

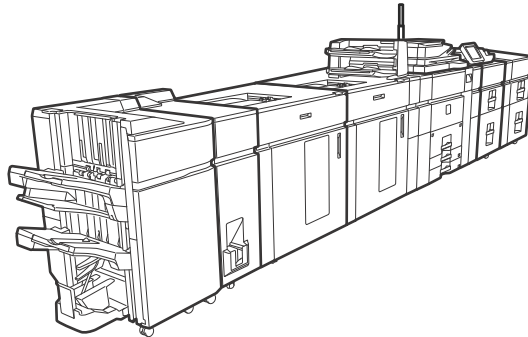
# SHARP INSTALLATION MANUAL

## DIGITAL MULTIFUNCTIONAL SYSTEM

**MX-M904**

**MX-M1054**

**MODEL MX-M1204**



Parts marked with "⚠" are important for maintaining the safety of the set. Be sure to replace these parts with specified ones for maintaining the safety and performance of the set.



SHARP CORPORATION

This document has been published to be used  
for after sales service only.  
The contents are subject to change without notice.

## [2] MX-M904/M1054/M1204 (MAIN UNIT)

### 1. NOTE FOR SERVICING

This Service Manual uses some symbols to assure safe operation. Please understand the meanings of photographs before servicing.

-  **WARNING:** If this WARNING should be ignored, a serious danger to life or a serious injury could result.
-  **CAUTION:** If this CAUTION should be ignored, an injury or damage to property could result.

#### A. Precautions for servicing

- 1) When servicing, disconnect the power plug, the printer cable, the network cable, and the telephone line from the machine, except when performing the communication test, etc.  
It may cause an injury or an electric shock.
- 2) There is a high temperature area inside the machine. Use extreme care when servicing.  
It may cause a burn.
- 3) There is a high voltage section inside the machine which may cause an electric shock. Be careful when servicing.
- 4) Do not disassemble the laser unit. Do not insert a reflective material such as a screwdriver in the laser beam path.  
It may damage the eyes by reflection of laser beams.
- 5) When servicing the machine while it is operating, be careful when working around chains, belts, gears and drive sections.
- 6) Do not leave the machine with the cabinet disassembled.  
Do not allow any person other than a serviceman access to the inside of the machine. It may cause an electric shock, a burn, or an injury.
- 7) When servicing, do not breathe toner or developer or get toner or developer in the eyes. If toner or developer contact the eyes, wash eyes immediately and contact a doctor if necessary.
- 8) The interior of the machine has sharp edges. Be careful when servicing the machine, to avoid contact with these edges.
- 9) Do not throw toner or a toner cartridge in a fire. Toner is combustible and may explode and burn you.
- 10) When replacing the lithium battery on the PWB, only use the specified battery.  
If a battery of different specification is used, it may not be compatible and cause breakdown or malfunction of the machine.
- 11) When carrying a PWB, be sure to transport the PWB in an anti-static bag. Failure to do so may cause malfunction or failure of the PWB.

#### B. Warning for servicing

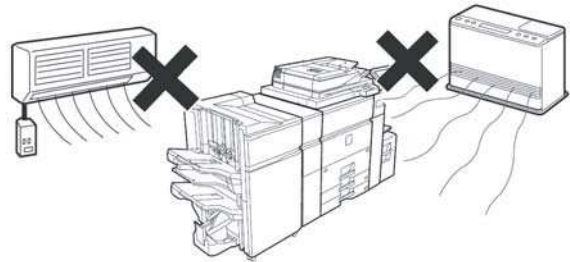
- 1) Be sure to only connect the power cord to an outlet that meets the specified voltage and current requirements. Avoid complex wiring which may lead to a fire or an electric shock.  
It may cause a fire or an electric shock.
- 2) If there is any abnormality such as a smoke or an abnormal smell, interrupt the job and disconnect the power cord.  
It may cause a fire or an electric shock.
- 3) Be sure to connect the grounding wire. If an electric leakage occurs without grounding, a fire or an electric shock may result.  
To protect the machine and the power unit from lightning, proper grounding must be made.
- 4) When connecting the grounding wire, never connect it to the following points.  
It may cause an explosion, a fire or an electric shock.
  - Gas tube
  - Lightning conductor
  - A water pipe or a water faucet.
  - Grounding wire for telephone line

- 5) Do not damage, break, or stress the power cord.  
Do not put heavy objects on the power cable. Do not forcibly bend or pull the power cable.  
It may cause a fire or an electric shock.
- 6) Keep the power cable away from a heat source.  
Do not insert the power plug with dust on it into a power outlet.  
It may cause a fire or an electric shock.
- 7) Do not put any foreign liquid or metal piece (that may fall into or spill) inside of the machine.  
It may cause a fire or an electric shock.
- 8) Do not touch the power plug, insert a telephone line jack or network jack, operate the machine, or service the machine with wet or oily hands.  
It may cause an electric shock.

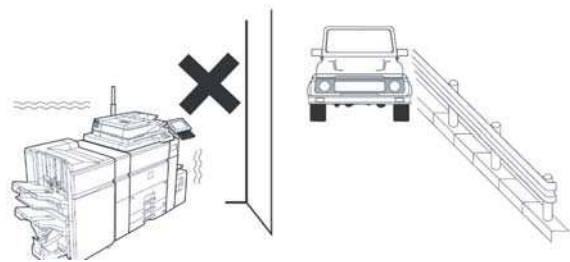
#### C. Note for installing site

Do not install the machine at the following sites.

- 1) **Places of high temperature, high humidity, low temperature, low humidity, places of extreme change in temperature and humidity.**  
Paper may get damp and form moisture inside the machine, causing paper jam or poor copy quality.  
For operating and storing conditions, refer to the specifications described later.

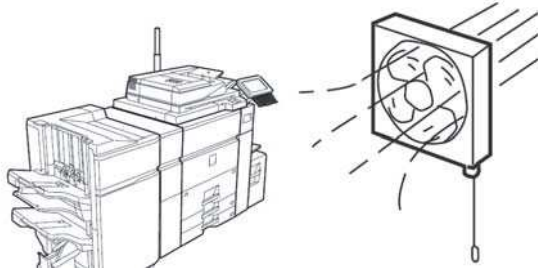


- 2) **Place of high vibrations**  
It may cause a breakdown.



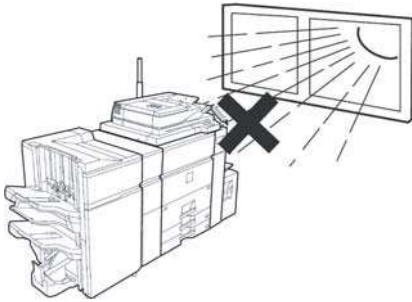
3) **Poorly ventilated area**

An electro-static type copier will produce ozone. The machine is designed to produce a low quantity of ozone so as not to affect health. Continuous use of the machine may produce an ozone smell. Install the machine in a well ventilated area. When special paper such as gloss paper is used, unique smell or gas may be generated depending on the kind of paper, arrange and install an additional duct to exhaust smell or gas from the discharge section of the machine to outside of the room. (There is no setting for the exclusive-use duct.)



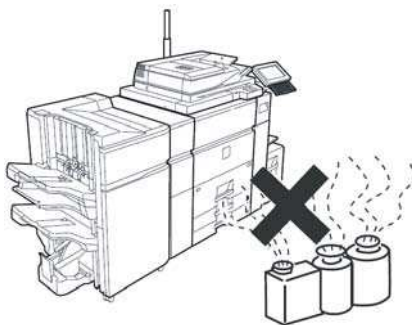
4) **Place of direct sunlight.**

Plastic parts may become deformed, discolored, or undergo qualitative change. It may cause a breakdown or copy quality problems.



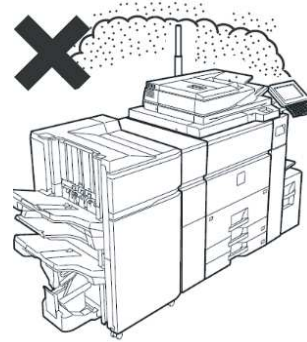
5) **Place which is full of organic gases such as ammonium**

The organic photoconductor (OPC) drum used in the machine may undergo qualitative change due to organic gases such as ammonium. Installation of this machine near a diazo-type copier may result in copy quality problems.



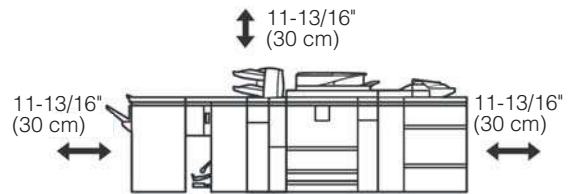
6) **Place of excessive dust**

When dusts enter the machine, it may cause a breakdown or copy quality problems.



7) **Place near a wall**

The machine requires intake and exhaust of air. If intake and exhaust of air are not properly performed, copy quality problems or a breakdown may be result.



When installing the machine, make sure that the sides and back of the machine are at least 11-13/16" (30 cm) away from any walls.

## 2. Transit and delivery

No	Content	Method
1	Implements, facility, and manpower	Use a forklift. (If no forklift is available, ensure manpower of four persons or more, and use the skid slope (DKIT-0367FCZZ)).
2	Delivery	Transit must be made in safely packed and protected environment.

### A. Implements, facility, and manpower

A forklift is recommended for removing the machine from the shipping carton.

If no forklift is available, Be sure to use the skid slope (DKIT-0367FCZZ). Removing the machine by hand requires four or more persons as the machine is heavy. Use care and safety precautions when removing the machine from the shipping carton.

Transit of the machine must be made in a protected and secure condition to the place of install.

Since the hard disk drive is built in the machine, refrain from vibrations or shocks to the machine when in transit.

### B. Delivery

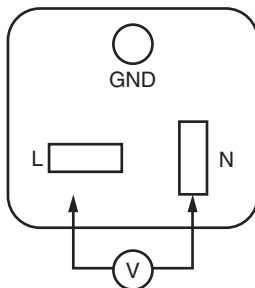
Remove the packing materials prior to installation in the office environment.

When delivering the machine, be sure to keep the separation pawl fixing material attached. (If the machine is delivered without the fixing material, the drum may be scratched.)

#### NOTE: For USA / CANADA

If the fusing performance is insufficient in a special environment such as low temperature and low humidity, an environment that heavy paper is mainly used and so on when 208V power supply is used, please replace with 208V lamp (RLMPU0764FCPZ).

#### (Measurement method)



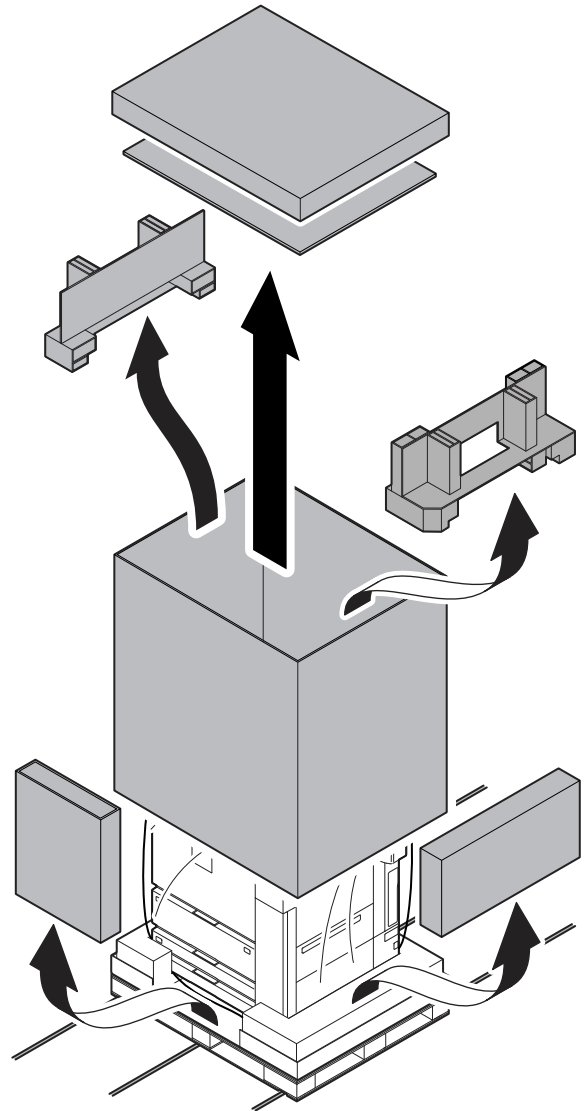
Voltage reference points for wall outlet.

Measure the voltage between L and N of the figure above using a digital multi meter.

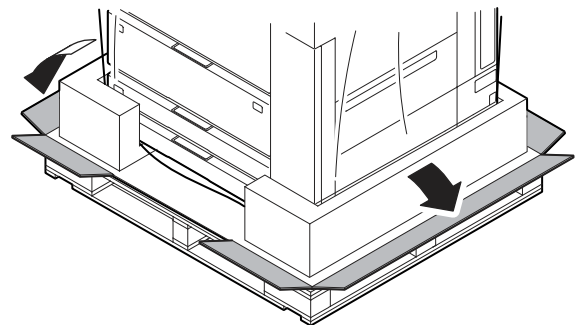
## 3. Unpacking

### A. Pulling out the main unit

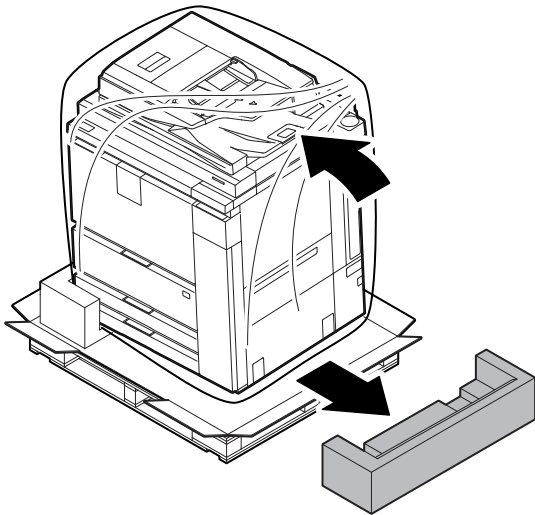
- 1) Remove the top case, the top cushion, the packing case, and the box containing the operation panel, the operation panel arm and parts for assembly.



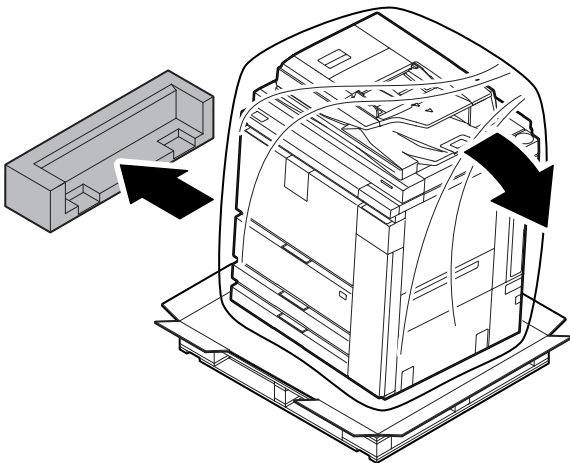
- 2) Cut the four corners of the bottom case.



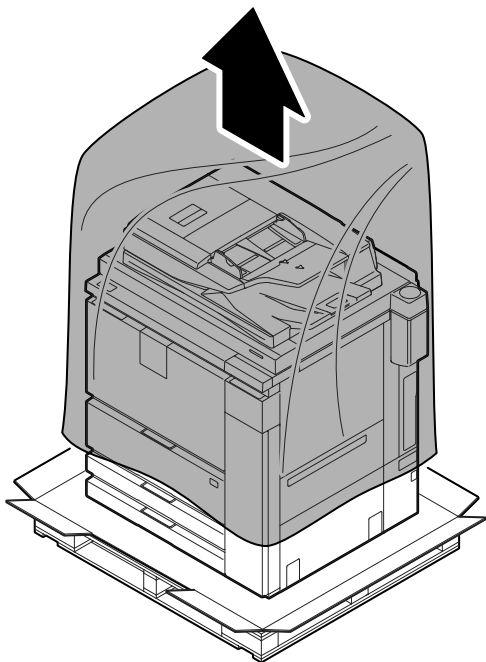
3) Gently lift the main unit high enough to remove the bottom pad "L".



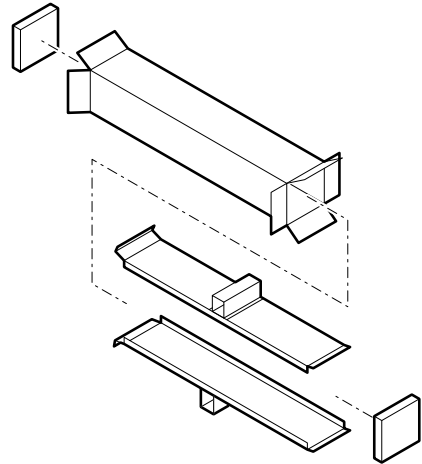
4) Next, gently lift the main unit high enough to remove the bottom pad "R".



5) Remove the vinyl bag from the main unit.



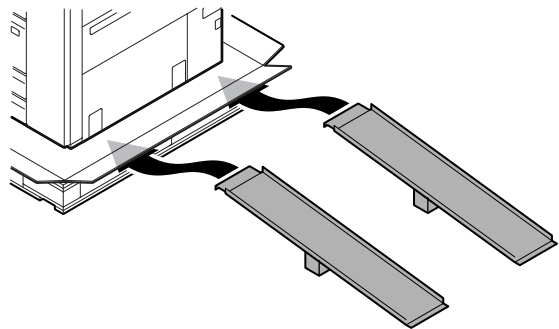
6) Remove the slope.



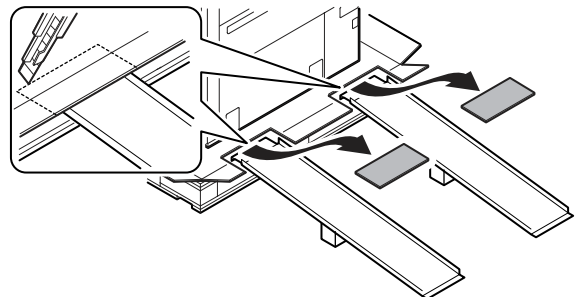
\* Slope : Order from parts.

Part name	Part code
Skid slope	DKiT-0367FCZZ

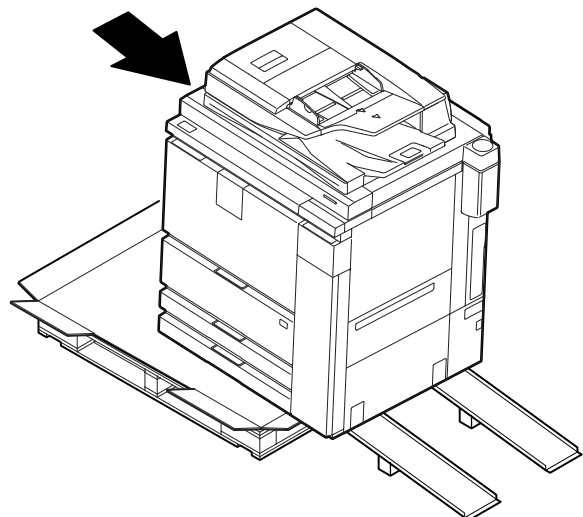
7) Insert the ramps in the cut outs in the skid.



8) Cut the part of the bottom case that overlaps with slope.

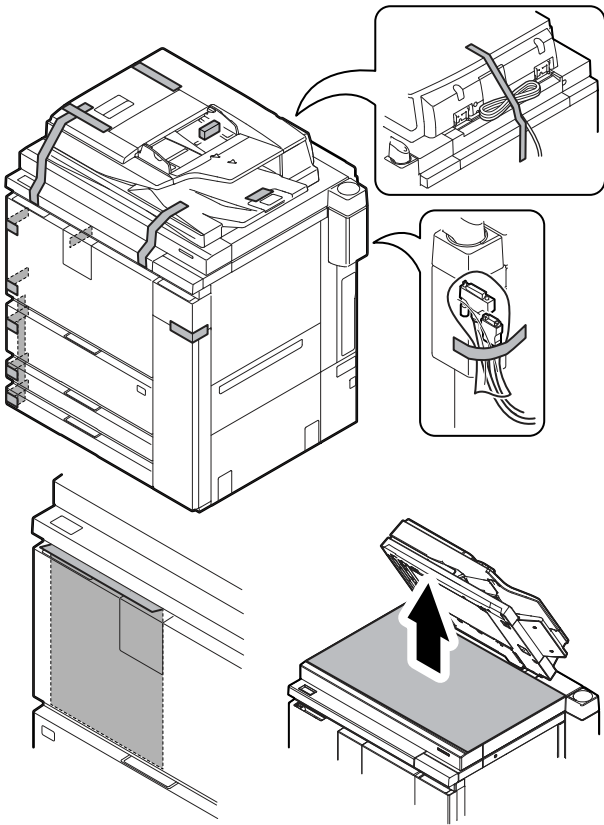


9) Carefully roll the main unit down the ramps in the direction of the arrow.

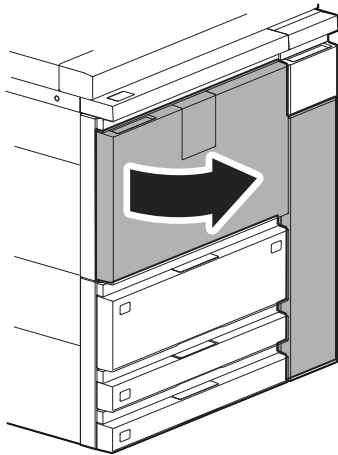


## B. Fixing tape and protection material removal

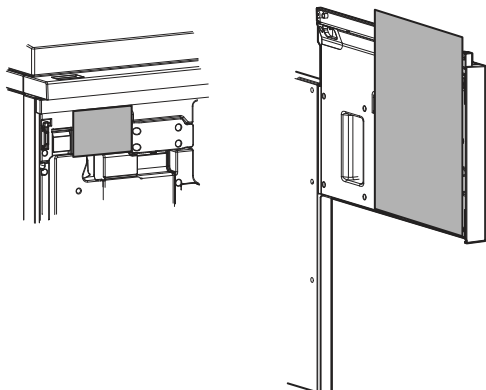
- 1) Remove the fixing tape and the protection material.



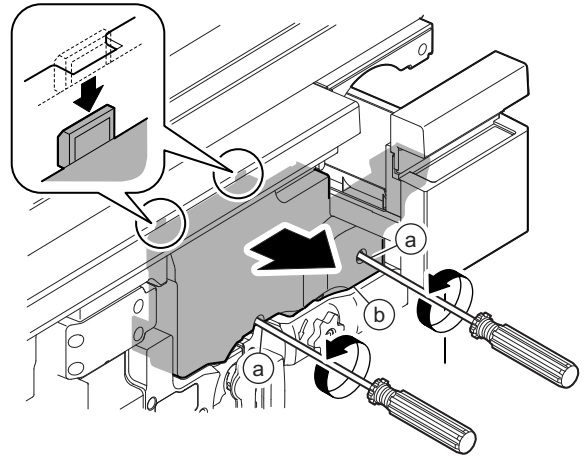
- 2) Open the front cover.



- 3) Remove the protection sheet and the Operation Manual.



- 4) Remove the screw (a), and remove the cover (b).

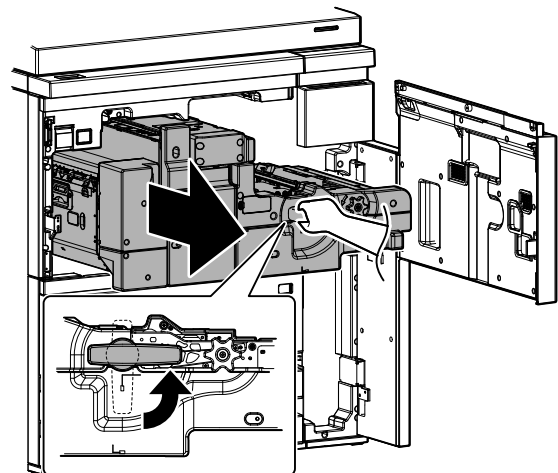


- 5) Remove the protection material. (Packing material for fixing the separation pawls)

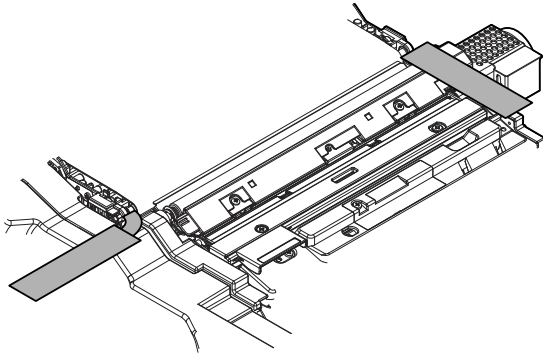
**NOTE:** When moving the machine again after unpacking, be sure to attach the protection material. (If not, the OPC drum may be damaged.)



- 6) Pull out the intermediate frame.

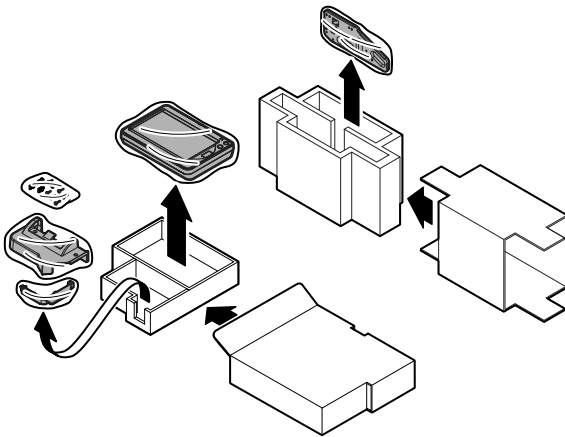


7) Remove the protection material and the caution label.



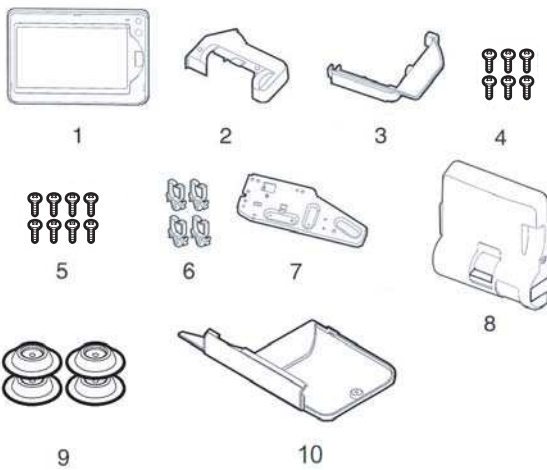
### C. Included parts removal

1) Remove the included parts.



### D. Included parts check

1) Check to confirm that all the parts are provided.

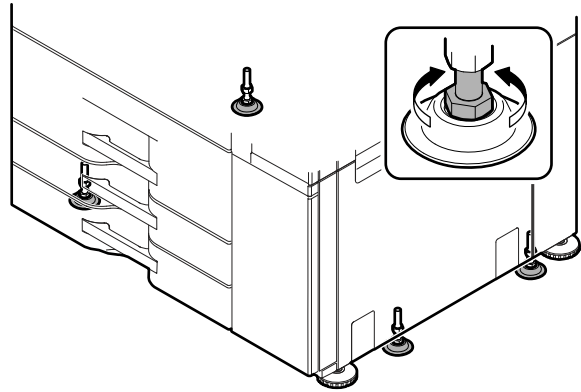


No.	Name	Quantity
1	Operation panel	1
2	Panel cover B	1
3	Panel cover below	1
4	Screw 3 x 6	6
5	Screw 4 x 8	8
6	Clamp	4
7	Panel support plate unit	1
8	Panel cover A	1
9	Height adjuster plate	4
10	Lower cover	1

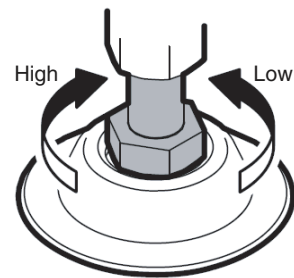
## 4. Installation

### A. Machine height and tilt adjustments

1) Put the height adjuster plate (Packed items No.9 x4) under the adjuster bolt at the bottom of the machine.  
Turn the adjuster bolt to adjust the height and the tilt of the machine.



**MEMO:** When the adjuster bolt is turned counterclockwise, the height is decreased. When turned clockwise, the height is increased. (Common to the options the height of which is adjusted by the adjuster bolt.)



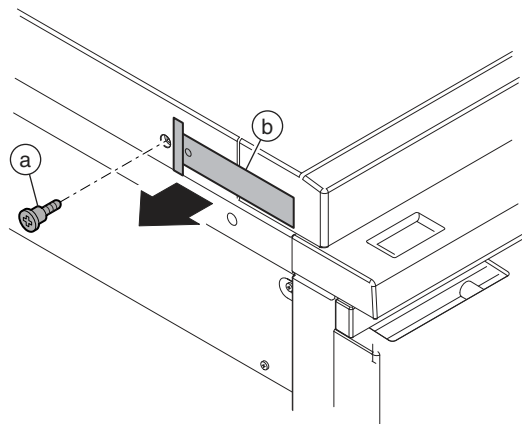
**NOTE:** Lower the height of the MX-CF11 to the lowest position before adjusts the level between the MX-CF11 and the main body.

Adjust the height of the top surface of main body reference to the top surface of the MX-CF11.

### B. Lock release

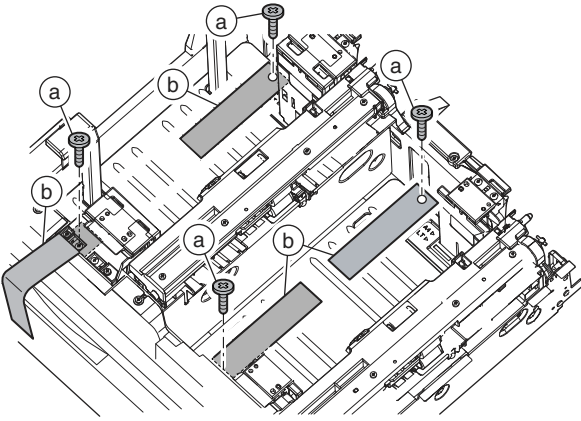
#### (1) Scanner (2/3 mirror unit) lock release

1) Remove the scanner lock screw (a) and the caution label (b).

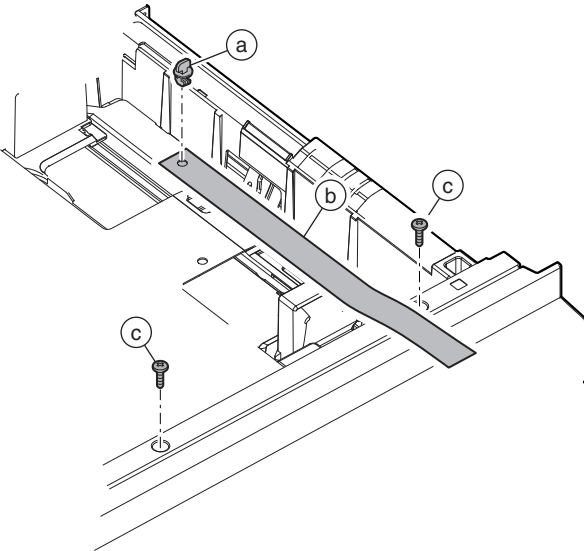


## (2) Tray rotation plate lock release

- 1) Pull out trays 1 and 2, and remove the rotating plate lock screw (a) and the tray caution label (b).

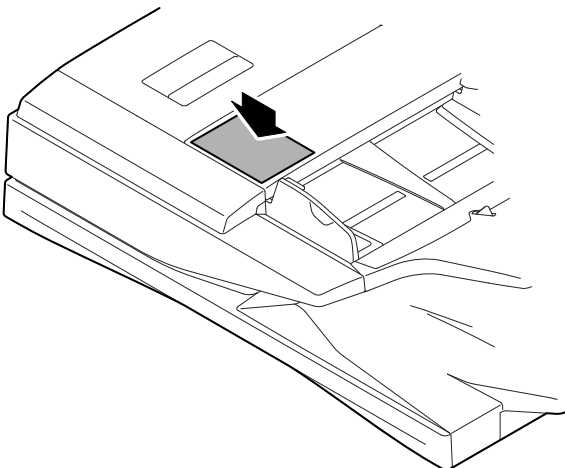


- 2) Pull out trays 3 and 4, and remove the rotating plate fixing material (a) and the tray caution label (b). Remove the blue screw (c) from the tray 3 only.



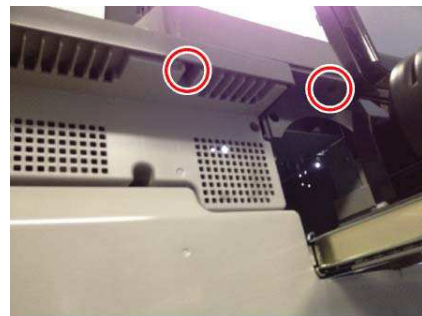
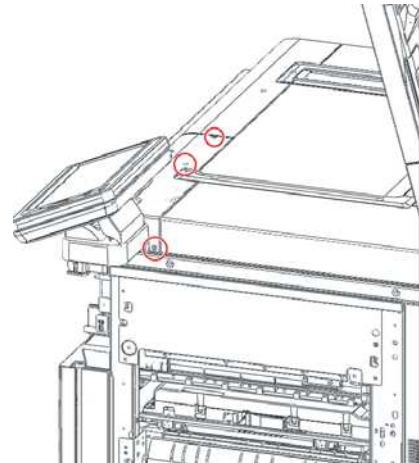
## C. Label attachment

- 1) Attach the document scan section label to the top of the DSPF unit.



## D. Installation of operation panel unit

- 1) Remove the operation panel upper cover with the screw.

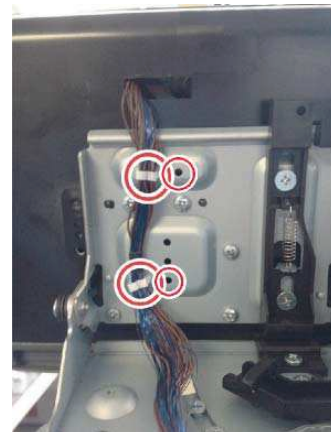


- 2) Attach the frame, and fix the screw. (Packed items No.5 x4).



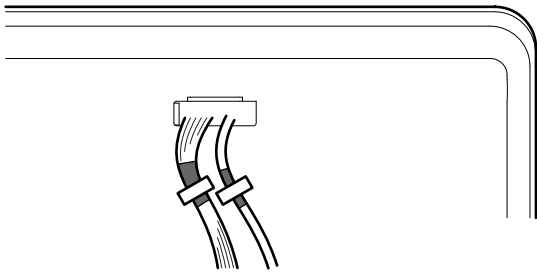
- 3) Attach the four clamps (Packed items No.6 x4) and arrange the wires.

**NOTE:** When wiring the harness, be sure to check that the cable is not in the hole. Remove slack from the harness.

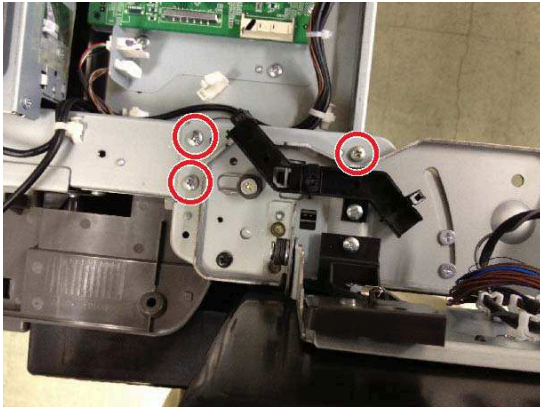




**NOTE:** Check to confirm that the harness does not enter the panel.  
For the reference, refer to the figure below.

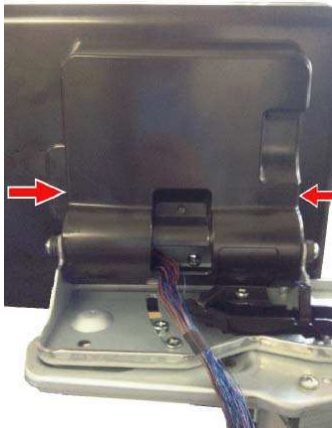


- 4) Attach the operation panel to the machine with the screw.  
(Packed items No.5 x4).



- 5) Attach the panel cover A (Packed items No.8) with the screw.  
(Packed items No.4 x2).

**NOTE:** At that time, pass the harness through the hole in the cover.

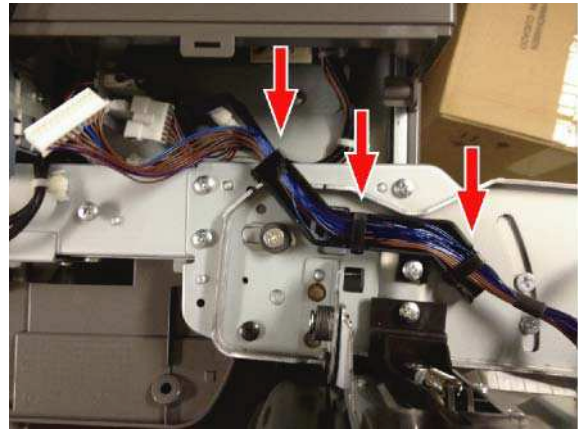


**NOTE:** Place the cover on the inside of plate.



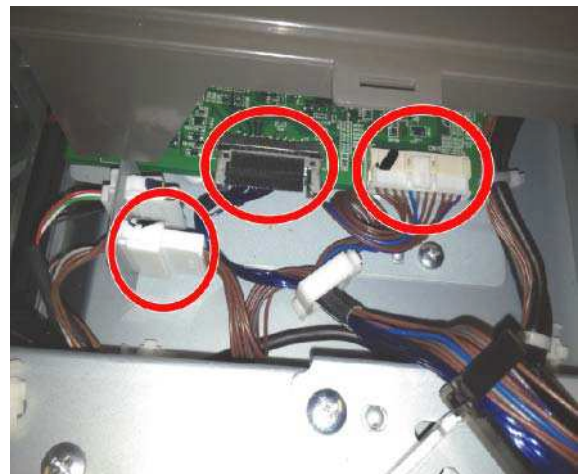
- 6) Bind up the harness with clamp as per the following picture.

**NOTE:** Be careful not to pinch the harness. If it is difficult to connect the connector, remove the cabinet in the right side.

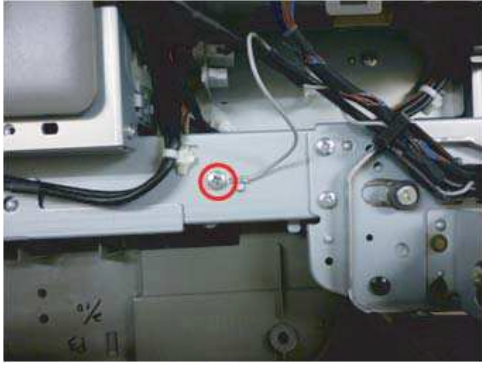


- 7) Pass the harness through the clamp and the wire saddle, and connect the connector.

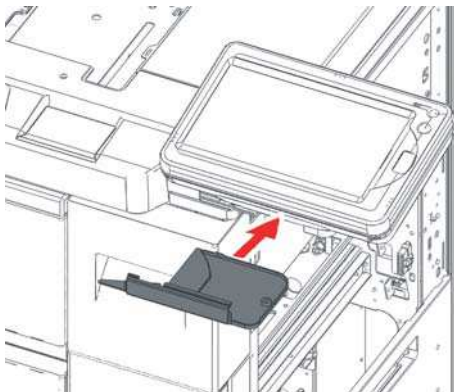
**NOTE:** Be careful not to pinch the lead wires.



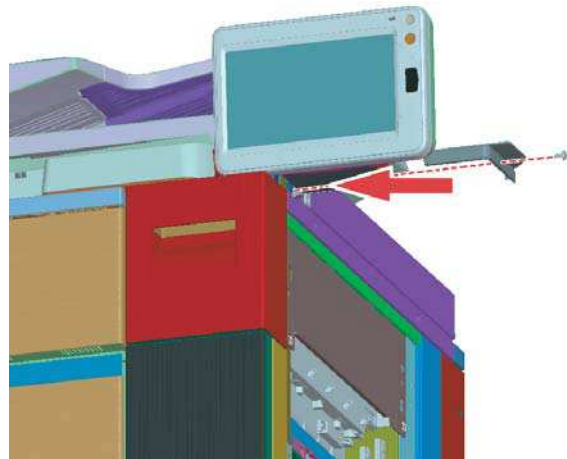
8) Fix the earth wire with screw.



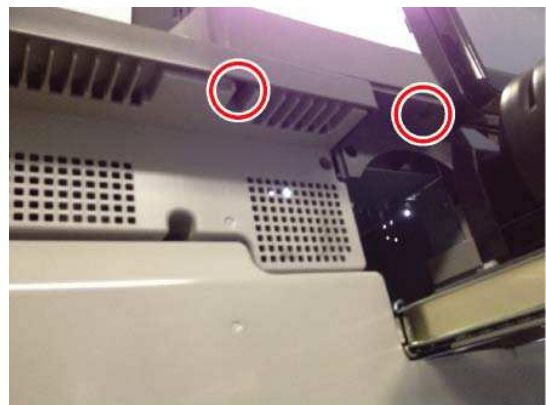
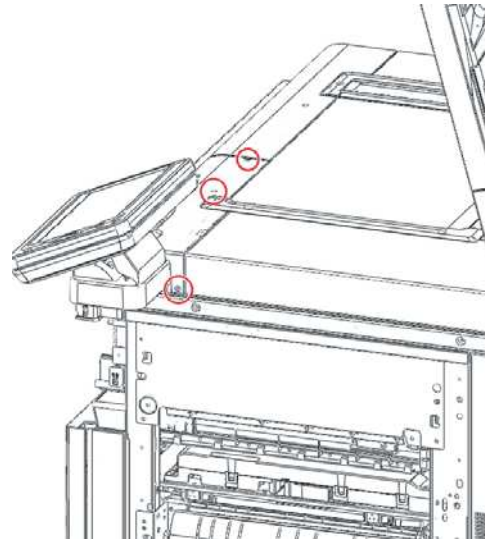
9) Attach the operation Panel cover B (Packed items No.2) with the screw. (Packed items No.4 x2). And, attach the lower cover (Packed items No.10) with the screw. (Packed items No.4).



10) Attach the panel cover below (Packed items No.3) with the screw (Packed items No.4).



11) Attach the operation panel upper cover with the screw.



**(1) Turn ON the power of the main unit**

- 1) Connect the power plug of the machine to the power outlet, and turn ON the main power switch and the operation panel power switch.

**(2) Keyboard input check**

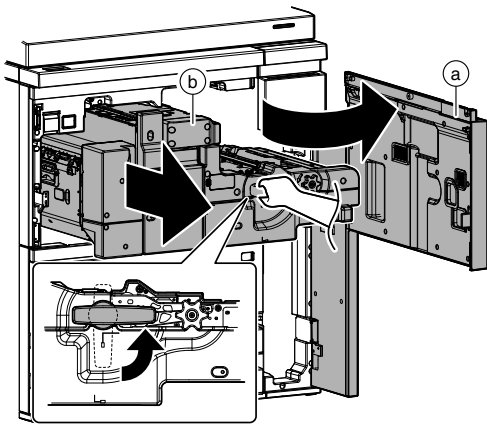
- 1) Touch [E-Mail] on the touch panel.
- 2) Touch the input column of the address.
- 3) Input the address with the keyboard, and check the input result on the touch panel.

**(3) USB operation check**

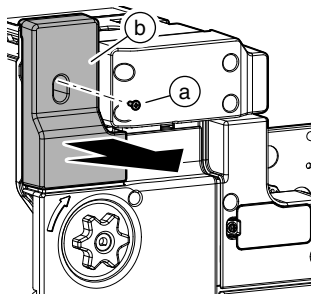
- 1) Insert the USB memory into the USB connector of the operation panel.
- 2) Check to confirm that the recognition mark of the USB memory is displayed on the operation panel.

**E. Fusing heat roller pressure**

- 1) Open the front cover (a), and pull out the intermediate frame (b).

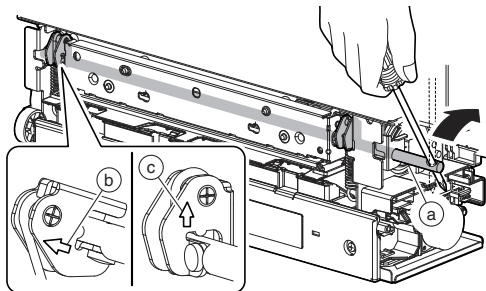


- 2) Remove the screw (a), and remove the cover (b).



- 3) Insert a screwdriver into the pressure release shaft (a) to apply pressure.

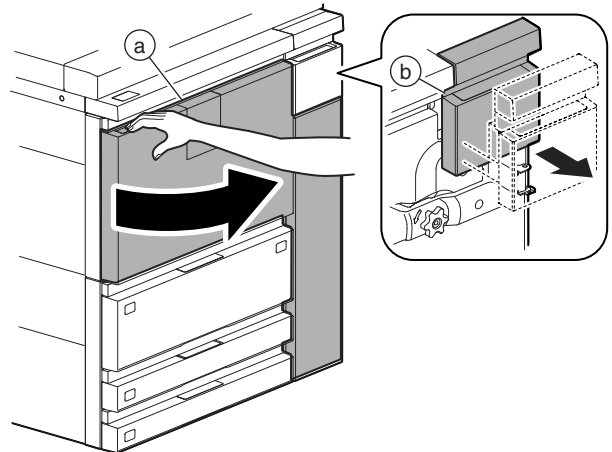
\* When the pressure is released, the arrow on the pressure release shaft faces diagonally (b). When the pressure is applied, the arrow faces upward (c).



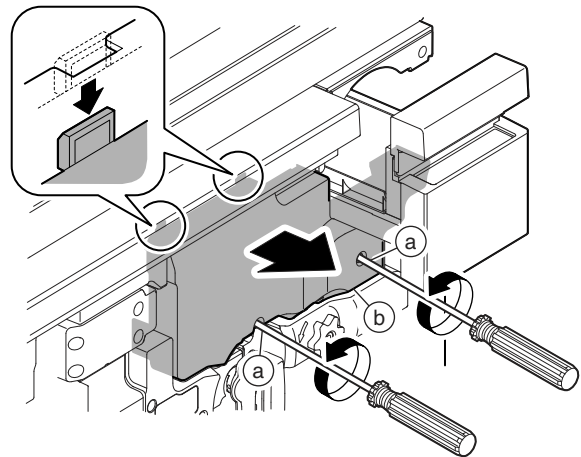
**NOTE:** If the machine is left unused for one month or more, the heat roller rubber may be deformed. In such a case, release the pressure.

**F. Developer supply**

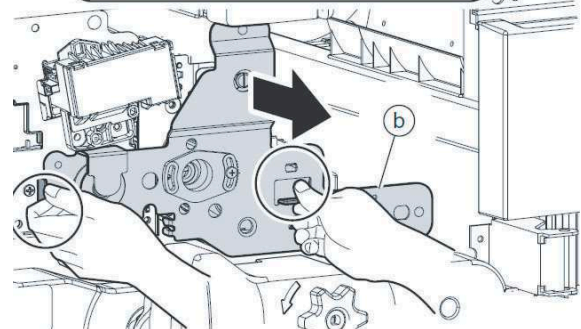
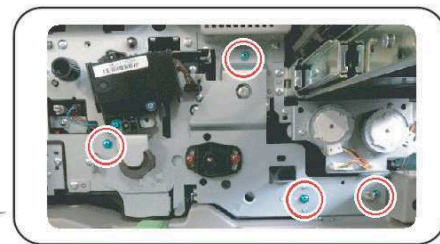
- 1) Open the front cover (a), and pull out the intermediate frame (b).



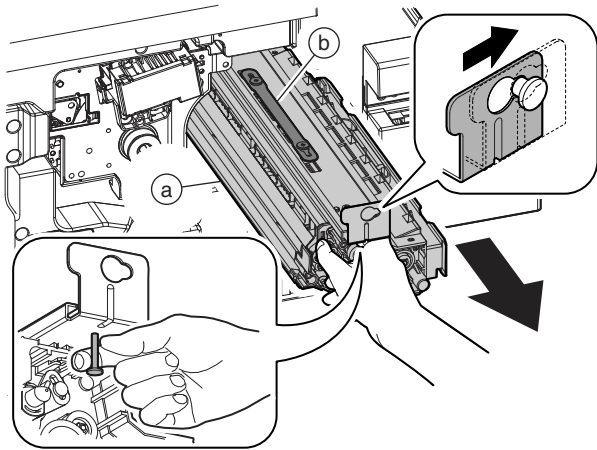
- 2) Remove the screw (a), and remove the cover (b).



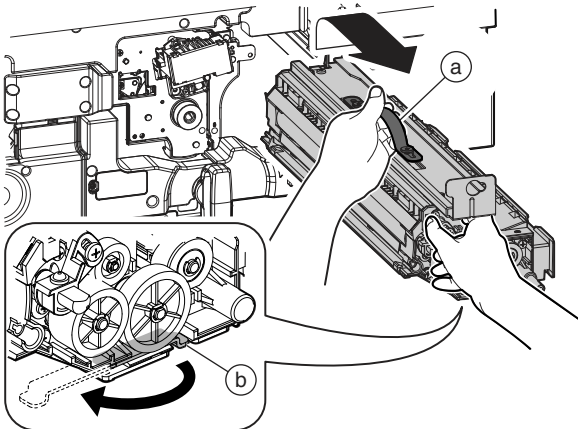
- 3) Remove the blue screw, and remove the plate (b).



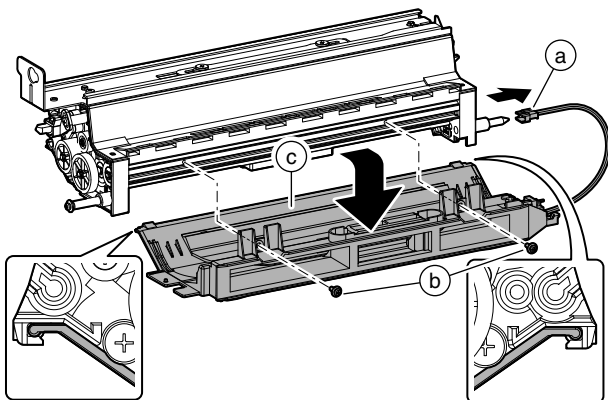
- 4) Slide the developing unit (a) to the right, and pull it out until the grip (b) can be held.



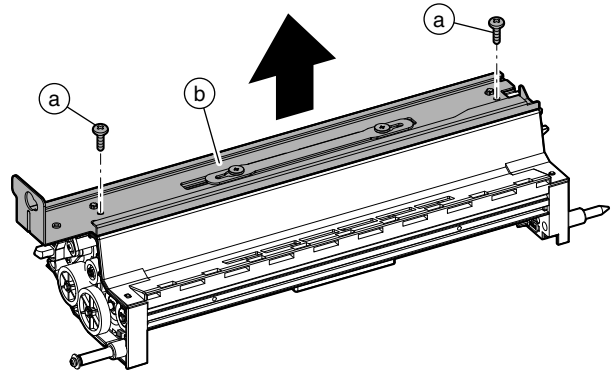
- 5) Hold the handle (a) of the developing unit, and lift it up to remove completely.  
 \* When placing the developing unit down, rotate the stabilizing leg and place the developing unit down with the leg extended.



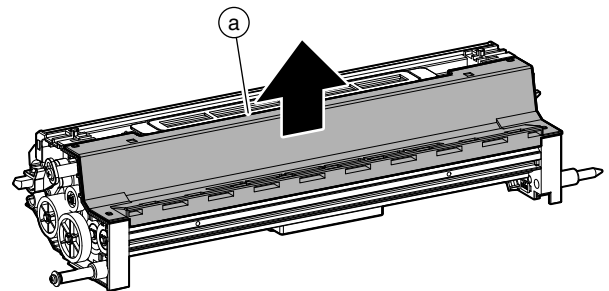
- 6) Remove the connector (a), the screw (b), and the cover (c).  
 \* Be careful not to smear the pin of the connector (a) with toner.



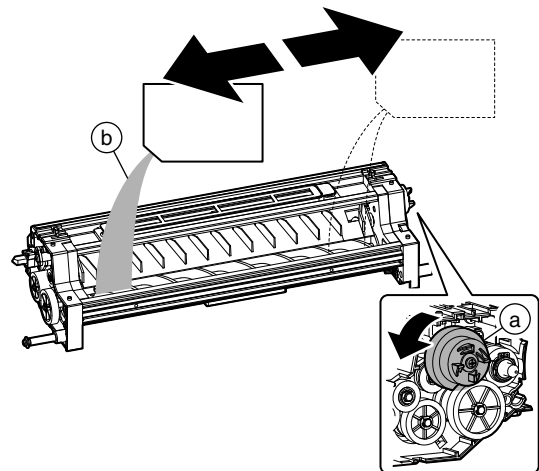
- 7) Remove the screw (a), and remove the guide (b).



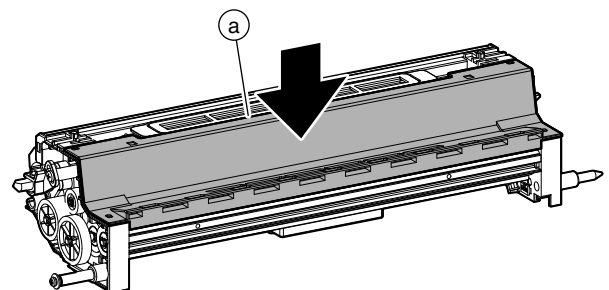
- 8) Remove the cover (a).



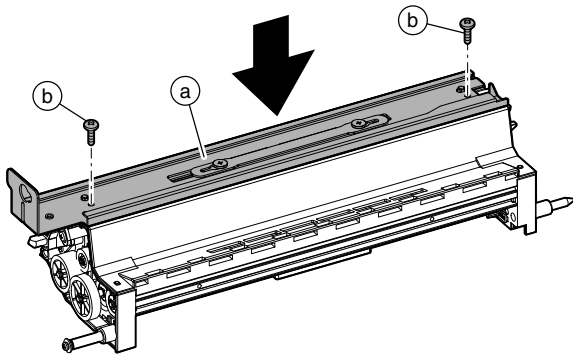
- 9) While rotating the coupling (a), supply developer (b).



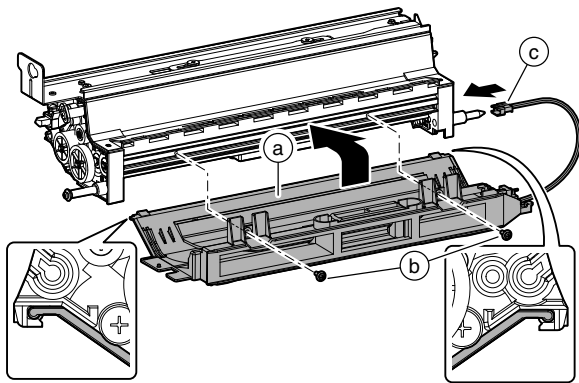
- 10) Attach the cover (a).



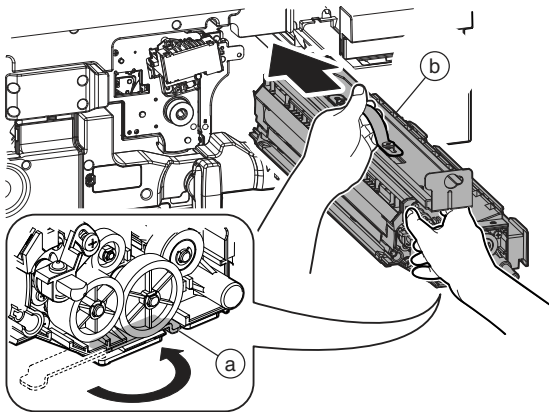
- 11) Attach the guide (a), and secure it with the screw (b).



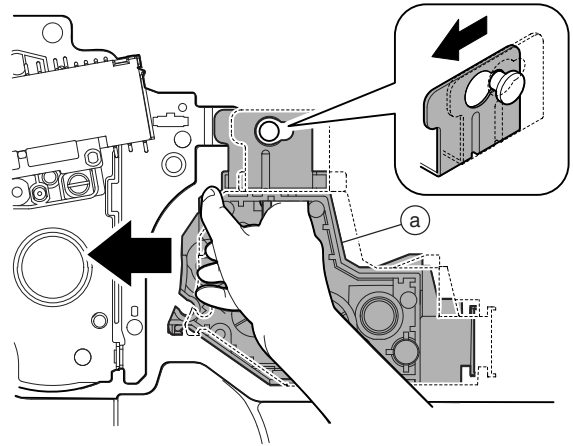
- 12) Attach the cover (a), and secure it with the screw (b). Connect the connector (c).  
 \* Check to confirm that the pin of the connector (c) is not smeared with toner.



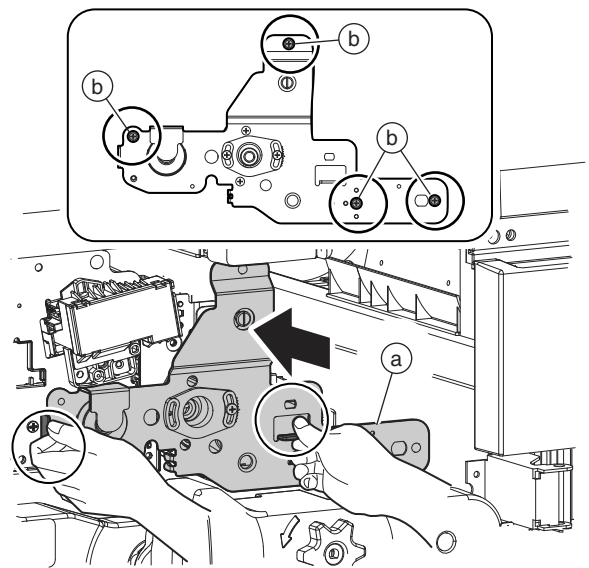
- 13) Rotate the stabilizing leg (a) under the developing unit and install the developing unit (b).  
 \* When inserting a developing unit with SIM25-2 not executed, be sure to check that the power is turned OFF.



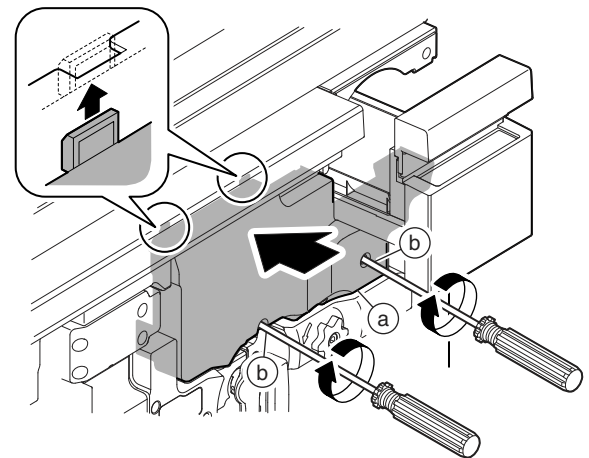
- 14) Slide the developing unit (a) to the left, and lock it.



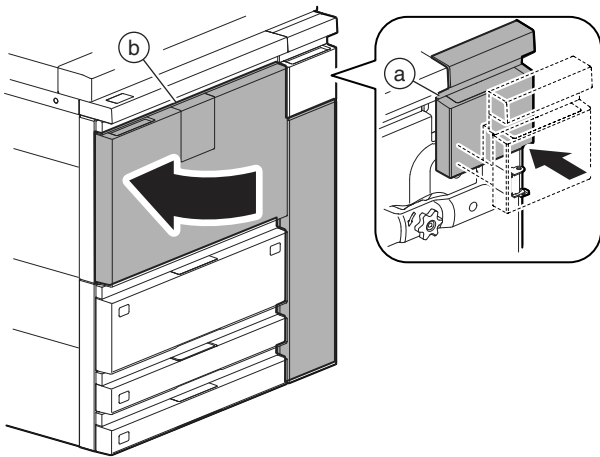
- 15) Attach the plate (a), and secure it with the screw (b).



- 16) Attach the cover (a), and secure it with the screw (b).

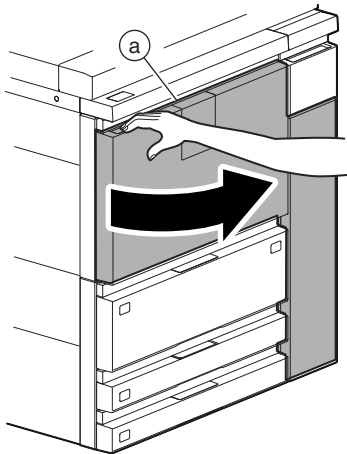


- 17) Insert the toner tray (a), and close the front cover (b).

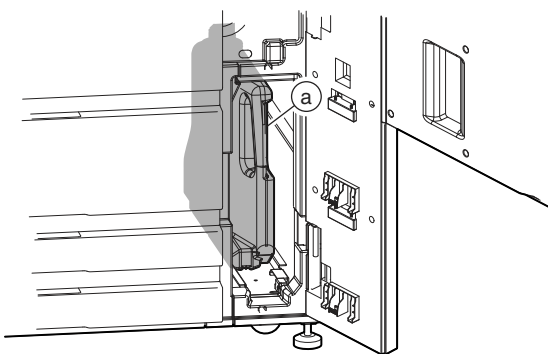


### G. Toner collection container check

- 1) Open the front cover (a).

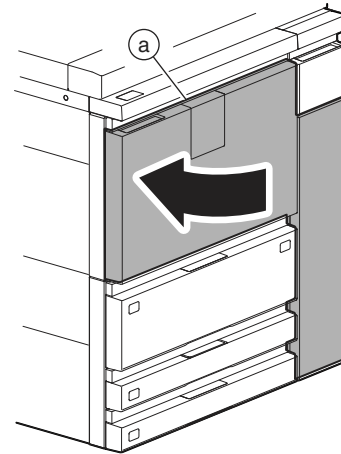


- 2) Check to confirm that toner collection container (a) is securely installed.



### H. Toner density reference control level setting

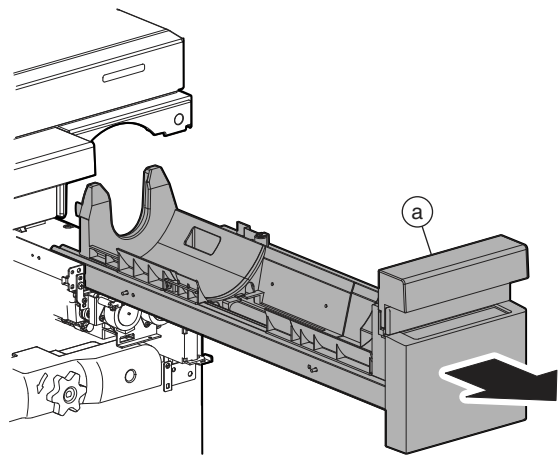
- 1) Connect the power cord of the main unit to the power outlet.
- 2) Open the front cover, and turn ON the main power switch.
- 3) Turn ON the power switch on the operation panel.
- 4) Open the front cover, and remove the toner cartridge. Then enter the input of SIM25-2.
- 5) After entering the simulation, close the front cover (a).



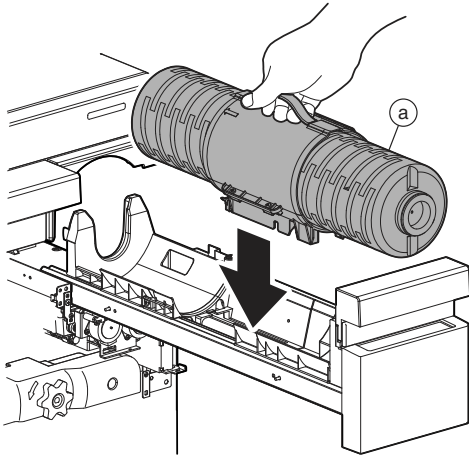
- 6) Press [EXECUTE] button, and the simulation is executed. After stirring toner, the toner density control sensor values are sampled to get the average value of the sensor detection level, which is set (saved) as the reference toner density control value.
- 7) After completion of the reference toner density control value setting, [EXECUTE] key returns to the normal display, showing completion of the setting operation.

### I. Toner cartridge installation

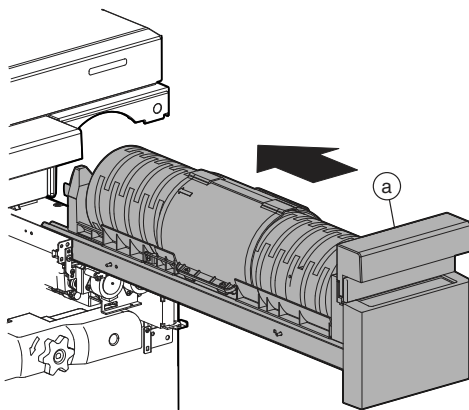
- 1) Pull out the toner tray (a).



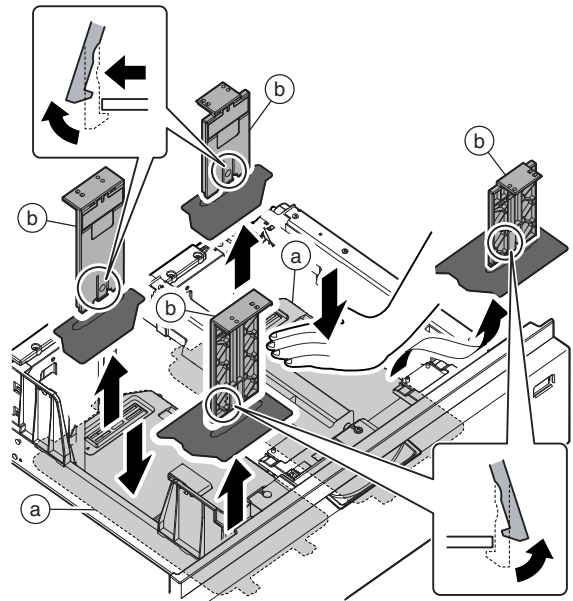
- 2) Install the toner cartridge (a).



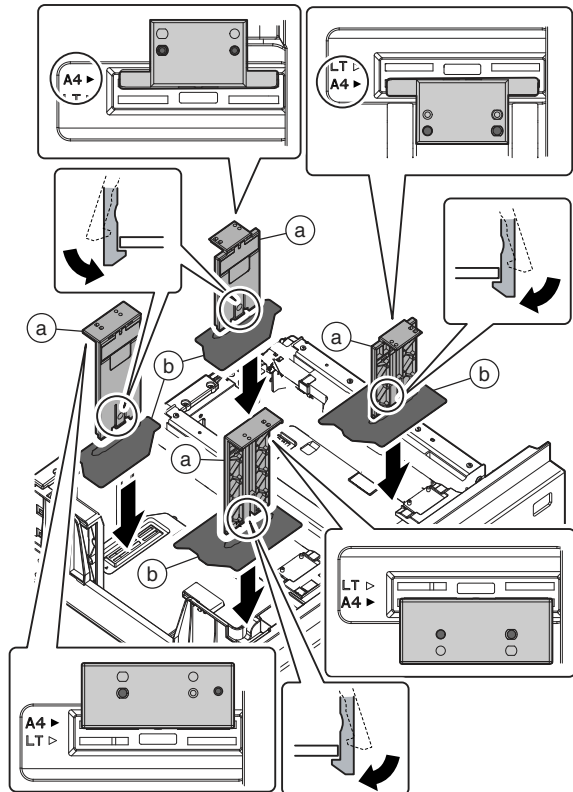
- 3) Install the toner tray (a).



- 2) Push down the paper feed base plate (a) gently, hold the hooks and remove A4 size regulation plate (b).



- 3) Fit the A4 size regulation plate (a) to A4 size, and attach it.  
\* Be careful to align regulation plates properly into base.



## J. Tray setup

### (1) Setting of paper size and paper type

Change the tray setting in the "system setting" mode. Some items require administrator authority for display. The paper setting (to A4/recycle) procedure for tray 3 is as follows.

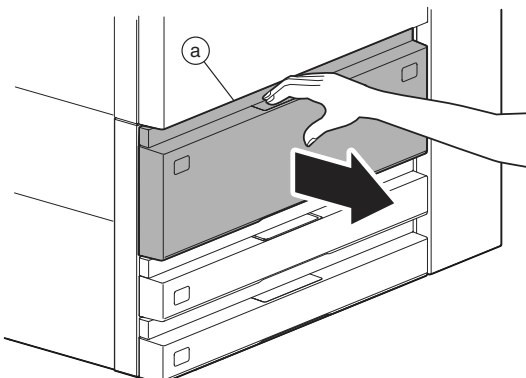
However, if the size of tray 1 has been switched to B5, execute SIM 26-2, and set the paper size.

- 1) Press the [SETTINGS] key on the operation panel.
- 2) Press the [SYSTEM SETTINGS] key.
- 3) Touch the [Paper Tray Settings] key.
- 4) Touch the [Tray 3] key.
- 5) Select "recycled" on the selection box of the "Type". Select "A4" on the selection box of the "Size". Touch the [Submit] key.

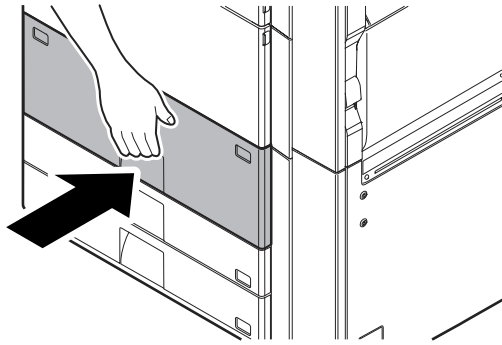
### (2) Tray size setup

#### a. Inch series tray 1, tray 2 (LT to A4)

- 1) Pull out the tray 1/2 (a).

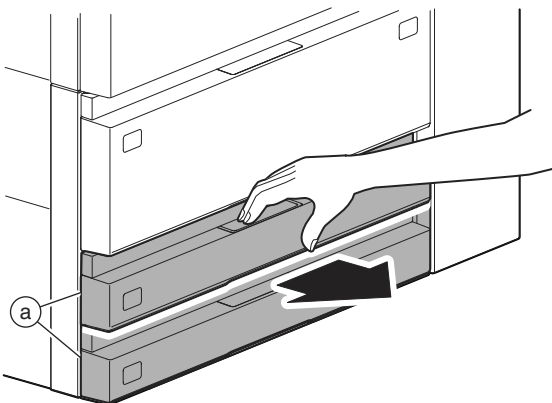


- 4) Close the tray 1/2 (a).



**b. Tray 3, tray 4**

- 1) Gently pull out trays 3 and 4 (a) until each tray stops.

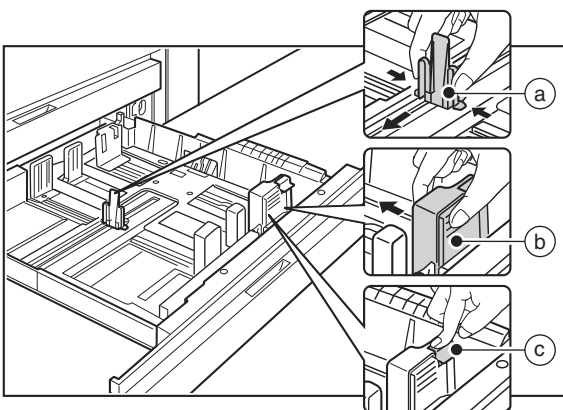


- 2) Adjust the guide plates (a) and (b) by squeezing their lock levers and sliding them to match the vertical and horizontal dimensions of the paper to be loaded.

Squeeze the lock knob on guide plate (a), (b) and slide to the desired paper size.

For a non-standard paper size, after sliding guide plate (b) to the desired size, press the lock button (c).

\* If slid to a standard paper size, guide plate (b) will lock automatically.



**K. Specifications setup**

Used to set the specifications with SIM26 according to the customer's request.

SIM No		Content
26	6	Used to set the destination.

To customize the following items after completion of the destination setup, change the set values.

SIM No		Content
26	2	Paper size setting of the Tray1/LCC.
	3	Used to set the auditor specification mode.
	5	Used to set the number (1 or 2) of count of paper (A3 or WLT or 8K) that passes. 1:1pc 2:2pcs * Targets: Total counter, maintenance counter, developer counter.
	18	Used to set YES/NO of the toner save mode (Only in UK and Japan versions) * Carry out the setting by the user's program except the UK version. 1:accept 2:inhibit
52	Used to set whether non-printed paper (insertion paper, cover paper) is counted up or not. 1:YES 2:NO	

**L. Image quality check**

Be sure to check the following items related to image quality. For details of the adjustment and checking procedures, refer to the "[5] ADJUSTMENT" on the Service Manual.

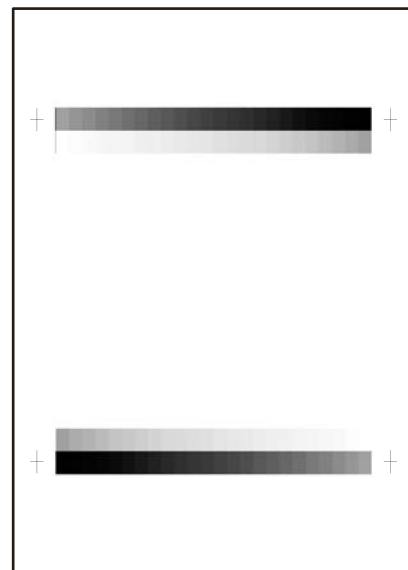
Check that the following items are within specification. If not, carry out the adjustment.

**NOTE:** When installing the copier, be sure to carry out the copy gray balance and the printer gray balance.

- (1) Image loss, void area (see ADJ 9)
- (2) Copy gray balance (11-A / Auto adjustment)

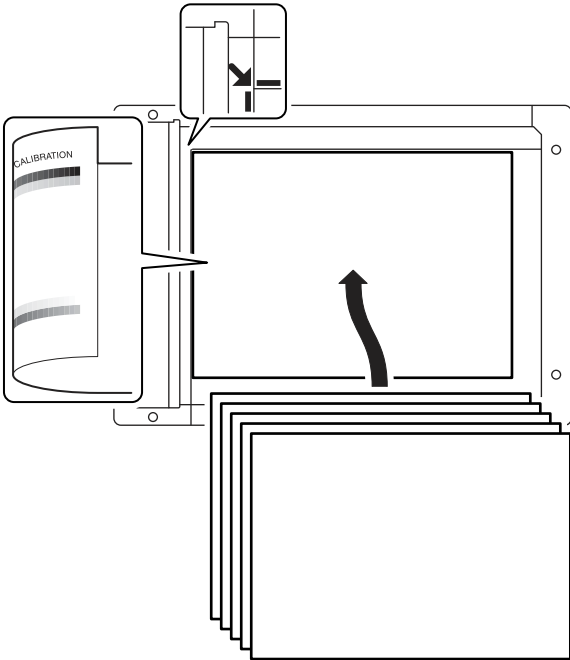
- 1) Enter the SIM 46-74 mode.
- 2) Press [EXECUTE] button.

The high density process control is performed, and the copy gray patch image (adjustment pattern) is printed out. (A4/11" x 8.5" or A3/11" x 17" paper is automatically selected.)

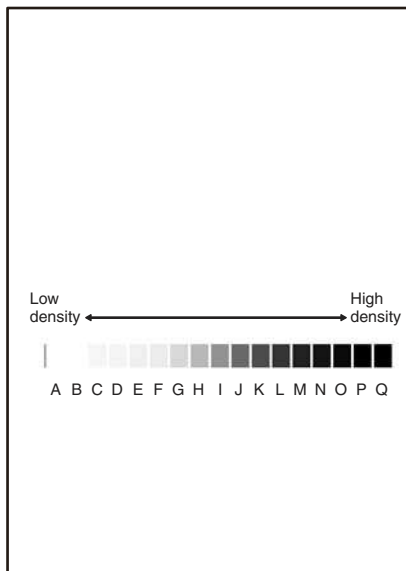




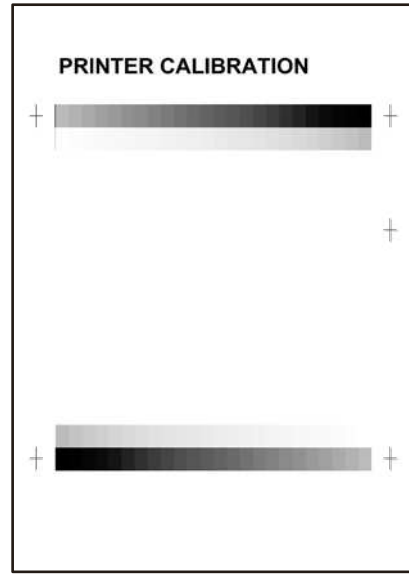
- 3) Set the gray patch image (adjustment pattern) paper printed in procedure 2) on the document table.  
 Set the gray patch image (adjustment pattern) printed in the procedure 2) on the document table.  
 Place the gray patch image so that the fine lines are on the left side.  
 At that time, place 5 sheets of white paper on the printed gray patch image (adjustment pattern).



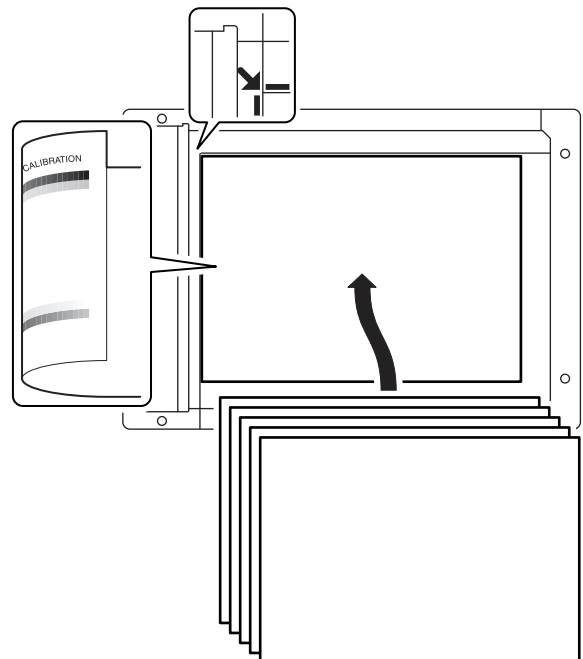
- 4) Press [FACTORY] button, then press [EXECUTE] button.  
 The copy density and gradation adjustment is performed automatically, and the adjustment pattern is printed.  
 If there is any streak or unclear print on the printed check pattern, check the print engine for any problems.



- 5) Press [EXECUTE] key.  
 The printer gray patch image (adjustment pattern) is printed out.  
 (A4/11" x 8.5" or A3/11" x 17" paper is automatically selected.)



- 6) Set the gray patch image (adjustment pattern) printed in the procedure 5) on the document table.  
 Set the gray patch image (adjustment pattern) printed in the procedure 2) on the document table.  
 Place the gray patch image so that the fine lines are on the left side.  
 At that time, place 5 sheets of white paper on the printed gray patch image (adjustment pattern).

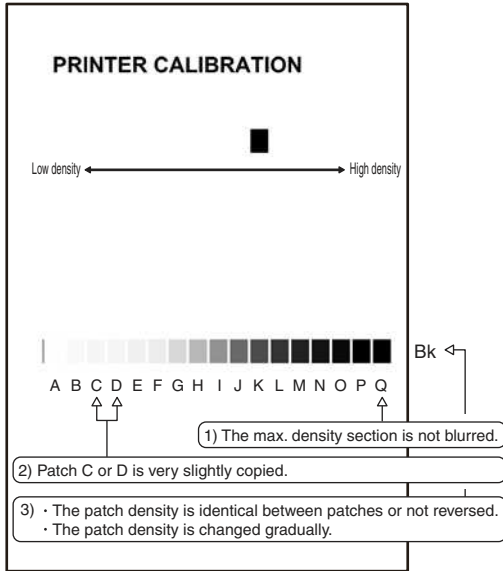


- 7) Select [FACTORY] target, and press [EXECUTE] key.

When the gray balance is customized with the manual gray balance adjustment (SIM 67-25) according to the user's request and the gray balance is registered as the service target with SIM 67-27, if the gray balance is adjusted to that gray balance, select the [SERVICE] target.

The printer gray balance adjustment (step 1) is automatically performed and the gray balance check patch image is printed out.

If there is any streak or unclear print on the printed check pattern, check the print engine for any problems.



- 8) The initial setting menu of the halftone image correction is displayed.

Press [OK] key.

The initial setting of the halftone image correction is performed.

- 9) Wait until [EXECUTE] key is displayed.

When it is displayed, press it.

The halftone image correction is performed.

- 10) When "COMPLETED THIS PROCEDURE" is displayed, the adjustment operation is completed.

Cancel SIM46-74.

**NOTE:** The adjustment result becomes valid only when the both adjustments in the copy mode and in the printer mode are completed.

For example, if the copy gray balance adjustment (automatic adjustment) is performed and the simulation is canceled, the adjustment result is invalid.

- 11) Check the copy gray balance and density.

(Refer to the item of the copy gray balance and density check.)

When the gray balance and the density are unsatisfactory after the automatic adjustment by selecting the factory target in procedure 4), execute the manual gray balance adjustment (ADJ11C (2)).

Also when the service target is selected in procedure 4) to execute the automatic adjustment and a satisfactory result is not obtained, perform the manual gray balance adjustment (ADJ 11C (2)).

- 12) Check the printer gray balance and density.

(Refer to the item of the printer gray balance and density check.)

If a satisfactory result on the gray balance and the density is not obtained with the automatic adjustment, execute the manual adjustment (SIM 67-25) (ADJ 11E (2)).

Also when the service target is selected in procedure 7) to execute the automatic adjustment and a satisfactory result is not obtained, perform the manual gray balance adjustment (ADJ 11E (2)).

If the gray balance or density is not in the satisfactory level even after execution of the automatic and manual adjustments, there may be another cause.

Troubleshoot the cause, repair or perform necessary works, and repeat the adjustment from the beginning.

## M. Function and operation check

Check that the following operations are normal.

Check item list		Equipped condition
Key-in (operation panel)		
Display (operation panel)		
Paper feed operation	Hand feed	
	Paper tray	
Paper size detection		
Originals size detection	Original table mode	
	DSPF mode	
DSPF operation/ duplex operation	S-S mode	
	D-S mode	
	S-D mode	
	D-D mode	
Bookbinding operation		When the finisher is installed
Stapling operation		When the finisher is installed
Grouping operation		When the finisher is installed
Sorting operation		When the finisher is installed

## N. Setup and adjustment data recording

Print the various setup data and the adjustment data (list) with SIM22-6 and keep the data.

- In case of a memory problems, if the data is not kept, all the adjustments must be made again.
- If the data is kept, the setup values and the adjustment values can be entered without adjustments, shortening the servicing time.

## **O. Necessary procedures before moving the machine**

- 1) If the following options are installed, remove all of them from the machine.
  - Large capacity tray
  - Inserter
  - Finisher
  - High capacity stacker
  - Curl correction unit
  - Relay unit
  - Paper feed system option
- 2) Remove the following consumable parts from the machine.
  - Paper
  - Toner cartridge
  - Development cartridge
- 3) Lock the following sections.
  - Scanner (Optical section)
  - Paper cassette lift plate
- 4) Attach the protection material to the position shown below.
  - Use the "packing material for fixing the separation pawls" which was removed when unpacking.

**NOTE:** Since the hard disk drive is built in the machine, refrain from vibrations or shocks to the machine when in transit.