This printer has three emulation modes:

* HP LaserJet III
* Epson FX-850
* IBM Proprinter XL24e

The LP 800 has different responses to software codes from the computer--one
set for each emulation. The response patterns, or modes, have many
similarities, but each has its own unique features.

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EPSON FX-850 Emulation Mode:
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Printer Operation/Data Control Sequences:

DEC.	HEX.	MNEMONIC	FUNCTION
13	0D	CR	Carriage return
17	11	DC1	Selects printer
19	13	DC3	Deselects printer
24	18	CAN	Cancels-clear the buffer
27 25 n	1B 19 n	ESC EM n	Selects paper feed source. n=1 selects cassette tray, n=2 selects 2nd bin sheet feeder.
27 28 n	1B 1C n	ESC FS n	Selects emulation n=0 Function Reset n=1 HP Emulation n=3 EPSON Emulation n=4 IBM Emulation n=5 HPGL Emulation n=6 PDL Emulation
27 35	1B 23	ESC #	Cancels the MSB control
27 60	1B 3C	ESC <	Home head-ignored by this printer
27 61	1B 3D	ESC =	Sets the MSB of all incoming data to 0
27 62	1B 3E	ESC >	Sets the MSB of all incoming data to 1
27 64	1B 40	ESC @	Initializes the printer
27 85 n	1B 55 n	ESC U n	Unidirectional printing ignored by this printer
27 111 n	1B 6F n	ESC o n	Sets orientation n=0 sets portrait n=1 sets landscape
127	7F	DEL	Deletes a character input just before this code

Note: The control codes for paper out detection (ESC 8/ESC 9) and half-speed
printing mode (ESC a) are ignored by this printer.

Vertical Motion Control Sequences:

DEC.	HEX.	MNEMONIC	FUNCTION
10	0A	LF	Line feed
11	0B	VT	Vertical tab
12	0C	FF	Form feed
27 32 n	1B 20 n	ESC SP n	Adds n/120" space to each character 0<n<127
27 47	1B 2F	ESC / n	Selects the vertical tab channel used by VT
27 48	1B 30	ESC 0	Sets 1/8" line feed
27 49	1B 31	ESC 1	Sets 7/72" line feed
27 50	1B 32	ESC 2	Sets 1/6" line feed
27 51 n	1B 33 n	ESC 3 n	Sets n/216" line feed distance 0<n<255
27 65 n	1B 41 n	ESC A n	Sets n/72" line feed distance 0<n<85
27 66 n1.. ..nk 0	nk 1B 42 n1.. ..nk 00	nk ESC B n1.. ..nk NUL	Sets up to 16 vertical tab stops in channel 0 0<n<255, 1<k<16
27 67 n	1B 43 n	ESC C n	Sets the form length in lines 1<n<127
27 67 0 n	1B 43 00 n	ESC C NUL n	Sets the form length in inches 1<n<22
27 74 n	1B 4A n	ESC J n	Advances the paper by n/216 inch 0<n<255
27 78 n	1B 4E n	ESC N n	Sets skip perforation to "n" inch 0<n<127
27 79	1B 4F	ESC O	Cancels skip perforation
27 98 m n1.. ..nk 0	1B 62 m n1.. ..nk 00	ESC b m n1.. ..nk NUL	Sets up to 16 vertical tab stops in channel m 0<n<255, 1<k<16, 0<m<7
27 106 n	1B 6A n	ESC j n	Performs a reverse line feed by n/216"

Horizontal Motion Control Sequences:

DEC.	HEX.	MNEMONIC	FUNCTION
8	08	BS	Backspace
9	09	HT	Horizontal tab
27 36 n1 n2	1B 24 n1 n2	ESC $ n1 n2	Sets absolute print start position to (n1+(n2x256))x1/60" from left margin
27 68 n1.. ..nk 0	1B 44 n1.. ..nk 00	ESC D n1.. ..nk NUL	Sets up to 32 horizontal tab stops 0<n<255, 1<k<32
27 81 n	1B 51 n	ESC Q n	Sets the right margin at nth column
27 92 n1 n2	1B 5C n1 n2	ESC \ n1 n2	Sets relative print position to (n1+(n2x256)/120 inch from current position
27 108 n	1B 6C n	ESC	n	Sets left margin in nth column

Note: The control sequence for justification (ESC a) is ignored by this printer.

Printing Style Control Sequence:

```
DEC.            HEX.              MNEMONIC      FUNCTION

27 33 n         1B 21 n           ESC ! n       Selects a combination of
                                                printing
                                                characteristics by adding the
                                                desired values of n
                                                n=1: Elite
                                                n=4: Compressed
                                                n=8: Emphasized
                                                n=16: Double-strike
                                                n=32: Expanded
                                                n=64: Italic
                                                n=128: Underline
```

Note: The control sequences for NLQ font selection (ESC x and ESC k) are
ignored by this printer.

Print Size Commands:

```
DEC.            HEX.            MNEMONIC      FUNCTION

14              0E              SO            Selects expanded mode for one line only
15              0F              SI            Selects compressed printing
18              12              DC2           Cancels compressed printing
20              14              DC4           Cancels one line expanded mode set by
                                              SO
27 77           1B 4D           ESC M         Selects 12 CPI printing
27 80           1B 50           ESC P         Selects 10 CPI printing
27 87           1B 57 n         ESC W n       Selects or deselects expanded mode
                                               n=1 starts expanded mode
                                               n=0 ends expanded mode
27 112          1B 70 n         ESC p n       Sets proportional character printing
                                               n=1 selects proportional character
                                               printing
                                               n=0 cancels proportional character
                                               printing
```

Print Enhancement Control Sequences:

```
DEC.            HEX.            MNEMONIC    FUNCTION

27 45 n         1B 2D n         ESC - n     Underlining n=1 starts, n=0 ends
27 52           1B 34           ESC 4       Selects italic character mode
27 53           1B 35           ESC 5       Ends italic character mode
27 54           1B 36           ESC 6       Expands the code area of printable
                                             character
27 55           1B 37           ESC 7       Cancels ESC 6
27 69           1B 45           ESC E       Selects the emphasized printing mode
27 70           1B 46           ESC F       Cancels the emphasized printing mode
27 71           1B 47           ESC G       Sets double-strike printing
27 72           1B 48           ESC H       Stops double-strike printing
27 83 n         1B 53  n        ESC S n     Sets superscript/subscript
                                             n=1 selects subscript printing
                                             n=0 selects superscript printing
27 84           1B 54           ESC T       Ends superscript and subscript printing
27 119 n        1B 77 n         ESC w n     Selects/deselects the double-height
                                             printing mode
```

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                              n=1 selects double-height
                              n=0 ends double-height


Note: The control sequences for font downloading (ESC %, ESC & and ESC:) are
ignored by this printer.


Character Table Control Sequences:

DEC.           HEX.           MNEMONIC        FUNCTION


27 73 n        1B 49 n        ESC I n         Printable code area expansion
                                               n=1 makes codes 0-31 and 128-159
                                               printable
                                               n=0 cancels expansion
27 82 n        1B 52 n        ESC R n         Selects international characters
                                               n=0: U.S.A.
                                               n=1: France
                                               n=2: Germany
                                               n=3: U.K.
                                               n=4: Denmark
                                               n=5: Sweden
                                               n=6: Italy
                                               n=7: Spain
                                               n=8: Japan
                                               n=9: Norway
                                               n=10: Denmark II
                                               n=11: Spain II
                                               n=12: Latin America
27 116         1B 74          ESC t           Selects character code table
                                               n=0 selects Italic character table
                                               n=1 selects Graphic character
                                               table


Graphic Image Printing Control Sequences:

DEC.           HEX.           MNEMONIC        FUNCTION


27 42 m n1     1B 2A m n1     ESC * m n1      Selects various graphic mode
n2 d1...dk     n2 d1...dk     n2 d1...dk       m=0: Single density
                                               m=1: Double density double speed
                                               m=2: Double density
                                               m=3: Quadruple Density
                                               m=4: CRT 1 80 dots/inch
                                               m=5: Plotter 72 dots/inch
                                               m=6: CRT 2 90 dots/inch
                                               m=7: Double density plotter
                                                    144 dots/inch
                                                    k=n1 (LSB) + (256 x n2 (MSB))
27 63 n m      1B 3F n m      ESC ? n m       Reassign the density of the bit
                                               image mode specified by K,L,Yor Z.
                                               n="K","L","Y" or "Z". m is a mode
                                               number as in ESC * command.
27 75 n1 n2    1B 4B n1 n2    ESC K n1 n2     Normal-density 8-pin bit image mode
d1...dk        d1...dk        d1...dk          60-dpi k=n1 (LSB)+(256 x n2 (MSB))
27 76 n1 n2    1B 4C n1 n2    ESC L n1 n2     Double-density 8-pin bit image
d1...dk        d1...dk        d1...dk          mode 120-dpi  k=n1 + (256 x n2)
27 89 n1 n2    1B 59 n1 n2    ESC Y n1 n2     Double-density 8-pin bit image
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```
d1...dk          d1...dk          d1...dk          mode 120-dpi (horizontally aligned
                                                    dots cannot be printed)
                                                    k=n1 + (256 x n2)
27 90 n1 n2      1B 5A n1 n2      ESC Z n1 n2      Quadruple-density 8-pin bit image
d1...dk          d1...dk          d1...dk           mode 240-dpi k=n1 + (256 x n2)
27 94 m n1       1B 5E m n1       ESC ^ m n1       Selects 9-pin graphic mode.
n2 d1...dk       n2 d1...dk       n2 d1...dk        m=1: Double density
                                                    m=0: Single density
                                                    k=n1 (LSB) + (256 x n2 (MSB))
```

(dtc-08/06/93)
(smc-09/14/93)