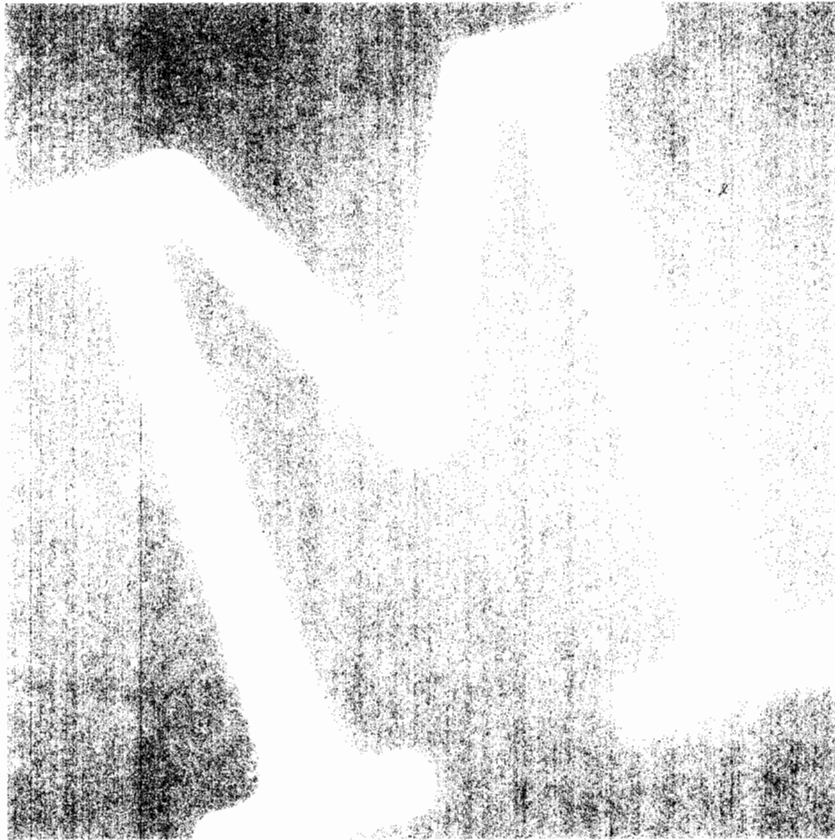


HEWLETT-PACKARD

LaserJet Printer Family

**Using the
HP 92286M Prestige Elite P&L
Font Cartridge**





HP LaserJet Printer Family

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Prestige Elite P&L Font Cartridge**



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INTRODUCTION



The HP 92286M font cartridge is designed for use with the Hewlett-Packard LaserJet (model number HP 2686A) Printer. This cartridge contains six character fonts to supplement the two resident character fonts contained inside your printer (for a total of eight character fonts - a maximum of eight different fonts per page).

By the time you finish reading these instructions, you will be familiar with the HP 92286M font cartridge, its installation and commands to access any of its character fonts.

SECTION I The HP 92286M Character Fonts

Read this section to familiarize yourself with available character fonts, their characteristics, and the installation of the cartridge to access these character fonts. If you are already familiar with the information in Section I, move to Section II.

SECTION II Using Escape Sequences

Read Section II for general information on using escape sequences. If you are not familiar with escape sequences, you will find it helpful to read this section before you proceed. If you are familiar with escape sequences, move to Section III.

SECTION III Using the HP 92286M Character Fonts

In this section you have an opportunity to practice using character fonts. You will learn about initial character font selection, and selecting portrait and landscape orientation character fonts.

TABLE A HP 92286M Font Characteristic Table

Table A lists characteristics unique to each available character font in the HP 92286M font cartridge.

TABLE B HP 92286M Full Escape Sequence Table

Table B lists the full escape sequences that will prove helpful when setting up software, or programming. Some software packages perform the escape selection for the user, which eliminates this requirement.

TABLE C HP 92286M Font Selection Tables

Table C lists the shortest escape sequences necessary to access HP 92286M character fonts.

Please refer to your LaserJet Printer Owner's Reference Manual for detailed escape sequence instructions, and other escape sequence applications.

SECTION I

THE HP 92286M CHARACTER FONTS

AVAILABLE CHARACTER FONTS WITH THE HP 92286M FONT CARTRIDGE INSTALLED

With the HP 92286M font cartridge installed, you can print with any of the eight character fonts below. Orientations will be explained later.

FONT	ORIENTATION
Prestige Elite	Portrait
Prestige Bold	Portrait
<i>Prestige Italic</i>	Portrait
Courier	Portrait
Prestige Elite	Landscape
Prestige Bold	Landscape
<i>Prestige Italic</i>	Landscape
Courier	Landscape

Each font has its own characteristics which will be described on the following pages.

FONT CHARACTERISTICS

- The HP 92286M Font Characteristic Table, on page 20, lists each character font with its specific characteristics. Characteristics are listed in a descending order of priority; orientation having the highest and typeface having the lowest.
- Each character font has specific characteristics which cannot be interchanged. For example, you cannot select Courier with 12 pitch.
- When selecting fonts, keep in mind that the printer "remembers" previous characteristics. When selecting a new font, you would normally need to compare the characteristic differences between the font you are using and the desired font, and enter (select) these differences. The HP 92286M Font Selection Tables, on pages 23 and 24, eliminate this selection process by providing the necessary escape sequences.
- The LaserJet printer prints a maximum of eight different fonts per page. For example, each symbol set in a certain typeface counts as a new font.

DEFINITION OF FONT CHARACTERISTICS

Symbol Set: A symbol set is a set of characters that are mapped to certain locations in the printer's memory. All character fonts in the HP 92286M font cartridge contain the Roman-8 symbol set.

		Roman-8														(MSB)	
		0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
0	NUL	DLE	SP	0	@	P	'	p					̄	á	À	Á	Ð
1	SOH	DC1	!	1	A	Q	a	q				À		ê	î	Ã	þ
2	STX	DC2	"	2	B	R	b	r				Â		ô	ø	ā	
3	ETX	DC3	#	3	C	S	c	s				È	°	ú	Æ	Ð	
4	EOT	DC4	\$	4	D	T	d	t				Ê	Ç	á	á	đ	
5	ENQ	NAK	%	5	E	U	e	u				Ë	ç	é	í	Í	
6	ACK	SYN	&	6	F	V	f	v				Î	Ñ	ó	ø	Ì	-
7	BEL	ETB	'	7	G	W	g	w				Ï	ñ	ú	æ	Ó	¼
8	BS	CAN	(	8	H	X	h	x				´	ı	à	Ă	Ò	½
9	HT	EM	)	9	I	Y	i	y				`	ı	è	ı	Õ	¾
A	LF	SUB	*	:	J	Z	j	z				^	ı	ò	Ö	ø	°
B	VT	ECS	+	;	K	[	k	{				ˆ	f	ù	Ü	Š	«
C	FF	FS	,	<	L	\	l	|				˜	Ÿ	ä	É	š	■
D	CR	GS	-	=	M	]	m	}				Û	Ÿ	ë	ı	Ú	»
E	SO	RS	.	>	N	^	n	~				Û	f	ö	ß	ÿ	±
F	SI	US	/	?	O	_	o	DEL				f	ç	ü	Ô	ÿ	

USASCII

RomanExt

Orientation: The LaserJet printer prints some character fonts in portrait orientation (text printed from left-to-right across the width of the page, like a letter), and others in landscape orientation (text printed from left-to-right along the length of the page).



Portrait



Landscape

Spacing: Spacing is the amount of space each character occupies horizontally on the print line. The two types of spacing are fixed (each character occupies the same space), and proportional (spacing based on the character's width - "W" occupying more space than an "I"). All character fonts in the HP 92286M font cartridge are fixed spacing.

FIXED



PROPORTIONAL



Pitch: Pitch is the number of characters per inch. For example, 12 pitch means 12 characters/inch. Pitch is not specified with proportional character fonts since spacing is based on the width of each character.

Point size: Type sizes are designated in units called points. There are approximately 72 points to each vertical inch. With the HP 92286M font cartridge installed, you can access 10 and 12 point sizes.

Style: The HP 92286M font cartridge contains fonts with Upright or Italic styles:

This is an upright style!

This is an italic style!

Stroke Weight: Stroke weight is a measure of the density of characters. The HP 92286M font cartridge contains fonts with medium and bold stroke weights.

This is medium stroke weight!

This is bold stroke weight!

Typeface: Typeface is the face of the printing type. The HP 92286M font cartridge typeface is Prestige Elite. The Courier typeface is resident in the LaserJet Printer.

This is a Courier typeface!

This is a Prestige Elite typeface!

INSTALLING THE CARTRIDGE

To access the different character fonts, you must install the cartridge. Read the following directions carefully:

1. Press the **ON-LINE** key to set the printer off-line (light off).
2. Insert the cartridge (with the label facing up) into the slot in the upper right corner of the printer. **BE SURE THAT THE CARTRIDGE IS FIRMLY SEATED IN THE SLOT.**
3. Press the **ON-LINE** key to set the printer on-line (light on).
4. You are now in the printer's Prestige Elite (default) character font. To access another character font, the appropriate escape sequence must be sent to the printer.
5. To remove the font cartridge, press the **ON-LINE** key to set the printer off-line (light off), grasp the edges of the cartridge, and slowly pull it out of the slot. To access another character font, the appropriate escape sequence must be sent to the printer.

This completes Section I. Section II is, *Using Escape Sequences*. If you are already familiar with escape sequences, move to Section III.

SECTION II

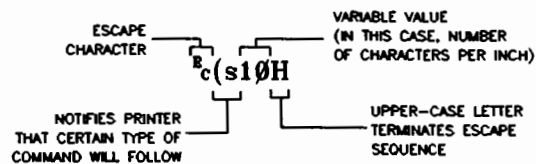
USING ESCAPE SEQUENCES

WHAT ARE ESCAPE SEQUENCES



Escape sequences are simply commands that are used to "talk" to the printer. They can be typed in as part of a text file, embedded in your software's initialization program, or included in a stand alone program. When the printer "sees" an escape sequence, it first decodes the command and then executes it. The printer continues printing as the escape sequence "told" it to. For example, if we send an escape sequence that tells the printer to switch orientation from portrait to landscape, it prints in landscape orientation until it is reset or instructed to print in portrait orientation.

An escape sequence looks like this:



The escape character (`^c`) is always the first character in an escape sequence, followed by one or more characters which tell the printer what type of command is to be executed. Some escape sequences have a variable which can be set, depending on what value you desire for a specific function (in this case, we specified 10 as the number of characters per inch). The last character in an escape sequence is always an upper-case letter ("H" in the example above). When the printer receives an upper-case letter following the escape character, it "knows" that this character is the end of the escape sequence.

To save keystrokes, you can combine several escape sequences into one escape sequence string. The following example illustrates entering pitch and style separately or combined:

$\text{^c}(s1\theta H$ and $\text{^c}(s\theta S$
or
 $\text{^c}(s1\theta h\theta S$

The LaserJet Printer Owner's Reference Manual lists all of the escape sequences that you can use with the LaserJet printer. For a more detailed explanation of escape sequences consult your LaserJet Printer Owner's Reference Manual.

SENDING ESCAPE SEQUENCES

There are several ways to "send" escape sequences to your printer. By sending them, we mean typing them in your text file, program, or software so that the printer "sees" them when it prints. The way to send the escape character (␣) depends on what type of keyboard you have or what software or programming language you are using.

- Some terminals have a CTRL or CNTL (control) key which can be used in combination with the left bracket ([) to send an escape character (simply press the CTRL key and hold it down while pressing the [key).
- Still other computers require you to send a number; 027 (the decimal equivalent to the escape key), or 1B (the hexadecimal equivalent to the escape key).
- Some software packages do not allow you to send escape sequences.

If you are using a software package, consult your software manuals for information about using escape sequences. If you cannot locate the information you need, call your software supplier for this information.

This completes Section II. In Section III you will have an opportunity to practice using escape sequences.

SECTION III

USING THE HP 92286M

CHARACTER FONTS

Introduction

In this section you can select and use character fonts. To assist you in selecting the appropriate escape sequence, Portrait and Landscape Font Selection Tables, and examples are provided.

Before you start, read the following information carefully:

- Make sure your HP 92286M font cartridge is firmly seated in the slot (printer should be placed **OFF-LINE** before inserting cartridge).
- When your printer is powered-up or reset, the Prestige Elite (default) character font is active.

Resetting the Printer to the Default Font

- If you cannot determine which character font you are currently printing in, RESET your printer to its default character font with one of the following entries:

Enter `ESC E`, or

Enter `ESC & I O ESC (8 U ESC (s 0 p 1 2 h 1 0 v 0 s 0 b 8 T`

NOTE

If you enter E_cE , any page layout escape sequences previously sent to the printer (margins, orientations, etc.) are reset. Entering the full escape sequence will affect the HMI (Horizontal Motion Index) if set at other than 12 characters per inch, and may affect the margins and orientation.

- If you are using multiple character fonts in your text, use the HP 92286M Font Selection Tables provided on the following pages and at the back of this document. These tables provide you with the shortest escape sequence to access another character font.
- Some character fonts are available in portrait mode (text printed from left-to-right across the width of the page, like a letter), and others in landscape (text printed from left-to-right along the length of the page). Portrait and landscape orientations cannot be printed on the same page; when changing from one orientation to another, the page you are currently printing on will be ejected. The escape sequence $\text{E}_c\&10\text{O}$ selects the portrait mode, and $\text{E}_c\&11\text{O}$ selects the landscape mode. Unless you are switching orientations, you do not need to send either escape sequence.*



Portrait
 $\text{E}_c\&10\text{O}$



Landscape
 $\text{E}_c\&11\text{O}$

*Sending either escape sequence causes the page length, top margin, text length, left and right margins, horizontal motion index (HMI), and vertical motion index (VMI) to be defaulted.

- Since slight differences between the characters can be confusing, take a moment to compare these differences.

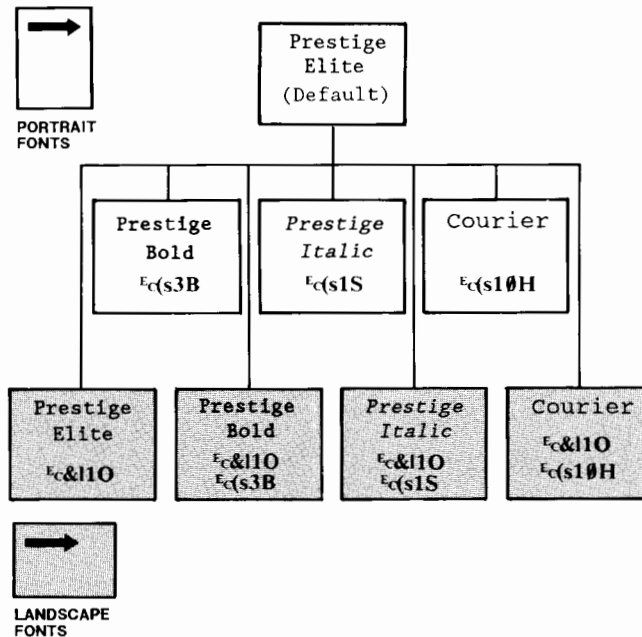
Lower case L = l Upper case O = O
Number one = 1 Number 0 = 0

Portrait = $\text{\textasciitilde{c}}\&l\text{\textasciitilde{o}}$
Landscape = $\text{\textasciitilde{c}}\&l1\text{\textasciitilde{o}}$

On the following pages, you will either be selecting character fonts from the default font, other portrait character fonts, or landscape character fonts. Try these examples on your LaserJet printer.

INITIAL FONT SELECTION

If you only want to access one other character font after powering-up or resetting your printer to the default character font, use the following table:



EXAMPLE:

To switch from Prestige Elite (default) to Prestige Italic, enter the following escape sequence:

Switching From: Prestige Elite (default)

To: Prestige Italic

Enter: ^C(s1S The LASERJET Printer

The LASERJET Printer

SELECTING PORTRAIT FONTS

To use the Portrait Font Selection Table, find the character font you are currently using in the left hand column, move across the table until you reach your new character font selection, and enter the escape sequence.

TO FROM	Prestige Elite	Prestige Bold	<i>Prestige Italic</i>	Courier
Prestige Elite		⌘s3B	⌘s1S	⌘s10H
Prestige Bold	⌘s0B		⌘s1s0B	⌘s10h0B
<i>Prestige Italic</i>	⌘s0S	⌘s0s3B		⌘s10h0S
Courier	⌘s12H	⌘s12h3B	⌘s12h1S	

EXAMPLES:

You were using the Prestige Italic character font, and now want Prestige Bold. Look on your table for Prestige Italic (down the left column), move across the table until you reach Prestige Bold, and enter the escape sequence.

Switching From: Prestige Italic

To: Prestige Bold

Enter: ⌘s0s3B The LASERJET Printer



The LASERJET Printer

To switch from Prestige Bold back to Prestige Italic, look on your table for Prestige Bold (down the left column), move across the table until you reach Prestige Italic, and enter the escape sequence.

Switching From: Prestige Bold

To: Prestige Italic

Enter: `ESC(s1s0B` The LASERJET Printer

The LASERJET Printer

Try combining Prestige Bold and Prestige Italic:

The`ESC(s0s3B` LASERJET`ESC(s1s0B` Printer

The LASERJET Printer

SELECTING LANDSCAPE FONTS

To switch from portrait orientation to landscape orientation, enter: `ESC&I10`. Use the following Landscape Font Selection Table to select landscape fonts.

Enter: `ESC&I10`

TO FROM	Prestige Elite	Prestige Bold	<i>Prestige Italic</i>	Courier
Prestige Elite		<code>ESC(s3B</code>	<code>ESC(s1S</code>	<code>ESC(s10H</code>
Prestige Bold	<code>ESC(s0B</code>		<code>ESC(s1s0B</code>	<code>ESC(s10h0B</code>
<i>Prestige Italic</i>	<code>ESC(s0S</code>	<code>ESC(s0s3B</code>		<code>ESC(s10h0S</code>
Courier	<code>ESC(s12H</code>	<code>ESC(s12h3B</code>	<code>ESC(s12h1S</code>	

To switch between orientations, RESET your printer to its default character font (see page 22 for directions).

This completes Section III. We hope you enjoy using the variety of character fonts contained in the HP 92286M font cartridge. If you are interested in additional cartridges, call your HP Dealer or HP Sales Office for information.

TABLE A
HP 92286M FONT CHARACTERISTIC TABLE

Font Characteristics	Prestige* Elite	Prestige Bold	Prestige Italic	Courier** Elite	Prestige Bold	Prestige Italic	Courier** Elite	Prestige Bold	Prestige Italic	Courier** Elite
Orientation	Portrait	Portrait	Portrait	Portrait	Landscape	Landscape	Landscape	Landscape	Landscape	Landscape
Symbol Set	ROMAN-8	ROMAN-8	ROMAN-8	ROMAN-8	ROMAN-8	ROMAN-8	ROMAN-8	ROMAN-8	ROMAN-8	ROMAN-8
Spacing	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed	Fixed
Pitch	12	12	12	10	12	12	12	12	12	10
Point Size	10	10	10	12	10	10	10	10	10	12
Style	Upright	Upright	Italic	Upright	Upright	Upright	Italic	Upright	Italic	Upright
Stroke	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Typeface	Prestige Elite	Prestige Elite	Prestige Elite	Courier	Prestige Elite	Prestige Elite	Prestige Elite	Prestige Elite	Prestige Elite	Courier

The font characteristics are listed in order of priority, from top to bottom.

* With the HP 92286M font cartridge installed, the printer's default character font is Prestige Elite (Portrait, ROMAN-8, Fixed, 12 pitch, 10 point, Upright, Medium, Prestige Elite typeface). This font is printed when you reset or power on your printer without choosing another font.

** Courier, Portrait (Roman-8) and Courier, Landscape (Roman-8) are the LaserJet printer's resident fonts.

USING TABLE B

Table B lists the full escape sequences for each character font on the HP 92286M cartridge. Each characteristic is specified in the escape sequences. Although it is not necessary, it is recommended that full escape sequences be used (to ensure character font selection) when developing software. Refer to your LaserJet Printer Owner's Reference Manual for a detailed explanation of these escape sequences.

Table B

HP 92286M Full Escape Sequence Table

Prestige Elite	$\text{E}_c \& \text{l}0\text{O}^{\text{E}_c} (8\text{U}^{\text{E}_c} (\text{s}0\text{p}12\text{h}10\text{v}0\text{s}0\text{b}8\text{T}$
Prestige Bold	$\text{E}_c \& \text{l}0\text{O}^{\text{E}_c} (8\text{U}^{\text{E}_c} (\text{s}0\text{p}12\text{h}10\text{v}0\text{s}3\text{b}8\text{T}$
<i>Prestige Italic</i>	$\text{E}_c \& \text{l}0\text{O}^{\text{E}_c} (8\text{U}^{\text{E}_c} (\text{s}0\text{p}12\text{h}10\text{v}1\text{s}0\text{b}8\text{T}$
Courier	$\text{E}_c \& \text{l}0\text{O}^{\text{E}_c} (8\text{U}^{\text{E}_c} (\text{s}0\text{p}10\text{h}12\text{v}0\text{s}0\text{b}3\text{T}$
Prestige Elite	$\text{E}_c \& \text{l}1\text{O}^{\text{E}_c} (8\text{U}^{\text{E}_c} (\text{s}0\text{p}12\text{h}10\text{v}0\text{s}0\text{b}8\text{T}$
Prestige Bold	$\text{E}_c \& \text{l}1\text{O}^{\text{E}_c} (8\text{U}^{\text{E}_c} (\text{s}0\text{p}12\text{h}10\text{v}0\text{s}3\text{b}8\text{T}$
<i>Prestige Italic</i>	$\text{E}_c \& \text{l}1\text{O}^{\text{E}_c} (8\text{U}^{\text{E}_c} (\text{s}0\text{p}12\text{h}10\text{v}1\text{s}0\text{b}8\text{T}$
Courier	$\text{E}_c \& \text{l}1\text{O}^{\text{E}_c} (8\text{U}^{\text{E}_c} (\text{s}0\text{p}10\text{h}12\text{v}0\text{s}0\text{b}3\text{T}$

USING TABLE C

- Use Table C for entering escape sequences with the HP 92286M font cartridge only. Use Table B for developing software.
- To use Table C, find the character font you are currently using in the left hand column, move across the table until you reach your new character font selection, and enter the escape sequence.
- Since slight differences between the characters can be confusing, take a moment to compare these differences:

Lower case L = l Upper case O = O
Number one = 1 Number 0 = 0

Portrait = $\text{E}_c\&100$
Landscape = $\text{E}_c\&110$

Resetting the Printer to the Default Font

- If you cannot determine which character font you are currently printing in, or want to switch orientations, RESET your printer to its default character font with one of the following entries:

Enter E_cE , or

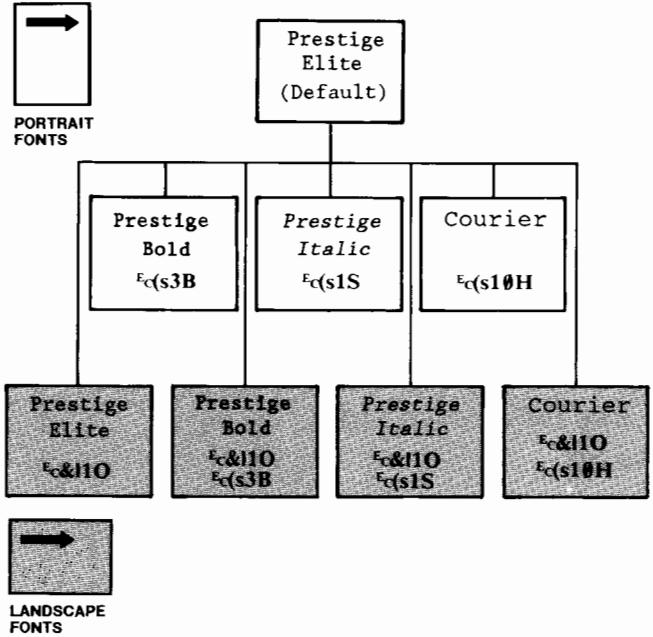
Enter $\text{E}_c\&100\text{E}_c(8\text{U}\text{E}_c(\text{s}0\text{p}12\text{h}10\text{v}0\text{s}0\text{b}8\text{T}$

- Refer to your LaserJet Printer Owner's Reference Manual for detailed escape sequence instructions, and other escape sequence applications.

TABLE C

HP 92286M FONT SELECTION TABLES

INITIAL FONT SELECTION



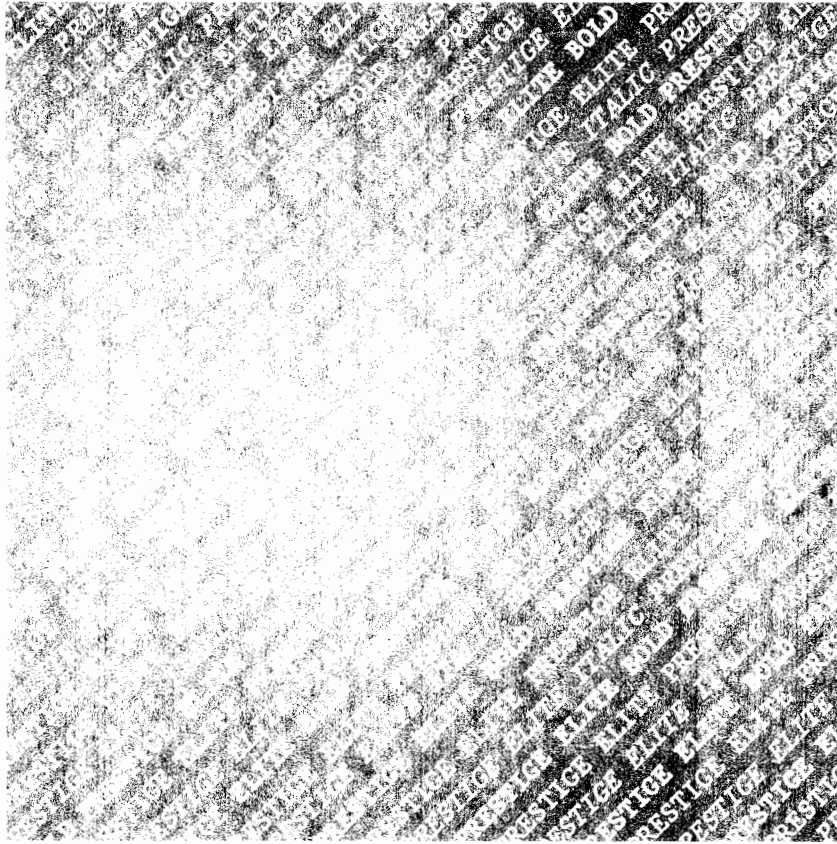
PORTRAIT FONT SELECTION

TO FROM	Prestige Elite	Prestige Bold	<i>Prestige Italic</i>	Courier
Prestige Elite		Ⓔ(s3B	Ⓔ(s1S	Ⓔ(s10H
Prestige Bold	Ⓔ(s0B		Ⓔ(s1s0B	Ⓔ(s10h0B
<i>Prestige Italic</i>	Ⓔ(s0S	Ⓔ(s0s3B		Ⓔ(s10h0S
Courier	Ⓔ(s12H	Ⓔ(s12h3B	Ⓔ(s12h1S	

LANDSCAPE FONT SELECTION

Enter: Ⓔ&l10

TO FROM	Prestige Elite	Prestige Bold	<i>Prestige Italic</i>	Courier
Prestige Elite		Ⓔ(s3B	Ⓔ(s1S	Ⓔ(s10H
Prestige Bold	Ⓔ(s0B		Ⓔ(s1s0B	Ⓔ(s10h0B
<i>Prestige Italic</i>	Ⓔ(s0S	Ⓔ(s0s3B		Ⓔ(s10h0S
Courier	Ⓔ(s12H	Ⓔ(s12h3B	Ⓔ(s12h1S	



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