Finisher SR5110, Booklet Finisher SR5120
Machine Code: D3G9, D3G8
Field Service Manual
Ver 1.0

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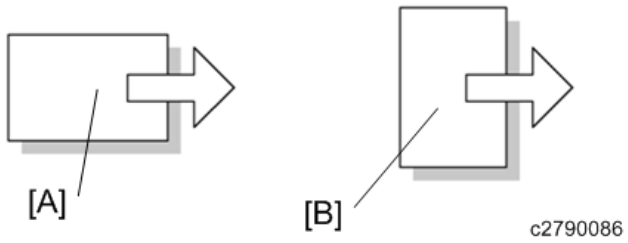
Symbols, Abbreviations

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
LEF	Long Edge Feed
K	Black
C	Cyan
M	Magenta
Y	Yellow
B/W, BW	Black and White
FC	Full color



[A] Short Edge Feed (SEF)

[B] Long Edge Feed (LEF)

Table of Contents

1. Detailed Descriptions

Specifications

Finisher SR5110

Item		Specification	Remarks
Power consumption		150 W or less	A separate power source is required.
Dimensions (W x D x H)		996 x 730 x 1415 mm (39.2 x 28.7 x 55.7 inches) (without the shift trays extended) 1113 x 730 x 1490 mm (43.8 x 28.7 x 58.7 inches) (with the shift trays extended)	
Weight		Approximately 135 kg (298 lb)	
Staple position		Top, Left 2, Top 2, Bottom, Top Slant, Right 1, Right 2	
Paper size for shift tray 1	Without Z-fold	A3 SEF, A4 SEF/LEF, A5 SEF/LEF, A6 SEF, B4 JIS SEF, B5 JIS SEF/LEF, B6 JIS SEF, 11 x 17 SEF, $8^1/_2$ x 14 SEF, $8^1/_2$ x 13 SEF, $8^1/_2$ x 11 SEF/LEF, $8^1/_4$ x 14 SEF, $8^1/_4$ x 13 SEF, 8 x 13 SEF, 8 x 10 SEF, $7^1/_4$ x $10^1/_2$ SEF/LEF, $5^1/_2$ x $8^1/_2$ SEF/LEF, 8K SEF, 16K SEF/LEF, 12 x 18 SEF, 11 x 15 SEF, 11 x 14 SEF, 10 x 15 SEF, 10 x 14 SEF, 13 x $19^1/_5$ SEF, 13 x 19 SEF, $12^3/_5$ x $19^1/_5$ SEF, $12^3/_5$ x $18^1/_2$ SEF, 13 x 18 SEF, SRA3 SEF, SRA4 SEF/LEF, 226 x 310 mm SEF/LEF, 310 x 432 mm SEF, 81/2 x $13^2/_5$ SEF, $8^1/_2$ x $13^1/_2$ SEF, custom size	
	With Z-fold	A3 SEF, A4 SEF, B4 JIS SEF, 11 x 17 SEF, $8^1/_2$ x 14 SEF, $8^1/_2$ x 11 SEF, 8K SEF, 12 x 18 SEF, $8^1/_2$ x $13^2/_5$ SEF	
Stack capacity for shift tray 1	Without Z-fold	A4, $8^1/_2$ x 11: 1,000 sheets Other sizes: 500 sheets	80 g/m^2 paper
	With Z-fold	30 sheets	
Paper weight for	Without Z-fold	40.0–350.0 g/m^2 (34.4–300.9 kg)	300.1–350.0 g/m^2: Specified paper only

Item		Specification	Remarks
shift tray 1	With Z-fold	64.0–105.0 g/m^2 (55.1–90.3 kg)	
Paper size for shift tray 2	Without Z-fold	A3 SEF, A4 SEF/LEF, A5 SEF/LEF, B4 JIS SEF, A6 SEF, B5 JIS SEF/LEF, B6 JIS SEF, 11 x 17 SEF, 8^1/$_2$ x 14 SEF, 8^1/$_2$ x 13 SEF, 8^1/$_2$ x 11 SEF/LEF, 8^1/$_4$ x 14 SEF, 8^1/$_4$ x 13 SEF, 8 x 13 SEF, 8 x 10 SEF, 7^1/$_4$ x 10^1/$_2$ SEF/LEF, 5^1/$_2$ x 8^1/$_2$ SEF/LEF, 8K SEF, 16K SEF/LEF, 12 x 18 SEF, 11 x 15 SEF, 11 x 14 SEF, 10 x 15 SEF, 10 x 14 SEF, 13 x 19^1/$_5$ SEF, 13 x 19 SEF, 12^3/$_5$ x 19^1/$_5$ SEF, 12^3/$_5$ x 18^1/$_2$ SEF, 13 x 18 SEF, SRA3 SEF, SRA4 SEF/LEF, 226 x 310 mm SEF/LEF, 310 x 432 mm SEF, 8^1/$_2$ x 13^2/$_5$ SEF, 8^1/$_2$ x 13^1/$_2$ SEF, custom size	
	With Z-fold	A3 SEF, A4 SEF, B4 JIS SEF, 11 x 17 SEF, 8^1/$_2$ x 14 SEF, 8^1/$_2$ x 11 SEF, 8K SEF, 12 x 18 SEF, 8^1/$_2$ x 13^2/$_5$ SEF, 8^1/$_2$ x 13^1/$_2$ SEF	
Stack capacity for shift tray 2 (without Z-fold)	Without staple	A4 LEF, B5 LEF, 8^1/$_2$ x 11 SEF: 3,000 sheets A3 SEF, A4 SEF, B4 SEF, B5 SEF, 11 x 17 SEF, 8^1/$_2$ x 14 SEF, 8^1/$_2$ x 11 SEF, SRA4 SEF/LEF, 226 x 310mm SEF/LEF: 1,500 sheets 12 x 18 SEF, 13 x 19^1/$_5$ SEF, SRA3 SEF, 13 x19 SEF, 12^3/$_5$ x 19^1/$_5$ SEF, 12^3/$_5$ x 18^1/$_2$ SEF, 13 x 18 SEF, 310 x 432 mm: 1,000 sheets A5 LEF, 5^1/$_2$ x 8^1/$_2$ LEF: 500 sheets A5 SEF, 5^1/$_2$ x 8^1/$_2$ SEF: 100 sheets	
	With staple	A3 SEF, B4 SEF, 11 x 17 SEF, 8^1/$_2$ x 14 SEF: 10–50 sheets: 150–30 sets,2–9 sheets: 150 sets A4LEF, B5LEF, 8^1/$_2$ x 11 LEF: 20–100 sheets: 125–25sets, 10–19 sheets: 200–10sets, 2–9 sheets: 150sets, 20–100 sheets: 150–30 sets A4 SEF, B5 SEF, 8^1/$_2$ x 11 SEF: 10–100	80 g/m2 paper

Item		Specification	Remarks
		sheets: 150–15 sets, 2–9 sheets: 150 sets Mixed Sizes: 2–50 sheets: 30 sets (A3 SEF and A4 LEF, B4 SEF and B5LEF, 11 x 17 SEF and 8 1/2 x 11 LEF, 8K SEF and 16K LEF)	
Stack capacity for shift tray 2 (with Z-fold)	Without staple	30 sheets	80 g/m2 paper
	With staple	1–10 sheets: 30–3 sets (Z-folded A3 SEF and A4 LEF, Z-folded B4 JIS SEF and B5 JIS LEF, Z-folded 11 x 17 SEF and 8 1/2 x 11 LEF, Z-folded 8K SEF and 16K LEF)	
Paper weight for shift tray 2	Without Z-fold	40.0–470 g/m^2 (34.4–403.9 kg)	400.1–470.0 g/m^2: Specified paper only
	With Z-fold	64.0–105.0 g/m^2 (55.1–90.3 kg)	
Staple paper size	Without Z-fold	A3 SEF, B4JIS SEF, A4 SEF/LEF, B5 SEF/LEF, 11 x 17 SEF, 8 1/2 x 14 SEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 SEF, 8 1/2 x 13 SEF, 8 1/4 x 13 SEF, 8 x 13 SEF, 8 x 10 SEF, 7 1/4 x 10 1/2 SEF/LEF, 8K SEF, 16K SEF/LEF, 11 x 15 SEF, 11 x 14 SEF, 10 x 15 SEF, 10 x 14 SEF	
	With Z-fold	A3 SEF, B4 SEF, 11 x 17 SEF, 8K SEF	
	With Z-fold and Mixed Sizes	A3 SEF and A4 LEF B4 SEF and B5LEF 11 x 17 SEF and 8 1/2 x 11 LEF 8K SEF and 16K LEF	
Staple capacity	Without Z-fold	A4 SEF/LEF, B5 SEF/LEF, 8 1/2 x 11 SEF/LEF, 8 x 10 1/2 SEF/LEF, 8 x 10 SEF/LEF, 7 1/4 x 10 1/2 SEF/LEF, 16K SEF/LEF: 100 sheets A3 SEF, B4 SEF, 11 x 17 SEF, 11 x 15 SEF, 11 x 14 SEF, 10 x 15 SEF, 10 x 14 SEF, 8 1/2 x 14 SEF, 8 1/2 x 13 SEF, 8 1/4 x 14 SEF, 8 1/4 x 13 SEF, 8 x 13 SEF, 8K SEF: 50 sheets	80 g/m2 paper
	With Mixed Sizes	50 sheets (A3 SEF and A4 LEF, B4 SEF and B5LEF, 11 x 17 SEF and 8 1/2 x 11 LEF, 8K SEF and 16K LEF)	

Item		Specification		Remarks
	With Z-fold	10 sheets		
	Combination of Z-folded sheets and unfolded sheets	Z-folded sheets	Unfolded sheets	
		10	0	
		9	0–10	
		8	0–20	
		7	0–30	
		6	0–40	
		5	0–50	
		4	0–60	
		3	0–70	
		2	0–80	
		1	0–90	
Staple paper weight	With Mixed Sizes	63.1–80.0 g/m^2 (54.3–68.8 kg)		You can use up to two sheets of A4 or 8$^1/_2$ x 11 size paper weighing up to 200.0 g/m^2 per set as slip sheets. The thickness of the set must be 11 mm or smaller.
	With Z-fold	64.0–105 g/m^2 (55.0–90.3 kg)		

Booklet Finisher SR5120

Item		Specification	Remarks
Power consumption		150 W or less	A separate power source is required.
Dimensions (W x D x H)		996 x 730 x 1415 mm (39.2 x 28.7 x 55.7 inches) (without the shift trays extended) 1113 x 730 x 1490 mm (43.8 x 28.7 x 58.7 inches) (with the shift trays extended)	
Weight		Approximately 160 kg (353 lb)	
Saddle stitch positions		Center 2 positions	
Types of folds		Half Fold	
Paper size for shift tray 1	Without Z-fold	A3 SEF, A4 SEF/LEF, A5 SEF/LEF, A6 SEF, B4 JIS SEF, B5 JIS SEF/LEF, B6 JIS SEF, 11 x 17 SEF, 8$^1/_2$ x 14 SEF, 8$^1/_2$ x 13 SEF, 8$^1/_2$ x 11 SEF/LEF, 8$^1/_4$ x 14 SEF, 8$^1/_4$ x 13 SEF, 8 x 13 SEF, 8 x 10 SEF, 7$^1/_4$	

Item		Specification	Remarks
		x $10^{1}/_{2}$ SEF/LEF, $5^{1}/_{2}$ x $8^{1}/_{2}$ SEF/LEF, 8K SEF, 16K SEF/LEF, 12 x 18 SEF, 11 x 15 SEF, 11 x 14 SEF, 10 x 15 SEF, 10 x 14 SEF, 13 x $19^{1}/_{5}$ SEF, 13 x 19 SEF, $12^{3}/_{5}$ x $19^{1}/_{5}$ SEF, $12^{3}/_{5}$ x $18^{1}/_{2}$ SEF, 13 x 18 SEF, SRA3 SEF, SRA4 SEF/LEF, 226 x 310 mm SEF/LEF, 310 x 432 mm SEF, 81/2 x $13^{2}/_{5}$ SEF, $8^{1}/_{2}$ x $13^{1}/_{2}$ SEF, custom size	
	With Z-fold	A3 SEF, A4 SEF, B4 JIS SEF, 11 x 17 SEF, $8^{1}/_{2}$ x 14 SEF, $8^{1}/_{2}$ x 11 SEF, 8K SEF, 12 x 18 SEF, $8^{1}/_{2}$ x $13^{2}/_{5}$ SEF, $8^{1}/_{2}$ x $13^{1}/_{2}$ SEF	
Stack capacity for shift tray 1	Without Z-fold	A4, $8^{1}/_{2}$ x 11: 1,000 sheets Other sizes: 500 sheets	80 g/m^2 paper
	With Z-fold	30 sheets	
Paper weight for shift tray 1	Without Z-fold	40.0–350.0 g/m^2 (34.4–300.9 kg)	300.1–350.0 g/m^2: Specified paper only
	With Z-fold	64.0–105.0 g/m^2 (55.1–90.3 kg)	
Paper size for shift tray 2	Without Z-fold	A3 SEF, A4 SEF/LEF, A5 SEF/LEF, B4 JIS SEF, A6 SEF, B5 JIS SEF/LEF, B6 JIS SEF, 11 x 17 SEF, $8^{1}/_{2}$ x 14 SEF, $8^{1}/_{2}$ x 13 SEF, $8^{1}/_{2}$ x 11 SEF/LEF, $8^{1}/_{4}$ x 14 SEF, $8^{1}/_{4}$ x 13 SEF, 8 x 13 SEF, 8 x 10 SEF, $7^{1}/_{4}$ x $10^{1}/_{2}$ SEF/LEF, $5^{1}/_{2}$ x $8^{1}/_{2}$ SEF/LEF, 8K SEF, 16K SEF/LEF, 12 x 18 SEF, 11 x 15 SEF, 11 x 14 SEF, 10 x 15 SEF, 10 x 14 SEF, 13 x $19^{1}/_{5}$ SEF, 13 x 19 SEF, $12^{3}/_{5}$ x $19^{1}/_{5}$ SEF, $12^{3}/_{5}$ x $18^{1}/_{2}$ SEF, 13 x 18 SEF, SRA3 SEF, SRA4 SEF/LEF, 226 x 310 mm SEF/LEF, 310 x 432 mm SEF, $8^{1}/_{2}$ x $13^{2}/_{5}$ SEF, $8^{1}/_{2}$ x $13^{1}/_{2}$ SEF, custom size	
	With Z-fold	A3 SEF, A4 SEF, B4 JIS SEF, 11 x 17 SEF, $8^{1}/_{2}$ x 14 SEF, $8^{1}/_{2}$ x 11 SEF, 8K SEF, 12 x 18 SEF, $8^{1}/_{2}$ x $13^{2}/_{5}$ SEF, $8^{1}/_{2}$ x $13^{1}/_{2}$ SEF	
Stack capacity	Without staple	A4 LEF, B5 LEF, $8^{1}/_{2}$ x 11 SEF: 2,500 sheets	

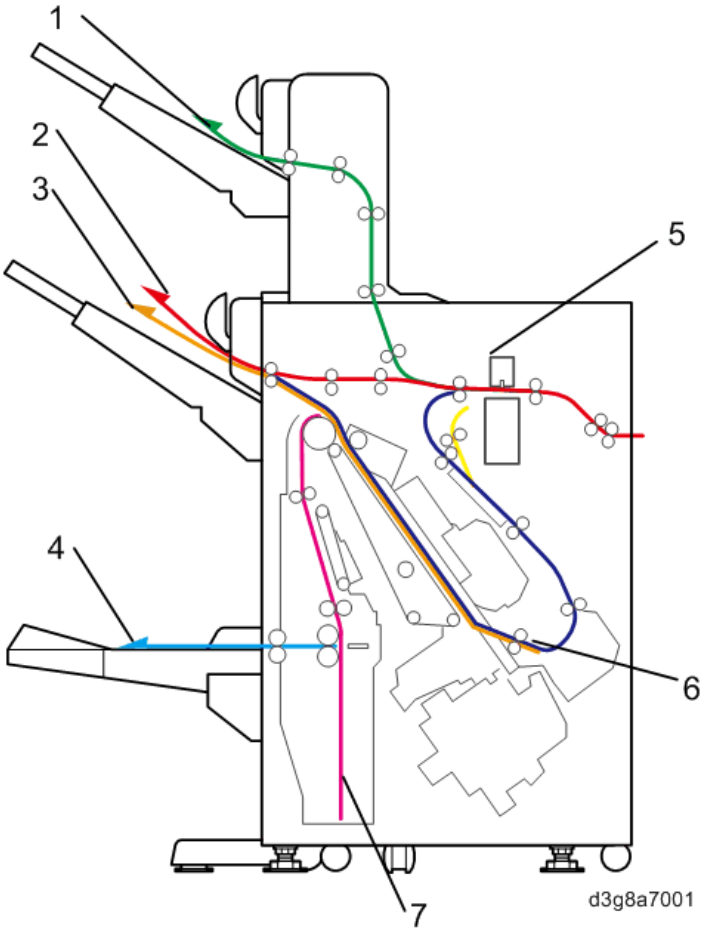
Item		Specification	Remarks
for shift tray 2 (without Z-fold)		A3 SEF, A4 SEF, B4 SEF, B5 SEF, 11 x 17 SEF, 8 1/2 x 14 SEF, 8 1/2 x 11 SEF, SRA4 SEF/LEF, 226 x 310mm SEF/LEF: 1,500 sheets 12 x 18 SEF, 13 x 19 1/5 SEF, SRA3 SEF, 13 x19 SEF, 12 3/5 x 19 1/5 SEF, 12 3/5 x 18 1/2 SEF, 13 x 18 SEF, 310 x 432 mm: 1,000 sheets A5 LEF, 5 1/2 x 8 1/2 LEF: 500 sheets A5 SEF, 5 1/2 x 8 1/2 SEF: 100 sheets	
	With staple	A3 SEF, B4 SEF, 11 x 17 SEF, 8 1/2 x 14 SEF: 10–50 sheets: 150–30 sets,2–9 sheets: 150 sets A4LEF, B5LEF, 8 1/2 x 11 LEF: 20–100 sheets: 125–25sets, 10–19 sheets: 200–10sets, 2–9 sheets: 150sets, 20–100 sheets: 150–30 sets A4 SEF, B5 SEF, 8 1/2 x 11 SEF: 10–100 sheets: 150–15 sets, 2–9 sheets: 150 sets Mixed Sizes: 2–50 sheets: 30 sets (A3 SEF and A4 LEF, B4 SEF and B5LEF, 11 x 17 SEF and 8 1/2 x 11 LEF, 8K SEF and 16K LEF)	80 g/m2 paper
Stack capacity for shift tray 2 (with Z-fold)	Without staple	30 sheets	80 g/m2 paper
	With staple	1–10 sheets: 30–3 sets (Z-folded A3 SEF and A4 LEF, Z-folded B4 JIS SEF and B5 JIS LEF, Z-folded 11 x 17 SEF and 8 1/2 x 11 LEF, Z-folded 8K SEF and 16K LEF)	
Paper weight for shift tray 2	Without Z-fold	40–470 g/m^2 (34.4–403.9 kg)	400.1–470.0 g/m^2: Specified paper only
	With Z-fold	64.0–105.0 g/m^2 (55.1–90.3 kg)	
Staple paper size	Without Z-fold	A3 SEF, B4JIS SEF, A4 SEF/LEF, B5 SEF/LEF, 11 x 17 SEF, 8 1/2 x 14 SEF, 8 1/2 x 11 SEF/LEF, 8 1/4 x 14 SEF, 8 1/2 x 13 SEF, 8 1/4 x 13 SEF, 8 x 13 SEF, 8 x 10 SEF, 7 1/4 x 10 1/2 SEF/LEF, 8K SEF, 16K SEF/LEF, 11 x 15 SEF, 11 x 14 SEF, 10 x	

<table>
<tr><th colspan="2">Item</th><th colspan="3">Specification</th><th>Remarks</th></tr>
<tr><td rowspan="3"></td><td></td><td colspan="3">15 SEF, 10 x 14 SEF</td><td></td></tr>
<tr><td>With Z-fold</td><td colspan="3">A3 SEF, B4 SEF, 11 x 17 SEF, 8K SEF</td><td></td></tr>
<tr><td>With Z-fold and Mixed Sizes</td><td colspan="3">A3 SEF and A4 LEF
B4 SEF and B5LEF
11 x 17 SEF and 8 1/2 x 11 LEF
8K SEF and 16K LEF</td><td></td></tr>
<tr><td rowspan="13">Staple capacity</td><td>Without Z-fold</td><td colspan="3">A4 SEF/LEF, B5 SEF/LEF, 8 1/2 x 11 SEF/LEF, 8 x 10 1/2 SEF/LEF, 8 x 10 SEF/LEF, 7 1/4 x 10 1/2 SEF/LEF, 16K SEF/LEF: 100 sheets
A3 SEF, B4 SEF, 11 x 17 SEF, 11 x 15 SEF, 11 x 14 SEF, 10 x 15 SEF, 10 x 14 SEF, 8 1/2 x 14 SEF, 8 1/2 x 13 SEF, 8 1/4 x 14 SEF, 8 1/4 x 13 SEF, 8 x 13 SEF, 8K SEF: 50 sheets</td><td rowspan="13">80 g/m2 paper</td></tr>
<tr><td>With Mixed Sizes</td><td colspan="3">50 sheets (A3 SEF and A4 LEF, B4 SEF and B5LEF, 11 x 17 SEF and 8 1/2 x 11 LEF, 8K SEF and 16K LEF)</td></tr>
<tr><td>With Z-fold</td><td colspan="3">10 sheets</td></tr>
<tr><td rowspan="11">Combination of Z-folded sheets and unfolded sheets</td><td>Z-folded sheets</td><td>Unfolded sheets</td><td></td></tr>
<tr><td>10</td><td>0</td><td></td></tr>
<tr><td>9</td><td>0–10</td><td></td></tr>
<tr><td>8</td><td>0–20</td><td></td></tr>
<tr><td>7</td><td>0–30</td><td></td></tr>
<tr><td>6</td><td>0–40</td><td></td></tr>
<tr><td>5</td><td>0–50</td><td></td></tr>
<tr><td>4</td><td>0–60</td><td></td></tr>
<tr><td>3</td><td>0–70</td><td></td></tr>
<tr><td>2</td><td>0–80</td><td></td></tr>
<tr><td>1</td><td>0–90</td><td></td></tr>
<tr><td>Staple paper weight</td><td>With Mixed Sizes</td><td colspan="3">63.1–80.0 g/m2 (54.3–68.8 kg)</td><td>You can use up to two sheets of A4 or 8 1/2 x 11 size paper weighing up to 200.0 g/m2 per set as slip sheets. The thickness of the set must be 11 mm or smaller.</td></tr>
</table>

Item		Specification	Remarks
	With Z-fold	64.0–105 g/m^2 (55.0–90.3 kg)	
Staple position		Top, Left 2, Top 2, Bottom, Top Slant, Right 1, Right 2, Center	
Saddle stitch capacity		30 sheets	When using the specified paper
Saddle stitch paper size		A3 SEF, A4 SEF, B4 JIS SEF, B5 JIS SEF, 11 x 17 SEF, 8^1/$_2$ x 14 SEF, 8^1/$_2$ x 13 SEF, 8^1/$_2$ x 11 SEF, 8^1/$_4$ x 14 SEF, 8^1/$_4$ x 13 SEF, 8 x 13 SEF, 7^1/$_4$ x 10^1/$_2$ SEF, 8K SEF, 16K SEF, 12 x 18 SEF, 11 x 15 SEF, 11 x 14 SEF, 10 x 15 SEF, 10 x 14 SEF, 13 x 19^1/$_5$ SEF, 13 x 19 SEF, 12^3/$_5$ x 19^1/$_5$ SEF, 12^3/$_5$ x 18^1/$_2$ SEF, 13 x 18 SEF, SRA3 SEF, SRA4 SEF, 226 x 310 mm SEF, 310 x 432 mm SEF, 8^1/$_2$ x 13^1/$_2$ SEF, 8^1/$_2$ x 13^2/$_5$ SEF	
Stack capacity after saddle stitching		2– 5 sheets: approx. 45 sets 6–10 sheets: approx. 23 sets 11–15 sheets: approx. 25 sets 16–20 sheets: approx. 10 sets 21–30 sheets: approx. 5 sets	When using the A3 size specified paper
Saddle stitch paper weight		52.3–350 g/m^2	52.3–63 g/m^2 and 256.1–350 g/m^2: Specified paper only
Corner stapling paper weight		64–80 g/m^2 (55.0–68.8 kg)	
Folding capacity of half folding function		6 sheets: 52.3–105.0 g/m^2 2 sheets: 105.1–163.0g/m^2 1 sheet: 163.1–350.0g/m^2	

Mechanism Overview

Transport Layout and Main Mechanisms



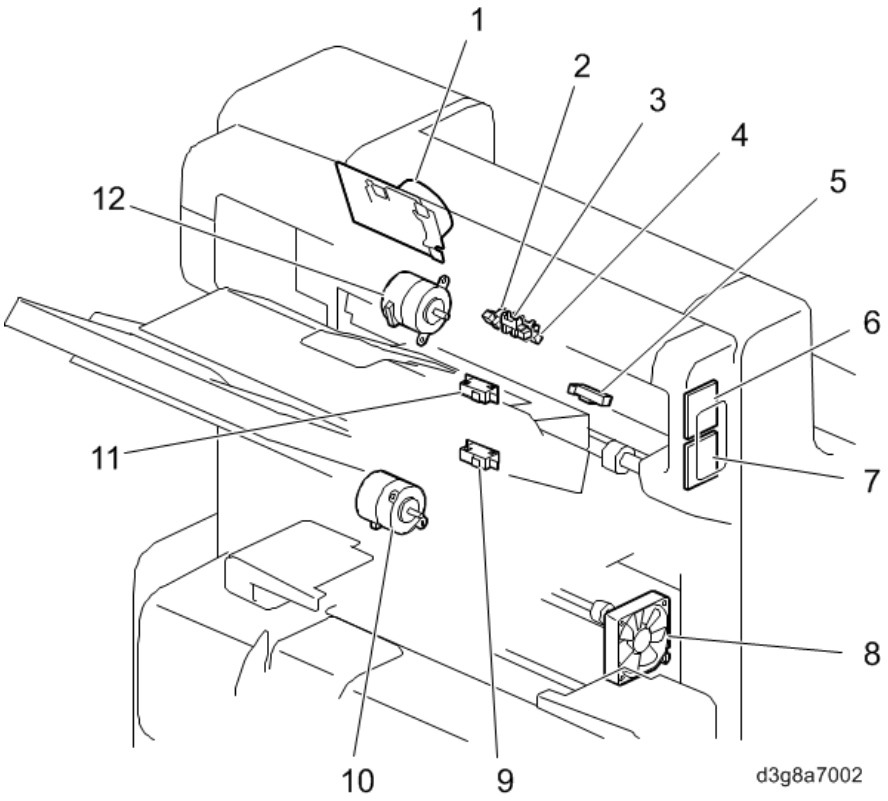
No.	Description
1	Shift Tray 1 paper path
2	Shift Tray 2 paper path
3	Corner staple stack transport path
4	Booklet staple stack transport path
5	Punch paper path
6	Staple paper path
7	Booklet staple paper path

Main Mechanisms

Item	Overview
Transport mechanism	Uses a roller transport system. Paper is transported through high-speed junction gates driven by DC motors.
Punch unit (optional)	The punch unit is driven by a punch motor.
Skew correction, side-to-side registration	Correction is done by aligning the sheets against the registration roller (only when the paper length is Letter (LEF) or shorter).

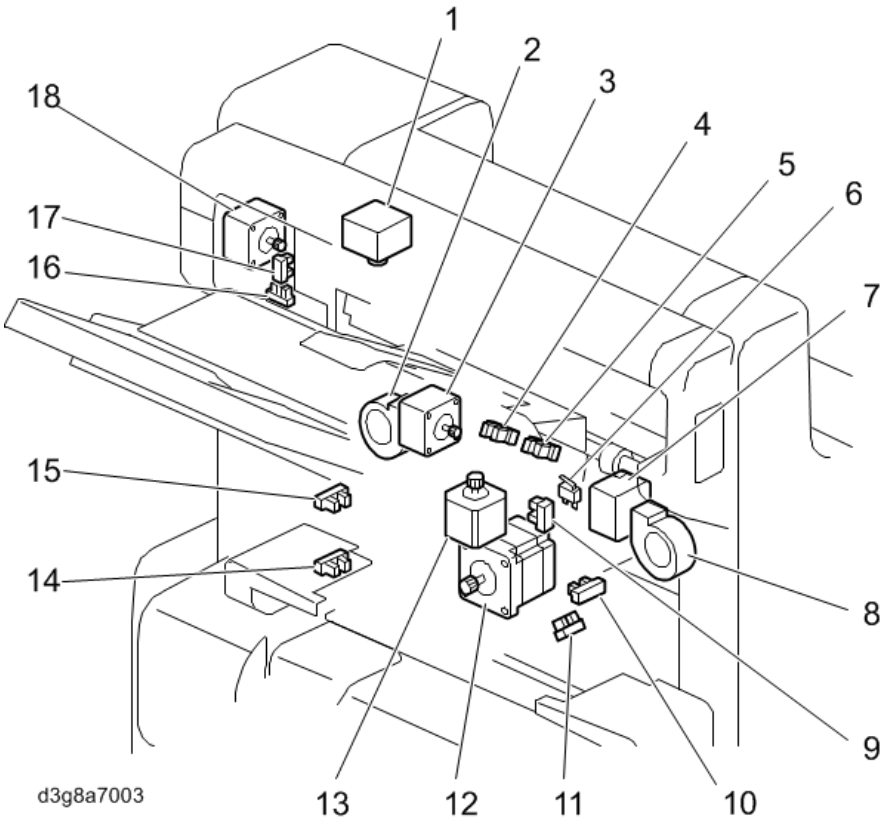
Item	Overview
Staple mechanism	Sheets are aligned by independently driven jogger mechanism. The paper stack is aligned vertically with the leading edge stopper and positioning roller.
Shift mechanism	Stacked output is shifted with movable tray. Stacks are raised and lowered by the tray.
Pre-stacking mechanism	Pre-stacking is done with switch-back transport. Large size paper pre-stacking is done using switch-back transport and roller-release mechanisms.
Booklet Stapling Mechanism	Booklet stapling, and folding are done in the same unit.

Electrical Component Layout



No.	Name	Function
1	Shift tray 1 lift motor	Raises and lowers Shift Tray 1.
2	Shift tray 1 paper height sensor (Z-Fold)	Detects the height of paper on Shift Tray 1.
3	Shift tray 1 paper height sensor (Staple)	Detects the height of paper on Shift Tray 1.
4	Shift tray 1 paper height sensor (Shift)	Detects the height of paper on Shift Tray 1.

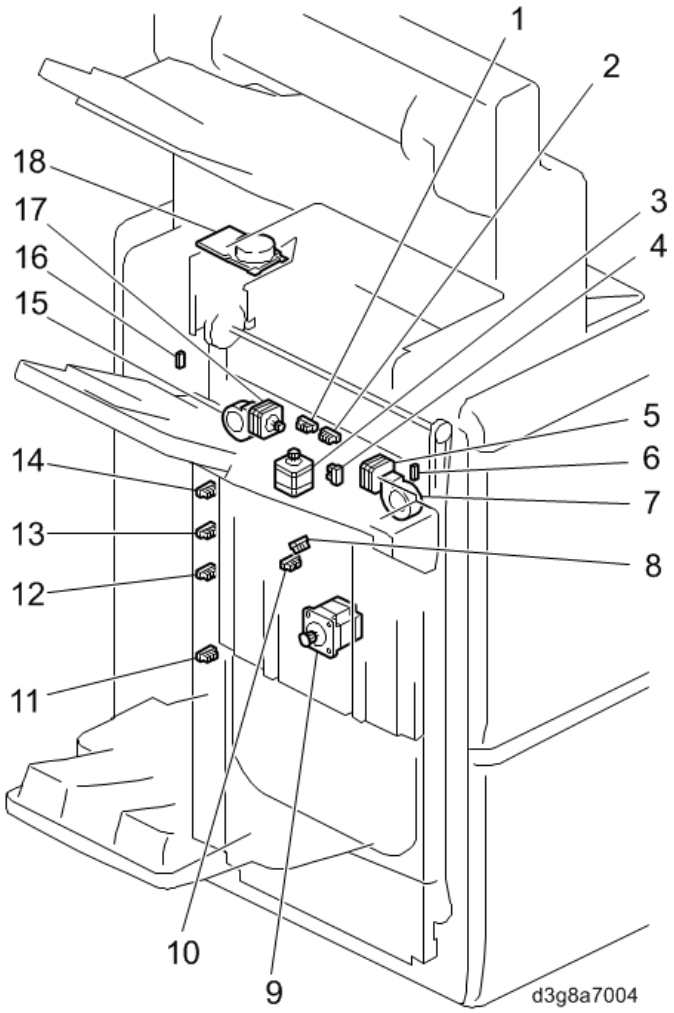
No.	Name	Function
5	Shift tray 1 exit sensor	Detects the paper output to Shift Tray 1.
6	Shift tray 1 emergency stop switch	Press to stop paper output to Shift Tray 1.
7	Shift tray 1 paper removal switch	Press to lower Shift Tray 1 to the paper removal position (low position).
8	Shift tray 1 fan motor	Cools the motors inside Shift Tray 1.
9	Shift tray 1 lower cover interlock switch	Shuts off power when the cover is opened.
10	Shift tray 1 transport motor	Operates the rollers that feed paper to Shift Tray 1.
11	Shift tray 1 upper cover interlock switch	Shuts off power when the cover is opened.
12	Shift tray 1 exit motor	Outputs paper to Shift Tray 1.



No.	Name	Function
1	Shift tray 1 jogger motor	Moves the shift jogger fences forward and back during alignment of the front and back edges of the stack on Shift Tray 1.
2	Shift tray 1 paper exit fan motor (rear)	Blows air below the paper being output to prevent the sheet from sticking to the paper stack.
3	Shift tray 1 drag roller motor	Drives the rotation of the drag roller. Also operates the shutter inside the exit fan duct and trailing edge press lever.
4	Shift tray 1 press lever HP	Detects the home position of the press lever.

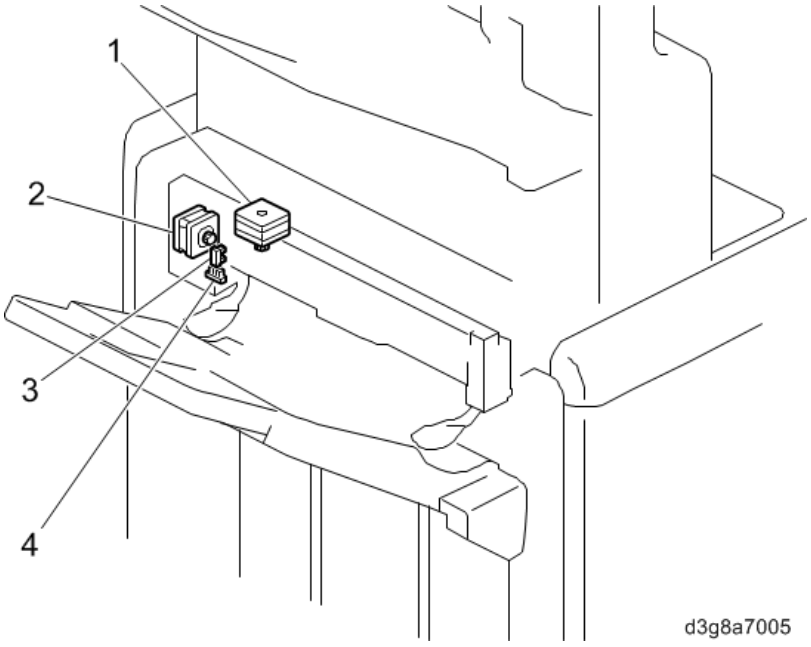
No.	Name	Function
	sensor	
5	Shift tray 1 paper height sensor (trailing edge)	Detects the height of the paper on Shift Tray 1.
6	Shift tray 1 limit switch	Detects the upper limit when lifting Shift Tray 1.
7	Shift tray 1 press lever motor	Presses the trailing edge of large size coated paper.
8	Shift tray 1 paper exit fan motor (front)	Blows air below the paper being output to prevent the sheet from sticking to the paper stack.
9	Shift tray 1 drag roller HP sensor	Detects the home position of Shift Tray 1 drag roller.
10	Shift tray 1 HP sensor (front)	Detects the front side home position of Shift Tray 1.
11	Shift tray 1 HP sensor (rear)	Detects the rear side home position of Shift Tray 1.
12	Shift tray 1 shift motor	Moves Shift Tray 1 to the rear and front.
13	Shift tray 1 drag roller movement motor	Moves the drag roller left and right.
14	Shift tray 1 full sensor (lower)	Detects when shift tray 1 is full.
15	Shift tray 1 full sensor (500)	Detects when shift tray 1 is full.
16	Shift tray 1 jogger retract HP sensor	Detects the vertical HP of shift tray 1 jogger fences.
17	Shift tray 1 jogger HP sensor	Detects the horizontal HP of shift tray 1 jogger fences.
18	Shift tray 1 jogger fence retract motor	Raises the shift jogger fences during alignment of the front and back edges of the stack on the shift tray.

1.Detailed Descriptions



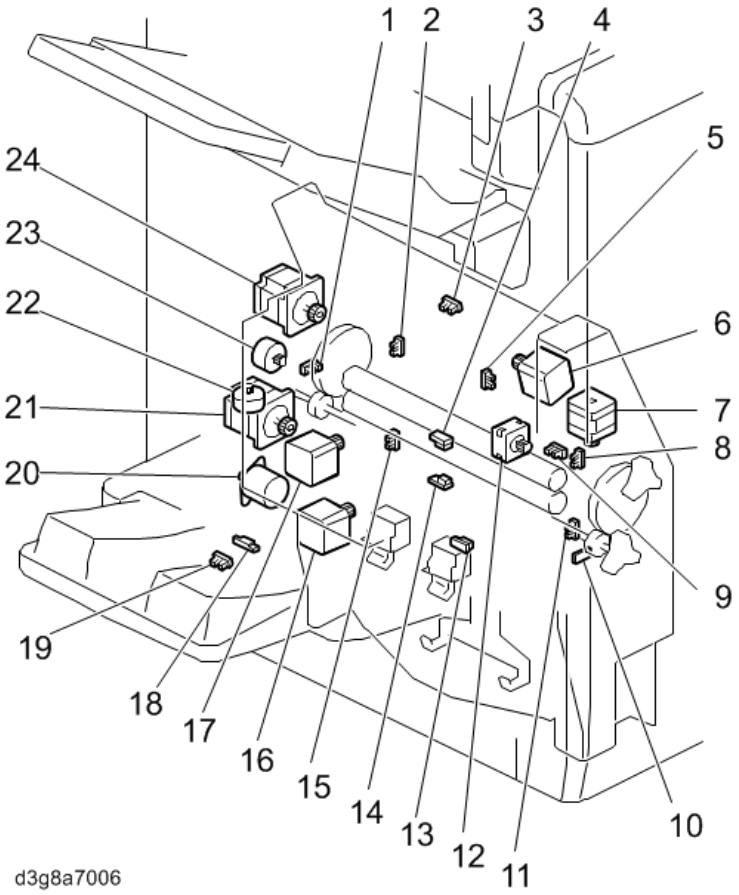
No.	Name	Function
1	Shift tray 2 press lever HP sensor	Detects the home position of the press lever.
2	Shift tray 2 paper height sensor (trailing edge)	Detects the height of paper on Shift Tray 2.
3	Shift tray 2 drag roller movement motor	Moves the drag roller left and right.
4	Shift tray 2 drag roller HP sensor	Detects the home position of Shift Tray 2 drag roller.
5	Shift tray 2 press lever motor	Presses the trailing edge of large size coated paper.
6	Shift tray 2 paper height sensor (stack) (Emitter)	Detects the paper height of booklets stacked on shift tray 2 (emitter side of the sensor).
7	Shift tray 2 paper exit fan motor (front)	Blows air below the paper being output to prevent the sheet from sticking to the paper stack.
8	Shift tray 2 HP sensor (front)	Detects the front side home position of Shift Tray 2.
9	Shift tray 2 shift motor	Moves shift tray 2 to the rear and front.
10	Shift tray 2 HP sensor (rear)	Detects the rear side home position of Shift Tray 2.

No.	Name	Function
11	Shift tray 2 full sensor (D3G8: 2500, D3G9: 3500)	Detects when Shift Tray 2 is full.
12	Shift tray 2 full sensor (1500)	Detects when Shift Tray 2 is full.
13	Shift tray 2 full sensor (1000)	Detects when Shift Tray 2 is full.
14	Shift tray 2 full sensor (500)	Detects when Shift Tray 2 is full.
15	Shift tray 2 paper exit fan motor (rear)	Blows air below the paper being output to prevent the sheet from sticking to the paper stack.
16	Shift tray 2 paper height sensor (stack) (Receptor)	Detects the paper height of booklets stacked on shift tray 2 (receptor side of the sensor).
17	Shift tray 2 drag roller motor	Drives the rotation of the drag roller and also operates the shutter inside the exit fan duct and trailing edge press lever.
18	Shift tray 2 lift motor	Raises and lowers Shift Tray 2.



No.	Name	Function
1	Shift tray 2 jogger motor	Moves the shift jogger fences forward and back during alignment of the front and back edges of the stack on Shift Tray 2.
2	Shift tray 2 jogger fence retract motor	Raises the shift jogger fences during alignment of the front and back edges of the stack on the shift tray.
3	Shift tray 2 jogger HP sensor	Detects the horizontal home position of Shift Tray 2 jogger fences.
4	Shift tray 2 jogger retract HP sensor	Detects the vertical home position of Shift Tray 2 jogger fences.

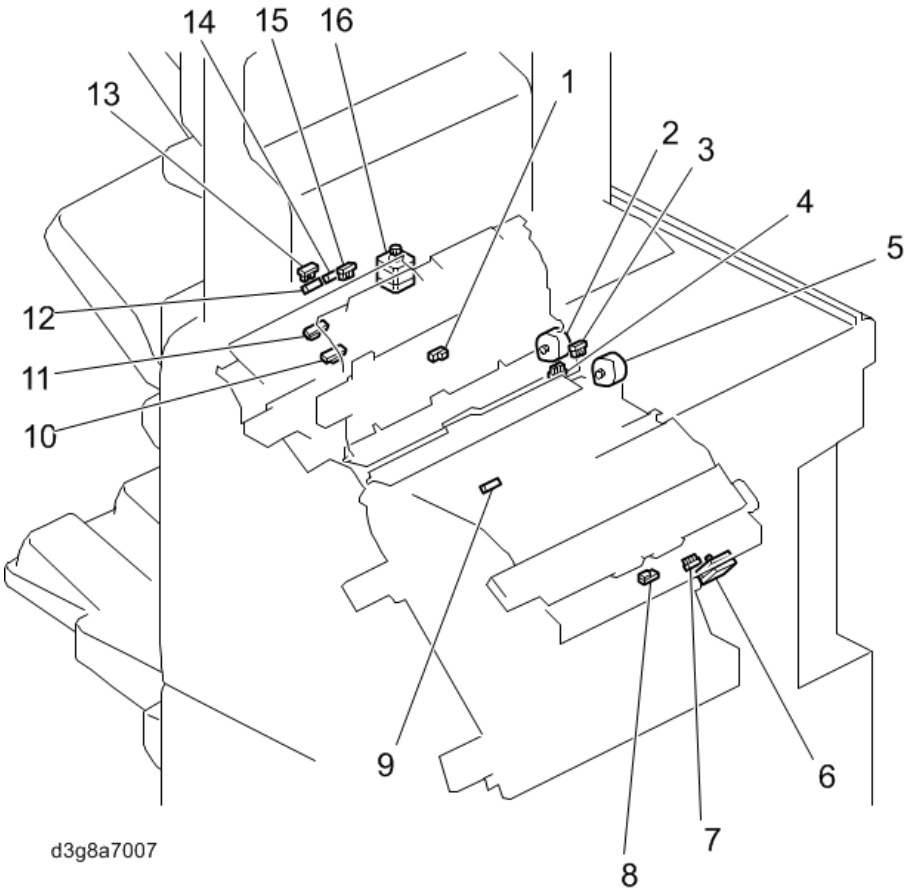
1.Detailed Descriptions



No.	Name	Function
1	Fold plate cam HP sensor	Detects the home position of the fold plate cam.
2	Fold plate HP sensor	Detects the home position of the fold plate.
3	Booklet top fence HP sensor	Detects the home position of the top fence.
4	Fold unit entrance sensor	Detects when the paper stack enters the fold unit.
5	Booklet pressure release HP sensor	Detects the home position of booklet pressure release motor.
6	Booklet stapler top fence motor	Operates the top fence that aligns the leading edge of the paper stack on the stapling tray.
7	Booklet pressure release motor	Releases pressure of the booklet transport rollers.
8	Flat fold unit HP sensor	Detects the home position of the flat fold unit.
9	Flat fold unit pressure release HP sensor	Detects the home position of the flat fold unit pressure release motor.
10	LED board (booklet unit)	Lights up to indicate whether there is paper in the corresponding position.

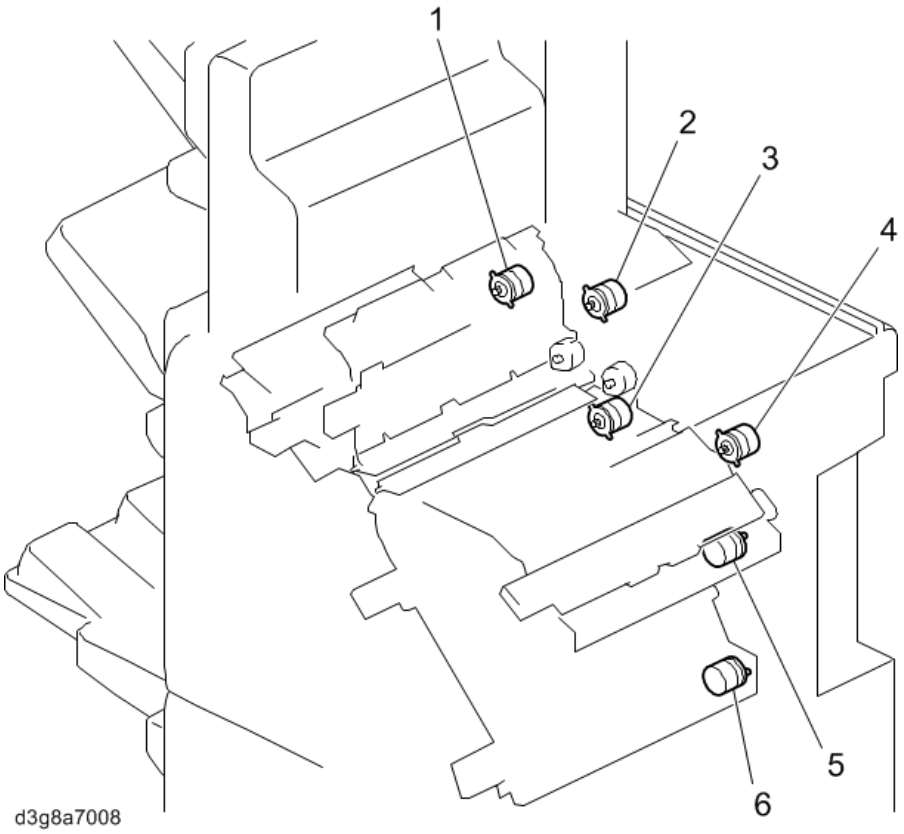
No.	Name	Function
11	Booklet stapler side fence HP sensor (front)	Detects the home position of the jogger booklet stapler side fence (front).
12	Flat fold unit pressure release motor	Releases pressure of the flat fold unit.
13	Booklet stapler bottom fence HP sensor	Detects the home position of the bottom fence.
14	Booklet stapler exit sensor	Detects when the paper stack passes between the fold roller and booklet paper exit.
15	Booklet stapler side fence HP sensor (rear)	Detects the home position of the jogger booklet stapler side fence (rear).
16	Booklet stapler bottom fence motor	Operates the jogger fence at the leading edge to align the leading edge of the stack in the direction of paper feed for stapling in the booklet stapler unit.
17	Booklet stapler side fence motor	Operates the jogger fences that align the front and back edges of the stack for stapling in the booklet stapler unit.
18	Booklet tray paper sensor	Detects paper on the booklet tray.
19	Booklet tray limit switch	Detects whether paper can be output to the booklet tray.
20	Booklet stack tray motor	This is a small motor inside the booklet tray that drives the belts of the tray.
21	Fold plate motor	Operates the fold plate pushed into the center of the stack to start center folding.
22	Flat fold unit motor	Operates the flat fold unit.
23	Booklet stack transport motor	Operates the booklet stack transport rollers.
24	Fold roller motor	Operates the roller that folds the stack into halves during center folding in the folder unit.

1.Detailed Descriptions

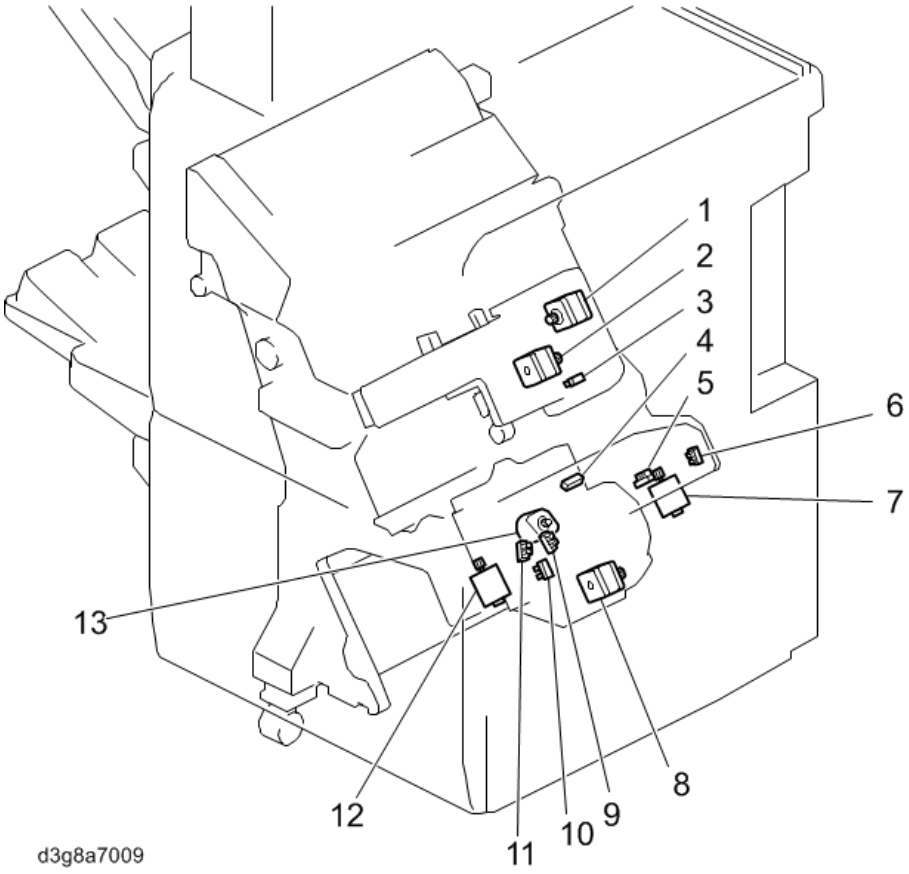


No.	Name	Function
1	Shift tray 1 transport sensor	Detects paper transported to shift tray 1.
2	Junction gate motor (shift tray 1/shift tray 2)	Operates the junction gate (between shift tray 1 and shift tray 2) that guides paper to either shift tray 1 or shift tray 2.
3	Junction gate HP sensor (shift tray 1/shift tray 2)	Detects the home position of the junction gate (between shift tray 1 and shift tray 2).
4	Junction gate HP sensor (shift tray 2/staple tray)	Detects the home position of the junction gate (between shift tray 2 and staple tray).
5	Junction gate motor (shift tray 2/staple tray)	Operates the junction gate (between shift tray 2 and staple tray) that guides paper to either shift tray 2 or staple tray.
6	Pre-stack release motor	Opens the nip of the pre-stack roller to release the stack.
7	Pre-stack release HP sensor	Detects the home position of pre-stack release motor.
8	Entrance sensor	Detects paper entrance.
9	Pre-stack sensor	Detects paper in the pre-stack position.
10	Shift tray 2 exit sensor (short)	Detects paper output to shift tray 2.
11	Shift tray 2 exit sensor (long)	Detects paper output to shift tray 2 in staple mode.
12	Shift tray 2 paper height sensor (Shift)	Detects the height of paper on shift tray 2.

No.	Name	Function
13	Shift tray 2 paper height sensor (Staple)	Detects the height of paper on shift tray 2.
14	Shift tray 2 paper height sensor (Z-Fold)	Detects the height of paper on shift tray 2.
15	Exit guide HP sensor	Detects the home position of the exit guide.
16	Exit guide motor	Opens and closes the exit guide.

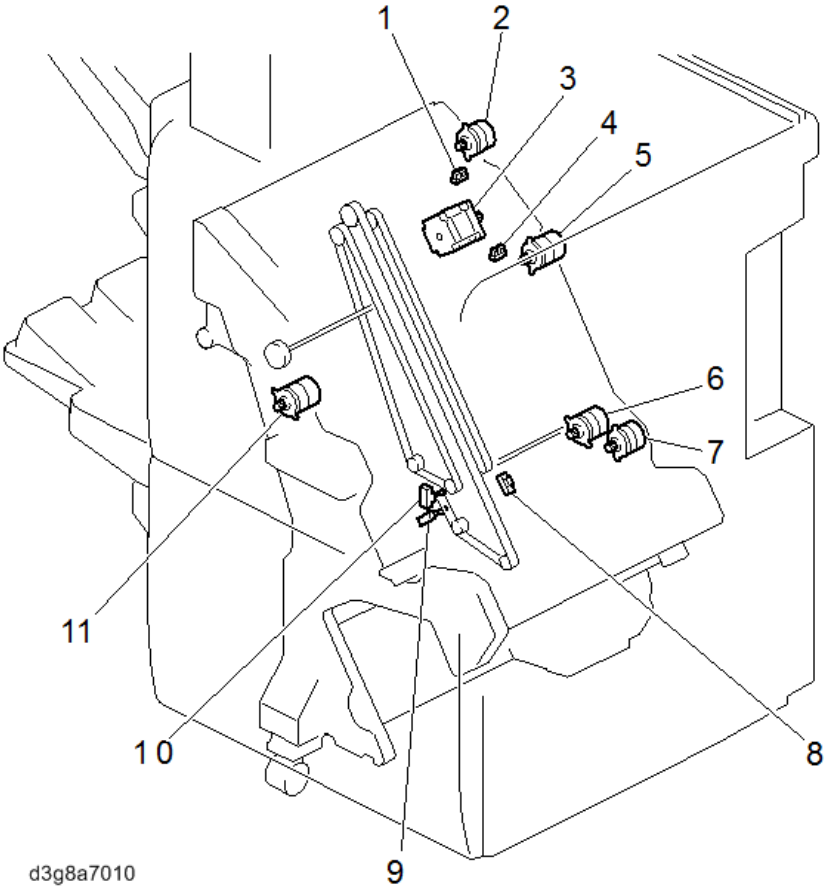


No.	Name	Function
1	Shift tray 2 exit motor	Drives the shift tray 2 exit rollers.
2	JG transport motor	Drives the transport rollers.
3	Horizontal transport motor	Drives the transport roller on the downstream side of the punch unit.
4	Registration motor	Drives the registration roller.
5	Entrance Motor	Drives the entrance roller.
6	Pre-stack motor	Drives the pre-stack roller.



No.	Name	Function
1	Positioning roller rotation motor	Rotates the positioning roller that positions each sheet of paper on the stapling tray.
2	Positioning roller lift motor	Drives the positioning roller that positions paper on the stapling tray.
3	Positioning roller HP sensor	Detects the home position of the positioning roller.
4	Staple tray entrance sensor	Detects paper entering the staple tray.
5	Vibrating plate horizontal movement HP sensor	Detects the horizontal movement of the vibrating plate.
6	Vibrating plate vertical movement HP sensor	Detects the vertical movement of the vibrating plate.
7	Vibrating plate horizontal movement motor	Moves the vibrating plate in the main scan direction.
8	Stapler rotation motor	Rotates the corner stapling for diagonal stapling.
9	Stapler rotation HP sensor (rear)	Detects the home position of stapler rotation (rear).
10	Stapler movement HP sensor	Detects the home position of the stapler unit.
11	Stapler rotation HP sensor (front)	Detects the home position of stapler rotation (front).
12	Vibrating plate vertical movement motor	Moves the vibrating plate in the sub scan direction.

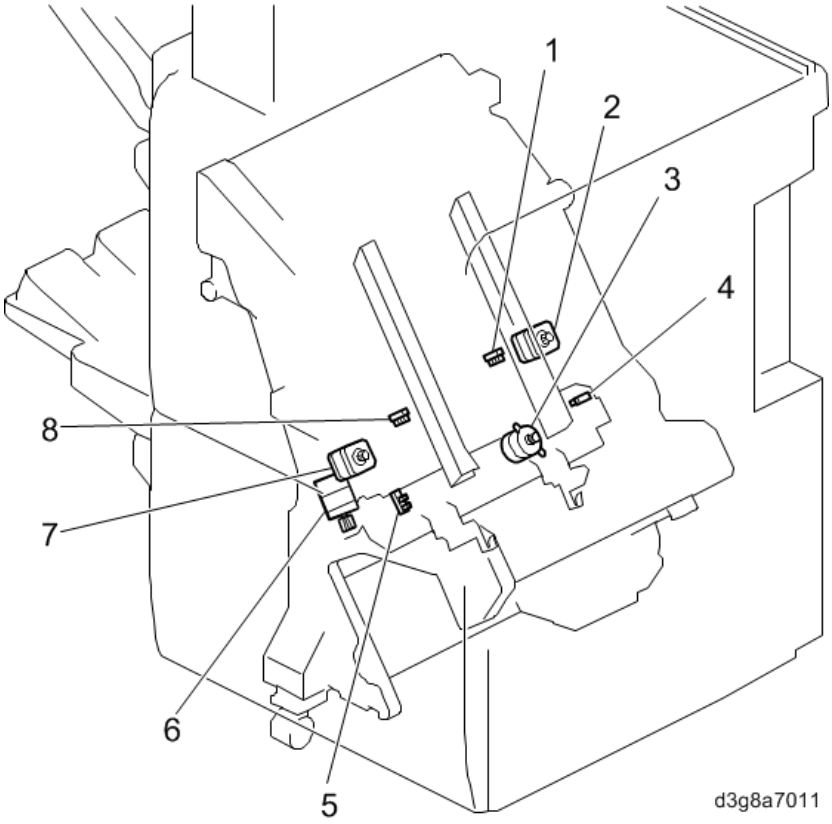
No.	Name	Function
13	Stapler movement motor	Moves the corner stapler front and back on its rail.



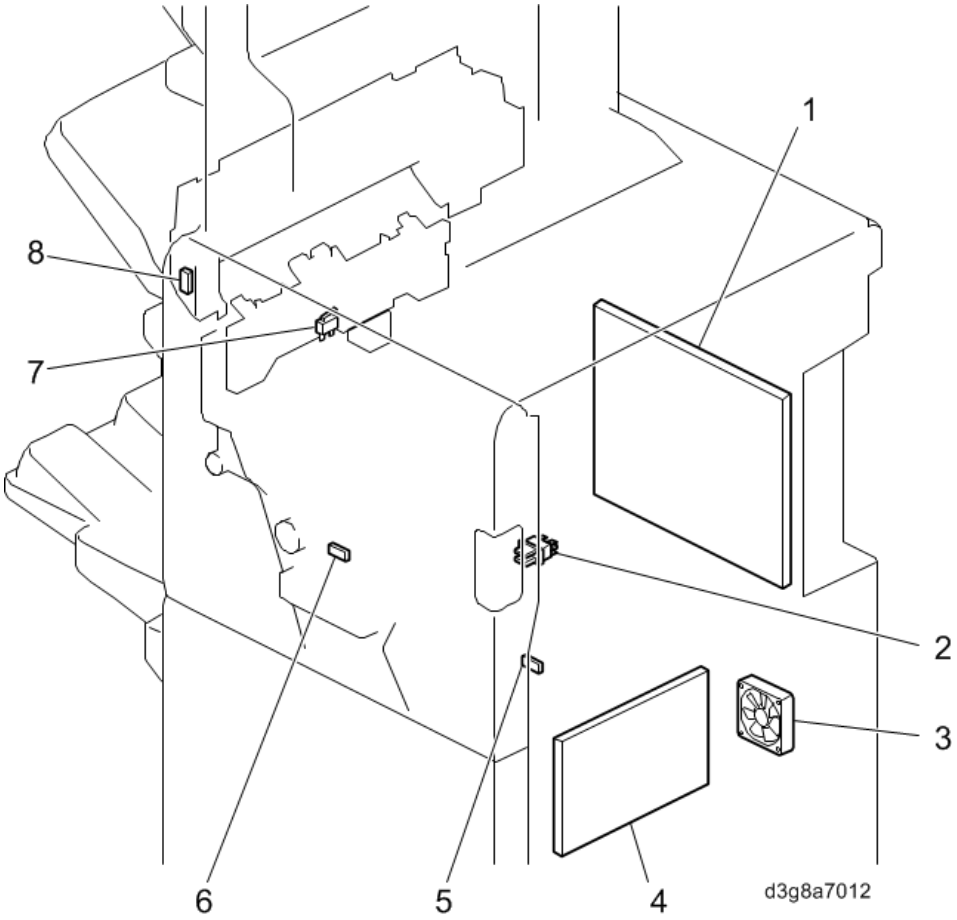
No.	Name	Function
1	Stack JG HP sensor	Detects the home position of stack junction gate.
2	Turn guide motor	Operates the junction gate in the booklet path.
3	Stack transport unit motor	Lifts and releases rollers to feed the stack to the booklet stapler.
4	Stack transport unit HP sensor	Detects the home position of stack transport unit.
5	Stack transport motor	Drives the transport rollers that feed the paper stack into the booklet stapler feed path.
6	Leading edge stopper motor	Operates the top fence that aligns the leading edge of the paper stack on the stapling tray.
7	Stapler entrance motor	Drives the rollers that feed paper into the stapling tray.
8	Staple tray paper sensor	Detects paper in the staple tray.
9	Stack feed-out belt HP sensor	Detects the home position of the stack feed-out belt.
10	Leading edge stopper HP sensor	Detects the home position of the leading edge stopper.
11	Feed-out belt motor	Drives the feed-out belt that feeds corner stapled stacks to the shift

1.Detailed Descriptions

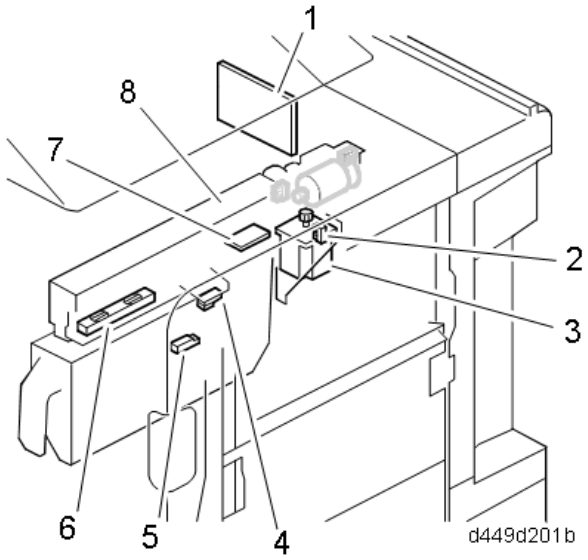
No.	Name	Function
		tray.



No.	Name	Function
1	Rear jogger fence HP sensor	Detects the home position of the rear jogger fence.
2	Jogger motor (rear)	Operates the rear jogger fence that aligns the paper stack rear-to-front on the stapling tray.
3	Base fence movement motor	Moves the base fence rear-to-front.
4	Base fence up-down HP sensor	Detects the home position of the base fence in the sub scan direction.
5	Base fence front-back HP sensor	Detects the home position of the base fence in the front/back direction.
6	Base fence lift motor	Moves the entire base fence in the sub scan (vertical) direction.
7	Jogger motor (front)	Operates the front jogger fence that aligns the paper stack is aligned front-to-rear on the stapling tray.
8	Front jogger fence HP sensor	Detects the home position of the front jogger fence.



No.	Name	Function
1	Main board	Communicates with upstream/downstream devices and controls the machine.
2	Front Door Switch	Shuts off power when the front door is opened.
3	PSU fan motor	Cools the PSU.
4	PSU	Supplies 24 V and 5 V power.
5	LED board (front door)	Lights up to indicate whether there is paper in the corresponding position.
6	LED board (corner stapler)	Lights up to indicate whether there is paper in the corresponding position.
7	Shift tray 2 limit switch	Detects the upper limit when lifting Shift Tray 2.
8	Shift tray 2 emergency stop switch	Press to stop paper output to Shift Tray 2.

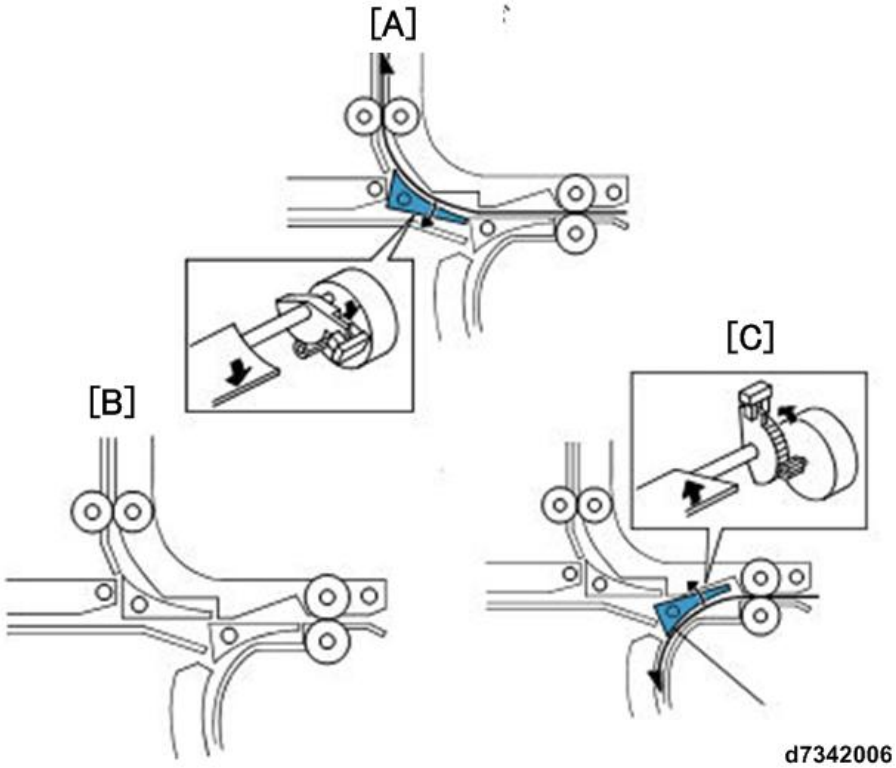


No.	Name
1	Punch Control Board
2	Punch Unit HP Sensor
3	Punch Movement Motor
4	Punch Vertical Registration Sensor
5	Punchout Hopper Full Sensor
6	CIS
7	CRB
8	Punch Drive Unit

Mechanism Details

Junction Gate Mechanism

The junction gate diverts the paper into one of three paths.



[A]	Shift tray 1 mode
[B]	Shift tray 2 mode
[C]	Staple mode

- In Shift Tray 1 mode, the junction gate guides the paper up to Shift Tray 1.
- In Shift Tray 2 mode, the junction gate does not move and remains level. Paper is fed straight and level to Shift Tray 2.
- In Staple mode, the junction gate guides paper down to the stack/staple unit.

Pre-stack Mechanism

This machine uses two methods to pre-stack paper.

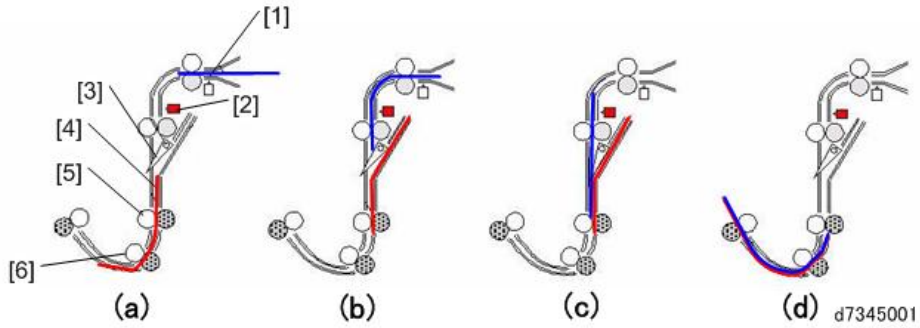
The previous method is the same as that used by Booklet Finisher SR5060 and Finisher SR5050.

New Method Used by This Machine

The previous method stacks sheets in the stapling tray with their leading edges not completely aligned. With the new method, accuracy of stack alignment in the stapling tray is improved with the addition of a 3rd pre-stack roller and timing adjustments to align the leading edges of the standby sheet and next sheet before they are sent to the stapling tray.

Previous Method

1) Small-Size Paper (A4 and Smaller)



[1]	2nd Sheet
[2]	Pre-stack sensor
[3]	Pre-stack JG
[4]	1st sheet
[5]	1st pre-stack rollers
[6]	2nd pre-stack rollers

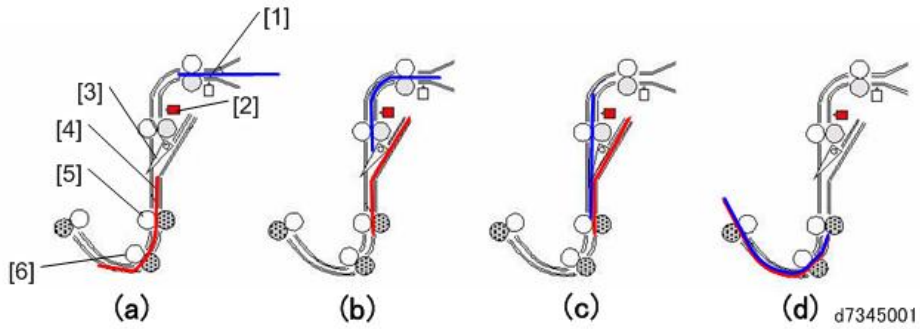
The first sheet (red line in the drawing above) is directed in the pre-stack paper path by the staple junction gate. The sheet brushes past the spring loaded pre-stack junction gate. The weight of the paper allows it to push past the junction gate and then the spring attached to the gate pulls it closed. The pre-stack paper sensor detects each sheet of paper that enters the pre-stack paper path. The sensor turns on the pre-stack motor that rotates the 1st and 2nd pre-stack rollers to feed the leading edge of the paper the prescribed distance (a).

The motor stops, reverses, and the rollers feed the paper under the pre-stacker junction gate and into the shunt of the pre-stacker unit where the leading edge of the paper stops at the nip of the 1st pre-stack rollers (b).

Next, the 2nd sheet (blue line in the drawing above) is fed (c). When it reaches the 1st pre-stack rollers, the pre-stack roller motor turns on and the 1st and 2nd sheets are fed together (d). The pre-stack motor reverses again and both sheets are fed up into the shunt. This cycle can repeat up to 5 times until finally, after one additional sheet feeds, all 6 sheets are fed together to the corner stapling tray.

- Up to 4 sheets are held in the pre-stack unit for stapling at one corner.
- Up to 5 sheets are held in the pre-stack unit for stapling at two places on the edge of the stack.

2) Large-Size Paper (B4 and Larger)



[1]	2nd Sheet
[2]	Pre-stack sensor
[3]	Pre-stack JG
[4]	1st sheet
[5]	1st pre-stack rollers
[6]	2nd pre-stack rollers

The sequence of operations in the pre-stacker unit is the same as that for A4 and smaller sizes with one important exception.

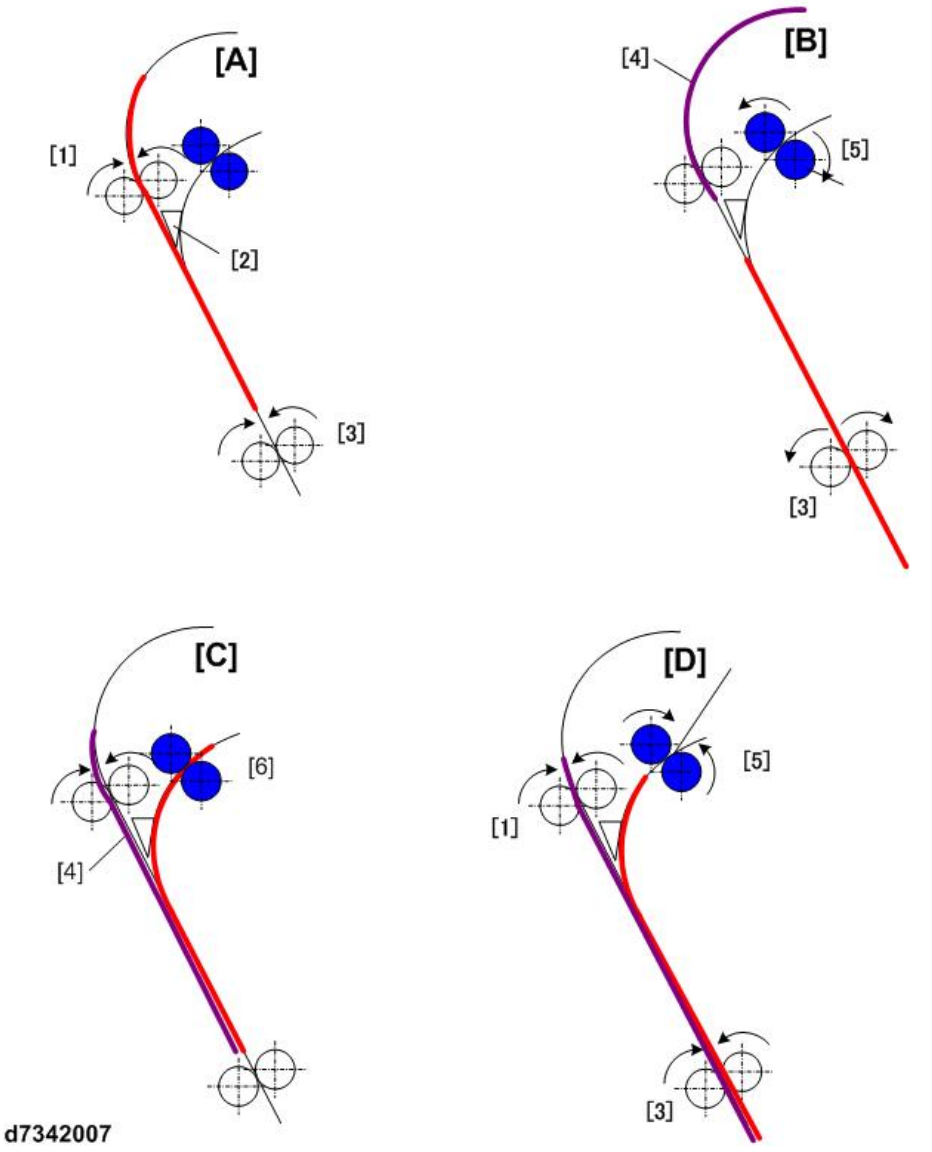
- Before large paper sizes are fed in staple mode, the pre-stack release motor turns on and pulls the drive roller of the 1st pre-stack roller pair away from its idle roller (a).
- The forward and reverse feeding is performed by the pre-stack motor driving the 2nd pre-stack rollers and feeding the paper only as far as the nip of the 2nd pre-stack rollers.
- The nip of the 1st pre-stack rollers remains open.
- Reverse feeding the leading edges as far as the 2nd pre-stack rollers saves time. (Reverse and forward feeding the leading edges as far as the 1st pre-stack rollers would require more time.)

New Method: Small-Size Paper (A4 and Smaller)

There is better feeding, stacking, and stapling with this new method that improves the efficiency of jogging the sides of a stack for booklet stapling.

This is made possible with the addition of a third pre-stack roller in the path where the sheets are pre-stacked.

1.Detailed Descriptions



[1]	Junction gate transport rollers
[2]	Pre-stack junction gate
[3]	1st Pre-stack rollers
[4]	Next sheet
[5]	3rd Pre-stack rollers
[6]	Pre-stacks area

- At [A], the junction gate transport rollers feed the 1st sheet which brushes past the pre-stack junction gate and into the nip of the 1st pre-stack rollers.
- When the trailing edge of sheet passes the junction gate at [B], the pre-stack motor reverses and the 1st pre-stack roller and 3rd pre-stack roller feed the sheet into the standby path. Next, just before the leading edge of sheet passes the 1st pre-stack roller, the pre-stack motor stops with the sheet in the nip of the 1st pre-stack roller and pauses (standby), and then waits for the next sheet to feed.
- At [C], just before the leading edge of sheet passes the 1st pre-stack roller, the pre-stack motor

starts to rotate forward to drive the 1st pre-stack roller and 3rd pre-stack roller that feeds the sheet at standby and stacks it onto the previous sheet.

- The leading edge of the sheet that was at standby and the leading edge of sheet already fed are aligned [D], and then the sheets are fed together to the stapling tray.
- Thereafter, it is possible to stack several sheets through the repetition of this operation (pre-stacking). One or the other mode is employed, depending on the paper size, stapling mode, and the number of sheets to be pre-stacked.

New Method: Large-Size Paper (B4 and Larger)

The 2nd pre-stack roller at the rear and 3rd pre-stack roller are used to align the leading edges of the paper and send them to the stapling tray in the same way that the 1st pre-stack roller is used in the older method to perform the same task.

Controlling the Old/New Methods

Number of Sheets That Can Be Pre-Stacked

The number of sheets that can be pre-stacked differ depending on paper weight.

The tables below describe the number of sheets that are pre-stacked when the paper of the same weight is fed.

Paper weight 8: 300.1 < Paper weight <= 350.0

Paper weight 7: 256.1 < Paper weight <= 300.0

Paper weight 6: 220.1 < Paper weight <= 256.0

Paper length	Pre-stack method	2-position bind	1-position bind	booklet/fold
B5 LEF / 16K LEF / A4 LEF / LT LEF	Old method	-	-	0
B5 SEF / 16K SEF / A4 SEF / LT SEF	New method	-	-	0
B4 SEF / LG SEF / A3 SEF / DLT SEF / 8K SEF	Old method	-	-	0
Others	New method	-	-	0

Paper weight 5: 163.1 < Paper weight <= 220.0

Paper length	Pre-stack method	2-position bind	1-position bind	booklet/fold
B5 LEF / 16K LEF / A4 LEF / LT LEF	Old method	6	3	0
B5 SEF / 16K SEF / A4 SEF / LT SEF	New method	4	2	0
B4 SEF / LG SEF / A3 SEF / DLT SEF / 8K SEF	Old method	4	4	0
Others	New method	0	0	0

Paper weight 4: 105.1 < Paper weight <= 163.0

Paper length	Pre-stack method	2-position bind	1-position bind	booklet/fold
B5 LEF / 16K LEF / A4 LEF / LT LEF	Old method	6	3	1
B5 SEF / 16K SEF / A4 SEF / LT SEF	New method	4	2	1
B4 SEF / LG SEF / A3 SEF / DLT SEF / 8K SEF	Old method	4	4	1
Others	New method	0	0	0

Paper weight 3: 80.1 < Paper weight <= 105.0

Paper length	Pre-stack method	2-position bind	1-position bind	booklet/fold
B5 LEF / 16K LEF / A4 LEF / LT LEF	Old method	6	3	4
B5 SEF / 16K SEF / A4 SEF / LT SEF	New method	4	2	4
B4 SEF / LG SEF / A3 SEF / DLT SEF / 8K SEF	Old method	4	4	4
Others	New method	0	0	0

Paper weight 2: 63.1 < Paper weight <= 80.0

Paper length	Pre-stack method	2-position bind	1-position bind	booklet/fold
B5 LEF / 16K LEF / A4 LEF / LT LEF	Old method	6	3	4
B5 SEF / 16K SEF / A4 SEF / LT SEF	New method	4	2	4
B4 SEF / LG SEF / A3 SEF / DLT SEF / 8K SEF	Old method	4	4	4
Others	New method	0	0	0

Paper weight 1: 52.3 < Paper weight <= 63.0

Paper length	Pre-stack method	2-position bind	1-position bind	booklet/fold
B5 LEF / 16K LEF / A4 LEF / LT LEF	Old method	-	-	4
B5 SEF / 16K SEF / A4 SEF / LT SEF	New method	-	-	4
B4 SEF / LG SEF / A3 SEF / DLT SEF / 8K SEF	Old method	-	-	4
Others	New method	-	-	0

When Sheets of Different Paper Weights Are Fed

Pre-stacking operates as follows when sheets of different paper weights are fed.

<Corner stapling>

Even if sheets of different paper weights are fed, pre-stacking operates according to "Number of Sheets That Can Be Pre-Stacked" above.

<Booklet stapling>

The number of sheets that are pre-stacked differ as follows.

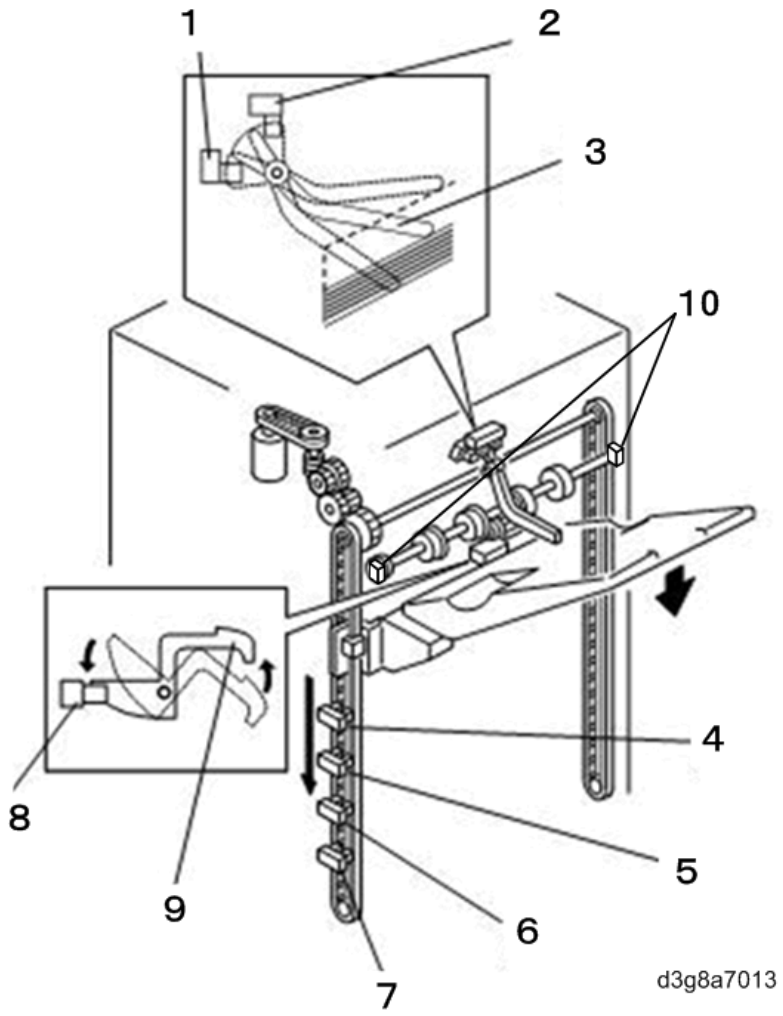
Paper length	Pre-stack method	Group A	Group B	Group C*
		Paper weight 1 - 3	Paper weight 4	Paper weight 5 -8
		(52.3 <= Paper weight <= 105.0)	(105.1 <= Paper weight <= 163.0)	(163.1 <= Paper weight <= 350.0)
B5 LEF / 16K LEF / A4 LEF / LT LEF	Old method	4	1	0
B5 SEF / 16K SEF / A4 SEF / LT SEF	New method	4	1	0

* Paper weights 0 and 9 also belong to group C because the number of sheets that are pre-stacked is 0.

When a sheet of paper that is heavier than the ones currently being pre-stacked is fed, the pre-stacked paper is fed out and the sheets that come after are pre-stacked according to the group to which the paper belongs.

When a sheet of paper that is lighter than the ones currently being pre-stacked is fed, the pre-stacked paper is not fed out and the sheets that come after are pre-stacked together.

Shift Tray Mechanism



No.	Name	No.	Name
1	Shift paper height sensor	6	Shift tray full sensor (1500)
2	Paper height sensor (staple)	7	Shift tray full sensor (low limit)
3	Paper height sensor feeler	8	Paper height sensor (shift)
4	Shift tray full sensor (500)	9	Paper height sensor feeler
5	Shift tray full sensor (1000)	10	Paper height sensor (stack)

Tray Shift Mechanism

In Shift mode, each copy is staggered as it exits onto the shift tray.

During shift operation, a crank gear rotates as far as the next HP position and then moves back to the left and right in order to shift the position of the tray. The amount shifted is 15 mm.

Raising and Lowering the Shift Tray

The shift tray is raised and lowered, depending on how many copies exit from the finisher onto the tray, as detected by a paper height sensor feeler that touches the top of the stack.

Raising the Shift Tray

When a stack of copies are removed from the shift tray, the paper height sensor goes ON, the shift tray

rises, and then stops when the sensor goes OFF.

Lowering (Shift Mode)

When the paper height sensor goes OFF after it detects the top of the paper stack on the shift tray, the tray lift motor turns ON, and then lowers the stack until the sensor goes OFF again.

Lowering (Staple Mode)

When the staple motor goes ON, the tray lift motor also turns ON for the prescribed time to lower the tray. After the stapled stack is output onto the tray, the tray is lifted as far as its home position or until the paper height sensor (staple) switches from ON to OFF. This operation is done for stack output.

There are three lower limit sensors but only one is used, depending on the size of the paper used for the job and displayed on the operation panel.

Target: 1000 sheets for large size (B4 and larger), 2500 sheets for small size (up to B4)

Drag Roller Operation

A drag roller mechanism is mounted above the tray to improve the accuracy of paper alignment. Each sheet is aligned as the drag roller drive motor rotates the drag roller which pulls each sheet back to the end fence side.

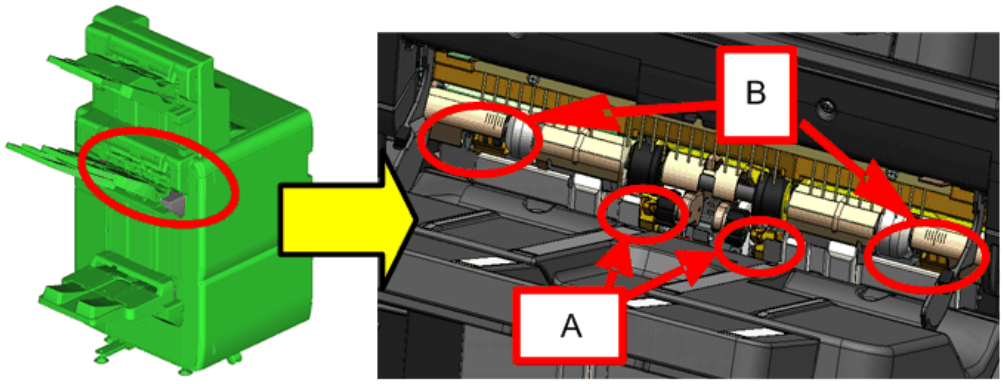
Improving Paper Exit

This finisher has an air assist mechanism improve paper exit for coated paper, thick paper, and thin paper.

- A trailing edge press lever depresses the trailing edge of a sheet as it exits to keep it from slipping, and then a steam of air blowing below the sheet as it exits prevents the paper from sticking to the paper on the tray.
- Fans turn ON, and blows air when the upstream exit sensors switch ON, and then turn OFF again after receiving a stop signal from the main machine.

Fan Operation

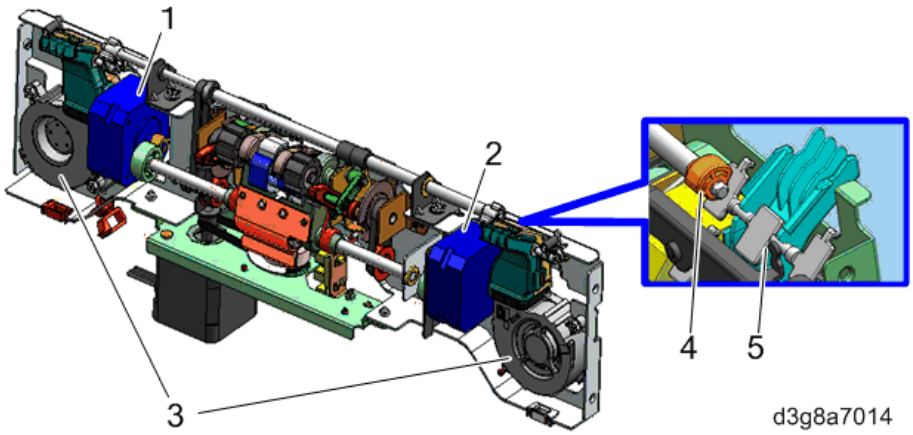
- When Paper Exit Fans Turn On
  When both of the following are selected for the paper in the tray (using IMSS settings or otherwise), the fans will operate automatically.
  - Paper length: 364.1 mm or larger
  - Paper type: Coated paper
- SP settings (SP6210-001)
  - 0 (default): The paper exit fans operate only when the paper being outputted meet both of the conditions above.
  - 1: Forced ON. The paper exit fans operate regardless of the paper conditions.
  - 2: Forced OFF. The paper exit fans do not operate regardless of the paper conditions.
  - 3: Coated paper ON: The paper exit fans operate if the paper type is coated paper, regardless of the paper length.
  - 4: Large size ON: The paper exit fans operate if the paper length is 364.1 mm or larger, regardless of the paper type.



d3g8a7035

No.	Name
A	Trailing edge press lever
B	Air vents

Configuration



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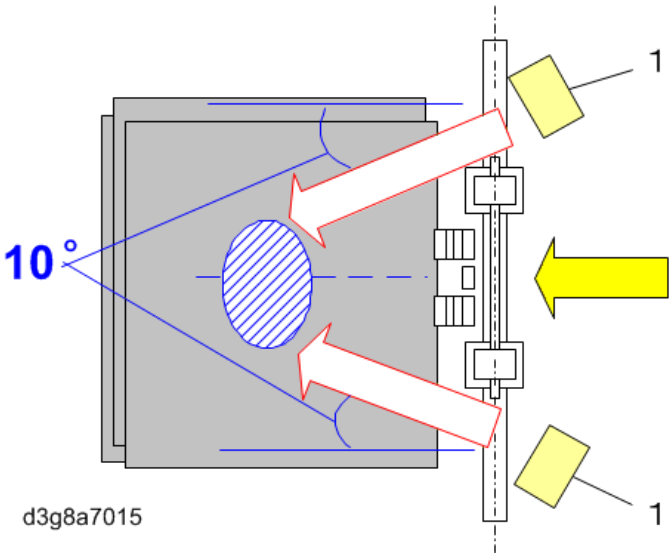
No.	Name
1	Drag roller motor
2	Press lever motor
3	Sirocco fan
4	Cam
5	Shutter

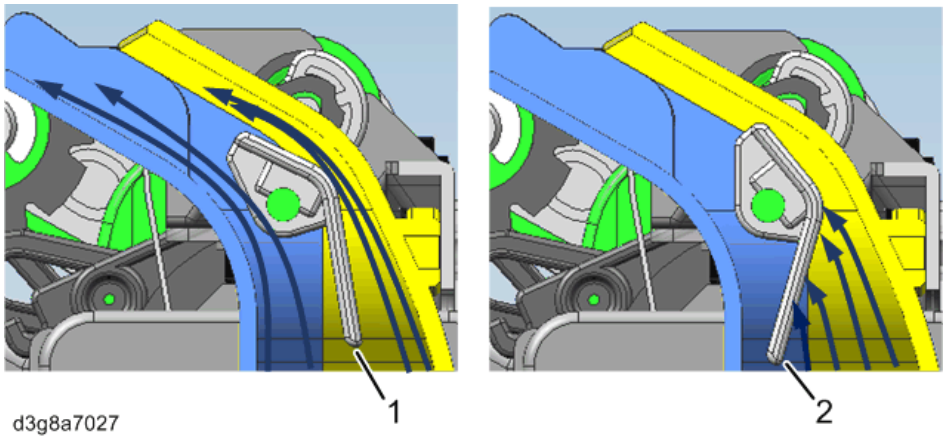
Air Venting Direction



No.	Name
1	Sirocco fans

Blow Adjust Mechanism

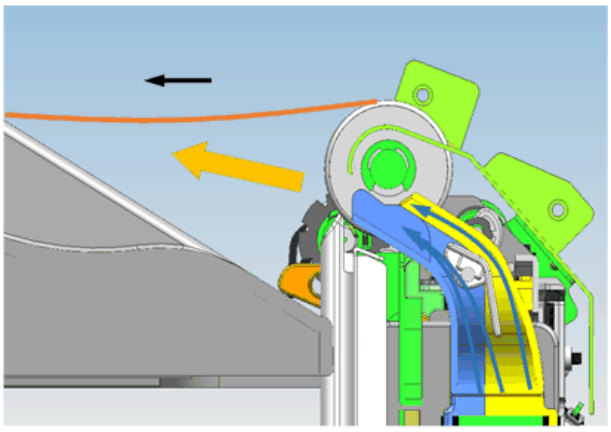
The movement of the shutter inside the air vent is synchronized with the timing of the operation of the trailing edge lever to reduce the amount of air from the fans. This is to prevent the trailing edge of the sheet from floating too high as it exits.



No.	Name
1	Shutter open
2	Shutter closed

Operation Sequence

- **Step 1: 1st sheet starts exit.**



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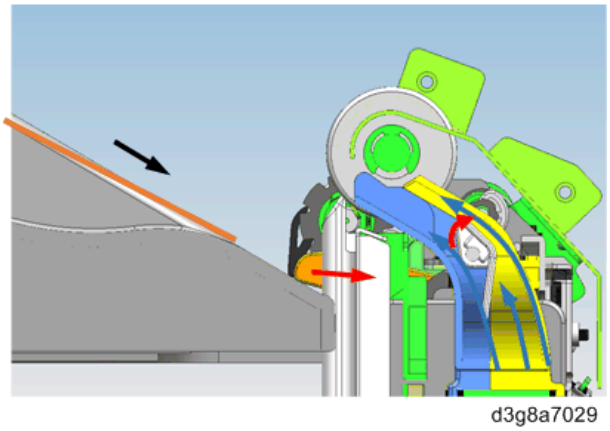
Air layer between the 1st exit sheet highest exit position

Shutter/press lever position	Shutter	Press Lever
	Open	Down

- **Step 2: 1st sheet trailing edge emerges, press lever starts to retract.**

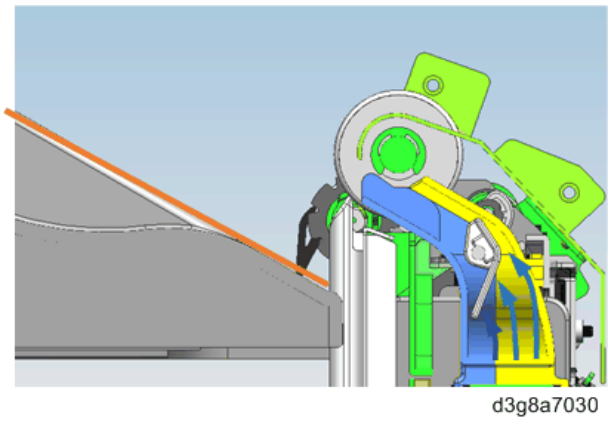


d3g8a7029

Press lever and shutter joint movement

Shutter/press lever position	Shutter	Press Lever
	Open > Close	Down > Up

- **Step 3: 1st sheet end exit.**

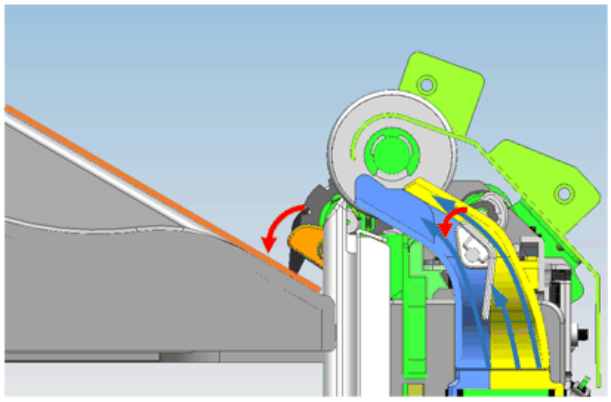


d3g8a7030

Air stream diminishes, prevents trailing edge of sheet from rising on completion of exit

Shutter/press lever position	Shutter	Press Lever
	Closed	Retract

- **Step 4: Press lever starts operation.**



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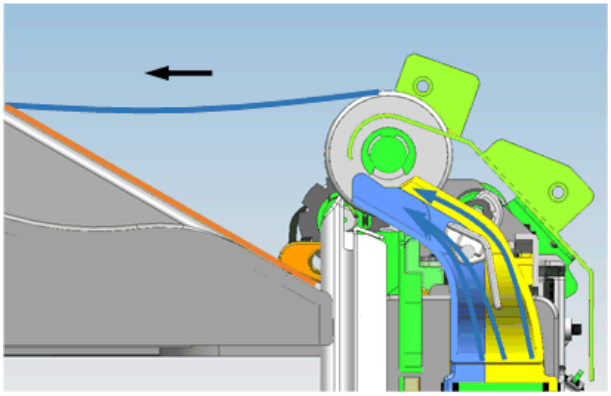
Press lever and shutter joint movement at cover operation

Shutter/press lever position	Shutter	Press Lever
	Open > Close	Down > Up

- **Step 5: 2nd sheet starts exit.**



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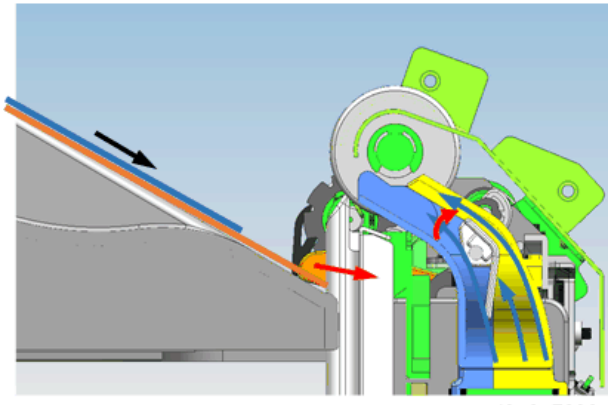
Press lever presses down trailing edge to prevent slippage

Shutter/press lever position	Shutter	Press Lever
	Open	Down

- **Step 6: 2nd sheet trailing edge emerges, press lever starts to retract.**



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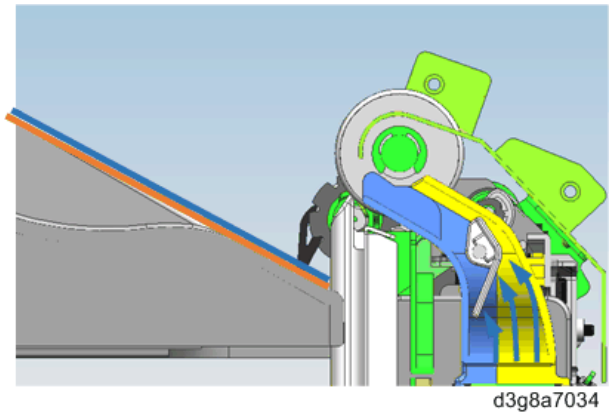
Shutter/press lever position	Shutter	Press Lever
	Open > Close	Down > Up

- **Step 7: 2nd sheet ends exit.**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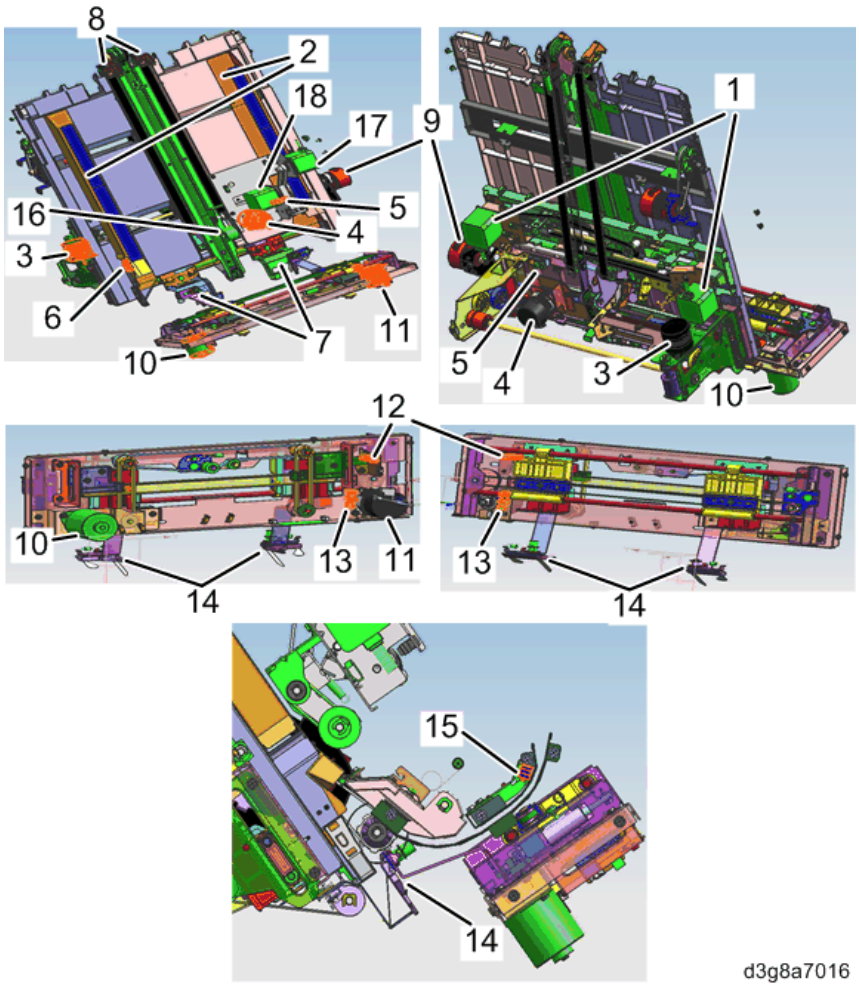
Shutter/press lever position	Shutter	Press Lever
	Closed	Retract

- **The sequence is repeated for the subsequent sheets (4, 5, 6, 7 and onwards).**

Staple Tray Jog Mechanism



d3g8a7016

No.	Name	No.	Name
1	Jogger motor (rear) (front)	10	Vibrating plate vertical movement motor

No.	Name	No.	Name
2	Jogger fence	11	Vibrating plate horizontal movement motor
3	Base fence vertical movement motor	12	Vibrating plate vertical movement HP sensor
4	Base fence horizontal movement motor	13	Vibrating plate horizontal movement HP sensor
5	Base fence vertical movement HP sensor	14	Vibrating plate
6	Base fence horizontal movement HP sensor	15	Stapler entrance sensor
7	Base fence	16	Positioning Roller
8	Leading edge stopper	17	Positioning roller rotation motor
9	Leading edge stopper motor	18	Positioning roller lift motor

Stacking Mechanism

- Paper going past the junction gate on its way to the staple tray passes the brush roller. When pre-stacking standard paper sizes, the leading edge of the sheets are aligned by the leading edge stopper. However, the positioning roller supports paper drop after 80 sheets of small-size paper (less than 350 mm), or 25 sheets of large-size paper (over 350 mm).
- In other cases where pre-stacking is not performed, after the staple exit sensor goes off (within 94 to 119 ms, size of the stack not withstanding). The positioning roller drive motor rotates a prescribed distance, and the sheets drop onto the tray base fence where the leading edges of the stack are aligned. At this time, the brush roller brush and the exit guide function as guides for the falling sheets.
- The rear and forward movement of the stapler in the main scan direction, and the up and down movement of the entire base fence unit in the sub scan direction adjusts the stack position for booklet stapling.
- The base fence can be moved to the rear and front for the size of the paper in the main scan direction. This front to rear movement, together with the front to rear movement of the stapler, accommodates different paper sizes in the main scan direction (with the trailing edge firmly clamped), ands greatly improves the efficiency of stapling.

Jogger Mechanism

During the stacking operation, once the trailing edges of the sheets are aligned, the sides are aligned by the jogging operation.

- First, at the beginning of the job ("Copy Start"), the jogger fences are moved to within 7.2 mm of the left and right side of an area equal to the width of the paper size selected for the job.
- After the trailing edge of the feeding sheet passes the staple exit sensor, the jogger fences close 3.7 mm (4.6 mm for B5 LEF, B4 SEF). The paper slides between the fences, and then the trailing edge is aligned.
- Next, on the booklet stapling side, the jogger fences close 7 mm for horizontal alignment. However, the front and rear jogger fences on either end each have a motor that can position the sides of the stack for booklet stapling.

- At the end of the jogging operation, the jogger fences once again open 7.2 mm wider than the paper so the stack can move to the standby position.
- Springs are attached at the front and rear of the jogger fences to compensate for divergence from the correct positioning.

Whether the jogger fences move, and the amount of movement

- High productivity mode (default)
  Front stapling: Front and rear, 3.5 mm each
  Rear (diagonal) stapling: Front and rear, 3.5 mm each
  Dual stapling (Booklet, B5 SEF): Front and rear, 3.5 mm each
- High precision mode
  Front stapling: Front 7 mm
  Rear (diagonal) stapling: Rear 7 mm
  Dual stapling (Booklet, B5 SEF): Front and rear, 3.5 mm each

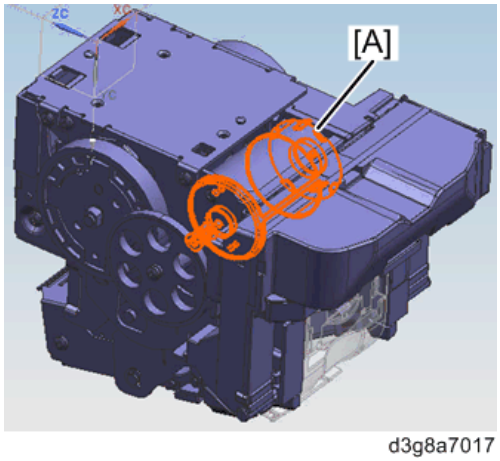
Vibrating Plate Mechanism

A stack must be compressed at the trailing edge in order to achieve a stack maximum of 100 sheets (stapling).

- After the jogger moves to the paper edge position, the vibrating plate vertical movement motor turns ON and operates the vibrating plate to press down and remove any air between the sheets.
- After the next sheet switches the stapler entrance sensor to OFF, the vibrating plate vertical movement motor turns ON again, and the vibrating plate returns to its standby position. The vibrating plate vertical movement HP sensor detects the plate at its home position. This operation cycle is done for each sheet that feeds onto the staple tray.
- At this time, the horizontal position of the vibrating plate is operated by the vibrating plate horizontal movement motor. Home position is detected by the vibrating plate horizontal movement HP sensor. This operation is done only once at the start of a staple job.

Corner Stapling

Corner Stapler



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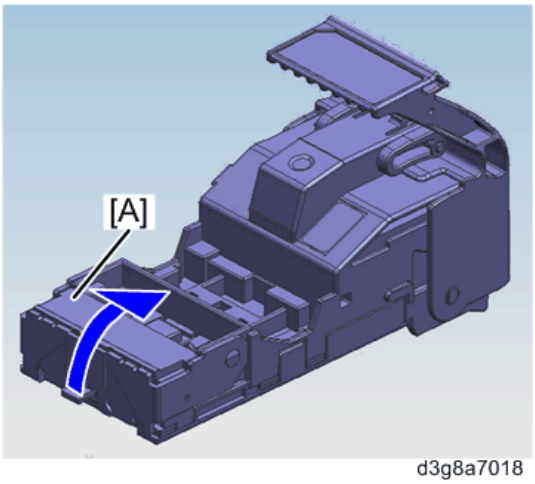
The stapling operation is driven by the edge/booklet stapler motor [A] inside the stapler unit.

The stapler has a staple near-end sensor (detects when the number of remaining staples is 1000 or less), a staple end sensor (detects when there are no remaining staples, or the staple cartridge is not set), a dust box sensor (detects when the dust box is not set and when it is full), and a self-priming sensor. When staple near-end is detected, the operation panel displays a message indicating that the number of remaining staples is low.

When staple end is detected, the operation panel displays a message indicating there are no staples left. When dust box full is detected, the operation panel displays a message indicating the dust box is full. When staple end is detected during a job, a message urging the user to add staples appears and the job stops.



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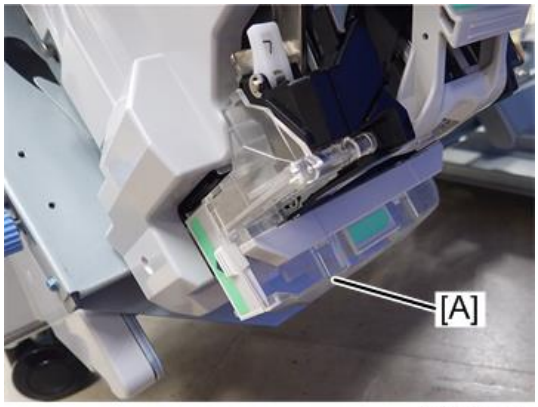
If a staple jam occurs, slide the bracket lever [A] in the direction of the arrow, and then removed the jammed staple in the cartridge. When you slide the bracket lever [A] in the direction of the arrow, remove the two frontmost staples even if there is no jammed staple.

Staple Cutting

In order to staple a stack up to 100 sheets thick, long staples are used. The staples are bent and trimmed to prevent them from overlapping on smaller stacks that are stapled. This excess is trimmed during the staple operation.



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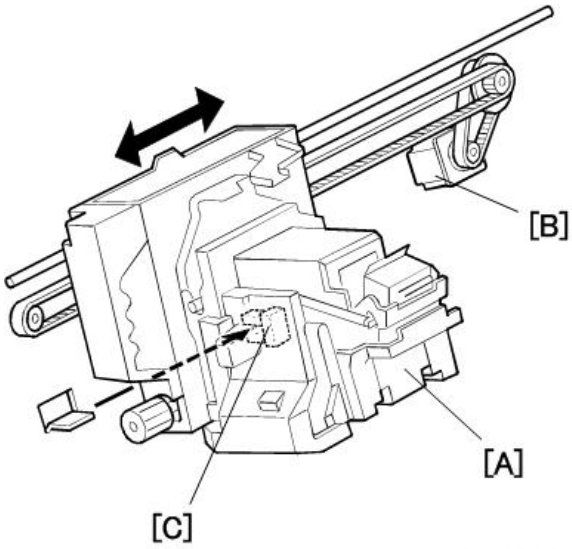
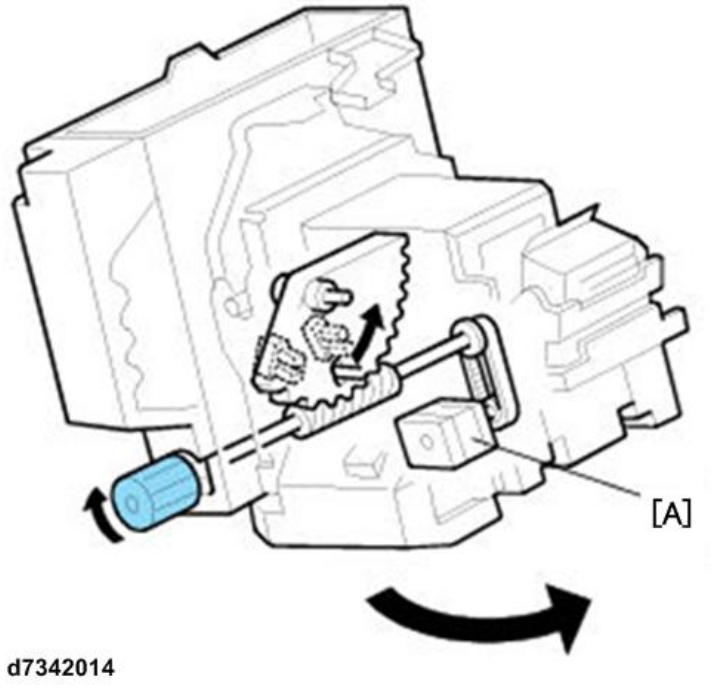
- The metal trimmed from the staples falls into the dust box [A] attached to the stapler.
- When dust box full is detected, the user must dispose of the staple trimmings. The hopper capacity is approximately 5,000 trimmed scraps.

Corner Stapler Movement



The stapler [A], driven by the stapler movement motor [B], operates in four staple modes. The stapler, supported on a rod, is driven by a belt that moves the stapler to the front and rear. The stapler home position is in front. When stapling at two locations, it staples first at the front and then moves to rear to staple at the rear. The position of the stapler is monitored by the stapler movement HP sensor [C].

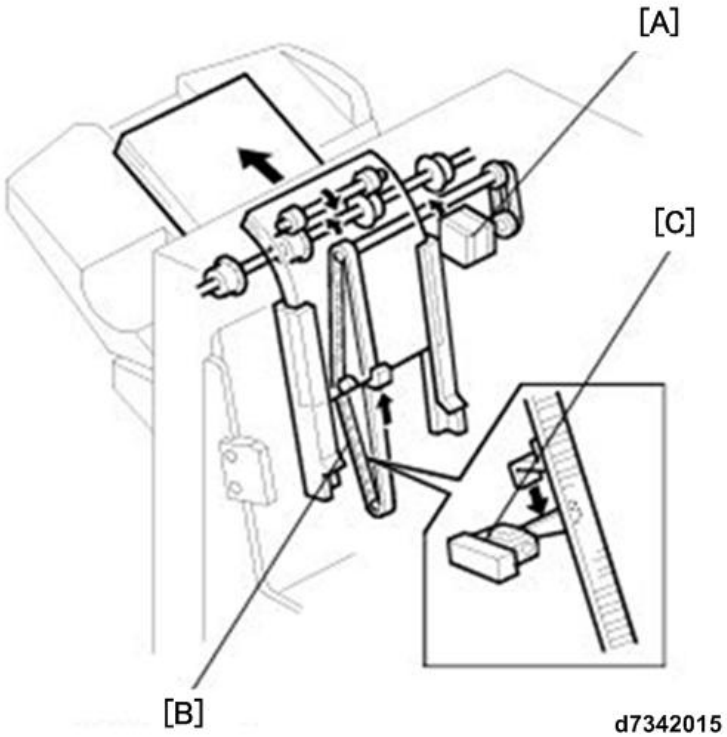
Corner Stapler Rotation



When diagonal-stapling at one corner, after the stapler moves to the stapling position it is rotated before it staples. The rotation is performed by the stapler rotation motor [A].

Exit Opening/Closing, Feed-out Mechanism

In order to staple a large number of sheets (maximum 100 sheets), this finisher has a mechanism that allows the stapled document to be output onto the tray only when the paper exit opens.

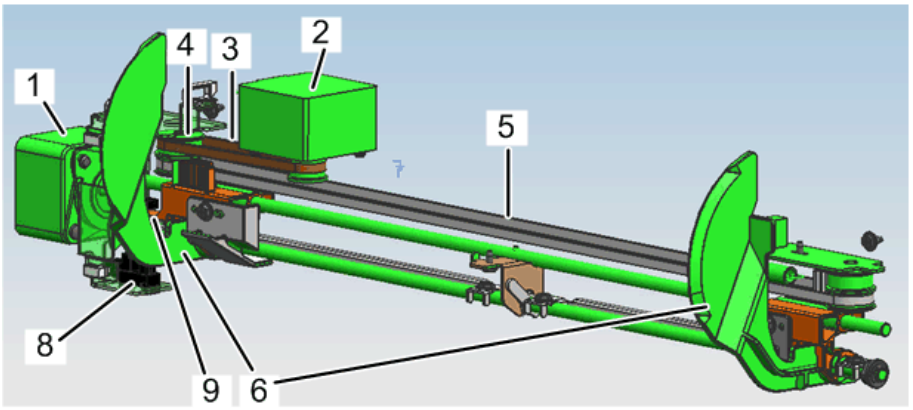


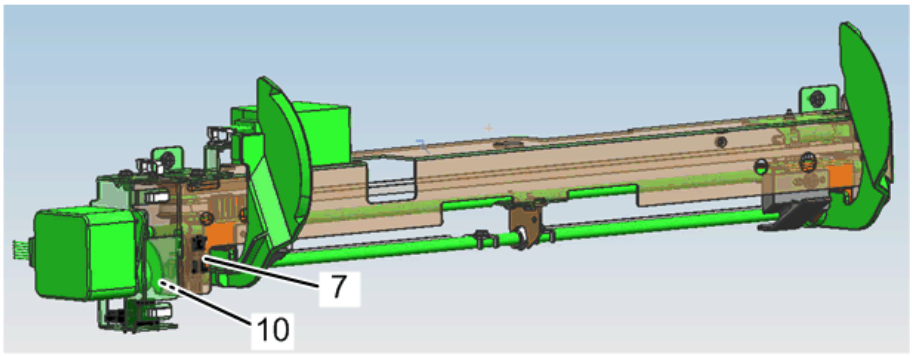
- When staple is ON, the exit guide plate motor goes ON and opens the paper exit. After staple goes OFF, the feed-out belt motor [A] goes ON. The stack hooked by the pawl on the moving feed-out belt [B] is transported to the paper exit, and then on to the shift tray.
- At this time, if the stack is large (move than 350 mm thick), the stack is output with assistance from the positioning roller.
- Once the operation of the feed-out belt motor has fed the stack for the prescribed distance, the paper exit motor turns ON and starts rotating the paper exit roller. This rotation together with the feed-out belt pawl on the belt moves the stack out the paper exit and then on to the shift tray.
- After the paper exit motor turns ON, and the stack has been fed the prescribed distance, the exit guide plate motor turns ON and the exit guide closes. This operation of the paper exit roller moves the stack out of the finisher onto the shift tray.
- The paper exit opens and closes in staple mode when more than 16 stacks are output.
- The rotation of a disc mounted above the exit guide plate motor controls the OFF timing of the exit guide plate motor that operates the opening and closing of the exit.
- The position of the feed-out belt is monitored by the feed-out belt HP sensor [C].

Paper Jogging at Exit

The home position of the jogger fences is at the standby position above the paper exit. The arms lower just before a sheet exits the finisher, and align the sides of the stack (this is repeated for every sheet).

1.Detailed Descriptions





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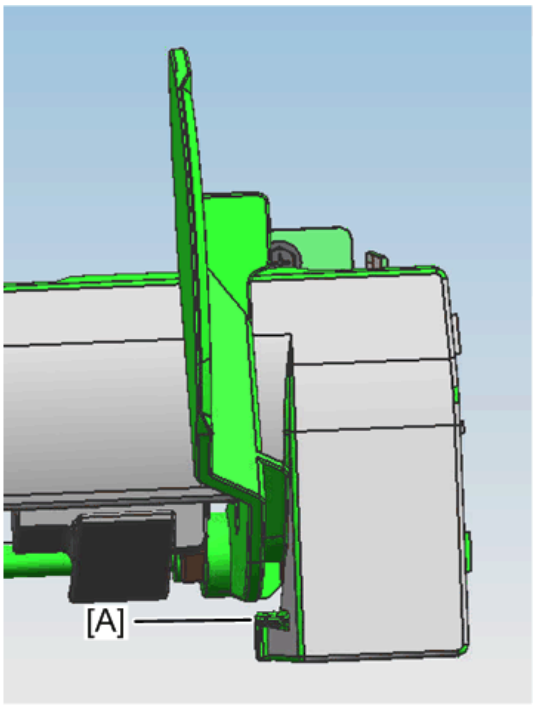
No.	Part Name:	Function
1	Shift jogger fence retract motor	Lifts and lowers the front and rear fences.
2	Shift jogger motor	Moves the front and rear fences forward and backward.
3	Main drive belt	Transmits the drive of the shift jogger motor to the gear that drives the relay belt.
4	Gear	Transmits the rotation of the main belt to the relay drive belt.
5	Relay drive belt	Drives the front and rear jogger fences front and back against the sides of the stack.
6	Jogger fences	Open and close to align the sides of the stack as each sheet exits the finisher.
7	Shift tray jogger HP sensor	Detects the home position of the front and rear jogger fences (wide, away from the sides of the stack).
8	Shift jogger retract HP sensor	Detects the home position of the front and rear jogger fences (up).
9	Shift tray jogger HP sensor actuator	Turns the shift jogger HP sensor off/ on.
10	Shift jogger retract HP sensor actuator	Turns the shift jogger retract HP sensor off/ on.

The front and rear fences rise and lower repeatedly to jog the sides of the stack as each sheet exits the finisher. After the last sheet exits, both arms rise, stop, and then remain up at the home position (standby position). The standard paper sizes that can be jogged and aligned upon exit (with no folding)

are A3 to A5, DLT to HLT, 12"x18", 13"x14".

Mechanical Lock

To prevent damage to the jogger fences, this machine has mechanical lock ribs [A] which keep the jogger fences lifted.



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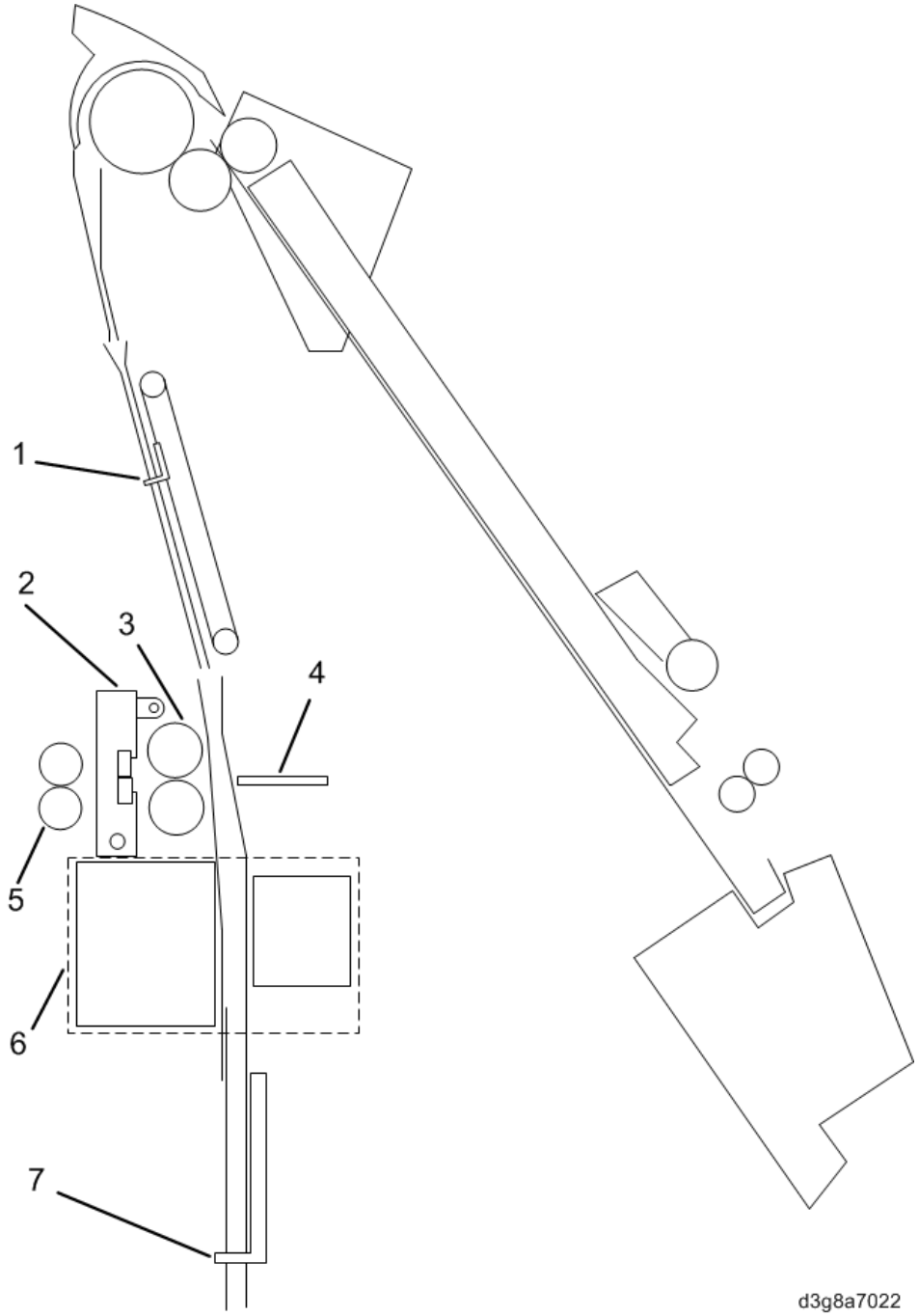
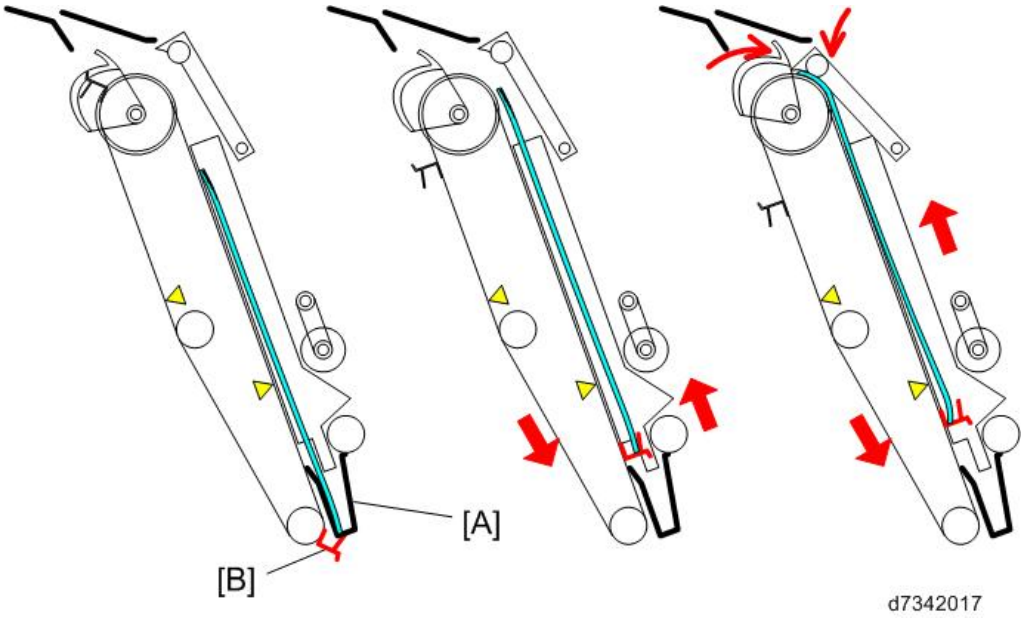
Booklet Stapling

After the sides of a stack are aligned by the side fences on the stacking tray, it is hooked by the feed-out pawl and moves to the paper exit.
Sensors and rollers directs the stack to the booklet stapling unit.

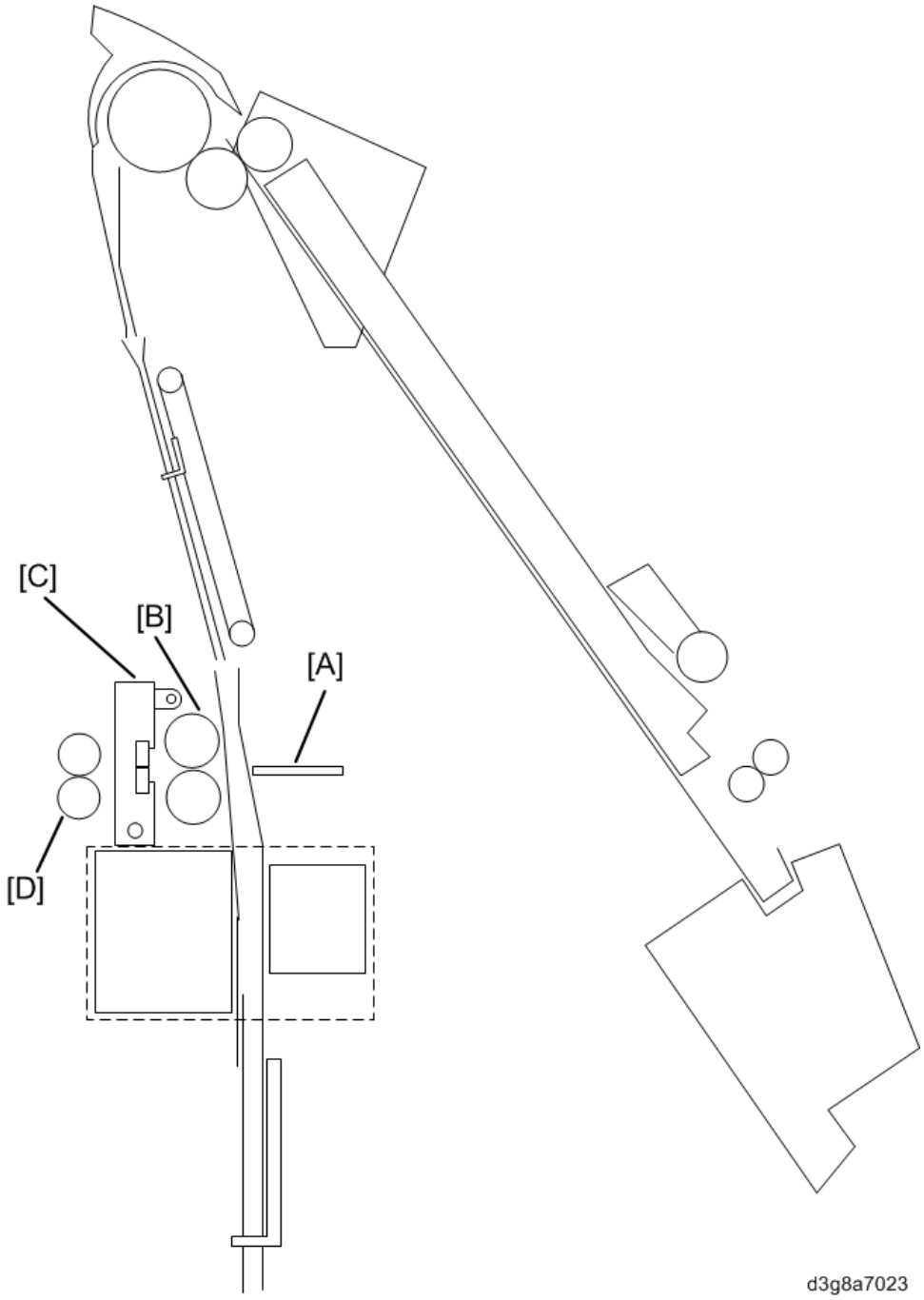


1	Leading edge stopper
2	Flat fold unit
3	Fold roller – idle roller
4	Fold plate
5	Exit roller – idle roller
6	Booklet stapler unit
7	Trailing edge fence



The stack is fed onto the stapling tray of the corner stapler unit, where the sides of the stack are aligned by the side fences and the top and bottom aligned by the top and bottom fences [A]. The stack feed-out belt motor turns on and swings the stack feed-out belt pawl [B] up between the bottom fences to catch the edge of the stack and lift it.

The stack JG motor turns on and closes the stack junction gate just before the top of the stack reaches the top of the stapling tray. This guides the stack into the vertical path of the booklet unit.



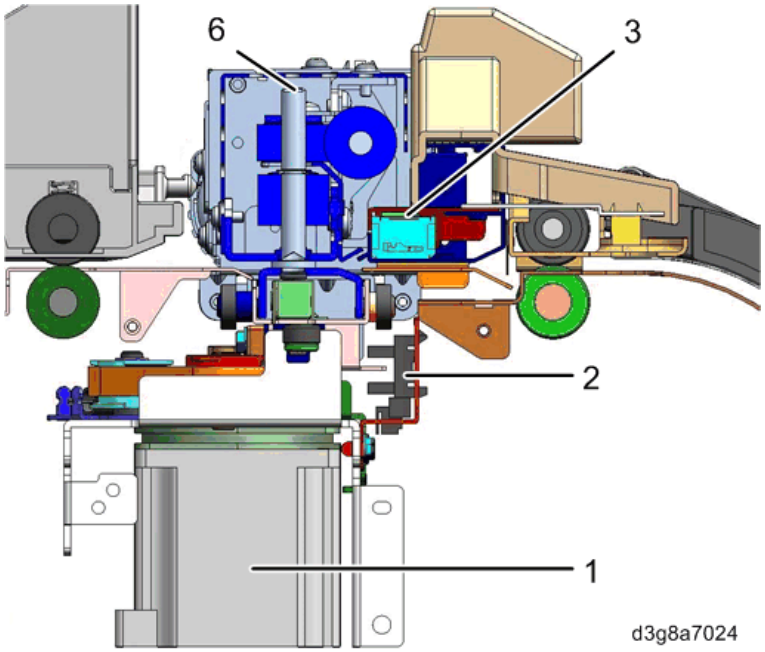
As the fold plate [A] thrusts forward, the fold roller [B] rotates to force the plate into the center of the stack. When the paper fold position reaches the flat fold unit [C], the flat fold unit [C] moves back and forth to fold the paper further. Finally, the exit rollers [D] feed the stack through the exit.

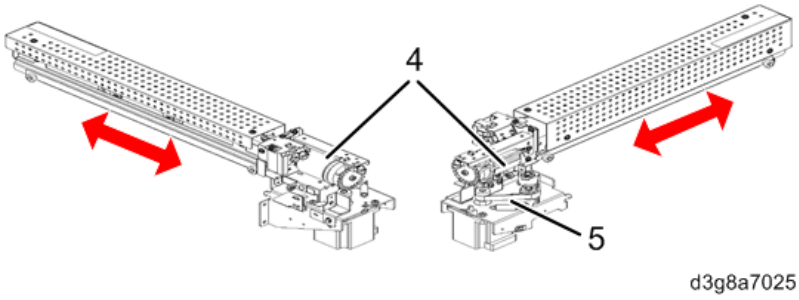
Punch Unit

Drive Mechanism

The punch motor drives the punch unit so the rotation of the punch shaft matches the timing of paper feed for punching. The punch shaft waits at the standby position. When paper punching is selected for the job, once the registration sensor goes OFF after detecting the trailing edge of the paper, paper will stop briefly under the punch position and wait for the punch motor to turn ON. The paper is then

punched. The positions of the punch holes can be adjusted with SP codes and shims.



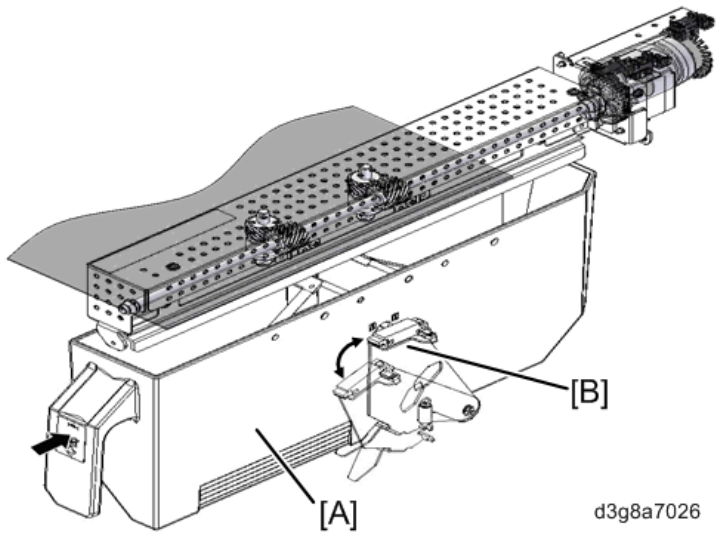


No.	Name	No.	Name
1	Punch movement motor	4	Punch motor
2	Punch Unit HP sensor	5	Timing Belt
3	Punch Horizontal Registration Sensor	6	Punch Position

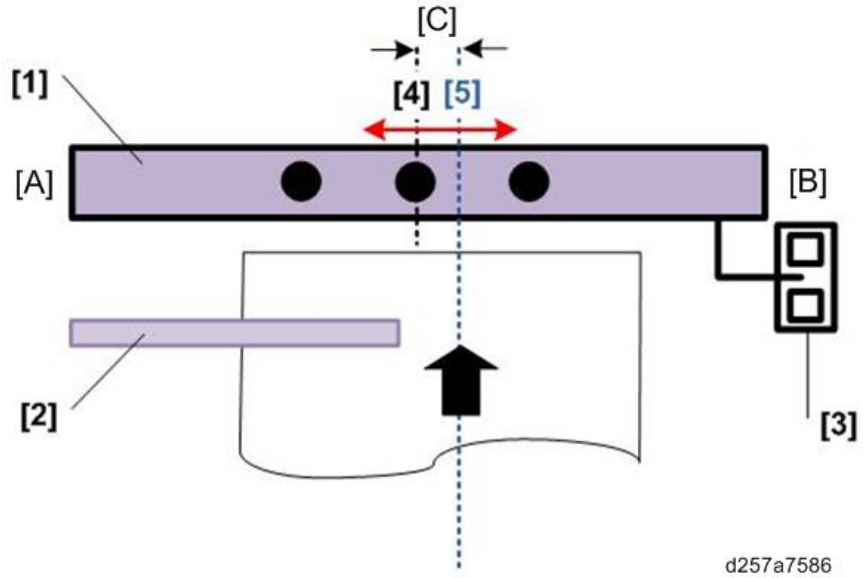
Punch-out Collection

Punch-outs are collected in a punch-out hopper [A] located under the punch unit. The hopper has a punch-out full sensor [B]. When the height of punch-outs accumulated reaches this sensor, it signals that the hopper is full. If a job is in progress when the hopper becomes full, the hopper full alert will be not be displayed on the operation panel until after the job is completed.

There is also a set sensor for the punch-out hopper. A signal is sent when the hopper is not in the unit.



Punch Unit Horizontal Registration



- [A]: Front
- [B]: Rear
- [C]: 6.5 mm

[1]	Punch unit
[2]	Paper position sensor (CIS)
[3]	HP sensor
[4]	Center punch hole
[5]	Paper path center

The paper position sensor (CIS) is located upstream of the punch unit [2].

- This sensor detects the paper position. Based on the reading from this sensor, the position of the punch unit is moved to the correction position at the center of the paper (horizontal registration).
- Normally, the punch unit stands by at its home position which is 6.5 mm to the front, from the center of the paper path.

- When the CIS detects the paper position, the punch unit moves and adjusts its position based on the CIS reading
- After the punch unit is positioned over the paper, the unit punches the paper.
- After the holes have been punched, the punch unit returns to its home position and waits for the next sheet to be fed.
- As soon as the CIS detects the position of the next sheet, it is punched in the same way as the first sheet (the position of the punch unit is adjusted for each sheet based on the CIS reading).
- The position of the punch unit is positioned in this way before each sheet of paper is punched.

Jam Code Table

Code	Jam name	SC code
J104	Entrance sensor lag jam	720-10
J104	Entrance sensor lag jam	720-11
J104	Entrance sensor lag jam	720-12
J104	Entrance sensor lag jam	720-13
J106	Shift tray 1 exit sensor lag jam	720-14
J110	Pre-stack transport sensor lag jam	720-15
J106	Shift tray 1 exit sensor lag jam	720-16
J108	Shift tray 2 exit sensor (short) lag jam	720-17
J112	Staple tray entrance sensor lag jam	720-18
J120	Junction gate motor (shift tray 1/shift tray 2)	720-20
J121	Junction gate motor (shift tray 2/staple tray)	720-21
J122	Pre-stack release motor	720-23
J123	Exit guide motor	720-24
J124	Punch motor	720-25
J125	Punch movement motor	720-27
J126	Jogger motor (front)	720-31
J127	Jogger motor (rear)	720-32
J128	Positioning roller rotation motor	720-33
J114	Shift tray 2 exit sensor (long) lag jam	720-34
J129	Vibrating plate vertical movement motor	720-35
J130	Base fence movement motor	720-36
J131	Vibrating plate horizontal movement motor	720-37
J132	Leading edge stopper motor	720-39
J133	Base fence lift motor	720-40
J134	Feed-out belt motor	720-41
J135	Stapler movement motor	720-42
J136	Stapler rotation motor	720-43

1.Detailed Descriptions

Code	Jam name	SC code
J137	Stapler motor	720-44
J116	Fold unit entrance sensor lag jam	720-45
J138	Booklet stapler side fence motor	720-50
J139	Booklet stapler top fence motor	720-51
J140	Fold plate motor	720-52
J141	Booklet stapler bottom fence motor	720-53
J142	Stack transport unit motor	720-54
J143	Booklet pressure release motor	720-55
J144	Turn guide motor	720-56
J116	Fold unit entrance sensor lag jam	720-57
J118	Booklet stapler exit sensor lag jam	720-58
J118	Booklet stapler exit sensor lag jam	720-59
J145	Booklet stapler motor	720-60
J146	Flat fold unit motor	720-61
J147	Flat fold unit pressure release motor	720-62
J148	Shift tray 2 lift motor	720-70
J149	Shift tray 2 shift motor	720-71
J150	Shift tray 2 jogger motor	720-72
J151	Shift tray 2 jogger fence retract motor	720-74
J152	Shift tray 2 drag roller movement motor	720-75
J108	Shift tray 2 exit sensor (short) lag jam	720-76
J108	Shift tray 2 exit sensor (short) lag jam	720-77
J153	Shift tray 2 press lever motor	720-78
J154	Shift tray 1 lift motor	720-79
J155	Shift tray 1 shift motor	720-80
J156	Shift tray 1 jogger motor	720-81
J157	Shift tray 1 jogger fence retract motor	720-82
J158	Shift tray 1 drag roller movement motor	720-83
J106	Shift tray 1 exit sensor lag jam	720-84
J159	Shift tray 1 press lever motor	720-85
J106	Shift tray 1 exit sensor lag jam	720-86
J106	Shift tray 1 exit sensor lag jam	720-88

2. Replacement and Adjustment

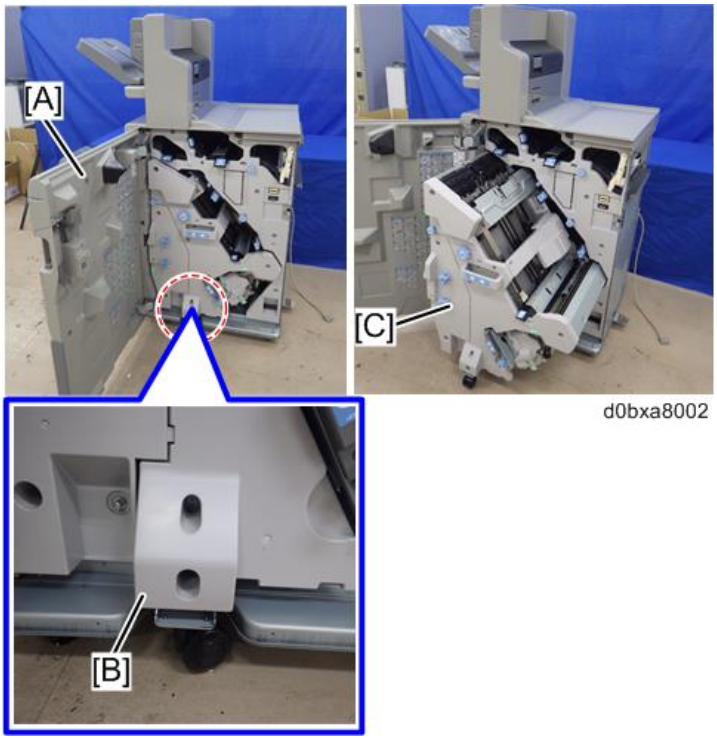
Common Procedures

Overview

Exterior

d0bxa8001

Inner

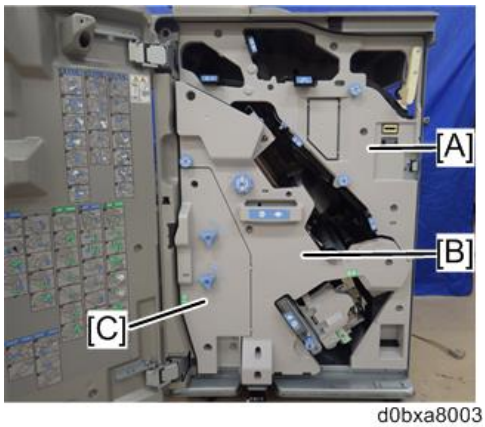


d0bxa8002

[A] Front door

[B] Adjustable caster

[C] Stack/stapler unit (Pull handle **Rb12** to remove unit).



d0bxa8003

[A] Upper: **Rb2**, **Rb8**

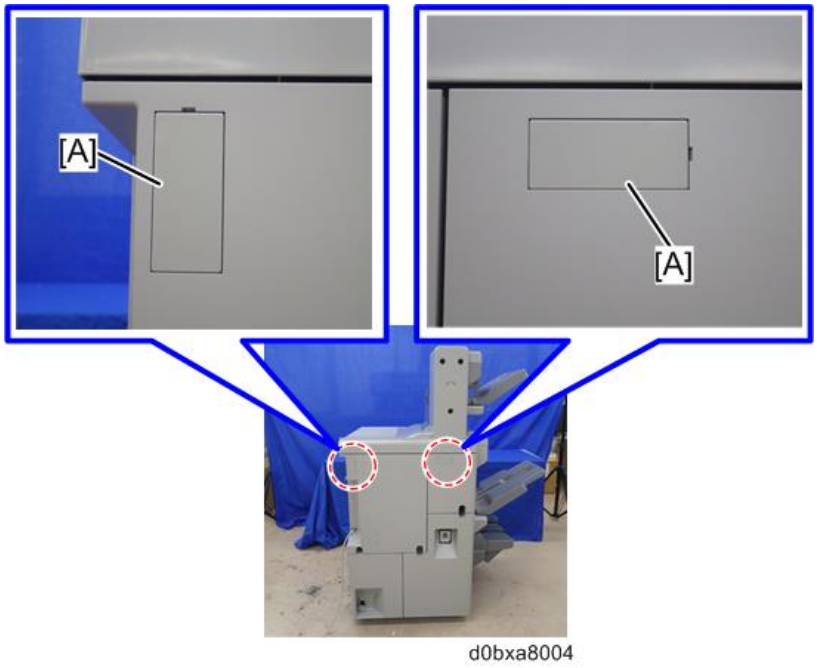
[B] Center: **Rb14**, **Rb16**

[C] Lower **Rb10**, **Rb11**

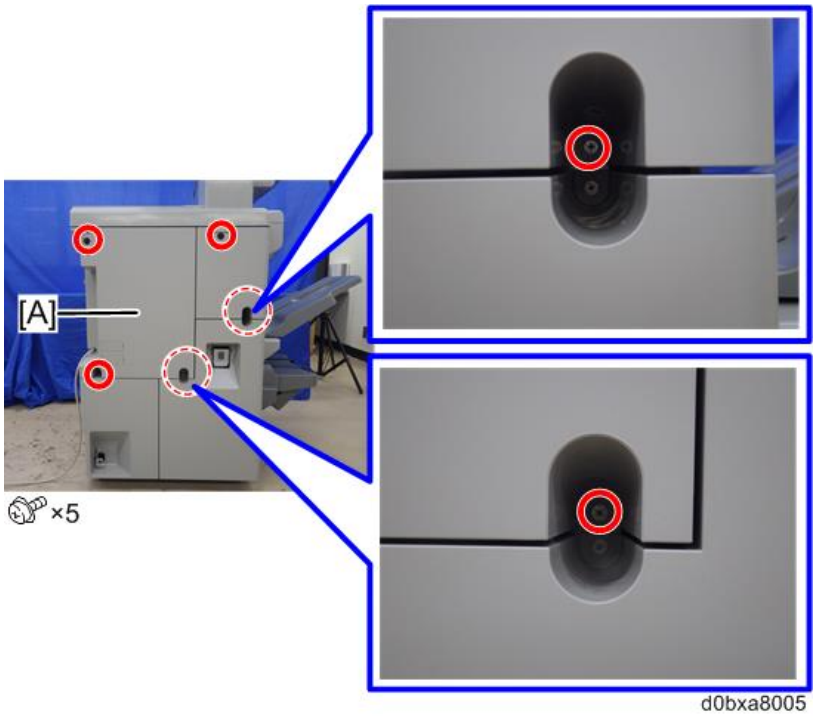
Covers

Rear Upper Cover

1. Remove the screw covers [A] (2 hooks)



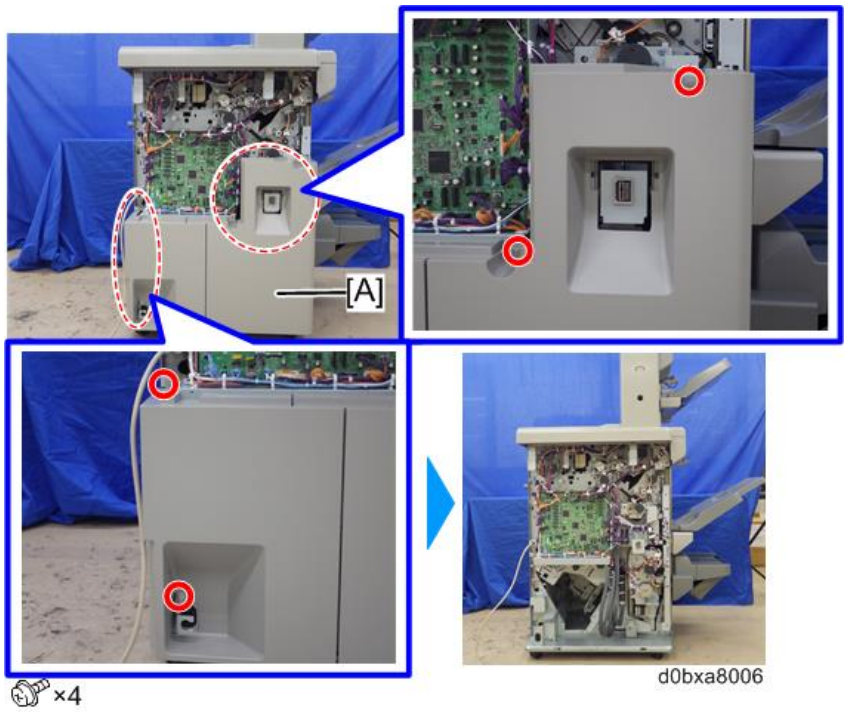
2. Remove the rear upper cover [B].



Rear Lower Cover

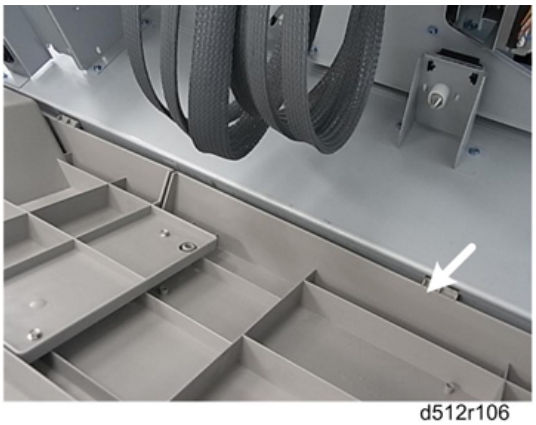
1. Remove the rear upper cover. (Rear Upper Cover)

2. Remove the rear lower cover [A].



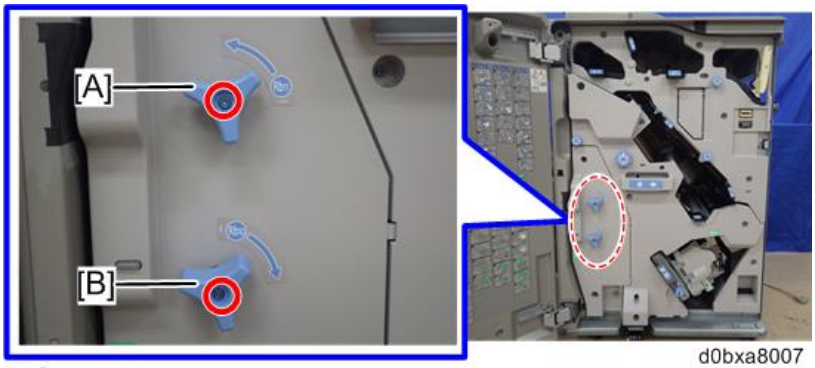
Note

- When re-installing, engage both tabs on the bottom of the rear lower cover before fastening the screws.



Lower Inner Cover: Rb10, Rb11

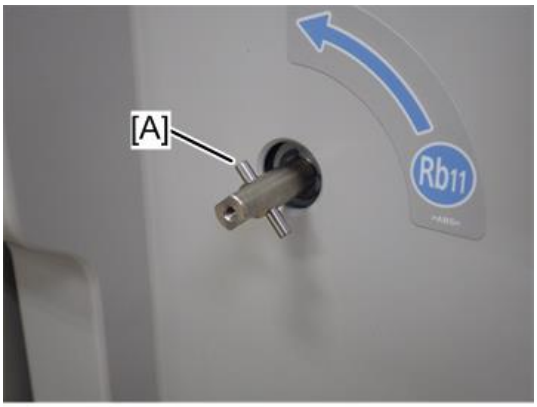
1. Remove handles **Rb11**, **Rb12**.



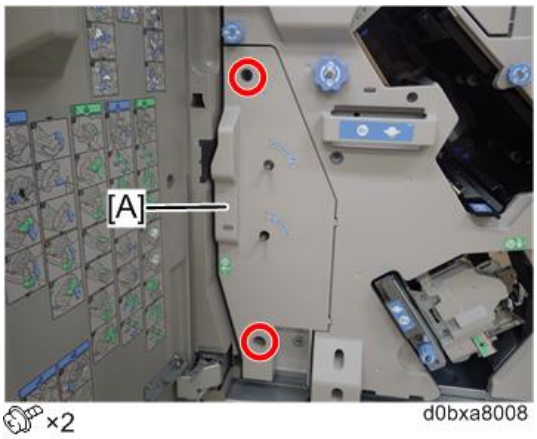
×2

Note

- Make sure that the pins [A] are removed and stored with the screws.



2. Remove the lower inner cover.

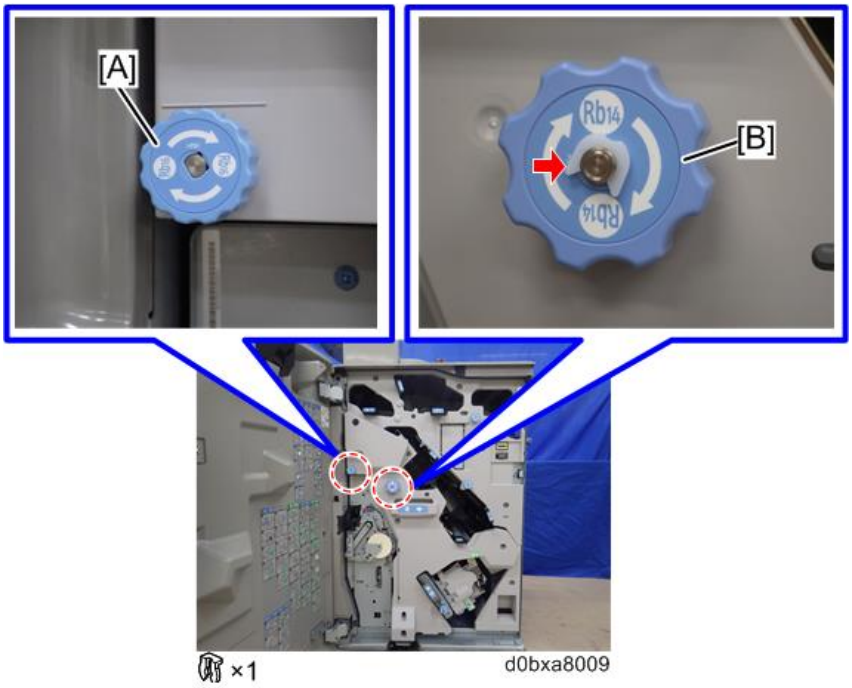


×2

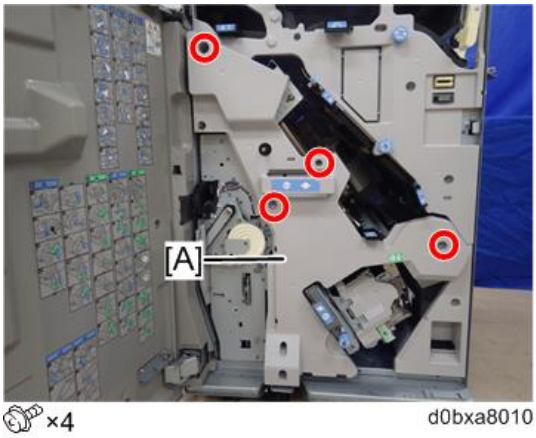
Center Inner Cover: Rb14, Rb16

1. Remove the lower inner cover. (Lower Inner Cover: Rb10, Rb11)

2. Remove handles **Rb16** [A] and **Rb 14** [B].



3. Remove the center inner cover.

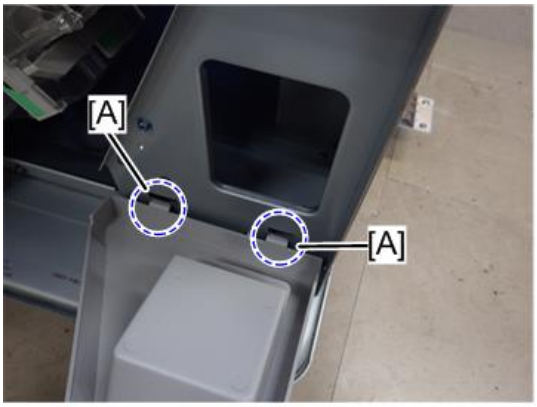


Lower Right Inner Cover

1. Remove the lower right inner cover [A].

Note

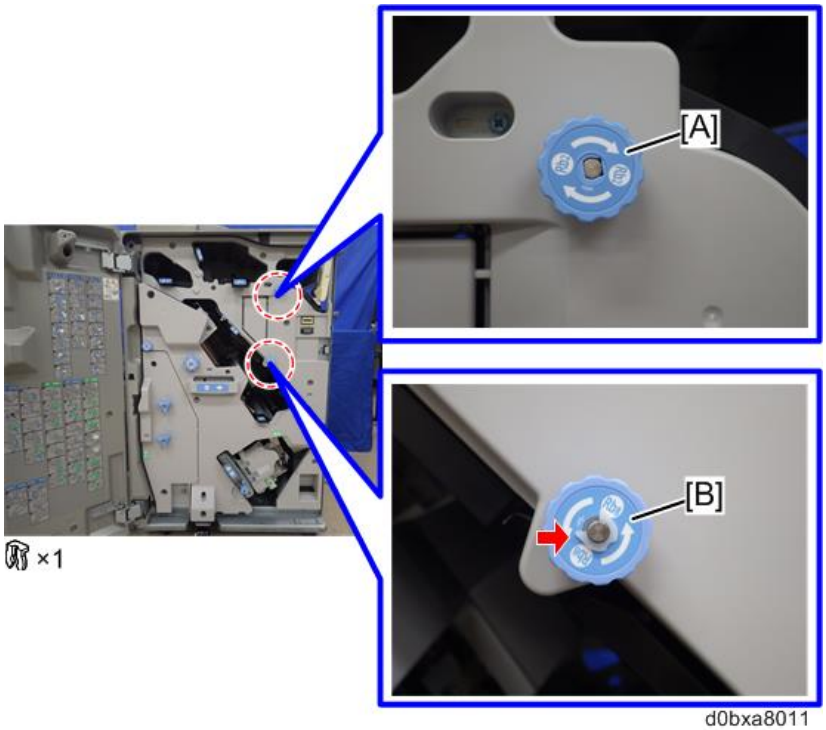
- When re-installing, engage both tabs [A] on the bottom of the cover first.



d0bxa8015

Upper Inner Cover: Rb2, Rb8

1. Remove the lower right inner cover. (Lower Right Inner Cover)
2. Remove handles **Rb2** [A] and **Rb8** [B].

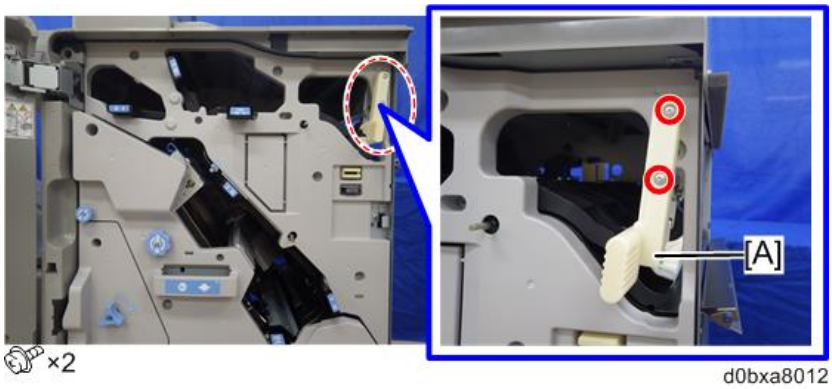


d0bxa8011

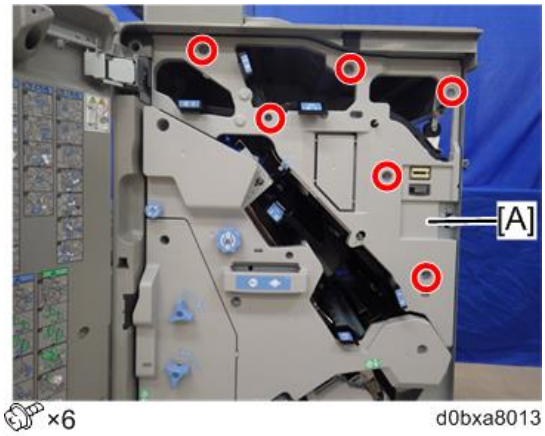
Note

- If these tab releases are stiff, use the point of a sharp tool to release these knobs, before pulling them off. Work carefully to avoid breaking the tab releases.

3. Remove the lever [A].



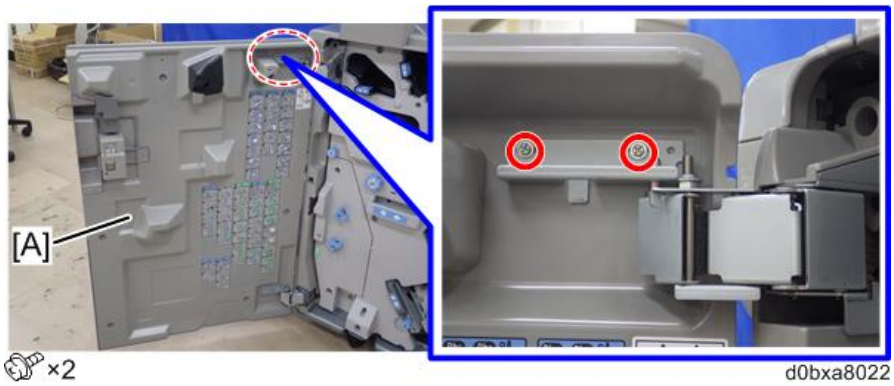
4. Remove the upper inner cover [A].



Front Door

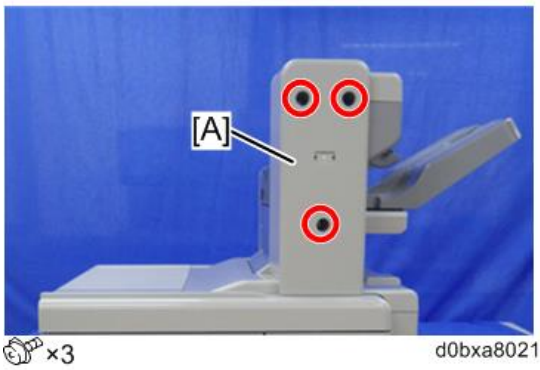
1. Open the front door.

2. Remove the front door [A].

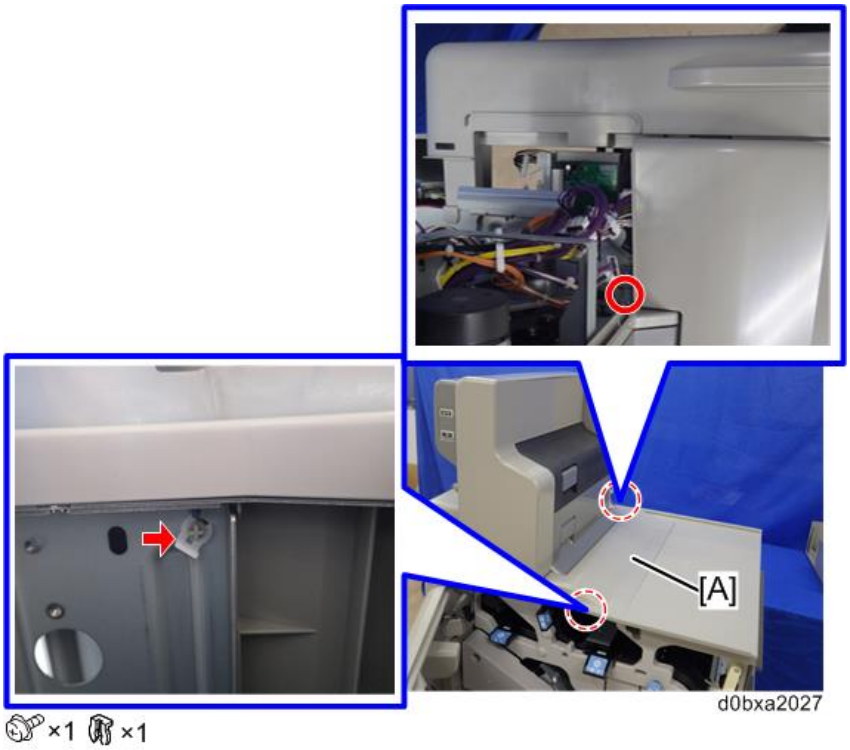


Shift Tray 1 Unit

1. Remove the shift tray 1 rear cover.

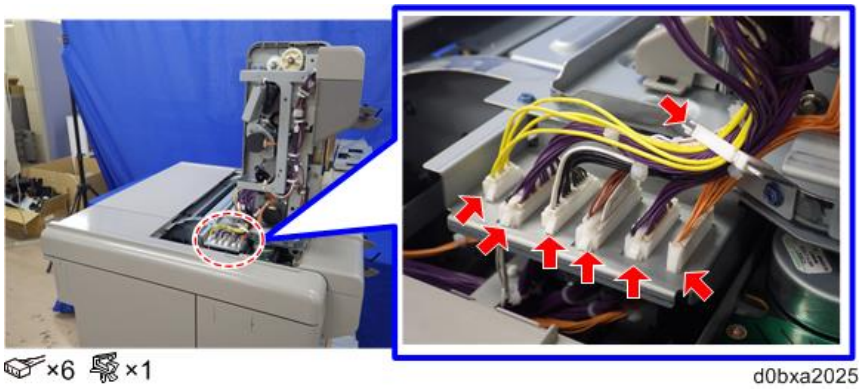


2. Remove the upper center cover [A].

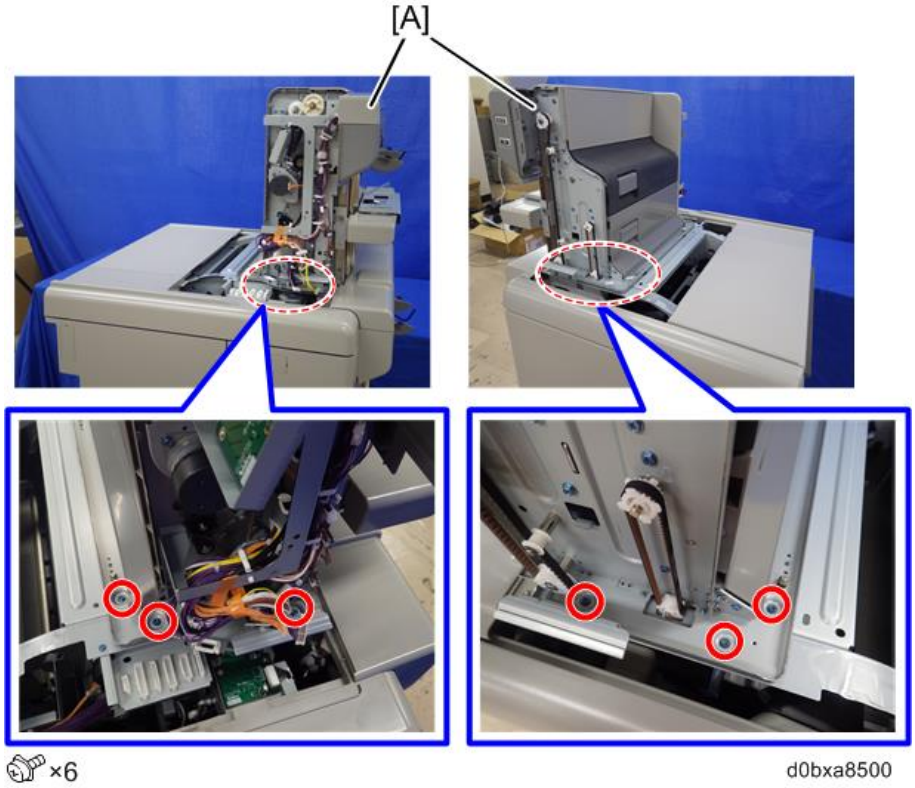


3. Remove the shift tray 1 unit front cover.

4. Disconnect the connectors and open the clamp.



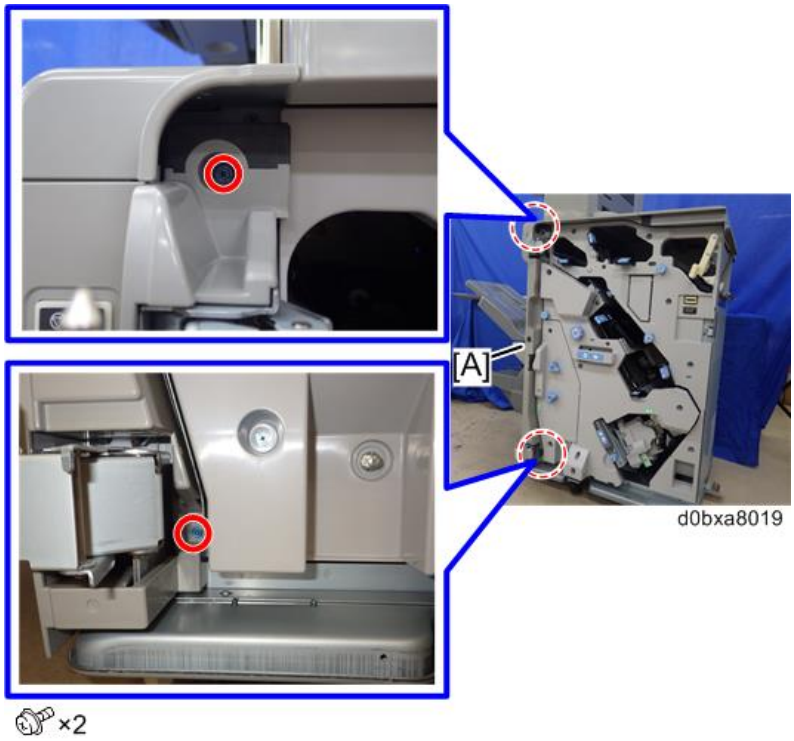
5. Remove the shift tray 1 unit [A].



Corner Strip Cover

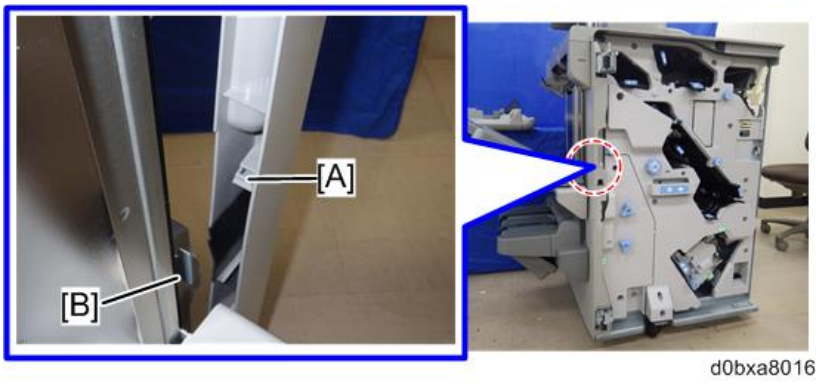
1. Remove the front door. (Front Door)

2. Remove the corner strip cover [A]. Remove it from the top.



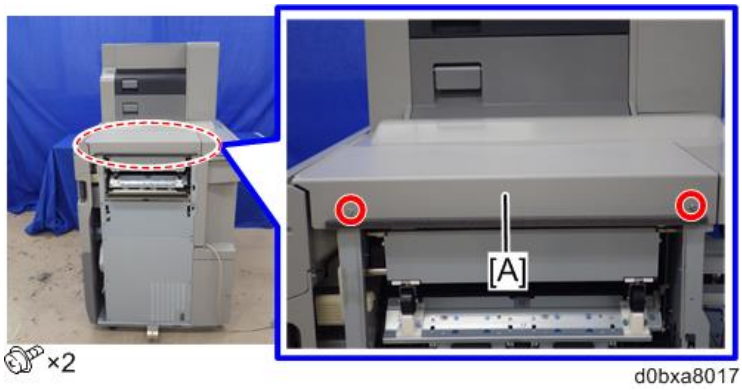
Note

- When re-installing, hang the hook [A] of the corner strip cover on the finisher bracket [B].



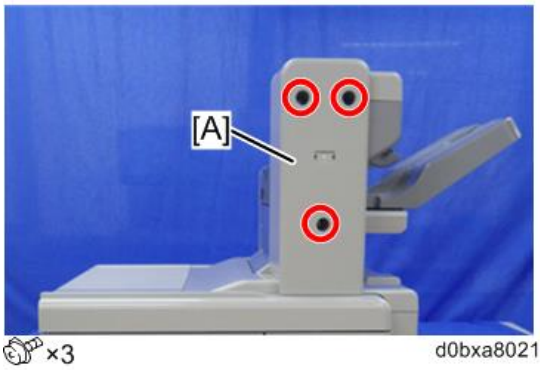
Top Right Cover

1. Remove the top right cover [A].

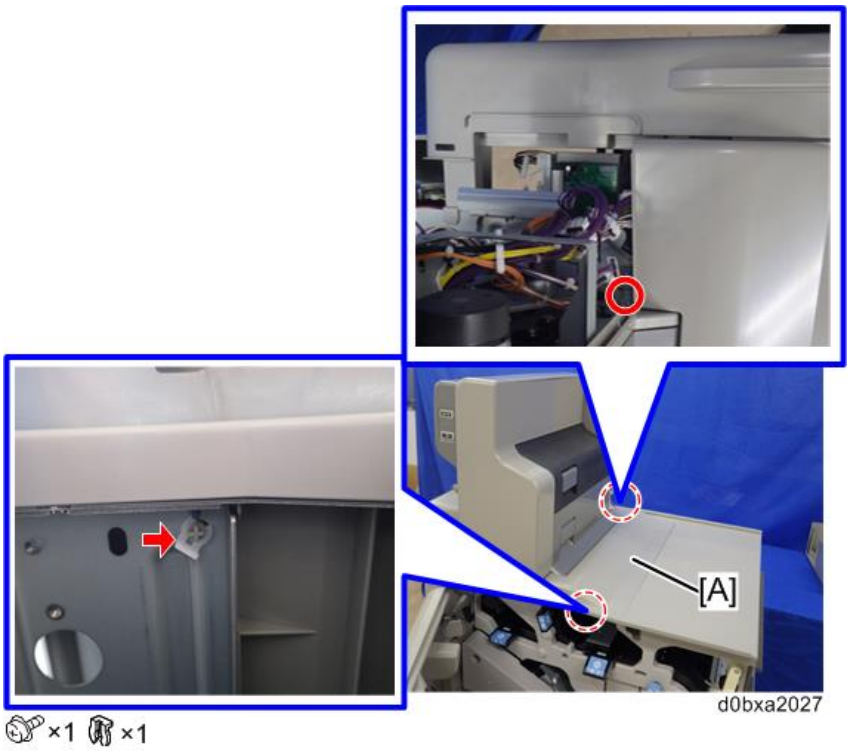


Top Rear Cover

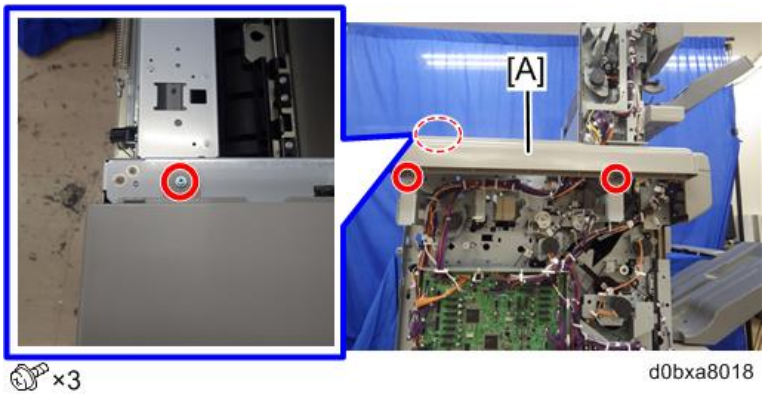
1. Remove the top right cover. (Top Right Cover)
2. Remove the rear upper cover. (Rear Upper Cover)
3. Remove the shift tray 1 unit rear cover.



4. Remove the upper center cover [A].

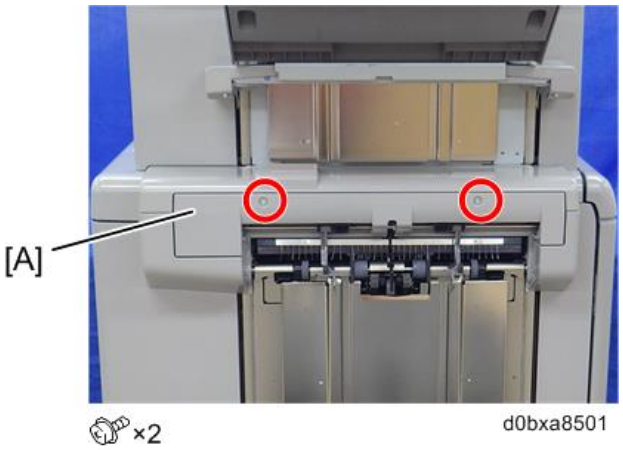


5. Remove the top rear cover [A].

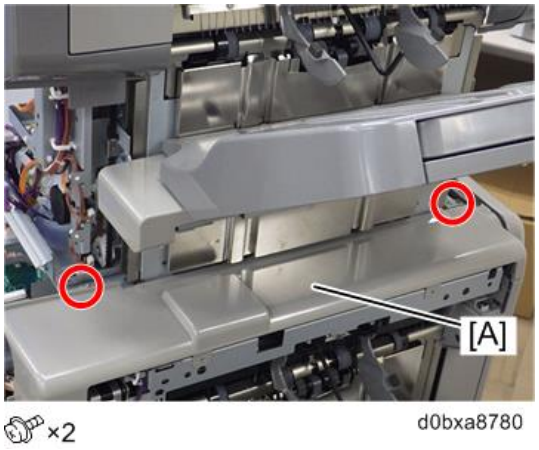


Shift Tray 2 Jogger Unit

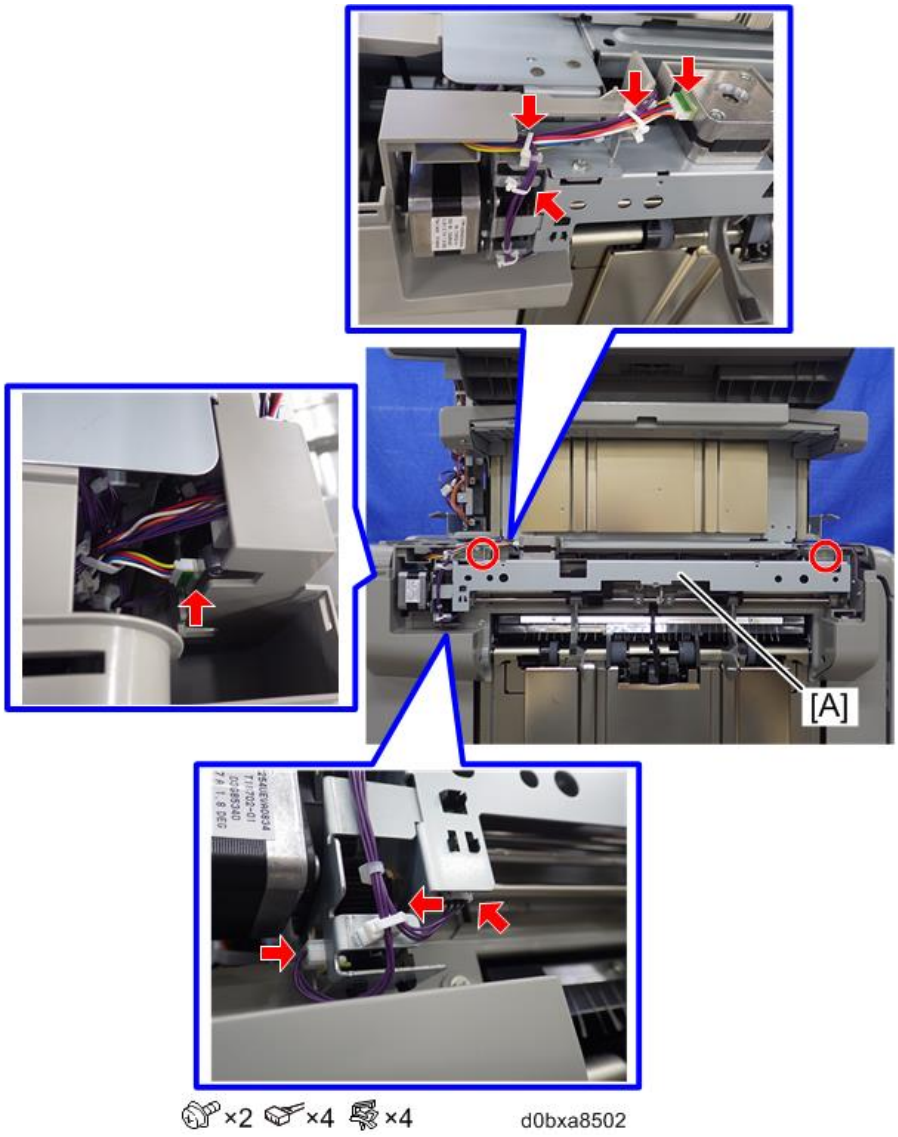
1. Remove the top rear cover. (Top Rear Cover)
2. Remove the shift tray 2 jogger unit cover [A].



3. Remove the top left cover [A].



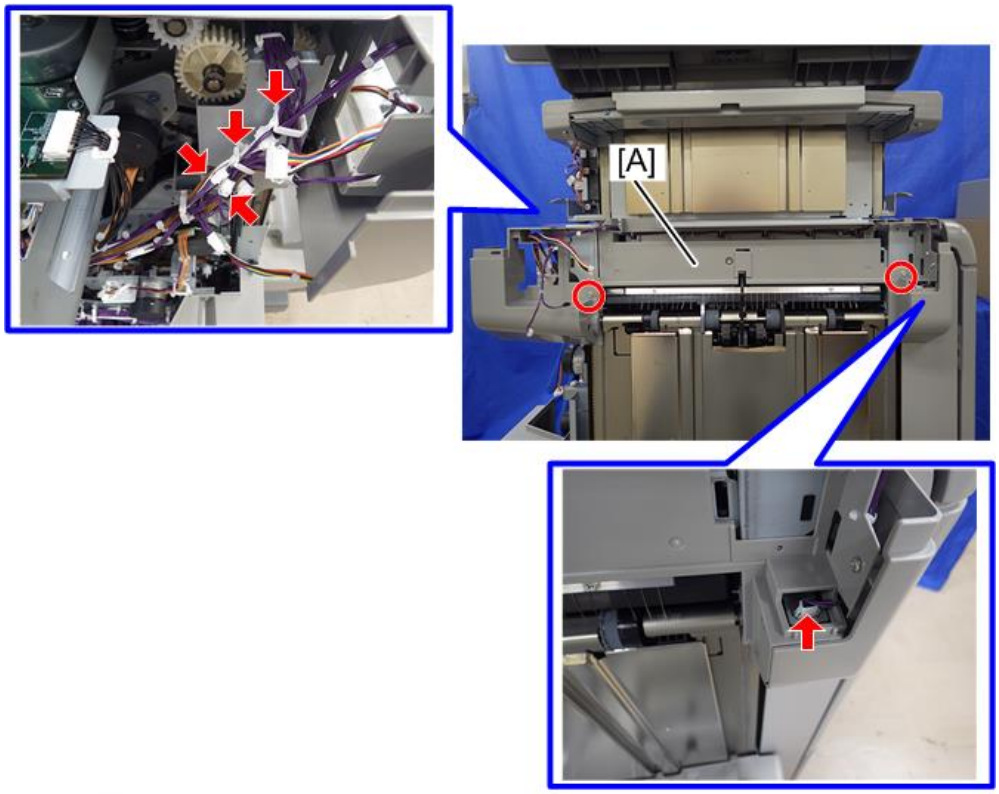
4. Lift the jogger unit [A] off.



Left Upper Cover

1. Remove the shift tray 2 jogger unit. (Shift Tray 2 Jogger Unit)

2. Remove the left upper cover [B].



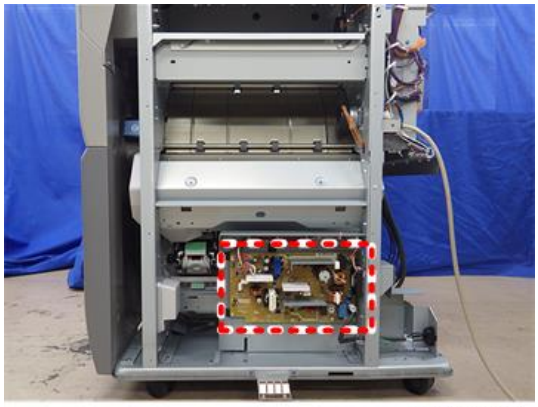
×2 ×3 ×2

d0bxa8503

Upper and Lower Right Panels

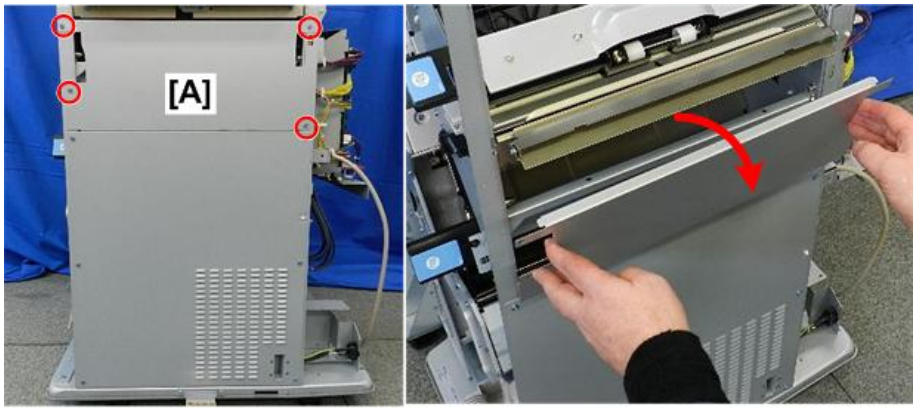
⚠CAUTION

- The lower right panel covers the PSU, which retains residual voltage after the machine is turned off.
- Before removing the lower right panel for any procedure, turn the machine OFF and wait 30 minutes for the charge on the PSU to dissipate.



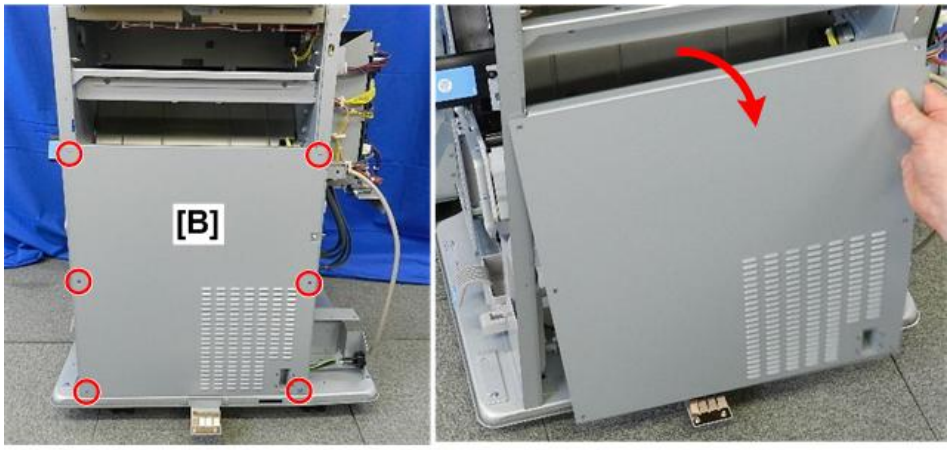
d0bxa8504

1. Remove upper right panel [A] (x4).



d7340048

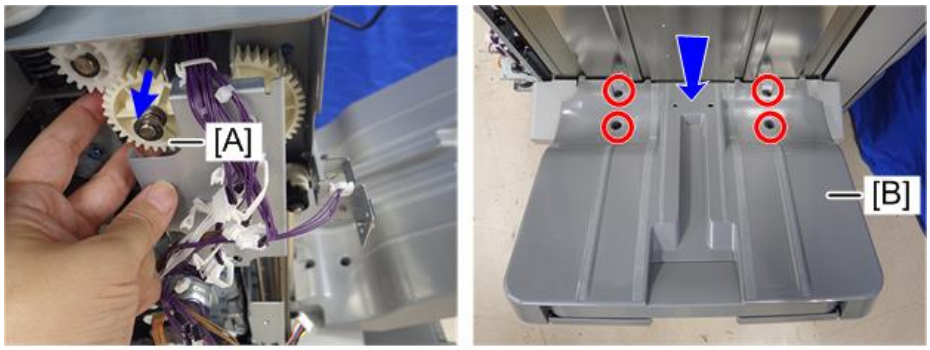
2. Remove the lower right panel [B] (x6).



d7340049

Shift Tray 2

1. While supporting the tray with one hand, pull the gear [A] toward you to release the tray.
2. Lower the tray [B] slowly until it stops, and then remove it.



×4

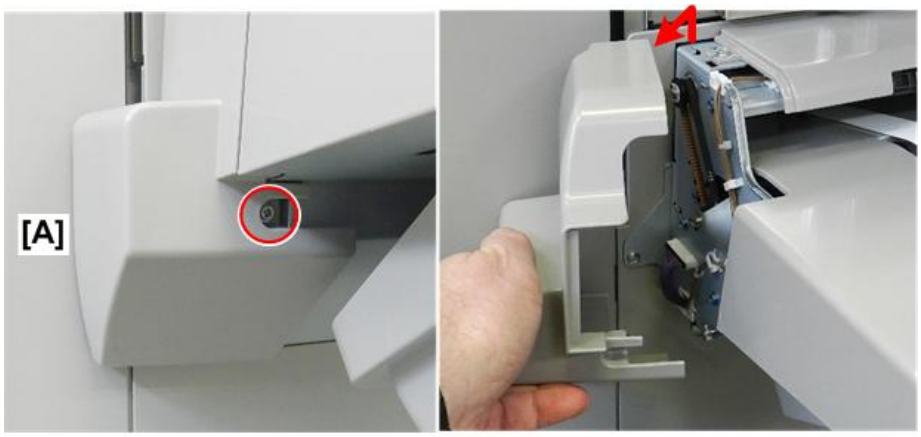
d0bxa8505

Booklet Tray

The booklet tray is the lower tray.

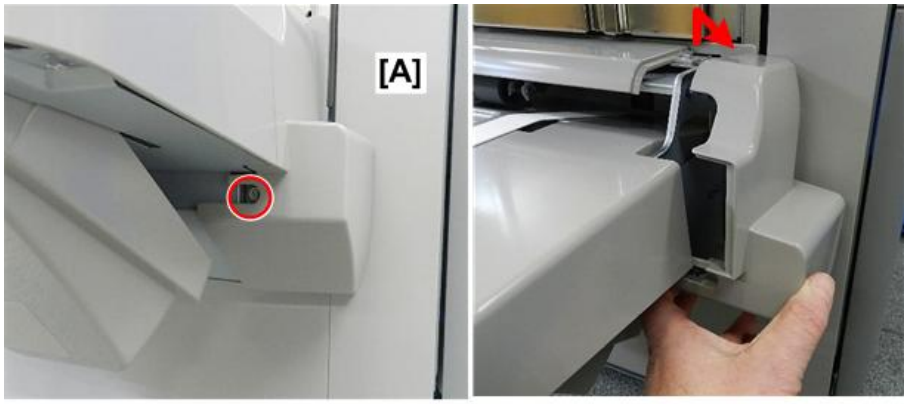
d7340051

1. At the rear [A], remove the rear cover (x1).



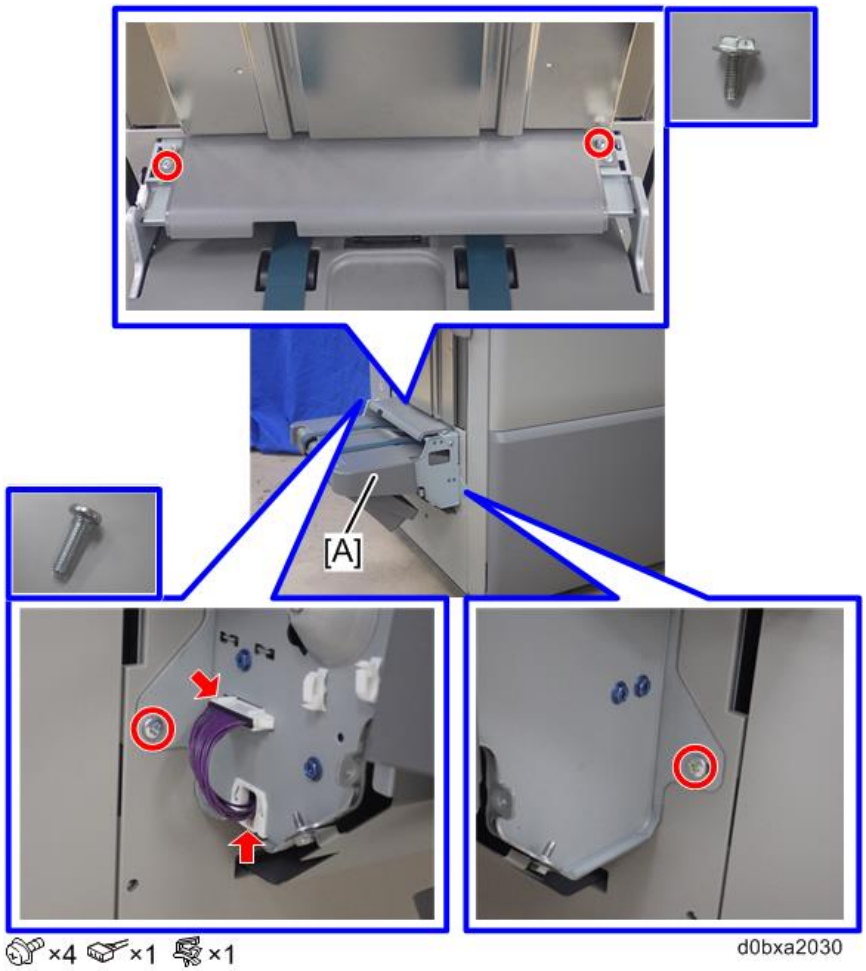
d7340052

2. At the front [A], remove front cover (x1).



d7340054

3. Disconnect the booklet tray [A].



4. Lift the tray off the side of the machine.

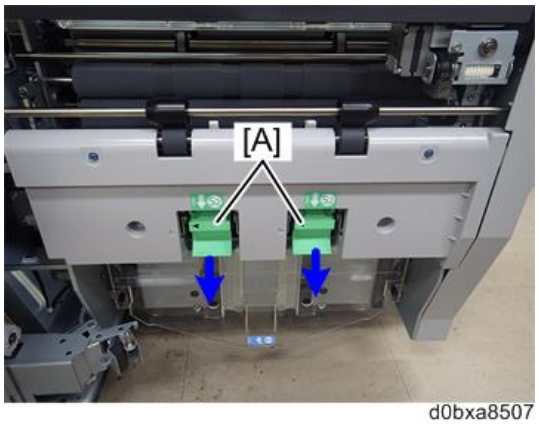
Booklet Unit

Booklet Stapler

The booklet stapler weighs about 3 kg (6.6 lb.)

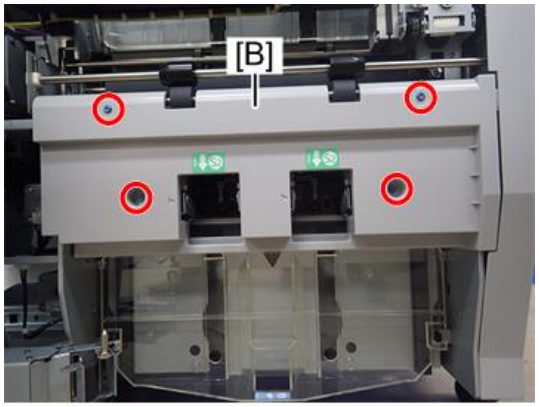
1. Remove the corner strip cover. (Corner Strip Cover)
2. Pull stack/stapler unit out using **Rb12**.

3. Remove both booklet staplers [A].



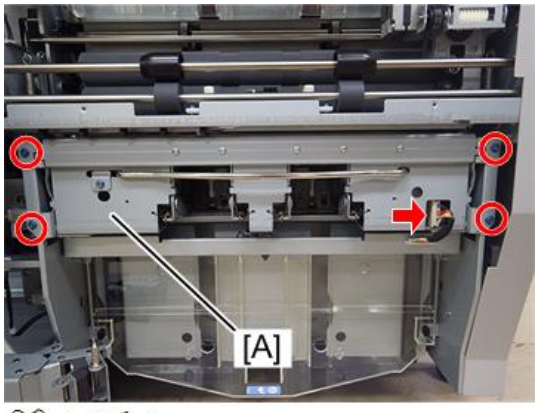
d0bxa8507

4. Remove the booklet stapler unit cover [A].



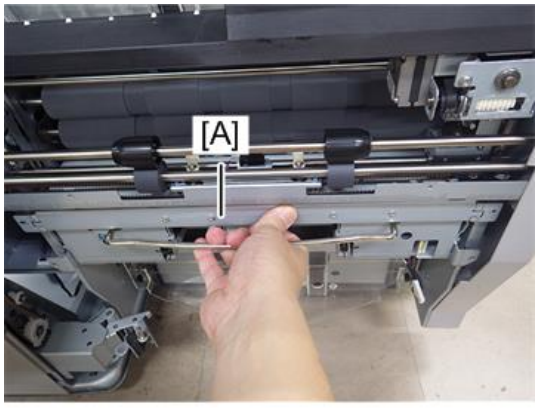
×4 d0bxa8508

5. Disconnect the stapler unit [A].



×4 ×1 d0bxa8509

6. Remove the stapler unit [A] with its handle.



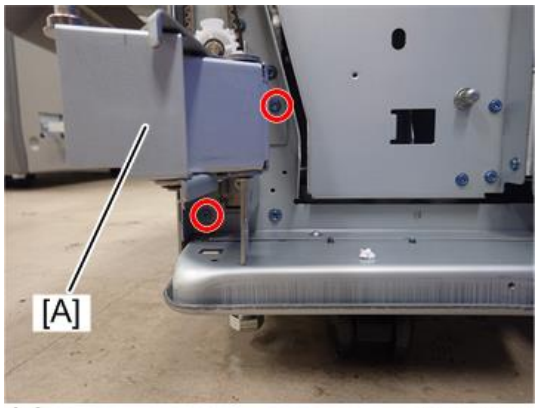
d0bxa8510

7. Lay the unit on a flat, clean surface.

d0bxa8511

Booklet Unit Removal

1. Remove the corner strip cover. (Corner Strip Cover)
2. Remove the lower inner cover **Rb10**, **Rb11** (Lower Inner Cover: Rb10, Rb11)
3. Remove the front door lower hinge [A].



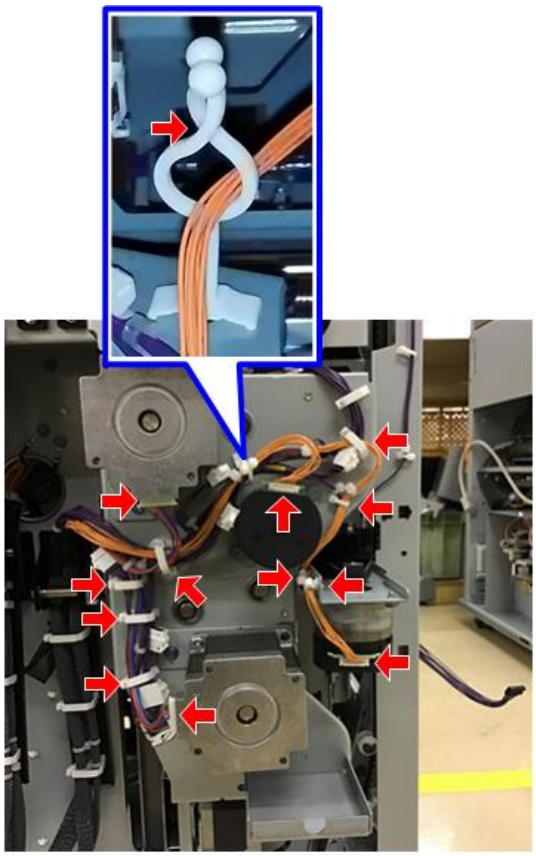
×2 d0bxa8516

4. Remove the booklet stapler (recommended) (Booklet Stapler)

Note

- The booklet unit weighs about 18 kg (40 lb.) with the booklet stapler installed.
- The booklet stapler weighs about 3 kg (6.6 lb.)
- The booklet unit is lighter and easier to remove and re-install with the booklet stapler removed.

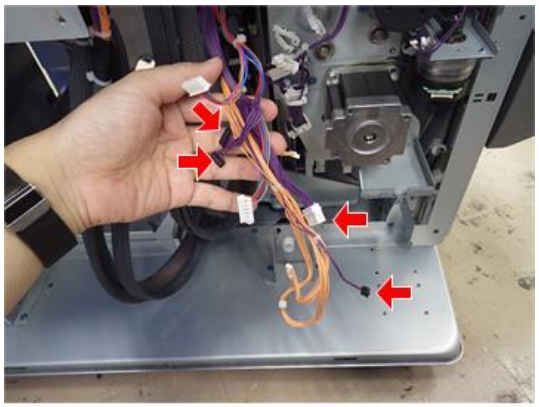
5. Make sure that the stack/staple unit is closed.
6. Disconnect the four motors attached to the rear of the stack/staple unit.



×4 ×9 d0bxa8512

(One of the clamps is a twist clamp.)

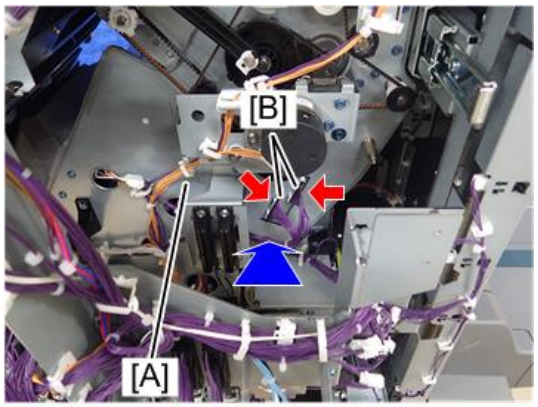
7. Disconnect the connectors of the other harnesses attached to the rear of the stack/staple unit.



×4 d0bxa8513

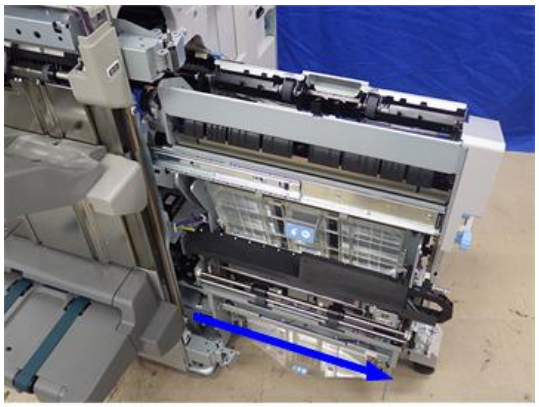
8. Push the stack/staple unit [A] out about halfway, until you can see the two black connectors.

9. Disconnect the connectors [B] (☞ x2).



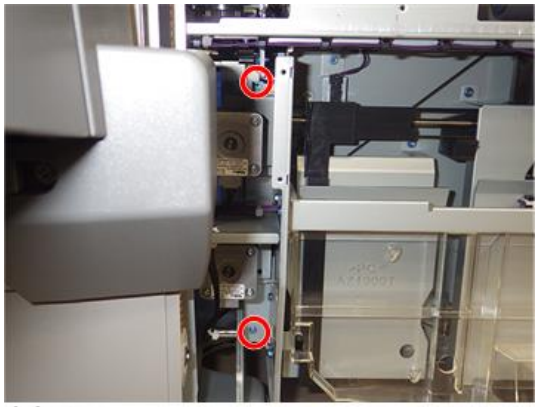
☞×2 d0bxa8514

10. Pull the stack/staple unit out until it stops.



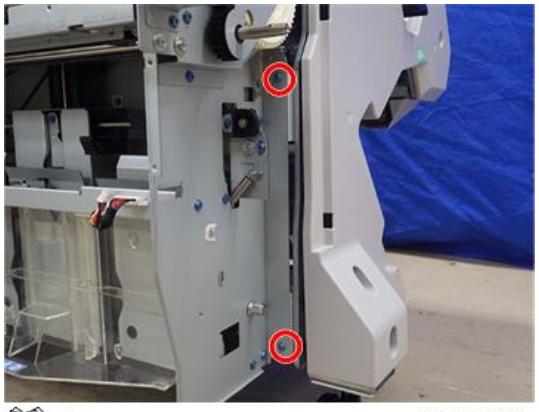
d0bxa8515

11. Remove the two screws on the back side.



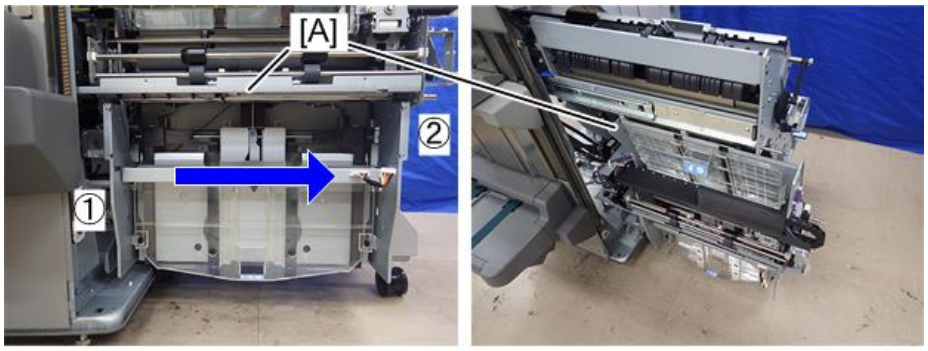
☞×2 d0bxa8517

12. Remove the two screws on the front side.



×2 d0bxa8518

13. Grip the unit [A] at ① and ②, slide it to the right, and set it down on the floor.



d0bxa8519

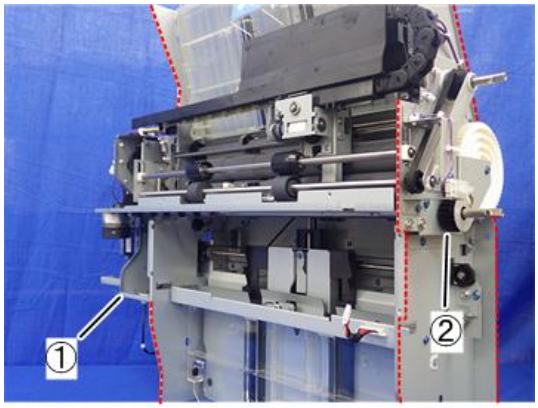
Handling and Moving the Booklet Unit

⚠CAUTION

- The metal edges of the booklet unit are sharp and can easily cut your hands or fingers. Always handle the unit carefully.

Always lift the booklet unit with your hands positioned at ① and ②.

Never attempt to lift the booklet unit by the edges (shown above by the red dotted lines).



d0bxa8520

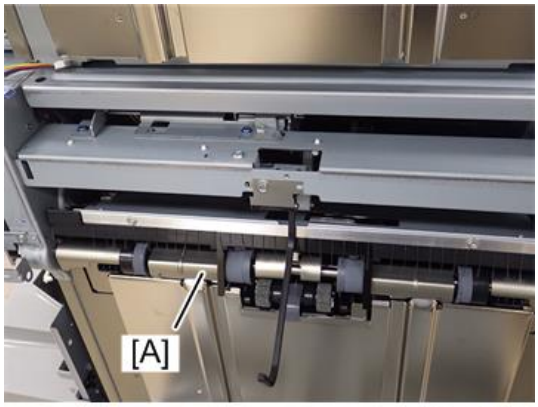
Shift Tray 2 End Fence

1. Remove the booklet tray. (Booklet Tray)

2. Remove the left upper cover. (Left Upper Cover)
3. Pull the stack/stapler unit out with handle **Rb12**.

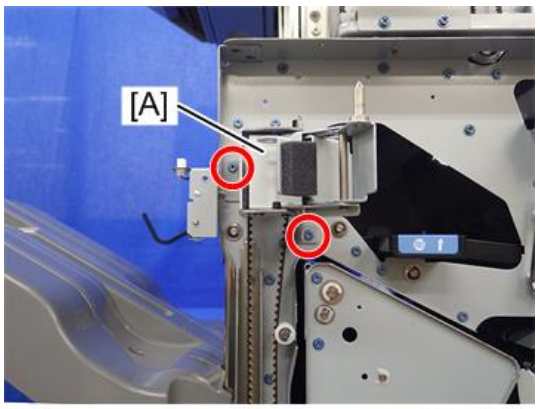
Shift Tray 2 Exit Roller Cover

This is the exit roller cover [A].



d0bxa8521

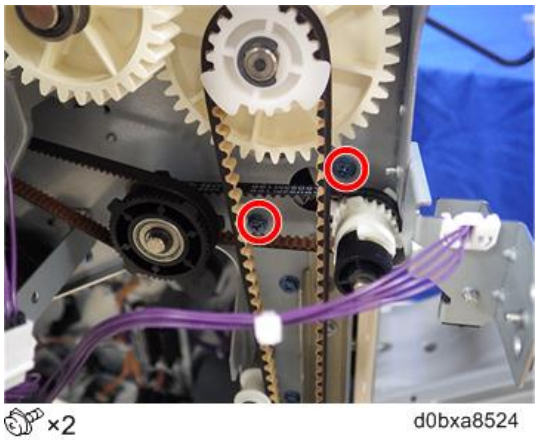
1. Remove the front door. (Front Door)
2. Remove the upper inner cover. (Upper Inner Cover: Rb2, Rb8)
3. Remove the front door upper hinge [A].



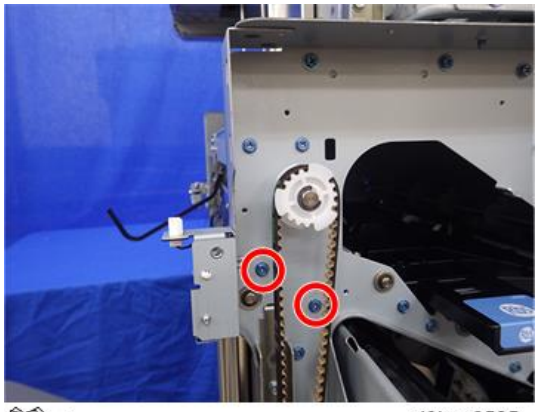
×2 d0bxa8523

4. Remove the bracket [A].

5. Remove the two screws on the back side.

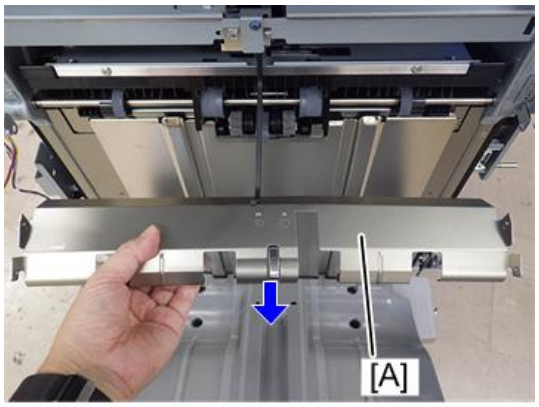


6. Remove the two screws on the front side.



×2 d0bxa8525

7. Remove the cover [A].

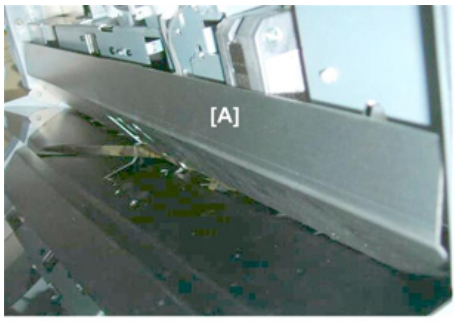


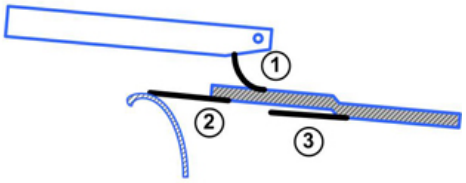
d0bxa8526

Re-installation

1. When re-attaching the exit roller cover [A], check the following:

- Make sure the small sheet ① is set as shown.
- Make sure the large sheets ② and ③ are set as shown.



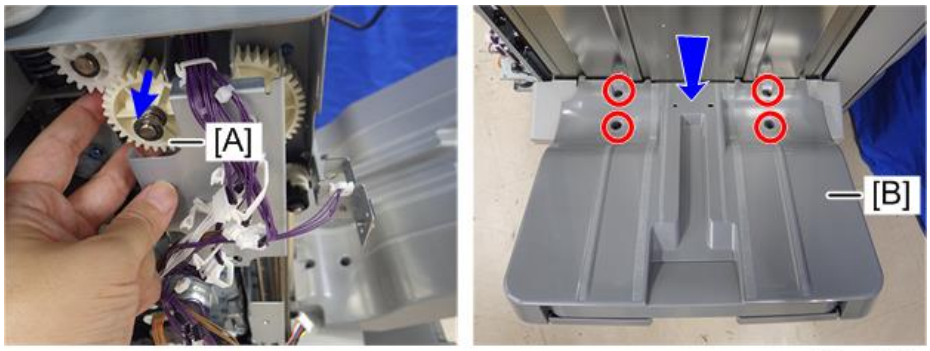


d512r152

Shift Tray 2

1. While supporting the tray with one hand, pull gear [A] toward you to release the tray.

2. Lower the tray [B] slowly until it stops, then remove it.



×4

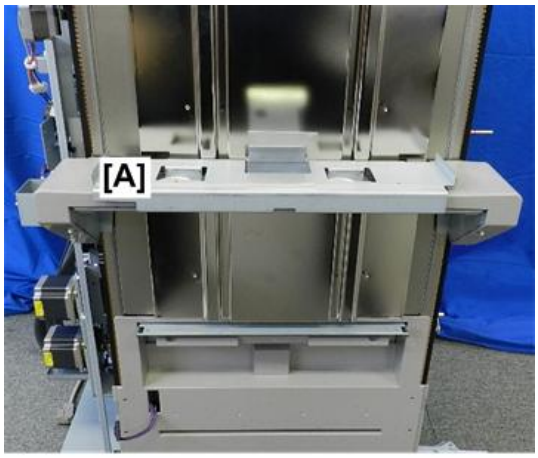
d0bxa8505

3. Support the tray [A] with your hand to prevent it from falling, then remove the last screw. (x1)

d434r138

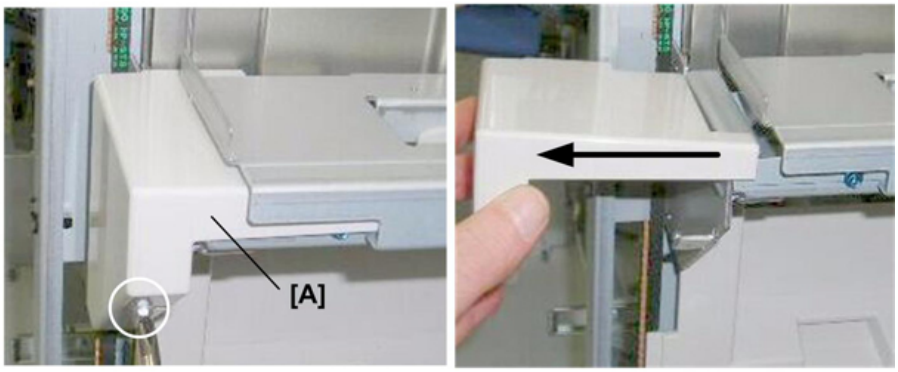
Shift Tray 2 Base

This is the shift tray 2 base [A].



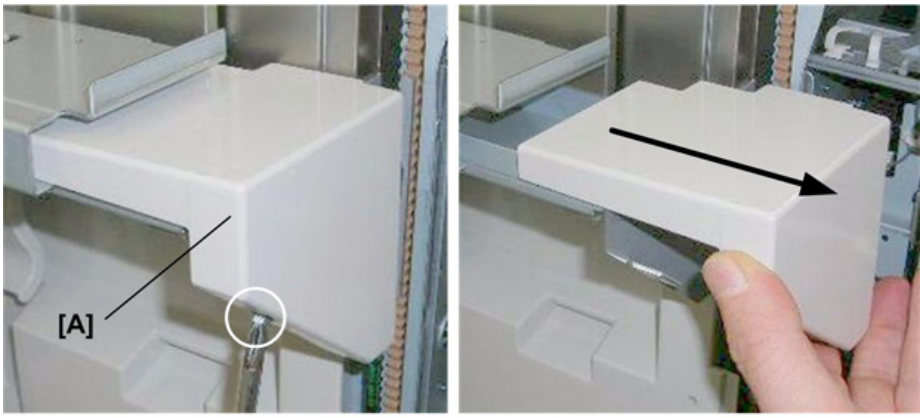
d7340059

1. Remove the rear cover [A]. You do not need to remove the screw. Slide the cover off. (x1)



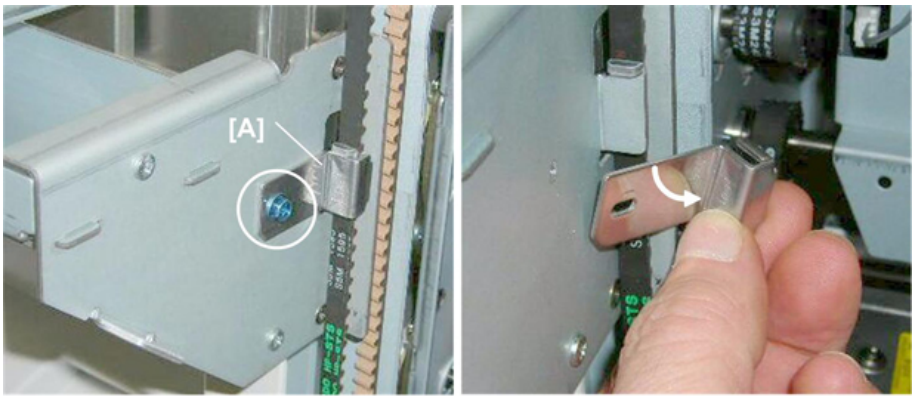
d434r140

2. Remove the front cover [A]. You do not need to remove the screw. Slide the cover off. (x1)



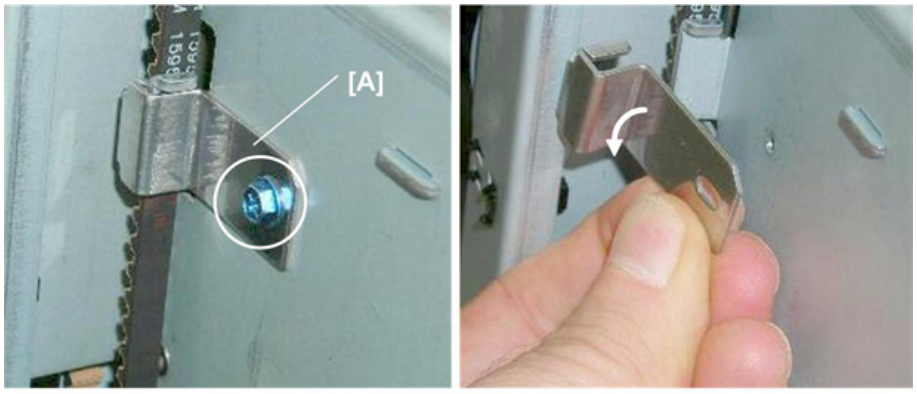
d434r141

3. Remove the front belt clamp [A] (x1)



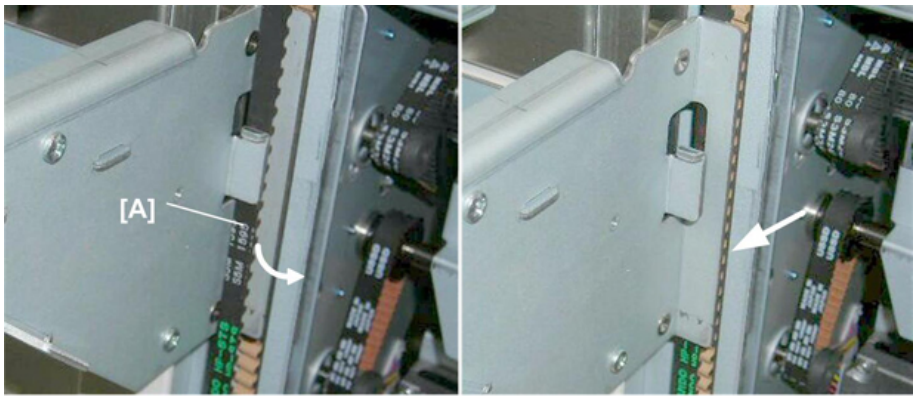
d434r142

4. Remove the rear belt clamp [A] (x1)



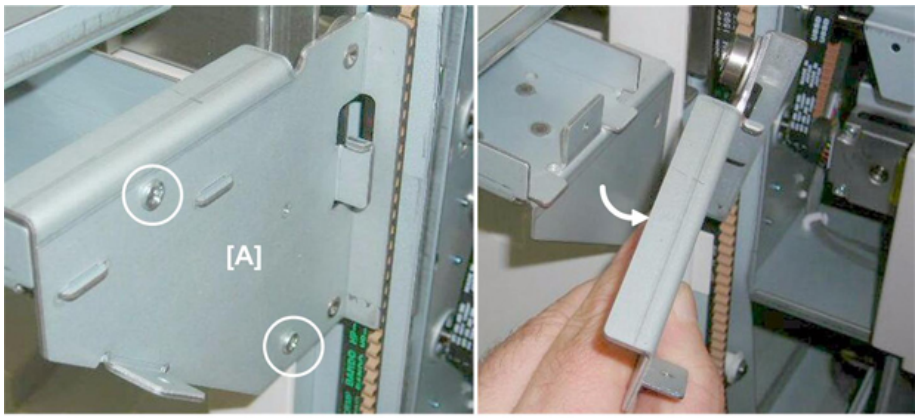
d434r143

5. At the front, pull the belt [A] out and set it behind the plate.



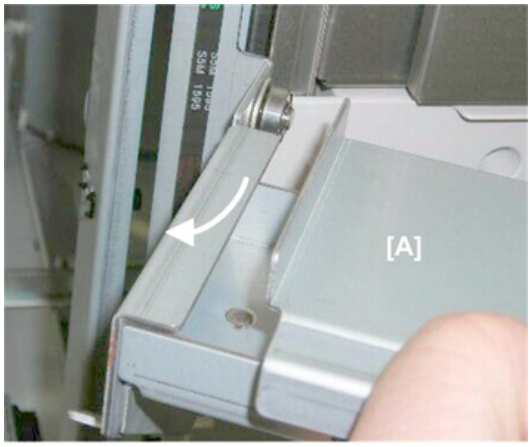
d434r144

6. Remove the front base plate [A] (x2)



d434r145

7. Disconnect the rear end of the base [A] from the side fence (you do not need to remove the plate).



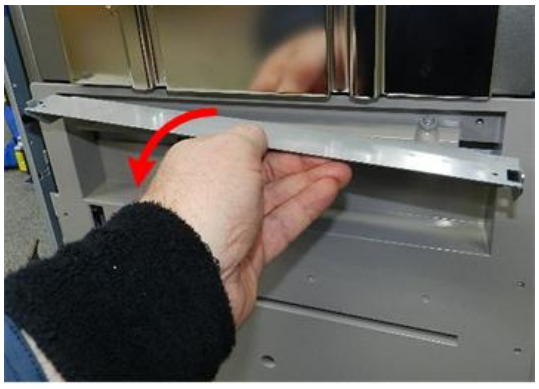
d434r146

Left Lower Cover

1. Disconnect the metal bracket (x2).

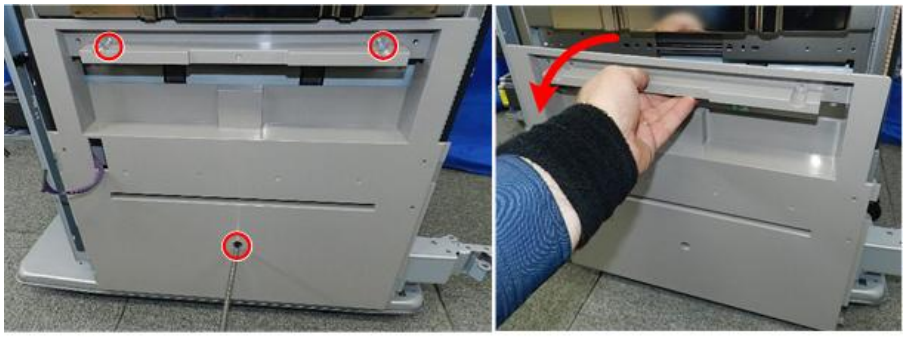
d7340060

2. Remove the bracket.



d7340061

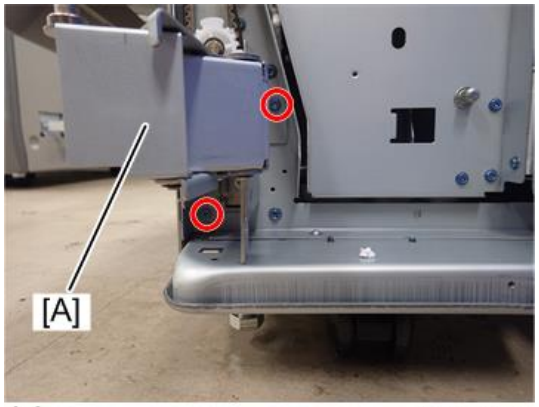
3. Remove the left lower cover.



d7340062

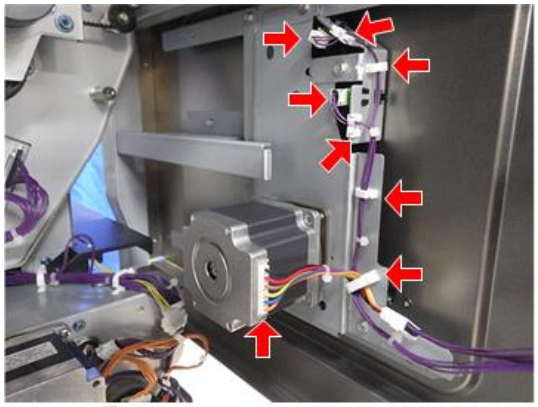
Shit Tray 2 End Fence

1. Remove the front door lower hinge [A].



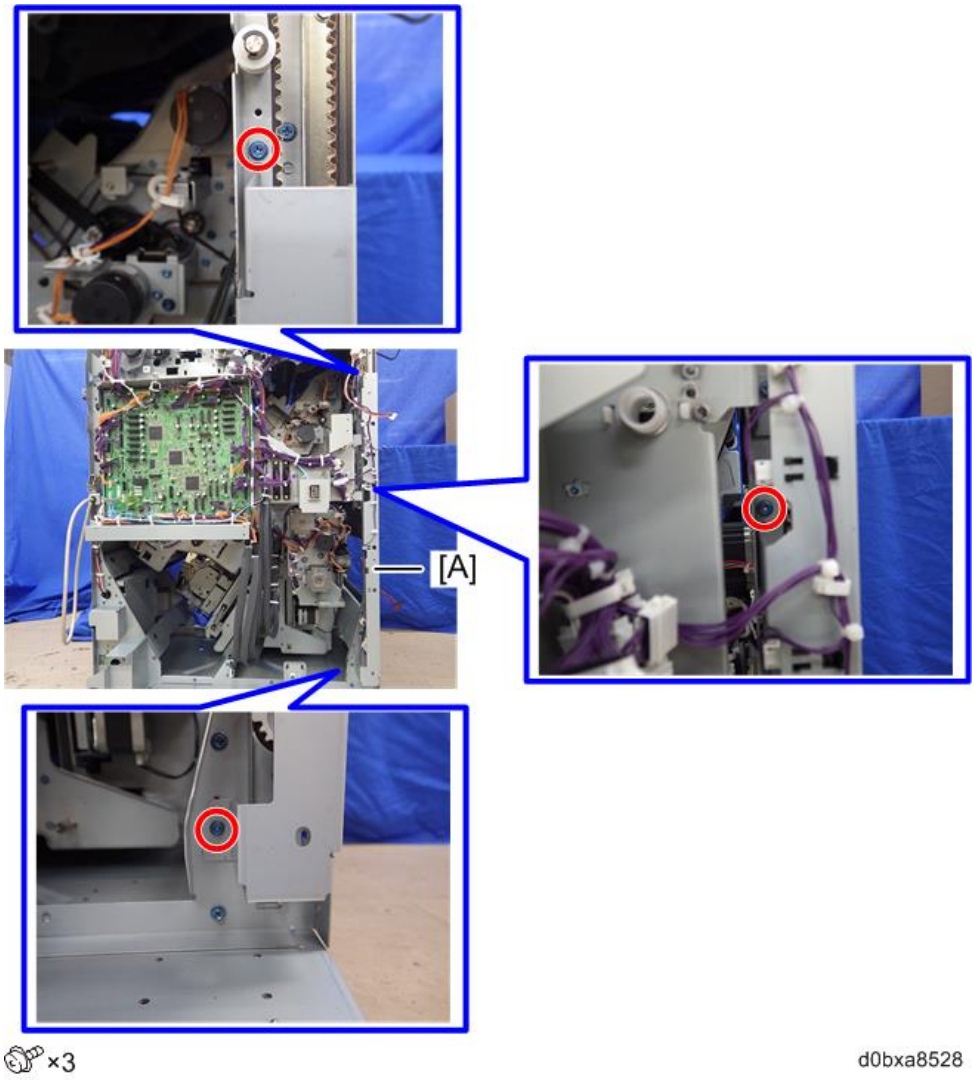
×2 d0bxa8516

2. Disconnect the motor and sensors.

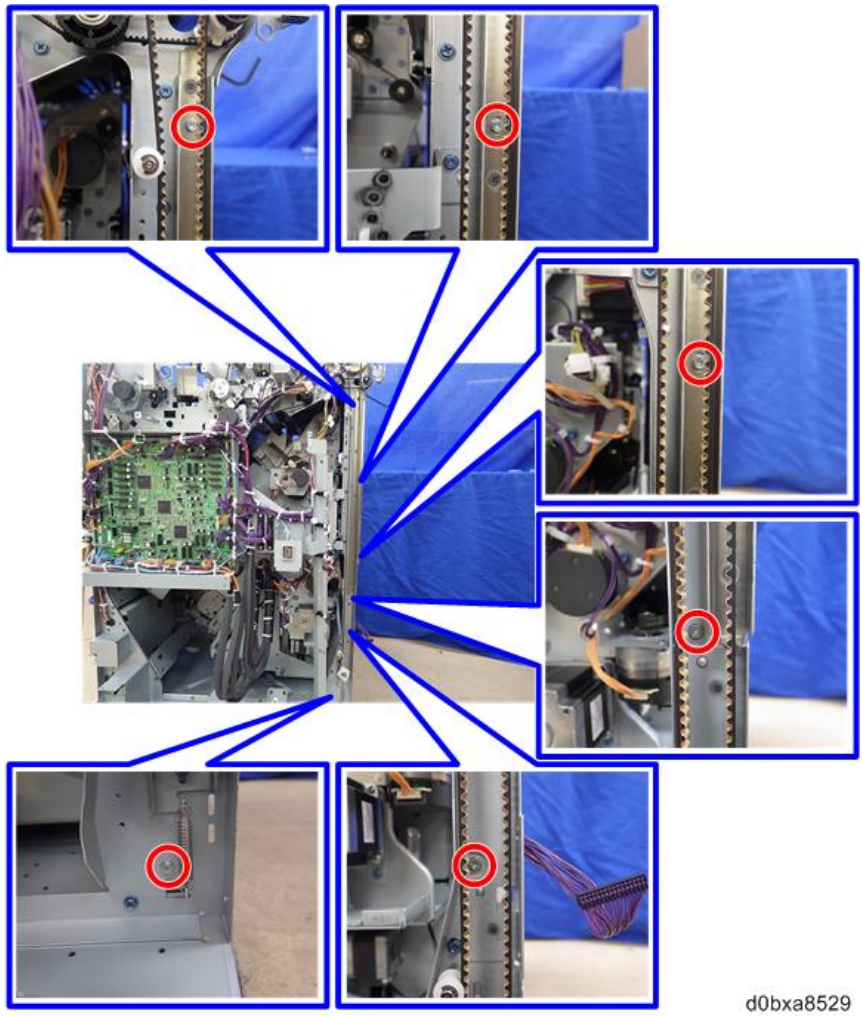


×3 ×5 d0bxa8527

3. Remove the sensor bracket [A].

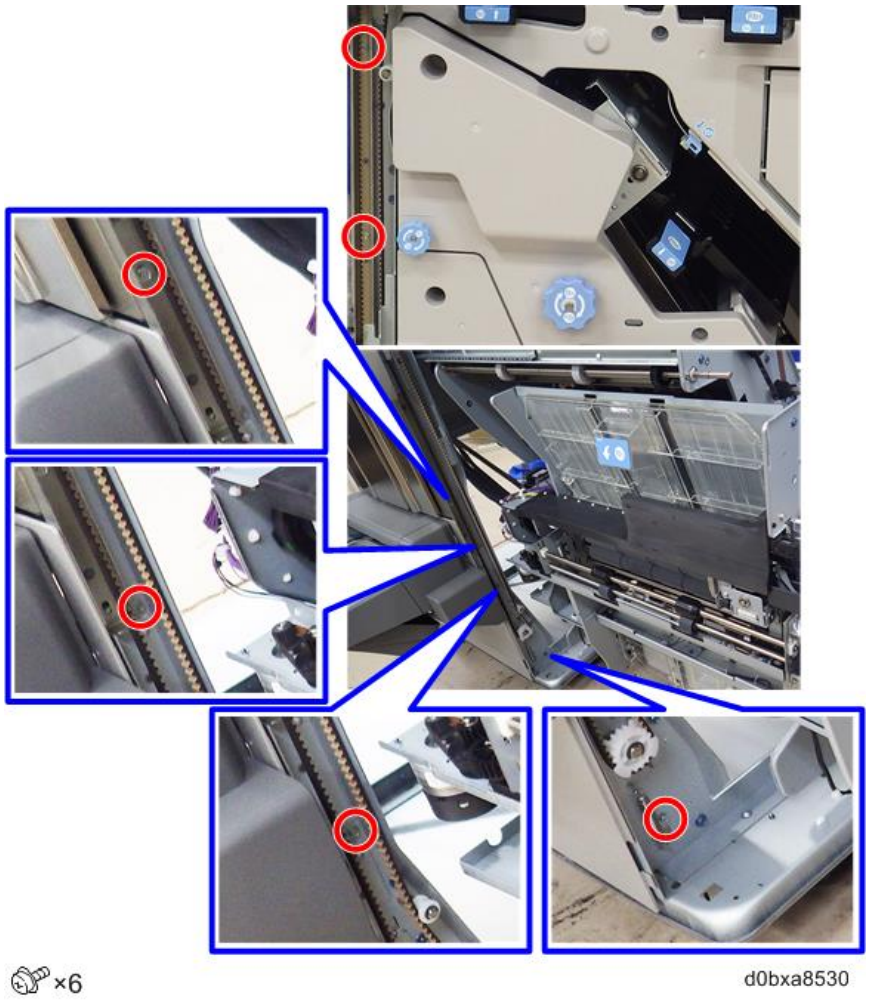


4. Remove the six screws on the back side.



×6

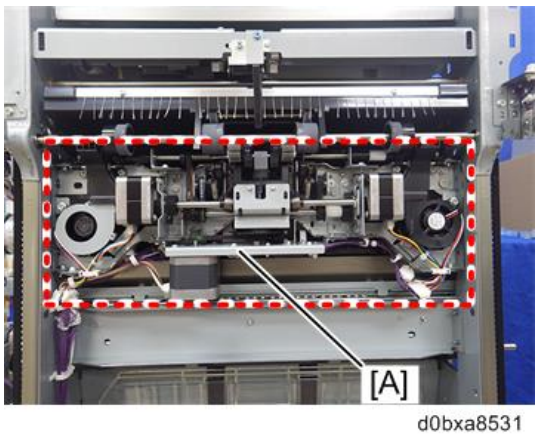
5. Remove the six screws on the front side.



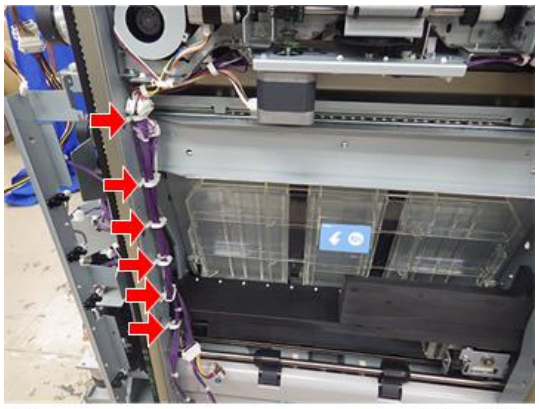
Shift Tray 2 Drag Roller Unit

1. Remove the shift tray 2 end fence. (Shift Tray 2 End Fence)

This is the drag roller unit [A].

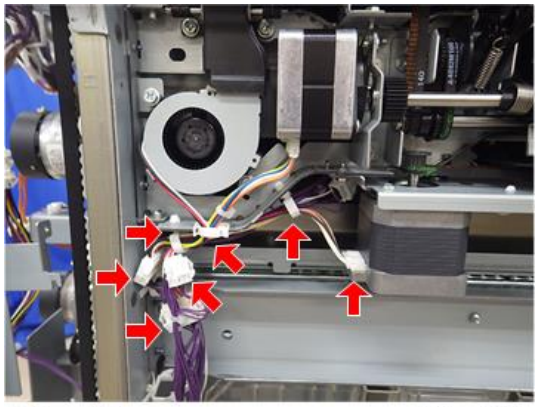


2. Open the harness clamps.



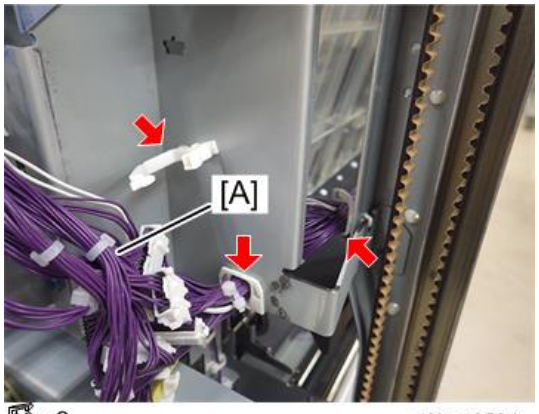
×6 d0bxa8532

3. Disconnect the connectors (x2, x4)



×4 ×3 d0bxa8533

4. Free the harnesses [A].



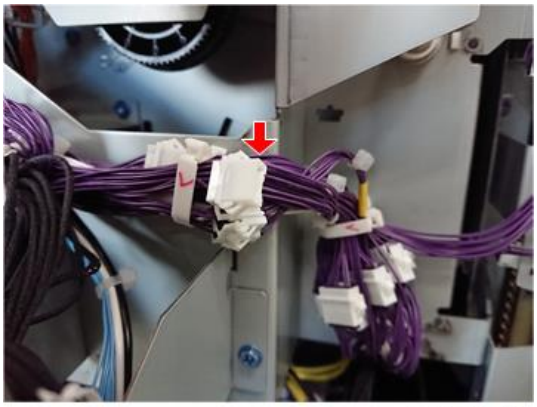
×3 d0bxa8534

5. Disconnect the connectors.

×6 d0bxa8535

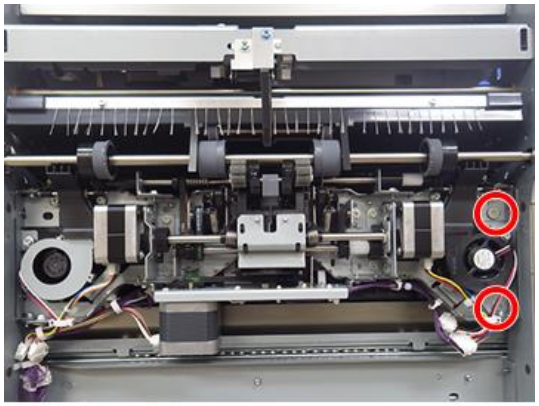
Note

- When reconnecting the connectors, keep the mini CT 5-pin connector unconnected.



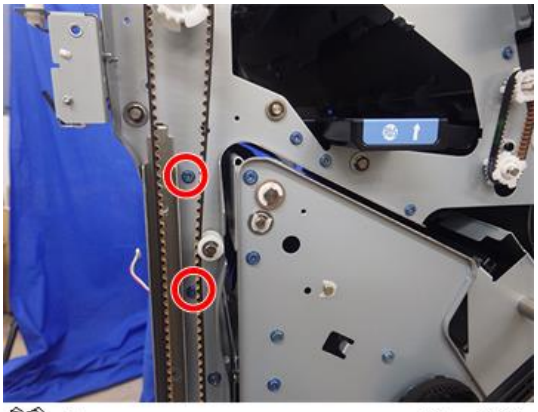
d0bxa8752

6. Remove the two screws (fixing the drag roller unit) from the bracket.



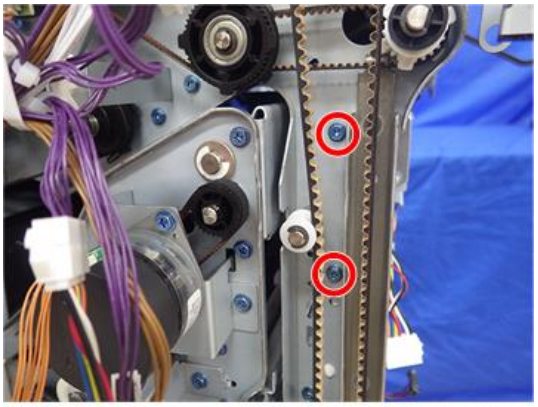
×2 d0bxa8779

7. Remove the two screws on the front side.



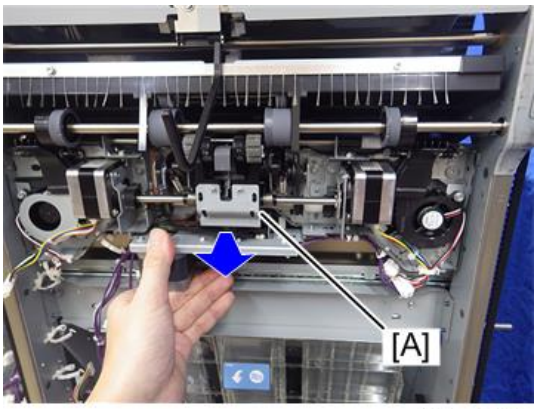
×2 d0bxa8536

8. Remove the two screws on the back side.



×2 d0bxa8537

9. Remove the drag roller unit [A].



d0bxa8538

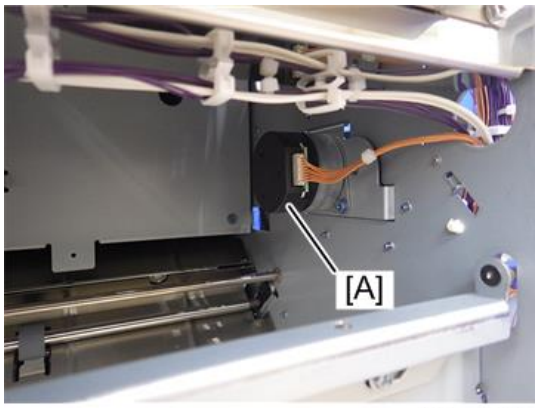
Horizontal Paper Feed

Entrance

Entrance Roller Motor

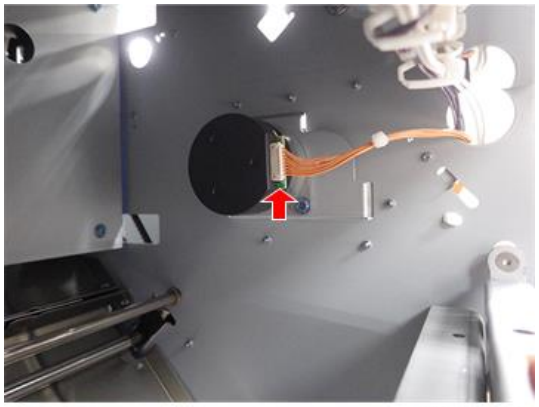
1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the rear lower cover. (Rear Lower Cover)
3. Remove the right panels. (Upper and Lower Right Panels)

   The entrance roller motor [A] is under the paper entrance guide.



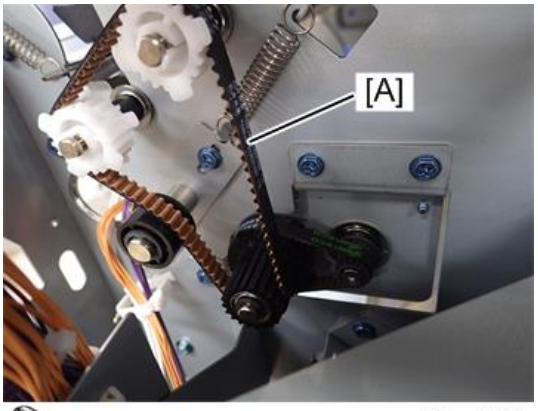
d0bxa8539

4. Disconnect the motor.



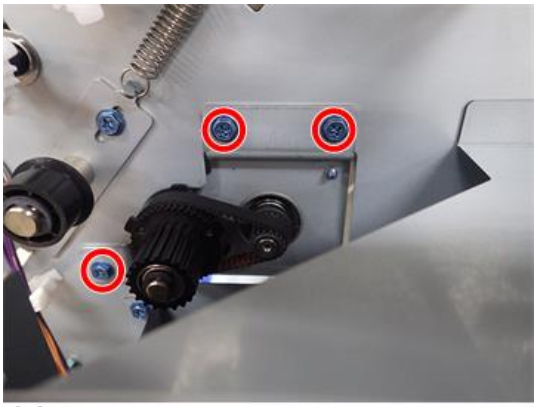
×1 d0bxa8540

5. Disconnect the belt [A].



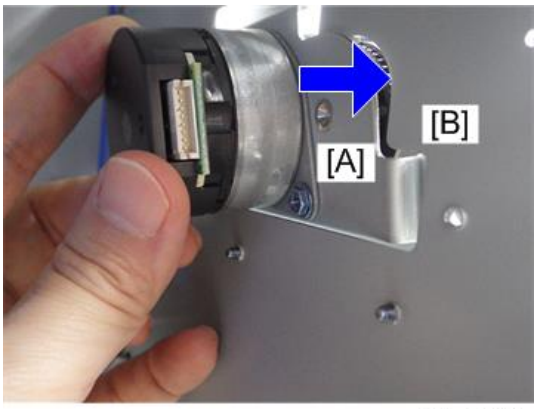
×1 d0bxa8541

6. Remove the three screws.



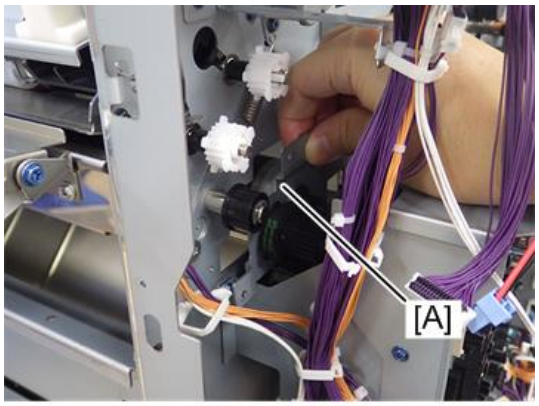
×3 d0bxa8542

7. Twist and push the bracket [A] through the frame [B].



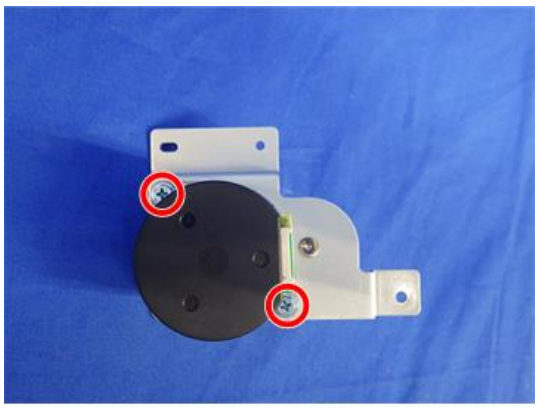
d0bxa8543

8. Remove the bracket (with motor attached) [A] from under the entrance guide.



d0bxa8544

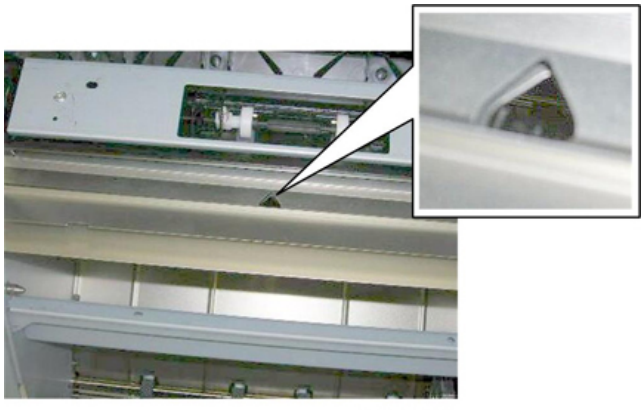
9. Separate the motor and bracket.



×2 d0bxa8545

Entrance Sensor

The entrance sensor port is above the paper guide.

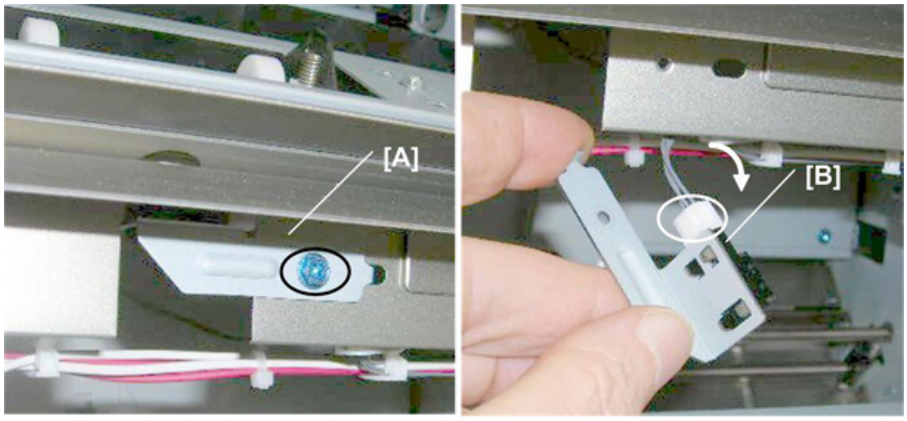


d434r164

1. Remove the following:

[A] Sensor bracket (x1)

[B] Sensor (x1, x5)



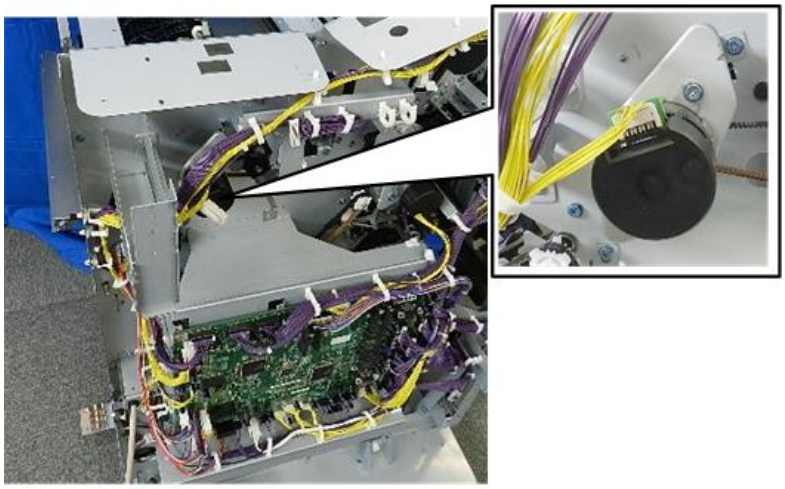
d434r165

Registration

Registration Motor

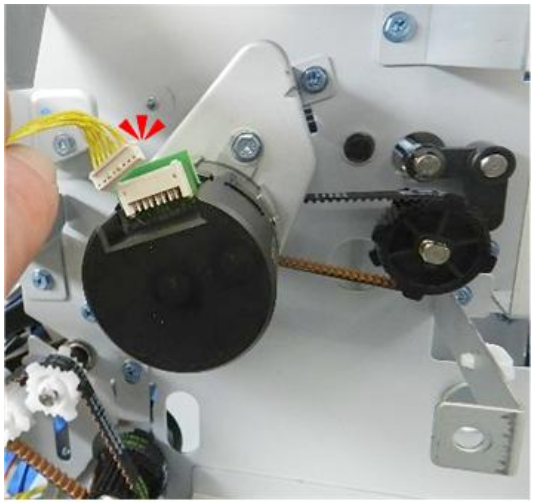
1. Remove the rear upper cover (Rear Upper Cover)

The registration motor above the main board bracket at the rear.



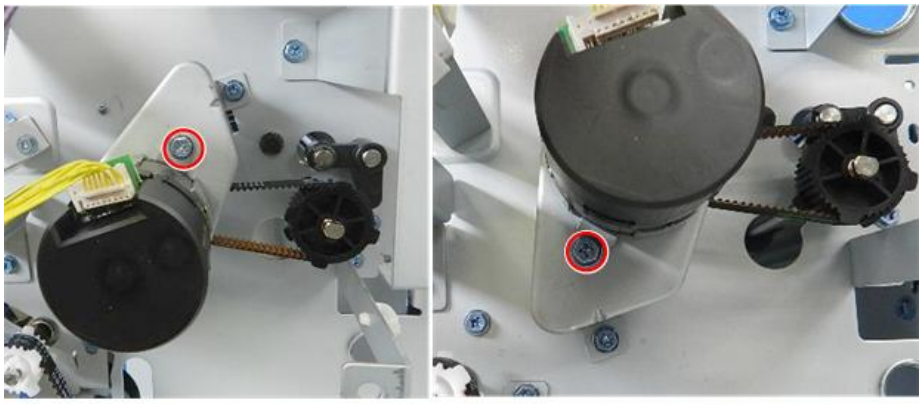
d7340078

2. Disconnect the motor (x1).



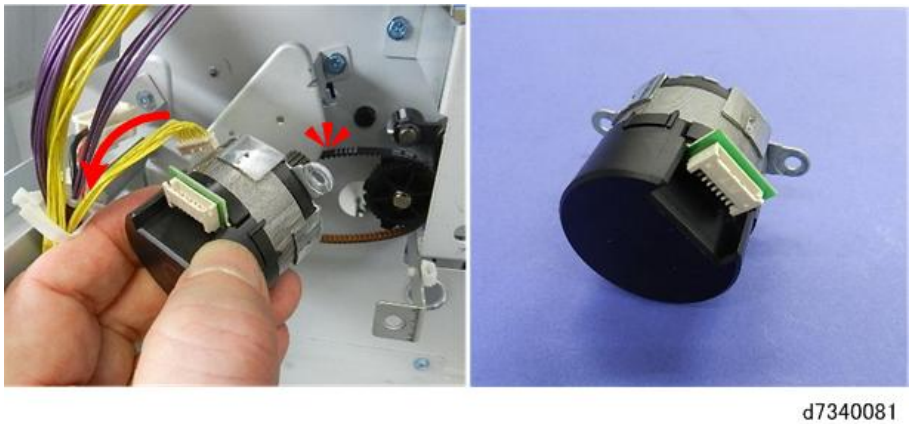
d7340079

3. Disconnect the bracket (x2).



d7340080

4. Remove the motor (x1).

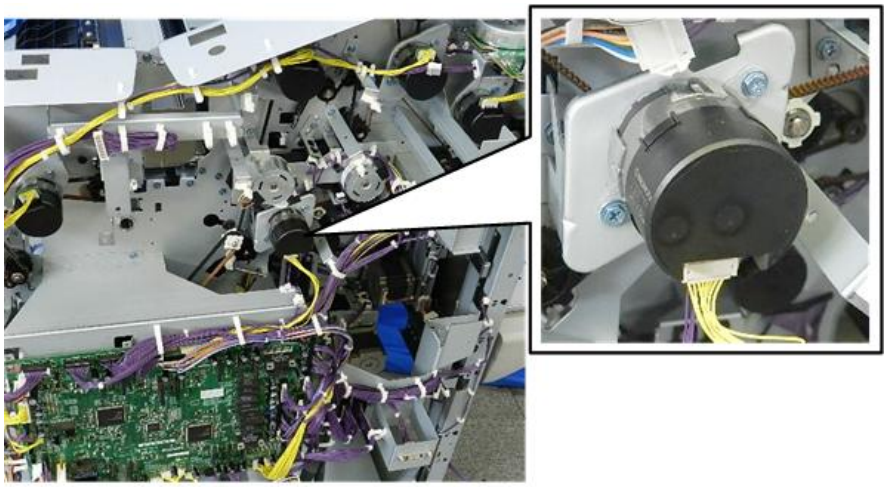


d7340081

Horizontal Transport Motor

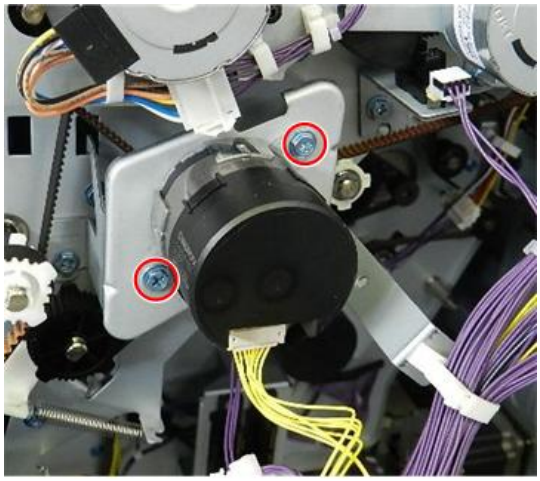
1. Remove the rear upper cover (Rear Upper Cover)

The horizontal exit motor is above the right upper corner of the main board.



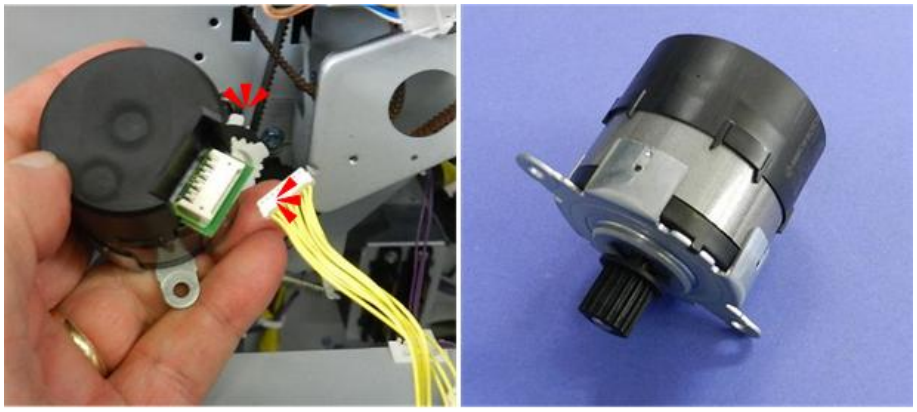
d7340082

2. Disconnect the motor bracket (x2).



d7340083

3. Disconnect and remove the motor (x1, x1).

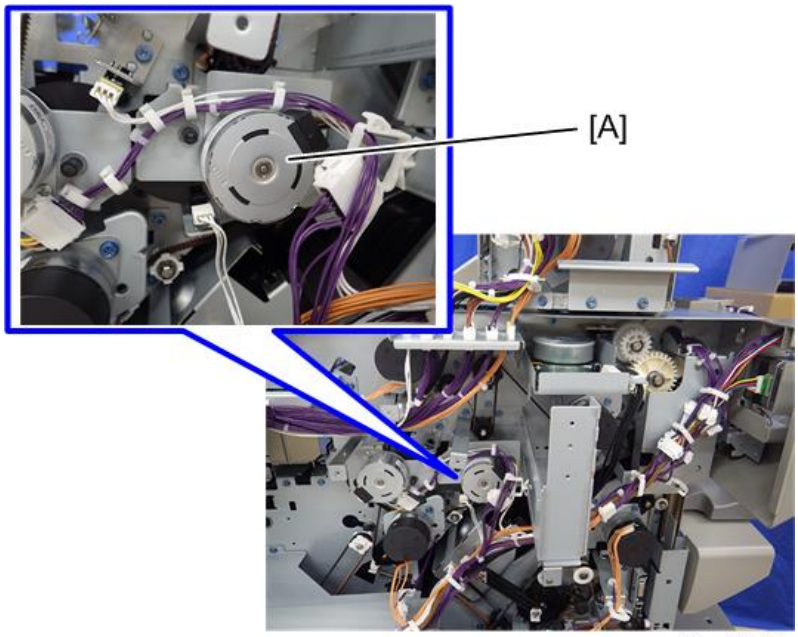


d7340084

Junction Gate

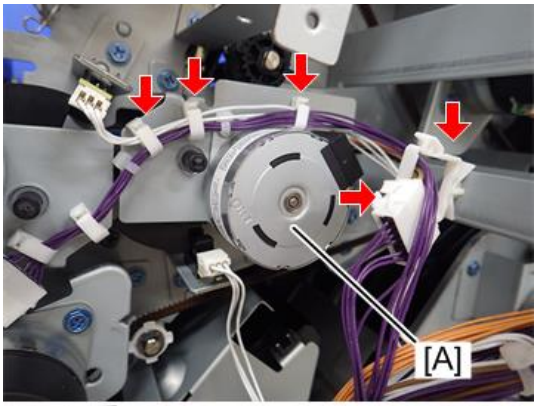
Junction Gate Motor

The junction gate motor [A] is located here.



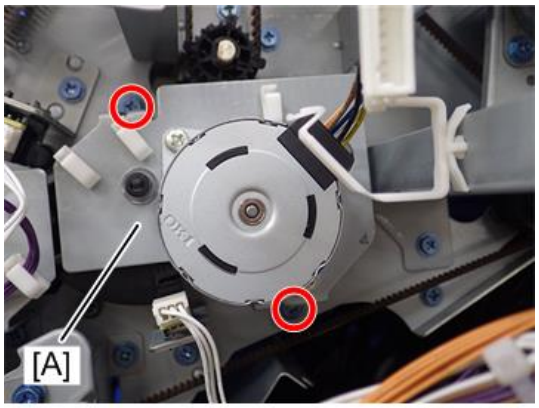
d0bxa8546

1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the punch unit PCB if the punch unit has been installed.
3. Disconnect the motor [A].



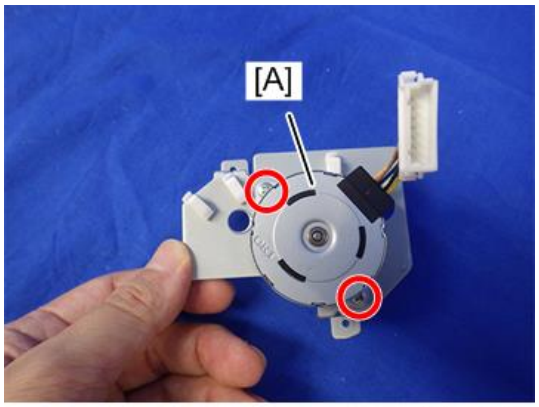
×1 ×4 d0bxa8547

4. Remove the bracket of the motor [A].



d0bxa8548

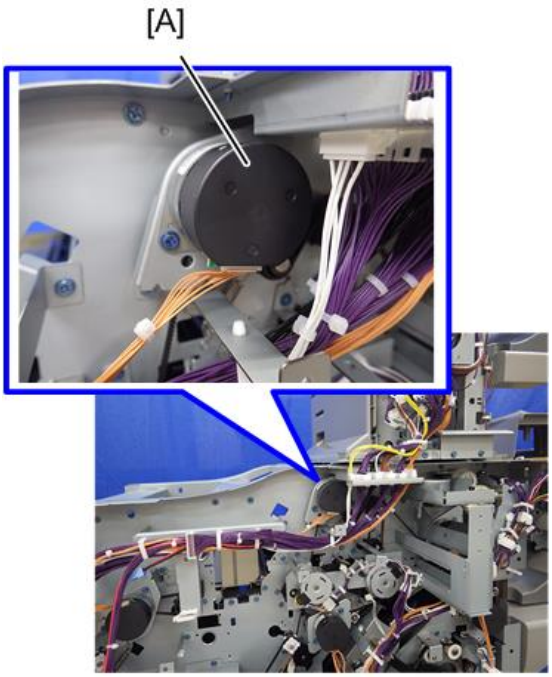
5. Remove the motor [A].



d0bxa8549

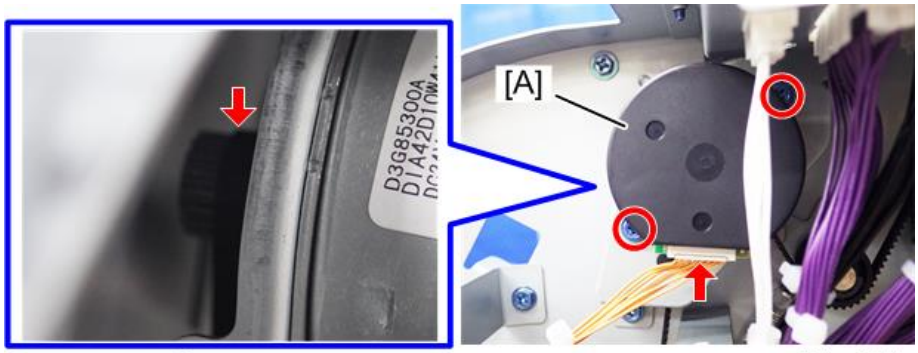
Junction Gate Transport Motor

The junction gate transport motor [A] is located here. It is partially covered by the punch unit PCB (if the punch unit has been installed).



d0bxa8550

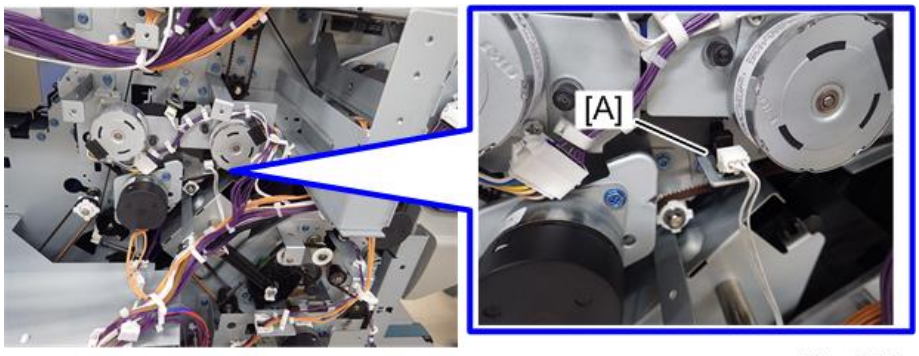
1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the top rear cover. (Top Rear Cover)
3. Remove the punch unit PCB if the punch unit has been installed.
4. Remove the motor [A].



d0bxa8551

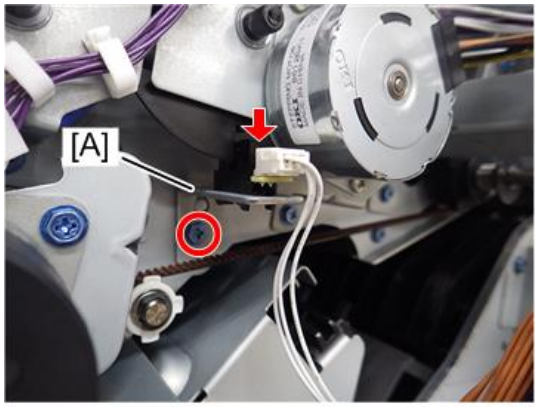
Junction Gate HP Sensor

The junction gate HP sensor [A] is located here.



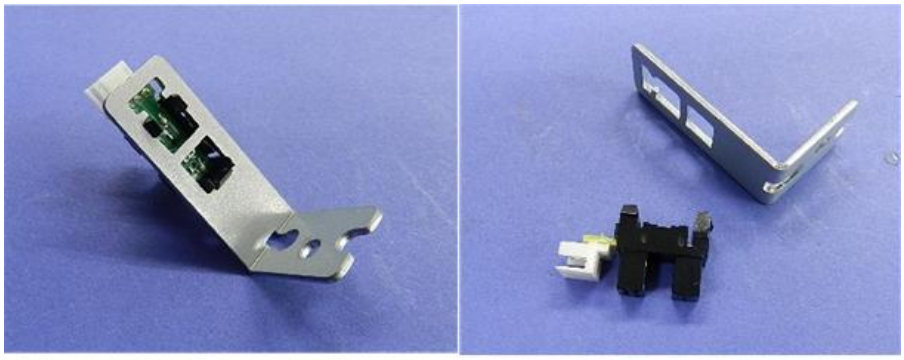
d0bxa8552

1. Remove the rear upper cover. (Rear Upper Cover)
2. Disconnect the sensor and bracket. Remove the bracket with the sensor attached.



×1 ×1 d0bxa8553

3. Separate the sensor and bracket (x4).



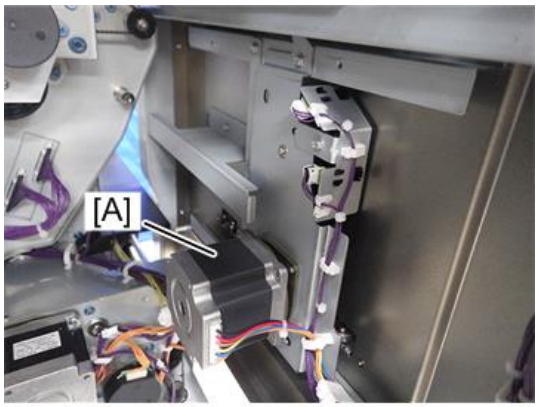
d7340097

Shift Tray 2

Shift Tray 2 (Side-to-Side Movement)

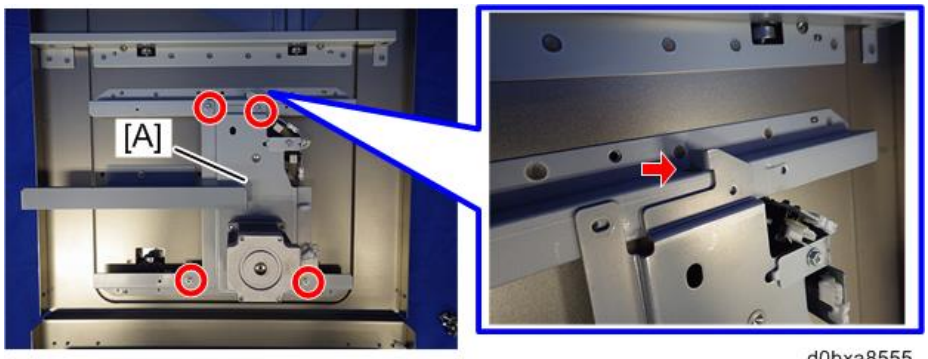
Shift Tray 2 Shift Motor

The motor [A] is visible; however, the end fence must be removed in order to service this motor.



d0bxa8554

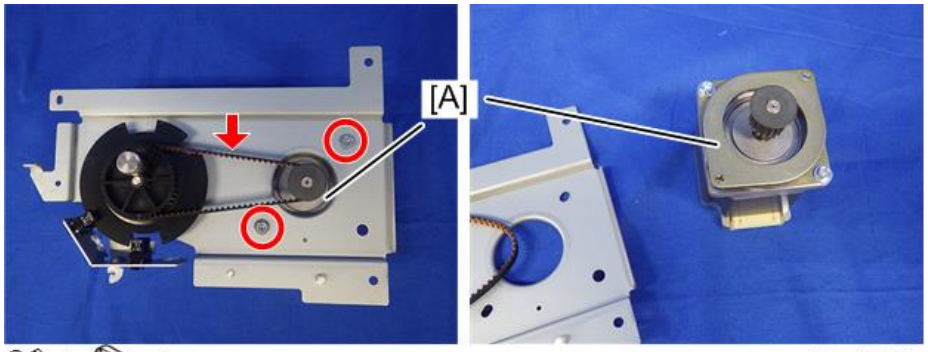
1. Remove the end fence. (Shift Tray 2 End Fence)
2. Lay the end fence on a flat surface.
3. Remove the bracket [A].



d0bxa8555

×4 ×1

4. Turn the bracket over and remove the motor [A].



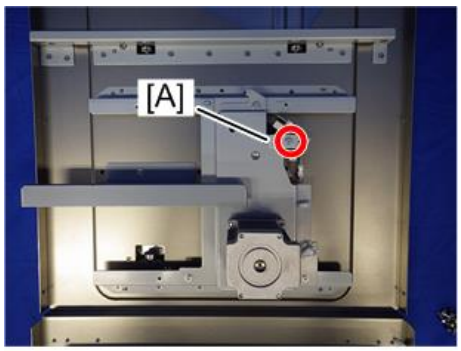
×2 ×1

d0bxa8556

Shift Tray 2 HP Sensors (Front, Rear)

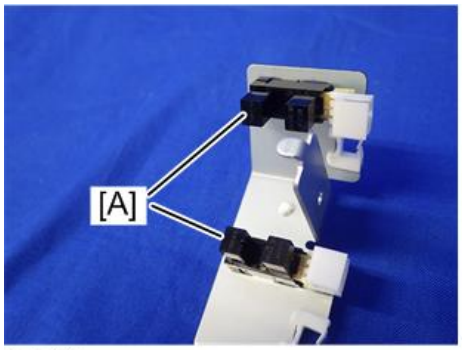
These sensors are mounted on the same bracket as the shift tray 2 shift motor.

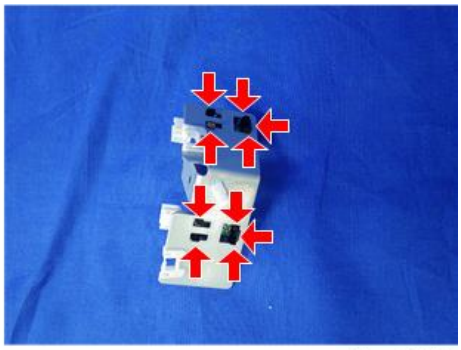
1. Remove the end fence. (Shift Tray 2 End Fence)
2. Remove the sensor bracket [A].



×1 d0bxa8557

3. Remove the sensors [A].



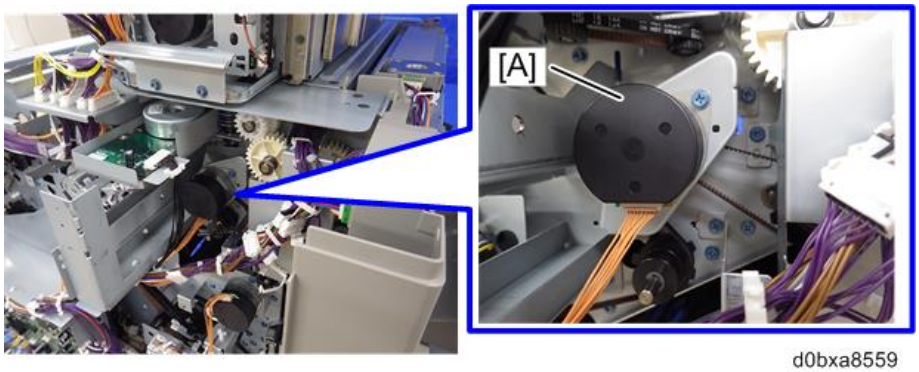


×10 d0bxa8558

Shift Tray 2 (Exit)

Shift Tray 2 Exit Motor

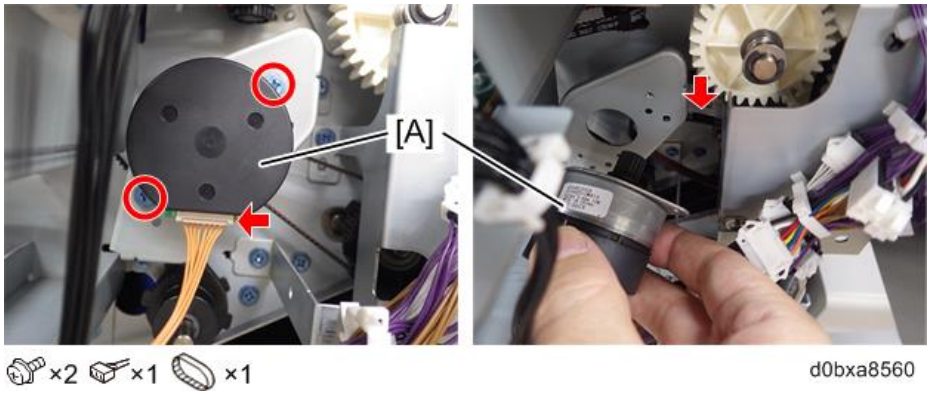
The shift tray 2 exit motor is under the shift tray 2 lift motor board.



d0bxa8559

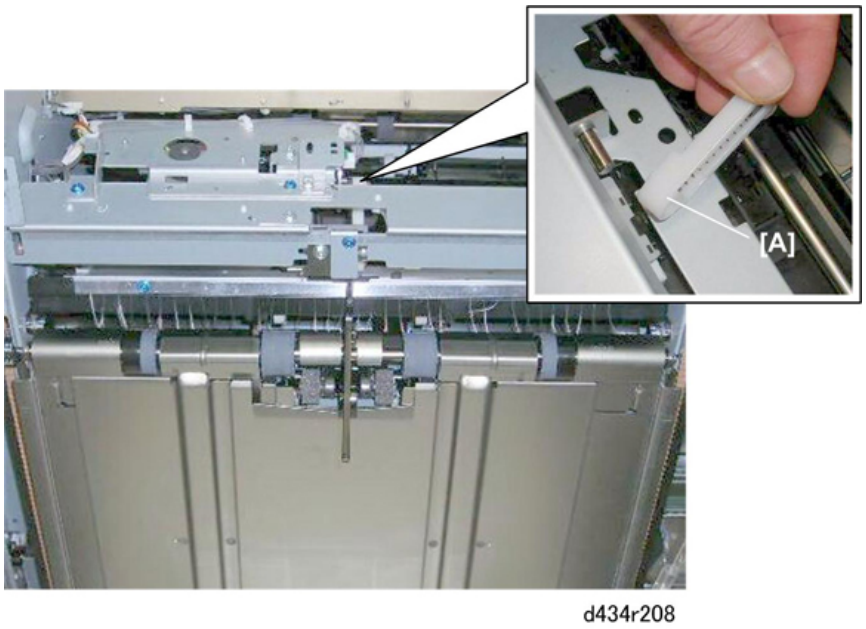
1. Remove the rear upper cover. (Rear Upper Cover)

2. Remove the motor [A].



Shift Tray 2 Exit Sensors (Long and Short)

1. Lift the arm [A] (x1)

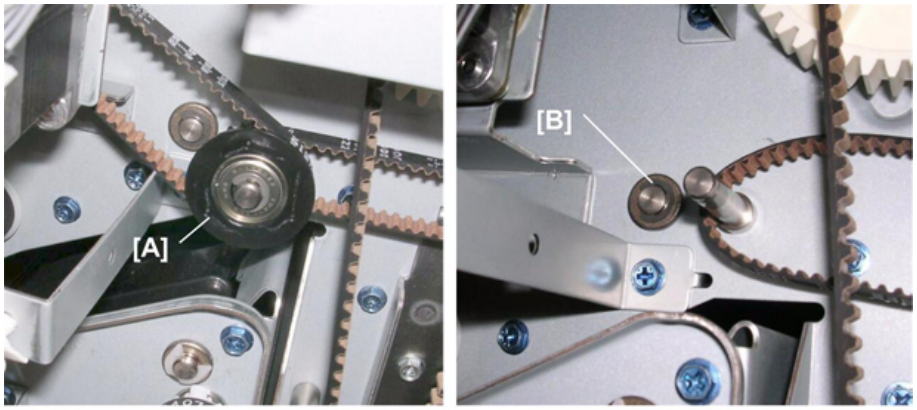


2. At the front, remove the bushing (x1).

3. At the rear, remove the following:

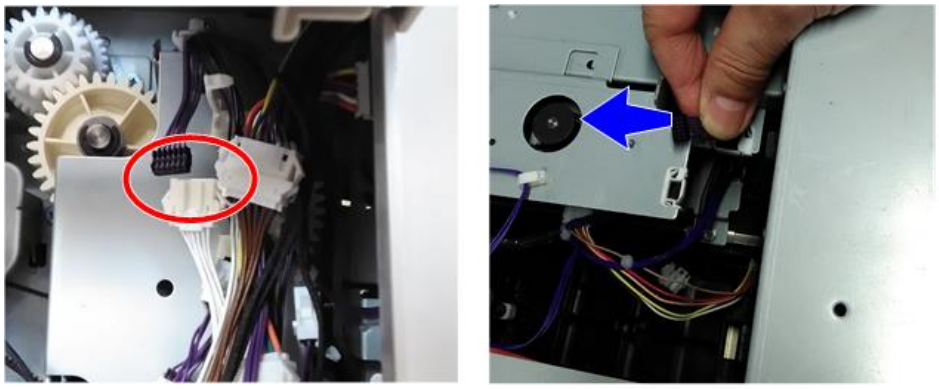
[A] Gear (x1, x2)

[B] Bushing (x1)



d434r209a

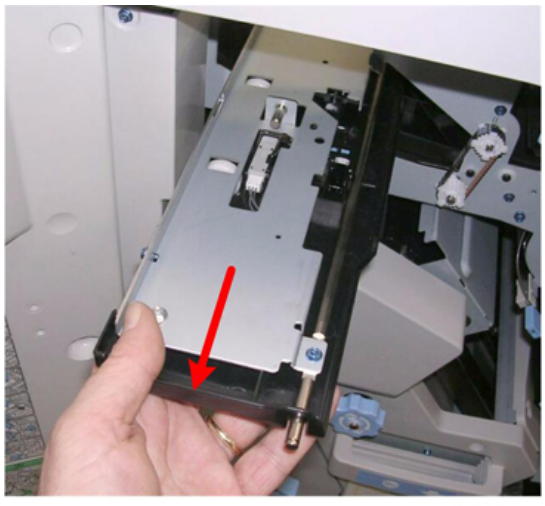
4. At the rear, disconnect the sensor harness.
5. Pull it though the hole into the machine.



×1

d0bxa8757

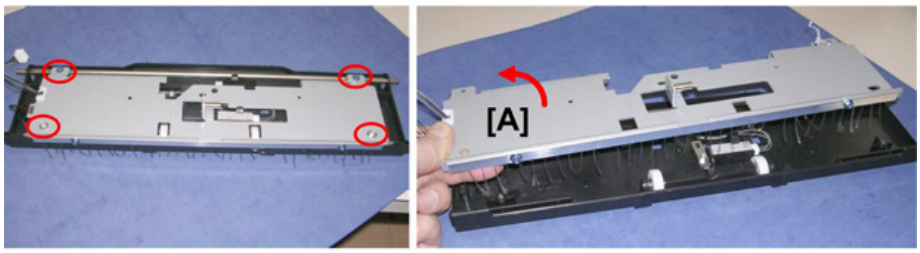
6. Pull the plate assembly out from the front of the machine.



d434r209c

7. Lay the assembly on a flat surface.

8. Remove the plate [A].

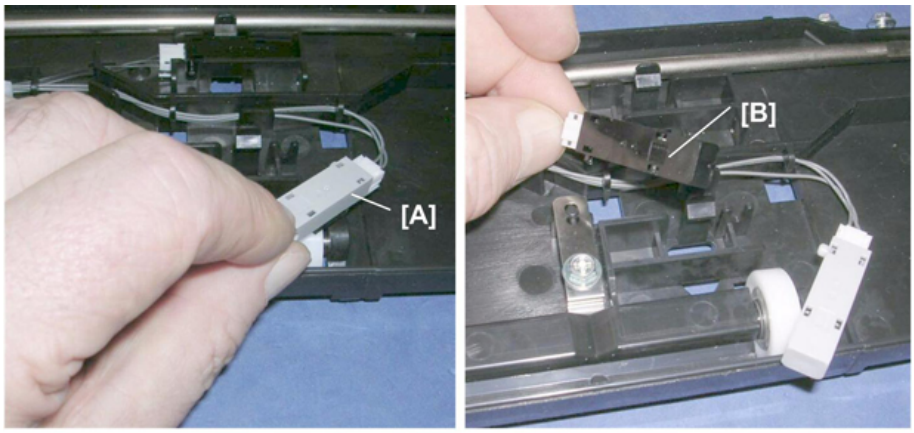


d434r209d

9. Remove the following:

[A] Exit sensor (long) (x1, x1)

[B] Exit sensor (short) (x1, x1)



d434r209e

Drag Roller Motors, Sensors

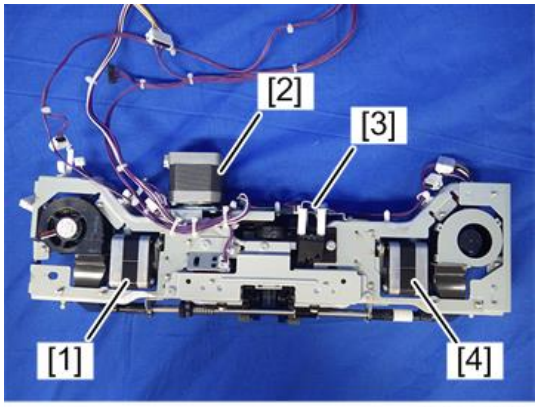
Preparations

1. Remove the end fence. (Shift Tray 2 End Fence)

2. Remove the drag roller unit. (Shift Tray 2 Drag Roller Unit)

To service the following components, the drag roller unit must be removed.

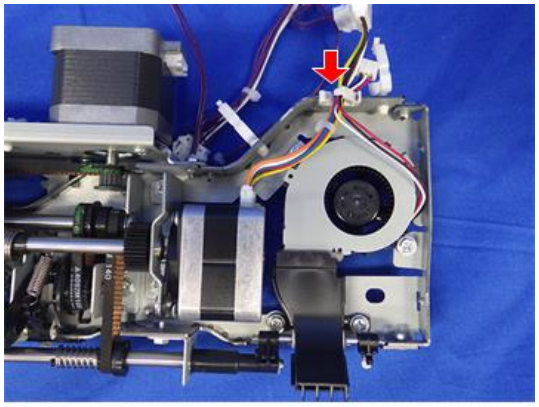
[1]	Drag roller motor
[2]	Drag roller drive motor
[3]	Drag roller HP sensor
[4]	Press lever motor



d0bxa8561

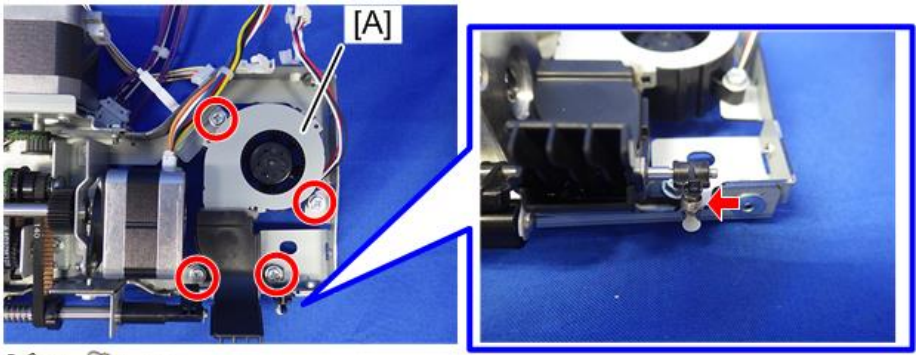
Drag Roller Motor

1. Free the motor and fan harnesses.



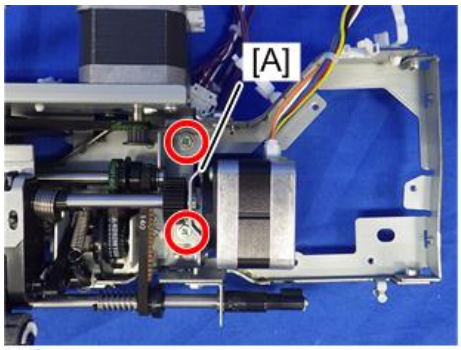
×1 d0bxa8562

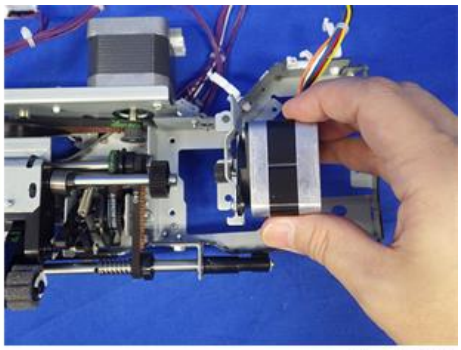
2. Remove the fan [A].



×4 ×1 d0bxa8563

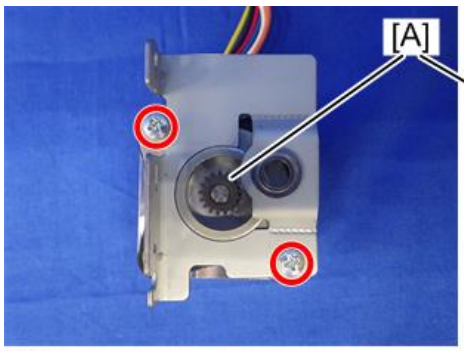
3. Remove the bracket (with motor attached) [A].

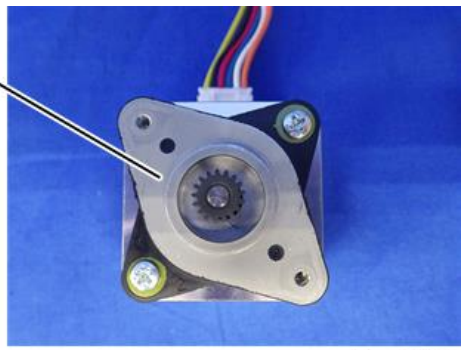




×2 d0bxa8564

4. Separate the motor [A] and bracket.

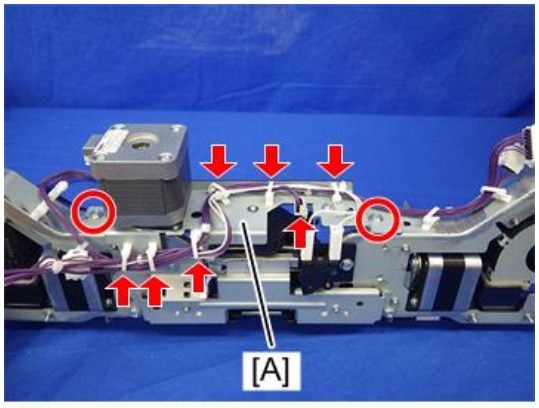




×2 d0bxa8565

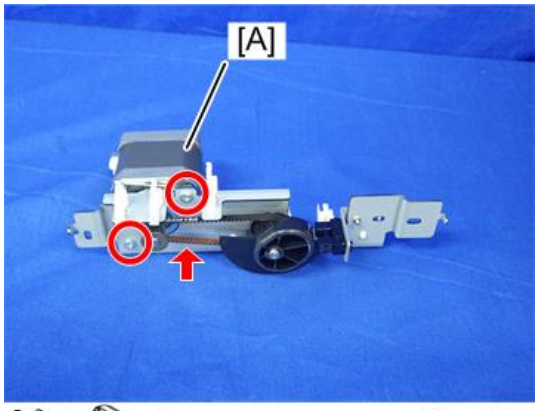
Drag Roller Drive Motor

1. Remove the bracket (with motor attached) [A].



×2 ×1 ×6 d0bxa8566

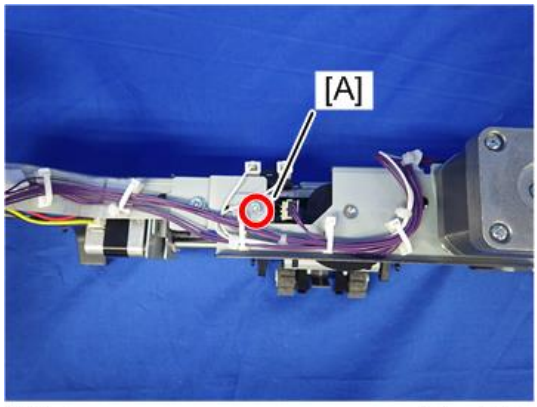
2. Remove the motor [A].



×2 ×1 d0bxa8567

Drag Roller HP Sensor

1. Remove the sensor bracket [A].

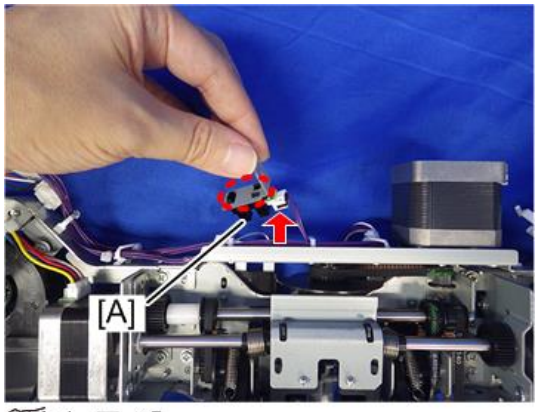


×1 d0bxa8568

Important

- When fastening the screw to reattach the sensor bracket, make sure the cables are not caught between the bracket and the plate.

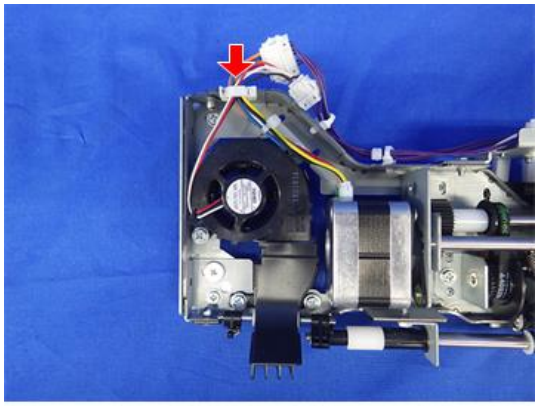
2. Remove the sensor [A].



×1 ×5 d0bxa8569

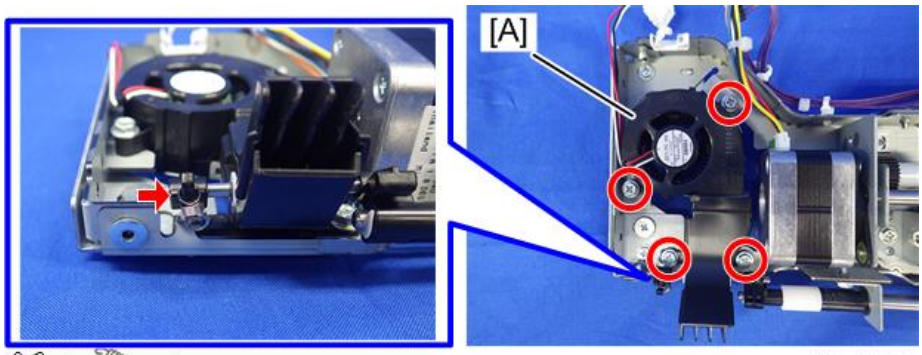
Press Lever Motor

1. Free the motor and fan harnesses.



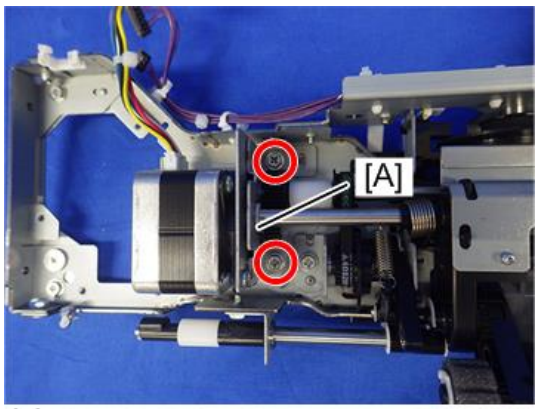
×1 d0bxa8753

2. Remove the fan [A].



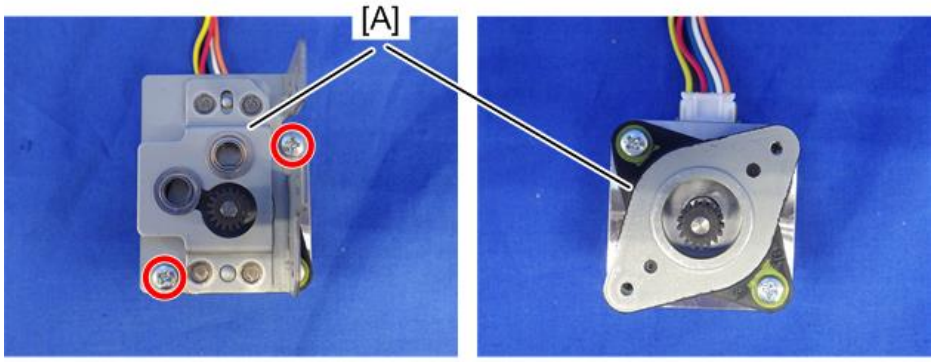
×4 ×1 d0bxa8754

3. Remove the bracket (with motor attached) [A].



×2 d0bxa8755

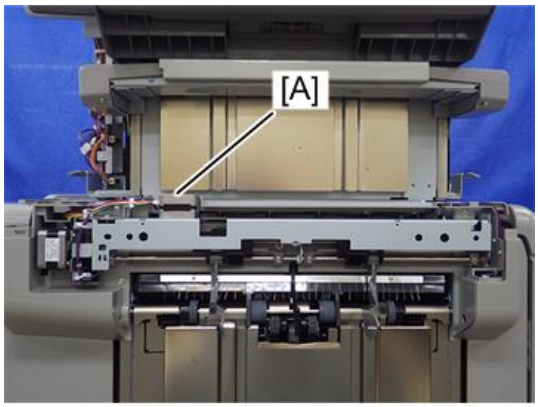
4. Separate the motor [A] and bracket.



Shift Tray 2 Jogger Unit

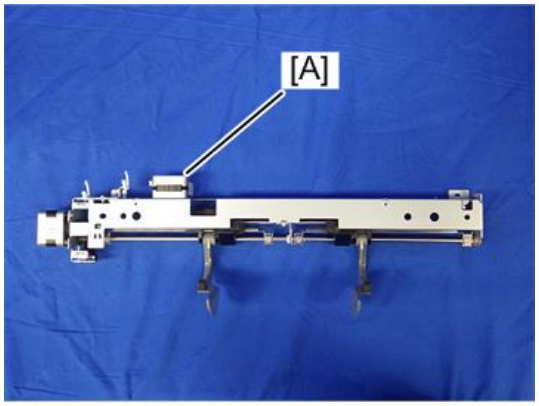
Shift Tray 2 Jogger Motor

This motor [A] is on top of the shift tray 2 jogger unit.

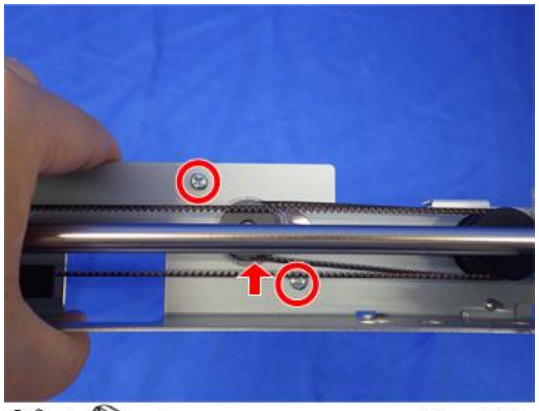


1. Remove the shift tray 2 jogger unit. (Shift Tray 2 Jogger Unit)

The picture below shows the location of the motor [A] with the shift trat 2 jogger unit removed.



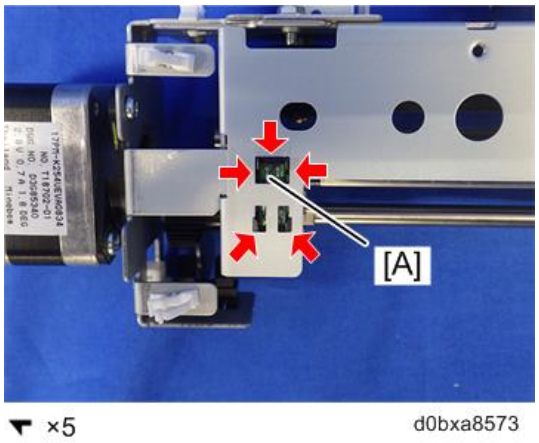
2. Turn the unit over and disconnect the motor.



Shift Tray 2 Jogger Fence HP Sensor

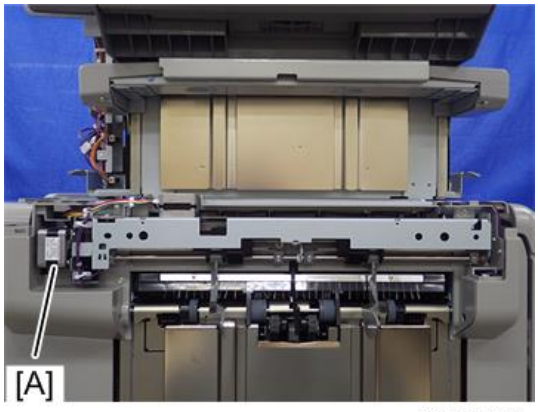
1. Remove the shift tray 2 jogger unit. (Shift Tray 2 Jogger Unit)

2. Remove the sensor [A].



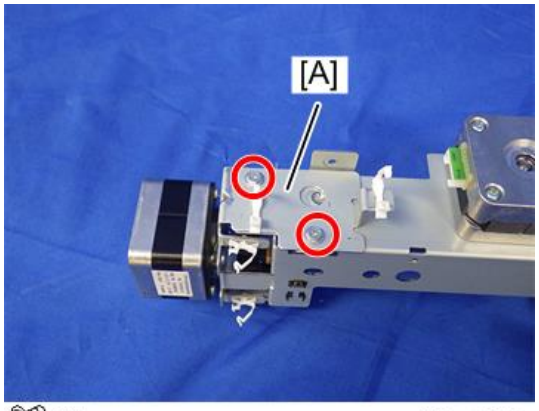
Shift Tray 2 Jogger Retraction Motor

This is the motor on the end of the shift tray 2 jogger unit.



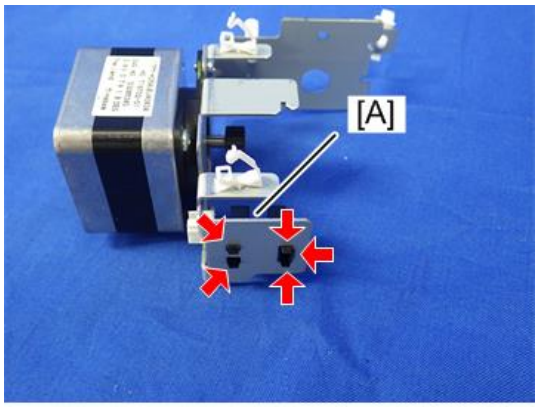
1. Remove the shift tray 2 jogger unit. (Shift Tray 2 Jogger Unit)

2. Remove the bracket (with motor attached) [A].



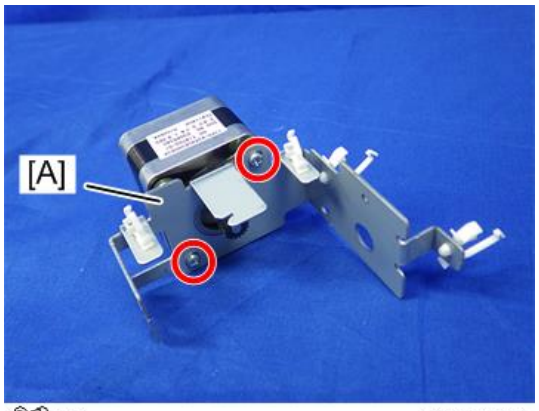
×2 d0bxa8575

3. Disconnect the retraction HP sensor [A] on the same bracket as the motor



×5 d0bxa8576

4. Remove the motor bracket [A]



×2 d0bxa8577

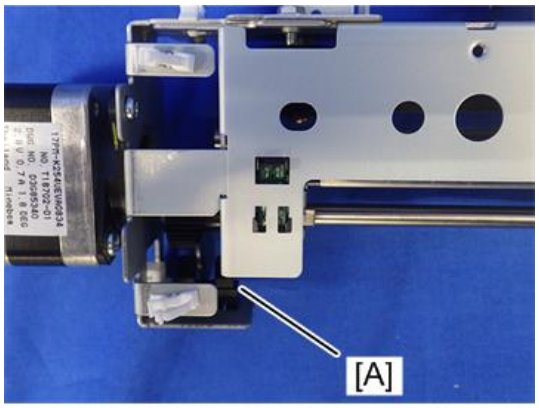
Shift Tray 2 Jogger Fence Retract HP Sensor

1. Remove the shift tray 2 jogger unit. (Shift Tray 2 Jogger Unit)
2. Remove the sensor [A] (x1, x5)

Note

- If you have problems removing the sensor directly from the frame (or re-installing it),

follow the procedure in the previous section to remove the shift jogger retraction motor bracket.



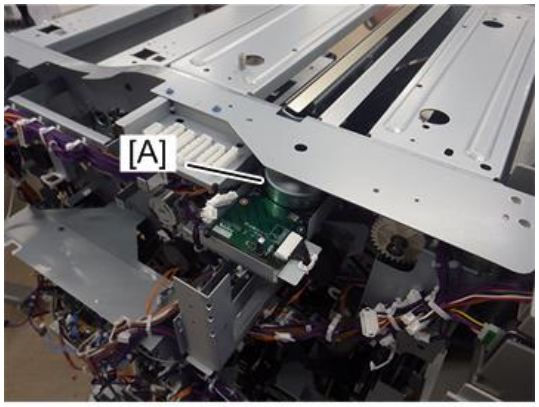
×5 d0bxa8578

Shift Tray 2 (Operation)

Shift Tray 2 Lift Motor

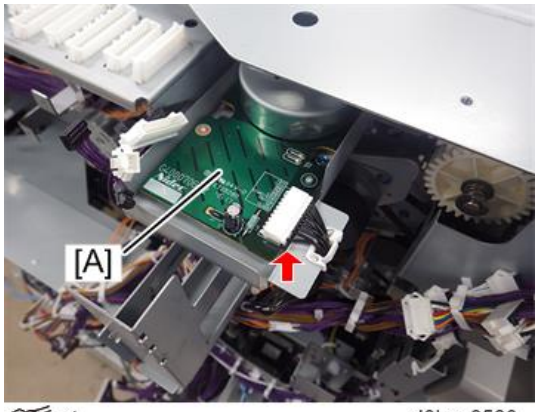
1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the top rear cover. (Top Rear Cover)

The shift tray 2 lift motor [A] is near the left rear corner.



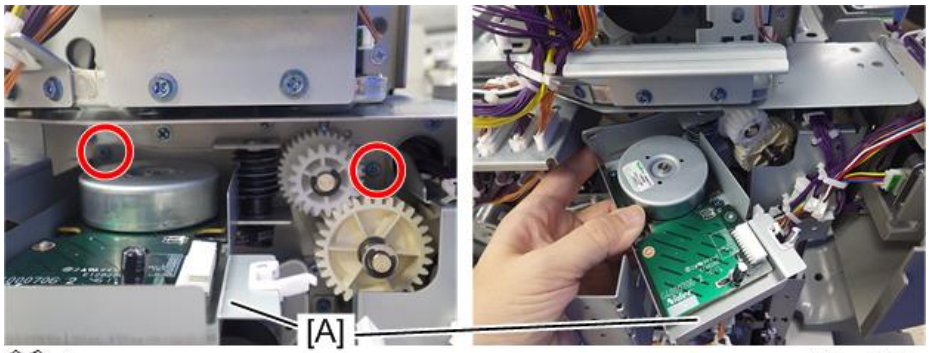
d0bxa8579

3. Disconnect the motor drive board [A].



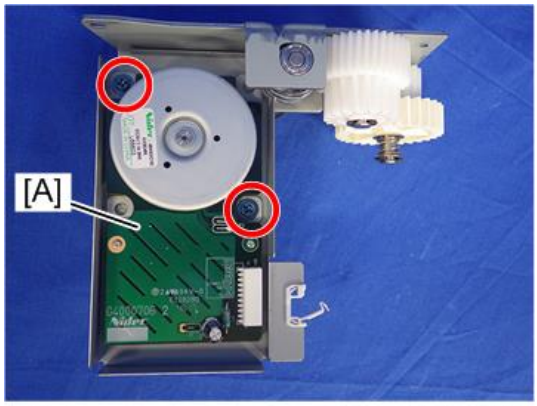
×1 d0bxa8580

4. Remove the motor drive board bracket [A].



×2 d0bxa8581

5. Remove the motor drive board [A].

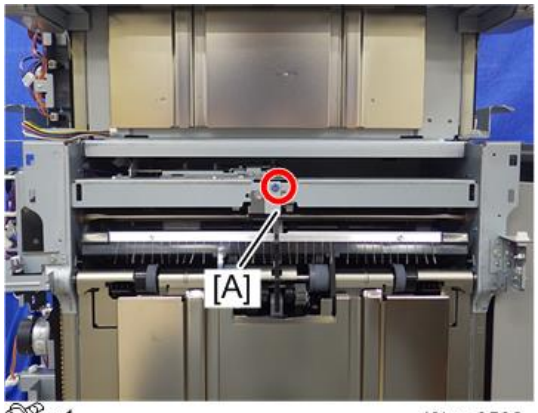


×2 d0bxa8711

Paper Height Sensors 1, 2, 3 (Shift, Staple, Z-Fold)

1. Remove the left upper cover. (Left Upper Cover)

2. Remove the protector plate [A].



×1 d0bxa8582

3. Remove the feeler [A].

×1 d0bxa8583

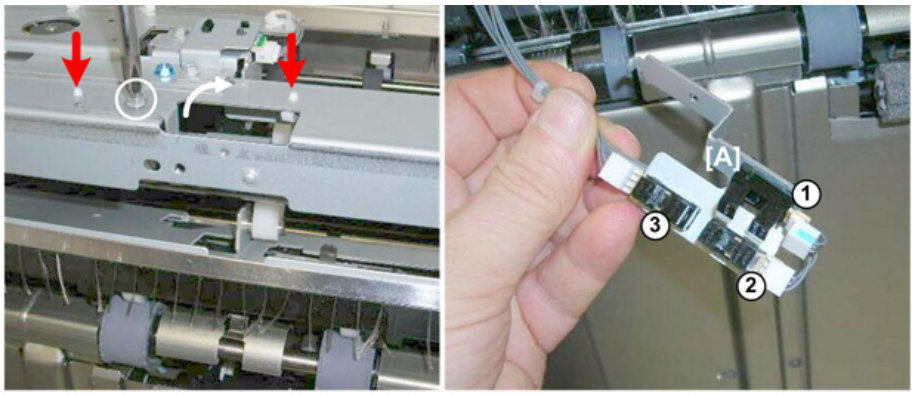
4. Remove sensor bracket [A] (x1, Standoffs x2)

5. Remove the following sensors (x1 each)

① Paper Height Sensor 1: Staple Mode

② Paper Height Sensor 2: Shift Mode

③ Paper Height Sensor 3: Z-Fold Mode

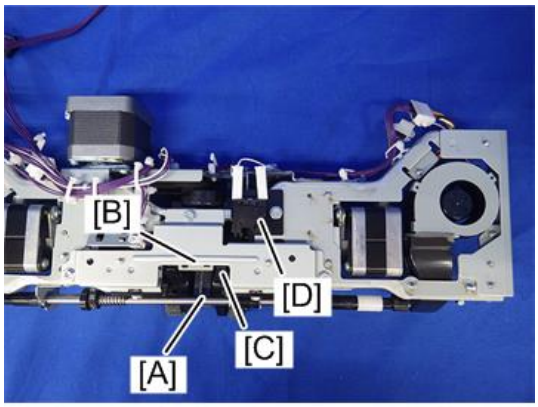


d434r233

Paper Height Sensor (TE), Shift Tray Upper Limit Switch

The actuator of the paper height sensor has two functions.

1. It rises and actuates the paper height sensor (TE) [B] to detect tray full.
2. If the actuator rises high enough through the gap of the interrupt sensor (TE) it will tip the arm of a micro-switch [D]. This is a safety device to turn off the finisher if one or more other sensors fail.



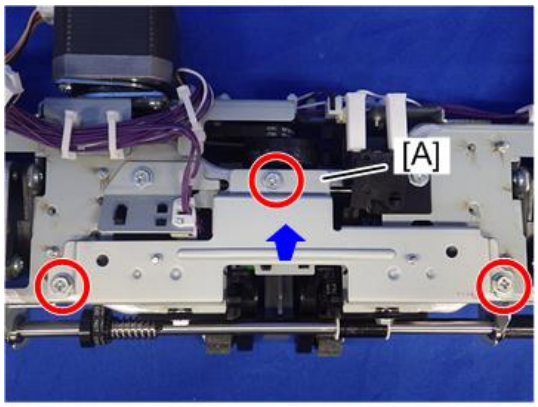
d0bxa8584

Preparations

1. Remove the drag roller unit. (Shift Tray 2 Drag Roller Unit)

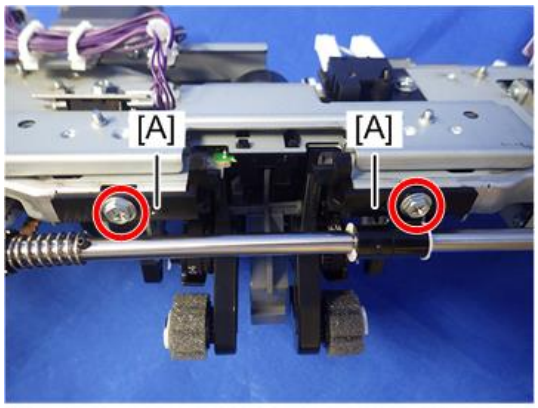
Paper Height Sensor (TE)

1. Remove the three screws so that you can lift the bracket [A] to access the sensor.



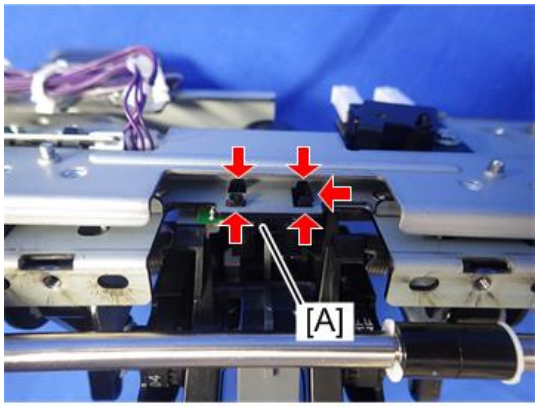
×3 d0bxa8708

2. Remove the covers [A].



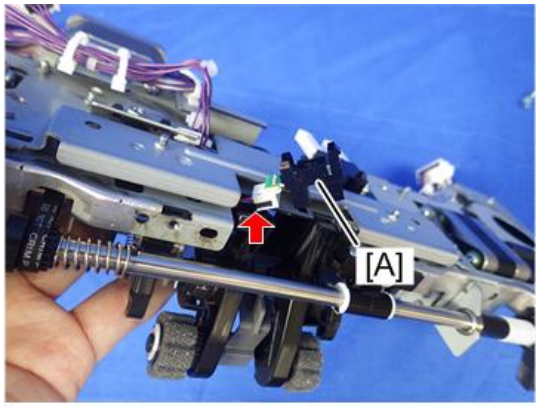
×2 d0bxa8709

3. Release the pawls of the sensor [A] and push them through the plate.



×5 d0bxa8710

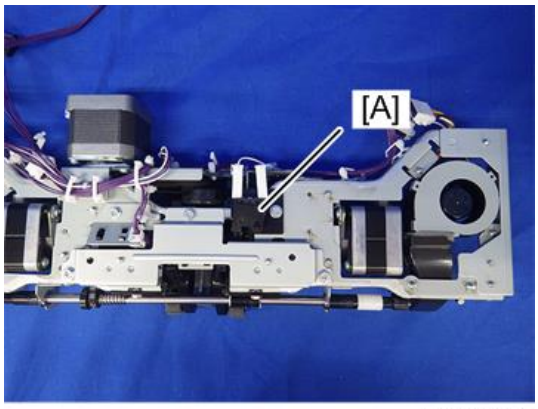
4. Remove the sensor [A].



×1 d0bxa8586

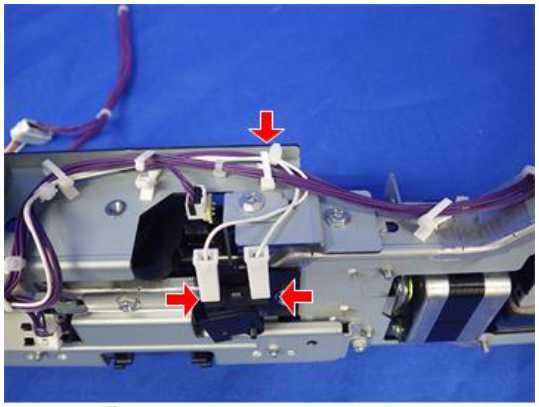
Shift Tray Limit Switch

The switch is located at [A].



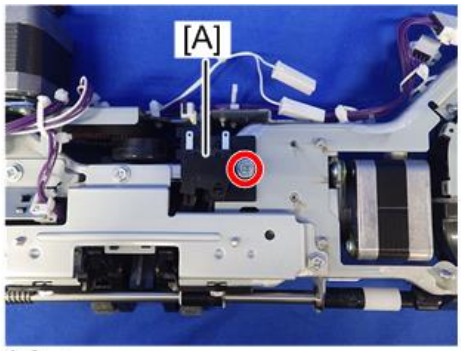
d0bxa8587

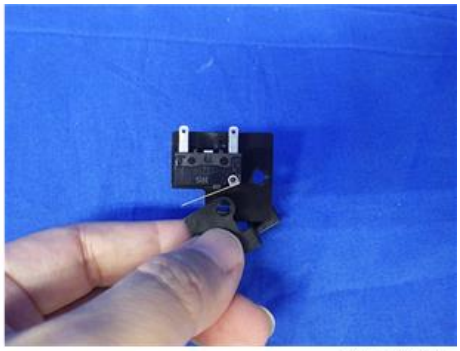
1. Open the clamp and disconnect the connectors.



×2 ×1 d0bxa8588

2. Remove the switch [A].





×1 d0bxa8589

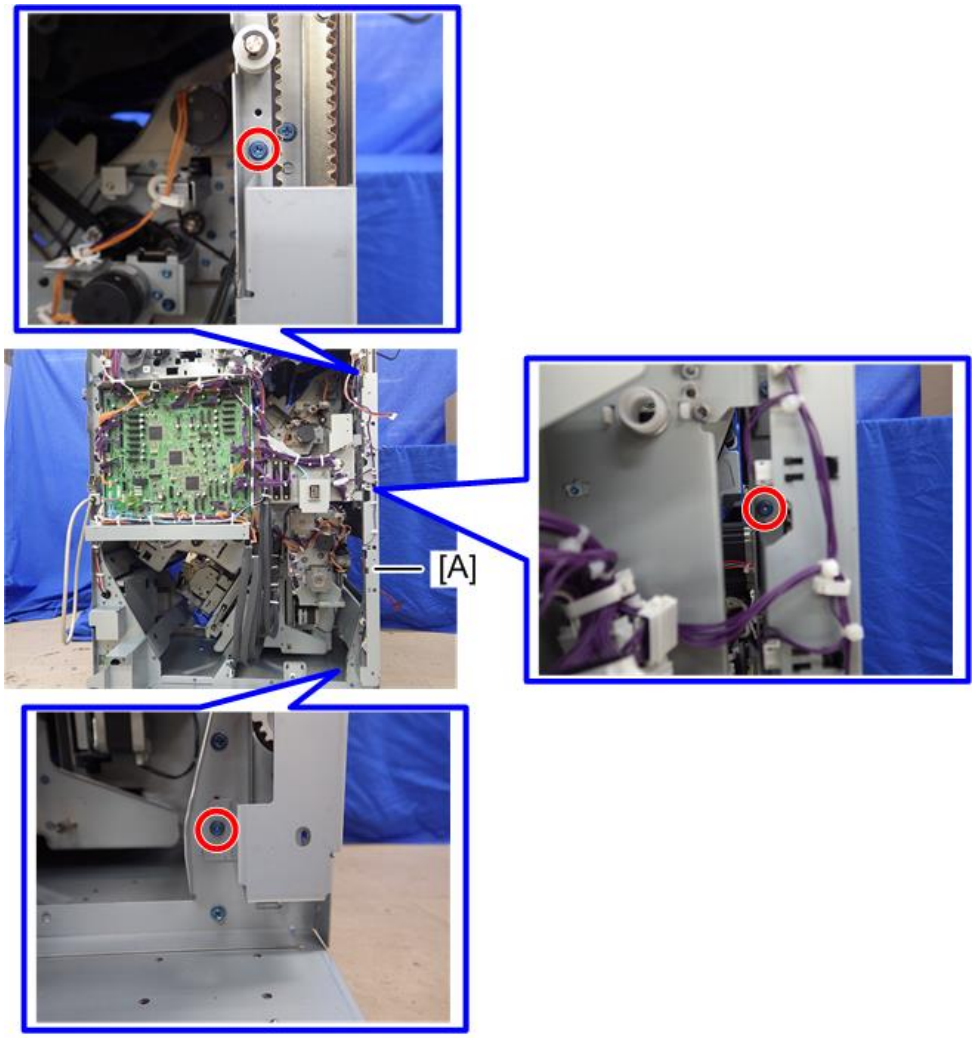
Shift Tray 2 Full Sensors 1, 2, 3, 4

The tray full sensors are all mounted on the same vertical stay at the left rear corner of the finisher:

- Shift Tray Full Sensor (500)
- Shift Tray Full Sensor (1000)
- Shift Tray Full Sensor (1500)
- Shift Tray Full Sensor (2500) (SR5120) / Shift Tray Full Sensor (3500) (SR5110)

1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the rear lower cover. (Rear Lower Cover)

3. Remove the vertical stay [A] (x3).



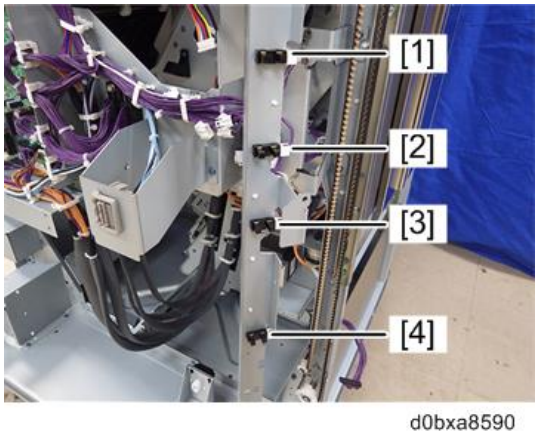
4. Remove the four sensors, (x 1 each, x 5 each)

[1] Shift Tray Full Sensor (500)

[2] Shift Tray Full Sensor (1000)

[3] Shift Tray Full Sensor (1500)

[4] Shift Tray Full Sensor (2500) / Shift Tray Full Sensor (3500)

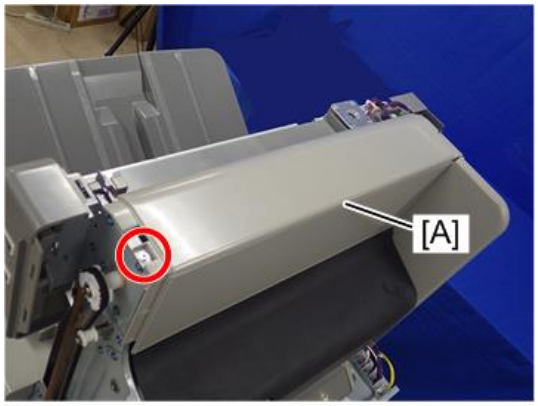


Shift Tray 1 Unit

Shift Tray 1 Covers

Top Cover

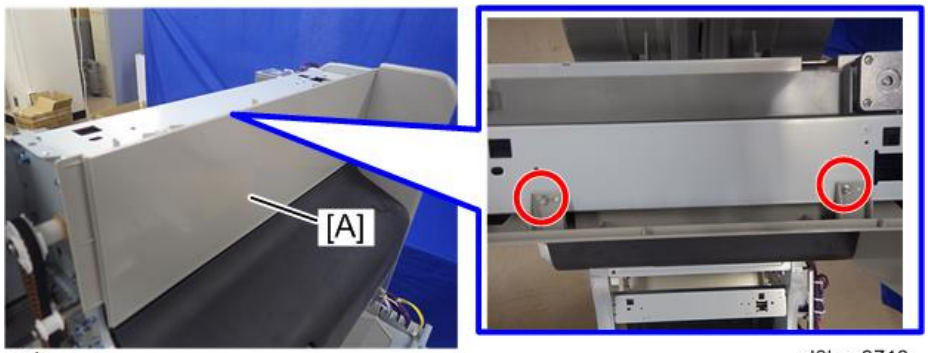
1. Remove the top cover [A].



×1 d0bxa8712

Top Right Cover

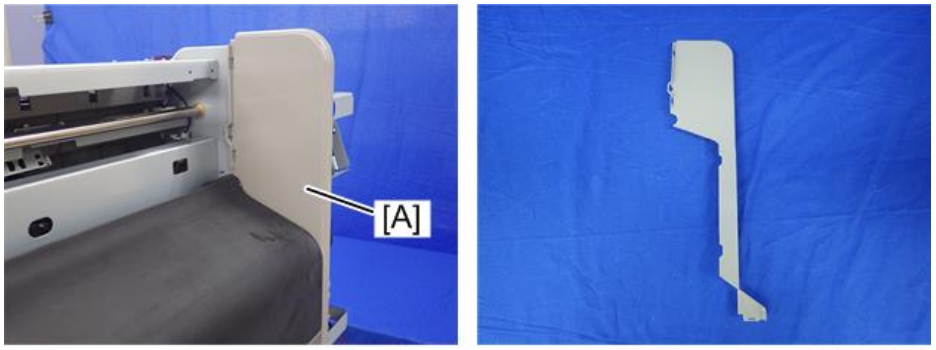
1. Remove the top cover. (Top Cover)
2. Remove the top right cover [A].



×2 d0bxa8713

Rear Right Cover

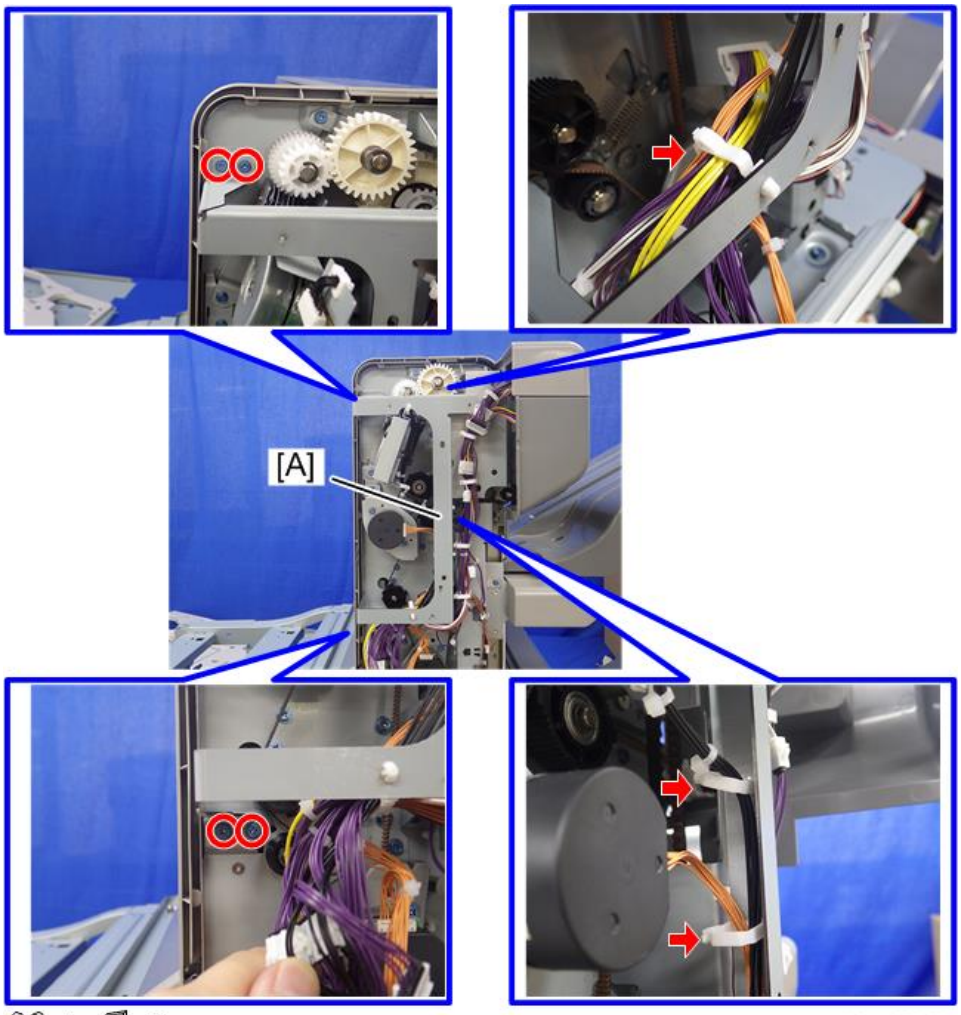
1. Remove the top right cover. (Top Cover)
2. Remove the rear right cover [A].



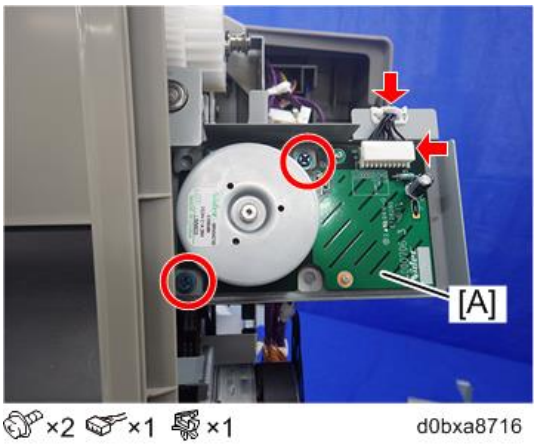
d0bxa8714

Shift Tray 1 Lift Motor

1. Remove the rear cover. (Shift Tray 1 Unit)
2. Remove the rear right cover. (Rear Right Cover)
3. Remove the bracket [A].

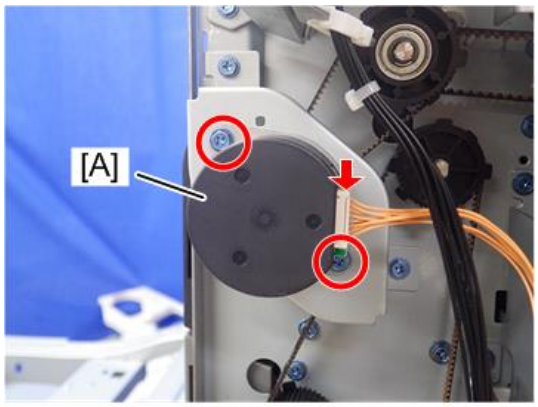


4. Remove the motor and motor drive board [A].



Shift Tray 1 Exit Motor

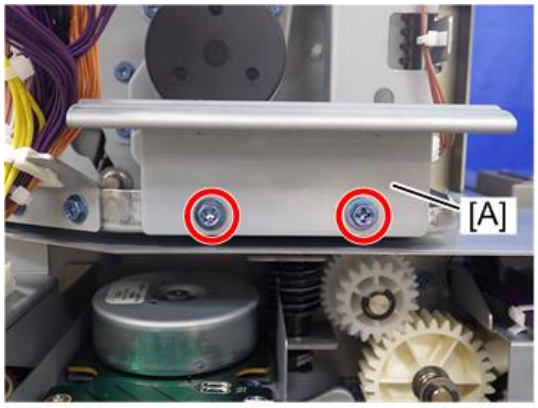
1. Remove the motor [A].



×2 ×1 d0bxa8717

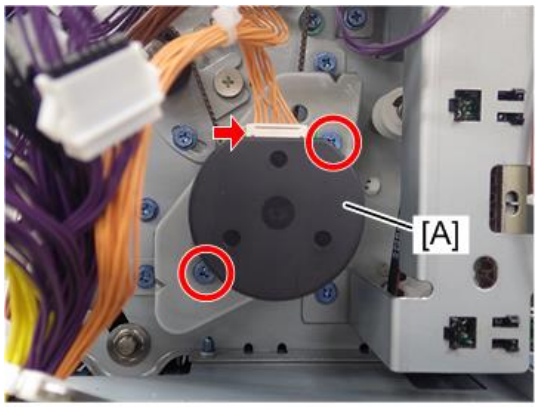
Shift Tray 1 Transport Motor

1. Remove the bracket [A].



×2 d0bxa8718

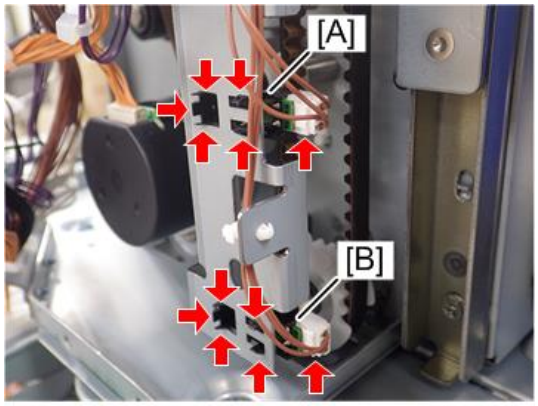
2. Remove the motor [A].



×2 ×1 d0bxa8719

Shift Tray 1 Full Sensor (500) / Shift Tray 1 Full Sensor (Lower Limit)

1. Remove the shift tray 1 full sensor (500) [A].
2. Remove the shift tray 1 full sensor (Lower Limit) [B].

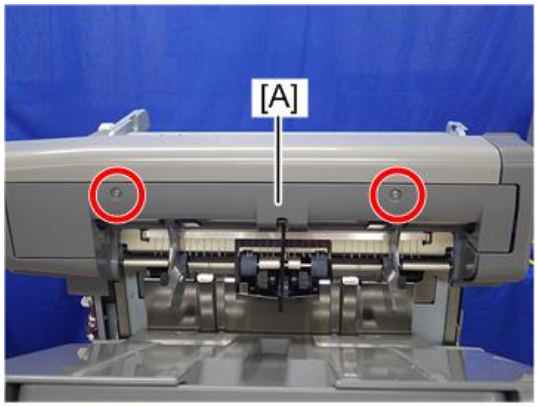


×2 ×10 d0bxa8720

Shift Tray 1 Jogger Unit

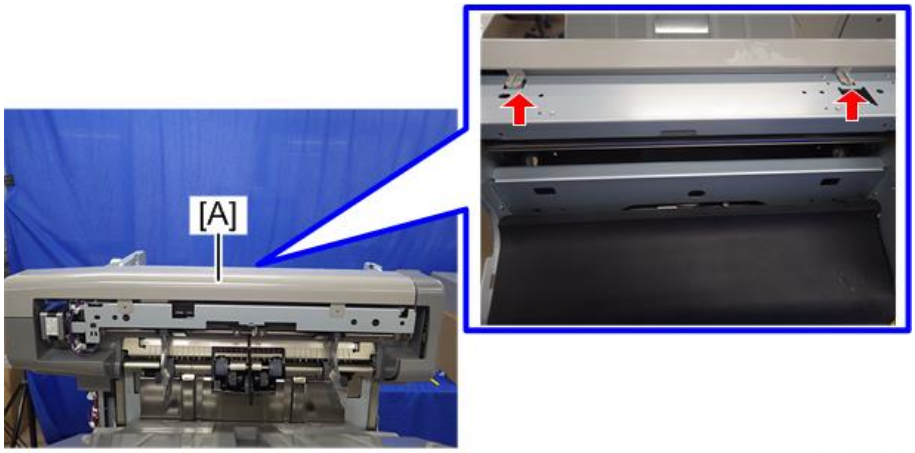
Shift Tray 1 Jogger Unit

1. Remove the jogger unit cover [A].



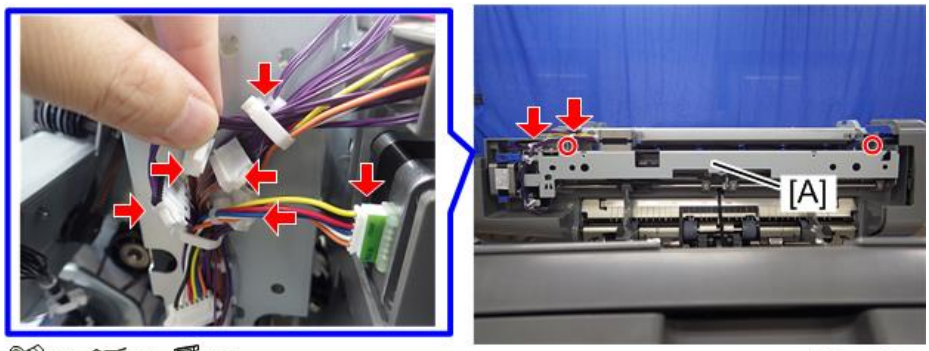
×2 d0bxa8721

2. Remove the top left cover [A].



×2 d0bxa8722

3. Lift the jogger unit [A] off.



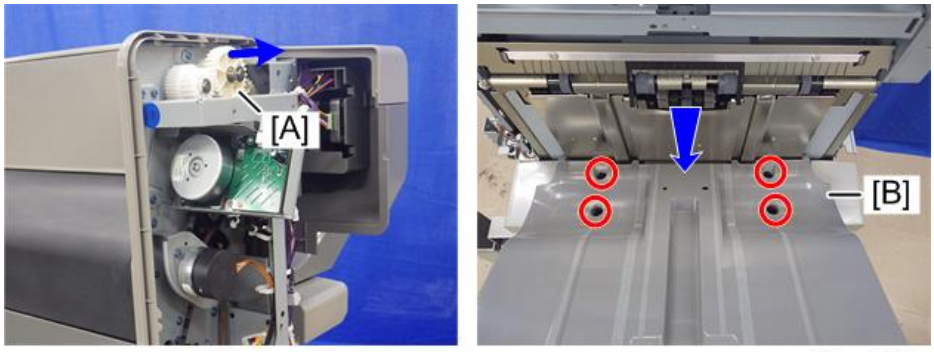
×2 ×5 ×3 d0bxa8723

Shift Tray 1 Jogger Unit Motors / Sensors

1. Remove the shift tray 1 jogger unit. (Shift Tray 1 Jogger Unit)
   The removal procedure is the same as the shift tray 2 jogger unit. (Shift Tray 2 Jogger Unit)

Shift Tray 1

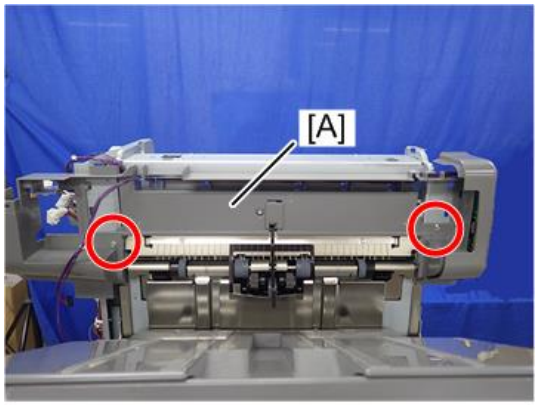
1. Remove the shift tray 1 jogger unit. (Shift Tray 1 Jogger Unit)
2. While supporting the tray with one hand, pull the gear [A] toward you to release the tray.
3. Lower the tray [B] slowly until it stops, then remove it.



×4 d0bxa8724

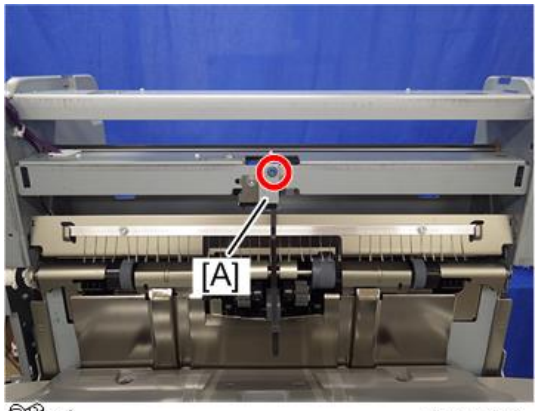
Shift Tray 1 Paper Height Sensors 1, 2, 3 (Shift, Staple, Z-Fold)

1. Remove the shift tray 1 jogger unit. (Shift Tray 1 Jogger Unit)
2. Remove the shift tray 1 left upper cover.



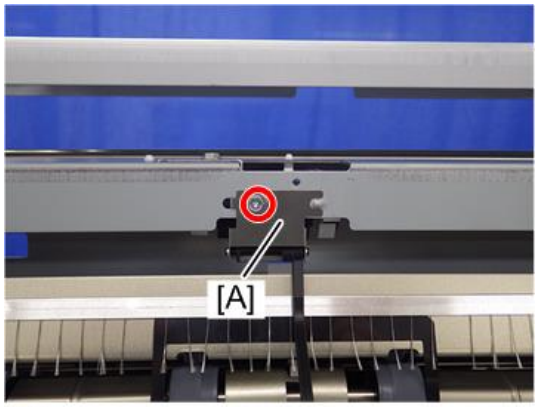
×2 d0bxa8725

3. Remove the protector plate [A].



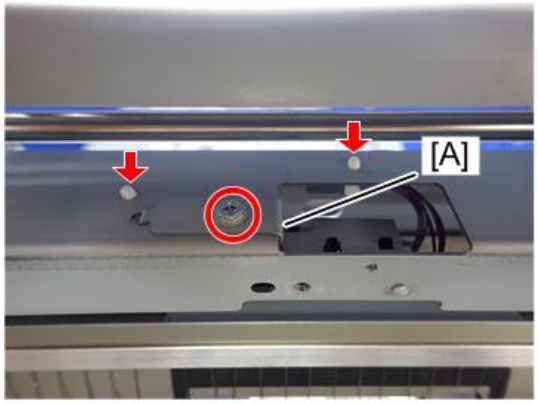
×1 d0bxa8726

4. Remove the feeler [A].



×1 d0bxa8727

5. Remove the sensor bracket [A].



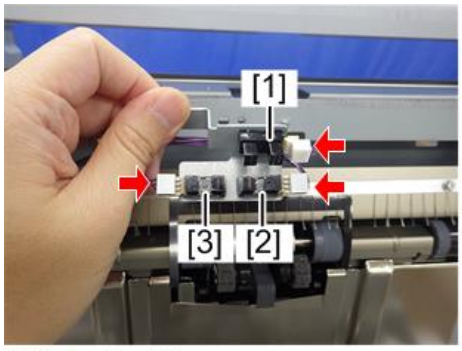
×1 ×2 d0bxa8728

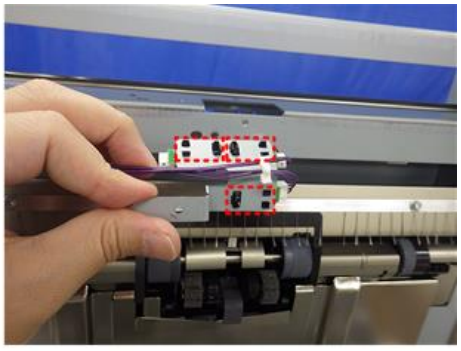
6. Remove the sensors.

[1] Paper Height Sensor 1: Staple Mode

[2] Paper Height Sensor 2: Shift Mode

[3] Paper Height Sensor 3: Z-Fold Mode



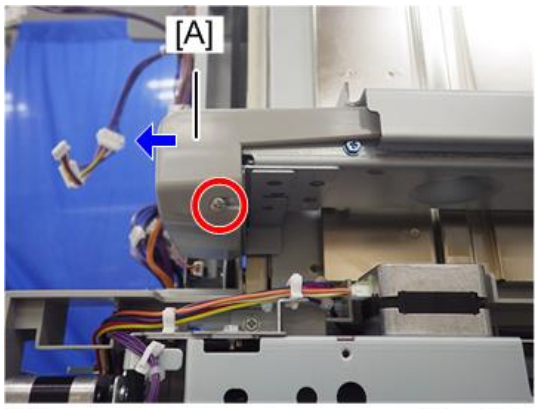


×3 ×15 d0bxa8729

Shift Tray 1 End Fence

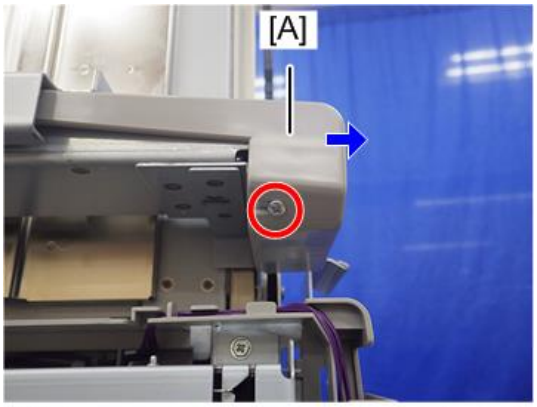
1. Remove the shift tray. (Shift Tray 1)

2. Remove the shift tray 1 base rear cover. You do not need to remove the screw. Slide the cover off.



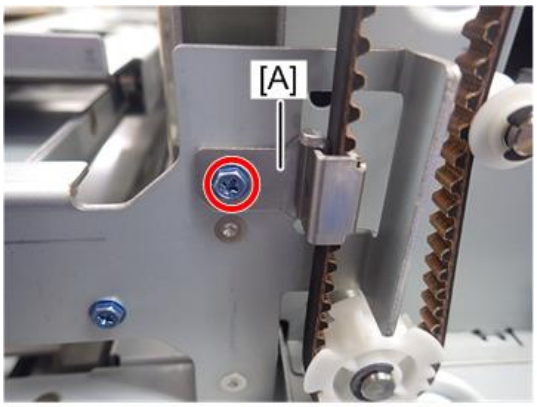
×1 d0bxa8730

3. Remove the shift tray 1 base front cover. You do not need to remove the screw. Slide the cover off.



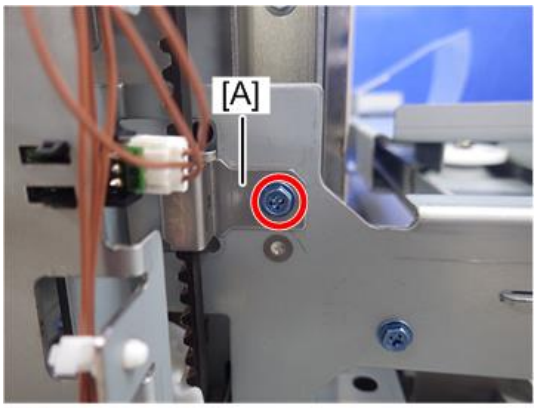
×1 d0bxa8731

4. Remove the front belt clamp [A].



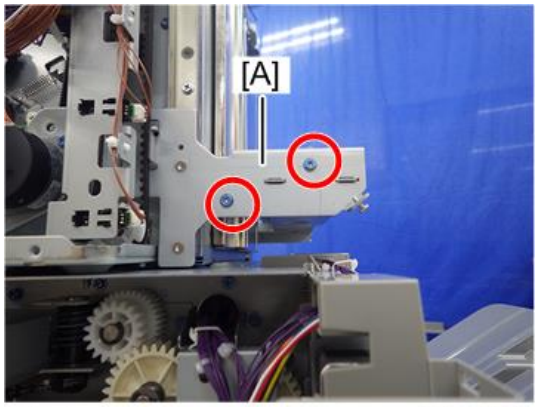
×1 d0bxa8732

5. Remove the rear belt clamp [A].



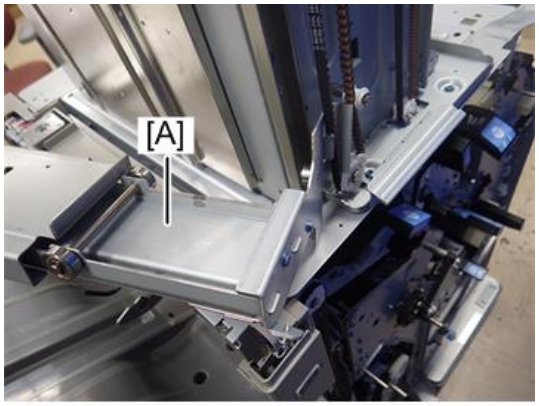
×1 d0bxa8733

6. Remove the rear base plate [A].



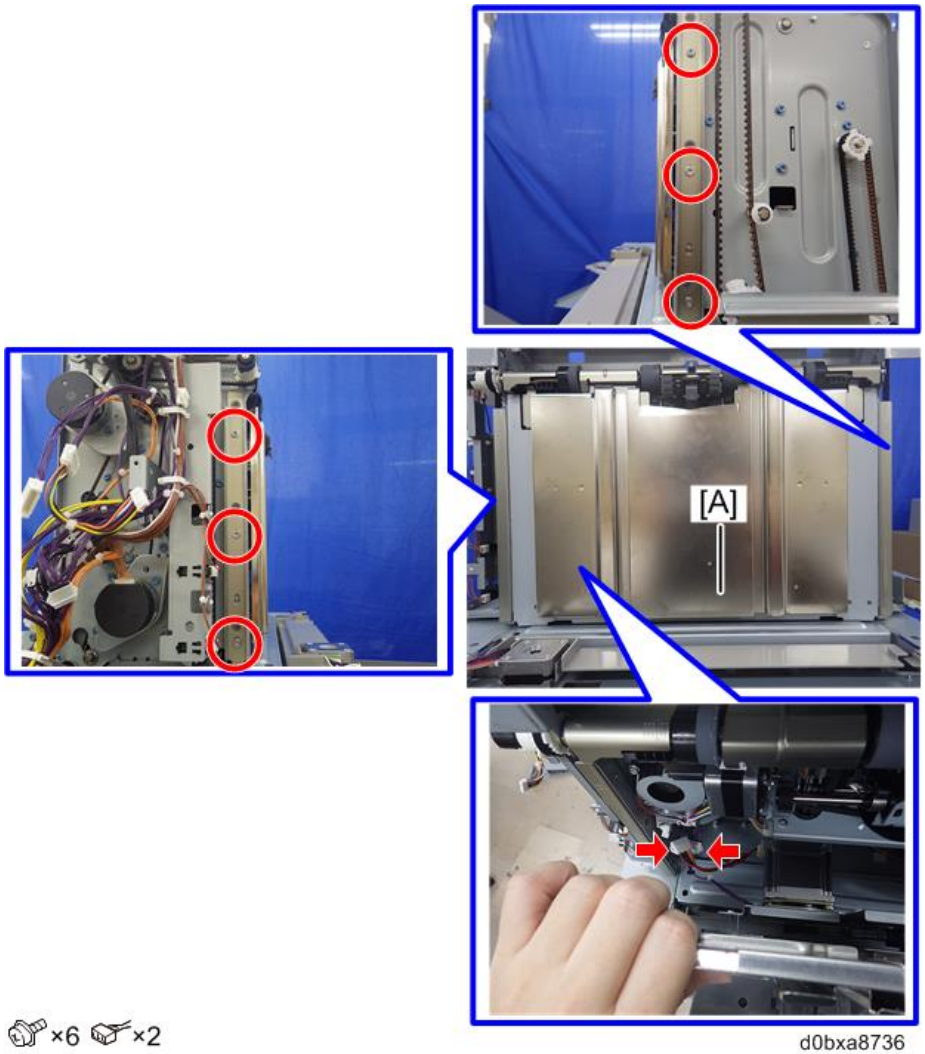
×2 d0bxa8734

7. Disconnect the front end of the base [A] from the side fence (you do not need to remove the plate).



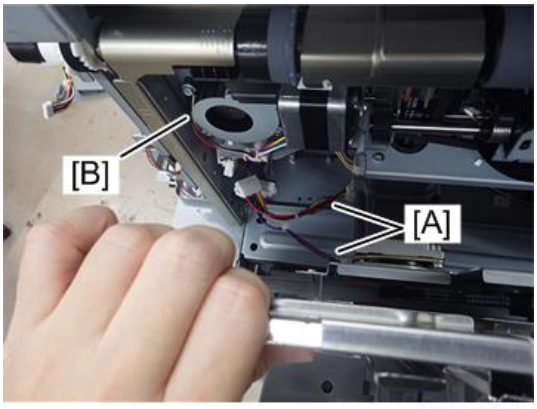
d0bxa8735

8. Remove the end fence.



Note

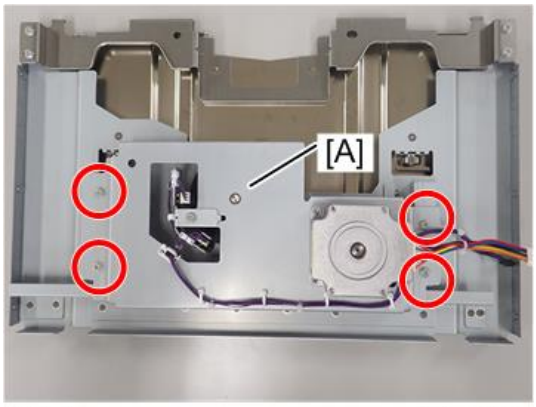
- When reassembling, pull the surplus length of the motor cable and sensor cable [A] out of the side plate [B]. In doing so, be careful not to disconnect the relay connector by pulling the cables too hard.



Shift Tray 1 Shift Motor

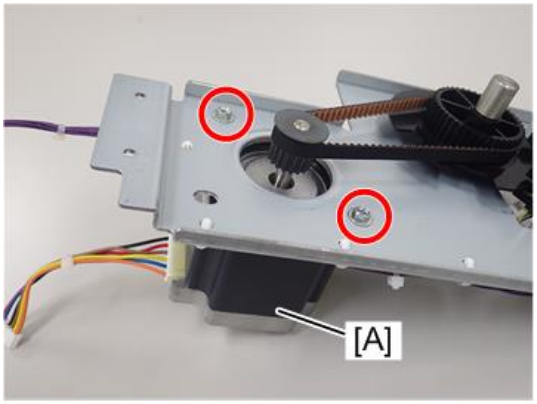
1. Remove the shift tray 1 end fence. (Shift Tray 1 End Fence)

2. Remove the bracket (with motor attached) [A].



×4 d0bxa8737

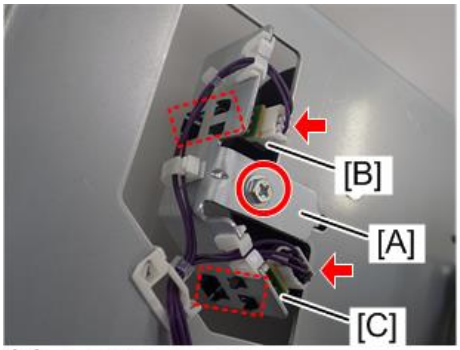
3. Remove the motor [A].

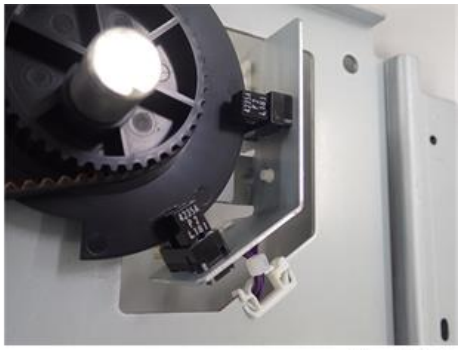


×2 d0bxa8738

Shift Tray 1 HP Sensors

1. Remove the shift tray 1 end fence. (Shift Tray 1 End Fence)
2. Remove the sensor bracket [A], and then remove the sensors [B] [C].

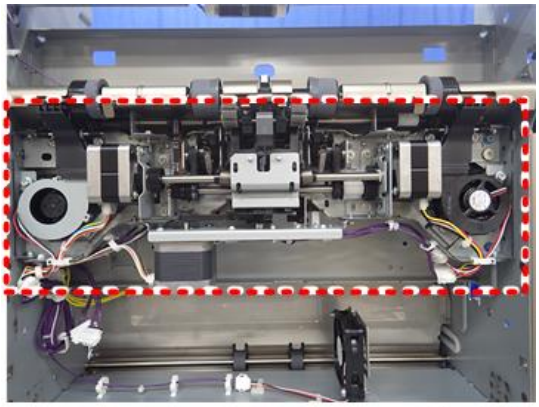




×1 ×2 ×10 d0bxa8739

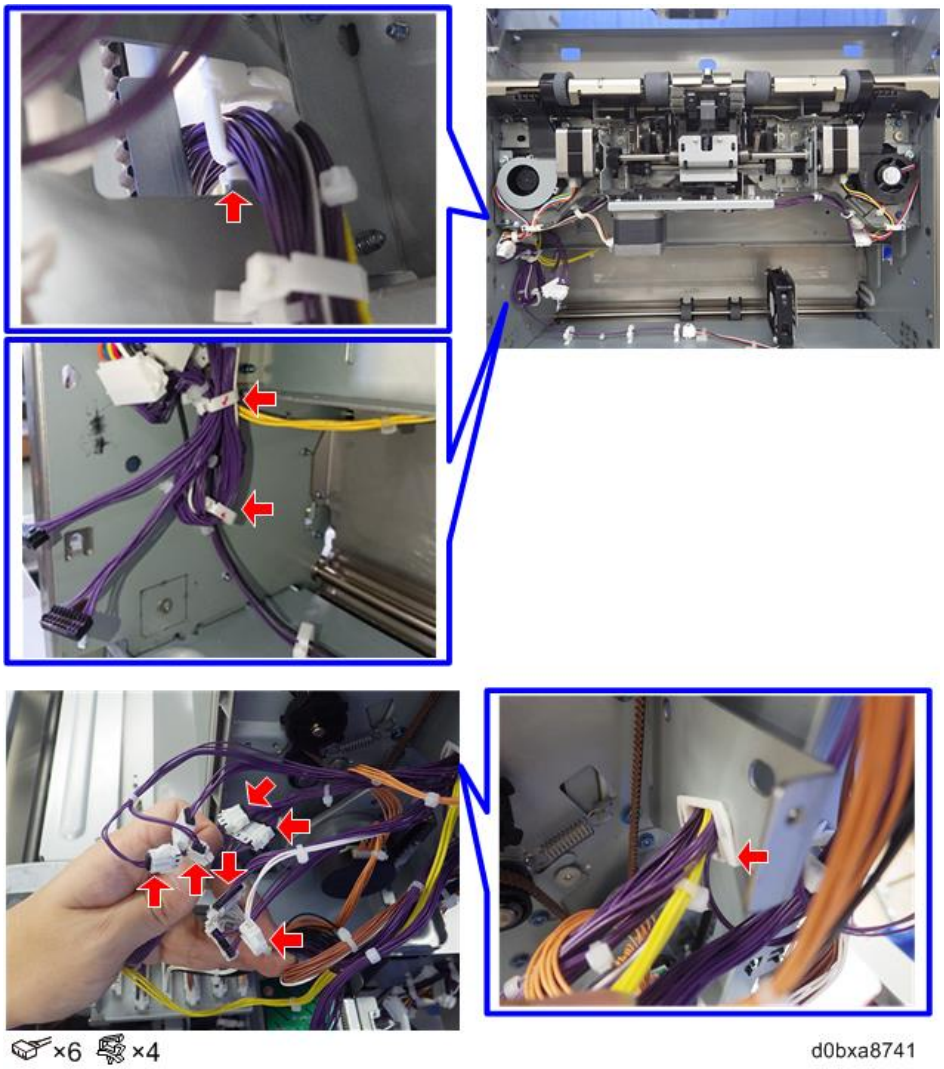
Shift Tray 1 Drag Roller Unit

1. Remove the shift tray 1 end fence. (Shift Tray 1 End Fence)
   This is the drag roller unit [A].



d0bxa8740

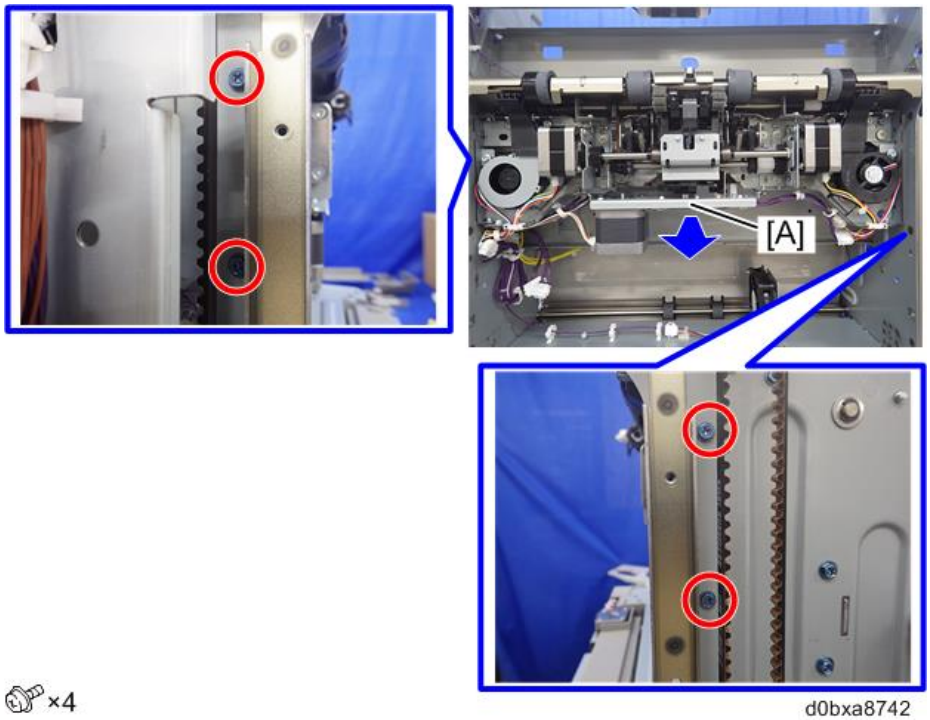
2. Open the harness clamps and disconnect the connectors.



×6 ×4

d0bxa8741

3. Remove the drag roller unit [A].



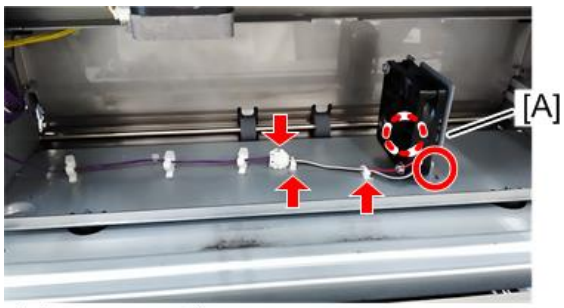
×4

d0bxa8742

Shift Tray 1 Cooling Fan

1. Remove the shift tray 1 end fence. (Shift Tray 1 End Fence)

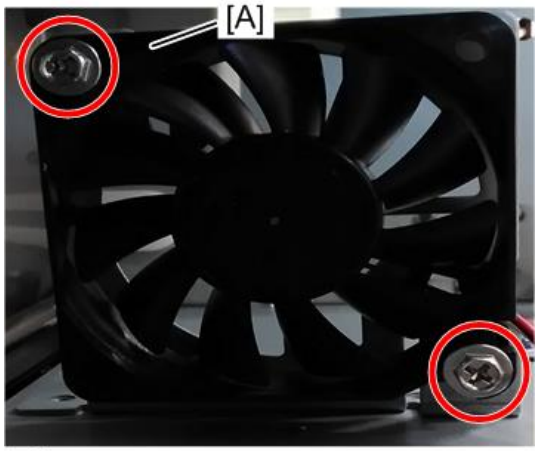
2. Remove the bracket (with motor attached) [A].



×2 ×1 ×2

d0bxa8759

3. Separate the motor [A] and bracket.

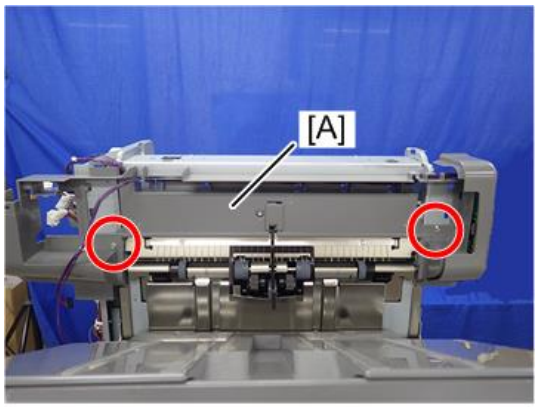


×2 d0bxa8760

Shift Tray 1 Exit Sensor

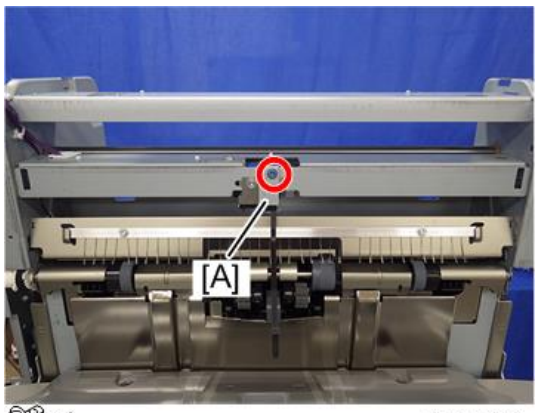
1. Remove the shift tray 1 jogger unit. (Shift Tray 1 Jogger Unit)

2. Remove the shift tray 1 left upper cover.



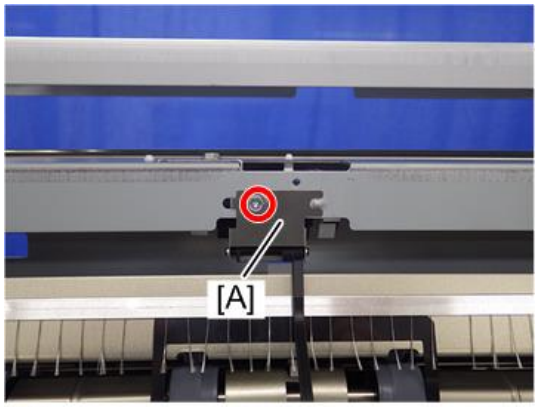
×2 d0bxa8725

3. Remove the protector plate [A].



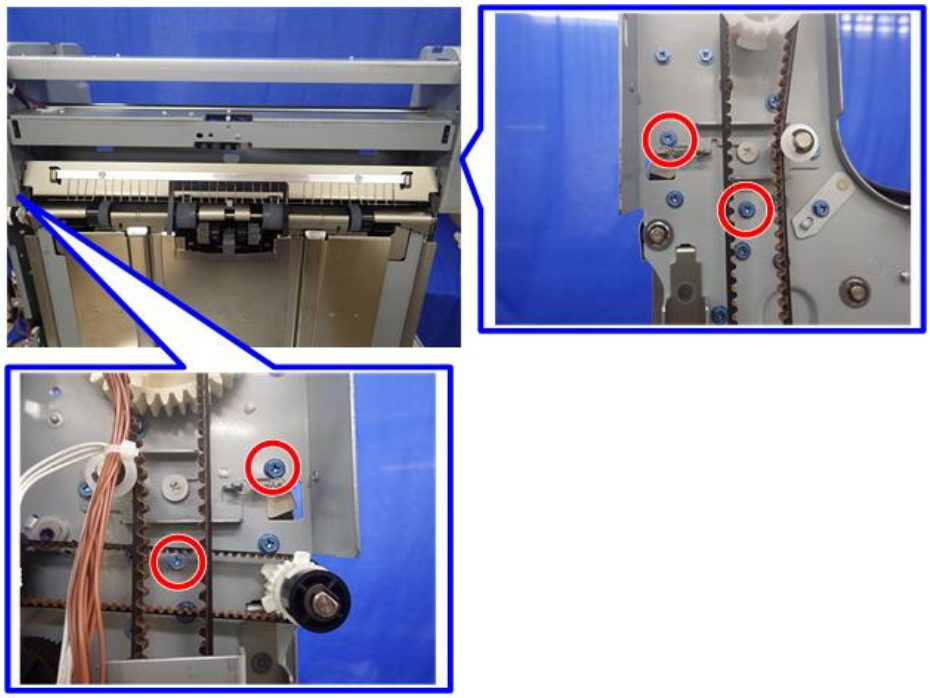
×1 d0bxa8726

4. Remove the feeler [A].



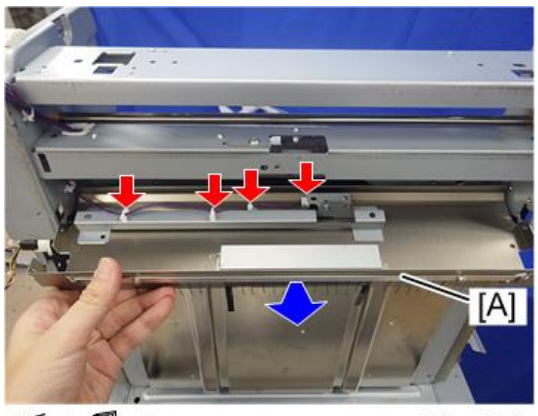
×1 d0bxa8727

5. Remove the four screws.



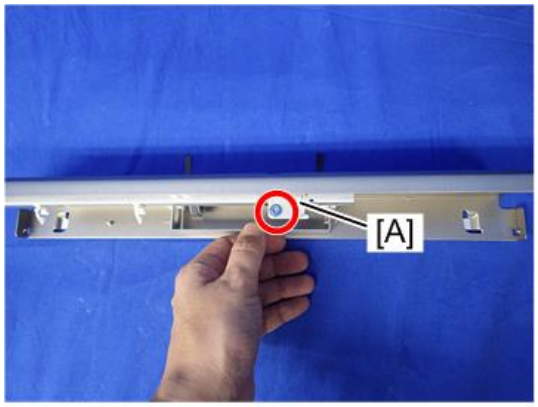
×4 d0bxa8743

6. Remove the bracket [A].



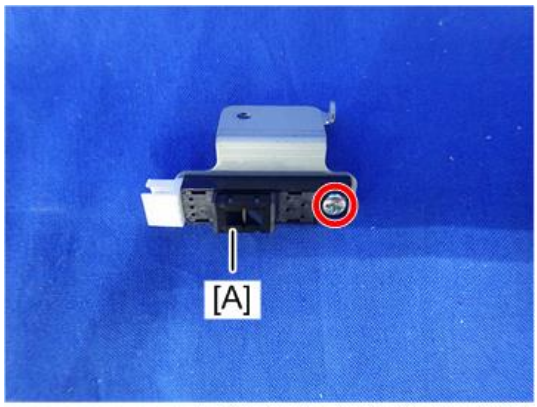
×1 ×3 d0bxa8744

7. Remove the sensor bracket [A].



×1 d0bxa8745

8. Remove the sensor [A].



×1 d0bxa8746

Pre-Stacker

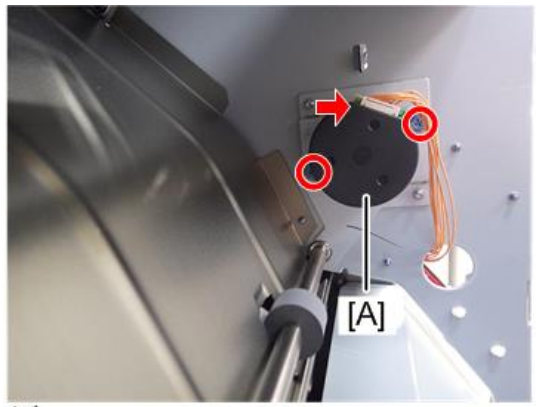
Pre-Stack Motors

The pre-stack motor is visible from the right side of the finisher, below the lock bar.

d0bxa8591

Pre-Stack Motor

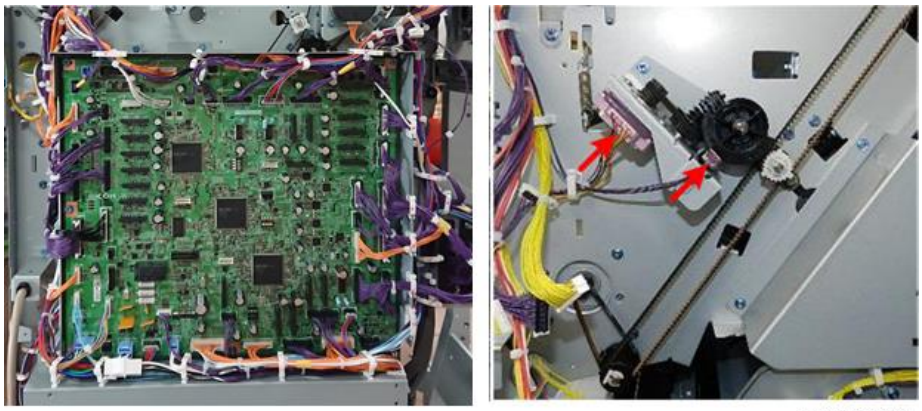
1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the rear lower cover. (Rear Lower Cover)
3. Remove the right panels. (Upper and Lower Right Panels)
4. Remove the motor.



d0bxa8592

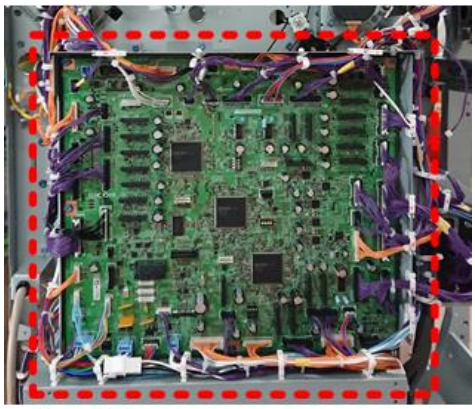
Pre-Stack Release Motor, Pre-Stack Roller HP Sensor

The pre-stack release motor and pre-stack roller HP sensor are behind the main board.



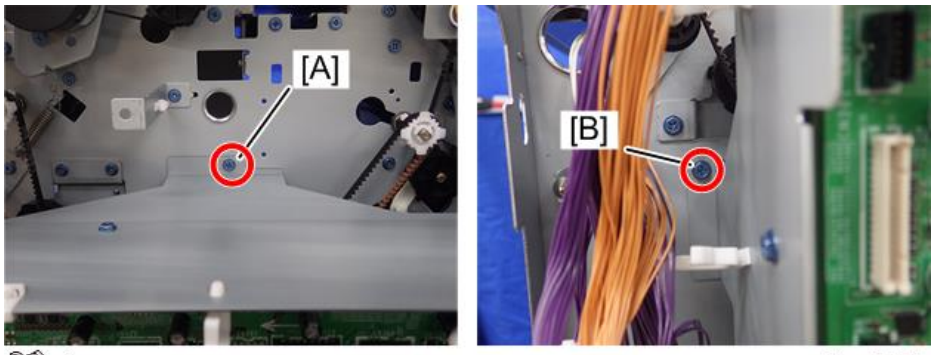
d0bxa8593

1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the rear lower cover. (Rear Lower Cover)
3. Disconnect the main board.



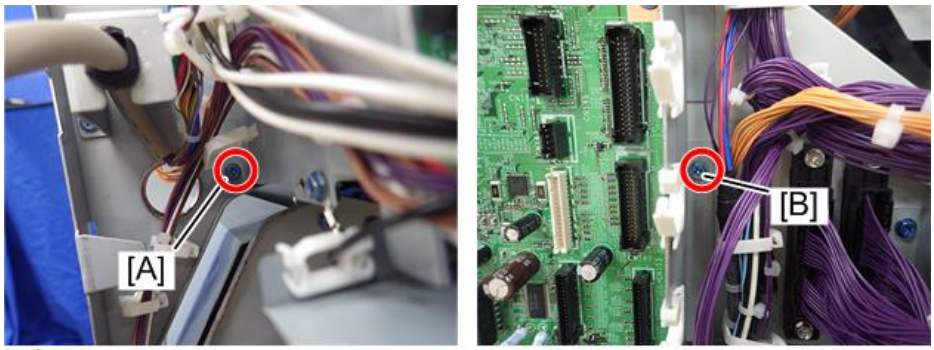
×51 ×18 d0bxa8594

4. Disconnect the board bracket at the top [A] and upper left corner [B].



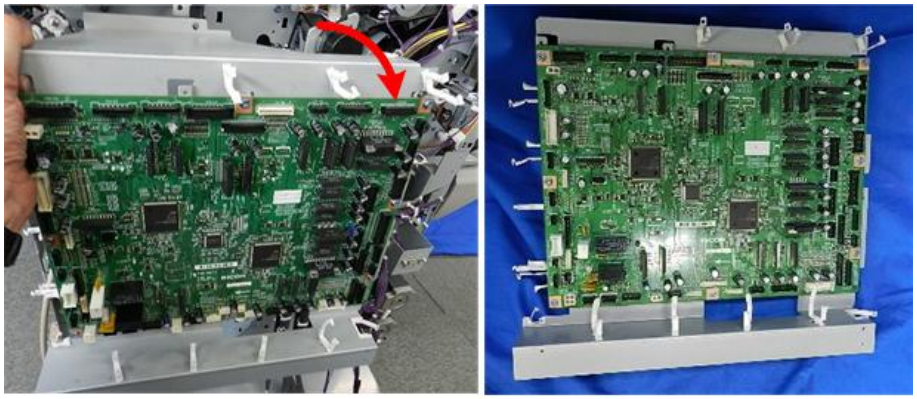
×2 d0bxa8595

5. Disconnect the board bracket at the lower left corner [A], on the right edge of the board [B].



×2 d0bxa8596

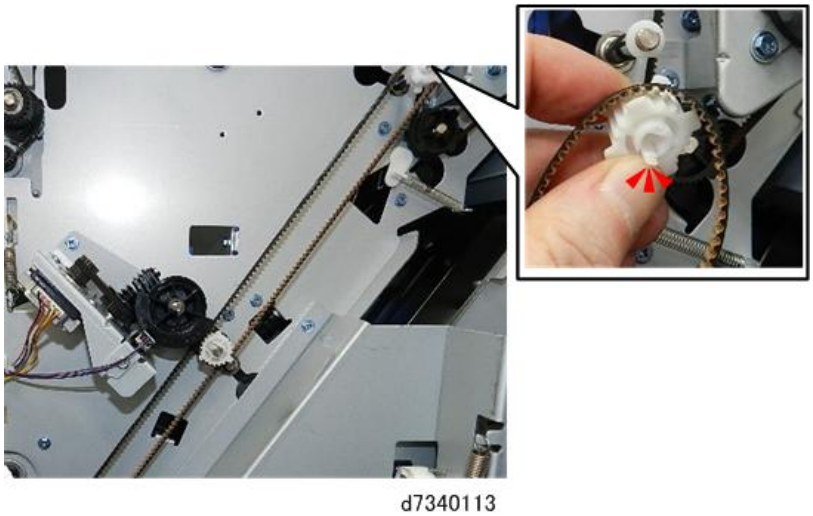
6. Remove the bracket with main board attached.



d7340073

Pre-stack Release Motor

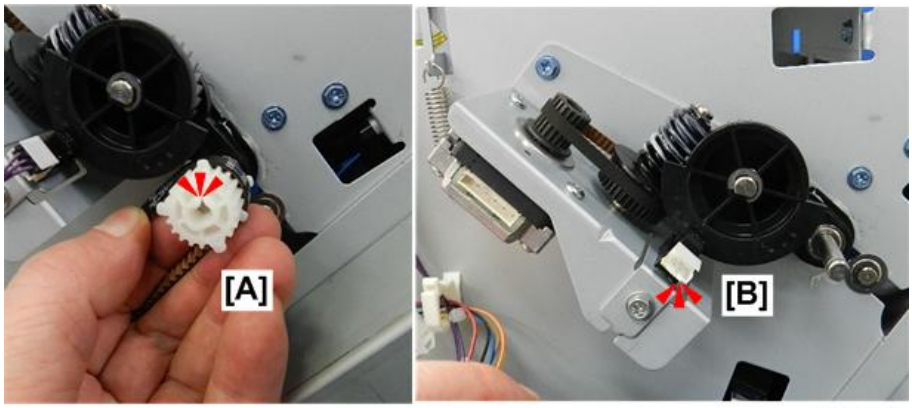
1. Remove the upper belt (x1). The white gear can be released by a tab using your fingernail.



d7340113

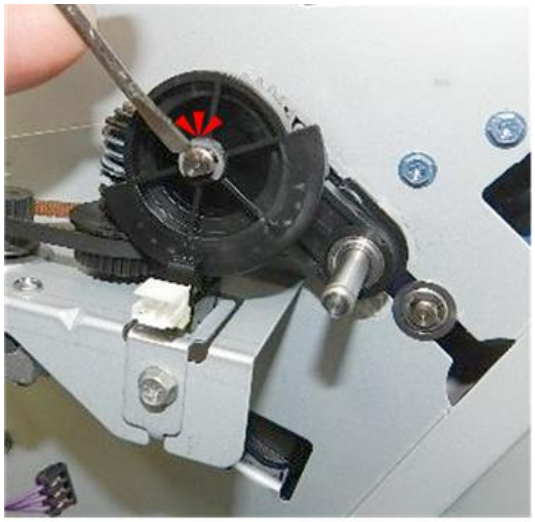
2. Remove the lower belt and gear (x1, x1). The white gear can be released by a tab using your

fingernail.



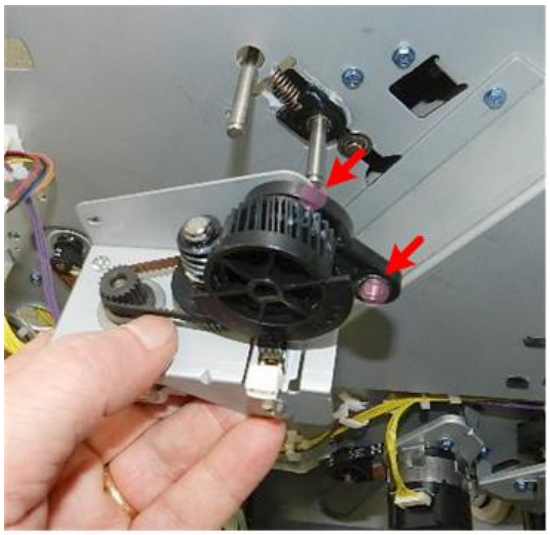
d7340114

3. Remove the e-ring (x1).



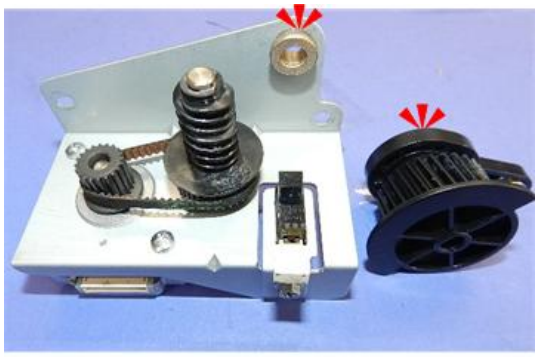
d7340115

4. Slowly remove the bracket and cam follower. Be careful not to drop the bushing and bearing of the cam follower.



d7340117

5. Separate the bushing and cam follower from the bracket.



d7340118

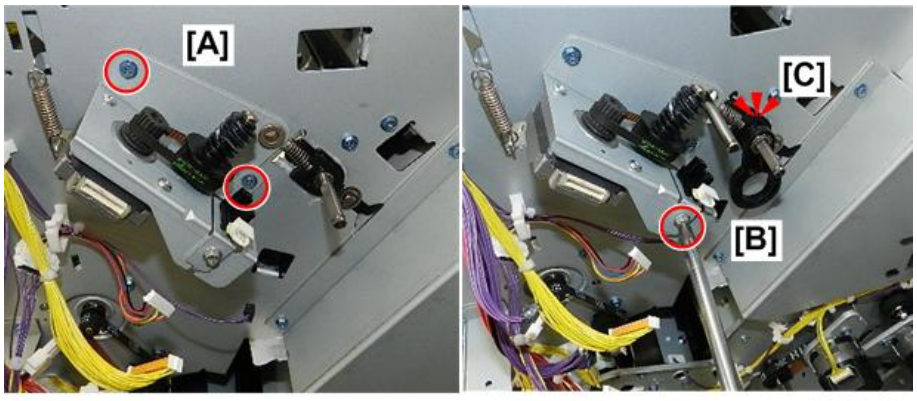
6. Separate the motor and bracket (x2).

d7340119

Re-installation

1. Attach the bracket [A] (x2).

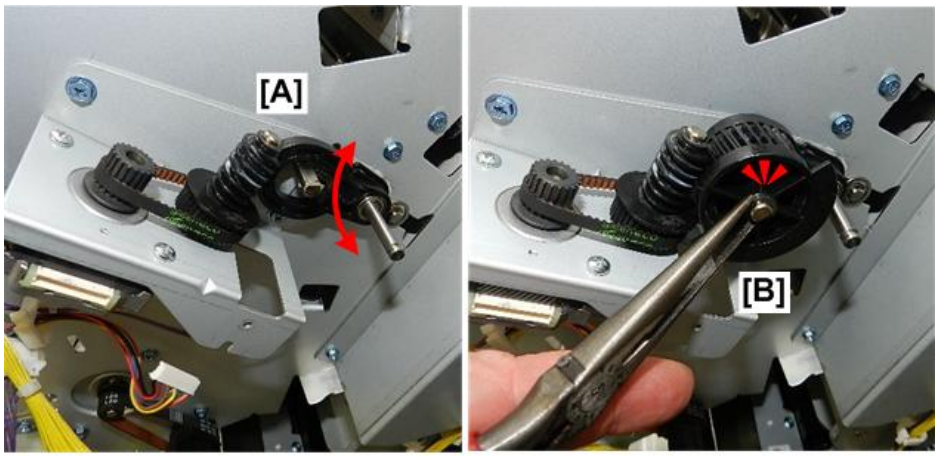
2. Remove the sensor bracket (with sensor attached) (x1).



d7340120

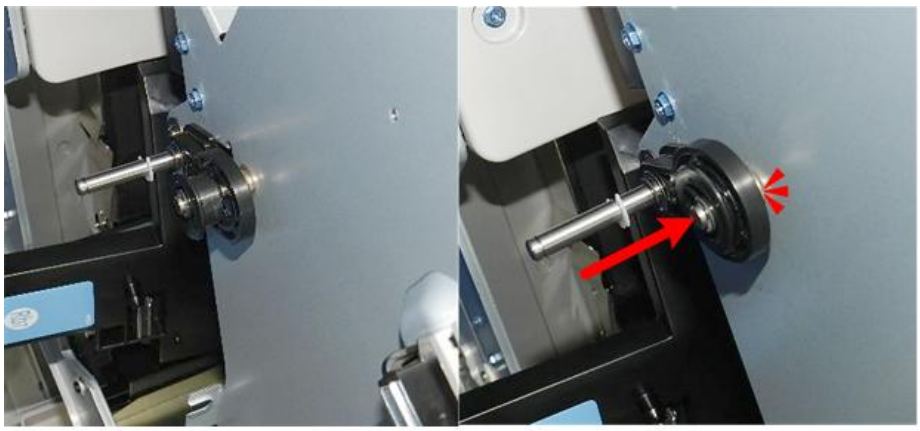
3. Set the cam follower [A]. Make sure that it swings freely up and down.

4. Set the gear (x1).



d7340121

5. If the e-ring is difficult to set, check the cam follower in front. Make sure that it and its bushing are flat and snug against the front frame.



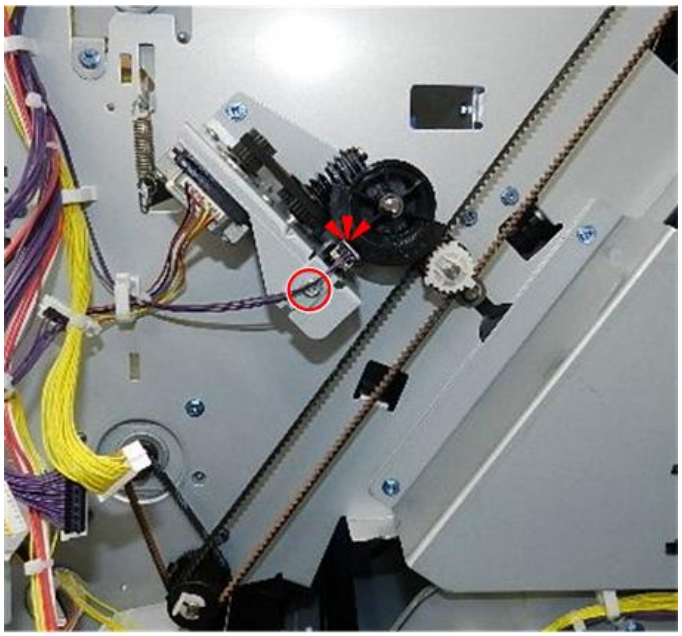
d7340122

You may need to keep pressure on the shaft so it does not slip while attaching the e-ring at the rear.

Pre-stack Roller HP Sensor

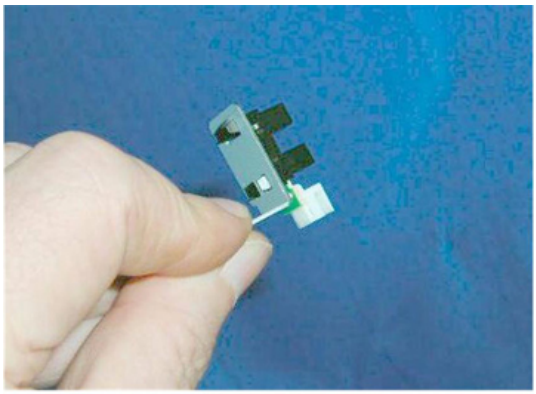
1. Disconnect the sensor harness (x1)

2. Remove the sensor bracket (x1)



d7340123

3. Remove the sensor (x4)



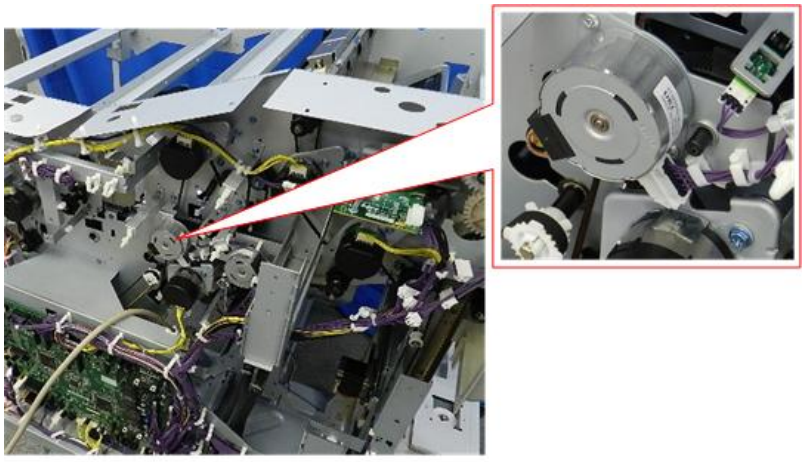
d434r252

Corner Stapler Unit

Corner Stapler Unit Entrance

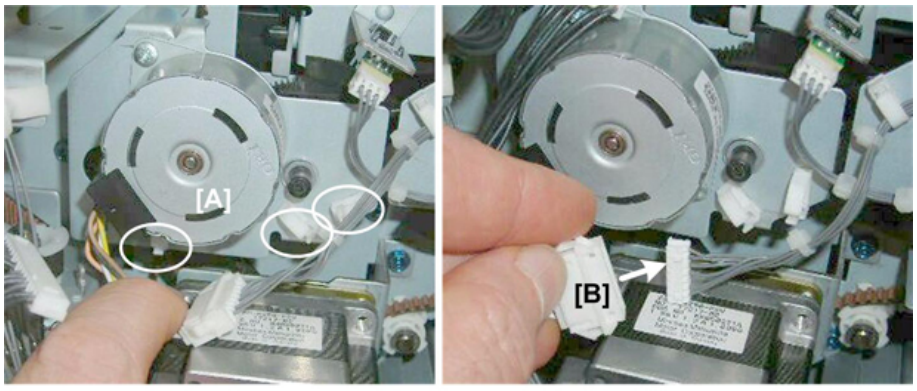
Stapler JG Motor

The stapler junction gate motor is behind the punch unit PCB (if the punch unit has been installed).



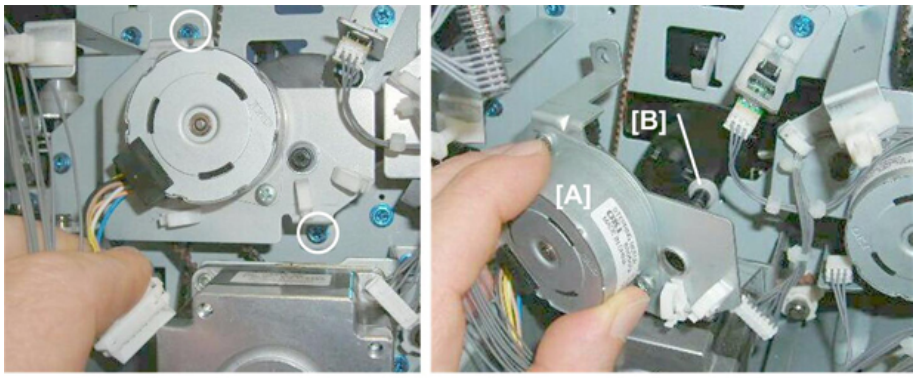
d7340124

1. Remove the rear upper (cover (Rear Upper Cover)
2. Remove the punch unit PCB if the punch unit has been installed.
3. Open the harness clamps of the motor [A] (x3)
4. Disconnect the motor at [B] (x1)



d434r254

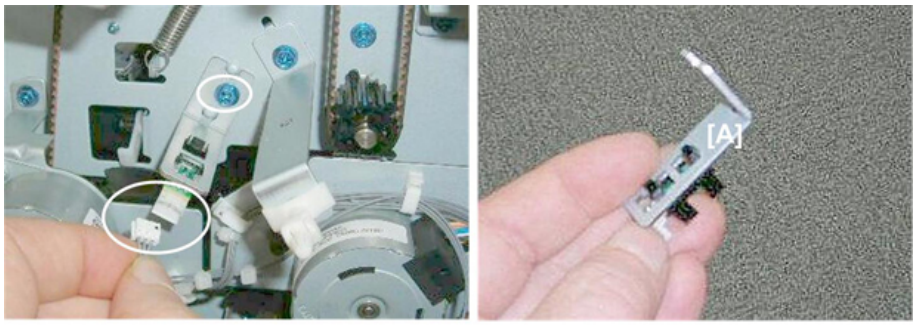
5. Remove the motor bracket [A] (x2)
   - Slowly, pull the bracket away.
   - Make sure the Teflon collar [B] does not fall off the end of the junction gate shaft. Remove it so that it does not accidentally slip off the end of the shaft.



d434r255

Stapler JG HP Sensor

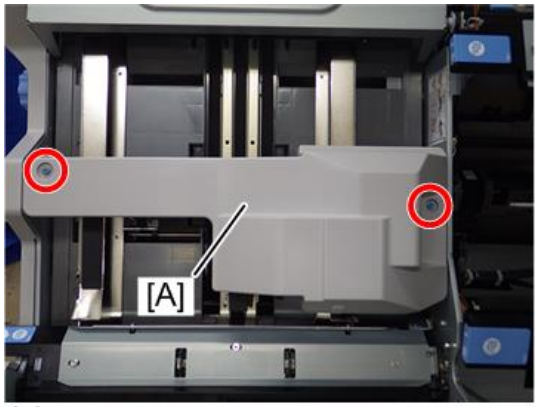
1. Remove the rear upper cover. (Rear Lower Cover)
2. Remove the sensor bracket [A] (x1, x1).
3. Remove the sensor (x5).



d434r256

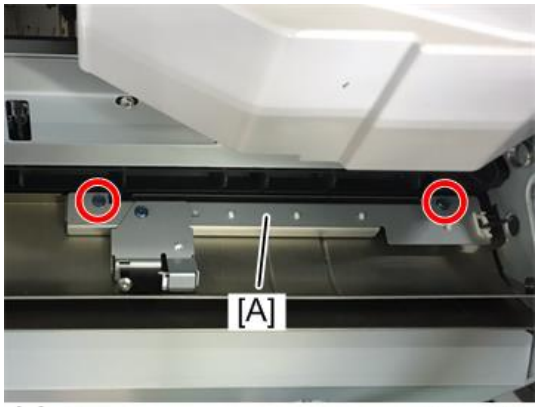
Stapling Tray Entrance Sensor

1. Pull out the stack/staple unit.
2. Remove the motor cover.

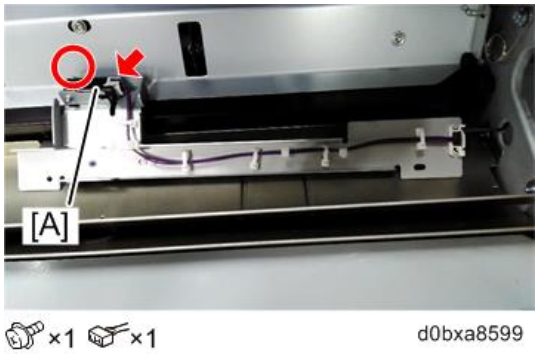


×2 d0bxa8597

3. Disconnect the bracket [A].

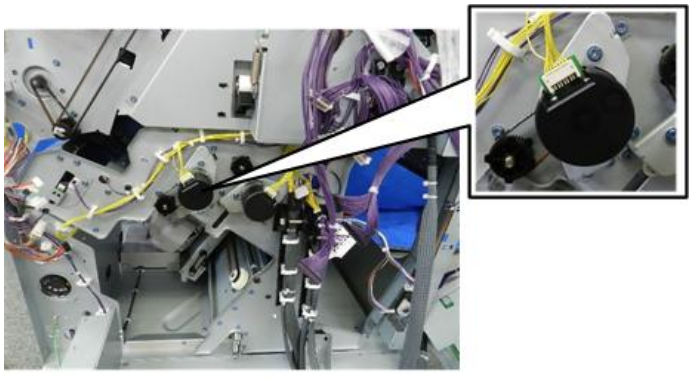


4. Remove the sensor [A].



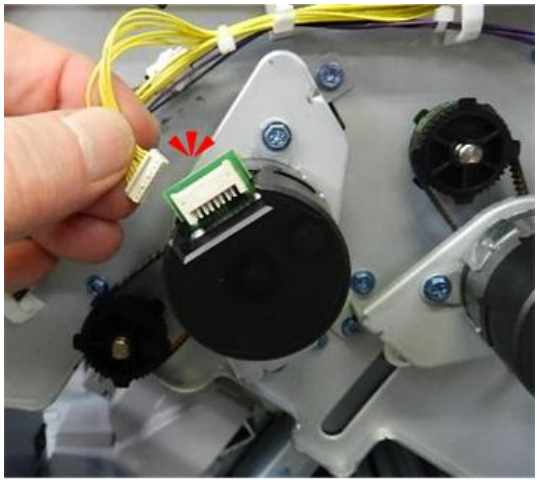
Stapling Tray Entrance Motor

The stapling tray entrance motor is on the back of the stack/staple unit.



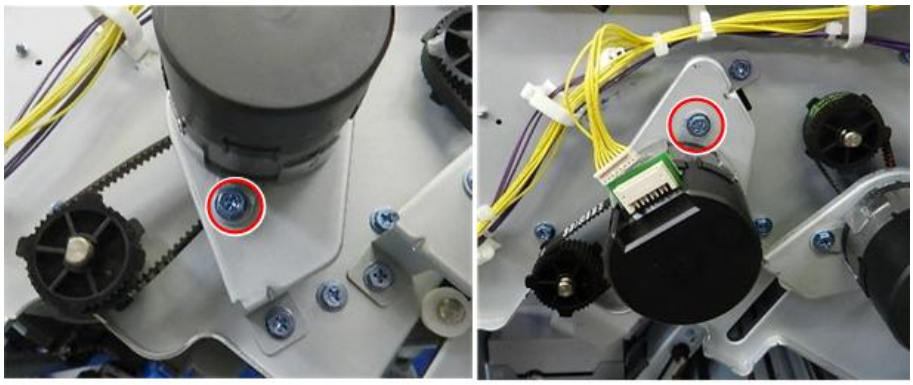
1. Remove the rear upper cover (Rear Upper Cover)
2. Remove the rear lower cover (Rear Lower Cover)
3. Remove the main board bracket. (Pre-Stack Release Motor, Pre-Stack Roller HP Sensor)

4. Disconnect the motor (x1).



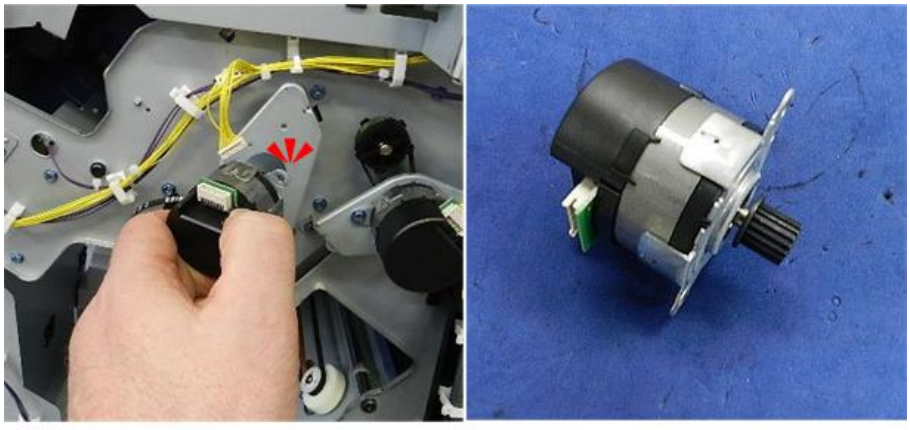
d7340129

5. Disconnect the motor bracket (x2).



d7340130

6. Remove the motor (x1).

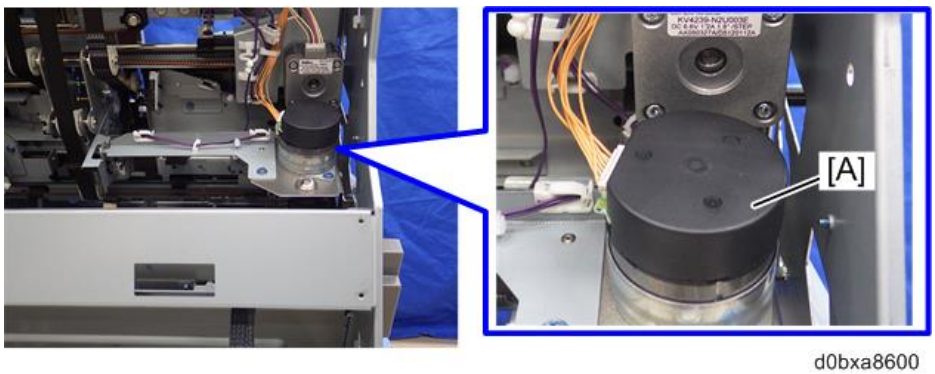


d7340131

Corner Stapler (Side-to-Side Jogging)

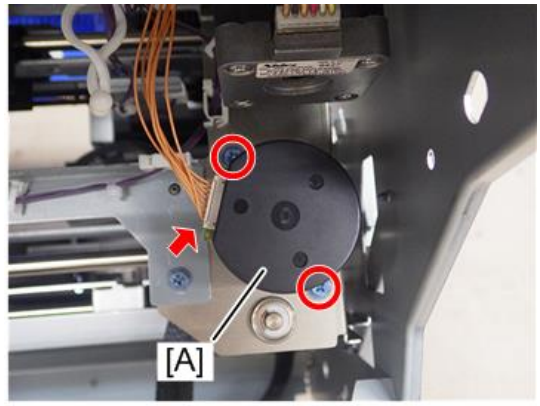
Jogger Fence Vertical Movement Motor

The jogger fence vertical movement motor [A] is behind the front plate of the stack/staple unit.



d0bxa8600

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the motor [A].



×2 ×1 d0bxa8601

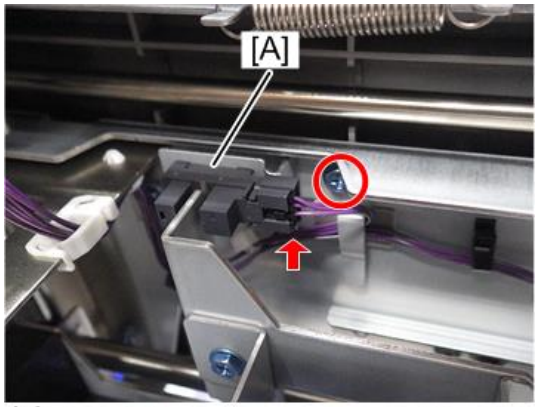
Jogger Fence Vertical Movement HP Sensor

This is the jogger fence vertical movement HP sensor.

d0bxa8608

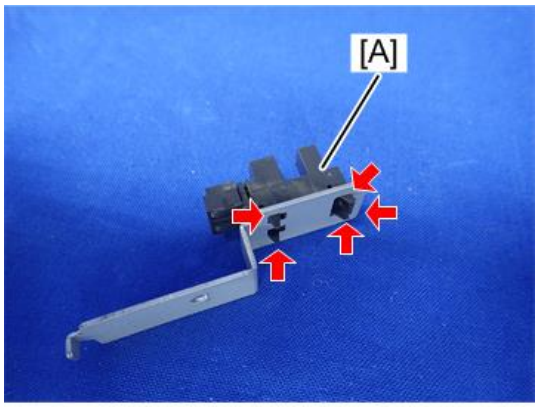
1. Remove the booklet unit. (Booklet Unit Removal)

2. Remove the bracket [A].



×1 ×1 d0bxa8609

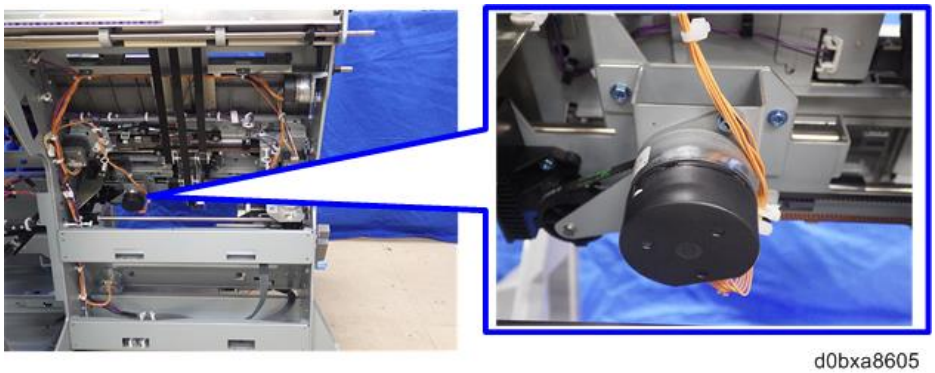
3. Remove the sensor [A].



×5 d0bxa8610

Jogger Fence Horizontal Movement Motor

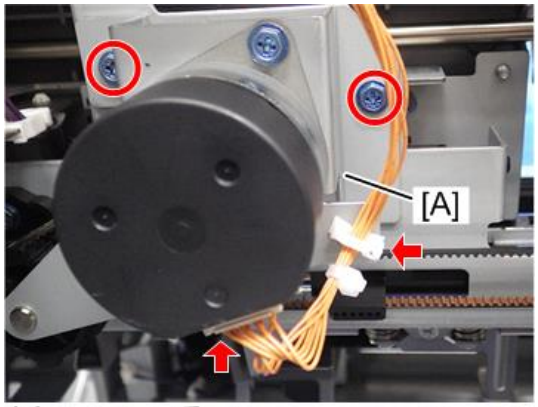
This is the jogger fence horizontal movement motor.



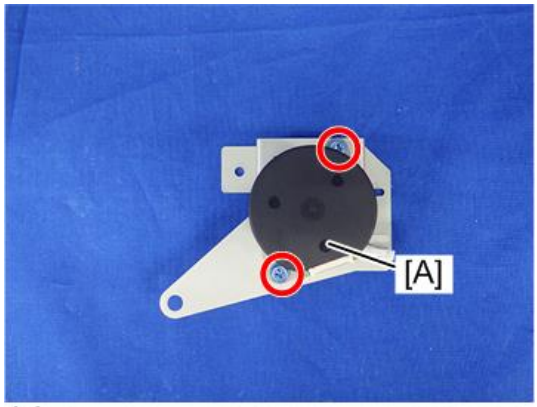
d0bxa8605

1. Remove the booklet unit. (Booklet Unit Removal)

2. Remove the bracket (with motor attached) [A].

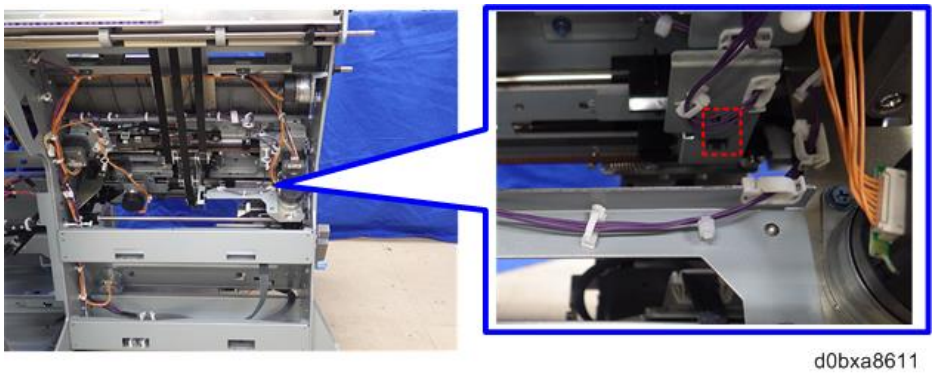


3. Remove the motor [A].



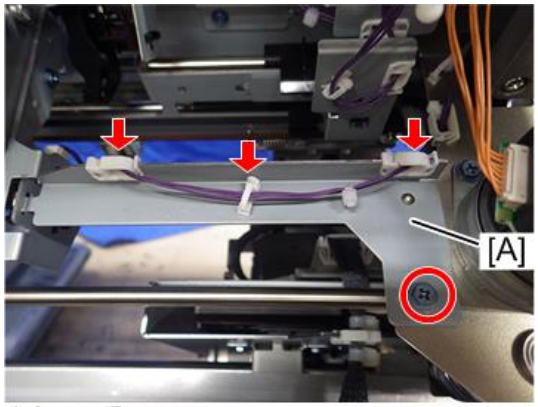
Jogger Fence Horizontal Movement HP Sensor

This is the jogger fence horizontal movement HP sensor.



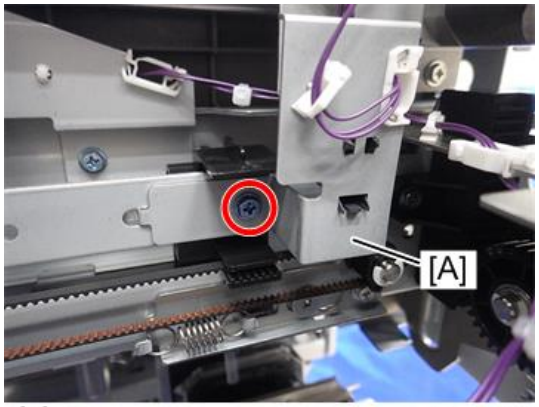
1. Remove the booklet unit. (Booklet Unit Removal)

2. Remove the bracket [A].



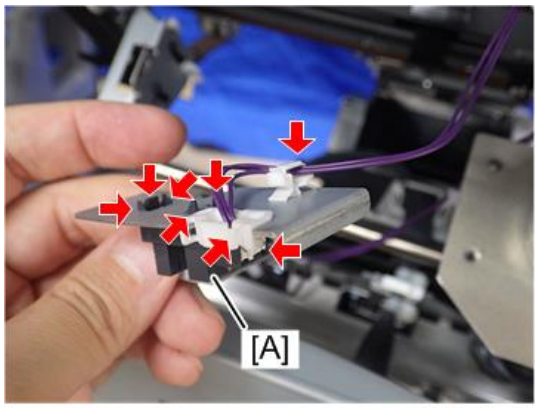
×1 ×3 d0bxa8612

3. Remove the bracket [A].



×1 d0bxa8613

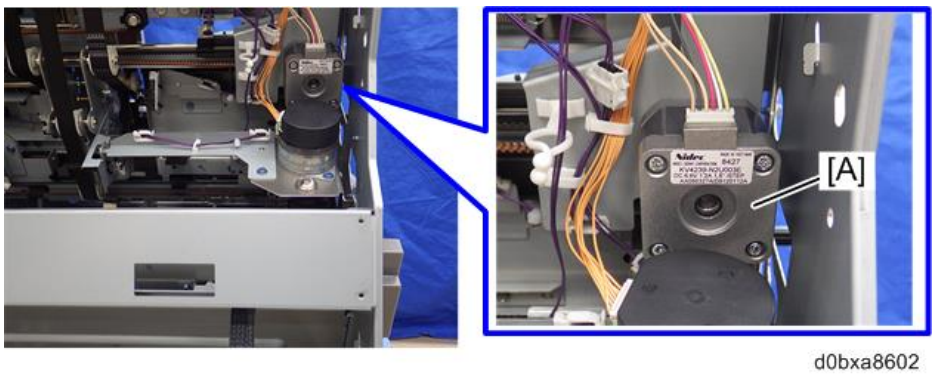
4. Remove the sensor [A].



×1 ×2 ×5 d0bxa8614

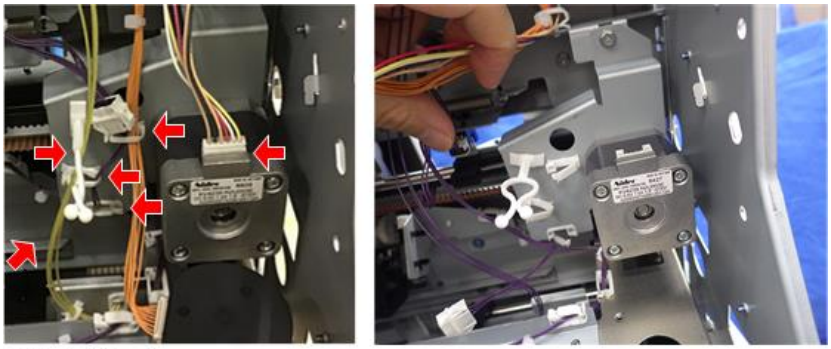
Front Jogger Fence Motor

The front jogger fence motor [A] is behind the front plate of the stack/staple unit.



d0bxa8602

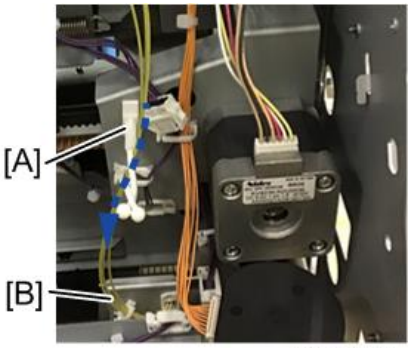
1. Remove the jogger fence vertical movement motor. (Jogger Fence Vertical Movement Motor)
2. Disconnect the bracket and motor.



×1 ×4 d0bxa8603

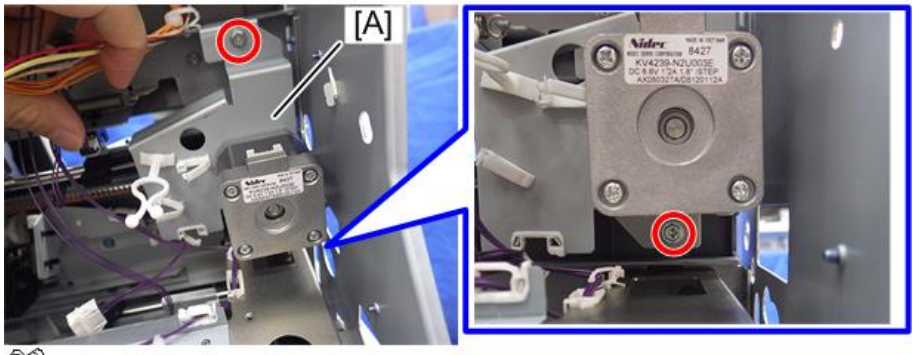
Important

- When reassembling, pass the harness [B] through the clamp [A] as shown below.



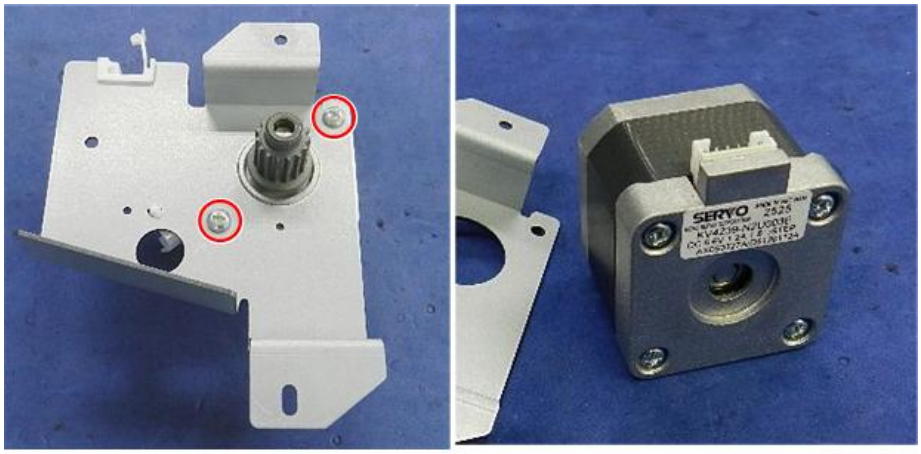
d0bxa8761

3. Remove the bracket (with motor attached) [A].



×2 d0bxa8604

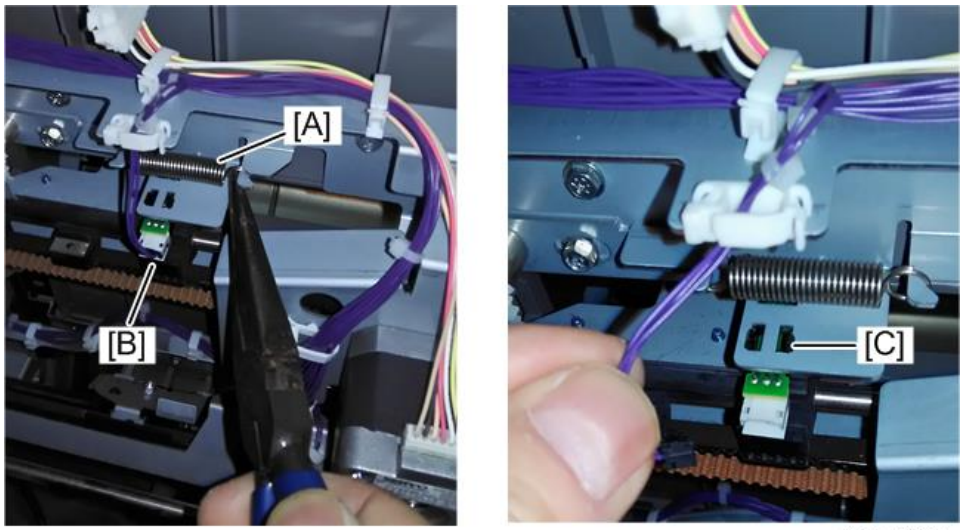
4. Separate the motor and bracket (x2).



d7340136

Jogger Fence HP Sensor (Front)

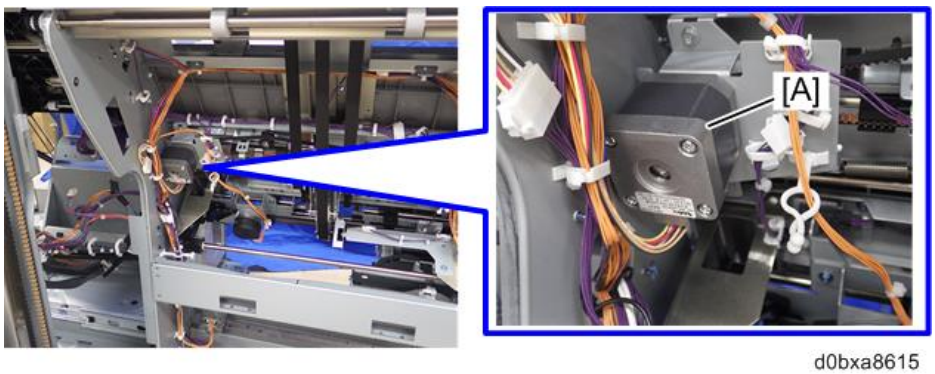
1. Remove the booklet unit (Booklet Unit Removal)
2. Disconnect the following:
   [A] x1
   [B] x1
   [C] x5



d0bxa8762

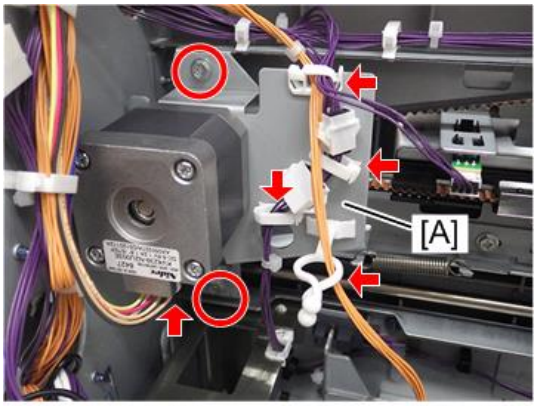
Rear Jogger Fence Motor

The rear jogger fence motor [A] is mounted on the rear plate of the stack/staple unit.



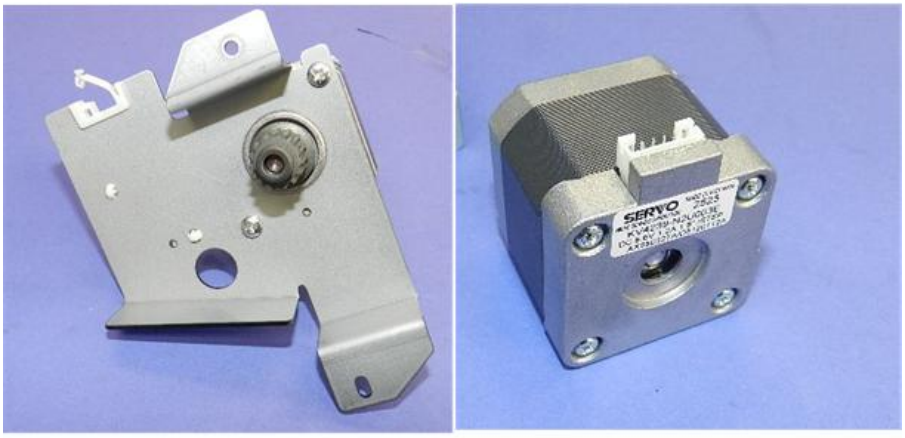
d0bxa8615

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the bracket (with motor attached) [A].



×2 ×1 ×4 d0bxa8616

3. Separate the motor and bracket (x2).

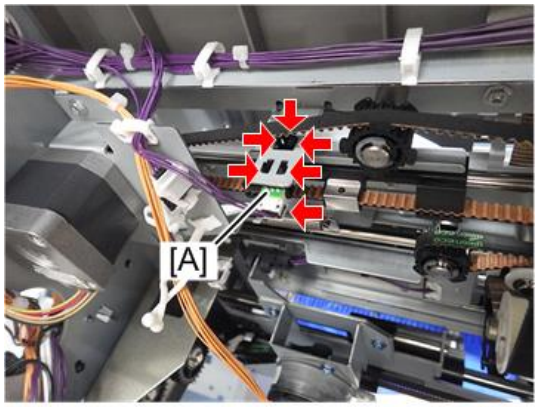


d7340141

Jogger Fence HP Sensor (Rear)

1. Remove the booklet unit. (Booklet Unit Removal)

2. Disconnect and remove the sensor:

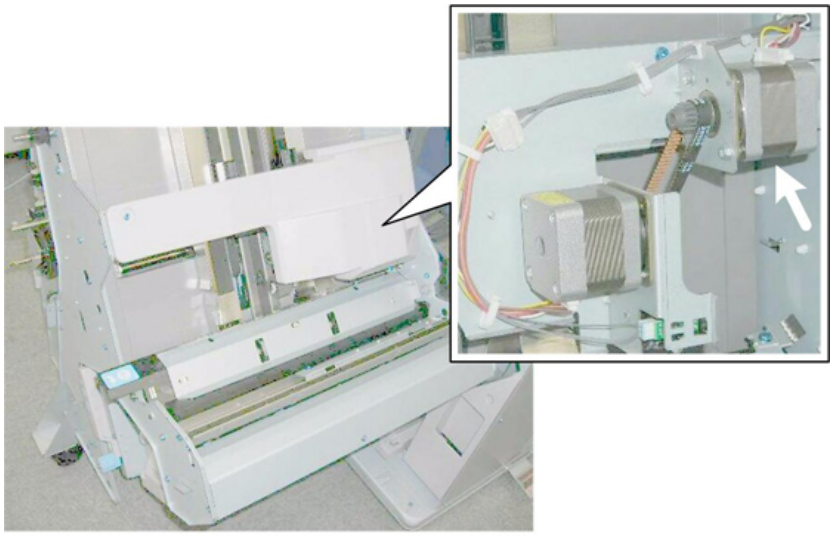


×1 ×5 d0bxa8617

Corner Stapling Bottom, Top Jogging

Positioning Roller Rotation Motor

The positioning roller rotation motor is under the motor cover on the right side of the stack/staple unit.

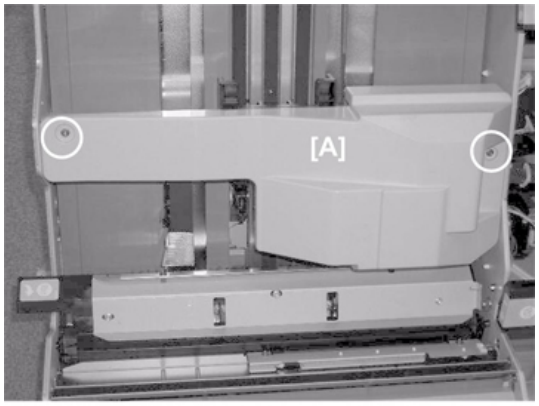


d434r277

1. Open the front door.

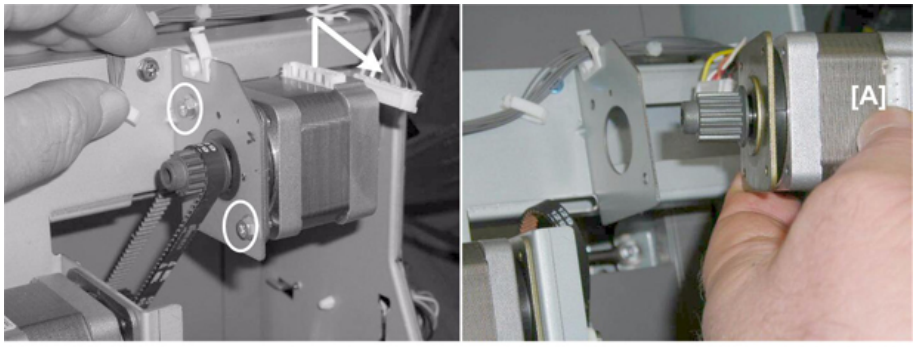
2. Pull out the stack/staple unit with handle **Rb12.**

3. Remove the motor cover [A] (x2)



d434r278

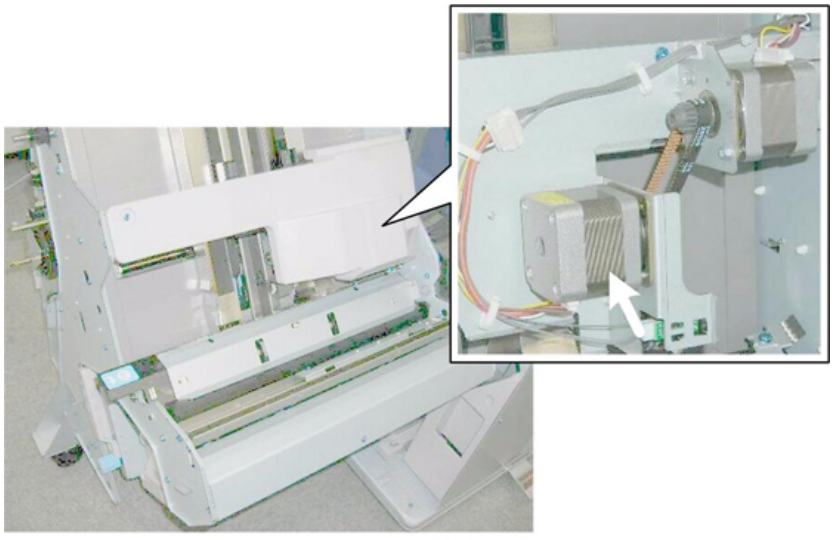
4. Remove the motor [A] (x1, x1, x2)



d434r279

Positioning Roller Motor

The positioning roller motor is under the motor cover on the right side of the stack/staple unit.



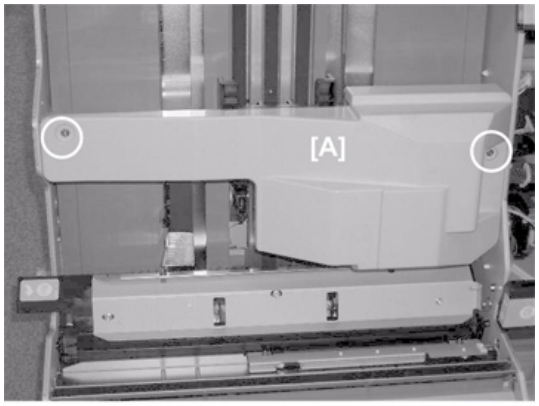
d434r280

1. Open the front door.

2. Pull out the stack/staple unit with handle **Rb12.**

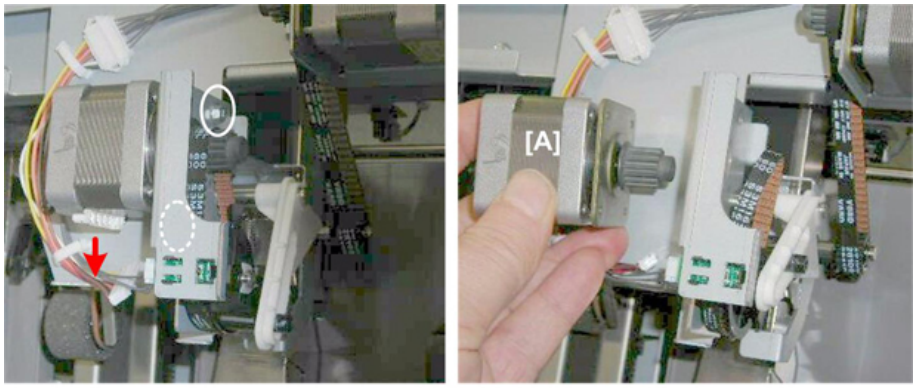
3. **Right panel (Upper and Lower Right Panels)**

4. Remove the motor cover [A] (x2)



d434r281

5. Remove the motor [A] (x1, x2, x1)



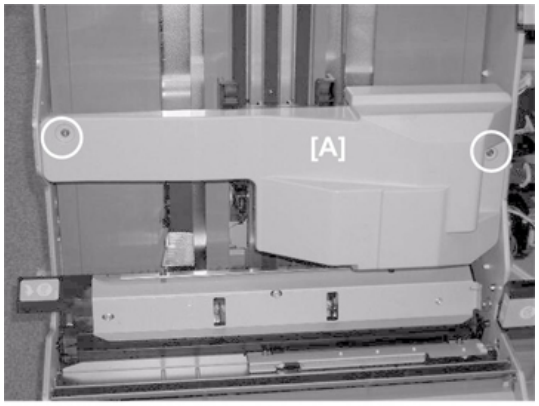
d434r282

Positioning Roller HP Sensor

1. Open the front door.

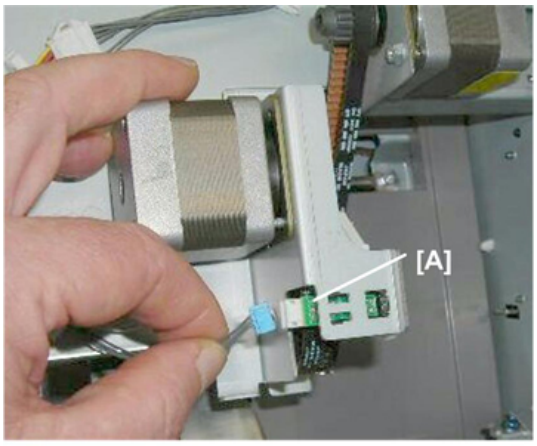
2. Pull out the stack/staple unit with handle **Rb12.**

3. Remove the motor cover [A] (x2).



d434r283

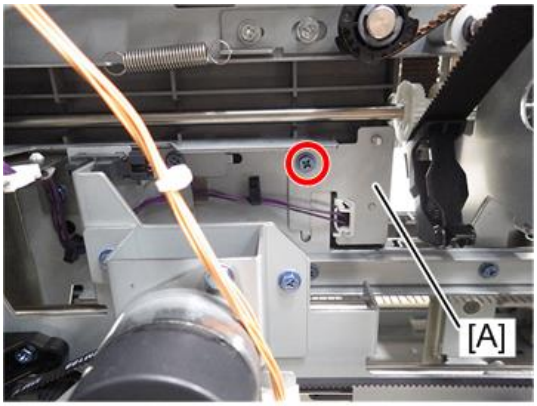
4. Remove the sensor [A] (x1, x5)



d434r284

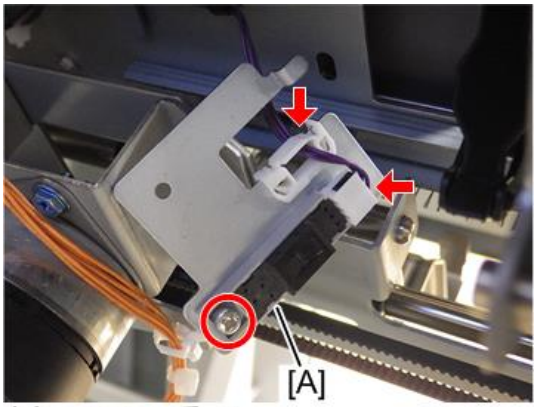
Staple Tray Paper Sensor

1. Remove booklet unit (Booklet Unit Removal)
2. Disconnect the bracket.



×1 d0bxa8781

3. Remove the sensor.

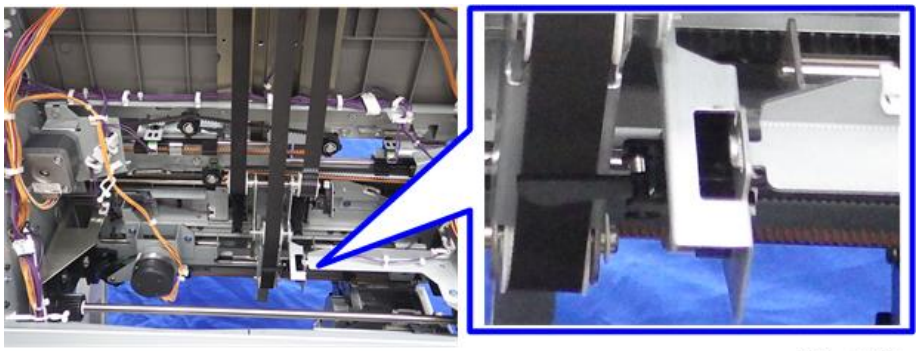


×1 ×1 ×1 d0bxa8782

Top Fence HP Sensor

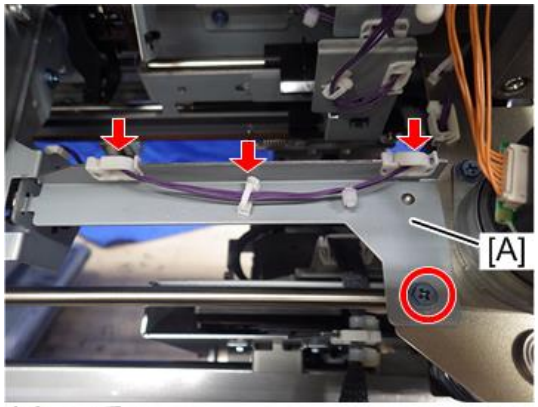
1. Remove the booklet unit. (Booklet Unit Removal)

The sensor is at the center of the unit.



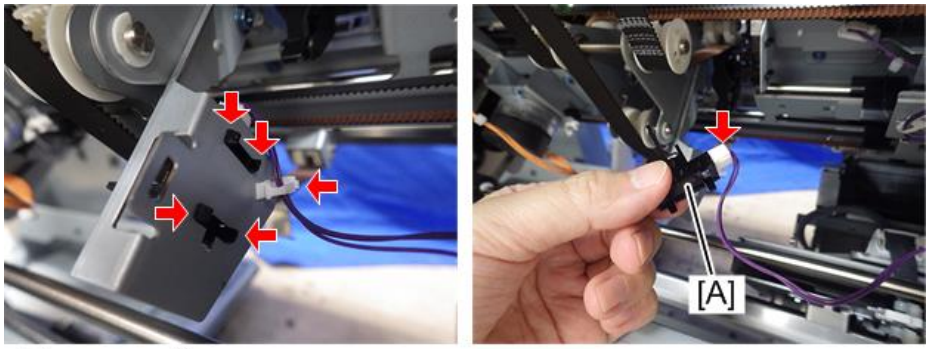
d0bxa8618

2. Disconnect the bracket [A].



×1 ×3 d0bxa8612

3. Remove the sensor [A].

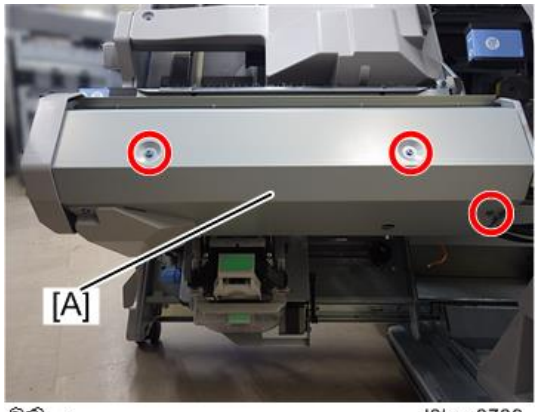


×1 ×4 ×1 d0bxa8619

Vibrating Plate Vertical Movement Motor

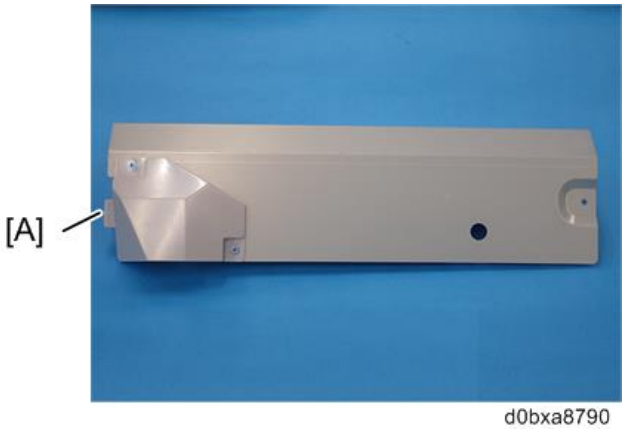
1. Open the front door.
2. Pull out the stack/staple unit with handle **Rb12**.

3. Remove the vibrating plate cover [A].

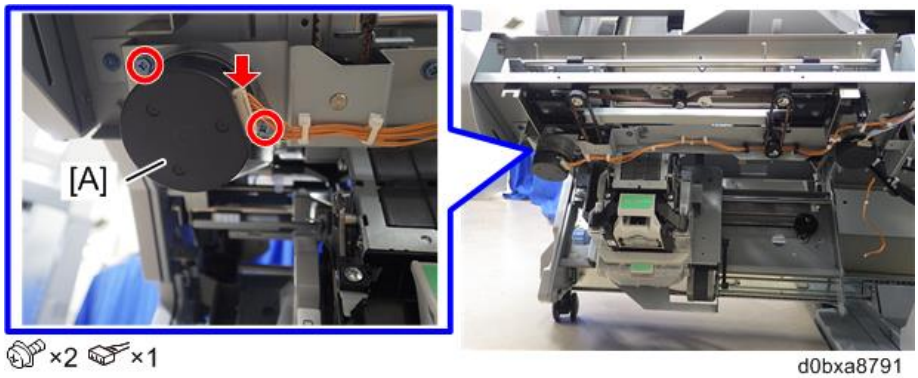


Note

- The vibrating plate cover has a hook [A] as shown below.



4. Remove the motor [A].



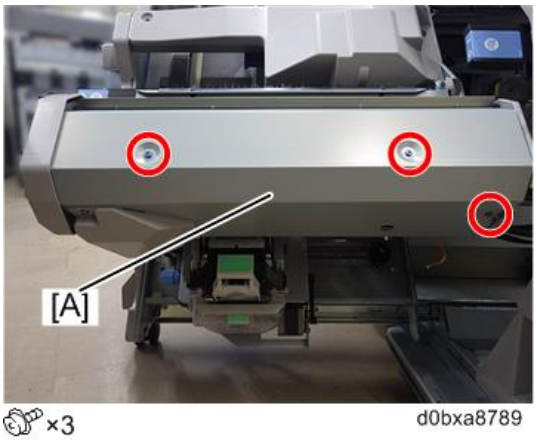
Note

- When reinstalling the motor, access from the hole [A] in the vibrating plate to attach the belt to

the motor pulley.

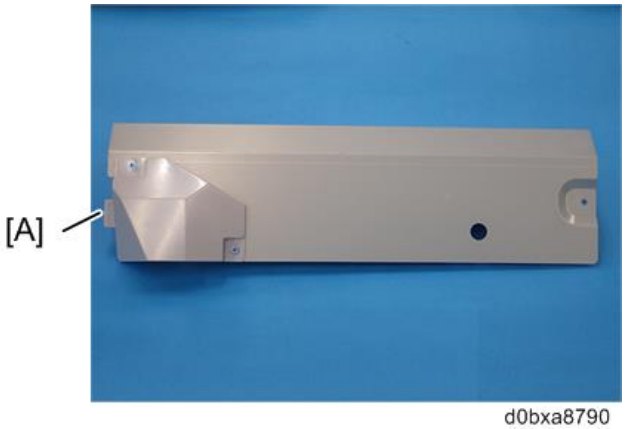
Vibrating Plate Horizontal Movement Motor

1. Open the front door.
2. Pull out the stack/staple unit with handle **Rb12**.
3. Remove the vibrating plate cover [A].

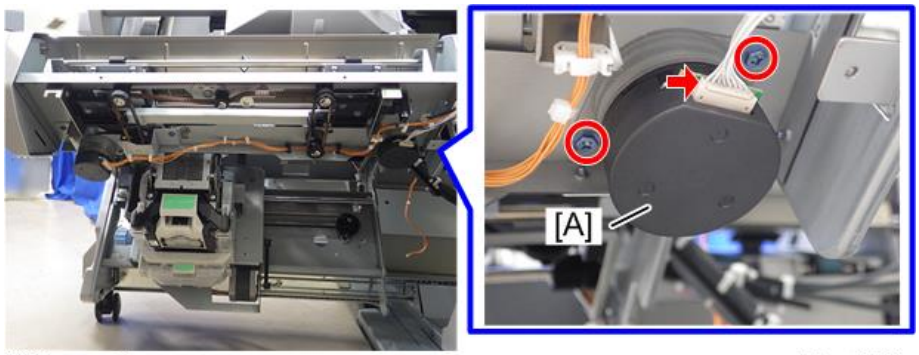


Note

- The vibrating plate cover has a hook [A] as shown below.



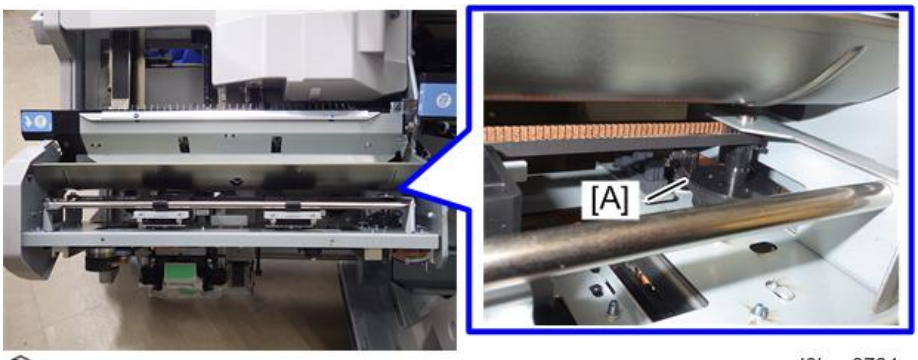
4. Remove the motor [A].



×2 ×1 d0bxa8793

Note

- When reinstalling the motor, access from above the plate to attach the belt [A] to the motor pulley.



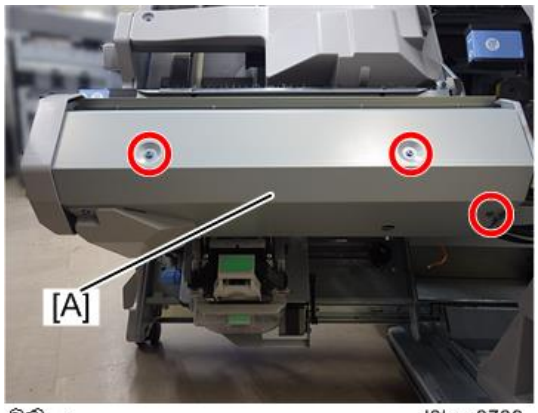
×1 d0bxa8794

Vibrating Plate Vertical Movement HP Sensor

1. Open the front door.

2. Pull out the stack/staple unit with handle **Rb12**.

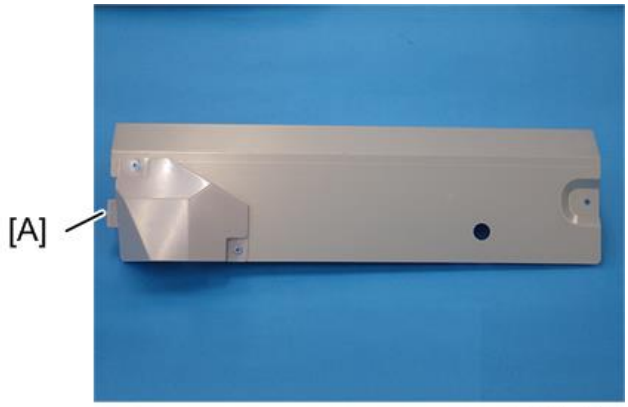
3. Remove the vibrating plate cover [A].



×3 d0bxa8789

Note

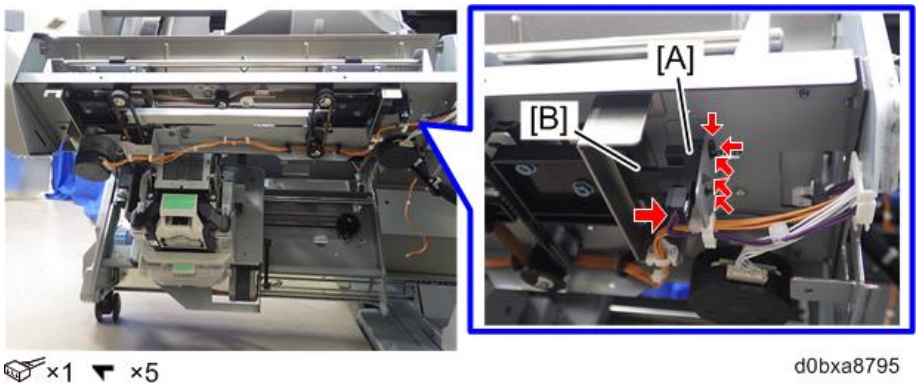
- The vibrating plate cover has a hook [A] as shown below.



d0bxa8790

4. Remove the sensor [A].

Slide the light shielding plate [B] downward if it gets in the way.



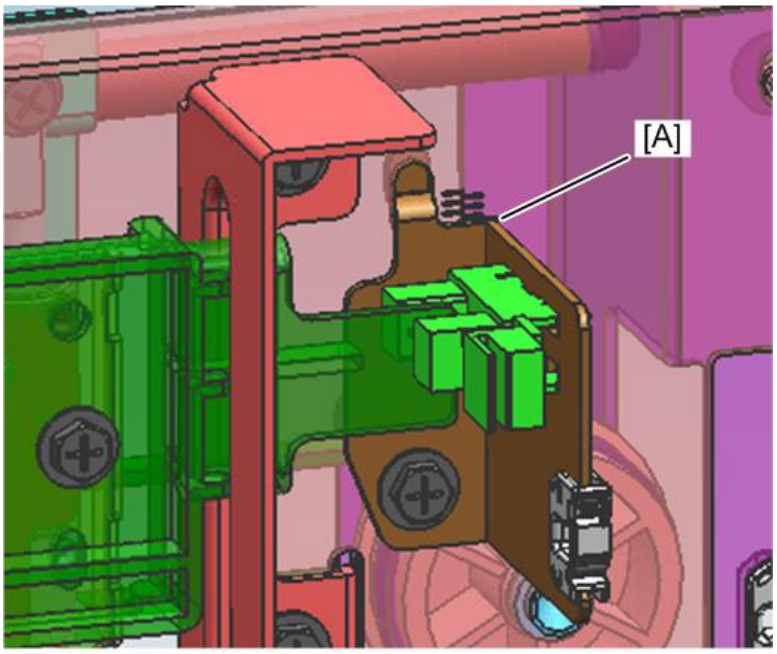
×1 ×5

d0bxa8795

Important

- The height of the vibrating plate vertical movement HP sensor bracket has been adjusted at the factory. When removing the sensor, remove it directly without removing the bracket. If it is necessary to remove the bracket, make sure you reinstall it in the same position. If there are engraved lines, remember the position of the bracket before removing it and reinstall it in the same position. If there is a manually drawn line, reinstall the bracket

according to that line.

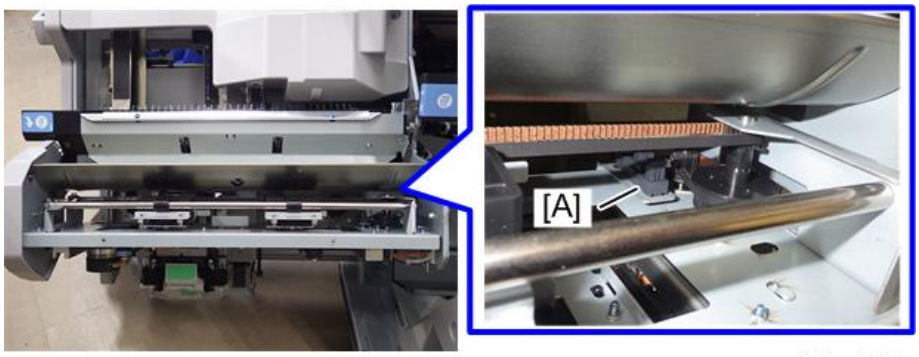


d0bxa8796

[A]: Engraved lines or manually drawn line

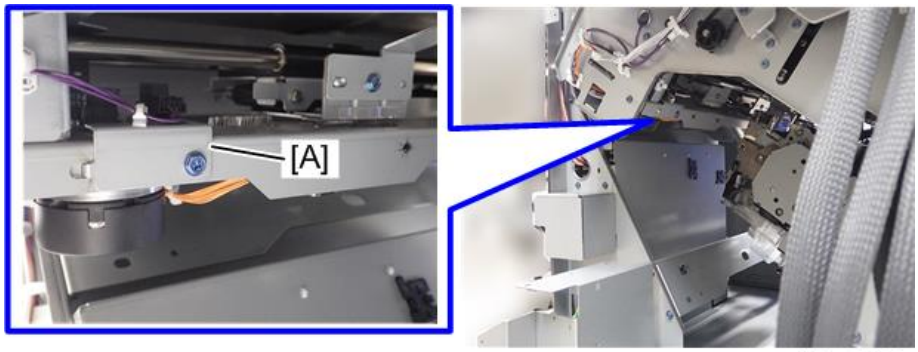
Vibrating Plate Horizontal Movement HP Sensor

This is the vibrating plate horizontal movement HP sensor [A].



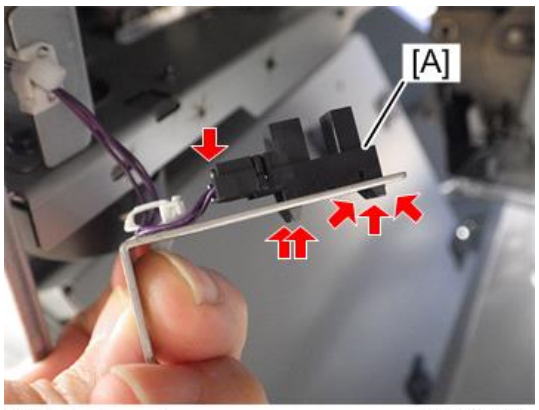
d0bxa8797

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the bracket [A].



d0bxa8798

3. Remove the sensor [A].



×1 ×5 d0bxa8799

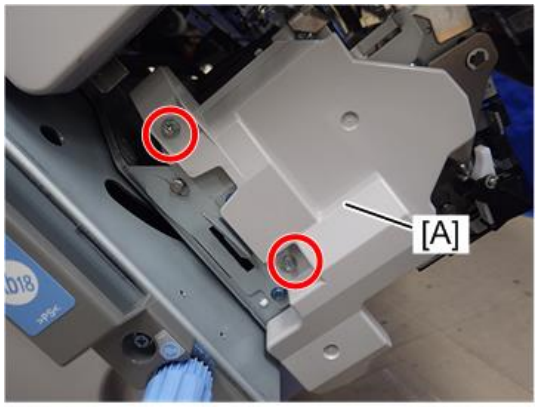
Corner Stapling

Corner Stapler

1. Pull the stack/staple unit with handle **Rb12.**

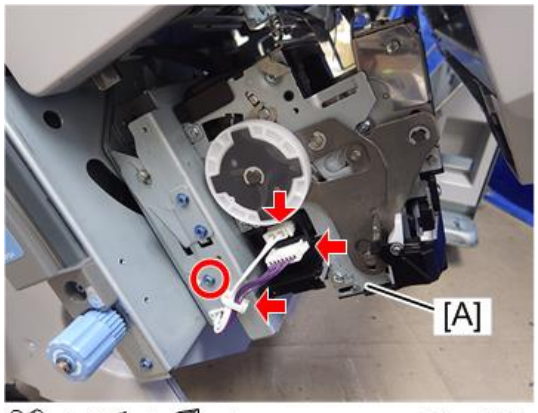
2. Remove cover [A].

You do not have to remove the dust box or staple cartridge.



×2 d0bxa8622

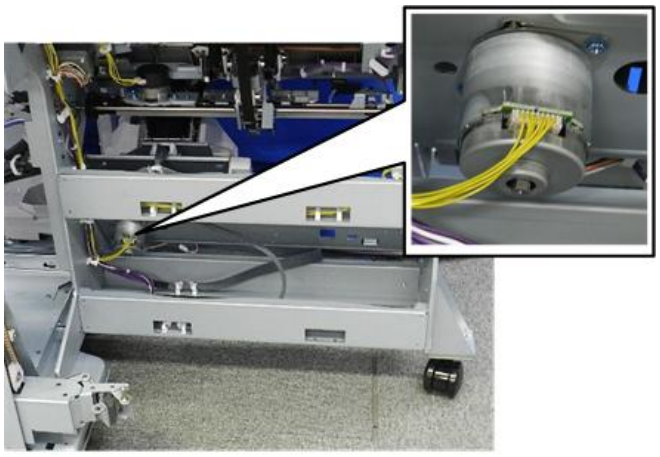
3. Remove the stapler [A].



×1 ×2 ×1 d0bxa8623

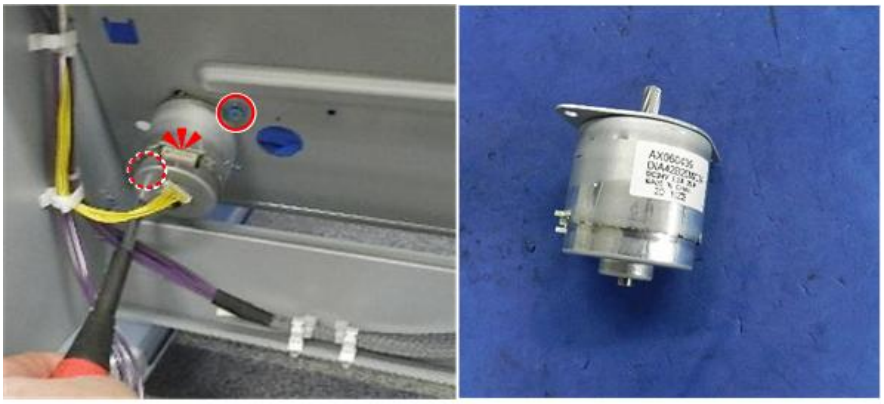
Corner Stapler Movement Motor

The corner stapler movement motor is at the bottom of the corner stapler unit.



d7340146

1. Remove booklet unit (Booklet Unit Removal)
2. Remove the motor (x1, x2).



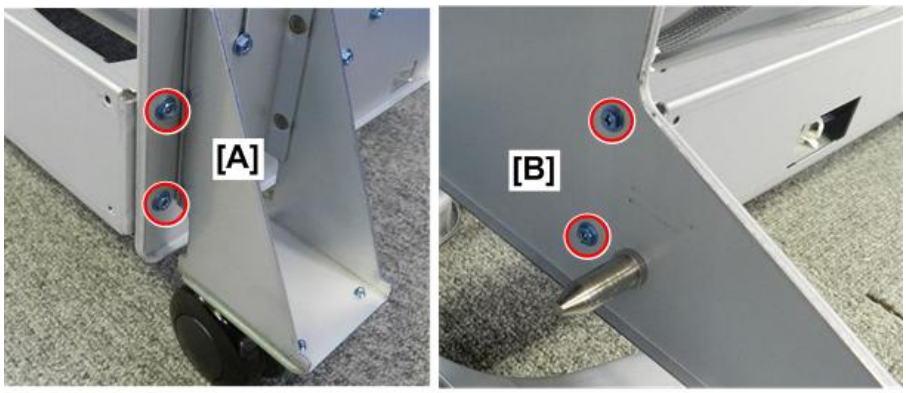
d7340149

Re-installation

It is recommended that you remove this brace to make it easier to re-attach the motor.

d7340147

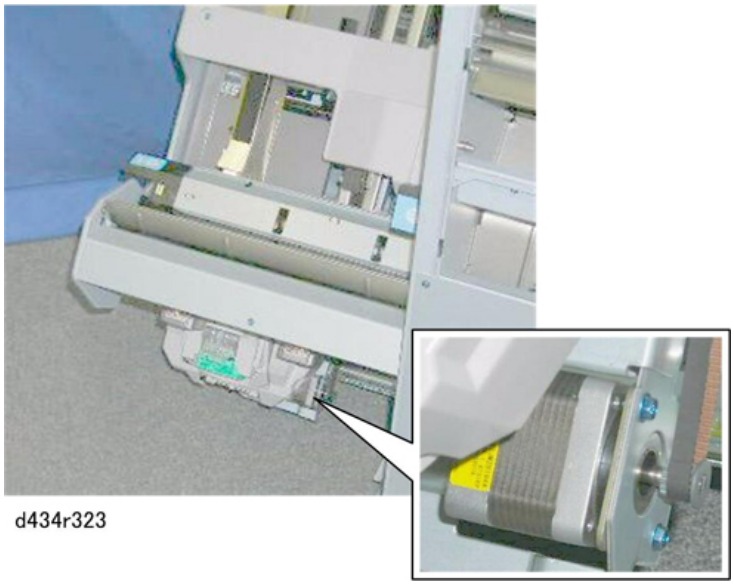
1. Disconnect and remove the bracket:
   [A] Front (x2)
   [B] Rear (x2)



d7340148

Stapler Rotation Motor

You can see the stapler rotation motor on the bottom of the corner stapler unit next to the corner stapler.

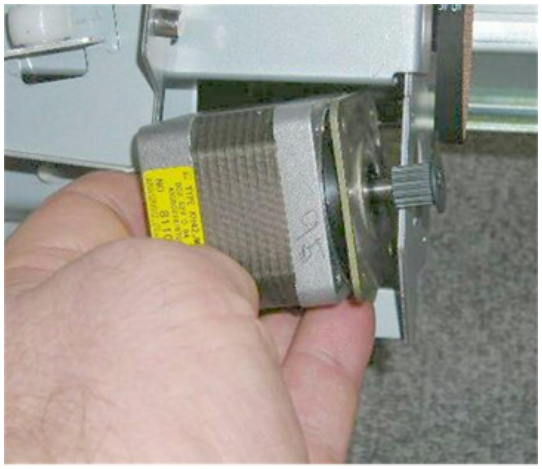


d434r323

1. Open the front door.
2. Pull out the stack/staple unit with handle **Rb12.**
3. Disconnect the motor at [A] (x1).
4. Disconnect the motor at [B] (x2, x1).

d434r324

5. Remove the motor.



d434r325

Stapler Movement Sensors

Common procedures

- Corner Stapler HP Sensor
- Corner Stapler Rotation HP Sensor (Rear)
- Corner Stapler Rotation HP Sensor (Front)

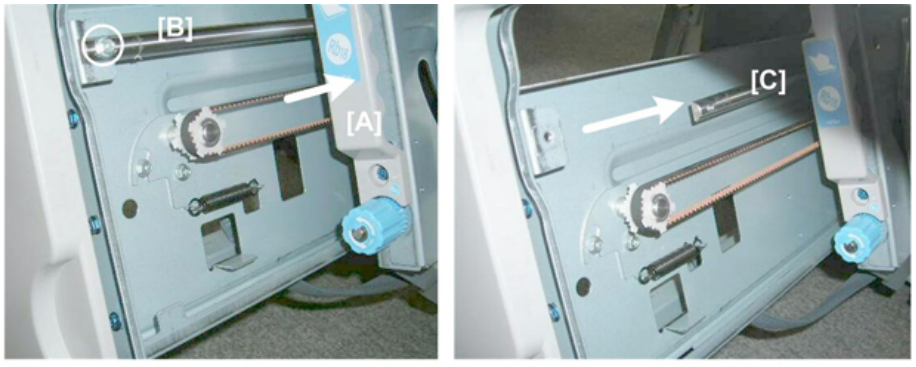
Preparations

- Pull out the stack/staple unit with handle **Rb12**.
- Remove corner stapler (Corner Stapling)

1. Push the stapler to the rear [A].

2. Remove the screw of the stapler guide rail [B] (x1).

3. Push the guide rail [C] to the rear and remove it.



d434r331

4. Remove the spring [A].

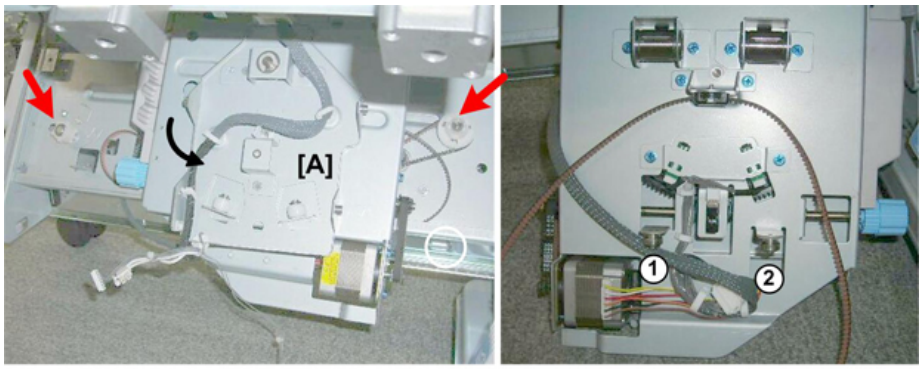
5. Loosen the screw [B] (do not remove it).

6. Rotate the plate down to relieve tension on the belt.

d434r332

7. Disconnect the belt at the front and back.

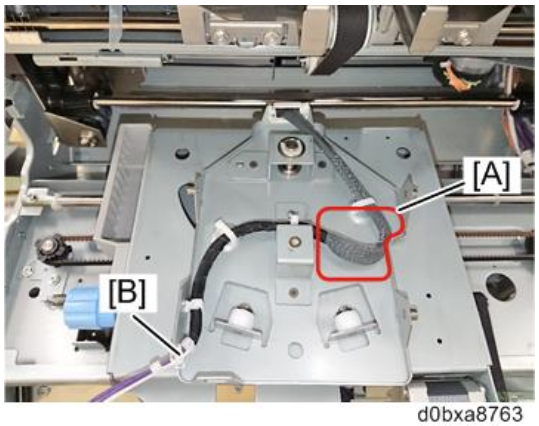
8. Lift the stapler mount [A] off its rails and turn it toward the rear so you can see the back of the mount. The mount is on two steel rollers ① and ② that rest on the bottom rail of the corner stapler unit.



d434r333

Note

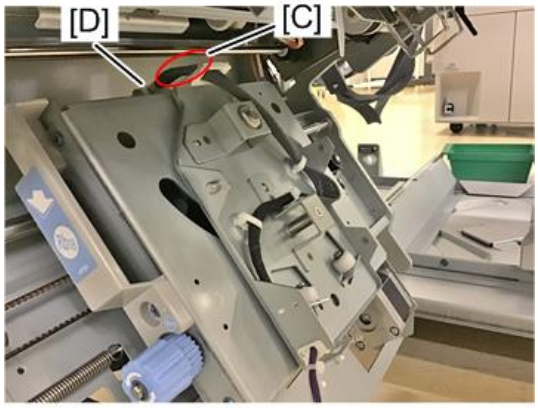
- When reattaching the stapler mount, make sure you route the harnesses as follows:
  - Put the surplus length of the harness under the stapler in the [A] area. Make sure the two cable ties are on both sides of the edge saddle [B].



d0bxa8763

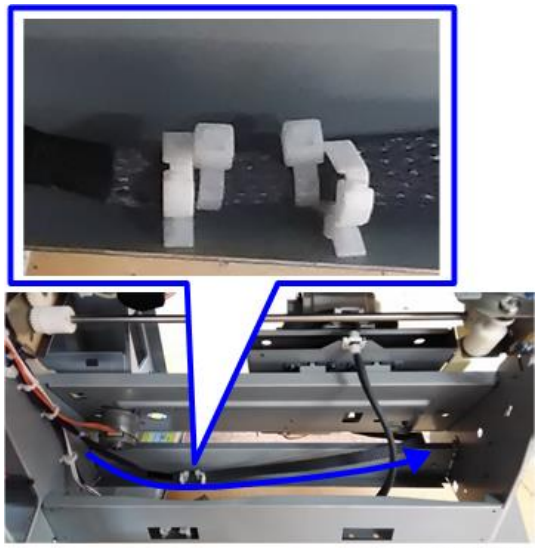
  - Do not put the surplus length of the harness in the [C] area. Make sure the two cable

ties are on both sides of the edge saddle [D].



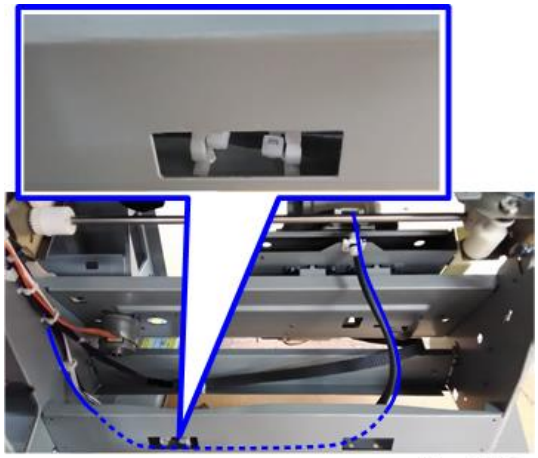
d0bxa8764

- Do not put the surplus length of the harness in the [C] area. Make sure the two cable ties are on both sides of the edge saddle [D].



d0bxa8765

- Route the relay harness as shown below. Make sure the two cable ties are between two clamps.

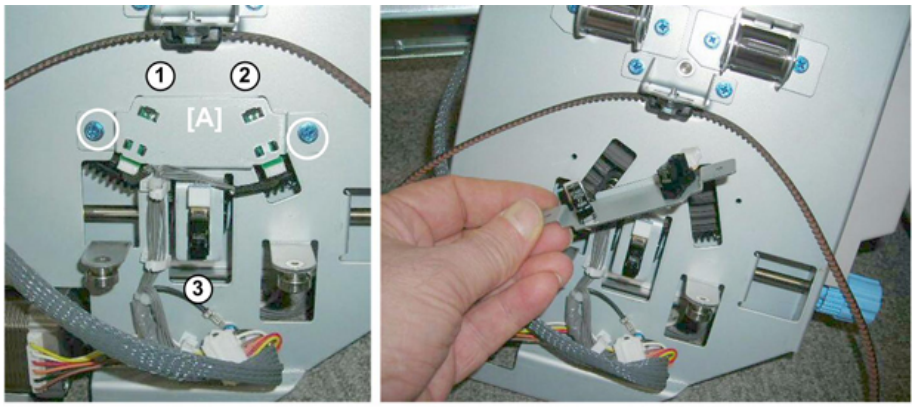


d0bxa8766

9. Remove the sensor bracket [A] (x2).

There are three sensors on this bracket:

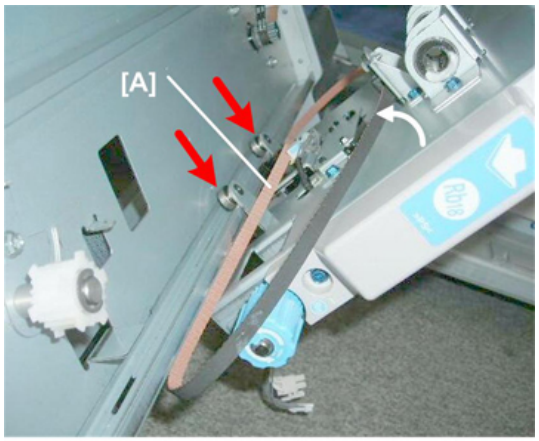
① Rotation HP sensor (rear) (x1, x5)
② Rotation HP sensor (front) (x1, x5)
③ Stapler HP sensor (x1, x5)



d434r334

Re-installation

1. When setting the stapler mount on its rails, make sure the belt [A] is not tangled and above the two rollers.



d434r335

Note

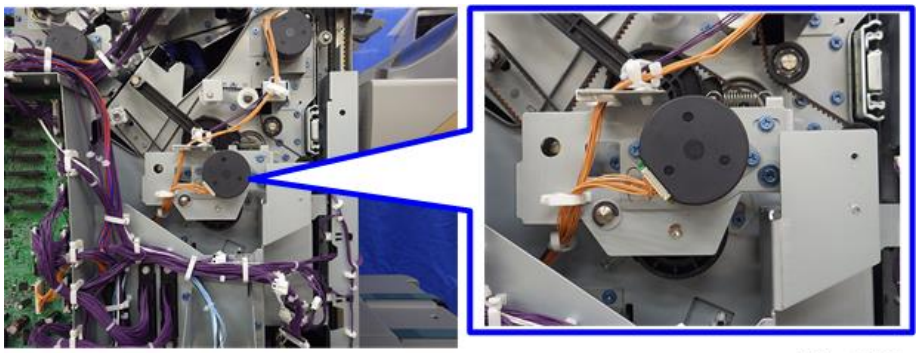
- When reattaching the stapler mount, make sure you route the harnesses as follows:
  - Put the surplus length of the harness under the stapler in the [A] area. Make sure the two cable ties are on both sides of the edge saddle [B].
  - Do not put the surplus length of the harness in the [C] area. Make sure the two cable ties are on both sides of the edge saddle [D].
  - Do not put the surplus length of the harness in the [C] area. Make sure the two cable ties are on both sides of the edge saddle [D].
  - Route the relay harness as shown below. Make sure the two cable ties are between two clamps.

Corner Stapled Stack (Feed Out)

Stack Transport Motor

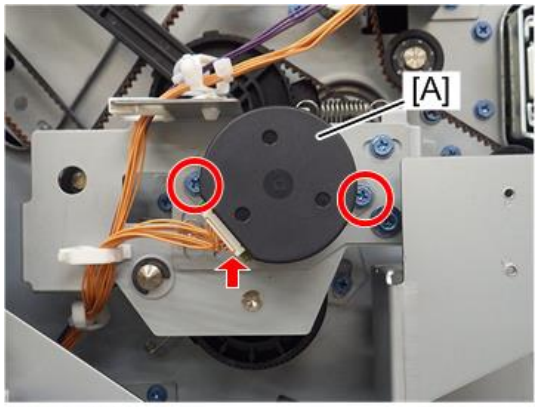
1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the rear lower cover. (Rear Lower Cover)

   The motor is located near the right edge of the main board.



d0bxa8628

3. Remove the motor [A].

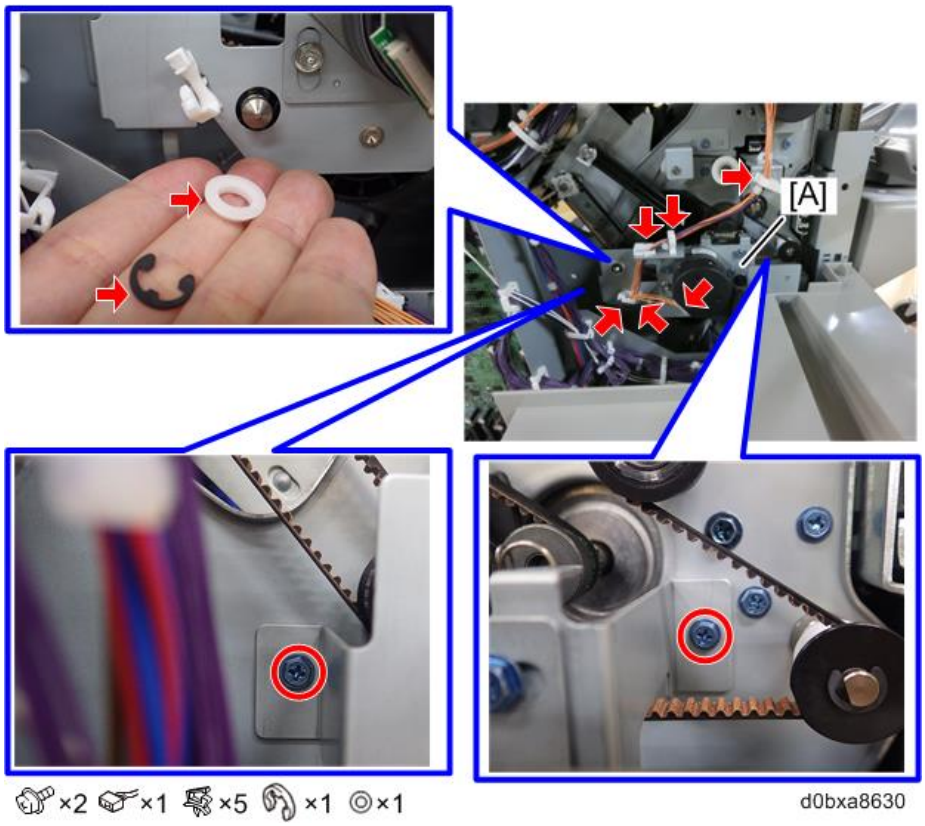


×2 ×1 d0bxa8629

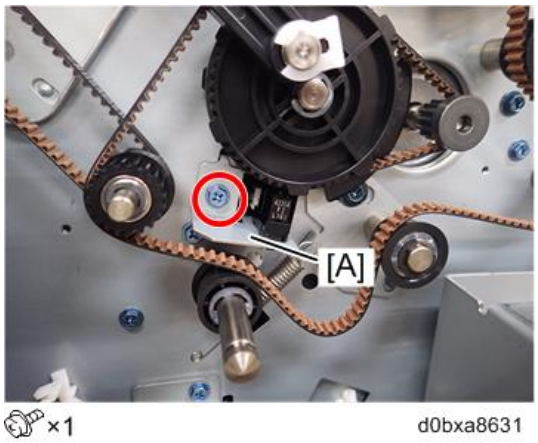
Stack Transport Unit HP Sensor

1. Remove the rear upper cover. (Rear Upper Cover)

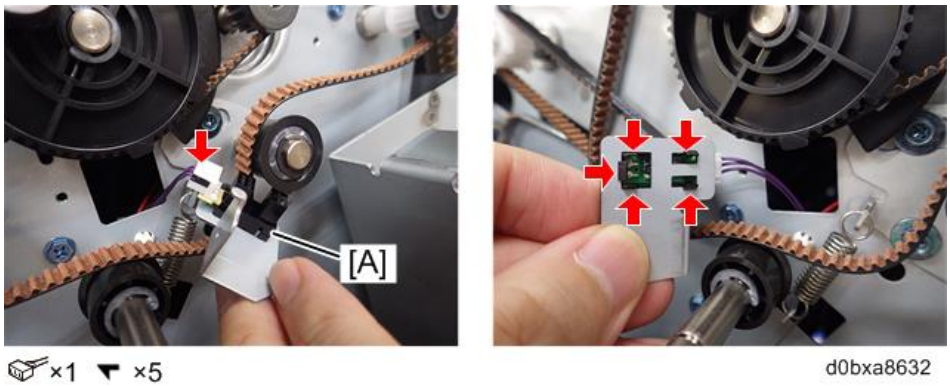
2. Remove the bracket [A].



3. Remove the sensor bracket [A].

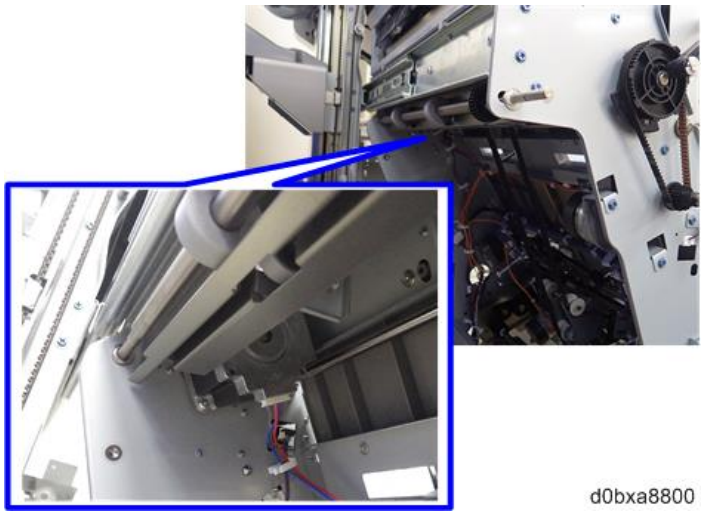


4. Remove the sensor [A].

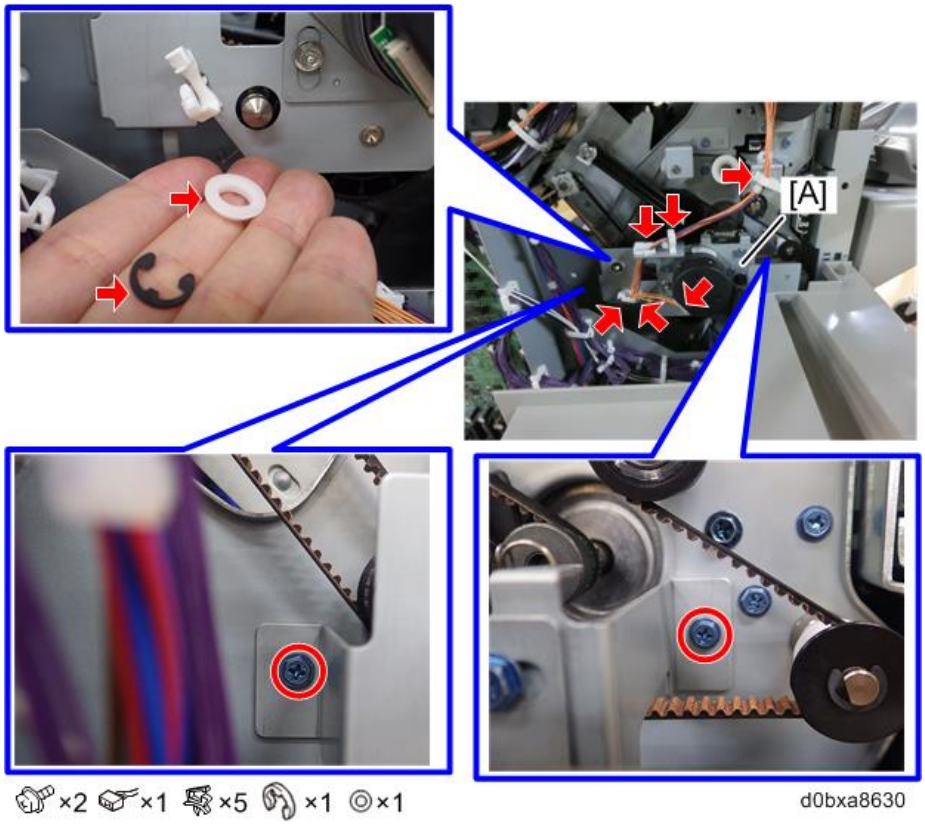


Stack Transport Unit Motor

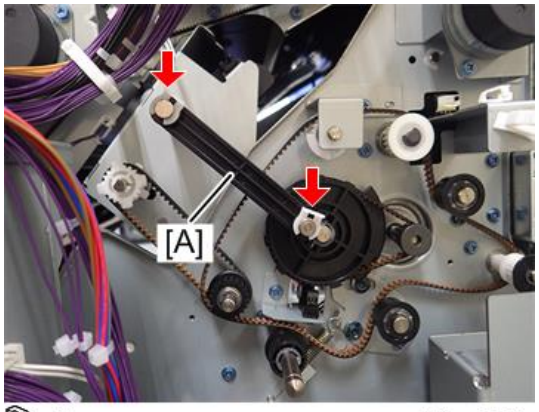
This is the stack transport unit motor.



1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the bracket [A].

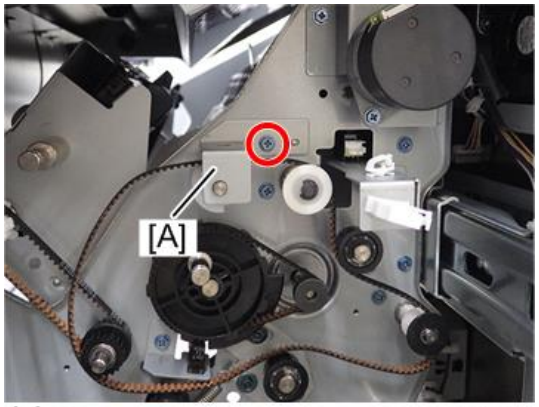


3. Remove the stack transport unit drive link [A].



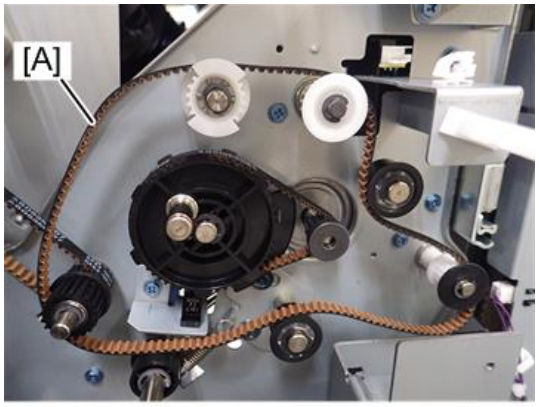
×2 d0bxa8784

4. Remove the bracket [A].



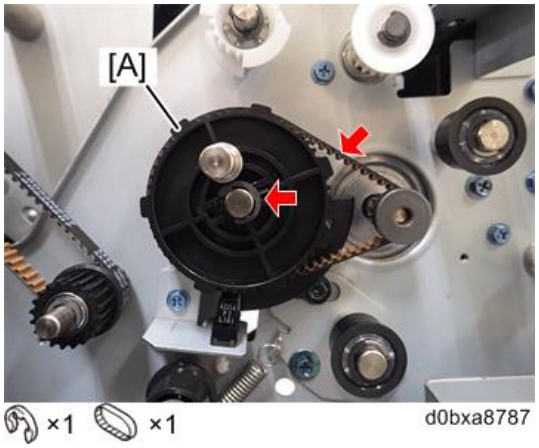
×1 d0bxa8785

5. Remove the belt [A].



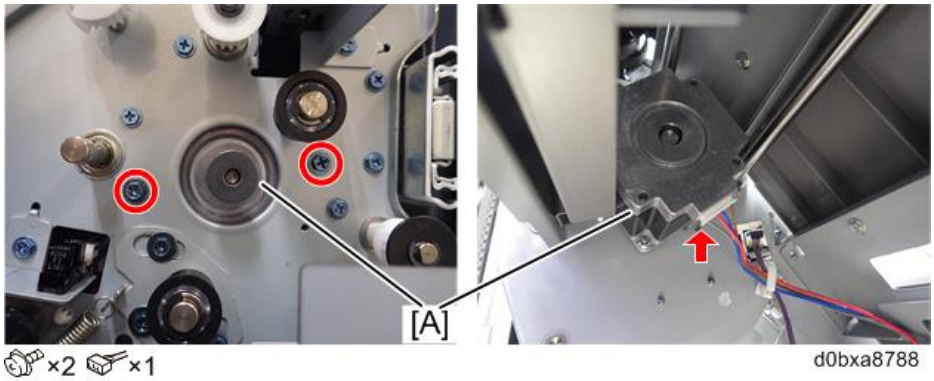
d0bxa8786

6. Remove the gear [A].



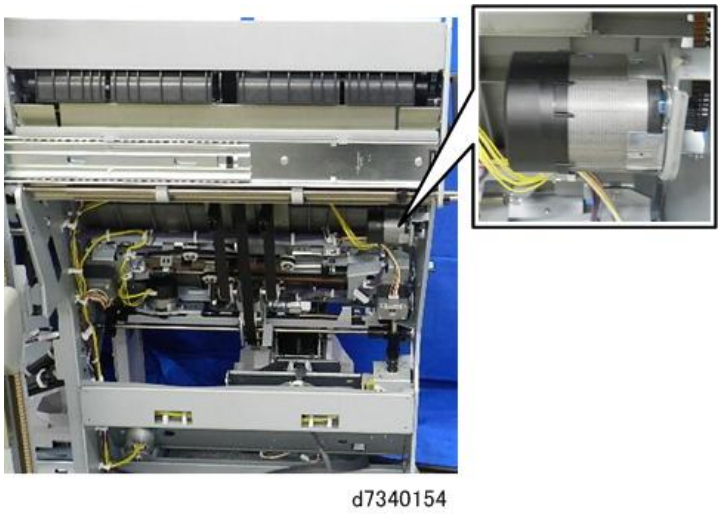
7. Remove the motor [A].

Grip the motor when removing the screws, to prevent it from dropping.



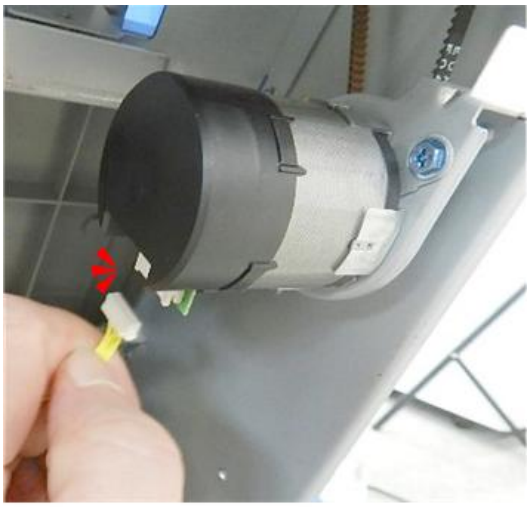
Stack Feed-Out Belt Motor

The stack feed-out belt motor is behind the front plate of the corner stack/staple unit.



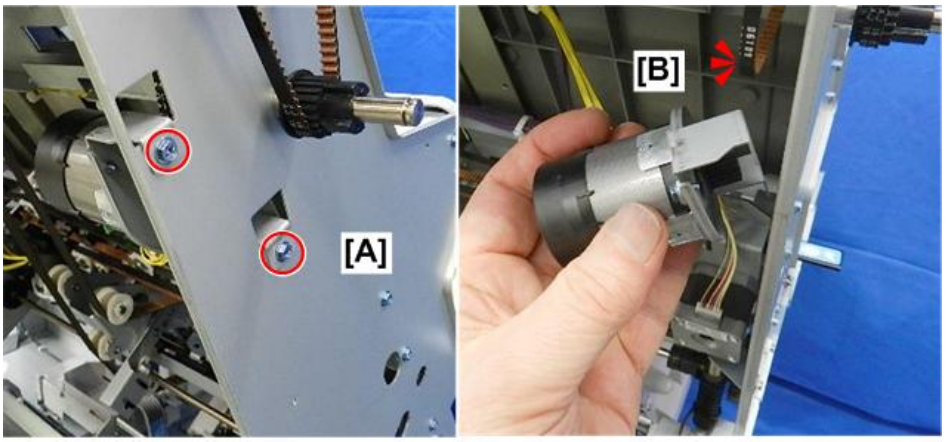
1. Remove the booklet unit (Booklet Unit Removal)

2. Disconnect the motor (x1).



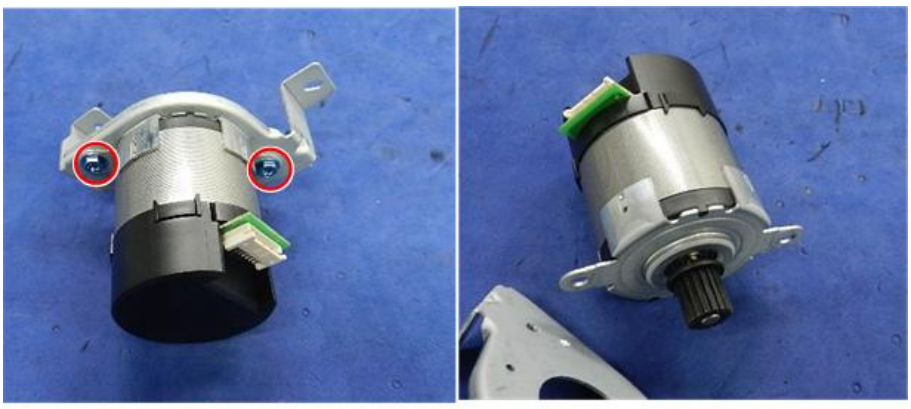
d7340155

3. At the front [A], disconnect the bracket (x2).
4. Remove the bracket (with motor attached) from the rear [B] (x1).



d7340156

5. Separate the motor and bracket (x2).

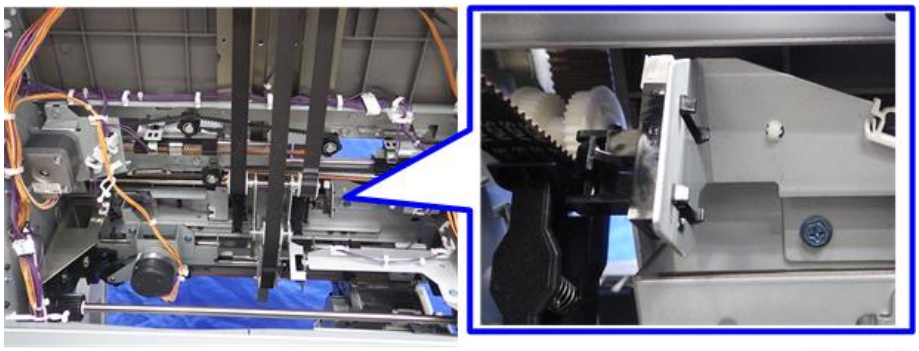


d7340157

Leading Edge Stopper HP Sensor

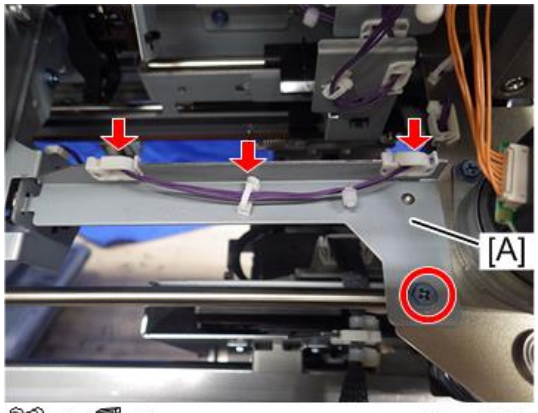
1. Remove the booklet unit. (Booklet Unit Removal)

The sensor is to the right of the three belts.



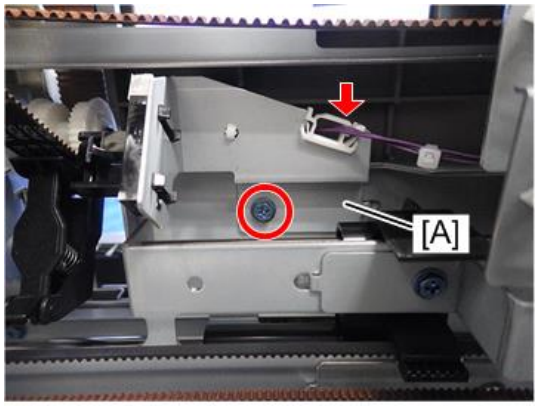
d0bxa8633

2. Remove the bracket [A].



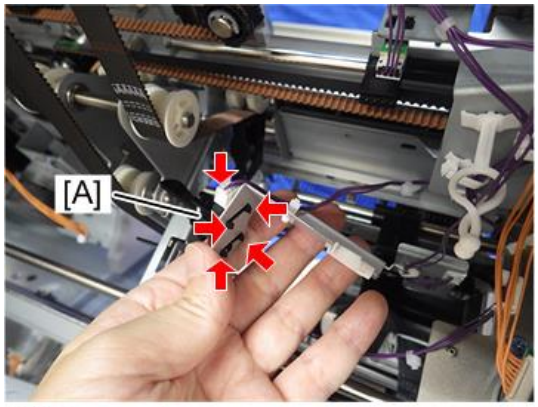
×1 ×3 d0bxa8612

3. Remove the sensor bracket [A].



×1 ×1 d0bxa8634

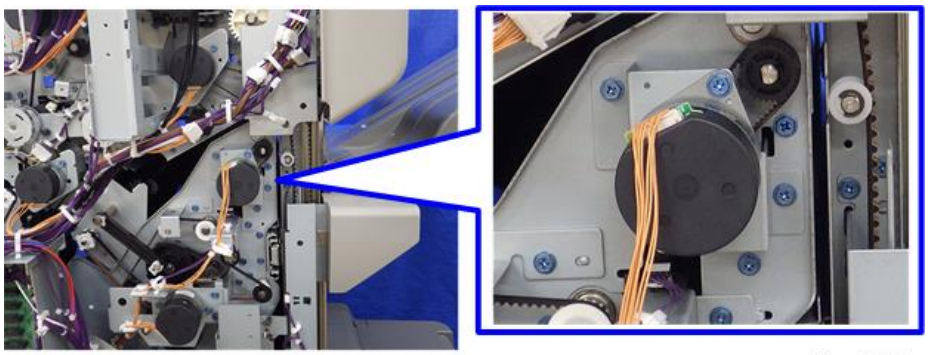
4. Remove the sensor [A].



×1 ×4 d0bxa8635

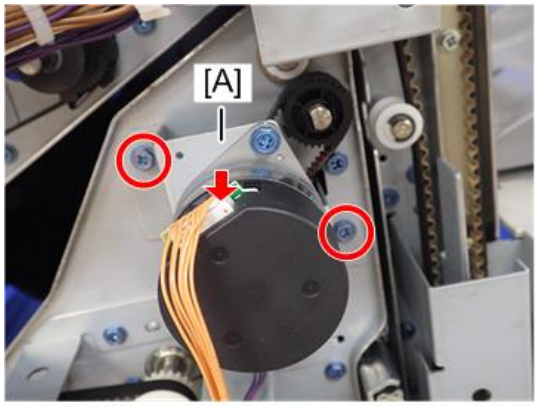
Stack Junction Gate Motor

The stack junction gate motor is on the back of the finisher.



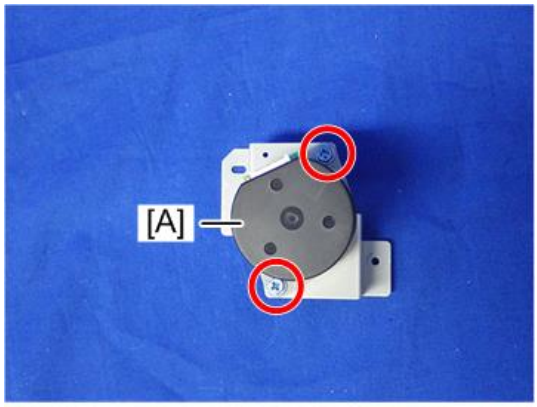
d0bxa8636

1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the bracket (with motor attached) [A].



×2 ×1 d0bxa8637

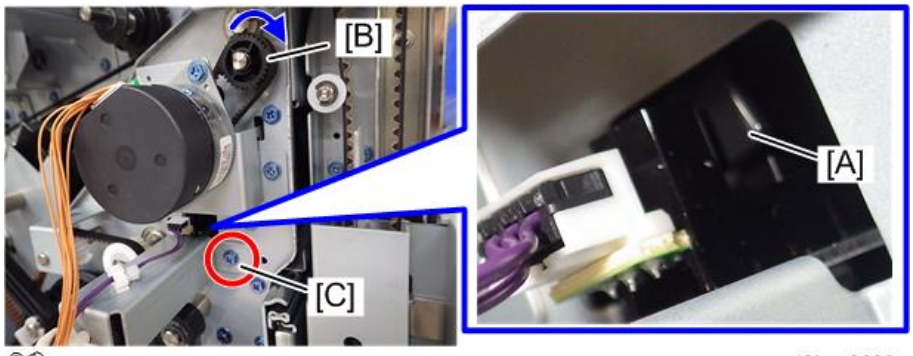
3. Separate the bracket and motor [A].



×2 d0bxa8638

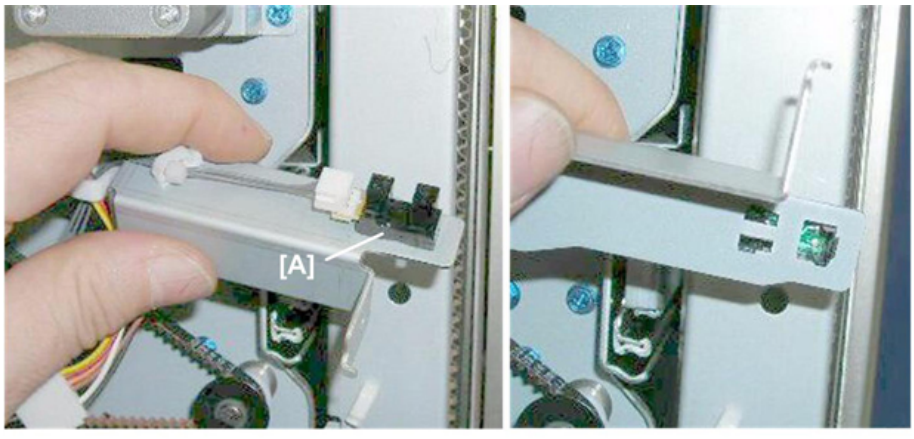
Stack JG HP Sensor

1. Remove the rear upper cover (Rear Upper Cover)
2. If the actuator [A] is in the gap of the sensor, rotate the gear and belt [B] until the actuator is out of the gap.
3. Remove the sensor bracket [C] (x1).



×1 d0bxa8639

4. Remove the sensor [A] (x1, x5).

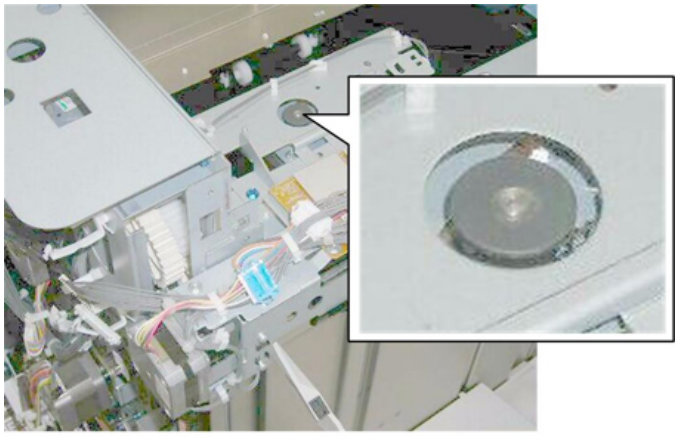


d434r344

Corner Stapled Stack (Exit to Shift Tray)

Exit Guide Motor

The exit guide motor assembly is at the left rear corner of the finisher.

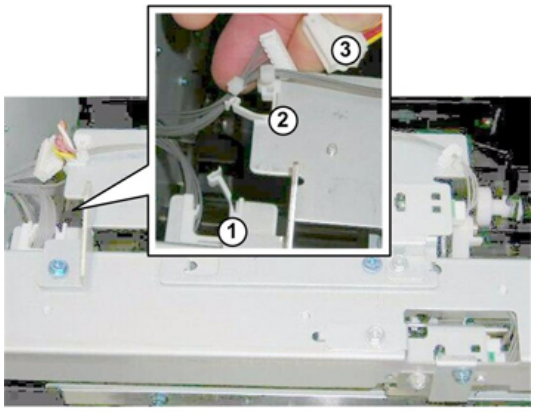


d434r345

Preparation

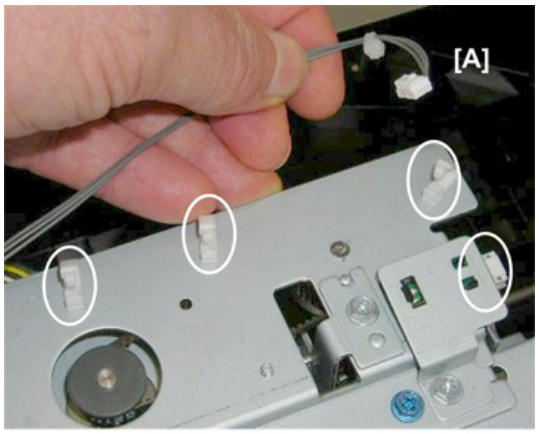
Remove the shift tray 1 unit. (Shift Tray 1 Unit).

1. Disconnect the harnesses (x2, x1).



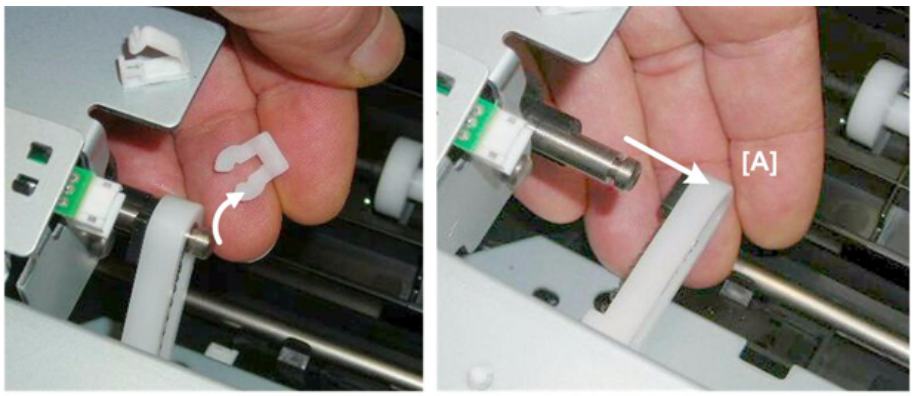
d434r346

2. Disconnect the sensor harness [A] (x3, x1)



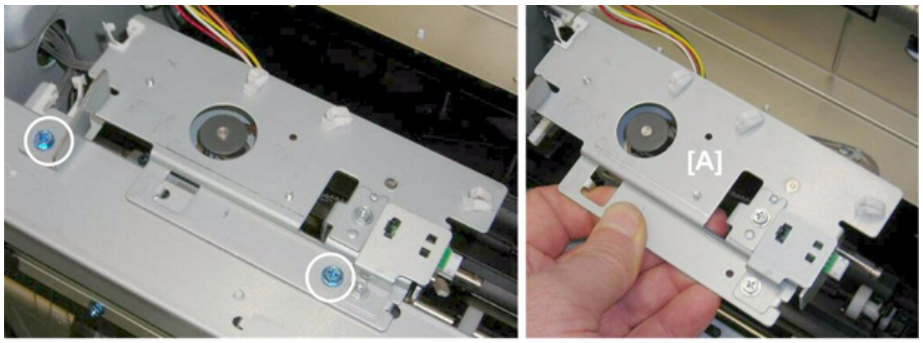
d434r347

3. Disconnect and remove the rocker arm [A] (x1).



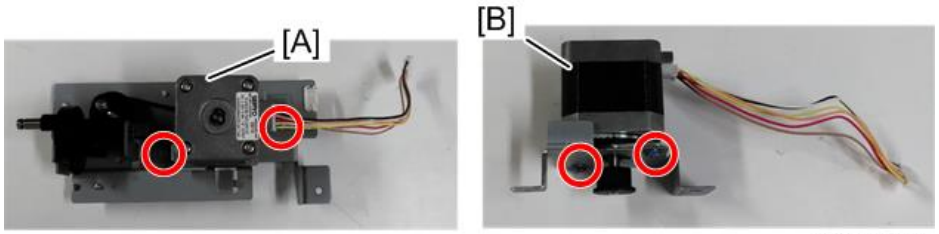
d434r348

4. Remove the exit guide plate assembly [A] (x2).



d434r349

5. Disconnect the motor [A] (x2, x1)
6. Separate the motor [B] and bracket (x2).



d0bxa8767

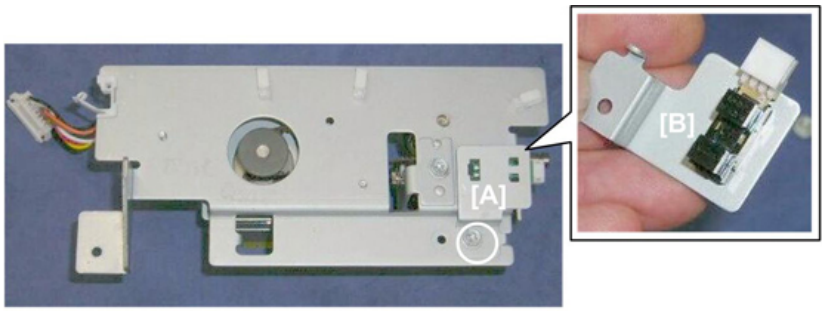
Exit Guide HP Sensor

Preparation

Remove the shift tray 1 unit. (Shift Tray 1 Unit)

1. Remove the exit guide motor assembly (see the previous procedure)
2. Remove the sensor bracket [A] (x1, x1)

3. Remove the sensor [B] (x5).



d434r351

Booklet Unit

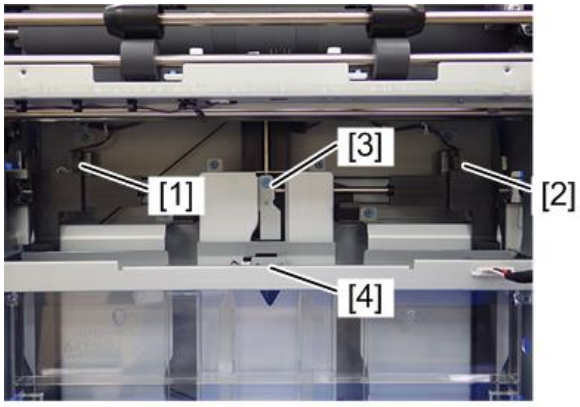
Booklet Stapler Sensors

1. Remove the booklet unit (Booklet Unit Removal)
2. Remove the booklet stapler. (Booklet Stapler)

Note

- The booklet stapler can be easily removed before removing the booklet unit.
- Removing the booklet stapler from the booklet stapler unit is recommended. This makes the booklet unit lighter and easier to handle.

3. Remove the four sensors are behind the stapler unit:



d0bxa8640

[1] Rear jogger fence HP sensor

[2] Front jogger fence HP sensor

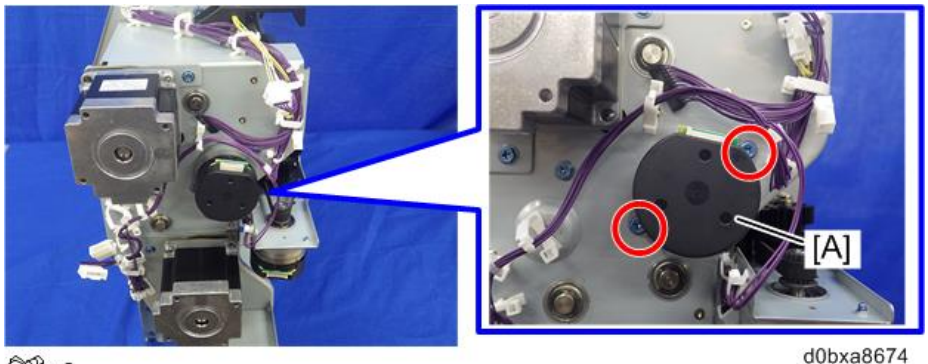
[3] Bottom fence HP sensor

[4] Folder unit entrance sensor

Booklet Unit Transport

Booklet Stack Transport Motor

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the motor.

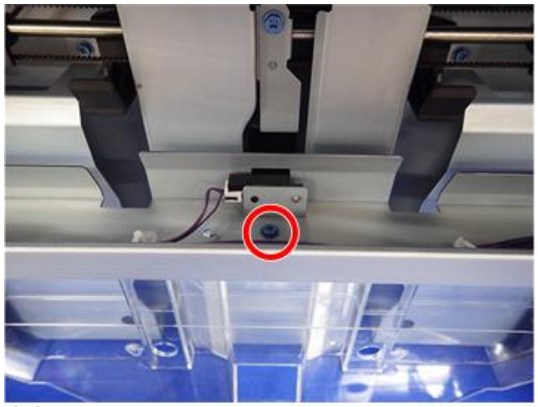


×2

d0bxa8674

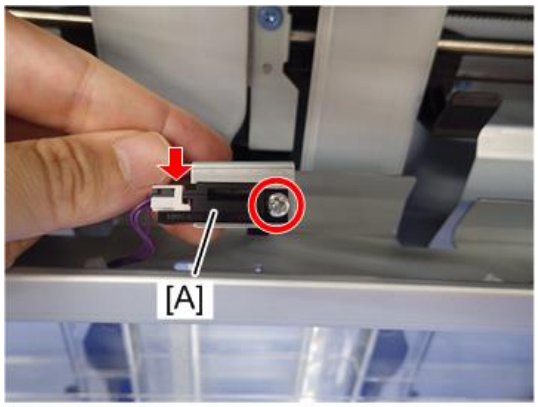
Fold Unit Entrance Sensor

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the booklet stapler. (Booklet Stapler Sensors)
3. Remove the sensor bracket [A].



×1 d0bxa8641

4. Remove the sensor [A].

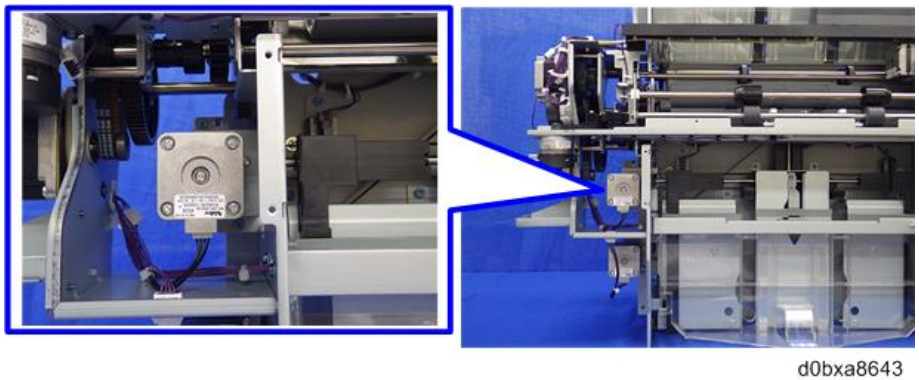


×1 ×1 d0bxa8642

Booklet (Side-to-Side Jogging)

Booklet Stapler Side Fence Motor

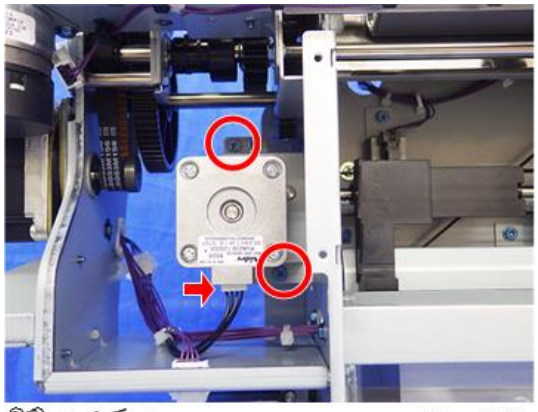
The booklet stapler side fence motor is on the back of the booklet unit.



d0bxa8643

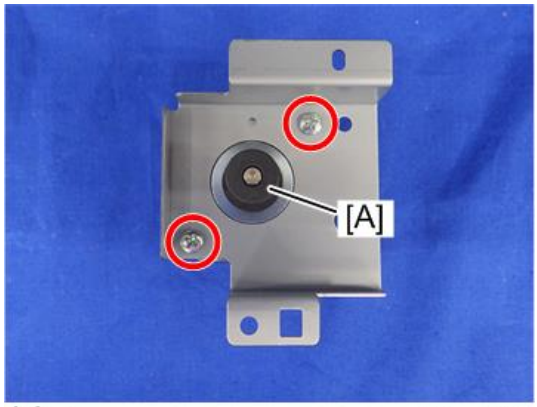
1. Remove the booklet unit. (Booklet Unit Removal)

2. Remove the bracket (with motor attached) [A].



×2 ×1 d0bxa8644

3. Separate the motor [A] from the bracket.



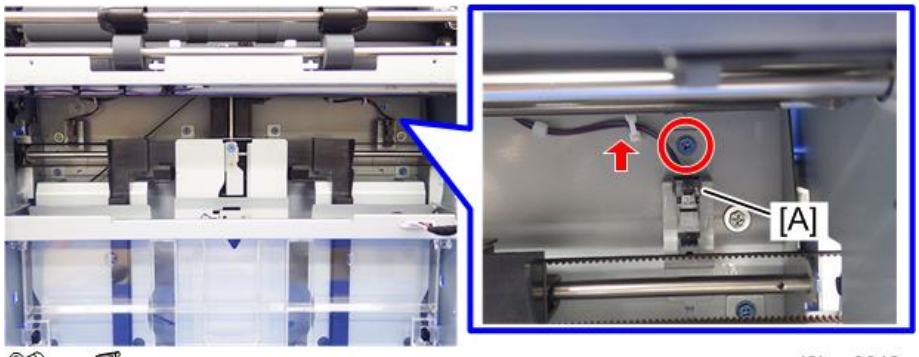
×2 d0bxa8645

Booklet Stapler Side Fence HP Sensor (Front)

1. Remove the booklet unit. (Booklet Unit Removal)

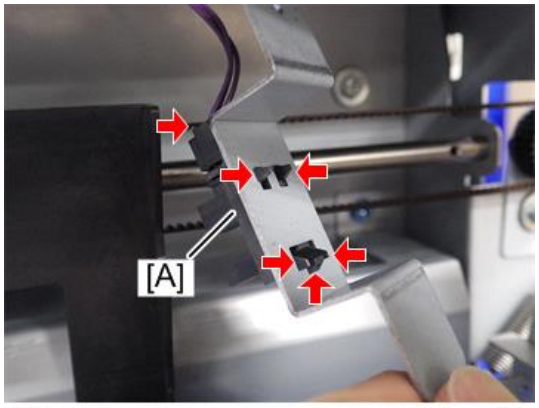
2. Remove the booklet stapler. (Booklet Stapler Sensors)

3. Remove the sensor bracket [A].



×1 ×1 d0bxa8646

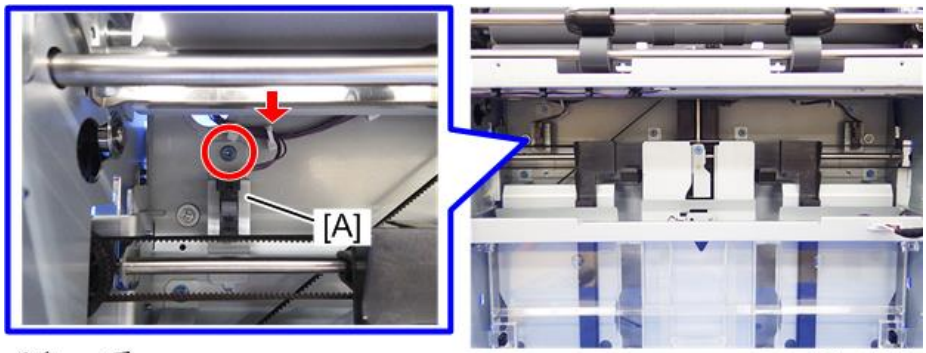
4. Remove the sensor [A].



×1 ×5 d0bxa8647

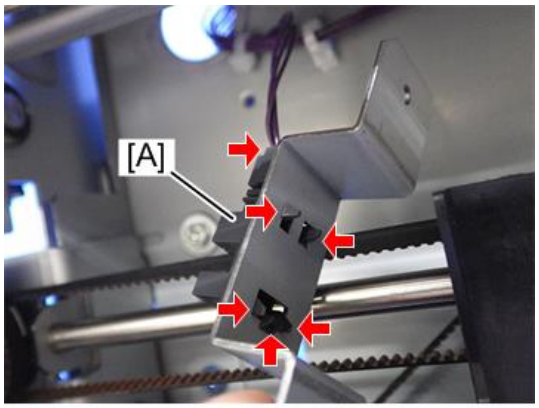
Booklet Stapler Jogger HP Sensor (Rear)

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the booklet stapler. (Booklet Stapler Sensors)
3. Remove the sensor bracket [A].



×1 ×1 d0bxa8648

4. Remove the sensor [A].



×1 ×5 d0bxa8649

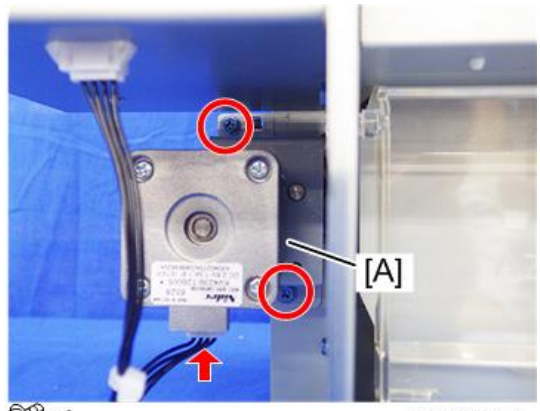
Booklet (Bottom, Top Jogging)

Booklet Stapler Bottom Fence Motor

The booklet stapler bottom fence motor is on the back of the booklet unit.

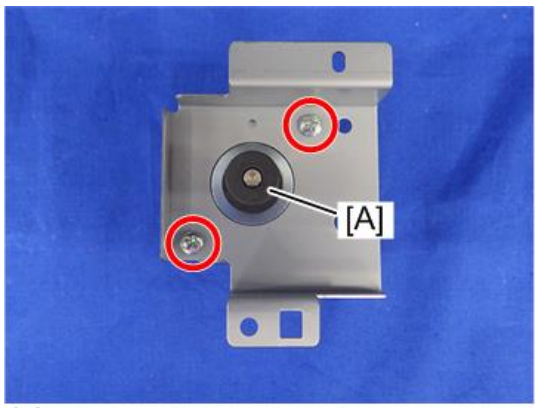
d0bxa8650

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the bracket (with motor attached) [A].



×2 d0bxa8651

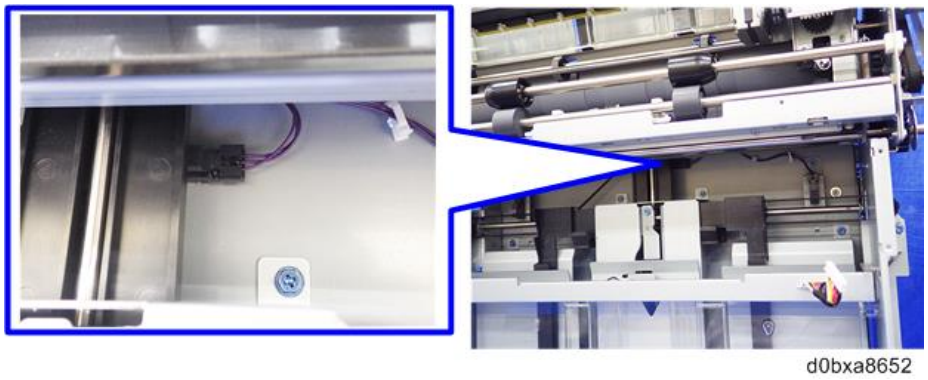
3. Separate the motor [A] from the bracket.



×2 d0bxa8645

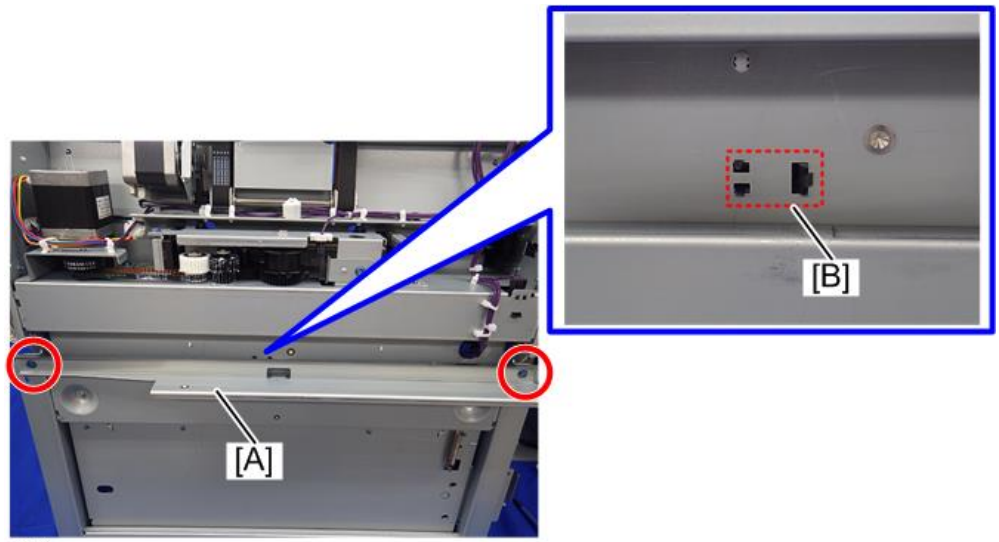
Booklet Stapler Bottom Fence HP Sensor

The bottom fence HP sensor is attached to the right plate of the booklet unit.



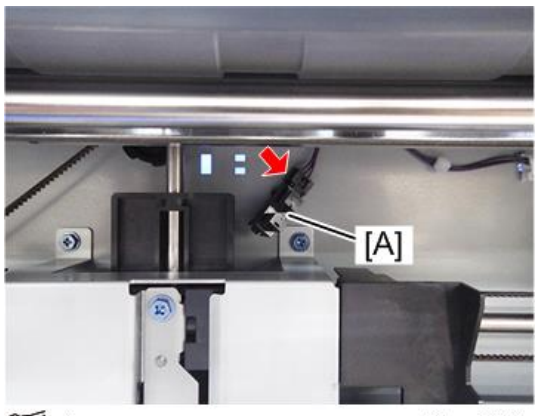
d0bxa8652

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the booklet stapler. (Booklet Stapler Sensors)
3. On the right side, remove the brace [A] so that you can see the sensor pawls.
4. Release the pawls [B] and push them through the plate.



×2 ×5 d0bxa8653

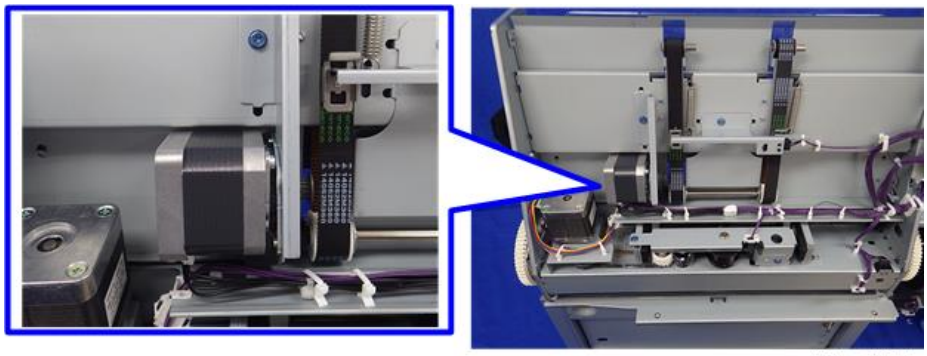
5. Disconnect the sensor.



×1 d0bxa8654

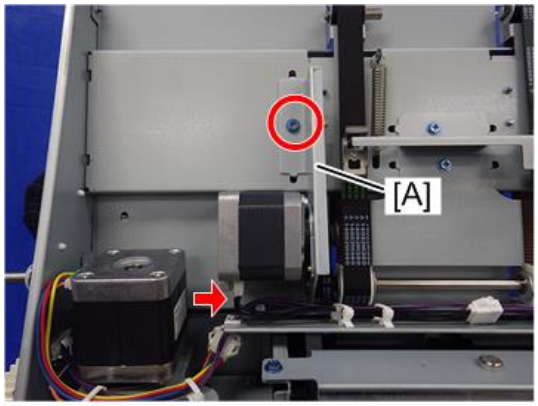
Booklet Stapler Top Fence Motor

The top fence motor and sensor are on top of the booklet unit.



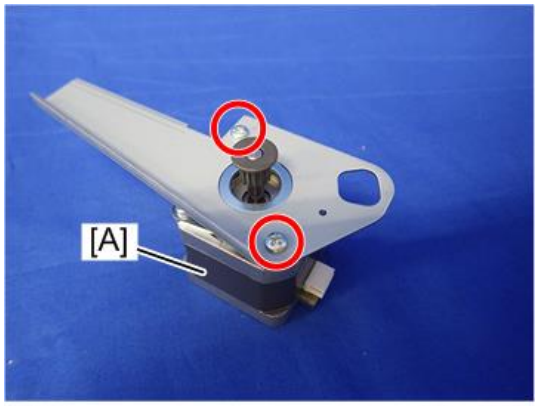
d0bxa8655

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the bracket (with motor attached) [A].



×1 ×1 d0bxa8656

3. Separate the motor [A] from the bracket.

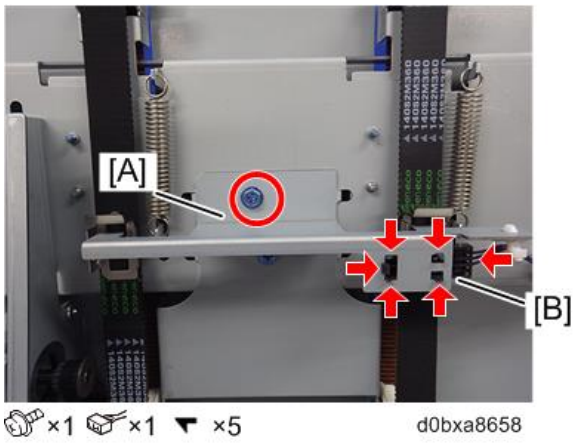


×2 d0bxa8657

Booklet Top Fence HP Sensor

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the sensor bracket [A].

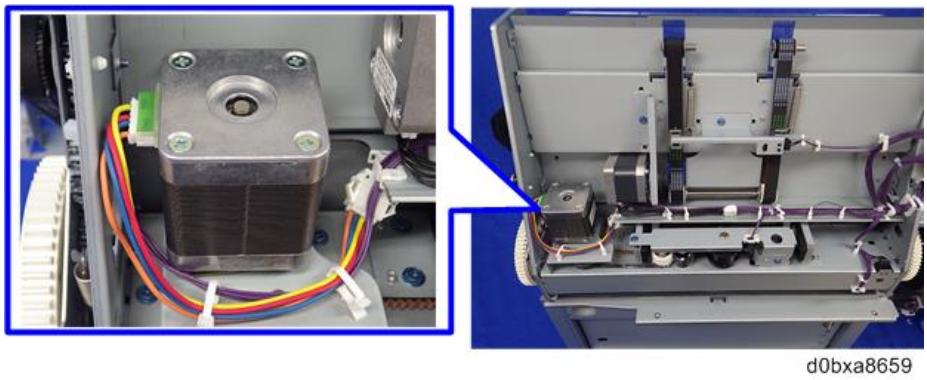
3. Remove the sensor [B].



Booklet (Press for Stapling)

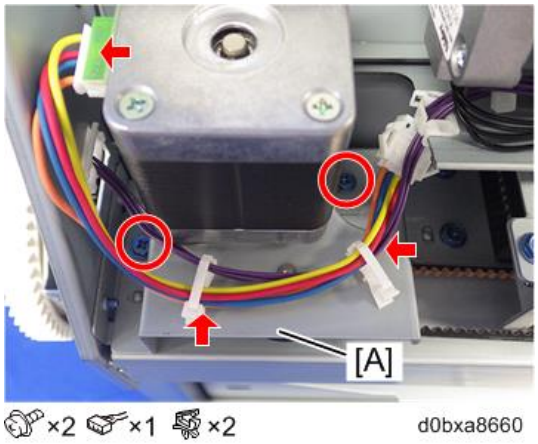
Booklet Pressure Release Motor

This is the booklet pressure release motor.

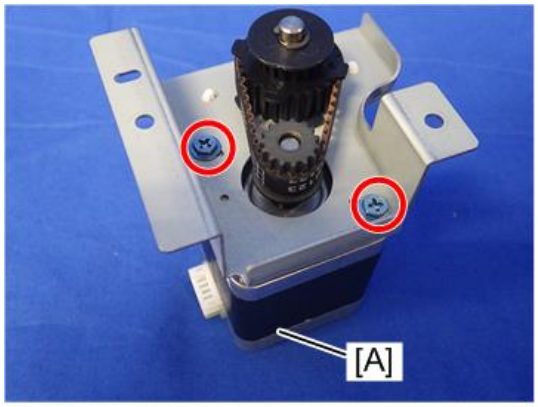


1. Remove the booklet unit. (Booklet Unit Removal)

2. Remove the bracket (with motor attached) [A].



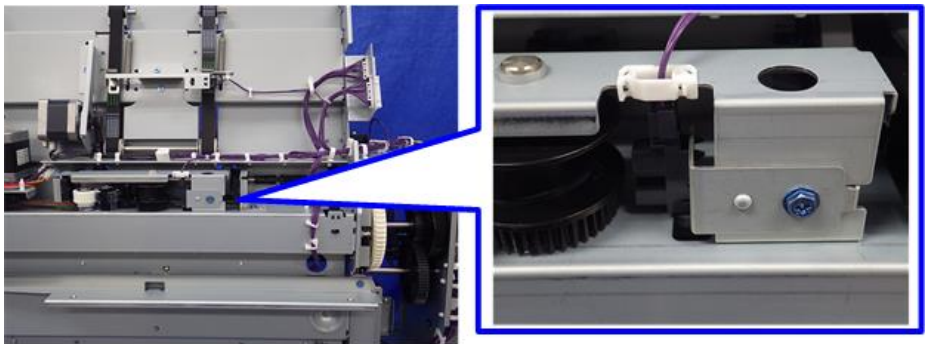
3. Separate the motor [A] from the bracket.



×2 d0bxa8661

Booklet Pressure Release HP Sensor

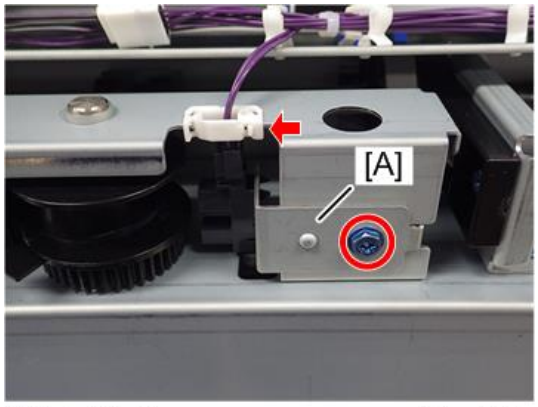
This is the booklet pressure release HP sensor.



d0bxa8662

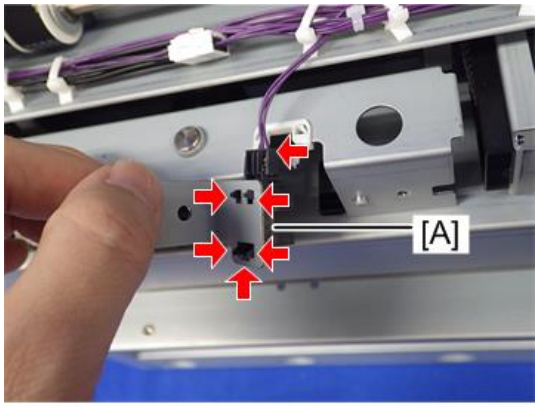
1. Remove the booklet unit. (Booklet Unit Removal)

2. Remove the sensor bracket.



×1 ×1 d0bxa8663

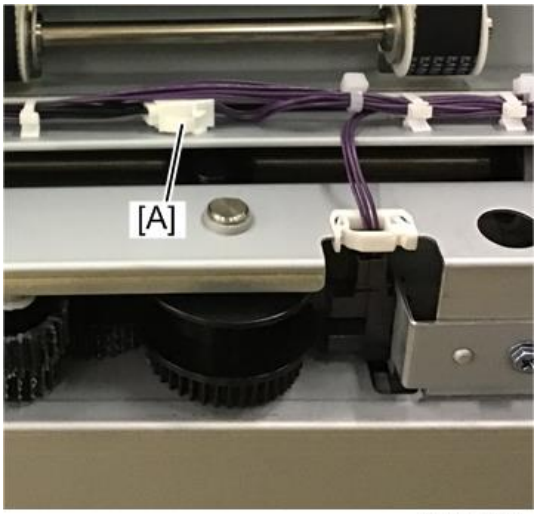
3. Remove the sensor.



×1 ×5 d0bxa8664

Note

- When reassembling, make sure the connector [A] is under the harnesses.

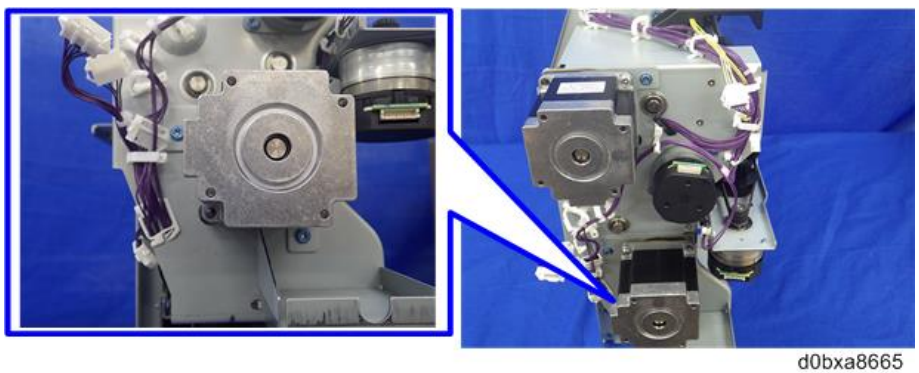


d0bxa8768

Booklet (Folding)

Fold Plate Motor

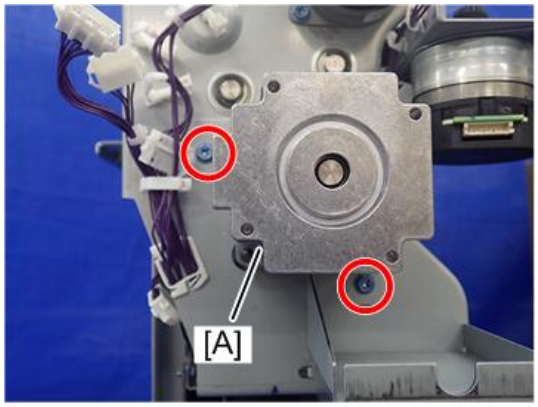
The fold plate motor is on the back of the booklet unit.



d0bxa8665

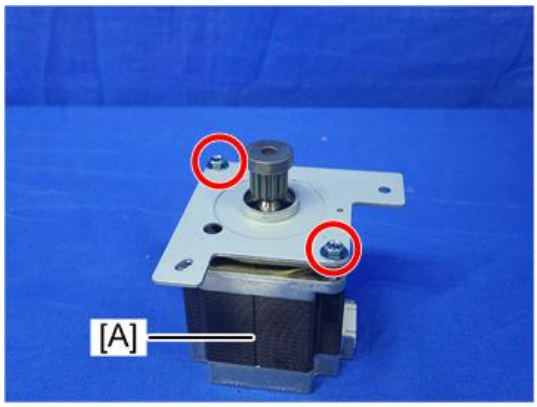
1. Remove the booklet unit. (Booklet Unit Removal)

2. Remove the bracket (with motor attached) [A].



×2 d0bxa8666

3. Separate the motor [A] from the bracket.

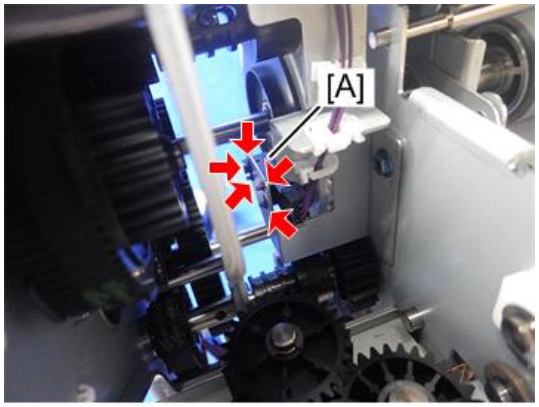


×2 d0bxa8667

Fold Plate Cam HP Sensor

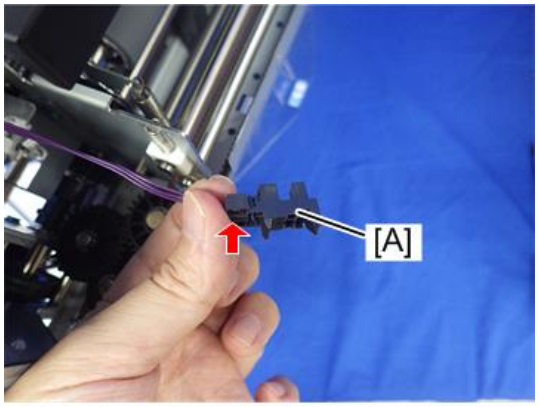
1. Remove the booklet unit. (Booklet Unit Removal)

2. Release the pawls of the sensor [A] and push them through the plate.



×5 d0bxa8668

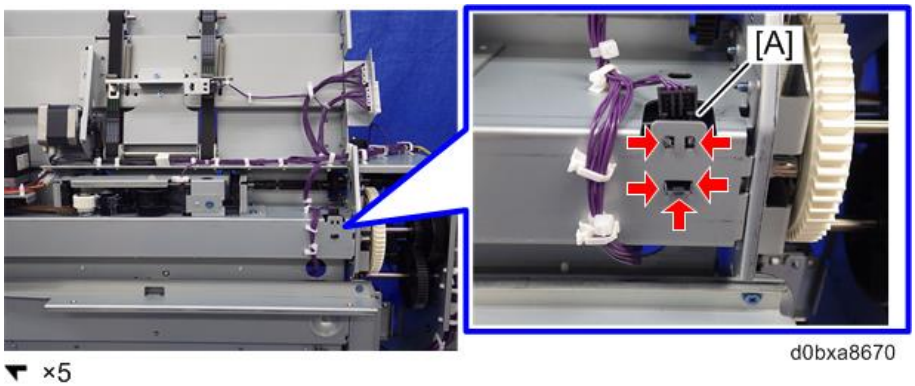
3. Remove the sensor [A].



×1 d0bxa8669

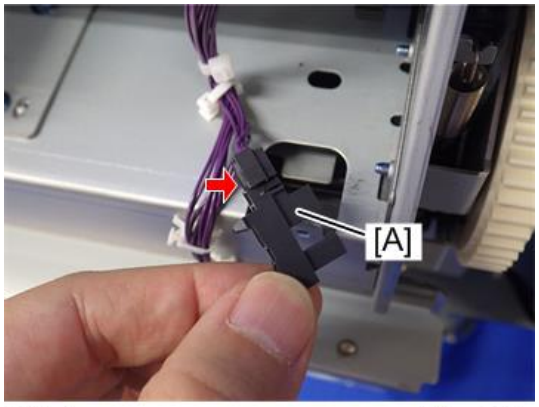
Fold Plate HP Sensor

1. Remove the booklet unit. (Booklet Unit Removal)
2. Release the pawls of the sensor [A] and push them through the plate.



×5 d0bxa8670

3. Remove the sensor [A].

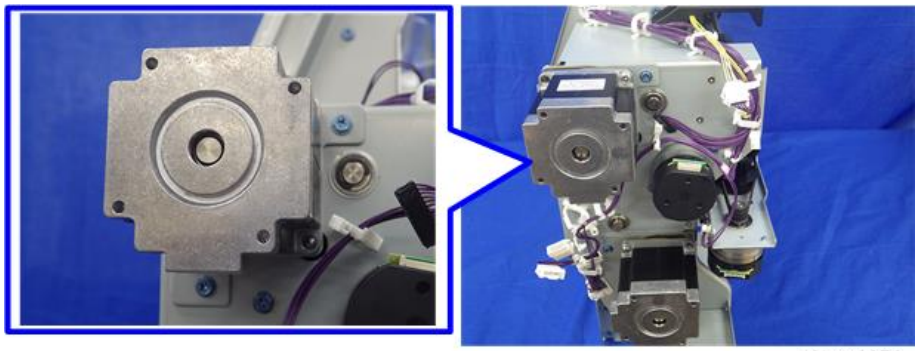


×1 d0bxa8671

Booklet (Exit)

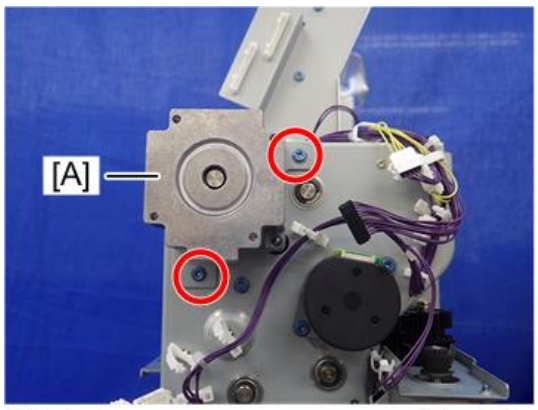
Fold Roller Motor

The fold roller motor is on the back of the booklet unit.



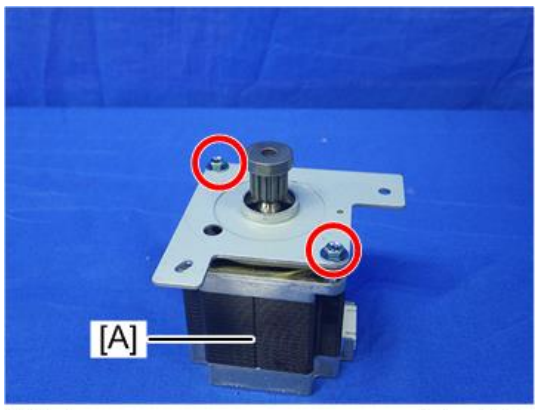
d0bxa8672

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the bracket (with motor attached) [A].



×2 d0bxa8673

3. Separate the motor [A] from the bracket.

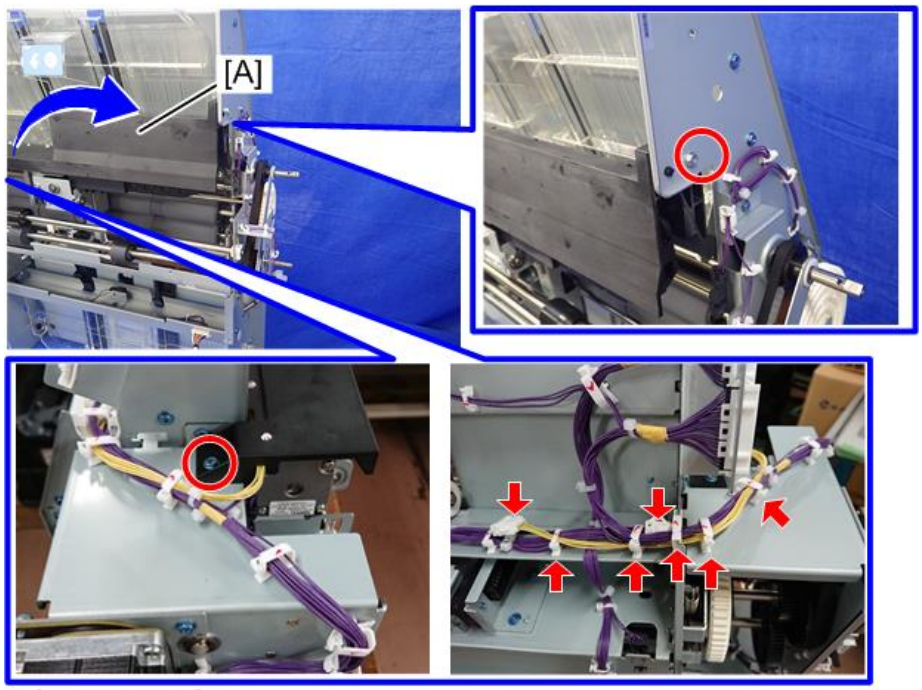


×2 d0bxa8667

Booklet Unit Exit Sensor

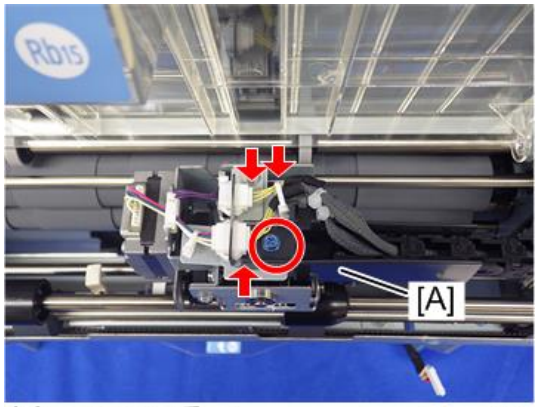
1. Remove the booklet unit. (Booklet Unit Removal)

2. Lift the top of the harness cover [A].



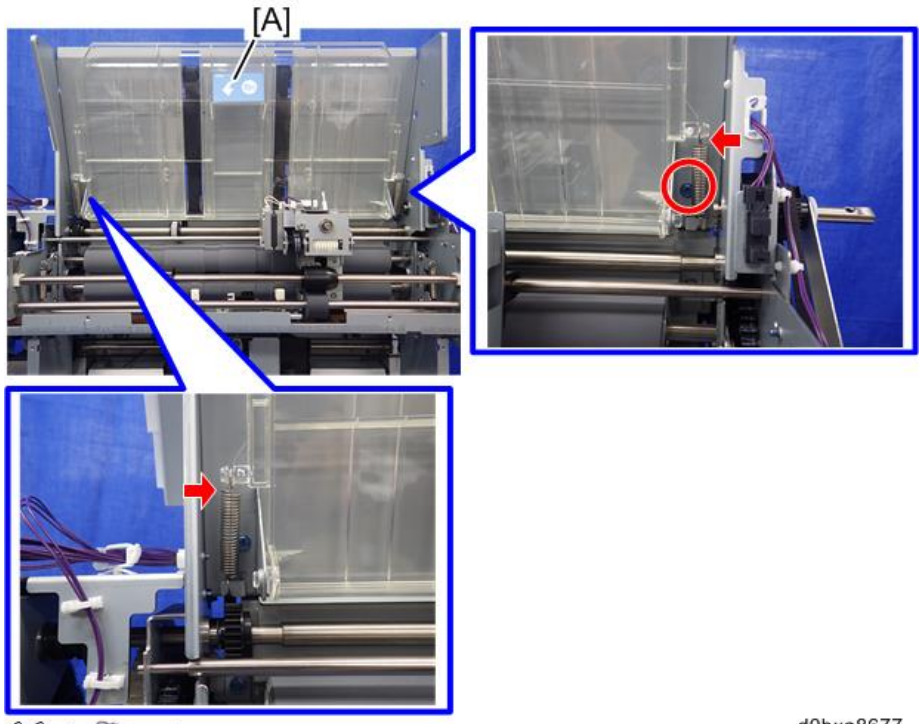
×2 ×2 ×5 d0bxa8675

3. Remove the harness cover [A].



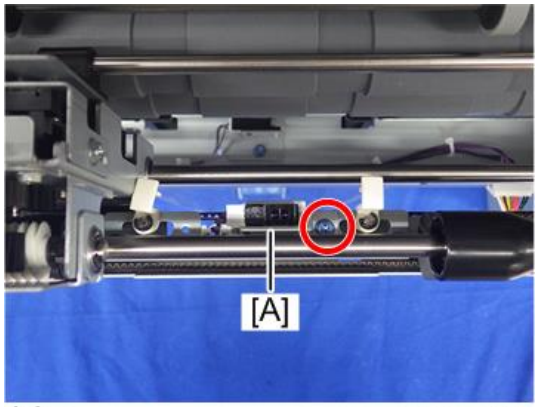
×1 ×2 ×1 d0bxa8676

4. Remove the plate **Rb15** [A].



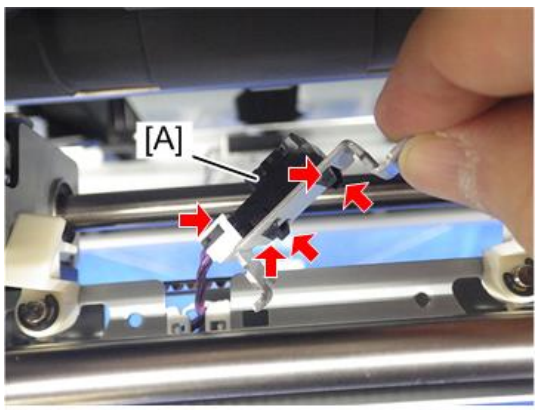
×1 ×2 d0bxa8677

5. Remove the sensor bracket [A].



×1 d0bxa8678

6. Remove the sensor [A].

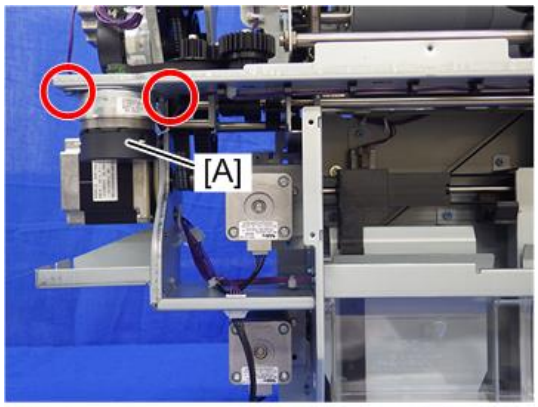


×1 ×4 d0bxa8679

Flat Fold Unit

Flat Fold Unit Motor

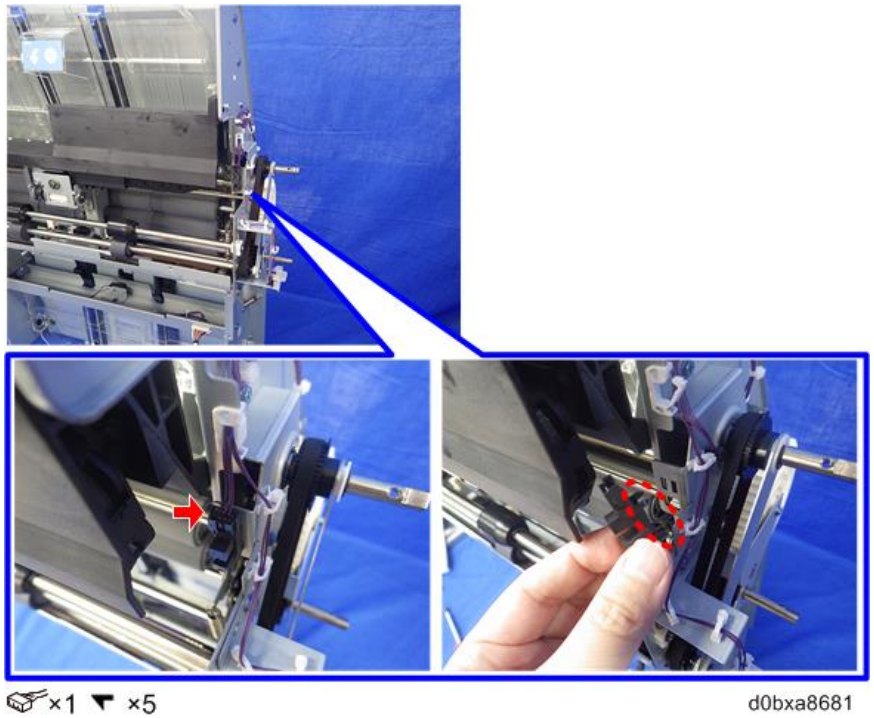
1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the motor.



×2 d0bxa8680

Flat Fold Unit HP Sensor

1. Remove the booklet unit. (Booklet Unit Removal)
2. Remove the sensor.

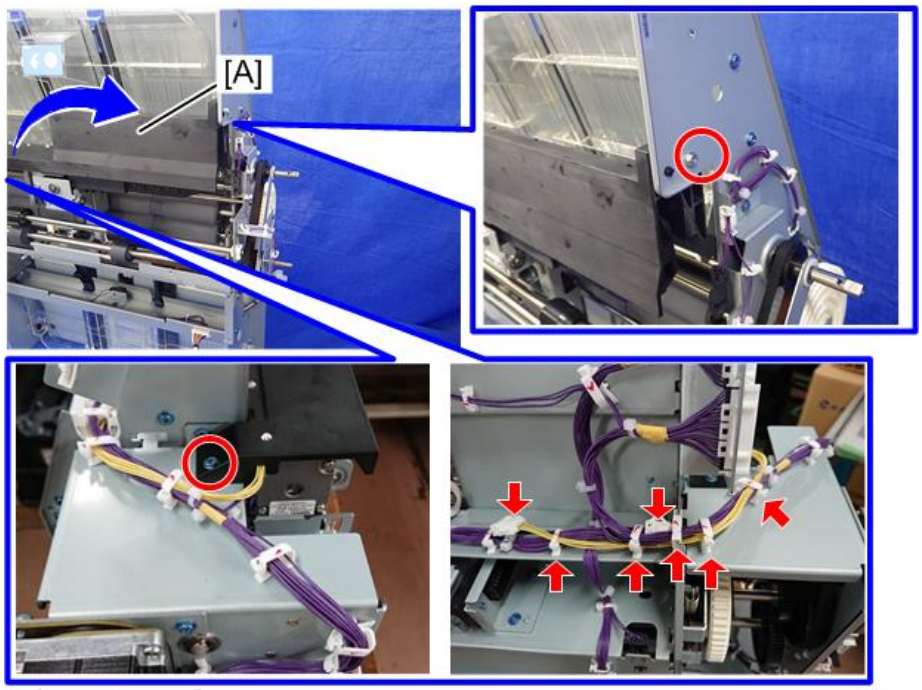


×1 ×5 d0bxa8681

Flat Fold Pressure Release Motor

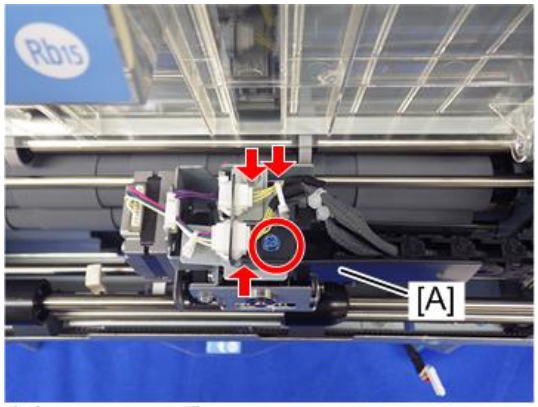
1. Remove the booklet unit. (Booklet Unit Removal)

2. Lift the top of the harness cover [A].



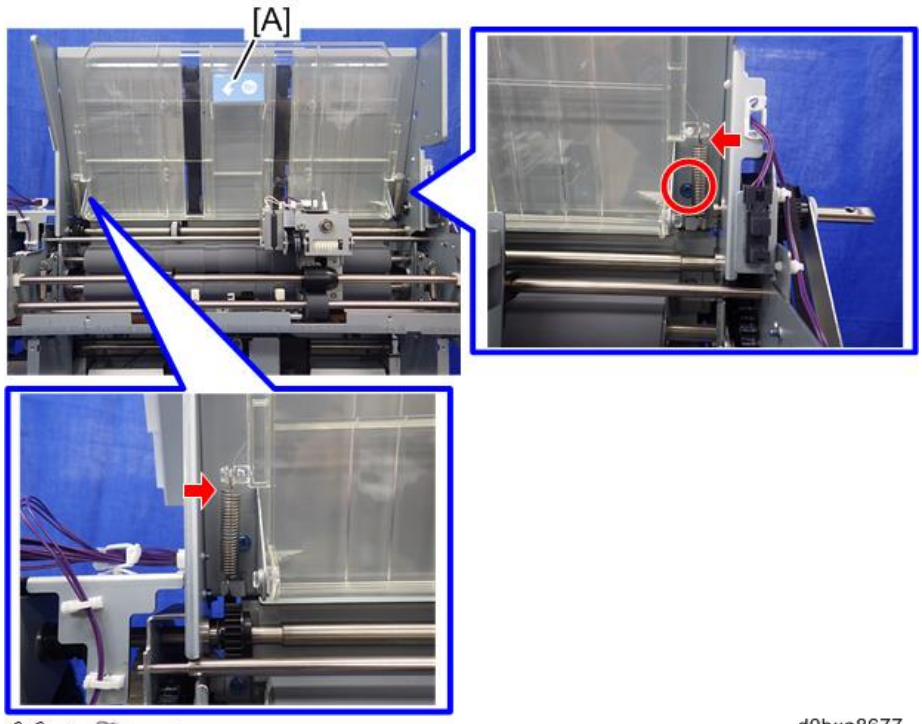
×2 ×2 ×5 d0bxa8675

3. Remove the harness cover [A].



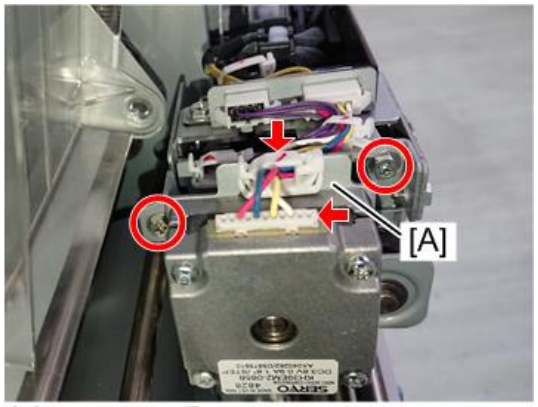
×1 ×2 ×1 d0bxa8676

4. Remove the plate **Rb15** [A].



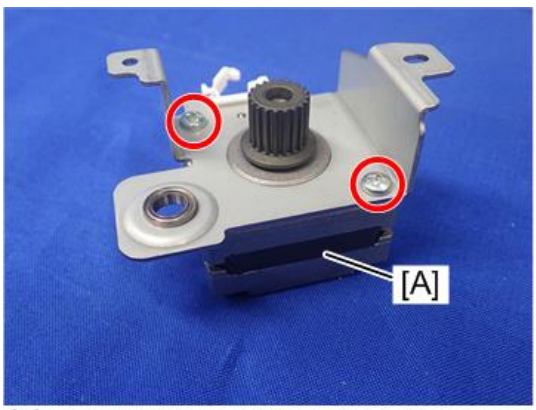
×1 ×2 d0bxa8677

5. Remove the bracket (with motor attached) [A].



×2 ×1 ×1 d0bxa8682

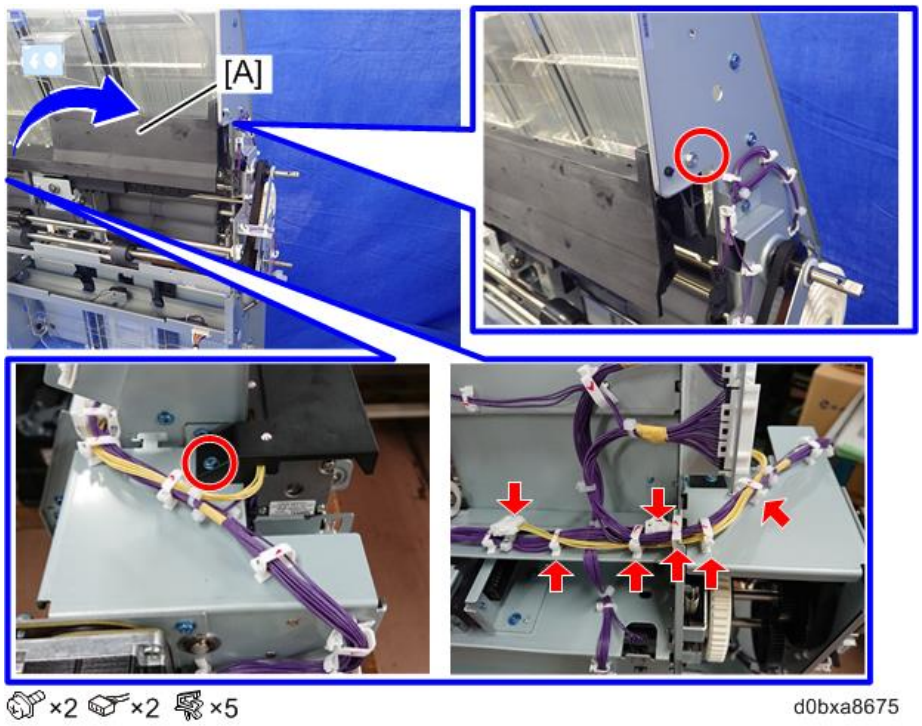
6. Remove the motor [A].



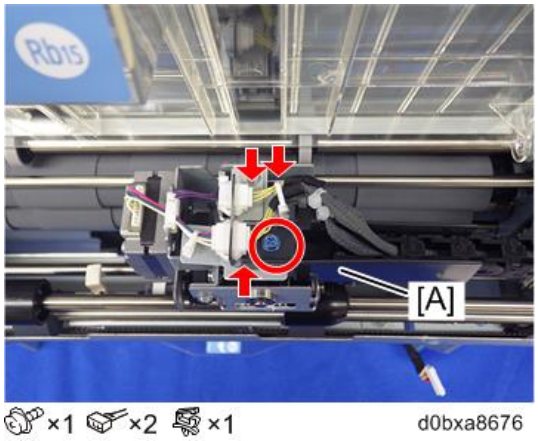
×2 d0bxa8683

Flat Fold Pressure Release HP Sensor

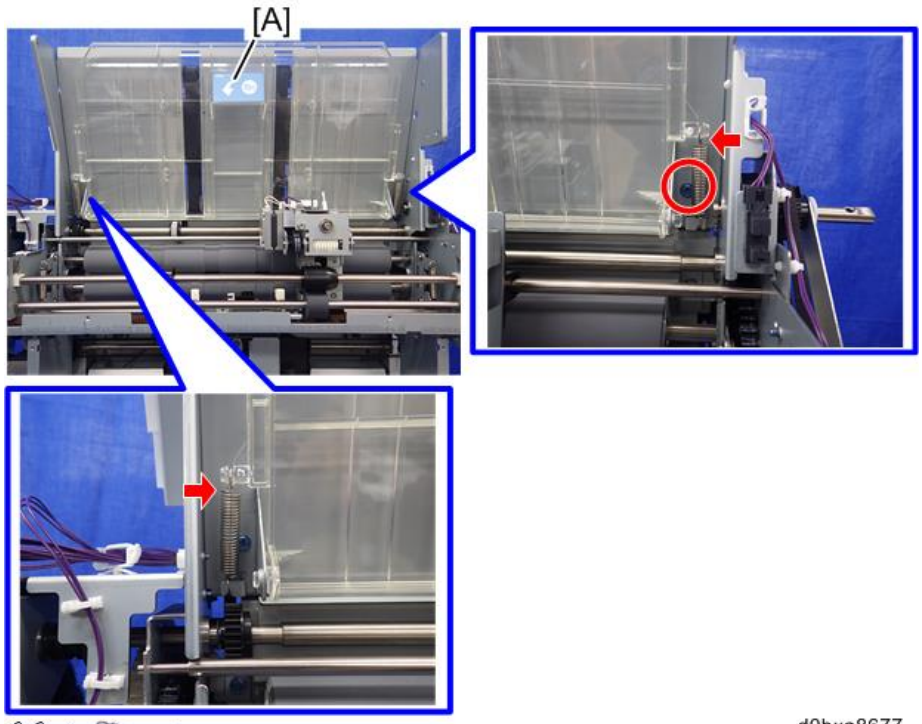
1. Remove the booklet unit. (Booklet Unit Removal)
2. Lift the top of the harness cover [A].



3. Remove the harness cover [A].

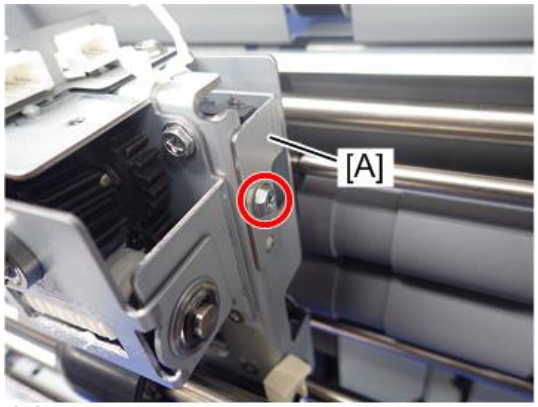


4. Remove the plate **Rb15** [A].



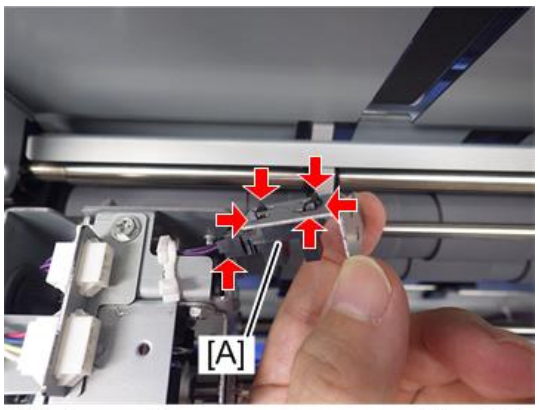
×1 ×2 d0bxa8677

5. Remove the sensor bracket [A].



×1 d0bxa8684

6. Remove the sensor [A].

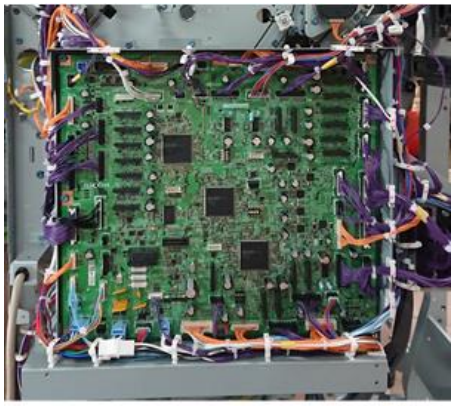


×1 ×5 d0bxa8685

Boards

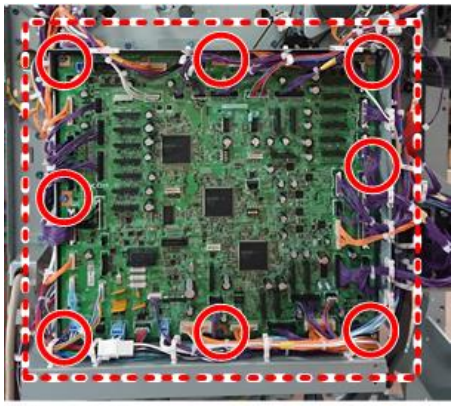
Main Board

1. Remove the rear upper cover. (Rear Upper Cover)
2. Remove the rear lower cover. (Rear Lower Cover)
   The main board is at the back of the machine.



d0bxa8686

3. Remove the board.
   - There are about 14 clamps around the board.
   - Open only as many clamps as necessary to remove the board. This will keep the connectors aligned and make it easier to re-connect them.

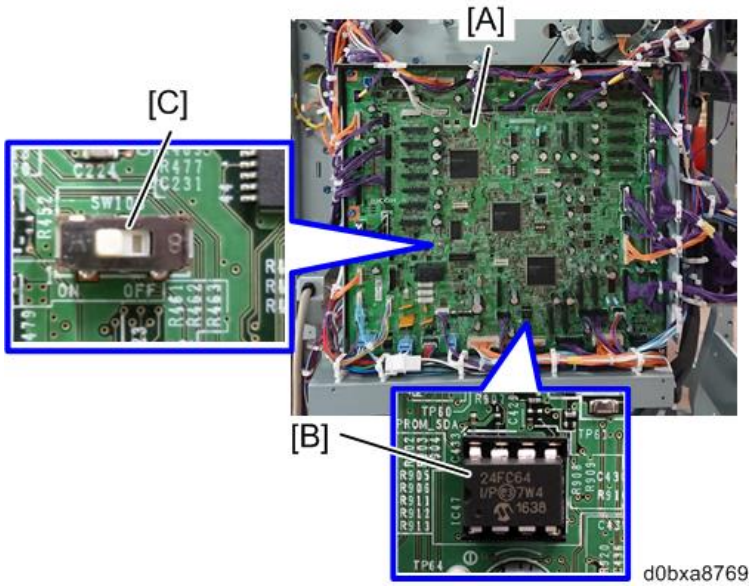


×8 ×51 d0bxa8687

When Replacing the Main Board

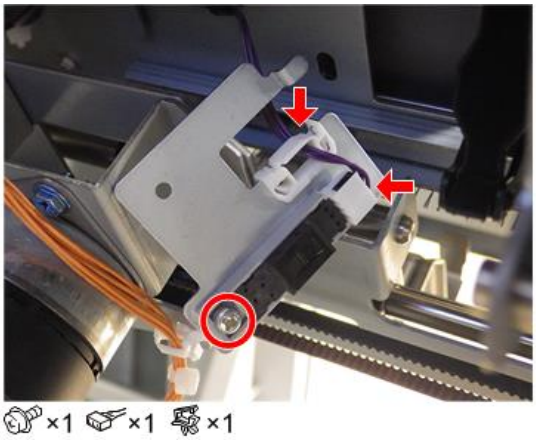
1. Before replacing the main board [A], check the setting of the DIP switch [C] of the old main board.

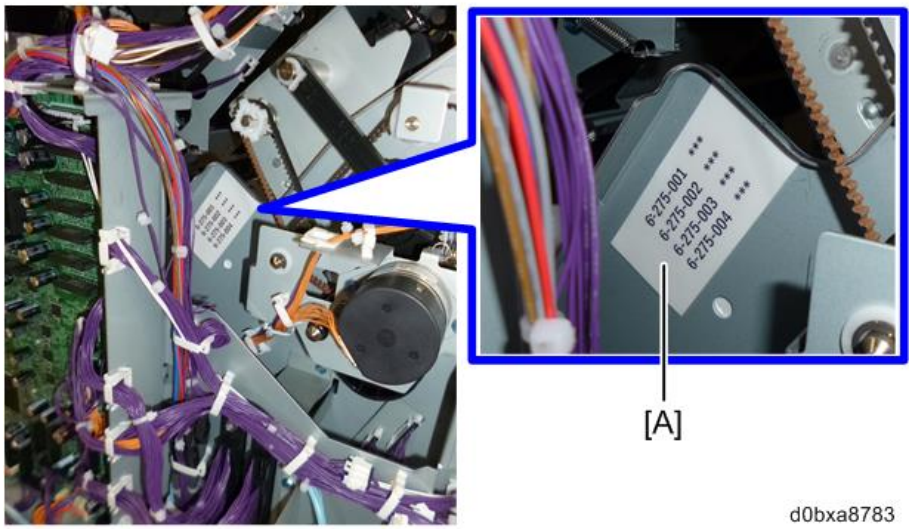
2. When replacing the main board [A], remove the EEPROM [B] from the old main board.



3. Remove the EEPROM from the new main board in the same manner.
4. Set the DIP switch on the new main board to the same setting as the DIP switch on the old main board.
5. Install the EEPROM you removed from the old main board in the new main board.
6. Enter the SP mode and change the following SP settings. Input the adjustment values written on

the sticker on the back side of the stapler tray.





SP6-275-001 (NV Adj. Data Mod.: Jogger Pos. Factory Adj.)

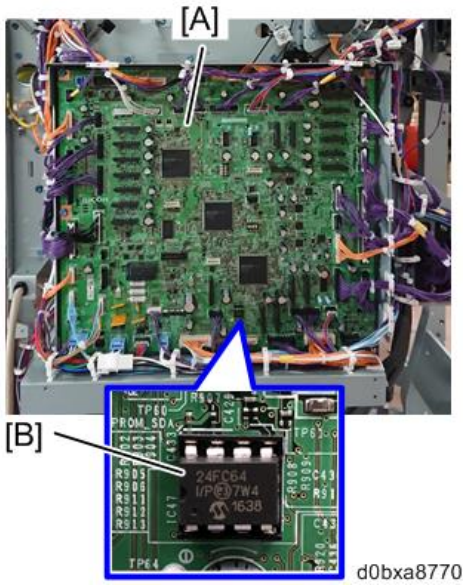
SP6-275-002 (NV Adj. Data Mod.: Jogger Pos. Factory Adj.)

SP6-275-003 (NV Adj. Data Mod.: Folding Pos. Factory Adj.)

SP6-275-004 (NV Adj. Data Mod.: Staple Stacking Fence Pos. Factory Adj.)

When Replacing the Memory Only

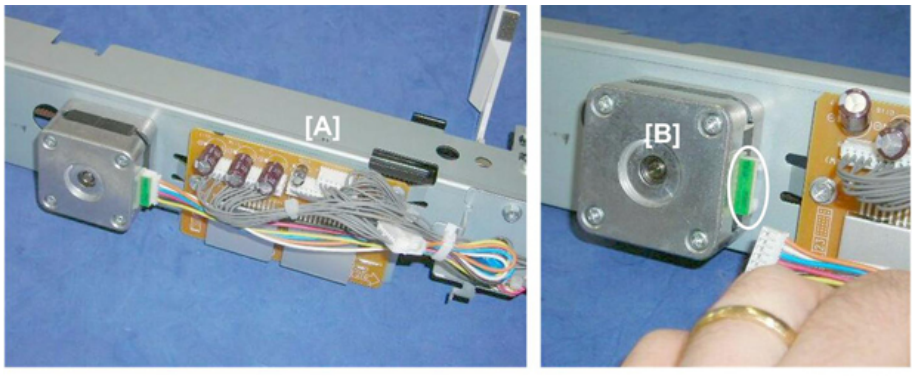
1. Remove the EEPROM [B] from the main board [A].



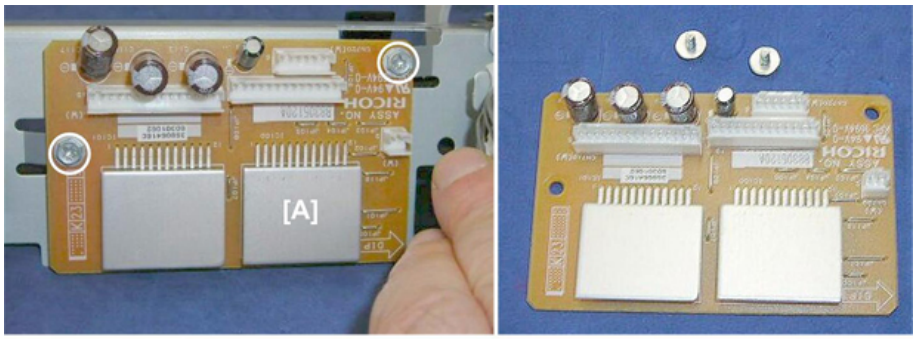
2. Install a new EEPROM in the main board.
3. Enter the SP mode and change the following SP settings. Input the adjustment values written on the sticker on the back side of the stapler tray.
   SP6-275-001 (NV Adj. Data Mod.: Jogger Pos. Factory Adj.)
   SP6-275-002 (NV Adj. Data Mod.: Jogger Pos. Factory Adj.)
   SP6-275-003 (NV Adj. Data Mod.: Folding Pos. Factory Adj.)
   SP6-275-004 (NV Adj. Data Mod.: Staple Stacking Fence Pos. Factory Adj.)

Shift Tray 1/2 Jogger Unit PCB

1. Remove the shift tray 1/2 jogger unit. (Shift Tray 1 Jogger Unit, Shift Tray 2 Jogger Unit)
2. Lay the shift jogger unit [A] on a flat surface.
3. Disconnect the motor [B]. (x1)



4. Remove the PCB [A] (x5, x2).



d434r414

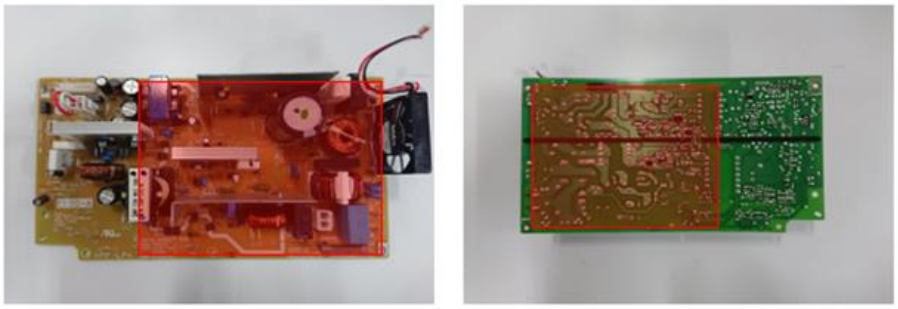
PSU

Preparations

- Turn OFF the power of the machine.
- Disconnect the finisher from its power source.
- Wait at least 30 minutes.
- Remove the right panels (Upper and Lower Right Panels)

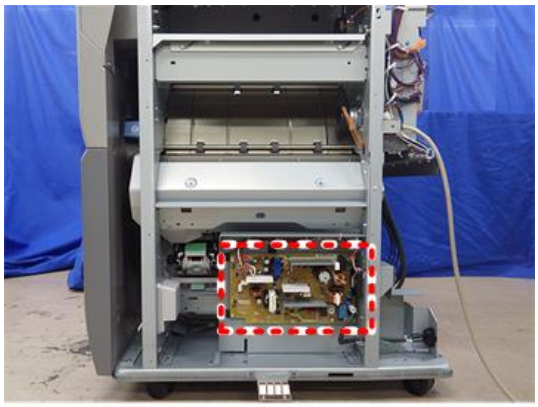
⚠CAUTION

- To prevent electrical shock caused by residual voltage, never touch the areas outlined in red.



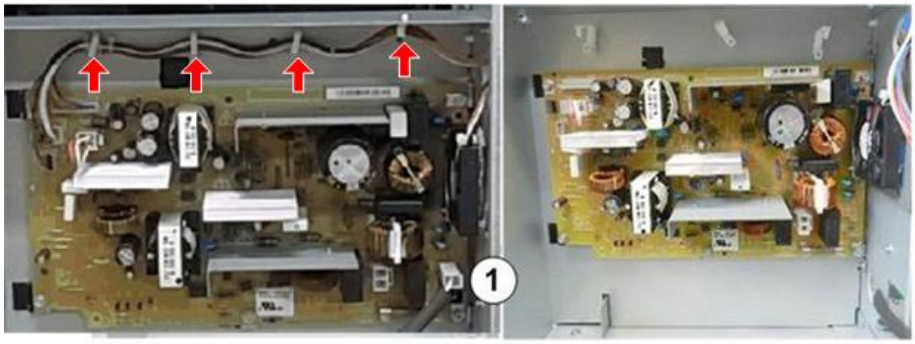
d0bxa8771

The PSU is on the bottom right corner of the unit.



d0bxa8504

1. Disconnect the board (x3, x5).



d7340506

Important

- Be sure to re-connect the bayonet connectors at ① White over Black.

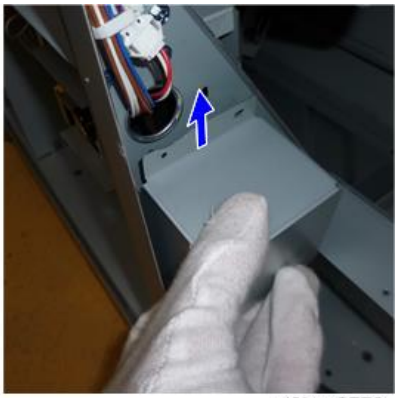
2. At the rear [A], disconnect the fan.

×1

d0bxa8772

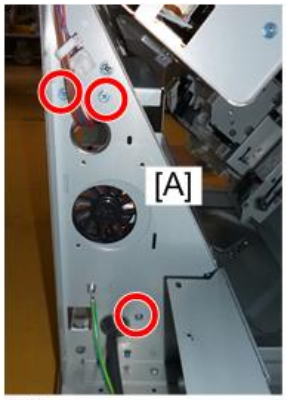
3. Remove the fan bracket.

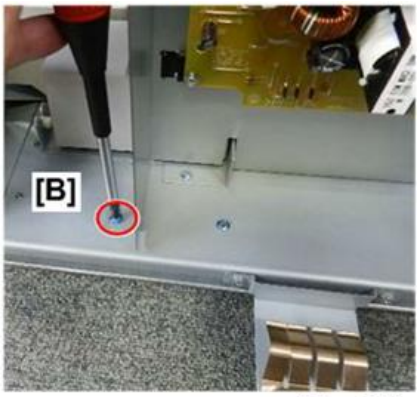
×2



d0bxa8773

4. Disconnect the board bracket:

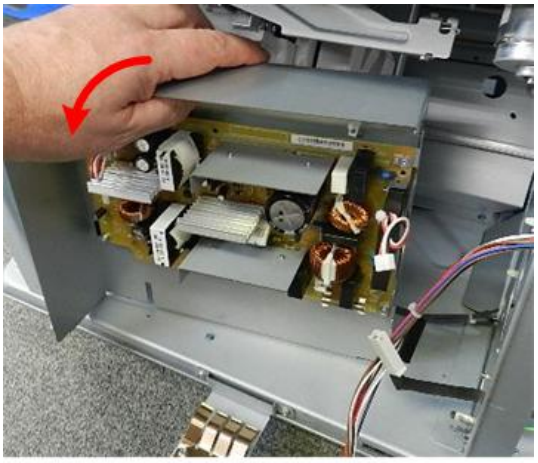




×4

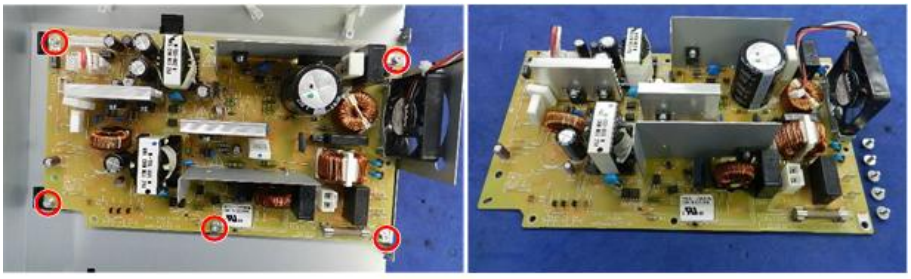
d0bxa8774

5. Remove the bracket (with board attached).



d7340169

6. Separate the board and bracket (x5).



d7340170

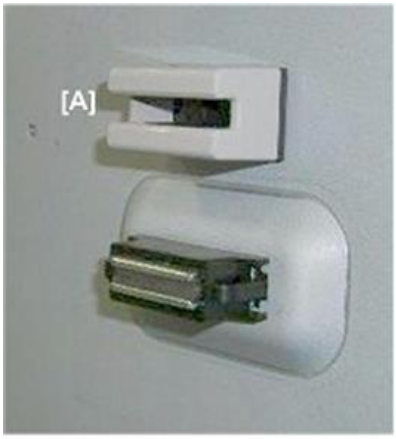
Switches

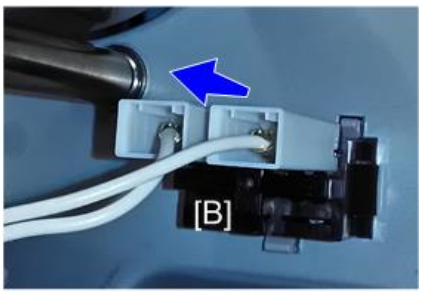
Front Door Switch

Preparations

- Open the front door.
- Remove the upper inner cover (Upper Inner Cover: Rb2, Rb8)

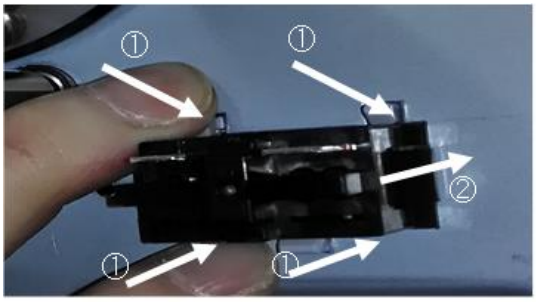
1. Locate the door switch [A] on the front.
2. Inside the finisher, disconnect the switch [B] (x4).





d0bxa8775

3. Pinch both sides of the switch and push it out.



d0bxa8776

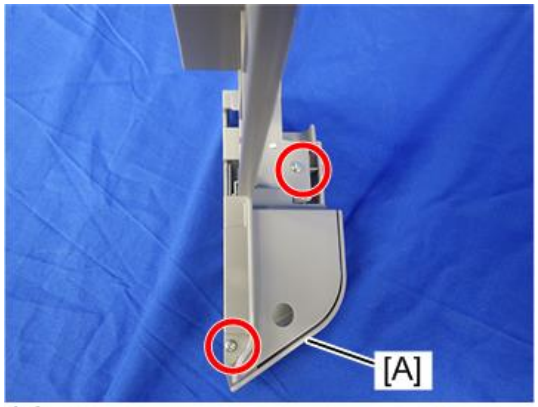
Shift Tray 2 Emergency Stop Switch

1. Remove the shift tray 2 jogger unit. (Shift Tray 2 Jogger Unit)
2. Remove the left upper cover. (Left Upper Cover)
3. Open the switch cover.

   The switch [A] is on the front end of the left upper cover.

d0bxa8688

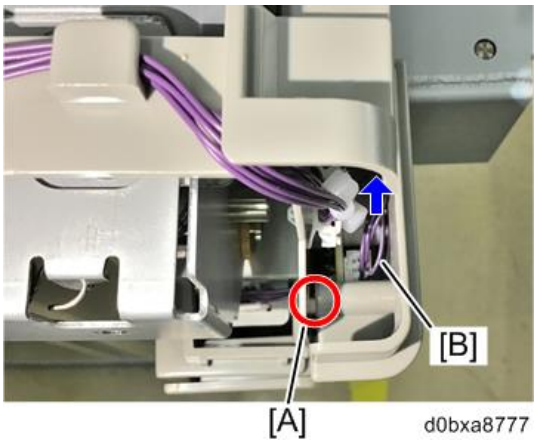
4. Turn the cover over and open the switch cover [A].



×2 d0bxa8689

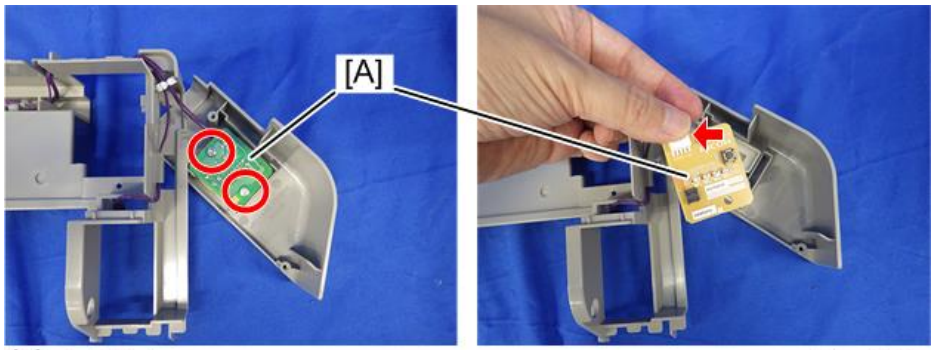
Note

- When tightening the screw [A] during reassembly, push the harness [B] in the direction of the arrow to prevent the harness from being caught between the covers.



d0bxa8777

5. Remove the switch [A] (x2, x1).

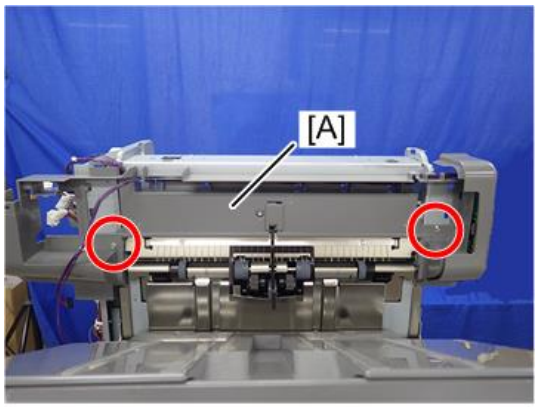


×2 ×1 d0bxa8690

Shift Tray 1 Emergency Stop Switch, Shift Tray 1 Paper Removal Switch

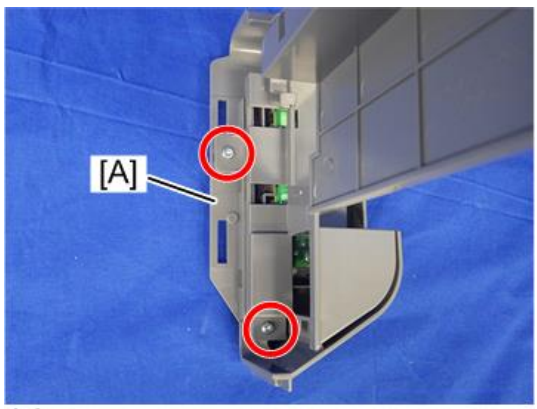
1. Remove the shift tray 1 jogger unit. (Shift Tray 1 Jogger Unit)

2. Remove the shift tray 1 left upper cover.



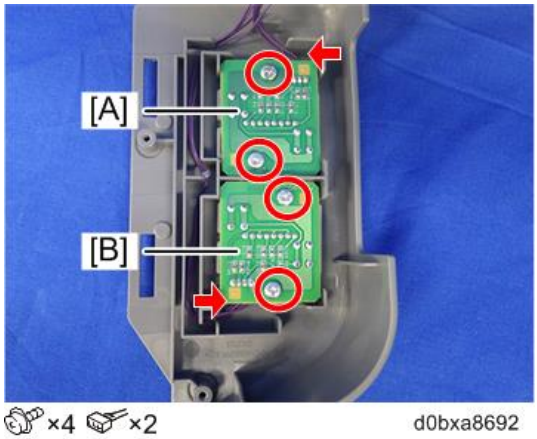
×2 d0bxa8725

3. Open the switch cover [A].



×2 d0bxa8691

4. Remove the emergency stop switch [A] and paper removal switch [B].



Rollers and Brushes

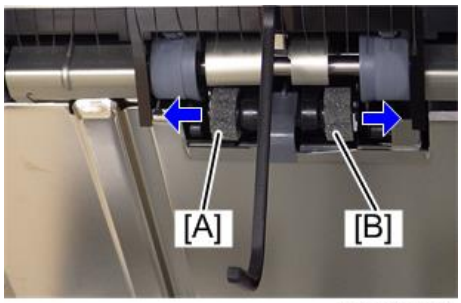
Rollers

Drag Roller

1. Remove the following:

[A] Rear (x1, Belt x1)

[B] Front (x1, Belt x1)



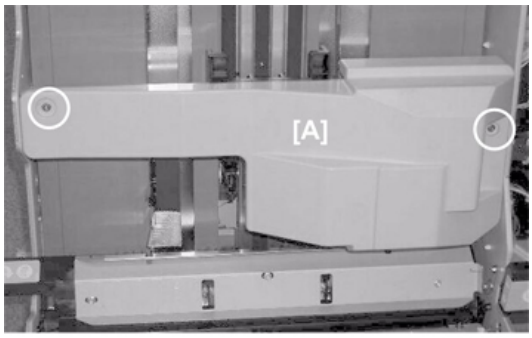
d0bxa8778

Positioning Roller

Preparations

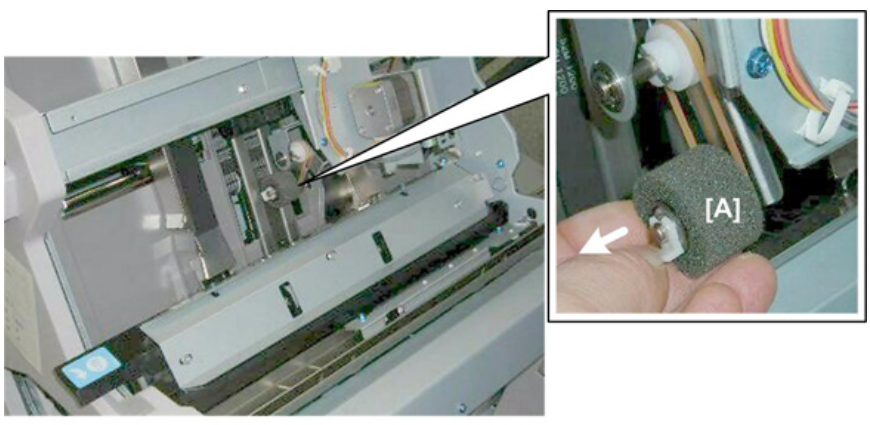
- Open the front door.
- Pull out the stack/staple unit with handle **Rb12**.

1. Remove the motor cover [A] (x2).



d434r423

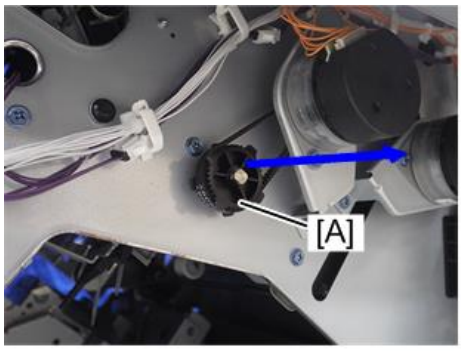
2. Replace the sponge roller [A] (x1, x1)

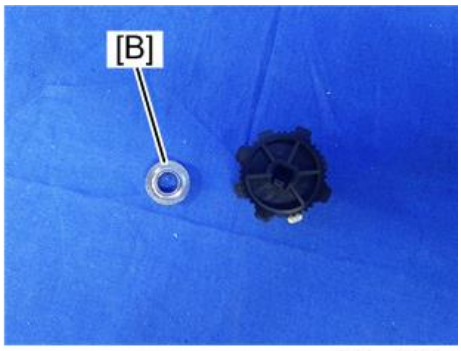


d434r424

Alignment Brush Roller

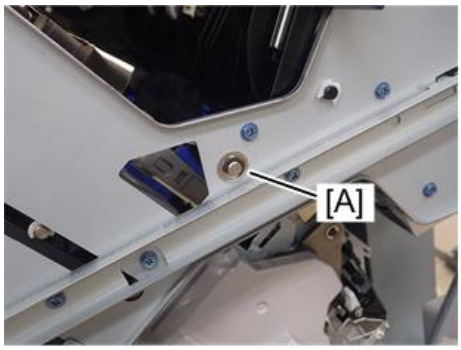
1. Open the front door.
2. Remove the lower inner cover **Rb10**, **Rb11** (Lower Inner Cover: Rb10, Rb11)
3. Remove the center inner cover **Rb14**, **Rb 16** (Center Inner Cover: Rb14, Rb16)
4. Remove the right panel (Upper and Lower Right Panels)
5. On the back side, remove the gear [A] and the bushing [B] behind it.





d0bxa8693

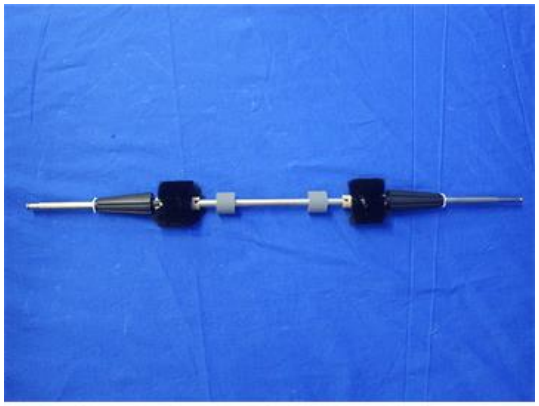
6. On the front side, remove the bushing [A] (x1).



×1

d0bxa8694

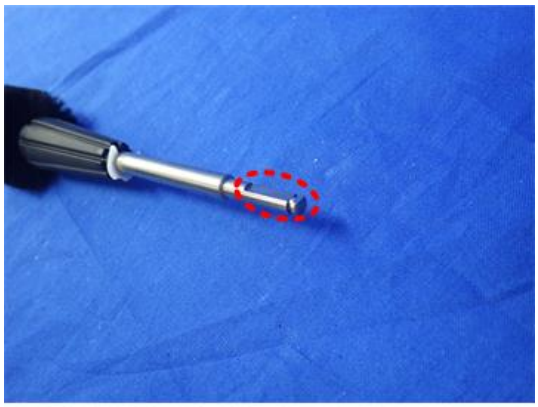
7. Remove the alignment brush roller.



d0bxa8695

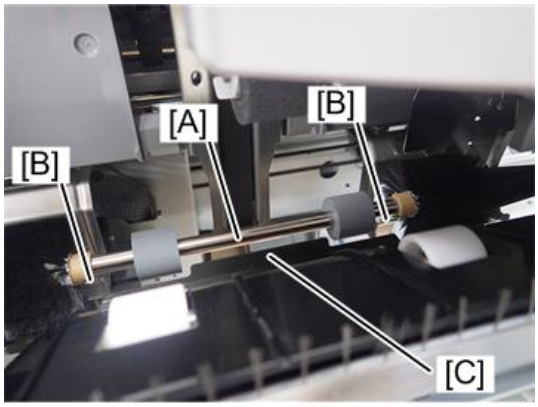
Re-installation

The end of the shaft with the flat bevel is the rear end of the shaft, where the gear and belt must be re-attached.



d0bxa8696

When you re-install the brush roller [A], make sure that pawl [B] of the guide is below the plate [C].

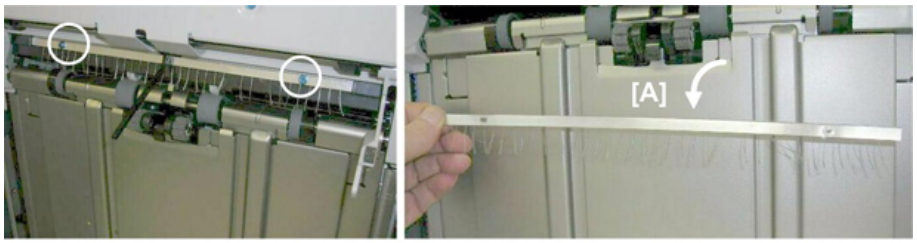


d0bxa8697

Discharge Brushes

Shift Tray 2 Exit

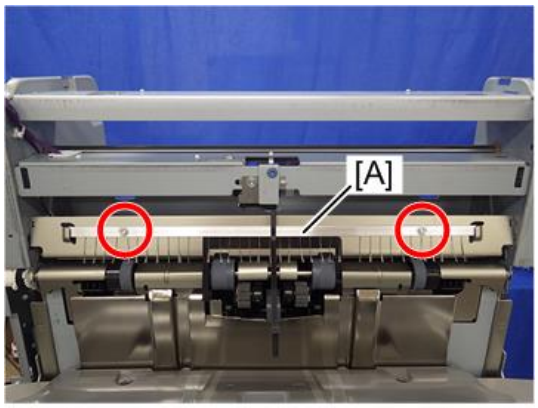
1. Remove the discharge brush [A] (x2).



d434r429

Shift Tray 1 Exit

1. Remove the discharge brush [A].



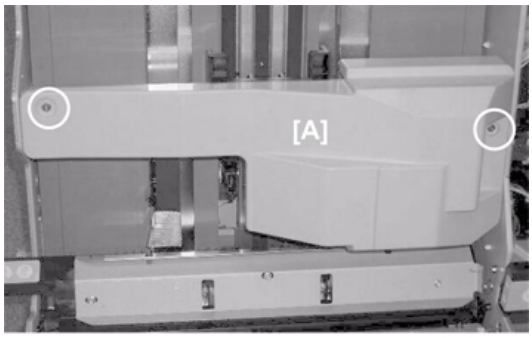
×2 d0bxa8748

Corner Stapler Entrance

Preparations

- Open the front door.
- Pull out the stack/staple unit with handle **Rb12**.

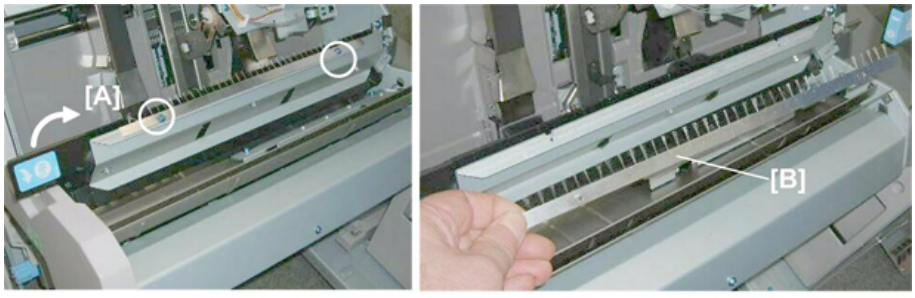
1. Remove the cover [A] (x2)



d434r423

2. Raise **Rb13** [A].

3. Remove the discharge brush [B] (x2)



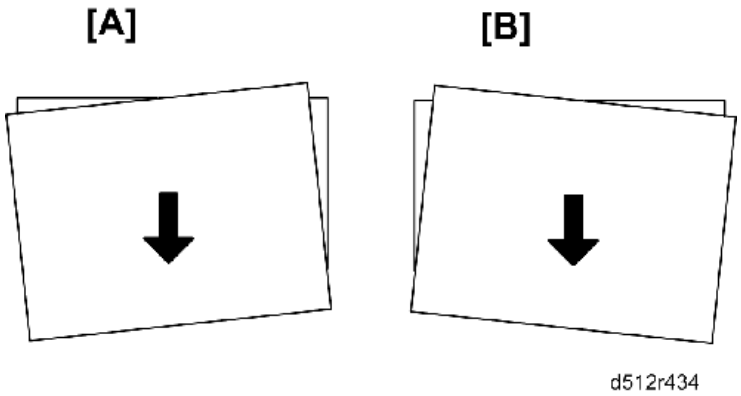
d434r430

Special Adjustments

Horizontal Skew Adjustment

The booklet unit is adjusted for optimum performance before the finisher is shipped from the factory. Perform this adjustment only if the edges of folded booklets are not even.

1. Run a fold/staple job through the booklet unit using A3 (or DLT) size paper.
2. Hold the folded sheet with the creased side pointing down and face-up (the same way as it was output from of the finisher).
3. Referring to the diagram below, determine if the skew is [A] or [B].
   - [A] indicates that the rear fence is low and must be raised.
   - [B] indicates that the front fence is low and must be raised.

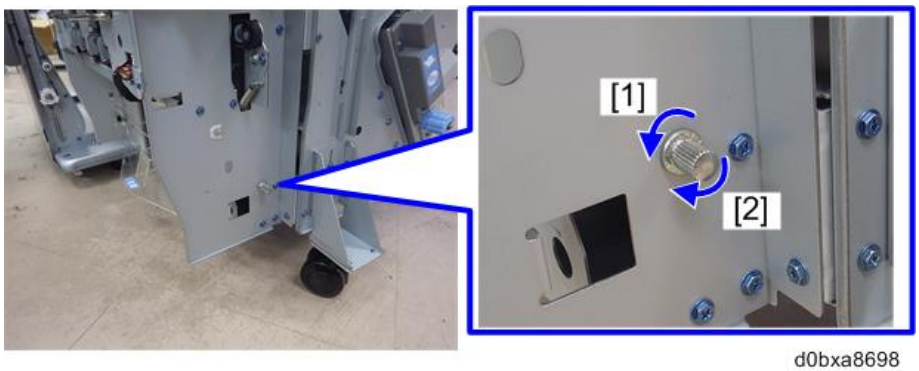


d512r434

Preparations

- Pull the stack/staple unit out with handle **Rb12**
- Remove the lower inner cover **Rb10**, **Rb11**

1. Before doing any adjustment, rotate the knob as follows.
   - Rotate the knob counter-clockwise [1] to loosen it.
   - Rotate the knob clockwise [2] until you feel some resistance, and then stop.



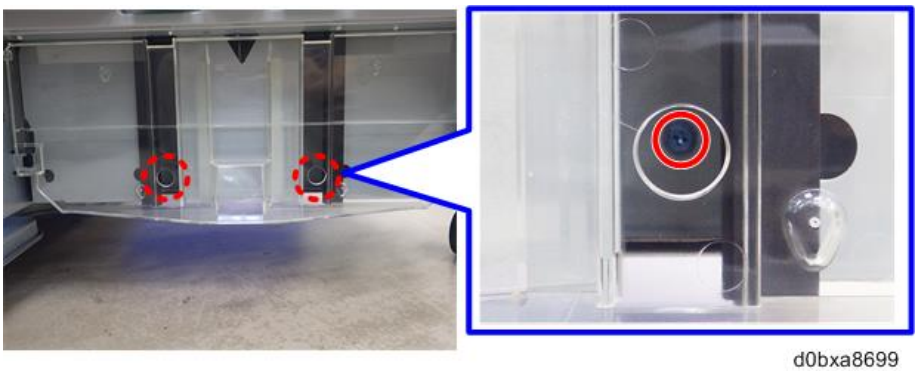
d0bxa8698

2. Remove the screw.

Important

- There is only one screw to remove. Check both holes. The screw may be at the front or at

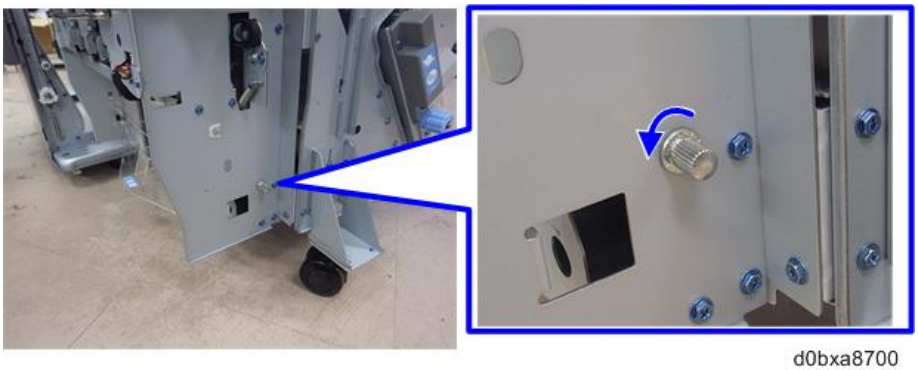
the rear, depending on where it was attached before shipping from the factory.



d0bxa8699

[A] Adjustment: Rear Fence Low

1. For **[A] type skew**, turn the adjustment screw on the front of the booklet unit to the **left** (**clockwise**) to raise the rear fence.

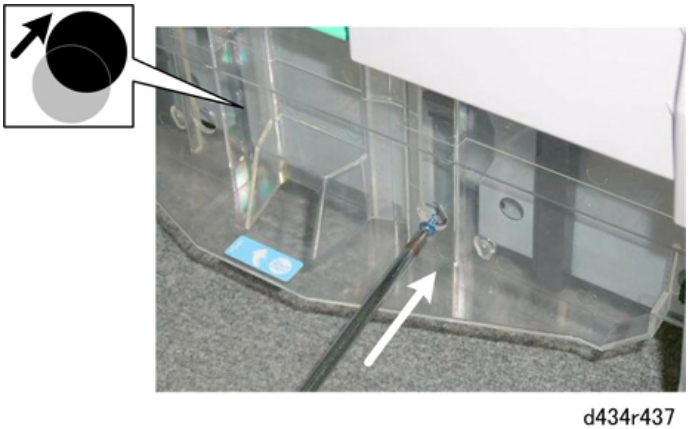


d0bxa8700

Note

- One notch adjusts the height by 0.1 mm.

Turning the adjustment screw to the right may raise the rear fence so the holes at the rear will no longer be aligned.



d434r437

2. Re-attach the screw in the front hole where the holes are aligned.

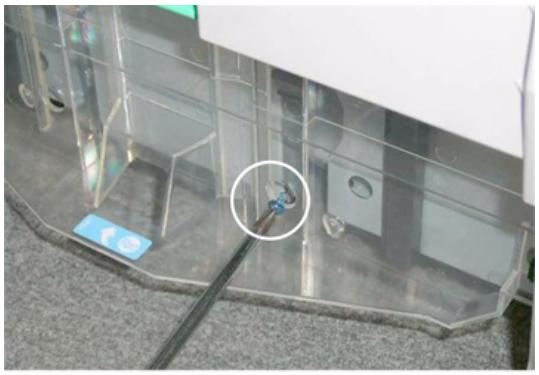
[B] Adjustment: Front Fence Low

1. For **[B] type skew**, turn the adjustment screw on the front of the booklet unit to the **right**

(**clockwise**) to raise the front fence.

d0bxa8701

2. Re-attach the screw at the front hole.



d434r439

Fold Position/ Bind Position Adjustment

Perform this adjustment only if the edges of folded booklets are not even.

Trun OFF the power of the main machine.

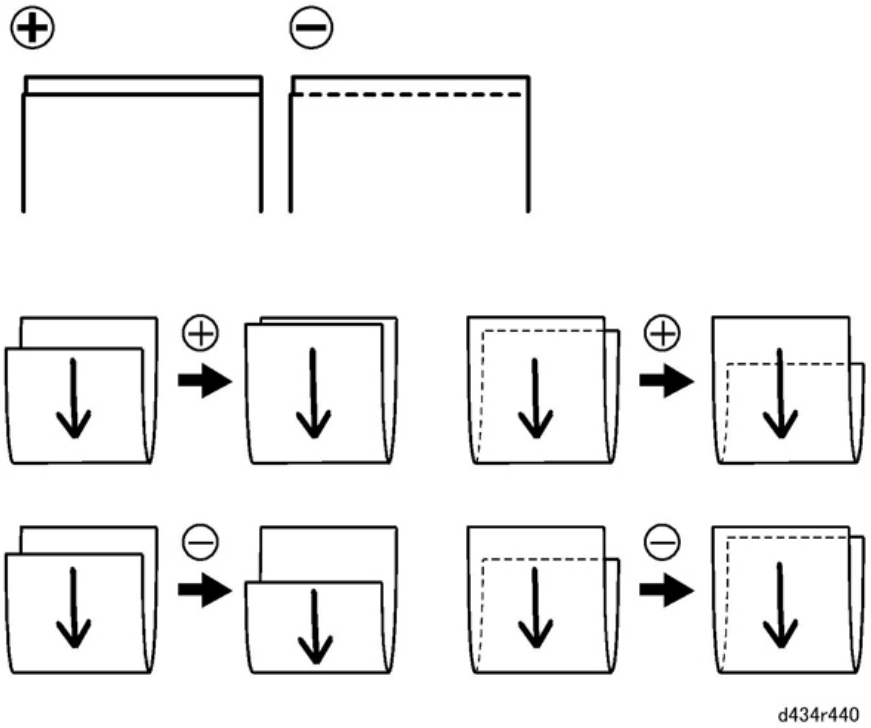
Do a test run for booklet folding using either A3 or DLT paper.

Note

- This procedure shows you how to test and adjust the fold position for A3/DLT paper.
- This same adjustment can be done for other paper sizes as well with **SP6201**.

1. Look at the paper (booklets).

2. Compare withthe diagrams below to determine the direction in which the fold position shifted.



3. Measure the amount of position shift.
4. Enter the SP mode
   - Europe, Asia: Adjust using **SP6201-8** (this is for A3 paper).
   - North America: Adjust using **SP 6201-15** (this is for DLT paper).

   Note
     - The illustration above shows the effects of +/- adjustment with **SP6201**.
     - The vertical arrows show the direction of paper feed
5. To adjust, enter half of the amount of position shift measured in Step 3.
   - For example, if the amount of position shift was -1.2 mm, enter -0.6 mm
   - The range for measurement is –2.0 mm to +2.0 mm, in 0.2 mm steps for every notch adjustment.
6. Exit the SP mode. Do another test print and repeat adjustments as required.
7. After you have finished adjusting the fold position, enter the adjustment value for the bind position using SP6202. Enter the same value as the fold position adjustment value for each paper size.

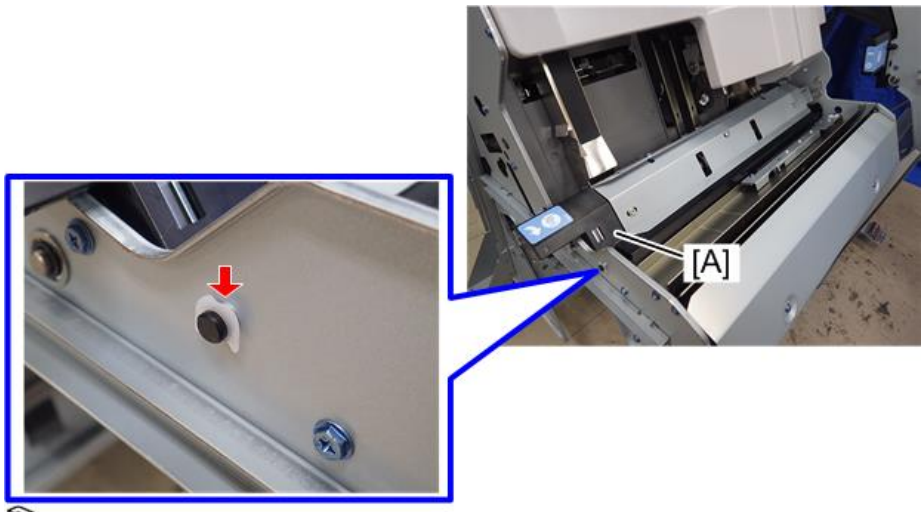
Base Fence Replacement

The base fences can be replaced separately or together.

Only replacement of the front fence is described here. The replacement procedure for the rear base fence is the same.

1. Pull out the stack/staple unit with handle **Rb12**.

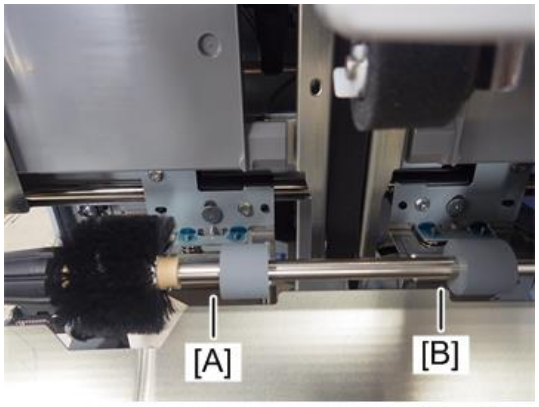
2. Remove the handle **Rb12** [A].



×1 d0bxa8702

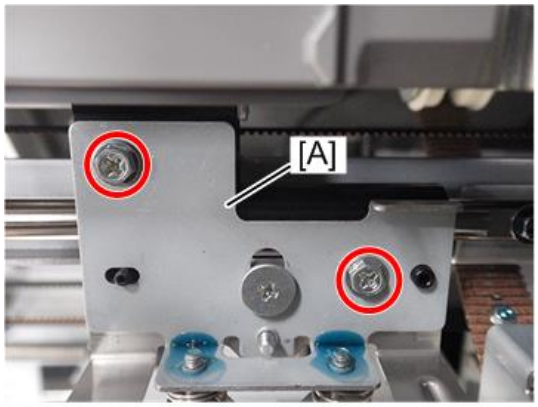
Now you can access the front and rear of the base fence.

- [A] is the front of the base fence.
- [B] is the rear of the base fence.



d0bxa8703

3. Remove the bracket [A].

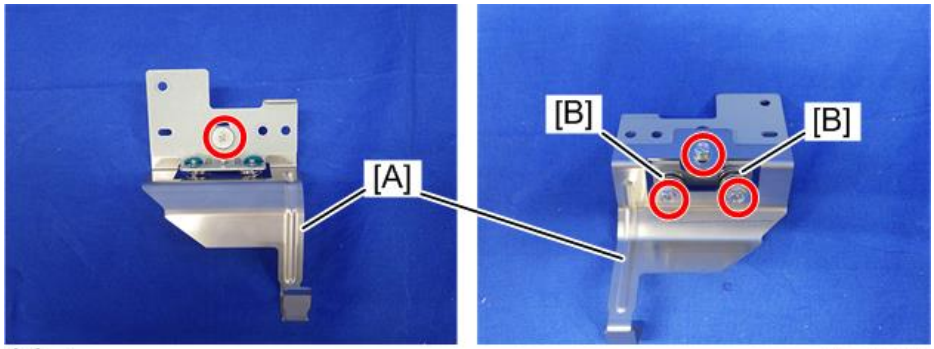


×2 d0bxa8704

4. Remove the screws, and then carefully remove the front of the base fence [A].

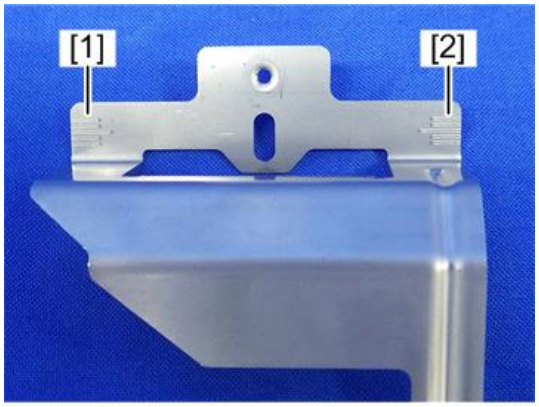
Note

- Work carefully to prevent the pressure spring [B] from flying off.



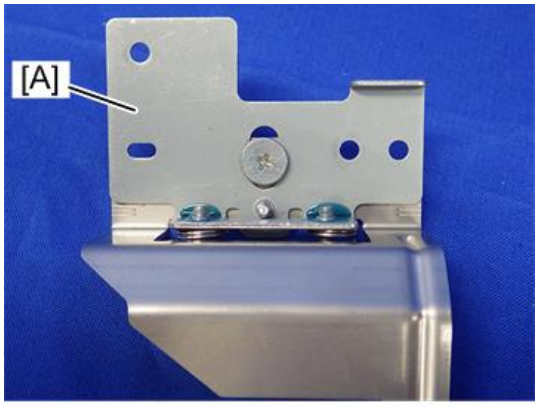
×4 d0bxa8705

The new base fence is embossed with groups of lines [1], [2].



d0bxa8706

5. Attach the new front base fence. Set the edge of the fence bracket [A] so that it is aligned with the center line of each group of lines on the base fence.



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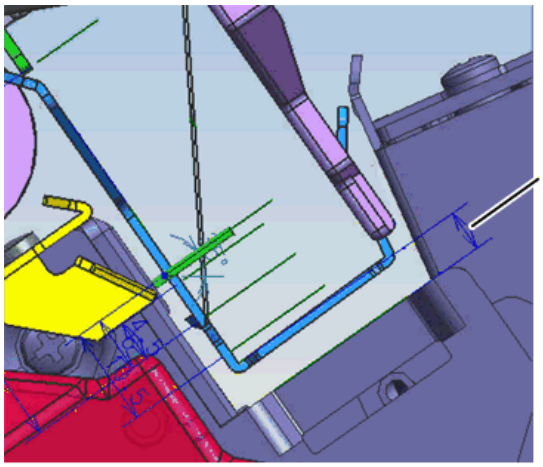
6. Re-attach the fence bracket to the finisher.

Set the base fence so that the distance [A] between the reference surface of the base fence and the corner stapler is approximately 4.5 mm.



d0bxa8747

7. Adjust the staple position using SP mode.