SPDF DF3100
Machine Code: D3B0
Field Service Manual

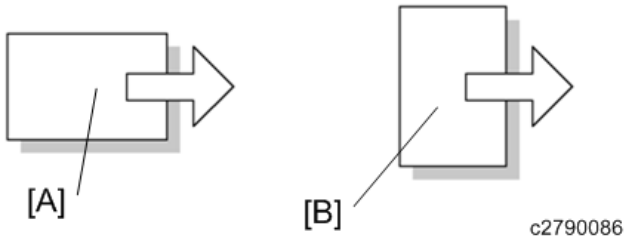
May, 2016

Symbols, Abbreviations and Trademarks

Symbols, Abbreviations

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

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



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- Microsoft® Internet Explorer® 6
- Windows® Internet Explorer® 7
- Windows® Internet Explorer® 8

The proper names of the Windows operating systems are as follows:

- The product names of Windows Vista are as follows:

  Microsoft® Windows Vista® Ultimate

  Microsoft® Windows Vista® Business

  Microsoft® Windows Vista® Home Premium

  Microsoft® Windows Vista® Home Basic

  Microsoft® Windows Vista® Enterprise
- The product names of Windows 7 are as follows:

  Microsoft® Windows® 7 Home Premium

  Microsoft® Windows® 7 Professional

  Microsoft® Windows® 7 Ultimate

  Microsoft® Windows® 7 Enterprise
- The product names of Windows 8 are as follows:

  Microsoft® Windows® 8

  Microsoft® Windows® 8 Pro

  Microsoft® Windows® 8 Enterprise
- The product names of Windows 8.1 are as follows:

  Microsoft® Windows® 8.1

  Microsoft® Windows® 8.1 Pro

  Microsoft® Windows® 8.1 Enterprise
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Microsoft® Windows® 10 Enterprise

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- The product names of Windows Server 2003 are as follows:

  Microsoft® Windows Server® 2003 Standard Edition

  Microsoft® Windows Server® 2003 Enterprise Edition

- The product names of Windows Server 2003 R2 are as follows:

  Microsoft® Windows Server® 2003 R2 Standard Edition

  Microsoft® Windows Server® 2003 R2 Enterprise Edition

- The product names of Windows Server 2008 are as follows:

  Microsoft® Windows Server® 2008 Standard

  Microsoft® Windows Server® 2008 Enterprise

- The product names of Windows Server 2008 R2 are as follows:

  Microsoft® Windows Server® 2008 R2 Standard

  Microsoft® Windows Server® 2008 R2 Enterprise

- The product names of Windows Server 2012 are as follows:

  Microsoft® Windows Server® 2012 Foundation

  Microsoft® Windows Server® 2012 Essentials

  Microsoft® Windows Server® 2012 Standard

- The product names of Windows Server 2012 R2 are as follows:

  Microsoft® Windows Server® 2012 R2 Foundation

  Microsoft® Windows Server® 2012 R2 Essentials

  Microsoft® Windows Server® 2012 R2 Standard

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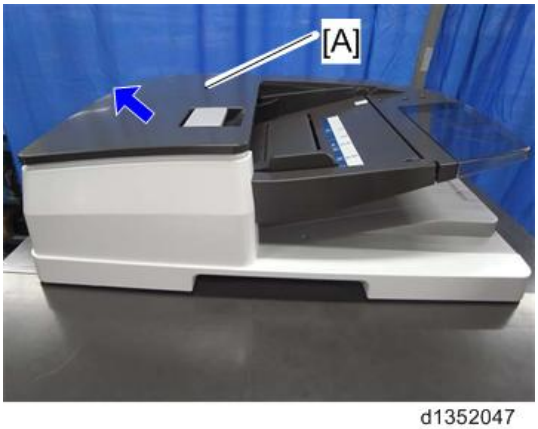
2. Detailed Descriptions

1. Replacement and Adjustment

Exterior Covers

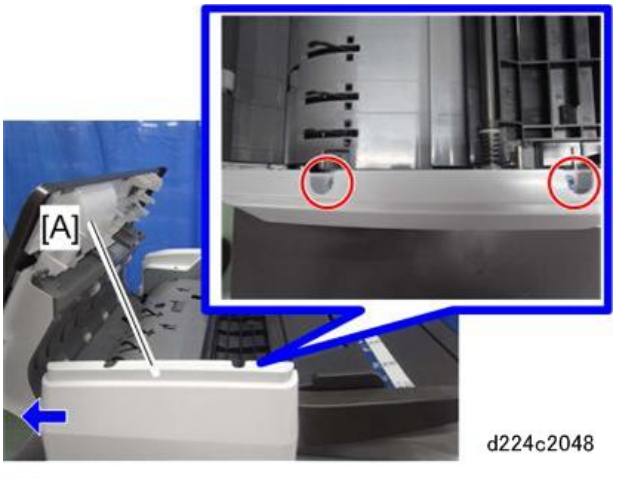
ADF Front Cover

1. Open the feed cover [A].



d1352047

2. Slide the ADF front cover [A] to the left.



d224c2048

x2 x2

Note

- Check the position of the hooks in the photo below before removing.

d1352049

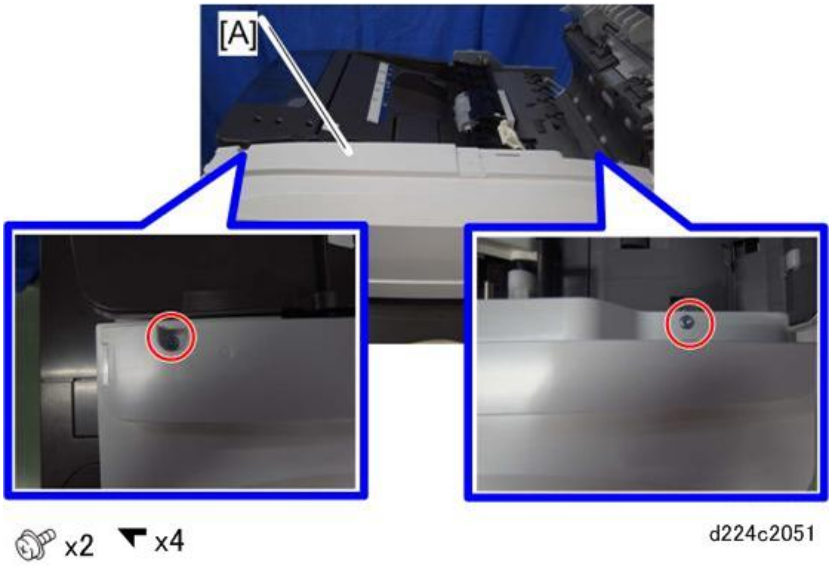
ADF Rear Cover

1. Open the feed cover.
2. Cover [A].

d224c2050

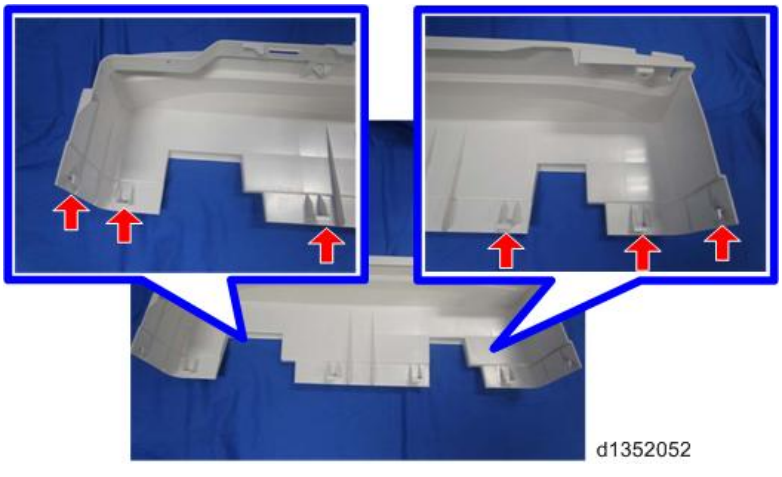
x1

3. Lift off the rear cover [A].



Note

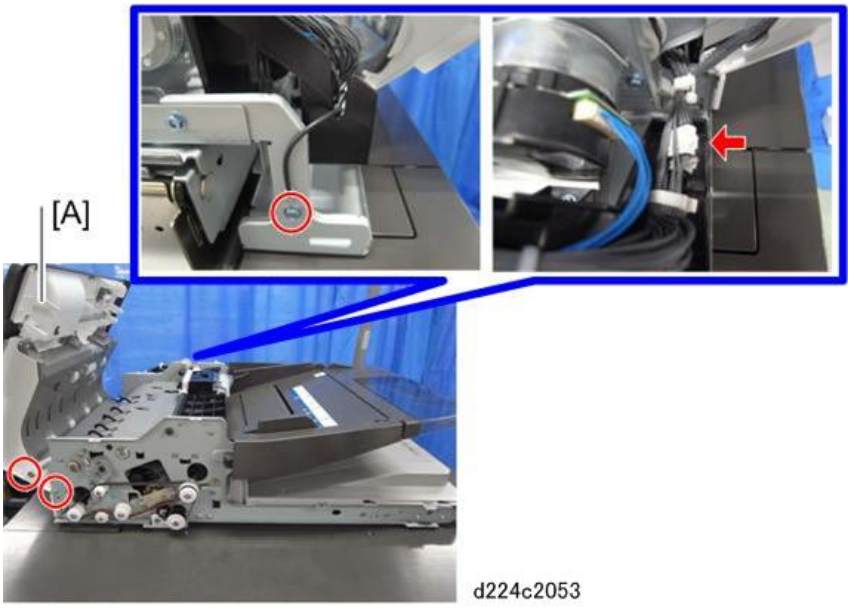
- Check the position of the hooks before removing.



Feed Cover

1. ADF front cover (page 7)
2. ADF rear cover (page 8)

3. Feed cover [A].



x3 x1

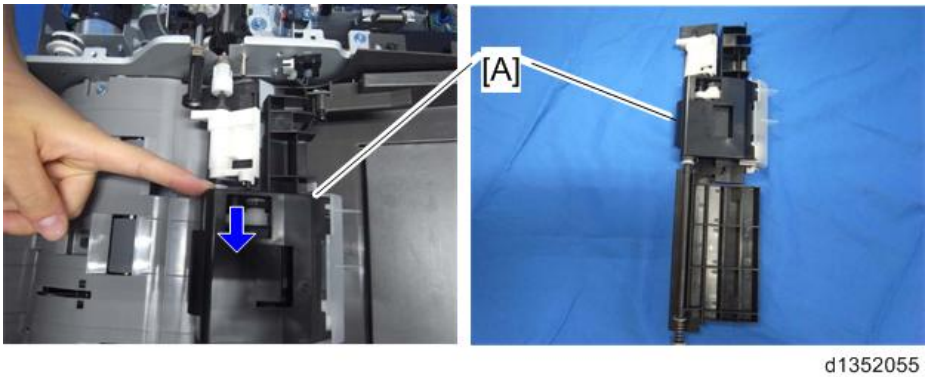
Feed Unit

Original Feed Unit

1. Open the feed cover.
2. Remove the snap-fit [A].

d1352054

3. Original feed unit [A] (Pull the original feed unit, remove the back side of the shaft. Then, remove the bushing in the foreground.)

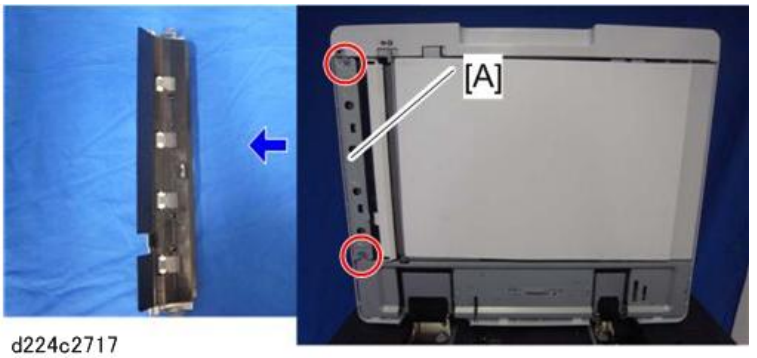


d1352055

Sensors, Feeler, and Switches

Original Registration Sensor

1. Entrance lower guide [A].

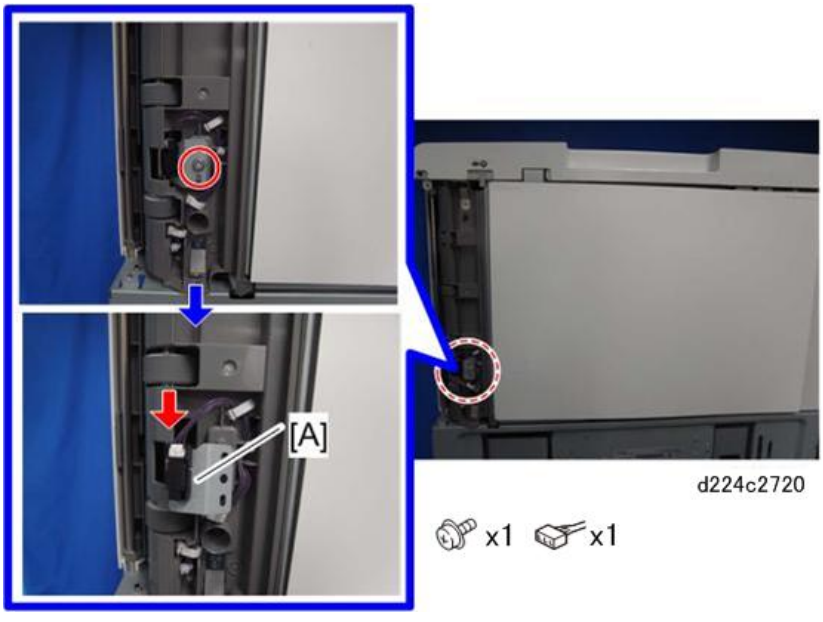


x2

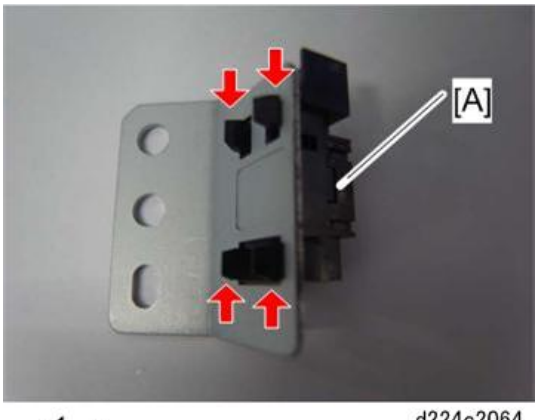
2. Scanning guide plate [A].

x1

3. Original registration sensor [A] along with the bracket.

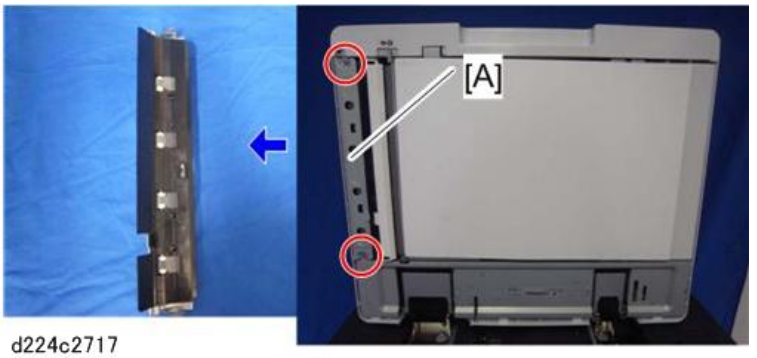


4. Original Registration Sensor [A].



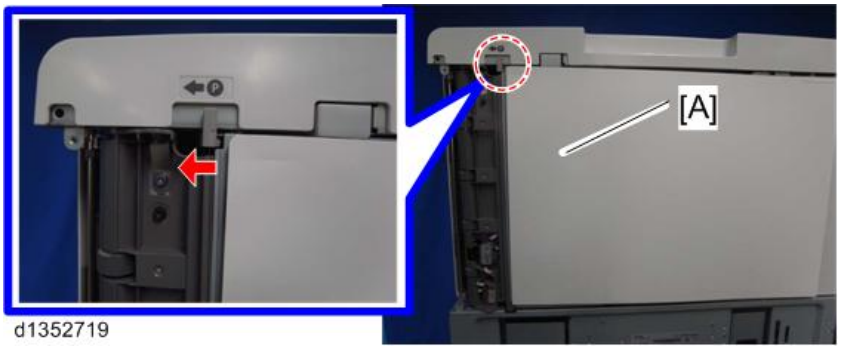
Original Exit Sensor

1. Entrance lower guide [A].

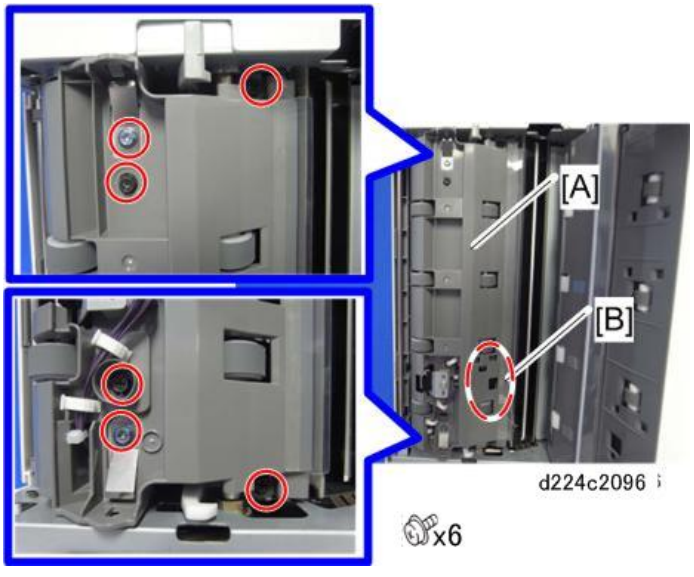


2. Scanning guide plate [A].

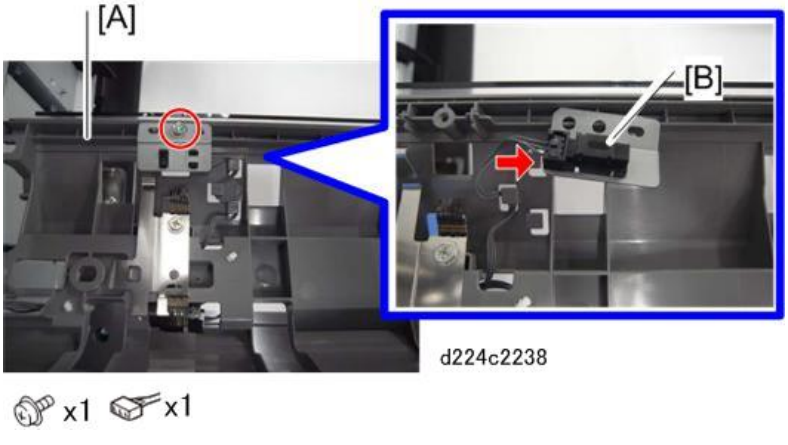
3. Open the white cover [A].



4. **Remove the original exit sensor [B], which is mounted on the upper guide [A].**

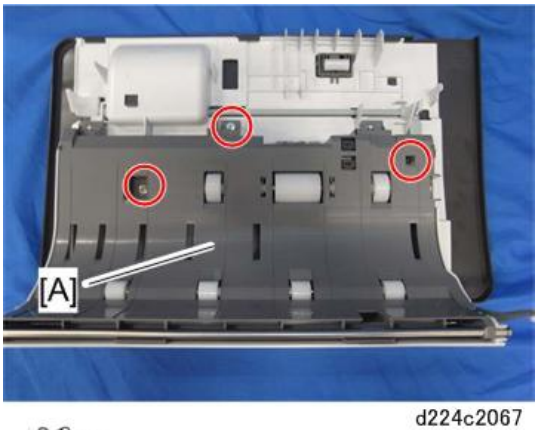


5. **Remove the original exit sensor [B] from the upper guide [A].**



Separation Sensor, Skew Correction Sensor

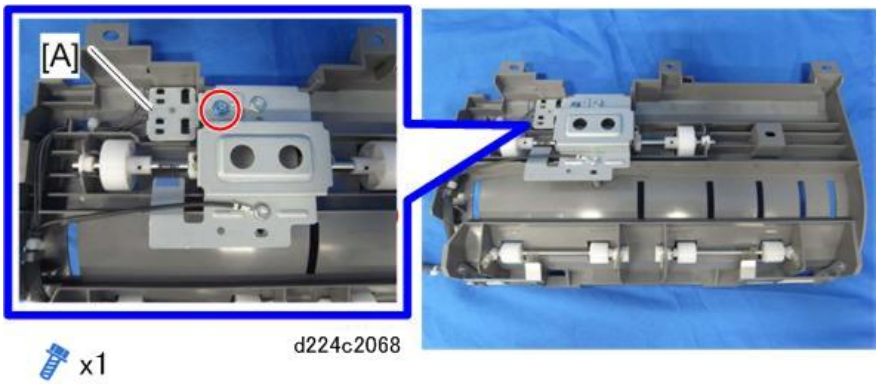
1. Feed upper guide [A] in the feed cover.



d224c2067

x3

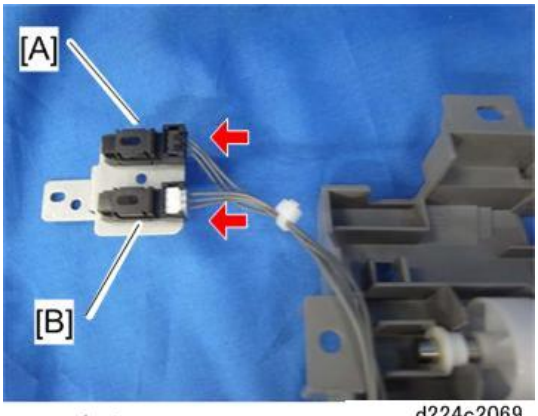
2. Remove the sensors along with the bracket [A].



d224c2068

x1

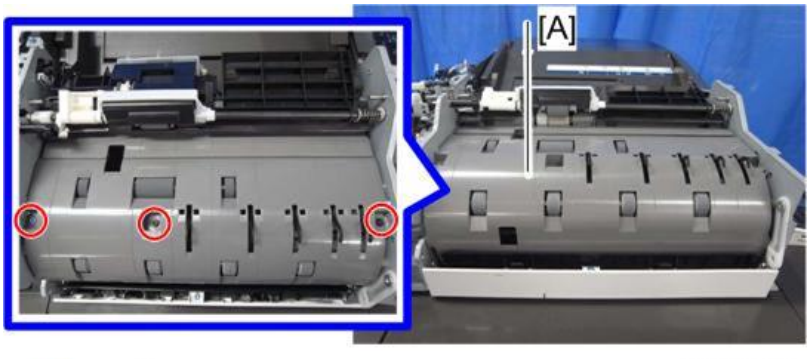
3. Separation Sensor [A] and Skew Correction Sensor [B].



x2 d224c2069

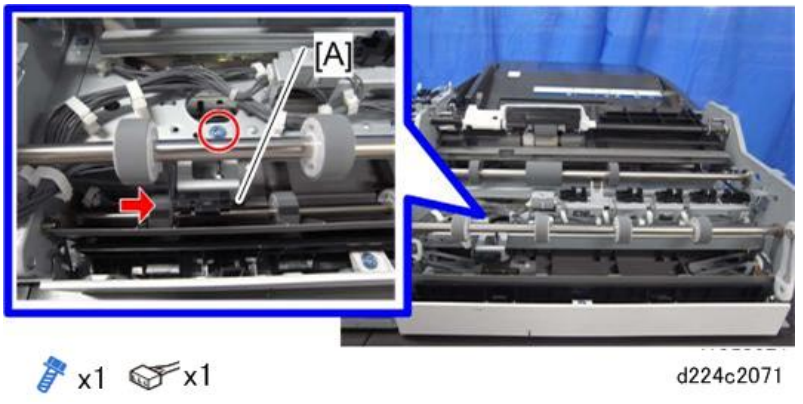
Original Width Sensor, Interval Sensor

1. Feed cover (page 9)
2. Guide plate [A].

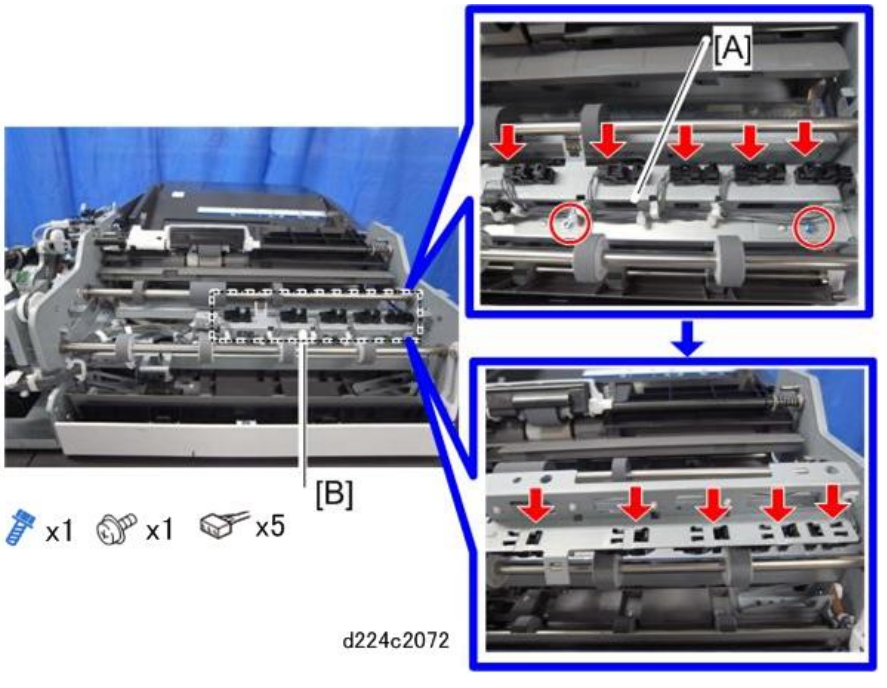


x1 x2 d224c2070

3. Interval sensor [A].

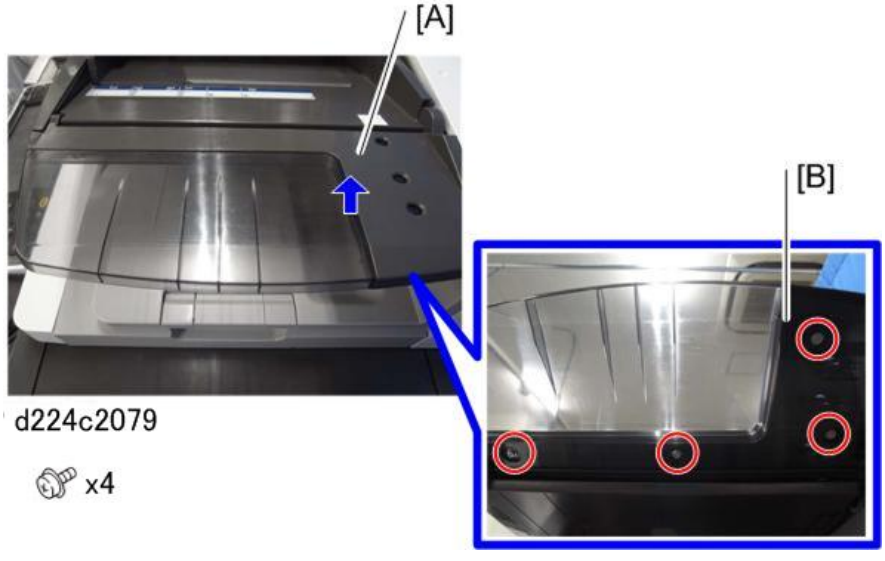


4. Remove the original width sensor guide plate [A].
5. Remove the five original width sensors [B].



Original Length Sensors

1. Raise the document tray [A], then remove the lower cover [B].

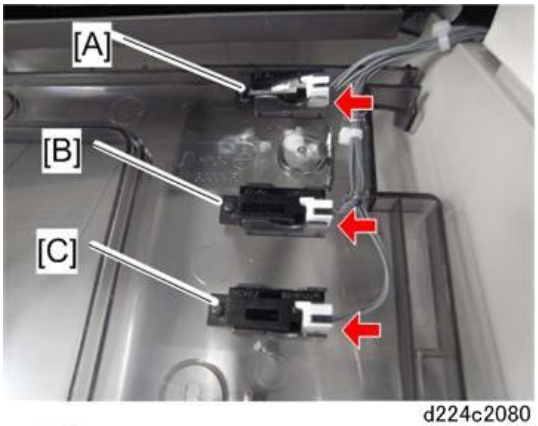


2. Original Length Sensors

   [A] B5

   [B] A4

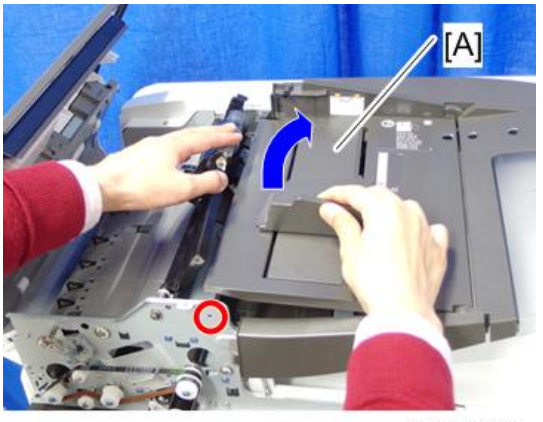
   [C] LG



A4 LEF, LT LEF Sensor

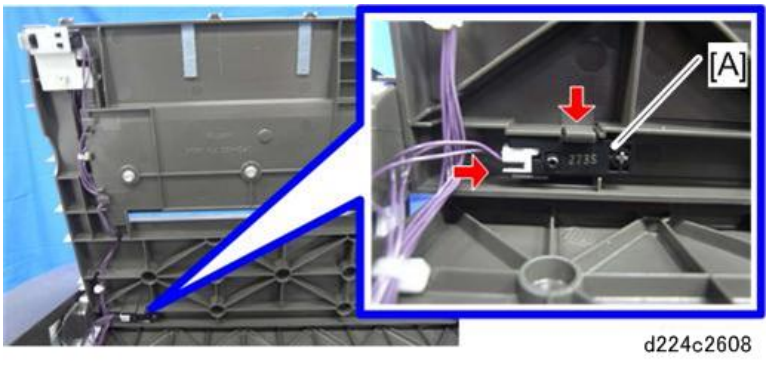
1. ADF front cover (page 7)

2. Remove the screw and raise the original tray [A].



d238m1367

3. A4 LEF/LT LEF Sensor [A].



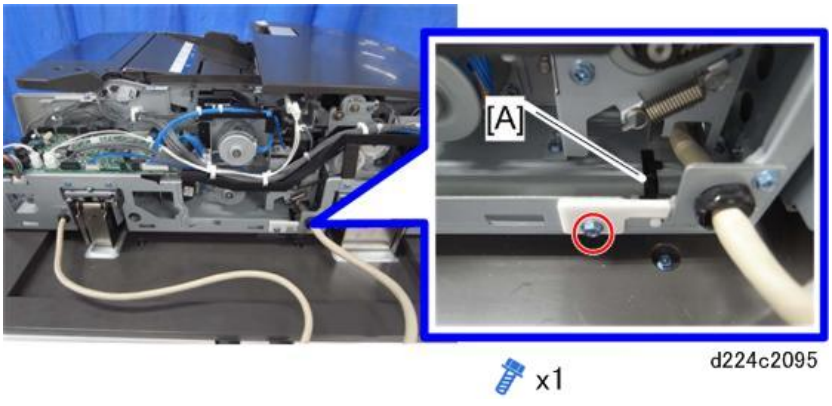
d224c2608

x1 x1

APS Feeler

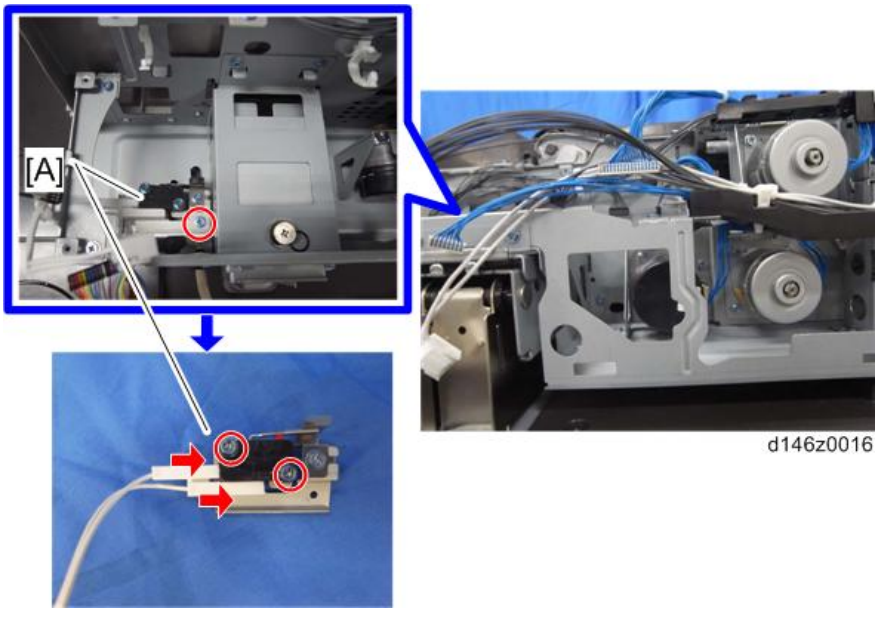
1. ADF rear cover (page 8)

2. APS Feeler [A].



ADF Lift Interlock Switch, Lift Sensor

1. ADF Controller Board (page 40)
2. ADF lift interlock switch [A] along with the bracket (x 3, x 2)

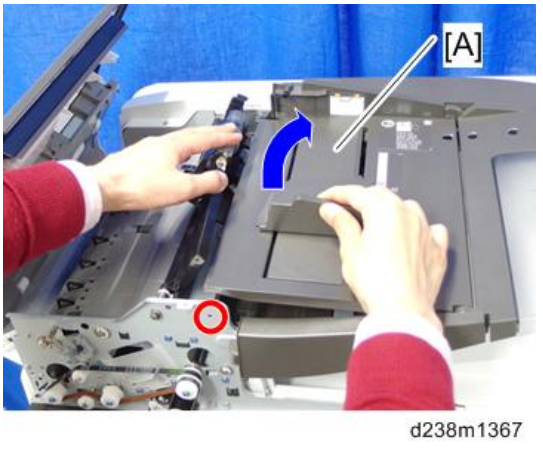


3. Lift Sensor [A] along with the bracket.

x1 x1

Original Set Sensor

1. ADF front cover (page 7)
2. Remove the screw and raise the original tray [A].



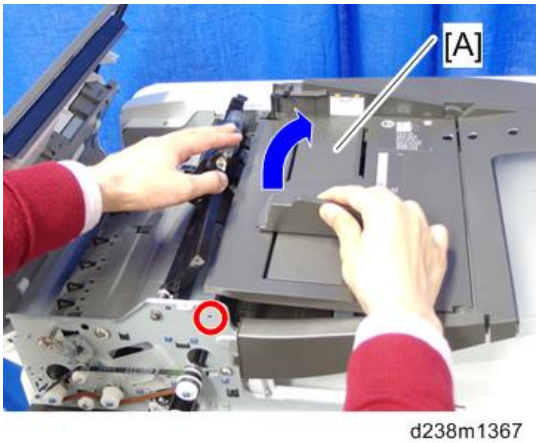
3. Original set sensor [A].

d224c2074

x1 x1

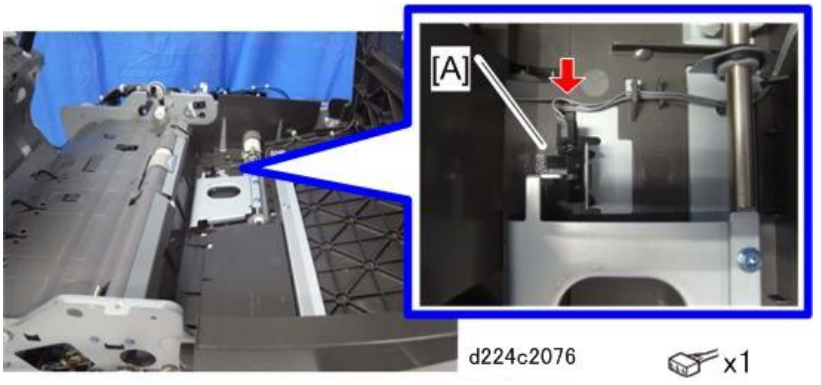
Bottom Plate HP Sensor

1. Original feed unit (page 11)
2. ADF front cover (page 7)
3. Remove the screw and raise the original tray [A].



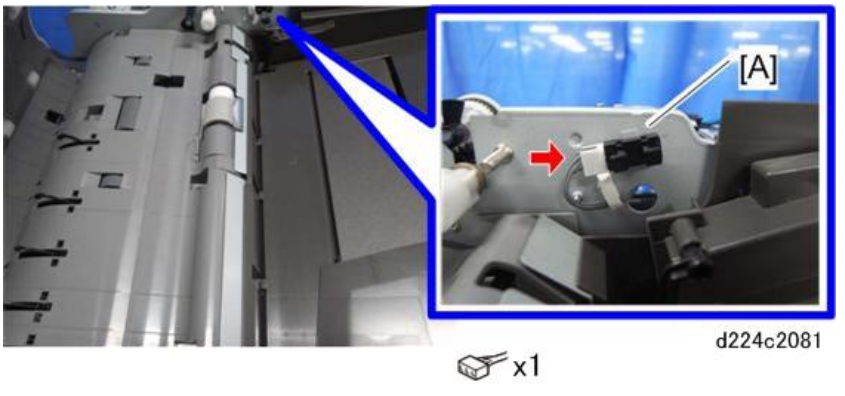
d238m1367

4. Bottom plate HP sensor [A].



Bottom Plate Position Sensor

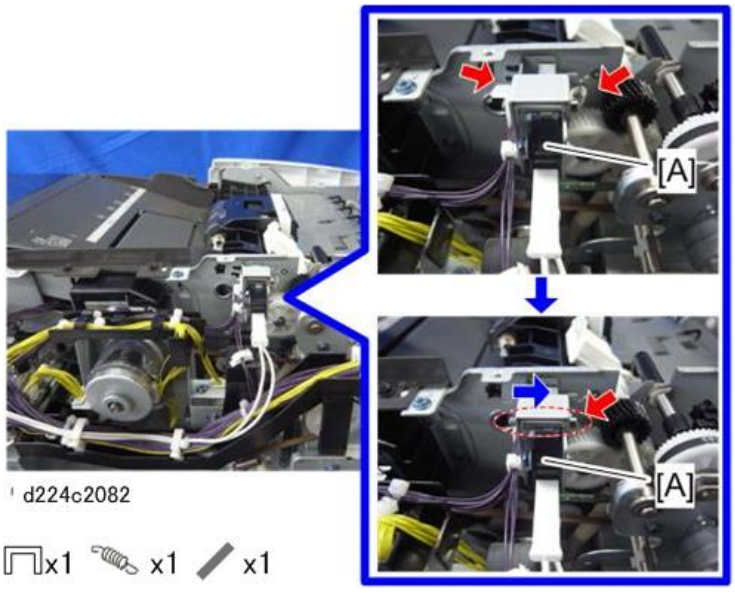
1. ADF rear cover (page 8)
2. Original feed unit (page 11)
3. Bottom plate position sensor [A].



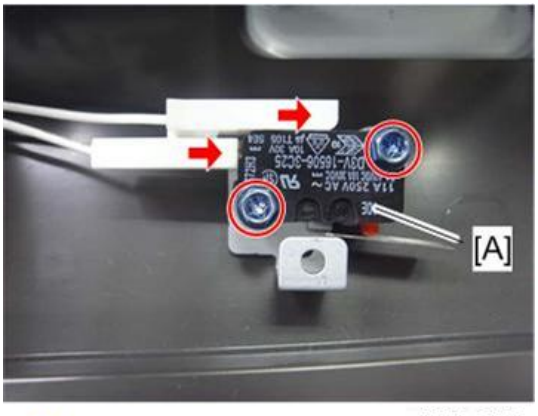
ADF Feed Cover Interlock Switch, Pick-up Roller HP Sensor

1. ADF rear cover (page 8)

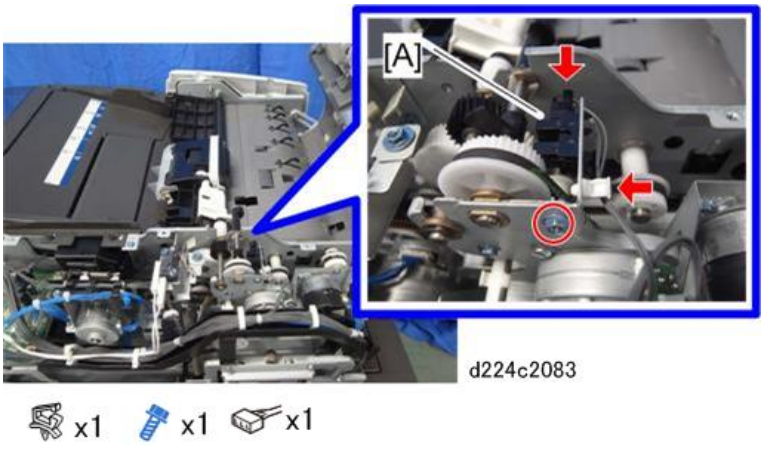
2. **Remove the ADF feed cover interlock switch [A] from the retaining bracket.**



3. **ADF feed cover interlock switch [A].**



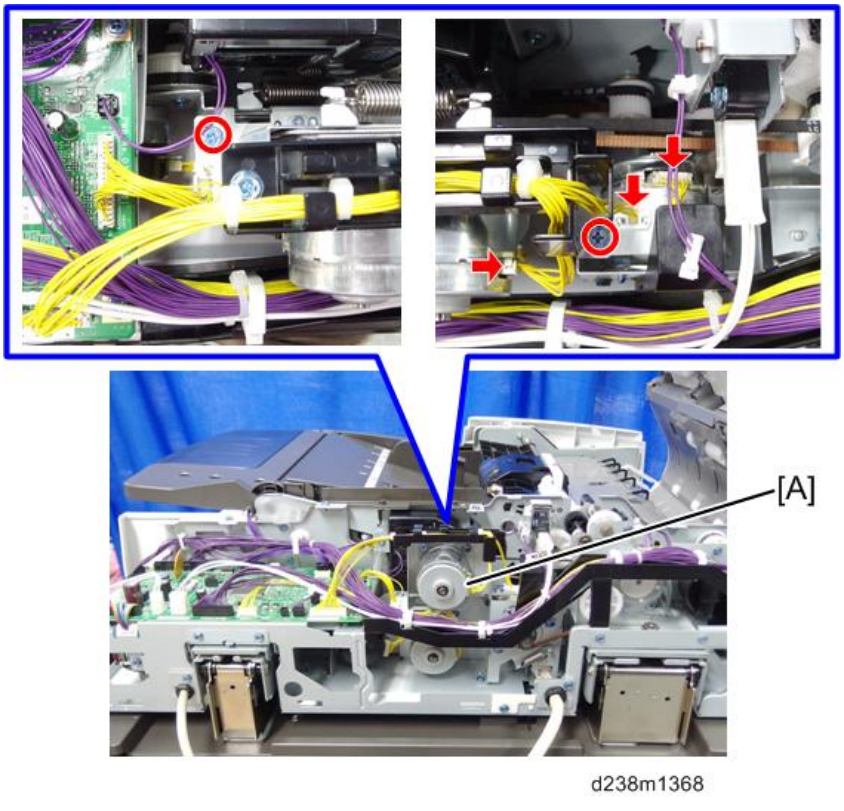
4. **Pick-up roller HP sensor [A] along with the bracket.**



Motors

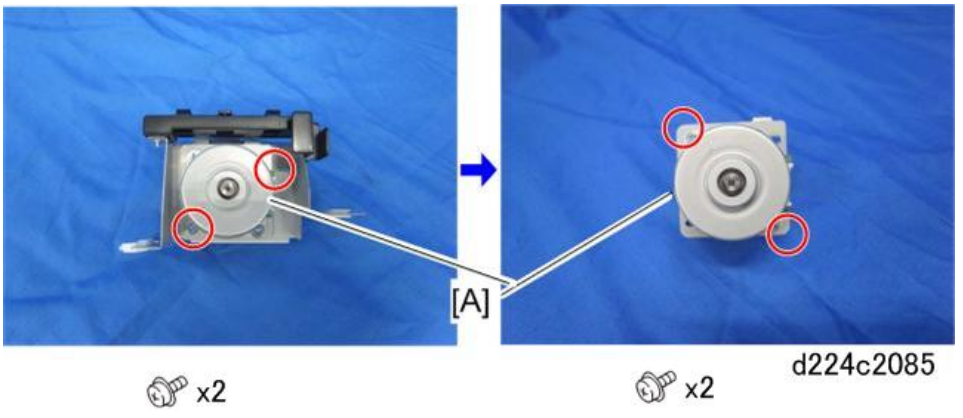
ADF Entrance Motor

1. ADF rear cover (page 8)
2. ADF entrance motor [A] along with the frame.



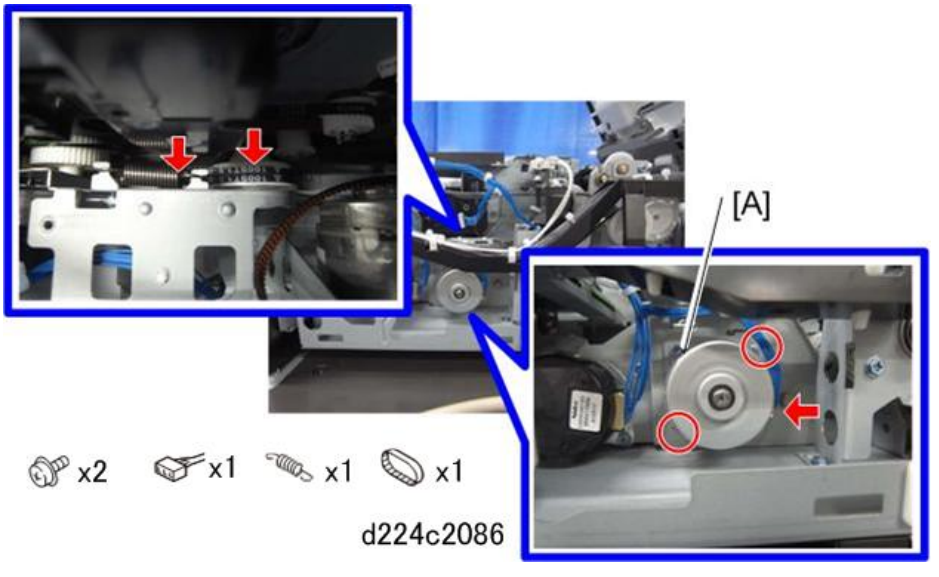
d238m1368

3. ADF entrance motor [A].

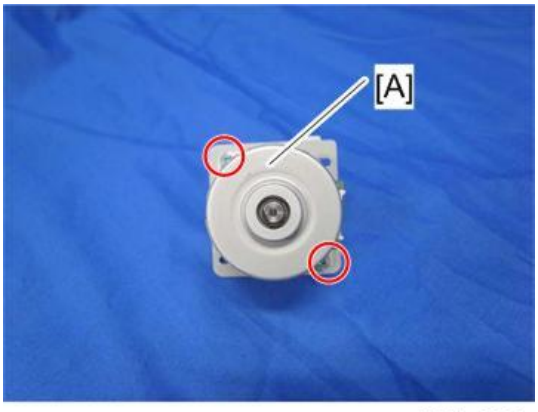


ADF Scanning Motor

1. ADF entrance motor along with the frame (page 27)
2. ADF scanning motor [A] along with the bracket.



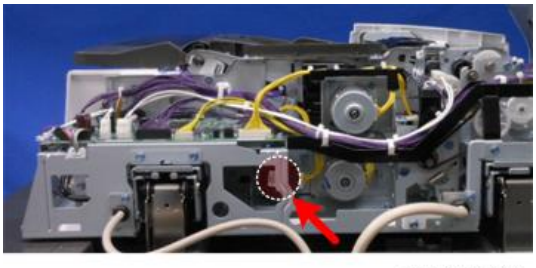
3. ADF scanning motor [A].



x2 d224c2089

ADF Exit Motor

1. Remove the rear cover. (page 8)
2. The exit motor is on the back of the machine behind the vertical stay.



d223c3746

3. Remove the ADF control board.

x1 x15 x4 d223c3747

4. **Remove the anti-static plate.**

x4

d223c3748

5. **Unfasten the motor.**

x2

d223c3749

6. Disconnect the drive belt.

x1 d223c3750

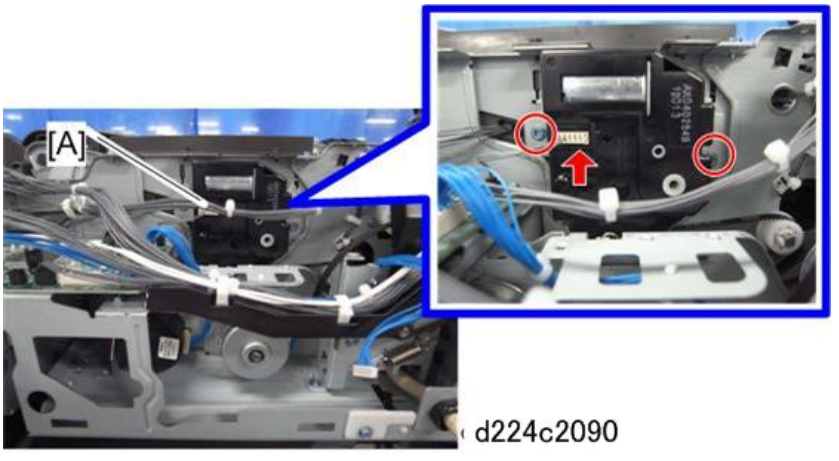
7. Disconnect the motor and remove it.

x1 d223c3751

ADF Bottom Plate Lift Motor

1. ADF entrance motor along with the frame. (page 27)

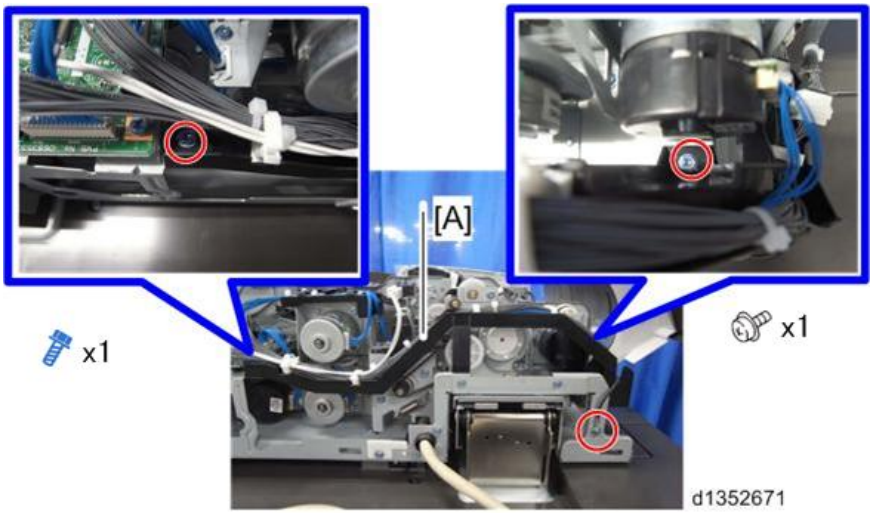
2. ADF bottom plate lift motor [A].



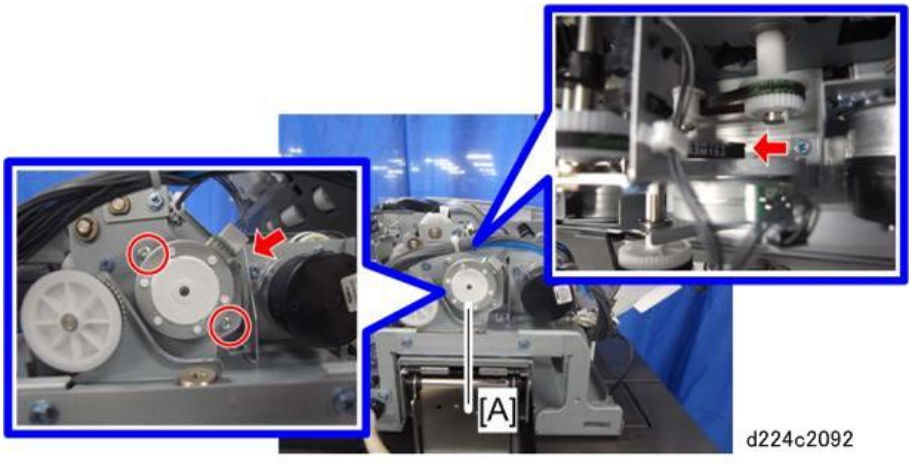
x2 x1

ADF Pick-up Roller Lift Motor, ADF Transport Motor

1. ADF rear cover (page 8)
2. Frame (black) [A].

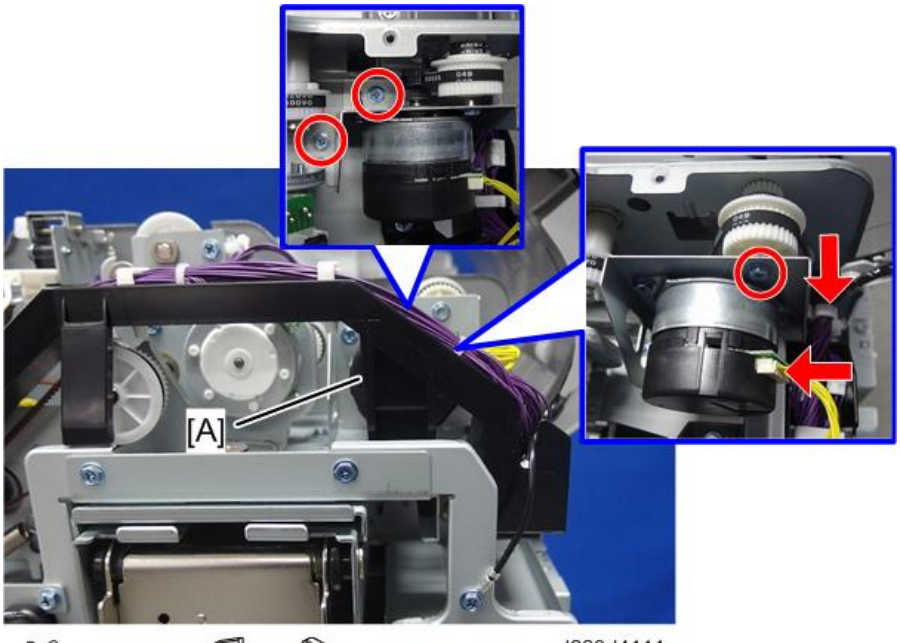


3. ADF pick-up roller lift motor [A].



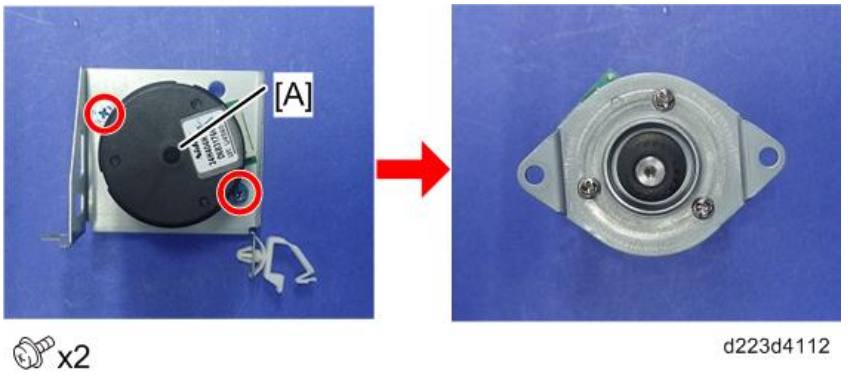
x2 x1 x1

4. ADF transport motor [A] along with the bracket.



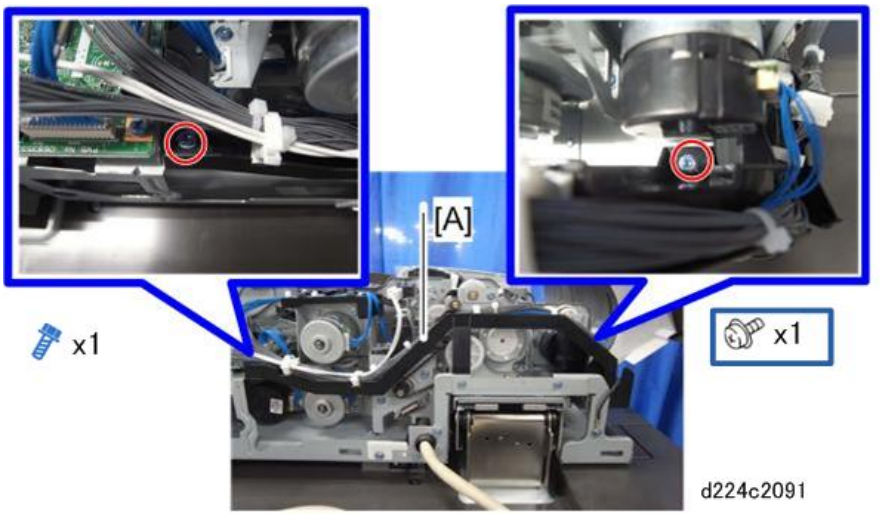
x3 x1 x1 x1

5. ADF transport motor [A].



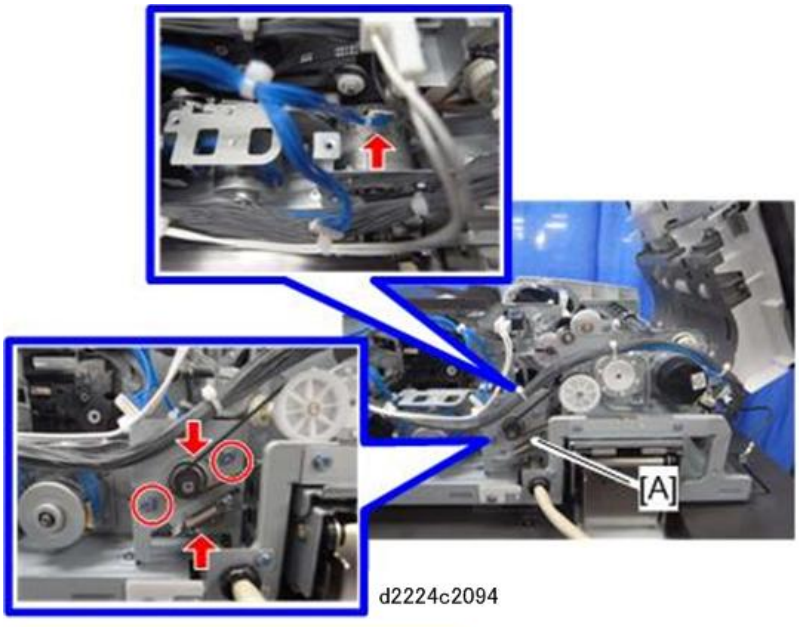
ADF Feed Motor

1. ADF rear cover (page 8)
2. Remove the fixing screws of the frame (black) [A].



3. ADF entrance motor along with the frame (page 27)

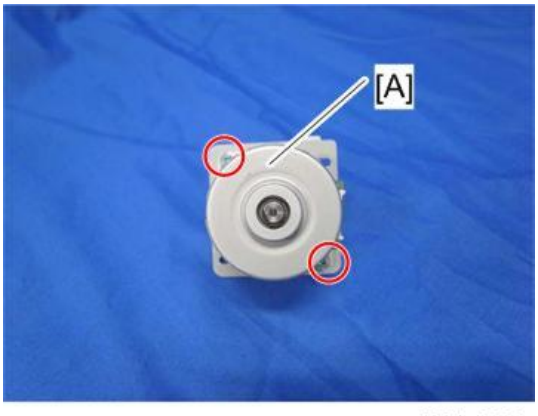
4. ADF feed motor [A] along with the bracket.



d2224c2094

x2 x1 x1 x1

5. ADF feed motor [A].



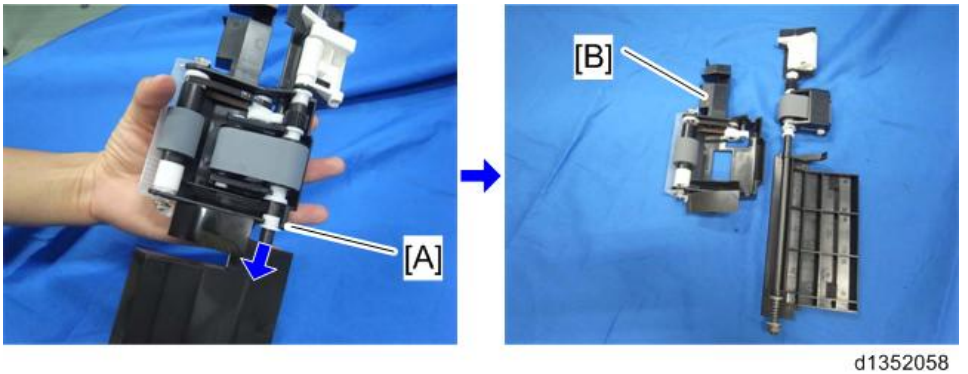
x2

d224c2089

Rollers and Belts

Pick-up Roller, Transport Belt

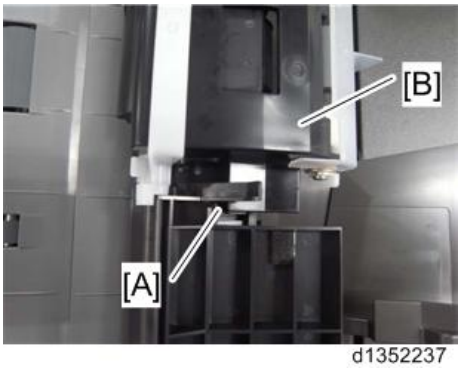
1. **Remove original feed unit. (page 11)**
2. **Slide bushing [A], and then remove the pick-up roller unit [B].**



d1352058

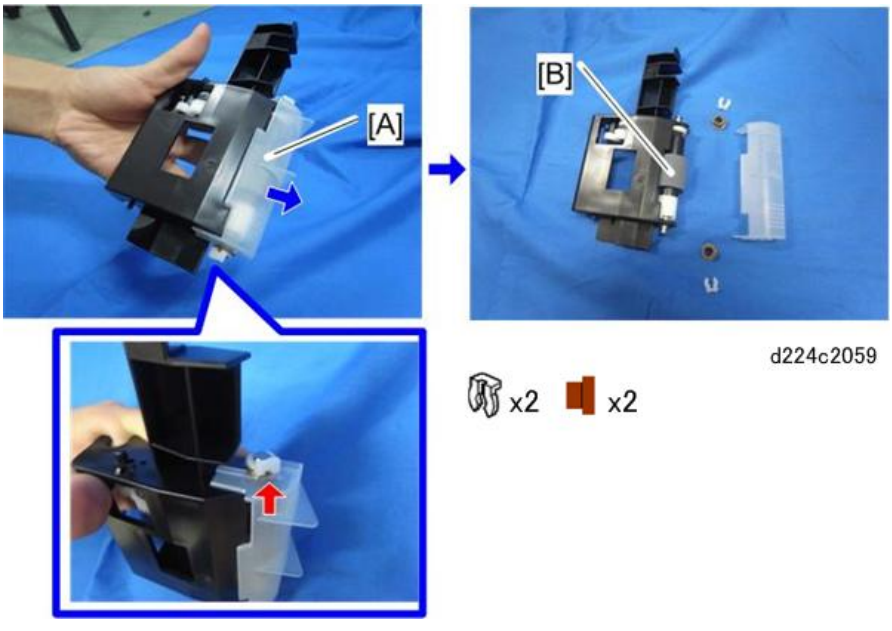
Note

- At re-assembly, make sure that the tab on the front guide plate [A] is above the pick-up roller [B].

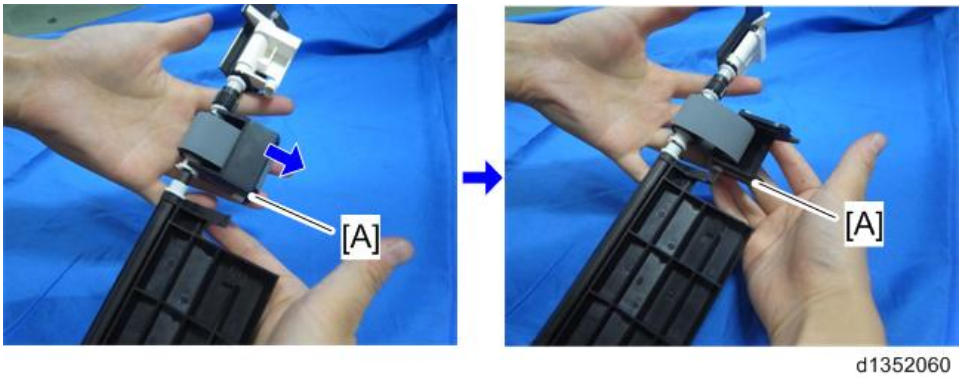


d1352237

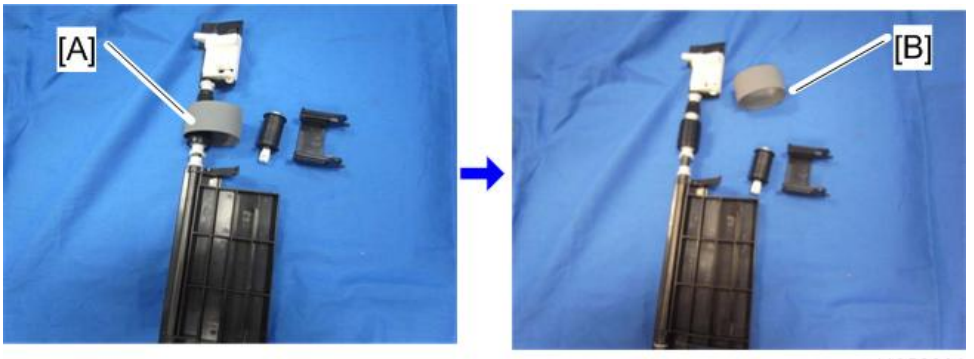
3. Pick-up roller cover [A] and pick-up roller [B].



4. Lift the left and right sides of the feed belt holder [A], then remove it.



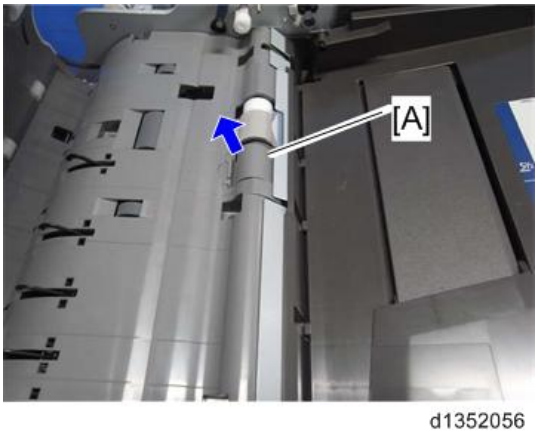
5. Remove the feed belt [B] from the feed belt holder [A].



d1352061

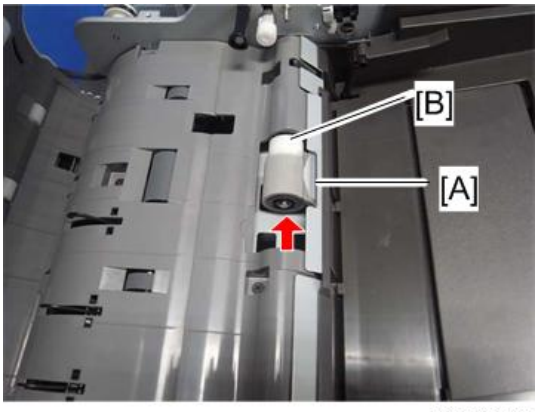
ADF Separation Roller

1. Open the feed cover.
2. Original feed unit (page 11)
3. ADF separation roller cover [A].



d1352056

4. ADF separation roller [A] and torque limiter clutch [B] (snaps off)

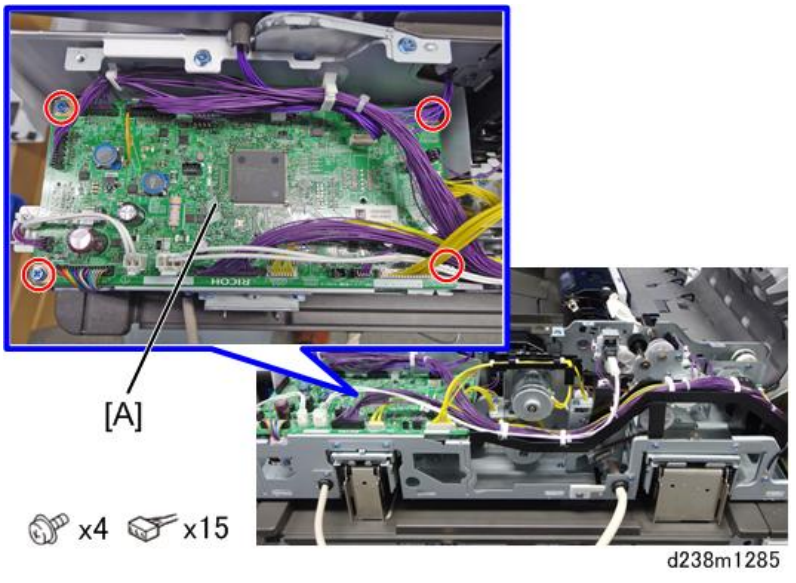


d1352057

Boards

ADF Controller Board

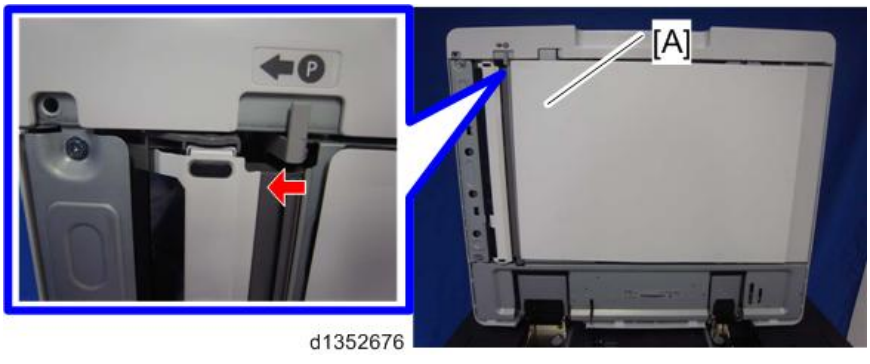
1. ADF rear cover (page 8)
2. ADF controller board [A].



CIS Unit

CIS Unit

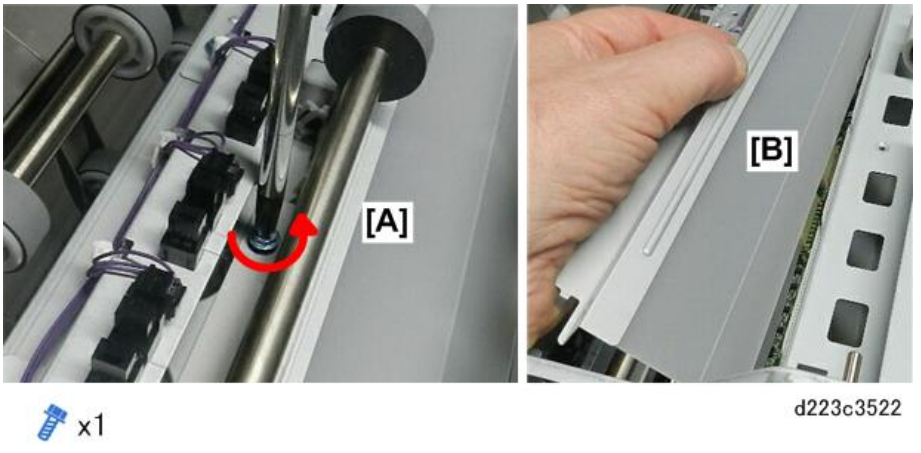
1. Original Feed Unit (page 11)
2. ADF Separation Roller (page 38)
3. ADF front cover (page 7)
4. Raise the ADF and open the white cover [A]. This will prevent scratching the CIS glass when the unit is removed.



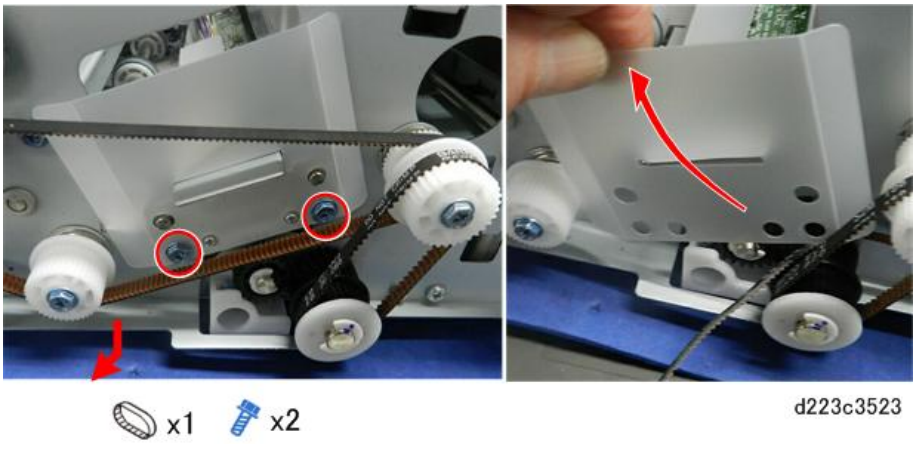
5. Guide plate (large) [A]

6. Guide plate (small) [A].

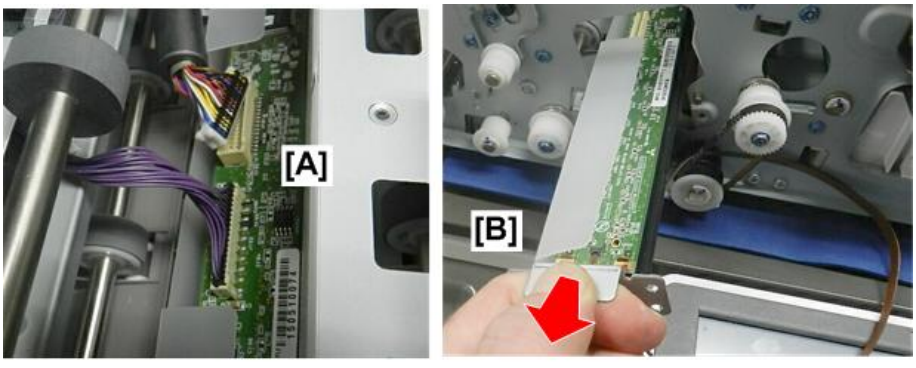
7. Unfasten the guide plate [A].
8. Remove the guide plate with Mylar [B] attached.



9. At the front, disconnect the timing belt.
10. Unfasten the Mylar plate and then remove it.



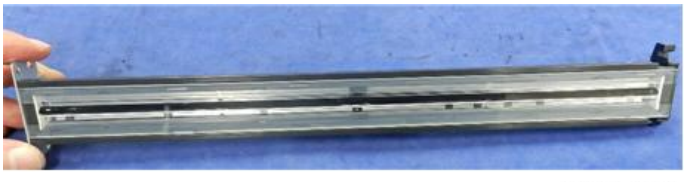
11. Disconnect the CIS unit [A].
12. Slowly, pull the CIS unit [B] out of the ADF.



x2

d223c3524

13. Lay the CIS unit on a flat, clean surface, with the glass side facing up.



d223c3525

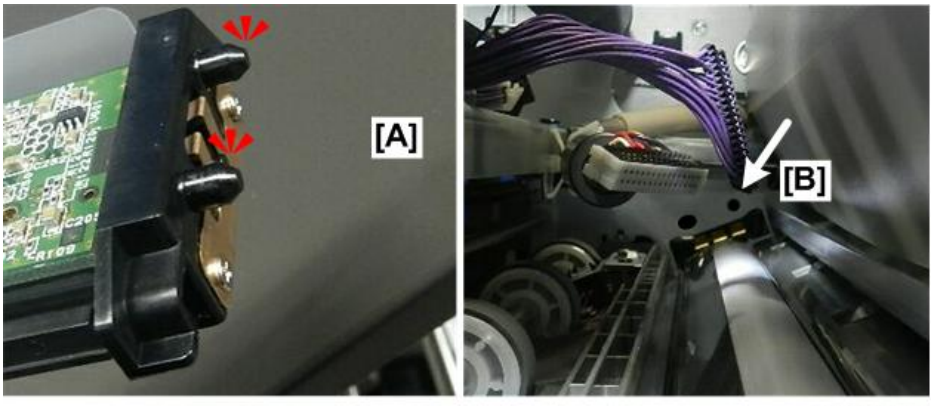
Reinstallation

1. Before reinstallation, clean the surface of the CIS lens with a lens cloth.

Important

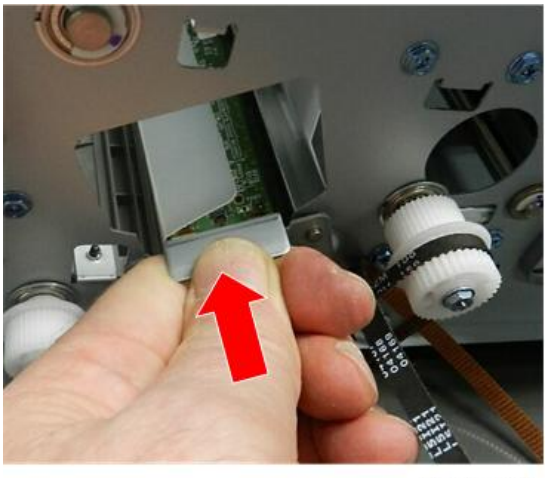
- Never clean the surface of the CIS with tissue or any type of organic solvent.

2. Two pegs on the rear end of the CIS [A] fit into two holes [B] at the back of the ADF unit.



d223c3526

3. To re-install the CIS, set the CIS in its channel so it is perfectly flat.
4. Slowly, push it to the rear until the pegs slide into the holes.



d223c3528

5. Follow the correct arrangement of the drive belt when you re-attach it.

d223c3527

6. **If you have replaced the CIS unit, do these SP three codes in the following order:**
   - SP4-730-001 (FROM ADF Factory Setting: CIS Parameter)

     Writes the initial value of the scan parameter in FROM.
   - SP4-730-004 (FROM Data Update)

     Writes the SP value of the scan parameter in FROM.
   - SP4-730-002 (FROM Main Factory Setting Execution ON/OFF)

     Copies the parameters written in FROM to the engine board in the MFP.

CIS White Roller Cleaning

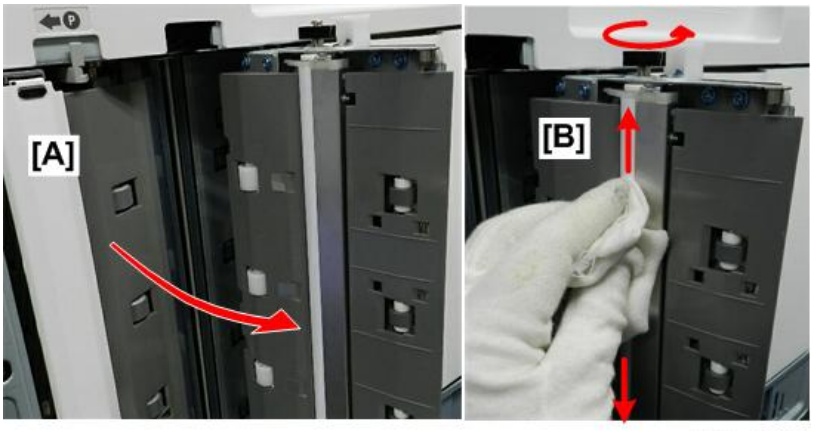
Frequently inspect the CIS white roller. A dirty or incorrectly installed white roller will cause the machine to issue SC152-00 (White Level Error: Back Side).

1. **Open the ADF.**
2. **At the upper left corner, release the white plate.**

d223c3741

3. **Swing the roller assembly away from the ADF [A].**

4. **White rotating the white roller by its gear, use a dry, clean cloth to wipe the surface of the roller clean [B].**



d223c3742

Adjustment after ADF Replacement

Important

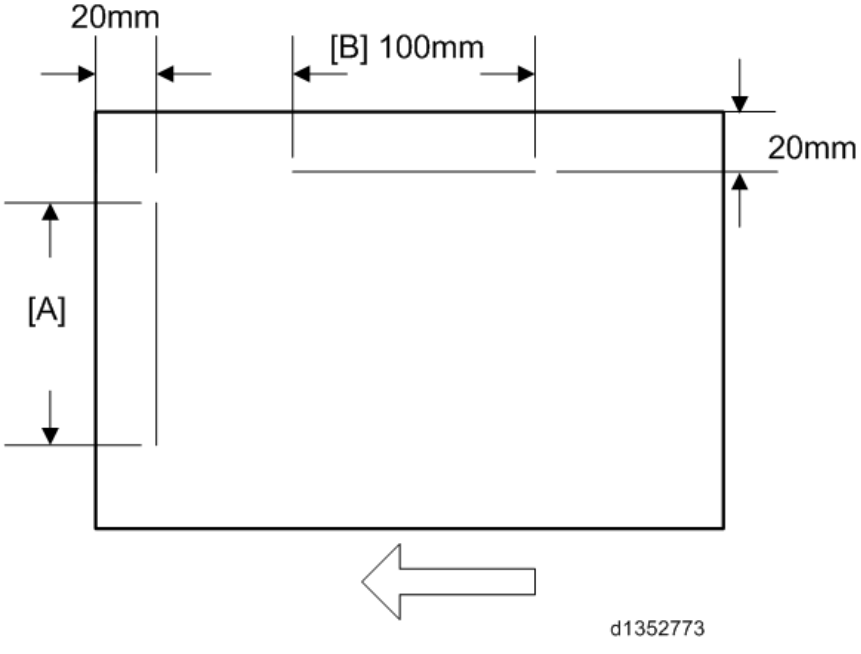
- If the ADF is being replaced, do SP4-730-001, SP4-730-004 and SP4-730-002 (in that order) after the new ADF has been installed.

Checking the vertical registration

SP6-006-001 (ADF Adjustment Side-to-Side Regist: Front)

SP6-006-002 (ADF Adjustment Side-to-Side Regist: Rear)

1. **Create an original as shown in the following picture.**



The large white arrow indicates the direction of feed.

2. **Copy the original and make sure that the position of the line [A] is within 0±1mm**
3. **If not within the standard, adjust with the SP modes.**

Checking the horizontal registration

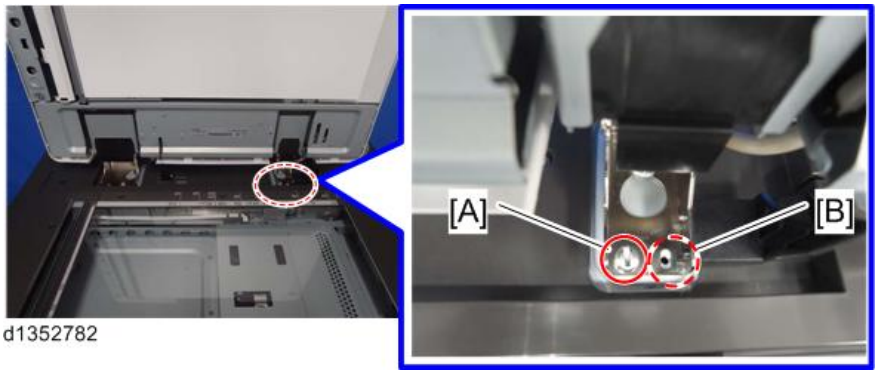
SP6-006-010 (ADF Adjustment L-Edge Regist (1-Pass): Front)

SP6-006-011 (ADF Adjustment L-Edge Regist (1-Pass): Rear)

1. Copy the original and make sure that the position of the line [B] is within 0±2mm.
2. If not within the standard, adjust with the SP modes.

Checking skew

1. Make sure that the difference between both end positions of the line [A] that you wrote on the original (see above) is within 0±2mm.
2. If not within the standard, change the position of the fixing screw [A] to the long hole [B] at the right hinge.



d1352782

Checking magnification

1. Copy the original and make sure that the length of the line [B] that you wrote on the original (see above) is within 100±1mm.
2. If not within the standard, adjust with the SP mode.
    - SP6-017-001 (DF Magnification Adj.)

Platen Adjustment

1. Open the ADF and remove the white cover [A].

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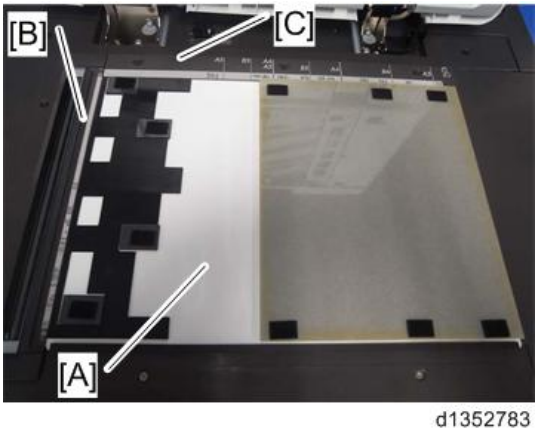
2. Put the white cover [A] in the correct position on the exposure glass, aligning it with the glass cover [B] and the rear scale [C].



d1352783

3. **Close the ADF [A] slowly and attach the ADF to the white cover [B] with the hook and loop fastener.**

d1352784

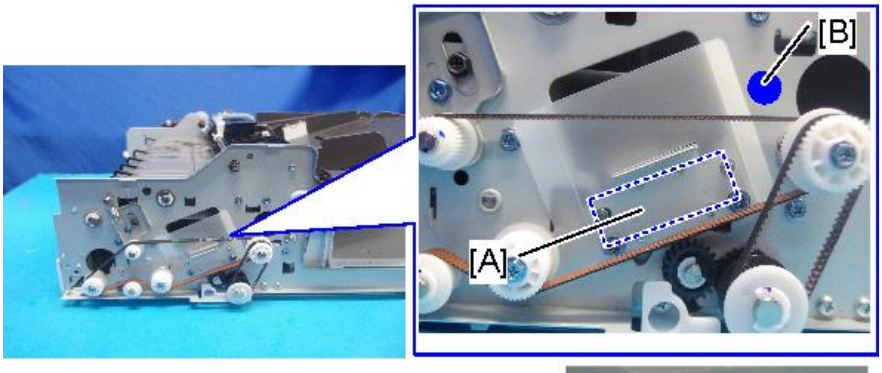
2. Detailed Descriptions

SPDF DF3100 (D3B0)

Changes from the Previous Machine

1. CIS mis-installation prevention

To prevent installing the wrong kind of CIS in the DF3100, a blue label [A] is attached to the CIS. Check that the color on this label is the same as the marking [B], to prevent installing the wrong CIS.



d238m0790

Note

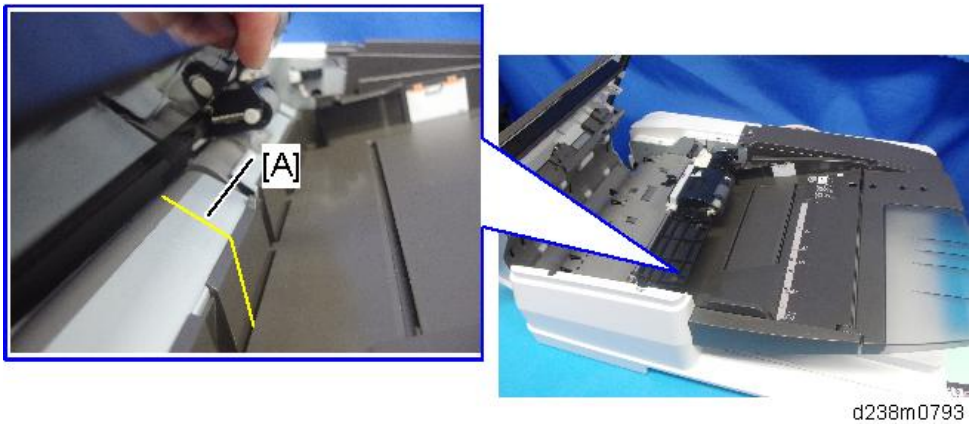
- [A] (Blue label): CIS for DF3100
- [B] (Orange label): CIS for other machines

d238m0791

- If the wrong CIS is installed, JAM001 will occur if sheet-through scanning is done. When JAM001 continues three times, SC151 or SC152 will occur.

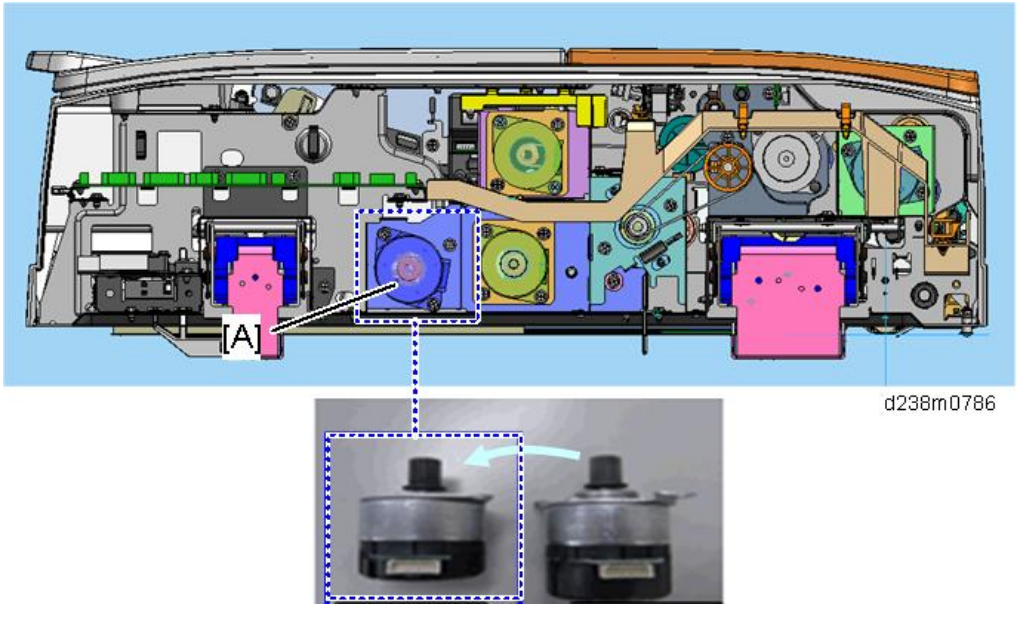
2. Back curl "U" folding prevention

To prevent the originals from folding when picking up paper that is curled upward, the slope of the paper feed guide [A] has been changed.



3. Smaller original exit motor

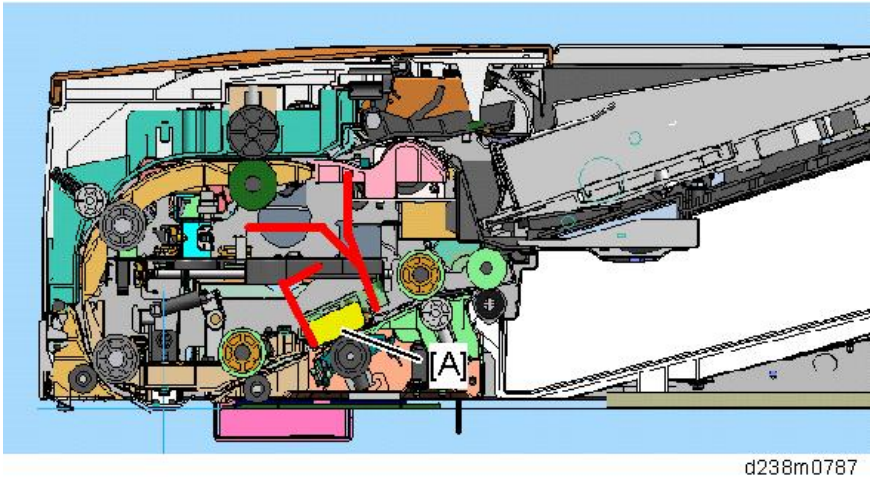
Changed the original exit motor to a next generation motor [A] with a smaller size.



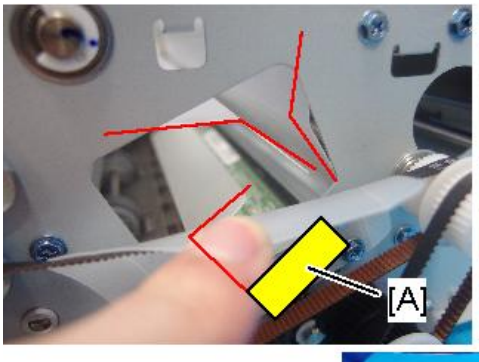
4. Addition of fire prevention enclosure

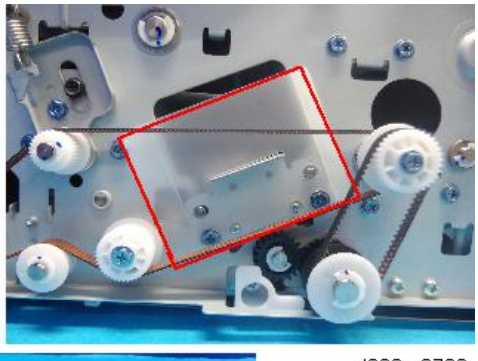
To prevent fire spreading from the CIS [A] and the DF main board, a fire prevention enclosure (shown by the red lines) has been added.

- CIS [A]

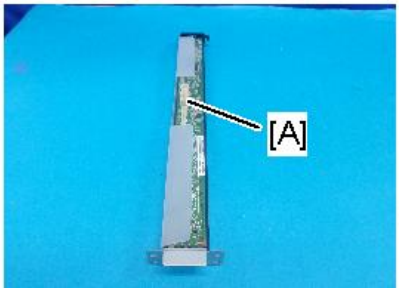


d238m0787

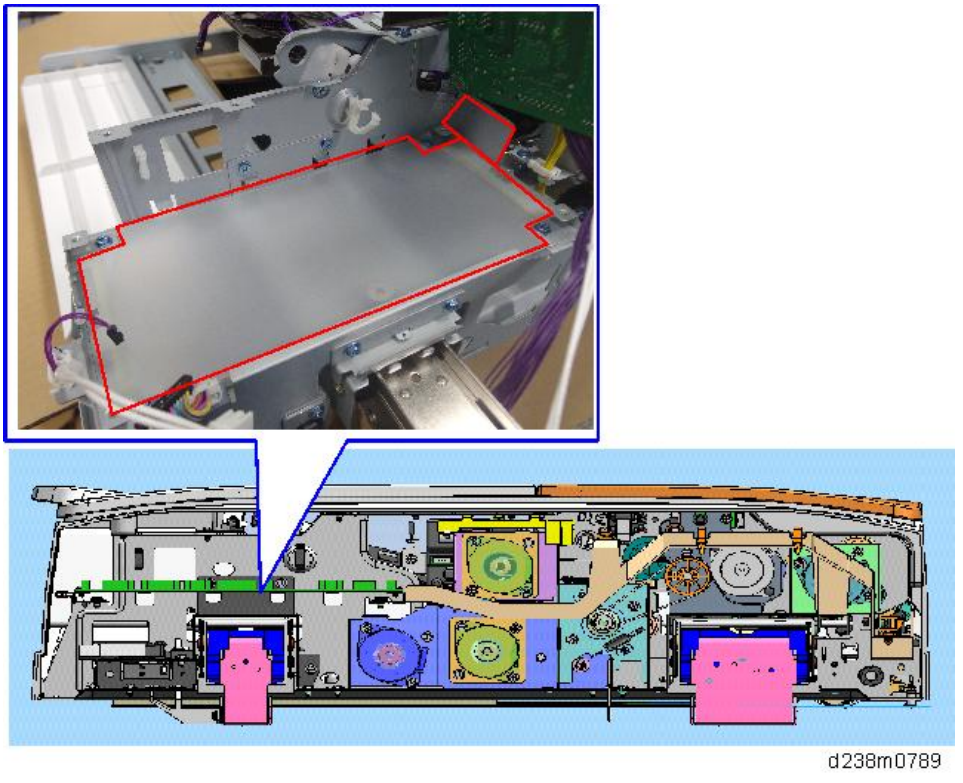




d238m0788



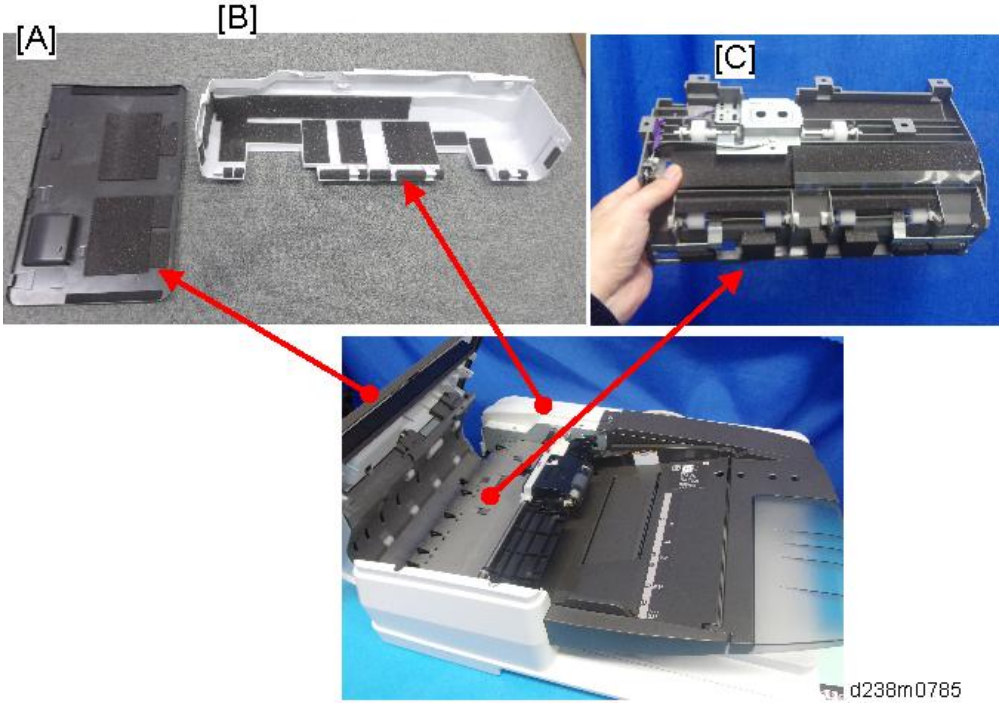
ADF control board



5. Addition of cushioning to the outer cover

Cushioning has been added to the DF cover to reduce noise.

[A]: DF top cover, [B]: DF rear cover, [C]: Original transport guide



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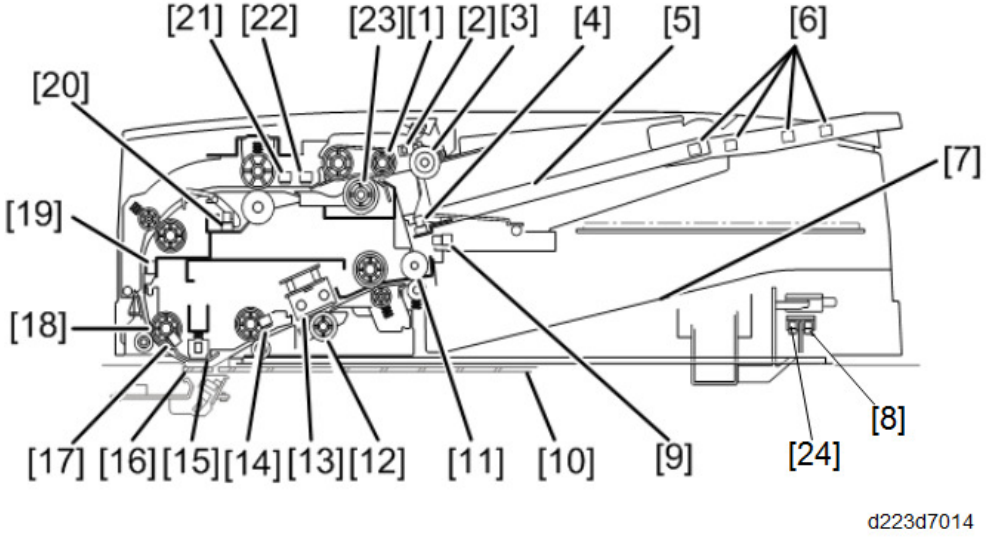
Parts Layout

Cross-Section of the ADF Unit



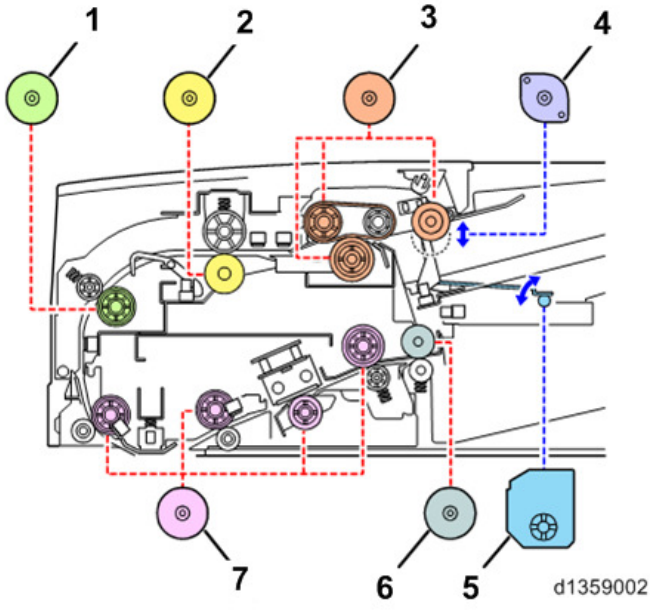
No,	Part	No.	Part
1	Feed Belt	13	CIS
2	Bottom Plate Position Sensor	14	Original Exit Sensor
3	Pick-up Roller	15	Scanning guide plate
4	Original Set Sensor	16	Sheet-through exposure glass
5	Original Tray	17	Original Registration Sensor
6	Original Length Sensors	18	Scanning Entrance Roller
7	Output Tray	19	Interval Sensor
8	Lift Sensor	20	Original Width Sensors
9	Bottom Plate HP Sensor	21	Skew Correction Sensor
10	Exposure Glass	22	Separation Sensor
11	Exit Roller	23	ADF Separation Roller
12	CIS White Roller	24	ADF Lift Interlock Switch

Scanning Sequence

- **Original Pick-up**. The pick-up roller picks up the leading edge of original.
- **Original Feed and Separation**. The feed belt and reverse roller feed the originals and prevent double-feeds.
- **Original size detection**. 9 original size sensors, 5 for width and 4 for length, detect the original size on the original tray.
- **Original Scanning**. A color CIS unit scans the reverse side of the originals (both sides are scanned in one pass).

Mechanism

Motors



No.	Part
1	Relay Motor
2	Entrance Motor
3	Feed Motor
4	Pick-up Motor
5	Tray Lift Motor
6	Exit Motor
7	Transport Motor

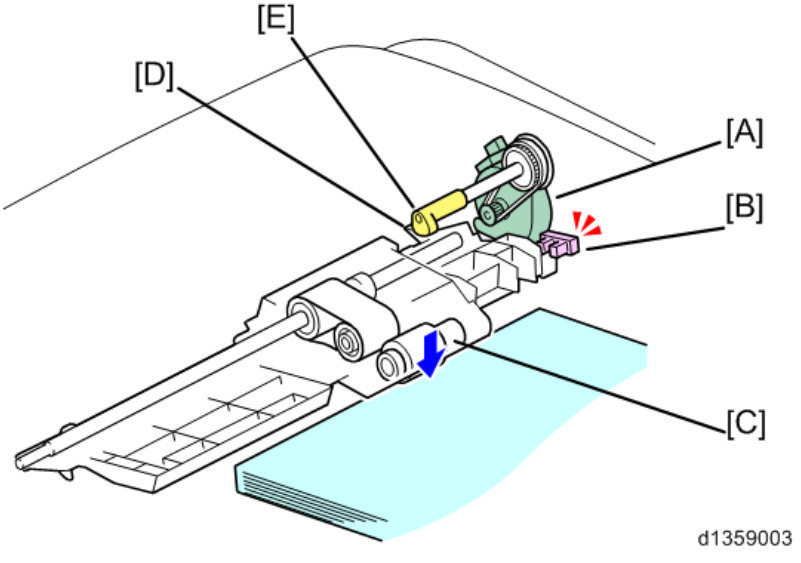
Original Pick-up

Paper Feed

When an original is placed on the original tray, its leading edge raises the feeler of the original set sensor and the sensor detects the original.

Pick-up Roller

- When there is no original on the original tray, the pick-up roller [C] swings up to the limit of its vertical movement.
- To lower the pick-up roller, the pick-up roller motor [A] rotates the lift cam [E] which lowers the pick-up arm [D] and the pick-up roller.
- When the pick-up roller is lowered, the pick-up roller motor [A] switches on.
- When the actuator switches off the bottom plate position sensor [B], the pick-up roller motor goes off, and then the lift cam [E] holds the roller up.



Pick-up Roller Down Timing

The pick-up roller lowers:

- When an original (or stack of originals) is set on the original table.
- When the trailing edge of the original passes the sensor (but, it does not lower for the last original).
- For A4/LT LEF when the leading edge reaches the registration sensor.

Pick-up Motor On/Off Timing

The pick-up motor switches ON:

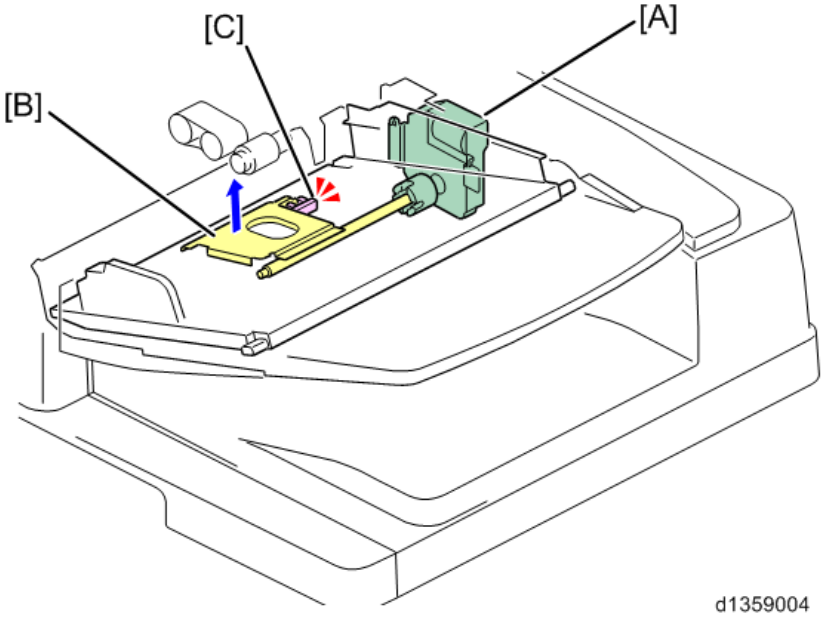
- When the original set sensor detects the leading edge of the original.
- Just after the machine is turned on

The pick-up motor switches OFF:

- When the original feed cover is open.
- When an original jams in the ADF paper path.

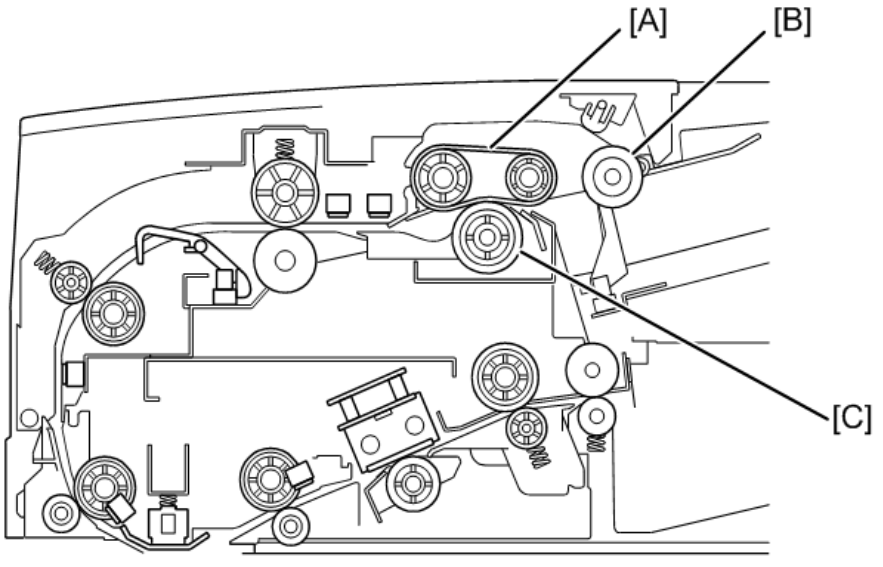
Bottom Plate Lift

- When an original is set on the original tray, after the pick-up roller drops, the bottom plate position sensor goes off, and then the plate lift motor [A] goes on and raises lift lever [B] which raises the bottom plate.
- The actuator above the pick-roller holder switches on the bottom plate position sensor (see the previous diagram), and this turns the plate lift motor [A] off so the stack is positioned at the correct feed position.
- During scanning with the ADF, when the top of the stack becomes too low, the pick-up roller drops low enough to turn the bottom plate position sensor off, which switches the lift motor [A] on again and raises the stack until once again it is at the paper feed position.
- This mechanism performs continuously and keeps the top of the stack at the correct feed height for original stacks of up to 220 sheets (81.4 g/m2).
- At the end of the job, the original table descends under its own weight as far as the bottom plate HP sensor [C].



Original Feed and Separation Mechanism

- A feed belt [A] and ADF separation roller [C] comprise the FRR original separation mechanism.
- If more than one original feeds between the nip of the feed roller and ADF separation roller, when the pick-up roller [B] picks up the front edge of the original, the rotation of the ADF separation roller [C] reverses immediately.
- This sends the bottom sheet back into the tray while the sheet above continues to feed normally.

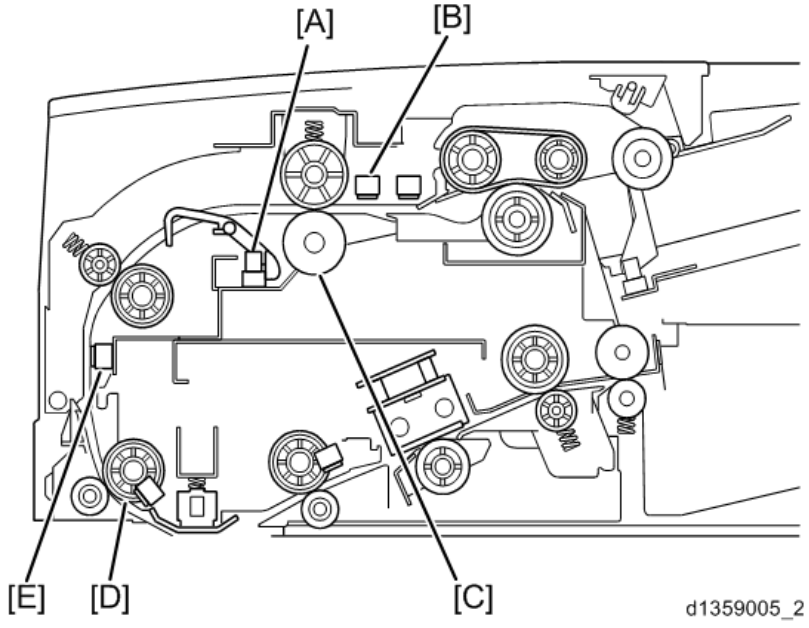


d1359005

- When more than one original feeds, this increases torque above the limit of the spring loaded torque limiter which reverses the rotation of the ADF separation roller against the rotation of the feed belt above.
- The bottom sheet reverse feeds while the sheet above continues to feed into the paper path.

Skew Correction Mechanism

- After the original feeds, the skew correction sensor detects its leading edge, and stops the rotation of the feed motor for a prescribed number of pulses.
- The leading edge hits and straightens against the stationary roller to correct skew.
- If the original is small (B6, A5, B5, HLT) (or when duplex scanning regardless of paper size), when the interval sensor [E] detects the leading edge of the original, it stops the pre-scanning roller [D] for a prescribed number of pulses, long enough for the original to buckle against the stationary roller and correct skew.

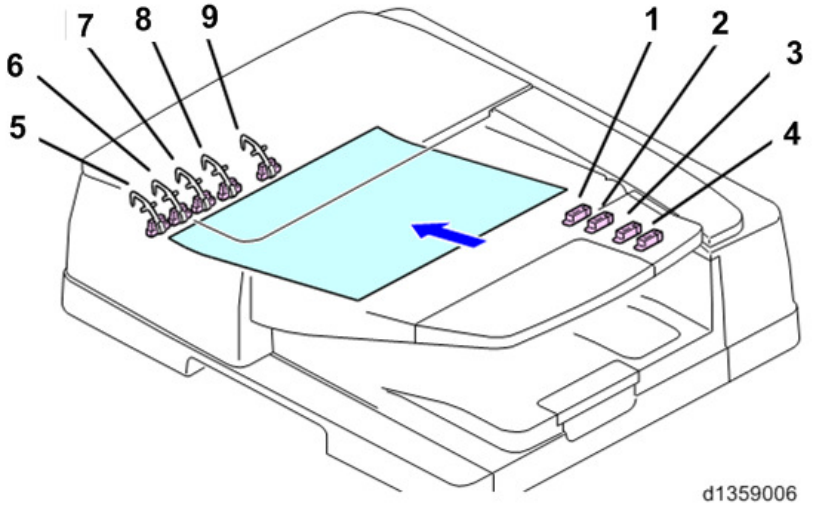


No.	Part
A	Original Width Sensors
B	Skew Correction Sensor
C	Entrance Roller
D	Scanning Entrance Roller
E	Interval Sensor

- You can turn on **SP6020-001** (ADF Contact Mode In/Out) to enable skew correction at both the entrance roller above as well as the pre-scanning roller below for all paper sizes but this may slow down the speed of original feeding.

Original Size Detection

- When the leading edge of the original reaches the interval sensor, the machine determines the width from the readings of the 5 original width sensors.
- The length of the original is determined by the readings of the 3 original length sensors under the original table and one sensor on the bottom plate.
- These two arrays of sensors are used to determine the size of the originals.



No.	Part
1	Original Length Sensor A4/LT LEF
2	Original Length Sensor B5
3	Original Length Sensor A4
4	Original Length Sensor LG
5	Original Width Sensor 5
6	Original Width Sensor 4
7	Original Width Sensor 3
8	Original Width Sensor 2
9	Original Width Sensor 1

Size (W x L)	Width Sensors					Length Sensors			
	1	2	3	4	5	A4 LEF	B5	A4	LG
A3(297x420)	ON	ON	ON	ON	ON	ON	ON	ON	ON
B4(257x364)	ON	ON	ON	---	---	ON	ON	ON	ON
A4 SEF (210x297)	ON	ON	---	---	---	ON	ON	ON	-
A4 LEF (297x210)	ON	ON	ON	ON	ON	---	---	---	---

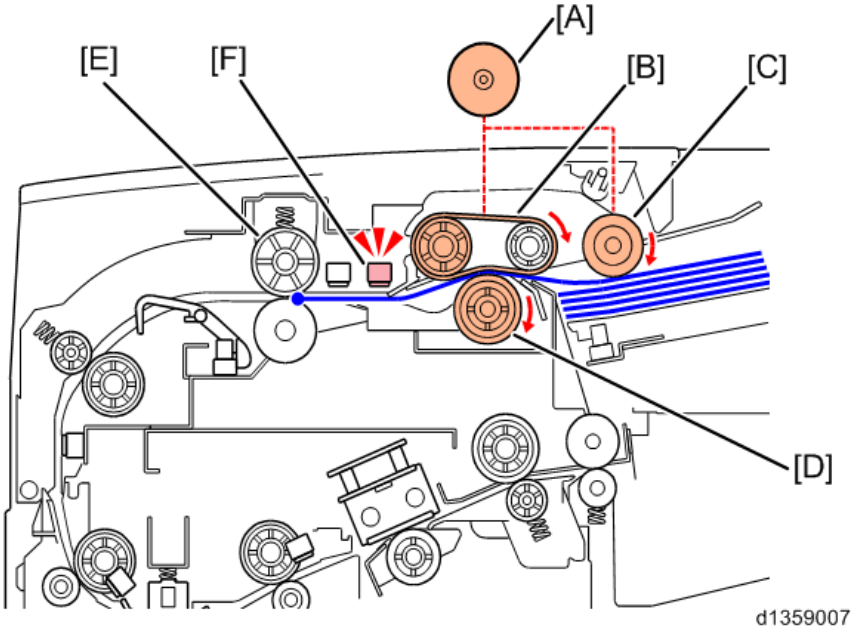
Size (W x L)	Width Sensors					Length Sensors			
	1	2	3	4	5	A4 LEF	B5	A4	LG
A4 SEF (210x297)	ON	---	---	---	---	ON	ON	---	---
A4 LEF (297x210)	ON	ON	ON	---	---	---	---	---	---
A4 SEF (210x297)	---	---	---	---	---	---	---	---	---
A4 LEF (297x210)	ON	---	---	---	---	---	---	---	---
DLT SEF (11"x17")	ON	ON	ON	ON	---	ON	ON	ON	ON
DLT SEF (11"x17")	ON	ON	ON	ON	---	ON	ON	ON	ON
8 1/2"x11" SEF (LT)	ON	ON	---	---	---	ON	ON	---	---
11"x8 1/2" LEF (LT)	ON	ON	ON	ON	---	---	---	---	---

Note

- 11"x17" and 11"x15" are detected as the same size, so you need to select one or the other with **SP6016-001** (Original Size Determination Priority) to choose whichever you are using.

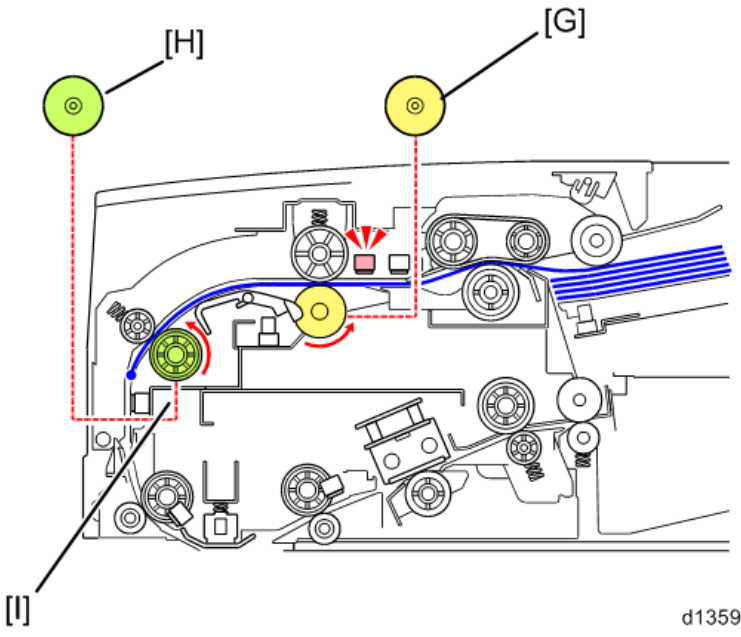
Original Transport

- At the beginning of the job, the original feed motor switches on and rotates the pick-up roller, feed belt, and reverse roller to feed the original into the original feed path.
- The original is fed to the entrance roller as it leaves the original tray. Original skew is corrected at the entrance roller.



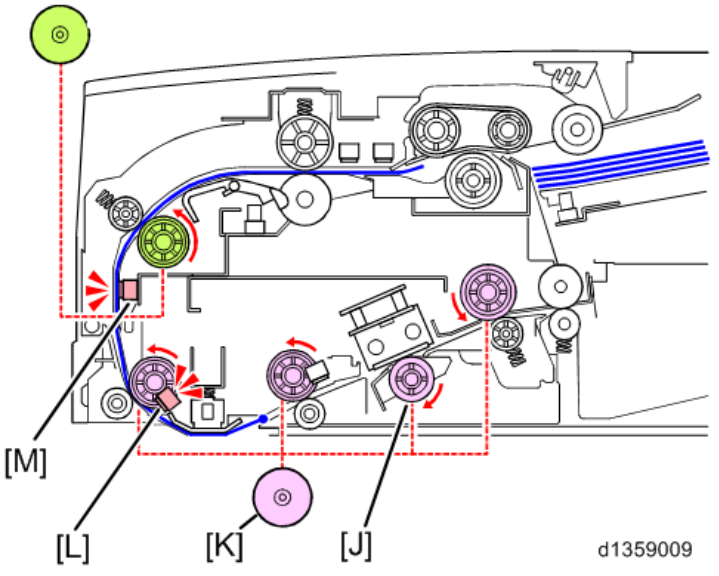
No.	Part
A	Feed Motor
B	Feed Belt
C	Pick-up Roller
D	ADF Separation Roller
E	Entrance Roller
F	Separation Sensor

- After skew is corrected at the entrance roller, the entrance motor [G] and transport motor [H] rotate the rollers in the original path and feed the original to the scanning section below.

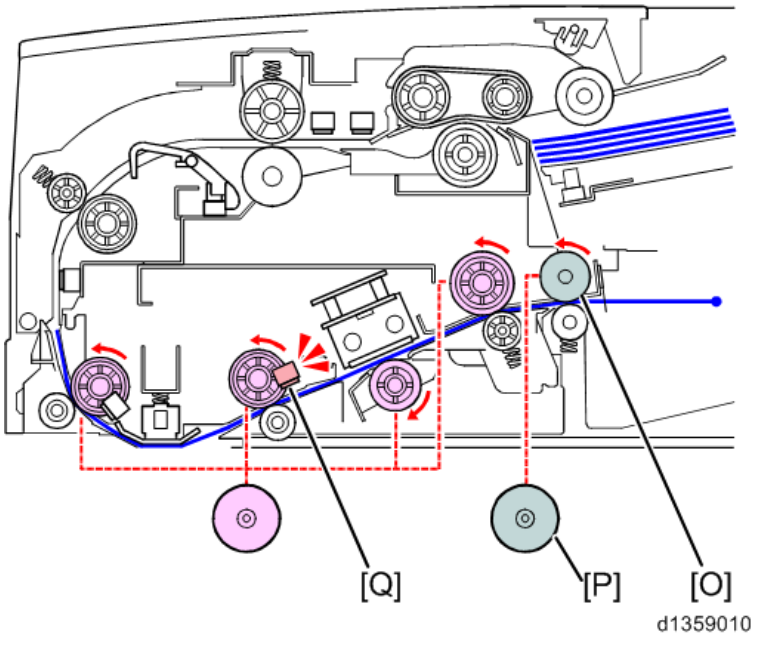


No.	Part
G	Entrance Motor
H	Relay Motor
I	Transport Roller

- When the interval sensor [M] detects the original, the transport motor [K] turns on and rotates the white roller [J] and feeds the original through the scan unit.
- After rotation of the entrance roller, the entrance motor speeds up slightly to reduce the gap between the trailing edge of the original in the scanning unit and the leading edge of the next original in the path.
- If this were allowed to continue, the differences in roller rotation speed could cause the originals to bend or buckle in the original path around the pre-scanning roller.
- To avoid this, when the interval sensor detects the leading edge of an original it slows the rotation of the scanning belt and the speed of the original in the nip of the pre-scanning roller slows.

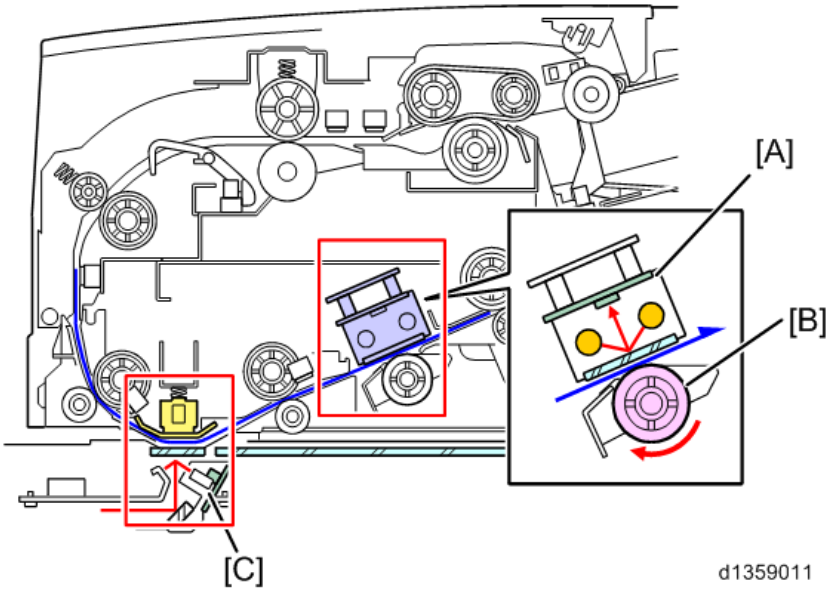


- When the original exit sensor [Q] detects the leading edge of the original, the exit motor [P] switches on and rotates the exit roller [O] which feeds the original out onto the original output tray.



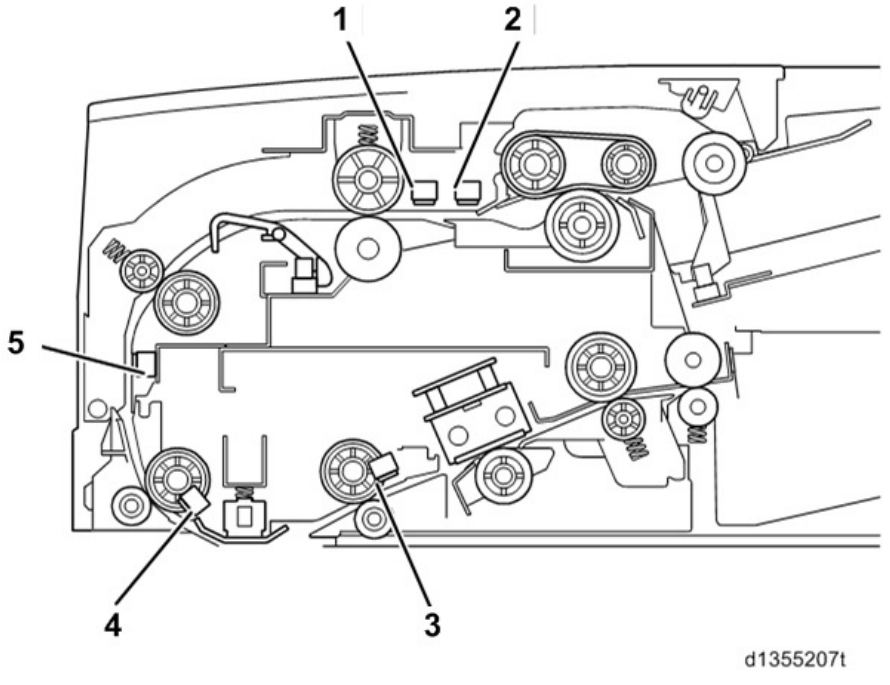
Original Scanning

This machine has a color CIS (Contact Image Sensor) so that it scan both sides of an original at the same time.



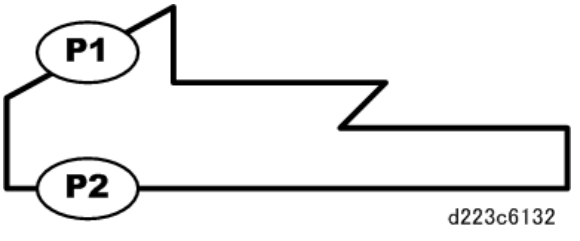
No.	Part
A	ADF
B	White Roller
C	Scanner LEDs (Exposure Lamps)

Jam Detection



No.	Part
1	Skew Correction Sensor
2	Separation Sensor
3	Original Exit Sensor
4	Registration Sensor
5	Interval Sensor

Jams are detected by the 5 sensors listed above. The detection conditions are shown in the table below.



Jam Display	Jam Name	Detection Condition

P1	Separation sensor late jam		Feed motor on but leading edge failed to arrive after motor on long enough to feed 224 mm.		
P1	Skew correction sensor late jam		Leading edge failed to arrive after separation sensor detection and enough time elapsed for the original to feed 46 mm.		
P1	Interval sensor late jam		Leading edge failed to arrive after entrance motor started and remained on long enough for the original to feed 172 mm.		
P!	Registration sensor late jam		Original failed to arrive after it was detected by the interval sensor and enough time elapsed for the original to feed 96 mm.		
P2	Original exit sensor late jam		Original failed to arrive after it was detected by the registration sensor and enough time elapsed for it to feed 130 mm.		
P1	Separation sensor lag jam		After the entrance roller started to pull the original out of the original tray after initial feeding, the original failed to move based on the calculations below.		
	A4/LT	L1	L2	L3	Std.
	Not	Not	Not	Not	226.8
	Detected	Not	Not	Not	253.8
	-	**Detected**	Not	Not	291
	-	-	**Detected**	Not	320
	-	-	-	**Detected**	432
	However, in some cases the operator may have specified another length longer than the standard value and that value will be used as standard (Std.).				

P1	Skew correction sensor lag jam	After the separation sensor detected the trailing edge, the trailing edge was still detected after enough time had elapsed for the original to feed 46 mm.
P!	Interval sensor lag jam	After the transport motor turned on, the trailing edge of the original was not detected after enough time had elapsed for the original to feed 82 mm.
P2	Registration sensor lag jam	After the interval sensor detected the trailing edge, the trailing edge was still detected after enough time had elapsed for the original to feed 93 mm.
P2	Original exit sensor late lag	After the registration sensor detected the trailing edge, the trailing edge was still detected after enough time had elapsed for the original to feed 130 mm.

ADF SC Errors

SC	Error Name	Probable Cause
700-01*	ADF bottom plate lift motor error	• No output from bottom plate position sensor • No output from bottom plate HP sensor • Bottom plate motor not operating • ADF main board problem

SC	Error Name	Probable Cause
700-02*	ADF original pick-up motor error	• No signal from the pickup HP sensor because sensor harness, connector loose, broken, defective. • Pick-up HP sensor defective • Pick-up motor harness, connector, is loose, broken, defective. • Pick-up motor defective. • ADF main board defective
700-04*	ADF feed motor error	• Paper jammed in paper path • Motor overload due to blockage • Motor harness loose, broken, defective • Motor bracket, motor installed incorrectly • Feed motor defective
700-05*	ADF entrance motor error	• Paper jammed in paper path • Motor overload due to blockage • Motor harness loose, broken, defective • Motor bracket, motor installed incorrectly • Entrance motor defective
700-06*	ADF transport motor error	• Paper jammed in paper path • Motor overload due to blockage • Motor harness loose, broken, defective • Motor bracket, motor installed incorrectly • Transport motor defective
700-07*	ADF Scanning Motor	• Paper jammed in paper path • Motor overload due to blockage • Motor harness loose, broken, defective • Motor bracket, motor installed incorrectly • Scanning motor defective

SC	Error Name	Probable Cause
700-09*	ADF exit motor error	• Paper jammed in paper path • Motor overload due to blockage • Motor harness loose, broken, defective • Motor bracket, motor installed incorrectly • Exit motor defective
702-04	ADF protection circuit error 4	• Defective motor or harness on the interlock circuit.
702-05	ADF protection circuit error 5	• Interlock power circuit harness, switch is loose, broken, defective. • Motor harness, connector is loose, broken, or defective. • Motor is defective.
151-00	Black level error: Back side	• CIS defective
152-00	White level error: Back side	• ADF CIS device defective • CIS white roller background or white plate damaged • CIS dirty or installed incorrectly
154-00	Scanner communication error: Back side	• Harness between the ADF PCB and CIS is loose, broken, defective • ASIC in CIS is defective • FROM in CIS is defective

*The machine issues a jam alert for first two occurrences, and then issues the SC code at the third occurrence. To recover, cycle the machine off/on.

SP6-901-001 (Setting to give priority to stackability)

To improve the alignment of the delivered originals, select to give priority to stackability in the following SP. This will reduce the originals' delivery speed and improve their stackability.

- **SP6-901-001** (Setting to give priority to stackability): for DF3100

  0: Higher throughput (default)

  1: Higher stackability