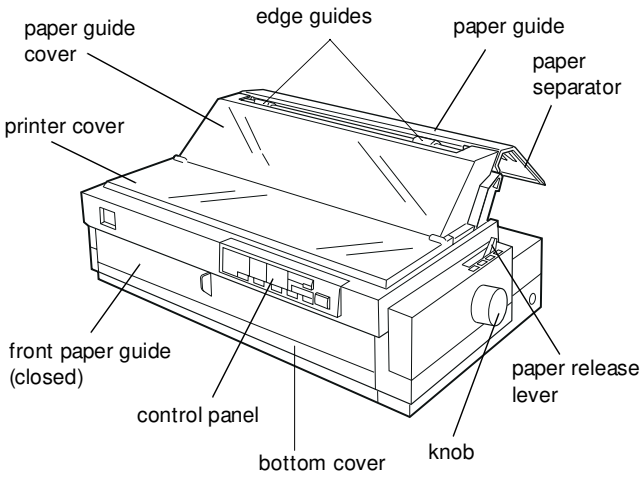
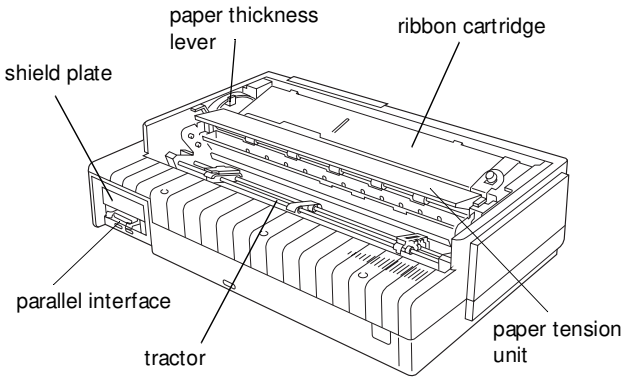
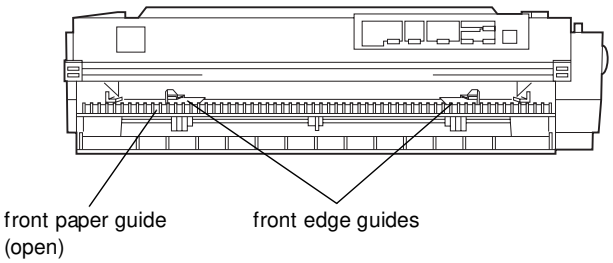



## User Replaceable Parts

| 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 | 1039405 |
| Logo plate | Logo plate | 1045389 |
| Paper guide cover | Printer cover assembly | 1044972 |
| Paper tension unit | Paper eject assembly | 1046629 |
| Paper thickness lever cap | Lever cap | 1039412 |
| Printer cover | Printer cover assembly | 1046632 |
| Rear edge guides | Rear edge guides | 1039499 |
| Rear push tractor | Rear tractor assembly | 1039012 |
| Ribbon cartridge | Ribbon cartridge | S015086 |




## Options

### Paper Handling Options

#### High-capacity cut-sheet feeder (C80673*)

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 multipart forms up to 0.59 inch (15 mm) thick in this feeder.

#### Second-bin cut-sheet feeder (C80674*)

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 (C80032*)

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 preprinted forms, multipart forms, and labels, and also 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.

Note:
The asterisk (*) is a substitute for the last digit of the product number, which varies by country.

### Optional Interface Cards

You can install an optional interface card to supplement your printer's built-in parallel interface and provide added network compatibility. The EPSON interface cards in the table below are compatible with your printer. (Not all interfaces are available in all countries.)

| Model number | Name |
|---|---|
| C82305* / C82306* | Serial interface card |
| C82307* / C82308* | 32KB intelligent serial interface card |
| C82310* / C82311* | 32KB intelligent parallel interface card |
| C82312* | LocalTalk interface card |
| C82313* | 32KB IEEE-488 interface card |
| C82314* | Coax interface card |
| C82315* | Twinax interface card |
| C82345* | IEEE-1284 parallel interface card |
| C82357* / C82362* / C82364* | Ethernet interface card |

The asterisk (*) is a substitute for the last digit, which varies by country.

## Printer Specifications

### Mechanical

| | |
|---|---|
| Printing method | 24-pin impact dot matrix |
| Printing speed | High-speed draft<br>400 cps at 10 cpi maximum<br>Draft<br>300 cps at 10 cpi<br>Letter-quality<br>100 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 1/360-inch increments |
| Printable columns | 136 columns (at 10 cpi) |
| Resolution | Maximum<br>360 × 180 dpi (letter quality)<br>360 × 360 dpi (raster graphics) |
| Interfaces | One standard bidirectional, 8-bit, parallel interface with IEEE 1284 nibble mode support and one optional interface slot |
| Paper feed methods | Friction (front or top paper entry)<br>Push tractor (front or rear paper entry)<br>Pull tractor (optional—front, bottom, or rear paper entry)<br>Push and pull tractor (optional)<br>Cut-sheet feeder (optional)<br>Roll paper holder (optional) |
| Paper feed speed | Continuous<br>5 inches/second<br>Intermittent<br>45 ms/line at 1/6-inch line spacing |
| Paper capacity | High-capacity cut-sheet feeder<br>up to 150 sheets of 22 lb (82 g/m$^2$) paper<br>up to 25 plain or bond envelopes<br>up to 30 airmail envelopes<br>up to 30 postcards<br>a stack of multipart forms up to 0.59 inch (15 mm) thick |

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

Second-bin cut-sheet feeder
up to 150 sheets of 22 lb (82 g/m$^2$) paper

Note:
The 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) |

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
EPSON Courier 10, 12, 15 cpi
EPSON Prestige 10, 12 cpi
EPSON Script 10 cpi
EPSON OCR-B 10 cpi
EPSON Orator 10 cpi
EPSON Orator-S 10 cpi
EPSON Script C proportional

*Scalable fonts (selectable in 2-point increments)*
EPSON Roman 10.5, 8–32 pt
EPSON Sans Serif 10.5, 8–32 pt
EPSON Roman T 10.5, 8–32 pt
EPSON Sans Serif H 10.5, 8–32 pt

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

Character tables

1 Italic table and 12 graphical character tables (34 graphical character tables are available in some countries)

Character sets

14 international character sets and 1 legal character set

Reliability

Total print volume
19 million lines (except print head)
MTBF 10,000 POH (25% duty)

Print head life
200 million strokes/wire

Dimensions and weight

Height
10.6 inches (268 mm)

Width
25.2 inches (639 mm)

Depth
15.8 inches (402 mm)

Weight
28.8 lb (13 kg)

Ribbon

Black ribbon cartridge (S015086)

Ribbon life
8 million characters
(LQ, 10 cpi, 48 dots/character)

## 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 4 A depending on the character type) | 0.5 A (maximum 2 A depending on the character type) |
| **Power consumption** | Approx. 37 W (ISO/IEC 10561 letter pattern) | |

Note:
This product is also designed for IT power systems with Phase to Phase voltage 220 to 240 V. Check the label on the back of the printer for the 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 has been folded or is damaged, wrinkled, or curled.

**Ordinary single sheets: front, top, and cut-sheet feeder entry**

Width

Front and top
3.9 to 16.5 inches (100 to 420 mm)
High capacity cut-sheet feeder
3.9 to 16.5 inches (100 to 420 mm)
Second bin cut-sheet feeder
7.2 to 16.5 inches (182 to 420 mm)

Length

Front
5.8 to 16.5 inches (148 to 420 mm)
Top
3.9 to 16.5 inches (100 to 420 mm)
High capacity cut-sheet feeder
3.9 to 16.5 inches (100 to 420 mm)
Second bin cut-sheet feeder
8.3 to 16.5 inches (210 to 420 mm)

| | |
|---|---|
| Thickness | 0.0025 to 0.0055 inch (0.065 to 0.14 mm) |
| Weight | 14 to 24 lb (52 to 90 g/m$^2$) |

**Single-sheet multipart forms:**
**front, top, and cut-sheet feeder entry**

| | |
|---|---|
| Width | Front and top<br>3.9 to 16.5 inches (100 to 420 mm)<br>High-capacity cut-sheet feeder<br>3.9 to 11.7 inches (100 to 297 mm) |
| Length | Front<br>5.8 to 16.5 inches (148 to 420 mm)<br>Top<br>3.9 to 16.5 inches (100 to 420 mm)<br>High-capacity cut-sheet feeder<br>3.9 to 11.7 inches (100 to 297 mm) |
| Copies | 1 original + up to 4 copies |
| Thickness | 0.0047 to 0.015 inch (0.12 to 0.39 mm) |
| Weight | 12 to 15 lb (40 to 58 g/m$^2$) |
| Binding | Line glue at the top of form<br>(both front and top entry)<br>Single side line glue (front entry only) |

**Envelopes:**
**top entry only**

| | |
|---|---|
| Size | No. 6: 6.5 × 3.6 inches (165 × 92 mm)<br>No. 10: 9.5 × 4.1 inches (241 × 105 mm) |
| Thickness | 0.0063 to 0.0205 inch (0.16 to 0.52 mm) |
| Weight | 12 to 24 lb (45 to 90 g/m$^2$) |

**Postcards:**
**front and top entry**

| | |
|---|---|
| Width | 3.9 to 5.8 inches (100 to 148 mm) |
| Length | Front<br>5.8 inches (148 mm)<br>Top<br>3.9 to 5.8 inches (100 to 148 mm) |
| Thickness | 0.0087 inch (0.22 mm) |
| Weight | 51 lb (192 g/m$^2$) |

**Continuous paper (standard and multipart):**
**front, rear, and bottom entry**

| | |
|---|---|
| Width | 4.0 to 16.0 inches (101 to 406 mm) |
| Length | 4.0 to 22.0 inches (101 to 558 mm) |
| Copies | 1 original + up to 4 copies |
| Thickness | Printable area<br>0.0025 to 0.015 inch (0.065 to 0.39 mm)<br>Perforated edges<br>up to 0.035 inch (0.9 mm) |
| Weight (not multipart) | 14 to 22 lb (52 to 82 g/m$^{2)}$ |
| Weight (one sheet of multipart) | 12 to 15 lb (40 to 58 g/m$^2$) |
| Binding | Point glue or paper staples on both sides<br>(front, bottom, or rear entry) |

Note:
Because thick multipart forms require a straight paper path, load them in the front slot.

**Continuous paper with labels:**
**front and bottom entry**

| | |
|---|---|
| Label size (minimum) | 0.938 × 2.5 inches (23.8 × 63.5 mm)<br>0.1 inch (2.5 mm) corner radius |
| Backing sheet width | 4.0 to 16.0 inches (101 to 406 mm) |
| Backing sheet length (one page) | 4.0 to 22.0 inches (101 to 558 mm) |
| Backing sheet thickness | 0.0028 to 0.0035 inch (0.07 to 0.09 mm) |
| Total thickness | 0.0063 to 0.0075 inch (0.16 to 0.19 mm) |
| Label weight | 17 lb (68 g/m$^2$) |

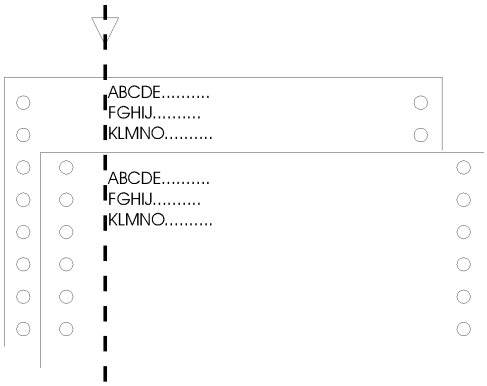
**Roll paper:**
**rear entry with optional roll paper holder only**

| | |
|---|---|
| Width | 8.5 ± 0.12 inch (216 ± 3 mm) |
| Thickness | 0.0028 to 0.0035 inch (0.07 to 0.09 mm) |
| Weight | 14 to 22 lb (52 to 82 g/m$^2$) |

## Paper Alignment

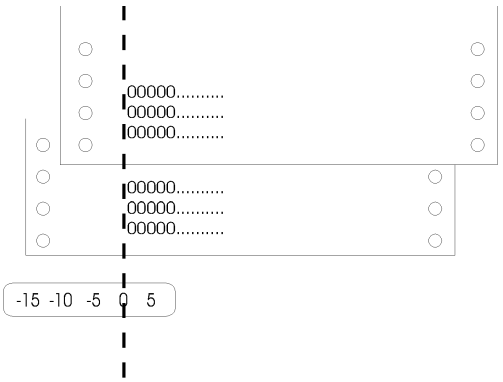
### Front entry

Printing starts at the arrow mark. The unprintable area is to the left of the arrow mark.



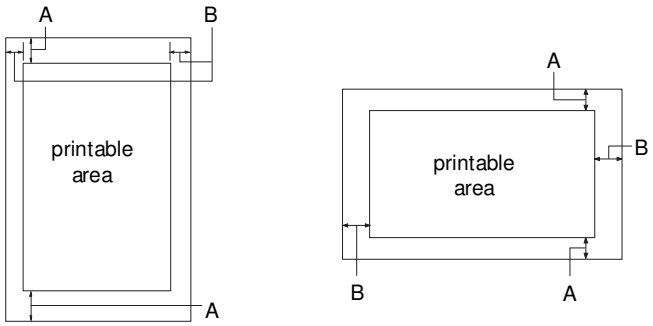

### Rear entry

Printing starts at "0" on the scale. The unprintable area is to the left of the "0."




## Printable Area

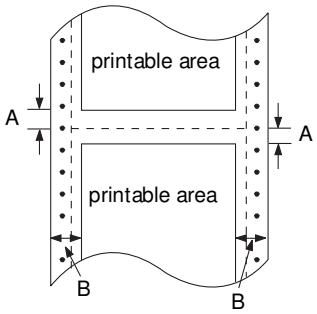
### Single sheets, envelopes, and postcards




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 width is 16.0 inches (406 mm).
The maximum printable width is 13.6 inches (345 mm).
For paper wider than 13.8 inches (351 mm), the side margins increase to match the width of the paper.

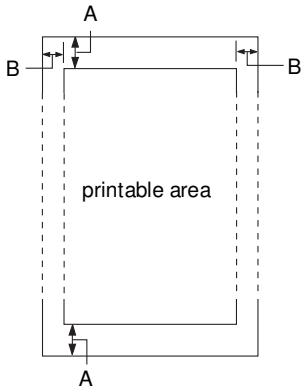
### Continuous paper




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 width is 16.0 inches (406 mm).
The maximum printable width is 13.6 inches (345 mm).
For paper wider than 14.6 inches (371 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 8.0 inches (203 mm).

## Safety Approvals

*120 V model:*

| | |
|---|---|
| Safety standards | UL 1950<br>CSA C22.2 No. 950 |
| EMI | FCC part 15 subpart B class B<br>CSA C108.8 class B |

*230 V model:*

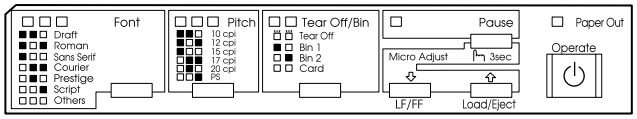
| | |
|---|---|
| Safety standards | EN 60950 (TÜV) |
| EMI | EN 55022 (CISPR pub. 22) class B<br>AS/NZS 3548 class B |
| Acoustic noise | Approx. 50 dB (A) (ISO 7779 pattern) |

## CE Marking

*230 V model:*

| | |
|---|---|
| Low Voltage Directive 73/23/EEC | EN 60950 |
| EMC Directive 89/336/EEC | EN 55022 Class B<br>EN 61000-3-2<br>EN 61000-3-3<br>EN 50082-1<br>IEC 801-2<br>IEC 801-3<br>IEC 801-4 |

## Control Panel Buttons and Lights




**Font button**

Selects the font.

**Font lights**

Indicate which font is selected.

**Condensed button**

Turns on the condensed mode.

**Condensed light**

Lights up when the condensed mode is on.

**Pause button**

Stops printing temporarily, and resumes printing when pressed again.

**Pause light**

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

**Paper Out light**

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

**Tear Off/Bin button**

- Advances continuous paper 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**

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

  ☐ = on, ■ = off, ☐ = flashing

**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**

When the Pause button is held down for three seconds, the printer enters the micro adjust mode. Using the micro adjust feature, you can adjust the top-of-form or tear-off position with the ⬇ and ⬆ buttons.

**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

You can identify many common printer problems using the lights on the control panel. If your printer stops working and one or more control panel lights are on or flashing or the printer beeps, use the following table to diagnose and fix the problem.

| State of panel lights | Beep pattern | Problem<br>Solution |
|---|---|---|
| □ Pause | — | **The printer is paused.**<br>Press the Pause button to resume printing. |
| | ••••• | **Paper from another paper source is currently in the paper path.**<br>Move the paper release lever back to the appropriate position and press the Load/Eject button to feed the paper out of the paper path. Then set the lever to the position you want to use. Press the Pause button to turn off the Pause light, if necessary. |
| □ Paper Out<br>□ Pause | ••• | **No paper is loaded in the selected paper source.**<br>Load paper in the printer. Then press the Pause button to turn off the Pause light, if necessary. |
| | ••• | **The paper is not loaded correctly.**<br>Remove your paper and reload it correctly. Then press the Pause button to turn off the Pause light, if necessary. |
| | ••• | **Paper is jammed in the printer.**<br>Clear the paper jam. |
| ⸌□⸍ Paper Out<br>□ Pause | ••• | **Continuous paper is not fed to the standby position.**<br>Tear off the printed document at the perforation; then press the Load/ Eject button. The printer feeds the paper to the standby position. Press the Pause button to turn off the Pause light. |
| | ••• | **A single sheet of paper is not fully ejected.**<br>Press the Load/Eject button to eject the sheet. Then press the Pause button to turn off the Pause light, if necessary. |
| | ••• | **Paper is jammed in the printer.**<br>Clear the paper jam. |
| ⸌□⸍ Pause | — | **The print head is overheated.**<br>Wait a few minutes; the printer resumes printing automatically once the print head cools. |
| ⸌□⸍ Paper Out<br>⸌□⸍ Pause<br>⸌□⸍ ⸌□⸍ Tear Off/Bin<br>⸌□⸍ ⸌□⸍ Font | — | **An unknown printer error has occurred.**<br>Turn off the printer and leave it off for several minutes; then turn on the printer again. If the error recurs, contact your dealer. |

□ = on, ⸌□⸍ = flashing
••• = short series of beeps (three beeps)
••••• = long series of beeps (five beeps)

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

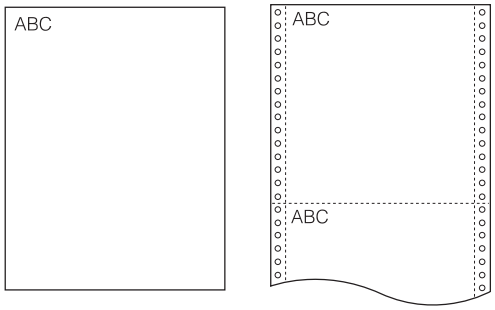
## Status Monitor

The EPSON Status Monitor 2 utility comes with your printer but is available only for use with Microsoft® Windows® 95 and 98. It allows you to monitor your printer's status, alerts you when printer errors occur, and provides troubleshooting instructions when needed.

## Paper Positions

### 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.




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

### Tear-off Position

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

### 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

Your printer provides a variety of paper paths for printing on continuous and single-sheet paper. As described in this section, paper can be fed into the printer from the top, front, bottom, or rear. Select the paper path that best suits your current printing needs.

### Printing on Continuous Paper

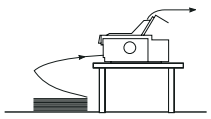
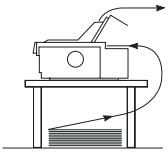
You can choose from three tractor positions (front push, rear push, and pull) and three paper entry slots (front, rear, and bottom) for continuous paper printing. This section helps you determine which paper paths and tractor positions are best for your continuous paper printing needs.

#### Using a push tractor

If you often need to tear off sheets of continuous paper (for example, if you are printing 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.

There are two push tractor positions: front and rear. The tractors are installed in the front push and rear push positions when the printer is shipped. See the table below for details about the push positions and the corresponding paper-feeding paths.

Note:
The tractor in the rear push position cannot be removed.

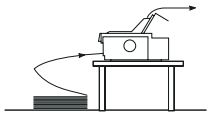
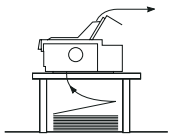
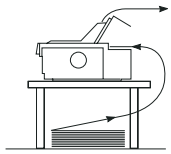
| Tractor position | Description |
|---|---|
|  <br>front push | To use the front push tractor, you need to purchase the optional tractor unit (C80032*), and install it in the front push position.<br><br>To use this tractor, load paper in the front slot. If you print on thick paper such as multipart forms or continuous paper with labels, load the paper in the front paper slot because the paper path from this slot is almost straight. This reduces the chance of paper jams. |
|  <br>rear push | To use this tractor, load paper in the rear slot.<br><br>Note:<br>Because thick multipart forms require a straight paper path, load them in the front slot.<br><br>Caution:<br>Do not load continuous paper with labels in the rear slot. The labels may come off their backing sheet inside the printer and cause a paper jam. |

### Using a pull tractor (optional)

If you often print on thick or heavy continuous paper, such as multipart 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.

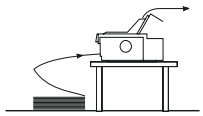
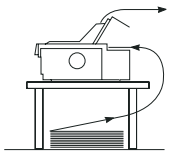
Note:
If you plan to use a pull tractor, you can purchase the optional pull tractor (C80032*) and install it in the pull position.

As shown in the table below, three paper entry slots are available for use with the pull tractor: front, bottom, and rear.

| Paper slot | Description |
|---|---|
|  front | If you print on thick paper such as multipart forms or continuous paper with labels, load it using the front paper slot because the paper path from this slot is almost straight. This reduces the chance of paper jams. |
|  bottom | Because the bottom paper slot has the straightest paper path, it is ideal for printing on thick paper, such as multipart forms or continuous paper with labels.<br><br>Note:<br>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. |
|  rear | You can also load continuous paper onto the pull tractor using the rear slot.<br><br>Note:<br>Because thick multipart forms require a straight paper path, load them in the front slot.<br><br>Caution:<br>Do not load continuous paper with labels in the rear slot. The labels may come off their backing sheet inside the printer and cause a paper jam. |

### Using the push and pull tractors in combination

To improve continuous paper feeding and reduce paper jams, you can use two tractors at the same time. This is especially helpful for printing on continuous preprinted forms, multipart forms, or labels, and for printing high-quality graphics. When using two tractors in combination, you can load paper in the front paper slot onto the front push and the pull tractors, or load paper in the rear paper slot onto the rear push and the pull tractors.

| Combination | Description |
|---|---|
|  front push and pull | To use the front push tractor with the pull tractor, you need to purchase an optional pull tractor (C80032*). Mount the tractor in the front push and pull position. |
|  rear push and pull | To use the rear push tractor with the pull tractor, you need to purchase the optional pull tractor (C80032* ), and install it in the pull position.<br><br>Note:<br>Because thick multipart forms require a straight paper path, load them in the front slot.<br><br>Caution:<br>Do not load continuous paper with labels onto the rear push tractor even when it is used in combination with the pull tractor. If you load continuous paper with labels onto the rear push/pull tractor, the labels may come off their backing sheet inside the printer and cause a paper jam. |

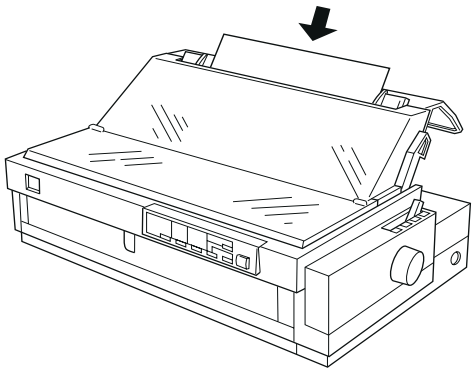
## Printing on Single Sheets

Your printer has two paper entry slots for printing on single sheets: top and front. 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.

This section helps you determine which paper slot best suits your single-sheet printing needs.

### Loading paper in the top slot

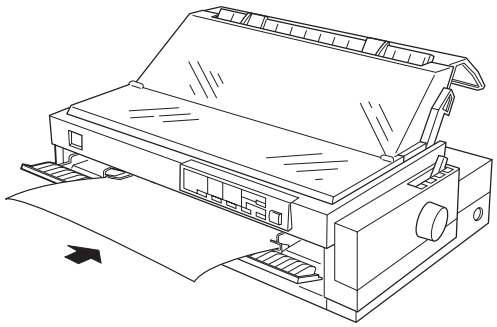
You can load ordinary single sheets, single-sheet multipart forms, envelopes, or postcards in the top slot.



Note:
Load envelopes only in the top slot.

### Loading paper in the front slot

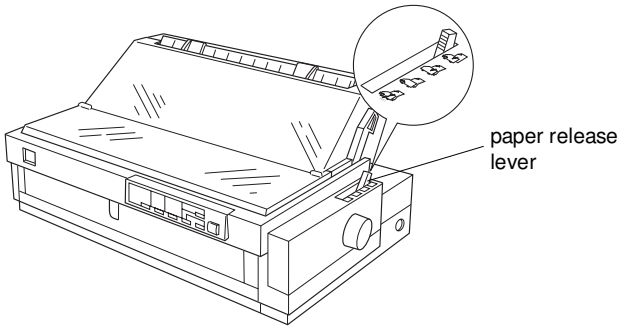
You can load ordinary single sheets, single-sheet multipart forms, or postcards in the front slot.

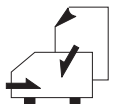


Note:
Always use the front paper slot to load single-sheet multipart forms that are bound by line gluing only at the side.

## Paper Release Lever Positions

You can load paper in the printer from various paper sources, such as the front push tractor or the paper guide. You set the paper release lever to indicate the paper source you want to use. The table below describes each paper release lever position.

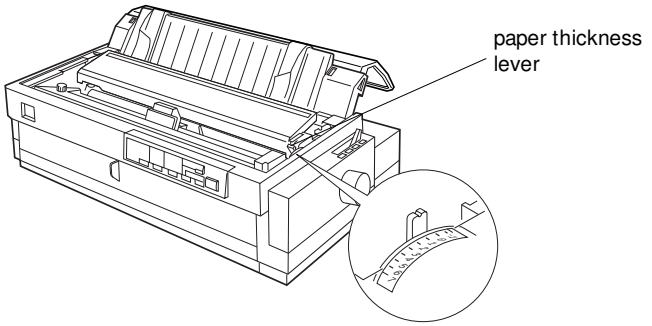



| Paper release lever position | Description |
|---|---|
|  | **Single-sheet position**<br>For loading single-sheet paper from the top or front slot. |
|  | **Rear push tractor position**<br>For loading continuous paper from the tractor installed in the rear push position. Also set the lever to this position when using the rear push and pull tractors in combination. |
|  | **Front push tractor position**<br>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**<br>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 front, rear, or bottom slot. |

Note:
You can load two different types of continuous paper onto the front and rear push tractors, 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

Setting the paper thickness lever allows the printer to accommodate various thicknesses of paper. The paper thickness lever is located under the printer cover. You can select one of nine positions identified by the scale next to the lever.




Use the following table to set the paper thickness lever to match the thickness of your paper.

| Paper type | Lever position |
|---|---|
| Ordinary (single sheets or continuous paper) | -1 or 0 |
| Thin paper | -1 or 0 |
| Carbonless multipart forms with:<br>2 parts (original + 1 copy)<br>3 parts (original + 2 copies)<br>4 parts (original + 3 copies)<br>5 parts (original + 4 copies) | <br>1<br>2<br>3<br>5 |
| Continuous paper with labels | 2 |
| Envelopes | 2 through 5 |
| Postcards | 2 |

Note:
If the printed image is smeared, you may need to set the paper thickness lever one position higher to improve print quality.

If the printed image is faint or has many gaps, you may need to set the paper thickness lever one position lower to improve print quality.

## Paper Handling

### Loading Multipart Forms

You can use carbonless multipart forms of up to five parts (four copies plus the original). Make sure you set the paper thickness lever to the proper position based on the number of layers in your form.

For best results with thick paper such as multipart forms, select a straight or almost straight paper path. It is best to load multipart forms using:

- the front slot and the front push tractor
- the front or bottom slot and the pull tractor

Except for setting the paper thickness lever, you load multipart forms the same way you load ordinary continuous paper.

Note:
Be sure your multipart forms do not exceed 0.015 inch (0.39 mm) in thickness for the printable area and up to 0.035 inch (0.9 mm) for the perforated edges.

Use multipart forms 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 damaged, curled, or wrinkled.

### Loading Continuous Paper with Labels

When printing on labels, use only labels that are mounted on continuous backing sheets with sprocket holes for use with a tractor feeder. Do not print labels on single sheets because the printer may not feed labels on a shiny backing sheet properly.

Thick paper, such as continuous paper with labels, requires a straight or almost straight paper path. You can load labels in the front (push or pull tractor) or bottom (pull tractor) paper slot; however, for best results, use the tractor in the pull position and load paper in the front or bottom paper slot.

You load labels the same way you load ordinary continuous paper, except you must set the paper thickness lever to 2 before printing.

Caution:
Do not load continuous paper with labels in the rear paper slot because the paper path from the rear slot is curved; labels may come off their backing sheet inside the printer and cause a paper jam.

Never use the tear-off feature (by pressing the Tear Off/Bin button or turning on the auto tear-off mode) to feed continuous paper with labels backward; they may come off their backing sheet and jam the printer.

Because labels are sensitive to temperature and humidity, use them only under normal operating conditions, as follows:

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

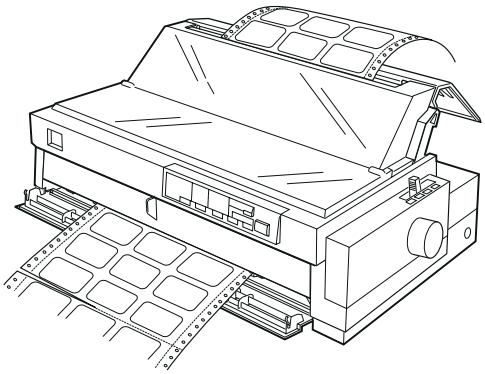
Do not load continuous paper with labels that is damaged, curled, or wrinkled.

Do not leave labels loaded in the printer between jobs; they may curl around the platen and jam when you resume printing.

### Removing continuous paper with labels

To avoid peeling labels off the backing sheet and jamming the printer, follow the steps below when you remove continuous paper with labels from the printer.

1. After you finish printing, 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 fed backward, labels can easily come off the backing sheet and cause a paper jam.

## Using the Front Push Tractor (optional)

To use the front push tractor, you need to purchase the optional tractor unit (C80032*), and install it in the front push position. For more information on when to use the front push tractor, see "Available Paper Paths" on page 8.

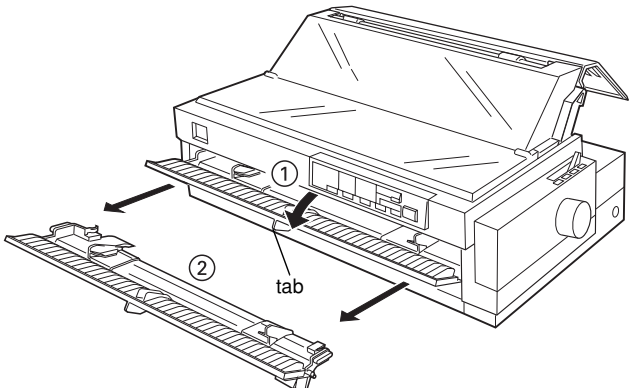
Note:
The tractor is installed in the rear push position only when the printer is shipped. For the front push tractor, purchase the optional tractor unit (C80032*).

### Installing the tractor in the front push position

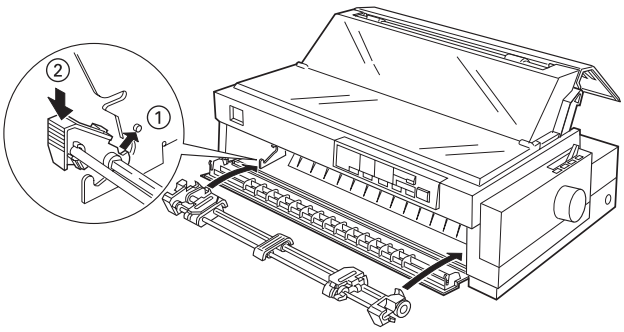
If a tractor is installed in the front push position, skip to the next section, "Loading paper onto the front push tractor."

If a tractor is installed in the pull position, you need to remove it and install the paper tension unit. To install the tractor in the front push position, follow these steps:

1. Make sure the printer is turned off.
2. Open the front paper guide by pulling the tab at the center of the guide. Then remove the guide by grasping both sides and pulling it straight out of the printer.




3. Insert the tractor into the printer's mounting slots and press down both ends of the tractor to make sure that it is firmly seated.

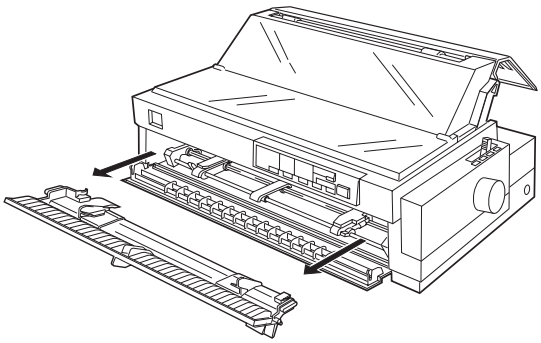



You are now ready to load continuous paper onto the front push tractor as described in the next section.

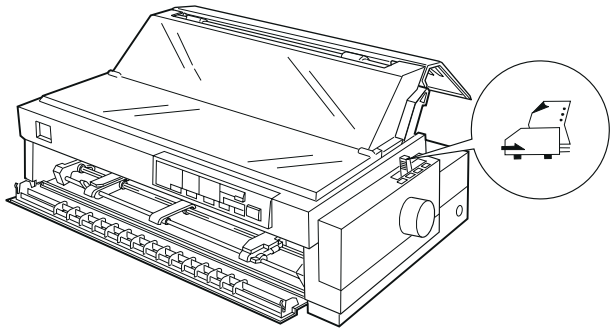
### Loading paper onto the front push tractor

To load paper onto the front push tractor, follow these steps:

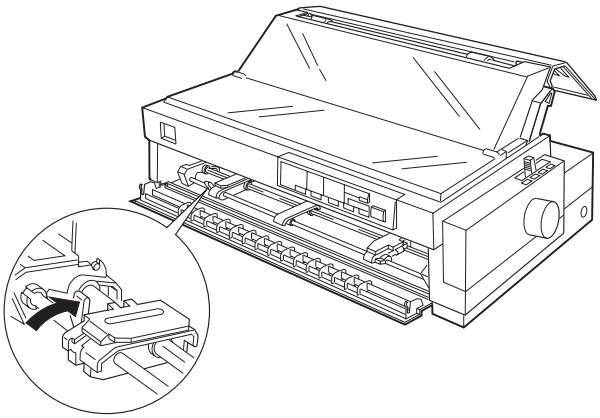
1. Open the front paper guide by pulling the tab at the center of the guide. Then remove the guide by grasping both sides and pulling it straight out of the printer. Check that the tractor is installed in the front push position.



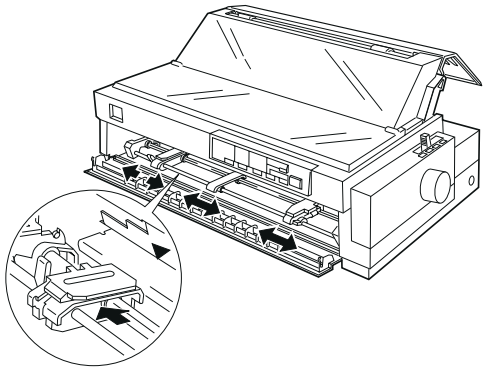
2. Set the paper release lever to the front push tractor position. Then set the paper thickness lever to accommodate your paper thickness.



3. Release the left and right sprockets by pushing the sprocket lock levers backward.



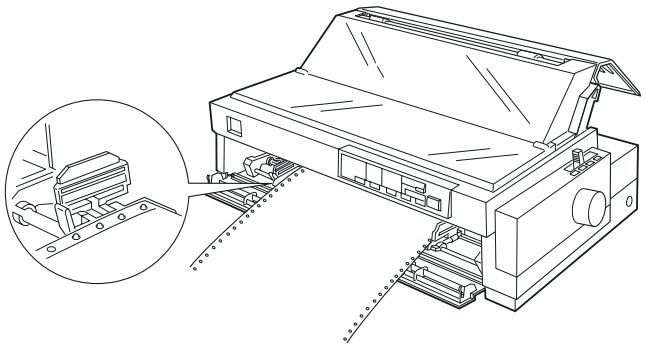
4. Slide the left sprocket to the left margin of your paper using the arrow mark inside the printer. (Printing starts at the arrow mark.) Then pull the lever forward to lock it in place.



Note:
See "Paper Alignment" and "Printable Area" on page 5 for more information on the left margin position.

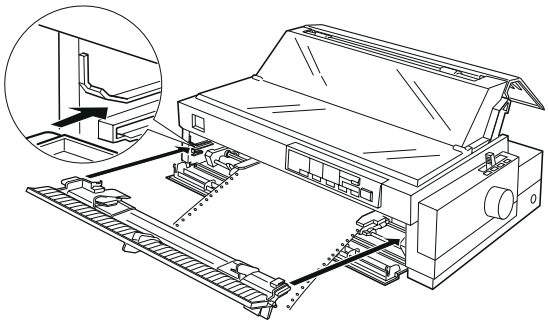
5. Slide the right sprocket to match the width of your paper, but do not lock it. Move the paper support midway between the two sprockets as shown in step 4.

6. Open both sprocket covers. Make sure your paper has a clean, straight edge and fit the first four holes of the paper, printable side up, over the tractor pins. Then close the sprocket covers.

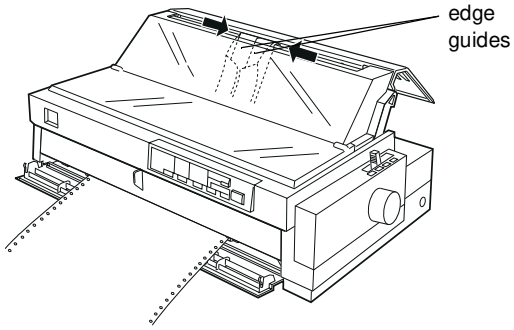


7. Slide the right sprocket to remove any slack in the paper; then lock it in place by pulling the sprocket lock forward.

8. Attach the front paper guide by sliding it along the mounting slots as shown below, and close the front paper guide.

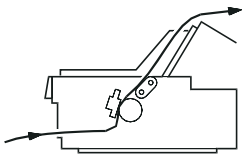


9. Slide the edge guides to the middle of the top paper guide. Make sure the printer and paper guide covers are closed.




Note:
Always close the printer cover before printing. The printer does not print when the cover is open.

10. Turn on the printer. You may need to check and change the printer driver settings. When the printer receives data, it automatically loads the paper and starts printing. The printed pages are fed over the paper guide toward the back of the printer.



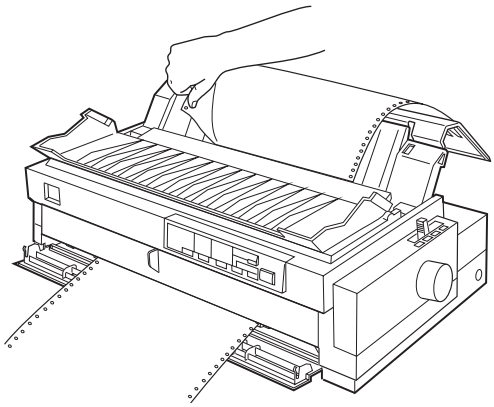
After you finish printing, follow the steps in the next section to tear off your printed document. If the first printed line on your page appears too high or low, you can fix this using the micro adjust feature as described in "Adjusting the Top-of-Form Position" on page 22.

Caution:
Never use the knob to adjust the top-of-form position while the printer is turned on; this may damage the printer or cause it to lose the top-of-form position. The knob can be used when the printer is turned off only.

**Removing the printed document from the front push tractor**

To remove the printed document, follow these steps:

1. Make sure the Tear/Off Bin lights are flashing. (This indicates that your paper is at the current tear-off position.) You may need to press the Tear Off/Bin button to advance the paper to the tear-off position.
2. Open the paper guide cover, and tear off the printed document using the tear-off edge of the printer.



Note:
If the paper perforation is not properly aligned with the tear-off edge, you can adjust the tear-off position using the micro adjust feature. See " Adjusting the tear-off position" on page 23.

Caution:
Never use the knob to adjust the tear-off position while the printer is turned on; this may damage the printer or cause it to lose the tear-off position. The knob can be used when the printer is turned off only.

3. Close the paper guide cover.

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

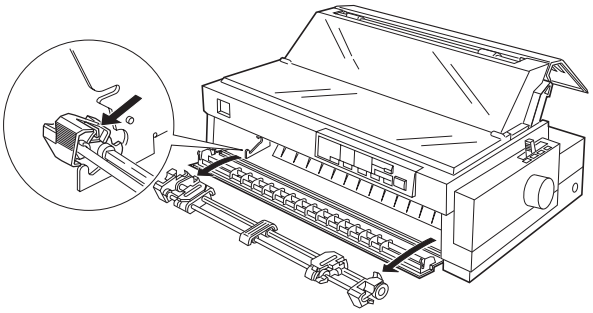
To remove the remaining paper from the printer, press the Load/Eject button to feed the paper backward to the standby position. Then open the sprocket covers of the tractor and remove the paper.

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

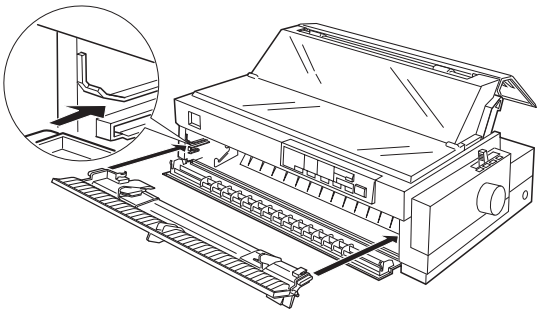
### Removing the front push tractor

To remove the tractor from the front push position, follow these steps:

1. Remove any paper from the tractor as described in the previous section.
2. Turn off the printer.
3. Open the front paper guide by pulling the tab at the center of the guide. Then remove the guide by grasping both sides and pulling it straight out of the printer.
4. Press the tractor lock tabs, tilt the tractor up, and lift it out of the printer.



5. Replace the front paper guide by sliding it along the printer mounting slots until it locks in place. Then close the front paper guide.



## Using the Rear Push Tractor

To use the rear push tractor, load continuous paper in the rear slot. For information on when to use the rear push tractor, see "Available Paper Paths" on page 8.

### Loading paper onto the rear push tractor

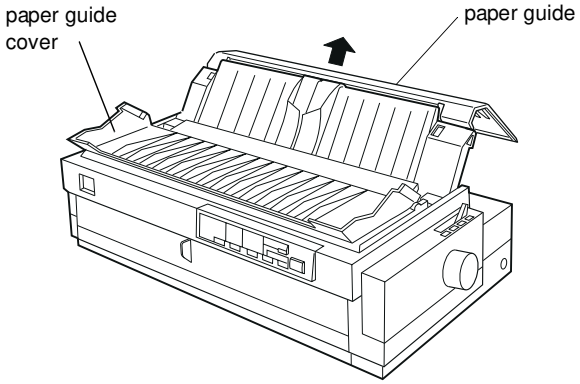
If a tractor is installed in the pull position, you need to remove it and install the paper tension unit

Note:
To avoid paper jams, it is best to load thick multipart forms using the front or bottom slot and pull or front push tractor.

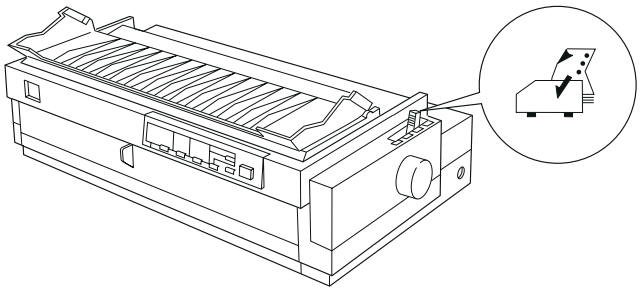
Caution:
Do not load continuous paper with labels in the rear paper slot; the labels may come off their backing sheet inside the printer and cause a paper jam.

To load paper onto the rear push tractor, follow these steps:

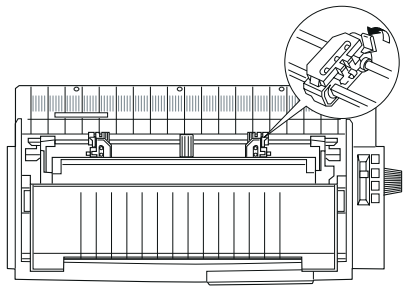
1. Make sure the printer is turned off.
2. Open the paper guide cover and remove the paper guide.




3. Set the paper release lever to the rear push tractor position. Then set the paper thickness lever to accommodate your paper thickness.

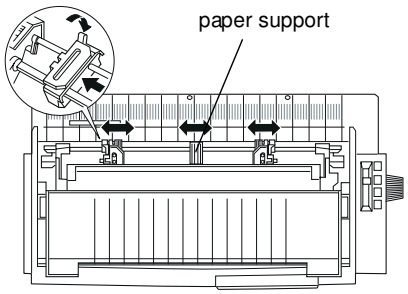


4. Release the left and right sprockets by pulling the sprocket lock levers forward.



front of the printer

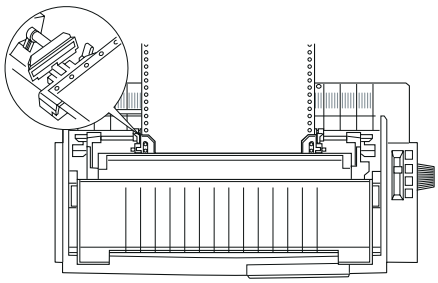
5. Slide the left sprocket to the left margin of the paper using the scale on the printer. (Printing starts at the arrow mark.) Then push the lever back to lock it in place.




front of the printer

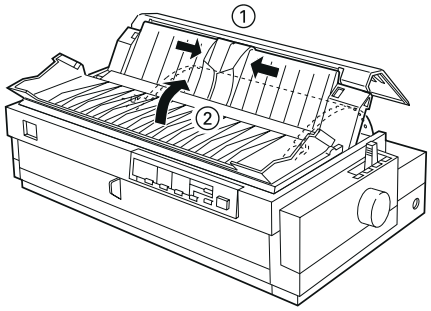
Note:
For more information on the left margin position, see "Paper Alignment" and "Printable Area" on page 5.

6. Slide the right sprocket to match the width of your paper, but do not lock it. Move the paper support midway between the two sprockets as shown above.
7. Open both sprocket covers. Make sure your paper has a clean, straight edge and fit the first four holes of the paper, printable side down, over the tractor pins. Then close the sprocket covers.



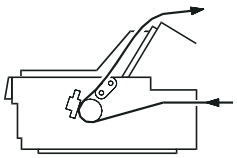
front of the printer

8. Slide the right sprocket to remove any slack in the paper; then lock it in place by pushing the sprocket lock back.
9. Attach the paper guide and slide the edge guides (①) to the middle of the paper guides. Then close the paper guide cover (②).




Note:
Always close the printer cover before printing. The printer does not print when the cover is open.

10. Turn on the printer. You may need to check and change the printer driver settings. When the printer receives data, it automatically loads the paper and starts printing. The printed pages are fed over the paper guide toward the back of the printer.



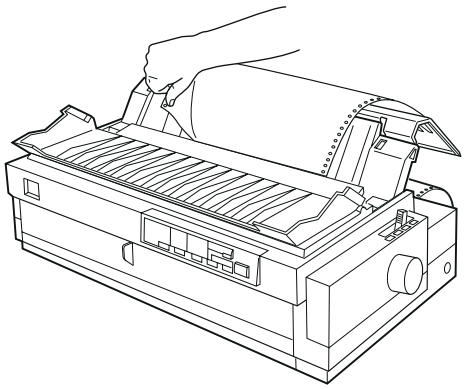
After you finish printing, follow the steps in the next section to tear off your printed document. If the first printed line on your page appears too high or low, you can fix this using the micro adjust feature as described in "Adjusting the Top-of-Form Position" on page 22.

Caution:
Never use the knob to adjust the top-of-form position while the printer is turned on; this may damage the printer or cause it to lose the top-of-form position. The knob can be used when the printer is turned off only.

### Removing the printed document from the rear push tractor

To remove the printed document, follow these steps:

1. Make sure the Tear Off/Bin lights are flashing. (This indicates your paper is at the current tear-off position.) You may need to press the Tear Off/Bin button to advance the paper to the tear-off position.
2. Open the paper guide cover, and tear off the printed document using the tear-off edge of the printer.



Note:
If the paper perforation is not properly aligned with the tear-off edge, you can adjust the tear-off position using the micro adjust feature. For more information, see "Adjusting the tear-off position" on page 23.

Caution:
Never use the knob to adjust the tear-off position while the printer is turned on; this may damage the printer or cause it to lose the tear-off position. The knob can be used when the printer is turned off only.

3. Close the paper guide cover.
4. To remove the remaining paper from the printer, press the Load/Eject button to feed the paper backward to the standby position. Then open the sprocket covers of the tractor and remove the paper.

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

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

## Using the Tractor in the Pull Position

Using the tractor in the pull position is ideal for printing on thick and heavy continuous paper, such as multipart forms or continuous paper with labels. However, you cannot use the tear-off feature with the pull tractor.

When the pull tractor is installed, you can load paper from the rear slot. However, this paper path is not recommend with thick paper because it requires a straight paper path; the path from the rear slot is curved. To avoid paper jams, it is best to load paper in the front or bottom slot.

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

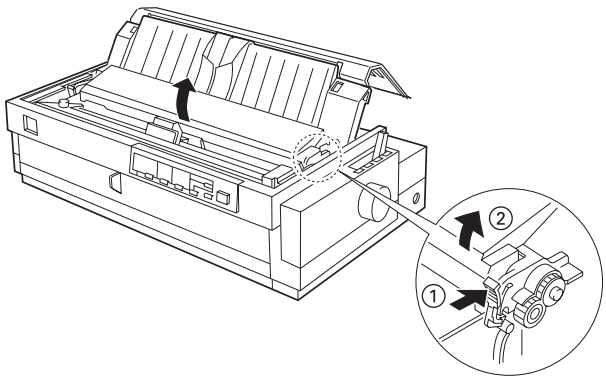
### Installing the tractor in the pull position

To install a tractor in the pull position, you must install the optional pull tractor (C80032*). To remove the front push tractor, see "Removing the front push tractor" on page 15.

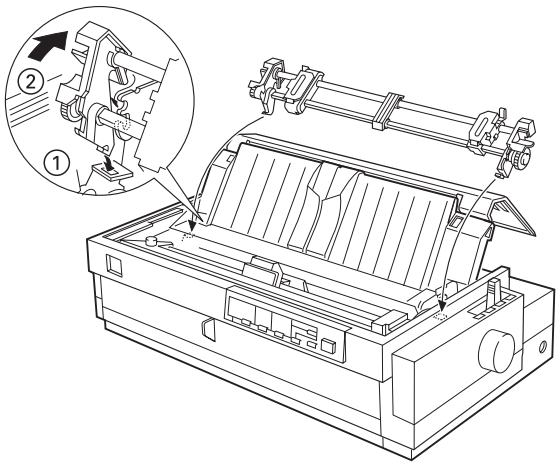
Note:
The tractor is installed in the rear push position only when the printer is shipped. The rear push tractor cannot be removed.

To install a tractor in the pull position, follow these steps:

1. Make sure the printer is turned off. Lift the printer cover up and off the printer.
2. Push up the tabs on each side of the paper tension unit and lift the unit up and off the printer. Store the paper tension unit in a safe place.



3. Lower the tractor into the printer mounting slots and press down both ends of the tractor to make sure that it is firmly seated.



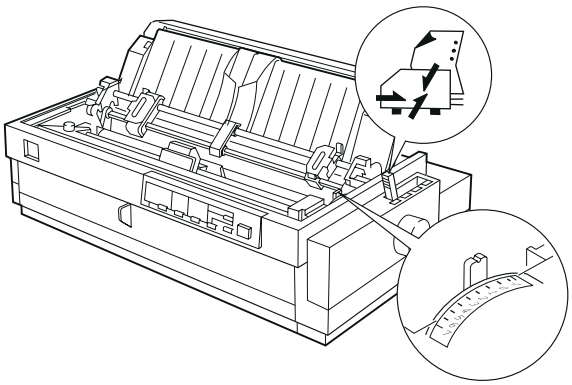

You are now ready to load continuous paper onto the pull tractor as described in the next section.

### Loading paper onto the pull tractor

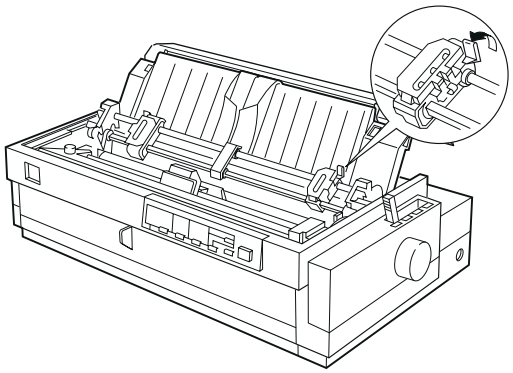
When using the pull tractor, load continuous paper in the front or bottom slot, if possible; loading paper in the rear slot may increase the chance of a paper jam.

To load paper onto the pull tractor, follow these steps:

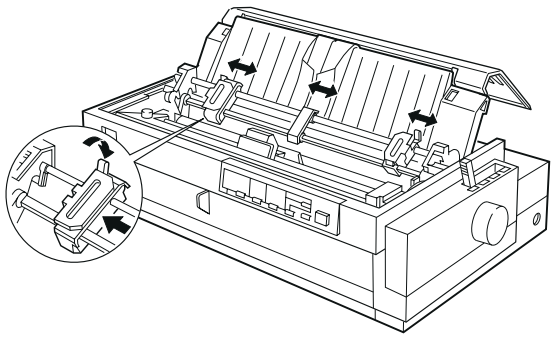
1. Make sure the printer is turned off and the printer cover is removed. Also check that a tractor is installed in the pull position.
2. Slide the edge guides to the middle of the paper guide.
3. Set the paper release lever to the front push tractor position. Then set the paper thickness lever to accommodate your paper thickness.



4. Release the left and right sprockets by pulling the sprocket lock levers forward.



5. Slide the left sprocket to the left margin of the paper using the scale on the paper guide. (Printing starts at the arrow mark.) Then push the lever back to lock it in place.

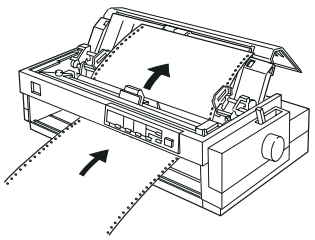


Note:
See "Paper Alignment" and "Printable Area" on page 5 for more information on the left margin position.

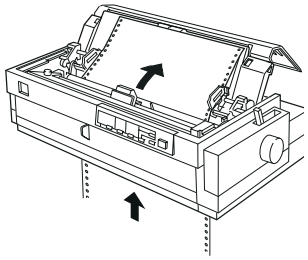
6. Slide the right sprocket to match the width of your paper, but do not lock it. Move the paper support midway between the two sprockets as shown above. Then open both sprocket covers.
7. Make sure your paper has a clean, straight edge.

8. Insert the paper into the front, bottom, or rear paper slot as described below until it emerges between the platen and the ribbon guide. Then pull up the paper until the perforation between the first and second page is even with the top of the printer's ribbon.

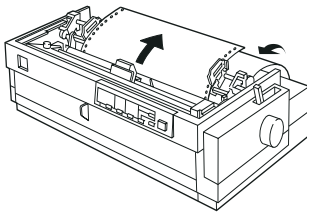
Before you load paper in the front slot, remove the front paper guide. Then load paper printable side up.



Load paper in the bottom slot printable side up (forward).

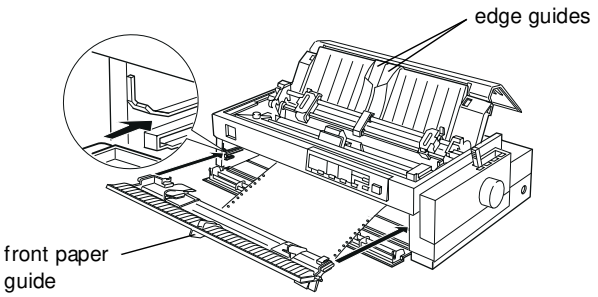


Before you load paper in the rear slot, remove the paper guide. Then load paper in the rear slot printable side down.



9. Fit four holes of the paper over the tractor pins on both sprockets. Then close the sprocket covers.
10. Slide the right sprocket to remove any slack in the paper; then lock it in place by pushing the sprocket lock back.
11. If you use the front slot, attach the front paper guide with the continuous paper positioned as shown below. Then close it.

    If you use the rear slot, replace the paper guide and make sure the edge guides are together in the middle of the paper guide.




12. Turn on the printer. Remove any slack in the paper and adjust the top-of-form position by pressing the LF/FF button or using the micro adjust feature. (To use the micro adjust feature, see "Adjusting the Top-of-Form Position" on page 22.) The printer will start printing at the current position without advancing the paper.

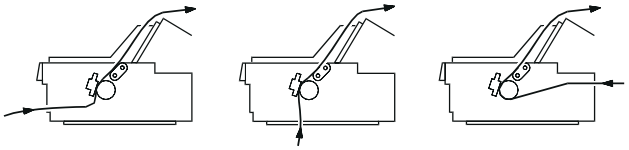
Caution:
Never use the knob to remove slack in the paper or to adjust the top-of-form position while the printer is turned on; this may damage the printer or cause it to lose the top-of-form position. The knob can be used only when the printer is turned off.

Always remove any slack from the paper; otherwise print quality may be reduced.

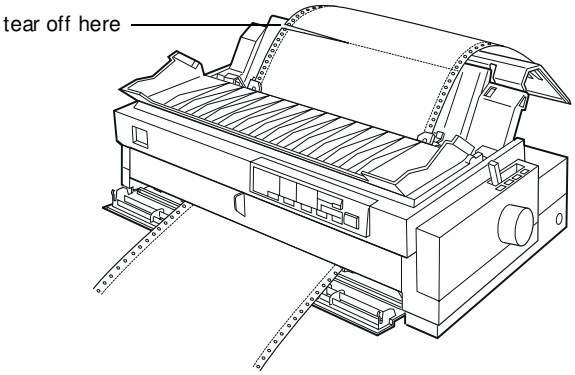
13. Attach the printer cover and close the paper guide cover.

    Note:
    Always close the printer cover before printing. The printer does not print when the cover is open.

14. You may need to check and change the printer driver settings. When the printer receives data, it automatically loads the paper and starts printing. As shown below, the printed pages are fed over the paper guide toward the back of the printer.

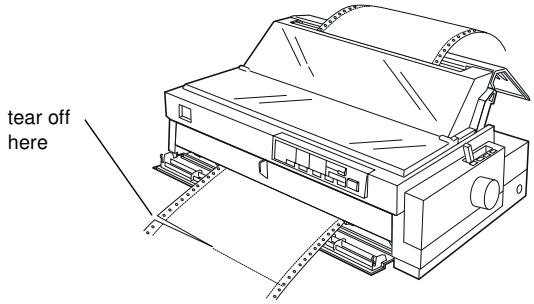


15. After you finish printing, open the paper guide cover; then tear off the printed document at the perforation nearest the paper exit slot.



### Removing paper from the pull tractor

1. After you finish printing, tear off the of paper at the perforation nearest the paper entry slot.




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

### Using two tractors in a push and pull combination

You can use two tractors at the same time to reduce paper jams and improve continuous paper feeding. You can load paper onto both the front push and pull tractors in the front paper slot, or you can load paper onto both the rear push and pull tractors in the rear paper slot.

To use the rear push tractor with the pull tractor, you need to purchase the optional tractor unit (C80032*). To use the front push and pull tractor, you need to purchase two optional pull tractors (C80032*). Install the optional pull tractors as described in "Installing the tractor in the front push position" on page 12 and in "Installing the tractor in the pull position" on page 17.

Note:
The tractor in the rear push position cannot be removed.

To load paper onto two tractors, follow these steps:

1. Remove the printer cover and paper guide.
2. Make sure one tractor is in the front or rear push position and one tractor is in the pull position. Set the paper release lever to either the front or rear push tractor position, depending on which tractor you use. Then set the paper thickness lever to accommodate your paper thickness.
3. Load paper onto the front or rear push tractor you want to use.
4. Turn on the printer. Press the Load/Eject button to advance the paper to the top-of-form position. Then press the LF/FF button until the perforation between the first and second page is even with the top of the printer ribbon.

Caution:
Never use the knob to adjust the top-of-form position while the printer is turned on; this may damage the printer or cause it to lose the top-of-form position. The knob can be used only when the printer is turned off.

5. Attach the paper to the pull tractor sprockets as described in "Loading paper onto the pull tractor" on page 18.
6. Set the paper release lever to the pull tractor position. Then remove any slack in the paper between the push and pull tractors using the micro adjust feature, if necessary.
7. Move the paper release lever back to the push tractor position you set in step 2.
8. Adjust the top-of-form position using the micro adjust feature as described in "Adjusting the Top-of-Form Position" on page 22. The printer will start printing at the current position without advancing the paper.

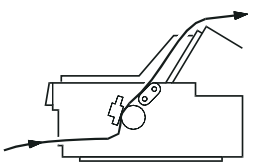
Caution:
Never use the knob to remove slack in the paper or to adjust the top-of-form position while the printer is turned on; this may damage the printer or cause it to lose the top-of-form position. The knob can be used only when the printer is turned off.

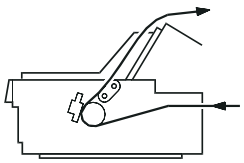
Always remove any slack from the paper; otherwise print quality may be reduced.

9. Attach the paper guide. Then slide the edge guides to the middle of the paper guide.
10. Attach the printer cover and close the paper guide cover.

Note:
Always close the printer cover before printing. The printer does not print when the cover is open.

11. You may need to check and change the printer driver settings. When the printer receives data, it automatically loads the paper and starts printing. As shown below, the printed pages are fed over the paper guide toward the back of the printer.



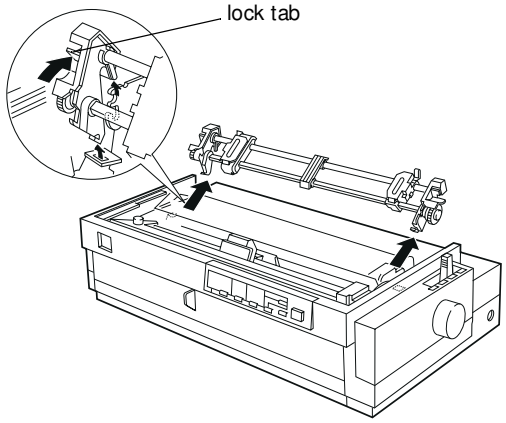


12. After you finish printing, open the paper guide cover; then tear off the printed document at the perforation nearest the paper exit slot.

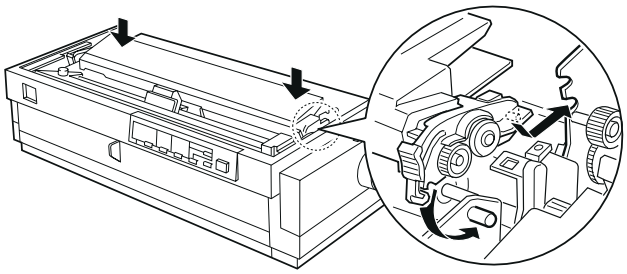
### Removing the pull tractor

To remove the tractor from the pull position, follow these steps:

1. Remove any paper loaded on the pull tractor.
2. Turn off the printer. Then remove the printer cover and lift the paper guide up and off the printer.
3. Press the tractor lock tabs, tilt the tractor toward you, and lift it off the printer. Store the tractor in a safe place, or install it in the front push position.




4. Replace the paper tension unit by lowering onto the printer mounting pegs. Then press down both ends of the unit until it clicks into place.



5. Replace the paper guide and printer cover. Then close the paper guide cover.

## Switching Between Printing on Continuous Paper and Printing on Single Sheets

With the push tractor installed, you can easily switch back and forth between printing on continuous paper and printing on single sheets without having to remove or reload paper.

### Switching to printing on single sheets

To switch between printing on continuous paper to single sheets with the front or rear push tractor, follow the steps below.

Note:
If continuous paper with labels is loaded in the printer, remove it before switching to single-sheet printing. See " Removing continuous paper with labels" on page 12.

If a tractor is in the pull position, remove any continuous paper from it before switching to single-sheet printing. See " Removing paper from the pull tractor" on page 20.

1. Remove any printed pages of continuous paper that remain in the printer. Press the Tear Off/Bin button to advance them to the tear-off position, and 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 position.

2. Press the Load/Eject button to feed the continuous paper backward to the standby position. The paper is still attached to the push tractor but is no longer in the paper path.
3. Load single sheets in the top or front paper guide.

### Switching to printing on continuous paper

To switch between printing on single sheets to 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 turned on; this may damage the printer. The knob can be used only when the printer is turned off.

2. Make sure that the tractor is installed in the push position you want to use.
3. Load continuous paper onto the front or rear push tractor as described earlier.

The printer loads the continuous paper automatically when you begin printing.

## Adjusting the Top-of-Form Position

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

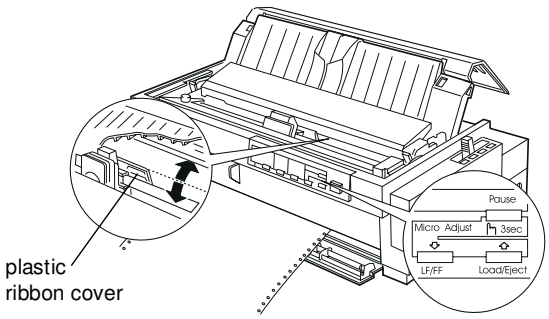
Caution:
Never use the knob to adjust the top-of-form position while the printer is turned on; this may damage the printer or cause it to lose the top-of-form position. The knob can be used when the printer is turned off only.

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. If necessary, load the paper you want to use. If you load paper onto a push tractor, press the Load/Eject button to advance the paper to the current top-of-form position.
2. Lift the printer cover up and off the printer.
3. Hold down the Pause button for about three seconds. The Pause light flashes and the printer enters the micro adjust mode.
4. Press the LF/FF ⬇ button to move the top-of-form position up on the page, or press the Load/Eject ⬆ button to move the top-of-form position down on the page.

Caution:
Never use the knob to adjust the top-of-form position while the printer is turned on; this may damage the printer or cause it to lose the top-of-form position. The knob can be used when the printer is turned off only.

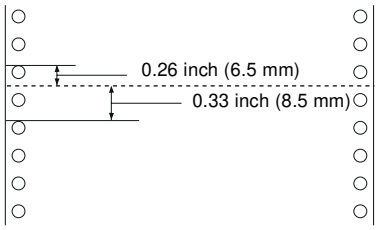



Note:
The printer has a minimum and a maximum top-of-form position. If you try to adjust it beyond these limits, the printer beeps and stops moving the paper.

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 0.26 inch (6.5 mm) 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 a 0.33 inch (8.5 mm) margin on the next page, which means the printer starts printing 0.33 inch (8.5 mm) below the perforation. If you mark a point 0.22 inch (5.5 mm) above the perforation, you get a 0.37 inch (9.5 mm) margin on the next page.




5. After you set the top-of-form position, press the Pause button to exit the 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 tear-off edge when you finish printing. You can then easily tear off the printed document. When you resume printing, the printer automatically feeds the paper back to the top-of-form position so that you can save the paper normally lost between documents.

As described in the next section, 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.

If the perforation between pages is not aligned with the tear-off edge, you can adjust the position of the perforation using the micro adjust feature. For instructions, see "Adjusting the tear-off position" on page 23.

Caution:
Never use the tear-off feature (by pressing the Tear Off/Bin button or turning on the auto tear-off mode) to feed continuous paper with labels backward; they may come off their backing sheet and jam the printer.

### Using the Tear Off/Bin button

After the printer finishes printing your document, check that the Tear Off/Bin lights are not flashing. Then press the Tear Off/Bin button. The Tear Off/Bin lights start flashing and the printer advances 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 "About Your Printer's Default Settings" on page 25.

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.

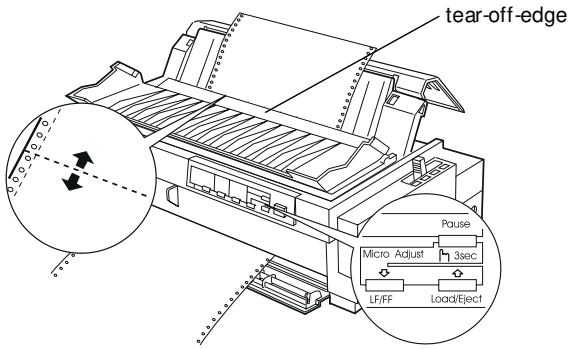
### Adjusting the tear-off position

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 while the printer is turned on; this may damage the printer or cause it to lose the tear-off position. The knob can be used when the printer is turned off only.

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). If necessary, press the Tear Off/Bin button to advance the paper to the tear-off position.
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 LF/FF ⬇ button to feed the paper backward, or press the Load/Eject ⬆ button to feed the paper 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. After you set the tear-off position, press the Pause button to turn off the micro adjust mode.
6. 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.

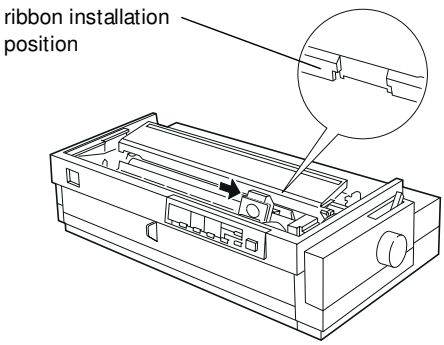
## Installing the Ribbon Cartridge

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

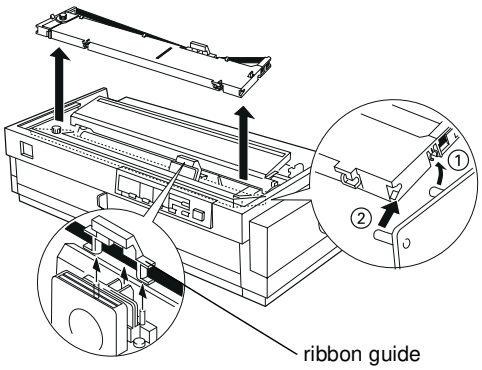
Caution:
Make sure the printer is off and unplugged from the electrical outlet. Moving the print head while the printer is on may damage the printer.

1. Make sure the printer is turned off. If the printer is connected to an electrical outlet, unplug it from the outlet.
2. Lift the printer cover by its back edge and then pull it straight up and off.
3. Slide the print head to the ribbon installation position (the indented portion of the paper tension unit) by hand.

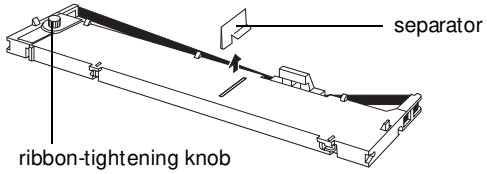
   Note:
   When you use the pull tractor, you can replace the ribbon cartridge even when the print head is not in the ribbon installation position.



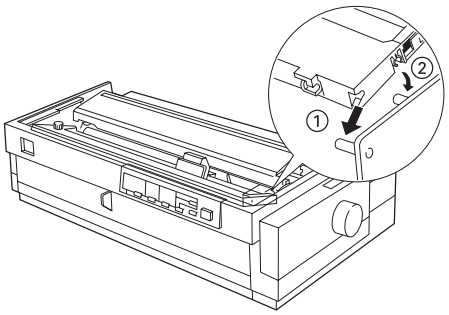

4. If a cartridge is installed, grasp the cartridge and pull it slightly forward and up; the ribbon guide snaps away from the metal pins behind the print head. Properly dispose of the used ribbon cartridge.



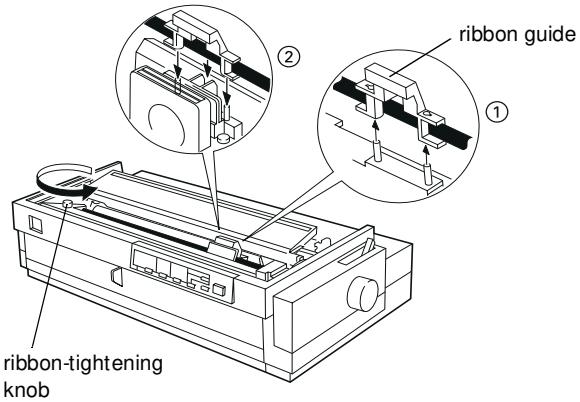

5. After you remove the new ribbon cartridge from the package, remove the separator from the middle of the ribbon cartridge and discard the separator. Then turn the ribbon-tightening knob in the direction of the arrow to remove any slack in the ribbon.



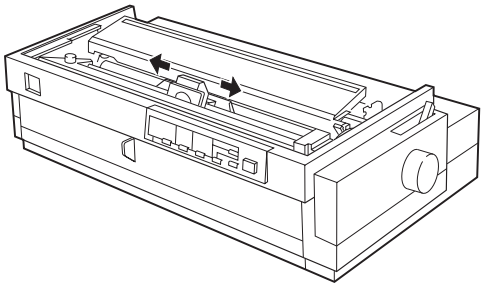

6. Hold the cartridge with the ribbon-tightening knob up. Fit the two front notches (①) of the ribbon cartridge over the small pegs on each side of the printer as shown below. Then lay the cartridge flat so that the rear notches (②) fit over the corresponding pegs.




7. Gently press down the cartridge until both ends click into place.
8. Lift the ribbon guide of the ribbon cartridge (①) and insert it firmly 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. Press down the guide until it clicks into place.



9. To remove any slack in the ribbon, turn the ribbon-tightening knob in the direction of the arrow shown in step 8. Then slide the print head from side to side to make sure it moves smoothly.



10. Replace the printer cover.

## Clearing Paper Jams

To clear a paper jam, follow these steps:

1. Press the Operate button to turn off the printer.
2. If a single-sheet of paper is stuck on the paper guide, gently remove it.
3. Remove the printer cover. If you are loading continuous paper from the rear slot, remove the paper guide.
4. If continuous paper is jammed in the printer, tear off the fresh supply at the perforation nearest the paper entry slot.
5. 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:
Use the knob on the right side of the printer only to clear paper jams when the printer is off. Otherwise, you may damage the printer or lose the top-of-form or tear-off position.

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

## Your Printer's Default Settings

The printer's 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 following table lists the default settings (highlighted in bold text) and the options you can select in the default-setting mode. To change the default settings, see the next section, "Changing Default Settings."

| Settings | Options |
|---|---|
| Page length for front tractor* | Length in inches: 3, 3.5, 4, 5.5, 6, 7, 8, 8.5, **11**, 70/6, 12, 14, 17 |
| Page length for rear tractor* | Length in inches: 3, 3.5, 4, 5.5, 6, 7, 8, 8.5, **11**, 70/6, 12, 14, 17 |
| Skip over perforation | On, **Off** |
| Auto tear off | On, **Off** |
| Auto line feed | On, **Off** |
| Print direction | **Auto**, Bi-D, Uni-D |
| I/F mode | **Auto**, Parallel, Optional |
| Auto I/F wait time | **10 seconds**, 30 seconds |
| Software | **ESC/P2**, IBM 2391 Plus |
| Character table | Standard model:<br>Italic, **PC 437**, PC 850, PC 860, PC 863, PC 865, PC 861, BRASCII, Abicomp, Roman 8, ISO Latin 1, PC 858, ISO 8859-15<br>All other models:<br>Italic, PC 437, PC 850, PC 437 Greek, PC 853, PC 855, PC 852, PC 857, PC 864, PC 866, PC 869, MAZOWIA, Code MJK, ISO 8859-7, ISO Latin 1T, Bulgaria, PC 774, Estonia, ISO 8859-2, PC 866 LAT, PC 866 UKR, PC APTEC, PC 708, PC 720, PC AR864, PC 860, PC 865, PC 861, PC 863, BRASCII, Abicomp, Roman 8, ISO Latin 1, PC 858, ISO 8859-15 |
| International character set for Italic table | **Italic U.S.A**, Italic France, Italic Germany, Italic U.K., Italic Denmark1, Italic Sweden, Italic Italy, Italic Spain1 |
| 0 slash | **Ø**, Ø |
| High-speed draft | **On**, Off |
| Input buffer | **On**, Off |
| Buzzer | **On**, Off |
| Auto CR (IBM 2391 Plus)** | On, **Off** |
| A.G.M. (IBM 2391 Plus)** | On, **Off** |
| Font | **OCR-B**, Orator, Orator-S, Script C, Roman T, Sans Serif H |
| Roll paper | On, **Off** |

* The options available vary depending on the country.

** These settings take effect only when IBM 2391 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 three sheets of letter- or A4-size single-sheet paper or three pages of continuous paper that is at least 11 inches (279 mm) long and 8.3 inches (210 mm) wide.

If you use single sheets, you need to load a new sheet of paper each time the printer ejects a printed sheet.

You may exit the default-setting mode at any time by turning off the printer when the printer is not printing.

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. Hold down the Condensed button while you 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 Font button until the Font lights indicate the language you want, as described in the language selection instructions.
4. Press the Condensed button to print the default-setting mode instructions (two pages) in the language you selected.

   The printed instructions list the default settings you can change, describe how to change them, and show you how the control panel lights help you make settings. Follow these instructions to change the default settings using the buttons on the printer's control panel.

   Note:
   The arrows on the instruction sheets indicate the printer's current settings.
5. When you finish making your settings, press the Operate button to turn off the printer and exit the default-setting mode. Any settings you make 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 sheets of A3-size single-sheet paper or four pages of continuous paper that are at least 11 inches (279 mm) long and 14.8 inches (376 mm) wide.

If you use single sheets, you need to load a new sheet of paper each time the printer ejects a printed sheet onto the paper guide.

Follow these steps to perform the bidirectional adjustment:

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. 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. After you select the best pattern in the final set of alignment patterns, press the Operate button to turn off the printer and exit the bidirectional adjustment mode. Your selections are saved automatically.

## Printing a Self Test

Running the printer's self test helps you determine whether the printer or the computer is the cause of a printing problem. 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.

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 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 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 test prints faster than the 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.

   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. See "Problems and Solutions" in your *User's Guide* for possible causes and solutions to the problem.

3. To end the self test, press the Pause button to stop printing and the Load/Eject button to eject the printed page. Then turn off the printer.

## Printing a Hex Dump

If you are an experienced user or a programmer, 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 received 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.

```
Hex Dump

1B 40 0D 1B 74 01 1B 36 1B 52 00 1B 50 1B 28 55    .@..t..6.R..P.(U
01 00 0A 1B 28 43 02 00 78 0F 1B 28 63 04 00 3C    ....(C..x..(c..<
00 3C 0F 1B 19 30 0D 1B 4A 18 1B 24 AA 05 1B 2A    .<...0..J..$¬..*
27 24 00 00 00 08 00 00 08 00 00 08 00 00 08 00    '$..............
00 08 00 00 08 00 00 08 00 00 08 00 00 08 00 00    ................
08 00 00 08 00 00 08 00 00 08 00 00 08 00 00 08    ................
00 00 08 00 00 08 00 00 08 00 00 08 00 00 08 00    ................
00 08 00 00 08 00 00 08 00 00 08 00 00 08 00 00    ................
08 00 00 08 00 00 08 00 00 08 00 00 08 00 00 08    ................
00 00 08 00 00 08 00 00 08 00 00 08 00 00 08 0D    ................
1B 4A 78 1B 24 0A 01 1B 2A 27 EC 03 00 00 38 00    .Jx.$...*'ì...8.
10 44 00 10 82 00 21 02 00 21 02 00 21 02 00 21    .D..é.!..!..!..!
02 00 21 02 00 21 04 00 21 04 00 11 08 00 0F FE    ..!..!..!.......■
```

   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(s). Then turn off the printer.

## Cleaning the Printer

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

1. Make sure the printer is turned off. Then remove any paper loaded in the printer.
2. Remove the paper guide. If a pull tractor or an optional cut-sheet feeder is installed, remove it.
3. Use a soft brush to carefully brush away all dust and dirt from the outer case and paper guide.
4. 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.

## Transporting the Printer

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

Warning:
You will need to move the print head by hand to remove the ribbon cartridge. If you have just used the printer, the print head may be hot; let it cool for a few minutes before touching it.

1. Turn off the printer.
2. Unplug the power cord from the electrical outlet; then disconnect the interface cable from the printer.
3. Remove any paper loaded in the printer, and remove the paper guide. Pull out the paper separator from the paper guide.
4. If a pull tractor is installed, remove it. If any options are installed, remove them and pack them in their original boxes.
5. Make sure that the print head is not hot. Then remove the ribbon cartridge.
6. Remove the paper tension unit. Attach the protective locking clips on both sides of the printer roller. Then install the paper tension unit.
7. Make sure the tractor that came with your printer is installed in the front push position.
8. Replace the transportation screw using the screwdriver that came with the printer.
9. Repack the printer, ribbon cartridge, paper guide, and paper separator in the original packing materials and place them in the printer's original box.

## Related Documentation

| | |
|---|---|
| 4009917 | EPSON LQ-2080 Quick Reference Guide |
| 4009918 | EPSON LQ-2080 User's Guide |
| 4009919 | EPSON LQ-2080 Unpacking sheet |
| TM-LQ2080 | EPSON LQ-2080 Service Manual |
| PL-LQ2080 | EPSON LQ-2080 Parts Price List |