

BOOKLET TRIMMER-A1 INSTALLATION PROCEDURE

Cautions:

- 1) If you are installing this device at the same time as a Saddle Finisher -K3N/K4N, install this device to the finisher first to facilitate the work.
- 2) When installing this device, be sure to work as a group of two people or more.
- 3) If a part is marked NN (NOT NEEDED) next to its name in this booklet, you may do away with the part after the installation work. If a part is marked IN (INCLUDED), it is found inside the box of this device.

View After Installation

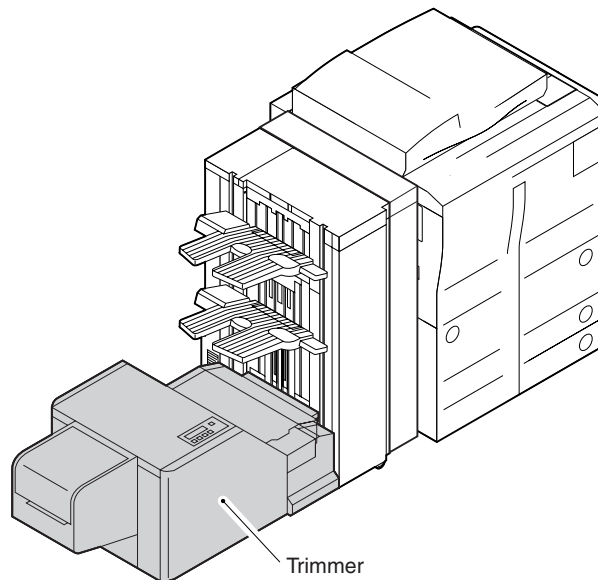


Figure 0-1

Checking the Site of Installation

The site of installation must provide with enough space for copying work (supplying or removing copy paper). Be sure that the floor is fully flat so that the finisher and the copier are level (no steps, slopes, difference in material).

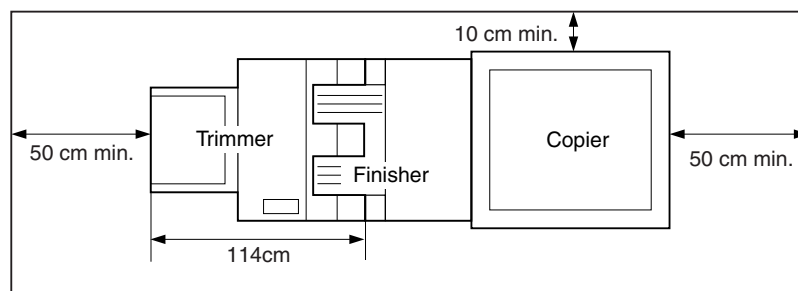


Figure 0-2

1	Unpacking and Contents Confirmation
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1) Unpacking

Remove the top of the shipping box. Working as a group of two people or more and supporting the four points indicated by the hand-shaped labels, lift the device from the shipping box and the pallet, and place it on the floor.

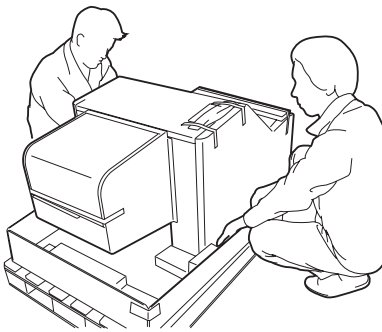


Figure 1-1

2) Contents Confirmation

Open the shipping box, and make sure that none of the parts indicated in Figure 1-2 is missing.

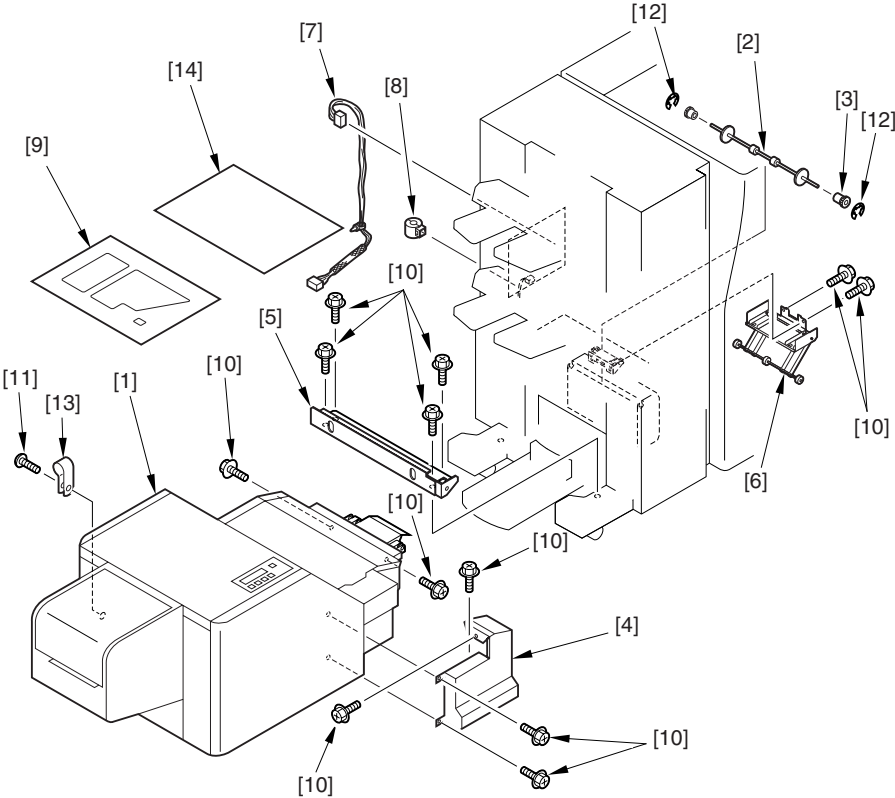


Figure 1-2

[1] Trimmer	1 device	[8] Ferrite core	1 pc.
[2] Finisher roller	1 pc.	[9] Caution label (3 types)	1 pc.
[3] Finisher gear	1 pc.	[10] TP screw (M4 × 6)	12 pc.
[4] Front cover (2)	1 pc.	[11] Truss screw (M4 × 6)	1 pc.
[5] Trimmer fixing plate	1 pc.	[12] E-ring	2 pc.
[6] Inlet pressure unit	1 pc.,	[13] Power supply Cord clamp	1 pc.
[7] Finisher harness unit	1 pc.	[14] Installation Procedure	1 pc.

2	Saddle Finisher Modification 1
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- 1) Open the front door [1], and turn the lever 6 [2] to the right to slide out the saddle assembly [3] from the finisher. Then, open the saddle delivery assembly [4].

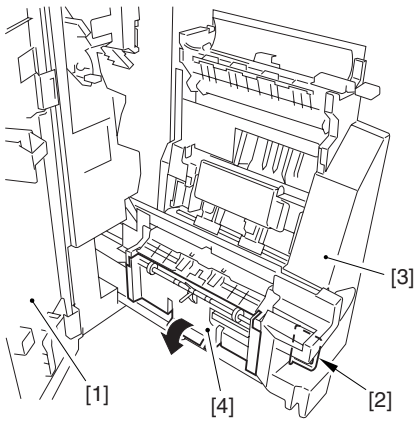


Figure 2-1

- 2) Remove the screw [1], disconnect the right side of the connector [2], and remove the pin [3]; then, detach the saddle delivery assembly [4].

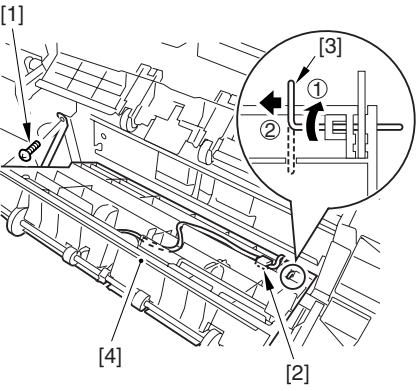


Figure 2-2

- 3) Remove the finisher gear [1] while pressing its claw. Remove the 2 E-rings [2] NN, and remove the 2 bushings [3] (metal on the right, plastic on the left). Then, detach the finisher controller [4] NN.

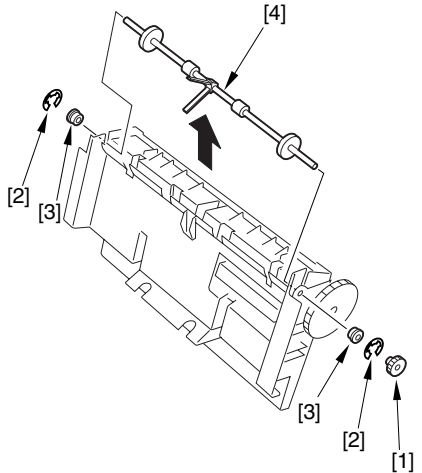


Figure 2-3

- 4) Attach the finisher roller [5] IN to the saddle delivery assembly with the longer side of the shaft to the right. Secure it with the 2 bushings [3] you have previously removed; then, attach the finisher gear [6] IN. Fit and secure the 2 E-rings [7] IN to the finisher roller starting with the finisher gear side.

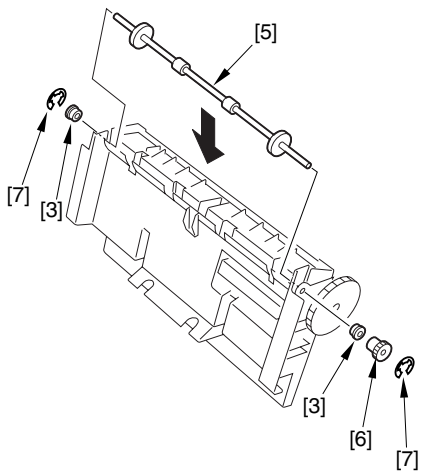


Figure 2-4

- 5) Attach the saddle delivery assembly to the saddle assembly in the reverse order of disassembly mode.

3

Saddle Finisher Modification 2

- 1) Perform the following:
 - If the finisher is already installed to the copier, remove the finisher from the copier.
 - If you are installing both finisher and trimmer newly, install the trimmer to the finisher, before installing the copier or the paper folding unit.
- 2) Free the claws [1], and while disconnecting the connector [2], detach the delivery sub tray [3] NN.

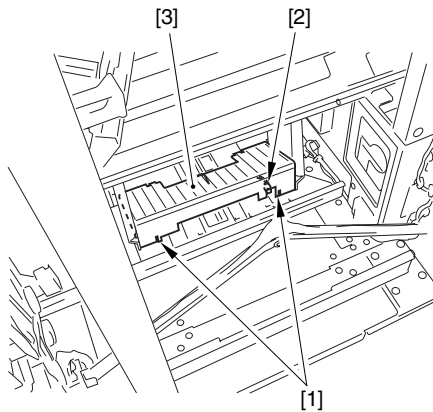


Figure 3-1

- 3) While pushing down the 2 claws [1], shift the bottom of the left side guide plate [2] NN to the right to detach. Likewise, remove the right side guide plate [3] NN while pushing down the 2 claws [4].

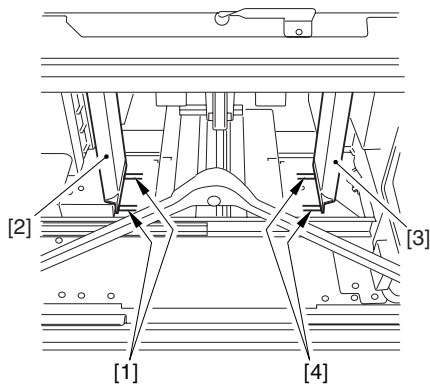


Figure 3-2

- 4) Remove the 2 screws [1] NN; then open the harness clamp [2], and disconnect the 2 connectors [3] to detach the delivery tray [4] NN. (When disconnecting the connector, be sure also to disconnect the relay connector.)

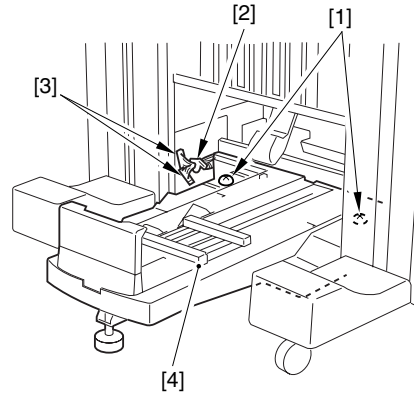


Figure 3-3

- 5) Remove the 4 screws [5] NN, and detach the foot cover [6] NN of the finisher. Then, remove the 4 screws [7] NN, and detach the plate [8] NN from the bottom of the foot cover.

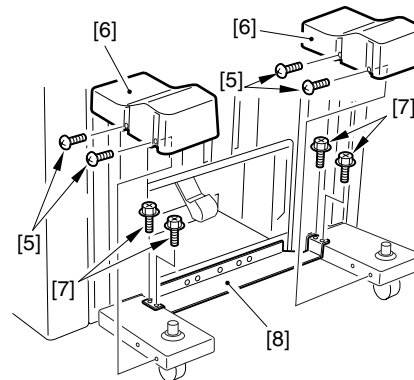


Figure 3-4

- 6) Remove the punch waste box [1]. Then, remove the 8 screws [2], and detach the rear cover [3].

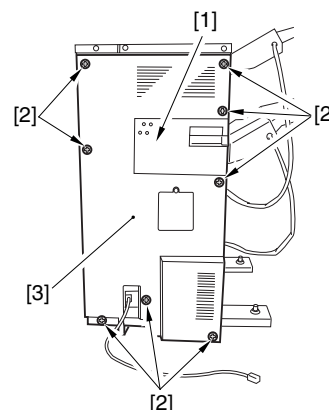


Figure 3-5

- 7) Remove the screw [1], and detach the cover [2] from inside the finisher. First, fit to secure the tie-wrap of the finisher harness unit [3] (INCLUDED) into the mounting hole [4] found in the rear side plate, and attach the cover [2] so that the harness unit will be protected from the moving parts (e.g., saddle unit) located inside the finisher. Route the harness unit as shown in Figure 3-6, and connect the connector of the harness to the connector J130 [6] of the finisher controller PCB [5].

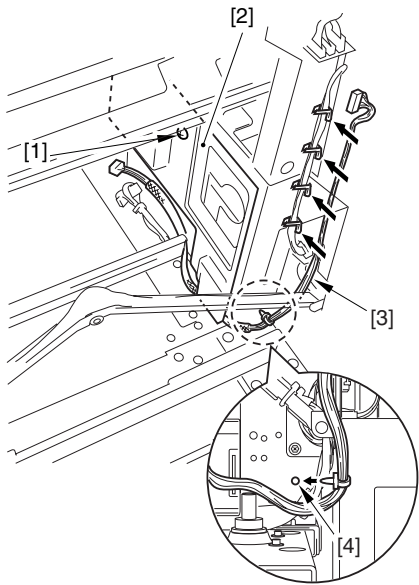


Figure 3-6

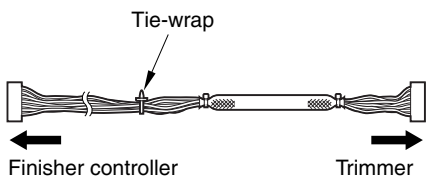


Figure 3-7

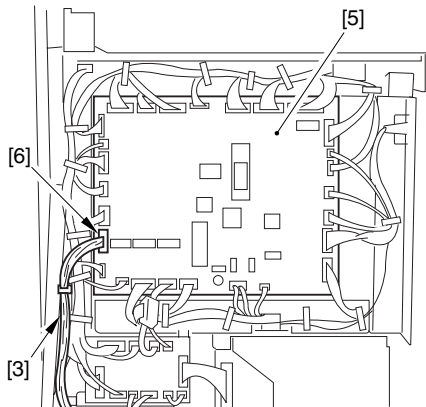


Figure 3-8

- 8) Fit the ferrite core [3] IN as shown, to the 2 wires; pin 1 and 3 [2] of the connector J128 of the finisher controller PCB [1].

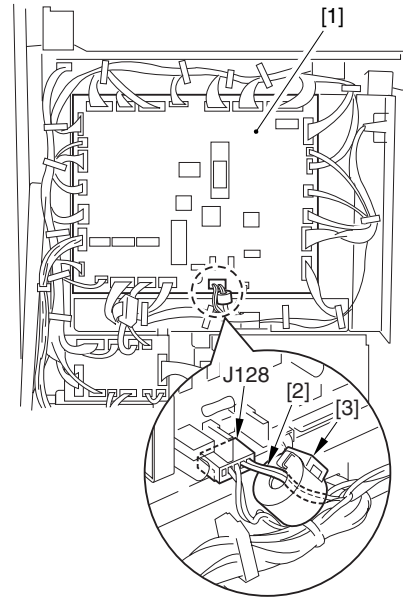


Figure 3-9

- 9) Remove the spring [2] NN from the delivery pressing arm base [1] located inside the finisher, and detach the delivery pressing arm assembly [3] NN. Remove the 2 screws [5] (NN; remove the outside two of the four found), and detach the 2 delivery side pressing plates [4] NN.

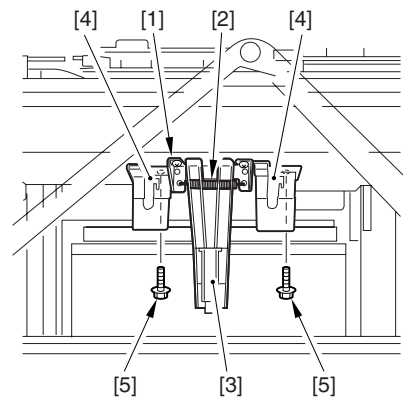


Figure 3-10

- 10) Mount the trimmer fixing plate [2] IN with 4 screws [1] IN. Remove the screw [3], and move the plate found at the rear to the right to increase the opening of the positioning hole.

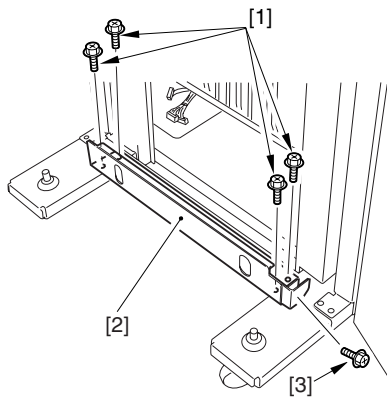


Figure 3-11

- 11) Attach the rear cover and the punch waste box detached in step 6) to the original position.

4	Connecting the Trimmer and the Finisher
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- 1) Remove the screw [2] used to secure the feeder inlet assembly [1], and lift the feeder inlet assembly; then, while supporting it with the plates [3] on both sides, secure it in place with 2 screws [4] IN.

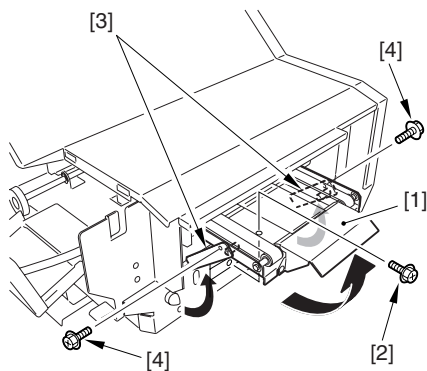


Figure 4-1

- 2) As shown, bring the trimmer closer to the finisher, and make sure that the distance [1] between the plate of the feeder inlet assembly of the trimmer and the top of the booklet outlet opening of the finisher is 18 mm (23/32 inch) or more using a metal ruler [2] or the like.

If the distance is not as indicated, turn the bolt [3] to adjust the height of the finisher. (See the Installation Procure of the finisher.)

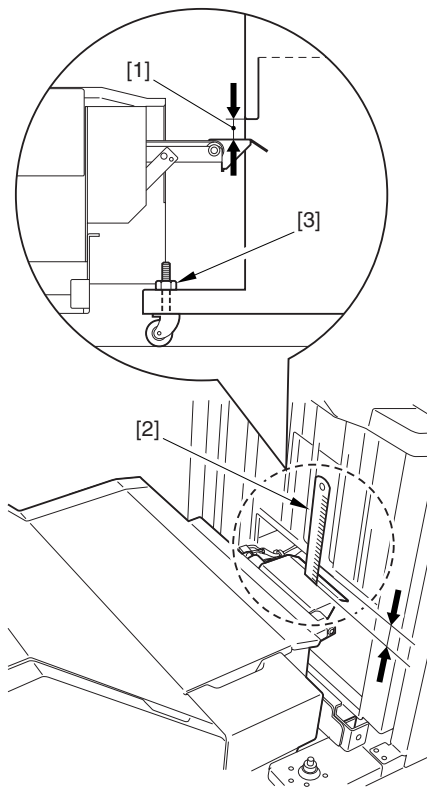


Figure 4-2

- 3) While matching the positioning protrusion [1] of the trimmer against the positioning hole [2] in the trimmer fixing plate, fit the trimmer [3] slowly in the direction of the arrow.

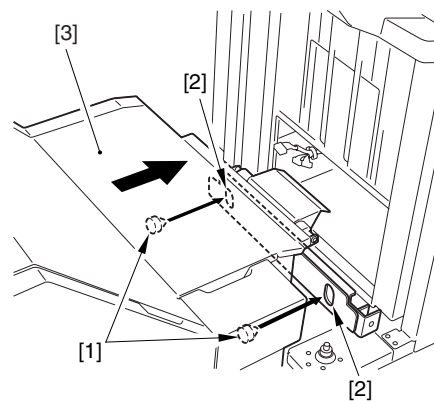


Figure 4-3

- 4) Connect the harness connector [1] of the trimmer and the harness connector [2] of the finisher. Secure the excess of the trimmer harness in place with the wire saddle.

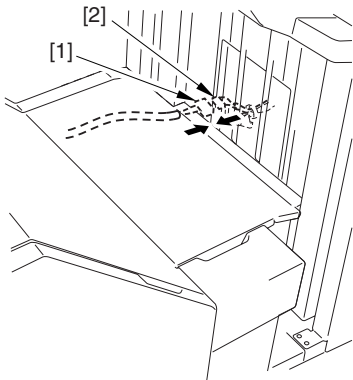


Figure 4-4

- 6) Open the front cover and the front right cover [1] of the trimmer, and secure the lower front cover [2] to the trimmer with 4 screws [3] IN.

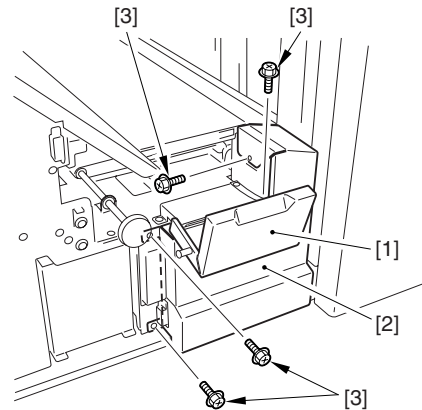


Figure 4-6

- 5) Mount the trimmer to the finisher, and move the side plate [1] of the trimmer fixing plate in the direction of the arrow; then, secure the trimmer and the finisher in place with a screw [2].

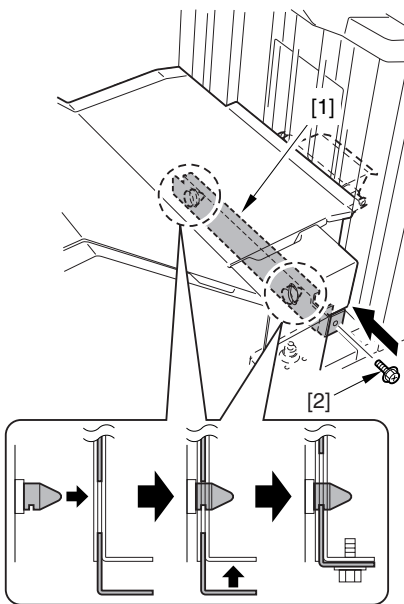


Figure 4-5

- 7) Put the inlet pressure unit [2] IN from below, to the delivery pressing arm base [1] located inside the finisher, and hook it on the latch [3]; then, secure it with 2 screws [4] IN.

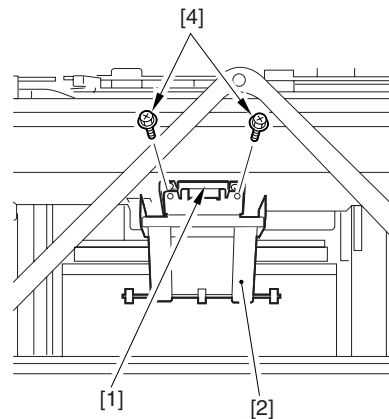


Figure 4-7

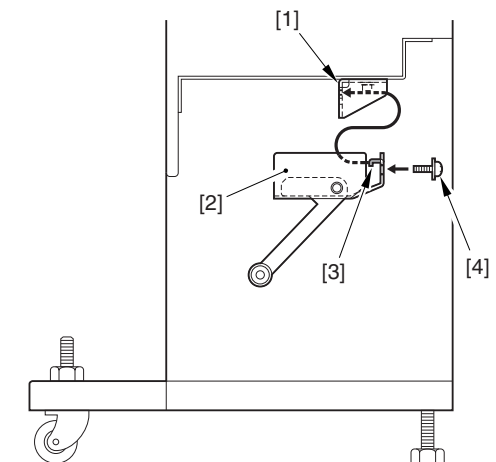


Figure 4-8

5 Affixing the Caution Labels to the Inside of the Finisher

- 1) Affix the 3 types of caution labels [1, 2, 3] IN over the existing labels inside the finisher as shown.

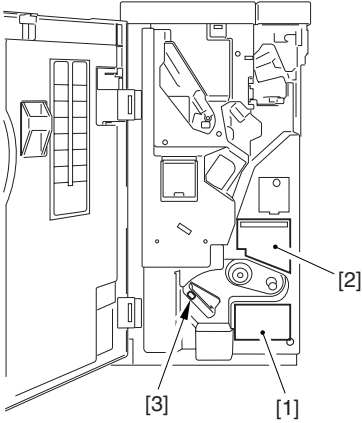


Figure 5-1

6 Modifying the Saddle Stitcher Controller PCB Switch Settings

- 1) Remove the 4 screws [1] as shown, and detach the PCB cover [2].
Shift bit 5 of SW1 on the saddle stitcher controller PCB to ON. (Figure 6-2)
Attach the PCB cover [2] back to its original position with 4 screws.

Caution: Take care. if you draw out the saddle assembly without fitting the PCB cover, the earth spring fitted to the frame will be damaged.

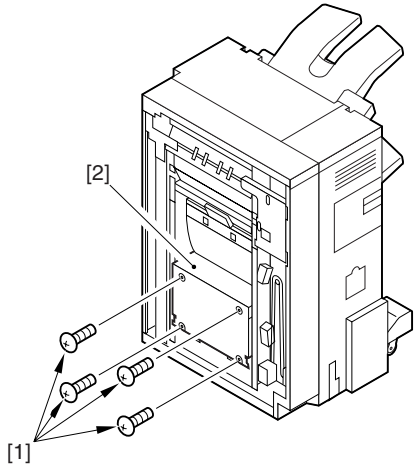


Figure 6-1

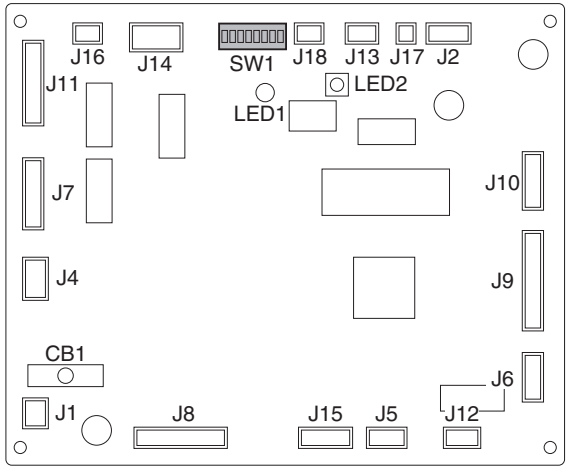


Figure 6-2

7	Fitting the Power Cable
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Attach a power cable [1] and secure it in place with the cord clamp [2] IN and a truss screw (M4 × 6) [3] IN.

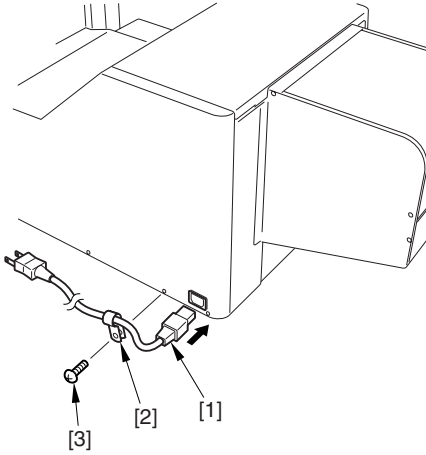


Figure 7-1

8	Older Trimmer ROM Version (Ver. 3.01 or earlier)
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If the version of the trimmer's ROM is 3.01 or earlier, perform the following:

- 1) Check to make sure that the copier is OFF, and the trimmer's power cable is disconnected.
- 2) Remove the 4 screws [1], and detach the trimmer's top cover [2].

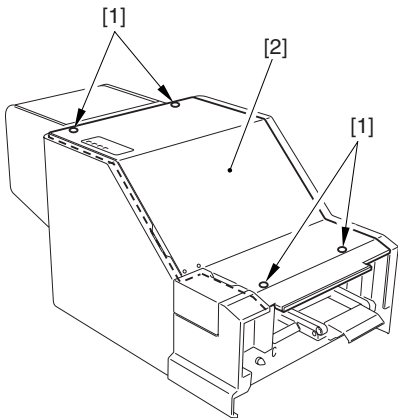


Figure 8-1

- 3) Replace the trimmer's ROM [3] on the trimmer DC controller PCB with a ROM of the latest version.
- 4) Shift all bits of DSW3 [4] on the trimmer DC controller PCB to OFF.

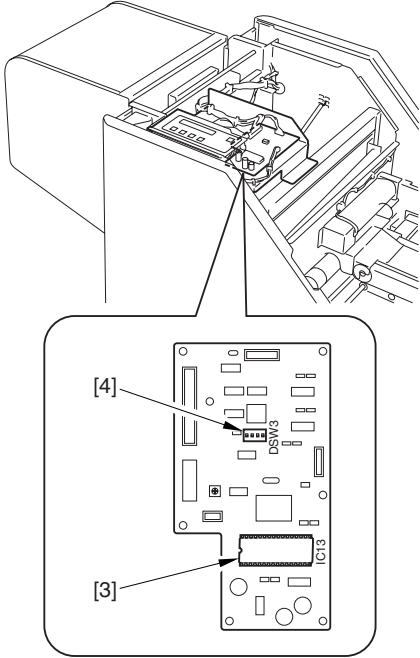


Figure 8-2

- 5) Using 4 screws [1], mount the trimmer's upper cover [2] to its initial position.
- 6) Connect the trimmer's power cable to the power outlet, and turn on the copier.
- 7) On the trimmer's control panel, press the ENTER key, + key, - key, and ENTER key to start service mode.
- 8) Press + key twice, select 3. MODE, and press the ENTER key.
- 9) Press the + key, select SYSTEM for operation mode, press the ENTER key, and press MENU key to bring up the normal screen.

9 SYSTEM/LOCAL Mode Setting

- In the case of SYSTEM (default), the display language setting can be made on the trimmer's control panel, and the trim ON/OFF, cut width adjustment can be made from the copier.
- In the case of LOCAL, the following settings can be made from the Trimmer's control panel: display language, trim ON/OFF, cut width adjustment.

Make settings in SYSTEM/LOCAL mode as follows:

- 1) With the power ON, press the ENTER key, + key, - key, and ENTER key to start service mode.
- 2) Press the + key twice, select 3. MODE, and press the ENTER key.
- 3) If selection is SYSTEM, check to make sure that the indication is SYSTEM at this point in time, and press the ENTER and MENU keys to return to the normal screen.
If selection is LOCAL, press the + key, select LOCAL, and press the ENTER and MENU key to return to normal screen.
- 4) If you have selected SYSTEM, follow the instructions on pp. 11 through 13 ("SYSTEM Mode").
If you have selected LOCAL, follow the instructions on pp. 14 through 15 ("LOCAL Mode").

SYSTEM mode selected

10 Selecting an Indication Language

Perform the following to select an indication language.

- 1) While the device is in standby status, press the MENU key twice and the ENTER key once, so that the device enters the indication language selecting mode.
- 2) A press on the + key will scan through the following languages: Japanese>English>French>German>Italian>Japaneses; then press the ENTER key to select a proper language.

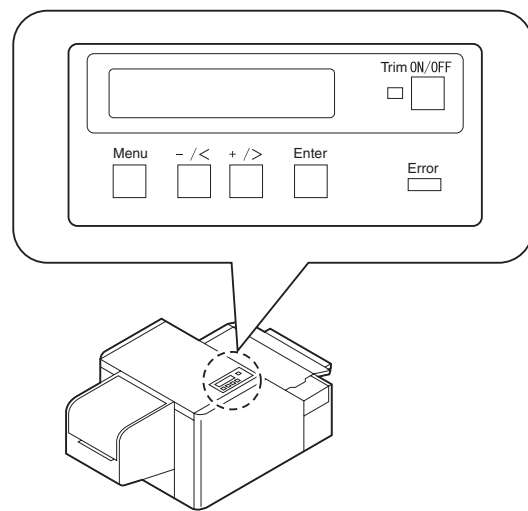


Figure 10-1

11 Checking the Operation

When you have installed the system as a whole (copier, trimmer and finisher or a different accessory), make sure that the copier and trimmer functions operate normally. If a problem is noted, refer to the Installation Procedure or the Service Manual for the machine in question to correct it.

Specific Checks to Make

1. If SYSTEM has been selected for operation mode, Booklet mode in the Special Features mode should be selected on the copier's control panel; ON (trim mode), OFF (through mode or without trim). Each mode should be checked by the following method.
2. Place 8 sheets of A4 original in the copier, and produce 5 sets in the booklet mode in the special features mode, then make sure that 5 sets of 4-page booklets are produced correctly.

12 Making Adjustments

If a problem is noted in relation to the cut angle or the cut width of the trimmer when making the above check, perform the following:

1. Adjusting the Cut Angle of the Fold Side and the Cut Side

The standard (In the case of without cover page) of the cut angle between the fold line and the cut line is as indicated in the figure; if it is not as indicated, make adjustments as shown:

Standard: $A-B < \pm 1 \text{ mm}$

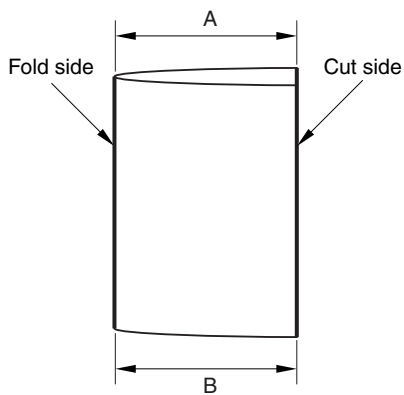


Figure 12-1

1. Open the front cover of the trimmer, and loosen the 2 screws [1].

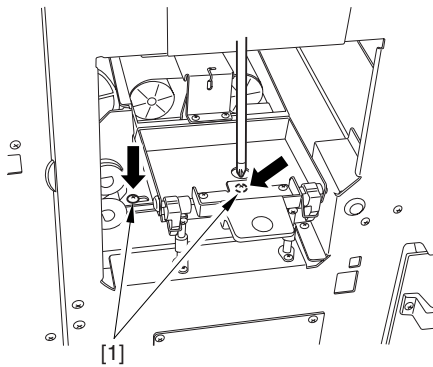


Figure 12-2

2. Open the feed guide pressure lever [1], and move the feed guide assembly [2] to the left or right with reference to the marking, so that the angle is within the standard.

(A single index of the marking equals a shift in the orthogonal angle of about 0.5 mm.)

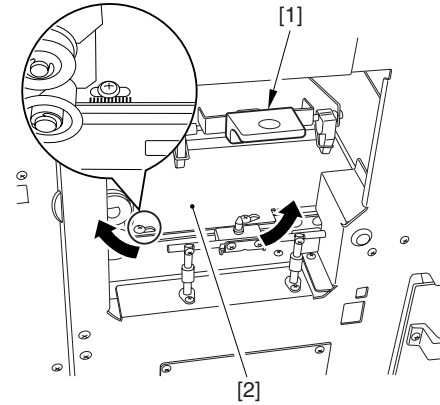


Figure 12-3

3. After the adjustments, assemble the parts by reversing the steps used to disassemble them.

2. Adjusting the Cut Width

If the cut width is less than 2 mm when making the above check, make the following adjustments: (At the factory, the cut width is set to 3.5 mm from the cut edge of the cover page.)

1. If SYSTEM has been selected for operation mode, perform the following using the copier's control panel to start cut width adjustment mode: Press the User Mode key *, select 'adjust/clean', press the Down Arrow key ▼, and select 'cut width adjust'.
2. Select the paper to adjust, enter the appropriate value, and press the OK key to store the new setting.
3. Increase or decrease the cut width (mm) using the + or - key, and press the ENTER key to accept the input.

An increase (decrease) of 1 mm will move the cut line closer to (away from) the fold side by 1 mm.

Caution 1:

The setting of the cut width does not represent the actual cut width, requiring you to increase or decrease it based on an estimate.

e.g.,:

If the current setting is -10.0 mm, an increase to -8.0 mm will move the cut side closer to the fold line by 2 mm from the current position.

Caution 2:

Be sure that the cut width setting is within the following range:

11 × 7 -----	-3.4 mm to 10.2 mm
LTRR -----	-10.3 mm to 7.3 mm
A4R -----	-10.3 mm to 10.2 mm
B4 -----	-10.3 mm to 10.2 mm
A3 -----	-9.5 mm to 10.2 mm

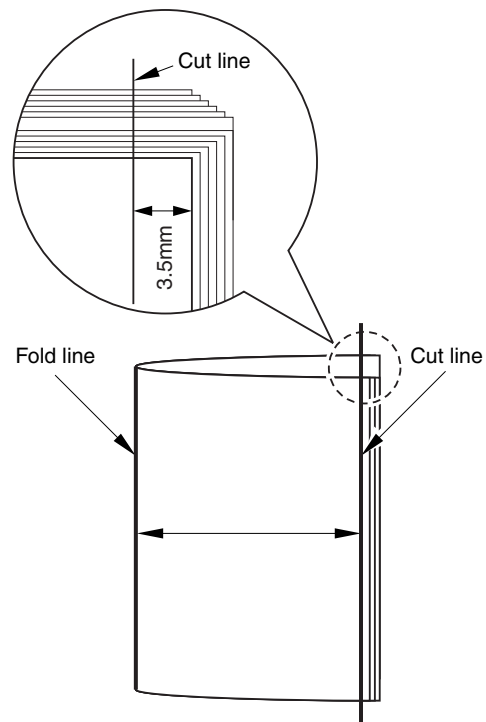


Figure 12-4

LOCAL mode selected

13

Selecting an Indication Language

Perform the following to select an indication language.

- 1) While the device is in standby status, press the MENU key twice and the ENTER key once, so that the device enters the indication language selecting mode.
- 2) A press on the + key will scan through the following languages: Japanese>English>French>German>Italian>Japaneses; then press the ENTER key to select a proper language.

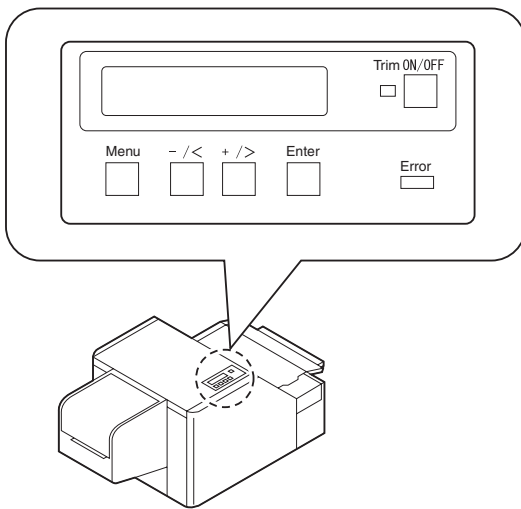


Figure 13-1

14

Checking the Operation

When you have installed the system as a whole (copier, trimmer and finisher or a different accessory), make sure that the copier and trimmer functions operate normally. If a problem is noted, refer to the Installation Procedure or the Service Manual for the machine in question to correct it.

Specific Checks to Make

1. The trimmer function is activated by the Trim ON/OFF switch in the control panel of the trimmer; ON (trim mode), OFF (through mode or without trim). Each mode should be checked by the following method.
2. Place 8 sheets of A4 original in the copier, and produce 5 sets in the booklet mode in the special features mode, then make sure that 5 sets of 4-page booklets are produced correctly.

15

Making Adjustments

If a problem is noted in relation to the cut angle or the cut width of the trimmer when making the above check, perform the following:

1. Adjusting the Cut Angle of the Fold Side and the Cut Side

The standard (In the case of without cover page) of the cut angle between the fold line and the cut line is as indicated in the figure; if it is not as indicated, make adjustments as shown:

Standard: $A-B < \pm 1 \text{ mm}$

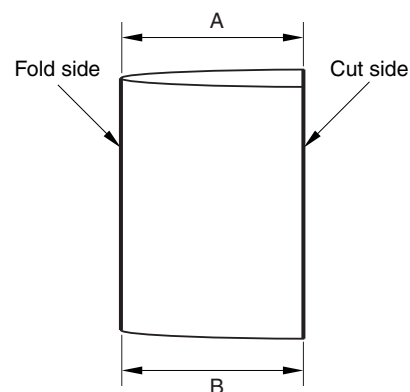


Figure 15-1

1. Open the front cover of the trimmer, and loosen the 2 screws [1].

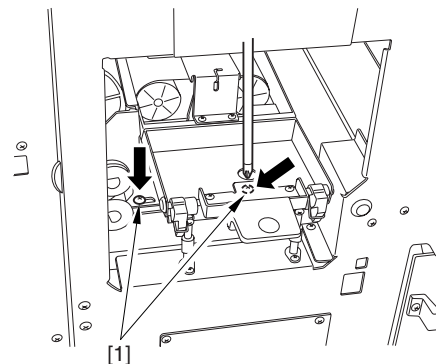


Figure 15-2

- Open the feed guide pressure lever [1], and move the feed guide assembly [2] to the left or right with reference to the marking, so that the angle is within the standard.

(A single index of the marking equals a shift in the orthogonal angle of about 0.5 mm.)

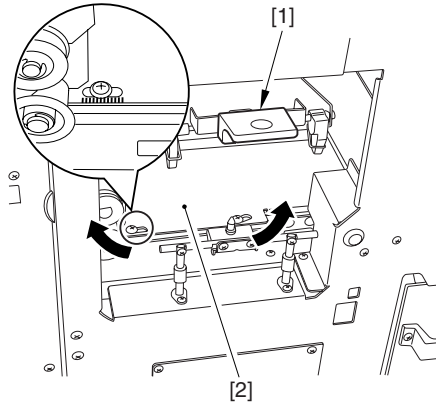


Figure 15-3

- After the adjustments, assemble the parts by reversing the steps used to disassemble them.

2. Adjusting the Cut Width

If the cut width is less than 2 mm when making the above check, make the following adjustments: (At the factory, the cut width is set to 3.5 mm from the cut edge of the cover page.)

- While the machine is in standby status, press the MENU key and the ENTER key to start cut width adjustment mode.
- Press the + or - key to select a paper size, and press the ENTER key.
- Increase or decrease the cut width (mm) using the + or - key, and press the ENTER key to accept the input.

An increase (decrease) of 1 mm will move the cut line closer to (away from) the fold side by 1 mm.

Caution 1:

The setting of the cut width does not represent the actual cut width, requiring you to increase or decrease it based on an estimate.

e.g.,:

If the current setting is -10.0 mm, an increase to -8.0 mm will move the cut side closer to the fold line by 2 mm from the current position.

Caution 2:

Be sure that the cut width setting is within the following range:

11 × 7 -----	-5.9 mm to 12.7 mm
LTRR -----	-12.8 mm to 9.8 mm
A4R -----	-12.8 mm to 12.7 mm
B4 -----	-12.8 mm to 12.7 mm
A3 -----	-12.0 mm to 12.7 mm

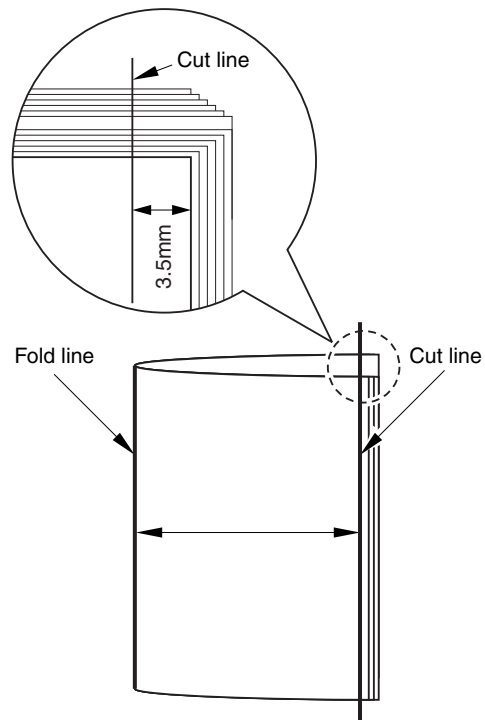


Figure 15-4