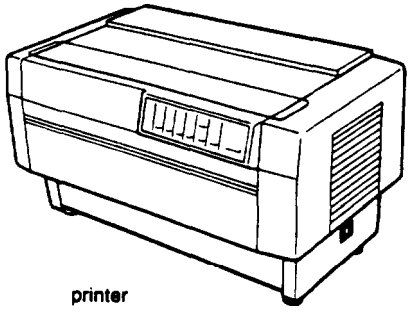
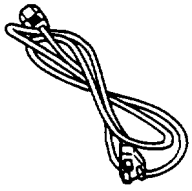
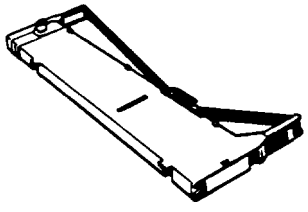

printer


power cable


ribbon cartridge


optional connector lock nuts


cross-head screwdriver

Printer Specifications

Printing

Printing method: 9-pin impact dot matrix

Pin ***configuration:*** Two 9-pin columns

Printing speed:

Quality	Characters per inch	Character/second/line
high-speed **draft**	10	1066
normal draft	10	800
	12	960
NLQ	10	160
	12	192

Printing direction: Bidirectional logic-seeking for tat printing. Unidirectional for graphics (can also be switched to bidirectional using the proper software command).

Line spacing: **1/6-inch, 1/8-inch,** or **programmable** in increments of **1/216th** of an inch

Paper feed speed: Approx. 17 ms/line at l/&inch line spacing during continuous feeding
26 ms/line at **1/6-inch** line spacing during **intermittent feeding**

Printable columns:

Character sizes	Maximum printed characters
10 cpi	136
10 cpi condensed	233
12 cpi	163
12 cpi condensed	272

Input buffer: 3Kbyte

Character fonts:

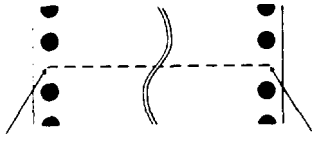
Font	Available **sizes** (characters per inch)
Epson high-speed draft	10
Epson draft	10, 12, proportional
Epson NLQ Roman	10, 12, proportional
Epson NLQ Sans Serif	10, 12, proportional

characters: Standard ASCII character set with **96 characters** (including italic characters)
13 international character sets (including italic characters)
Epson Extended Graphics character set

Paper

Paper type: Continuous-feed paper:

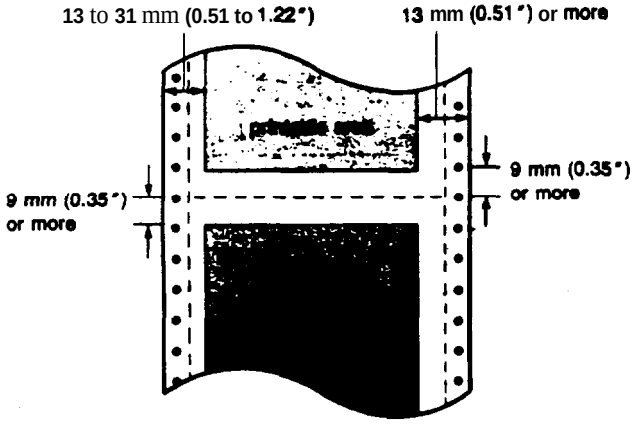
- The sprocket holes must be perfectly circular or circular and notched.
- The holes must be cleanly cut.
- The perforation between pages should not **extend all** the way to the edges of the paper, as shown below.


The edges of paper are not perforated.

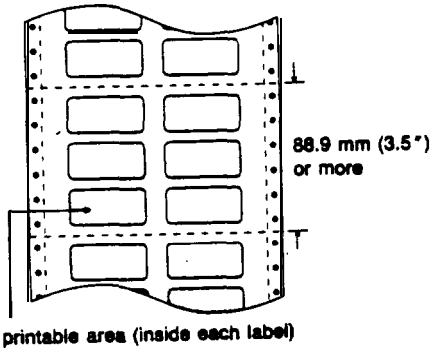
Paper weight: Continuous paper: 14 to 22 Ibs. (***52.6*** to ***82.7*** g/m^2)
Multi-part **forms:** [11 to 15 **lbs.**] × N ([**41.1** to **56.4** g/m^2] × N) (N ≦ 6)

Paper thickness: Continuous paper (including multi-part forms):
Front - up to 0.46 mm (**0.018"**)
Rear - up to 0.30 mm (**0.012"**)
Labels:
Up to 0.19 mm (0.0075') including backing sheet
Overlapping area on overlapping **multi-part forms:**
up to 0.70 mm (0.028')

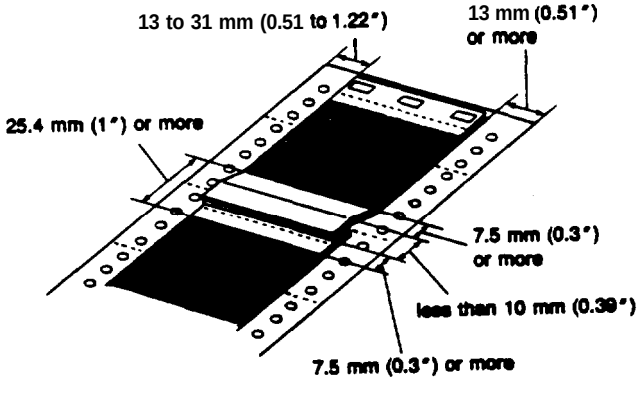
Printable area: Continuous paper:



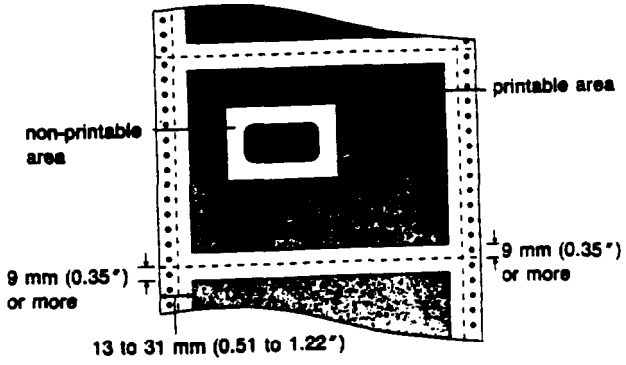
Labels:

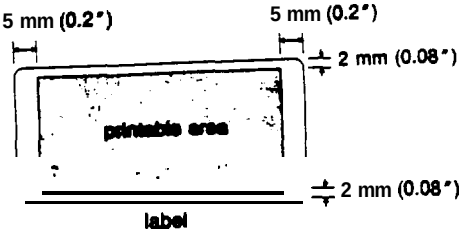


Overlapping multi-part forms:



Multi-part forms with labels:





- **Horizontal alignment** may be **irregular in the top 75 mm (3 inches)** of the first **page.**
- **When using the** optional **pull tractor.** do **not print on** the top **120** mm (4.8 **inches) of the first page.**
- **Any holes or binding** materials should be outside the printable **area.**

Number of copies: With continuous, multi-part forms only.
Front - one original **plus** up **to five copies.**
Total thickness must not exceed 0.46 mm **(0.018").**
Rear - one original plus up to three **copies.**
Total thickness must not be exceed **0.30** mm (0.012**").**

Mechanical

Paper feed methods: Push tractor
Pull tractor **(optional)**

Ribbon: Cartridge ribbon, available in **black only (#8766)**
Life expectancy at 14 dots/character:
15 million characters

MCBF: For all components excluding print head:
24,000,000 lines

MTBF: 6000 power-on hours (25% duty)

Print bud life: 400 million characters at 14 dots/character

Dimensions and weight:
Height: 369 mm (14.5")
Width: 700 mm (27.6**.**)
Depth: **382 mm (15.0")**
Weight: **approx.** 29 kg (65.9 **lbs.)**

Optional paper cutter:	Cutting position accuracy: ±3 mm (0.12")
	Available cutting area: Within *25.4* mm (1') below the perforation at the top of the page

Electrical

Voltage:	103.5 to 132.0 VAC (12OV model) 198.0 to 264.0 VAC (220-240V model)
Rated current:	7A (12OV model) 5A (220-240V model)
Power consumption:	200 watts (during self test printing in draft mode)
Frequency:	***49.5*** to ***60.5 Hz***
Insulation resistance:	10 M ohms minimum (between AC power line and chassis)
Dielectric strength (between AC line and chassis):	12OV model can withstand 1.00 KV rms applied for one minute or 1.20 **KV rms** applied for one second ***220-240V*** model can withstand 1.25 KV rms applied for one minute or 1.50 KV rms applied for one second

Environment

Temperature:	Operation:	+5° to +35°C (+41° to +95°F)
	Storage:	−30° to +60°C (−22° to +140°F)
Humidity:	Operation:	10% to 80% RH without condensation
	Storage:	*5%* to 85% RH without condensation
Operation angle:	0°	

Applications Software

Most software programs let you specify the type of printer you are using so that the program can take full advantage of the printer's features. If your application program has an installation or setup procedure that lets you select your printer from a list of printers, choose the Epson DFX-8000 printer. If the list does not include the DFX-8000, choose one of the following printers, listed in order of preference:

DFX-5000
FX-1050 (FX-850)
FX-286e (FX-86e)
EX-1000 (EX-800)
FX-185 (FX-85)
FX-100+ (FX-80+)
FX-100 (FX-80)

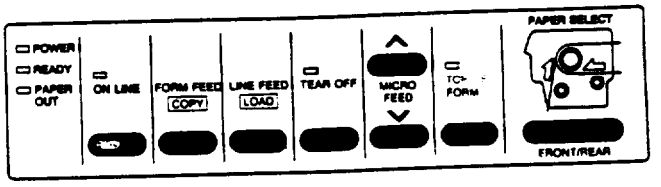
If these printers are not listed, select one of the following printers. listed in order of preference:

FX
EX
LX
RX
MX
Epson printer
9-pin printer
Standard printer
Draft printer

If you plan to use IBM emulation mode, select one of the following printers, listed in order of preference:

IBM Proprinter XL
IBM Graphics printer
IBM Printer

The Control Panel



Lights

POWER(**green**)
On when the power switch is on and power is supplied to the printer.

READY (green)
On when the printer is on line and ready to receive data from your computer. This light flickers during printing.

PAPER OUT (red)
On when the printer is out of paper. This light goes on whenever there is no paper positioned behind the print head, even if there is paper loaded on the tractors in the standby position. (The printer also beeps when it is out of paper.)

ON LINE **(green)**
On when the printer is on line and ready to receive and print data from the computer. Also, when the print head overheats, the **ON** LINE light blinks. The printer stops printing, waits several minutes while the print head cools, and then resumes printing.

TEAR **Off** (green)
On when the printer is in tear-off mode.

TOP OF FORM (green)
On when the printer is in top of form mode. When this light blinks, you can adjust the loading and top of form positions.

PAPER SELECT (red/green)
The front tractor arrow goes on when the front tractor is selected. The rear tractor arrow goes on when the rear tractor is selected. The light is green when paper is loaded, even if the paper is in the standby position, and red when the tractor is completely out of paper.

Buttons

ON LINE

This button controls the printer's on line status. Press this button to put the printer on line or take it off line. When the printer is on line. the ON LINE light is on and the printer can receive and print data from the computer.

When the printer is in top of form mode, you can press the ON LINE button to exit the mode without setting a new top of form position. You can also Press the ON LINE button to exit.tear-off mode. See the sections on adjusting the top of form position and using short tear-off in this chapter.

FORM FEED/COPY

When the printer is off line, press this button to advance the paper to the top of the next page. To adjust the position the paper is fed to, see the section on adjusting the top of form position in this chapter. When the **printer** is on line, press this button to select or cancel copy mode. See the section on printing on **special** paper in Chapter 2 for more information.

LINE FEED/LOAD

When the printer is off line, you use this button to load **paper** or to advance the paper after you load it. To advance the paper one line, press this button once. To advance the paper continuously, hold down the button.

TEAR OFF

The TEAR Off button feeds the paper to the printer's tear-off edge so you can tear off your document without losing the paper normally lost between printing jobs. To use this **feature,** take the printer off line after your document finishes printing and press the TEAR Off button. The printer feeds the paper to the printer's tear-off edge. After you tear off the document, press the TEAR Off or ON LINE button to feed the paper back to the top of form position.

If the perforation of your paper does not align exactly with the printer's tear-off edge, you can use the MICRO FEED buttons to adjust the tear-off position. See the section on using short tear-off in this chapter.

WARNING: Never use the TEAR OFF button with labels. Press the FORM FEED or LINE FEED button instead to feed the printed labels to a point where you can tear them off.

MICRO FEED

When the printer is off line, the two MICRO FEED buttons advance or reverse the loaded paper in 1/216th-inch increments. **You can use** these buttons to adjust the paper memory, top of form, loading, printing, and tear-off positions. For more information, see the sections on using the paper memory and short tear-off features and adjusting the top of form and printing positions in this chapter.

TOP OF FORM

When the printer is off line, press this button to enter **or** exit **top** of form mode. You can also use this button to enter paper memory settings. For more information, see the sections on adjusting the top of form position and using the paper memory feature in this chapter.

FRONT/REAR

when the printer is off line. press this button to select the front **or** rear tractor. If you have been using paper loaded on **one** tractor, first remove the printed output before switching to the other tractor. When you switch tractors, the printer feeds the paper that is already loaded backward to the standby position and loads paper on the newly selected tractor.

WARNING: Never use the FRONT/REAR button when labels are loaded in the printer. Also, be sure to remove any **printed documents before switching tractors. Never feed** more than one page backward through the printer.

WARNING: When you use multi-part **forms that vary in** thickness, do not press the TEAR OFF, FRONT/REAR. or reverse-feeding (bottom) MICRO FEED button or a paper jam may result. To remove these forms, tear off the fresh supply at a perforation below the front tractor, take the printer off line, and press the FORM FEED or LINE FEED button to eject the remaining forms.

Note: To use the paper memory feature, you need to **reset some** DIP switches. See the section on changing a DIP switch setting in this chapter for instructions on how to set a DIP switch.

Setting the DIP Switches,

DIP Switch 1

SW	Description	ON	OFF	Page
1-1	Condensed mode on/off	Condensed	Normal	3-46
1-2	Slashed zero on/off	slashed	Not slashed	3-14
1-3	Character table* (in Epson ESC/P mode)	Graphics	Italics	3-49
1-4	Printer mode**	IBM emulation	Epson ESC/P	3-14
1-5	NLQ or draft mode	NLQ	Draft	3-43
1-6 1-7 1-8	International character set (available only in Epson ESC/P mode)	Sea the international character set table on the next page.		3-47

'DIP Switch 2

SW	Description	ON	OFF	Page
2-1	Default character set (in Epson ESC/P mode)	User-defined	ROM	3-14
2-2	Draft printing speed	Normal	High	3-14
2-3	Bit length for serial interface	7 bits	8 bits	3-15
2-4	Auto line feed	ON	OFF	3-15
2-5 2-6	Interface type/parity	See table below.		3-15
2-7 2-8	Baud rate	See table below.		3-16

* The default setting for DIP switch 1-3 varies depending on the country.
** When DIP switch 1-4 is on and the printer is in IBM emulation mode. the functions of DIP switches 1-3, 1-6, 1-7, 1-8, and 2-1 differ from those listed in this table.

DIP Switch 3

SW	Description	ON	OFF	Page
3-1	Input buffer	Invalid	Valid	3-16
3-2	Page length*	12 inches	11 inches	3-17
3-3	1-inch skip over perforation	ON	OFF	3-18
3-4	Paper memory	Memory 2	Memory 1	3-20
3-5	Overlapping multi-part forms	Valid	Invalid	3-20
3-6	Multi-part forms with labels	Valid	Invalid	3-20
3-7	Skip over binding	ON	OFF	3-16
3-8	Handshaking protocol	X-on/X-off	DTR	3-16

* The default setting for DIP switch 3-2 varies depending on the country.

International character set

Country	SW 1-6*	SW 1-7*	SW 1-8*
USA	ON	ON	ON
France	ON	ON	OFF
Germany	ON	OFF	ON
United Kingdom	ON	OFF	OFF
Denmark	OFF	ON	ON
Sweden	OFF	ON	OFF
Italy	OFF	OFF	ON
Spain	OFF	OFF	Off

. The default settings for these DIP switches vary depending on the country.

Interface/Parity selection

Interface/Parity	SW 2-5	SW 2-6
Parallel	OFF	OFF
Serial/odd	OFF	ON
Serial/even	ON	OFF
Serial/none	ON	ON

Baud rate selection

Baud rate	SW 2-7	SW 2-8
19200 bps	OFF	OFF
9600 bps	OFF	ON
1200 bps	ON	OFF
300 bps	ON	ON

When you **select** IBM emulation mode by turning on DIP switch l-4, DIP switches l-3, l-6. 1-7, 1-8, and 2-1 function differently than they do in Epson ESC/P mode. The tables below show the functions of these switches in IBM emulation mode.

DIP switch functions in IBM emulation mode

SW	Description	ON	OFF
1-3	Automatic carriage *return*	OFF	ON
1-6	Default character table	See table below.	
1-7			
1-8			
2-1	FF command at the top of form position	Invalid	Valid

IBM emulation mode character tables

Default character table	SW 1-6	SW 1-7	SW 1-8
Table 1*	ON	ON	ON
Table 2*	Table 2 is selected when any one of these switches is turned off.		

. The Appendix shows the characters included in each character table.

Defaults

The following table shows the default conditions that become valid when the printer is initialized.

Item	Default condition
Top of form position	Last setting by TOP OF FORM button
Page length	The current DIP switch setting
Left and right margins	Cancelled
Line spacing	1/6-inch line spacing
Vertical tab position	Cleared
Horizontal tab position	Every eight characters
VFU channel	Channel 0
Condensed mode	The current DIP switch setting
Justification	Left justification
Special printing effects	The current DIP switch settings where applicable. Other effects are cancelled.
Graphic mode assignment	ESC K = ESC * 0, ESC L = ESC * 1, ESC Y = ESC * 2, ESC Z = ESC * 3
User-defined character set	Epson ESC/P mode: not cleared IBM emulation mode: cleared

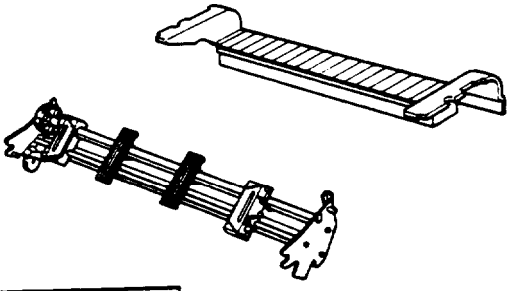
Selecting Character Sets

Country	ASCII code (hex)												DIP SW		
	23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E	1-6	1-7	1-8
0 U.S.A.	#	$	@	[	\	]	^	`	{	¦	}	~	ON	ON	ON
1 France	#	$	à	°	ç	§	^	`	é	ù	è	¨	ON	ON	OFF
2 Germany	#	$	§	Ä	Ö	Ü	^	`	ä	ö	ü	ß	ON	OFF	ON
3 United Kingdom	£	$	@	[	\	]	^	`	{	¦	}	~	ON	OFF	OFF
4 Denmark I	#	$	@	Æ	Ø	Å	^	`	æ	ø	å	~	OFF	ON	ON
5 Sweden	#	¤	É	Ä	Ö	Å	Ü	é	ä	ö	å	ü	OFF	ON	OFF
6 Italy	#	$	@	°	\	é	^	ù	à	ò	è	ì	OFF	OFF	ON
7 Spain I	₧	$	@	¡	Ñ	¿	^	`	¨	ñ	}	~	OFF	OFF	OFF

Country	ASCII code (hex)											
	23	24	40	5B	5C	5D	SE	60	7B	7C	7D	7E
8 Japan	#	$	@	[	¥	]	^	`	{	¦	}	~
9 Norway	#	¤	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
10 Denmark II	#	$	É	Æ	Ø	Å	Ü	é	æ	ø	å	ü
11 Spain II	#	$	á	¡	Ñ	¿	é	`	í	ñ	6	ú
12 Latin America	#	$	A	¡	Ñ	¿	é	ü	í	ñ	ó	ú

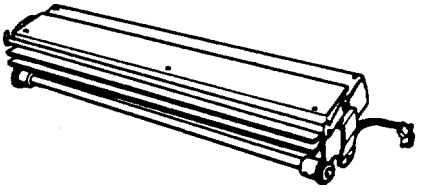
Pull Tractor

This option improves the handling of heavy multi-part forms and labels. It also enhances printing alignment on preprinted forms.



Paper Cutter

This option allows you to handle continuous paper more easily by cutting off printed documents for you.



Commands In Numerical Order

ASCII	Dec	Hex	Description	Epson ESC/P mode	IBM emulation mode
BEL	7	07	Beeper	9-12	9-12
BS	8	08	Backspace	9-20	9-20
HT	9	09	Tab Horizontally	9-22	9-22
LF	10	0A	Line Feed	9-15	9-15
VT	11	0B	Tab Vertically	9-17	9-17
FF	12	0C	Form Feed	9-14	9-14
CR	13	0D	Carriage Return	9-12	9-12
s o	14	0E	SelectDouble-wide Mode (one line)	9-27	9-27
SI	15	0F	Select Condensed Mode	9-26	9-26
DC1	17	11	Select Printer	9-9	9-9
DC2	18	12	Cancel Condensed Mode	9-26	
DC2	18	12	Select 10 cpi		9-47
DC3	19	13	Deselect Printer	9-10	9-10
DC4	20	14	Cancel Double-wide Mode (one line)	9-27	9-27
CAN	24	18	Cancel Line	9-13	9-13
DEL	127	7F	Delete Character	9-13	
ESC SO 1	4	0E	Select Double-wide Mode (one line)	9-27	9-27
ESC SI	15	0F	Select Condensed Mode	9-26	9-26
ESC EM	25	19	Select Paper Path	9-12	
ESC SP	32	20	Set Intercharacter Space	9-33	
ESC !	33	21	Master Select	9-24	
ESC #	35	23	Cancel MSB Control	9-11	
ESC $	36	24	Set Absolute Print Position	9-21	
ESC %	37	25	Select User-defined Set	9-37	
ESC &	38	26	Define User-defined characters	9-36	
ESC *	42	2A	Select Graphics Mode	9-39	
ESC -	45	2D	Turn Underlining Mode On/Off	9-32	9-32
ESC /	47	2F	Select Vertical Tab Channel	9-19	
ESC 0	48	30	Select 1/8-inch Line Spacing	9-15	9-15
ESC 1	49	31	Select 7/72-inch Line Spacing	9-16	9-16
ESC 2	50	32	Select 1/6-inch Line Spacing	9-16	
ESC 2	so	32	Select Programmable Line Spacing		9-42
ESC 3	51	33	Set n/216-inch Line Spacing	9-16	9-16
ESC 4	52	34	Select Italic Mode	9-31	
ESC 4	52	34	Set Top of Form		9-43
ESC 5	53	35	Cancel Italic Mode	9-32	
ESC 5	53	35	Turn Automatic Line Feed on/off		9-43
ESC 6	54	36	Enable Printable Characters	9-35	
ESC 6	54	36	Select International Character Set		9-49
ESC 7	55	37	Enable Upper Control Codes	9-35	
ESC 7	55	37	Select Standard Character Set		9-49
ESC :	58	3A	Copy ROM to RAM	9-36	
ESC :	58	3A	Select 12 cpi		9-47
ESC <	60	3C	Select Unidirectional Mode (one line)	9-10	
ESC =	61	3D	Set MSB to 0	9-11	
ESC =	61	3D	Define User-defined characters		9-50
ESC >	62	3E	Set MSB to 1	9-11	
ESC ?	63	3F	Reassign Graphics Mode	9-40	
ESC @	64	40	Initialize Printer	9-9	
ESC A	65	41	Set n/72-inch Line Spacing	9-17	
ESC A	65	41	Set n/72-inch Line Spacing		943
ESC B	66	42	Set Vertical Tabs	9-18	9-44
ESC C	67	43	Set Page Length in Lines	9-13	9-13
ESC C 0	67	43	Set Page Length in Inches	9-14	9-14
ESC D	68	44	Set Horizontal Tabs	9-22	9-4s
ESC E	69	45	Select Emphasized Mode	9-29	9-29
ESC F	70	46	Cancel Emphasized Mode	9-29	9-29
ESC G	71	47	Select Double-Strike Mode	9-30	9-30
ESC H	72	48	Cancel Double-Strike Mode	9-30	9-30
ESC I	73	49	Printable Code Area Expansion	9-37	
ESC I	73	49	Select Font		9-46
ESC J	74	4A	Perform n/216-inch Line Feed	9-17	9-44
ESC K	7s	4B	Select Single-density Graphics Mode	9-38	9-38
ESC L	76	4C	Select Double-density Graphics Mode	9-38	9-38
ESC M	77	4D	Select 12 cpi	9-25	
ESC N	78	4E	Set Skip Over Perforation	9-14	9-14
ESC O	79	4F	Cancel skip over Perforation	9-15	9-15

ASCII	Dec	Hex	Description	Epson ESC/P mode	IBM emulation mode
ESC P	80	50	Select 10 cpi	9-25	
ESC P	80	50	Turn Proportional Mode On/Off.....		9-47
ESC Q	81	51	set Right Margin	9-20	
ESC Q22	81	51	Deselect Printer		9-42
ESC R	82	52	select an International Character Set.....	9-34	
ESC R	82	52	Restore Default Tab Settings.....		9-45
ESC S0	83	53	Select Superscript Mode	9-30	9-30
ESC S1	83	53	Select Subscript Mode.....	9-31	9-31
ESC T	84	54	Cancel Superscript/ Subscript Mode	9-31	9-31
ESC U	85	55	Turn Unidirectional Mode On/Off.....	9-10	9-10
ESC X	88	58	Set Left and Right Margins		9-46
ESC W	87	57	Turn Double-wide Mode on/off..	9-28	9-28
ESC Y	89	59	Select High-speed Double-density Graphics Mode	9-38	9-38
ESC Z	90	5A	Select Quadruple-density Graphics Mode..	9-39	9-39
ESC [@	91	5B	Set Double-high/Double-wide Printing		9-48
ESC \	92	5C	Set Relative Print Position . .	9-21	
ESC \	92	5C	Print Characters from Symbol set.....		9-49
ESC ^	94	5E	Select 9-pin Graphics Mode	9-40	
ESC ^	94	5E	Print One Characta from Symbol set.....		9-50
ESC _	95	5F	Turn Overscoring Mode on/off..		9-48
ESC a	97	61	Select Justification.....	9-33	
ESC b	98	62	Set Vertical Tabs in channels.....	9-18	
ESC k	107	6B	Select Typestyle Family.....	9-23	
ESC l	108	6C	Set Left Margin	9-19	
ESC p	112	70	Turn Proportional Mode on/off..	9-25	
ESC t	116	74	Select Character Table.....	9-34	
ESC w	119	77	Turn Double-high Mode On/Off.....	9-28	
ESC x	120	78	Select Near Letter Quality or Draft	9-23	

Installation/Support Tips

Physical Installatlon

The DFX-8000 printer is a very easy printer to set up, but due to the fact that It is a very hiqh-speed machine. special care must be taken to ensure that a proper paper path is established. Epson printer stand model 8501-A is specially designed to accommodate the printer, and its use is recommended but not required. This stand provider a catch bin and a paper supply shelf large enough to hold paper for both the front and rear tractors, as well as detents, which hold the printer securely in place.

If this stand is not used, make sure that the paper supply to both tractors is properly aligned (no skewing to either aide) and that the paper exiting does not interfere with the rear paper supply. Also ensure that the power and interface cable are routed away from both incoming and exiting paper.

Software Installation

The DFX-8000 is code-compatible with the Epson FX printer series, and therefore it will perform property with virtually all popular software. Most software provides Epson FX printer support, but programs that do not have an FX driver should work properly in LX, RX, MX, or Epson drivers are selected.