

## **Safety Information**

### **Laser Safety**

This printer is a page printer which operates by means of a laser. There is no possibility of danger from the laser, provided the printer is operated according to the instructions in this manual.

Since radiation emitted by the laser is completely confined within protective housing, the laser beam cannot escape from the machine during any phase of user operation.

### **Internal Laser Radiation**

Maximum Radiation Power :  $5.0 \times 10^{-4}$  (W)

Wave Length : 770-810 (nm)

This is a Class IIb Laser Diode Assy. that has an invisible laser beam. The print head unit is NOT A FIELD SERVICE ITEM. Therefore, the print head unit should not be opened under any circumstances.

### **For United States Users**

#### **Laser Safety**

This printer is certified as a Class 1 Laser product under the **U.S. Department of Health and Human Services (DHHS)** Radiation Performance Standard according to the Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation.

#### **CDRH Regulations**

The **Center for Devices and Radiological Health (CDRH)** of the U.S. Food and Drug Administration implemented regulations for laser products on August 2, 1976. Compliance is mandatory for products marketed in the United States. The label shown below indicates compliance with the CDRH regulations and must be attached to laser products marketed in the United States.

<p><b>WARNING:</b> Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.</p>
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## Foreword

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### For Other Countries Users

**WARNING:** Use of controls, adjustments or performance of procedures other than those specified in this manual may result in hazardous radiation exposure.

This is a semiconductor laser. The maximum power of the laser diode is  $5.0 \times 10^{-4}$  W and the wavelength is 770-810 nm.

### For Denmark Users

**ADVARSEL:** Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsttelse for stråling.

Klasse 1 laser produkt der opfylder IEC825 sikkerheds kravene.

### For Finland, Sweden Users

**VARNNING:** Laitteen käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyttäjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

**VARNNING:** Om apparaten används på annat sätt än i denna bruksanvisning specificerats, kan användaren utsättas för osynlig laserstrålning som överskrider gränsen för laser klass 1.

**VARO!:** Avattaessa ja suojalukitus ohitettaessa olet alttiina näkymättömälle lasersäteilylle. Äjä katso säteeseen.

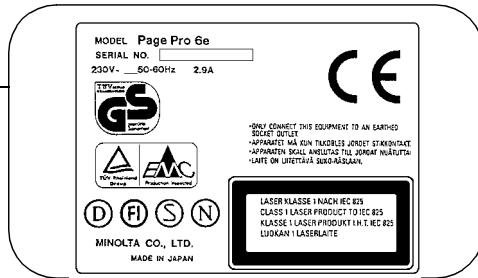
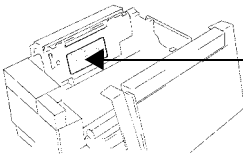
**WARNING!:** Osynlig laserstrålning när denna del är öppnad och spärren är urkopplad. Betrakta ej strålen.

## For Norway Users

**ADVARSEL:** Dersom apparatet brukes på annen måte enn spesifisert i denne bruksanvisning, kan brukeren utsettes for usynlig laserstråling som overskrider grensen for laser klasse 1.

Dette er en halvleder laser. Maksimal effekt til laserdiode er  $5.0 \times 10^{-4}$  W og bølgelengde er 770-810 nm.

## WARNING LABEL



**USER INSTRUCTIONS (FOR U.S.A. Users)**

**FCC PART 15 - RADIO FREQUENCY DEVICES WARNING**

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interface by one or more of the following measures:

- **Reorient or relocate the receiving antenna.**
- **Increase the separation between the equipment and the receiver.**
- **Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.**
- **Consult the dealer or an experienced radio/TV technician for help.**

This device must be used with shielded interface cables. The use of non-shield cables is likely to result in interference with radio communications and is prohibited under FCC rules.

The design and production of this unit conform to FCC regulations, and any changes or modifications must be registered with the FCC and are subject to FCC control. Any changes made by the purchaser or user without first contacting the manufacturer will be subject to penalty under FCC regulations.

**USER INSTRUCTIONS (For Canada Users)**

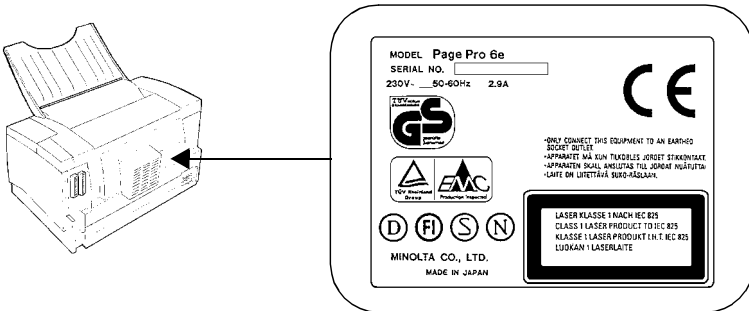
**INTERFERENCE-CAUSING EQUIPMENT STANDARD  
(ICES-003 ISSUE 2) WARNING**

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

## OZONE RELEASE (For all Users)

During printer operation, a small quantity of ozone is released. This amount is not large enough to harm being adversely. However, be sure the room where the machine is being used has adequate ventilation, especially if you are printing a high volume of materials, or if the machine is being used continuously over a long period.

## WARNING LABEL



### **Welcome**

And thank you for selecting a Minolta PagePro 6e Printer!

To assist you to easily set up and operate your printer and install the Printer Driver software, the Minolta PagePro 6e Printer comes with a comprehensive *User Kit*. The Minolta PagePro 6e *User Kit* consists of an *Unpacking and Setting Up Instruction*, an *User's Manual* and a *Software Package*.

The first chapters of the *User's Manual* explain the functions of the printer and how it operates. Besides, they provide you with troubleshooting tips as well as general precautions you should observe when operating the printer.

The chapters for Windows 95 and Windows 3.1 describe how to install and use the Minolta PageWorks/Pro Printer Utility. They also provide you with troubleshooting tips you should observe when operating the printer with your computer. Before reading these chapters, we recommend that you read the previous chapters of the *User's Manual* first, where it is explained how to set up and operate the printer.

At the back you will find the *Software Package* including installation disks of the Printer Utility and Font Manager.

To ensure top performance and effective use of your printer, read this manual from cover to cover, and keep it at hand for future reference.

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## **Patent Rights Legends**

Covered by one or more of the following US Patents:  
5,029,108; 5,396,584; and by patents in other countries.

*Chapter*

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*Introduction*

**1**

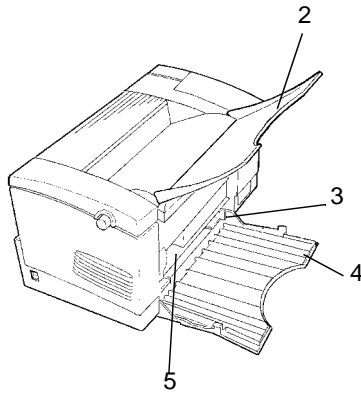
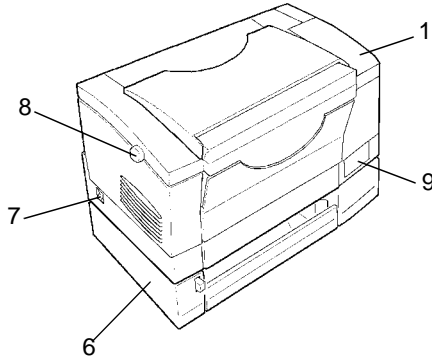


## **Features**

- Compact laser printer with HP LaserJet 4+ emulation.
- Real 600dpi (dot per inch) resolution.
- Printing of six or more A4-size pages per minute.
- New toner and drum cartridges that are smaller and easier to install.
- Fine Micro-Toning (Fine-MT) cartridges for clearer and sharper images.
- FineART (Advanced Resolution Technology) for resolution that actually exceeds 600 dpi.
- Electrode comb image transfer system for sharper images and minimal ozone emissions.

**Printer Parts and Accessories**

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### **1. Control Panel**

A bank of indicators that show the current status of the printer, while a panel button makes it possible to perform a variety of different operations.

### **2. Print Tray**

This tray receives printed pages as they are output (face down). It has a maximum capacity of 100 sheets.

### **3. Paper Guide**

Slide this guide left or right according to the size of the paper being fed.

### **4. Multipurpose Tray**

This tray holds up to 150 sheets of paper for feeding into the printer.

### **5. Manual Feed Inlet**

Insert paper here when you want to feed paper by hand in the Manual Feed Mode.

### **6. 250-Sheet Second Tray Unit (Option)**

Installation of this option provides a place to load up to 250 additional sheets of paper for feeding into the printer.

### **7. Power Switch**

Press this switch to turn power on and off.

### **8. Printer Cover Release Button**

Press this button to release the printer cover, allowing it to be opened fully for toner and drum cartridge replacement, etc.

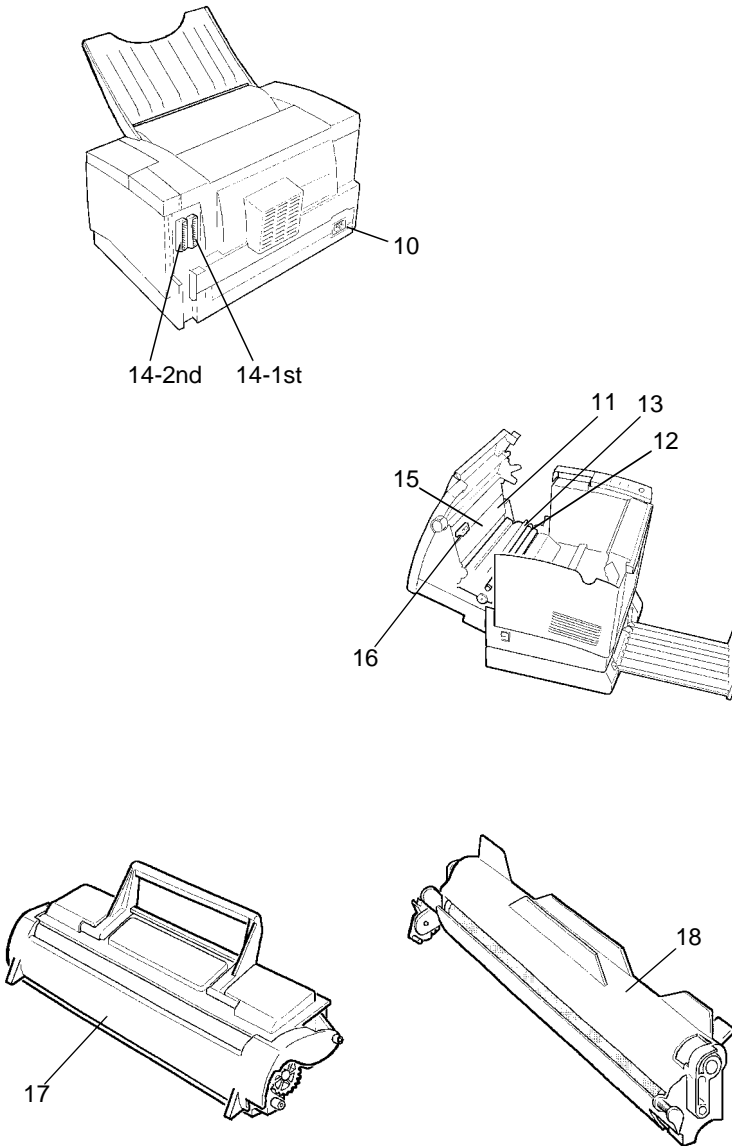
### **9. Infrared Port**

Use this port for printing data from a portable device that is also equipped with an IrDA (Infrared Data Association)-compliant infrared port.

Printing using this infrared port is only available in the PCL emulation mode.

# 1. Introduction

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**10. Power Cord Socket**

Connect the power cord that comes with the printer to this socket.

**11. Printer Cover**

Swing this cover open to change the toner and drum cartridges or to clear a paper misfeed. Pressing the printer cover release button releases the printer cover so it can swing open.

**12. Transport Roller**

This roller rotates to transport the paper through the printer.

**13. Transfer Unit (Electrode Comb)**

This component plays an important role in producing the printed image.

**14. Centronics Interface Connector**

Connect a Centronics cable here for transfer of data from your computer.

1st : Nibble mode Connector

2nd : ECP and Nibble mode Connector

Printing using the 2nd connector is only available in the PCL emulation mode.

**15. Fuser Unit**

This part of the printer fixes the toner image onto the paper.

**16. Transfer Unit Cleaner**

Remove the transfer unit cleaner from its storage position when you want to use it to clean the transfer unit.

**17. Toner Cartridge**

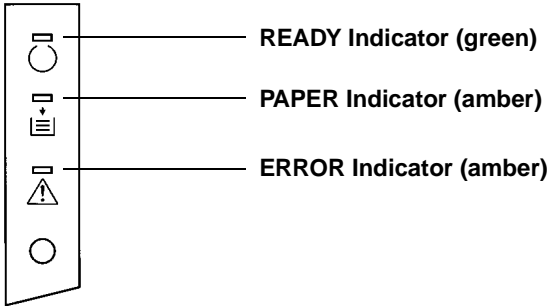
Replace the cartridge with a new one when it runs out of toner.

**18. Drum Cartridge**

After it is charged by the laser, the drum picks up toner particles and transfers the toner onto the paper as it passes through the printer. The drum is a very important component, so always handle it with utmost care.

## Control Panel

The control panel has three indicator lights and one button.



### Indicator Lights

The three indicator lights turn on or off, or blink in combination to let you know the current status of the printer. You can find out details of the printer's status by checking the information that appears on your computer's screen.

Indicator Light			Printer Status
READY	PAPER	ERROR	
Off	Off	Off	Power is off.
Off	Off	On	Cover is open.
Off	Off	Blinking	Memory overflow. The print job will continue and print out the area that the printer was able to process with available memory.
Off	On	Off	Out of paper or paper misfeed. Load more paper or clear the misfeed and continue printing.

Indicator Light			Printer Status
READY	PAPER	ERROR	
Off	On	Blinking	Controller error. Turn off the printer and contact your local Minolta Customer Support.
Off	Blinking	Off	Paper jam. Clear the jam and continue printing.
Off	Blinking	Blinking	Paper size error. Adjust the paper size setting to match the paper you are using and continue printing.
On	Off	Off	Printer is ready.
On	Off	Blinking	Engine error (fuser unit). Turn off the printer and contact your local Minolta Customer Support.
On	On	On	Power on initial setting.
On	On	Blinking	Engine error (laser). Turn off the printer and contact your local Minolta Customer Support.
Blinking	Off	Off	Receiving data via 1st Centronics interface.
Blinking	Off	On	Receiving data via 2nd Centronics interface.
Blinking	Off	Blinking	Engine error (Polygon scanner). Turn off the printer and contact your local Minolta Customer Support.
Blinking	On	Off	Receiving data via infrared port (IrDA).

## ***1. Introduction***

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<b>Indicator Light</b>			<b>Printer Status</b>
<b>READY</b>	<b>PAPER</b>	<b>ERROR</b>	
Blinking	Blinking	Off	Warming up.
Slow Blinking	Off	Off	Power Save Mode.
Blinking	On	Blinking	Engine error (fan motor). Turn off the printer and contact your local Minolta Customer Support.
Off	Blinking	On	GDI Communication error. Turn off the printer and contact your local Minolta Customer Support.
On	Blinking	Blinking	GDI Memory overflow. The print job will continue and print out the area that the printer was able to process with available memory.



## **Panel Button**

Depending on the status of the printer, pressing the panel button performs any one of the following operations.

- Printer reset.
- Continue.
- Test page print.
- Form feed.

## **Printer Reset**

Reset the printer whenever you want to accomplish any of the following tasks.

- To clear all data from printer memory, including unprinted data, downloaded fonts, and macros.
- To recover from an error condition such as memory overflow, print overrun, paper jam, etc. Pressing the panel button resets the printer to its factory defaults in this case.
- To recover from any operational problem, except for hardware errors.

To reset the printer, hold down the panel button for at least five seconds. When you release the panel button, the printer enters its reset routine, which is indicated by all of the indicator lights going out. The READY indicator lights after the reset routine is complete (as long as there is no engine error condition).

### **Note**

- After resetting the printer, wait until the READY indicator lights to indicate that the reset routine is complete before adding paper to the multipurpose tray.
- Never reset the printer to clear an error condition while a print operation is in progress. Wait until the print operation is finished.

## ***1. Introduction***

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### **Continue**

The continue operation resumes the processing of print data and actual printing. It can be used to clear error conditions such as memory overflow and print overrun, and to restart a print operation interrupted to wait for manual feeding of paper.

If the READY and PAPER indicators are both off and the ERROR indicator is blinking, briefly press the panel button to execute a continue operation.

### **Test Page Print**

You can print a Self-Test Page that tests the various printing functions of the printer. To do so, first check to make sure that both the PAPER and ERROR indicators are off, and the READY indicator is on. This indicates there is no existing error condition and no data remaining to be printed. Briefly press the panel button to produce a Self-Test Page.

### **Form Feed**

This operation can be used after a memory overflow occurs to execute a Form Feed code and force the printer to print any data in its memory. First, check to make sure that the PAPER and ERROR indicators are off, and the READY indicator is blinking (memory overflow). Briefly press the panel button to execute a form feed operation.

## **Fonts**

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A *font* is a specific group of characters that share common style and size characteristics. Your printer can store a variety of different fonts in its memory for printing. Since these fonts *reside* in printer memory, they are called *resident fonts*.

This printer uses two types of resident fonts: *scalable fonts* and *bitmap fonts*. Appendix C of this *User's Manual* contains a table that shows samples of all the available resident fonts.

In addition to resident fonts, you can also download non-resident *soft fonts* for printing.

### **Scalable Fonts**

Scalable fonts (also called *outline fonts*) can be enlarged or reduced (scaled) to suit your printing needs. There are few limitations on the sizes that you can specify for scalable fonts.

This printer maintains 10 TrueType fonts and 35 Intellifont typefaces in memory.

### **Bitmap Fonts**

A bitmap font is stored in printer memory as a set of characters and symbols with a specific size and unique design. Each bit of the font is precisely mapped, so this type of font cannot be scaled to different sizes.

This printer maintains one resident bitmap font (line printer).

### **Soft Fonts**

A soft font is downloaded from diskette to printer memory when it is required. The selection of both scalable fonts and bitmap fonts available to the printer can be expanded using soft fonts.

## *1. Introduction*

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### **Minolta Font Manager**

The Minolta Font Manager has screen fonts for Windows 3.1x and Windows 95, and contains 96 TrueType fonts. They can all be displayed and printed as scalable fonts.

*Chapter*

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*Setting-Up*

**2**

## **Installation Precautions**

Note the following important precautions when selecting a location for the printer and when connecting it to a power source.

### **Selecting a Location for the Printer**

A proper location helps to ensure that your printer provides you with the long service life for which it is designed. Double-check to make sure that the location you select has the following characteristics.

- ✓ Choose a location that is well-ventilated.
- ✓ Make sure there is no chance of ammonia or other organic gasses being generated in the area.
- ✓ The power outlet you plan to connect to for power should be nearby and unobstructed.
- ✓ Make sure that the printer is not exposed to direct sunlight.
- ✓ Avoid areas in the direct airflow of air conditioners, heaters, or ventilators, and areas subjected to temperature and humidity extremes.
- ✓ Choose a firm, level surface where the printer will not be exposed to strong vibration.
- ✓ Keep the printer away from any objects that might block its heat vents.
- ✓ Do not locate the printer near curtains or other combustible objects.
- ✓ Choose an area where there is no possibility of the printer being splashed with water or other liquids.
- ✓ Make sure that the surrounding area is clean, dry, and free of dust.

## 2. Setting-Up

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### Power Source

The following are the power source requirements for this printer.

- Power source: 230V at 50/60Hz.
- Voltage fluctuation: Within " 10%.
- Frequency fluctuation: Within " 0.3%.

### Notes

- Use a power source with minimal voltage and frequency fluctuation.
- Only use an outlet that is rated for the voltage capacity specified for this printer.
- Be sure to plug the power cord all the way into the outlet. The outlet should be located near the printer and easily accessible so you can unplug the power cord immediately should any problem occur.
- Make sure the outlet you use is visible, and not hidden behind the printer or any other object.
- If any other electrical equipment is plugged into the same outlet, make sure that the capacity of the outlet is not exceeded.
- If you use an extension cord, make sure its capacity is greater than the power consumption of the printer. Using an extension cord with a lower capacity creates the danger of fire.
- Never use a multiple socket to connect other appliances or machines to the same outlet being used to power the printer.

### Grounding

Always ground the printer to guard against the danger of electrical shock. To ground the printer, connect the grounding wire to the ground terminal of the electrical outlet you are plugging into or to a grounding contact that complies with local electrical standards in your area.

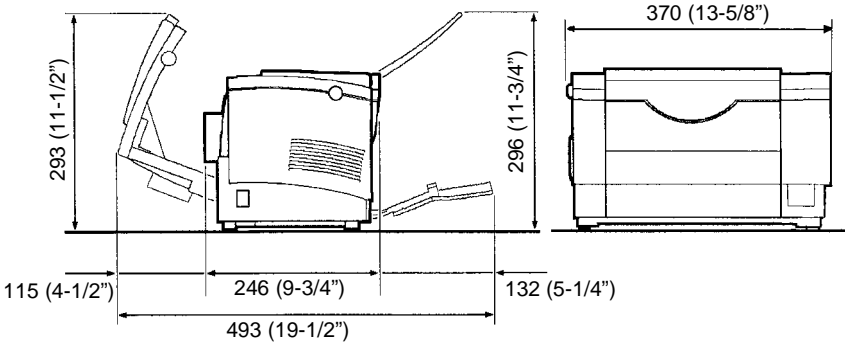
Contact your local Minolta Customer Support if you are unable to make grounding connections yourself.

### Note

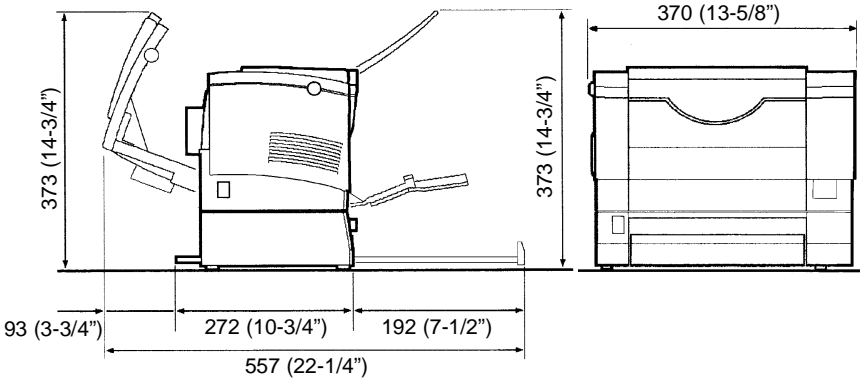
- Never connect the grounding wire to a gas pipe, the grounding wire for a telephone, or to a water pipe.

## Space Requirements

Be sure to provide space around the printer as indicated below, to ensure easier printer operation, paper and toner replacement, and maintenance.



### With Optional 250-sheet Second Tray Unit



Unit: mm (inch)



### **Operational Precautions**

Note the following important precautions whenever using the printer.

#### **Operating Environment**

The following describes the operating environment required when using the printer.

- Temperature:  $10\pm C$  to  $35\pm C$  with fluctuation of  $10\pm C$  per hour.
- Humidity: 15% to 85% with fluctuation of 20% per hour.

#### **Operation**

- Never turn the printer off or open any of its covers while a printing operation is being performed.
- Never locate any object that generates magnetic force, flammable gas, or flammable liquid near the printer.
- When unplugging the power cord, grasp the plug and never pull on the cord. A damaged cord creates the danger of fire or electrical shock.
- Never touch the power cord when your hands are wet. Doing so creates the danger of electrical shock.
- Always unplug the power cord before moving the printer. Failure to do so can damage the power cord, creating the danger of fire or electrical shock.
- Always unplug the power cord if you do not plan to use the printer for a long time.
- Never try to remove any panel or cover that is secured in place. The interior of the printer contains high-voltage circuitry which creates the danger of electrical shock when exposed.
- Never try to modify the printer. Doing so creates the danger of fire or electrical shock.

- Never place any heavy objects on the power cord, pull on it or bend it. Doing so creates the danger of fire or electrical shock.
- Always make sure the printer is not placed on the electrical cord or communications cables of any other electrical equipment. Also make sure that cords and cables do not get into the printer's mechanism. Any of these conditions creates the danger of a malfunction or fire.
- Always take care that paper clips, staples, or other small pieces of metal do not get into the printer through its vents or other openings. Such objects create the danger of fire or electrical shock.
- Never place containers of water or any other liquid on the printer. Liquids getting into the printer create the danger of fire or electrical shock.
- Should metal or liquid accidentally get inside the printer, immediately turn it off, unplug the power cord, and contact your local Minolta Customer Support. Failure to take immediate action creates the danger of fire or electrical shock.
- Always turn the printer off immediately whenever it becomes very hot, or when it emits smoke, an unusual odour, or noise. Immediately turn off the printer, unplug it, and contact your local Minolta Customer Support. Failure to take immediate action creates the danger of fire or electrical shock.

### **Note**

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| <ul style="list-style-type: none"><li>• A negligible amount of ozone is generated during normal operation of this printer. Because of this, an unpleasant odour may result when the printer is used for extensive printing in a poorly ventilated area. For comfortable, healthy, and save operation, be sure to locate the printer in a well-ventilated area.</li></ul> |
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## 2. Setting-Up

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### Printer Supplies

Note the following precautions when handling printer supplies such as the toner cartridge, the drum cartridge, and paper.

- Avoid storing printer supplies in the following locations.
  - ✓ Areas subjected to direct sunlight. Keep the drum cartridge away from fluorescent light as well.
  - ✓ Areas exposed to open flame.
  - ✓ Areas subjected to high humidity.
  - ✓ Areas subjected to large amounts of dust.
- Keep paper that has been removed from its wrapper but not yet loaded onto the printer tray in a sealed plastic bag, which is stored in a cool, dark location.
- Use only the toner cartridge and toner expressly specified for this printer.
- Keep supplies out of the reach of small children.
- Should your hands become soiled with toner, immediately wash them with soap and water.

### Note

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| <ul style="list-style-type: none"><li>• Whenever you remove a drum cartridge from the printer, immediately wrap it with a cloth to protect it against overexposure to the light.</li></ul> |
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## Setting-Up

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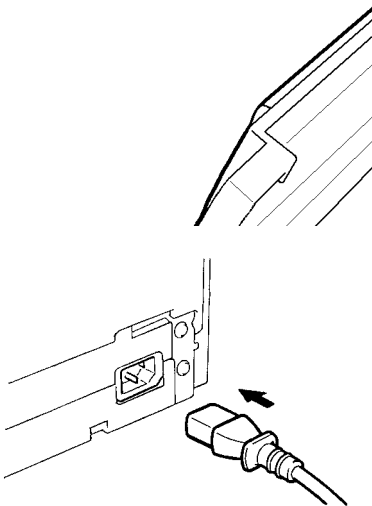
See *UNPACKING/SETTING-UP INSTRUCTIONS* for full details on how to set up the printer.

### Note

- Always use a shielded interface cable. Use of an unshielded cable can result in radio interference with data.
- Keep all the boxes and packing materials that the printer comes in for later use when transporting the printer.

## Connecting the Power Cord

1. Make sure that the printer's power switch is toggled in the ○ (Off) position.



2. Connect one end of the power cord that comes with the printer to the power cord socket. Plug the other end into a power outlet.

## 2. Setting-Up

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### Loading Paper

There are three sources that can be used to feed paper into the printer: the multipurpose tray, the manual feed inlet, and the optional second tray unit.

The multipurpose tray is the standard source for supplying paper to the printer. Various types and sizes of paper can be fed from the multipurpose tray.

You can also add an optional 250-sheet second tray unit as a secondary paper source. See the section of this *User's Manual* titled "Options" for details on using this tray unit.

The multipurpose tray can hold up to 150 sheets of A4, A5, B5, Letter, Executive, Legal, or Post Card as standard. The weight of standard paper should be 60 to 90 g/m<sup>2</sup> (16 to 24 lb.).

The multipurpose tray can also be used to print on special paper, such as letterhead, OHP transparencies, labels, envelopes, and thick paper in the range of 90 to 157 g/m<sup>2</sup> (24 to 41 lb.).

Whenever you are using special paper, be sure to use the printer driver installed on the computer to specify the printing area. You may experience some variation in print quality when using special paper.

Always remember that the paper's storage conditions greatly affect the eventual print quality you will be able to obtain. Store paper in its original package. Keep paper out of areas subjected to extremes in humidity and temperature.

### Printing on Envelopes

The multipurpose tray support feeding of Commercial 10, Monarch, DL, C5, and B5 envelopes.

Up to 10 envelopes can be inserted into the multipurpose tray at one time. The actual number you will be able to get into the tray depends on the type of envelopes you are using and their physical condition.

#### Note

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| <ul style="list-style-type: none"><li>• Because there is great variation in the quality of paper used for envelopes, we suggest that you produce test prints of various types before purchasing any envelopes in quantity for use with this printer.</li></ul> |
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Note the following points whenever printing on envelopes.

- Make sure that all edges are creased sharply and that all flaps are folded correctly.
- Do not use envelopes that are self-adhesive. Use only envelopes that have standard sealing that sticks after it is moistened.
- Use envelopes whose flaps run the entire length of the envelope. Envelopes that seal at one end will not feed properly.
- Do not use envelopes that have a window. Such envelopes can seriously damage the printer.
- Do not use envelopes that are wrinkled.
- Never use envelopes that have clasps or any other type of fastener that can damage the printer.
- Do not store envelopes in an area that is subject to high humidity.

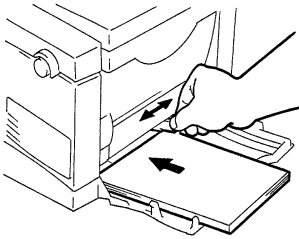
## 2. Setting-Up

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### Loading Paper Onto the Multipurpose Tray

You can load up to 150 sheets of standard paper onto the multipurpose tray. See page 2-8 for details on paper sizes and types.

1. Pull the multipurpose tray from the printer and lie it down flat.



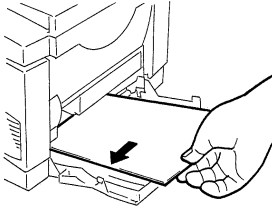
2. Place a stack of paper on the tray as far to the left as possible. Adjust the paper guide so it is snug against the right side of the paper stack.

#### Note

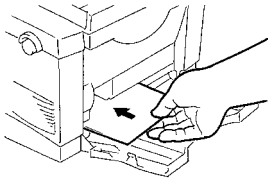
- Do not load additional paper until all the paper currently on the multipurpose tray is completely used up.
- Never load paper while the printer is performing a reset operation (page 1-9).

## Manual Paper Feed

1. Pull the multipurpose tray from the printer and lie it down flat.



2. With the side of the paper you want to print on facing up (so you can see it), insert it into the manual feed inlet. Keep the left edge of the paper against the side of the manual feed inlet.
3. Slide the paper into the printer as far as it will go.



### Note

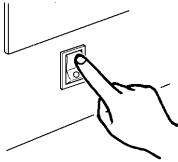
- Insert only one sheet of paper or one envelope at a time when feeding manually.



## 2. Setting-Up

---

### Turning on the Printer



After connecting the printer to a power outlet, press the power switch to turn it on.

Turning on the printer causes all the indicators on the control panel to light, which indicates that the printer is warming up. In about 35 seconds, only the READY indicator remains lit, indicating that the printer is ready to print.

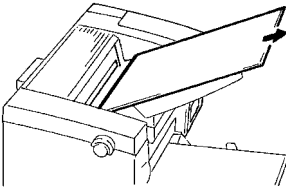
#### **Note**

- The printer automatically enters a power saving mode if it receives no print commands for about 15 minutes. Whenever the printer receives a print command while in the power saving mode, it starts to warm up again and takes about 35 seconds before it is ready to print.

### Testing the Printer

Before connecting to a computer, perform the following procedure to print a Self-Test Page and see if the printer is functioning properly.

1. Open the multipurpose tray.
2. Make sure that both the PAPER and ERROR indicators are off, and the READY indicator is on. This indicates there is no existing error condition and no data remaining to be printed.
3. Briefly press the panel button to start the Self-Test Page print operation.



### Sample Self-Test Page

```
Mitsuba PagePro 6e Status Sheet
Copies = 001
Paper Size = Letter
Line/Page = 60/10
Sheet/Box = 200/200
Paper Feed = Automatic
Auto Continue = On
Typeface = COURIER
Symbol Set = ROMAN-8
Pitch = 10.00
Resolution = 600
Printed in Medium
Toner Save = OFF
Toner Density = MEDIUM
Page Protection = AUTO
Power Save = On
Power Save Interval = 01 Min
Installed Memory
RAM = 2048 Kbytes
EEPROM
Change Size = OFF
Memory Area = MP Tray
Label Size (1/2) = 1/2
Memory Retention = OFF
N' of Sheet Control = OFF
Total Counter = 000161
Counter for Toner Cartridge = 000161
Counter for Drum Cartridge = 000161
2nd Tray = NONE
Firmware Version = 11221996
```

### Note

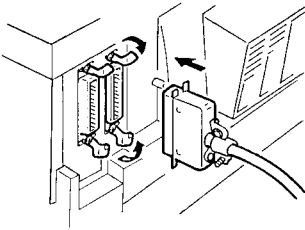
- See Chapter 4 of this manual for information on what to do if the Self-Test Page does not print when you press the panel button.

## 2. Setting-Up

---

### Connecting to a Computer

1. Make sure that the printer and the computer you are connecting it to are both turned off.
2. Connect one end of the interface cable to the parallel port of the computer.



3. Connect the other end of the cable to the Centronics connector on the back of the printer. Secure the cable using the two clips on the Centronics connector.

See page 5-4 of this *User's Manual* for cable specifications and pin assignments.

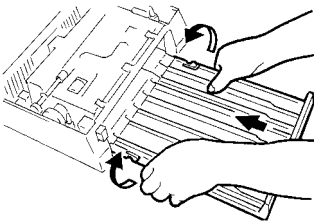
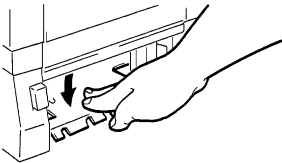
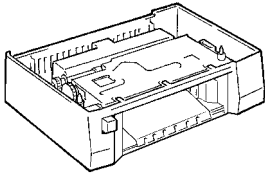
## Options

This section describes the optional items that are available for this printer: a 250-sheet second tray unit and SIMMs.

### **250-Sheet Second Tray Unit**

Installation of this option provides a place to load up to 250 sheets of A4, B5, Letter, or Executive paper. The 250-sheet second tray unit consists of a base unit and a paper tray.

#### **Installing the 250-Sheet Second Tray Unit**

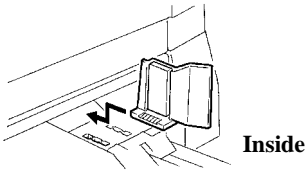


1. Take the tray unit out of its carton. Remove it from the vinyl bag it comes in, and remove all tape holding parts and components in place.
2. Press down the base unit's paper lifting plate until it locks.
3. While grasping both sides of the second paper tray, bend it inwards as shown in the illustration and insert the tray into the base unit as far as it will go.
4. Install the paper guide that comes with the 250-sheet second tray unit and position it according to the size of the paper you plan to load onto the second tray.

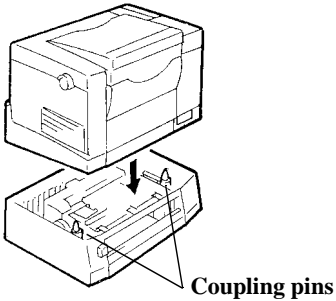
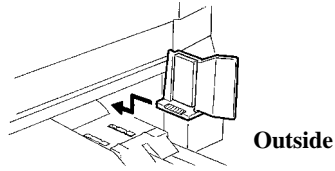
## 2. Setting-Up

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### B5 or Executive Size Paper

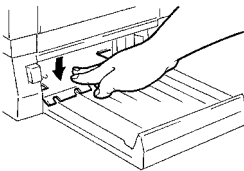


### A4 or Letter Size Paper

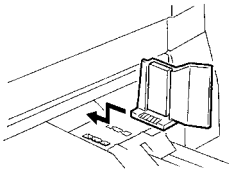


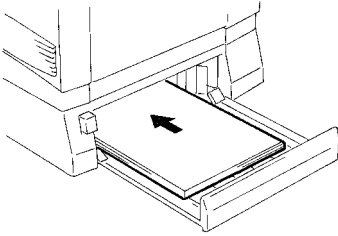
5. Place the printer onto the base unit, ensuring that the two coupling pins of the base unit fit into the holes on the bottom of the printer.

### Loading Paper onto the Second Tray



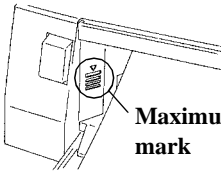
1. Press down the second tray's paper lifting plate until it locks.
2. Adjust the paper guide in accordance with the size of paper you plan to use.





3. Place a stack of paper onto the second tray so the side that was facing up when the paper was unwrapped is still facing up (so you can see it).

### Note



**Maximum level  
mark**

- The second tray can be used for portrait orientation feeding of Letter, A4, and Executive size paper.
- A maximum level mark inside the inlet of the second tray unit shows how high you can stack paper on the second tray. Make sure that paper is stacked no higher than this mark.
- Do not load additional paper until all the paper currently on the second tray is completely used up.

## 2. Setting-Up

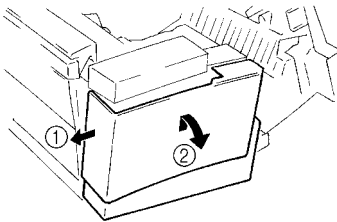
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### SIMMs

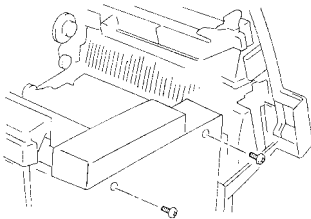
This Printer comes with 2MB of memory as standard. You can increase memory capacity up to 34MB by installing an optional 1, 2, 4, 8, or 16MB optional SIMMs.

### Installing an Optional SIMM

1. Turn off the printer and unplug its power cord.
2. Disconnect the Centronics cable from the printer.
3. Press the cover release button and open the printer cover.



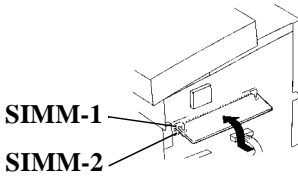
4. Looking at the right end of the printer, pull the left end of the side cover (1) to the left in order to release the inside hooks, then lift up and pull off the side cover (2).



5. Remove the two screws that hold the protective metal cover in place, and then remove the metal cover.

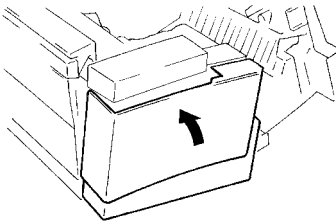
### Caution

- Do not touch any part of the main circuit inside the printer with your hands.



6. Taking care not to touch the connection points along the edge of the SIMM, insert the board into the socket on the main circuit. Press on the SIMM until it snaps into place.

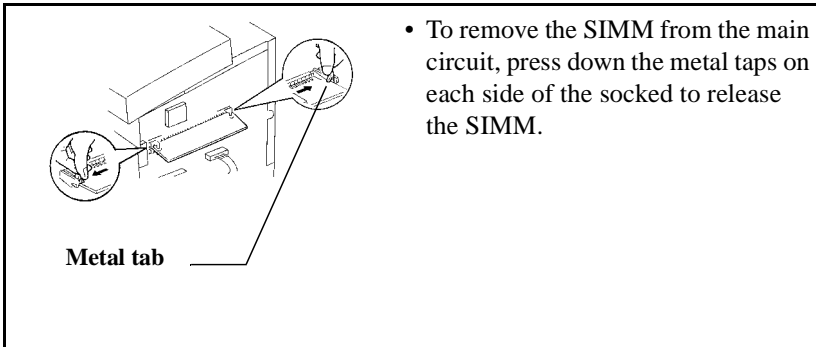
If you are installing two SIMMs at one time, be sure to install the first one at the upper position (SIMM-1), then install the second one at the lower position (SIMM-2).



7. Replace the protective metal cover and the two screws that secure it in place.

8. Replace the side cover of the printer.
9. Print a Self-Test Page (page 2-37) and check to confirm that the Installed Memory item correctly shows the increase in memory capacity. If it doesn't, repeat the above steps making sure that the SIMM is installed correctly.

### Note



- To remove the SIMM from the main circuit, press down the metal tabs on each side of the socket to release the SIMM.



*Chapter*  

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*Maintenance*

**3**

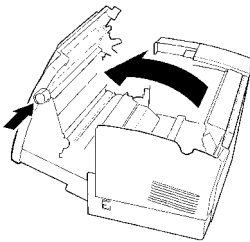
## **Replacing the Toner Cartridge**

Each toner cartridge contains enough toner to produce about 3,000 A4-size prints. This is calculated based on an average image density equivalent to a black-to-white ratio of 5% or less. The actual number of pages obtained from a toner cartridge depends on the image density of the pages you print.

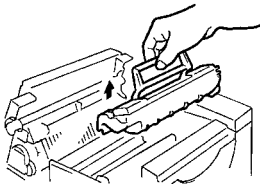
If printed images start to get light, remove the toner cartridge from the printer, rock it back and forth a few times, and then replace it in the printer. If this does not solve the problem, it probably means you need to replace the toner cartridge with a new one.

### **To replace the toner cartridge**

1. Press the printer cover release button and open the printer cover.



2. Remove the old toner cartridge.



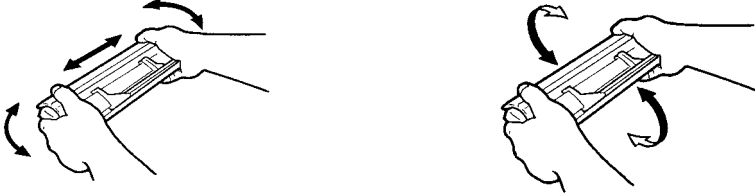
### **Note**

- The toner cartridge is made up of non-hazardous materials, and can be disposed of freely. Check local regulations in your area concerning disposal of such items.

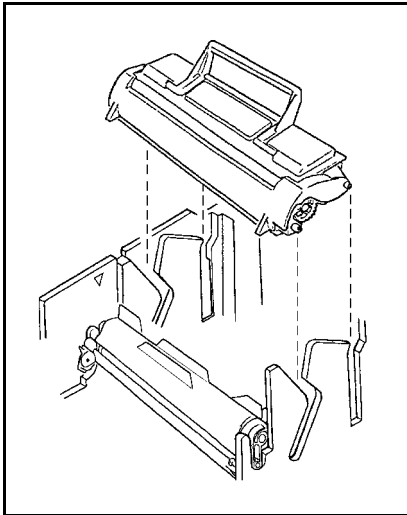
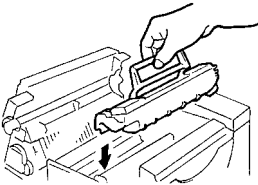
### 3. Maintenance

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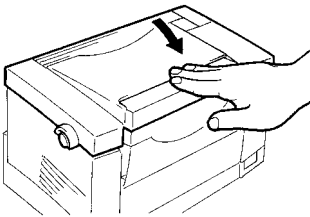
3. Remove the toner cartridge from the box it comes packed in. Holding it firmly with both hands, rock it left and right, forward and back in the directions indicated by the arrows in the illustration.



4. Holding onto the toner cartridge's handle, lower it into the printer. Make sure that the four pins (two on each side) fit into the grooves inside the printer.



5. Close the printer cover and press it down gently but firmly until it locks into place.

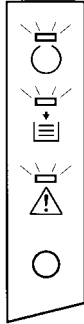


To reset the counter of the toner cartridge (see attached sheet).

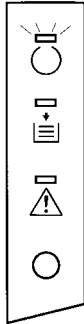
---

## To reset the counter of the toner cartridge

After replacing the toner cartridge, reset the counter as follows:



1. Press and hold the panel button on the control panel and turn the printer on. Three LEDs on the control panel will blink after the printer is warmed up.



2. While the LEDs are blinking, press the panel button again and hold it for more than five seconds. (While holding the panel button, the READY LED will blink and the other LEDs will go off.) The counter of the toner cartridge will be cleared. Then, turn the printer off. The next time you turn the printer on, it will be ready to print.

### 3. Maintenance

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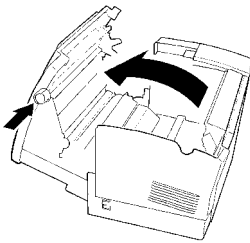
## Replacing the Drum Cartridge

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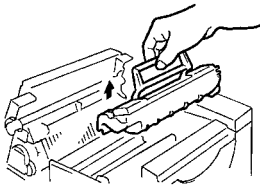
Each drum cartridge can produce about 20,000 A4-size prints. The actual number of pages obtained from a drum cartridge depends on the image density of the pages you print.

After about 20,000 pages, print images start to become faint and blurred. If this happens, use the following procedure to replace the drum cartridge with a new one.

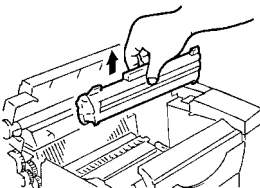
### To replace the drum cartridge



1. Press the printer cover release button and open the printer cover.



2. Remove the toner cartridge.



3. Remove the old drum cartridge.

### Note

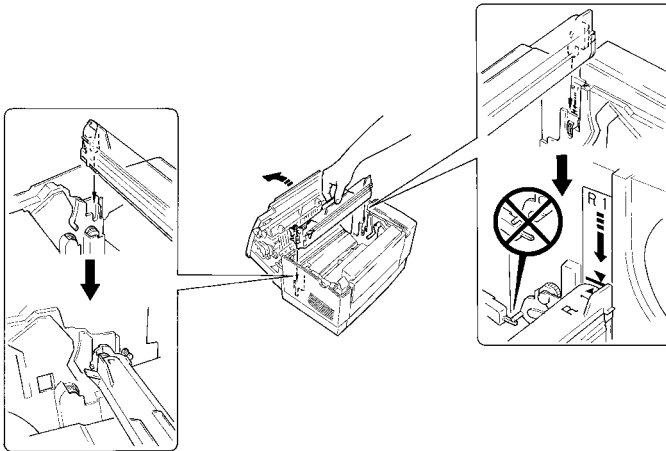
- The drum cartridge is made up of non-hazardous materials, and can be disposed of freely. Check local regulations in your area concerning disposal of such items.

4. Remove the drum cartridge from the box it comes packed in.

#### Note

- If you do not plan to immediately install the drum cartridge into the printer, cover it with a cloth to protect it against overexposure to light.

5. Install the drum cartridge into the printer, aligning the guides of the cartridge with the grooves inside the printer.



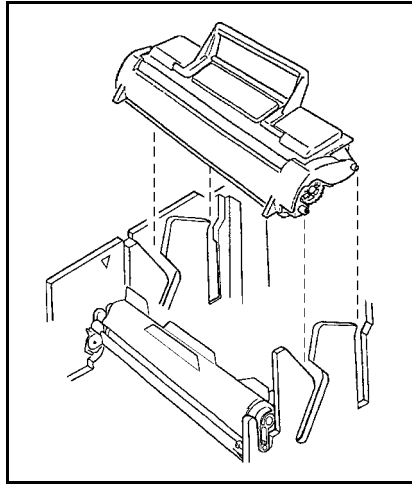
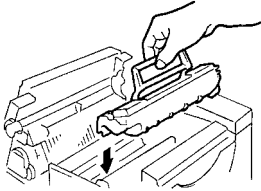
#### Note

- Make sure the drum cartridge is inserted into the printer as far as it will go.

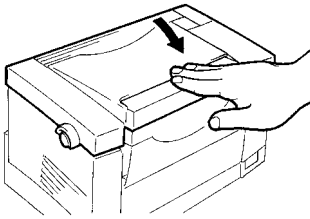
### 3. Maintenance

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6. Holding onto the toner cartridge's handle, lower it into the printer. Make sure that the four pins (two on each side) fit into the grooves inside the printer.



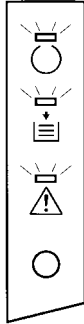
7. Close the printer cover and press it down gently but firmly until it locks into place.



To reset the counter of the drum cartridge (see attached sheet).

## To reset the counter of the drum cartridge

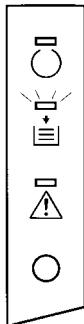
After replacing the drum cartridge, reset the counter as follows:



1. Press and hold the panel button on the control panel and turn the printer on. Three LEDs on the control panel will blink after the printer is warmed up.



2. While the LEDs are blinking, press the panel button again (do not hold it for more than five seconds). The READY LED will blink and the other LEDs will go off.



3. Press the panel button again and hold it for more than five seconds. (While holding the panel button, the EMPTY LED will blink and the READY LED will go off.) The counter of the drum cartridge will be cleared. Then, turn the printer off. The next time you turn the printer on, it will be ready to print.



### 3. Maintenance

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## Cleaning the Printer

Clean the printer at regular intervals to avoid problems caused by the build up of dust, dirt, and paper lint on the inside and outside surfaces of the printer.

### Note

- Whenever cleaning the printer, be sure to first turn it off and unplug its power cord.
- Use a soft cloth to clean the printer. Never use abrasives or corrosive detergents.

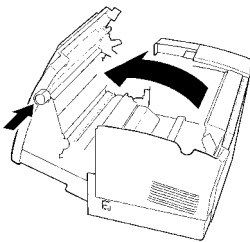
### Caution

- The fuser unit inside the printer can become very hot. Wait for at least 10 minutes after the printer has been turned off and make sure the fuser unit has cooled before cleaning the interior of the printer.

## Cleaning the Outside of the Printer

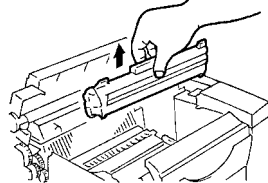
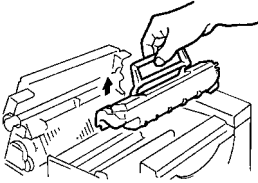
Wipe the outside of the printer with a soft cloth moistened with a household use neutral detergent.

## Cleaning the Transport Roller and Transfer Unit



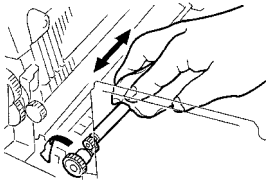
1. Press the printer cover release button and open the printer cover.

2. Remove the toner cartridge and the drum cartridge.

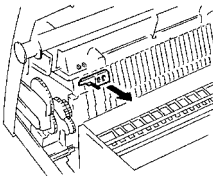


#### Note

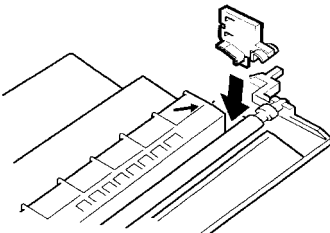
- Immediately wrap the drum cartridge with a cloth to protect it against overexposure to light.



3. Use a soft cloth to wipe the transport roller while rotating the transport roller drive gear.

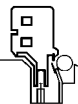


4. Remove the transfer unit cleaner tool from its storage location on the printer cover.



5. Insert the cleaner tool into the transfer unit as shown in the illustration.

Rear side

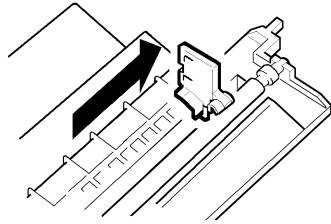
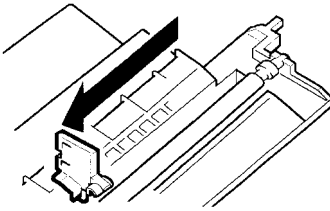


Front side

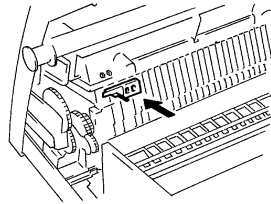
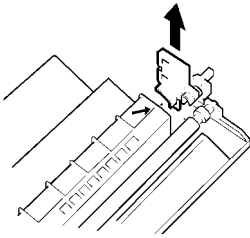
### 3. Maintenance

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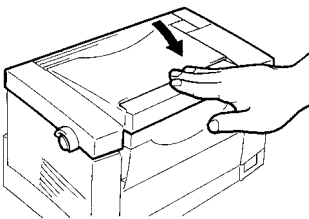
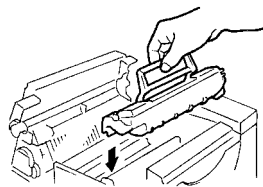
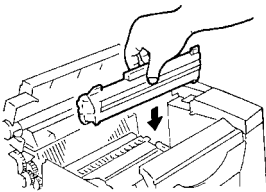
6. Pressing down gently on the cleaner tool, slide it slowly along the transfer unit from right to left, and then back from left to right.



7. Remove the cleaner tool from the transfer unit and reattach it to its storage location on the printer cover.



8. Reinstall the drum cartridge and toner cartridge as shown on page 3-5.



9. Close the printer cover and press it down gently but firmly until it locks into place.

*Chapter* **4**  

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*Troubleshooting*

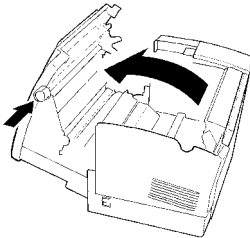
## Clearing a Paper Jam

Use the following procedure to remove paper jammed inside the printer.

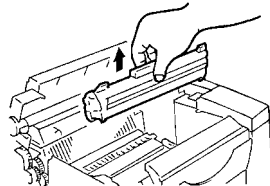
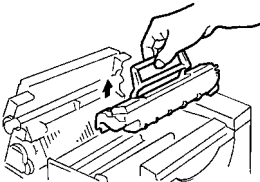
### Caution

- The fuser unit inside the printer can become very hot during printing, creating the danger of burn injury if you touch it.

1. Press the printer cover release button and open the printer cover.



2. Remove the toner cartridge and the drum cartridge.



### Note

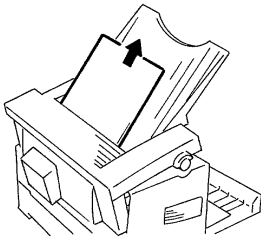
- Immediately wrap the drum cartridge with a cloth to protect it against overexposure to light.

3. Clear the paper feed using one of the following procedures. The procedure you should use depends on the location of the paper jam.

## 4. Troubleshooting

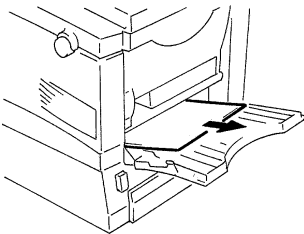
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### Paper Output Jam



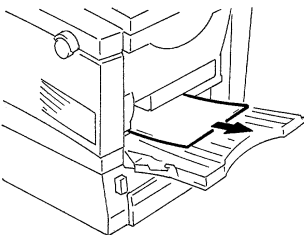
Pull the jammed paper straight out of the printer.

### Paper Input from Multipurpose Tray



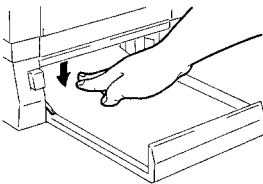
Pull the jammed paper straight out of the printer.

### Paper Input from Manual Feed Inlet

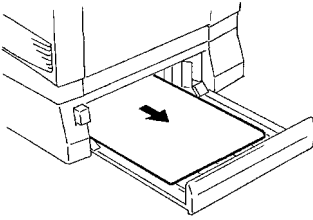


Pull the jammed paper straight out of the printer.

### Paper Input from 250-Sheet Second Tray Unit



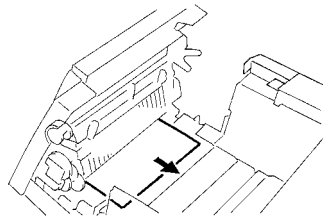
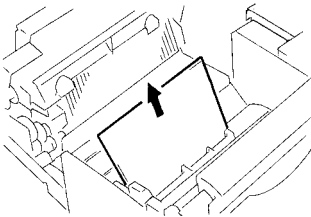
Press down the stack of paper until the paper lifting plate locks.



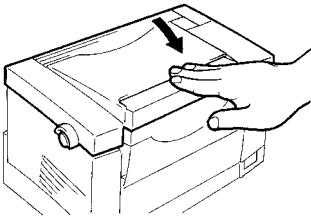
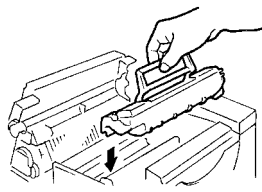
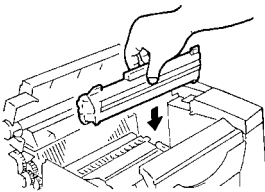
Remove the stack of paper from the tray and pull the jammed paper straight out of the printer.

### Inside the Printer

Pull the end of the paper that is visible straight out of the printer.



4. Reinstall the drum cartridge and toner cartridge as shown on page 3-4.



5. Close the printer cover and press it down gently but firmly until it locks into place.

## 4. Troubleshooting

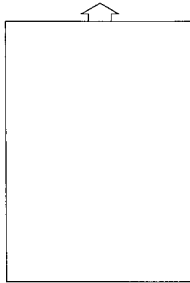
---

### Print Quality Problems

---

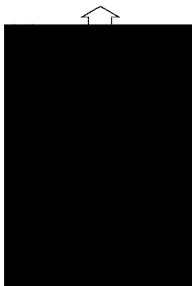
The following provides information on most print quality problems you might encounter. If the advice provided here does not solve your problem, contact your local Minolta Customer Support.

#### Blank pages



- The toner cartridge may be running out of toner.  
Remove the toner cartridge and rock it left and right a few times to distribute remaining toner. If the problem persists, replace the toner cartridge (page 3-1).
- The toner cartridge may be defective.  
Remove the toner cartridge and check it for damage. Replace the toner cartridge if necessary (page 3-1).

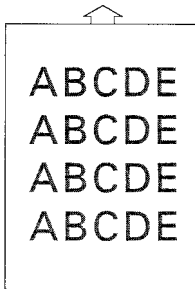
#### Black pages



- The toner cartridge may be defective.  
Remove the toner cartridge and check it for damage. Replace the toner cartridge if necessary (page 3-1).
- Your printer may require servicing. Contact your local Minolta Customer Support.

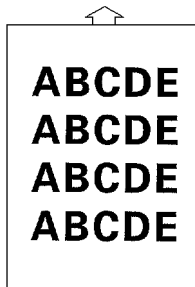


### Print-out too light



- The toner density setting of the Printer Driver may be too light. Change the setting and try printing again.
- The toner cartridge may be running out of toner. Remove the toner cartridge and rock it left and right a few times to distribute remaining toner. If the problem persists, replace the toner cartridge (page 3-1).
- The toner cartridge may be defective. Remove the toner cartridge and check it for damage. Replace the toner cartridge if necessary (page 3-1).

### Print-out too dark

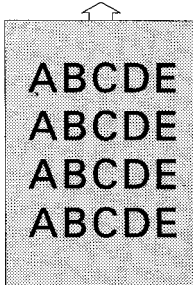


- The toner density or toner save setting of the Printer Driver may be too dark. Change the setting and try printing again.
- The toner cartridge may be defective. Remove the toner cartridge and check it for damage. Replace the toner cartridge if necessary (page 3-1).

## 4. Troubleshooting

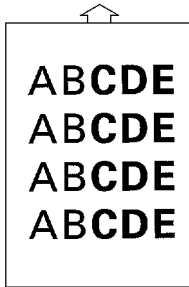
---

### Blurred background



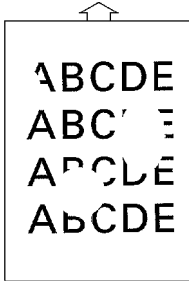
- The toner cartridge may be defective.  
Remove the toner cartridge and check it for damage. Replace the toner cartridge if necessary (page 3-1).

### Uneven print density



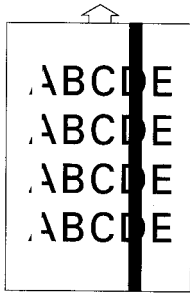
- The toner density setting of the Printer Driver may be too light.  
Change the setting and try printing again.
- The toner may be unevenly distributed inside the toner cartridge.  
Remove the toner cartridge and rock it left and right a few times to distribute remaining toner.
- The drum cartridge may be defective.  
Remove the drum cartridge and check it for damage. Replace the drum cartridge if necessary (page 3-3).

### Irregularities



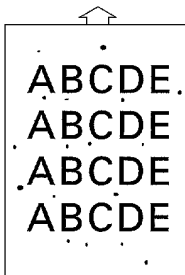
- The paper may have absorbed some moisture due to high humidity or because of direct contact with water. Since toner will not adhere well to wet paper, replace the paper you are using with dry paper and try printing again.

### White or black line



- The charger may be dirty. Clean the transfer unit with the transfer unit cleaning tool (page 3-6).
- The toner cartridge or drum cartridge may be defective. Remove the cartridges and check them for damage. Replace cartridges if necessary.

### Toner smudges



- The toner may be unevenly distributed inside the toner cartridge. Remove the toner cartridge and rock it left and right a few times to distribute remaining toner.
- The toner cartridge or drum cartridge may be defective. Remove the cartridges and check them for damage. Replace cartridges if necessary.
- Smudges on the back of the paper indicate a dirty transport roller. Clean the transport roller

## 4. Troubleshooting

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(page 3-6).

### **No output**

Failure by the printer to produce output may indicate a problem with communications between the printer and your computer. Check the following points to see if you can correct the problem. If problems persist, contact your local Minolta Customer Support.

#### **Are you using the correct type of printer cable?**

Save the data you are trying to print and close all the applications currently open on your computer. Next, reset your computer to send a break signal to the printer. Now check your printer cable against the specifications on Chapter 5 of this *User's Manual*.

#### **Note**

- When connecting your computer to the 2nd Centronics connector on the printer, we recommend using a IEEE1284-compliant parallel interface cable (1.5 m long).

#### **Are your computer's communications port settings correct?**

Refer to the documentation that comes with your computer and check if its current communications port settings are correct.

#### **Did an error occur when the printer command was executed on the computer?**

Try executing the print command again. If printing is not performed, try printing a series of DOS commands as described in Appendix B of this *User's Manual*.

*Chapter* **5**  

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*Specifications*

## PagePro 6e Printer

<b>Type:</b>	Desktop laser beam printer
<b>Print system:</b>	Electrostatic dry powder imaging system
<b>Exposure system:</b>	Laser diode + polygon mirror scanning
<b>Resolution:</b>	600 dpi
<b>Print speed:</b>	6 pages per minute (A4-size paper)
<b>First print:</b>	Within 19 seconds (A4 or Letter)
<b>Paper sizes:</b>	A4, A5, B5, DL Envelope, C5 Envelope, B5 Envelope, Postcard, Letter, Legal, Executive, Com 10 Envelope, Monarch Envelope, Custom
<b>Media:</b>	Plain paper (60 to 90 g/m <sup>2</sup> ; 16 to 24 lbs.); recycled paper (60 to 90 g/m <sup>2</sup> ; 16 to 24 lbs.); transparencies; letter head; labels; envelopes; postcards; thick paper (90 to 157 g/m <sup>2</sup> ; 24 to 41 lbs.)
<b>Paper feeding:</b>	Multipurpose tray; manual feed; 250-sheet second tray (option)
<b>Input capacity:</b>	Multipurpose tray: 150 sheets; Second tray: 250 sheets
<b>Output capacity:</b>	100 sheets (face down)
<b>Warm-up time:</b>	35 seconds max. (220-240V)
<b>Operating temperature:</b>	10± to 35±C
<b>Operating humidity:</b>	15 to 85%
<b>Power consumption:</b>	480W max. (220-240V)
<b>Amperage:</b>	2.9A max. (220-240V)
<b>Machine life:</b>	150,000 prints or five years

## 5. Specifications

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<b>Toner cartridge life:</b>	3,000 prints min. (black-to-white ratio of 5% or less)
<b>Drum cartridge life:</b>	20,000 prints min. (black-to-white ratio of 5% or less)
<b>Power supply:</b>	230V, 50-60Hz
<b>Acoustic noise:</b>	47dB(A) max. (operating); 30dB(A) max. (power saving mode)
<b>External dimensions:</b>	
<b>Height:</b>	8-1/4" (210 mm)
<b>Width:</b>	13-5/8" (370 mm)
<b>Depth:</b>	8-3/4" (216 mm)
<b>Weight:</b>	6.75 kg
<b>Interface:</b>	Parallel, Centronics (IEEE 1284/Nibble) Centronics (IEEE 1284/ECP and Nibble) Ir DA/Ver.1.00 (115.2 kps) port
<b>Emulations:</b>	PCL5e (HP LaserJet 4+ compatible) GDI (Quick Page)
<b>CPU:</b>	Intel i80960SA/16MHz
<b>Resident fonts:</b>	1 bitmap font: Line Printer; 35 Scalable fonts: Intellifont; 10 outline fonts: TrueType
<b>Screen fonts:</b>	Minolta Font Manager 96 scalable fonts
<b>Standard memory:</b>	2MB (expandable up to 34MB)
<b>Accessories:</b>	Toner cartridge, drum cartridge, power cord, User's Manual, software diskettes (8 pcs.)
<b>Options:</b>	250-Sheet Second Tray Unit; SIMM (options available from local dealer)

## 250-Sheet Second Tray Unit (Option)

- Paper feeding system:** One-way system (multi-feed tray)
- Paper types:** Plain paper (60 to 90 g/m<sup>2</sup>; 16 to 24 lbs.); recycled paper (60 to 90 g/m<sup>2</sup>; 16 to 24 lbs.)
- Paper sizes:** A4, B5 (except for the U.S.)  
Letter, Executive (for the U.S.)
- Tray capacity:** Up to 250 sheets (plain and recycled paper)
- Operating temperature:** 10± to 35±C
- Operating humidity:** 15% to 85%
- Weight:** Approximately 1.5 kg (3-1/4 lbs.)



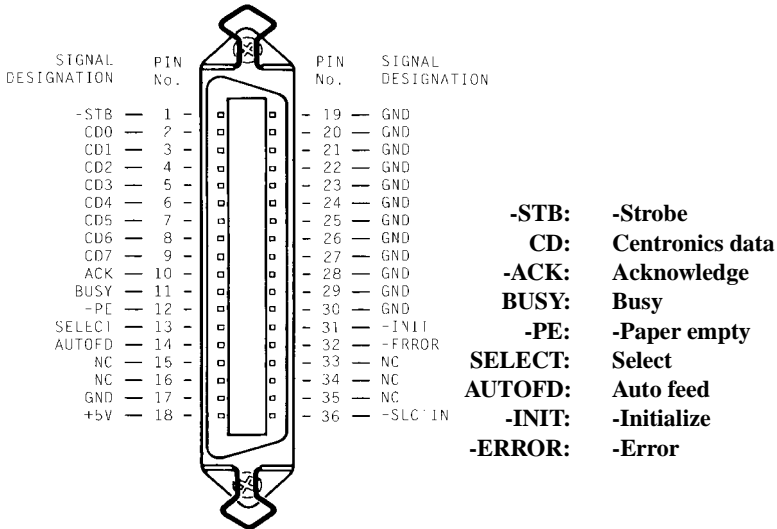
## 5. Specifications

### Interface Connector and Cable

Be sure to use only a parallel interface cable that meets the specifications described below.

- Length:** Less than 10 feet (3 meters)
- Connectors:** **Printer:** Centronics 36-pin connector  
**PC:** EIA 25-pin connector
- Cable type:** Shielded. Each signal and ground pair should be twisted.

#### Pin assignments:



#### Note

- Minolta does not warrant the use of any particular cable. The user assumes all responsibility as to the quality and performance of the cable.
- To use ECP-mode please use IEEE1284 compatible ECP cable.

## Using the Infrared Port

The infrared port of this printer complies with the specifications stipulated by the Infrared Data Association (IrDA). A status light just above the port indicates when the port is active.

The infrared port can be used with a wide variety of IrDA-compliant portable devices. The actual method you should use for printing depends on the type of device and the operating system it uses. Consult the user documentation that comes with the portable equipment for details on printing with it.

The infrared transfers data similarly to a serial port, except it does not use a cable and it operates at speeds of up to 115 Kbits per second.

### To print with the infrared port

1. Make sure that the printer's READY indicator is lit, which means that the printer is ready to print.
2. Align the laptop computer within two or three feet (one meter), and 22.5 degrees of the printer's infrared port.

This example will be described using a laptop computer, but any device equipped with an IrDA-compliant infrared port can be used.

3. Perform the necessary procedure on the laptop computer to start printing and send data through its infrared port.

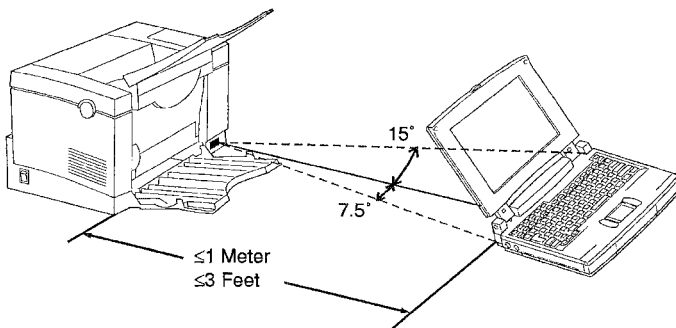
### Notes

- Once you start printing, the status light above the printer's infrared port will turn on to indicate that data is being received. Printing a very complex document or using a software spooler on the laptop may delay the time it takes for the status light to turn on.
- If the status light fails to come on, try realigning the laptop's port with the printer's port and try printing again.
- If you have to move the printer (to add paper, etc.) or the laptop, make sure you keep the two pieces of equipment close enough to maintain the connection.

## 5. Specifications

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- The printer's infrared port status light turns off if the connection is broken before the print job is complete. If this happens, you have anywhere from three to 40 seconds to re-establish the connection (indicated when the status light comes back on) and continue the job.
- Separating the printer and laptop too far or allowing the path between the two pieces of equipment to be broken (by paper, objects, or even direct sunlight) for too long can cause the connection to be broken completely. If this happens, restart the print job.
- When you use this printer with the optional 250 Sheet Second Tray attached, place the laptop computer horizontally across from the printer's infrared port.
- If infrared port printing fails completely, check to make sure that the device you are printing from is IrDA-compliant, that it is installed with proper software, and that its proper port is selected for printing.
- The IrDA standard for infrared communications is an evolving technology, so older non-IrDA-compliant devices may not be compatible with this printer. If you continually have problems printing using the infrared port, contact the manufacturer of portable device or the retailer from whom you purchased it to verify compatibility with the IrDA standard.
- Printing using this infrared port is only available in the PCL emulation mode.



## **SIMM (Option)**

You can expand printer memory by adding one single in-line memory module (SIMM). SIMMs are available from your local dealer.

**Capacity:** 1, 2, 4, 8, 16MB

**Parity:** Non-parity

**Access speed:** 70 nsec

**Number of Pins:** 72

*Appendix*

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*Character Sets*

**A**

7J Desktop

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

## A. Character Sets

### 1E ISO 4:United Kingdom

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p								
				48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Q	a	q								
				33	49	65	81	97	113	129	145	161	177	193	209	225
2	2	18	"	2	B	R	b	r								
				34	50	66	82	98	114	130	146	162	178	194	210	226
3	3	19	£	3	C	S	c	s								
				35	51	67	83	99	115	131	147	163	179	195	211	227
4	4	20	\$	4	D	T	d	t								
				36	52	68	84	100	116	132	148	164	180	196	212	228
5	5	21	%	5	E	U	e	u								
				37	53	69	85	101	117	133	149	165	181	197	213	229
6	6	22	&	6	F	V	f	v								
				38	54	70	86	102	118	134	150	166	182	198	214	230
7	7	23	'	7	G	W	g	w								
				39	55	71	87	103	119	135	151	167	183	199	215	231
8	8	24	(	8	H	X	h	x								
				40	56	72	88	104	120	136	152	168	184	200	216	232
9	9	25	)	9	I	Y	i	y								
				41	57	73	89	105	121	137	153	169	185	201	217	233
A	10	26	*	:	J	Z	j	z								
				42	58	74	90	106	122	138	154	170	186	202	218	234
B	11	27	+	;	K	[	k	{								
				43	59	75	91	107	123	139	155	171	187	203	219	235
C	12	28	,	<	L	\	l									
				44	60	76	92	108	124	140	156	172	188	204	220	236
D	13	29	-	=	M	]	m	}								
				45	61	77	93	109	125	141	157	173	189	205	221	237
E	14	30	.	>	N	^	n	-								
				46	62	78	94	110	126	142	158	174	190	206	222	238
F	15	31	/	?	O	_	o	☐								
				47	63	79	95	111	127	143	159	175	191	207	223	239

OU ISO 6:ASCII

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0 48	@ 64	P 80	' 96	p 112	128	144	160	176	192	208	224	240
1	1	17	!	1 49	A 65	Q 81	a 97	q 113	129	145	161	177	193	209	225	241
2	2	18	"	2 50	B 66	R 82	b 98	r 114	130	146	162	178	194	210	226	242
3	3	19	#	3 51	C 67	S 83	c 99	s 115	131	147	163	179	195	211	227	243
4	4	20	\$	4 52	D 68	T 84	d 100	t 116	132	148	164	180	196	212	228	244
5	5	21	%	5 53	E 69	U 85	e 101	u 117	133	149	165	181	197	213	229	245
6	6	22	&	6 54	F 70	V 86	f 102	v 118	134	150	166	182	198	214	230	246
7	7	23	'	7 55	G 71	W 87	g 103	w 119	135	151	167	183	199	215	231	247
8	8	24	(	8 56	H 72	X 88	h 104	x 120	136	152	168	184	200	216	232	248
9	9	25	)	9 57	I 73	Y 89	i 105	y 121	137	153	169	185	201	217	233	249
A	10	26	*	: 58	J 74	Z 90	j 106	z 122	138	154	170	186	202	218	234	250
B	11	27	+	; 59	K 75	[ 91	k 107	{ 123	139	155	171	187	203	219	235	251
C	12	28	,	< 60	L 76	\ 92	l 108	 124	140	156	172	188	204	220	236	252
D	13	29	-	= 61	M 77	] 93	m 109	} 125	141	157	173	189	205	221	237	253
E	14	30	.	> 62	N 78	^ 94	n 110	~ 126	142	158	174	190	206	222	238	254
F	15	31	/	? 63	O 79	_ 95	o 111	☒ 127	143	159	175	191	207	223	239	255



## A. Character Sets

### 0S ISO 11:Swedish

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	É	P	é	p	128	144	160	176	192	208	224	240
1	1	17	33	49	A	Q	a	q	129	145	161	177	193	209	225	241
2	2	18	34	50	B	R	b	r	130	146	162	178	194	210	226	242
3	3	19	35	51	C	S	c	s	131	147	163	179	195	211	227	243
4	4	20	36	52	D	T	d	t	132	148	164	180	196	212	228	244
5	5	21	37	53	E	U	e	u	133	149	165	181	197	213	229	245
6	6	22	38	54	F	V	f	v	134	150	166	182	198	214	230	246
7	7	23	39	55	G	W	g	w	135	151	167	183	199	215	231	247
8	8	24	40	56	H	X	h	x	136	152	168	184	200	216	232	248
9	9	25	41	57	I	Y	i	y	137	153	169	185	201	217	233	249
A	10	26	42	58	J	Z	j	z	138	154	170	186	202	218	234	250
B	11	27	43	59	K	Ä	k	ä	139	155	171	187	203	219	235	251
C	12	28	44	60	L	Ö	l	ö	140	156	172	188	204	220	236	252
D	13	29	45	61	M	Å	m	å	141	157	173	189	205	221	237	253
E	14	30	46	62	N	Ü	n	ü	142	158	174	190	206	222	238	254
F	15	31	47	63	O	95	o	127	143	159	175	191	207	223	239	255

01 ISO 15:Italian

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

## A. Character Sets

### 2S ISO 17:Spanish

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	§	P	`	p								
			48	64	80	96	112	128	144	160	176	192	208	224	240	
1	1	17	!	1	A	Q	a	q								
			33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r								
			34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	£	3	C	S	c	s								
			35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	\$	4	D	T	d	t								
			36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u								
			37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v								
			38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	'	7	G	W	g	w								
			39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x								
			40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y								
			41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z								
			42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	:	K	i	k	°								
			43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	L	Ñ	l	ñ								
			44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	¿	m	ç								
			45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	^	n	~								
			46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O		o									
			47	63	79	95	111	127	143	159	175	191	207	223	239	255

1G ISO 21:German

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
0	0	16	32	48	0	§	P	˘	p	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Q	a	q	129	145	161	177	193	209	225	241	
2	2	18	"	2	B	R	b	r	130	146	162	178	194	210	226	242	
3	3	19	#	3	C	S	c	s	131	147	163	179	195	211	227	243	
4	4	20	\$	4	D	T	d	t	132	148	164	180	196	212	228	244	
5	5	21	%	5	E	U	e	u	133	149	165	181	197	213	229	245	
6	6	22	&	6	F	V	f	v	134	150	166	182	198	214	230	246	
7	7	23	'	7	G	W	g	w	135	151	167	183	199	215	231	247	
8	8	24	(	8	H	X	h	x	136	152	168	184	200	216	232	248	
9	9	25	)	9	I	Y	i	y	137	153	169	185	201	217	233	249	
A	10	26	*	:	J	Z	j	z	138	154	170	186	202	218	234	250	
B	11	27	+	;	K	Ä	k	ä	139	155	171	187	203	219	235	251	
C	12	28	,	<	L	Ö	l	ö	140	156	172	188	204	220	236	252	
D	13	29	-	=	M	Ü	m	ü	141	157	173	189	205	221	237	253	
E	14	30	.	>	N	ˆ	n	ß	142	158	174	190	206	222	238	254	
F	15	31	/	?	O	̄	o	☒	143	159	175	191	207	223	239	255	

## A. Character Sets

### 0D ISO 60:Norwegian V1

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0 48	@ 64	P 80	^ 96	p 112	128	144	160	176	192	208	224	240
1	1	17	!	1 49	A 65	Q 81	a 97	q 113	129	145	161	177	193	209	225	241
2	2	18	"	2 50	B 66	R 82	b 98	r 114	130	146	162	178	194	210	226	242
3	3	19	#	3 51	C 67	S 83	c 99	s 115	131	147	163	179	195	211	227	243
4	4	20	\$	4 52	D 68	T 84	d 100	t 116	132	148	164	180	196	212	228	244
5	5	21	%	5 53	E 69	U 85	e 101	u 117	133	149	165	181	197	213	229	245
6	6	22	&	6 54	F 70	V 86	f 102	v 118	134	150	166	182	198	214	230	246
7	7	23	'	7 55	G 71	W 87	g 103	w 119	135	151	167	183	199	215	231	247
8	8	24	(	8 56	H 72	X 88	h 104	x 120	136	152	168	184	200	216	232	248
9	9	25	)	9 57	I 73	Y 89	i 105	y 121	137	153	169	185	201	217	233	249
A	10	26	*	: 58	J 74	Z 90	j 106	z 122	138	154	170	186	202	218	234	250
B	11	27	+	; 59	K 75	Æ 91	k 107	æ 123	139	155	171	187	203	219	235	251
C	12	28	,	< 60	L 76	Ø 92	l 108	ø 124	140	156	172	188	204	220	236	252
D	13	29	-	= 61	M 77	Å 93	m 109	å 125	141	157	173	189	205	221	237	253
E	14	30	.	> 62	N 78	^ 94	n 110	— 126	142	158	174	190	206	222	238	254
F	15	31	/	? 63	O 79	95	o 111	☒ 127	143	159	175	191	207	223	239	255

1F ISO 69:French

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0 48	à 64	P 80	µ 96	p 112	128	144	160	176	192	208	224	240
1	1	17	!	1 49	A 65	Q 81	a 97	q 113	129	145	161	177	193	209	225	241
2	2	18	"	2 50	B 66	R 82	b 98	r 114	130	146	162	178	194	210	226	242
3	3	19	£	3 51	C 67	S 83	c 99	s 115	131	147	163	179	195	211	227	243
4	4	20	\$	4 52	D 68	T 84	d 100	t 116	132	148	164	180	196	212	228	244
5	5	21	%	5 53	E 69	U 85	e 101	u 117	133	149	165	181	197	213	229	245
6	6	22	&	6 54	F 70	V 86	f 102	v 118	134	150	166	182	198	214	230	246
7	7	23	'	7 55	G 71	W 87	g 103	w 119	135	151	167	183	199	215	231	247
8	8	24	(	8 56	H 72	X 88	h 104	x 120	136	152	168	184	200	216	232	248
9	9	25	)	9 57	I 73	Y 89	i 105	y 121	137	153	169	185	201	217	233	249
A	10	26	*	: 58	J 74	Z 90	j 106	z 122	138	154	170	186	202	218	234	250
B	11	27	+	; 59	K 75	° 91	k 107	é 123	139	155	171	187	203	219	235	251
C	12	28	,	< 60	L 76	ç 92	l 108	ù 124	140	156	172	188	204	220	236	252
D	13	29	-	= 61	M 77	§ 93	m 109	è 125	141	157	173	189	205	221	237	253
E	14	30	.	> 62	N 78	^ 94	n 110	¨ 126	142	158	174	190	206	222	238	254
F	15	31	/	? 63	O 79	¯ 95	o 111	■ 127	143	159	175	191	207	223	239	255

# A. Character Sets

## ON ISO 8859/1 Latin 1

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
			0	@	P	`	p					°	À	Ð	à	ð
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
			!	1	A	Q	a	q			ı	±	Á	Ñ	á	ñ
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
			"	2	B	R	b	r			ç	²	Â	Ë	â	ë
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
			#	3	C	S	c	s			£	³	Ã	Ó	ã	ó
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
			\$	4	D	T	d	t			¤	´	Ä	Ô	ä	ô
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
			%	5	E	U	e	u			¥	µ	Å	Õ	å	õ
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
			&	6	F	V	f	v				¶	Æ	Ö	æ	ö
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
			'	7	G	W	g	w			§	·	Ç	×	ç	÷
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
			(	8	H	X	h	x			¨	¸	È	Ø	è	ø
9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
			)	9	I	Y	i	y			©	ı	É	Ù	é	ù
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
			*	:	J	Z	j	z			ª	º	Ê	Ú	ê	ú
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
			+	;	K	[	k	{			«	»	Ë	Û	ë	û
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
			,	<	L	\	l				¬	¼	Ì	Ü	ì	ü
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
			-	=	M	]	m	}			-	½	Í	Ý	í	ý
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
			.	>	N	^	n	~			®	¾	Î	Þ	î	þ
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255
			/	?	O	¸	o	☒			-	¿	Ï	ß	ï	ÿ

2N ISO 8859/2 Latin 2

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p				°	Ř	Đ	ř	đ
				48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Q	a	q			À	á	Á	Ň	á	ń
				49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r			˘	˘	Â	Ń	â	ñ
				50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	C	S	c	s			Ł	ł	Ă	Ó	ă	ó
				51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	\$	4	D	T	d	t			α	´	Ä	Ô	ä	ô
				52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u			Ł	ł	Ĺ	Ő	í	ő
				53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v			Š	š	Č	Ö	č	ö
				54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	'	7	G	W	g	w			š	˘	Ç	×	ç	÷
				55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x			˘	˘	Č	Ř	č	ř
				56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y			Š	š	É	Û	é	û
				57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z			Ş	ş	E	Ú	e	ú
				58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	k	{			Ť	ť	Ě	Ů	ě	ů
				59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	L	\	l				Ž	ž	Ě	Ü	ě	ü
				60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	]	m	}			-	˘	Í	Ý	í	ý
				61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	^	n	˘			Ž	ž	Î	Ţ	î	ţ
				62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	˘	o	☒			Ž	ž	Ď	ß	ď	·
				63	79	95	111	127	143	159	175	191	207	223	239	255



# A. Character Sets

## 5N ISO 8859/9 Latin 5

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p				°	À	Ĝ	à	ğ
				48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	!	I	A	Q	a	q		ı	±	Á	Ñ	á	ñ
				49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r			ç	²	Â	Ò	â	ò
				50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	C	S	c	s			£	³	Ã	Ó	ã	ó
				51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	\$	4	D	T	d	t			¤	´	Ä	Ô	ä	ô
				52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u			¥	µ	Å	Õ	å	õ
				53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v				¶	Æ	Ö	æ	ö
				54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	'	7	G	W	g	w			§	·	Ç	×	ç	÷
				55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x			¨	¸	È	Ø	è	ø
				56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y			©	ı	É	Ù	é	ù
				57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z			ª	º	Ê	Ú	ê	ú
				58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	k	{			«	»	Ë	Û	ë	û
				59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	L	\	l				¬	¼	Ì	Ü	ì	ü
				60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	]	m	}			-	½	Í	Ý	í	ı
				61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	^	n	~			®	¾	Î	Ş	î	ş
				62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	o	o	☒			-	¿	Ï	ß	ï	ÿ
				63	79	95	111	127	143	159	175	191	207	223	239	255

1U Legal

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	°	p								
				48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Q	a	q								
				49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r								
				50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	C	S	c	s								
				51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	\$	4	D	T	d	t								
				52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u								
				53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v								
				54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	'	7	G	W	g	w								
				55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x								
				56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y								
				57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z								
				58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	k	§								
				59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	=	L	®	l	¶								
				60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	]	m	†								
				61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	c	N	©	n	™								
				62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	®	o	☒								
				63	79	95	111	127	143	159	175	191	207	223	239	255

# A. Character Sets

## 12J MC Text

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p	Ä	ê	†	∞	ı	-	‡	
				48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Q	a	q	Å	ë	°	±	ı	—	·	Ò
				49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r	Ç	í	ç	≤	¬	“	,	Ú
				50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	C	S	c	s	É	ì	£	≥	√	”	„	Û
				51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	\$	4	D	T	d	t	Ñ	î	§	¥	f	‘	%	Ü
				52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u	Ö	ï	•	μ	≈	’	À	ı
				53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v	Ü	ñ	¶	ð	Δ	÷	Ê	^
				54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	'	7	G	W	g	w	á	ó	β	Σ	«	◇	Á	~
				55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x	à	ò	®	∏	»	ÿ	Ë	-
				56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y	â	ô	©	π	...	ÿ	È	~
				57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z	ä	ö	™	∫	/	Í	·	
				58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	k	{	â	õ	´	ª	À	□	Î	°
				59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	L	\	l		â	ú	¨	º	Ã	<	Ï	˘
				60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	]	m	}	ç	ù	≠	Ω	Õ	,	Ì	˘
				61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	^	n	~	é	û	Æ	æ	Œ	fi	Ó	˘
				62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	~	o		è	ü	Ø	ø	œ	fl	Ô	˘
				63	79	95	111	127	143	159	175	191	207	223	239	255

8M Math-8

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

## A. Character Sets

### 6J Microsoft Publishing

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

10U PC-8 (Code Page 437)

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	▶	0	@	P	`	p	Ç	É	á	⋮	⌒	⌒	α	≡	
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	☺	◀	!	1	A	Q	a	q	ü	æ	í	⊞	⊞	β	±	
	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	☹	↕	"	2	B	R	b	r	é	Æ	ó	⊞	⊞	Γ	≥	
	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	♥	!!	#	3	C	S	c	s	â	ô	ú			⌒	π	≤
	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	♦	¶	\$	4	D	T	d	t	ä	ö	ñ	⊞	—	⌒	Σ	∫
	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	♣	§	%	5	E	U	e	u	à	à	Ñ	⊞	+	⊞	σ	∫
	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	♠	—	&	6	F	V	f	v	å	û	ª	⊞	⊞	⊞	μ	÷
	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	●	↕	'	7	G	W	g	w	ç	ù	º	⊞	⊞	⊞	τ	≈
	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	■	↑	(	8	H	X	h	x	ê	ÿ	¿	⊞	⊞	⊞	Φ	°
	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	○	↓	)	9	I	Y	i	y	ë	Ö	⌒	⊞	⊞	⊞	Θ	·
	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	■	→	*	:	J	Z	j	z	è	Û	⌒	⊞	⊞	⊞	Ω	·
	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	♂	←	+	;	K	[	k	{	ï	ç	½	⊞	⊞	■	δ	√
	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	♀	⌒	,	<	L	\	l		î	£	¼	⊞	⊞	■	∞	n
	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	♪	↔	-	=	M	]	m	}	ì	¥	¡	⊞	⊞	■	φ	²
	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	♪	▲	.	>	N	^	n	~	Ä	Pt	«	⊞	⊞	■	ε	■
	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	☼	▼	/	?	O	˘	o	△	Å	f	»	⊞	⊞	■	∩	
	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

# A. Character Sets

## 11U PC-8 Danish/Norwegian

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	▶ 16	0 32	@ 48	P 64	Q 80	q 96	ç 112	É 128	á 144	á 160	☐ 176	⌞ 192	⌞ 208	α 224	≡ 240
1	☺ 1	◀ 17	! 33	1 49	A 65	Q 81	a 97	q 113	ü 129	æ 145	í 161	☒ 177	⌞ 193	≡ 209	β 225	± 241
2	☹ 2	↕ 18	" 34	2 50	B 66	R 82	b 98	r 114	é 130	Æ 146	ó 162	☒ 178	⌞ 194	⌞ 210	Γ 226	≥ 242
3	♥ 3	!! 19	# 35	3 51	C 67	S 83	c 99	s 115	â 131	ô 147	ú 163	179	⌞ 195	⌞ 211	π 227	≤ 243
4	♦ 4	¶ 20	\$ 36	4 52	D 68	T 84	d 100	t 116	ä 132	ö 148	ñ 164	⌞ 180	⌞ 196	⌞ 212	Σ 228	∫ 244
5	♣ 5	§ 21	% 37	5 53	E 69	U 85	e 101	u 117	à 133	ò 149	Ñ 165	≡ 181	⌞ 197	⌞ 213	σ 229	∫ 245
6	♠ 6	— 22	& 38	6 54	F 70	V 86	f 102	v 118	å 134	û 150	õ 166	⌞ 182	⌞ 198	⌞ 214	μ 230	÷ 246
7	● 7	↑ 23	' 39	7 55	G 71	W 87	g 103	w 119	ç 135	ù 151	Ö 167	⌞ 183	⌞ 199	⌞ 215	τ 231	≈ 247
8	■ 8	↑ 24	( 40	8 56	H 72	X 88	h 104	x 120	ê 136	ÿ 152	ı 168	≡ 184	⌞ 200	⌞ 216	Φ 232	° 248
9	○ 9	↓ 25	) 41	9 57	I 73	Y 89	i 105	y 121	ë 137	Ö 153	ā 169	≡ 185	⌞ 201	⌞ 217	Θ 233	· 249
A	◼ 10	→ 26	* 42	: 58	J 74	Z 90	j 106	z 122	è 138	Ü 154	Ã 170	⌞ 186	⌞ 202	⌞ 218	Ω 234	· 250
B	♂ 11	← 27	+ 43	; 59	K 75	[ 91	k 107	{ 123	ï 139	ø 155	ℓ 171	⌞ 187	⌞ 203	■ 219	δ 235	√ 251
C	♀ 12	⌞ 28	, 44	< 60	L 76	\ 92	l 108	124	î 140	£ 156	ˆ 172	≡ 188	⌞ 204	■ 220	∞ 236	∞ 252
D	♪ 13	↔ 29	- 45	= 61	M 77	] 93	m 109	} 125	ì 141	Ø 157	ı 173	⌞ 189	≡ 205	■ 221	φ 237	² 253
E	♫ 14	▲ 30	. 46	> 62	N 78	^ 94	n 110	˘ 126	Ä 142	L 158	³ 174	≡ 190	⌞ 206	■ 222	€ 238	■ 254
F	☼ 15	▼ 31	/ 47	? 63	O 79	˘ 95	o 111	◊ 127	Å 143	ı 159	□ 175	⌞ 191	≡ 207	■ 223	∩ 239	255

12U PC-850 Multilingual

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	▶ 16	32	0	@ 64	P 80	` 96	p 112	Ç 128	É 144	á 160	⋮ 176	⌞ 192	ð 208	Ó 224	- 240
1	☺ 1	◀ 17	! 33	1 49	A 65	Q 81	a 97	q 113	ü 129	æ 145	í 161	⦶ 177	⌞ 193	Ð 209	β 225	± 241
2	☉ 2	↑ 18	" 34	2 50	B 66	R 82	b 98	r 114	é 130	Æ 146	ó 162	⦶ 178	⌞ 194	Ê 210	Ô 226	2̄ 242
3	♥ 3	!! 19	# 35	3 51	C 67	S 83	c 99	s 115	â 131	ô 147	ú 163	179	⌞ 195	Ë 211	Ò 227	¾ 243
4	♦ 4	¶ 20	\$ 36	4 52	D 68	T 84	d 100	t 116	ä 132	ö 148	ñ 164	⌞ 180	— 196	È 212	ø 228	¶ 244
5	♣ 5	§ 21	% 37	5 53	E 69	U 85	e 101	u 117	à 133	ò 149	Ñ 165	Á 181	+ 197	ı 213	Õ 229	§ 245
6	♠ 6	— 22	& 38	6 54	F 70	V 86	f 102	v 118	â 134	û 150	ª 166	Â 182	ā 198	ı̇ 214	μ 230	÷ 246
7	● 7	↑ 23	' 39	7 55	G 71	W 87	g 103	w 119	ç 135	ù 151	º 167	À 183	Ã 199	İ 215	þ 231	2̇ 247
8	■ 8	↑ 24	( 40	8 56	H 72	X 88	h 104	x 120	ê 136	ÿ 152	ı̇ 168	© 184	⌞ 200	İ 216	þ 232	° 248
9	○ 9	↓ 25	) 41	9 57	I 73	Y 89	i 105	y 121	ë 137	Ö 153	® 169	≡ 185	≡ 201	⌞ 217	Ú 233	¨ 249
A	◼ 10	→ 26	* 42	: 58	J 74	Z 90	j 106	z 122	è 138	Ü 154	⌞ 170	≡ 186	≡ 202	⌞ 218	Û 234	· 250
B	♂ 11	← 27	+ 43	; 59	K 75	[ 91	k 107	{ 123	ï 139	ø 155	½ 171	≡ 187	≡ 203	■ 219	Û 235	¹ 251
C	♀ 12	⌞ 28	, 44	< 60	L 76	\ 92	l 108	124	î 140	£ 156	¼ 172	≡ 188	≡ 204	■ 220	ý 236	³ 252
D	♪ 13	↔ 29	- 45	= 61	M 77	] 93	m 109	} 125	ì 141	Ø 157	ı̇ 173	ç 189	= 205	221	Ý 237	² 253
E	♫ 14	▲ 30	. 46	> 62	N 78	^ 94	n 110	˘ 126	Ä 142	× 158	« 174	¥ 190	≡ 206	İ 222	- 238	■ 254
F	☼ 15	▼ 31	/ 47	? 63	O 79	~ 95	o 111	△ 127	Å 143	f 159	» 175	⌞ 191	□ 207	■ 223	´ 239	255



# A. Character Sets

## 17U PC-852 Latin 2

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	▶ 16	0 32	@ 48	P 64	˘ 80	p 96	Ç 112	É 128	á 144	⋮ 160	⋮ 176	⋮ 192	đ 208	Ó 224	- 240
1	☺ 1	◀ 17	! 33	1 49	A 65	Q 81	a 97	q 113	ü 129	Í 145	í 161	☒ 177	⊥ 193	Đ 209	ß 225	˘ 241
2	☹ 2	↑ 18	" 34	2 50	B 66	R 82	b 98	r 114	é 130	í 146	ó 162	☒ 178	⊥ 194	Ď 210	Ô 226	˘ 242
3	♥ 3	!! 19	# 35	3 51	C 67	S 83	c 99	s 115	â 131	ô 147	ú 163	179	⊥ 195	Ě 211	Ň 227	˘ 243
4	♦ 4	† 20	\$ 36	4 52	D 68	T 84	d 100	t 116	ä 132	ö 148	À 164	⊥ 180	— 196	ď 212	ň 228	˘ 244
5	♣ 5	§ 21	% 37	5 53	E 69	U 85	e 101	u 117	û 133	L 149	à 165	Á 181	⊥ 197	Ń 213	ñ 229	§ 245
6	♠ 6	— 22	& 38	6 54	F 70	V 86	f 102	v 118	č 134	ž 150	Ž 166	Á 182	Ā 198	Í 214	Š 230	÷ 246
7	● 7	↓ 23	' 39	7 55	G 71	W 87	g 103	w 119	ç 135	š 151	ž 167	Ě 183	ǎ 199	î 215	š 231	˘ 247
8	■ 8	↑ 24	( 40	8 56	H 72	X 88	h 104	x 120	ł 136	ś 152	Ę 168	Ş 184	⊥ 200	ě 216	Ř 232	° 248
9	○ 9	↓ 25	) 41	9 57	I 73	Y 89	i 105	y 121	ë 137	Ö 153	e 169	⊥ 185	⊥ 201	⊥ 217	Ú 233	˘ 249
A	☉ 10	→ 26	* 42	: 58	J 74	Z 90	j 106	z 122	Ő 138	Ü 154	170	186	⊥ 202	⊥ 218	ř 234	˘ 250
B	♂ 11	← 27	+ 43	; 59	K 75	[ 91	k 107	{ 123	ő 139	Ť 155	ž 171	⊥ 187	⊥ 203	■ 219	Ů 235	ú 251
C	♀ 12	⊥ 28	, 44	< 60	L 76	\ 92	l 108	124	î 140	ť 156	Č 172	⊥ 188	⊥ 204	■ 220	ý 236	Ř 252
D	♪ 13	↔ 29	- 45	= 61	M 77	] 93	m 109	} 125	Ž 141	Ł 157	ş 173	Ž 189	= 205	⊥ 221	Ý 237	ı 253
E	♫ 14	▲ 30	. 46	> 62	N 78	^ 94	n 110	˘ 126	Ä 142	× 158	« 174	ž 190	⊥ 206	Ů 222	ı 238	■ 254
F	☼ 15	▼ 31	/ 47	? 63	O 79	˘ 95	o 111	△ 127	Ć 143	č 159	» 175	⊥ 191	⊥ 207	■ 223	˘ 239	255

9T PC-Turkish

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	▶		0	@	P	`	p	Ç	É	á	⋮	⊥	⊥	α	≡
	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240	
1	☺	◀	!	1	A	Q	a	q	ü	æ	í	☒	⊥	≡	β	±
	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241	
2	☹	↕	"	2	B	R	b	r	é	Æ	ó	☒	⊥	⊥	Γ	≥
	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242	
3	♥	!!	#	3	C	S	c	s	â	ô	ú		⊥	⊥	π	≤
	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243	
4	♦	¶	\$	4	D	T	d	t	ä	ö	ñ	⊥	—	⊥	Σ	∫
	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244	
5	♣	§	%	5	E	U	e	u	à	ò	Ñ	≡	+	≡	σ	∫
	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245	
6	♠	—	&	6	F	V	f	v	â	û	Ğ	≡	≡	⊥	μ	÷
	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246	
7	●	↓	'	7	G	W	g	w	ç	ù	ğ	⊥	⊥	⊥	τ	≈
	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247	
8	■	↑	(	8	H	X	h	x	ê	î	ı	≡	⊥	≡	Φ	°
	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248	
9	○	↓	)	9	I	Y	i	y	ë	Ö	ı	≡	⊥	⊥	Θ	·
	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249	
A	■	→	*	:	J	Z	j	z	è	Ü	ı	≡	≡	⊥	Ω	·
	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250	
B	♂	←	+	;	K	[	k	{	ï	ç	½	⊥	⊥	■	δ	√
	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251	
C	♀	⊥	,	<	L	\	l		î	£	¼	⊥	⊥	■	∞	n
	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252	
D	♪	↔	-	=	M	]	m	}	ı	¥	ı	⊥	≡	■	φ	²
	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253	
E	♪	▲	.	>	N	^	n	~	Ä	Ş	«	≡	⊥	■	€	■
	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254	
F	☼	▼	/	?	O	˘	o	△	Å	ş	»	⊥	≡	■	∩	
	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255	

# A. Character Sets

## 5M PS Math

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
0		0	16	32	0	≡	Π	π				°	∞	∠	◇		
		0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1		1	17	33	1	A	Θ	α	θ			Υ	±	∑	∇	⟨	⟩
		1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2		2	18	34	2	B	P	β	ρ			'	"	ℝ	®	®	∫
		2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3		3	19	35	#	3	X	Σ	χ	σ		≤	≥	∅	©	©	∫
		3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4		4	20	36	∃	4	Δ	T	δ	τ		/	×	⊗	™	™	
		4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5		5	21	37	%	5	E	Y	ε	ν		∞	∞	⊕	∏	∑	J
		5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6		6	22	38	&	6	Φ	ϕ	φ	π		f	∂	∅	√	∫	∫
		6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7		7	23	39	∃	7	Γ	Ω	γ	ω		♣	•	∩	·		
		7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8		8	24	40	(	8	H	Ξ	η	ξ		♦	÷	∪	¬	⊥	J
		8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9		9	25	41	)	9	I	Ψ	ι	ψ		♥	≠	⊃	∧	⌈	⌋
		9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A		10	26	42	*	:	∂	Z	φ	ζ		♠	≡	⊇	∨		
		10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B		11	27	43	+	;	K	[	κ	{		↔	≈	⊄	↔	⊥	⊋
		11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C		12	28	44	,	<	Λ	∴	λ			←	...	⊂	←	∫	∫
		12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D		13	29	45	-	=	M	]	μ	}		↑		⊆	↑	{	}
		13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E		14	30	46	.	>	N	⊥	ν	~		→	-	∈	⇒	⊥	J
		14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F		15	31	47	/	?	O	̄	o			↓	↶	∉	↓		
		15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

10J PS Text

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0 48	@ 64	P 80	· 96	p 112	128	144	160	176	192	— 208	224	240
1	1	17	!	1 49	A 65	Q 81	a 97	q 113	129	145	i 161	- 177	` 193		Æ 225	æ 241
2	2	18	"	2 50	B 66	R 82	b 98	r 114	130	146	ç 162	† 178	´ 194		226	242
3	3	19	#	3 51	C 67	S 83	c 99	s 115	131	147	£ 163	‡ 179	^ 195		ª 227	243
4	4	20	\$	4 52	D 68	T 84	d 100	t 116	132	148	/ 164	· 180	~ 196		228	244
5	5	21	%	5 53	E 69	U 85	e 101	u 117	133	149	¥ 165	· 181	- 197		ı 229	245
6	6	22	&	6 54	F 70	V 86	f 102	v 118	134	150	ƒ 166	¶ 182	· 198		230	246
7	7	23	'	7 55	G 71	W 87	g 103	w 119	135	151	§ 167	• 183	· 199		231	247
8	8	24	(	8 56	H 72	X 88	h 104	x 120	136	152	¤ 168	· 184	· 200		Ł 232	ł 248
9	9	25	)	9 57	I 73	Y 89	i 105	y 121	137	153	’ 169	” 185	· 201		Ø 233	ø 249
A	10	26	*	: 58	J 74	Z 90	j 106	z 122	138	154	“ 170	” 186	· 202		Œ 234	œ 250
B	11	27	+	; 59	K 75	[ 91	k 107	{ 123	139	155	« 171	» 187	· 203		° 235	ß 251
C	12	28	,	< 60	L 76	\ 92	l 108	 124	140	156	< 172	... 188	· 204		236	252
D	13	29	-	= 61	M 77	] 93	m 109	} 125	141	157	> 173	‰ 189	· 205		237	253
E	14	30	.	> 62	N 78	^ 94	n 110	~ 126	142	158	fi 174	· 190	· 206		238	254
F	15	31	/	? 63	O 79	¯ 95	o 111	· 127	143	159	fi 175	· 191	· 207		239	255

# A. Character Sets

## 15U Pi Font

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

8U Roman-8

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	'	p					â	Á	Á	Þ
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	!	1	A	Q	a	q		À	Ý	ê	î	Ã	þ
	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	34	"	2	B	R	b	r		Â	ý	ô	Ø	ã	·
	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	35	#	3	C	S	c	s		È	°	û	Æ	Ð	μ
	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	36	\$	4	D	T	d	t		Ê	Ç	á	â	ð	¶
	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	37	%	5	E	U	e	u		Ë	ç	é	í	Í	¾
	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	38	&	6	F	V	f	v		Ï	Ñ	ó	ø	ì	—
	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	39	'	7	G	W	g	w		Ï	ñ	ú	æ	Ó	¼
	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	40	(	8	H	X	h	x		í	ì	à	Ä	Ò	½
	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	41	)	9	I	Y	i	y		î	ï	è	ì	Û	¾
	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	42	*	:	J	Z	j	z		î	ï	è	ì	Û	¾
	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	43	+	;	K	[	k	{		ï	ð	ù	Ü	Š	«
	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	44	,	<	L	\	l			ï	ð	ù	Ü	Š	«
	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	45	-	=	M	]	m	}		Û	§	ë	ï	Ú	»
	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	46	.	>	N	^	n	~		Û	f	ö	ß	ÿ	±
	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	47	/	?	O	¯	o	☒		£	ç	ü	Ô	ÿ	
	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

# A. Character Sets

## 13J Ventura International

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	·	p			„	%	â	À	Á	Æ
			48	64	80	96	112	128	144	160	176	192	208	224	240	
1	1	17	!	1	A	Q	a	q			À	“	ê	î	Ã	œ
			33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r			Â	”	ô	Ø	ä	ƒ
			34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	C	S	c	s			È	°	û	Æ		†
			35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	\$	4	D	T	d	t			Ê	Ç	á	â		‡
			36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u			Ë	ç	é	í	Í	—
			37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v			Î	Ñ	ó	ø	Ì	-
			38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	'	7	G	W	g	w			Ï	ñ	ú	æ	Ó	
			39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x			©	ï	à	Ä	Ò	
			40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y			®	¿	è	ì	Ï	ª
			41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z			™	□	ò	Ö	õ	º
			42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	k	{			‹	£	ù	Ü	Š	«
			43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	L	\	l				›	¥	ä	É	š	•
			44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	]	m	}			Û	§	ë	ï	Ú	»
			45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	^	n	~			Û	f	ö	ß	ÿ	
			46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	¯	o				ç	ü	Ô	ÿ	...	
			47	63	79	95	111	127	143	159	175	191	207	223	239	255

6M Ventura Math

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	≅	Π	̄	π			◇	®	≤	↓	↓	∏
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Θ	α	θ			√	⊃	♦	←	·	™
	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	∨	2	B	P	β	ρ			⌋	⊇	≥	®	∠	←
	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	X	Σ	χ	σ			⌈	⌊	∂	"	⌋	↔
	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	∃	4	Δ	T	δ	τ			⌋	♠	f	∫	∨	
	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	Y	ε	ν			⌋	♣	'	∫	}	Σ
	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	Φ	ς	φ	ω			⌋	⊕	ℝ	©	⌋	™
	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	∃	7	Γ	Ω	γ	ω			⌋	⊗	∅	±	}	⌋
	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	Ξ	η	ξ			↑	⊆	∞	→		⌋
	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Ψ	ι	ψ			⇒	∪	♠	↑	¬	∅
	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	∂	Z	φ	ζ			↓	—	∞	≠	∇	∩
	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	κ	{			∅	...	•	≡	⌋	∈
	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	Λ	∴	λ				⊂		/	°		©
	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	—	=	M	]	μ	}			⌋	∧	♥	↔	⌋	∉
	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	⊥	ν	~			⌋	←	×	⌋	⌋	⌋
	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	̄	o				⌋	≈	T	⌋	÷	⌋
	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255



# A. Character Sets

## 14J Ventura US

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	'	p			"	%				
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Q	a	q			"					
	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r			"					¶
	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	C	S	c	s			°					†
	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	\$	4	D	T	d	t								‡
	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u								—
	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v								-
	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	'	7	G	W	g	w								
	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x			©					
	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y			®					
	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z			™					
	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	k	{								
	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	L	\	l									•
	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	]	m	}				§				
	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	^	n	~								
	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	~	o				ç					...
	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

9U Windows 3.0 Latin 1

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p				°	À	Ð	à	ð
				48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	!	1	A	Q	a	q				±	Á	Ñ	á	ñ
				49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	"	2	B	R	b	r				²	Â	Ò	â	ò
				50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	#	3	C	S	c	s			£	³	Ã	Ó	ã	ó
				51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	\$	4	D	T	d	t			¤	´	Ä	Ô	ä	ô
				52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	%	5	E	U	e	u			¥	µ	Å	Õ	å	õ
				53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	&	6	F	V	f	v			¦	¶	Æ	Ö	æ	ö
				54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	'	7	G	W	g	w			§	·	Ç	×	ç	÷
				55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	(	8	H	X	h	x			¨	˙	È	Ø	è	ø
				56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	)	9	I	Y	i	y			©	ı	É	Ù	é	ù
				57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	*	:	J	Z	j	z			ª	º	Ê	Ú	ê	ú
				58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	+	;	K	[	k	{			«	»	Ë	Û	ë	û
				59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	,	<	L	\	l				¬	¼	Ì	Ü	ì	ü
				60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	-	=	M	]	m	}			-	½	Í	Ý	í	ý
				61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	.	>	N	^	n	~			®	¾	Î	Þ	î	þ
				62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	/	?	O	_	o	☒			-	¿	Ï	ß	ï	ÿ
				63	79	95	111	127	143	159	175	191	207	223	239	255

# A. Character Sets

## 19U Windows 3.1 Latin 1

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	0	@	P	`	p				°	À	Ð	à	ð
1	1	17	33	!	A	Q	a	q		'	ı	±	Á	Ñ	á	ñ
2	2	18	34	"	B	R	b	r	,	'	ç	²	Â	Ò	â	ò
3	3	19	35	#	C	S	c	s	f	“	£	³	Ã	Ó	ã	ó
4	4	20	36	\$	D	T	d	t	„	”	¤	´	Ä	Ô	ä	ô
5	5	21	37	%	E	U	e	u	…	•	¥	µ	Å	Õ	å	õ
6	6	22	38	&	F	V	f	v	†	–		¶	Æ	Ö	æ	ö
7	7	23	39	'	G	W	g	w	‡	—	§	¸	Ç	×	ç	÷
8	8	24	40	(	H	X	h	x	^	~	¨		È	Ø	è	ø
9	9	25	41	)	I	Y	i	y	‰	™	©	ı	É	Ù	é	ù
A	10	26	42	*	J	Z	j	z	Š	š	ª	º	Ê	Ú	ê	ú
B	11	27	43	+	K	[	k	{	<	>	«	»	Ë	Û	ë	û
C	12	28	44	,	L	\	l		œ	œ	¬	¼	Ì	Ü	ì	ü
D	13	29	45	-	M	]	m	}			-	½	Í	Ý	í	ý
E	14	30	46	.	N	^	n	~			®	¾	Î	Þ	î	þ
F	15	31	47	/	O	¸	o	⊞		ÿ	¯	¿	Ï	ß	ï	ÿ

9E Windows 3.1 Latin 2

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	@ 64	P 80	` 96	p 112	128	144	160	176	192	Đ 208	ř 224	đ 240
1	1	17	33	49	A 65	Q 81	a 97	q 113	129	145	161	177	193	Ň 209	á 225	ń 241
2	2	18	34	50	B 66	R 82	b 98	r 114	130	146	162	178	194	Ň 210	â 226	ň 242
3	3	19	35	51	C 67	S 83	c 99	s 115	131	147	163	179	195	Ů 211	ã 227	ó 243
4	4	20	36	52	D 68	T 84	d 100	t 116	132	148	164	180	196	Ô 212	ä 228	ô 244
5	5	21	37	53	E 69	U 85	e 101	u 117	133	149	165	181	197	Ů 213	í 229	ǎ 245
6	6	22	38	54	F 70	V 86	f 102	v 118	134	150	166	182	198	Ů 214	ó 230	ö 246
7	7	23	39	55	G 71	W 87	g 103	w 119	135	151	167	183	199	× 215	ç 231	÷ 247
8	8	24	40	56	H 72	X 88	h 104	x 120	136	152	168	184	200	Č 216	Ř 232	ř 248
9	9	25	41	57	I 73	Y 89	i 105	y 121	137	153	169	185	201	É 217	Ú 233	ú 249
A	10	26	42	58	J 74	Z 90	j 106	z 122	138	154	170	186	202	Ú 218	e 234	ú 250
B	11	27	43	59	K 75	[ 91	k 107	{ 123	< 139	> 155	« 171	» 187	203	Ě 219	Ů 235	ů 251
C	12	28	44	60	L 76	\ 92	l 108	124	Š 140	š 156	Ů 172	188	204	Û 220	ě 236	ü 252
D	13	29	45	61	M 77	] 93	m 109	} 125	Ť 141	ť 157	- 173	˘ 189	205	Ý 221	í 237	ý 253
E	14	30	46	62	N 78	^ 94	n 110	~ 126	Ž 142	ž 158	® 174	190	206	Ť 222	î 238	ı 254
F	15	31	47	63	O 79	_ 95	o 111	☒ 127	Ž 143	ž 159	Ž 175	191	207	Đ 223	ß 239	đ 255

# A. Character Sets

## 5T Windows 3.1 Latin 5

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0				0	@	P	`	p				°	À	Ĝ	à	ğ
	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1			!	1	A	Q	a	q			ı	±	Á	Ñ	á	ñ
	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2			"	2	B	R	b	r	,	'	c	²	Â	Ô	â	ò
	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3			#	3	C	S	c	s	f	“	£	³	Ã	Ó	ã	ó
	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4			\$	4	D	T	d	t	”	”	¤	´	Ä	Ö	ä	ö
	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5			%	5	E	U	e	u	…	•	¥	µ	Å	Õ	å	õ
	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6			&	6	F	V	f	v	†			¶	Æ	Ö	æ	ö
	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7			'	7	G	W	g	w	‡	—	§	·	Ç	×	ç	÷
	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8			(	8	H	X	h	x	^	˘	˙		È	Ø	è	ø
	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9			)	9	I	Y	i	y	‰	™	©	ı	É	Ù	é	ù
	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A			*	:	J	Z	j	z	Š	š	ª	º	Ê	Û	ê	ú
	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B			+	;	K	[	k	{	<	>	«	»	Ë	Ü	ë	û
	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C			,	<	L	\	l		Œ	œ	¬	¼	Ì	Û	ì	ü
	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
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	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E			.	>	N	^	n	˜			®	¾	Î	Ş	î	ş
	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F			/	?	O	˘	o	☒		ÿ	ˉ	ı	Ï	ß	ï	ÿ
	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

19M Symbol

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
			0	≅	Π		π				°	ℵ	∠	∅		
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
			!	1	A	Θ	α	θ			Υ	±	∫	∇	⟨	⟩
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
			∇	2	B	P	β	ρ			'	"	ℜ	®	®	∫
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
			#	3	X	Σ	χ	σ			≤	≥	∅	©	©	∫
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
			∃	4	Λ	T	δ	τ			/	×	⊗	™	™	
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
			%	5	E	Υ	ε	υ			∞	∞	⊕	Π	Σ	J
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
			&	6	Φ	ς	φ	π			f	∂	∅	√	(	)
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
			∃	7	Γ	Ω	γ	ω			♣	•	∩			
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
			(	8	H	Ξ	η	ξ			♦	÷	∪	¬	(	)
9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
			)	9	I	Ψ	ι	ψ			♥	≠	⊃	∧	┌	┐
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
			*	:	Θ	Z	φ	ζ			♠	≡	⊃	∨		
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
			+	;	K	[	κ	{			↔	≈	⊂	↔	└	┘
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
			,	<	Λ	∴	λ				←	...	⊂	⇐	┌	┐
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
			-	=	M	]	μ	}			↑		⊆	↑↑	{	}
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
			.	>	N	⊥	v	~			→	—	∈	⇒	└	┘
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255
			/	?	O	̄	o				↓	┘	∉	⇓		

# A. Character Sets

## 579L Wingdings

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	0	16	32	48	64	80	96	112	128	144	160	176	192	208	224	240
1	1	17	33	49	65	81	97	113	129	145	161	177	193	209	225	241
2	2	18	34	50	66	82	98	114	130	146	162	178	194	210	226	242
3	3	19	35	51	67	83	99	115	131	147	163	179	195	211	227	243
4	4	20	36	52	68	84	100	116	132	148	164	180	196	212	228	244
5	5	21	37	53	69	85	101	117	133	149	165	181	197	213	229	245
6	6	22	38	54	70	86	102	118	134	150	166	182	198	214	230	246
7	7	23	39	55	71	87	103	119	135	151	167	183	199	215	231	247
8	8	24	40	56	72	88	104	120	136	152	168	184	200	216	232	248
9	9	25	41	57	73	89	105	121	137	153	169	185	201	217	233	249
A	10	26	42	58	74	90	106	122	138	154	170	186	202	218	234	250
B	11	27	43	59	75	91	107	123	139	155	171	187	203	219	235	251
C	12	28	44	60	76	92	108	124	140	156	172	188	204	220	236	252
D	13	29	45	61	77	93	109	125	141	157	173	189	205	221	237	253
E	14	30	46	62	78	94	110	126	142	158	174	190	206	222	238	254
F	15	31	47	63	79	95	111	127	143	159	175	191	207	223	239	255

*Appendix*

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*Command Lists*

**B**



## **HP LaserJet 4+ Printer Control Codes and Escape Sequences - PCL 5 Context**

<b>Function</b>	<b>Command</b>	<b>Parameter</b>
Backspace	BS	Move one column left unless at left margin, in which case no action is taken.
Line Feed	LF	Move to next print line while maintaining current column position.
Form Feed	FF	Move to first line at top of the next page while maintaining current column position.
Carriage Return	CR	Move to the left margin on the current print line.
Shift In	SI	Select characters that follow from the current secondary font until receipt of a Shift In.
Shift Out	SO	Select characters that follow from the current secondary font until receipt of a Shift Out.
Escape	EC	Indicates the beginning of a special control sequence (escape sequence)
Horizontal Tab	HT	Move to next horizontal tab stop. The tab stops are at the left margin and every eight columns to the right of the left margin.
Space	SP	Move one column to the right unless already at the right margin.

## B. Command Lists

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### JOB CONTROL COMMANDS

Function	Command	Parameter
Universal Exit Language (UEL)	ESC%-12345X	-
Reset	ESC E	-
Number of copies	ESC&l#X	# of Copies (1-99)
Long-Edge (Left) Offset Registration	ESC&l#U	# of Decipoints (1/720")
Short-Edge (Top) Offset Registration	ESC&l#Z	# of Decipoints (1/720")
Unit of Measure	ESC&u#D	#=Number of units per inch

### PAGE CONTROL COMMANDS

Function	Command	Parameter
Page Source	ESC&l#H	#=0:Eject Page #=1:Paper Cassette #=2:Manual Feed #=3:Manual Envelope Feed
Page size	ESC&l#A	#=1:Executive #=2:Letter #=3:Legal #=26:A4 #=100:B5 #=80:Monarch #=81:COM10 #=90:DL #=91:C5 #=101:Custom
Page length	ESC&l#P	#=no. of lines (5-128)

<b>Function</b>	<b>Command</b>	<b>Parameter</b>
Page Orientation	ESC&l#O	#=0:Portrait #=1:Landscape #=2:Reverse Portrait #=3:Reverse Landscape
Print Direction	ESC&a#P	#=Degrees of rotation (counterclockwise 90É increments only)
Top Margin	ESC&l#E	#=no. of lines
Text Length	ESC&l#F	#=no. of lines
Left Margin	ESC&a#L	#=no. of columns
Right Margin	ESC&a#M	#=no. of columns
Clear Horizontal Margins	ESC9	-
Perforation skip	ESC&l#L	#=0:Disable, 1:Enable
Horizontal Motion Index (HMI)	ESC&k#H	# of 1/120" increments
Vertical Motion Index (VMI)	ESC&l#C	# of 1/48" increments
Line Spacing	ESC&l#D	# of lines/inch (1-4, 6, 8, 12, 16, 24, 48)

### **CURSOR POSITIONING COMMANDS**

<b>Function</b>	<b>Command</b>	<b>Parameter</b>
Vertical Position	ESC&a#R	# of Rows
	ESC*p#Y	# of Dots
	ESC&a#V	# of Decipoints
Horizontal Position	ESC&a#C	# of Columns
	ESC*p#X	# of Dots
	ESC&a#H	# of Decipoints
Half Line Feed	ESC=	-

## B. Command Lists

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Function	Command	Parameter
Line Termination	ESC&k0G	CR=CR; LF=LF; FF=FF
	ESC&k1G	CR=CR+LF; LF=LF; FF=FF
	ESC&k2G	CR=CR; LF=CR+LF; FF=CR+FF
	ESC&k3G	CR=CR+LF; LF=CR+LF; FF=CR+LF
Push/Pop Position	ESC&f#S	#=0:Push #=1:Pop

### FONT SELECTION COMMANDS

Function	Command	Parameter
Primary Symbol Set	ESC(0D	ISO 60:Norwegian
	ESC(1E	ISO 4:United Kingdom
	ESC(9E	Windows 3.1 Latin 2
	ESC(1F	ISO 69:French
	ESC(1G	ISO 21:German
	ESC(0I	ISO 15:Italian
	ESC(6J	Microsoft Publishing
	ESC(7J	Desktop
	ESC(10J	PS Text
	ESC(12J	MC Text
	ESC(13J	Ventura International
	ESC(14J	Ventura US
	ESC(579L	Windings
	ESC(5M	PS Math
	ESC(6M	Ventura Math
	ESC(8M	Math-8
	ESC(19M	Symbol
	ESC(0N	ISO 8859/1 Latin 1
ESC(2N	ISO 8859/2 Latin 2	

## B. Command Lists

Function	Command	Parameter
	ESC(5N	ISO 8859/9 Latin 5
	ESC(0S	ISO 11:Swedish
	ESC(2S	ISO 17:Spanish
	ESC(5T	Windows 3.1 Latin 5
	ESC(9T	PC-Turkish
	ESC(0U	ISO 6:ASCII
	ESC(1U	Legal
	ESC(8U	Roman-8
	ESC(9U	Windows 3.0 Latin 1
	ESC(10U	PC-8 (Code Page 437)
Primary Symbol Set	ESC(11U	PC-8 Danish/Norwegian
	ESC(12U	PC-850 Multilingual
	ESC(15U	Pi Font
	ESC(17U	PC-852 Latin 2
	ESC(19U	Windows 3.1 Latin 1
Primary Spacing	ESC(s#P	#=0:Fixed, 1:Proportional
Primary Pitch Set Mode	ESC(s#H	#=no. of Characters/inch
	ESC&k0S	10.0
	ESC&k2S	Compressed (16.5-16.7)
	ESC&k4S	Elite (12.0)
Primary Font Height	ESC(s#V	#=size in points

## B. Command Lists

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Function	Command	Parameter
Primary Style	ESC(s#S	#=0:Upright (Solid) #=1:Italic #=4:Condensed #=5:Condensed Italic #=8:Extra Condensed #=24:Expanded #=32:Outline #=64:Inline #=128:Shadowed #=160:Outline Shadowed
Primary Font Stroke Weight	ESC(s#B	#=-7:Ultra Thin #=-6:Extra Thin #=-5:Thin #=-4:Extra Light #=-3:Light #=-2:Demi Light #=-1:Semi Light #=0:Medium (book or text) #=1:Semi Bold #=2:Demi Bold #=3:Bold #=4:Extra Bold #=5:Black #=6:Extra Black #=7:Ultra Black
Font Default	ESC(3@	Primary Font
	ESC)3@	Secondary Font

## B. Command Lists

Function	Command	Parameter
Typeface Family	ESC(s#T	#=4362:Albertus #=4168:Antique Olive #=4140:Clarendon #=4116:Coronet #=4099:Courier #=4197:Garamond Antiqua #=4102:Letter Gothic #=4297:Marigold #=4113:CG Omega #=4101:CG Times #=4148:Univers #=16602:Arial #=16901:Times New Roman #=16686:Symbol #=s31402:Wingdings
Underline	ESC&d#D	#=0:Enable Fixed #=3:Enable Floating
	ESC&d@	Disable
Transparent Print Data	ESC&p#X [data]	#=no. of bytes

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**FONT MANAGEMENT COMMANDS**

<b>Function</b>	<b>Command</b>	<b>Parameter</b>
Assign Font ID	ESC*c#D	#=font ID
Font and Character Control	ESC*c#F	#=0:Delete All Fonts #=1:Delete All Temp.. Fonts #=2:Delete last font ID #=3:Delete last character #=4:Make font temporary #=5:Make font permanent #=6:Copy/Assign the currently invoked font as temporary
Set Symbol Set	ESC*c#R	#=ID
Define Symbol Set	ESC(f#W [data]	#=no. of bytes
Symbol Set Control	ESC*c#S	#=0:Delete All Symbol #=1:Delete All Temp. Symbol Sets #=2:Delete current soft Symbol Sets (last ID#) #=4:Make current soft Symbol Sets temporary #=5:Make current soft Symbol Sets permanent
Select Font (with ID #)	ESC(#X	#=Primary Font ID
	ESC)#X	#=Secondary Font ID
Font descriptor	ESC)s#W[d ata]	#=no. of bytes



<b>Function</b>	<b>Command</b>	<b>Parameter</b>
Download Character	ESC(s#W[data]	#=no. of bytes
Character code	ESC*c#E	#=character code (decimal)

**GRAPHICS COMMANDS**

<b>Function</b>	<b>Command</b>	<b>Parameter</b>
Raster Resolution	ESC*t#R	#=75: 75dots/inch #=100: 100 dots/inch #=150: 150dots/inch #=200: 200 dots/inch #=300: 300dots/inch #=600: 600dots/inch
Raster Graphics Presentation	ESC*r#F	#=0:Follows orientation #=3:Follows physical
Start Raster Graphics	ESC*r#A	#=0:Left Margin #=1:Current Cursor
Raster Y-offset	ESC*b#Y	#=no. of Raster Lines
Raster Compression Mode	ESC*b#M	#=0:Unencoded #=1:Run-Length Encoded #=2:TaggedImage File Format #=3:Delta Row #=5:Adaptive compression
Transfer Raster Data	ESC*b#W [data]	#=no. of bytes
End Raster Transfer	ESC*rB	Old version
Graphics	ESC*rC	Preferred
Raster Height	ESC*r#T	#=Raster Rows
Raster Width	ESC*r#S	#=Pixels of the Specified Resolution

**PRINT MODEL COMMANDS**

<b>Function</b>	<b>Command</b>	<b>Parameter</b>
Select Current Pattern	ESC*v#T	#=0:Solid Black(default) #=1:Solid White #=2:HP-def. Shading #=3:HP-def. Cross-hatched #=4:User defined
Source Transparency	ESC*v#N	#=0:Transparent, 1:Opaque
Pattern Transparency	ESC*v#O	#=0:Transparent, 1:Opaque
Rectangle Width	ESC*c#A	#=no. of dots
	ESC*c#H	#=no. of decipoints
Rectangle Height	ESC*c#B	#=no. of dots
	ESC*c#V	#=no. of decipoints
Fill Rectangular Area	ESC*c#P	#=0:Solid Black #=1:Erase (solid white fill) #=2:Shaded Fill #=3:Cross-hatched Fill #=4:User-defined #=5:Current Pattern
Pattern ID	ESC*c#G	#=1-100 % of Shading or Type of Pattern or User Pattern ID
Defined Pattern	ESC*c#W	# of bytes
User-Defined Pattern Control	ESC*v#Q	#=0:Delete all patterns #=1:Delete all temp. patterns #=2:Delete current patterns #=4:Make pattern temporary #=5:Make pattern permanent
Set Pattern Reference	ESC*p0R	Rotate with orientation
Point	ESC*p1R	Follow physical page

**MACROS COMMANDS**

<b>Function</b>	<b>Command</b>	<b>Parameter</b>
Macro ID	ESC&f#Y	#=Macro ID
Macro Control	ESC&f#X	#=0:Start Macro Definition #=1:Stop Macro Definition #=2:Execute Macro #=3:Call Macro #=4:Enable Overlay #=5:Disable Overlay #=6>Delete All Macros #=7>Delete All Temp. Macros #=8>Delete Macro ID #=9:Make Macro Temporary #=10:Make Macro Permanent
Set Status Read back Location Type	ESC*s#T	#=0:Invalid Location #=1:Currently Selected #=2:All Locations #=3:Internal #=4:Downloaded #=5:Cartridge #=7>User-Installed ROM
Set Status Read back Location Unit	ESC*s#U	#=0:All entities of the Location #=1:Entity 1 or Temporary #=2:Entity 2 or Permanent #=3:Entity 3 #=4:Entity 4
Inquire Status Read back Entity	ESC*s#I	#=0:Font #=1:Macro #=2>User-defined Pattern #=3:Symbol Set #=4:Font Extended
Flush All Pages	ESC&r#F	#=0:Flush All complete pages #=1:Flush All page data

**HP-GL/2 CONTEXT PRINTER COMMANDS**

<b>Command</b>	<b>Mnemonic</b>	<b>Parameters</b>
<b><i>DUAL CONTEXT EXTENSIONS</i></b>		
ENTER PCL MODE	ESC%#A	0:Retain previous PCL cursor position 1:Use current HP-GL/2 pen position
RESET	ESC E	None
PRIMARY FONT	FI	Font_ID
SECONDARY FONT	FN	Font_ID
SCALEABLE OR BIT MAPPED FONT	SB	0:scaleable fonts only 1:bit mapped fonts allowed
<b><i>PALETTE EXTENSIONS</i></b>		
TRANSPARENCY MODE	TR	0:Off (opaque) 1:On (transparent)
SCREENED VECTORS	SV	[screen type[,shading[,index]]]
<b><i>VECTOR GROUP</i></b>		
ARC ABSOLUTE	AA	x-center,y-center,sweep-angle [,chord-angle];
ARC RELATIVE	AR	x-increment,y-increment ,sweep-angle[,chord-angle];
ABSOLUTE ARC THREE POINT	AT	x-inter,y-inter,x-end,y-end [,chord-angle];
BEZIER ABSOLUTE	BZ	x1y1x2y2x3y3... [x1y1x2y2x3y3]
BEZIER RELATIVE	BR	x1y1x2y2x3y3... [x1y1x2y2x3y3]
PLOT ABSOLUTE	PA	[x,y...[,x,y]];

## B. Command Lists

PLOT RELATIVE	PR	[x,y...[,x,y]];
PEN DOWN	PD	[x,y...[,x,y]];
PEN UP	PU	[x,y...[,x,y]];
RELATIVE ARC THREE POINT	RT	x-incr-inter,y-incr-inter,x-incr- end,y-incr-end [,chord-angle];
POLYLINE ENCODED	PE	[flag[val]]coord-pair... [flag[val]]coord-pair];
<b><i>POLYGON GROUP</i></b>		
CIRCLE	CI	radius[,chord-angle];
FILL RECTANGLE ABSOLUTE	RA	x-coordinate,y-coordinate;
FILL RECTANGLE RELATIVE	RR	x-increment,y-increment;
EDGE RECTANGLE ABSOLUTE	EA	x-coordinate,y-coordinate;
EDGE RECTANGLE RELATIVE	ER	x-increment,y-increment;
FILL WEDGE	WG	radius,start-angle,sweep- angle[,chord-angle];
EDGE WEDGE	EW	radius,start-angle,sweep- angle[,chord-angle];
POLYGON MODE	PM	polygon-definition;
FILL POLYGON	FP	0:Odd/even 1:Non-zero winding
EDGE POLYGON	EP	None

## B. Command Lists

<b>CONFIGURATION AND STATUS GROUP</b>		
SCALE	SC	[x1,x2,y1,y2[,type[,left,bottom]]]: or [x1,xfactor,y1,yfactor,2];
INPUT WINDOW	IW	[xLL,yLL,xUR,yUR];
INPUT P1 AND P2	IP	[p1x,p1y[,p2x,p2y]];
INPUT RELATIVE P1 AND P2	IR	[p1x,p1y[,p2x,p2y]];
DEFAULT VALUES	DF	None
INITIALIZE	IN	[n];
ROTATE CO-ORDINATE SYSTEM	RO	[angle];
<b>CHARACTER GROUP</b>		
SELECT STANDARD FONT	SS	
SELECT ALTERNATE FONT	SA	
ABSOLUTE DIRECTION	DI	[run,rise];
RELATIVE DIRECTION	DR	[run,rise];
Command	Mnemonic	Parameters
ABSOLUTE CHARACTER SIZE	SI	[width,height];

## B. Command Lists

RELATIVE CHARACTER SIZE	SR	[width,height];
CHARACTER SLANT	SL	[target-of-angle];
EXTRA SPACE	ES	[width,height];
STANDARD FONT DEFINITION	SD	[kind,value...[,kind,value]];
ALTERNATE FONT DEFINITION	AD	[kind,value...[,kind,value]];
CHARACTER FILL MODE	CF	[fill-mode[,edge-pen]];
LABEL ORIGIN	LO	[position];
LABEL	LB	[char...char]-lbterm
DEFINE LABEL TERMINATOR	DT	[lbterm[,mode]];
CHARACTER PLOT	CP	[spaces,lines];
TRANSPARENT DATA	TD	[mode];
DEFINE VARIABLE TEXT PATH	DV	[path[,line]];
<b>LINE AND FILL ATTRIBUTES GROUP</b>		
LINE TYPE	LT	[line-type[,pattern-length [,model]]];
LINE ATTRIBUTES		
PEN WIDTH	PW	[width[,pen]];

## B. Command Lists

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PEN WIDTH UNIT SELECTION	WU	[type];
SELECT PEN	SP	[pen];(required: 1 for black- recommended;0 for white)
SYMBOL MODE	SM	[char];
FILL TYPE	FT	[fill-type[,option1[,option2]]];
ANCHOR CORNER	AC	[x-co-ordinate,y-co-ordinate];
RASTER FILL DEFINITION	RF	[index[,width,height,pen-nbr ...pen-nbr]]; (width and height must be less than 255)
USE DEFINE LINE TYPE	UL	[index[,gap1...gapn]];
<b>CONFIGURATION AND STATUS GROUP</b>		
SCALE	SC	[x1,x2,y1,y2[,type[,left, button]]]: or [x1,xfactor,y1,yfactor,2];
INPUT WINDOW	IW	[xLL,yLL,xUR,yUR];
INPUT P1 AND P2	IP	[p1x,p1y[,p2x,p2y]];
INPUT RELATIVE P1 AND P2	IR	[p1x,p1y[,p2x,p2y]];
DEFAULT VALUES	DF	INITIALIZE



**PJL SYNTAX TABLE**

<b>Command</b>	<b>Syntax</b>
COMMENT	@PJL COMMENT <Words> [<CR>] <LF>
DEFAULT	@PJL DEFAULT [LPARM:personality] variable= value [<CR>] <LF>
DINQUIRE	@PJL DINQUIRE [LPARM:personality] variable [<CR>] <LF>
Response	@PJL DINQUIRE [LPARM:personality] variable <CR> <LF> value <CR> <LF> <FF>
ECHO	@PJL ECHO [<Words>][<CR>] <LF>
Response	@PJL ECHO [<Words>] <CR> <LF> <FF>
ENTER	@PJL ENTER LANGUAGE=personality [<CR>] <LF>
EOJ	@PJL EOJ [NAME=job name] [<CR>] <LF>
INFO	@PJL INFO read only variable [<CR>] <LF>
Response	@PJL INFO read only variable <CR> <LF> [1 or more lines of printable characters or <white space> followed by <CR> <LF>] <FF>
INITIALIZE	@PJL INITIALIZE [<CR>] <LF>
INQUIRE	@PJL INQUIRE [LPARM:personality] variable [<CR>] <LF>
Response	@PJL INQUIRE [LPARM:personality] variable =value <CR> <LF> value <CR> <LF> <FF>
JOB	@PJL JOB [NAME="job name"] [START=first page] [End=last page] [<CR>] <LF>
OPMSG	@PJL OPMSG DISPLAY = "message" [<CR>] <LF>
RDYMSG	@PJL RDYMSG DISPLAY="message"[<CR>] <LF>
RESET	@PJL RESET [<CR>] <LF>

## B. Command Lists

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Command	Syntax
SET	@PJL SET [LPARM:personality] variable=value [<CR>] <LF>
STMSG	@PJL STMSG DISPLAY ="message" [<CR>] <LF>
Response	@PJL STMSG DISPLAY ="message" <CR> <LF> key <CR> <LF> <FF>
UEL/SPJL	<ESC> % - 12345X
USTATUS	@PJL USTATUS variable=value [<CR>] <LF>
Response	@PJL USTATUS variable<CR><LF> [1 or more lines of printable characters or <white space> followed by <CR> <LF>] <FF>
USTATUSOFF	@PJL USTATUSOFF[<CR>] <LF>
PJL	@PJL [<CR>] <LF>

# *Appendix*

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## *Font List*

# C

- Checked (·) fonts in the Additional Screen Fonts group are also contained (duplicated) in the Printer Resident Fonts.



## Printer Resident Fonts

### Agfa Intellifont (35 fonts)

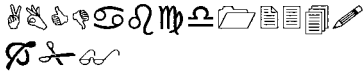
NAME	PRINT SAMPLE
Albertus Medium	<b>ABCDabcd1234!"#\$</b>
Albertus Extend Bold	<b>ABCDabcd1234!"#\$</b>
Antique Olive	ABCDabcd1234!"#\$
Antique Olive Italic	<i>ABCDabcd1234!"#\$</i>
Antique Olive Bold	<b>ABCDabcd1234!"#\$</b>
CG Omega	ABCDabcd1234!"#\$
CG Omega Italic	<i>ABCDabcd1234!"#\$</i>
CG Omega Bold	<b>ABCDabcd1234!"#\$</b>
CG Omega Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
CG Times	ABCDabcd1234!"#\$
CG Times Italic	<i>ABCDabcd1234!"#\$</i>
CG Times Bold	<b>ABCDabcd1234!"#\$</b>
CG Times Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Clarendon Condensed Bold	<b>ABCDabcd1234!"#\$</b>
Coronet	<i>ABC Dabcd1234!"#\$</i>
Courier New	ABCDabcd1234!"#\$
Courier New Italic	<i>ABCDabcd1234!"#\$</i>
Courier New Bold	<b>ABCDabcd1234!"#\$</b>
Courier New Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Garamond Antique	ABCDabcd1234!"#\$
Garamond Kursiv	<i>ABCDabcd1234!"#\$</i>
Garamond Halbfett	<b>ABCDabcd1234!"#\$</b>
Garamond Kursiv Halbfett	<b><i>ABCDabcd1234!"#\$</i></b>
Letter Gothic	ABCDabcd1234!"#\$
Letter Gothic Italic	<i>ABCDabcd1234!"#\$</i>

### C. Font List

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NAME	PRINT SAMPLE
Letter Gothic Bold	ABCDabcd1234!"#\$
Marigold	ABCDabcd1234!"#\$
Universe Medium	ABCDabcd1234!"#\$
Universe Medium Italic	<i>ABCDabcd1234!"#\$</i>
Universe Bold	<b>ABCDabcd1234!"#\$</b>
Universe Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Universe Condensed Medium	ABCDabcd1234!"#\$
Universe Condensed Medium Italic	<i>ABCDabcd1234!"#\$</i>
Universe Condensed Medium Bold	<b>ABCDabcd1234!"#\$</b>
Universe Condensed Medium Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>

**True Type Fonts (10 fonts)**

NAME	PRINT SAMPLE
Arial	ABCDabcd1234!"#\$
Arial Italic	<i>ABCDabcd1234!"#\$</i>
Arial Bold	<b>ABCDabcd1234!"#\$</b>
Arial Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Times New Roman	ABCDabcd1234!"#\$
Times New Roman Italic	<i>ABCDabcd1234!"#\$</i>
Times New Roman Bold	<b>ABCDabcd1234!"#\$</b>
Times New Roman Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Symbol	ABXΔαβχδ1234!©#Ξ
Wingdings	

**Bitmap Font (1 font)**

NAME	PRINT SAMPLE
Line Printer (16.67pitch, 8.5 point)	ABCDabcd1234! \$

**Additional Screen Fonts (96 fonts)**

NAME	PRINT SAMPLE
Albertus Medium	<b>ABCDabcd1234!"#\$</b>
Albertus Extend Bold	<b>ABCDabcd1234!"#\$</b>
Antique Olive	ABCDabcd1234!"#\$
Antique Olive Italic	<i>ABCDabcd1234!"#\$</i>
Antique Olive Bold	<b>ABCDabcd1234!"#\$</b>
CG Omega	ABCDabcd1234!"#\$
CG Omega Italic	<i>ABCDabcd1234!"#\$</i>
CG Omega Bold	<b>ABCDabcd1234!"#\$</b>
CG Omega Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
CG Times	ABCDabcd1234!"#\$
CG Times Italic	<i>ABCDabcd1234!"#\$</i>
CG Times Bold	<b>ABCDabcd1234!"#\$</b>
CG Times Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Clarendon Condensed Bold	<b>ABCDabcd1234!"#\$</b>
Coronet	<i>ABCDabcd1234!"#\$</i>
Garamond Antique	ABCDabcd1234!"#\$
Garamond Kursiv	<i>ABCDabcd1234!"#\$</i>
Garamond Halbfett	<b>ABCDabcd1234!"#\$</b>
Garamond Kursiv Halbfett	<b><i>ABCDabcd1234!"#\$</i></b>
Letter Gothic	ABCDabcd1234!"#\$
Letter Gothic Italic	<i>ABCDabcd1234!"#\$</i>
Letter Gothic Bold	<b>ABCDabcd1234!"#\$</b>
Marigold	ABCDabcd1234!"#\$
Univers Medium	ABCDabcd1234!"#\$
Univers Medium Italic	<i>ABCDabcd1234!"#\$</i>
Univers Bold	<b>ABCDabcd1234!"#\$</b>



NAME	PRINT SAMPLE
Univers Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Univers Condensed Medium	ABCDabcd1234!"#\$
Univers Condensed Medium Italic	<i>ABCDabcd1234!"#\$</i>
Univers Condensed Medium Bold	<b>ABCDabcd1234!"#\$</b>
Univers Condensed Medium Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Albertus Bold	<b>ABCDabcd1234!"#\$</b>
Albertus Medium Italic	<i>ABCDabcd1234!"#\$</i>
Antique Olive Compact	<b>ABCDabcd1234!"#</b>
Arial Narrow	ABCDabcd1234!"#\$
Arial Narrow Italic	<i>ABCDabcd1234!"#\$</i>
Arial Narrow Bold	<b>ABCDabcd1234!"#\$</b>
Arial Narrow Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Bodoni	ABCDabcd1234!"#\$
Bodoni Italic	<i>ABCDabcd1234!"#\$</i>
Bodoni Bold	<b>ABCDabcd1234!"#\$</b>
Bodoni Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Bodoni Black	<b>ABCDabcd1234!"#\$</b>
Book Antiqua	ABCDabcd1234!"#\$
Book Antiqua Italic	<i>BCDabcd1234!"# \$</i>
Book Antiqua Bold	<b>ABCDabcd1234!"#\$</b>
Book Antiqua Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Bookman Old Style	ABCDabcd1234!"#\$
Bookman Old Style Italic	<i>ABCDabcd1234!"#\$</i>
Bookman Old Style Bold	<b>ABCDabcd1234!"#\$</b>

*C. Font List*

NAME	PRINT SAMPLE
Bookman Old Style Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Century Gothic	ABCDabcd1234!"#\$
Century Gothic Italic	<i>ABCDabcd1234!"#\$</i>
Century Gothic Bold	<b>ABCDabcd1234!"#\$</b>
Century Gothic Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Century Schoolbook	ABCDabcd1234!"#\$
Century Schoolbook Italic	<i>ABCDabcd1234!"#\$</i>
Century Schoolbook Bold	<b>ABCDabcd1234!"#\$</b>
Century Schoolbook Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Clarendon Book	ABCDabcd1234!"#\$
Clarendon Bold	<b>ABCDabcd1234!"#\$</b>
Clarendon Extended Bold	<b>ABCDabcd1234 !"#\$</b>
Gill Sans	ABCDabcd1234!"#\$
Gill Sans Italic	<i>ABCDabcd1234!"#\$</i>
Gill Sans Bold	<b>ABCDabcd1234!"#\$</b>
Gill Sans Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Gill Sans Condensed	ABCDabcd1234!"#\$
Gill Sans Condensed Bold	<b>ABCDabcd1234!"#\$</b>
Gill Sans Extra Bold	<b>ABCDabcd1234!"#\$</b>
Gill Sans Light	ABCDabcd1234!"#\$
Gill Sans Light Italic	<i>ABCDabcd1234!"#\$</i>
Goudy Old Style	ABCDabcd1234!"#\$
Goudy Old Style Italic	<i>ABCDabcd1234!"#\$</i>
Goudy Old Style Bold	<b>ABCDabcd1234!"#\$</b>
Goudy Old Style Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>

NAME	PRINT SAMPLE
Goudy Old Style Extra Bold	<b>ABCDabcd1234!"#\$</b>
Granite	ABCDabcd1234!"#\$
Granite Italic	<i>ABCDabcd1234!"#\$</i>
Granite Bold	<b>ABCDabcd1234!"#\$</b>
Granite Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Letter Gothic Bold Italic	.....
Microstyle	ABCDabcd1234!"#\$
Microstyle Bold	<b>ABCDabcd1234!"#\$</b>
Microstyle Extended	ABCDabcd1234!"#\$
Microstyle Extended Bold	<b>ABCDabcd1234!"#\$</b>
Monotype Corsiva	<i>ABCDabcd1234!"#\$</i>
Monotype Sorts	☆+✿❁❁❁❁❁❁☞☑☑✂⑩
Cooper Black	<b>ABCDabcd1234!"#\$</b>
Cooper Black Italic	<b><i>ABCDabcd1234!"#\$</i></b>
Seattle	ABCDabcd1234!"#\$
Univers Extended Medium	ABCDabcd1234!"#\$ \$
Univers Extended Medium Italic	<i>ABCDabcd1234!"#\$</i> \$
Univers Extended Bold	<b>ABCDabcd1234!"#\$</b> \$
Univers Extended Bold Italic	<b><i>ABCDabcd1234!"#\$</i></b> \$
Univers Light Condensed	ABCDabcd1234!"#\$
Univers Light Condensed Italic	<i>ABCDabcd1234!"#\$</i>

