NINE-TRAY MAILBOX
AND
BRIDGE UNIT
(Codes: G909 and G912)

1. OVERALL MACHINE INFORMATION

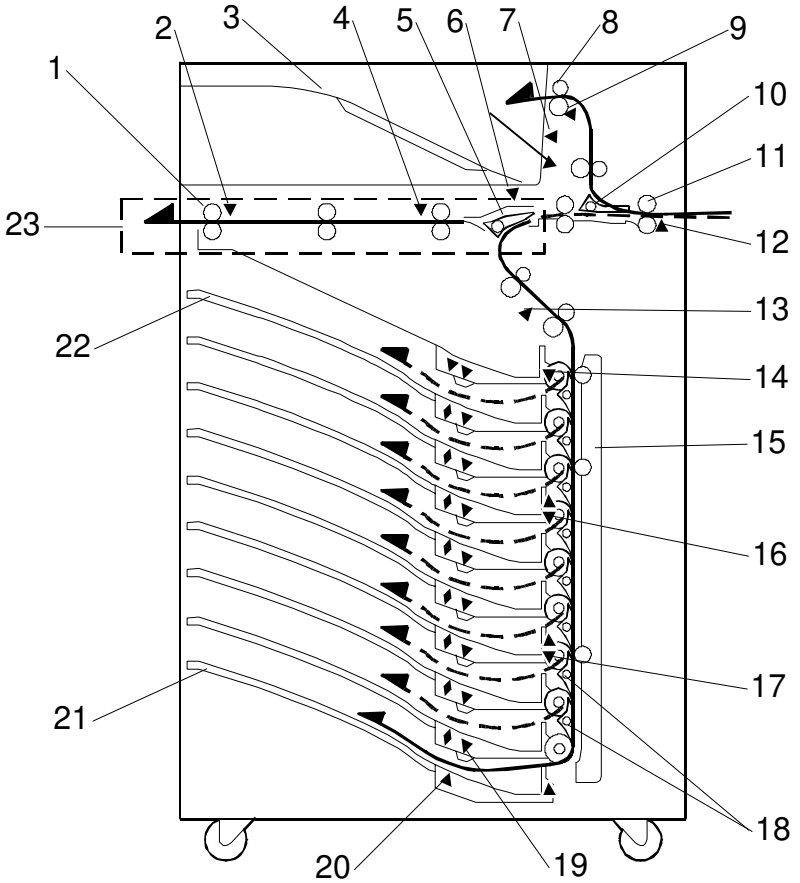
1.1 SPECIFICATIONS

Number of Trays	9 trays + proof tray
Tray Capacity:	Trays and proof tray: 100 sheets (80 g/m^2, 20 lb)
Paper Size for Trays:	Trays: Maximum: A3 or 11" x 17" Minimum: A5 (LEF) or 11" x 8 1/2" Proof tray: Maximum: A3 or 11" x 17" Minimum: A6 (LEF) or 11" x 8 1/2"
Paper Weight:	Trays: 60 ~ 90 g/m^2, 16 ~ 24 lb Proof tray: 52 ~ 157 g/m^2, 14 ~ 42 lb
Power Consumption:	48 W or less (average)
Power Source:	DC24 V, 5 V (from the printer)
Dimensions (W x D x H):	600 x 545 x 970 mm (23.6" x 21.5" x 38.2")
Weight:	38 kg, 83.6 lb

- Specifications are subject to change without notice.

1.2 COMPONENT LAYOUT

1.2.1 MECHANICAL COMPONENT LAYOUT



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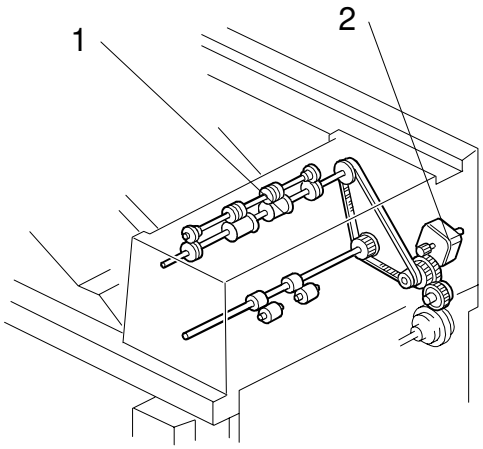
1. Bridge Exit Roller
2. Bridge Exit Sensor
3. Proof Tray
4. Bridge Relay Sensor
5. Relay Junction Gate
6. Proof Tray Paper Sensor
7. Proof Tray Paper Overflow Sensor
8. Proof Tray Exit Roller
9. Proof Tray Exit Sensor
10. Proof Tray Junction Gate
11. Entrance Roller
12. Entrance Sensor
13. Relay Sensor
14. Tray Exit Sensor 1
15. Vertical Transport Guide
16. Tray Exit Sensor 2
17. Tray Exit Sensor 3
18. Tray Gates
19. Paper Overflow Sensor
20. Paper Sensor
21. 9th Tray
22. 1st Tray
23. Bridge Unit

1.2.2 DRIVE LAYOUT



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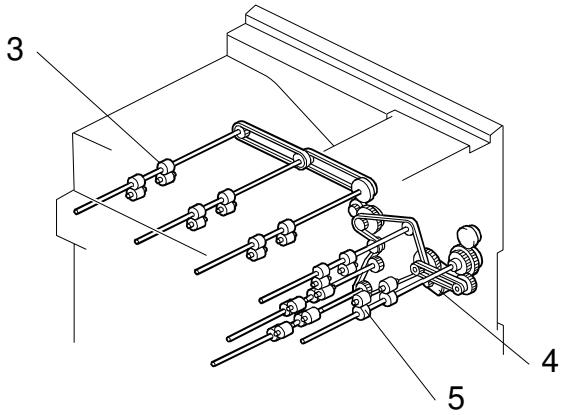

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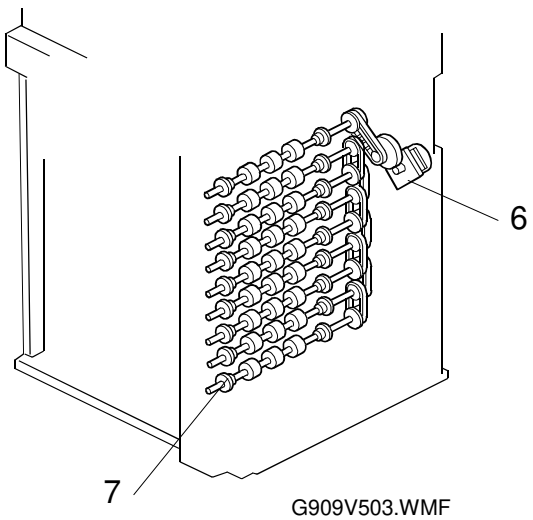

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1. Proof Tray Exit Roller
2. Proof Tray Transport Motor
3. Bridge Exit Roller
4. Transport Motor
5. Entrance Roller
6. Vertical Transport Motor
7. Tray Feed-out Roller

1.3 ELECTRICAL COMPONENT DESCRIPTIONS

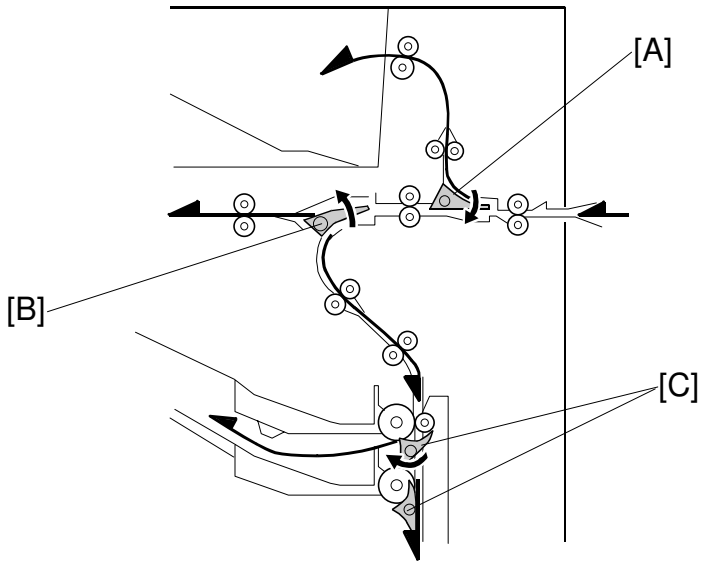
Refer to the electrical component layout and the point-to-point diagram on the waterproof paper in the pocket for symbols and index numbers.

Symbols	Name	Function	Index No.
Motors			
M1	Proof Tray Transport	Drives all the proof tray rollers.	7
M2	Transport	Drives all rollers in the entrance area and all rollers in the bridge unit.	8
M3	Vertical Transport	Drives all tray feed-out rollers.	19
Sensors			
S1	Bridge Exit	Detects misfeeds.	1
S2	Bridge Relay	Detects misfeeds.	2
S3	Proof Tray Paper Overflow	Detects paper overflow in the proof tray.	3
S4	Proof Exit	Detects misfeeds.	4
S5	Proof Cover	Detects whether the proof cover is open or closed.	6
S6	Entrance	Detects copy paper entering the mail box and detects misfeeds.	9
S7	Relay	Detects misfeeds.	10
S8	Proof Tray Paper 1 (LED)	Informs the CPU when there is paper on the proof tray.	14
S9	Proof Tray Paper 2 (Photo Transistor)	Informs the CPU when there is paper on the proof tray.	13
S10	Tray Exit 1	Detects misfeeds.	21
S11	Tray Exit 2	Detects misfeeds.	25
S12	Tray Exit 3	Detects misfeeds.	29
S13	Tray Exit 4	Detects misfeeds.	32
S14	Paper 0	Contains an LED for paper sensor 1.	47
S15	Paper 1	Informs the CPU when there is paper on the 1st tray.	15
S16	Paper 2	Informs the CPU when there is paper on the 2nd tray.	43
S17	Paper 3	Informs the CPU when there is paper on the 3rd tray.	41
S18	Paper 4	Informs the CPU when there is paper on the 4th tray.	39
S19	Paper 5	Informs the CPU when there is paper on the 5th tray.	37
S20	Paper 6	Informs the CPU when there is paper on the 6th tray.	36
S21	Paper 7	Informs the CPU when there is paper on the 7th tray.	35
S22	Paper 8	Informs the CPU when there is paper on the 8th tray.	34

Symbols	Name	Function	Index No.
S23	Paper 9	Informs the CPU when there is paper on the 9th tray.	33
S24	Paper Overflow 1	Detects paper overflow in the 1st tray.	49
S25	Paper Overflow 2	Detects paper overflow in the 2nd tray.	46
S26	Paper Overflow 3	Detects paper overflow in the 3rd tray.	44
S27	Paper Overflow 4	Detects paper overflow in the 4th tray.	42
S28	Paper Overflow 5	Detects paper overflow in the 5th tray.	40
S29	Paper Overflow 6	Detects paper overflow in the 6th tray.	38
S30	Paper Overflow 7	Detects paper overflow in the 7th tray.	28
S31	Paper Overflow 8	Detects paper overflow in the 8th tray.	30
S32	Paper Overflow 9	Detects paper overflow in the 9th tray.	31
Solenoids			
SOL1	Proof Tray Junction Gate	Opens and closes the proof junction gate to direct paper either into the proof tray or to the trays.	17
SOL2	Relay Junction Gate	Opens and closes the relay junction gate to direct paper either to the bridge unit or to the trays.	15
SOL3	1st Tray	Opens and closes the 1st tray gate.	16
SOL4	2nd Tray	Opens and closes the 2nd tray gate.	18
SOL5	3rd Tray	Opens and closes the 3rd tray gate.	20
SOL6	4th Tray	Opens and closes the 4th tray gate.	22
SOL7	5th Tray	Opens and closes the 5th tray gate.	23
SOL8	6th Tray	Opens and closes the 6th tray gate.	24
SOL9	7th Tray	Opens and closes the 7th tray gate.	26
SOL10	8th Tray	Opens and closes the 8th tray gate.	27
PCBs			
PCB1	Main Control	Controls all sorter functions	48
PCB2	Proof Control	Drives the motors in the proof unit and informs the sensor status to the main control board.	5
Switches			
SW1	Bridge Cover	Cuts the +24 V power line and detects when the bridge cover is opened.	12
SW2	Front Cover	Cuts the +24 V power line and detects when the front cover is opened.	11

2. DETAILED DESCRIPTIONS

2.1 BASIC OPERATION



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Proof Tray

When the proof tray is selected as the output tray and the exit sensor of the main machine is actuated by the leading edge of the paper, the transport motor and proof tray transport motor turn on, turning the transport rollers.

Soon after the motors start, the proof tray junction gate solenoid energizes and the proof tray junction gate [A] is lowered so that the paper goes to the proof tray.

When the last page passes the proof tray exit sensor and feeds out, the proof tray junction gate solenoid and the proof tray transport motor turn off.

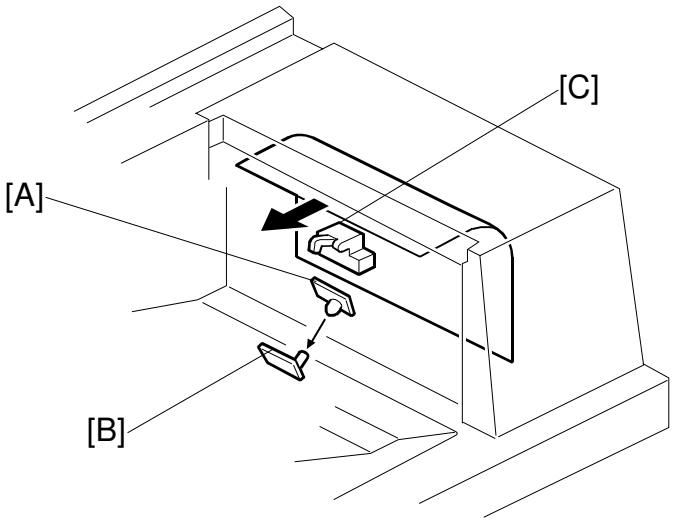
Bridge Unit

The relay junction gate [B] in the bridge unit delivers the paper either to the finisher or down to the trays. When the finisher is selected as the output tray, the relay junction gate stays closed, and the paper goes to the bridge unit. When a tray is selected as the output tray, the relay junction gate solenoid energizes and the relay junction gate is open so that the paper goes downwards to the tray area.

Trays

When the proof tray is selected as the output tray, the transport motor and the vertical transport motor turn on. Each tray gate [C] is individually controlled by a solenoid. When a solenoid is energized, the tray gate opens and the paper goes into the tray.

2.2 PROOF TRAY SENSORS



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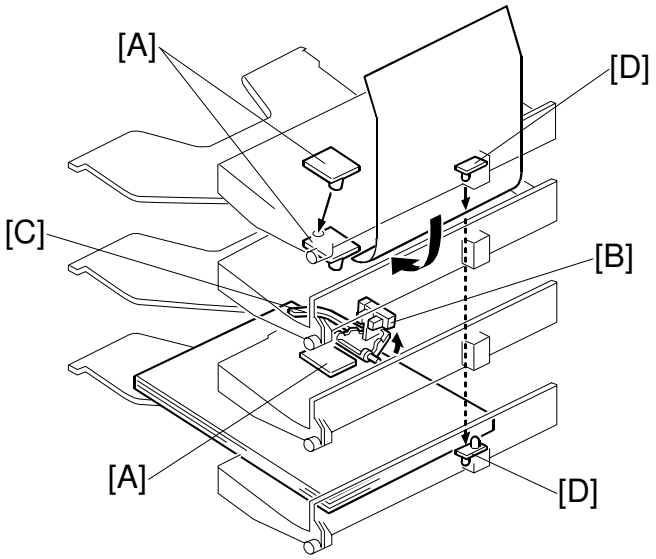
2.2.1 PAPER SENSOR

The paper sensor in the proof tray consists of two sensor boards; one is an LED board [A] and the other is a phototransistor board [B]. The sensor detects whether or not there is paper on the proof tray. When there is paper on the proof tray, the paper interrupts the light from the LED.

2.2.2 PAPER OVERFLOW SENSOR

Also, there is a paper overflow sensor [C] in the proof tray. The machine detects paper overflow when the top sheet of the paper stack pushes up the sensor feeler. When this occurs, a message will be displayed on the operation panel and the machine stops printing until the paper stack on the proof tray is removed.

2.3 TRAY SENSORS



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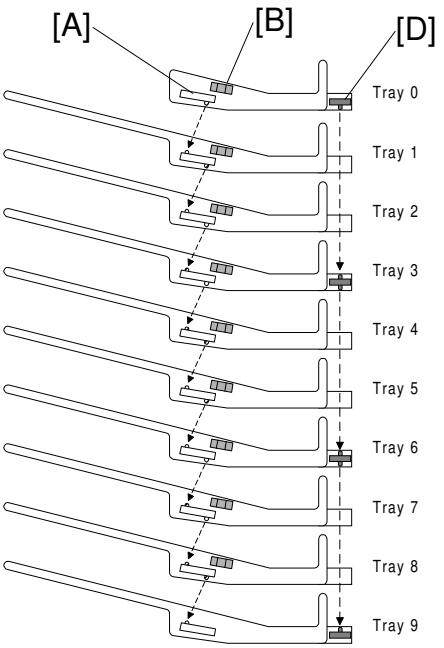

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2.3.1 PAPER SENSOR

There is a paper sensor [A] for each tray (total 10 pcs). The paper sensors in the tray 1 to tray 8 contain an LED and a phototransistor. The paper sensor in the tray 0 contains only an LED. The paper sensor in the tray 9 contains only a phototransistor. The paper detection mechanism and their function are the same as for the proof tray.

2.3.2 PAPER OVERFLOW SENSOR

There is a paper overflow sensor [B] above each tray. The machine detects paper overflow in a tray when the top of the paper stack pushes up the sensor feeler [C]. At this condition occurs, the printing job is stopped until the paper stack will be removed.

2.3.3 TRAY EXIT SENSOR

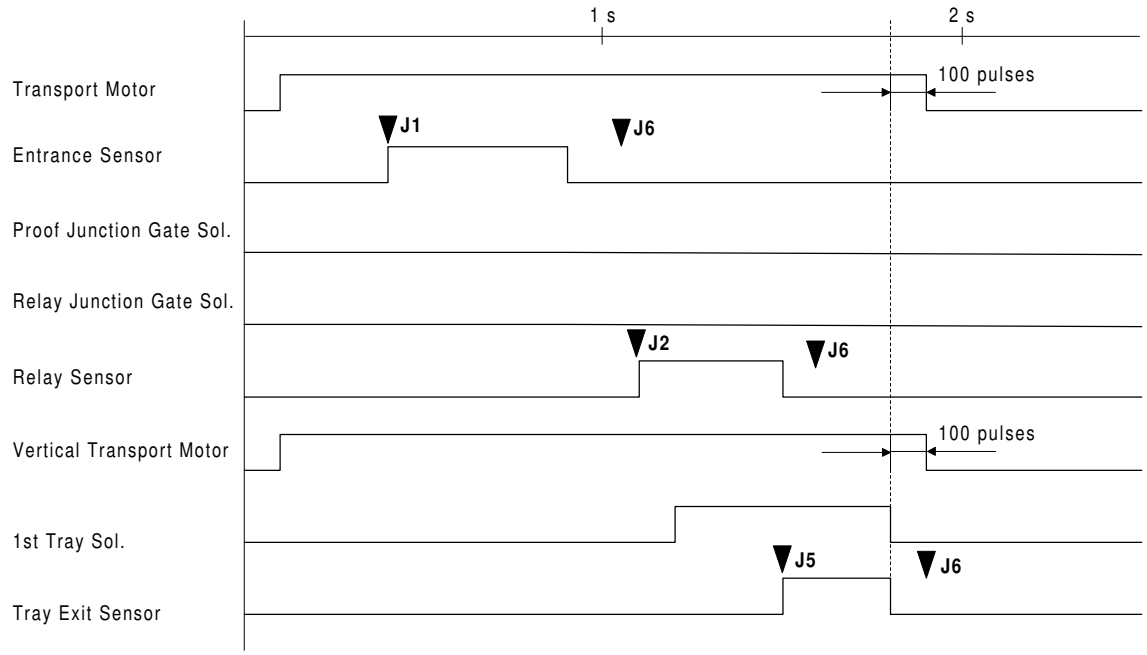
There is a tray exit sensor board [D] above the 1st tray (the mounting above tray 1 is called ‘tray 0’) and on trays 3, 6, and 9. The tray exit sensor board on trays 3 and 6 contains an LED and a phototransistor.

The tray exit sensor board above the 1st tray contains only an LED. The tray sensor board on the 9th tray contains only a phototransistor.

The machine detects paper leaving trays 1 to 3 using the sensor above tray 1 and the one on tray 3. When paper passes between those sensors, the light from the LED above tray 1 is interrupted.

2.4 TIMING CHART AND MISFEED DETECTION

A4 Sideways (to 1st Tray)



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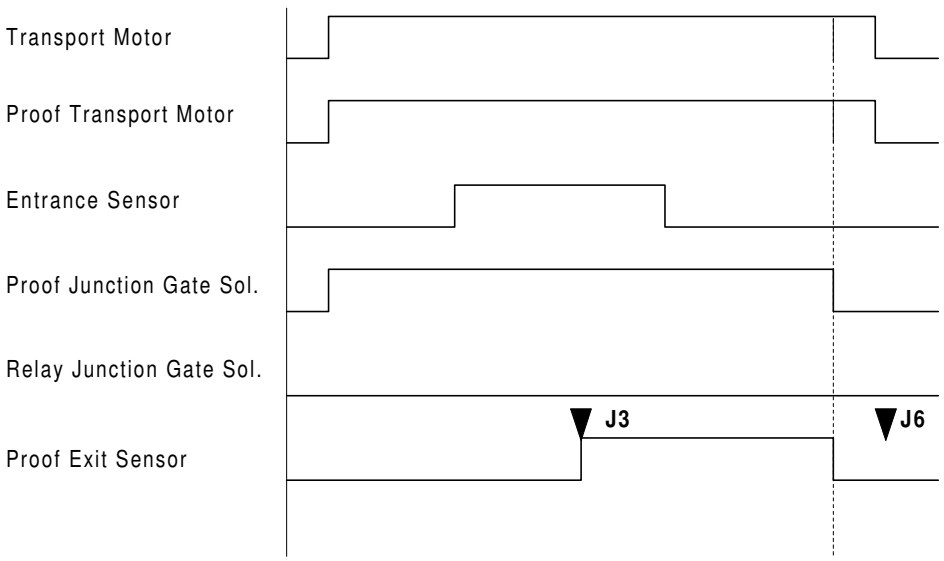
A4 Sideways (to Proof Tray)



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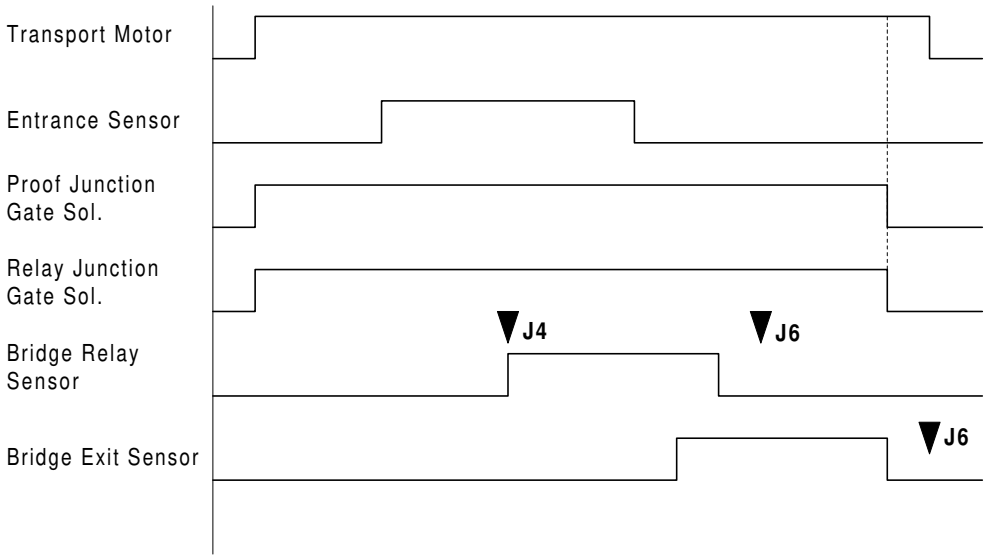
Options

A4 Sideways (to Bridge Unit)



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1. On check
   - J1: The entrance sensor does not turn on within 2460 pulses after the exit sensor of the main machine has been turned on.
   - J2: The relay sensor does not turn on within 1965 pulses after the entrance sensor has been turned on.
   - J3: The proof tray exit sensor does not turn on within 1665 pulses after the entrance sensor has been turned on.
   - J4: The bridge relay sensor does not turn on within 1954 pulses after the entrance sensor has been turned on.
   - J5: The appropriate tray exit sensor does not turn on within the appropriate number of pulses (see below) after the relay sensor has been turned on.

J5 jam timing

Tray Exit Sensor	**Sensor 1**			**Sensor 2**			**Sensor 3**		
Tray No.	1	2	3	4	5	6	7	8	9
Pulses	72	139	176	206	242	273	304	343	375

2. Off check
   - J6: A sensor does not turn off the specified number of pulses after that sensor has been turned on.

Number of pulses = Paper length (in the paper feed direction) x 1.5

1 pulse = 0.1707 mm

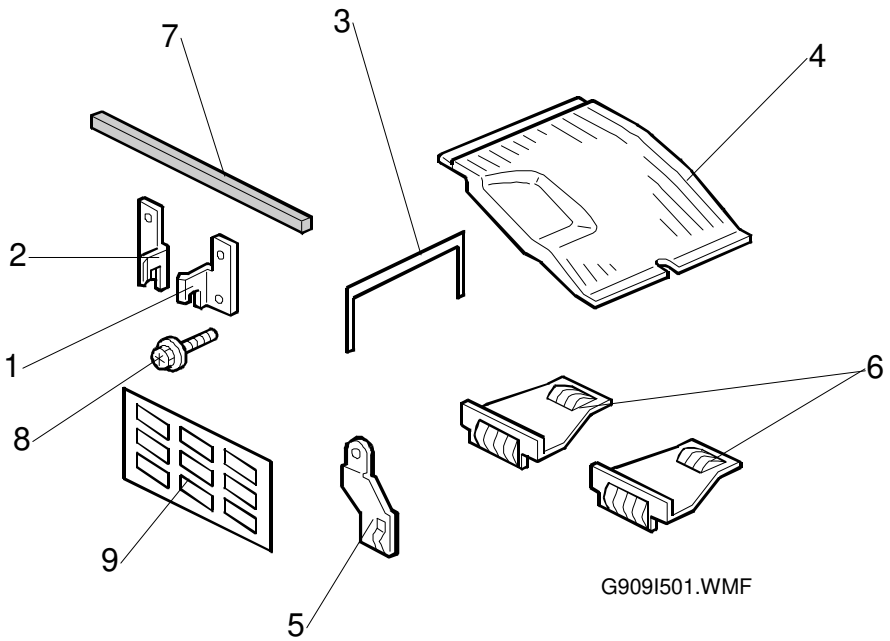
3. INSTALLATION PROCEDURE

3.1 MAILBOX (G909)

3.1.1 ACCESSORY CHECK

Check the accessories in the box against the following list.

No.	Description	Q'ty	Note
1	Front Joint Bracket	1	
2	Rear Joint Bracket	1	
3	Exit Guide Mylar	1	For A229
4	Proof Tray Attachment	1	For A230, A231, and A232
5	Upper Grounding Plate	1	For A230, A231, and A232
6	Lower Grounding Plate	2	One for A230,A231, and A232 Two for A229
7	Cushion	1	
8	Tapping Screw - M4 x 14	4	
9	Tray Decals	1	
10	Installation Procedure	1	

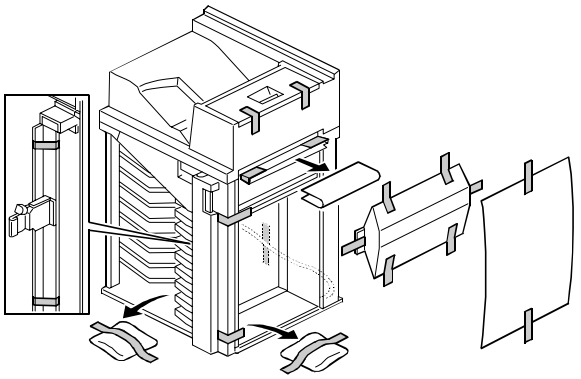


3.1.2 REQUIREMENT OPTIONS FOR MAIN MACHINE

When the mailbox is going to be installed to A230, A231, and A232 machines, the following options for main machine must be required.

1. Bridge Unit Type 450 (A688)
2. Paper Tray Unit – PS360 (A682)

3.1.3 INSTALLATION PROCEDURE



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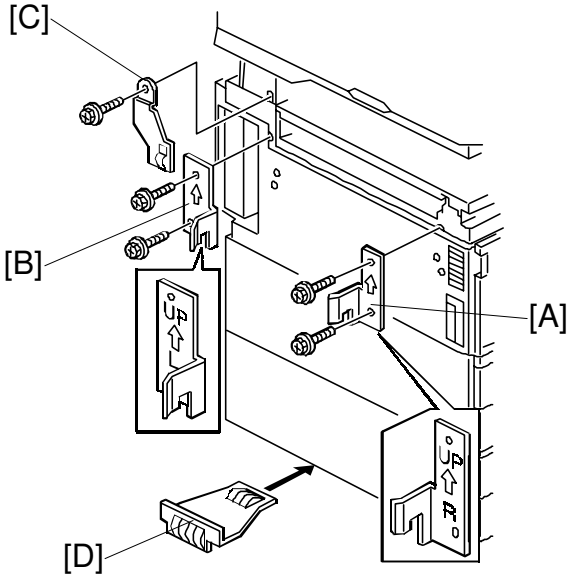

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- A230, A231, and A232 machines -

⚠CAUTION
Unplug the main machine power cord before starting the following procedure.

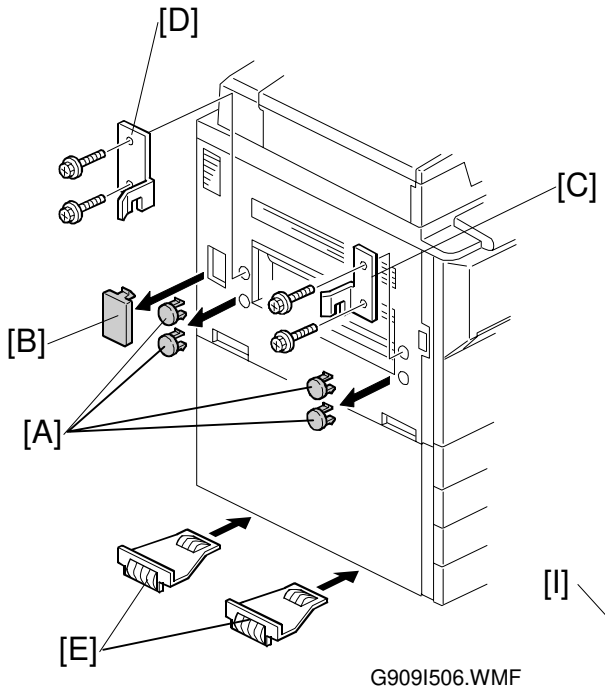
NOTE: 1) When the finisher (A697) will be installed on the machine, the bridge unit for the mailbox (G912) must be installed.
2) The bridge unit for the mailbox must be installed before installing this unit on the main machine.

1. Unpack the finisher and remove the tapes.

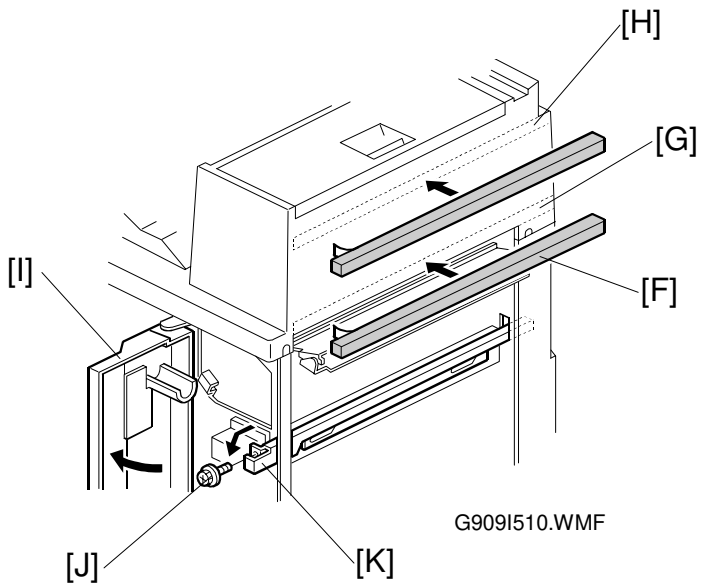
- A230, A231, and A232 machines -

2. Attach the front joint bracket [A] and rear joint bracket [B] to the main machine (2 screws each).
3. Attach the upper grounding plate [C] (1 screw).
4. Peel off the backing of the double sided tape that is attached to the lower grounding plate [D].
5. Attach one lower grounding plate to the center of the bottom edge of the paper tray unit as shown.

Go to step 7.



- A229 machine -



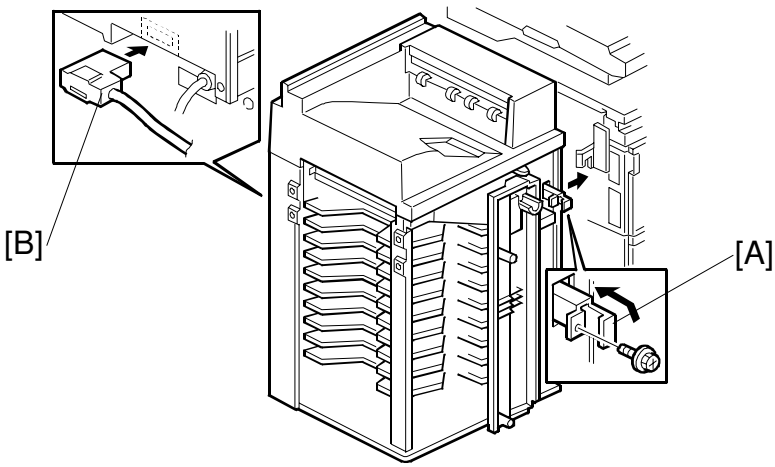
- A229 machines -

2. Remove the four plastic caps [A] from the copier's left cover.
3. Remove the connector cover [B].
4. Attach the front joint bracket [C] and rear joint bracket [D] to the main machine (2 screws each).
5. Peel off the backing of the double-sided tape that is attached to the lower grounding plate [E].
6. Attach two lower grounding plates to the bottom edge of the paper tray unit as shown.

- All machines -

7. The position of the cushion [F] depends on which main machine the mailbox is installed. Attach the cushion to the plate as follows:
   - Position [G] for A230, A231, and A232 machines.
   - Position [H] for A229 machines.

   NOTE: When attaching the cushion to position [H], cut about 40 mm (1.6 inches) off one edge of the cushion.
8. Open the front cover [I] of the mailbox, and remove the screw [J] that secures the locking lever [K]. Then pull the locking lever.



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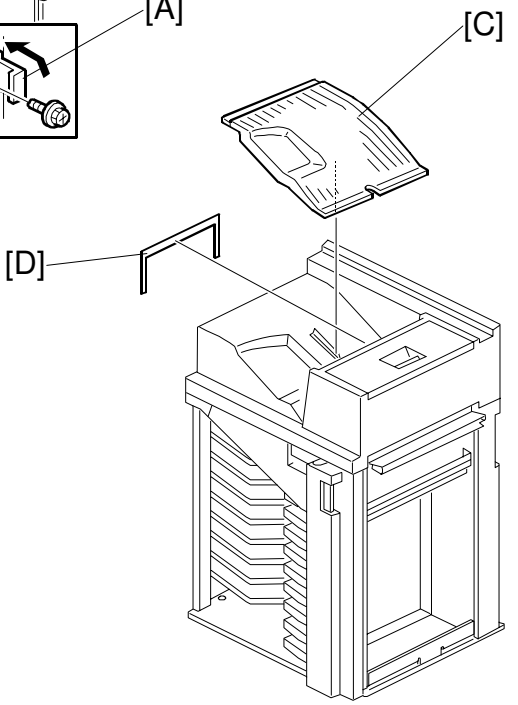

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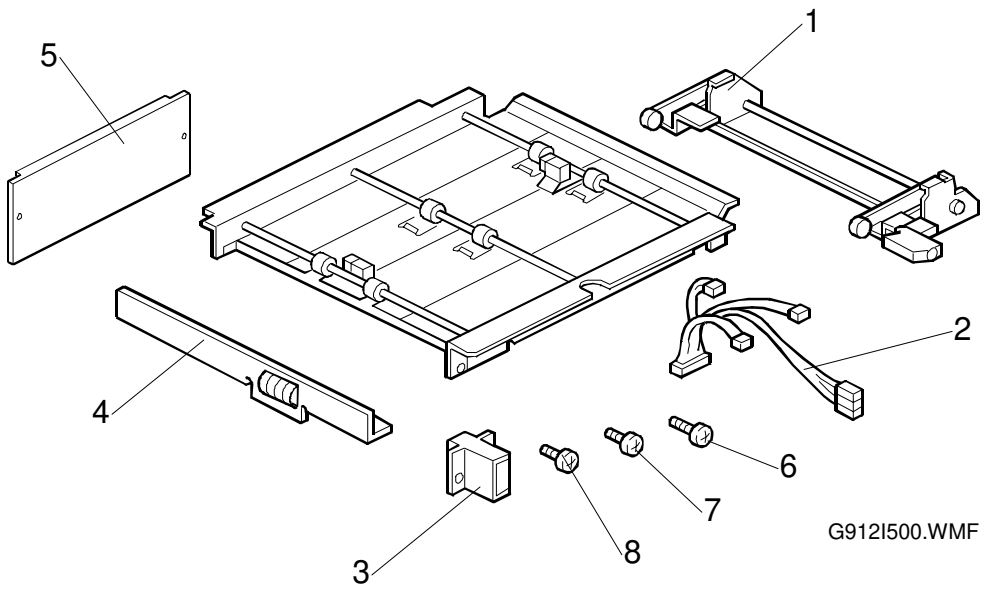
9. Align the mailbox on the joint brackets, and lock it in place by pushing the locking lever [A].
10. Secure the locking lever (1 screw) and close the front door.
11. Connect the mailbox cable [B] to the main machine.
12. **A230/A231/A232 machines only:** Peel off the backing of the double sided tape that is attached to the proof tray attachment [C].
13. Install the proof tray attachment on the proof tray.
14. **A229 machines only:** Install the exit guide mylar [D] on the upper cover just above the anti-static brush.
15. Turn on the main switch and check the mailbox operation.

3.2 BRIDGE UNIT FOR MAILBOX (G912)

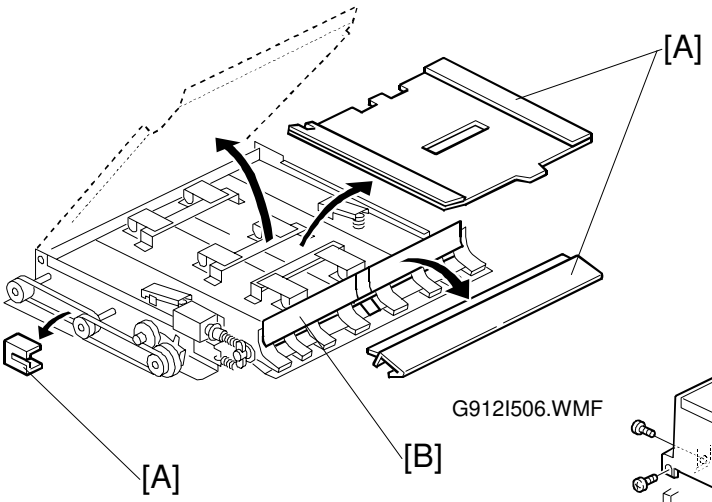
3.2.1 ACCESSORY CHECK

Check the accessories in the box against the following list.

No.	Description	Q'ty
1.	Guide Plate Bracket	1
2	Cable	1
3	Cover Switch	1
4	Grounding Bracket	1
5	Finisher Shielding Plate	1
6	Screw - M4 x 8	9
7	Screw - M4 x 4	4
8	Screw - M3 x 6	2



3.2.2 INSTALLATION PROCEDURE



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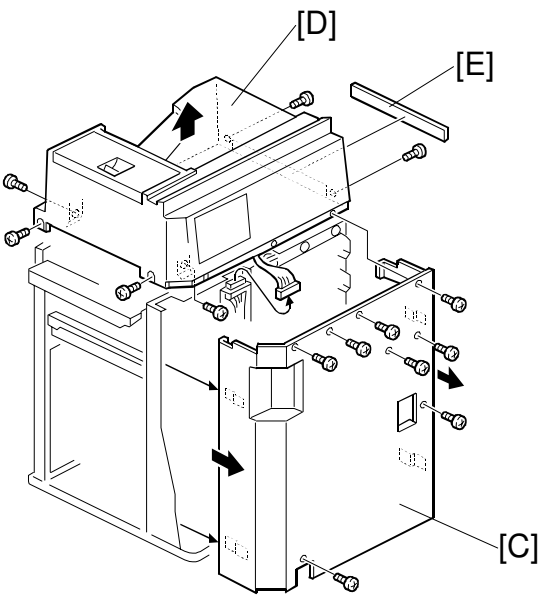

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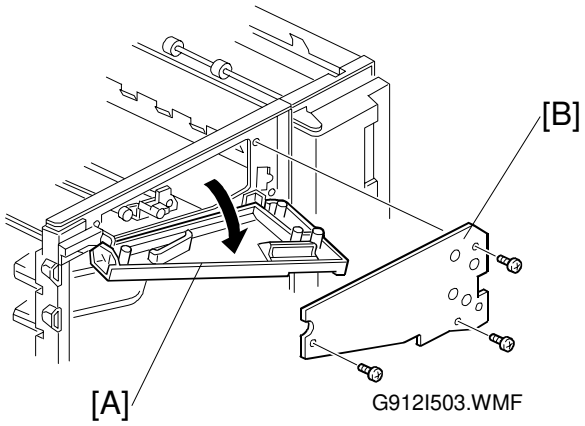
⚠CAUTION

Unplug the main machine power cord before starting the following procedure.

NOTE: 1) This bridge unit for the mailbox must be installed when the 3000 sheet finisher (A697) will be installed.
2) The 3000 sheet finisher (A697) can be installed only for A232 and A229 machines.

1. Unpack the bridge unit and remove the shipping retainers [A].
   NOTE: Do not remove the protective sheet [B] at this time.
2. Remove the mailbox if it has been installed.
3. Remove the rear cover [C] of the mailbox (8 screws).
4. Remove the proof tray unit [D] (6 screws, 1 connector).
5. Remove the cover [E].



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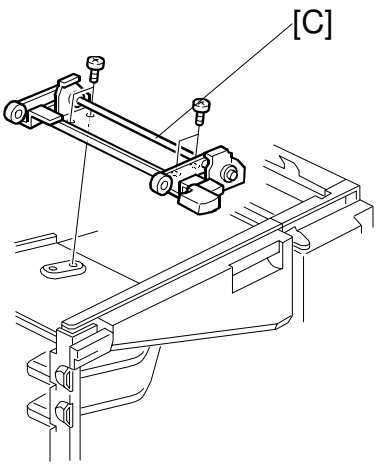

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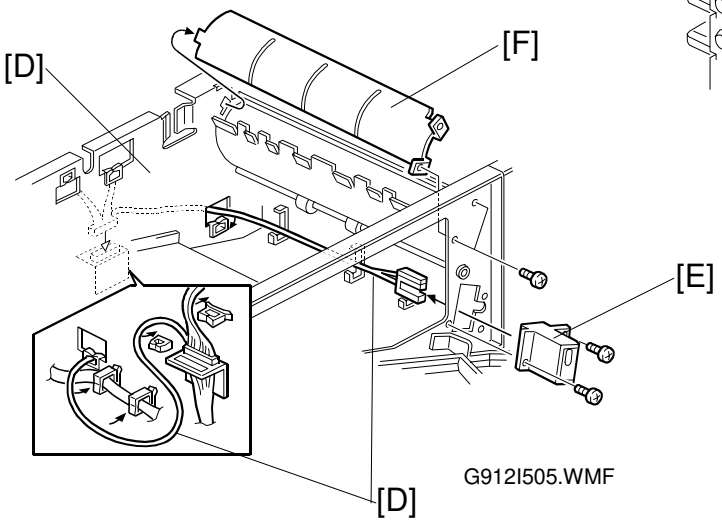

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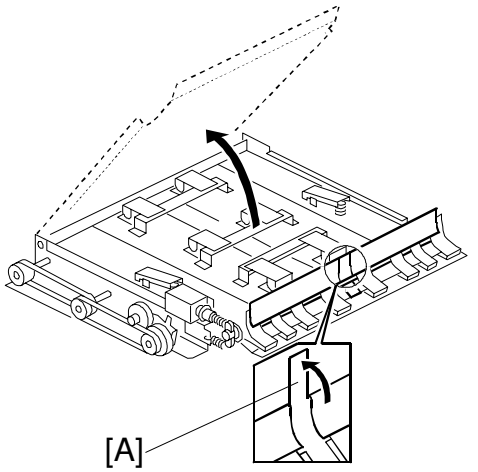
6. Open the left front cover [A] of the mailbox, and remove the inner plate [B] (3 screws).
7. Install the guide plate bracket [C] (4 screws - M4 x 4).
8. Route the cable [D] and clamp it as shown.
9. Connect the cover switch [E] to the cable then install the cover switch (2 screws – M4 x 8).
10. Remove the paper guide plate [F] (2 screws).



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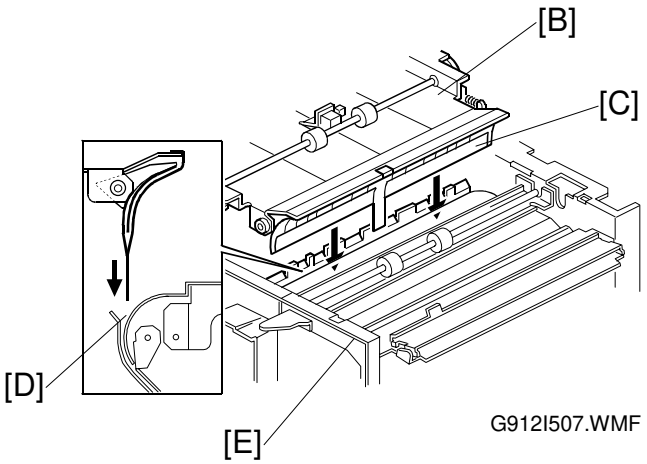

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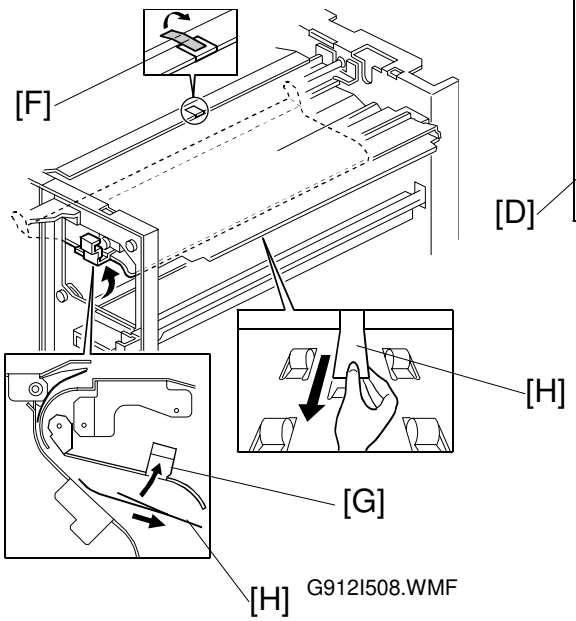

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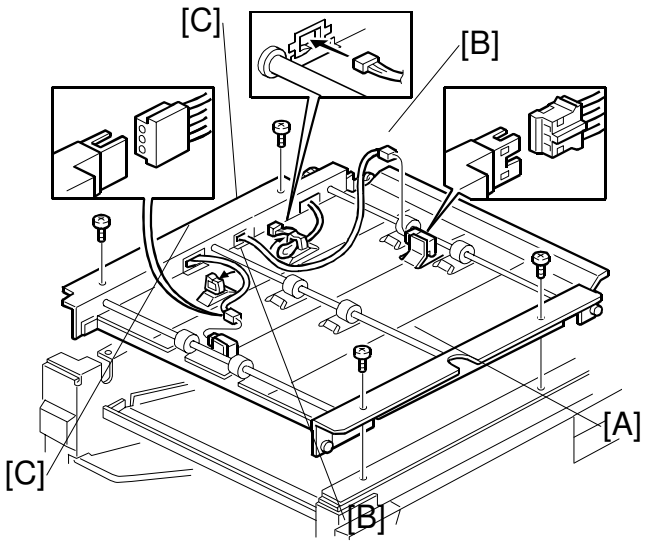
11. Pull up the tab [A] of the protective sheet.
    NOTE: 1) Do not remove the protective sheet at this time.
    2) Make sure that all mylars are held between the two folded halves of the protective sheet.
12. Turn over the bridge unit [B] and insert the protective sheet [C] into the gap [D] between the paper guides, then put the bridge unit on the mailbox [E].
    NOTE: When holding the bridge unit, do not touch the timing belt. Otherwise the timing belt may come off the gear.
13. Remove the tape [F] of the protective sheet.
14. Open the upper paper guide [G] then pull out the protective sheet [H].
    NOTE: Check that all mylars are set into the gap between the paper guides.



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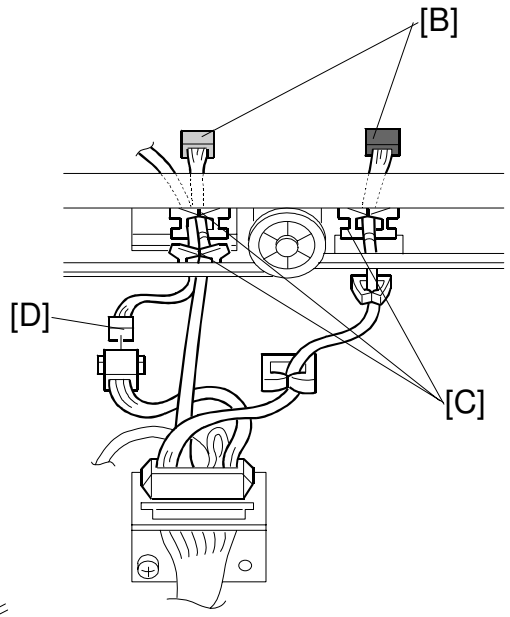

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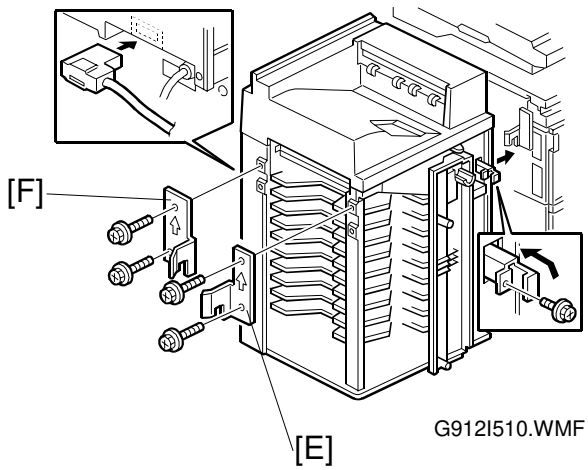
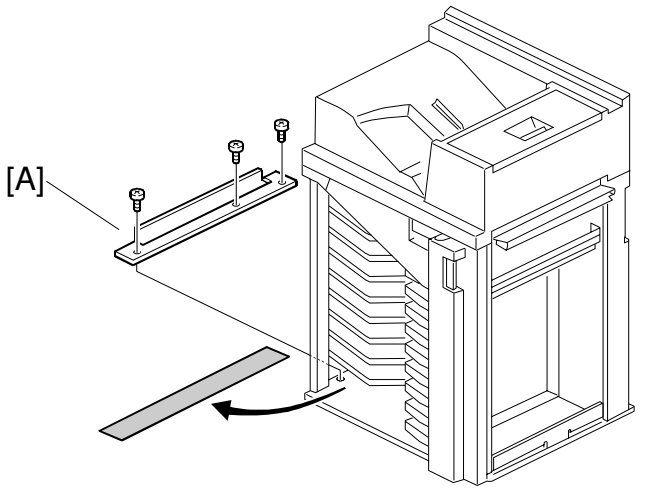


G912I510.WMF

15. Secure the bridge unit [A] (4 screws – M4 x 8).
16. Route the cables [B] through the openings [C].
17. Route the solenoid harness [D] through the opening [C].
18. Connect the cables to the solenoid and sensors and clamp the cable as shown.
19. Reinstall the rear cover and proof tray unit.
20. Install the mailbox on the main machine (refer to the Mailbox Installation procedure for more detail).

When the 3000 sheet finisher (A697) is going to be installed, do steps 21 to 25.

21. Install the front joint bracket [E] and rear joint bracket [F] which are contained in the finisher's accessory box.



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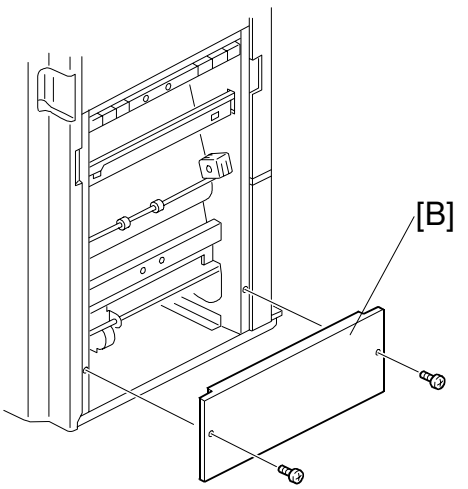


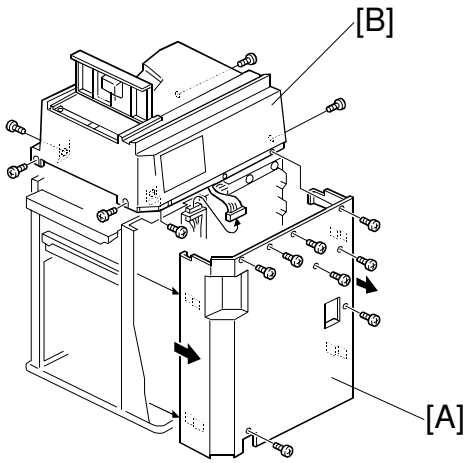
G912I512.WMF

22. Remove the seal [A].
23. Attach the grounding bracket [B] (3 screws - M4 x 8).
24. Attach the shielding plate [C] to the finisher (2 screws – M3 x 8).
25. Attach the finisher to the mailbox (refer to the finisher installation procedure).
26. Turn on the main switch of the main machine and check the bridge unit operation. (Select a copy mode that uses the finisher.)

4. REPLACEMENT AND ADJUSTMENT

4.1 PROOF TRAY UNIT

4.1.1 PROOF TRAY SENSOR AND PAPER OVERFLOW SENSORS



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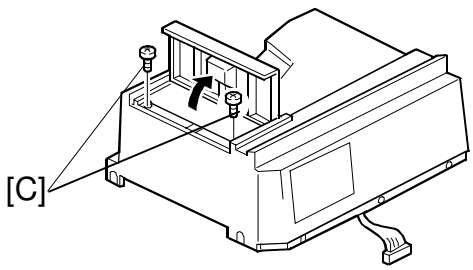

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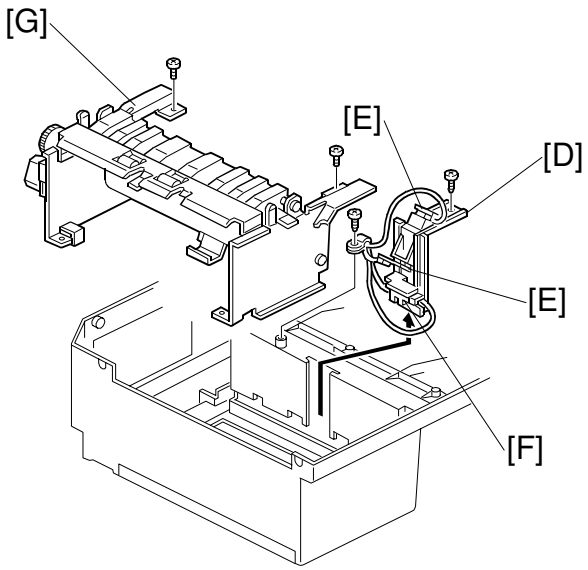


G909R502.WMF

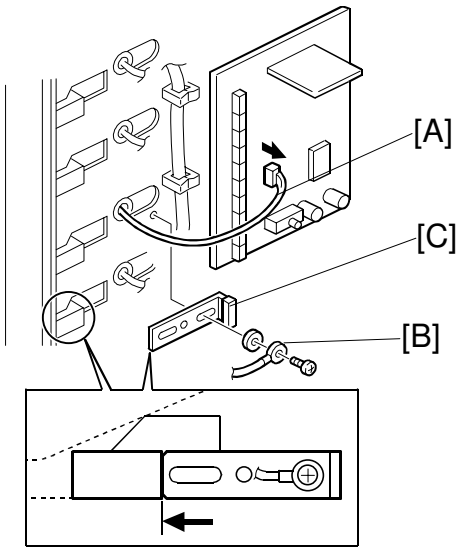
1. Remove the rear cover [A] (8 screws).
2. Remove the proof tray unit [B] (6 screws).
3. Remove two screws [C], then turn over the proof tray unit.
4. Remove the sensor bracket [D] (2 screws, 1 clamp).
5. Remove the proof tray paper sensor [E] (1 screw each).
6. Remove the proof tray paper overflow sensor [F].

4.1.2 PROOF TRANSPORT UNIT

1. Remove the proof tray unit [B] and remove two screws [C].
2. Turn over the proof tray unit and remove the proof transport unit [G] (2 screws).

4.2 TRAY UNIT

4.2.1 TRAYS



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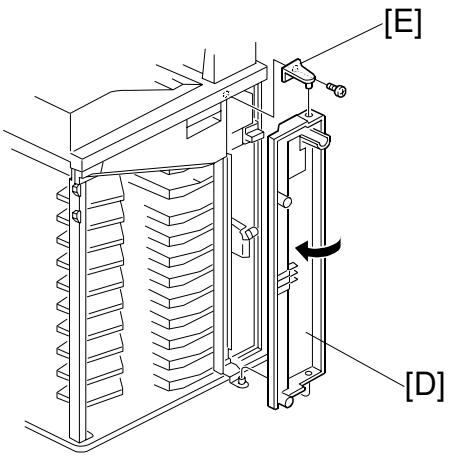

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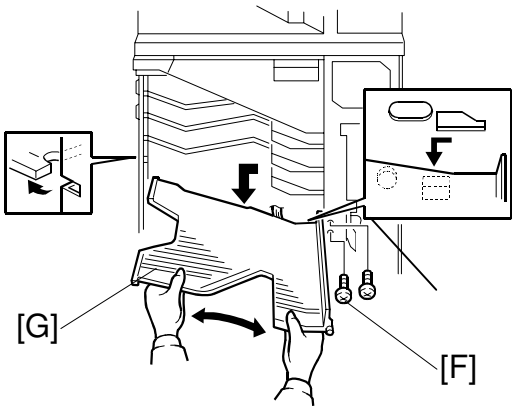
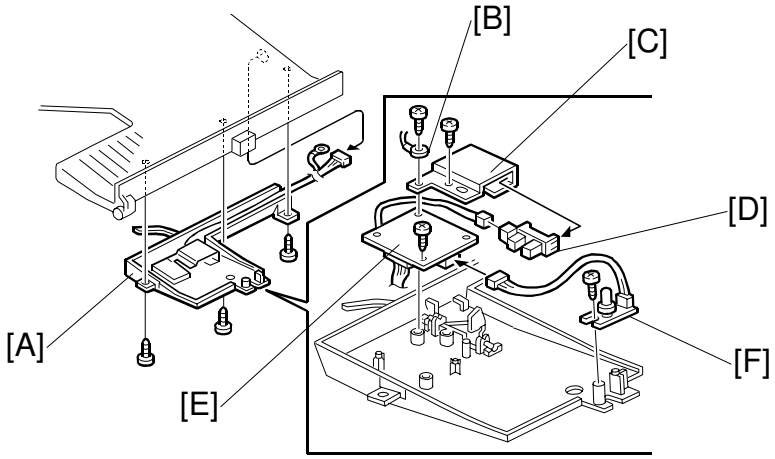


G909R504.WMF

1. Remove the rear cover (8 screws).
2. Disconnect the cable [A] of the tray which will be removed.
3. Remove the grounding wire [B] (1 screw, 1 washer) and remove the tray stopper [C].
   NOTE: When reinstalling the tray stopper, push the stopper to the left against the tray.
4. Open the front cover [D] and remove the cover bracket [E] (1 screw), then remove the front cover.
5. Remove the two screws [F] which secure the tray.
6. Remove the tray [G]. (First move the tray to the left and gently bend it, then remove the tray.)

4.2.2 PAPER SENSOR, PAPER OVERFLOW SENSOR, AND TRAY EXIT SENSOR



G909R506.WMF

NOTE: When removing the paper sensor or paper overflow sensor for the 1st tray, or the tray exit sensor above the 1st tray, first remove the 1st tray and remove the sensor cover, then remove these sensors.

1. Remove the tray (see Trays).
2. Remove the sensor cover [A] (3 screws).

Paper Overflow Sensor

3. Remove the grounding wire [B] (1 screw) and paper overflow sensor bracket [C] (1 screw).
4. Remove the paper overflow sensor [D] (1 connector).

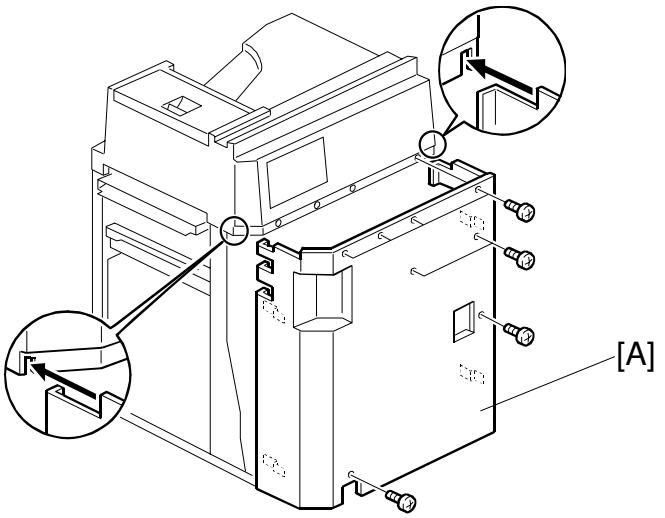
Paper Sensor

5. Remove the paper sensor [E] (1 screw, 1 connector).

Tray Exit Sensor (above the 1st tray, and in the 3rd, 6th, and 9th trays)

6. Remove the tray exit sensor [F] (1 screw, 1 connector).
7. After replacing the tray exit sensor, perform the tray exit sensor adjustment (see Tray Exit Sensor Adjustment).
   NOTE: After replacing the tray exit sensor, do not put the rear cover back on the mailbox, because the tray exit sensor adjustment must be done first.

4.2.3 MAIN CONTROL BOARD



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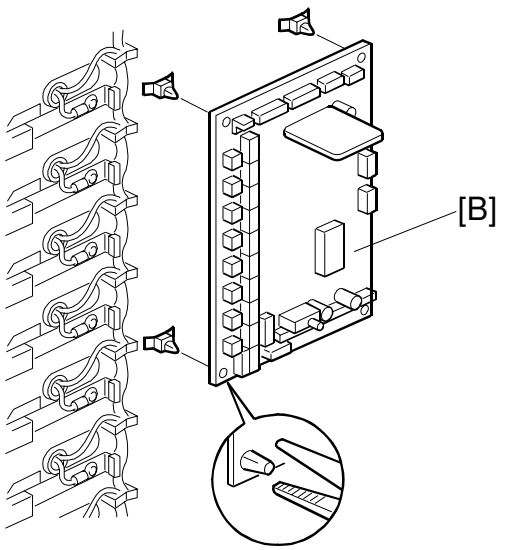


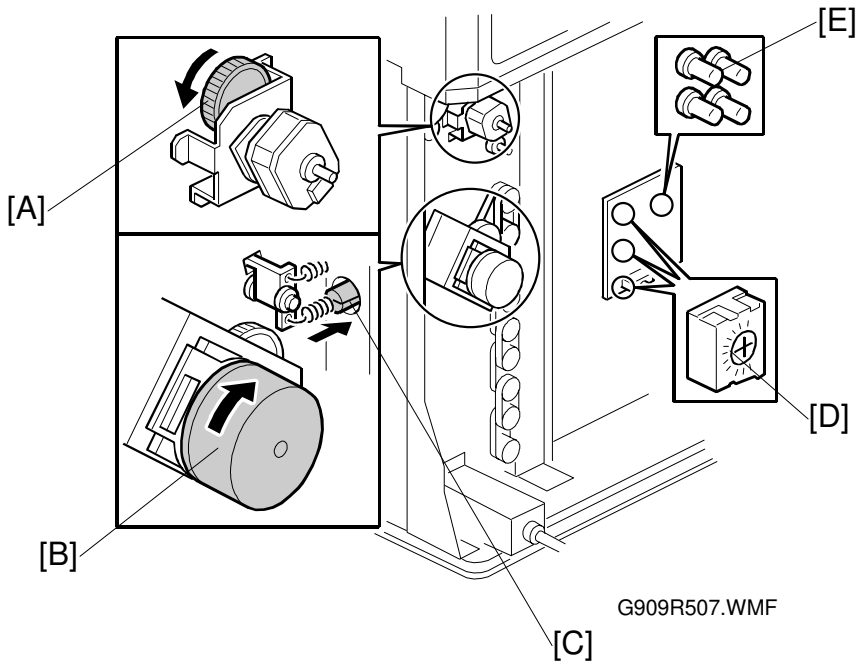
G909R509.WMF

1. Remove the rear cover [A] (8 screws).
2. Remove the main control board [B] (all connectors).
3. After replacing the main control board, perform the tray exit sensor adjustment (see Tray Exit Sensor Adjustment).

4.2.4 TRAY EXIT SENSOR ADJUSTMENT

This sensor adjustment must be performed after replacing the tray exit sensor or main control board, using the special paper that comes with the spare part for the tray exit sensor.

The tray exit sensor board has two devices: LED and phototransistor. So, when replacing the tray exit sensor on the 3rd tray, the sensor adjustment must be done between trays 1 and 3 and between trays 4 and 6. When replacing the main control board, this sensor adjustment must be done for all sensors. The sensor adjustment procedure is as follows.



Example: Sensor adjustment between trays 1 and 3

1. Insert the special paper (which comes with the tray exit sensor) into the entrance guide of the mailbox.
2. Turn the transport motor gear [A] counterclockwise to transport the paper to the tray unit.
3. When the leading edge of the paper reaches the tray feed-out roller, turn the vertical transport motor [B] clockwise to transport the paper to the appropriate tray.
4. Open the tray gate by pushing the plunger of the tray solenoid [C], and transport the paper until half of it has fed out to the tray.
5. Change switches 1 and 2 of the DIP switch on the main control board to ON.
6. Make sure that the interface cable is connected to the main machine and turn the main switch on.

7. Fully turn the appropriate variable resistor (VR) [D] clockwise, then check that the appropriate LED [E] has turned off (the relationship between tray, VR, and LED are shown in the table below).
8. Turn back the VR slowly until the LED just turns on.
9. Measure the voltage between TP3 on the main control board and the frame of the mailbox and confirm the voltage is greater than 3.5 V. If it is not, adjust the voltage using the VR (the relationship between tray, TP, and VR are shown in the table below).
10. Remove the special paper from the tray, then measure the voltage on the main control board in the same way as step 9. The voltage should be smaller than 1.2 V.
11. After adjusting, change the DIP switch setting to the default (all switches off) and reassemble the machine.

Adjusted Sensor	VR No.	LED No.	TP No.
Trays 1 to 3	VR1	LED 2	TP3
Trays 4 to 6	VR2	LED 3	TP4
Trays 7 to 9	VR3	LED 4	TP13

NOTE: The DIP switches to change are the same regardless of the adjusted sensor.

5. SERVICE TABLES

5.1 DIP SWITCHES/VRIABLE RESISTORS/LEDS

5.1.1 DIP SWITCHES

0 = OFF 1 = ON

Item	Switch No.				Function
	1	2	3	4	
Default	0	0	0	0	
Motor Test	1	0	0	0	
Solenoid Test	0	1	0	0	
Tray Exit Sensor Check	1	1	0	0	When detecting paper between the 1st and 3rd trays, LED2 will light.
					When detecting paper between the 4th and 6th trays, LED3 will light.
					When detecting paper between the 7th and 9th trays, LED4 will light.
Paper Sensor Check (1st to 3rd trays)	0	0	1	0	When the 1st tray paper sensor is activated, LED2 will light.
					When the 2nd tray paper sensor is activated, LED3 will light.
					When the 3rd tray paper sensor is activated, LED4 will light.
Paper Sensor Check (4th to 6th trays)	1	0	1	0	When the 4th tray paper sensor is activated, LED2 will light.
					When the 5th tray paper sensor is activated, LED3 will light.
					When the 6th tray paper sensor is activated, LED4 will light.
Paper Sensor Check (7th to 9th trays)	0	1	1	0	When the 7th tray paper sensor is activated, LED2 will light.
					When the 8th tray paper sensor is activated, LED3 will light.
					When the 9th tray paper sensor is activated, LED4 will light.
Proof Tray Sensors Check	1	1	1	0	When the proof paper overflow sensor is activated, LED2 will light.
					When the proof paper sensor is activated, LED3 will light.
Paper Overflow Sensor Check (1st to 3rd trays)	0	0	0	1	When the 1st paper overflow sensor is activated, LED2 will light.
					When the 2nd paper overflow sensor is activated, LED3 will light.
					When the 3rd paper overflow sensor is activated, LED4 will light.
Paper Overflow Sensor Check (4th to 6th trays)	1	0	0	1	When the 4th paper overflow sensor is activated, LED2 will light.

Item	Switch No.				Function
	1	2	3	4	
Paper Overflow Sensor Check (4th to 6th trays)	1	0	0	1	When the 5th paper overflow sensor is activated, LED3 will light.
					When the 6th paper overflow sensor is activated, LED4 will light.
Paper Overflow Sensor Check (7th to 9th trays)	0	1	0	1	When the 7th paper overflow sensor is activated, LED2 will light.
					When the 8th paper overflow sensor is activated, LED3 will light.
					When the 9th paper overflow sensor is activated, LED4 will light.
Entrance, Bridge Relay, and Bridge Exit Sensor Check	1	1	0	1	When the entrance sensor is activated, LED4 will light.
					When the bridge relay sensor is activated, LED3 will light.
					When the bridge exit sensor is activated, LED2 will light.
Proof Exit and Relay Sensor Check	0	0	1	1	When the proof exit sensor is activated, LED4 will light.
					When the relay sensor is activated, LED3 will light.
Free Run	1	1	1	1	

5.1.2 VARIABLE RESISTORS

Number	Function
VR1	Adjusts the tray exit sensor sensitivity between trays 1 and 3
VR2	Adjusts the tray exit sensor sensitivity between trays 4 and 6
VR3	Adjusts the tray exit sensor sensitivity between trays 7 and 9

5.1.3 LEDS

Number	Monitored Signal
LED1	Monitors the software operation. Blinking: Normal operation Others: Abnormal operation
LED2	The LED lights when the appropriate sensor is activated. (Refer to the DIP switch table for more details.)
LED3	
LED4	

POINT TO POINT DIAGRAM (Mail Box/Bridge Unit: G909/G912)

COPIER

MAIN CONTROL (PCB 1)

FINISHER

PROOF TRAY CONTROL (PCB 2)

Bridge Unit

Proof Tray Transport — M1

Proof Tray Junction Gate — SOL 1

Proof Tray Cover — S5

Proof Tray Exit — S4

Proof Tray Paper Oerflow — S3

Proof Tray Paper 1 — (S8)

Proof Tray Paper 2 — (S9)

Relay Junction Gate — SOL 2

Bridge Cover — SW1

Bridge Relay — S2

Bridge Exit — S1

Front Cover — SW2

Relay — S7

Entrance — S6

Vertical Transport — M3

Paper 0 (S14) — S24 Paper Overflow 1 — S10 Tray Exit 1

Paper 1 (S15) — S25 Paper Overflow 2

Paper 2 (S16) — S26 Paper Overflow 3

Paper 3 (S17) — S27 Paper Overflow 4 — S11 Tray Exit 2

Paper 4 (S18) — S28 Paper Overflow 5

Paper 5 (S19) — S29 Paper Overflow 6

Paper 6 (S20) — S30 Paper Overflow 7 — S12 Tray Exit 3

Paper 7 (S21) — S31 Paper Overflow 8

Paper 8 (S22) — S32 Paper Overflow 9

Paper 9 (S23) — S13 Tray Exit 4

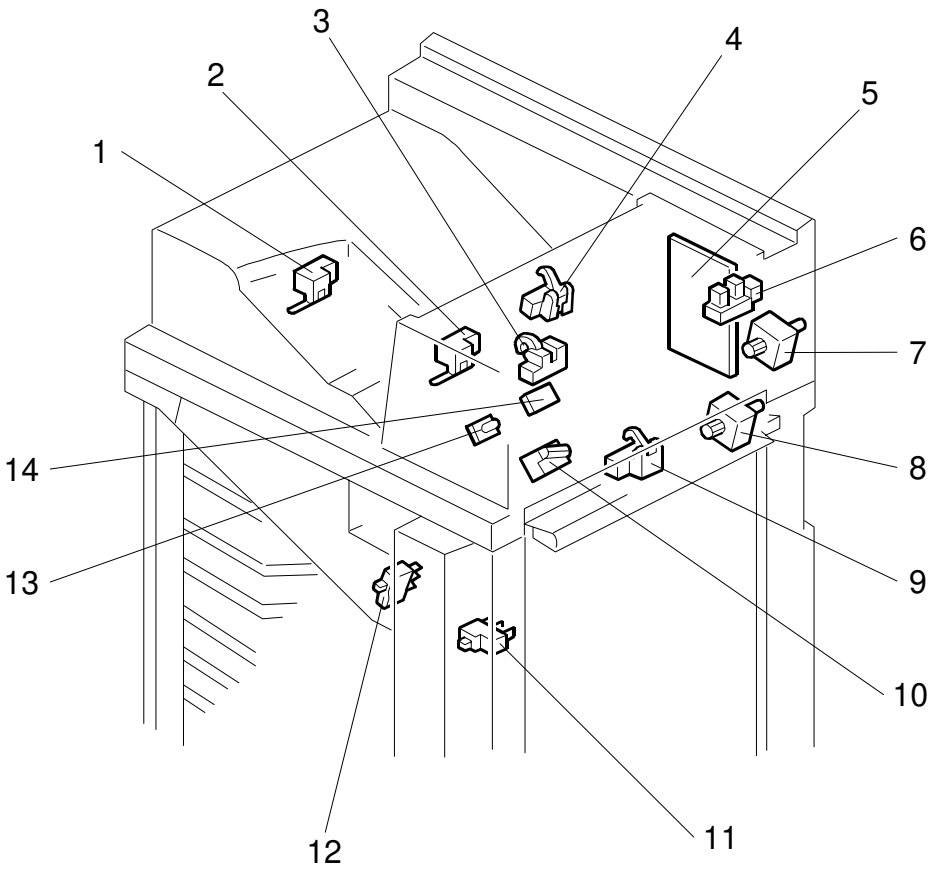
M2 — Transport

SOL3 1st Tray, SOL4 2nd Tray, SOL5 3rd Tray, SOL6 4th Tray, SOL7 5th Tray, SOL8 6th Tray, SOL9 7th Tray, SOL 10 8th Tray

Signal Table

———	AC Line
———	DC Line
- - - - -	Pulse Signal
< >	Signal Direction
▲	Active High
▼	Active Low
[ ]	Voltage
[A]	Analog Signal

ELECTRICAL COMPONENT LAYOUT (G909/G912)



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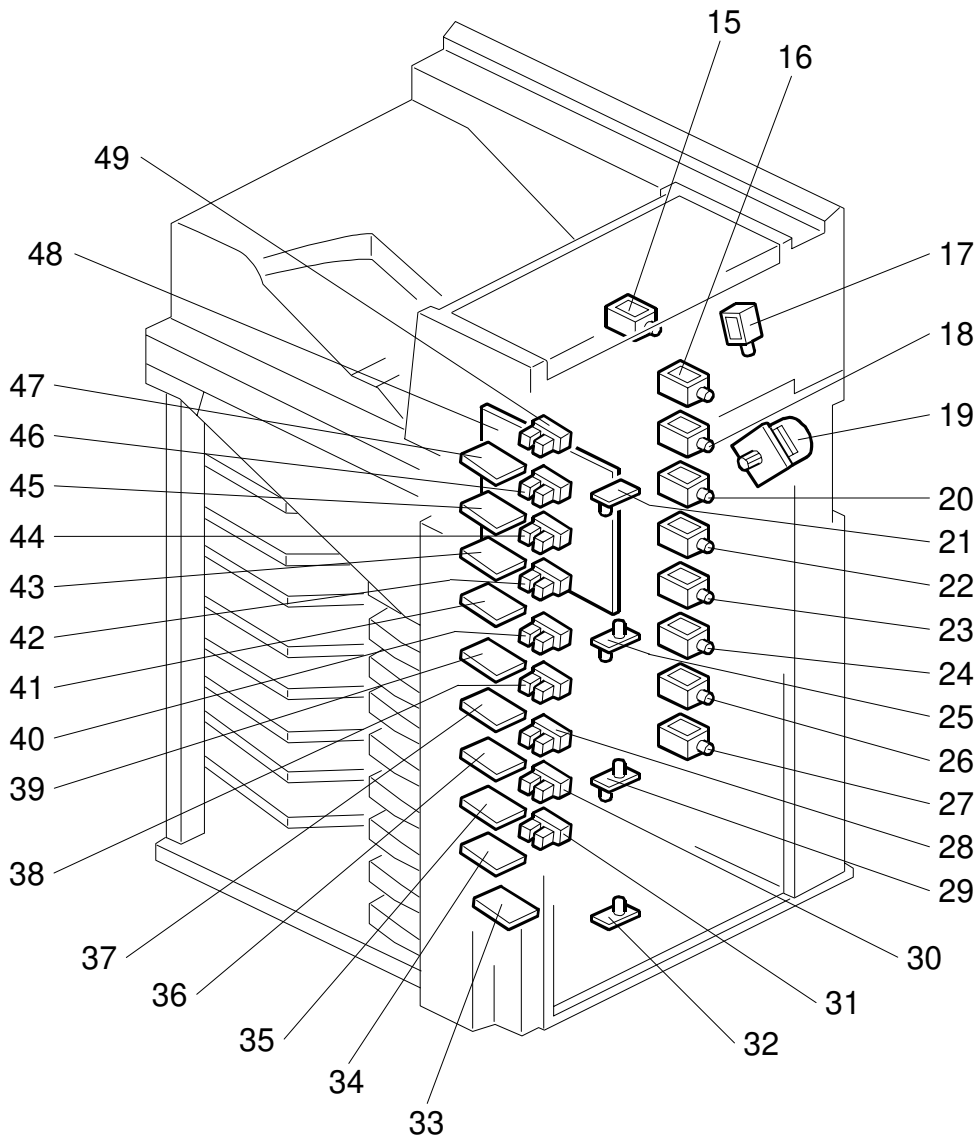

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Symbols	Name	Index No.	P to P.
Motors			
M1	Proof Tray Transport	7	E2
M2	Transport	8	O10
M3	Vertical Transport	19	L4
Sensors			
S1	Bridge Exit	1	I4
S2	Bridge Relay	2	I4
S3	Proof Tray Paper Overflow	3	S3
S4	Proof Exit	4	S4
S5	Proof Cover	6	S4
S6	Entrance	9	K4
S7	Relay	10	K4
S8	Proof Tray Paper 1 (LED)	14	G2
S9	Proof Tray Paper 2 (Photo Transistor)	13	G2
S10	Tray Exit 1	21	E11
S11	Tray Exit 2	25	H11
S12	Tray Exit 3	29	K11
S13	Tray Exit 4	32	N11
S14	Paper 0	47	D10
S15	Paper 1	15	E10
S16	Paper 2	43	F10
S17	Paper 3	41	G10
S18	Paper 4	39	H10
S19	Paper 5	37	I10
S20	Paper 6	36	J10
S21	Paper 7	35	K10
S22	Paper 8	34	M10
S23	Paper 9	33	N10
S24	Paper Overflow 1	49	D11
S25	Paper Overflow 2	46	E11
S26	Paper Overflow 3	44	F11
S27	Paper Overflow 4	42	G11
S28	Paper Overflow 5	40	H11
S29	Paper Overflow 6	38	I11
S30	Paper Overflow 7	28	J11
S31	Paper Overflow 8	30	K11
S32	Paper Overflow 9	31	L11

Symbols	Name	Index No.	P to P.
Solenoids			
SOL1	Proof Tray Junction Gate	17	E2
SOL2	Relay Junction Gate	15	H4
SOL3	1st Tray	16	Q3
SOL4	2nd Tray	18	Q4
SOL5	3rd Tray	20	Q5
SOL6	4th Tray	22	Q5
SOL7	5th Tray	23	Q6
SOL8	6th Tray	24	Q6
SOL9	7th Tray	26	Q7
SOL10	8th Tray	27	Q8
PCBs			
PCB1	Main Control	48	B7
PCB2	Proof Control	5	F4
Switches			
SW1	Bridge Cover	12	I4
SW2	Front Cover	11	J4