

1-BIN SORTER

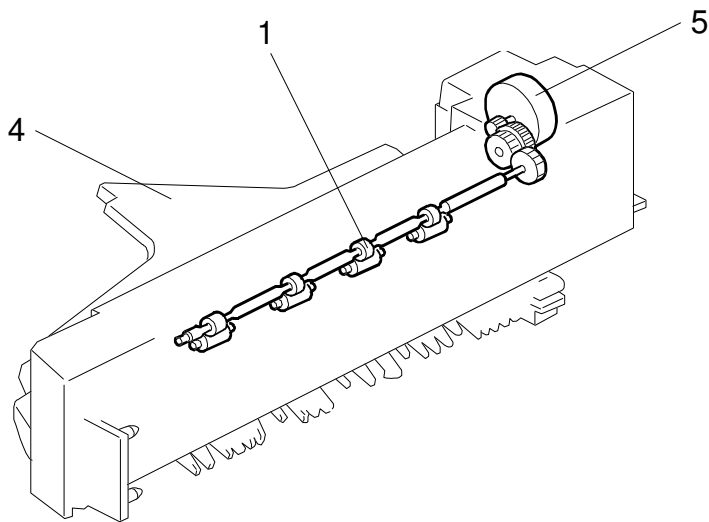
(Machine Code: A869)

1. OVERALL INFORMATION

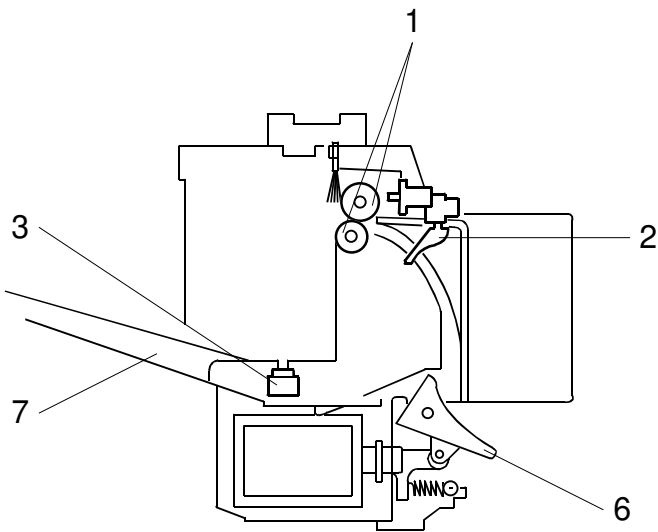
1.1 SPECIFICATIONS

Paper Size:	Standard Size: A5 to A3 HLT to DLT Non-standard Size: Paper Width: 90 ~ 297 mm Paper Length: 148 ~ 432 mm
Paper Weight:	60 ~ 105 g/m ² , 16 ~ 28 lbs.
Tray Capacity:	125 sheets (80 g/m ² , 20 lbs.)
Power Source:	5 VDC, 24 VDC (from the copier)
Power Consumption:	17 W
Weight:	1.5 kg
Size (W x D x H):	447 mm x 456 mm x 122 mm

1.2 MECHANICAL COMPONENT LAYOUT



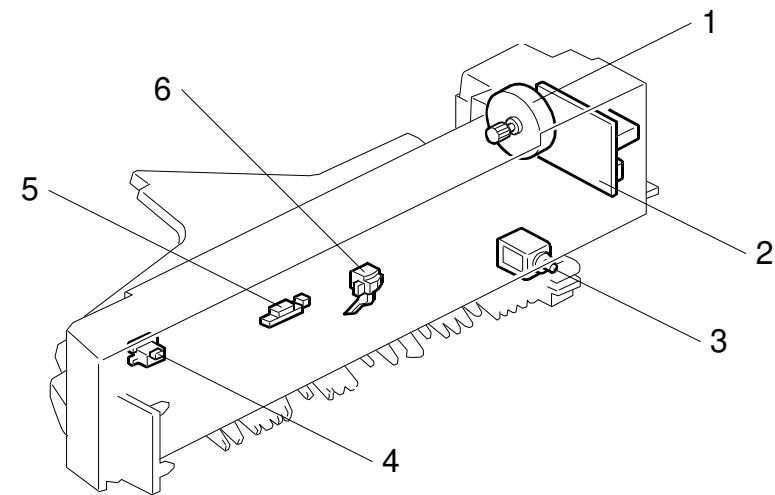
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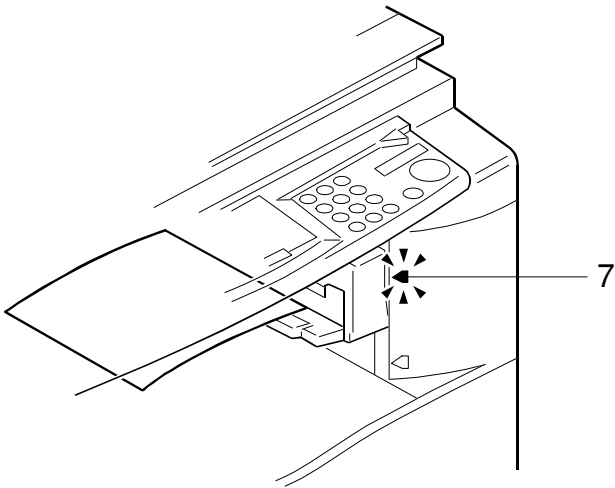
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- | | |
|-----------------|------------------|
| 1. Exit rollers | 5. Tray motor |
| 2. Exit sensor | 6. Junction gate |
| 3. Paper sensor | 7. Bin |
| 4. Paper tray | |

1.3 ELECTRICAL COMPONENT LAYOUT



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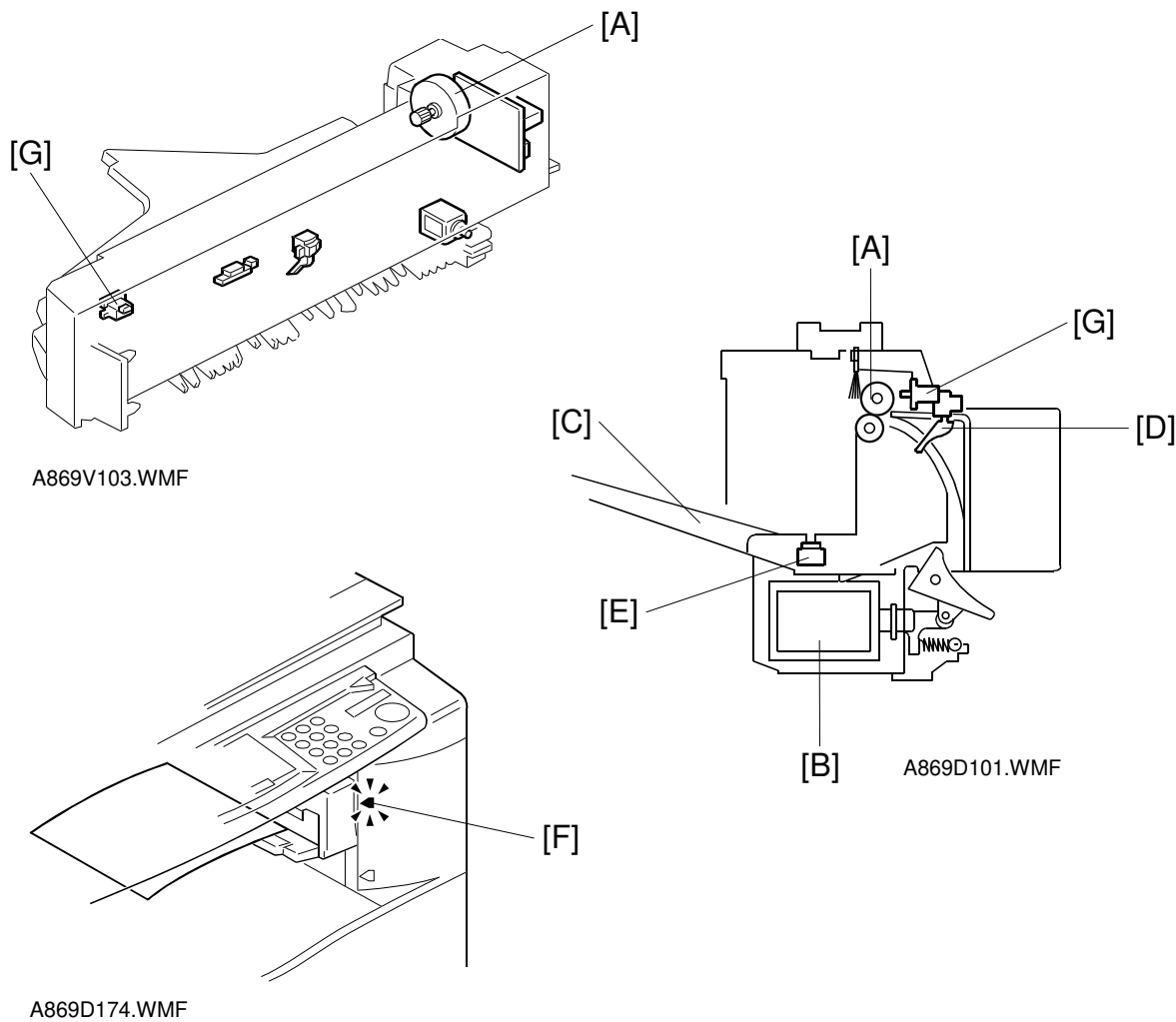
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|---------------------------|--|
| 1. Tray motor | 5. Paper sensor |
| 2. 1-bin sorter board | 6. Exit sensor |
| 3. Junction gate solenoid | 7. 1-bin sorter exit tray LED
(located in the copier) |
| 4. Tray open switch | |

1.4 ELECTRICAL COMPONENT DESCRIPTION

Symbol	Name	Function	Index No.
Motors			
M1	Tray	Drives the exit rollers.	1
Solenoids			
SOL1	Junction Gate	Directs paper to the 1-bin tray.	
Sensors			
S1	Exit	Checks for misfeeds.	6
S2	Paper	Detects whether there is paper on the tray.	5
Switches			
SW1	Tray Open	Detects whether the bin tray is open.	4
PCBs			
PCB1	1 Bin Sorter	Controls the 1-bin sorter and communicates with the copier.	2
LEDs			
LED1	1 Bin Exit Tray	Indicates when there is paper in the tray. This sensor is located in the copier.	7
Solenoid			
SOL1	Junction Gate	Directs paper to the bin tray.	3

2. DETAILED SECTION DESCRIPTIONS

2.1 BASIC OPERATION



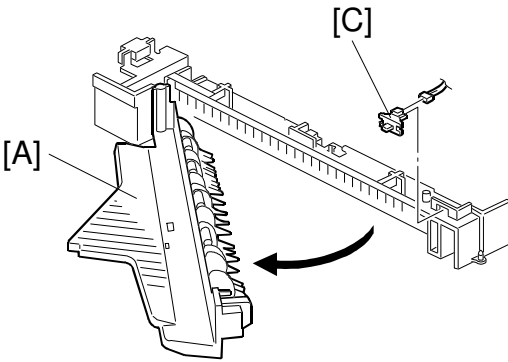
At the appropriate time, after the leading edge of the first sheet of copy paper reaches the copier's registration roller, the tray motor [A] starts and the junction gate solenoid [B] turns on to direct the paper to the tray [C].

The junction gate solenoid turns off at the appropriate time after the paper is directed to the tray. The tray motor stops after the final sheet passes through the bin exit sensor [D].

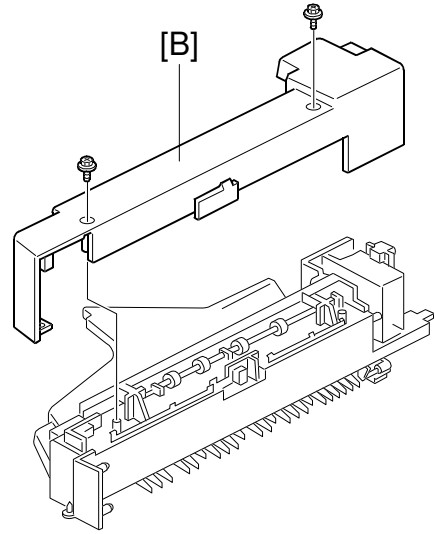
The paper sensor [E] turns on when there is paper in the tray, and the paper indicator [F] turns on.

The tray can be opened for easier jam removal by swinging the tray to the left. The tray open switch [G] detects whether the bin tray is opened.

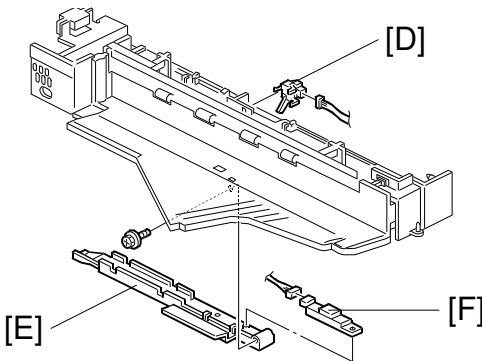
3. REPLACEMENT AND ADJUSTMENT



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3.1.1 TOP COVER REMOVAL

1. Remove the 1-bin sorter unit from the copier.
2. Swing the tray [A] to the left.
3. Remove the top cover [B] (2 screws).

3.1.2 TRAY OPEN SWITCH REPLACEMENT

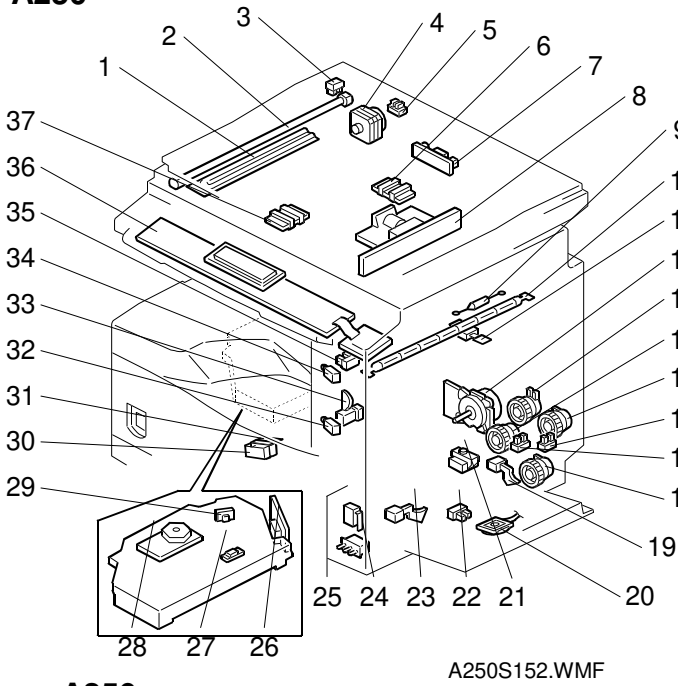
1. Remove the top cover (2 screws).
2. Replace bin tray open switch [C] (1 connector).

3.1.3 PAPER SENSOR AND EXIT SENSOR REPLACEMENT

1. Remove the top cover.
2. Remove the exit sensor [D] (1 connector).
3. Remove the cable cover [E] (1 screw).
4. Remove the paper sensor [F] (1 connector.)

ELECTRICAL COMPONENT LAYOUT (A250/A859/A860/A861/A869)

- A250 -

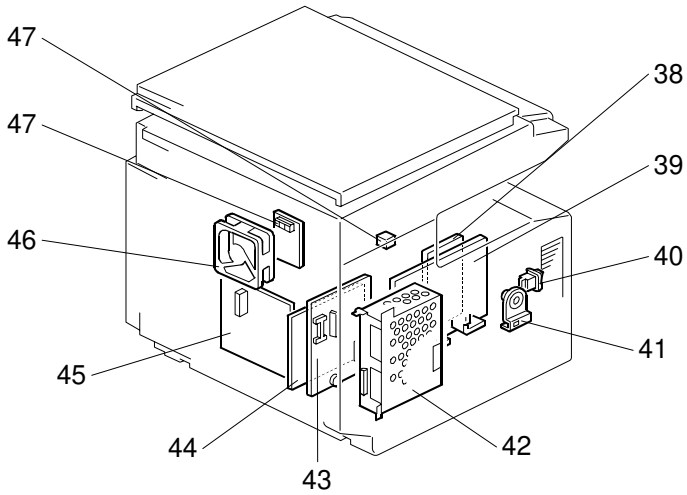


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Symbol	Index No.	Description	P to P
Motors			
M1	4	Scanner	K2
M2	28	Polygonal Mirror	C8
M3	12	Main	G2
M4	46	Exhaust Fan	B2
Magnetic Clutches			
MC1	14	Paper Feed	F2
MC2	15	By-pass Feed	C2
MC3	18	Vertical Transport	F2
MC4	13	Registration	B2
Switches			
SW1	40	Main	B7
SW2	30	Right Door Switch 1	A2
SW3	31	Right Door Switch 2	A2
SW4	25	Vertical Transport Cover Switch	B2
SW5	24	Paper Size	L2
Sensors			
S1	3	Scanner HP	K2
S2	37	Original Width	J2
S3	6	Original Length 1	I2
S4	6	Original Length 2	I2
S5	21	Toner Near-End	B2
S6	23	Paper End	B2
S7	19	Paper Near-End	C2
S8	16	By-pass Tray Paper	D2
S9	20	By-pass Paper Size	D2
S10	22	Vertical Transport	E2
S11	17	Registration	D2
S12	35	Fusing Exit	A4
S13	27	Exit Tray Paper	E2
S14	5	Platen Cover	J2
S15	33	AIO Set	L2
PCBs			
PCB1	44	BICU	E9
PCB2	39	PSU	C7
PCB3	45	IOB	E3
PCB4	8	SBU	C9
PCB5	7	Lamp Stabilizer	J2
PCB6	26	LD Unit	C8
PCB7	36	Operation Panel	E10
PCB8	—	Memory (option)	G9
PCB9	42	Printer Controller (option)	G9
PCB10	43	FCU (Option)	F10
PCB11	47	NCU (option)	—

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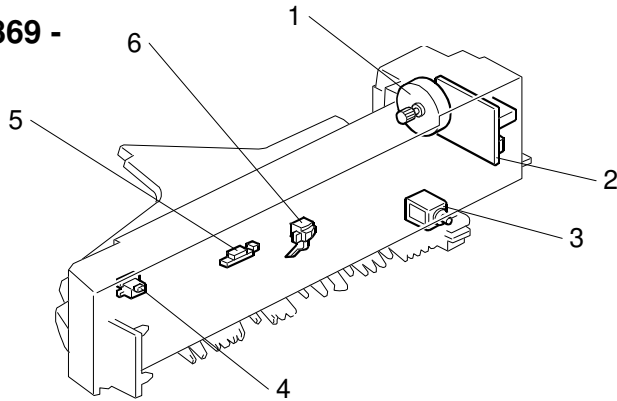


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Symbol	Index No.	Description	P to P
Lamps			
L1	2	Exposure Lamps	J2
L2	10	Fusing Lamp	A5
Heaters			
H1	1	Anti-Condensation	A6
H2	—	Drum (option)	A6
Others			
TF1	9	Fusing Thermofuse	A5
TH1	11	Fusing Thermistor	A4
PP1	38	C/B/T	H2
LSD 1	29	Laser Synchronization Detector	C9
CO1	48	Total	F2
CO2	—	Key (option)	L1
LED1	32	Exit Tray	E2
LED2	34	1-bin Tray	F2
SP1	41	Speaker	—

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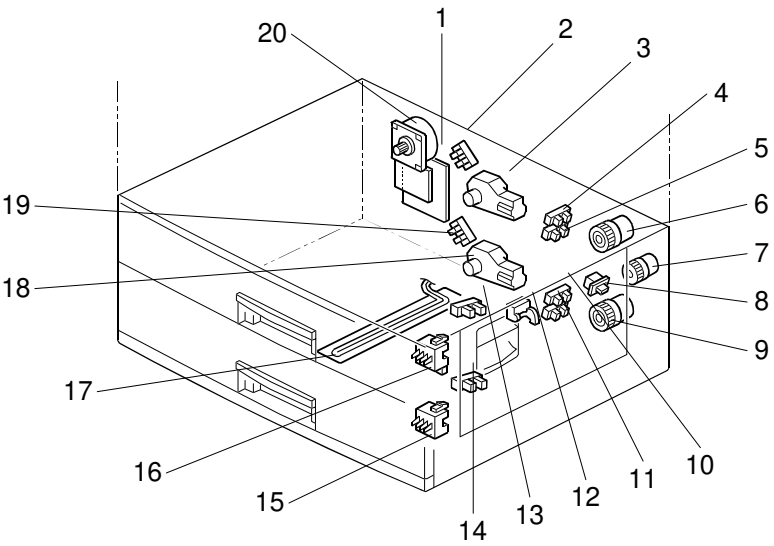


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Symbol	Index No.	Description	P to P
Motors			
M1	1	Tray	M1
Sensors			
S1	6	Exit	N1
S2	5	Paper	N1
Switches			
SW1	4	Bin Tray	N1
PCBs			
PCB1	2	1 Bin Tray	N2
LEDs			
LED1	7	1 Bin Exit Tray	F2
Solenoid			
SOL1	3	Junction Gate	M1

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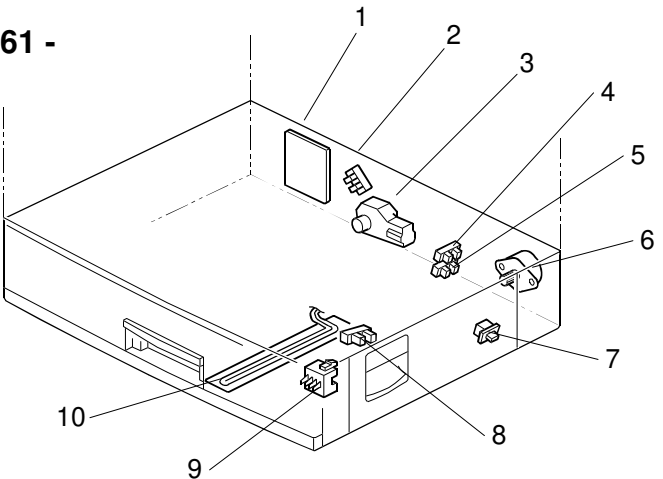


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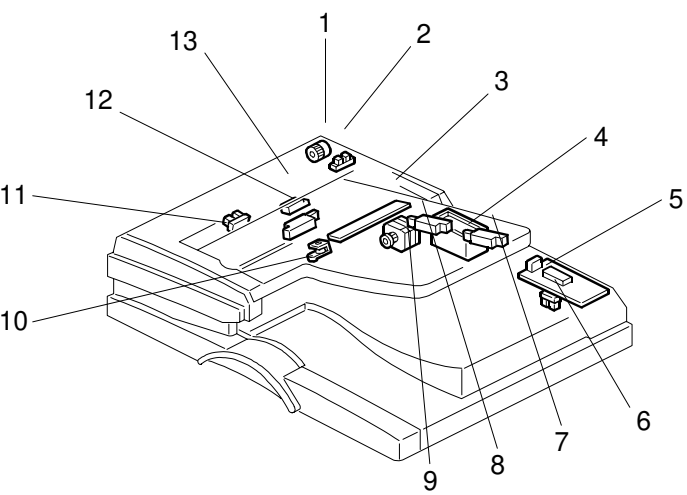
Symbol	Index No.	Description	P to P
Motors			
M1	20	Tray	L8
M2	3	Upper Lift	N8
M3	18	Lower Lift	M8
Sensors			
S1	2	Upper Lift	M8
S2	19	Lower Lift	M8
S3	13	Upper Paper End	J8
S4	14	Lower Paper End	J8
S5	12	Vertical Transport	I8
S6	15	Upper Paper Size	I8
S7	16	Lower Paper Size	I8
S8	5	Upper Paper Height 1	H8
S9	4	Upper Paper Height 2	H8
S10	11	Lower Paper Height 1	G8
S11	10	Lower Paper Height 2	G8
Switches			
SW1	8	Tray Cover	J8
Magnetic Clutches			
MC1	6	Upper Paper Feed	J8
MC2	9	Lower Paper Feed	K8
MC3	7	Relay	K8
PCBs			
PCB1	1	Tray Main	K7
Others			
H1	17	Option Tray Heater	N8

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- A859 -



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Symbol	Index No.	Description	P to P
Motors			
M1	9	DF Transport	K6
Sensors			
S1	6	DF Open	M6
S2	13	Registration	L6
S3	2	Feed Cover Open Sensor	M6
S4	3	Original Width	M6
S5	8	Original Length 1	N6
S6	7	Original Length 2	N6
S7	11	Original Set	L6
S8	12	Original Trailing Edge	N6
Solenoids			
SOL1	4	DF Pick-up	L6
SOL2	10	Stamper	K6
Clutches			
MC1	1	DF Feed	K6
PCBs			
PCB1	5	DF Drive	M5

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Symbol	Index No.	Description	P to P
Motors			
M1	6	Paper Feed	J6
M2	3	Lift	H6
Sensors			
S1	2	Lift	G6
S2	8	Paper End	H6
S3	9	Paper Size	I6
S4	5	Paper Height 1	H6
S5	4	Paper Height 2	H6
Switches			
SW1	7	Tray Cover	I6
PCBs			
PCB1	1	Tray Main	H5
Others			
H1	10	Option Tray Heater	J6

A250 Point to Point Diagram

This diagram illustrates the point-to-point wiring for the A250 system, detailing connections between the IO Board (PCB3), Power Supply Unit (PCB2), Paper Tray Unit (A861/A860), Document Feeder (A859), and various sensors and actuators.

IO Board (PCB3) Pin Connections

Pin	Signal	Pin	Signal	Pin	Signal
1	IOB CNT2	16	GND	31	+5V S
2	FUTMP	17	IOWR	32	GND
3	MCCFB	18	GND	33	BMFB
4	TCCFB	19	GND	34	MCVFB
5	PCUTBMP	20	IORST	35	TCVFB
6	GND	21	GND	36	IOCLK
7	INITZERO	22	SMO8	37	GND
8	IODI4	23	SMO6	38	IODI5
9	IODI2	24	SMO4	39	IODI3
10	IODI0	25	SMO2	40	IODI1
11	IOD8	26	SMO0	41	IOD9
12	GND	27	ICANTOK	42	GND
13	IOA5	28	KEYRXD	43	IOA6
14	IOA2	29	DFRXD	44	IOA3
15	IOA0	30	DFGATE	45	IOA1
16	GND	31	+5V S	46	GND
17	IOWR	32	GND	47	IORC
18	GND	33	BMFB	48	IOCS
19	GND	34	MCVFB	49	GND
20	IORST	35	TCVFB	50	IOCLK
21	GND	36	IOCLK	51	GND
22	SMO8	37	GND	52	SMO9
23	SMO6	38	IODI5	53	SMO7
24	SMO4	39	IODI3	54	SMO5
25	SMO2	40	IODI1	55	SMO3
26	SMO0	41	IOD9	56	SMO1
27	ICANTOK	42	GND	57	PTFRSVI
28	KEYRXD	43	IOA6	58	KEYTXD
29	DFRXD	44	IOA3	59	DFTXD
30	DFGATE	45	IOA1	60	IOB CNT1

Power Supply Unit (PCB2) Connections

Pin	Signal	Pin	Signal
1	+5V	11	LDDXND
2	+5V	12	LDDWXR
3	GND	13	LDDCF
4	GND	14	LDDERR
5	BD	15	PSO
6	REFCLK	16	PD00
7	LDDCLK	17	PD01
8	LDDDI	18	PD02
9	LDDDO	19	PLGATE
10	DEVRST2	20	PLSYNC
11	LDDXND	21	PCLK
12	LDDWXR	22	PFGATE
13	LDDCF	23	GND
14	LDDERR	24	LDSYNC
15	PSO	25	PSE
16	PD00	26	PDE0
17	PD01	27	PDE1
18	PD02	28	PDE2
19	PLGATE	29	DTHRU
20	PLSYNC	30	GND

Document Feeder (A859) Connections

Pin	Signal	Pin	Signal
1	DF Transport Motor	11	DF Pick-up Solenoid
2	Stamping Solenoid	12	Registration Sensor
3	DF Feed Clutch	13	Original Set Sensor
4	DF Pick-up Solenoid	14	DF Open Sensor
5	Registration Sensor	15	Feed Cover Open Sensor
6	Original Set Sensor	16	Original Width Sensor
7	DF Open Sensor	17	Original Length 1 Sensor
8	Feed Cover Open Sensor	18	Original Length 2 Sensor
9	Original Width Sensor	19	Original Trailing Edge Sensor
10	Original Length 1 Sensor	20	Original Trailing Edge Sensor

Paper Tray Unit - 1 Tray (A861) Connections

Pin	Signal	Pin	Signal
1	Lift Sensor	11	Paper Height 2 Sensor
2	Lift Motor	12	Paper Height 1 Sensor
3	Paper Height 2 Sensor	13	Paper End Sensor
4	Paper Height 1 Sensor	14	Paper Size Switch
5	Paper End Sensor	15	Tray Cover Switch
6	Paper Size Switch	16	Paper Feed Motor
7	Tray Cover Switch	17	Optional Tray Heater

Paper Tray Unit - 2 Tray (A860) Connections

Pin	Signal	Pin	Signal
1	Lower Paper Height 2 Sensor	11	Upper Paper Height 1 Sensor
2	Lower Paper Height 1 Sensor	12	Upper Paper Height 2 Sensor
3	Upper Paper Height 2 Sensor	13	Upper Paper Size Switch
4	Upper Paper Height 1 Sensor	14	Lower Paper Size Switch
5	Upper Paper Size Switch	15	Vertical Transport Sensor
6	Lower Paper Size Switch	16	Lower Paper End Sensor
7	Vertical Transport Sensor	17	Upper Paper End Sensor

Document Feeder (A859) Connections (Continued)

Pin	Signal	Pin	Signal
21	DF Transport Motor	31	DF Pick-up Solenoid
22	Stamping Solenoid	32	Registration Sensor
23	DF Feed Clutch	33	Original Set Sensor
24	DF Pick-up Solenoid	34	DF Open Sensor
25	Registration Sensor	35	Feed Cover Open Sensor
26	Original Set Sensor	36	Original Width Sensor
27	DF Open Sensor	37	Original Length 1 Sensor
28	Feed Cover Open Sensor	38	Original Length 2 Sensor
29	Original Width Sensor	39	Original Trailing Edge Sensor
30	Original Length 1 Sensor	40	Original Trailing Edge Sensor

IO Board (PCB3) Pin Connections (Continued)

Pin	Signal	Pin	Signal
61	IOB CNT1	71	IO