

High Capacity Stacker SK5020
Machine Code: D515
Service Manual

July 2011

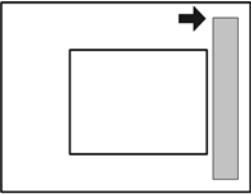
Safety, Conventions, Trademarks

Conventions

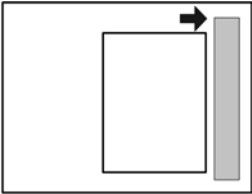
Common Terms

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

Symbol	What it means
	Screw
	Connector
	E-ring
	C-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



SEF (Short Edge Feed)



LEF (Long Edge Feed)

d074c001

The notations "SEF" and "LEF" describe the direction of paper feed, with the arrows indicating paper feed direction.

Warnings, Cautions, Notes

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 finisher 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.

General Safety Instructions

For your safety, please read this manual carefully before you use this product. Keep this manual handy for future reference.

Safety Information

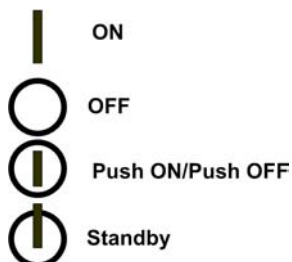
Always obey the following safety precautions when using this product.

Safety During Operation

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

Switches and Symbols

Where symbols are used on or near switches on machines for Europe and other areas, the meaning of each symbol conforms with IEC60417.



d074c003

Responsibilities of the Customer Engineer

Reference Material for Maintenance

- 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.

Before Installation, Maintenance

Installation, Disassembly, and Adjustments

CAUTION

- After installation, maintenance, or adjustment, always check the operation of the machine to make sure that it is operating normally. This ensures that all shipping materials, protective materials, wires and tags, metal brackets, etc., removed for installation, have been removed and that no tools remain inside the machine. This also ensures that all release interlock switches have been restored to normal operation.
- Never use your fingers to check moving parts causing spurious noise. Never use your fingers to lubricate moving parts while the machine is operating.

Special Tools

CAUTION

- Use only standard tools approved for machine maintenance.
- For special adjustments, use only the special tools and lubricants described in the service manual. Using tools incorrectly, or using tools that could damage parts, could damage the machine or cause injuries.

During Maintenance

General

CAUTION

- Before you begin a maintenance procedure: 1) Switch the machine off, 2) Disconnect the power plug from the power source, 3) Allow the machine to cool for at least 10 minutes.

-
- Avoid touching the components inside the machine that are labeled as hot surfaces.

Power

WARNING

- Always disconnect the power plug before doing any maintenance procedure. After switching off the machine, power is still supplied to the main machine and other devices. To prevent electrical shock, switch the machine off, wait for a few seconds, then unplug the machine from the power source.
- Before you do any checks or adjustments after turning the machine off, work carefully to avoid injury. After removing covers or opening the machine to do checks or adjustments, never touch electrical components or moving parts (gears, timing belts, etc.).
- After turning the machine on with any cover removed, keep your hands away from electrical components and moving parts. Never touch the cover of the fusing unit, gears, timing belts, etc.

Organic Cleaners

CAUTION

- During preventive maintenance, never use any organic cleaners (alcohol, etc.) other than those described in the service manual.
- Make sure the room is well ventilated before using any organic cleaner. Use organic solvents in small amounts to avoid breathing the fumes and becoming nauseous.
- Switch the machine off, unplug it, and allow it to cool before doing preventive maintenance. To avoid fire or explosion, never use an organic cleaner near any part that generates heat.
- Wash your hands thoroughly after cleaning parts with an organic cleaner to contamination of food, drinks, etc. which could cause illness.

Power Plug and Power Cord

WARNING

- Before servicing the machine (especially when responding to a service call), always make sure that the power plug has been inserted completely into the power source. A partially inserted plug could lead to heat generation (due to a power surge caused by high resistance) and cause a fire or other problems.
- Always check the power plug and make sure that it is free of dust and lint. Clean it if necessary. A dirty plug can generate heat which could cause a fire.
- Inspect the length of the power cord for cuts or other damage. Replace the power cord if necessary. A frayed or otherwise damaged power cord can cause a short circuit which could lead to a fire or personal injury from electrical shock.

-
- Check the length of the power cord between the machine and power supply. Make sure the power cord is not coiled or wrapped around any object such as a table leg. Coiling the power cord can cause excessive heat to build up and could cause a fire.
 - Make sure that the area around the power source is free of obstacles so the power cord can be removed quickly in case of an emergency.
 - Make sure that the power cord is grounded (earthed) at the power source with the ground wire on the plug.
 - Connect the power cord directly into the power source. Never use an extension cord.
 - When you disconnect the power plug from the power source, always pull on the plug, not the cable.

After Installation, Servicing

Disposal of Used Items

CAUTION

- Always dispose of used items in accordance with the local laws and regulations regarding the disposal of such items.

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1. Replacement and Adjustment

Common Procedures

1

Roll-Away Cart D456



d447r001

★ 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.

Covers

1

Door and Cover Names



d447r002

①	Front Door ( x1)
②	Bottom Hinge Cover ( x1)
③	Front Left Cover ( x2)
④	Front Right Cover ( x2)
⑤	Top Door ("L" Pins x2)
⑥	Top Front Cover ( x2)
⑦	Top Center Cover ( x2)
⑧	Proof Tray ( x2)
⑨	Top Rear Cover ( x2)r



d447r003

⑩	Exit Cover Plate ( x2)
⑪	Left Cover ( x4)



d447r004

⑫	Rear Upper Cover ( x4)
⑬	Rear Lower Cover ( x4)
⑭	Corner Cover ( x4)

Rear Lower Cover, Rear Upper Cover



d447r005

1. The rear lower cover should be removed before the rear upper cover.
2. Rear lower cover [A] ( x4)



d447r006

3. Rear upper cover [B] ( x4)

Corner Cover

Preparation

Remove these parts:

- Rear lower cover
- Rear upper cover



d447r007

1. Corner cover [A] ( x4)

Left Exit Cover Plate

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



d447r008

1. Left exit cover plate [A] ( x2)

Left Cover

Preparation

- Remove the left exit cover plate



d447r009

1. Left cover [A] ( x4)

CAUTION

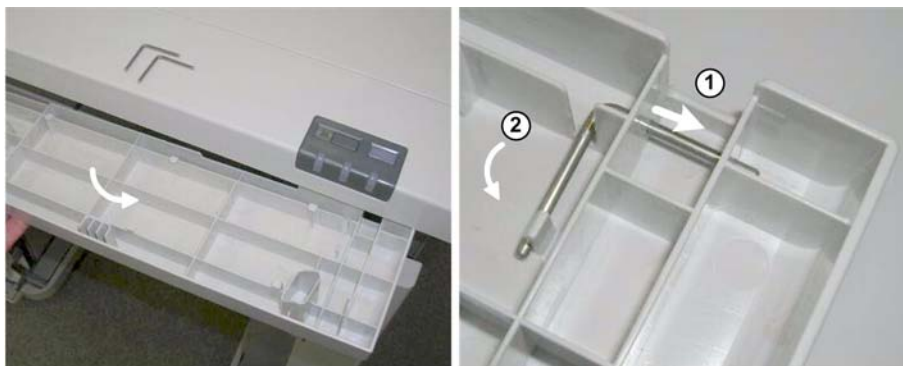
- Remove the last screw carefully. The left cover may fall suddenly because there are no hooks holding it in place.
- Never place your hand or fingers below the bottom edge of the cover when removing it.

Top Door



d447r012

1. Open the top door.
2. Remove the "L" hinges from the right and left ends of the door.



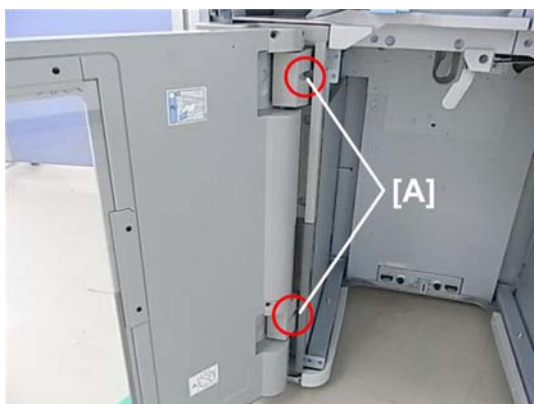
d447r013

3. Pull the door away from the stacker.
4. You may want to re-insert the "L" hinges in their holes ① and ② so that they do not get misplaced.

Front Door

Preparation

- Remove top door (See previous section).



d447r010

1. Open the front door.
2. Remove screws [A] ( x2)

1



d515r001

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



d515r002

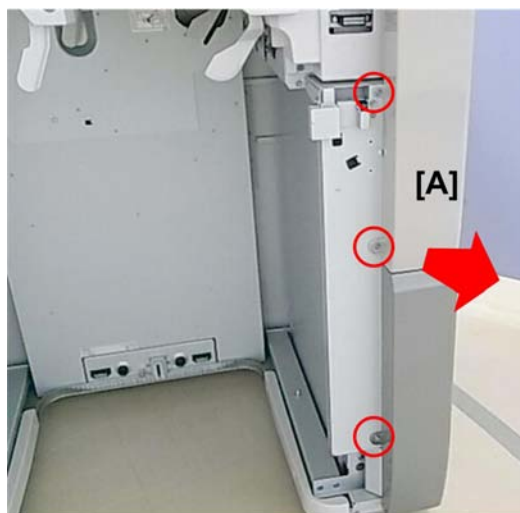
4. Slide the hinge cover toward you and remove it.



d515r003

5. Lift the front door and remove it.

Front Right Cover



d447r014

1. Front right cover [A] ( x3).
2. Push the right front cover [A] to the right to remove it. (You do not need to remove the lock hasp.)

Right Inner Cover

Preparation

- Remove the front right cover



d447r015

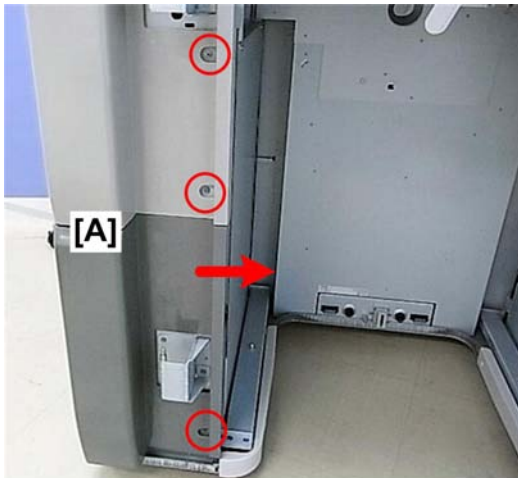
1. Remove right inner cover [A] ( x4). (You do not need to remove knob [B].)

Front Left Cover

Preparation

Remove these parts:

- Front door



d447r018

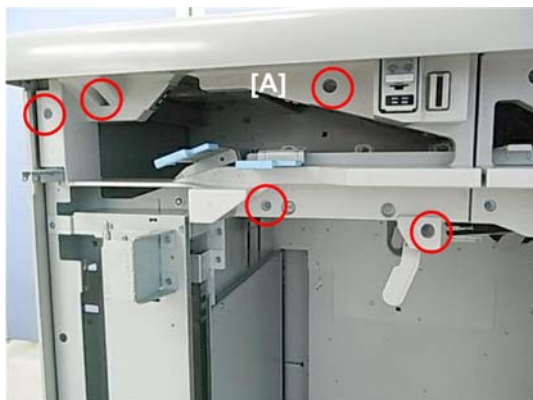
1. Remove front left cover [A] ( x3)

Left Inner Cover

Preparation

Remove these parts:

- Front door
- Top door
- Front left cover



d447r019

1. Remove left inner cover [A] ( x5)

Proof Tray

Preparation

Remove these parts:

- Left exit cover plate
- Left cover



d515r004

1. Disconnect the proof tray [A] ( x2)



d515r006

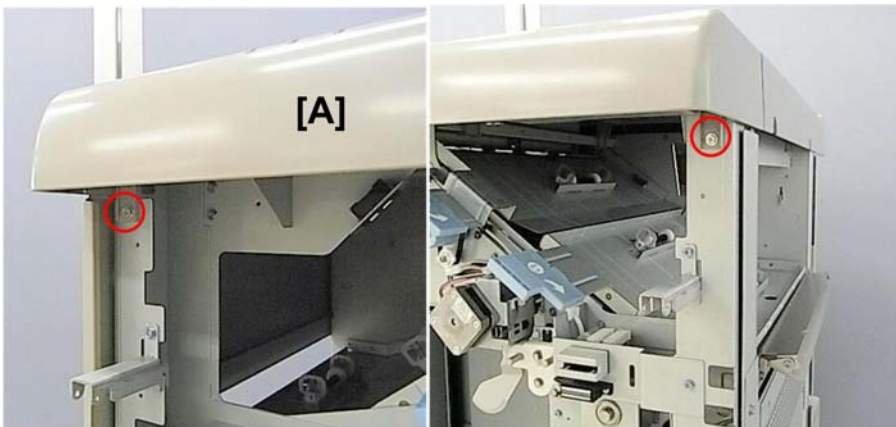
2. Slowly pull the proof tray off the top of the stacker.

Top Front Cover

Preparation

Remove these parts:

- Right inner cover
- Left inner cover
- Proof tray



d447r022

1. Remove top front cover [A] ( x2)



d515r007



2. Disconnect the operation panel harness ( x1).



d515r008

3. Slide the top front cover off the unit.

Top Center Cover



d515r010



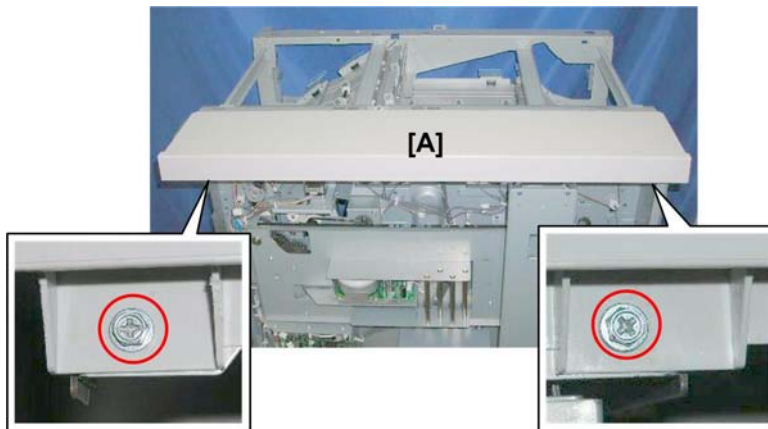
1. Disconnect the top center cover [A] ( x2)



d515r012

2. Slide the cover off and remove it.

Top Rear Cover



d447r027

1. Top rear cover [A] ( x2)



d447r028

2. Release the tabs on both ends.

Jogger Unit

Jogger Unit Removal

The jogger unit must be removed at these times:

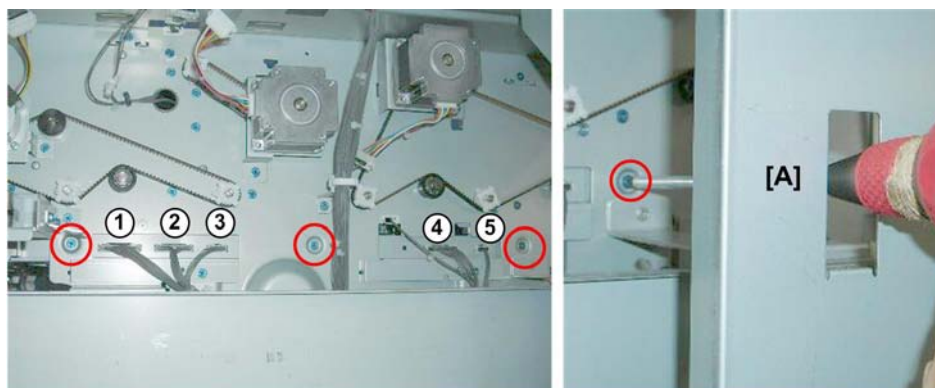
- To service the motors and sensors of the jogger unit
- To access other areas of the stacker for other procedures

Preparation

Remove these parts:

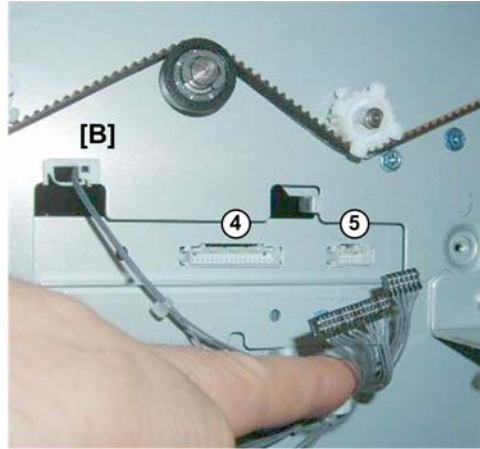
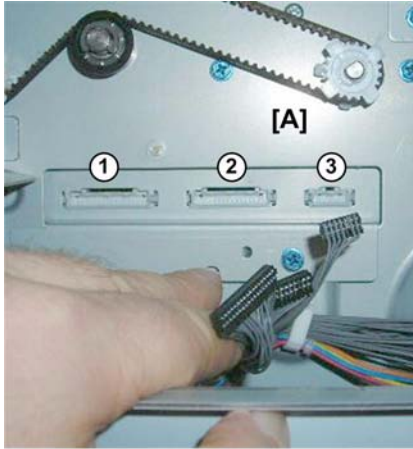
- Right inner cover
- Rear lower tray
- Rear upper tray

Rear



d447r029

1. At the rear, you must remove three screws and disconnect five connectors.
2. Remove the screw on the right through the frame cutout [A] ( x3)



d447r030

3. Disconnect:
[A] Center: Harnesses ①, ②, ③ ( x3)
[B] Right: Harnesses ④, ⑤ ( x2)



d447r031

4. Remove the four steel jogger unit legs.

Front



d447r032

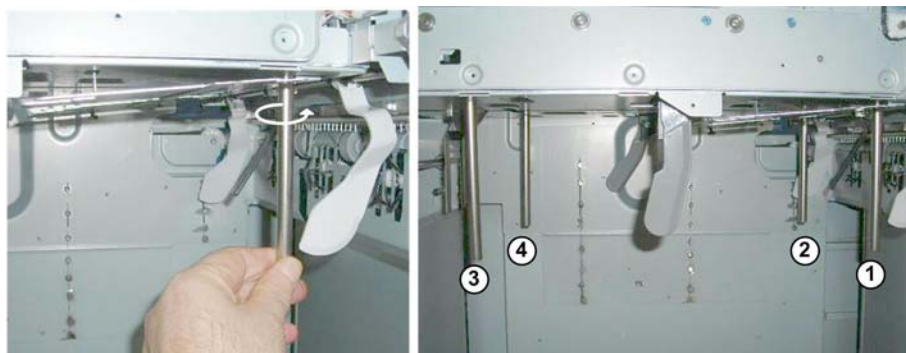
5. Disconnect the jogger unit ( x4).

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



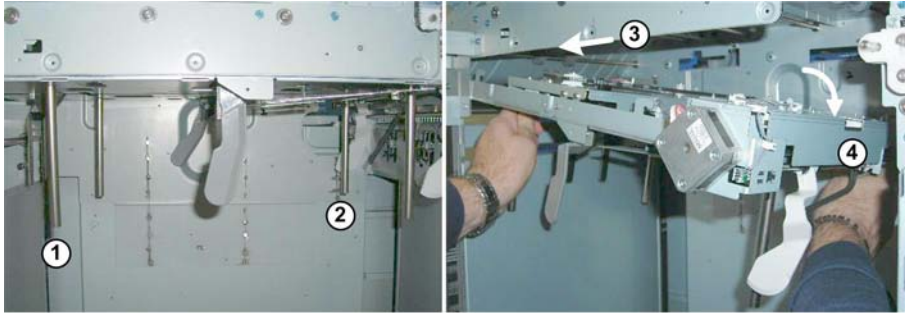
d447r033

6. Remove the lock plate [A] ( x2).



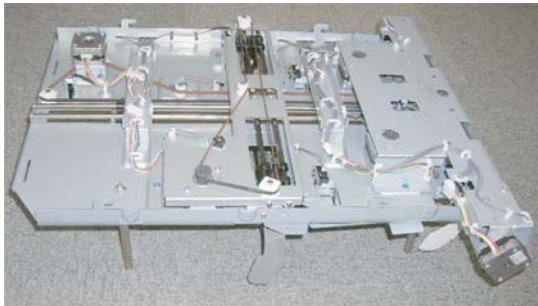
d447r034

7. Screw each leg into the bottom of the jogger unit [A].



d447r035

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



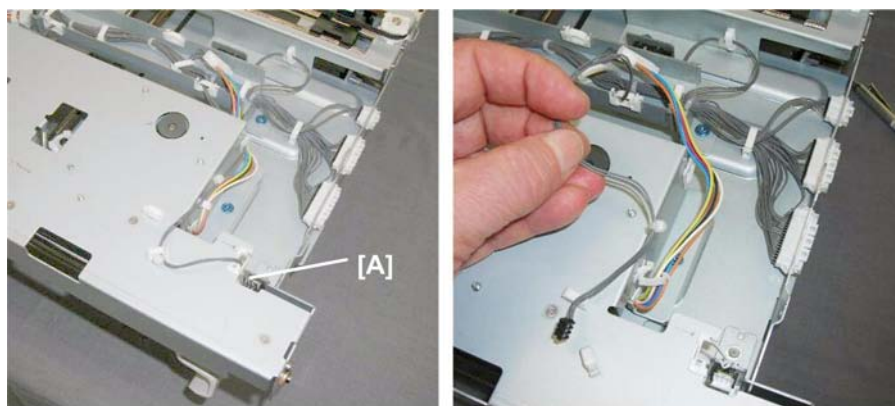
d447r036

11. Set the jogger unit on a flat surface.

Main Jogger Cover Plate

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

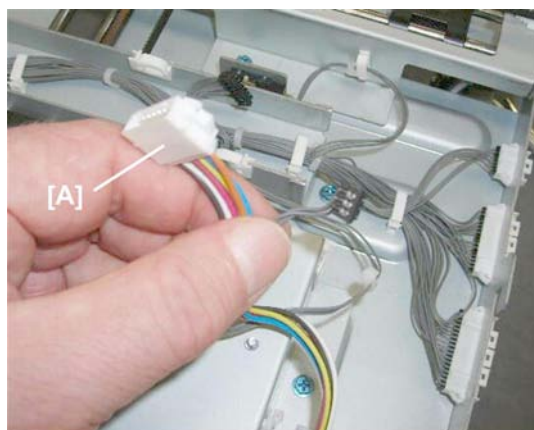
- Main jogger front fence motor and HP sensor
- Main jogger rear fence motor and HP sensor
- Shift tray paper sensor



d447r037

Rear

1. Disconnect the rear fence HP sensor harness [A] (🔌 x1, 🔄 x4).

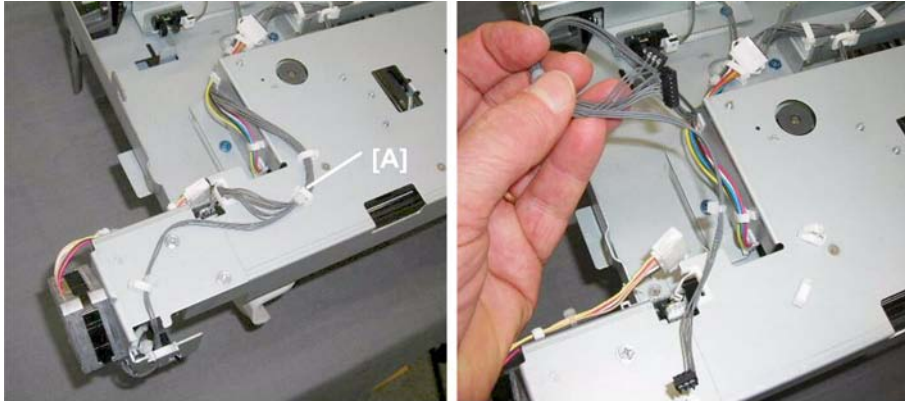


d447r038

2. Disconnect the rear fence motor [A] (🔌 x1, 🔄 x3).

Front

1



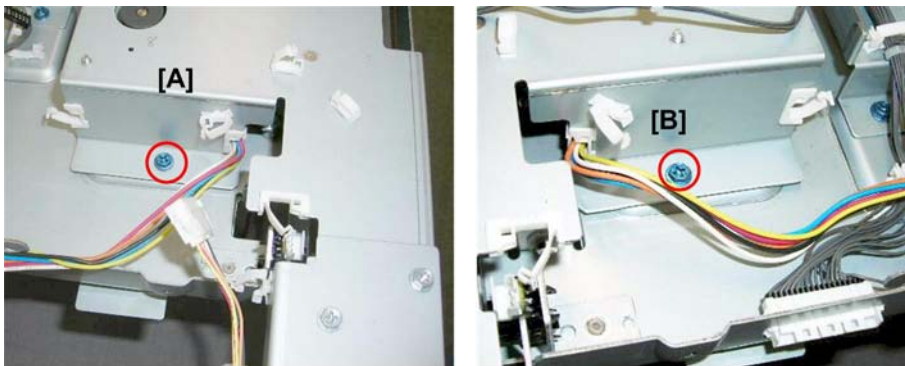
d447r039

3. Disconnect the dual harness [A] for the main jogger fence retraction HP sensor and front fence HP sensor (🔌 x2, 🗑️ x7).



d447r040

4. Disconnect the front fence motor harness [A] (🔌 x1, 🗑️ x3).

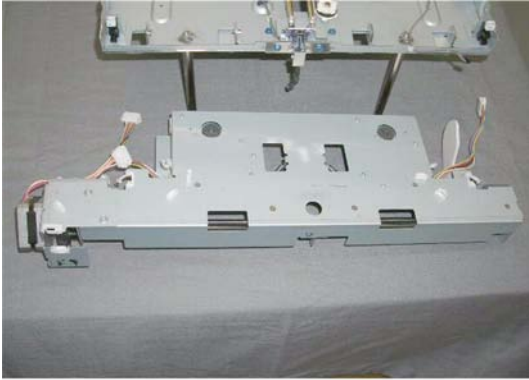


d447r041

5. Remove the plate:

[A] Front (🔑 x1)

[B] Rear ( x1)



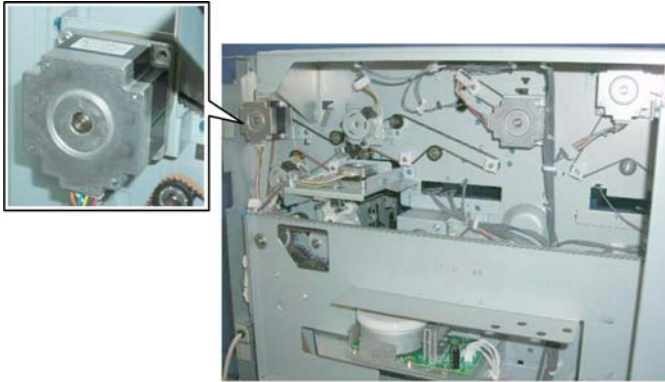
d447r042

Straight Paper Path

1

Motors

Entrance Motor

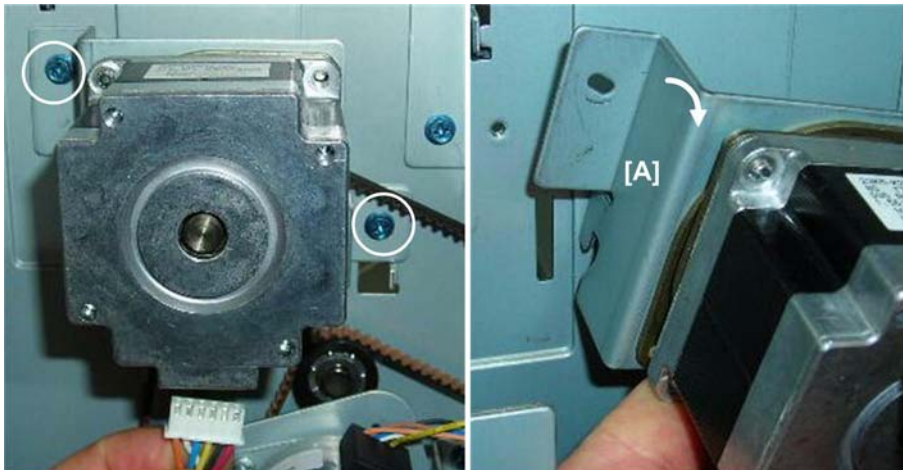


d447r043

Preparation

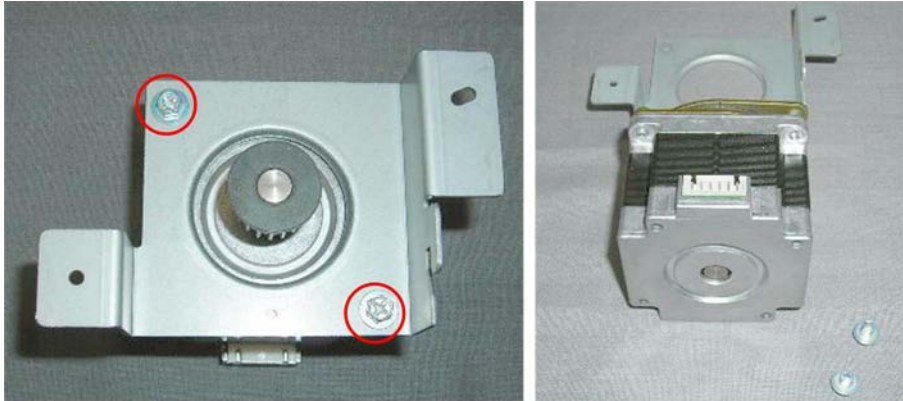
Remove these parts:

- Rear lower cover
- Rear upper cover



d447r044

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



d447r045

2. Separate the motor and the bracket ( x2)

Transport Motor



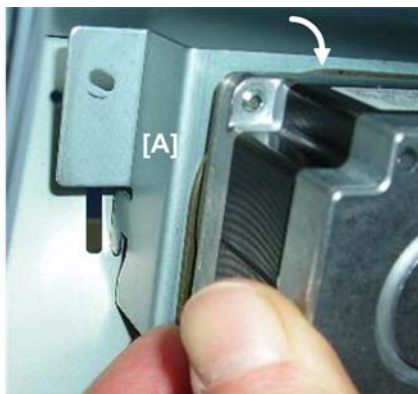
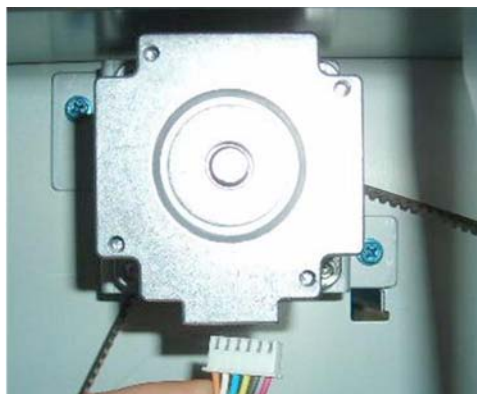
d447r046

Preparation

Remove these parts:

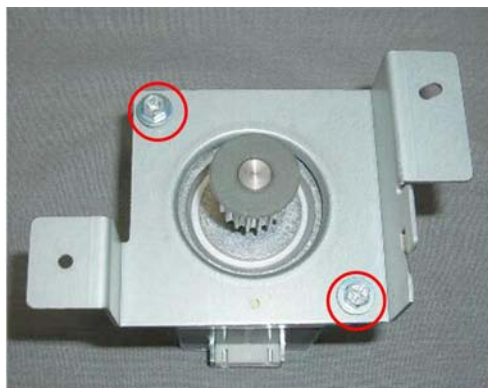
- Rear lower cover
- Rear upper cover

1



d447r047

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



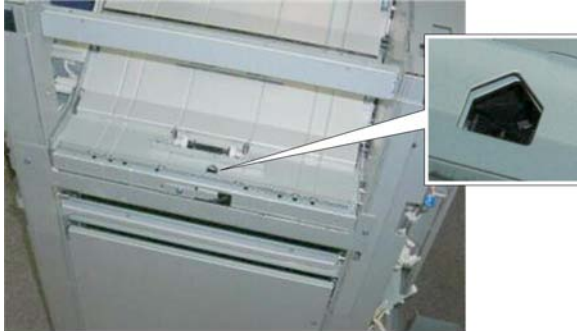
d447r048

2. Separate the motor and the bracket ( x2)

Sensors

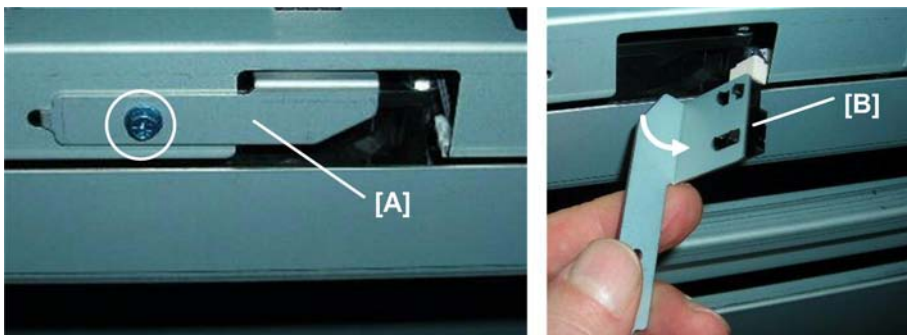
Entrance Sensor

1



d447r049

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

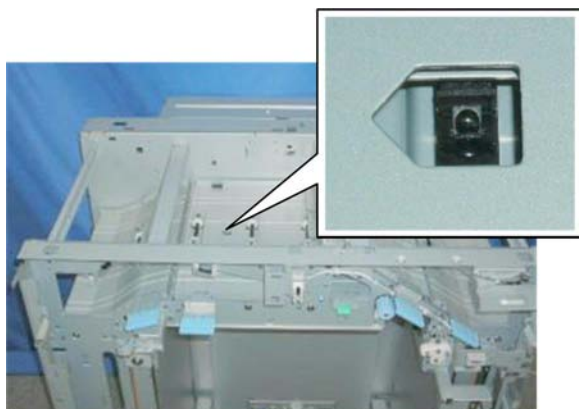


d447r050

1. Sensor bracket [A] ( x1,  x1
2. Sensor [B]  x5)

Transport Sensor

1



d447r051

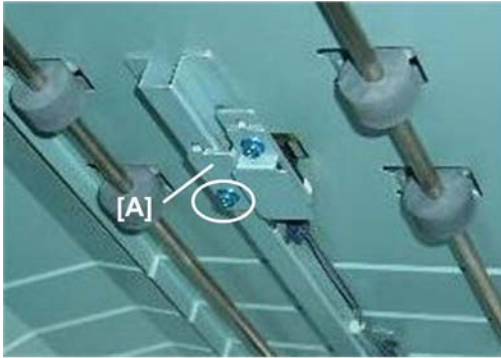
Preparation

- Remove the jogger unit



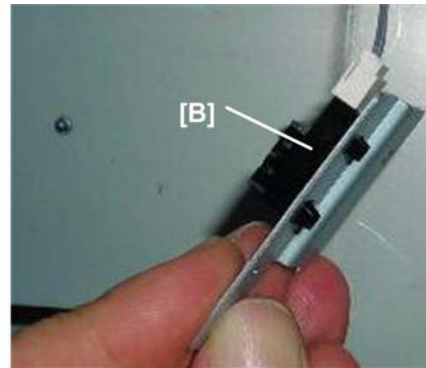
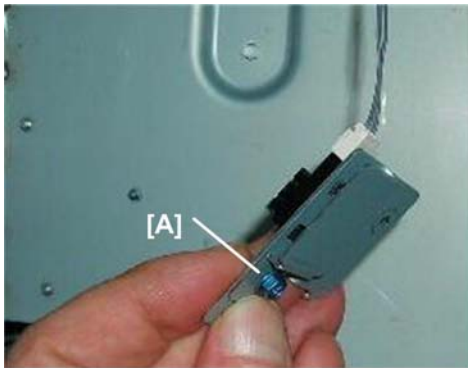
d447r052

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



d447r053

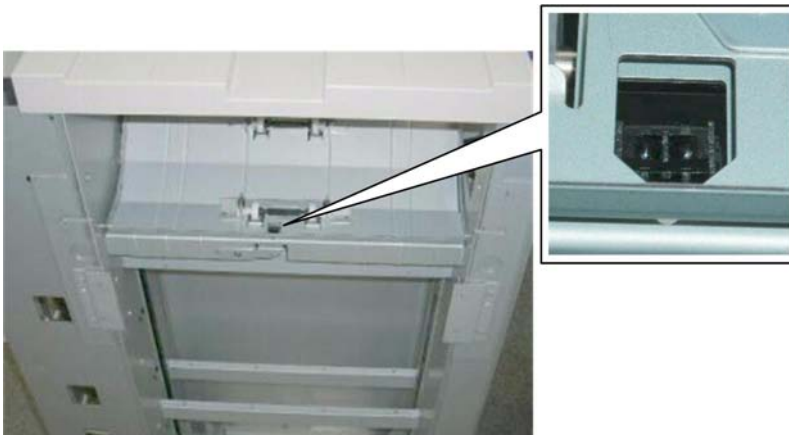
1. Sensor bracket [A] ( x1)



d447r054

2. Sensor plate [A] and sensor [B] ( x1,  x1,  x1,  x5)

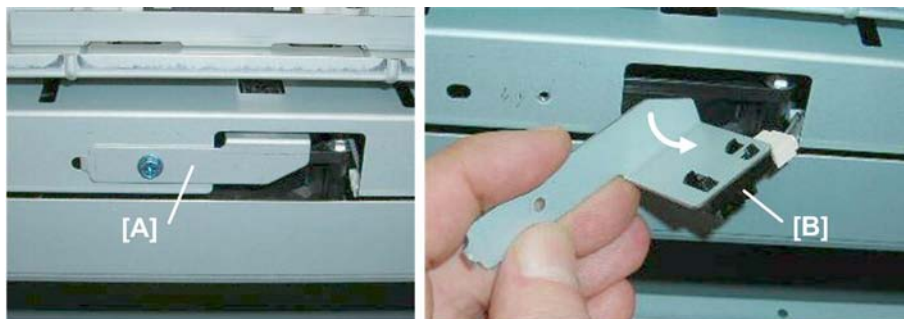
Exit Sensor



d447r055

Preparation

- Remove the exit cover plate
- The illustration below shows the left cover removed, but this is not required.



d447r056

1. Sensor bracket [A] ( x1)
2. Sensor [B] ( x1,  x5)

Proof Tray

Motors

1

Proof Tray JG Motor

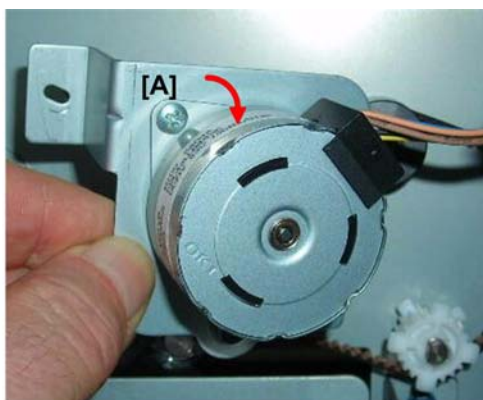
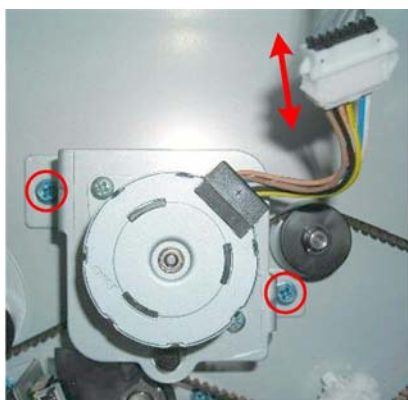


d447r057

Preparation

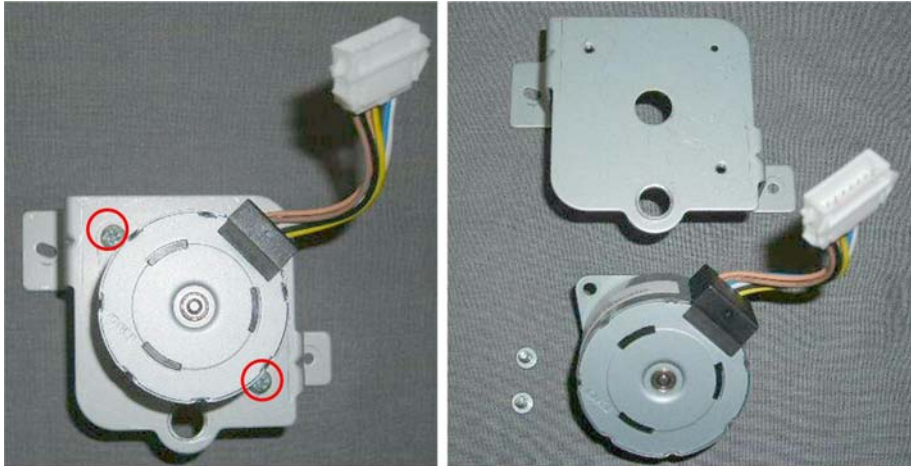
Remove these parts:

- Rear lower cover
- Rear upper cover



d447r057

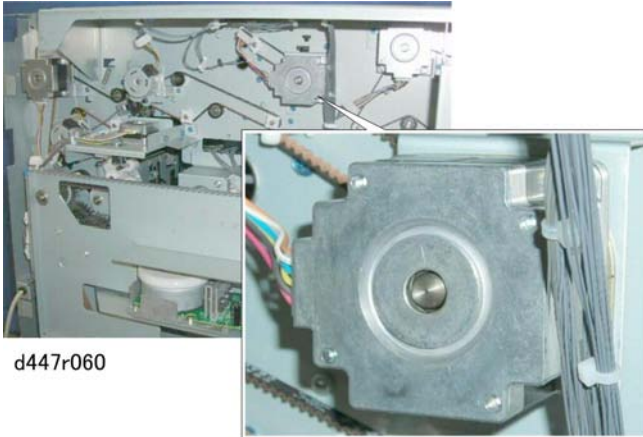
1. Motor bracket [A] (🔧 x1, 🛠️ x2)



d447r059

2. Separate the motor and the bracket ( x2)

Proof Tray Exit Motor

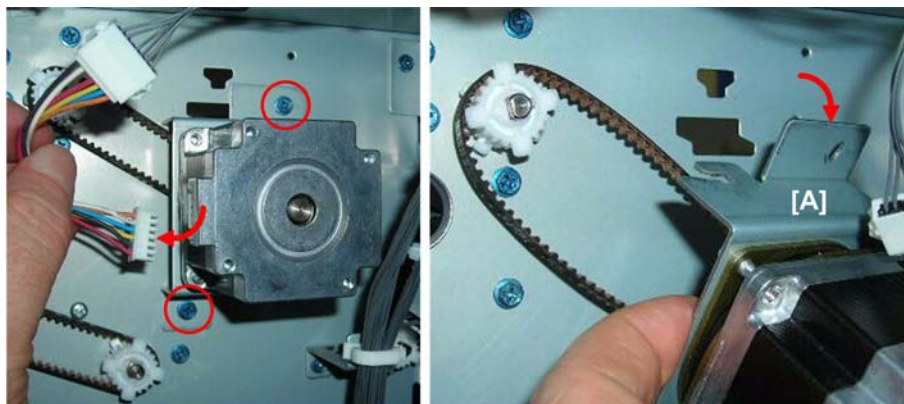


d447r060

Preparation

Remove these parts:

- Rear lower cover
- Rear upper cover



d447r061

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



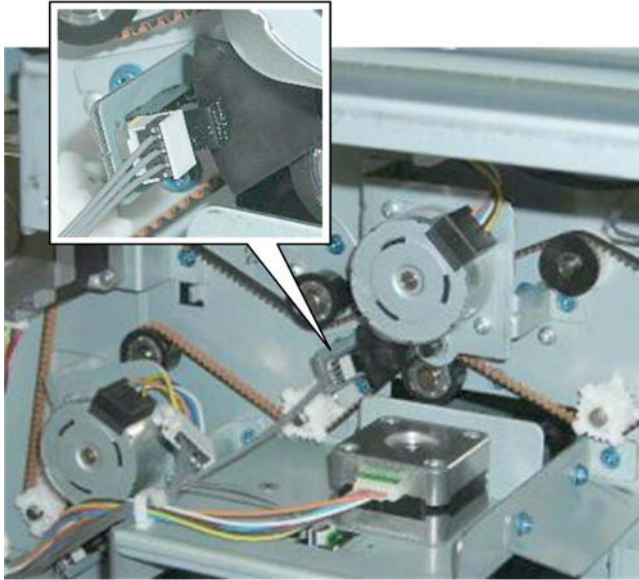
d447r062

2. Separate the motor and the bracket ( x2)

Sensors

1

Proof Tray JG HP Sensor

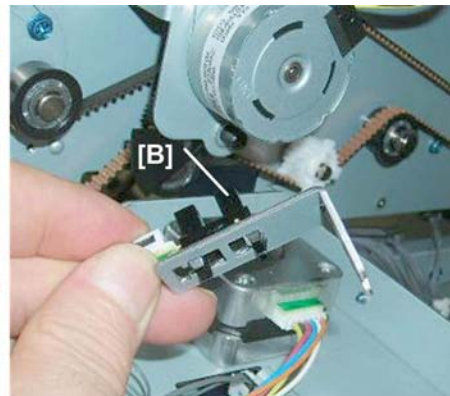
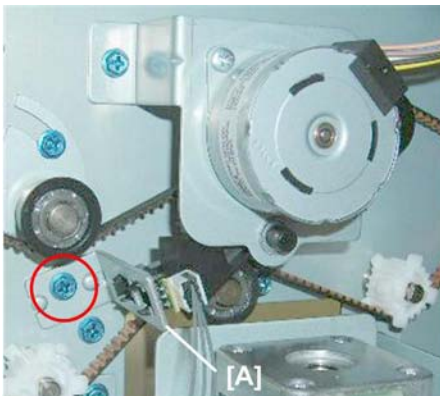


d447r063

Preparation

Remove these parts:

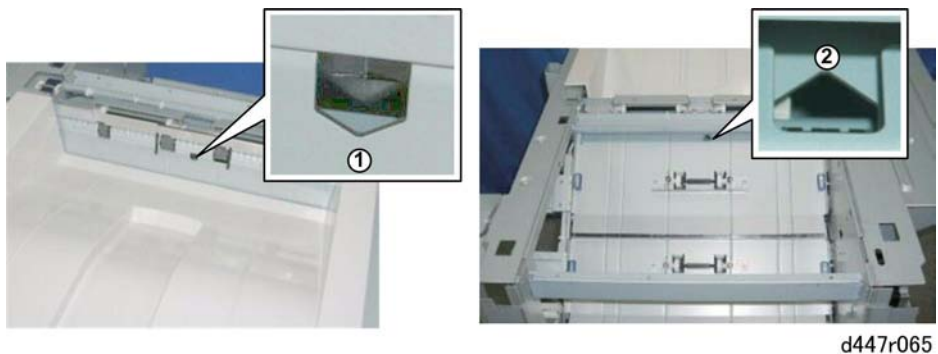
- Rear lower cover
- Rear upper cover



d447r064

1. Sensor bracket [A] ( x1)
2. Sensor [B] ( x1,  x5)

Proof Tray Exit Sensor, Proof Tray Full Sensor



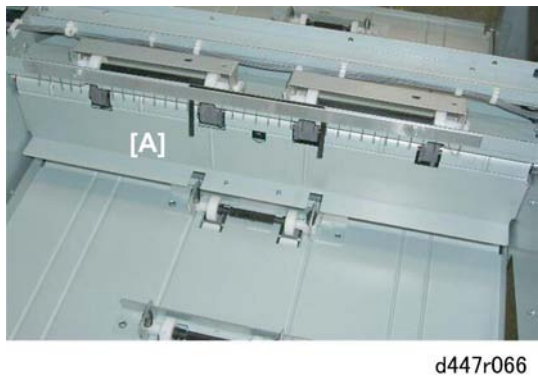
①	Proof Tray Full Sensor	Located above the proof tray,.
②	Proof Tray Exit Sensor	Shown with the top center cover removed.

Preparation

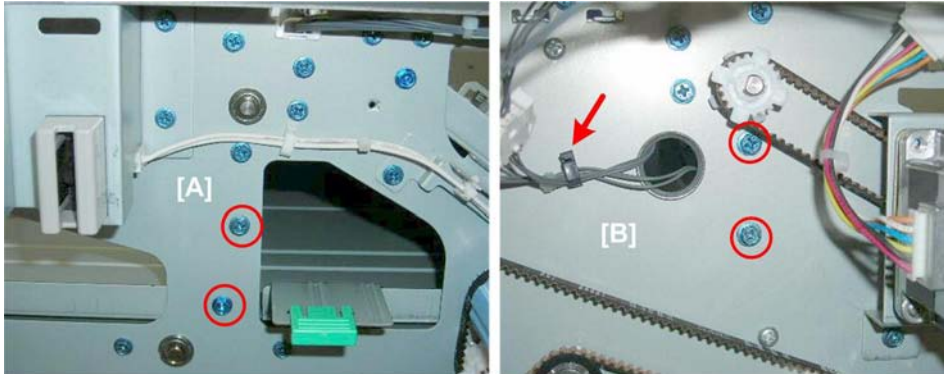
Remove these parts:

- Rear lower cover
- Rear upper cover
- Proof tray
- Top center cover
- Top rear cover

Common Procedure



1. Plate [A] must be removed,



d447r067

2. Remove:

[A] Front ( x2)

[B] Rear ( x2,  x1) (Opening the harness clamp creates slack in the harness and allows free movement of the plate.)

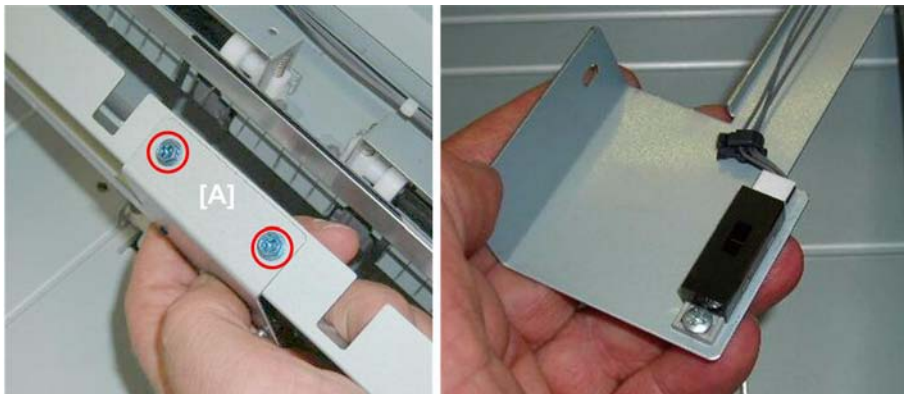


d447r068

3. Pull away the cover plate.

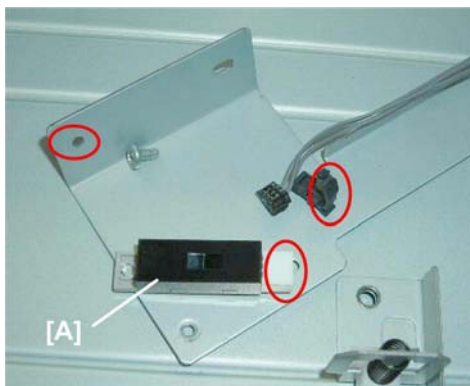
4. Remove the tray full sensor, or the tray exit sensor. See below.

Tray Full Sensor



d447r069

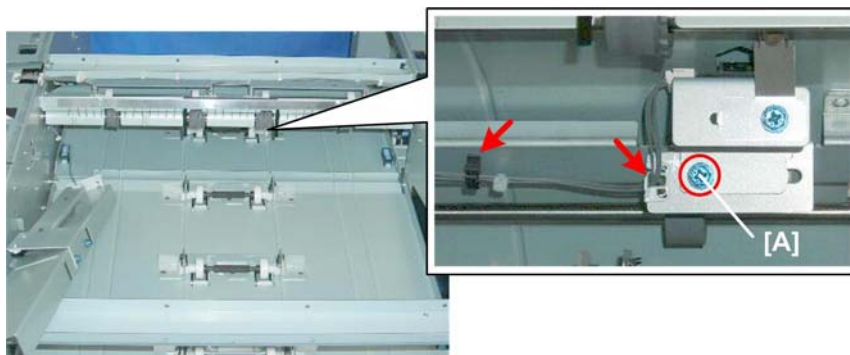
1. Turn the plate over.
2. Sensor bracket [A] ( x2)



d447r070

3. Sensor [A] ( x1,  x1,  x1)

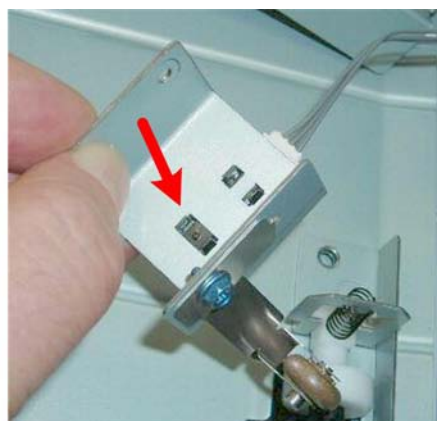
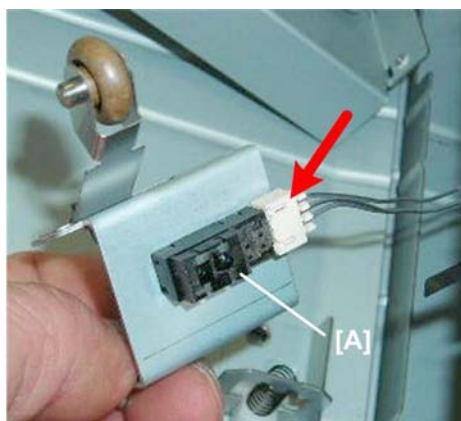
Tray Exit Sensor



d447r071

1. Remove the lower bracket screw [A], not the upper screw ( x2,  x1).

1



d447r072

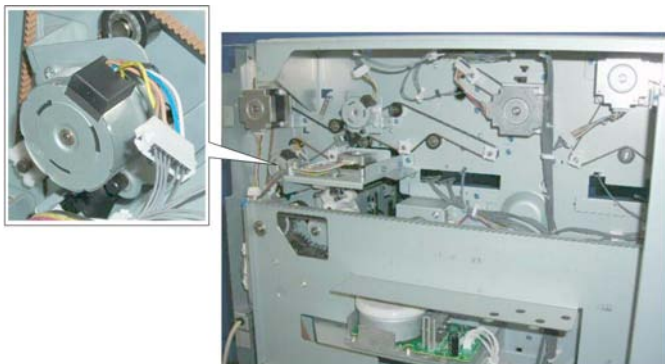
2. Sensor [A] (📷 x1, 🔍 x5)

Shift Tray

Paper Shift Operation

1

Shift Tray JG Motor

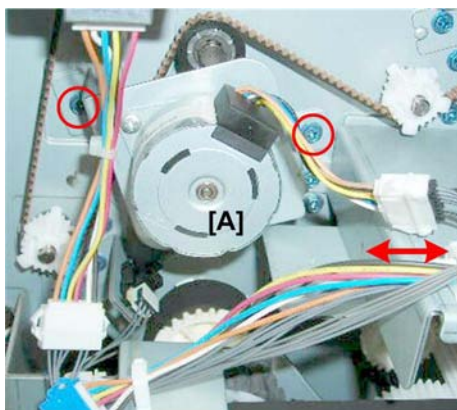


d447r073

Preparation

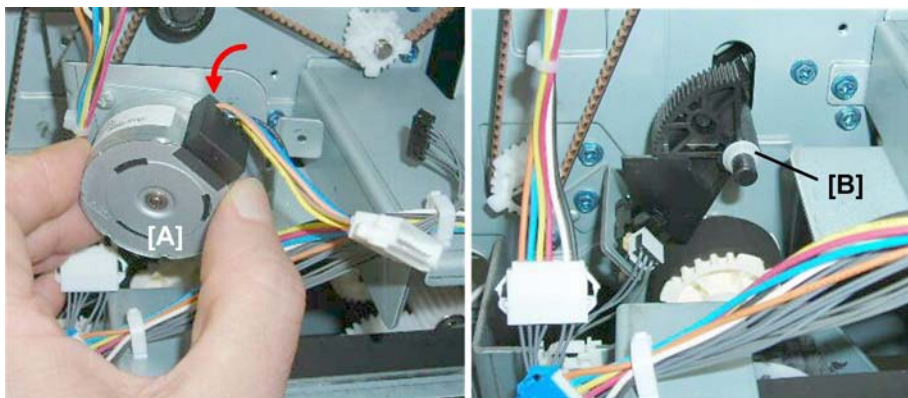
Remove these parts:

- Rear lower cover
- Rear upper cover



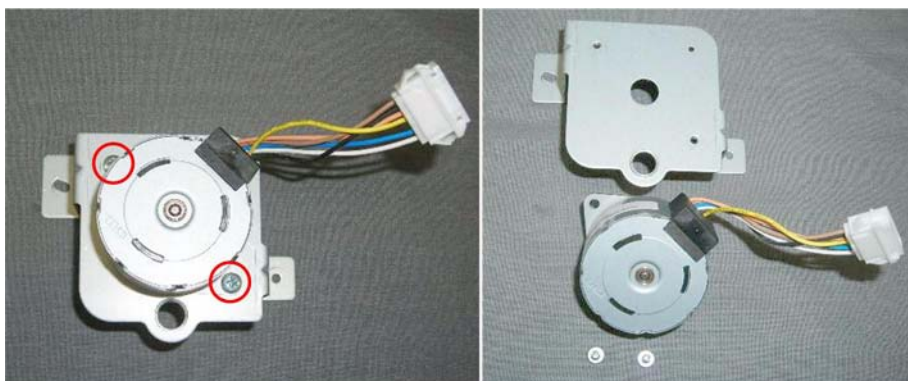
d447r074

1. Slowly remove motor bracket [A] (🔧 x1, 🛠️ x, 2)



d447r075

2. Remove this Teflon sleeve [B] so that it does not fall.

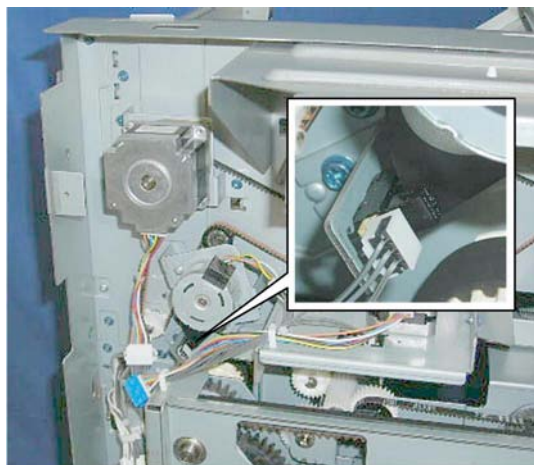


d447r076

3. Separate the motor and the bracket ( x2)

Shift Tray JG HP Sensor

1

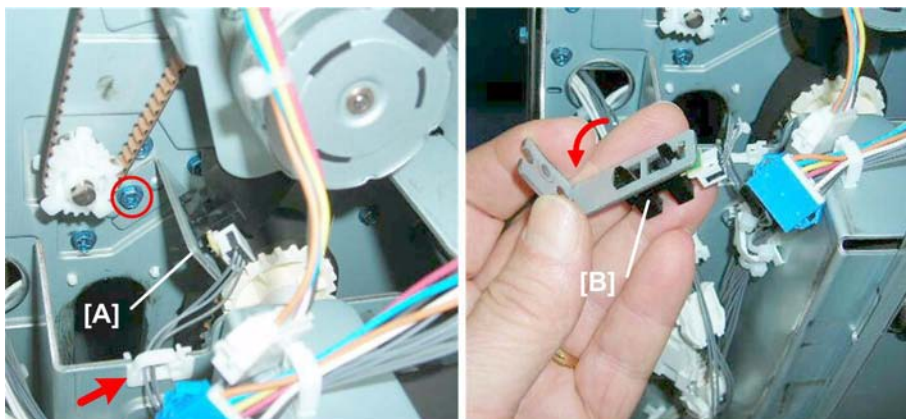


d447r077

Preparation

Remove these parts:

- Rear lower cover
- Rear upper cover

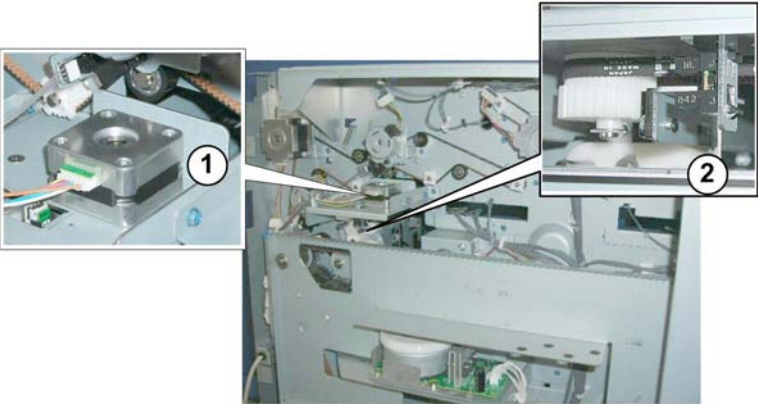


d447r078

1. Sensor bracket [A] (🔩 x1, 🛠 x1).
2. Sensor [B] (📏 x1, 🔍 x5)

Shift Motor, Shift HP Sensor

1



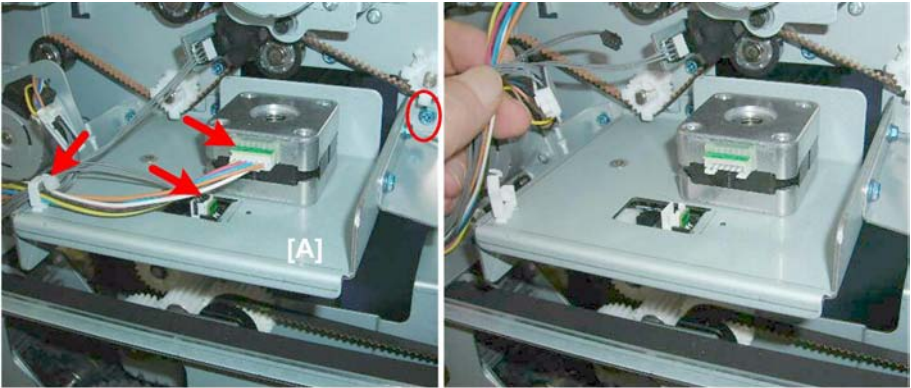
d447r079

①	Shift Motor
②	Shift HP Sensor

Preparation

Remove these parts:

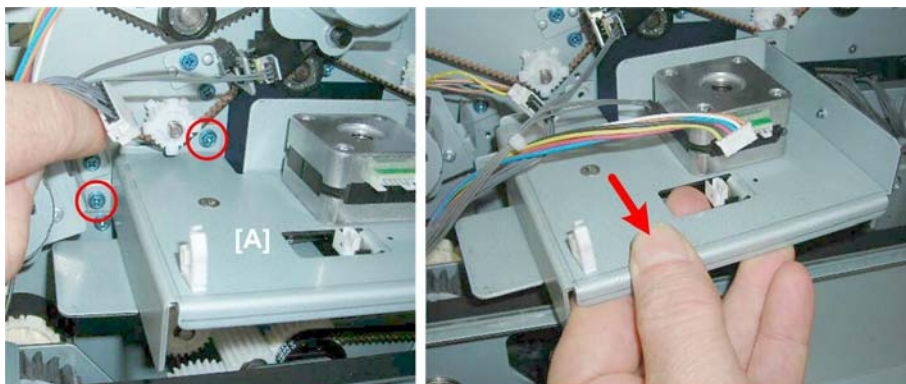
- Rear lower cover
- Rear upper cover



d447r080

Common

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



d447r081

2. Remove motor bracket [A] ( x2)



d447r082

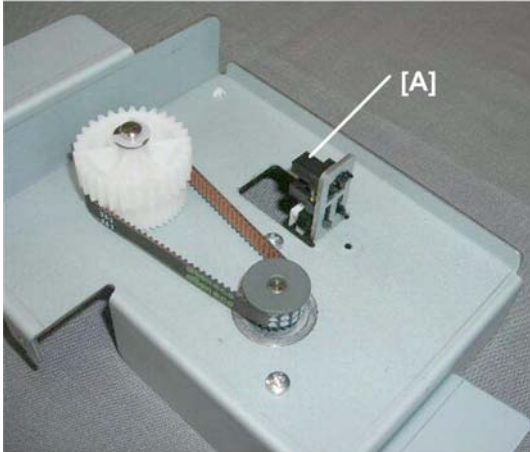
Shift Motor



d447r083

1. Separate the bracket and the motor ( x2)

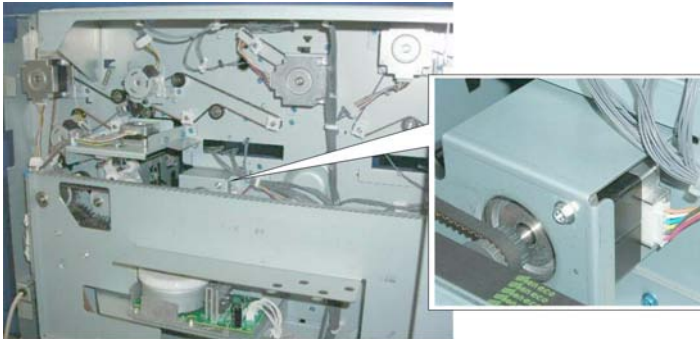
Shift Roller Sensor



d447r084

1. Sensor [A] (▼ x5)

Shift Exit Motor

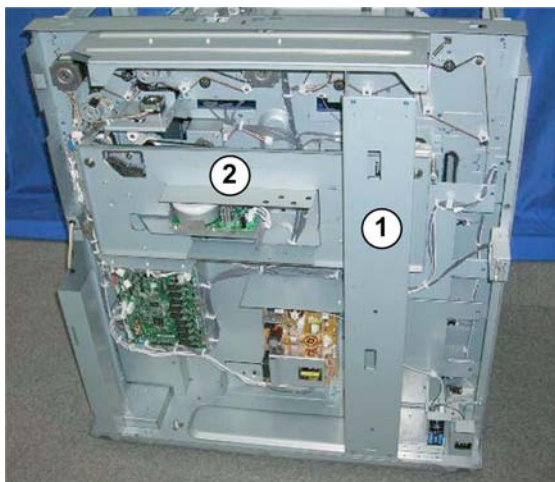


d447r085

Preparation

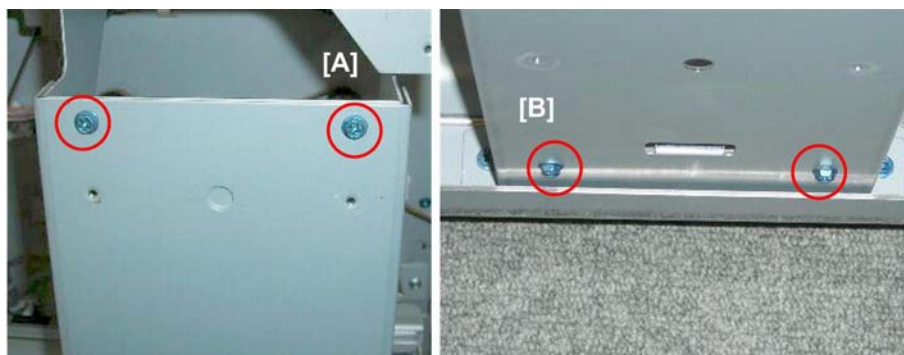
Remove these parts:

- Rear lower cover
- Rear upper cover



d447r086

1. Plates ① and ② must be removed.



d447r087

2. Remove plate ①.

[A] Top ( x2)

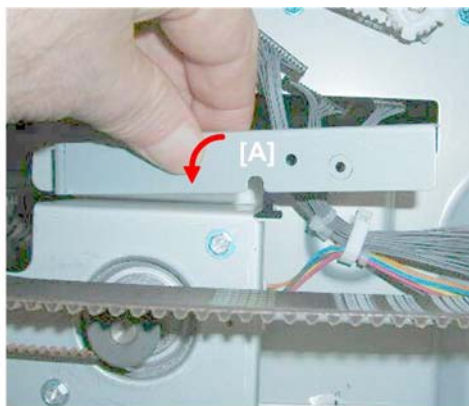
[B] Bottom ( x2)

1



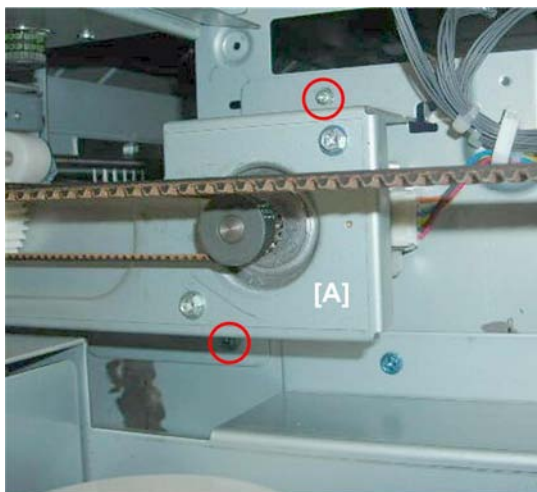
d447r088

3. Remove plate ② ( x6, Hook x1)



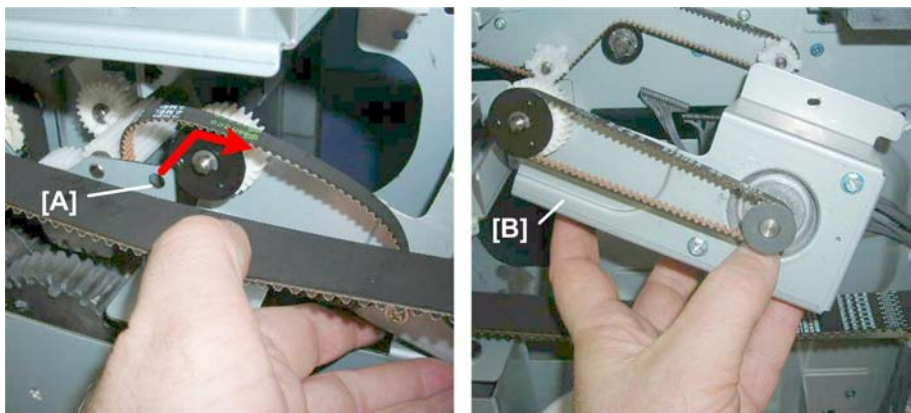
d447r089

4. Remove plate [A] ( x1)



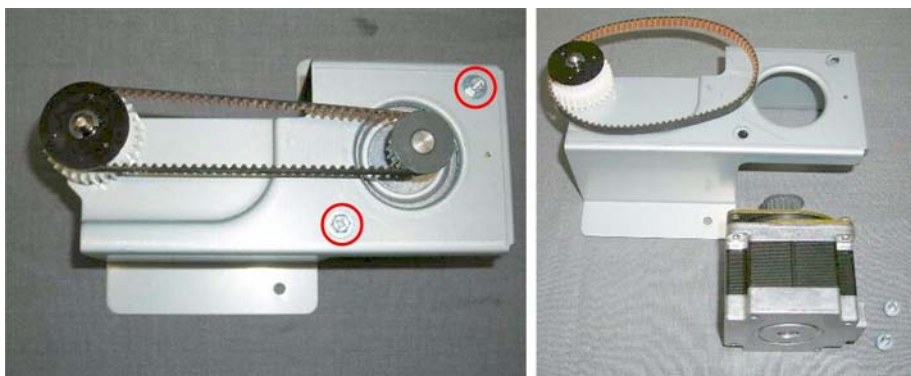
d447r090

5. Disconnect motor bracket [A] ( x2)



d447r091

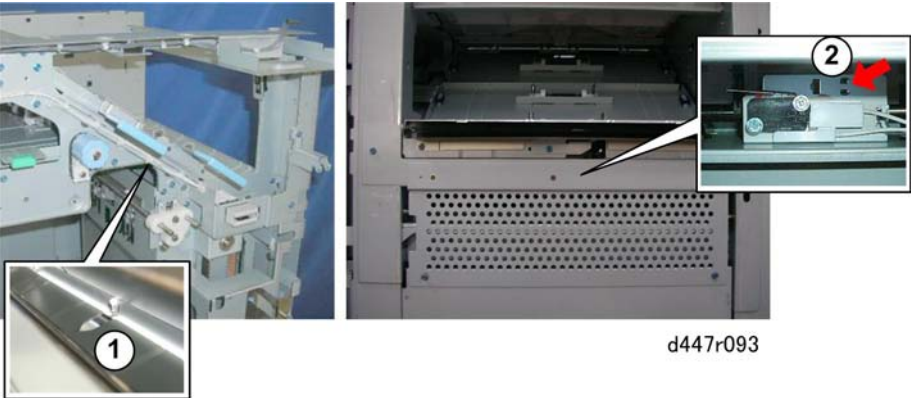
6. Push the shaft [A] out of the hole and remove motor bracket [B].



d447r092

7. Separate the motor and the bracket ( x2)

Shift Tray Exit Sensor, Paper Height Sensor



Both sensors are difficult to see.

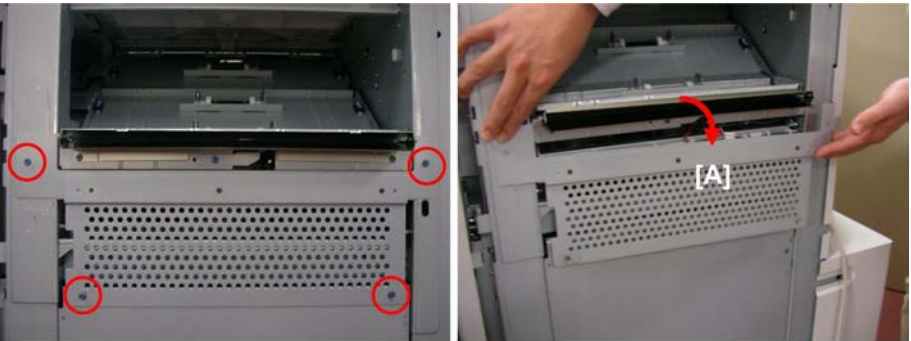
①	Shift Tray Exit Sensor	Under the plate.
②	Paper Height Sensor	Right side, under the right plate facing the interior of the machine.

Preparation

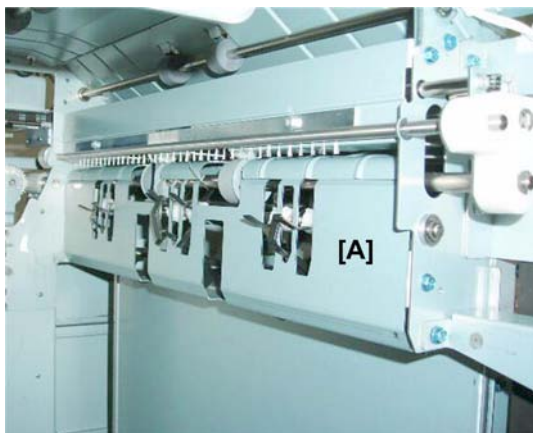
Remove these parts:

- Rear lower cover
- Rear upper cover
- Jogger unit

Common

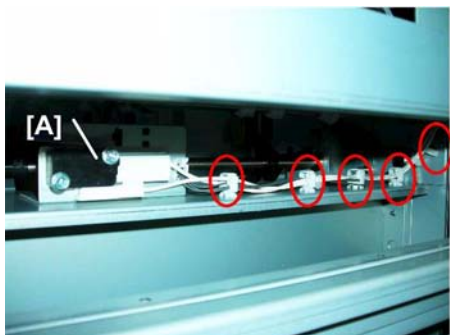


1. Remove plate [A] ( x4)



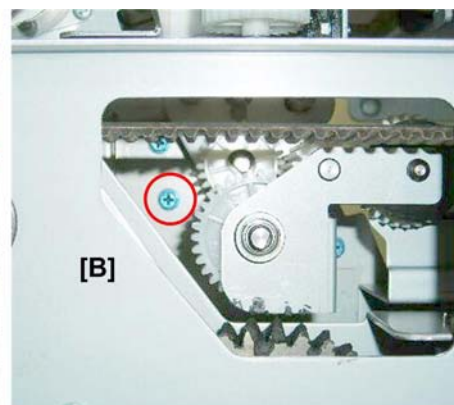
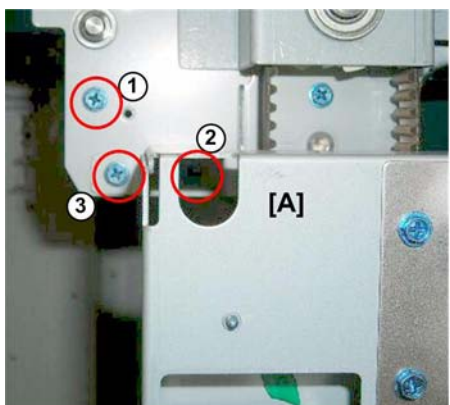
d447r094

2. Cover [A] must be removed.



d447r095

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

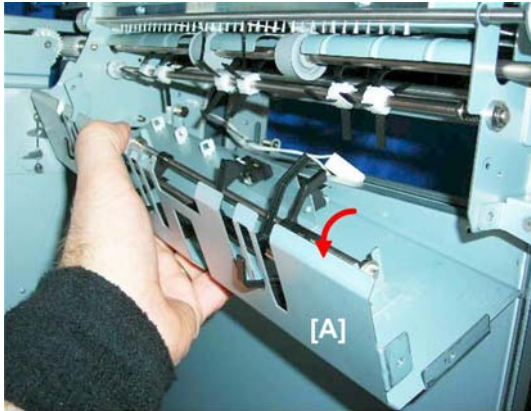


d447r096

4. Disconnect the cover:

[A] Front ( x3)

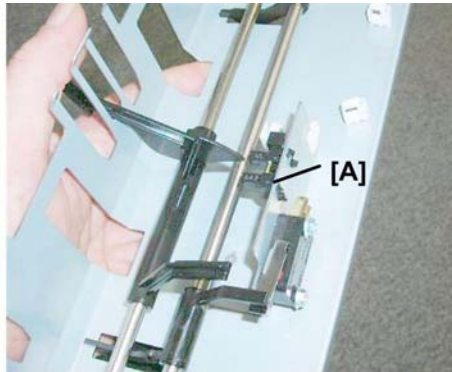
[B] Rear ( x1)



d447r097

5. Remove the cover [A].

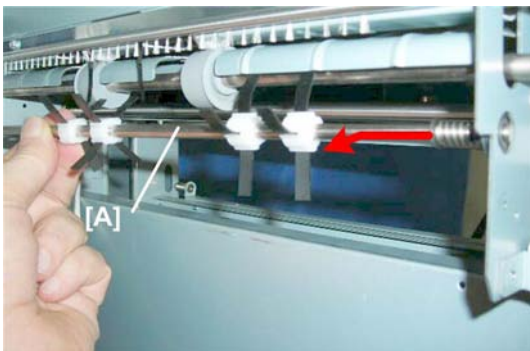
Paper Height Sensor



d447r098

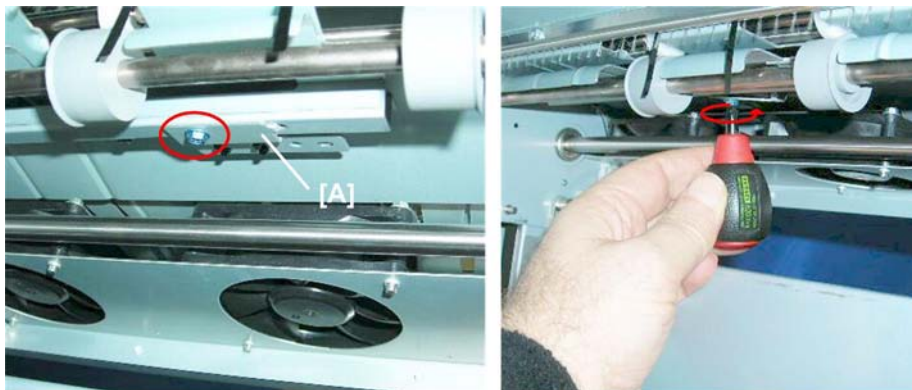
1. Paper height sensor [A] ( x2,  x1,  x5)

Shift Entrance Sensor



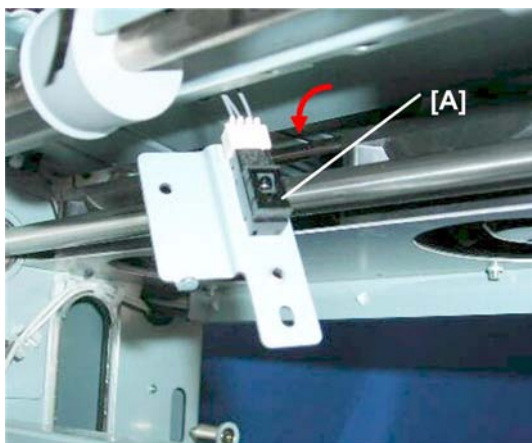
d447r099

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



d447r100

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

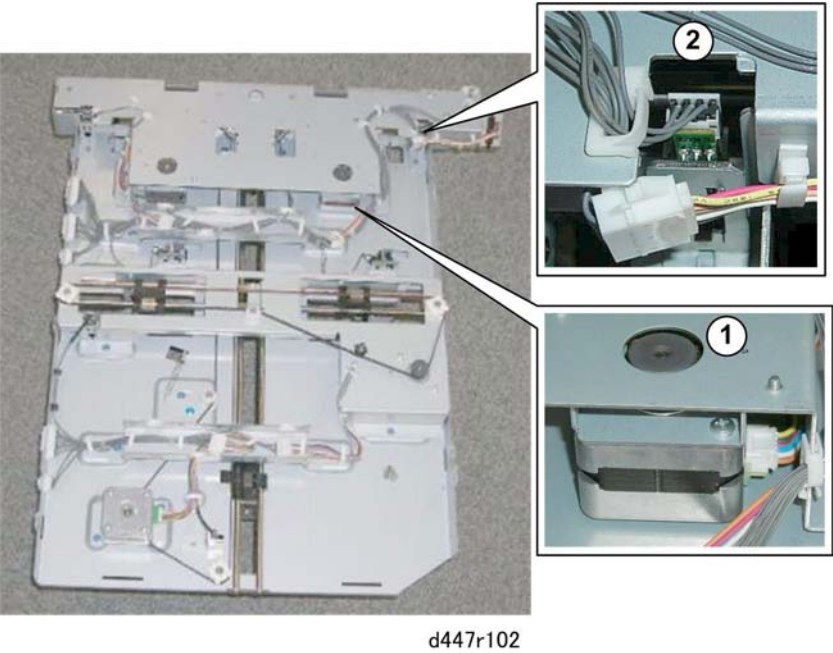


d447r101

3. Sensor [A] ( x1,  x5)

Paper Jogging

1 Main Jogger Front Fence Motor, Front Fence HP Sensor



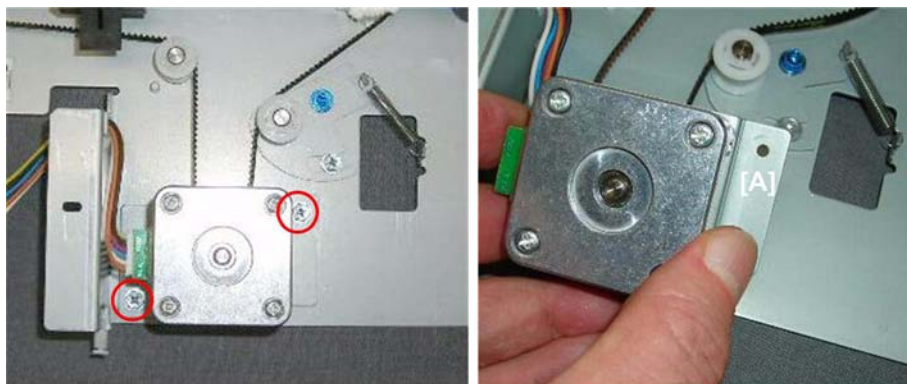
①	Main Jogger Front Fence Motor
②	Main Jogger Front Fence HP Sensor

Preparation

Remove these parts:

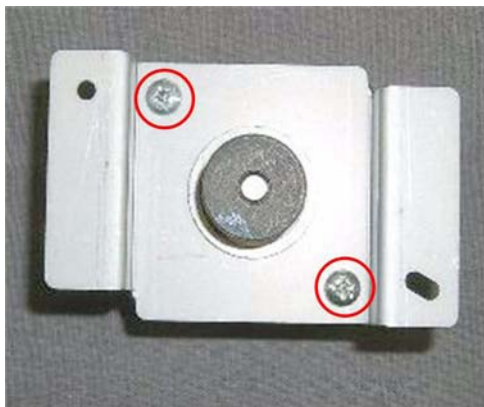
- Jogger unit
- Main jogger cover plate

Front Fence Motor



d447r103

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

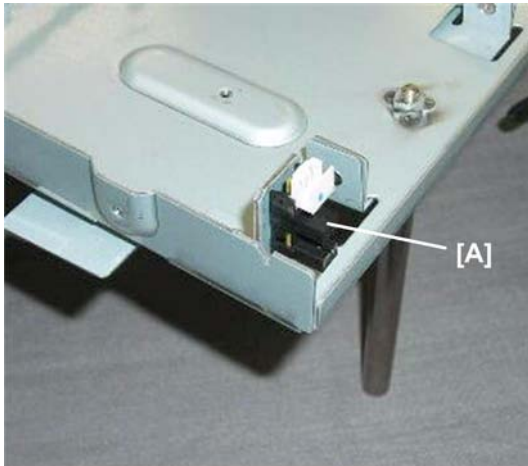


d447r104

2. Separate the motor and the bracket ( x2)

Front Fence Jogger HP Sensor

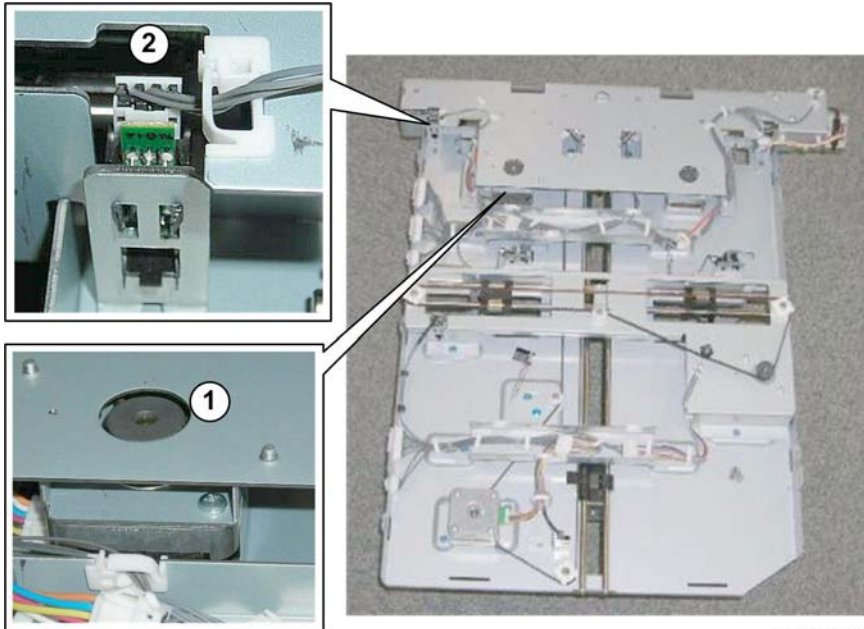
1



d447r105

1. Sensor [A] (▼ x5)

Main Jogger Rear Fence Motor, Rear Fence HP Sensor



d447r106

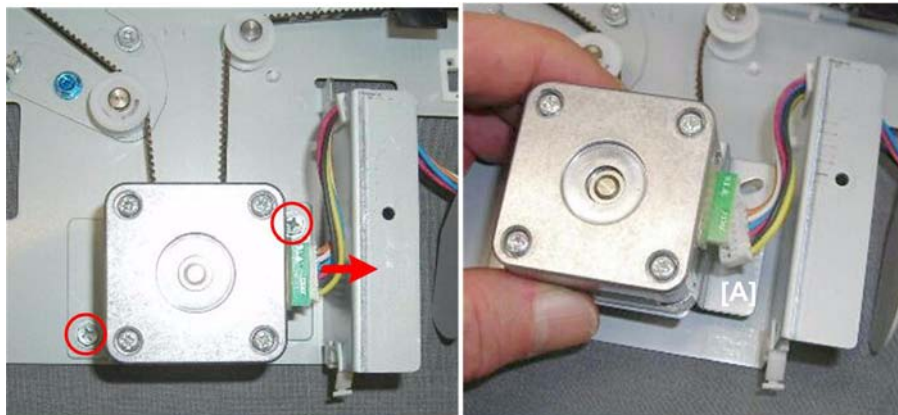
①	Main Jogger Rear Fence Motor
②	Main Jogger Rear Fence HP Sensor

Preparation

Remove these parts:

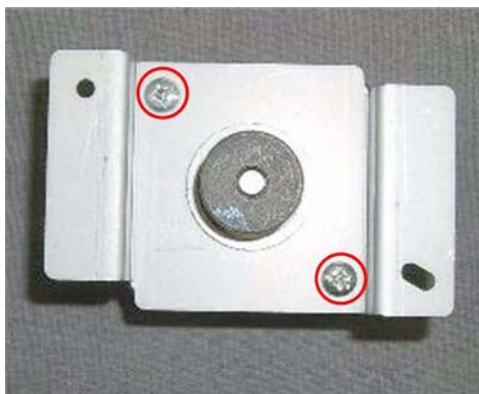
- Jogger unit
- Main jogger cover plate

Rear Fence Motor



d447r107

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

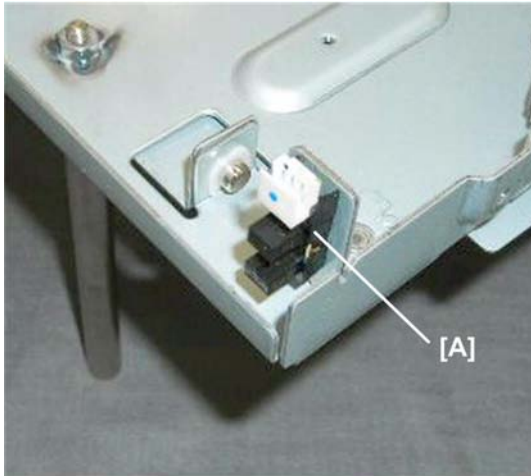


d447r108

2. Separate the motor and the bracket ( x2)

Rear Fence HP Sensor

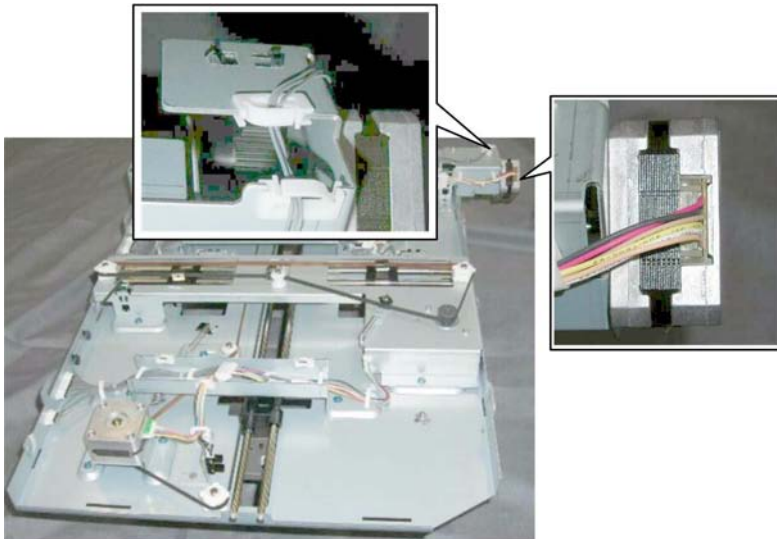
1



d447r109

1. Sensor [A] (▼ x5)

Main Jogger Fence Retraction Motor, Fence Retraction HP Sensor



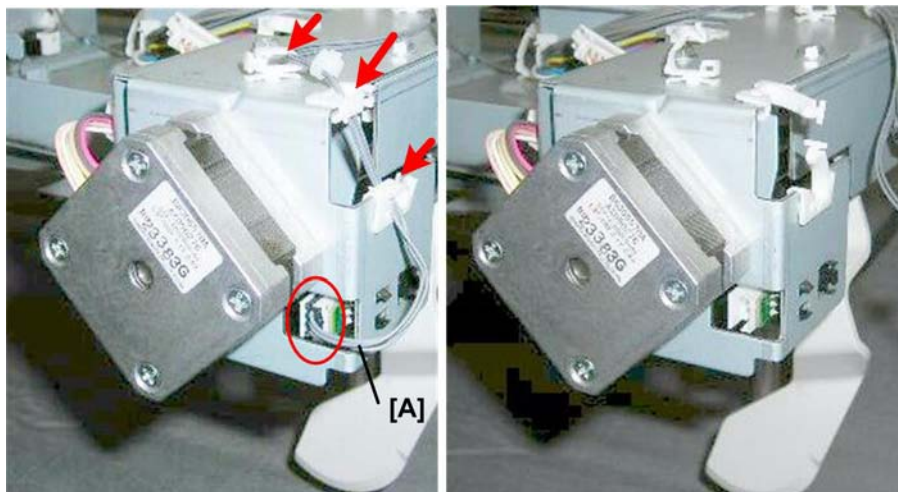
d447r110

Preparation

Remove these parts:

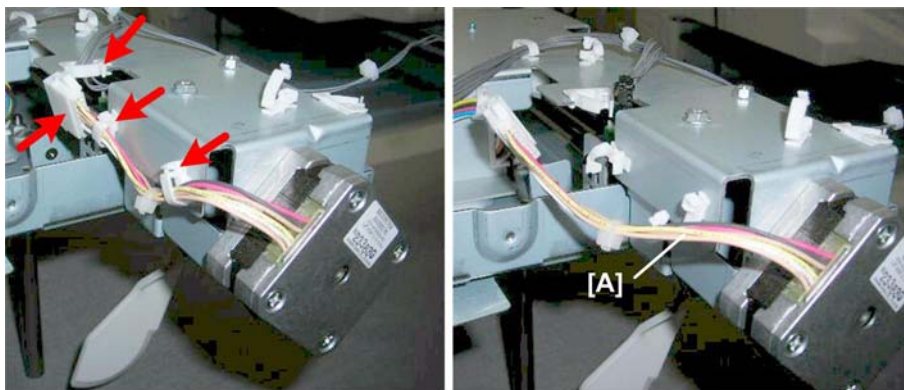
- Jogger unit
- Main jogger cover plate

Fence Retraction Motor



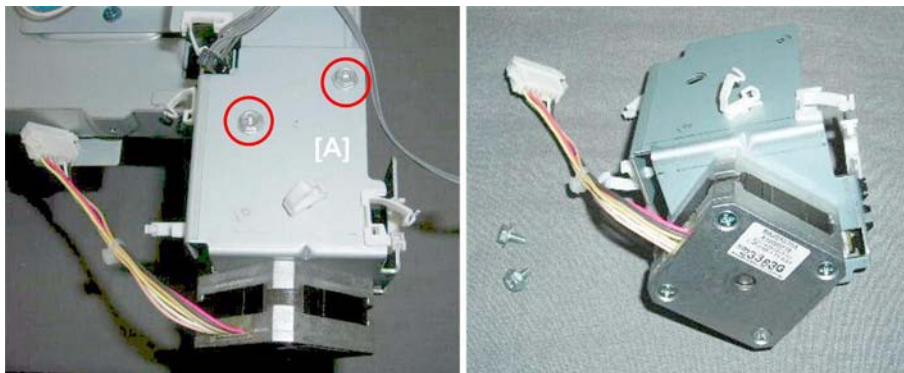
d447r111

1. Disconnect the front fence retraction HP sensor harness [A] (🔌 x1, 🧰 x3).



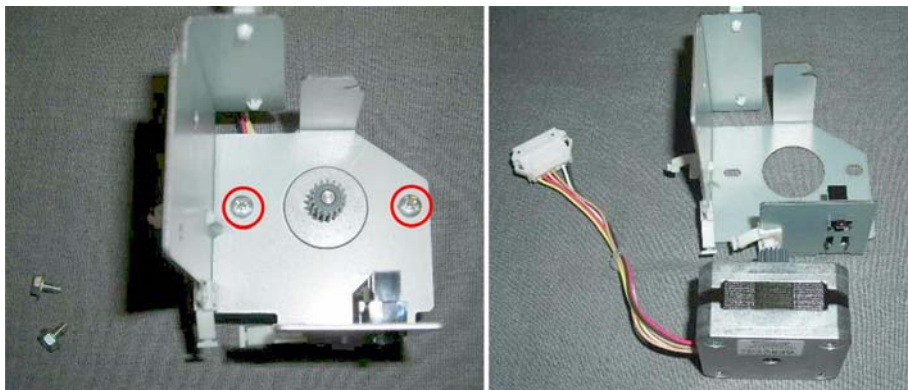
d447r112

2. Disconnect the front fence retraction motor harness [A] (🔌 x1, 🧰 x3).



d447r113

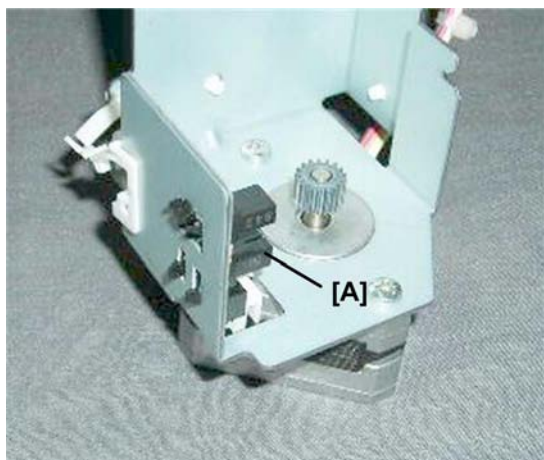
3. Motor bracket [A] (x2)



d447r114

4. Separate the motor and the bracket (x2)

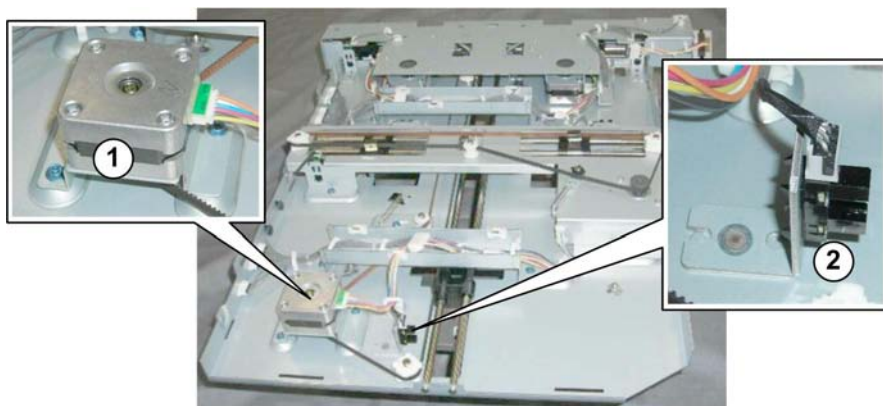
Fence Retraction HP Sensor



d447r115

1. Sensor [A] (x5)

LE Stopper Motor, LE Stopper HP Sensor



d447r116

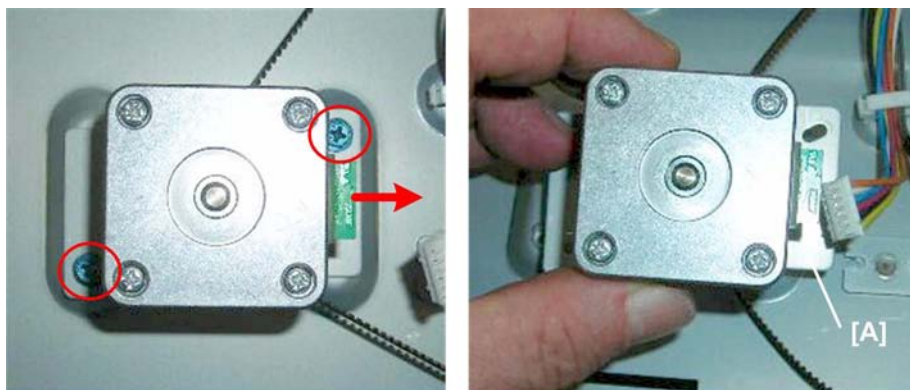
①	LE Stopper Motor
②	LE Stopper HP Sensor

Preparation

Remove these parts:

- Jogger unit
- Main jogger cover plate

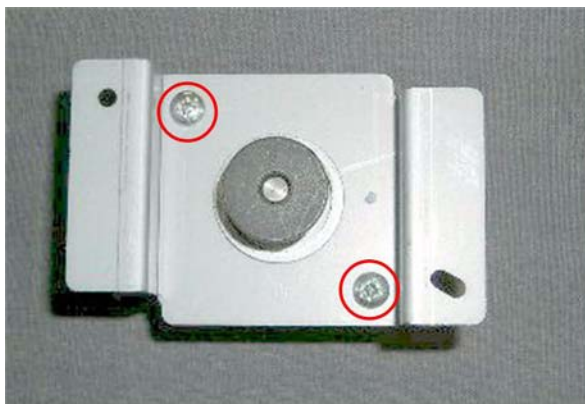
LE Stopper Motor



d447r117

1. Motor bracket [A] ( x2)

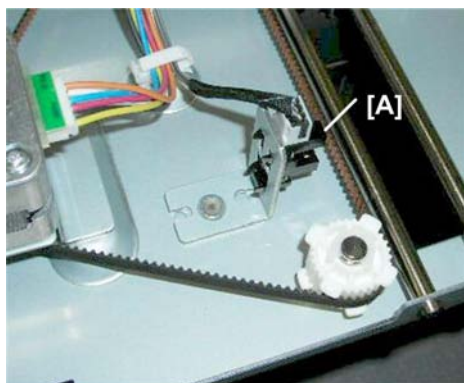
1



d447r118

2. Separate the motor and the bracket ( x2)

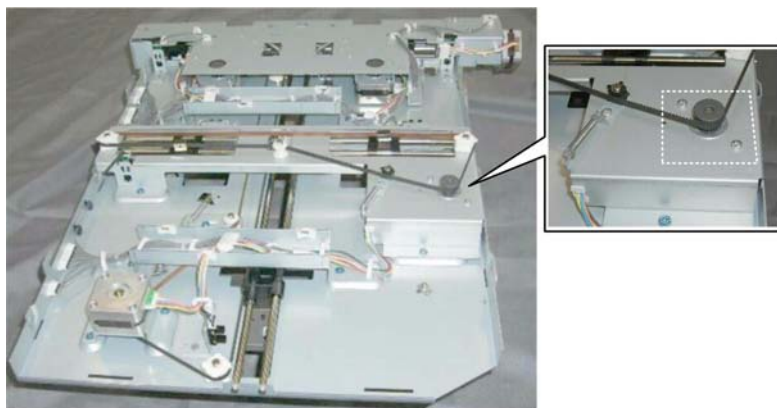
LE Stopper HP Sensor



d447r119

1. Sensor [A] ( x1,  x5)

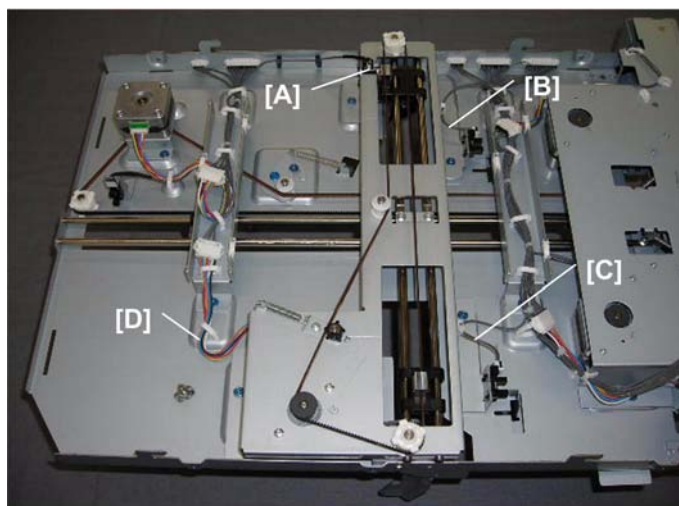
Sub Jogger Motor



d447r120

Preparation

- Remove the jogger unit



d447r121

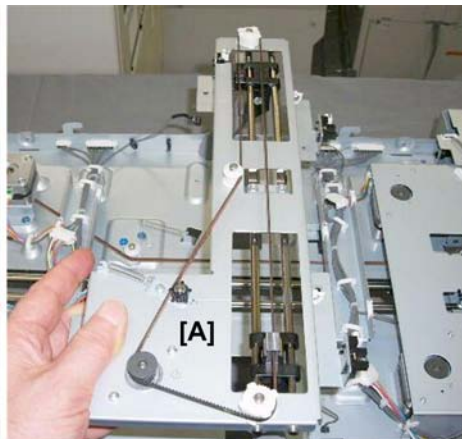
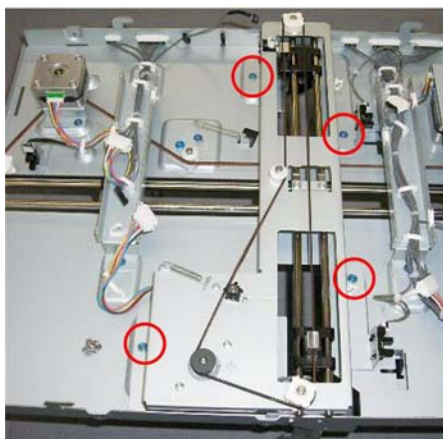
1. Disconnect these harnesses:

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

[B] Tray guard sensor 1 (🔌 x1, 🎧 x1)

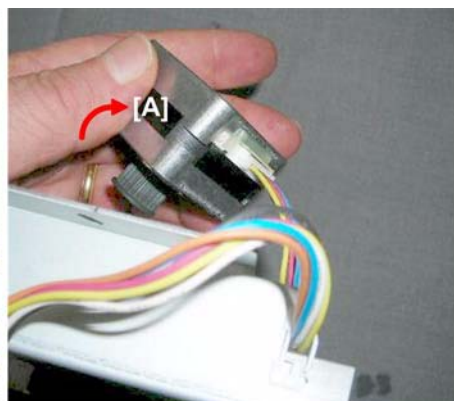
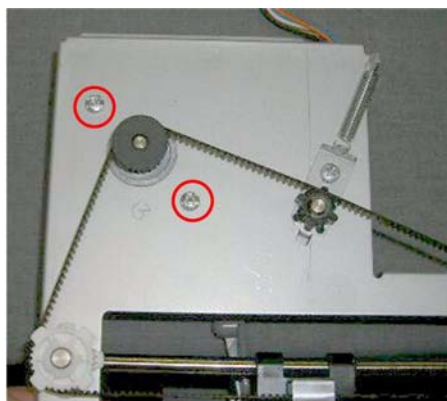
[C] Tray guard sensor 2 (🔌 x1, 🎧 x1)

[D] Sub jogger motor (🔌 x1, 🎧 x1)



d447r122

2. Remove cover [A] ( x4)



d447r123

3. Motor [A] ( x1, Belt x1,  x1)

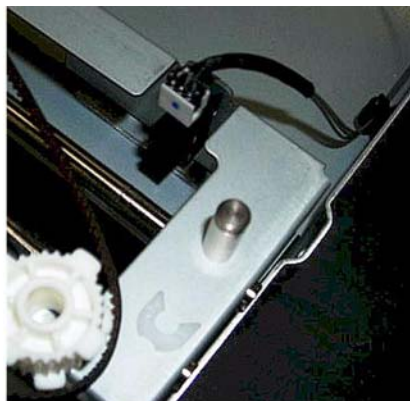
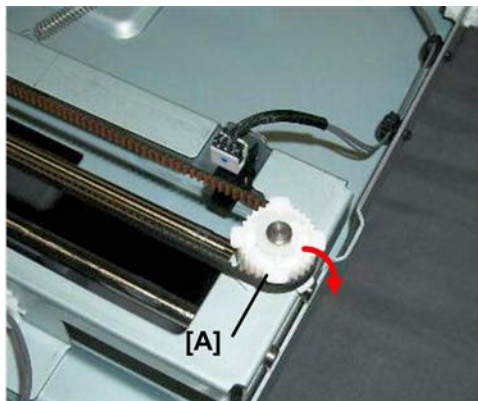


d447r124

Sub Jogger HP Sensor

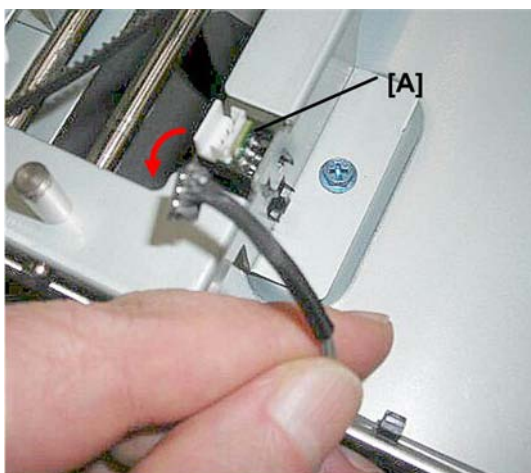
Preparation

- Remove the jogger unit



d447r125

1. Disconnect pulley [A] and belt.  x1, Pulley x1, Belt x1)



d447r126

2. Sensor [A] ( x1,  x5)

Shift Tray Lift Control

1

Roll Away Cart Set SW



Preparation

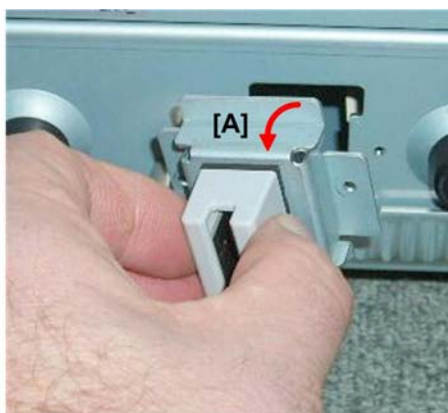
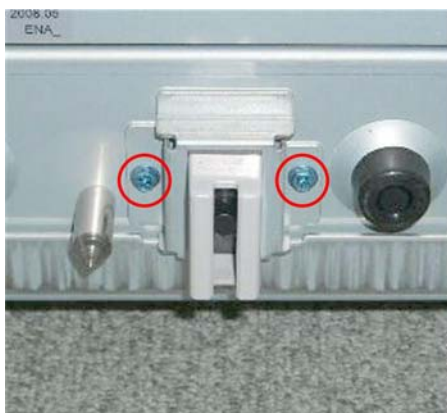
Remove these parts:

- Cart
- Rear lower cover



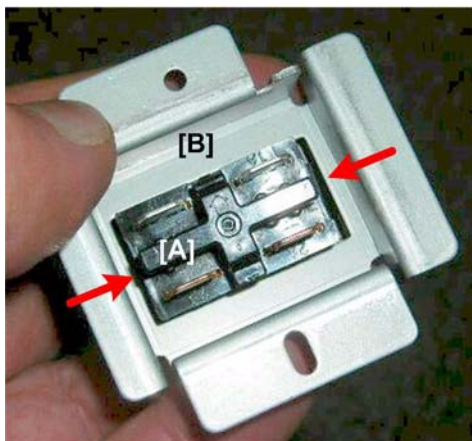
d447r128

1. Switch [A] (🔌 x1)



d447r129

2. Switch [A] ( x2)

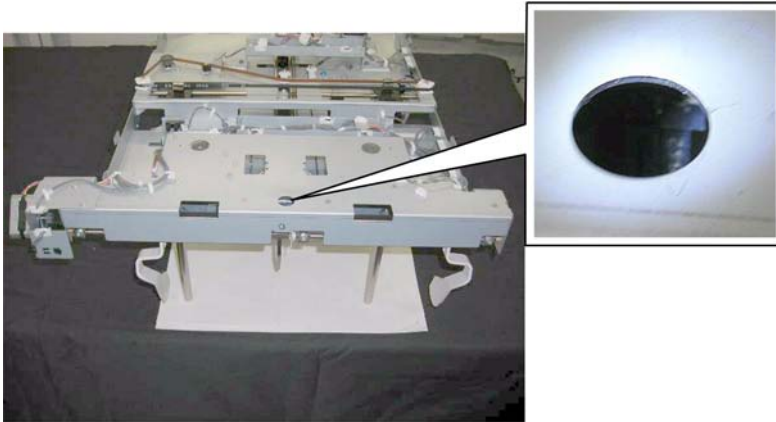


d447r130

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

Shift Tray Paper Sensor

1

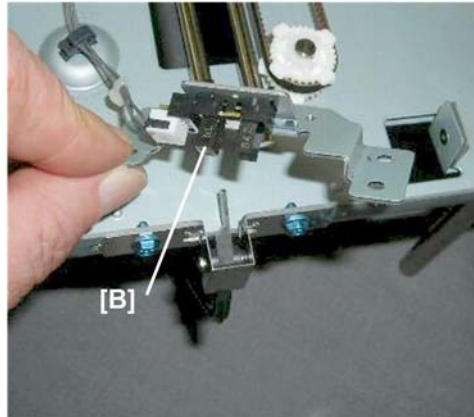
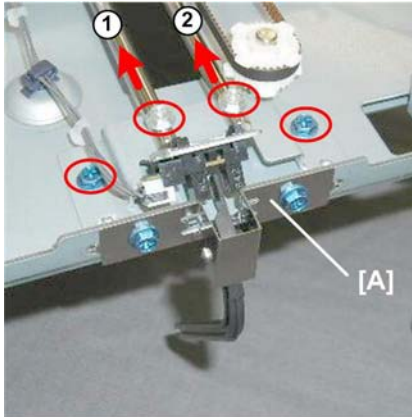


d447r131

Preparation

Remove these parts:

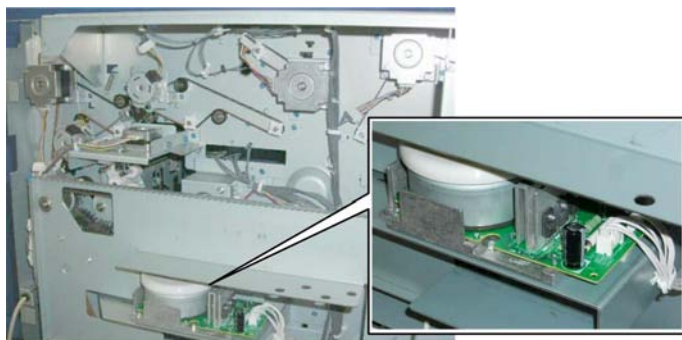
- Jogger unit
- Main jogger cover plate



d447r132

1. Disconnect sensor bracket [A] and rails ① and ② ( x4).
2. Slide the rails to the rear.
3. Remove sensor [B] ( x1,  x5)

Tray Lift Motor

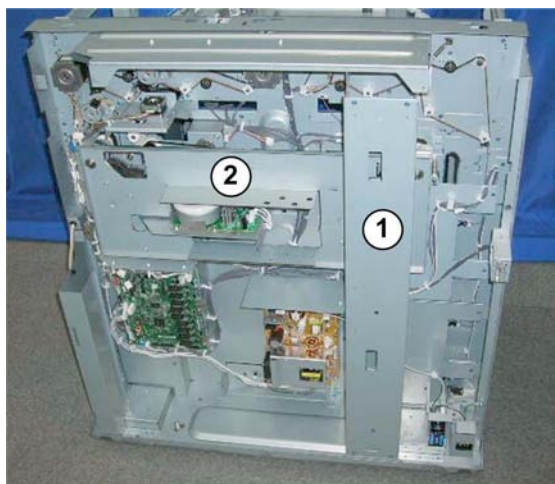


d447r133

Preparation

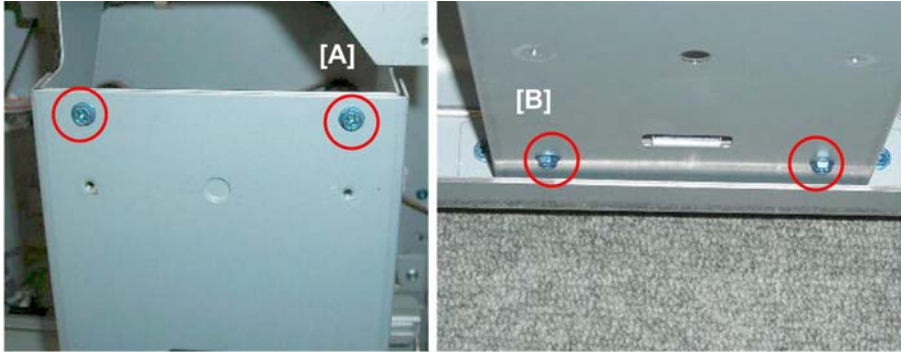
Remove these parts:

- Rear lower cover
- Rear upper cover



d447r134

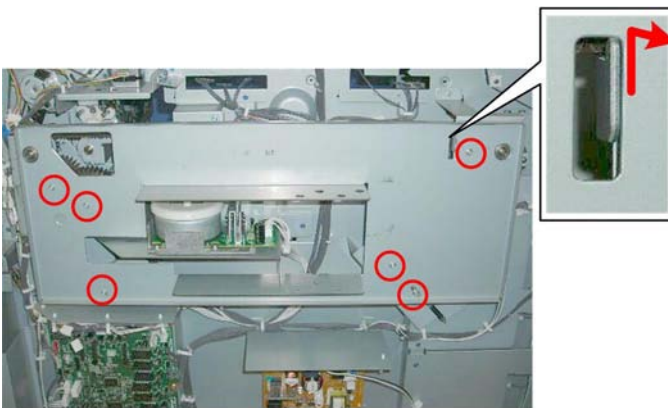
1. Plates ① and ② must be removed.



d447r135

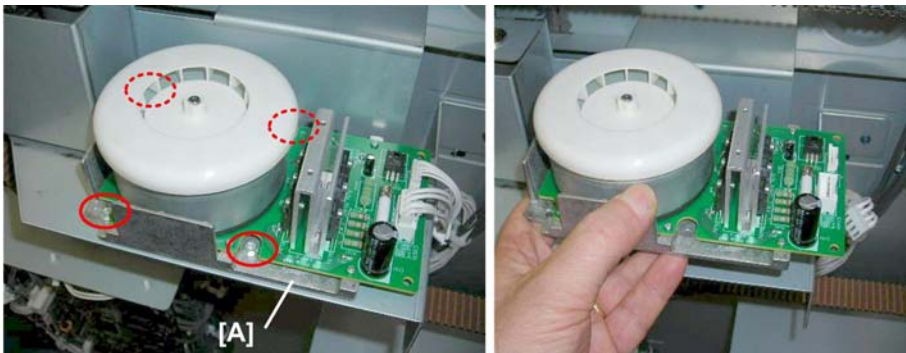
2. Remove plate ①.

- [A] Top ( x2)
- [B] Bottom ( x2)



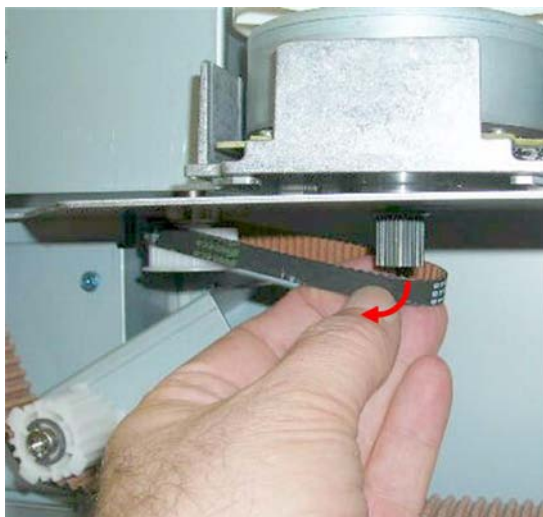
d447r136

3. Remove belt cover plate ② (x6, Hook x1).



d447r137

4. Disconnect motor bracket [A] (x4)



d447r138

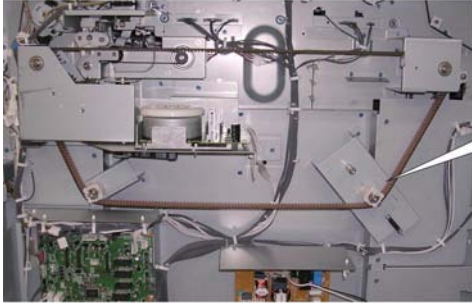
5. Disconnect the belt below the motor (Belt x1)



d447r139

Re-installation

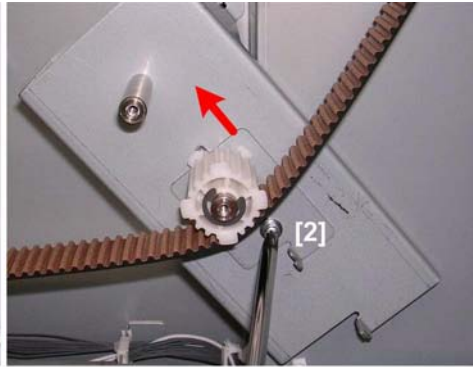
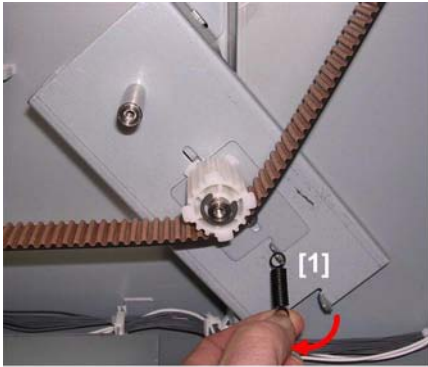
Whenever the belt cover plate has been removed, you should check and re-set the tension on the transverse belt before re-attaching the belt cover plate.



d447r201



This is the belt tension adjustment mechanism.



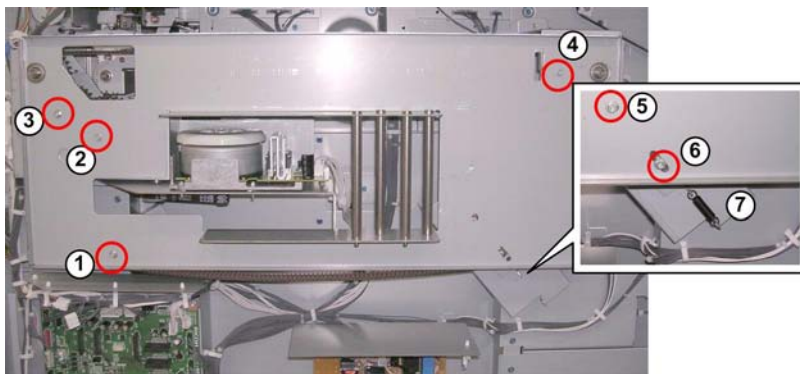
d447r202

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



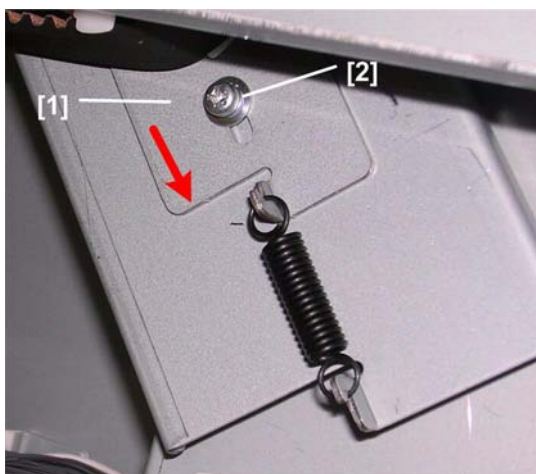
d447r203

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



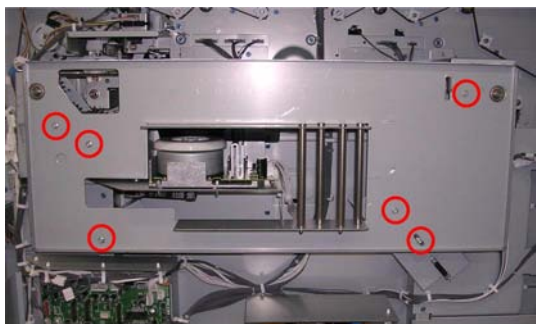
d447r204

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



d447r205

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



d447r206

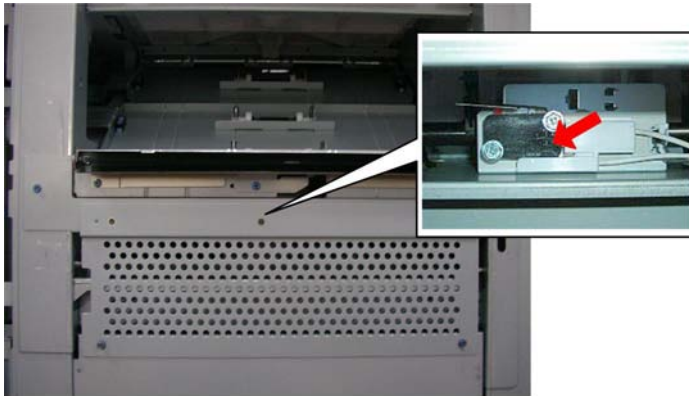
9. Tighten all the screws ( x6).

Paper Height Sensor

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

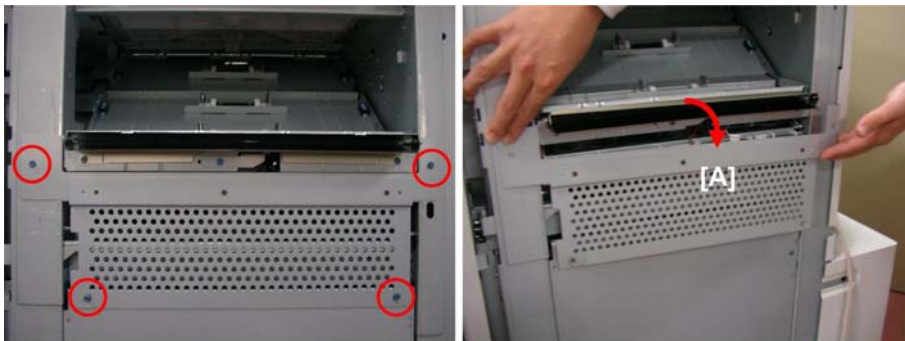
For details about this procedure, please refer to Shift Tray Exit Sensor, Paper Height Sensor. ( xref)

Tray High Limit SW



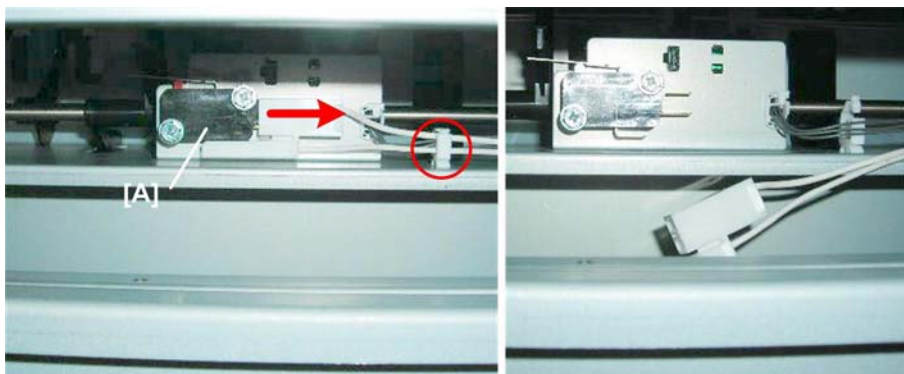
d447r140

This switch is on the right side of the stacker.



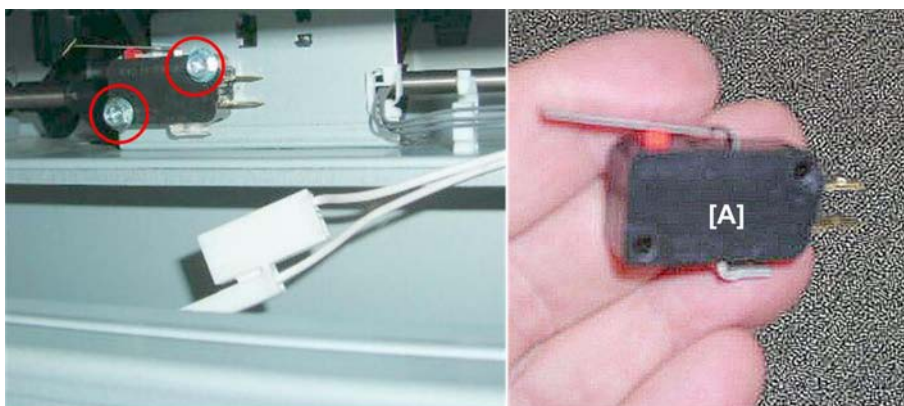
d447r170

1. Remove plate [A] ( x4)



d447r141

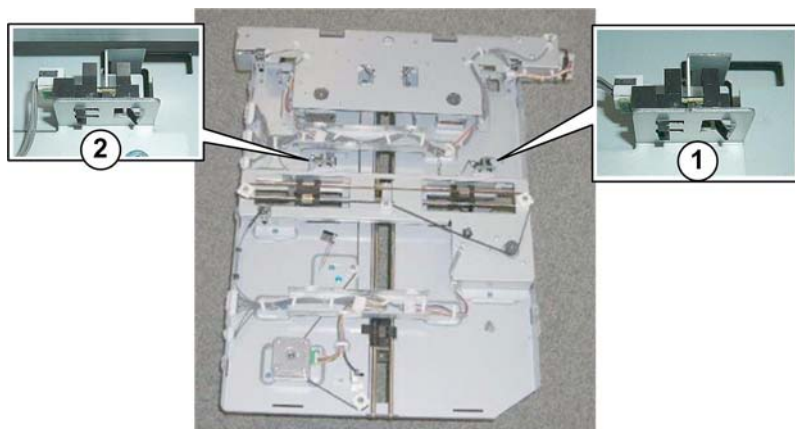
2. Disconnect switch [A] (🔧 x1, 🛠️ x2)



d447r142

3. Remove switch [A] (🔧 x2).

Tray Guard Sensors 1, 2

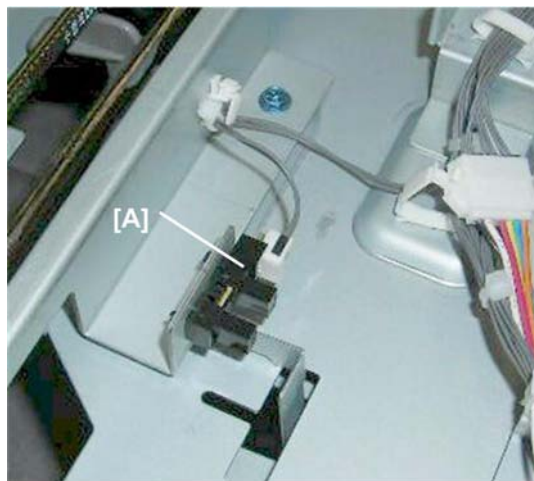


d447r143

Preparation

- Remove the jogger unit

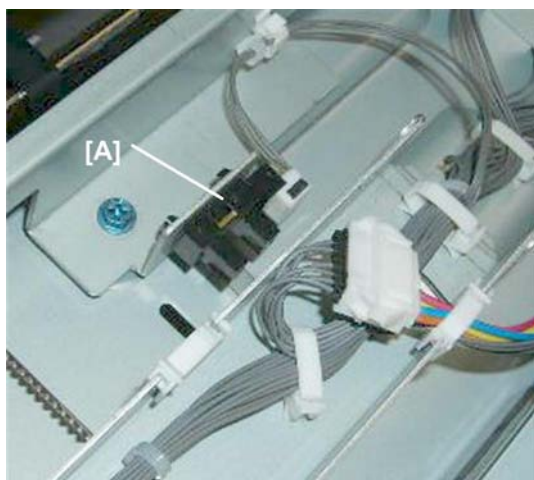
Tray Guard Sensor 1



d447r144

1. Sensor [A] 5302 (□ x1, ▴ x5)

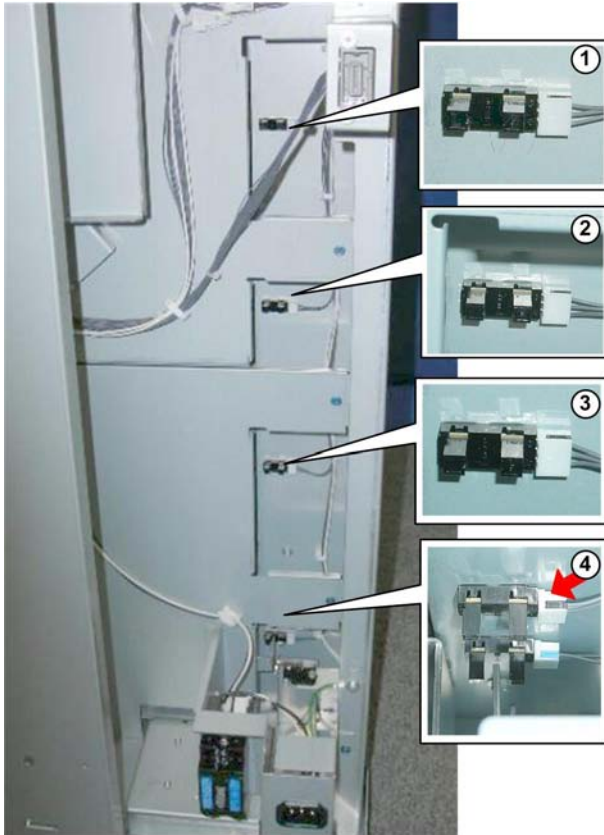
Tray Guard Sensor 2



d447r145

1. Sensor [A] 5302 (📷 x1, 🔦 x5)

Tray Full Sensors 1, 2, 3, 4



d447r146

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

- 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
- Rear upper cover
- Left cover

Tray Full Sensors 1, 2, 3



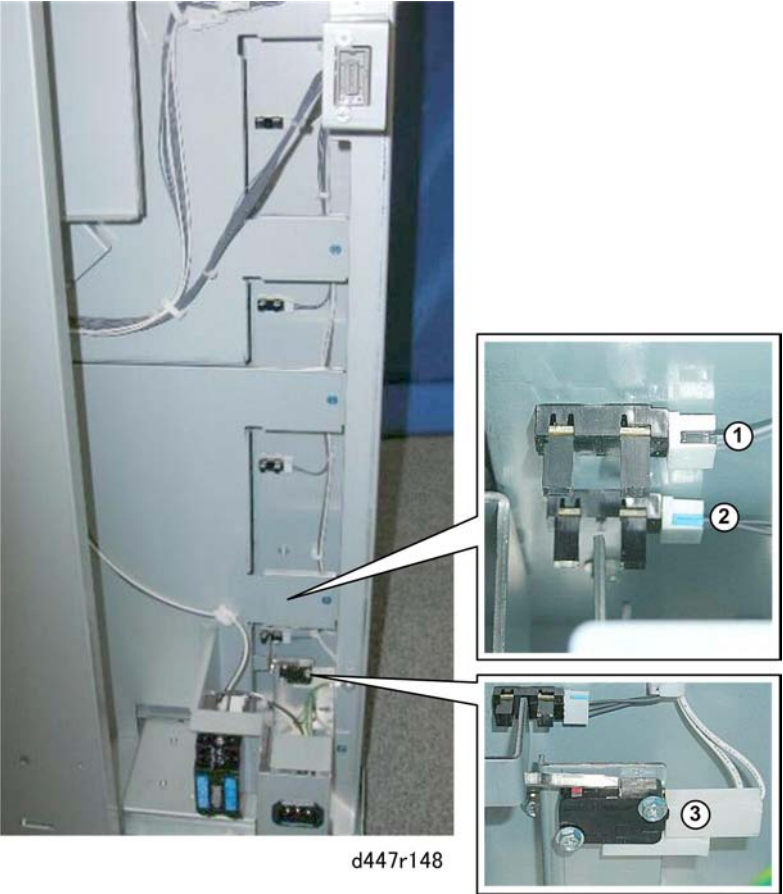
d447r147

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

Tray Full Sensor 4

See the next procedure below.

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

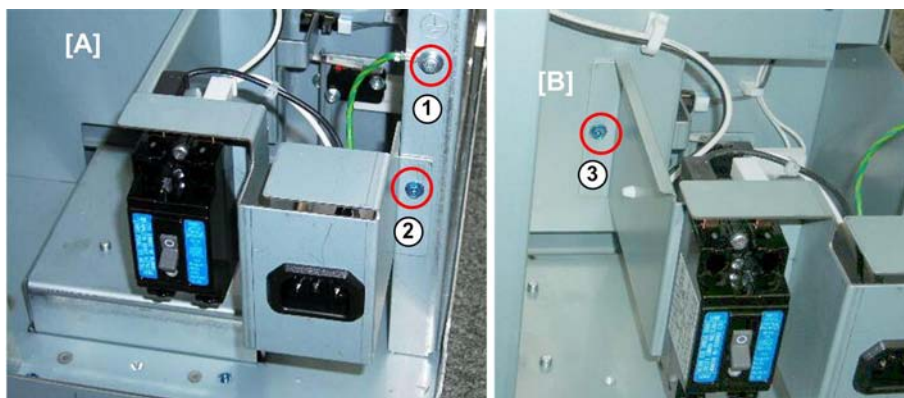


①	Tray Full Sensor 4 100%
②	Tray Low Limit Sensor
③	Tray Low Limit Switch

Preparation

Remove these parts:

- Rear lower cover
- Left cover



d447r149

1. Right side [A]:

- Ground wire ① (x1)
- Bracket ② (x1)

2. Left side [B]:

- Bracket ③ (x1)



d447r150

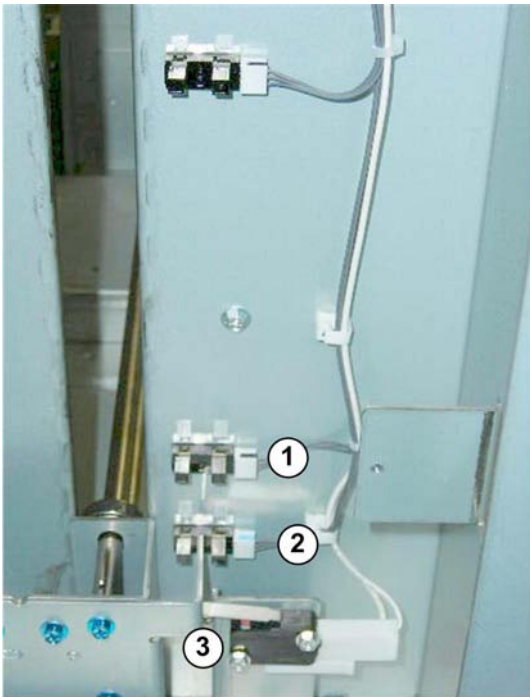
3. Open the clamps (x2)

1



d447r151

4. Use a short screwdriver to move the left lower screw, then remove the other screws at each corner of the plate. ( x4)



d447r152

5. Remove (in any order):
- Tray Full Sensor 4 100% ①
 - Tray Low Limit Sensor ②

- Tray Low Limit Switch ③

Shift Tray Position Adjustment

1

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, 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

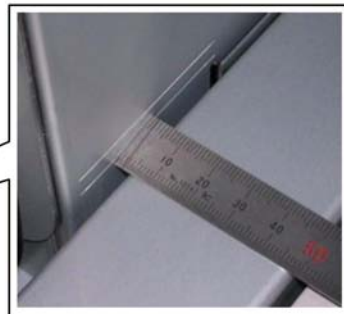
Right Side

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.

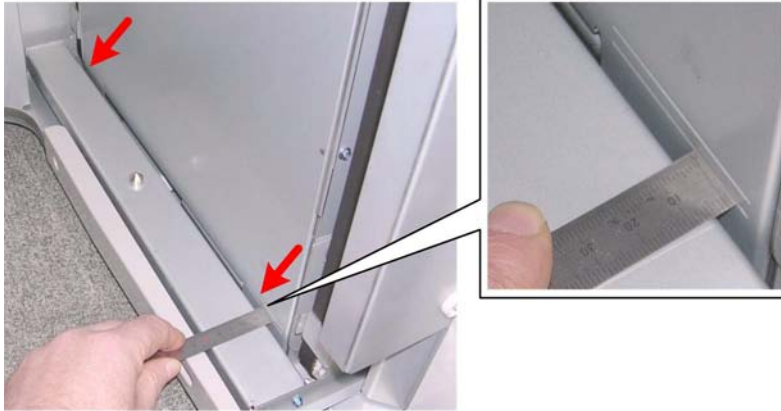
Front left, below stacker exit



d447r207



Front right, below stacker entrance



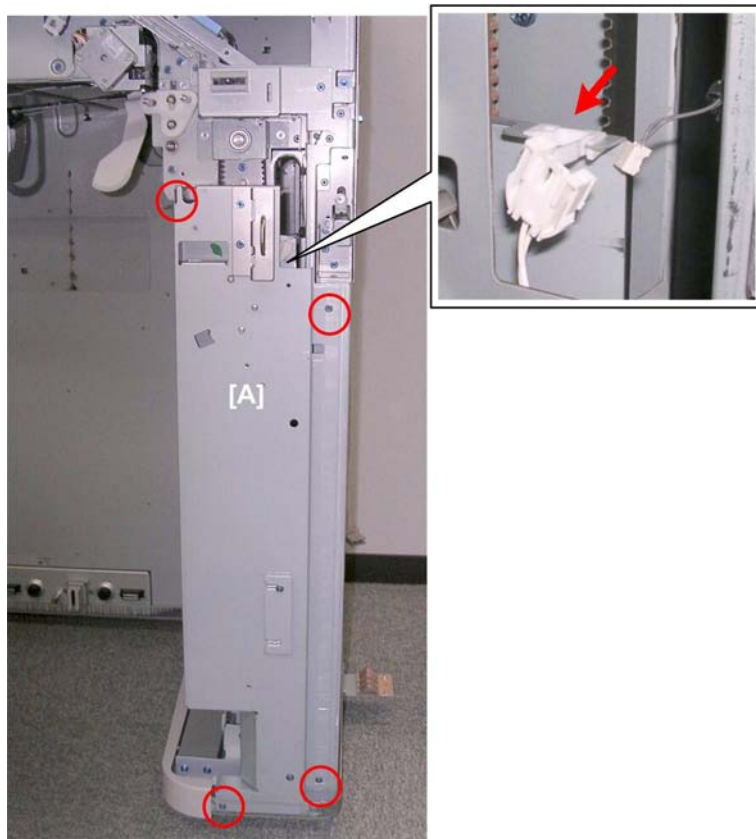
d447r208

4. Check the alignment of the left and right sides of the tray brackets.
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

1. Remove:
 - Top door (Pins x2).
 - Front right cover ( x2)
 - Right inner cover [A] ( x4)



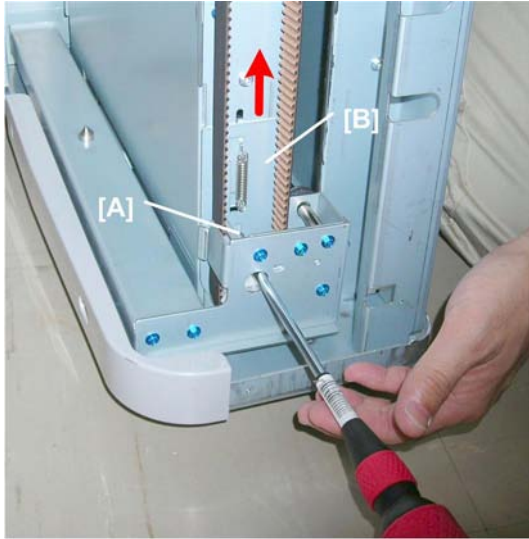
d447r209

2. Remove the right vertical stay [A] ( x2,  x1)



d447r210

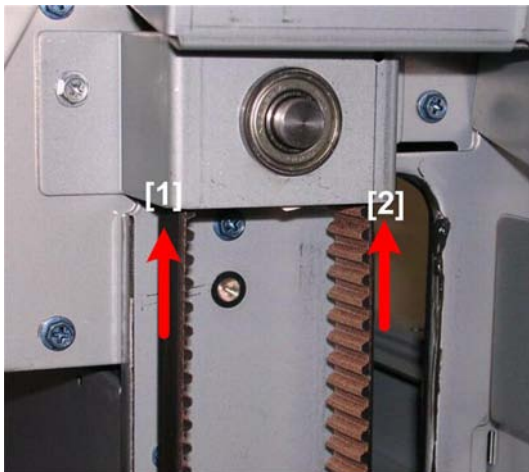
3. Remove the screws of the front door switch bracket [A] ( x2). You do not need to remove the bracket.



d447r211

4. Loosen the tension on the belt:

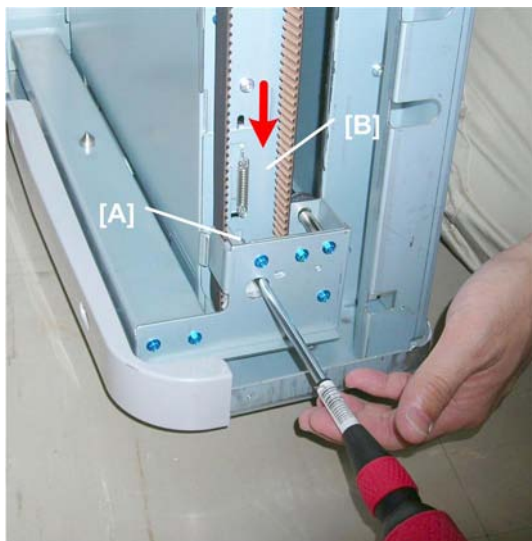
- Loosen screw [A].
- The tension bracket [B] will rise.
- Tighten screw [A].



d447r212

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.



d447r213

6. Re-set the belt tension:

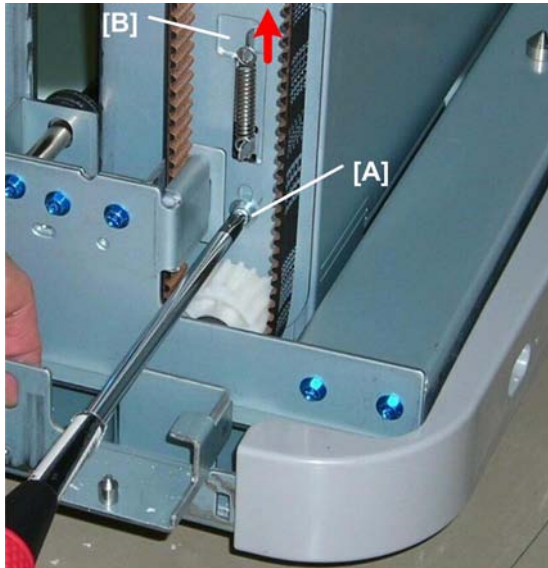
- Loosen screw [A].
- Pull down the spring [B] to apply tension to the belt.
- Tighten screw [A] with the bracket pulled down.

Left Side

1. Remove:

- Top front door ("L" x2)
- Front door
- Front door bottom hinge cover ( x1)
- Left front cover ( x2)

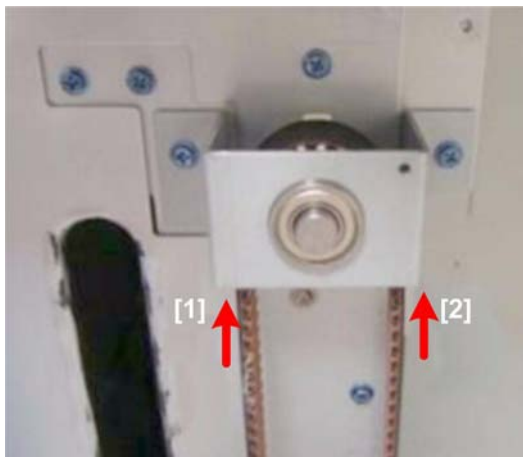
1



d447r214

2. Loosen the tension on the belt:

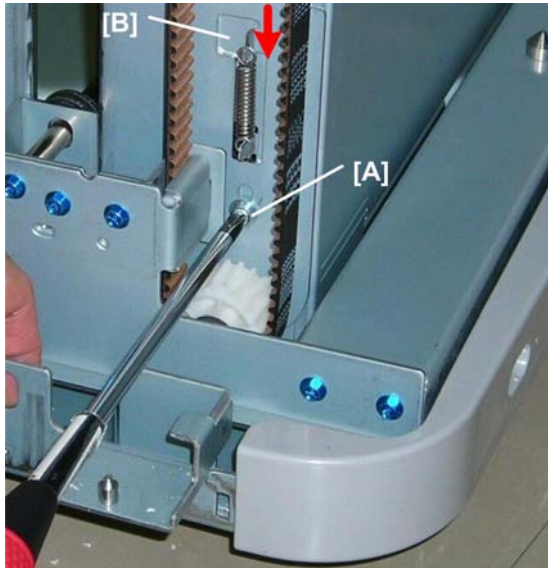
- Loosen tension screw [A].
- The tension bracket [B] will rise.
- Tighten screw [A].



d447r215

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.



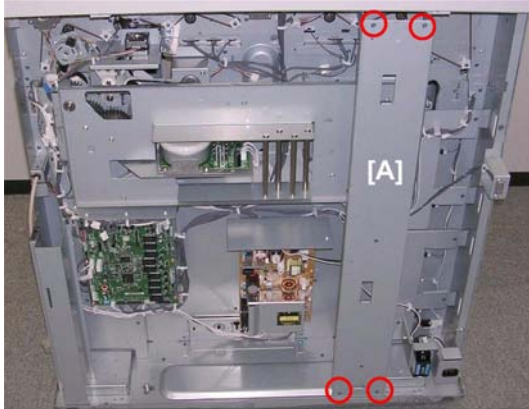
d447r216

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.

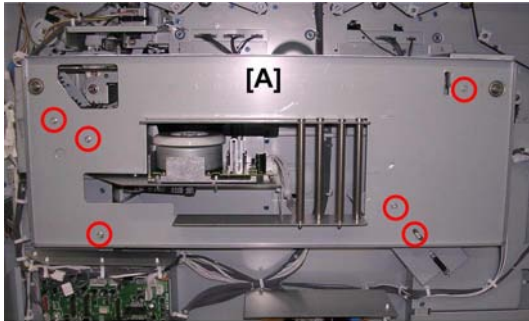
Left-to-Right Adjustment

1. Check the lines inside the stacker to determine if the tray is slanting to the left or right.
2. Remove:
 - Rear lower cover ( x4)
 - Rear upper cover ( x4)
 - Corner cover ( x4)



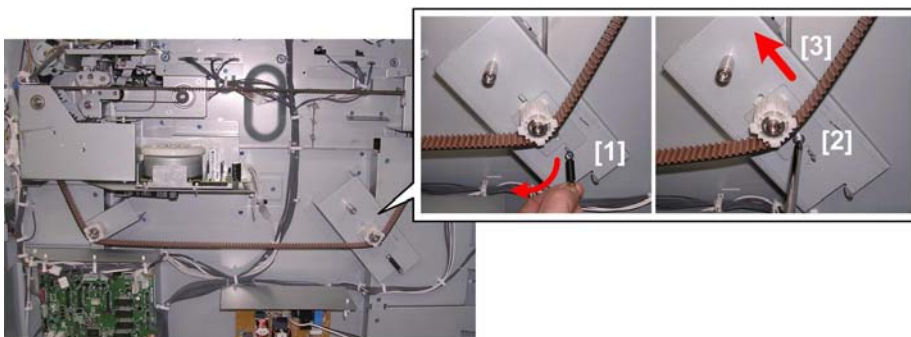
d447r217

3. Remove the vertical stay [A] ( x4).



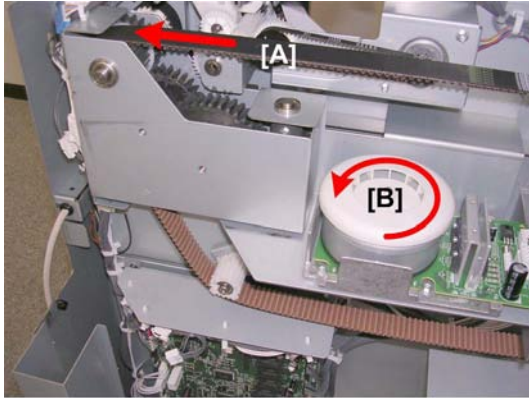
d447r218

4. Remove the rear timing belt cover plate [A] ( x6).



d447r219

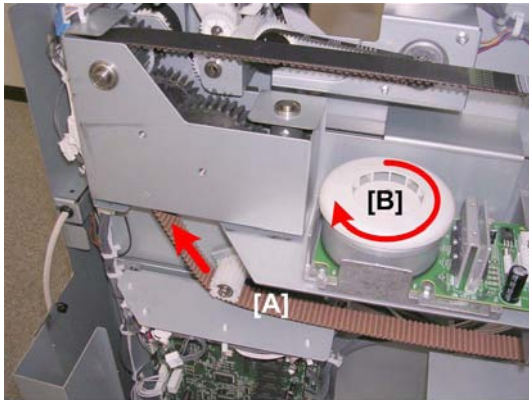
5. Release the tension on the timing belt:
- Remove spring [1].
 - Loosen tension screw [2].
 - Slide bracket [3] up to the left.



d447r220

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.

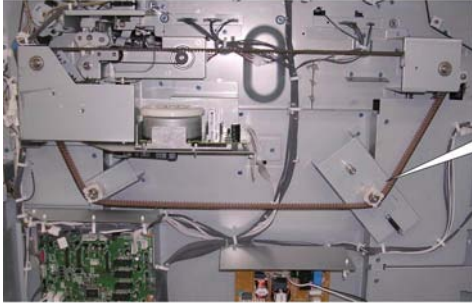


d447r220

- 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.

Re-installation

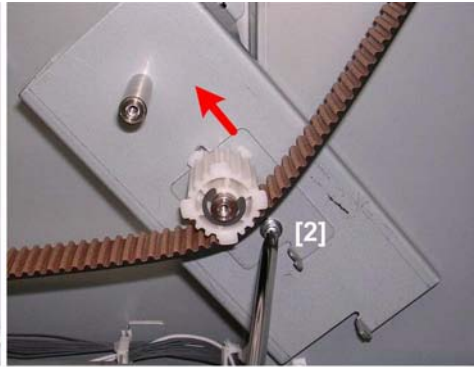
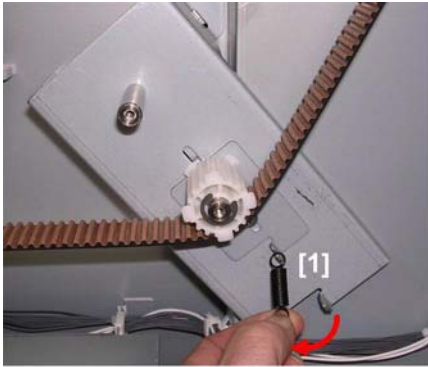
Whenever the belt cover plate has been removed, you should check and re-set the tension on the transverse belt before re-attaching the belt cover plate.



d447r201



This is the belt tension adjustment mechanism.



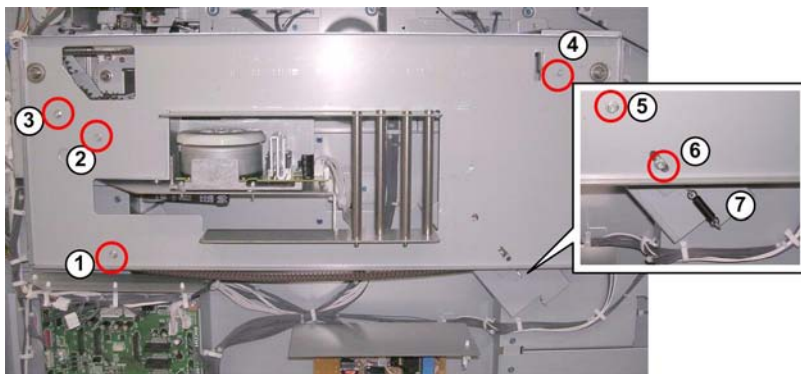
d447r202

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



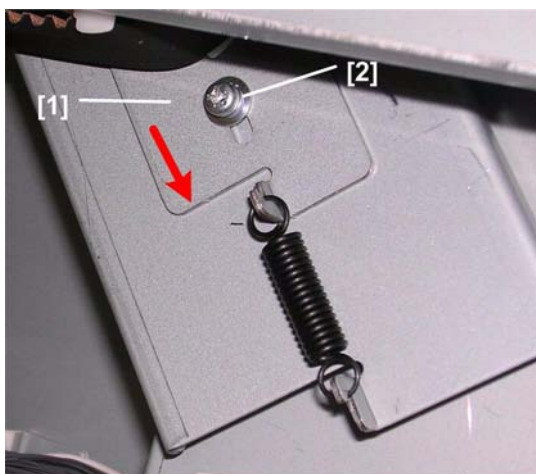
d447r203

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



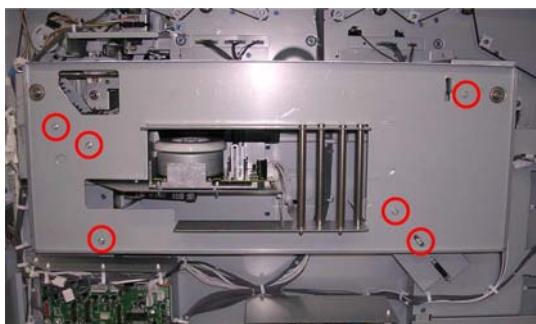
d447r204

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



d447r205

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



d447r206

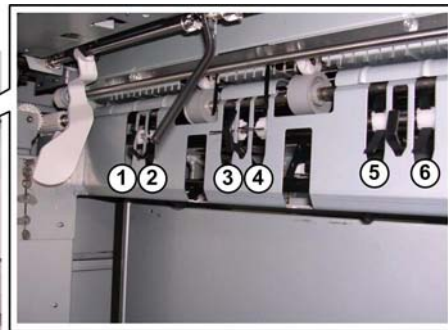
9. Tighten all the screws ( x6).

Paddle Roller

Paddle Roller Cleaning

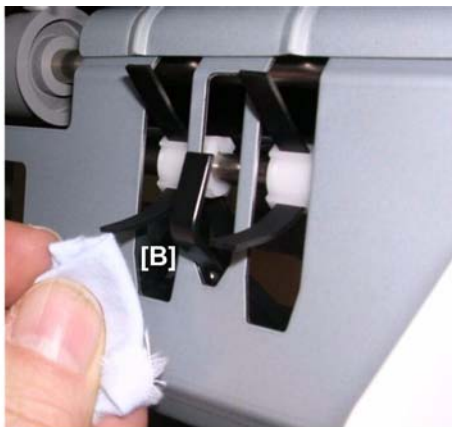
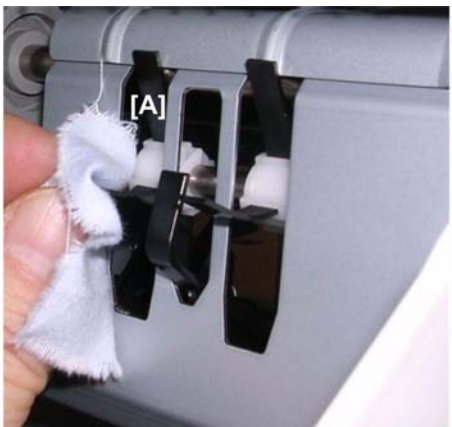
Preparation

- Open the front door
- Remove the roll-away cart



d447r251

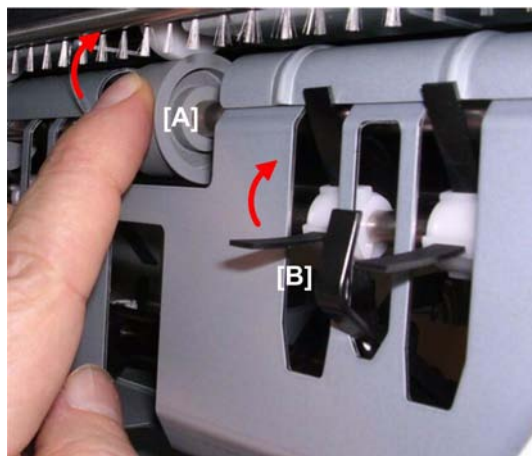
1. You can see the paddles at six locations behind on the right side between the jogger fences.



d447r252

2. Use a dry cloth to clean:
[A] Top and bottom surfaces of each paddle

[B] Tip of each paddle

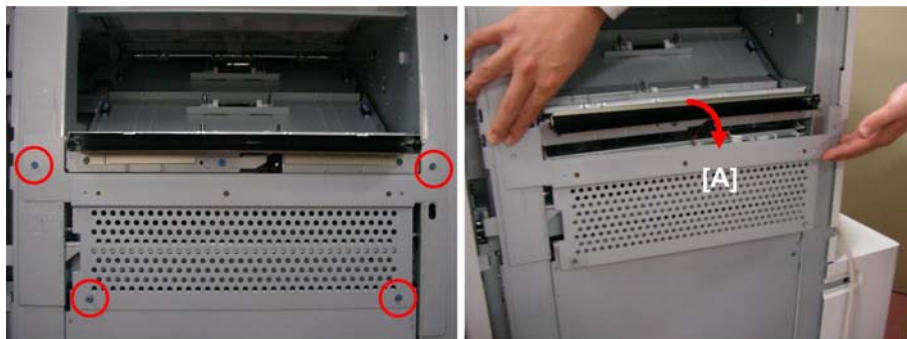


d447r253

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

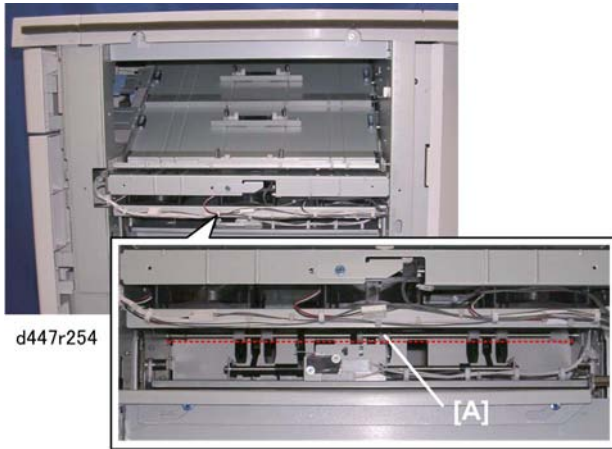
Replacing Paddles

Removing the Paddle Roller

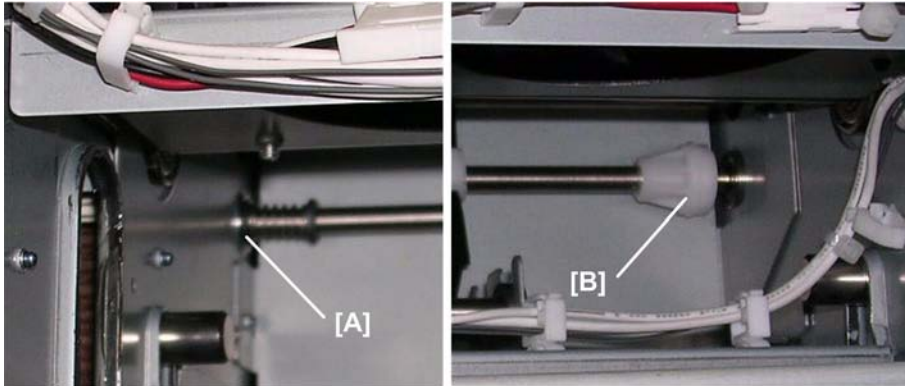


d447r170

1. Remove plate [A] ( x4)

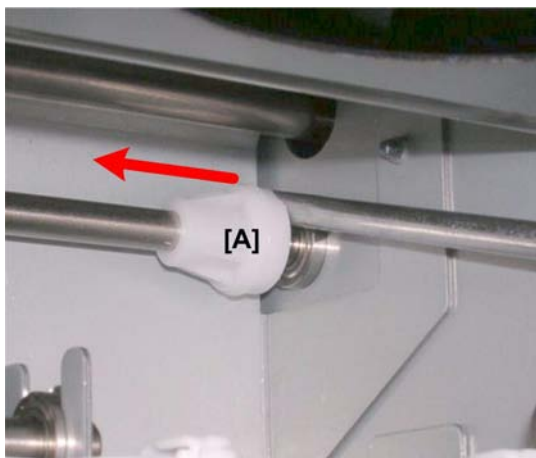


2. With the plate removed, you can see the paddle roller [A].



d447r255

3. A spring is attached to the left end of the paddle roller shaft [A].
4. A groove in the shaft coupling [B] on the right is set on a straight pin that drives the roller.



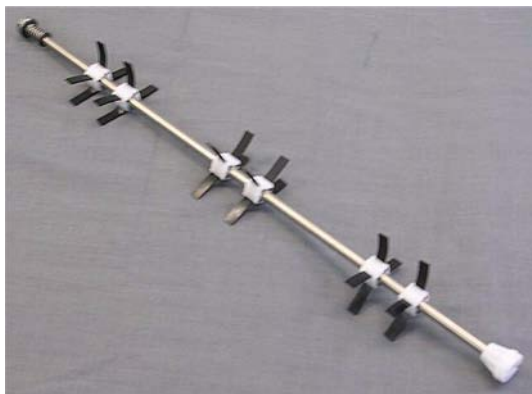
d447r256

5. Use your finger or the tip of a flat screwdriver to push the coupling [A] to the front and disconnect it from its drive pin.



d447r257

6. Lift the roller up and pull it out.



d447r257

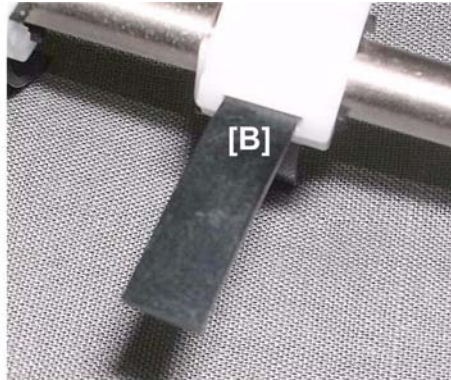
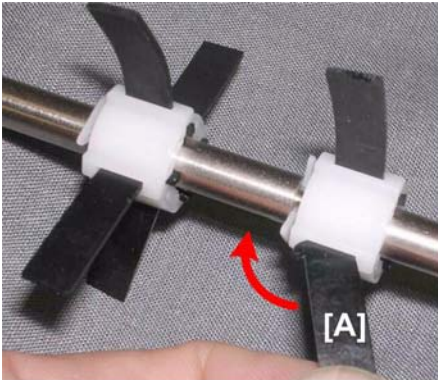
7. Place the paddle roller on a clean, flat surface.

Replacing Paddles



d447r259

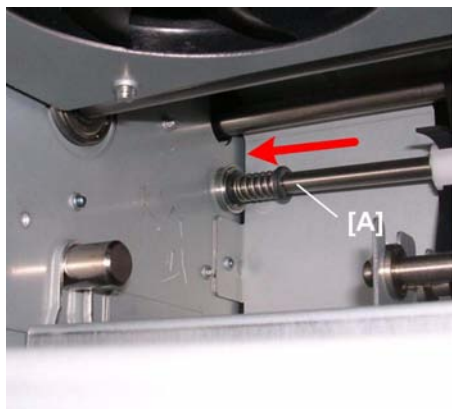
1. To remove an old paddle, twist the paddle slightly to the right and pull it out of its slot.



d447r260

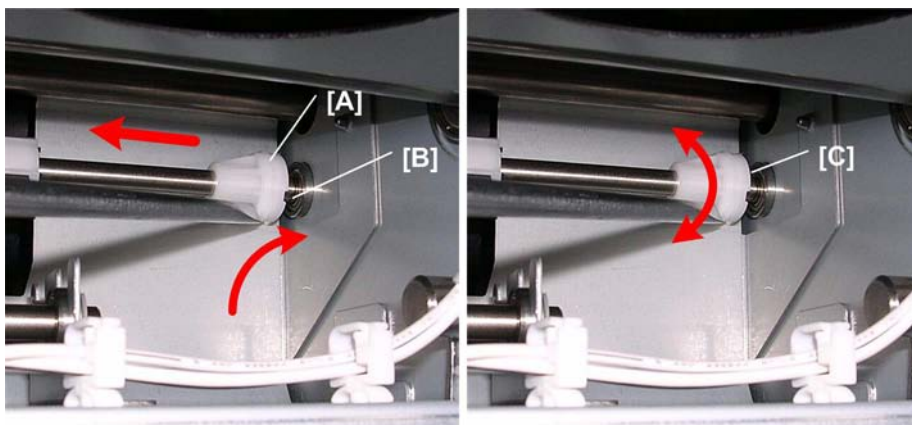
2. To attach a new paddle [A], insert the right end first then twist to the left until its left tab locks in place.
3. Make sure that the new paddle [B] is straight and firmly set.

Re-installing the Paddle Roller



d447r261

1. First, set the left of the paddle roller shaft [A] in its hole. Make sure that it is completely inserted.



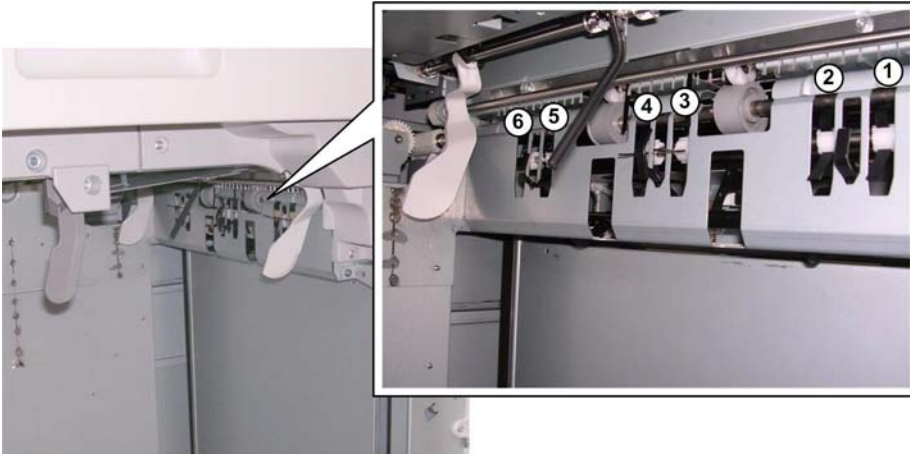
d447r262

2. Push the coupling [A] to the left and set it on the tip of the pin coupling [B].
3. Rotate the coupling [C] until the pin snaps into its groove.
4. Rotate the roller with your hand to make sure that it is set properly.

Cleaning Exit, Shift Roller Shaft

Preparation

- Open the front door
- Remove the roll-away cart



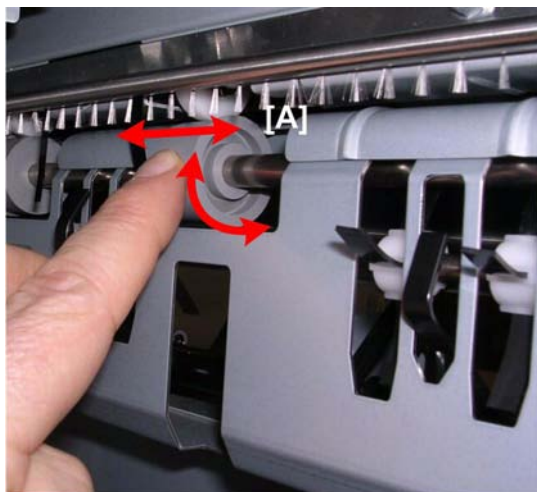
d447r263

1. You can see the roller shaft exposed at six locations above the paddles of the paddle roller.



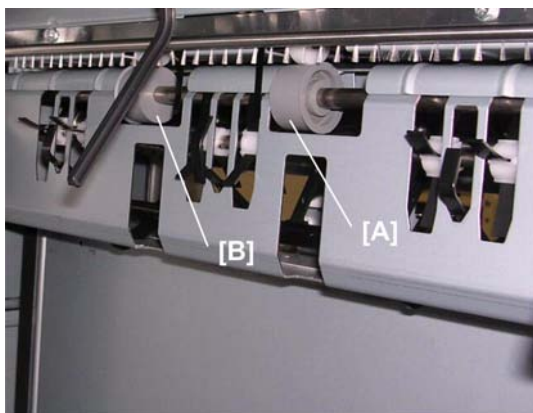
d447r264

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



d447r265

3. Rotate the exit roller [A] and push it from side to side while holding the cloth in place.
4. Repeat Steps 1 and 2 at each location.



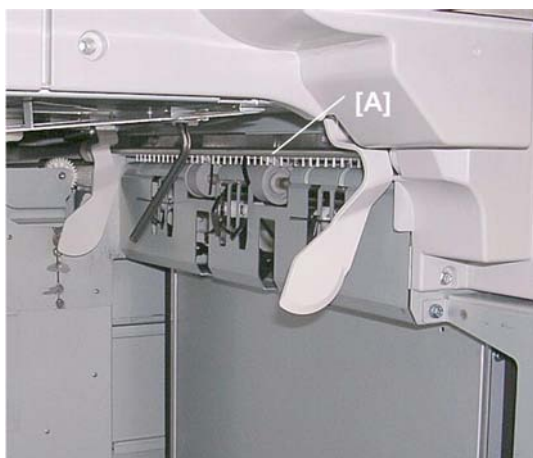
d447r266

5. Clean the rollers [A] and [B].

Anti-Static Brush Replacement

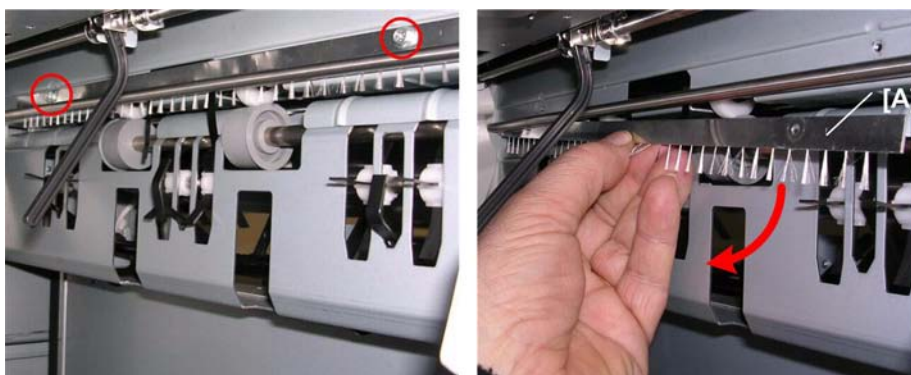
Preparation

- Open the front door
- Remove the roll-away cart



d447r267

1. You can see the anti-static brush [A] between the jogger fences.



d447r268

2. Remove the anti-static brush [A] ( x2).



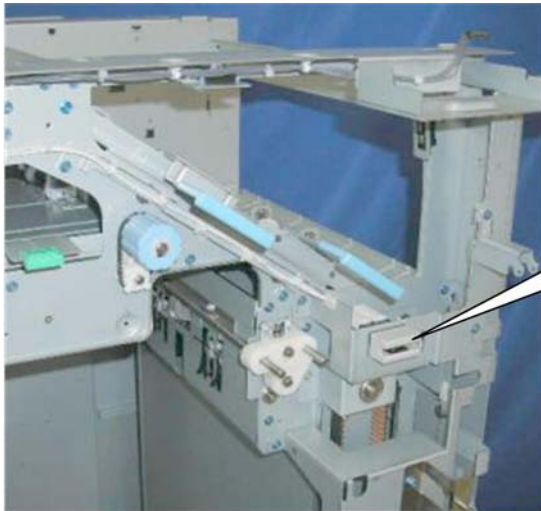
d447r269

Switches, Solenoid

Door Switches

1

Front Door SW

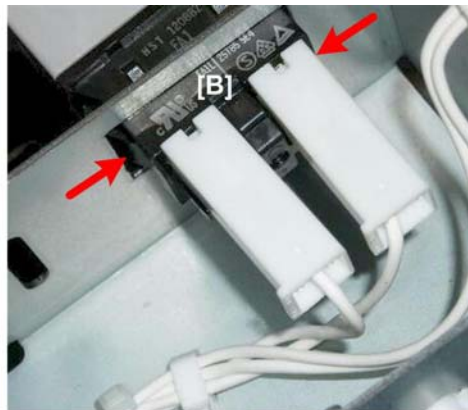
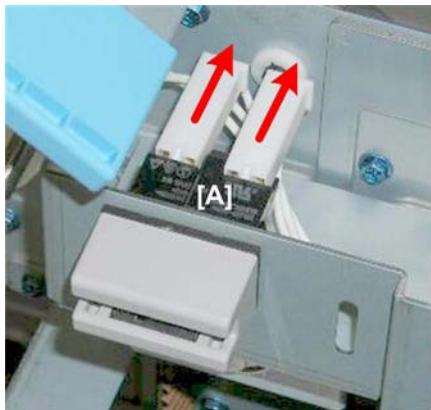


d447r153

Preparation

Remove these parts:

- Top front cover off
- Top center cover off



d447r154

1. Loosen connectors [A] (🔧 x2)



d447r155

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

Top Door SW



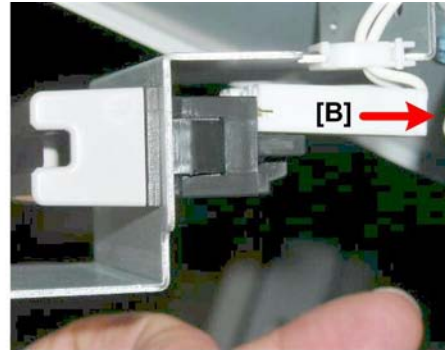
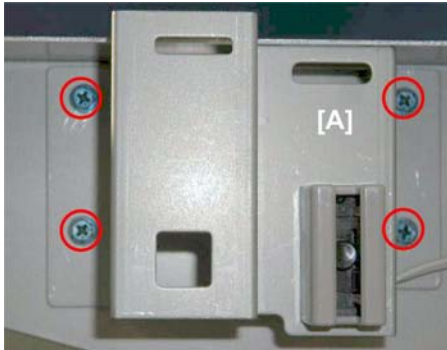
d447r156

Preparation

Remove these parts:

- Top front cover

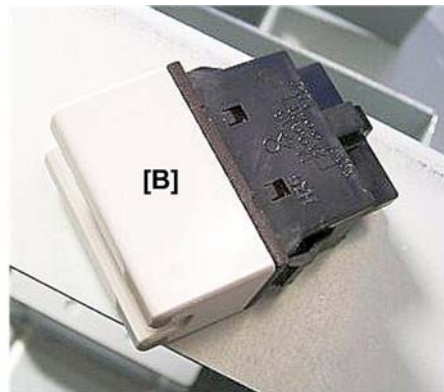
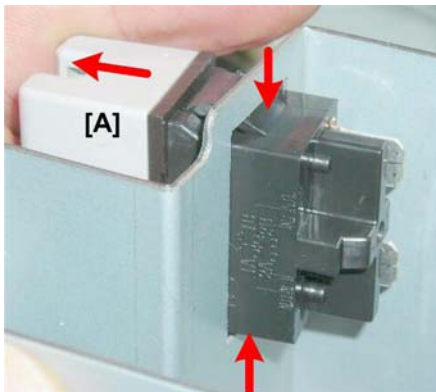
- Top center cover



d447r157

1. Remove bracket [A] ( x4).

2. Disconnect switch [B] ( x1)



d447r158

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

Breaker Switch, Solenoid

1

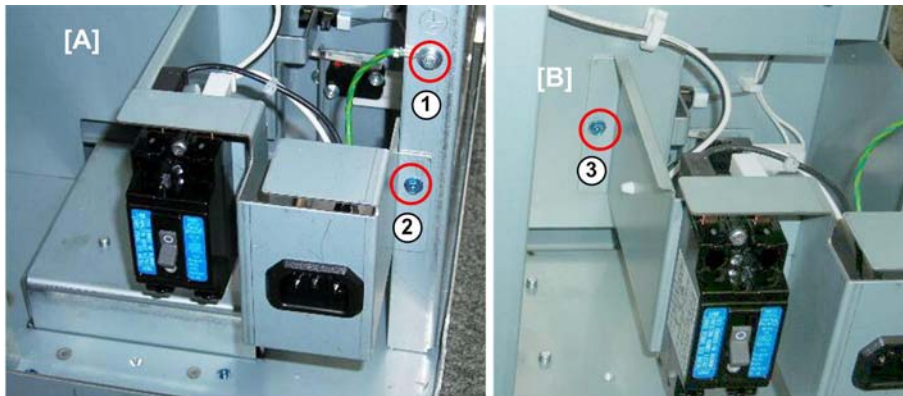
Breaker Switch



d447r159

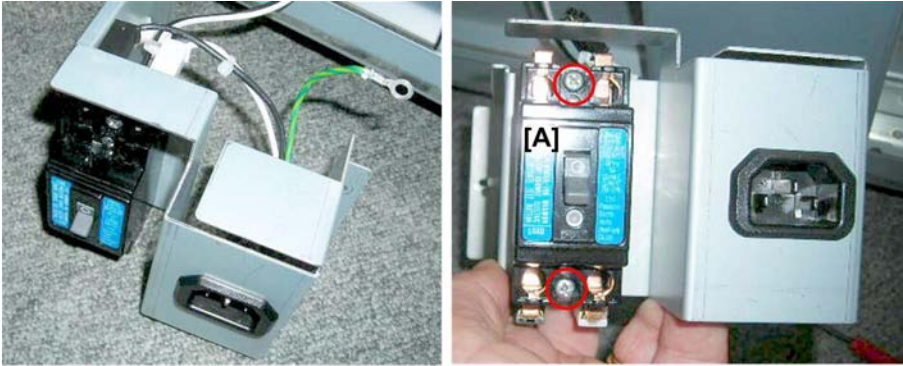
Preparation

- Remove the rear lower cover



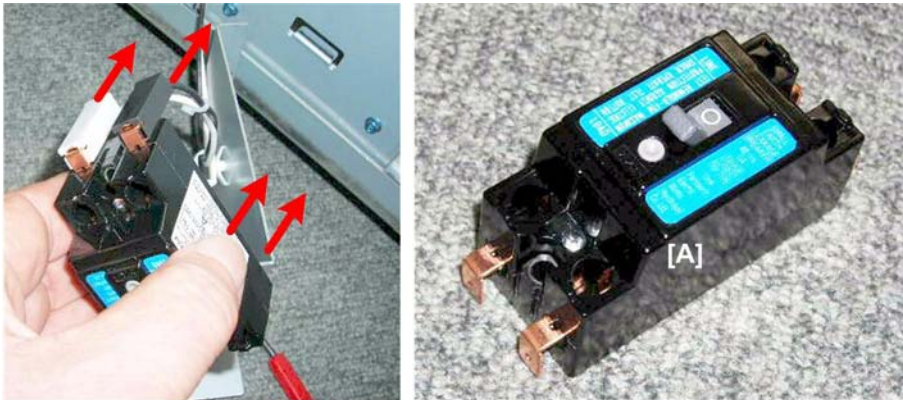
d447r160

1. Right side [A]:
 - Ground wire ① (1 x1)
 - Bracket ② (1 x1)
2. Left side [B]:
 - Bracket ③ (1 x1)



d447r161

3. Disconnect breaker switch [A] ( x2)



d447r162

4. Disconnect and remove breaker switch [A] ( x4)

Front Door Lock SOL

1



d447r163

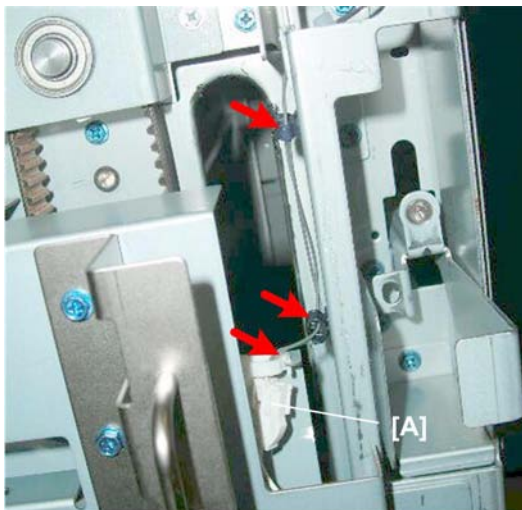
Preparation

- Open the front door
- Remove the front right cover



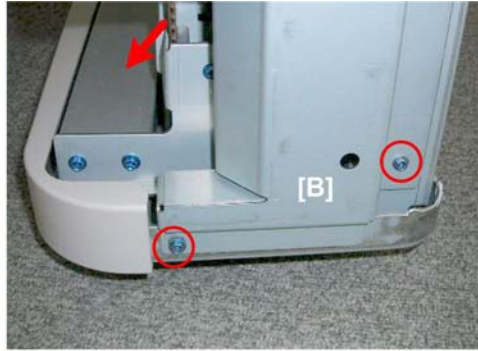
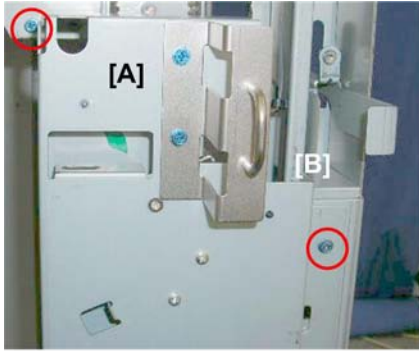
d447r164

1. Plate [A] must be removed.



d447r165

2. Disconnect the solenoid at the top (🔌 x1, 🗑️ x3)

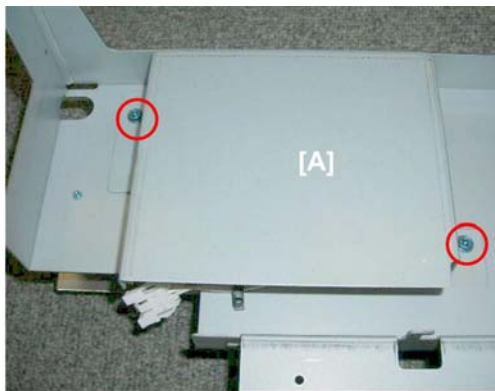


d447r166

3. Remove the plate:

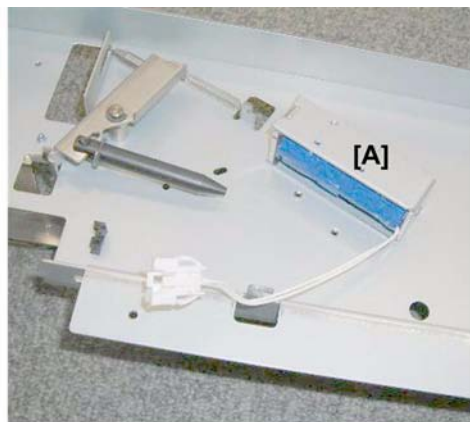
[A] Top ( x2)

[B] Bottom ( x2)



d447r167

4. Cover plate [A] ( x2)



d447r168

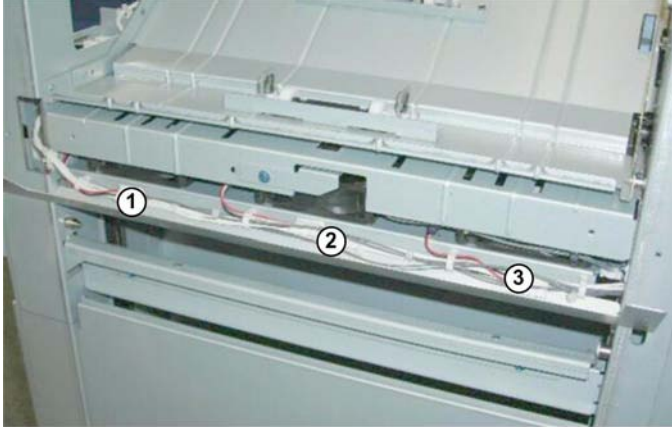
5. Turn the plate over.

6. Remove the solenoid [A] ( x2)

Fans

1

Entrance Fan Motors



d447r169

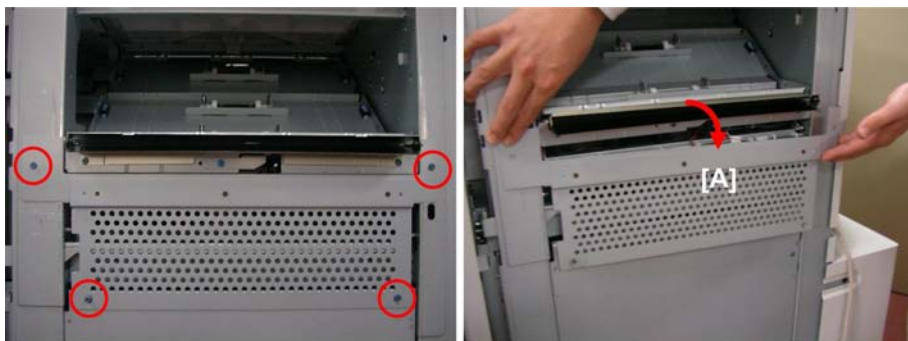
Below the stacker entrance, three fan motors are mounted on the same plate:

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

Preparation

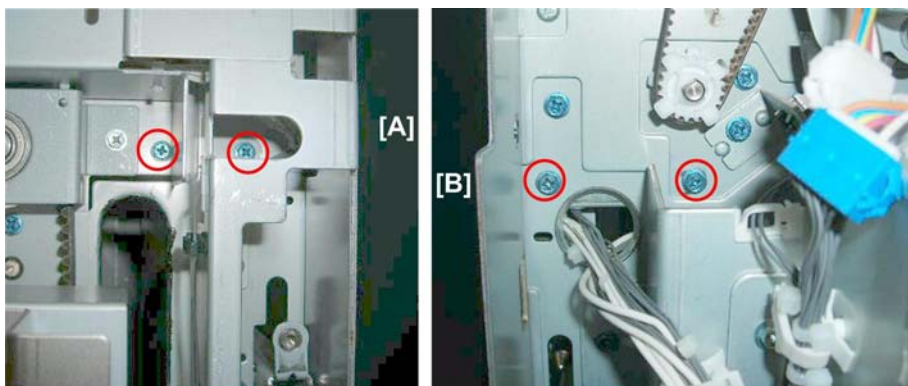
Remove these parts:

- Rear lower cover
- Rear upper cover
- Open the front door
- Right inner cover
- Top center cover



d447r170

1. Remove plate [A] (x4)



d447r171

2. Disconnect the motor mount.

[A] Front (x2)

[B] Rear (x2)



d447r142

3. Remove the cover plate screws:

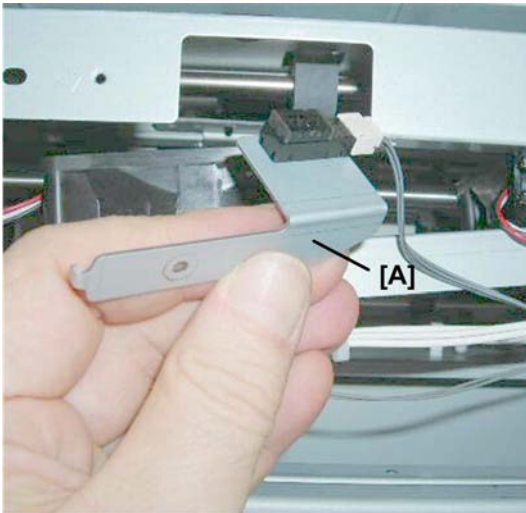
[A] Front ( x1)

[B] Rear ( x1)



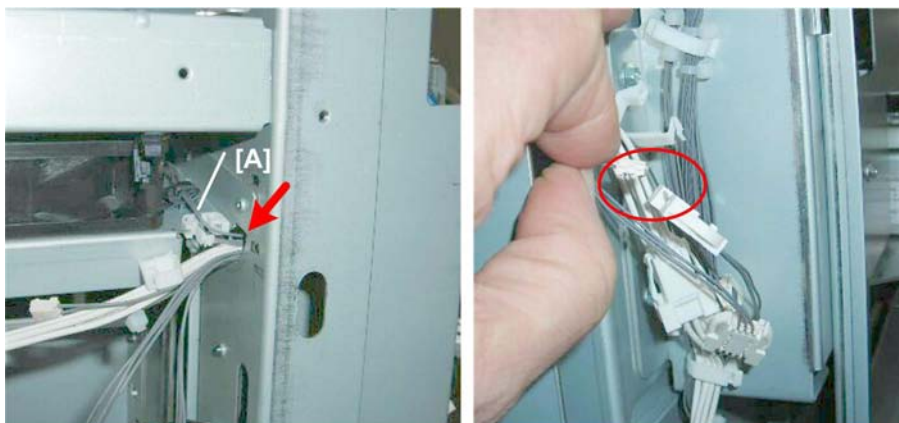
d447r173

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] ( x5,  x3).



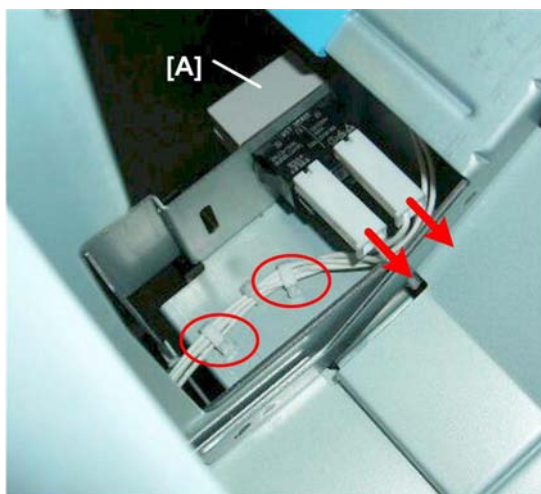
d447r174

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



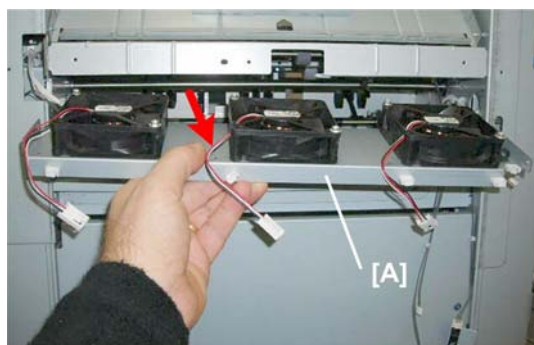
d447r175

7. Trace gray harness [A] to its connector near the main board.
8. Disconnect (🔌 x1, 🔌 x1)
9. Pull the gray harness back through the hole



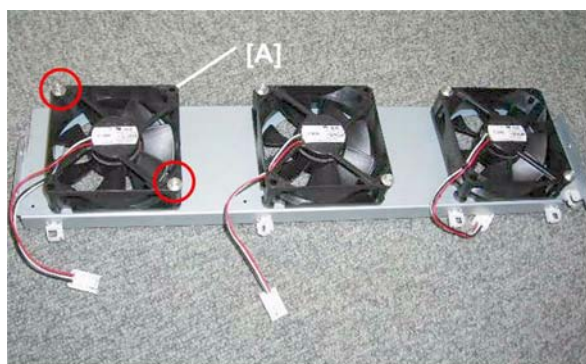
d447r176

10. Disconnect front door switch harness [A] to create some slack in the white harness (🔌 x2, 🔌 x2)



d447r177

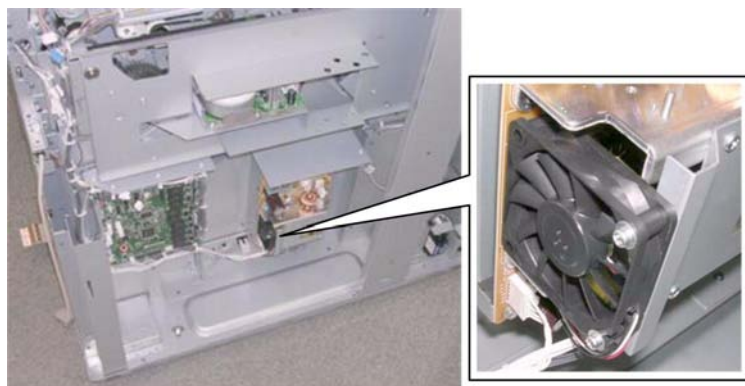
11. Pull out fan motor mount [A].



d447r178

12. Each fan motor is fastened with two screws ( x2)

PCB Cooling Fan



d447r179

Preparation

- Remove the rear lower cover



d447r180

1. Remove cooling fan [A] from the PCU ( x2,  x1)

Boards

1

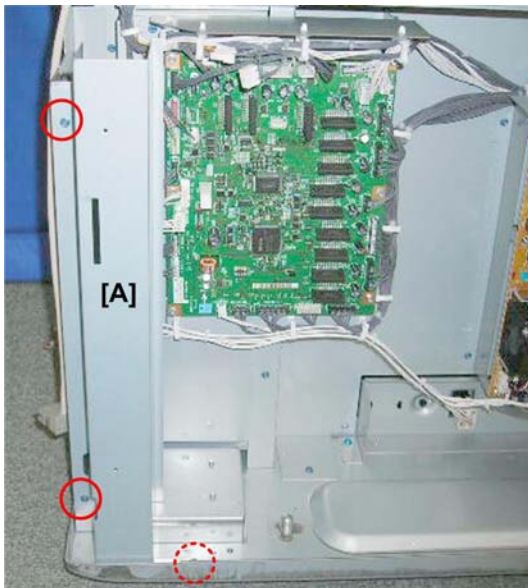
Main Board



d447r181

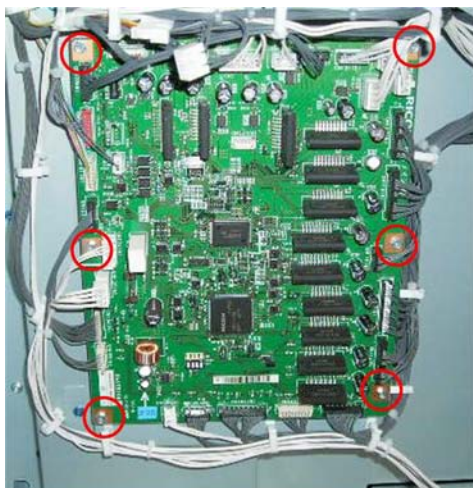
Preparation

- Remove the rear lower cover



d477r182

1. Remove brace [A] ( x3)



d447r183

2. Remove the main board (🔧 x28, 🔧 x6)

PSU



d447r184



Preparation

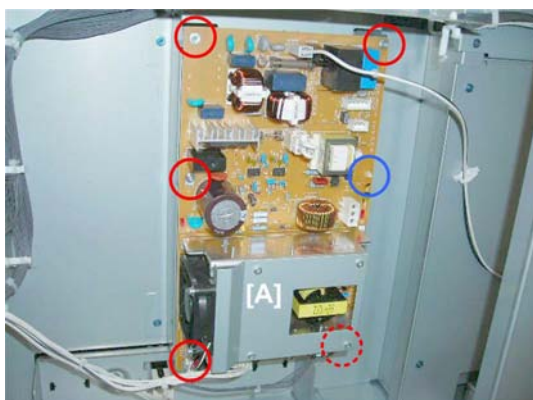
- Remove the rear lower cover

1



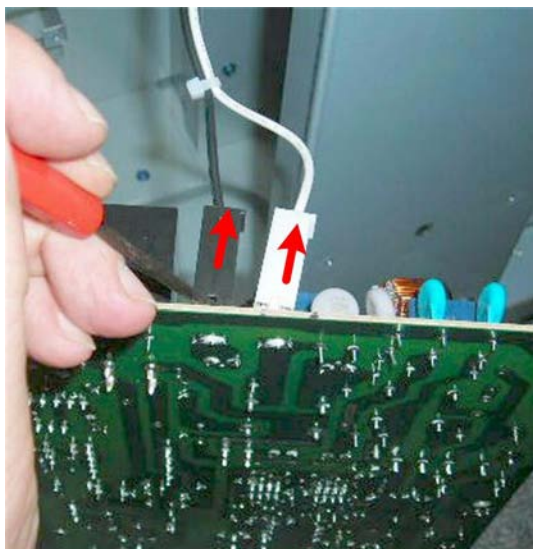
d447r185

1. Disconnect the PSU at the bottom (🔌 x3)



d447r186

2. Remove the PSU (🔧 x5, 🛠 x1)



d447r187

3. Bayonet connectors (x2).

- These connectors may be too stiff to disconnect before removing the board.
- Disconnect them after removing the board.

Operation Panel PCB

Preparation

- Remove the top front cover



d447r188

1. Turn the cover over the top front cover [A].
2. Under the LED display, remove plate [B] ( x2).

1



d447r190

3. Remove spring plate [A] ( x1)



d515r013



4. Remove the operation panel PCB.

MEMO

MEMO