

## **Chapter Two** I N S T A L L A T I O N / O P E R A T I O N

## **Chapter Two   C O N T E N T S**

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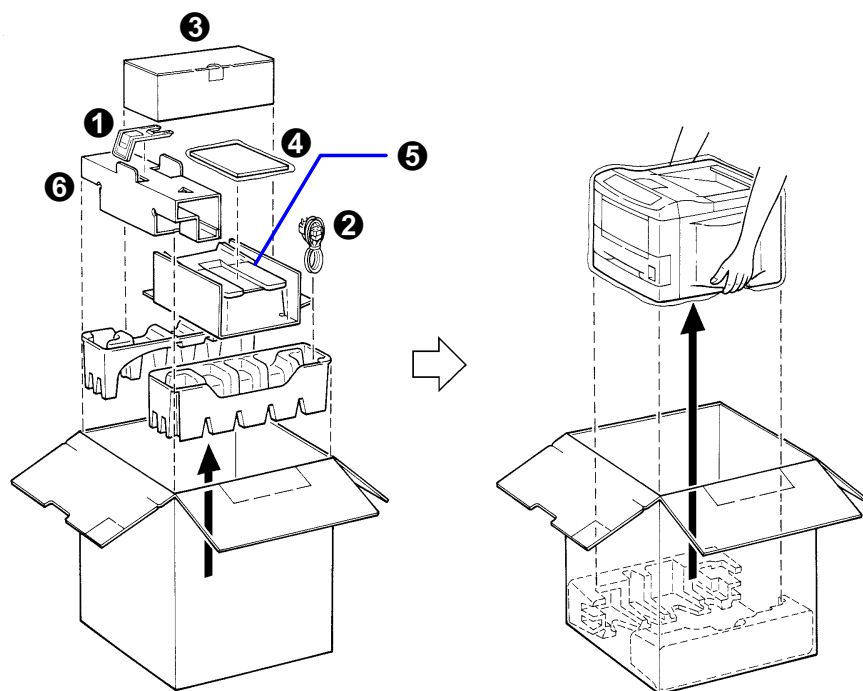
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## Unpacking

While unpacking the printer, check that the listed parts are all present.



❶ Paper stopper for ❸, 1

❷ Document including CD ROM, 1

❸ Power cable, 1

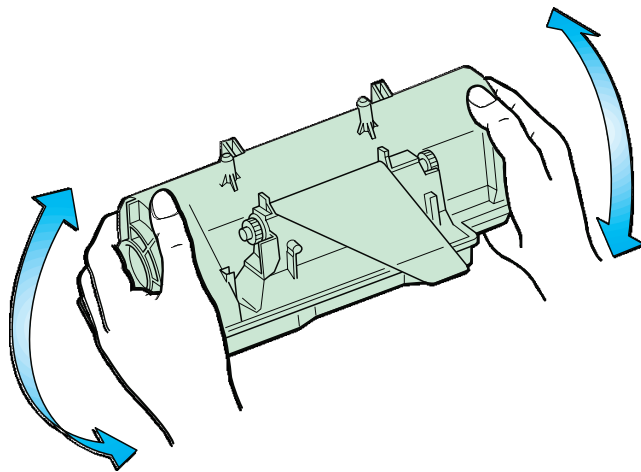
❹ Face-up stack tray, 1

❺ Toner kit - TK-20, 1

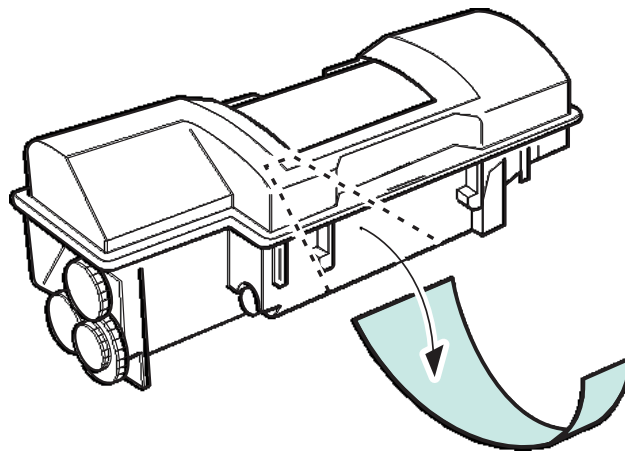
❻ Container for developer, 1

### Installing toner

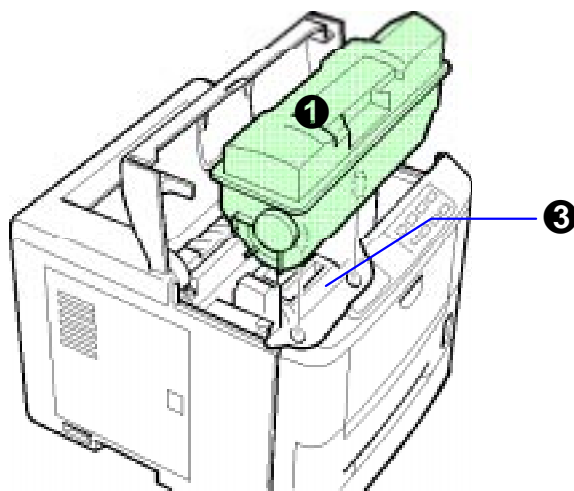
Take the toner container from the toner kit (TK-20) supplied with the printer. Give it a good shake (5 to 6 times).



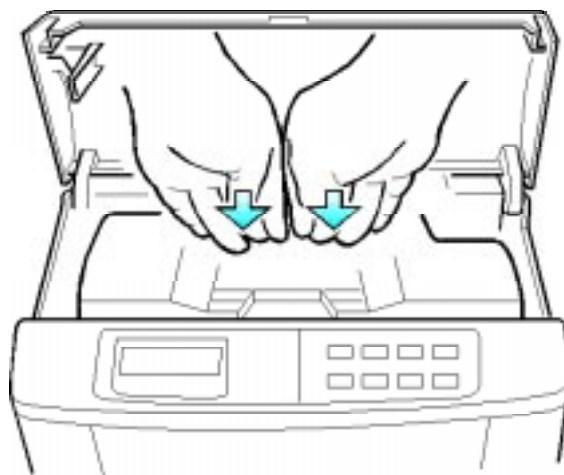
Peel off the seal ❷ on the bottom of the toner container by carefully pulling off.



Insert the toner container in the printer as below. **Align the two locating pins at the bottom of the container with the mating holes in the printer (the developer unit ③).**

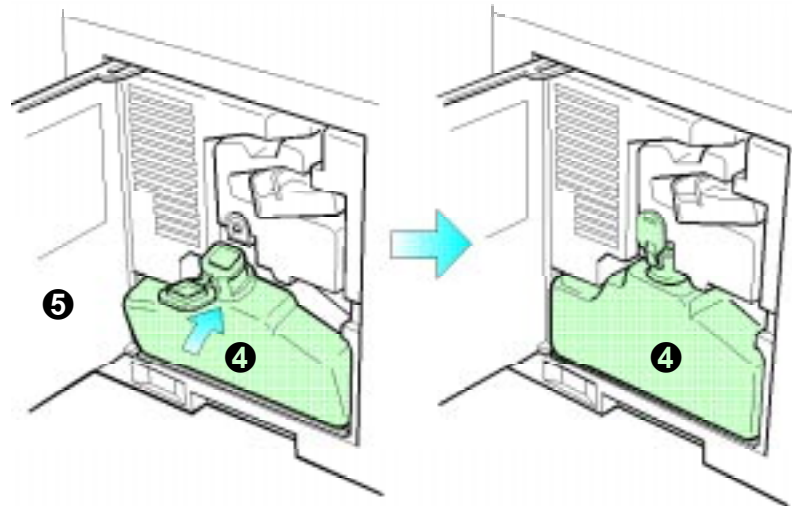


**Caution -** To avoid trouble (toner spilling, etc.), the toner container must be correctly seated and locked in the printer. To do this, press the far side of the container ① at the PUSH HERE marks until a click is heard.



### Installing the waste toner bottle

The waste toner bottle ④ is also supplied in the toner kit. It must be installed inside the drum access door ⑤ in the left side of the printer. Open the drum access door and install it as shown.



### Developer initialization

The printer is shipped from the factory with no toner supplied in its developer unit. When the printer is first switched on after the toner container is installed in the manner above, there will be a delay of several minutes before the printer gets ready to print a job.

This delay is necessary for the printer to fill the developer reservoir with a sufficient amount of toner to continuously support a print job.

The period of time for this delay varies depending on model: approximately 4 minutes for model FS-1700 (12-ppm); and approximately 5 minutes for model FS-3700 (18-ppm).

Since the automatic implementation of the developer initialization is done only once at first switching power on, if a new developer is installed in the printer, the developer must be initialized manually using the service mode on the front panel. Refer to the section **Feeding toner into the new developer** on page 3-12.

## Expanding memory

Expanded printer memory enables to print more complex pages, download more fonts, and define more macros.

It begins by explaining how to remove the main circuit board from the printer, and explains how to install a SIMM (single in-line memory module) on the main circuit board. The minimum memory requirements for the printer with various options installed are listed in the table below. Refer to this table for obtaining a rough approximation on how much memory is required for a particular need.

### Minimum memory requirements

Printing environment	Resolution	
	300 dpi	600 dpi
HP emulation	2MB	2MB
HP+ duplex	2MB	3MB
HP+ KPD L	2MB	3MB
HP+ KPD L+ duplex	3MB	5MB
HP+ KPD L+ resource protection	n/a	10MB
HP+ KPD L+ resource protection+ duplex	n/a	14MB

### SIMM to be used

Memory size in MB	1, 2, 4, 8, 16, 32
Number of pins	72
Access speed	80 ns or faster
Parity	With/without
Bus width	32 bits



### **Notes on handling the main circuit board and SIMMs**

Protect the electronics by taking these precautions:

- ☐ Before touching the main circuit board, touch a water pipe or other large metal object to discharge yourself of static electricity. While doing the work, it is recommended that you wear an antistatic wrist strap.
- ☐ Touch the main circuit board and SIMM only by the edges.
- ☐ Follow the instructions the SIMM manufacturer provides.

### **Removing the main circuit board**

The main circuit board of the printer is equipped with two sockets for memory expansion. Expansion memory is available in the form of a SIMM.

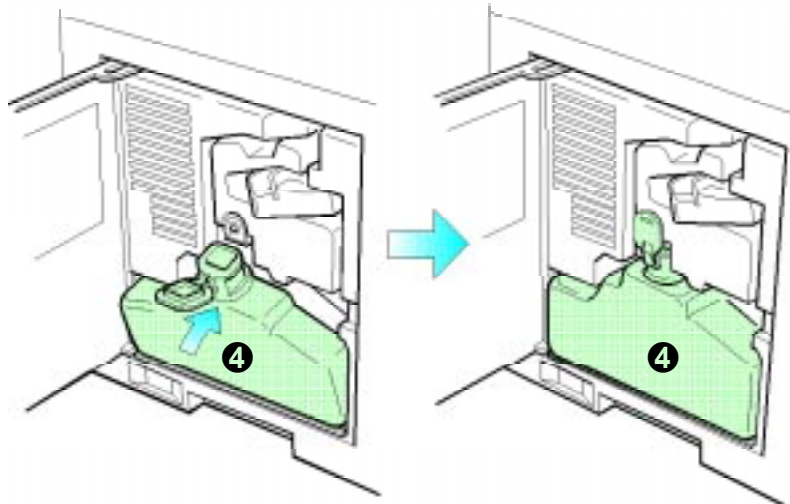


**Turn the printer's power off. Unplug the printer's power cable and disconnect the printer from the computer or the network.**



Remove the PC card that may be inserted in the PC card slot at the left side of the printer.

Turn the power switch ⑥ off. Remove the main circuit board ⑦ by removing the three (plated) screws ⑧ from the rear cover.



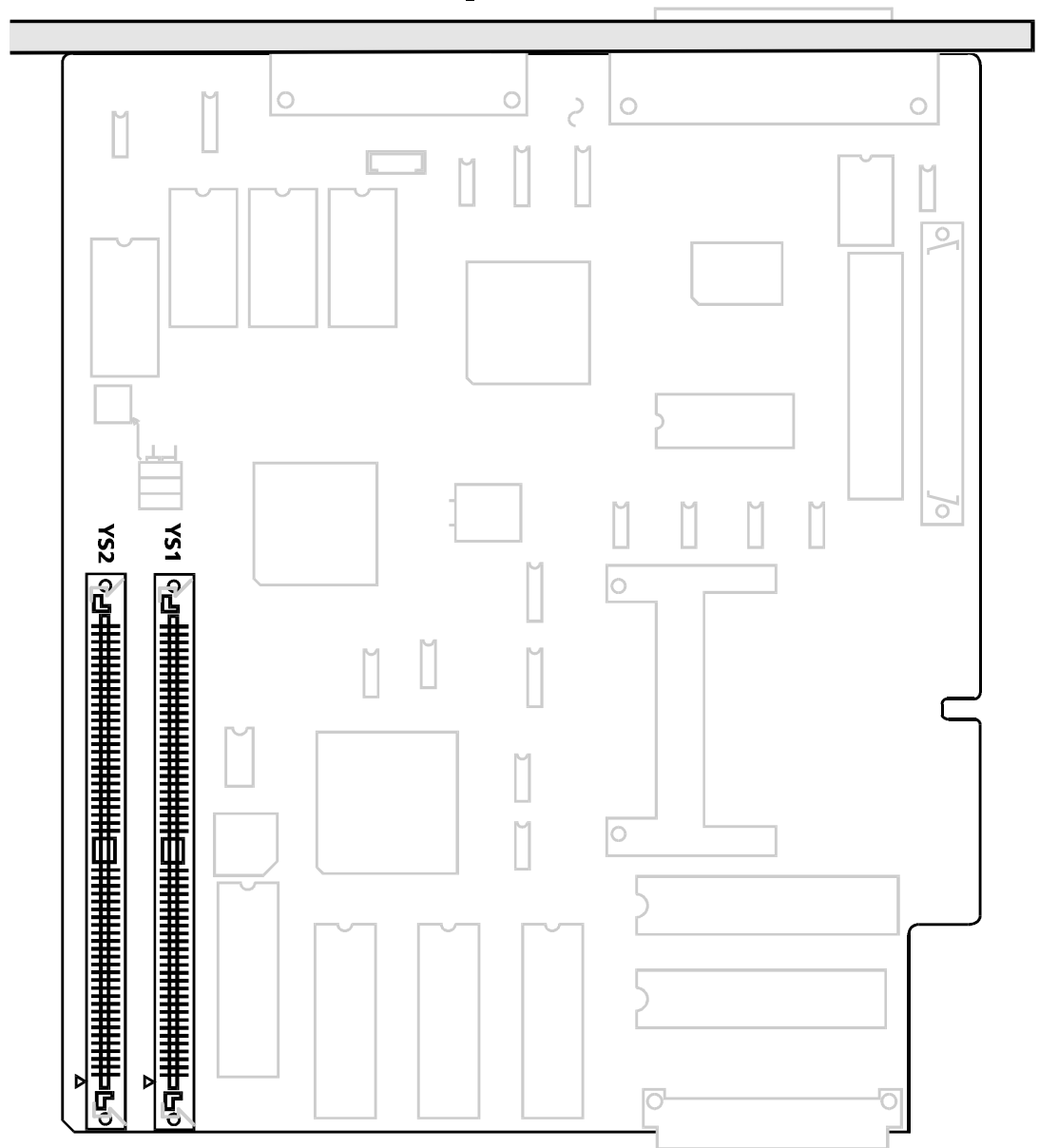
Pull the main circuit board all the way out of the printer.



**Caution** - Before pulling the board out, clean an area on the table, etc., at the back of the printer's rear panel. Foreign objects, accidentally sticking to the back of the main board, can cause serious damage to the printer.

Refer to the **MEMORY EXPANSION SOCKETS** diagram on page 2-10. Locate the sockets for memory expansion on the main board. These sockets have 72 pins and are symbolized as *YS1* and *YS2*.

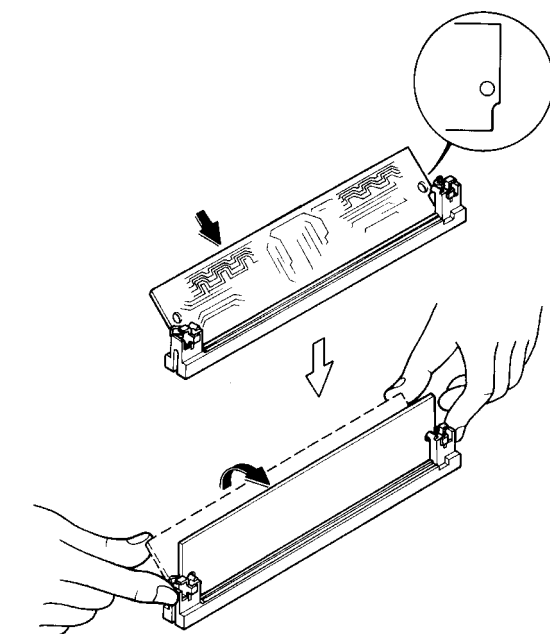
## Rear panel



**MEMORY EXPANSION SOCKETS**

### Installing SIMMs

Insert the SIMM ❶ into the socket ❷ as shown. Carefully push the board upright until it snaps into place. Make sure that the catches at the ends of the socket fit into the holes ❸ at the ends of the SIMM board.



### Testing the expansion memory

After installing SIMMs in the printer, test the printer to see if the installation has been successful. To test the expansion memory, turn printer power on and print a status page.

If the installation has been successful, the *Total memory (Memory Allocation)* of the status page will show the expanded memory size corresponding to the amount of memory added.

## Installing KPDL

The KPDL (Kyocera Printer Description Language) is an upgrade for adding Kyocera's implementation of the PostScript page description language. Upgrade is done by inserting a KPDL ROM (PK-4) into an empty socket on the printer's main circuit board.

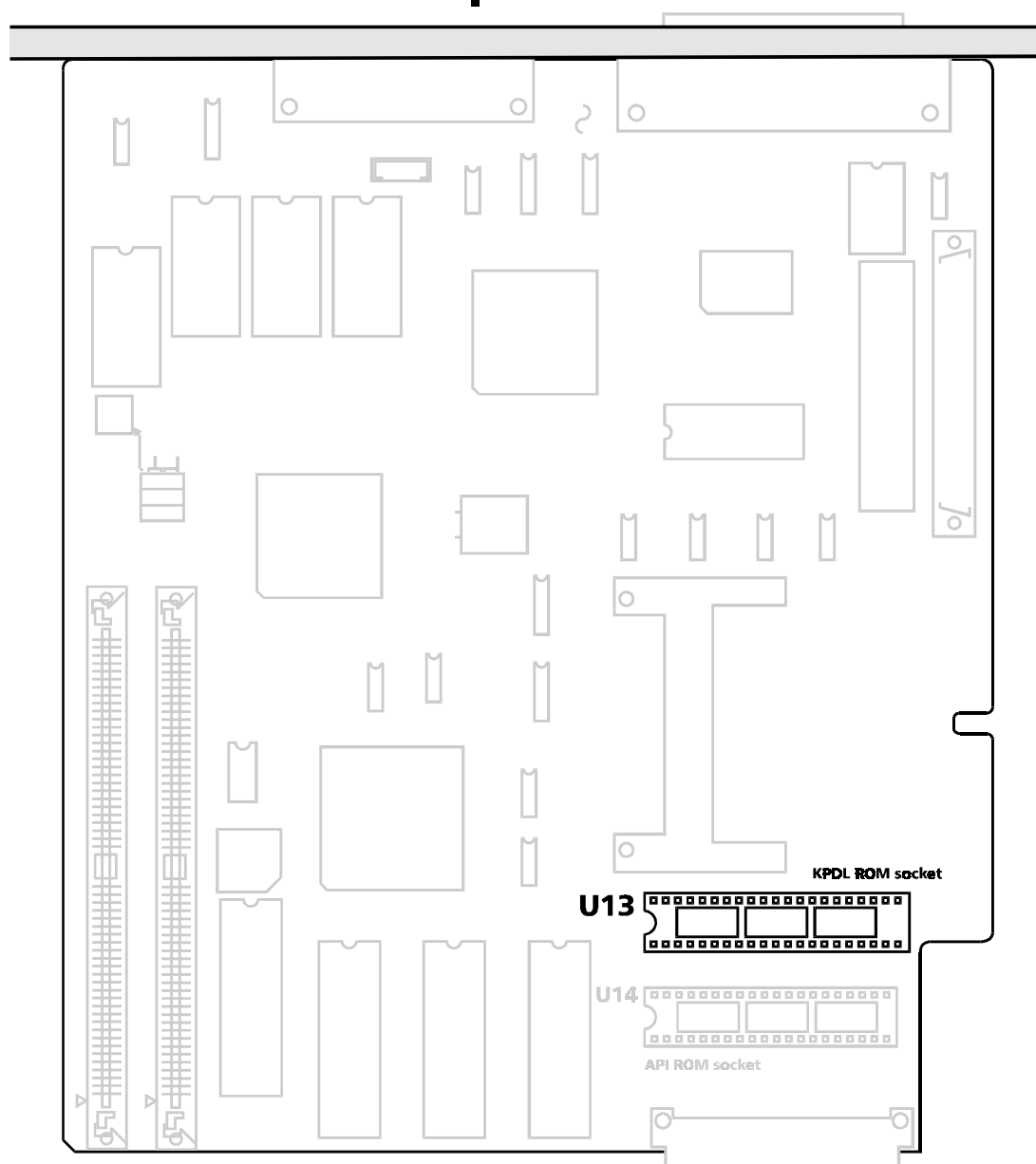
For details, refer to the KPDL *Upgrade Kit Installation Manual* supplied with the PK-1/2/4.

### Removing the main circuit board

Refer to the instructions for removing the main circuit board under section *Expanding memory*, page 2-7, and remove the main circuit board.

Locate the socket for inserting the KPDL ROM. Refer to the **KPDL ROM SOCKET** diagram on page 2-13. This socket is marked as *U13*, adjacent to another (shorter) empty socket (*U14*).

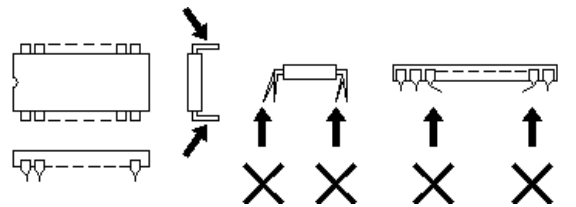
## Rear panel



**KPDL ROM SOCKET**

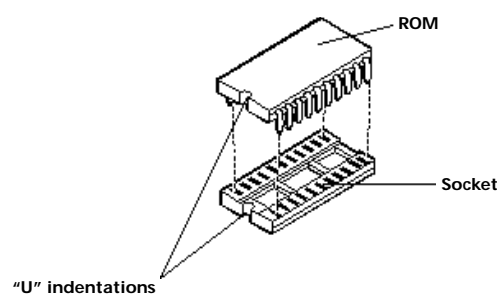
### Installing the ROM

Before installing the KPDL ROM, carefully straighten the pins as follows.



Make sure that none of the pins are bent.

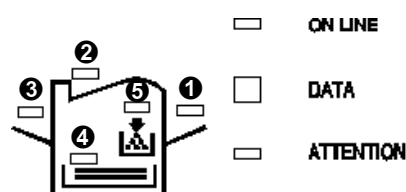
To insert the ROM into its socket, position the ROM in the socket as shown. Make sure that the U-shaped indentation at the end of the ROM is oriented in the same direction as the U-shaped indentation at the end of the socket. Align all pins of the ROM properly with their socket holes.



## Using the Control Panel

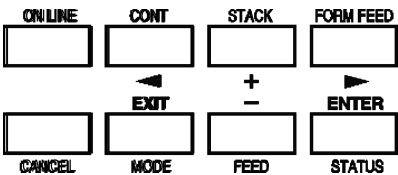
The printer's control panel have LED indicators and a quartz message display to provide a quick access to the printer's conditions.

### Indicators



Indicator	Status	Function
<b>ONLINE/Green</b>	Flashing	A memory error (See <a href="#">chapter 6</a> ) has occurred.
	Steady	The printer is on-line and ready prints received data.
	Off	The printer is off-line. The printer stores but not print received data.
<b>DATA/Green</b>	Flashing	The printer is receiving data at its interface.
	Steady	Indicates either that data is being processed, or that data is being written to the memory card.
<b>ATTENTION/Red</b>	Flashing	A service call is required. Read the message on the message display. (Also, see <a href="#">chapter 6</a> .)
	Steady	The printer needs attention for a problem that can be cleared by the user.
<b>Manual feed indicator/①</b>		Lights when paper is fed from the multi-purpose feed tray, bulk (front loading) feeder, or the option envelope feeder if installed. If this flashes, paper jam is suggested in a particular location, refer to <a href="#">chapter 6</a> .
<b>Face-down stack indicator/②</b>		Lights when printed pages are delivered to the face-down output tray. If this flashes, paper jam is suggested in a particular location, refer to <a href="#">chapter 6</a> .
<b>Face-up stack indicator/③</b>		Lights when printed pages are delivered to the face-up output tray, or to the option stacker if installed. If this flashes, paper jam is suggested in a particular location, refer to <a href="#">chapter 6</a> .
<b>Cassette feed indicator/④</b>		Flashing: indicates the possibility that paper may be jammed at this point, open and remove any jammed paper. Lit: indicates when paper is fed from the paper feed cassette.
<b>Toner indicator/⑤</b>		Flashes when the toner supply is low to request replenishing.

Front panel keys



Key	Function
ONLINE	Switches the printer on-line and off-line.
CONT	Depending on the message being indicated, there are cases where operation will continue after pressing this key. If such a message is displayed, operation will be resumed after pressing this key.
STACK	Selects whether printed pages are delivered to the face-down, face-up tray, or optional sorter/stacker (if installed).
FORM FEED	Prints and feeds out one page.
CANCEL	Abandons a printing job, resets numeric values, or cancels a setting procedure.
MODE/EXIT	Enters/exits the mode selection menu. See <b>Mode selection menu</b> below.
FEED	Selects the cassette feed or multi purpose tray feed.
STATUS/ENTER	Prints a page of information on the printer's current status. (The printer must be on-line.).

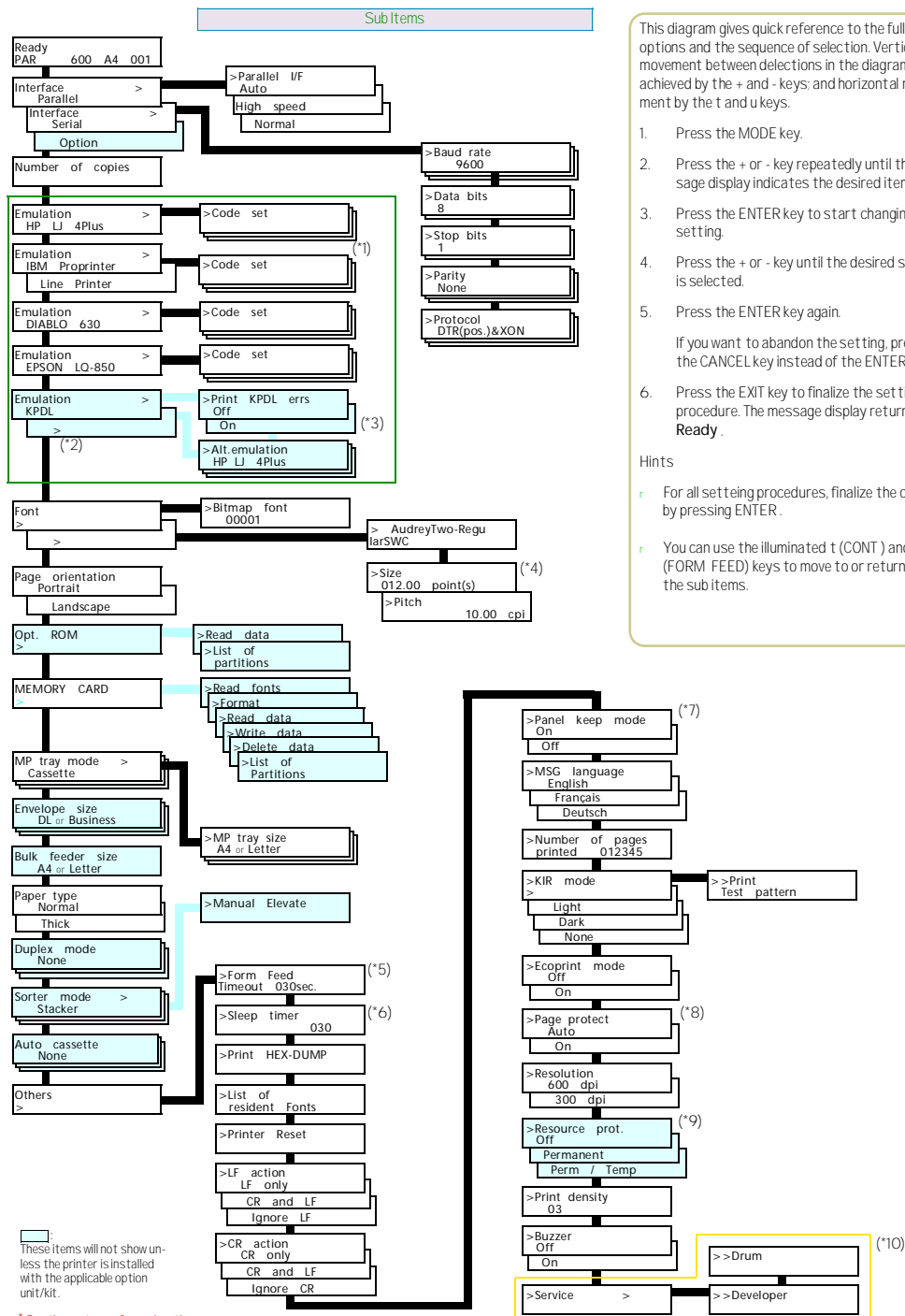
Mode selection menu

The **MODE** key on the control panel allows to set or change the printer environment such as the number of copies to make, emulation, etc., and to print a font list, manipulating a memory card, etc.

During operating in the mode selection, several front panel keys serve exclusively for its secondary function as labeled beside them (**EXIT**, **+**, **-**, **ENTER**, **◀**, **▶**). The diagram on the next page gives a full load map to the full options and the sequence of mode selection as well as usage of these secondary keys.



## Mode Select Menu



This diagram gives quick reference to the full menu options and the sequence of selection. Vertical movement between selections in the diagram is achieved by the + and - keys; and horizontal movement by the t and u keys.

1. Press the MODE key.
  2. Press the + or - key repeatedly until the message display indicates the desired item.
  3. Press the ENTER key to start changing the setting.
  4. Press the + or - key until the desired setting is selected.
  5. Press the ENTER key again.
- If you want to abandon the setting, press the CANCEL key instead of the ENTER key.
6. Press the EXIT key to finalize the setting procedure. The message display returns to Ready.

### Hints

- r For all setting procedures, finalize the change by pressing ENTER.
- r You can use the illuminated t (CONT) and u (FORM FEED) keys to move to or return from the sub items.

### **Service mode**

Within **Others** option, the **Service mode** can be accessed by authorized service personnel. This mode provides two special treatments for service purpose: *cleaning on the drum surface* and *accelerating initial toner replenishment for a new developer*.

The service mode is available only when the printer is ready. While in service mode, the printer accepts print data but does not print it.

For details, see *chapter 3*, page 3-12.