proof Tray Exit Sensor (S10) | 4 | D3 |
| Bin Exit Sensor (S9) | 5 | D3 |
| Turn Gate Solenoid (SOL1) | 6 | E3 |
| Sorter Stapler Set Switch (SW4) | 7 | L4 |
| Paper Sensor (S4) | 8 | I16 |
| Staple Guide Switch (SW6) | 9 | G2 |
| Staple End Switch (SW5) | 10 | G2 |
| Staple H.P. Switch (SW7) | 11 | G2 |
| Stapler Motor (M4) | 12 | F3 |
| Grip Motor (M3) | 13 | I2 |
| Front Door Switch (SW3) | 14 | L5 |
| Bin H.P. Sensor (S8) | 15 | H3 |
| Grip H.P. Sensor (S7) | 16 | J3 |
| Bin Sensor (Photo tr.) (S6) | 17 | K16 |
| Main Control Board (PCB1) | 18 | F9 |
| Jogger H.P. Sensor (S3) | 19 | E16 |
| Jogger Motor (M2) | 20 | G16 |
| Wire Tension Switch (SW2) | 21 | B16 |
| Upper Lift Limit Switch (SW1) | 22 | B16 |
| Bin Lift Motor (M1) | 23 | A16 |
| Bin Lift Timing -1 Sensor (S1) | 24 | C16 |
| Bin Lift Timing -2 Sensor (S2) | 25 | D16 |

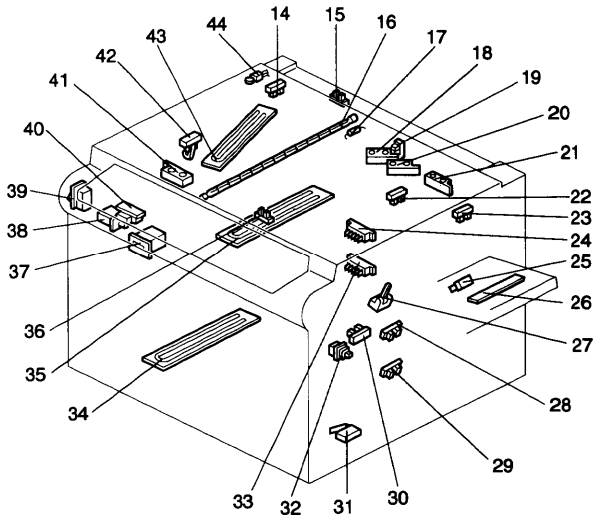
# 20 BIN SORTER STAPLER(A658) POINT TO POINT DIAGRAM

Rev. 5/15/97



# COPIER ELECTRICAL COMPONENT LAYOUT



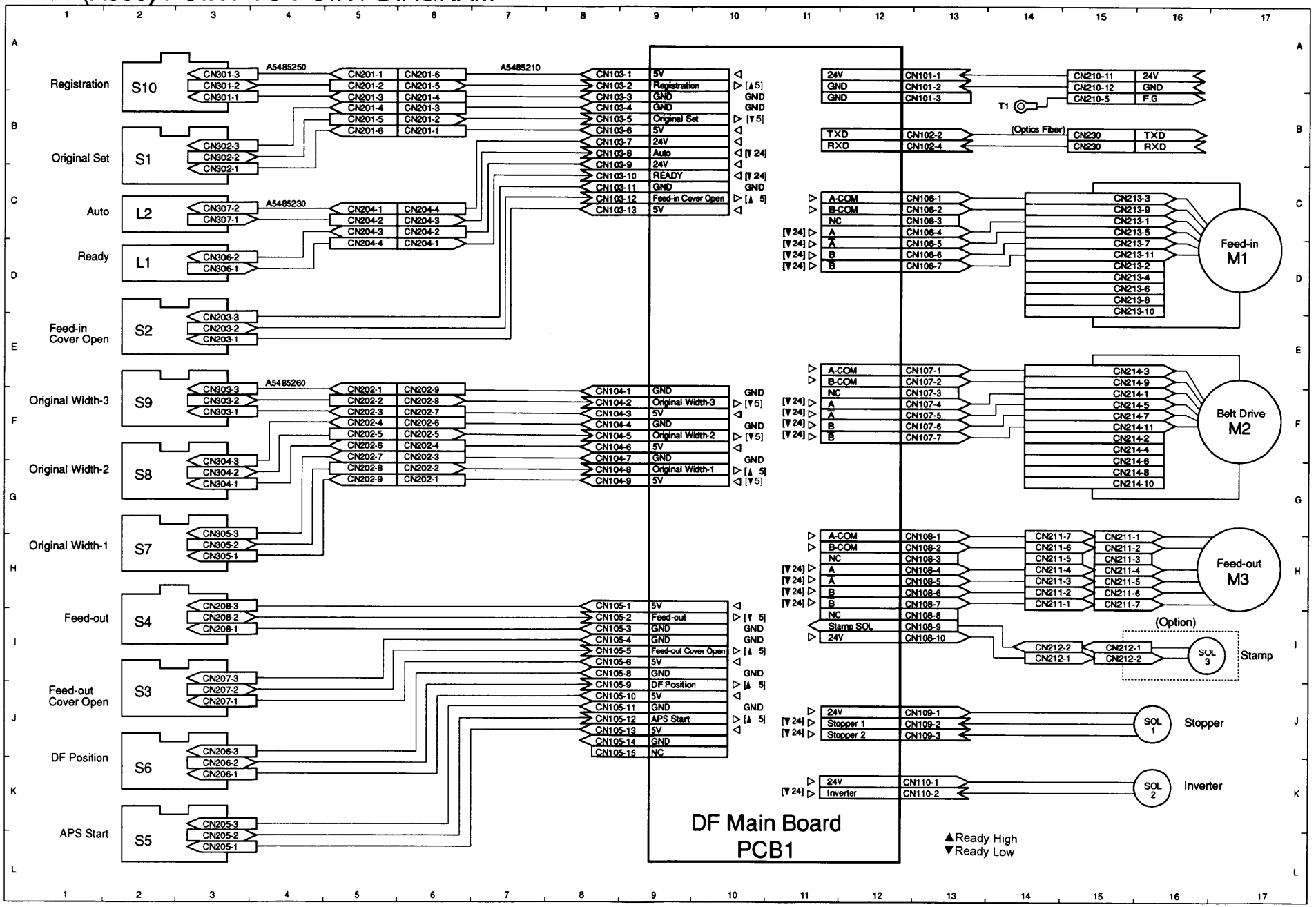

| Description | Index No. | P to P Location |
|---|---|---|
| CB High Voltage Supply Board (PCB5) | 1 | A12 |
| Erase Lamp (L6) | 2 | H2 |
| Operation Panel Board (PCB7) | 3 | F2 |
| Pre-transfer Lamp (L4) | 4 | D13 |
| Quenching Lamp (L5) | 5 | D14 |
| Liquid Crystal Display Board (A207 machines only) (PCB10) | 6 | E2 |
| Transformer (220 ~ 240 V machines only) (TR1) | 7 | C3 |
| Nose Filter Board (220 ~ 240 V machines only) (PCB8) | 8 | B4 |
| Circuit Breaker (220 ~ 240 V machines only) (CB1) | 9 | B3 |
| DC Power Supply Board (PCB3) | 10 | C9 |
| AC Drive Board (PCB2) | 11 | C6 |
| Auto Image Density Sensor (ADS Sensor) (S25) | 12 | D8 |
| Main Control Board (PCB1) | 13 | F13 |
| Relay (RY1) | 106 | C7 |

Rev. 5/15/97

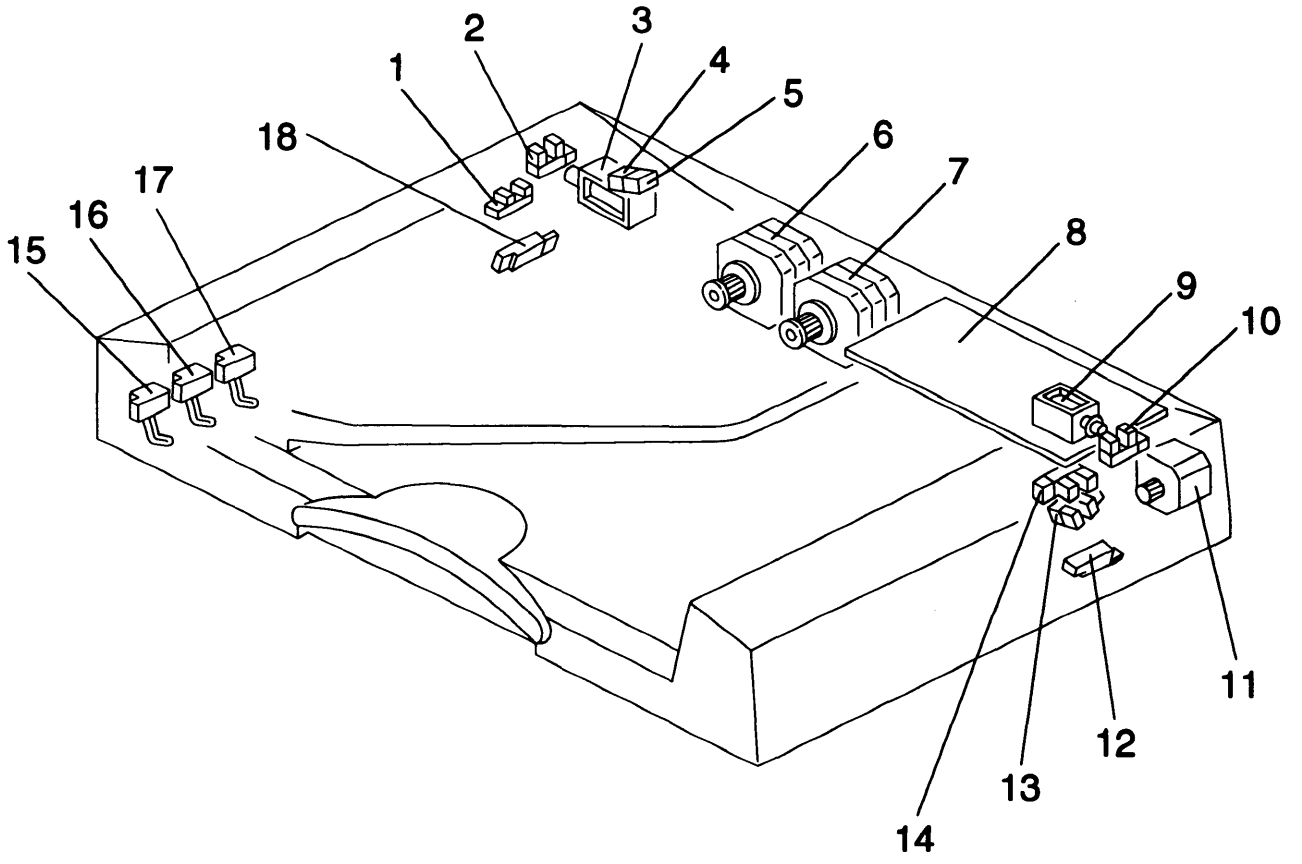
| Description | Index No. | P to P Location |
|---|---|---|
| Scanner HP Sensor (S17) | 14 | G10 |
| Platen Cover Sensor (S21) | 15 | D13 |
| Exposure Lamp (L1) | 16 | A6 |
| Exposure Lamp Thermofuse (TF3) | 17 | A6 |
| Original Length Sensor-1 (S27) | 18 | D7 |
| Lens Vertical HP Sensor (S16) | 19 | G10 |
| Original Length Sensor-2 (S19) | 20 | D14 |
| Original Length Sensor (Option for N. American models) (S33) | 21 | D11 |
| Transfer Belt Contact HP Sensor (S24) | 22 | D12 |
| 3rd Scanner HP Sensor (S18) | 23 | F9 |
| Upper Tray Paper Size Switch (Non-duplex machines only) (SW3) | 24 | G16 |
| LCT Upper Limit Sensor (LCT machines only) (S11) | 25 | J13 |
| By-pass Feed Paper Width Sensor (S1) | 26 | J16 |
| Registration Sensor (S12) | 27 | H10 |
| Upper Tray Upper Limit Sensor (Non-duplex machines only) (S5) | 28 | I16 |
| Lower Tray Upper Limit Sensor (S8) | 29 | J16 |
| By-pass Feed Paper End Sensor (S2) | 30 | H10 |
| Vertical Guide Set Switch (Non-LCT machines only) (SW5) | 31 | K16 |
| By-pass Feed Table Switch (SW1) | 32 | I10 |
| Lower Tray Paper Size Switch (SW4) | 33 | H16 |
| Lower Tray Heater (option) (H3) | 34 | A5 |
| Drum Heater (H1) | 35 | A4 |
| Lens Horizontal HP Sensor (S15) | 36 | H10 |
| Total Counter (CO1) | 37 | D11 |
| Front Cover Safety Switch (SW9) | 38 | C10 |
| Main Switch (SW8) | 39 | C8 |
| Auto Response Sensor (S23) | 40 | F1 |
| Original Width Sensor (S26) | 41 | D8 |
| Fusing Exit Sensor (S20) | 42 | D14 |
| Optics Anti-condensation Heater (option) (H2) | 43 | A5 |
| Optics Thermistor (TH3) | 44 | D4 |

# ARDF(A663) POINT TO POINT DIAGRAM

Rev. 5/15/97

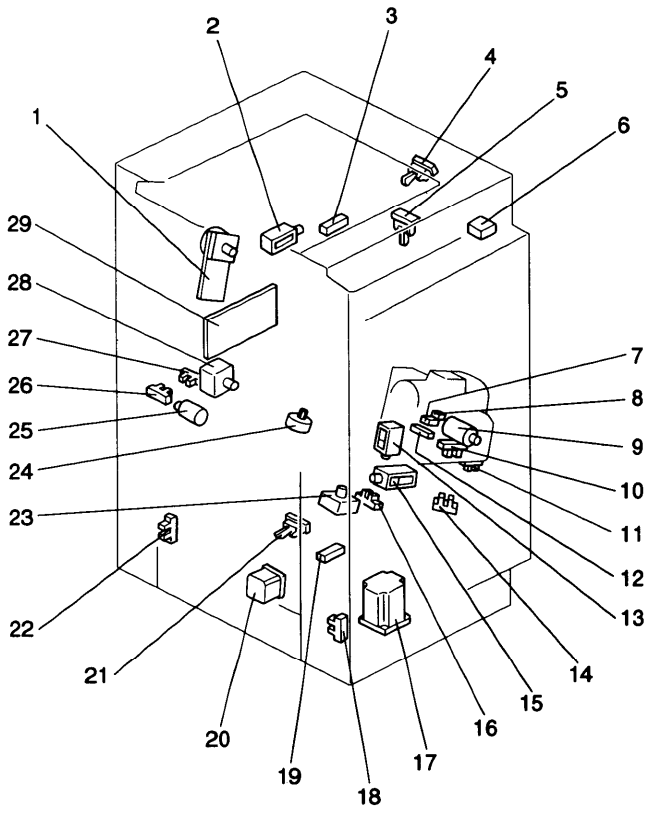


# ARDF (A663) ELECTRICAL COMPONENT LAYOUT

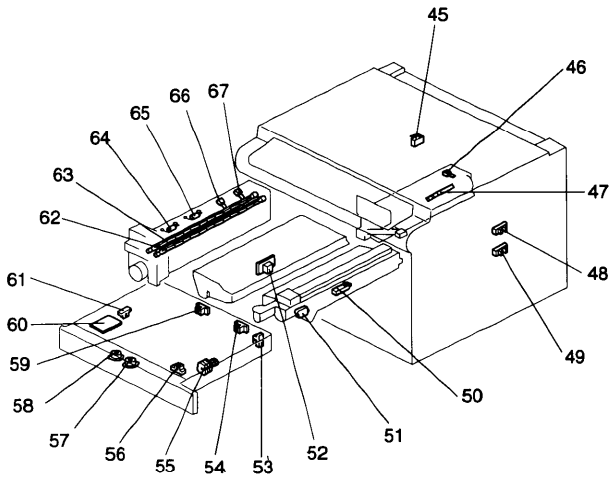


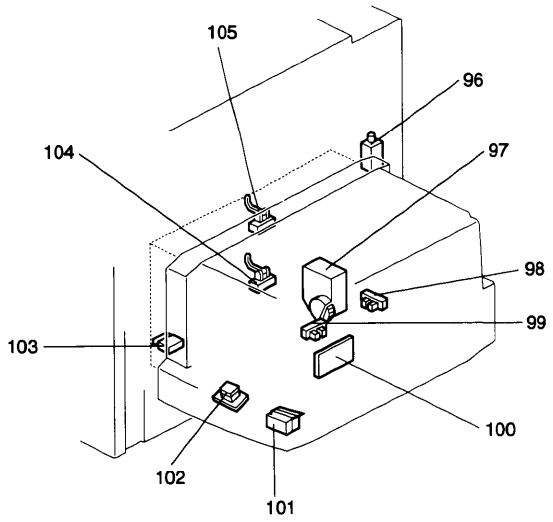

| Description | Index No. | P to P Location |
|---|---|---|
| Original Set Sensor (S1) | 1 | B2 |
| Feed-in Cover Open Sensor (S2) | 2 | E2 |
| Stopper Solenoid (SOL1) | 3 | J16 |
| Ready Lamp (L1) | 4 | D2 |
| Auto Lamp (L2) | 5 | C2 |
| Feed-in Motor (M1) | 6 | D17 |
| Belt Drive Motor (M2) | 7 | F17 |
| DF Main Board (PCB1) | 8 | F11 |
| Inverter Solenoid (SOL2) | 9 | K16 |
| Feed-out Cover Open Sensor (S3) | 10 | J2 |
| Feed-out Motor (M3) | 11 | H17 |
| Feed-out Sensor (S4) | 12 | I2 |
| APS Start Sensor (S5) | 13 | L2 |
| DF Position Sensor (S6) | 14 | K2 |
| Original Width Sensor-1 (S7) | 15 | H2 |
| Original Width Sensor-2 (S8) | 16 | G2 |
| Original Width Sensor-3 (S9) | 17 | F2 |
| Registration Sensor (S10) | 18 | A2 |

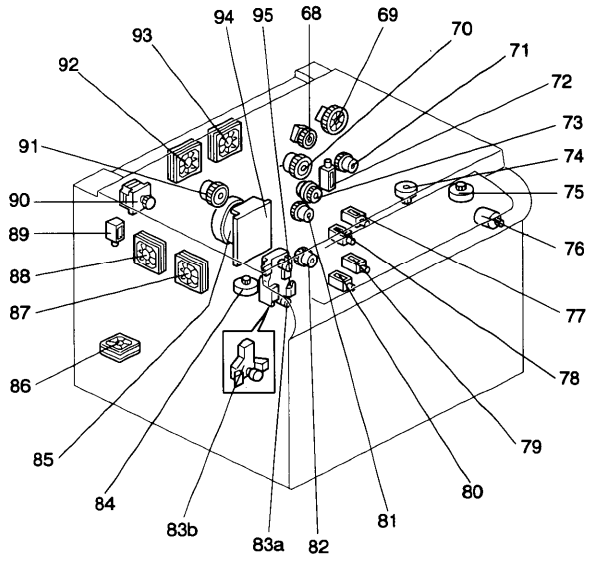
# 20 BIN SORTER STAPLER (A664) ELECTRICAL COMPONENT LAYOUT




| Description | Index No. | P to P Location |
|---|---|---|
| Main Motor (M1) | 1 | A3 |
| Turn Gate Solenoid (SOL1) | 2 | A4 |
| Bin Jam (LED) Sensor (S1) | 3 | G1 |
| Proof Exit Sensor(S2) | 4 | A5 |
| Entrance Sensor (S3) | 5 | A4 |
| Door Safety Switch (SW1) | 6 | B2 |
| Cartridge Set Switch (SW2) | 7 | A11 |
| Staple End Switch (SW3) | 8 | A11 |
| Staple Motor (M2) | 9 | A10 |
| Staple Hammer Home Position Sensor (S4) | 10 | A11 |
| Staple Unit Pulled-out position Sensor (S5) | 11 | A7 |
| Paper Sensor (S6) | 12 | G8 |
| Grip Solenoid (SOL2) | 13 | A9 |
| Staple Unit Home Position Sensor (S7) | 14 | A8 |
| Grip Arm Positioning Solenoid (SOL3) | 15 | A9 |
| Grip Home Position Sensor (S8) | 16 | G9 |
| Bin Drive Motor (M4) | 17 | G3 |
| Wheel Sensor (S10) | 18 | G4 |
| Bin Jam Sensor (Photo Tr.) (S9) | 19 | G2 |
| Jogger Motor (M5) | 20 | G6 |
| Bin Home Position (S11) | 21 | G4 |
| Jogger Home Position Sensor (S12) | 22 | G5 |
| Grip Motor (M3) | 23 | G10 |
| Staple Unit Drive Motor (M6) | 24 | A8 |
| Bin Rear Plate Drive Motor (M7) | 25 | A10 |
| Bin Rear Plate Open Sensor (S13) | 26 | A6 |
| Bin Rear Plate Home Position Sensor (S14) | 27 | A7 |
| Sorter Exit Motor (M8) | 28 | A5 |
| Main Control Board (PCB1) | 29 | D1 |



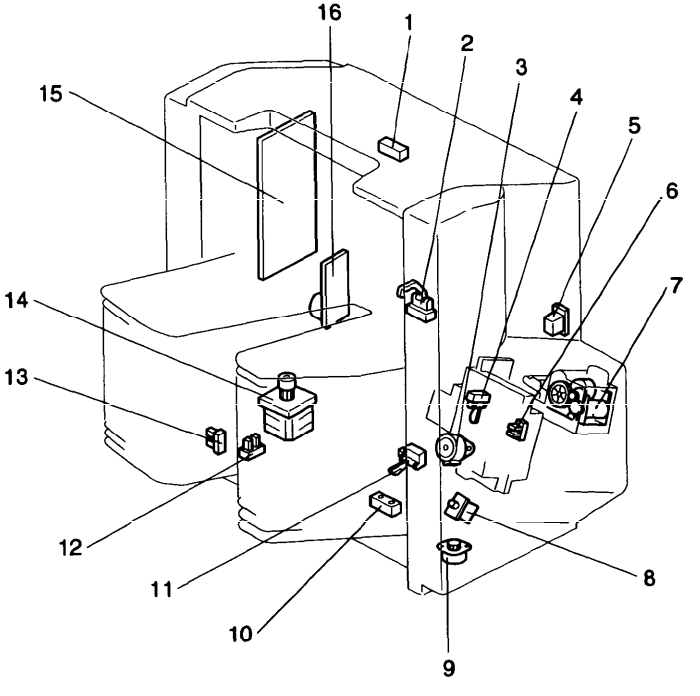

Rev. 5/15/97

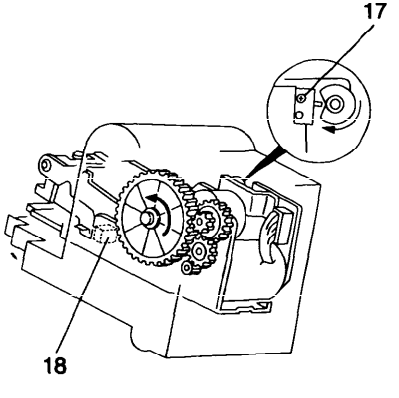
| Description | Index No. | P to P Location |
|---|---|---|
| Development Clutch (CL2) | 68 | D6 |
| Toner Supply Clutch (CL1) | 69 | D5 |
| Registration Clutch (CL4) | 70 | I10 |
| By-pass Feed Clutch (CL5) | 71 | I10 |
| LCT machines: LCT/By-Pass Pick up Solenoid<br>Non-LCT machines: By-Pass Pick up Solenoid (SOL1) | 72 | I10 |
| Relay Clutch (CL6) | 73 | K16 |
| Lens Horizontal Drive Motor (M13) | 74 | G9 |
| 3rd Scanner Drive Motor (M11) | 75 | G8 |
| Toner Bottle Drive Motor (M2) | 76 | D6 |
| Upper Tray Pick-up Solenoid<br>(Non-duplex machines only) (SOL4) | 77 | E16 |
| Upper Tray Separation Solenoid<br>(Non-duplex machines only) (SOL6) | 78 | F16 |
| Lower Tray Pick-up Solenoid (SOL5) | 79 | F16 |
| Lower Tray Separation Solenoid (SOL7) | 80 | F16 |
| Upper- Paper Feed Clutch<br>(Non-duplex machines only) (CL7) | 81 | E16 |
| Lower Paper Feed Clutch (CL8) | 82 | E16 |
| Lower Tray Lift Motor (Duplex machines only) (M4) | 83a | G16 |
| Lower Tray Lift Motor<br>(Non-duplex machines only) (M4) | 83b | G16 |
| Lens Vertical Drive Motor (M12) | 84 | G8 |
| Main Motor (M1) | 85 | D10 |
| DC Board Cooling Fan Motor<br>(A204/A206/A207 machines for N. American only) (M17) | 86 | I7 |
| Exhaust Fan Motor 1 (M8) | 87 | D5 |
| Exhaust Fan Motor 2<br>(A204/A206/A207 machines only) (M9) | 88 | D5 |
| Junction Gate Solenoid<br>(Duplex machines only) (SOL2) | 89 | G7 |
| Scanner Drive Motor (M10) | 90 | F7 |
| Transfer Belt Contact Clutch (CL3) | 91 | D12 |
| Optics Cooling Fan Motor 1 (M6) | 92 | D4 |
| Optics Cooling Fan Motor 2 (M7) | 93 | D5 |
| Main Motor Control Board (PCB4) | 94 | D9 |
| Upper Tray Lift Motor<br>(Non-duplex machines only) (M3) | 95 | F16 |

| Description | Index No. | P to P Location |
|---|---|---|
| Exit Cover Safety Switch<br>(A211 machines only) (SW10) | 45 | C10 |
| Drum Charge Thermistor (TH4) | 46 | I2 |
| Image Density Sensor (ID) (S13) | 47 | I3 |
| Upper Tray Paper End Sensor<br>(Non-duplex machines only) (S3) | 48 | H16 |
| Lower Tray Paper End Sensor (S6) | 49 | I16 |
| Toner Density Sensor (TD) (S14) | 50 | I3 |
| Toner End Sensor (S22) | 51 | D13 |
| T High Voltage Supply Board (PCB6) | 52 | B12 |
| Duplex Paper End Sensor<br>(Duplex machines only) (S28) | 53 | K5 |
| Duplex Turn Sensor (Duplex machines only) (S29) | 54 | K5 |
| Duplex Feed Motor (Duplex machines only) (M14) | 55 | J8 |
| Side Fence Jogger HP Sensor<br>(Duplex machines only) (S31) | 56 | K6 |
| Side Fence Jogger Motor<br>(Duplex machines only) (M16) | 57 | K5 |
| End Fence Jogger Motor<br>(Duplex machines only) (M15) | 58 | K4 |
| Duplex Entrance Sensor<br>(Duplex machines only) (S30) | 59 | K6 |
| Duplex Control Board (Duplex machines only) (PCB9) | 60 | J5 |
| End Fence Jogger HP Sensor<br>(Duplex machines only) (S32) | 61 | K6 |
| Main Fusing Lamp (L2) | 62 | A7 |
| Secondary Fusing Lamp (L3) | 63 | A8 |
| Secondary Fusing Thermofuse<br>(A208/A210/A211 machines only) (TF2) | 64 | B7 |
| Main Fusing Thermofuse (TF1) | 65 | A7 |
| Main Fusing Thermistor (TH1) | 66 | D12 |
| Secondary Fusing Thermistor<br>(A208/A210/A211 machines only) (TH2) | 67 | C12 |

| Description | Index No. | P to P Location |
|---|---|---|
| LCT Pick-up Solenoid<br>(LCT machines only) (SOL3) | 96 | J14 |
| LCT Lift Motor (LCT machines only) (M5) | 97 | L11 |
| LCT Lower Limit Sensor (LCT machines only) (S9) | 98 | J12 |
| LCT Paper End Sensor (LCT machines only) (S10) | 99 | J13 |
| LCT Interface Board (LCT machines only) (PCB11) | 100 | K12 |
| LCT Cover Switch-2 (LCT machines only) (SW7) | 101 | K12 |
| Tray Down Switch (LCT machines only) (SW2) | 102 | J13 |
| LCT Cover Switch-1 (LCT machines only) (SW6) | 103 | J12 |
| Lower Relay Sensor (S7) | 104 | J16 |
| Upper Relay Sensor (S4) | 105 | I16 |

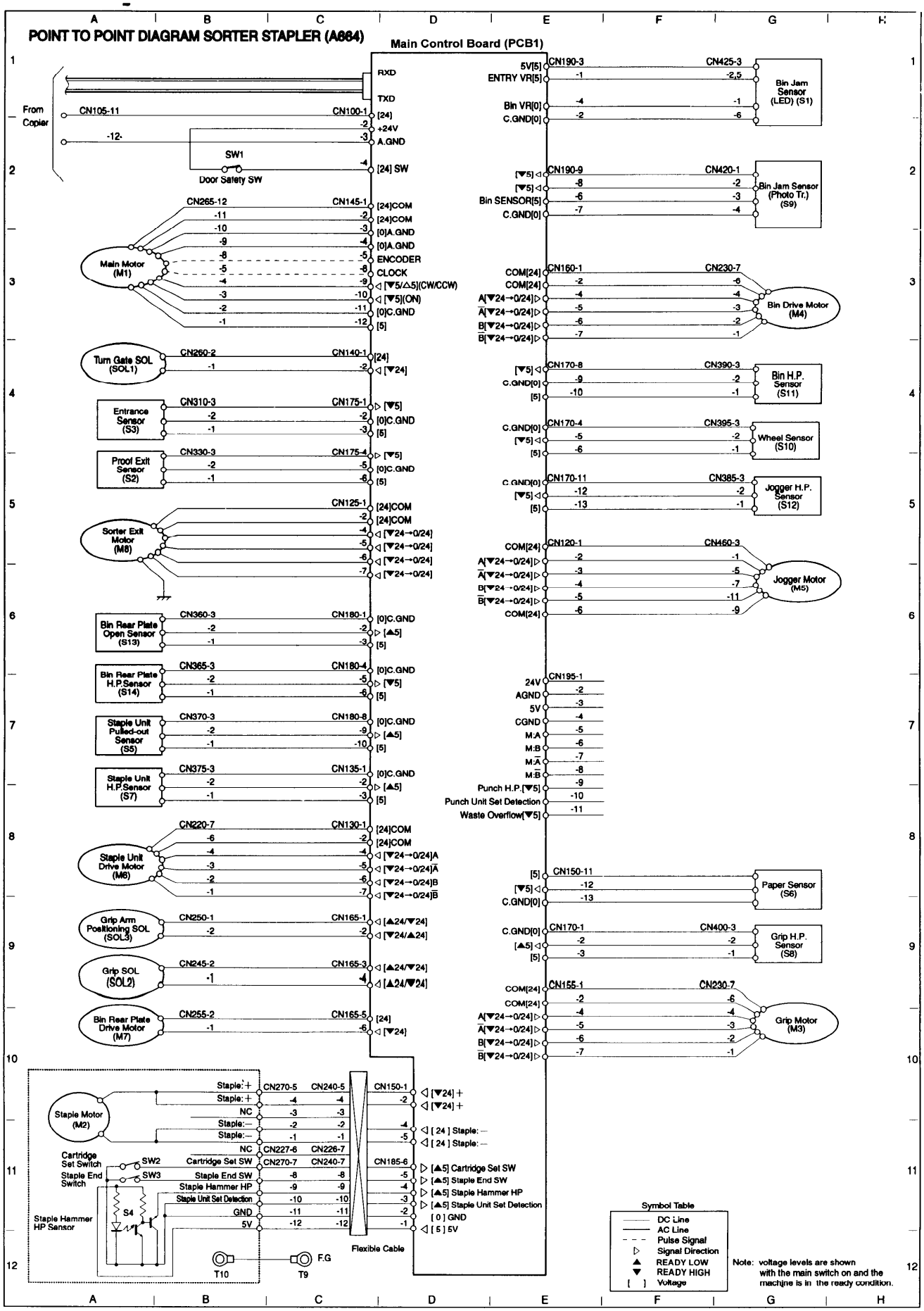
# 20 BIN SORTER STAPLER (A658) ELECTRICAL COMPONENT LAYOUT




| Description | Index No. | P to P Location |
|---|---|---|
| Bin Sensor (Photo tr.) (S1) | 1 | I16 |
| Sorter Entrance Sensor (S4) | 2 | H16 |
| Grip Motor (M5) | 3 | H2 |
| Stapler Paper Sensor (S8) | 4 | C16 |
| Door Safety Switch (SW1) | 5 | A5 |
| Grip Home Position Sensor (S2) | 6 | D16 |
| Stapler Motor (M4) | 7 | D1 |
| Stapler Switch (SW2) | 8 | F5 |
| Jogger Motor (M2) | 9 | G2 |
| Bin Sensor (LED) (S7) | 10 | L16 |
| Bin Home Position Sensor (S3) | 11 | K16 |
| Wheel Sensor (S6) | 12 | B16 |
| Jogger Home Position Sensor (S5) | 13 | A16 |
| Bin Drive Motor (M3) | 14 | J2 |
| Main Board (PCB1) | 15 | F8 |
| Main Drive Motor (M1) | 16 | F17 |
| Staple Home Position Sensor (S10) | 17 | E1 |
| Staple End Sensor (S9) | 18 | E1 |

# POINT TO POINT DIAGRAM SORTER STAPLER (A664)



Rev. 5/15/97

# (NA) POINT TO POINT DIAGRAM A204/A206/A207 MACHINES

## MAIN CONTROL BOARD (PCB1)

SYMBOL TABLE
- AC Line
- DC Line
- Pulse Line
- Signal Direction
- Active High
- Active Low
- Voltage

PAPER TRAY UNIT ANTI-CONDENSATION HEATER (OPTIONAL)

120V 50Hz

POWER TRANSFORMER (TR1) (220-240V)

FU371

(PCB2) AC DRIVE BOARD

NEUTRAL SWITCH FEEDBACK

(SW8) MAIN SW

DC POWER SUPPLY BOARD (PCB3)

MAIN MOTOR CONTROL BOARD (PCB4)

M1 MAIN MOTOR

HIGH VOLTAGE SUPPLY BOARD-C3 (PCB5)

HIGH VOLTAGE SUPPLY BOARD-T (PCB6)

Drum Charge Roller, Drum, Transfer Belt, Development Roller

Exposure Lamp (L1), Exposure Lamp Thermofuse (TF3), Main Fusing Lamp (L2), Main Fusing Thermofuse (TF1), Secondary Fusing Lamp (L3)

Drum Heater (H1), Optical Anti-Condensation Heater (H2) (Option), Lower Tray Heater (H3) (Option)

Optics Thermister (TH3), Optics Cooling Fan Motor-1 (M6), Optics Cooling Fan Motor-2 (M7), Exhaust Fan Motor-1 (M8), Exhaust Fan Motor-2 (M9), Toner Supply CL (CL1), Toner Bottle Drive Motor (M2), Development Drive CL (CL2)

Original Length Sensor-1 (S27), Original Width Sensor (S26), Auto ID Sensor (S25)

Key Counter (CO2), Total Counter (CO1), Original Length Sensor (Option) (S33), Transfer Belt Contact CL (CL3), Transfer Belt Contact H.P. Sensor (S24), Main Fusing Thermistor (TH1), Toner End Sensor (S22), Platen Cover Sensor (S21), PTL (L4), Fusing Exit Sensor (S20), Original Length Sensor-2 (S19), QL (L5)

Cover Safety SW (SW9)

Transfer Belt Contact CL

### OPERATION PANEL BOARD (PCB7)

LCD (A207 copier only) (PCB10)

Auto Response Sensor (S23)

### ARDF (Accessory) PYRENEES-B

Erase Lamp (L6)

TD Sensor (S14), TD Sensor (S13), Drum Charge Thermistor (TH4)

### SORTER/STAPLER (Accessory) MODEL-C RHEIN SEINE

Scanner Drive Motor (M10)

### SORTER (Accessory) MINI

3rd Scanner Drive Motor (M11), Lens Vertical Drive Motor (M12), Lens Horizontal Drive Motor (M13), 3rd Scanner H.P.Sensor (S18)

Junction Gate SOL (SOL 2) (NOTE 2)

DC Power Supply Cooling Fan Motor (M17)

### DUPLEX CONTROL BOARD (PCB9)

Duplex Feed Motor (M14)

Duplex Tray (NOTE 2)

Scanner H.P. Sensor (S17), Lens Vertical H.P.Sensor (S16), Lens Horizontal H.P.Sensor (S15), Registration Sensor (S12), By-Pass Feed Paper End Sensor (S2), By-Pass Feed Table SW (SW1), By-Pass Pick Up SOL (NOTE 4) (SOL 1), Registration CL (CL4), By-pass Feed CL (CL5)

By-Pass Feed Table Open [▲5]

By-Pass Feed Pick Up SOL [▼24]

By-Pass Feed Paper Size Sensor (S1)

LCT Lower Limit Sensor (S9), LCT Tray Down SW (SW2), LCT Paper End Sensor (S10), LCT Paper Limit Sensor (S11), LCT Pick Up SOL (SOL 3), LCT Cover SW-1 (SW6), LCT Interface Board (PCB11), LCT Lift Motor (M5), LCT Cover SW-2 (SW7), Paper Tray Unit (Accessory) (NOTE 3)

Upper Paper Feed CL (CL7), Lower Paper Feed CL (CL8), Upper Tray Pick Up SOL (NOTE1) (SOL 4), Lower Tray Pick Up SOL (SOL 5), Upper Tray Separation SOL (NOTE1) (SOL 6), Lower Tray Separation SOL (SOL 7), Upper Tray Lift Motor (NOTE1) (M3), Lower Tray Lift Motor (M4), Upper Tray Paper Size SW (NOTE 1) (SW3), Lower Tray Paper Size SW (SW4), Upper Tray Paper End Sensor (NOTE 1) (S3), Upper Relay Sensor (S4), Upper Tray Paper Limit Sensor (NOTE 1) (S5), Lower Tray Paper End Sensor (S6), Lower Relay Sensor (S7), Lower Tray Paper Limit Sensor (S8), Vertical Guide Set SW (SW5) (NOTE 5), Relay CL (MC) (CL6)

5. EXCEPT LCT MACHINES
4. FOR LCT MACHINES, FUNCTIONS ARE CHANGED AS FOLLOWS:
   By-Pass Feed Pick Up SOL → LCT Pick Up SOL.
   LCT Pick Up SOL → By-Pass Feed Pick Up SOL.
3. ONLY FOR LCT MACHINES
2. ONLY FOR DUPLEX MACHINES
(NOTE) 1. EXCEPT DUPLEX MACHINES

RUP805908

Rev. 5/15/97

# MAIN CONTROL BOARD (PCB1)

PAPER TRAY UNIT
ANTI-CONDENSATION
HEATER (OPTIONAL)

SYMBOL TABLE
- AC Line
- DC Line
- Pulse Line
- Signal Direction
- Active High
- Active Low
- Voltage

POWER TRANSFORMER (TR1) (220-240V)

FU371

AC DRIVE BOARD (PCB2)

NEUTRAL SWITCH FEEDBACK

DC POWER SUPPLY BOARD (PCB3)

MAIN MOTOR CONTROL BOARD (PCB4)

HIGH VOLTAGE SUPPLY BOARD (PCB5)

HIGH VOLTAGE SUPPLY BOARD-T (PCB6)

OPERATION PANEL BOARD (PCB7)

ARDF (Accessory) PYRENEES-B

DUPLEX CONTROL BOARD (PCB9)

LCT Interface Board (PCB11)

Exposure Lamp (L1)
Main Fusing Lamp (L2)
Secondary Fusing Lamp (L3)
Drum Heater (H1)
Optical Anti-Condensation Heater (H2) (Option)
Lower Tray Heater (H3) (Option)
Exposure Lamp Thermofuse (TF3)
Main Fusing Thermofuse (TF1)
Secondary Fusing Thermofuse (TF2)

Drum Charge Roller
Drum
Transfer Belt
Development Roller

Optics Thermistor (TH5)
Optics Cooling Fan Motor-1 (M6)
Optics Cooling Fan Motor-2 (M7)
Exhaust Fan Motor-1 (M8)
Toner Supply CL (CL1)
Toner Bottle Drive Motor (M2)
Development Drive CL (CL2)
Original Length Sensor-1 (S27)
Original Width Sensor (S26)
Auto ID Sensor (S25)
Cover Safety SW (SW3)
Exit Cover Safety SW (SW10) (NOTE 2)
Total Key Counter Counter (CO2)
Original Length Sensor (Option) (CO1)
Transfer Belt Contact CL (S33)
Transfer Belt Contact H.P. Sensor (CL3)
Transfer Belt Contact Sensor (S24)
Secondary Fusing Thermistor (TH2)
Main Fusing Thermistor (TH1)
Toner End Sensor (S22)
Platen Cover Sensor (S21)
PTL (L4)
Fusing Exit Sensor (S20)
Original Length Sensor-2 (S19)
QL (L5)
Main Motor (M1)

Auto Response Sensor (S23)
Erase Lamp (L6)
TD Sensor (S14)
ID Sensor (S13)
Drum Charge Thermistor (TH4)

Scanner Drive Motor (M10)
SORTER (Accessory) MICRO α MINI α
3rd Scanner Drive Motor (M11)
Lens Vertical Drive Motor (M12)
Lens Horizontal Drive Motor (M13)
3rd Scanner H.P. Sensor (S18)
SORTER/STAPLER (Accessory) MOSEL-C RHEIN SEINE
Junction Gate SOL (SOL 2)
Duplex Feed Motor (M14)
End Fence Jogger Motor (M15)
Side Fence Jogger Motor (M16)
Duplex Paper End Sensor (S28)
Duplex Tray Sensor (S29)
Duplex Entrance Sensor (S30)
Side Fence Jogger H.P. Sensor (S31)
End Fence Jogger H.P. Sensor (S32)
Duplex Tray (NOTE 2)

Scanner H.P. Sensor (S17)
Lens Vertical H.P. Sensor (S16)
Lens Horizontal H.P. Sensor (S15)
Registration Sensor (S12)
By-Pass Feed Paper End Sensor (S2)
By-Pass Feed Table SW (SW1)
By-Pass Pick Up SOL (NOTE 4) (SOL 1)
Registration CL (CL4)
By-Pass Feed CL (CL5)

LCT Cover SW-1 (SW6)
LCT Lower Limit Sensor (S9)
Tray Down SW (SW2)
LCT Paper End Sensor (S10)
LCT Paper Limit Sensor (S11)
LCT Pick Up SOL (SOL 3)
LCT Cover SW-2 (SW7)
LCT Lift Motor (M5)
LCT (NOTE 3)
Paper Tray Unit (Accessory)

Upper Paper Feed CL (NOTE 1) (CL7)
Lower Paper Feed CL (MC) (CL8)
Upper Tray Pick Up SOL (NOTE1) (SOL 4)
Lower Tray Pick Up SOL (SOL 5)
Upper Tray Separation SOL (NOTE1) (SOL 6)
Lower Tray Separation SOL (SOL 7)
Upper Tray Lift Motor (NOTE1) (M3)
Lower Tray Lift Motor (M4)
Upper Tray Paper Size SW (NOTE 1) (SW3)
Lower Tray Paper Size SW (SW4)
Upper Tray Paper End Sensor (NOTE 1) (S3)
Upper Relay Sensor (S4)
Upper Tray Paper Limit Sensor (NOTE 1) (S5)
Lower Tray Paper End Sensor (S6)
Lower Relay Sensor (S7)
Lower Tray Paper Limit Sensor (S8)
By-Pass Feed Paper Size Sensor (S1)
Vertical Guide Set SW (SW5) (NOTE 5)
Relay CL (MC) (CL8)

5. EXCEPT LCT MACHINES
4. FOR LCT MACHINES, FUNCTIONS ARE CHANGED AS FOLLOWS:
   By-Pass Feed Pick Up SOL → LCT Pick Up SOL,
   LCT Pick Up SOL → By-Pass Feed Pick Up SOL
3. ONLY FOR LCT MACHINES
2. ONLY FOR DUPLEX MACHINES
(NOTE) 1. EXCEPT DUPLEX MACHINES

(NA)
POINT TO POINT DIAGRAM
A208/A210/A211 MACHINES

RDP695908

NA

# Point To Point Diagram (A212/A214)

**Rev. 12/97**

