

**Buffer Pass Unit Type 5020
Machine Code: D751






Field Service Manual**

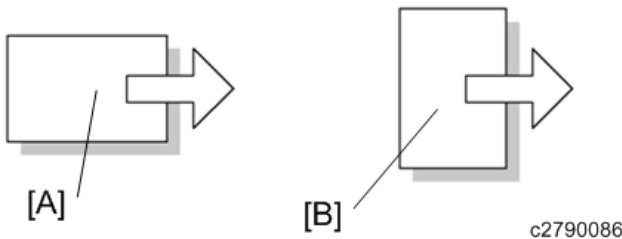
18 March, 2013

Safety, Conventions, Trademarks

Conventions

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



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

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 machine or other property.

Important

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

Note

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

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

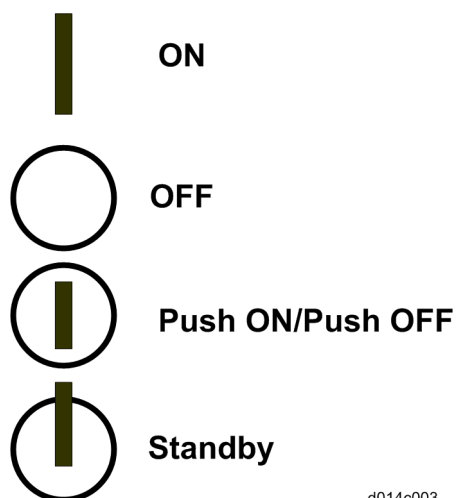
Always obey the following safety precautions when using this product.

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.



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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 Tool

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 cord from the inlet of the buffer pass unit and unplug the mainframe 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 serving 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 (developer, toner, toner cartridges, OPC drums, etc.) in accordance with the local laws and regulations regarding the disposal of such items.

TABLE OF CONTENTS

Safety, Conventions, Trademarks.....	1
Conventions.....	1
Warnings, Cautions, Notes.....	2
General Safety Instructions.....	2
Responsibilities of the Customer Engineer.....	3
Reference Material for Maintenance.....	3
Before Installation, Maintenance.....	3
Installation, Disassembly, and Adjustments.....	3
Special Tool.....	4
During Maintenance.....	4
General.....	4
Power.....	4
Organic Cleaners.....	4
Power Plug and Power Cord.....	5
After Installation, Servicing.....	5
Disposal of Used Items.....	5

1. Replacement and Adjustment

Exterior Covers.....	9
Rear Cover.....	9
Top Cover.....	9
Right Cover.....	11
Left Cover.....	11
Drive Components.....	12
Drive Motor.....	12
Drive Motor Base.....	12
Removing the Drive Motor Base.....	12
Reinstall the Drive Motor Base.....	13
Cooling and Exhaust Fans.....	14
Cooling Fans.....	14
Upper Cooling Fans.....	14
Lower Cooling Fans.....	16
Exhaust Fans.....	17
Upper Exhaust Fans.....	17

Lower Exhaust Fans.....	18
Sensors and Switches.....	19
Transport Sensors.....	19
Switches.....	21
Paper Path Unit Set Switch.....	21
Front Door Switch.....	21
Electronic Components.....	23
Controller Board.....	23
Controller Board Bracket.....	23
Controller Board.....	24
PSU.....	24
Removing the PSU.....	24
Reinstalling the PSU.....	25
PSU Fuse Rating.....	26
SRB.....	26
Interface Cable.....	26



1. Replacement and Adjustment

Exterior Covers

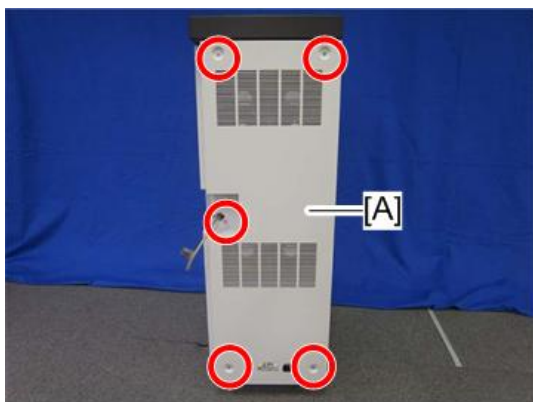
1

CAUTION

- Disconnect the power cord from the inlet of the buffer pass unit and unplug the mainframe before starting the following procedure.
- Do not pull out the buffer pass unit drawer until this unit has been docked to the mainframe. Otherwise, the buffer pass unit can fall down.

Rear Cover

1. Rear cover [A] ( x 5)



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Top Cover

1. Open the front door [A].

1



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2. Remove two screws on the front upper side (⌀ x 2)



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3. Rear cover (Rear Cover)
4. Push the top cover [A] to the front, and then remove it.



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Right Cover

1. Right cover [A] (🔩 x 6)



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Left Cover

1. Left cover [A] (🔩 x 6)



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Drive Components

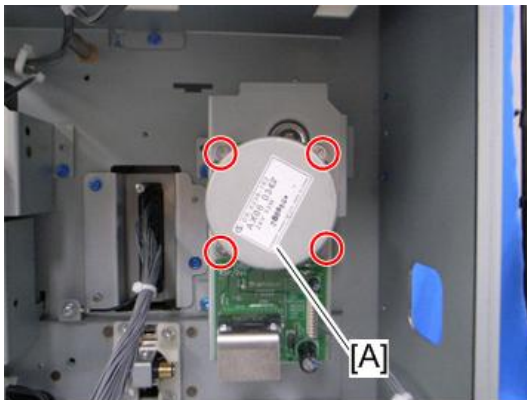
CAUTION

- Disconnect the power cord from the inlet of the buffer pass unit and unplug the mainframe before starting the following procedure.
- Do not pull out the buffer pass unit drawer until this unit has been docked to the mainframe. Otherwise, the buffer pass unit can fall down.

Drive Motor

There are two drive motors (right and left) in the buffer pass unit. Both removal procedures are identical.





1. Rear cover ( page 9)
2. Controller board bracket ( page 23 "Controller Board")
3. Drive Motor [A] ( x 4,  x 1)

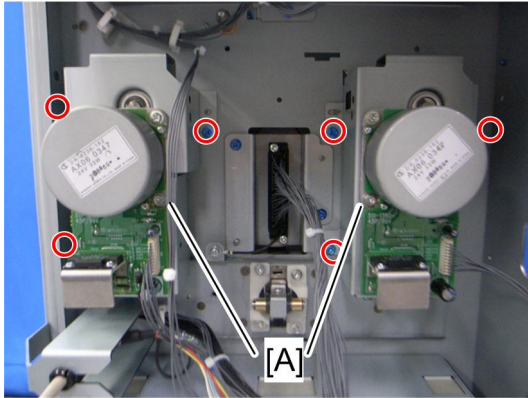


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Drive Motor Base

Removing the Drive Motor Base

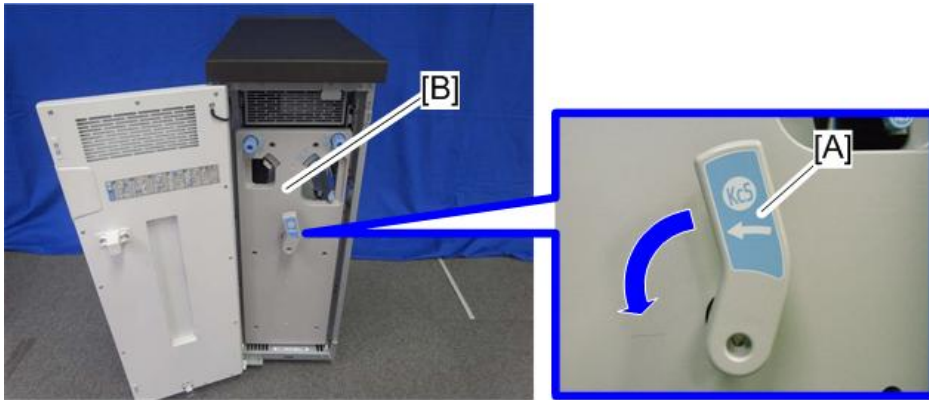
1. Rear cover ( page 9)
2. Controller board bracket ( page 23 "Controller Board")
3. Drive Motor Bases [A] ( x 3,  x1 each)



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Reinstall the Drive Motor Base

1. Open the front door.
2. Turn the Kc5 lever [A] completely counterclockwise, and then pull out the paper path unit [B] slightly.



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3. Install the drive motor base. (⚙ x 3)
4. Push the paper path unit in completely.
5. Push in the paper path unit completely and close the front door.
6. Attach the rear cover.
7. Close the front door.

Cooling and Exhaust Fans

⚠ CAUTION

- Disconnect the power cord from the inlet of the buffer pass unit and unplug the mainframe before starting the following procedure.
- Do not pull out the buffer pass unit drawer until this unit has been docked to the mainframe. Otherwise, the buffer pass unit can fall down.

Cooling Fans

Upper Cooling Fans

1. Open the front door.
2. Remove two screws and the bracket [A].



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3. Disconnect the harness [A] (⏏ x 1).



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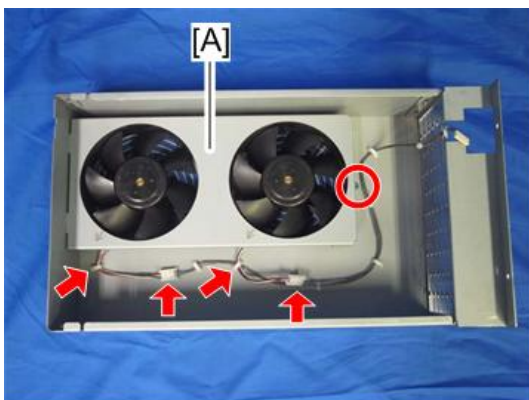
4. Pull out the upper cooling fan unit [A].



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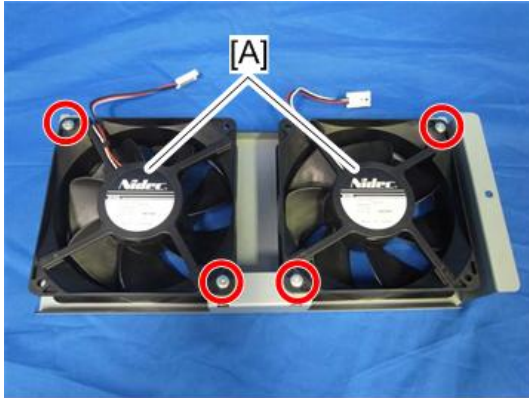
[A]

5. Upper cooling fan bracket [A] (⚙️ x 1, 📏 x 2, 🛠️ x 2)



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6. Upper cooling fans [A] (⚙️ x 2 each)



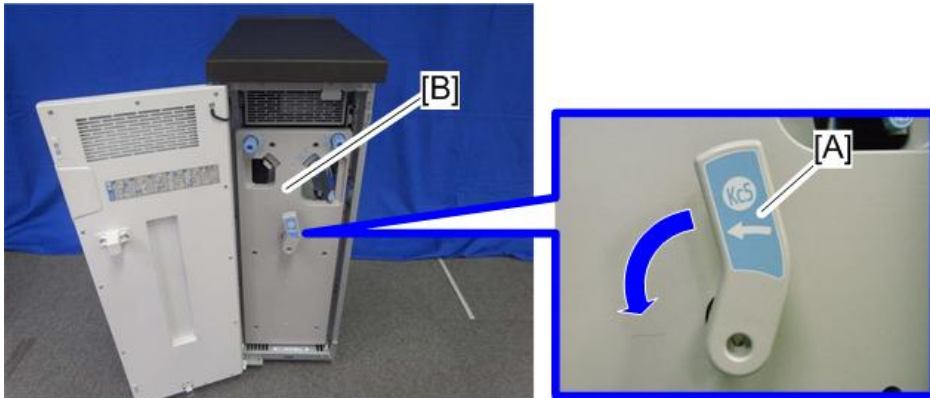
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Note

- Make sure that the decals on the fans face downward when reinstalling the upper cooling fans.

Lower Cooling Fans

1. Open the front door.
2. Turn the Kc5 handle [A] counter-clockwise, and then pull out the paper path unit [B].



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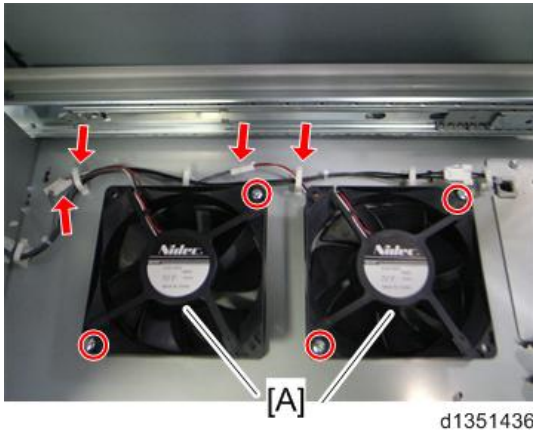
CAUTION

- When you pull out the paper path unit, take care that the buffer pass unit does not fall down to the front. This is because the paper path unit is heavier than the buffer pass unit.

3. Left cover (see page 11)
4. Lower cooling fan cover [A]. (screw x 2)



5. Lower cooling fans [A] (⚙️ x 2 each, 📡 x 2, 📡 x 2)



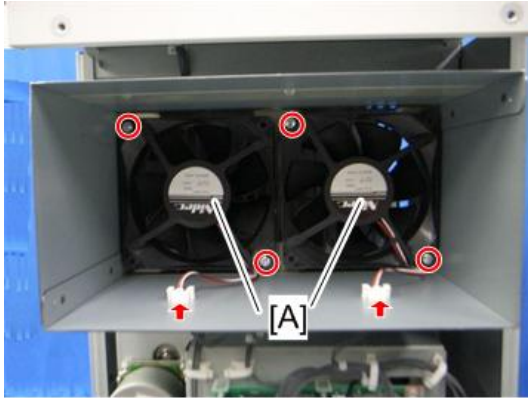
↓ Note

- Make sure that the decals on the fans face downward when reinstalling the lower cooling fans.

Exhaust Fans

Upper Exhaust Fans

1. Rear cover (📄 page 9)
2. Upper exhaust fans [A] (⚙️ x 2 each, 📡 x 1)



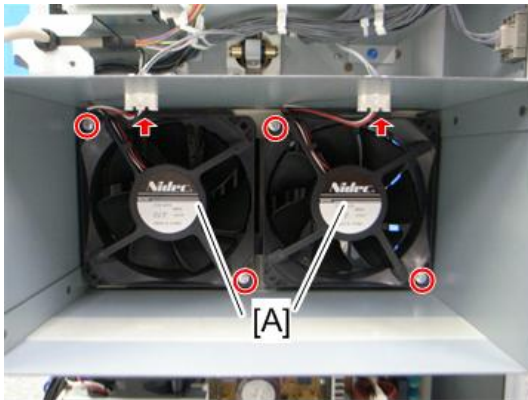
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Note

- Make sure that the decals on the fans are upside down and face the rear side when reinstalling the upper exhaust fans.

Lower Exhaust Fans

1. Rear cover (📄 page 9)
2. Lower exhaust fans [A] (🔧 x 2 each, 📄 x 1)



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Note

- Make sure that the decals on the fans face the rear side when reinstalling the lower exhaust fans.

Sensors and Switches

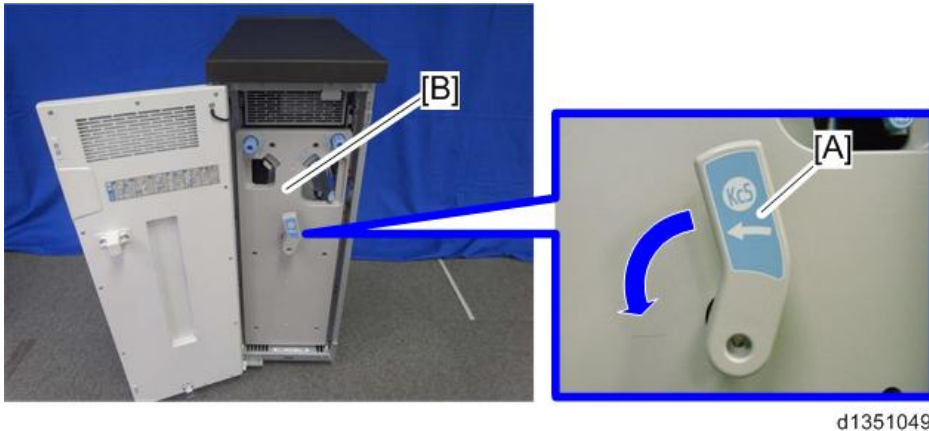
⚠ CAUTION

- Disconnect the power cord from the inlet of the buffer pass unit and unplug the mainframe before starting the following procedure.
- Do not pull out the buffer pass unit drawer until this unit has been docked to the mainframe. Otherwise, the buffer pass unit can fall down.

1

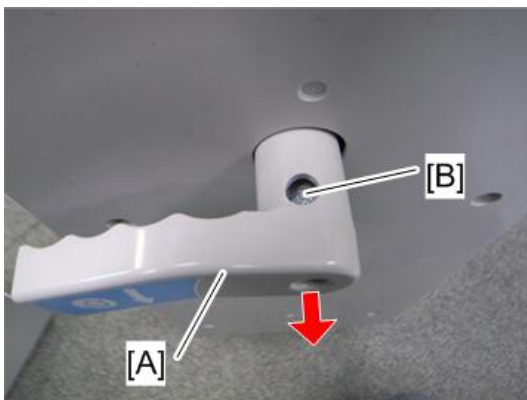
Transport Sensors

1. Open the front door.
2. Turn the Kc5 handle [A] counter-clockwise, and then pull out the paper path unit [B].



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3. Kc5 handle [A] (⚙[B] x 1)



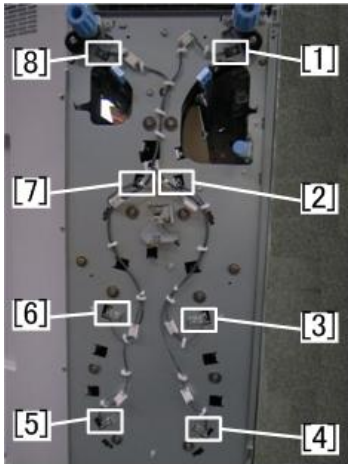
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4. Front inner cover [A] (⚙ x 6)



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5. Remove sensors with their brackets (each  x1,  x1,  x1)



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- [1] Transport Sensor 1
- [2] Transport Sensor 2
- [3] Transport Sensor 3
- [4] Transport Sensor 4
- [5] Transport Sensor 5
- [6] Transport Sensor 6
- [7] Transport Sensor 7
- [8] Transport Sensor 8

6. Transport sensor [A] (hook x 4,  x 1)

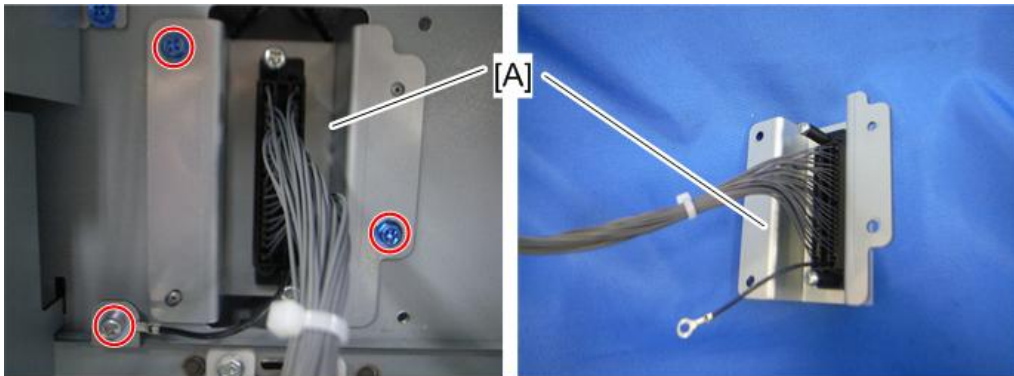


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Switches

Paper Path Unit Set Switch

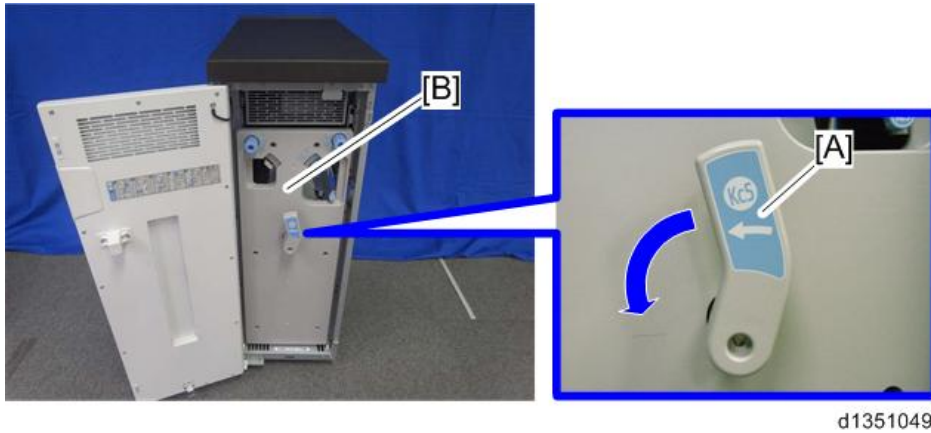
1. Rear cover (🔧 page 9)
2. Controller board bracket (🔧 page 23 "Controller Board")
3. Paper path unit set switch [A] (🔧 x3)



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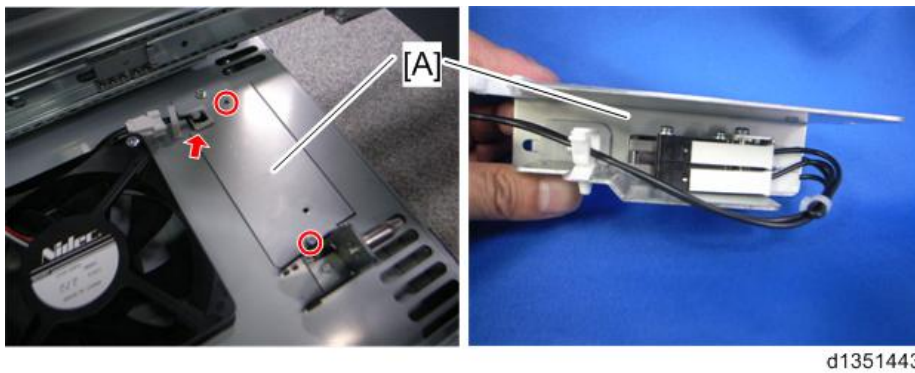
Front Door Switch

1. Left cover (🔧 page 11)
2. Open the front door.
3. Turn the Kc5 handle [A] counter-clockwise, and then pull out the paper path unit [B].



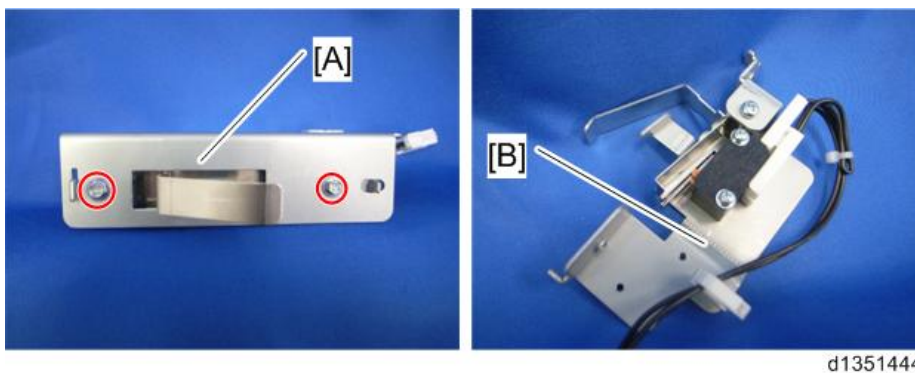
4. Lower cooling fan cover (☛ page 16 "Lower Cooling Fans")

5. Front door switch assembly [A] (☛ x 2, ☛ x 2, ☛ x 1)



6. Front door switch bracket cover [A] (☛ x 2, ☛ x 1)

7. Front door switch bracket [B]



Electronic Components

⚠ CAUTION

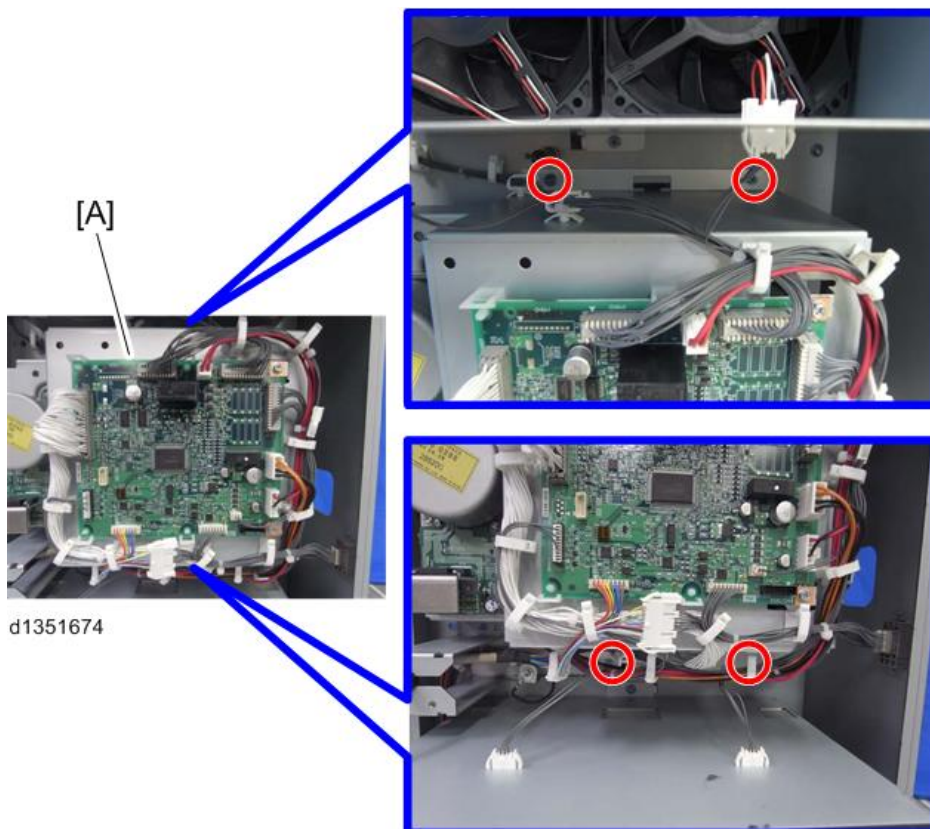
- Disconnect the power cord from the inlet of the buffer pass unit and unplug the mainframe before starting the following procedure.
- Do not pull out the buffer pass unit drawer until this unit has been docked to the mainframe. Otherwise, the buffer pass unit can fall down.

1

Controller Board

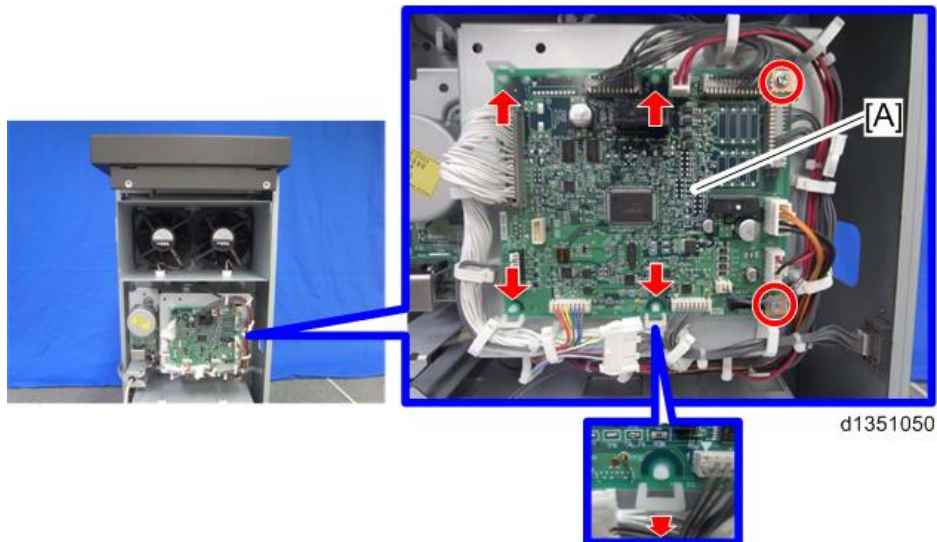
Controller Board Bracket

1. Rear cover (🔧 page 9)
2. Controller board [A] (🔧 x 4, 📏 x all, 📏 x all)



Controller Board

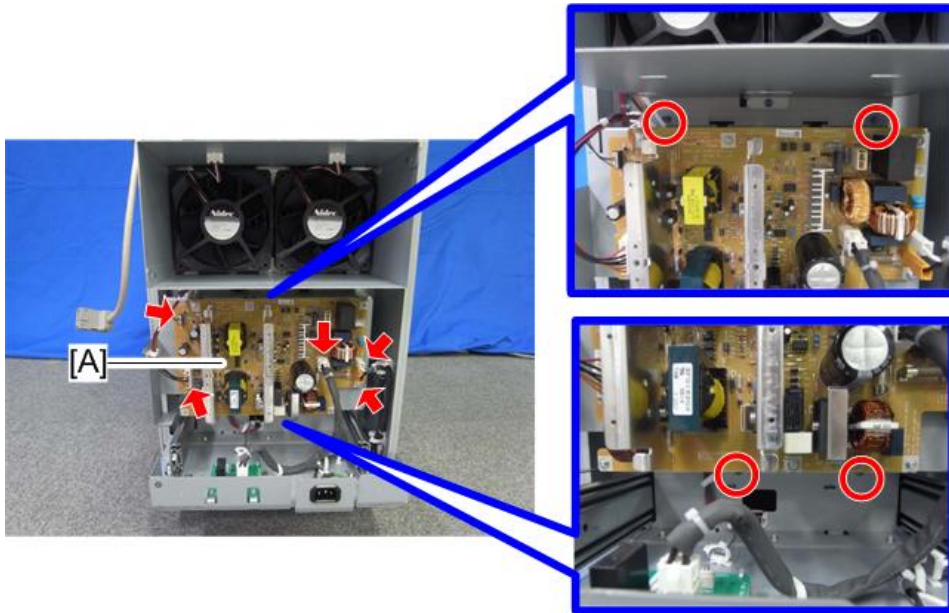
1. Rear cover (🖨️ page 9)
2. Controller board (🔌 x 11, 🔧 x 2, hook [A] x 4)



PSU

Removing the PSU

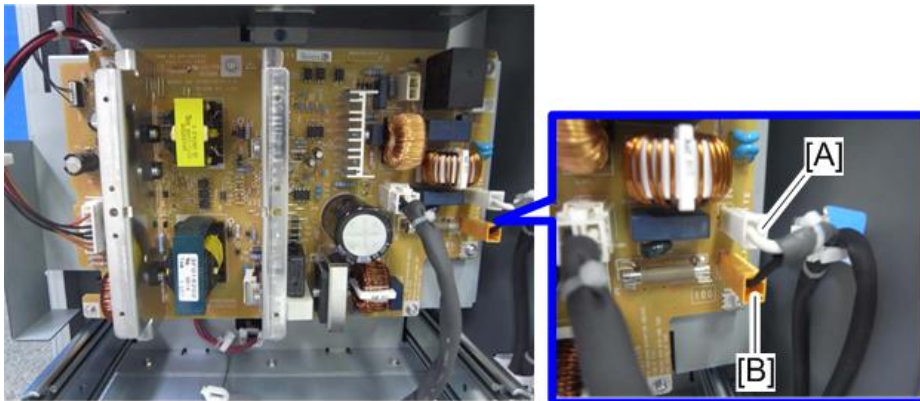
1. Rear cover (🖨️ page 9)
2. PSU bracket [A] (🔧 x 4, 🔌 x 5)



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Reinstalling the PSU

Make sure that the power connectors are connected correctly.



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- [A]: White or blue connector
- [B]: Black or brown connector

PSU Fuse Rating

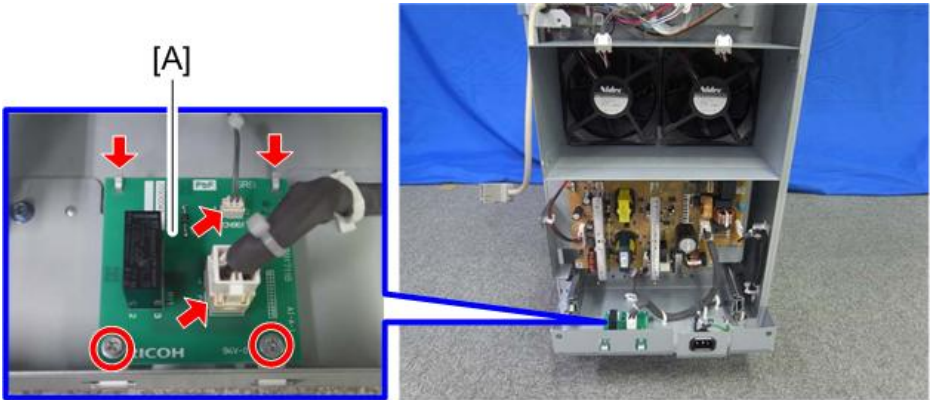
⚠ CAUTION

- For replacements, use only the correct fuses rated for use with the machine. Using replacement devices not designed for use with the machine could lead to a fire and personal injuries.

Fuse	Rating	
	115 V	210 to 230V
FU1	15A/125Vac	8A/250125Vac
FU2	8A/125125Vac	T4A L/250125Vac

SRB

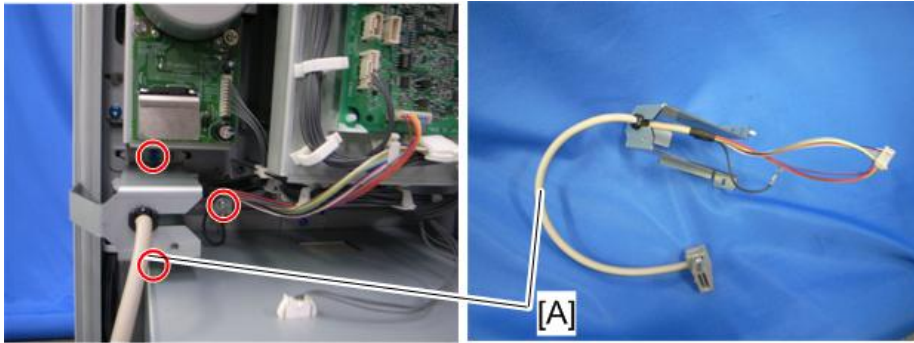
- Rear cover (🖱 page 9)
- SRB [A] (🔧 x2, 📏 x2, hook x 2)



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Interface Cable

- Rear cover (🖱 page 9)
- Interface cable [A]



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