

SPDF DF3080
Machine Code: D683
Field Service Manual

July, 2014
Subject to change





Revision Lists

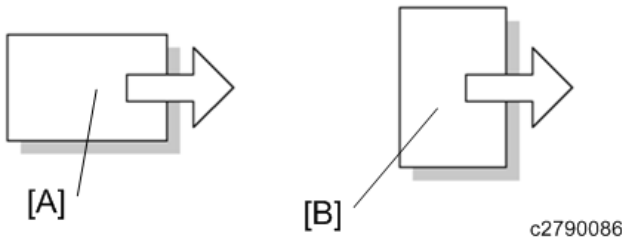
Version	Section	Details
1.00	-	Initial release of this document Created this manual for D146 series.
1.10	All	Revised all sections according to the release of D197 series
		Modified some parts name.
		Added the following sections: > ADF Covers > Document Feed Components > Electrical Components > Original Feed Drive
	Read This First > Safety and Symbols	Modified some icons.
	Replacement and Adjustment > ADF Removal	Modified Step 1 through Step 6.
	Replacement and Adjustment > Platen Adjustment	Changed the name for fastener in Step 3.
	Replacement and Adjustment > ADF Covers > ADF Rear Cover	Modified items need to be removed in Step 3.
	Replacement and Adjustment > Document Feed Components > Original Feed Unit	Modified Step 3.
	Replacement and Adjustment > Document Feed Components > Pick-up Roller / Transport Belt	Added a Note for Step 2.
	Replacement and Adjustment > Document Feed Components > White Roller	Added this section.
	Replacement and Adjustment > Electrical Components > CIS Unit	Modified the procedure.

Version	Section	Details
	Replacement and Adjustment > Electrical Components > ADF Pick-up Roller Lift Motor / ADF Transport Motor	Added item needs to be removed in Step 2.
	Replacement and Adjustment > Electrical Components > Original Registration Sensor	Deleted unnecessary part in Step 4.
	Replacement and Adjustment > Electrical Components > Original Exit Sensor	Added new steps into Step 1 and Step 2. Modified the description of Step 5.
	Replacement and Adjustment > Electrical Components > Separation Sensor / Skew Correction Sensor	Deleted some steps.
	Replacement and Adjustment > Electrical Components > Original Set Sensor	
	Replacement and Adjustment > Electrical Components > A4 LEF/LT LEF Sensor	
	Replacement and Adjustment > Original Feed Drive > ADF Entrance Motor	Modified the procedure.
	Replacement and Adjustment > Original Feed Drive > ADF Exit Motor	Added Step 3.
	Replacement and Adjustment > Original Feed Drive > ADF Feed Motor	Modified Step 2 and its picture.

Safety and Symbols

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

	Clip ring
	Screw
	Connector
	Clamp
SEF	Short Edge Feed
LEF	Long Edge Feed



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

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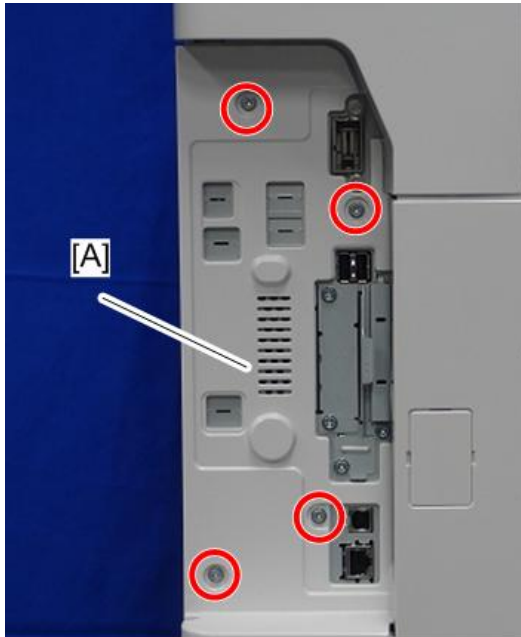
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1. Replacement and Adjustment

ADF Removal

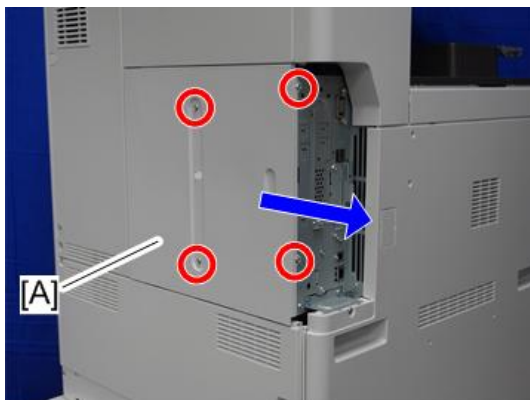
1

1. Controller cover [A] (⚙️ ×4).



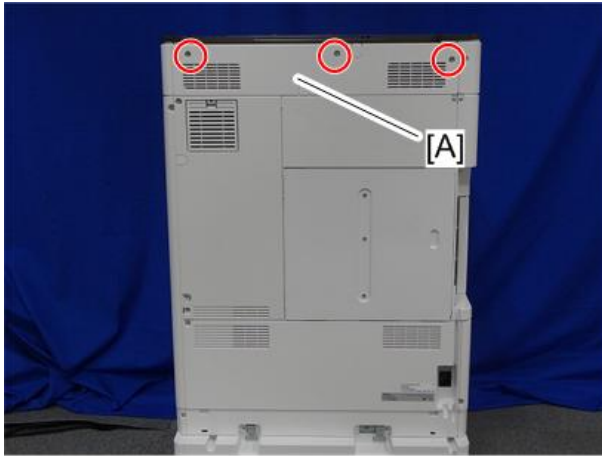
d197f0042

2. Controller rear cover [A] (⚙️ ×4)



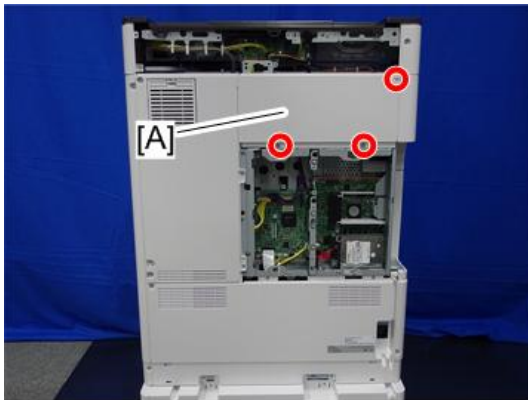
d197f0048

3. Scanner rear cover [A] (🔩×3)



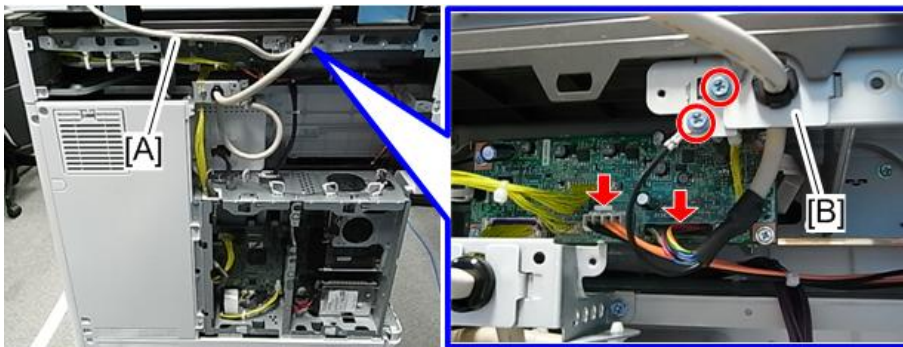
d197f0051

4. Rear left cover [A] (🔩×3)



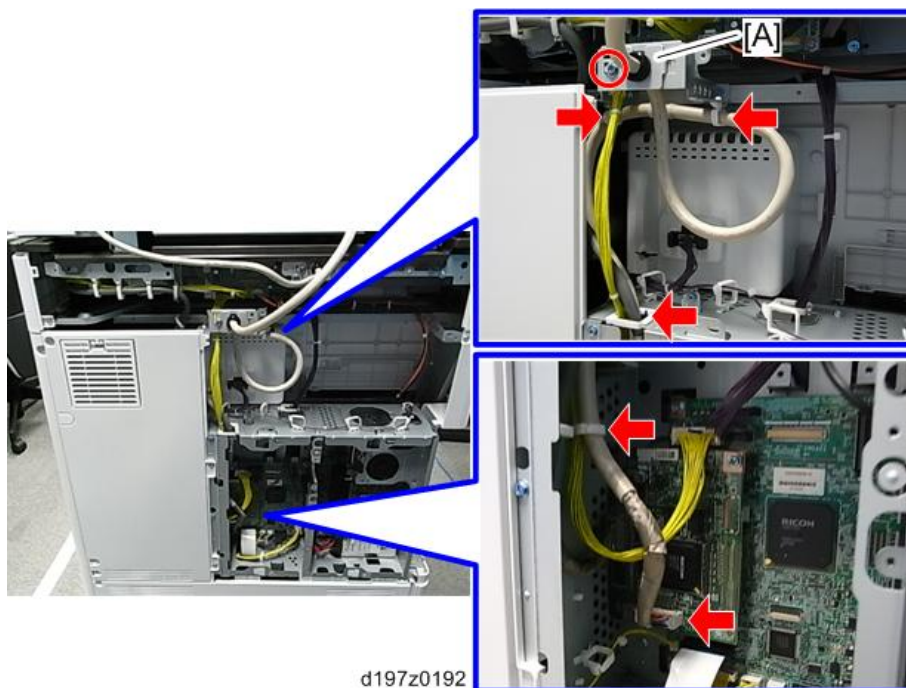
d197f0050_1

5. Disconnect the I/F cable [A] along with the bracket [B] (🔩×2, 📦×2).



d197z0191

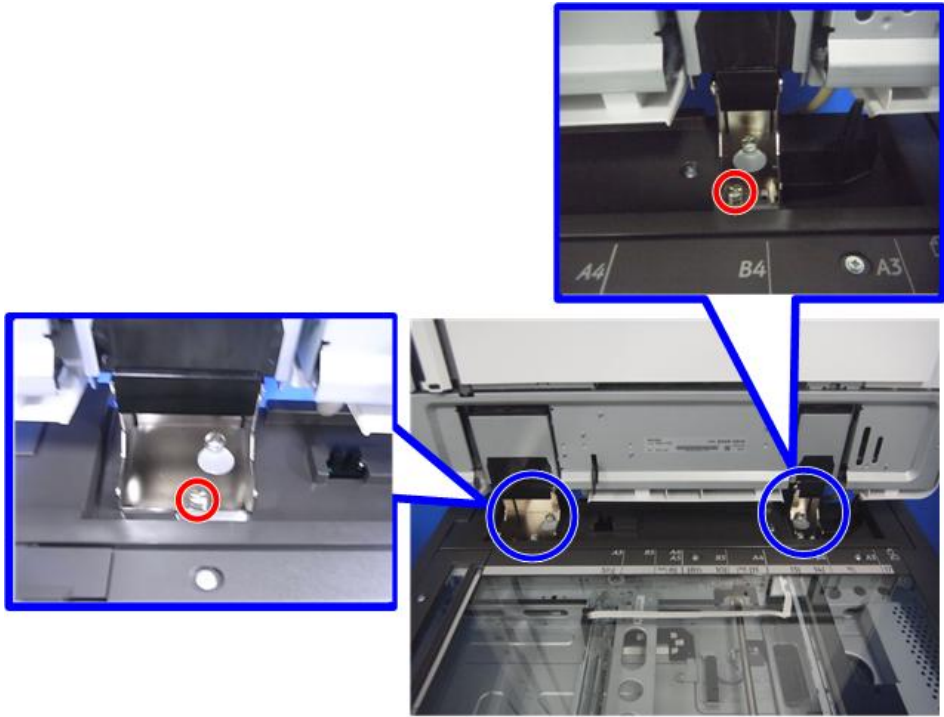
6. CIS image cable along with the bracket [A] (⌀×1, ☐×1, ⚙×4).



7. Open the ADF [A].



8. Remove the fixing screws of the ADF (⌀×2).



d1463153

9. While holding the left and right sides of the ADF, lift up to remove it.

↓ Note

- Because of the weight of the ADF, handle with care.

Adjustment after Replacing the ADF

CIS RGB Adjustment

1

Enter the four-digit numeric values for RGB that are listed on the paper that comes with the ADF into the following SP.

R: SP4-712-001 (CIS GB Adj Value: R)

G: SP4-713-001 (CIS GB Adj Value: G)

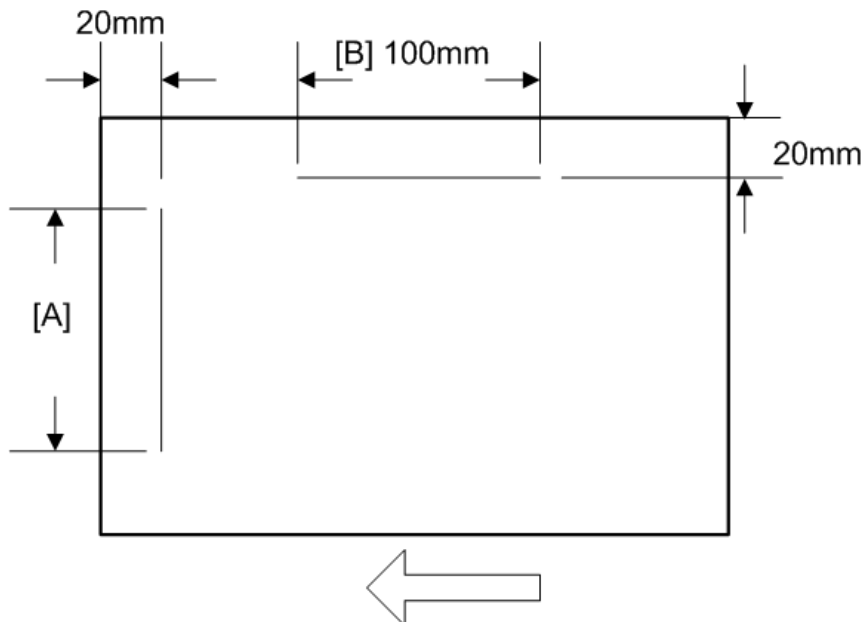
B: SP4-714-001 (CIS GB Adj Value: B)

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.



d1352773

*The arrows indicate the direction of feed.

2. Copy the original and make sure that the position of the line [A] is within 0 ± 1 mm
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)

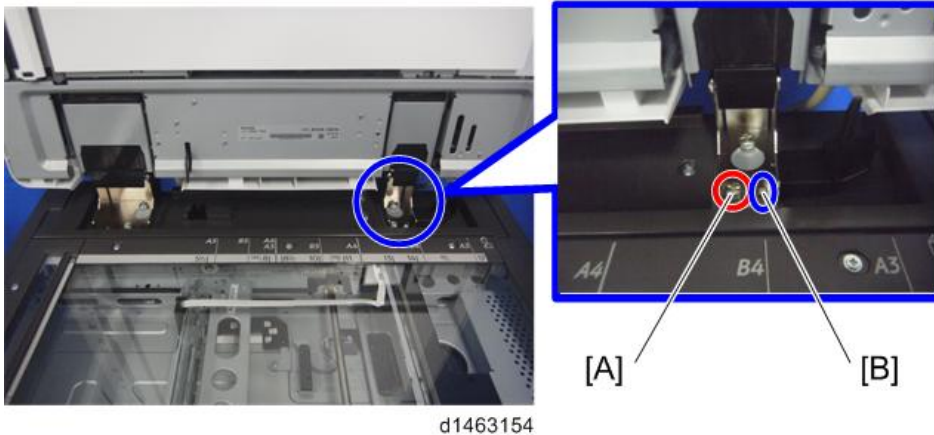
1. Copy the original and make sure that the position of the line [B] is within $0\pm 2\text{mm}$.
2. If not within the standard, adjust with the SP modes.

Checking the skew

SP6-006-012 (ADF Adjustment 1st Buckle (1-Pass))

SP6-006-013 (ADF Adjustment 2nd Buckle (1-Pass))

1. Make sure that the difference between both end positions of the line [A] is within $0\pm 2\text{mm}$.
2. If not within the standard, change the position of the fixing screw [A] to the long hole [B] at the right hinge.



Checking the magnification

SP6-017-001 (DF Magnification Adj.)

1. Copy the original and make sure that the length of the line [B] is within $100\pm 1\text{mm}$.
2. If not within the standard, adjust with the SP mode.

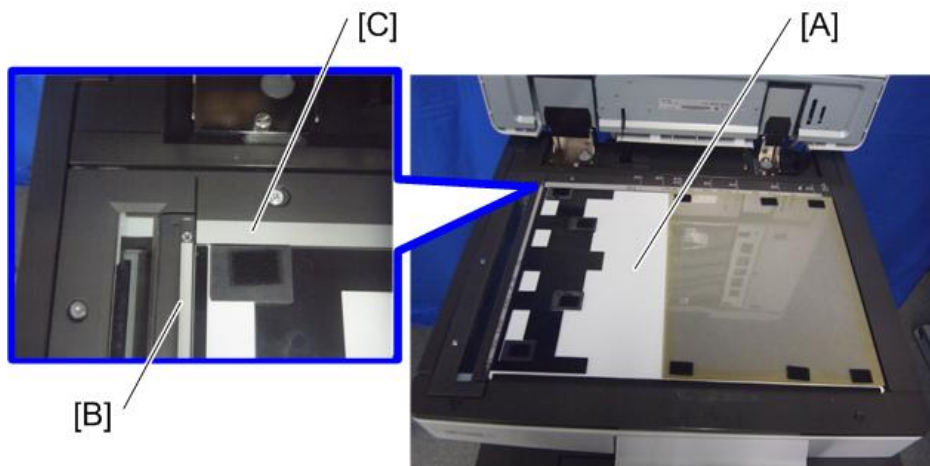
Platen Adjustment

1. Open the ADF and remove the white cover (fabric fastener × 10).



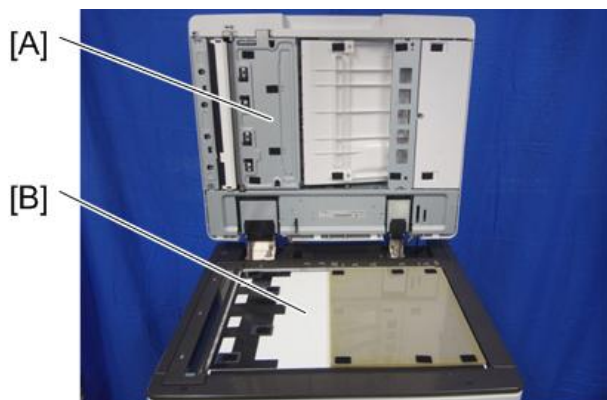
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2. Put the white cover [A] in the correct position on the exposure glass, aligning it with the glass cover [B] and the rear scale [C].



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3. Close the ADF [A] slowly and paste the ADF and the white cover [B] with the fabric fastener.



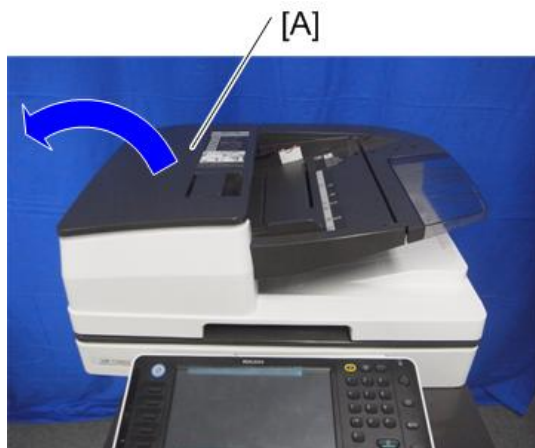
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ADF Covers

ADF Front Cover

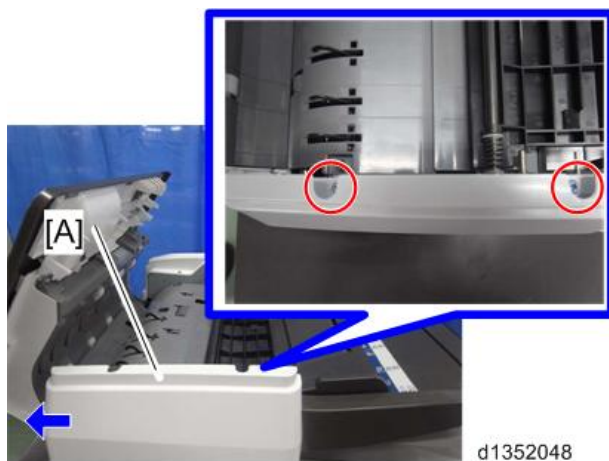
1

1. Open the feed cover [A].



d1463157

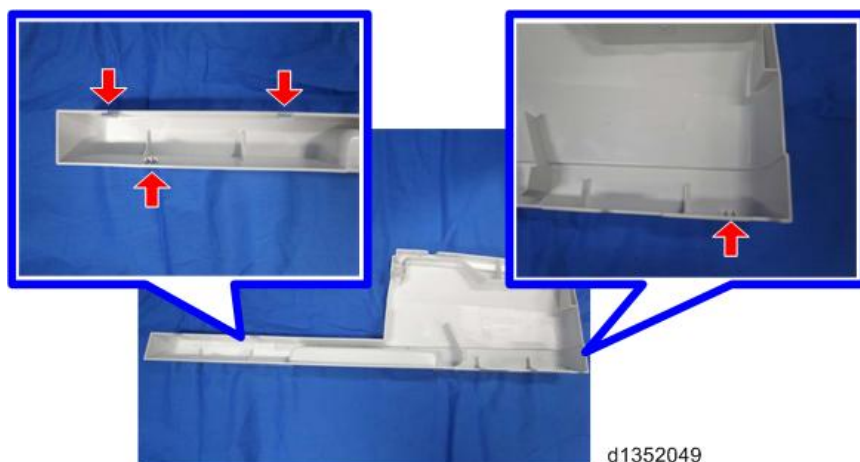
2. Slide the ADF front cover [A] to the left (hook×2, hook×4).



d1352048

Note

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



d1352049

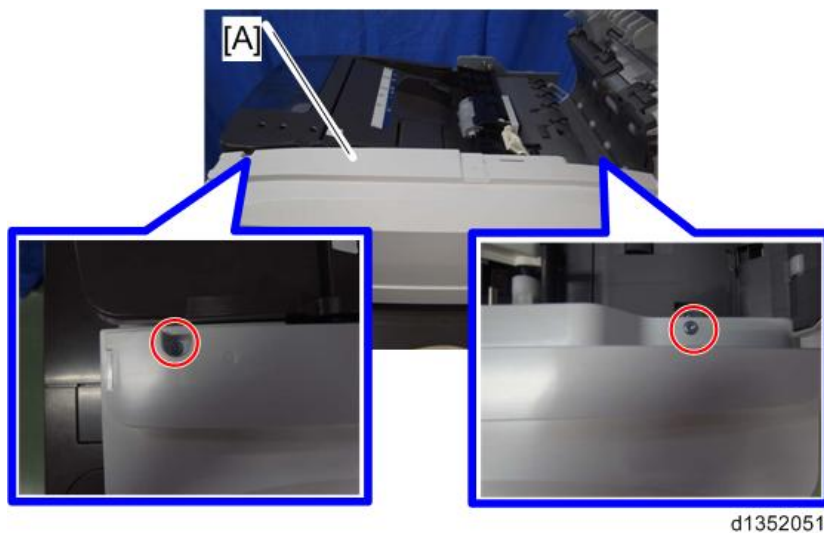
ADF Rear Cover

1. Open the feed cover [A].
2. Cover [A] (⌀×1).



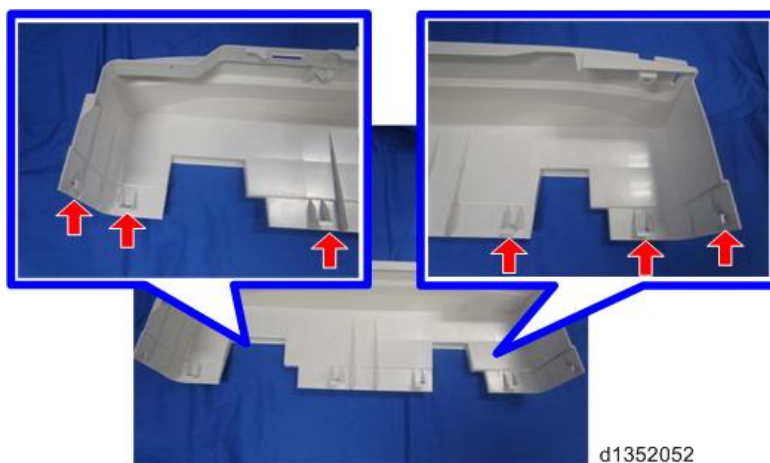
d1352050

3. Lift off the rear cover [A] (⌀×2, hook×6).



Note

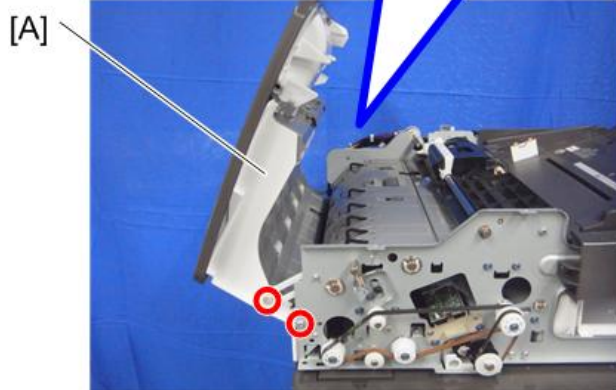
- Check the position of the hooks in the photo below before removing.



Feed Cover

1. ADF front cover (page 15).
2. ADF rear cover (page 16).

3. Feed cover [A] (⌀×3, ☐×1, ⚙×2).



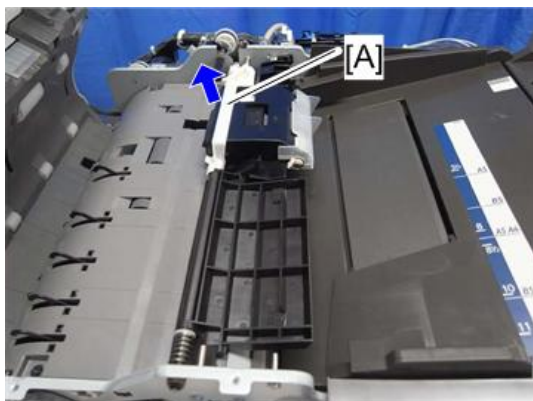
d1463158

Document Feed Components

Original Feed Unit

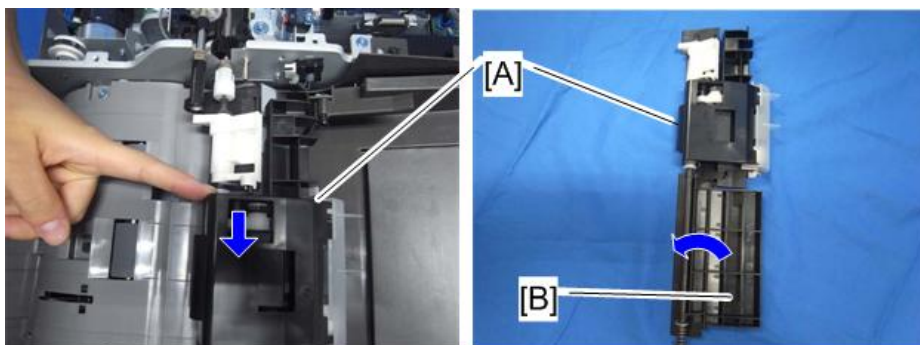
1

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



d1352054

3. Pull the original feed unit [A] forward to release the back side of the shaft.
 - Open the original lift plate [B] when pulling the original feed unit forward. This makes it easier to remove the original feed unit.



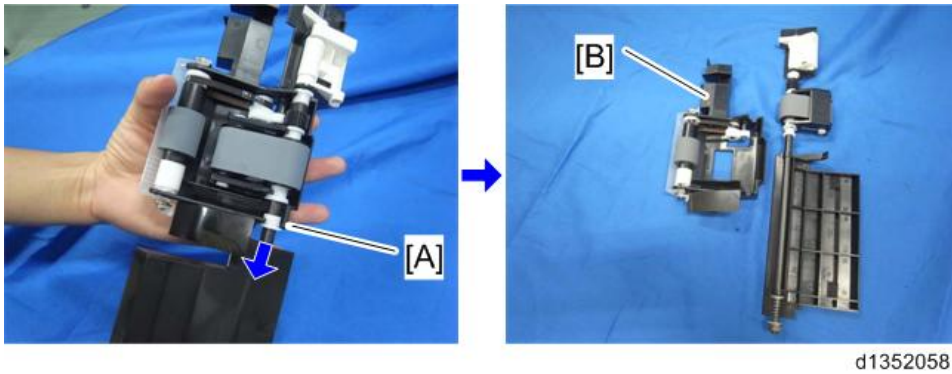
d135z0001

4. Remove the original feed unit.

Pick-up Roller / Transport Belt

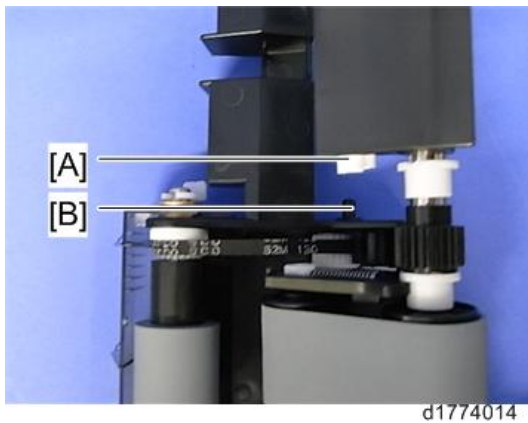
1. Original feed unit (page 19).

2. Slide the resin bushing [A], and then remove the pick-up roller unit [B].



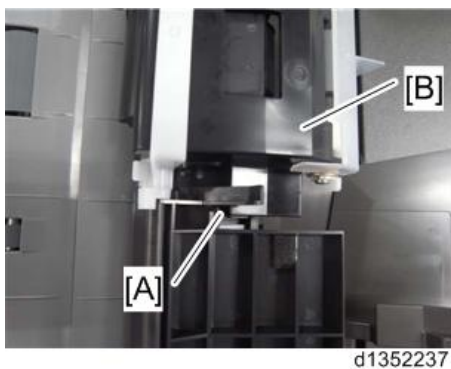
↓ Note

- When reassembling this unit, make sure that the boss [B] of the pick-up roller unit is in the hole [A] of the original lift plate.

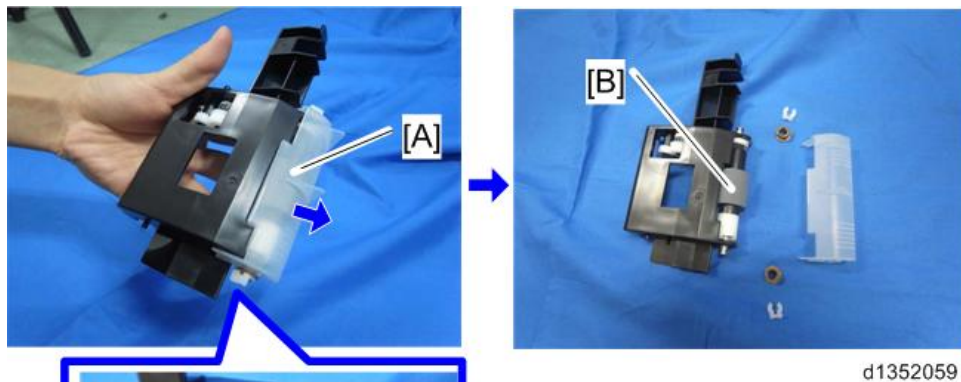


↓ Note

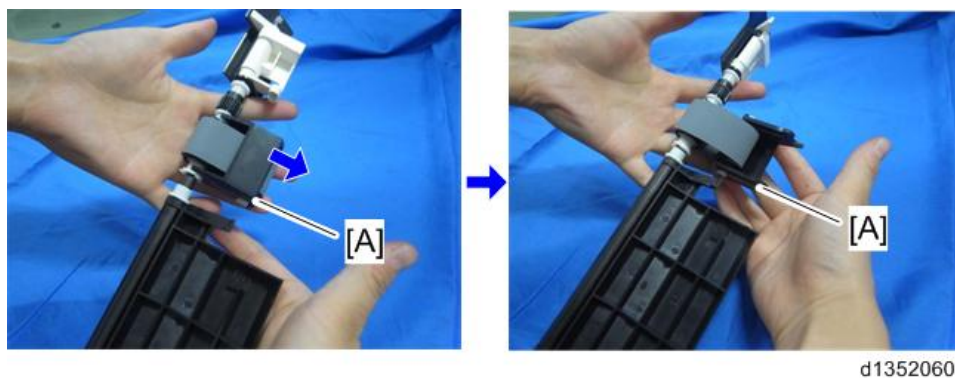
- When reassembling this unit, make sure that the tab on the front guide plate [A] is above the pick-up roller [B].



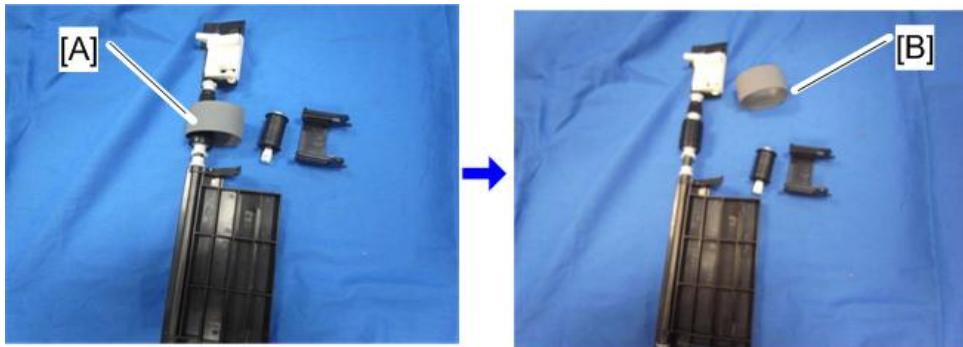
3. Pick-up roller cover [A] and pick-up roller [B] (⌀×2, bushing×2, one-way clutch×1) .



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



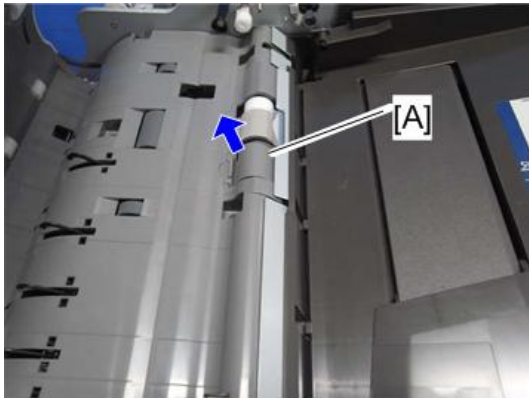
5. Remove the feed belt [B] from the feed belt holder [A].



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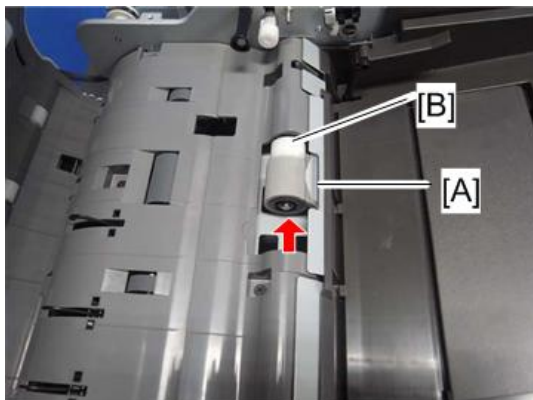
ADF Separation Roller

1. Open the feed cover.
2. Original feed unit (page 19).
3. ADF separation roller cover [A].



d1352056

4. ADF separation roller [A] and torque limiter clutch [B] (⌚×1).



d1352057

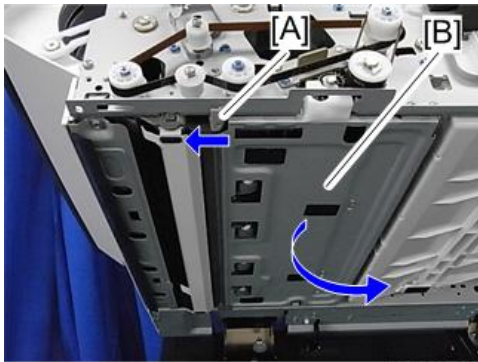
White Roller

1. ADF Front Cover (page 15).
2. White cover [A].



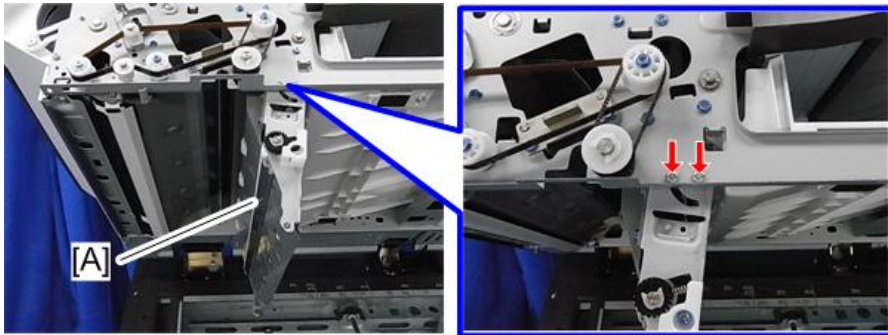
d197z0488

3. Slide the tab [A], and open the exit unit [B].



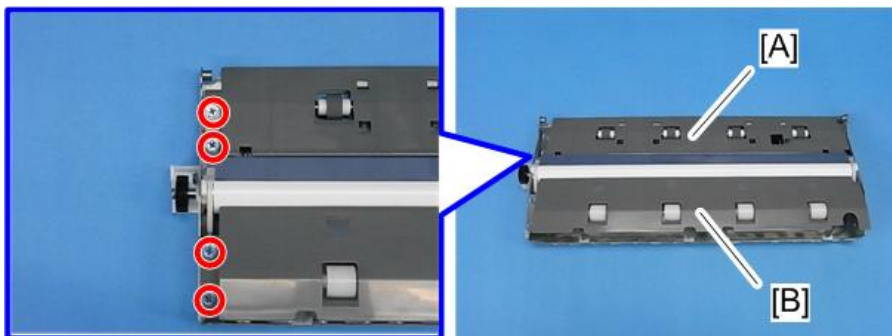
d197z0489

4. Exit unit [A] (⌚×2).



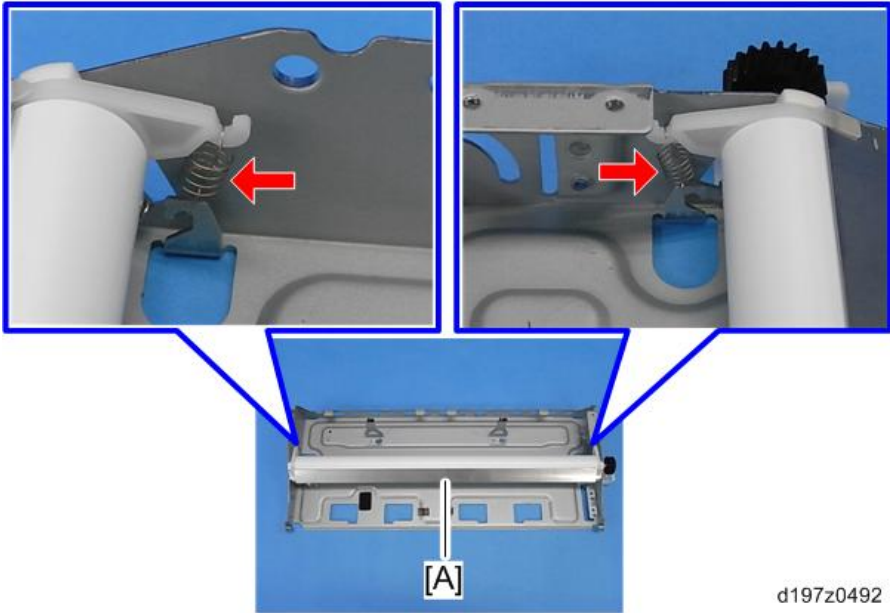
d197z0490

5. Exit lower guide [A], and the CIS exit lower guide unit [B] (⌚×2 each).



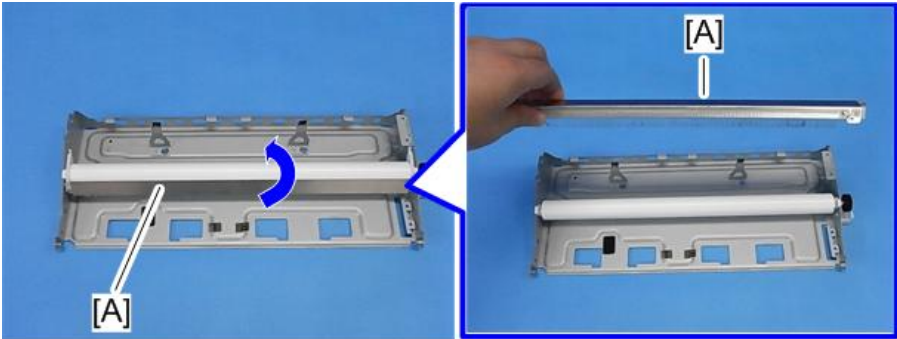
d197z0491

6. Two springs at the both ends of CIS entrance lower guide unit [A] ( ×2).



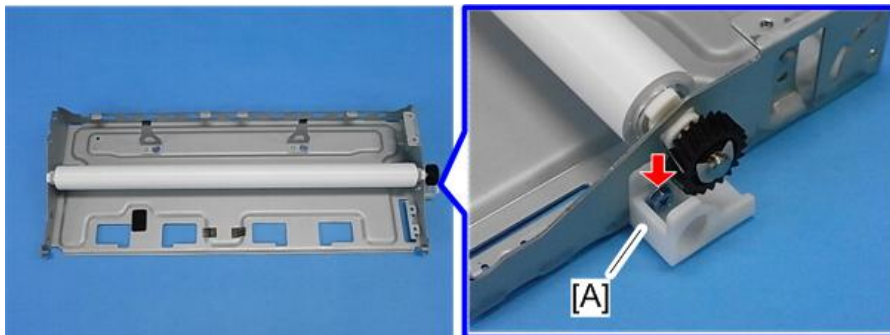
d197z0492

7. CIS entrance lower guide unit [A].



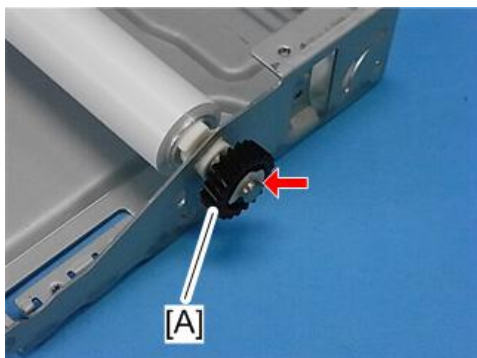
d197z0493

8. Bracket [A] (🔩×1).



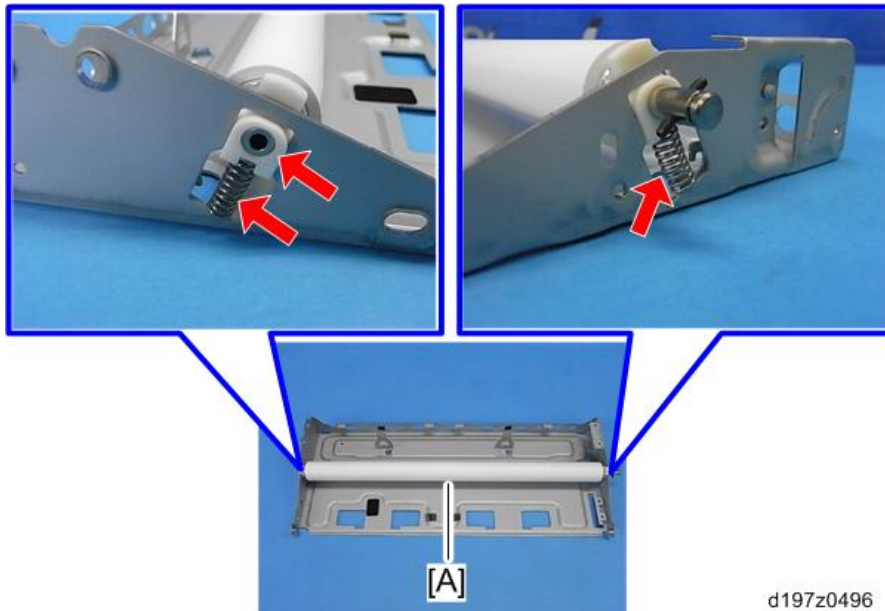
d197z0494

9. Gear [A] (🔩×1).

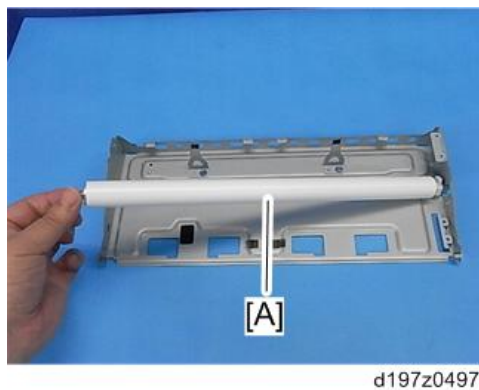


d197z0495

10. Springs on both sides of the white roller [A], and the bearing at the left side of the unit ( ×1 each, bearing × 1).



11. White roller [A].



Electrical Components

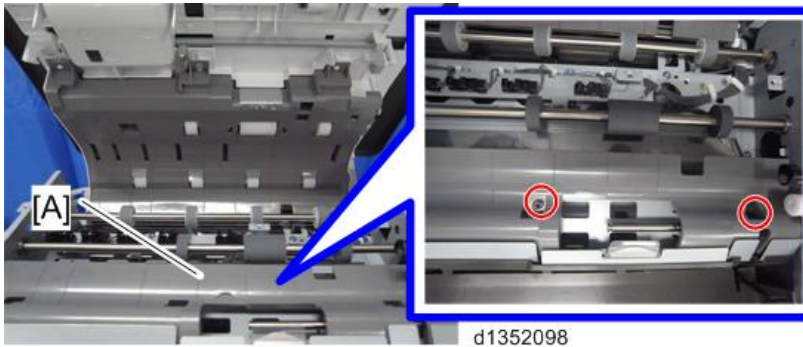
1

CIS Unit

1. ADF Separation Roller (page 22).
2. ADF front cover (page 15).
3. Guide plate (large) [A] (🔩×3).



4. Guide plate (small) [A] (🔩×2).

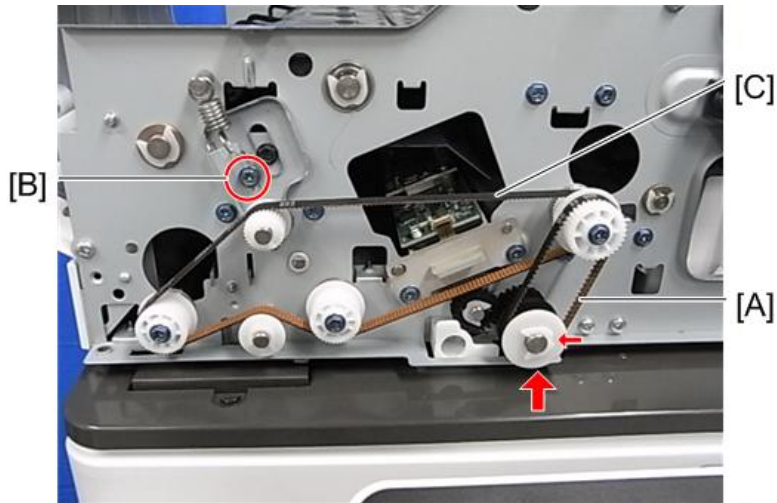


5. Guide plate [A] (🔩×1).



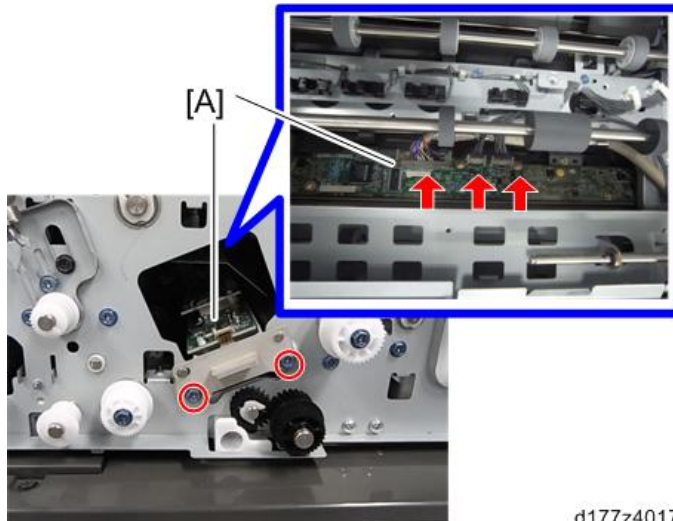
6. Short timing belt [A] (⚙️ × 1, pulley × 1)

7. Loosen the screw [B], and then remove the long timing belt [C].



d177z4016

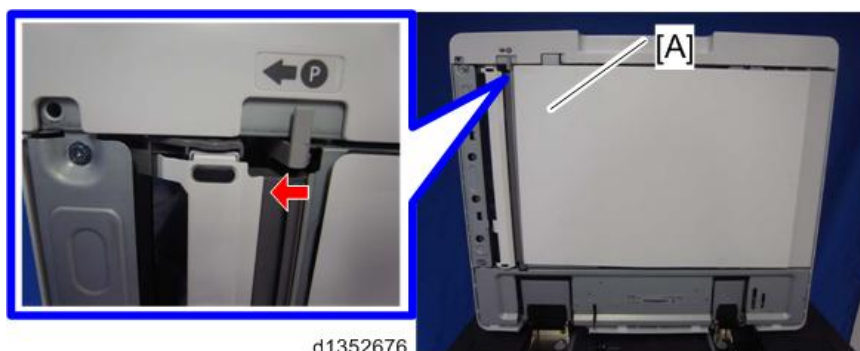
8. CIS unit [A] (⚙️ × 2, 📦 × 3)



d177z4017

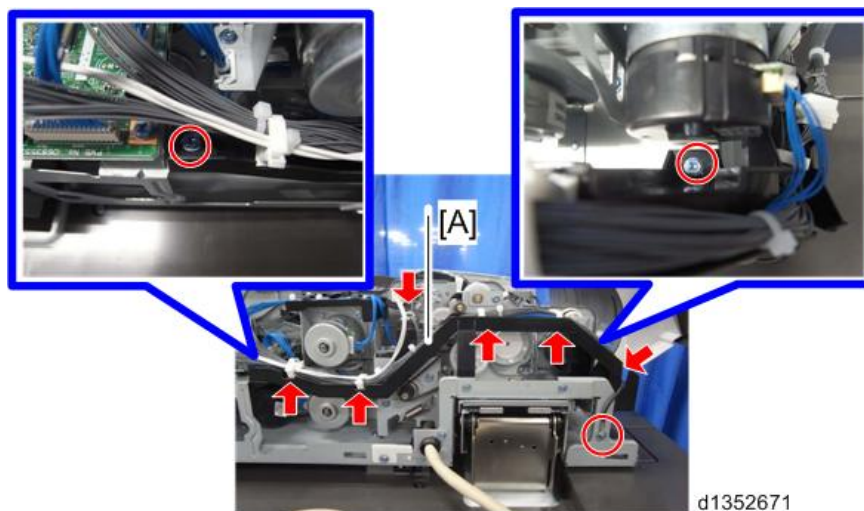
⚠️ Note

- To prevent scratches on the surface of the CIS glass, removal of the CIS unit must be done with the white cover [A] open.

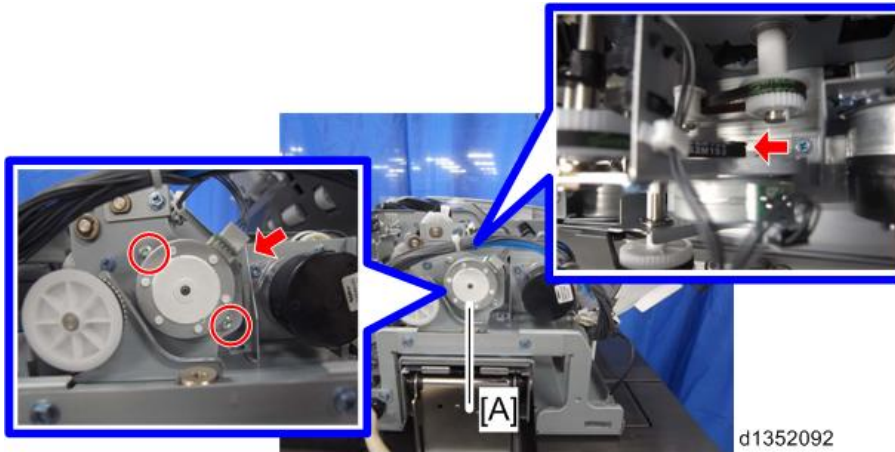


ADF Pick-up Roller Lift Motor / ADF Transport Motor

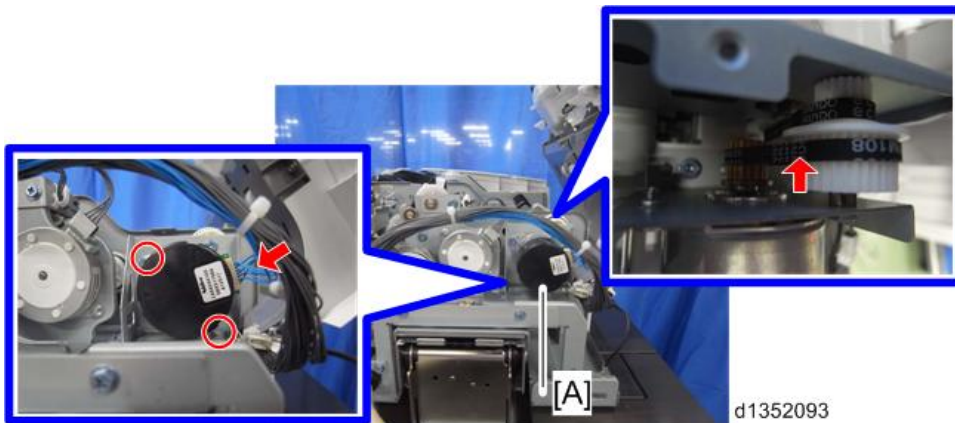
1. ADF rear cover (page 16).
2. Frame (black) [A] (⌀×3, ⌀×6).



3. ADF pick-up roller lift motor [A] (⚙️×2, 📦×1, timing belt×1).



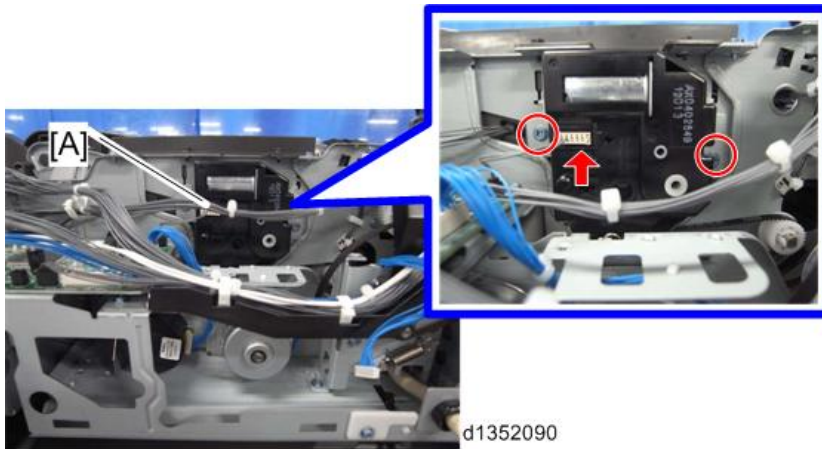
4. ADF transport motor [A] along with the bracket (⚙️×2, 📦×1, timing belt×1).



ADF Bottom Plate Lift Motor

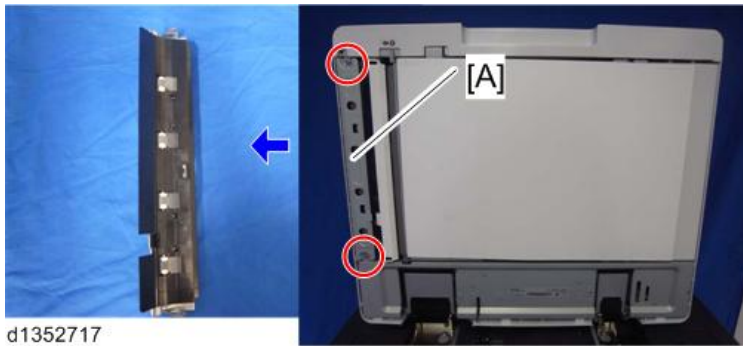
1. ADF entrance motor along with the frame (page 46).

2. ADF bottom plate lift motor [A] (⚙️ x2, 📦 x1).



Original Registration Sensor

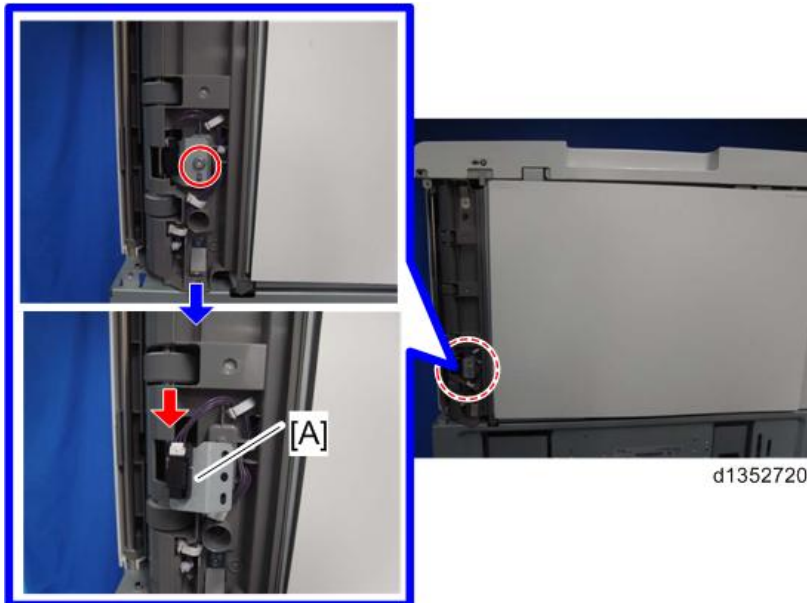
1. Entrance lower guide [A] (⚙️ x2).



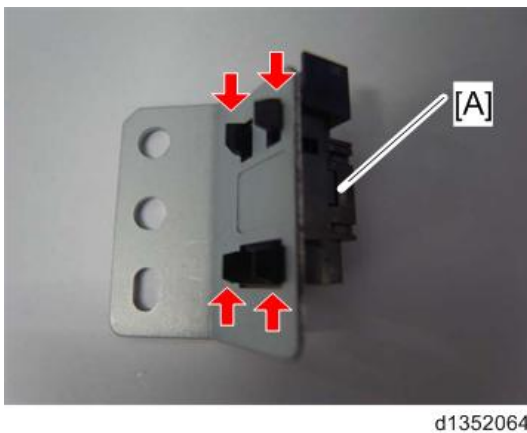
2. Scanning guide plate [A] (hook x1).



3. Original registration sensor [A] along with the bracket (⚙️ ×1, 📦 ×1).



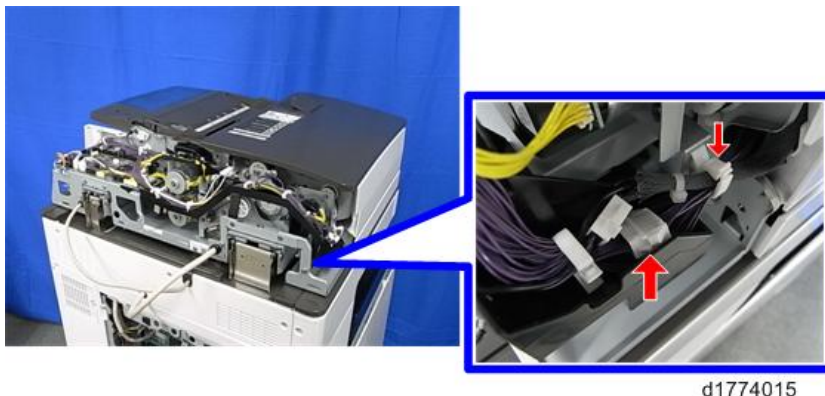
4. Original Registration Sensor [A].



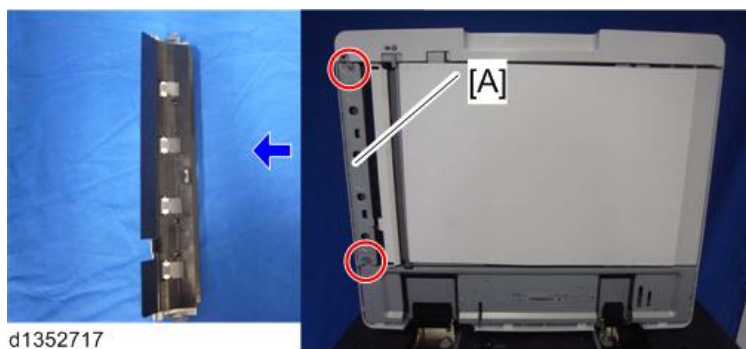
Original Exit Sensor

1. ADF rear cover (page 16).

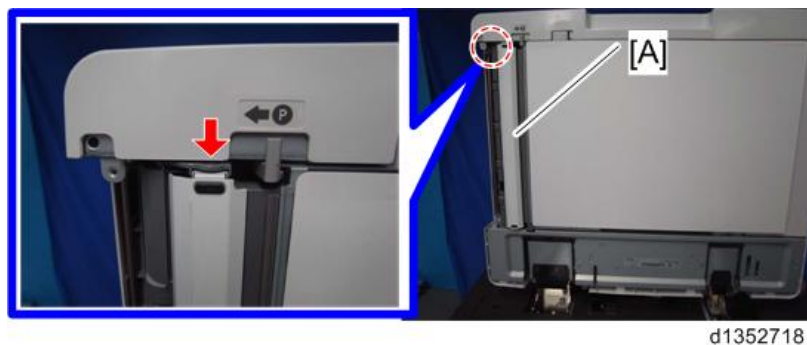
2. Disconnect the relay harness [A] (🔌×1, 📦×1).



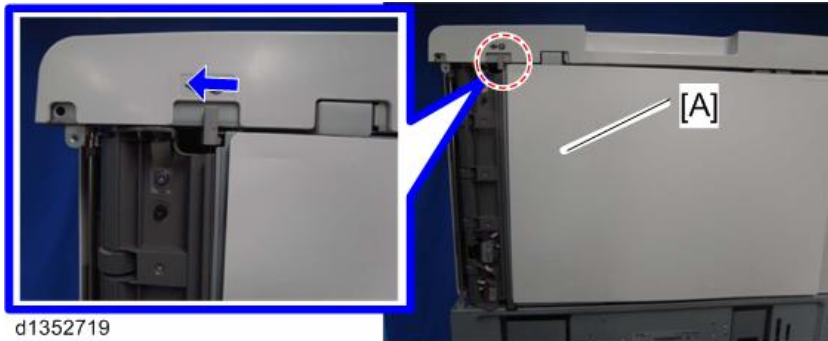
3. Entrance lower guide [A] (🔧×2).



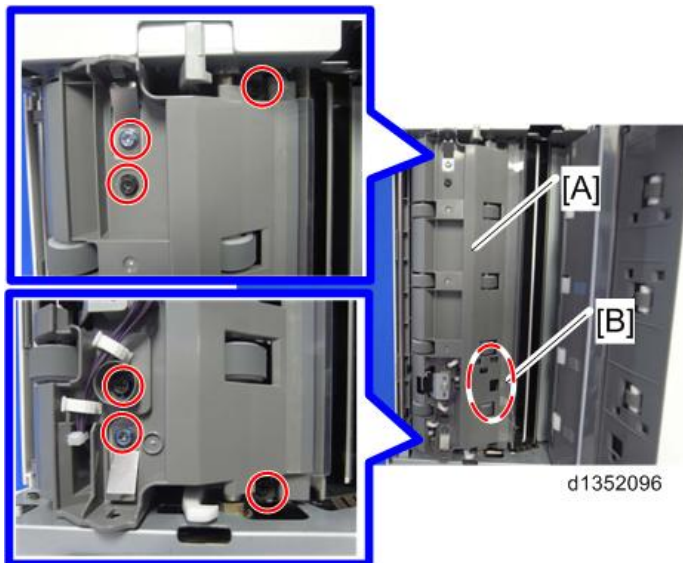
4. Scanning guide plate [A] (hook×1).



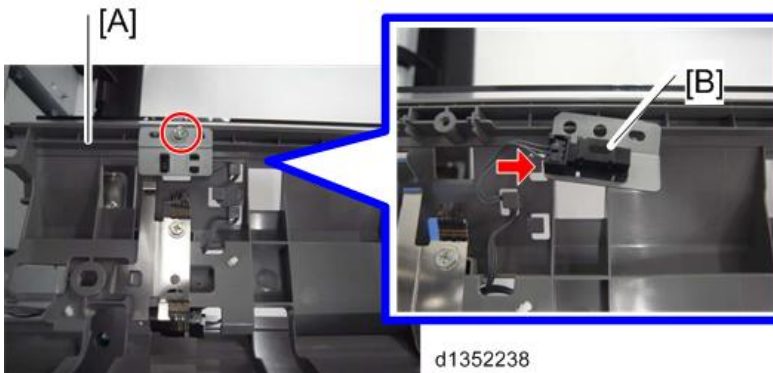
5. Slide the tab to the left and then open the white cover [A].



6. Remove the original exit sensor [B], which is mounted on the upper guide [A] (⌀ × 6).



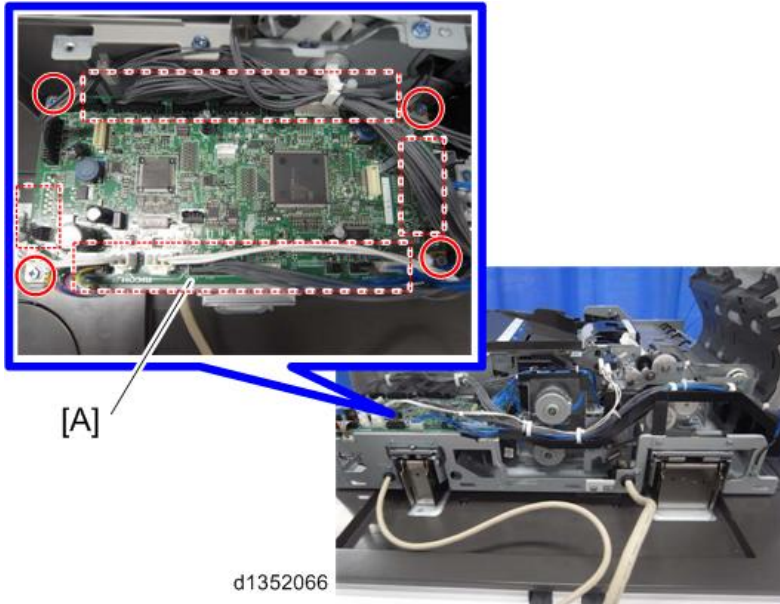
7. Remove the original exit sensor [B] from the upper guide [A] (⌀ × 1, ⌀ × 1).



ADF Control Board

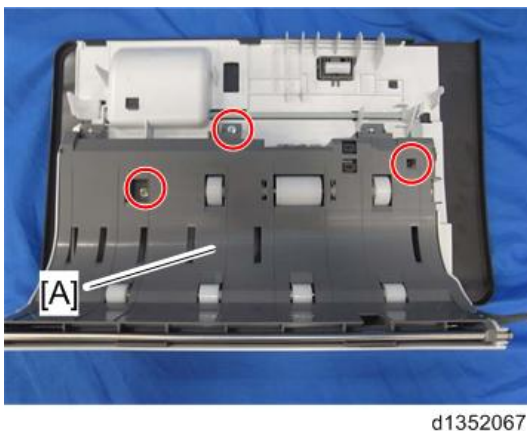
1

1. ADF rear cover (page 16).
2. ADF control board [A] (⚙️×4, 📦×all).

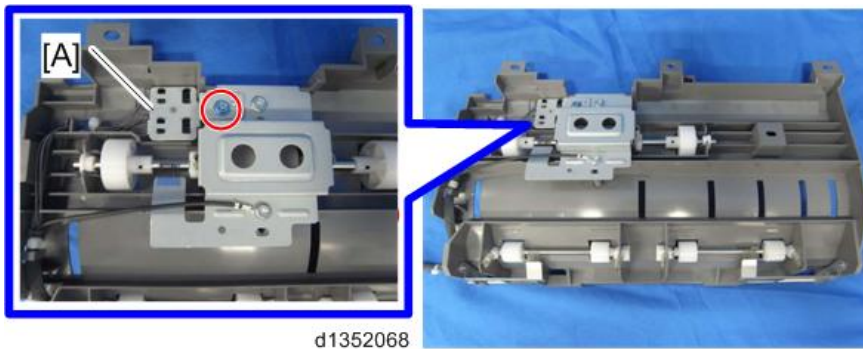


Separation Sensor / Skew Correction Sensor

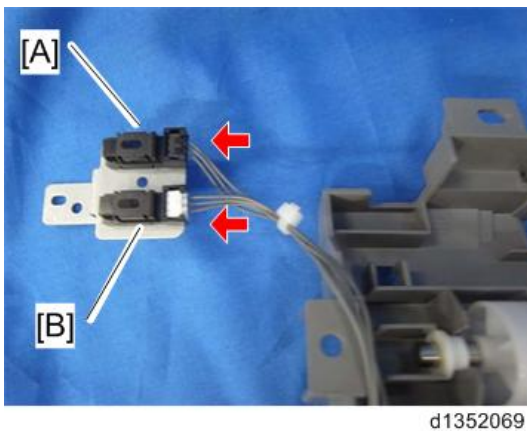
1. Feed cover (page 17).
2. Feed upper guide [A] in the feed cover (⚙️×3).



3. Remove the sensors along with the bracket [A] (🔧×1).

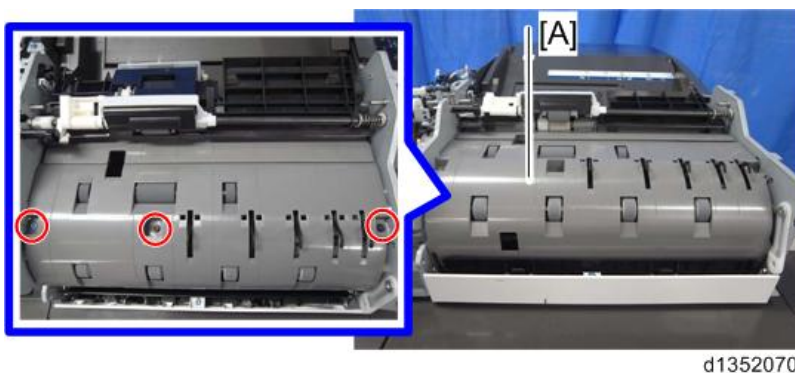


4. Separation Sensor [A] and Skew Correction Sensor [B] (🔧×1 each).

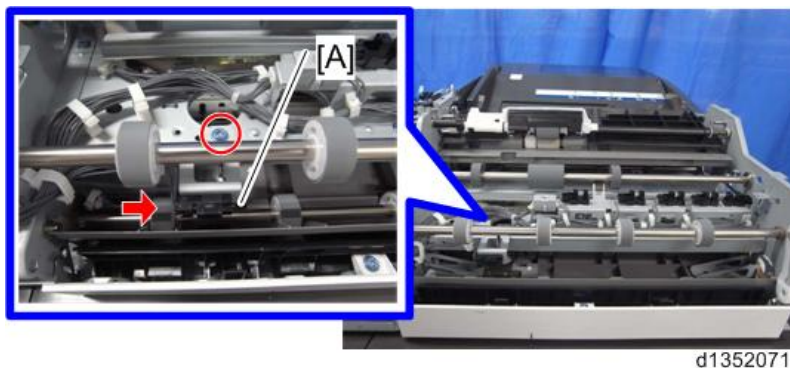


Original Width Sensor / Interval Sensor

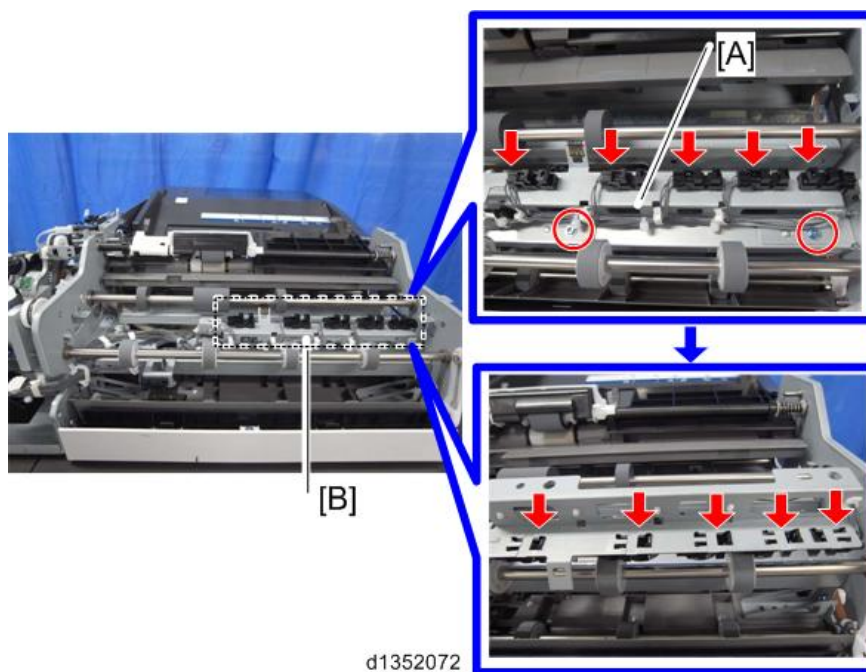
1. Feed cover (page 17).
2. Guide plate [A] (🔧×3).



3. Interval sensor [A] (🔩×1, 📦×1).

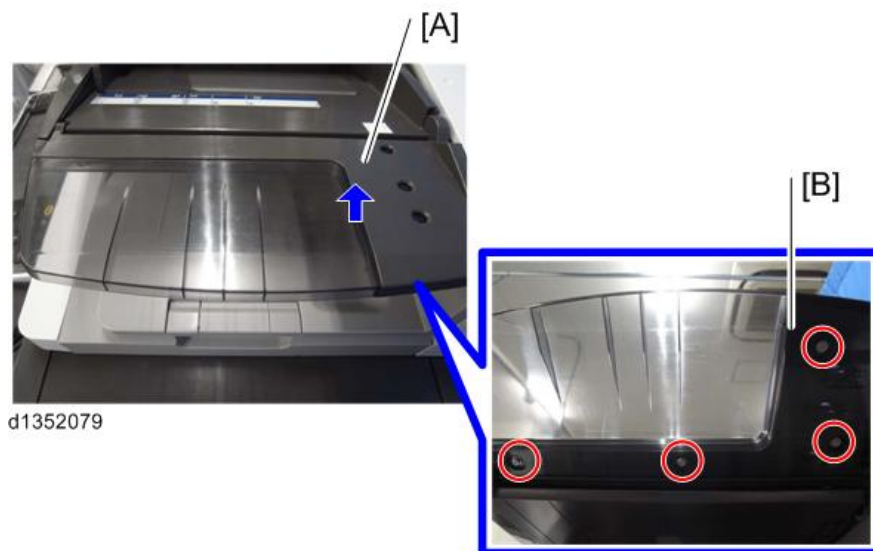


4. Remove the original width sensor guide plate [A] (🔩×2), then remove the original width sensors [B] (📦×1 each).

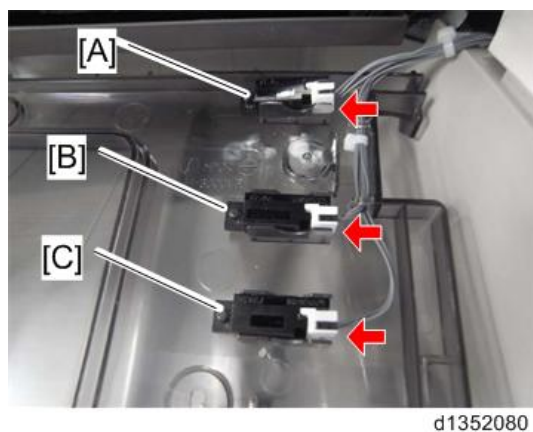


B5 Width Sensor / A4 Width Sensor / LG Width Sensor

1. Raise the document tray [A], then remove the lower cover [B] (⚙️ ×4).



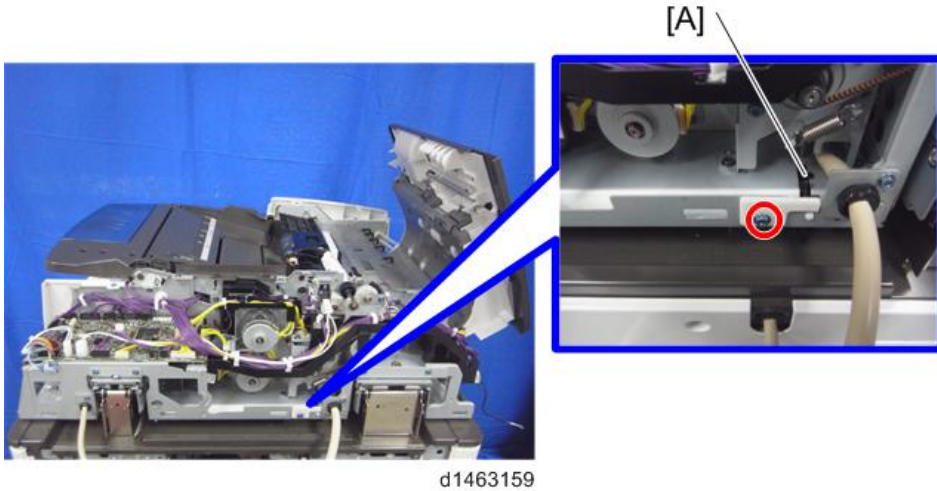
2. B5 Width Sensor [A] (⚙️ ×1).
3. A4 Width Sensor [B] (⚙️ ×1).
4. LG Width Sensor [C] (⚙️ ×1).



APS Feeler

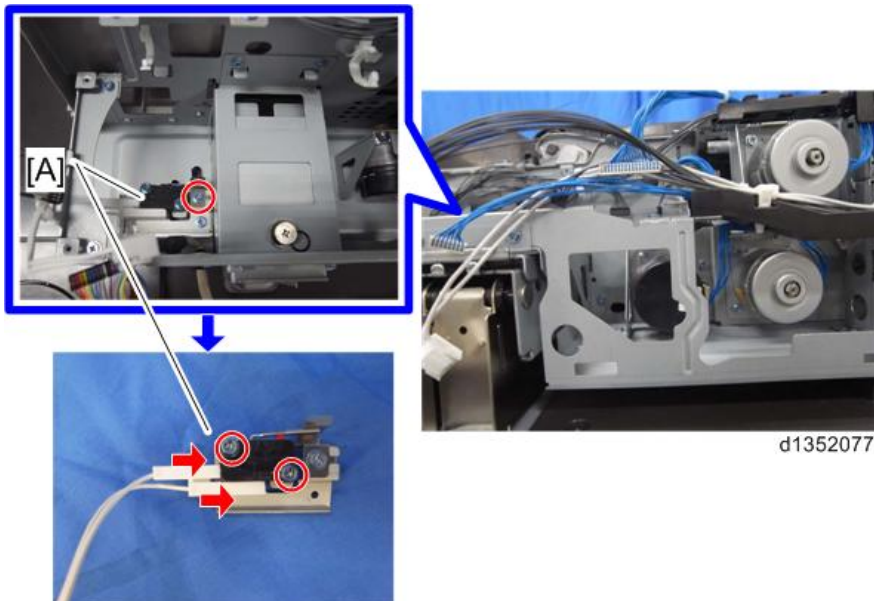
1. ADF rear cover (page 16).

2. APS Feeler [A] (🔩×1).

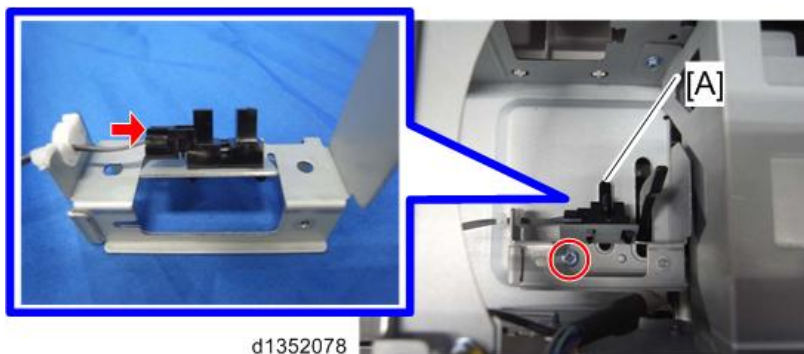


ADF Lift-Up Interlock SW / Lift-Up Sensor

1. ADF Control Board (page 36).
2. ADF lift-up interlock SW [A] along with the bracket (🔩×3, 📦×2).

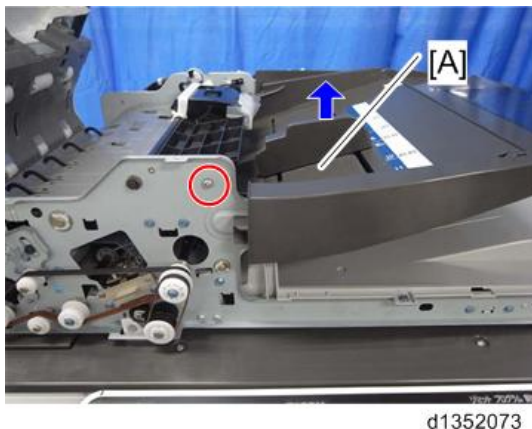


3. Lift-Up Sensor [A] along with the bracket (⚙️ ×1, 📦 ×1).

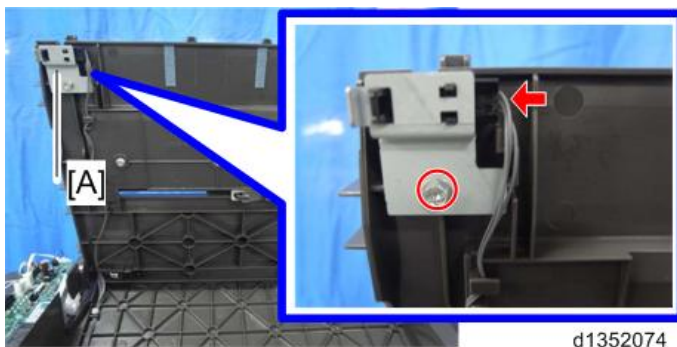


Original Set Sensor

1. ADF front cover (page 15).
2. Original feed unit (page 19).
3. Remove the screw and raise the original tray [A] (⚙️ ×1).

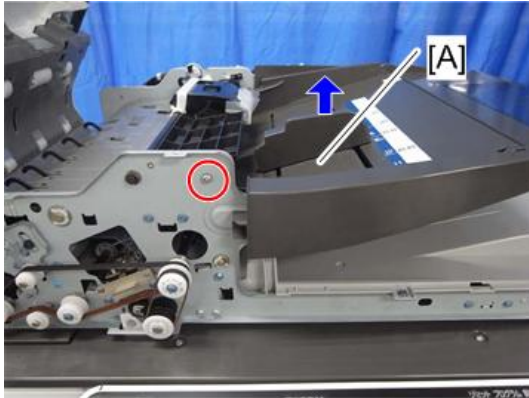


4. Original set sensor [A] (⚙️ ×1, 📦 ×1).



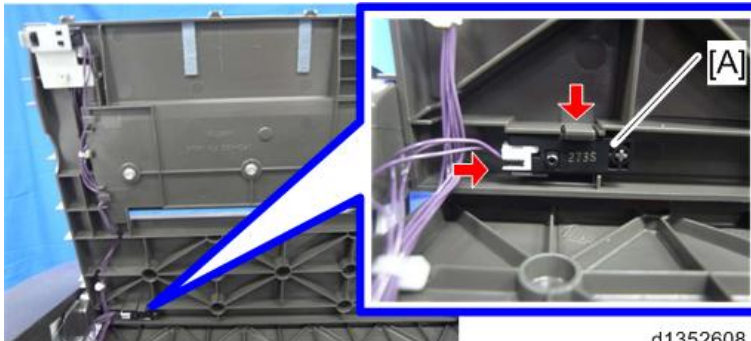
A4 LEF/LT LEF Sensor

1. ADF front cover (page 15).
2. Original feed unit (page 19).
3. Remove the screw and raise the original tray [A] (hook × 1).



d1352073

4. A4 LEF/LT LEF Sensor [A] (hook × 1, box × 1).

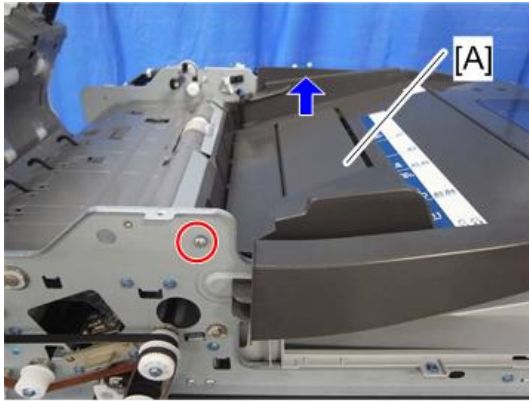


d1352608

Bottom Plate HP Sensor

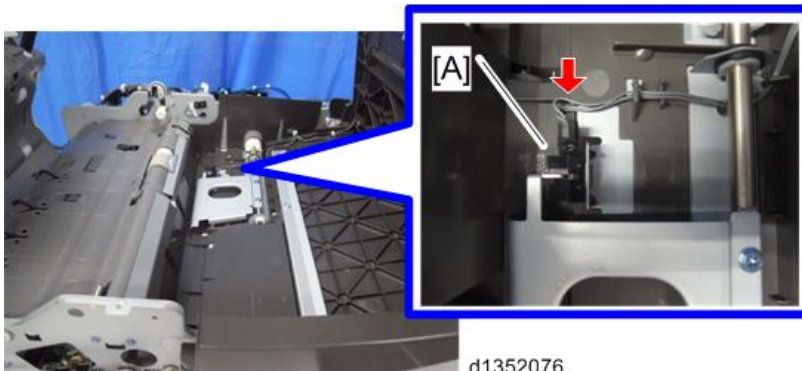
1. Original feed unit (page 19).
2. ADF front cover (page 15).

3. Remove the screw and raise the original tray [A] (⚙️ ×1).



d1352075

4. Bottom plate HP sensor [A] (📦 ×1).

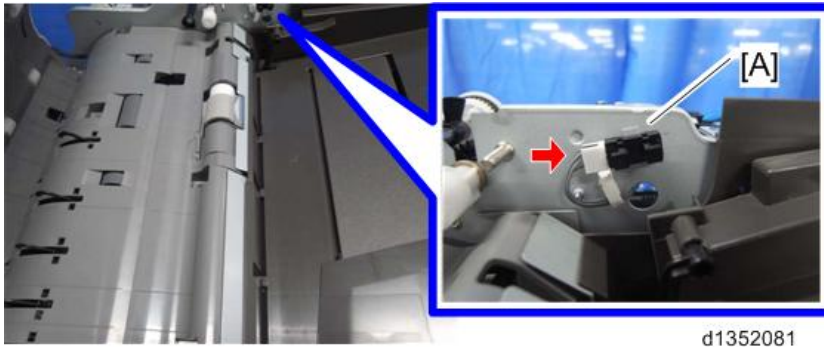


d1352076

Bottom Plate Position Sensor

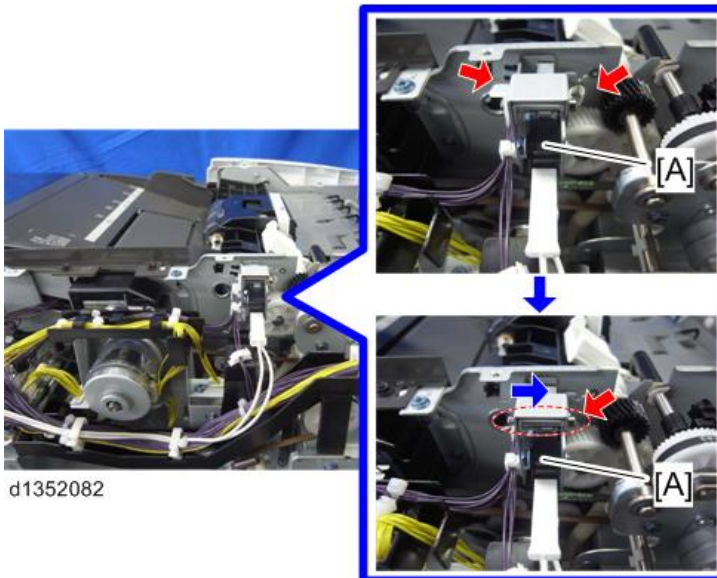
1. ADF rear cover (page 16).
2. Original feed unit (page 19).

3. Bottom plate position sensor [A] (📦 ×1).

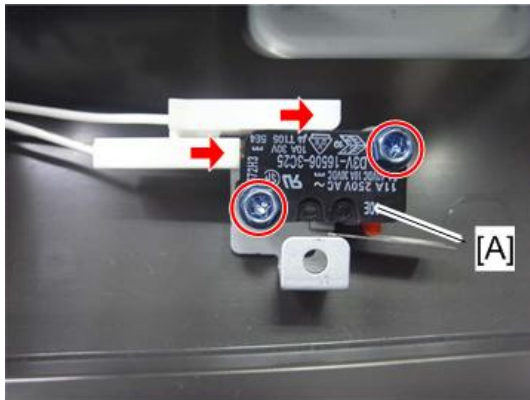


ADF Feed Cover Interlock Switch / Pick-up Roller HP Sensor

1. ADF rear cover (page 16).
2. Remove the ADF feed cover interlock switch [A] from the retaining bracket (🔩×1, spring×1, pin×1).

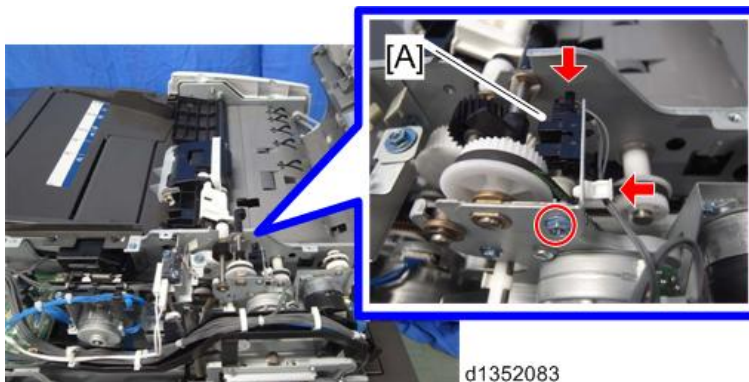


3. ADF feed cover interlock switch [A] (⚙️×2, 📦×2).



d1352610

4. Pick-up roller HP sensor [A] along with the bracket (⚙️×1, 📦×1, 🛠️×1).



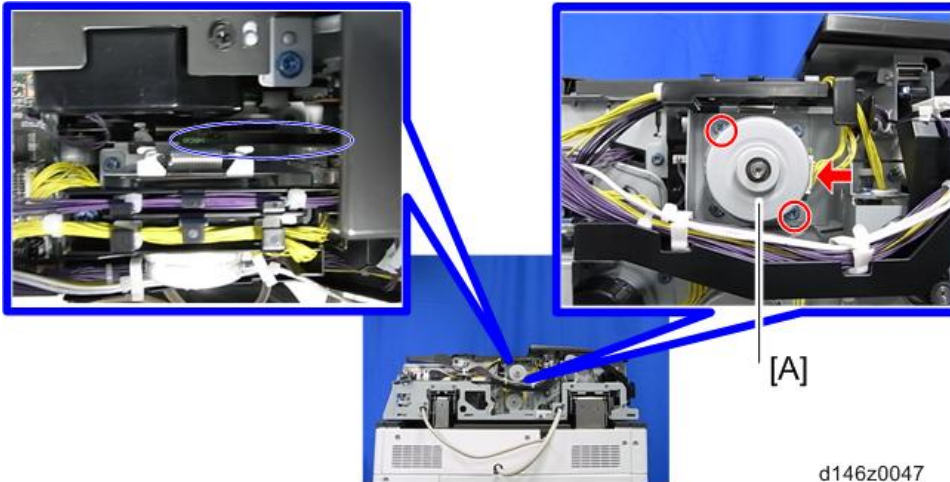
d1352083

Original Feed Drive

1

ADF Entrance Motor

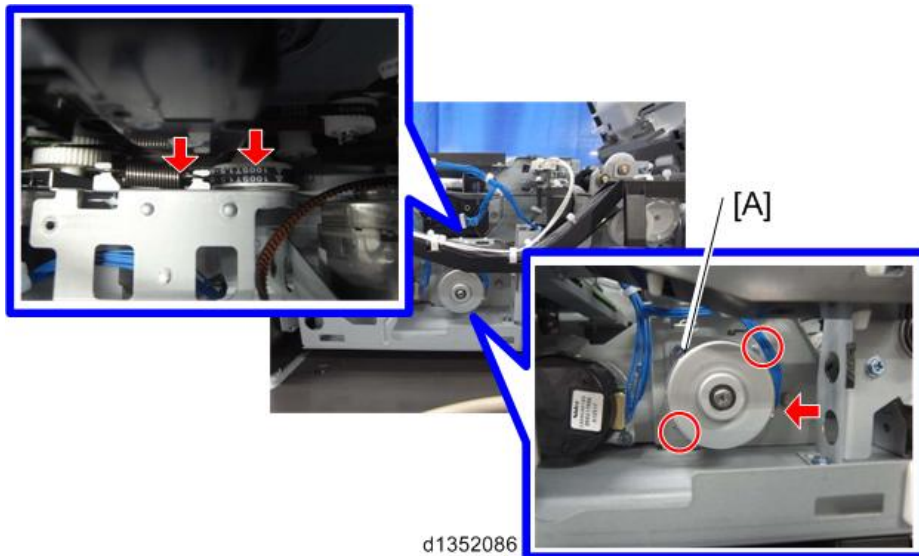
1. ADF rear cover (page 16).
2. ADF entrance motor [A] (⚙️ ×2, 📦 ×1, timing belt ×1).



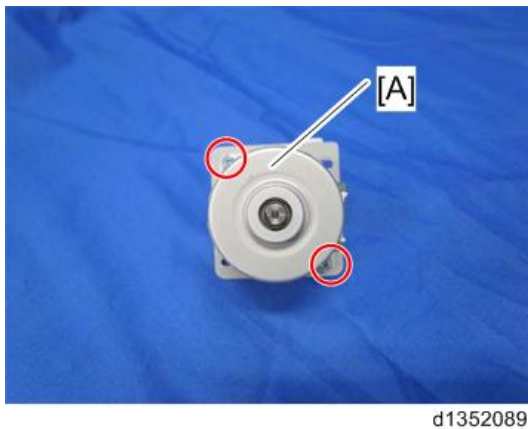
ADF Scanning Motor

1. ADF entrance motor along with the frame (page 46).

2. ADF read motor [A] along with the bracket (⚙️×2, 📦×1, spring×1, timing belt×1)



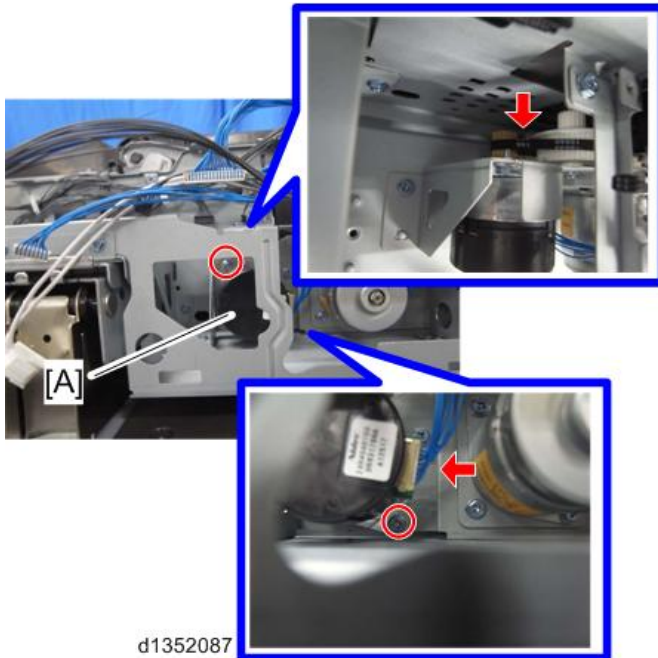
3. ADF scanning motor [A] (⚙️×2).



ADF Exit Motor

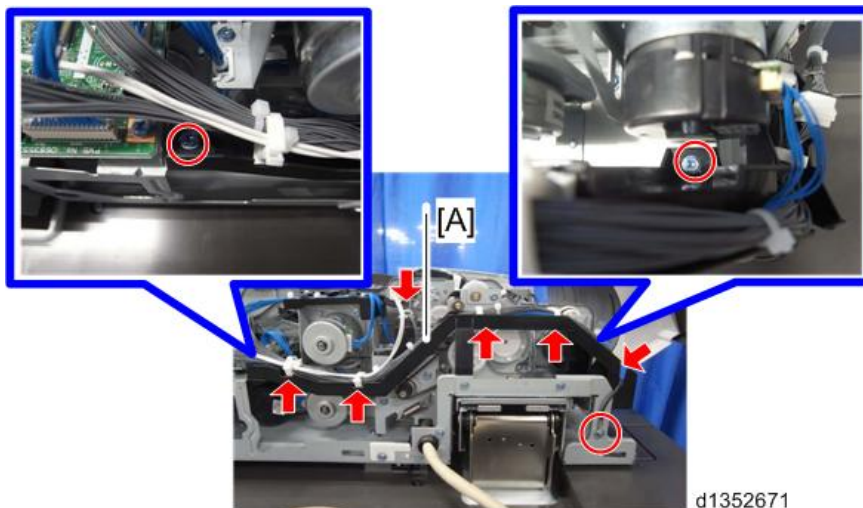
1. ADF Control Board (page 36).

2. ADF exit motor [A] along with the bracket (⚙️×2, 📦×1, spring×1, timing belt×1).



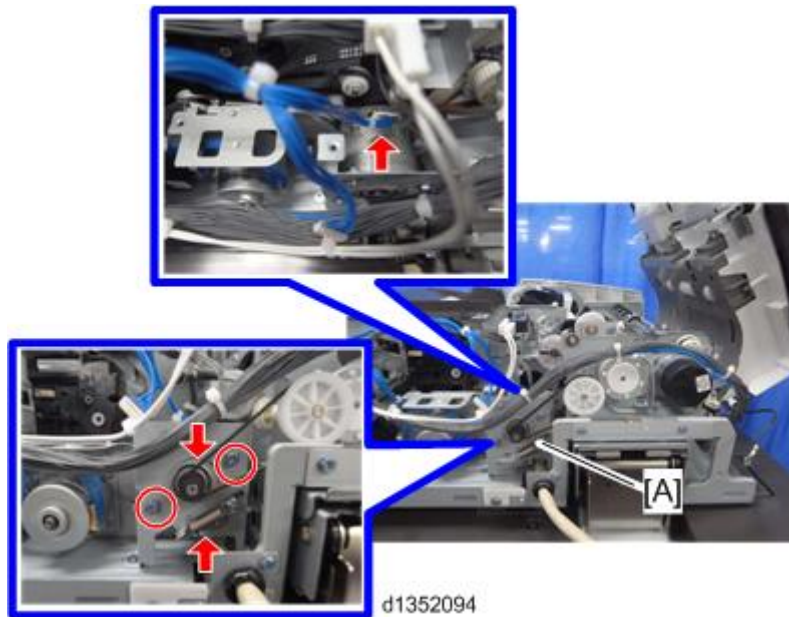
ADF Feed Motor

1. ADF rear cover (page 16).
2. Frame (black) [A] (⚙️×3, 📦×6).

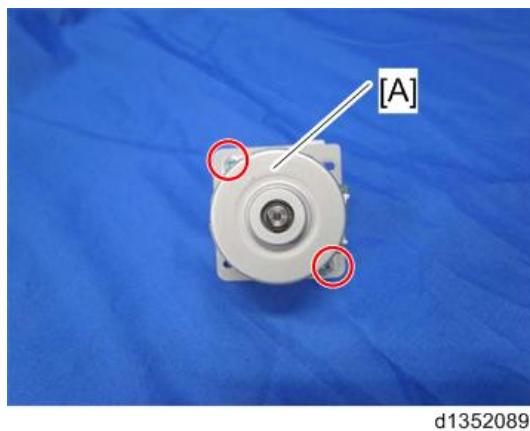


3. ADF entrance motor along with the frame (page 46).

4. ADF feed motor [A] along with the bracket (⚙️×2, 📦×1, spring×1, timing belt×1).



5. ADF feed motor [A] (⚙️×2).



MEMO

MEMO

MEMO