Booklet Finisher SR5040 Finisher SR5030 Machine Code: D512/D513 Field Service Manual

20 April, 2011

Safety, Conventions, Trademarks

Conventions

Common Terms

Symbol	What it means
P	Screw
£1	Connector
C	E-ring
3	C-ring
J.	Harness clamp
FFC	Flexible Film Cable
JG	Junction Gate
LE	Leading Edge of paper
LEF	Long Edge Feed
SEF	Short Edge Feed
TE	Trailing Edge of paper

This is a list of symbols and abbreviations used in this manual.





SEF (Short Edge Feed)

LEF (Long Edge Feed) d074c001

The notations "SEF" and "LEF" describe the direction of paper feed, with the arrows indicating paper feed direction.

Warnings, Cautions, Notes

In this manual, the following important symbols and notations are used.

WARNING

• A Warning indicates a potentially hazardous situation. Failure to obey a Warning could result in death or serious injury.

• A Caution indicates a potentially hazardous situation. Failure to obey a Caution could result in minor or moderate injury or damage to the finisher or other property.

Comportant 🖸

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

Vote

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

General Safety Instructions

For your safety, please read this manual carefully before you use this product. Keep this manual handy for future reference.

Safety Information

Always obey the following safety precautions when using this product.

Safety During Operation

In this manual, the following important symbols and notations are used.

Switches and Symbols

Where symbols are used on or near switches on machines for Europe and other areas, the meaning of each symbol conforms with IEC60417.



Responsibilities of the Customer Engineer

Reference Material for Maintenance

- Maintenance shall be done using the special tools and procedures prescribed for maintenance of the machine described in the reference materials (service manuals, technical bulletins, operating instructions, and safety guidelines for customer engineers).
- Use only consumable supplies and replacement parts designed for use of the machine.

Before Installation, Maintenance

Installation, Disassembly, and Adjustments

- After installation, maintenance, or adjustment, always check the operation of the machine to make sure that it is operating normally. This ensures that all shipping materials, protective materials, wires and tags, metal brackets, etc., removed for installation, have been removed and that no tools remain inside the machine. This also ensures that all release interlock switches have been restored to normal operation.
- Never use your fingers to check moving parts causing spurious noise. Never use your fingers to lubricate moving parts while the machine is operating.

Special Tools

- Use only standard tools approved for machine maintenance.
- For special adjustments, use only the special tools and lubricants described in the service manual. Using tools incorrectly, or using tools that could damage parts, could damage the machine or cause injuries.

During Maintenance

General

• Before you begin a maintenance procedure: 1) Switch the machine off, 2) Disconnect the power plug from the power source, 3) Allow the machine to cool for at least 10 minutes.

• Avoid touching the components inside the machine that are labeled as hot surfaces.

Power

WARNING

- Always disconnect the power plug before doing any maintenance procedure. After switching off the machine, power is still supplied to the main machine and other devices. To prevent electrical shock, switch the machine off, wait for a few seconds, then unplug the machine from the power source.
- Before you do any checks or adjustments after turning the machine off, work carefully to avoid injury. After removing covers or opening the machine to do checks or adjustments, never touch electrical components or moving parts (gears, timing belts, etc.).
- After turning the machine on with any cover removed, keep your hands away from electrical components and moving parts. Never touch the cover of the fusing unit, gears, timing belts, etc.

Organic Cleaners

- During preventive maintenance, never use any organic cleaners (alcohol, etc.) other than those described in the service manual.
- Make sure the room is well ventilated before using any organic cleaner. Use organic solvents in small amounts to avoid breathing the fumes and becoming nauseous.
- Switch the machine off, unplug it, and allow it to cool before doing preventive maintenance. To avoid fire or explosion, never use an organic cleaner near any part that generates heat.
- Wash your hands thoroughly after cleaning parts with an organic cleaner to contamination of food, drinks, etc. which could cause illness.

Power Plug and Power Cord

WARNING

- Before servicing the machine (especially when responding to a service call), always make sure that
 the power plug has been inserted completely into the power source. A partially inserted plug could
 lead to heat generation (due to a power surge caused by high resistance) and cause a fire or other
 problems.
- Always check the power plug and make sure that it is free of dust and lint. Clean it if necessary. A dirty plug can generate heat which could cause a fire.
- Inspect the length of the power cord for cuts or other damage. Replace the power cord if
 necessary. A frayed or otherwise damaged power cord can cause a short circuit which could lead
 to a fire or personal injury from electrical shock.

- Check the length of the power cord between the machine and power supply. Make sure the power cord is not coiled or wrapped around any object such as a table leg. Coiling the power cord can cause excessive heat to build up and could cause a fire.
- Make sure that the area around the power source is free of obstacles so the power cord can be removed quickly in case of an emergency.
- Make sure that the power cord is grounded (earthed) at the power source with the ground wire on the plug.
- Connect the power cord directly into the power source. Never use an extension cord.
- When you disconnect the power plug from the power source, always pull on the plug, not the cable.

After Installation, Servicing

Disposal of Used Items

• Always dispose of used items in accordance with the local laws and regulations regarding the disposal of such items.

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1. Replacement and Adjustment

Common Procedures

Overview



• [A]: Front	• [C]: Rear
• [B]: Left	• [D]: Right



- [A] Open the front door.
- [B] Adjustable caster
- [C] Pull the stack/stapler unit out (pull handle **Rb12**).



d512r103

- Inner covers:
 - [A] Upper: **Rb2**, **Rb8**
 - [B] Center: **Rb14**, **Rb16**
 - [C] Lower **Rb10**, **Rb11**

Covers

Rear Upper Cover



- 1. Screw covers [A] (hooks)
- 2. Rear upper cover [B] (🌶 x5)

Comportant)

• The rear upper cover must be removed before the rear lower cover.

Rear Lower Cover

Preparation

• Rear upper cover (IPp.12)



1. Rear lower cover [A] (🕅 x4)

The screw near the power connection point is difficult to see.

Re-installation



- d512r106
- 1. 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** (***** x1 each, Pin x1 each).
- 2. Make sure that the pins [A] are removed and stored with the screws.



3. Remove the cover (🖗 x2, Tabs x2).

Center Inner Cover: **Rb14**, **Rb16**

Preparation

• Lower inner cover (IPp.14)



d434r109

- 1. Remove:

Upper Inner Cover: **Rb2**, **Rb8**



d434r110

1. Remove:

[A] Rb2, Rb8.

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

[B] Cover (🌶 x5)

Front Door

1. Open the front door.



- 2. Remove the clip [A].
- 3. Lift off the door [B] from its bottom post.

Corner Strip Cover

1. Front door (**P**p.16)



d434r112

- 2. Remove the top and bottom screws [1], [2] (🌶 x2).
- 3. Disconnect the tabs at the top and bottom.
- 4. Twist the cover away from the corner.

Proof Tray



d512r118

1. Proof tray [A] (🌶 x2)

Top Right Cover



1. Top right cover [A] (🌶 x2)

Top Rear Cover

Preparation

- Proof tray (IPp.17)
- Top right cover (IPp.18)
- Rear upper cover (IPp.12)



d512r113

1. Top rear cover [A] (🌶 x2).

Shift Tray Jogger Unit

1. Top rear cover (IPp.18)



d512r115

2. Remove:

[A] Jogger unit cover (🌶 x2)



Left Upper Cover

Preparation

- Proof tray (IPp. 17)
- Shift tray jogger unit (IPp.18)



1. Remove the left upper cover [B] (🌶 x2, 🗂 x1, 😂 x2).

Right Panel



d434r121

- The right panel covers the PSU, which retains residual voltage after the system is switched off.
- Before removing the right panel for any procedure, switch the machine off and wait 30 min. for the charge on the PSU to discharge.
- 1. Remove right panel [A] (🌶 x6)

Shift Tray



d434r122

- 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. (🌶 x4)

Booklet Tray



d434r123

1. Just lift and pull the booklet tray [A] away from the side.

Booklet Unit

Booklet Stapler

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

Preparation

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



d434r124

- 1. Remove both booklet staplers.
- 2. Remove booklet stapler unit cover [A] (🌶 x2)



d434r125

- 3. Remove stapler unit [A] (🗂 x1, 🌶 x4)
- 4. Make sure connector [B] is disconnected.
- 5. Remove the stapler unit with its handle [C].



d434r126

Booklet Unit

Preparation

- Open the front door.
- Front door (**P**p.16)
- Corner strip cover (IPp.16)
- Lower inner cover Rb10, Rb11 (IPp.14)
- Booklet stapler (recommended) p.21)

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.





d434r127

- 1. Make sure that the stack/staple unit is closed.
- 2. Locate the two motors attached to the rear of the stack/staple unit.



d434r128

- 3. Disconnect the two motors ①, ②(🗂 x2).
- 4. Disconnect the connectors of the other harnesses attached to the rear of the stack/staple unit at 3,
 (a), (5) (ax2, 11 x2).



d434r129

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



- d434r130
- 7. Pull the stack/staple unit out until it stops.



d434r131

8. Remove:

[A] Rear (🌶 x2)

[B] Front (🛿 x2)



d434r132

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

Handling and Moving the Booklet Unit



d434r901

- The metal edges of the booklet unit are sharp and can easily cut your hands or fingers. Always handle the unit carefully.
- 1. Always lift the booklet unit with your hands positioned at 0 and 0.
- 2. Never attempt to lift the booklet unit by the edges (shown above by the red dotted lines).

Side Fence

Preparation

- Shift tray jogger unit.
- Pull stack/stapler unit out with handle **Rb12**.

Exit Roller Cover



d434r133

This is the exit roller cover [A].



d434r134

1. Remove:



d434r135

2. Remove the cover.

Shift Tray, Booklet Tray



d434r136

1. Remove the booklet tray [A].



d434r137

- 2. Support the shift tray with your hand.
- 3. At the left rear corner, pull the gear [A] toward to release the tray, then lower the tray.
- 4. Remove the screws [B] (**P** x3)



d434r138

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

Shift Tray Base



d434r139

This is the shift tray base [A].



d434r140

- 1. Rear cover [A] (🌶 x1).
- 2. Slide the cover off. You do not need to remove the screw.



d434r141

3. Front cover [A] (🌶 x1)

4. Slide the cover off. You do not need to remove the screw.



d434r142

5. Front belt clamp [A] (🌶 x1)



d434r143

6. Rear belt clamp [A] (🌶 x1)



d434r144

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



d434r145

8. Front base plate [A] (🌶 x2)





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



Left Lower Cover, Booklet Tray Actuator Arm

d434r147

- 1. Half-turn sensor harness [A] (🛱 x6, 🗂 x1)

2. Rear cover [A] (🌶 x3)





3. Booklet tray actuator arm [A] (🌶 x2)

End Fence



d434r149

1. Disconnect:

[A] Motor (☞ x 1, 🗂 x1) [B] Half-turn sensor (☞ x 1, 🗗 x1)



d434r150

- 2. Rear:
 - [A] Top (🌶 x1)
 - [B] Center (🌶 x1)
 - [C] Bottom (🌶 x1)



d434r151

- 3. Front:
 - [A] Top (🌶 x1)
 - [B] Center (🌶 x1)
 - [C] Bottom (🌶 x1)

Re-installation



d512r152

- 1. When you re-attach the exit roller cover [A]:
 - Make sure the small mylar 1 is set as shown above.
 - Make sure the large mylars 2 and 8 are set as shown above.
V

Drag Roller Unit

Preparation

• End fence (**IP**p.32)



d434r153

This is the drag roller unit [A].



d434r154

1. Harness connectors (🛱 x7)



d434r155

2. Connectors (🗟 x1, 📬 x2)



d434r156

3. Motor harnesses (🗂 x2)



d434r157

 [B] Rear (🌶 x2)



d434r158

5. Remove the drag roller unit [A].

1

Horizontal Paper Feed

Entrance

Entrance Roller Motor

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)
- Sub board (**IP**p.167)



The entrance roller motor is under the entrance paper guide.



d434r910

 Disconnect and remove the main board [A] (* x4, Ground connectors * x2, * x All, * x All) so you can access the motor bracket [B].



d434d911

2. Disconnect the motor bracket [A] (🌶 x2, 📿 x1, 🖋 x1).



d434r912

3. From inside the unit, pull the bracket [A] (with the motor attached) through the hole.



d434r913

4. Remove the motor [A] from the bracket ($otin \times 2
otin,$

Entrance Sensor



d434r164

The entrance sensor port is above the paper guide.



d434r165

- 1. Remove:
 - [A] Sensor bracket (🌶 x1)
 - [B] Sensor (🖽 x1, ▼x5)

Registration

Registration Motor

Preparation

- Rear upper cover (IPp.12)
- Sub board (**P**p.167)



d434r166

The registration motor is behind the sub board.



d434r167

1. Disconnect motor bracket [A] (🌶 x2, 🖽 x1, 🧭 x1)



d434r168

2. Remove motor [A] (🌶 x2)

Horizontal Transport Motor

Preparation

• Rear upper cover (IPp.12)



d434r169

The horizontal transport motor is in the center.

1



d343r170

1. Disconnect motor [A] (🌶 x2)



d434r171

- 2. Disconnect the motor bracket:
 - [A] Left hook
 - [B] Right hook



d434r172

- 3. Disconnect motor [A] (Belt x1, 🗂 x1)
- 4. Remove bracket [B] (🌶 x2)

Exit

Shift Tray Exit Motor

Preparation

• Rear upper cover (IPp.12)



d434r173



The shift tray exit motor is at the rear left corner.

d434r174



d434r175

2. Disconnect motor bracket [A] (**T** x1, 🖽 x1)

d434r176

3. Motor bracket [A] (🌶 x2)

Punch Unit

Punch Motors and Sensors

Punch Movement Motor

Preparation

E

 Punch unit (IP"Installation Procedure" for Finishers (D512/D513) in the Field Service Manual of the Main Machine)



d434r177

1. Punch movement motor bracket [A] (🌶 x1)



d434r178

- 2. Remove:
 - [A] ∭x1 [B] Bracket (∦x1)



d434r179

3. Disconnect motor [A] (🛱 x1, 🗂 x1)

Punch Unit HP Sensor

Preparation

 Punch unit (IP"Installation Procedure" for Finishers (D512/D513) in the Field Service Manual of the Main Machine)



d434r180

- 1. Remove:
 - [A] Sensor bracket (🌶 x1)
 - [B] Sensor (🗗 x1, Pawls x5)

Punch Drive Motor

Preparation

• Rear upper cover (IPp.12)



d434r181

1. Disconnect:

[A] Motor (≌x1, 邙 x1) [B] Bracket (🌶 x2)



d434r182

2. Remove motor [A].

Punch RPS Sensor

Preparation

• Rear upper cover (IPp.12)



d434r183

1. Sensor [A] (🛱 x1, 🗂 x1, ▼x5)

Punch-out Hopper Full Sensor



d434r184

1. Sensor swing plate [A] (Spring x1, 🌶 x1, 🖨 x1, 🗂 x1)



d434r184a

2. Sensor (🌶 x1)

Proof Tray

Proof Tray Motors

Proof Tray JG Motor

Preparation

- Rear upper cover (IPp.12)
- Punch unit PCB (IPp.170)



d434r185

The proof tray JG motor is located here.



d434r186

1. Disconnect motor [A] (🛱 x4, 📬 x2)



d434r187

2. Bracket of the motor [A] (🌶 x2)



d434r188

3. Remove:

[A] Motor with bracket

[B] Bracket (🌶 x2)

Proof Tray Vertical Transport Motor







The proof tray vertical transport motor is located here, partially covered by the punch unit PCB.

Preparation

- Rear upper cover (IPp.12)
- Top rear cover (IPp.18)
- Punch unit PCB (IPp.170)



d434r190

1. Bracket of the motor [A] (🖗 x2)



d434r191

2. Pull out motor [A] (▼x1, 𝓿x1, 🖽x1)



d434r192

3. Remove bracket [A] (🌶 x2)

Proof Tray Exit Motor

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)
- Top rear cover (IPp.18)



d434r193

The proof tray exit motor is located here.



d434r194

1. Motor bracket [A] (🌶 x2, 🔽 x1)



d434r195

2. Remove the motor [A] and bracket (${\cal O}$ x1, 🗂 x1. 🌶 x2)

Proof Tray Sensors

Proof Tray JG HP Sensor

Preparation

• Rear upper cover (IPp.12)



d434r196

Re-installation





1. Turn the proof JG motor [A] gear to move the actuator to the left if the sensor is difficult to re-install.

Proof Tray Exit Sensor, Proof Tray Full Sensor

Preparation

- Upper inner cover (IPp.15)
- Top rear cover (IPp.18)
- Shift tray jogger unit (IPp.18)
- Left upper cover (IPp.19)
- Proof tray (IPp.17)



d434r198

These sensors are mounted on the same bracket under the paper path cover.



d434r199

- 1. At the front, disconnect the shaft [A] of plate Rb5. ($\langle \! I \rangle \! X$ 1)
- 2. Remove **Rb5** [B]



d434r200

3. Use a short screwdriver to remove bracket plate [A]. ($\not\!\!\!P x1)$



d434r201

- 4. Use a pencil or marker to mark the color and location of the harnesses.
- 5. Disconnect a standoff 0 to create slack in the harnesses.

6. Disconnect the bracket and sensors [A] (🛱 x4, 🗂 x2).



d434r202

7. Remove:

[A] Tray full sensor (🌶 x1)

[B] Tray exit sensor (**T** x5)

Shift Tray

Shift Tray Side-to-Side Movement

Shift Motor

Preparation

• End fence (IPp.32)



d434r203

The shift motor is visible inside the machine, but the end fence must be removed for servicing this motor.



d434r204

- 1. Lay the end fence on a flat surface.
- 2. Remove bracket [A] (*P* x4, ▼ x1)



d434r205

3. Turn the bracket over and remove the motor [A] ($\ref{eq:alpha}x2,\, \ref{eq:alpha}x1)$

Shift Tray HP Sensors (Front, Rear)

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

Preparation

• End fence (**IP**p.32)



d434r206

1. Remove sensor bracket [A] (🌶 x1).



d434r207

2. Remove sensors (🖾 x2, 🖨 x3, ▼ x 5 each)

Shift Tray Exit

Shift Tray Exit Motor

Preparation

• Rear upper cover (IPp.12)



d434r173

The shift tray exit motor is at the rear left corner.



d434r174

1. Disconnect motor [A] (🌶 x2, 🛱x2)



d434r175

2. Disconnect motor bracket [A] (**T** x1)



d434r176

3. Motor bracket [A] (🌶 x2)

Shift Tray Exit Sensors (Long and Short)

Preparation

• Proof tray (IPp.17)



d434r208

1. Lift arm [A] (🖾x1).



d434r209

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



d434r209a

At the rear, remove:
 [A] Gear (©x1, Øx2)
 [B] Bushing (© x1)



d434r209b

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



d434r209c

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



d434r209d

- 7. Lay the assembly on a flat surface.
- 8. Remove the plate [A].



d434r209e

9. Remove:

[A] Exit sensor (long) (▼x1, t x1)
[B] Exit sensor (short) (▼x1, t x1))

Drag Roller Motors, Sensors

Drag Roller Motor



d434r210

The drag roller motor is visible inside the machine, but the side fence and drag roller unit must be removed to service this motor.

Preparation

- End fence (**P**p.32)
- Drag roller unit (**P**p.35)



d434r211

- 1. Disconnect motor bracket [A] (🌮 x2).
- 2. Turn the drag roller unit over and remove the motor [B].



d434r212

3. Remove motor [A] (🛱 x1, 🗂 x1).

Drag Drive Motor



d434r213

The drag roller motor is visible inside the machine, but the side fence and drag roller unit must be removed to service this motor.

Preparation

- End fence (**IP**p.32)
- Drag roller unit (IPp.35)



d434r214

- 1. Turn the drag roller unit on its side with the face of the motor down.
- 2. Remove the motor [A] (🖗 x2).


d434r215

Drag Roller HP Sensor

Preparation

- End fence (IPp.32)
- Drag roller unit (IPp.35)



d434r215

1. Remove:

[A] Sensor bracket (🕅 x1)

[B] Sensor (🖽 x1, ▼x5)

Shift Tray Jogger Unit

Shift Jogger Motor



d434r217

This motor is on top of the shift tray jogger unit, near the center.

Preparation

• Shift tray jogger unit (IPp.18)



d434r218

This is the location of the motor with the shift jogger unit removed.



d434r219

1. Turn the unit over and disconnect the motor (P x2, O x1).



d434r220

2. Disconnect motor [A] (🗂 x1)

Shift Tray Jogger Fence HP Sensor

Preparation

• Shift tray jogger unit (IPp.18)



d434r221

1. Remove sensor [A] (🖽 x1, ▼x5)

Shift Jogger Retraction Motor



d434r222

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

Preparation

• Shift tray jogger unit (IPp.18)



d434r223

1. Disconnect the motor harness [A] (🛱 x1, 🖽 x1)



d434r224

2. Disconnect the retraction HP sensor on the same bracket as the motor [A] (B x1)



d434r225

3. Disconnect motor bracket [A] (🛱 x1, 🖋 x2)

Shift Jogger Fence Retract HP Sensor

Preparation

• Shift tray jogger unit (IPp.18)





1. Remove sensor [A] (🖽 x1, ▼x5)

Note

• If it is difficult to remove the sensor directly from the frame (or re-install), do the procedure in the previous section to remove the shift jogger retraction motor bracket.

Shift Tray Operation

Shift Tray Lift Motor

Preparation

- Rear upper cover (IPp.12)
- Top rear cover (IPp.18)
- Proof tray (IPp.17)



d434r227

The shift tray lift motor is near the left rear corner.



d434r228

1. Disconnect the motor drive board (🗂 x1).



d434r229

- 2. Remove:
 - [A] Rear (🌶 x1)

[B] Front (🌶 x1)



d434r230

3. Pull the motor and drive board motor out.

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

Preparation

• Proof tray (IPp.17)



d434r231

1. Remove the protector plate [A] (🌶 x1).



d434r232

2. Remove feeler [A] (🌶 x1).



d434r233

- 3. Remove sensor bracket [A] (🌶 x1, Standoffs x2)
- 4. Sensors (🗂 x1 each)
 - ① Paper Height Sensor 1: Staple Mode
 - Paper Height Sensor 2: Shift Mode

③ Paper Height Sensor 3: Z-Fold Mode

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



The actuator [A] of the paper height sensor performs two functions:

- First, it rises and actuates the Paper Height Sensor (TE) [B] to detect tray full.
- Second, if the actuator rises far enough through the gap of the interrupt sensor (TE) it will trip the arm [C] of a micro-switch [D]. This is a fail-safe device to switch the finisher off if one or more other sensors fail.

Preparation

- End fence (**P**p.32)
- Drag roller unit (IPp.35)

Paper Height Sensor (TE)



d434r235

1. Remove sensor plate [A] (🖗 x2, 🛱 x2)



d434r236

2. Sensor (🖾 x1, ▼x5)

Shift Tray Upper Limit Switch



d434r237

1. Turn the drag roller unit [A] over so that you can see the micro-switch [B].



d434r238

2. Remove the switch [A] from the frame (🛱 x2, 🌶 x1)



d434r239

3. Disconnect the switch (🖽 x2)

Shift Tray Full Sensors 1, 2, 3, 4 (500)

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)

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)



d434r240

1. Remove the vertical stay cover (🌶 x3).





2. The four sensors, (x1 each, ▼x5 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)

Pre-Stacker

Pre-Stacker Motors



d434r242

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

Pre-Stack Motor

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)
- Sub board (**P**p.167)
- Main board (**IP**p.167)
- Right panel (**P**p.20)

Important

• The motor does not hang on a bracket. Work carefully and do not allow it to fall after you remove the last screw.

1



- 1. Rear [A] (🌶 x2, 🧭 x1)
- 2. Front [B]: Remove the motor (📬 x1)



d434r244

Pre-Stack Release Motor



d434r245

The pre-stack motor is only partially visible behind the sub board and main board.

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)
- Sub board (**P**p.167)
- Main board () [.167)



d434r246

- 1. At the rear, disconnect the motor (🖽 x1).
- 2. Disconnect the drive assembly cam and cam follower at [A] (Teflon gear x1, $\mathbb{C}x1$, $\mathcal{O}x1$).



d434r247

3. Remove the motor bracket (**P**x2).



4. Remove motor [A] (🌶 x2)

Re-installation



d434r249

1. If the Teflon gear [A] will not lock in place, behind the frame pull the shaft of the pre-stack roller [B] toward the motor.

Pre-Stacker Sensors

Pre-stack Roller HP Sensor

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)
- Sub board (**P**p.167)
- Main board (**P**p.167)



d34r251

- 1. Disconnect sensor harness [A] (🗗 x1)
- 2. Remove sensor bracket [B] (🌶 x1)



d434r252

3. Sensor (**T** x5)

Corner Stapler Unit

Corner Stapler Unit Entrance

Stapler JG Motor



d434r253

The stapler junction gate motor is behind the punch unit PCB.

Preparation

- Rear upper cover (IPp.12)
- Punch unit PCB (IPp. 170)



d434r254

1. Open the harness clamps of the motor [A] (🛱 x3)



2. Disconnect the motor at [B] (📬 x1)

d434r255

- 3. Remove 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.

Stapler JG HP Sensor

Preparation

- Rear upper cover (IPp.12)
- Punch unit PCB (IPp. 170)



d434r256

- 1. Remove sensor bracket [A] (🗂 x1, 🖋 x).
- 2. Sensor (**T** x5).

Stapling Tray Entrance Sensor

Preparation

- Right panel (IPp.20)
- Pull out the stack/staple unit.



d434r257

The stapling tray entrance sensor is under the bracket [A] at the right rear corner of the stack/staple unit.

1. .At the back of the stack/staple unit, disconnect the sensor at [B] (🗗 x1)



d434r258

2. Remove bracket [A] (🌶 x2)



d434r259

3. Remove sensor [A] (☎ x1, ∦ x1)

Stapling Tray Entrance Motor



d434r260

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

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)
- Sub board (**P**p.167)
- Main board () [.167)



d434r261

1. Remove motor [A] (☎ x1, 🖋 x2)



d434r262

2. Remove motor [A] (🌶 x2).

Stapling Tray Paper Sensor

Preparation

• Booklet unit (IPp.23)

C Important

- The stapling tray paper sensor shares the same bracket with the top fence HP sensor.
- Use a marker to mark one of the harnesses to prevent incorrect correction at re-installation.



d434r263

The stapling tray paper sensor is on bracket [A].



d434r264

1. Remove and disconnect bracket [A] (🌶 x, 😂 x5, 🗂 x2)



d434r265

2. Remove the paper sensor [A] (the photosensor) (🌶 x1)

Note

• The other sensor is the top fence HP sensor.

Corner Stapler Side-to-Side Jogging

Front Jogger Fence Motor



d434r266

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

Preparation

• Booklet unit (IPp.23)



d434r267

- 1. Loosen screw [A] to release the belt tension (earrow x1).
- 2. Disconnect motor [B] (🛱 x1, 🗗 x1, 🌶 x1)



d434r268

3. Remove motor [A] (🛱 x1, Belt x1).



d434r269

4. Disconnect motor [A] (🌶 x2)

Re-installation

1



d434r270

- 1. After re-installing the motor, be sure to re-tighten the belt screw.
 - Make sure the belt is tight.
 - The tension of the belt can be adjusted to compensate for stretching in the belt that may occur when it reaches the end of its service life.

Jogger Fence HP Sensor (Front)

Preparation

• Booklet unit (IPp.23)



d434r271

- 1. Disconnect:
 - [A] **∦**x1 [B] **∰** x1
- 98

[C] **T** x5

Rear Jogger Fence Motor





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

Preparation

• Booklet unit (IPp.23)







d434r274

2. Disconnect motor [A] (♣ x1, ₽ x1, ≯ x2).



d434r275

3. Disconnect motor [A] (🌶 x2)

Re-installation



d434r276

- 1. After re-installing the motor, be sure to re-tighten the belt screw.
 - Make sure the belt is tight.
 - The tension of the belt can be adjusted to compensate for stretching in the belt that may occur when it reaches the end of its service life.

Jogger Fence HP Sensor (Rear)

Preparation

• Booklet unit (IPp.23)



d434r276a

- 1. Disconnect and remove the sensor:
 - ① 🛱 x1
 - ② 岛 x1
 - 3 🗗 x1

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.

Preparation

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



d434r278

1. Remove motor cover [A] (🌶 x2)



d434r279

2. Remove motor [A] (🛱 x1, 🗗 x1, 🌶 x2)

Positioning Roller Motor





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

Preparation

- Open the front door.
- Pull out the stack/staple unit with handle **Rb12**.
- Right panel (IPp.20)



d434r281

1. Remove motor cover [A] (🌶 x2)



d434r282

2. Remove motor [A] (🗂 x1, 🌶 x2, 📿 x1)

Positioning Roller HP Sensor

Preparation

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



d434r283

1. Remove motor cover [A] (🌶 x2).



d434r284

2. Remove sensor [A] (🗗 x1, ▼x5)

Corner Stapler Bottom Fence Motor



d434r285

The corner stapler bottom fence motor is near the center of the stack/staple unit.

Preparation

• Booklet unit (IPp.23)



d434r286

1. Remove motor [A] (🗂 x1, 🌶 x2).


d434r287

2. Separate motor [A] from the bracket (🌶 x2).

Bottom Fence HP Sensor

Preparation

• Booklet unit (IPp.23)

Comportant 🔂

• The bottom fence HP sensor shares the same bracket with the stack feed-out belt HP sensor. Use a marker to mark one of the harnesses to avoid incorrect connection at re-installation.



d434r288

1. Remove bracket [A] (🌶 x1, 🖨 x1)



d434r289

- 2. Disconnect the bottom fence HP sensor ① (№ x1, 🗇 x2, ▼x5).
- The bottom fence HP sensor ① (the interrupt sensor without the feeler) is on the same bracket as the
 ② (sensor with feeler attached).

Corner Stapler Top Fence Motor



d434r290

The corner stapler top fence motor is on the rear panel of the corner stapler unit.

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)
- Booklet unit (IPp.23)



d434r291

- 1. Disconnect motor [A] (🖽 x1)
- 2. Push the stack/staple unit [B] into the finisher until it stops and locks.





- 3. Remove the belt 1 and screw 2. (🌶 x1, 🧭 x1)
- 4. Loosen screw ③ slightly.

Important

• Do not remove screw 3! The motor will fall if you remove this screw.



d434r293

5. While supporting the motor [A] with your right hand to prevent the motor from falling, remove the remaining screw from behind the panel (*x*1).

Top Fence HP Sensor

Preparation

• Booklet unit (IPp.23)



d434r294

The top fence HP sensor is on bracket [A].



d434r264

1. Remove and disconnect bracket [A] (🌶 x, 🖨 x5, 🗂 x2)



d434r296

2. Remove the top fence HP sensor [A] (the photointerrupter sensor with the feeler (earrow x1)

Note

• The other sensor is the stapling tray paper sensor.

Corner Stapling Edge Press Before Stapling

Edge Press Motor/Sensor Plate

🚼 Important

• The removal of this motor/sensor plate is a common procedure for the next three procedures below.

Preparation

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

• Right panel (IPp.20)

1



d434r297

1. Remove cover [A] (🌶 x1)



d434r298

2. At the back, disconnect the motors and sensors ①, ②, ③ (x3, 🗂 x3)



d434r299

- 3. Remove:
 - [A] Rear (🌶 x2) [B] Front (🌶 x2)



d434r300

- 4. Remove the plate [A] and set it on a flat surface.
 - ① Front motor, sensor, plunger
 - Center motor, sensor, plunger
 - ③ Rear motor, sensor, plunger

Stack Plate Motor, Stack Plate HP Sensor (Rear)



d434r301

The rear stack plate motor is under the motor cover with the front and center stack motor.

Preparation

• Edge Press Motor/Sensor Plate (
p.111)

Stack Plate Motor (Rear)



d434r302

- 1. Depress plunger [A] to see the other screw.
- 2. Remove both screws (🌶 x2).
- 3. Turn the plate over.
- 4. Remove motor [B] (☎ x1, 🛱 x1)



d434r303

Stack Plate HP Sensor (Rear)



d434r304

- 1. Rotate the gear and belt to move actuator [A] out of the gap of the sensor [B]
- 2. Turn the plate over.



d434r305

- 3. Disconnect the sensor at [A] (🗂 x1).
- 4. Turn the plate over.
- 5. Remove sensor [B] (**T** x5).



Stack Plate Motor, Stack Plate HP Sensor (Center)

d434r301

The center stack plate motor is under the motor cover with the front and rear stack motors.

Preparation

• Edge Press Motor/Sensor Plate (IPp.111)

Stack Plate Motor (Center)



d434r306

- 1. Rotate the gear clockwise to raise the plunger [A] and relieve the tension on the spring [B].
- 2. Remove spring [B].



d434r307

3. Disconnect shafts (1) and (2) and slide them out (🌶 x2).



d434r308

- 4. Turn the plate over.
- 5. Remove the screws (🌶 x2).



d434r309

6. Remove the motor (🗟 x1, 🗂 x1).

Stack Plate HP Sensor (Center)



- 1. Rotate the gear to move actuator [A] out of the gap [B].
- 2. Turn the plate over.
- 3. Disconnect the sensor at [C]



d434r311

4. Remove sensor [A] (▼ x5)

Stack Plate Motor, Stack Plate HP Sensor (Front)



d434r301

Preparation

• Edge Press Motor/Sensor Plate (IPp.111)

Stack Plate Motor (Front)



d434r312

- 1. Depress plunger [A] so you can see the screw.
- 2. Remove the screws. (🌶 x2)



d434r313

3. Remove motor [A] (⇔ x1, 🗗 x1, 🧷 x1).

Stack Plate HP Sensor (Front)



d434r314

- 1. Rotate the gear to move plunger [A] out of the gap of the sensor [B].
- 2. Turn the plate over.



d434r315

- 3. Disconnect the sensor at [A] (🗂 x1).
- 4. Remove sensor [B] ▼ x5).

Corner Stapling

Corner Stapler

Preparation

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



d434r316

1. Remove the stapler cartridge [A].



d434r317



d434r318

- 3. Disconnect the stapler [A] (🗂 x2).
- 4. Lift the stapler off its posts but do NOT pull it away.

Comportant 1

• This is still one harness connected inside the stapler.



d434r319

5. Disconnect harness [A] (🛱 x3, 🗂 x1)

Corner Stapler Movement Motor



d434r320

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

Preparation

• Booklet unit (IPp.23)



d434r321

- 1. On the left [A], disconnect the motor (🖽 x1).
- 2. On the right [B], remove the motor (I x2, ${\cal O}$ x1)



d434r322

Stapler Rotation Motor



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

Preparation

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



d434r324

- 1. Disconnect the motor at [A] (🗂 x1).
- 2. Remove the motor at [B] (🌮 x2, 🥥 x1).



d434r325

Staple Trimmings Hopper Full/Set Sensors

Preparation

- Open the front door.
- Pull out the stack/staple unit with handle **Rb12**.
- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)

Trimmings Hopper Unit



d434r326

1. Remove the staple trimmings hopper.



d434r327

2. Free the harness [A] and disconnect it from the main board [B] (🛱 x11, 🖽 x1).



d434r328

- 3. Gather the disconnected harness [A].
- 4. Disconnect the trimmings collection unit [B] (🌶 x2).



d434r329

5. Disconnect tab [A] (Tab x1, 🛱 x2).

- 6. Release hinge shaft [B] (🖾 x1).
- 7. Open the unit.



d434r330

8. Detach:

① Hopper set sensor (▼ x5)

2 Hopper full sensor

Stapler Movement Sensors

Common procedures

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

Preparation

- Pull out the stack/staple unit with handle **Rb12**.
- Corner stapler (IPp.121)



d434r331

- 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.



d434r332

- 4. Remove spring [A].
- 5. Loosen screw [B] (do not remove it).
- 6. Rotate the plate down to relieve tension on the belt.



d434r333

- 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.



d434r334

9. Remove sensor bracket [A] (🌶 x2).

Three sensors are on this bracket:

- ① Rotation HP sensor (rear) (🗂 x1, ▼ x5)
- ② Rotation HP sensor (front) (□ x1, ▼ x5)
- ③ Stapler HP sensor (🗂 x1, ▼ x5)

Re-installation



d434r335

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

Corner Stapled Stack Feed Out

Stack Transport Motor

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)



1. Remove motor [A] (⅔ x3, 🗂 x1, 🖗 x2)



d434r356

2. Separate motor [A] from the bracket (🌶 x2).

Stack Transport Unit HP Sensor

Preparation

- Rear upper cover (IPp.12)
- Stack transport motor (IPP p.131)



d434r336

- 1. Remove sensor bracket and sensor [A] (🌶 x1).
- 2. Remove the sensor (🗗 x1, ▼ x5)

Stack Feed-Out Belt Motor



d434r337

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

Preparation

• Booklet unit (IPp.23)



d434r338

- 1. Behind the front plate [A], disconnect the motor (🗗 x1).
- 2. On the face of the front plate [B], remove the screws ($\ref{eq:remove}$ x2)



d434r339

- 3. Remove the motor (O x1).
- 4. Separate the bracket and motor [A] (🌶 x2).

Stack Feed-Out Belt HP Sensor

Preparation

• Booklet unit (IPp.23)



d434r288

1. Remove bracket [A] (🌶 x1, 😂 x1)



d434r289

- Disconnect the stack feed-out belt HP sensor ⁽²⁾ (⁽²⁾/₂ x1, ⁽¹⁾/₂ x2, [▼] x5).
- The bottom fence HP sensor ① (the photointerrupter without the feeler) is on the same bracket as the stack feed-out belt HP sensor ② (sensor with feeler attached).

Stack Junction Gate Motor



d434r340

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

Preparation

• Rear upper cover (IPp.12)



d434r341

1. Remove motor [A] (🗂 x1, 🌶 x2).



d434r342

2. Separate the bracket and motor [A] (🌶 x2).

Stack JG HP Sensor

Preparation

• Rear upper cover (IPp.12)



d434r343

- 1. If the actuator [A] is in the gap of the sensor, rotate gear and belt [B] until the actuator is out of the gap.
- 2. Remove sensor bracket [C] (🌶 x1).



d434r344

3. Remove sensor [A] (¹ x1, [▼] x5).

Corner Stapled Stacks Exit to Shift Tray

Exit Guide Motor



d434r345

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

Preparation

• Proof tray (IPp.17)



d434r346

1. Disconnect the harnesses (🖨 x2, 📬 x1).



d434r347

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



d434r348

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

1



d434r349

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



d434r350

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

Exit Guide HP Sensor

Preparation

- Proof tray (17)
- 1. Remove the exit guide motor assembly (see the previous procedure)





1. Remove sensor bracket [A] (🌶 x1, 🗂 x1)

2. Remove sensor [B] (**T** x5).

Booklet Unit

Booklet Stapler

Preparation

• Booklet unit (IPp.23)

Vote

- This procedure describes removal of the booklet stapler after the booklet unit has been removed.
- Actually, 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.



d434r352

- 1. Remove cover [A] (***** x2).
- 2. Remove the stapler unit [B] (**2**x4, **CD** x1)



d434r353

- 3. Lift the stapler unit [A] out with its handle.
- 4. Four sensors are behind the stapler unit:
 - ① Rear jogger fence HP sensor
 - ^② Front jogger fence HP sensor
 - 3 Bottom fence HP sensor

Folder unit entrance sensor

Booklet Unit Transport, Entrance

Fold Unit Entrance Sensor

Preparation

- Booklet unit (IPp.23)
- Booklet stapler (IPp.21)



d434r354

- 1. Remove sensor bracket [A] (🌶 x1).
- 2. Remove sensor [B] (☎ x1, ▼ x5)
Booklet Side-to-Side Jogging

Booklet Stapler Side Fence Motor



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

Preparation

• Booklet unit (IPp.23)



d434r358

1. Remove motor [A] (⇔ x1, 🗗 x1, 🌶 x2)



d434r359

2. Separate motor [A] from the bracket (🌶 x2).

Booklet Stapler Side Fence HP Sensor (Front)

Preparation

- Booklet unit (IPp.23)
- Booklet stapler (IPp.21)



d434r360

1. Remove:

[A] Sensor bracket (🕅 x1)

[B] Sensor (🖾 x1, ▼x5)

Booklet Stapler Jogger HP Sensor (Rear)

- Booklet unit (IPp.23)
- Booklet stapler (IPp.21)



d434r361

- 1. Remove:
 - [A] Sensor bracket (🌶 x1)
 - [B] Sensor (🖽 x1, ▼x5)

Booklet Bottom/Top Jogging

Booklet Stapler Bottom Fence Motor



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

Preparation

• Booklet unit (IPp.23)



d434r363

1. Remove motor [A] (🌶 x2, 🗂 x1).



d434r364

2. Separate the motor [A] from the bracket (🌶 x2).

Booklet Stapler Bottom Fence HP Sensor

- Booklet unit (IPp.23)
- Booklet stapler (IPp.21)



d434r365

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





- 2. Release the pawls [B] and push them through the plate (**T** x5).



d434r367

3. Disconnect the sensor (🗂 x1).

Booklet Stapler Top Fence Motor



d434r368

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

Preparation

1

• Booklet unit (IPp.23)



d434r369

1. Remove sensor bracket [A] (🌶 x1, 🗂 x1)



d434r370

2. Separate motor [A] from the bracket (🌶 x2)

Booklet Top Fence HP Sensor

Preparation

• Booklet unit (IPp.23)



d434r371

- 1. Remove sensor bracket [A] (🌶 x1).
- 2. Remove sensor [B] (♣x1, 🕶 x1, ▼x5)

Booklet Press for Stapling



Booklet Stapler Clamp Roller Motor, Booklet Unit Exit Sensor



The clamp roller motor 0 and exit sensor 2 cannot be removed until the motor base has been removed.

Preparation

• Booklet unit (IPp.23)

Motor Base Plate



d434r373

1. Remove cover [A] (🌶 x2).



d434r374

2. Disconnect sensor bracket [A] and harness [B] (🌶 x1, 😂 x2, 🖽 x1).



d434r375

3. Disconnect motor harness [A] (🛱 x6, 🗂 x1).



d434r376

- 4. Pull belt ① until you can see through the hole ② that the edge of the actuator ③ below the hole is aligned as shown.
 - The edge of the actuator and the line on the left side of the hole must be aligned.
 - This releases the clamp roller so that there is no pressure on the base plate.



d434r377

5. Remove:



d434r378

- 6. Remove base plate [A].
- 7. Remove end-piece [B].

Exit Sensor



d434r379

A guide shaft blocks access to the exit sensor bracket [A].



d434r380

- 1. Remove guide shaft screw [A] (🌶 x1).
- 2. Rotate then slide the guide shaft [B] to the rear until you have enough space to remove the bracket screw. (The guide does not need to be removed.)



d434r381

- 3. Use a short screwdriver to remove the exit sensor bracket [A] (earrow x1).
- 4. Disconnect the exit sensor [B] (C→ x1, ▼x5).

Clamp Roller Motor

Preparation

• Motor base plate





1. Lay the motor base plate [A] on a flat surface.



d434r383

2. Turn the base plate over.

3. Remove motor [A] (🌶 x2, 🧭 x1).

Re-installation





To make sure there is no pressure on the base plate, pull belt ① until you can see through the hole
② that the edge of the actuator ③ below the hole is aligned as shown.





• Turn gear [A] so that you can see the cut-out. The post of the linkage must be re-inserted here when the motor base plate is re-installed.



d434r385

• After the motor base plate [A] has been re-installed, the linkage will not be straight. It will slant slightly from rear to front. This is normal.





• Confirm that the ends of the vertical shafts fit correctly through the holes in the motor base plate before you re-attach any screws.



d434r387

• Re-attach end-piece [A] at the front before you re-attach any other screws.

Booklet Stapler Clamp Roller Sensor

Preparation

• Booklet unit (IPp.23)



d434r388

1. Remove cover [A] (🌶 x2).





d434r389

2. Remove sensor bracket [A] (🌶 x1).



d434r390

3. Remove sensor [A] (☎ x1, ▼x5).

Booklet Folding

Fold Plate Motor



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

Preparation

• Booklet unit (IPp.23)



d434r392



d434r393

Fold Plate Cam HP Sensor

- Booklet unit (IPp.23)
- Fold roller motor (described in the previous section)



d434r394

- 1. Remove sensor bracket [A] (🌶 x1, 🖨 x1, 🗂 x1).
- 2. Sensor (**T** x5)

Fold Plate HP Sensor

Preparation

• Booklet unit (IPp.23)



d434r395

- 1. Remove:



d434r396

2. Remove cross-brace [A] (🛱 x2, 🖽 x1)



d434r397

3. Sensor [A] (**▼** x5)

Booklet Exit, Booklet Tray

Fold Roller Motor



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

Preparation

• Booklet unit (IPp.23)



d434r399

163



d434r400

Booklet Stapler Exit Sensor

See p.150 "Booklet Stapler Clamp Roller Motor, Booklet Unit Exit Sensor".

Booklet Staple Tray Full Sensors (Upper/Lower)

These sensors are on the same bracket.

- Open the front door.
- Pull out the stack/staple unit with handle **Rb12**.
- Right panel (**P**p.20)
- Rear upper cover (IPp.12)



d434r401

- 1. Raise the shift tray if it is down.
- 2. At the top of the left rear corner, pull gear [A] out while supporting the tray [B] with your other hand, then push the tray up.



- 3. Remove the booklet tray [A].
- 4. Remove the left lower cover [B] (🌶 x3).



d434r403

5. Remove the booklet tray actuator arm [A] (🌶 x2).



d434r404

6. Inside the finisher, open one or two clamps to create some slack in the harness. (🛱 x2)



d434r405

7. Remove sensor bracket [A] (x2)
① Upper sensor (x2, □ x1)
② Lower sensor (x1, □ x1)

Boards

Sub Board

The sub board can be removed without removing the main board.

Preparation

• Rear upper cover (IPp.12)



d34r406

- 1. Disconnect the harnesses (📬 x10).
- 2. Remove the sub board:
 - Screws ①, ② (🌶 x2)
 - \$\vec{w}_{x3}, 3\vec{3}, 4\vec{5}
- 3. Raise the board ⁶ and disconnect it from the main board below.

Main Board

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)
- Sub board () p.167)



d434r408

- 1. The sub board ① and main board ②are on the back of the finisher.
- 2. Remove the sub board.
- 3. Disconnect the main board harnesses (🗗 x38).



d434r408



d434r409

- 5. Open harness clamps:
 - [A] Top (ଔ x3) [B] Bottom (ଔ x5)



434r410

6. Remove the board bracket:



d434r411

7. Separate the board from the bracket (🌶 x8)

Punch Unit PCB

Preparation

- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)



d434r412

1. Remove the punch unit PCB (🗂 x6, 🐺 x4).

Shift Tray Jogger Unit PCB

• Shift tray jogger unit (IPp.18)



d434r413

- 1. Lay the shift jogger unit [A] on a flat surface.
- 2. Disconnect motor [B]. (🖽 x1)



d434r414

3. Remove PCB [A] (🗂 x5, 🖗 x2).

PSU

- Switch the system off.
- Disconnect the finisher from its power source.
- Wait at least 30 minutes for the PSU to cool.
- Right panel (IPp.20)



d434r415

1. Remove the PSU board (🌶 x6, 🗂 x4)

Switches

Front Door Switch

Preparation

- Open the front door.
- Upper inner cover (IPp.15)



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



d434r417

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

Breaker Switch

Preparation

- Switch the system off.
- Disconnect the finisher from its power source.
- Rear upper cover (IPp.12)
- Rear lower cover (IPp.12)



d434r418

- 1. Remove mounting bracket [A] (🌶 x3).
- 2. Disconnect breaker switch [B] (🗂 x4)



d434r419

3. Remove breaker switch [A] (🌶 x2)

Emergency Shift Tray Stop Switch

Preparation

- Shift tray jogger unit (IPp.18)
- Left upper cover (IPp.19)



d434r420

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



d434r421

- 1. Turn the cover over.
- 2. Remove the switch [A] (🌶 x2, 🗂 x1).

Rollers and Brushes

Rollers

Drag Roller



d434r422

1. Replace:

[A] Rear (Ѿ x1, Belt x1) [B] Front (Ѿx1, Belt x1)

Positioning Roller

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



d434r423

1. Remove motor cover [A] (**2**x2).



d434r424

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

Alignment Brush Roller

- Open the front door.
- Lower inner cover **Rb10**, **Rb11** (**P**.14)
- Center inner cover **Rb14**, **Rb 16** (**IP**p.15)
- Right panel (**P**p.20)

Rear



d434r425

- 1. Remove gear [A].
- 2. Remove gear and bushing ($\odot x1$, O x1, Bushing x1)

Front



d434r426

- 1. Remove the bushing [A] (ⓒ x1).
- 2. Remove the alignment brush roller.



d434r427
Re-installation



d434r428

1. 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.

Discharge Brushes

Shift Tray Exit



d434r429

1. Remove discharge brush [A] (🌮 x2).

Corner Stapler Entrance

Preparation

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



d434r423

1. Remove cover [A] (🌶 x2)



d434r430

- 2. Raise **Rb13** [A].
- 3. Remove discharge brush [B] (🌶 x2)

Booklet Unit Exit

Preparation

• Booklet unit (IPp.23)



d434r431

The discharge brush [A] is on the left side of the booklet unit.



d434r432

1. Remove:

[A] Rear (🌶 x2) [B] Front (🌶 x2)



d434r433

Special Adjustments

Horizontal Skew

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

- 1. Run a fold/staple job through the booklet unit with A3 (or DLT) paper.
- Hold the folded sheet with the creased side pointing down and face-up (the same way that it came out of the finisher).



d512r434

- 3. Referring to the diagram above, 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.

Preparation

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



d434r434a

- 1. Before doing any adjustment:
 - Rotate the knob counter-clockwise ① so that it is loose.
 - Rotate the knob clockwise 2 until you feel some resistance, then stop.



d434r435

2. Remove the screw.

Comportant)

- 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.

[A] Adjustment: Rear Fence Low



d434r436

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.

C Important

• Every notch adjusts the height 0.1 mm.



d434r437

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

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

[B] Adjustment: Front Fence Low



d434r438

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.



d434r439

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

Vertical Skew

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

1. Switch the main machine and do a test run for booklet folding with either A3 or DLT paper

🔂 Important 🔵

• This procedure shows you how to test and adjust vertical skew for A3/DLT paper.

• This same adjustment can be done for other paper sizes as well with SP6201.

2. Look at the paper and determine what kind of skew (if any is present).



d434r440

- 3. Referring to the diagram, determine if the skew is positive or negative.
- 4. Measure the amount of skew.
- 5. Enter the SP mode
 - Europe, Asia: Use SP6201-1 (this is for A3 paper).
 - North America: Use SP 6201-7 (this is for DLT paper).

Comportant 🗋

- The illustration above shows the effects of +/- adjustment with SP6201.
- The vertical arrows show the direction of paper feed.
- 6. Enter one-half the measured amount of skew.
 - Example: If the measure amount of skew is -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.
- 7. Exit the SP mode, do another test print and repeat the adjustment procedure if necessary.

Bottom Fence Replacement

Before You Begin

- The bottom fences can be replaced separately or together.
- Only replacement of the front fence is described here. The replacement procedure for the rear bottom fence is the same.

Preparation

- Pull out the stack/staple unit with handle **Rb12**.
- Remove the booklet unit (IPp.23).



d434r441

- 1. Look at the corner staple unit from the left side:
 - [A] Rear bottom fence
 - [B] Front bottom fence



d434r442

Note

• These screws are very tight, so we recommend use of a socket wrench or socket driver to avoid damaging the screw heads.



d434r443

This shows the front bottom fence removed.



d434r444

The mount where the new bottom fence will be attached has a scale on each side 1 and 2.

- 3. Attach both the rear and front screws.
 - Do not tighten the front screw.
 - Align the rear screw with the center line of the rear scale ${f 0}$ and tighten it slightly.
 - Leave the front screw loose.



d434r445

4. On the right side, set a sheet of A3 (or DLT) paper in the tray.



5. Look under the unit to confirm that the edge of the paper is flat and level on the side fence.



d434r447

- 6. Align the front end of the fence at $\ensuremath{\mathbbm Q}$ with the center line of its scale and tighten the front screw.
- 7. Check the alignment of the paper again.
- 8. If the paper is slightly out of alignment, adjust the front of the bottom fence to the paper and tighten the front screw.