

User Replaceable Part	Parts Price List Name	Part Number
Ribbon cartridge	Ribbon cartridge	S015085
Ribbon pack	Ribbon pack	S010033
Tractor (pull or front push)	Front tractor assembly	1039013

## Options

### Paper Handling Options

#### High-capacity cut-sheet feeder (C806731)

Feeds up to 150 sheets of paper, 25 plain bond envelopes, or 30 postcards into the printer without reloading. You can also load a stack of single-sheet multi-part forms up to 0.59 inch (15 mm) thick in this feeder.

#### Second-bin cut-sheet feeder (C806741)

Connects to the high-capacity cut-sheet feeder to create a double-bin cut-sheet feeder. You can load up to 50 sheets of ordinary single-sheet paper in the second-bin cut-sheet feeder.

#### Pull tractor (C800321)

Improves continuous paper handling and reduces the chance of paper jams. Using a pull tractor in combination with a push tractor is especially useful for printing on continuous pre-printed forms, multi-part forms, and labels, and for printing high-quality graphics.

#### Roll paper holder (#8310)

Allows you to use your printer with 8.5-inch roll paper like that used with telex machines.

## User Replaceable Parts

User Replaceable Part	Parts Price List Name	Part Number
Bottom cover	Bottom cover	1039404
Connector cover	Upper connector cover	1037223
Connector cover screws (2)	C.B. S-tite screw	1002674
Front edge guides	Front edge guides	1039456
Front paper guide	Front cover	1039403
Knob	Knob	1039462
Logo plate	Logo plate	1039774
Paper guide cover	Rear printer cover	1028340
Paper separator	Paper separator	n/a
Paper tension unit	Paper eject assembly	1039457
Paper thickness lever cap	Lever cap	1039412
Printer cover	Printer cover assembly	1025024
Rear edge guides	Rear edge guides	1039459
Rear push tractor	Rear tractor assembly	1039012

### Optional Interface Cards

You can install one of the following EPSON interface cards in your printer.

Card Type	Model Number
Serial interface	C823051
32KB intelligent serial interface	C823071
Coax interface	C823141
Twinax interface	C823151
Type B bidirectional parallel	C823452
Multi-protocol Ethernet print server	C823572

## Printer Specifications

### Mechanical

Printing method: 9-pin impact dot matrix

Printing speed: High speed draft: 506 cps at 10 cpi

Draft: 380 cps at 10 cpi

Near letter quality: 95 cps at 10 cpi

Printing direction: Bidirectional logic seeking for text and graphics printing. Unidirectional text or graphics printing can be selected using software commands.

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

Printable columns: 136 columns (at 10 cpi)

Resolution: Maximum 240 × 144 dpi (near letter quality)

Interfaces: One standard bidirectional, 8-bit, parallel interface with IEEE 1284 nibble mode support and one optional interface slot.

Paper feed methods: Friction (front, rear)  
 Push tractor (front, rear)  
 Pull tractor (front, bottom, rear)  
 Push and pull tractor (additional tractor is required)  
 Cut-sheet feeder (optional)  
 Roll paper holder (optional)

Paper feed speed: Continuous: 5 inches/second  
 Intermittent: 61 ms/line at 1/6-inch line spacing

Paper capacity: High-capacity cut-sheet feeder:  
 up to 150 sheets of 22 lb (82 g/m<sup>2</sup>) paper  
 up to 25 plain or bond envelopes  
 up to 30 airmail envelopes  
 up to 30 postcards  
 a stack of multi-part forms up to 0.59 inch (15 mm) thick

Note:

The total thickness of the paper stack can be up to 0.59 inch (15 mm).

Second-bin cut-sheet feeder holds up to 50 sheets of 22 lb (82 g/m<sup>2</sup>) paper

Note:

The total thickness of the paper stack can be up to 0.20 inch (5 mm).

Buffer: 64KB or 0KB (selectable in the default-setting mode or the EPSON Remote! utility with Windows® 95)

Built-in fonts: Bitmap fonts:  
 EPSON Draft 10, 12, 15 cpi  
 EPSON Roman 10, 12, 15 cpi, proportional  
 EPSON Sans Serif 10, 12, 15 cpi, proportional

Barcode fonts:

EAN-13, EAN-8, Interleaved 2 of 5, UPC-A, UPC-E, Code 39, Code 128, POSTNET

Character tables: One Italic and 10 graphical character tables. (Nineteen graphical character tables are available in some countries.)

Character sets: 13 international character sets

Reliability: Total print volume: 7.5 million lines (except print head)  
 Print head life: approx. 300 million characters (draft 10 cpi, 14 dots/character)

Dimensions and weight: Height 10.1 inches (257 mm)  
 Width 25.2 inches (639 mm)  
 Depth 15.8 inches (402 mm)  
 Weight approx. 28.8 lb (13 kg)

Ribbon: Black ribbon cartridge (S015086)  
 Ribbon life of approximately 12 million characters (draft 10 cpi, 14 dots/character)

Continuous labels (front and bottom entry only):

Note:  
 Use only labels mounted on continuous backing sheets.

**Electrical**

	120 V Model	220 to 240 V Model
Input voltage range	99 to 132 V	198 to 264 V
Rated frequency range	50 to 60 Hz	
Input frequency range	49.5 to 60.5 Hz	
Rated current	1.0 A (maximum 1.8 A)	0.5 A (maximum 0.9 A)
Power consumption	Approx. 46 W (ISO/IEC 10561 letter pattern)	

Note:  
 Check the label on the back of the printer for your printer's voltage.

**Environmental**

	Temperature	Humidity (Without Condensation)
Operation	41° to 95° F (5° to 35° C)	10% to 80% RH
Storage	-22° to 140° F (-30° to 60° C)	0% to 85% RH

**Paper**

Note:  
 Use recycled paper and envelopes only under normal temperature and humidity conditions, as follows:

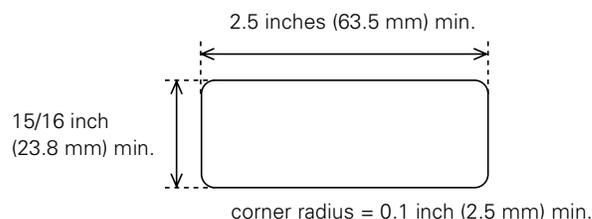
Temperature 59° to 77° F (15° to 25° C)  
 Humidity 30% to 60% RH

Do not load paper that is curled or has been folded.

Continuous paper (ordinary and multi-part):

	Minimum	Maximum
Width (inches) (mm)	4 101.6	16 406.4
Length (one page) (inches) (mm)	4 101.6	22 559
Copies	1 original + 5 copies 1 original + 6 copies (front or bottom entry with the pull tractor only)	
Thickness (printable area) (inches) (mm)	0.0025 0.065	0.018 0.46
Thickness (perforated edges) (inches) (mm)	— —	0.035 0.9
Weight (ordinary page) (lb) (g/m <sup>2</sup> )	14 52.3	22 82
Weight (one sheet of multi-part) (lb) (g/m <sup>2</sup> )	12 40	15 58
Binding	Point glue or paper staples on both sides (front, bottom, or rear entry) or point glue on only one side (rear entry)	

	Minimum	Maximum
Label size	See figure below	
Backing sheet width (inches) (mm)	4 101.6	16 406.4
Backing sheet length (inches) (mm)	4 101.6	22 559
Backing sheet thickness (inches) (mm)	0.0028 0.07	0.0035 0.09
Total thickness (inches) (mm)	0.0063 0.16	0.0075 0.19
Label weight (lb) (g/m <sup>2</sup> )	17 68	



Single sheets:

	Minimum	Maximum
Width (inches) (mm)	3.9 100	16.5 420
Length (inches) (mm)	Front entry: 5.8 148 Top entry: 3.9 100	16.5 420
Thickness (inches) (mm)	0.0025 0.065	0.0055 0.14
Weight (lb) (g/m <sup>2</sup> )	14 52.3	24 90
Quality	Plain paper, bond paper, and recycled paper	

Single-sheet multi-part forms:

		Minimum	Maximum
Width	(inches)	3.9	16.5
	(mm)	100	420
Length	Front entry:	5.8	16.5
		(inches)	
	(mm)	148	420
		Top entry:	
Copies		1 original + 5 copies	
Total thickness	(inches)	0.0047	0.018
	(mm)	0.12	0.46
Weight (one sheet of multi-part)	(lb)	12	15
	(g/m <sup>2</sup> )	40	58
Binding		Line glue at top of form (front and top entry) or at side of form (front entry)	

Envelopes (top entry only):

		Minimum	Maximum
Envelope size (No. 6)	Width (inches)	6.5	
	(mm)	165	
Length (inches)	(mm)	3.6	
		92	
Envelope size (No. 10)	Width (inches)	9.5	
	(mm)	241	
Length (inches)	(mm)	4.1	
		105	
Total thickness	(inches)	0.0063	0.02
	(mm)	0.16	0.52
Weight	(lb)	12	24
	(g/m <sup>2</sup> )	45	90

Postcards (front and top entry):

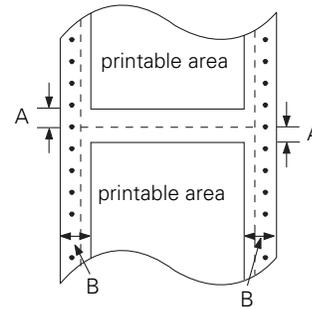
		Minimum	Maximum
Width	(inches)	3.9	5.83
	(mm)	100	148
Length	Front entry:	5.83	5.83
		(inches)	
	(mm)	148	148
		Top entry:	
Thickness	(inches)	0.0087	
	(mm)	0.22	
Weight	(lb)	51	
	(g/m <sup>2</sup> )	192	

Roll paper (rear entry with optional roll paper holder only):

		Minimum	Maximum
Width	(inches)	8.5 ± 0.12	
	(mm)	216 ± 3	
Thickness	(inches)	0.0028	0.0035
	(mm)	0.07	0.09
Weight	(lb)	14	22
	(g/m <sup>2</sup> )	52	82

Printable Area

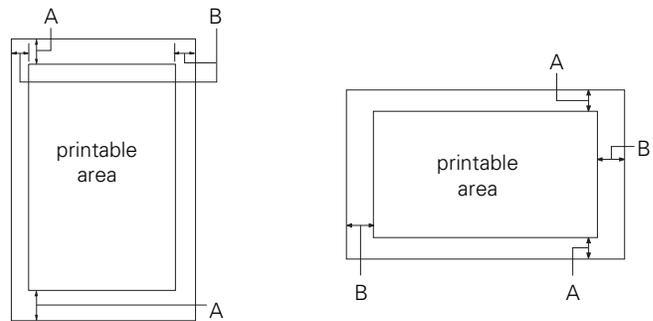
Continuous paper:



A The minimum top and bottom margins (above and below the perforation) are 0.17 inch (4.2 mm).

B The minimum left and right margins are 0.51 inch (13 mm). The maximum printable width is 13.6 inches (345.4 mm). For paper wider than 13.8 inches (351.4 mm), the side margins increase to match the width of the paper.

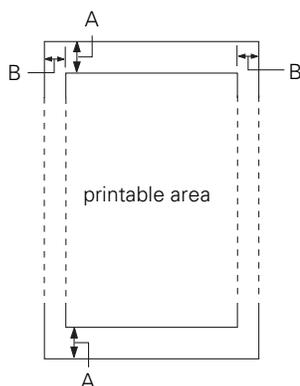
Single sheets, envelopes, and postcards:



A The minimum top and bottom margins are 0.17 inch (4.2 mm).

B The minimum left and right margins are 0.12 inch (3 mm). The maximum printable width is 13.6 inches (345.4 mm). For paper wider than 13.8 inches (351.4 mm), the side margins increase to match the width of the paper.

Roll paper:



- A The minimum top and bottom margins are 0.17 inch (4.2 mm).
- B The minimum left and right margins are 0.12 inch (3 mm). The maximum printable width is 8 inches (203.2 mm).

### Safety Approvals

120 V model:

Safety standards   UL1950  
                               CSA C22.2 No. 950

EMI                     FCC part 15 subpart B class B  
                               CSA C108.8 class B

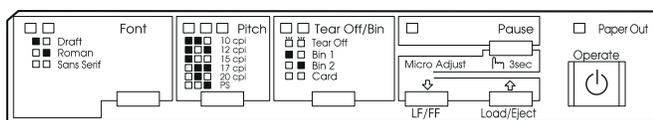
220 to 240 V model:

Safety standards   EN 60950 (TÜV, NEMKO)

EMI                     EN 55022 (CISPR pub. 22) class B  
                               AS/NZS 3548 class B

Acoustic noise:     Approx. 55 dB (A) (ISO 7779 pattern)

### Control Panel Buttons and Lights



#### Font Button

Selects the font.

#### Font Lights

Indicate which font is selected.

#### Pitch Button

Selects the font size.

#### Pitch Lights

Indicate what font size is selected.

#### Tear Off/Bin Button

- Feeds continuous paper forward to the tear-off position.
- Feeds continuous paper backward from the tear-off position to the top-of-form position.
- Selects a cut-sheet feeder bin when the cut-sheet feeder is installed.
- Enters the card mode to print on postcards and envelopes.

#### Tear Off/Bin Lights

- f f when continuous paper is in the tear-off position.
- o n when bin 1 of the optional cut-sheet feeder is selected.
- n o when bin 2 of the optional cut-sheet feeder is selected.
- n n when the printer is in the card mode.

n = on  
 o = off  
 f = flashing

#### Pause Button

- Stops printing temporarily, and resumes printing when pressed again.
- When held down for three seconds, enters the micro adjust mode. When pressed again, exits the micro adjust mode.

#### Pause Light

- On when the printer is paused.
- Flashes when the printer is in the micro adjust mode.

#### LF/FF Button

- Feeds paper line by line.
- Ejects a single sheet or advances continuous paper to the next top-of-form position when held down.

#### Load/Eject Button

- Loads a single sheet of paper.
- Ejects a single sheet of paper if a sheet is loaded.
- Loads continuous paper from the standby position.
- Feeds continuous paper backward to the standby position.

#### Micro Adjust Buttons

In micro adjust mode, let you adjust the top-of-form and tear-off positions using the down and up arrow buttons.

### Paper Out Light

- On when no paper is loaded or paper is not loaded correctly in the selected paper source.
- Flashes when paper has not been fully ejected or a paper jam has occurred.

### Operate Button

Turns the printer on and off. The printer is off when the top of this button is even with the button protectors.

## Error Indicators

Light Status	Beep Pattern
n = on	●●● short series of beeps (three times)
o = off	●●●●● long series of beeps (five times)
f = flashing	

If a printer error occurs, use the control panel lights to determine the problem and solution.

---

**Pause**  
n

---

*The printer is paused.*

Press the Pause button to resume printing.

---

<b>Pause</b>	<b>Beep Pattern</b>
n	●●●

---

*The printer cover is open.*

Close the printer cover and press the Pause button to resume printing.

---

<b>Pause</b>	<b>Beep Pattern</b>
n	●●●●●

---

*You moved the paper release lever while paper from another paper source was in the paper path.*

Move the paper release lever back to the previous position and press the Load/Eject button to eject the paper. Then move the paper release lever to the desired position. Press the Pause button to turn off the Pause light, if necessary.

---

<b>Pause</b>	<b>Paper Out</b>	<b>Beep Pattern</b>
n	n	●●●

---

- *No paper is loaded in the selected paper source.*
- *The paper is not loaded correctly.*
- *Paper is jammed in the printer.*

Load paper in the selected paper source, remove and reload the paper, or clear the paper jam as described on page 13. Then press the Pause button to turn off the Pause light, if necessary.

---

<b>Pause</b>	<b>Paper Out</b>	<b>Beep Pattern</b>
n	f	●●●

---

- *Continuous paper is not fed to the standby position.*

Tear off the printed page at the perforation; then press the Load/Eject button. The paper feeds to the standby position. Press the Pause button to turn off the Pause light, if necessary.

- *A single sheet of paper is not fully ejected.*

Press the Load/Eject button to eject the sheet. Press the Pause button to turn off the Pause light, if necessary.

- *Paper is jammed in the printer.*

Clear the paper jam as described on page 13.

---

**Pause**  
f

---

*The print head is overheated.*

Wait a few minutes; the printer resumes printing automatically once the print head cools.

---

<b>Font</b>	<b>Tear Off/Bin</b>	<b>Pause</b>	<b>Paper Out</b>
f f	f f	f	f

---

*An unknown printer error has occurred.*

Turn off the printer and leave it off for several minutes; then turn it on again. If the error recurs, contact your dealer.

Note:

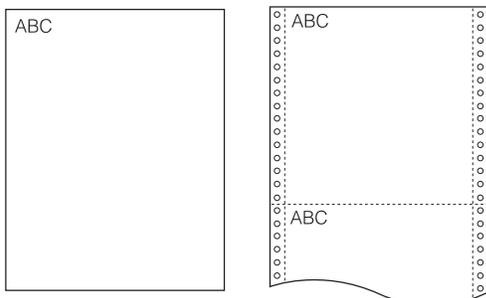
The printer beeps once if you press a control panel button when the corresponding function is not available.

## Status Monitor

The EPSON Status Monitor 2 utility program comes with the printer and is for use only with Windows 95. It monitors the status of the printer, indicates when errors occur, and provides troubleshooting tips.

## Paper Positions

### Top-of-Form Position



The letters ABC above are printed at the top-of-form position.

The top-of-form position is the position where the printer starts printing on a page of single-sheet or continuous paper.

Note:  
See page 4 for information on the printable area of your paper.

### Tear-off Position

Your continuous paper is in the tear-off position when the perforation is aligned with the printer's tear-off edge, so you can easily tear off your printed document.

### Standby Position

Your continuous paper is in the standby position when it is attached to the tractor but not loaded in the printer.

## Available Paper Paths

### Printing on Continuous Paper

You can choose from three tractor positions (front push, rear push, and pull) and three paper entry slots (front, rear, and bottom) for continuous paper printing.

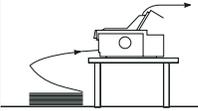
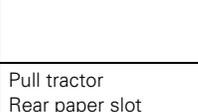
If you often need to tear off sheets of continuous paper (for example, if you print purchase orders or sales slips), it is best to use a push tractor. This allows you to use the printer's tear-off edge to easily tear off printed sheets of continuous paper at the perforation. Also, when continuous paper is loaded on a push tractor, you can load single sheets of paper from the paper guide without removing the continuous paper.

If you often print on thick or heavy continuous paper, such as multi-part forms or continuous paper with labels, use a tractor in the pull position. The pull tractor provides the best paper jam prevention, and allows you to load continuous paper from the front, rear, or bottom of the printer. However, you cannot use the tear-off feature with the pull tractor.

Note:  
If you plan to use a pull tractor, you can remove the tractor from the front push position and install it in the pull position, or you can purchase the optional pull tractor (C800321) and install it in the pull position.

To improve continuous paper feeding and reduce paper jams, you can use the push and pull tractors in combination. This is especially helpful for printing on continuous pre-printed forms, multi-part forms, or labels, and for printing high-quality graphics.

The table below summarizes the paper paths available for printing on continuous paper.

Paper Path	Description
Front push tractor Front paper slot 	The paper path from the front slot is almost straight, which reduces the chance of paper jams. Use the front slot when you are printing on thick paper such as multi-part forms or continuous paper with labels.
Rear push tractor Rear paper slot 	When you print on multi-part forms that are bound on only one side by point gluing, load them onto the rear push tractor through the rear slot; the front push tractor cannot feed this type of form.
Pull tractor Front paper slot 	The paper path from the front slot is almost straight, which reduces the chance of paper jams. Use the front slot when you are printing on thick paper such as multi-part forms or continuous paper with labels.
Pull tractor Bottom paper slot 	Because the bottom slot has the straightest paper path, it is ideal for printing on thick paper, such as multi-part forms or continuous paper with labels.  <i>Note:</i> When loading paper in the bottom slot, be sure to use a printer stand with an opening large enough so that the paper can feed through it without obstruction.
Pull tractor Rear paper slot 	When you print on multi-part forms that are bound on only one side by point gluing, load them onto the pull tractor through the rear slot; the printer cannot feed this type of form from the front or bottom slot.

Paper Path	Description
Rear push tractor and pull tractor Rear paper slot	To use the rear push tractor with the pull tractor, you can remove the standard tractor that comes in the front push position and install it in the pull position.
Front push tractor and pull tractor Front paper slot	To use the front push tractor with the pull tractor, you need to purchase the optional pull tractor (C800321) and install it in the pull position.  <i>Note:</i> The tractor in the rear push position cannot be removed.



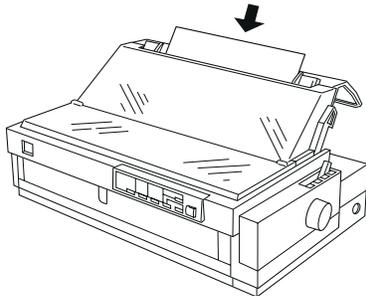
**Caution:**  
Do not load continuous paper with labels in the rear slot; the labels may come off the backing sheet inside the printer and cause a jam.

**Note:**  
Always load multi-part forms with seven parts (one original plus six copies) from the front or bottom slot onto the pull tractor.

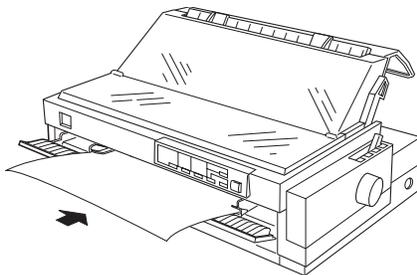
### Printing on Single Sheets

When continuous paper is loaded on the front or rear push tractor, you can load single sheets in the top or front slot without removing the continuous paper.

*Use the top slot for ordinary single sheets, single-sheet multi-part forms, postcards, or envelopes.*



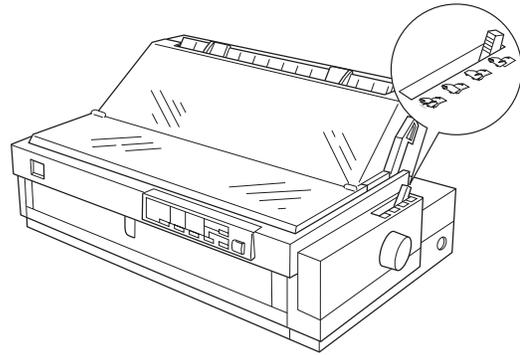
*Use the front slot for ordinary single sheets, single-sheet multi-part forms, or postcards.*



**Note:**

- ❑ Load envelopes in the top slot only.
- ❑ Always use the front paper slot to load single-sheet multi-part forms that are bound by line gluing only at the side.

### Paper Release Lever Positions



Use the paper release lever to select which paper path you want the printer to load paper from. The table below shows the corresponding paper path(s) for each paper release lever position.



#### Single-sheet position

For loading single sheets from the top or front slot.



#### Rear push tractor position

For loading continuous paper from the tractor installed in the rear push position. Also set the lever to this position when using the rear push and pull tractors in combination.



#### Front push tractor position

For loading continuous paper from the tractor installed in the front push position. Also set the lever to this position when using the front push and pull tractors in combination.



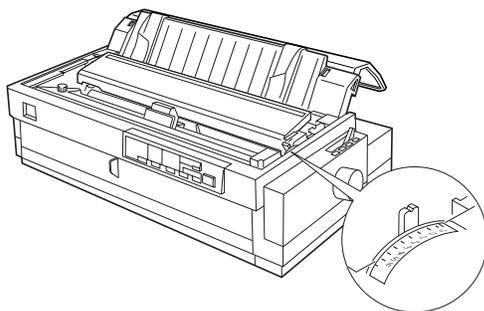
#### Pull tractor position

For loading continuous paper from the tractor installed on top of the printer in the pull position. When the tractor is in the pull position, you can load paper in the printer from the front, rear, or bottom slot.

**Note:**

You can load one type of continuous paper onto the front push tractor and another type onto the rear push tractor, and easily switch between them using the paper release lever. Before moving the paper release lever, always press the Load/Eject button to feed the paper in the paper path backward to the standby position.

## Paper Thickness Lever Positions



*The paper thickness lever is located under the printer cover.*

You need to set the paper thickness lever for the type of paper you are using, as shown in the table below.

Paper Type	Lever Position
Ordinary paper (single sheets or continuous paper)	0
Carbonless multi-part forms with:	
2 parts (original + 1 copy)	1
3 parts (original + 2 copies)	3
4 parts (original + 3 copies)	4
5 parts (original + 4 copies)	5
6 parts (original + 5 copies)	6
7 parts (original + 6 copies)	6
Thin paper	-1 or 0
Continuous paper with labels	2
Envelopes	4 or 5
Postcards	3

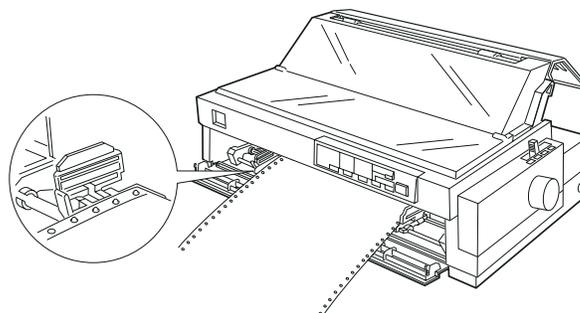
### Note:

If the printing on the bottom copies of your thick multi-part forms is faint, turn on the double-strike mode as described in Chapter 2 of the *User's Guide*.

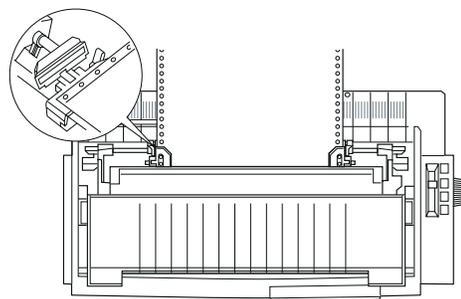
## Paper Handling

### Loading Continuous Paper Onto a Push Tractor

Front push tractor   
*Load paper printable side up.*



Rear push tractor   
*Load paper printable side down.*



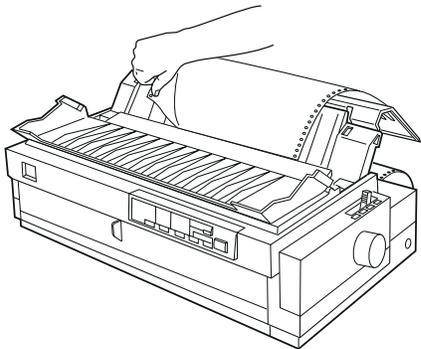
Make sure the left and right sprockets are positioned properly for your paper's width. If they are too far apart or there is any slack in the paper, you need to move the sprockets.

1. If you are using the front push tractor, open the front paper guide and remove it.  
If you are using the rear push tractor, open the paper guide cover and remove the paper guide.
2. Open both sprocket covers.
3. Fit the first four holes of the paper over the sprocket pins (as shown above). Then close the sprocket covers.

4. If you are using the front push tractor, reattach the front paper guide and then close it.  
If you are using the rear push tractor, reattach the paper guide and close the paper guide cover.
5. Make sure the paper release lever is in the correct position.

### Removing the Printed Document From a Push Tractor

1. Make sure the Tear Off/Bin lights are flashing. (You may need to press the Tear Off/Bin button.) When the Tear Off/Bin lights are flashing, your paper is in the tear-off position.
2. Open the paper guide cover and tear off the printed document using the printer's tear-off edge.



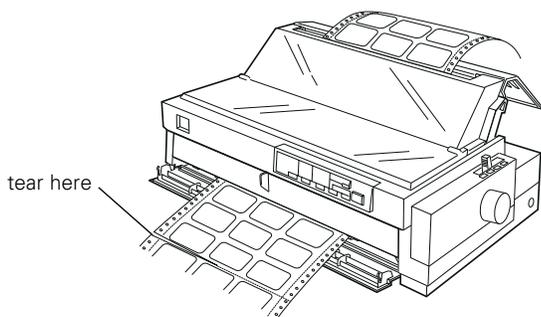
3. Press the Load/Eject button to feed the continuous paper backward out of the printer and into the standby position.



**Caution:**  
Make sure you tear off your printed document before pressing the Load/Eject button. Reverse feeding several pages at a time may cause a paper jam.

### Removing Continuous Paper With Labels

1. Tear off the fresh supply of continuous labels at the perforation nearest the paper entry slot.



2. Hold down the LF/FF button to eject the remaining labels from the printer.



**Caution:**  
Never press the Load/Eject or Tear Off/Bin button when printing on labels. When fed backward, labels can easily come off the backing sheet and cause a jam.

### Switching to Printing on Single Sheets

You can easily switch from printing on continuous paper with a push tractor to printing on single sheets without having to remove or reload paper. Follow the steps below.

Note:

- ❑ If continuous paper with labels is loaded in the printer, remove it before switching to single-sheet printing.
  - ❑ If a tractor is in the pull position, remove any continuous paper from it before switching to single-sheet printing.
1. If any printed pages of continuous paper remain in the printer, press the Tear Off/Bin button to advance them to the tear-off position, and then tear them off.



**Caution:**  
Tear off your printed document before you press the Load/Eject button in the next step. Reverse feeding several pages at a time may cause a paper jam.

Never use the knob to eject paper while the printer is on; this may damage the printer or cause it to lose the tear-off or top-of-form position.

2. Press the Load/Eject button to feed the continuous paper backward to the standby position.
3. Load single sheets in the top or front paper guide.
4. Set the paper release lever to the single-sheet position.

### Switching to Printing on Continuous Paper

To switch from printing on single sheets to printing on continuous paper with the front or rear push tractor, follow these steps:

1. If a single sheet remains in the printer, press the Load/Eject button to eject it.



**Caution:**  
Never use the knob to eject paper while the printer is on; this may damage the printer or cause it to lose the tear-off or top-of-form position.

2. Make sure that the tractor is installed in the front or rear push position.
3. Load continuous paper onto the front or rear push tractor as described on page 9.
4. Set the paper release lever to the appropriate position.

## Adjusting the Top-of-Form Position

The top-of-form position is the position on the page where the printer will start printing. If your printing appears too high or low on the page, you can use the micro adjust feature to adjust the top-of-form position as described below.



**Caution:**  
Never use the knob to adjust the top-of-form position; this may damage the printer or cause it to lose the top-of-form position.

Note:

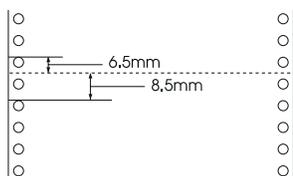
- ❑ Your top-of-form position setting remains in effect until you change it, even if you turn off the printer.
  - ❑ The top margin setting made in some application software overrides the top-of-form position setting you make with the micro adjust feature. If necessary, adjust the top-of-form position using your software.
1. Make sure the printer is turned on and paper is loaded.
  2. If you are using a push tractor, press the **Load/Eject** button to advance the paper to the current top-of-form position.
  3. Open the paper guide cover and lift the printer cover up and off the printer.
  4. Hold down the **Pause** button for about three seconds. The **Pause** light starts flashing and the printer enters the micro adjust mode.
  5. Press the **Load/Eject U** and **LF/FF D** buttons to move the top-of-form position up or down on the page.

Note:

- ❑ The printer has a minimum and a maximum top-of-form position. If you try to adjust it beyond these limits, the printer beeps and stops moving the paper.
- ❑ When the paper reaches the default top-of-form position, the printer also beeps and stops moving the paper briefly. You can use the default setting as a reference point when adjusting the top-of-form position.

To adjust the top-of-form position for continuous paper loaded on the pull tractor, see the following example:

First mark a point 6.5 mm (0.26 inch) above the paper's perforation; then position the paper so that the mark is even with the top edge of the plastic ribbon cover. This gives you an 8.5 mm (0.33 inch) margin on the next page, meaning the printer starts printing 8.5 mm below the perforation. If you mark a point 5.5 mm (0.22 inch) above the perforation, you get a 9.5 mm (0.37 inch) margin on the next page.



6. Press the **Pause** button to exit micro adjust mode.

## Advancing the Paper to the Tear-Off Edge

If you use the front or rear push tractor, you can use the tear-off feature to advance your continuous paper to the printer's tear-off edge when you finish printing. You can then easily tear off the printed document.

As described below, you can use the tear-off feature in two ways: manually by pressing the printer's **Tear Off/Bin** button, or automatically by turning on the auto tear-off mode. The **Tear Off/Bin** lights flash when the paper is in the tear-off position.



**Caution:**  
Never use the tear-off feature to feed continuous paper with labels backward; they may come off the backing sheet and jam the printer.

Never reverse feed continuous paper loaded in the pull tractor using the **Tear Off/Bin** button; the paper may come off the pull tractor and jam the printer.

## Using the Tear Off/Bin Button

After the printer finishes printing your document, press the **Tear Off/Bin** button to advance the paper to the tear-off edge.

Note:

If the **Tear Off/Bin** lights are flashing, the paper is in the tear-off position. If you press the **Tear Off/Bin** button, the printer feeds your paper to the next top-of-form position.

## Advancing Paper to the Tear-Off Position Automatically

To automatically advance your printed documents to the tear-off position, you need to turn on the auto tear-off mode and select the appropriate page length for continuous paper in the default-setting mode. For instructions, see "Using the Default-Setting Mode" on page 13.

When auto tear-off is on, the printer automatically advances the paper to the tear-off position whenever it receives a full page of data or a form feed command followed by no more data.

## Adjusting the Tear-Off Position

If your paper's perforation is not aligned with the tear-off edge, you can use the micro adjust feature to move the perforation to the tear-off position. Follow the steps below.

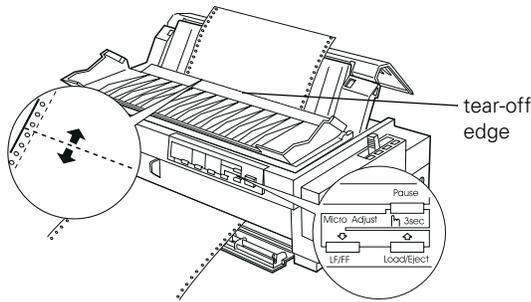


**Caution:**  
Never use the knob to adjust the tear-off position; this may damage the printer or cause it to lose the tear-off position.

Note:

Your tear-off position setting remains in effect until you change it, even if you turn off the printer.

1. Make sure the **Tear Off/Bin** lights are flashing (the paper is at the current tear-off position). You may need to press the **Tear Off/Bin** button.
2. Open the paper guide cover.
3. Hold down the **Pause** button for about three seconds. The **Pause** light begins flashing and the printer enters the micro adjust mode.
4. Press the **Load/Eject** U and **LF/FF** D buttons to feed the paper backward or forward until the paper perforation is aligned with the tear-off edge.



Note:

The printer has a minimum and a maximum tear-off position. If you try to adjust the tear-off position beyond these limits, the printer beeps and stops moving the paper.

5. Press the **Pause** button to turn off micro adjust mode. Then tear off the printed pages.

When you resume printing, the printer automatically feeds the paper back to the top-of-form position and begins printing.

## Replacing the Ribbon Cartridge



Warning:

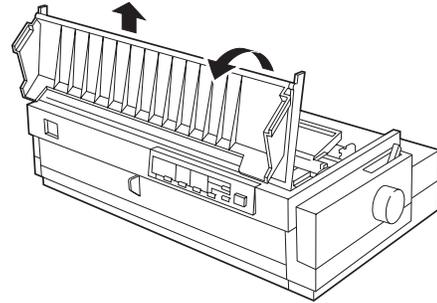
If you just used the printer, the print head may be hot; let it cool before you replace the ribbon cartridge.



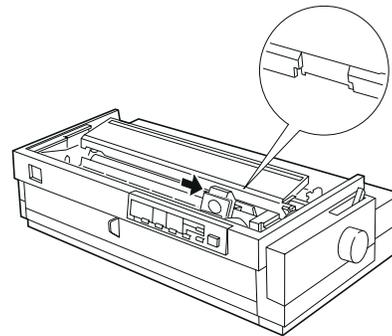
Caution:

Make sure the printer is off and unplugged from the electrical outlet. Moving the print head while the printer is on may damage the printer.

1. Open the paper guide cover. Then lift the printer cover by its back edge and pull it straight up and off the printer.



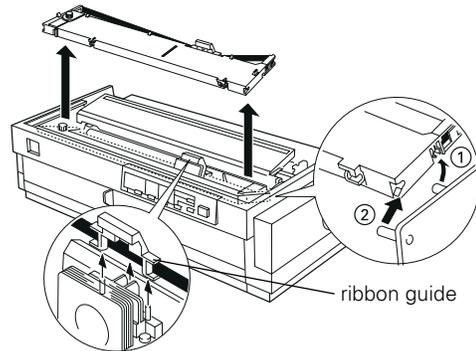
2. Make sure that the print head is not hot; then slide the print head to the ribbon installation position (the indented portion of the paper tension unit) by hand.



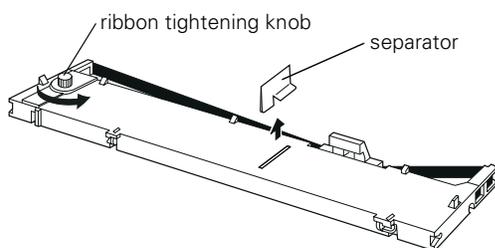
Note:

When the pull tractor is installed, you can replace the ribbon cartridge when the print head is not in the ribbon installation position.

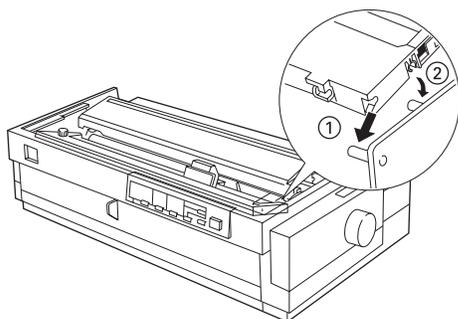
3. Grasp the used ribbon cartridge and pull it up and out of the printer.



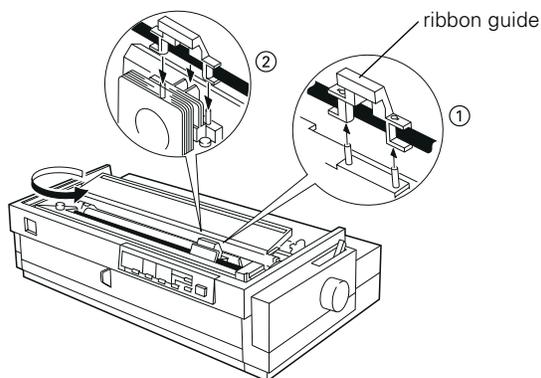
- Remove the separator from the new ribbon cartridge and discard it. Then turn the ribbon-tightening knob in the direction of the arrow to remove any slack in the ribbon.



- Hold the ribbon cartridge with the ribbon-tightening knob up. Fit the cartridge's two front notches (1) over the small pegs on each side of the printer as shown. Then lay the cartridge flat so that the rear notches (2) fit over the corresponding pegs.



- Gently press down the cartridge until both ends click into place.
- Lift the cartridge's ribbon guide (1) and insert it over the metal pins behind the print head (2). Make sure the ribbon is not twisted or creased and that it is in place behind the print head. Then press down the ribbon guide until it clicks into place.



- Turn the ribbon-tightening knob in the direction of the arrow to remove any slack in the ribbon.
- Slide the print head from side to side to make sure it moves smoothly.
- Replace the printer cover and close the paper guide cover.

## Clearing Paper Jams

- Press the **Operate** button to turn off the printer.
- If a single sheet of paper is stuck on the paper guide, remove it.
- Remove the printer cover. If continuous paper from the rear slot is jammed, also remove the paper guide.
- If continuous paper is jammed in the printer, tear off the fresh supply at the perforation nearest the paper entry slot.
- Turn the knob on the right side of the printer away from you to eject the paper in the printer. Remove any remaining pieces of paper.



### Caution:

Always turn off the printer before you use the knob; otherwise you may damage the printer or lose the top-of-form or tear-off position.

- Replace the paper guide, if necessary, and replace the printer cover. Then close the paper guide cover.
- Press the **Operate** button to turn on the printer. Make sure the **Paper Out** and **Pause** lights are off.

## Using the Default-Setting Mode

The default settings control many printer functions. While you can often set these functions through your software or printer driver, you may sometimes need to change a default setting from the printer's control panel using the default-setting mode.

The settings and options are summarized in the following table. The factory settings are bold.

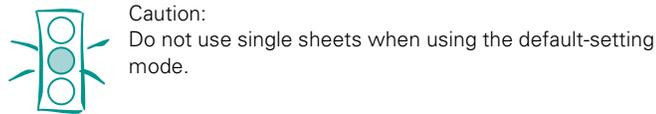
Setting	Options
Page length for front tractor*	Length in inches: 3, 3.5, 4, 5.5, 6, 7, 8, 8.5, <b>11</b> , 70/6, 12, 14, 17
Page length for rear tractor*	Length in inches: 3, 3.5, 4, 5.5, 6, 7, 8, 8.5, <b>11</b> , 70/6, 12, 14, 17
Skip over perforation	<b>Off</b> , On
Auto tear-off	<b>Off</b> , On
Auto line feed	<b>Off</b> , On
Print direction	<b>Bi-D</b> , Uni-D
I/F (interface) mode	<b>Auto</b> , Parallel, Optional
Auto I/F (interface) wait time	<b>10 seconds</b> , 30 seconds
Software	<b>ESC/P</b> , IBM2381 Plus
0 slash	<b>0</b> , Ø
High speed draft	Off, <b>On</b>
Input buffer	Off, <b>On</b>
Buzzer	Off, <b>On</b>
Auto CR (IBM 2381 Plus)**	<b>Off</b> , On
IBM character table**	<b>Table 2</b> , Table1
Character table	Standard model: Italic, <b>PC 437</b> , PC 850, PC 860, PC 863, PC 865, PC 861, BRASCII, Abicom, Roman 8, ISO Latin 1
International character set for Italic table	<b>Italic U.S.A.</b> , Italic France, Italic Germany, Italic U.K., Italic Denmark 1, Italic Sweden, Italic Italy, Italic Spain 1

\* The options available vary depending on the country.  
 \*\* These settings take effect only when IBM 2381 Plus emulation is selected.

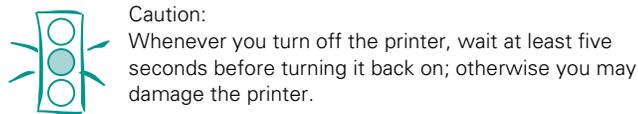
### Changing Default Settings

Follow the steps below to enter the default-setting mode and change the printer's default settings.

Note:  
 To print the language selection and default-setting mode instructions, you need a minimum of four pages of continuous paper that are at least 11 inches (279 mm) long and 8.3 inches (210 mm) wide.



1. Make sure continuous paper is loaded and the printer is turned off.



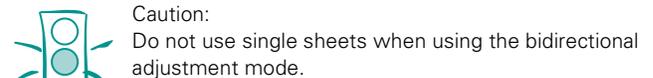
2. While holding down the **Pitch** button, press the **Operate** button to turn on the printer. The printer enters the default-setting mode and prints the language selection instructions (one page).
3. Press the **Pitch** button until the **Pitch** lights indicate the language you want, as described in the language selection instructions.
4. Press the **Font** button to print the default-setting mode instructions (two pages) in the language you selected.  
 The printed instructions list the settings you can change, describe how to change them, and show you how the control panel lights help you make settings. Use these instructions to change the printer's default settings from the control panel.
5. To save your settings and turn off the printer, press the **Operate** button. This also exits the default-setting mode.

Note:  
 The arrows in the instructions indicate the printer's current settings.  
 You may exit the default-setting mode any time by turning off the printer while it is not printing. Any settings you have made remain in effect until you change them again.

### Aligning Vertical Lines in Your Printout

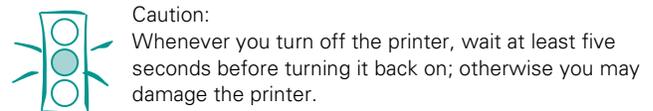
If you notice that the vertical lines in your printout are not properly aligned, you can use the printer's bidirectional adjustment mode to correct this problem.

Note:  
 To complete the steps below, you need four pages of continuous paper that are at least 11 inches (279 mm) long and 14.8 inches (376 mm) wide.



Follow these steps to perform the bidirectional adjustment:

1. Make sure continuous paper is loaded and the printer is turned off.



2. While holding down the **Pause** button, press the **Operate** button to turn on the printer. The printer enters the bidirectional adjustment mode and then prints instructions and the first set of alignment patterns.

3. As described in the instructions, compare the alignment patterns and select the pattern with the best alignment.
4. Follow the instructions to print the remaining sets of alignment patterns and select the pattern with the best alignment in each set.
5. To save your settings and turn off the printer, press the **Operate** button. This also exits the bidirectional adjustment mode.

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## Printing a Self Test

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Running the printer's self test helps you determine whether the printer or the computer is causing the problem:

- If the self test results are satisfactory, the printer is working properly and the problem probably results from your printer driver settings, application settings, computer, or interface cable. (Be sure to use a shielded interface cable.)
- If the self test does not print properly, there is a problem with the printer.

You can print the self test using either single sheets or continuous paper.

Note:  
Use paper that is at least 14.8 inches (376 mm) wide, such as A3-size paper.

To perform a self test, follow these steps:

1. Make sure paper is loaded and the printer is turned off.
2. To run the test using the Draft font, hold down the **LF/FF** button while you press the **Operate** button to turn on the printer. To run the test using the printer's near letter-quality fonts, hold down the **Load/Eject** button while you turn on the printer. Either self test can help you determine the source of your printing problem; however, the draft self test prints faster than the near letter-quality test.

After a few seconds, the printer loads the paper automatically and begins printing the self test. A series of characters is printed.

Note:  
To temporarily stop the self test, press the **Pause** button. To resume the test, press the **Pause** button again.

3. To end the self test, press the **Pause** button to stop printing. If a printed page remains in the printer, press the **Load/Eject** button to eject it. Then turn off the printer.

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## Printing a Hex Dump

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You can print a hexadecimal dump to isolate communication problems between the printer and your software program. In hex dump mode, the printer prints all data it receives from the computer as hexadecimal values.

You can print a hex dump using either single sheets or continuous paper.

Note:  
Use paper that is at least 8.3 inches (210 mm) wide, such as letter- or A4-size paper

To print a hex dump, follow these steps:

1. Make sure paper is loaded and the printer is turned off.



Caution:  
Whenever you turn off the printer, wait at least five seconds before turning it back on; otherwise you may damage the printer.

2. To enter hex dump mode, hold down both the **LF/FF** and **Load/Eject** buttons while you press the **Operate** button to turn on the printer.
3. Open a software program and send a print job to the printer. Your printer prints all the codes it receives in hexadecimal format.

If characters are printable, they appear in the right column as ASCII characters. Nonprintable codes, such as control codes, are represented by dots. By comparing the characters printed in the right column with the printout of the hexadecimal codes, you can check the codes the printer is receiving.

4. To exit hex dump mode, press the **Pause** button to stop printing and the **Load/Eject** button to eject the printed page. Then turn off the printer.

## Cleaning the Printer

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To keep your printer operating at its best, you should clean it thoroughly several times a year. Follow these steps:

1. Turn off the printer and remove any paper as well as the paper guide. If a pull tractor or an optional cut-sheet feeder is installed, remove it.
2. Use a soft brush to carefully brush away all dust and dirt from the outer case and paper guide.
3. If the outer case or paper guide is still dirty, clean it with a soft, clean cloth dampened with mild detergent dissolved in water. Keep the printer cover in place and lower the paper guide cover until it lies flat on the top of the printer to prevent water from getting inside the printer.



**Caution:**

Never use alcohols or thinners to clean the printer; these chemicals can damage the printer components as well as the case.

Be careful not to get water on the printer mechanism or electronic components.

Do not use a hard or abrasive brush.

Do not spray the inside of the printer with lubricants; unsuitable lubricants can damage the printer mechanism. Contact an EPSON dealer if you think lubrication is needed.

6. Make sure the tractor that comes with your printer is installed in the front push position.
7. Replace the transportation screw using the screwdriver that came with the printer.
8. Repack the printer, ribbon cartridge, paper guide, paper separator, and power cord in the original packing materials and place them in the printer's original box.

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## Related Documentation

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4008467	EPSON FX-2180 User's Guide
4008466	EPSON FX-2180 Quick Reference Guide
4008465	EPSON FX-2180 Unpacking sheet
TM-FX2180	EPSON FX-2180 Service Manual
PL-FX2180	EPSON FX-2180 Parts Price List

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## Transporting the Printer

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If you need to transport your printer some distance, carefully repack it using the original box and packing materials, as described below.

1. Turn off the printer and remove any paper as well as the paper guide. Pull out the paper separator from the paper guide.
2. Unplug the power cord from the electrical outlet; then disconnect the interface cable from the printer.
3. If a pull tractor is installed, remove it. If any options are installed, remove them and pack them in their original boxes.



**Warning:**

If you have just used the printer, the print head may be hot. Let it cool before attempting to remove the ribbon cartridge.

4. Remove the ribbon cartridge as described on page 12.
5. Remove the paper tension unit. Attach the protective locking clips on both sides of the printer roller. Then reinstall the paper tension unit.