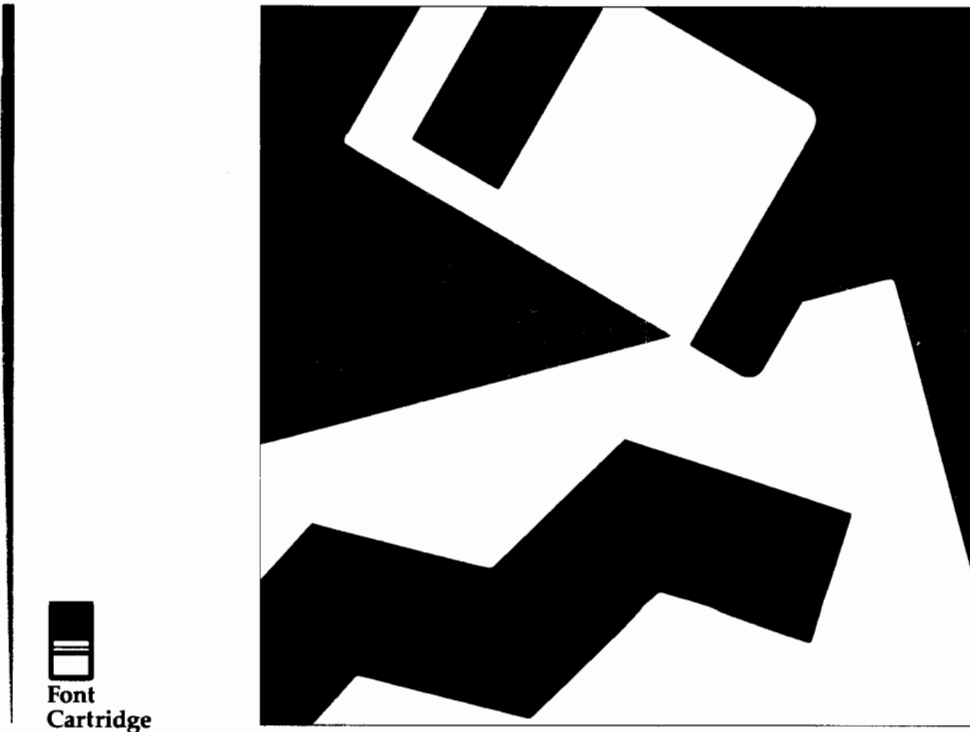HEWLETT
PACKARD

Using the Hewlett-Packard
Microsoft® Font Cartridge

**Font
Cartridge**

HP Computer Museum
www.hpmuseum.net

For research and education purposes only.

HP C2053A#C02
Using the Hewlett-Packard Microsoft® Font Cartridge

Notice

The information in this document is subject to change without notice.

HEWLETT-PACKARD MAKES NO WARRANTY OF ANY KIND WITH REGARD TO THIS MATERIAL, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Hewlett-Packard shall not be liable for errors contained herein or for incidental or consequential damages in connection with the furnishing, performance, or use of this material.

Century Schoolbook is a trademark Kingsley-ATF Type Corporation.

Helvetica and *Times Roman* are trademarks of Linotype AG and its subsidiaries.

HighStyle is a trademark of Lattice Corporation.

Microsoft, MS, MS Word, MS Windows, MS Excel and Windows Write are trademarks of Microsoft Corporation.

Printing History

First Edition - June 1989
Second Edition - January 1990

This manual was created on a Hewlett-Packard *Vectra Personal Computer* using *HighStyle* desktop publishing software. The body text is *Century Schoolbook* and the headlines are *Helvetica*. The camera-ready text was generated on a Hewlett-Packard LaserJet series II printer.

Table of Contents

Table of Contents (Cont.)

About the HP Microsoft Font Cartridge

Thank you for purchasing the **HP Microsoft** font cartridge! This cartridge was developed with Microsoft Corporation and is supported by MS Word and MS Windows applications.

This manual describes the fonts available in the **HP Microsoft** font cartridge. Instructions for using the cartridge with the LaserJet family of printers is included.

The **HP Microsoft** font cartridge offers a wide variety of Hewlett-Packard fonts:

- Two proportionally-spaced typefaces (Times Roman and Helvetica) in a variety of 16 treatments and sizes, in portrait orientation.*

- The Line Printer font (fixed-pitch) in both portrait and landscape orientations.

- Compatible with all LaserJet printers.

NOTE

If you use the **HP Microsoft** font cartridge with an application software other than MS Word or MS Windows, contact your software manufacturer for information regarding *printer driver* availability. If your application contains the HP 92286Z Microsoft 1A driver, you can select that driver and print successfully.

---

* If your printer has the automatic font rotation feature, you can print the portrait fonts on the **HP Microsoft** font cartridge, in landscape orientation.

For example, the LaserJet IID, LaserJet IIP and LaserJet 2000 printers can take any one of the 16 proportional fonts on your **HP Microsoft** font cartridge and rotate them 90 degrees to landscape orientation. This procedure is automatically performed when the landscape **page characteristic** is selected.

Times Roman

The Times Roman typeface possesses extreme typographic legibility making it a popular typestyle for text, newsletters, memos, reports and any other document requiring a professional "typeset" appearance.

Times Roman is classified as a serif typeface. Its strong legibility makes it an ideal typeface used alone, or with the Helvetica typeface family.

Shown below are samples of each of the Times Roman fonts available in the **HP Microsoft** font cartridge.

Times Roman 8 point

Times Roman 10 point

Times Roman Bold 10 point

Times Roman Italic 10 point

Times Roman 12 point

Times Roman Bold 12 point

Times Roman Italic 12 point

Times Roman Bold 14 point
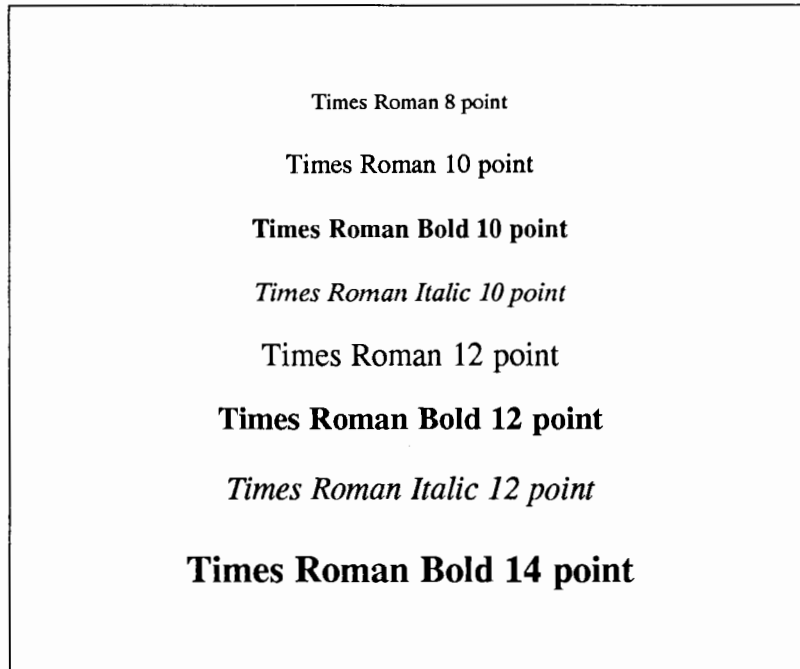
Times Roman font samples.

Helvetica

Helvetica is one of the world's most popular sans serif typefaces. Helvetica is proportionally spaced, which adds to its superb legibility. Its flawless, modern and clean design makes Helvetica an excellent typeface for eye-catching text and headings.

Helvetica is ideal for applications such as signs, forms, labels, slides, lists, charts, brochures, newsletters, proposals and manuals.

Shown below are samples of each of the Helvetica fonts available in the **HP Microsoft** font cartridge.

Helvetica 8 point

Helvetica 10 point

Helvetica Bold 10 point

Helvetica Italic 10 point

Helvetica 12 point

Helvetica Bold 12 point

Helvetica Italic 12 point

Helvetica Bold 14 point
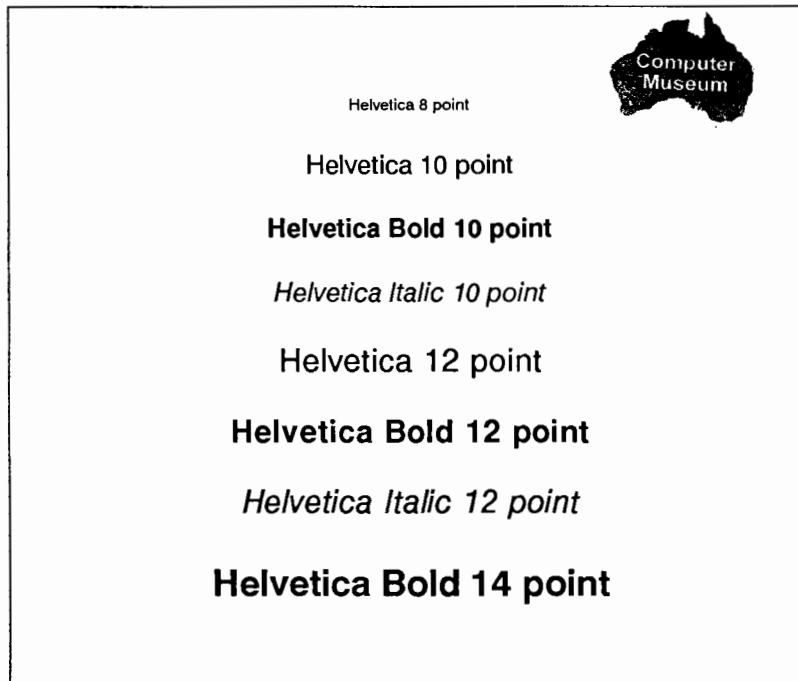
Helvetica font samples.

Line Printer

Line Printer is a small fixed pitch (all characters are the same width) typeface which is perfectly suited for tables, forms and columns of data. Its design is modern and easy to read in the 8.5 point size. The Line Printer fonts are available in both portrait and landscape (sideways) orientations. Using the Line Printer fonts, you can print 16.66 characters per inch (pitch).

Shown below is a sample of a Line Printer font available in the **HP Microsoft** font cartridge.

```
Line Printer 16.66 pitch, 8.5 point.
```
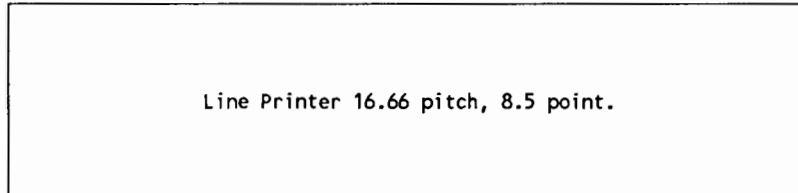
Line Printer font sample.

HP Microsoft Font Cartridge Installation

Inserting the Cartridge Into the Printer

To insert the **HP Microsoft** font cartridge into any of the LaserJet family of printers, complete the following steps:

CAUTION

Do not insert or remove the **HP Microsoft** font cartridge while the printer is on-line. If you receive the **FE CARTRIDGE** error message, turn your printer OFF and then back ON.

If you are inserting the **HP Microsoft** font cartridge into the LaserJet 2000 printer, the term "off-line," as used in the following instructions, indicates that the printer should be powered off.

---

1. Press the **[On Line]** key to place the printer in the off-line state (light off).

2. Insert the **HP Microsoft** font cartridge, label side up, into an available cartridge slot on your printer.

   Press the cartridge in firmly until it snaps into place. Make sure that the cartridge is solidly seated in the cartridge slot.

3. Press the **[On Line]** key to return the printer to the on-line state (light on).

To remove the font cartridge, press the **[On Line]** key to place the printer in the off-line state (light off). Grasp the edges of the cartridge and pull it out. Press the **[On Line]** key to return the printer to the on-line state (light on).

7

About Printer Drivers

Most software applications send printer commands by using software printer drivers that are included with their programs. If you are using this type of software application, you usually do not see the printer commands displayed on the screen. This is because the software sends the commands automatically to the printer for you.

Drivers are programs that software developers create to send job and page set-up commands (descriptions of fonts) to the printer. Drivers work automatically so you do not have to enter the commands yourself.

The **HP Microsoft** font cartridge (HP part number C2053A#C02) was previously known as the **Microsoft 1A or Z1A** cartridge (HP part number 92286Z.)

If your software does not have a specific printer driver for the **HP Microsoft** font cartridge, you can select either **Microsoft 1A or Z1A** cartridge.

Using the HP Microsoft Font Cartridge with MS Word 5.0

The information on the following pages will assist you in completing the following tasks:

- Selecting the Cartridge Driver
- Selecting the Printer Driver
- Selecting fonts
- Changing fonts
- Changing font attributes
- Printing special characters and symbols

Starting MS Word

From the **DOS** prompt of your MS Word directory (for example, *C:WORD5*), type in the following to start the program:

WORD [←]

A *Document* screen will appear.

Selecting the Cartridge Driver

The steps outlined in this section are written with the assumption that your MS Word program is installed in the C:WORD5 directory. If this is not the case, modify the instructions accordingly.

In order to access the fonts on the **HP Microsoft** font cartridge, the proper driver must first be installed into your MS Word 5.0 program. Follow the procedures described below to ensure correct installation:

1. At the MS Word *Document* screen, press [Esc] to use the menu functions.

2. Press [P]rint [O]ptions to display the *Print Options* screen.

3. At the selection labeled *Printer,* press F1 to display a list of supported printer drivers (also known as *.PRD* files).

4. Highlight the printer driver (*.PRD*) that supports the **HP Microsoft** font cartridge, then tab to the *Model* field and press F1 to display a list of supported printers.

NOTE

The LaserJet IID, LaserJet IIP and the LaserJet 2000 printers automatically rotate fonts. For each of these printers, you will use a single *.PRD* file for portrait and landscape orientation. To use the automatic font rotation feature successfully, you must select the correct printer model in the *Print Options* screen.

---

5. Highlight the appropriate printer model and press ⏎.

   This action will take you back to the *Print* menu screen.

6. To return to the *Document* screen, press Esc.

NOTE

If you do not have a *.PRD* file that supports the **HP Microsoft** font cartridge, contact Microsoft at 206-454-2030 to request an update.

Selecting Fonts in Microsoft Word

To select a font from the **HP Microsoft** font cartridge under MS Word 5.0, do the following:

1. Highlight the text.

2. After highlighting, press [Esc] to access the *Menu Functions*. Then press [F]ormat [C]haracter to display the *Format Character* screen.

3. Tab to the *Font Name* field and press [F1] to display the fonts that are supported by the printer driver (*.PRD*) which is currently selected (see "Selecting the Printer Driver" for additional information).

4. Use the cursor keys to highlight the desired font name, then tab to the *Font Size* field. Press [F1] to display the different point sizes available for the highlighted font.

5. Use the cursor keys to highlight the desired point size, then press [↵] to save the selections. This action will return you to the *Document* screen. The next example shows how to select a font using MS Word 5.0.

Example – Selecting a Font in MS Word

To select the Times Roman 12 point (medium) font, complete the following procedures:

1. On a blank *Document* screen, type the following sentence:

   ```
   This is a sample of Times Roman 12
   point.
   ```

2. Hold down the [Shift] key, and press [F10].

   The sentence should be highlighted on your monitor screen.

3. Press the [Esc] key, and press [F]ormat [C]haracter to display the *Format Character* screen.

4. Tab to the *Font Name* field.

5. Press [F1]. Use the cursor keys to highlight the Times Roman typeface.

6. Tab to the *Font Size* field, and press [F1].

11

7. Highlight the number **12**, and press ⏎ to save your font selection specifications and return to your *Document* screen.

8. To print this sample document, press Ⓔsⓒ and ℗rint ℗rinter.

This is a sample of Times Roman 12 point.

MS Word 5.0 print sample.

Changing Fonts in Microsoft Word

To change a specified font using MS Word 5.0, you can complete the following procedures:

- Highlight the text
- Change the font
- Change font attributes

Highlighting the Text

To change fonts in MS Word, you must first highlight the text that you want to change. There are many ways to accomplish this:

- To highlight a single paragraph, position your cursor on the desired paragraph and press F10.

- To highlight a character, or group of characters, press F6 and use the appropriate cursor movement keys to highlight the desired text.

- To highlight a single word, position your cursor on the desired word, and press F8.

- To highlight a sentence, position your cursor on the desired sentence and hold down the Shift key, and press F8.

- To highlight the entire document, hold down the Shift key, and press F10.

12

Changing Fonts

Once the text that you want to change is highlighted, complete the following procedures:

1. Press [Esc] to display the menu functions.

2. Press [F]ormat [C]haracter to display the *Format Character* screen.

3. Tab to the *Font Name* field, and press [F1] to display all of the fonts which are supported by the printer driver previously chosen (see "Selecting the Printer Driver" for instructions).

4. Highlight the name of the desired font.

5. Tab to the *Font Size* field, and press [F1] to display the available point sizes.

6. Highlight the desired point size, and press [↵] to save the selections. This will return you to the *Document* screen.

7. To verify the font change, print the document by pressing the [Esc] key, and press [P]rint [P]rinter.

Changing Font Attributes

Attributes refer to either regular, *italic*, or **bold** text. Changing the font attributes is similar to selecting the font.

1. Highlight the text that you want to be **bold** or *italic*. (For further information refer to the section "Highlighting Text.")

2. Press the [Esc] key, and press [F]ormat [C]haracter to display the *Format Character* screen.

3. Tab to either the **bold** or *italic* field, and press [Y]es.

4. Press [↵] to save your selections and return to the *Document* screen.

Printing Special Characters and Symbols

Some of the characters and symbols available through the **HP Microsoft** font cartridge symbol sets will not be displayed on your terminal screen. (Refer to the "Reference" section of this document for a complete set of symbol set tables).

Special characters and symbols can be accessed by holding down the [Alt] key, and typing in the three-digit decimal value (associated with the special character or symbol that you wish to print) on your **NUMERIC KEYPAD**.

The character you see on the MS Word screen may not be the same as the character that prints because MS Word has a limited character display.

Example – Printing a Special Character from Roman-8

To print the pound sterling symbol from the Roman-8 symbol set, using MS Word, complete the following steps:

1. At a blank *Document* screen, type in:

   ```
   Dickens lived on 48 per year.
   ```

2. Refer to the Roman-8 symbol set table in the "Reference" section of this manual to locate the pound sterling symbol.

3. Locate the pound sterling symbol. Make a note of the decimal number. In this case, it is 187.

4. Position the cursor within the text where you want to print the pound sterling symbol. In this example it is between "on" and "48."

5. Hold down the [Alt] key.

6. Type 187 on your **NUMERIC KEYPAD,** then release the [Alt] key. The pound sterling symbol will NOT appear on your monitor screen, however, the pound sterling symbol will be printed in your document, as shown below.

Dickens lived on £ 48 per year.

Printing a special character from the Roman-8 symbol set.

MS Windows General Instructions

Using the **HP Microsoft** font cartridge with MS Windows is the same as using other HP font cartridges. Simply insert the cartridge in the printer, then select the cartridge using the Windows Control Panel Application. Once the cartridge is selected, the fonts are available to all Windows applications.

NOTE

The steps outlined in this section are written under the assumption that your MS Windows directory is C:\WINDOWS. If this is not the case, modify the instructions accordingly.

For all MS Windows applications, the ECMA-94 Latin 1 Symbol Set is the default symbol set. All characters shown in the symbol set chart located in the back of this manual will appear on the monitor.

Selecting the HP Microsoft Font Cartridge

To use the **HP Microsoft** font cartridge:

1. At the DOS prompt of your MS Windows directory, start the program by typing:

   WIN ⏎

2. Run the control panel application, by double clicking on **CONTROL.EXE.**

3. Select *Setup*.

4. Select *Printer*.

5. Highlight the PCL/HP LaserJet printer you are using from the default printer box.

6. Select *OK*.

7. Highlight **HP:Microsoft** font cartridge (or Z:Microsoft 1A) from the font cartridges listed in the printer box.

   If **HP:Microsoft** font cartridge (or Z:Microsoft 1A) does not appear in your window, you need to order an updated MS Windows printer driver diskette. To obtain one, call Microsoft at 206-454-2030.

8. Select *OK*.

9. Hold down the (Alt) key and press (F4) to return to the windows main menu.

The **HP Microsoft** font cartridge is now selected.

Using the HP Microsoft Cartridge with MS Excel 2.01

Before you start these procedures, read the *MS Windows General Instructions* located in the previous section. All of these examples assume that MS Excel is located in the C:\WINDOWS directory. If this is not the case, modify the instructions accordingly.

Starting MS Excel

Enter MS Windows and double click on the **EXCEL.EXE** file (or if you are using a run-time version of MS Windows, type **EXCEL** at your DOS prompt in your MS Excel directory).

Selecting Fonts with MS Excel

MS Excel allows only **four fonts** per document. Before starting your document, you must select the four fonts from the cartridge you wish to use. Using your mouse, follow these steps:

1. Select *Format*.

2. Select *Font*.

3. Select *Fonts > >*.

   Make sure that the box marked *Printer Fonts* has an "X" in it. If it doesn't, click on the box once to get the "X."

4. Choose one of the four fonts in the *Fonts* box by clicking on the number of the font or by holding down the (Alt) key and pressing the number (1-4).

5. Select the typestyle you want from the available typefaces listed in the *Font* box.

6. Select the point size desired from the available point sizes in the *Size* box.

7. Optional selections: Bold, Italics, Underline and Strikeout can be selected from the *Style* box.

8. After selecting all your desired font attributes, click on the *Replace* box. This will change the first Excel font to your selection.

9. Repeat steps 4-8 to select the three remaining desired fonts.

10. When your four fonts are selected, click on the *OK* box to exit and to save your selections.

Changing Fonts With MS Excel

1. Highlight the text that you want to change.

2. Select *Format*.

3. Select *Font*.

4. Choose one of the four available fonts by clicking on the number of that font or by holding down the [Alt] key and pressing the number of the font.

5. Select *OK* to save the change.

Example – Times Roman 12 point

In this example you will select a Times Roman 12 point font.

1. Enter a new document in MS Excel.

2. Select *Format*.

3. Select *Font*.

4. Select *Fonts > >*.

   Make sure that the box marked *Printer Fonts* has an "X" in it. If it doesn't click on the box once to get the "X."

5. Choose the first of the four fonts in the *Fonts* box by clicking on the number of the font or by holding down the [Alt] key and pressing the number 1.

6. Highlight the *Times Roman* typestyle from the *Font* box.

7. Highlight "12" from the *Size* box.

8. Select *OK*, to save your selections.

9. Type in the following:

   ```
   This is Times Roman 12 point.
   ```

10. To print the example, select *File*, then *Print*, then select *OK*.

Printing Special Characters in MS Excel

NOTE

Microsoft Excel defaults to the Windows symbol set. Since the ECMA-94 Latin 1 symbol set is resident on the Microsoft Font Cartridge (as shown in Table 3), the screen fonts will show the ECMA-94 Latin 1 symbol set.

To access the extended characters in Excel, do the following:

1. Hold down the [Alt] key.

2. Press the zero 0 on your numeric keypad.

3. Type in the decimal equivalent of the character you desire to print from the ECMA-94 Latin 1 symbol set. The character will appear on your screen.

Example

To print the ® (registered) mark, which has a decimal value of 174, follow these steps:

1. Enter a new document in MS Excel.

2. Select a *Font* (refer to "Selecting fonts with MS Excel").

3. Highlight a cell in which to place the register character.

4. Hold down the [Alt] key on your keyboard and type 0174 on your numeric keypad.

5. Release the [Alt] key. You will see the ® symbol on your screen.

To print the example:

1. Highlight the area you desire to print.

2. Select *File*.

3. Select *Print*.

4. Select *OK*.

Using the HP Microsoft Cartridge with Windows Write

Before you start these steps, read the *MS Windows General Instructions* located on the previous pages.

All of these examples assume that Windows Write is located in the C:\WINDOWS directory. If this is not the case, modify the instructions accordingly.

Starting Windows Write

Enter MS Windows and double click on the **WRITE.EXE** file (or if you are using a run-time version of MS Windows, type **WRITE** at your DOS prompt in your Windows directory).

Selecting Fonts Within Windows Write

1. Highlight the text that you want to change.
2. Select *Character*.
3. Select *Fonts*.
4. Select the font typeface desired from the available list in the *Fonts* box.
5. Select the point size desired from the available list in the *Sizes* box.
6. Select *OK*.

Changing Font Attributes with Windows Write

To chose optional font attributes like **bold,** *italic,* underline, superscript and subscript, follow these instructions:

1. Select *Character.*

2. Select the desired font attributes available on the cartridge.

Example

1. In a new document in Windows Write, type in the following:

   ```
   This is a test of Times Roman Italic
   12 point.
   ```

2. Highlight the text by moving your cursor to the beginning of the text. Hold down the right mouse button, and move the cursor to the end of the text.

3. Select *Character.*

4. Select *Fonts.*

5. Select the Times Roman typeface from the *Fonts* box.

6. Select **12** from the *Sizes* box.

7. Select *OK.*

8. Select *Character.*

9. Select *Italic.*

To print the example:

1. Select *File.*

2. Select *Print.*

3. Select *OK.*

> *This is a test of Times Roman Italic 12 point.*

Windows Write print sample.

Printing Special Characters in Windows Write

NOTE

Windows Write defaults to the Windows symbol set. Since the ECMA-94 Latin 1 symbol set is resident on the Microsoft Font Cartridge (as shown in Table 3), the screen fonts will show the ECMA-94 Latin 1 symbol set.

To access the extended characters in Windows Write, do the following:

1. Hold down the [Alt]

2. Press the zero **0** on your **numeric keypad.**

3. Type in the decimal equivalent of the character you wish to print from the ECMA-94 Latin 1 symbol set . The character will appear on your screen.

Example

To print the ® (registered) mark, which has a decimal value of 174, follow these steps:

1. Enter a new document in Windows Write.

2. Select a font (refer to "Selecting Fonts Within Windows Write").

3. Position your cursor where you desire to place the character.

4. Hold down the [Alt] key on your keyboard and type **0174** on your numeric keypad.

5. Release the [Alt] key. You will see the ® symbol on your screen.

   To print the example:

   a. Highlight the area you desire to print.

   b. Select *File.*

   c. Select *Print.*

   d. Select *OK.*

In Case of Difficulty

This section provides information pertaining to some of the common problems you may encounter while using the **HP Microsoft** font cartridge with the LaserJet printer, and their possible causes and solutions.

Helpful Hints

- Is the correct printer driver selected? Refer to section *Printer Drivers* for an explanation. For MS Word information refer to section *Select the Printer Driver*; for MS Windows information refer to *MS Windows General Instructions*.

- If you are not using Microsoft, refer to your software manual for instructions on how to embed printer commands, or contact your software manufacturer regarding the availability of a driver for the **HP Microsoft** font cartridge.

- Is the **HP Microsoft** font cartridge firmly seated in the slot? Take the printer off-line. Push the font cartridge in until it snaps in place. Be sure that the cartridge is firmly seated. Return the printer on-line. Perform a print fonts test to verify that the printer recognizes the font cartridge (refer to your printer's user manual).

- Are you familiar with the way your software application allows you to define and change fonts? If, after following the procedures in this manual you are still having difficulty, check your software manual for further information on selecting fonts.

Incorrect Fonts

If your document, or a portion of it, is not printing in the correct font, check the following possible causes and solutions.

Cause 1.   Did you install the correct printer definition and fonts?

Solution 1.   Repeat the installation procedures described in this manual. (Refer to your Microsoft manual for instructions on installing your printer driver.)

Cause 2.   When selecting fonts, are you fully specifying the desired font?

Solution 2.   Refer to the sections "Selecting Fonts" for your specific software application within this manual. If your software is not listed, refer to your software manual.

Cause 3.   Is the font cartridge properly installed?

Solution 3.   Take the printer off-line, and reseat the font cartridge. Press the cartridge in firmly until it snaps in place.

Perform a print fonts test to verify that the printer recognizes the font cartridge (refer to the printer's user manual). Return the printer to the on-line state and try printing again.

FE Error

If the font cartridge is inserted or removed while the printer is on-line, you will receive an **FE CARTRIDGE** error message. Turn your printer OFF and then back ON to clear the **FE CARTRIDGE** message.

Calling for Help

If you are having trouble with the Microsoft application procedures required to access fonts from the **HP Microsoft** font cartridge you can contact the Microsoft Corporation for assistance. The Microsoft Product Support number is:

(206) 454-2030

You can reach Microsoft Product Support between 8:00 a.m. and 5:00 p.m. (Pacific Standard Time).

If you are having trouble with the **HP Microsoft** font cartridge and are in need of assistance, call the authorized HP dealer where you purchased your **HP Microsoft** font cartridge.

If you are having trouble with your LaserJet printer, Hewlett-Packard offers support through the Personal Peripherals Assist Line. A customer assistance operator can offer advice to help solve your technical problems. The number is:

(208) 323-2551

The Personal Peripherals Assist Line is open from 7:00 a.m. to 6:00 p.m. (Mountain Standard Time), except for Wednesday, when it is open from 7:00 a.m. to 4:00 p.m.

Reference Information

The information presented in this section is of special interest to those users who require additional information about symbol sets and printer commands. Individual printer commands are listed for each font on the **HP Microsoft** font cartridge.

Symbol Sets

The following Roman-8 and ECMA-94 Latin 1 tables identify all of the characters available in the **HP Microsoft** font cartridge. (The shaded areas in these tables denote printer control code areas.) The characters on the right half of the symbol set tables are not usually found on a computer keyboard. Depending upon the kind of computer or software package you are using, there may be several ways to print these characters. Refer to your computer or software manuals for information on printing the characters shown in the right half of the tables.

Generally if the characters you want are not found through your keyboard, complete the following:

1. Refer to the symbol set charts to find the decimal code number for the character you want.

2. Hold down the [Alt] key.

3. Type in the three- (or four-) digit* decimal code on your computer's numeric keypad, then release the [Alt] key.

NOTE

For all MS Windows applications, the ECMA-94 Latin 1 Symbol Set is the default. All characters shown in the symbol set chart located in the back of this manual will appear on the monitor.

---

* MS Windows applications require a leading zero before entering a decimal code. Therefore, **four digits** are necessary.

Table 1. ASCII Symbol Set.

NUL 0	DLE 16	SP 32	0 48	@ 64	P 80	` 96	p 112			160	176	192	208	224	240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113			161	177	193	209	225	241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114			162	178	194	210	226	242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115			163	179	195	211	227	243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116			164	180	196	212	228	244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117			165	181	197	213	229	245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118			166	182	198	214	230	246
BEL 7	ETB 23	' 39	7 55	G 71	W 87	g 103	w 119			167	183	199	215	231	247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120			168	184	200	216	232	248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121			169	185	201	217	233	249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122			170	186	202	218	234	250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123			171	187	203	219	235	251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124			172	188	204	220	236	252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125			173	189	205	221	237	253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126			174	190	206	222	238	254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	▒ 127			175	191	207	223	239	255

Also known as ISO 6.

28

Table 2. Roman-8 Symbol Set.

NUL 0	DLE 16	SP 32	0 48	@ 64	P 80	` 96	p 112			160	‾ 176	â 192	Å 208	Á 224	Þ 240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113			À 161	Ý 177	ê 193	î 209	Ã 225	þ 241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114			Â 162	ý 178	ô 194	Ø 210	ã 226	· 242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115			È 163	° 179	û 195	Æ 211	Ð 227	µ 243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116			Ê 164	Ç 180	á 196	å 212	ð 228	¶ 244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117			Ë 165	ç 181	é 197	í 213	Í 229	¾ 245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118			Î 166	Ñ 182	ó 198	ø 214	Ì 230	– 246
BEL 7	ETB 23	' 39	7 55	G 71	W 87	g 103	w 119			Ï 167	ñ 183	ú 199	æ 215	Ó 231	¼ 247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120			´ 168	¡ 184	à 200	Ä 216	Ò 232	½ 248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121			` 169	¿ 185	è 201	ì 217	Õ 233	ª 249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122			^ 170	¤ 186	ò 202	Ö 218	õ 234	Ω 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123			¨ 171	£ 187	ù 203	Ü 219	Š 235	« 251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108		124			~ 172	¥ 188	ä 204	É 220	š 236	■ 252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125			Ù 173	§ 189	ë 205	ï 221	Ú 237	» 253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126			Û 174	ƒ 190	ö 206	ß 222	Ÿ 238	± 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	▒ 127			£ 175	¢ 191	ü 207	Ô 223	ÿ 239	255

Table 3. ECMA-94 Latin 1 Symbol Set.

NUL 0	DLE 16	SP 32	0 48	@ 64	P 80	` 96	p 112			160	° 176	À 192	Ð 208	à 224	ð 240
SOH 1	DC1 17	! 33	1 49	A 65	Q 81	a 97	q 113			¡ 161	± 177	Á 193	Ñ 209	á 225	ñ 241
STX 2	DC2 18	" 34	2 50	B 66	R 82	b 98	r 114			¢ 162	² 178	Â 194	Ò 210	â 226	ò 242
ETX 3	DC3 19	# 35	3 51	C 67	S 83	c 99	s 115			£ 163	³ 179	Ã 195	Ó 211	ã 227	ó 243
EOT 4	DC4 20	$ 36	4 52	D 68	T 84	d 100	t 116			¤ 164	´ 180	Ä 196	Ô 212	ä 228	ô 244
ENQ 5	NAK 21	% 37	5 53	E 69	U 85	e 101	u 117			¥ 165	µ 181	Å 197	Õ 213	å 229	õ 245
ACK 6	SYN 22	& 38	6 54	F 70	V 86	f 102	v 118			¦ 166	¶ 182	Æ 198	Ö 214	æ 230	ö 246
BEL 7	ETB 23	' 39	7 55	G 71	W 87	g 103	w 119			§ 167	· 183	Ç 199	× 215	ç 231	÷ 247
BS 8	CAN 24	(40	8 56	H 72	X 88	h 104	x 120			¨ 168	¸ 184	È 200	Ø 216	è 232	ø 248
HT 9	EM 25	) 41	9 57	I 73	Y 89	i 105	y 121			© 169	¹ 185	É 201	Ù 217	é 233	ù 249
LF 10	SUB 26	* 42	: 58	J 74	Z 90	j 106	z 122			ª 170	º 186	Ê 202	Ú 218	ê 234	ú 250
VT 11	ESC 27	+ 43	; 59	K 75	[91	k 107	{ 123			« 171	» 187	Ë 203	Û 219	ë 235	û 251
FF 12	FS 28	, 44	< 60	L 76	\ 92	l 108	| 124			¬ 172	¼ 188	Ì 204	Ü 220	ì 236	ü 252
CR 13	GS 29	- 45	= 61	M 77	] 93	m 109	} 125			173	½ 189	Í 205	Ý 221	í 237	ý 253
SO 14	RS 30	. 46	> 62	N 78	^ 94	n 110	~ 126			® 174	¾ 190	Î 206	Þ 222	î 238	þ 254
SI 15	US 31	/ 47	? 63	O 79	_ 95	o 111	▓ 127			¯ 175	¿ 191	Ï 207	ß 223	ï 239	ÿ 255

Also known as ISO 8859/1.

Printer Commands

If you are not using a Microsoft software application, contact your software vendor regarding the availability of a driver. If the driver is not available, you can access the fonts on your **HP Microsoft** font cartridge by using printer commands (if your software package allows you to embed these commands).

Tables 4, 5, and 6 show the typeface, orientation, symbol set, spacing, point size, style, weight, and full printer command for each of the Times Roman, Helvetica and Line Printer fonts available on the **HP Microsoft** font cartridge.

Read the following instructions before selecting fonts using the printer commands:

- Use of the full printer command ensures correct font selection for any situation. For further information on printer commands see the *User's Manual* or *Technical Reference Manual* for your printer.

- Printer commands always begin with the escape character ^{E}c. The escape character is followed by a unique series of letters and numbers that tell the printer what to do.

- The escape character ^{E}c is often represented by either 1B (hexadecimal) or 027 (decimal). Which you use depends on your software application (refer to your software manual).

- Before using printer commands, take a moment to compare these characters:

  Lower-case l - ℓ Upper-case O - **O**
  Number one - **1**   Number zero - **∅**

Don't let the differences between these characters confuse you. Many printer commands use the lower-case l (ℓ) and the number one (**1**), or the upper-case O (**O**) and the number zero (**∅**). These characters may not appear on your screen as shown below.

Use ^{E}c**&ℓ∅O** to specify portrait orientation.

Use ^{E}c**&ℓ1O** to specify the landscape orientation.

Shown below is an illustration of the difference between portrait and landscape orientations.
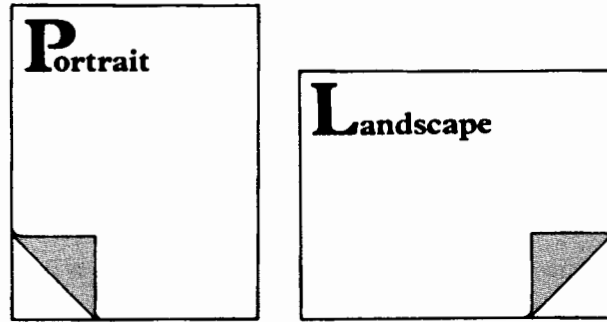
Portrait and Landscape Orientation.

NOTE

If your printer has the automatic rotation feature, you can print the portrait fonts on the **HP Microsoft** font cartridge in landscape orientation.

For example, the LaserJet IID, LaserJet IIP and LaserJet 2000 printers can take any one of the 16 portrait fonts (Times Roman and Helvetica) on your **HP Microsoft** font cartridge and rotate them 90 degrees to landscape orientation. This procedure is automatically performed when the landscape **page characteristic** is selected.

Printer Command Examples

The following example shows how to select the Times Roman (typeface), portrait (orientation), Roman-8 (symbol set), proportionally spaced, 10 point, medium font:

<div align="center">

ᴱc&ℓ0Oᴱc(8Uᴱc(s1p10v0s0b5T

</div>

The following example shows how to select the Helvetica (typeface), portrait (orientation), ECMA-94 Latin 1 (symbol set), proportionally spaced, 14 point, bold font:

<div align="center">

ᴱc&ℓ0Oᴱc(11Qᴱc(s1p14v0s3b4T

</div>

Refer to your printer's User's Manual or Technical Reference Manual for additional information on printer commands.

Table 4. Helvetica Font Characteristics

TYPEFACE FAMILY	ORIENTATION	SYMBOL SET	PITCH	POINT SIZE	STYLE	WEIGHT	PRINTER COMMAND
Helvetica	Portrait	ASCII	Prop	8	Upright	Medium	^{E}c&ℓℓ0O^{E}c(0U^{E}c(s1p8v0s0b4T
Helvetica	Portrait	Roman-8	Prop	8	Upright	Medium	^{E}c&ℓℓ0O^{E}c(8U^{E}c(s1p8v0s0b4T
Helvetica	Portrait	ECMA*	Prop	8	Upright	Medium	^{E}c&ℓℓ0O^{E}c(11Q^{E}c(s1p8v0s0b4T
Helvetica	Portrait	ASCII	Prop	10	Upright	Medium	^{E}c&ℓℓ0O^{E}c(0U^{E}c(s1p10v0s0b4T
Helvetica	Portrait	Roman-8	Prop	10	Upright	Medium	^{E}c&ℓℓ0O^{E}c(8U^{E}c(s1p10v0s0b4T
Helvetica	Portrait	ECMA	Prop	10	Upright	Medium	^{E}c&ℓℓ0O^{E}c(11Q^{E}c(s1p10v0s0b4T
Helvetica	Portrait	ASCII	Prop	10	Upright	Bold	^{E}c&ℓℓ0O^{E}c(0U^{E}c(s1p10v0s3b4T
Helvetica	Portrait	Roman-8	Prop	10	Upright	Bold	^{E}c&ℓℓ0O^{E}c(8U^{E}c(s1p10v0s3b4T
Helvetica	Portrait	ECMA	Prop	10	Upright	Bold	^{E}c&ℓℓ0O^{E}c(11Q^{E}c(s1p10v0s3b4T
Helvetica	Portrait	ASCII	Prop	10	Italic	Medium	^{E}c&ℓℓ0O^{E}c(0U^{E}c(s1p10v1s0b4T
Helvetica	Portrait	Roman-8	Prop	10	Italic	Medium	^{E}c&ℓℓ0O^{E}c(8U^{E}c(s1p10v1s0b4T
Helvetica	Portrait	ECMA	Prop	10	Italic	Medium	^{E}c&ℓℓ0O^{E}c(11Q^{E}c(s1p10v1s0b4T

*ECMA = ECMA-94 Latin 1 in all references.

Table 4. (Continued)

TYPEFACE FAMILY	ORIENTATION	SYMBOL SET	PITCH	POINT SIZE	STYLE	WEIGHT	PRINTER COMMAND
Helvetica	Portrait	ASCII	Prop	12	Upright	Medium	^E_C&l0O^E_C(0U^E_C(s1p12v0s0b4T
Helvetica	Portrait	Roman-8	Prop	12	Upright	Medium	^E_C&l0O^E_C(8U^E_C(s1p12v0s0b4T
Helvetica	Portrait	ECMA*	Prop	12	Upright	Medium	^E_C&l0O^E_C(11Q^E_C(s1p12v0s0b4T
Helvetica	Portrait	ASCII	Prop	12	Upright	Bold	^E_C&l0O^E_C(0U^E_C(s1p12v0s3b4T
Helvetica	Portrait	Roman-8	Prop	12	Upright	Bold	^E_C&l0O^E_C(8U^E_C(s1p12v0s3b4T
Helvetica	Portrait	ECMA	Prop	12	Upright	Bold	^E_C&l0O^E_C(11Q^E_C(s1p12v0s3b4T
Helvetica	Portrait	ASCII	Prop	12	Italic	Medium	^E_C&l0O^E_C(0U^E_C(s1p12v1s0b4T
Helvetica	Portrait	Roman-8	Prop	12	Italic	Medium	^E_C&l0O^E_C(8U^E_C(s1p12v1s0b4T
Helvetica	Portrait	ECMA	Prop	12	Italic	Medium	^E_C&l0O^E_C(11Q^E_C(s1p12v1s0b4T
Helvetica	Portrait	ASCII	Prop	14	Upright	Bold	^E_C&l0O^E_C(0U^E_C(s1p14v0s3b4T
Helvetica	Portrait	Roman-8	Prop	14	Upright	Bold	^E_C&l0O^E_C(8U^E_C(s1p14v0s3b4T
Helvetica	Portrait	ECMA	Prop	14	Upright	Bold	^E_C&l0O^E_C(11Q^E_C(s1p14v0s3b4T

*ECMA = ECMA-94 Latin 1 in all references.

35

Table 5. Times Roman Font Characteristics

TYPEFACE FAMILY	ORIENTATION	SYMBOL SET	PITCH	POINT SIZE	STYLE	WEIGHT	PRINTER COMMAND
Times Roman	Portrait	ASCII	Prop	8	Upright	Medium	Ec&ℓℓOFc(0UEc(s1p8v0s0b5T
Times Roman	Portrait	Roman-8	Prop	8	Upright	Medium	Ec&ℓℓOFc(8UEc(s1p8v0s0b5T
Times Roman	Portrait	ECMA*	Prop	8	Upright	Medium	Ec&ℓℓOFc(11QEc(s1p8v0s0b5T
Times Roman	Portrait	ASCII	Prop	10	Upright	Medium	Ec&ℓℓOFc(0UEc(s1p10v0s0b5T
Times Roman	Portrait	Roman-8	Prop	10	Upright	Medium	Ec&ℓℓOFc(8UEc(s1p10v0s0b5T
Times Roman	Portrait	ECMA	Prop	10	Upright	Medium	Ec&ℓℓOFc(11QEc(s1p10v0s0b5T
Times Roman	Portrait	ASCII	Prop	10	Upright	Bold	Ec&ℓℓOFc(0UEc(s1p10v0s3b5T
Times Roman	Portrait	Roman-8	Prop	10	Upright	Bold	Ec&ℓℓOFc(8UEc(s1p10v0s3b5T
Times Roman	Portrait	ECMA	Prop	10	Upright	Bold	Ec&ℓℓOFc(11QEc(s1p10v0s3b5T
Times Roman	Portrait	ASCII	Prop	10	Italic	Medium	Ec&ℓℓOFc(0UEc(s1p10v1s0b5T
Times Roman	Portrait	Roman-8	Prop	10	Italic	Medium	Ec&ℓℓOFc(8UEc(s1p10v1s0b5T
Times Roman	Portrait	ECMA	Prop	10	Italic	Medium	Ec&ℓℓOFc(11QEc(s1p10v1s0b5T

*ECMA = ECMA-94 Latin 1 in all references,

36

Table 5. (Continued)

TYPEFACE FAMILY	ORIENTATION	SYMBOL SET	PITCH	POINT SIZE	STYLE	WEIGHT	PRINTER COMMAND
Times Roman	Portrait	ASCII	Prop	12	Upright	Medium	E_C&ℓ0OE_C(0UE_C(s1p12v0s0b5T
Times Roman	Portrait	Roman-8	Prop	12	Upright	Medium	E_C&ℓ0OE_C(8UE_C(s1p12v0s0b5T
Times Roman	Portrait	ECMA*	Prop	12	Upright	Medium	E_C&ℓ0OE_C(11QE_C(s1p12v0s0b5T
Times Roman	Portrait	ASCII	Prop	12	Upright	Bold	E_C&ℓ0OE_C(0UE_C(s1p12v0s3b5T
Times Roman	Portrait	Roman-8	Prop	12	Upright	Bold	E_C&ℓ0OE_C(8UE_C(s1p12v0s3b5T
Times Roman	Portrait	ECMA	Prop	12	Upright	Bold	E_C&ℓ0OE_C(11QE_C(s1p12v0s3b5T
Times Roman	Portrait	ASCII	Prop	12	Italic	Medium	E_C&ℓ0OE_C(0UE_C(s1p12v1s0b5T
Times Roman	Portrait	Roman-8	Prop	12	Italic	Medium	E_C&ℓ0OE_C(8UE_C(s1p12v1s0b5T
Times Roman	Portrait	ECMA	Prop	12	Italic	Medium	E_C&ℓ0OE_C(11QE_C(s1p12v1s0b5T
Times Roman	Portrait	ASCII	Prop	14	Upright	Bold	E_C&ℓ0OE_C(0UE_C(s1p14v0s3b5T
Times Roman	Portrait	Roman-8	Prop	14	Upright	Bold	E_C&ℓ0OE_C(8UE_C(s1p14v0s3b5T
Times Roman	Portrait	ECMA	Prop	14	Upright	Bold	E_C&ℓ0OE_C(11QE_C(s1p14v0s3b5T

*ECMA = ECMA-94 Latin 1 in all references.

37

Table 6. Line Printer Font Characteristics

TYPEFACE FAMILY	ORIENTATION	SYMBOL SET	PITCH	POINT SIZE	STYLE	WEIGHT	PRINTER COMMAND
Line Printer	Portrait	ASCII	16.66	8.5	Upright	Medium	^{E}c&l0O^{E}c(0U^{E}c(s0p16.66h8.5v0s0b0T
Line Printer	Portrait	Roman-8	16.66	8.5	Upright	Medium	^{E}c&l0O^{E}c(8U^{E}c(s0p16.66h8.5v0s0b0T
Line Printer	Portrait	ECMA*	16.66	8.5	Upright	Medium	^{E}c&l0O^{E}c(11Q^{E}c(s0p16.66h8.5v0s0b0T
Line Printer	Landscape	ASCII	16.66	8.5	Upright	Medium	^{E}c&l1O^{E}c(0U^{E}c(s0p16.66h8.5v0s0b0T
Line Printer	Landscape	Roman-8	16.66	8.5	Upright	Medium	^{E}c&l1O^{E}c(8U^{E}c(s0p16.66h8.5v0s0b0T
Line Printer	Landscape	ECMA	16.66	8.5	Upright	Medium	^{E}c&l1O^{E}c(11Q^{E}c(s0p16.66h8.5v0s0b0T

*ECMA = ECMA 94 Latin 1 in all references.

38

Hewlett-Packard Custom Font Services

Hewlett-Packard Custom Font Cartridges and Soft Fonts are now available.

Design your own custom font cartridge or soft font package to fit your particular needs. Choose from the following font options:

- Any font from an existing Hewlett-Packard standard font cartridge product.

- Any font from the Hewlett-Packard AC-AG, DA, DC or EA Soft Font Collection.

- Arabic, Hebrew, and Cyrillic typefaces.

- Bar codes including 3 of 9, Codeabar, UPC, and others.

- Custom symbol set mappings.

- Signatures.

- Soft font site licensing.

For information on these services, contact:

Hewlett-Packard Company
Boise Division Product Specials
11311 Chinden Blvd., MS 2100
Boise, Idaho 83714

(208) 323-3684

Ordering More Fonts

Hewlett-Packard offers a growing library of different font cartridges.

Check with your authorized HP dealer to see which new font products are available.

To locate the dealer nearest you, call:

USA - 1-800-752-0900

Canada - 1-800-387-3867

Other countries: contact an authorized HP dealer or local HP sales office.

If your dealer is temporarily out of stock, call HP DIRECT:

USA - 1-800-538-8787

Canada

Toronto - 416-671-8383

Ontario/Quebec - 1-800-387-3417

Other Provinces - 1-800-387-3154

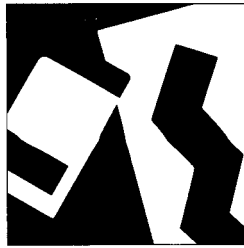For additional product information in the USA call:

CIC (Customer Information Center) 1-800-752-0900

Microsoft® Font Cartridge

Cartridge Contents

Typeface	Point Size	Pitch	Portrait*	Landscape	Symbol Set
Helvetica	8, 10, 12	Prop	•		
Helvetica Bold	10, 12, 14	Prop	•		
Helvetica Italic	10, 12	Prop	•		
Line Printer	8.5	16.66	•	•	All fonts support ASCII, Roman-8 and ECMA-94 Latin 1
Times Roman	8, 10, 12	Prop	•		
Times Roman Bold	10, 12, 14	Prop	•		
Times Roman Italic	10, 12	Prop	•		

*Landscape orientation available in HP LaserJet printer models that can automatically rotate fonts.

Supports all HP LaserJet printers. Works with Microsoft Windows, Excel, Word, Works and many other popular software packages.

Microsoft, Microsoft Windows, Microsoft Word, Microsoft Excel and Microsoft Works are registered trademarks of Microsoft Corporation. Times Roman and Helvetica are trademarks of Linotype AG and its subsidiaries.

Printed in USA 2/90   C2053-90911