KYOCERA mita

Table of Contents

FS-1800/N
FS-3800/N

ECOSYS® Page Printers

User's Manual

Caution

NO LIABILITY IS ASSUMED FOR ANY DAMAGE CAUSED BY IMPROPER INSTALLATION.

Notice on Software

SOFTWARE USED WITH THIS PRINTER MUST SUPPORT THE PRINTER'S EMULATION MODE. The printer is factory-set to emulate the PCL. The emulation mode can be changed by following the procedures described in ***Chapter 1***.

Notice

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Introduction

The Kyocera Mita page printer has many extremely desirable features. It was designed to make a contribution to a cleaner environment as well as to represent the latest generation of page printer technology.

This section explains the following topics:

- **Features**
- **For More Information...**
- **Guide to the User's Manual**

Features

Ultra long life modules

The drum, developer, and fuser have been designed for ultra long life.

Amorphous silicon drum

The drum has been developed using Kyocera's unique ceramic technology using amorphous silicon.

KIR (Kyocera Image Refinement)

This is Kyocera Mita's original smoothing function. It uses software to enhance the printer's resolution and produce high-quality printing. The default setting is Off.

Superb print quality

Using 1200 dpi resolution in Fast 1200 mode or Fine 1200 mode, the printout is close to typeset quality. Also, with Kyocera Image Refinement (KIR) technology, high quality printing can be achieved even at 300 dpi and 600 dpi.

High speed

A4 sizes typically print at the rate of 24 (16 for the FS-1800/FS-1800N) pages per minute. (Actual time varies according to page complexity.)

Large paper capacity

Approximately 500 sheets can be loaded into the paper cassette, and about 100 sheets can be loaded into the MP tray.

Wide variety of print media

As well as standard paper, the printer will print on transparency, labels and other types of special purpose media.

Sleep Mode

Conserves energy during the printer's idle periods.

Ecoprint

Extends the toner yield by reducing the amount of toner used on the page.

Standard Bi-directional Parallel Interface

Supports high-speed data exchange with the computer.

Network Support (Models FS-1800N and FS-3800N)

The N models come standard with a 10/100 Base-TX network interface card for connecting to an Ethernet network.

Wide Variety of Available Fonts

The printer comes with 80 PCL/PS compatible fonts and a line printer bitmap font installed.

PRESCRIBE Command Language

PRESCRIBE provides features including advanced graphics capabilities that allow you to print any conceivable outline shape or solid form. Also provided are a variety of special effects, such as patterned fills, gray-scale shading, a user-accessible print image model, and multiple page orientations and print directions within the same page.

Job Retention

Allows you to save print jobs onto the Microdrive installed in the printer. It print them out later at the operator panel. The following four types of job retention are available: quick copy, proof and hold, private printing, and stored jobs.

Display of printer messages in any of five languages

English, French, German, Italian, or Dutch. As an option it is also possible to download the messages in other languages. Please contact your Kyocera Mita dealer.

Microdrive (hard disk unit) slot for various functions such as job retention, VMB, and more

By saving print jobs onto the Microdrive, they can be printed out at the operator panel when desired. The electronic sort function can be used for much faster printing.

CompactFlash card slot for option fonts, macros, forms, etc.

Data in the CompactFlash card can be selectively read from the printer's operator panel.

PDF417 Two-dimensional Bar Code

The printer includes a capability that allows the user to implement two-dimensional stacked bar code symbology PDF417 (Portable Data File 417).

Simple Network Management Protocol (SNMP) Compliance

The printer supports SNMP and can be used as a network printer.

Kyocera Mita PrintMonitor Utility

Provides network wide management of the printers. Refer to the readme file located in the *Kyocera Mita Digital Library* CD-ROM (supplied with the printer) for details.

For More Information...

Item	Description
Installation Manual (paper manual)	Describes procedures from printer setup to printing a test page.
User's Manual (this manual)	Guides you through topics concerning the operations and maintenance of the printer.
Printer Driver Guide	Describes how to install and set the printer driver. This manual is contained in the CD-ROM supplied with the printer.
PRESCRIBE 2e Programming Manual	Describes how to use the PRESCRIBE 2e commands and their parameters in detail for experienced users. This manual is contained in the CD-ROM supplied with the printer.
PDF417 Two-Dimensional Bar Code Implementation Manual	Includes a PDF417 overview and explains PRESCRIBE 2e commands for use with two-dimensional barcodes. This manual is contained in the CD-ROM supplied with the printer.

The following symbols are used to attract your attention in this manual. The symbols and their meanings are as follows:

Indicates tips or advice useful for operation.

Indicates situations that are potentially hazardous to the human body or devices.

Indicates situations that are potentially extremely hazardous to the human body or devices.

Indicates operations that can be performed or are effective only when the required option unit is installed.

Guide to the User's Manual

This *User's Manual* has the following chapters:

Chapter 1 Operator Panel

This chapter explains the message display, indicators and keys on the operator panel, and how to make various settings from the operator panel.

Chapter 2 Maintenance

This chapter explains how to replace the toner container, waste toner bottle, and how to care for your printer.

Chapter 3 Troubleshooting

This chapter explains how to handle printer problems that may occur, such as paper jams.

Chapter 4 Paper Selection

This chapter explains the types of paper that can be used with the printer.

Appendix A Fonts

This appendix explains about fonts and lists the printer's internal fonts.

Appendix B Expansion Memory

This appendix explains how to expand the printer's memory.

Appendix C Host Computer Interface

This appendix explains the pin assignment and specifications for the printer's parallel interface and serial interface.

Appendix D Option Units

This appendix explains how to install each option unit.

Appendix E Specifications

This appendix lists the printer's specifications.

Glossary

This glossary explains the terminology used in this manual.

Chapter 1 Using the Operator Panel

This chapter explains the following topics:

- **Understanding the Operator Panel**
- **Using the Operator Panel**

1.1 Understanding the Operator Panel

The operator panel has a LCD message display, indicators, and eight keys.

Message Display

The message display gives information in the form of short messages. The eight messages listed below are displayed during normal warm-up and printing.

Other messages that may appear when the printer needs the operator's attention are explained in ***Chapter 4***.

Message	Meaning
`Self test`	The printer is self-testing after power-up.
`Please wait`	The printer is warming up and is not ready. When the printer is switched on for the first time after the toner container is installed, `(Adding toner)` also appears.
`Ready`	The printer is ready to print.
`Processing`	The printer is receiving data, generating graphics, reading a CompactFlash card/Microdrive, or printing.
`Sleeping`	The printer is in Sleep mode. The printer wakes from Sleep mode whenever a key on the operator panel is pressed, the cover is opened or closed, or data is received. The printer then warms up and goes online. The time that the printer takes to enter Sleep mode depends on the Sleep Timer setting.
`Cancelling data`	Jobs inside the printer are being canceled. To cancel a job, see the table on page ***1-5***.
`Waiting`	The printer is waiting for the end-of-job command before printing the last page. Pressing the **GO** key allows you to obtain the last page immediately.
`FormFeed Time Out`	The printer is printing the last page after a waiting period.

Interface Indicator

The interface indicator shows the interface that is currently used. It uses the following abbreviations:

`PAR`	Standard bi-directional parallel interface
`SER`	Serial interface (RS-232C)
`OPT`	Option network interface card
`---`	No interface is active.

Each interface has a timeout time of 30 seconds during which the other interface should wait to receive a print job. Even a print job has been complete on the interface, you should wait for this period until the other interface begins printing the job.

Paper Size Indicator

This indicator indicates the paper size of the current paper cassette. The following abbreviations are used to indicate the paper sizes.

Message Display	Paper Size	Message Display	Paper Size
A4	ISO A4 (21 × 29.7 cm)	DL	ISO DL (11 × 22 cm)*
A5	ISO A5 (14.8 × 21 cm)	C5	ISO C5 (16.2 × 22.9 cm)*
A6	ISO A6 (10.5 × 14.8 cm)*	b5	ISO B5 (17.6 × 25 cm)*
B5	JIS B5 (18.2 × 25.6 cm)	EX	Executive (7-1/4 × 10-1/2 inches)*
B6	JIS B6 (12.8 × 18.2 cm)*	#6	Commercial 6-3/4 (3-5/8 × 6-1/2 inches)*
LT	Letter (8-1/2 × 11 inches)	#9	Commercial 9 (3-7/8 × 8-7/8 inches)*
LG	Legal (8-1/2 × 14 inches)	HA	Japanese Postcard (10 × 14.8 cm)*
MO	Monarch (3-7/8 × 7-1/2 inches)*	OH	Return Postcard (20 × 14.8 cm)*
BU	Business (4-1/8 inches)*	CU	Custom Size (14.8 × 21 cm to 21.6 × 35.6 cm)

* With only the MP tray feeding.

Note

While the printer is Processing data, the SIZE indicator indicates the paper size selected by the application software.

Paper Type Indicator

This shows the paper type defined for the current paper casette. Automatic cassette switching is available according to the paper type.

The paper type can be specified at the operator panel. See ***Customizing Paper Type*** on page ***1-107***.

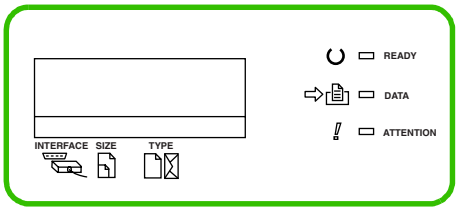
The following abbreviations are used to indicate the paper type.

Message Display	Paper Type	Message Display	Paper Type
None	Auto	ROUGH	Rough
PLAIN	Plain	LETTERHEA	Letterhead
TRNSPRNCY	Transparency*	COLOR	Color
PREPRINTE	Preprinted	PREPUNCH	Prepunched
LABELS	Labels*	ENVELOPE	Envelope*
BOND	Bond	CARDSTOCK	Cardstock*
RECYCLED	Recycled	CUSTOM1 (to 8)	Custom 1 (to 8)
VELLUM	Vellum*		

* With only the MP tray feeding.

Other Indicators

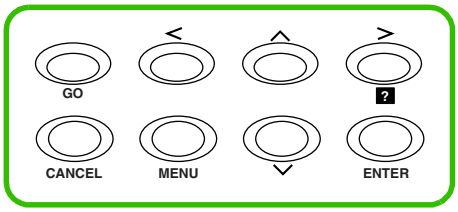
The following indicators light during normal operation and when the printer needs attention.



Indicator	Description
READY	**Flashing**: Indicates when an error occurs that you can clear by yourself. **Lit**: Indicates that the printer is on-line. The printer prints received data. **Off**: Indicates that the printer is off-line. Data can be received but will not be printed. Also indicates when printing is automatically stopped due to occurrence of an error.
DATA	**Flashing**: Indicates data transfer is taking place. **Lit**: Indicates either that data is being processed, or that data is being written to the memory card.
ATTENTION	**Flashing**: Indicates when the printer needs maintenance attention or the printer is warming up (`Please wait`). **Lit**: Indicates when a problem or an error occurs that you can clear by yourself. (For example, paper jam occurs.)

Keys

The operator panel keys are used to configure the printer. Note the certain keys have the secondary function.



Note

Settings made with these keys effect only the interface currently in use.

Key	Function
GO	• Switches the printer on-line and off-line. • Prints and feed out one page.

CANCEL	• Cancels a printing job.
	To cancel, proceed as follows:
	1 Check if `Processing` is displayed in the message display.
	2 Press the **CANCEL** key.
	3 `Print Cancel?` appears in the message display and then interface to be canceled.
	`Parallel`
	`Serial`
	`Option` (appears only when an option network interface card is installed)
	Press the **CANCEL** key again if you wish to stop the cancellation of printing.
	4 Select the interface to cancel using the ∧ or ∨ key and then press the **ENTER** key. Printing from the selected interface will stop. `Cancelling data` appears in the message display and printing stops after the current page is printed.
	• Resets numeric values, or cancels a setting procedure.
	• Used to stop the sounding of the alarm buzzer an error occurs.

MENU	• When pressed during mode selection, terminates the setting and the printer returns to the `Ready` condition. • Used to select the emulation, font, character code set; to read an CompactFlash card, and more.
∧	Used to access a desired item or enter numeric values. In some of the control procedures, the **<** and > keys are used to enter or exit a sub item.
∨	Used to access a desired item or enter of numeric values. In some of the control procedures, the < and > keys are used to enter or exit a sub item.
<	Used as the < key in the mode selection function.
> ?	• Used as the > key in the mode selection function. • Displays online help messages on the message display when paper jam errors occur. When pressed in the `Ready` condition, displays explanations of online help messages. When pressed while the online help is displayed, cancels the online help.
ENTER	Finalizes numeric values and other selections.

1.2 Using the Operator Panel

This section explains how to use the menu selection system. The **MENU** key on the operator panel allows you to use the menu to set or change the printer environment such as the number of copies to make, emulation, etc., to your specific needs. Settings can be made when `Ready` is indicated on the printer message display.

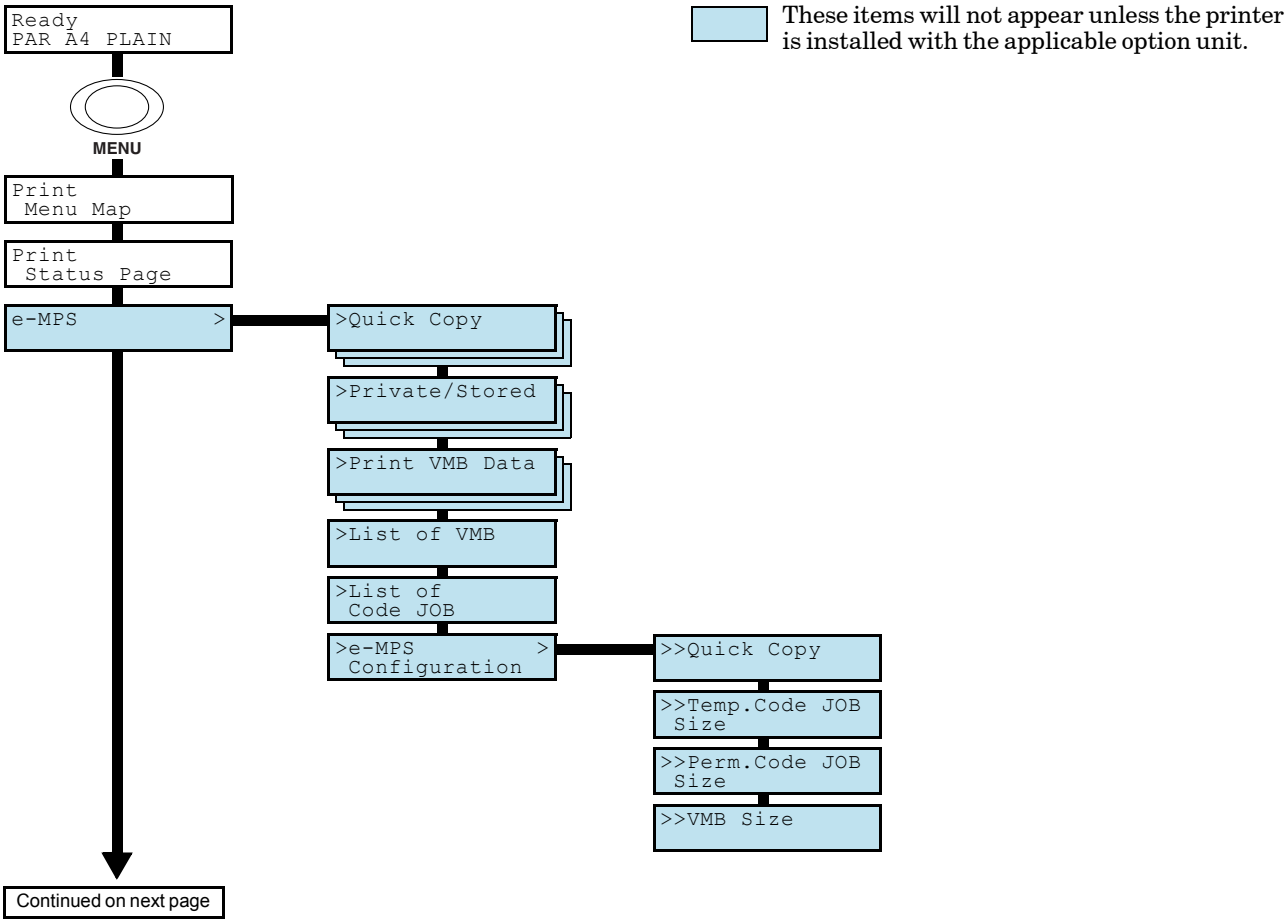
Note

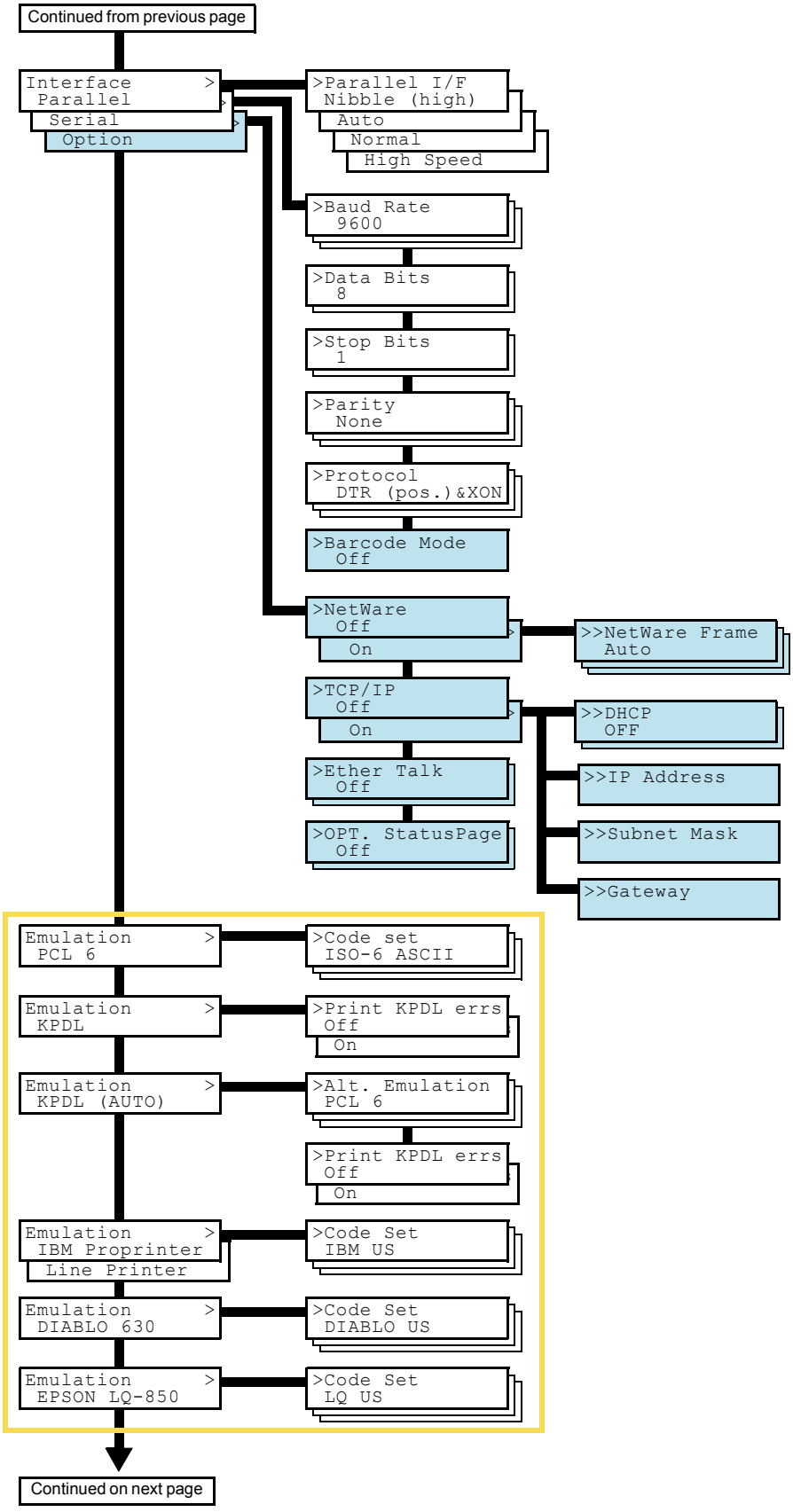
The printer obeys the most recently received printer settings sent from the application software, or from the printer driver, which take priority over operator panel settings.

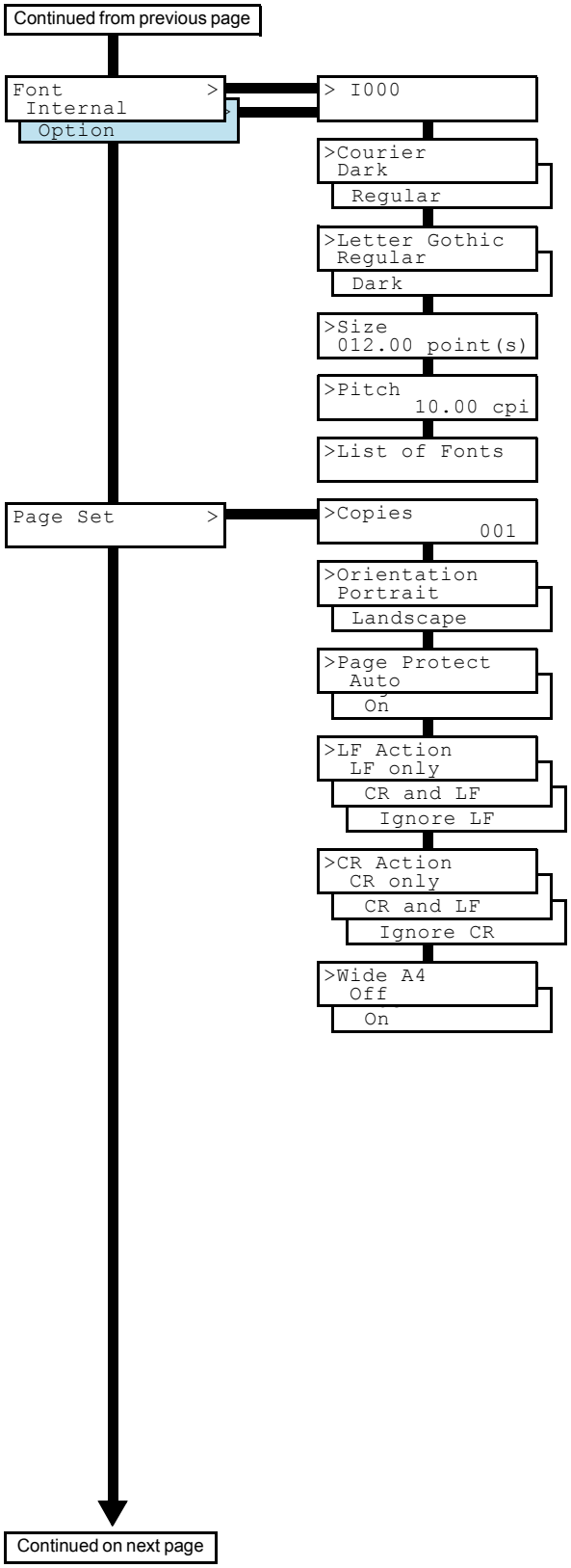
1.2.1 Menu Selection System

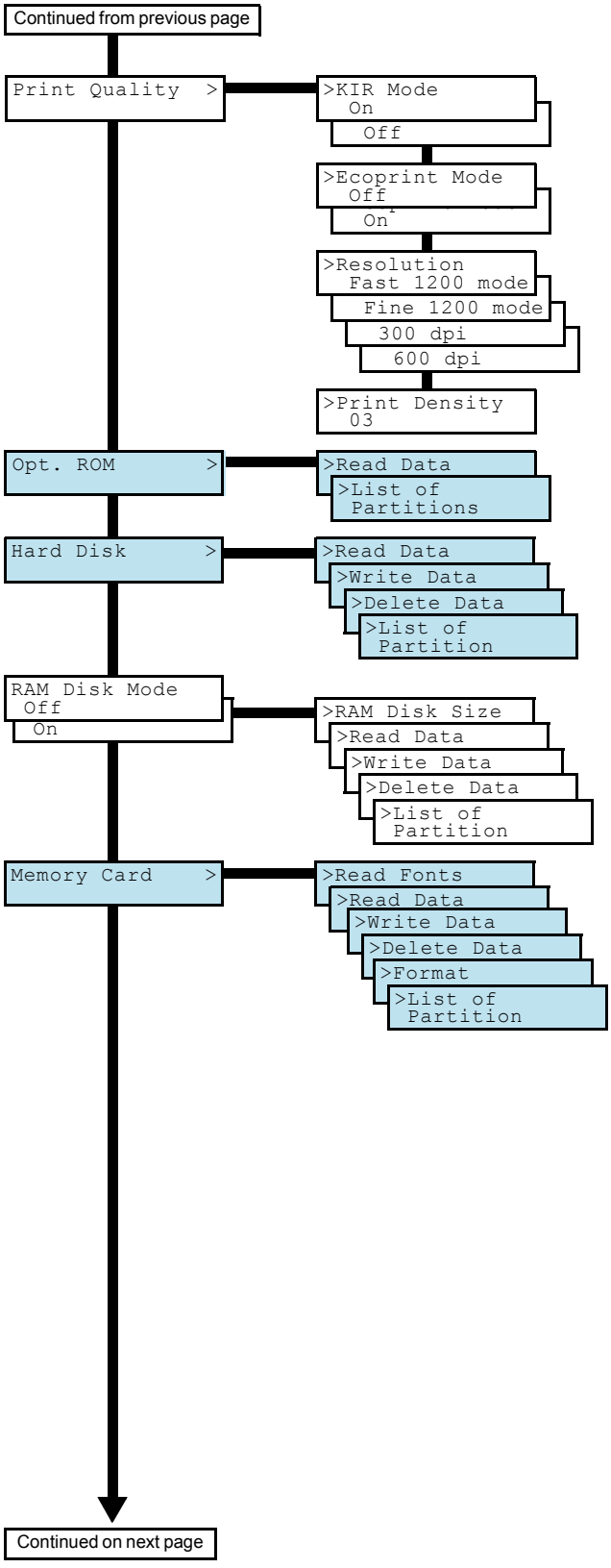
The following is the hierarchy diagram of the menu selection system of the printer.

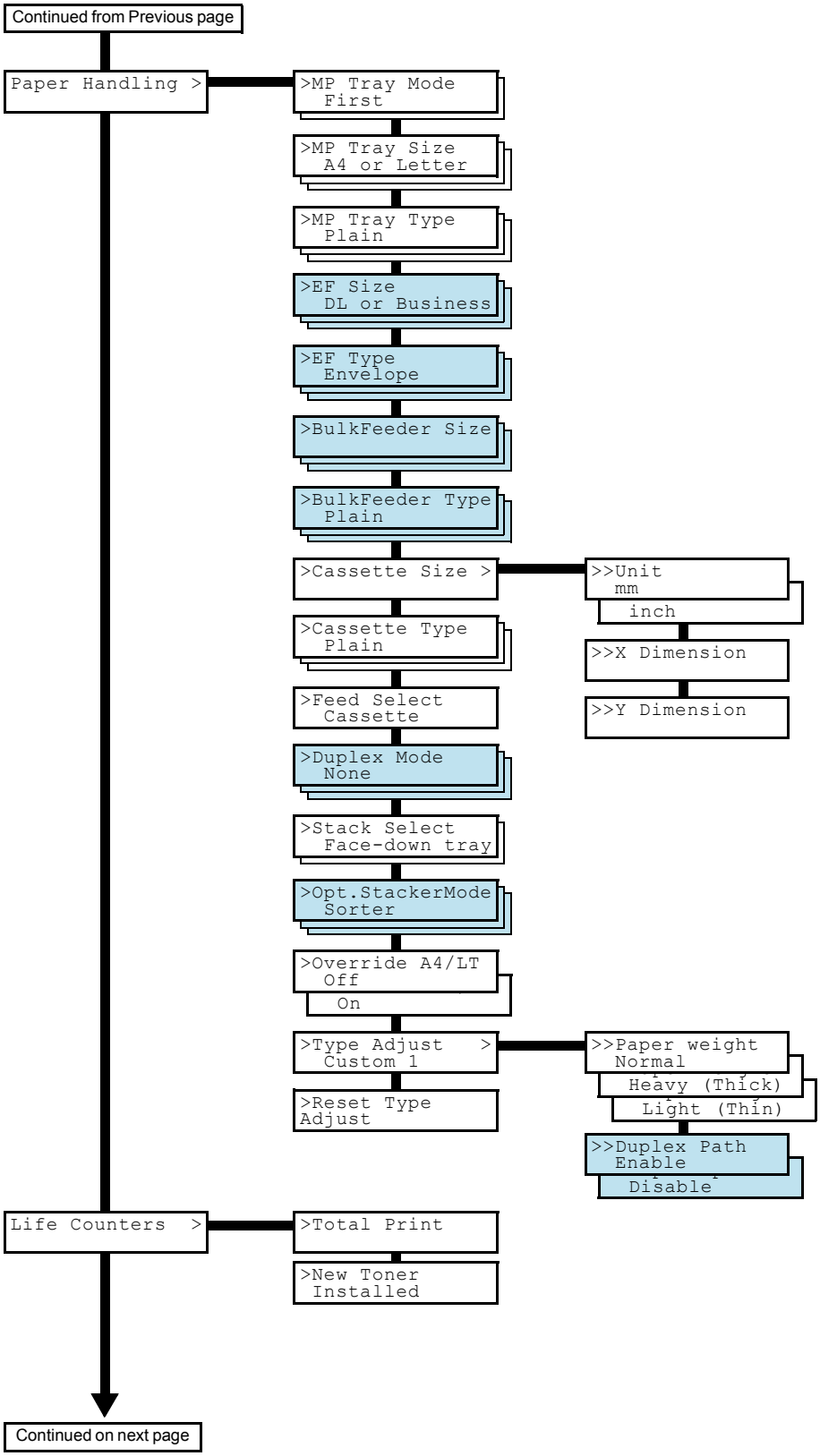
The vertical transition is made with the ∧ and ∨ keys and horizontal transition is made with the > and < keys. To change or finalize configuration on an item, use the **ENTER** key.

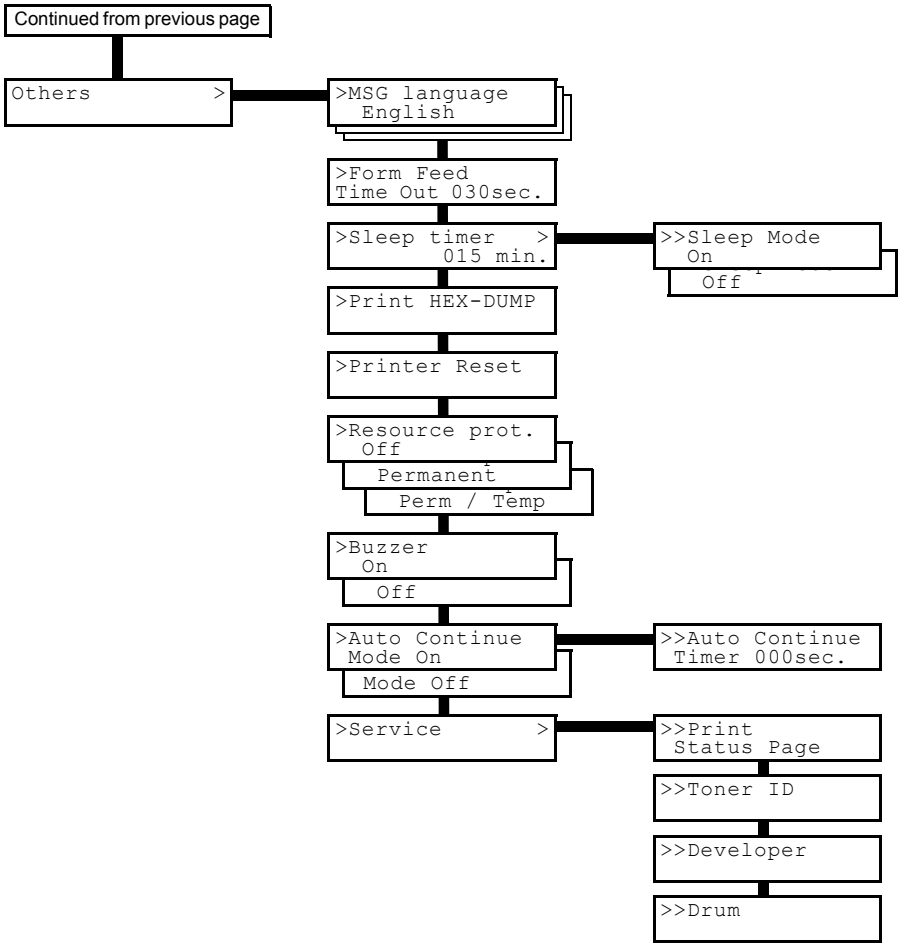



Continued from previous page
Interface >
Parallel
Serial
Option
>Parallel I/F
Nibble (high)
Auto
Normal
High Speed
>Baud Rate
9600
>Data Bits
8
>Stop Bits
1
>Parity
None
>Protocol
DTR (pos.)&XON
>Barcode Mode
Off
>NetWare
Off
On
>>NetWare Frame
Auto
>TCP/IP
Off
On
>>DHCP
OFF
>>IP Address
>>Subnet Mask
>>Gateway
>Ether Talk
Off
>OPT. StatusPage
Off
Emulation >
PCL 6
>Code set
ISO-6 ASCII
Emulation >
KPDL
>Print KPDL errs
Off
On
Emulation >
KPDL (AUTO)
>Alt. Emulation
PCL 6
>Print KPDL errs
Off
On
Emulation >
IBM Proprinter
Line Printer
>Code Set
IBM US
Emulation >
DIABLO 630
>Code Set
DIABLO US
Emulation >
EPSON LQ-850
>Code Set
LQ US
Continued on next page


Continued from previous page
Font >
Internal
Option
> I000
>Courier
Dark
Regular
>Letter Gothic
Regular
Dark
>Size
012.00 point(s)
>Pitch
10.00 cpi
>List of Fonts
Page Set >
>Copies
001
>Orientation
Portrait
Landscape
>Page Protect
Auto
On
>LF Action
LF only
CR and LF
Ignore LF
>CR Action
CR only
CR and LF
Ignore CR
>Wide A4
Off
On
Continued on next page


Continued from previous page
Print Quality >
>KIR Mode
On
Off
>Ecoprint Mode
Off
On
>Resolution
Fast 1200 mode
Fine 1200 mode
300 dpi
600 dpi
>Print Density
03
Opt. ROM >
>Read Data
>List of Partitions
Hard Disk >
>Read Data
>Write Data
>Delete Data
>List of Partition
RAM Disk Mode
Off
On
>RAM Disk Size
>Read Data
>Write Data
>Delete Data
>List of Partition
Memory Card >
>Read Fonts
>Read Data
>Write Data
>Delete Data
>Format
>List of Partition
Continued on next page


Continued from Previous page
Paper Handling >
>MP Tray Mode
First
>MP Tray Size
A4 or Letter
>MP Tray Type
Plain
>EF Size
DL or Business
>EF Type
Envelope
>BulkFeeder Size
>BulkFeeder Type
Plain
>Cassette Size >
>>Unit
mm
inch
>>X Dimension
>>Y Dimension
>Cassette Type
Plain
>Feed Select
Cassette
>Duplex Mode
None
>Stack Select
Face-down tray
>Opt.StackerMode
Sorter
>Override A4/LT
Off
On
>Type Adjust >
Custom 1
>>Paper weight
Normal
Heavy (Thick)
Light (Thin)
>Reset Type
Adjust
>>Duplex Path
Enable
Disable
Life Counters >
>Total Print
>New Toner
Installed
Continued on next page


Continued from previous page
Others >
>MSG language
English
>Form Feed
Time Out 030sec.
>Sleep timer >
015 min.
>>Sleep Mode
On
Off
>Print HEX-DUMP
>Printer Reset
>Resource prot.
Off
Permanent
Perm / Temp
>Buzzer
On
Off
>Auto Continue
Mode On
Mode Off
>>Auto Continue
Timer 000sec.
>Service >
>>Print
Status Page
>>Toner ID
>>Developer
>>Drum

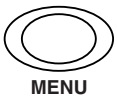
1.2.2 Using the Menu Selection System

This section explains the procedure for using the menu selection system. The menu selection system is activated by the **MENU** key while the printer is `Ready`.

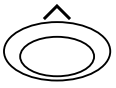
Printing the Menu Map

```
Print
 Menu Map
```

The printer prints a full list of menu selection system. Note that menus indicated on the list may vary depending on which option units are installed on the printer.

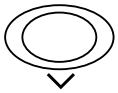


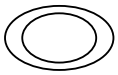
1 Press the **MENU** key.



2 Press the ^ or v key repeatedly until `Print Menu Map` appears.

```
Print
 Menu Map
```

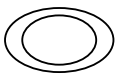




3 Press the **ENTER** key. A question mark (`?`) appears.

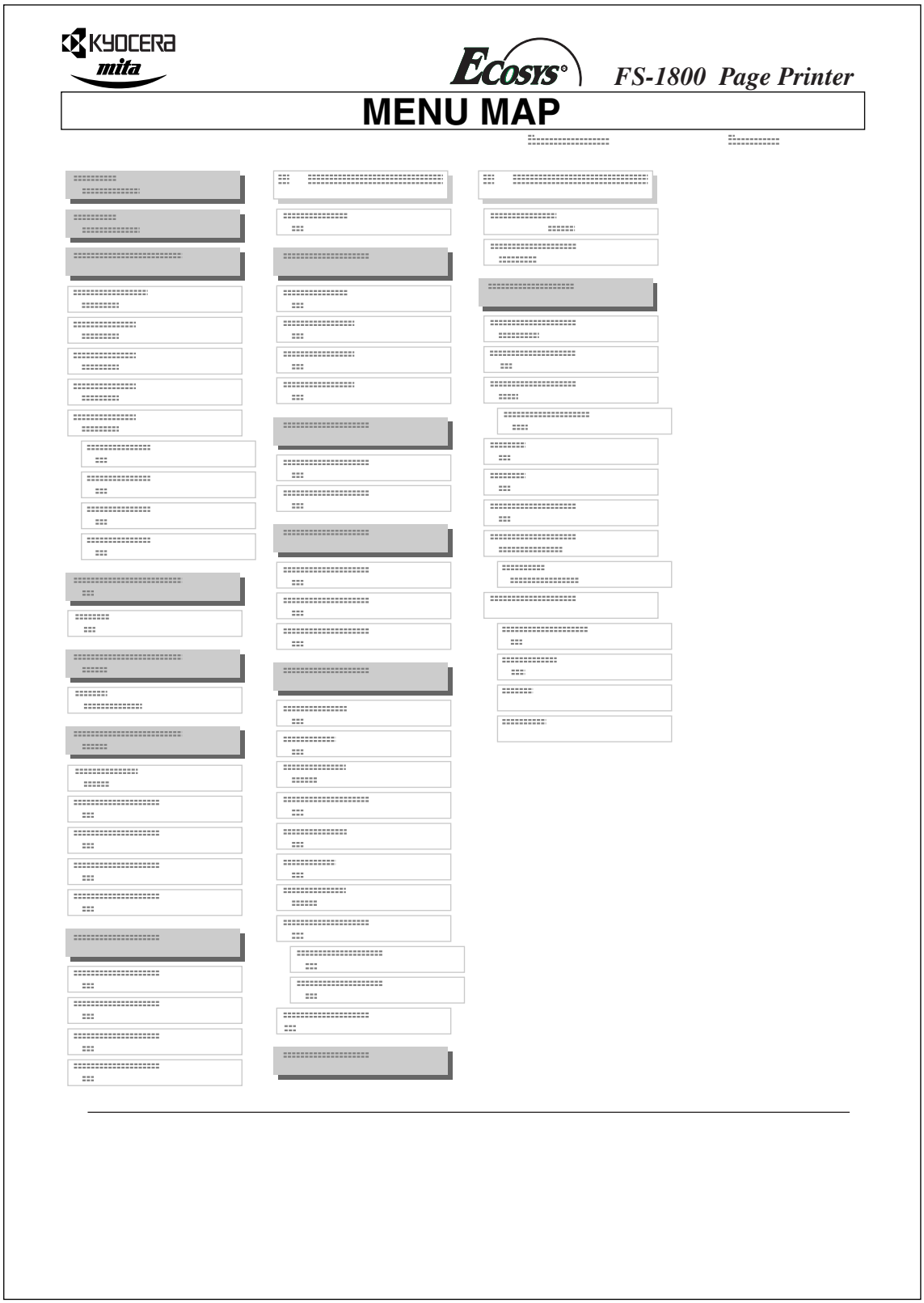
```
Print
 Menu Map ?
```

If you want to abandon the printing of the menu map, press the **CANCEL** key.



4 Press the **ENTER** key again. The printer prints a menu map.

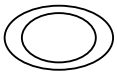
Sample MENU MAP



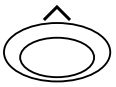
Printing Status Page

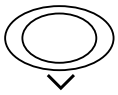
```
Print
 Status Page
```

If you want to check the printer's current status, including memory available and option settings, you can find the information you need on the status page.



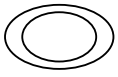
1 Press the **MENU** key.





2 Press the ^ or v key repeatedly until `Print Status Page` appears.

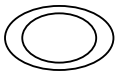
```
Print
 Status Page
```



3 Press the **ENTER** key. A question mark (`?`) appears.

```
Print
 Status Page ?
```

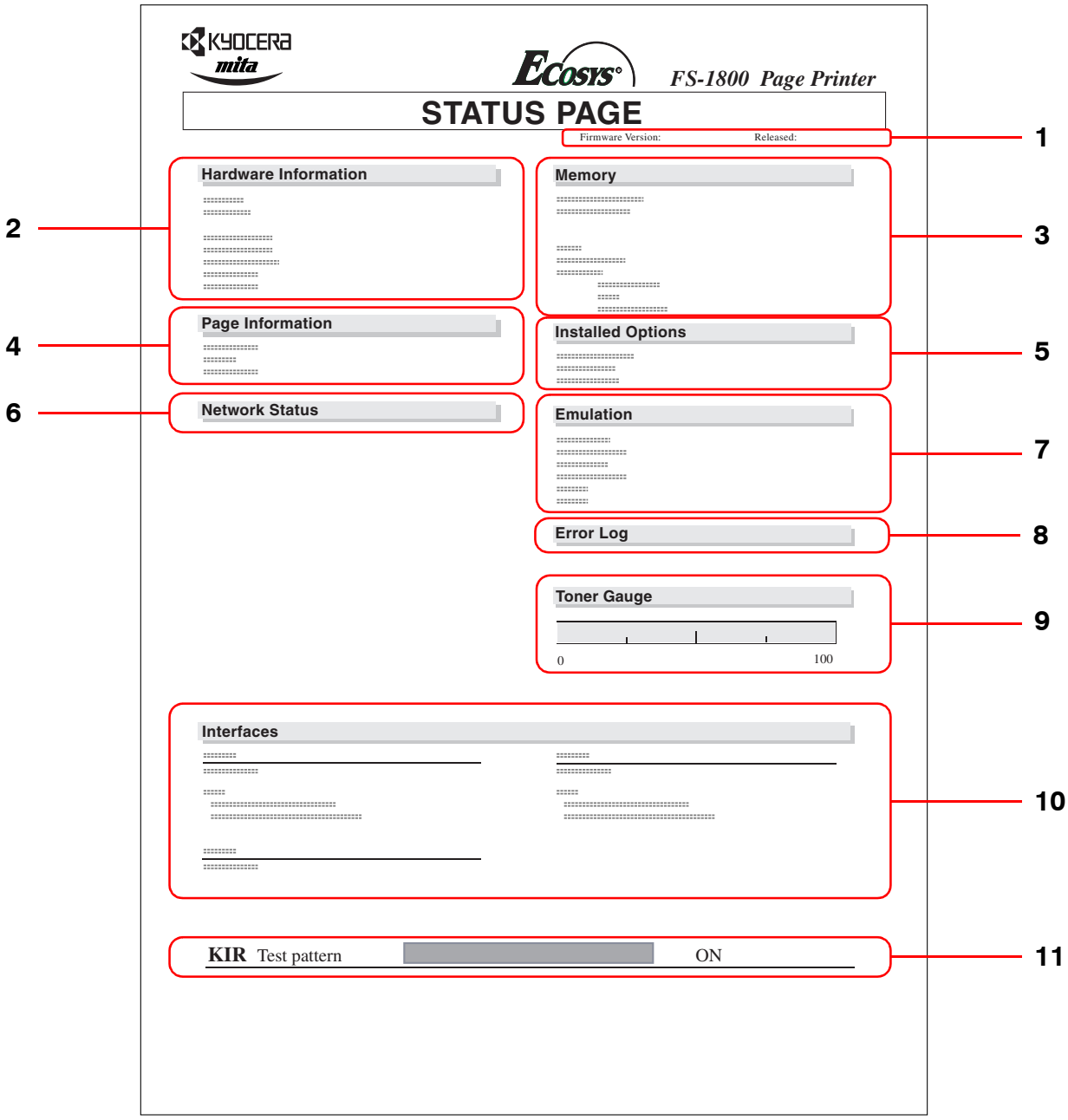
If you want to abandon the printing of a status page, press the **CANCEL** key.



4 Press the **ENTER** key again. The printer prints a status page.

For a full description of the status page, see the following pages.

The following is a sample status page. The numbers below refer to the contents explained on the following pages.



Items and values on the status page may vary depending on the printer's firmware version.

Note

1 — Software Version

This information shows the firmware version and date of issue of the printer.

2 — Hardware Information

This information shows various printer settings, such as the size and type of the paper in the paper cassettes.

3 — Memory

This shows the amount of total memory installed in the printer, the amount of currently available memory, and the current status of the RAM disk. See ***Setting the RAM Disk*** on page ***1-86***.

4 — Page Information

This shows the print resolution, number of copies, and the total page count.

5 — Installation Options

This shows the option(s) installed in the printer.

6 — Network Status

This shows the IP address, Subnet Mask address, and Default Gateway address for the network interface card installed in the printer.

7 — Emulation

This shows all available emulations of the printer. The printer is shipped from the factory with PCL 6 emulation selected as the default.

8 — Error Log

This shows the last three instances of the following four types of errors, listing them in the order of their occurrence: `KPDL Error Press GO`; `Memory overflow Press GO`; `Print overrun Press GO`; `File not found Press GO`. The most recent error is displayed on the top line of the Error Log. For error remedies, see section ***3.3.3 Error Messages*** on page ***3-10***. Error information is cleared when the printer's power is turned off.

9 — Toner Gauge

This shows the approximate level of remaining toner. When the value is 100, the toner container is full.

10 — Interface Information

This information shows the default font and the default emulation for all interfaces installed in the printer.

11 — KIR Test Pattern

KIR is the Kyocera Mita's original smoothing function. This test pattern shows the effect of the KIR (Kyocera Image Refinement) system.

e-MPS Printing

To use the e-MPS system, an option Microdrive must be installed in the printer.

```
e-MPS                    >
```

What is e-MPS?

'e-MPS' is an abbreviation for 'enhanced-Multiple Printing System,' which is a post-processing function that combines electronic sorting, job retention, virtual mailboxing, and a barcode printing system for job retrieval.

When printing multiple copies of a document, the data is transferred from the computer to the printer only for the first copy; the data is then stored on the printerís hard disk. Copies of the document are printed using the stored data.

Printing is performed faster with less computer spooling time and less network traffic.

Furthermore, printed data that is stored on the Microdrive can be called up using job retention functions, such as Quick Copy etc., allowing you to quickly print additional copies of a document from the printer at any time, without needing to re-spool the document or start up the computer system.

Job Retention

Job Retention is part of the e-MPS system, allowing you to save print jobs to the option Microdrive and retrieve them out as desired in one of four different modes.

When printing, select a Job Retention mode using the printer driver. The following four modes are available:

- Quick Copy
- Proof and Hold
- Private Print
- Job Storage

For details, refer to the ***Printer Driver Guide***.

Four Job Retention modes have the following benefits:

- **Quick Copy**: When you need another copy of a finished print job, you can print it out at the printer operator panel. There is no need to print from the computer again.
- **Proof and Hold**: When printing multiple copies, this mode first prints only one copy for proofing, allowing you to decide whether to continue printing the remaining copies or cancel printing at the operator panel. In this way, you can reduce the waste of paper.
- **Private Print**: Confidential print jobs can be printed out when you are at the printer. This mode saves print jobs in the printer without printing until you instruct the printer to do so at the operator panel. Printing using this mode requires the 4-digit PIN number you set using the printer driver.
- **Stored Job**: This mode allows you to store print jobs that are frequently needed, such as fax cover pages, checklists, and order forms, for printing later. Using the operator panel, you can then print them out as required at anytime and at any number of copies.

Virtual Mail Box

Virtual mailbox is the ability to store print jobs in the virtual mailboxes on the Microdrive, enabling you to retrieve and print it later from the printer's operator panel or the option barcode reader (BC-1).

You can later print out only the jobs you desire using the operator panel on the printer.

Code Job

This function allows you to print jobs stored on the Microdrive using the option barcode reader.

When printing, select a type of code job at the printer driver. The following two types of code jobs are available:

- Permanent Code Job
- Temporary Code Job

For details, refer to the ***Printer Driver Guide***.

You can print out frequently needed print jobs, such as fax cover pages, checklists, and order forms, using the option barcode reader.

If you store a print job and print it out with a barcode ID attached, you can print that job any time later by simply reading the barcode ID. You can print a list of code jobs at the operator panel. When the storage memory becomes insufficient, temporary code jobs will be automatically deleted in order from the oldest. Permanent code jobs will not be deleted.

Quick Copy

```
>Quick Copy
```

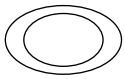
This mode enables you to print additional copies of a finished print job.

If you print a Quick Copy using the printer driver, it is printed and stored on the Microdrive. If additional copies are required, you can reprint the required number of copies from the printer operator panel.

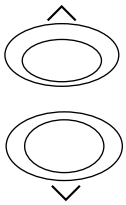
The default number of print jobs that can be stored on the Microdrive is 32. This can be changed to up to 50 from the e-MPS Configuration menu. When the number of jobs reaches the limit, the oldest job will be overwritten by the new one. When the printer is turned off, all the stored jobs will be deleted.

Printing Additional Copies by Quick Copy

When printing, make the Quick Copy settings using the printer driver. For how to make the settings, refer to the ***Printer Driver Guide***.

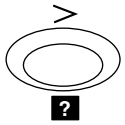


1 Press the **MENU** key.

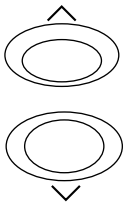


2 Press the ∧ or ∨ key repeatedly until `e-MPS >` appears.

```
e-MPS                >
```

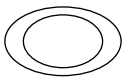


3 Press the > key.



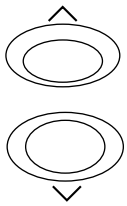
4 Press the ∧ or ∨ key repeatedly until `>Quick Copy` appears. The name entered for **User Name** in the printer driver (`user name`, in this example) also appears.

```
>Quick Copy
 user name
```


ENTER

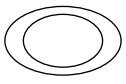
5 Press the **ENTER** key. A blinking question mark (?) appears before a user name.

```
>Quick Copy
?user name
```



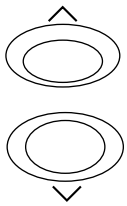
6 Press the ^ or v key to display the desired user name.

```
>Quick Copy
?user name
```


ENTER

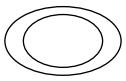
7 Press the **ENTER** key. `user name` and the name entered for **Custom Job Name** in the printer driver (`job title`, in this example) appear with a question mark (?) shown blinking before that name.

```
>user name
?job title
```



8 Press the ^ or v key to display the desired job title.

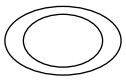
If you want to cancel the selection, press the **CANCEL** key.


ENTER

9 Press the **ENTER** key. The number of copies to be printed can be set. To increase the copycount, press the ^ key; to decrease the copy count, press the v key, as many times as desired.

```
>job title
?copy        001
```

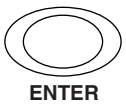
If you want to abandon the selection, press the **CANCEL** key.


ENTER

10 Press the **ENTER** key. The printer prints the specified number of copies for the print job.

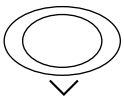
Deleting a Quick Copy Job

1 Follow the same steps as step1 through 8 in the above section.



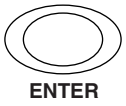
2 With the title of the job to be deleted displayed, press the **ENTER** key. The cursor below the copy count starts to blink.

```
>job title
?copy        001
```



3 Press the ∨ key repeatedly until `Delete` appears for the number of copies.

```
>job title
 Delete
```



4 Press the **ENTER** key. The message display displays `Processing` and the print job is deleted.

Proof and Hold

When printing multiple copies, this mode first prints one copy so that you can check it before continuing to print the remaining copies. Since you can check the printouts before printing the remaining copies, the waste of paper can be reduced.

Make the Proof and Hold settings using the printer driver and print. The printer prints one copy and, at the same time, saves the print job to the Microdrive. Use the operator panel to print the remaining copies.

You can also change the number of copies when resuming printing using the operator panel.

Printing Remaining Copies of a Proof and Hold

Use the same procedure as that for Quick Copy. See ***Quick Copy*** on page ***1-21***.

Printing a Private Job or Stored Job

To use this mode, an option Microdrive must be installed in the printer.

```
>Private/stored
```

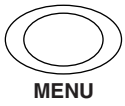
The printer holds the job mode secures confidentiality of the print job.

Private or Stored Job mode. The printer holds the jobs in Microdrive until you release it using the printer's operator panel. You can specify the document and the number of copies to print from the printer operator panel.

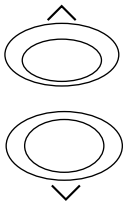
You need to enter the user ID from the printer operator panel to actually print a private or stored job.

When the printer is turned off, all the print jobs will be deleted but the stored jobs remain.

Printing a Private Job or Stored Job

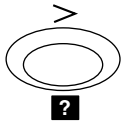


1 Press the **MENU** key.

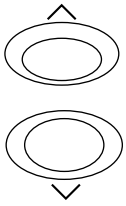


2 Press the ∧ or ∨ key repeatedly until `e-MPS >` appears.

```
e-MPS                >
```

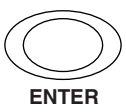


3 Press the > key.



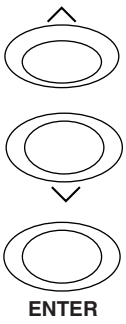
4 Press the ∧ or ∨ key repeatedly until `>Private/Stored` appears. The name entered for **User Name** in the printer driver (`user name`, in this example) also appears.

```
>Private/Stored
 user name
```



5 Press the **ENTER** key. A blinking question mark (`?`) before a user name appears.

```
>Private/Stored
?user name1
```

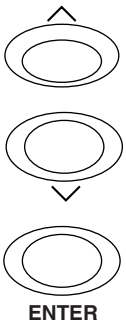


6 Press the ∧ or ∨ key to display the desired user name.

```
>Private/Stored
?user name
```

7 Press the **ENTER** key. `user name` and the name entered for **Custom Job Name** in the printer driver (`job title`, in this example) appear with a question mark (`?`) shown blinking before that name.

```
>user name
?job title
```



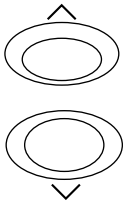
8 Pressing the ∧ or ∨ key to display the desired `job title`.

If you want to abandon the selection, press the **CANCEL** key.

9 Press the **ENTER** key. If a user ID number was entered using the printer driver, the ID entry display appears. Enter the four-digit user ID entered in the printer driver and press the **ENTER** key.

```
>job title
 ID          0000
```

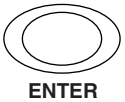
To enter the ID, press the < or > key to move the cursor to the number to be changed and then enter the correct number by pressing the ∧ or ∨ key.



10 The number of copies to be printed can be set. To increase the copy count, press the ∧ key; to decrease the copy count, press the ∨ key as many times as desired.

```
>job title
?Copies     001
```

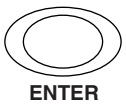
If you want to abandon the selection, press the **CANCEL** key.



11 Press the **ENTER** key. The message display indicates `Processing`, then `Ready`. The specified number of copies for the job is printed.

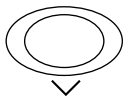
Deleting a Private Job or Stored Job

1 Follow the same steps as step1 through 8 in the above section.



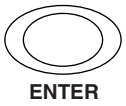
2 With the title of the job to be printed displayed, press the **ENTER** key. If a user ID has been registered using the printer driver, enter the ID and press the **ENTER** key.

```
>job title
?Copies     001
```



3 Press the ⌄ key repeatedly until `Delete` appears for the number of copies.

```
>job title
 Delete
```

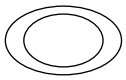


4 Press the **ENTER** key. `Processing` appears and the print job is deleted.

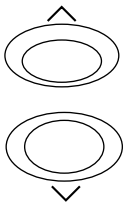
Printing a List of Code Jobs (Permanent Jobs)

Barcode IDs of code job (permanent code job) that are stored on the Microdrive can be printed on the list of code jobs.

Since the Code Job function administers the print jobs by their barcode IDs, you can print the job you desire by reading its barcode ID with the option barcode reader.

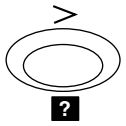


1 Press the **MENU** key.

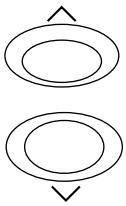


2 Press the ∧ or ∨ key repeatedly until `e-MPS >` appears.

```
e-MPS           >
```

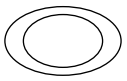


3 Press the > key.



4 Press the ∧ or ∨ key repeatedly until `>List of Code JOB` appears.

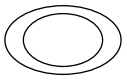
```
>List of
 Code JOB
```



5 Press the **ENTER** key. A question mark (`?`) appears.

```
>List of
 Code JOB ?
```

If you want to abandon printing procedure, press the **CANCEL** key.



6 Press the **ENTER** key again. `Processing` appears. The printer prints a list of Code JOB.

Virtual Mail Box (VMB)

To use this mode, an option Microdrive must be installed in the printer.

```
Print VMB Data >
Tray###:%%%%%%%%
```

The virtual mail box function can be used when Microdrive unit is installed on the printer. With a virtual mail box, data sent from the computer is stored in the Microdrive.

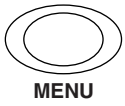
Up to 255 virtual mail boxes can be used. There is no limit as to the number of pages that can be sent to each tray, however, the total memory size for the mailboxes is limited to the size of the remaining memory space on the Microdrive.

Once printed, the jobs stored in the mail box will be deleted and not stored any more. If there are more than one job stored in the mail box, the all jobs are deleted together when the last one is printed.

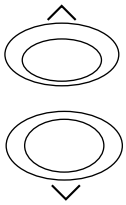
Printing to a VMB

Select a virtual mail box to post the job from the printer driver. It is possible to assign a name to a virtual mail box and post the jos to that name. (For how to make the settings, see ***3.4.2 Virtual Mail Box Printing*** in ***Printer Driver Guide***.)

Printing the Job Stored in the Mail Box

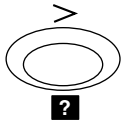


1 Press the **MENU** key.

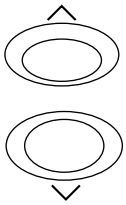


2 Press the ^ or v key repeatedly until `e-MPS >` appears.

```
e-MPS              >
```

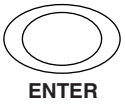


3 Press the > key.



4 Press the ^ or v key repeatedly until `>Print VMB Data` appears. The VMB number will appear in the location marked by `#`'s below, while the VMB name will appear in the location marked by `%`'s.

```
>Print VMB Data
Tray###:%%%%%%%%
```



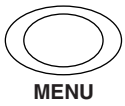
5 Press the **ENTER** key. A blinking question mark (`?`) appears before the VMB name.

```
>Print VMB Data
Tray###?%%%%%%%%
```

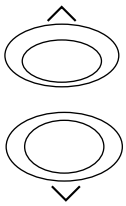
6 Press the **ENTER** key. The printer prints the job stored in the virtual mail box. Once printed, the job in the virtual mail box is automatically deleted.

Printing a List of VMB

This feature prints a list of jobs posted in all the virtual mail boxes.

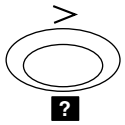


1 Press the **MENU** key.

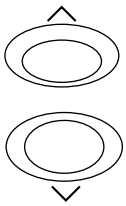


2 Press the ^ or v key repeatedly until `e-MPS >` appears.

```
e-MPS              >
```

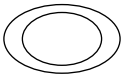


3 Press the > key.



4 Press the ^ or v key repeatedly until `>List of VMB` appears.

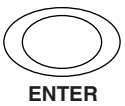
```
>List of VMB
```



5 Press the **ENTER** key. A question mark (`?`) appears.

```
>List of VMB ?
```

If you want to abandon printing procedure, press the **CANCEL** key.



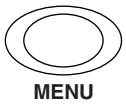
6 Press the **ENTER** key again. The printer prints a list of VMB data.

e-MPS Configuration

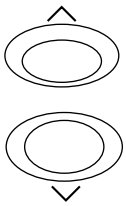
You can change the maximum number of jobs and the area in the Microdrive to hold them for the e-MPS system. You can change:

- Maximum Number of Quick Copy Jobs
- Maximum Area in Microdrive to hold Temporary Code Jobs
- Maximum Area in Microdrive to hold Permanent Code Jobs
- Maximum Area in Microdrive to hold Virtual Mail Boxes (VMB)

Number of Changing the Maximum Quick Copy Jobs

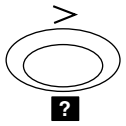


1 Press the **MENU** key.

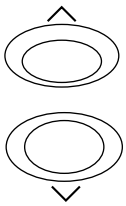


2 Press the ∧ or ∨ key repeatedly until `e-MPS >` appears.

```
e-MPS              >
```

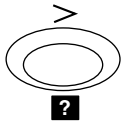


3 Press the > key.

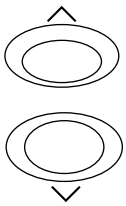


4 Press the ∧ or ∨ key repeatedly until `>e-MPS Configuration >` appears.

```
>e-MPS             >
 Configuration
```

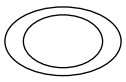


5 Press the > key.



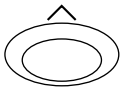
6 Press the ∧ or ∨ key repeatedly until `>>Quick Copy` appears.

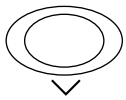
```
>>Quick Copy
                  32
```


ENTER

7 Press the **ENTER** key. A blinking cursor (_) appears.

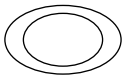
```
>>Quick Copy
                32_
```



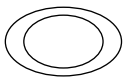


8 Press the ^ or v key to increace or decrease the value of the figure where the cursor is blinking. It can be set between 0 and 50. You can use the > and < keys to move the cursor right and left.

If you want to abandon the setting procedure, press the **CANCEL** key.

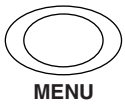

ENTER

9 Display the desired maximum number of jobs and press the **ENTER** key.

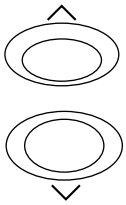

MENU

10 Press the **MENU** key. The message display returns to `Ready`.

Changing the Maximum Area in Microdrive for Temporary Code Jobs

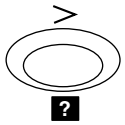


1 Press the **MENU** key.

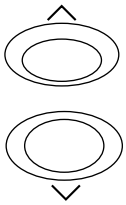


2 Press the ^ or v key repeatedly until `e-MPS >` appears.

```
e-MPS           >
```

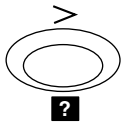


3 Press the > key.

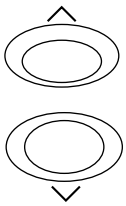


4 Press the ^ or v key repeatedly until `>e-MPS Configuration >` appears.

```
>e-MPS          >
 Configuration
```

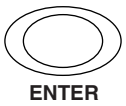


5 Press the > key.



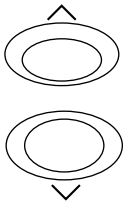
6 Press the ^ or v key repeatedly until `>>Temp. Code JOB Size` appears. The default setting is 50 MB.

```
>>Temp. Code JOB
 Size         50MB
```



7 Press the **ENTER** key. A blinking cursor (_) appears.

```
>>Temp. Code JOB
 Size         50MB
```

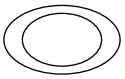


8 Press the ^ or v key to increace or decrease the value of the figure where the cursor is blinking. It can be set between 0 and 9999 (the actual maximum effective size is the size of free hard disk space). You can use the > and < keys to move the cursor right and left.

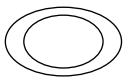
If you want to abandon the setting procedure, press the **CANCEL** key.

Note

The area specified here is the maximum storage area that can be used by Temporary Code Jobs. Note that the total amount of storage areas specified must not exceed the total size of the Microdrive. Otherwise, in the particular storage area, you may only be able to accommodate print jobs of a smaller amount of print jobs than specified.

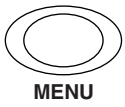

ENTER

9 Display the desired area size and press the **ENTER** key.

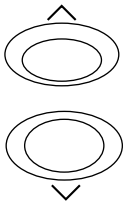

MENU

10 Press the **MENU** key. The message display returns to `Ready`.

Changing the Maximum Area in Microdrive to Hold Permanent Code Jobs

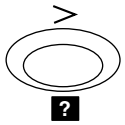


1 Press the **MENU** key.

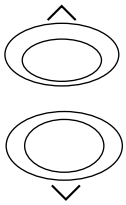


2 Press the ^ or v key repeatedly until `e-MPS >` appears.

```
e-MPS           >
```

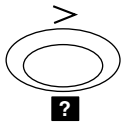


3 Press the > key.

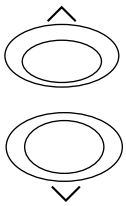


4 Press the ^ or v key repeatedly until `>e-MPS Configuration >` appears.

```
>e-MPS          >
 Configuration
```

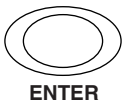


5 Press the > key.



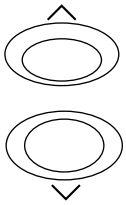
6 Press the ^ or v key repeatedly until `>>Perm. Code JOB Size` appears. The default setting is 50 MB.

```
>>Perm. Code JOB
 Size         50MB
```



7 Press the **ENTER** key. A blinking cursor (_) appears.

```
>>Perm. Code JOB
 Size         50MB
```

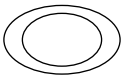


8 Press the ^ or v key to increace or decrease the value of the figure where the cursor is blinking. It can be set between 0 and 9999 (the actual maximum effective size is the size of free hard disk space) MB. You can use the > and < keys to move the cursor right and left.

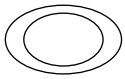
If you want to abandon the setting procedure, press the **CANCEL** key.

Note

The area specified here is the maximum storage area that can be used by Permanent Code Jobs. Note that the total amount of storage areas specified must not exceed the total size of the Microdrive. Otherwise, in the particular storage area, you may only be able to accommodate print jobs of a smaller amount of print jobs than specified.

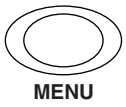

ENTER

9 Display the desired area size and press the **ENTER** key.

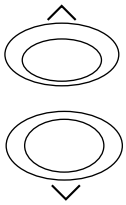

MENU

10 Press the **MENU** key. The message display returns to `Ready`.

Changing the Maximum Area in Microdrive to Hold Virtual Mail Box (VMB)

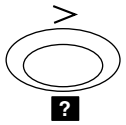


1 Press the **MENU** key.

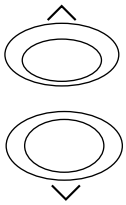


2 Press the ^ or v key repeatedly until `e-MPS >` appears.

```
e-MPS              >
```

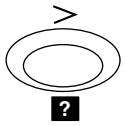


3 Press the > key.

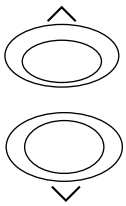


4 Press the ^ or v key repeatedly until `>e-MPS Configuration >` appears.

```
>e-MPS             >
 Configuration
```

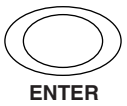


5 Press the > key.



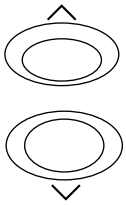
6 Press the ^ or v key repeatedly until `>>VMB Size` appears.

```
>>VMB Size
          ####MB
```



7 Press the **ENTER** key. A blinking cursor (_) appears.

```
>>VMB Size
          ####MB
```

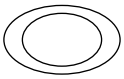


8 Press the ^ or v key to increace or decrease the value of the figure where the cursor is blinking. It can be set between 0 and 9999 (the actual maximum effective size is the size of free hard disk space). You can use the ^ and v keys to move the cursor right and left.

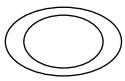
If you want to abandon the setting procedure, press the **CANCEL** key.

Note

The area specified here is the maximum storage area that can be used by Virtual Mail Boxes. Note that the total amount of storage areas specified must not exceed the total size of the Microdrive. Otherwise, in the particular storage area, you may only be able to accommodate print jobs of a smaller amount of print jobs than specified.


ENTER

9 Display the desired area size and press the **ENTER** key.


MENU

10 Press the **MENU** key. The message display returns to `Ready`.

Changing the Interface Parameters

```
Interface       >
  Parallel
```

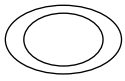
The printer is equipped with both a parallel and serial interface. In addition, the N version model has an Ethernet network interface. Various printing environment parameters such as the default emulation can be changed indepently on different interfaces by using the printer's menu selection system. Before select the interface to apply the changes in the procedure described below.

Note

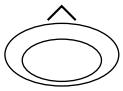
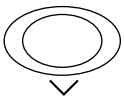
This interface selection described below does not select which interface data will be received from. The printer automatically selects an interface data is received.

Changing Parallel Interface Modes

The parallel interface mode of this printer supports a bi-directional/high-speed mode. Normally, this interface is used under the default setting `Nibble (high)`. For details, see ***Appendix C***. After setting the interface, be sure to reset the printer or turn the power off at least once. The new setting will be enabled thereafter.

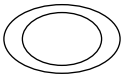

MENU

1 Press the **MENU** key.

2 Press the ∧ or ∨ key repeatedly until `Interface >` appears. One of the interface names shown below appears, indicating the current interface.

`Parallel` (default)
`Serial`
`Option` (with the FS-1800N/FS-3800N or when a network interface card is installed)

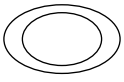

ENTER

3 Press the **ENTER** key. A blinking question mark (`?`) appears.

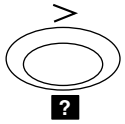
```
Interface
? Parallel
```

If `Parallel` is not displayed, press the ∧ or ∨ key repeatedly until it is `Parallel`.

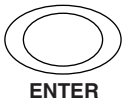
If you want to abandon the interface selection procedure, press the **CANCEL** key. The interface remains unchanged.


ENTER

4 Press the **ENTER** key again.

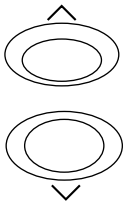


5 Press the > key. The message display changes to the communication mode menu.



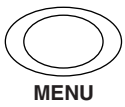
6 Press the **ENTER** key. A blinking question mark (?) appears.

```
>Parallel I/F
? Nibble (high)
```



7 Press the ^ or v key to display the desired mode. The display changes as shown below. Press the **ENTER** key.

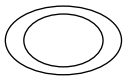
`Nibble (high)` (default)
`AUTO`
`Normal`
`High Speed`



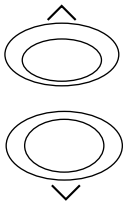
8 Press the **MENU** key. The message display returns to `Ready`.

Changing Serial Interface Modes

You can set the baud rate, data bits, stop bits, parity, and protocol for the serial interface.

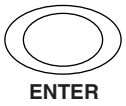


1 Press the **MENU** key.



2 Press the ^ or v key repeatedly until `Interface >` appears. One of the interface names shown below appears, indicating the current interface.

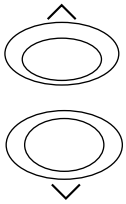
`Parallel` (default)
`Serial`
`Option` (with the FS-1800N/FS-3800N or when a network interface card is installed)



3 Press the **ENTER** key. A blinking question mark (`?`) appears.

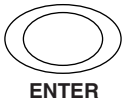
```
Interface
? Parallel
```

If you want to abandon the interface selection procedure, press the **CANCEL** key. The interface remains unchanged.

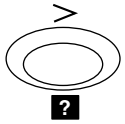


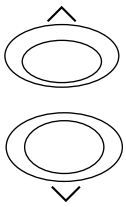
4 Press the ^ or v key repeatedly until `Serial` appears.

```
Interface
? Serial
```



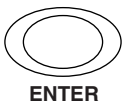
5 Press the **ENTER** key again.





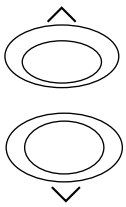
6 Press the > key. Each time the ∧ or ∨ key is pressed, the setting item and current setting change as shown below.

>Baud Rate 9600	Definable baud rates: 1200, 2400, 4800, 9600 (default), 19200, 38400, 57600, 115200
>Data Bits 8	Definable data bits: 7, 8 (default)
>Stop Bits 1	Definable stop bits: 1 (default), 2
>Parity None	Definable parity: None (default), Odd, Even, Ignore
>Protocol DTR(pos.)&XON	Definable protocol: DTR(pos.)&XON (default), DTP(positive), DTR(negative), XON/XOFF, ETX/ACK
>Barcode Mode Off	If set to On when the option barcode reader is installed, the mode of the serial interface will be the barcode mode.



7 Display the setting item to be changed and press the **ENTER** key. A question mark (?) appears.
The following example explains how to change the baud rate. The settings for other items can be changed in a similar manner.

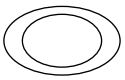
```
>Baud Rate
?  9600
```



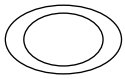
8 Press the ∧ or ∨ key to display the desired setting. The setting changes as shown below.

The baud rate can be selected from 1200, 2400, 4800, 9600 (default), 19200, 38400, 57600, and 115200.

Some computers may not be compatible with a baud rate of 115200 bps. If you set the baud rate to 115200 and communication problems occur, lower the baud rate.



9 Display the desired baud rate and press the **ENTER** key.



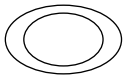
10 Press the **MENU** key. The message display returns to `Ready`.

Changing Network Interface Parameters

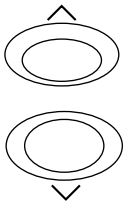
This section applies to the printers having the option network card installed. The FS-1800N/FS-3800N come standard with a network interface card installed. For details concerning the network when using the FS-1800N/FS-3800N, refer to the supplied *Network Manual*.

To make your printer supports Netware, TCP/IP, and EtherTalk networks, you will need to install the option network interface card in the printer and make the proper settings as explained in this section.

You can also have a status page for the network interface card printed out each time the printer is turned on.

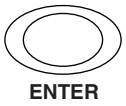


1 Press the **MENU** key.



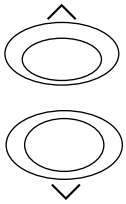
2 Press the ∧ or ∨ key repeatedly until `Interface >` appears. One of the interface names shown below appears, indicating the current interface.

`Parallel` (default)
`Serial`
`Option`



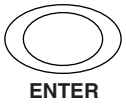
3 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
Interface
? Parallel
```

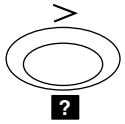


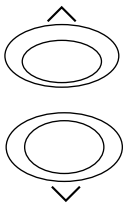
4 Press the ∧ or ∨ key repeatedly until `Option` appears.

```
Interface
? Option
```



5 Press the **ENTER** key again.





6

Press the > key. Each time the ^ or v key is pressed, the display changes as shown below.

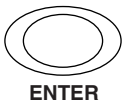
```
>NetWare        >
  On
```

```
>TCP/IP         >
  On
```

```
>EtherTalk
  Off
```

```
>Opt. StatusPage
  On
```

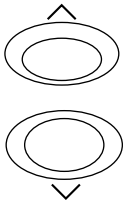
This is the network interface card status page print menu. See page *1-48*.



7

The following example explains how to activate `TCP/IP` protocol to connect the printer in the network. You can select `Netware` or `EtherTalk` in a similar manner.

```
>TCP/IP         >
  On
```

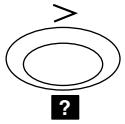


If `TCP/IP` is currently `Off` is displayed, select `On` using the ^ or v key. Press the **ENTER** key again.

```
>TCP/IP
? On
```

→

```
>TCP/IP         >
  On
```



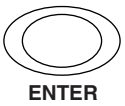
8 Press the > key. Each time the ∧ or ∨ key is pressed, the item changes as shown below.

```
>>DHCP
  Off
```

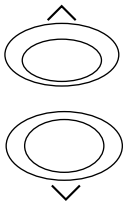
```
>>IP Address
 000.000.000.000
```

```
>>Subnet Mask
 000.000.000.000
```

```
>>Gateway
 000.000.000.000
```

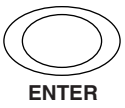


9 Display the item to be set and press the **ENTER** key.
For `DHCP`, a question mark (`?`) appears. For `IP Address`, `Subnet Mask`, and `Gateway`, the cursor (_) blinks.

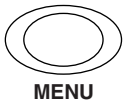


10 For `DHCP`, select `On` or `Off` using the ∧ or ∨ key. For `IP Address`, `Subnet Mask`, and `Gateway` addresses, press ∧ or ∨ key to change the number (`000` to `255`) where the cursor is blinking. You can use the > and < key to move the cursor right and left.

To obtain these addresses, consult your network administrator.



11 Press the **ENTER** key.



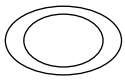
12 Press the **MENU** key. The message display returns to `Ready`.

Printing a Network Card Interface Status Page

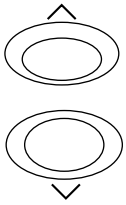
To use this function, the network interface card must be installed on the printer. The FS-1800N/FS-3800N come standard with a network interface card installed.

You can have your printer print out a status page for the network interface card each time the printer is turned on. The network interface card status page shows the firmware version, the network addresses, and other information under various network protocols about the network interface card. The default setting is `On` (print).

Printing out a network interface card status page may not be possible with some network interface cards. For details, see the manual for the network interface card.

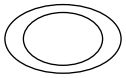


1 Press the **MENU** key.



2 Press the ∧ or ∨ key repeatedly until `Interface >` appears.

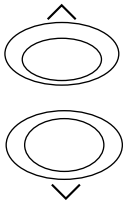
```
Interface
  Parallel
```



3 Press the **ENTER** key. A blinking question mark (`?`) appears.

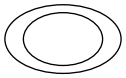
```
Interface
? Parallel
```

If you want to abandon the interface selection procedure, press the **CANCEL** key. The interface remains unchanged.



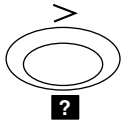
4 Press the ∧ or ∨ key repeatedly until `Option` appears.

```
Interface
? Option
```



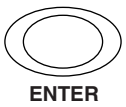
5 Press the **ENTER** key again. A > appears.

```
Interface      >
  Option
```



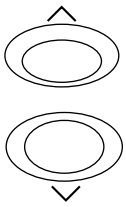
6 Press the > key and then press the ^ or v key repeatedly until the message display indicates `>Opt. StatusPage`.

```
>Opt. StatusPage
  On
```



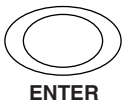
7 The default setting is `On`. If it is set to `Off`, change it as follows. Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>Opt. StatusPage
? Off
```



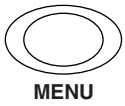
8 Select `On` using the ^ or v key.

```
>Opt. StatusPage
? On
```

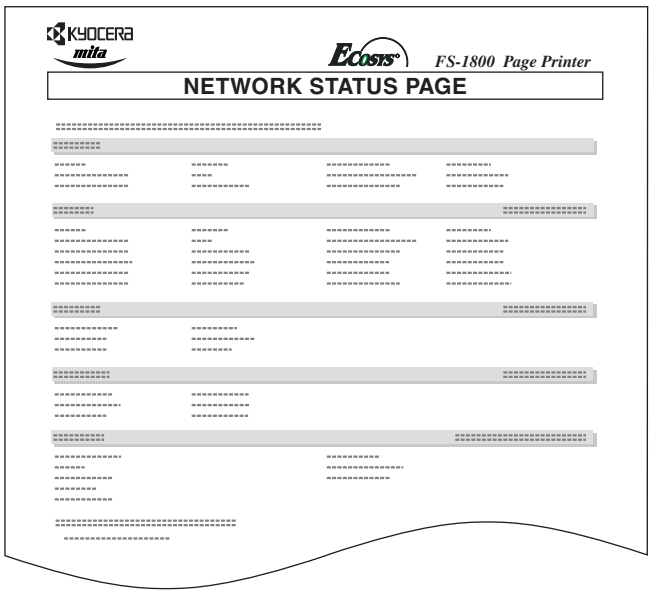


9 Press the **ENTER** key again.

```
>Opt. StatusPage
  On
```



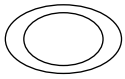
10 Press the **MENU** key. The message display returns to `Ready`.



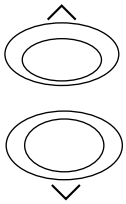
Changing the Emulation

```
Emulation       >
  PCL 6
```

The emulation mode for the current interface can be changed.

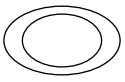


1 Press the **MENU** key.



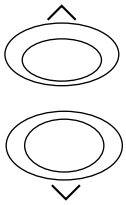
2 Press the ^ or v key repeatedly until `Emulation` appears. One of the emulation names shown below appears, indicating the current emulation.

`PCL 6` (default)
`KPDL`
`KPDL (AUTO)`
`Line Printer`
`IBM Proprinter`
`DIABLO 630`
`EPSON LQ-850`



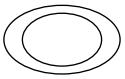
3 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
Emulation
?PCL 6
```

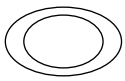


4 Press the ^ or v key repeatedly until the desired emulation mode appears.

If you want to abandon the selection, press the **CANCEL** key.



5 Press the **ENTER** key. The > key allows access to sub item `>Code set`.

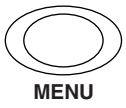


6 Press the **MENU** key. The message display returns to `Ready`.

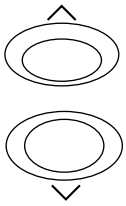
After changing the emulation, you have the option to change the character code set. Available character code sets vary depending on the current emulation.

KPDL (AUTO) Emulation

KPDL is the Kyocera Mita's implementation of the PostScript language. The KPDL (AUTO) emulation enables the printer to automatically change the emulation mode according to the data received when printing.
In addition to KPDL (AUTO) emulation, you can use the operator panel to set another emulation mode that is used very often. The default setting is PCL 6.

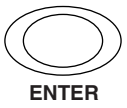


1 Press the **MENU** key.



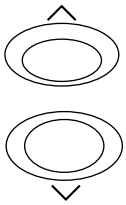
2 Press the ∧ or ∨ key repeatedly until `Emulation` appears.

```
Emulation       >
 PCL 6
```



3 Press the **ENTER** key. A blinking question mark (`?`) appears.

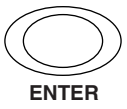
```
Emulation
?PCL 6
```



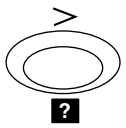
4 Press the ∧ or ∨ key repeatedly until the message display indicated `KPDL (AUTO)` appears.

```
Emulation
?KPDL (AUTO)
```

If you want to abandon the setting procedure, press the **CANCEL** key.

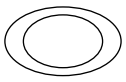


5 Press the **ENTER** key.



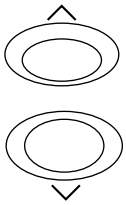
6 Press the > key. When `> Print KPDL Errs` is displayed, press the ∧ or ∨ key. The names of alternative emulations appear.

`PCL 6` (default)
`Line Printer`
`IBM Proprinter`
`DIABLO 630`
`EPSN LQ-850`



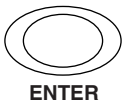
7 Press the **ENTER** key. A blinking question mark (?) appears.

```
>Alt. Emulation
?PCL 6
```

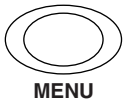


8 Press the ∧ or ∨ key repeatedly until the desired alternative emulation appears.

If you want to abandon the setting procedure, press the **CANCEL** key.



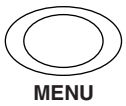
9 Press the **ENTER** key.



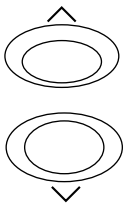
10 Press the **MENU** key. The message display returns to Ready.

Auto Printing of KPDL Error

The printer can be set to print error data during KPDL emulation. If this is set to On, error data will be printed if only trouble occurs during printing. The factory default setting is Off.

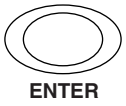


1 Press the **MENU** key.



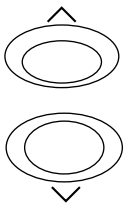
2 Press the ∧ or ∨ key repeatedly until Emulation > appears.

```
Emulation      >
 PCL 6
```



3 Press the **ENTER** key. A blinking question mark (?) appears.

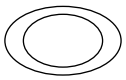
```
Emulation
?PCL 6
```



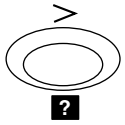
4 Select `KPDL` or `KPDL (AUTO)` using the ∧ or ∨ key.

```
Emulation
?KPDL
```

If you want to abandon the setting procedure, press the **CANCEL** key.

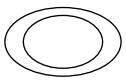


5 Press the **ENTER** key.



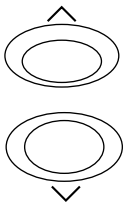
6 Press the > key. The message display changes to that shown below. If `>Alt. Emulation` is displayed when the `KPDL (AUTO)` emulation is selected, press the ∧ or ∨ key to change it.

```
>Print KPDL Errs
  Off
```



7 Press the **ENTER** key. A blinking question mark (`?`) appears.

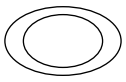
```
>Print KPDL Errs
? Off
```



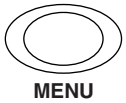
8 Select `On` using the ∧ or ∨ key.

```
>Print KPDL Errs
? On
```

If you want to abandon the setting procedure, press the **CANCEL** key.



9 Press the **ENTER** key.



10 Press the **MENU** key. The message display returns to `Ready`.

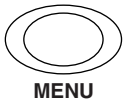
Setting the Default Font

```
Font                >
  Internal
```

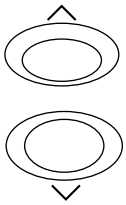
You can select the default font for the current interface. In addition to the internal fonts, all fonts that are downloaded to the printer memory, or fonts stored on a CompactFlash card, Microdrive, or option ROM, can be selected as the default font.

In this menu, you can also set the type and pitch for Courier and Letter Gothic; as well as to print a font list.

Selecting the default font

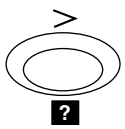


1 Press the **MENU** key.



2 Press the ∧ or ∨ key repeatedly until `Font >` appears.

```
Font                >
  Internal
```



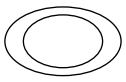
3 To select an internal font, check that `Internal` is displayed and press the > key. The message display changes to that shown below. If `Internal` is not displayed, press the ∧ or ∨ key to display it.

```
> I000
```

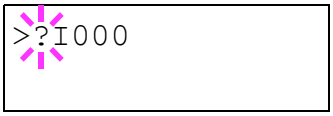
To select an option font, press the **ENTER** key while `Font >` is displayed. Press ∧ or ∨ key repeatedly until the message display indicates `Option` and press the **ENTER** key. Pressing the > key after that displays the font selection shown above. This operation is possible only when option fonts are installed in the printer.

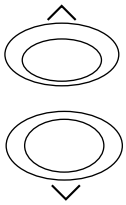
The letter before the number indicates the type of font as shown below:

Letter	Description
I	Internal font
S	Soft (down load) font
M	Fonts in an option CompactFlash card
H	Fonts in a RAM disk or option Microdrive.
O	Fonts in an option ROM



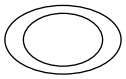
4 Press the **ENTER** key. A blinking question mark (?) appears.



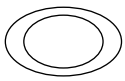


5 Press the ^ or v key repeatedly until the desired font number appears. For font numbers of the internal fonts, see ***List of Fonts*** on page ***A-2***.

If you want to abandon the selection, press the **CANCEL** key.



6 When the desired font is displayed, press the **ENTER** key.

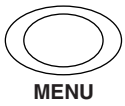


7 Press the **MENU** key. The message display returns to Ready.

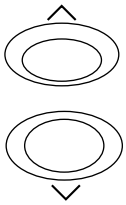
>Courier

Changing Type for Courier/Letter Gothic

Courier or Letter Gothic font type can be selected as Regular or Dark. For example, to change the type of Courier, proceed as follows:

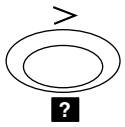


1 Press the **MENU** key.

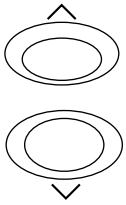


2 Press the ^ or v key repeatedly until `Font >` appears.

```
Font            >
  Internal
```

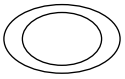


3 Check that `Internal` is displayed and press the > key.



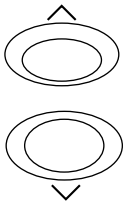
4 Press the ^ or v key repeatedly until `>Courier` appears.

```
>Courier
  Regular
```



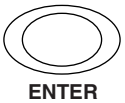
5 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>Courier
? Regular
```

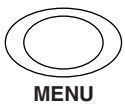


6 Select `Regular` or `Dark` using the ^ or v key .

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.

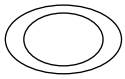


8 Press the **MENU** key and the message display returns to `Ready`.

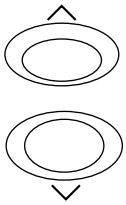
```
>Size
```

Changing the Font Size

You can change the size of the default font. If the default font is a fixed font such as Courier or Letter Gothic, the character pitch can be changed instead of the font size.

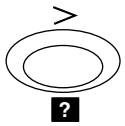


1 Press the **MENU** key.

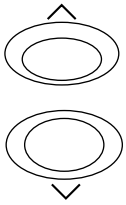


2 Press the ^ or v key repeatedly until `Font >` appears.

```
Font              >
  Internal
```

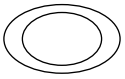


3 Check that `Internal` is displayed and press the > key.



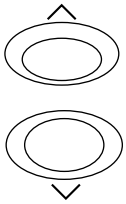
4 Press the ^ or v key repeatedly until `>Size` appears.

```
>Size
 012.00 point(s)
```



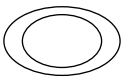
5 Press the **ENTER** key. A blinking cursor (_) appears.

```
>Size
 012.00 point(s)
```

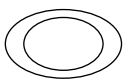


6 Press the ^ or v key to increase or decrease the value of the figure where the cursor is blinking. The font size can be set between 4 and 999.75 points, in 0.25-point increments. You can use the > or < key to move the cursor right and left.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 When the desired size is displayed, press the **ENTER** key.

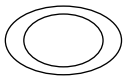


8 Press the **MENU** key. The message display returns to `Ready`.

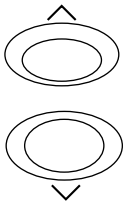
>Pitch

Setting the Character Pitch for Courier/Letter Gothic

You can set the character pitch for fixed fonts when the default font is Courier or Letter Gothic.

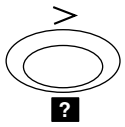


1 Press the **MENU** key.

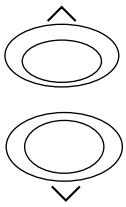


2 Press the ^ or v key repeatedly until `Font >` appears.

```
Font            >
  Internal
```

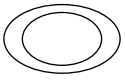


3 Check that `Internal` is displayed and press the > key.



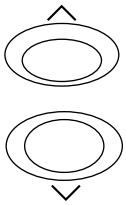
4 Press the ^ or v key repeatedly until `>Pitch` appears.

```
>Pitch
      10.00 cpi
```



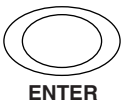
5 Press the **ENTER** key. A blinking cursor (_) appears.

```
>Pitch
      10.00 cpi
```

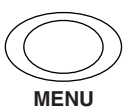


6 Press the ^ or v key to increase or decrease the value of the figure where the cursor is blinking. The character pitch can be set between 0.44 and 99.99 characters per inch, in 0.01 character-per-inch increments. You can use the > or < keys to move the cursor right and left.

If you want to abandon the setting procedure, press the **CANCEL** key.

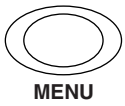


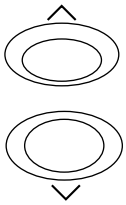
7 When the desired size is displayed, press the **ENTER** key.

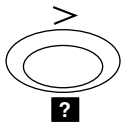


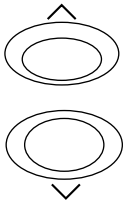
8 Press the **MENU** key. The message display returns to `Ready`.

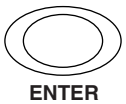
>List of Fonts











Printing a List of Fonts

To help in selecting fonts, you can print a list of the fonts including option fonts.

1 Press the **MENU** key.

2 Press the ^ or v key repeatedly until `Font >` appears.

```
Font              >
  Internal
```

3 To print a list of the internal fonts, check that `Internal` is displayed and press the > key. To print a list of option fonts, display `Option` and press the > key.

4 Press the ^ or v key repeatedly until `>List of Fonts` appears.

```
>List of Fonts
```

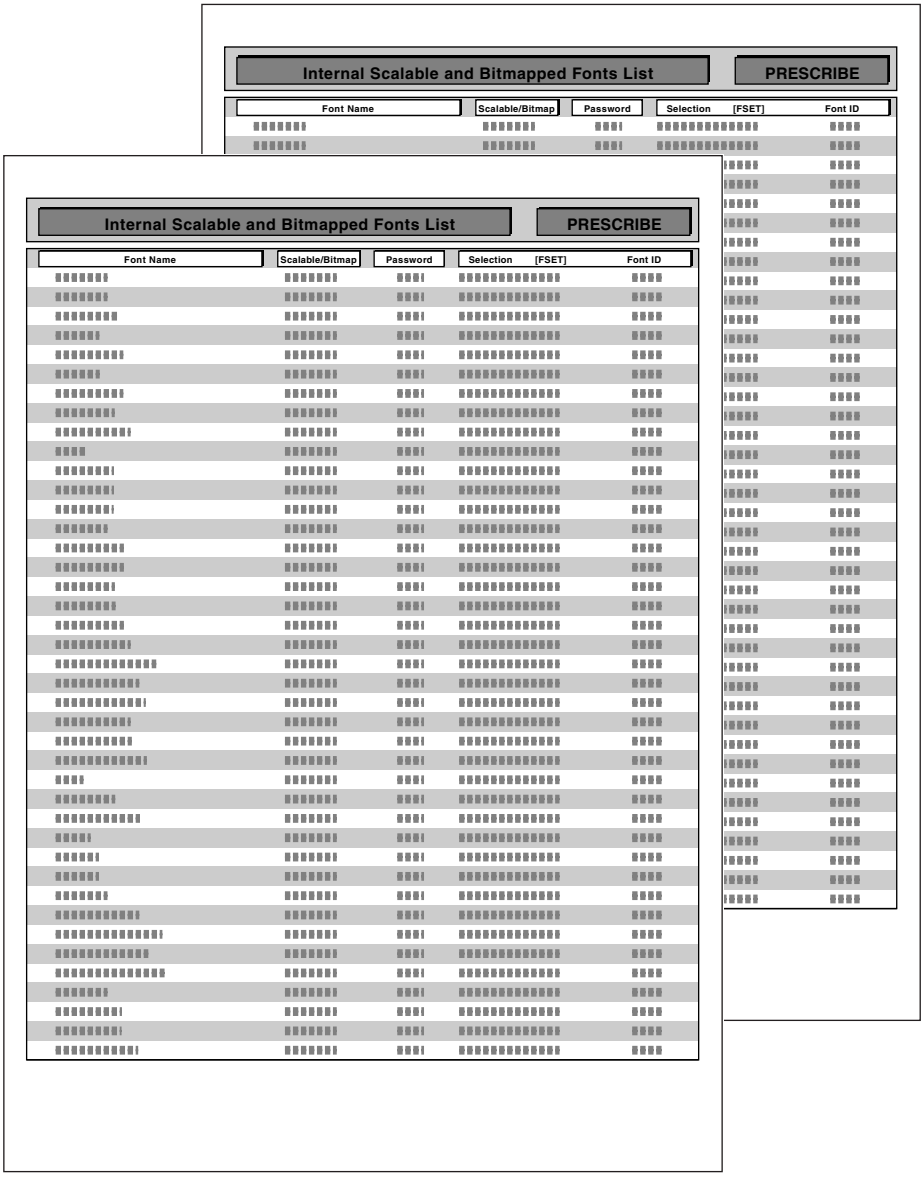
5 Press the **ENTER** key. A question mark (`?`) appears.

```
>List of Fonts ?
```

If you want to abandon printing procedure, press the **CANCEL** key.

6 Press the **ENTER** key again. `Processing` appears, then `Ready`. The printer prints a list of fonts with a short sample and font ID (number) for each font.

List of Fonts



Using Page Set Menus

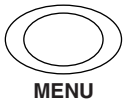
```
Page Set        >
```

In `Page Set` menus, you can set the number of copies, the page orientation, and other settings regarding pagination.

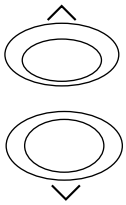
```
>Copies
```

Setting the Number of Copies

You can set the number of copies to be printed of each page for the current interface. The number of copies can be set between `1` and `999`. The number of copies can be set whenever the message display indicates `Ready`.

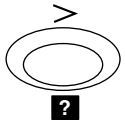


1 Press the **MENU** key.

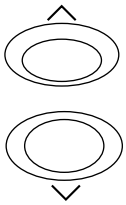


2 Press the ^ or v key repeatedly until `Page set >` appears.

```
Page Set        >
```

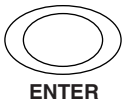


3 Press the > key.



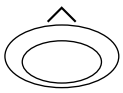
4 Press the ^ or v key repeatedly until `>Copies` appears.

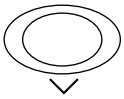
```
>Copies
               001
```



5 Press the **ENTER** key. A blinking cursor (_) appears.

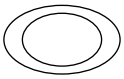
```
>Copies
               001
```



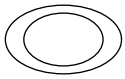


6 Press the ∧ or ∨ key to increase or decrease the value of the figure where the cursor is blinking. It can be set between 1 and 999. You can use the > and < keys to move the right and left.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 When the desired size is displayed, press the **ENTER** key.

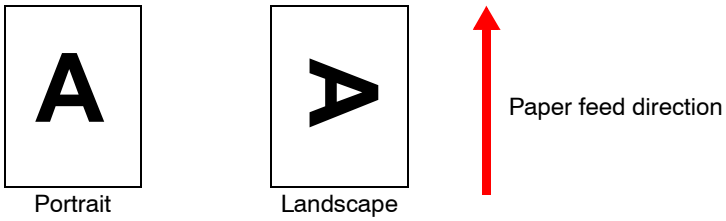


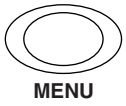
8 Press the **MENU** key. The message display returns to `Ready`.

>Orientation

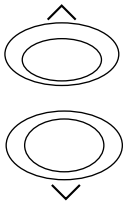
Selecting the Printing Orientation

You can select the portrait (upright) or landscape (sideways) page orientation. The page orientation can be set whenever the message display indicates `Ready`.



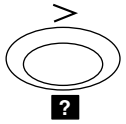


1 Press the **MENU** key.

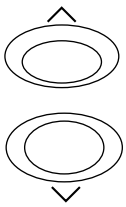


2 Press the ^ or v key repeatedly until `Page Set >` appears.

Page Set >

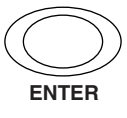


3 Press the > key.



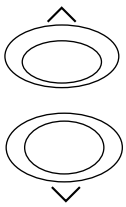
4 Press the ^ or v key repeatedly until `>Orientation` appears.

>Orientation   Portrait



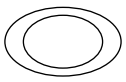
5 Press the **ENTER** key. A blinking question mark (`?`) appears.

>Orientation ? Portrait

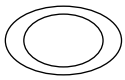


6 Select `Portrait` or `Landscape` using the ^ or v key.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.

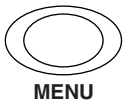


8 Press the **MENU** key. The message display returns to `Ready`.

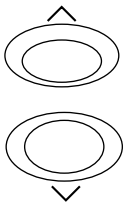
```
>Page Protect
```

Page Protect Mode

Although `Auto` is the default setting and this menu does not usually appear, `Page Protect` will be forcibly set to `On` if a `Print overrun Press GO` error occurs due to insufficient printer memory. Be sure to return this setting to `Auto` in order to maintain high printer memory efficiency. This can be done as follows.

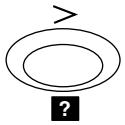


1 Press the **MENU** key.

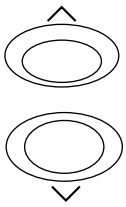


2 Press the ^ or v key repeatedly until `Page set >` appears.

```
Page set       >
```

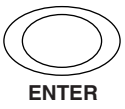


3 Press the > key.



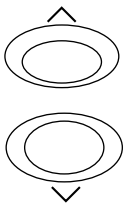
4 Press the ^ or v key repeatedly until `>Page Protect` appears.

```
>Page Protect
  On
```



5 Press the **ENTER** key. A blinking question mark (`?`) appears.

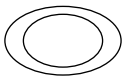
```
>Page Protect
? On
```



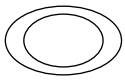
6 Press the ^ or v key repeatedly until `Auto` appears.

```
>Page Protect
? Auto
```

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.

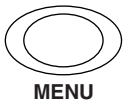


8 Press the **MENU** key. The message display returns to `Ready`.

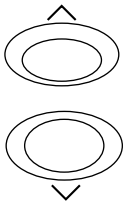
>LF Action

Linefeed (LF) Action

This procedure instructs the printer what to do when it receives a linefeed code (character code 0AH).

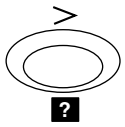


1 Press the **MENU** key.

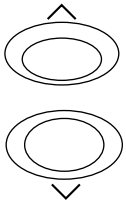


2 Press the ^ or v key repeatedly until `Page set >` appears.

Page set >

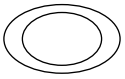


3 Press the > key.



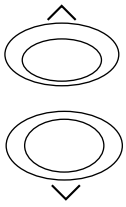
4 Press the ^ or v key repeatedly until `>LF Action` appears.

>LF Action   LF only



5 Press the **ENTER** key. A blinking question mark (`?`) appears.

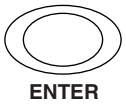
>LF Action ? LF only



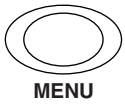
6 Press the ^ or v key repeatedly until desired linefeed action appears.

`LF only`	A linefeed is performed. (default)
`CR and LF`	A linefeed and carriage return are performed.
`Ignore LF`	The linefeed is ignored.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 When the desired action is displayed, press the **ENTER** key.

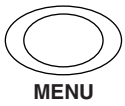


8 Press the **MENU** key. The message display returns to `Ready`.

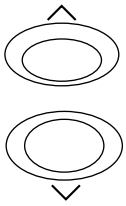
```
>CR Action
```

Carriage-Return (CR) Action

This procedure instructs the printer what to do when it receives a carriage-return code (character code 0DH)

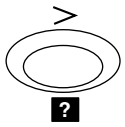


1 Press the **MENU** key.

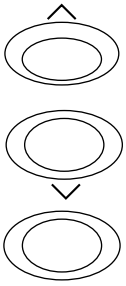


2 Press the ^ or v key repeatedly until `Page set >` appears.

```
Page set        >
```



3 Press the > key.

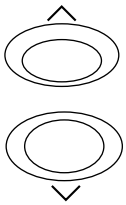


4 Press the ^ or v key repeatedly until `>CR Action` appears.

```
>CR Action
  CR only
```

5 Press the **ENTER** key. A blinking question mark (`?`) appears.

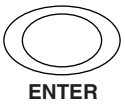
```
>CR Action
? CR only
```



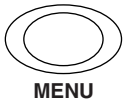
6 Press the ^ or v key repeatedly until desired carriage-return action appears.

`CR only`	A carriage-return is performed. (Default)
`CR and LF`	A carriage-return and linefeed are performed.
`Ignore CR`	The carriage-return code is ignored.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 When the desired action is displayed, press the **ENTER** key.

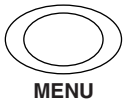


8 Press the **MENU** key. The message display returns to `Ready`.

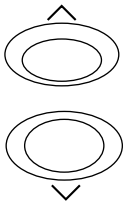
```
>Wide A4
```

Wide A4

Turn this to On to increase the maximum number of characters that can be printed in a line for A4 page (78 characters at 10 pitch) and Letter size page (80 characters at 10 pitch). This setting is effective in only PCL 6 emulation.

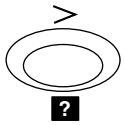


1 Press the **MENU** key.

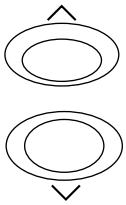


2 Press the ∧ or ∨ key repeatedly until Page set > appears.

```
Page set       >
```

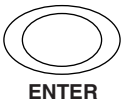


3 Press the > key.



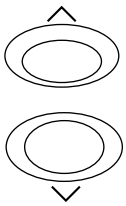
4 Press the ∧ or ∨ key repeatedly until >Wide A4 appears.

```
>Wide A4
  Off
```



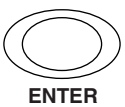
5 Press the **ENTER** key. A blinking question mark (?) appears.

```
>Wide A4
? Off
```

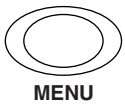


6 Select On or Off using the ∧ or ∨ key.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.



8 Press the **MENU** key. The message display returns to Ready.

Setting the Print Quality

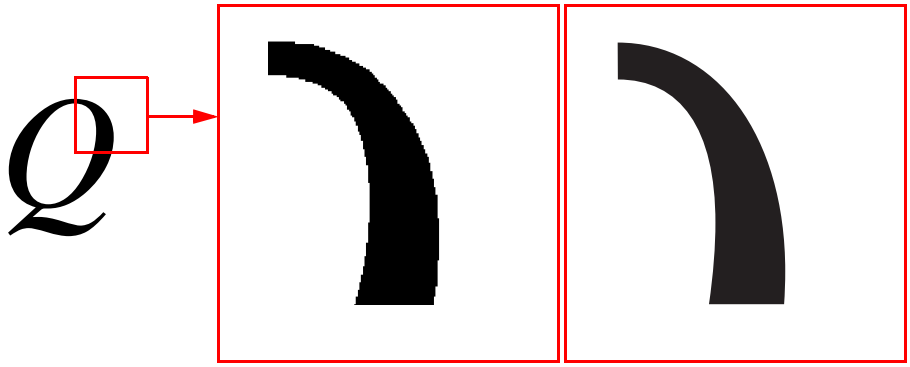
```
Print Quality  >
```

You can make the following settings to enhance the print quality: Kyocera Image Refinement (KIR), a software algorithm for increasing printout quality; Ecoprint, a printing mode that reduces toner consumption during printing; printing resolution; and Adjustment of the Print Density.

```
>KIR Mode
```

KIR (Kyocera Image Refinement)

This printer incorporates the KIR (Kyocera Image Refinement) smoothing function. At resolutions of Fast 1200 mode, 600 dpi, and 300 dpi, this function provides high print quality by providing software enhancement of print resolution. The function does not operate at Fine 1200 mode because that is the maximum resolution attainable by the print engine.



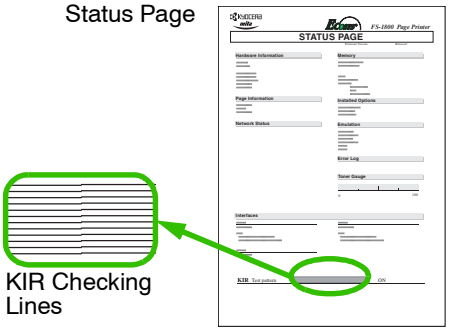
With KIR `Off` | With KIR `On` (default)

Note

Set the print density to `3` when setting the KIR mode. For details on print density, see page *1-75*.

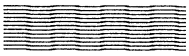
You can look at the check line, the last line on a status page, to make the optimum KIR mode setting.

Status Page



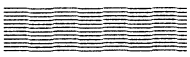
Optimized stripes

The current KIR setting is optimal.



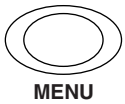
Dark vertical stripes

Set the KIR mode to `Off`. Try printing the status page again. If you still get dark vertical stripes, adjust the print density control to a lighter setting.



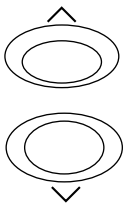
White vertical stripes

Set the KIR mode to `On`. Try printing the status page again. If you still get white vertical stripes, adjust the print density control to a darker setting.



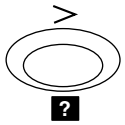
MENU

1 Press the **MENU** key.

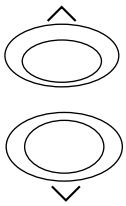


2 Press the ∧ or ∨ key repeatedly until `Print Quality >` appears.

```
Print Quality  >
```

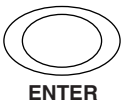


3 Press the > key.



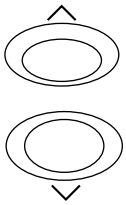
4 Press the ∧ or ∨ key repeatedly until `>KIR Mode` appears.

```
>KIR Mode
  On
```



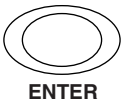
5 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>KIR Mode
? On
```

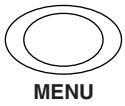


6 Select `On` or `Off` using the ∧ or ∨ key.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.



8 Press the **MENU** key. The message display returns to `Ready`.

>Ecoprint Mode

Ecoprint

The Ecoprint enables you to reduce the amount of toner consumed on the page so as to save your printing costs. You can set to Ecoprint mode on, as follows. (The factory default setting is Off.)

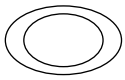
The Ecoprint mode setting is On when the printing image becomes lighter, yet very readable.

Ecoprint setting is Off (default).

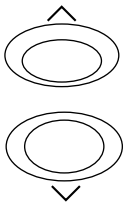
Ecoprint setting is On

Note

The Ecoprint setting has no effect on the print speed.

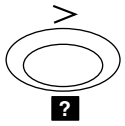


1 Press the **MENU** key.

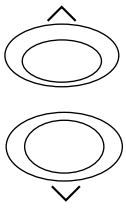


2 Press the ∧ or ∨ key repeatedly until Print Quality > appears.

```
Print Quality  >
```

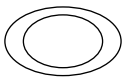


3 Press the > key.



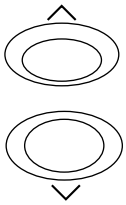
4 Press the ∧ or ∨ key repeatedly until >Ecoprint Mode appears.

```
>Ecoprint Mode
  Off
```



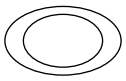
5 Press the **ENTER** key. A blinking question mark (?) appears.

```
>Ecoprint Mode
? Off
```

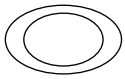


6 Select On or Off using the ^ or v key.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.

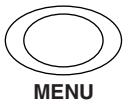


8 Press the **MENU** key. The message display returns to Ready.

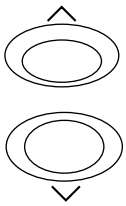
```
>Resolution
```

Resolution

You can set the default print resolution in four ways — `300 dpi`, `600 dpi`, `Fast 1200 mode`, and `Fine 1200 mode`. The clarity of printed characters and graphics becomes sharper in this order. `Fine 1200 mode` renders optimum print quality but requires more printer memory and increase the time it takes up to print a job.

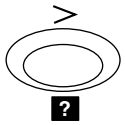


1 Press the **MENU** key.

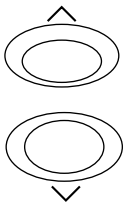


2 Press the ∧ or ∨ key repeatedly until `Print Quality >` appears.

```
Print Quality  >
```

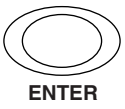


3 Press the > key.



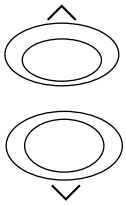
4 Press the ∧ or ∨ key repeatedly until `>Resolution` appears.

```
>Resolution
  Fast 1200 mode
```



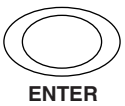
5 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>Resolution
? Fast 1200 mode
```

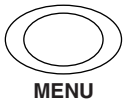


6 Select `Fast 1200 mode`, `Fine 1200 mode`, `300 dpi` or `600 dpi` using the ∧ or ∨ key.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.

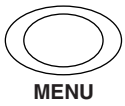


8 Press the **MENU** key. The message display returns to `Ready`.

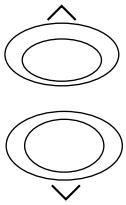
>Print Density

Adjusting the Print Density

The print density can be adjusted in five steps: from 01 (light) to 05 (dark). The factory setting is 03.

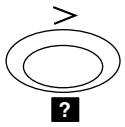


1 Press the **MENU** key.

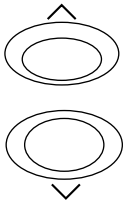


2 Press the ∧ or ∨ key repeatedly until Print Quality > appears.

```
Print Quality  >
```

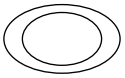


3 Press the > key.



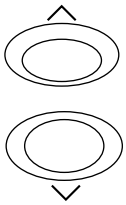
4 Press the ∧ or ∨ key repeatedly until >Print Density appears.

```
>Print Density
  03
```



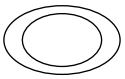
5 Press the **ENTER** key. A blinking question mark (?) appears.

```
>Print Density
? 03
```

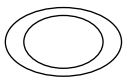


6 Select the print density from five steps from 01 (light) to 05 (dark) using the ∧ or ∨ key.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.



8 Press the **MENU** key. The message display returns to Ready.

Operating a CompactFlash (Memory) Card

```
Memory Card    >
```

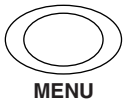
The printer is equipped with a slot for a CompactFlash card. By inserting a CompactFlash card into the printer, the following operations become available. For details about the handling of the CompactFlash card, see ***Appendix D***.

- Reading font
- Reading data
- Writing data
- Deleting data
- Formatting a CompactFlash card
- Print a list of data names

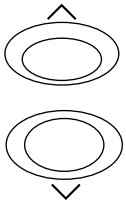
Reading Fonts

If a CompactFlash card is already inserted into the slot when the printer is turned on, the fonts are automatically read into the printer.

To re-read fonts into the printer from a CompactFlash card, proceed as follows.

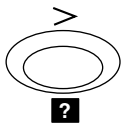


1 Press the **MENU** key.

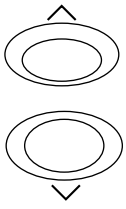


2 Press the ^ or v key repeatedly until `Memory Card >` appears.

```
Memory Card    >
```

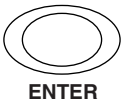


3 Press the > key.



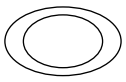
4 Press the ^ or v key repeatedly until `>Read fonts` appears.

```
>Read fonts
```



5 Press the **ENTER** key. A question mark (`?`) appears.

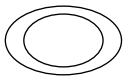
```
>Read fonts ?
```



6 Press the **ENTER** key. `Processing` appears and the reading of fonts from the CompactFlash card starts.

If you want to abandon the reading of fonts, press the **CANCEL** key.

7 When the reading of fonts ends, the message display returns to `>Read fonts`.

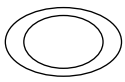


8 Press the **MENU** key. The message display returns to `Ready`.

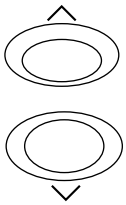
Reading Data

Data stored on a CompactFlash card can be read.

To read data on a CompactFlash card, proceed as follows.

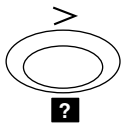


1 Press the **MENU** key.

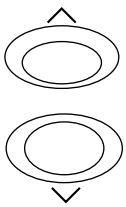


2 Press the ∧ or ∨ key repeatedly until `Memory Card >` appears.

```
Memory Card    >
```

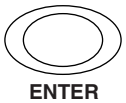


3 Press the > key.



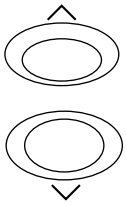
4 Press the ∧ or ∨ key repeatedly until `>Read Data` appears. The data name also appears.

```
>Read Data
 data name
```



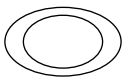
5 Press the **ENTER** key. A blinking question mark (`?`) appears before the data name.

```
>Read Data
?data name
```



6 Press the ∧ or ∨ key to display the desired data name.

If you want to abandon the reading of data, press the **CANCEL** key.



7 Press the **ENTER** key. `Processing` appears and the reading of data from the CompactFlash card starts.

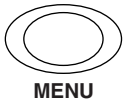
Writing Data

Data can be written to a CompactFlash card until no space is left for storing. When writing to a CompactFlash card, a name is assigned to the file automatically. You can use the procedure explained later in this section to print a list of data names for confirmation.

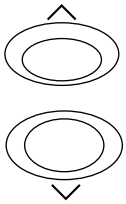
To write data to a CompactFlash card, proceed as follows.

First check that the CompactFlash card is properly formatted. Otherwise, the `>Write Data` message to be explained below will not be shown on the message display.

If the card inserted in the CompactFlash card slot is not formatted, the `>Format` option will automatically appear on the display. See *Formatting* on page *1-82* and format the memory card.

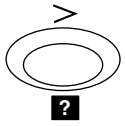


1 Press the **MENU** key.

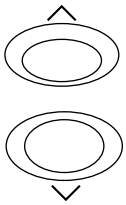


2 Press the ∧ or ∨ key repeatedly until `Memory Card >` appears.

```
Memory Card     >
```

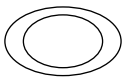


3 Press the > key.



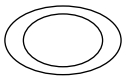
4 Press the ∧ or ∨ key repeatedly until `>Write Data` appears.

```
>Write Data
```



5 Press the **ENTER** key. A question mark (?) appears.

```
>Write Data ?
```



6 Press the **ENTER** key. `Processing` appears, then `Waiting`. If you want to abandon writing, press the **CANCEL** key.

7 In this state, send the file from the computer to the printer as in the example below.

Example:

To send the file (data) *TEST.TXT* on drive C, enter the following at the DOS prompt (C:\):

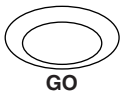
```
COPY TEST.TXT PRN
```

The file is written onto the memory card given a destination name (also referred to as a partition name) which the printer automatically assigns one after another as follows:

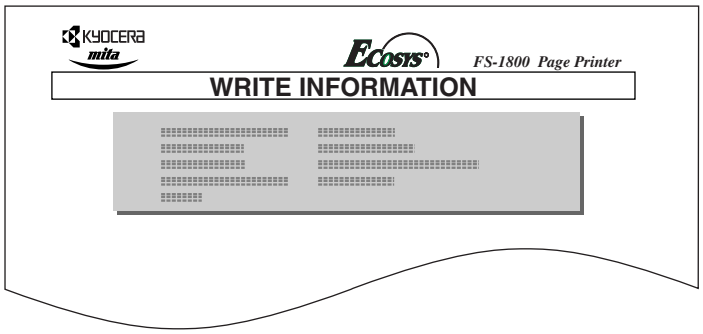
DataS001 (first data), DataS002 (second data),
DataS003 (third data)...

In the example above, if the file *TEST.TXT* is the first data to be written onto the memory card, the destination name will be *DataS001*.

As the printer receives data, the message display changes to `Processing`, then when the end of the data is received, the message display changes to `Waiting`.



8 Check that the message display has changed to `Waiting`, then press the **GO** key. This writes the file to the memory card and instructs the printer to automatically print out a CompactFlash card write information page as shown below.



Partition Type. Type of data written (currently only type 2 is supported).
Partition Name. The destination name of data written to the card.
Write Partition Length. The size of the written data on the CompactFlash card.
Others. Error information.

When the CompactFlash card write information page is printed, the message display returns to `Ready`.

If the writing was not completed successfully, an error code appears on the message display. For details, see section ***3.3.3 Error Messages*** on page ***3-10***. If this happens, press the **GO** key. The message display returns to `Ready`.

9 Repeat above steps until you have transferred all data (files) that you want to write to the CompactFlash card. Each time you finish writing data, a CompactFlash card write information page is printed from the printer showing the information explained in step 4 above, but pertaining only to the data just written. To see all data contained in the CompactFlash card at once, print a list of data names as explained on page ***1-83***, ***Printing a List of Data Names***.

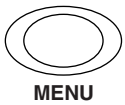
Deleting Data

It is possible to use the printer to delete data from a CompactFlash card one by one.

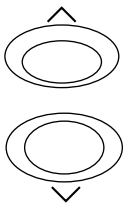
To delete data from a CompactFlash card, proceed as follows.

Check that the CompactFlash card contains data.

Otherwise, the `>Delete Data` menu will not that appear on the message display.

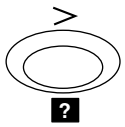


1 Press the **MENU** key.

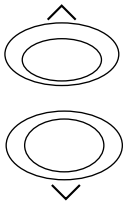


2 Press the ∧ or ∨ key repeatedly until `Memory Card >` appears.

```
Memory Card     >
```

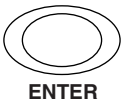


3 Press the > key.



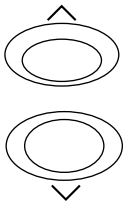
4 Press the ∧ or ∨ key repeatedly until `> Delete Data` appears. The data name also appears.

```
>Delete Data
 data name
```



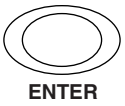
5 Press the **ENTER** key. A blinking question mark (`?`) appears before the data name.

```
>Delete Data
?data name
```



6 Press the ∧ or ∨ key to display the desired data name.

If you want to abandon the deleting of data, press the **CANCEL** key.



7 Press the **ENTER** key. `Processing` appears and the data is deleted from the CompactFlash card.

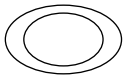
Formatting

Formatting allows data to be written to the card. A new CompactFlash card must be formatted before it can be used in the printer.

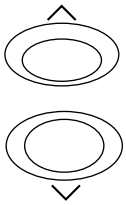
Note

Formatting destroys any existing data on the CompactFlash card.

To format a CompactFlash card, proceed as follows.

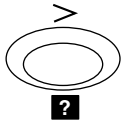


1 Press the **MENU** key.

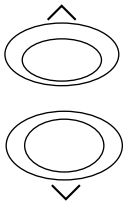


2 Press the ∧ or ∨ key repeatedly until `Memory Card >` appears.

```
Memory Card     >
```

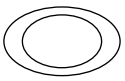


3 Press the > key.



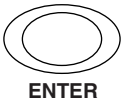
4 Press the ∧ or ∨ key repeatedly until `>Format` appears.

```
>Format
```



5 Press the **ENTER** key. A question mark (`?`) appears.

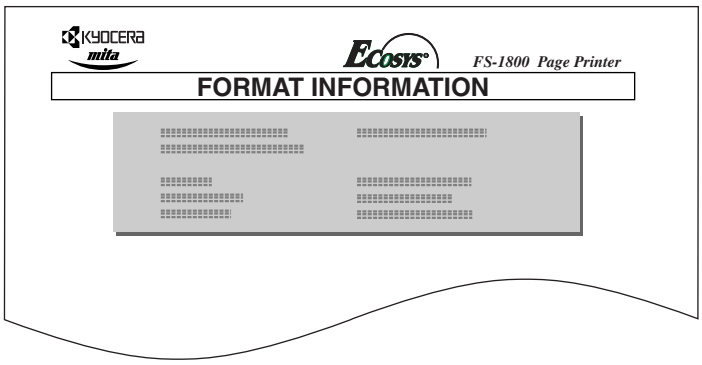
```
>Format ?
```



6 Press the **ENTER** key. `Processing` appears and formatting of the CompactFlash card starts.

If you want to abandon formatting, press the **CANCEL** key.

When the formatting is successfully completed, the printer automatically prints out a format information page as shown below.



Capacity. The total size of the CompactFlash card memory.
Used Space. The size the printer uses for its system.
Free Space. The size remaining in the CompactFlash card for storing data.

When the CompactFlash card format information is printed, the message display returns to `Ready`.

Printing a List of Data Names

The printer prints a list of all data names (referred to as partitions) stored in a memory card for reference. (Printing a list is also available for a font card.)

To print a list of data names for the CompactFlash card, proceed as follows.

1. Press the **MENU** key.
2. Press the ∧ or ∨ key repeatedly until `Memory Card >` appears.

```
Memory Card     >
```

3. Press the > key.
4. Press the ∧ or ∨ key repeatedly until `>List of Partitions` appears.

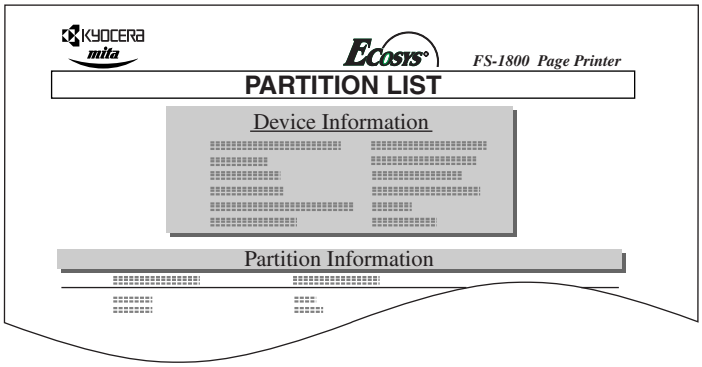
```
>List of
 Partitions
```

5 Press the **ENTER** key. A question mark (?) appears.

```
>List of
 Partitions ?
```

If you want to abandon the printing of the list, press the **CANCEL** key.

6 Press the **ENTER** key. Processing appears and the printing of the list starts.



The printout (example above) includes the following information.

Device Name/Number. CARD/A is indicated for the CompactFlash card.
Capacity. The total capacity of the memory card in bytes.
Used Space. The total size of the data stored in the CompactFlash card in bytes.
Free Space. The size of the capacity remaining in the CompactFlash card for storing further data, including the amount of memory that the printer uses for its system.
Partition Name. The name of the written data as assigned automatically by the printer.
Partition Size. The size of the written data in bytes.
Partition Type. The type of the written data i.e., whether it is host data (Data) or font data (Font).

When the list of file names (partition list) for the CompactFlash card is printed, the message display returns to Ready.

Operating the Microdrive (Hard Disk)

```
Hard Disk       >
```

By installing the option Microdrive into the printer, the *e-MPS* function can be used. The printer's menu selection system allows you to perform the following operations on the Microdrive. For details, see ***3.4 e-MPS*** in ***Printer Driver Guide***).

- Reading data
- Writing data
- Deleting data
- Printing of list of partitions

The procedures are the same as that for the `Memory Card` menu. See ***Operating a CompactFlash (Memory) Card*** on page ***1-76***.

Setting the RAM Disk

```
RAM Disk Mode  >
```

The RAM disk is a memory space shared within the printer memory that can temporarily store print jobs. The RAM disk can be used only for electronic sorting. The stored print job can then be used to print multiple copies of the job reducing the total amount of period required to print the whole job. It acts similar to the Microdrive except that the data is effective only during the printer is powered up.

To use RAM disk, the following two conditions apply:

- Total printer memory is 12 MB or more.
- The Microdrive is not physically installed.

The maximum size of RAM disk should be calculated as follows:

Maximum RAM size = Total printer memory - 9 MB

For example, if the total memory installed in your printer is 12 MB, you can set 3 MB RAM disk using the manner explained below. If you attempt to set a memory size beyond this restriction, the printer automatically round it down so that the size is always 9 MB less than the total printer memory. Once the RAM disk size is set, the printer must be reset.

To activate RAM disk in the printer's memory, first you must use the printer's menu selection system.

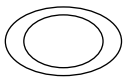
The printer's menu selection system allows you to perform the following operations on the Microdrive.

- Reading data
- Writing data
- Deleting data
- Printing a list of data names

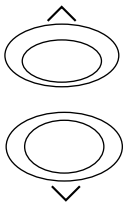
The procedures are the same as that for the `Memory Card` menu. See ***Operating a CompactFlash (Memory) Card*** on page ***1-76***.

Note

- **The RAM disk is set from the printer's user memory. The printer's printing speed may therefore drop or insufficient memory errors result depending on the value of the RAM disk setting.**
- **RAM disk functions cannot be used if an option Microdrive is installed.**

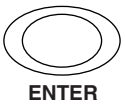


1 Press the **MENU** key.



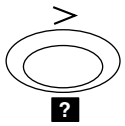
2 Press the ∧ or ∨ key repeatedly until `RAM Disk Mode >` appears.

```
RAM Disk Mode  >
  Off
```



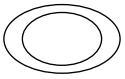
3 The default setting is `Off`. Press the **ENTER** key. A blinking question mark (`?`) appears. Select `On` using the ∧ or ∨ key, and then press the **ENTER** key.

```
RAM Disk Mode  >
? Off
```



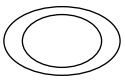
4 Press the > key to display `>RAM Disk Size`.

```
>RAM Disk Size
           Mbyte
```



5 Press the **ENTER** key again, and change the RAM disk size using the ∧ or ∨ key. It is not possible to make a setting that exceeds total printer memory. The default value for the RAM disk is the total printer memory minus 9 MB. This parameter may be set anywhere from `01` to `99` depending on the available printer memory.

If you want to abandon the setting, press the **CANCEL** key.



6 When the desired RAM disk size is displayed, press the **ENTER** key.

7 Press the **CANCEL** key and restart the printer. The setting will be activated after restart.

Paper Handling

```
Paper Handling >
```

```
>MP Tray Mode
```

You can change the MP tray mode, the paper size and type for each paper source, the sorter mode, the paper source, and paper destinations.

MP Tray Mode

The MP tray can be used in one of two modes: first mode or cassette mode. The MP tray can hold approximately 100 sheets of paper (A4 size, 0.11 mm thickness).

Note

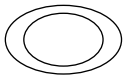
The maximum capacity for the MP tray of 100 sheets is based on A4 paper. If you use Legal size paper on the MP tray, the number of paper you use should be considerably smaller than 100 sheets to avoid possible paper jam.

First Mode (Automatic Manual Feeding)

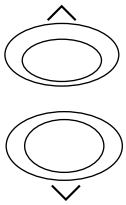
The printer automatically feeds any paper placed on the MP tray even if another paper source is selected. After all paper in the MP tray is printed, paper will be fed from the paper source originally selected. (This is the factory default setting.)

Cassette Mode

The cassette mode provides faster printing speed than the first mode. Approximately 100 sheets of paper can be continuously fed in this mode.

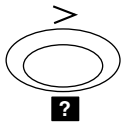


1 Press the **MENU** key.

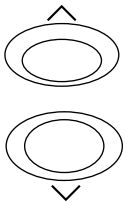


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

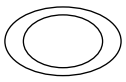


3 Press the > key.



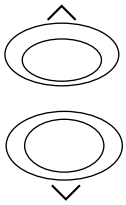
4 Press the ∧ or ∨ key repeatedly until `>MP Tray Mode` appears.

```
>MP Tray Mode
  First
```



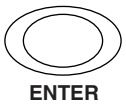
5 Press the **ENTER** key. A blinking question mark (?) appears.

```
>MP Tray Mode
? First
```

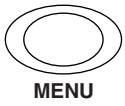


6 Select `First` or `Cassette` using the ^ or v key .

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.



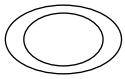
8 Press the **MENU** key. The message display returns to `Ready`.

```
>MP Tray Size
  A4
```

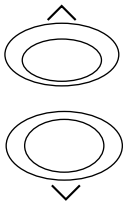
Setting the MP Tray Size

When using the MP tray in the cassette mode, you should set the MP tray size to the paper size that is used to format the job to print. If they do not match, printing will not be made on the correct size paper when automatic paper size selection is made by the application (printer driver). The factory default setting is A4 or Letter.

For more details about the paper sizes that can be fed from the MP tray, see ***Chapter 4***.

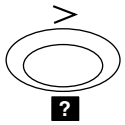


1 Press the **MENU** key.

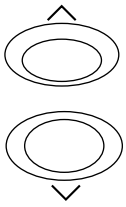


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

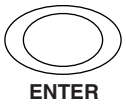


3 Press the > key.



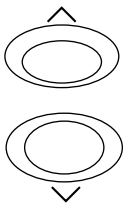
4 Press the ∧ or ∨ key repeatedly until `>MP Tray Size` appears.

```
>MP Tray Size
  A4
```



5 Press the **ENTER** key. A blinking question mark (`?`) appears.

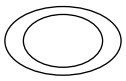
```
>MP Tray Size
? A4
```



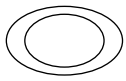
6 Press the ∧ or ∨ key to display the desired MP tray size. The display changes as shown below.

```
A4
Executive
Letter
Legal
Custom
Hagaki
Oufukuhagaki
Monarch
Business
Comm. #9
Comm. #6 3/4
DL
C5
A6
B6
A5
B5
ISO B5
```

If you want to abandon the selection, press the **CANCEL** key.



7 Press the **ENTER** key.



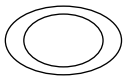
8 Press the **MENU** key. The message display returns to `Ready`.

>MP Tray Type

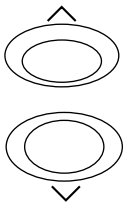
Setting the MP Tray Type

You can automatically select the paper cassette according to the selection made by the application (printer driver). The factory default setting is `Plain`.

For more details about the paper types that can be fed from the MP tray, see ***Chapter 4***.

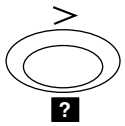


1 Press the **MENU** key.

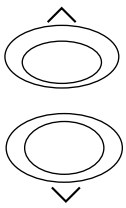


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

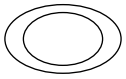


3 Press the > key.



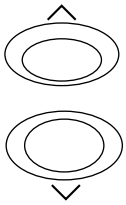
4 Press the ∧ or ∨ key repeatedly until `>MP Tray Type` appears.

```
> MP Tray Type
  Plain
```



5 Press the **ENTER** key. A blinking question mark (`?`) appears.

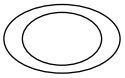
```
> MP Tray Type
? Plain
```



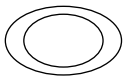
6 Press the ^ or v key to display the desired MP tray type. The display changes as shown below.

```
Plain
Transparency
Preprinted
Labels
Bond
Recycled
Vellum
Rough
Letterhead
Color
Prepunched
Envelope
Cardstock
Custom (1 to 8)
```

If you want to abandon the selection, press the **CANCEL** key.



7 When the desired MP tray type is displayed, press the **ENTER** key.



8 Press the **MENU** key and the message display returns to `Ready`.

>Cassette Size >

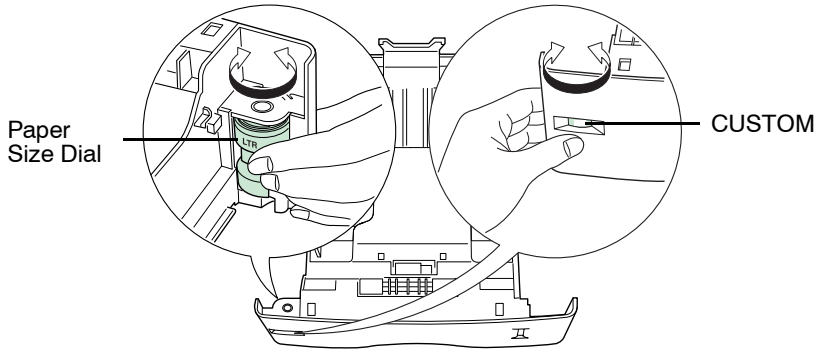
Custom Paper Size Setting

In addition to the standard sizes A5, A4, B5, and Letter for the paper cassette, paper of other sizes can be fed as custom sizes. When placing paper of sizes other than A5, A4, B5, or Letter into the paper cassette, set the size of the paper to be used into the printer by following the procedure given below. If an option paper feeder (PF-60) is installed, custom sizes for its paper cassette can be set using the same procedure.

This menu appears when the paper size dial of the paper cassette is set to **CUSTOM**.

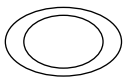
Properly set the paper into the paper cassette. For details about the adjustment of the paper guides and paper stopper inside the paper cassette, see the ***Installation Manual*** supplied with the printer.

1 Pull out the paper cassette from the printer and turn the paper size dial to **CUSTOM**.

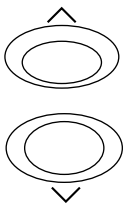


2 Adjust the paper guides and paper stopper inside the paper cassette to the size of the paper to be used and load the paper into the cassette.

Set the size of the paper loaded in the paper cassette into the printer from the printer operator panel.

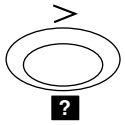


3 Press the **MENU** key.

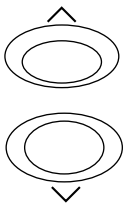


4 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

Paper Handling >



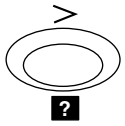
5 Press the > key.



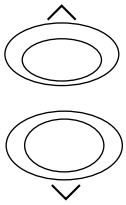
6 Press the ∧ or ∨ key repeatedly until `>Cassette Size >` appears.

If option paper feeders are added, `Cassette 1 Size` will appear for the standard paper cassette and `Cassette 2 Size`, `Cassette 3 Size`, and `Cassette 4 Size` will appear for the option paper feeders.

```
>Cassette Size >
```

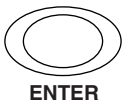


7 Press the > key.



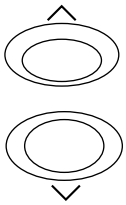
8 Press the ∧ or ∨ key repeatedly until `>>Unit` appears. The unit of measurement can be selected between millimeters and inches. The current unit of measurement is displayed (the default setting is `mm`).

```
>>Unit
  mm
```



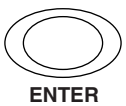
9 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>>Unit
? mm
```

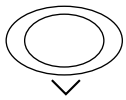


10 Select `mm` or `inch` using the ∧ or ∨ key.

If you want to abandon the selection, press the **CANCEL** key.

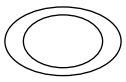


11 Press the **ENTER** key.



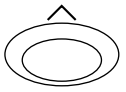
12 When the unit of measurement is set, press the ∨ key.
`>>X Dimension` appears as shown below (the paper width setting).

```
>>X Dimension
          216 mm
```


ENTER

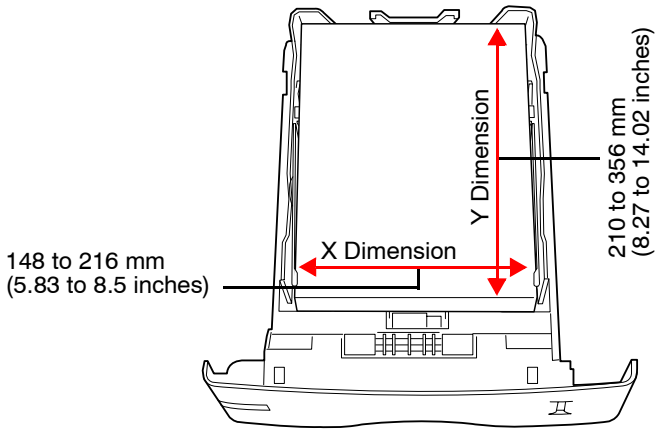
13 Press the **ENTER** key. A blinking cursor (_) appears.

```
>>X Dimension
           216 mm
```

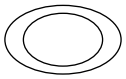


14 Press the ∧ or ∨ key to increase or decrease the value of the figure where the cursor is blinking and display the desired width. The width can be set between 148 and 216 mm (5.83 to 8.5 inches). You can use the **>** and **<** keys to move the cursor right and left.

Enter the paper size for X Dimension and Y Dimension as shown in the figure.

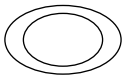


If you want to abandon the setting procedure, press the **CANCEL** key.

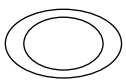

ENTER

15 Display the paper width and press the **ENTER** key.

16 When the width is set, press the ∨ key. >>Y Dimension appears (the paper length setting). Set the desired length in the same way as the width. The length can be set between 210 and 356 mm (8.27 to 14.02 inches).


ENTER

17 Display the paper length, press the **ENTER** key.


MENU

18 Press the **MENU** key. The message display returns to Ready.

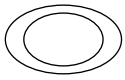
To print using the custom size set above, define the same custom size on the printer driver. For details, see ***3.1.1 Custom Size Setting*** in ***Printer Driver Guide***.

>Cassette Type

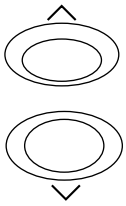
Setting the Cassette Paper Type

Make this setting to match the paper type fed from the paper cassette of the printer. If the paper type is set correctly, you can perform printing using the media type selection function from the application (printer driver). The factory default setting is `Plain`.

For more details about the paper types that can be fed from the paper cassette, see ***Chapter 4***.

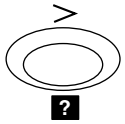


1 Press the **MENU** key.

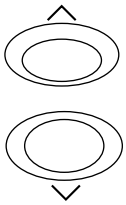


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

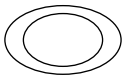


3 Press the > key.



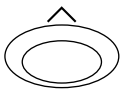
4 Press the ∧ or ∨ key repeatedly until `>Cassette Type` appears.

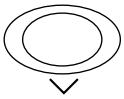
```
>Cassette Type
  Plain
```



5 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>Cassette Type
? Plain
```

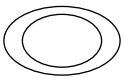




6 Press the ^ or v key to display the desired cassette type. The display changes as shown below.

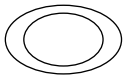
```
Plain
Preprinted
Bond
Recycled
Rough
Letterhead
Color
Prepunched
Custom(1 to 8)
```

If you want to abandon the selection, press the **CANCEL** key.



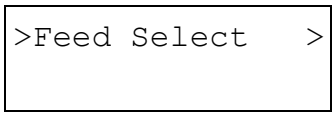
ENTER

7 When the desired cassette type is displayed, press the **ENTER** key.



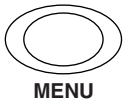
MENU

8 Press the **MENU** key. The message display returns to `Ready`.

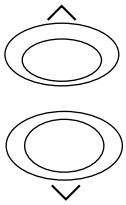


Selecting the Paper Source

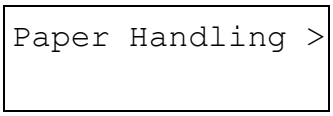
You can select from which paper source printing will be performed. If no option units are installed, the only selections are the paper cassette and MP tray of the printer. If option paper feeders are installed, they can also be selected.

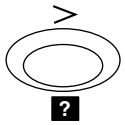


1 Press the **MENU** key.

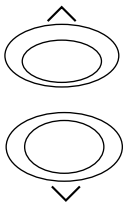


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

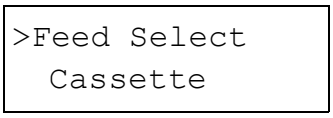


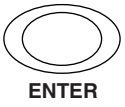


3 Press the > key.

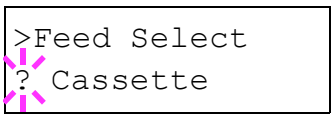


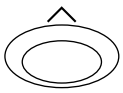
4 Press the ∧ or ∨ key repeatedly until `>Feed Select` appears.

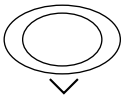




5 Press the **ENTER** key. A blinking question mark (`?`) appears.

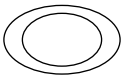




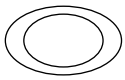


6 Press the ∧ or ∨ key to display the desired paper source. The display changes as shown below according to the installed option units.

`MP tray`	
`Cassette`	
`Cassette 1`	(Printer's standard paper cassette when option paper feeders are installed)
`Cassette 2`	(Paper cassette of the top option paper feeder)
`Cassette 3`	(Paper cassette of the second option paper feeder)
`Cassette 4`	(Paper cassette of the third option paper feeder)



7 When the desired paper source displayed, press the **ENTER** key.



8 Press the **MENU** key. The message display returns to `Ready`.

Setting Duplex Printing

To use this function, the duplexer must be installed on the printer.

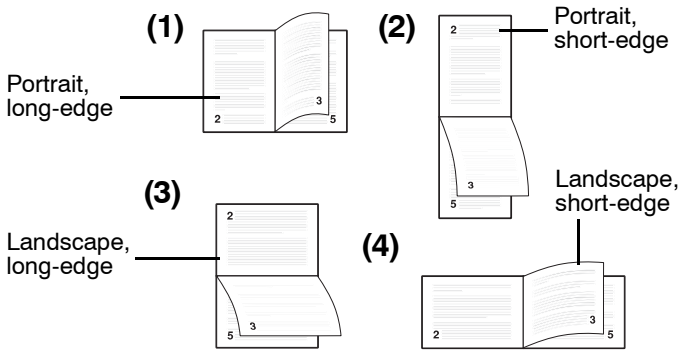
```
>Duplex Mode    >
```

Using the option duplexer (DU-60), you can automatically print on both sides of the paper. The duplexer is mounted underneath the printer. For details about the installation procedure, see ***Appendix D*** and the ***User's Manual*** supplied with the duplexer.

Binding Setups

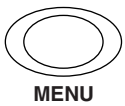
The term binding refers to the manner in which printed pages of paper are joined together when pages are joined together (by gluing, stitching, etc.) in book form. The two possible types of binding are long-edge binding, in which pages are joined together along their long edge; and short-edge binding, in which they are joined together along their short edge. In selecting a binding type, you must also consider the orientation of the printed page. You can use long-edge or short-edge binding with either landscape or portrait printing.

Depending on the binding type and print orientation, the duplexer provides four types of binding setups. These are: (1) portrait, long-edge, (2) portrait, short edge, (3) landscape, long-edge, and (4) landscape, short-edge. The figure below shows these binding setups.

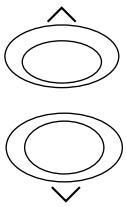


Binding Setups

To select duplex printing and binding setup from the operator panel, proceed as follows. This procedure can only be performed when the option duplexer (DU-60) is installed.

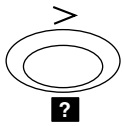


1 Press the **MENU** key.

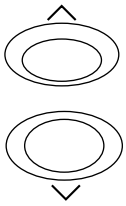


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

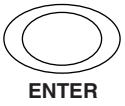


3 Press the > key.



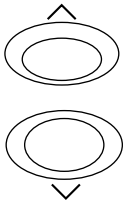
4 Press the ∧ or ∨ key repeatedly until `>Duplex Mode >` appears.

```
>Duplex Mode   >
  None
```



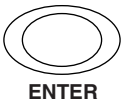
5 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>Duplex Mode   >
? None
```

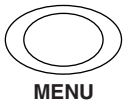


6 Press the ∧ or ∨ key to display the desired duplex mode. The display changes as shown below.

`None` (default)
`Short edge bind`
`Long edge bind`



7 When the desired duplex mode displayed, press the **ENTER** key.



8 Press the **MENU** key. The message display returns to `Ready`.

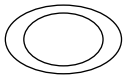
Duplex Printing from the MP tray

In first mode, be sure to set the MP tray to the same paper size and paper type as set for the current paper cassette. If the paper size or type differs, a paper jam may result. Also note that it is not possible to select the MP tray as the current paper cassette and perform duplex printing. We therefore recommend that duplex printing be performed from the paper cassette.

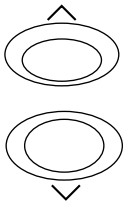
>Stack Select

Selecting the Output Device

You can select whether printouts will be received by the face-down output tray or to the face-up output tray. If an option sorter is installed, it can also be selected.

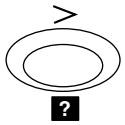


1 Press the **MENU** key.

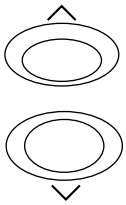


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

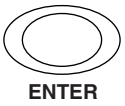


3 Press the > key.



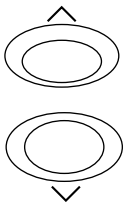
4 Press the ∧ or ∨ key repeatedly until `>Stack Select` appears.

```
>Stack Select
  Face-down tray
```



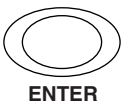
5 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>Stack Select
? Face-down tray
```

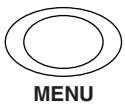


6 Press the ∧ or ∨ key to display the desired destination. The output tray changes as shown below.

`Face-down tray`	(Printer's face-down output tray) [Default]
`Face-up tray`	(Printer's face-up output tray) [Option face-up tray required]
`Option stacker`	(Displayed when option output device is installed such as SO-60)



7 When the desired paper source displayed, press the **ENTER** key.



8 Press the **MENU** key. The message display returns to `Ready`.

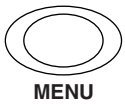
Selecting the Sorter Mode

To use this function, the sorter must be installed on the printer.

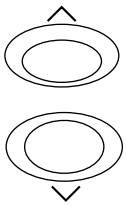
```
>Opt.StackerMode
```

If an option sorter (SO-60) is installed, you can have your printouts automatically sorted in three different ways when printing multiple copies of a document.

The sorter mode sorts the output pages by copy. This mode is useful when you need several independent copies of a document. The collator mode sorts the output pages by page. When multiple copies of a file are printed, all copies of a single page are delivered together to a single tray. The mail box mode simply stacks the printed pages into the sorter tray you desire without sorting the pages.

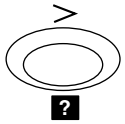


1 Press the **MENU** key.

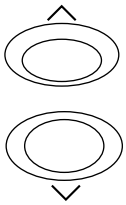


2 Press the ^ or v key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

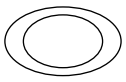


3 Press the > key.



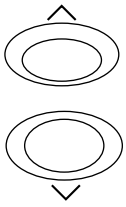
4 Press the ^ or v key repeatedly until `>Opt.StackerMode` appears.

```
>Opt.StackerMode
  Sorter
```



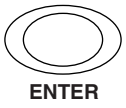
5 Press the **ENTER** key. A blinking question mark (?) appears.

```
>Opt.StackerMode
? Sorter
```

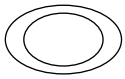


6 Press the ^ or v key to display the desired sorter mode. The display changes as shown below.

`Sorter` (default)
`Collater`
`Mail box`



7 When the desired sorter mode displayed, press the **ENTER** key.

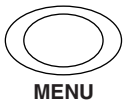


8 Press the **MENU** key. The message display returns to `Ready`.

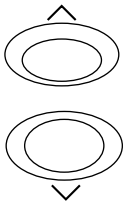
>Override A4/LT

Overriding A4 and Letter Size Difference

This selects whether to enable or disable the difference between A4 size and Letter size. Under the default setting of `Off`, the paper size of the paper source is matched to the paper size formatting the jobs. If these differ, a corresponding error message is displayed. When this is set to `On`, printing is performed even if the actual paper size differs from the paper size formatting the jobs.

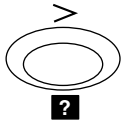


1 Press the **MENU** key.

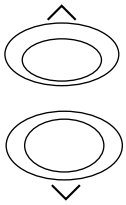


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

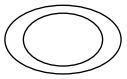


3 Press the > key.



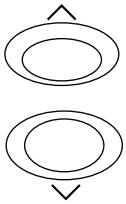
4 Press the ∧ or ∨ key repeatedly until `>Override A4/LT` appears.

```
>Override A4/LT
  Off
```

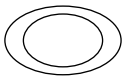


5 Press the **ENTER** key. A blinking question mark (`?`) appears.

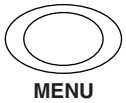
```
>Override A4/LT
? Off
```



6 Select `On` or `Off` using the ∧ or ∨ key.



7 Press the **ENTER** key.



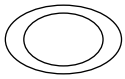
8 Press the **MENU** key. The message display returns to `Ready`.

```
>Type Adjust   >
```

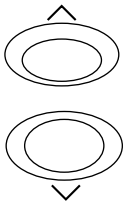
Customizing Paper Type

The following describes the procedure used to set a user-defined paper type for the printer. Eight custom user settings may be registered. After having been set, any of these may be called up when setting the paper type for a paper source.

The paper weight and duplex path can be set (see ***Setting the Paper Weight*** on page ***1-109***, and ***Setting the Duplex Path*** on page ***1-110***) after selecting the paper type to be customized as follows. For how to reset the customized settings, see ***Resetting the Type Adjust*** on page ***1-111***.

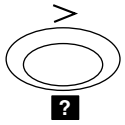


1 Press the **MENU** key.

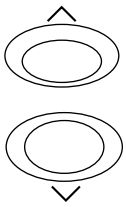


2 Press the ∧ or ∨ key repeatedly until `Paper Handling >` appears.

```
Paper Handling >
```

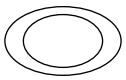


3 Press the > key.



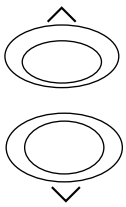
4 Press the ∧ or ∨ key repeatedly until `>Type Adjust >` appears.

```
>Type Adjust   >
  Custom 1
```



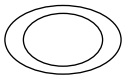
5 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>Type Adjust   >
? Custom 1
```

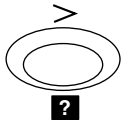


6 Press the ∧ or ∨ key to display the desired paper type. The display changes as shown below.

```
Custom (1 to 8)
Plain
Transparency
Preprinted
Labels
Bond
Recycled
Vellum
Rough
Letterhead
Color
Prepunched
Envelope
Cardstock
```



7 When the paper type to be customized is displayed, press the **ENTER** key.

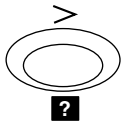


8 Press the > key and proceed to ***Setting the Paper Weight*** on the following page.

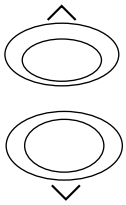
```
>>Paper Weight
```

Setting the Paper Weight

You can set the paper thickness for your custom paper type to be customized.

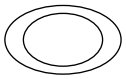


1 Display the custom paper type (see ***Customizing Paper Type*** on page ***1-107***) and press the > key.



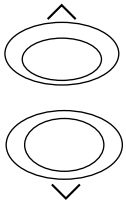
2 Press the ^ or v key repeatedly until `>>Paper Weight` appears.

```
>>Paper Weight
  Normal
```



3 Press the **ENTER** key. A blinking question mark (`?`) appears.

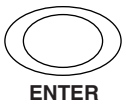
```
>>Paper Weight
? Normal
```



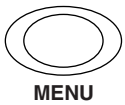
4 Press the ^ or v key to display the desired paper thickness. The display changes as shown below. For details of the default setting for each paper type, see section ***4.3 Paper Type*** on page ***4-11***.

```
Normal
Heavy (Thick)
Light (Thin)
```

If you want to abandon the setting procedure, press the **CANCEL** key.



5 When the desired paper thickness displayed, press the **ENTER** key.



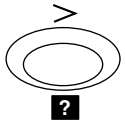
6 Press the **MENU** key. The message display returns to `Ready`.

If the paper type is set to `Custom` and the option duplexer is installed on the printer, duplex printing can be enabled and disabled. See ***Setting the Duplex Path*** on the following page.

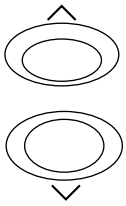
Setting the Duplex Path

To use this function, the duplexer must be installed on the printer.

If the paper type is set to `Custom` and the option duplexer is installed on the printer, you can set whether or not to enable duplex printing as follows. The default setting is `Enable`.

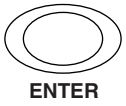


1 Display the custom paper type (see ***Customizing Paper Type*** on page ***1-107***) and press the > key.



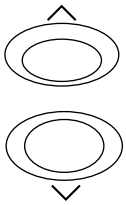
2 Press the ∧ or ∨ key repeatedly until `>>Duplex path` appears.

```
>>Duplex path
  Enable
```



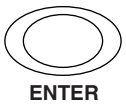
3 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>>Duplex path
? Enable
```

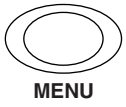


4 Select `Enable` or `Disable` using the ∧ or ∨ key. For details of the default setting for each paper type, see section ***4.3 Paper Type*** on page ***4-11***.

If you want to abandon the setting procedure, press the **CANCEL** key.



5 Press the **ENTER** key.

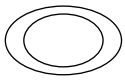


6 Press the **MENU** key. The message display returns to `Ready`.

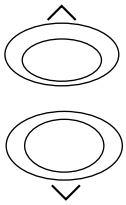
>Reset Type Adjust

Resetting the Type Adjust

Resets the settings of `Custom 1` to `8` that are set in ***Customizing Paper Type*** on page ***1-107***.

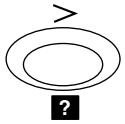


1 Press the **MENU** key.

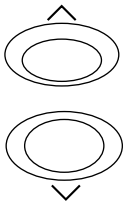


2 Press the ^ or v key repeatedly until `Paper handling >` appears.

Paper Handling >

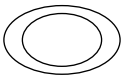


3 Press the > key.



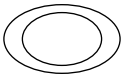
4 Press the ^ or v key repeatedly until `>Reset Type Adjust` appears.

>Reset Type Adjust

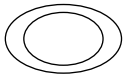


5 Press the **ENTER** key. A question mark (`?`) appears.

>Reset Type Adjust ?



6 Press the **ENTER** key. All the customized paper weight and duplex path settings will be reset to the default.



7 Press the **MENU** key. The message display returns to `Ready`.

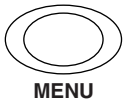
Verifying the Total Printed Pages and Resetting the Toner Counter

```
Life Counters  >
```

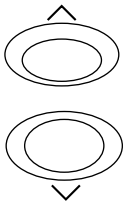
You can display the total number of pages printed by your printer for confirmation whenever necessary. The total number of printed pages can also be checked on the status page. Moreover, for proper maintenance scheduling, it will be necessary to reset the toner counter using this menu each time a new toner container is installed.

Verifying the Total Printed Pages

This procedure only displays the total number of printed pages. The number cannot be changed.

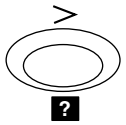


1 Press the **MENU** key.

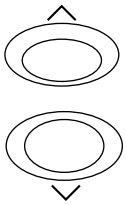


2 Press the ∧ or ∨ key repeatedly until `Life Counters >` appears.

```
Life Counters  >
```

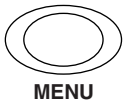


3 Press the > key.



4 Press the ∧ or ∨ key repeatedly until `>Total Print` appears.

```
>Total Print
         1234567
```



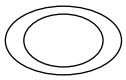
5 Press the **MENU** key. The message display returns to `Ready`.

Resetting the Remaining Toner Counter

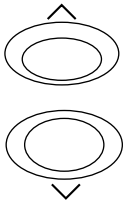
If the toner container was replaced when `Replace toner Clean Printer` was not displayed, reset the toner counter as follows so that an accurate toner gauge measurement is indicated on the status page. Note that if this operation is performed when the toner cartridge is not replaced, the toner gauge measurement will not be indicated correctly.

If the type of the toner kit (TK-60/TK-60E) was changed, the toner ID must also be changed. See ***Setting the Toner ID*** on page ***1-132***.

Also refer to the ***User's Manual*** supplied with the toner kit when replacing the toner container.

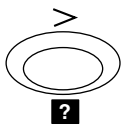


1 Press the **MENU** key.

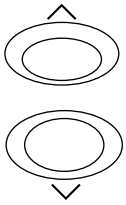


2 Press the ∧ or ∨ key repeatedly until `Life Counters >` appears.

```
Life Counters  >
```

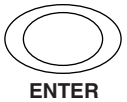


3 Press the > key.



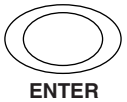
4 Press the ∧ or ∨ key repeatedly until `>New Toner Installed.` appears

```
>New Toner
 Installed
```

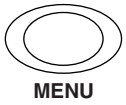


5 Press the **ENTER** key. A question mark (`?`) appears.

```
>New Toner
 Installed ?
```



6 Press the **ENTER** key. The toner counter is reset.



7 Press the **MENU** key. The message display returns to `Ready`.

Other Modes

Others >

The modes described in the following pages can be accessed in the `Others` submenu. To enter the `Others` submenu, press the > key while `Others >` is displayed.

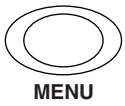
The following submenus can be displayed by pressing the > key and then the ∧ or ∨ key.

- Message Language Selecting
- Automatic Form Feed Timeout Setting
- Sleep Timer Setting
- Received Data Dumping
- Printer Resetting
- Resource Setting
- Alarm (Buzzer) Setting
- Auto Continue Setting
- Service Menu (for service personnel)

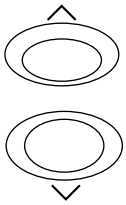
>MSG Language

Message Language Selecting

You can select the language of the messages on the message display by following the procedure given below.

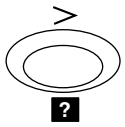


1 Press the **MENU** key.

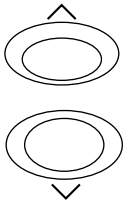


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

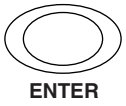


3 Press the > key.



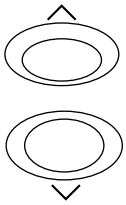
4 Press the ∧ or ∨ key repeatedly until `>MSG Language` appears. The default message language is English.

```
>MSG Language
  English
```



5 To change the language, press the **ENTER** key. A blinking question mark (`?`) appears.

```
>MSG Language
? English
```



6 Press the ^ key. The display cycles through the available selections in the following order (The v key cycles in the reverse order):

```
>MSG Language
? English
```

↓

```
>Berichttaal
? Nederlands
```

↓

```
>Lingua
? Italiano
```

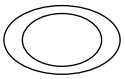
↓

```
>Anzeigesprache
? Deutsch
```

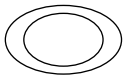
↓

```
>Langue
? Francais
```

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Press the **ENTER** key.

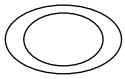


8 Press the **MENU** key. The message display returns to `Ready`.

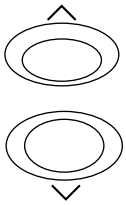
```
>Form Feed
Time Out
```

Automatic Form Feed Timeout Setting

When the printer receives no data for a certain time, it time out and releases the current interface: it prints whatever data it has in its buffer and feeds out the page. You can adjust the time-out time as follows:

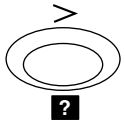


1 Press the **MENU** key.

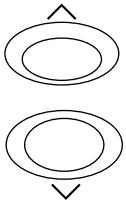


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

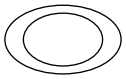


3 Press the > key.



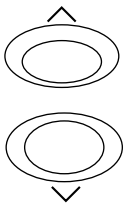
4 Press the ∧ or ∨ key repeatedly until `>Form Feed Time` appears. The default setting is 30 seconds.

```
>Form Feed
Time Out 030sec.
```



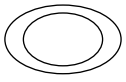
5 Press the **ENTER** key. A blinking cursor (_) appears.

```
>Form Feed Time.
Time Out 030sec.
```

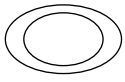


6 Press the ∧ or ∨ key to increase or decrease the value of the figure where the cursor is blinking and set the desired time. The time can be set between `0` and `495` seconds, in 5-second increments. You can use the > and < keys to move the cursor right and left.

If you want to abandon the setting procedure, press the **CANCEL** key.



7 Display the desired time and press the **ENTER** key.

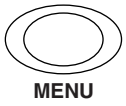


8 Press the **MENU** key. The message display returns to `Ready`.

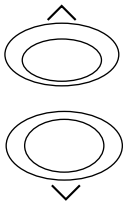
```
>Sleep Timer    >
```

Sleep Timer Setting

The printer has a sleep timer to conserve power when the printer is not printing, processing, or receiving data. You can adjust the timer value, the length of time the printer waits before entering sleeping mode in the absence of data.

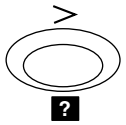


1 Press the **MENU** key.

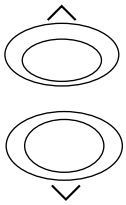


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

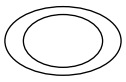


3 Press the > key.



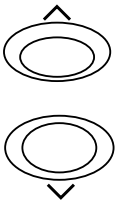
4 Press the ∧ or ∨ key repeatedly until `>Sleep Timer >` appears. The default setting is `015 min`.

```
>Sleep Timer    >
        015 min.
```



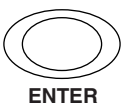
5 Press the **ENTER** key. A blinking cursor (_) appears.

```
>Sleep Timer
        015 min.
```

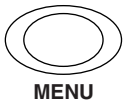


6 Press the ∧ or ∨ key to increase or decrease the value of the figure where the cursor is blinking and set the desired time. The timer can be set between `5` and `240 min`, in 5-minute increments. You can use the **>** and **<** keys to move the cursor right and left.

If you want to abandon the setting procedure, press the **CANCEL** key.



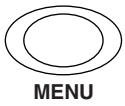
7 Press the **ENTER** key.



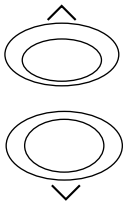
8 Press the **MENU** key. The message display returns to `Ready`.

Turning Off the Sleep Timer

You can turn off the sleep timer function by following the procedure given below.

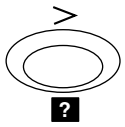


1 Press the **MENU** key.

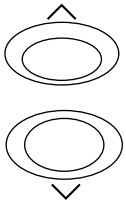


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

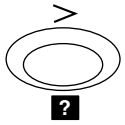


3 Press the > key.



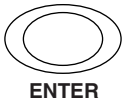
4 Press the ∧ or ∨ key repeatedly until `>Sleep Timer >` appears.

```
>Sleep Timer    >
        015 min.
```



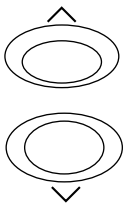
5 Press the > key and display `>>Sleep Mode`.

```
>>Sleep Mode
  On
```



6 Press the **ENTER** key. A blinking question mark (`?`) appears.

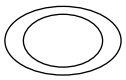
```
>>Sleep Mode
? On
```



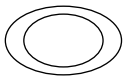
7 Select `Off` using the ^ or v key.

```
>>Sleep Mode
? Off
```

If you want to abandon the setting procedure, press the **CANCEL** key.



8 Press the **ENTER** key.

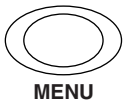


9 Press the **MENU** key. The message display returns to `Ready`.

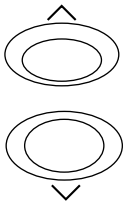
>Print HEX-DUMP

Received Data Dumping

It is possible to print data received by the printer as hexadecimal code for the purposes of debugging programs and files.

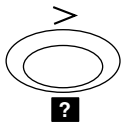


1 Press the **MENU** key.

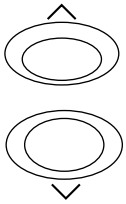


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

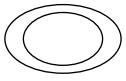


3 Press the > key.



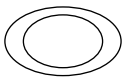
4 Press the ∧ or ∨ key repeatedly until `> Print HEX-DUMP` appears.

```
>Print HEX-DUMP
```

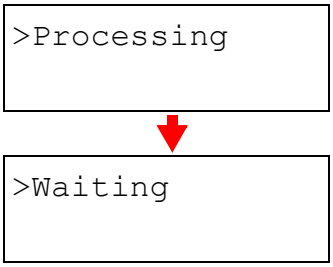


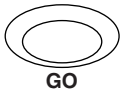
5 Press the **ENTER** key. A question mark (`?`) appears.

```
>Print HEX-DUMP?
```



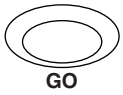
6 Press the **ENTER** key again. `Processing` appears for a second, and then `Waiting` appears.





7 Send data to be dumped to the printer. The message `Processing` will be displayed during receiving the data.

Once the dumped data you require has been output, it is possible to cancel the printing of any further dumped data by taking the printer offline by pressing the **GO** key and then pressing the **CANCEL** key.

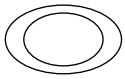


8 Once all data has been received, the message `Waiting` will appear. Press the **GO** key to finish printing.

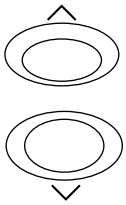
>Printer Reset

Printer Resetting

The procedure described below resets the printer's temporary conditions, such as the current unit of measurement, page orientation, font, character code set, margins, etc., set by commands to their default values.

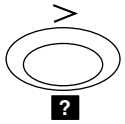


1 Press the **MENU** key.

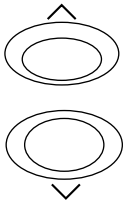


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

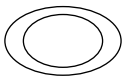


3 Press the > key.



4 Press the ∧ or ∨ key repeatedly until `>Printer Reset` appears.

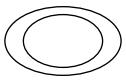
```
>Printer Reset
```



5 Press the **ENTER** key. A question mark (`?`) appears.

```
>Printer Reset ?
```

If you want to abandon the printer resetting procedure, press the **CANCEL** key



6 Press the **ENTER** key again. `Self test` appears while the printer is resetting itself, then `Please wait` followed by `Ready`.

```
Self test
```

↓

```
Please wait
```

↓

```
>Ready
```

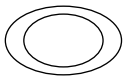
```
>Resouce Prot.
```

Resource Protection

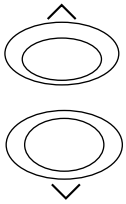
When you switch from the PCL 6 emulation to another, all downloaded fonts and macros are lost. Resource protection preserves these PCL resources in memory so that they are intact when you change the emulation back to PCL 6.

Note

Resource protection requires extra memory to store the downloaded fonts and macros. The total size of the printer memory recommended for using the resource protection option is affected by several factors. See *Appendix B*.

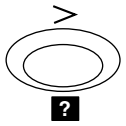


1 Press the **MENU** key.

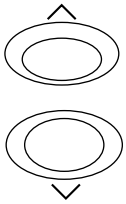


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

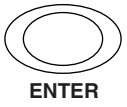


3 Press the > key.



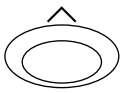
4 Press the ∧ or ∨ key repeatedly until `>Resouce Prot` appears.

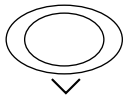
```
>Resouce Prot.
  Off
```

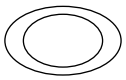


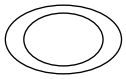
5 Press the **ENTER** key. A blinking question mark (`?`) appears.

```
>Resouce Prot.
? Off
```









6 Press the ^ or v key to display the desired mode. The display changes as shown below.

`Off` (default)
`Permanent`
`Perm / Temp`

7 When the desired mode is displayed, press the **ENTER** key.

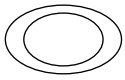
8 Press the **MENU** key. The message display returns to `Ready`.

>Buzzer

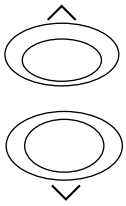
Alarm (Buzzer) Setting

In addition to the message displayed when the paper supply is exhausted, or when paper jamming occurs, an audio warning is made to sound. This is useful, for example, when the printer is in a location some distance from the user.

The audio alarm is set to `On` when leaving the factory. If the alarm is set to `Off`, it is made not to sound.

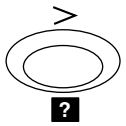


1 Press the **MENU** key.

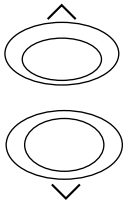


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

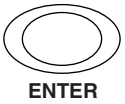


3 Press the > key.



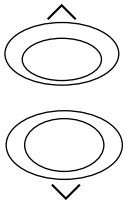
4 Press the ∧ or ∨ key repeatedly until `Buzzer` appears.

```
>Buzzer
  On
```

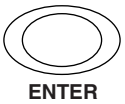


5 Press the **ENTER** key. A blinking question mark (`?`) appears.

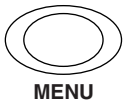
```
>Buzzer
? On
```



6 Select `On` or `Off` using the ∧ or ∨ key.



7 Press the **ENTER** key.

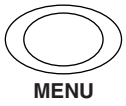


8 Press the **MENU** key. The message display returns to `Ready`.

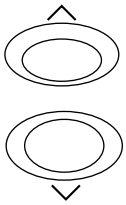
```
>Auto Continue >
Mode
```

Auto Continue Setting

If an error that still allows you to continue printing occurs (`Memory overflow Press GO`, `Print overrun Press GO`, `KPDL error Press GO`, and `File not found Press GO`), the next received data is automatically printed after a set period of time elapses. For example, if the printer is shared over a network as a network printer and one person causes one of the above errors, after the set period of time elapses, the data sent from the next person is printed.

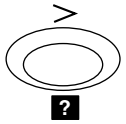


1 Press the **MENU** key.

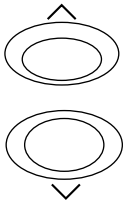


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

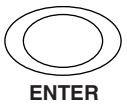


3 Press the > key.



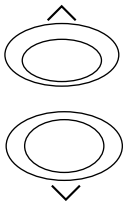
4 Press the ∧ or ∨ key repeatedly until `Auto Continue >` appears.

```
>Auto Continue >
 Mode    On
```

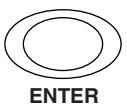


5 Press the **ENTER** key. A blinking question mark (`?`) appears.

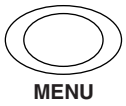
```
>Auto Continue >
 Mode  ?  On
```



6 Select `On` or `Off` using the ∧ or ∨ key.



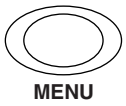
7 Press the **ENTER** key.



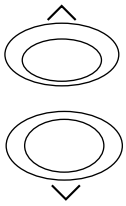
8 Press the **MENU** key. The message display returns to `Ready`.

Setting the Auto Continue Recovery Time

Follow the procedure given below to change the recovery time for Auto Continue.

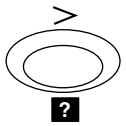


1 Press the **MENU** key.

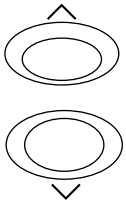


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```



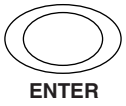
3 Press the > key.



4 Press the ∧ or ∨ key repeatedly until `Auto Continue Mode >` appears.

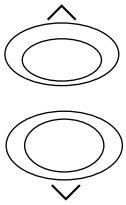
```
>Auto Continue >
 Mode    On
```

5 Press the > key and display `>>Auto Continue Timer`.



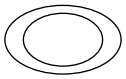
6 Press the **ENTER** key. A blinking cursor (_) appears.

```
>>Auto Continue
 Timer   000Sec.
```

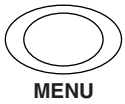


7 Press the ^ or v key to increase or decrease the value of the figure where the cursor is blinking and set the desired time. The time must be set between `000` and `495` seconds, in 5-second increments. If set to `000`, printing will be continued immediately without allowing any time interval. You can use the **>** and **<** keys to move the cursor right and left.

If you want to abandon the setting procedure, press the **CANCEL** key.



8 Display the desired time and press the **ENTER** key.



9 Press the **MENU** key. The message display returns to `Ready`.

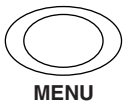
```
>Service       >
```

Service Menu

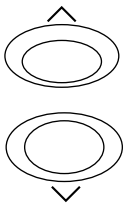
The service menu contains maintenance operations to be performed by service personnel. The `Print Status Page`, `Toner ID`, `Developer`, and `Drum` menus appear; however, in general, you will only need to use the `Print Status Page` and `Toner ID` menus.

Printing the Service Status Page

The service status page contains printer settings information that is more detailed than the standard status page and is therefore for mostly service purposes. However, since there is a great deal of information available on the service status page that may be helpful to you, the procedure for printing it out is given below.

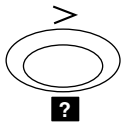


1 Press the **MENU** key.

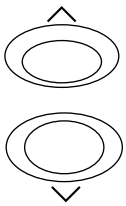


2 Press the ^ or v key repeatedly until `Others >` appears.

```
Others         >
```

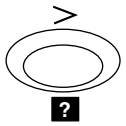


3 Press the > key.

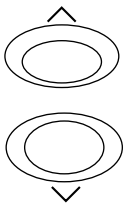


4 Press the ^ or v key repeatedly until `>Service >` appears.

```
>Service       >
```

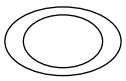


5 Press the > key.



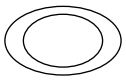
6 Press the ^ or v key repeatedly until `>>Print Status Page` appears.

```
>>Print
 Status Page
```

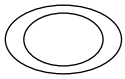


7 Press the **ENTER** key. A question mark (?) appears.

```
>>Print
 Status Page ?
```



8 Press the **ENTER** key. The message display indicates `Processing` and printing starts.



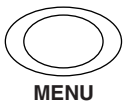
9 Press the **MENU** key. The message display returns to `Ready`.

```
>>Toner ID
```

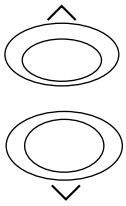
Setting the Toner ID

If the type of the toner kit (TK-60 [20,000 pages] or TK-60E [10,000 pages]) was changed, set the toner ID as follows so that on accurate toner gauge measurement is indicated on the status page. The default setting is `CA` (TK-60).

Also refer to the ***User's Manual*** supplied with the toner kit when replacing the toner container.

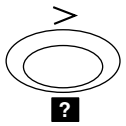


1 Press the **MENU** key.

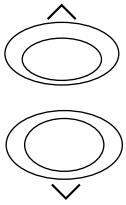


2 Press the ∧ or ∨ key repeatedly until `Others >` appears.

```
Others          >
```

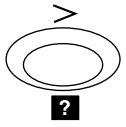


3 Press the > key.

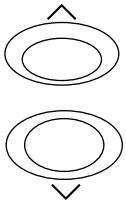


4 Press the ∧ or ∨ key repeatedly until `>Service >` appears.

```
>Service        >
```

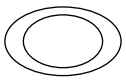


5 Press the > key.

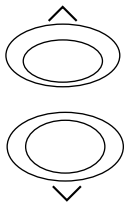


6 Press the ∧ or ∨ key repeatedly until `>>Toner ID` appears.

```
>>Toner ID
  ##
```

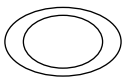


7 Press the **ENTER** key.

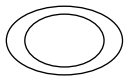


8 Press the ^ or v key and display `CA` for the TK-60 or `BA` for the TK-60E in place of `##`. The factory default setting is `CA` (TK-60).

```
>>Toner ID
  ##
```



9 Press the **ENTER** key.



10 Press the **MENU** key. The message display returns to `Ready`.

Chapter 2 Maintenance

This chapter explains how to replace the toner container and how to clean parts such as the registration roller and charger wire.

This chapter explains the following topics:

- **Toner Container Replacement**
- **Waste Toner Bottle Replacement**
- **Cleaning**

2.1 Toner Container Replacement

The toner container in the printer should be replaced as soon as the message display shows `Toner low TK-60` or soon after. If you continue to use the printer, eventually the toner supply will be exhausted at which point the printer will stop printing and the `Replace toner Clean printer` message will be shown instructing you to install a new toner kit.

2.1.1 Toner Container Replacement Interval

Assuming an average toner coverage of 5% and Ecoprint mode turned off, the toner container will need replacing approximately once every 20,000 pages.*

* For a new printer with a toner kit installed for the first time, the number of copies that can be printed will be approximately 10,000.

Toner Kits to be Used

Name: TK-60 (20,000 pages)/TK-60E (10,000 pages)

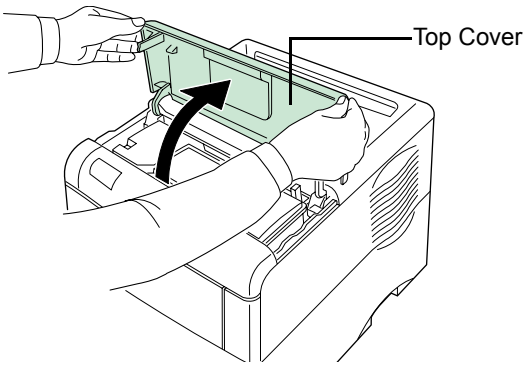
Contents:
Toner container
Waste toner bottle
Wiper cloth
Grid cleaner
2 plastic bags (for disposal of the old toner container and waste toner bottle)
User's manual

Note

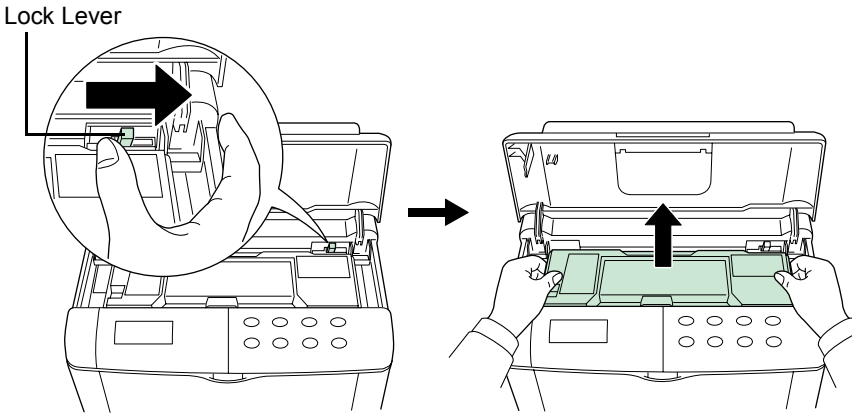
- **Be sure to distance items such as floppy disks during toner container replacement.**
- **Be sure to clean the inside of the printer when replacing the toner container. For details, see section *2.3 Cleaning* on page *2-9*.**
- **Use of original Kyocera Mita toner kits is highly recommended to prevent printer trouble and ensure the long life of the printer.**

2.1.2 Replenishing Toner

1 Open the printer top cover all the way.



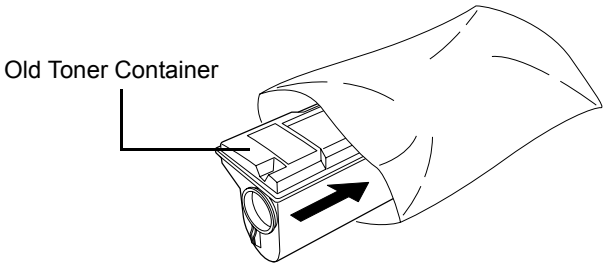
2 Pull the lock lever (green colored) to the right and gently lift the old toner container.



Note

Keep the toner container as level as possible while removing.

3 Put the old toner container in the plastic bag supplied with the toner kit and dispose of it.

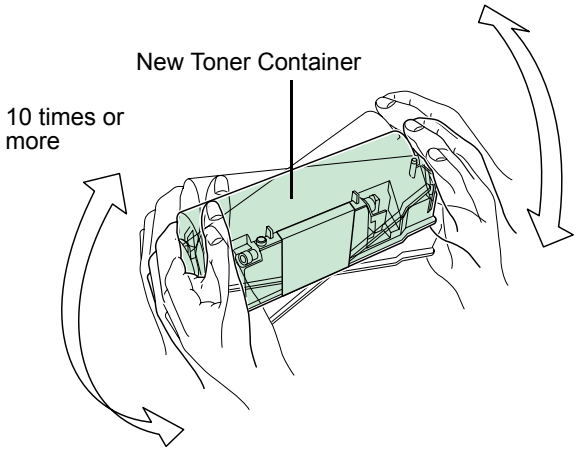


Note

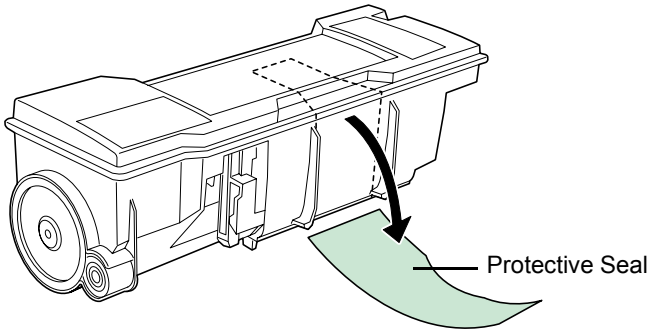
The old toner container may be incinerated without the risk of generating harmful gas.

4 Take the new toner container from the bag.

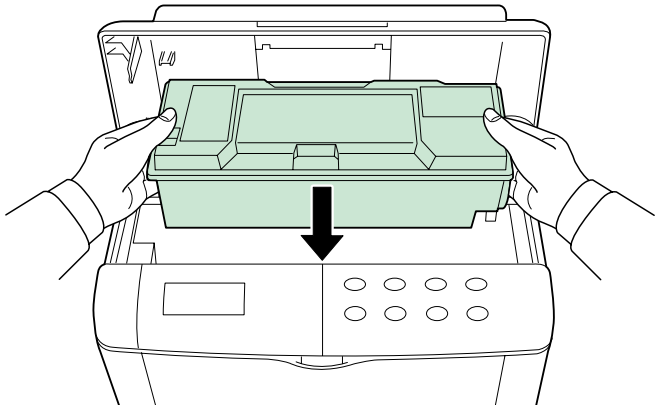
5 With the label side down, thoroughly shake the toner container (in the direction of the arrows) ten times or more. This ensures that the toner is evenly distributed inside.



6 Carefully remove the protective seal (orange colored).

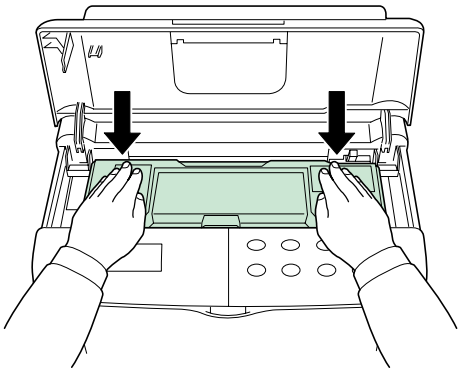


7 Install the toner container into the printer.

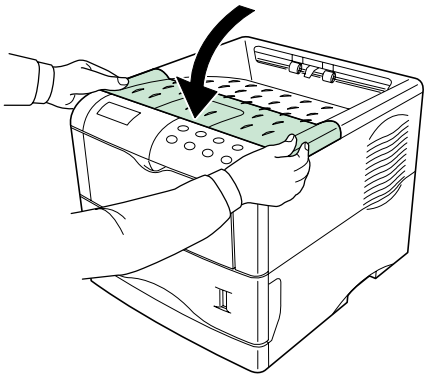


8 Push firmly on the top of the toner container at the positions marked **PUSH HERE**.

When the toner container fits into place, it will lock with a clicking sound.



9 Close the top cover.



Note

It is necessary to clean the inside of the printer after replacing the toner container. If the toner container is replaced when `Replace toner` `Clean printer` is displayed, `Clean printer Press GO` will appear after replacement. After cleaning the inside of the printer (see section *2.3 Cleaning* on page *2-9*), the message will disappear when the GO key is pressed, and the printer will be ready for printing.

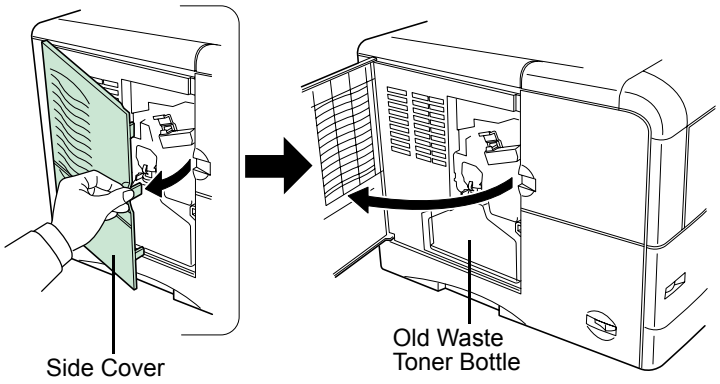
2.2 Waste Toner Bottle Replacement

2.2.1 Replacing the Waste Toner Bottle

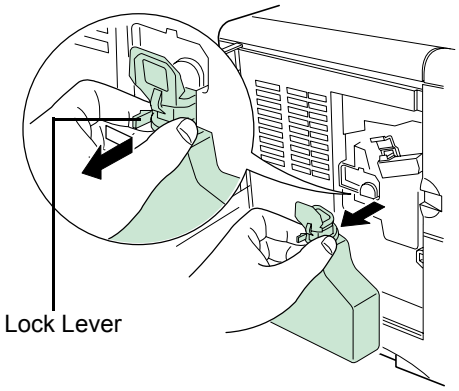
Note

When replacing the toner container, the used waste toner bottle in the printer should also be replaced with the new one from the new toner kit.

1 Open the side cover on the left side of the printer.



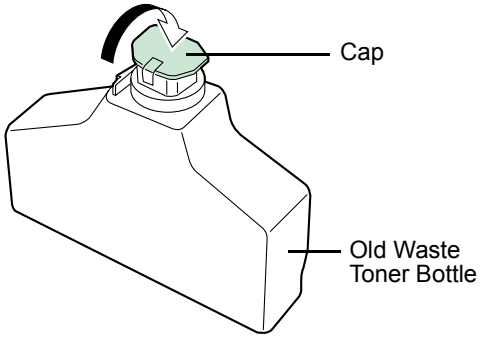
2 While holding the waste toner bottle, press the lock lever and then gently remove the waste toner bottle.



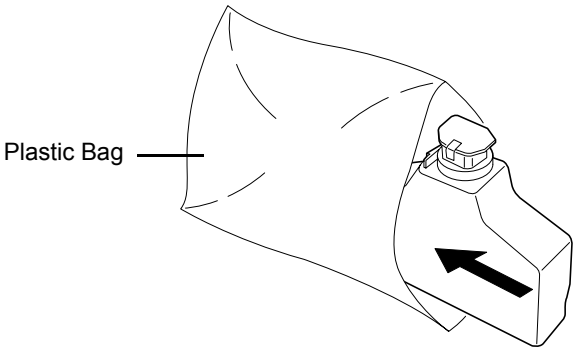
Note

Remove the waste toner bottle as gently as possible so as not to scatter the toner inside. Do not let the opening of the waste toner bottle face downward.

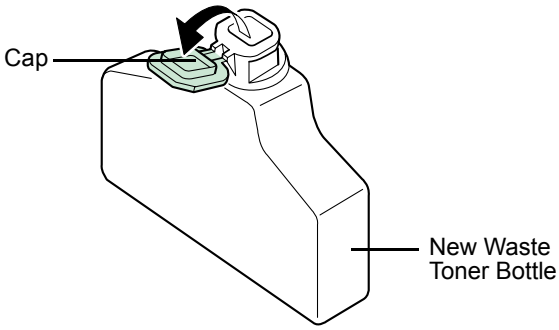
3 Cap the waste toner bottle after removing from the printer.



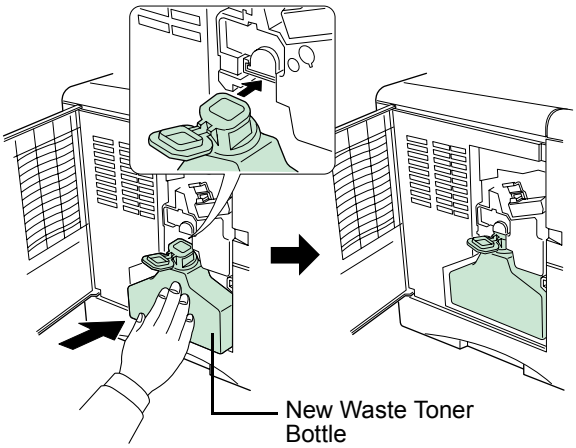
4 To avoid toner spilling, place the capped waste toner bottle in the plastic bag supplied before proper disposal.



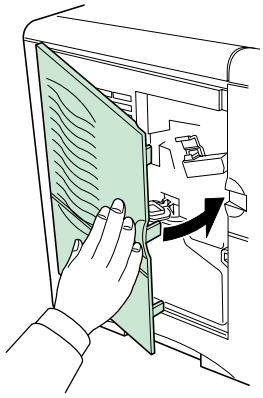
5 Open the cap of the new waste toner bottle.



6 Insert the new waste toner bottle as shown in the figure below. The bottle will be locked when it fits into place.



7 Ensure that it is correctly inserted and close the side cover.



The printer parts must be cleaned when replacing the toner container. See section ***2.3 Cleaning*** on page ***2-9***.

8 When replacement of the toner container and waste toner bottle is completed, set the toner ID (see ***Setting the Toner ID*** on page ***1-132***). If you replaced the toner container when `Replace toner Clean printer` was not displayed, reset the remaining toner counter (see ***Resetting the Remaining Toner Counter*** on page ***1-113***).

2.3 Cleaning

To avoid print quality problems, the following printer parts must be cleaned with every toner container replacement. In addition, the charger wire and paper feed unit should be cleaned from time to time, or whenever print quality problems occur.

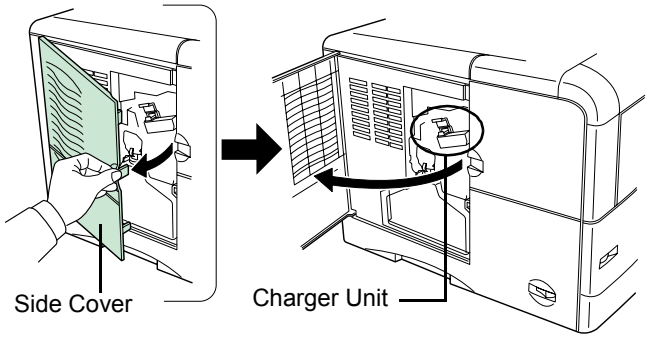
Note

If the toner container was replaced when `Replace toner Clean printer` was displayed, `Clean printer Press GO` will appear after replacement. After cleaning the inside of the printer following the procedure shown below, press the GO key; the message will disappear and the printer will be ready for printing.

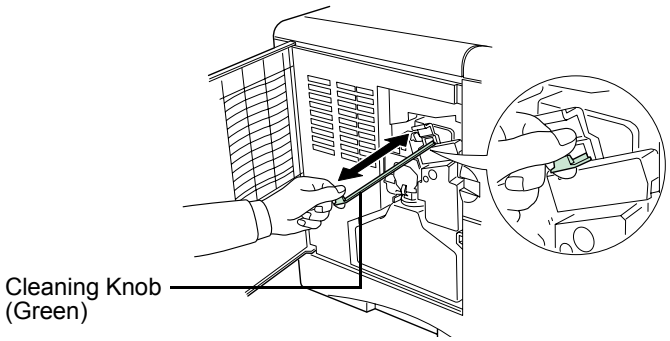
2.3.1 Cleaning the Charger Wire

The charger wire is a part in the drum unit that needs to be periodically cleaned. You can clean the charger wire by pulling the cleaning knob as instructed below.

1 Open the side cover on the left side of the printer.



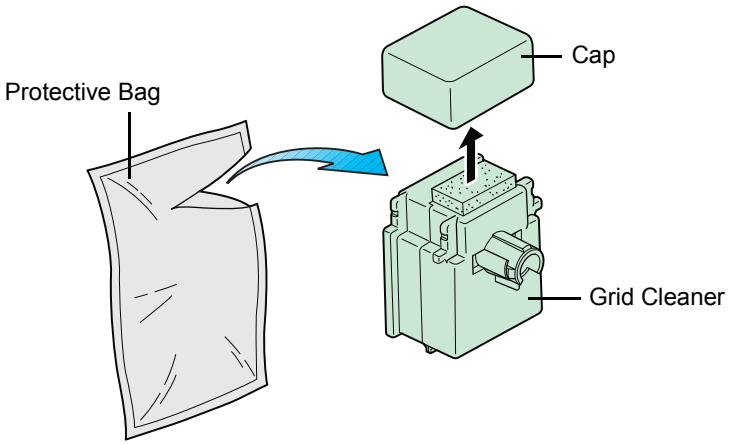
2 Pull the cleaning knob (green colored) slowly in and out a few times. This cleans charger wire inside the printer.



2.3.2 Cleaning the Charger Grid

The charger grid is a part located at the bottom of the charger unit, which also needs to be cleaned. You should use a grid cleaner attaching it to the printer and pull out the charger unit as instructed below.

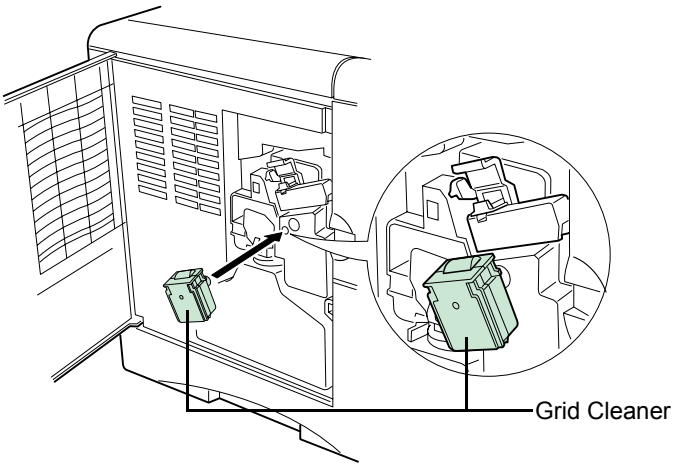
1 Take the grid cleaner from protective bag in the new toner kit, and remove the cap.



Note

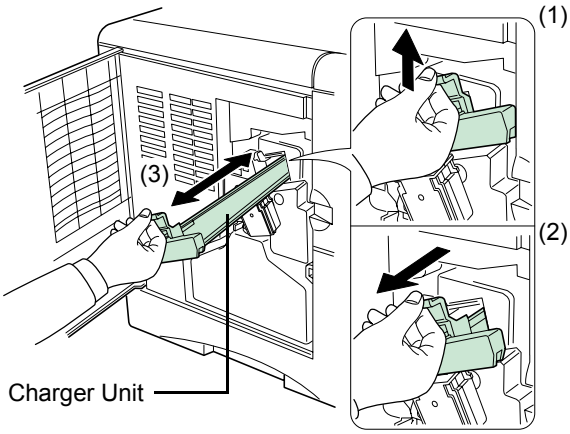
The grid cleaner pad is supplied with water soaked. Perform the following procedure before the pad dries.

2 Attach the grid cleaner to the printer with the pad at the top, as shown in the figure.

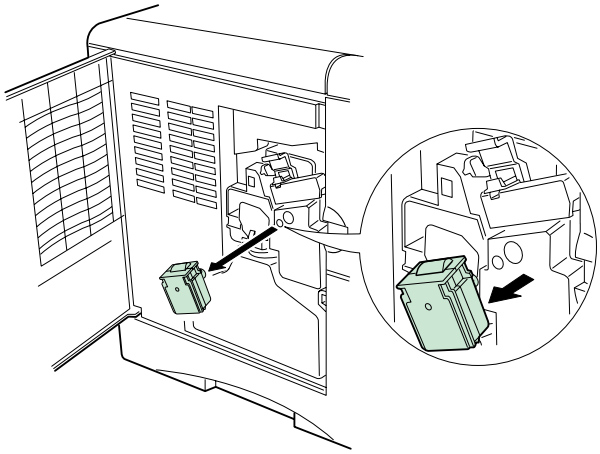


3 Slowly pull out and then push back in the charger unit at least 5 times. It is easier to pull out the charger unit for the first time if it is raised slightly, as shown in the figure.

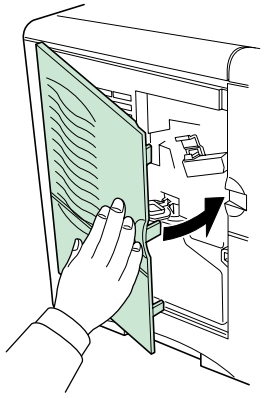
This cleans grid part underneath the charger unit.



4 Remove the grid cleaner from the printer and dispose of it. The grid cleaner is not re-usable.



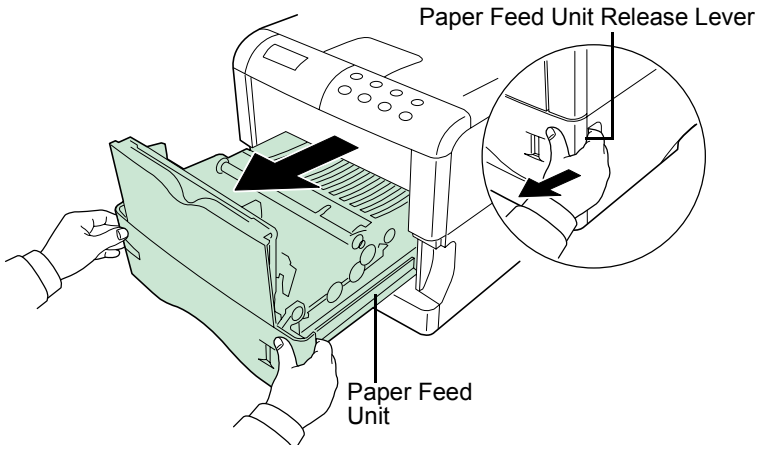
5 After cleaning the charger wire and grid, push the charger unit all the way in and close the side cover.



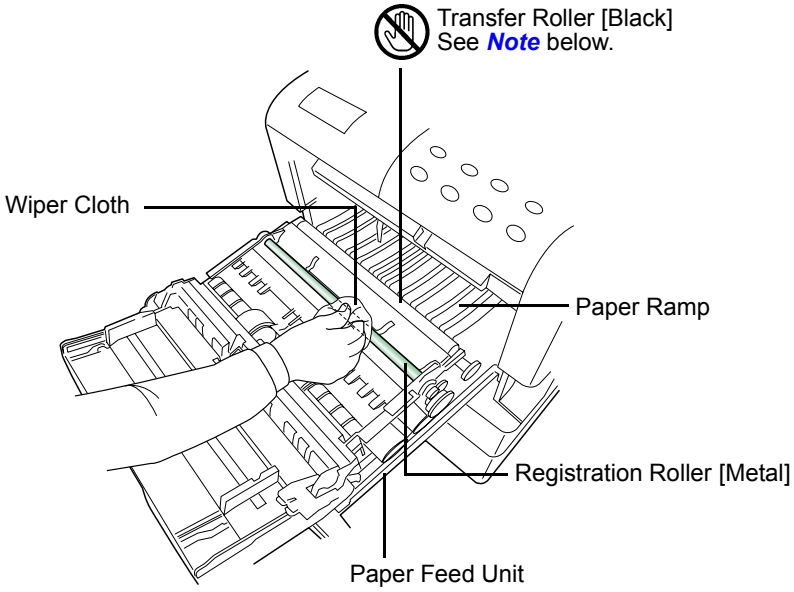
2.3.3 Paper Feed Unit

To avoid print quality problems due to paper dust and debris, clean the paper feed unit in the following manner.

1 While pulling the paper feed unit release lever, pull out the paper feed unit.



2 Wipe away the paper dust on the registration roller and the paper ramp using the wiper cloth included in the toner kit.



Note

Be careful not to touch the transfer roller (the black roller) during cleaning as this may adversely affect print quality.

Chapter 3 Troubleshooting

This chapter explains how to handle printer problems that may occur. If a problem cannot be corrected, contact your Kyocera Mita dealer.

This chapter explains the following topics:

- **General Guide**
- **Print Quality Problems**
- **Indicators and Messages**
- **Correcting a Paper Jam**

3.1 General Guide

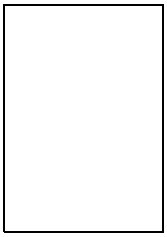
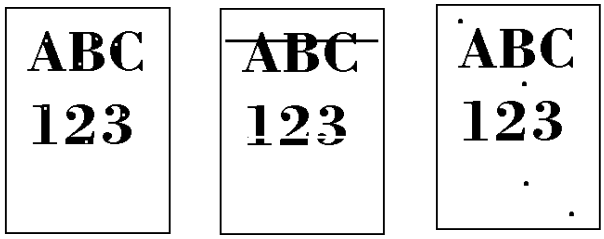
There are quite a few printer problems that you can deal with by yourself. This section explains how to correct these problems. Therefore, if some kind of problem should occur, check the following before concluding the printer is broken.

Symptom	Check Items		Corrective Action
The printer will not print from the computer.	Check the **READY** ↻ indicator.	Off	Look through the items below and check anything that seems appropriate.
		Flashing	An error has occurred. For details on error warnings and remedies, see ***3.3.1 Indicators*** on page ***3-6***.
		Lit	See the appropriate item below.
	Check the **ATTENTION** indicator.	Flashing	See ***3.3.1 Indicators*** on page ***3-6***
		Lit	
	A maintenance message appears in the message display.		See ***3.3.2 Maintenance Messages*** on page ***3-7***
Print quality is not good.			See ***3.2 Print Quality Problems*** on page ***3-3***.
Paper is jammed.			See ***3.4 Correcting a Paper Jam on page 3-12***.
Nothing lights on the operator panel even when power is turned on and the fan makes no noise.	Check that the power cord is properly plugged into the power outlet.		Turn off the printer's power, plug in the power cord securely, and try turning on the printer's power again.
	Check that the power switch is really in the ON (|) position.		
The printer prints a status page, but data from the computer is not being printed normally.	Check the interface cable.		Connect both ends of the interface cable securely. Try replacing the printer cable. For details on the parallel interface for this printer, see ***Appendix C***.
	Check program files and application software.		Try printing another file or using another print command. If the problem occurs only with a specific file or application, check the printer settings for that application.

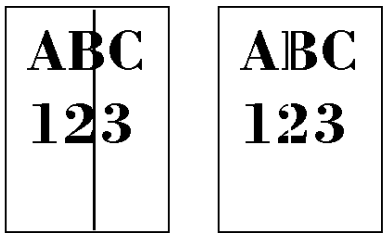
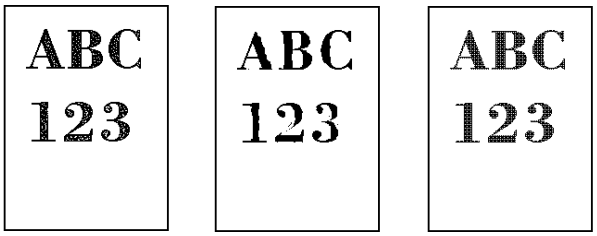
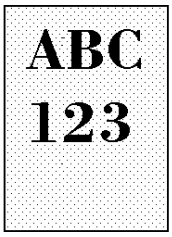
If you still cannot correct a printer problem even after checking the above, please contact your Kyocera Mita dealer.

3.2 Print Quality Problems

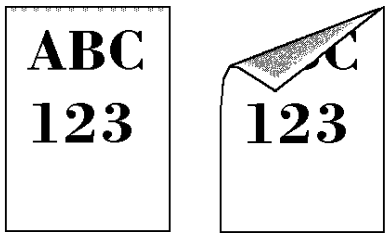
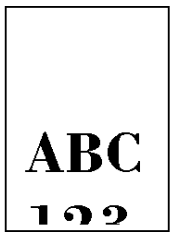
As the following table shows, there are many possible causes of print quality problems, such as blank output as. The troubleshooting procedure for each type of problem is explained below. If you still can not solve the problem, contact your Kyocera Mita dealer.

Printed Results	Corrective Action
Completely blank printout 	**Check the developer unit.** Open the printer top cover and check that the developer unit is inserted correctly and check that the developer's connector is connected properly.
	Check the toner container. Open the printer top cover and check that the toner container is correctly installed in the printer. See ***2.1 Toner Container Replacement*** on page ***2-2***.
All-black printout	**Check the charger unit.** Open the printer side cover and check that the charger unit is correctly installed.
Dropouts, horizontal streaks, stray dots 	**Clean the charger wire.** Open the printer side cover. Pull the cleaning knob (green colored) slowly in and out a few times. See ***2.3 Cleaning*** on page ***2-9***.

(Continued on next page)

Printed Results	Corrective Action
Black or white vertical streaks 	**Check the operator panel.** If the `Toner low TK-60` message is displayed and the **ATTENTION** indicator is flashing, install a new toner kit. See ***2.1 Toner Container Replacement*** on page ***2-2***.
	Clean the charger wire. Open the printer side cover. Pull the cleaning knob (green colored) slowly in and out a few times. See ***2.3 Cleaning*** on page ***2-9***.
Faint or blurred printing 	**Check the Ecoprint setting.** When this setting is `On`, switch it to `Off` on the Operator Panel. (See ***Ecoprint*** on page ***1-72***)
	Check the operator panel. • If the `Toner low TK-60` message is displayed and the **ATTENTION** indicator is flashing, install a new toner kit. See ***2.1 Toner Container Replacement*** on page ***2-2***. • Set the print density from the operator panel to a higher level than the current setting. See ***Adjusting the Print Density*** on page ***1-75***. • Make sure the paper type setting is correct. See ***4.3 Paper Type*** on page ***4-11***
	Clean the charger wire. Open the printer side cover. Pull the cleaning knob (green colored) slowly in and out a few times. See ***2.3 Cleaning*** on page ***2-9***
Grey background. 	**Check the operator panel.** If the `Toner low TK-60` message is displayed and the **ATTENTION** indicator is flashing, install a new toner kit. See ***2.1 Toner Container Replacement*** on page ***2-2***.
	Check the print density. Display the print density menu from the operator panel and select a lighter density setting. See ***Adjusting the Print Density*** on page ***1-75***.
	Clean the charger wire. Open the printer's side cover. Pull the cleaning knob (green colored) slowly in and out a few times. See ***2.1 Toner Container Replacement*** on page ***2-2***.
	Check the charger unit installation. Open the printer side cover and check that the charger unit is correctly installed and seated as far as it will go. See ***2.3 Cleaning*** on page ***2-9***.

(Continued on next page)

Printed Results	Corrective Action
Dirt on the top edge or back of the paper  	**Check the paper chute and the ramp.** Pull out the paper feed unit and check for toner on the paper ramp. Clean the paper ramp using a soft, dry, lint-free cloth. See ***2.3 Cleaning*** on page ***2-9***.
	Check the transfer roller. If the transfer roller is dirty with toner, try printing several pages.
Characters out of position.  	**Check the file or program.** Check whether the problem is being caused by a PRESCRIBE 2e command error. If the problem occurs only with a specific file or program, the most likely cause is an error in a parameter to a command or command syntax.

3.3 Indicators and Messages

The tables on the following pages indicate how to respond to problems indicated by the operator panel indicators and messages.

3.3.1 Indicators

Indicator	Name	Condition	Description
READY	Ready indicator	Flashing	An error occurs that you can clear by yourself.
		Lit	The printer is on-line. The printer is ready to print.
		Off	The printer is off-line. The printer stores but does not print received data. Also indicates when printing is automatically stopped due to occurrence of an error.
DATA	Data indicator	Flashing	Data transfer is taking place.
		Lit	Either data is being processed, or data is being written onto the option CompactFlash card or Microdrive.
ATTENTION	Attention indicator	Flashing	The printer needs maintenance attention or the printer is warming up (`Please wait`).
		Lit	A problem or an error occurs that you can clear by yourself. (For example, a paper jam occurs.)
		Off	Operations are normal.

3.3.2 Maintenance Messages

The following table lists maintenance messages that you can deal with by yourself. If `Call service person` appears, turn off the printer, disconnect the power cord, and contact your Kyocera Mita dealer.

Message	Corrective Action
`Add paper` (paper source)	The paper has run out. Supply paper according to the paper source displayed (paper cassette, MP tray, or optional paper feeder). Messages indicating the printer status (`Ready`, `Please wait`, `Processing`*, `Waiting`, and `FormFeed Time Out`*) are displayed alternately. * These messages will not appear if the number of copies is set to 2 or more.
`Call service personAn:0123456`	Fuser error (n=`0`, `1`, `2`, ...)-Call a service person. The printer does not operate when a code beginning with `A` is displayed. The total number of pages printed is also indicated.
`Call service personBn:0123456`	Option paper feeder's error (n=`0`, `1`, `2`, ...)-Call a service person. The printer does not operate when a code beginning with `B` is displayed. The total number of pages printed is also indicated.
`Call service personCn:0123456`	Communication error with the option unit (n=`0`, `1`, `2`, ...)-Call a service person. The printer does not operate when a message beginning with `C` is displayed. The total number of pages printed is also indicated.
`Call service personEn:0123456`	Mechanical error (n=`0`, `1`, `2`, ...)-Call a service person. The printer does not operate when a code beginning with `E` is displayed. The total number of pages printed is also indicated.
`Call service person Fn`	Controller error (n=`0`, `1`, `2`, ...)-Call a service person. The printer does not operate when a code beginning with `F` is displayed.
`Check waste toner bottle`	The waste toner bottle is not installed. After installing the waste toner bottle, you should be able to print. Replace the old waste toner bottle with the new one which is included in the TK-60/TK-60E toner kit. The message will also be shown if the waste toner bottle has become full. The waste toner bottle should be replaced when the message display eventually shows `Toner low TK-60`. See ***2.1 Toner Container Replacement*** on page ***2-2***.
`Clean printer Press GO`	Please clean the inside of the printer. See ***2.3 Cleaning*** on page ***2-9***. This message will be displayed when replacing the toner container after the message `Replace toner TK-60` is displayed. After cleaning the inside of the printer, press the **GO** key and the printer will be ready for printing. If Auto Continue is set to `On`, printing will be automatically resumed after a preset period of time.
`Duplexer rear cover open`	Open the option duplexer rear cover, then close tightly.
`Face-down tray paper full`	The face-down output tray has become full (approx. 250 pages). You must remove all printed pages from the face-down output tray. When the printer senses that the face-down output tray is empty again, it will continues printing into the face-down output tray.

:Alarm buzzer sounds when an error occurs. Press the **CANCEL** key to stop the alarm buzzer.

(Continued on next page)

Message	Corrective Action
Load Cassette # (paper size)/(paper type)* *(paper size) and (paper type) are displayed flashing alternately.	There is data for printing that matches with a paper cassette setting (paper size, paper type), but there is no paper in the paper cassette. Set paper into the paper source as displayed on the operator panel, and press the **GO** key to restart printing. However, the paper source number (#) is only displayed when there is an option paper feeder installed. Or, if you want to print from a different paper source press the ∧ or ∨ key to display Use alternative? and you can change the source for paper feeding. After selecting a paper source and pressing the **MENU** key, Paper Handling > appears. By pressing the **>** key, the paper type settings menu appears. After setting the correct paper type, press the **ENTER** key and printing starts.
Load MP tray (paper size)/(paper type) *(paper size) and (paper type) are displayed flashing alternately.	There is no paper cassette set (paper size, paper type) that matches with the data for printing, so printing is done from the MP tray. Set paper into the MP tray that matches the paper size and type shown on the display and press the **GO** key to restart printing. Or, if you want to print from a different paper source press the ∧ or ∨ key to display Use alternative? and you can change the source for paper feeding. After selecting a paper source and pressing the **MENU** key, Paper Handling > appears. By pressing the **>** key, the paper type settings menu appears. After setting the correct paper type, press the **ENTER** key and printing starts.
Missing duplex drawer	The duplex drawer is either not installed or incorrectly inserted. Insert the duplex drawer securely.
Opt.Stacker unit rear cover open	Open the sorter rear cover, then close tightly.
Option interface Error	A failure has occurred with the option network interface card. Check the option interface installed in the printer.
Option tray ## paper full	The sorter tray indicated by # is now full. Remove some of the paper from the sorter tray concerned.
Paper feed unit open	Open the paper feed unit, then close tightly.
Paper jam ##############	Open the top cover or the paper feed unit and correct the paper jam (or paper mis-feeding in the paper cassette). The location of the paper jam is also indicated in place of the #'s. Online help messages which are useful for correcting the paper jam will be displayed by pressing the ? key. (See *3.4 Correcting a Paper Jam on page 3-12*)
Remove paper option tray ##	There is still paper in the option sorter's tray indicated by # when the power was turned on or the sorter's mode was switched. Remove all the paper inside the sorter.
Replace toner Clean printer	Replace the toner container using a new toner kit. The printer does not operate when this message is displayed. See *2.1 Toner Container Replacement* on page *2-2*.
Side cover open	Open the side cover, then close tightly.

:Alarm buzzer sounds when an error occurs. Press the **CANCEL** key to stop the alarm buzzer.

(Continued on next page)

Message	Corrective Action
`Toner low` `TK-60`	Replace the toner container using a new toner kit. See ***2.1 Toner Container Replacement*** on page ***2-2***.
`Top cover` `open`	Open the top cover, then close tightly.
`Warning` `image adapt`	Printing job cannot be done in current resolution because there is not enough internal memory. Try adding more memory or changing resolution. See ***Appendix B***.
`Warning` `Low memory`	The printer's internal memory is running low due to the number of fonts and macros downloaded. Print a status page to see how much user memory is left, and try deleting unnecessary fonts and macros. See ***Appendix B***.

3.3.3 Error Messages

The following table lists error messages that can be dealt with by the user.

Message	Corrective Action
File not found Press GO	VMB: A VMB tray that was specified for output does not contain any jobs, or the VMB tray is not being used. Confirm the VMB tray. If Auto Continue is set to On, printing will be automatically resumed after a preset period of time. See ***Auto Continue Setting*** on page ***1-127***.
Format error Memory card	This message appears when the printer is in the ready state and the CompactFlash (memory) card is not formatted, and therefore cannot be read or written. Follow the procedure in ***Formatting*** on page ***1-82*** to format the card.
Format error Hard disk	Initialization (formatting) of the Microdrive is required. Initialize the Microdrive. (See ***Operating the Microdrive (Hard Disk)*** on page ***1-85***.)
Hard disk err ## Press GO	Look at the error code given in place of ## and refer to the corresponding description given below. 01: Microdrive format error. If this error recurs even if the power has been turned off and then on, reformat the Microdrive. 02: The disk system is not installed. Recheck the requirements for using the system and the devices. 04: There is no available Microdrive space. Delete unnecessary files, etc., in order to free up space. 05: The specified file does not exist in the Microdrive. 06: There is no memory available to the Microdrive system. Increase the available memory. 10: Formatting is not possible because host data is being spooled on the Microdrive. Wait until the Microdrive is ready, and then format. 85: VMB; Alias error (the alias setting was lost, or the VMB tray corresponding to the alias does not exist). Set the alias again. 97: Code job; The number of permanent code job reached the limit value, and no more can be saved. Either delete some unnecessary jobs, etc., or increace the limit. 99: A print job for the specified ID does not exist in the Microdrive.
I/F occupied	This message is displayed when you attempt to use the printer's operator panel to change the environmental settings on the interface from which data are presently being received.
ID error	The ID entered for a private job, or a stored job is not correct. Check the ID that is set using the printer driver.
Insert the same memory card	You have inserted the wrong CompactFlash (memory) card when the Insert again message was displayed. Remove the wrong CompactFlash card from the printer's CompactFlash card slot and insert the correct CompactFlash card. The printer again reads it from the beginning of the data.
KPDL error ## Press GO	Current print processing cannot continue. To print out an error report, display > Print KPDL errs from the mode select menu, and select On. Press the **GO** key to resume printing. You can abandon printing by the **CANCEL** key. If Auto Continue is set to On, printing will be automatically resumed after a preset period of time. See ***Auto Continue Setting*** on page ***1-127***.

:Alarm buzzer sounds when an error occurs. Press the **CANCEL** key to stop the alarm buzzer.

(Continued on next page)

Message	Corrective Action
Memory card err Insert again	The CompactFlash card is accidentally removed from the printer's memory card slot during reading. If you continue reading the memory card, insert the same memory card into the slot again. The printer again reads it from the beginning of the data. **Note: We recommend that you follow the reading procedure from the beginning to ensure correct reading of the memory card.**
Memory overflow Press GO	The total amount of data received by the printer exceeds the printer's internal memory. Try adding more memory (expansion DIMM). Press the **GO** key to resume printing. You can abandon printing by the **CANCEL** key. If Auto Continue is set to On, printing will be automatically resumed after a preset period of time. See ***Auto Continue Setting*** on page ***1-127***.
MemoryCard err## Press GO	This message appears when an error occurs during access to the CompactFlash card using the PRESCRIBE 2e RWER command or from the printer's operator panel. Look at the error code given in place of ## and refer to the corresponding description given below. 01: The CompactFlash card does not meet specifications. This CompactFlash card cannot be used by this printer. Insert a CompactFlash card which can be used by this printer. (See ***CompactFlash Card*** on page ***D-20***.) 02: The CompactFlash card is not installed. Recheck the requirements for using the CompactFlash card. 04: The capacity of the CompactFlash card is insufficient. Clean up files. 05: Specified file not on CompactFlash card. 06: No memory for use by CompactFlash card. Expand printer memory.
Paper path error	There is no paper cassette in the feeder, or the cassette is not inserted properly. After reinserting the paper cassette, you should be able to print. When two or more option feeders are installed and the lowest one is selected, the same message will appear if any of the upper paper feeder and the printer cassette is improperly installed.
Print overrun Press GO	The data transferred to the printer was too complex to print on a page. Press the **GO** key to resume printing. (The page may break in some pages.) You can abandon printing by the **CANCEL** key. **Note: After this message is displayed, page protect mode will be On. To maintain optimum use of memory during printing, display >Page protect from the operator panel, and re-select Auto.** See ***Page Protect Mode*** on page ***1-65***. If Auto Continue is set to On, printing will be automatically resumed after a preset period of time. See ***Auto Continue Setting*** on page ***1-127***.
RAM disk error ## Press GO	Look at the error code given in place of ## and refer to the corresponding description given below. 01: Abnormal format. Try turning the power off and on again. 02: RAM disk mode is Off. Turn RAM disk mode On. 04: No disk space. Clean up files. 05: Specified file not on disk. 06: No memory for use by disk system. Expand printer memory.
Virtual mail box full	The storage area for the VMB is full. Print out accumulated VMB data.

:Alarm buzzer sounds when an error occurs. Press the **CANCEL** key to stop the alarm buzzer.

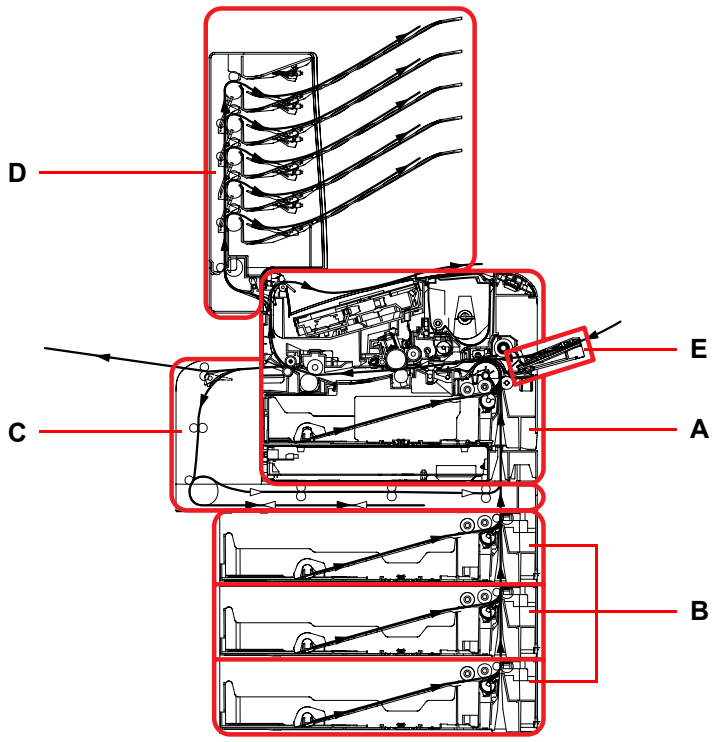
3.4 Correcting a Paper Jam

The `Paper jam` message is displayed on the message display when paper becomes stuck in the paper transport system, the paper feed timing is incorrect, or paper fails to feed at all. The jam can be corrected by removing the paper.

The printer goes off-line when the `Paper jam` message is displayed.

When a paper jam occurs, a paper jam message and the paper jam location are indicated on the message display. Details of the messages and paper jam locations are as follows:

Paper jam message	Paper jam location	Description	Reference page
`Paper jam Cassette 1`	A	Paper is jammed at the paper cassette or inside the printer.	*3-14*
`Paper jam Cassette 2` (to 4)	B	Paper is jammed at the option paper feeder's cassette.	*3-14*
`Paper jam Duplexer`	C	Paper is jammed inside the rear cover of the option duplexer or at the duplexer drawer.	*3-16*
`Paper jam Option Stacker`	D	Paper is jammed at the option sorter.	*3-18*
`Paper jam MP Tray`	E	Paper is jammed at the MP tray.	*3-20*



When the jammed paper has been removed, open and close the printer's top cover or the paper feed unit. Then the printer automatically warms up, goes on-line, and continues printing. Depending on the point at which the jam occurred, the printer may or may not print the jammed page.

If paper jams occur frequently, try using a different type of paper, replace with paper from another ream, turn the stack of paper over, or turn the paper the other way around. Read the information in ***Chapter 4***. Also, look for tiny pieces of paper that may have been torn off and overlooked when the jammed paper was removed.

If you cannot solve the problem by changing the paper, there may be a problem with the printer. Call a service person.

Note

When pulling the paper, pull it gently so as not to tear it. Torn pieces of paper are difficult to remove and may be easily overlooked, deterring the jam recovery.

Online help messages

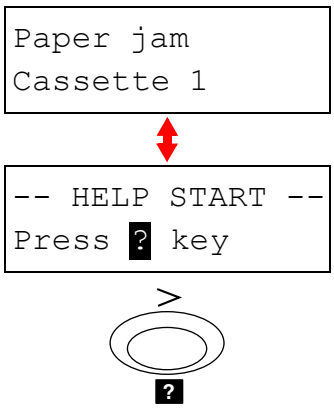
With the online help message function, this printer can display the procedure to correct a paper jam on the message display. When a paper jam message is displayed, press the ? key. The display will show `Please wait` after the jammed paper has been removed.

Pressing the ∨ key at the online help message display shows the next step; pressing the ∧ key shows the previous step.

To exit the online help message display, press the ? key. The previously shown paper jam message appears.

Online help messages that can be displayed when a paper jam occurs and their respective corrective actions are given below:

3.4.1 Jam at the Paper Cassette or Inside the Printer



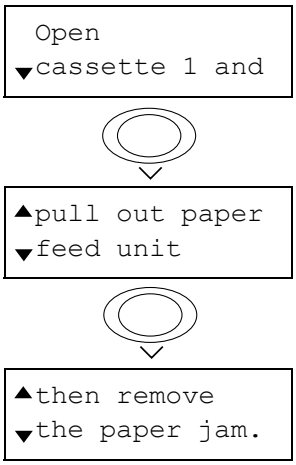
Paper is jammed at the paper cassette or inside the printer. Remove the jammed paper using the procedure given below.

While the display alternates between the paper jam message and `HELP START`, press the ? key. An online help message appears.

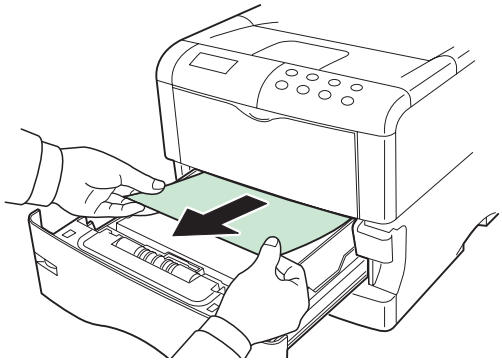
Note

A paper jam which has occurred in the paper cassette of the option paper feeder (PF-60) installed on the printer can be removed in the same manner. Paper cassettes of option paper feeders are indicated as `Cassette 2`, `Cassette 3`, and `Cassette 4`.

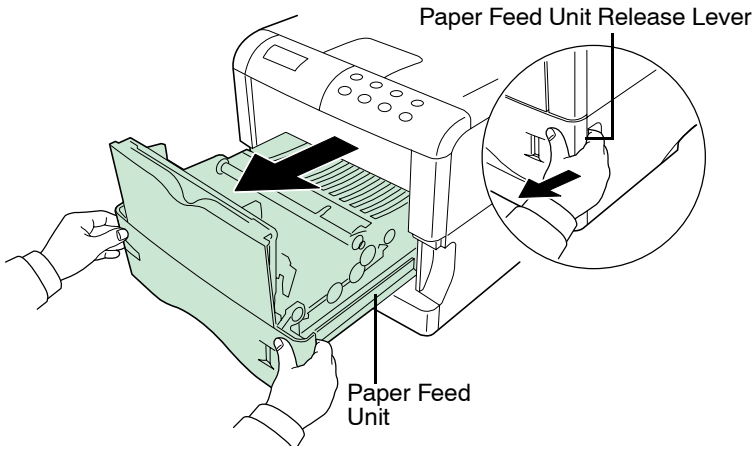
Examples of online help messages



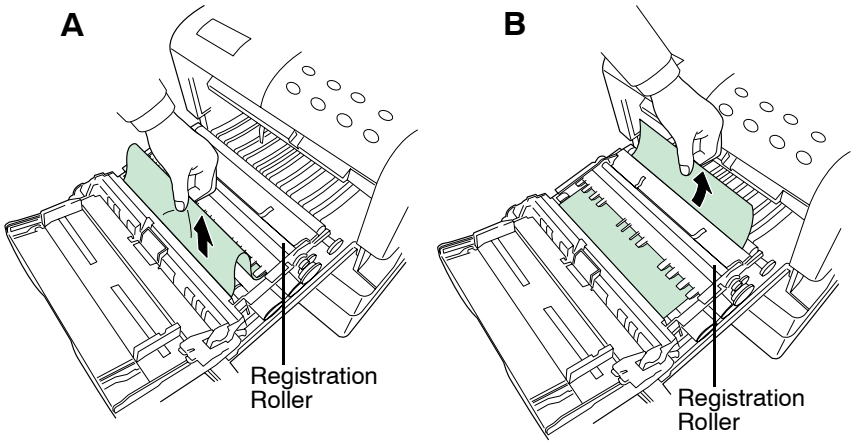
1 Pull out the paper cassette and remove the jammed paper.

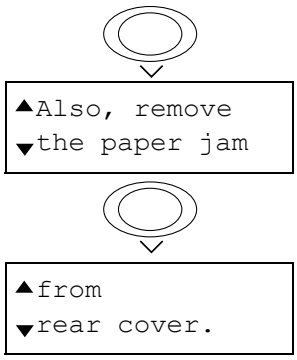


2 Push the paper cassette back in. While pulling the paper feed unit release lever, pull out the paper feed unit.

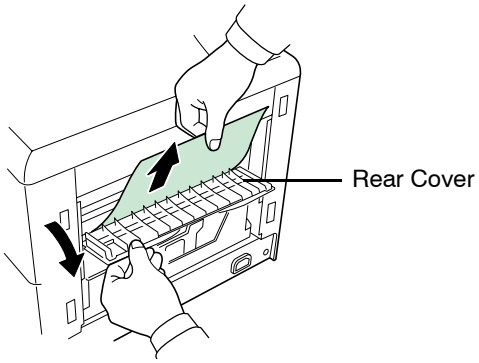


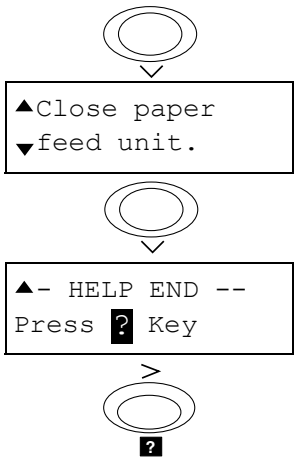
3 If paper is jammed before the registration roller, remove it as shown in **A**. If paper is jammed under the registration roller, remove it as shown in **B**.





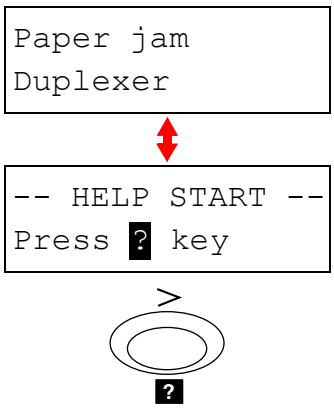
4 Open the rear cover and remove the jammed paper.





5 Push the paper cassette and paper feed unit back in and close the rear cover.

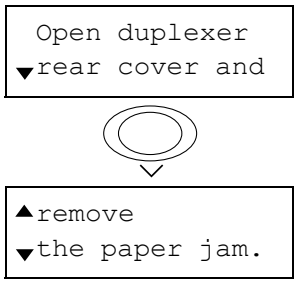
3.4.2 Paper Jam at the Option Duplexer



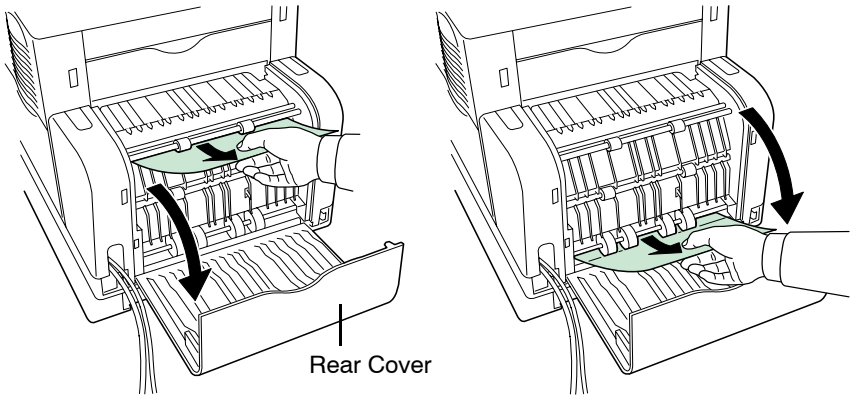
Paper is jammed inside the rear cover of the option duplexer or at the duplexer drawer. Remove the jammed paper using the procedure given below.

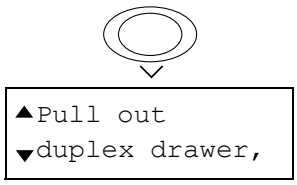
While the display alternates between the paper jam message and HELP START, press the ? key. An online help message appears.

Examples of online help messages

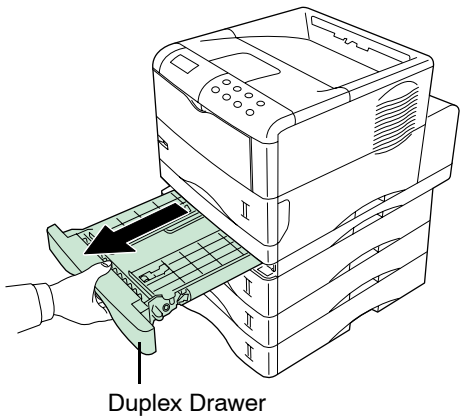


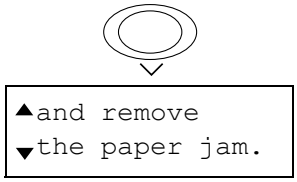
1 Open the rear cover of the duplexer and remove the jammed paper.



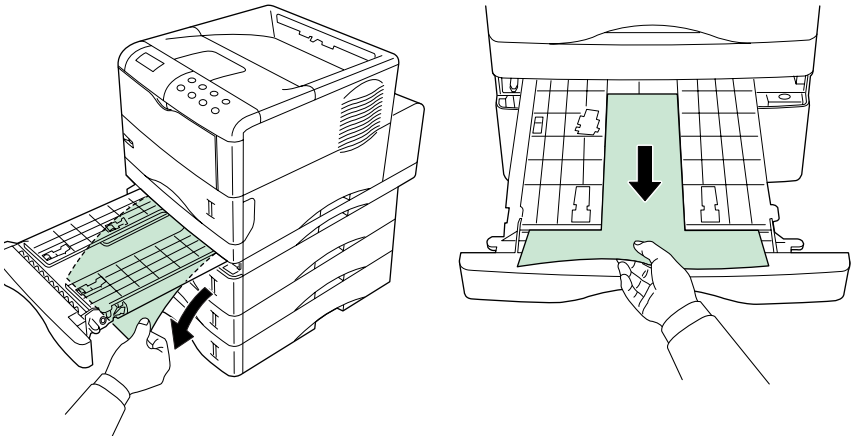


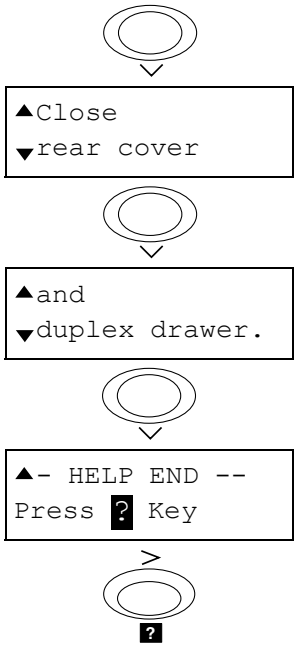
2 Pull out the duplex drawer.





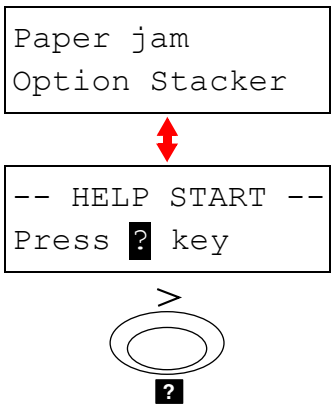
3 Remove the jammed paper.





4 Close the rear cover of the duplexer and the duplex drawer.

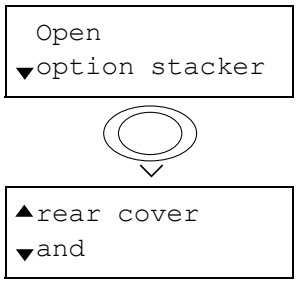
3.4.3 Paper Jam at the Option Sorter



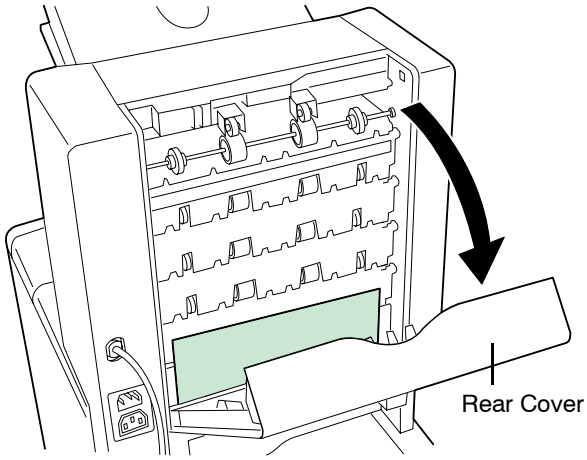
Paper is jammed at the option sorter. Remove the jammed paper using the procedure given below.

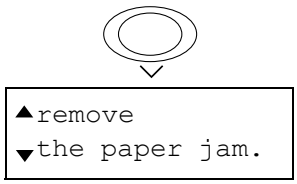
While the display alternates between the paper jam message and `HELP START`, press the ? key. An online help message appears.

Examples of online help messages

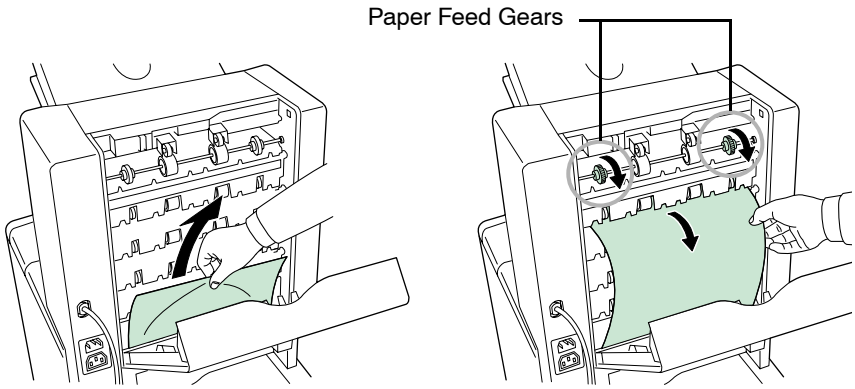


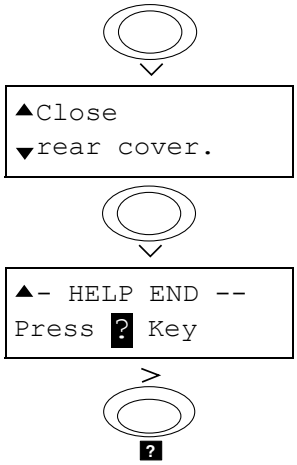
1 Open the rear cover of the option sorter.





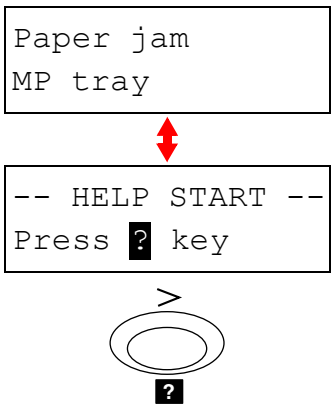
2 Remove the jammed paper. If both ends of the paper are inside the sorter, turn the paper feed gears in the direction of the arrows. The paper can then be removed easily.





3 Close the rear cover of the option sorter.

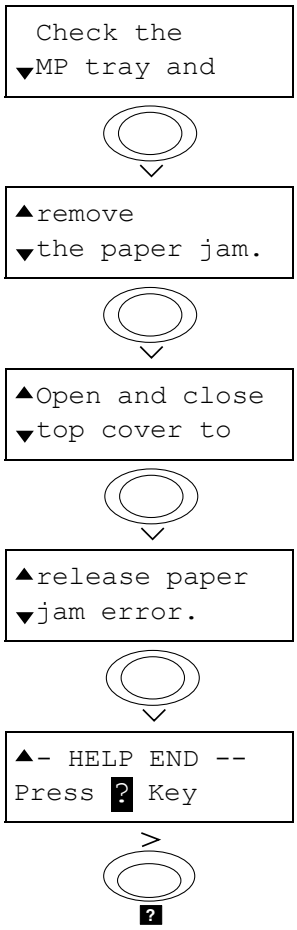
3.4.4 Jam at the MP Tray



Paper is jammed at the MP tray. Remove the jammed paper using the procedure given below.

While the display alternates between the paper jam message and HELP START, press the ? key. An online help message appears.

Examples of online help messages



1. Remove the paper jammed at the MP tray.
2. Open and close the top cover (the paper jam error will be reset).

Chapter 4 Paper Selection

This chapter explains the following topics:

- **General Guidelines**
- **Special Paper**
- **Paper Type**

4.1 General Guidelines

The printer is designed to print on high-quality copier bond paper (the kind used in ordinary dry copier machines), but it can also accept a variety of other types of paper within the limits specified below.

Note

The manufacturer assumes no liability for problems that occur when paper not satisfying these requirements is used.

Selection of the right paper is important. Using the wrong paper can result in paper jams, misfeeding, curling, poor print quality, and paper waste, and in extreme cases can damage the printer. The guidelines given below will increase the productivity of your office by ensuring efficient, trouble-free printing and reducing wear and tear on the printer.

4.1.1 Paper Availability

Most types of paper are compatible with a variety of machines. Paper intended for xerographic copiers can also be used with the printer.

There are three general grades of paper: economy, standard, and premium. The most significant difference between grades is the ease with which they pass through the printer. This is affected by the smoothness, size, and moisture content of the paper, and the way in which the paper is cut. The higher the grade of paper you use, the less risk there will be of paper jams and other problems, and the higher the level of quality your printed output will reflect.

Differences between paper from different suppliers can also affect the printer's performance. A high-quality printer cannot produce high-quality results when the wrong paper is used. Low-priced paper is not economical in the long run if it causes printing problems.

Paper in each grade is available in a range of basis weights (defined later). The traditional standard weights are 16, 20, and 28 pounds (60 to 105 g/m^2).

4.1.2 Paper Specifications

The following table summarizes the basic paper specifications. Details are given on the following pages.

Item	Specification
Weight	Cassette : 60 to 105 g/m^2 (16 to 28 lb/ream) MP tray : 60 to 200 g/m^2 (16 to 53 lb/ream)
Thickness	0.086 to 0.110 mm (3.4 to 4.3 mils)
Dimensional accuracy	±0.7 mm (±0.0276 inches)
Squareness of corners	90° ±0.2°
Moisture content	4 to 6 %
Direction of grain	Long grain
Pulp content	80 % or more

4.1.3 Selecting the Right Paper

Laser printing is a process involving laser light, electrostatic discharge, toner, and heat. In addition, as the paper passes through the printer it undergoes considerable sliding, bending, and twisting motions. A high-quality printing paper matching the printer's requirements withstands all these stresses, enabling the printer to turn out clean, crisp printed copies consistently.

Remember that all paper is not the same. Some of the factors to consider when selecting paper for the printer are as follows:

Condition of the Paper

Avoid using paper that is bent at the edges, curled, dirty, torn, embossed, or contaminated with lint, clay, or paper shreds.

Use of paper in these conditions can lead to illegible printing, misfeeding, and paper jams, and can shorten the life of the printer. In particular, avoid using paper with a surface coating or other surface treatment. The paper should have as smooth and even a surface as possible.

Composition

Do not use paper that has been coated or surface-treated and contains plastic or carbon. The heat of fusing can cause such paper to give off harmful fumes.

Bond paper should contain at least 80% pulp. Not more than 20% of the total paper content should consist of cotton or other fibers.

Paper Size

Cassettes and an MP tray are available for the paper sizes listed in the table below. The dimensional tolerances are ±0.7 mm (±0.0276 inches) for the length and width. The angle at the corners must be 90° ±0.2°.

Multi-purpose tray	Size	Cassette or multi-purpose tray	Size
Monarch	3-7/8 × 7-1/2 inches	Legal	8-1/2 × 14 inches
Business	4-1/8 × 9-1/2 inches	Letter	8-1/2 × 11 inches
International DL	11 × 22 cm	ISO A4	210 × 297 mm
International C5	16.2 × 22.9 cm	ISO A5	148 × 210 mm
International B5	17.6 × 25 cm	JIS B5	182 × 257 mm
Executive	7-1/4 × 10-1/2 inches	Custom	148 to 216 × 210 to 297 mm (5-13/16 to 8-1/2 × 8-1/4 to 14 inches)
Commercial 9	3-7/8 × 8-7/8 inches	Other sizes of paper can be fed manually. The minimum size paper for manual feed is 80 × 148 mm (3-1/8 × 5-13/16 inches), fed lengthwise. The maximum size is 216 × 356 mm (8-1/2 × 14 inches).	
Commercial 6-3/4	3-5/8 × 6-1/2 inches		
ISO A6	105 × 148 mm		
JIS B6	128 × 182 mm		
Hagaki	100 × 148 mm		
Ofuku-Hagaki	148 × 200 mm		

Smoothness

The paper should have a smooth, uncoated surface. Paper with a rough or sandy surface can cause voids in the printed output. Paper that is too smooth, however, can cause multiple feeding and fogging problems. (Fogging is a gray background effect.)

Basis Weight

Basis weight is the weight of a standard quantity of paper. In the traditional system, the standard quantity is a ream consisting of 500 sheets measuring 17 × 22 inches each. In the metric system the standard quantity is 1 square meter.

Paper that is too light or too heavy can cause misfeeding, jams, and premature wear of the printer. Uneven paper weight can cause multiple feeds, print defects, poor toner fusing, blurring, and other print quality problems. The proper weight is 60 to 105 g/m^2 for the paper cassette, and 60 to 200 g/m^2 for the MP tray.

Thickness (Caliper)

Thick paper is referred to as high-caliper paper and thin paper as low-caliper paper. The paper used with the printer should be neither extremely thick nor extremely thin. If you are having problems with paper jams, multiple feeds, and faint printing, the paper you are using may be too thin. If you are having problems with paper jams and blurred printing, the paper may be too thick. The proper thickness is 0.086 to 0.110 mm (3.4 to 4.3 mils).

Moisture Content

Moisture content is defined as the percent ratio of moisture to the dry mass of the paper. Moisture can affect the paper's appearance, feedability, curl, electrostatic properties, and toner fusing characteristics.

The moisture content of the paper varies with the relative humidity in the room. When the relative humidity is high and the paper absorbs moisture, the paper edges expand, becoming wavy in appearance. When the relative humidity is low and the paper loses moisture, the edges shrink and tighten, and print contrast may suffer.

Wavy or tight edges can cause misfeeding and alignment anomalies. The moisture content of the paper should be 4 to 6%.

To ensure the proper moisture content, it is important to store the paper in a controlled environment. Some tips on moisture control are:

- Store paper in a cool, dry location.
- Keep the paper in its wrapping as long as possible. Rewrap paper that is not in use.
- Store paper in its original carton. Place a pallet, etc., under the carton to separate it from the floor.
- After removing paper from storage, let it stand in the same room as the printer for 48 hours before use.
- Avoid leaving paper where it is exposed to heat, sunlight, or damp.

Paper Grain

When paper is manufactured, it is cut into sheets with the grain running parallel to the length (long grain) or parallel to the width (short grain). Short grain paper can cause feeding problems in the printer. All paper used in the printer should be long grain.

Other Paper Properties

Porosity: Refers to the density of the paper structure; that is, how openly or compactly the fibers are bonded.

Stiffness: Limp paper can buckle inside the printer, while paper that is too stiff may bind. Either way the result is a paper jam.

Curl: Most paper has a natural tendency to curl in one direction. The paper should be loaded so that the natural curl is downward, to counteract the upward curl imparted by the printer. Printed sheets will then come out flat. Most paper also has a top and bottom surface. Loading instructions are usually given on the paper package.

Note

If the paper is considerably curled in one direction, e.g. when the paper was used to print on one side, try to roll the paper in the opposite direction to counteract the curl. Printed sheets will then come out flat.

Electrostatic properties: During the printing process, the paper is electrostatically charged to attract the toner. The paper must be able to release this charge so that printed sheets do not cling together in the output tray.

Whiteness: The contrast of the printed page depends on the whiteness of the paper. Whiter paper provides a sharper, brighter appearance.

Quality control: Uneven sheet size, corners that are not square, ragged edges, welded (uncut) sheets, and crushed edges and corners can cause the printer to malfunction in various ways. A quality paper supplier should take considerable care to ensure that these problems do not occur.

Packaging: Paper should be packed in a sturdy carton to protect it from damage during transport. Quality paper obtained from a reputable supplier is usually properly packaged.

4.2 Special Paper

This section explains printing on special paper. The page printer can use the following types of special paper. In this case, set the media type according to the table below.

Paper type	Media type
Colored paper	Color
Preprinted paper	Preprinted
Overhead projector transparencies	Transparency
Postcards	Cardstock
Envelopes	Envelope
Label	Labels

When using the above types of paper, be sure to use products that are specified for use with photocopiers and/or page printers. Feed paper other than colored paper or pre-printed paper from the MP (multi-purpose) tray.

Use paper that is sold specifically for use with copiers (heat-fusing type). Label paper and envelopes should not be placed in the cassette; they must be fed manually and delivered in the face up stack.

Since the composition and quality of special paper vary considerably, special paper is more likely than white bond paper to give trouble during printing. No liability will be assumed if moisture, etc., given off in printing on special paper causes harm to the machine or operator.

Note

Before purchasing any type of special paper, test a sample on the printer and check that print quality is satisfactory.

Specifications for each type of special paper are given below.

4.2.1 Transparency (Overhead Projection Film)

Transparency must be able to withstand the heat of fusing during the printing process. It should satisfy the conditions given in the table below.

Item	Specification
Tolerance of heat	Must tolerate at least 190°C (374°F)
Thickness	0.100 to 0.110 mm (3.9 to 4.3 mils)
Material	Polyester
Dimensional accuracy	±0.7 mm (±0.0276 in.)
Squareness of corners	90° ± 0.2°

To avoid trouble, transparency must be delivered face-up.

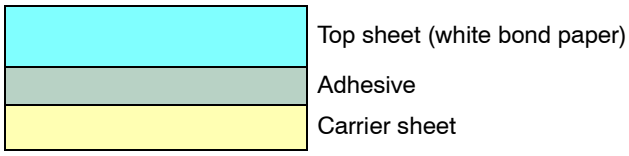
If transparency jams frequently, pull the top of the sheet very gently as it leaves the printer.

4.2.2 Adhesive-Backed Labels

The basic rule for printing on adhesive labels is that the adhesive must never come into contact with any part of the printer. Adhesive paper sticking to the drum or rollers will damage the printer.

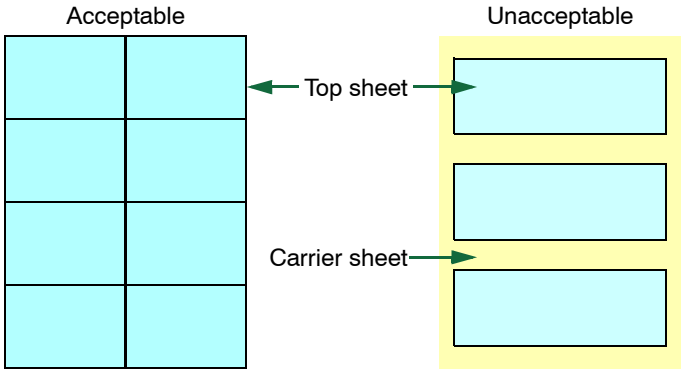
Label paper must be manually fed.

Label paper has a structure comprised of three layers, as shown in the figure below. The top sheet is printed on. The adhesive layer consists of pressure-sensitive adhesives. The carrier sheet (also called the linear or backing sheet) holds the labels until use. Due to the complexity of its composition, adhesive-backed label paper is particularly likely to give trouble in printing.



Adhesive label paper must be entirely covered by its top sheet, with no spaces between the individual labels. Labels with spaces in between are apt to peel off, causing serious paper jam problems.

Some label paper is manufactured with an extra margin of top sheet around the edge. Do not remove the extra top sheet from the carrier sheet until after printing is finished.



The table below lists the specifications for adhesive label paper.

Item	Specification
Weight of top sheet	44 to 74 g/m^2 (12 to 20 lb/ream)
Composite weight	104 to 151 g/m^2 (28 to 40 lb/ream)
Thickness of top sheet	0.086 to 0.107 mm (3.9 to 4.2 mils)
Composite thickness	0.115 to 0.145 mm (4.5 to 5.7 mils)
Moisture content	4 to 6% (composite)

Envelopes

The printer can print on envelopes using paper with a basis weight of 60 to 79 g/m^2 (16 to 21 lb/ream). Envelopes must be manually fed.

An envelope is a more complex object than a single sheet of paper. For this reason, it may not be possible to obtain consistent print quality over the entire envelope surface.

Many envelopes have a diagonal grain orientation (See ***Paper Grain*** on page ***4-5***). This orientation is more likely to wrinkle and crease on its way through the printer. Before purchasing envelopes for use with the printer, test a sample to verify the envelope's suitability.

Do not use envelopes that have an encapsulated liquid adhesive.

Avoid long printing runs consisting of envelopes only. Extensive envelope printing can cause premature printer wear.

To avoid jamming due to curled envelopes, do not leave more than approximately 10 printed envelopes stacked in the paper trays during multiple envelope printing.

Colored Paper

Colored paper should satisfy the same conditions as white bond paper, listed in ***4.1.2 Paper Specifications*** on page ***4-2***. In addition, the pigments used in the paper must be able to withstand the heat of fusing during the printing process (up to 200 °C or 392 °F).

Preprinted Paper

Preprinted paper should have a bond paper base. The preprinted ink must be able to withstand the heat of fusing during the printing process, and must not be affected by silicone oil.

Do not use paper with any kind of surface treatment, such as the type of paper commonly used for calendars.

Recycled Paper

Select recycled paper that meets the same specifications as the white bond paper (see ***4.1.2 Paper Specifications*** on page ***4-2***) except whiteness.

Note

Before purchasing recycled paper, test a sample on the printer and check that the print quality is satisfactory.

4.3 Paper Type

The printer is capable of printing under the optimum setting for the type of paper being used.

Setting the paper type for the paper source from the printer's operator panel will cause the printer to automatically select the paper source and print in the mode best suited to that type of paper.

A different paper type setting can be made for each paper source including the MP tray. Not only can preset paper types be selected, but it is also possible for you to define and select customized paper types. See ***Customizing Paper Type*** on page ***1-107***.

The following types of paper can be set.

Paper source / Paper Type	MP tray	Paper Cassette	Paper Weight	Duplex path (MP tray available only in Cassette mode)
Plain	O	O	Normal	O
Transparency	O	×	Heavy (Thick)	×
Preprinted	O	O	Normal	O
Labels	O	×	Normal	×
Bond	O	O	Normal	O
Recycled	O	O	Normal	O
Vellum	O	×	Light (Thin)	×
Rough	O	O	Normal	O
Letterhead	O	O	Normal	O
Color	O	O	Normal	O
Prepunched	O	O	Normal	O
Envelope	O	×	Normal	×
Cardstock	O	×	Heavy	×
Custom 1 (to 8)*	O	O	Normal	O

O: Can be stored ×: Cannot be stored

* This is a paper type defined and registered by the user. Up to eight types of user settings may be defined. For details on ***Customizing Paper Type*** on page ***1-107***.

Appendix A Fonts

This appendix explains the types of fonts you can use with the printer. A font is a set of characters of a particular design. The design is referred to as a *typeface*. Several characteristics identify a font. These include the code set (For details on the code sets, read the ***Programming Manual*** on the supplied CD-ROM), spacing, pitch, height, style, stroke weight, and typeface family.

List of Fonts

This section contains a full list of the printer's internal fonts. The printer has 80 PCL/PS compatible fonts and a bitmap font for a line printer. You can print the same font list from the printer by using the printer's operator panel key. To print a list of fonts, refer to ***Printing a List of Fonts*** on page ***1-59***.

Font may be downloaded to the printer's memory from a option Compact-Flash card or Microdrive.

PCL (Scalable and Bitmap) Fonts

Font number	Font samples
0	This is a sample of Courier font.
1	This is a sample of CGTimes font.
2	**This is a sample of CGTimes-Bd font.**
3	*This is a sample of CGTimes-It font.*
4	***This is a sample of CGTimes-BdIt font.***
5	This is a sample of CGOmega font.
6	**This is a sample of CGOmega-Bd font.**
7	*This is a sample of CGOmega-It font.*
8	***This is a sample of CGOmega-BdIt font.***
9	*This is a sample of Coronet font.*
10	**This is a sample of Clarendon-Cd font.**
11	This is a sample of Univers-Md font.
12	**This is a sample of Univers-Bd font.**
13	*This is a sample of Univers-MdIt font.*
14	***This is a sample of Univers-BdIt font.***
15	This is a sample of Univers-MdCd font.
16	**This is a sample of Univers-BdCd font.**
17	*This is a sample of Univers-MdCdIt font.*
18	***This is a sample of Univers-BdCdIt font.***
19	This is a sample of AntiqueOlive font.
20	**This is a sample of AntiqueOlive-Bd font.**
21	*This is a sample of AntiqueOlive-It font.*
22	This is a sample of GaramondAntiqua font.
23	**This is a sample of Garamond-Hlb font.**
24	*This is a sample of Garamond-Krsv font.*
25	***This is a sample of Garamond-HlbKrsv font.***
26	*This is a sample of Marigold font.*
27	This is a sample of Albertus-Md font.

Font number	Font samples
28	**This is a sample of Albertus-ExBd font.**
29	This is a sample of Arial font.
30	**This is a sample of Arial-Bd font.**
31	*This is a sample of Arial-It font.*
32	***This is a sample of Arial-BdIt font.***
33	This is a sample of TimesNewRoman font.
34	**This is a sample of TimesNewRoman-Bd font.**
35	*This is a sample of TimesNewRoman-It font.*
36	***This is a sample of TimesNewRoman-BdIt font.***
37	This is a sample of Helvetica font.
38	**This is a sample of Helvetica-Bd font.**
39	*This is a sample of Helvetica-Ob font.*
40	***This is a sample of Helvetica-BdOb font.***
41	This is a sample of Helvetica-Nr font.
42	**This is a sample of Helvetica-NrBd font.**
43	*This is a sample of Helvetica-NrOb font.*
44	***This is a sample of Helvetica-NrBdOb font.***
45	This is a sample of Palatino font.
46	**This is a sample of Palatino-Bd font.**
47	*This is a sample of Palatino-It font.*
48	***This is a sample of Palatino-BdIt font.***
49	This is a sample of ITCAvantGardeGothic-Bk font.
50	**This is a sample of ITCAvantGardeGothic-Dm font.**
51	*This is a sample of ITCAvantGardeGothic-BkOb font.*
52	***This is a sample of ITCAvantGardeGothic-DmOb font.***
53	This is a sample of ITCBookman-Lt font.
54	**This is a sample of ITCBookman-Dm font.**
55	*This is a sample of ITCBookman-LtIt font.*
56	***This is a sample of ITCBookman-DmIt font.***
57	This is a sample of NewCenturySchoolbook-Rom font.
58	**This is a sample of NewCenturySchoolbook-Bd font.**
59	*This is a sample of NewCenturySchoolbook-It font.*
60	***This is a sample of NewCenturySchoolbook-BdIt font.***
61	This is a sample of Times-Rom font.
62	**This is a sample of Times-Bd font.**
63	*This is a sample of Times-It font.*
64	***This is a sample of Times-BdIt font.***
65	*This is a sample of ITCZapfChancery-MdIt font.*
66	Τηισ ισ α σαμπλε οφ Σψμβολ φοντ. (Symbol)
67	Τηισ ισ α σαμπλε οφ ΣψμβολΠΣ φοντ. (SymbolPS)

Font number	Font samples
68	❄♒♓♦ ♓♦ ♋ ♦♋❍◘●♏ ◘➚ ♓♓■♑♎♓■♑♦ ➚◘■⧫ (Wingdings)
69	✶❊❄▲ ❄▲ ❁ ▲❁❍❒●❄ ❑❄ ☆✶✣✺❁❒❊✤❄■❊✪❁▼▲ ❄❑ (ITCZapfDingbats)
70	**This is a sample of Courier-Bd font.**
71	*This is a sample of Courier-It font.*
72	***This is a sample of Courier-BdIt font.***
73	This is a sample of LetterGothic font.
74	This is a sample of LetterGothic-Bd font.
75	*This is a sample of LetterGothic-It font.*
76	This is a sample of CourierPS font.
77	**This is a sample of CourierPS-Bd font.**
78	*This is a sample of CourierPS-Ob font.*
79	***This is a sample of CourierPS-BdOb font.***
80	This is a sample of LinePrinterBM8.5-Roman font.

KPDL Fonts (1)

This is a sample of Albertus-ExtraBold font.
This is a sample of Albertus-Medium font.
This is a sample of AntiqueOlive font.
This is a sample of AntiqueOlive-Bold font.
This is a sample of AntiqueOlive-Italic font.
This is a sample of Arial font.
This is a sample of Arial-Bold font.
This is a sample of Arial-BoldItalic font.
This is a sample of Arial-Italic font.
This is a sample of AvantGarde-Book font.
This is a sample of AvantGarde-BookOblique font.
This is a sample of AvantGarde-Demi font.
This is a sample of AvantGarde-DemiOblique font.
This is a sample of Bookman-Demi font.
This is a sample of Bookman-DemiItalic font.
This is a sample of Bookman-Light font.
This is a sample of Bookman-LightItalic font.
This is a sample of CGOmega font.
This is a sample of CGOmega-Bold font.
This is a sample of CGOmega-BoldItalic font.
This is a sample of CGOmega-Italic font.
This is a sample of CGTimes font.
This is a sample of CGTimes-Bold font.
This is a sample of CGTimes-BoldItalic font.
This is a sample of CGTimes-Italic font.
This is a sample of Clarendon-Condensed-Bold font.
This is a sample of Coronet font.
This is a sample of Courier font.
This is a sample of Courier-Bold font.
This is a sample of Courier-BoldOblique font.
This is a sample of Courier-Oblique font.
This is a sample of CourierPCL font.
This is a sample of CourierPCL-Bd font.
This is a sample of CourierPCL-BoldItalic font.
This is a sample of CourierPCL-Italic font.
This is a sample of Garamond-Antiqua font.
This is a sample of Garamond-Halbfett font.
This is a sample of Garamond-Kursiv font.
This is a sample of Garamond-KursivHalbfett font.

KPDL Fonts (2)

This is a sample of Helvetica font.
This is a sample of Helvetica-Bold font.
This is a sample of Helvetica-BoldOblique font.
This is a sample of Helvetica-Narrow font.
This is a sample of Helvetica-Narrow-Bold font.
This is a sample of Helvetica-Narrow-BoldOblique font.
This is a sample of Helvetica-Narrow-Oblique font.
This is a sample of Helvetica-Oblique font.
This is a sample of LetterGothic font.
This is a sample of LetterGothic-Bold font.
This is a sample of LetterGothic-Italic font.
This is a sample of Marigold font.
This is a sample of NewCenturySchlbk-Bold font.
This is a sample of NewCenturySchlbk-BoldItalic font.
This is a sample of NewCenturySchlbk-Italic font.
This is a sample of NewCenturySchlbk-Roman font.
This is a sample of Palatino-Bold font.
This is a sample of Palatino-BoldItalic font.
This is a sample of Palatino-Italic font.
This is a sample of Palatino-Roman font.
Τηισ ισ α σαμπλε οφ Σψμβολ φοντ. (Symbol)
Τηισ ισ α σαμπλε οφ ΣψμβολΠΧΛ φοντ. (Symbol MT)
This is a sample of Times-Bold font.
This is a sample of Times-BoldItalic font.
This is a sample of Times-Italic font.
This is a sample of Times-Roman font.
This is a sample of TimesNewRoman font.
This is a sample of TimesNewRoman-Bold font.
This is a sample of TimesNewRoman-BoldItalic font.
This is a sample of TimesNewRoman-Italic font.
This is a sample of Univers-Bold font.
This is a sample of Univers-BoldItalic font.
This is a sample of Univers-Condensed-Bold font.
This is a sample of Univers-Condensed-BoldItalic font.
This is a sample of Univers-Condensed-Medium font.
This is a sample of Univers-Condensed-MediumItalic font.
This is a sample of Univers-Medium font.
This is a sample of Univers-MediumItalic font.
❄♒♓♦ ♓♦ ♋ ♦♋❍❑●♏ □♐ ⌖♓■♑♎♓■♑♦🖃☼♏♑◆ (Wingdings-Regular)
This is a sample of ZapfChancery-MediumItalic font.
✳❇❇▲ ❇▲ ❁ ▲❁❍❒●❇ ❑❇ ✺❁❒❇✤❇■❇✪❁▼▲ ❇❑■▼✎ (ZapfDingbats)

Appendix B Expansion Memory

This appendix explains how to expand the printer's memory. Expanded printer memory enables you to print more complex pages, download more fonts, and define more macros.

B.1 Expanding the Printer Memory

This section explains how to expand the printer's memory. Expanded printer memory enables you to print more complex pages, download more fonts, and define more macros.

This section first explains how to remove the main circuit board and then how to install a DIMM (Dual In-line Memory Module) on the main circuit board.

The FS-1800/FS-1800N comes supplied with 8 MB of memory installed, and the FS-3800/FS-3800N comes with 16 MB of memory installed. Two sockets are provided for expanding the printer memory to allow more complex printing jobs and increase the printing speed. By installing DIMMs into your printer, the memory in the FS-1800/FS-1800N can be increased to a maximum of 264 MB, and that in the FS-3800/FS-3800N can be increased to a maximum of 272 MB.

Note

The expansion memory should be installed only by a Kyocera Mita authorized dealer or Kyocera Mita certified technician. Kyocera Mita shall not be liable for damage due to improper installation of the expansion memory.

The minimum memory requirements for the printer with various options installed are listed in the table below. Please refer to this table when expanding the printer's memory.

Printing condition	Resolution			
	300 dpi	600 dpi	1200 dpi	
			Fast mode	Fine mode
PCL6, duplex mode = None	8 MB	8 MB	8 MB	8 MB
PCL6, duplex mode = On	8 MB	8 MB	8 MB	16 MB
KPDL, duplex mode = None	8 MB	8 MB	8 MB	8 MB
KPDL, duplex mode = On	8 MB	8 MB	16 MB	16 MB
PCL6/KPDL resource protection, duplex mode = None	–	16 MB	16 MB	16 MB
PCL6/KPDL, resource protection, duplex mode = On	–	16 MB	16 MB	16 MB

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 DIMMs.

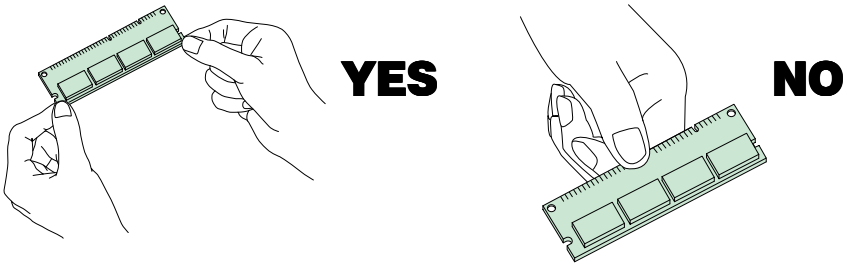
Note

The following instructions are intended for the technician only.

Notes on Handling the Main Circuit Board and DIMM

Protect the electronics by taking these precautions:

- **Before touching the main circuit board and DIMM, 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 DIMM only at the edges.**



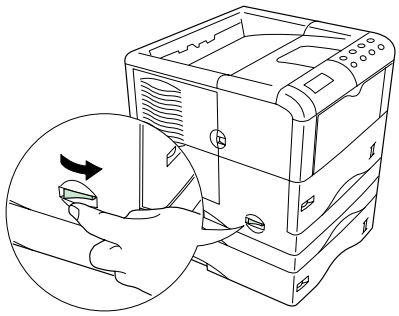
Removing the Main Circuit Board from the Printer

Note

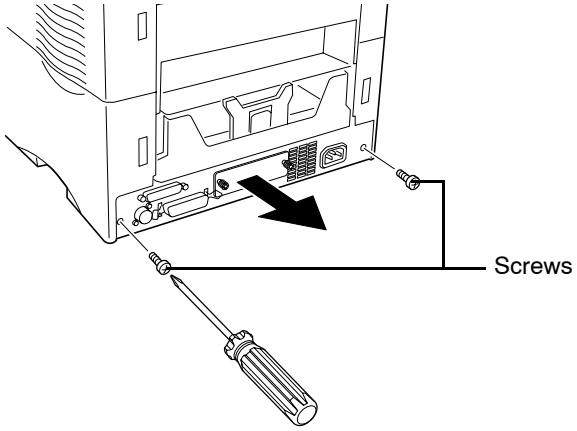
Be sure to remove the CompactFlash Card (memory card) first if inserted in the printer's card slot.

Remove the main circuit board completely from the printer as follows:

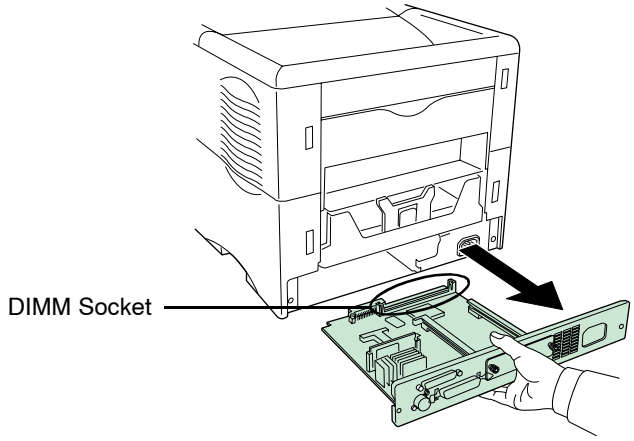
1 Turn the printer off and unplug its power cord. Disconnect the printer from the host computer.



2 Remove the two screws from the printer's rear panel.



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



Note

Before pulling the main circuit board out, clear away the area, behind the printer. Foreign objects, accidentally sticking to the back of the main circuit board, can cause serious damage to the printer.

Install the DIMM as described on the following page.

DIMMs to be used

See your Kyocera Mita dealer for purchasing information of the DIMMs that are best suited for use with this printer.

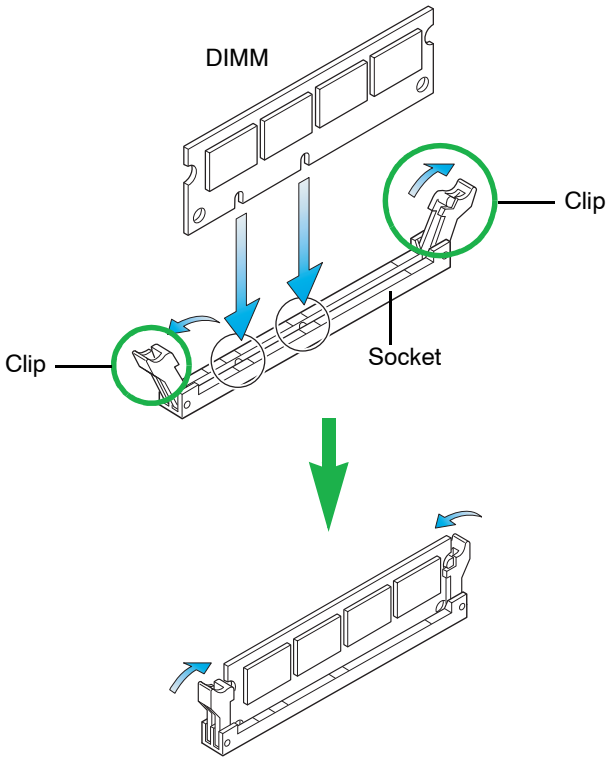
16 MB, 32 MB, 64 MB, and 128 MB DIMMs can be used for memory expansion.

Installing and Removing the DIMM

Installing DIMMs

Insert the DIMM into the socket as shown below.

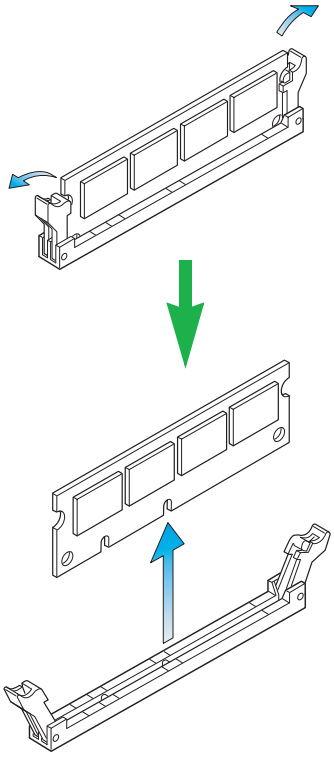
1. Remove the DIMM from its package.
2. Open the clips on both ends of the DIMM socket.
3. Insert the DIMM into the socket, so that the notches on the DIMM align with the corresponding protusions in the socket.
4. Close the clips of the DIMM socket to secure the DIMM.
5. When you finish installing the DIMM, reinsert the main circuit board into the printer by reversing the removal procedure.



Removing DIMM

To remove a DIMM, carefully pull the end clips outwards, then pull the DIMM out of the socket.

Return the main circuit board to the printer by reversing the procedure explained in ***Removing the Main Circuit Board from the Printer***.



Testing the Expansion Memory

After you finish installing DIMMs in the printer, test the printer to see if the installation was successful.

To test the expansion memory, proceed as follows:

1. Make sure printer is turned off. Plug the power cord into the printer and turn the printer on.
2. Press the **MENU** key on the operator panel.
3. Press the ∧ or ∨ key repeatedly until `Print Status Page` appears.
4. Press the **ENTER** key twice.
5. If the installation was successful, the amount of memory shown on the status page will correspond with the amount of expanded memory. (The factory installed memory size is 8 MB for the FS-1800/FS-1800N and 16 MB for the FS-3800/FS-3800N.)

Appendix C Host Computer Interface

This appendix explains the signals used in the printer's parallel and RS-232C interfaces. It also lists pin assignments, signal functions, timings, connector specifications, and voltage levels. The RS-232C protocols are also covered. Finally, it explains how to use the printer in a multi-computer environment.

This appendix explains the following topics:

- **Parallel Interface**
- **Serial Interface**
- **RS-232C Protocol**
- **RS-232C Cable Connection**

C.1 Parallel Interface

C.1.1 Parallel Interface Communication Modes

The printer features fast data transmission with the parallel interface. The parallel interface mode can be activated from the operator panel.
See ***Changing Parallel Interface Modes*** on page ***1-40***.

Note

Use a parallel printer cable that complies with the IEEE1284 standard.

Nibble (high) [default]
High speed data communication is used in compliance with the IEEE1284 standard. Ordinarily, you should leave this setting unchanged.

Auto
The printer automatically changes its communication mode to the one the host computer is currently using.

Normal
The printer uses the standard communication method prescribed for Centronics interfaces.

High-speed
This mode enables faster data transmission between the printer and the host computer.
(Select this mode if printing problems occur when the printer is connected to a workstation.)

C.1.2 Interface Signals

The pins of the parallel interface connector carry the signals listed in the table in ***Parallel Connector Pin Assignment*** on page ***C-3***. Asterisks in the table indicate signals that are active low. The table also indicates whether each signal is incoming or outgoing with respect to the printer.

Parallel Connector Pin Assignment

Pin	In/out	Description
1	In	Strobe* [nStrobe]
2	In/Out	Data 0 [Data 1]
3	In/Out	Data 1 [Data 2]
4	In/Out	Data 2 [Data 3]
5	In/Out	Data 3 [Data 4]
6	In/Out	Data 4 [Data 5]
7	In/Out	Data 5 [Data 6]
8	In/Out	Data 6 [Data 7]
9	In/Out	Data 7 [Data 8]
10	Out	Acknowledge* [nAck]
11	Out	Busy [Busy]
12	Out	Paper Empty [PError], returns paper empty status if FRPO O2=2
13	Out	Select (Online) [nSelect], returns off-line status if FRPO O2=2
14	In	Auto-feed [nAutoFd]
15	-	Not connected
16	-	0 V DC
17	-	Chassis GND
18	-	+5 V DC
19	-	Ground
20	-	Ground
21	-	Ground
22	-	Ground
23	-	Ground
24	-	Ground
25	-	Ground
26	-	Ground
27	-	Ground
28	-	Ground
29	-	Ground
30	-	Ground
31	In	Ignored [nInit]
32	Out	Error*, returns error status if FRPO O2=2 [nFault]
33	-	Not connected
34	-	Not connected
35	Out	Power Ready
36	In	Ignored In [nSelectIn]

[ ]: Signal names in the Auto mode and Nibble (high) mode (IEEE1284). In the Auto mode and Nibble (high) mode, these signals are bi-directional.

Detailed descriptions of the signals follow.

Strobe* [nStrobe] (Pin 1)
A negative-going Strobe* pulse causes the printer to read and latch the data on the Data 0 [1] to Data 7 [8] signal lines.

Data 0 [1] to Data 7 [8] (Pins 2 to 9)
These eight signals form the data byte sent from the host computer to the printer. Data 7 [8] is the most significant bit.

Acknowledge* [nAck] (Pin 10)
This negative-going pulse acknowledges the previous character received by the printer.

Busy [Busy] (Pin 11)
This signal is high when the printer is busy and low when it is able to accept more data.

Paper Empty [PError] (Pin 12)
This signal goes high when the printer has received a print job and run out of paper.

Select [Online] (Pin 13)
This signal is high when the printer is online and low when the printer is offline. It goes low when the **GO** key is pressed to set the printer offline.

+5 V DC (Pin 18)
This line is connected to the printer's +5 V DC line (+5 V ±0.5 V, maximum 400 mA, fused).

Error* [nFault] (Pin 32)
When the high-speed parallel line control is on (FRPO O2=2), this line returns error status.

Power Ready (Pin 35)
This signal is high when the printer is turned on.

Note

The Paper Empty, Online, and Error signals are not used unless enabled by the FRPO command (O2 parameter).

C.2 Serial Interface

C.2.1 Interface Signals

The pins of the printer's RS-232C interface connector carry the signals listed in the table below. The table also indicates whether each signal is incoming or outgoing with respect to the printer.

RS-232C Signal Pin Assignment

Pin	In/out	Signal	Description
1	-	FG	Frame ground
2	Out	TXD	Transmit Data
3	In	RXD	Receive Data
4	Out	RTS	Request To Send
5	In	CTS	Clear To Send
6	In	DSR	Data Set Ready
7	-	SG	Signal Ground
20	Out	DTR	Data Terminal Ready

Brief descriptions of the signals follow.

FG - Frame Ground - (Pin 1)
This pin is connected directly to the printer frame.

TXD - Transmit Data - (Pin 2)
This output carries asynchronous data sent by the printer to the computer. It is used mainly in handshaking protocols.

RXD - Receive Data - (Pin 3)
This input carries serial asynchronous data sent by the computer to the printer.

RTS - Request To Send - (Pin 4)
This output is always held high (above 3 volts).

CTS - Clear To Send - (Pin 5)
DSR - Data Set Ready - (Pin 6)
Unused.

SG - Signal Ground - (Pin 7)
All signals can transmit between the printer and the host computer to send each signal with a signal ground.

DTR - Data Terminal Ready - (Pin 20)

This output is used as a buffer nearly-full handshake line. It is held high (above 3 volts) when the buffer can accept more data.

RS-232C Interface Voltage Levels

The voltage levels of the interface signals conform to EIA RS-232C specifications. SPACE is from 3 volts to 15 volts. MARK is from –3 volts to –15 volts. Voltages between –3 volts and 3 volts are undefined.

SERIAL Connector

The connector marked **IOIOI** (RS-232C) on the rear panel is a DB-25S connector. Use a DB-25P connector (or equivalent) for the connector on the cable.

C.3 RS-232C Protocol

A protocol is a set of rules the computer follows in sending data to the printer. They are indicated on the status page. Parameters can be changed from the operator panel. See ***Changing Serial Interface Modes*** on page ***1-42***. The parameters and their identification codes are given below.

H1: Baud rate

Parameter value	Baud rate
12	1200
24	2400
48	4800
96	9600
19	19200
38	38400
57	57600
11	115200

The factory default setting is 9600 baud.

Note

Some computers may not be compatible with a baud rate of 115200 bps. If you set the baud rate to 115200 and communication problems occur, lower the baud rate.

H2: Data bits

7 or 8; the factory default setting is 8.

H3: Stop bits

1 or 2; the factory default setting is 1.

H4: Parity

Parameter value	Meaning
0	None
1	Odd
2	Even
3	Ignore

The factory default setting is None (0 on the status printout).

H5: Protocol logic

Parameter value	Meaning
0	Combination of 1 and 3 below
1	DTR, positive logic
2	DTR, negative logic
3	XON/XOFF
4	ETX/ACK
5	XON/XOFF recognized only as protocol

The factory default setting is 0.

H6: Buffer nearly-full threshold

This is a percentage from 0 to 99. The factory default setting is 90.

H7: Buffer nearly-empty threshold

This is a percentage from 0 to 99. The factory setting is 70.

The factory default settings of the buffer nearly-full and nearly-empty thresholds (H6 and H7) are subject to change without notification.

The gap between the nearly-full and nearly-empty thresholds allows the computer to send a fairly large amount of data in a continuous stream.

H8: Received-data buffer size

This is the size of the input buffer, specified in units of 10 Kbytes. The factory default setting is 6, meaning 60 Kbytes.

PRESCRIBE 2e FRPO D0 command

The PRESCRIBE 2e FRPO D0 command is provided to allow manipulating XON/XOFF when an error has occured on the serial interface. The following table summarizes the error status corresponding to different D0 values.

Timing of XON transfer to host while Ready or Waiting	Serial interface error	
	Error not handled	Error handled
XON sent every 3 to 5 seconds	D0=0 (default)	D0=1
XON not sent	D0=10	D0=11

C.4 RS-232C Cable Connection

C.4.1 Preparing an RS-232C Cable

After obtaining an RS-232C cable, check that it is wired correctly, referring to the table in ***RS-232C Signal Pin Assignment*** on page ***C-5***. If you have an IBM communication adapter cable type 1502067, you will have to resolder the wiring at the printer end of the cable. The procedure is as follows.

1. Remove the plastic cover from the printer end of the cable.
2. Next to each of the wires inside the cable is a bare shield wire. Solder all these shield wires together into a single bundle.
3. Using a section of flat wire about 3 mm wide and 15 mm long, connect the bundle of shield wires to the metal facing of the connector. Check that the solder connections are secure.
4. Desolder wires 2 and 3, then resolder them in crossed configuration. Solder wire 2 to pin 3 and wire 3 to pin 2. Cover the solder joints with thermofit tube.
5. Cut wires 4, 5, 6, and 20.
6. Solder wires 5 and 6 together and connect them to pin 20. Cover the solder joints with thermofit tube. Leave wire 4 unconnected.
7. Tape all remaining loose ends, or seal them with thermofit tube.
8. Attach the plastic cover back on.

C.4.2 Connecting the RS-232C Cable

Check that the power of both the printer and the computer is switched off.

1. Discharge yourself of static electricity by touching a metal object such as a doorknob.
2. Plug the printer end of the RS-232C interface cable into the printer's RS-232C connector and attach it in place.
3. Plug the other end of the cable into the computer's RS-232C interface connector.
4. Turn on the printer.

5 The printer RS-232C parameters are factory-set to the following values:

Baud rate=9600 bps, data bits (character length)=8 bits, stop bits=1, parity=none

The two RS-232C protocols are XON/XOFF and DTR. The printer performs both of them simultaneously, using positive logic for DTR.

If you are uncertain as to the printer's current parameter settings, you can reset them to the values listed above by following the procedure explained in ***Printer Resetting*** on page ***1-123***.

6 Set the computer to the same parameters as the printer. On many computers this can be done by setting DIP switches before the power is turned on. Another method is as follows:

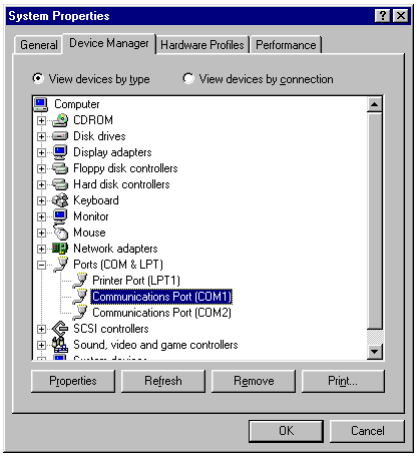
C.4.3 Setting the RS-232C Parameters

Windows 95/98

1 Click on **Start** button in the Windows 95/98 task bar and align the cursor with **Settings**, then click on **Control Panel** from among the items displayed.

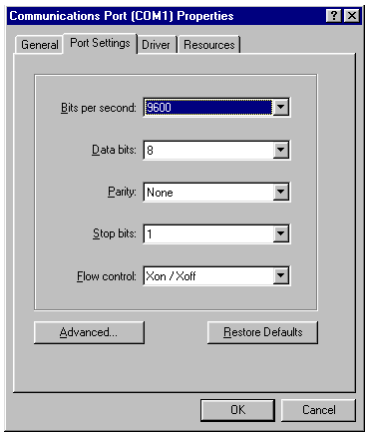
2 The control panel folder opens. Double click on **System**.

3 **System Properties** opens. Click on the **Device Manager** tab, then click on the **COM** port to be used.



4 Click on **Properties** button.

5 The Properties sheet is displayed for the selected **COM** port. Click on the **Port Settings** tab and set the port properties.



6 After setting the properties, click **OK** button.

DOS

1 Enter the following commands:

```
C:\>MODE COM1:96,N,8,1,P
C:\>MODE LPT1:=COM1
```

2 To test the interface, enter the following:

```
CTRL P
C:\>DIR
CTRL P
```

The software settings made using the above procedures are temporary. On most computers, permanent settings must be made with DIP switches.

If you want to use a different baud rate or change any of the other RS-232C parameters, this can be accomplished from the printer's operator panel. See ***Changing the Interface Parameters*** on page ***1-40***.

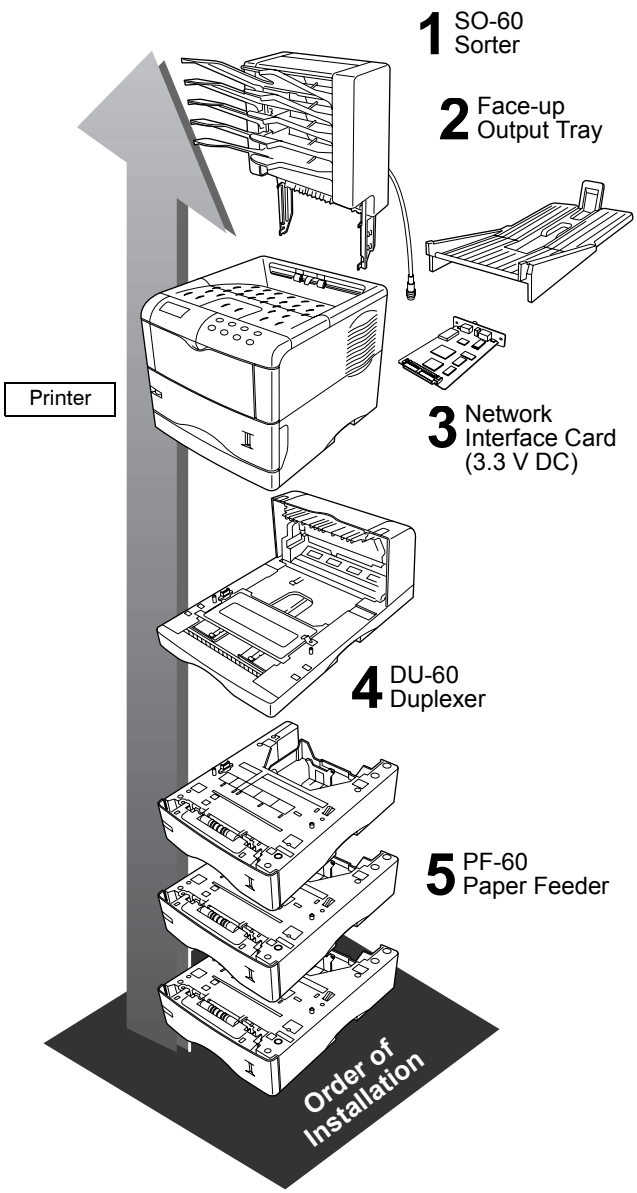
Appendix D Option Units

This appendix explains how to install each option unit. Also refer to the manuals of the respective option units.

This appendix explains the following option units:

- **PF-60 Paper Feeder**
- **DU-60 Duplexer**
- **SO-60 Sorter**
- **Face-up Output Tray**
- **Network Interface Card (Models FS-1800 and FS-3800)**
- **Microdrive**
- **CompactFlash Card**

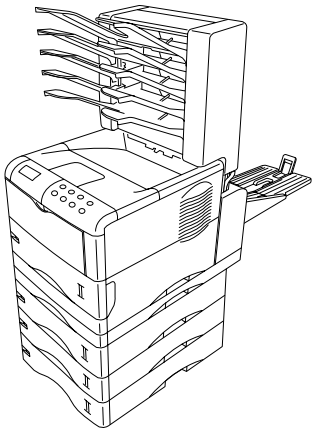
D.1 Available Options



1	**SO-60 Sorter** Equipped with five trays each with 200 sheets capacity. Performs sorting, collating, and mailbox functions. Attaches to the top of the printer.
2	**Face-up Output Tray** This is a face-up tray. It attaches to the rear of the printer.
3	**Network Interface Card** Enables printing from multiple computers via a network. The FS-1800N/FS-3800N have this card already installed at the factory.
4	**DU-60 Duplexer** Performs duplex printing for short edge and long edge binding. Attaches to the bottom of the printer.
5	**PF-60 Paper Feeder** Holds approximately 500 sheets of A5 to A4/Letter and Legal size paper. Up to three paper feeders can be attached to the bottom of the printer.

Other Options

- **Microdrive (Hard Disk Unit)**
  Enables the electronic sorting and job retention functions. To be inserted into the slot designed for it on the main circuit board of the printer. See your dealer for purchasing information regarding the Microdrives that are best suited for use with this printer.
- **CompactFlash Card**
  This is a microchip card that may contain option fonts, macros, and forms. Insert the card into the card slot located near the handle on the right of the printer. See your dealer for purchasing information regarding the CompactFlash Cards that are best suited for use with this printer.
- **Paper Cassette (PC-60LG)**
  Holds A5 to A4/Letter and Legal size paper.
- **Memory DIMM**
  See your dealer for purchasing information of the DIMM that are best suited for use with this printer. See ***Appendix B*** for the installation procedure.



Printer combined with options

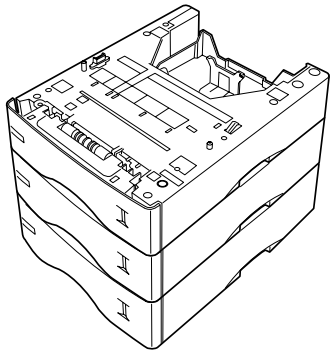
D.2 Installing Option Units

D.2.1 PF-60 Paper Feeder

Up to three option paper feeders can be installed below the printer. A paper feeder can hold approximately 500 sheets of paper at a time. By using option paper feeders in conjunction with the printer paper cassette, which can also hold approximately 500 sheets of paper, up to approximately 2,000 sheets of paper can be fed continuously. The paper cassette of the paper feeder can feed Legal size paper.

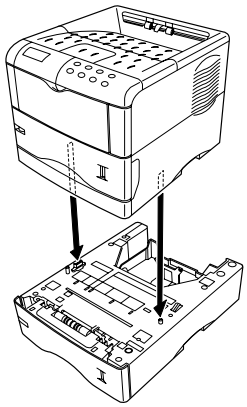
Note

When installing more than one paper feeder, first stack the paper feeders together.



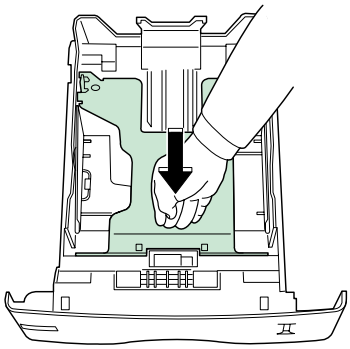
1 Turn off the printer and disconnect the power cord and printer cable.

2 Gently place the printer on top of the paper feeder(s).

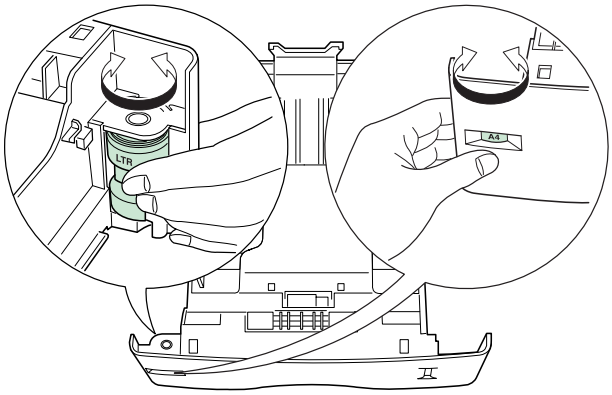


3 Pull the paper cassette all the way out of the paper feeder.

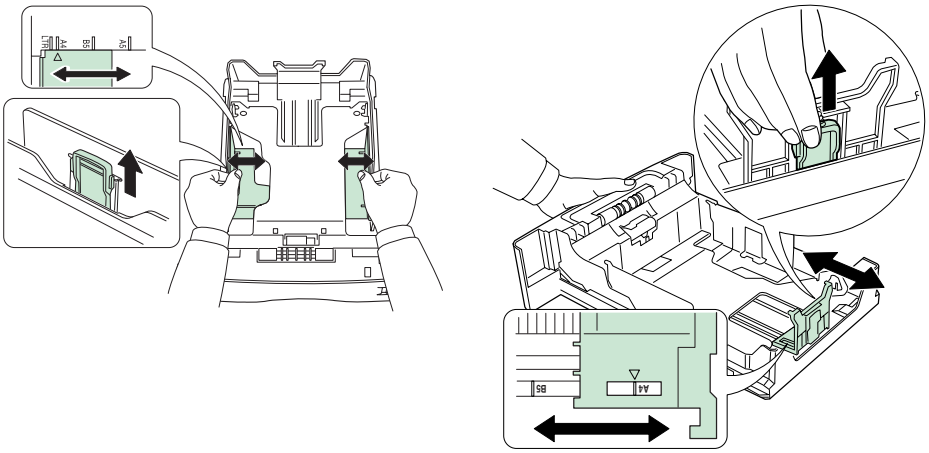
4 Push down the bottom plate until it locks.



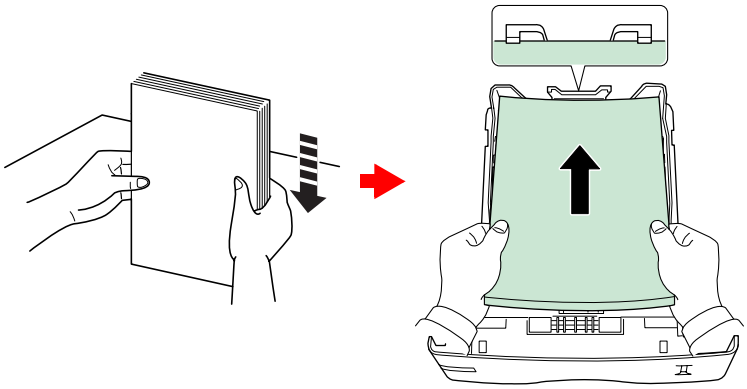
5 Set the paper size dial to the size of paper to be used.



6 Adjust the paper guides and paper stopper to the size of paper to be used.

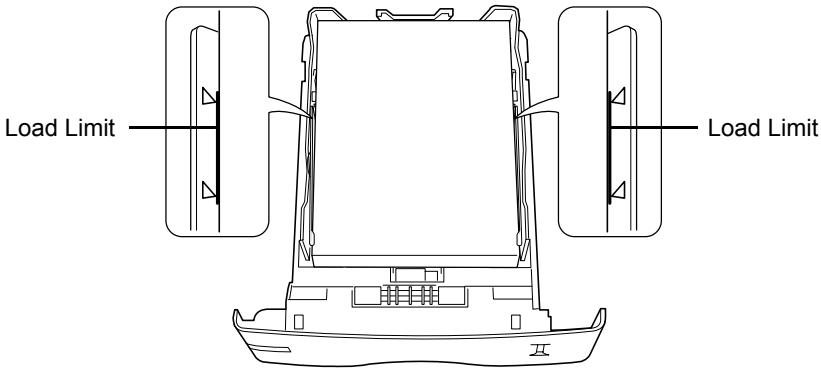


7 Load paper.

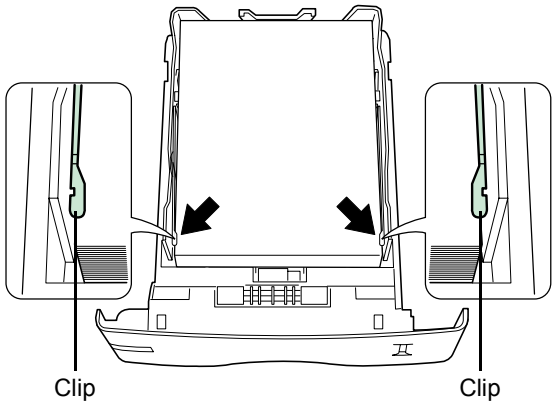


Note

- **Do not load more paper than will fit under the load limits on the paper guides.**
- **The paper cassette will hold approximately 500 sheets of paper with a 80 g/m² (21 lb) basis weight, or with a thickness of 0.11 mm.**



8 Set the stack of paper so that it is under the clips as shown in the figure.

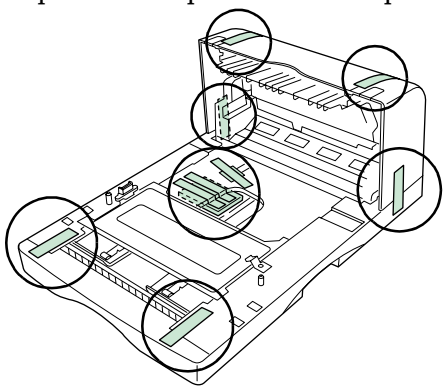


9 Insert the paper cassette back in.

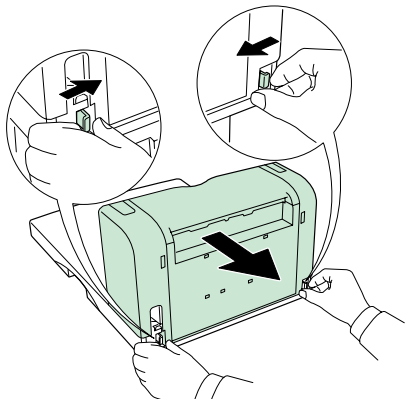
D.2.2 DU-60 Duplexer

Install the option duplexer immediately below the printer. By combining the two binding modes (short edge bind and long edge bind) with the two printing orientations (portrait and landscape), duplex printing is possible in four different methods (see ***Setting Duplex Printing*** on page ***1-101***). Duplex printing can be specified from the application (printer driver).

1 Remove the nine tapes and the pad from the duplexer.

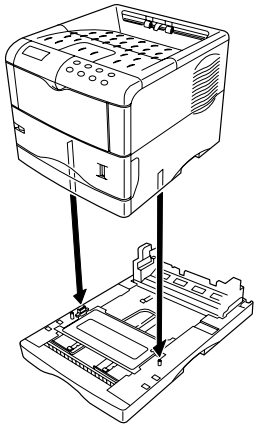


2 While pushing the rear cover release lever inward, remove the duplexer rear cover.

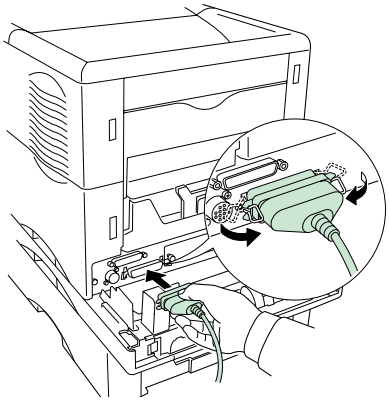


3 Turn off the printer and disconnect the power cord and printer cable.

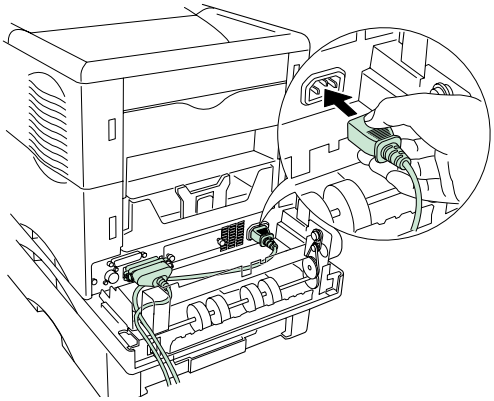
4 Gently place the printer on top of the duplexer.



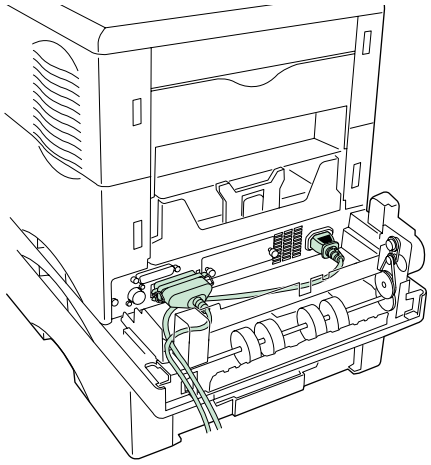
5 Connect the printer cable (parallel interface cable, serial interface cable or network interface cable) according to your operation environment.



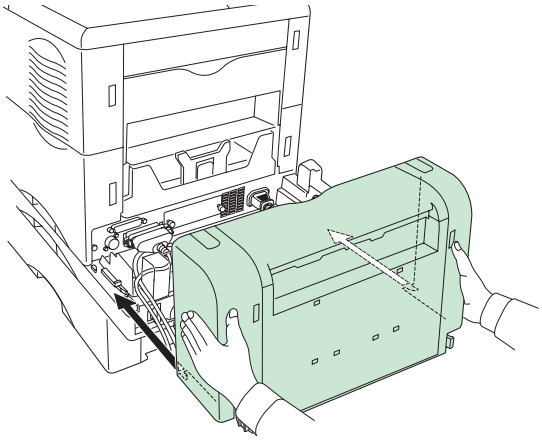
6 Connect the power cord to the printer.



7 Pass the connected cable and power cord through the opening in the duplexer.



8 Install the duplexer rear cover.



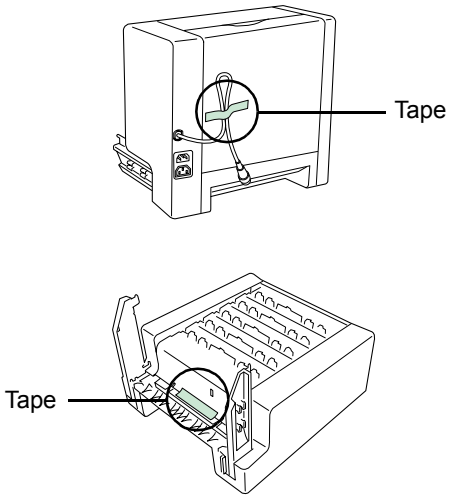
D.2.3 SO-60 Sorter

Install the option sorter on top of the printer. It is equipped with five sorter trays, with a capacity of 200 sheets each. There are three modes in which printouts can be received: the sorter mode, the collator mode, and the mail box mode (for details about the modes, refer to the ***Printer Drivers Guide***).

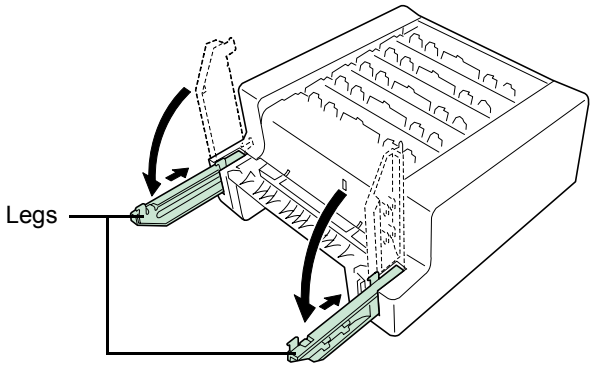
The following installation procedure explains how to install the sorter when the option paper feeder (PF-60) and duplexer (DU-60) have already been installed.

1 Unpack the sorter and place it on its side.

2 Remove the tapes from the sorter.

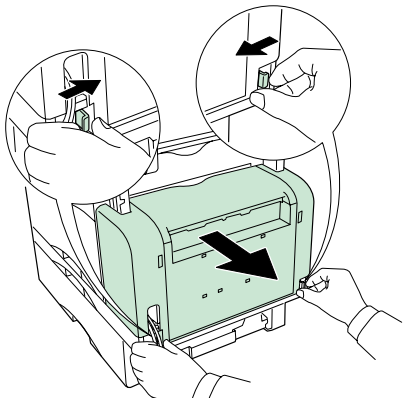


3 Unfold the two attachment legs of the sorter.

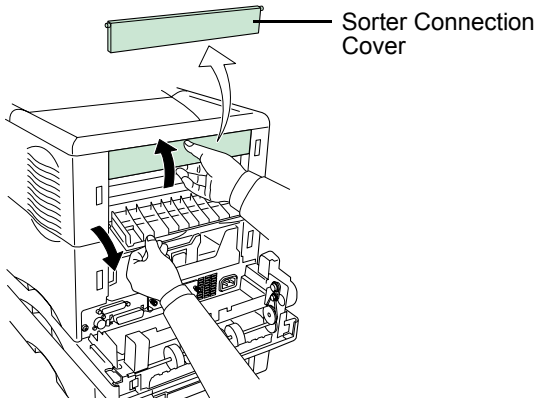


4 Turn off the printer and disconnect the power cord and printer cable.

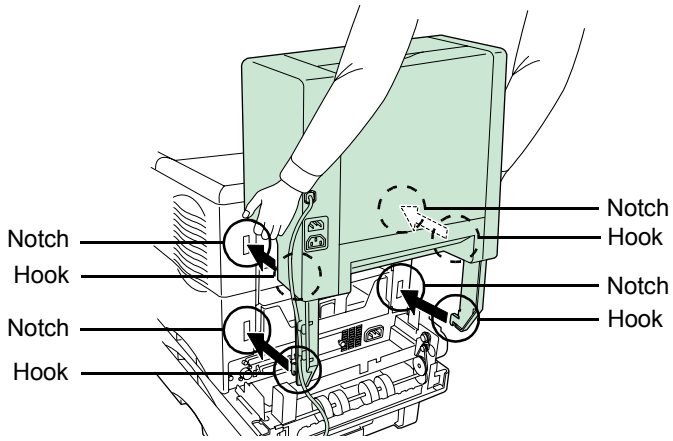
5 If the duplexer is installed, remove the duplexer rear cover, power cord, and printer cable.



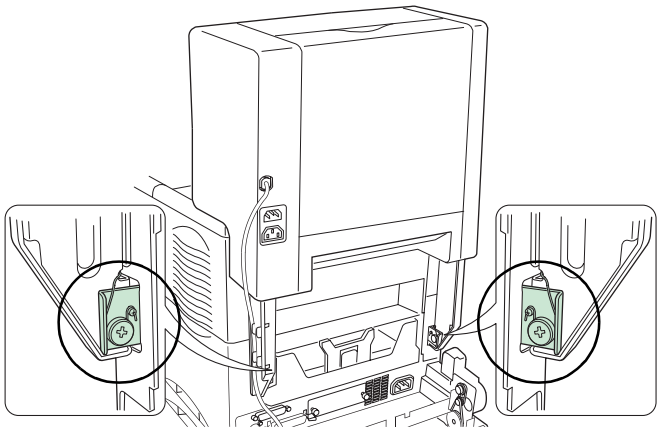
6 Remove the sorter connection cover from the printer. Store the removed cover in a safe place.



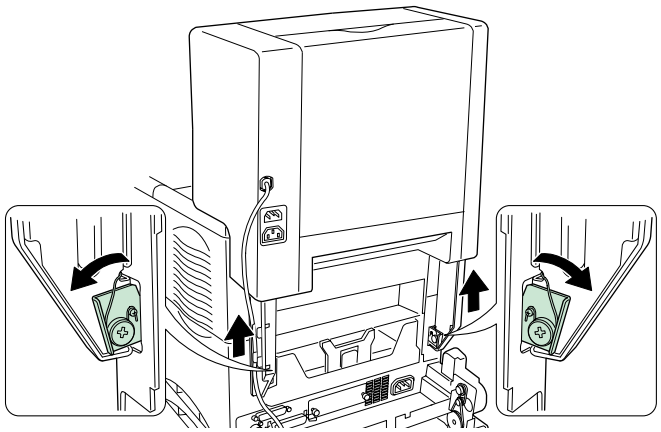
7 Install the sorter by inserting the four hooks on its attachment legs into the notches in the printer.



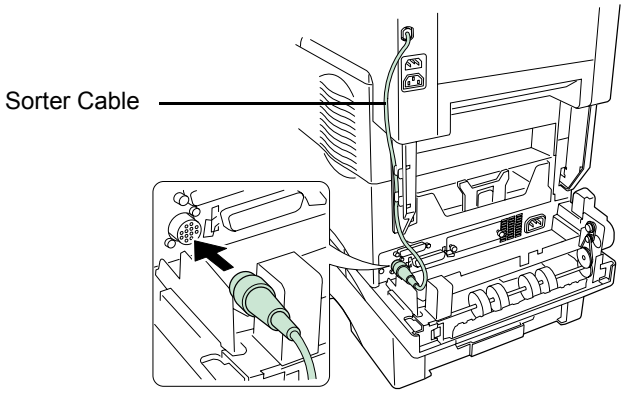
8 Push the sorter down. The levers of the attachment legs are in the lock position.



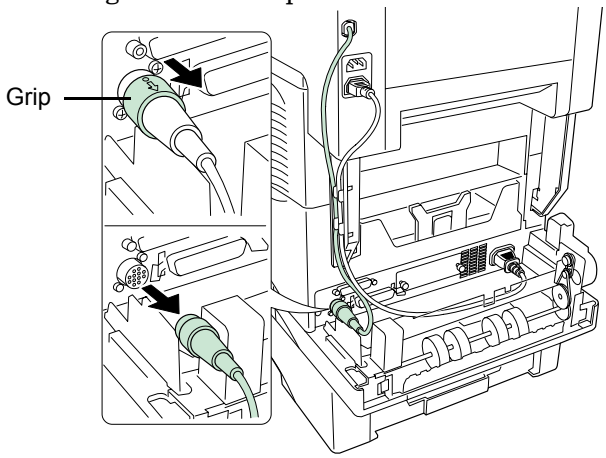
When removing the sorter, unlock the attachment legs by releasing the levers as shown in the figure one by one, and then lift the sorter.



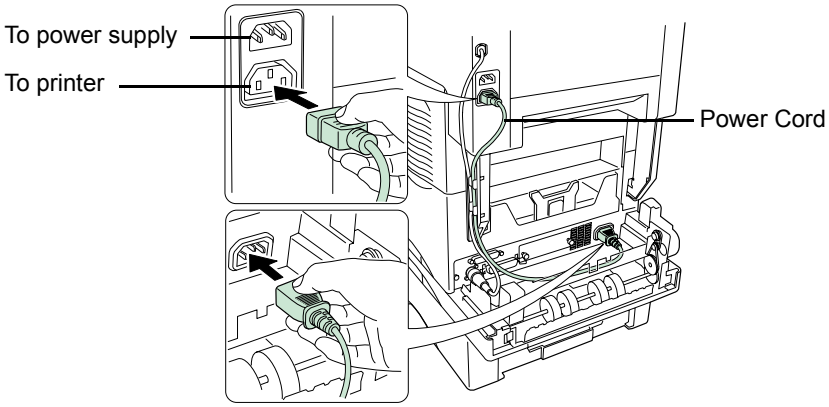
9 Connect the sorter cable to the printer.



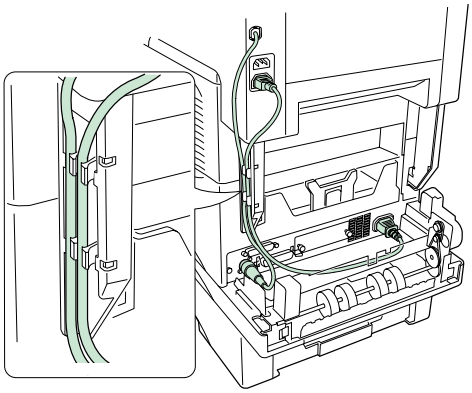
When disconnecting the sorter cable, hold the grip on the connector as shown in the figure and then pull it out.



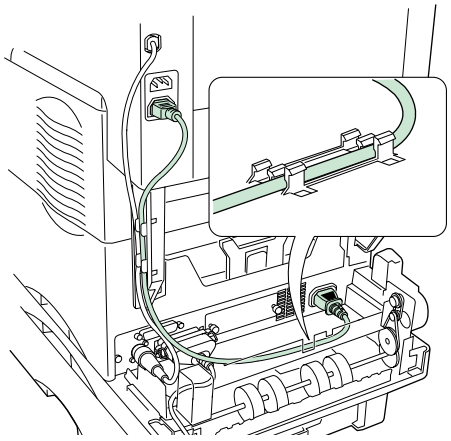
10 The sorter is equipped with two power cord sockets. The upper one is to be connected to a power outlet and the lower one is to be connected to the printer.



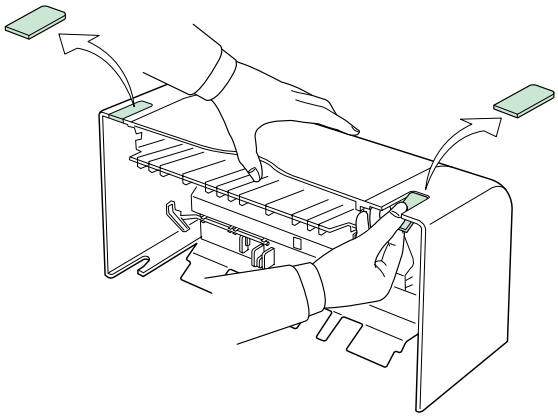
11 Secure the connected sorter cable and power cord to an attachment leg on the sorter.



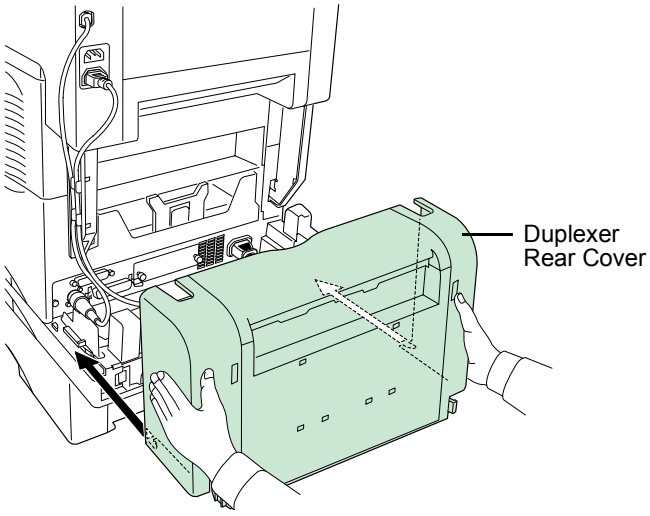
12 If the duplexer is installed, secure the power cord to the duplexer.



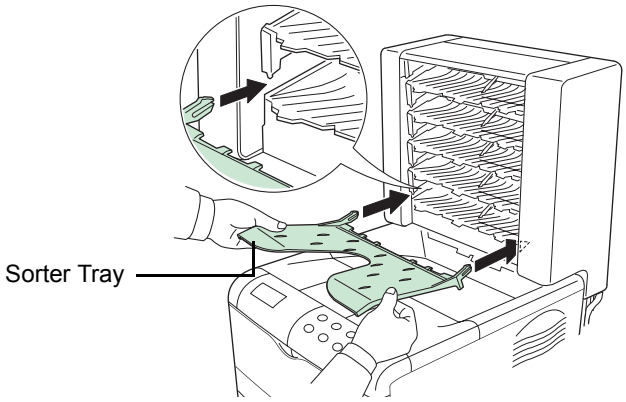
13 If the duplexer is installed, remove the two cut-out portions from the upper part of the duplexer rear cover removed in step 5.



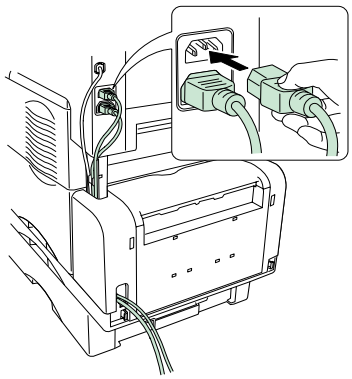
14 Reinstall the duplexer rear cover.



15 Install the five sorter trays to the sorter.

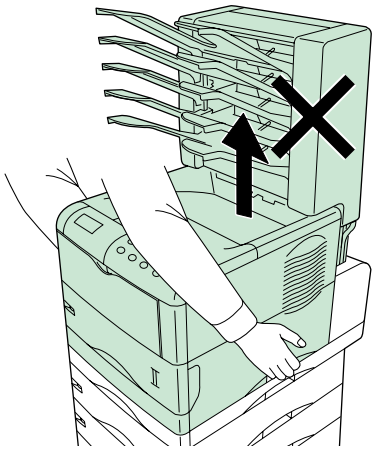


16 Connect the power cord supplied with the printer to the sorter.



Warning

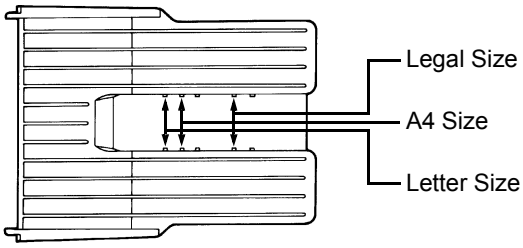
Do not move or lift the printer with the sorter installed.

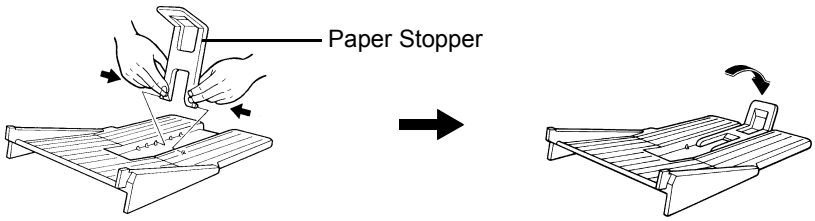


D.2.4 Face-up Output Tray

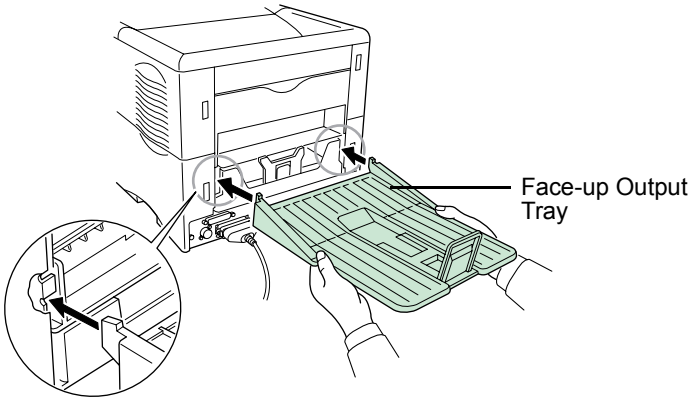
Use the face-up output tray when you wish paper to be stacked with the printed side facing up (reverse order), or when you are printing on envelopes, postcards, transparencies, or thick paper.

1 Install the paper stopper according to the size of paper to be used.





2 Install the face-up output tray on the rear of the printer.

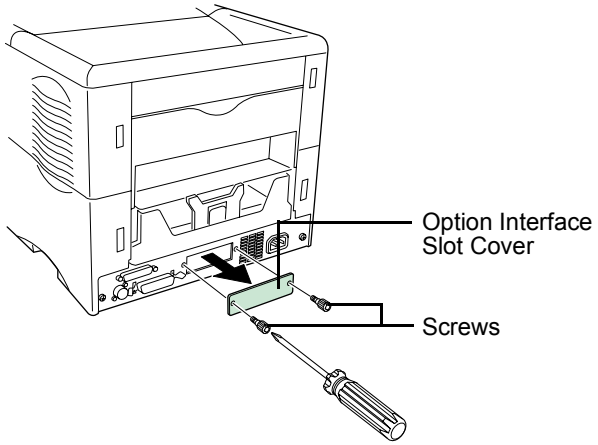


D.2.5 Network Interface Card (Models FS-1800 and FS-3800)

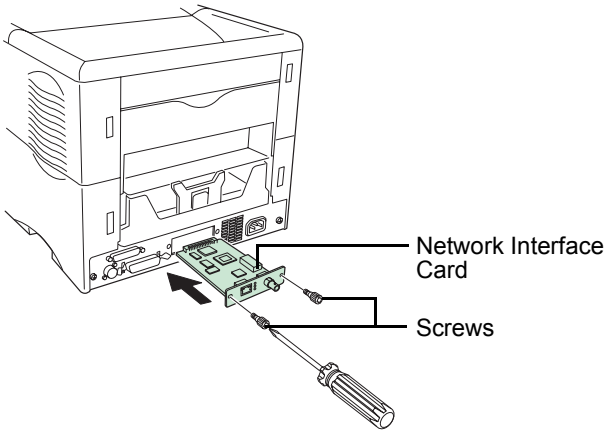
Insert the option network interface card into the option interface slot at the rear of the printer. The network interface card enables the printer to be used in a network. The FS-1800N/FS-3800N have network interface card already installed at the factory.

1 Turn off the printer and disconnect the power cord and printer cable.

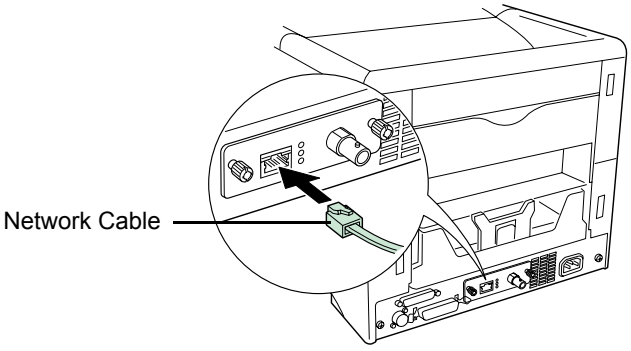
2 Remove the two screws from the option interface slot cover.



3 Insert the network interface card and secure it with the screws removed in step 2.



4 Connect the network cable.



5 Set the network address from the printer operator panel (for details about the modes, see ***Changing Network Interface Parameters*** on page ***1-45***).

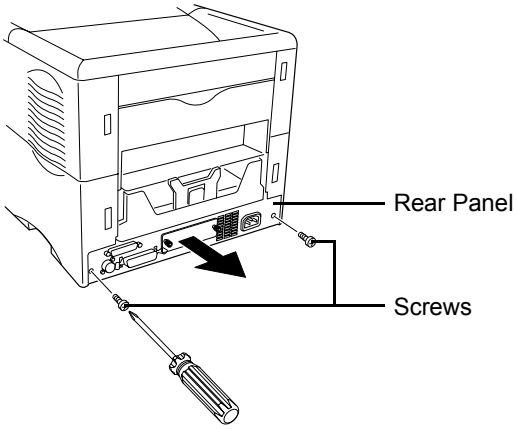
D.2.6 Microdrive

Insert the Microdrive into its slot on the main circuit board of the printer. If a Microdrive is installed in the printer, received data can be rasterized and stored on this Microdrive. This enables high-speed printing of multiple copies using an electric sort function. Also, you can use the e-MPS functions. For details, see ***e-MPS Printing*** on page ***1-18***.

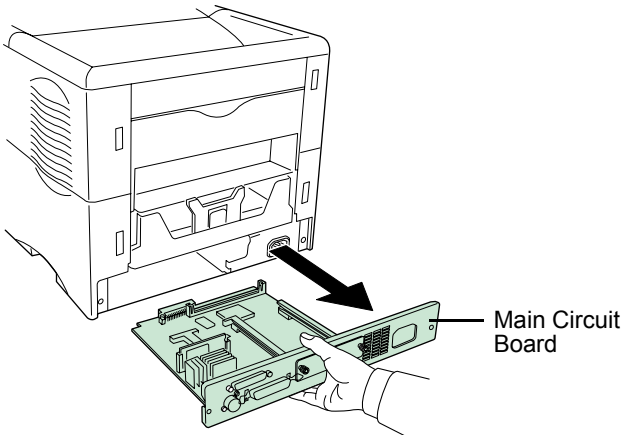
For details of available Microdrives, see your dealer.

1 Turn off the printer and disconnect the power cord and printer cable.

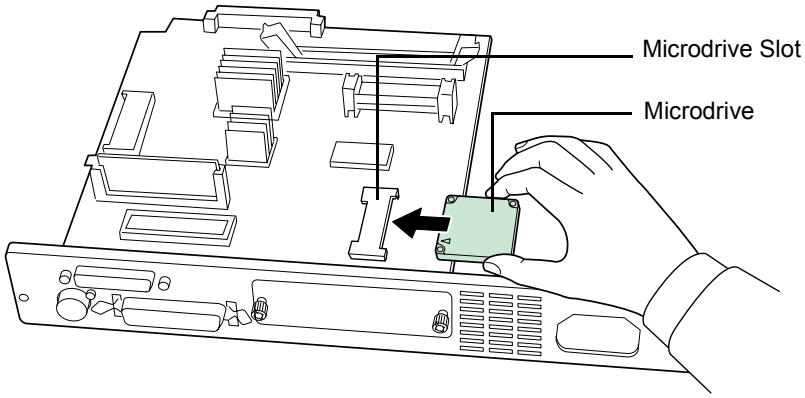
2 Remove the two screws from the rear panel.



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



4 Install the Microdrive into its slot on the main circuit board.



5 Return the main circuit board to the printer by reversing the procedure followed when removing it.

D.2.7 CompactFlash Card

Insert the CompactFlash card into the card slot located near the handle on the right of the printer. A CompactFlash card is a microchip card that may contain option fonts, macros, forms, etc. The printer reads the contents of the card into its internal memory when printer is turned on. The presence of this data in the printer memory can be confirmed on the status printout.

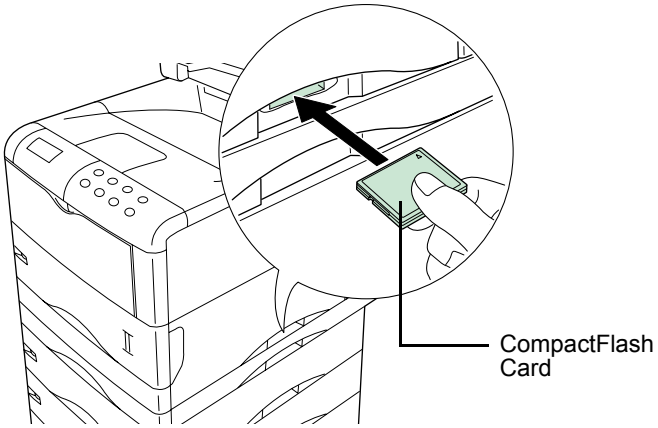
For details of available CompactFlash cards, see your dealer.

1 Turn off the printer.

Note

Do not insert or remove a CompactFlash card while power is on. If the CompactFlash card is removed while the printer is on, damage could result in the printer's electronics or the CompactFlash card.

2 Insert the CompactFlash card in the slot. Insert it face up, connector end first. Push it in all the way.



Appendix E Specifications

Specifications

Item	Description	
	FS-1800/FS-1800N	**FS-3800/FS-3800N**
Printing method	Electrophotography, laser scan	
Printing speed	16 pages/minute (A4 size) 17 pages/minute (Letter size) when printing multiple copies of the same page	24 pages/minute (A4 size) 25 pages/minute (Letter size) when printing multiple copies of the same page
Resolution	Fine 1200 mode Fast 1200 mode with KIR [Kyocera Image Refinement] 600 dpi with KIR (Kyocera Image Refinement) 300 dpi with KIR (Kyocera Image Refinement)	
First print	Approx. 17.5 seconds or less (A4 or Letter size), depending on input data	Approx. 9 seconds or less (A4 or Letter size), depending on input data
Warm-up time	Approx. 6.5 seconds or less (from sleep mode) Approx. 20 seconds or less (from power on) at 23 °C, 120 or 230 V	Approx. 35 seconds or less (from power on/sleep mode) at 23 °C, 120 or 230 V
Controller	PowerPC 405 GF (200 MHz) RISC Processor	PowerPC 740 (200 MHz) RISC Processor
Main memory	8 MB, expandable up to 264 MB	16 MB, expandable up to 272 MB
Memory card slot	One CompactFlash card	
Self test	Performed at power-up	
Maximum duty cycle	65,000 pages/month	100,000 pages/month
Drum	Amorphous silicon drum	
Developer	Mono-component dry developer	
Main charger	Positive scorotron charger	
Transferring	Negative charger roller	
Separation	Curvature separation	
Drum cleaning	Blade cleaner	
Drum discharging	Illumination by eraser LED array	
Fuser	Heat roller and pressure roller	
Toner saving	Ecoprint mode	
Paper	Plain paper (See ***Chapter 4***)	
Paper feed trays	Cassette: A5 to A4/Letter universal cassette 148 to 210 mm (5-13/16 to 8-1/2") × 216 to 297 mm (8-1/4 to 11-11/16 inches). Holds 500 sheets of thickness 0.11 mm MP tray: 70 to 216 mm (2-3/4 to 8-1/2") × 148 to 297 mm (8-1/2 to 11-11/16") (see page ***4-4***). Holds 100 sheets of thickness 0.11 mm	
Capacity of output trays	Face-down tray — 250 sheets of thickness 0.11 mm Face-up output tray (Option) — 250 sheets of thickness 0.11 mm	

Item	Description	
	FS-1800/FS-1800N	**FS-3800/FS-3800N**
Ambient conditions	Temperature: 10 to 32.5 °C (50 to 90.5 °F) Humidity: 20 to 80 % RH Optimum conditions: 23 °C (73.4 °F), 60 % RH Altitude: Max. 2,000 m (6500 feet) Illumination: Max. 1,500 lux	
Power requirements	120 V, 60 Hz, max. 7.2 A (U.S.A./Canada) 220–240 V, 50 Hz/60 Hz, max. 3.6 A (European countries) Max. allowable voltage fluctuation: ±10 % Max. allowable frequency fluctuation: ±2 %.	120 V, 60 Hz, max. 7.2 A (U.S.A./Canada) 220–240 V, 50 Hz/60 Hz, max. 3.6 A (European countries) Max. allowable voltage fluctuation: ±10 % Max. allowable frequency fluctuation: ±2 %.
Power consumption	Max.: 961 W During sleep mode: 14 W (FS-1800) 15 W (FS-1800N)	Max.: 972 W During sleep mode: 14 W (FS-3800) 16 W (FS-3800N)
Operating noise (in accordance with ISO 7779 [Bystander Position, sound pressure level at the front])	During printing: LpA = 53 dB (A) During standby: LpA = 35 dB (A) During sleep mode: Immeasurably low	During printing: LpA = 57 dB During standby: LpA = 39 dB During sleep mode: Immeasurably low
Dimensions	345 (13-9/16) wide × 300 (11-13/16) high × 390 mm (15-3/8") deep	
Weight	13 kg (28-5/8 lb), main unit only	

Glossary

Cassette mode

This is an operation mode for the MP tray. When this mode is used, approximately 100 sheets of plain paper can be fed continuously, the same as for the cassette.

dpi (dots per inch)

This indicates the number of dots printed per inch, and is the unit of printer resolution.

Ecoprint

This is a printing mode that controls toner consumption. Pages printed in the Ecoprint mode are lighter than pages printed in the normal mode. The default setting is Off.

Emulation

This refers to emulation of manufacturers' printers. The printer emulates operation of the following printers: PCL, Line printer, IBM Proprinter, DIABLO 630, EPSON LQ-850, KPDL2.

Expansion memory

This option is used to increase printer memory. The printer has two expansion sockets, into both of which you can install a 16 MB, 32 MB, 64 MB, or 128 MB DIMM (Dual Inline Memory Module). See your Kyocera Mita dealer to purchase the DIMM that is best suited for use with this printer.

Face-up output tray

Tray installed at the rear of the printer. Select paper output to the face-up output tray when printing on postcards, envelopes, or labels.

First mode

This is an operation mode for the MP tray. Because the MP tray default setting is set to first mode (priority printing from the MP tray), if there is paper inserted in the MP tray, the first paper will always feed from there even if another paper source is selected. First mode is specified as the factory default, but you can change this setting from the printer's operator panel.

IEEE1284

This is a standard used when connecting a printer to a computer, and was established by the Institute of Electrical and Electronic Engineers in 1994.

KIR (Kyocera Image Refinement)

This is Kyocera Mita's original smoothing function. It uses software to enhance the printer's resolution and produce high-quality printing. The default setting is Off.

Kyocera Mita Digital Library

This is contained on the CD-ROM supplied with the printer. The contents of the CD-ROM include manuals, printer drivers, and various utilities.

Kyocera Mita PrintMonitor

This is a network management tool that can be used with the Kyocera Mita FS series. You can view information for printers connected to the network using SNMP commands. **Kyocera Mita PrintMonitor** is contained on the *Kyocera Mita Digital Library* CD-ROM supplied with the printer.

MB (mega byte)

This unit is used to express data quantities and memory capacities. 1 MB is equivalent to 1024 kB, or 1,048,576 bytes.

MP tray

This is an abbreviation for Multi-Purpose tray. The MP tray is used instead of the cassette when printing on envelopes, postcards, transparency sheets, and labels.

Offline

The printer can receive data, but cannot print. Turn the printer online if you want to print.

Online

The printer can output received data.

Operator panel

This is located on the top of the printer. The panel consists of the message display three indicators and eight keys. The message display shows the printer's status. Press the keys when you want to switch the printer between online and offline status, or to cancel printing.

Outline font

With outline fonts, characters outlines are represented by numerical expressions, and fonts can be enlarged, reduced, or painted in different ways by changing the numeric values of those expressions. Printing remains clear even if you enlarge fonts, since the letters are defined by an outline. You can specify font size in steps of 0.25 points up to 999.75 points.

Parallel interface

With this interface, data transfer between the printer and the computer takes place on 8-bit chunks. The printer can perform IEEE1284 compatible bi-directional communications.

Printer driver

The printer driver makes it possible for you to print data created using application software. The printer driver for either the printer is on the *Kyocera Mita Digital Library* CD-ROM supplied with the printer. Install the printer driver on the computer connected to the printer.

RAM disk

This is a virtual disk drive that uses part of the printer's memory. With RAM disk you can set any memory size arbitrarily, and use electronic sorting (to reduce print time).

Simple Network Management Protocol (SNMP)

This is a protocol for the management of networks that use TCP/IP (Transmission Control Protocol/Internet Protocol).

Sleep mode

This mode is activated after a specified amount of time elapses. The printer goes into economy mode and a minimum amount of power is consumed. You can change the amount of time before the printer goes into sleep mode from the printer's operator panel. The default setting is 15 minutes.

Status page

This lists printer conditions, such as the printer's memory, the total number of copies printed, and paper source settings.

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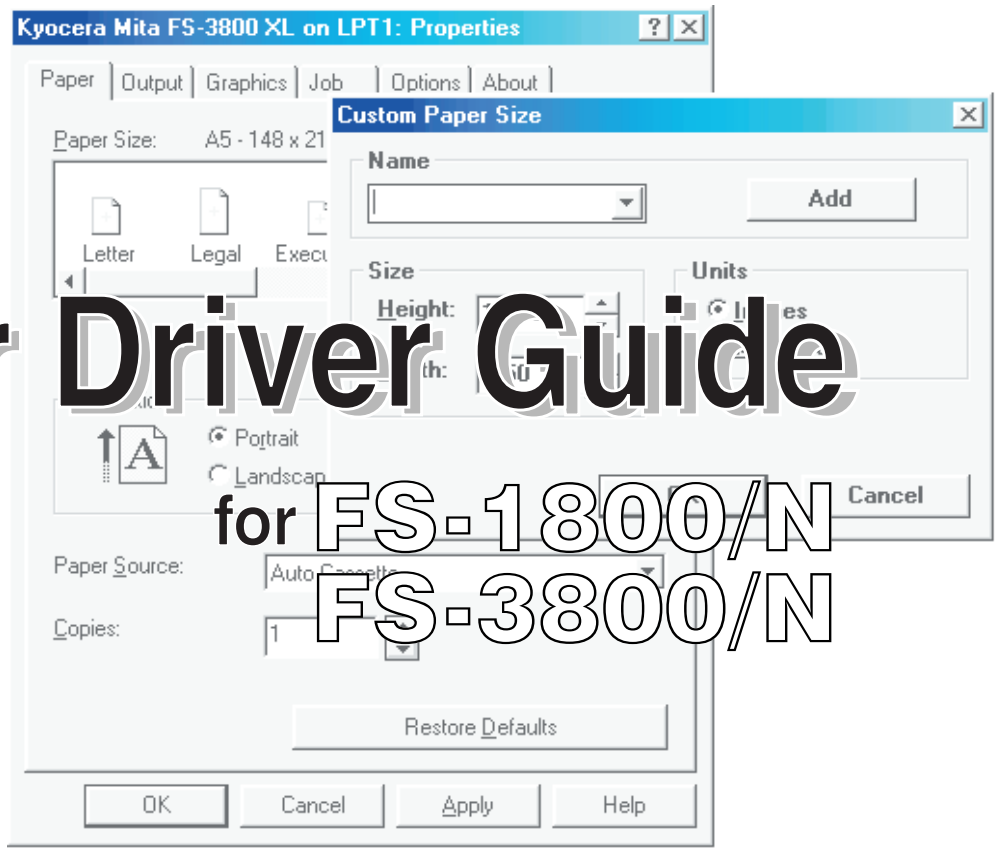

Printer Driver Guide

for FS-1800/N
FS-3800/N

Notice

The information in this manual is subject to change without notification. Additional pages may be inserted in future editions. The user is asked to excuse any technical inaccuracies or typographical errors in the present edition.

No responsibility is assumed if accidents occur while the user is following the instructions in this manual. No responsibility is assumed for defects in the printer's firmware (contents of its read-only memory).

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Revision 1.1 February 2002

Preface

This guide contains information on how to install, configure, and use the printer drivers for the Kyocera Mita FS-1800-series and 3800-series printers. The printer drivers and other utility software are supplied on the **Kyocera Mita Digital Library CD-ROM**, other additional CD-ROM, and from the Internet. The driver CD-ROM's is included with the printer.

The CD-ROM's supports different printer drivers for the following operating systems:

- Microsoft Windows 3.x
- Microsoft Windows 95 and Windows 98
- Microsoft Windows NT 4.0
- Apple Macintosh OS 7 or greater
- IBM OS/2 Version 2.0 or greater

The manual focuses on using the printer driver on Windows95 and Windows98.

The latest Kyocera Mita printer drivers and utilities are readily available at the following web site:

http://www.kyocera.com/w2k.

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Chapter 1 Installing the Printer Driver

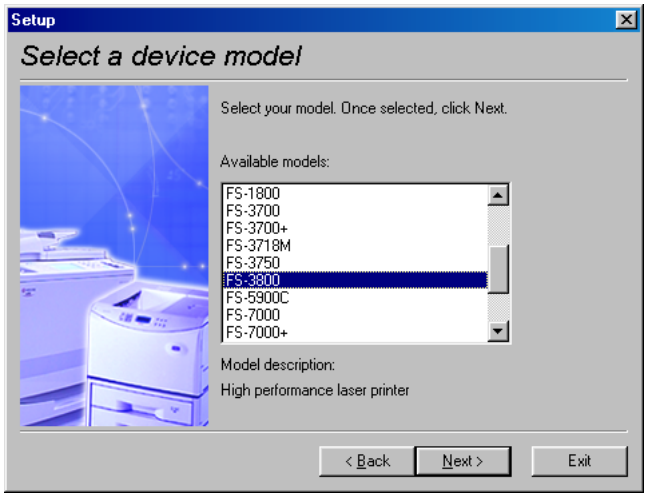
Kyocera Mita Digital Library CD-ROM will automatically starts to play its installation menu which guides you through the installation of the printer driver.

Note

To make CD-ROMs play automatically when inserted in the CD-ROM drive, the Auto insert notification for the CD-ROM drive must be activated. This feature is activated by default for all Windows platforms. For details, refer to Windows Help.

To install, proceed as follows:

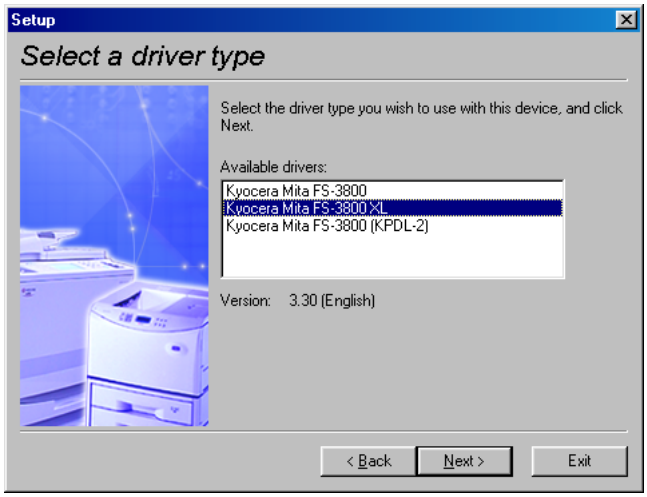
1. Insert Kyocera Mita Digital Library CD-ROM in your CD-ROM drive. After a while, the **Kyocera Mita Digital Library** splash screen appears.
2. Click **Install Drivers**. The **Kyocera Mita Setup Wizard** window begins.
3. Click **Next**.
4. In the **Select a device model** window, click **FS-3800**.



5. Click **Next**.
6. In the **select a driver language** window, click on the desired language.
7. Click **Next**.
8. In the **Select a driver type** window, click the appropriate driver type.

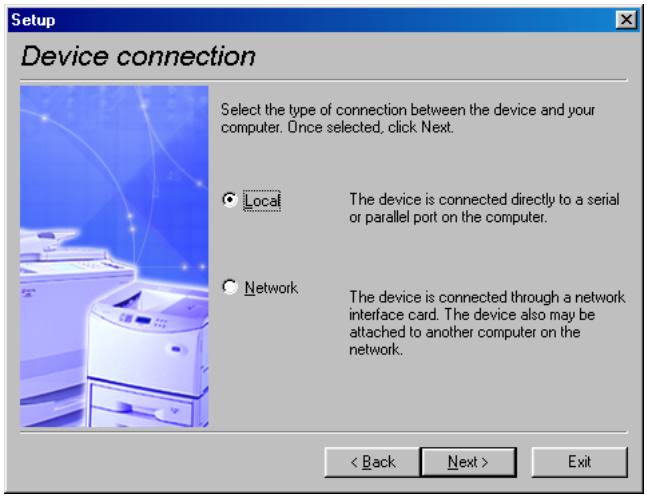
Kyocera Mita FS-3800 driver is the Microsoft's universal printer driver. The available printer features may be restricted. To take the full advantage of the printer features including e-MPS, use the XL printer driver. This driver provides compatibility with the latest level of the HP's command language, PCL6, including the support for the 1200 dpi printing solution. To use the printer in PostScript compatible mode, use the KPDL (Kyocera Printer Description Language) printer driver.

9 Click **Next**.



10 Select the connection between **Local** and **Network**.

11 Click **Next**.



12 Continue to follow the rest of the wizard and complete the installation.

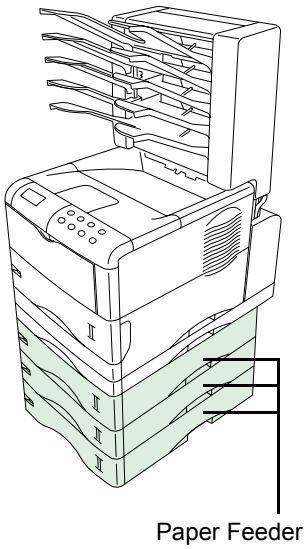
Chapter 2 Setting the Defaults

This section explains how to set defaults on option units installed on the printer. Setting made in this way will become effective for all application software. To temporarily change the settings, make printer settings from the application. See ***Chapter 3, Printing through Application Software***.

2.1 Adding Optional Devices (Setup)

The **Setup** tab enables you to setup optional devices such as paper feeders so that the printer can recognize them. Each printer has a unique set of options that are listed in the **Available Options** window. If you have attached one or more printer options, highlight that option and click the **Add** button one after another.

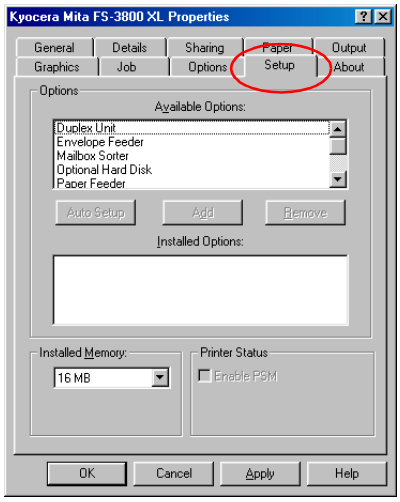
2.1.1 Installing the Paper Feeder (PF-60)



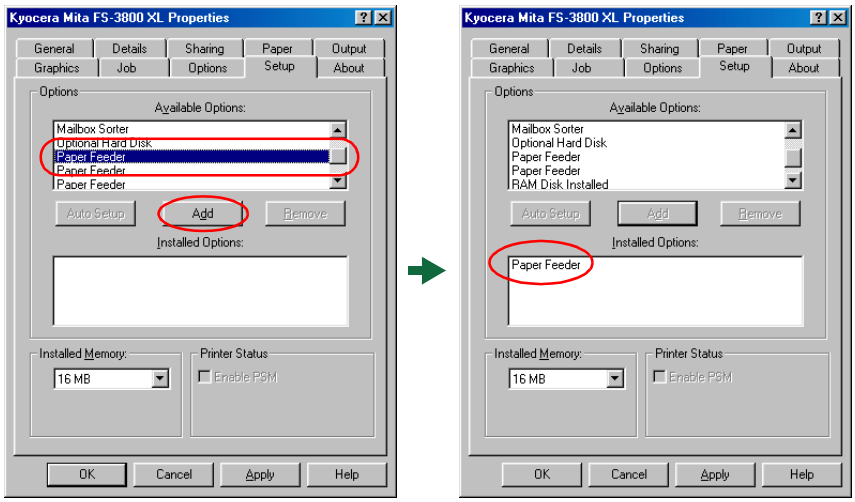
Check that the option paper feeder (PF-60) is installed on the printer correctly.

1. Browse through Windows **Start** > **Settings** > **Printers**.
2. Right click on the **Kyocera Mita FS-1800** or **Kyocera Mita FS-3800** icon and then click **Properties**.

   The **Properties** dialog box is displayed.
3. Click the **Setup** tab.

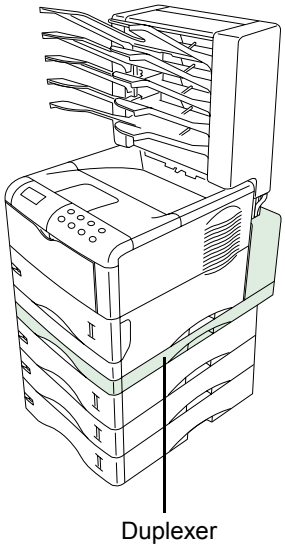


4 Click **Paper Feeder** in the **Available Options** list box and then the **Add** button. **Paper Feeder** appears in the **Installed Options** list box. If two or more paper feeders are installed, an equal number of **Paper Feeder** indications should be displayed in the **Installed Options** list box.



5 Click the **OK** button.

2.1.2 Installing the Duplexer (DU-60)



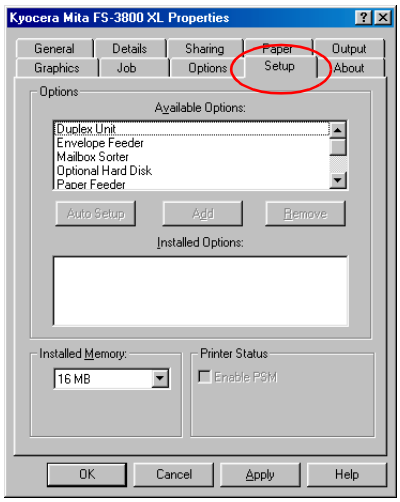
Check that the option duplexer (DU-60) is installed on the printer correctly.

1 Browse through Windows **Start** > **Settings** > **Printers**.

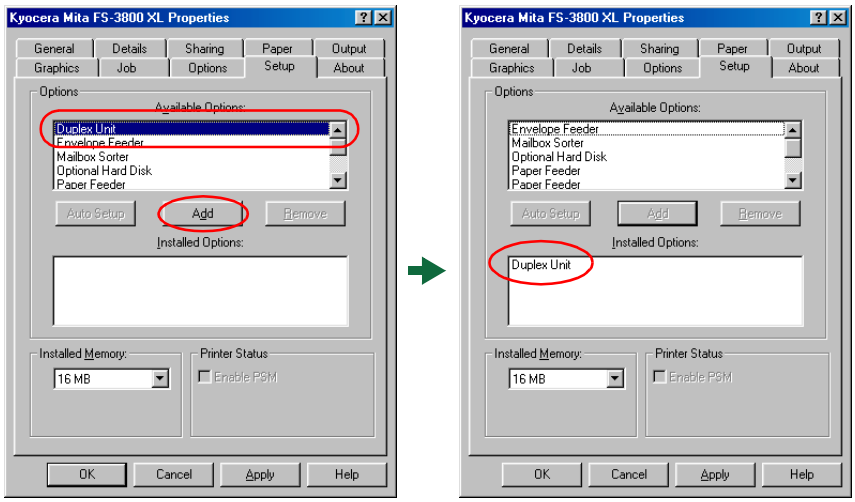
2 Right click on the **Kyocera Mita FS-1800** or **Kyocera Mita FS-3800** icon and then click **Properties**.

The **Properties** dialog box is displayed.

3 Click the **Setup** tab.

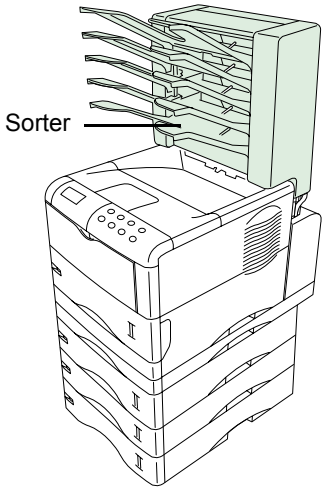


4 Click **Duplex Unit** in the **Available Options** list box and then the **Add** button. **Duplex Unit** appears in the **Installed Options** list box.



5 Click the **OK** button.

2.1.3 Installing the Sorter (SO-60)



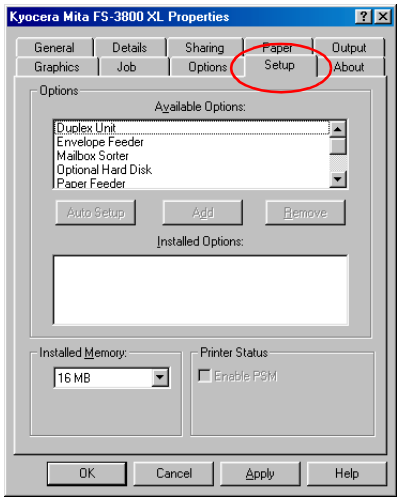
Check that the option sorter (SO-60) is installed on the printer correctly.

1 Browse through Windows **Start** > **Settings** > **Printers**.

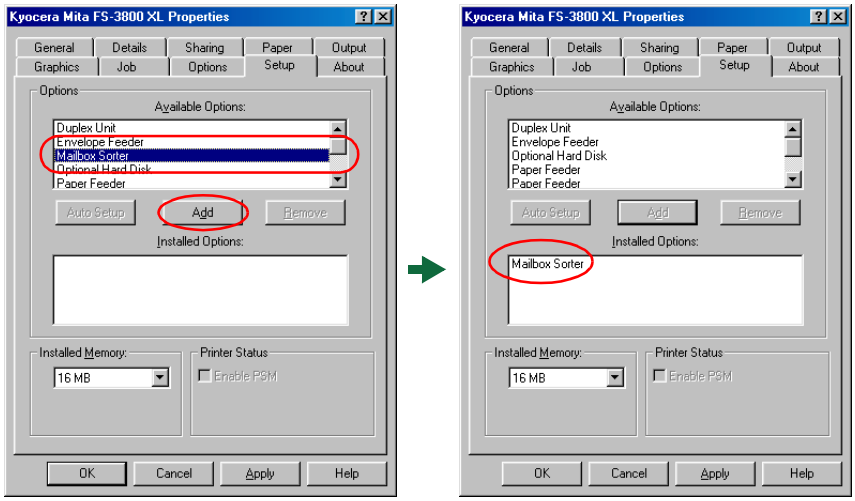
2 Right click on the **Kyocera Mita FS-1800** or **Kyocera Mita FS-3800** icon and then click **Properties**.

The **Properties** dialog box is displayed.

3 Click the **Setup** tab.



4 Click **Mailbox Sorter** in the **Available Options** list box and then the **Add** button. **Mailbox Sorter** appears in the **Installed Options** list box.



5 Click the **OK** button.

2.1.4 Installing the Microdrive

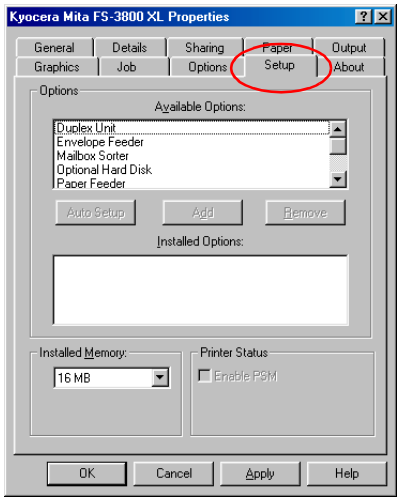
For details of available Microdrives, see your dealer. Check that the option Microdrive is installed in the printer correctly.

1 Browse through Windows **Start** > **Settings** > **Printers**.

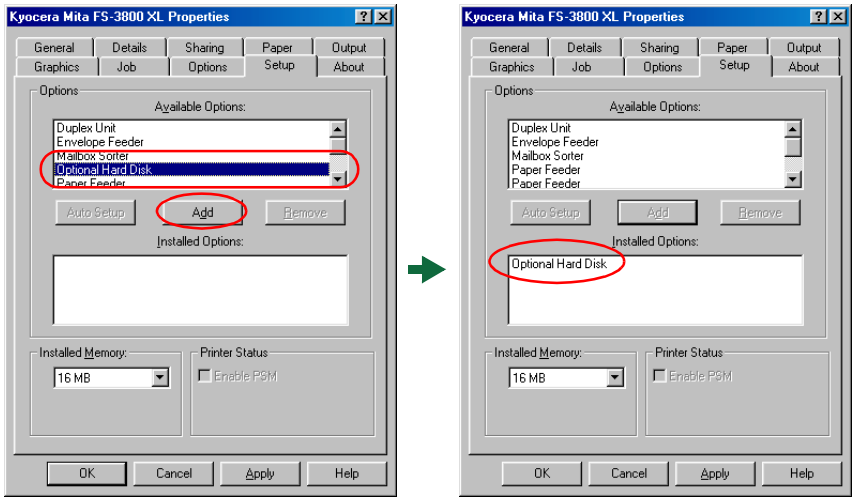
2 Right click on the **Kyocera Mita FS-1800** or **Kyocera Mita FS-3800** icon and then click **Properties**.

The **Properties** dialog box is displayed.

3 Click the **Setup** tab.



4 Click **Option Hard Disk** in the **Available Options** list box and then the **Add** button. **Optional Hard Disk** appears in the **Installed Options** list box.



5 Click the **OK** button.

Chapter 3 Printing through Application Software

This section uses a document created using Microsoft Word as an example of how to print from applications.

3.1 Setting the Paper Size

Note

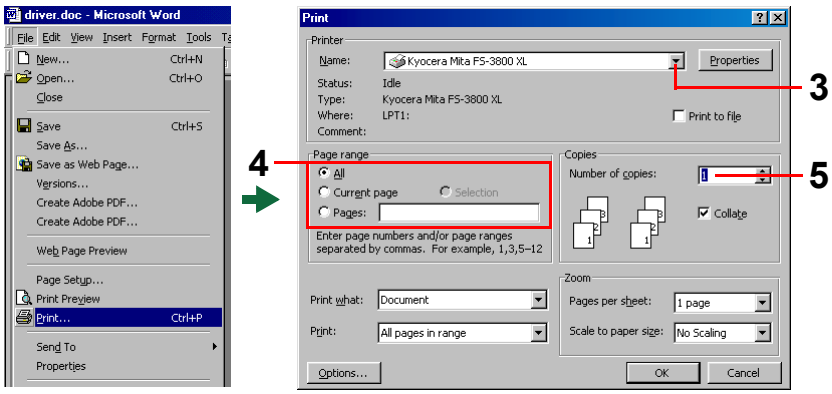
If there is paper on the MP tray, the printer always prints from the MP tray first. To print on the paper in the other paper sources, you must remove paper from the MP tray.

Or, you can switch the MP tray to normal cassette mode by performing the following steps in *MP Tray Mode* on page *1-88* in the *User's Manual*.

1 Set paper of the size specified for the document in the application into the printer's paper cassette. (For details on how to set paper sizes, refer to the ***Installation Manual***.)

Be sure that the document is correctly formatted with the paper size you intended to use. To do this, from the Word task bar, select **File**, **Page Setup**, **Paper Size** and check the paper size.

2 Browse **File** > **Print**. The **Print** dialog box will be displayed.

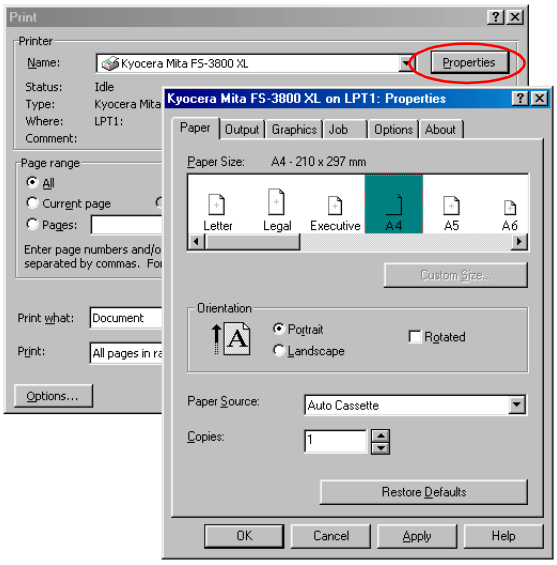


3 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.

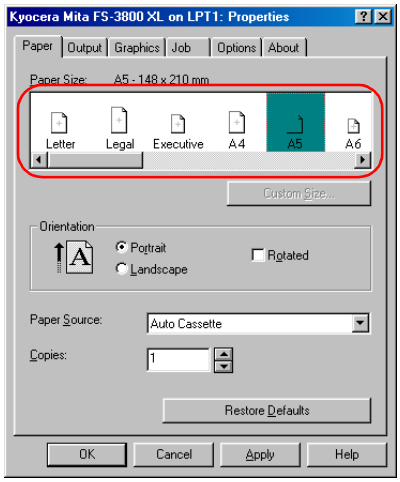
4 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

5 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

6 Click the **Properties** button in the **Print** dialog box. The **Properties** dialog box is displayed.

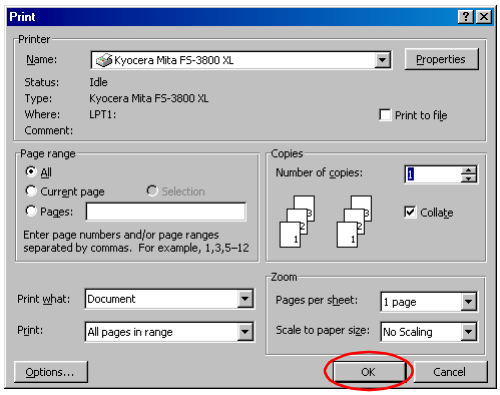


7 Click the paper size icon in the **Paper Size** list box so that it is greyed, then click the **OK** button. A5 was selected for the following example.



When printing using non-standard size paper, see ***3.1.1 Custom Size Settings*** on page ***3-4***.

8 Once you finish making paper size settings, the **Print** dialog box is displayed again. Click the **OK** button to start printing.



Note

Settings made from applications are not saved when the application is closed. The default settings are restored when the application is opened the next time. To change the printer driver default settings, make printer settings from Windows.

Feeding from the MP tray

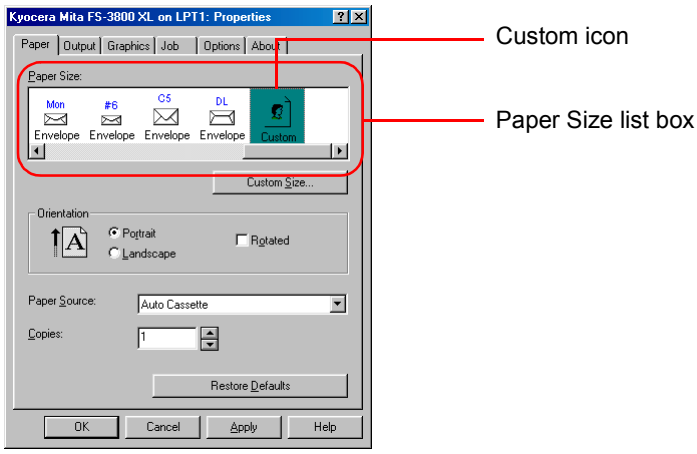
First mode (priority printing) is set in the MP tray default settings.

The MP tray default setting can be changed using the operator panel. Change it from first mode to cassette mode. See ***MP Tray Mode*** on page ***1-88*** in the ***User's Manual***.

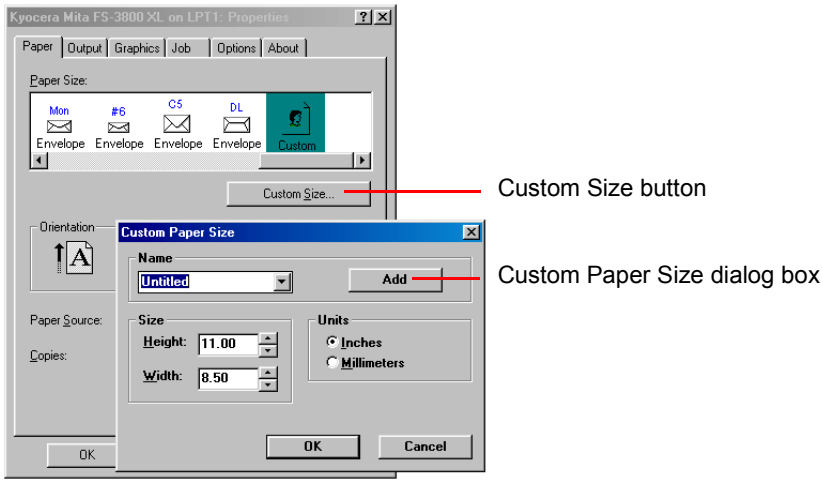
3.1.1 Custom Size Settings

The printer can feed non-standard paper sizes. The paper cassette can accommodate sizes ranging from 148 to 216 mm in width and 216 to 297 mm in length. The MP tray can accommodate sizes ranging from 80 to 216 mm in width and 148 to 297 mm in length. The procedure for setting custom sizes from the printer driver is explained below.

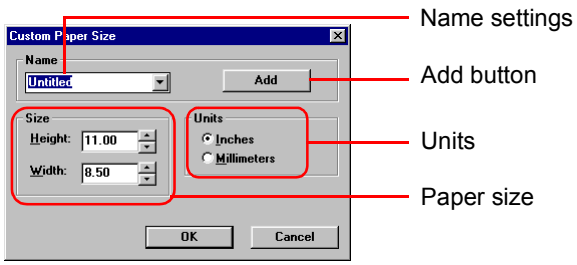
1 Display the printer driver's **Properties** dialog box from the application software, then click **Custom** icon from the **Paper Size** list box so that it becomes greyed.



2 Click the **Custom Size** button to display the **Custom Paper Size** dialog box.



3 Enter a name for your custom size and click the **Add** button.



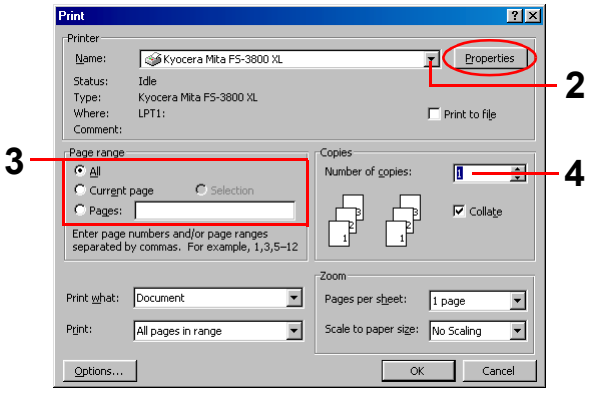
4 Select the unit of measurement, **Inches** or **Millimeters**.

5 Enter the height and width of the custom size in **Size**.

6 Click the **OK** button. The **Print** dialog box is displayed again. Click the **OK** button to start printing.

3.2 Using the Duplexer (DU-60)

1 Browse **File** > **Print**. The **Print** dialog box will be displayed.



2 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.

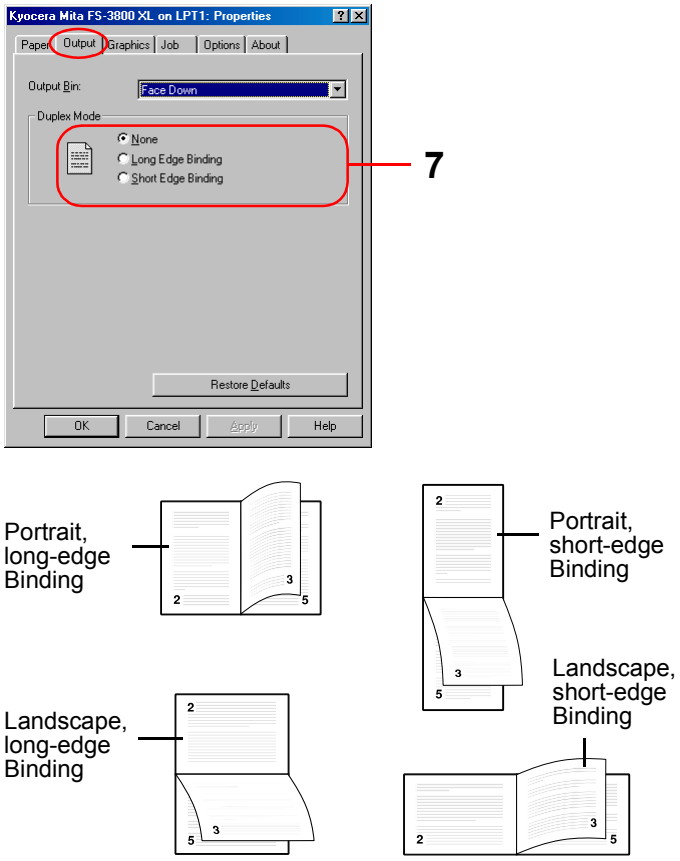
3 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

4 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

5 Click the **Properties** button in the **Print** dialog box. The **Properties** dialog box is displayed.

6 Click the **Output** tab.

7 In **Duplex Mode**, check the **Long Edge Binding** or **Short Edge Binding** radio button. Check **None** if you want to change to simplex printing. The graphic icon will change to illustrate your selection.



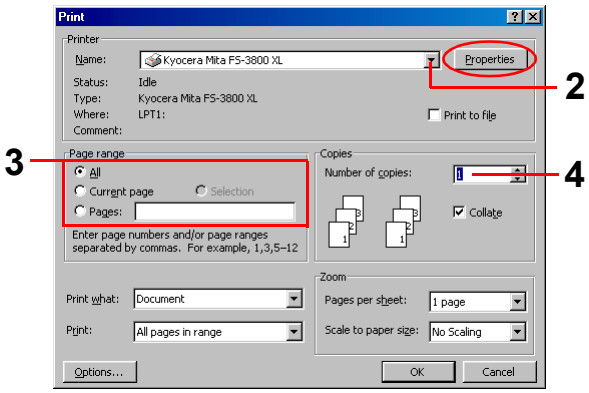
8 Click the **OK** button.

To change the default setting to duplex printing, make this setting from Windows.

9 The **Print** dialog box is displayed again. Click the **OK** button to start printing.

3.3 Using the Sorter (SO-60)

1 Browse **File** > **Print**. The **Print** dialog box will be displayed.



2 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.

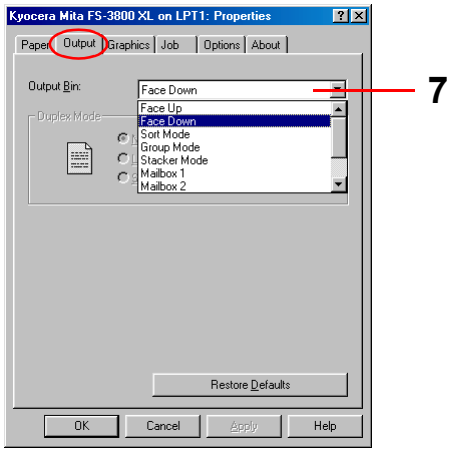
3 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

4 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

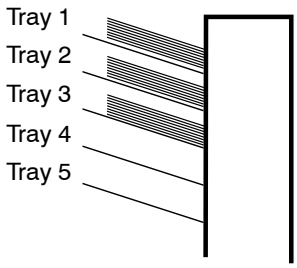
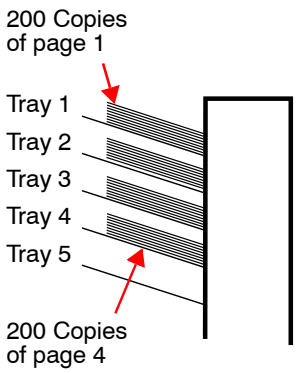
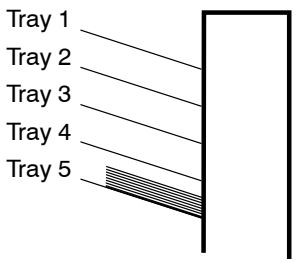
5 Click the **Properties** button in the **Print** dialog box. The **Properties** dialog box is displayed.

6 Click the **Output** tab.

7 Select the desired mode from the **Output Bin** pull-down menu, and click the **OK** button. To understand sorter modes, see page *3-8*.



Sorter modes

Sorter Mode	Description
Sort mode 	The sort mode delivers the output pages by copy as shown in the example. This mode is useful when you need several independent copies of a document. The maximum number of copies is 5. If a tray becomes full (approximately 200 pages), the printer pauses and indicates the `Option tray # paper full` message. Then, you will need to remove all the printed pages from the tray indicated by # in the message. In the example, three copies of a document of 200 pages long are made, and each copy is stacked in trays 1, 2, and 3, respectively.
Group mode 	The group (collator) mode delivers the output pages by page as shown in the example. When multiple copies of a file are printed, all copies of a single page are delivered together to a single tray. The maximum number of copies is 200. If a tray becomes full (200 pages), the printer pauses and indicates the `Option tray # paper full` message. Then, you will need to remove all the printed pages from the tray indicated by # in the message. In the example, we make 200-copy stacks of each page of an 4-page long document.
Mail Box mode 1 to 5 	The mail box mode simply stacks the printed pages into the sorter tray you desire without sorting the pages. When the sorter tray becomes full, the printer indicates the `Option tray # paper full` message and pauses until you remove all the pages in the sorter tray indicated by # in the message. In the example, sorter tray 5 is specified to receive the printed pages.

8 Click the **OK** button in the **Properties** dialog box. The **Print** dialog box is displayed again. Click the **OK** button to start printing.

3.4 e-MPS

Job Retention

This function allows you to save print jobs to the option Microdrive and print them out as desired at the operator panel.

When printing, select a Job Retention mode at the printer driver. The following four modes are available:

- Quick Copy Printing ..... See page *3-11*
- Proof and Hold Printing ..... See page *3-13*
- Private Printing ..... See page *3-15*
- Stored Job Printing (Job Storage) ..... See page *3-17*

For how to make the settings, see the pages of the respective modes.

Four Job Retention modes have the following benefits:

- **Quick Copy**: When you need another copy of a finished print job, you can print it out at the printer operator panel. There is no need to print from the computer again.
- **Proof and Hold**: When printing multiple copies, this mode first prints only one copy for proofing, allowing you to decide whether to continue printing the remaining copies or cancel printing at the operator panel. In this way, you can reduce the waste of paper.
- **Private Print**: Confidential print jobs can be printed out when you are at the printer. This mode saves print jobs in the printer without printing until you instruct the printer to do so at the operator panel. Printing using this mode requires the 4-digit PIN number you set using the printer driver.
- **Stored Job (Job Storage)**: This mode allows you to store print jobs that are frequently needed, such as fax cover pages, checklists, and order forms, for printing later. Using the operator panel, you can then print them out as required at anytime and at any number of copies.

Virtual Mail Box

Virtual mailbox is the ability to store print jobs in the virtual mailboxes on the Microdrive, enabling you to retrieve and print it later from the printer's operator panel or the option barcode reader (BC-1).

You can later print out only the jobs you desire using the operator panel on the printer.

When printing, make the settings at the printer driver. For how to make the settings, see ***3.4.2 Virtual Mail Box Printing*** on page ***3-20***.

You can send a print job either to all the virtual mail box trays at the same time or to the desired trays only.

Since you perform printing by selecting the desired trays using the operator panel, you can print out only the jobs you desire.

Job Storage

Job Storage reduces the time to print multiple copies and enables the use of option barcode reader to print jobs stored on the Microdrive.

When printing, select a type of code job at the printer driver. The following two types of code jobs are available:

- Permanent Code Job
- Temporary Code Job

For how to make the settings, see ***3.4.3 Printing with Job Storage*** on page ***3-23***.

You can print out frequently needed print jobs, such as fax cover pages, checklists, and order forms, using the option barcode reader.

If you store a print job and print it out with a barcode ID attached, you can print that job any time later by simply reading the barcode ID. You can print a list of code jobs at the operator panel. There are two types of code jobs: permanent code job and temporary code job. When the storage memory becomes insufficient, temporary code jobs will be automatically deleted in order from the oldest and permanent code jobs will not.

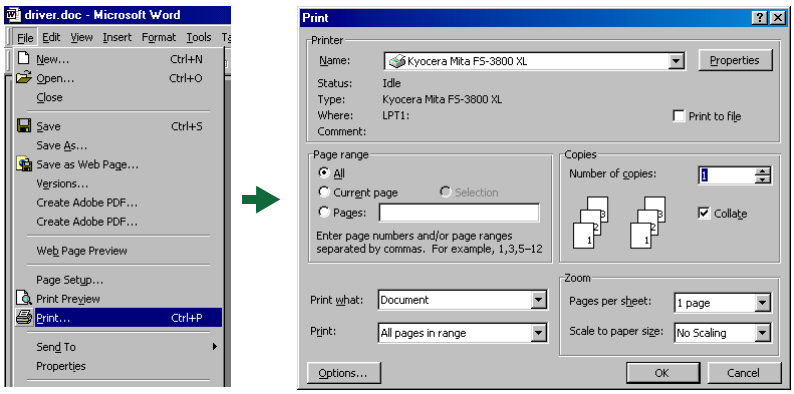
3.4.1 Using Job Retention

Quick Copy

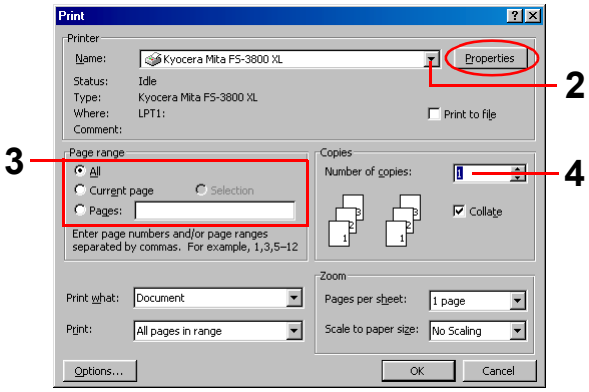
This allows you to print as many additional copies as you want until the printer is turned off, it is useful in cases such as when there are sudden increases in the required number of copies during a meeting.

To print, proceed as follows.

1 Browse through Windows **File** > **Print**. The **Print** dialog box will displayed.



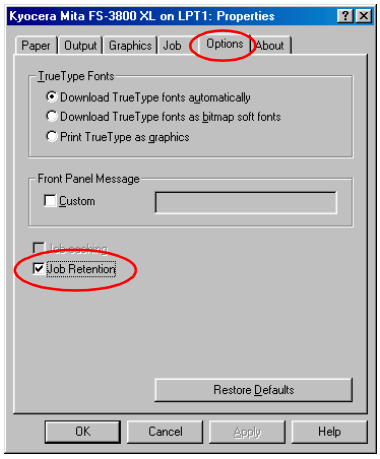
2 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.



3 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

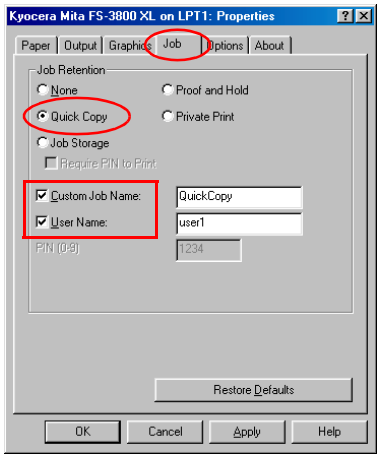
4 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

5 Click the **Properties** button. The **Properties** dialog box is displayed. Click the **Options** tab and then checkmark the **Job Retention** check box.



6 Click the **Job** tab. Click the **Quick Copy** radio button. Then checkmark the **Custom Job Name** and **User Name** check boxes below. Enter the desired names for **Custom Job Name** and **User Name**. The names entered here will appear on the printer operator panel when printing additional copies using the operator panel.

If nothing is entered, `NO JOB NAME` and `NO USER NAME` will appear for **Custom Job Name** and **User Name** respectively.



7 Click the **OK** button. The **Print** dialog box is displayed again. Click the **OK** button to start printing. The print job will be saved to the Microdrive as it is printed.

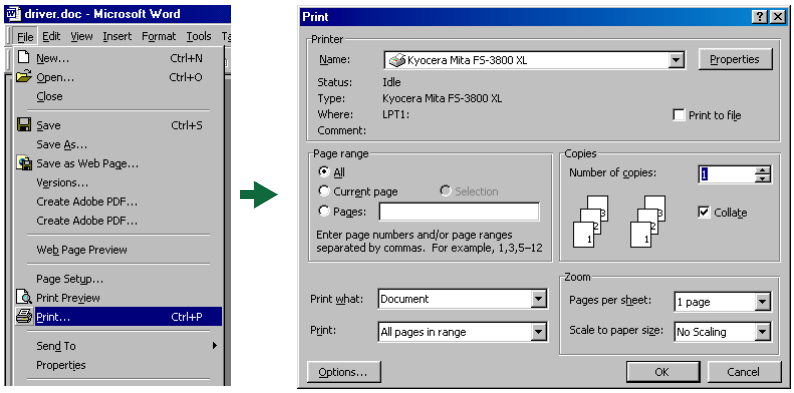
If additional copies are required, print using the `Quick Copy` menu in the `e-MPS` menu at the printer operator panel. For details, see page ***1-21*** in the ***User's Manual***.

Proof and Hold Printing

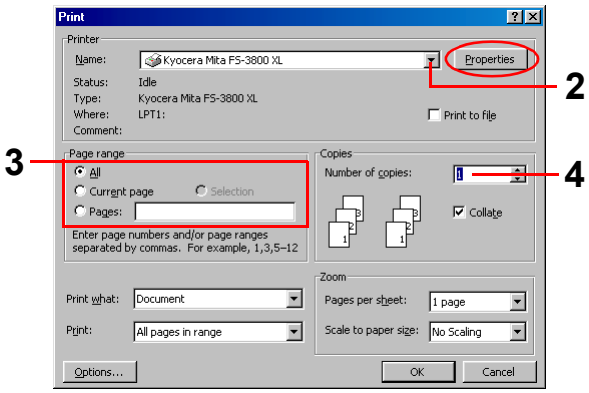
You can check the first copy before printing the remaining copies, paper wastage can be avoided. The print jobs will be deleted when the printer is turned off.

To print, proceed as follows.

1 Browse through Windows **File** > **Print**. The **Print** dialog box will displayed.



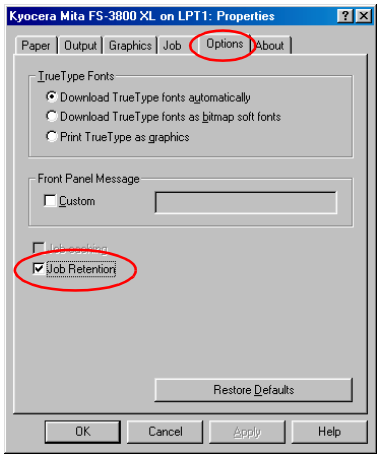
2 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.



3 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

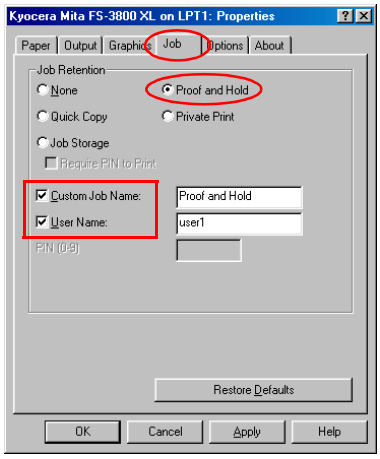
4 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

5 Click the **Properties** button. The **Properties** dialog box is displayed. Click the **Options** tab and then checkmark the **Job Retention** check box.



6 Click the **Job** tab. Click the **Proof and Hold** radio button. Then checkmark the **Custom Job Name** and **User Name** check boxes below. Enter the desired names for **Custom Job Name** and **User Name**. The names entered here will appear on the printer operator panel when printing using the operator panel.

If nothing is entered, `NO JOB NAME` and `NO USER NAME` will appear for **Custom Job Name** and **User Name** respectively.



7 Click the **OK** button. The **Print** dialog box is displayed again. Click the **OK** button to start printing. The print job will be stored to the Microdrive as it is printed.

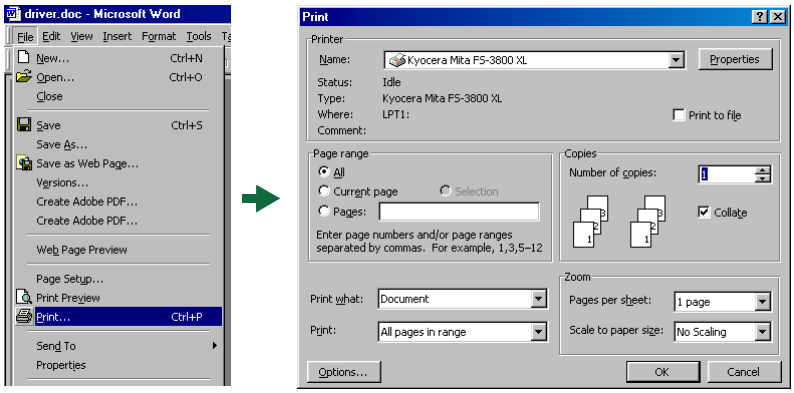
The printer will first print only one copy if you set to print multiple number of copies, allowing you to check the printouts. If there is no problem, resume printing the remaining copies using the `Quick Copy` menu in the `e-MPS` menu at the printer operator panel. For details, see page ***1-21*** in the ***User's Manual***.

Private Printing

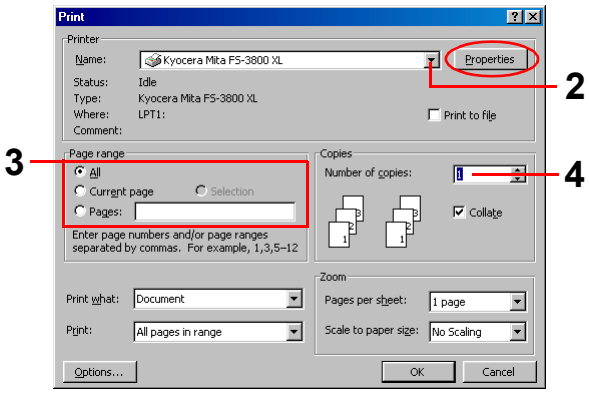
You need to enter a password at retrieving the job, confidentiality is assured even if you share the printer with others. Print jobs will be deleted when they are printed or when the printer is turned off.

To print, proceed as follows.

1 Browse through Windows **File** > **Print**. The **Print** dialog box will displayed.



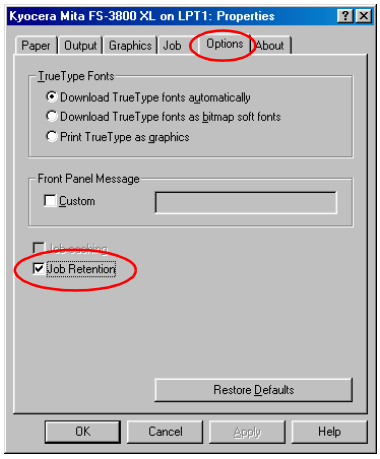
2 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.



3 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

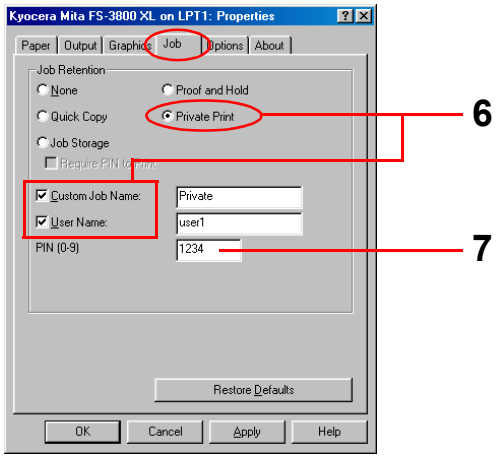
4 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

5 Click the **Properties** button. The **Properties** dialog box is displayed. Click the **Options** tab and then checkmark the **Job Retention** check box.



6 Click the **Job** tab. Click the **Private Print** radio button and then checkmark the **Custom Job Name** and **User Name** check boxes below. Enter the desired names for **Custom Job Name** and **User Name**. The names entered here will appear on the printer operator panel when printing using the operator panel.

If nothing is entered, `NO JOB NAME` and `NO USER NAME` will appear for **Custom Job Name** and **User Name** respectively.



7 Set the desired 4-digit number for **PIN** using any numbers between 0 and 9. This number is synonymous to user ID which is required to enter at the printer operator panel when retrieving.

8 Click the **OK** button. The **Print** dialog box is displayed again. Click the **OK** button. The print job will be stored to the Microdrive without printing.

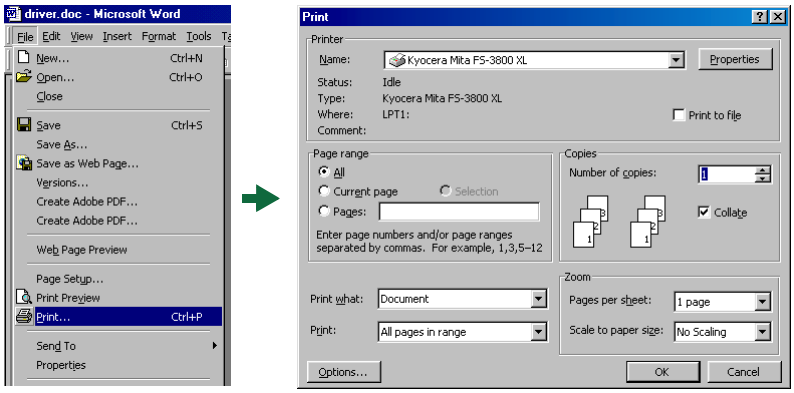
To print, use the `Private/Stored` menu in the `e-MPS` menu at the printer operator panel. For details, see page ***1-25*** in the ***User's Manual***.

Stored Job Printing (Job Storage)

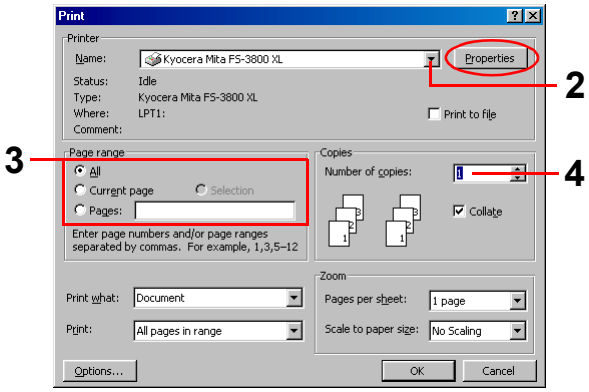
Select this if you want to store frequently needed print jobs, such as forms, to print them later as required. The print jobs will not be deleted when the printer is turned off.

To print, proceed as follows.

1 Browse through Windows **File** > **Print**. The **Print** dialog box will displayed.



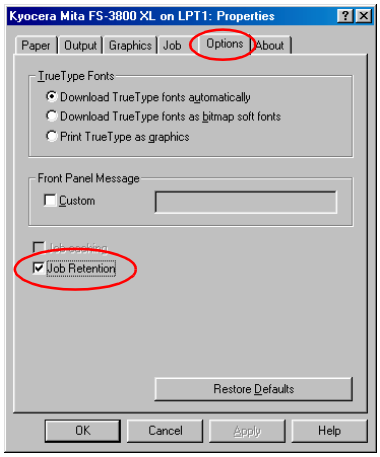
2 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.



3 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

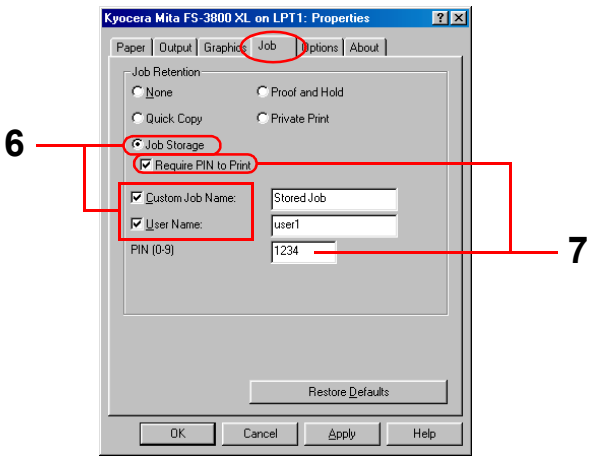
4 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

5 Click the **Properties** button. The **Properties** dialog box is displayed. Click the **Options** tab and then checkmark the **Job Retention** check box.



6 Click the **Job** tab. Click the **Job Storage** radio button. Then checkmark the **Custom Job Name** and **User Name** check boxes below. Enter the desired names for **Custom Job Name** and **User Name**. The names entered here will appear on the printer operator panel when printing using the operator panel.

If nothing is entered, `NO JOB NAME` and `NO USER NAME` will appear for **Custom Job Name** and **User Name** respectively.



7 You can add security to the print job. To do so, checkmark the **Required PIN to Print** check box and enter the desired 4-digit number for **PIN** using any numbers between 0 and 9. You must enter this number at the printer operator panel when printing.

8 Click the **OK** button. The **Print** dialog box is displayed again. Click the **OK** button. The print job will be stored to the Microdrive without printing.

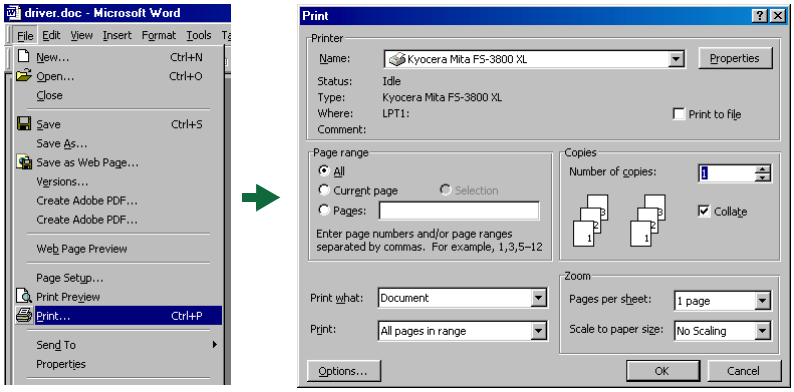
To print, use the `Private/Stored` menu in the `e-MPS` menu at the printer operator panel. For details, see page ***1-25*** in the ***User's Manual***.

3.4.2 Virtual Mail Box Printing

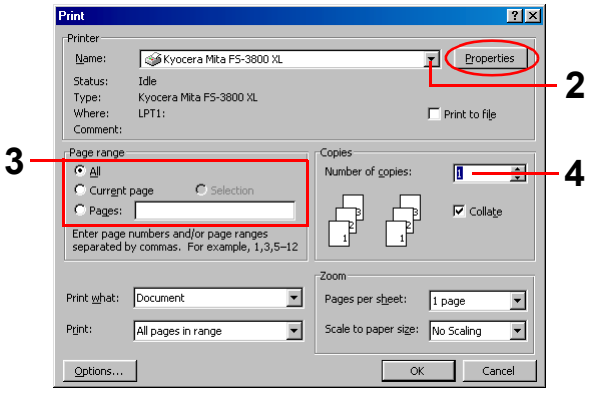
Virtual mailbox is the ability to store print jobs in the virtual mailboxes on the Microdrive, enabling you to retrieve and print it later from the printer's operator panel or the option barcode reader (BC-1). A maximum of 255 virtual mail boxes can be set up, making it possible to allocate documents not just for individual departments or groups, but even for individual people. The print jobs will not be deleted when the printer is turned off.

To print, proceed as follows.

1 Browse through Windows **File** > **Print**. The **Print** dialog box will displayed.



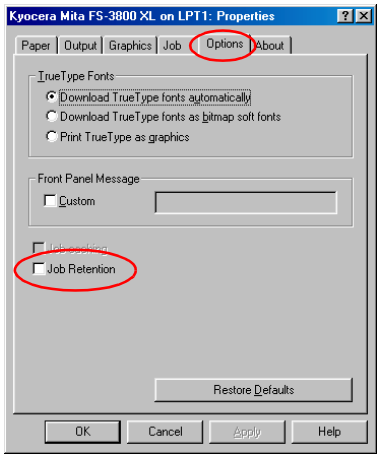
2 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.



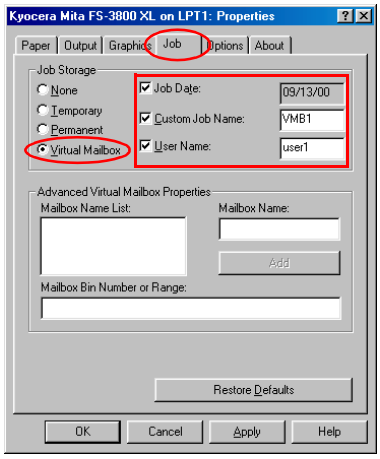
3 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

4 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

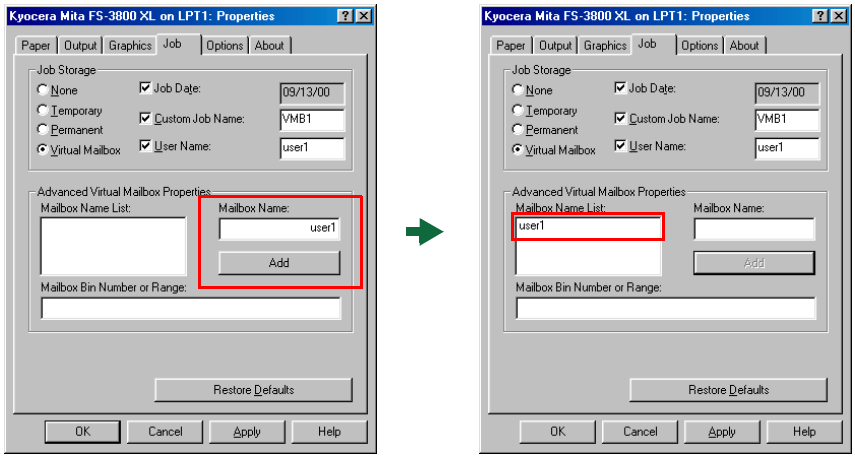
5 Click the **Properties** button in the **Print** dialog box. The **Properties** dialog box is displayed. Click the **Options** tab and check that the **Job Retention** check box is not checkmarked.



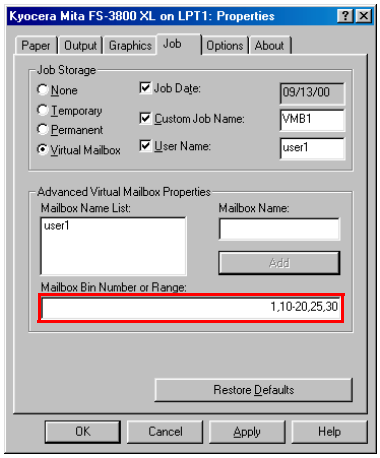
6 Click the **Job** tab and then the **Virtual Mail Box** radio button. Checkmark the **Job Date**, **Custom Job Name**, and **User Name** check boxes on the right and enter the desired names for **Custom Job Name** and **User Name**.



7 Give a name to your virtual mail box tray and click the **Add** button. The name of your virtual mail box tray will be entered in **Mailbox Name List**.



8 Specify the desired virtual mail box tray in **Mailbox Bin Number or Range**. Multiple virtual mail box tray numbers can be specified at a time using commas (,) and hyphens (-). In the following example, the print job will be sent to tray numbers 1, 10 to 20, 25, and 30.



9 Press the **OK** button. The **Print** dialog box appears. Click the **OK** button. The print job will be stored to the Microdrive without printing.

To print, use the `Print VMB Data` menu in the `e-MPS` menu at the printer operator panel and specify the virtual mail box numbers. You can also print the list of virtual mail box trays. For details, see page ***1-29*** in the ***User's Manual***.

3.4.3 Printing with Job Storage

Using Job Storage, you can print multiple copies by sending the data for just one copy (electronic sorting), or print jobs stored on the Microdrive at any time as required using the option barcode reader.

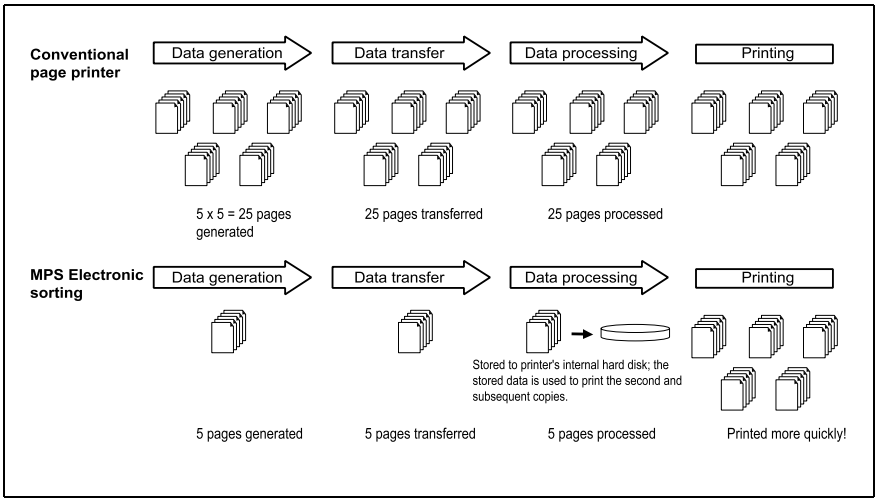
Electronic Sorting

The electronic sorting function allows you to print multiple copies of a document while only requiring the data to be transferred to the printer once. This approach reduces the amount of time that it takes to print multiple copies. With a conventional page printer, the printer must repeat the rasterization process for each copy of a document, each time that it receives data from the host computer.

For example, when printing five copies of a five-page document, a conventional page printer has to complete the rasterization process for 5 × 5 = 25 pages.

With the electronic sorting function, the host computer only sends the document data once, together with a copy count instruction (e.g. the five-page document shown below).

The printer then stores the rasterized data on Microdrive and then uses this rasterized data to print the remaining four copies. As a result, the remaining four copies (20 pages in total in the example shown below) can be printed much more quickly.



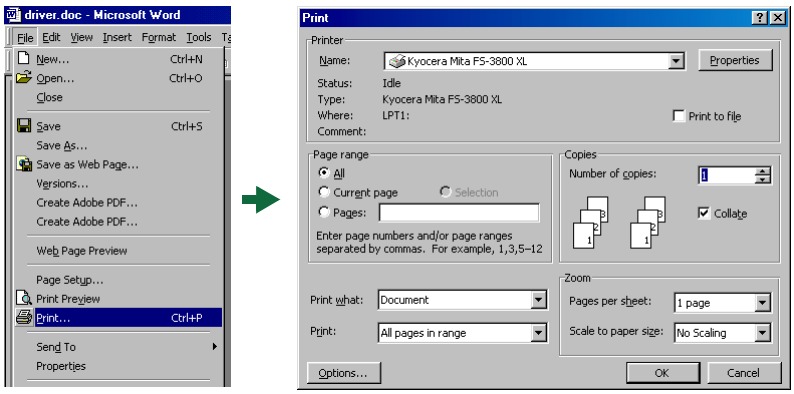
Barcode Printing

A unique number and barcode is automatically assigned to each job as it is stored on the printer. The number appears when jobs are listed in utilities such as **Printer Disk Manager** or **Kyocera Mita PrintMonitor**. The number is also printed, together with its barcode, on the Job List. The Job List can be printed using the `list of Code Job` menu of the printer. Barcode printing jobs will be displayed as code jobs on the printer operator panel.

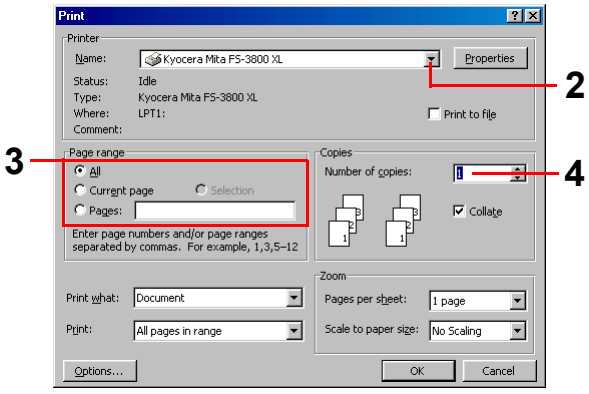
The barcode and number can also be printed on the original document that is printed when the job is stored on the Microdrive. This barcode can be printed on the first page as a code for the whole document, or on every page, so that each individual page of the document can be accessed with the barcode reader.

To print, proceed as follows.

1 Browse through Windows **File** > **Print**. The **Print** dialog box will displayed.



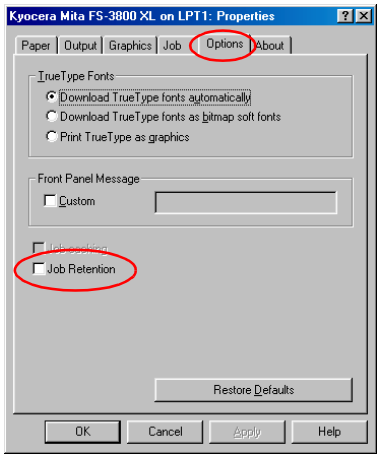
2 Click on the **Name** pull-down list, all the printers installed under Windows are listed. Click the name of the printer you want to use.



3 Select the range of the pages you want to print in the document, **All** or **Current page only** in **Page range**. To print part of the document, enter page numbers separated by commas.

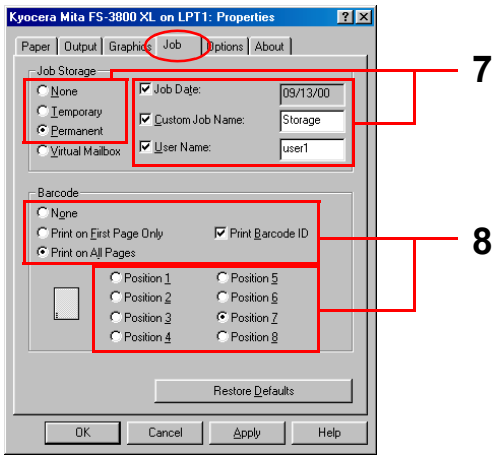
4 Specify the number of pages you want to print in the **Number of copies** combo box in **Copies**.

5 Click the **Properties** button. The **Properties** dialog box is displayed. Click the **Options** tab and check that the **Job Retention** check box is not checkmarked.

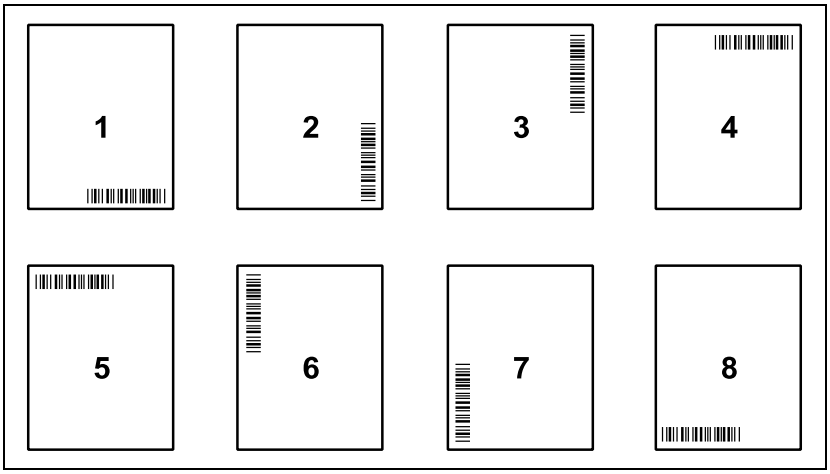


6 Click the **Job** tab and then the **Temporary** or **Permanent** radio button in **Job Storage**. When only making settings for the electronic sorting, proceed to step 9.

7 When using the option barcode reader, checkmark the **Job Date**, **Custom Job Name**, and **User Name** check boxes on the right and enter the desired names for **Custom Job Name** and **User Name**.



8 Set whether or not to print the barcode on the printouts. The barcode can also be printed in various positions on the page, with or without its code number as shown here by selecting its position in the printer driver.



Barcode Positions

9 Click the **OK** button. The **Print** dialog box is displayed again. Click the **OK** button to start printing. The print job will be stored to the Microdrive as it is printed.

The option barcode reader can be used to reprint the document by reading the barcode from the Job List or from the original document.

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