

**Internal Finisher
Machine Code: D586**

SERVICE MANUAL

July, 2011
Subject to change

Safety and Symbols

Replacement Procedure Safety

CAUTION

- Turn off the main power switch and unplug the machine before beginning any of the replacement procedures in this manual.

Symbols Used in this Manual

This manual uses the following symbols:

Symbol	Meaning
	See or Refer to
	Connector
	Clamp
	Clip ring
	E-ring
	Screw

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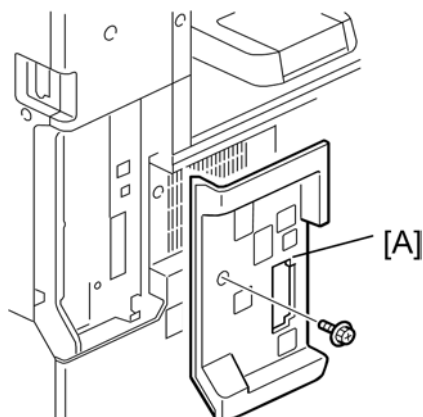
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1. Replacement and Adjustment

Common Procedures

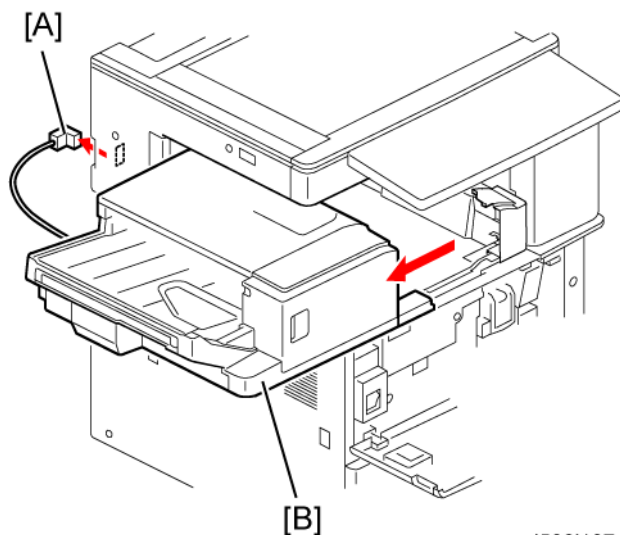
1

Internal Finisher



d596i501

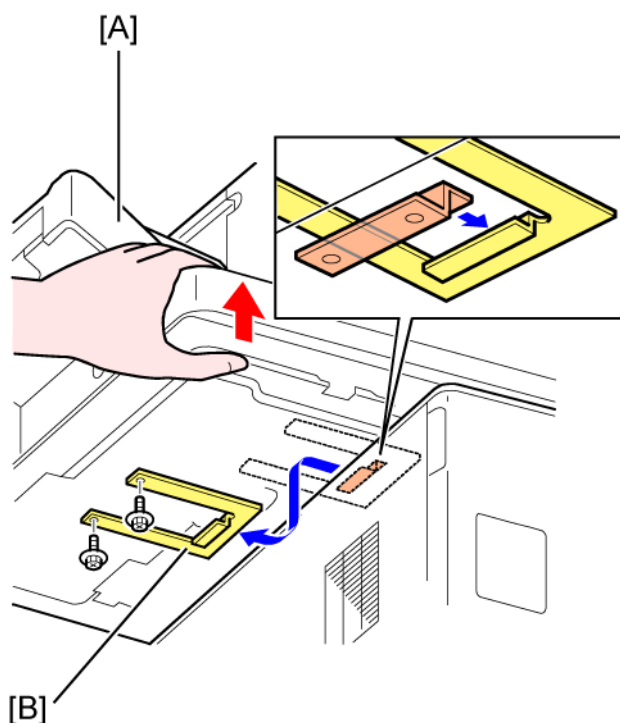
1. Remove the controller cover [A] ( x 1).



d586i107

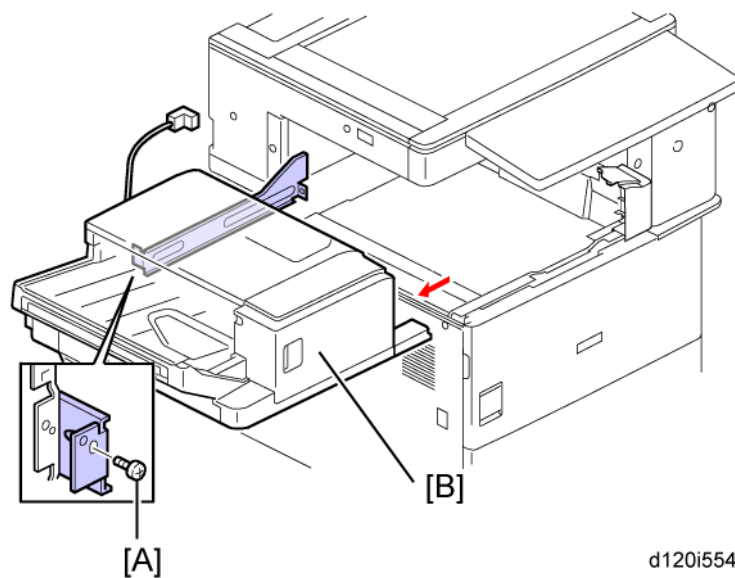
2. Disconnect the cable [A] from the inlet of the main machine.
3. Pull out the internal finisher [B].

1



d586i109

4. Push up the internal finisher [A] from the bottom, and then remove the stopper [B] from the bottom side of the internal finisher ( x 2).

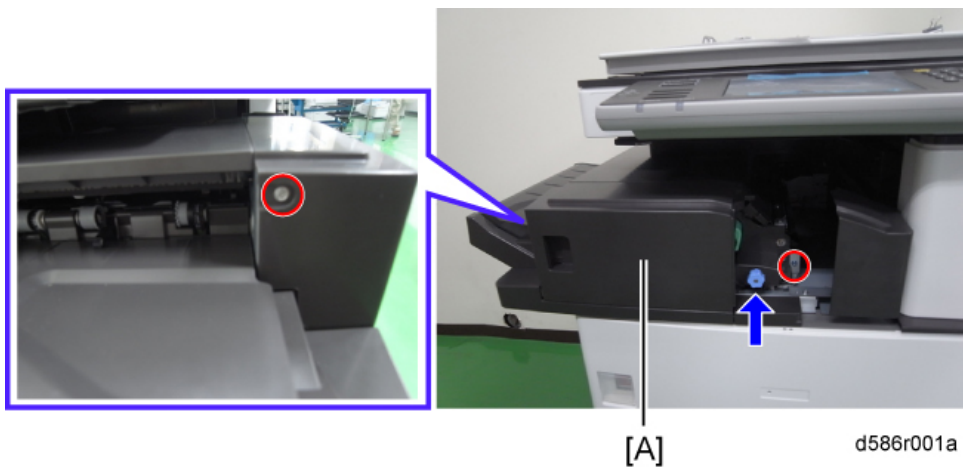


d120i554

5. Remove the screw from the rear rail [A].
6. Remove the internal finisher [B] by pulling it off the main machine.

Front Cover

1. Pull out the finisher.

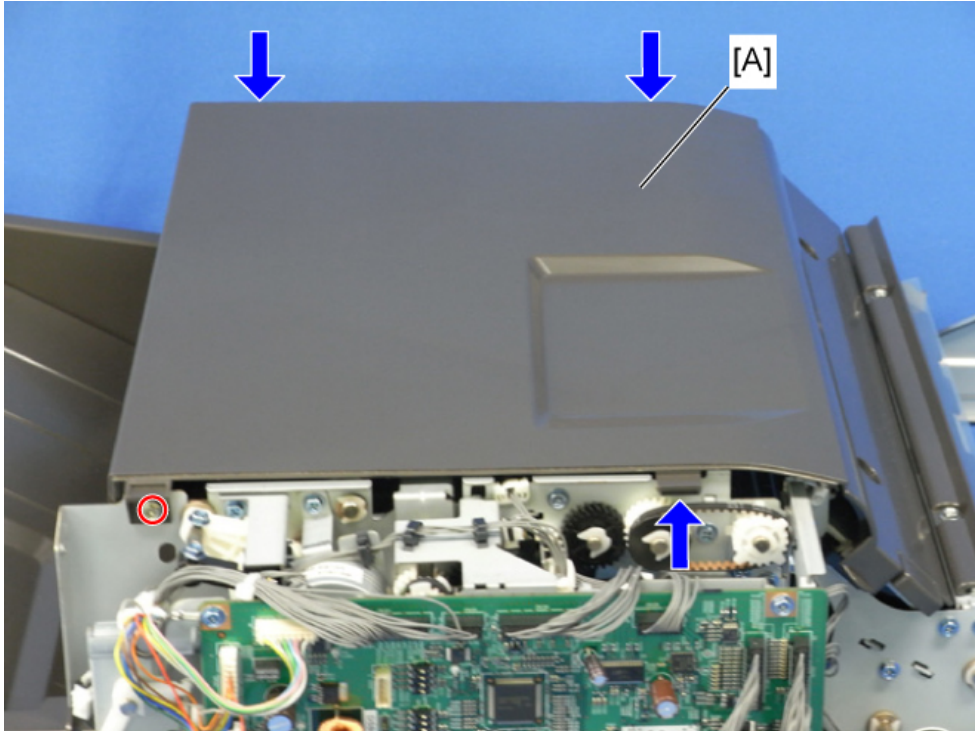


2. Remove the front cover [A] ( x 2, Knob x 1).

Upper Cover

1. Remove:
 - Finisher ( p.5 "Internal Finisher")
 - Front cover ( p.7 "Front Cover")

1



d586r002

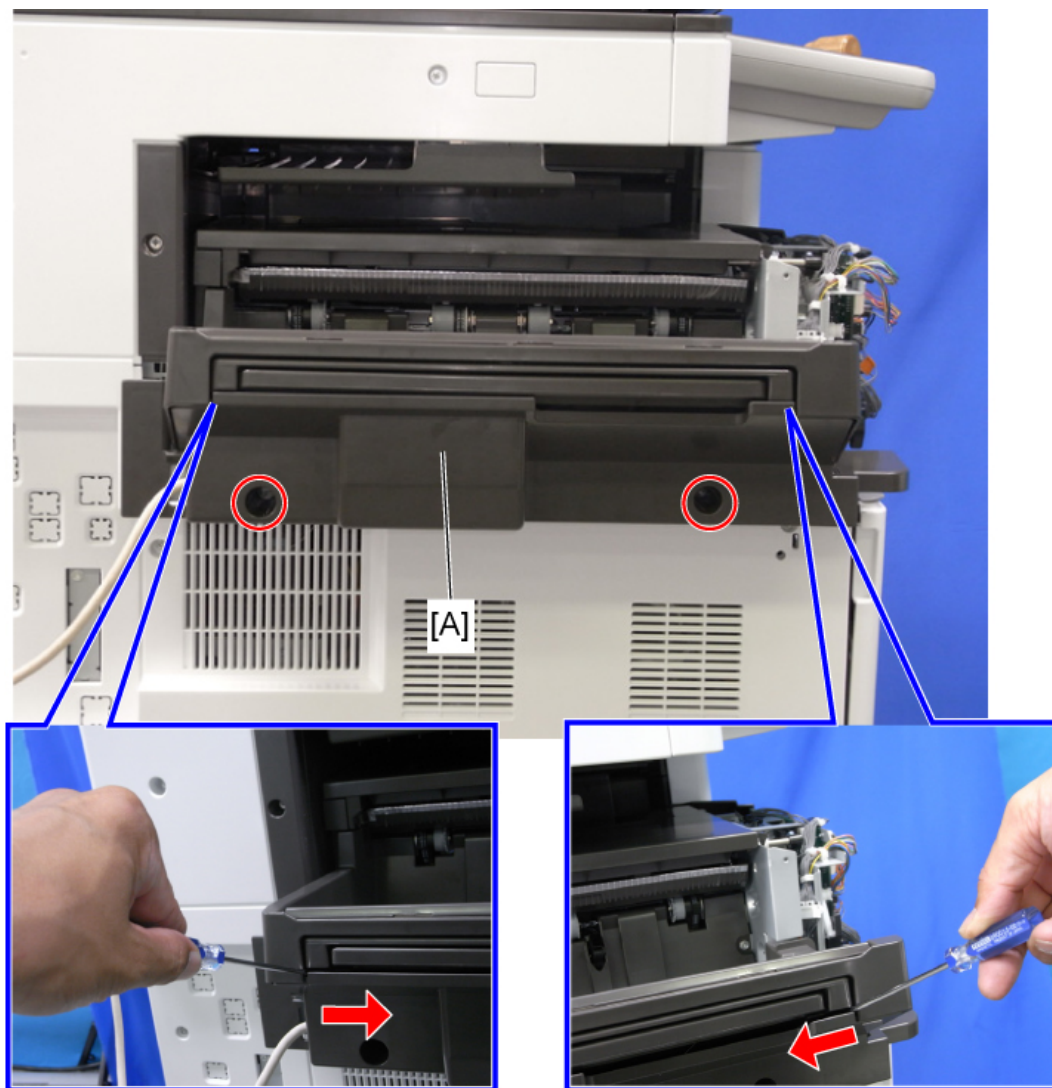
2. Remove the upper cover [A] ( x 1, tabs x 3).

 Note

- Disconnect the front tab first, and then remove the upper cover.

Output Tray

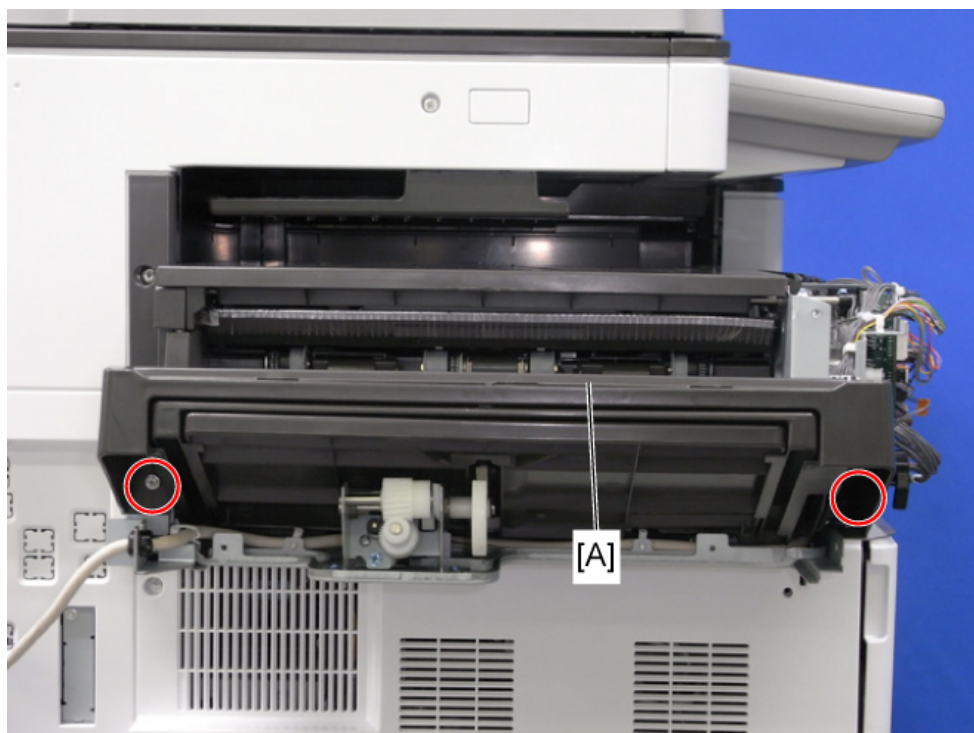
1. Remove the front cover ( p.7 "Front Cover").



d586r004

2. Remove the lower left cover [A] ( x 2).

1

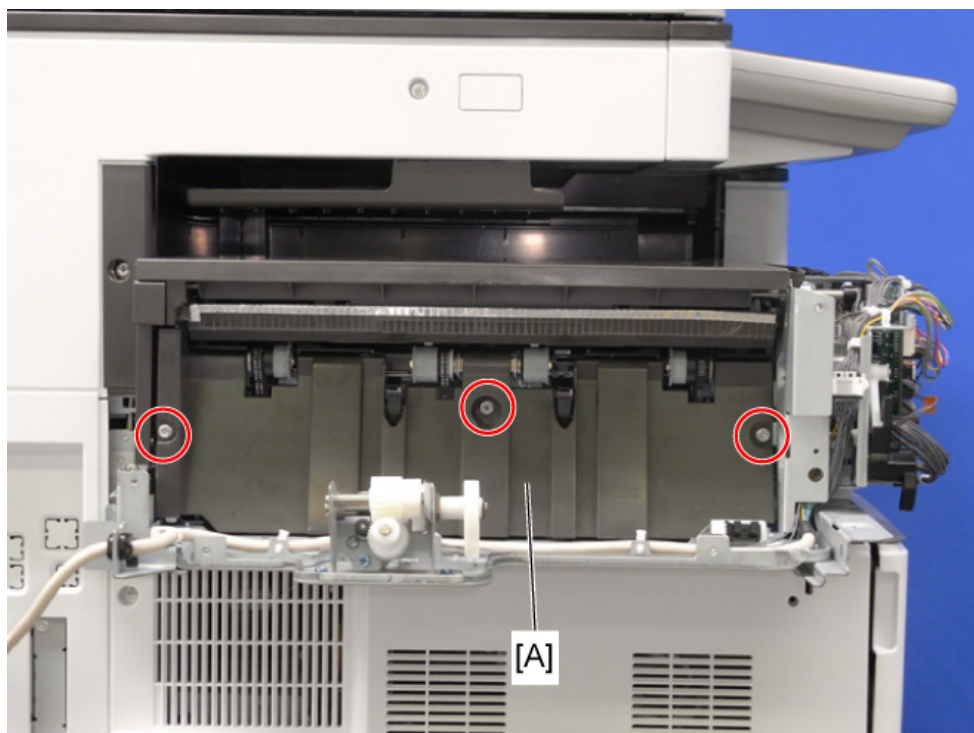


d586r005

3. Remove the output tray [A] ( x 2).

Exit Cover

1. Remove the output tray. ( p.8 "Output Tray")



d586r006

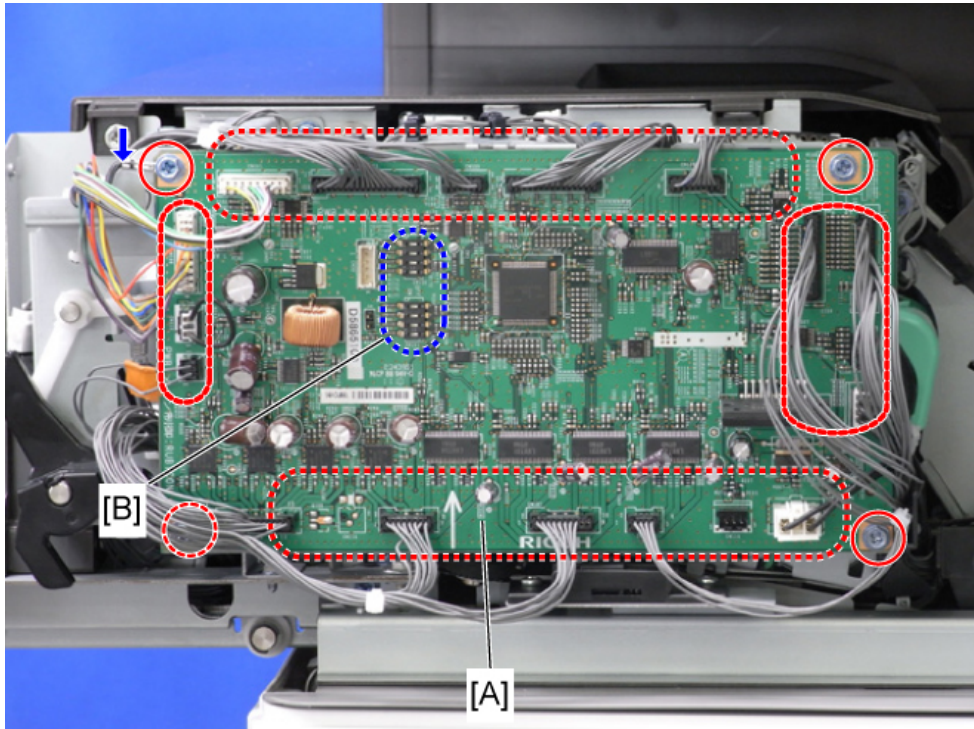
2. Remove the exit cover [A] ( x 3).

Electrical Components

1

Controller Board

1. Remove the front cover. (🔧 p.7 "Front Cover")



d586r007

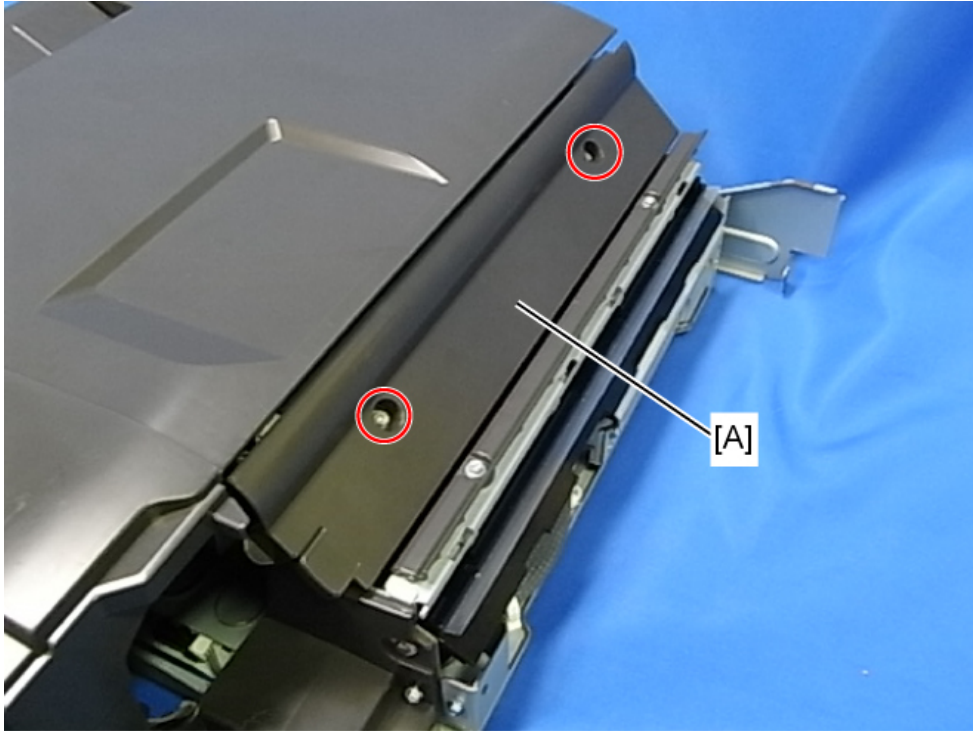
2. Replace the controller board [A] (all 🛠️s, 🔩 x 4, grounding cable).

★ Important

- The settings of the dip switches [B] on the new controller board should be the same as those on the old controller board when the controller board is replaced.

Entrance Sensor

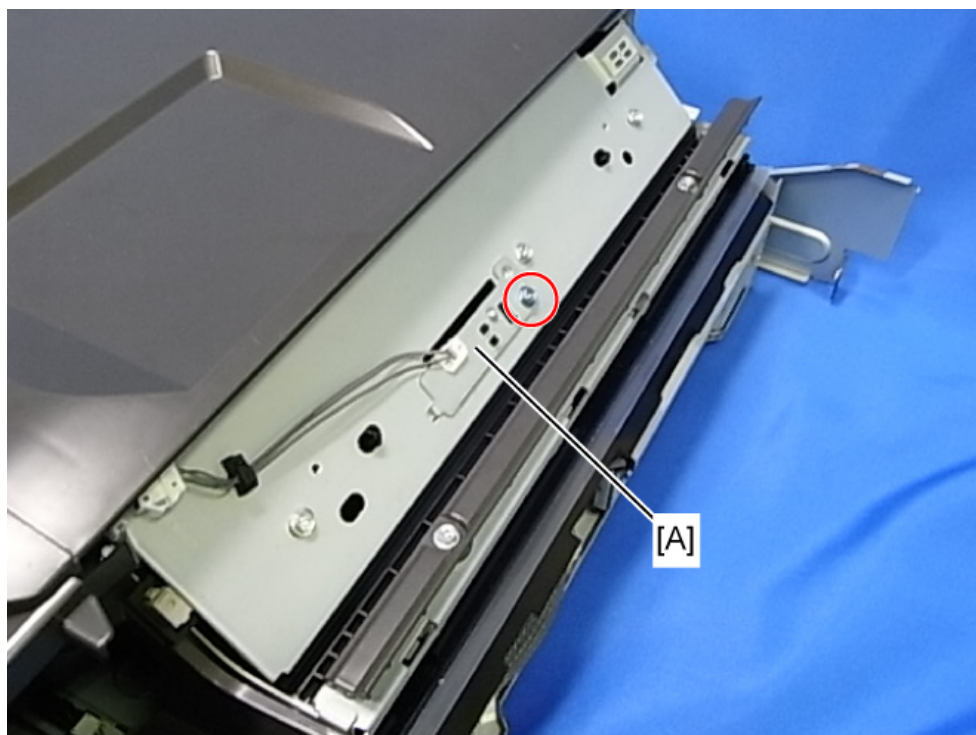
1. Remove the finisher (🔧 p.5 "Internal Finisher").



d586r008a

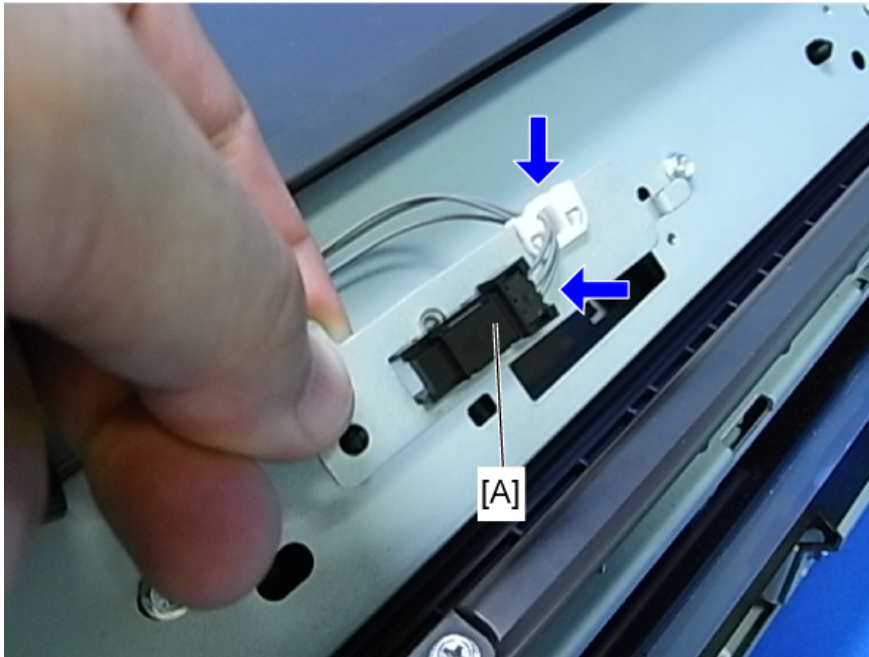
2. Remove the open-close upper cover [A] ( x 2).

1



d586r009a

3. Remove the entrance sensor assembly [A] ( x 1).

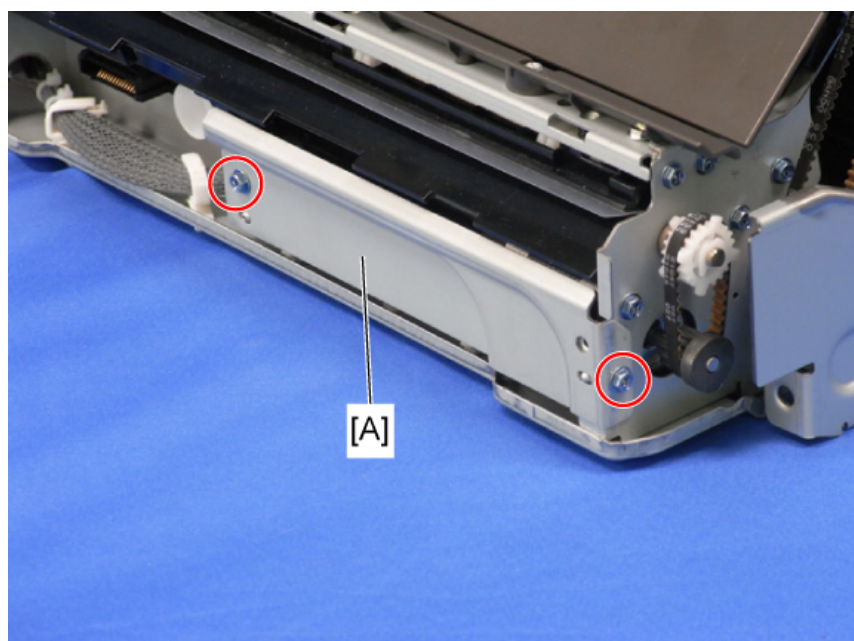


d586r010a

4. Replace the entrance sensor [A] (🔌 x 1, 📡 x 1, hooks x 4).

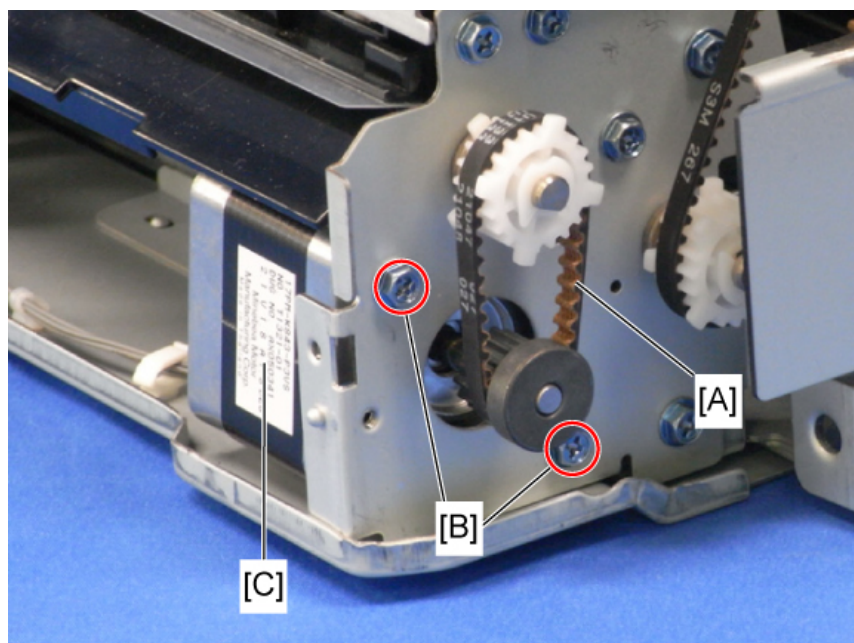
Entrance Roller Motor

1. Remove the finisher. (🔧 p.5 "Internal Finisher")



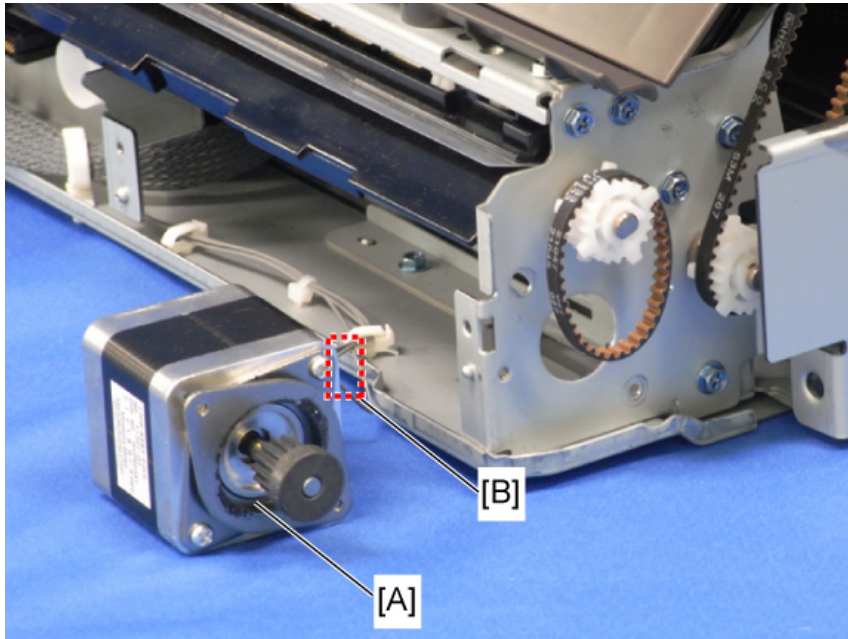
d586r011

2. Remove the rear right cover [A] ( x 2).



d586r012

3. Remove the timing belt [A].
4. Remove the two screws [B] of the entrance roller motor [C] ( x 2).



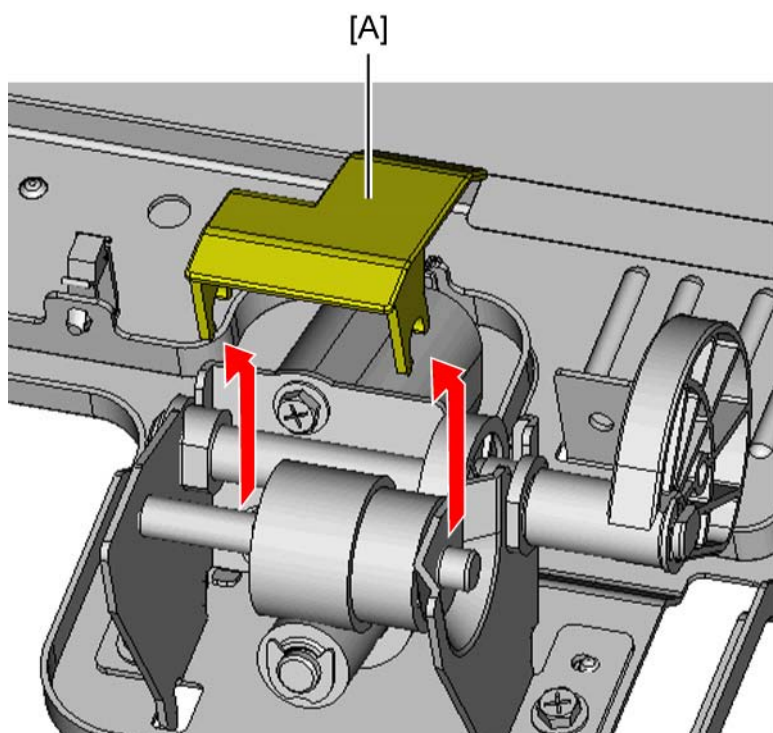
d586r013

5. Replace the entrance roller motor [A] (🔧 [B] x 1).

Output Tray Motor

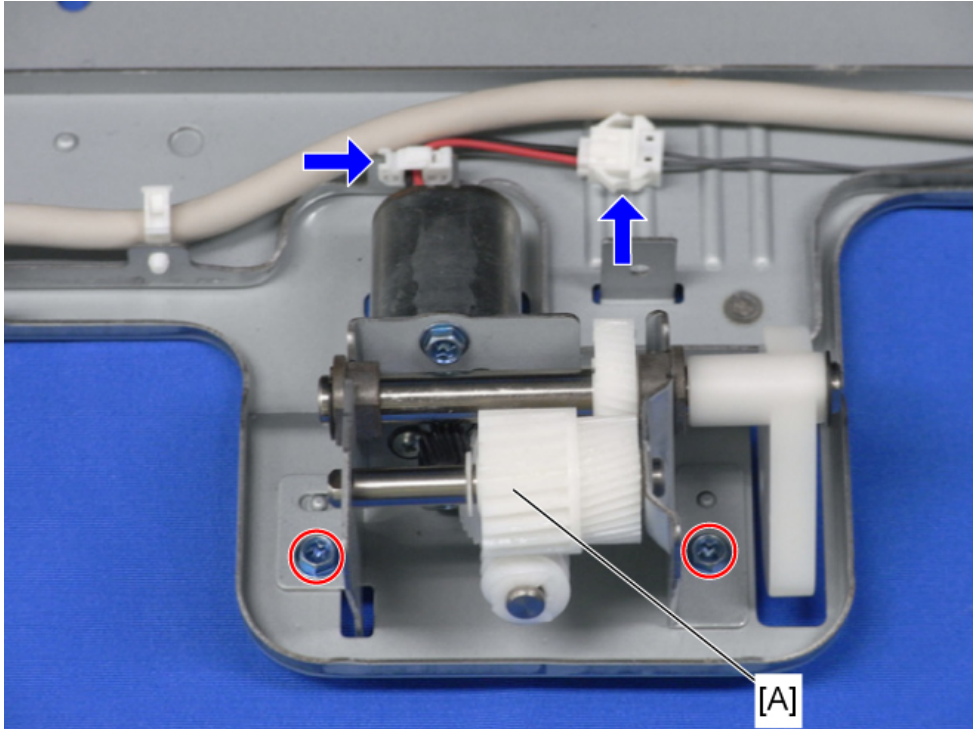
1. Remove the output tray assembly. (🔧 p.8 "Output Tray")

1



d586r090

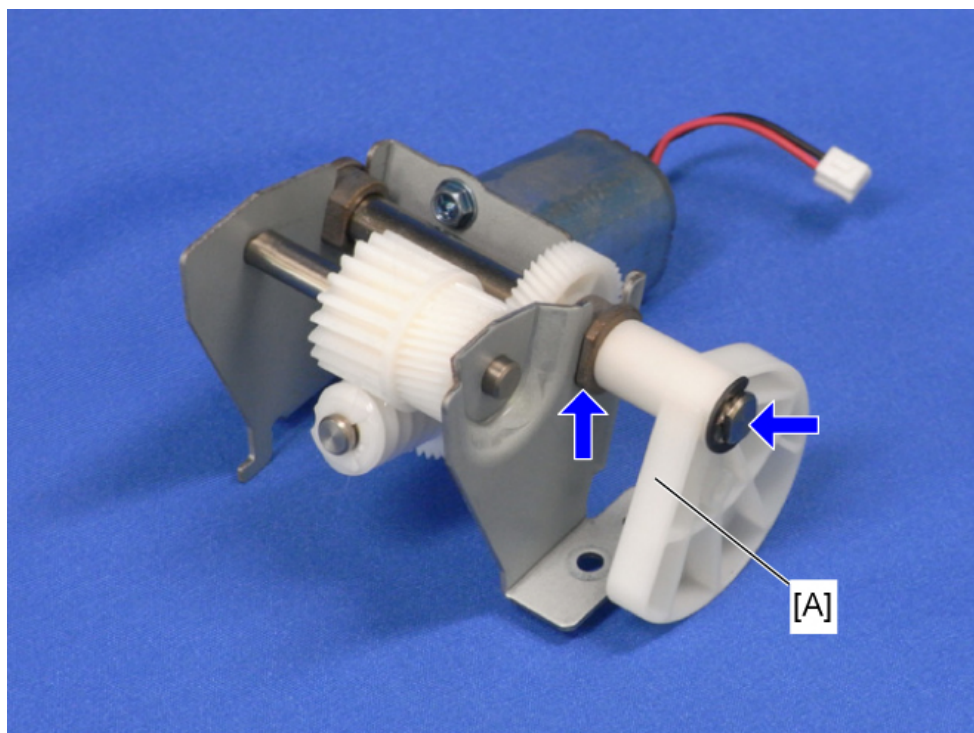
2. Remove the output tray motor cover [A] (hook x 2).



d586r014

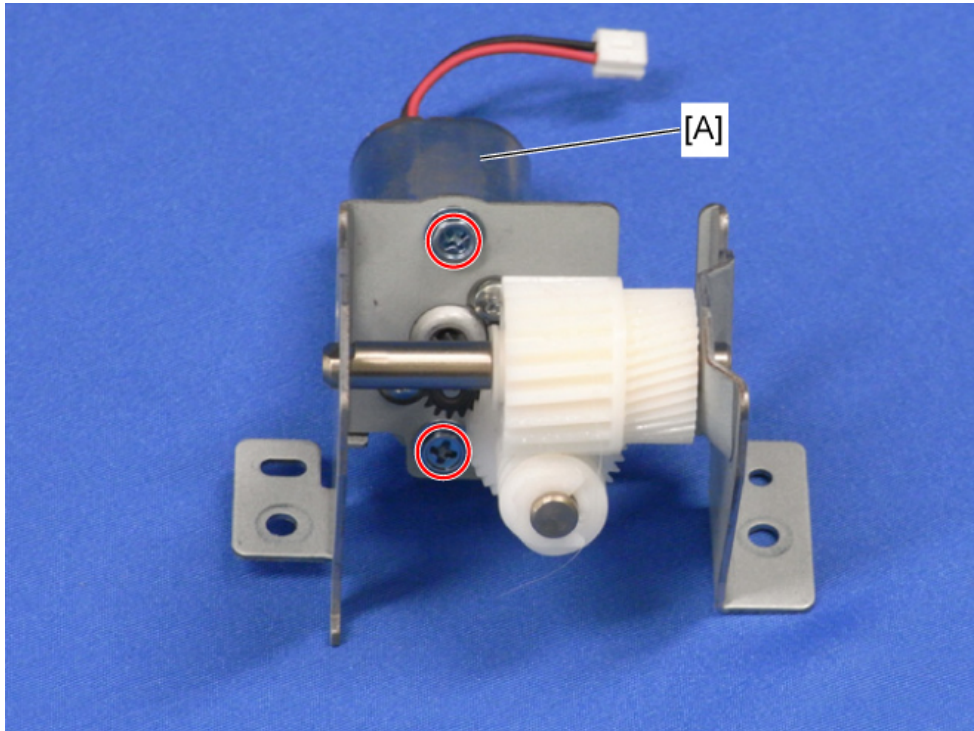
3. Remove the output tray motor assembly [A] ( x 2,  x 1,  x 1).

1



d586r015

4. Remove the cam assembly [A] (C x 1, bushing x 1).



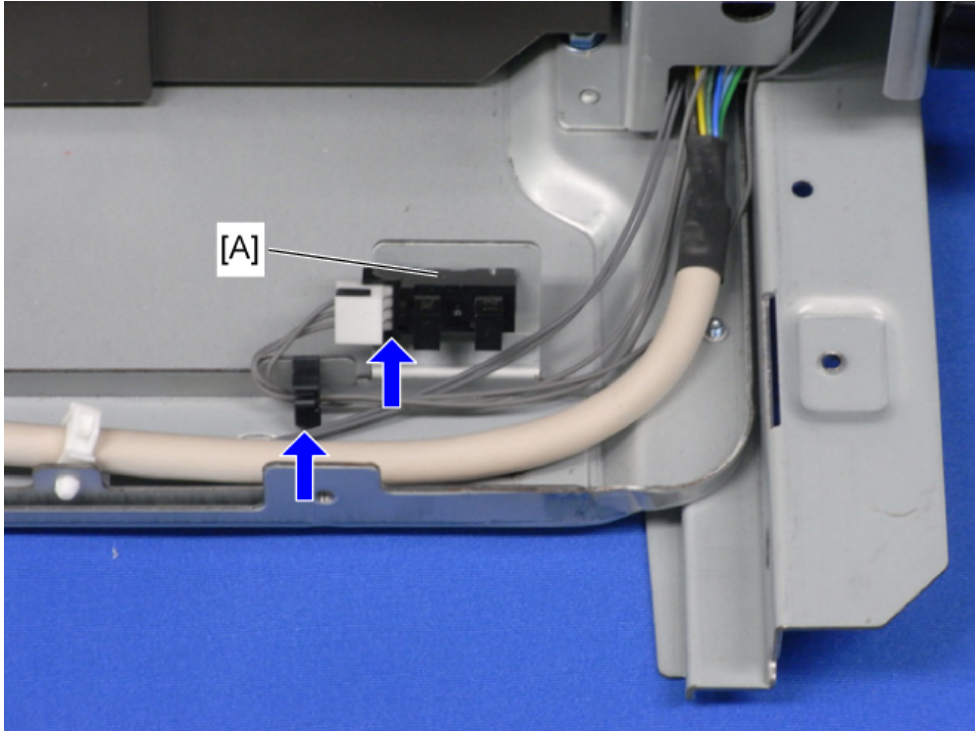
d586r016

5. Replace the output tray motor [A] ( x 2).

Paper Overflow Sensor

1. Remove the output tray assembly. ( p.8 "Output Tray")

1

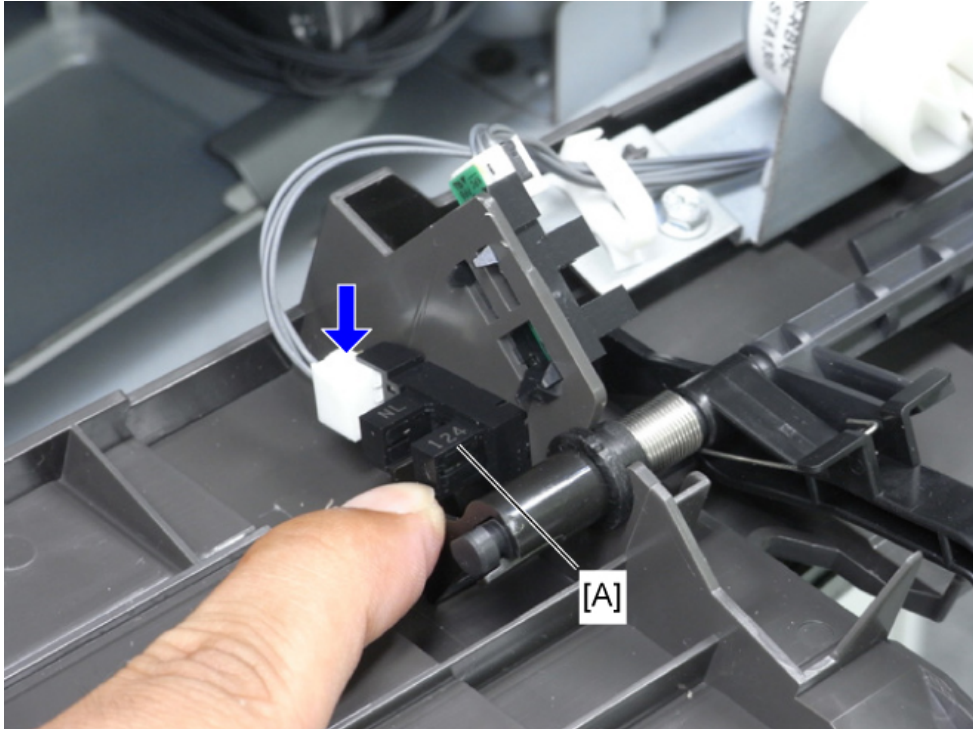


d586r017

2. Replace the paper overflow sensor [A] (🖨️ x 1, 🖨️ x 1, hooks x 3).

Stack Height Detection Lever HP Sensor

1. Remove the exit cover assembly. (🖨️ p.10 "Exit Cover")



d586r018

2. Replace the stack height detection lever HP sensor [A] (🔧 x 1, hooks x 3).

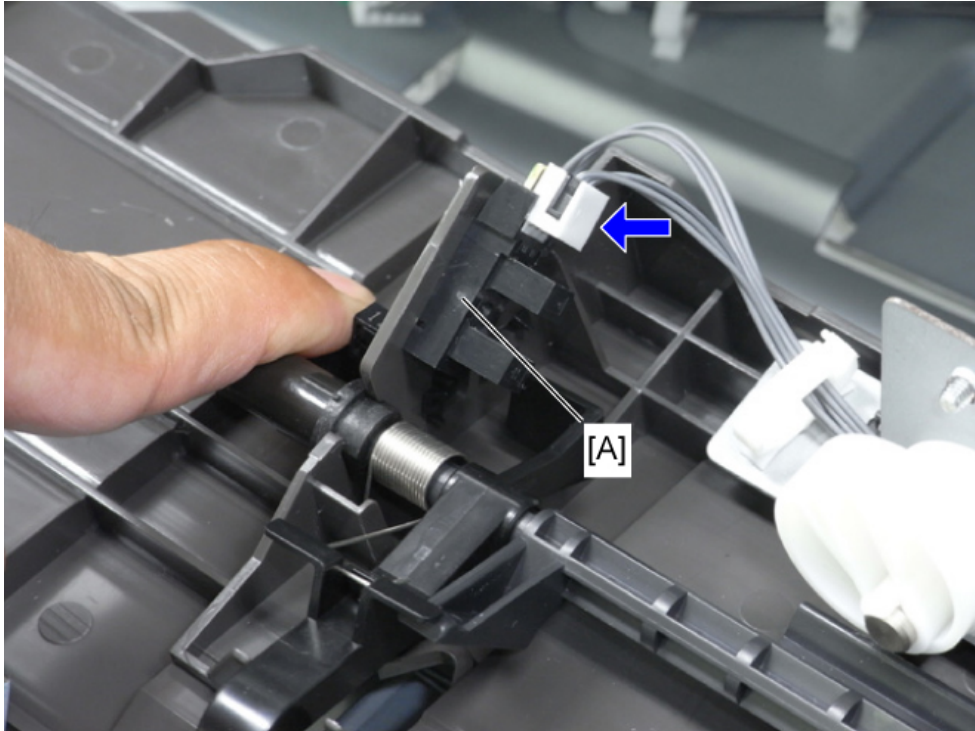
⬇ **Note**

- The color of the harness connector is white.

Stack Height Detection Lever Sensor

1. Remove the exit cover assembly. (🔧 p.10 "Exit Cover")

1



d586r019

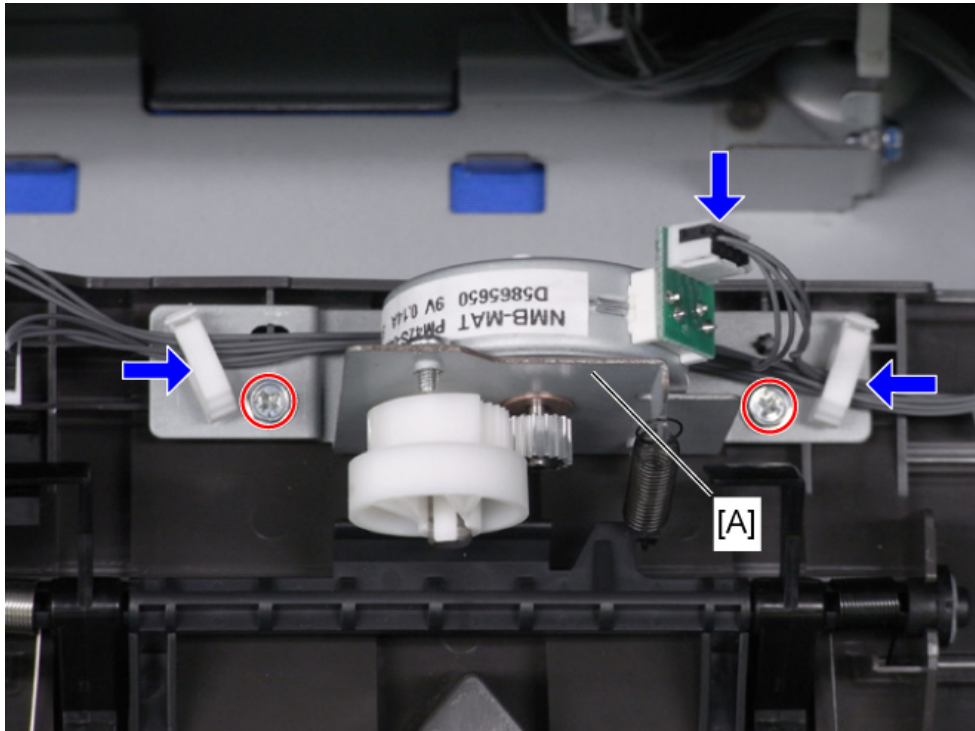
2. Replace the stack height detection lever sensor [A] (🔧 x 1, hooks x 3).

⬇ **Note**

- The color of the harness connector is black.

Stack Height Detection Lever Motor

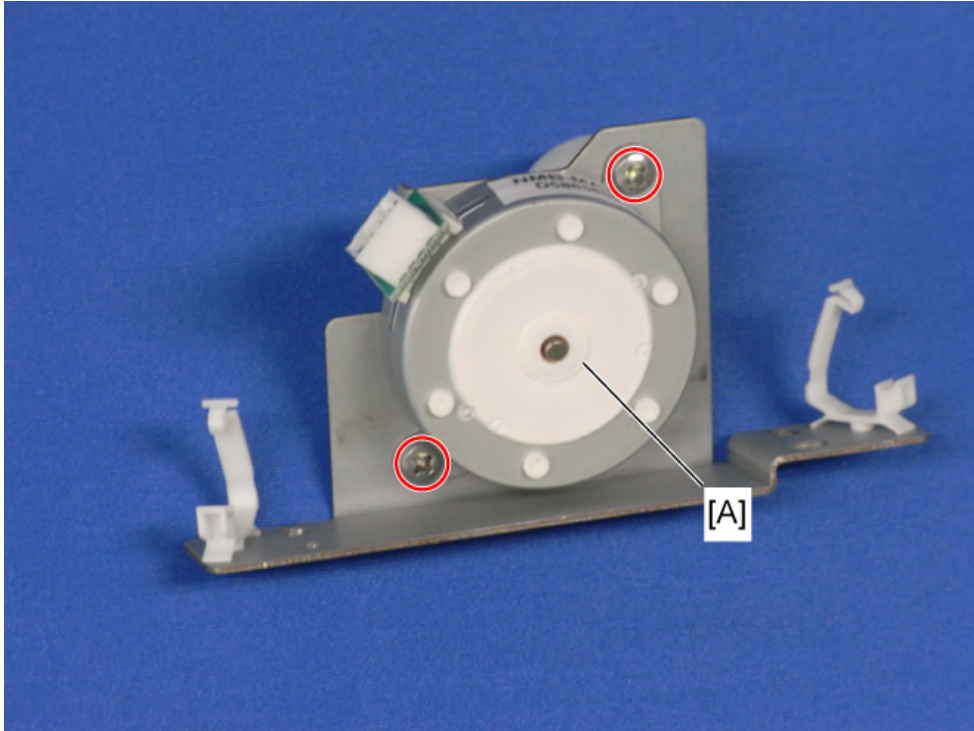
1. Remove the exit cover. (🔧 p.10 "Exit Cover")



d586r020

2. Remove the stack height detection lever motor assembly [A] ( x 2,  x 2,  x 1).

1

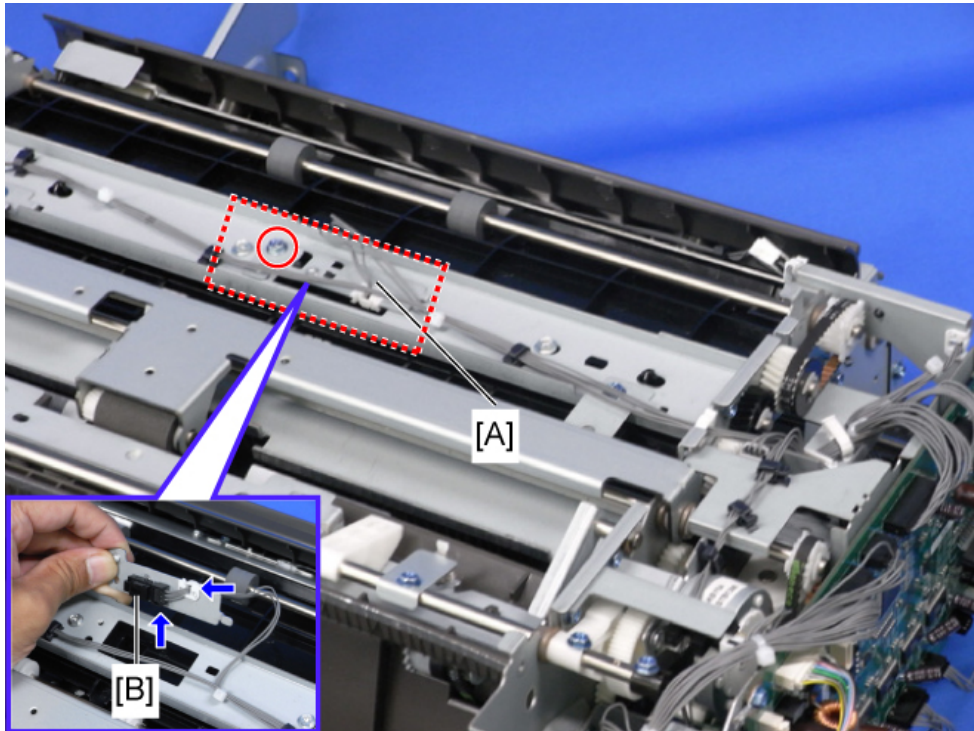


d586r021

3. Replace the stack height detection lever motor [A] ( x 2).

Feed Sensor

1. Remove the upper cover. ( p.7 "Upper Cover")



d586r023

2. Remove the feed sensor assembly [A] (🔧 x 1).
3. Replace the feed sensor [B] (🔧 x 1, 📦 x 1, hooks x 4).

Pick-up Roller HP Sensor

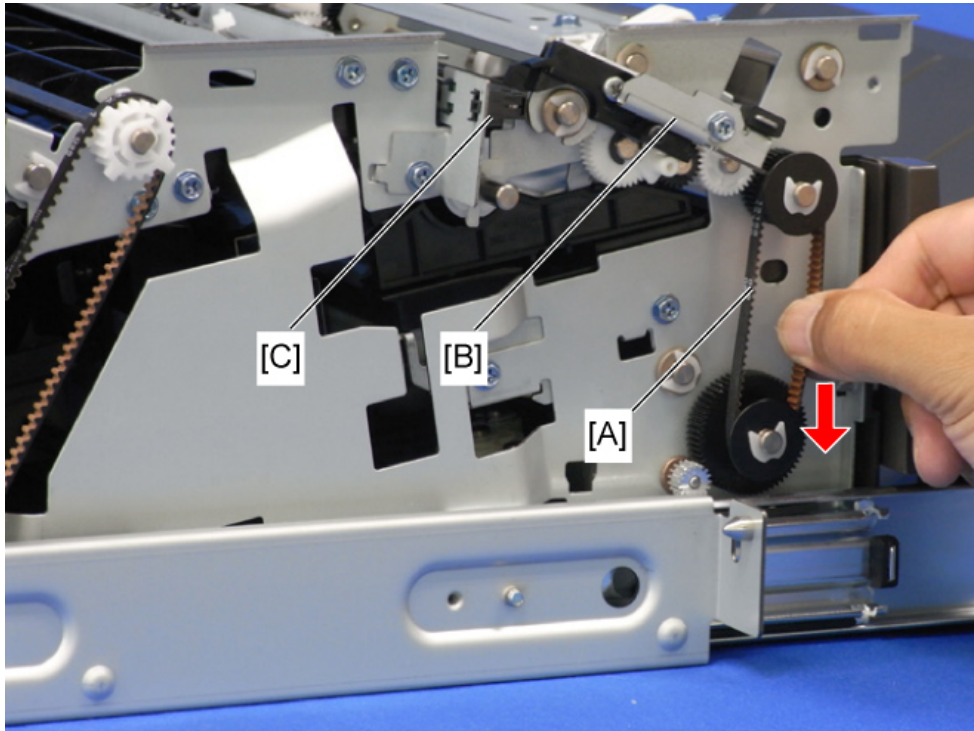
1. Remove the upper cover. (📖 p.7 "Upper Cover")

1



d586r024

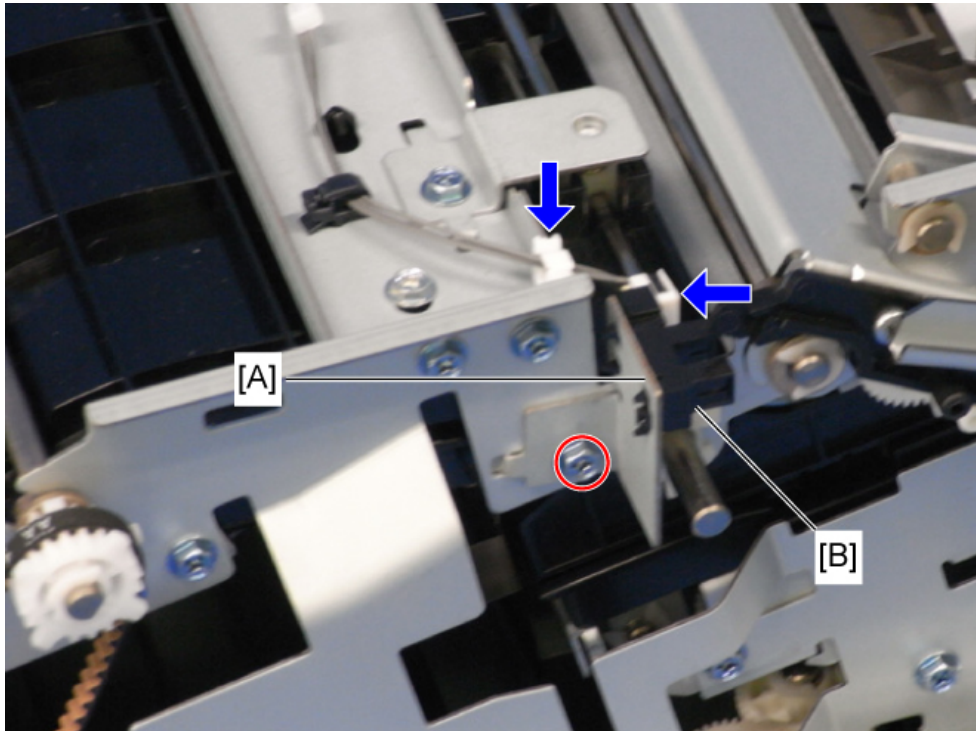
2. Remove the rear cover [A] ( x 1).



d586r025

3. Pull down the timing belt [A] to lift the pick-up roller sensor arm assembly [B].
Make sure that the sensor actuator is away from the HP sensor [C].

1

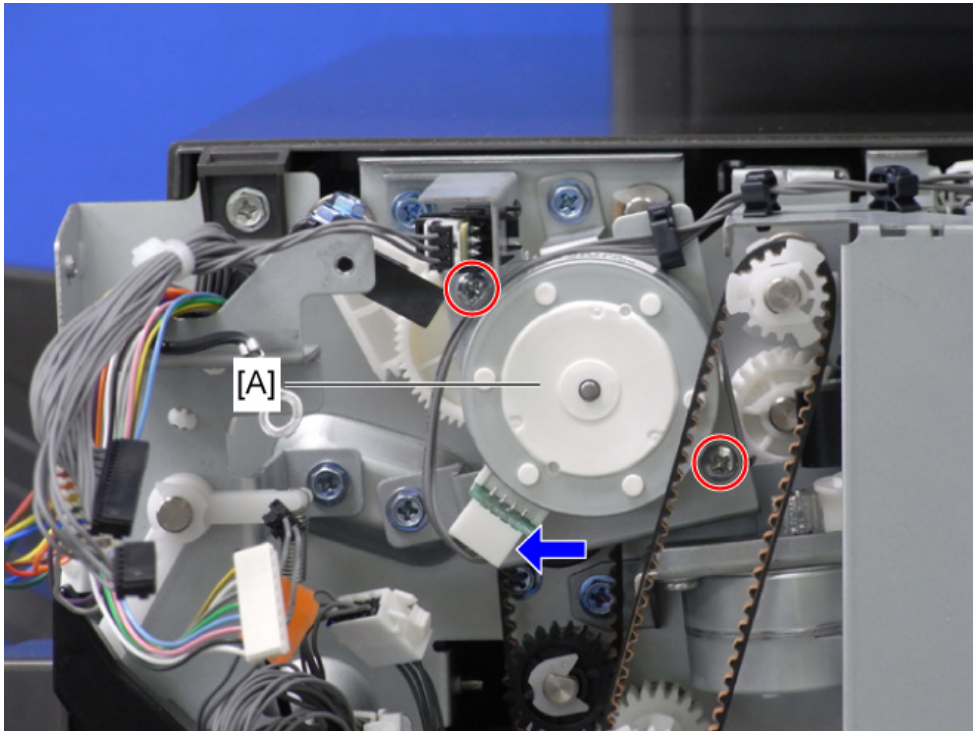


d586r026

4. Remove the pick-up roller HP sensor assembly [A] ( x 1,  x 1).
5. Replace the pick-up roller HP sensor [B] ( x 1, hooks x 3).

Exit Guide Plate Motor

1. Remove the controller board. ( p. 12 "Controller Board")

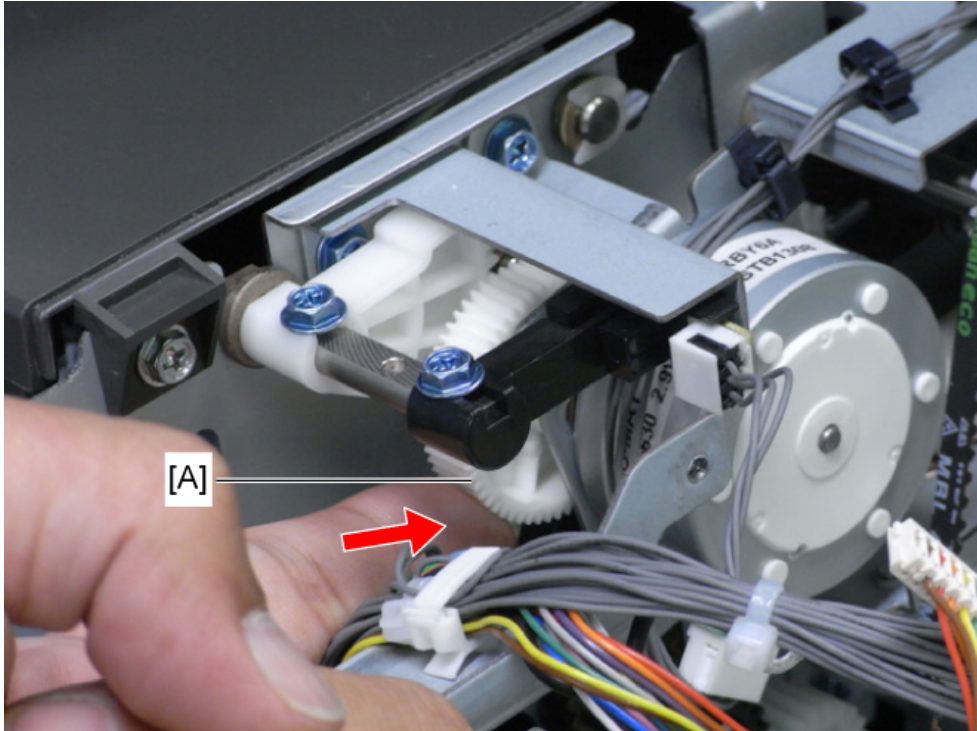


d586r027

2. Replace the exit guide plate motor [A] ( x 2,  x 1).

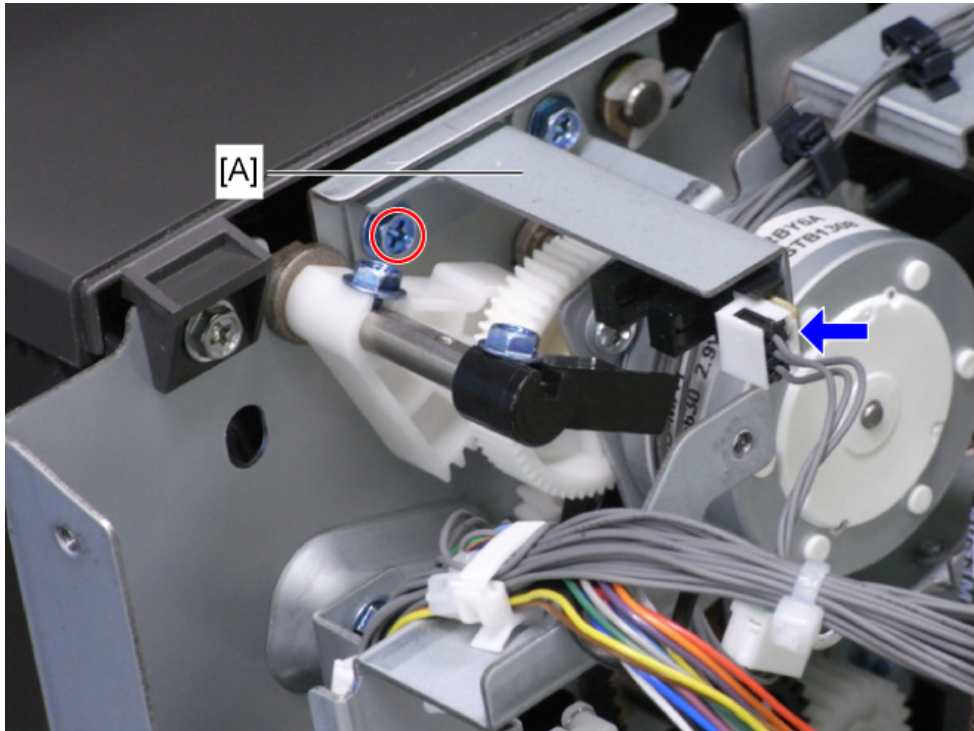
Exit Guide Plate HP Sensor

1. Remove the controller board. ( p.12 "Controller Board")



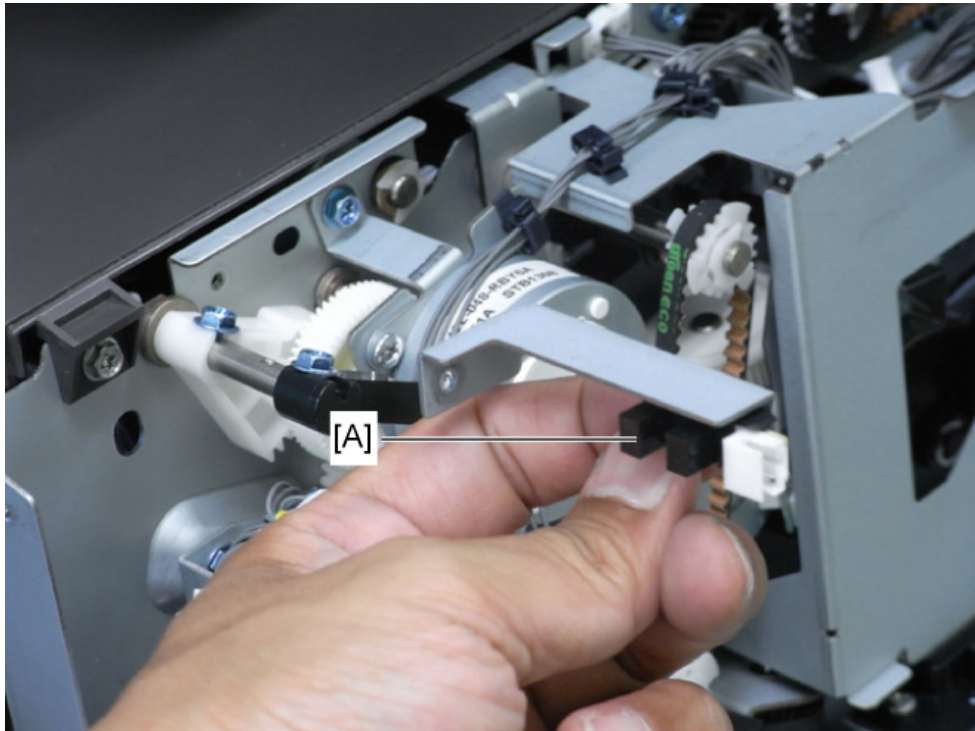
d586r028

2. Rotate the exit guide plate gear [A] counterclockwise to release it from the exit guide HP sensor.



d586r029

3. Remove the exit guide plate HP sensor assembly [A] ( x 1,  x 1).

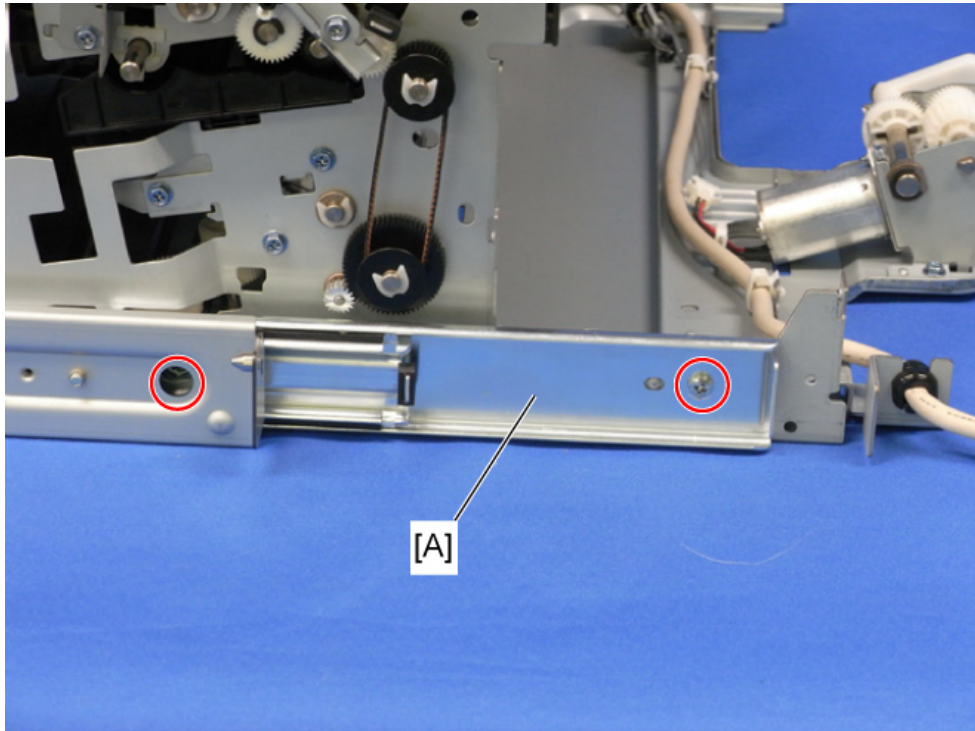


d586r030

4. Replace the exit guide plate HP sensor [A] (hooks x 3).

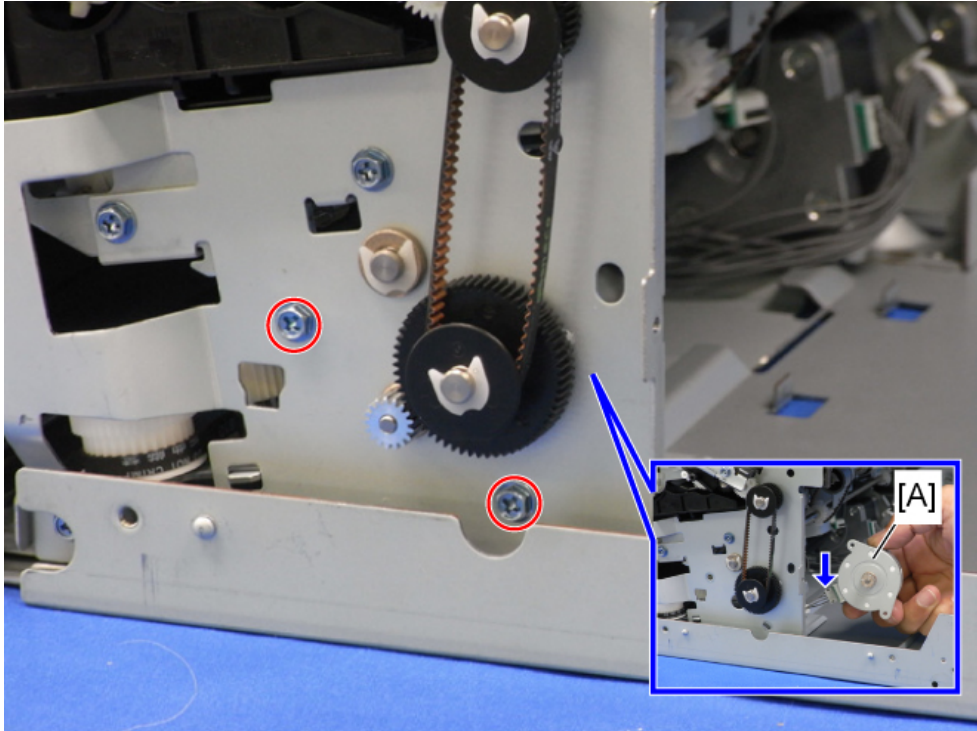
Pick Up Roller Motor

1. Remove:
 - Exit cover assembly (📖 p.10 "Exit Cover")
 - Rear cover (📖 p.27 "Pick-up Roller HP Sensor")



d586r031

2. Remove the slide rail assembly [A] ( x 2).



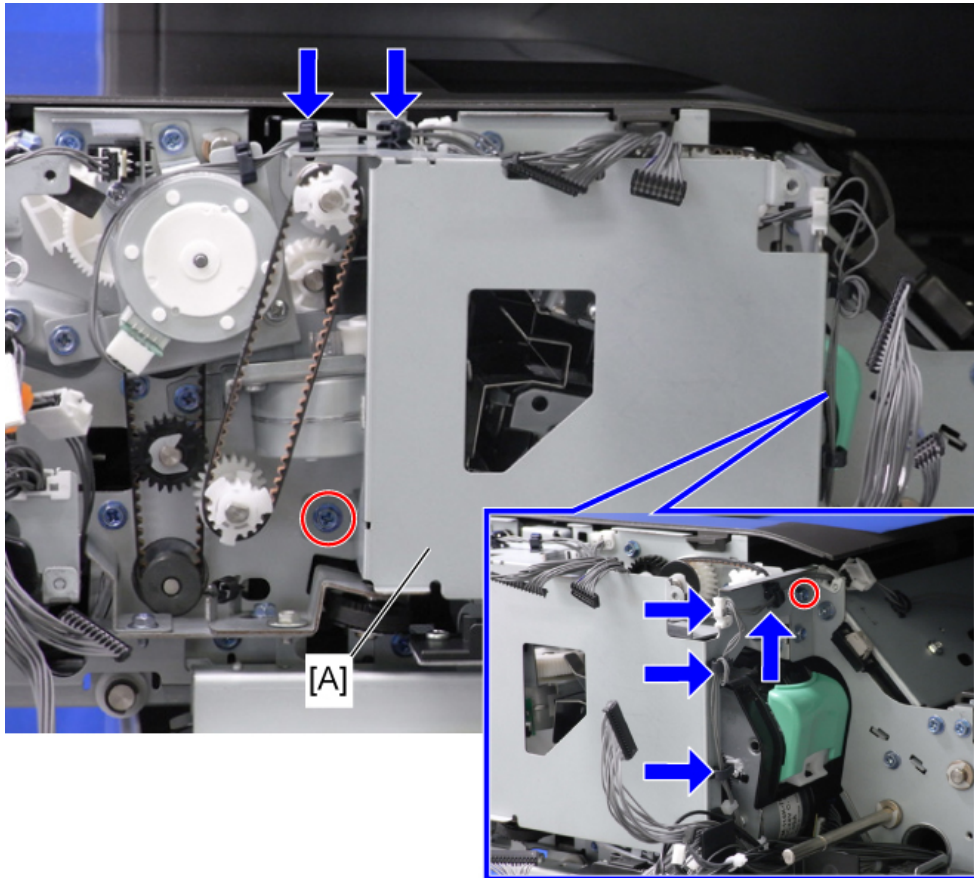
d586r032

3. Replace the pick-up roller motor [A] ( x 2,  x 1).

Shift Roller Motor

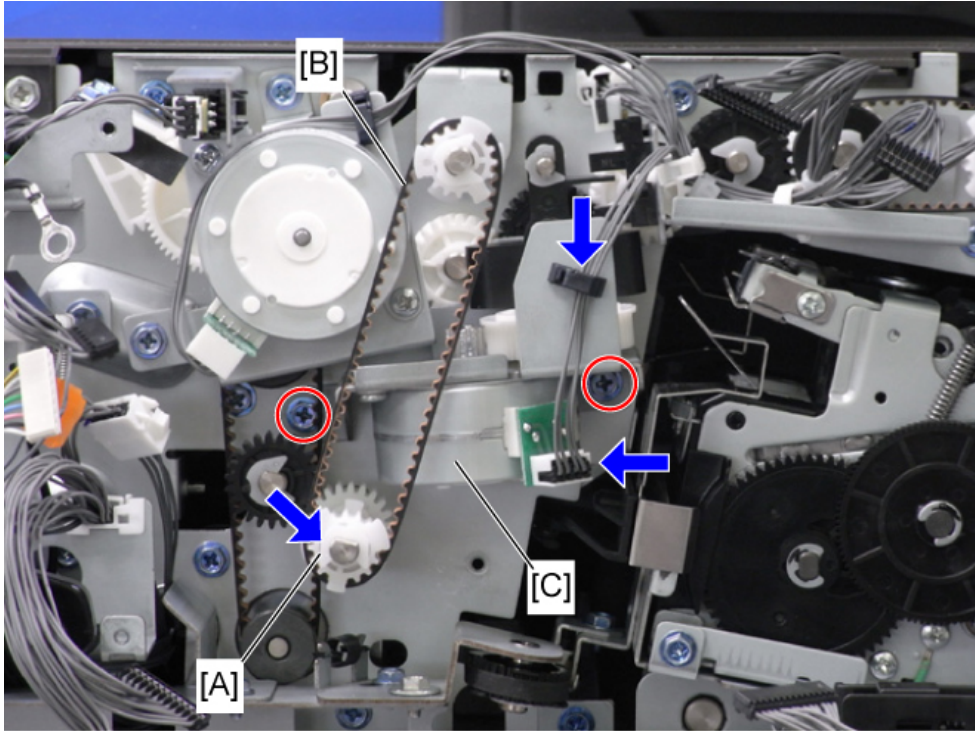
1. Remove:

- Open-close upper cover ( p.12 "Entrance Sensor")
- Controller board ( p.12 "Controller Board")



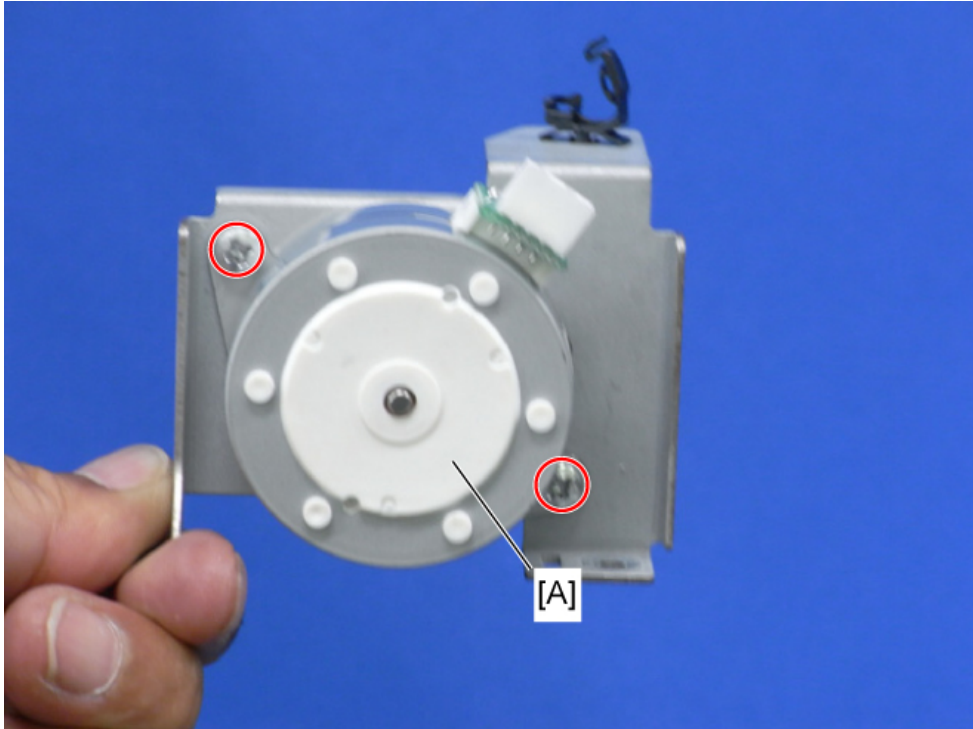
d586r033

2. Remove the controller board bracket [A] ( x 2,  x 6).



d586r034

3. Remove the gear [A], and then remove the timing belt [B] (🔧 x 1).
4. Remove the shift roller motor assembly [C] (🔧 x 2, 🛠️ x 1, 🛠️ x 1).



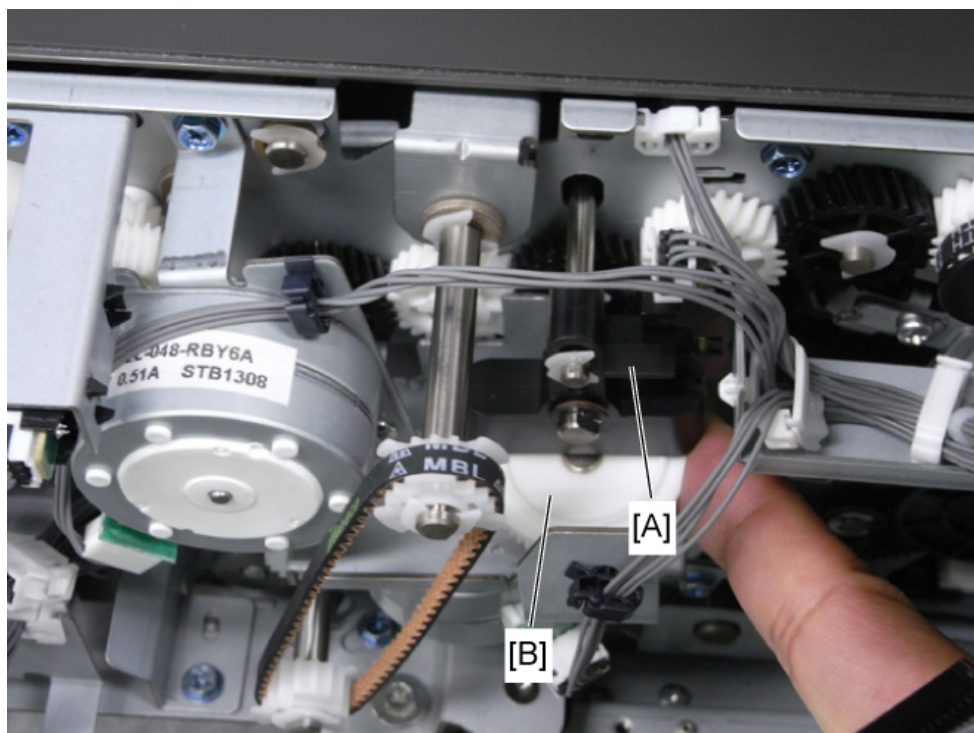
d586r035

5. Replace the shift roller motor [A] ( x 2).

When reinstalling the shift roller motor

Note

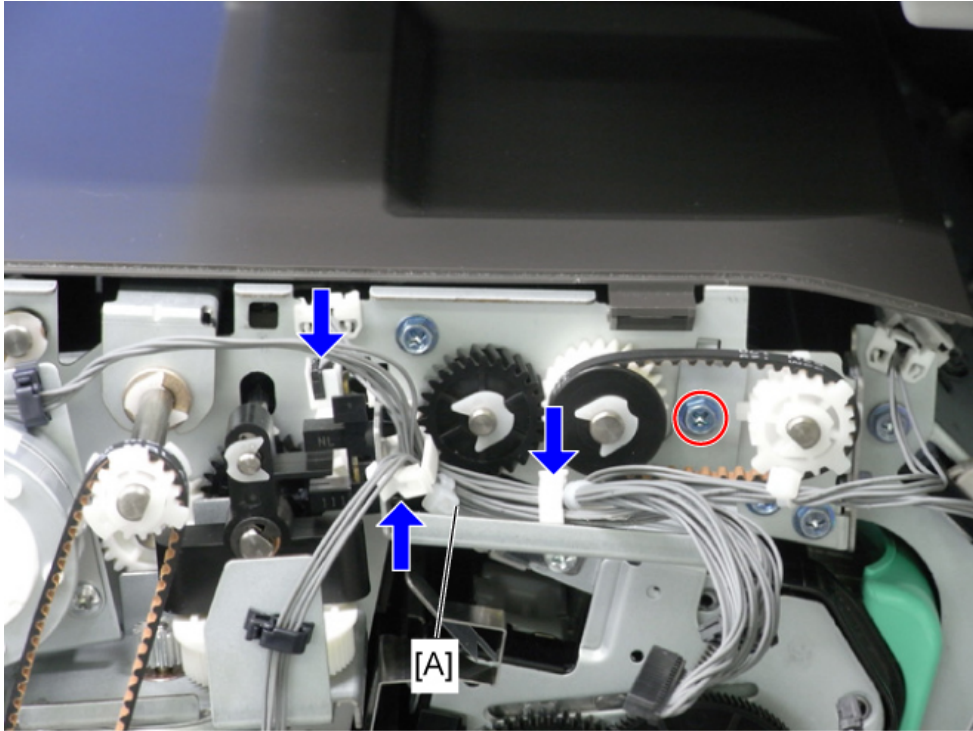
- Make sure that the gears rotate when you turn the knob.
- Make sure that the linkage [A] moves up and down when you rotate the cam [B].



d586r036

Shift Roller HP Sensor

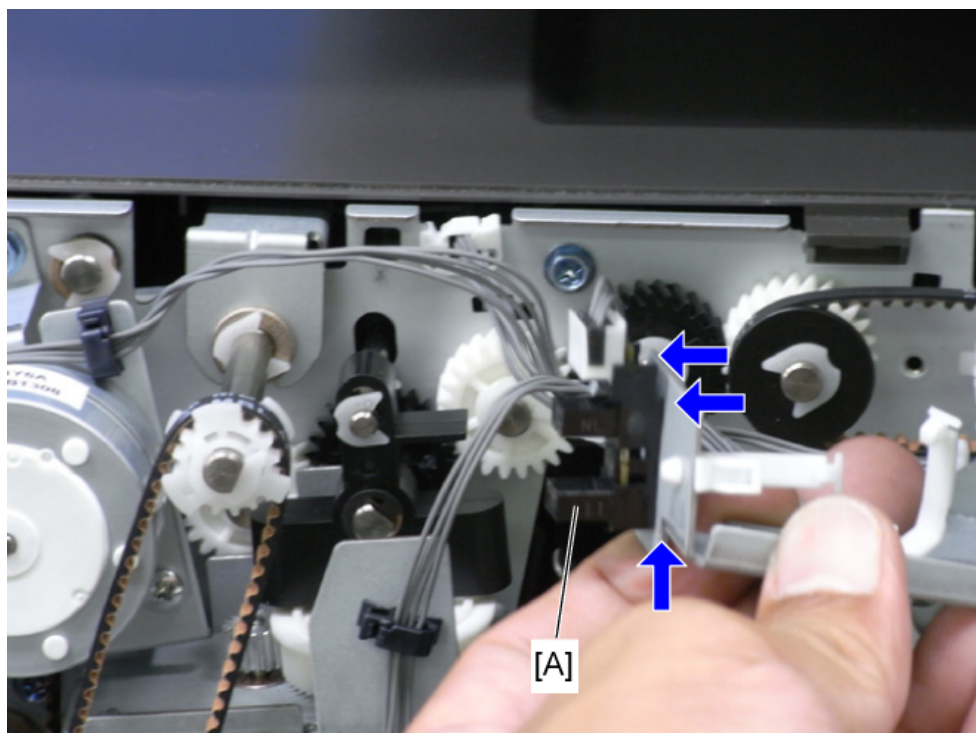
1. Remove the controller board bracket. (p.36 "Shift Roller Motor")



d586r037

2. Remove the shift roller HP sensor assembly [A] ( x 1,  x 2,  x 1).

1



d586r038

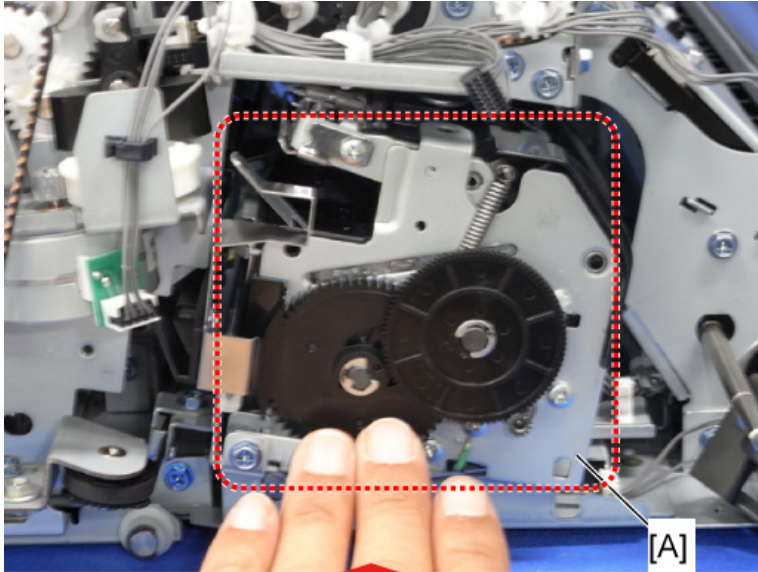
3. Replace the shift roller HP sensor [A] (hooks x 3).

Stapler Unit

Stapler Unit HP Sensor

1

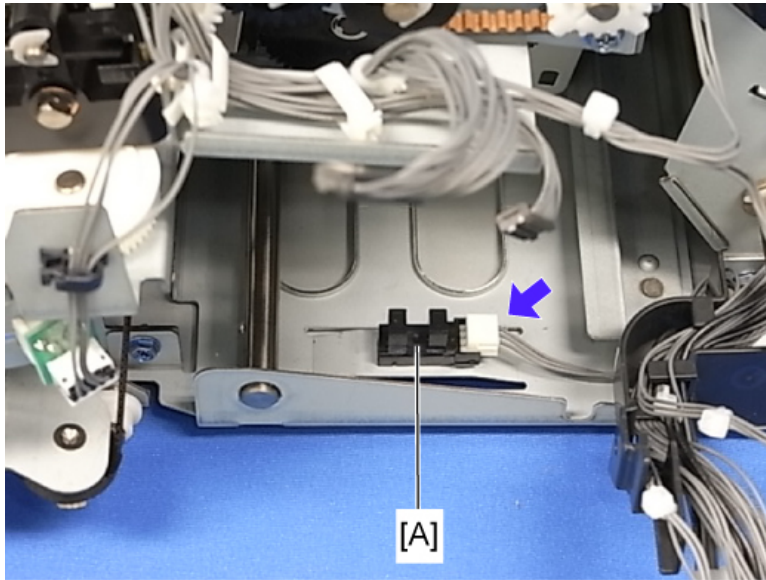
1. Remove the controller board bracket (p.36 "Shift Roller Motor")



d586r039

2. Push the stapler unit [A] toward the rear.

1



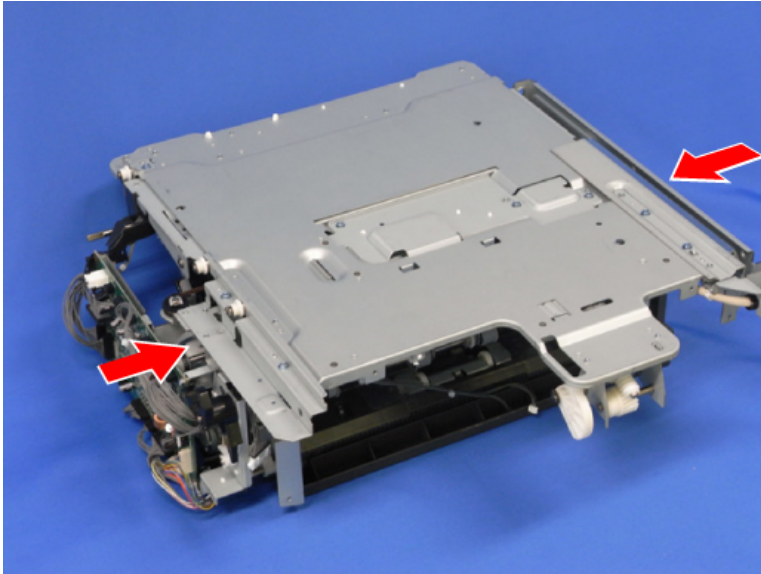
d586r040

3. Replace the stapler unit HP sensor [A] (🖨️ x 1).

Stapler Unit Motor

1. Remove:

- Finisher (🖨️ p.5 "Internal Finisher")
- Exit cover assembly (🖨️ p.10 "Exit Cover")

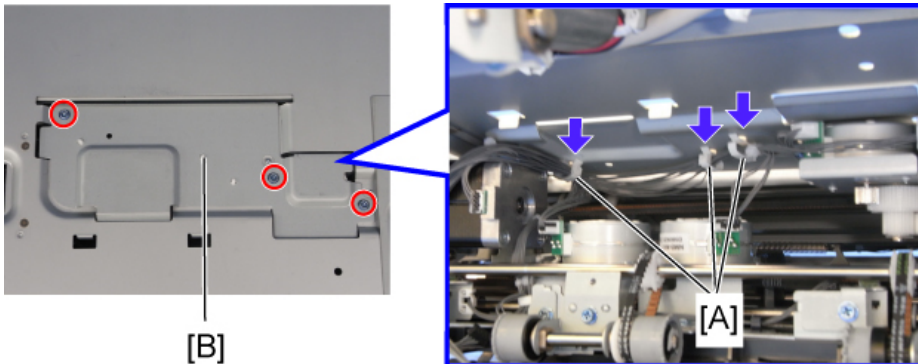


d586r041

2. Turn over the finisher by holding the front and rear side of the finisher.

Note

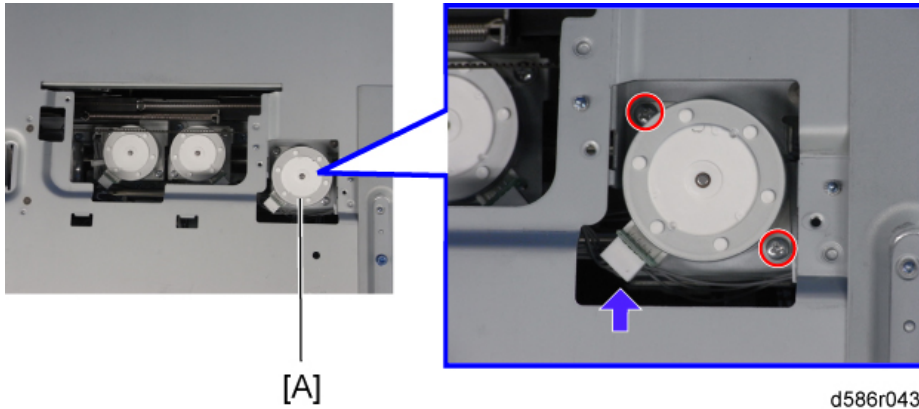
- Be careful not to deform the frame when turning over the finisher.



d586r042

3. Release the harness from the three clamps [A] from the back side of the base cover (🔧 x 3).
4. Remove the three screws on the base cover, and then remove the base cover [B] (🔧 x 3)

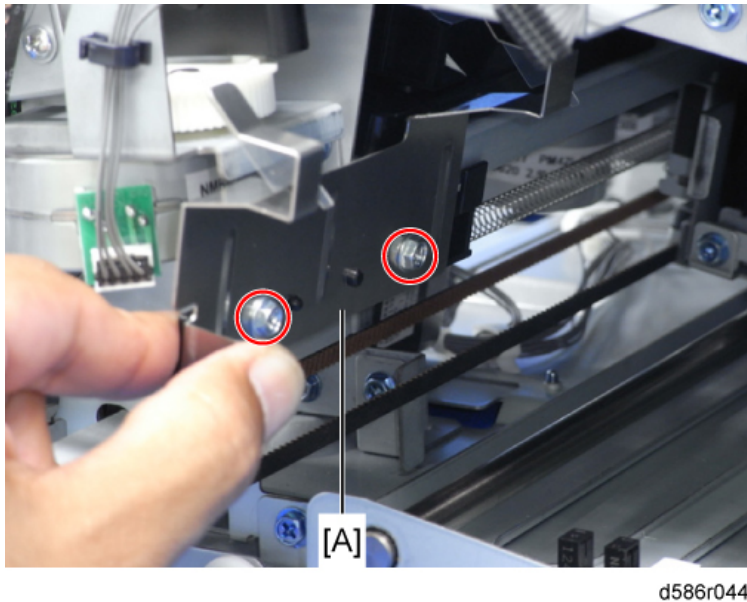
1



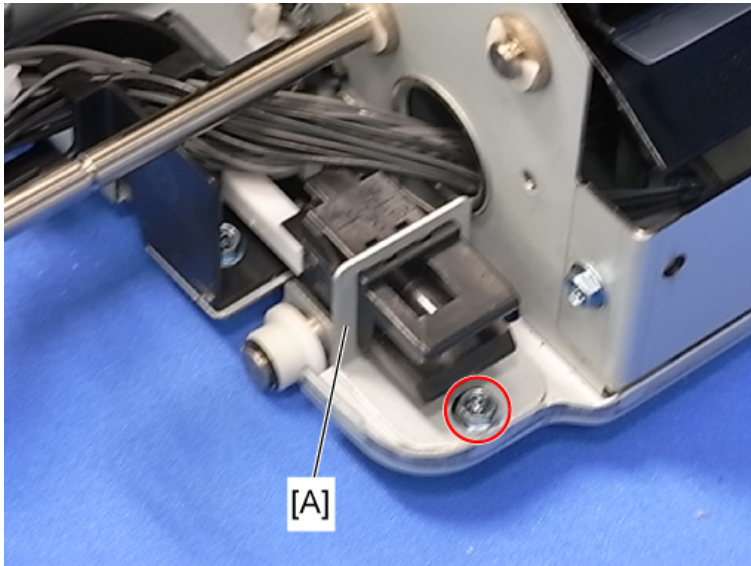
5. Replace the stapler unit motor [A] ( x 2,  x 1).

Stapler Unit

1. Remove the controller board bracket. ( p.36 "Shift Roller Motor")
2. Push the stapler unit toward the rear. ( p.43 "Stapler Unit HP Sensor")

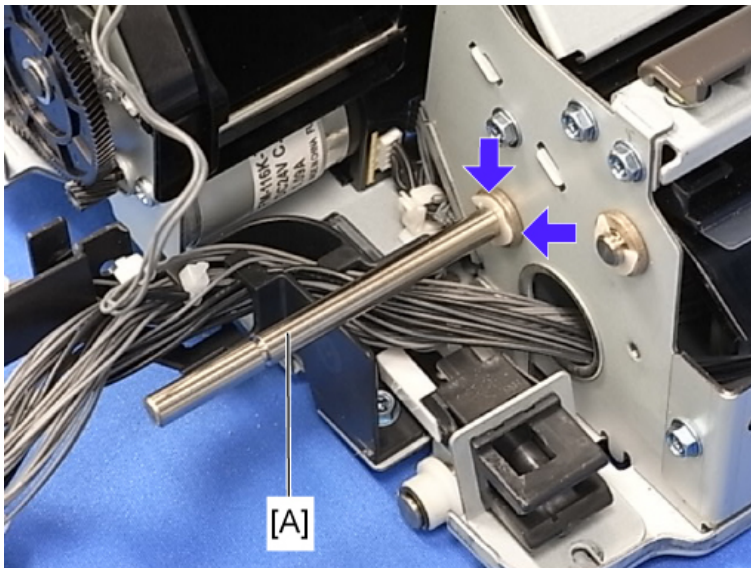


3. Remove the back-end positioning fence [A] ( x 2).



d586r045

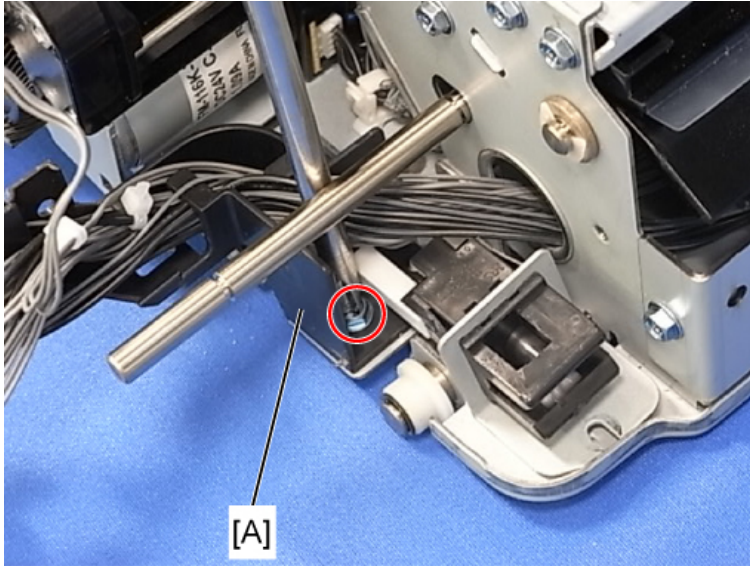
4. Remove the cover switch assembly [A] ( x 1).



d586r046

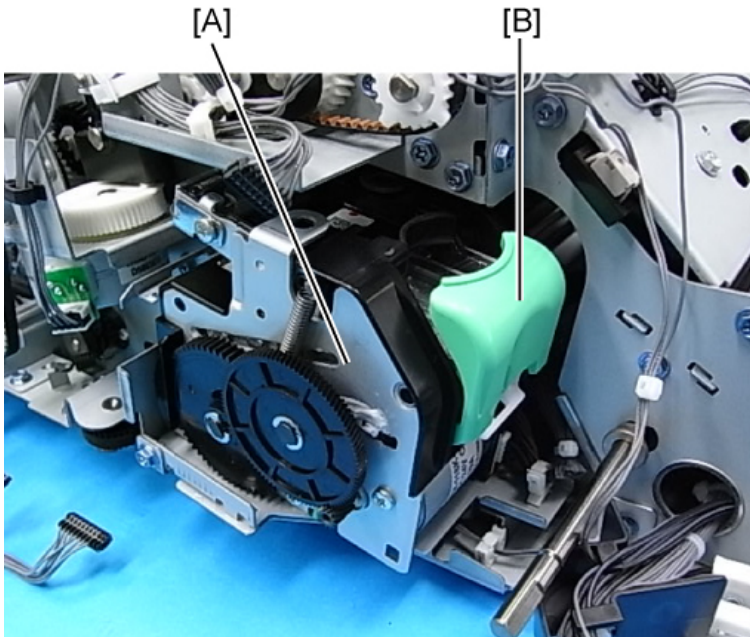
5. Remove the one e-ring and one bushing from the process shaft [A].

1



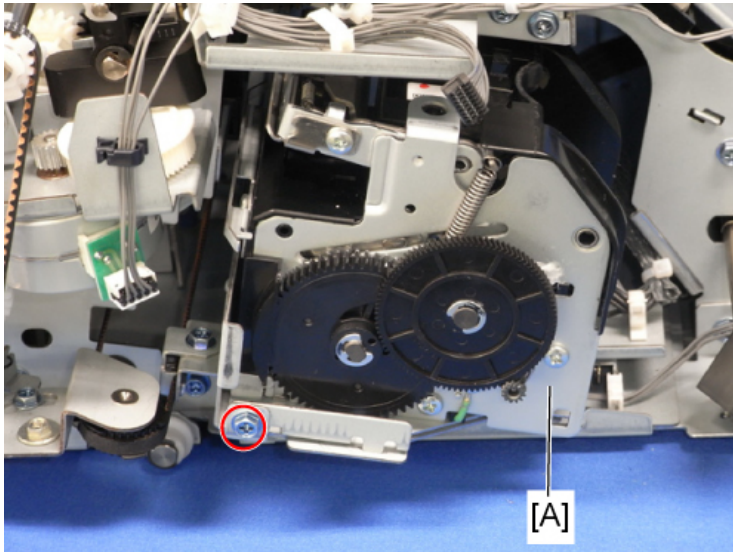
d586r047

6. Remove the harness guide [A] ( x 1).



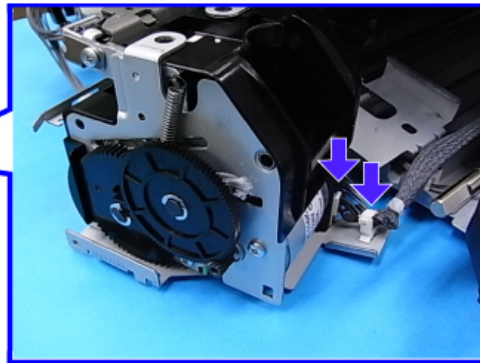
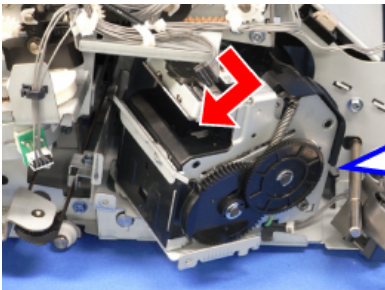
d586r092

7. Move the stapler unit [A] toward the front and remove the cartridge [B].



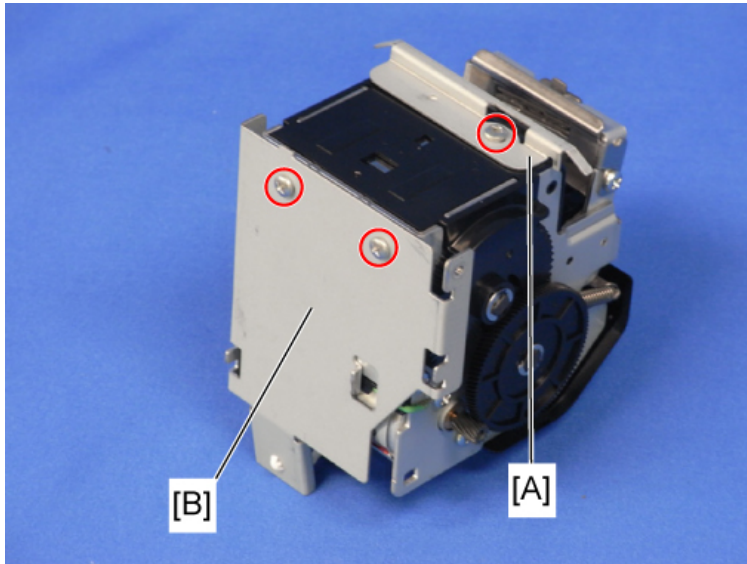
d586r048

8. Remove the screw that holds the stapler unit [A] ( x 1).



d586r049a

9. Remove the stapler unit assembly ( x 2,  x 1).

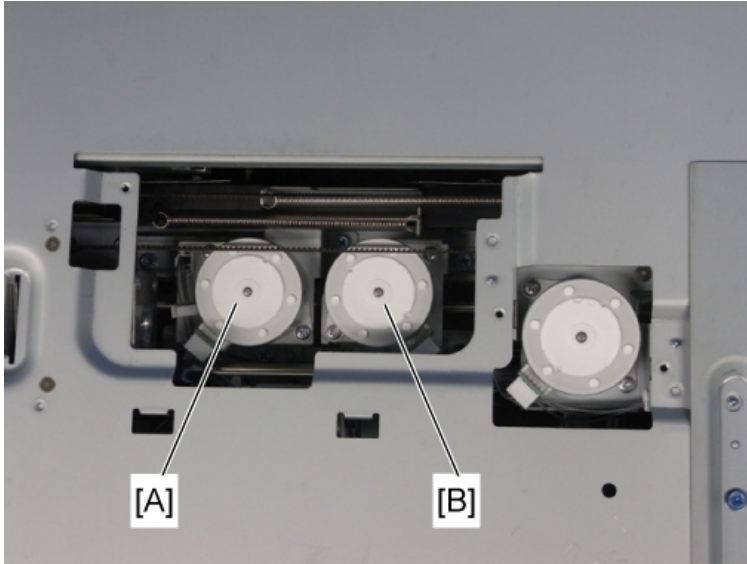


d586r051

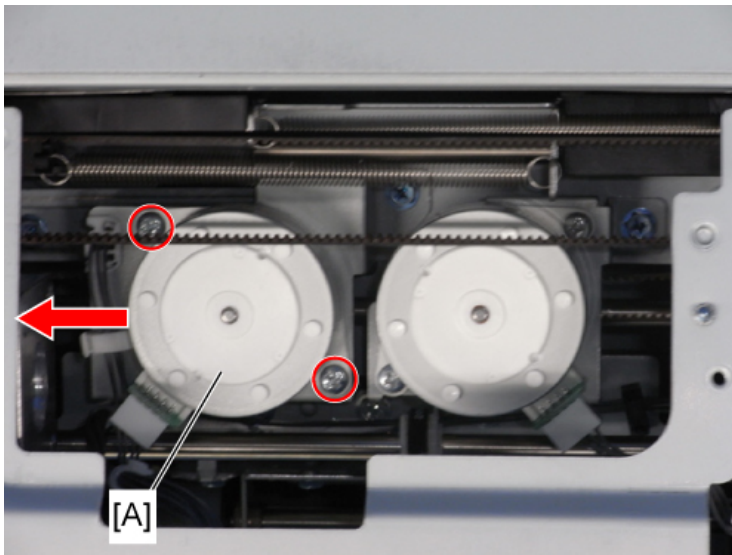
10. Remove the fence guide [A] ( x 1).
11. Replace the stapler unit [B] ( x 2).

Jogger Fence Motors

1. Remove:
 - Finisher ( p.5 "Internal Finisher")
 - Exit cover assembly ( p.10 "Exit Cover")
2. Turn over the finisher. ( p.44 "Stapler Unit Motor")
3. Remove the base cover. ( p.44 "Stapler Unit Motor")



d586r052



d586r053

4. Replace the jogger fence motor (front) [A] ( x 2,  x1).

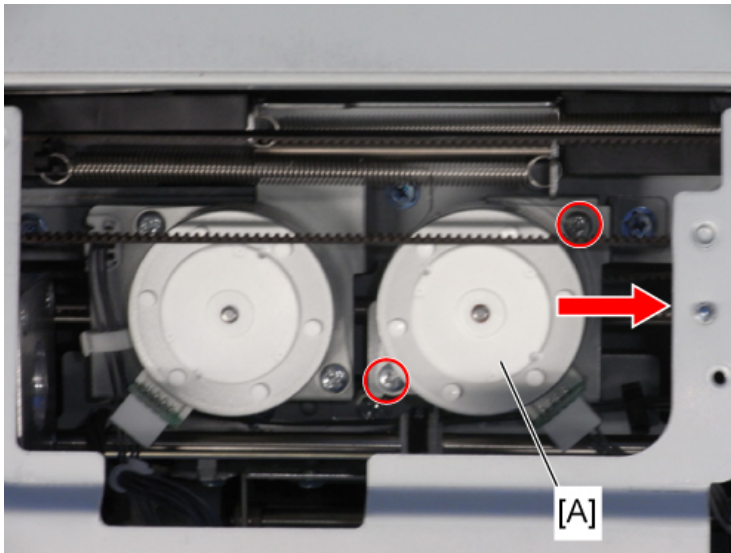
Note

- When reassembling, make sure that the pulley of the motor meets the timing belt.

1



d586r081



d586r054

5. Replace the jogger fence motor (back) [A] ( x 2,  x1).

Note

- When reassembling, make sure that the pulley of the motor meets the timing belt.

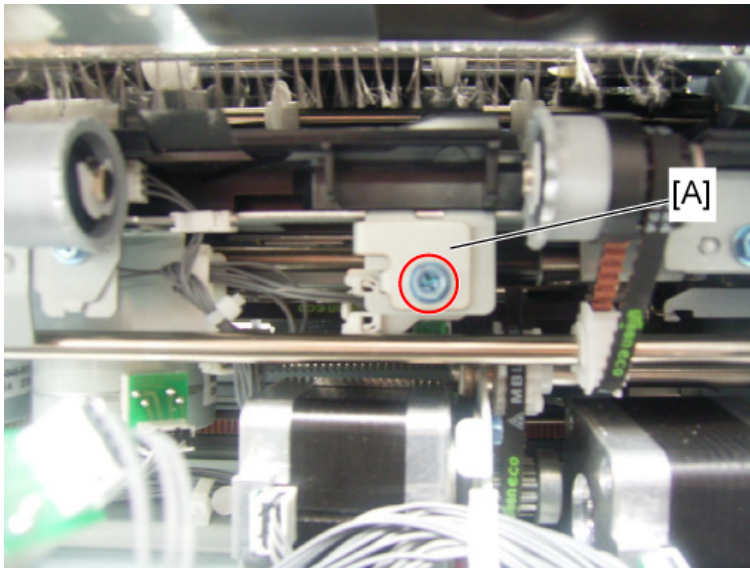


d586r082

Jogger Fence HP Sensor (Front)

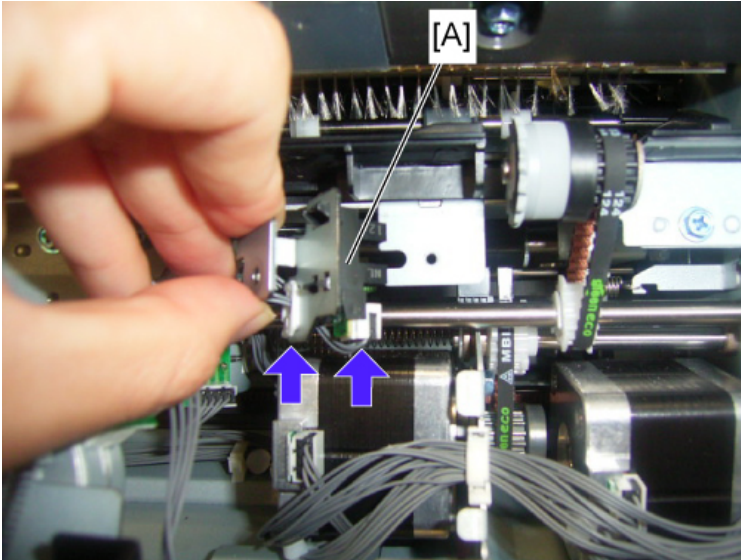
1. Remove:

- Finisher (➡ p.5 "Internal Finisher")
- Exit cover assembly (➡ p.10 "Exit Cover")



d586r079

2. Remove the jogger fence HP sensor (front) assembly [A] ( x 1).

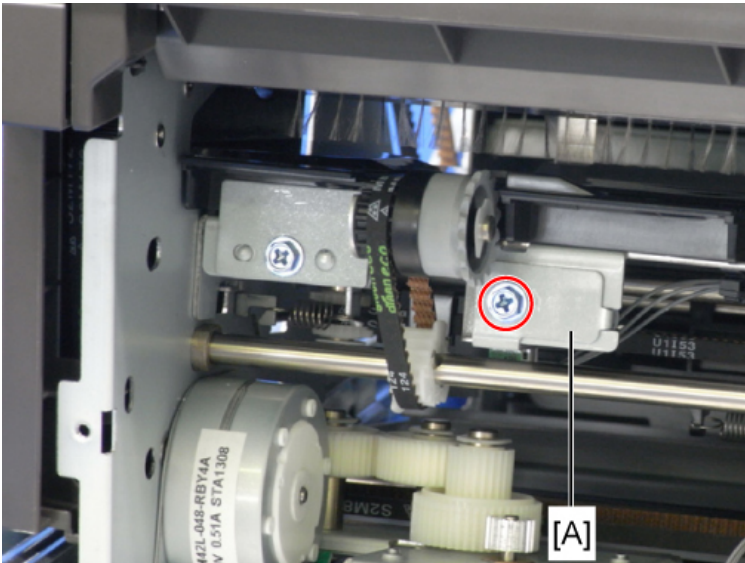


d586r063

3. Replace the jogger fence HP sensor (front) [A] ( x 1,  x 1).

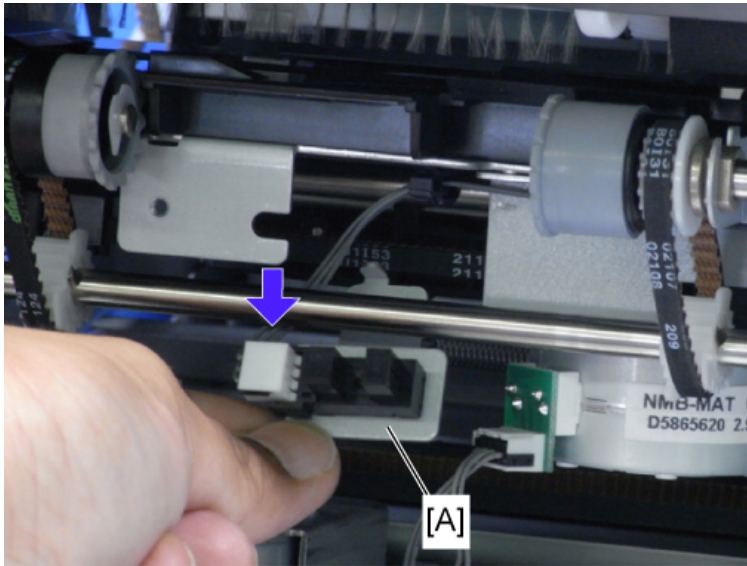
Jogger Fence HP Sensor (Back)

1. Remove the exit cover assembly. ( p.10 "Exit Cover")



d586r064

2. Remove the jogger fence HP sensor (back) assembly [A] ( x 1).

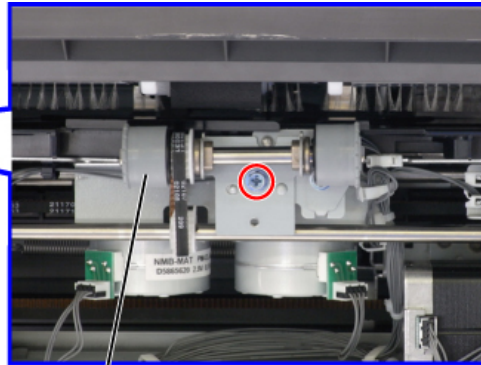
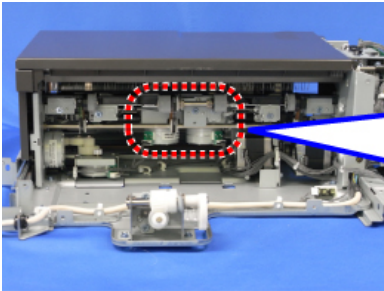


d586r065

3. Replace the jogger fence HP sensor (back) [A] ( x 1).

Staple Tray Paper Sensor

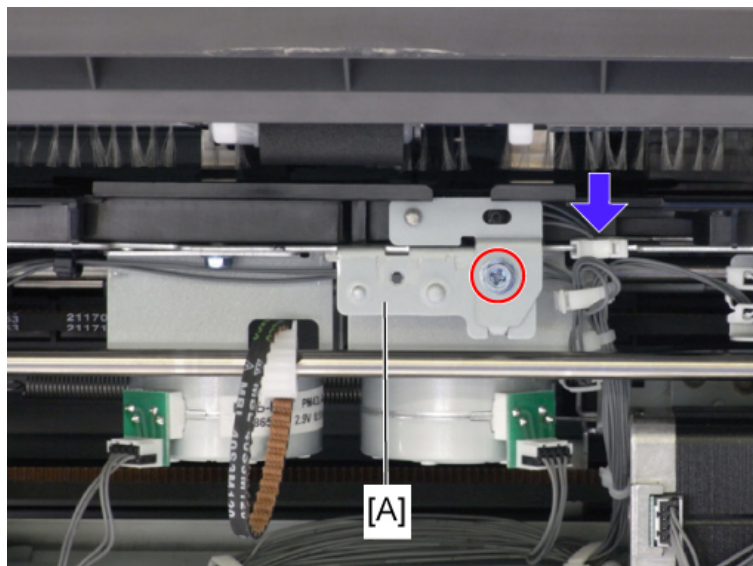
1. Remove the exit cover assembly. ( p.10 "Exit Cover").



[A]

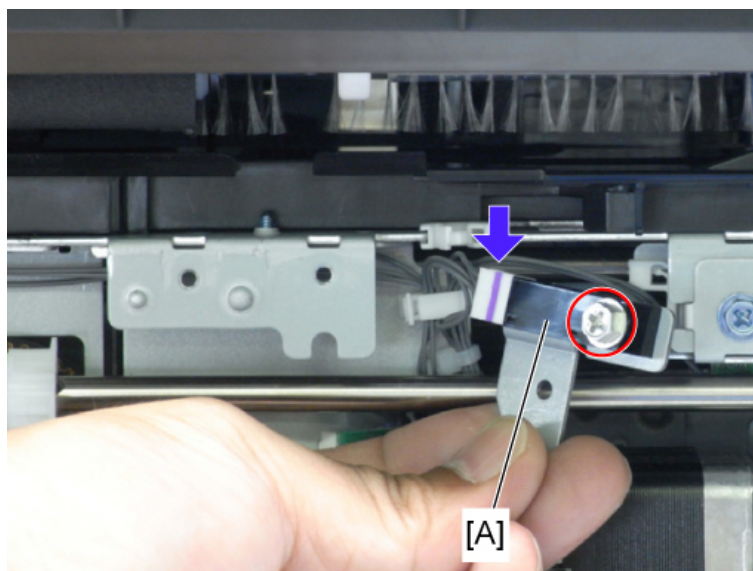
d586r066

2. Remove the exit roller assembly [A] ( x 1).



d586r067

3. Remove the staple tray paper sensor assembly [A] ( x 1,  x 1).

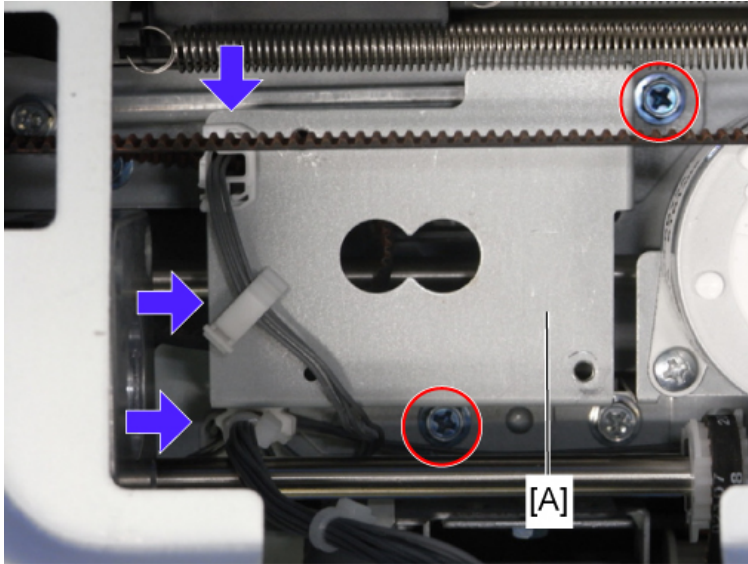


d586r068

4. Replace the staple tray paper sensor [A] ( x 1,  x 1).

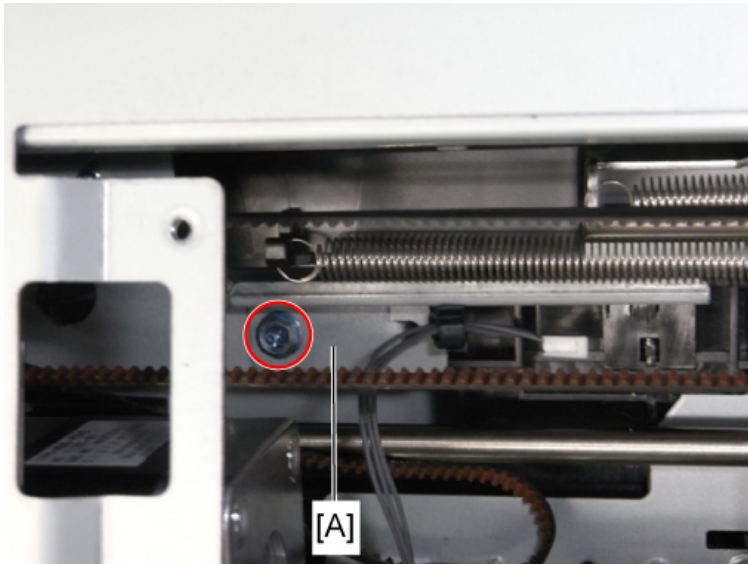
Paper Exit Sensor

1. Remove the jogger fence motor (front). ( p.50 "Jogger Fence Motors")



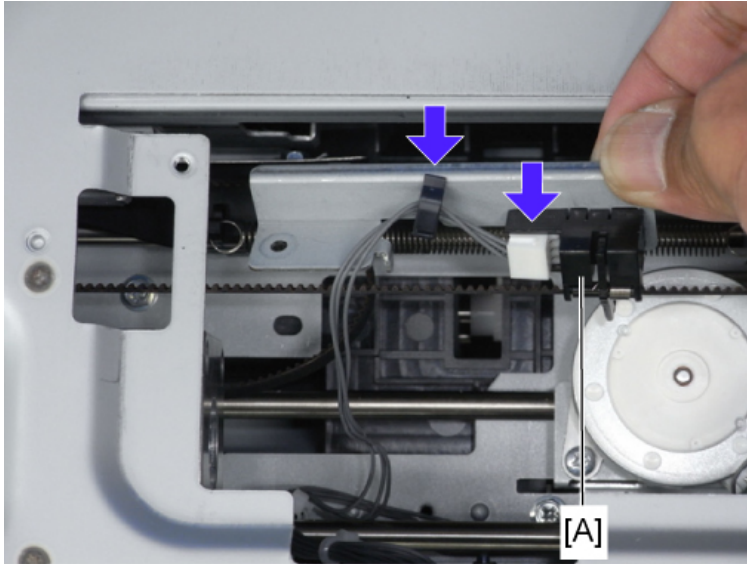
d586r069

2. Remove the motor bracket [A] ( x 2,  x 3).



d586r070

3. Remove the paper exit sensor assembly [A] ( x 1).



d586r071

4. Replace the paper exit sensor [A] (🖨️ x 1, 🖨️ x 1).

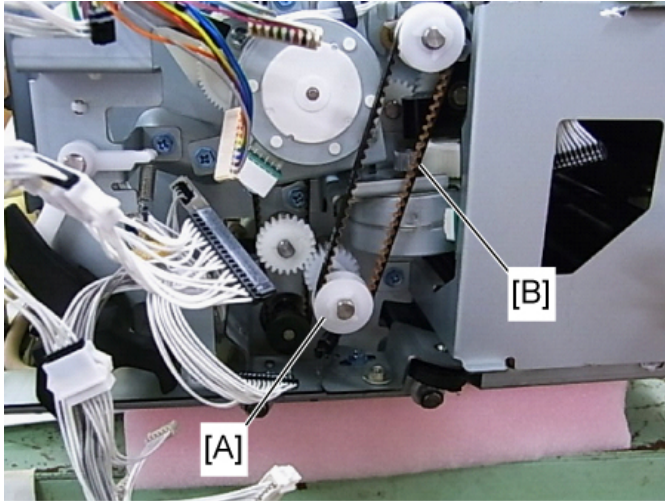
Note

- When reinstalling the paper exit sensor, make sure that the feeler does not hook the timing belt.

Exit Roller Motor

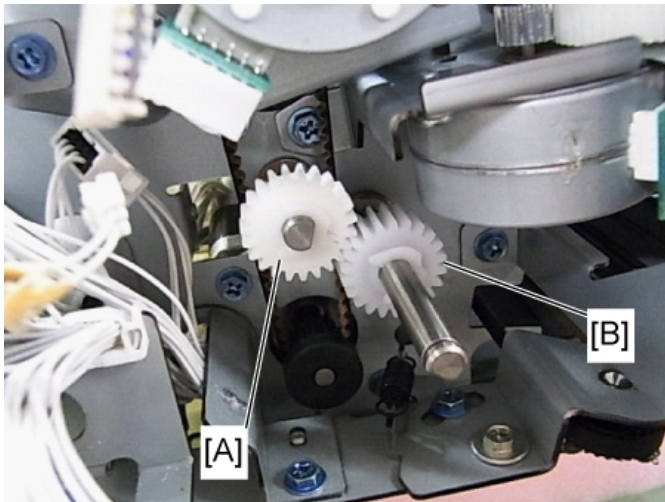
1. Remove:

- Finisher (🖨️ p.5 "Internal Finisher")
- Exit cover assembly (🖨️ p.10 "Exit Cover")
- Controller board (🖨️ p.12 "Controller Board")
- Rear cover (🖨️ p.27 "Pick-up Roller HP Sensor")
- Jogger Fence HP Sensor (Back) (🖨️ p.54 "Jogger Fence HP Sensor (Back)")



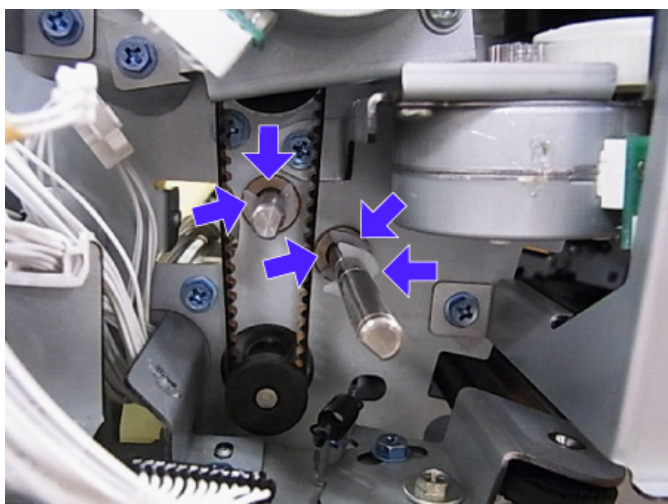
d586r083

2. Remove the pulley [A] and the timing belt [B].



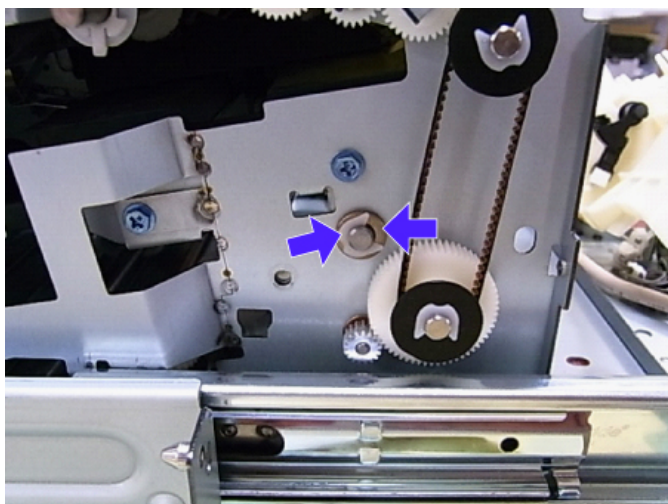
d586r084

3. Remove the gear [A] and the one-way clutch gear [B] (Ⓒ x 1).



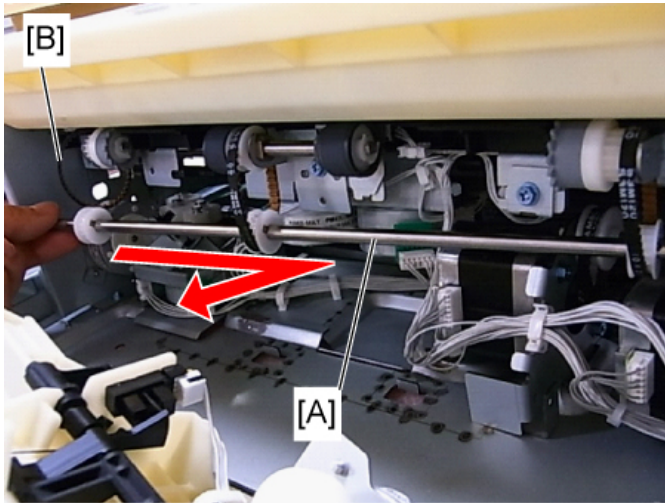
d586r085

4. Remove three e-rings and two bushings.



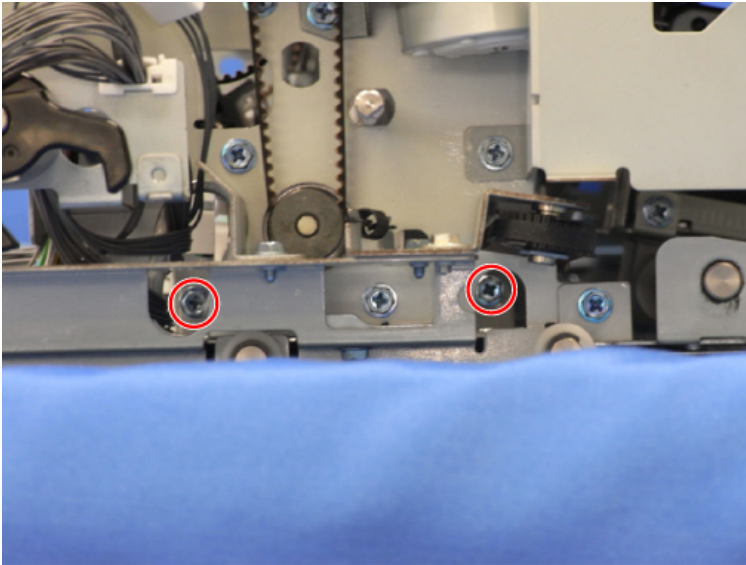
d586r086

5. Remove the e-ring and the bushing.



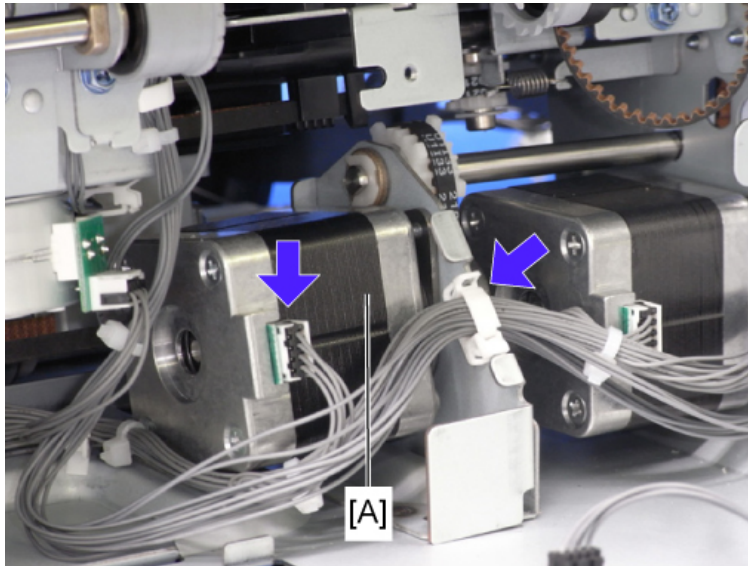
d586r087

6. Remove the shaft [A] by first removing the belt [B].



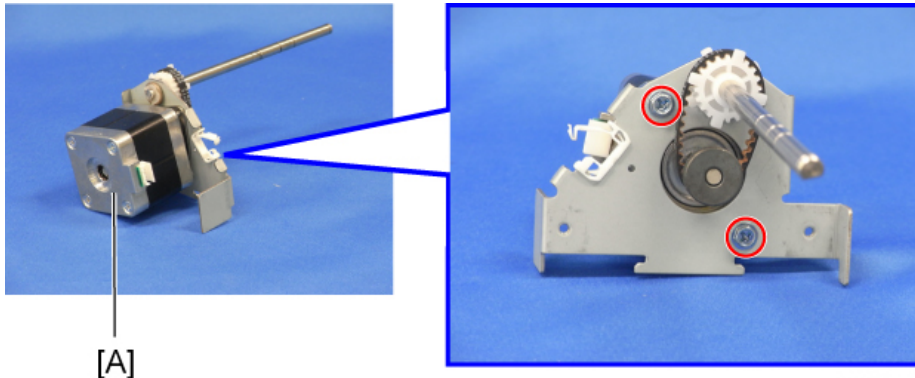
d586r072

7. Remove the screws of the exit roller motor assembly. ( x 2).



d586r073

8. Remove the harness and exit roller motor assembly [A] (🔧 x 1, 📦 x 1).



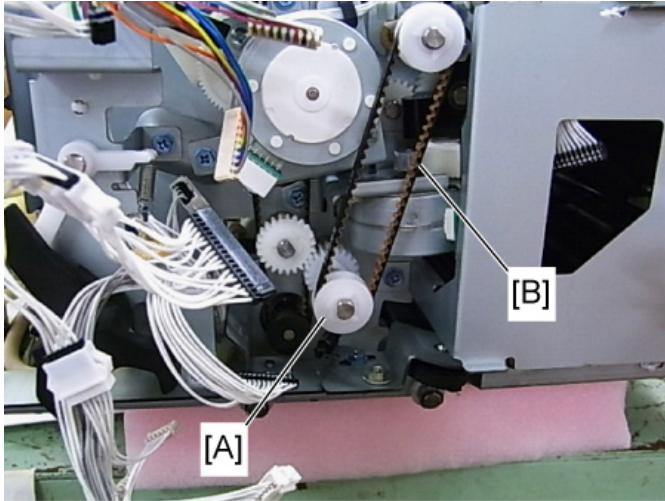
d586r074

9. Replace the exit roller motor [A] (🔧 x 2).

Feed Roller Motor

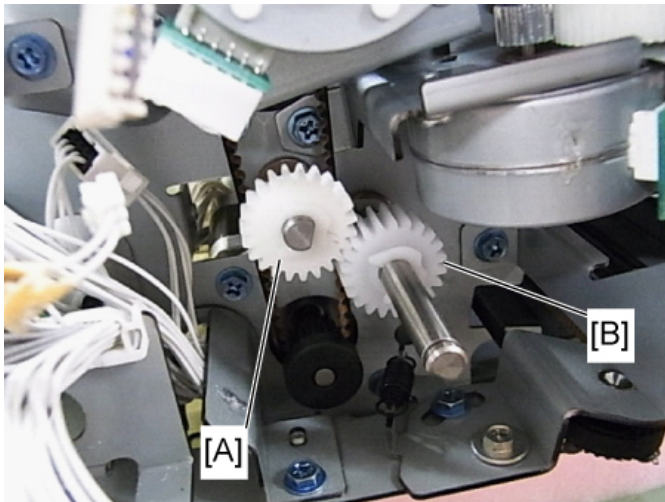
1. Remove:

- Finisher (📖 p.5 "Internal Finisher")
- Exit cover assembly (📖 p.10 "Exit Cover")
- Controller board (📖 p.12 "Controller Board")
- Rear cover (📖 p.27 "Pick-up Roller HP Sensor")
- Jogger Fence HP Sensor (Back) (📖 p.54 "Jogger Fence HP Sensor (Back)")



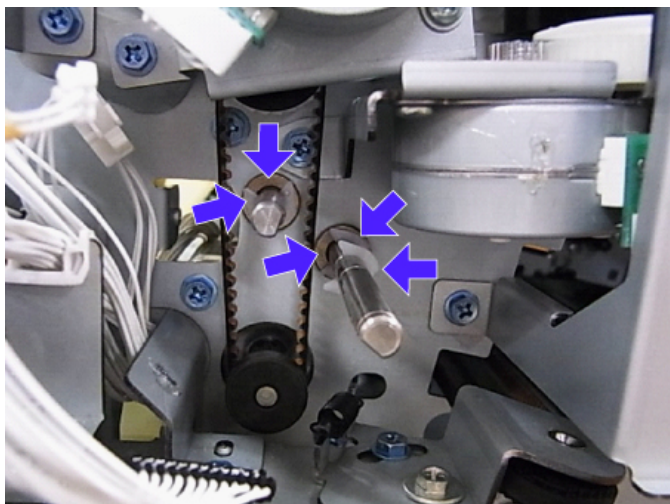
d586r083

2. Remove the pulley [A] and the timing belt [B].



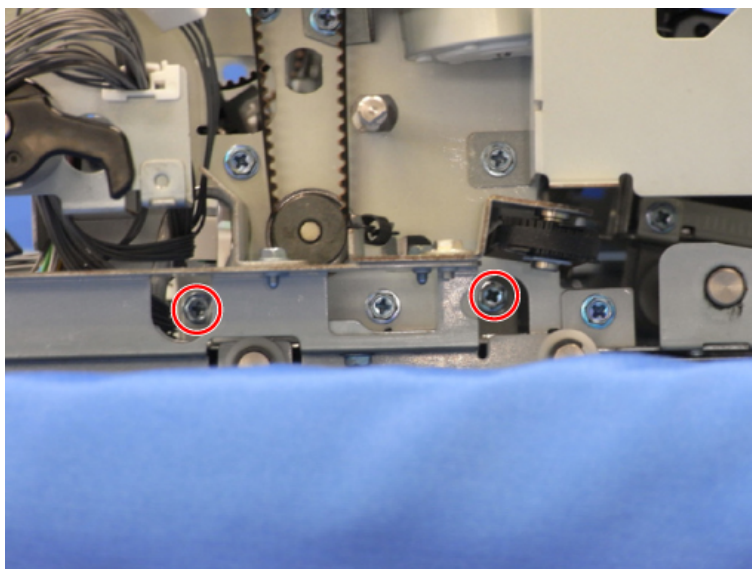
d586r084

3. Remove the gear [A] and the one-way clutch gear [B] (⌚ x 1).



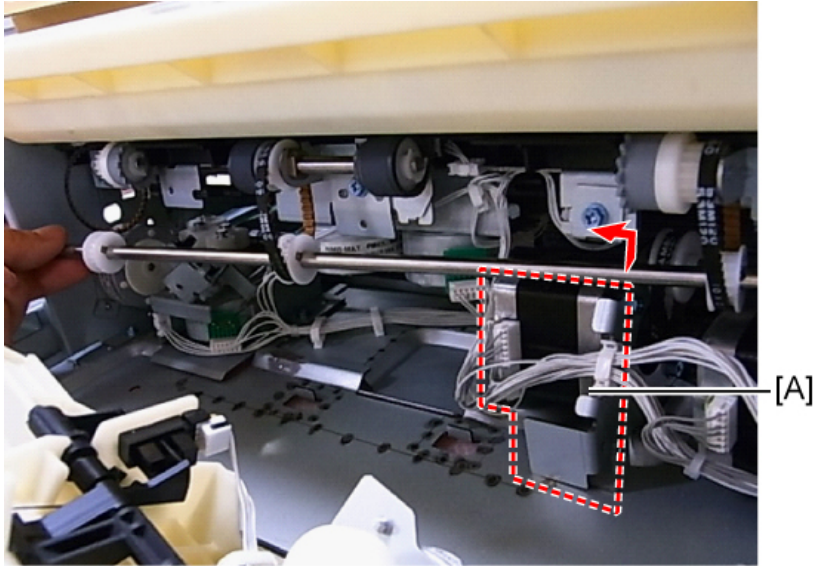
d586r085

4. Remove three e-rings and two bushings.



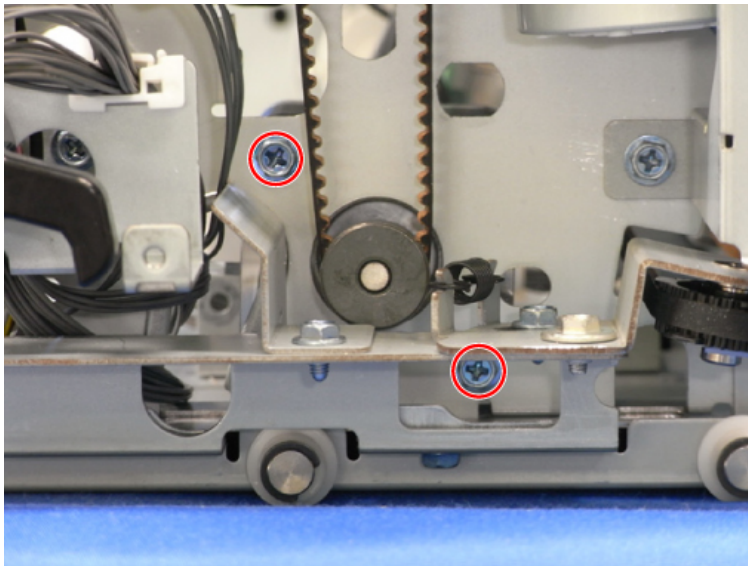
d586r072

5. Remove the screws of the exit roller motor assembly ( x 2).



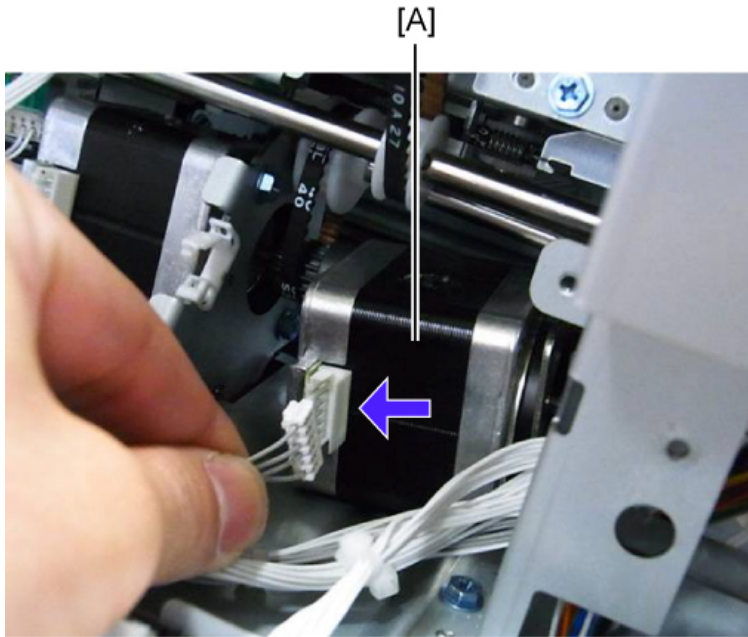
d586r089

6. Displace the exit roller motor assembly [A] to the rear.



d586r075

7. Remove the screws of the feed roller motor ( x 2).

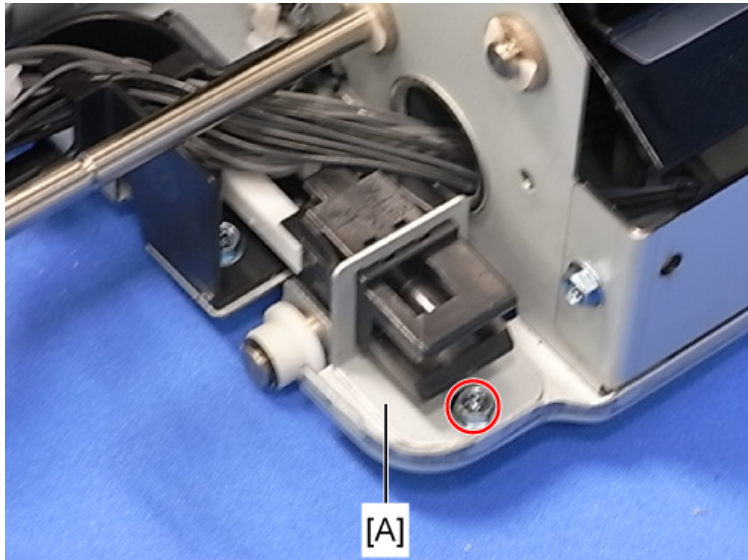


d586r088

8. Replace the feed roller motor [A] (🔧 x 1).

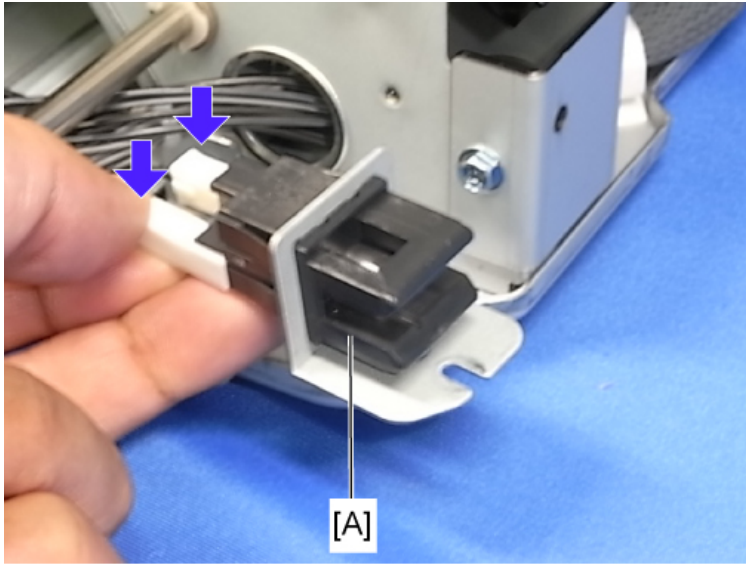
Cover Switch

1. Remove the front cover (🔧 p.7 "Front Cover").



d586r077

2. Remove the cover switch assembly [A] ( x 1).



d586r078

3. Replace the cover switch [A] ( x 2, hook x 4).

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