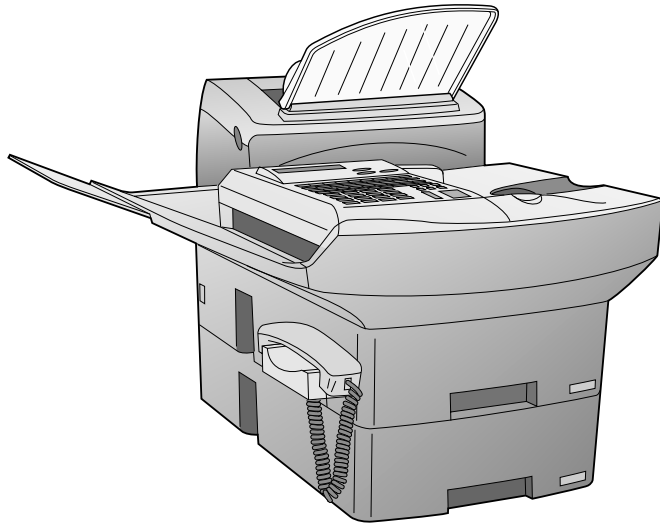


# SHARP SERVICE MANUAL

No. 00ZFO6600USME



## FACSIMILE

## MODEL FO-6600

### CAUTION

This laser printer is a class 1 laser product that complies with 21CFR 1040.10 and 1040.11 of the CDRH standard. This means that this machine does not produce a hazardous laser radiation. The use of controls, adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This laser radiation is not a danger to the skin, but when an exact focusing of the laser beam is achieved on the eyes retina, there is danger of spot damage to the retina.

The following cautions must be observed to avoid exposure of the laser beam to your eyes at the time of servicing.

- 1) When a problem in the laser optical unit has occurred, the whole optical unit must be exchanged as a unit, not an individual part.
- 2) Do not look into the machine with the main switch turned on after removing the toner/developer unit and drum cartridge.
- 3) Do not look into the laser beam exposure slit of the laser optical unit with the connector connected when removing and installing the optical system.
- 4) The cover of Laser Printer Unit contains the safety interlock switch.

Do not defeat the safety interlock by inserting wedges or other items into the switch slot.

Laser Wave Length : 770-810 nm

Laser Pulse Times : 49.2  $\mu$ s

Laser Output Power : 0.5 mW

Parts marked with " $\triangle$ " is 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.

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**PARTS GUIDE**

# CHAPTER 1. GENERAL DESCRIPTION

## [1] Specifications

### • GENERAL

<b>Applicable telephone line:</b>	Public switched telephone network	<b>Effective scanning width:</b>	10.1" (256 mm)
<b>Compatibility:</b>	ITU-T (CCITT) G3 mode	<b>Effective recording width:</b>	8.0" (203 mm)
<b>Configuration:</b>	Half-duplex, desktop transceiver	<b>Copy function:</b>	Single/Multi-copy/Sort-copy (99 copies/page)
<b>Compression scheme:</b>	MH, MR, MMR and Sharp special mode	<b>Telephone function:</b>	Standard (cannot be used if power fails)
<b>Memory size*:</b>	2 MB (approx. 108 average pages)	<b>Halftone (gray scale):</b>	64 levels
<b>Memory option:</b>	1 MB/2 MB/4 MB/16 MB Flash Memory	<b>Power requirements:</b>	120 V AC, 60 Hz
<b>Scanning method:</b>	Flat-bed, solid-state CCD	<b>Operating environment:</b>	50-86°F (10-30°C), 20 to 85% RH
<b>Resolution:</b>	Horizontal: 203 lines/inch (8 dots/mm) Vertical: Standard-98 lines/inch (3.85 lines/mm) Fine/Halftone-196 lines/inch (7.7 lines/mm) Super fine-391 lines/inch (15.4 lines/mm)	<b>Power consumption:</b>	Stand-by: 15 W Maximum: 400 W
<b>Printing density:</b>	Horizontal: 406 lines/inch (16 lines/mm) Vertical: 391 lines/inch (15.4 lines/mm)	<b>Dimensions:</b>	Width: 13.8" (351 mm) Depth: 22.9" (582 mm) Height: 18.5" (469 mm)
<b>Reception modes:</b>	Auto/Manual switching	<b>Weight:</b>	Approx. 59.8 lbs. (27.1 kg)
<b>Modem speed:</b>	33600 bps with automatic fallback to 31200, 28800, 26400, 24000, 21600, 19200, 16800, 14400, 12000, 9600, 7200, 4800, or 2400 bps <b>Note:</b> Transmission speeds in Super G3 mode may vary due to telephone line conditions.	<b>• PRINTER SECTION</b>	
<b>Transmission time*:</b>	Approx. 3 seconds	<b>Type:</b>	Desktop, Laser Beam Printer
<b>Input document size:</b>	Automatic feeding: Width — 5.8 to 11.0" (148 to 280 mm) Length — 5.0 to 14.3" (128 to 364 mm) Manual feeding: Width — 5.8 to 11.0" (148 to 280 mm) Length — 5.0 to 17.0" (128 to 432 mm)	<b>Print system:</b>	Electrostatic Dry Powdered Imaging System
<b>Paper size:</b>	Width — 8.5" (216 mm) Length — 11-14" (280-356 mm)	<b>Exposure system:</b>	Laser Diode + Polygon Mirror Scanning
<b>Paper capacity:</b>	1150 sheets	<b>Resolution:</b>	Horizontal: 406 (dot/inch) Vertical: 391 (dot/inch)
<b>Automatic document feeder:</b>	50 documents max.	<b>Print speed:</b>	6 pages per minute (Letter size paper)
		<b>First print time:</b>	Within 19 seconds (face down)
		<b>Warming-up time:</b>	Within 40 sec.
		<b>Operating environment:</b>	Temperature: 10-30°C Humidity: 20-80%RH
		<b>Toner cartridge life:</b>	3,700 prints or more (when black-to- white ratio on print is 4% or less)
		<b>Drum cartridge life:</b>	20,000 prints or more (when black- to-white ratio on print is 5% or less)

\* Based on ITU-T (CCITT) Test Chart #1 at standard resolution in Sharp special mode, excluding time for protocol signals (i.e., ITU-T phase C time only).

### <IMPORTANT PLEASE READ FIRST>

To avoid problems with supplies, please don't use supplies from other units. Please use new supplies, when supply changes are required.

## [2] Operation panel (1)

### LINE STATUS lights

This **LINE-1** lights illuminates when Line 1 is being used, and the **LINE-2** lights illuminates when Line 2 is being used.

### LINE key

Press this key before dialing to select the line.

### Display

This displays messages and prompts during operation and programming.

### Service indicator

This lights when a problem occurs which must be fixed by a service technician.

### Drum cartridge indicator

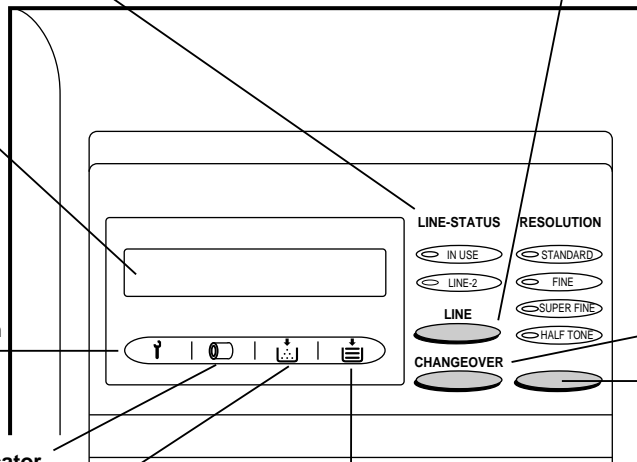
This blinks when the drum cartridge nears the end of its life, and lights steadily when the drum cartridge needs replacement.

### Toner cartridge indicator

This blinks when toner nears empty, and lights steadily when the toner/developer cartridge needs replacement.

### Paper out indicator

This blinks when one of the paper sources (cassette) is out of paper, and lights steadily when all sources are out of paper.



### CHANGEOVER key

Three types of information appear in the display: prompts related to operations you are performing, information about how the fax is using the line 1 (transmitting, receiving, etc.), information about how the fax is using the line 2. Press this key to switch through the three types of information.

### RESOLUTION key

Press this key to adjust the resolution before sending or copying a document.

### SPEED DIAL key

Press this key to dial a Speed Dial number.

### FUNCTION key

Press this key to select various special functions.

### BROADCAST key

Press this key to send a document to a group of receiving fax machines.

### REPORT key

Press this key to print out a report on the transaction just completed.

### Telephone dial keypad (numeric keys)

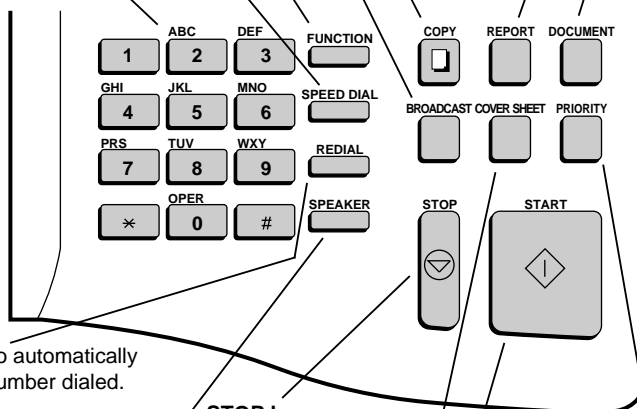
Use these keys to dial and program numbers.

### COPY key

Press this key to make a copy of a document.

### DOCUMENT key

Press this key to transmit a document without reading it into memory.



### REDIAL key

Press this key to automatically redial the last number dialed.

### SPEAKER key

Press this key to dial a number without picking up the handset.  
Note: This is not a speakerphone. You must pick up the handset to talk with the other party.

### STOP key

Press this key to stop operations before they are completed.

### COVER SHEET key

Press this key to include a cover sheet with a transmitted document.

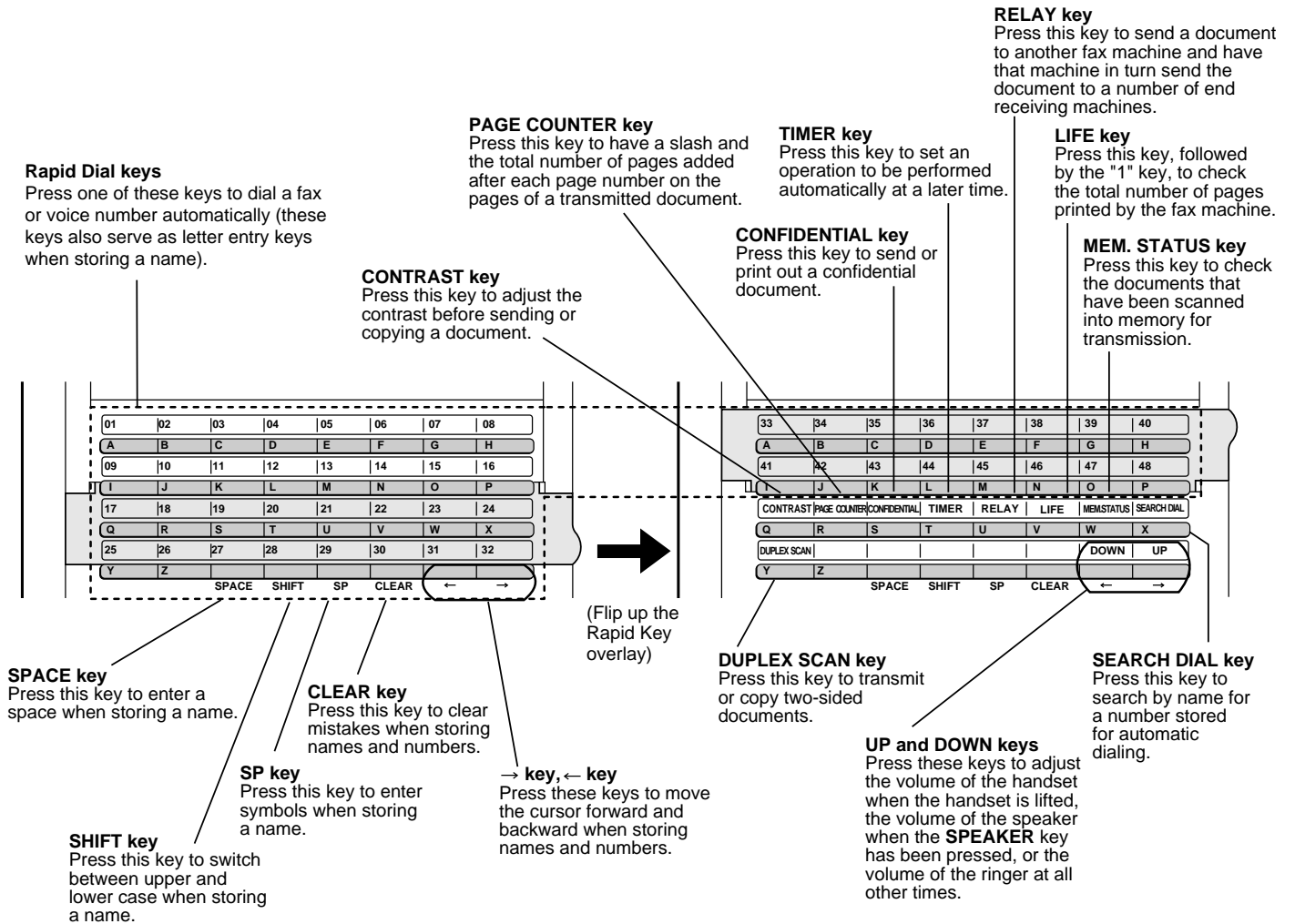
### START key

Press this key to send or receive a document.

### PRIORITY key

Press this key when you want to transmit a document ahead of other documents waiting in memory for transmission.

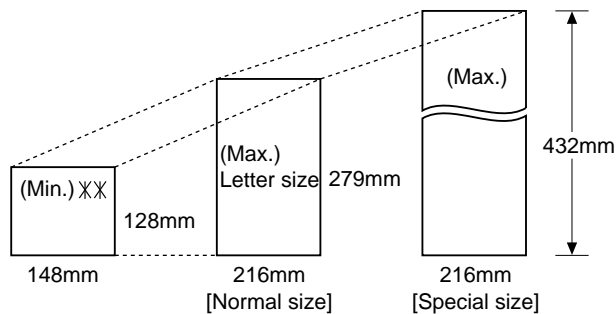
# Operation panel (2)



## [3] Transmittable documents

### 1. Document Sizes

Normal size	width	5.83"–8.5"(148 – 216 mm)
	length	5.04" – 11"(128 – 279 mm)



XX Use document carrier sheet for smaller documents.

\* With special sizes, only one sheet can be fed into the machine at a time. Insert next page into feeder as current page is being scanned.

### 2. Paper Thickness & Weight

		Product specifications	
		Lower Limit	Upper Limit
Weight indication	Japanese indication Size 4 × 6	45kg paper	70kg paper
	Metric system indication	52g/m <sup>2</sup>	80g/m <sup>2</sup>
	American indication LB system indication	14 LB	20 LB
Thickness indication	Metric system indication	0.06mm	0.1mm
	Inch system indication	0.0024"	0.0035"
Document size	Document size Range	(148mm × 128mm) ~ W letter (279.4mm × 432mm) A4 (210mm × 297mm) Letter (216mm × 279mm)	
Number of ADF sheets	Document size Weight	B6 ~ Letter/A4 size	50 sheets
		B4 size/Legal	20 sheets
		W letter size	1 sheet
		90 kg (104g/m <sup>2</sup> ) or more 135 kg (157g/m <sup>2</sup> ) or less	1 sheet
Paper quality	Kind	Paper of fine quality/bond paper/ Kent paper	

### 3. Document Types

- Normal paper  
Documents handwritten in pencil (No. 2 lead or softer), fountain pen, ball point pen, or felt-tipped pen can be transmitted.  
Documents of normal contrast duplicated by a copying machine can also be transmitted.
- Diazo copy (blueprint)  
Diazo copy documents of a normal contrast may be transmitted.
- Carbon copy  
A carbon copy may be transmitted if its contrast is normal.

### 4. Cautions on Transmitting Documents

- Documents written in yellow, greenish yellow, or light blue ink cannot be transmitted.
- Ink, glue, and correcting fluid on documents must be dry before the documents can be transmitted.
- All clips, staples and pins must be removed from documents before transmission.
- Patched (taped) documents should be copied first on a copier and then the copies used for transmission.
- All documents should be fanned before insertion into the feeder to prevent possible double feeds.

### 5. Automatic Document Feeder Capacity

Number of pages that can be placed into the feeder at anytime is as follows:

Normal size: max. 50 sheets (14 lbs – 20 lbs)

Special size: single sheet only (manual feed)

- NOTES:
- When you need to send or copy more pages than the feeder limit, place additional pages in feeder when last page in feeder is being scanned.
  - Place additional pages carefully and gently in feeder. If force is used, double-feeding or a document jam may result.

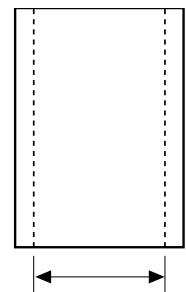
### 6. Readable Width & Length

The readable width and length of a document are slightly smaller than the actual document size.

Note that characters or graphics outside the effective document scanning range will not be read.

#### • Readable width

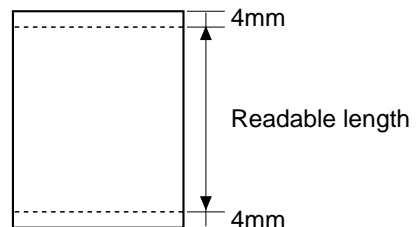
8.3" (208 mm) max.



Readable width

#### • Readable length

This is the length of the document sent minus 0.16" (4 mm) from the top and bottom edges.

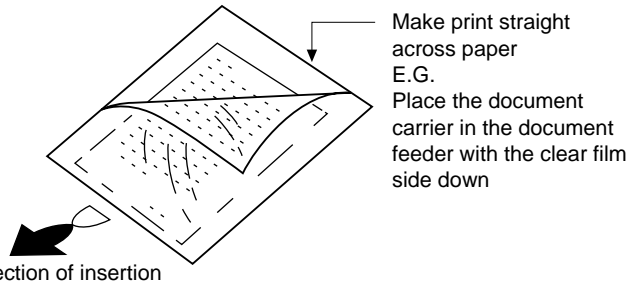


Readable length

## 7. Use of Document Carrier Sheet

A document carrier sheet must be used for the following documents.

- Those with tears.
- Those smaller than size 5.83" (W) × 5.04" (L) (148 mm (W) × 128 mm (L)).
- Carbon-backed documents



**NOTE:** To transmit a carbon-backed document, insert a white sheet of paper between the carbon back of the document and the document carrier.

- Those containing an easily separable writing substance (e.g., tracing paper written on with a soft, heavy lead pencil).
- NOTES:**
- When using the document carrier, carefully read the instructions written on the back.
  - If the document carrier is dirty, clean it with a soft, moist cloth, and then dry it before using for transmission.
  - Do not place more than one document in the carrier at a time.
- The thickness of document which can be held with the carrier sheet is up to 20 lb.

## [4] Installation

### 1. Site selection

Take the following points into consideration when selecting a site for this model.

#### ENVIRONMENT

- The machine must be installed on a level surface.
- Keep the machine away from air conditioners, heaters, direct sunlight, and dust.
- Provide easy access to the front, back, and sides of the machine. In particular, keep the area in front of the machine clear, or the original document may jam as it comes out after scanning.
- The temperature should be between 41° and 95°F (10° and 35°C).
- The humidity should be between 30% and 85% (without condensation).

#### ELECTRICITY

A 120 V, 60 Hz, grounded (3-prong) AC outlet is required.

#### Caution!

- Connection to a power source other than that specified will cause damage to the equipment and is not covered under the warranty.
- If your area experiences a high incidence of lightning or power surges, we recommend that you install a surge protector for the power and telephone lines. Surge protectors can be purchased at most telephone specialty stores

### TELEPHONE JACK

A standard RJ11C telephone jack must be located near the machine. This is the telephone jack commonly used in most homes and offices.

- Plugging the fax machine into a jack which is not an RJ11C jack may result in damage to the machine or your telephone system. If you do not know what kind of jack you have, or need to have one installed, contact the telephone company.

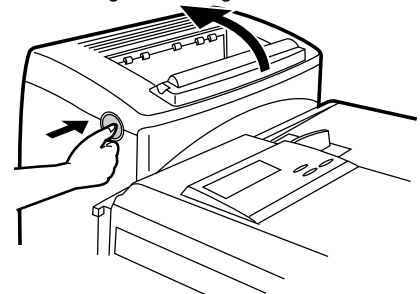
### If the machine is moved from a cold to a warm place...

If the machine is moved from a cold to a warm place, it is possible that the reading glass may fog up, preventing proper scanning of documents for transmission. To remove the fog, turn on the power and wait approximately 2 hours before using the machine.

## 2. Installing the printer cartridges (Toner cartridge: FO-45ND/Drum cartridge: FO-45DR)

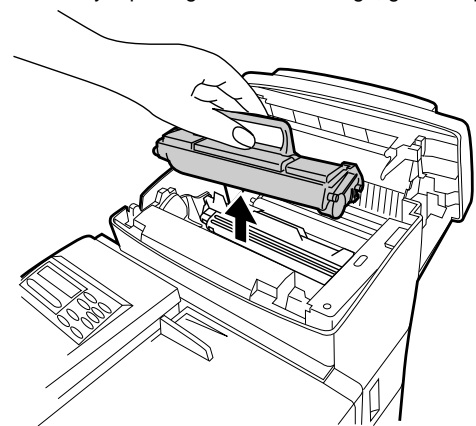
① Press the button on the side of the printer compartment, and open the printer cover.

- **Caution!** The ribs on the bottom of the inside of the printer cover become very hot during printing. Be careful not to touch them.
- If you are installing the cartridges for the first time, go to Step 4.

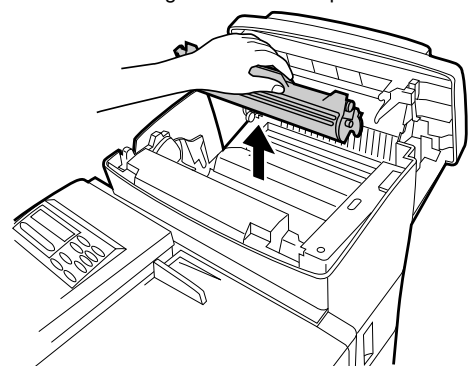


② If you are replacing the cartridges, grasp the handle on the toner cartridge, and pull the toner cartridge out of the compartment.

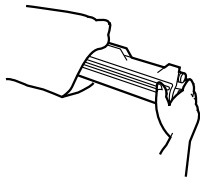
- If you are only replacing the drum cartridge, place the toner cartridge on a piece of paper on a horizontal surface.
- If you are only replacing the toner cartridge, go to Step 6.



③ Pull the old drum cartridge out of the compartment.

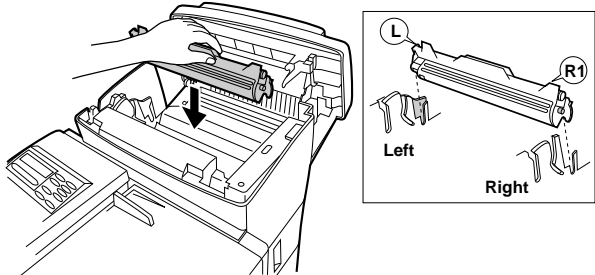


- ④ Remove the new drum cartridge from its packaging.



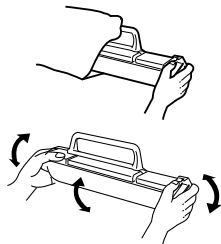
- ⑤ Align the arrowhead on the right side of the drum cartridge (the right side is marked "R") with the arrowhead pointing down on the right side of the compartment, and insert the cartridge into the compartment so that the ends of the cartridge move along the guides on the sides of the compartment. Make sure the cartridge is set firmly in place.

- Place the old drum cartridge (if you removed one) in the empty drum cartridge bag, seal the bag, and dispose of it in a way that conforms to any local regulations that may exist in your area.
- If you are not replacing the toner cartridge, go to Step 7.



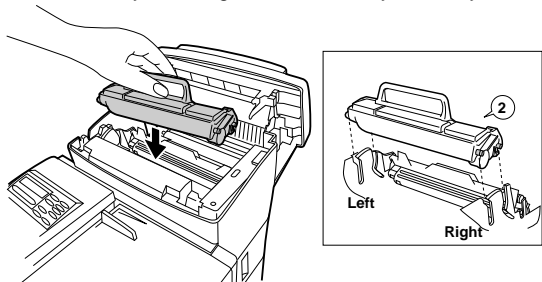
- ⑥ Remove the new toner cartridge from its packaging, and shake it several times as shown.

- This ensures that the toner is well distributed inside the cartridge.

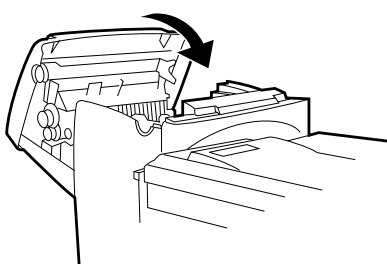


- ⑦ Hold the handle of the toner cartridge so that the "2" marked on the cartridge is to the right, and insert the cartridge into the compartment that the two knobs on each side of the cartridge move along the two guides on each side of the compartment. Press the handle down so that the cartridge sets into place.

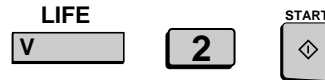
- Place the old toner cartridge (if you removed one) in the empty toner cartridge bag, seal the bag, and dispose of it in a way that conforms to any local regulations that may exist in your area.



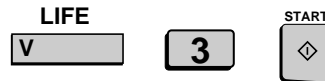
- ⑧ Close the printer cover.



- ⑨ If you replace the toner cartridge, reset the toner counter by pressing the LIFE key (flip up the Rapid Key overlay if necessary), the "2" key, and the START key.



- ⑩ If you replace the drum cartridge, reset the drum counter by pressing the LIFE key (flip up the Rapid Key overlay if necessary), the "3" key, and the START key.

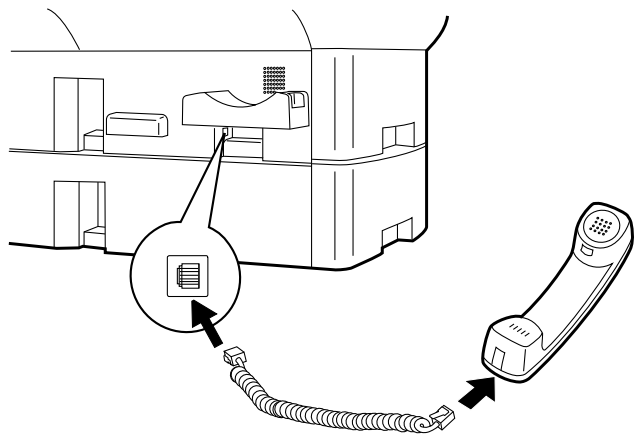


### 3. Assembly and connections

- ① Connect the handset cord to the handset and the fax as shown.

- The ends of the handset cord are identical, so they will go into either jack.

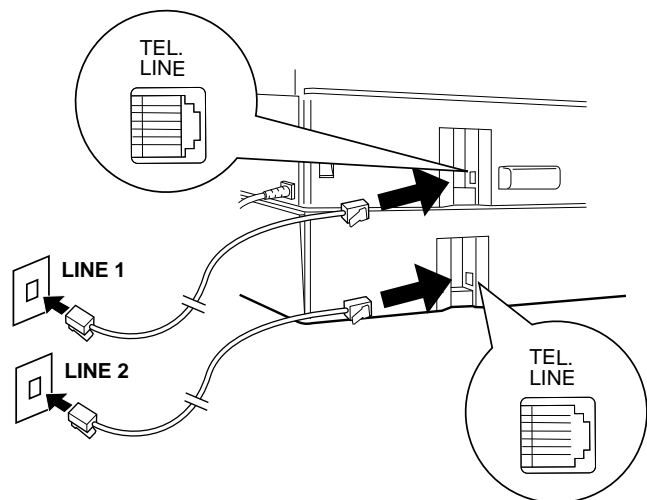
Place the handset on the handset rest.



Use the handset to make ordinary phone calls, or to transmit and receive documents manually.

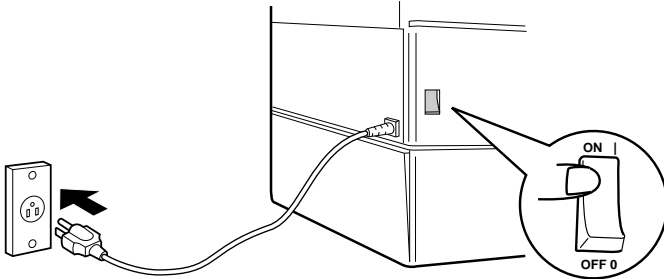
- ② Connect the LINE 1 jack and the LINE 2 jack to the appropriate wall jacks with the telephone line cords. The wall jacks should be standard (RJ11C) single-line wall jacks for separate lines.

- **Note:** Voice communications, manual fax transmission and manual fax reception are only possible on Line 1.
- The fax machine will only ring when a call is received on Line 1 (it will not ring when a call is received on Line 2).

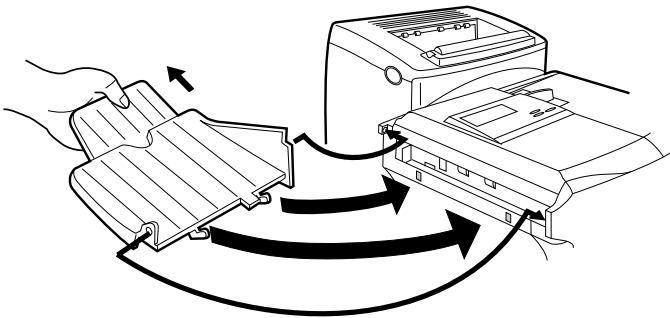


- ③ Plug the power cord into a 120V, 60Hz, grounded (3-prong) AC outlet.

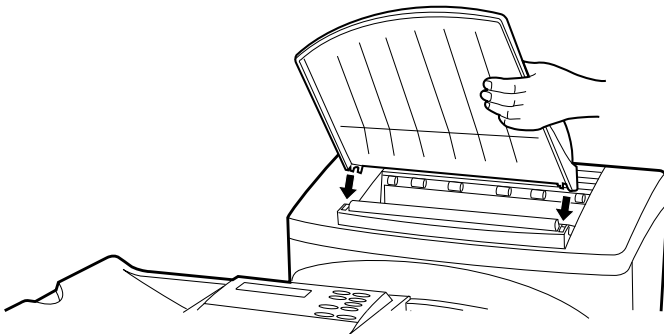
**Press the power switch to turn on the power.**



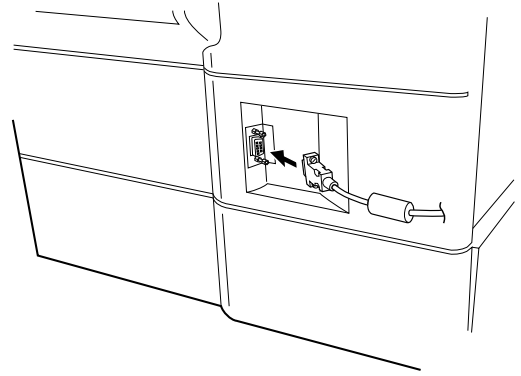
- ④ Attach the original document OUT tray by inserting the tabs into the holes in the fax as shown.



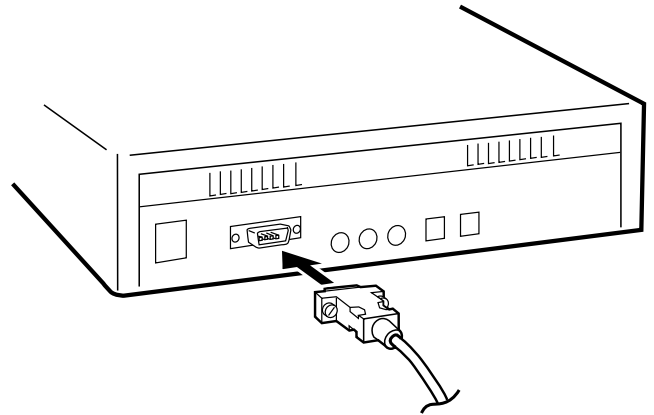
- ⑤ Attach the received document tray by inserting the tabs into the holes in the fax as shown.



- ⑥ Insert the male end of the PC interface cable into the port on the right side of fax as shown. Tighten the attached screws with a screwdriver.



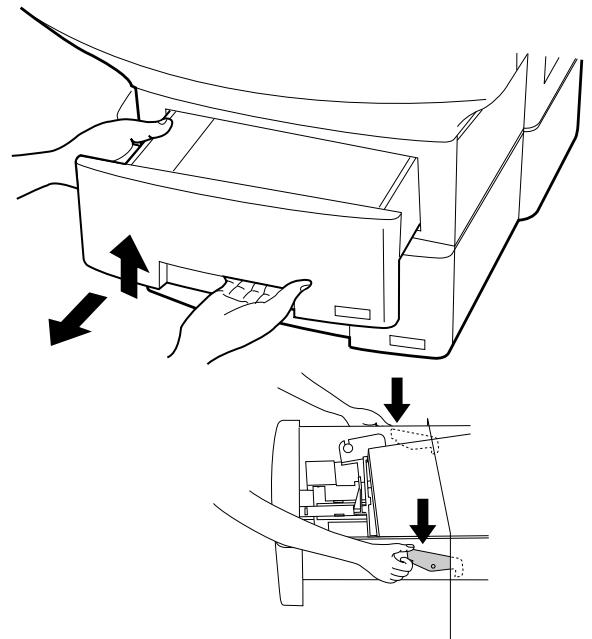
- ⑦ Insert the female end of the PC interface cable into the serial (RS232C) port on your computer. Tighten the attached screws with a screwdriver.



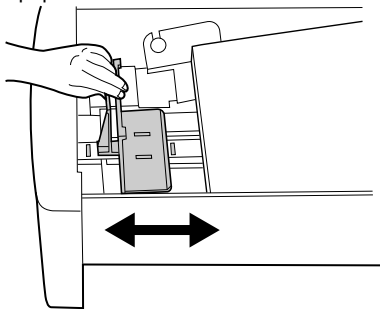
#### 4. Loading printing paper

The paper cassettes and the paper tray hold the paper on which received documents are printed. The FO-6600 comes with two paper cassettes. Each paper cassette can hold 500 sheets of either legal or letter size paper. The paper tray can hold 150 sheets of either legal or letter size paper.

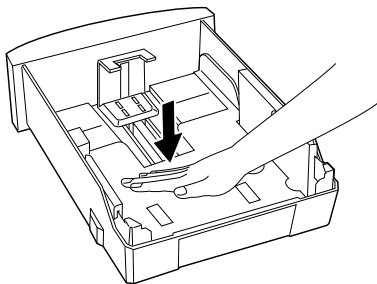
- ① Grasp the hand hold on the cassette as shown, lift the cassette slightly, and then pull it out as far as it will go. Do not force. Push down on green levers on both sides of the cassette tray as shown, and then pull it completely out of the fax using both hands.



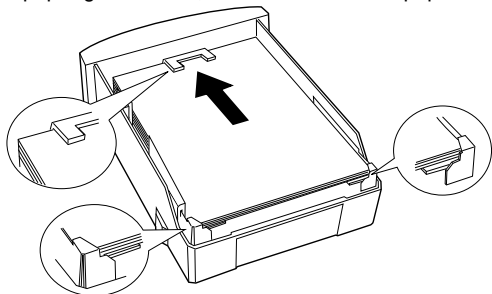
- ② Pinch the ends of the paper guide together, and move the guide to the appropriate position depending on whether you are loading letter or legal size paper.



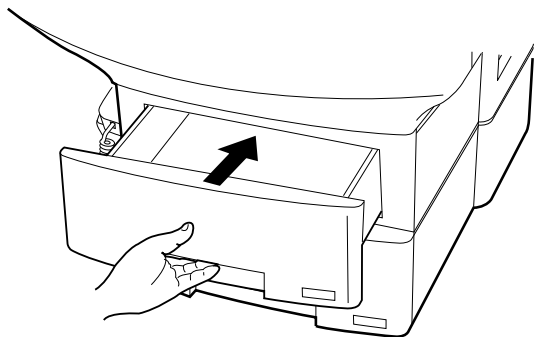
- ③ Push the pressure plate down until it locks into position.



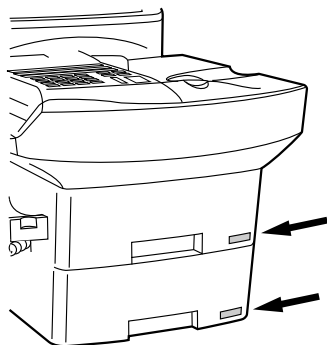
- ④ Place a stack of paper in the cassette, print side up. Make sure the two far corners of the paper go under the paper holders as shown.
- Make sure the stack of paper is not higher than the tabs at the top of the paper guide. If it is, remove some of the paper.



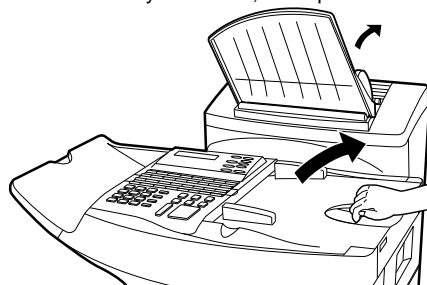
- ⑤ Put the cassette back in the fax.



- ⑥ If desired, attach a letter or legal sticker as appropriate to the cassette.

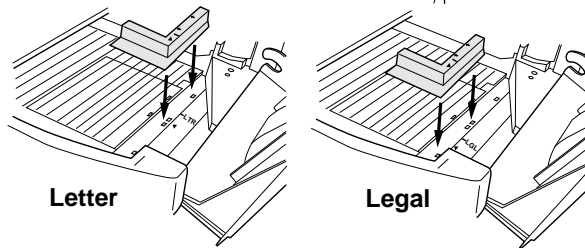
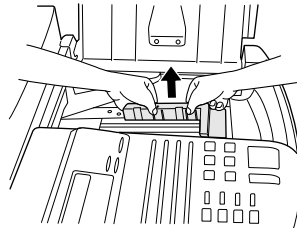


- ⑦ Rotate the received document tray back. Grasp the hand hold on the original document IN tray as shown, and open it.

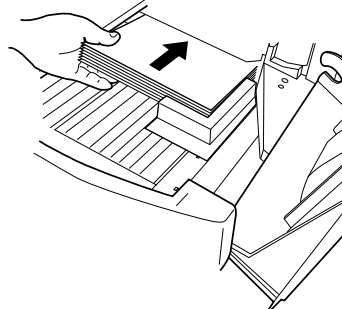


- ⑧ Move the paper guide to the appropriate position depending on whether you are loading letter or legal paper.

- To remove the paper guide, press its inner side at the arrow marks and lift.



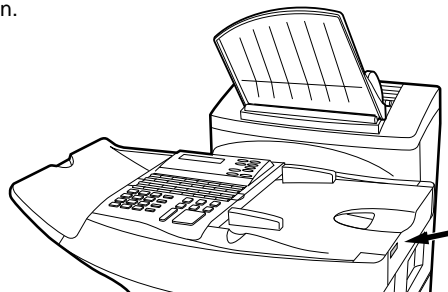
- ⑨ Place the paper in the tray.



- ⑩ Close the original document IN tray.



- ⑪ If desired, attach a letter or legal sticker as appropriate to the fax as shown.



## 5. Clearing paper jams

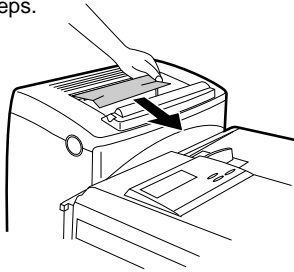
If a document doesn't feed through the scanner properly during transmission or copying, or DOCUMENT JAM appears in the display, first try pressing the **START** key. If the document doesn't come out of the feeder, open the operation panel by squeezing the operation panel release on the right side of the operation panel (marked "**PULL OPEN**"), and gently pull out document.

①



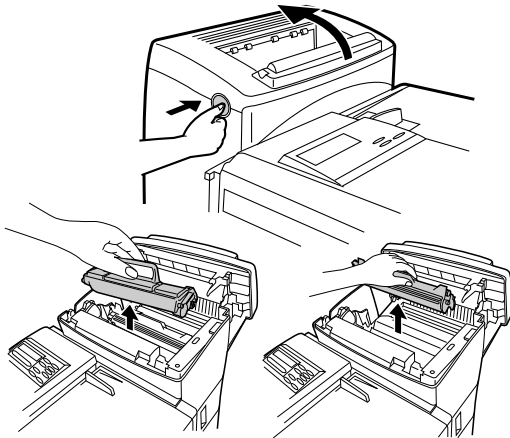
② If the leading edge of the document is protruding from the printer compartment outlet, try pulling it out.

- If you are unable to clear the paper jam in this way, continue with the following steps.



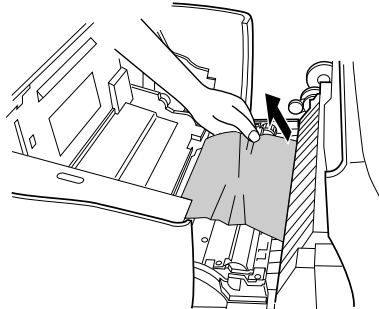
③ Open the printer cover and remove the toner cartridge and drum cartridge.

- **Caution!** The ribs on the bottom of the inside of the printer cover become very hot during printing. Be careful not to touch them.

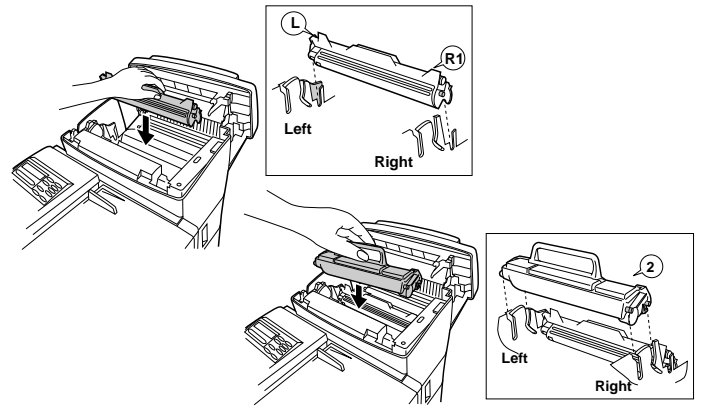


④ Gently pull the paper out of the compartment.

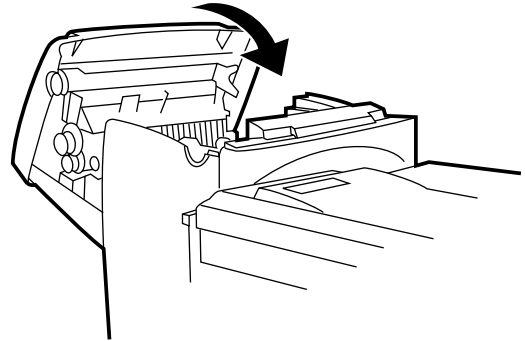
- If the leading edge of the paper has entered the fusing unit, first pull the leading edge out of the fusing unit, then pull the paper out of the compartment.
- Be sure to remove any torn piece of paper.



⑤ Replace the drum cartridge, and then the toner cartridge.

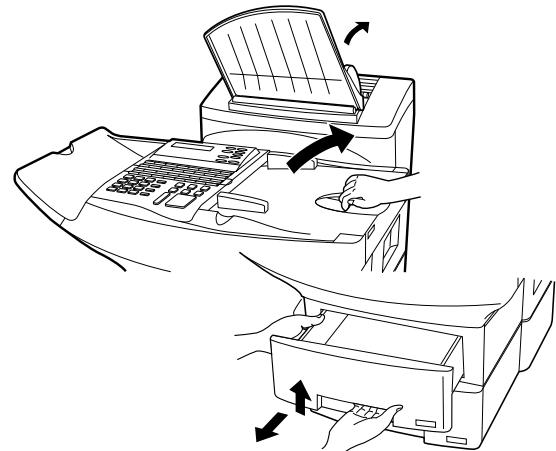


⑥ Close the printer cover.

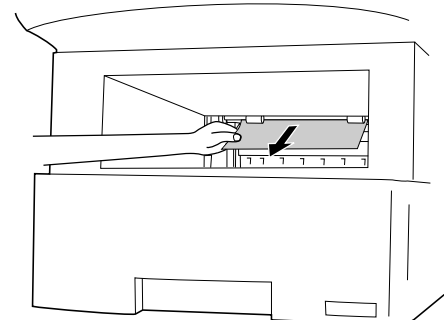


⑦ If you didn't find any paper in the printer compartment, or if PAPER JAM still appears in the display after you close the printer cover, check each paper cassette and the paper tray.

- To release the cassette when pulling it out, press down on the levers on each side of the cassette.
- To check the paper tray, grasp the hand hold on the original document IN tray and rotate the tray up.



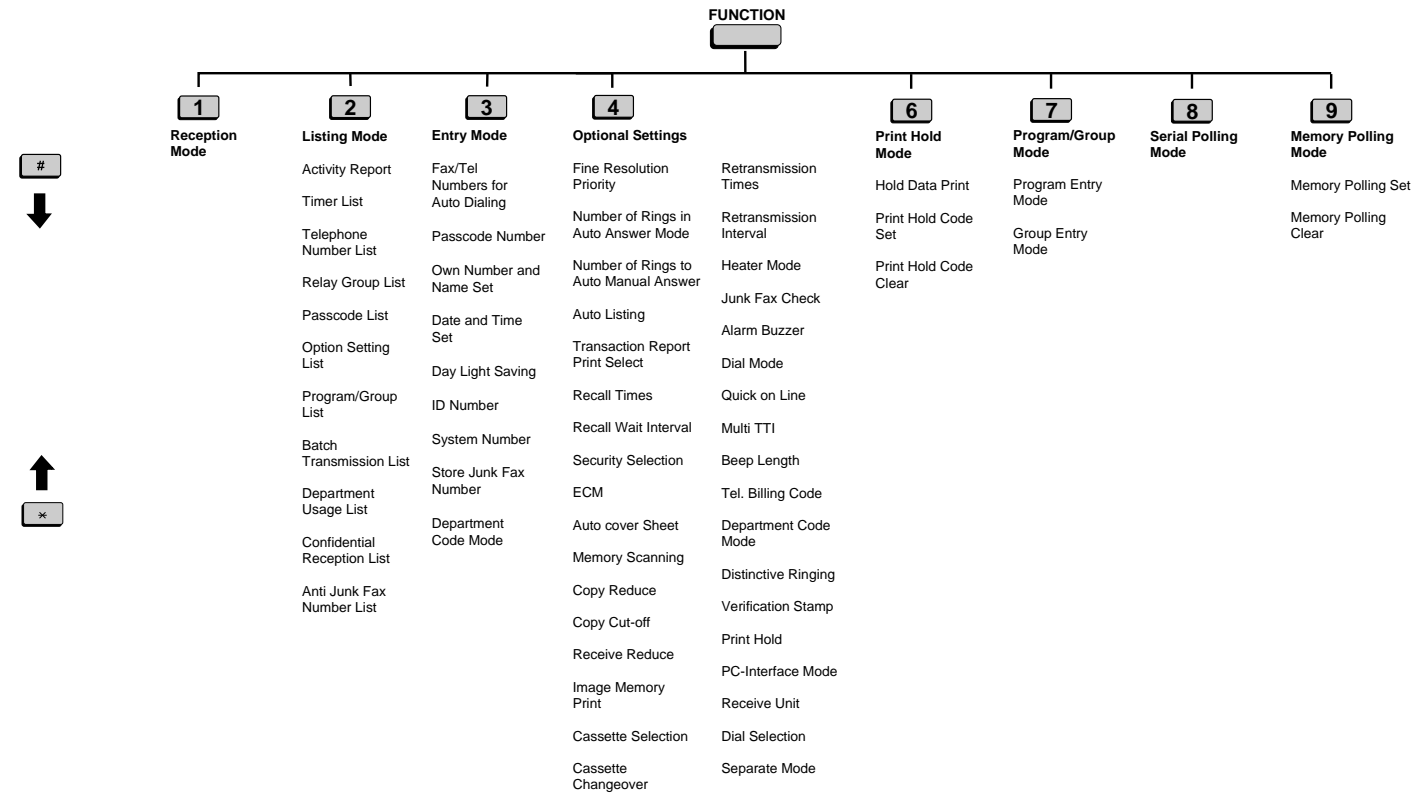
⑧ Gently pull out any jammed paper you find, and then replace the cassette or close the original document IN tray.



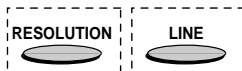
# [5] Quick reference guide

## FUNCTION key menu

The following chart shows the layout of the functions and settings accessed by pressing the **FUNCTION** key. First press the **FUNCTION** key, the appropriate numeric key as shown, and then "#" or "∞" until the desired item appears. Instructions for making each setting appear in the display. Refer to the detailed instructions on the page shown below the setting.



Note: Steps which are optional are enclosed in a dotted frame:



### Transmitting documents

<b>Normal Dialing (1)</b>	Load document → <span style="border: 1px dotted black; padding: 2px;">RESOLUTION</span> → Lift handset or press <b>SPEAKER</b> → Dial (press numeric keys) → <b>START</b> → Hang up → Wait for reception tone → <b>START</b>
<b>Normal Dialing (2)</b>	Lift handset or press <b>SPEAKER</b> → Dial (press numeric keys) → Load document → <span style="border: 1px dotted black; padding: 2px;">RESOLUTION</span> → <b>START</b> → Hang up → Wait for reception tone → <b>START</b>
<b>Direct Keypad Dialing</b>	Load document → <span style="border: 1px dotted black; padding: 2px;">RESOLUTION</span> → <span style="border: 1px dotted black; padding: 2px;">LINE</span> → Dial (press numeric keys) → <b>START</b>
<b>Rapid Key Dialing</b>	Load document → <span style="border: 1px dotted black; padding: 2px;">RESOLUTION</span> → <span style="border: 1px dotted black; padding: 2px;">LINE</span> → Press Rapid key
<b>Speed Dialing</b>	Load document → <span style="border: 1px dotted black; padding: 2px;">RESOLUTION</span> → <span style="border: 1px dotted black; padding: 2px;">LINE</span> → <b>SPEED DIAL</b> → Enter Speed Dial number (press numeric keys, -if less than 3 digits, press <b>START</b> to complete entry) → <b>START</b>
<b>Redialing</b>	Load document → <span style="border: 1px dotted black; padding: 2px;">RESOLUTION</span> → <b>REDIAL</b> → Wait for reception tone → <b>START</b>