

I. FEATURES

1. Copies as large as A3 in size (DIRECT) may be made, and the copyboard is of a fixed type.
 - Although compact in design the copier enables making copies as large as A3 in size in the DIRECT mode.
 - The copyboard is of a fixed type so that pages of a book may be copied with much ease.
2. Zooming between 50% and 200%.
 - Copies may be made in reproduction ratios of between 50% and 200%, selectable in 1% increments.
3. Front loading for faster supply of paper.
 - Paper is loaded from the front of the copier so that the cassette may be replenished with paper without wasting time. The design also saves space.
4. Single component fine particle toner for high resolution.
 - Copies are developed using the single component toner projection method. Further, the copier uses toner of extremely fine particles for enhanced image quality.
5. Multifeeper (stack bypass) pick-up.
 - As many as 50 copies (80 g/m²) may be made continuously using the multifeeding mechanism.

II. SPECIFICATIONS

A. Type

Body	Desktop
Copyboard	Fixed
Light source	Halogen lamp (300W)
Lens	Zoom lens
Photosensitive medium	OPC

B. System

Reproduction	Indirect electrostatic method	
Charging	Corona	
Exposure	Slit (moving light source)	
Copy density adjustment	Auto or Manual	
Development	Dry	
Pick-up	Automatic	Exclusive cassette
	Manual	Multifeed
Transfer	Corona	
Separation	Curvature and Static eliminator	
Drum cleaning	Blade	
Fixing	Heat roller (900W)	

C. Performance

Type of document	Sheet, Book, 3-D object (2 kg)	
Document size	A3 max.	
Wait time	75 sec (approx.; at 20°C)	
First copy	9.4 sec (A4, AE ON/OFF, 1:1)	
Continuous copying	99 copies	
Copy size	A3(max.), A6(min.); 148x105 mm	
Type of copy paper	Cassette	Plain paper (64 to 80 g/m ²), Tracing paper, Colored paper
	Multifeed tray	Plain paper (64 to 128 g/m ²), Tracing paper*, Colored paper, OHP film*, Postcard, Label sheet

*Use of tracing paper may cause double feeding. If thin paper or OHP film, feed one sheet at a time.

Two-sided copying	Multifeed tray	Plain paper(64 to 128 g/m ²), Colored paper, Postcard
Overlay copying	Multifeed tray	Plain paper(64 to 128 g/m ²), Colored paper, Postcard
Cassette	Claw	Provided.
	Standard	27 mm deep(about 250 sheets of 80 g/m ² paper)
	Universal	None.
Copy tray		100 sheets(approx.; A4, 80 g/m ²)
Non-image width (1st side)	Leading edge	2.0 ±1.5 mm or less
	Left/Right	2.5 ±1.5 mm or less
Auto clear		Provided. (2 min, standard)
Auto shutoff		None.
Option		ADF-A1, CT unit, MS-A1, Stapler Sorter-B1, CC-V

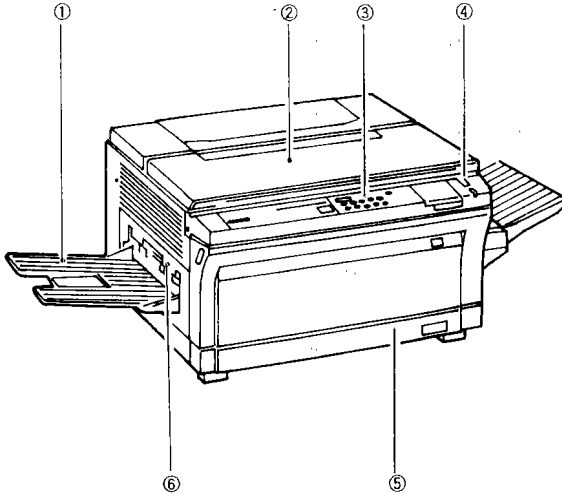
D. Others

Power supply	Serial Numbers		
	220V 50Hz	UBN XXXXX	
	240V 50Hz	QBN XXXXX	
Power consumption	Maximum	1.5kW or less	
	Standby	0.148 kWh (Reference value)	
	Continuous copying	0.64 kWh (Reference value)	
Noise	Copying	55dB or less	(sound power level as prescribed by ISO)
	Standby	40dB or less	
Ozone		0.05ppm or less (UL standards.)	
Di-mensions	Width	697mm	
	Depth	617mm	
	Height	391mm	
Weight		50.6kg	
Operating environment	Temperature	15.0°C to 30.0°C	
	Humidity	5% to 80%	
	Atmospheric pressure	0.6 to 1	
Others		Keep copy paper wrapped to protect against moisture.	

Reproduction mode		Paper size	Cassette	Copies/min
DIRECT		A3 (297x420mm)	A3	9
		A4 (210x297mm)	A4	15
		B4 (257x365mm)	B4	10
		B5 (182x257mm)	B5	17
		A5R (210x149mm)	A5R	16
REDUCE	I	50%	/	/
	II	A3 → A4	A4R	10
ENLARGE	I	A4 → A3	A3	9
	II	200%	/	/

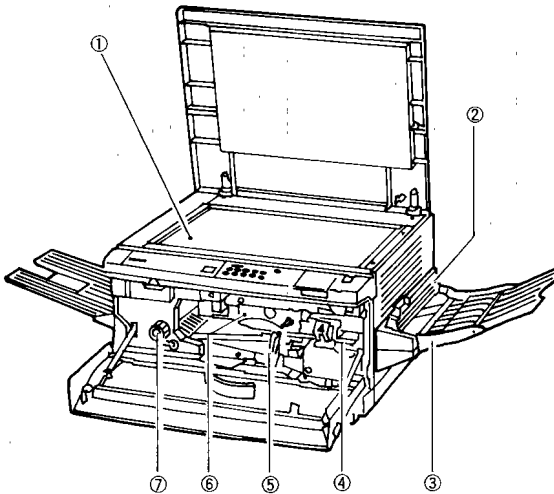
III. NAMES OF PARTS

A. External View



- ① Copy tray
- ② Copyboard cover
- ③ Control panel
- ④ Power switch
- ⑤ Cassette
- ⑥ Delivery cover

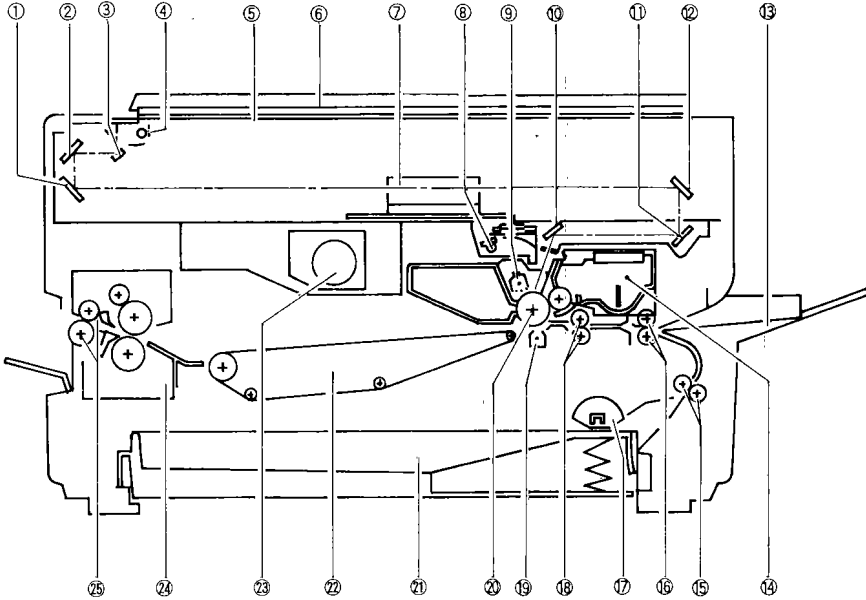
Figure 1-1



- ① Copyboard glass
- ② Multifeeder cover
- ③ Multifeeder tray
- ④ Developing assembly release lever
- ⑤ Feeder assembly release lever
- ⑥ Drum unit
- ⑦ Fixing assembly knob

Figure 1-2

B. Cross Section



- | | | |
|---------------------------|-----------------------|----------------------------|
| ① No. 3 mirror | ⑩ No. 6 mirror | ⑲ Transfer corona assembly |
| ② No. 2 mirror | ⑪ No. 5 mirror | ⑳ Photosensitive drum |
| ③ No. 1 mirror | ⑫ No. 4 mirror | ㉑ Cassette |
| ④ Scanning lamp | ⑬ Multifeder tray | ㉒ Feeder assembly |
| ⑤ Copyboard glass | ⑭ Developing assembly | ㉓ Exhaust fan |
| ⑥ Copyboard cover | ⑮ Feeder roller 1 | ㉔ Fixing assembly |
| ⑦ Lens | ⑯ Registration roller | ㉕ Delivery roller |
| ⑧ Pre-exposure lamp | ⑰ Pick-up roller | |
| ⑨ Primary corona assembly | ⑱ Feeder roller 2 | |

Figure 1-3

IV. OPERATION

A. Control Panel

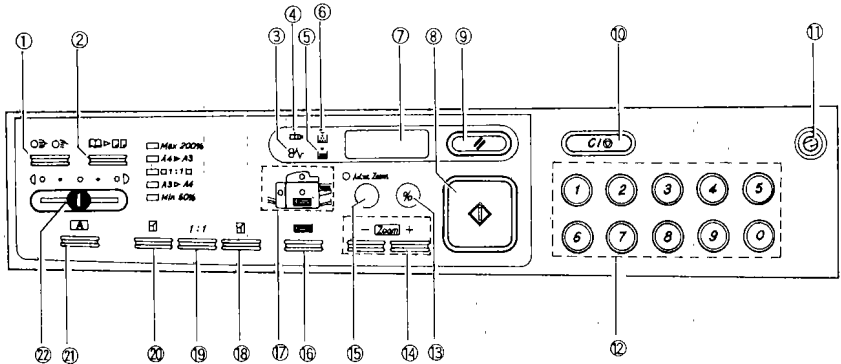


Figure 1-4

- ① **SORT/GROUP key**
Press it to select the sort, group, or non-sort mode. The indicator remains unit when the non-sort mode is selected.
 - sorting
 - ≡ grouping
- ② **PAGE SEPARATION key**
Press it to select the page separation mode.
- ③ **JAM indicator**
- ④ **CONTROL CARD indicator**
- ⑤ **ADD PAPER indicator**
- ⑥ **ADD TONER indicator**
- ⑦ **COPY COUNT/RATIO indicator**
It indicates the reproduction ratio when the % key is pressed.
- ⑧ **COPY START key**
 - glows orange when the copier is not ready for copying.
 - glows green when the copier is ready for copying.
- ⑨ **RESET key**
Press it to reset the copier to its default settings.
Default Settings
 - copy count 1
 - DIRECT
 - AE (may be turned OFF using 'C15' of service mode)
 - non-sort
- ⑩ **CLEAR/STOP key**
- ⑪ **STANDBY key**
- ⑫ **NUMERIC keypad**
- ⑬ **% key**
Press it to check the reproduction ratio using the copy count indicator. The display changes to the copy count 2 sec after the key is released.
- ⑭ **ZOOM key**
Press it to select desired reproduction ratios between 50% and 200% in 1% increments.
- ⑮ **AUTO RATIO key**
Press it to select or deselect the auto reproduction ratio mode. The key is effective when the ADF is attached.
- ⑯ **PAPER SELECT key**
Press it to select the cassette or multifeeper as the source of paper.
- ⑰ **PAPER SELECT/JAM indicator**
A LED goes ON to indicate the location of the paper or flashes to indicate the location of the jam, if any.
- ⑱ **ENLARGE key**
- ⑲ **DIRECT key**
- ⑳ **REDUCE key**
- ㉑ **AE (automatic exposure (density) adjustment) key**
- ㉒ **COPY DENSITY lever**

B. Basic Copying Operation

- 1) Set the power switch to ON (I).
 - a) If the temperature of the fixing roller is too low for copying, the indicator of the COPY START key will blink green.
 - b) When the temperature of the fixing roller becomes high enough for copying, the indicator will glow green.
 - c) The normal waiting time at room temperature (20°C) is about 75 seconds.
- 2) Raise the copyboard cover, place an original on the copyboard with the side to be copied facing downward, and align it with the size indication.
- 3) To adjust the copy density manually, the AE key indicator should be OFF; press the key once if it is ON. Set the COPY DENSITY lever to suit the original.
- 4) Check the size of paper in the cassette.
 - a) If the cassette does not have the desired size of paper, remove it and install a cassette with the desired size.
- 5) Set the required number of copies (1 to 99) using the NUMERIC keypad and confirm that the correct number appears on the COPY COUNT/RATIO indicator.
 - a) If an error was made in inputting the number of copies, press the CLEAR/STOP key and reset the number of copies.
- 6) Press the COPY START key
 - a) To stop a continuous copying operation, press the CLEAR/STOP key or RESET key. The copier will complete the copy in progress, then stop. The COPY COUNT/RATIO indicator will display the initially set copy quantity.
 - b) It is possible to switch from automatic exposure control to manual density adjustment at any time from the start of copying to the completion of the final copy. However, it is not possible to switch from manual density adjustment to automatic.

Example:

If the copy is too dark or too faint using AE, cancel AE and vary the copy density with the COPY DENSITY lever.

- c) If the ADD PAPER indicator goes ON during copying, the copier will stop. Refill the cassette and press the COPY START key. The remaining number of copies will be made automatically.
- d) If the copier has a ADF, place a document (original) on the document tray. The document will be fed automatically and copying will start.
- e) If no other operation is performed, the copier will return to the STANDARD mode approximately 2 minutes after it completes a copy or after the last key operation.

C. Pick-Up from Multifeder

- 1) Set documents on the copyboard.
- 2) Press the PAPER SELECT key to select the multifeder.
- 3) Open the multifeder tray.
- 4) Open the multifeder cover.
- 5) Set the slide guide to the size of the copy paper.
- 6) Set copy paper.
 - As many as 50 sheets (80 g/m²) may be set.
- 7) Close the multifeder cover.
- 8) Set the desired reproduction ratio using the DIRECT, REDUCE, ENLARGE, or ZOOM key.
- 9) Cancel the AE mode, and set the COPY DENSITY lever if manual adjustment of the density is desired.
- 10) Enter the number of copies using the NUMERIC keypad.
- 11) Press the COPY START key.

D. Two-Sided Copying

Copy one side of a 2-sided original. Invert the original so that the same edge faces the front. Invert the copy in the same way (front edge facing the front) and feed it into the copier.

- Use dry, uncurled paper.
- Use paper in the weight range 60 to 128 g/m²
- When making two-sided copies, only one image can be made on each side of the copy paper.
- Both overlay and two-sided copies cannot be made on the same sheet of copy paper.

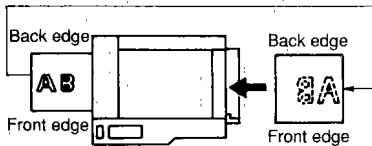


Figure 1-5

E. Overlay Copy Operation

By changing the developing assembly, a 2-color copy can be made on the same side of the copy paper.

- Use paper in the range of 60 to 128 g/m²
- When making an overlay copy a maximum of two images can be made on one side of the copy paper.
- Overlay and two-sided copies cannot be made on the same sheet of copy paper.

F. Auto Start

The auto start mechanism may be made use of while the copier is in the wait mode (COPY START key blinking green); i.e., after it is switched ON or after the standby mode is cancelled.

Set a document while the copier is in the wait mode, and select the copy mode; then, press the COPY START key.

The COPY START key changes from blinking green to orange to indicate that the auto start mechanism has been activated.

The copier starts making copies as soon as it enters the standby mode using the selected copy modes.

The auto start mechanism may be cancelled by pressing the CLEAR/STOP or RESET key.

G. Replacing the CT Unit

- Open the front door.
- Swing the developing assembly release lever counterclockwise.
- Pull the developing assembly forward.
- Grasp the handle of the developing assembly, and gently raise it.

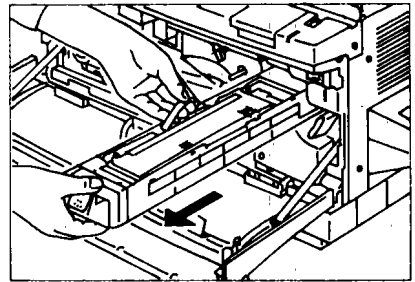


Figure 1-6

- Place the CT unit gently on the developing assembly guide rails and push it in the copier.
- Shift the developing assembly release lever clockwise until it is horizontal.
- Close the front door.

Note:

- Do not tilt or handle the developing assembly or the CT unit roughly.
- Do not place the developing assembly or the CT unit on the floor. Be sure to place them in their storage box or in the pedestal of the copier.

V. WARNING INDICATOR AND REQUIRED ACTION

A. JAM Indicator σV

If an area of this indicator flashes while copying is taking place, it is likely that the paper has jammed at the position represented by the part that is flashing. Check and take action as follows.

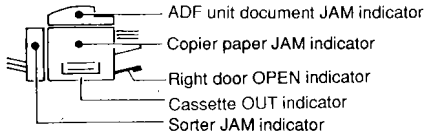


Figure 1-7

When clearing a paper jam which has occurred in an option unit (sorter or ADF), refer to the Service Manual for the option unit.

- ADF unit document JAM indicator
- Copier paper JAM indicator
- Right door OPEN indicator
- Cassette OUT indicator
- Sorter JAM indicator

If paper jams inside the copier, check the paper pick-up area, separation feeder area, fixing/copy delivery area, and cartridge area; and remove all jammed paper.

- 1) Open the front door.
- 2) Remove the copies from the copy tray.
- 3) Operate the release and open the copy delivery assembly.
- 4) Check if there is copy paper jammed in the fixing assembly. If there is paper jam in it, turn the knob of the fixing rollers clockwise to remove the jammed paper.

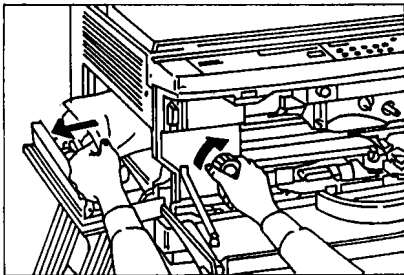


Figure 1-8

- 5) Close the copy delivery assembly.
- 6) Check if there is paper jammed in the separation/feeder area. If there is, swing the feeder release lever counterclockwise to open the feeder, then remove the jammed paper. Be careful not to tear it.

Note:

When removing jammed paper from the separation area be very careful not to touch the photosensitive drum.

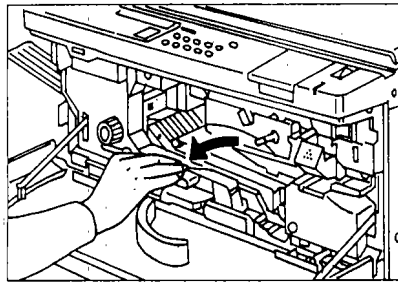


Figure 1-9

- 7) Open the multifeeder cover, and remove the paper from the multifeeder tray.
- 8) Hold the grip found at the bottom of the multifeeder cover, and open the right door; then, remove the jam.

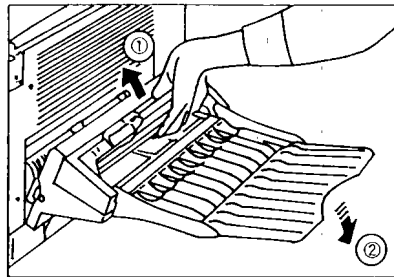


Figure 1-10

9) Close the right door.

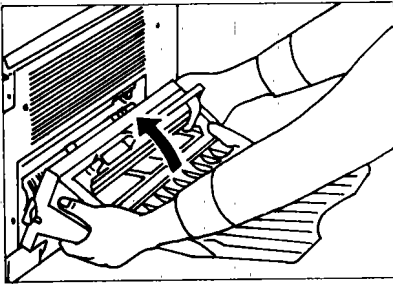


Figure 1-11

10) Close the front door.

B. ADD PAPER Indicator

1. Cassette

The indicator goes ON when no cassette is found in the cassette or no paper is found inside the cassette.

- 1) Push the center of the cassette.
 - The cassette springs out automatically.

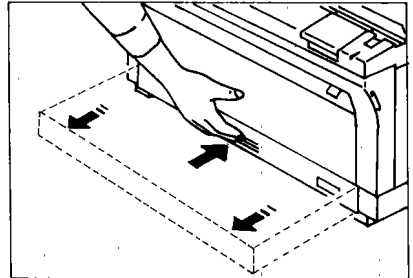


Figure 1-12

- 2) Set copy paper inside the cassette.
 - As many as 250 sheets of copy paper (80 g/m²) may be set.

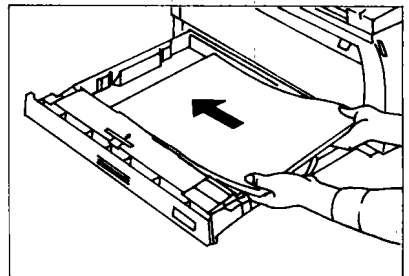


Figure 1-13

- 3) Hold the center of the cassette, and slide it into the cassette holder until it stops.

2. Multi-feeder

The indicator goes ON when the paper on the multi-feeder tray is not positioned correctly or the multi-feeder cover is left open.

- As many as 50 sheets of copy paper (80 g/m²) may be set on the multi-feeder tray.

C. ADD TONER Indicator

This indicator flashes when the amount of toner in the black developing assembly has become low.

1. Black developing assembly

- 1) Open the front door.
- 2) Turn the developing assembly release lever counterclockwise.
- 3) Pull the developing assembly forward as far as possible.
- 4) Open the top cover of the developing assembly.
- 5) Shake the toner cartridge back and forth about 10 times.
- 6) Place the toner cartridge on the developing assembly.
- 7) While holding the toner cartridge in place, remove the seal slowly to allow the toner to flow out.

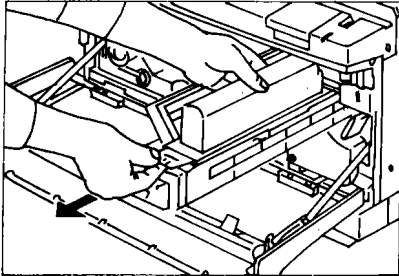


Figure 1-14

- 8) Tap the top of the toner cartridge to remove any toner remaining in the cartridge.
- 9) Carefully remove the toner cartridge.
- 10) Close the top cover of the developing assembly.
- 11) Put the developing assembly back into the copier.
- 12) Swing the developing assembly release lever clockwise.
- 13) Close the front door.

2. CT Unit (color developing unit)

If copy images become faint, the color toner has probably run out. In this case, replace the CT unit. The copy image can sometimes be temporarily restored by placing the CT unit in its storage box and agitating it.

Note:

The CT unit is a discardable type. When the color toner has been used up, toner is not added to the CT unit; rather, the entire unit is replaced.

D. CONTROL CARD Indicator

The control card indicator operates on a copier with a control card unit. It flashes in the following cases.

- a) When there is no control card in the control card unit.
- b) When there is a control card in the control card unit but the indication on the control card unit is "P" or "EE".

VI. DAILY INSPECTION TO BE PERFORMED BY THE CUSTOMER

Carefully instruct the customer to be sure to clean the following parts of the copier once a week.

1. Primary corona assembly

Slide in and out the wire cleaner to clean the corona wires.

2. Copyboard glass

Clean the copyboard glass with a damp cloth, then wipe it dry.

3. Copyboard cover

Clean the copyboard cover with a mild detergent solution, then wipe it dry.

4. Transfer corona assembly

Remove the transfer corona assembly from the copier, then slide the knob (wire cleaner) at the bottom of the transfer corona assembly back and forth to clean the corona wires.

Further, clean the static eliminator using the cleaning brush (accessory).