

**High Capacity Stacker SK5030  
Machine Code: D776**

**Service Manual**

V1.1

March 2015



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# Revision History

This is the Revision History for the High Capacity Stacker SK5030 service manual.

Version	Date	Changes
Ver. 1.1	31 Mar 2015	<p><b>Text, Illustrations.</b> In procedures the order of the text and illustrations has been reversed. For each step, the text description (action) is followed by the relevant illustration. The callouts [A], [B], [C] in text refer to the illustration below, not above.</p> <p>Added safety caution:</p> <p> <b>CAUTION</b></p> <ul style="list-style-type: none"><li>• Never not touch solder connections or electronic parts on the PSU after removing it because electrical charge can remain on the PSU even after it has been removed.</li><li>• After removing the PSU, never place put it on a conductive material such as metal.</li></ul>

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# Safety, Conventions, Trademarks

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## Conventions

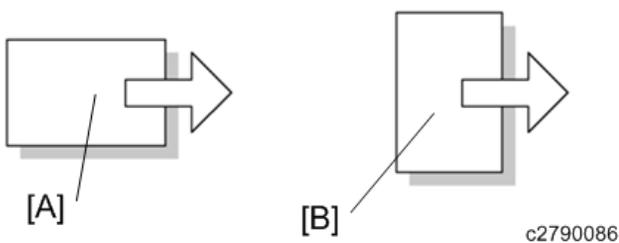
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### Common Terms

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This is a list of symbols and abbreviations used in this manual.

Symbol	What it means
	Screw
	Connector
	E-ring
	Clip ring
	Harness clamp
FFC	Flexible Film Cable
JG	Junction Gate
LE	Leading Edge of paper
LEF	Long Edge Feed
SEF	Short Edge Feed
TE	Trailing Edge of paper



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

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## Warnings, Cautions, Notes

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In this manual, the following important symbols and notations are used.

### **WARNING**

- A Warning indicates a potentially hazardous situation. Failure to obey a Warning could result in death or serious injury.

### **CAUTION**

- A Caution indicates a potentially hazardous situation. Failure to obey a Caution could result in minor or moderate injury or damage to the machine or other property.

### **Important**

- **Obey these guidelines to avoid problems such as misfeeds, damage to originals, loss of valuable data and to prevent damage to the machine.**

### **Note**

- This information provides tips and advice about how to best service the machine.

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## Responsibilities of the Customer Engineer

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### Reference Material for Maintenance

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- Maintenance shall be done using the special tools and procedures prescribed for maintenance of the machine described in the reference materials (service manuals, technical bulletins, operating instructions, and safety guidelines for customer engineers).
- Use only consumable supplies and replacement parts designed for use of the machine.

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## The Aim of Anti-tip Components and Precautions

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The anti-tip components are necessary for meeting the requirements of IEC60950-1, the international standard for safety.

The aim of these components is to prevent the products, which are heavy in weight, from toppling as a result of people running into or leaning onto the products, which can lead to serious accidents such as persons becoming trapped under the product. (U.S.: UL60950-1, Europe: EN60950-1)

Therefore, removal of such components must always be with the consent of the customer.

Do not remove them at your own judgment.

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# 1. Replacement and Adjustment

## Common Procedures

1

### Roll-Away Cart D456

#### ★ Important

- To prevent damage to the tray switches at the back of the machine, always remove the tray cart before moving the stacker unit.
- Always remove the cart before servicing.

1. Open the front door.
2. Pull out the cart.



d447 r001

### Covers

#### Rear Lower Cover, Rear Upper Cover

The rear lower cover should be removed before the rear upper cover.

1. Rear lower cover [A] (⊙ x4)



d776z0004

2. Rear upper cover [A] (⊙ x4)

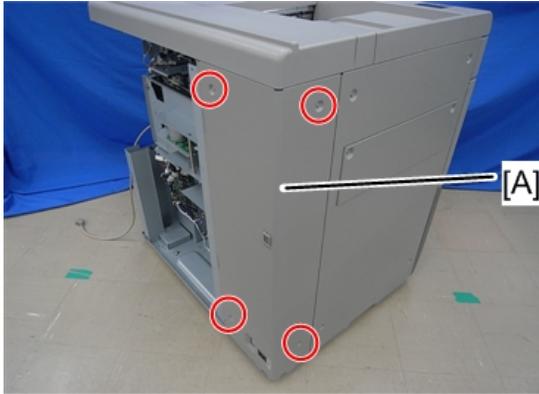


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## Corner Cover

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1. Remove the rear lower cover and rear upper cover (See the previous section).
2. Corner cover [A] (⊙ x4)



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## Left Exit Cover Plate

If a peripheral unit has been installed downstream of the stacker, this cover was removed at installation.

1. Left exit cover plate [A] (🔩 x2)



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## Left Cover

1. Left exit cover plate (See the previous section)
2. Left cover [A] (🔩 x4)



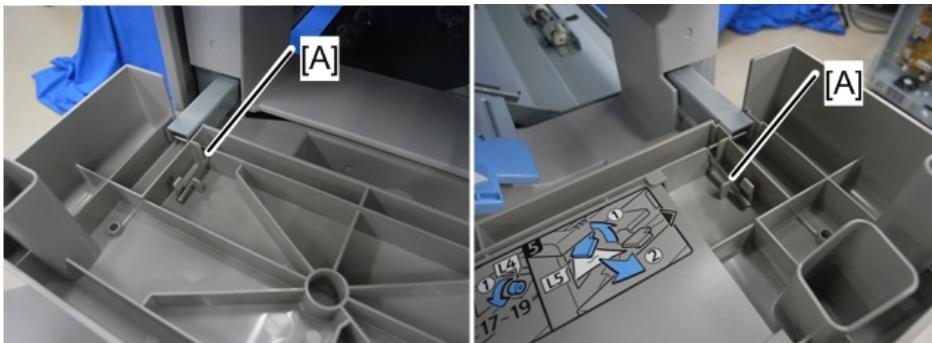
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### **⚠ CAUTION**

- Remove the last screw carefully. The left cover may fall suddenly because there are no hooks holding it in place.
- Never place your hand or fingers below the bottom edge of the cover when removing it.

### **Top Door**

1. Open the top door.
2. Remove the "L" hinges [A] from the right and left ends of the door.
3. Pull the door away from the stacker.

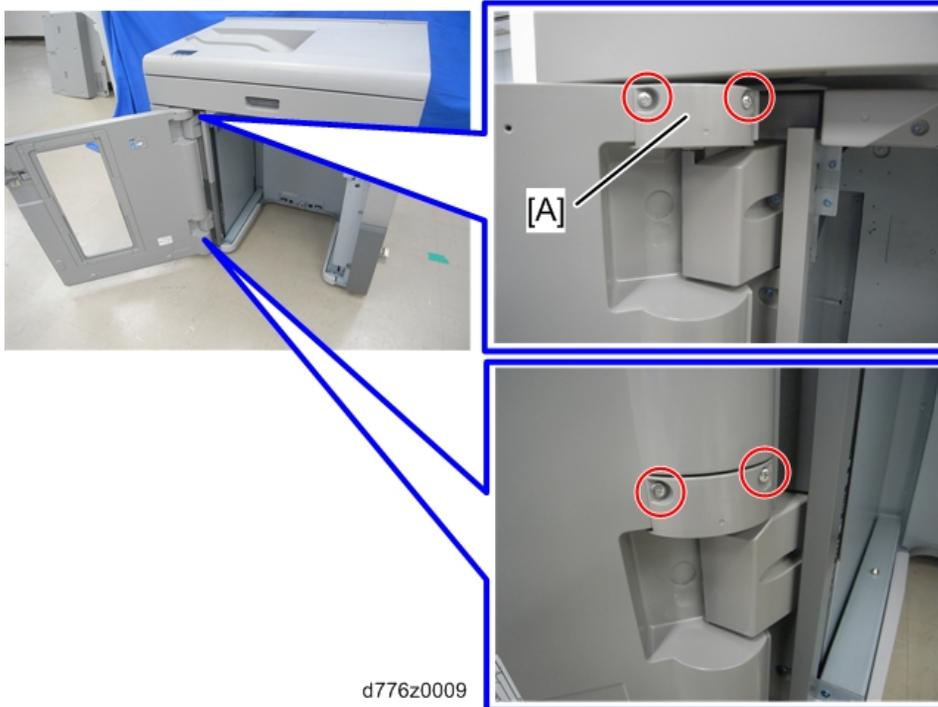


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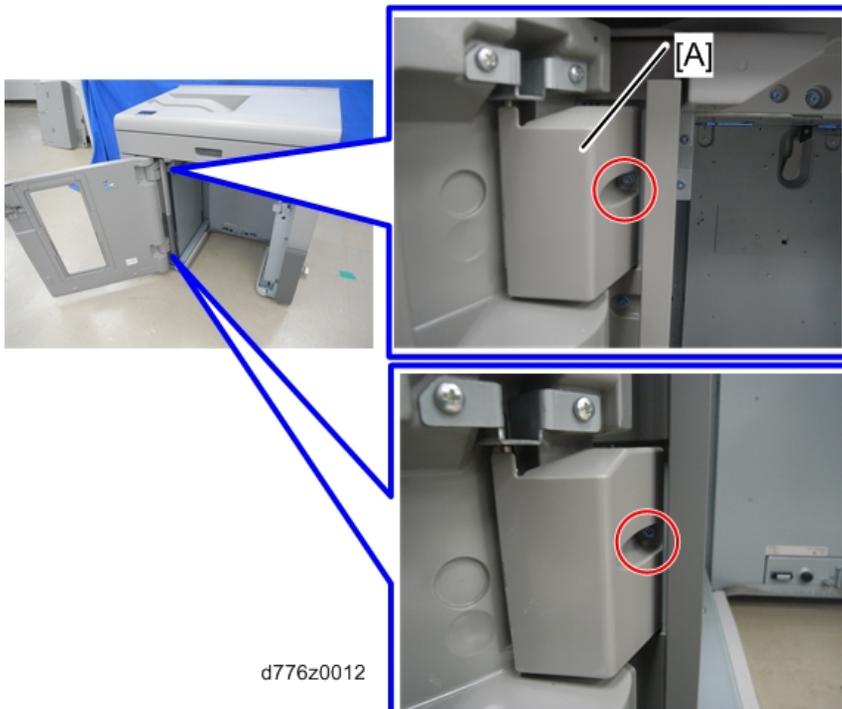
4. You may want to re-insert the "L" hinges in their holes so that they do not get misplaced.

### **Front Door**

1. Top door (See the previous section)
2. Open the front door.
3. Covers [A] (⊗ x2 each)



4. Remove screws from the hinge covers [A] (🔩 x1 each).



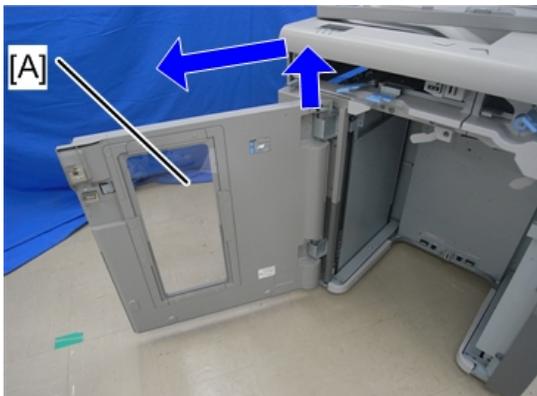
5. Open the front door so it is at a 90 degree angle to the unit.

6. Slide the hinge cover [A] toward you and remove it.



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7. Lift the front door [A] and remove it.

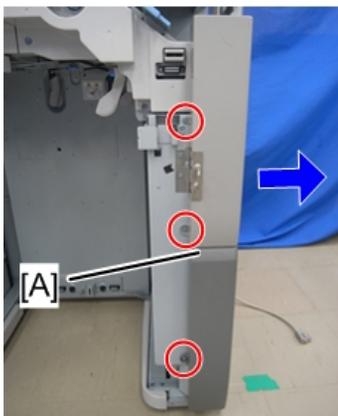


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## Front Right Cover

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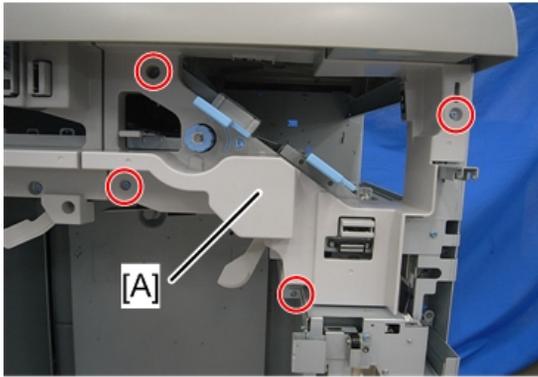
1. Push the front right cover [A] to the right to remove it (⊖ x3).



d776z0015

## Right Inner Cover

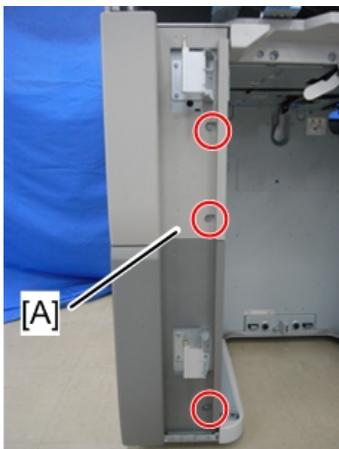
1. Front right cover (See the previous section)
2. Right inner cover [A] (🔩 x4)



d776z0016

## Front Left Cover

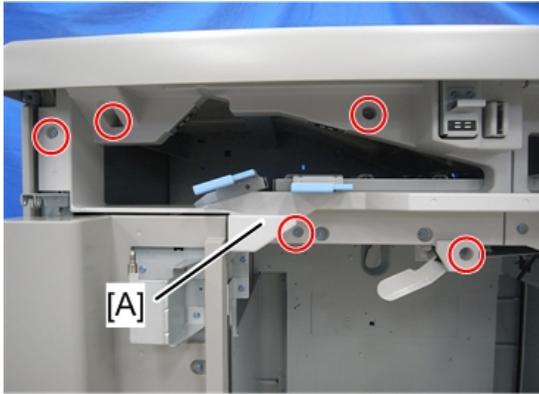
1. Front door (page 10 "Front Door")
2. Front left cover [A] (🔩 x3)



d776z0017

## Left Inner Cover

1. Front door (page 10 "Front Door")
2. Left inner cover [A] (🔩 x5)

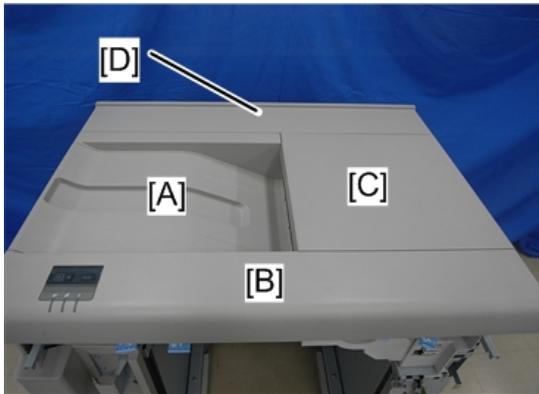


d776z0018

### Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover

#### ↓ Note

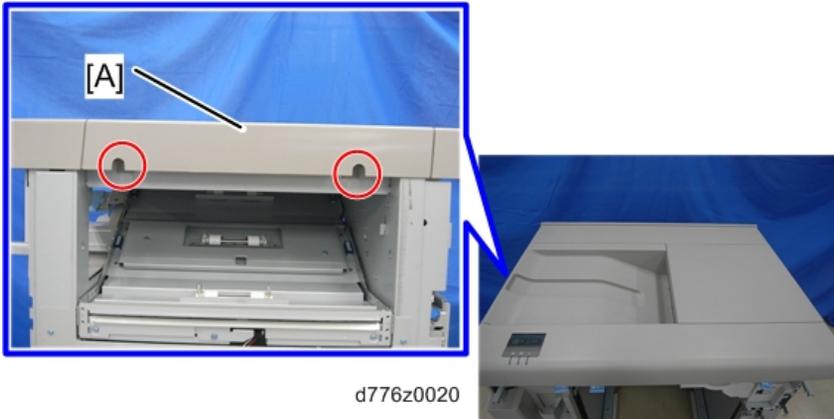
- Remove these covers in the following order.
- Proof tray [A] → Top front cover [B] → Top center cover [C] → Top rear cover [D]



d776z0019

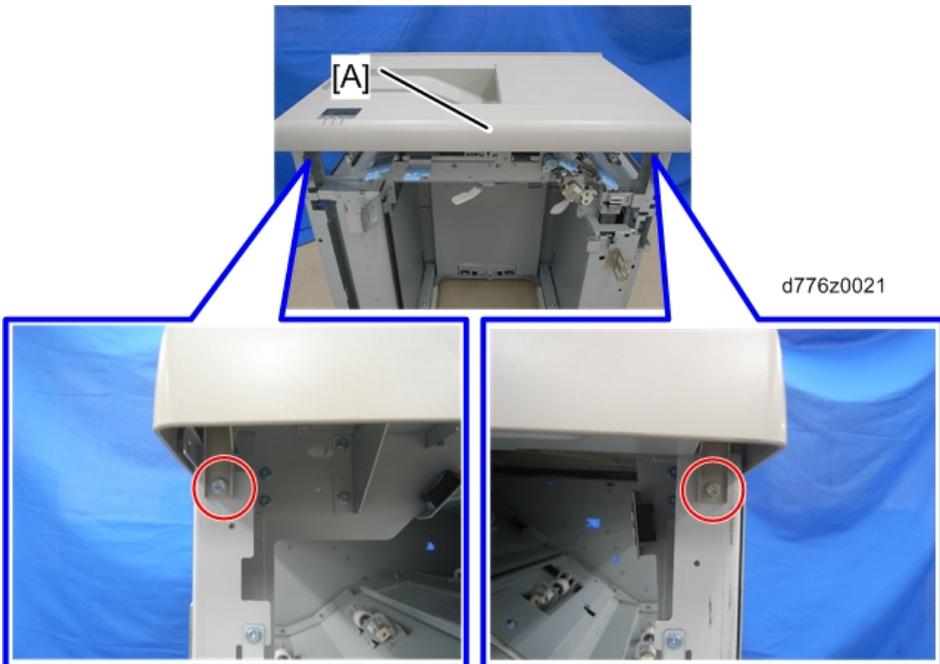
#### Proof Tray

1. Left cover (page 9 "Left Cover")
2. Proof tray [A] (🔩 x2)



### Top Front Cover

1. Right inner cover (page 13 "Right Inner Cover")
2. Left inner cover (page 13 "Left Inner Cover")
3. Proof tray
4. Top front cover [A] (🔧 x1, 🔩 x2)

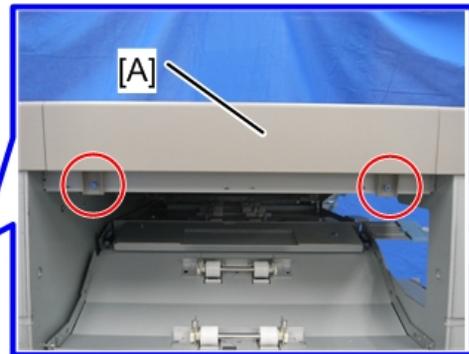
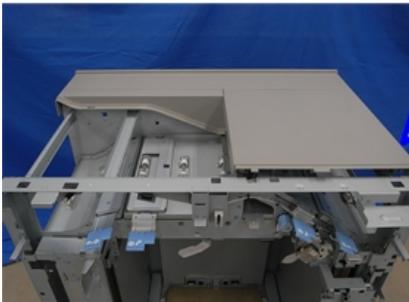




d776z0022

### Top Center Cover

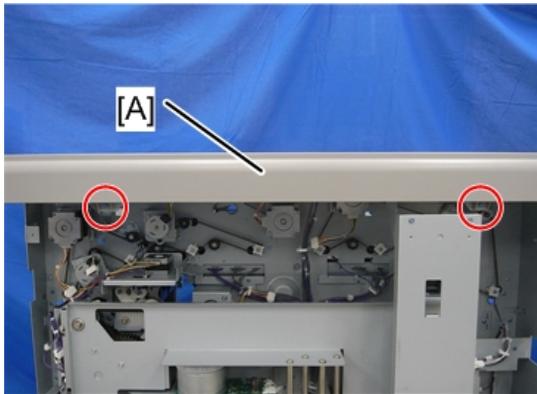
1. Proof tray
2. Top front cover
3. Top center cover [A] (🔑 x2)



d776z0023

### Top Rear Cover

1. Proof tray
2. Top front cover
3. Top center cover
4. Top rear cover [A] (🔑 x2)

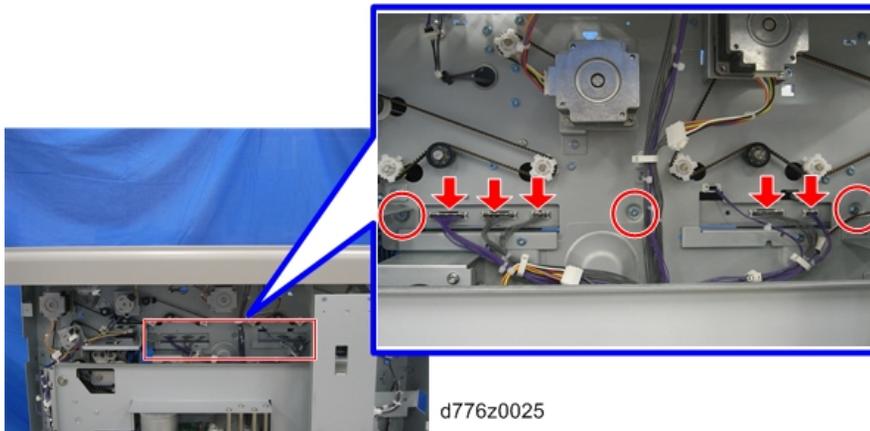


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## Jogger Unit

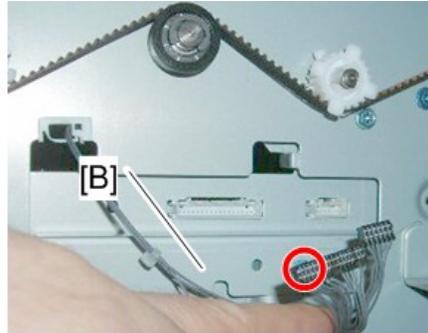
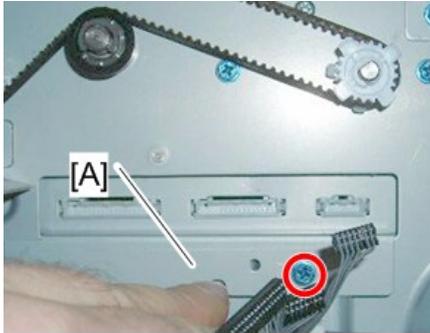
### Jogger Unit Removal

1. Rear lower cover, rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")
2. Right inner cover (page 13 "Right Inner Cover")
3. Left inner cover (page 13 "Left Inner Cover")
4. At the rear, remove three screws and disconnect five connectors (⊗ x3, ⊞ x5).



d776z0025

5. Remove the center plate [A] and right plate [B] (⊗ x1 each).



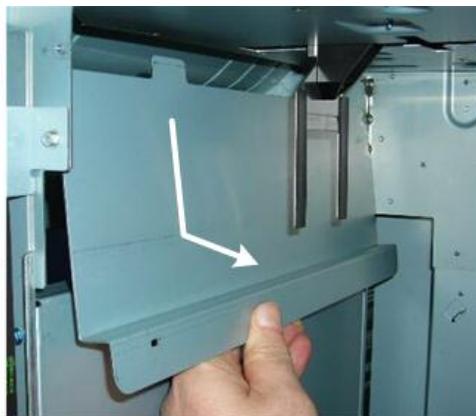
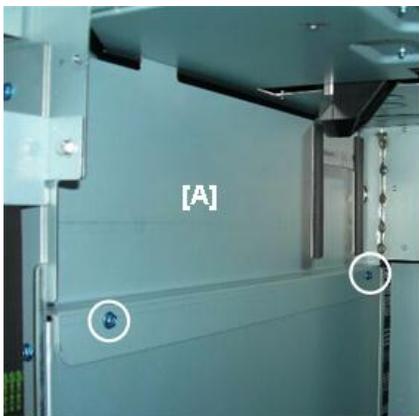
d447r030a

6. Remove the four steel jogger unit legs.



d447r031

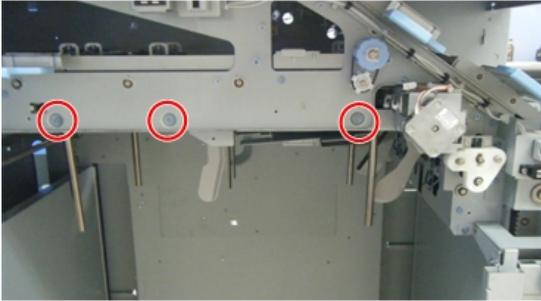
7. Lock plate [A] (⊗ x2)



d447r033

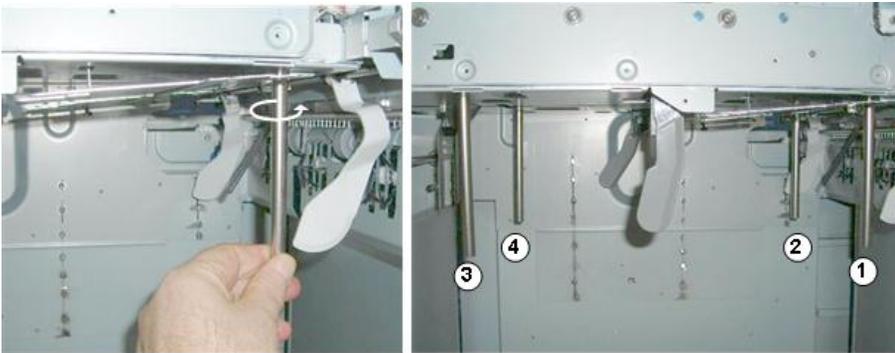
8. Disconnect the jogger unit (⊗ x3).

The jogger unit is held in place by four hooks. It will not fall after the screws have been removed.



d194z0306

9. Screw each leg removed in step 6 into the bottom of the jogger unit.



d447r034

10. Grip one leg at the front ①, and one at the rear ②.  
 11. Push the jogger unit to the left ③ to disengage the hooks.  
 12. Slowly lower the jogger unit to the right ④ and pull it out of the stacker.



d447r035

13. Set the jogger unit on a flat surface.



d447r036

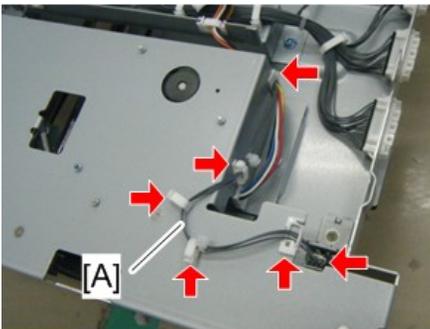
## Main Jogger Cover Plate

The main jogger cover plate must be removed to service these parts:

- Main jogger front fence motor and HP sensor
- Main jogger rear fence motor and HP sensor
- Shift tray paper sensor

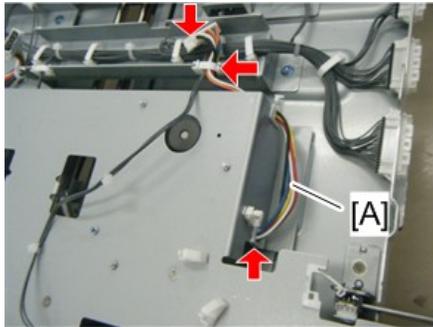
1. Disconnect the rear fence HP sensor harness [A] (🔌 x1, 🛠️ x5).

### Rear



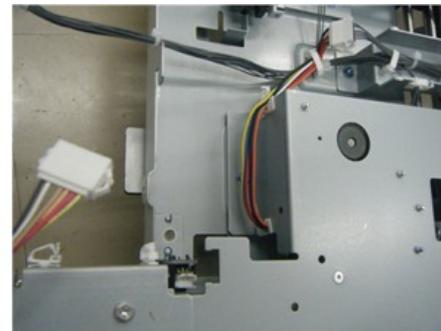
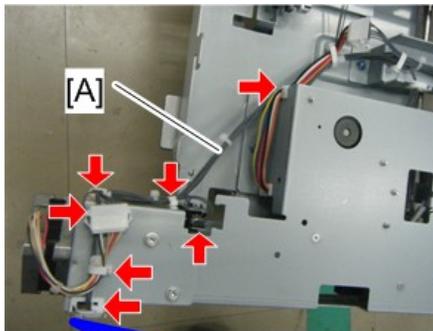
d776e0101

2. Disconnect the rear fence motor harness [A] (🔌 x1, 🛠️ x2).

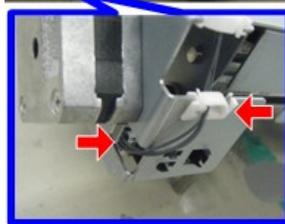
**Rear**

d776e0102

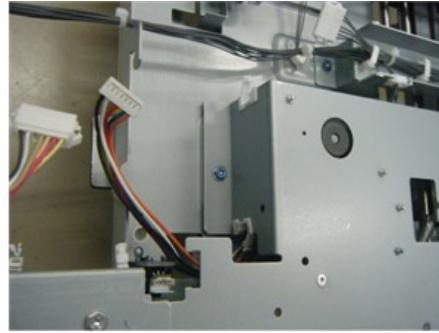
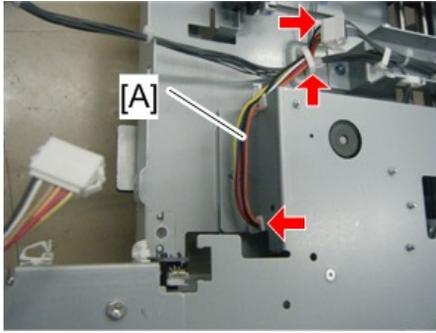
3. Disconnect the dual harness [A] for the main jogger fence retraction HP sensor and front fence HP sensor (🔌 x3, 📡 x6).

**Front**

d776e0103



4. Disconnect the front fence motor harness [A] (🔌 x1, 📡 x2).

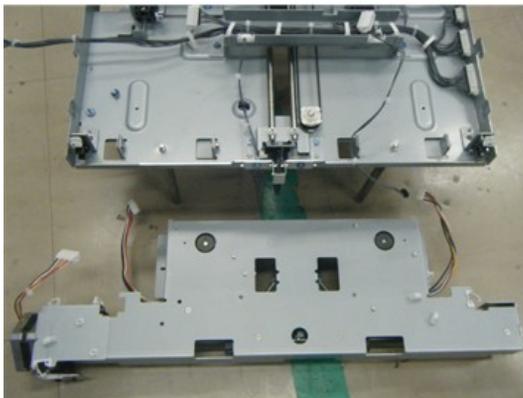
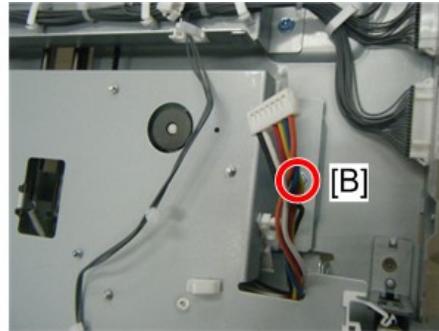
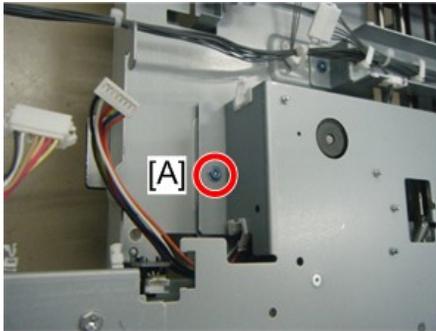


d776e0104

5. Remove the plate:

[A] Front (⚙️ x1)

[B] Rear (⚙️ x1)



d776e0105

# Straight Paper Path

## Motors

1

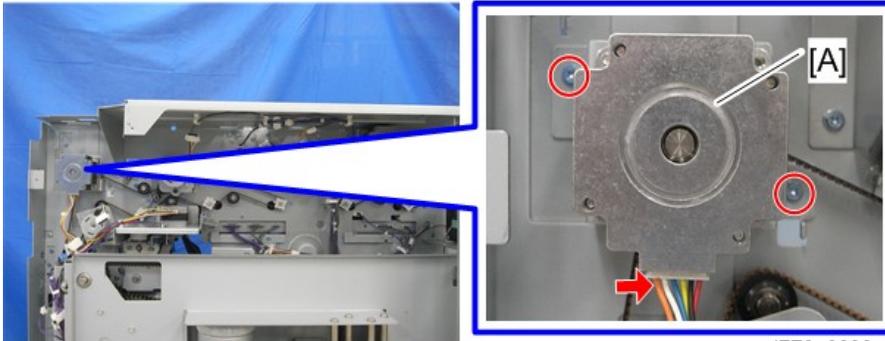
### Entrance Motor

#### Preparation

Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")

Motor bracket [A] (🔩 x1, 🛠️ x2)



d776e0033a

1. Separate the entrance motor and the bracket (🛠️ x2).



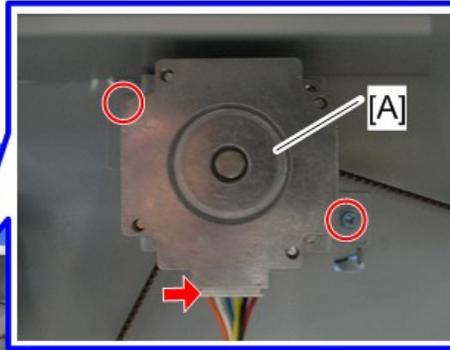
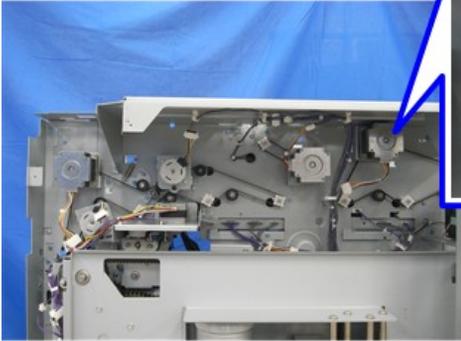
d447r045

## Transport Motor

### Preparation

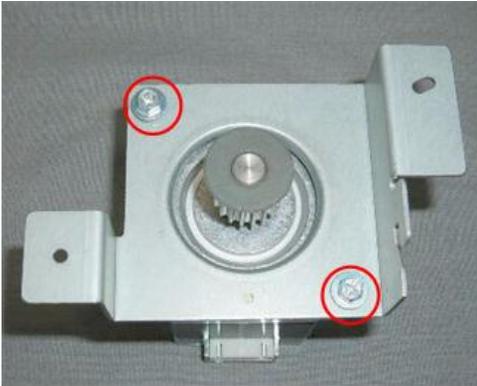
Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
  - Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")
1. Motor bracket [A] (🔧 x1, ⚙️ x2)



d776e0032a

2. Separate the transport motor and the bracket (⚙️ x2)



d447r048

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## Sensors

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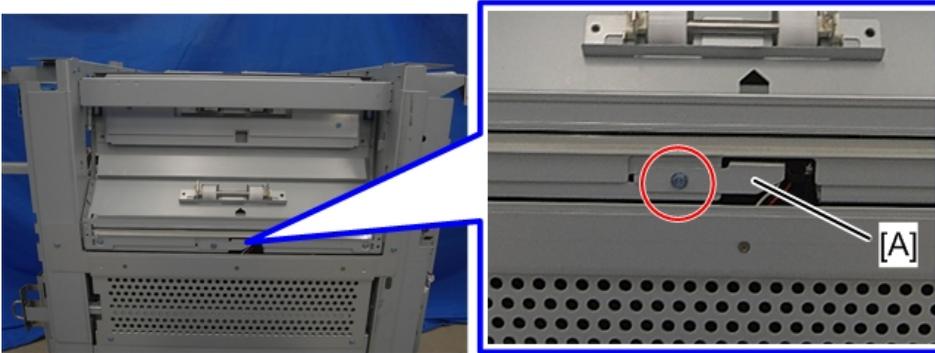
### Entrance Sensor

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1

The entrance sensor is on the right side of the stacker.

1. Sensor bracket [A] (🔩 x1)



d776z0030

2. Entrance sensor [A] (📦 x1, 📦 x4)

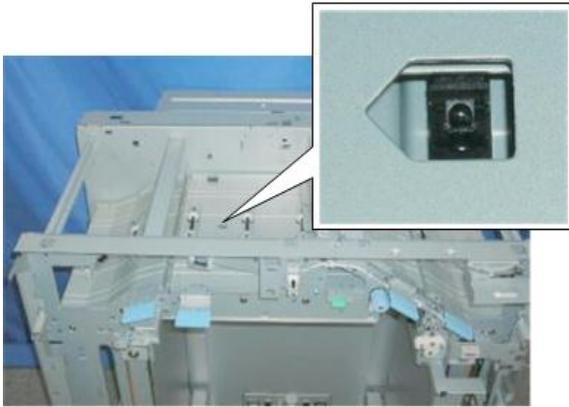


d447e050a

### Transport Sensor

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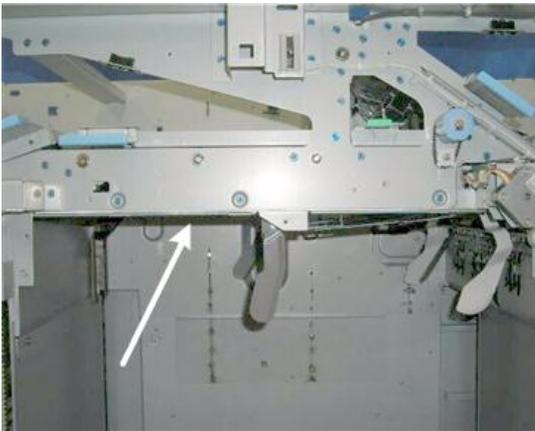
You can see the sensor bracket on the bottom of the transport plate from inside the stacker.



d447r051

**Preparation**

- Remove the jogger unit (page 17 "Jogger Unit Removal")



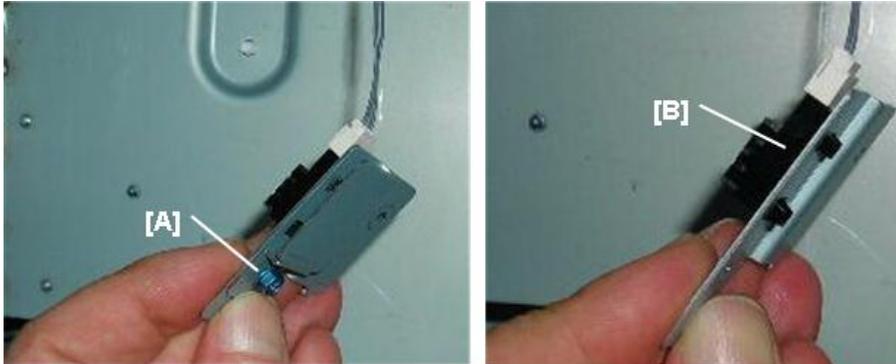
d447r052

1. Sensor bracket [A] (⊗ x1)



d447r053

2. Sensor plate [A] (🔩 x1)
3. Transport sensor [B] (📦 x1, ▼ x4)



d447r054

## Exit Sensor

### Preparation

- Left Exit Cover Plate (page 9 "Left Exit Cover Plate")

\* The illustration below shows the left cover removed, but this is not required.

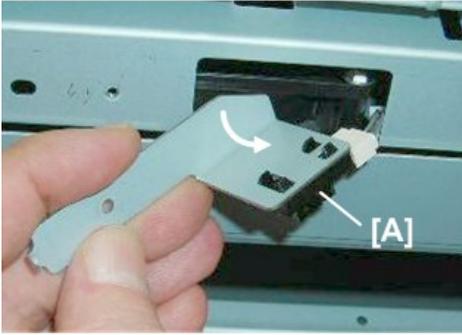
1. Sensor bracket [A] (🔩 x1)



d776z0031

2. Exit sensor [A] (📦 x1, ▼ x4)

1



d447e056a

# Proof Tray

## Motors

1

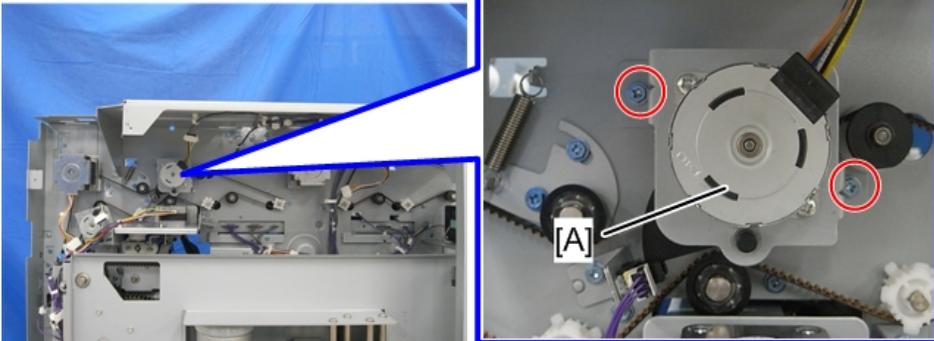
### Proof Tray JG Motor

#### Preparation

Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. Proof tray JG motor [A] (📦 x1, ⚙️ x2)



d776z0034

### Proof Tray Exit Motor

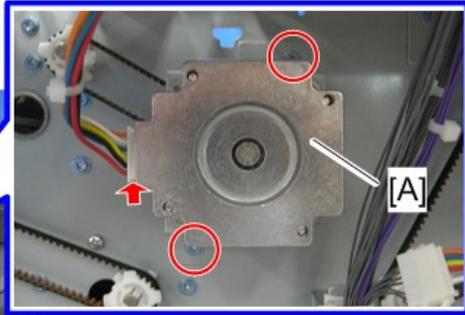
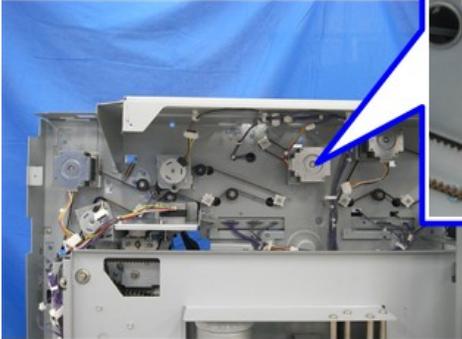
#### Preparation

Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. Motor bracket [A] (📦 x1, ⚙️ x2, ▼ x1, 🔩 x1)

1



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2. Separate the proof tray exit motor and the bracket (⚙️ x2)

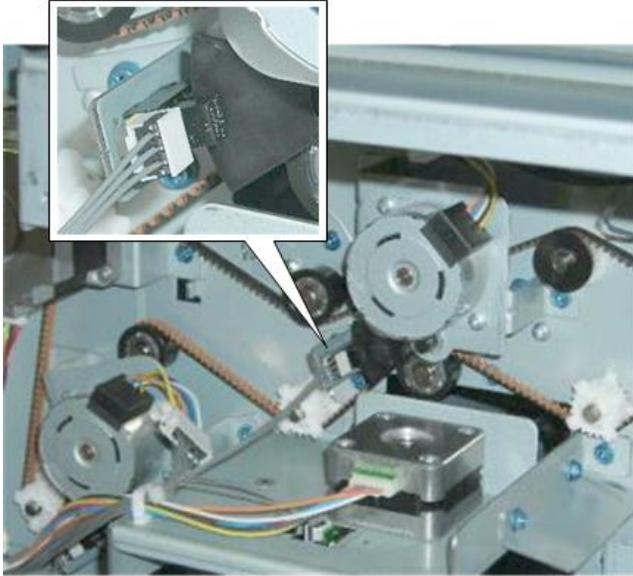


d447r062

## Sensors

### Proof Tray JG HP Sensor

1

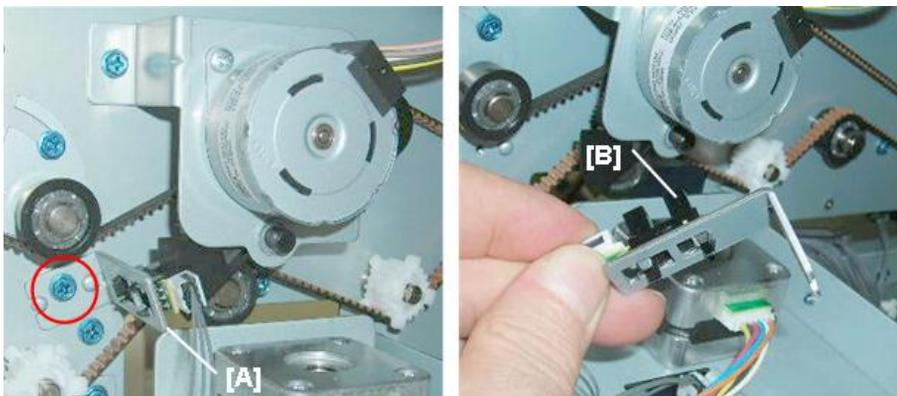


d447r063

#### Preparation

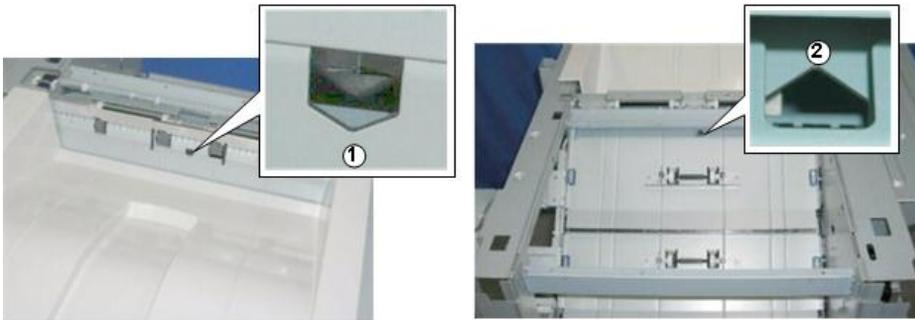
Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
  - Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")
1. Sensor bracket [A] (🔩 x1)
  2. Proof tray JG HP sensor [B] (📦 x1, 🔩 x5)



d447r064

## Proof Tray Exit Sensor, Proof Tray Full Sensor



d447r085

①	Proof Tray Full Sensor	Located above the proof tray,.
②	Proof Tray Exit Sensor	Shown with the top center cover removed.

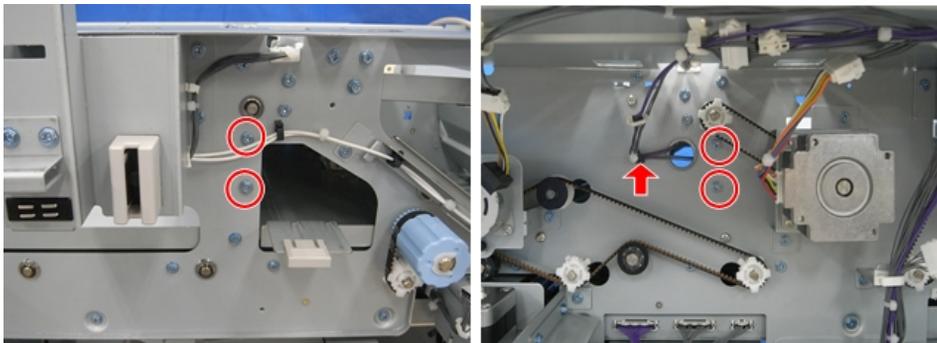
### Preparation

Remove these parts:

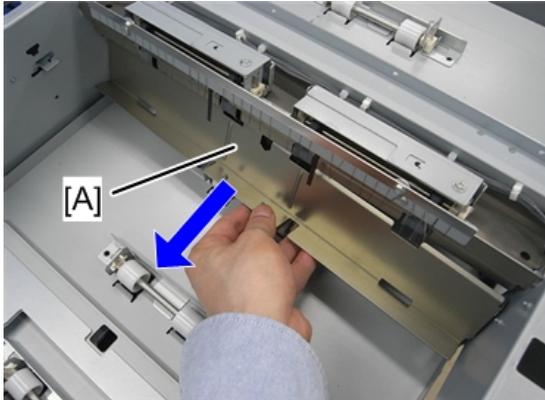
- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Proof tray (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")
- Top center cover (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")
- Top rear cover (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")

### Common Procedure

1. Pull away the plate [A] (⚙️x1, ⚙️x4).



d776z0026

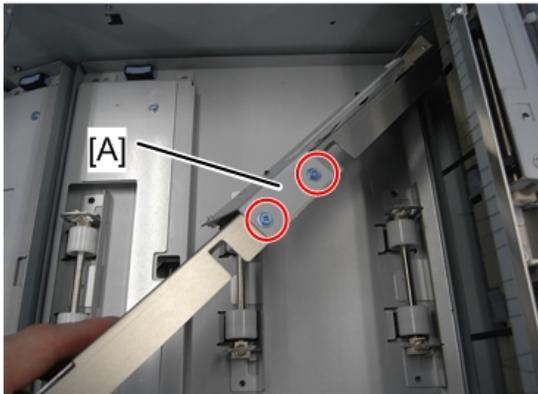


d776z0027

2. Remove the tray full sensor, or the tray exit sensor. See below.

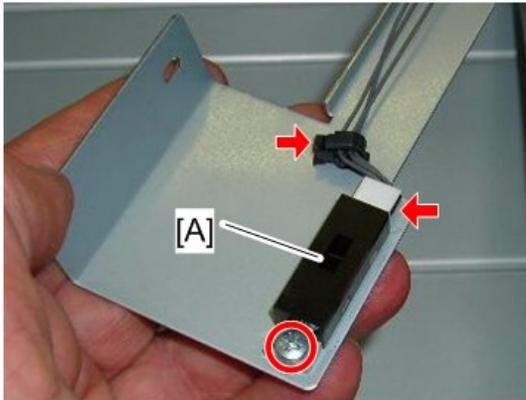
### Tray Full Sensor

1. Turn the plate over.
2. Sensor bracket [A] (🔩 x2)



d776z0028

3. Proof tray full sensor [A] (🔩 x1, 📦 x1, 🔩 x1)

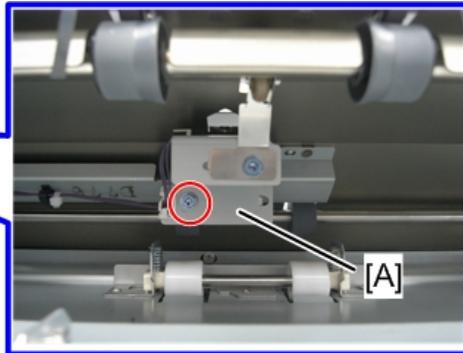
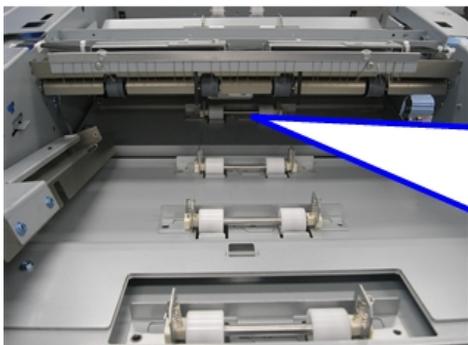


d776e0106

### Tray Exit Sensor

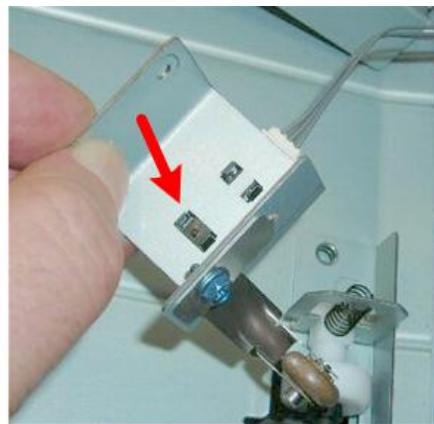
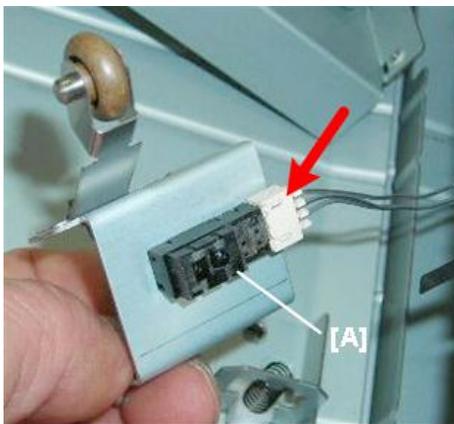
1. Sensor bracket [A] (🔩 x1)

Remove the lower screw, not the upper screw.



d776z0029

2. Proof tray exit sensor [A] (🔩 x1, ▲ x5)



d447r072

# Shift Tray

## Paper Shift Operation

1

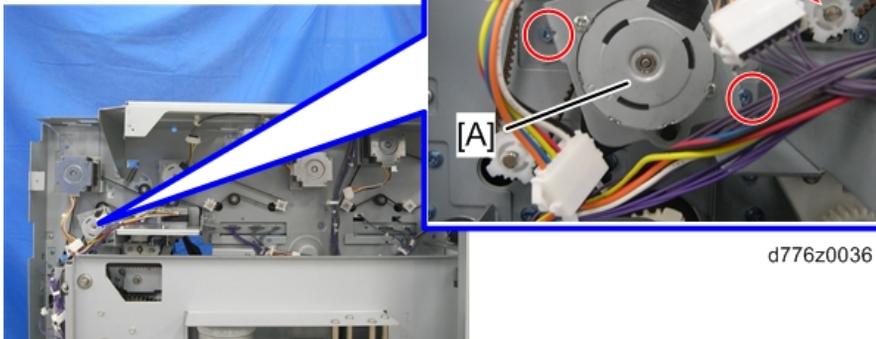
### Shift Tray JG Motor

#### Preparation

Remove these parts:

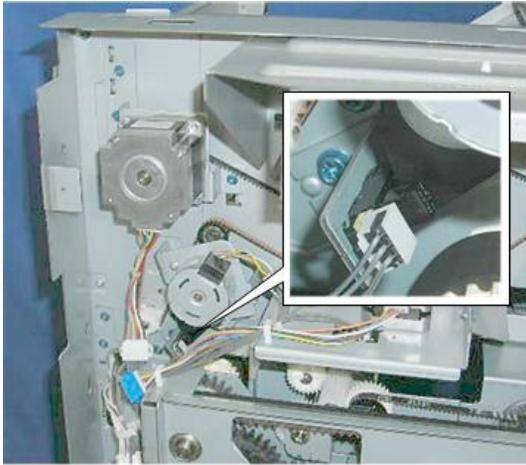
- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. Shift tray JG motor [A] (📦 x1, 🔩 x2)



## Shift Tray JG HP Sensor

1



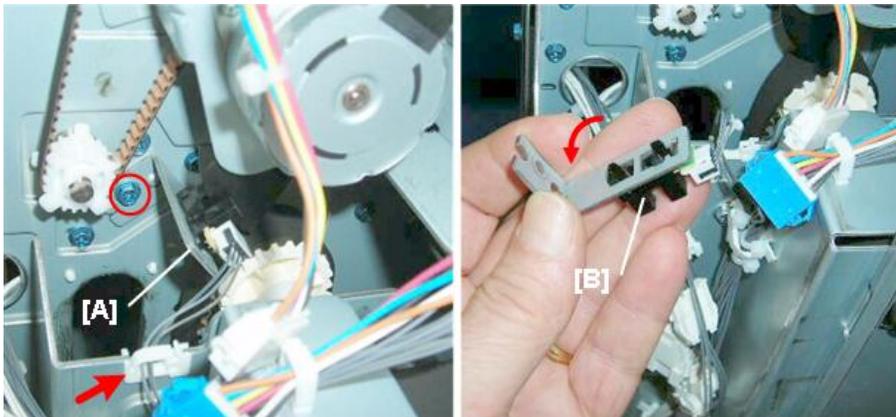
d447r077

### Preparation

Remove these parts:

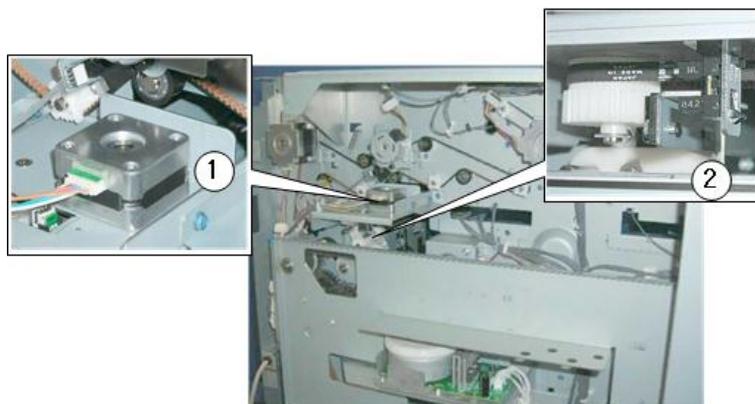
- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. Sensor bracket [A] (🔩x1, ⚙️x1)
2. Shift tray JG HP sensor [B] (📦 x1, 🔩 x5)



d447r078

## Shift Motor, Shift HP Sensor



d447r079

①	Shift Motor
②	Shift HP Sensor

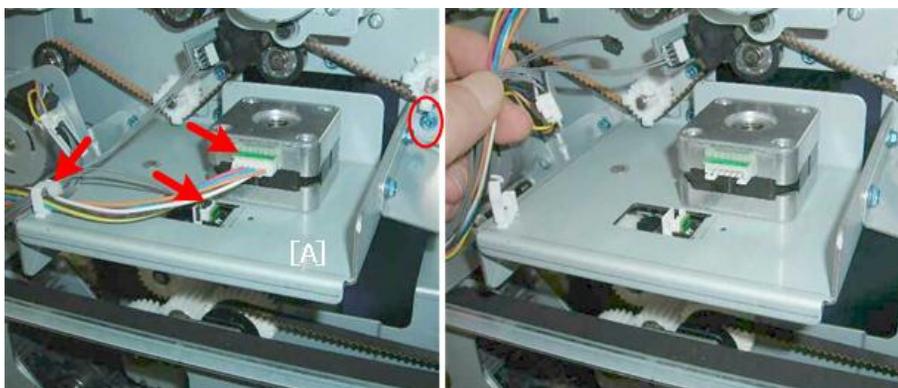
### Preparation

Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")

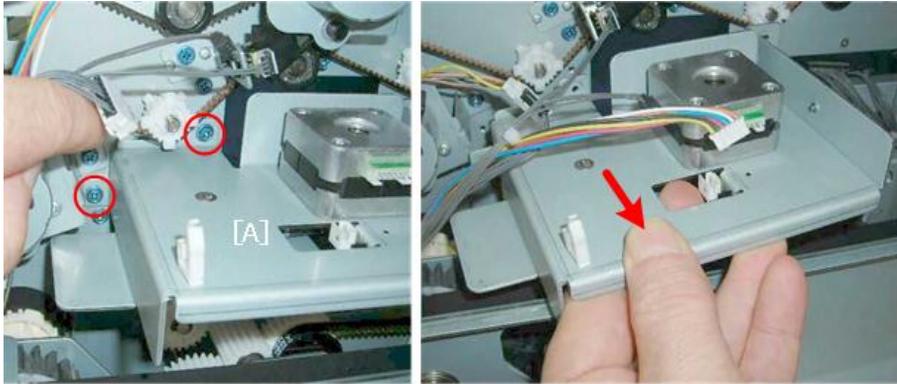
### Common

1. Disconnect the motor bracket [A] (Ⓜ x1, Ⓜ x2, Ⓜ x1).



d447r080

2. Motor bracket [A] (Ⓜ x2).



d447r081



d447r082

### Shift Motor

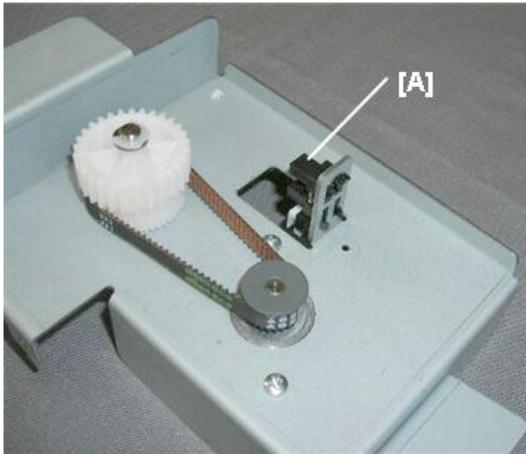
1. Separate the bracket and the shift motor (Ⓜ x2)



d447r083

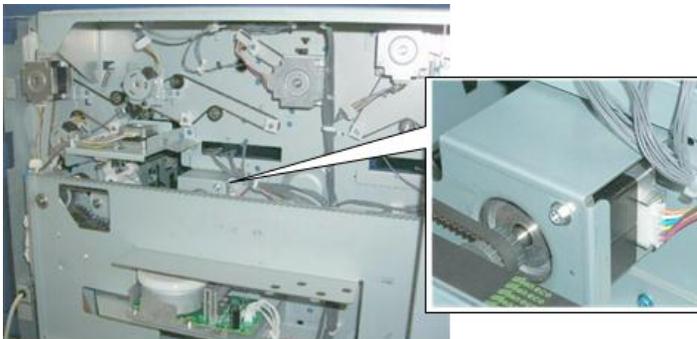
### Shift HP Sensor

1. Shift HP sensor [A] (▼ x5)



d447r084

## Shift Exit Motor



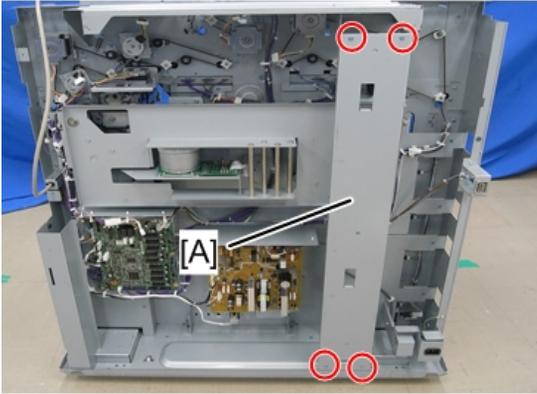
d447r085

### Preparation

Remove these parts:

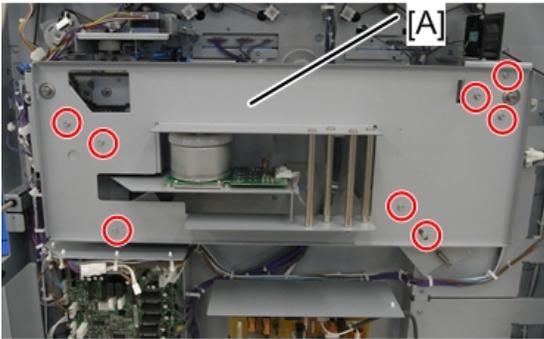
- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. Vertical plate [A] (⊗ x4)



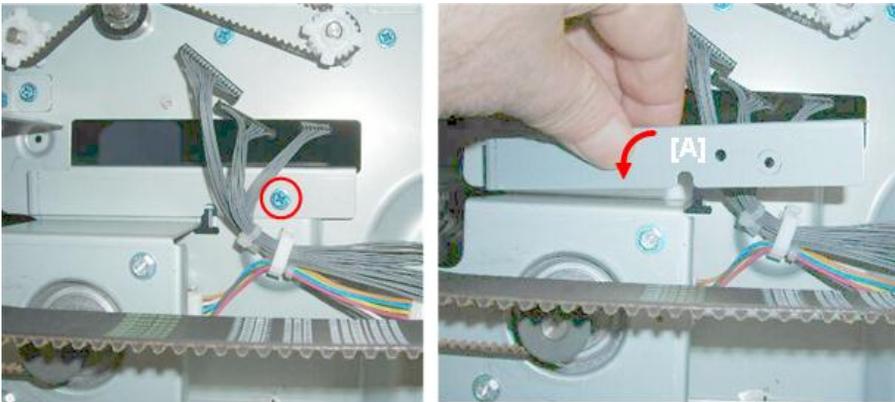
d776z0037

2. Belt cover Plate [A] (🔩 x8)



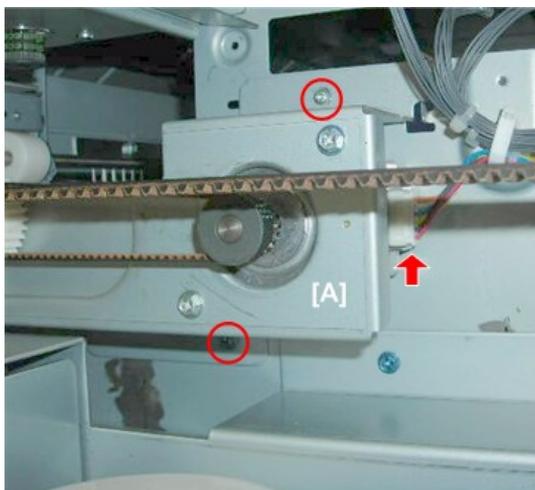
d776z0038

3. Plate [A] (🔩 x1)



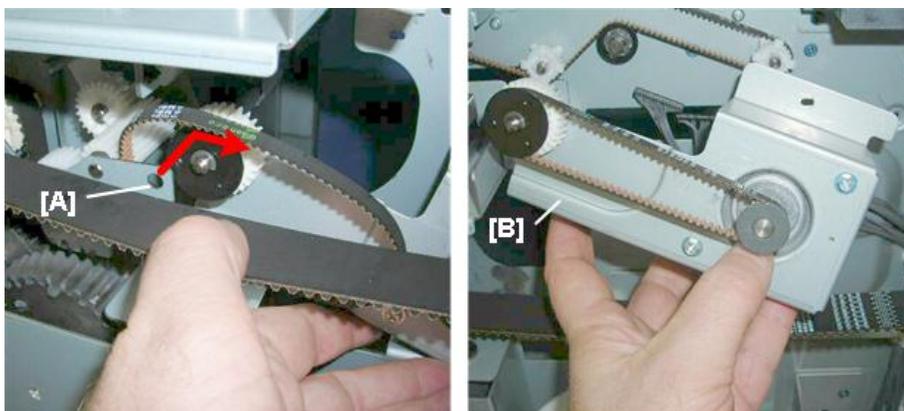
d447r089

4. Disconnect motor bracket [A] (🔩 x2)



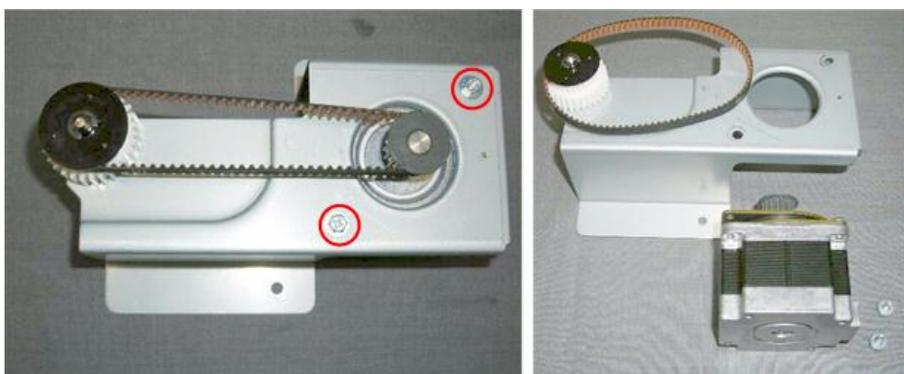
d447r090

5. Push the shaft [A] out of the hole and remove the motor bracket [B].



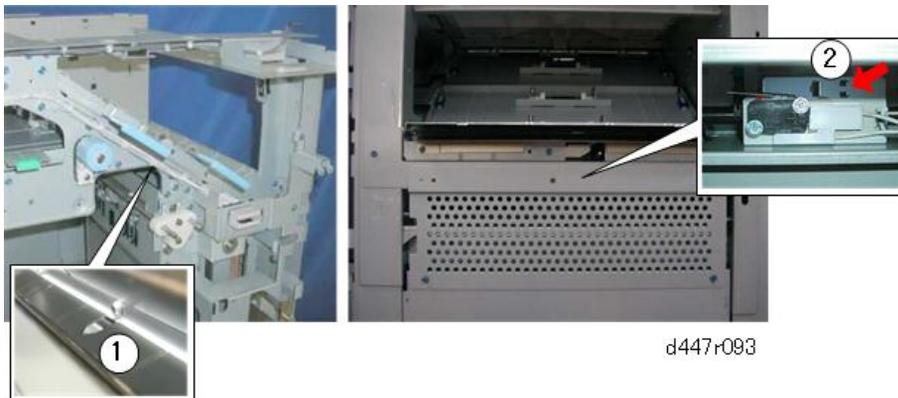
d447r091

6. Separate the shift exit motor and the bracket (⚙️ x2)



d447r092

## Shift Tray Exit Sensor, Paper Height Sensor



Both sensors are difficult to see.

①	Shift Tray Exit Sensor	Under the plate.
②	Paper Height Sensor	Right side, under the right plate facing the interior of the machine.

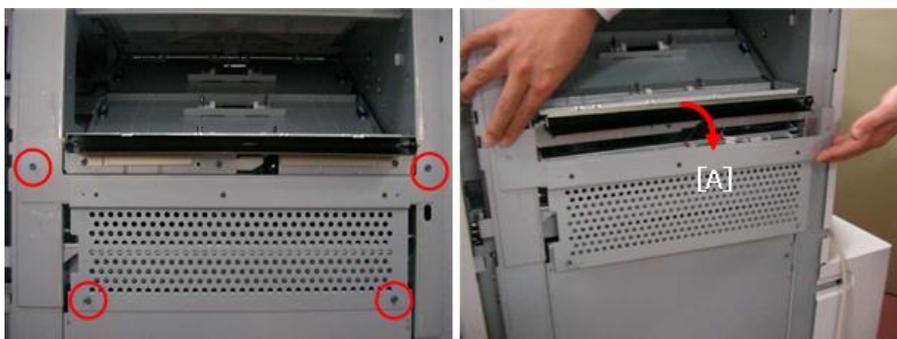
### Preparation

Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Jogger unit (page 17 "Jogger Unit Removal")

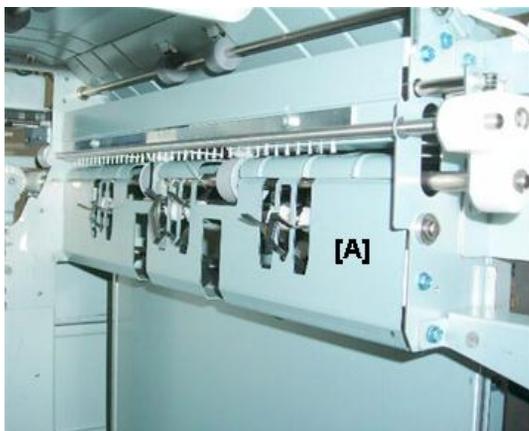
### Common

1. Remove the plate [A] (⊖ x4)



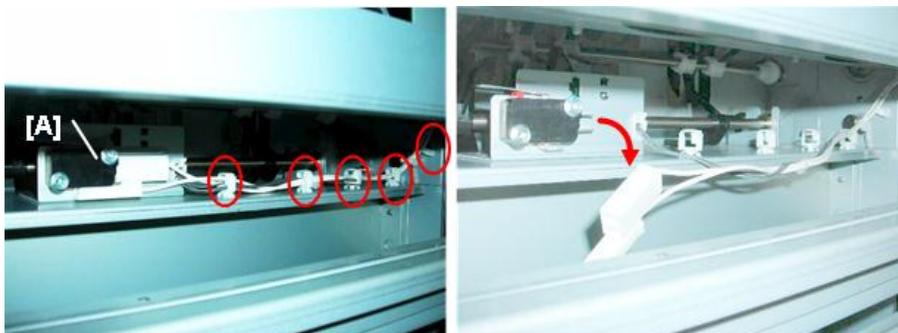
d447r170

2. Cover [A] must be removed.



d447r094

3. Disconnect tray high limit switch [A] (🔧 x1, 🧰 x5)

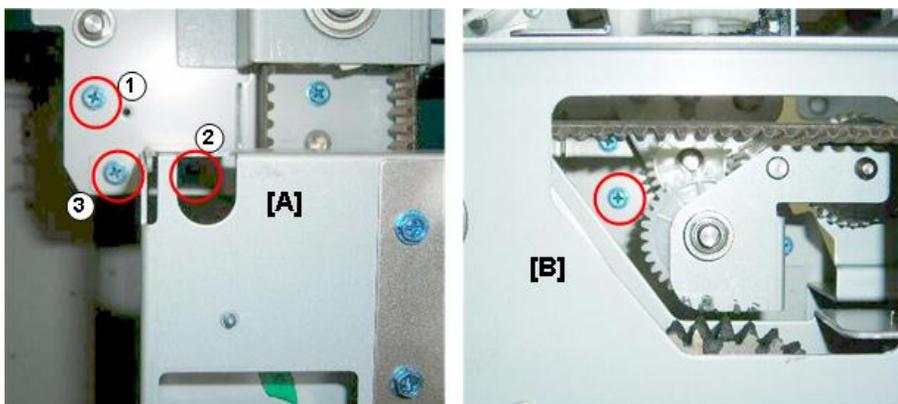


d447r095

4. Disconnect the cover:

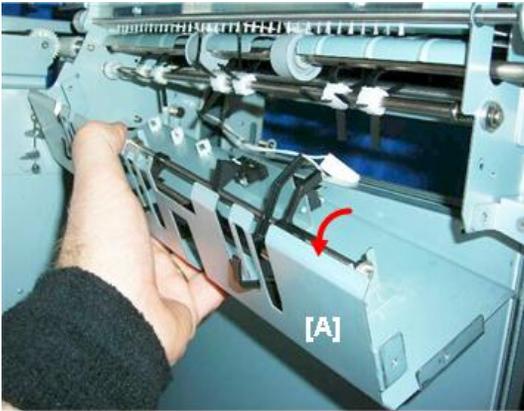
[A] Front (🔧 x3)

[B] Rear (🔧 x1)



d447r096

5. Cover [A]



d447r097

Paper Height Sensor

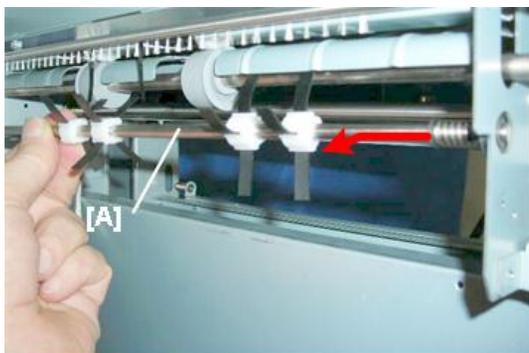
1. Paper height sensor [A] (  x2,  x1,  x5)



d447r098

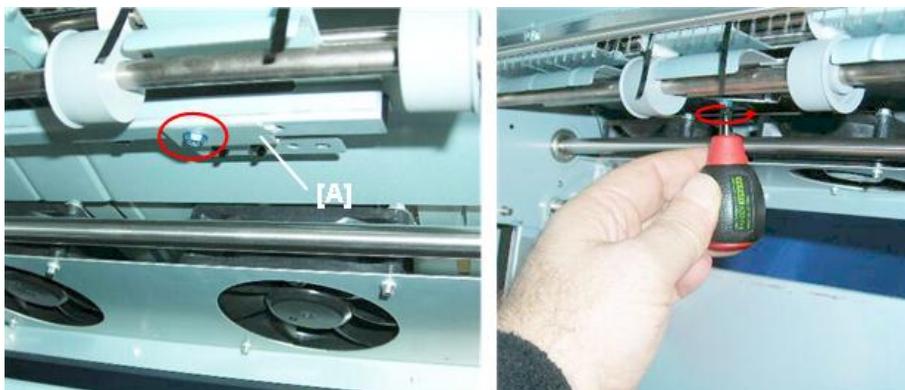
Shift Tray Exit Sensor

1. Remove roller [A]. The roller is spring loaded. Just push it to the rear and disconnect at the front.



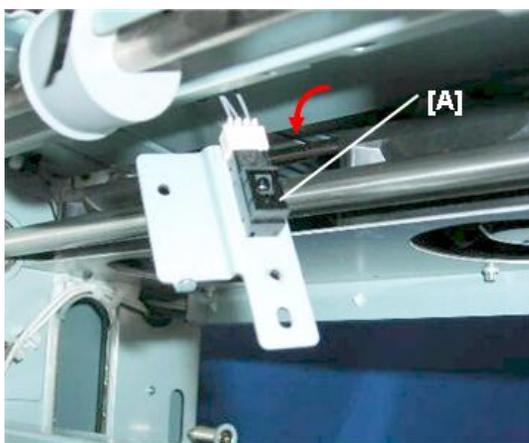
d447r099

2. Use a short screwdriver to remove sensor bracket [A] (🔩 x1)



d447r100

3. Shift tray exit sensor [A] (📦 x1, ▼ x5)

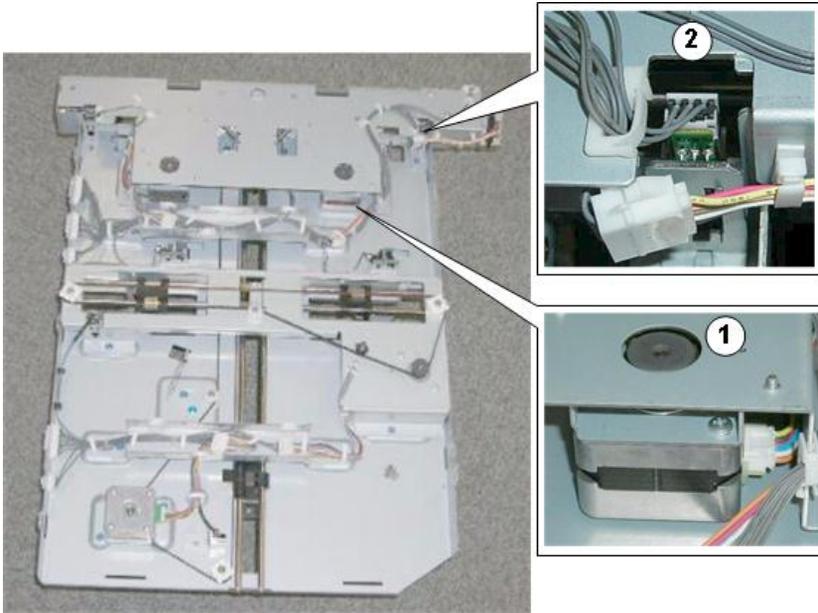


d447r101

## Paper Jogging

1

### Main Jogger Front Fence Motor, Front Fence HP Sensor



d447r102

①	Main Jogger Front Fence Motor
②	Main Jogger Front Fence HP Sensor

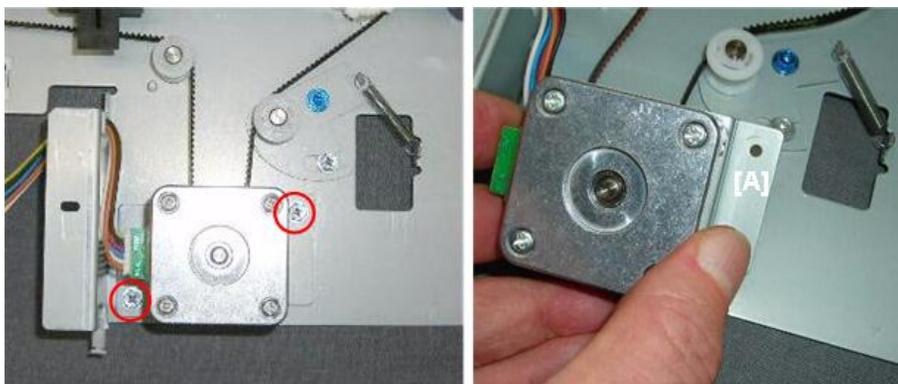
#### Preparation

Remove these parts:

- Jogger unit (page 17 "Jogger Unit Removal")
- Main jogger cover plate (page 20 "Main Jogger Cover Plate")

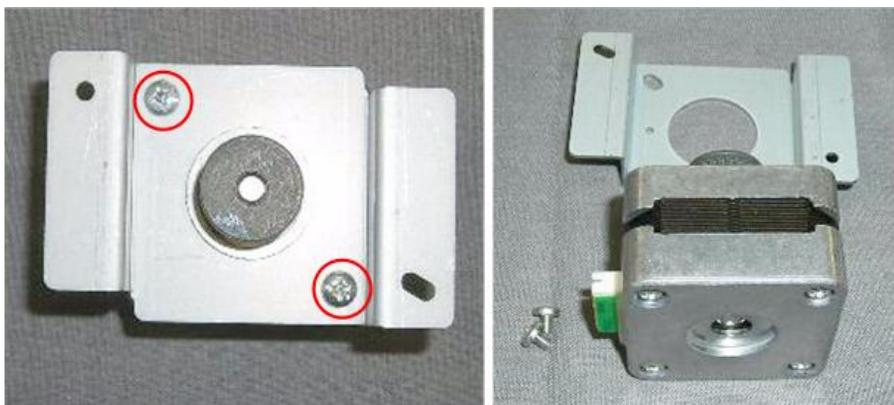
#### Front Fence Motor

1. Motor bracket [A] (🔩 x2, 📦 x1, Belt x1)



d447r103

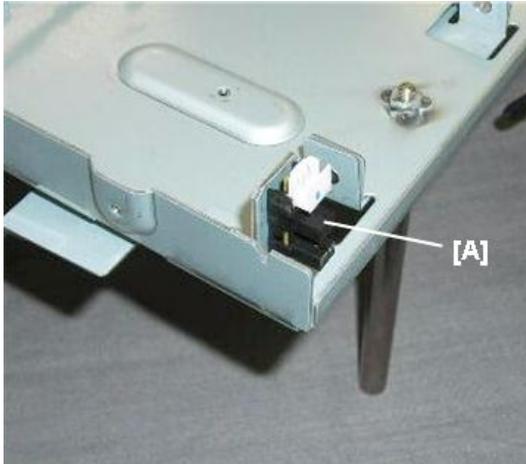
2. Separate the front fence motor and the bracket (🔧 x2)



d447r104

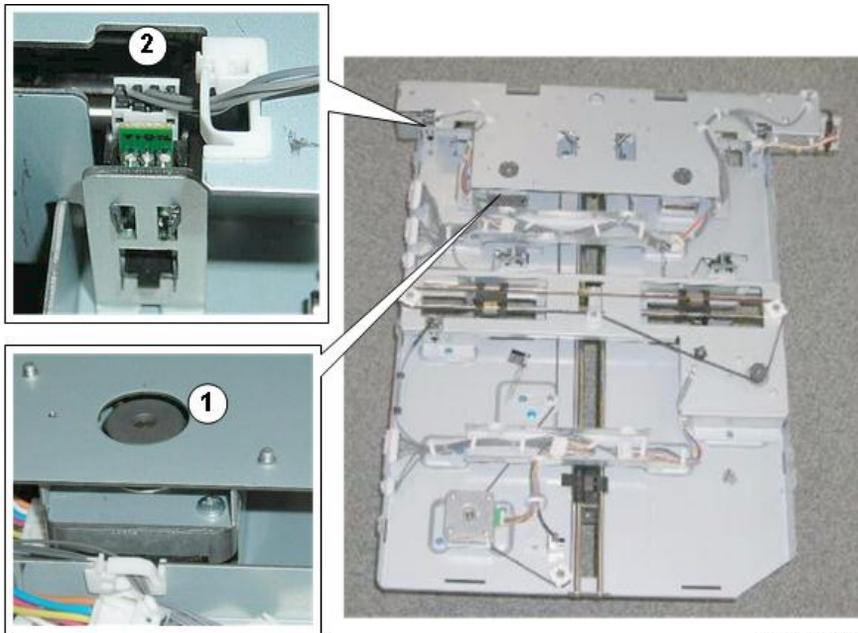
### Front Fence HP Sensor

1. Front fence HP sensor [A] (🔧 x5)



d447r105

### Main Jogger Rear Fence Motor, Rear Fence HP Sensor



d447r106

①	Main Jogger Rear Fence Motor
②	Main Jogger Rear Fence HP Sensor

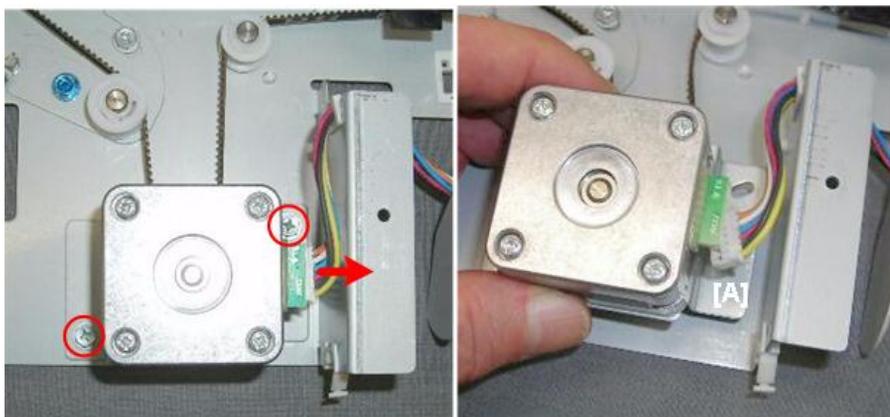
### Preparation

Remove these parts:

- Jogger unit (page 17 "Jogger Unit Removal")
- Main jogger cover plate (page 20 "Main Jogger Cover Plate")

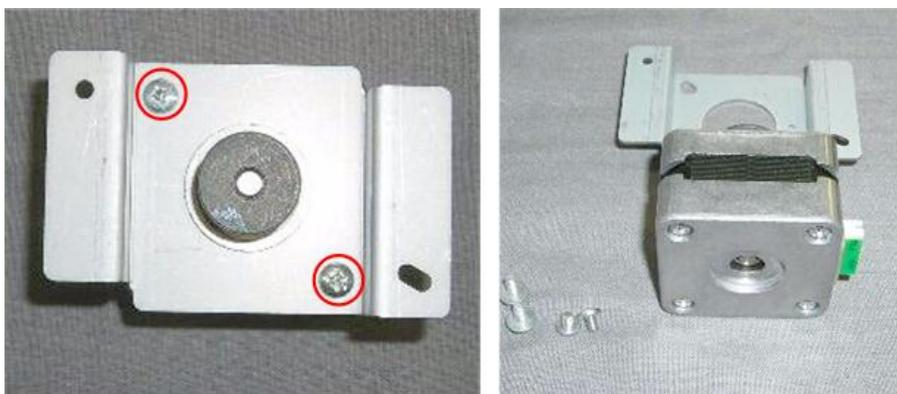
### Rear Fence Motor

1. Motor bracket [A] (🔩 x2, 📦 x1, Belt x1)



d447r107

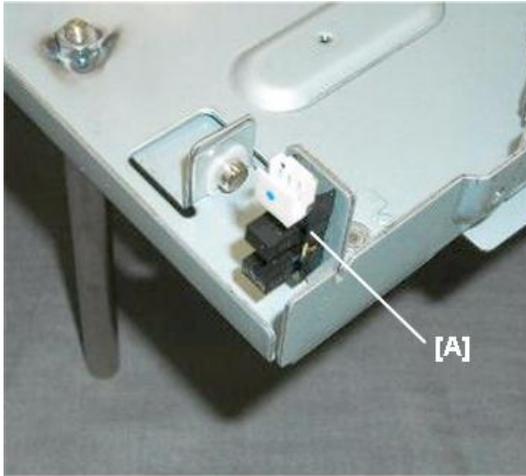
2. Separate the rear fence motor and the bracket (🔩 x2)



d447r108

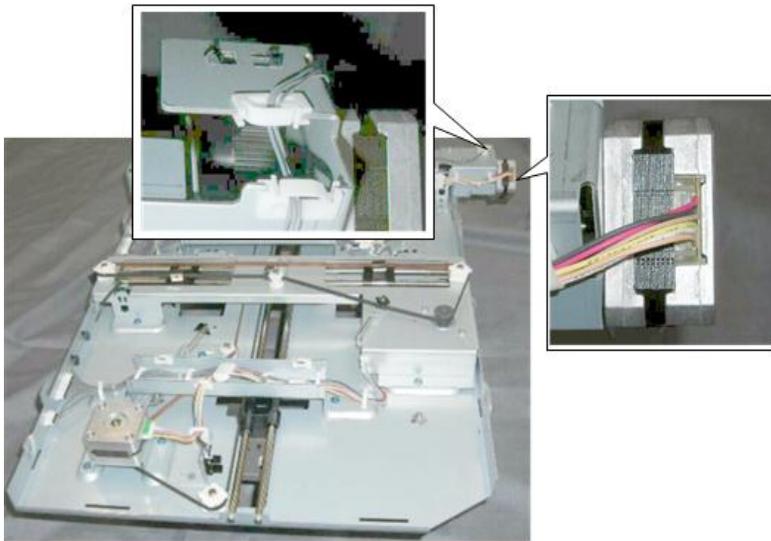
### Rear Fence HP Sensor

1. Rear Fence HP Sensor [A] (🔩 x5)



d447r109

## Main Jogger Fence Retraction Motor, Fence Retraction HP Sensor



d447r110

### Preparation

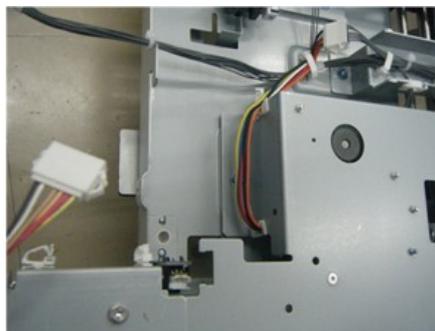
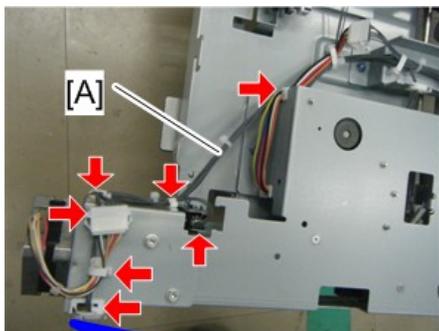
Remove these parts:

- Jogger unit (page 17 "Jogger Unit Removal")

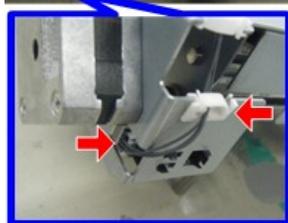
### Fence Retraction Motor

1. Disconnect the dual harness [A] for the main jogger fence retraction HP sensor and front fence HP sensor (🔧 x3, 🔧 x6).

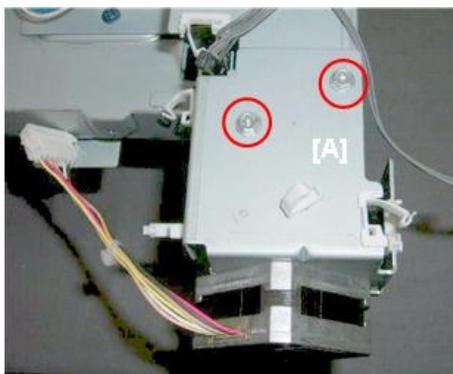
## Front



d776e0103



2. Motor bracket [A] (⊙ x2)



d447r113

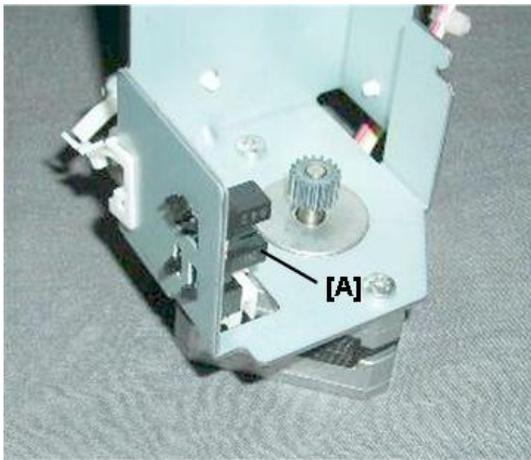
3. Separate the fence retraction motor and the bracket (⊙ x2)



d447r114

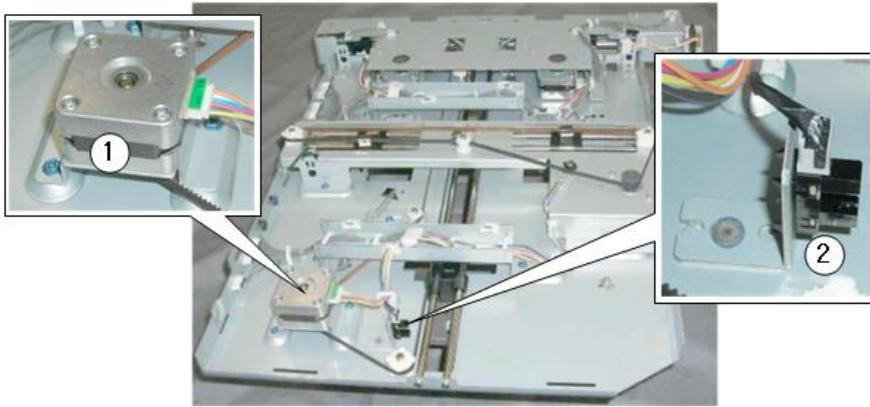
### Fence Retraction HP Sensor

1. Motor bracket
2. Fence retraction HP sensor [A] (▼ x5)



d447r115

### LE Stopper Motor, LE Stopper HP Sensor



d447r116

①	LE Stopper Motor
②	LE Stopper HP Sensor

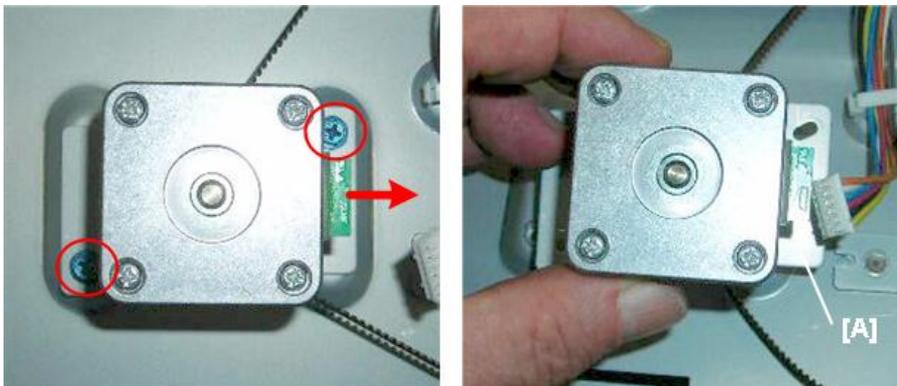
### Preparation

Remove these parts:

- Jogger unit (page 17 "Jogger Unit Removal")

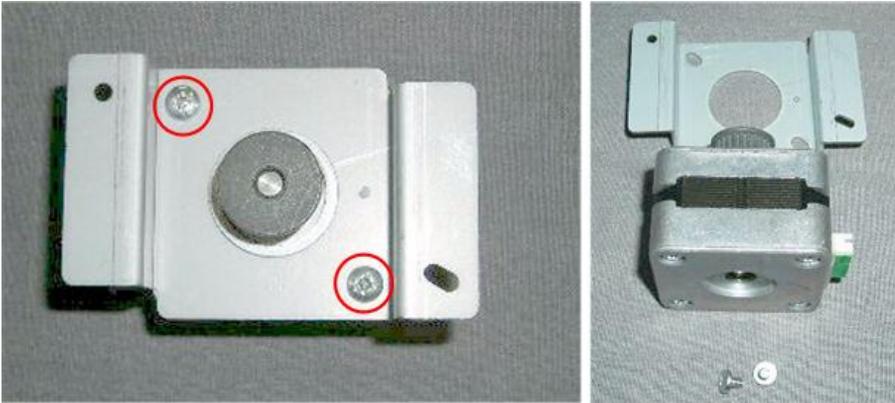
### LE Stopper Motor

1. Motor bracket [A] (⊙ x2, ⊞ x1)



d447r117

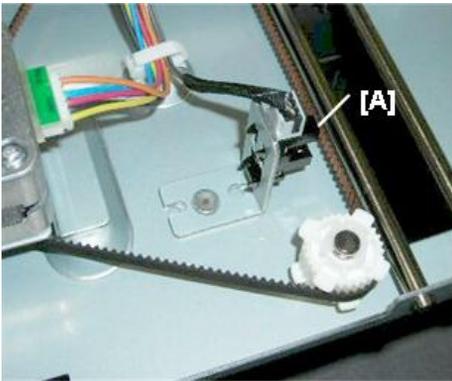
2. Separate the LE stopper motor and the bracket (⊙ x2)



d447r118

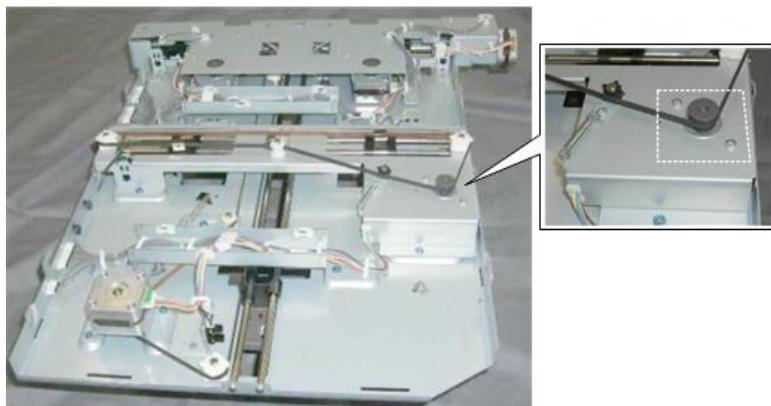
### LE Stopper HP Sensor

1. Sensor [A] (📦 x1, ▼ x5)



d447r119

## Sub Jogger Motor



d447r120

### Preparation

- Jogger unit (page 17 "Jogger Unit Removal")

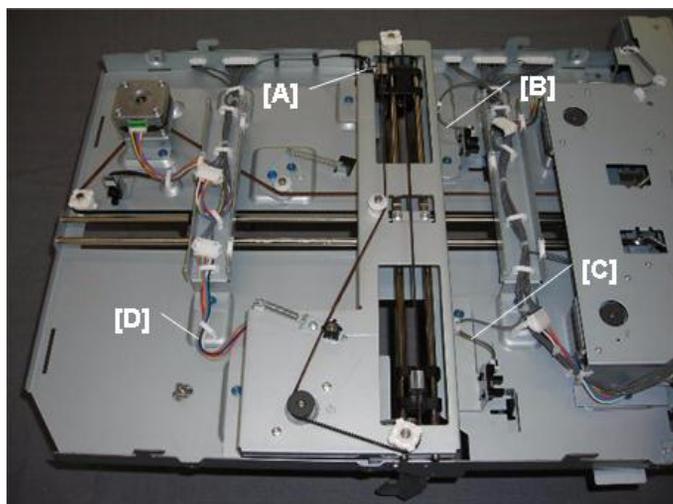
1. Disconnect these harnesses:

[A] Sub jogger fence HP sensor (📦 x1, 🔌 x1)

[B] Tray guard sensor 1 (📦 x1, 🔌 x1)

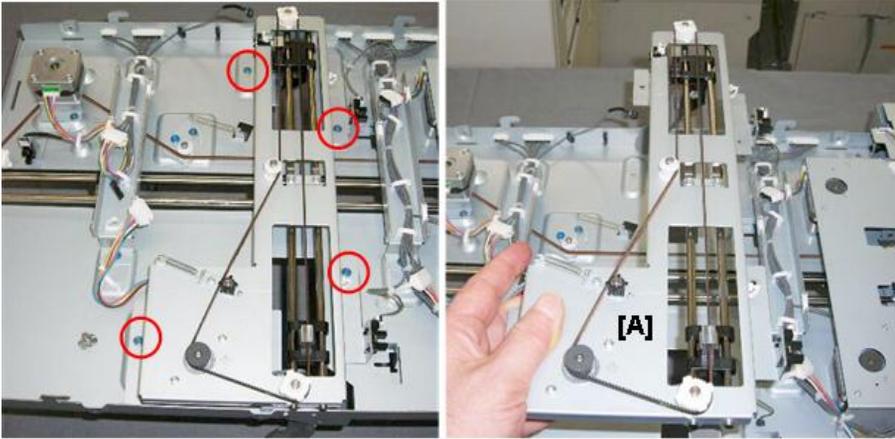
[C] Tray guard sensor 2 (📦 x1, 🔌 x1)

[D] Sub jogger motor (📦 x1, 🔌 x1)



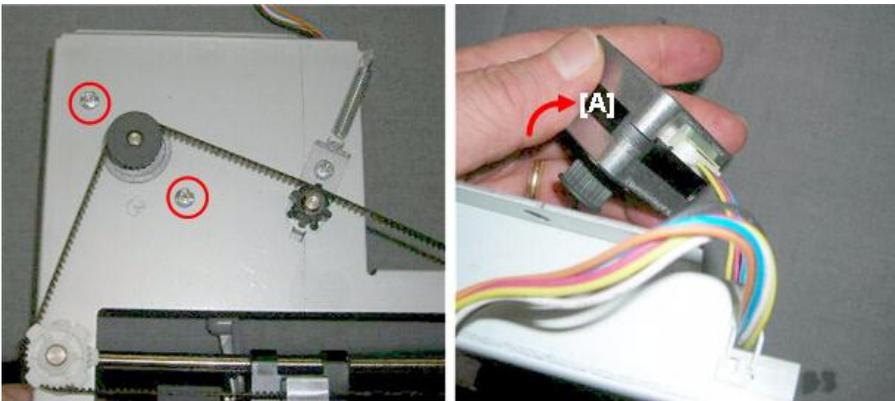
d447r121

2. Cover [A] (🔩 x4)



d447r122

3. Sub jogger motor [A] (⊗ x2, Belt x1, ⊗ x1)



d447r123

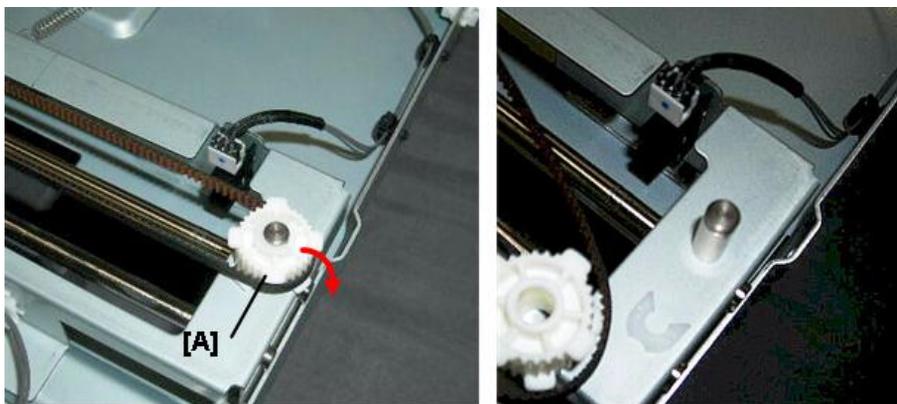


d447r124

## Sub Jogger HP Sensor

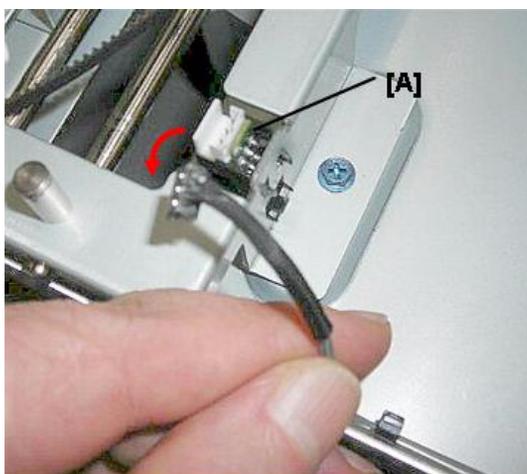
### Preparation

- Jogger unit (page 17 "Jogger Unit Removal")
1. Disconnect pulley [A] and belt (⌀x1, Pulley x1, Belt x1).



d447r125

2. Sub jogger HP sensor [A] (⊞ x1, ▽ x5)



d447r126

## Shift Tray Lift Control

1

### Roll Away Cart Set SW

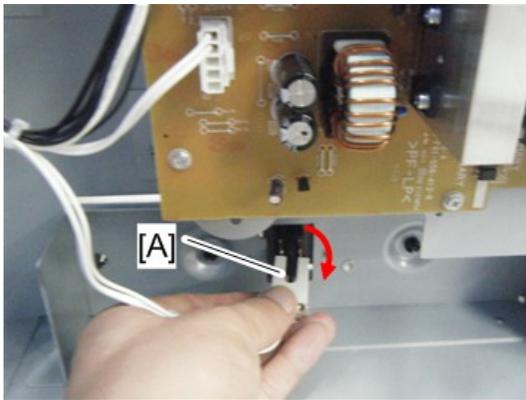


#### Preparation

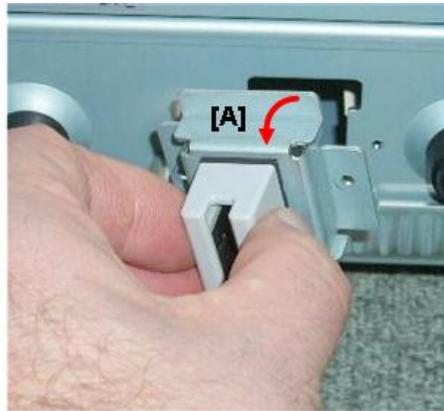
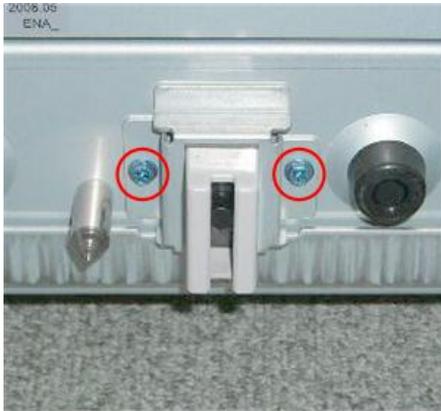
Remove these parts:

- Cart (page 7 "Roll-Away Cart D456")
- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. At the rear, disconnect the connector [A] (📦 x1).

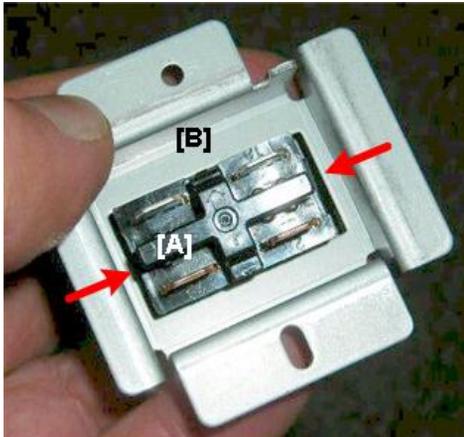


2. At the inside, remove the switch with the bracket [A] (🔩 x2).



d447r129

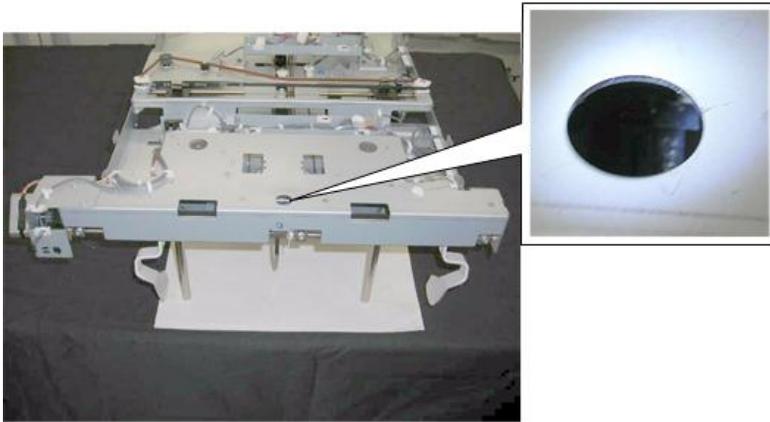
3. Depress the hooks on both sides of switch [A] and separate the switch from the bracket [B].



d447r130

## Shift Tray Paper Sensor

1



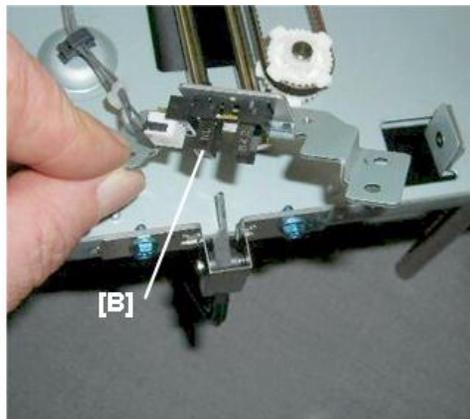
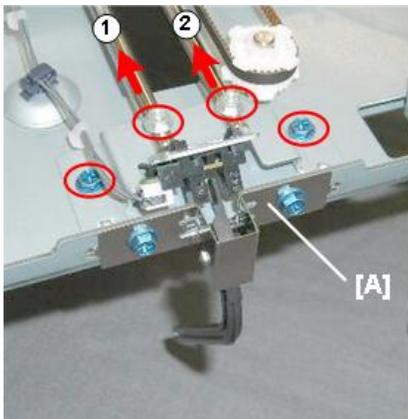
d447r131

### Preparation

Remove these parts:

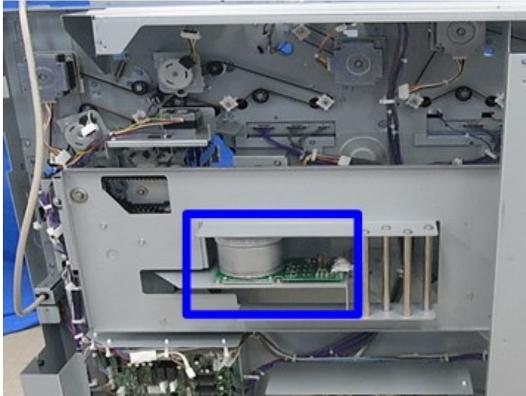
- Jogger unit (page 17 "Jogger Unit Removal")
- Main jogger cover plate (page 20 "Main Jogger Cover Plate")

1. Disconnect sensor bracket [A] and rails ① and ② (⚙️ x4).
2. Slide the rails to the rear.
3. Shift tray paper sensor [B] (🔧 x1, ▼ x5)



d447r132

## Tray Lift Motor



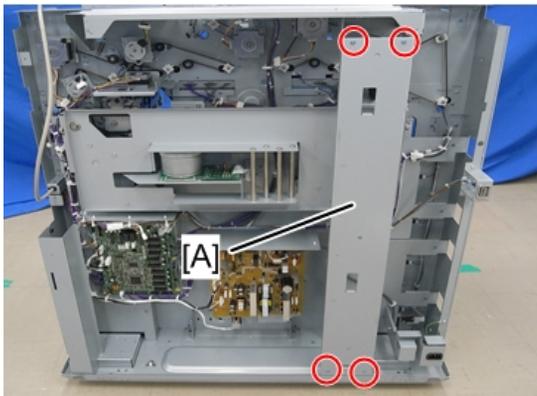
d776e0109

### Preparation

Remove these parts:

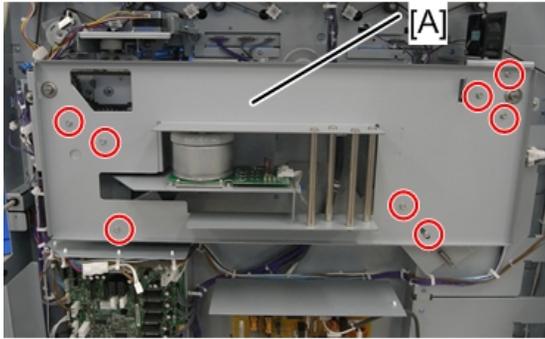
- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. Vertical plate [A] (Ⓜ x4)



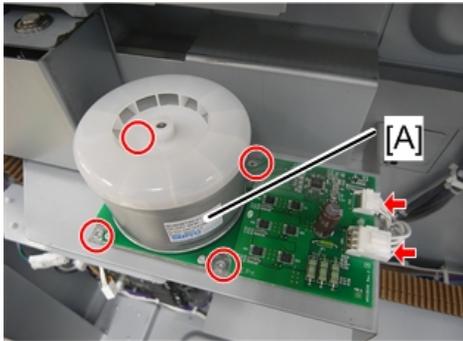
d776z0037

2. Belt cover Plate [A] (Ⓜ x8)



d776z0038

3. Tray lift motor [A] (⚙️ x4, 📦 x2)



d194z0290

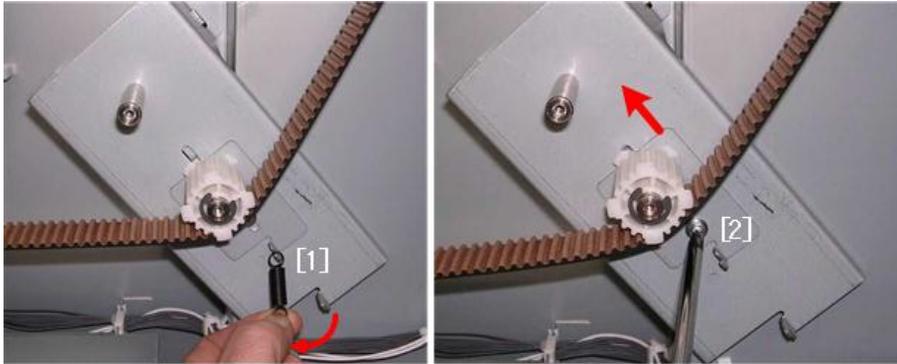
**Re-installation**

Whenever the belt cover plate has been removed, you should check and re-set the tension on the transverse belt before re-attaching the belt cover plate.



d447r201

1. Remove spring [1].
2. Loosen screw [2] (do not remove it) to raise the tension bracket to the left.



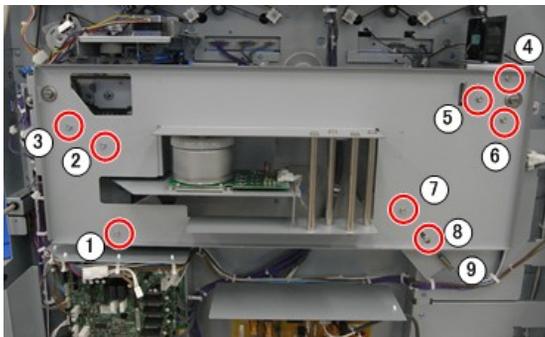
d447r202

3. Hang the belt cover plate [A] on the hook ①.
4. Make sure the bearings ② and ③ are snug in the holes.



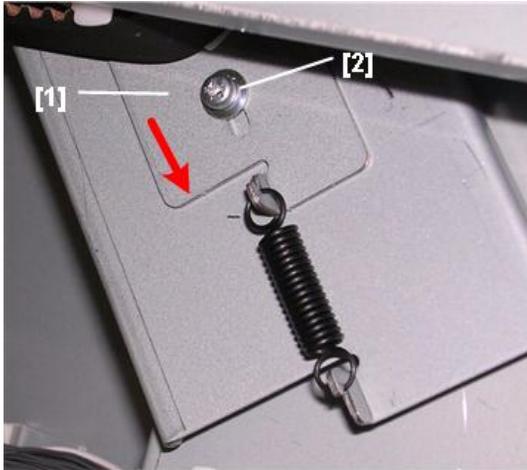
d447r203

5. Attach screws ①, ②, ③, ④, ⑤, ⑥ and tighten.
6. Attach screws ⑦, ⑧ but do not tighten.
7. Re-attach the removed spring ⑨.



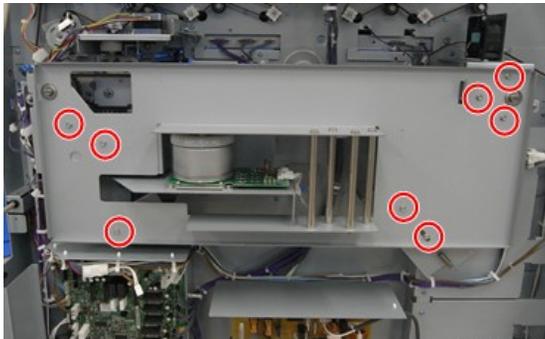
d776e0110

8. Above the spring, pull the tension bracket down [1] as far as it will go, and tighten tension screw [2]



d447r205

9. Tighten all the screws (⊕ x8).



d776e0111

### Paper Height Sensor

---

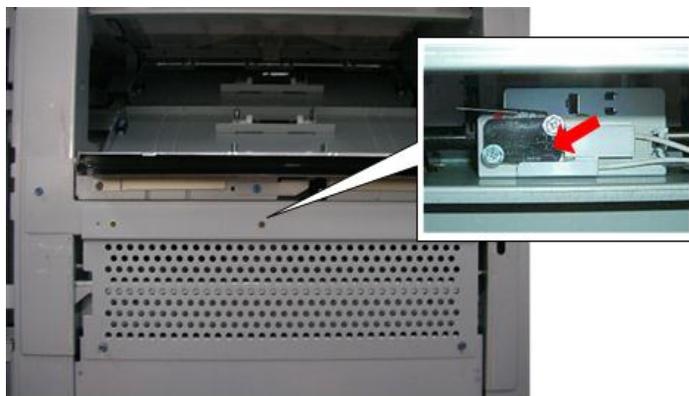
The paper height sensor is mounted on the same bracket as the shift entrance sensor.

For details about this procedure, please refer to Shift Tray Exit Sensor, Paper Height Sensor. (page 42 "Shift Tray Exit Sensor, Paper Height Sensor")

### Tray High Limit SW

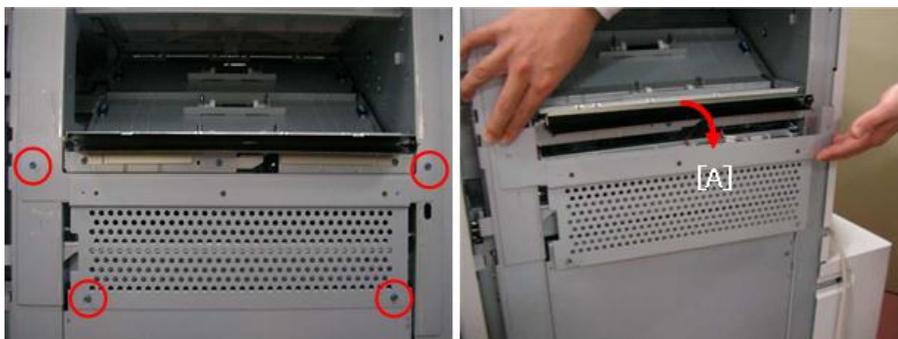
---

This switch is on the right side of the stacker.



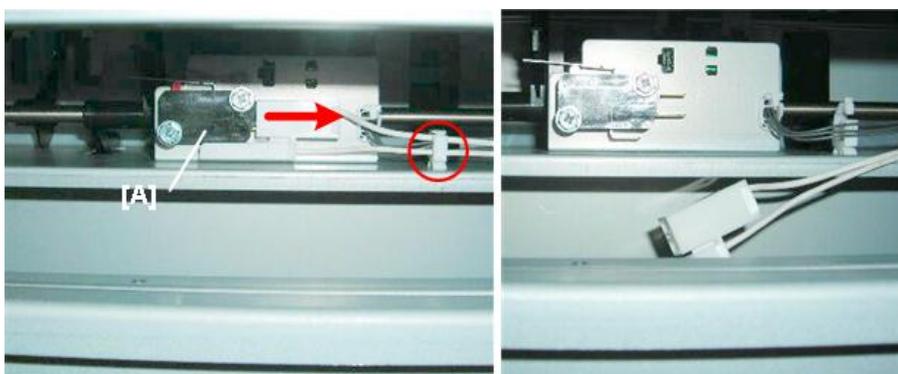
d447r140

1. Remove plate [A] (🔑 x4)



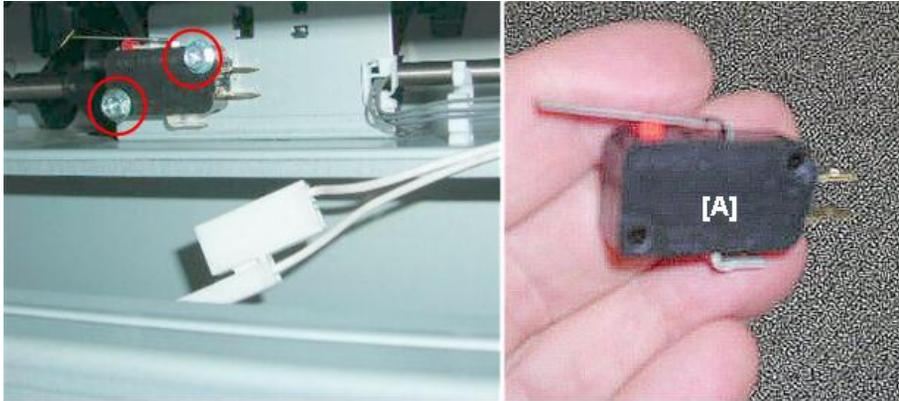
d447r170

2. Disconnect the tray high limit SW [A] (🔌 x1, 🛠️ x1)



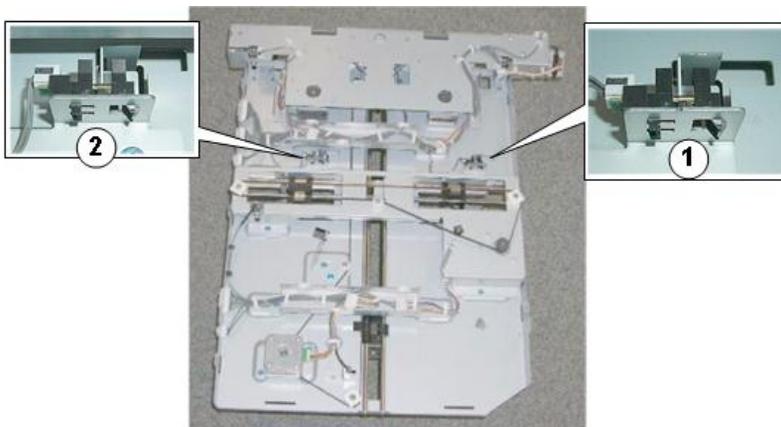
d447r141

3. Tray high limit SW [A] (🔑 x2).



d447r142

## Tray Guard Sensors 1, 2



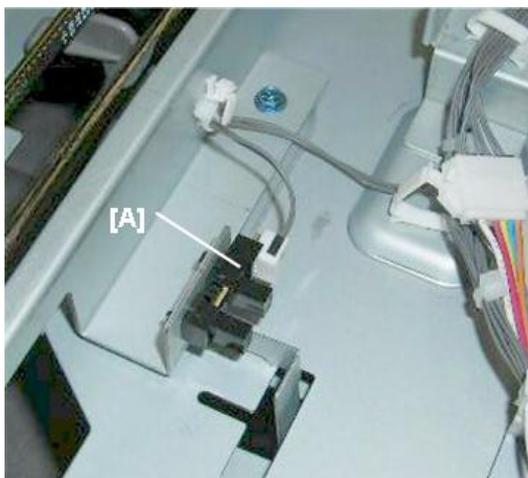
d447r143

### Preparation

- Jogger unit (page 17 "Jogger Unit Removal")

### Tray Guard Sensor 1

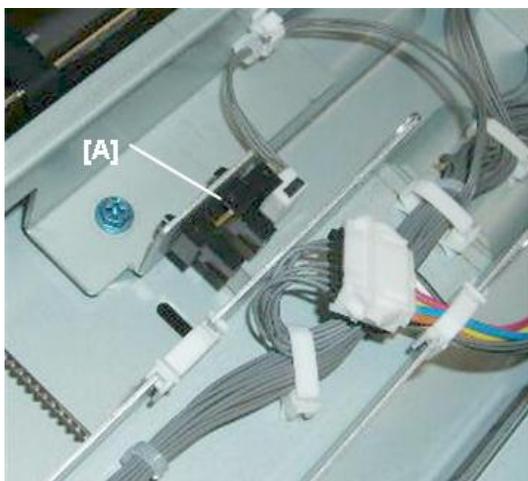
1. Tray guard sensor 1 [A] (📦 x1, 🔩 x3)



d447r144

### Tray Guard Sensor 2

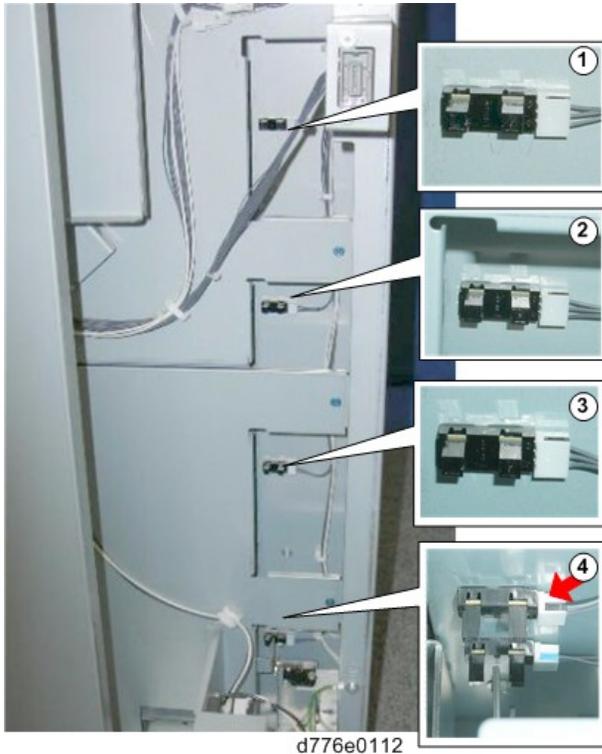
1. Tray guard sensor 2 [A] (📦 x1, 🔩 x3)



d447r145

### Tray Full Sensors 1, 2, 3, 4

There are four tray full sensors mounted on the same vertical support.



d776e0112

①	Tray Full Sensor 1: 25%
②	Tray Full Sensor 2: 50%
③	Tray Full Sensor 3: 75%
④	Tray Full Sensor 4: 100%

### Preparation

Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Left cover (page 9 "Left Cover")

### Tray Full Sensors 1, 2, 3

1. The pawls of these sensors are visible behind the frame (🔧 x1, 🔩 x5 each)

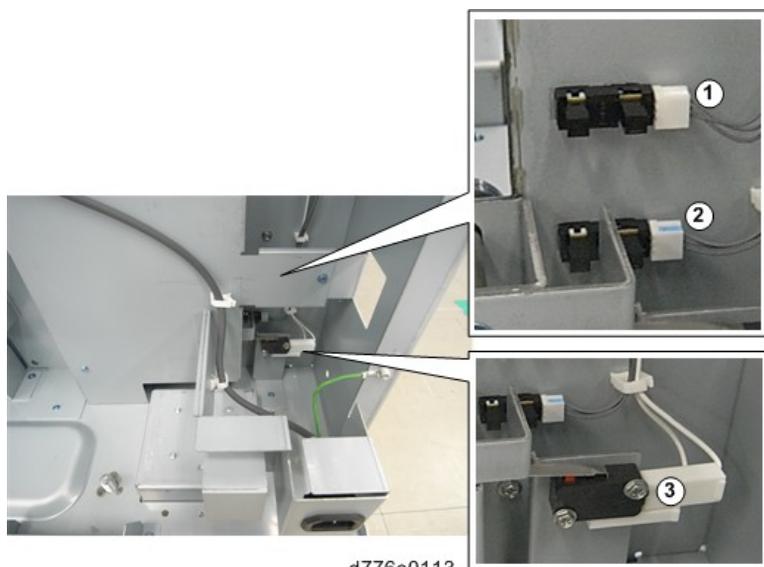


d447r147

### Tray Full Sensor 4

See the next procedure below.

### Tray Full Sensor 4, Tray Low Limit Sensor, Tray Low Limit Switch



d776e0113

①	Tray Full Sensor 4 100%
②	Tray Low Limit Sensor

③ Tray Low Limit Switch

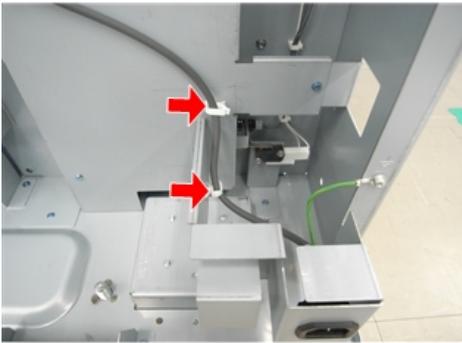
1

**Preparation**

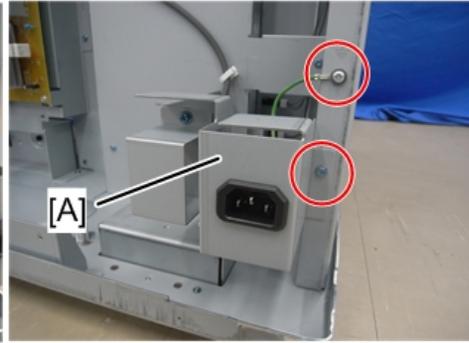
Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Left cover (page 9 "Left Cover")

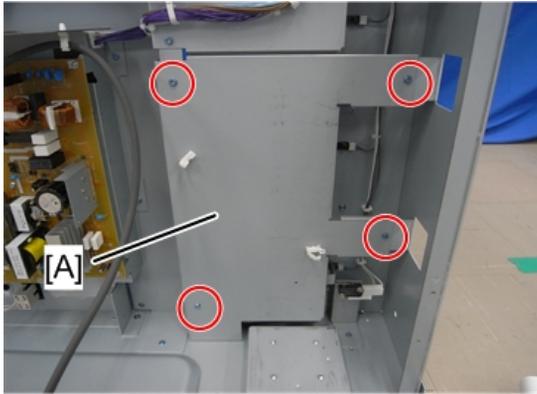
1. Switch bracket [A] (Ⓜ x1, ground screw x1, Ⓜ x2)



d776z0040



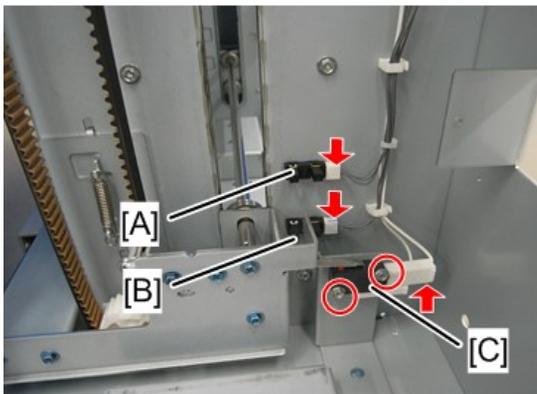
2. Cover plate [A] (Ⓜ x4)



d776z0041

3. Remove (in any order):

- Tray full sensor 4 [A] (📦 x1, 🔩 x5)
- Tray low limit sensor [B] (📦 x1, 🔩 x5)
- Tray low limit switch [C] (📦 x1, ⚙️ x2)



d776z0042

## Shift Tray Position Adjustment

The shift tray timing belts can be adjusted to ensure that the shift tray is level:

- **Front-to-rear.** This adjustment is done first.
- **Left-to-right.** This adjustment is done after front-to-rear adjustment.

### ★ Important

- Always do the front-to-rear adjustment first on both sides and then do the left-to-right adjustment.
- Never do the front-to-rear adjustments without later checking and setting the left-to-right alignment of the tray.

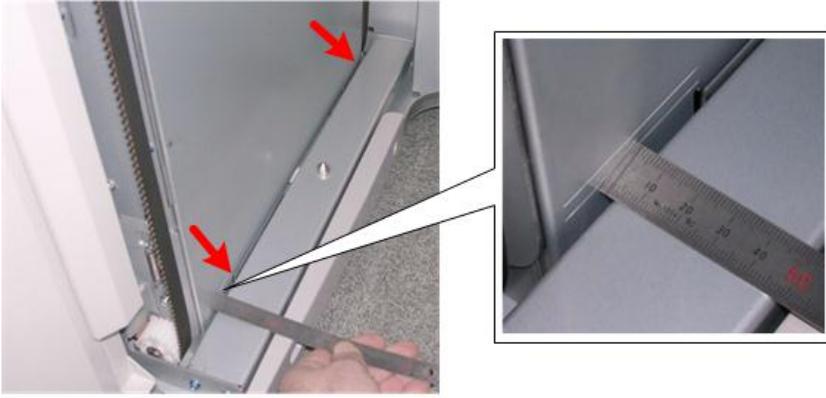
## Check for Skew

---

### Right Side

1. Press the button on the stacker operation panel to lower the shift tray.
2. Open the front door and pull out the tray cart.
3. Check the front-to-rear alignment of the tray.
4. Check the alignment of the left and right sides of the tray brackets.

#### Front left, below stacker exit



d447r207

#### Front right, below stacker entrance



d447r208

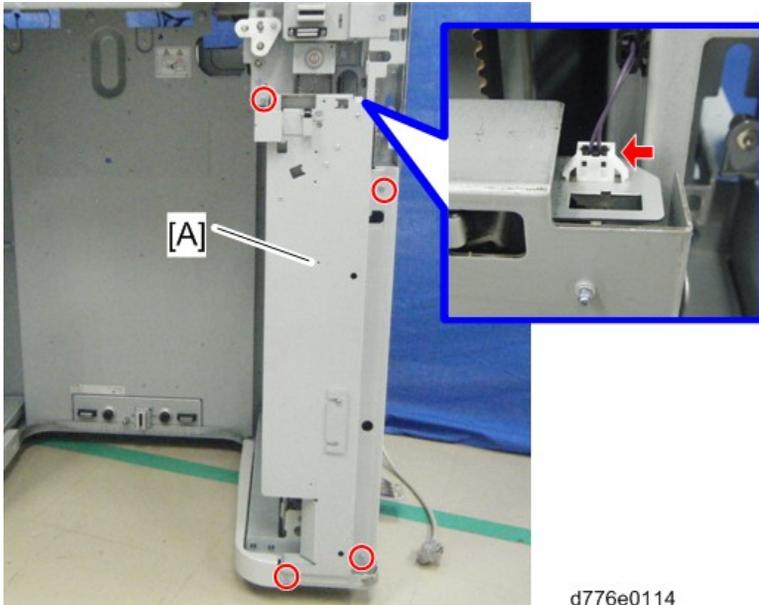
5. Determine if the brackets are at the same level:
  - Front-to-back
  - Left-to-right

If the brackets are at the same level, no adjustment is required.

## Front-to-Rear Adjustment

### Right Side

1. Remove:
  - Top door (page 10 "Top Door")
  - Front right cover (page 12 "Front Right Cover")
  - Right inner cover (page 13 "Right Inner Cover")
2. Right vertical stay [A] (⊙ x4, ⊞ x1)

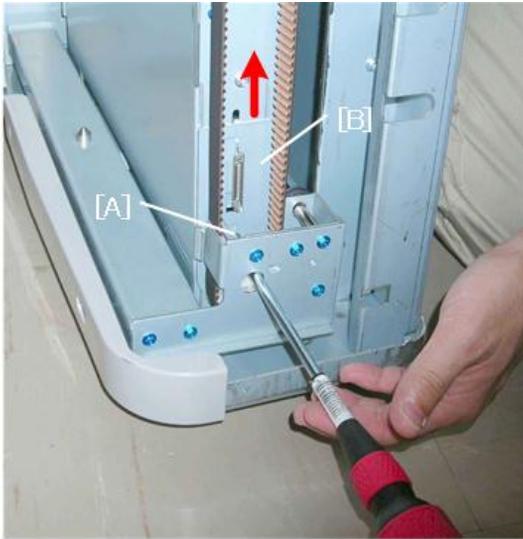


3. Remove the screws of the front door switch bracket [A] (⊙ x2). You do not need to remove the bracket.



4. Loosen the tension on the belt:
  - Loosen screw [A].
  - The tension bracket [B] will rise.

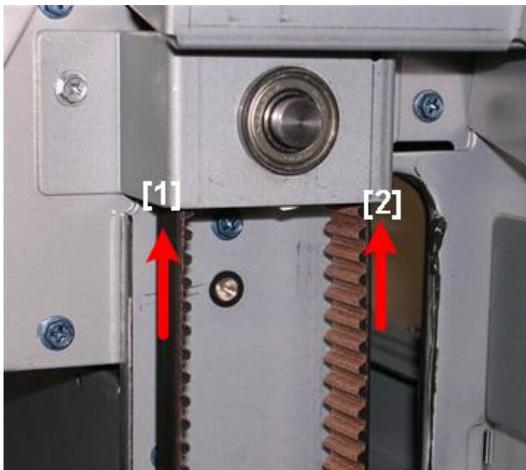
- Tighten screw [A].



d447r211

5. Adjust the belt:

- If the front end is low, pull up the left side of the belt [1] to raise the front.
- If the front end is high, pull up the right side of the belt [2] to lower the front.
- Every notch adjustment (you will be able to hear it click) adjusts the height of the front by 5 mm.

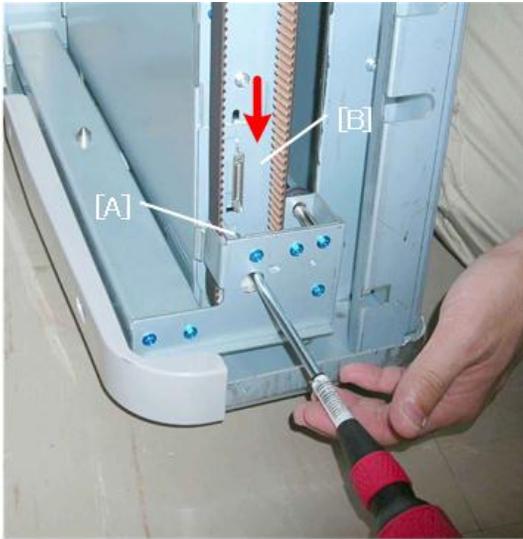


d447r212

6. Re-set the belt tension:

- Loosen screw [A].
- Pull down the spring [B] to apply tension to the belt.

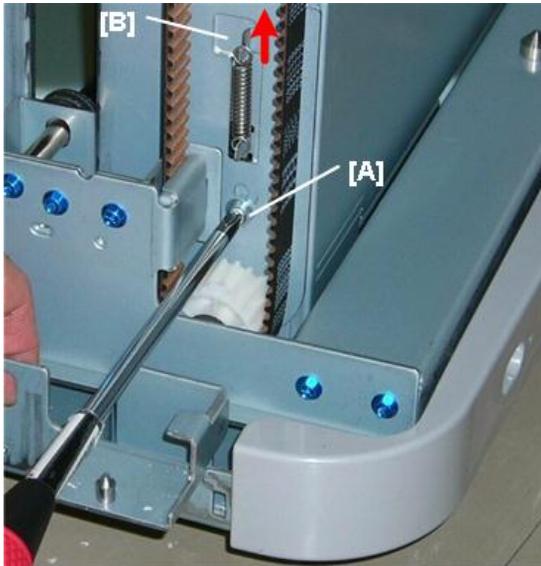
- Tighten screw [A] with the bracket pulled down.



d447r213

### Left Side

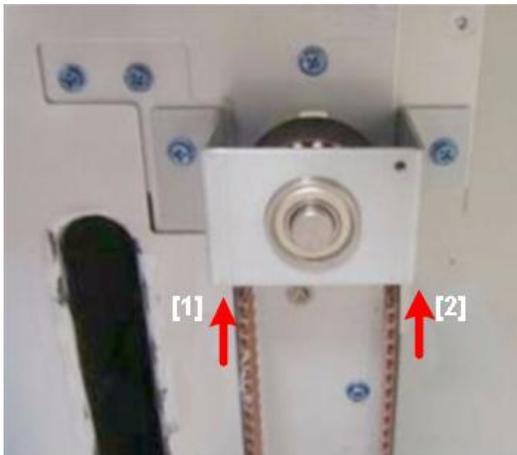
1. Remove:
  - Top door (page 10 "Top Door")
  - Front door (page 10 "Front Door")
  - Front left cover (page 13 "Front Left Cover")
2. Loosen the tension on the belt:
  - Loosen tension screw [A].
  - The tension bracket [B] will rise.
  - Tighten screw [A].



d447r214

3. Adjust the belt:

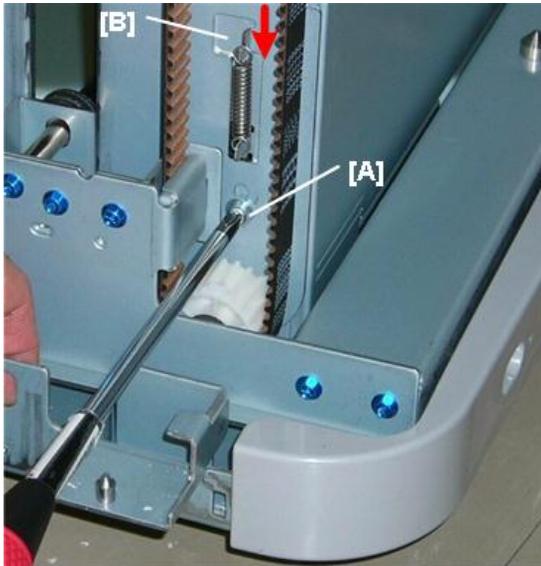
- If the front end is low, pull up the left side of the belt [1] to raise the front.
- If the front end is high, pull up the right side of the belt [2] to lower the front.
- Every notch adjustment (you will be able to hear it click) adjusts the height of the front by 5 mm.



d447r215

4. Set the belt tension:

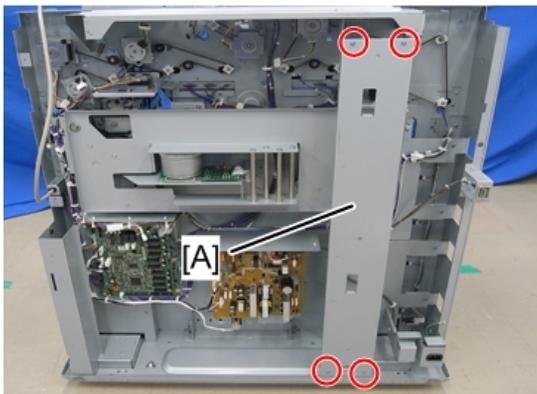
- Loosen screw [A].
- Pull down the spring [B] to apply tension to the belt.
- Tighten screw [A] with the bracket down.



d447 r216

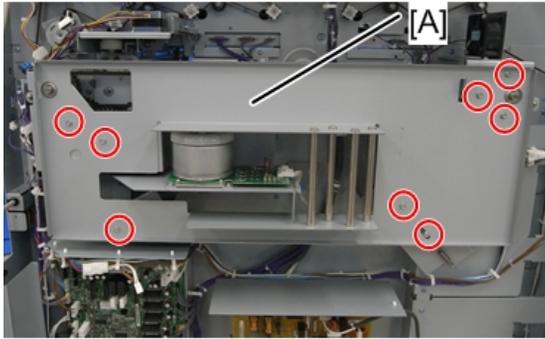
## Left-to-Right Adjustment

1. Check the lines inside the stacker to determine if the tray is slanting to the left or right.
2. Remove:
  - Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
  - Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")
  - Corner cover (page 8 "Corner Cover")
3. Vertical plate [A] (Ⓜ x4)



d776z0037

4. Belt cover Plate [A] (Ⓜ x8)



d776z0038

5. Release the tension on the timing belt:

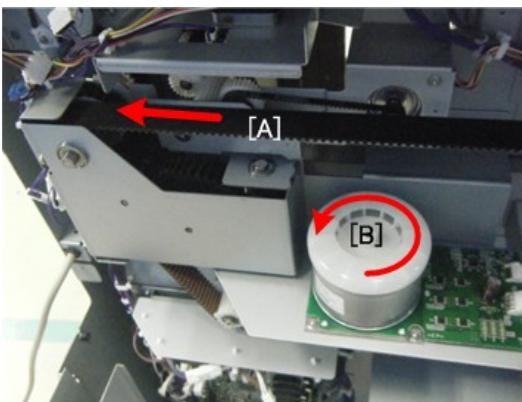
- Remove spring [1].
- Loosen tension screw [2].
- Slide bracket [3] up to the left.



d776e0115

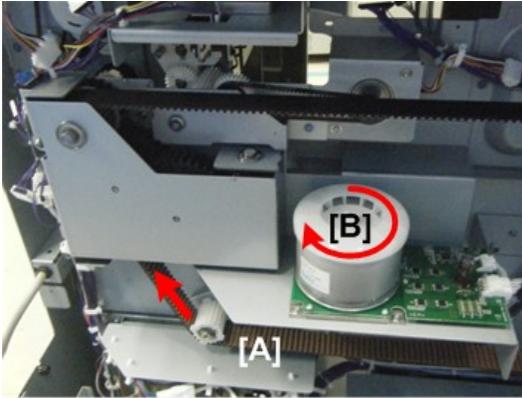
6. Adjust the belt position:

- To lower the right side of the tray below the stacker entrance, pull the belt in the direction of the arrow at [A] while rotating the top of the tray lift motor [B] counter-clockwise.



d776e0116

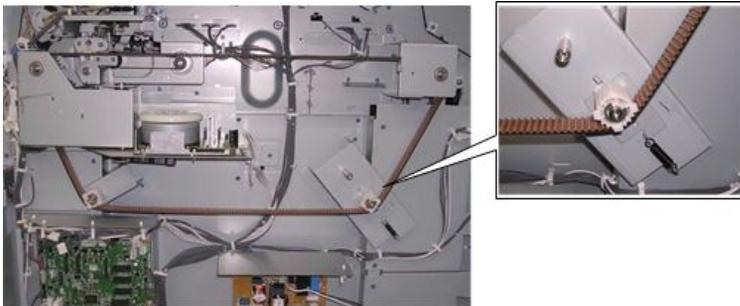
- To raise the right side of the tray below the stacker entrance, pull the belt in the direction of the arrow at [A] while rotating the top of the tray lift motor [B] clockwise.



d776e0117

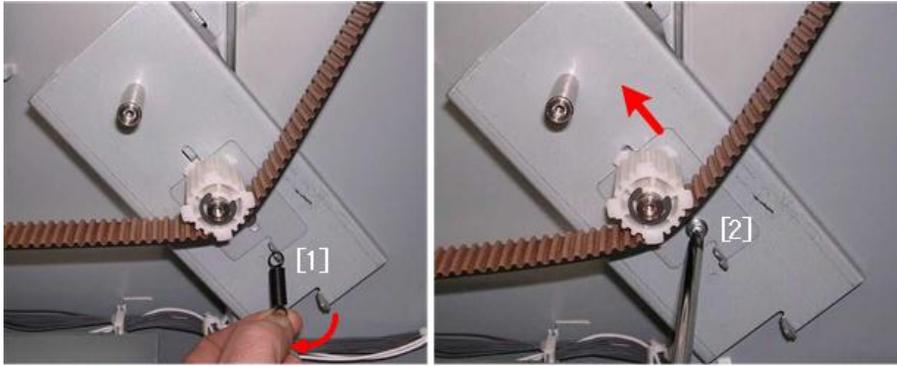
### Re-installation

Whenever the belt cover plate has been removed, you should check and re-set the tension on the transverse belt before re-attaching the belt cover plate.



d447r201

1. Remove spring [1].
2. Loosen screw [2] (do not remove it) to raise the tension bracket to the left.



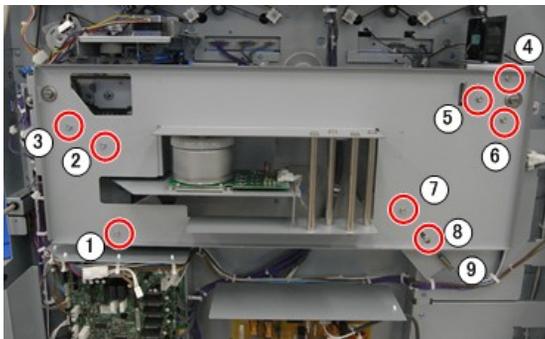
d447r202

3. Hang the belt cover plate [A] on the hook ①.
4. Make sure the bearings ② and ③ are snug in the holes.



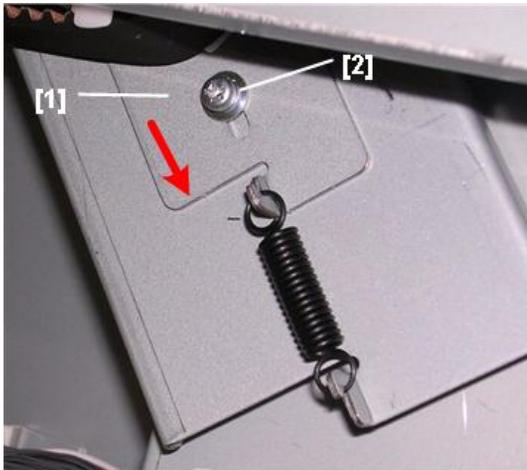
d447r203

5. Attach screws ①, ②, ③, ④, ⑤, ⑥ and tighten.
6. Attach screws ⑦, ⑧ but do not tighten.
7. Re-attach the removed spring ⑨.



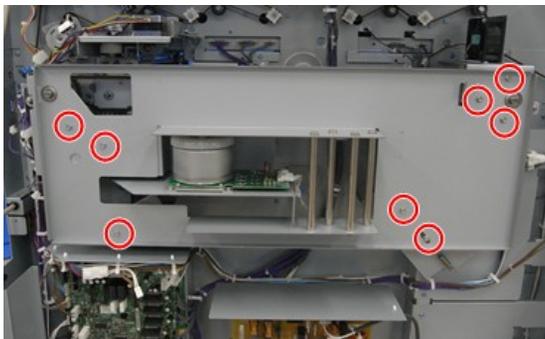
d776e0110

8. Above the spring, pull the tension bracket down [1] as far as it will go, and tighten tension screw [2]



d447r205

9. Tighten all the screws (Ⓢ x8).



d776e0111

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## Paddle Roller

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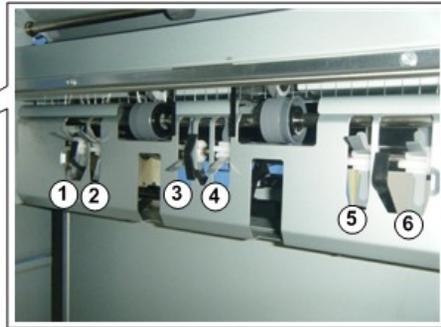
### Paddle Roller Cleaning

---

#### Preparation

- Open the front door
- Remove the roll-away cart (page 7 "Roll-Away Cart D456")

1. You can see the paddles at six locations behind on the right side between the jogger fences.

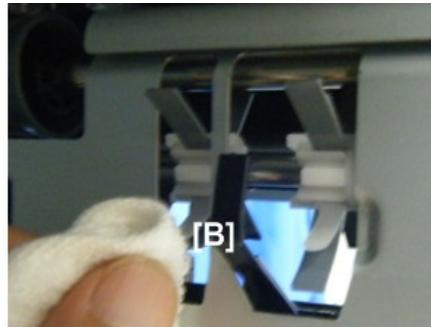


d776e0118

2. Use a dry cloth to clean:

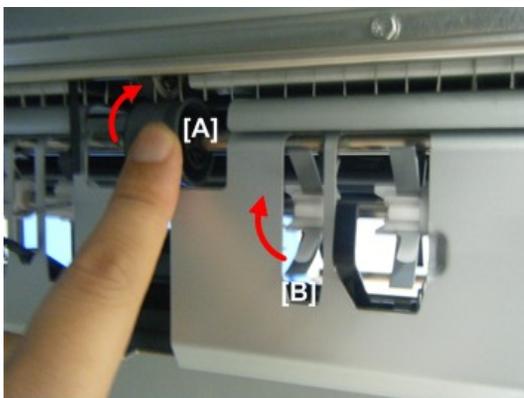
[A]: Top and bottom surfaces of each paddle

[B]: Tip of each paddle



d776e0119

3. Rotate the exit roller [A] to expose the next paddle [B].



d776e0120

4. Repeat Steps 1 and 2 at each location until all the paddles have been cleaned.

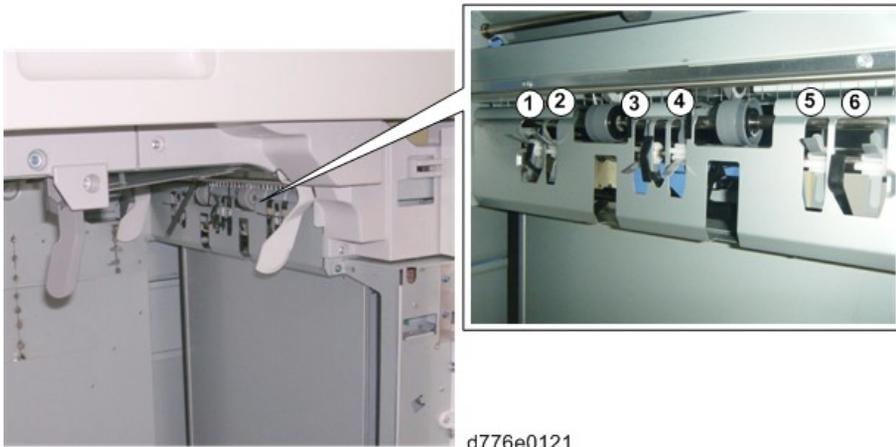
There are four paddles at each of the six locations where the paddles are exposed.

## Cleaning Exit, Shift Roller Shaft

1

### Preparation

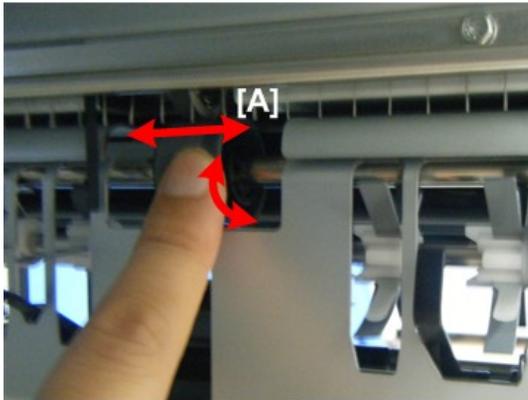
- Open the front door
  - Remove the roll-away cart (page 7 "Roll-Away Cart D456")
1. You can see the roller shaft exposed at six locations above the paddles of the paddle roller.



2. Use a soft dry cloth to clean the shaft at the first cutout.

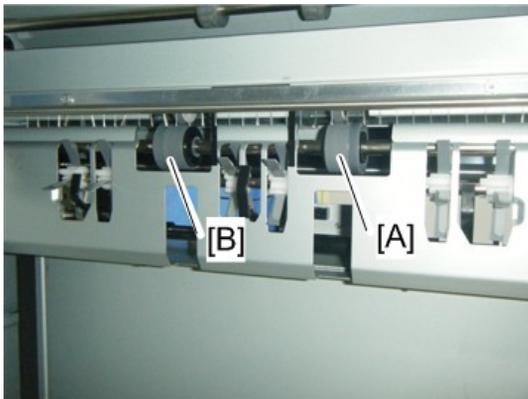


3. Rotate the exit roller [A] and push it from side to side while holding the cloth in place.



d776e0122

4. Repeat Steps 1 and 2 at each location.
5. Clean the rollers [A] and [B].



d776e0123

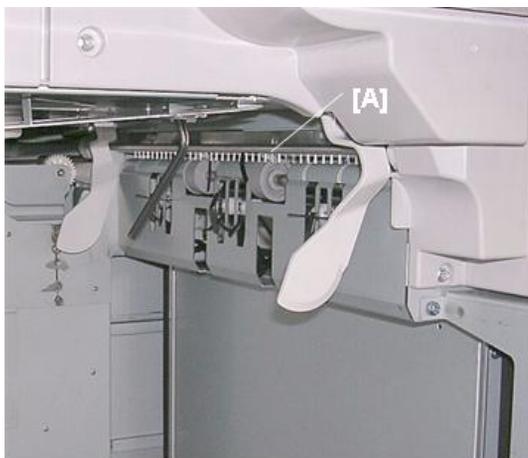
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## Anti-Static Brush Replacement

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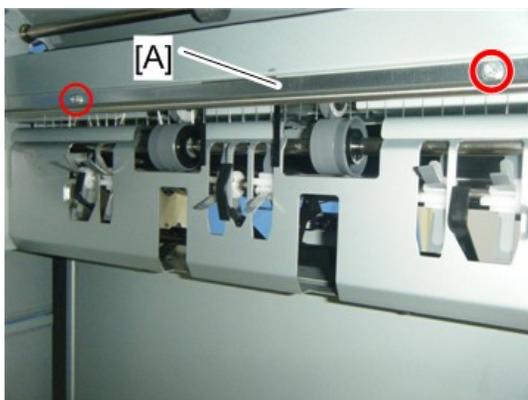
### Preparation

- Open the front door
  - Remove the roll-away cart (page 7 "Roll-Away Cart D456")
1. You can see the anti-static brush [A] between the jogger fences.



d447r267

2. Anti-static brush [A] (ⓐ x2)



d776e0124



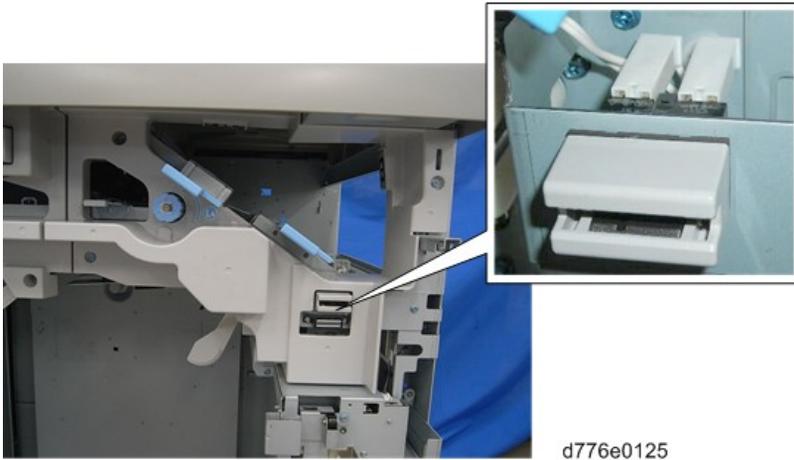
d447r269

# Switches, Solenoid

1

## Door Switches

### Front Door SW



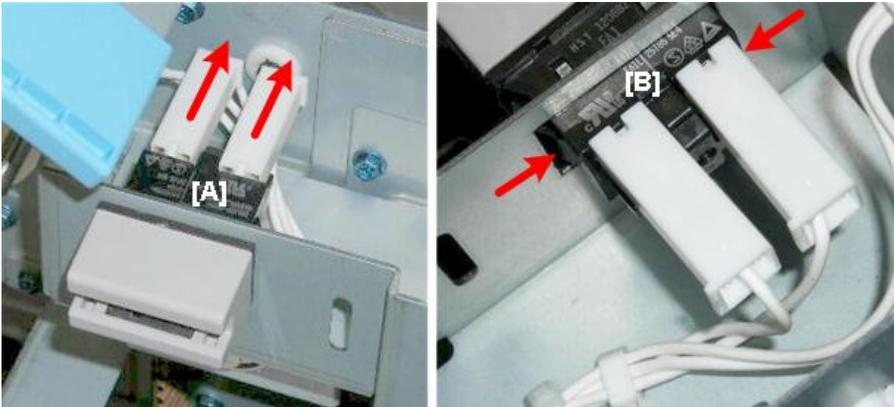
d776e0125

#### Preparation

Remove these parts:

- Top front cover (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")
- Top center cover (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")

1. Loosen connectors [A] (🔧 x2)
2. Depress releases [B] on both sides of the switch and remove (🔧 x2).



d447r154



d447r155

## Top Door SW



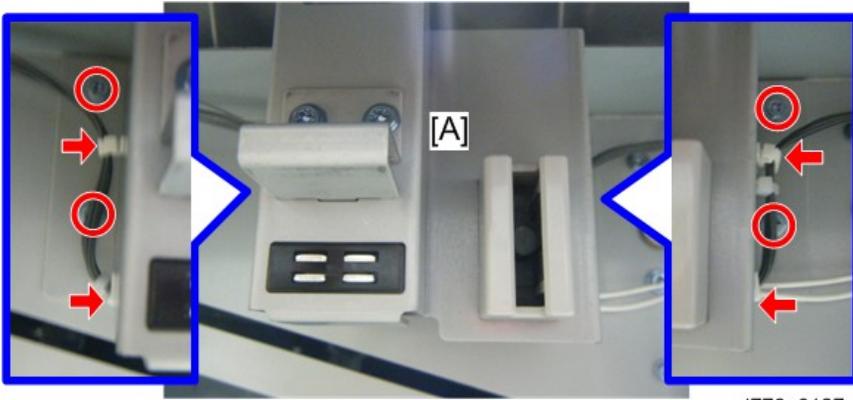
d776e0126

### Preparation

Remove these parts:

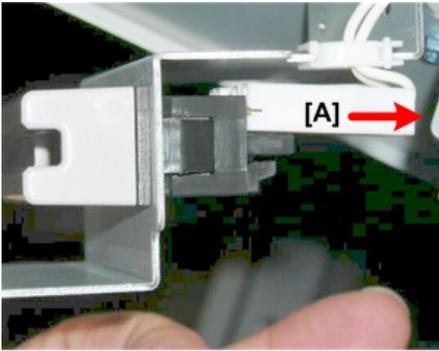
- Top front cover (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")
- Top center cover (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")

1. Bracket [A] (⚙️x4, ⚙️x4)



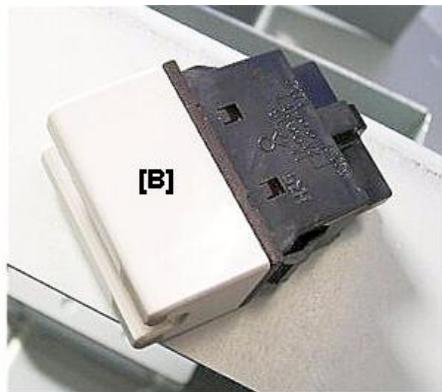
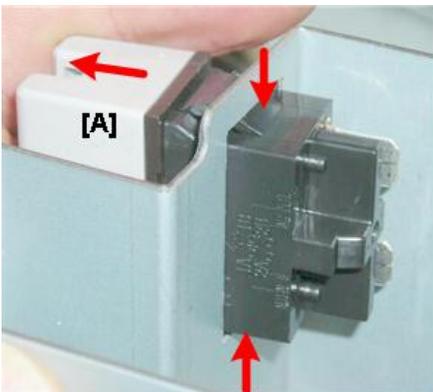
d776e0127

2. Disconnect the connector [A] (🔌 x1)



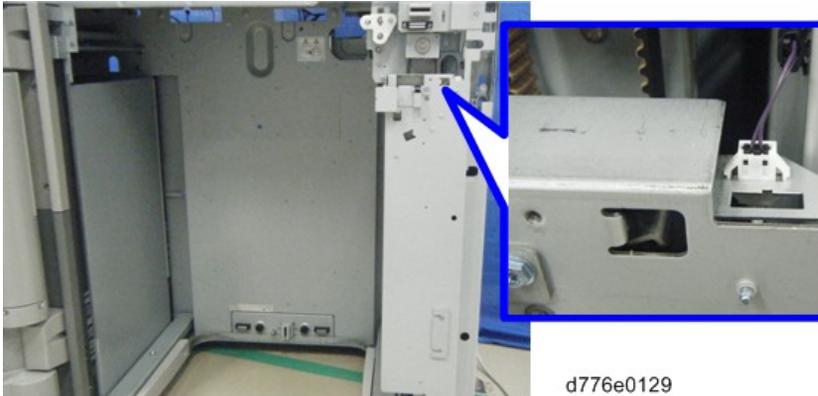
d776e0128

3. Depress release [A] then remove switch [B].



d447r158

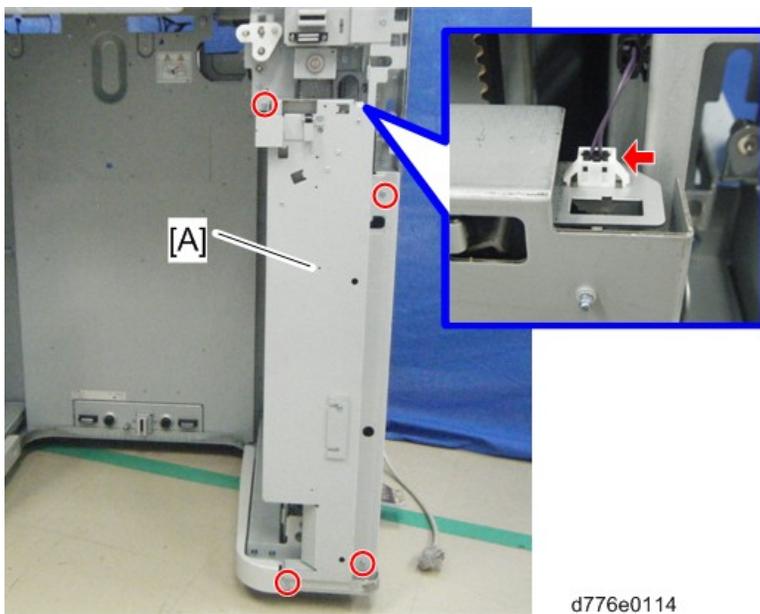
## Front Door Lock SOL



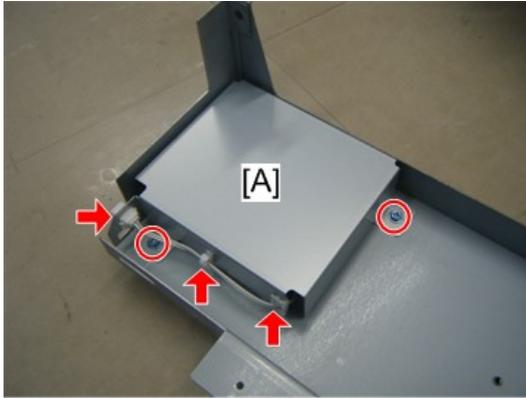
### Preparation

- Open the front door
- Remove the front right cover (page 12 "Front Right Cover")

1. Right vertical stay [A] (🔩 x4, 📦 x1)

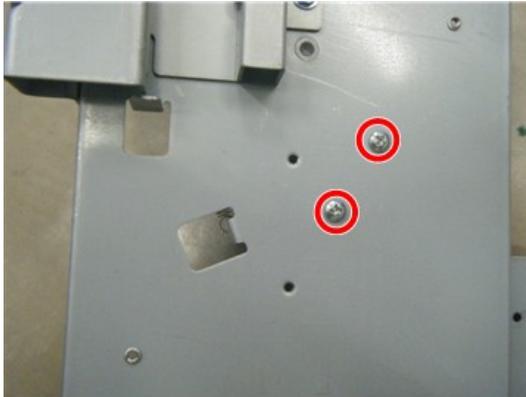


2. Remove the cover plate [A] from the right vertical stay (📦 x1, 🛠️ x2, 🔩 x2).



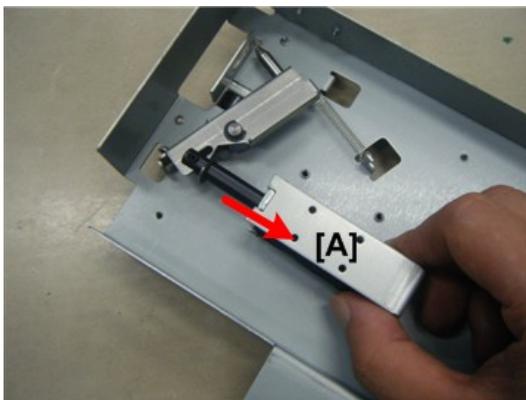
d776e0130

3. Turn the right vertical stay over and then remove two screws (🔩 x2).



d776e0131

4. Turn the right vertical stay over again and then remove the front door lock solenoid [A].



d776e0132

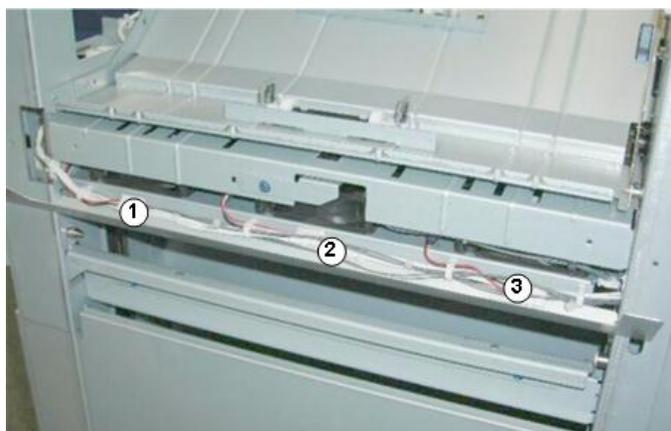
# Fans

## Paper Cooling Fan Motors

1

Below the stacker entrance, three fan motors are mounted on the same plate:

- Fan Motor 1
- Fan Motor 2
- Fan Motor 3



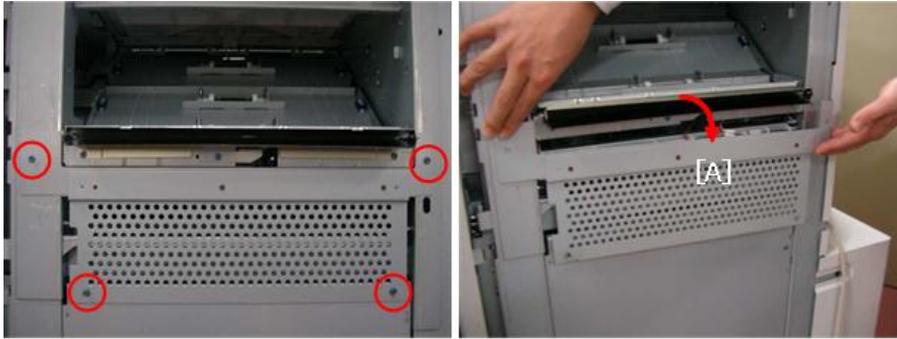
d447r169

### Preparation

Remove these parts:

- Rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Rear upper cover (page 7 "Rear Lower Cover, Rear Upper Cover")
- Right inner cover (page 13 "Right Inner Cover")
- Top center cover (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")

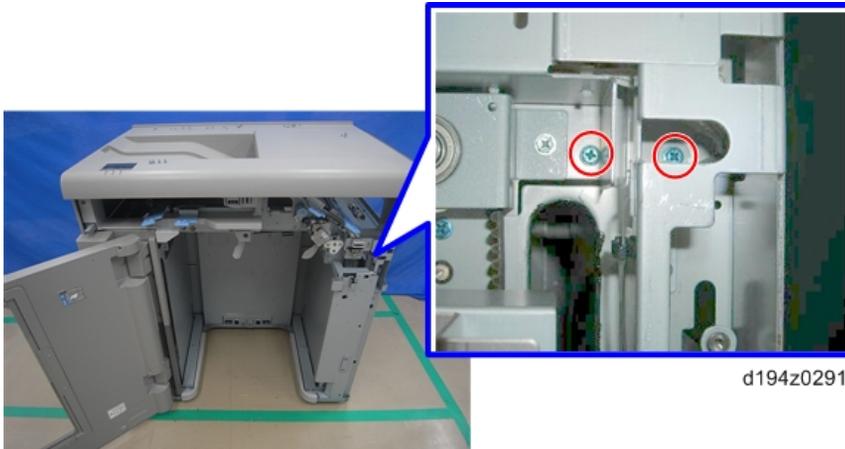
1. Plate [A] (Ⓢ x4)



d447r170

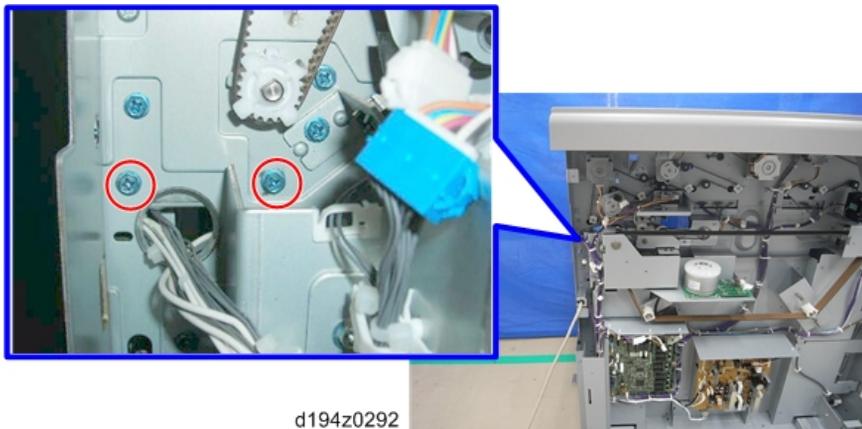
2. Disconnect the motor mount.

Front (⊖ x2)



d194z0291

Rear (⊖ x2)



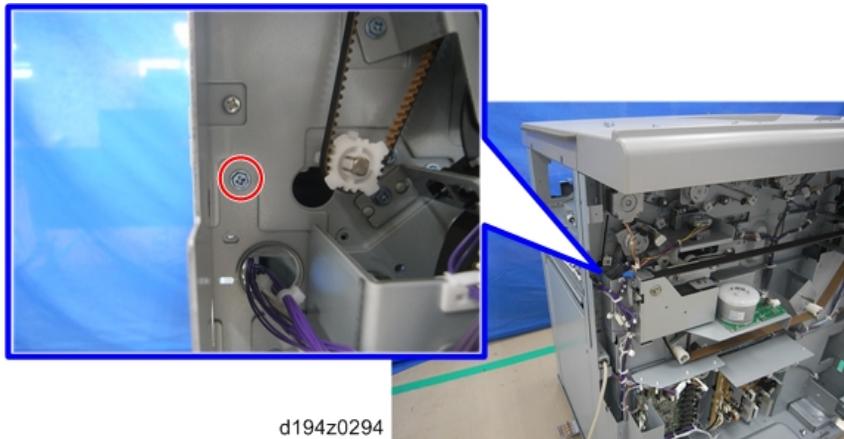
d194z0292

3. Remove the cover plate screws.

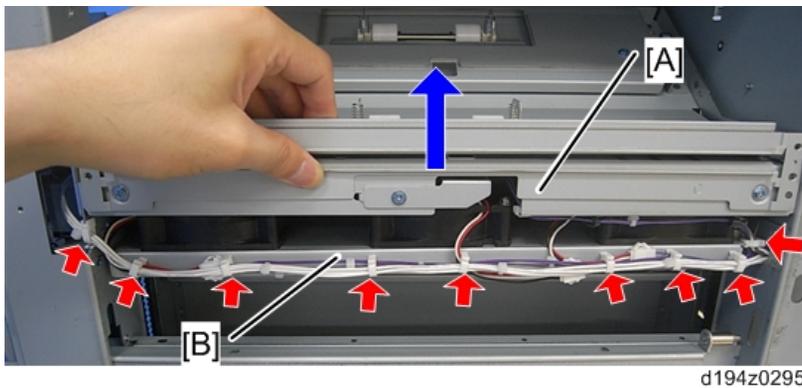
Front (🔩 x1)

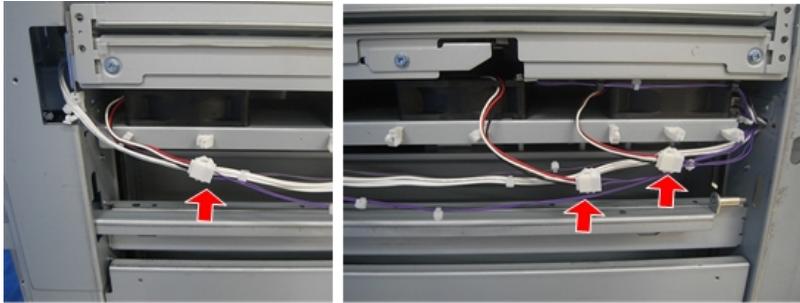


Rear (🔩 x1)



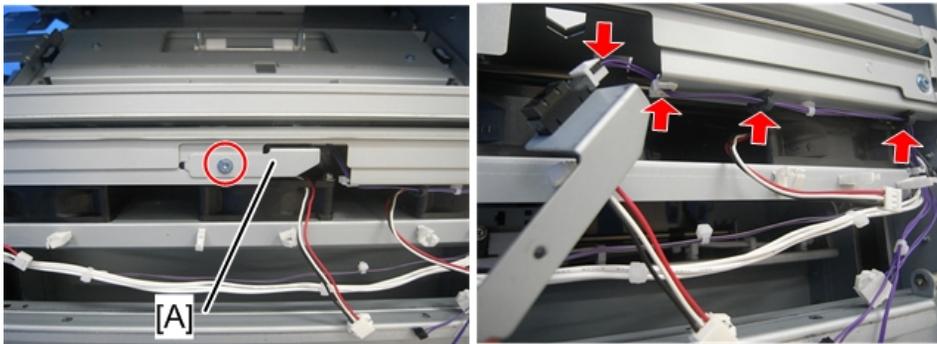
4. Raise cover plate [A] as high as possible.
5. Disconnect the harnesses and fans to clear the area in front of the motor mount [B] (🔧 x9, 📦 x3).





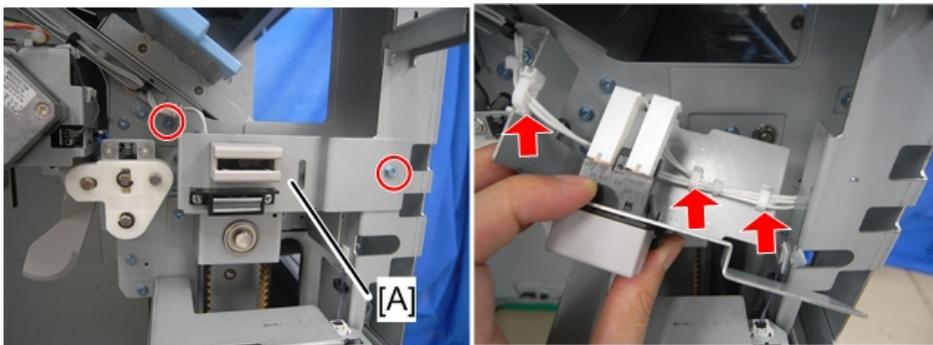
d194z0296

6. Disconnect the entrance sensor bracket [A] and pull it aside (🔧 x1, 📦 x1, 🛠️ x3)



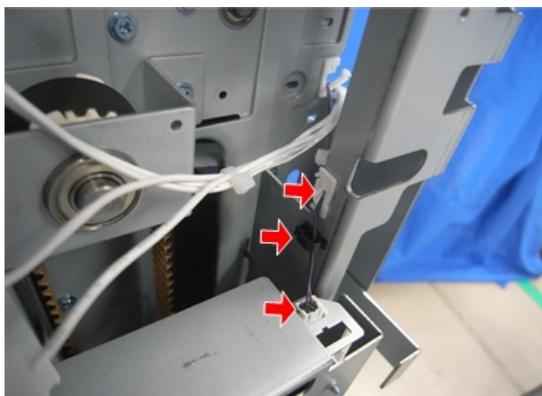
d194z0297

7. Disconnect the front door switch bracket [A] to create some slack in the white harness (📦 x2, 🛠️ x2)



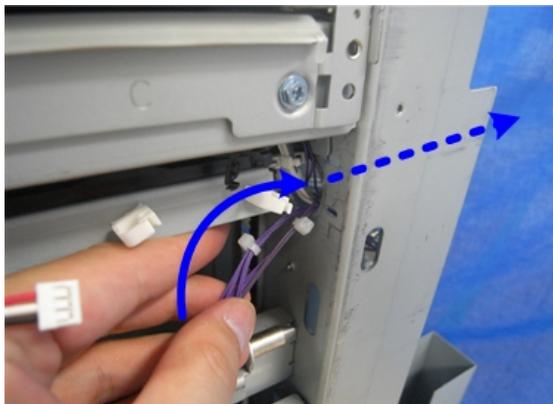
d194z0299

8. Disconnect the tray high limit switch harness (📦 x1, 🛠️ x2).



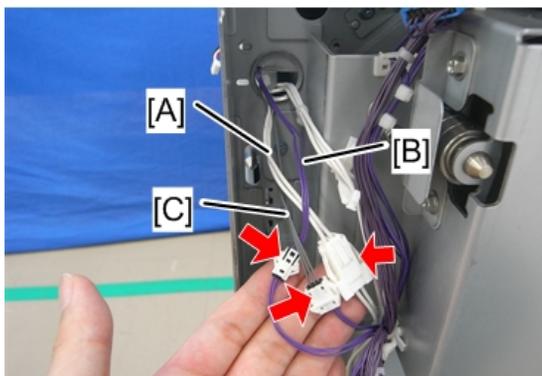
d194z0300

9. Pass the paper cooling fan motor harnesses, entrance sensor harness and tray high limit switch harness through the hole to the rear side.

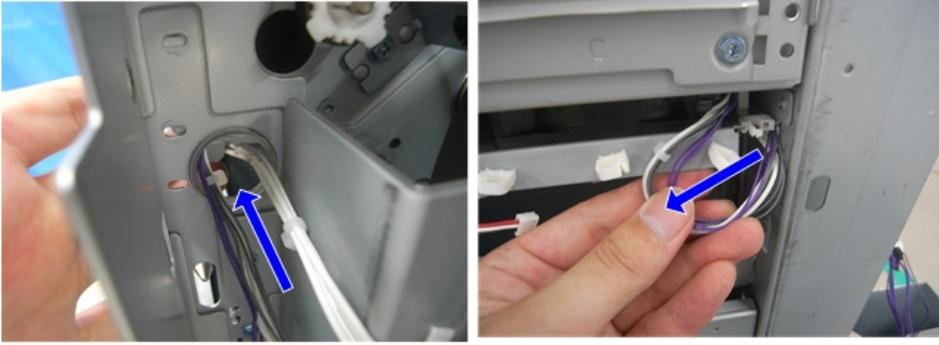


d194z0301

10. Pass the harnesses [A][B][C] from the rear side through the hole to the right side (📦 x3). These harnesses are removed from the fan motor mount in the next step.



d194z0302



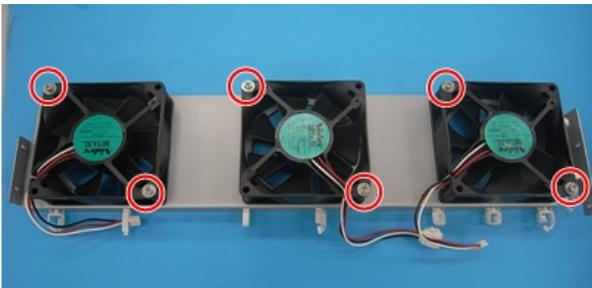
d194z0304

11. Pull out the fan motor mount [A] (x2).



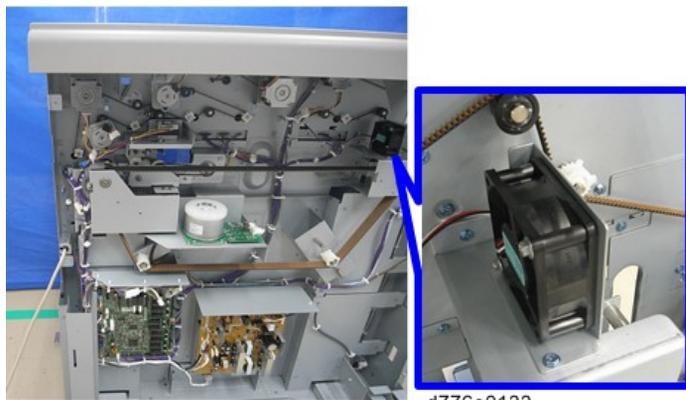
d194z0305

12. Each fan motor (x2 each)



d194z0298

## Cooling Fan Motor for Paper Transport Motors

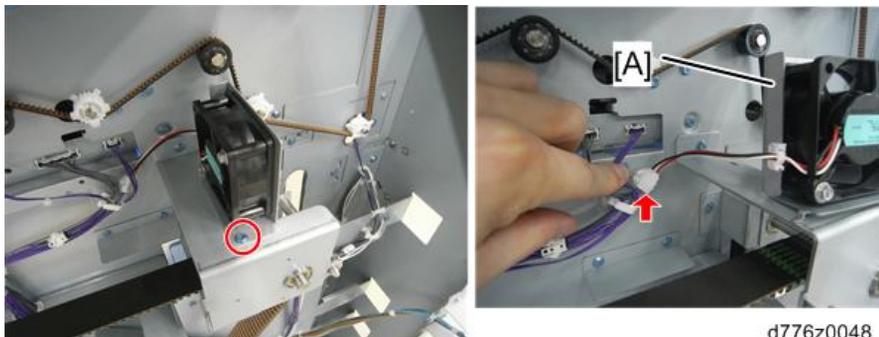


d776e0133

### Preparation

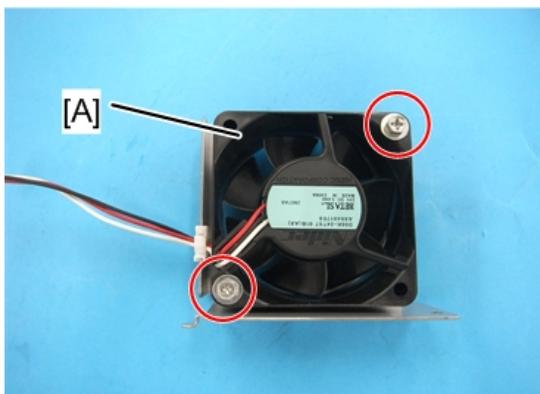
- Remove the rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. Remove the motor cooling fan with the bracket [A] (🔩 x1, 📦 x1).



d776z0048

2. Cooling fan motor [A] (🔩 x2)

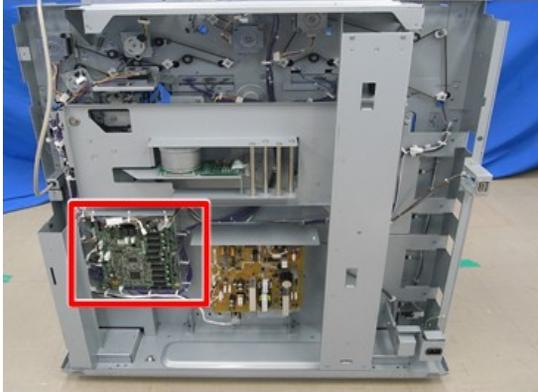


d776z0049

# Boards

1

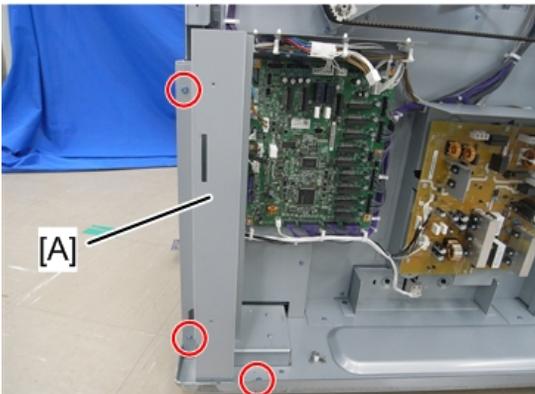
## Main Board



d776e0134

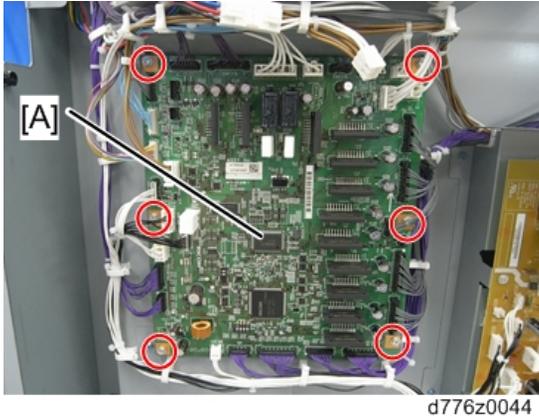
### Preparation

- Remove the rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")
1. Stay [A] (🔩 x3)



d776z0043

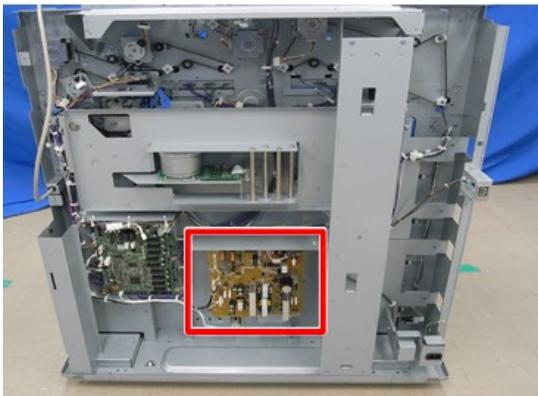
2. Main board [A] (🔩 x all, 🔩 x6)



## PSU

### ⚠ CAUTION

- Never not touch solder connections or electronic parts on the PSU after removing it because electrical charge can remain on the PSU even after it has been removed.
- After removing the PSU, never place put it on a conductive material such as metal.



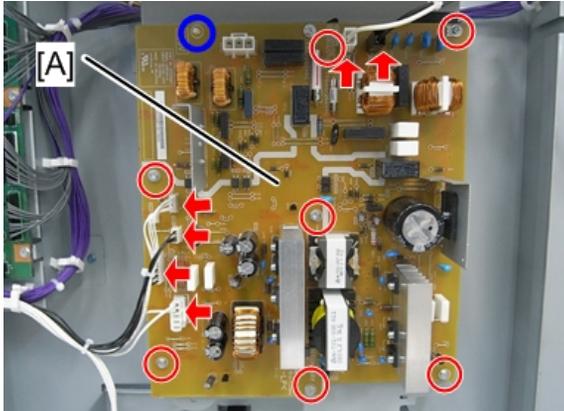
d776e0135

### Preparation

- Remove the rear lower cover (page 7 "Rear Lower Cover, Rear Upper Cover")

1. PSU [A] (🔩 x6, 🛠 x7, 🛠 x1)

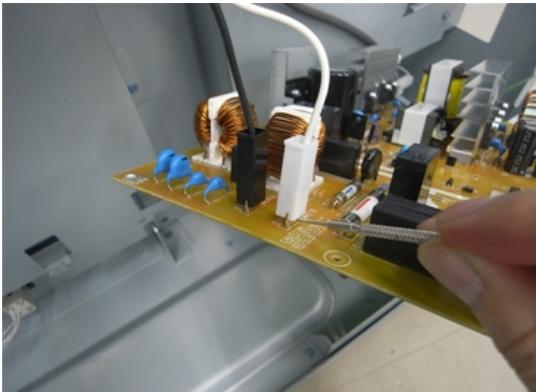
Upper right screw: round screw with washer



d776z0045

**Note**

- Bayonet connector may be too stiff to disconnect before removing the board. Disconnect it after removing the board.

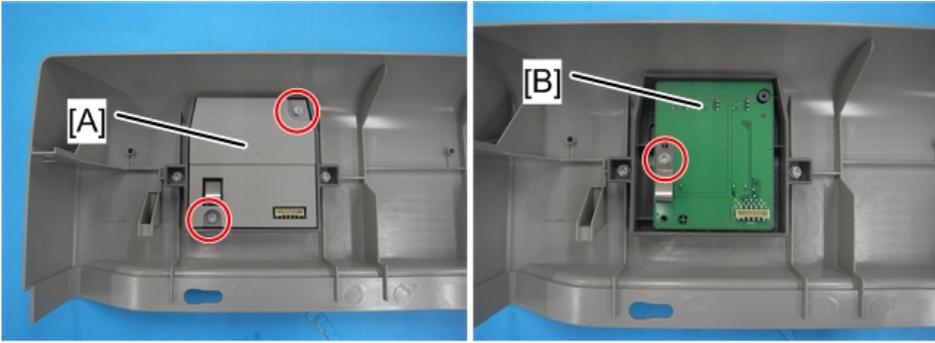


d776z0046

## Operation Panel PCB

### Preparation

- Remove the top front cover (page 14 "Proof Tray, Top Front Cover, Top Center Cover, Top Rear Cover")
1. Turn over the top front cover.
  2. Cover [A] (🔩 x2)
  3. Operation panel PCB [B] (🔩 x1).



d776z0050

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