

LCIT RT5060
Machine Code: D516
Field Service Manual

20 April, 2011

Safety, Conventions, Trademarks

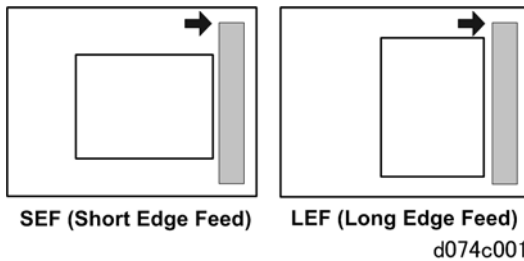
Conventions

Common Terms

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

Symbol	What it means
	Binding screw (shoulder hexagonal head)
	Binding screw (round flathead)
	Black screw (heavy, fusing unit, TCRU)
	Bushing
	C-ring
	Connector
	E-ring
	FFC (Flat Film Connector)
	FFC (Flat Film Connector)
	Gear
	Harness clamp
	Harness clamp (metal: fusing unit)
	Hook (or tab release)
	Knob screw (black)
	Knob screw (sliver)
	Pivot screw
	Screw (common screw)
	Shoulder screw
	Spring

Symbol	What it means
	Standoff
	Stud screw
	Tapping screw (for plastic)
	Timing belt



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

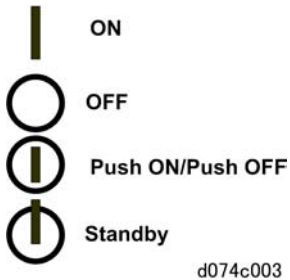
Always obey the following safety precautions when using this product.

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.



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

Removing Trays

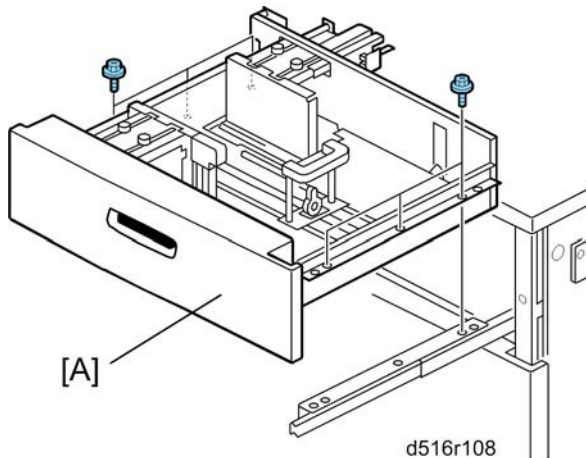
1

⚠ CAUTION

- Tray 4 weighs 27 kg (60 lb) empty. Trays 3 and 5 weigh 20 kg (44 lb) each empty.
- To prevent damage to the tray and personal injury, never attempt to lift a tray alone or without attaching the carrying handles, especially if a tray is loaded with paper.
- Two people on each side of the tray should lift the carrying handles together to lift and move the tray.
- Never remove the tray if the LCT has not been docked to the copier. Removing the tray while the LCT is standing alone can unbalance the LCT and cause it to fall over.

↓ Note

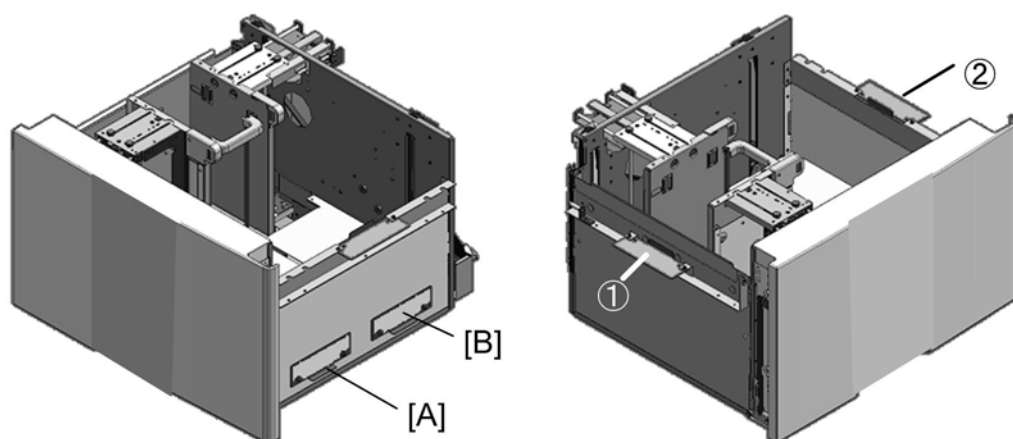
- Only one set of carrying handles is attached to the side of Tray 4. Follow the procedure below to attach and use these handles to move Tray 3, 4, or 5.



1. Pull the tray [A] out of the LCT until it stops.
2. Remove the screws from the right rail [B] ( x3)
3. Remove the screws from the left rail [D] ( x3)

↓ Note

- You do not need to remove screw for the stopper pin bracket at the back of the left rail.



d453r201

4. Remove carrying handles [A] and [B] from the right side of the tray ( x 2 ea.)
5. Use the same screws to attach the carrying handles at ① and ②.
6. With one person on each side of the tray, lift it carefully and remove it from the rails.

Door and Covers

Door and Covers

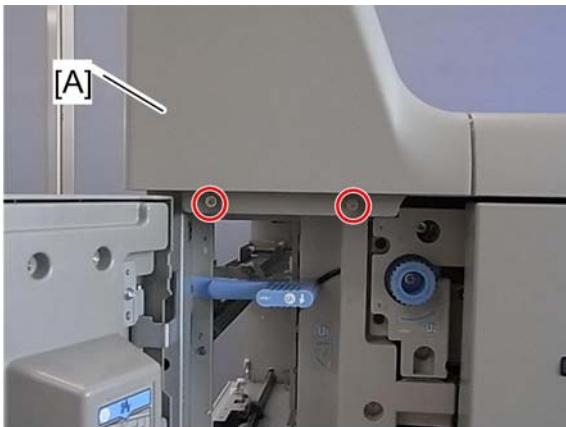
1

Front Cover



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1. Open the front door [A].



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2. Front cover [A] ( x2)

Rear Cover

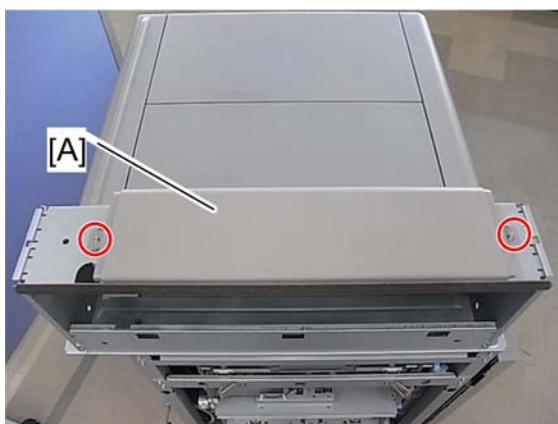


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1. Rear cover [A] ( x2)

Top Cover

1. Front cover ( p.11)
2. Rear cover ( p.12)

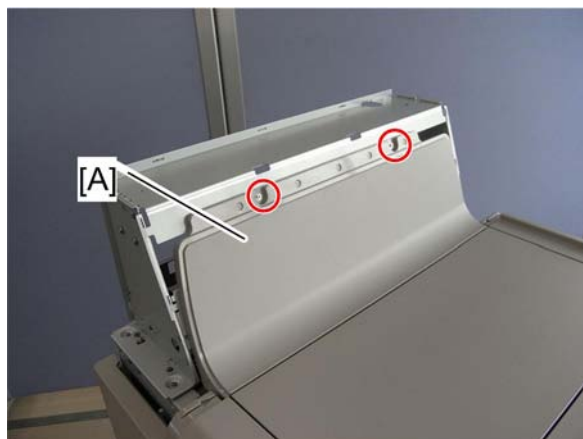


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3. Top cover [A] ( x2)

Side Cover

1. Top cover ( p.12)

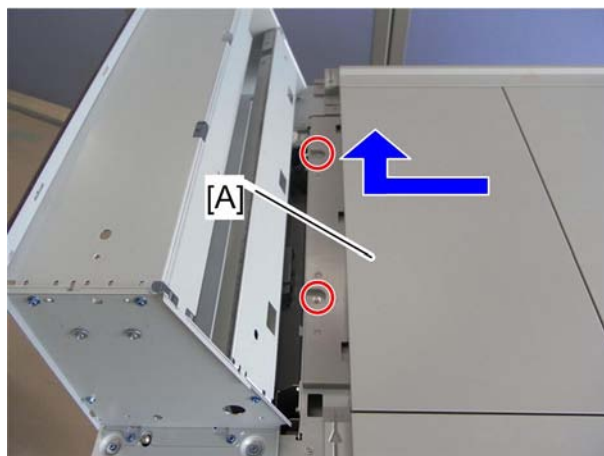


d516r518

2. Side cover [A] ( x2)

Left Top Cover

1. Top cover ( p.12)
2. Side cover ( p.12)



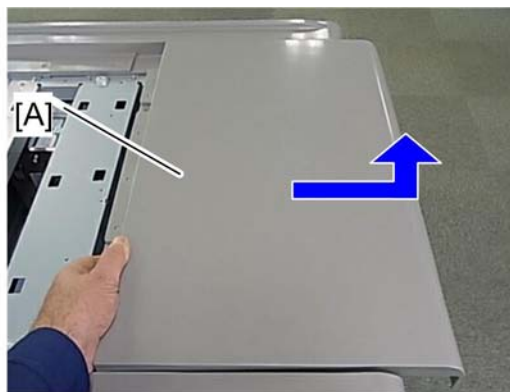
d516r519

3. Left top cover [A] ( x2)

Right Top Cover

1. Left top cover ( p.13)

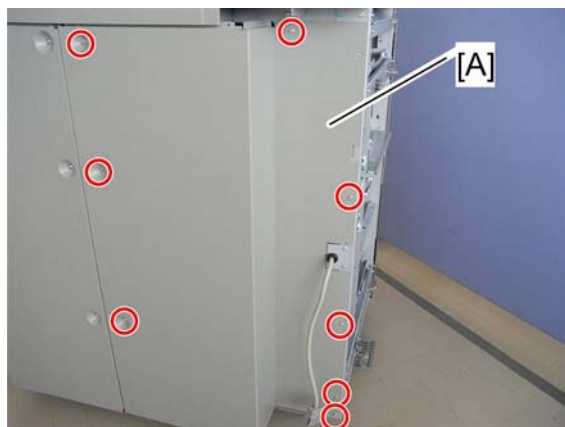
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2. Right top cover [A] ( x2)

Left Rear Cover



d516r521

1. Left rear cover [A] ( x8)

Right Rear Cover

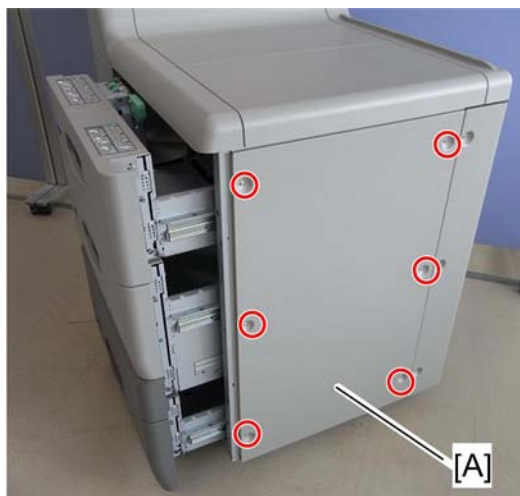
1. Left rear cover ( p.14)



d516r522

2. Right rear cover [A] ( x6)

Right Cover



d516r523

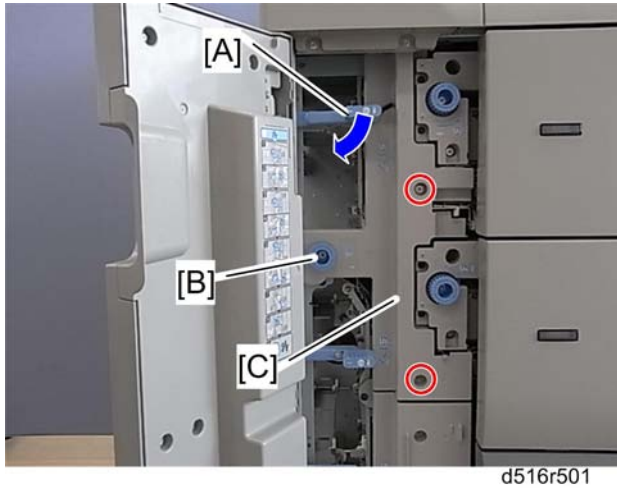
1. Pull all the LCT trays out a short distance.
2. Right cover [A] ( x6)

Inner Covers

Inner Upper Cover

1. Open the front door.

1

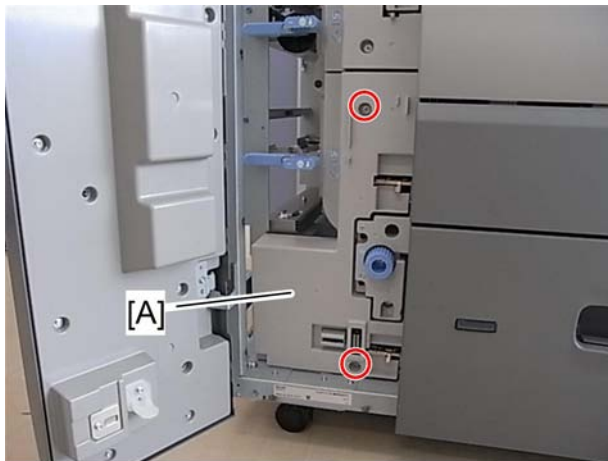


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2. Pull down the U1 lever [A].
3. Remove:
 - [B] Knob ( x1)
 - [C] Inner upper cover ( x2)

Inner Lower Cover

1. Open the front door.



d516r502

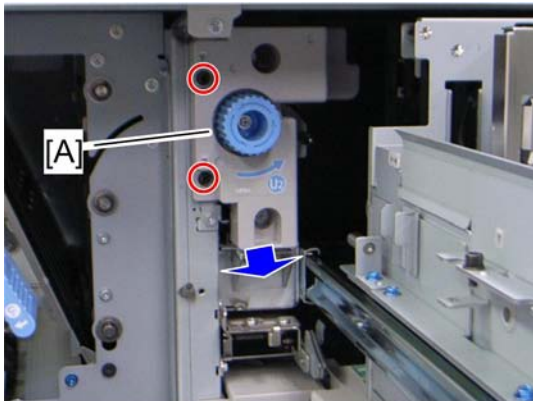
2. Inner lower cover [A] ( x2)

Paper Feed

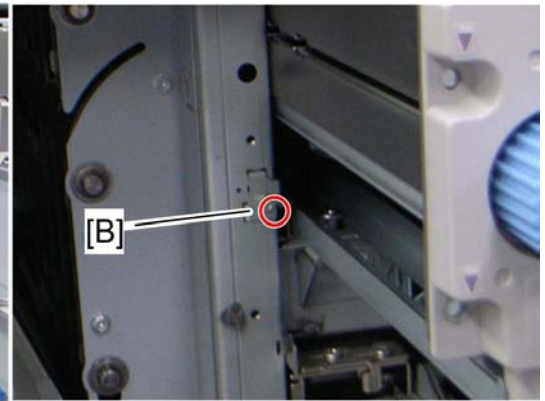
Paper Feed Unit

1

1. Pull out the top, middle or bottom tray.
2. Inner upper or lower cover ( p.15)
 - For the paper feed unit in the top tray or middle tray, remove the inner upper cover.
 - For the paper feed unit in the bottom tray, remove the inner lower cover.

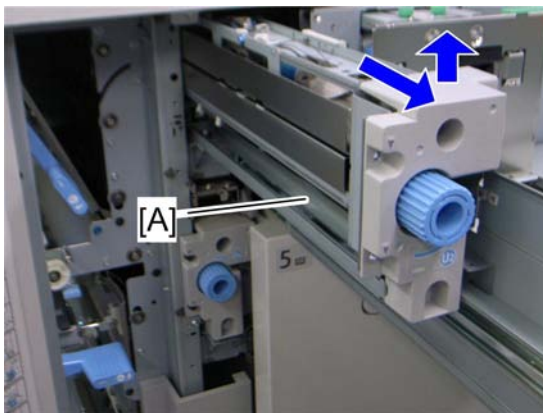


d453r503



d453r504

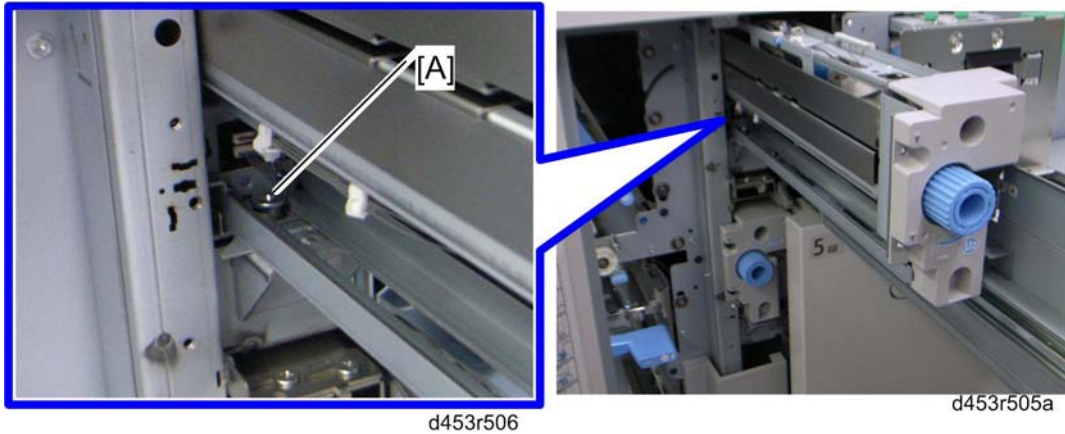
3. Pull the paper feed unit [A] ( x 2).
4. Stopper bracket [B] ( x 1)



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5. Pull the paper feed unit [A] out fully, and then lift it.

When reinstalling the paper feed unit



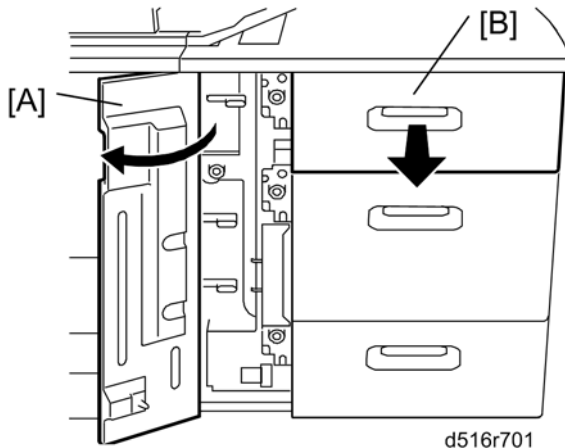
When reinstalling the paper feed unit, align the cutout in the slide rail with the stud screw, and then install the paper feed unit.

Paper Feed, Separation and Pickup Rollers

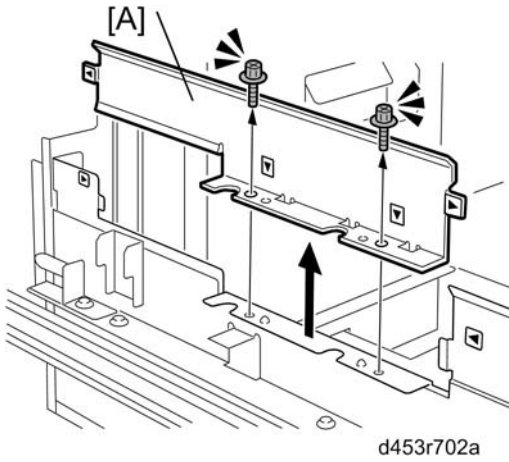
Top Tray (Tray 3)

CAUTION

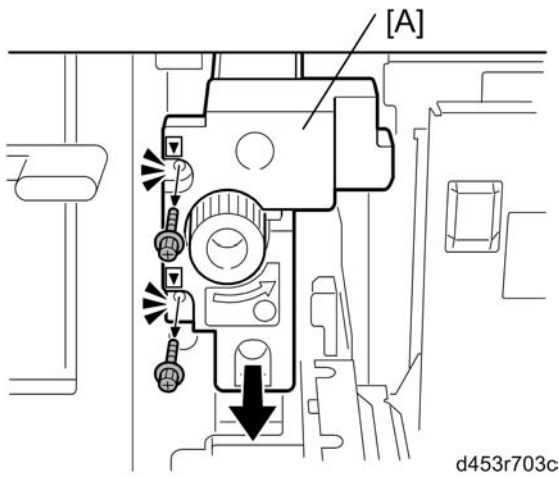
- Before doing this procedure, turn off the main machine and disconnect it from its power source.



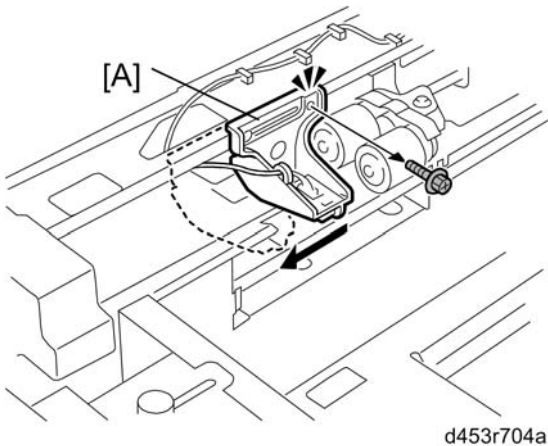
1. Open the front door [A].
2. Pull out the top tray [B] until it stops.



3. Side plate [A] ( x 2)



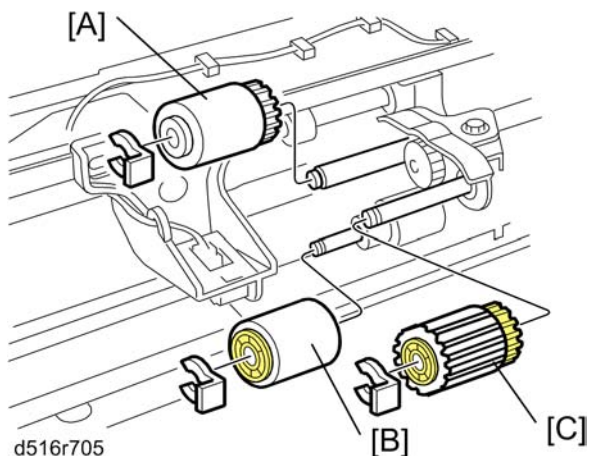
4. Pull the paper feed unit [A].



5. Slide the sensor bracket [A] to the front ( x 1).

★ Important

- Note the original position of this bracket. It must be re-installed at its original position.



6. Remove:

[A]: Paper feed roller ( x 1)

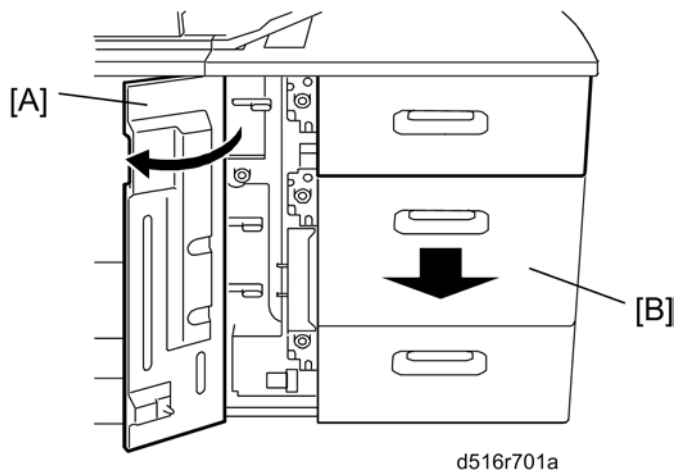
[B]: Separation roller ( x 1)

[C]: Pickup roller ( x 1)

Middle Tray (Tray 4)

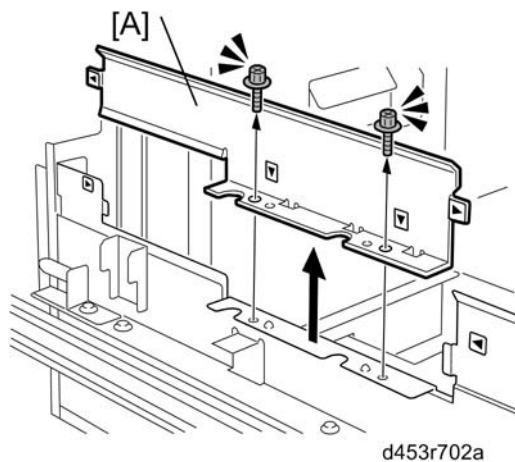
CAUTION

- Before doing this procedure, turn off the main machine and disconnect it from its power source.

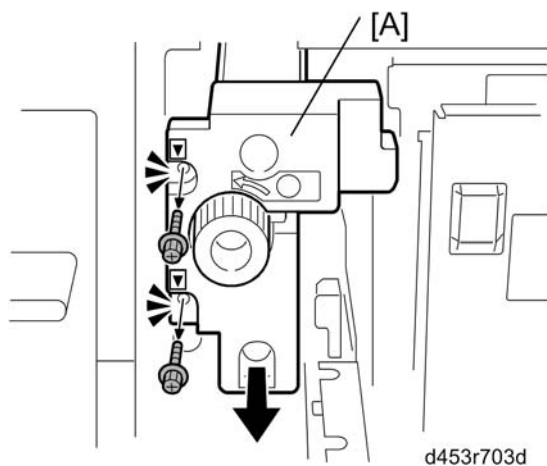


1. Open the front door [A].

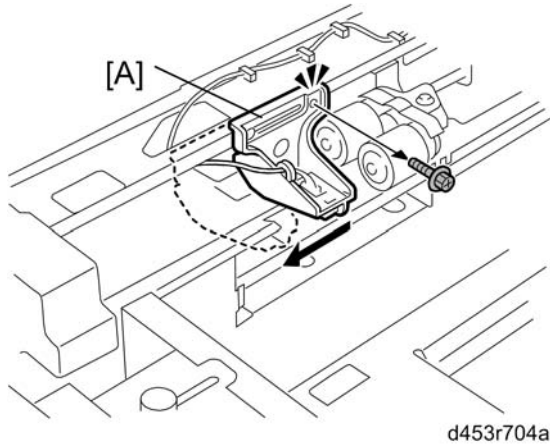
2. Pull out the middle tray [B].



3. Side plate [A] ( x 2)



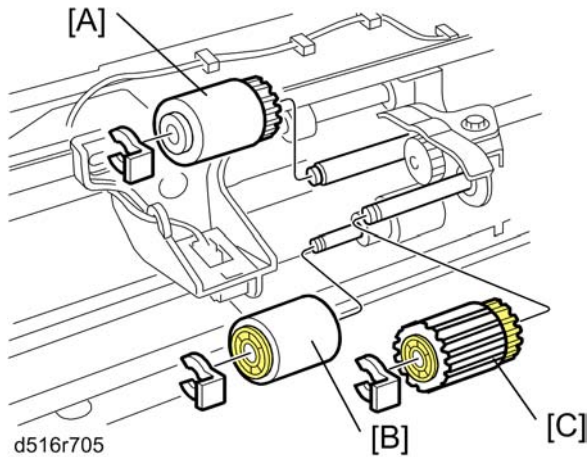
4. Pull the paper feed unit [A] ( x 2).



5. Slide the sensor bracket [A] to the front ( x 1).

★ Important

- Note the original position of this bracket. It must be re-installed at its original position.



6. Remove:

[A]: Paper feed roller ( x 1)

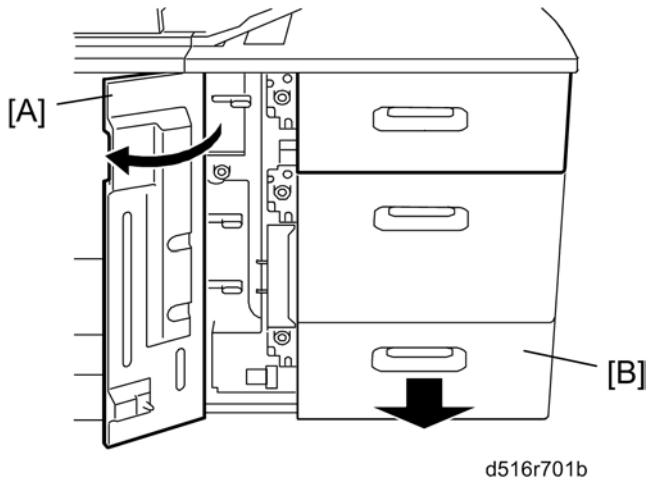
[B]: Separation roller ( x 1)

[C]: Pickup roller ( x 1)

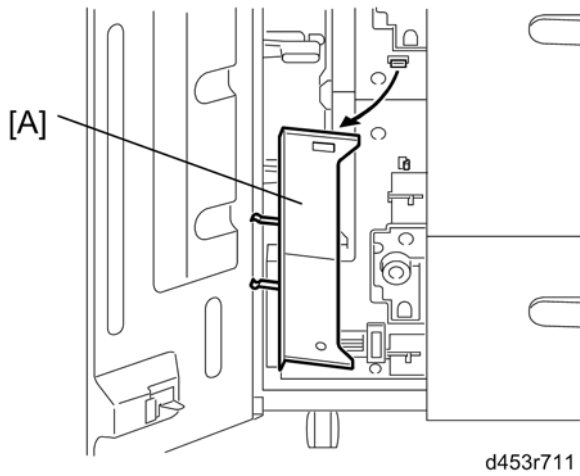
Bottom Tray (Tray 5)

CAUTION

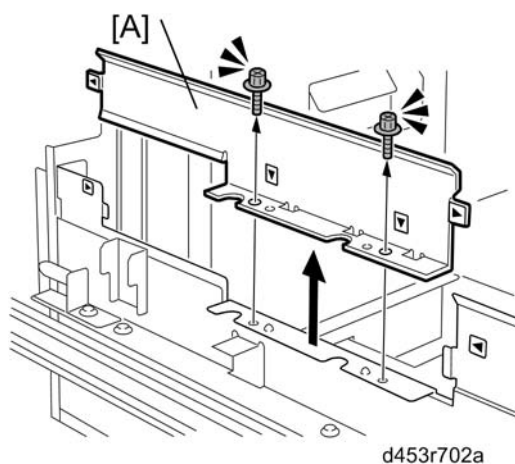
- Before doing this procedure, turn off the main machine and disconnect it from its power source.



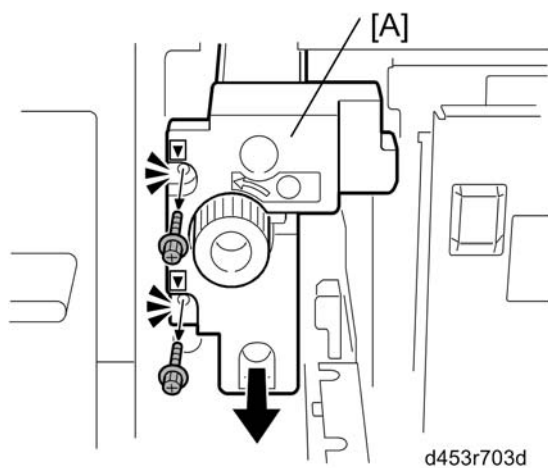
1. Open the front door [A].
2. Pull out the bottom tray [B].



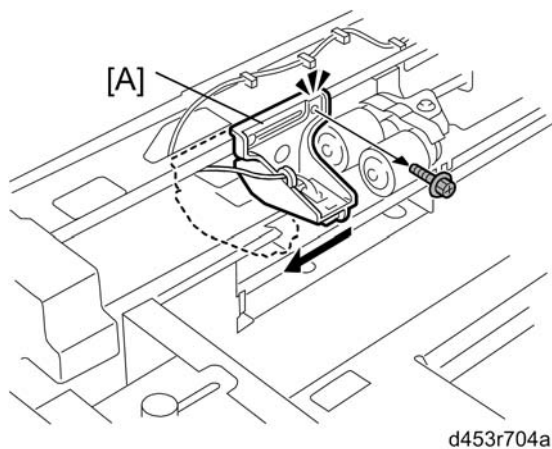
3. Paper end fence [A] if it is stored here.



4. Side plate [A] ( x 2)



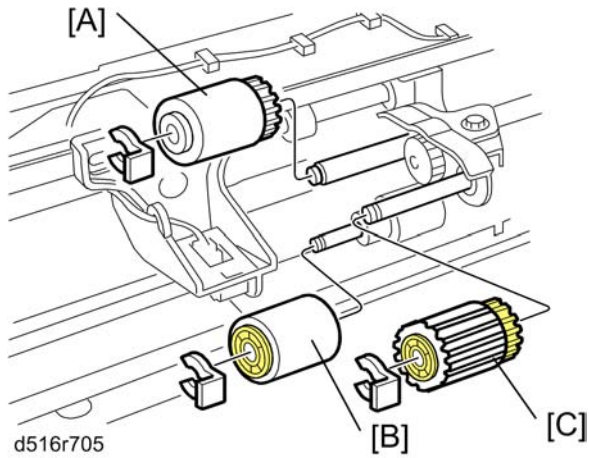
5. Pull the paper feed unit [A] ( x 2).



6. Slide the sensor bracket [A] to the front ( x 1).

★ Important

- Note the original position of this bracket. It must be re-installed at its original position.



7. Remove:

[A]: Paper feed roller ( x 1)

[B]: Separation roller ( x 1)

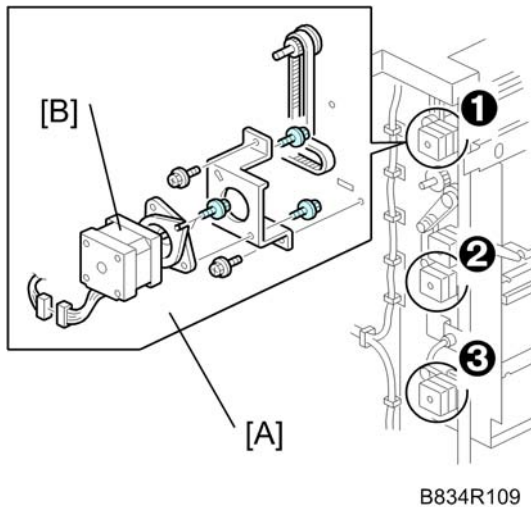
[C]: Pickup roller ( x 1)

LCT Motors

1

Transport Motors, LCT Exit Motor

3rd, 4th, and 5th Transport Motors ① ② ③



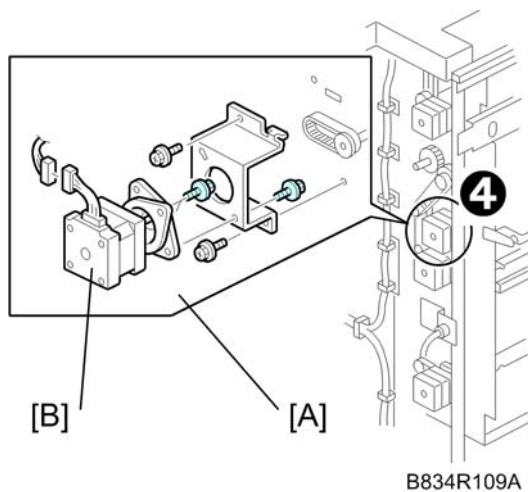
Remove:

- Left rear cover (p.14)

[A] Motor unit (Motor unit x1, Gear x1, Screw x2)

[B] Motor (Screw x2)

LCT Exit Motor ④



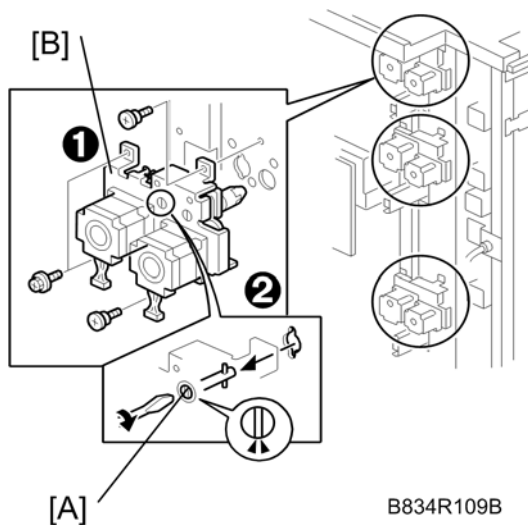
Remove:

- Left rear cover (p.14)

[A] Motor unit (Motor x1, Gear x1, Bolt x3)

[B] Motor (Bolt x2)

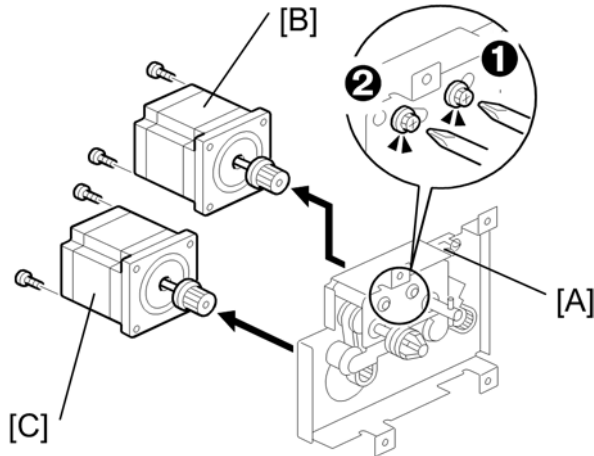
Feed Motors/Grip Motors



Each paper feed unit has a pick-up feed motor ① and a grip motor ②. The removal procedure is the same for each feed tray.

1. Left rear cover (p.14)

2. Use a small screwdriver to turn the shaft [A] so the pin can slip out of the keyhole.
3. Motor unit [B] ( x4,  x2,  x2)



B834R109C

4. Remove:
[A]: Springs (x2) (First, loosen the screws (x2) ①, ②.)
[B]: Paper feed motor ( x2,  x1)
[C]: Grip motor ( x2,  x1)

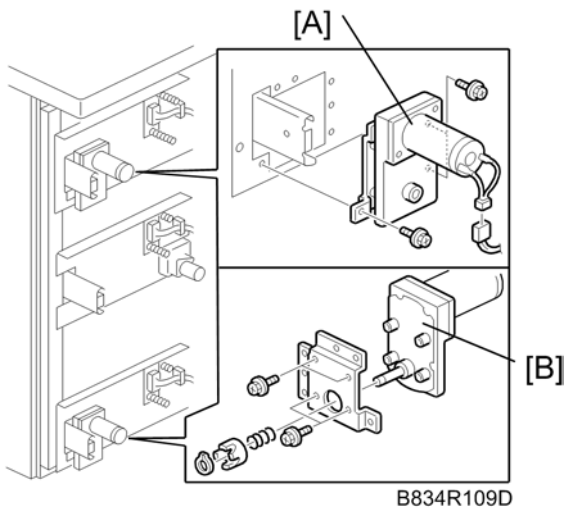
Reinstallation

Attach the tension spring, then tighten the screws to tighten the belts.

Lift Motors

3rd, 5th Lift Motors

The procedure for removing the 3rd and 5th lift motors is the same.



Remove:

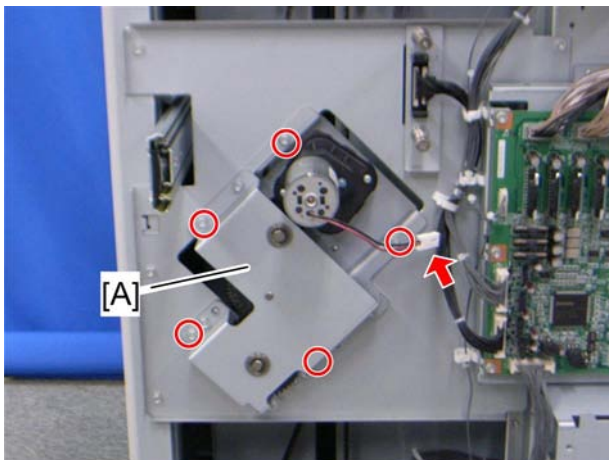
- Right rear cover (p.14)

[A]: Motor unit (x 3, x1).

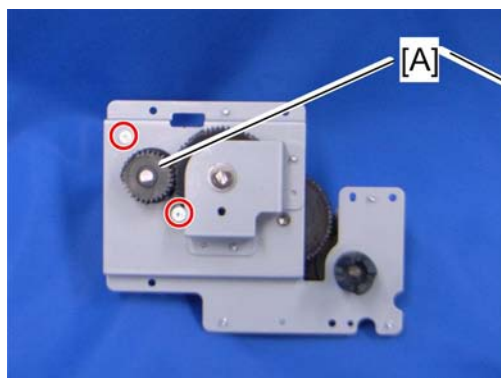
[B]: 3rd (or 5th) lift motor (x4, x1, Coupling x1, x1)

4th Lift Motor

1. Right rear cover (p.14)



2. Motor unit [A] (x 5, x1)



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d453r509

3. 4th lift motor [A] ( x 2)

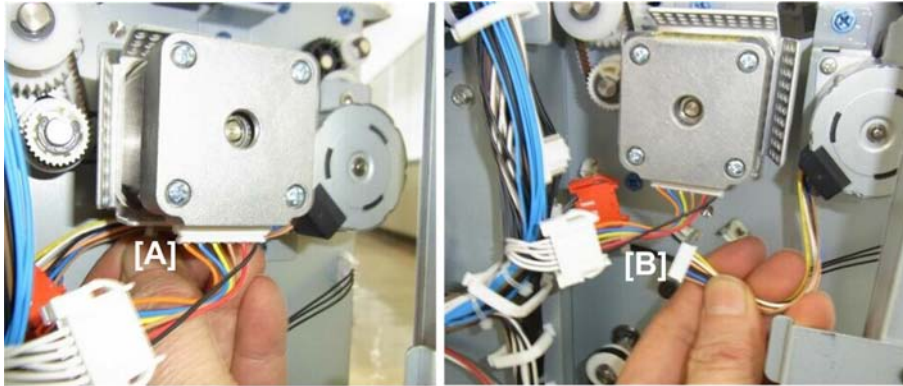
Exit Roller Lift Motor

1. Left rear cover ( p.14)



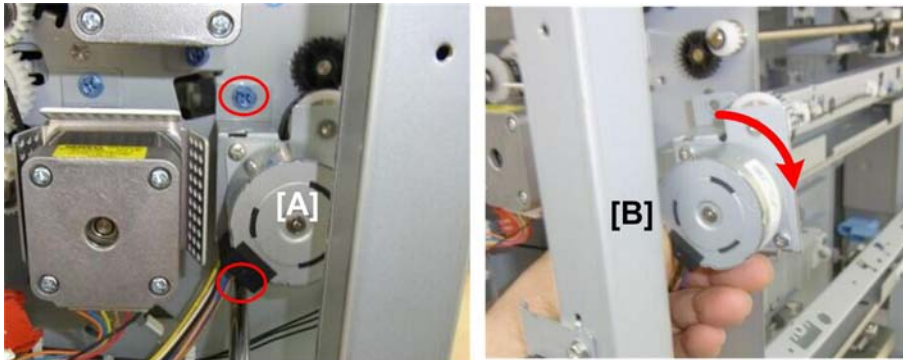
d516r001

2. The motor is located at [A].



d516r002

3. Disconnect the motor at [A] and [B] (🔌x1, 📡x1)



d516r003

4. Disconnect the motor mount [A] (🔩x1).
5. Remove the motor [B].

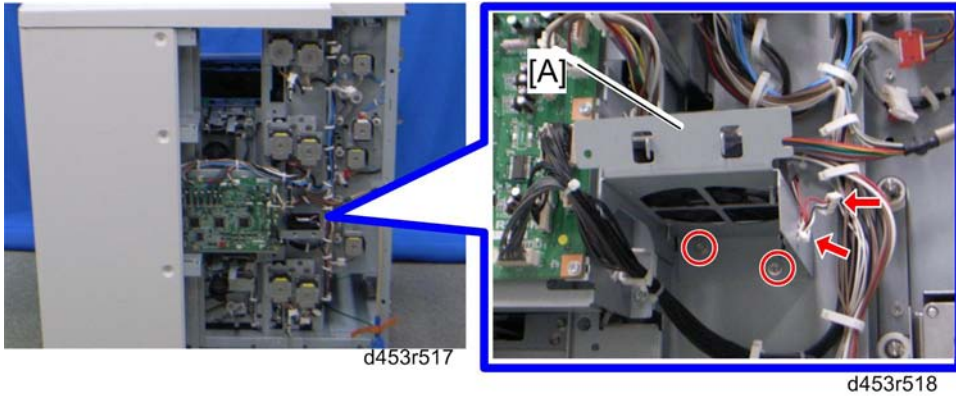


d516r004

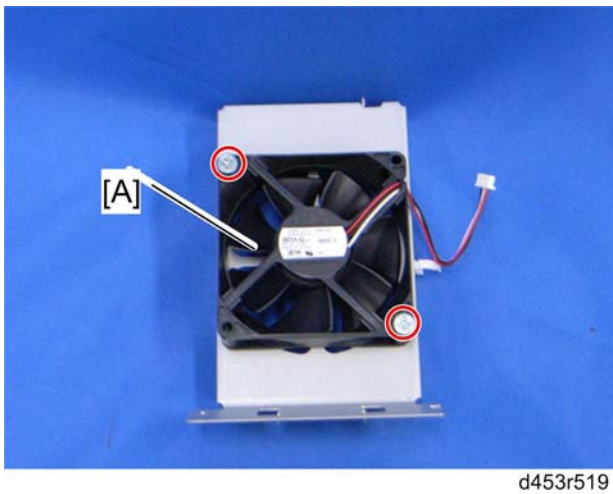
6. Separate the motor and bracket (🔩x2, ⚙️x1).

Cooling Fan

1. Left rear cover (🔩p.14)



2. Fan bracket [A] ( x 2,  x 1,  x 1)



3. Cooling fan [A] ( x 2)

★ Important

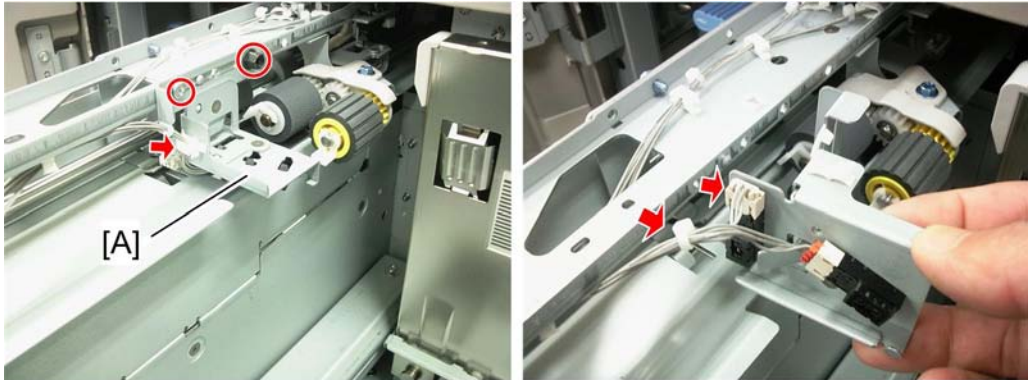
- When reinstalling the cooling fan, make sure that the cooling fan is installed with its decals facing upward.

Electrical Components

Paper Feed and End Sensors

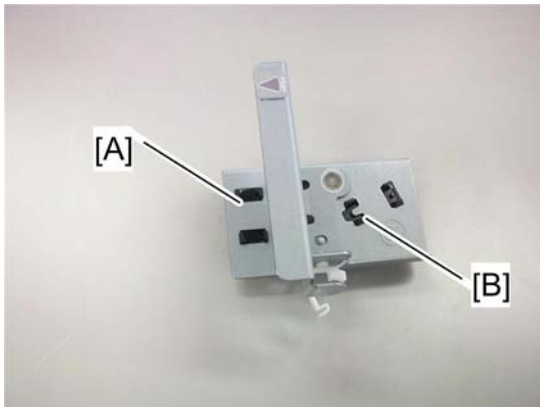
1

1. Pull out the paper feed unit (p.17)



d516r510

2. Sensor bracket [A] (x1, black screw x1, x1, x2)



d516r511

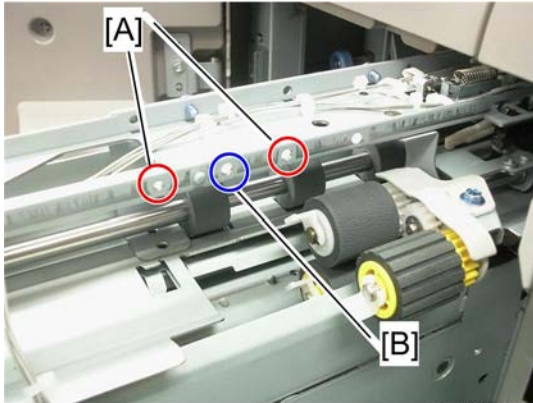
3. Remove:

[A]: Paper feed sensor (hooks)

[B]: Paper end sensor (hooks)

When reinstalling the sensor bracket

- Make sure that the white connector is connected to the paper feed sensor and the red connector is connected to the paper end sensor.

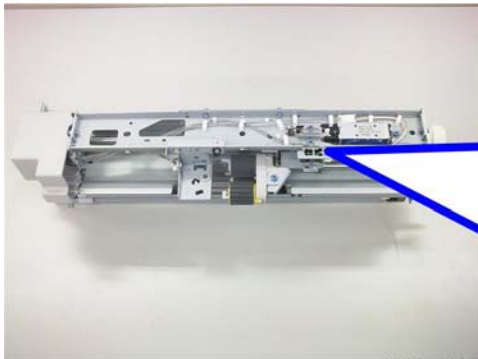


d514r512

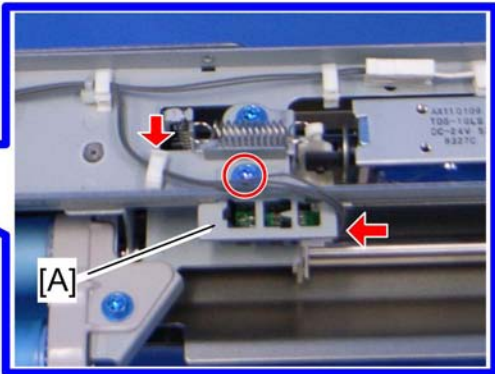
- Use two holes [A] when attaching the sensor bracket. Do not use the hole [B].

Lift Sensor

1. Paper feed unit (p.17)

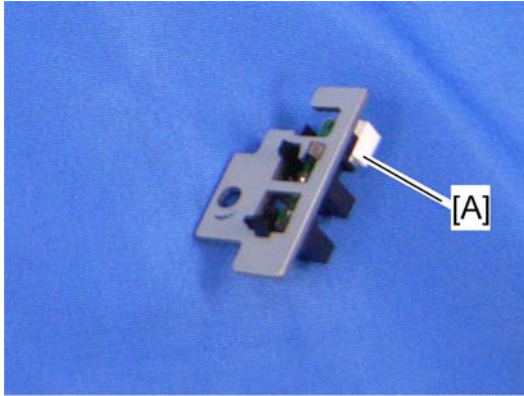


d516r513



d453r514

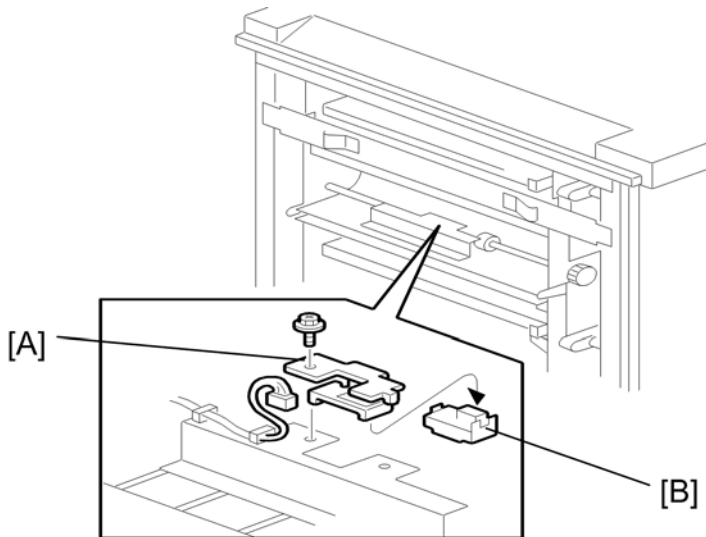
2. Sensor bracket [A] ( x1,  x1,  x1)



d453r515

3. Lift sensor [A] ( x3)

LCT Exit Sensor



B834R105

- Disconnect the LCT from the copier.

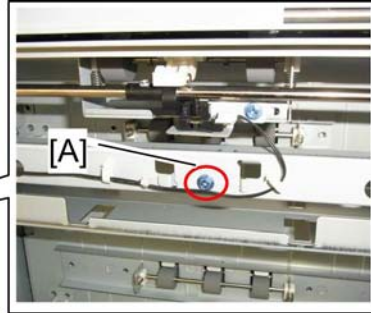
[A] Exit sensor unit ( x1,  x1)

[B] Exit sensor

Exit Roller Lift Sensor

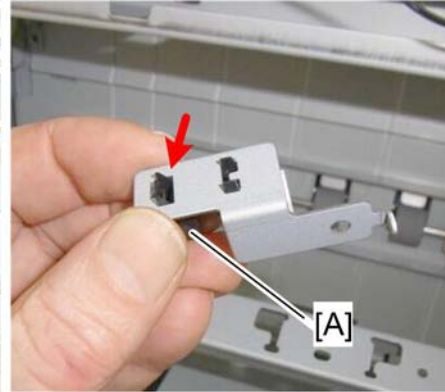
- Disconnect the LCT from the main machine.

1



d516r005

1. Sensor bracket [A] ( x1)



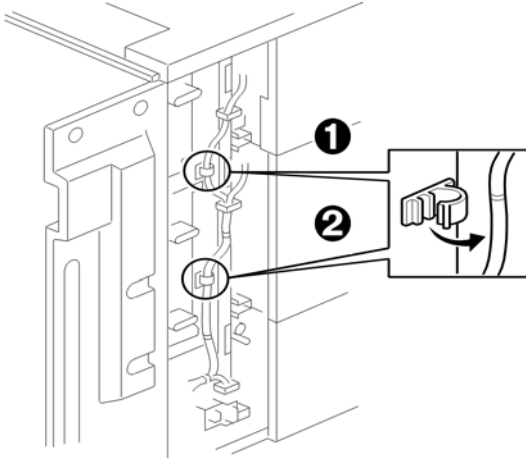
d516r006

2. Exit roller lift sensor [A] ( x1,  x4)

Paper Path Sensors

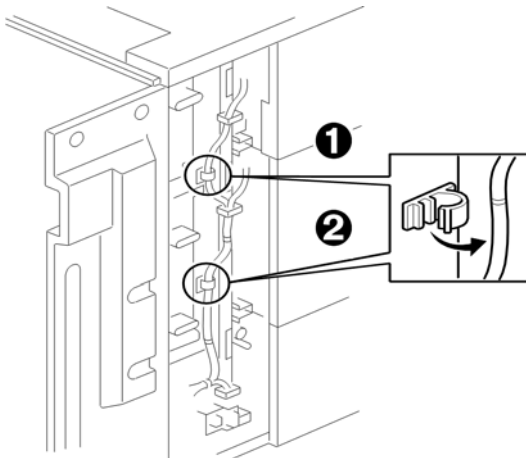
Removing the Vertical Feed Unit

1



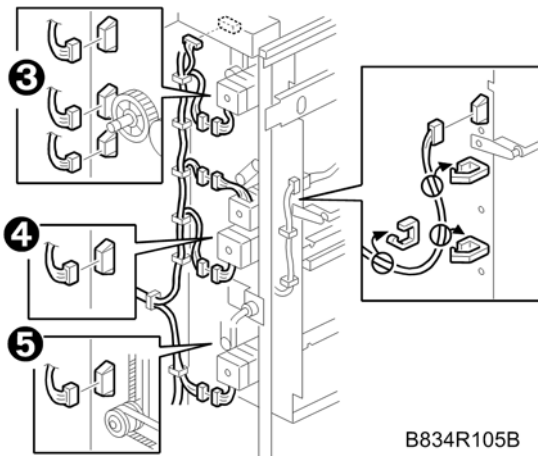
B834R105A

1. Open the front door.
2. Remove:
 - Inner upper cover (p.15)
 - Inner lower cover (p.15)
 - Left rear cover (p.14)

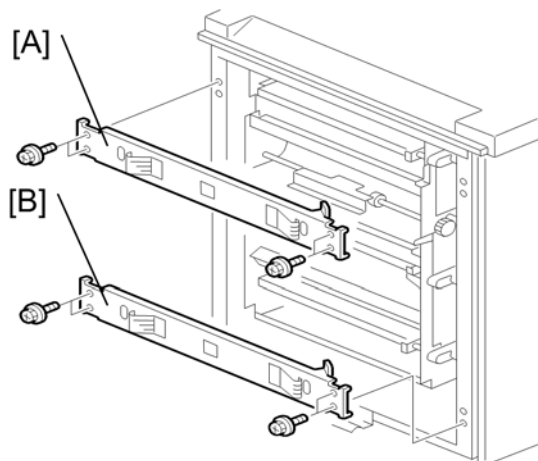


B834R105A

3. Disconnect the harness clamps ① and ② (🔧 x 2).



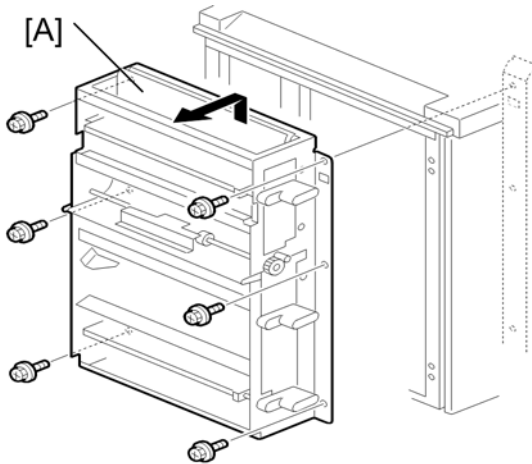
4. Disconnect the motor harnesses ③, ④, ⑤ (🔧 x 3, 🛠 x 11).



5. Remove:

[A]: Upper stay (🔧 x 2)

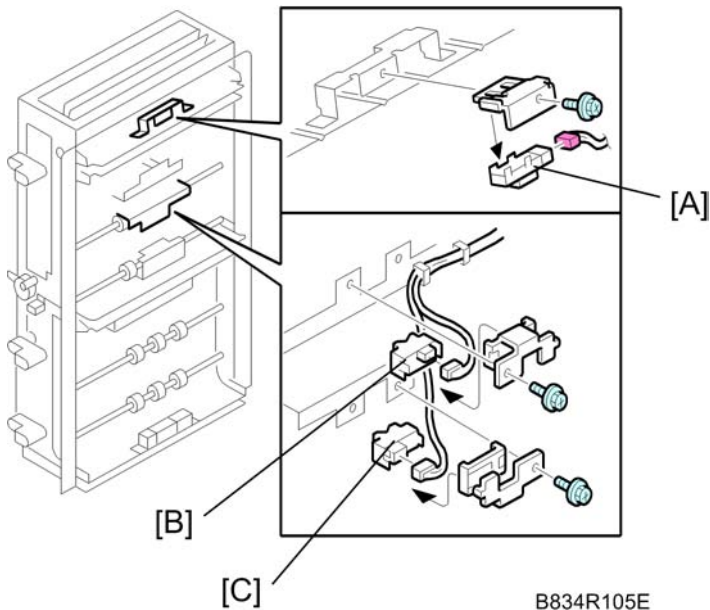
[B]: Lower stay (🔧 x 2)



B834R105D

6. Vertical feed unit [A] ( x 6)

3rd Transport, 3rd Relay Upper, Lower Sensors



B834R105E

1. Vertical feed unit ( p.37)

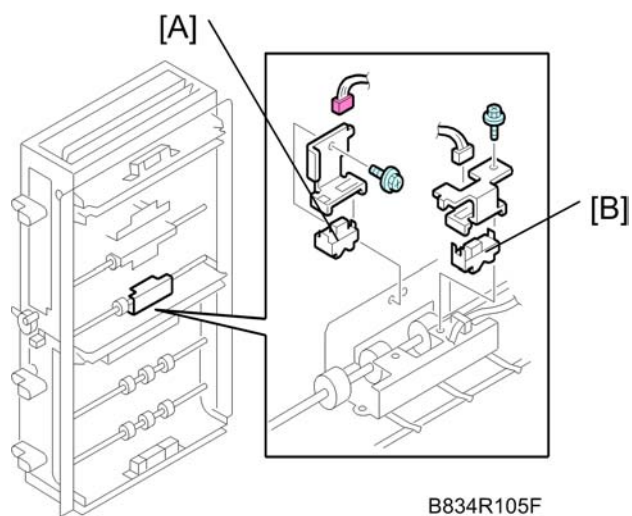
2. Remove:

[A]: 3rd Transport sensor ( x1,  x1)

[B]: 3rd Relay sensor – upper ( x1,  x1)

[C]: 3rd Relay sensor – lower ( x1,  x1)

4th Relay Sensor, 4th Transport Sensor



B834R105F

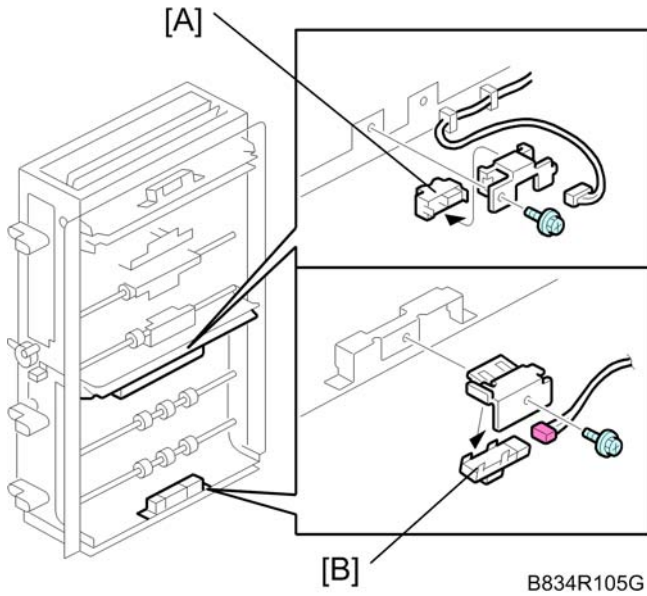
1. Vertical feed unit ( p.37)

2. Remove:

[A]: 4th Relay sensor ( x1,  x1)

[B]: 4th Transport sensor ( x1,  x1)

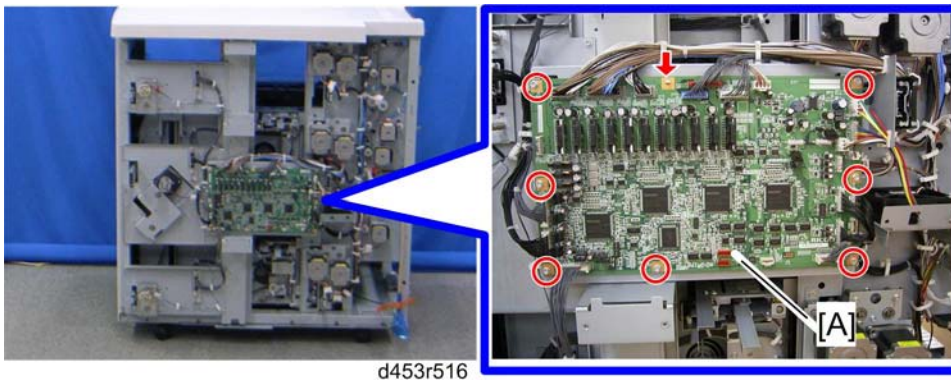
5th Relay Sensor, 5th Transport



1. Vertical feed unit (p.37)
2. Remove:
 - [A]: 5th Relay sensor (x1, x1)
 - [B]: 5th Transport sensor (x1, x1)

Main Control Board

1. Left rear cover (p.14)
2. Right rear cover (p.14)

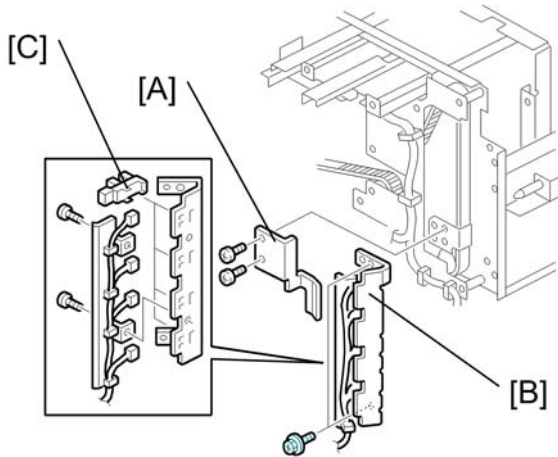


3. Main control board [A] (x7, x1, x All).

Paper Height, Paper Width Sensors

1

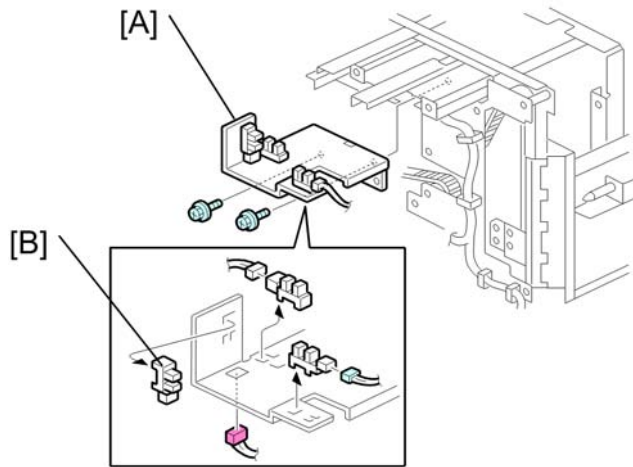
Paper Height Sensors



B834R106

1. Left rear cover (🔧 p.14)
2. Remove:
 - [A]: Paper height sensor unit (🔧 x 2, 📦 x 4).
 - [B]: Clamp bracket (🔧 x 2)
 - [C]: Paper height sensors (x 4) (🔧 x3, 📦 x 2 each)

Paper Width Sensors



B834R106A

1. Left rear cover (p.14)

2. Remove:

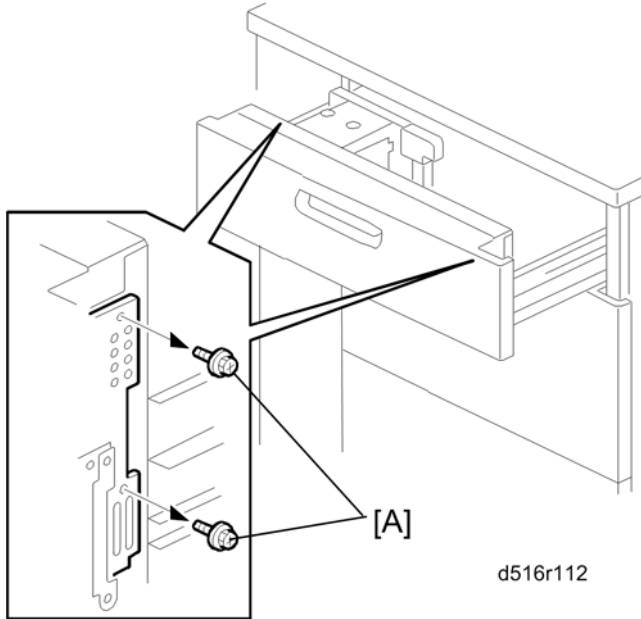
[A]: Paper width sensor unit (x 2, x 3)

[B]: Paper width sensors (x 3) (x2 each)

Adjustment

1

Side Registration Adjustment



Normally the side registration of the image can be adjusted with SP1002-004 to -006 (Side-to-Side Registration – Tray 3, 4, 5). When the punch hole positions are not aligned from a particular feed station, adjust the side registration by changing the tray cover position for the tray, as described below. Then adjust the side registration of the image with the SP1002.

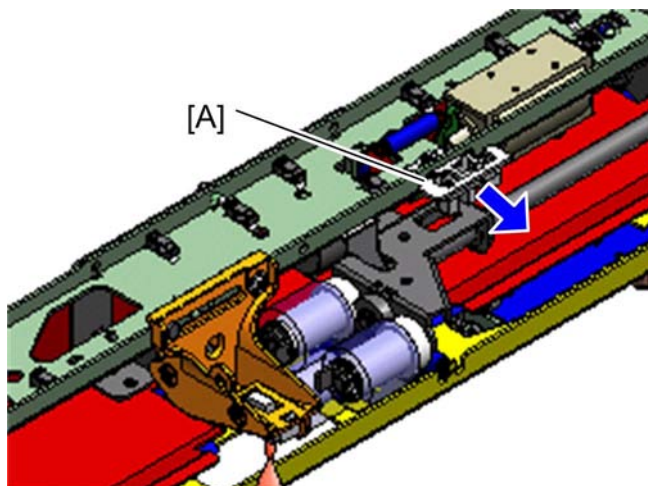
1. Pull out the tray.
2. Change the screw positions [A] at both the right and left sides as shown.

↓ Note

- Adjustment range: 0 ± 2.0 mm adjustment step: 0.5 mm/step

Double Feed Problem from LCT

If double feed occurs several times when paper is fed from an LCT (Tray 3, 4 or 5), try to change the upper limit of the paper stack in the LCT tray. Changing the upper limit of the paper stack in the LCT tray can improve paper separation for the paper stack in the LCT tray.



g178t502

1. Remove the paper feed unit of the LCT unit (p. 17).
2. Loosen the screw on the paper lift sensor bracket [A].
3. Move the bracket 0.5 mm in the arrow direction as shown above.
4. Tighten the screw on the paper lift sensor bracket [A].

★ Important

- To return the upper limit position to the default position, move the paper lift sensor bracket 0.5 mm to the opposite side.
- Return the upper limit position to the default if a paper jam occurs at the paper feed sensor in the LCT.

MEMO

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