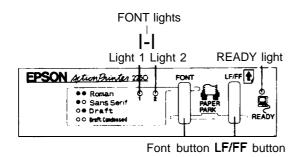
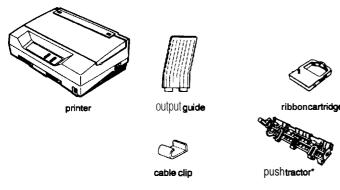


ribbon cartridge print head paper guide AC inlet



Control panel



The push tractor is an option (part number C80026).

Printer Specifications

Printing

Printing method:

Y-pin impact dot matrix

Printing speed:

Quality	Characters/inch	Characters/second/line
Draft	10	200
	12	240
NLQ	10	40
	12	48

Printing direction: Bidirectional logic-seeking for text printing.

(Unidirectional can be selected with a software command.) Unidirectional for graphics.

Line spacing: 1/6 inch, 1/8 inch, or programmable in 1/216-inch

increments

Paper feed speed: 86.5 ms per 1/6-inch line; 2.88 inches/second with

continuous feed

Buffer: 4 KE

Download memory: Memory capacity for 6 NLQ and 6 draft user-dcfincd

characters

Printable columns:

Character sizes	Maximum printed characters
10 cpi	80
10 cpi condensed	137
12 cpi	96
12 cpi condensed	160

Resident fonts:

Epson Draft Epson NLQ Roman Epson NLQ Sans Serif

Character tables:

North/South America: One italic and 7 graphics character tables

Europe: One italic and 15 graphics character tables

Other countries: One italic and 5 graphics character tables

Character sets: 13 international character sets

Paper

Single sheets (Paper cassette):

Size Thickness

US model: Letter (8.5 × 11 inches) Other models: A4 (210 × 297 mm) 0.065 to 0.14 mm (0.0026 to 0.0055 inches)

Weight 64 to 90 g/m² (17 to 24 lb)

• Use 90 g/m² (24 lb) paper under normal

conditions.

Input paper supply 50 sheets for 82 g/m' (22 lb)

60 sheets for 64 g/m* (17 lb)

Total thickness of paper stack should be less than

5 mm (0.2 inches).

Single sheets (Manual insertion):

 Width
 148 to 257 mm (5.8 to 10.1 inches)

 Length
 92 to 364 mm (3.6 to 14.3 inches)

 Thickness
 0.065 to 0.14 mm (0.0026 to 0.0055 inches)

 Weight
 53 to 90 g/m' (14 to 24 lb)

Use 90 g/m² (24 lb) paper under normal

conditions.

Continuous paper:

Width Copies 101 to 254 mm (4 to 10 inches)

Three sheets (one original plus two copies) Thickness 0.065 to 0.25 mm (0.0026 to 0.0098 inches) total Weight 53 to 82 g/m2 (14 to 22 lb) for one sheet

40 to 58 g/m2 (12 to 15 lb) per sheet in multi-part

forms

· Use only two or three-part carbonless multi-part forms and use them with the push tractor.

Note: You can use recycled Paper under normal conditions. If you notice increases in ribbon consumption and paper jamming, use a higher grade of paper.

Labels:

Size

101 to 254 mm (4 to 10 inches) width for backing

sheet

63.5 x 23.8 mm (2.50 x 0.94 inches) minimum for a

label

Thickness 0.07 to 0.09 mm (0.0028 to 0.0035 inches) for backing

sheet

0.16 to 0.19 mm (0.0063 to 0.0075 inches) total

68 a/m² (18 lb)

Weight

Use only continuous type labels and use them

only with the push tractor.

Use labels only under normal temperature and

humidity conditions.

Envelopes:

Size No. 6 No. 10 Thickness Weight

166 x 92 mm (6.5 x 3.6 inches) 240 x 104 mm (9.5 x 4.1 inches) 0.16 to 0.48 mm (0.0063 to 0.0197 inches)

45 to 75 g/m² (12 to 20 lb)

Use envelopes only under normal temperature

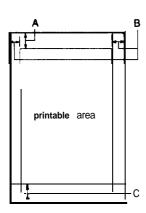
and humidity conditions.

Load envelopes manually, with the longer side

inserted into the rear slot.

Printable area

Single sheets (paper cassette and manual insertion) and envelopes



- The minimum top margin is 8.5 mm (0.33 inches).
- The minimum left margin is 3 mm (0.12 inches). The minimum right margin is:

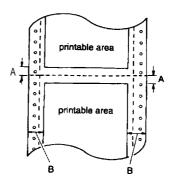
3.8 mm (0.15 inches) for the A4-size paper cassette 9.7 mm (0.38 inches) for the letter-size paper cassette

3 mm (0.12 inches) for manual insertion

However. the maximum printable width is 203 mm (8 inches).

The minimum bottom margin is 13.5 mm (0.53 inches).

Continuous paper



- The minimum top and bottom margins above and below the perforation are 9 mm (0.35 inches).
- The minimum left margin is 13 mm (0.51 inches). The minimum right margin is 13.8 mm (0.54 inches). The maximum printable width is 203 mm (8 inches).

Mechanical

Paper-feed methods:

Friction (paper cassette and manual insertion)

Push tractor

Ribbon:

Black ribbon cartridge S015047 Life expectancy: 3 million characters at

14 dots/character 4000 power-on hours

MTRE

200 million strokes/wire

Print head life:

Dimensions and weight:

Height 130 mm (5.1 inches)

Width

Depth

375 mm (14.8 inches)

252 mm (9.9 inches) without push tractor 307 mm (12.1 inches) with push tractor Weight

4.5 kg (10 lb) without push tractor

4.9 kg (10.9 lb) with push tractor

Electrical

120 v model:

Rated voltage: Input voltage range: Rated frequency range:

AC 120 V AC 103.5 to 132 V 50 to 60 Hz 49.5 to 60.5 Hz

Input frequency range: Rated current 1.1 A

Power consumption: Approx. 30 W (during self-test printing in draft mode

at 10 cpi)

Dielectric strength: AC 1 kV rms, 1 minute or AC 1.2 kV rms, 1 second

(between AC line and chassis)

Environmental

Temperature: Operation:

5 to 35°C (41 to 95°F)

Storage:

-20 to 55°C (-4 to 131°F)

Humidity (without condensation):

Operation:

30 to 80% RH

5 to 85% RH Storage:

Safety approvals

Safety standards:

US model:

UL1950 with D3, CSA22.2 No.220

RFI:

7114/92

US model:

FCC part 15 subpart B class B

Interface specifications

Your printer is equipped with an 8-bit parallel interface.

Specifications and pin assignments

The built-in parallel interface has the following characteristics:

Data format:

Synchronization:

8-bit parallel

STROBE pulse

Handshake timing: BUSY and ACKNLG signals

Signal level: TTL compatible

Connector: 36-pin 57-30360 Amphenol connector or

equivalent

Default settings

The table below shows the default settings that take effect when the printer is initialized.

Item	Default setting						
Top-of-form position	Current paper position or setting in the default-setting mode.						
Page Length	Single sheets: 65 lines for A4-size paper, 61 lines for letter-size paper, 22 inches for manual insertion Continuous paper: Subject to control panel setting in the default-setting mode						
Left and right margins	Canceled						
Line spacing	1/6-inch line spacing						
Horizontal tab positions	Every eight characters						
Font selection	Last font selected on control panel						
Special printing effects	Canceled [except condensed printing)						
Download character set	Hardware initialization: cleared Software initialization deselected only						

In addition, hardware initialization clears the data buffer.

Character Tables

You can select these character tables with the default-setting mode or by using a software command.

All tables except the italic character table are the same as the PC 437 table for hex codes 00 through 7F, so only the PC 437 and italic tables are shown completely. The rest of the tables show only the characters for hex codes 80 through FF.

PC 437 (USA, standard Europe)

CODE	0	1	2	3	4	5	6	7	8	9	A	В	C	D	E	F
0	NL		82	0		P	•	P	Ç	É	á		L	1	α	=
1		DC1	•	1	A	Q	a	q	ũ	æ	í	38	1	T	В	±
2		DC2	"	2	В	R	b	r	é	Æ	6	**	т	Ť	Γ	2
3		DC3	#	3	С	S	c	5	â	ô	ú	Ϊ	ŀ	L	π	≤
4		DC4	\$	4	D	T	đ	t	ä	ö	ñ	4	÷	L	Σ	ſ
5		8	%	5	E	U	е	u	à	ò	Ñ	4	+	r	σ	J
6	İ		Æ	6	F	v	f	v	Ā	a	a	4	-	Ė	μ	÷
7	BEL		,	7	G	W	8	w	Ç	ù	ō	i	1	+	τ	æ
8	BS	CAN	(8	H	Х	h	х	ê	ÿ	i	÷	L	Ŧ	•	•
9	l HT	84)	9	I	Y	i	У	ë	Ö	-	4	F	į.	θ	•
Ā	LF		*	:	J	Z	j	z	è	Ü	7	1	T	г	Ω	
В	VT	ESC	+	;	K	[k	{	ĭ	C	÷	÷	Ŧ		δ	J
č	FF		,	<	L	Ň	1	i.	î	£	ā	J.	ŀ	Ξ	8	•
Ď	CR		_	=	M	ì	m	}	ì	¥	i		÷	r	ø	3
Ē	80			>	N	Á	n	-	Ä	Pt	*	4	4	ì	E	
F	SI		1	?	0		0	DEL	A	f	*	٦.	1	4	n	

PC .850. (Multilingual)

CODE 8 9 A B C D E F 0 C E 6 L 5 O - 1 1 U # 1 L 5 O 7 2 6 E 6 L 5 O 7 4 A O N A A 1 D 8 6 A O A A A 1 D 8 6 A O A A A 1 D 8 6 A O A A A 1 D 9 7 C O Q A A A 1 D 9 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I I D O 1 8 O O T I

PC 860 (Portuguese)

		`	•					
CODE	8	9	A	8	С	D	E	F
0	Ç	É	á	-95	L	•	α	=
1	ü	λ	ſ	*	_	Ŧ	β	ŧ
2	é	È	Ó	*	т		Γ	≥
3	â	ô	ú	T	ŀ	I	π	≤ :
4	ā	ð	ñ	4	<u>-</u>	L	Σ	ſ
5	À	ò	Ñ	4	+	F	σ	J
6	Á	Ú	4	1	ŀ	Ė	μ	÷
7	Ç	ā	Q	ī	ŀ	ł	τ	≈
8	ê	Ì	ė	٦	L	Ť	٠	•
9	2	Ō	٥	1	r	7	θ	-
A	è	Ü	•	ł	-	£	Ω	1.1
8	1	¢	ŧ	1	T		δ	4
C	٥	£	ŧ		ŀ		æ	•
D	ì	Ü	ï		-	L	ø	3]
E	X	Pt	•	4	t	1	E	•
F	Ā	Ó	*	7	+		U	- 1

PC 863 (Canadian-French)

CODE	8	9	A	B	C	D	Ε	F
0	Ç	É	1	249	L	1	α	=
1	뱮	È	•	*	1	Ŧ	B	±
2	é	£	6	*	т		Г	≥
3	â	ô	á	ï	ŀ	I	π	S
4	Ā	Ë	••	4	÷	L	Σ	ſ
5	À	Ĭ	ì	4	+	г	σ	j
6	1	ũ	3	1	┢	r	μ	÷
7	ç	ù	_	ï	ł	ŧ	τ	≈
8		Ħ	I	ñ	L	÷	•	•
9	ĕ	٥	•	1	1	J	8	•
Α	è	Ü	•	1	T	г	Q	• !
В	ĭ	¢	i	1	T	•	δ	4 1
C	î	¢ £ Ù		1	ŀ		30	•
C D E	_	Ù	ł		-		ø	2
E	À	0	•	_	t	1	€	•
F	8	f	*	٦	-		n	_

PC 865 (Nordic)

CODE	8	8	A	В	С	D	Ε	F
0	Ç	Ŕ	á	ŔĠ	L	1	α	3
1	ü	80	í	**	1	T	ß	±
2	é	I	Ó	**	т		Γ	≥
3	A	8	ú	ï	ŀ	I	*	≤
4	ä	ő	řî.	4	÷	L	Σ	ſ
5	à	٥	Ñ	4	+	f	σ	1
6	A	ũ	4	1	ŀ	r	μ	÷
7	Ç	ū	ō	i	ŀ	ł	τ	æ
8	ê	ÿ	Ł	Ť	L	÷	٠	•
9	ë	Ö	-	1	1	J	θ	•
A	è	Ü	-		1	г	Ω	
В	ĩ	Ø	1	i	T		δ	4
, c	î	£	ż	1	ŀ	-	00	•
D	ì	Ø	i	1	_	r	ø	3
E	X	R	•	4	Ť	1	€	•
F	A	f	Ħ	7	Ţ		n	

Italic

CODE	0	1	2	3	4	5	6	7	8	9	A	В	C	D	E	F
0	NJL		30	0	•	P	•	p	NUL		3 P	0	•	P	•	P
1		DC1		1	Ă	ō	A	q		DC1	!	1	A	Q		q
2		DC2	i.	2	В	Ř	b	7		DC2	*	2	B	R	ь	r
3	-	DC3		3	Č	8	c	ā		DC3		3	C	s	C	8
Ă		DC4	1	,	D	Ť	ď	ŧ		DC4	\$	4	D	T	đ	ŧ
5			÷	5	E	Ü		u			x	5	E	U	•	u
6			7	6	7	v	f	v				6	F	V	ſ	y
7	861		•	7	G	ĭ	-	w	861.		,	7	G	₩	8	H
ė	BS	CAN		8	H	×	g h	¥	BS	CAN	1	8	H	X	ħ	2
9	HT	BH	,				1	_	HT	BM)	9	I	Y	í	3
-	LF	-	!	9	Ī	Y	1	y	LF			:	J	Z	j	1
Å	I —	ESC		:	7	Z	j	Z	νī	ESC	+	:	K	ī	ž	7
В	\vr	COL	+	•	K	į	k	1	FF			~	ĩ	i	7	3
C	FF		٠	<	L	,	1	į	CR		_	=	N	i		i
D	CR		-	=	M	j		į				>	N	•	п	•
E	90		•	>	N	-	n	~	30		,	,	ö		0	
F	81		/	?	0	_	0	UEI	_ SI		1		_		_	

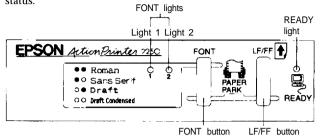
The table below shows the international character sets you can select with the default-setting mode and the ESC R software command. For example, when you select "Italic-France" in the default-setting mode, the characters of the "France" column on the table below are used in the italic character table.

The fit eight character sets can be selected with both the default setting mode and the ESC R command. The last five sets are available only by using the ESC R command. The value of n is used for the ESC R command.

n	Country				A	SCII	coc	ie (†	ex)				
		23	24	40	5B	5C	5D	5E	60	7B	7C	7D	7E
0	U.S.A.	#	\$	e	[_]	^	•	{	1	}	~
1	France	#	\$	à	•	Ç	9	•	*	é	ù	è	
2	Germany	#	\$	§	X	Ö	Ü	^	٠	ä	Ö	ü	В
3	u K	£	\$	ē	[\]	•	ı	{	:	}	~
4	Denmark I	#	\$		Æ	Ø	A	^	ı	æ	ø	å	~
5	Sweden	#	Ħ	É	Ă	Ö	A	Ü	é	ä	Ö	ā	ü
6	Italy	#	\$	•	•	\	é	^	ù	À	δ	è	ì
7		Pt	\$			Ñ	i	^	·	••	ñ	}	~
	Spain I	#	Š		Ė	¥	ĭ	^	•	-{	:	ì	~
8	Japan	#					Á	Ü	é	æ	ø	Á	ü
9	Norway	#	×	É		-	Ä	ť	é	æ	a	Ã	ü
10	Denmark II	, #	?					_	٠	í	ñ	ő	ú
11	Spain II	#	•	Á		Ñ	ن	é	21	1	ñ	ó	ú
12	Latin America	#	\$	Á	· i	Ñ	ં	é	ü	1	n	o	u

The Control Panel

You can control basic printer operations - line feeding, form feeding, paper loading and ejecting, and font **selection** - with the buttons on the control panel. The indicator lights show the printer status.



Lights

The panel lights provide information on certain printer conditions and settings.

READY light

The READY light is on when the printer is ready to receive data from the computer. It flashes briefly each time you turn on the printer. The READY light also flashes under the following conditions:

- . The printer is out of paper.
- The printer is in the tear-off mode (when the push tractor is installed.)

When an error occurs, the READY light goes off.

FONT lights

The FONT lights indicate the current font setting. These lights change when you press the FONT button. Look at the font menu on the control panel to see which font is selected.

The **FONT** lights (Light 1 and Light 2) also indicate your selection in the default-setting mode.

Buttons

The two buttons on the control panel perform different functions depending on the printer mode.

FONT button

Press the FONT button during normal operation to cycle through the font choices on the font menu. The two FONT lights indicate current selections.

Hold down the FONT button while you turn on the printer to enter the default-setting mode. When you are in the default-setting mode, use this button to make your selection.

LF/FF button

Press the LF/FF button during normal operation to feed paper line by line. Hold down the LF/FF button to load a single sheet of paper or to advance continuous paper to the next top-of-form. You can also press the LF/FF button to eject a page.

When you are in the default-setting mode, use this button to change the default settings.

PAPER PARK

If you are using continuous paper, you can press the LF/FF and FONT buttons at the same time to move the paper back to the paper-park position.



CAUTION: Never feed labels backward; they may peel off their backing sheet and damage the printer. Use the LF/FF button to feed them forward.

Other control-panel features

The control panel also gives you access to two special features:

Self Test The self test lets you check whether your printer is

operating properly.

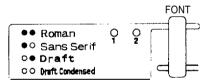
Data dump The data dump allows advanced users to pinpoint

communications problems between the printer and computer. Hold down the LFIFF and FONT buttons while turning on the printer to enter data dump mode. The printer prints the exact codes (in hexadecimal format) reaching it from the

computer.

Selecting character fonts

To choose one of the fonts available with your printer, press the FONT button.



The two FONT lights come on () and go off (0) to indicate the current selection. The table below lists the fonts and shows how the FONT lights appear for each selection.

Font	FONT Light 1	Lights Light 2	Sample				
Epson NLQ Roman	•	•	ABCDEFGhijklm0123456789				
Epson NLQ Sans Serif	•	0	ABCDEFGhijklm0123456789				
Epson Draft	0	•	ABCDEFGhijklm0123456789				
Draft condensed	0	0	AUCDEFBhijklad123456789				

● on O off

Running the Self Test

You can run the self test with either continuous paper or single sheets; this section describes the easier way, with single sheets.

- 1. Make sure the printer is turned off.
- 2. While holding down the LF/FF () button, turn on the printer. The printer gives two long and two short beeps, and then it loads the paper automatically and begins the self test.

The printer prints characters in the current font and character table. Here is part of a typical self test:

! "\$\$a&'()*+,-./0123456789:;<=>?8ABCDEPGHIJKL ! "#\$%dr-O*+,-./0123456789:;<=>7@ABCDEFCHIJKUl "tr\$%&-()*+,-./0123456789:;<=>78ABCDEFGHIJKI,HN lt\$x&- (j*+,-./0123456789:;<=>7@ABCDEFGHIJKLMNO \$X&-O*+,-./0123456789:;<=>?8ABCDIWGHIJKI,HNOP X&'(j*+,-./0123456789:;<=>?@ABCDEFCHIJKLMNOPQ &-O*+,-./0123456789:;<=>?@ABCDEFCHIJKLMNOPQ

Note: If the paper cassette is empty when you turn the power on, the printer beeps three times and the READY Load paper as described above and press the LF/FF button to start the self test.

3. To stop the self test, turn off printer

Application Software

Most software programs let you specify the type of printer you use so that the program can take full advantage of the printer's features, Many programs provide a printer selection menu.

Because the family of Epson printers shares a great many commands, you can use a software program even if does not list your printer on its printer selection menu. Choose from the following list (the printers are listed in the order of preference).

ActionPrinter 2250

LX-810/850

LX-800

LX-86

LX-80

FX-850

FX-86e/800

EX-800

FX-85 FX-80+

FX-80

If none of these printers is listed, select the first one of these available: LX, FX, EX, RX, MX, Epson printer, Standard printer, Draft printer.

To use all of the features of the printer, however, it is best to choose a program with the ActionPrinter 2250 or one of the LX printers on its menu. If your program does not list one of these printers, contact the software manufacturer to see if an update is available.

Paper Handling

Printing on single sheets

You can load standard-sized single sheets with the paper cassette and you can load single sheets of paper from 148 mm (5.8 inches) to 257 mm (10.1 inches) wide with the manual insertion slot.



CAUTION:

. Never move the small levers on the ends of the **metal** shaft (shown below). They have already been adjusted at the factory.



 Disregard the numbers 0 and 1 under the printer cover on the left side. They are not necessary for printer operation.

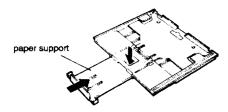
Tips for using the paper cassette

The tips below will help you get the best performance when using the cassette.

- Load paper in the cassette before you turn on the printer and send data. When the printer receives data from the computer, it loads a single sheet automatically and begins to print.
- I If the printer runs out of paper during a print job, reload the paper cassette and press the LF/FF button to load the paper.
- Press the LF/FF button to eject a sheet of loaded paper.
- You can adjust the top-of-form position with the gear under the printer cover. It is marked by + and signs. Open the printer cover and turn the gear to adjust the position. The notches on the ribbon mask indicate the base line of printed characters. The gear adjustment affects only the loaded page. If you want to change the top-of-form position permanently, you can adjust it in the default-setting mode. However, most software programs take care of the top and bottom margins. You usually don't need to set the top-of-form position on the printer.



 When you want to push the paper support back into the paper cassette, first remove paper from the cassette. Then hold down the locking tab while pushing the paper support in.

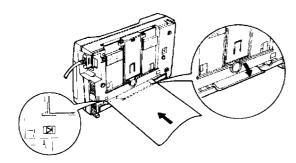


- The default page length for the paper cassette is 65 lines (A4-size paper) or 61 lines (letter-size paper). You can change it using your software or printer commands, if necessary.
- You can switch to manual insertion or to the push tractor without removing the paper cassette.

Loading paper manually

You can load single sheets of paper from the rear manual insertion slot. (if you've installed the push tractor, remove it before loading paper manually.)

- 1. Place the printer in the upright position and turn it on.
- Next, lower the flap on the rear slot. Then insert a single sheet into the slot, aligning the paper edge with the arrow mark on the printer case. The page loads automatically. When the printer receives data, it begins printing.



tk sure to raise the flap when not using manual insertion.



CAUTION: Be sure to turn on the printer before you insert the page into the slot. If you turn on the printer after you insert paper, the printer prints on the platen without

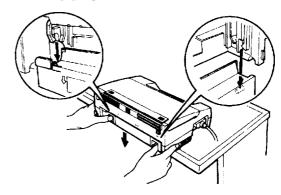
- . You can adjust the top-of-form position in the same way that you do for paper loaded from the cassette.
- When you want to switch to the paper cassette, press the LF/FF button without inserting a page into the rear slot. The printer loads a page from the cassette.

Using continuous paper with the push tractor You can use the push tractor to print on continuous paper from 101 mm (4 inches) to 254 mm (10 inches) wide.

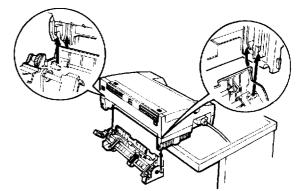
Note: The tractor is an option (part number C80026*).

Installing the push tractor

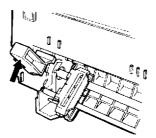
 Make sure the printer is turned off and is in the flat position. Remove the paper guide.



- 2. Make sure the paper-release lever on the left side of the push tractor is lowered to the single-sheet position.
- Hold the tractor as shown and fit the edges of both sides into the slots at the back of the printer. Then lift it straight up until you hear the unit snap into place.

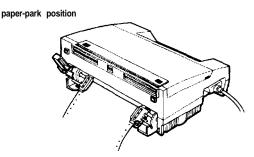


4. Raise the paper-release lever and push it firmly into the continuous-paper position.



Tips for using continuous paper

You can adjust the top-of-form position temporarily. Open the
printer cover and turn the gear marked by + and - signs to
adjust the position, This adjustment is lost when you turn off the
printer or feed the paper backward to the paper-park position.



- If you want to change the top-of-form position permanently, adjust it with the default-setting mode.
- Each time you turn on the printer with paper loaded, it reverses
 the continuous paper to the paper-park position and then
 advances it to the next top-of-form. Always remove your printed
 sheets before you turn off the printer to keep the top-of-form
 position accurate.

Note: When you set the back-feed setting to Disable in the default-setting mode, the printer does not feed the paper backward even if you press the LF/FF and FONT buttons or you turn on the printer with paper loaded.

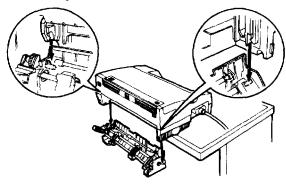
Removing the push tractor

 Tear off any printed pages. Press the LF/FF and FONT buttons at the same time to feed the remaining paper backward to the paper-park position. Remove the paper from the push tractor.

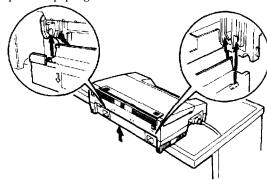


CAUTION: Always tear off the printed document and excess paper before feeding paper backward. Never feed more than one page backward through the printer.

Turn off the printer and lower the paper-release lever to the single-sheet position. Then pull the push tractor straight down and out of the printer.



3. Replace the paper guide.



Using the tear-off feature

When you use continuous paper, the tear-off feature makes it easier to tear off the last printed sheet and save the paper normally lost between documents.

Note:

- You can tell the printer to feed the perforation of your paper to either the edge of the printer cover or approximately 80 mm (three inches) beyond, by setting the tear-off option,
- When you set the back-feed setting to Disable in the defaultsetting mode, the tear-off feature does not work.

Here's how the tear-off feature works:

- 1. When the printer finishes printing the last page and the print head moves to the top-of-form position on the next page, the printer automatically advances the paper to the tear-off position.
- 2. The READY light () blinks to indicate the printer is in tear-off mode.
- 3. You can then easily tear off the page along the perforation.
- 4. When the printer receives data, it feeds the paper backward to the top-of-form position and the printer begins printing.

Switching between continuous paper and single sheets

When you use the push tractor, you can easily switch to single-sheet printing without removing the continuous paper supply.

Switching to single sheets

Here's how to switch from continuous paper to single sheets:

 If you have a printed document still in the printer, tear off the printed pages and then press the LF/FF and FONT buttons at the same time to reverse the remaining paper back to the paper-park position.

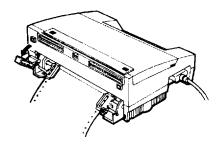


CAUTION:

- Always tear off printed pages before feeding paper backward; feeding too many sheets backward can cause a paper jam.
- Never feed labels backward. They can easily peel off of their backing and jam the printer.

AP-2250-7

2. Lower the paper-release lever to the single-sheet position.





CAUTION: If you lower the paper-release lever while continuous paper is still loaded, the printer beeps five times and the READY light goes off. If this happens, raise the paper-release lever and press the LF/FF and FONT buttons at the same time to reverse the paper to the paper-park position. You can then lower the lever again.

The printer is ready to print. When it receives data, it automatically loads a single sheet from the paper cassette and begins to print.

Switching to continuous paper

To switch from single sheets back to continuous paper, follow these steps:

- If a single sheet is in the paper path, hold the LF/FF button down to eject it.
- 2. Raise the paper-release lever and push it firmly into the continuous-paper position.



CAUTION: If you raise the paper-release lever when a single sheet is in the paper path, the printer beeps and the **READY** light goes off. If this happens, lower the paper-release lever and hold LF/FF down to eject the page completely. Then raise the lever again.

3. The printer is ready. When the printer receives data, it automatically Loads continuous paper from the push tractor and begins to print.

Printing on special paper

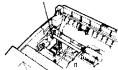
In addition to printing on single sheets and continuous paper, your printer can print on a wide variety of other paper types, such as envelopes labels, and multi-part forms. You need not adjust the printer for the paper thickness when you use these paper types.



CAUTION:

 Never move the small levers on the ends of the metal shaft (shown below). They have already been adjusted at the factory.



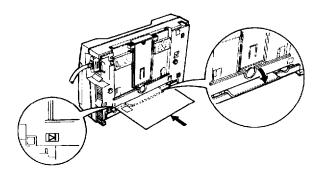


 Disregard the numbers 0 and 1 under the printer cover on the left side. They are not necessary for printer operation.

Envelopes

You **can** use the manual insertion slot to print on individual envelopes.

- · Always load envelopes manually through the rear slot.
- Before loading an envelope, lower the flap on the printer's rear slot.
- Always feed envelopes by inserting the wide edge into the printer first, as shown.



- . Use envelopes under normal operating conditions only.
- Printing on the edge of an envelope can damage the print head.
 Make sure your software program keeps the printing entirely within the printable area of the envelope.

Multi-part forms

You can use carbonless continuous multi-part forms of up to three parts (one original plus two copies).

- Load multi-part forms with the push tractor only. You load multi-part continuous paper the same way as ordinary continuous paper.
- Use only multi-part forms joined with spot-gluing that is free of wrinkles and waves. Never print on multi-part forms joined with metal staples, tape, or continuous gluing.
- If you need to adjust the top-of-form position, use your software
 or change the default top-of-form position. You may have to
 experiment to get the setting you want.

Labels

This printer can print on labels, but you must use the push tractor.



CAUTION: When you use labels, always be sure that they are not fed backward because backward feeding can make them peel off their backing and jam the printer.

To make sure that the labels do not peel off and jam the printer, change the back-feed setting in the default-setting mode to Disable. When the back-feed setting is Disable, the printer never feeds paper backward.

The back-feed setting of Disable produces the following results:

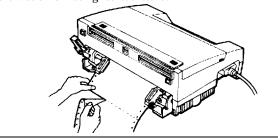
- The printer does not feed paper to the paper-park position even if you press the LF/FF and FONT buttons.
- The tear-off feature is disabled.

 The printer does not feed paper back to the paper-park position and then advance it to the top-of-form position between jobs even if paper is loaded when you turn on the printer.

In addition to changing the back-feed setting, also follow the instructions below when you print on labels:

- Always use labels designed for use with a tractor. Do not try to print on single-sheet labels.
- Because labels are especially sensitive to extremes of temperature and humidity, use them under normal operating conditions only.
- Make sure that your printing stays entirely within the printable area of the labels because printing on the edge of a label or on the backing sheet can damage the printer.

Note: When you want to remove labels from the printer, always tear off the fresh supply of labels at the rear of the printer as shown below and then press the **LF/FF** button to advance the remaining labels out of the printer. This is necessary to prevent the labels from being fed backward.



Using the default-setting mode

Your printer has internal settings that control such functions as top of-form position and page length. These settings are called default settings because they take effect each time you turn on the printer.

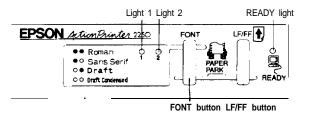
For most users, the factory settings are best, but you can change these settings if necessary. The table below lists all the features you can change in the default-setting mode; the next section tells you how to change them; and the section after that describes each feature in detail.

Features	Settings
Character spacing	10 cpi or 12 cpi
Shape of zero	Unslashed 0 or slashed ∅
Skip-over-perforation	Off or On
Tear-off position	On cutter or above cutter
Auto line feed	Off or On
Back feed	Enable or disable
Character table	 Italic U.S.A., Italic France, Italic Germany. Italic U.K., Italic Denmark 1, Italic Sweden, Italic Italy, Italic Spain 1, PC 437, PC 850, PC 860, PC 863, PC 865, PC 437 Greek*, PC 851*, PC 852*, PC 853*, PC 855*, PC 857* PC 861*, PC 866*, PC 869*, USSR GOST*, BRASCIII*, or Abicomp** Available in the European version only. "Available in the North/South American version only.
Page length	11, 12, 8.5, or 70/6 inches (A4)
TOF position	-321. 0. +1. +2. or +3

Note: Most software programs control the printer features listed here. If you can use your software program to control the printer, you may never need to use the default-setting mode. In fact, you may find that your program settings override your printer's default settings. See your software documentation for more information.

Changing the default settings

If you do need to change any default settings, you can do as described below. You press the control panel buttons, and the control panel lights show your selections.

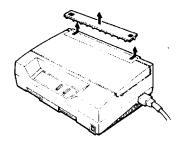


Follow the steps below to make your changes.

Note: You can repeat steps 6 through 8 if you want to make more than one change. Also, you can turn off the printer and start over if you are not sure about a setting.

Make sure the printer is turned off and paper is loaded in the paper cassette. If you installed the push tractor, always use continuous paper for the default-setting mode.

2. Slide the narrow cover off of the printer cover as shown. This makes it easier to read the printed messages.



3. To enter the default-setting mode, hold down the **FONT** button while you turn on the printer.

The printer loads a sheet of paper automatically and prints the first instruction and a table that shows you which languages you can choose. You can print the default-setting mode messages in English, French, German, Italian, or Spanish.

4. To choose English, press the **FONT** button until light 1 is off and light 2 is on; then press the **LF/FF** button.

To choose another language, use the table below and press the **FONT** button until the lights indicate your selection; then press the **LF/FF** button.

Table A: Language selection

Language	Light 1	Light 2
English	OFF	ON
French	OFF	BLINK
German	ON	OFF
Italian	ON	ON
Spanish	ON	BUNK

Once you press the LF/FF button, the printer prints the current default settings and the next instruction in the selected language After printing is finished, go to the next step.

5. If you want more help text to be printed, press the **FONT** button. After printing is finished, go to the next step.

If you don't want the help text, press the LF/FF button. You can then go to the next step immediately.

Note: When you first use the default-setting modle, it's a good idea to press the FONT button to print the help text before changing default settings. The printed text guides you through the operation. Once you are familiar with the operation, press the LF/FF button to skip printing.

Use Table B to choose the feature you want to change. Then press the FONT button as many times as necessary until lights 1 and 2 match your selection.

Table B: Default settings

Light 1	Light 2		READY light		
		Menu	OFF	ON	
OFF	ON	Character spacing	10 cpi	12 cpi	
OFF	BLINK	Shape of zero	Unsiashed 0	Slashed Ø	
ON	OFF	Skip-over-perforation	Off	On	
ON	ON	Tear-off position	On cutter	Above cutter	
ON	BLINK	Auto line feed	O 'f	On	
BLINK	OFF	Back feed	Enable	Disable	
BLINK	ON	Character table	No change	Change (Table C)	
BLINK	BLINK	Page length	No change	Change (Table D)	
OFF	OFF	TOF position	No change	Change (Table E)	

For example, if you want to change the character table, press the FONT button until light 1 is blinking and light 2 is on.

 Press the LF/FF button to change the setting. The READY light turns on or off to show your selection, as indicated in Table B, and your new setting is saved automatically and remains in effect until you change it.

If you are changing the character table, page length, or TOF position, go to step 8 next. Otherwise, go to step 9.

8. If you are changing the character table, page length, or TOF position, you must make additional settings as shown in the tables below. Press the LF/FF button until light 1, light 2, and the READY light indicate your selection. Then press the FONT button to set the feature.

Once you press the **FONT** button, the printer advances to the next item in table B and your setting is saved automatically. The new setting remains in effect until you change it.

Table C: Character table

Light 1	Light 2	READY light	Character table	
OFF	OFF	ON	Italic U.S.A.	
OFF	OFF	BLINK	Italic France	
OFF	ON	OFF	Italic Germany	
OFF	ON	ON	Italic U.K.	
OFF	ON	BLINK	Italic Denmark 1	
OFF	BLINK	OFF	Italic Sweden	
OFF	BLINK	ON	Italic Italy	
OFF	BLINK	BLINK	Italic Spain 1	
ON	OFF	OFF	PC 437 (USA, standard Europe)	
ON	OFF	ON	PC 850 (Multilingual)	
ON	OFF	BLINK	PC 860 (Portuguese)	
ON	ON	OFF	PC 863 (Canadian French)	
ON	ON	ON	PC 865 (Nordic)	
ON	ON	BLINK	BRASCII (Brazilian Portuguese)	
ON	BLINK	OFF	Abicomp (Brazilian Portuguese)	

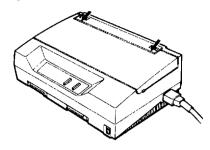
Table D: Page length

Light 1	Light 2	READY light	Page length
OFF	OFF	ON	11 inches
OFF	OFF	BLINK	12 inches
OFF	ON	OFF	8.5 inches
OFF	ON	ON	70/6 inches (A4)

Table E: TOF position

Light 1	Light 2	READY light	TOF position
OFF	OFF	ON	-3
OFF	OFF	BLINK	-2
OFF	ON	OFF	-1
OFF	ON	ON	±0
OFF	ON	BLINK	+1
OFF	BLINK	OFF	+2
OFF	BLINK	ON	+3

- 9. Turn off the printer to exit the default-setting mode. Any changes you have made remain in effect until you change them again.
- After you exit the default-setting mode, slide the narrow cover back on the printer.



Default settings

This section describes all the features in the default-setting mode.

Character spacing

When you select 10 cpi, the printer prints 10 characters per inch (cpi). When you select 12 cpi, it prints 12 characters per inch.

Shape of zero

The printer prints the zero character with a slash (\emptyset) when the setting is on, or no slash (0) when the setting is off. The slashed zero allows you to easily distinguish between an uppercase "O" and a zero when printing such items as program lists.

Skip-over-perforation

When **you turn on** this feature, the printer skips over the perforations of continuous paper, providing a l-inch margin between the last line printed on one page and the first line printed on the next. Because most software programs set their own top and bottom **margins**, you should use this feature only if your program does not provide them. This feature does not affect single-sheet paper.

Tear-off position

When you use continuous paper with the push tractor, this feature advances the paper perforation to the tear-off position where you can easily tear off the printed page. When the printer receives data, it automatically reverses the paper to the top-of-form position and starts printing, so you can use all of the next sheet.

You can choose from two tear-off positions with the feature. If you select On cutter, the printer feeds the paper perforation to the edge of the printer cover. If you select Above cutter, the printer feeds the perforation about 80 mm (3 inches) beyond the printer cover's edge.

Auto line feed

When the auto line feed feature is on, each carriage return (CR) code is accompanied by a line feed (LF) code. If your printed text is unexpectedly double-spaced, set this feature to off. If text lines print on top of each other, set it to on.

Back feed

When you set this feature to Disable, the printer never feeds paper backward.

- The printer does not feed paper to the paper-park position even if you press the LF/FF and FONT buttons.
- · The tear-off feature is disabled.
- The printer does not feed paper back to the paper-park position and then advance it to the top-of-form position between jobs even if paper is loaded when you turn on the printer.

Set this feature to Disable when you use labels, or when you do not want to tear off continuous paper after each print job.

Character table

Character tables contain the characters and symbols used in different languages. Your printer includes a wide variety of character tables. You can choose from these options:

Italic character table:

- U.S.A.
 France
 U.K.
 Denmark 1
 Sweden
 Spain 1
- Graphic character table:
 - PC 437 (USA, standard Europe) PC 850 (Multilingual)
 - PC 860 (Portuguese)
 PC 863 (Candian French)
 PC 865 (Nordic)
 BRASCII
 - Abicomp
 (Brazilian Portuguese)
 - (Brazilian Portuguese)

Page length

This option is available only when you use continuous paper with the push tractor. You can set the page length to 8.5, 11, 12, or 70/6 (A4) inches.

TOF (top-of-form) position

Whenever you press the LF/FF button or send the form feed command, the printer loads paper to the top-of-form (TOF) position. The TOF position is factory set to the ± 0 position (8.5 mm — 0.33 inch — from the top edge of paper). You can set this position from — 3 to ± 3 in l-mm (0.04-inch) increments.

Installation/Support Tips

AP-2250 Beep Codes

2 Long & 2 Short Indicates the printer has completed its

power-on initialization process and is ready

to print

1 Short The Escape code for "BEL" has been received.

3 Short Paper out error.*

5 Long Operating error indication **

or a printer fatal error indication.***

- * Paper out occurs in any of the following conditions:
- 1. Paper is not loaded after loading is attempted.
- 2. The printer has completed printing after loading single sheet paper by manual insertion.
- 3. The end of continuous paper.
- ** Operation error occurs in any of the following conditions:
- 1. The release lever is set to TRACTOR position when single sheet paper has not been ejected or elected completely.
- 2. The release lever is set to FRICTION position when continuous paper has not been elected or elected completely.
- *** Fatal error occurs in any of the following conditions:
- 1. Power supply voltage error.

Information Reference List

Engineering Change Notices

None

Product Support Bulletins

None

Technical Support Bulletins

None

Related Documentation

TM-AP2250 ActionPrinter 2250 Service Manual
PL-AP2250 ActionPrinter 2250 Parts/Price List
4001243 ActionPrinter 2250 User's Guide