
LaserJet IID Printer Software Applications



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This manual was created using *Xerox Ventura Publisher* software on an HP Vectra Personal Computer. The camera-ready copy was printed on an HP LaserJet series II printer and was then reproduced using standard offset printing.

Conventions

The following conventions are used throughout this manual:

- **Bold** is used to emphasize important information in the text or to highlight text to be entered from your computer's keyboard.
- *Italic type* is used for titles that refer to manuals or documents, to indicate selections to be made, or for emphasis.
- `Computer type` indicates text visible on the computer's display.
- **[Keystroke]** indicates a key or combination of keys to be pressed.

Note



Notes contain important information that is set off from the text.

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Introduction

This document explains how to use Hewlett-Packard's LaserJet IID printer with some of the more popular software applications. Included here, you will find chapters for:

- Lotus 1-2-3 release 2.01
- Microsoft Word version 4.0
- MultiMate Advantage II version 1.0
- WordPerfect version 4.2
- WordStar Professional release 4.0

In addition to these software packages, Hewlett-Packard's LaserJet Assist Line can provide application notes for the following:

- dBase III Plus
- PFS Professional Write
- WordPerfect version 5.0
- WordStar 2000 Plus release 3

These application notes can be obtained by:

1. Printing your name and address on an adhesive label.
2. Indicating which application note(s) you would like to receive.
3. Mailing the label and your request to:

Hewlett-Packard Company
Personal Peripherals Assist, MS 516
11311 Chinden Blvd.
Boise, ID 83714-1021

Lotus 1-2-3 release 2.01

1

1

Lotus 1-2-3

Lotus Development Corporation

Customer Support Number (617) 253-9150
Hours 8:30am - 8:00pm EST
Charge None
Required Identification None

Other Lotus Phone Numbers

Product Upgrades (800) 827-3387
Update and Exchange Policies (617) 623-5672
Warranty Policies (617) 623-6572
Lotus Prompt (800) 367-6100

Technical Support for Printer Drivers

Phoenix Technologies Ltd. (800) 843-3787

Supported Fonts

Cartridge Fonts 92286... A, C, D, E, G, H, J, L, M, N, Q, R, Y	Soft Fonts 33411... DA, EA
Cartridge Fonts 92290... S1	Soft Fonts 33412... DA, EA
	Super Fonts 33412... -

Lotus 1-2-3 does not access fonts automatically. You must enter printer commands in the set-up string option of Lotus to access the "Supported Fonts" listed above.

Unsupported Fonts

Cartridge Fonts 92286... B, F, K, P, T, U, V, W1, X, Z	Soft Fonts 33411... AC, AD, AE, AF, RA, SA, TA, UA
Cartridge Fonts 92290... S2	Soft Fonts 33412... AC, AD, AE, AF, RA, SA, TA, UA, RB, SB, TB, UB
	Super Fonts 33412... AG

Note



Proportionally spaced fonts (e.g., TmsRmn and Helv) are not supported. Any attempt to use a proportional font will result in improperly aligned spreadsheet columns.

Installation

This section will assist you with the installation of Lotus 1-2-3 as it relates to your LaserJet printer. Additional information can be found in the Lotus *Getting Started* manual.

Printer Port Configuration

We suggest that you include the following commands in your *AUTOEXEC.BAT* file. Consult either your DOS manual or your LaserJet printer manual for more information on *AUTOEXEC.BAT* files.

Parallel

If your printer is connected to the computer's parallel port "LPT1", include **MODE LPT1:,,P** in your *AUTOEXEC.BAT* file.

Serial

If your printer is connected to the computer's serial port "COM1", include the following commands in your *AUTOEXEC.BAT* file:

```
MODE COM1:9600,N,8,1,P
MODE LPT1:=COM1
```

The Lotus 1-2-3 INSTALL Program

If you have not already done so, you must install Lotus on your computer before proceeding. When you have completed the initial installation of Lotus, proceed with the steps below.

Installation procedures and keystrokes are summarized in the left margin of this document. When instructed to make a selection (e.g., Select Install), highlight the indicated selection then press [Return].

Load Lotus

At your DOS prompt, type **LOTUS** and press [Return] to display the 1-2-3 Access System.

Select Install

Use your cursor keys to highlight *Install*, then press [Return] to run the *INSTALL* program. *Lotus may prompt you to insert the UTILITY disc.*

Press [Return]

Read the instructions on your screen, then press [Return].

Select Change Selected Equipment

```

                                     M A I N   M E N U
                                     -----
                                     Select Change Selected
                                     Equipment to change or add
                                     drivers for screen display,
                                     text printer, or graphics
                                     printer.

First-Time Installation
Change Selected Equipment
Advanced Options
Exit Install Program
```

Select Text Printer(s)

```

SELECTED EQUIPMENT

Return to Main Menu
Screen Display
Text Printer(s)
Graphics Printer(s)
Save Changes
Exit Install Program

Select Text Printer(s) to
specify the printer(s)
you will use to print
words and numbers.

```

Press [End]

Press the [End] key. The *Unlisted* text printer selection will appear at the bottom of your screen as shown below.

Select Unlisted

```

TEXT PRINTER(S)

IDS
Inforunner
Infoscribe
MPI
NEC
Okidata
Printek
Printronix
Quadram
Qume
Star
TI
Toshiba
Transtar
Unlisted

Select the brand of your text
printer from the list to the
left. (The list takes up two
screens.) If you have more
than one text printer, you can
return to this list to select
another. To cancel a
selection, highlight it and
press [DELETE].

```

Select No Backspace

```

TEXT PRINTER(S)

Complete Capability
Forced Auto-LF
No Backspace
No Backspace, Forced Auto-LF

Select the model of your text
printer from the list to the
left. (The lower left corner
tells you what brand you
selected.) To cancel a
selection, highlight it
and press [DELETE].

```

Select Graphics Printer(s)

```

SELECTED EQUIPMENT

Return to Main Menu
Screen Display
Text Printer(s)
Graphics Printer(s)
Save Changes
Exit Install Program

Select Graphics Printer(s) to
specify the printer(s) or
plotters you use for graphs.

```

Select HP

```
GRAPHICS PRINTER(S)

Amdex
Anadex
C. Itoh
CalComp
Canon
DEC
Diablo
Enter
Epson
GE/Genicom
HP
Houston Instruments
IBM
IDS
Inforunner

Select the brand of your
graphics printer or plotter
from the list to the left.
(The list takes up two
screens.) If you have more
than one graphics printer or
plotter, you can return to
this list to select another.
To cancel a selection,
highlight it and press
[DELETE].
```

**For 100 or 300 DPI
Select LaserJet+**

or

**For 75 DPI
Select LaserJet**

```
GRAPHICS PRINTER(S)

2225 ThinkJet series
2930 series
7440A Plotter
7470A Plotter
7475A Plotter
7550A Plotter
LaserJet+
LaserJet

Select the model of your graph
printer from the list to the
left. (The lower left corner
tells you what brand you
selected.) To cancel a
selection, highlight it and
press [DELETE].
```

Note 

A 300 dot per inch (DPI) full-page graph takes approximately 1 Mbyte of printer memory. If you want to print 300 DPI graphs and your printer has less than 1 Mbyte of memory, reduce the physical size of your graph until the graph prints correctly (i.e., on one page).

The INSTALL program permits you to select more than one graphics printer. Therefore, you may want to select both the LaserJet+ and the LaserJet. You could then print draft copies of your graphs at 75 DPI and final copies at 100 or 300 DPI. To select a second graphics printer, simply repeat the steps required to select the first graphics printer.

Press [F10]

When you have completed the selection of a graphics printer, press [F10]. Your current selections will be displayed. Make sure your text printer is *Unlisted No Backspace* and that your graphics printer is *LaserJet+* and/or *LaserJet*. Repeat the installation process if your selections are not correct.

Press [Esc]

Press [Esc] to return to the Selected Equipment screen.

Select Save Changes

```
SELECTED EQUIPMENT

Return to Main Menu
Screen Display
Text Printer(s)
Graphics Printer(s)
Save Changes
Exit Install Program

Select Save Changes to save
the changes you made. You
must save your changes before
you leave the Install program.
```

Press [Return]

```
SAVING CHANGES

If you plan to build a number of driver sets for different
equipment or for different applications, you must give each
driver set a different name:

Press [RETURN] to continue
```

Press [Return]

```
You have saved the changes you made.

Press [F9] to go to the main menu, or
Press [RETURN] to leave the Install program.
```

Select Yes

```
EXIT

Do you want to leave Install? Select Yes to leave Install.
No
Yes
```

Select Your Default Settings

After you run the *INSTALL* program, you must select your printer defaults. The instructions which follow will guide you through this process.

Load Lotus

At your DOS prompt, type **LOTUS** and press [Return] to display the 1-2-3 Access System.

Select 1-2-3

Use your cursor keys to highlight *1-2-3*, then press [Return] to run the *1-2-3* program. *Lotus may prompt you to insert the SYSTEM disc.*

Press [/] [W] [G] [D] [P]

Press [/] to access the spreadsheet menu. Then, press [W]orksheet [G]lobal [D]efault [P]rinter. The following menu will appear on your screen.

A1:	Interface	Auto-LF	Left	Right	Top	Bottom	Pg-Length	Wait	Setup	Name	Quit	MENU
-----	-----------	---------	------	-------	-----	--------	-----------	------	-------	------	------	------

Press [I] Press [I]nterface and select the appropriate interface for your configuration, usually *Parallel 1*. Available *Interfaces* are:


- 1 = Parallel 1*
- 2 = Serial 1 (if selected, specify 9600 baud)
- 3 = Parallel 2
- 4 = Serial 2 (if selected, specify 9600 baud)
- 5 = Dos Device LPT1:
- 6 = Dos Device LPT2:
- 7 = Dos Device LPT3:
- 8 = Dos Device LPT4:

*If you entered the proper DOS MODE commands in your *AUTOEXEC.BAT* file, the *Parallel 1* selection will work regardless of your actual configuration (i.e., parallel or serial). See *Printer Port Configuration* earlier in this note.

Set The Other Defaults Press each of the letters indicated below and make the selections listed. *For example*, press [P] to select *Page Length* then enter 60 and press [Return].

- [A]uto-linefeed No
- [L]eft margin 0
- [R]ight margin 80
- [T]op margin 0
- [B]ottom margin 0
- [P]age-length 60
- [W]ait No
- [S]etup Leave Setup Blank
- [N]ame Select the # which = Unlisted No Backspace

Press [Q] [U] Once you have made the above settings press [Q]uit, then [U]pdate. 1-2-3 will save your selections and use these defaults when printing.

Note  The default Margin, Page length, and Setup selections entered here are overridden by margin, page length, and setup selections made from the *Print Printer Options* menu.

Press [Q] This completes the installation of your LaserJet printer and the setting of Lotus 1-2-3 printer defaults, press [Q]uit to exit the menu.

General Information

Hewlett-Packard strongly recommends that spreadsheets which do not contain headers, footers, or borders be printed using the *Unformatted* option. To select this option, press:

[/] [P]rint [P]rinter [O]ptions [O]ther [U]nformatted

If this selection is *not* made, Lotus 1-2-3 will automatically increase your top and bottom margins by three lines. These additional lines generally cause improper pagination and large gaps between lines.

Headers, Footers and Borders

When using headers, footers, or borders you must specify the *Formatted* option. This option is selected by pressing:

[/] [P]rint [P]rinter [O]ptions [O]ther [F]ormatted

Footers

When printing footers, use the [P]age command (selected from the *Print Printer* menu) to eject the last page from the printer. Otherwise, the footer *will not* be printed on the last page.



Another method is to embed a Lotus Worksheet Page command in the left column, last row of the specified print range. Worksheet Page commands are entered by pressing [/] [W]orksheet [P]age. A Worksheet Page command will appear on your screen as four dots, (::).

Example

If your print range is A1..D115, position the cursor in cell A116 and press [/] [W]orksheet [P]age. Then change your print range to A1..D116.

Macros

Macros can be used to automate printing tasks within 1-2-3. For detailed information on creating or using macros refer to your Lotus 1-2-3 *Reference Manual* or call Lotus Technical Support

Note

The Print Printer Page and Worksheet Page commands cannot be used when printing multiple ranges with macros. Instead, take the printer off line and press the printer's FORM FEED key to eject the last page of the spreadsheet.

Headers, border columns, and border rows can be included when using macros. *However, footers cannot be used when printing multiple ranges from a macro.*

Lotus International Character Set

The LaserJet printers' resident symbol set, Roman-8, supports a few of the characters contained in the Lotus International Character Set (LICS).

To use LICS you must first run the Lotus *INSTALL* program and select *HP LaserJet* as your text printer. Next, determine if the desired LICS character can be accessed by pressing Compose [Ctrl F1] and the sequence specified by Lotus. Refer to the 1-2-3 *Reference Manual* for the correct sequence. For additional information regarding LICS, call Lotus Technical Support.

Embedding Printer Commands

Lotus 1-2-3 release 2.01 supports embedded printer commands. This feature gives advanced users the power to enhance printer output. This section briefly discusses the embedding of printer commands.

Lotus requires that embedded printer commands be placed in the left most column of a blank row. Thus, an embedded printer command requires one row to initiate the command, and one row to terminate the command. Therefore, any action or feature accessed by an embedded printer command will be active for a minimum of one row.

To embed a printer command precede the command with two vertical bars (located above the backslash [\] key). After typing the two vertical bars, your screen will show only one bar but the cell will contain two.

Example

To embed the printer command for compressed (Lineprinter) print, position your cursor in the left column of a blank row then enter the following:

```
||\027&k2S
```

Common Tasks

The following pages provide commonly used setup strings and related print settings. These setup strings and settings are valid only if your LaserJet printer is currently set at factory default status. To invoke this status, follow the appropriate step listed below:

LaserJet IID and series II Printer

Take the printer off-line, hold down the ENTER/RESET MENU key until "09 MENU RESET" appears on the printer's display.

LaserJet 2000 Printer

Power off the printer, hold down the ON LINE key and turn the power on. Continue holding down the ON LINE key until the printer displays "08-PRINTER COLD RESET".

LaserJet Plus and 500 Plus Printer

Take the printer off-line, hold down the HOLD TO RESET CONTINUE key until the printer flashes "07" .

LaserJet Printer

Begin all setup strings with `\027E` to reset the printer or turn the printer off and then on again.

Margin Settings

To maximize the printable area, set 1-2-3's top, bottom, and left margins at 0. Right margin settings are provided in the tables which follow.

Note

The setup strings listed on the following pages should be preceded with the printer reset command `\027E` except when using 1-2-3 macros, when printing multiple ranges, or when 1-2-3 displays "Printer Error". The `\027E` printer reset command can cause 1-2-3 to "time-out", thus resulting in the "Printer Error" message.

PORTRAIT PRINTING

[/] [P]rint [P]rinter [O]ptions [S]etup	[P]age Length	[M]argins [R]ight
Letter-size paper, 60 lines per page:		
10 cpi \027E	60	80
12 cpi \027(s0p12H	60	96
16.66 cpi \027&k2S	60	132
Letter-size paper, 66 lines per page:		
10 cpi \027&07.27C	66	80
12 cpi \027&07.27C\027(s0p12H	66	96
16.66 cpi \027&07.27C\027&k2S	66	132
Letter-size paper, 89 lines per page:		
10 cpi \027&05.39C	89	80
12 cpi \027&05.39C\027(s0p12H	89	96
16.66 cpi \027&05.39C\027&k2S	89	132
Legal-size paper (using a legal tray), 78 lines per page:		
10 cpi \027E	78	80
12 cpi \027(s0p12H	78	96
16.66 cpi \027&k2S	78	132
Legal-size paper (using a legal tray), 104 lines per page:		
10 cpi \027&08D	100	80
12 cpi \027&08D\027(s0p12H	100	96
16.66 cpi \027&08D\027&k2S	100	132
Legal-size paper (using a legal tray), 150 lines per page:		
16.66 cpi \027&04.16C\027&k2S	100	132
Legal-size paper (manual feed), 78 lines per page:		
10 cpi \027&084p2H	78	80
12 cpi \027&084p2H\027(s0p12H	78	96
16.66 cpi \027&084p2H\027&k2S	78	132
Legal-size paper (manual feed), 104 lines per page:		
10 cpi \027&084p2h8D	100	80
12 cpi \027&084p2h8D\027(s0p12H	100	96
16.66 cpi \027&084p2h8D\027&k2S	100	132
Legal-size paper (manual feed), 150 lines per page:		
16.66 cpi \027&084p2h4.16C\027&k2S	100	132

LANDSCAPE PRINTING

[/] [P]rint [P]rinter [O]ptions [S]etup [P]age Length [M]argins [R]ight

Letter-size paper, 45 lines per page:

10 cpi	\027&l1O	45	106
12 cpi	\027&l1O\027(s0p12H	45	127
16.66 cpi	\027&l1O\027&k2S	45	176

Letter-size paper, 66 lines per page:

10 cpi	\027&l1o5.45C	66	106
12 cpi	\027&l1o5.45C\027(s0p12H	66	127
16.66 cpi	\027&l1o5.45C\027&k2S	66	176

Legal-size paper (using legal tray), 45 lines per page:

10 cpi	\027&l1O	45	136
12 cpi	\027&l1O\027(s0p12H	45	163
16.66 cpi	\027&l1O\027&k2S	45	226
17.75* cpi	\027&l1O\027&k2s6.75H	45	240

Legal-size paper (using legal tray), 66 lines per page:

10 cpi	\027&l1o5.45C	66	136
12 cpi	\027&l1o5.45C\027(s0p12H	66	163
16.66 cpi	\027&l1o5.45C\027&k2S	66	226
17.75* cpi	\027&l1o5.45C\027&k2s6.75H	66	240

Legal-size paper (manual feed), 45 lines per page

10 cpi	\027&l84p2h1O	45	136
12 cpi	\027&l84p2h1O\027(s0p12H	45	163
16.66 cpi	\027&l84p2h1O\027&k2S	45	226
17.75* cpi	\027&l84p2h1O\027&k2s6.75H	45	240

Legal-size paper (manual feed), 66 lines per page:

10 cpi	\027&l84p2h1o5.45C	66	136
12 cpi	\027&l84p2h1o5.45C\027(s0p12H	66	163
16.66 cpi	\027&l84p2h1o5.45C\027&k2S	66	226
17.75* cpi	\027&l84p2h1o5.45C\027&k2s6.75H	66	240

*17.75 pitch is simulated by reducing the amount of space between characters.

PrintGraph

This section will assist you in the setup and use of Lotus PrintGraph as it relates to your LaserJet printer. Additional information can be found in your 1-2-3 *Reference Manual*.

Load Lotus At your DOS prompt, type **LOTUS** and press **[Return]** to display the 1-2-3 Access System.

Select PrintGraph Use your cursor keys to highlight *PrintGraph*, then press **[Return]** to run the *PrintGraph* program.

Select Settings

```
Copyright 1986 Lotus Development Corp.   Release 2.01   MENU
-----
Define Hardware and Graph Settings
Image-Select Settings  Go  Align  Page  Exit
```

Select Hardware

```
Copyright 1986 Lotus Development Corp.   Release 2.01   MENU
-----
Specify Hardware Setup
Image Hardware  Action  Save  Reset  Quit
```

Select Interface

```
Copyright 1986 Lotus Development Corp.   Release 2.01   MENU
-----
Set type of connection to graphics printer
Graphs-Dir  Fonts-Dir Interface  Printer  Size-Paper  Quit
```

Select 1 for *Parallel 1* if you entered the mode commands previously explained in the *Printer Port Configuration* section of this note. Otherwise, select the number that is appropriate for your PC/printer configuration.

Select Printer

```
Copyright 1986 Lotus Development Corp.   Release 2.01   MENU
-----
Set type of connection to graphics printer
Graphs-Dir  Fonts-Dir  Interface Printer  Size-Paper  Quit
```

Highlight A Selection Press The [Space Bar] Then Press [Return]

```
Copyright 1986 Lotus Development Corp.   Release 2.01   MENU
-----
Select graph output device
Type of Graphic Output
[SPACE] turns mark (#) on and off
[RETURN] Selects marked device
HP LaserJet          (prints @ 75 dots/inch)
#HPLaserJet+ Low den. (prints @ 100 dots/inch)
HPLaserJet+ Hi den.  (prints @ 300 dots/inch)
```

Select Size-Paper

```
Copyright 1986 Lotus Development Corp. Release 2.01 MENU
Set type of connection to graphics printer
Graphs-Dir Fonts-Dir Interface Printer Size-Paper Quit
```

Letter-size Paper, Portrait Orientation - set the length at 11.000 and the width at 8.500.

Letter-size Paper, Landscape Orientation - set the length 8.500 and the width at 11.000.

The use of legal-size paper with PrintGraph is explained later.

Select Quit (twice)

After you have specified the correct Interface, Printer, and Size-Paper selections, select **Quit** twice to return to the *Settings* menu.

Select Action

```
Copyright 1986 Lotus Development Corp. Release 2.01 MENU
Switch Action Options on and off
Image Hardware Action Save Reset Quit
```

1. Set Pause to No
2. Set Eject to Yes
3. Select Quit

Select Save

Confirm that your Interface, Printer Type, Paper Size, and Action Options are set properly. If they are correct, select **Save** to write a new configuration file for PrintGraph.

```
Copyright 1986 Lotus Development Corp. Release 2.01 MENU
Save current settings
Image Hardware Action Save Reset Quit

GRAPH      IMAGE OPTIONS      HARDWARE SETUP
IMAGES     Size              Range Colors      Graphs Directory:
SELECTED   Top               .395 X Black      A:\
           Left              .750 A Black      Fonts Directory:
           Width           6.500 B Black     A:\
           Height        4.000 C Black     Interface:
           Rotate        .000 D Black      Parallel 1
           Font              E Black           Printer Type:
           1 BLOCK1          F Black           HP LaserJet+/hi
           2 BLOCK1          Paper Size
           Width           8.500
           Length        11.000

ACTION OPTIONS
Pause: No  Eject: Yes
```

PrintGraph Tasks

Portrait printing, landscape printing, and legal-size paper are discussed in this section.

Portrait Printing

To print graphs in the portrait orientation specify the following settings from the PrintGraph Main Menu:

[S]ettings [I]mage [S]ize [H]alf
[S]ettings [H]ardware [S]ize-Paper length = 11, width = 8.5

Landscape Printing

To print graphs in the landscape orientation specify the following settings from the PrintGraph Main Menu:

[S]ettings [I]mage [S]ize [F]ull
[S]ettings [H]ardware [S]ize-Paper length = 8.5, width = 11

If your application requires a custom size graph you must use PrintGraph's Manual Sizing option. Refer to the Lotus 1-2-3 Reference Manual for information on creating custom graphs.

Legal-size Paper

PrintGraph supports printing on legal-size paper if you have a legal-size paper tray. Specify the following settings for landscape:

[S]ettings [H]ardware [S]ize-Paper length = 8.5, width = 14

Specify Full, Half, or Manual image size. When using Manual, the width and length settings become dependent on the rotation setting (orientation).

Common Problems

This section provides a troubleshooting approach to solving many of the common problems associated with using Lotus 1-2-3 and a LaserJet printer. In most cases, these problems can be avoided if you follow the guidelines in the **General Information** and **Common Tasks** sections of this application note.

Installation

A number of problems can be avoided if you properly install Lotus 1-2-3 and specify the correct printer defaults. Refer to the **Installation** section of this note for step-by-step instructions. To quickly check your printer defaults, press [/] [W]orksheet [G]lobal [D]efault [S]tatus. Recommended defaults are shown in the screen below.

```

A1:                                     STAT
Printer:
Interface..... Parallel 1
Auto-linefeed.. No
Margins
  Left 0           Top 0
  Right 80        Bottom 0
Page length... 60
Wait..... No
Setup string..
Name..... Unlisted No Backspace
  
```

Pages Don't Eject

Problem: The last page of each spreadsheet is not automatically ejected.

Cause: LaserJet printers will eject a page only when the page is full or a form feed command is received. Lotus 1-2-3 does not send a form feed command.

Solution: Take the printer off line and press the printer's FORM FEED key.

"Creeping" Text

Problem: The first page of your spreadsheet prints properly but subsequent pages have larger and larger top margins (i.e., creep down).

Cause: The number of lines of text—including the top margin, bottom margin, and page length—must not exceed the printer's text length.

Solution: Set your *Page Length* according to your setup string (see **Common Tasks**). Press [/] [P]rint [P]rinter

[O]ptions [O]ther and specify [U]nformatted if your spreadsheet doesn't have headers, footers, or borders.

"Printer Error"

Problem: The message "Printer Error" appears when you print your spreadsheets.

Causes: 1) Improper printer/computer configuration. 2) Improper Worksheet Global Default Printer Interface selection.

Solutions: 1) See *Nothing Prints* below. 2) With some computers, interface selection *Dos Device LPT1:* works better than interface selection *Parallel 1*. Press [/] [W]orksheet [G]lobal [D]efault [P]rinter [I]nterface and select [5]Dos Device LPT1:. Then press [Q]uit [U]pdate [Q]uit to save the selection.

Nothing Prints

Problem: Printer does not print.

Causes: 1) Printer received only a partial page and no form feed command. 2) Improper printer/computer configuration. 3) Improper Worksheet Global Default Printer Interface selection.

Solutions: 1) If the printer's Form Feed light is on, take the printer off line and press the FORM FEED key to eject the page. 2) Make sure the proper DOS MODE commands are in your *AUTOEXEC.BAT* file—refer to the *Printer Port Configuration* section of this note. 3) Refer to *Select Your Default Settings* in the **Installation** section of this note.

All Print Is On One Line

Problem: The entire spreadsheet printed on a single line (this usually appears as a nearly solid black line at the top of the page).

Cause: LaserJet printers do not automatically advance a line upon receipt of a carriage return. They must receive both a carriage return and a linefeed.

Solution: Press [/] [W]orksheet [G]lobal [D]efault [P]rinter [A]uto-linefeed and specify [N]o. Then press [Q]uit [U]pdate [Q]uit to save the selection.

Other Problems

If you are having other types of problems, or if the suggestions provided in this section have not resolved the problem:

1. Read the **General Information** section of this application note.
2. Try printing similar spreadsheets. Is the problem isolated to one spreadsheet? If so, check for differences in print settings.
3. Repeat the installation procedures.
4. Refer to your Lotus *Reference Manual* or call Lotus Technical Support if you need assistance in using 1-2-3 functions or macros.



5. Call **Hewlett-Packard's LaserJet Assist Line**

Telephone (208) 323-2551
Hours (Mon, Tue, Thu, Fri) 7:00am to 6:00pm MST
Wednesdays 7:00am to 4:00pm MST



When you call Hewlett-Packard, call from a phone next to your computer and LaserJet printer. Assisting you often requires access to your printer and Lotus.

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Microsoft Corporation

Customer Support Number (206) 882-8089 ext. 112
 Hours 6:00am to 6:00pm PST
 Charge None
 Required Identification None

Product Upgrade Policies and Procedures - A *SUPPLEMENTAL PRINTER DISK 1* can be purchased from Customer Service for \$15. (A local Microsoft Word dealer may be able to provide these additional printer description files free of charge.) Microsoft Customer Support also offers a *WORD 4.0 SERIES II DRIVERS* disc which supports legal-size paper printed in the landscape orientation.

Customer Service Number (206) 882-8088

2 Microsoft Word

Supported Fonts

<p>Cartridge Fonts 92286... A, B, C, D, E, F, G, H, J, K, L, M, N, O, P, Q, R, T, U, V, W, X, Y, Z</p> <p>Cartridge Fonts 92290... S1*</p>	<p>Soft Fonts 33412... AC, AD, AE, AF, DA, EA, RA, SA, TA, UA</p> <p>Super Fonts 33412... AG*</p>
---	--

*These fonts are supported by Microsoft's *SUPPLEMENTAL PRINTER DISK 1*.

Microsoft Word's support of symbol sets and extended characters is sometimes limited. Refer to *Printing Special Characters* in the **Common Tasks** section of this application note.

Unsupported Fonts

<p>Cartridge Fonts 92286... W1</p> <p>Cartridge Fonts 92290... S2</p>	<p>Soft Fonts 33412... RB, SB, TB, UB</p> <p>Super Fonts 33412... ..</p>
---	--

Note 

Advanced users can use Microsoft Word's *MAKEPRD* program to edit or create printer description files for unsupported fonts. Microsoft's *MERGEPRD* program can be used to combine printer description files. Refer to Microsoft Word's documentation or call Microsoft Customer Support if you need assistance.

Installation

Using Word 4.0 with your printer requires that you install the appropriate Printer Descriptions (PRDs). Microsoft provides LaserJet printer PRDs which support the following:

- Internal and Cartridge Fonts in Portrait Orientation
- Internal and Cartridge Fonts in Landscape Orientation
- Hewlett-Packard Soft Fonts

Supplemental printer discs can be obtained from Microsoft Corporation to support the LaserJet IID printer's PC-8 and LaserJet series II printer's IBM-US symbol sets and the printing of legal-size paper in the landscape orientation.

The paragraphs which follow outline the installation of Word's internal font, cartridge font, and soft font PRDs. If you have not installed Word, you must do so before proceeding—see the *Using Microsoft Word* manual.

What is Required

Diskettes: *PRINTER DISK 1*, *PRINTER DISK 2*, and *SUPPLEMENTAL PRINTER DISK 1*
Manuals: *Using Microsoft Word* and *Microsoft Word Printer Information*

The steps below will install all of the LaserJet printer PRD files located on each disc. If you are familiar with Word and DOS you may want to install only those PRDs that are required for your particular LaserJet printer configuration.

Internal and Cartridge Font PRD Installation

To install Word's internal and cartridge font Printer Descriptions:

1. Insert *PRINTER DISK 1* in drive A.
2. At your DOS prompt, type:

COPY A:HPLAS*. * C:\WORD and press [Return]¹

3. Insert *PRINTER DISK 2* in drive A.
4. At your DOS prompt, type:

COPY A:HP*. * C:\WORD and press [Return]
COPY A:TTYFF*. * C:\WORD and press [Return]

¹ If you installed Word in a subdirectory other than C:\WORD, specify that subdirectory.

5. Insert *SUPPLEMENTAL PRINTER DISK 1* in drive A.

6. At your DOS prompt, type:

COPY A:HPLAS*. * C:\WORD and press [Return]

Soft Font PRD Installation

If you do not plan to use Hewlett-Packard soft fonts with Word proceed to the **General Information** section of this note.

1. Insert *PRINTER DISK 1* in drive A.

2. At your DOS prompt, type:

COPY A:DOWN.EXE C:\WORD and press [Return]
COPY A:HPDWN*. * C:\WORD and press [Return]

3. Insert *SUPPLEMENTAL PRINTER DISK 1* in drive A.

4. At your DOS prompt, type:

COPY A:HPDWN*. * C:\WORD and press [Return]

Soft Font Installation

Microsoft Word's printer descriptions for HP soft fonts automatically download soft fonts. If you plan to use soft fonts with Word follow the steps below to install your fonts.

Note



Your soft font files must be copied to the same subdirectory as the soft font PRD and DAT files. Failure to do so will prevent Word from downloading your soft fonts.

1. Insert soft font disc #1 in drive A.

2. At your DOS prompt, type:

COPY A:*. * C:\WORD and press [Return]²

3. Repeat steps one and two for each soft font disc.

You can use one of Hewlett-Packard's utilities (e.g., Font-Load) to download your soft fonts. However, Word will delete all of your soft fonts from the printer's memory unless you instruct Word to skip the downloading procedure when you print your documents.

² If you installed the soft font PRD and DAT files in a subdirectory other than C:\WORD, specify that subdirectory.

General Information

The information which follows is applicable to most of the documents you are likely to print using Microsoft Word 4.0 with your LaserJet printer. Read this information carefully as it will help you avoid many of the common problems discussed later in this application note.

Four Steps For LaserJet Printing

There are four basic steps to follow when printing Microsoft Word documents on an HP LaserJet printer:

- Identify the Correct Printer Description
- Plan Your Fonts
- Create the Document
- Specify the Correct Print Options

These steps are briefly explained below. Follow each step carefully and you will be able to print most documents quickly and easily.

- Step 1** The first step requires that you identify the appropriate Printer Description (PRD). Refer to the next section of this application note to identify the correct PRD for any internal, cartridge, or soft fonts you plan to use in your document.
- Step 2** After you identify the correct PRD, you must plan which fonts you will use in your document. In doing so, make sure the PRD you selected supports all of the fonts you plan to use. The *Identifying Supported Fonts* section of this note tells you how to determine which fonts are supported by a particular PRD.
- Step 3** As you create your document you will most likely change fonts, format paragraphs, etc. The **Common Tasks** section of this note will assist you with these tasks.
- Step 4** When it comes time to print your document you must specify the correct print options. These options are covered at the end of this section.

Identifying The Correct Printer Description

Use the tables below to identify the correct printer description for your LaserJet printer. Descriptions listed in the Landscape column support landscape fonts.

PRDs listed in the Legal Landscape column are available on the WORD 4.0 SERIES II DRIVERS disc and must be used when printing on legal-size paper in the landscape orientation.


Example

For a LaserJet IID printer, use the *HPLAS2S1* printer description. The fonts supported by this PRD most closely match the internal font offering of the LaserJet IID printer.

Internal Fonts

Model	Portrait	Landscape	Legal Landscape
LaserJet	HPLASER1	HPLASLAN	H2LEGLAN
LaserJet Plus	HPLASER1	HPLASLAN	H2LEGLAN
LaserJet 500 Plus ..	HPLASER1	HPLASLAN	H2LEGLAN
LaserJet series II ...	HPLASER1	HPLASLAN	H2LEGLAN
LaserJet IID	HPLAS2S1	HPLASLAN	H2LEGLAN
LaserJet 2000	HPLASER1	HPLASLAN	H2LEGLAN

Cartridge Fonts

Part Number	Portrait	Landscape	Legal Landscape
92286A	HPLASER1	HPLASLAN	H2LEGLAN
92286B	HPLASPS	HPLASLAN	H2LEGLAN
or	HPLASER1		
92286C	HPLASER1	HPLASLAN	H2LEGLAN
92286D	HPLASER1		
92286E	HPLASER1		
92286F	HPLASRMN		
or	HPLASER2		
92286G	HPLASER1	HPLASLAN	H2LEGLAN
92286H	HPLASER1	HPLASLAN	H2LEGLAN
92286J	HPLASER1		
or	HPLASER3		
92286K	HPLASER2		
92286L	HPLASER1	HPLASLAN	H2LEGLAN
92286M	HPLASER1	HPLASLAN	H2LEGLAN
92286N	HPLASER1	HPLASLAN	H2LEGLAN
92286P	HPLASER2	HPLASLAN	H2LEGLAN
92286Q	HPLASER1	HPLASLAN	H2LEGLAN
92286R	HPLASER2		
or	HPLASER3		
92286T	HPLASTAX		
92286U	HPLASER2	HPLASLAN	H2LEGLAN
92286V		HPLASLAN	H2LEGLAN
92286W	HPLASER1		
92286X	HPLASER1		
92286Y	HPPCCOUR		
92286Z	HPLASMS	HPLASMSL	H2LEGMSL
or	HPLASER3		
92290S1	HPLAS2S1*		

*The HPLAS2S1 PRD is contained on Microsoft's SUPPLEMENTAL PRINTER DISK 1. Call Microsoft to order this disc.

Soft Fonts

Part Number	Portrait	Landscape	Legal Landscape
33412AC	HPDWNSFP	HPDWNSFL	H2LEGSFL
33412AD	HPDWNRP8P	HPDWNRP8L	H2LEGR8L
33412AE	HPDWNSFP	HPDWNSFL	H2LEGSFL
33412AF	HPDWNRP8P	HPDWNRP8L	H2LEGR8L
33412AG	HPDWNHHP*		
33412DA	HPDWNLGP	HPDWNLGL	H2LEGLGL
33412EA	HPDWNPRP	HPDWNPRL	H2LEGPRL
33412RA	HPDWNGAP		
33412SA	HPDWNCNP		
33412TA	HPDWNZHP		
33412UA	HPDWNHLP		

*The HPDWNHHP PRD is contained on Microsoft's SUPPLEMENTAL PRINTER DISK 1. Call Microsoft to order this disc.

Note



For a LaserJet IID or LaserJet series II printer, use PRDs that begin with "H2" instead of "HP" (e.g., H2LASER1, H2DWNSFP, etc). If you don't have these PRDs order Microsoft's *WORD 4.0 SERIES II DRIVERS* disc. This disc contains PRD files which support the PC-8 and IBM-US symbol sets. Support of these symbol sets is required if you use Word's line drawing feature.

Identifying Supported Fonts

This section explains how to determine which fonts are supported by Microsoft's printer descriptions.

Information about supported fonts is available from two sources:

- The *Microsoft Word Printer Information Manual*
- The *Microsoft Word Format Character Menu*

Your *Microsoft Word Printer Information* manual lists the internal, cartridge, and soft fonts supported by each PRD. If you received additional printer diskettes, refer to the documentation included with each disc.

You can also use Word's *Format Character* menu to determine which font names and sizes are supported.

1. Press [Esc] [P]rint [O]ptions [F1], highlight the desired printer description and press [Return]. Press [Esc] to exit the *Print* menu.
2. Press [Esc] [F]ormat [C]haracter.
3. Press [Tab] until the cursor is in the *font name* field.

4. Press [F1] to see which fonts are supported by the PRD selected in step 1.
5. To see what point sizes are supported, highlight the desired font then [Tab] to the *font size* field.
6. Press [F1]. Word will display the supported point sizes for the font selected in step 5.

Specifying The Correct Print Options

Proper printing is dependent upon your specifying the correct print options.

To access Word's *Print Options* menu, press [Esc] [P]rint [O]ptions. A screen similar to the following will appear.

PRINT OPTIONS printer: HPLAS2S1	setup: LPT1:
copies: 1	draft: Yes(No)
hidden text: Yes(No)	summary sheet: Yes(No)
range:(All)Selection Pages	page numbers:
widow/orphan control:(Yes)No	queued: Yes(No)
feed: Manual(Continuous)Bin1 Bin2 Bin3 Mixed	

A brief discussion and the correct selections for some of these options follows. Refer to the *Microsoft Word Reference* manual for a detailed explanation of each option.

Printer Specifies the name of the printer description (PRD) file. Press [F1] to display a list of available printer names. Select the correct PRD for your LaserJet printer—see *Identifying The Correct Printer Description* earlier in this section or refer to the *Microsoft Word Printer Information* manual.

Setup Designates which port the printer is attached to. If the proper DOS MODE commands have been entered into your *AUTOEXEC.BAT* file, selection LPT1: will always work regardless of which port the printer is actually connected to.

Feed Word supports the following paper feed options:

- Continuous—upper paper tray on all LaserJet printers
- Bin 1—upper paper tray on LJ IID, LJ 500+, LJ 2000
- Bin 2—lower paper tray on LJ IID, LJ 500+, LJ 2000
- Bin 3—paper deck on LaserJet 2000 printer
- Mixed—prints the first page (e.g., letterhead) from the upper paper tray; following pages from the lower tray

Note



Word's Manual feed selection does not select manual feed on LaserJet printers.

Common Tasks

This section will assist you with many of the tasks you are likely to print with your LaserJet printer.

Selecting Fonts

To select a font, you must know whether Word supports it and which PRD is used to access it. This information can be found in the **General Information** section of this note and in the *Microsoft Printer Information* manual. Once you determine that the font is supported and which PRD to use follow these steps:

1. If you have not already done so, go to Word's *Print Options* menu and specify the appropriate *printer* (PRD)—press [Esc] [P]rint [O]ptions and enter the PRD name or press [F1] to see a list of available PRDs. If the necessary PRD is not listed install it according to the **Installation** section of this note.
2. Select the text you want to format. Refer to your *Using Microsoft Word* manual for keystrokes.
3. Press [Esc] [F]ormat [C]haracter.

FORMAT CHARACTER		
bold: Yes No	italic: Yes No	underline: Yes No
strikethrough: Yes No	uppercase: Yes No	small caps: Yes No
double underline: Yes No	position: Norm	Superscript Subscript
font name: Courier	font size: 12	hidden: Yes No

4. Choose an option in the appropriate fields.

Bold, Italics and Underlining

Bold, italics, underlining, and double underlining are selected by tabbing to the appropriate field and choosing Yes.

Typeface

Typefaces (e.g., Courier, TmsRmn, Letter Gothic) are selected by tabbing to *font name* and entering the desired font. Pressing [F1] will display a listing of fonts supported by the PRD selected in step 1.

Point Size

A font's point size (10, 12, 24, etc.) is selected by tabbing to *font size* and entering the desired point size. Press [F1] to see a list of supported point sizes for the specified font name.

5. Press [Return] to apply the selected format options.

6. If you selected a font with a point size greater than 12, you may need to change the line spacing in Word's *Format Paragraph* menu. To modify the line spacing, press [Esc] [F]ormat [P]aragraph, tab to the *line spacing* field and enter one of the following:

- 1 for Single line spacing 12 point fonts
- 1.5 for One and One-Half line spacing 18 point fonts
- 2 for Double line spacing 24 point fonts
- 2.5 for Two and One-Half line spacing 30 point fonts
- 3 for Triple line spacing 36 point fonts

You may find it easier to specify "Auto" line spacing. This will automatically adjust line spacing to accommodate the largest font size within each line.

Legal Paper

This section will guide you through printing on legal-size paper in portrait and landscape orientation with a legal-size paper tray.

Manually feeding legal-size paper requires that you embed printer commands or modify Microsoft's PRD files. Contact Microsoft Customer Support for assistance.

Portrait

If you have a legal paper tray and want to print legal-size paper in portrait orientation follow these steps.

1. Press [Esc] [P]rint [O]ptions and select a PRD that supports the portrait fonts you plan to use in your document.
2. Press [Esc] to exit the *Print* menu.
3. Press [Shift F10] to select your entire document.
4. Press [Esc] [F]ormat [D]ivision [M]argins and specify the following:

- Top Margin 0.30" or greater
- Bottom Margin 0.17" or greater
- Page Length 14.0"
- Page Width 8.0"

Landscape

If you have a legal paper tray and want to print legal-size paper in landscape orientation, you must have Microsoft's *WORD 4.0 SERIES II DRIVERS* disc. If you have this disc, follow the steps below.

1. Press **[Esc]** **[P]**rint **[O]**ptions and select a SERIES II PRD (usually H2LEGLAN) that supports the landscape fonts you plan to use in your document.
2. Press **[Esc]** to exit the *Print* menu.
3. Press **[Shift F10]** to select your entire document.
4. Press **[Esc]** **[F]**ormat **[D]**ivision **[M]**argins and specify the following:

Top Margin 0.00" or greater
Bottom Margin 0.50" or greater
Page Length 8.0"
Page Width 13.6"

Printing Envelopes

Microsoft Word provides macros for printing business and letter-size envelopes on a LaserJet IID and LaserJet series II printer. To print envelopes on a LaserJet, LJ+ or LJ 500+ printer, or to print DL and C5 envelopes, these macros must be modified. This section will assist you in both using and modifying these macros.

Installing Macros

The first time you print envelopes, you must install Word's Macro Glossary file, *MACRO.GLY* as follows:

1. Press **[Esc]** **[T]**ransfer **[G]**lossary **[M]**erge **[F1]**. The *MACRO.GLY* file should appear on your screen. Highlight *MACRO.GLY* and press **[Return]**. If this file is not listed on your screen, insert Word's *UTILITIES/SETUP DISK* in drive A, enter **A:MACRO.GLY** and press **[Return]**.
2. Press **[Esc]** **[T]**ransfer **[G]**lossary **[S]**ave and press **[Return]**.

This macro installation procedure does not need to be repeated in the future unless you have trouble accessing the envelope macros.

Printing

1. Press [**Esc**] [**P**]rint [**O**]ptions and specify *TTYFF* as the *printer* before you try to access the envelope macros. These macros will work only if this PRD is selected.
2. Press [**Esc**] to exit the *Print* menu.
3. Enter the addresses as you normally would. If you enter more than one address, you must separate each address with a page break; hold down the [**Shift**] and [**Ctrl**] keys then press [**Return**]. Page breaks appear as a row of periods on your screen.
4. Hold down the [**Shift**] key and press [**F10**] to highlight the entire document.
5. Read the following information about each macro.

The *HP-bus-env-manual* macro supports manually fed Business-size (COM-10) envelopes (4¹/₈" x 9¹/₂").

The *HP-ltr-env-manual* macro supports manually fed Letter-size (Monarch) envelopes (3⁷/₈" x 7¹/₂").

The *HP-bus-env-tray* macro supports Business-size (COM-10) envelopes (4¹/₈" x 9¹/₂") fed from the optional LaserJet series II and LaserJet IID Envelope Tray (HP 92295F).

The *HP-ltr-env-tray* macro supports Letter-size (Monarch) envelopes (3⁷/₈" x 7¹/₂") fed from the optional LaserJet series II and LaserJet IID Envelope Tray (HP 92295F).

6. Press [**Esc**] [**I**]nsert [**F1**] and select the appropriate envelope macro.

Note



If Word displays the message "Enter Y to retry access to C:\WORD\TTYFF.PRD" you must install the *TTYFF* PRD. Refer to the **Installation** section of this application note.

7. When the macro completes its functions make sure your document looks similar to the one below.

Printer Command ⇒	←E←&l81a1o2h11E←&a35L
First Address ⇒	Hewlett-Packard Company Boise Division 11311 Chinden Blvd. Boise, ID 83714-1021
Page Break ⇒	..... Hewlett-Packard Company
Second Address ⇒	Boise Division P.O. Box 15 Boise, ID 83707-0015
Format Division ⇒	.....

To print envelopes on a LaserJet, LaserJet Plus, LaserJet 500 Plus printer, or to print DL (110mm x 220mm) or C5 (162mm x 229mm) envelopes you must modify the printer command. Modified printer commands for these models of LaserJet printers and sizes of envelopes are listed below.

Manually Fed	←E←&l1o3h33E←&a39L — Business-size (COM-10)
	←E←&l1o3h32E←&a80L — Letter-size (Monarch)
	←E←&l1o3h22E←&a74L — DL (LJ IID and series II)
	←E←&l1o3h31E←&a48L — DL (LJ, LJ+, LJ500+)
	←E←&l1o3h22E←&a69L — C5 (LJ IID and seires II)
	←E←&l1o3h26E←&a42L — C5 (LJ, LJ+, LJ 500+)
Envelope Tray	←E←&l91a1o13E←&a23L — DL (LJ IID and series II)
	←E←&l90a1o7E←&a23L — C5 (LJ IID and series II)

To enter these printer commands modify the command inserted by the macro or follow the instructions in the *Embedding Printer Commands* section of this note.

Printing Special Characters

Special characters can be printed if your LaserJet printer has an internal, cartridge, or soft font that supports the character and if Microsoft Word's PRD fully supports that font.

Refer to your LaserJet printer manual to determine whether your printer's internal fonts support a particular character or symbol. If you have an optional cartridge font or soft font, refer to the documentation that accompanied the font.

Follow the steps below to identify which special characters and symbols a Microsoft Word PRD supports and what decimal value Word has assigned the character—this decimal value may not be the same as that assigned by Hewlett-Packard.

1. Insert Microsoft's *WORD 4.0 SERIES II DRIVERS* disc in drive A. (This disc must be ordered from Microsoft).
2. Press [Esc] [T]ransfer [L]oad.
3. Enter **A:HPEXTCHR.DOC** and press [Return].

When this file has been loaded, read the instructions at the top of the document.

4. Press [Esc] [P]rint [O]ptions and select the printer (PRD) to be tested.
5. Press [Esc] to exit the *Print* menu.
6. Hold down the [Shift] key and press [F10] to select the entire document.
7. Press [Esc] [F]ormat [C]haracter and specify the *font name* and *font size* of the internal, cartridge, or soft font to be tested.
8. Print the document.

This *HPEXTCHR* document lists the decimal values that Word assigns to each character. If a character is not printed on the printout, it is not supported by the PRD selected in Step 4.

To access supported extended characters in your document, hold down the [Alt] key and use your computer's numeric keypad to enter the character's decimal value.

Example

To access a character with decimal value 253, hold down the [Alt] key and enter 253 on the computer's numeric keypad.

Formatting And Printing Labels

The steps and table which follow provide instructions and format settings for adhesive labels available from Avery International (1-800-535-3232 Ext. 30).

1. Press [**Esc**] [**P**]rint [**O**]ptions and specify *HPLASER1* as the printer.
2. Format your labels document according to the settings provided in the following table. If you choose to adjust these settings, make sure your top and bottom margins combined do not exceed one inch and that you use only one format line.

AVERY PRODUCT CODE (Label Dimensions)	5160 (2 ⁵ / ₈ " x 1")	5161 (4" x 1")	5162 (4" x 1 ¹ / ₂ ")
Margins [Esc] [F]ormat [D]ivision [M]argins			
Top Margin	.70"	.75"	.50"
Bottom Margin	.15"	.25"	0"
Left Margin	.15"	.15"	.25"
Right Margin	0"	0"	0"
Layout [Esc] [F]ormat [D]ivision [L]ayout			
Number of Columns	3	2	2
Space Between Columns	.05"	.02"	.15"

3. Load labels in the letter-size paper tray. Use the lower paper tray on the LaserJet IID and LaserJet 500 Plus printer.

Note



You must set Duplex=OFF on the LaserJet IID printer's menu. Also, select reverse order output on the LaserJet IID, LaserJet series II, and LaserJet 500 Plus printer. Refer to your LaserJet printer manual for instructions on selecting reverse order output. The LaserJet 2000 printer does not support adhesive labels!

4 Line Addresses

Use Avery 5160 or 5161 labels for 4 line addresses. Separate each address with 2 blank lines.

6 Line Addresses

Use Avery 5162 labels for 6 line addresses. Separate each address with 3 blank lines.

Drawing Lines And Boxes

Line and box drawing characters are resident in the LaserJet IID printer's PC-8 symbol set, LaserJet 2000 printer's PC-8 symbol set, and the LaserJet series II printer's IBM-US symbol set. Other LaserJet printer models require an optional cartridge font, such as HP 92286Y or HP 92286R, which contains line and box drawing characters.

Microsoft's line and box drawing feature will work with the PC-8 and IBM-US symbol sets if you have Microsoft's *WORD 4.0 SERIES II DRIVERS* disc. This disc contains PRD files that support the PC-8 and IBM-US symbol sets.

Embedding Printer Commands

For features not supported by Word's PRDs, printer commands can be embedded in documents. The steps are as follows:

1. To enter the escape control character, Esc , hold down the [Alt] key and use your computer's numeric keypad to enter 027. If you make this entry correctly, an ← will appear on your screen when you release the [Alt] key.
2. Immediately following the ← symbol, enter the remainder of the printer command in its ASCII form. *There should be no spaces in the command!*

Example

To embed the printer command $\text{Esc}\&l84P$, hold down the [Alt] key and enter 027 on your computer's numeric keypad. Release the [Alt] key and enter the remaining ASCII characters, $\&l84P$. This embedded command will appear as follows in your document: ← $\&l84P$

Setting Page Length

When you set the *page length* in Word's *Format Division Margins* menu make sure you enter the correct value. Valid page lengths are:

Letter Paper	11 inches
Legal Paper	14 inches
Executive Paper	10.5 inches
A4 Paper	11.6 inches

If you specify an invalid page length your LaserJet printer may request the improper size of paper.



Common Problems

This section provides a troubleshooting approach to solving many of the common problems associated with using Microsoft Word 4.0 and a LaserJet printer. In most cases, these problems can be avoided if you follow the guidelines presented in the **General Information** and **Common Tasks** sections of this application note.

"Creeping" Text

Problem: The first page of your document prints properly, but subsequent pages have larger and larger top margins (i.e., creep down).

Causes: 1) Failure to specify the correct printer. 2) Invalid page length specification.

Solutions: 1) Press [Esc] [P]rint [O]ptions [F1] and select the correct LaserJet PRD (e.g., HPLASER1). 2) Press [Esc] [F]ormat [D]ivision [M]argins and specify a valid page length setting—11" for letter, 14" for legal, 10.5" for executive, 11.6" for A4.

PC Load Exec or PC B5 Message

Problem: The LaserJet printer displays a "PC Load Exec" or "PC B5" message when you print your document.

Causes: 1) Invalid page length specification. 2) Improper Form (lines-per-page) setting on the LaserJet IID or LaserJet series II printer control panel.

Solutions: 1) Press [Esc] [F]ormat [D]ivision [M]argins and specify a valid page length setting—11" for letter, 14" for legal, 10.5" for executive, 11.6" for A4. 2) Take the printer off line and hold down the RESET MENU key until "09 Menu Reset" is displayed.

Incorrect Font

Problem: When you print the document, some or all of the text is printed in an incorrect font.

Causes: 1) The font cartridge containing the desired font(s) is not firmly inserted in the printer. 2) You did not select the font(s) properly. 3) The soft font files(s) are not copied to your Word subdirectory.

Solutions: 1) Take the printer off line and re-insert the font cartridge—push firmly until the cartridge "clicks" into place. 2) Refer to the *Selecting Fonts* section of this note. 3) Refer to the *Soft Font Installation* section of this note.

Error 21 or Text Printing On One Line

Problem: The LaserJet printer displays a "21 ERROR" message or lines of text are printed on top of each other.

Cause: Line spacing specified as 0.

Solution: Press [F10] to highlight the problem paragraph, then press [Esc] [F]ormat [P]aragraph and specify a valid line spacing value.

Other Problems

If you are having other types of problems, or if the suggestions provided in this section have not resolved the problem:

1. Read the **General Information** and **Common Tasks** sections of this application note.
2. Try printing similar documents. Is the problem isolated to one document? If so, find and delete invalid or misplaced format selections in the problem document.
3. Repeat the installation procedures. This will help ensure proper installation of the correct Printer Description (PRD) file.
4. Refer to your Microsoft Word manuals or call Microsoft Customer Support if you need assistance in using Word's functions.
5. Call **Hewlett-Packard's LaserJet Assist Line**



Telephone (208) 323-2551
Hours (Mon, Tue, Thu, Fri) 7:00am to 6:00pm MST
Wednesdays 7:00am to 4:00pm MST

Note



When you call Hewlett-Packard call from a phone next to your computer and LaserJet printer. Assisting you often requires access to your printer and Microsoft Word document.

Ashton-Tate Corporation

Word Processing Support (203) 289-6300
 Technical Support (203) 247-3445
 Hours 9:00am to 7:00pm EST
 Charge None
 Required Identification Software Registration #

Product Upgrade Policies and Procedures - Product upgrade requests can be made directly to Ashton-Tate. Updated Printer Action Tables (PATs) can be obtained through Ashton-Tate Technical Support.

Supported Fonts

Cartridge Fonts 92286... A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, T, U, V, W, X, Y, Z Cartridge Fonts 92290... S1, S2	Soft Fonts 33412... AC, DA, EA Super Fonts 33412... -
--	--

The MultiMate *PRINTER TABLES DISK* shipped with your copy of Advantage II may not contain Printer Action Tables for the 92286Z, 92290S1, and 92290S2 cartridges. Call Ashton-Tate Technical Support to obtain these PATs.

Note

MultiMate's soft font PATs support selected soft fonts from each soft font family (AC, DA, and EA). Read the *LJETPLUS.DOC* file—located in the \LJETPLUS subdirectory on the *CONVERSIONS 2* diskette. This file provides important information about using soft fonts with Advantage II.

Unsupported Fonts

Cartridge Fonts 92286... W1 Cartridge Fonts 92290... -	Soft Fonts 33412... AD, AE, AF, RA, SA, TA, UA, RB, SB, TB, UB Super Fonts 33412... AG
---	--

Advanced users can modify MultiMate's generic Printer Action Tables to support the "unsupported" soft fonts listed above. Generic PATs are contained in the \LJETPLUS subdirectory of the *CONVERSIONS 2* diskette. Print the *LJETPLUS.DOC* file—located in the same subdirectory—for more information. Character Width Tables for some "unsupported" soft fonts can be obtained from Ashton-Tate Technical Support.

Installation

Using MultiMate Advantage II with your LaserJet printer requires that you:

- Install MultiMate's Printer Action Tables
- Edit MultiMate's Printer Defaults

What is Required

Diskettes: *PRINTER TABLES DISK* and *CONVERSIONS 2*
Manuals: *Getting Started for 5¹/₄" Disks* or *Getting Started for 3¹/₂" Disks*

Install MultiMate's Printer Action Tables

The paragraphs which follow outline the process of installing MultiMate's Printer Action Tables and their associated Character Width Tables (CWTs). If you have not installed MultiMate, you must do so before proceeding. Refer to MultiMate's *Getting Started* manual.

Note



The DOS commands in steps 2 and 4 assume MultiMate is in the C:\MM subdirectory. If you installed MultiMate in a subdirectory other than C:\MM, specify that subdirectory.

To install MultiMate's internal and cartridge font Printer Action Tables:

1. Insert the *PRINTER TABLES DISK* in drive A.
2. At your DOS prompt, type:

```
COPY A:\PRINTERS\LJ*.* C:\MM  
and press [Return].
```

If you do not plan to use Hewlett-Packard soft fonts with MultiMate skip the following three steps.

3. Insert the *CONVERSIONS 2* diskette in drive A.
4. At your DOS prompt, type:

```
COPY A:\LJETPLUS\LJET*.* C:\MM  
and press [Return].
```

5. Load Advantage II and print the *LJETPLUS.DOC* file. This file is located on the *CONVERSIONS 2* diskette in the \LJETPLUS subdirectory. You must read this document before using MultiMate's soft font PATs.

Edit MultiMate's Printer Defaults

The instructions which follow will guide you through the process of editing MultiMate's printer defaults. Additional information is contained in the *MultiMate Advantage II Using Manual*.

Load MultiMate At your DOS prompt, type **WP** and press **[Return]** to load MultiMate.

Select [4] From the Main Menu select *4 Additional Print Functions*.

Select [2] At the Additional Print Functions menu select *2 Edit Printer Defaults*.

EDIT PRINTER DEFAULTS			
Start Print At Page Number	001	Left Margin	008
Stop Print After Page Number	999	Top Margin	000
Enhanced [N] / Draft [Y]	Y	Double Space The Document [N or Y]	N
Number Of Original Copies	001	Default Pitch [4 = 10 CPI]	4
Printer Action Table (PAT)	LJETFS1	Sheet Feeder Action Table(SAT)	
Use:(P)arallel/(S)erial/(F)ile/(L)ist		Sheet Feeder Bin Numbers [0 - 3]	
(A)uxiliary/(C)onsole	P	First Page 0 Middle 0 Last Page 0	
Device Number	001	Char. Width/Translate (CWT)	
Pause Between Pages [N or Y]	N	Background / Foreground [B or F]	B
Print Comments [N or Y]	N	Justification [N or Y or (M)icro]	N
Print Doc. Summary Screen [N or Y]	N	Proportional Spacing [N or Y]	N
Print This Screen [N or Y]	N	Lines Per Inch [6 or 8]	6
Header / Footer First Page Number	001	Paper Length (lines per page)	060
Starting Footnote Number[1 - 749]	001	Default Font	A
		Remove Queue Entry When Done [Y or N]	Y
Press F10 when finished, ESC to exit			
Press F1 for PATs, F2 for SATs, F3 for CWTs			

Recommended	Enhanced [N] / Draft [Y]	Y
Printer Defaults	Printer Action Table (PAT)	LJETFS1
	Use:(P)arallel/(S)erial/(F)ile/(L)ist	P
	Left Margin	008
	Top Margin	000
	Double Space The Document	N
	Default Pitch	4
	Proportional Spacing	N
	Lines Per Inch	6
	Paper Length	060
	Default Font	A

These settings act as defaults only. MultiMate gives you the opportunity to override any one or all of these settings before you print a document.

Detailed explanations for most of the above settings are provided in the **General Information** section of this note.

General Information

The information which follows is applicable to most of the documents you are likely to print using Advantage II with your LaserJet printer. Read this information carefully as it will help you avoid many of the common problems discussed later in this application note.

Five Basic Steps For HP LaserJet Printing

Ashton-Tate suggests that there are five basic steps to follow for successful HP LaserJet printing with Advantage II:

- Identify the Correct Printer Action Table
- Plan Your Document Fonts
- Create the Document
- Specify the Document Print Options
- Insert Font Cartridges or Download Soft Fonts

These five steps are briefly explained below. Follow each step carefully and you will be able to print most documents quickly and easily.

- Step 1** The first step to LaserJet printing requires that you select the appropriate Printer Action Table (PAT). Refer to the next section of this application note to identify the correct PAT for any internal, cartridge, or soft fonts you plan to use in your document.
- Step 2** After you have selected the appropriate PAT, you must plan which fonts you will use in your document. In doing so, make sure the PAT you selected supports all of the fonts you plan to use. The *MultiMate Printer Action Tables* section of this note lists the fonts supported by each PAT.
- Step 3** As you create your document you will most likely change fonts, insert format lines, specify margins, etc. The **Common Tasks** section of this note will assist you with these tasks.
- Step 4** When it comes time to print your document MultiMate gives you the opportunity to specify Document Print Options. These options are covered at the end of this section.
- Step 5** Sometimes the most "obvious" steps are the ones forgotten. If you are using cartridge fonts make sure the font cartridge is firmly seated in the printer. Soft font files must be copied to your MultiMate subdirectory. Refer to Appendix B of the *LJETPLUS.DOC* file located on the *CONVERSIONS 2* disc.

Identify The Correct Printer Action Table

Use the tables below to identify the correct Printer Action Table for your printer.

Example

For a LaserJet IID printer and an HP 92290S2 font cartridge, use the *LJIIS2* Printer Action Table. If your *PRINTER TABLES DISK* does not contain this PAT read the note at the bottom of this page.

Internal Fonts

LaserJet	LJETFS1
LaserJet+	LJETFS1
LaserJet 500+	LJETFS1
LaserJet series II	LJETFSII or LJETFS1
LaserJet IID	LJETFSII or LJETFS1
LaserJet 2000	LJ2000P, LJ2000L, 2000PS, or LJETFS1

Cartridge Fonts

92286A	LJETFS1
92286B	LJETPS1 (use LJETFS1 to access Lineprinter font)
92286C	LJETFS1
92286D	LJETFS1
92286E	LJETFS1
92286F	LJETPS1 (use LJETFS1 to access Lineprinter font)
92286G	LJETFS1
92286H	LJETFS1
92286J	LJETFS2
92286K	LJETPS1
92286L	LJETFS2
92286M	LJETFS2
92286N	LJETFS2
92286P	LJETPS2
92286Q	LJETFS2
92286R	LJETFS3
92286T	LJETPS2 or LJETFS3
92286U	LJETPS2 or LJETFS3
92286V	LJETPS2 or LJETFS3
92286W	LJETFS3
92286X	LJETFS3
92286Y	LJETFS3
92286Z	LJETPS3
92290S1	LJIIS1
92290S2	LJIIS2

Soft Fonts

33412AC	LJETTMS or LJETHLV
33412DA	LJETGTH
33412EA	LJETPRE

Note



Your *PRINTER TABLES DISK* may not contain the Printer Action Tables printed in boldface (e.g., **LJETFSII**). To obtain these PATs, call Ashton-Tate Technical Support. Use the *LJETFS1* PAT until you receive the new PATs from Ashton-Tate.

MultiMate Printer Action Tables

The tables in this section list the fonts supported by MultiMate's PATs. The Pitch, Description, and Cartridge or Soft Font associated with each font is also provided. A description of the columns in each table follows.

The information contained in these tables (excluding pitch) is available at anytime you are editing a document. To display the fonts supported by a PAT, press [Alt C], then [?].

Font The first column in each table lists the MultiMate Advantage II Font Letter. This font letter is used to specify the typeface for the text that follows a MultiMate Print Font command, [Alt C].

Pitch The second column lists the recommended pitch specification for each font.



You should always specify a font's pitch. Failure to do so may cause subsequent lines of text to print with improper character spacing. Refer to *Selecting Fonts* in the **Common Tasks** section of this application note.

Description The third column contains an abbreviated description of each font. The abbreviations used are described below.

The format of MultiMate PAT Font Descriptions is: Typeface/Style/Stroke Weight/Spacing/Point size/Orientation			
Typefaces:	COUR=Courier	LNPR=Line Printer	
	PREL=Prestige Elite	GOTH=Letter Gothic	
	TMSR=TmsRmn	HELV=Helv	
	PRES=Presentation	OCRA=OCR A symbols	
	BAR3=BAR 3 of 9 symbols	OCRB=OCR B symbols	
Styles:	U=Upright	I=Italics	
Stroke Weight:	M=Medium	B=Bold	L=Light
Spacing:	PS=Proportionally Spaced fonts		
	##=characters per inch for fixed spaced fonts		
Point Size:	##=point size of the font (72 points/inch)		
Orientation:	POR=Portrait	LAN=Landscape	

Cartridge/Soft Font The last column indicates which cartridge or soft font is required to access the font. Fonts which are internal to LaserJet printers are marked as such.

Example The first font listed in the *LJETFS1* PAT table is:

A 4 COUR/U/M 10/12 POR I/C

This indicates that Font A has a recommended pitch of 4 and supports a **COUR**ier, **U**pright, **M**edium, **10** Pitch, **12** Point, **POR**trait font available Internally and on the 92286C font cartridge.

**Internal and Cartridge
Printer Action Tables**

Supported fonts and their associated pitch are listed for MM's internal and cartridge font PATs in the tables below.

LJETFS1 PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	4	COUR/U/M 10/12 POR	I/C (1)	M	5	GOTH/U/M 12/12 POR	E
B	4	COUR/U/M 10/12 LAN	I (1)	N	5	GOTH/U/B 12/12 POR	E
C	8	LNPR/U/M 16/ 8 POR	I+/C/F (2)	O	5	GOTH/I/M 12/12 POR	E
D	4	COUR/U/B 10/12 POR	II/A/C (5)	P	5	PREL/U/M 12/10 POR	G (3)(4)
E	4	COUR/U/L 10/12 POR	A	Q	5	PREL/U/B 12/10 POR	G (3)(4)
F	8	LNPR/U/L 16/ 8 POR	A	R	5	PREL/I/M 12/10 POR	G (3)(4)
G	8	LNPR/U/L 16/ 8 LAN	B	S	8	PREL/U/M 16/ 7 POR	G/H (3)
H	4	COUR/I/M 10/12 POR	C	T	8	PREL/U/M 16/ 7 LAN	G/H (3)
I	8	LNPR/U/M 16/ 8 LAN	II/C (5)	U	4	COUR/U/M 10/12 POR	H (3)(4)
J	5	PREL/U/M 12/10 POR	D	V	4	COUR/U/B 10/12 POR	H (3)(4)
K	5	PREL/U/B 12/10 POR	D	W	4	COUR/I/M 10/12 POR	H (3)(4)
L	5	PREL/I/M 12/10 POR	D				

LJETFS2 PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	4	COUR/U/M 10/12 POR	I (1)	N	4	COUR/U/B 10/12 LAN	II/L/Q (5)
B	4	COUR/U/M 10/12 LAN	I (1)	O	4	COUR/I/M 10/12 LAN	IID/L/Q (8)
C	8	LNPR/U/M 16/ 8 POR	I+/L (2)	P	8	LNPR/U/M 16/ 8 LAN	II/L (5)
D	5	PREL/U/M 12/10 POR	J/M	Q	5	PREL/U/M 12/10 LAN	M
E	5	PREL/U/M 12/10 POR	J - MATH 8A	R	5	PREL/U/B 12/10 LAN	M
F	5	PREL/U/M 12/10 POR	J - MATH 8B	S	5	PREL/I/M 12/10 LAN	M
G	5	PREL/U/M 12/10 POR	J - MATH 7	T	5	GOTH/U/M 12/12 POR	N/Q
H	5	PREL/U/M 12/10 POR	J - PI	U	5	GOTH/U/B 12/12 POR	N/Q
I	5	PREL/U/B 12/10 POR	J/M	V	5	GOTH/I/M 12/12 POR	N
J	5	PREL/I/M 12/10 POR	J/M	W	5	GOTH/U/M 12/12 LAN	N
K	8	PREL/U/M 16/ 7 POR	J	X	5	GOTH/U/B 12/12 LAN	N
L	4	COUR/U/B 10/12 POR	II/L/Q (5)	Y	5	GOTH/I/M 12/12 LAN	N
M	4	COUR/I/M 10/12 POR	IID/L/Q (8)				

LJETFS3 PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	4	COUR/U/M 10/12 POR	I/T (1)(6)	M	8	GOTH/U/M 16/ 9 POR	U/W/X
B	4	COUR/U/M 10/12 POR	I/U (1)(4)	N	8	GOTH/U/M 16/ 9 LAN	V
C	4	COUR/U/M 10/12 LAN	I/V (1)(4)	O	4	GOTH/U/M 10/14 POR	W/X (4)
D	8	LNPR/U/M 16/ 8 POR	I+ (2)	P	4	OCRA/U/M 10/12 POR	W
E	2	PRES/U/B 6/18 POR	R (3)	Q	1	BAR3/U/M 4/12 POR	W
F	3	PRES/U/B 8/16 POR	R (3)	R	3 or 4	BAR3/U/M 9/12 POR	W
G	4	PRES/U/B 10/14 POR	R (3)(4)	S	4	OCRB/U/M 10/12 POR	X (4)
H	4	GOTH/U/M 10/14 POR	R (3)(4)	T	4	COUR/U/M 10/12 POR	Y (7)
I	2	PRES/U/B 6/18 LAN	R (3)	U	4	COUR/U/B 10/12 POR	Y (7)
J	3	PRES/U/B 8/16 LAN	R (3)	V	4	COUR/I/M 10/12 POR	Y (7)
K	4	PRES/U/B 10/14 LAN	R (3)(4)	W	8	LNPR/U/M 16/ 8 POR	Y (7)
L	4	GOTH/U/M 10/14 LAN	R (3)(4)	X	8	LNPR/U/M 16/ 8 LAN	Y (7)

(1) I = Internal to all LaserJet printers

(2) I+ = Internal to LJ+, 500+, series II, IID, and 2000

(3) Legal characters, see page P-96 of MM Printer Guide

(4) HP Line Draw, see page P-90 of MM Printer Guide

(5) II = Internal to LaserJet series II, IID, and 2000

(6) Tax Line Draw, see page P-90 of MM Printer Guide

(7) PC-1 symbol set, see page P-90 of MM Printer Guide

(8) IID = Internal to LaserJet IID Printer

LJETPS1 PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	4	COUR/U/M 10/12 POR	I (1)	M	8	TMSR/U/M PS/ 8 POR	F
B	4	COUR/U/M 10/12 LAN	I (1)	N	6	TMSR/U/M PS/10 POR	K
C	8	LNPR/U/M 16/ 8 POR	I+ (2)	O	6	TMSR/U/M PS/10 POR	K - MATH 8A
D	4	HELV/U/B PS/14 POR	B	P	6	TMSR/U/M PS/10 POR	K - MATH 8B
E	6	TMSR/U/M PS/10 POR	B	Q	6	TMSR/U/M PS/10 POR	K - MATH 7
F	6	TMSR/U/B PS/10 POR	B	R	6	TMSR/U/M PS/10 POR	K - PI
G	6	TMSR/I/M PS/10 POR	B	S	6	TMSR/U/B PS/10 POR	K
H	8	TMSR/U/L PS/ 8 POR	B	T	6	TMSR/I/M PS/10 POR	K
I	4	HELV/U/B PS/14 POR	F	U	8	TMSR/U/M PS/ 8 POR	K
J	6	TMSR/U/M PS/10 POR	F	V	8	TMSR/U/M PS/ 8 POR	K - MATH 8A
K	6	TMSR/U/B PS/10 POR	F	W	8	TMSR/U/M PS/ 8 POR	K - MATH 8B
L	6	TMSR/I/M PS/10 POR	F				

LJETPS2 PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	4	COUR/U/M 10/12 POR	I/T (1)(6)	N	8	HELV/U/B PS/ 8 POR	T
B	4	COUR/U/M 10/12 POR	I/U (1)(4)	O	8	HELV/U/M PS/ 8 POR	T
C	4	COUR/U/M 10/12 LAN	I/V (1)(4)	P	9	HELV/U/M PS/ 6 POR	T
D	8	LNPR/U/M 16/ 8 POR	I+ (2)	Q	4	HELV/U/B PS/14 POR	U
E	6	TMSR/U/M PS/10 POR	P	R	5	HELV/U/B PS/12 POR	U
F	6	TMSR/U/B PS/10 POR	P	S	6	HELV/U/B PS/10 POR	U
G	6	TMSR/I/M PS/10 POR	P	T	8	HELV/U/M PS/ 8 POR	U
H	6	TMSR/U/M PS/10 LAN	P	U	9	HELV/U/M PS/ 6 POR	U
I	6	TMSR/U/B PS/10 LAN	P	V	4	HELV/U/B PS/14 LAN	V
J	6	TMSR/I/M PS/10 LAN	P	W	5	HELV/U/B PS/12 LAN	V
K	4	HELV/U/B PS/14 POR	T	X	6	HELV/U/B PS/10 LAN	V
L	5	HELV/U/B PS/12 POR	T	Y	8	HELV/U/M PS/ 8 LAN	V
M	6	HELV/U/B PS/10 POR	T	Z	9	HELV/U/M PS/ 6 LAN	V

LJETPS3 PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	8	HELV/U/M PS/ 8 POR	Z	J	6	TMSR/U/M PS/10 POR	Z
B	6	HELV/U/M PS/10 POR	Z	K	6	TMSR/U/B PS/10 POR	Z
C	6	HELV/U/B PS/10 POR	Z	L	6	TMSR/I/M PS/10 POR	Z
D	6	HELV/I/M PS/10 POR	Z	M	5	TMSR/U/M PS/12 POR	Z
E	5	HELV/U/M PS/12 POR	Z	N	5	TMSR/U/B PS/12 POR	Z
F	5	HELV/U/B PS/12 POR	Z	O	5	TMSR/I/M PS/12 POR	Z
G	5	HELV/I/M PS/12 POR	Z	P	4	TMSR/U/B PS/14 POR	Z
H	4	HELV/U/B PS/14 POR	Z	Q	5	EAN/UPC/U/M PS/12	X
I	8	TMSR/U/M PS/ 8 POR	Z	R	5	EAN/UPC/U/B PS/12	X

(1) I = Internal to all LaserJet printers

(2) I+ = Internal to LJ+, 500+, series II, IID and 2000

(4) HP Line Draw, see page P-90 of MM Printer Guide

(6) Tax Line Draw, see page P-90 of MM Printer Guide

LJETFSII PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	4	COUR/U/M 10/12 POR	II (5)	N	4	COUR/U/B 10/12 LAN	II (5)
B	4	COUR/U/M 10/12 LAN	II (5)	O	4	COUR/I/M 10/12 LAN	IID/L/Q (8)
C	8	LNPR/U/M 16/ 8 POR	II (5)	P	8	LNPR/U/M 16/ 8 LAN	II (5)
D	5	PREL/U/M 12/10 POR	J/M	Q	5	PREL/U/M 12/10 LAN	M
E	5	PREL/U/M 12/10 POR	J-MATH 8A	R	5	PREL/U/B 12/10 LAN	M
F	5	PREL/U/M 12/10 POR	J-MATH 8B	S	5	PREL/I/M 12/10 LAN	M
G	5	PREL/U/M 12/10 POR	J-MATH 7	T	5	GOTH/U/M 12/12 POR	N/Q
H	5	PREL/U/M 12/10 POR	J-PI FONT A	U	5	GOTH/U/B 12/12 POR	N/Q
I	5	PREL/U/B 12/10 POR	J/M	V	5	GOTH/I/M 12/12 POR	N
J	5	PREL/I/M 12/10 POR	J/M	W	5	GOTH/U/M 12/12 LAN	N
K	8	PREL/U/M 16/ 7 POR	J	X	5	GOTH/U/B 12/12 LAN	N
L	4	COUR/U/B 10/12 POR	II (5)	Y	5	GOTH/I/M 12/12 LAN	N
M	4	COUR/I/M 10/12 POR	IID/L/Q (8)				

LJIIIS1 PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	4	COUR/U/M 10/12 POR	II (5)	H	5	COUR/U/B 12/10 POR	IID/S1 (8)
B	4	COUR/U/B 10/12 POR	II (5)	I	5	COUR/I/M 12/10 POR	IID/S1 (8)
C	4	COUR/I/M 10/12 POR	IID/S1 (8)	J	5	COUR/U/M 12/10 LAN	IID/S1 (8)
D	4	COUR/U/M 10/12 LAN	II (5)	K	5	COUR/U/B 12/10 LAN	IID/S1 (8)
E	4	COUR/U/B 10/12 LAN	II (5)	L	5	COUR/I/M 12/10 LAN	IID/S1 (8)
F	4	COUR/I/M 10/12 LAN	IID/S1 (8)	M	8	LNPR/U/M 16/ 8 POR	II (5)
G	5	COUR/U/M 12/10 POR	IID/S1 (8)	N	8	LNPR/U/M 16/ 8 LAN	II (5)

LJIIIS2 PAT							
FONT	PITCH	DESCRIPTION	CARTRIDGE	FONT	PITCH	DESCRIPTION	CARTRIDGE
A	4	COUR/U/M 10/12 POR	II (5)	E	5	TMSR/U/M PS/12 POR	S2
B	4	COUR/U/B 10/12 POR	II (5)	F	5	TMSR/U/B PS/12 POR	S2
C	8	LNPR/U/M 16/ 8 POR	II (5)	G	5	TMSR/I/M PS/12 POR	S2
D	8	TMSR/U/M PS/ 8 POR	S2	H	4	HELV/U/B PS/14 POR	S2

LJ2000P PAT (Portrait) and LJ2000L PAT (Landscape)							
FONT	PITCH	DESCRIPTION	SYMBOL SET	FONT	PITCH	DESCRIPTION	SYMBOL SET
A	4	COUR/U/M 10/12	PC8	J	5	PREL/U/M 12/10	LEGAL
B	4	COUR/U/B 10/12	PC8	K	5	PREL/U/B 12/10	LEGAL
C	4	COUR/I/M 10/12	PC8	L	5	PREL/I/M 12/10	LEGAL
D	5	COUR/U/M 12/10	PC8	M	4	COUR/U/M 10/12	LEGAL
E	4	COUR/U/M 10/12	MATH 8	N	4	COUR/U/B 10/12	LEGAL
F	5	PREL/U/M 12/10	PC8	O	4	COUR/I/M 10/12	LEGAL
G	5	PREL/U/B 12/10	PC8	P	7	LNPR/U/M 15/ 8	PC8
H	5	PREL/I/M 12/10	PC8	Q	8	LNPR/U/M 16/ 8	PC8
I	5	PREL/U/M 12/10	MATH 8	R	8	PREL/U/M 16/ 8	PC8

(5) II = Internal to LaserJet series II, IID and 2000

(8) IID = Internal to LaserJet IID Printer

2000PS PAT							
FONT	PITCH	DESCRIPTION	SYMBOL SET	FONT	PITCH	DESCRIPTION	SYMBOL SET
A	6	TMSR/U/M PS/10 POR	ASCII	G	6	TMSR/U/M PS/10 LAN	ASCII
B	6	TMSR/U/B PS/10 POR	ASCII	H	6	TMSR/U/B PS/10 LAN	ASCII
C	6	TMSR/I/M PS/10 POR	ASCII	I	6	TMSR/I/M PS/10 LAN	ASCII
D	4	COUR/U/M 10/12 POR	LINE DRAW	J	8	TMSR/U/M PS/ 8 LAN	ASCII
E	8	TMSR/U/M PS/ 8 POR	ASCII	K	4	HELV/U/B PS/14 LAN	ASCII
F	4	HELV/U/B PS/14 POR	ASCII				

Soft Font Printer Action Tables

MultiMate has four predefined soft font PATs. These PATs and the fonts they support are listed below. Soft fonts not listed require the use of custom PATs. A listing of custom PATs follows the list of predefined PATs.

MultiMate Advantage II's predefined soft font PATs automatically download soft fonts. Make sure you copy ALL of the soft font files listed for a particular PAT to your MultiMate subdirectory.

Note



If you download soft fonts outside MultiMate, you MUST assign the Font ID number specified in the PAT. Failure to do so will prevent MultiMate from accessing the soft font.

LJETHLV PAT					
FONT	PITCH	DESCRIPTION	FONT ID	FILENAME	SOFT FONT
A	6	HELV/U/M PS/10 POR	11	HV100RPN.USP	AC
B	6	HELV/U/B PS/10 POR	12	HV100BPN.USP	AC
C	6	HELV/I/M PS/10 POR	13	HV100IPN.USP	AC
D	8	HELV/U/M PS/ 8 POR	14	HV080RPN.USP	AC
E	8	HELV/U/B PS/ 8 POR	15	HV080BPN.USP	AC
F	8	HELV/I/M PS/ 8 POR	16	HV080IPN.USP	AC
G	9	HELV/U/M PS/ 6 POR	17	HV060RPN.USP	AC
H	4	HELV/U/M PS/14 POR	18	HV140RPN.USP	AC
I	3	HELV/U/B PS/18 POR	19	HV180BPN.USP	AC

LJETTMS PAT					
FONT	PITCH	DESCRIPTION	FONT ID	FILENAME	SOFT FONT
A	6	TMSR/U/M PS/10 POR	1	TR100RPN.USP	AC
B	6	TMSR/U/B PS/10 POR	2	TR100BPN.USP	AC
C	6	TMSR/I/M PS/10 POR	3	TR100IPN.USP	AC
D	8	TMSR/U/M PS/ 8 POR	4	TR080RPN.USP	AC
E	8	TMSR/U/B PS/ 8 POR	5	TR080BPN.USP	AC
F	8	TMSR/I/M PS/ 8 POR	6	TR080IPN.USP	AC
G	9	TMSR/U/M PS/ 6 POR	7	TR060RPN.USP	AC
H	4	TMSR/U/R PS/14 POR	8	TR140RPN.USP	AC
I	3	TMSR/U/B PS/18 POR	9	TR180BPN.USP	AC

LJETPRE PAT					
FONT	PITCH	DESCRIPTION	FONT ID	FILENAME	SOFT FONT
A	5	PREL/U/M 12/10 POR	31	PR100R12.USB	EA
B	5	PREL/U/B 12/10 POR	32	PR100B12.USB	EA
C	5	PREL/I/M 12/10 POR	33	PR100I12.USB	EA
D	5	PREL/U/M 12/10 POR	34	LP120R12.PLP (4)	EA
E	8	PREL/U/M 16/ 7 POR	35	PR070R16.USB	EA

LJETGTH PAT					
FONT	PITCH	DESCRIPTION	FONT ID	FILENAME	SOFT FONT
A	5	GOTH/U/M 12/12 POR	21	LG120R12.USB	DA
B	5	GOTH/U/B 12/12 POR	22	LG120B12.USB	DA
C	5	GOTH/I/M 12/12 POR	23	LG120I12.USB	DA
D	5	GOTH/U/M 12/12 POR	24	LP120R12.PLP (4)	DA
E	4	GOTH/U/M 10/14 POR	25	LG140R10.USB	DA
F	4	GOTH/U/B 10/14 POR	26	(9)	DA
G	3	PRES/U/B 8/16 POR	27	PS160B08.USB	DA
H	2	PRES/U/B 6/18 POR	28	PS180B06.USB	DA
I	8	GOTH/U/M 16/9.5 POR	29	LG095R16.USB	DA

**Custom
Printer Action Tables**

The custom PATs listed below can be modified to support other soft and cartridge fonts. Print the *LJETPLUS.DOC* file for instructions. This file is located on Multimater's *CONVERSIONS 2* disc in the \LJETPLUS subdirectory.

Custom PATs	
LJCSFSL	LaserJet Custom Fixed Space Landscape
LJCSFSP	LaserJet Custom Fixed Space Portrait
LJCSPSL	LaserJet Custom Proportional Space Landscape
LJCSPSP	LaserJet Custom Proportional Space Portrait
LJDNFSL	LaserJet Download Fixed Space Landscape
LJDNFSP	LaserJet Download Fixed Space Portrait
LJDNPSL	LaserJet Download Proportional Space Landscape
LJDNPSP	LaserJet Download Proportional Space Portrait



(4) HP Line Draw characters, see LJETPLUS.DOC

(9) LG140B10.USB is not a valid H-P DA soft font file as indicated in LJETPLUS.DOC. It is probable that PR140B10.USB was the intended font to be used. PAT modification will be required to use PR140B10.USB if you intend to allow MultiMate to download the font for you. If PR140B10.USB is downloaded with ID number 26, font letter F will access the font when using this PAT.

Document Print Options

The Document Print Options screen appears prior to all print jobs and contains the information which will be used to format your document. Proper printing is dependent upon your specifying the correct options.

Printer Action Table (PAT)

Enter the name of the Printer Action Table (PAT file name) for your printer. Press [F1] to see a list of available PATs. If you are not sure which PAT to specify, refer to *Identifying The Correct Printer Action Table* earlier in this section.

Top Margin

MultiMate adds the number of top margin lines you specify to the paginated text length. If you specify a top margin other than zero, repaginate your document to accommodate the additional lines.

Default Pitch

The Default Pitch setting should correspond to the pitch of the font being used for most of the text in your document. Recommended pitch settings for fonts are listed below and in the *MultiMate Printer Action Tables* section of this application note.

Fixed Spaced Fonts		Proportionally Spaced Fonts	
CPI	Pitch	Point	Pitch
5	1	30	1
6	2	24	2
8	3	18	3
10	4	14	4
12	5	12	5
13	6	10	6
15	7	9	7
17	8	8	8
20	9	6	9

The amount of space between characters can be increased or decreased by changing the pitch value. However, the width of each character remains unchanged which may cause unacceptable inter-character spacing.

Proportional Spacing

You must set Proportional Spacing to Y if you are using proportionally spaced fonts e.g., TmsRmn and Helv.

Lines Per Inch Paper Length

The Lines Per Inch and Paper Length settings are interrelated. To obtain the correct Paper Length value, multiply the Lines Per Inch value by the vertical printable area of the page for the orientation in which you wish to print. Vertical printable areas for letter-size paper and legal-size paper are:

- Portrait: 10 inches for letter, 13 inches for legal paper
- Landscape: 7.5 inches for letter and legal paper

Example

To print **6 Lines Per Inch** on letter-size paper in the portrait orientation, specify a Paper Length of **60**.

Default Font

The Default Font (a letter from A-Z) specifies which font your printer will use. A Default Font setting of **A** will select 10 pitch Courier when using any of the cartridge font PATs.

Note



The Default Font will be overridden by Print Font, **[Alt C]**, commands in your document.

Common Tasks

This section will assist you with many of the tasks you are likely to print with your LaserJet printer.

Selecting Fonts

To select a font, you must know:

- Whether MultiMate supports the font
- What font letter MM has assigned to the font
- The correct pitch for the font

This information can be found in the *MultiMate Printer Action Tables* section of this note. Once you know the font letter and pitch for a supported font, follow these steps:

1. Position the cursor where you want to change fonts.
2. Press [**Alt C**] and enter the font letter.

Note



Make sure the proper Printer Action Table has been selected. To select a PAT, press [**Alt C**] enter a question mark [**?**] and press [**Return**]. Then enter the PAT name and press [**F10**].

3. Press [**Alt C**] and enter the correct pitch.
4. Make sure your format line length is set properly. Because a font's pitch affects the print line length (width of a printed line of text) you may need to change the format line length. Use this formula to calculate the proper format line length:

Format Line Length = Print Line Length x cpi
Example: For a 12 pitch font, 78 = 6.5 inches x 12 cpi

5. If you selected a font with a point size greater than 12, you may need to change the line spacing in the format line. To modify the line spacing, press [**F9**] then [**←**] and type one of the following codes:

- | | | | |
|---|-----------------------------------|-------|----------------|
| 1 | for Single line spacing | ..... | 12 point fonts |
| + | for One and One-Half line spacing | ..... | 18 point fonts |
| 2 | for Double line spacing | ..... | 24 point fonts |
| = | for Two and One-Half line spacing | ..... | 30 point fonts |
| 3 | for Triple line spacing | ..... | 36 point fonts |

Bold Print

MultiMate's [**Alt Z**] command DOES NOT ACCESS BOLD on LaserJet printers. To access bold, press [**Alt C**] followed by the font letter assigned to bold.

Legal Paper

To print documents on legal-size paper follow these steps:

1. Embed the appropriate printer command at the top of your document. Instructions for embedding printer commands can be found at the end of this section.

Manually Fed Legal Paper `^C^E^C&084p2H`
Legal Paper Tray `^C^E^C&084P`

2. Press [Ctrl F2] and select [Alt 1] to **repaginate your document. Enter the number of lines you want on each page—78 lines maximum** at 6 lines per inch. Press [F10] to begin repagination.
3. When you print your document remember to set the Paper Length to **78** on the Document Print Options screen.

Printing Envelopes (Manual Feed)

MultiMate Advantage II has a PAT for printing envelopes, *LJETENV*. Information related to this PAT is in the *MultiMate Printer Guide*. For a LaserJet IID or series II printer, insert 24 carriage returns instead of the suggested 35.

Envelope Tray

LJ2ENVTR.PAT is a Printer Action Table designed to support the optional LaserJet series II and LaserJet IID Envelope Tray (HP 92295F). Here are some instructions for its use:

1. If you are not using the MultiMate Merge Print function, create a document containing one address per page. Otherwise, you should create a one-page Merge Document. This document should contain the necessary merge item names associated with your Merge Data File.
2. Load envelopes in the tray and insert the tray as instructed in the *Envelope Tray User's Guide*.
3. At MultiMate's Document Print Options screen, select *LJ2ENVTR* as your Printer Action Table and specify the following:

ENVELOPE (Dimensions)	COM-10 (4 ¹ / ₈ " x 9 ¹ / ₂ ")	MONARCH (3 ⁷ / ₈ " x 7 ¹ / ₂ ")	DL (110mm x 220mm)	C5 (162mm x 229mm)
Left Margin	35	30	35	35
Top Margin	12	10	12	18
Default Pitch	4	3	2	1
Default Font	A	A	A	A

Printing Special Characters

MultiMate can print special characters by using Advantage II's Alternate Keyboard, [Alt K]. The alternate keyboard is discussed in the *MultiMate Printer Guide*, the *Applications* booklet, and the *Using* manual.

When using special characters, the symbol set of the font which you are using must contain the character which you are trying to access. Symbol set information is contained in *Appendix A* of your *LaserJet Printer User's Manual* and the booklets that accompany cartridges and soft fonts.

Some characters are reserved by MultiMate and must be accessed by pressing [Alt A] followed by the decimal value of the character. The Greek letter "mu" (μ) is one such character. To access this character press [Alt A] and enter 230 (μ is a valid character in the IBM-US and PC-1 symbol sets).

Note



MultiMate does not recognize these characters within the document, therefore, a line containing characters accessed in this manner will not right justify and will extend into the right margin one character.

Formatting And Printing Labels

Label sheets can be printed using the MultiMate On-File program. On-file is a mailing list and information manager which stores information in a 3 x 5 card format. These cards can then be used to generate label sheets. Once you have a card file to draw from, you can use the card format in setting up your label sheet. The information you will need to set up your cards and label sheets is contained in the *MultiMate On-File* manual.

When setting up your label sheet it is important to remember to position the first line of the label sheet appropriately for use with your LaserJet printer. This will usually be line 2. Failure to position the first line in the correct position will result in improper alignment of addresses on your label sheets. It is also important to paste both columns at this time for 2 up label sheets.

Drawing Lines And Boxes

Advantage II's line and box drawing feature, [Alt E] will access the HP Line Draw, Tax Line Draw, and PC-1 symbol sets' line and box drawing characters. Those font selections which support line and box drawing are noted in the *MultiMate Printer Action Tables* section of this note. Further information regarding the line and box drawing features of Advantage II is contained in the *MultiMate Printer Guide*.

Line and box drawing with the lineprinter typeface font (16.66 pitch) requires line spacing of 8 lines per inch.

When using HP Line Draw or Tax Line Draw the actual line or pattern may vary from that displayed on the screen. The *MultiMate Printer Guide* indicates what is supported when using these symbol sets.

Hewlett-Packard's LaserJet IID, LaserJet series II, and LaserJet 2000 printers have line and box drawing characters built-in. To access these characters use the *LJETFSII* Printer Action Table. Call Ashton-Tate Technical Support if your *PRINTER TABLES DISK* does not contain this PAT.

Embedding Printer Commands

For features not supported by MultiMate, printer commands can be embedded in documents by using the [Alt A] command. The steps are as follows:

1. Position the cursor at least one space in from the left margin—if your left margin is set at 10, space in to at least column 11.
2. Hold down the [Alt] key and press [A]. The Greek letter μ "mu" will appear on your screen.
3. Immediately following the μ symbol, type 027—the decimal representation of the escape character, \textasciix027 .
4. Enter the remainder of the command in its ASCII form.

Example

To embed the command for legal paper, manual feed— $\text{\textasciix027}\text{\textasciix027}\&184\text{p}2\text{H}$ —position the cursor at the top of your document and at least one space in from the left margin. Hold down the [Alt] key and press [A], then type 027E. Press [Alt A] again, then type $\text{\textasciix027}\&184\text{p}2\text{H}$.

The command will appear as $\mu 027\text{E}\mu 027\&184\text{p}2\text{H}$ on your screen.

Note



Any setting for top margin other than 0 on the Document Print Options screen will cause a blank page to be ejected prior to the document. When embedding printer commands, top margins must be set using carriage returns in the document.

See your *MultiMate Printer Guide* for more information on embedding commands. For specific printer commands refer to your LaserJet printer manual.

Note



When using PATs which support proportionally spaced fonts, (e.g., *LJIIIS2*) embedded printer commands must be input in decimal representation, not ASCII. The example above would take the following form when using a PAT which supports proportionally spaced fonts:

$\mu.027\mu.069\mu.027\mu.038\mu.108\mu.056\mu.052\mu.112\mu.050\mu.072$.

ASCII to decimal conversion tables are available in the *Appendix* of your *LaserJet Printer User's Manual*.

Common Problems

This section provides a troubleshooting approach to solving many of the common problems associated with using MultiMate Advantage II and a LaserJet printer. In most cases, these problems can be avoided if you follow the guidelines presented in the **General Information** and **Common Tasks** sections of this application note.

"Creeping" Text

Problem: The first page of your document prints properly, but subsequent pages have larger and larger top margins (i.e., creep down).

Cause: The number of lines of text, including the top margin and any headers or footers, must not exceed the printer's default text length. The following table lists the LaserJet printers' default text lengths for letter-size and legal-size paper:

Default Text Length	Letter Portrait	Letter Landscape	Legal Portrait	Legal Landscape
6 Lines per inch	60	45	78	45
8 Lines per inch	80	60	104	60

Solution: Repaginate your document—press [F1] then [Home] to move the cursor to the top of your document. Press [Ctrl F2] and select [Alt 1] to repaginate. Specify a number of lines per page that does not exceed the printer's default text length, then press [F10] to begin repagination.

Improper Line Spacing

Problem: The vertical spacing of some lines of text is either too tight or too loose.

Cause: Some Printer Action Tables do not fully support MultiMate's variable line spacing function. Line spacing problems can also occur subsequent to a request for a double underline.

Solution: PATs which exhibit line spacing problems must be modified. For assistance call Ashton-Tate Technical Support.

"Printer Needs Attention"

Problem: The message "Printer Needs Attention" appears during a print job (this is especially prevalent when selecting multiple copies on the Document Print Options screen).

Cause: The period of time MultiMate waits before assuming a printer time-out is too short.

Solution: The Seconds For Printer Time-out, located at the bottom of the Common Sequences and Values screen for each PAT, should be increased. The default setting is 20 seconds. Increasing the value to a maximum of 999 seconds should correct the problem. Contact Ashton-Tate Technical Support for assistance.

Incorrect Font

Problem: When you print the document, some or all of the text is printed in an incorrect font.

Causes: 1) The font cartridge containing the desired font(s) is not firmly inserted in the printer. 2) You did not specify the correct Printer Action Table and/or Font Letter. 3) The soft font file(s) are not copied to your MultiMate subdirectory.

Solutions: 1) Take the printer off line and re-insert the font cartridge—push firmly until the cartridge "clicks" into place. 2) Refer to the *Identifying The Correct Printer Action Table* and *Selecting Fonts* sections of this application note. 3) The *Soft Font Printer Action Tables* section of this note lists the soft font files for each PAT. Copy the specified files to your MultiMate subdirectory.

Improper Character Spacing

Problem: Lines of text that follow a font change within the document have too much or too little space between characters.

Causes: 1) If you select a font within a document that has a different pitch than the Default Font, you must specify the new font's pitch. 2) Some Printer Action Tables contain a Pitch Reissue command which reissues the pitch of the Default Font at the beginning of each line.

Solutions: 1) In addition to selecting the new font, specify the font's pitch. See *Selecting Fonts* earlier in this note. 2) Disable the Pitch Reissue command. For more information consult the *MultiMate Printer Guide*.

Example

If your Default Font is 10-pitch Courier and you select 16.66 pitch Lineprinter in your document, you should press [Alt C] and enter 8 to specify the Lineprinter font's pitch.

Blank Pages

Problem: Blank pages are ejected when the document is printed.

Causes: 1) The number of lines of text exceeds the printer's default text length. 2) If you are printing in the landscape orientation your top margin must be set to zero.

Solutions: 1) Refer to the solution for Creeping Text earlier in this section. 2) Use carriage returns to provide for a top margin and set the Top Margin to zero on the Document Print Options screen.

Other Problems

If you are having other types of problems, or if the suggestions provided in this section have not resolved the problem:

1. Read the **General Information** section of this application note. Pay particular attention to the *Five Basic Steps For HP LaserJet Printing* section.
2. Try printing similar documents. Is the problem isolated to one document? If so, find and delete invalid or misplaced format selections in the problem document.
3. Repeat the installation procedures. This will help ensure proper installation of the correct Printer Action Tables.
4. Refer to your MultiMate manuals or call MultiMate Word Processing Support if you need assistance in using Advantage's functions (e.g., columns, merge, etc.) or if you need assistance in creating or editing Printer Action Tables.
5. Call **Hewlett-Packard's LaserJet Assist Line**



Telephone (208) 323-2551
Hours (Mon, Tue, Thu, Fri) 7:00am to 6:00pm MST
Wednesdays 7:00am to 4:00pm MST

Note



When you call Hewlett-Packard, call from a phone next to your computer and LaserJet printer. Assisting you often requires access to your printer and MultiMate document.

3-22 MultiMate Advantage II

WordPerfect Corporation

Customer Support (800) 321-5906
 Hours 7:00am to 6:00pm MST
 Charge None
 Required Identification License Number

Product Updates (800) 321-4566
 Printer Disc Updates \$15.00
 HP Utility Disc \$15.00

Since the release of WordPerfect version 4.2, WordPerfect Corporation has shipped updated printer definitions every two months. The information and procedures contained in this note apply to the 10/26/87 printer definitions. Most of these procedures will work with earlier definitions. However, if a particular procedure does not work, you may need to call WordPerfect Corporation and order a printer disc update.

Supported Fonts

Cartridge Fonts 92286... A, B, C, D, E, F, G, H, J, K, L, M, N, P, Q, R, T, U, V, W, Y, Z Cartridge Fonts 92290... S1, S2	Soft Fonts 33412... AC, AE, DA, EA Super Fonts 33412... -
---	--

Unsupported Fonts

Cartridge Fonts 92286... W1, X Cartridge Fonts 92290... -	Soft Fonts 33412... AD, AF, RA, SA, TA, UA, RB, SB, TB, UB Super Fonts 33412... AG
--	--

Note

Advanced users can use WordPerfect's *HP UTILITY* and *PRINTER* program to create printer definitions for unsupported fonts. Refer to WordPerfect's documentation or call WordPerfect Customer Support if you need assistance.

Installation

Installation of your printer takes place from within WordPerfect (WP). If you have not installed WP, refer to WordPerfect's *Installation and Appendices* pamphlet.

What Is Required

Diskettes: *PRINTER 1*, *PRINTER 2*, and *LEARNING*
Manuals: *WordPerfect Installation and Appendices*

Identify The Correct Printer Definition

WordPerfect's *PRINTER 1* disc contains over 30 printer definitions for the LaserJet printer family. Use the tables below to identify the correct definition for your printer. If you have optional cartridge fonts or soft fonts install the appropriate cartridge or soft font printer definition.

Example

For a LaserJet IID printer and an HP 92290S2 font cartridge, install the *HP Series II/2000 S2:Tms/Helv* and *HP Series II/2000 S1:Courier* printer definitions.

Internal Fonts

LaserJet	.....	LaserJet Reg, +,500 + A: Courier
LaserJet Plus	.....	LaserJet Reg, +,500 + A: Courier
LaserJet 500 Plus	.....	LaserJet Reg, +,500 + A: Courier
LaserJet series II	.....	HP LaserJet Series II
LaserJet IID	.....	HP Series II/2000 S1:Courier
LaserJet 2000	.....	HP LaserJet 2000 Simplex
or	.....	HP LaserJet 2000 Duplex

Cartridge Fonts

92286A	.....	LaserJet Reg, +,500 + A: Courier
92286B	.....	LaserJet Reg, +,500 + B: TmsRmn1
92286C	.....	LaserJet Reg, +,500 + C: Intl 1
92286D	.....	LaserJet Reg, +,500 + D: P Elite
92286E	.....	LaserJet Reg, +,500 + E: Gothic
92286F	.....	LaserJet Reg, +,500 + F: TmsRmn2
92286G	.....	LaserJet Reg, +,500 + G: Legal E
92286H	.....	LaserJet Reg, +,500 + H: Legal C
92286J	.....	LaserJet Reg, +,500 + J: Math E
92286K	.....	LaserJet Reg, +,500 + K: Tms Math
92286L	.....	LaserJet Reg, +,500 + L: Cou P&L
92286M	.....	LaserJet Reg, +,500 + M: P E P&L
92286N	.....	LaserJet Reg, +,500 + N: L G P&L
92286P	.....	LaserJet Reg, +,500 + P: Tms P&L
92286Q	.....	LaserJet Reg, +,500 + Q: Cour, LG
92286R	.....	LaserJet Reg, +,500 + R: Present
92286T	.....	LaserJet Reg, +,500 + T: Helv Tax
92286U	.....	LaserJet Reg, +,500 + U: Form Por
92286V	.....	LaserJet Reg, +,500 + V: Form Lnd
92286W	.....	LaserJet Reg, +,500 + W: BarCode
92286Y	.....	LaserJet Reg, +,500 + Y: PC Cour
92286Z	.....	LaserJet Reg, +,500 + Z: Helv
or	.....	LaserJet Reg, +,500 + Z: TmsRmn
92290S1	.....	HP Series II/2000 S1:Courier
92290S2	.....	HP Series II/2000 S2:Tms/Helv

Soft Fonts

33412AC	..... LaserJet +,500 + Soft AC: Helv P
or	..... LaserJet +,500 + Soft AC: Tms P
33412AE	..... LaserJet +,500 + Soft AE: Helv P
or	..... LaserJet +,500 + Soft AE: Tms P
33412DA	..... LaserJet +,500 + Soft DA: LG, Prs
33412EA	..... LaserJet +,500 + Soft EA: P Elite

Note 

Each soft font printer definition supports eight (8) PORTRAIT fonts. Use WP's *PRINTER* program to create definitions for landscape fonts. Purchase WordPerfect's *HP UTILITY* to create definitions for unsupported soft fonts.

Install Your Printer

The paragraphs which follow outline the installation procedure. Keystrokes are summarized in the left margin; for example, **[Return]** indicates that you should press the return key. Additionally, many of the screens WordPerfect displays during installation are reproduced.

Load WordPerfect

At your DOS prompt, type **WP** and press **[Return]** to load the WordPerfect program.

Press [Shift F7]

Hold down the **[Shift]** key and press **[F7]**.



Choose [4]

Choose **4 - Printer Control**.

Choose [3]

Printer Control	
1 - Select Print Options	C - Cancel Print Job(s)
2 - Display Printers and Fonts	D - Display All Print Jobs
3 - Select Printers	G - "Go" (Resume Printing)
	P - Print a Document
	R - Rush Print Job
	S - Stop Printing
Selection: _	

Press [PgDn]

Printer Definitions in C:\WP\WPRINTER.FIL	
1 Standard Printer	2 DOS Text Printer
	PgDn for Additional Definitions
	Exit when Done
Printer 1	Cancel to Ignore Changes
Using Definition: 1	Arrow Keys to Change Printer Number

If WP prompts you to insert your printer disc, place the *PRINTER 1* disc in drive A or B. Then press **[A]** or **[B]**.

Select Your Printer Then Press [Return]

Use the **[PgDn]** and **[PgUp]** keys to find the correct printer definition. Enter the number which corresponds to that definition, then press **[Return]**.

Select A Printer Port

Printer Port			
0 - LPT 1	1 - LPT 2	2 - LPT 3	
4 - COM 1	5 - COM 2	6 - COM 3	7 - COM 4
8 - Device or File Pathname			
Selection: _			

Use the following information to determine the appropriate printer port selection for your LaserJet printer. Generally speaking, select 0 - LPT1 for parallel, 4 - COM1 for serial.

HP 2686A LaserJet Serial
HP 2686A LaserJet+ (option 200) Serial
HP 2686A LaserJet+ (option 210) Parallel
HP 2686A LaserJet+ (option 300) Parallel or Serial*
HP 2686D LaserJet 500+ Parallel or Serial*
HP 33440A LaserJet series II Parallel or Serial*
HP 33447A LaserJet IID Parallel or Serial*
HP 2684A/D/P LaserJet 2000 (26843A Interface) Serial
HP 2684A/D/P LaserJet 2000 (26843B Interface) Parallel

*On the HP 2686A LaserJet+ (option 300) and LaserJet 500+ the upper port is parallel and the lower port is serial. LaserJet series II and IID printer ports are labelled.

For A Serial Port Select [7] [0] [1] [8]

Skip this step if you selected a parallel printer port. If you selected a serial printer port, make the entries show at left.

Baud Select			
0 - 110	1 - 150	2 - 300	3 - 600
4 - 1200	5 - 2400	6 - 4800	7 - 9600
Selection: 7			
Parity			
0 - None	1 - Odd	3 - Even	
Selection: 0			
Stop Bits (1 or 2): 1			
Character Length (7 or 8): 8			

Choose [3]

Type of Forms	
1 - Continuous	
2 - Hand Fed	
3 - Sheet Feeder	
Selection: 3	

Note



Selecting 3 - Sheet Feeder will interfere with duplex printing on the LaserJet IID and LaserJet 2000 printers. Choose 1 - Continuous if you selected the HP LaserJet 2000 Duplex printer definition and skip the next two paragraphs.

[0] [Return]
[0] [Return]
[7] [Return]

```
Sheet Feeder Information
Number of Extra Lines Between Pages (12 LPI): 0
Column Position of Left Edge of Paper (10 Pitch): 0
Number of Sheet Feeder Bins (1-7): 7
```

Select The Correct
Sheet Feeder Type
Then Press [Return]

For a LaserJet IID printer and most other models (LJ, LJ+, LJ 500+, LJ 2000) select the 11 - HP LaserJet+ sheet feeder definition. For a series II select 27 - HP Series II Sheet Feeder (if this selection is not available, choose 11 - HP LaserJet+).

If number 11 is not "HP LaserJet+", then choose 17 - HP LaserJet. Order WordPerfect's 10/26/87 printer definitions if there are no LaserJet sheet feeder definitions listed on your screen.

Repeat Or
Press [F7] To Exit

If you have additional font cartridges or soft fonts, repeat this installation procedure. When you are through selecting printers, press [F7] to Exit the Select Printers menu. You will return to the Printer Control menu.

Select [2]

```
Printer Control
C - Cancel Print Job(s)
D - Display All Print Jobs
1 - Select Print Options   G - "Go" (Resume Printing)
2 - Display Printers and Fonts  P - Print a Document
3 - Select Printers         R - Rush Print Job
Selection: _               S - Stop Printing
```

WordPerfect will display a screen similar to the one below. Verify that the printer definitions displayed next to each printer number match those you selected. If they do not, you must repeat the installation process.

Printer #1

```
1: HP Series II/2000 S2:Tms/Helv  SheetFeed
   1 HP AD TmsRmn12R              2 HP AD TmsRm12I
   3 HP AD TmsRmn8R               4 HP AD Helv14B
   5 Proprinter XL                6 Proprinter XL
   7 Proprinter XL                8 Proprinter XL

Printer #2
2: HP Series II/2000 S1:Courier  SheetFeed
   1 Proprinter XL                2 Proprinter XL
   3 Proprinter XL                4 Proprinter XL
   5 Proprinter XL                6 Proprinter XL
   7 Proprinter XL                8 Proprinter XL

Press any key to continue
```

Printer #2

This sample screen shows Printer 1 defined as *HP Series II/2000 S2:Tms/Helv* and Printer 2 defined as *HP Series II/2000 S1:Courier*.

General Information

The information which follows is applicable to nearly all of the documents you are likely to print using WordPerfect with your LaserJet printer. Read this information carefully as it will help you avoid many of the common problems discussed later in this application note.

Identifying What Is Supported

WordPerfect's *PRINTER 2* diskette contains a program called *PRHELP.EXE*. This program summarizes the features and fonts supported by each WordPerfect printer definition.

If you are using proportionally spaced fonts (e.g., TmsRmn and Helv) you must run the PRHELP program. The PRHELP program provides the required pitch specification for each of the fonts supported by WordPerfect.

1. Place the WordPerfect *PRINTER 2* diskette in drive A.
2. At your DOS prompt, type **A:PRHELP** and press **[Return]**. An alphabetical listing of printer definitions will be displayed.
3. Use the **[PgDn]** and **[PgUp]** keys to find the printer definition you installed. Highlight the definition, then press **[2]** to look at the definition.

NAME: HP Series II/2000		•Bold
TYPE: Laser	DISK #: 1	•Underline
DEFINITION: HP SERIES II/2000 S2:TMS/HELV		•Double Underline
		•Line Draw
FONT STYLE	PITCH	•Super/Subscript
		Type-thru
1 TmsRmn 12 point	11*	•Advance Up/Dn/Ln
2 TmsRmn 12 point Italic	11*	•Overstrike
3 TmsRmn 8 point	19*	•Redline/Strikeout
4 Helv 14 point Bold	9*	•6/8 LPI
5 Courier Portrait	10	HMI
6 Line Printer Portrait	17	•Microspacing
7 Line Printer Landscape	17	•Foreign Characters
8 Courier Landscape	10	
0 Exit; 1 Help; 2 Previous Printer; 3 Next Printer: _		

For each printer definition, WordPerfect will list the eight supported fonts, their respective pitch, and various other supported features, as indicated by a bullet.

4. Press **[F7]** twice to exit the *PRHELP* program.

Multiple Printer Definitions

WordPerfect lets you assign printer definitions to as many as six printers. This gives you the flexibility of using internal fonts for some documents and cartridge fonts or soft fonts for others.

Example

A person might use an HP 92290S2 font cartridge for external documents and the LaserJet IID printer's internal fonts for interoffice documents. The *HP Series II/2000 S2:Tms/Helv* definition could be assigned to Printer Number 1 for external document printing and the *HP Series II/2000 S1:Courier* definition to Printer Number 2 for interoffice document printing.

Changing The Default Printer

To use printer definitions assigned to printers 2-6, you must change WordPerfect's default printer. In the example above, to use the LaserJet IID printer's internal fonts one must select Printer 2 prior to printing. Follow the instructions below to change the default printer.

1. Hold down the [Shift] key and press [F7].

2. Select 4 - *Printer Control*.

3. Choose [1]

Printer Control	
1 - Select Print Options	C - Cancel Print Job(s)
2 - Display Printers and Fonts	D - Display All Print Jobs
3 - Select Printers	G - "Go" (Resume Printing)
	P - Print a Document
	R - Rush Print Job
	S - Stop Printing
Selection: _	

4. Choose [1]

Select Print Options	
1 - Printer Number	1
2 - Number of Copies	1
3 - Binding Width (1/10 in.)	0
Selection: _	

5. Enter the desired printer number, and press [Return]. Your selection will remain the default printer until you exit WordPerfect or select a different default.

If you don't remember which printer number corresponds to the desired printer definition, press [0] to exit the Print Options menu, and select 2 - *Display Printers and Fonts*. WordPerfect will then display the printer number associated with each installed printer definition.

Document Formatting

Whether you are creating a new document or editing an existing one, you must format your documents in this order:

- 1st - **Page Formatting**, [Alt F8]--page length, top margin
- 2nd - **Line Formatting**, [Shift F8]--tabs, margins
- 3rd - **Print Formatting**, [Ctrl F8]--font, lines/inch

Note



Failure to follow this order often results in improper formatting and consequently improper printing of documents. Use WordPerfect's Reveal Codes function, [Alt F3], to confirm that your formatting selections are in the proper order.

WordPerfect's Page, Line, and Print Formatting menus are discussed below. Understanding their relationship to your printer will help you avoid many of the problems associated with improper document formatting.

Page Formatting [Alt F8]

Page formatting specifications must be the first commands on any page. Pressing [Alt F8] displays the Page Format menu.

```
Page Format
 1 - Page Number Position
 2 - New Page Number
 3 - Center Page Top to Bottom
 4 - Page Length
 5 - Top Margin
 6 - Headers or Footers
 7 - Page Number Column Positions
 8 - Suppress for Current page only
 9 - Conditional End of Page
 A - Widow/Orphan
Selection: _
```

PAGE LENGTH. Valid *Form Lengths* and the suggested number of text lines are listed below.

Page Size Orientation	Letter Portrait	Letter Landscape	Legal Portrait	Legal Landscape
6 Lines per inch				
Form Length	66	66	84	84
Text Lines	54	39	72	39
8 Lines per inch				
Form Length	66	66	84	84
Text Lines	72	52	96	52

Note



The Form Lengths listed above are the only valid specifications. If you specify a different form length your LaserJet printer will request the improper size of paper.

TOP MARGIN. WordPerfect measures top margins in "half-lines". Since there are 12 half-lines per inch:

$$\text{Top Margin} = 12 \times \text{Desired Top Margin (in inches)}$$

Example

To set a 1.5" top margin, specify 18 half-lines—the result of 12 multiplied by 1.5.

Three (3) half-lines is the minimum top margin you can specify. Anything less than 3 half-lines places text in the LaserJet printer's unprintable region and will result in loss of data.

**Line Formatting
[Shift F8]**

Tabs, left margins, and right margins are specified by pressing [Shift F8].

MARGINS. Left and right margins are based on characters rather than inches. Consequently, margins are affected by a font's pitch. Use these formulas to calculate your left and right margins.

$$\text{Left Margin} = (\text{inches} \times \text{pitch}) - 2$$

$$\text{Right Margin} = [(\text{width of page} - \text{right margin}) \times \text{pitch}] - 2$$

Example

Assume you wanted 1.25" margins and that you were printing with a 12 pitch font. Your left margin should be set at 13, which is equal to $(1.25" \times 12) - 2$. Set your right margin at 85—the result of $[(8.5" - 1.25") \times 12] - 2$.

Note



Because WordPerfect's left and right margins are pitch-sensitive, you must set your margins every time you change the pitch setting. Failure to do so will result in a jagged left margin and improper centering of text.

Print Formatting [Ctrl-F8]

Print Format	
1 - Pitch	10
Font	1
2 - Lines per Inch	6
Right Justification	On
3 - Turn off	
4 - Turn on	
Underline Style	5
5 - Non-continuous Single	
6 - Non-continuous Double	
7 - Continuous Single	
8 - Continuous Double	
9 - Sheet Feeder Bin Number	1
A - Insert Printer Command	
B - Line Numbering	Off

Selection: _

PITCH/FONT. Run WP's *PRHELP* program. This program provides a description of the fonts WordPerfect supports and the pitch associated with each font.

Note

If you are using proportionally spaced fonts (e.g., Tms-Rmn and Helv) you must use the pitch shown in the WP *PRHELP* program. ALL proportional fonts require a WordPerfect pitch specification that includes an asterisk—10*, 13*, etc. If you do not include the asterisk, centering, tabs, margins, and right justification will not print properly!

LINES PER INCH. WordPerfect supports only six or eight lines per inch.

RIGHT JUSTIFICATION. Turn right justification OFF when using Line Draw.

UNDERLINE STYLE. Some of WordPerfect's printer definitions do not support double underlining. Run the *PRHELP* program to determine whether the definition you are using supports this feature.

SHEET FEEDER BIN. Use WP's sheet feeder bin selections to specify manual feed or to select the lower paper tray on a LaserJet IID, LaserJet 500 Plus, and LaserJet 2000 printer.

INSERT PRINTER COMMAND. You will rarely need to embed escape sequences within your document. When and if you ever do, the escape control character, F_c is represented by <27>. Thus, $\text{F}_c\&05X$ would be entered as <27>&05X.

Common Tasks

This section will assist you with many of the tasks you are likely to print with your LaserJet printer.

Selecting Fonts

To select a font, you must know:

- Whether WordPerfect supports the font
- What font number WP has assigned to the font
- The correct pitch for the font

Run WordPerfect's *PRHELP* program. It will list the supported fonts, font numbers, and pitches for each WP printer definition. (See *Identifying What is Supported* in this note.)

1. Position the cursor where you want the font to begin printing. *If you are changing fonts within a paragraph skip step 2.*
2. If the new font's pitch is not the same as the current font, press **[Shift F8]** and select *3 - Margins* to set the left and right margins based on the pitch of the font you are selecting.

Left Margin = (inches x pitch) - 2

Right Margin = [(width of page - right margin) x pitch] - 2

3. Hold down the **[Ctrl]** key and press **[F8]**.
4. At the Print Format menu, choose *1 - Pitch/Font*.
5. Enter the pitch. **Remember, you must include an asterisk (*) if you are selecting a proportionally spaced font.**
6. Enter the font number.
7. Press **[Return]** to exit the Print Format menu.

Bold Print

Most bold fonts can be accessed by pressing function key **[F6]**. Since WordPerfect uses "shadow printing" to simulate some bold fonts, bold text may print improperly. If this happens, make sure you have specified the correct pitch for the font.

Underlining

Use WordPerfect's underline function key, **[F8]**, to underline text using the underline style selected in the Print Format menu.

Paper Handling

Use WordPerfect's sheet feeder bins to manually feed paper or to access a lower paper tray. Sheet feeder definitions are defined as follows:

#11 HP LaserJet+ Sheet Feeder

Bin 1	.....	Upper Paper Tray
Bin 2	.....	Lower Paper Tray (LaserJet IID, 500 + and 2000)
Bin 3	.....	Manual Feed
Bin 4	.....	Manual Feed Envelopes
Bin 5	.....	LaserJet 2000 Paper Deck

#17 HP LaserJet Sheet Feeder

Bin 1	.....	Upper Paper Tray
Bin 2	.....	Manual Feed
Bin 3	.....	Manual Feed Envelopes

#27 HP Series II Sheet Feeder

Bin 1	.....	Upper Tray
Bin 2	.....	Manual Feed
Bin 3	.....	Manual Feed Envelopes
Bin 4	.....	Envelope Tray (Monarch size)
Bin 5	.....	Envelope Tray (COM-10 size)
Bin 6	.....	Envelope Tray (DL size)
Bin 7	.....	Envelope Tray (C5 size)

To select a bin, press **[Ctrl F8]**, select *9 - Sheet Feeder Bin Number*, enter the desired bin number, then press **[Return]**.

Legal Paper

Printing on legal paper is easy with WordPerfect. Simply follow these steps:

1. Position the cursor at the very top of the document by pressing the **[Home]** key twice and the **[↑]** key once.
2. Hold down the **[Alt]** key and press **[F8]**.
3. At the Page Format menu, choose *4 - Page Length*.

Portrait

4. To print portrait orientation, select *3 - Other*, specify **Form Length 84** and **Number of Text Lines 72**.

Landscape

To print landscape orientation, select *3 - Other*, specify **Form Length 84** and **Number of Text Lines 39**. Specify your left and right margins, then select the appropriate font for landscape.

Manual Feed

5. To manually feed legal-size paper, press **[Ctrl F8]**, select *9 - Sheet Feeder Bin Number*, then enter the bin number for manual feed—refer to the sheet feeder information above. Print your document. When your LaserJet printer displays "FEED LEGAL" or "PF LL", insert the sheet of legal paper.

Printing Envelopes (Manual Feed)

Instructions for printing manually fed envelopes are provided below. Please note that the top margin and sheet feeder bin numbers will vary depending on your LaserJet printer and which sheet feeder definition you selected during installation.

1. Install the *LaserJet Reg, +,500+ A: Courier* or the *HP LaserJet series II* printer definition and select the appropriate sheet feeder. (Refer to the **Installation** section of this note.)
2. Format your addresses according to the following table. You must follow the order shown in the table (i.e., set the top margin first, then the left and right margins, pitch/font, and then select the appropriate bin number).

ENVELOPE (Dimensions)	COM-10 (4 ¹ / ₈ " x 9 ¹ / ₂ ")	MONARCH (3 ⁷ / ₈ " x 7 ¹ / ₂ ")	DL (110mm x 220mm)	C5 (162mm x 229mm)
Top Margin [Alt F8] [5]				
LaserJet IID and series II	50	47	49	50
LaserJet, Plus, 500 Plus	76	75	73	66
L/R Margins [Shift F8] [3]	50/90	65/105	58/88	55/85
Pitch/Font [Ctrl F8] [1]	10/4	10/4	10/4	10/4
Bin Number [Ctrl F8] [9]				
#11 HP LaserJet+ Sheet Feeder	4	4	4	3
#17 HP LaserJet Sheet Feeder	3	3	3	3
#27 HP series II Sheet Feeder	3	3	3	3

3. Type the addresses, separating each one with a page break, [Ctrl Return].
4. If you did not assign the printer definition specified in step 1 to printer number 1, press [Shift F7], choose 4 - *Printer Control*, then 1 - *Select Print Options*, then 1 - *Select Printer Number* and enter the appropriate printer number (2-6). Press [Return] twice to return to your document.
5. Press [Shift F7] and choose 1 - *Full Text* to print the envelopes.
6. Insert envelopes only when your printer displays "FEED ENVELOPE" or "PE".

Envelope Tray

Follow these steps if you have the optional Envelope Tray (HP 92295F) for a LaserJet IID or LaserJet series II printer. Additional information can be found in the *Envelope Tray User's Guide*.

1. Install the *HP LaserJet series II* printer definition and select the *HP series II Sheet Feeder*. (Refer to the **Installation** section of this note.)

Note



If the *HP series II Sheet Feeder* definition is not available, call WordPerfect's Order Department and ask for their 10/26/87 printer disc update.

2. Format your addresses in WP according to the following table. You must follow the order shown in the table (i.e., set the top margin first, then the left and right margins, pitch/font, and then select the appropriate bin number).

ENVELOPE (Dimensions)	COM-10 (4 ¹ / ₈ " x 9 ¹ / ₂ ")	MONARCH (3 ⁷ / ₈ " x 7 ¹ / ₂ ")	DL (110mm x 220mm)	C5 (162mm x 229mm)
Top Margin [Alt F8] [5]	24	20	24	36
L/R Margins [Shift F8] [3]	35/90	30/70	35/80	35/85
Pitch/Font [Ctrl F8] [1]	10/4	10/4	10/4	10/4
Bin Number [Ctrl F8] [9]	5	4	6	7

3. Type the addresses, separating each one with a page break, [Ctrl Return].
4. If you did not assign the *HP LaserJet Series II* printer definition and sheet feeder to printer number 1, press [Shift F7], choose *4 - Printer Control*, then *1 - Select Print Options*, then *1 - Select Printer Number* and enter the appropriate printer number (2-6). Press [Return] twice to return to your document.
5. Press [Shift F7] and choose *1 - Full Text* to print the addresses.
6. Load envelopes in the tray and insert the tray as instructed in the *Envelope Tray User's Guide*.

Printing Special Characters

Special characters can be printed if your LaserJet printer has an internal, cartridge, or soft font that supports the character and if WordPerfect's printer definition fully supports that font.

Refer to your LaserJet printer manual to determine whether your printer's internal fonts support a particular character or symbol. If you have an optional font cartridge or soft font, refer to the documentation that accompanied the font.

Follow the steps below to identify which special characters and symbols a WordPerfect printer definition supports.

1. At your DOS prompt, type **WP** and press **[Return]** to load WordPerfect.
2. Insert the WordPerfect *LEARNING* disc in drive A.
3. Hold down the **[Shift]** key and press **[F10]**.
4. Type **A:FONT.TST** and press **[Return]** to retrieve the *FONT.TST* file from the *LEARNING* disc.
5. Press the **[Home]** key twice, then the **[↑]** key to position your cursor at the very top of the document.
6. Hold down the **[Ctrl]** key and press **[F8]**.
7. At WP's Print Format menu, choose *1 - Pitch/Font*.
8. Specify the pitch.
9. Select the font number (1-8) that corresponds to the internal, cartridge, or soft font that supports the special character, then press **[Return]**.
10. Print the document. Then look for the special character or symbol in the printed table. Add the row number and column number where the character is located. This is the decimal value WP has assigned to the character. To access the character in WordPerfect, hold down the **[Alt]** key and use your computer's numeric keypad to enter the character's decimal value.

Example To access a character with decimal value 253, hold down the **[Alt]** key and enter 253 on the computer's numeric keypad.

Formatting And Printing Labels

The following table provides WordPerfect format settings for adhesive labels available from Avery International (1-800-535-3232 Ext. 30).

1. Install the *LaserJet Reg, +,500+ A: Courier* or the *HP LaserJet series II* printer definition and select the appropriate sheet feeder. (Refer to the **Installation** section of this note.)
2. Format your labels in the order shown below (i.e., Bin Number, Page Length, Top Margin, Margins, Pitch/Font, then Columns). If you have questions about using columns, refer to your WordPerfect manual or call WordPerfect Customer Support.

AVERY PRODUCT CODE (Label Dimensions)	5160 (2 ⁵ / ₈ " x 1")	5161 (4" x 1")	5162 (4" x 1 ¹ / ₂ ")
Sheet Feeder Bin Number [Ctrl F8] [9]			
#11 HP LaserJet+ Sheet Feeder	3	3	3
#17 HP LaserJet Sheet Feeder	2	2	2
#27 HP series II Sheet Feeder	2	2	2
Page/Text Length [Alt F8] [4] [3]	66/58	66/58	66/60
Top Margin [Alt F8] [5]			
LaserJet, Plus, series II, IID	8	8	6
LaserJet 500 Plus	9	9	8
Left/Right Margins [Shift F8] [3]	2/83	2/83	2/83
Pitch/Font [Ctrl F8] [1]	10/1	10/1	10/1
Column Definitions [Alt F7] [4]			
Evenly spaced columns?	N	N	N
Type of Columns (newspaper)	1	1	1
Number of Text Columns	3	2	2
Column 1	2/26	2/40	2/40
Column 2	29/54	44/83	44/83
Column 3	57/83	--	--

4 Line Addresses Use Avery 5160 or 5161 labels for 4 line addresses. Separate each address with 2 blank lines.

6 Line Addresses Use Avery 5162 labels for 6 line addresses. Separate each address with 3 blank lines.

Drawing Lines And Boxes

Line and box drawing characters are resident in the LaserJet IID printer's PC-8 symbol set, LaserJet 2000 printer's PC-8 symbol set, and the LaserJet series II printer's IBM-US symbol set. Other LaserJet printer models require an optional cartridge font, such as HP 92286Y or HP 92286R, which contains line and box drawing characters.

Run WordPerfect's *PRHELP* program to determine which printer definitions support WP's line and box drawing feature, [Ctrl F3].

You must turn Right Justification OFF when using line drawing. If you draw lines using the Lineprinter (16.66 pitch) font set Lines Per Inch to 8.

Embedding Printer Commands

For features not supported by WordPerfect's printer definitions, printer commands can be embedded in documents. The steps are as follows:

1. Press [Ctrl F8] and select [A] *Insert Printer Command*.
2. To enter the escape control character, Esc , type <27>. Then enter the remainder of the printer command in its ASCII form. *There should be no spaces in the command!*

Example

$\text{Esc}\&Q5X$ would be entered as <27>&Q5X.

Printing Duplex

The LaserJet IID and LaserJet 2000 (HP 2684D) printers are capable of printing on both sides of a page (i.e., duplex).

To print duplexed documents using WordPerfect, you must define one of your printers as *HP LaserJet 2000 Duplex*. Refer to the **Installation** section of this application note.

Note



All documents printed using WordPerfect's *HP LaserJet 2000 Duplex* printer definition will be duplexed. If you want to print simplex (on one side of the page) use a different printer definition.

The HP LaserJet 2000 Duplex printer definition supports fonts that are resident in the LaserJet 2000 printer. If you use this printer definition with a LaserJet IID printer and 92290S2 font cartridge, Font Numbers 1, 2, 5, and 7 are supported. Font Numbers 3, 4, 6, and 8 are not supported.

Common Problems

This section provides a troubleshooting approach to solving many of the common problems associated with using WordPerfect and a LaserJet printer. In most cases, these problems can be avoided if you follow the guidelines presented in the **General Information** and **Common Tasks** sections of this application note.

"Creeping" Text

If the first page of your document prints properly but subsequent pages have larger and larger top margins (i.e., creep down) check the following:

Did you install the correct printer definition? Press [Shift F7], select 4 - *Printer Control*, then 2 - *Display Printers and Fonts*. Make sure you have defined one of the six printers as a LaserJet printer. WordPerfect's "Standard Printer" definition will cause creeping text.

Which printer is WordPerfect defaulting to? Press [Shift F7], select 4 - *Printer Control*, then 1 - *Select Print Options*. Confirm that the default printer number corresponds to the printer number you defined as a LaserJet printer.

Did you specify 0 Extra Lines Between Pages when you selected a sheet feeder? During installation, WordPerfect asks you to specify the *Number of Extra Lines Between Pages* if you select a sheet feeder. Make sure you specified 0.

Did you specify the correct page length? Regardless of other settings, including orientation and line spacing, your page length (form length) must be set to 66 for letter-size paper or 84 for legal-size paper. Use WordPerfect's reveal codes function [Alt F3] to find and delete ALL invalid page length specifications.

Text Does Not Center

If text does not center, make sure you have specified the correct pitch—including the asterisk (*) for proportionally spaced fonts. Run WP's *PRHELP* program to determine a font's pitch. Also, make sure your left and right margins are based on the font's pitch:

Left Margin = (inches x pitch) - 2

Right Margin = [(width of page - right margin) x pitch] - 2

Justification And Tabs

Right justification and tab alignment are dependent on proper pitch specification. Run the *PRHELP* program to

determine a font's pitch (see *Identifying What Is Supported* earlier in this note). If you are using proportionally spaced fonts you must use tabs to align text. Do not use spaces.

Incorrect Font

If your document does not print in the correct font, check the following:

Did you install the correct printer definition? Repeat the installation procedure described earlier in this document.

Does WordPerfect's printer definition support the desired font? See *Identifying What Is Supported* in this application note.

Is the font cartridge properly inserted? If the font is a cartridge font, take the printer off line and insert the font cartridge firmly—you should hear and feel the cartridge "click". Place the printer on line and try printing again.

Did you download the right soft font? You must download the font WordPerfect's printer definition supports. Run WP's *PRHELP* program. It lists the soft font file names for each of the fonts WordPerfect's definition supports.

PC Load Exec or PC B5 Message

If your printer's default line spacing (6 lines/inch) has been modified it may display "LOAD EXEC" or "PC B5" when you print your document. Try the following:

For a LaserJet IID or series II printer, take the printer off line and hold down the RESET MENU key until "09 MENU RESET" is displayed. For a LaserJet Plus or 500 Plus printer take the printer off line and hold down the RESET key until "07" is displayed. To reset a LaserJet printer, turn the printer off.

Did you specify the correct page length? Regardless of other settings, including orientation and line spacing, your page length (form length) must be set to 66 for letter-size paper or 84 for legal-size paper. Use WordPerfect's reveal codes function [Alt F3] to find and delete ALL invalid page length specifications.

Are you printing eight (8) lines per inch? If you are specifying a page length (e.g., legal) your page length setting must precede the 8 lines per inch setting. Use WP's reveal codes function [Alt F3] to make sure.

Special Character Did Not Print

Refer to "Special Characters" in the **Common Tasks** section of this application note.

Printer Not Accepting Characters

If WordPerfect displays the message "Trying to Print, Printer Not Accepting Characters" make sure your printer is on line and that you selected the correct printer port during installation.

If you still can't print, exit WP and shut off your computer and printer. Wait 15 seconds, then turn on your computer and printer. At your DOS prompt, type DIR >PRN. Your printer's Form Feed light should come on. If the Form Feed light does not come on, refer to your LaserJet printer manual. You may need to re-configure your computer and printer.

Other Problems

If you are having other types of problems, or if the suggestions provided in this section have not resolved the problem:

1. Read the **General Information** section of this application note. Pay particular attention to the *Document Formatting* section as improper document formatting is the cause of most printer problems.
2. Try printing similar documents. Is the problem isolated to one document? If so, use WordPerfect's reveal codes function [Alt F3] and search function [F2] to find and delete invalid or misplaced format selections.
3. Repeat the installation procedures. This will help ensure proper installation of the correct printer definition.
4. Refer to your WordPerfect manual or call WordPerfect Customer Support if you need assistance in using WP's functions (e.g., columns, macros, merge, etc.) or if you need assistance in using WP's *PRINTER* program or *HP UTILITY*.

5. Call Hewlett-Packard's LaserJet Assist Line



Telephone(208) 323-2551
Hours (Mon, Tue, Thu, Fri) ... 7:00am to 6:00pm MST
Wednesdays 7:00am to 4:00pm MST

Note



When you call Hewlett-Packard, call from a phone next to your computer and LaserJet printer. Assisting you often requires access to your printer and WordPerfect document.

MicroPro International Corporation

Customer Support Number (415) 499-8320
 Hours 6:00am - 5:00pm PST
 Charge None
 Required Identification None

or

Customer Support Number (415) 499-8405
 Hours 6:00am - 5:00pm PST
 Charge \$15 per call
 Required Identification None

For information on MicroPro's support and warranty policies refer to the WordStar 4.0 *Customer Service* booklet.

Product Update Policies and Procedures - To update your WordStar 4.0 printer drivers, or to update older versions of WordStar to WordStar 4.0, call (800) 227-5609.

The procedures and information contained in this note apply to MicroPro's October 1987 printer drivers for WordStar 4.0. If you do not have the October 1987 drivers, call MicroPro and update your drivers.

Supported Fonts

Cartridge Fonts 92286... B, F, J, K, P, U, V, Y	Soft Fonts 33412... AC, AD (TrmsRmn Fonts Only)
Cartridge Fonts 92290... --	Super Font Files 33412... --

The cartridge fonts and soft fonts listed above are the only ones directly supported by WordStar 4.0. However, some of the unsupported fonts listed below may work. Refer to the README program on WordStar's INSTALLATION disc.

Unsupported Fonts

Cartridge Fonts 92286... A, C, D, E, G, H, L, M, N, Q, R, T, W1, X, Z	Soft Fonts 33412... AE, AF, DA, EA, RA, SA, TA, UA RB, SB, TB, UB
Cartridge Fonts 92290... S1, S2	Super Fonts 33412... AG



Installation

Using WordStar Professional (WS) with your LaserJet printer requires that you:

- Review WordStar's *README* Program
- Identify the Correct Printer Driver
- Run *WINSTALL* to Install Your Printer
- Run *WSCHANGE* to Install a Sheet Feeder

What Is Required

Diskettes: *PROGRAM* and *INSTALLATION*
Manuals: *WordStar Professional*

Review WordStar's README Program

Before you install your printer, review the information contained in WordStar's *README* program.

To review this program, place the WordStar *INSTALLATION* disc in drive A. At your DOS prompt A>, type **README** and press [Return].

Identify the Correct Printer Driver

MicroPro's *INSTALLATION* disc (dated October 1987) provides several LaserJet printer drivers for WordStar 4.0. Use the tables which follow to identify the correct driver for your printer. If you have optional cartridge fonts or soft fonts install the indicated cartridge or soft font printer driver.

Note



To use an HP 92290S2 font cartridge with a LaserJet IID printer, install the *HP LaserJet, AD TmsRmn* driver. This driver supports the TmsRmn 8 point and TmsRmn 12 point Roman-8 symbol set S2 cartridge fonts.

Internal Fonts

LaserJet	.....	HP LaserJet
LaserJet Plus	.....	HP LaserJet
LaserJet 500 Plus	.....	HP LaserJet
LaserJet series II	.....	HP LaserJet II, F & P Cartridges
LaserJet IID	.....	HP LaserJet II, F & P Cartridges
LaserJet 2000	.....	HP LaserJet II, F & P Cartridges

Cartridge Fonts

92286B	.....	HP LaserJet, B Cartridge
92286F	.....	HP LaserJet II, F & P Cartridges
92286J	.....	HP LaserJet, J & K Cartridges
92286K	.....	HP LaserJet, J & K Cartridges
92286P	.....	HP LaserJet II, F & P Cartridges
92286U	.....	HP LaserJet, U & V Cartridges
92286V	.....	HP LaserJet, U & V Cartridges
92286Y	.....	HP LaserJet, Y Cartridge, AC TmsRmn

Soft Fonts

33412AC	.....	HP LaserJet, Y Cartridge, AC TmsRmn
33412AD	.....	HP LaserJet, AD TmsRmn

Run WINSTALL

The paragraphs which follow outline the installation of your printer using WordStar's *WINSTALL* program. This program provides a menu from which you install the printer drivers listed in the previous section.

Keystrokes are summarized in the left margin of this section; for example, [Return] indicates that you should press the return key. Many of the screens WordStar displays are reproduced for your reference.

Type **WINSTALL WS**
and press [Return]

Make sure you are in the WordStar 4.0 subdirectory, usually C:\WS4. At your DOS prompt, type **WINSTALL WS** and press [Return]. The Main Installation Menu will appear.

Choose [B]

```
Main Installation Menu

A Console.....Choose your monitor
B Printer.....Choose your printer
C Computer.....Choose operating system & disk drives on
                  your computer Check the CONFIG.SYS file
D Dictionaries..Specify location of the spelling
                  dictionaries

X Done with installation
? Help
```

Choose [2]

Select 2 Printer Menu #2.

Select Your Printer

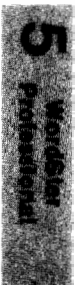
```
Printer Selection Menu #2

H HP LaserJet
I HP LaserJet, B Cartridge
J HP LaserJet, J & K Cartridges
K HP LaserJet, U & V Cartridges
L HP LaserJet, Y Cartridge, AC TmsRmn
M HP LaserJet, AD TmsRmn
N HP LaserJet II, F & P Cartridges
```

Press the letter which corresponds to the appropriate printer driver. Your selection will become WordStar's default printer. However, you will have the option of selecting a different printer when you print a document—see *Changing Drivers* in the **Common Tasks** section of this note.

Exit WINSTALL

After you select your printer, press [X] two times, then [Y] to exit *WINSTALL*.



Run WSCHANGE

Run WordStar's *WSCHANGE* program to install a sheet feeder definition. This procedure is required if you plan to print on manually fed, legal-size paper or on envelopes.

Type **WSCHANGE WS**
and press **[Return]**

Make sure you are in the WordStar 4.0 subdirectory, usually **C:\WS4**. At your DOS prompt, type **WSCHANGE WS** and press **[Return]**.

Choose **[B]**

```
Main Installation Menu
A Console
B Printer
C Computer
D WordStar
E Patching

X Done with installation
? Help
```

Choose **[B]**

```
Printer
A Printer choices
B Sheet feeders
C Printer driver library
D WS printer patches
E Printing defaults
F Printer interface

X Done with this menu
? Help
```

Select a Sheet Feeder

For a LaserJet IID, LaserJet 500 Plus, or LaserJet 2000 printer, choose *L HP LaserJet 500+ 2-bin+man+env*. Otherwise choose *K HP LaserJet internal +manual+env*.

Bins for *L HP LaserJet 500+ 2-bin+man+env* are:

- Bin 1 Feed From Top Paper Tray
- Bin 2 Feed From Lower Paper Tray
- Bin 3 Manual Feed
- Bin 4 Manual Feed Envelopes

Bins for *K HP LaserJet internal+manual+env* are:

- Bin 1 Feed From Paper Tray
- Bin 2 Manual Feed
- Bin 3 Manual Feed Envelopes
- Bin 4 Not Defined

Exit **WSCHANGE**

After you select your sheet feeder, press **[X]** three times, then **[Y]** to exit *WSCHANGE*.

General Information

The information which follows is applicable to most of the documents you are likely to print using WordStar with your LaserJet printer. Read this information carefully as it will help you avoid many of the common problems discussed later in this application note.

Identifying What Is Supported

WordStar's *INSTALLATION* disc contains a program called *README*. This program summarizes the features and fonts supported by each WordStar printer driver. This section highlights some of the more important information about WordStar's LaserJet printer drivers.

Run README

Place the WordStar *INSTALLATION* disc in drive A. At your DOS prompt A>, type **README** and press [Return].

Select HP LaserJet

At the Table of Contents screen press [PgDn] until *HP LaserJet* is displayed. Use your cursor keys to highlight *HP LaserJet*, then press [Return]. General information on fonts, font selection, and LaserJet Printer Drivers will be displayed.

Font Selection

README describes several characteristics of LaserJet printer fonts, and the WordStar Control codes used to specify each of these characteristics. The table which follows summarizes this information.

FONT CHARACTERISTIC	WORDSTAR CONTROL CODE
Orientation	
Portrait	.PR OR=P
Landscape	.PR OR=L
Symbol Set (Roman-8, Legal, etc.)	Printer Driver
Spacing	
Fixed (Courier, Letter Gothic, etc.)	.PS OFF
Proportional (TmsRmn, Helv, etc.)	.PS ON
Pitch (fixed spaced fonts)	.CW
Point Size (character height)	.CW
Style (upright or italic)	^PY
Stroke Weight (light, medium, bold)	^PB

Note



Make sure the printer driver you installed supports the symbol set of the fonts you plan to use with WordStar. The symbol sets supported by each driver are listed in the next section.

Additional information on selecting fonts can be found in the **Common Tasks** section of this application note.

WordStar's LaserJet Printer Drivers

The following *README* screen lists the LaserJet printer drivers provided by WordStar and what they support.

Driver	Fixed-width Symbol Set	Proportional Symbol Set	Proportional Tables	Downloaded Fonts/Cartridges
-----	-----	-----	-----	-----
HP LaserJet HPLJET	Default	Default	TmsRmn 8R, 10R,10B,10I Helv 14B	F, P, most fixed
HP LaserJet, B Cartridge HPLJ:B	Default	USASCII	TmsRmn 8R, 10R,10B,10I Helv 14B	B
HP LaserJet, J & K Cartridges HPLJ:K	Roman-8 Math-8 Pi Font	Roman-8	TmsRmn 8R, 10R,10B,10I	J, K (Math)
HP LaserJet, U & V Cartridges HPLJ:U	Roman-8, Line Draw	Roman-8	Helv 6R,8R, 10R,12R,14R	U, V
HP LaserJet, Y Cartridge, AC HPLJ:Y	PCSET1 PCSET2	USASCII	TmsRmn 6,8,10,12,14 (all in R,B,I) 18B,24B,30B	Y, AC
HP LaserJet, AD HPL:AD	AD TmsRmn Roman-8, Line Draw	Roman-8	TmsRmn 6,8,10,12,14 (all in R,B,I) 18B,24B,30B	AD
HP LaserJet II, F & P Cartridges HPLJ2	Roman-8 PC	Roman-8	TmsRmn 8R, 10R,10B,10I Helv 14B	F, P, many fixed

Additional *README* tables provide the following information about each printer driver:

- Supported Cartridge Fonts and Soft Fonts
- .PS and .CW Settings for Each Font
- Supported Typefaces and Point Sizes (e.g., Courier 12)
- Supported Treatments (**Regular**, **Bold**, or **Italic**)
- Extended Character Set (ECS) Support for ALT-128 through ALT-255.

Portions of these tables are reproduced in the following pages. Information that is common to all printer drivers is located at the end of this section.

HP LASERJET, LASERJET + (F cartridge and others) — Driver: HPLJET

Cartridge/ Soft font	.PS	.CW	Font/Point Size	R	B	I	Landscape
F	on	7 (0-7)	Times Roman 8	x			
		9 (8-11)	Times Roman 10	x	x	x	
		13 (12-30)	Helvetica 14			x	
	off	7 (0-11)	Line Printer 8.5	x			
		12 (12-30)	Courier 12	x			x
P	on	9 (0-30)	Times Roman 10	x	x	x	x
	off	7 (0-11)	Line Printer 8.5	x			
		12 (12-30)	Courier 12	x			x (0-30)

The following fixed pitch fonts may be available depending on your cartridge.
(Note that these are measure by pitch, not by point size.):

.CW	Font Name
7	16.7 pitch
10	12 pitch
12	10 pitch
15	8.1 pitch
18	6.5 pitch
21	5.8 pitch
27	4.5 pitch

ECS The printer compose table assumes that this driver uses the ROMAN8 Symbol Set for both fixed width and proportional fonts. Graphics and math characters are composed of standard ASCII characters. This driver never changes the default symbol set, and could be modified to support font cartridges with other symbol sets.

HP LASERJET, LASERJET + (B cartridge) — Driver: HPLJ:B

Cartridge/ Soft font	.PS	.CW	Font/Point Size	R	B	I	Landscape
B	on	7 (0-7)	Times Roman 8	x			
		9 (8-11)	Times Roman 10	x	x	x	
		13 (12-30)	Helvetica 14			x	
	off	7 (0-11)	Line Printer 8.5*	x			x
		12 (12-30)	Courier 12	x			x

* Line printer 8.5 is not available in portrait mode on the HP 2686A LaserJet.

ECS The printer compose table assumes that this driver uses the ROMAN8 Symbol Set for both fixed width and proportional fonts. Graphics and math characters are composed of standard ASCII characters. This driver leaves the default symbol set unchanged for fixed width fonts, selects USASCII for ASCII characters when proportional spacing is selected, and ROMAN8 for European characters (forcing fixed pitch characters).

HP LASERJET, LASERJET+ (J and K cartridges) — Driver: HPLJ:K

Cartridge/ Soft font	.PS	.CW	Font/Point Size	R B I	Landscape
K	on	7 (0-7)	Times Roman 8	x	
		9 (8-11)	Times Roman 10	x x x	
J,K	off	7 (0-8)	Line Printer 8.5*	x	x
		12 (11-30)	Courier 12	x	x
J	off	10 (9-10)	Prestige Elite	x	x

* Line printer 8.5 is not available in portrait mode on the HP 2686A LaserJet.

ECS The printer compose table assumes that this driver uses the ROMAN8 Symbol Set for both fixed width and proportional fonts. Graphics and math characters are composed of standard ASCII characters. This driver leaves the default symbol set unchanged for fixed width fonts, selects USASCII for ASCII characters when proportional spacing is selected, and ROMAN8 for European characters (forcing fixed pitch characters). Vertical alignment when using the K cart. for vertical line drawing characters can be expected to be off. Use ^P@ to ensure correct alignment when printing.

HP LASERJET, LASERJET+ (U and V cartridges) — Driver: HPLJ:U

Cartridge/ Soft font	.PS	.CW	Font/Point Size	R B I	Landscape
U	on	5 (0-5)	Helvetica 6	x	
		7 (6-7)	Helvetica 8	x	
		9 (8-9)	Helvetica 10	x	
		11 (10-11)	Helvetica 12	x	
		13 (12-30)	Helvetica 14	x	
off	off	7 (0-11)	Letter Gothic 9.5	x	
		12 (12-30)	Courier 12	x	x (0-30)
V	on	5 (0-5)	Helvetica 6	x	landscape only*
		7 (6-7)	Helvetica 8	x	**
		9 (8-9)	Helvetica 10	x	**
		11 (10-11)	Helvetica 12	x	**
		13 (12-30)	Helvetica 14	x	**
		off	off	7 (0-11)	Letter Gothic 9.5	x	**
off	off	12 (12-30)	Courier 12	x	

* No proportional font is available in portrait orientation.

** With fixed spacing, in portrait orientation, .CW7 (0-11) produces Line Printer 8.5 on the LaserJet+ and Courier 12 on the LaserJet.

ECS The printer compose table assumes that this driver uses the ROMAN8 Symbol Set for both fixed width and proportional fonts, and the LINEDRAW Symbol Set for graphics characters.

HP LASERJET, LASERJET + (Y cartridge, AC TmsRmn) — Driver: HPLJ:Y

Cartridge/ Soft font	.PS	.CW	Font/Point Size	R B I	Landscape
Y	on	none available			
	off	7 (0-11)	Line Printer 8.5	x	x
		12 (12-30)	PC Courier 12	x x x	
AC*	on	5 (0-5)	Times Roman 6	x x x	x
		7 (6-7)	Times Roman 8	x x x	x
		9 (8-9)	Times Roman 10	x x x	x
		11 (10-11)	Times Roman 12	x x x	x
		13 (12-14)	Times Roman 14	x x x	x
		16 (15-18)	Times Roman 18	x	x
		20 (19-24)	Times Roman 24	x	x
		25 (25-30)	Times Roman 30	x	x
	off	7 (0-11)	Line Printer 8.5	x	x (0-30)
		12 (12-30)	Courier 12	x	



* Other .CW settings may access additional fonts if a cartridge is also installed.

ECS The driver assumes that the printer uses the PC and PCEXT Symbol Sets for fixed pitch characters, and the USASCII Symbol Set for proportional characters. The printer compose table is set up for PC and PCEXT characters; selecting extended characters for proportional fonts will cause fixed width PC characters to be printed.

HP LASERJET, LASERJET + (AD TmsRmn) — Driver: HPL:AD

Cartridge/ Soft font	.PS	.CW	Font/Point Size	R B I	Landscape
AD*	on	5 (0-5)	Times Roman 6	x x x	x
		7 (6-7)	Times Roman 8	x x x	x
		9 (8-9)	Times Roman 10	x x x	x
		11 (10-11)	Times Roman 12	x x x	x
		13 (12-14)	Times Roman 14	x x x	x
		16 (15-18)	Times Roman 18	x	x
		20 (19-24)	Times Roman 24	x	x
		25 (25-30)	Times Roman 30	x	x
	off	7 (0-11)	Line Printer 8.5	x	
		12 (12-30)	Courier 12	x	x (0-30)

* Other .CW settings may access additional fonts if a cartridge is also installed.

The following fixed pitch fonts may be available depending on your cartridge.
(Note that these are measure by pitch, not by point size.):

.CW	Font Name
7	16.7 pitch
10	12 pitch
12	10 pitch
15	8.1 pitch
18	6.5 pitch
21	5.8 pitch
27	4.5 pitch

ECS The driver assumes that the printer uses the ROMAN8 Symbol Set for proportional and fixed width characters, and the LINEDRAW Symbol Set for graphics characters.

HP LASERJET SERIES II (F cartridge and others) — Driver: HPLJ2

Cartridge/ Soft font	.PS	.CW	Font/Point Size	R	B	I	Landscape
F	on	7 (0-7)	Times Roman 8	x			
		9 (8-11)	Times Roman 10	x	x	x	
		13 (12-30)	Helvetica 14		x		
	off	7 (0-10)	Line Printer 8.5	x			*
12 (11-30)		Courier 12	x	*		x	
P	on	9 (0-30)	Times Roman 10	x	x	x	x
		7 (0-11)	Line Printer 8.5	x			
	off	12 (12-30)	Courier 12	x			x (0-30)

The following fixed pitch fonts may be available depending on your cartridge.
(Note that these are measure by pitch, not by point size.):

.CW	Font Name
7	16.7 pitch
10	12 pitch
12	10 pitch
15	8.1 pitch
18	6.5 pitch
21	5.8 pitch
27	4.5 pitch

ECS This driver uses the ROMAN8 symbol set wherever possible, and the PC symbol set for characters not available in the ROMAN8 set. For proportional characters not in the ROMAN8 set, fixed pitch characters will be printed.

**Important Information
For All Printer Drivers**

The following information applies to all WordStar LaserJet printer drivers. (^ means hold down the [Ctrl] key)

- .PL 62 is the recommend page length setting for 11 inch paper printed in portrait
- .PL 47 is the recommend page length setting for landscape printing
- .PR OR=P selects portrait orientation
- .PR OR=L selects landscape orientation
- ^PY toggles between normal and italic characters when the appropriate italic font is available
- ^PB toggles between normal and bold characters when the appropriate bold font is available
- ^PD toggles between normal and simulated bold when no bold font is available
- ^PV prints full-size subscript characters
- ^PT prints full-size superscript characters

Common Tasks

This section will assist you with many of the tasks you are likely to print with your LaserJet printer.

Selecting Fonts

To select a font, you must know:

- Whether WordStar 4.0 supports the font
- Which printer driver should be selected
- Whether the font is fixed or proportionally spaced
- The correct .CW command for the font

This information can be found in the **General Information** section of this application note. Once you have the necessary information, follow the steps below to select a supported font.

Position Cursor

Position the cursor at the left column.

Note



.CW commands must be entered at the left column position. **You cannot use a .CW command to change a font's pitch or point size in the middle of a line or paragraph.**

Fixed Spaced Font Selection

Type **.PS OFF** and press [Return].

Enter the appropriate .CW for the font's pitch and press [Return].

.CW 7	.....	16.66 Pitch
.CW 10	.....	12 Pitch
.CW 12	.....	10 Pitch
.CW 15	.....	8.1 Pitch
.CW 18	.....	6.5 Pitch
.CW 21	.....	5.8 Pitch
.CW 27	.....	4.5 Pitch

Proportionally Spaced Font Selection

Type **.PS ON** and press [Return].

Enter the appropriate .CW for the font's point size and press [Return].

.CW 5	.....	6 Point
.CW 7	.....	8 Point
.CW 9	.....	10 Point
.CW 11	.....	12 Point
.CW 13	.....	14 Point
.CW 16	.....	18 Point
.CW 20	.....	24 Point
.CW 25	.....	30 Point

Examples

To select a fixed spaced, 10 pitch font, type:

```
.PS OFF  
.CW 12
```

To select a proportionally spaced, 12 point font, type:

```
.PS ON  
.CW 11
```

Boldface and Italics

To select boldface and italics refer to the end of the **General Information** section of this note.

Select The Correct Driver

The .CW commands you enter to select fonts work only if you select the correct printer driver. The next section explains how to change drivers when you print your document.

Changing Drivers

When you ran *WINSTALL* you selected WordStar's default printer driver. If you use cartridge fonts or soft fonts you may need to select a different printer driver from time to time.

To change printer drivers follow these steps:

1. At WordStar's Opening Menu, press [P] (regular printing).
2. Enter the name of the document to print and press [Return].
3. Press [Return] until WS prompts, *Name of Printer?*

```
Document to print? b:test  
  
      Number of copies? 1  
Pause between pages (Y/N)? N  
      Use form feeds (Y/N)? Y  
          Starting page? 1  
          Ending page? 1  
      Nondocument (Y/N)? N  
          Name of printer? HPLJ2
```

4. Enter the desired printer driver name (e.g., HPLJ2) and press [Return].

Legal Paper

To print WordStar documents on legal paper, install a sheet feeder then use WordStar's *WSCHANGE* program to modify one of the sheet feeder bins to support legal paper. Sheet feeder installation is discussed earlier in this application note. Modifying a sheet feeder bin is outlined below.

Once you modify the sheet feeder bin, you will no longer be able to manually feed other sizes of paper (e.g., labels). However, envelopes can still be printed.

Type **WSCHANGE WS**
and press **[Return]**

Make sure you are in the WordStar 4.0 subdirectory, usually **C:\WS4**. At your DOS prompt, type **WSCHANGE WS** and press **[Return]**.

Choose **[B]**

At the Main Installation Menu, choose *B Printer*.

Choose **[D]**

Next, choose *D WS Printer Patches*.

Choose **[A]**

```
WordStar print patches

A Custom print controls, printer initialization, sheet
  feeder
B CUSTOM and SIMPLE driver controls
C Save all CUSTOM and SIMPLE driver controls
= Enter User Area address
X Done with this menu
? Help
```

Choose **[L]** or **[K]**

If you installed the LaserJet 500+ Sheet Feeder Definition, select *L Sheet Feeder Bin 3*, otherwise select *K Sheet Feeder Bin 2*.

Modify the
Bin Command

```
While patching:
  X - Return to Patch Menu
  . - End of changes, re-display
  RETURN - Leave current byte unchanged; advance to next
           location
  ' - Enter the next character in ASCII
  0-9, A-F - Enter the hex digit

*** ENTER THE APPROPRIATE CODE HERE ***
```

Legal Tray

If you have a legal-size paper tray enter the following printer code: **08 1B 26 6C 38 34 70 30 45 00**

Manual Feed

To print on manually fed legal-size paper enter the following printer code: **0A 1B 26 6C 38 34 70 32 68 30 45 00**

Note



Make sure you enter zeros (0), not O's. Enter a period (.) after the last 00 digit. Verify that your entries are correct.



Choose [X] Exit the patching screen.

Choose [X] Exit the Custom Print Controls screen.

Choose [C]

```
WordStar print patches
A Custom print controls, printer initialization, sheet
  feeder
B CUSTOM and SIMPLE driver controls
C Save all CUSTOM and SIMPLE driver controls

= Enter User Area address
X Done with this menu
? Help
```

Press [Return]

```
Save all CUSTOM and SIMPLE print controls

You can save the current print controls for the CUSTOM and
SIMPLE drivers in a nondocument file that can later be used
by the auto patcher.

Enter file name to hold settings (or RETURN to quit)...
```

Exit WSCHANGE

Press **[X]** three times, then **[Y]** to exit *WSCHANGE*.

This completes the task of modifying WordStar's sheet feeder bin. *Repeat this process if you re-install or modify this printer driver in the future.*

Format Your Document

Enter the page length command and bin command at the top left column of your document.

```
.pl 84
.bn 3
Begin your document here...
```

*Use .bn 2 if you installed the *HP LaserJet internal+manual+env* sheet feeder definition.

Note



When you print you must select **Y** to use form feeds. Refer to *Sheet Feeder Bin Not Accessed* in the **Common Problems** section of this application note.

Printing Envelopes (Manual Feed)

Printing manually fed envelopes in WordStar requires that you install a sheet feeder—refer to the **Installation** section of this note.

At the top left column of your document, enter the commands for landscape, page offset, top margin, left margin, right margin, and bin number as indicated in the following table.

ENVELOPE (Dimensions)	COM-10 (4 ¹ / ₈ " x 9 ¹ / ₂ ")	MONARCH (3 ⁷ / ₈ " x 7 ¹ / ₂ ")	DL (110mm x 220mm)	C5 (162mm x 229mm)
Select Landscape Orientation	.PR OR=L	.PR OR=L	.PR OR=L	.PR OR=L
Set Page Offset to Zero	.PO 0	.PO 0	.PO 0	.PO 0
Top Margin				
LaserJet series II, and IID	.MT 24	.MT 24	.MT 23	.MT 23
LaserJet, Plus, 500 Plus	.MT 35	.MT 35	.MT 35	.MT 29
Left Margin	.LM 50	.LM 65	.LM 58	.LM 55
Right Margin	.RM 90	.RM 105	.RM 88	.RM 85
Sheet Feeder Bin Number				
HP LaserJet 500+ Definition	.BN 4	.BN 4	.BN 4	.BN 4
HP LaserJet Definition	.BN 3	.BN 3	.BN 3	.BN 3

Note



You must select **Y** to use form feeds. Refer to *Sheet Feeder Bin Not Accessed* in the **Common Problems** section of this application note. IT IS NOT UNCOMMON TO GET A BLANK ENVELOPE.

Envelope Tray

Follow these steps if you have the optional Envelope Tray (HP 92295F) for a LaserJet IID or LaserJet series II printer. Additional information can be found in the *Envelope Tray User's Guide*.

Two procedures must be completed before you can use your envelope tray.

- Run *WSCHANGE* to Install a Sheet Feeder
- Modify WordStar's Manual Feed Envelope Bin

Instructions for installing a sheet feeder can be found in the **Installation** section of this application note. The paragraphs which follow guide you through modifying WordStar's manual feed envelope bin.

Type **WSCHANGE WS**
and press **[Return]**

Make sure you are in the WordStar 4.0 subdirectory, usually C:\WS4. At your DOS prompt, type **WSCHANGE WS** and press **[Return]**.

Choose [B] At the Main Installation Menu, choose *B Printer*.

Choose [D] Choose *D WS Printer Patches*.

Choose [A]

```
WordStar print patches

A Custom print controls, printer initialization, sheet
  feeder
B CUSTOM and SIMPLE driver controls
C Save all CUSTOM and SIMPLE driver controls

= Enter User Area address
X Done with this menu
? Help
```

Choose [M] Select *M Sheet Feeder Bin 4*.

If you are using the HP LaserJet 500+ Sheet Feeder, after you modify Bin 4 for the envelope tray, you cannot manually feed envelopes.

**Enter The
Envelope Code**

```
While patching:
  X - Return to Patch Menu
  . - End of changes, re-display
RETURN - Leave current byte unchanged; advance to next
        location
  ' - Enter the next character in ASCII

0-9, A-F - Enter the hex digit

0C1F *** ENTER THE APPROPRIATE CODE HERE ***
```

Refer to the table below to determine which code to enter for your envelopes. Then enter the appropriate code in the space indicated above.

ENVELOPE	ENVELOPE CODE	RESULT
Commercial 10 (4 ¹ / ₈ " x 9 ¹ / ₂ ")	08 1B 26 6C 38 31 61 30 45 00	..&l81a0E
Monarch (3 ⁷ / ₈ " x 7 ¹ / ₂ ")	08 1B 26 6C 38 30 61 30 45 00	..&l80a0E
International C5 (229mm x 162mm)	08 1B 26 6C 39 31 61 30 45 00	..&l91a0E
International DL (110mm x 220mm)	08 1B 26 6C 39 30 61 30 45 00	..&l90a0E

Note



Make sure you enter zeros (0), not O's. Enter a period (.) after the last 00 digit. Verify that your entries are correct before proceeding—the lower right-hand corner of your screen should display the "Result" indicated above.



Choose [X] Exit the patching screen.

Choose [X] Exit the Custom Print Controls screen.

Choose [C]

```

WordStar print patches

A Custom print controls, printer initialization, sheet
  feeder
B CUSTOM and SIMPLE driver controls
C Save all CUSTOM and SIMPLE driver controls

= Enter User Area address
X Done with this menu
? Help

```

Press [Return]

```

Save all CUSTOM and SIMPLE print controls

You can save the current print controls for the CUSTOM and
SIMPLE drivers in a nondocument file that can later be used
by the auto patcher.

Enter file name to hold settings (or RETURN to quit)...

```


Exit WSCHANGE

Press [X] three times, then [Y] to exit WSCHANGE.

This completes the task of modifying WordStar's sheet feeder bin. Repeat this process if you re-install or modify this printer driver in the future.

At the top left column of your document, enter the dot commands for landscape, page offset, top margin, left margin, right margin, and bin number as indicated in the following table.

ENVELOPE (Dimensions)	COM-10 (4 ¹ / ₈ " x 9 ¹ / ₂ ")	MONARCH (3 ⁷ / ₈ " x 7 ¹ / ₂ ")	DL (110mm x 220mm)	C5 (162mm x 229mm)
Select Landscape Orientation	.PR OR=L	.PR OR=L	.PR OR=L	.PR OR=L
Set Page Offset to Zero	.PO 0	.PO 0	.PO 0	.PO 0
Top Margin	.MT 10	.MT 10	.MT 10	.MT 18
Left Margin	.LM 35	.LM 30	.LM 35	.LM 35
Right Margin	.RM 90	.RM 70	.RM 80	.RM 85
Sheet Feeder Bin Number	.BN 4	.BN 4	.BN 4	.BN 4

Note 

You must select Y to use form feeds. Refer to *Sheet Feeder Bin Not Accessed* in the **Common Problems** section of this application note. IT IS NOT UNCOMMON TO GET A BLANK ENVELOPE.



Printing Special Characters

To access an extended character, hold down the [Alt] key and type in the decimal value of the character. For information on the decimal values of characters refer to *Appendix F* in the *WordStar Reference* manual.

LaserJet printer fonts come in a variety of symbol sets. Your computer and WordStar won't always display the characters that your LaserJet printer is capable of printing.

Formatting and Printing Labels

To format and print labels in WordStar 4.0 you must do the following:

- Create a merge file
- Set your printer to manual feed
- Format your labels document

The following information is an example of the format for 2⁵/₈" x 1" adhesive labels available from Avery International (1-800-535-3232 Ext. 30) Product Code 5260.

Create a Merge File

Refer to your *WordStar Reference* manual.

Set Your Printer to Manual Feed

Create a document which sends the commands for manual feed to the printer and links to your label document.

If you have not yet installed a sheet feeder you must do so before you can manually feed sheets of labels.

```
.bn 3
.pa
-----
.fi a:labels.doc
```

*Use .bn 2 if you installed the *HP LaserJet internal+manual+env* sheet feeder definition.

The *.fi a:labels.doc* refers to the name and location of your labels document. (In this example it is called labels.doc and is located on the disc in drive A.)

Format Your Labels Document

```
.bn 3
.pl 66
.op
.pf off
.po 2
.mt 3
.mb 2
.SV L = LLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
.df a:names.dta
.rv fname1,lname1,m-or-m1,address1,city1,state1,zip1,phone1
.rv fname2,lname2,m-or-m2,address2,city2,state2,zip2,phone2
.sv cityline1=&city1&, &state1& &zip1&
.rv fname3,lname3,m-or-m3,address3,city3,state3,zip3,phone3
.sv cityline2=&city2&, &state2& &zip2&
.sv cityline3=&city3&, &state3& &zip3&
.sv name1=&fname1& &lname1&
.sv name2=&fname2& &lname2&
.sv name3=&fname3& &lname3&
&name1/l& &name2/l& &name3/l&
&address1/l& &address2/l& &address3/l&
&cityline1/l& &cityline2/l& &cityline3/l&
      (insert 3 blank lines)
```

*Use .bn 2 if you installed the *HP LaserJet internal+manual+env* sheet feeder definition.

The *.SV L = LLL.....* defines the width of each label.

The *.df a:names.dta* refers to the name and location of your merge file. (In this example it is called names.dta and is located on disc in drive A.) The *.rv* commands correspond to the way you set up your merge file.

The *.rv* lines define the data in your merge file.

Print the Labels

From WordStar's Opening Menu press [M] to select *Merge Print*. WordStar will prompt you for the document's file name. Enter the name of the manual feed document created earlier. The *.fi* command in that document tells WS to automatically print your label document.

Note



If your printer displays the message "PF LL" or "FEED LEGAL" you must have modified your bin command for manually fed legal paper. Refer to *Legal Paper* earlier in this section.

Examples

Examples for Avery 4" x 1" and 4" x 1¹/₂" labels follow.

Avery 5261 4" x 1" Labels

```
.bn 3
.op
.pf off
.po 4
.pl 65
.mt 3
.mb 2
.SV L = LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
.df a:names.dta
.rv fname1,lname1,m-or-m1,address1,city1,state1,zip1,phone1
.rv fname2,lname2,m-or-m2,address2,city2,state2,zip2,phone2
.sv cityline1=&city1&, &state1& &zip1&
.sv name1=&fname1& &lname1&
.sv cityline2=&city2&, &state2& &zip2&
.sv name2=&fname2& &lname2&
&name1/l& &name2/l&
&address1/l& &address2/l&
&cityline1/l& &cityline2/l&
      (insert 3 blank lines)
```

*Use .bn 2 if you installed the *HP LaserJet internal+manual+env* sheet feeder definition.

Avery 5262 4" x 1¹/₂"

```
.bn 3
.op
.pf off
.po 4
.pl 69
.mt 4
.mb 2
.SV L = LLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLLL
.df a:names.dta
.rv fname1,lname1,m-or-m1,address1,city1,state1,zip1,phone1
.rv fname2,lname2,m-or-m2,address2,city2,state2,zip2,phone2
.sv cityline1=&city1&, &state1& &zip1&
.sv name1=&fname1& &lname1&
.sv cityline2=&city2&, &state2& &zip2&
.sv name2=&fname2& &lname2&
&name1/l& &name2/l&
&address1/l& &address2/l&
&cityline1/l& &cityline2/l&
&phone1/l& &phone2/l&
      (insert 5 blank lines)
```

*Use .bn 2 if you installed the *HP LaserJet internal+manual+env* sheet feeder definition.

Drawing Lines And Boxes

WordStar 4.0 has defined function keys to draw lines and boxes. Refer to your *WordStar Reference* manual.

You must select a font (internal, cartridge, or soft) and printer driver which supports line and box drawing. Dashes, not lines, will print if you select the wrong font or printer driver.

Embedding Printer Commands

WordStar's Custom Print Controls feature allows you to embed printer commands in your document to access some of the LaserJet printer features that are not supported by WordStar.

There are two methods of defining the four Custom Print Controls (^PQ, ^PW, ^PE, ^PR):

- Method 1—Defined in the document
- Method 2—Defined in *WSCHANGE*

Method 1

On a blank line at the top of your document, type **.X** and the letter of the Custom Print Control (Q, W, E, or R). Next, enter a space character followed by the hexadecimal value of the printer command. A maximum of five 2-digit hexadecimal entries are permitted.

To use the Custom Print Control, press [Ctrl P] followed by the letter of the Custom Print Control (Q, W, E, or R).

Example

```
L-----!-----!-----!-----!-----!-----!-----!-----!-----!-----!-----R
.XQ 1B 28 31 55 -- defines ^PQ to access the legal symbol set
^Q                -- press [Ctrl P][Q] to access the command

Legal symbols, such as copyright, could now be printed if a
legal symbol set font is available.
```

Method 2

Follow the steps below to define the Custom Print Control in *WSCHANGE*.

Type **WSCHANGE WS**
and press [Return]

Make sure you are in the WordStar 4.0 subdirectory, usually C:\WS4. At your DOS prompt, type **WSCHANGE WS** and press [Return].

Choose [B]

At the Main Installation Menu, choose *B Printer*.

Choose [D]

Choose *D WS Printer Patches*

Choose [A]

Next, choose *A Custom Print Controls*.



Choose [A, B, C, or D]

Choose the letter associated with the Custom Print Control you want to define.

- Choose [A] to define Custom Print Control ^PQ
- Choose [B] to define Custom Print Control ^PW
- Choose [C] to define Custom Print Control ^PE
- Choose [D] to define Custom Print Control ^PR

Define the Custom Print Control

```

While patching:
  X - Return to Patch Menu
  . - End of changes, re-display
RETURN - Leave current byte unchanged; advance to next
        location
  ' - Enter the next character in ASCII

0-9, A-F - Enter the hex digit

*** ENTER THE PRINTER SEQUENCE HERE ***

```

Note



The first 2-digit number in the sequence represents the number of hexadecimal values you will be entering. For example, in the sequence 05 1B 28 31 30 55 the hexadecimal value 05 tells WS the number of bytes being entered. (If you were entering a printer command 10 bytes long the first number would be 0A.) Enter a period (.) after the last 00 digit to re-display your entries.

Choose [X]

Exit the patching screen.

Choose [X]

Exit the Custom Print Controls screen.

Choose [C]

Choose C Save all CUSTOM and SIMPLE driver controls.

Press [Return]

```

Save all CUSTOM and SIMPLE print controls

You can save the current print controls for the CUSTOM and
SIMPLE drivers in a nondocument file that can later be used
by the auto patcher.

Enter file name to hold settings (or RETURN to quit)...

```

Exit WSCHANGE

Press [X] three times, then [Y] to exit WSCHANGE.

Access the Custom Print Control

```

L-----!-----!-----!-----!-----!-----!-----!-----!-----!-----R
^Q          -- press [Ctrl P][Q] to send the command
              defined as ^PQ in WSCHANGE

This would be printed using the previously defined command.

```

Common Problems

This section provides a troubleshooting approach to solving many of the common problems associated with using WordStar 4.0 and a LaserJet printer. In most cases, these problems can be avoided if you follow the guidelines presented in the **General Information** and **Common Tasks** sections of this application note.

Improper Margins

Problem: Margin settings seem to have no effect.

Cause: Paragraphs must be reformatted if you change your margins.

Solution: Press [Ctrl B] after changing margins. **You must do this for each paragraph.**

Sheet Feeder Bin Not Accessed

Problem: Sheet feeder bin commands (e.g., .bn 3) are ignored by the printer.

Cause: You must specify Y to use form feeds.

Solution: Make sure you select Y to use form feeds when you print your document—refer to the following screen.

```
Document to print? b:test
      Number of copies? 1
Pause between pages (Y/N)? N
      Use form feeds (Y/N)? Y
          Starting page? 1
          Ending page? 1
      Nondocument (Y/N)? N
          Name of printer? hpljet
```

Incorrect Font

Problem: When you print the document some or all of the text is printed in an incorrect font.

Causes: 1) The font cartridge containing the desired font(s) is not firmly seated in the printer. 2) You did not specify the appropriate WordStar commands to select the font, or you did not select the correct printer driver.

Solutions: 1) Take the printer off line and re-insert the font cartridge—push firmly until the cartridge "clicks" into place. 2) Refer to *Selecting Fonts* and *Changing Drivers* in the **Common Tasks** section of this application note.

Page Offset

Problem: Printing does not begin at the left edge of the page.

Cause: WordStar has a default Page Offset of 8.

Solution: Enter `.PO 0` at the top of your document or run `WSCHANGE` and set the default Page Offset to 0.

Other Problems

If you are having other types of problems, or if the suggestions provided in this section have not resolved the problem:

1. Read the **General Information** and **Common Tasks** sections of this application note.
2. Try printing similar documents. Is the problem isolated to one document? If so, find and delete invalid or misplaced format selections in the problem document.
3. Repeat the installation procedures. This will help ensure proper installation of the correct printer.
4. Refer to your *WordStar Reference* manual or call WordStar Customer Support if you need assistance in using WordStar's functions (e.g., merge).
5. Call **Hewlett-Packard's LaserJet Assist Line**



Telephone(208) 323-2551
Hours (Mon, Tue, Thu, Fri) ... 7:00am to 6:00pm MST
Wednesdays 7:00am to 4:00pm MST

Note



When you call Hewlett-Packard, call from a phone next to your computer and LaserJet printer. Assisting you often requires access to your printer and WordStar document.

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