

Mail Box CS3010
Machine Code: M481
Field Service Manual
Ver 1.0

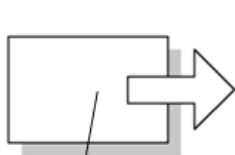
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Symbols, Abbreviations and Trademarks

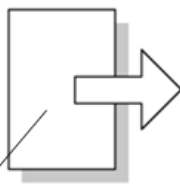
Symbols, Abbreviations

This manual uses several symbols and abbreviations. The meaning of those symbols and abbreviations are as follows:

Symbol	What it means
	Clip ring
	Screw
	Connector
	Clamp
	E-ring
	Flat Flexible Cable
	Timing Belt
SEF	Short Edge Feed
LEF	Long Edge Feed
K	Black
C	Cyan
M	Magenta
Y	Yellow
B/W, BW	Black and White
FC	Full color



[A]



[B]

c2790086

[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

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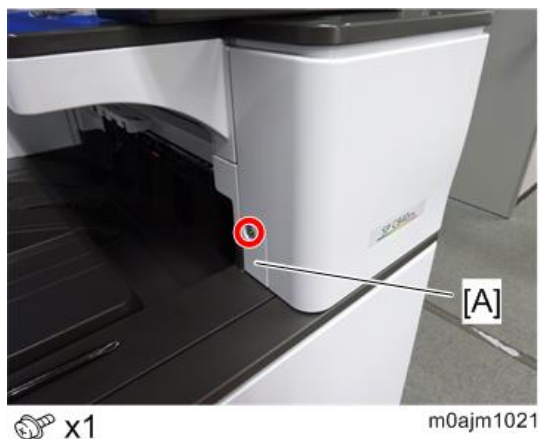
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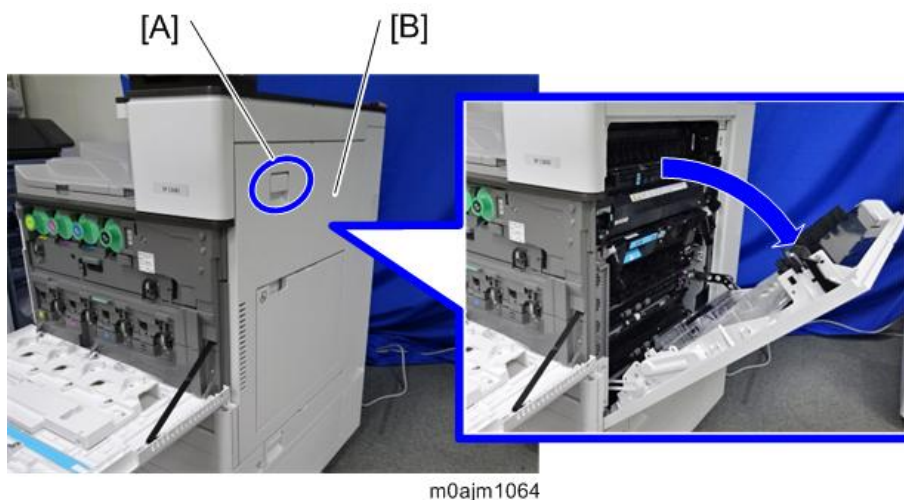
1. Replacement and Adjustment

How to Remove the Mailbox

1. Remove the rear cover of the mailbox. ([Rear Cover](#))
2. Remove the small cover [A].

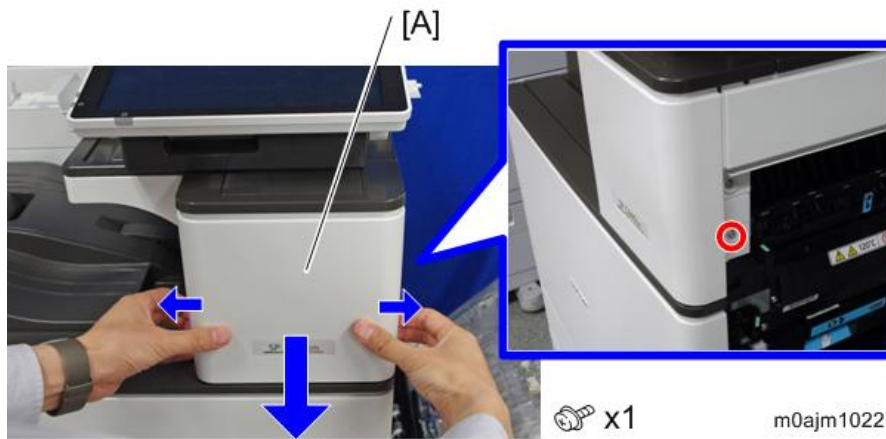


3. Unlock the lever [A], and then open the right door [B].

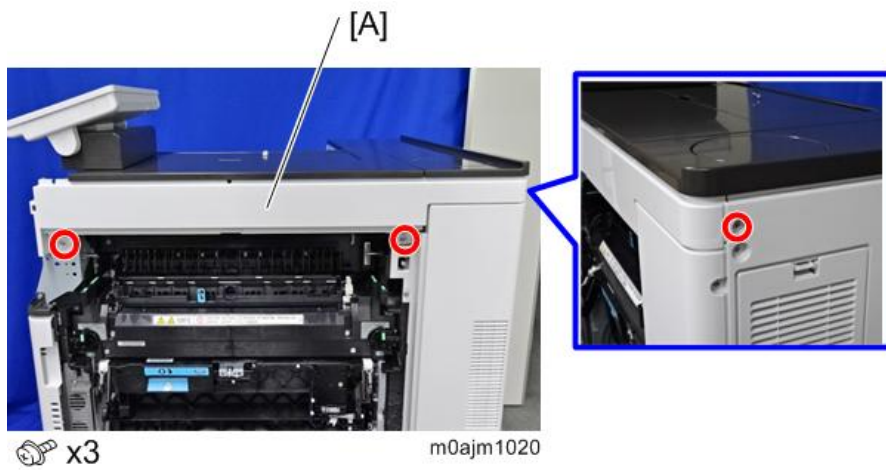


4. First remove a screw. Then release the hooks on the inside of the front upper cover [A] by pulling the cover's

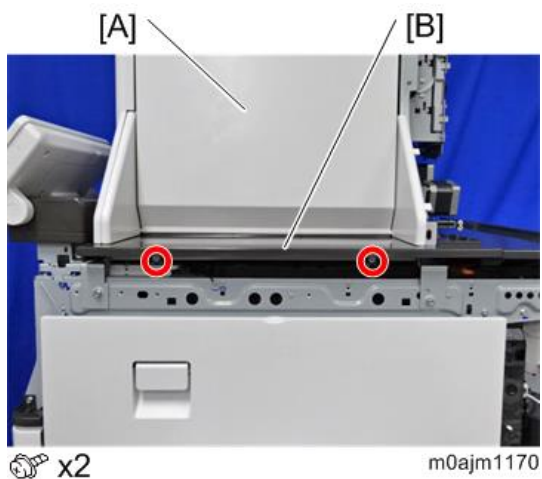
sides outward, and remove the front upper cover.



5. Remove the right upper cover [A].

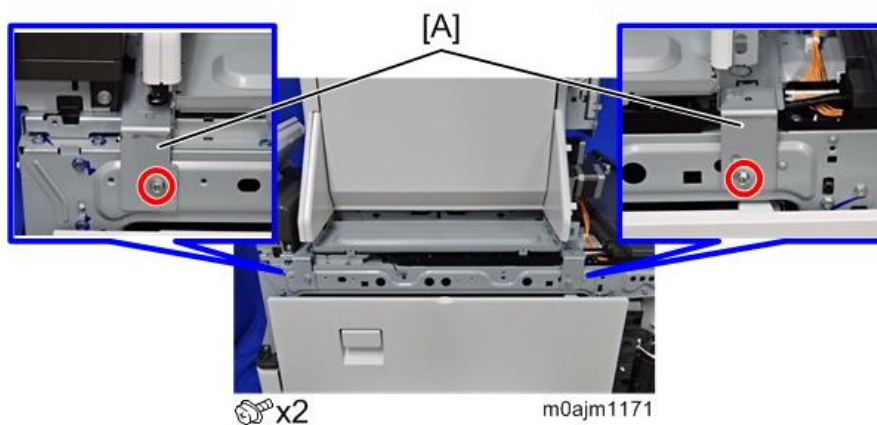


6. Close the mailbox door [A] and then remove the cover [B].

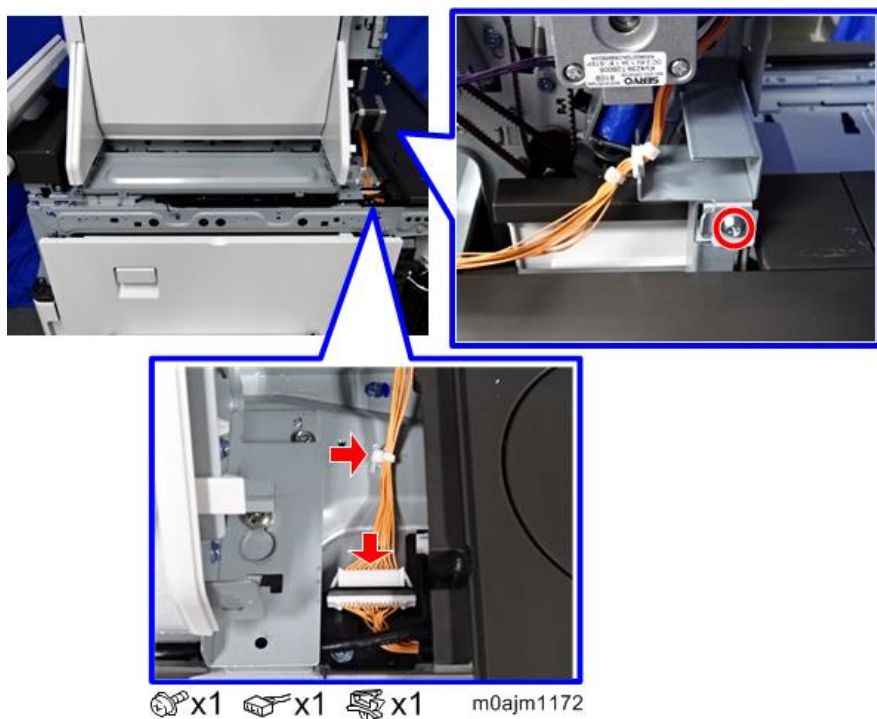


1.Replacement and Adjustment

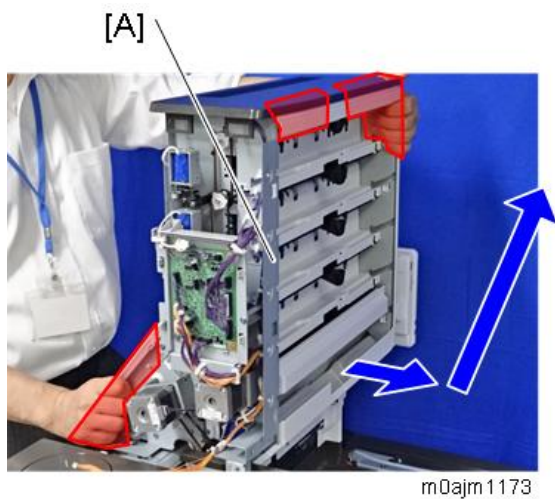
7. Remove two fixing brackets [A].



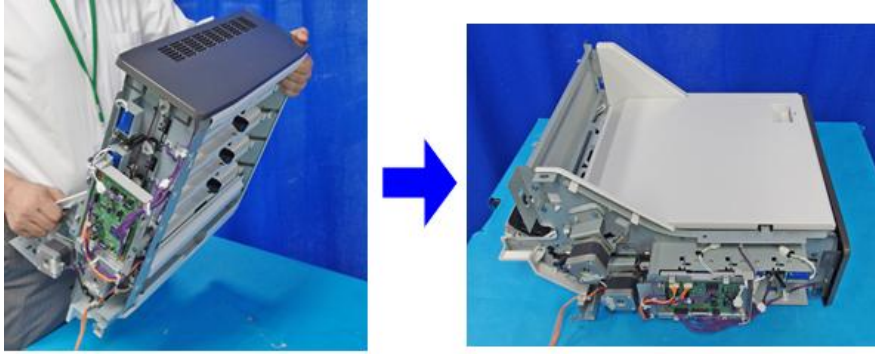
8. Remove the fixing screw, disconnect the connector, and open the clamp on the machine rear side.



9. Hold the parts indicated in red in the image below, slide the mailbox [A] forward, and remove it upward.



- 10.** Lay down the mailbox on a flat surface.



m0ajrn1247

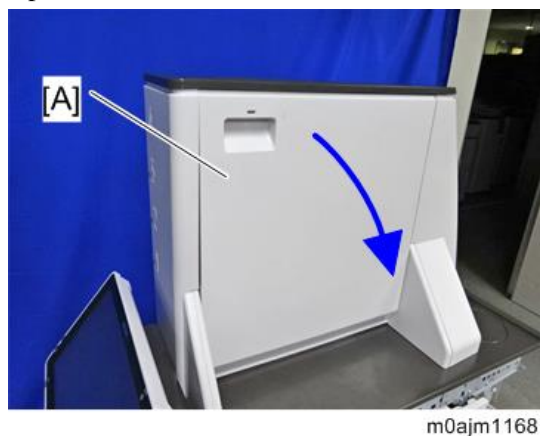
Exterior Covers

Rear Cover

1. Remove the mailbox trays 1–4 [A] and the inverter tray [B].



2. Open the mailbox door [A].

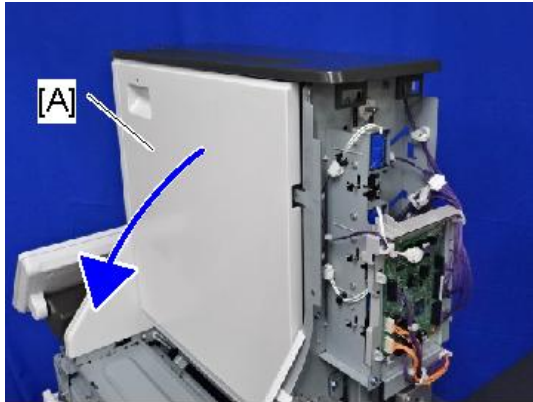


3. Remove the rear cover [A].
Remove the upper part first, and then the lower part.



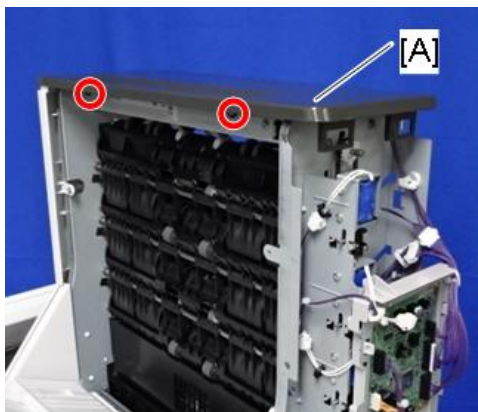
Top Cover

1. Remove the rear cover.
2. Open the mailbox door [A].

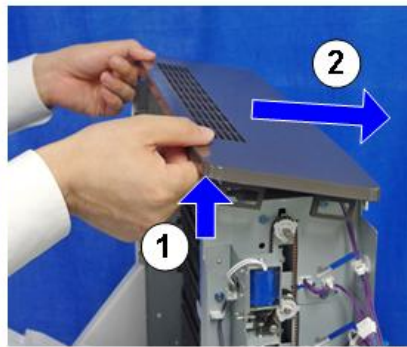


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3. Remove the top cover [A].
Lift the the top cover slightly first, and then slide to the front side.



x2



m0ajm1199

Note

Be careful not to damage the hooks on the inside of the top cover when you remove or install the top cover.



m0ajm1180

Front Cover

1. Remove the mailbox. ([How to Remove the Mailbox](#))
2. Place the mailbox in a standing position on a flat surface.

★ Important

Be careful not to apply an excessive force to the mailbox in a standing position to avoid damage and

1.Replacement and Adjustment

deformation.



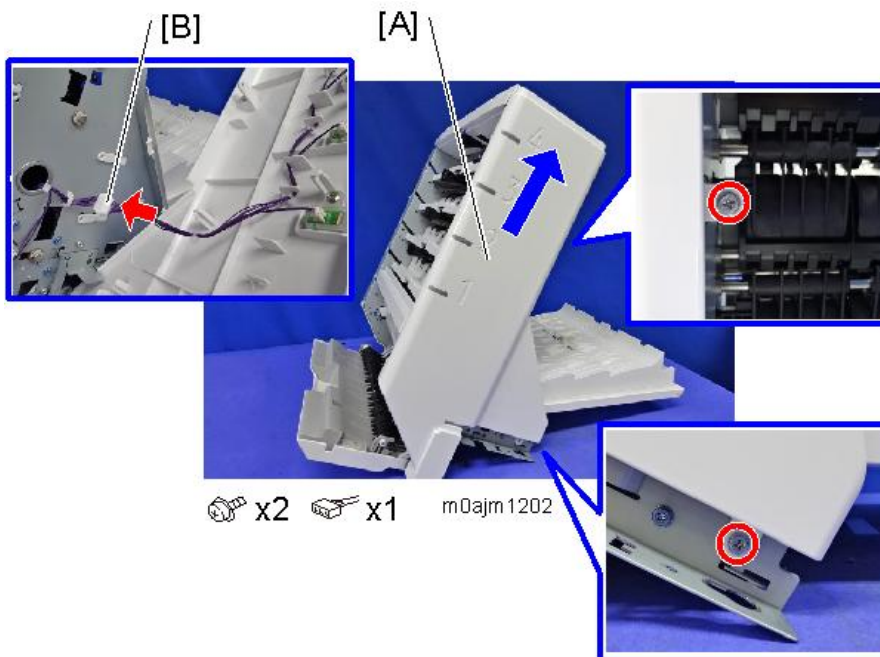
m0ajm1200

- 3.** Remove the top cover. ([Top Cover](#))
- 4.** Open the inverter guide door [A] and mailbox door [B].



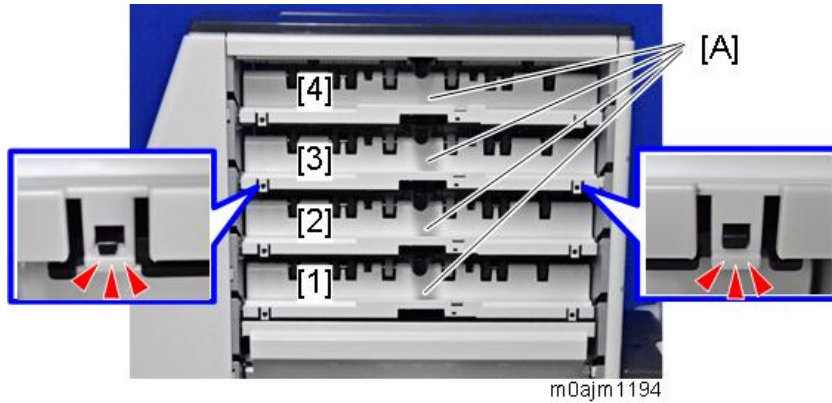
m0ajm1201

- 5.** Slide the front cover [A] upward and remove it.
Disconnect the connector [B] on the back of the cover.



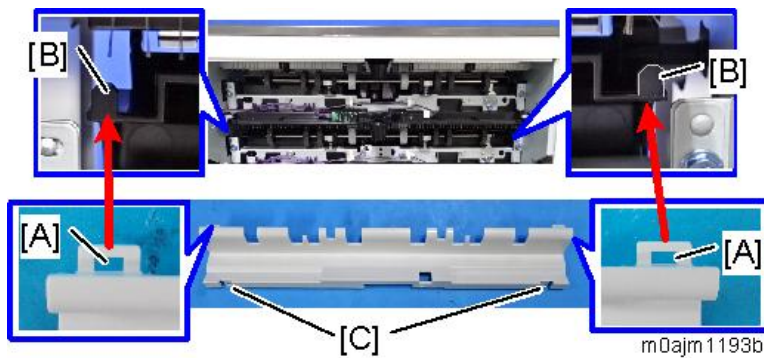
Paper Exit Covers 1-4

1. Remove the paper exit covers 1-4 [A] (2 tabs per cover).



Note

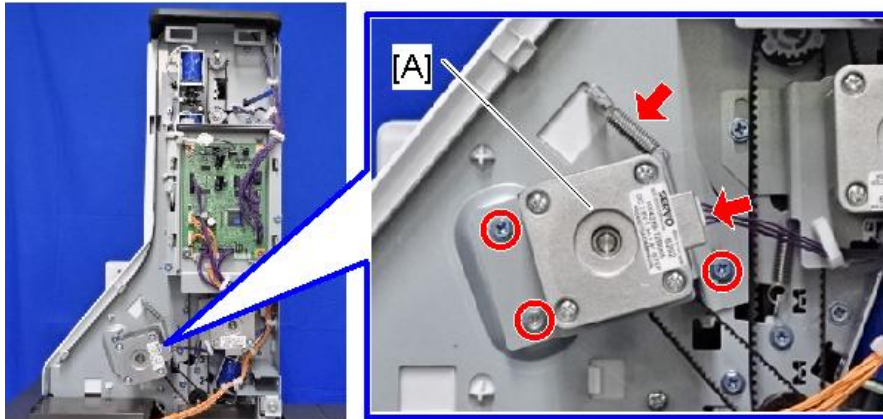
When installing the cover, hang the cover by both holes [A] onto the hooks [B] inside the paper exit of the mailbox, then attach the front hooks [C].



Motors

Paper Transport Motor

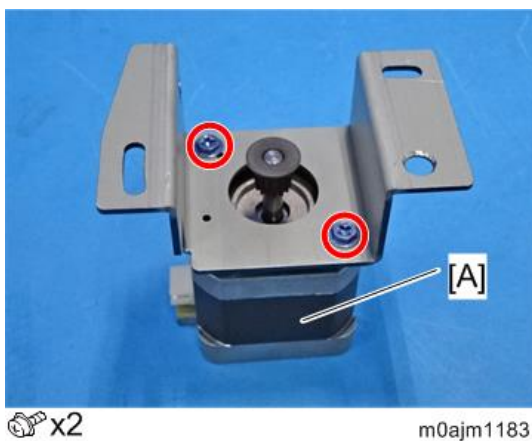
1. Remove the rear cover. ([Rear Cover](#))
2. Remove the paper transport motor unit [A].



 x1  x2  x1  x1

m0ajm1184

3. Remove the paper transport motor [A].

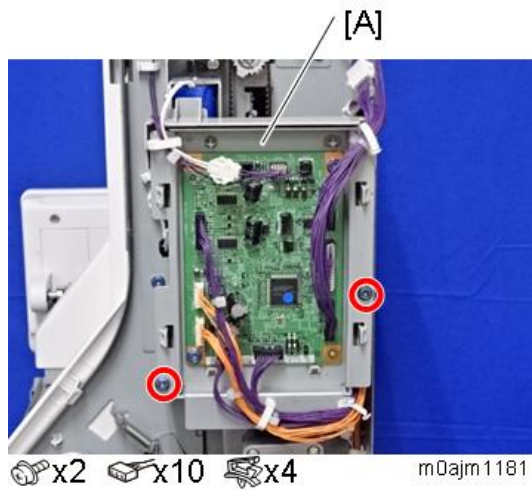


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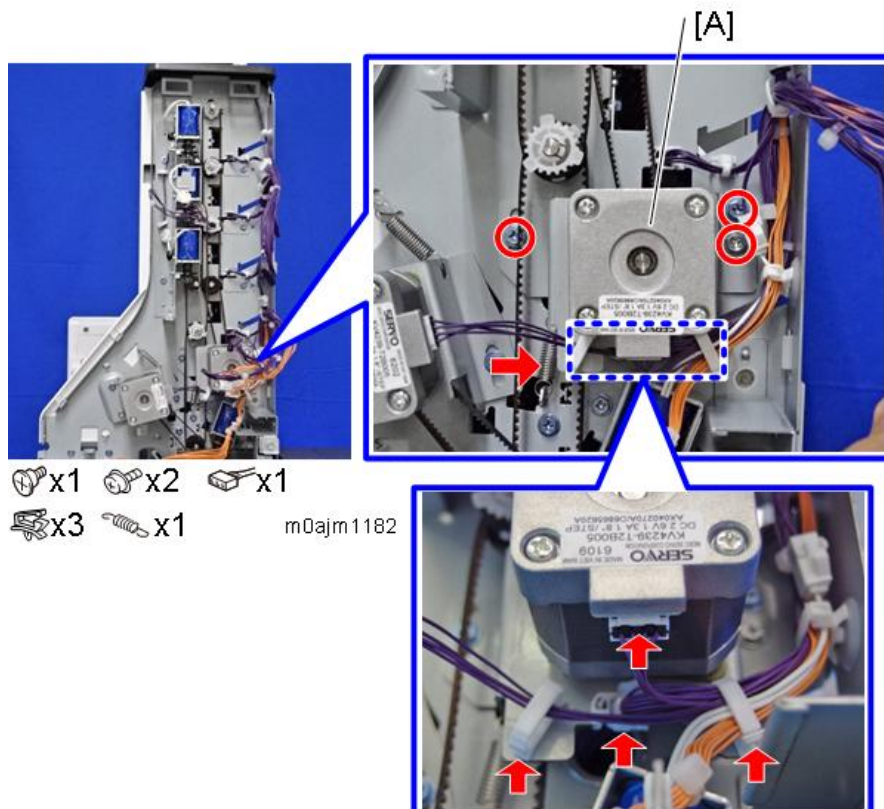
Paper Exit Motor

1. Remove the rear cover. ([Rear Cover](#))

2. Remove the controller board bracket [A].

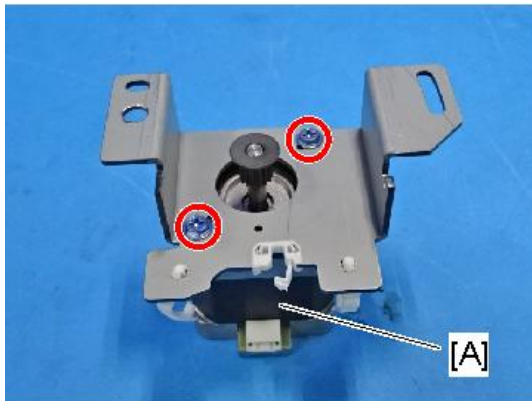


3. Remove the paper exit motor unit [A].



1.Replacement and Adjustment

- 4.** Remove the paper exit motor [A].



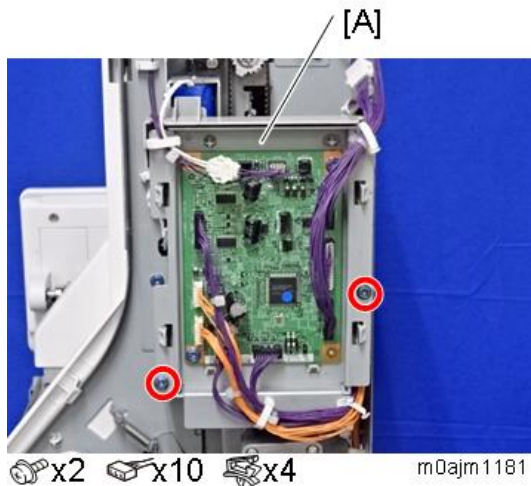
 x2

m0ajm1185

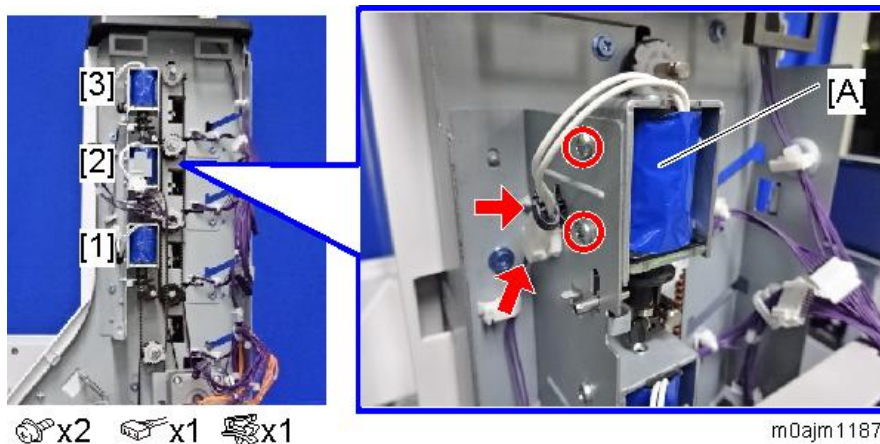
Solenoids

Junction Gate Solenoids 1-3

1. Remove the rear cover. ([Rear Cover](#))
2. Remove the controller bracket [A]. (For junction gate solenoids 1-2 only.)



3. Remove the junction gate solenoids 1-3 [A].

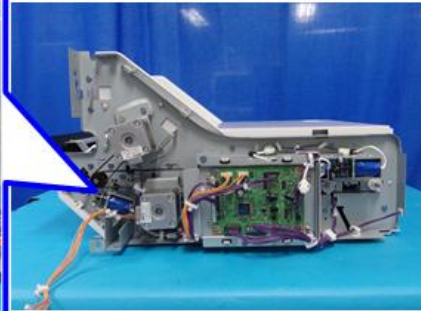
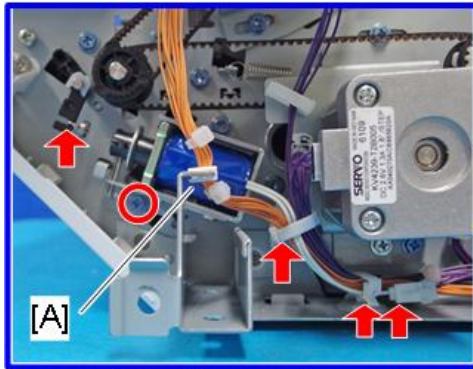


Inverter Solenoid

1. Remove the mailbox. ([How to Remove the Mailbox](#))

1.Replacement and Adjustment

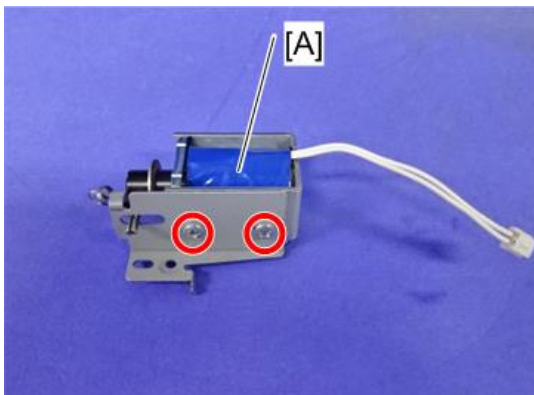
2. Remove the inverter solenoid unit [A].



 x1  x2  x1  x1

m0ajm1246

3. Remove the inverter solenoid [A].



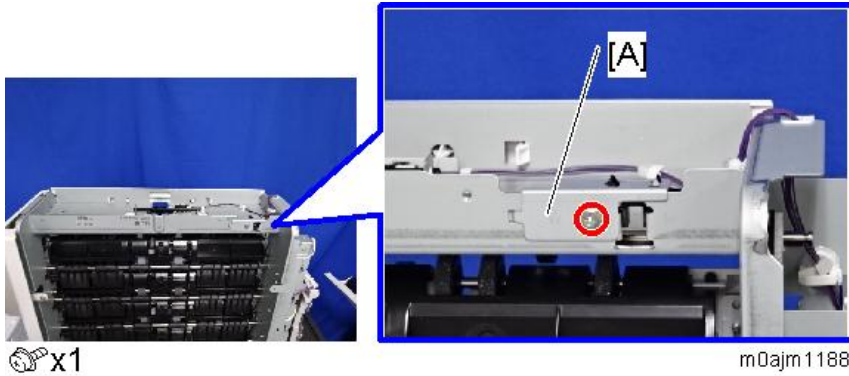
 x2

m0ajm1206

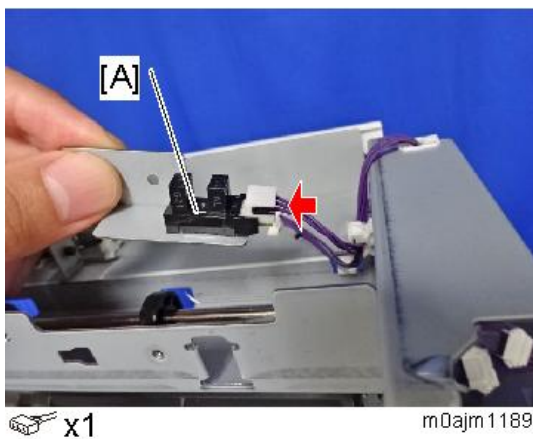
Sensors

Door Sensor

1. Remove the top cover. ([Top Cover](#))
2. Remove the door sensor bracket [A].

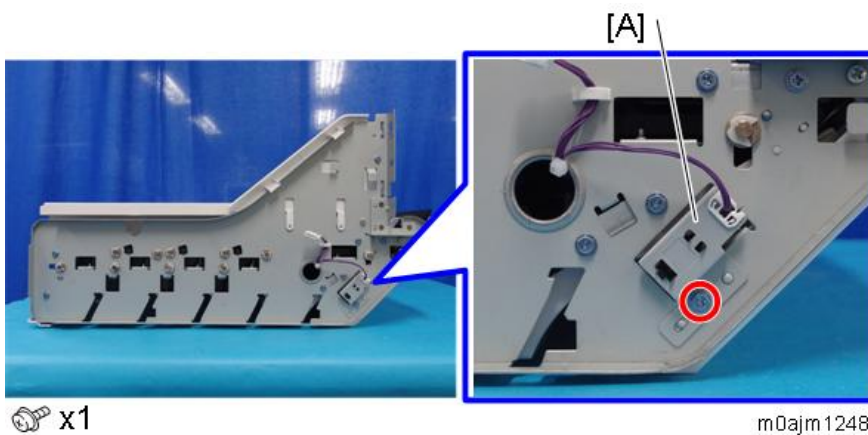


3. Remove the door sensor [A].



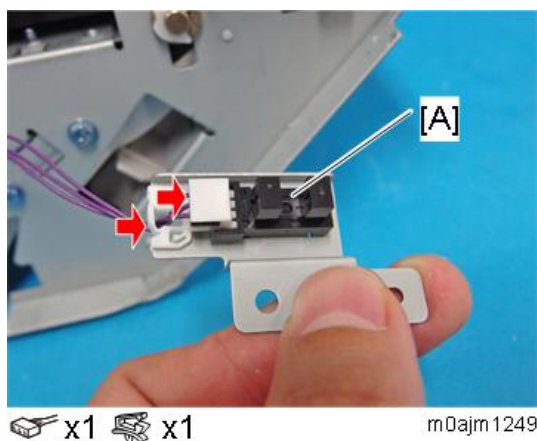
Inverter Guide Door Sensor

1. Remove the front cover. ([Front Cover](#))
2. Lay down the mailbox.
3. Remove the inverter guide door sensor bracket [A].



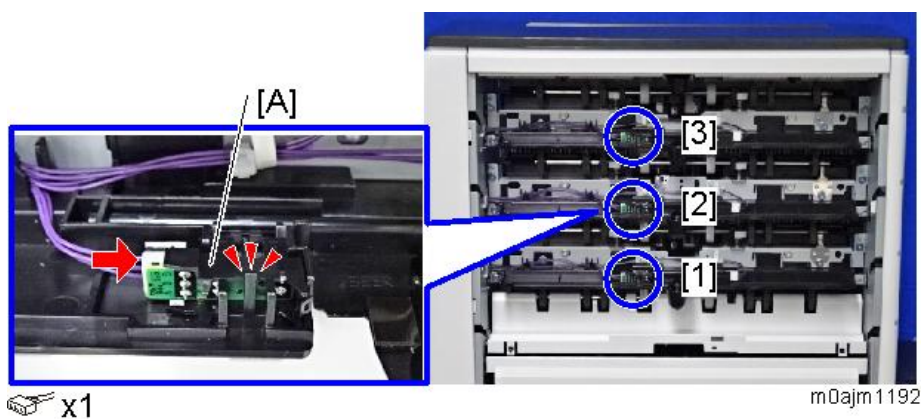
1.Replacement and Adjustment

4. Remove the inverter guide door sensor [A].



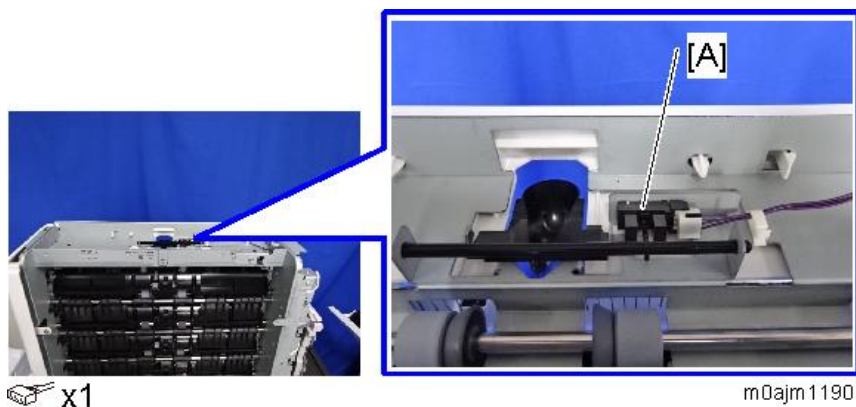
Paper Exit Tray Full Sensors 1-3

1. Remove the paper exit covers 2-4. ([Paper Exit Covers 1-4](#))
2. Remove the paper exit tray full sensors 1-3 [A].



Paper Exit Tray Full Sensor 4

1. Remove the top cover. ([Top Cover](#))
2. Remove the paper exit tray full sensor 4 [A].



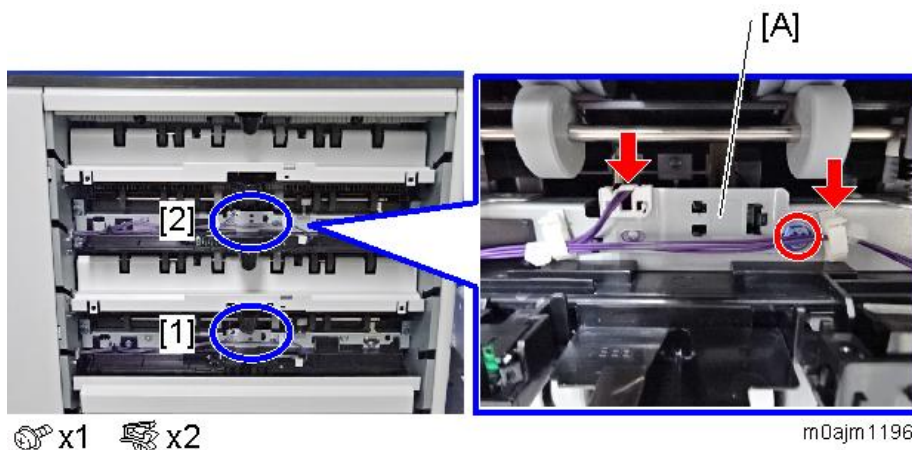
Paper Sensors 1-4

1. Remove the paper exit covers 1-4. ([Paper Exit Covers 1-4](#))
2. Remove the paper sensors 1-4 [A].

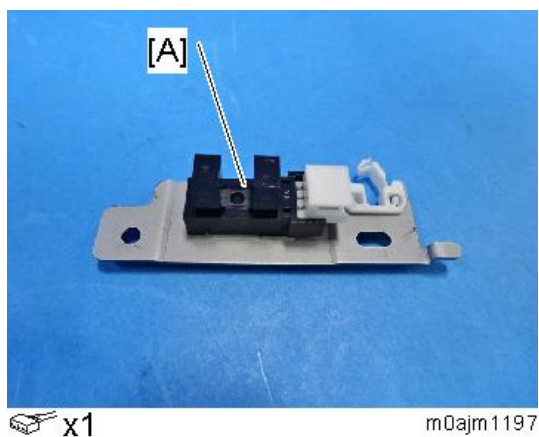


Paper Transport Sensors 1, 2

1. Remove the paper exit covers 1, 3. ([Paper Exit Covers 1-4](#))
2. Remove the paper transport sensor bracket [A].



3. Remove the paper transport sensor [A].



1.Replacement and Adjustment

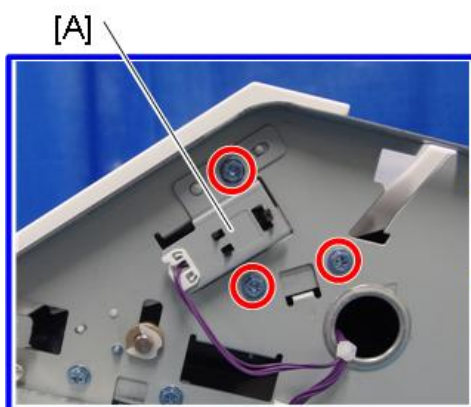
Paper Entrance Sensor

1. Remove the front cover. ([Front Cover](#))
2. Lay down the mailbox upside down.

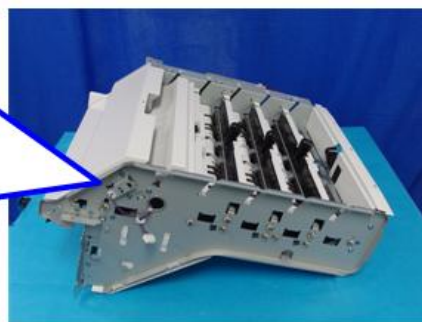


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3. Remove three screws at the front side, and remove the inverter guide door sensor bracket [A].



 x3

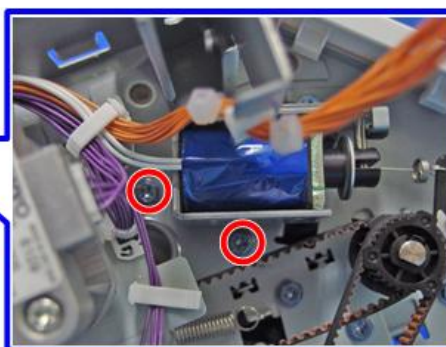


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4. Remove two screws at the rear side.

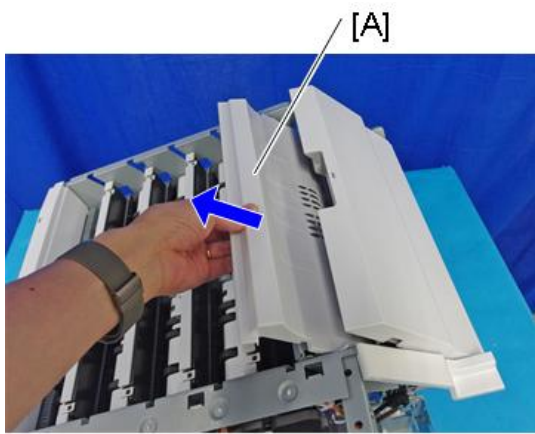


 x2



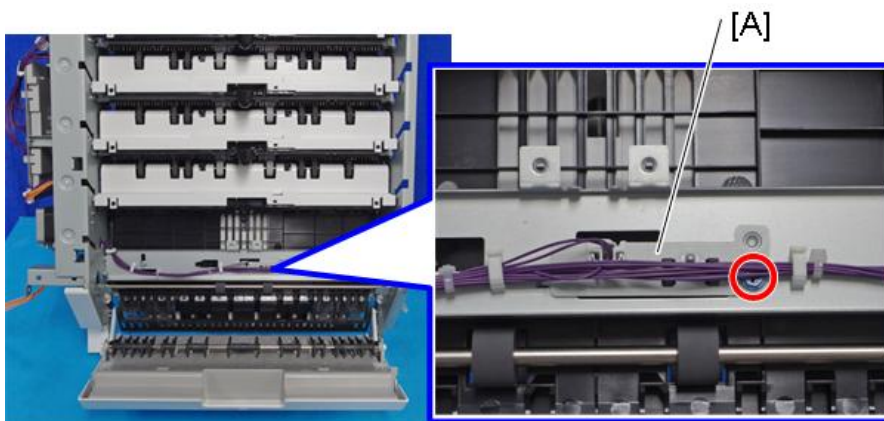
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5. Remove the inverter guide plate [A] by pulling it out in the direction of the arrow.



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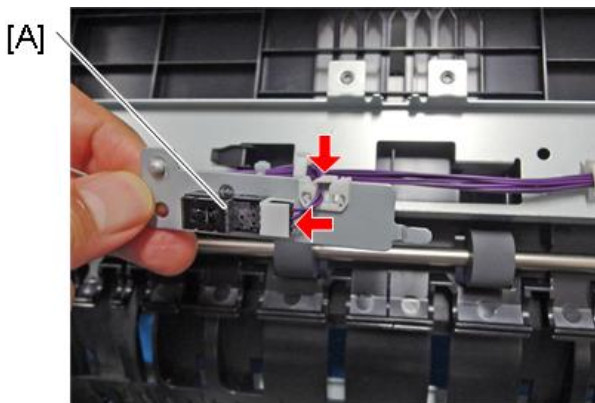
6. Remove the paper entrance sensor bracket [A].



 x1

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7. Remove the paper entrance sensor [A].

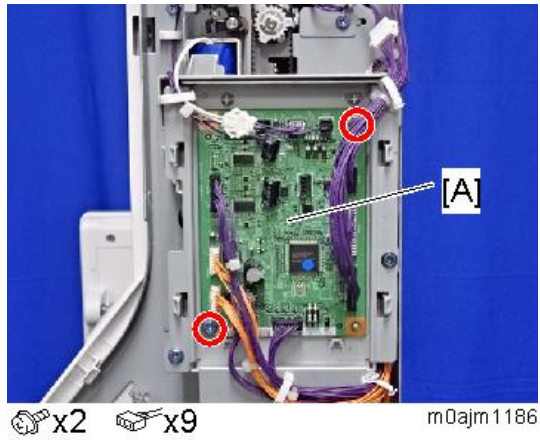


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1.Replacement and Adjustment

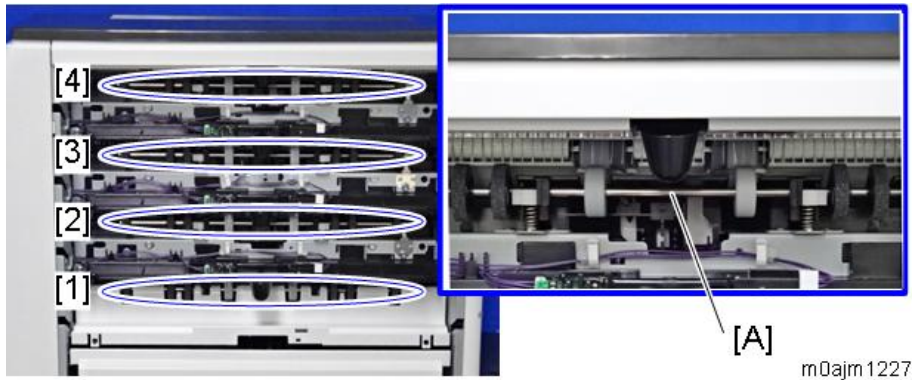
Controller Board

1. Remove the rear cover. ([Rear Cover](#))
2. Remove the controller board [A].



Paper Exit Driven Rollers 1-4

Positions of the paper exit driven rollers 1-4 [A]

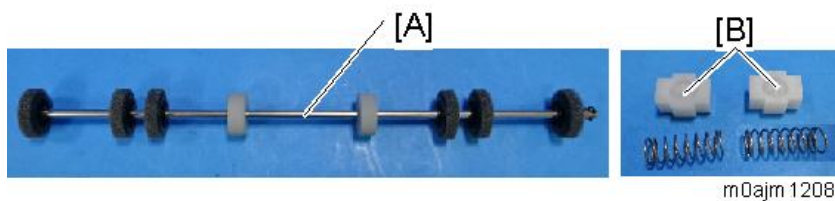
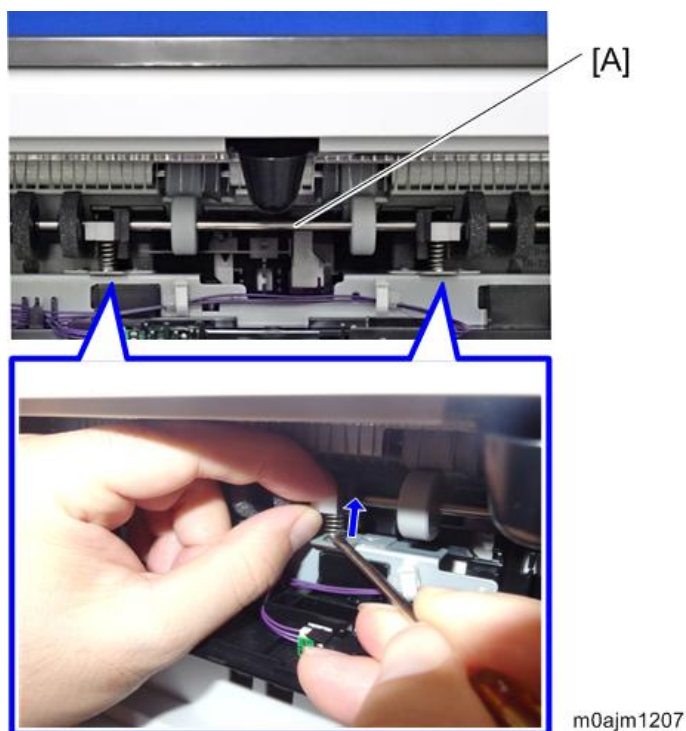


1. Remove the paper exit covers 1-4. ([Paper Exit Covers 1-4](#))

2. Remove the paper exit driven roller [A].

Push up the right and left springs using a flat-headed screwdriver to remove the paper exit driven roller.

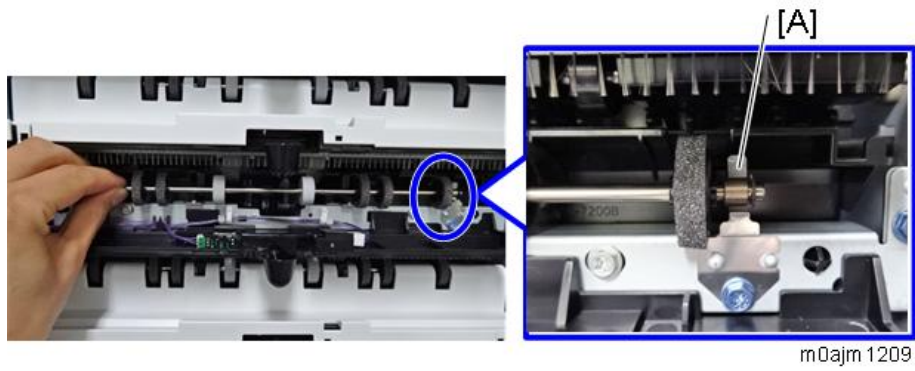
The paper exit driven roller [A] and the bearings [B] are detached.



Installing the Paper Exit Driven Roller

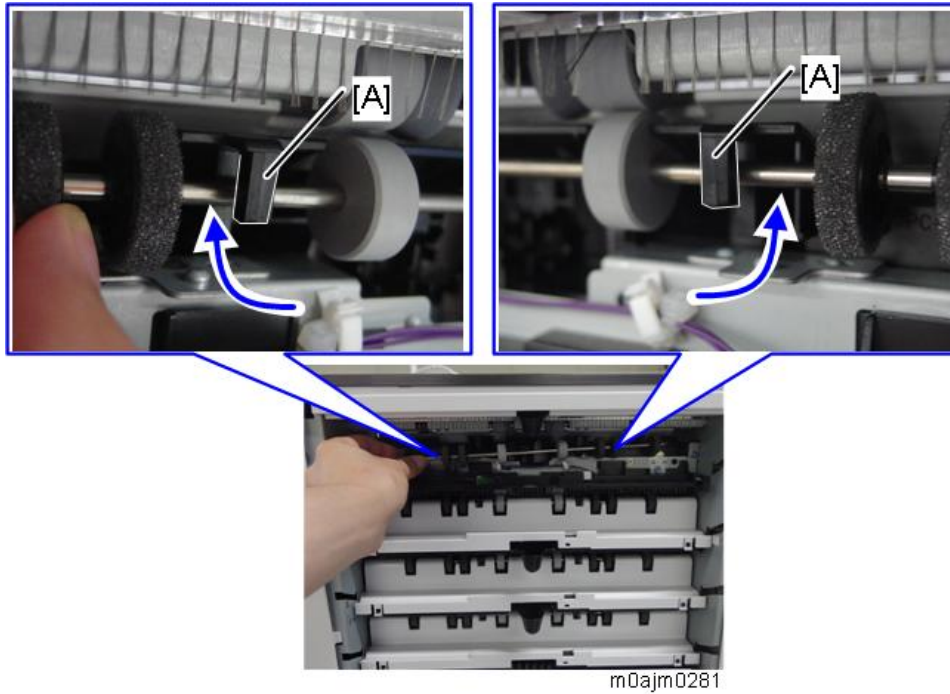
1. Hold the paper exit driven roller and position the right end of the shaft at the ground plate [A].

1.Replacement and Adjustment

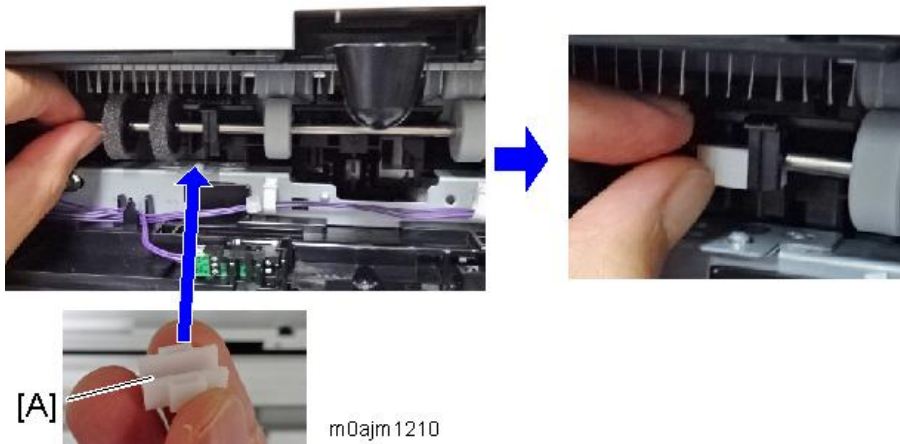


Note

When attaching the roller shaft, pass it through the exterior protrusion [A] and position it as shown below.



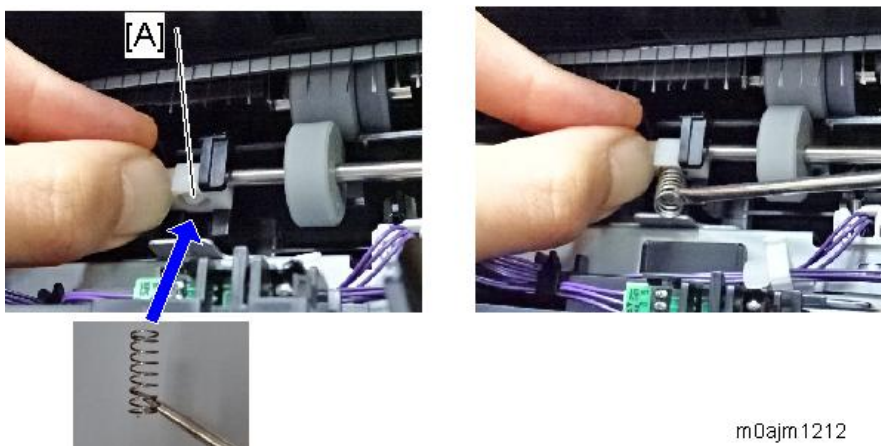
2. Mount the bearing [A] on the left-hand mounting position.



3. Keep holding the bearing.

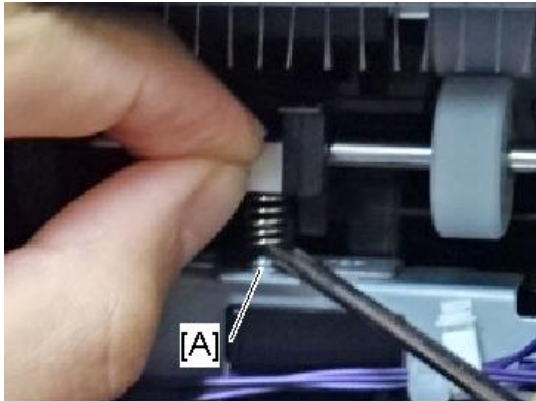


4. Push up the end of the spring toward the circular indentation [A] in the bearing, using a flat-headed precision screwdriver.



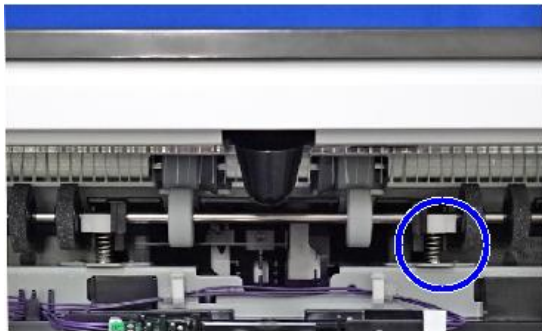
1.Replacement and Adjustment

- 5.** Push up the spring further, and mount it on the embossed part [A] under the spring.



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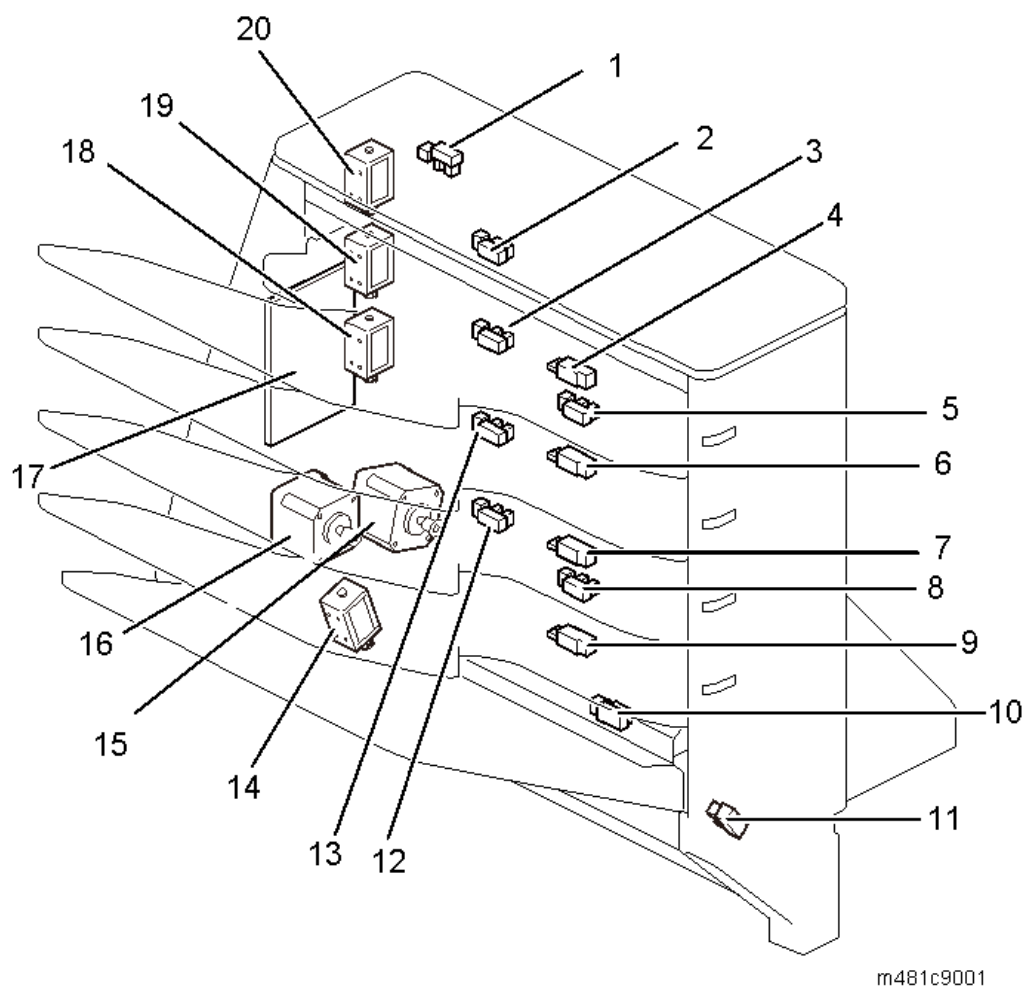
- 6.** Mount the right-hand bearing and spring in the same manner.



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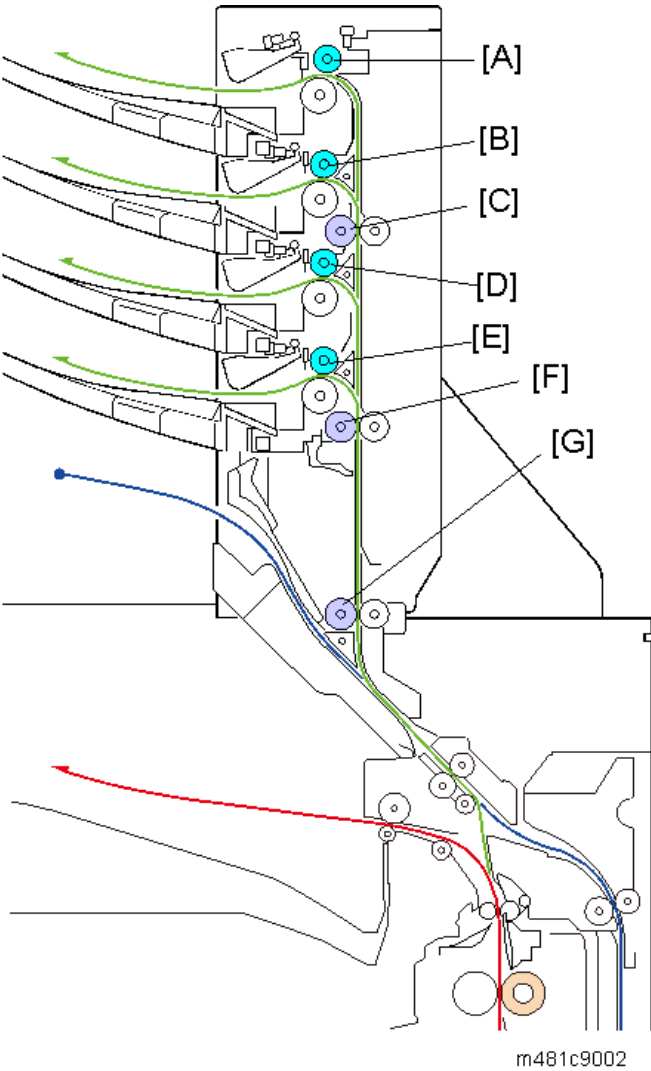
2. Detailed Descriptions

Parts Layout



No.	Description	No.	Description
1	Door Sensor	11	Inverter Guide Door Sensor
2	Paper Exit Tray Full Sensor 4	12	Paper Exit Tray Full Sensor 1
3	Paper Exit Tray Full Sensor 3	13	Paper Exit Tray Full Sensor 2
4	Paper Sensor 4	14	Inverter Solenoid
5	Paper Transport Sensor 2	15	Paper Transport Motor
6	Paper Sensor 3	16	Paper Exit Motor
7	Paper Sensor 2	17	Controller Board
8	Paper Transport Sensor 1	18	Junction Gate Solenoid 1
9	Paper Sensor 1	19	Junction Gate Solenoid 2
10	Paper Entrance Sensor	20	Junction Gate Solenoid 3

Paper Path



No.	Description	No.	Description
A	Paper Exit Roller 4	E	Paper Exit Roller 1
B	Paper Exit Roller 3	F	Paper Transport Roller 1
C	Paper Transport Roller 2	G	Paper Entrance Roller
D	Paper Exit Roller 2		

Mechanism

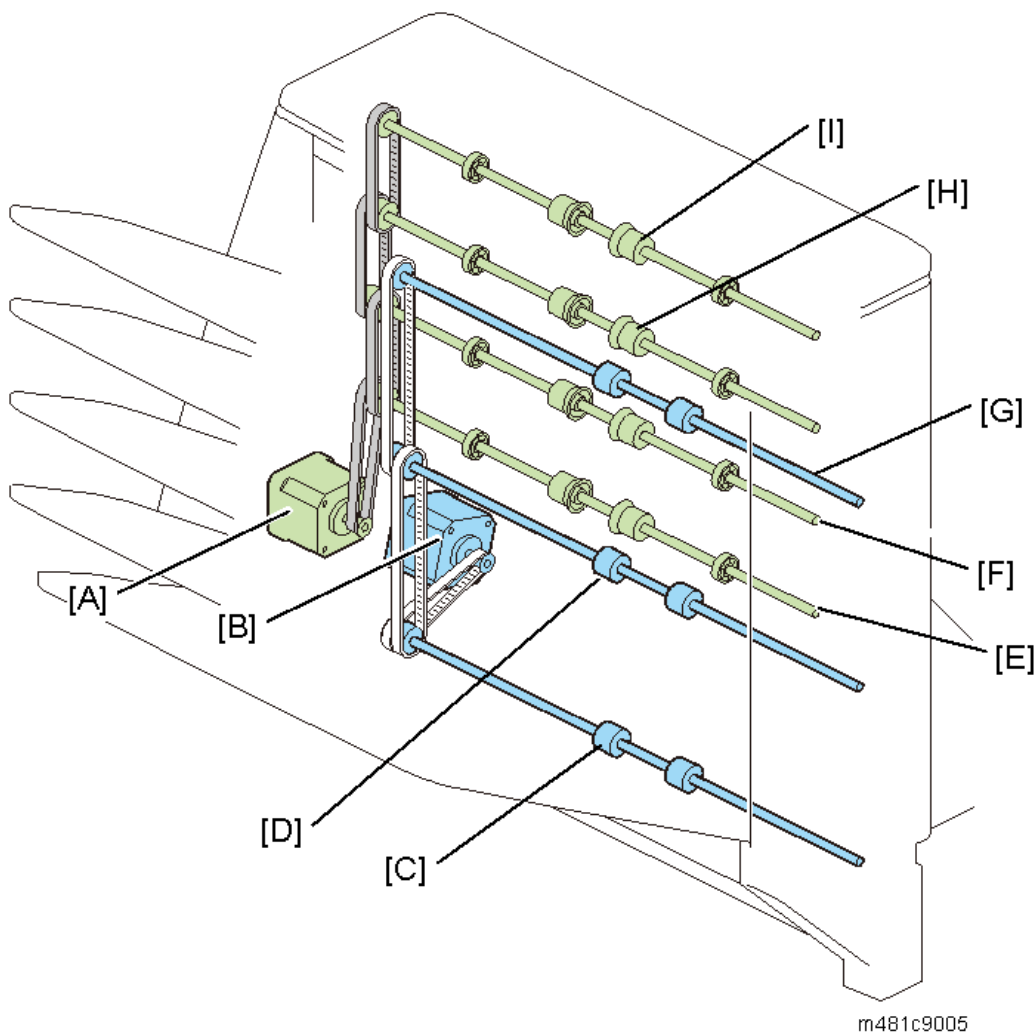
Drive and Inverter Mechanism

The following rollers are driven by the paper exit motor [A] via a timing belt.

- Paper Exit Roller 1 [E]
- Paper Exit Roller 2 [F]
- Paper Exit Roller 3 [H]
- Paper Exit Roller 4 [I]

The following rollers are driven by the paper transport motor [B] via a timing belt.

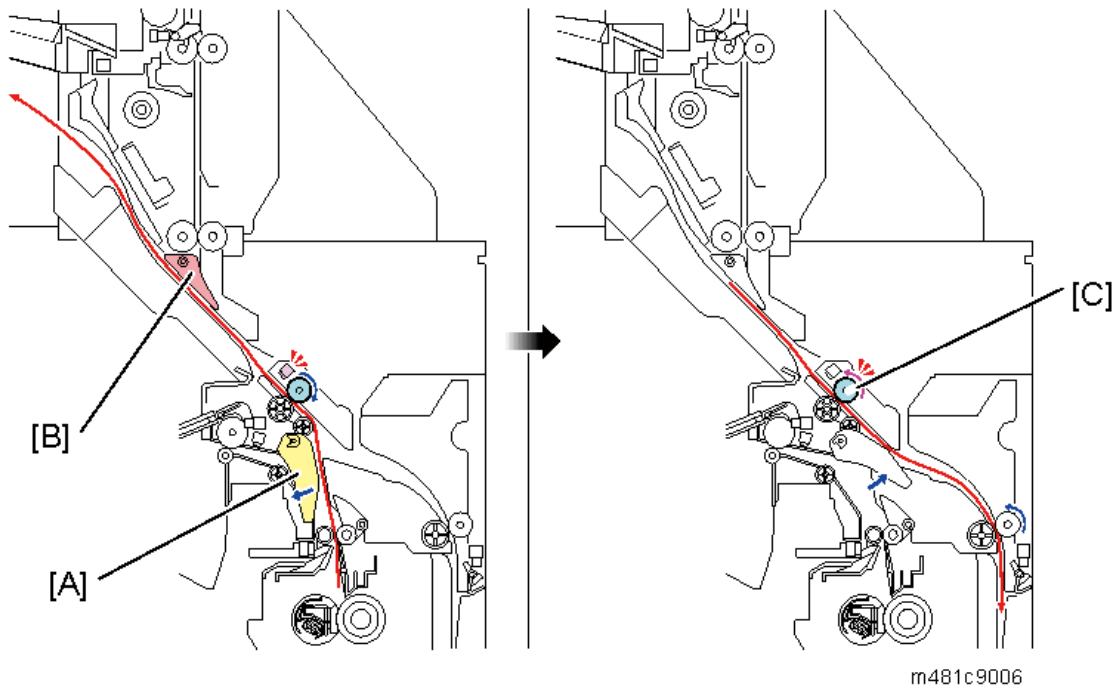
- Paper Entrance Roller [C]
- Paper Transport Roller 1 [D]
- Paper Transport Roller 2 [G]



When installing the mailbox, the machine's inverter guide is removed. Because of this, the mailbox contains an inverter tray in the bottom part.

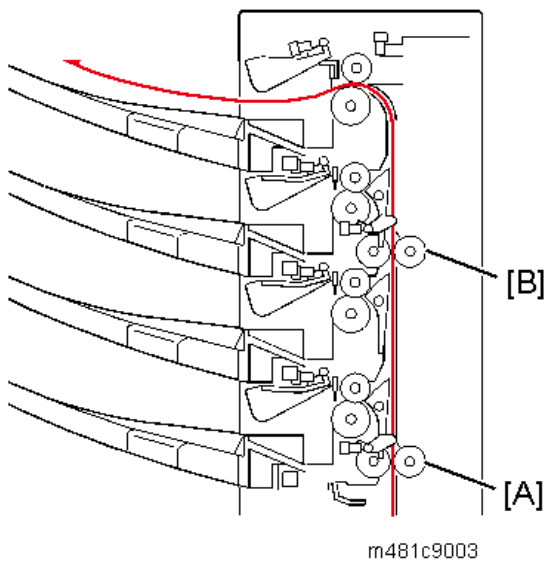
The paper fed to the mailbox via the machine's junction gate [A] is fed to the inverter tray by the junction gate [B] in the mailbox, and then sent back by the reverse roller [C] and delivered to the duplex unit.

2.Detailed Descriptions

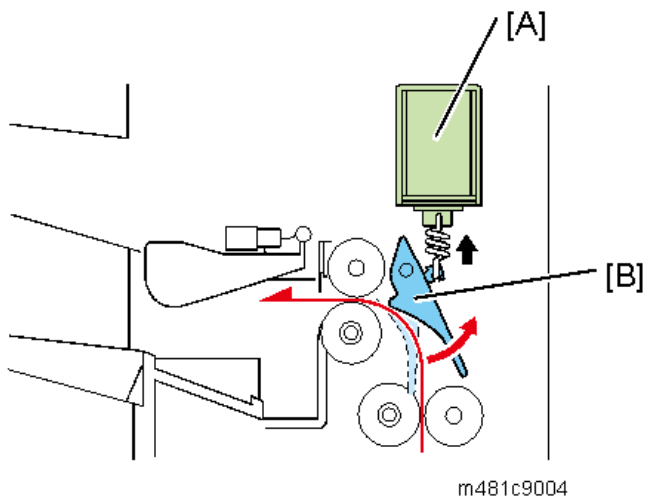


Paper Separation and Transport Mechanism

The paper is fed by the paper transport rollers [A] and [B].



To deliver paper to a particular tray, the solenoid [A] for that tray opens the junction gate [B] to deliver the paper.



Tray Full Detection

If the paper delivered to the tray exceeds the capacity, the paper jams at the paper exit.

To prevent this, each tray has a sensor to detect when the tray is full. If the tray becomes full, the print job is suspended. The print job resumes if you remove the paper from the tray.