Installation Procedure

Feeder
DADF-L1

Canon

Nov 13 2003

Application

This manual has been issued by Canon Inc. for qualified persons to learn technical theory, installation, maintenance, and repair of products. This manual covers all localities where the products are sold. For this reason, there may be information in this manual that does not apply to your locality.

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Caution

Use of this manual should be strictly supervised to avoid disclosure of confidential information.

Symbols Used

This documentation uses the following symbols to indicate special information:

Symbol	Description
	Indicates an item of a non-specific nature, possibly classified as Note, Caution, or Warning.
	Indicates an item requiring care to avoid electric shocks.
	Indicates an item requiring care to avoid combustion (fire).
	Indicates an item prohibiting disassembly to avoid electric shocks or problems.
	Indicates an item requiring disconnection of the power plug from the electric outlet.
Memo	Indicates an item intended to provide notes assisting the understanding of the topic in question.
REF.	Indicates an item of reference assisting the understanding of the topic in question.
	Provides a description of a service mode.
	Provides a description of the nature of an error indication.

The following rules apply throughout this Service Manual:

1. Each chapter contains sections explaining the purpose of specific functions and the relationship between electrical and mechanical systems with reference to the timing of operation.

   In the diagrams, ▬▬ represents the path of mechanical drive; where a signal name accompanies the symbol , the arrow ⟶ indicates the direction of the electric signal.

   The expression "turn on the power" means flipping on the power switch, closing the front door, and closing the delivery unit door, which results in supplying the machine with power.

2. In the digital circuits, '1'is used to indicate that the voltage level of a given signal is "High", while '0' is used to indicate "Low".(The voltage value, however, differs from circuit to circuit.) In addition, the asterisk (*) as in "DRMD*" indicates that the DRMD signal goes on when '0'.

   In practically all cases, the internal mechanisms of a microprocessor cannot be checked in the field. Therefore, the operations of the microprocessors used in the machines are not discussed: they are explained in terms of from sensors to the input of the DC controller PCB and from the output of the DC controller PCB to the loads.

The descriptions in this Service Manual are subject to change without notice for product improvement or other purposes, and major changes will be communicated in the form of Service Information bulletins.

All service persons are expected to have a good understanding of the contents of this Service Manual and all relevant Service Information bulletins and be able to identify and isolate faults in the machine."

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Chapter 1 Installation Procedure

1.1 Unpacking and Chacking the Components

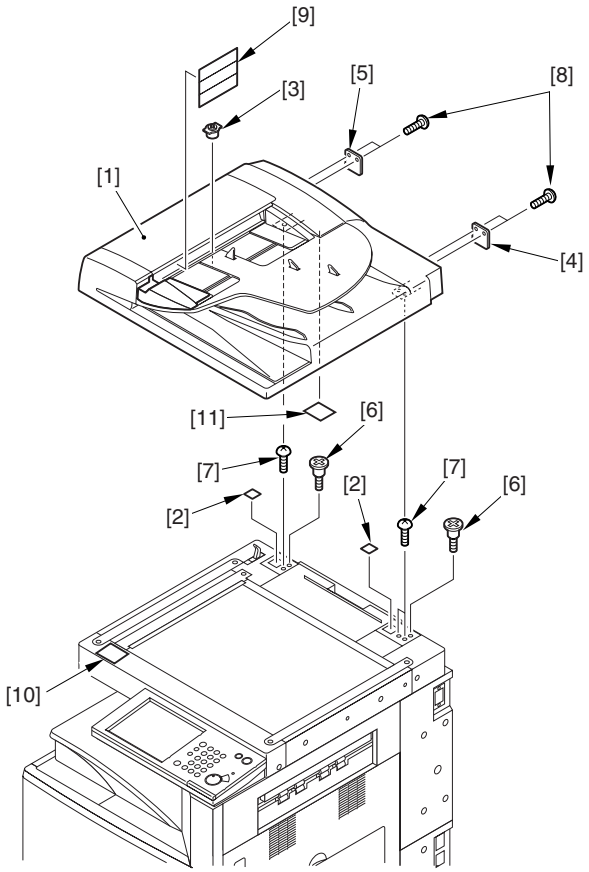
1.1.1 Unpacking and Checking the Components

0002-5569

1) Open the shipping box used to hold the DADF-L1.

2) Remove the packing material used for the DADF-L1.

3) Check to see that none of the following is missing:



F-1-1

T-1-1

[1]	DADF	1
[2]	Face sticker	2
[3]	Stamp	1
[4]	Hinge cover (right)	1
[5]	Hinge cover (left)	1
[6]	Stepped screw (M5x6)	2

[7]	Stepped screw (M4x10)	3
[8]	Tapping screw (M3x8)	4
[9]	Size label (small)	1
[10]	Copyboard glass cleaning instructions label	1
[11]	Warning label	1

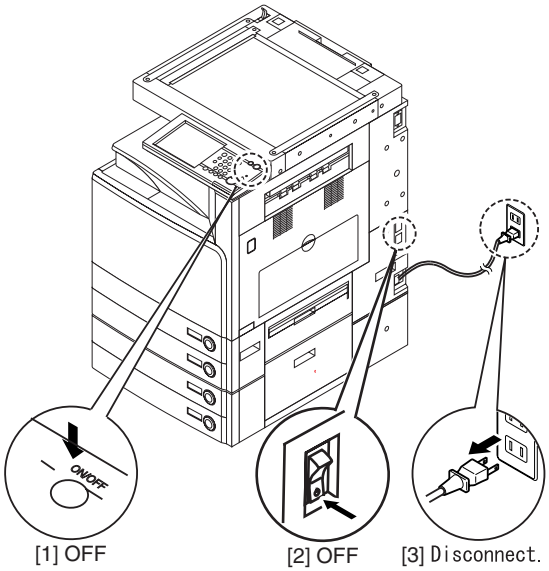
1.2 Installatiopn Procedure

1.2.1 Turning Off the Host Machine

0003-6829

⚠Be sure of the following before starting the work:

1. Turn off the control panel power switch.
2. Turn off the main power switch.
3. Disconnect the power cable (for the wall outlet).

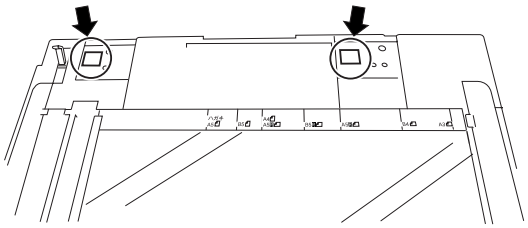


F-1-2

1.2.2 Installing the DADF

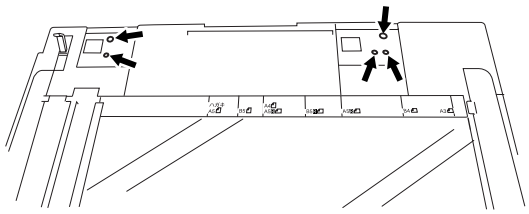
0002-5578

1) Remove the copyboard cover of the host machine; then, attach the face stickers over the hinge holes.



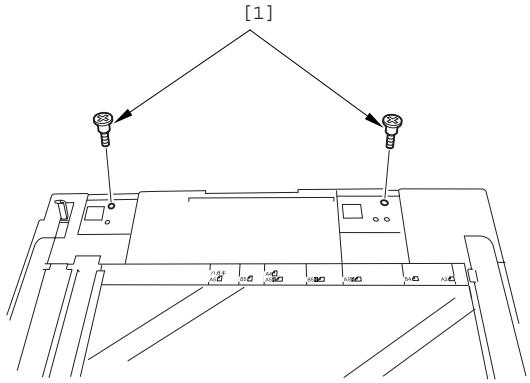
F-1-3

2) Remove the 5 screws from the top of the host machine. (You will no longer need these screws.)



F-1-4

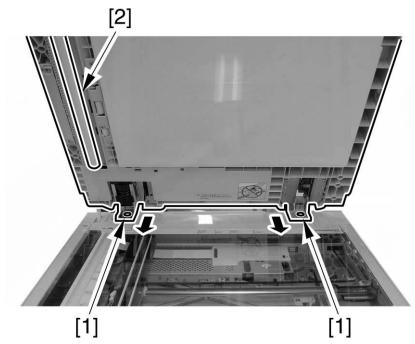
3) Fit 2 stepped screws (M5x6) [1] at the rear top of the host machine.



F-1-5

4) From behind the host machine, hook the hinges of the DADF on the stepped screws [1]; then, slide the DADF toward the front of the host machine.

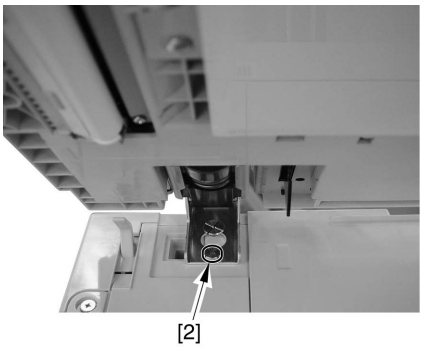
⚠When holding the DADF, be sure not to touch the platen roller [2].



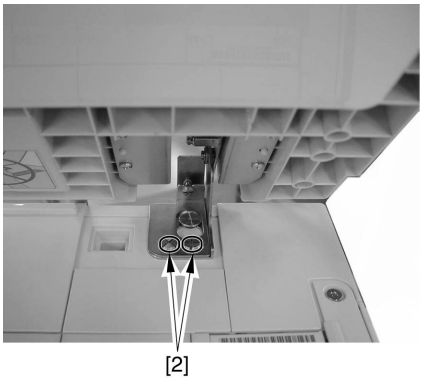
F-1-6

5) Using the stepped screw (M4x10) [2], fix the hinge in place; use 1 screw for the left, and use 2 screws for the right. Make sure that the left sides of the DADF and the host machine are flush when the

DADF is closed.



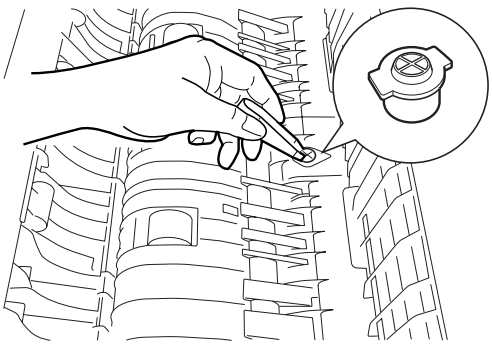
F-1-7



F-1-8

6) Open the pickup assembly cover and the jam access cover; then, using tweezers, fit the stamp. Be sure that the stamping side faces upward.

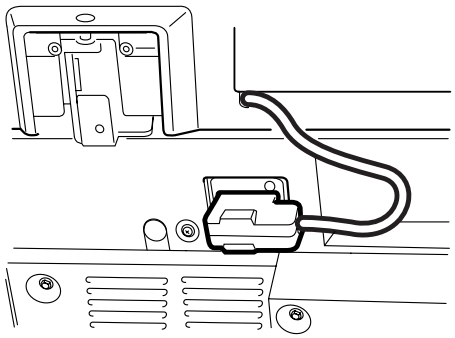
⚠Jams can occur if the stamp is not firmly in place. Be sure to push it in until a click is felt.



F-1-9

7) Close the pickup assembly cover.

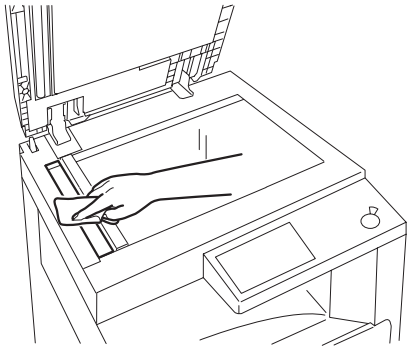
8) Connect the cable of the DADF.



F-1-10

1.2.3 Cleaning the Copyboard Glass 0002-5579

1) Wipe the glass of the original reading surface of the DADF with a cloth moistened with water. (Be sure the cloth is well wrung.)



F-1-11

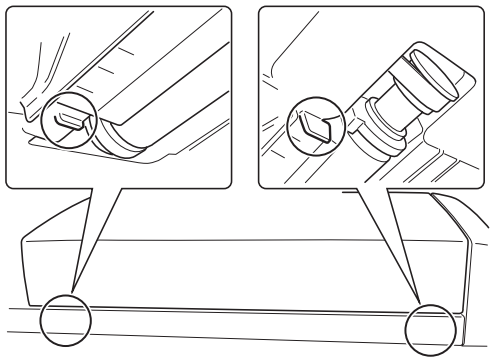
1.3 Making Adjustments

1.3.1 Adjusting the Height

0002-5590

1. Making Pre-Checks

Check to see that that the original butting segment on the pickup side is in full contact with the copyboard glass at both front and rear when the DADF is closed.



F-1-12

2. Making Adjustments

- if the butting segment is not in contact at the front or the rear,

1) adjust the left hinge (see 3)

2) adjust the right hinge (see 4)

3) adjust the left hinge (see 3) or check the left hinge

- if the butting segment is not in contact at both sides

1) adjust the left hinge (see 3)

2) adjust the right hinge (see 4)

3) adjust the left hinge (see 3)

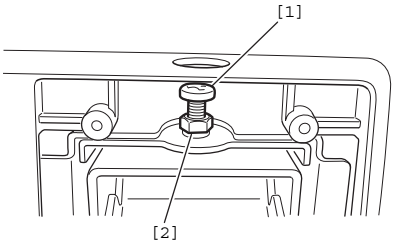
4) adjust the right hinge (see 4) or check the right hinge

3. Adjusting the Height of the Left Hinge

1) Turn the height adjusting screw [1] of the left hinge to make adjustments.

⚠Be sure to loosen the fixing nut [2] prior to the adjustment, and tighten it back after the adjustment.

- if the front side is not in contact, turn the adjusting screw clockwise so that the front will be in contact with the glass.
- if the rear or both sides are not in contact, turn the adjusting screw counterclockwise so that the rear will be in contact with the glass.

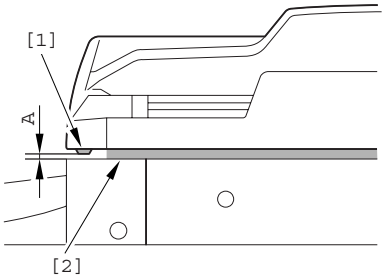


F-1-13

4. Adjusting the Height of the Right Hinge

1) Close the DADF, and check the following 2 points:

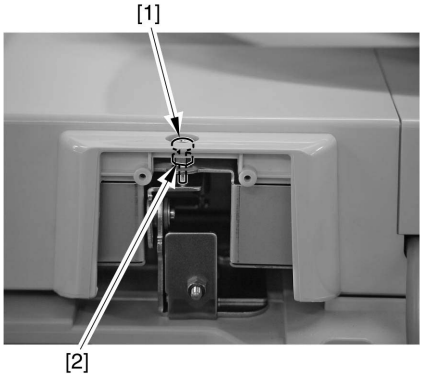
- the rubber foot [1] must not be in contact wit the cover of the reader unit (i.e., there must be a gap, A).
- the original retaining sheet [2] is in contact with the copyboard glass.



F-1-14

2) If the height is not correct, turn the height adjusting screw [1] of the right hinge to make adjustments.

⚠Be sure to loosen the fixing nut [2] prior to the adjustment, and tighten it back after the adjustment.



F-1-15

- turn the adjusting screw clockwise to increase the gap A.
- turn the adjusting screw counterclockwise to decrease the gap A.

3) Make the checks indicated in sep 1) under "adjusting the height of the left hinge"; if a discrepancy is found, make

adjustments once gain.

1.3.2 Turning On the Host Machine 0003-6832

1) Connect the power cable (for the wall outlet).
2) Turn on the main power switch.

1.3.3 Adjusting the Tray Width 0002-5588

MEMO
The result of this adjustment is retained on the reader controller PCB. As such, unlike previous ADFs, you will need to make this adjustment at time of installation so that you will be able to store its result in the reader unit. If you omit this adjustment, the following will likely occur:
- wrong original size detection

⚠Adjust the tray width by performing either AB-configuration adjustment or inch-configuration adjustment.

1. AB-Configuration Adjustment

1) Start service mode.
   Starting Service Mode
   Press the User Mode key, press the 2 and 8 keys at the same time, and press the User Mode key once gain.
2) Touch the following notations in sequence to bring up the Adjustment screen:
   1 FEEDER
   2 FUNCTION
   3 TRY-A4 (to highlight)
3) Adjust the tray side guide to the A4/A3 index.
4) Touch [OK] to register the A4 width.
5) Touch [TRY-A5R] to highlight.
6) Adjust the tray side guide to the A5R index.
7) Touch [OK] to register the A5R width.
8) Press the Reset key twice to end service mode.
9) Turn OFF the power switch on the operation panel and main power switch of the host machine in order.
10) Turn ON the main power switch of the host machine.

2. Inch-Configuration Adjustment

1) Start service mode.
   Starting Service Mode
   Press the User Mode key, press the 2 and 8 keys at the same time, and press the User Mode key once again.
2) Touch the following notations in sequence to bring up the Adjustment screen:

1 FEEDER
2 FUNCTION
3 TRY-LTR (to highlight)

3) Adjust the tray side guide to the LTR/11x17 index.
4) Press [OK] to register the LTR width.
5) Press [TRY-LTRR] to highlight
6) Adjust the tray side guide to the STMT/LTRR/LGL INDEX.
7) Touch [OK] to register the LTRR width.
8) Press the Reset key twice to end service mode.
9) Turn OFF the power switch on the operation panel and main power switch of the host machine in order.
10) Turn ON the main power switch of the host machine.

1.3.4 Adjusting the Right Angles

0004-7257

1) Place a test chart in the DADF, and make a copy.

MEMO
The Test Chart is printed on the back cover of the Installation
Procedure. Make a copy of the Chart or cut it off for use.

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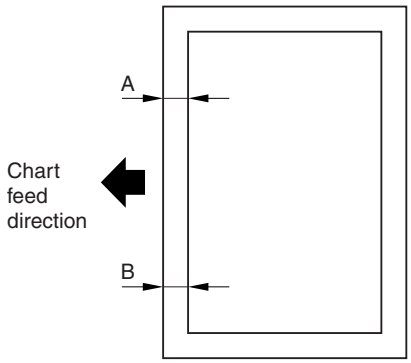
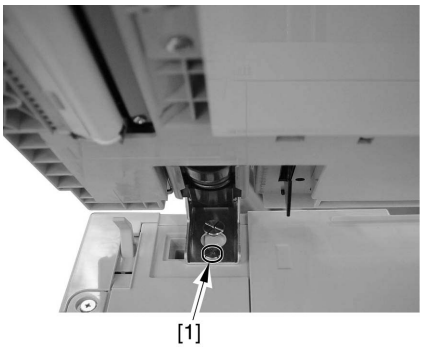
2) Check the right angles of the image along the leading edge of the copy. Specifically, check the difference between dimensions A and B of the leading edge; if there is a difference, go to step 3) to make adjustments.

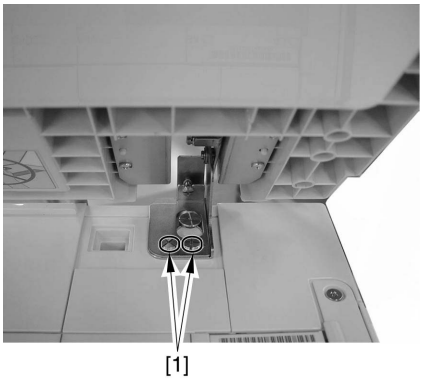


F-1-16

3) Loosen the 3 screws [1] used to fix the hinge in place.



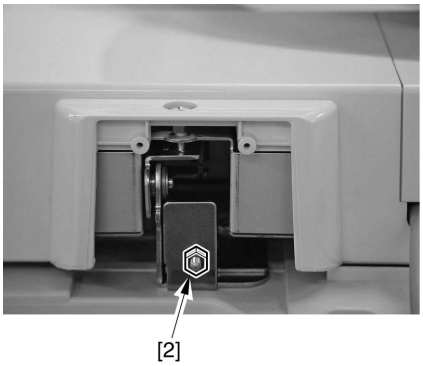
F-1-17



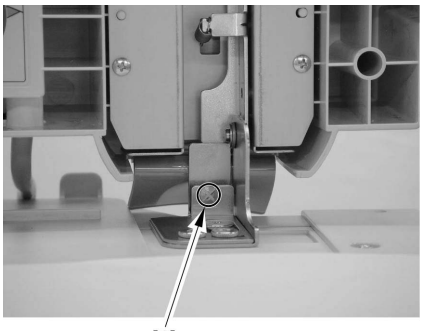
F-1-18

4) Turn the hinge adjusting screw [1] of the right hinge to adjust the angle of the DADF.

⚠Be sure to loosen the fixing nut [2] prior to the adjustment, and tighten it back after the adjustments.



F-1-19



F-1-20

- If A>B, turn the adjustment screw clockwise.
- if A <B, turn the adjusting screw counterclockwise.

5) Tighten back all fixing screws you loosened in step 3).

1.3.5 Adjusting the Read Position

0002-5593

1) Start service mode.

[Starting Service Mode]

Press the User Mode key, press the 2 and 8 keys at the same time, and press the User Mode key once again.

2) On the Service Mode screen, touch the following notations in sequence to bring up the Adjustment screen:

1 COPIER
2 FUNCTION
3 INSTALL

3) Press [STRD-POS] to highlight.

4) Touch [OK].

A press on [OK] will cause the scanner to start a scan; in several seconds, the machine will end auto adjustment of the read position and indicate 'OK'.

⚠If the machine fails auto adjustment and indicates 'NG', go through the following:

(1) Clean the white roller of the DADF and the copyboard glass of the host machine; then, execute auto adjustment once again.

(2)If the auto adjustment operation still fails, start service mode, and make adjustments manually:

COPIER>ADJUST>ADJ-XY>STRD-POS

(The default is '30'. Try changing the setting, and check output copy images to decide on the best setting.)

1.3.6 Adjusting the Magnification

0002-5594

MEMO

The ADF's magnification is adjusted by comparing copy images made in stream reading mode and copy images made in copyboard cover mode (as this ADF is designed for color machines; on the other hand, the magnification of previous ADFs designed for black-and-white machines is adjusted by comparing copy images made in stream reading mode against their originals). If you adjust its magnification in the way done for previous ADFs, the following will likely occur:
- wrong ACS identification
- wrong black character processing identification

---

1) Place the Test Chart in the DADF, and make a copy. Refer to the output as copy B.
2) Place the Test Chart used in step 1) on the copyboard glass of the host machine, and make a copy. Refer to the output as copy A.
3) Compare copies A and B in terms of the length of the image in feed direction; as necessary, make adjustments in service mode.
- if the image of copy B is shorter, decrease the setting (so that the speed at which originals are moved in stream reading mode will be reduced).
- if the image of copy B is longer, increase the setting so that the speed at which originals are moved in stream reading mode will be increased).

unit of adjustments: 0.1%

4) From the Service Mode screen, touch the following notations to bring up the Adjustment screen:
1 FEEDER
2 ADJUST
3 LA-SPEED to highlight

1.3.7 Adjusting the Horizontal Registration

0002-5595

1) Place the test chart in the DADF, and make a copy.
2) Compare the copy against the Test Chart for the horizontal registration; as necessary, make the following adjustments:
- if the image is displaced to the front, decrease the setting.
- if the image is displaced to the rear, increase the setting.

unit of adjustment: 0.1 mm

3) On the Service Mode screen, touch the following notations to bring up the Adjustment screen:
1 COPIER
2 ADJUST
3 ADJ-XY
4 ADJ-Y-DF

1.3.8 Adjusting the Trailing Edge Registration

0002-5597

1) Place the Test Chart in the DADF, and make a copy.
2) Compare the copy against the Test Chart for the trailing edge registration; as necessary, make the following adjustments:
- if the image is displaced to the leading edge, decrease the setting.

- if the image is displaced to the trailing edge, increase the setting.
  unit of adjustment: 0.1 mm

3) On the Service Mode screen, touch the following notations to bring up the Adjustment screen:
1 FEEDER
2 ADJUST
3 DOCST

1.3.9 Adjusting the White Level

0002-5598

MEMO

This is a new item of adjustment in which the white level of images made in stream reading mode are matched with the white level of images made in copyboard cover mode (as this ADF is designed for color machines). If you omit this adjustment, the following will likely occur:

- inappropriate reproduction of background density in images made in stream reading mode
- wrong speck detection in stream reading mode

1) Place paper (of the type most often used by the user) on the copyboard glass, and close the DADF.
2) Touch the following notations in sequence to bring up the Adjustment screen:
1 COPIER
2 FUNCTION
3 CCD
3) Press [DF-WLVL1] to highlight.
4) Press [OK].
Automatic adjustment starts; if it ends successfully, the screen shows [OK!].
5) Remove the paper from the copyboard glass, and place it on the original tray of the DADF.
6) Press [DF-WLVL2] on the touch panel to highlight.
7) Press [OK].
- The machine executes auto adjustment (duplex stream reading).
- When the adjustment ends normally, the machine indicates 'OK!' on the screen.

8) Press the Reset key twice to end service mode.

1.4 Attaching the Labels etc.

1.4.1 Attaching the Size Label (small)

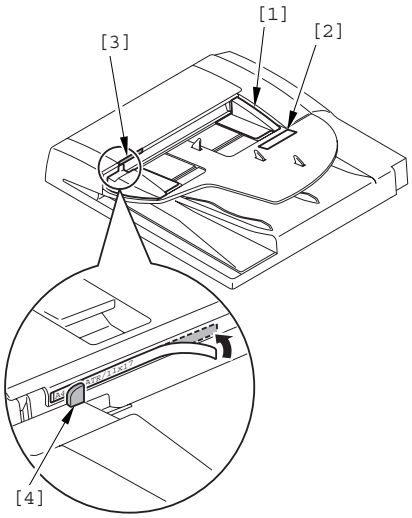
0002-5605

⚠The size label (small) has been designed to assist size adjustment by offering various angles of view.

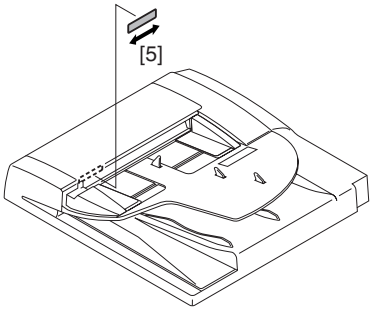
1) Adjust the side guide (rear) [1] to the A4/A3 index or the LTR/11x17 index [2].

2) Attach the label of the paper configuration that matches the size label (small) [3].

Try moving the label back and forth in the direction of the arrow [5] so that the index [4] of the side guide (front) matches the index of the size label to suit the angle of view of the user.



F-1-21

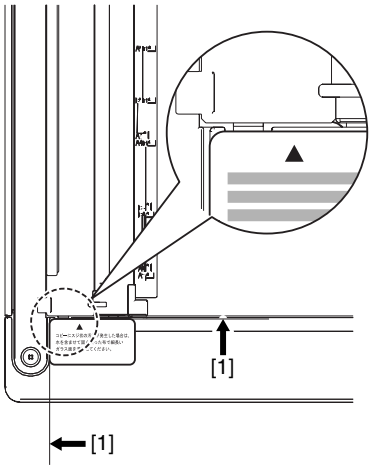


F-1-22

1.4.2 Attaching the Original Glass Cleaning Instructions Label

0002-5651

1) Attach the original glass cleaning instructions label [1] to the front cover of the reader unit.



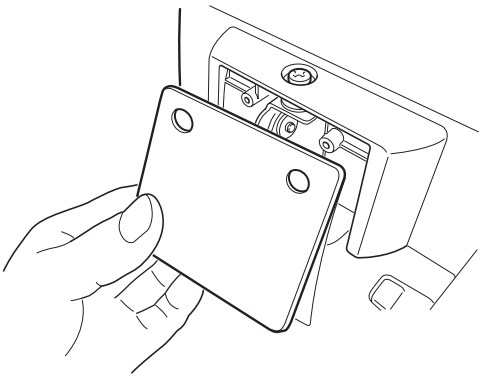
F-1-23

[1] Butted.

1.4.3 Mounting the Hinge Cover

0002-5676

1) Mount the hinge cover to the left/right hinge assembly using tapping screws (M3x8). Be sure to attach the sheet on the inside and the rubber plate to the outside.

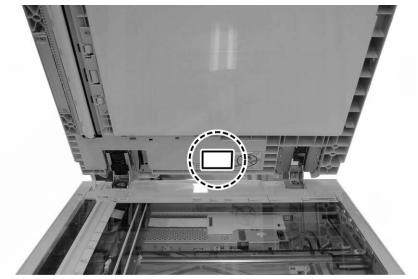


F-1-24

1.4.4 Attaching the Warning Label (against finger trapping)

0004-8558

1) Attach the warning label for the appropriate language to the DADF lower cover as shown.



F-1-25

1.5 Checking the Operation

1.5.1 Checking the Operation

0002-5609

1) Make the following checks:

1. Place an original in the DADF, and open and close the feeder cover to see if the original placement LED goes on and off correctly.
2. Make single-sided and double-sided codes to see if the operations are normal.
3. If fax mode is to be used, send faxes to see if the stamping operation is normal.

Nov 13 2003