

Printer Description Language Reference Guide for Xerox® BXXX and CXXX Devices

Customer tip



© 2024 Xerox Corporation. All rights reserved. Xerox® is a trademarks of Xerox Corporation in the United States and/or other countries. Other company trademarks are also acknowledged.

BR39900

Document Version: 1.0 (January 2024).

Overview

This document enables you to access the extended features of below Xerox Printer series in environments that do not have a custom driver.

Xerox® B225 Multifunction Printer

Xerox® B230 Printer

Xerox® B235 Multifunction Printer

Xerox® B305 Multifunction Printer

Xerox® B310 Printer

Xerox® B315 Multifunction Printer

Xerox® B410 Printer

Xerox® C230 Color Printer

Xerox® C235 Color Multifunction Printer

Xerox® C310 Color Printer

Xerox® C315 Color Multifunction Printer

Xerox® C410 Color Printer

Some of the commands and syntax used in this document requires some familiarity with either PostScript (PS) or Printer Command Language (PCL).

This document provides the Printer Description Language (PDL) commands and syntax for each feature. The following tables are also included:

- Features supported by the B225/B230/B235/B305/B310/B315/B410/C230/C235/C310/C315/C410 Products
- Commands to use in a PCL print job
- Commands to use in a PS print job

This document is not intended to be a complete PS or PCL reference manual. It is a guide for using the PS and PCL commands with Xerox B225/B230/B235/B305/B310/B315/B410/C230/C235/C310/C315/C410 Products.

- PostScript Language Reference Manual, Third Edition:
<https://www.adobe.com/jp/print/postscript/pdfs/PLRM.pdf>
- PCL5 Printer Language Technical Reference Manual:
<http://www.hp.com/ctg/Manual/bpl13210.pdf>

1. Printer Control Language (PCL) emulation	5
1.1 Command structure.....	5
1.2 PCL emulation commands	5
2. PJL command notation	16
3. Examples	16
3.1 Universal Exit Language (UEL) command	16
3.2 Enter Language command.....	16
3.3 Comment command	16
3.4 JOB command	17
3.5 EOJ command.....	17
3.6 LBEEP command	17
3.7 LPORTROTATE command	18
3.8 LPRINT commands.....	18
3.9 LESCAPECHAR command.....	18
3.10 LFAX PHONENUMBER command.....	19
3.11 LDOWNLOADTARGET command	19
4. Supported PostScript Fonts.....	20
5. Supported PCL Fonts.....	22

1. Printer Control Language (PCL) emulation

PCL emulation commands are multibyte strings (also known as escape sequences) that begin with the Escape control code (ESC, ←, decimal 27, or hexadecimal 1B). The ESC control code notifies the printer to interpret the characters that follow as part of a command and are not control codes or data to be printed.

1.1 Command structure

Most PCL emulation commands have the following structure:

ESC & a # C

Spaces have been added to this example for readability. The command parameter variables are indicated by a number sign (#).

ELEMENT	DESCRIPTION
ESC	Decimal 27 or hex 1B.
&	Parameterized character from American National Standard Code for Information Interchange (ASCII) table (ranging from 33 to 47 decimal).
a	Group character from ASCII table (ranging from 96 to 126 decimal) that specifies a group type of control.
#	Decimal character string value within specified numeric ranges. May be preceded by a + or - sign and contain a decimal point.
C	Termination character from ASCII table (ranging from 64 to 94 decimal).

1.2 PCL emulation commands

PCL emulation commands by function (number of copies, printing, offset registration, unit of measure)

COMMAND / PARAMETERS	FUNCTION / RESULT
ESC&d#A Where: # = number of collated copies. You can collate up to 999 copies. Note: 0 turns off the collation.	Number of Collated Copies Turns off collation of pages or sets the number of collated copies.
ESC&I#X Where: # = number of copies (1 to 32767). 1 is the factory default value.	Number of Copies Affects the page currently in process and subsequent pages.
ESC&I#S Assign any of the following numbers: 0-Single-Sided (default) 1-Duplex long-edge binding 2-Duplex short-edge binding 100-Manual duplex first sides 101-Manual duplex second sides	Simplex/Duplex Print Long- or short-edge binding refers to the side of the physical page where binding occurs.

ESC%-12345X	Universal Exit Language (UEL) / Start of PJI This command terminates the current printer language and allows switching into PJI. For more information, see “Examples”.
-------------	---

PCL emulation commands by function (page size, dimensions, source, margins, spacing, output bins)

COMMAND / PARAMETERS	FUNCTION / RESULT
ESC&I#A Paper 1-Executive 2-Letter 3-Legal 4-Folio 6, 11-Ledger (11 x 17) 13, 25-A5 Paper 15-Statement 26-A4 Paper 27-A3 Paper 12, 45-B5 Paper 46-B4 Paper 101-Custom Paper/Universal Envelope 80-Monarch 7 3/4 81-Commercial 10 89-Commercial 9 90-DL 91-C5 99, 100-B5 Envelope 600-Other Envelope	Set Page Size Sets the physical size of the paper, which also determines the logical page dimensions. For information about the supported paper and envelope dimensions. If the requested page size is not in the requested source or if no source is requested, then the printer checks the size in the following order of sources: multipurpose feeder, tray 1, tray 2, tray 3, tray 4, tray 5, and envelope feeder. Notes: When the printer receives the page size command, any partially formatted pages are printed, and the cursor position and margins are reset. Duplex printing is not supported on any envelope. When no paper source is requested, you can configure when the printer checks paper from the multipurpose feeder. For more information, see the printer User’s Guide.
ESC&I#H Assign any of the following numbers: 1-Active Source or Eject Page 2-Tray 1 (default) 3-Manual Envelope Feed 4-Tray 2 5-Tray 3 6-Optional Envelope Feeder 7-Auto Select 8-Multipurpose Feeder 20-Tray 4 21-Tray 5 62-Optional Paper Source	Paper Source If the paper source is changed for the back of a duplexed page, then the following occurs: A blank back page prints. The paper source changes. The information for the back side of the page is printed on the front side of a page sent from the new paper source.
ESC&f#O 0-Short-edge 1-Long-edge	Set Universal Feed Direction

<p>ESC&I#O</p> <p>0-Portrait (Default)</p> <p>1-Landscape</p> <p>2-Reverse Portrait</p> <p>3-Reverse Landscape</p>	<p>Select Orientation</p> <p>Specifies the position of the logical page with respect to the physical page.</p> <p>Note: This setting resets margins, number of printable lines per page, and cursor position.</p>
<p>ESC&a#L</p> <p>Where:</p> <p># Refers to the column width.</p> <p>0 is the default value.</p>	<p>Set Left Margin</p> <p>Sets the left margin to the left edge of the designated column.</p> <p>Note: The column width is defined by the space character of the active font and the horizontal motion index (HMI).</p>
<p>ESC&a#M</p> <p>Where:</p> <p># Refers to the column width.</p> <p>Local Page Width is the default setting.</p>	<p>Set Right Margin</p> <p>Sets the right margin to the right edge of the designated column.</p> <p>Note: The column width is defined by the space character of the active font and the HMI.</p>
<p>ESC9</p>	<p>Clear Horizontal Margins</p> <p>Clears the left and right margins.</p>
<p>ESC&I#E</p> <p>Where:</p> <p># Refers to the number of lines.</p> <p>3 (1/2 inch) is the default value.</p>	<p>Set Top Margin</p> <p>Sets the number of lines between the top of the physical page and first line of print. Line height is determined by the current vertical motion index (VMI) and/or line spacing value.</p> <p>Note: If the top margin is set to 0, then the first line of text falls outside of the printable area.</p>
<p>ESC&I1T</p>	<p>Job Separation</p> <p>This command is parsed and ignored.</p>
<p>ESC&I#F</p> <p>Where:</p> <p># refers to the number of lines.</p> <p>60 or 64 (country-specific) is the default value.</p>	<p>Set Text Length</p> <p>Sets the bottom margin length in lines, measured from the first line of the page.</p> <p>Text Length equals Logical Page Length –1 inch (–1/2 inch for top and –1/2 inch for bottom).</p>
<p>ESC&I#G</p> <p>Each of the following numbers is assigned to a specific bin:</p> <p>0-Auto select (uses active bin)</p> <p>1-Standard bin</p> <p>2-Bin 1 or rear bin</p> <p>3-Bin 1 or rear bin</p> <p>4-Bin 2</p> <p>5-Bin 3</p> <p>6-Bin 4</p> <p>7-Bin 5</p> <p>8-Bin 6</p> <p>9-Bin 7</p> <p>10-Bin 8</p> <p>11-Bin 9</p> <p>12-Bin 10</p>	<p>Set Output Bin</p> <p>Sets the paper exit path.</p>

<p>ESC&k#H</p> <p>Where:</p> <p># refers to the number of 1/120 inch increments.</p> <p>8 is the default value.</p> <p>Note: Valid to 4 decimal places.</p>	<p>Set Horizontal Motion Index (HMI)</p> <p>Sets the width of all characters for fixed-space fonts. Sets only the width of the space for proportional spaced fonts.</p>
<p>ESC&l#C</p> <p>Where:</p> <p># Refers to the number of 1/48 inch increments.</p> <p>8 is the default value.</p> <p>Note: Valid to 4 decimal places.</p>	<p>Set Vertical Motion Index (VMI)</p> <p>Sets Vertical Motion Index in 1/48 inch increments. The VMI determines the vertical distance between lines.</p> <p>Notes:</p> <p>For some printers, you can change the default VMI from the control panel or through MarkVision Enterprise by using the Lines Per Page menu item.</p> <p>For more information, see the printer User's Guide.</p> <p>Use of this command alters any previous Set Line Spacing command settings.</p>
<p>ESC&l#D</p> <p>1-1 line/inch</p> <p>2-2 lines/inch</p> <p>3-3 lines/inch</p> <p>4-4 lines/inch</p> <p>6-6 lines/inch (Default)</p> <p>8-8 lines/inch</p> <p>12-12 lines/inch</p> <p>16-16 lines/inch</p> <p>24-24 lines/inch</p> <p>48-48 lines/inch</p>	<p>Set Line Spacing (Alternative Method)</p> <p>Specifies VMI in lines per inch.</p> <p>Notes:</p> <p>For some printers, you can change the default VMI from the control panel or through MarkVision Enterprise by using the Lines Per Page menu item. For more information, see the printer User's Guide.</p> <p>Unsupported values are ignored.</p> <p>Use of this command alters any earlier VMI setting.</p>
<p>ESC&a#G</p> <p>0-Next Side</p> <p>1-Front Side</p> <p>2-Back Side</p>	<p>Duplex Page Side Selection</p> <p>Specifies which physical page side to print next when printing in duplex.</p> <p>Note: When the duplex option is not installed, this command causes a conditional page eject.</p>
<p>ESC&l#P</p> <p>Where:</p> <p># = number from 0 to 14. 0 is the factory default value.</p>	<p>Set Page Length</p> <p>Sets the logical page length in number of lines.</p> <p>Notes:</p> <p>This command is sent at the beginning of a page in a print job and before any printable data.</p> <p>When the command is sent, the current page is closed and printed.</p> <p>Unsupported values are ignored.</p>
<p>ESC&k#W</p> <p>5-Turn Text Scale Mode OFF</p> <p>6-Turn Text Scale Mode ON</p>	<p>Text Scale Mode</p> <p>Allows 66 lines of text at six lines per inch to print on an effective page length of 10 1/2 inches.</p> <p>Notes:</p> <p>Unsupported values are ignored.</p> <p>When the printer is in landscape mode, the command is ignored.</p>

PCL emulation commands by function (alphanumeric ID)

COMMAND / PARAMETERS	FUNCTION / RESULT
<p>ESC&n#W [operation] [string] Where: # = number of data bytes that make up the operation and string. Operation = 100 or 1 byte = 0x64 or 'd' asci</p> <p>For example: 100-Media Select String = paper type. See alphanumeric string list at the right.</p>	<p>Alphanumeric ID Selects the media type using a character string. The string ID is case sensitive and may be up to 511 bytes long. The string ID specifies the media type requested. Media Type / Alphanumeric String</p> <p>Plain/Paper Plain Bond/Bond Transparency / Transparency Card Stock / Card Stock Labels / Labels Letterhead / Letterhead Pre-printed / Preprinted Colored / Paper color Envelope / Envelope Custom Type 1 / Custom Type 1 or User Type 1 Custom Type 2 / Custom Type 2 or User Type 2 Custom Type 3 / Custom Type 3 or User Type 3 Custom Type 4 / Custom Type 4 or User Type 4 Custom Type 5 / Custom Type 5 or User Type 5 Custom Type 6 / Custom Type 6 or User Type 6</p> <p>For example, the following shows the command and parameters used to select bond paper: ESC&n5WdBond To select letterhead paper: ESC&n11WdLetterhead</p>

PCL emulation commands by function (cursor positioning)

COMMAND / PARAMETERS	FUNCTION / RESULT
<p>ESC&a#C Where: # = number of columns¹.</p>	<p>Horizontal Cursor Position (in columns) Moves the cursor to a new position along the horizontal axis. Note: If set, the space character width of the active font or the Horizontal Motion Index (HMI) determines the column width.</p>
<p>ESC&a#H Where: # = number of decipoints¹. 1 decipoint equals 1/720 inch.</p>	<p>Horizontal Cursor Position (in decipoints) Moves the cursor to a new position along the horizontal axis.</p>
<p>ESC*p#X Where: # = number of PCL units¹.</p>	<p>Horizontal Cursor Position (in PCL units) Moves the cursor to a new position along the horizontal axis. Note: PCL units are set by the Unit-of-Measure Command.</p>
<p>¹ Parameter preceded by + or - sign denotes a relative cursor move from the current cursor position. Parameter without a sign denotes an absolute cursor move from the top left margin.</p>	

COMMAND / PARAMETERS	FUNCTION / RESULT
ESC&a#R Where: # = number of rows ¹ .	Vertical Cursor Position (in rows) Moves the cursor to a new position along the vertical axis. Note: The Vertical Motion Index (VMI) or the Set Line Spacing Command determines the row height.
ESC&a#V Where: # = number of decipoints ¹ . 1 decipoint equals 1/720 inch.	Vertical Cursor Position (in decipoints) Moves the cursor to a new position along the vertical axis.
ESC*p#Y Where: # = number of PCL units ¹ .	Vertical Cursor Position (in PCL units) Moves the cursor to a new position along the vertical axis. Note: PCL units are set by the Unit of Measure command.
ESC=	Half Line-Feed Moves the cursor down 1/2 line (1/2 of the current VMI).
ESC&k#G 0-CR=CR, LF=LF, FF=FF (Default) 1-CR=CR+LF, LF=LF, FF=FF 2-CR=CR, LF=CR+LF, FF=CR+FF 3-CR=CR+LF, LF=CR+LF, FF=CR+FF	Set Line Termination Controls how the printer responds to the Carriage Return (CR), Line Feed (LF), and Form Feed (FF) control codes.
ESC&f#S 0-Push 1-Pop	Push / Pop Cursor Position Sets up a cursor position stack for storing and recalling various cursor positions. The stack can store up to 20 cursor positions.
¹ Parameter preceded by + or - sign denotes a relative cursor move from the current cursor position. Parameter without a sign denotes an absolute cursor move from the top left margin.	

Note: For the commands listed in [“PCL emulation commands by function \(page size, dimensions, source, margins, spacing, output bins\)”](#) the printer selects the font that best fits the font selected based on the parameters set with the commands.

COMMAND / PARAMETERS	FUNCTION / RESULT
<p>ESC(# (primary) ESC)# (secondary)</p> <p>Where: # = symbol set ID.</p> <p>Notes: 10U (PC-8) is the U.S. factory default setting. 12U (PC-850) is the non-U.S. factory default setting.</p>	<p>Select Symbol Set</p> <p>The line-draw characters are contained in the symbol set ID 10U, PC-8. The non-U.S. characters are contained in symbol set ID 12U, PC-850.</p>
<p>ESC(s#P (primary) ESC)s#P (secondary)</p> <p>0-Fixed (Default) 1-Proportional</p>	<p>Select Spacing</p> <p>Selects a font with proportional or fixed spacing.</p>
<p>ESC(s#H (primary) ESC)s#H (secondary)</p> <p>Where: # = characters per inch. 10 is the factory default value.</p>	<p>Select Pitch</p> <p>Selects the number of characters per inch (cpi) for a fixed-space bitmapped or monospaced scalable font. Valid to 2 decimal places.</p> <p>Note: Pitch is not needed for proportional spaced fonts.</p>
<p>ESC(s#V (primary) ESC)s#V (secondary)</p> <p>Where: # = height in points (.25 to 999.75). 12 is the factory default value.</p>	<p>Height (Select Point Size)</p> <p>Sets the font height in points. Valid to 2 decimal places.</p> <p>Note: Point size is not needed for monospaced fonts. For fonts larger than 12 points, it may be necessary to change the line spacing.</p>
<p>ESC(s#S (primary) ESC)s#S (secondary)</p> <p>0-Upright (Default) 1-Italic 4-Condensed 5-Condensed Italic 8-Compressed 24-Expanded 32-Outline 64-Inline 128-Shadowed 160-Outline Shadowed</p>	<p>Select Style</p> <p>Identifies the physical traits of a character and the composition of the font symbols.</p> <p>Note: You can only use this command to select fonts currently available in the printer. It cannot alter the appearance of the available fonts.</p>
<p>ESC(s#B (primary) ESC)s#B (secondary)</p> <p>-7-Ultra Thin -6-Extra Thin -5-Thin -4-Extra Light -3-Light -2-Demi Light -1-Semi Light 0-Medium (Default) 1-Semi Bold 2-Demi Bold 3-Bold 4-Extra Bold 5-Black 6-Extra Black</p>	<p>Select Stroke Weight</p> <p>Selects a font with a particular thickness.</p> <p>Note: This command will not alter the stroke weight of an available font.</p>

7-Ultra Black	
ESC(s#T (primary) ESC)s#T (secondary) Where: # = typeface identifier (0– 65535).	Select Typeface Selects the best fit font design. To obtain the typeface values for downloaded fonts, print the font list from the control panel or through MarkVision Enterprise. See your printer documentation for more information. On the printout, the typeface number is the last number on the font selection command example line. The example line is below the name of the font. In the following example, the typeface number is underlined: RO Courier <<ESC>>(<<symset>><<ESC>>(s0p<<pitch>>h0s0b4099T
ESC(#X (primary) ESC)#X (secondary) Where: # = font ID (0–32767).	Select Font by Font ID
ESC(3@ (primary) ESC)3@ (secondary)	Select Default Font Sets all font selection characteristics to the default font.
ESC&p#X[data] Where: # = number of data of bytes to print as text.	Transparent Print Data Prints the next number of bytes as text.
ESC&d#D 0,1-Fixed 2-Fixed - double 3-Floating 4-Floating - double	Select Underline Type (Enable) Fixed underline is drawn 5 pels below cursor position. Floating underline position is determined by all the positions of the characters with descenders in the fonts that are to be underlined. Underline thickness is 1/100 inch.
ESC&d@	Underline - Disable
ESC&t#P 0, 1-1 byte characters 21-1 or 2 byte characters 31-1 or 2 byte characters 38-1 or 2 byte characters 1008-1, 2, or 3 byte characters (UTF-8)	Text Parsing Method Communicates to the PCL parser whether character codes are interpreted as 1- or 2- byte character codes.
ESC&k#S 0-10.00 cpi 2-16.66 cpi 4-12.00 cpi	Select Primary and Secondary Pitch Selects the pitch for the primary and secondary font.

PCL emulation commands by function (user-defined symbol set)

COMMAND / PARAMETERS	FUNCTION / RESULT
<p>ESC*c#R</p> <p>Where:</p> <p># = symbol set ID (0–32767).</p> <p>0 is the factory default value.</p>	<p>Symbol Set ID Code</p> <p>Sets the symbol set identification for the symbol set downloaded.</p>
<p>ESC(f#W[data]</p> <p>Where:</p> <p># = number of data bytes.</p>	<p>Define Symbol Set</p> <p>Contains data for the user-defined symbol sets.</p>
<p>ESC*c#S</p> <p>0-Delete all (temporary and permanent)</p> <p>1-Delete all temporary</p> <p>2-Delete current (ID)</p> <p>4-Make current temporary</p> <p>5-Make current permanent</p>	<p>Symbol Set Control</p> <p>Manages user-defined symbol sets.</p>

PCL emulation commands by function (font creation)

COMMAND / PARAMETERS	FUNCTION / RESULT
<p>ESC*c#D</p> <p>Where:</p> <p># = font ID number (0–32767).</p> <p>0 is the factory default value.</p>	<p>Set Font ID</p> <p>Sets the identification number for the font being downloaded.</p>
<p>ESC)s#W[data]</p> <p>Where:</p> <p># = number of data bytes.</p>	<p>Load Font Header</p> <p>Downloads soft font header information.</p> <p>Note: Set Font ID before using this command.</p>
<p>ESC*c#F</p> <p>0-Delete all (temporary and permanent)</p> <p>1-Delete all temporary</p> <p>2-Delete previous font ID</p> <p>3-Delete previous specified character</p> <p>4-Make previous font ID temporary</p> <p>5-Make previous font ID permanent</p> <p>6-Copy current font</p>	<p>Font Control</p> <p>Manages soft fonts.</p>
<p>ESC*c#E</p> <p>Where:</p> <p># = code point (0–65536). 0 is the factory default value.</p>	<p>Set Character Code</p> <p>Sets the decimal code point associated with the next character downloaded or deleted.</p>
<p>ESC(s#W[data]</p> <p>Where:</p> <p># = number of data bytes.</p>	<p>Load Character</p> <p>Downloads character descriptor and data to the current character code.</p>

PCL emulation commands by function (macros)

COMMAND / PARAMETERS	FUNCTION / RESULT
<p>ESC&f#Y</p> <p>Where:</p> <p># = micro ID (0–32767).</p> <p>0 is the factory default value.</p>	<p>Set Macro ID</p> <p>Sets the ID for the macro that is created on flash memory or hard disk.</p>
<p>ESC&f#X</p> <p>0-Start definition</p> <p>1-End definition</p> <p>2-Execute macro (previous macro ID)</p> <p>3-Call macro (previous macro ID)</p> <p>4-Enable overlay (previous macro ID)</p> <p>5-Disable overlay</p> <p>6-Delete all macros</p> <p>7-Delete all temporary macros</p> <p>8-Delete current macro ID</p> <p>9-Make last ID temporary</p> <p>10-Make last ID permanent</p>	<p>Macro Control</p> <p>Manages the use of macros.</p> <p>Notes:</p> <p>GL/2 commands are supported inside macros.</p> <p>Only call and execute macro commands are allowed within a macro.</p> <p>A macro may call or execute another macro. This is called nesting. A maximum of two nesting levels are allowed, for a total of three levels.</p>

PCL emulation commands by function (miscellaneous)

COMMAND / PARAMETERS	FUNCTION / RESULT
<p>ESC&s#C</p> <p>0-Enable</p> <p>1-Disable (default)</p>	<p>End-Of-Line Text Wrap</p> <p>Enabling End-Of-Line Text Wrap moves portions of lines that extend into the unprintable area to the next line. Disabling drops the portion extending into the unprintable area.</p>
<p>ESCY</p>	<p>Display Functions On</p> <p>Prints all control codes and escape sequences rather than executing them.</p> <p>Notes:</p> <p>To prevent characters from falling outside the right margin (and not printing), enable End-Of-Line Text Wrap (ESC&s0C).</p> <p>To see the control characters and other blank codepoints in symbol set Roman8 (8U), set the symbol set to PC-8 (10U).</p>
<p>ESCZ</p>	<p>Display Functions Off</p> <p>Turns off Display Functions and resumes normal command processing.</p>
<p>ESCz</p>	<p>Print Test Page</p> <p>Causes a test page to print.</p>
<p>ESC*o#M(b)</p> <p>-1-Ink Saver</p> <p>0-Normal</p> <p>1-Best</p>	<p>Print Quality</p> <p>Selects the print quality setting for the page.</p>

ESC&l#M(b)
0-Plain Paper
1-Bond
2-Coated Paper
3-Glossy Paper
4-Transparency
101-Photo Paper
102-Card Stock
103-Labels
104-Envelope
105-Letterhead
106-Preprinted
107-Colored Paper
108-Iron On

Paper Type
Selects the paper type setting for the page.

2. PJI command notation

The following character codes are used to illustrate the syntax of each PJI command.

CHARACTER CODE	DESCRIPTION	HEX CODE
<ESC>	Escape character	0x1B
<LF>	Line Feed character	0x0A
<CR>	Carriage Return character	0x0D
<FF>	Form Feed character	0x0C
<HT>	Horizontal Tab character	0x09
<UEL>	Universal Exit Language	0x1B 0x25 0x2D 0x31 0x32 0x33 0x34 0x35 0x58

3. Examples

This section illustrates a standard PJI commands that is used to access general print features as well as Lexmark Product specific features. This command lists each feature and the syntax, both PCL and PJI commands are required to use these features.

3.1 Universal Exit Language (UEL) command

This command terminates the current printer language and allows dynamic switching into PJI.

Syntax:

<ESC>%-12345X

Notes:

- If the printer receives this command after a PJI job and before PJI End-of-Job (EOJ), then perform a Printer Language Reset.
- If the printer receives this command outside a PJI job/EOJ pair, then reset to user defaults.

3.2 Enter Language command

This command causes the printer to enter the specified language, such as PCL emulation, PostScript emulation, or PPDS.

Syntax:

@PJI ENTER LANGUAGE = language[<CR>]<LF>

Notes:

- The language is PCL, PCLXL, PostScript, or PPDS.
- Write @PJI in upper case. All others can be mixed or lowercase.

3.3 Comment command

This command lets the user add a comment or explanation to the PJI commands.

Syntax:

@PJI COMMENT words[<CR>]<LF>

Notes:

- The words parameter can be any combination of printable characters, spaces, and horizontal tabs.
- The COMMENT command has no effect on a PJI job.

The printer supports the PJI JOB and EOJ commands. When the printer receives a JOB command, the print timeout is multiplied by 10. When the printer receives a PJI EOJ command, the print timeout is reset to the user default.

3.4 JOB command

The host computer can use the JOB command to separate print data into various parts or jobs. The command signifies the start of a print job.

Syntax:

```
@PJI JOB [NAME = "job name"] [START = first page][END = last page] [PASSWORD = number]
[LCREDESESSIONID
```

Notes:

- Only use this command with the EOJ command.
- After receiving a JOB command, the printer does not process a UEL command as a PJI job boundary until it receives the corresponding EOJ. Instead, UELs occurring within a JOB and EOJ pair are processed as printer language resets (for example, PCL ESCE).

Parameters:

- Use the NAME parameter to assign a character string name to a particular job. The name may be any combination of printable characters, spaces, or horizontal tabs up to a maximum of 80 characters, spaces, or tabs. Enclose job name in double quotes as indicated by the command syntax.
- Use the START parameter with the END parameter to skip the printing of a particular portion of the job. The printer emulator discards pages of a job until the page specified by this parameter is reached. First page range is from 1 to 2,147,483,647. Omission of the START parameter causes the printer to start printing with page 1 of the job.
- Use the END parameter with the START parameter to skip the printing of a particular portion of the job. The printer emulator discards all pages of a job after the last page of the print job. The specification of the last page is relative to page 1 of the print job and its range is from 1 to 2,147,483,647. Omission of the END parameter causes the printer to print all pages to the end of the job.
- Use the PASSWORD parameter to control which jobs and users are allowed to modify the printer default or NVRAM variables.

3.5 EOJ command

The EOJ command signifies the end of a print job.

Syntax:

```
@PJI EOJ [NAME="job name"]<CR><LF>
```

Note: Only use this command with the JOB command.

Parameters:

Use the NAME parameter to assign a character string name to a particular job. The name may be any combination of printable characters, spaces, or horizontal tabs up to a maximum of 80 characters, spaces, or tabs. The NAME string may be different from the NAME string in the JOB command

3.6 LBEEP command

This command causes the printer to beep three times.

Syntax:

```
@PJL LBEEP[<CR>]<LF>
```

3.7 LPORTROTATE command

This command causes the printer to rotate ports at the next job boundary. The information to rotate ports is specified in the job header. For example, the printer could switch from parallel interface to serial interface between jobs.

Syntax:

```
@PJL LPORTROTATE[<CR>]<LF>
```

3.8 LPRINT commands

Use these commands to print one of the internal information pages.

Syntax:

```
@PJL testpage[<CR>]<LF>
```

The following LPRINT commands are used for the testpage value.

TESTPAGE VALUE	DESCRIPTION
LPRINTDIRECTORY	Prints both the flash memory and hard disk directory listings. If the flash memory or hard disk is not installed, the command is ignored.
LPRINTTESTPAGE	Prints the test page.
LPRINTMENUS	Prints the menu settings page.
LPRINTPCLFONTS	Prints the PCL font listing.
LPRINTPSFONTS	Prints the PostScript font listing.

3.9 LESCAPECHAR command

This command modifies the code point of the escape character for the host computer. The PORT parameter specifies the command information. The escape character is mapped to code point 0x1B for each host interface port.

Syntax:

```
@PJL LESCAPECHAR CHAR=byte PORT=port[<CR>]<LF>
```

The following ports are valid parameters for LESCAPECHAR

- INA, INA1, INA2, INA3
- LOCALTALK1, LOCALTALK2, LOCALTALK3
- PARALLEL, PARALLEL1, PARALLEL2, PARALLEL3
- USB, USB1, USB2, USB3
- SERIAL, SERIAL1, SERIAL2, SERIAL3
- IR, IR1, IR2, IR3

Note: The byte value for the CHAR parameter is the code point of the ASCII character used for the escape character. For example, at the factory, the printer uses 0x1B (character <ESC>) for the escape character. If CHAR = 65 is specified with this command, the printer uses 0x41 (character A) as the escape character for the

host interface port specified via the PORT parameter.

3.10 LFAX PHONENUMBER command

This command tells the printer that the output resulting from the current job is sent to the fax processing device instead of to the printer.

The current job is printed and is not sent to the fax processing device if one of the following occurs:

- The printer is not configured for fax send capability.
- The command is received with a command that selects an interpreter that does not support formatting functionality for sending faxes.

Syntax:

@PJL LFAX PHONENUMBER="number" [STATIONID="station name"] [<CR>] <LF>

Notes:

The PHONENUMBER parameter is a text string up to 60 characters. If an unsupported character is supplied in the PHONENUMBER parameter, then the entire LFAX PHONENUMBER command is ignored.

The STATIONID parameter specifies a station name that is set to the receiving fax machine to indicate the origin of an incoming fax. The station name is a text string which is truncated to 20 characters. A null value (" ") indicates that no station ID is specified. If no station name is specified, then the default station name of the printer is used.

LFAX PHONENUMBER number values

CHARACTER	DESCRIPTION
0–9	DTMF† digits 0 to 9
*	DTMF† character *
#	DTMF† character #
A–D	DTMF† character A, B, C, and D
!	Flash
W	Wait for dial tone
@	Wait for silence
&	Wait for credit card tone
,	Pause
^	Toggles between tone and pulse modes

† Dual Tone Multi-Frequency (DTMF) is the system used by touch-tone telephones which assigns a specific frequency or tone to each key so a microprocessor can easily identify it.

3.11 LDOWNLOADTARGET command

This command specifies the target device for downloaded files. The target can be RAM, flash memory, or hard disk.

Syntax:

@PJL SET LDOWNLOADTARGET=variable [<CR>] <LF>

4. Supported PostScript Fonts

The following PostScript fonts are resident with Adobe interpreter.

AlbertusMT	Garamond - KursivHalbfett
AlbertusMT- Italic	Geneva
AlbertusMT- Light	GillSans
AntiqueOlive - Bold	GillSans - Bold
AntiqueOlive - Compact	GillSans - BoldCondensed
AntiqueOlive - Italic	GillSans - BoldItalic
AntiqueOlive - Roman	GillSans - Condensed
Apple - Chancery	GillSans - ExtraBold
Arial - BoldItalicMT	GillSans - Italic
Arial - BoldMT	GillSans - Light
Arial - ItalicMT	GillSans - LightItalic
ArialMT	GoldSansMM
AvantGarde - Book	GoldSerifMM
AvantGarde - Book Oblique	Goudy
AvantGarde - Demi	Goudy - Bold
AvantGarde - Demi Oblique	Goudy - BoldItalic
Bodoni	Goudy - ExtraBold
Bodoni - Bold	Goudy - Italic
Bodoni - BoldItalic	Helvetica
Bodoni - Italic	Helvetica - Black
Bodoni - Poster	Helvetica - BlackOblique
Bodoni - PosterCompressed	Helvetica - Bold
Bookman - Demi	Helvetica - BoldOblique
Bookman - Demi Italic	Helvetica - Condensed
Bookman - Light	Helvetica - Condensed - Bold
Bookman - Light Italic	Helvetica - Condensed - BoldObl
Candid	Helvetica - Condensed - Oblique
Chicago	Helvetica - Light
Clarendon	Helvetica - LightOblique
Clarendon - Bold	Helvetica - Narrow
Clarendon - Light	Helvetica - Narrow - Bold
CooperBlack	Helvetica - Narrow - Bold Oblique
CooperBlack - Italic	Helvetica - Narrow - Oblique
Cooperplate -ThirtyThreeBC	Helvetica - Oblique
Cooperplate - ThirtyTwoBC	HoeflerText - Black
Coronet - Regular	HoeflerText - BlackItalic
Courier	HoeflerText - Italic
Courier - Bold	HoeflerText - Ornaments
Courier - Bold Oblique	HoeflerText - Regular
Courier - Oblique	Intl - CG - Times
Eurostile	Intl - CG -Times - Bold
Eurostile - Bold	Intl - CG - Times - BoldItalic
Eurostile - BoldExtendedTwo	Intl - CG -Times - Italic
Eurostile - ExtendedTwo	Intl - Courier
Garamond - Antiqua	Intl - Courier - Bold
Garamond - Halbfett	Intl - Courier - BoldOblique
Garamond - Kursiv	Intl - Courier - Oblique

Intl - Univers - Bold
Intl - Univers - BoldItalic
Intl - Univers - Medium
Intl - Univers - MediumItalic
JoannaMT
JoannaMT - Bold
JoannaMT - BoldItalic
JoannaMT - Italic
LetterGothic
LetterGothic - Bold
LetterGothic - BoldSlanted
LetterGothic - Slanted
LubaninGraph - Book
LubaninGraph - BookOblique
LubaninGraph - Demi
LubaninGraph - DemiOblique
Marigold
MonaLisa - Recut
Monaco
NewCenturySchlbk - Bold
NewCenturySchlbk - Bold Italic
NewCenturySchlbk - Italic
NewCenturySchlbk - Roman
NewYork
Optima
Optima - Bold
Optima - BoldItalic
Optima - Italic
Oxford
Palatino - Bold
Palatino - Bold Italic
Palatino - Italic
Palatino - Roman
Sarabun - Bold
Sarabun - BoldItalic

Sarabun - Italic
Sarabun - Light
Sarabun - Regular
StempelGaramond - Bold
StempelGaramond - BoldItalic
StempelGaramond - Italic
StempelGaramond - Roman
Symbol
Taffy
Times - Bold
Times - Bold Italic
Times - Italic
Times - Roman
Times New RomanPS - Bold ItalicMT
Times New RomanPS - BoldMT
Times New RomanPS - ItalicMT
Times New RomanPSMT
Univers
Univers - Bold
Univers - BoldExt
Univers - BoldExtObl
Univers - BoldOblique
Univers - Condensed
Univers - CondensedBold
Univers - CondensedBoldOblique
Univers - CondensedOblique
Univers - Extended
Univers - ExtendedObl
Univers - Light
Univers - LightOblique
Univers - Oblique
Wingdings - Regular
ZapfChancery - MediumItalic
ZapfDingbats

5. Supported PCL Fonts

The following PCL fonts are resident.

FONT NAME	PCL ESCAPE COMMAND
Courier	<<Esc>><<symset>><<Esc>>(s0p<<pitch>>h0s0b4099T
CG Times	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s0b4101T
CG Times Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s3b4101T
CG Times Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s0b4101T
CG Times Bold Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s3b4101T
CG Omega	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s0b4113T
CG Omega Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s3b4113T
CG Omega Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s0b4113T
CG Omega Bold Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s3b4113T
Coronet	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s0b4116T
Clarendon Condensed Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v4s3b4140T
Univers Medium	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s0b4148T
Univers Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s3b4148T
Univers Medium Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s0b4148T
Univers Bold Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s3b4148T
Univers Condensed Medium	<<Esc>><<symset>><<Esc>>(s1p<<point>>v4s0b4148T
Univers Condensed Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v4s3b4148T
Univers Condensed Medium Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v5s0b4148T
Univers Condensed Bold Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v5s3b4148T
Antique Olive	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s0b4168T
Antique Olive Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s3b4168T
Antique Olive Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s0b4168T
Garamond Antiqua	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s0b4197T
Garamond Halbfett	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s3b4197T
Garamond Kursiv	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s0b4197T
Garamond Kursiv Halbfett	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s3b4197T
Marigold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s0b4297T
Albertus Medium	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s1b4362T
Albertus Extra Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s4b4362T
Arial	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s0b16602T
Arial Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s3b16602T
Arial Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s0b16602T
Arial Bold Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s3b16602T
Times New Roman	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s0b16901T
Times New Roman Bold	<<Esc>><<symset>><<Esc>>(s1p<<point>>v0s3b16901T
Times New Roman Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s0b16901T
Times New Roman Bold Italic	<<Esc>><<symset>><<Esc>>(s1p<<point>>v1s3b16901T
Symbol	<<Esc>>(19M<<Esc>>)(s1p<<point>>v0s0b16686T

Wingdings	<<Esc>>(579L<<Esc>>(s1p<<point>>v0s0b31402T
Courier Bold	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h0s3b4099T
Courier Italic	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h1s0b4099T
Courier Bold Italic	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h1s3b4099T
Letter Gothic	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h0s0b4102T
Letter Gothic Bold	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h0s3b4102T
Letter Gothic Italic	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h1s0b4102T
ITC Avant Garde Book	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s0b24607T
ITC Avant Garde Book Oblique	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s0b24607T
ITC Avant Garde Demi	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s2b24607T
ITC Avant Garde Demi Oblique	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s2b24607T
ITC Bookman Light	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s-3b24623T
ITC Bookman Light Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s-3b24623T
ITC Bookman Demi	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s2b24623T
ITC Bookman Demi Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s2b24623T
Century Schoolbook Roman	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s0b24703T
Century Schoolbook Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s0b24703T
Century Schoolbook Bold	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s3b24703T
Century Schoolbook Bold Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s3b24703T
CourierPS	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h0s0b24579T
CourierPS Oblique	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h1s0b24579T
CourierPS Bold	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h0s3b24579T
CourierPS Bold Oblique	<<Esc>>(<<symset>> <<Esc>>(s0p<<pitch>>h1s3b24579T
Helvetica	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s0b24580T
Helvetica Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s0b24580T
Helvetica Bold	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s3b24580T
Helvetica Bold Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s3b24580T
Helvetica Narrow	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v4s0b24580T
Helvetica Narrow Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v5s0b24580T
Helvetica Narrow Bold	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v4s3b24580T
Helvetica Narrow Bold Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v5s3b24580T
Helvetica Light	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s-3b24580T
Helvetica Light Oblique	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s-3b24580T
Helvetica Black	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s5b24580T
Helvetica Black Oblique	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s5b24580T
Palatino Roman	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s0b24591T
Palatino Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s0b24591T
Palatino Bold	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s3b24591T
Palatino Bold Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s3b24591T
Times Roman	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s0b25093T
Times Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s0b25093T
Times Bold	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s3b25093T
Times Bold Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s3b25093T
ITC Zapf Chancery Medium Italic	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v1s0b45099T
ITC Zapf Dingbats	<<Esc>>(<<symset>> <<Esc>>(s1p<<point>>v0s0b45101T

SymbolPS	<<Esc>>(19M<<Esc>>(s1p<<point>>v0s0b45358T
C39 Narrow	<<Esc>>(<<symset>><<Esc>>(s1p<<point>>v0s0b32774T
C39 Regular	<<Esc>>(<<symset>><<Esc>>(s1p<<point>>v0s0b32772T
C39 Wide	<<Esc>>(<<symset>><<Esc>>(s1p<<point>>v0s0b32777T
OCR-A	<<Esc>>(<<symset>><<Esc>>(s0p<<pitch>>h0s0b23584T
OCR-B	<<Esc>>(<<symset>><<Esc>>(s0p<<pitch>>h0s0b23590T
Sarabun Bold	<<Esc>>(<<symset>><<Esc>>(s1p<<point>>v0s3b61700T
Sarabun Bold Italic	<<Esc>>(<<symset>><<Esc>>(s1p<<point>>v1s3b61701T
Sarabun Italic	<<Esc>>(<<symset>><<Esc>>(s1p<<point>>v1s0b61702T
Sarabun Light	<<Esc>>(<<symset>><<Esc>>(s1p<<point>>v0s0b61703T
Sarabun Regular	<<Esc>>(<<symset>><<Esc>>(s1p<<point>>v0s0b61704T
Line Printer 16	<<Esc>>(<<symset>><<Esc>>(s0p16.67h8.50v0s0b0t
POSTNET Barcode	<<Esc>>(15Y<<Esc>>(s1p12v0s0boT