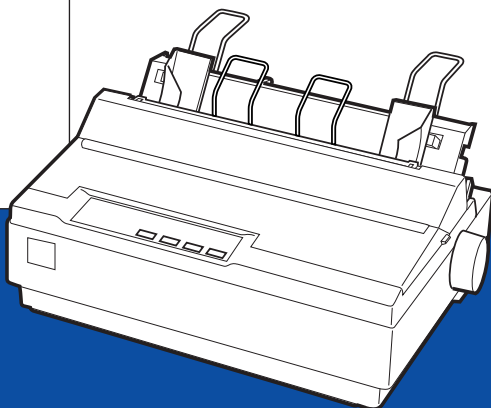


EPSON

24-Pin Dot
Matrix Printer



LQ-300+

User's Guide

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C01

Control Panel Buttons and Lights

Tear Off (Font) lights**

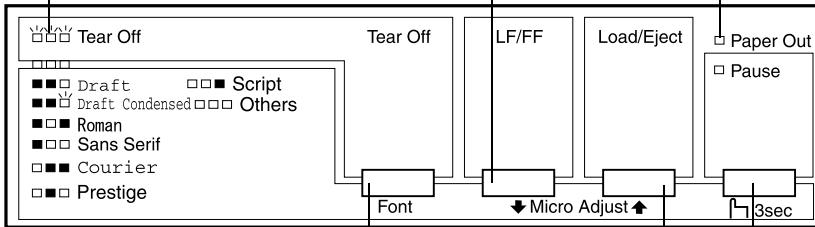
- Flash when continuous paper is in the tear-off position; otherwise, the lights indicate the selected font.

LF/FF button

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

Paper Out light

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



Tear Off (Font) button**

- Advances continuous paper to the tear-off position.
- Feeds continuous paper backward from the tear-off position to the top-of-form position.

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 backwards to the standby position.

Pause button

- Stops printing temporarily, and resumes printing when pressed again. When pressed for three seconds, turns on the Micro Adjust mode*. To turn off, press again.

Pause light

- On when the printer is paused.
- Flashes when the printer is in the Micro Adjust mode*.
- Flashes when the print head has overheated.

*Micro Adjust mode

When you hold down the Pause button for three seconds, the printer enters the micro adjust mode. In this mode, you can press the LF/FF button and Load/Eject button to adjust the top-of-form or tear-off position. See Chapter 2, "Using the Printer."

**Font select

In the Micro Adjust mode, you can select the font to use for printing by pressing the Tear Off button. The Tear Off lights turn on, off or flash to indicate the selected font.

EPSON®

24-Pin Dot Matrix Printer

LQ-300+

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Printed on Recycled Paper.

User's Guide

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Getting to Know Your Printer

Your EPSON® LQ-300+ 24-pin dot matrix printer provides high-quality printing and superior performance in a compact design. Its features include:

- ❑ A variety of paper paths to suit your printing needs.
- ❑ The ability to handle a wide range of paper types, including continuous paper, multipart forms (with one original and up to three copies), labels, single sheets, and envelopes.
- ❑ High-speed printing of up to 300 cps (characters per second) at 10 cpi (characters per inch).

Your printer comes packaged with the printer driver and other software, including the EPSON Status Monitor 3 utility for Microsoft® Windows® Me, 98, 95, 2000, or NT 4.0. The EPSON Status Monitor 3 utility lets you check the status of your printer quickly and easily.

Warnings, Cautions, and Notes

This guide uses the following conventions:



Warnings must be followed to avoid bodily injury.



Cautions must be observed to avoid damage to your equipment.

Notes contain important information and useful tips on the operation of your printer.


Important Safety Instructions

Read all of these safety instructions before using the printer. In addition, follow all warnings and instructions marked on the printer itself.

- ❑ Do not place the printer on an unstable surface or near a radiator or heat source.
- ❑ Place the printer on a flat surface. The printer will not operate properly if it is tilted or placed at an angle.
- ❑ Do not block or cover the slots and openings in the printer's cabinet, and do not insert objects through the slots.
- ❑ Use only the type of power source indicated on the printer's label.
- ❑ Connect all equipment to properly grounded power outlets. Avoid using outlets on the same circuit as photocopiers or air control systems that regularly switch on and off.
- ❑ Do not use a damaged or frayed power cord.
- ❑ If you use an extension cord with the printer, make sure the total ampere rating of all devices plugged into the extension cord does not exceed the cord's ampere rating. Also, make sure that the total ampere of all devices plugged into the wall outlet does not exceed the wall outlet's ampere rating.
- ❑ Unplug the printer before cleaning it, and always clean it with a piece of damp cloth only.
- ❑ Do not spill liquid onto the printer.
- ❑ Except as specifically explained in this guide, do not attempt to service the printer yourself.

- ❑ Unplug the printer and refer servicing to qualified personnel under the following conditions:
 - i. If the power cord or plug is damaged.
 - ii. If liquid has entered the printer.
 - iii. If the printer has been dropped or the cabinet damaged.
 - iv. If the printer does not operate normally or exhibits a distinct change in performance.

- ❑ Adjust only those controls that are covered by the operating instructions.

- ❑  Printer parts marked with this symbol may be hot. Turn off the printer and let it cool for a few minutes before you touch any printer part marked with this symbol.

- ❑ If you plan to use the printer in Germany, observe the following:

To provide adequate short-circuit protection and over-current protection for this printer, the building installation must be protected by a 10- or 16-amp circuit breaker.

Note for German-speaking users:

Bei Anschluss des Druckers an die Stromversorgung muss sichergestellt werden, dass die Gebäudeinstallation mit einer 10 A- oder 16 A-Sicherung abgesichert ist.

Print Head Caution Symbol



This symbol is placed on the print head to indicate that the print head may be hot. Never touch the print head just after the printer has been used. Let the print head cool for a few minutes before touching it.

ENERGY STAR® Compliance



As an ENERGY STAR® partner, EPSON has determined that this product meets the ENERGY STAR® guidelines for energy efficiency.

The International ENERGY STAR® Office Equipment Program is a voluntary partnership with the computer and office equipment industry to promote the introduction of energy-efficient personal computers, monitors, printers, fax machines, copiers, and scanners in an effort to reduce air pollution caused by power generation.

For United Kingdom Users

Use of options

Epson (UK) Limited shall not be liable against any damages or problems arising from the use of any options or consumable products other than those designated as Original EPSON Products or EPSON Approved Products by Epson (UK) Limited.

Safety information



Warning:

This appliance must be earthed. Refer to the rating plate for voltage and check that the appliance voltage corresponds to the supply voltage.

Important: *The wires in the mains lead fitted to this appliance are coloured in accordance to the following code:*

Green and yellow — Earth

Blue — Neutral

Brown — Live

If you have to fit a plug:

As the colours of the mains lead of this appliance may not match coloured markings used to identify the terminals in a plug, please proceed as follows:

The green and yellow wire must be connected to the terminal in the plug which is marked with the letter *E* or the Earth symbol (\perp).

The blue wire must be connected to the terminal in the plug marked with the letter *N*.

The brown wire must be connected to the terminal in the plug marked with the letter *L*.

If damage occurs to the plug, replace the cord set or consult a qualified electrician.

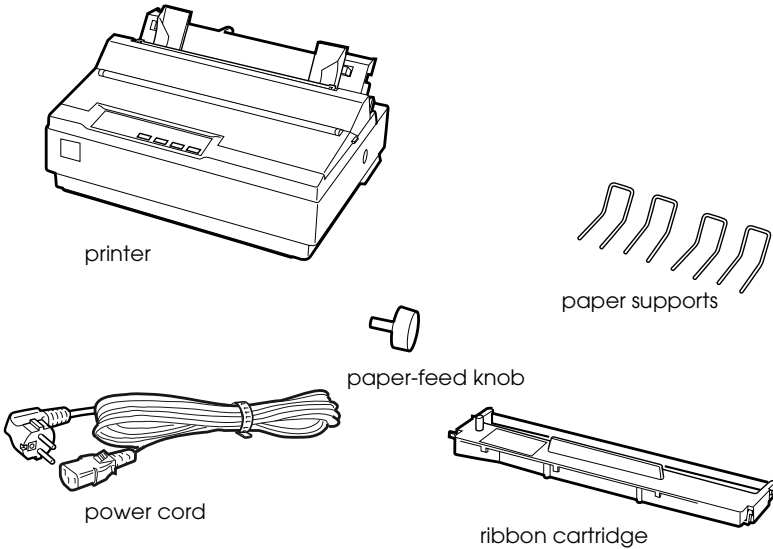
Replace fuses only with a fuse of the correct size and rating.

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Unpacking the Printer

Besides the items shown in the illustration below, the printer box should include an EPSON printer software CD-ROM and a Notice Sheet. Check that everything has been included in the package.



Note:

Depending on your printer model, the power cord may be permanently attached to the printer. Also, the shape of the power cord plug varies depending on the country of purchase; be sure the plug you have is the right one for your location.



Caution:

There are several models of the printer designed for different voltages, and it is not possible to adjust the printer for use with another voltage. If the label on the back of the printer does not show the correct voltage for your country, contact your dealer.

You must remove all protective materials packed around and inside your printer before you set it up and turn on the power. Follow the directions on the Notice Sheet (packed with the printer) to remove these materials.

Save all packing and protective materials in case you need to ship the printer in the future. It should always be transported in its original packing materials.

Choosing a place for the printer

Follow the guidelines below when selecting a location for your printer.

- Place the printer on a flat, stable surface. The printer will not operate properly if it is tilted or placed at an angle.
- Place the printer where you can easily connect it to a network interface cable, if necessary.
- Leave adequate room around the printer for easy operation and maintenance.
- Avoid using or storing the printer in places subject to rapid changes in temperature and humidity. Keep it away from direct sunlight, strong light, heat sources, or excessive moisture or dust.
- Avoid places subject to shocks and vibrations.
- Place the printer near a wall outlet where you can easily unplug the power cord.

Note for French-speaking users:

Placez l'imprimante près d'une prise de contact où la fiche peut être débranchée facilement.

- ❑ Avoid electrical outlets controlled by wall switches or automatic timers. An interruption in power can erase information in the memory of your printer or computer. Also avoid outlets on the same circuit as large motors or other appliances that can cause voltage fluctuations.
- ❑ Keep the entire computer system away from potential sources of electromagnetic interference, such as loudspeakers or the base units of cordless telephones.
- ❑ Use a grounded power outlet; do not use an adapter plug.

If you plan to use a printer stand, follow these guidelines:

- ❑ Use a stand that supports at least 20 kg (44 lb).
- ❑ Never use a stand that tilts the printer. The printer should always be kept level.
- ❑ Position your printer's power cord and interface cable so they do not interfere with paper feeding. If possible, secure the cables to a leg of the printer stand.

Assembling the Printer

This section provides you with information on how to get your printer up and running.

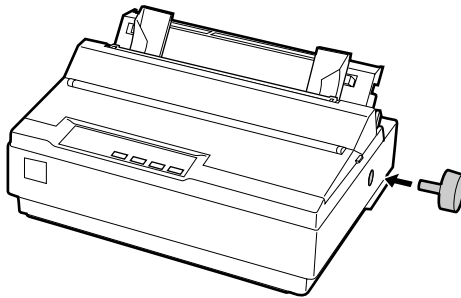
See “Printer Parts” on the last page of this manual for the names of the individual printer parts.

Installing the paper-feed knob

The first step in assembling the printer is installing the paper-feed knob.

Follow these steps to install the paper-feed knob:

1. Insert the knob into the hole on the printer's side and rotate it slowly until it slips onto the shaft.



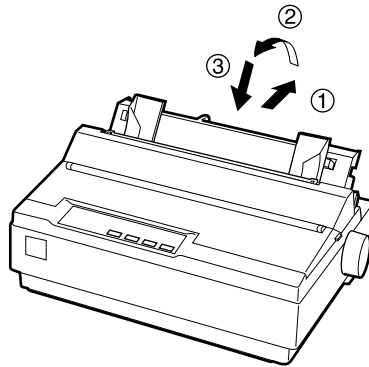
2. Push firmly on the paper-feed knob until it fits against the printer case.

Attaching the paper supports

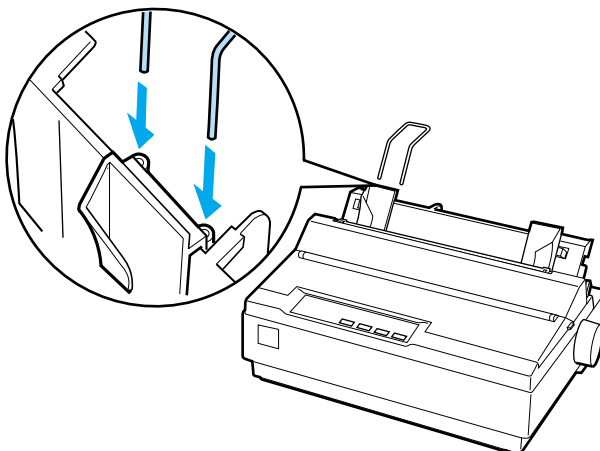
You should install the paper supports before you begin using the printer.

Follow these steps to attach the paper supports onto the printer:

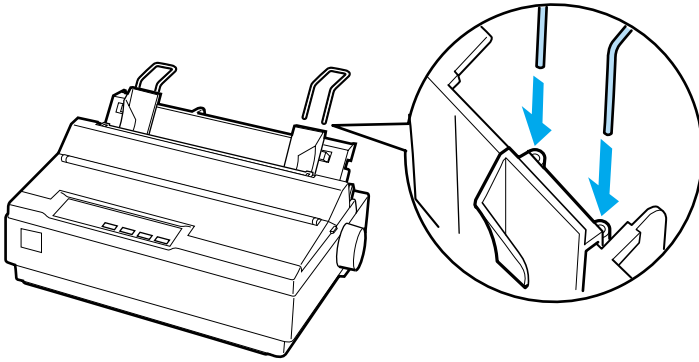
1. Pull the paper guide backward. Raise it up, and then push it firmly until it fits in place.



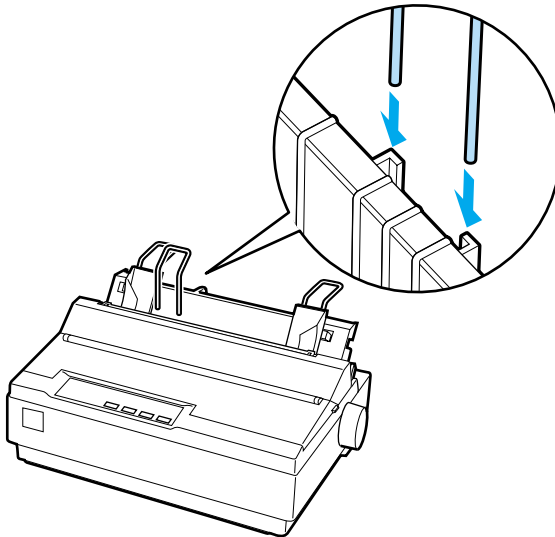
2. Hold one of the paper supports and push the tips into the notches on the edge guide.



3. Hold another paper support and push the tips into the notches of the other side on the edge guide.



4. Hold another paper support and push the tips into the notches on the paper tension unit.

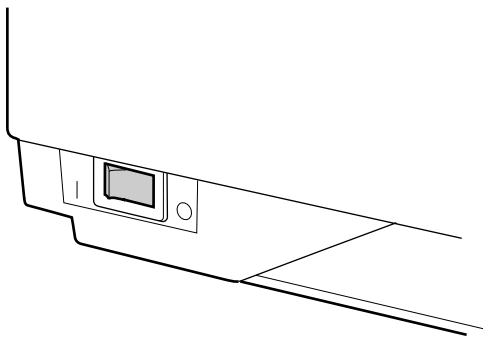


5. Repeat step 4 for the other paper support.

Plugging in the printer

Follow these steps to plug in the printer:

1. Make sure the power switch on the printer is turned off. It is off when the ○ side of the switch is pressed down.



2. Check the label on the back of the printer to make sure the voltage required by the printer matches that of your electrical outlet.



Caution:

If the rated voltage on the printer and your outlet voltage do not match, contact your dealer for assistance. Do not plug in the power cord.

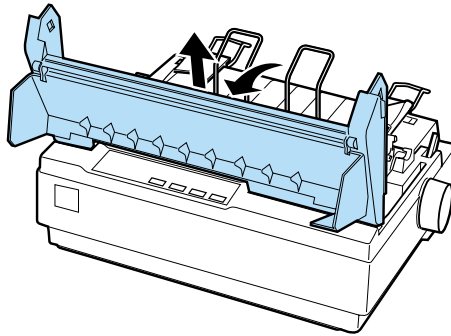
3. If the power cord is not attached to the printer, connect it to the AC inlet on the printer.
4. Plug the power cord into a properly grounded electrical outlet.

Installing or replacing the ribbon cartridge

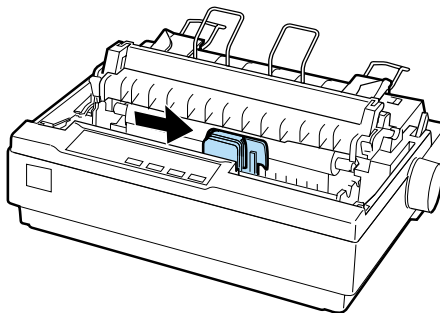
Before installing the ribbon cartridge, make sure that the printer is not plugged into an electrical outlet.

Follow these steps to install or replace the ribbon cartridge:

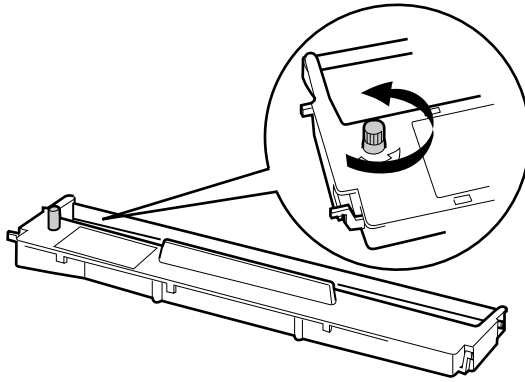
1. Make sure the printer is turned off.
2. Open the printer cover to the upright position, then pull it up to remove it.



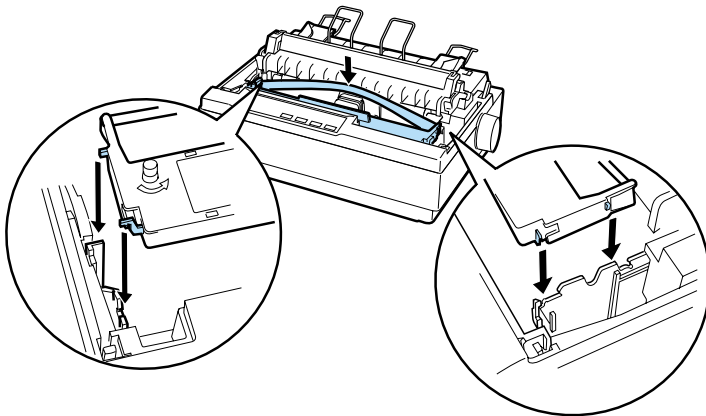
3. Make sure the print head is in the middle of the printer. If it is not, turn on the printer. Then, turn off the printer.



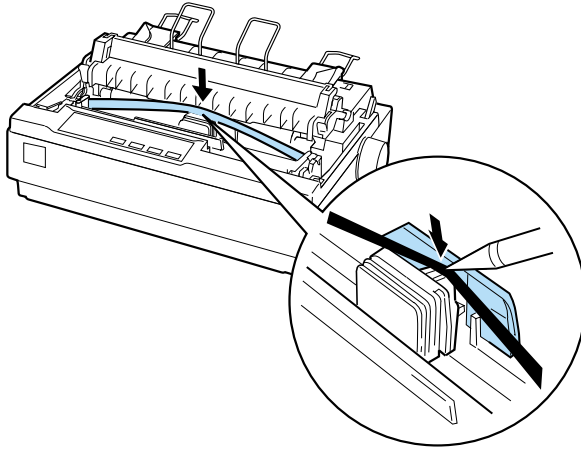
4. Turn the ribbon-tightening knob in the direction of the arrow to remove any slack from the ribbon so it is easier to install.



5. Insert the ribbon cartridge into the printer as shown; then press both sides of the cartridge firmly to fit the plastic hooks into the printer slots.



6. Use a pointed object, such as a ball point pen, to guide the ribbon between the print head and ribbon guide. Turn the ribbon tightening knob to help feed the ribbon into place; it should not be twisted or creased.



7. Reinstall and close the printer cover.

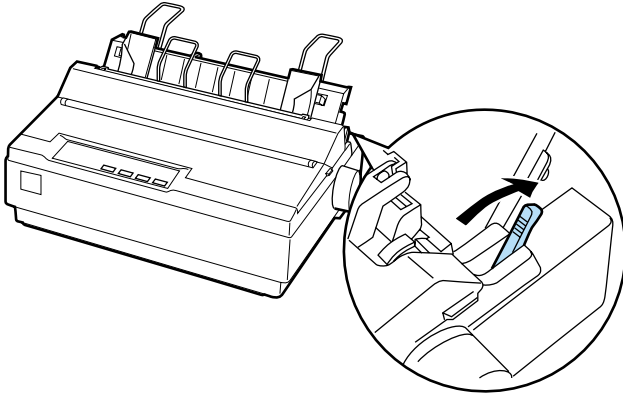
When printing becomes faint, you need to replace the ribbon cartridge. To remove the old ribbon cartridge, first make sure the print head is at the center of the printer. Then remove the cartridge by lifting the both ends and taking it out of the printer.

Running the Self Test

Use the built-in self test function to check that the printer is working properly. You can run the test with either continuous paper or single sheets. The procedure below describes the test using single sheets, which is the easier way.

Follow these steps to run the self test:

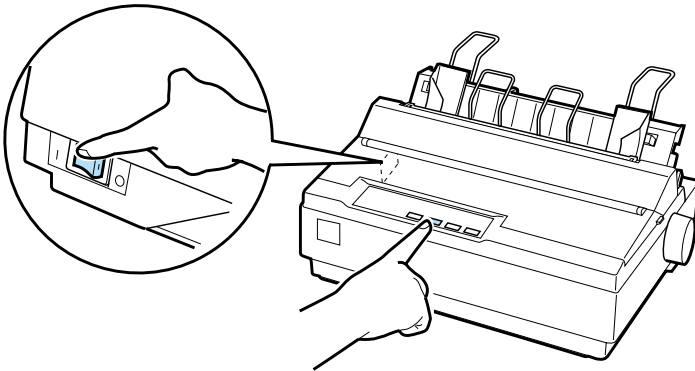
1. Make sure the printer is turned off. Also make sure that the paper-release lever is pushed back to the single-sheet position and the paper guide is in the upright position, as shown below.



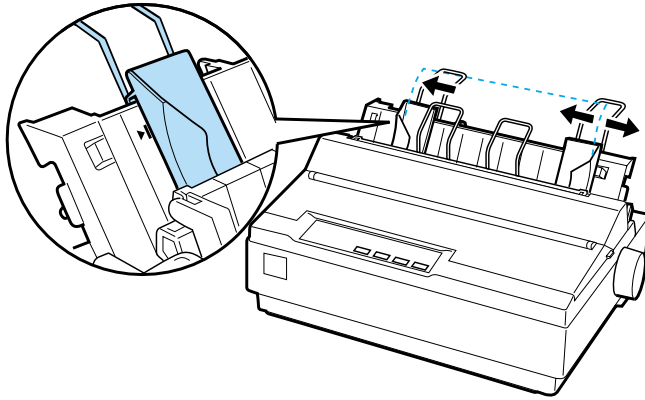
Caution:

You should use paper at least 210 mm (8 1/4 inches) wide to run the self test; otherwise, the print head prints directly on the platen.

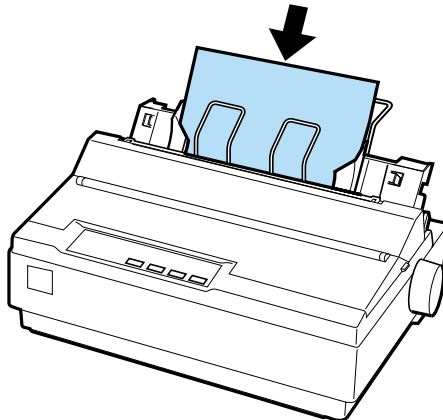
2. While holding down the LF/FF button, turn on the printer.



- Slide the left edge guide until it locks in place at the guide mark. Next, adjust the right edge guide to match the width of your paper.



- Slide a sheet of paper down firmly between the edge guides until it meets resistance. The printer loads the sheet automatically and begins printing the self test.



- To stop printing temporarily, press the PAUSE button.

- To end the self test, make sure the printer is not printing. Press LF/FF to eject the sheet; then turn off the printer.

Here is part of a typical self-test printout:

```
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHI  
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHI  
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJ  
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJK  
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKL  
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLM  
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMN
```

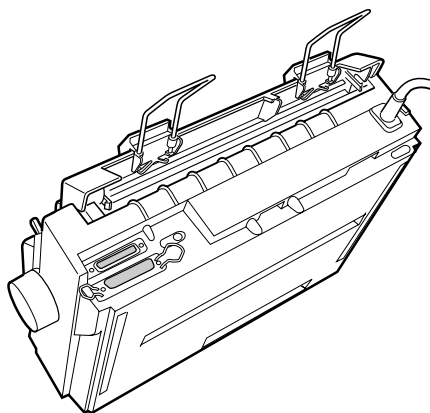
Note:

If the self test did not print satisfactorily, see Chapter 4, "Troubleshooting." If it prints correctly, proceed to the next section.

Connecting the Printer to Your Computer

1

Your printer includes both an IEEE-1284-compatible parallel interface and an EIA-232D serial interface. Before you begin, place the printer upright, as shown below. (This makes it easier to connect the cable.)



Connect your computer to the desired interface as described below.

Note:

You can connect a cable to both interfaces; the printer switches automatically to the appropriate interface when it receives data.

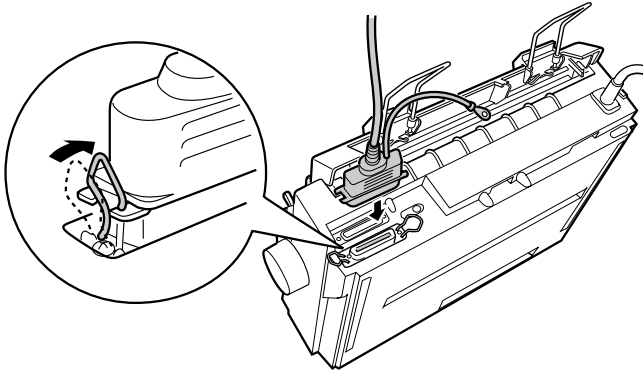
Using the parallel interface

You need a shielded, twisted-pair cable no longer than 2 meters (6 feet) to use the parallel interface.

Follow these steps to connect the printer to the computer using the parallel interface:

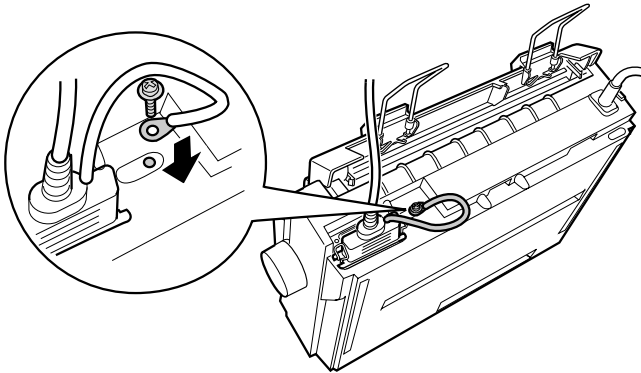
1. Turn off both the computer and the printer.

2. Plug the parallel cable connector securely into the printer's parallel interface port. Squeeze the wire clips together until they lock in place on both sides of the connector.



Note:

If there is a ground wire at the end of the cable, attach it to the ground connector located to the right of the parallel interface port.



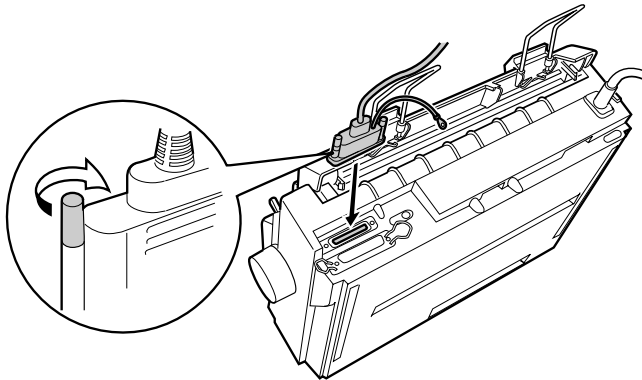
3. Plug the other end of the cable into the computer's parallel interface port. (If there is a ground wire at the end of the cable, attach it to the ground connector at the back of the computer.)

Using the serial interface

You need a serial cable that has a DB-25 male connector on the printer side to use the serial interface.

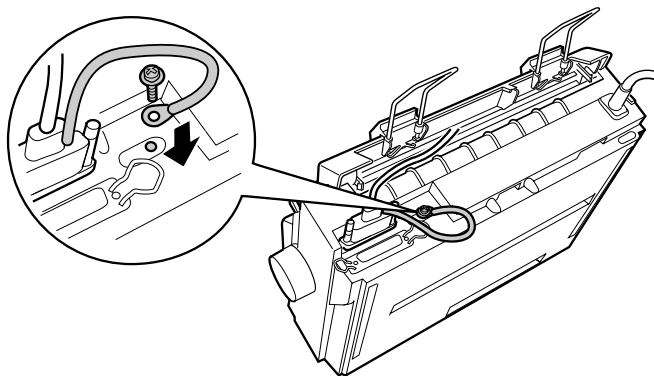
Follow these steps to connect the printer to the computer using the serial interface:

1. Turn off both the computer and the printer.
2. Plug the serial cable connector securely into the printer's serial interface port. Tighten the screws on both sides of the connector.



Note:

If there is a ground wire at the end of the cable, attach it to the ground connector located to the right of the serial interface port.



3. Plug the other end of the cable into the computer's serial interface port and then tighten the screws on both sides of the connector. (If there is a ground wire at the end of the cable, attach it to the ground connector at the back of the computer.)
4. Use the Default Setting mode to change the baud rate or parity bit, if necessary. See "About Your Printer's Default Settings" on page 2-3.

Installing the Printer Software

After you connect the printer to your computer, you need to install the software included on the EPSON printer software CD-ROM shipped with your printer.

Your printer software includes:

- ❑ **Printer driver**
The printer driver is the software that runs, or “drives,” your printer. With it, you can make printer settings such as print quality, resolution, and paper size.
- ❑ **EPSON Status Monitor 3 utility (Windows Me, 98, 95, 2000 or NT 4.0)**
The EPSON Status Monitor 3 utility notifies you of printer errors and displays printer status information.
- ❑ **EPSON Remote! (a DOS-based printer setup utility)**
The EPSON Remote! utility allows you to easily change the printer’s default settings from the computer screen. See “Using the EPSON Remote! Utility” on page 3-22.

To install the printer software, see “Installing the software in Windows Me, 98, 95, 2000, or NT 4.0” on page 1-20 or “Installing the software in Windows 3.1 or NT 3.5x” on page 1-21. If you are using DOS, see “For DOS programs” on page 1-23.

Installing the software in Windows Me, 98, 95, 2000, or NT 4.0

Follow these steps to install the printer software in Windows Me, 98, 95, 2000, or NT 4.0:

Note:

- Installing the printer software for Windows 2000 or NT 4.0 may require administrator privileges. If you have problems, ask your administrator for more information.*
 - If you wish to make a floppy disk version of the printer software on your CD-ROM, insert the CD and run the EPSETUP program. In the dialog box that appears, click the Driver disk creation utility button and follow the on-screen instructions.*
 - If you are using the floppy disk version of the EPSON software, make a backup copy of the EPSON printer software disk or disks before you begin installation.*
 - If the New Hardware Found screen or any other wizard appears when you turn on your computer, click **Cancel** and follow the steps below.*
 - If the Digital Signature Not Found screen appears, click **Yes**. If you click **No**, you must reinstall the printer driver as described below.*
 - Installation time varies depending on your computer.*
1. Make sure Windows Me, 98, 95, 2000, or NT 4.0 is running and the printer is off.
 2. Insert the printer software CD-ROM into the CD-ROM drive. The Install dialog box appears. (If you are using a floppy disk, insert the disk into the floppy disk drive. Double-click the floppy disk drive icon and then double-click the Setup.exe icon.)

3. Click **Install** to start the printer software installation.
4. Select your printer from the list, then follow the instructions on the screen.

When you install the printer driver on Windows Me, 98, 95, 2000 or NT 4.0, the EPSON Status Monitor 3 utility will also be installed.

For information on launching and using the software, see Chapter 3, "Using the Printer Software."

Installing the software in Windows 3.1 or NT 3.5x

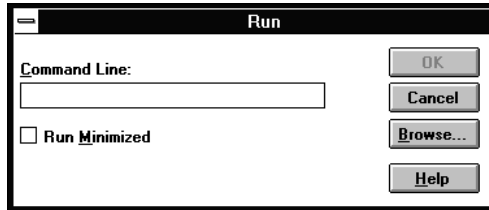
Follow these steps to install the printer software in Windows 3.1 or NT 3.5x.

Note:

Installing the printer software on Windows NT 3.5x may require administrator privileges. If you have problems, ask your administrator for more information.

1. Make sure Windows is running and the Program Manager window is open.
2. Insert the printer software CD-ROM shipped with your printer into the CD-ROM drive. (If you are using floppy disks, insert Disk1 of your printer software into the floppy disk drive.)

3. Choose RUN from the File menu. The Run dialog box appears. In the Command Line box, type D:SETUP. (If your CD-ROM drive has a drive letter other than “D,” or if you are using a floppy disk, substitute “D” with the appropriate drive letter.) Then click OK.



If you wish to make a floppy disk version of the printer software on your CD-ROM, type EPSETUP instead of SETUP. In the dialog box that appears, click the Driver disk creation utility button and follow the on-screen instructions.

4. The installation program begins copying the printer software files onto your computer.
5. When the installation is complete, click OK to exit the installation program.

The installation program automatically selects the LQ-300+ as the default printer for Windows applications.

For information on launching and using the software, see Chapter 3, “Using the Printer Software.”

For DOS programs

To control the printer from DOS application programs, you need to select the printer you are using or another available printer from the printer list of your application.

Choose the EPSON LQ-300+ printer at the appropriate step in the setup or installation procedure of your DOS application program. If the list in your application does not include the LQ-300+ printer, choose the first available printer from this list:

LQ-300	FX-86e/800
LQ-580/LQ-570e	JX-80
LX-810/850	EX-800
LX-800	EPSON LQ printer
LX-80/86	EPSON FX printer
FX-850	EPSON printer

If you plan to use color, you must choose LQ-300. The other printers cannot use color.

Note:

If your application does not list a suitable alternative, contact the software manufacturer to see if an update is available.

Chapter 2

Using the Printer

2

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Using the Control Panel

You can control simple printer operations—such as line feeding, form feeding, loading and ejecting paper, and selecting fonts—with the buttons on the control panel. The control panel lights show the printer's status. For information on the buttons and the lights on the control panel, see "Control Panel Buttons and Lights" inside the front cover.

Selecting a built-in font

Follow these steps to select a built-in font using the buttons on the printer's control panel:

1. Make sure that the printer is not printing. If it is, wait until printing is complete.
2. Hold down the Pause button for three seconds to enter the Micro Adjust mode. The PAUSE light begins to flash. The three Tear Off (Font) lights show the current font selection.
3. Press the Tear Off (Font) button repeatedly to cycle through all of the available selections; then stop when you reach the desired font with a pattern shown on the control panel. Your selection stays in effect until you change it again.

Note:

- ❑ *Settings you make in your application programs usually override settings you make from the printer's control panel. For best results, use your application to select a font and pitch.*
- ❑ *The Tear Off (Font) button cannot directly select OCR-B, Orator, Orator-S, Script-C, Roman-T, or Sans Serif H. To select one of these fonts, you must first use the Default Setting mode to register it as the "other" font and then select Others using the Tear Off (Font) button.*
- ❑ *Barcode fonts cannot be selected via the control panel.*

About Your Printer's Default Settings

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 following table lists the default settings and the options you can select in the Default Setting mode. The settings are explained in detail after the table. For instructions on changing the default settings, see "Changing default settings" on page 2-9.

Settings	Options
Page length for 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	Bi-D, Uni-D, Auto
Software	ESC/P2, IBM 2390 Plus
0 slash	0, Ø
High speed draft	On, Off
I/F mode	Auto, Parallel, Serial
Auto I/F wait time	10 seconds, 30 seconds
Baud rate	19200, 9600, 4800, 2400, 1200, 600, 300 BPS
Parity	None, Odd, Even, Ignore
Data length	8 bit, 7 bit
Parallel I/F bidirectional mode	On, Off

* The options available vary depending on the country of purchase.

** These settings take effect only when IBM 2390 Plus emulation is selected.

Settings	Options
Packet mode	Auto, Off
Character table*	Standard model: 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 All other models: 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 863, PC 865, PC 861, BRASCII, Abicomp, Roman 8, ISO Latin 1, PC 858, ISO 8859-15, PC 771
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
Pitch	10 cpi, 12 cpi, 15 cpi, 17 cpi, 20 cpi, Proportional
Font	OCR-B, Orator, Orator-S, Script C, Roman T (PS), Sans Serif H (PS)
Auto CR (IBM 2390 Plus)**	On, Off
A.G.M. (IBM 2390 Plus)**	On, Off
Manual feed wait time	1 second, 1.5 seconds, 2 seconds, 3 seconds, Others
Buzzer	On, Off
Roll paper	On, Off

* The options available vary depending on the country of purchase.

** These settings take effect only when IBM 2390 Plus emulation is selected.

Page length for tractor

This setting allows you to set the page length (in inches) for continuous paper.

Skip over perforation

This feature is available only when continuous paper is selected. When you select **On**, the printer provides a one-inch (25.4 mm) margin between the last line printed on one page and the first line printed on the next page. Because the program margin settings in most applications override margin settings made from the control panel, you should use this setting only if you cannot set your top and bottom margins using your application.

Auto tear off

When auto tear off is on and you are using continuous paper with the push tractor, the printer automatically advances the paper perforation to the tear-off position, where you can easily tear off the printed pages. When the printer receives the next print job, it automatically moves the unused paper back to the top-of-form position and starts printing, so you can use all of the next page.

When auto tear off is off, you need to move the perforation to the tear-off position by pressing the control panel button. See “Using the Tear Off button” on page 2-26 for more information.

Auto line feed

When auto line feed is on, the printer accompanies each carriage return (CR) code received with a line feed code, and the print position moves to the next line. If the printer adds an extra line after every carriage return, select **Off**.

Print direction

You can select auto print direction (Auto), bidirectional printing (Bi-D), or unidirectional printing (Uni-D). Printing is normally bidirectional for faster printing; however, unidirectional printing allows for precise vertical printing alignment, which is useful for printing graphics.

When set to Auto, the printer analyzes the data and uses unidirectional printing only for lines which require vertical printing alignment.

Software

When you select ESC/P2, the printer operates in the EPSON ESC/P2 mode. When you select IBM 2390 Plus, the printer emulates an IBM printer.

O slash

The zero character has a slash (Ø) when this feature is turned on. It has no slash (0) when this feature is turned off. The slash allows you to easily distinguish between the uppercase letter O and a zero.

High speed draft

When you choose On, the printer prints up to 300 cps (characters per second) at 10 cpi (characters per inch). When you choose Off, the printer prints up to 225 cps at 10 cpi.

I/F (interface) mode

The printer comes with a built-in parallel interface and serial interface.

If your printer is connected to only one computer, select Parallel or Serial for the interface mode, depending on the interface you use. If your printer is connected to two computers, select Auto (automatic) to allow the printer to automatically switch between interfaces depending on which one is receiving data.

Auto I/F (interface) wait time

This setting takes effect only when I/F (interface) mode is set to Auto. This setting determines how long the printer waits when it no longer receives data from an interface before it checks whether a print job is being sent through the other interface. You can specify 10 seconds or 30 seconds for the auto interface wait time.

Baud rate

Use this option to set the data transfer rate (baud) for the serial interface. The baud rate is measured in bits per second (bps). See your computer manual and software documentation for the proper setting.

Parity

When this option is set to NONE, parity checking is disabled. The parity bit, if used, provides a basic form of error detection. See your computer manual and software documentation for the proper setting.

Data length

Set the data length of the serial interface to 7 bit or 8 bit. See your computer manual and software documentation for the proper setting.

Parallel I/F bidirectional mode

The parallel interface bidirectional transfer mode is used when this feature is turned on. If bidirectional transfer mode is unnecessary, turn this off.

Packet mode

Select Auto to use the IEEE-1284.4 packet transfer mode. If packet transfer mode is unnecessary, or if you cannot connect, turn this off.

Character table

You can select from among 13 to 36 standard character tables, depending on the country of purchase. See “Character tables” on page A-7 for more information on the tables.

International character set for Italic table

You can select among several international character sets for the Italic character table. Each character set contains eight characters that vary depending on the country or language, so you can customize the Italic table to suit your printing needs.

Pitch

You can select from among six pitch settings.

Font

You can select six fonts in the Default Setting mode. The font selected here appears under Others on the control panel. The fonts indicated on the control panel cannot be selected in the Default Setting mode.

Auto CR (carriage return)

This setting is available only in the IBM 2390 Plus emulation mode. When auto carriage return is on, each line feed (LF) code or ESC J code is accompanied by a carriage return code. This moves the print position to the beginning of the next line.

A.G.M. (Alternate Graphic Mode)

This setting is available only in the IBM 2390 Plus emulation mode. When A.G.M. is on, the printer can use some advanced graphics commands like those available in the ESC/P2 mode.

Manual feed wait time

This sets the amount of wait time between the time paper is inserted into the paper guide and when it is fed. If the paper feeds before you can adjust its position to your satisfaction, you can increase the wait time.

Buzzer (beeper)

The printer beeps when an error occurs. (See “Using the Error Indicators” on page 4-2 for more information on printer errors.) If you do not want the printer to beep when an error occurs, turn this setting off.

Roll paper

When you turn on this mode, the printer recognizes that single sheets are not loaded in the printer, so it does not try to eject the paper and advance it forward to the next page when you press the LF/FF button.

Changing default settings

Follow these steps to enter the Default Setting mode and change the printer’s default settings:

Note:

- ❑ *To print the language selection instructions and the Default Setting mode instructions, you need five or six sheets of A4 or Letter size single-sheet paper, or five or six pages of continuous paper that is at least 279 mm (11 inches) long and 210 mm (8.27 inches) wide.*

- ❑ *If you use single sheets without an optional cut-sheet feeder, you need to feed a new sheet of paper each time the printer ejects a printed sheet.*

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 Tear Off (Font) button, turn on the printer. The printer enters the Default Setting mode and prints the language selection instructions (one page).
3. Follow the instructions to select the language you want for the instruction pages.
4. Load the next sheet of paper, if necessary. The printer prints the current settings list (one page).
5. Press down the Tear Off (Font) button. The printer prints the Default Setting mode instructions (three or four 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.
6. 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.

7. When you finish making settings, turn off the printer and exit the Default Setting mode. Any settings you have made remain in effect until you change them again.

Note:

Turn off the printer when it has finished printing.

Printing on Continuous Paper

Your printer can handle continuous paper from 101.6 mm (4.0 inches) to 254.0 mm (10.0 inches) wide. Depending on where you position the tractor, you can use it as a pull tractor or a push tractor. The following guidelines can help you decide where to position the tractor:

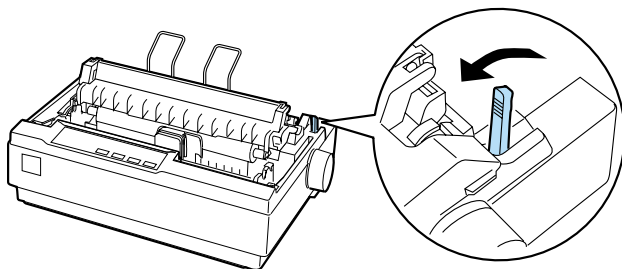
- Do you want to switch between printing on single sheets and continuous paper without removing the paper supply? Will you tear off continuous paper sheet-by-sheet? Use the tractor in the push tractor position. (The printer comes with the tractor installed in this position.) See the following section.
- Are you printing on labels, multipart forms, or other documents that require a precise print position? Use the tractor as a pull tractor. See “Printing with the pull tractor” on page 2-17 for instructions.

Printing with the push tractor

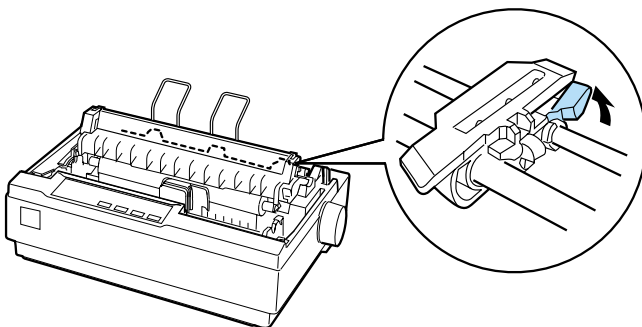
When using the push tractor, it is a good idea to set the Auto tear off feature in the Default Setting mode to On. See “About Your Printer’s Default Settings” on page 2-3.

Follow these steps to load continuous paper using the push tractor:

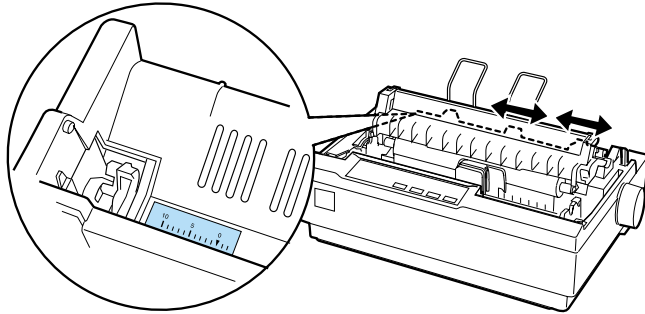
1. Make sure the printer is turned off. Remove the printer cover and the paper guide and place the paper-release lever in the continuous paper position.



2. Release the sprocket units by pulling the sprocket locks forward.



3. Slide the left sprocket unit using the scale on the printer as a guide. The printer prints to the right of the position marked 0. Push the sprocket lock lever back to lock it in place. Then slide the right sprocket unit to match the width of your paper, but do not lock it. Move the paper support so it is midway between the sprocket units.

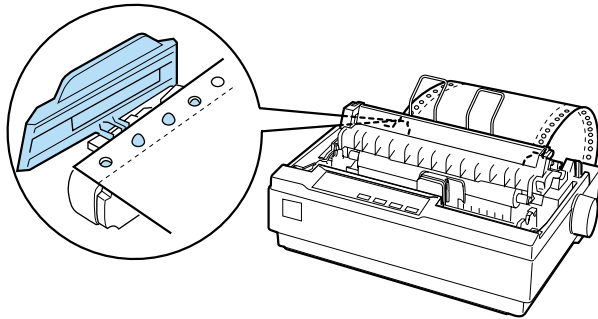


4. Make sure your paper has a clean, straight leading edge. Open the sprocket covers. Fit the first holes of the paper over the sprocket pins and then close the sprocket covers. Slide the right sprocket unit to remove any slack in the paper and lock it in place. Now the paper is in the paper-park position.

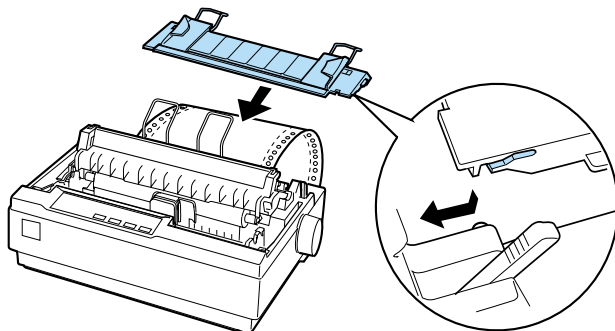


Caution:

Use the paper-feed knob on the right side of the printer only to clear paper jams and only when the printer is turned off. Otherwise, you may damage the printer or cause it to lose the top-of-form position.



- To separate the incoming paper from the printed paper, attach the paper guide by holding it horizontally and fitting its notches over the printer's mounting posts as shown below. Then slide the paper guide toward the front of the printer until you feel it click.



- Turn on the printer.
- Make sure the printer cover is closed. Press the LF/FF button to feed the paper to the loading position. When the printer receives data, it begins printing automatically.
- 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 change its position by using the Micro Adjust feature. See "Adjusting the top-of-form position" on page 2-23.



Caution:

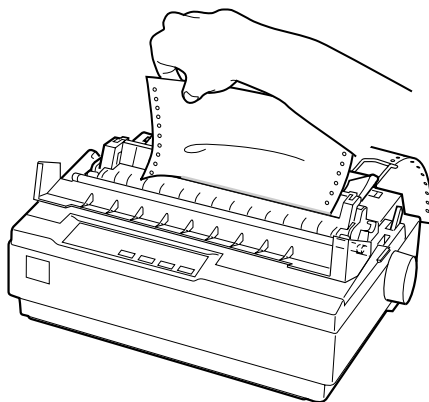
Never use the paper-feed knob to adjust the top-of-form position; this may damage the printer or cause it to lose the top-of-form position.

When you send more data, the paper automatically feeds back to the loading position.

Removing a printed document from the push tractor

Follow these steps to remove the printed document:

1. Press the Tear Off (Font) button. Make sure the Tear Off (Font) lights are flashing. (This indicates that your paper is at the current tear-off position.)
2. Open the paper guide cover, then tear off the printed document using the tear-off edge of the paper tension unit.



Note:

If your paper's 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 2-26.



Caution:

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

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 feed continuous paper to the standby position where you can remove the paper, press the Load/Eject button. 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.

Switching back to single sheets

To switch to single sheets, press the Load/Eject button; the printer feeds the paper backwards into the standby position. Then, follow the steps in “Loading single sheets” on page 2-29.



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.

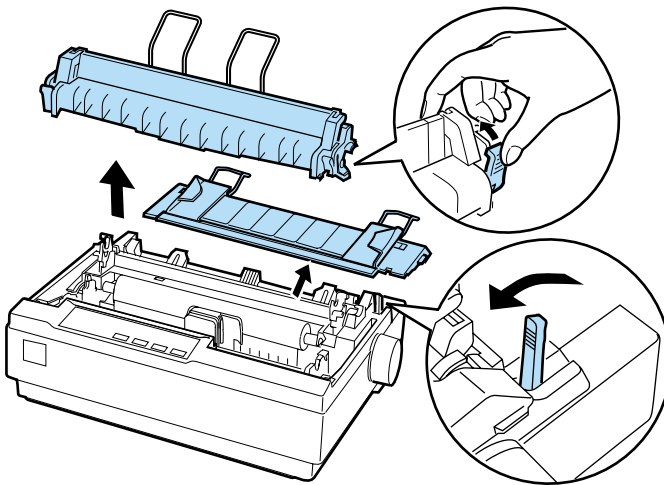
Printing with the pull tractor

To load continuous paper using the pull tractor, you must move the tractor to the pull tractor position, as described in steps 1 through 3 in this procedure. If your tractor is already installed in this position, make sure the printer is turned off and skip to step 6.

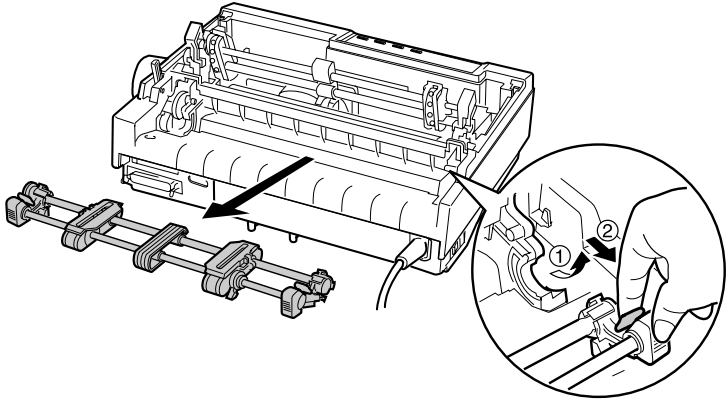


Caution:

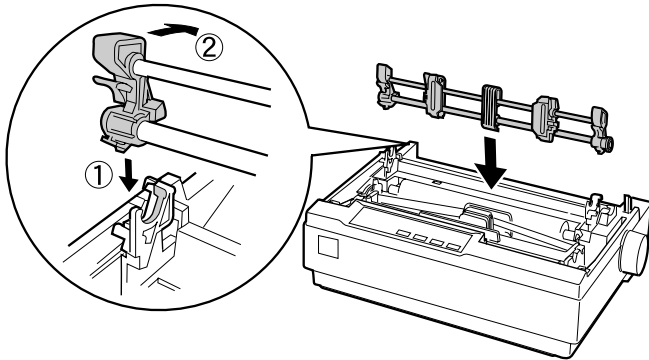
- ❑ Use the paper-feed knob on the right side of the printer only to clear paper jams and only when the printer is off. Otherwise, you may damage the printer or cause it to lose the top-of-form position.
 - ❑ When using the pull tractor, set the Auto tear off feature in the Default Setting mode to Off; otherwise, the paper may jam.
1. Turn the printer off; then remove the printer cover and the paper guide. Next, remove the paper tension unit by squeezing the tension unit's lock tabs gently and pulling the tension unit away from the printer. Finally, pull the paper-release lever forward to the continuous paper position.



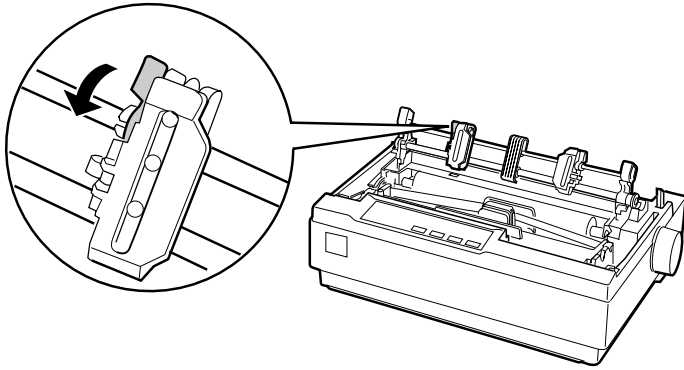
2. Squeeze the tractor's lock tabs gently on both sides, and then rotate the tractor up to pull it away from the printer.



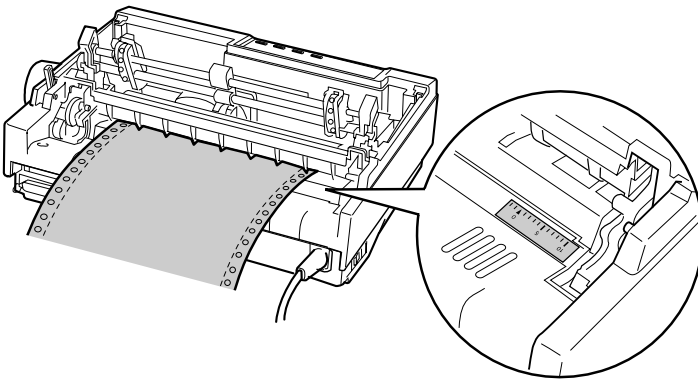
3. Move the tractor forward to the mounting slot at the top of the printer and tilt it into place as shown below. When you push the tractor onto the posts, you should feel the notches snap into place.



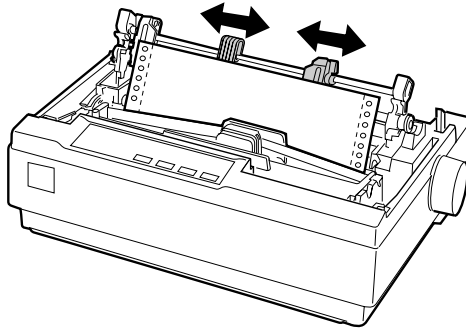
4. Release the sprocket units by pulling the sprocket locks forward.



5. Insert the paper into the bottom paper slot or into the rear paper slot as shown below, and pull it up. Position the paper using the scale on the printer as a guide. The printer prints to the right of the position marked 0.



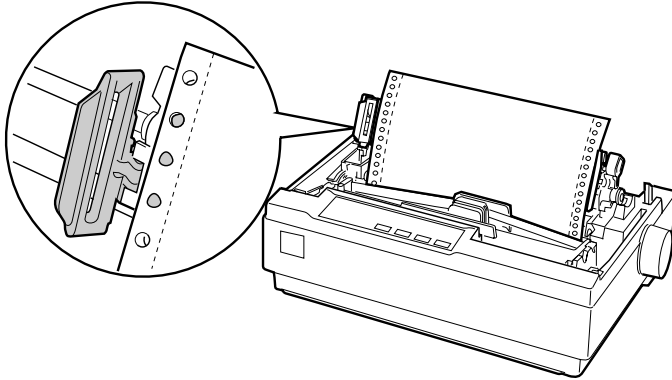
- Slide the left sprocket unit so that its sprockets match the position of the holes in the paper and lock the unit in place. Then slide the right sprocket unit to match the width of your paper, but do not lock it. Move the paper support midway between the two sprocket units.



- Make sure your paper has a clean, straight leading edge. Open the sprocket covers. Fit the first holes of the paper over the sprocket pins and then close the sprocket covers. Slide the right sprocket unit to remove any slack in the paper and then lock it in place.

Note:

Remove any remaining slack by gently pulling the paper from the rear or bottom.



8. To separate the incoming paper from the printed paper, attach the paper guide. Hold it horizontally and fit its notches over the printer's mounting posts. Then slide the paper guide toward the back of the printer until you feel it click.
9. Attach the printer cover and adjust the paper position with the paper-feed knob. Turn the knob until the perforation between pages is just above the print head. Then turn on the printer.
10. Make sure the printer cover is closed, but with the paper guide cover open. When the printer receives data, it begins printing automatically.

If you want to change the position where printing begins on the page, press LF/FF to advance the page to the next top-of-form position, and then see "Adjusting the top-of-form position" in the next section to adjust the loading position.

To eject the paper, tear off the paper entering the printer; then press the LF/FF button to feed the paper forward.

Adjusting the top-of-form position

The top-of-form position is the position on the page where the printer starts 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. Follow these steps:



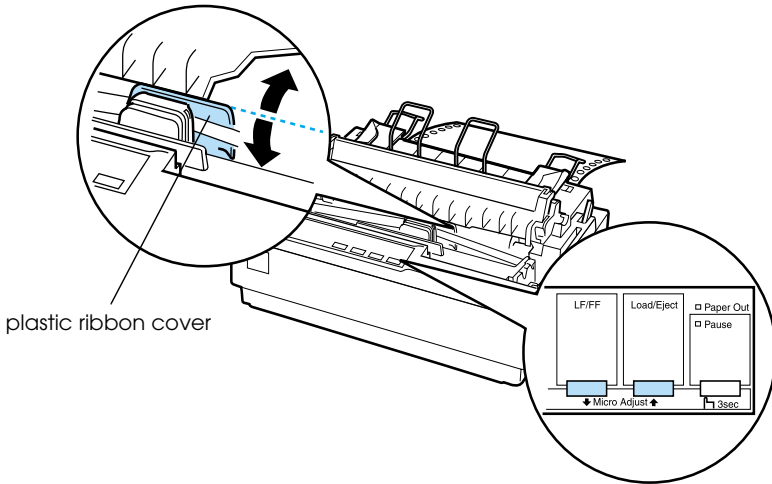
Caution:

Never use the paper-feed 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 in your software.*
1. Make sure the printer is turned on.
 2. If necessary, load paper as described in this chapter.
 3. Remove the printer cover.
 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 LF/FF \downarrow button to move the top-of-form position up on the page, or press the Load/Eject \uparrow button to move the top-of-form position down on the page.

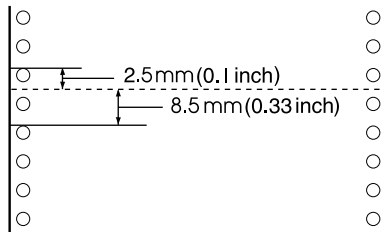


Note:

- ❑ *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 position 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 2.5 mm (0.1 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 (0.33 inch) below the perforation. If you mark a point 5.5 mm (0.22 inch) above the perforation, you get a 5.5 mm (0.22 inch) margin on the next page.



6. 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 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. 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 below, you can use the tear-off feature in two ways: manually, by pressing the printer's **TEAR OFF** button, or automatically, by turning on the auto tear-off mode.



Caution:

Never use the tear-off feature (as described below) to feed continuous paper with labels backwards; they may come off their backing sheet and jam the printer.

Using the Tear Off button

After the printer finishes printing your document, check that the Tear Off (Font) lights are not flashing. Then press the Tear Off (Font) button. The printer advances the paper to the tear-off edge.

Note:

If the Tear Off (Font) lights are flashing, the paper is in the tear-off position. If you press the Tear Off (Font) button again, the printer feeds your paper to the next top-of-form position.

Advancing the 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 “Changing default settings” on page 2-9.

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 these steps to adjust the tear-off position:



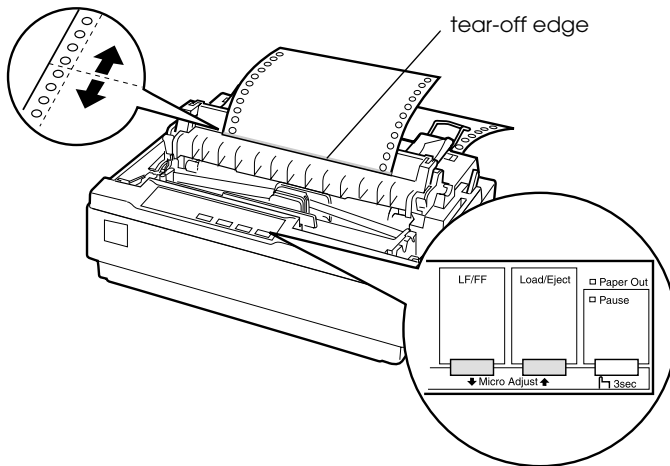
Caution:

Never use the paper-feed 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 (Font) lights are flashing (the paper is at the current tear-off position). You may need to press the Tear Off (Font) 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 to flash and the printer enters the Micro Adjust mode.
4. Press the LF/FF \downarrow button to feed the paper backwards, or press the Load/Eject \uparrow button to feed the paper forwards, 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 exit 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.

Printing on Single Sheets

You can load single-sheet paper one sheet at a time using the paper guide of the printer. Your single-sheet paper may be from 100 to 257 mm (3.9 to 10.1 inches) wide.

Before printing on single-sheet multipart forms, envelopes, or other special paper, be sure to set the paper thickness lever to the appropriate position. See “Printing on Special Paper” on page 2-29 for details.

Note:

- ❑ *To load a stack of single-sheet paper, use the optional cut-sheet feeder. See “Installing and Using Options” on page 2-34.*
- ❑ *For detailed specifications on the types of single-sheet paper you can use, see “Printer Specifications” on page A-4.*
- ❑ *You can use the paper guide to load single-sheet carbonless multipart forms that are fastened at the top by line gluing.*
- ❑ *Insert multipart forms in the paper guide, bound edge first and printable side down.*

Loading single sheets

You load single sheets as shown in “Running the Self Test” on page 1-11. For normal use, turn on the printer without pressing any other buttons. When the printer receives data, it begins to print.



Caution:

Use the paper-feed knob on the right side of the printer only to clear paper jams and only when the printer is off. Otherwise, you may damage the printer or cause it to lose the top-of-form position.

Printing on Special Paper

Your printer can also print on a wide variety of paper types, including multipart forms, labels, and envelopes.

For multipart forms and labels, you should not print any closer than 13 mm (0.5 inch) from either side of the paper. For information on the printable area of envelopes, see “Printer Specifications” on page A-4.



Caution:

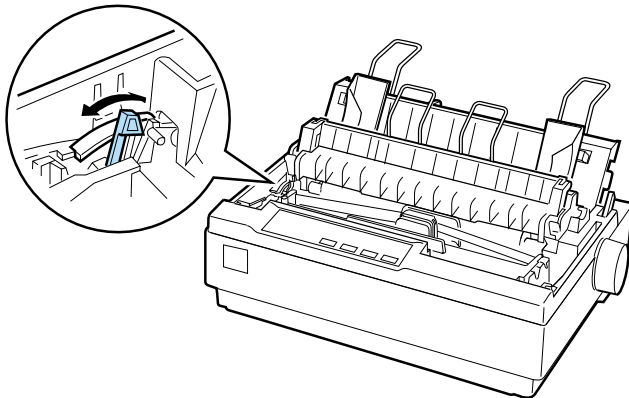
When printing on multipart forms, thicker-than-normal paper, labels, or envelopes, make sure your application software settings keep the printing entirely within the printable area. Printing past the edge of these papers can damage the print head.

Adjusting the paper-thickness lever

Before printing on special paper, you need to change the paper thickness setting.

Follow these steps to adjust the paper thickness setting:

1. Turn the printer off and open the printer cover. The paper-thickness lever is on the left side of the printer. The numbers next to the lever indicate the thickness setting.



2. Use the table below to select the appropriate paper thickness.

Paper type	Lever position
Standard paper (single-sheet or continuous)	0 or 1
Multipart forms (single-sheet or continuous) 2-sheet 3-sheet 4-sheet	1 2 3
Labels	2
Envelopes	3 to 5

3. Close the printer cover.

Multipart forms

You can use continuous or shingle-sheet carbonless multipart forms of up to four parts (one original plus three copies). Before you print on the forms, set the paper thickness lever as described in the previous section. The following tips will help you get good results:

- ❑ Use only continuous multipart forms that are joined by spot gluing or side-crimping. Never load continuous multipart forms joined by metal staples, tape, or continuous gluing.
- ❑ Use only single-sheet multipart forms that are line-glued only at the top. Insert the forms glued edge first into the printer.
- ❑ Use only multipart forms that are free of wrinkles and waves.
- ❑ If you need to adjust the loading position, use your application software or change the loading position as described on “Adjusting the top-of-form position” on page 2-23.
- ❑ When you use side-crimped continuous multipart forms, the copies may not align with the original. If this happens, raise the paper guide.

Labels

You must use the tractor as a pull tractor and load paper from the bottom paper slot to print on labels. Before you print on labels, set the paper thickness lever as described in “Adjusting the paper-thickness lever” on page 2-30. Keep the following tips in mind:

- ❑ Choose labels mounted on a continuous backing sheet with sprocket holes made for use with a tractor. Do not print labels as single sheets, because the shiny backing sheet almost always slips slightly.

- ❑ Load labels the same way as you would load ordinary continuous paper. See “Printing with the pull tractor” on page 2-17 for loading instructions.
- ❑ Because labels are especially sensitive to temperature and humidity, use them only under normal operating conditions. Make sure the printing stays entirely within the printable area. (See “Printer Specifications” on page A-4 for specifications.)
- ❑ Do not leave labels loaded in the printer between jobs; they curl around the platen and may jam when you resume printing.
- ❑ To remove the labels from the printer, tear off the fresh supply at the bottom of the printer; then press LF/FF to advance the remaining labels out of the printer.



Caution:

Never feed labels backwards through the printer; they can easily peel off the backing sheet and jam the printer. If a label does become stuck in the printer, contact your dealer.

Envelopes

You can feed envelopes individually using the paper guide. Keep the following tips in mind:

- ❑ Before loading an envelope, set the paper thickness lever to the proper position. See “Adjusting the paper-thickness lever” on page 2-30.
- ❑ To load an envelope, follow the steps in “Running the Self Test” on page 1-11. Insert the wide edge of the envelope into the printer first, printable-side down. When you insert the envelope between the paper guides, push it firmly and hold it until it feeds into the printer.
- ❑ Use envelopes only under normal temperature and humidity conditions.
- ❑ Make sure the printing stays entirely within the printable area.
- ❑ The print head must not go past the left or right edge of the envelope or other thick paper. (See “Printer Specifications” on page A-4 for specifications.) It’s a good idea to print a test sample using a normal single sheet of paper before you print on envelopes.

Installing and Using Options

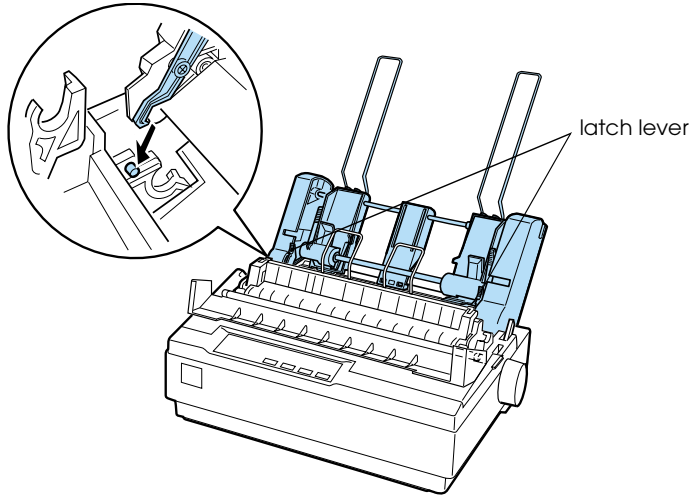
Cut-sheet feeder

The optional single-bin cut-sheet feeder (C80637*) handles up to 50 sheets of standard bond paper (82 g/m² or 22 lb) without reloading.

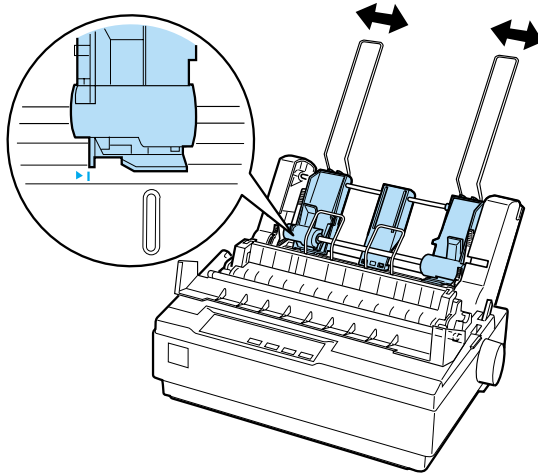
Follow these steps to install the cut-sheet feeder:

1. Make sure the printer is turned off. Remove the paper guide and open the paper guide cover.
2. If the tractor is installed in the pull-tractor position, remove it and reinstall it in the push-tractor position.
3. Make sure the paper-release lever is in the single-sheet position.

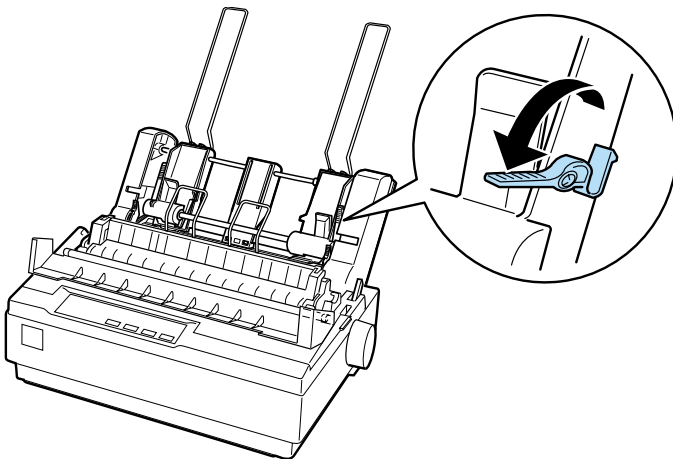
4. Hold the cut-sheet feeder in both hands and press on the latch levers. Fit the notches in the cut-sheet feeder over the mounting posts on the printer. Releasing the latch levers locks the cut-sheet feeder in place.



5. Slide the left paper guide so it is aligned with the triangle mark. Next, slide the right paper guide to roughly match the width of your paper. Slide the paper support midway between the paper guides.



6. Pull the paper-set levers all the way forward until the paper guides retract and lock open to allow for paper loading.

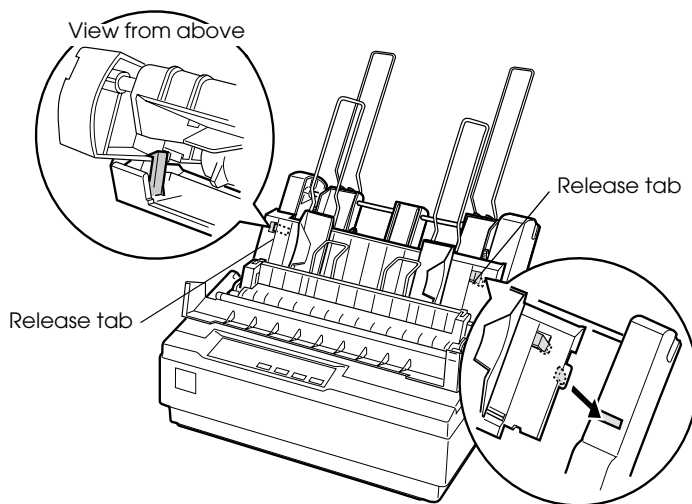


7. Take a stack of paper and fan it. Next, tap the side and bottom of the paper on a flat surface to even up the stack.

**Caution:**

Do not use envelopes, multipart forms, carbon paper, or labels in the cut-sheet feeder.

8. Insert up to 50 sheets of paper along the left paper guide.
9. Adjust the position of the right paper guide so that it matches your paper's width. Make sure the position of the guide allows the paper to move up and down freely.
10. Push the paper-set levers back to clamp the paper against the guide rollers.
11. Remove the paper supports from the edge guides. Insert the two stacker supports packed with the cut-sheet feeder into the holes on the edge guides.
12. Attach the paper guide to the cut-sheet feeder as shown below.



13. Slide the left edge guide to the center until it stops at the guide mark. Then slide the right edge guide to fit the size of paper you will use.

Note:

- ❑ *To remove the paper guide from the cut-sheet feeder, press both release tabs and pull out the paper guide.*
- ❑ *Make sure the paper guide cover is open when you print.*

You can easily switch between continuous paper and cut-sheet feeder operation. See “Switching back to single sheets” on page 2-17 for details.

Note:

When you print several pages of continuous paper, fold the first printed page forward at the perforation after the perforation emerges from below the printer cover. This helps the printer feed the printed pages properly and prevents paper jams.

Pull tractor unit

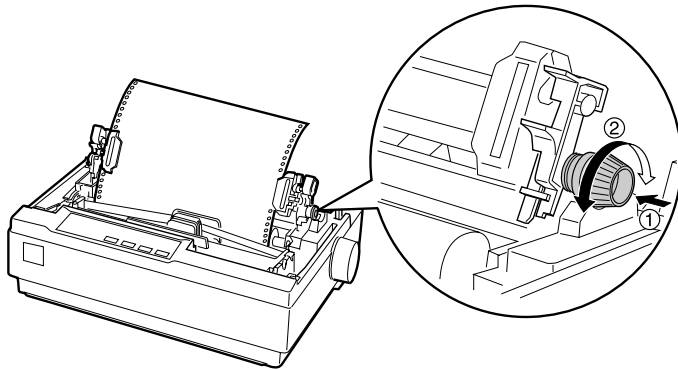
An additional pull tractor (C80030*) is available as an option.

You can improve the performance of continuous paper handling by using two tractors at the same time. This is especially useful with continuous pre-printed forms and multipart forms.

Follow these steps to install and load paper on a standard and an additional pull tractor:

1. Make sure the paper-release lever is pulled forward to the continuous-paper position. Install the included tractor in the push-tractor position. Then install the optional tractor in the pull-tractor position.
2. Load continuous paper on the sprocket units of the push-tractor. (See “Printing on Continuous Paper” on page 2-11.)

3. Turn on the printer. Hold down the LF/FF button to feed paper in one page.
4. Release the sprocket lock levers of the pull tractor and adjust the sprocket units to match the width of the paper. Be sure that the sprocket units on both tractors are aligned so that the paper is not crooked.
5. Open the sprocket covers. Fit the holes of the paper over the tractor pins of the sprocket units and adjust the sprocket units as necessary. (See "Printing on Continuous Paper" on page 2-11.) Close the sprocket covers.
6. If there is slack in the paper between the push and pull tractors, push in and turn the paper-feed knob on the right side of the pull tractor to remove the slack.



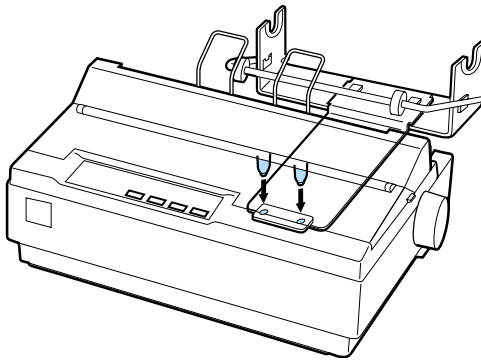
7. See that the paper is not crooked or wrinkled and lock the sprocket units in place.
8. Re-install the printer cover and the paper guide.

Roll paper holder

The optional roll paper holder (#8310) allows you to use your printer with 8.5-inch roll paper like that used with telex machines. This option is not available in all countries.

Follow these steps to install and use the roll paper holder:

1. Turn off the printer and remove the paper guide.
2. Position the roll paper holder beneath the printer as shown below. Fit the two holes in the base onto the two positioning pegs on the bottom of the printer.

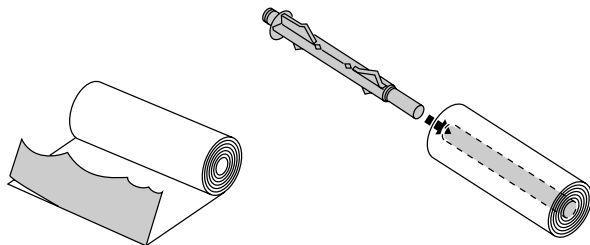


Caution:

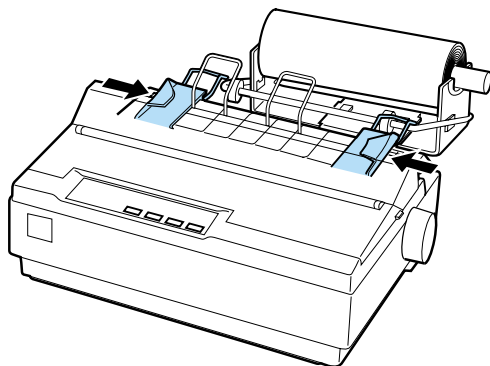
Be careful to avoid dropping the roll paper holder when lifting the printer. Only the printer's weight holds it in place.

3. Push the paper-release lever to the single-sheet position.

- Cut the leading edge of the roll paper straight across. Slide the roll paper holder shaft through the center of the paper roll.



- Set the shaft and paper roll onto the roll paper holder. Orient the roll so that paper feeds from the bottom of the roll. Then turn on the printer.
- Bring the leading edge of the paper up over the paper path guide for single sheets and insert it into the printer path for single sheets until you feel resistance.
- Install the paper guide. Slide the left edge guide to the center until it stops at the guide mark. Then slide the right edge guide to the opposite guide mark.

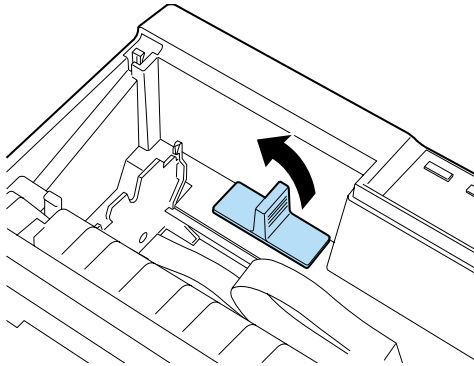


Color upgrade kit

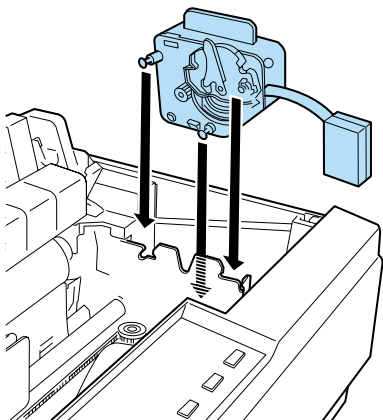
The optional color upgrade kit (C83211*) includes a color ribbon cartridge and a motor unit.

Follow these steps to install the kit:

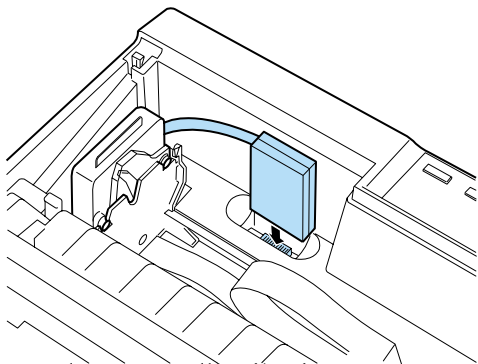
1. Turn off the printer and remove the printer cover and paper tension unit. Slide the connector cover on the printer and pull it out as shown below.



2. Install the motor unit in the right hand corner of the printer, with the gear facing the center of the printer. Push it down firmly to fit the metal pins into the slots.

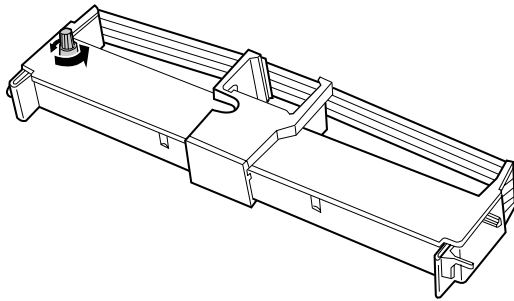


3. Insert the motor unit plug into the connector on the printer.

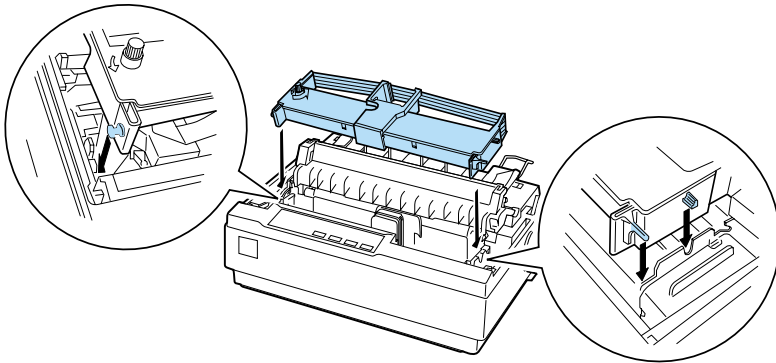


4. Slide the print head to the middle of the printer; then slide the plastic part on the color ribbon to the center of the cartridge.

5. Turn the ribbon-tightening knob in the direction of the arrow to remove any slack in the ribbon.



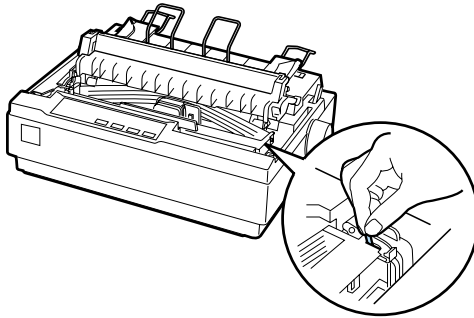
6. Insert the ribbon cartridge into the printer as shown; then press both sides of the cartridge firmly to fit the plastic hooks into the printer slots.



7. Turn the ribbon-tightening knob to help feed the ribbon into place; it should not be twisted or creased.
8. Replace the paper tension unit and printer cover.

After you install the color ribbon cartridge, run the self test as described under “Running the Self Test” on page 1-11.

If the top or bottom edge of the characters in the self test are a different color from the rest, adjust the ribbon angle. Check the characters printed in red. If the top edge is blue, move the color ribbon adjustment lever forwards. If the bottom edge is yellow, move the lever backwards. Then print another self test to check your adjustment. Repeat this process until the ribbon is properly adjusted.



Note:

When you print using the color ribbon, the print speed is reduced.

To switch to the black ribbon, remove the color ribbon as shown in the manual that comes with the optional color upgrade kit; then install the black ribbon as described under “Installing or replacing the ribbon cartridge” on page 1-9.

You do not have to remove the motor unit.

Print server

You can use this printer as a network printer by installing the EpsonNet 10/100 BASE TX Ext. Print Server (C82378*) in the printer's parallel interface port. See the Administrator's Manual packaged with this option for instructions on installation and use.

Chapter 3

Using the Printer Software

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Using the Printer Driver with Windows Me, 98, and 95

You can access the printer driver from your Windows applications or from the Start menu.

When you access the printer driver from a Windows application, any settings you make apply only to the application you are using. See “Accessing the printer driver from Windows applications” below. When you access the printer driver from the Start menu, the printer driver settings you make apply to all your applications. See “Accessing the printer driver from the Start menu” on page 3-4.

To check and change printer driver settings, see “Changing the printer driver settings” on page 3-4.

Note:

While many Windows applications override the settings made with the printer driver, some do not, so you must verify that the printer driver settings match your requirements.

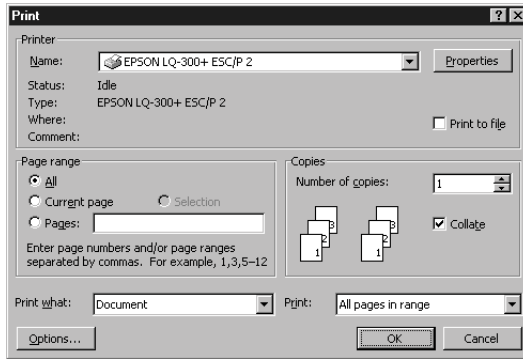
Accessing the printer driver from Windows applications

Follow these steps to access the printer driver from a Windows application:

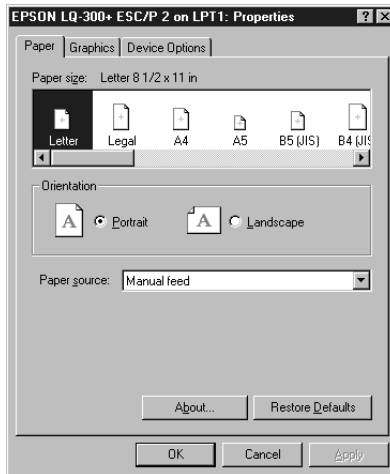
Note:

The steps given in this procedure provide general guidelines on accessing the printer driver. How you access the printer driver may differ depending on your application. See your application manual for details.

1. Select Print Setup or Print from the File menu of your application software. The Print or Print Setup dialog box appears.



2. Make sure that your printer is selected and then click Printer, Setup, Properties, or Options. (You may need to click a combination of these buttons.) The Properties window appears, and you see the Paper, Graphics, and Device Options menu. These menus contain the printer driver settings.



3. To view a menu, click the corresponding tab at the top of the window. See “Changing the printer driver settings” below to change the settings.

Accessing the printer driver from the Start menu

Follow these steps to access the printer driver from the Start menu:

1. Click the Start button, and then point to Settings.
2. Click Printers.
3. Right-click your printer icon, and click Properties. The screen displays the Properties window, which contains the Paper, Graphics, Device Options, and Utility menus. These menus display the printer driver settings.
4. To view a menu, click the corresponding tab at the top of the window. See the next section to change the settings.

Changing the printer driver settings

Your printer driver has four menus: Paper, Graphics, Device Options, and Utility. For an overview of the available settings, see “Printer Driver Settings Overview” on page 3-17. You can also view online help by right-clicking items in the driver and selecting What’s this?.

When you finish making printer driver settings, click OK to apply the settings, or click Restore Defaults to return the settings to their default values.

Once you have checked your printer driver settings and made any necessary changes, you are ready to print.

Using the Printer Driver with Windows 3.1

You can access the printer driver from your Windows applications or from the Control Panel.

When you access the printer driver from a Windows application, any settings you make apply only to the application you are using. See “Accessing the printer driver from Windows applications” below. When you access the printer driver from the Control Panel, the printer driver settings you make apply to all your applications. See “Accessing the printer driver from the Control Panel” on page 3-7.

To check and change printer driver settings, see “Changing the printer driver settings” on page 3-7.

Note:

While many Windows applications override the settings made with the printer driver, some do not, so you must verify that the printer driver settings match your requirements.

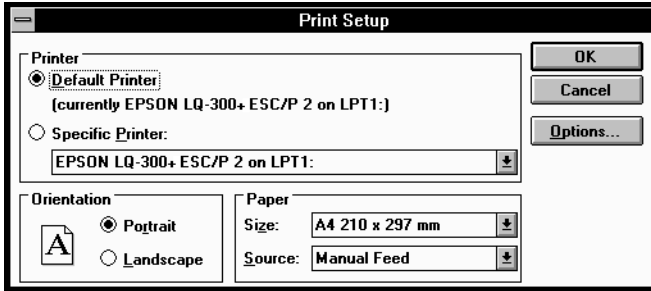
Accessing the printer driver from Windows applications

Follow these steps to access the printer driver from a Windows application:

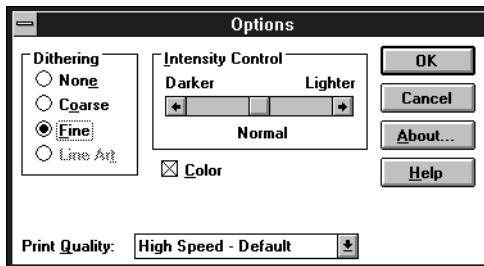
Note:

The steps in this procedure provide general guidelines on accessing the printer driver. How you access the printer driver may differ depending on your application. See your application manual for details.

1. Select Print Setup or Print from the File menu of your application software. The Print or Print Setup dialog box appears. See “Changing the printer driver settings” on page 3-7 for detailed information about the settings in this dialog box.



2. Make sure that your printer is selected and then click Printer, Setup, or Options. (You may need to click a combination of these buttons.) The Options dialog box appears. See “Changing the printer driver settings” on page 3-7 to change the settings.



Accessing the printer driver from the Control Panel

Follow these steps to access the printer driver from the Control Panel:

1. In the Main window, double-click the Control Panel icon.
2. Double-click the Printers icon. The Printers dialog box appears.
3. Make sure your printer is highlighted, then click Setup. The Print Setup dialog box appears. To access more settings, you may need to click Options. See the next section to change the settings.

3

Changing the printer driver settings

You can change printer driver settings in the Print (or Print Setup) dialog box and the Options dialog box. For an overview of the available settings, see “Printer Driver Settings Overview” on page 3-17.

When you finish making your printer driver settings, click OK to apply the settings, or click Cancel to cancel your changes.

Once you have checked your printer driver settings and changed them if necessary, you are ready to print.

Using the Printer Driver with Windows 2000 and NT 4.0

You can access the printer driver from your Windows applications or from the Start menu.

When you access the printer driver from a Windows application, any settings you make apply only to the application you are using. See “Accessing the printer driver from Windows applications” below. When you access the printer driver from the Start menu, the printer driver settings you make apply to all your applications. See “Accessing the printer driver from the Start menu” on page 3-11.

To check and change printer driver settings, see “Changing the printer driver settings” on page 3-12.

Note:

While many Windows applications override the settings made with the printer driver, some do not, so you must verify that the printer driver settings match your requirements.

Accessing the printer driver from Windows applications

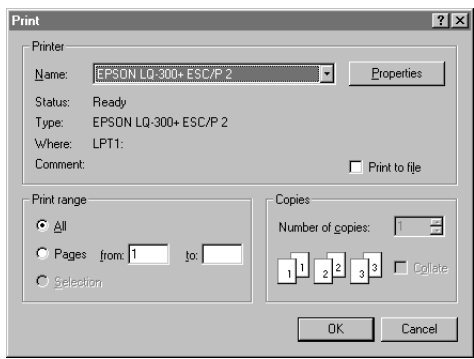
Follow these steps to access the printer driver from a Windows application:

Note:

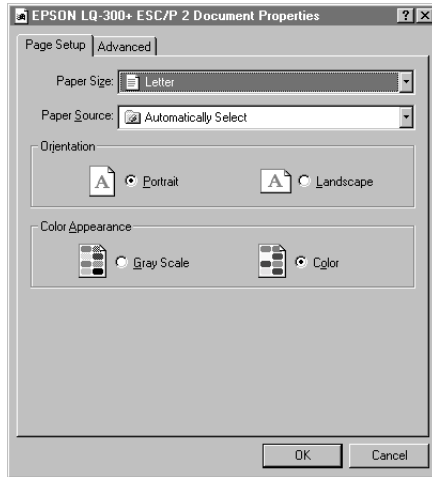
- ❑ *The steps in this procedure provide general guidelines on accessing the printer driver. How you access the printer driver may differ depending on your application. See your application manual for details.*

❑ *The screen shots in the following section are from the Windows NT 4.0 operating system. They may vary in appearance from what actually appears on your screen; however, the instructions are the same.*

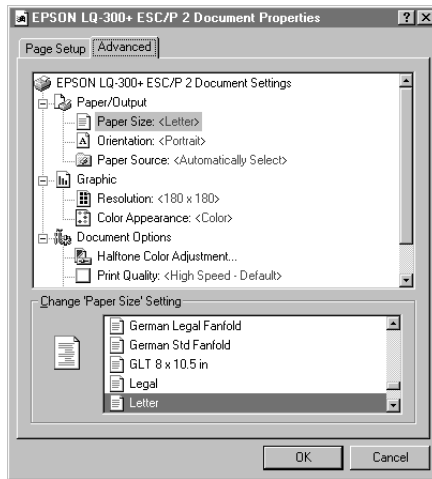
1. Select Print Setup or Print from the File menu of your application software. The Print or Print Setup dialog box appears.



2. Make sure that your printer is selected and then click Printer, Setup, Properties, or Options. (You may need to click a combination of these buttons.) The Document Properties window appears, and you see the Page Setup and Advanced menus. These menus contain the printer driver settings.



3. To view a menu, click the corresponding tab at the top of the window. See “Changing the printer driver settings” below to change the settings.



Accessing the printer driver from the Start menu

Follow these steps to access the printer driver from the Start menu:

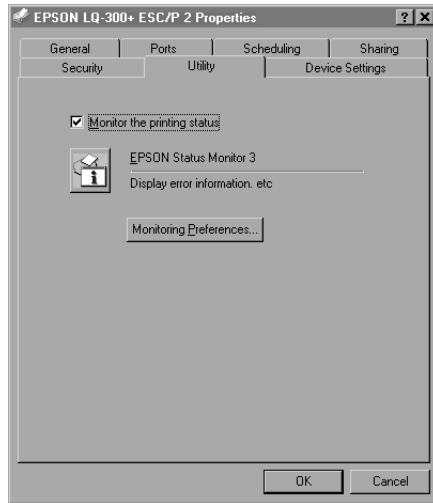
Note:

The screen shots used in this procedure are from the Windows NT 4.0 operating system. They may vary in appearance from what actually appears on your screen; however, the instructions are the same.

1. Click the Start button, and then point to Settings.
2. Click Printers.

3. Right-click your printer icon, and click Document Defaults. The screen displays the Default Document Properties window, which contains the Page Setup and Advanced menus. These menus display the printer driver settings.

When you click Properties, the printer software window appears, which includes menus used to make the printer driver settings.



4. To view a menu, click the corresponding tab at the top of the window. See the next section to change the settings.

Changing the printer driver settings

Your printer driver has two menus from which you can change the printer driver settings; Page Setup and Advanced. You can also change settings on the Utility menu in the printer driver. For an overview of the available settings, see "Printer Driver Settings Overview" on page 3-17. You can also view online help by right-clicking items in the driver and selecting What's this?.

When you finish making your printer driver settings, click **OK** to apply the settings, or click **CANCEL** to cancel your changes.

Once you have checked your printer driver settings and changed them if necessary, you are ready to print.

Using the Printer Driver with Windows NT 3.5x

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You can access the printer driver from your Windows applications or from the Control Panel.

When you access the printer driver from a Windows application, any settings you make apply only to the application you are using. See “Accessing the printer driver from Windows applications” below. When you access the printer driver from the Control Panel, the printer driver settings you make can apply to all your applications. See “Accessing the printer driver from the Control Panel” on page 3-16.

To check and change printer driver settings, see “Changing the printer driver settings” on page 3-16.

Note:

While many Windows applications override the settings made with the printer driver, some do not, so you must verify that the printer driver settings match your requirements.

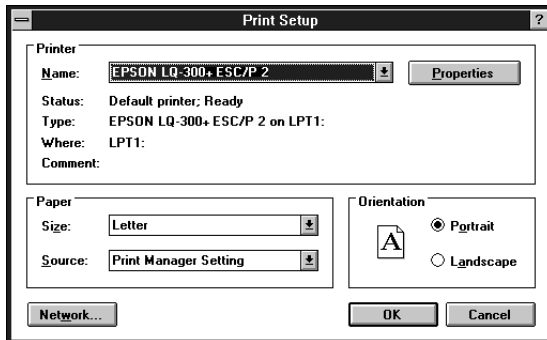
Accessing the printer driver from Windows applications

Follow these steps to access the printer driver from a Windows application:

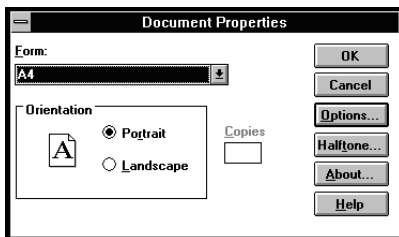
Note:

The steps in this procedure provide general guidelines on accessing the printer driver. How you access the printer driver may differ depending on your application. See your application manual for details.

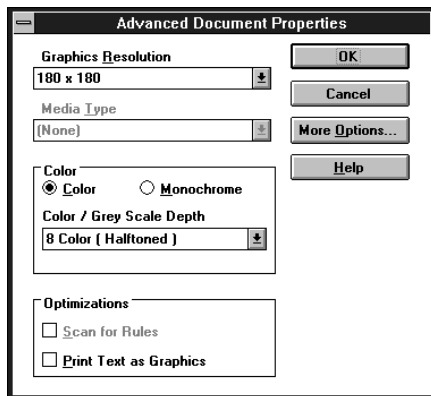
1. Select Print Setup or Print from the File menu of your application software. The Print or Print Setup dialog box appears.



2. Make sure that your printer is selected and then click Printer, Setup, Properties, or Options. (You may need to click a combination of these buttons.) The screen displays the Document Properties dialog box, which contains the Form and Orientation printer driver settings. See “Changing the printer driver settings” on page 3-16 to change the settings.



3. Click Options (or a similar button) to view the Advanced Document Properties dialog box, which includes the Graphics Resolution, Color, and Optimizations printer driver settings. See “Changing the printer driver settings” on page 3-16 to change the settings.



Accessing the printer driver from the Control Panel

Follow these steps to access the printer driver from the Control Panel:

1. In the Main window, double-click the Print Manager icon. The Print Manager window opens.
2. Make sure your printer is highlighted, then click Printer and select Properties. The Printer Properties dialog box appears.
3. Click the Details button, then click Job Default. You will see the Document Properties dialog box, which includes the Form and Orientation printer driver settings. See “Changing the printer driver settings” below to change the settings.
4. Click Options to open the Advanced Document Properties dialog box, which contains the Graphics Resolution, Color, and Optimizations printer driver settings. See “Changing the printer driver settings” below to change the settings.

Changing the printer driver settings

You can change printer driver settings in the Document Properties dialog box and the Advanced Document Properties dialog box. For an overview of the available settings, see “Printer Driver Settings Overview” on page 3-17. To open these dialog boxes, see the previous sections on accessing the printer driver.

When you finish making your printer driver settings, click OK to apply the settings, or click Cancel to cancel your changes.

Once you have checked your printer driver settings and changed them if necessary, you are ready to print.

Printer Driver Settings Overview

The following tables show the Windows printer driver settings. Note that not every setting is available in all versions of Windows.

The printer settings are shown below.

Settings	Explanations
Paper size	Select the size of the paper you want to use. If you do not see your paper size, use the scroll bar to scroll through the list. If your paper size is not included in the list, click Custom or User Defined Size and enter the paper size in the dialog box that appears.
Orientation	Select Portrait or Landscape.
Paper Source	Select the paper source you want to use.
Resolution/ Graphics Resolution	Select the printing resolution you want. The higher the resolution you select, the more detailed your printout will be; however, increasing the resolution slows printing. If you are using Windows 3.1, this option is only available from the Control Panel.
Dithering	You can leave this option set to Fine, which is the default setting, or select another dithering pattern depending on the kind of printout you want.
Intensity/ Intensity Control	Move the slider to make your printout lighter or darker.
Print quality	Select a print quality option from the Print quality list. If you turn on Hi-speed, you will enter bi-directional printing mode and printing speed will increase. Turning Hi-speed off will return the printer to uni-directional printing mode. Printing speed will decrease, but printing precision will improve. Printing with the default settings uses the settings stored in the printer.
EPSON Status Monitor 3	You can access the EPSON Status Monitor 3 utility when you click this button. To monitor the printer, make sure the Monitor the printing status check box is selected.

Settings	Explanations
Monitoring Preferences	Click this button to open the Monitoring Preferences dialog box where you can make settings for the EPSON Status Monitor 3 utility.
Paper/Output	Check the Paper Size, Orientation, and Paper Source settings you made on the Page Setup menu and change them if necessary. Select the setting and then choose an option from the Change Setting list box.
Halftone	Click this button to set the brightness and contrast, input the RGB gamma, or make other settings. The Halftone Color Adjustment dialog box appears. For details, click the Help button in this dialog box.

The monitoring settings are shown below.

Settings	Explanations
EPSON Status Monitor 3	You can access the EPSON Status Monitor 3 utility when you click this button. To monitor the printer, make sure the Monitor the printing status check box is selected.
Monitoring Preferences	Click this button to open the Monitoring Preferences dialog box where you can make settings for the EPSON Status Monitor 3 utility. For more information, see "Setting up EPSON Status Monitor 3" on page 3-19.

About the EPSON Status Monitor 3 Utility

The EPSON Status Monitor 3 utility that comes with your printer is available for Windows Me, 98, 95, 2000 or NT 4.0. It allows you to monitor your printer's status, alerts you when printer errors occur, and provides troubleshooting instructions when needed.

The EPSON Status Monitor 3 utility is available only when:

- The printer is connected directly to the host computer via the parallel port [LPT1].
- Your system is configured to support bidirectional communication.

The EPSON Status Monitor 3 utility is installed when you install the printer driver as described in Chapter 1.

Note:

If you install the driver using Add Printer in the Printers folder, or using the "Point and Print" method, EPSON Status Monitor 3 may not function properly. If you want to use EPSON Status Monitor 3, reinstall the driver as described in Chapter 1, "Setting Up the Printer."

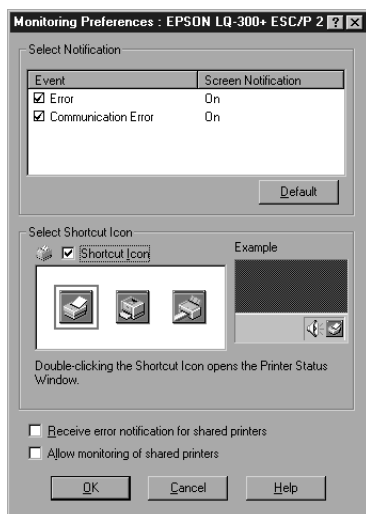
Before using the EPSON Status Monitor 3 utility, be sure to read the README file on the driver disk. This file contains the latest information on the utility.

Setting up EPSON Status Monitor 3

Follow these steps to setup EPSON Status Monitor 3:

1. Open the Utility menu as described in "Using the Printer Driver with Windows Me, 98, and 95" on page 3-2 or "Using the Printer Driver with Windows 2000 and NT 4.0" on page 3-8.

- Click the Monitoring Preferences button. The Monitoring Preferences dialog box appears.



- The following settings are available:

Select Notification	Displays the error item check box ON/OFF status. Turn on this check box to display the selected error notification.
Select Shortcut icon	The selected icon is displayed in the system tray on the taskbar on the PC screen. The setting's example is shown on the right window. By clicking the shortcut icon, you can access the Monitoring Preferences dialog box easily.
Receive error notification for shared printers	Error notification for a shared printer can be received when this check box is selected.
Allow monitoring of shared printer	When this check box is selected, a shared printer can be monitored by other PCs.

Note:

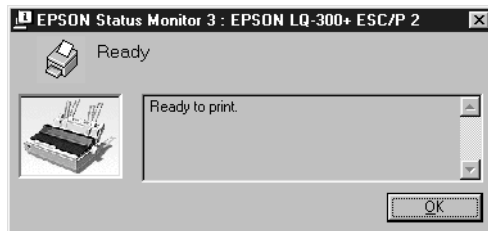
Click the *Default* button to revert all items to the default settings.

Accessing EPSON Status Monitor 3

To access the EPSON Status Monitor 3 utility:

- ❑ Double-click the printer-shaped shortcut icon on the taskbar. To add a shortcut icon to the taskbar, go to the Utility menu and follow the instruction.
- ❑ Open the Utility menu, then click the EPSON Status Monitor 3 icon. To find out how to open the Utility menu, See “Using the Printer Driver with Windows Me, 98, and 95” on page 3-2 or “Using the Printer Driver with Windows 2000 and NT 4.0” on page 3-8.

When you access the EPSON Status Monitor 3 utility as described above, the following printer status window appears.



You can view printer status information in this window.

Using the EPSON Remote! Utility

The EPSON Remote! utility allows you to easily change the printer's default settings from your computer's DOS prompt.

Installing EPSON Remote!

Follow these steps to install the EPSON Remote! utility:

1. Insert the printer software CD-ROM into the CD-ROM drive.
2. At the DOS prompt, type D:\SETUP. (If you inserted the disk into a drive other than drive "D," substitute "D" with the appropriate letter.) Then press Enter.
3. Select your printer's name in the Printer Model window and then press Enter. C:\EPUTIL appears as the default directory.
4. Press Enter again. The EPSON Remote! utility is copied to the C:\EPUTIL directory.

Accessing EPSON Remote!

To access the EPSON Remote! utility, type C:\PRNSET at the DOS prompt and press Enter. Then follow the on-screen instructions to use this utility. You can also access the EPSON Remote! utility by typing C:\PANEL at the DOS prompt and then pressing Enter. The PRNSET and PANEL access methods differ slightly. The PANEL method opens a condensed version of EPSON Remote! that only provides the most often used settings.

Chapter 4

Troubleshooting

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Using the 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. If you cannot fix your problem using this table, go to the next section.

Panel light state	Beep pattern	Problem
		Solution
<input type="checkbox"/> Pause	-	The printer is paused. Press the Pause button to resume printing.
	•••••	Paper from another paper source is currently in the paper path. Move the paper-release lever back to the appropriate position and press the Load/Eject button to clear the paper from 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.
<input type="checkbox"/> Paper Out <input type="checkbox"/> Pause	•••	No paper is loaded in the selected paper source. Load paper in the printer. Then press the Pause button to turn off the Pause light, if necessary.
		The paper is not loaded correctly. Remove your paper and reload it. See Chapter 2 for instructions on loading paper. Then press the Pause button to turn off the Pause light, if necessary.
	•••	Paper is jammed in the printer. Turn off the printer, open the printer cover, tear off the paper supply and turn the paper-feed knob to eject the remaining paper.

Panel light state	Beep pattern	Problem
		Solution
<input type="checkbox"/> Paper Out <input type="checkbox"/> Pause	•••	Continuous paper is not fed back to the standby position.
		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, if necessary.
	•••	A single sheet of paper is not fully ejected.
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.
		Clear the paper jam as described in the previous page.
<input type="checkbox"/> Pause	-	The print head is overheated.
		Wait a few minutes; the printer resumes printing automatically once the print head has cooled.
<input type="checkbox"/> All the lights on the control panel	•••••	An unknown printer error has occurred.
		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.

Problems and Solutions

Most problems you may encounter while operating your printer have simple solutions.

You can check the operation of your printer using the self test. See “Running the Self Test” on page 1-11. If the self test works properly the problem probably lies in the computer, the application software, or the interface cable. If the self test does not work, contact your dealer or a qualified service person for assistance.

Note:

If you are an experienced user or a programmer, you can print a hexadecimal dump to isolate communication problems between the printer and computer. To print a hex dump, turn off the printer. Next, hold down the Load/Eject and LF/FF buttons while you turn on the printer. Then send data from your computer. The printer prints all the codes it receives in hexadecimal format.

Power Supply

Power is not being supplied

The lights on the control panel do not go on.

The power cord may be unplugged. Check that the power cord is properly plugged into the electrical outlet.

The outlet may not be operating. If the electrical outlet is controlled by an outside switch or automatic timer, use a different outlet.

Plug another electrical device, such as a lamp, into the outlet to determine whether the outlet is operating properly.

The lights come on briefly and then go off. The lights stay off even when the power is turned on again.

The voltage ratings of the printer and electrical outlet may not match. Check that the printer's voltage rating matches the voltage of your electrical outlet. If the voltages do not match, unplug the printer and contact your dealer immediately. Do not reconnect the power cord to an electrical outlet.

Printing

The printer does not print

The PAUSE light is off but nothing is printed.

The software may not be installed properly. Check that the software is installed properly for your printer, as described in "Installing the Printer Software" on page 1-19. Check the software's printer settings.

The interface cable may not match the specifications of the printer or computer. Check both ends of the interface cable. Make sure the cable meets both the printer and computer specifications.

The Paper Out light is on and the printer beeps three times.

The printer may be out of paper. Load paper in the printer.

The printer sounds like it is printing, but nothing is printed.

The ribbon cartridge may not be installed properly. See "Installing or replacing the ribbon cartridge" on page 1-9.

The ribbon may be worn out. Replace the ribbon cartridge.

The printer makes a strange noise, the beeper sounds five times, and the printer stops abruptly.

The paper or ribbon may be jammed. Turn off the printer and check for a paper jam, a ribbon jam or other problems.

The printer may have overheated. Let the printer cool. Then try to print again. If the printer still does not print correctly contact your dealer.

The beeper sounds five times and the PAUSE light comes on.

An error has occurred. Turn off the printer and turn it on again. If the PAUSE light stays on, check for a paper jam or ribbon jam. If there is no jam, contact your dealer or a qualified service person. (If an error occurs when you switch between single sheets and continuous paper, make sure the paper-release lever is in the correct position.)

The print is faint or uneven

Printed characters have parts missing at the bottom.

The ribbon cartridge may not be installed properly. See “Installing or replacing the ribbon cartridge” on page 1-9.

The printout is faint.

The ribbon may be worn out. Replace the ribbon cartridge as described under “Installing or replacing the ribbon cartridge” on page 1-9.

Dots are missing in printed characters or graphics

A line of dots is missing in the printout.

The print head is damaged. Stop printing and contact your dealer to have the print head replaced.

Dots are missing in random positions.

Either there is too much slack in the ribbon or the ribbon has come loose. Reinstall the ribbon cartridge as described in “Installing or replacing the ribbon cartridge” on page 1-9.

4

Printed characters are not what you expected

The typestyles or characters you sent with your software did not print.

The software may not be properly configured. Check that the software is correctly configured for your printer. For instructions, see Chapter 3, “Using the Printer Software.”

The font selected on the control panel does not print.

Your software may be overriding your control panel setting. Check the font setting in your application software.

The print position is not what you expected

Printing starts too high or too low on the page, or the bottom part of one page is printed at the top of the next page.

Your application software settings may be incorrect. Check the margin or top-of-form position setting in your application software.

Page length does not match the length of the paper.

The page length setting in your application may be incorrect. Check the page length set by your application software and adjust it if necessary.

If you are using continuous paper, change the page length in the Printer Setting mode. See “Installing and Using Options” on page 2-34.

Regular gaps occur in the printout.

One-inch skip-over-perforation may be set. Set skip-over-perforation to off in the Default Setting mode. See “Installing and Using Options” on page 2-34.

Paper Handling

Single sheets do not feed properly

Paper does not feed.

Continuous paper may be left in the printer. Remove the continuous paper. Set the paper-release lever to the single-sheet position. Insert a new sheet.

Move the paper a little to the left.

Paper feeding is crooked or the paper jams.

The paper was not fed correctly or is of the wrong type. Turn off the printer and pull out the paper. Insert a new sheet straight into the paper guide. Make sure you're using the right type of paper. See the paper specifications under "Printer Specifications" on page A-4.

Paper does not eject completely.

Use the LF/FF button to eject the page.

The paper may be too long. Use paper that is within the specified range. See the paper specifications under "Printer Specifications" on page A-4.

Continuous paper does not feed properly

The tractor does not feed the paper.

The paper-release lever may be in the wrong position. Check that the paper-release lever is pulled forward to the continuous-paper position. If not, turn off the printer, move the lever, and turn it on again.

The paper may have come off the tractor. Reattach the paper to the tractor.

Paper feeding is crooked or the paper jams.

The position of your paper supply may be preventing it from feeding straight. Make sure that the paper supply is not obstructed.

Make sure that your paper supply is positioned within 1 meter (3 feet) of the printer.

Make sure the printer cover is closed.

Make sure the edge guide positions are correct. Position the edge guides at the diamond-shaped guide marks.

Check that the holes on the sides of the paper are aligned with each other. Also, make sure the sprocket units are locked and their covers are closed.

Check that the paper size and thickness are within the specified range. See the paper specifications under “Printer Specifications” on page A-4.

When you use side-crimped multipart forms, the copies may not align with the original. If this happens, raise the paper guide to keep the printing position accurate.

The paper does not eject properly.

The page may be too long. Tear off the fresh supply of paper and eject the page from the printer. Use only paper that is within the specified length range described under “Printer Specifications” on page A-4.

When you switch between single sheets and continuous paper, the beeper sounds five times and the PAUSE light comes on.

You may have tried to change the paper-release lever position while paper remained in the printer. Return the paper-release lever to the previous position and eject the paper. Then change the paper-release lever position.

Options

When you use the cut-sheet feeder, the paper does not feed properly

The paper does not feed.

The cut-sheet feeder may be incorrectly installed on the printer. Reinstall it as described under “Cut-sheet feeder” on page 2-34.

Make sure the paper-release lever is pushed back to the single-sheet position.

You may have loaded too many sheets in the cut-sheet feeder’s bin.

Paper may be jammed near the print head. Look for a paper jam.

Make sure the edge guide positions are correct. Position the edge guides at the diamond-shaped guide marks.

There may be only one sheet left in the bin. Add more paper.

Two or more sheets feed at one time.

You may have loaded too many sheets in the cut-sheet feeder’s bin.

You may have forgotten to fan the stack of paper before loading it into the bin. Remove the paper and fan it.

The paper feed is crooked.

The paper may be old or creased. Use only new, clean sheets of paper.

There may be too much paper in the stacker.

Make sure that the paper guides are set correctly and that your paper is the proper size and quality. See “Printer Specifications” on page A-4 for paper specifications.

One page of printing has spread to two pages.

Your application software settings may be incorrect. Check that the page-length setting and lines-per-page setting in your application software are correct.

Switching between the cut-sheet feeder and the push tractor does not work properly

The desired paper type does not load.

The paper-release lever may not be in the proper position. Pull the lever forward to load continuous paper or push the lever back to load single sheets.

Using the pull tractor with the push tractor, continuous paper does not feed properly

Paper feed is crooked or the paper jams.

The pull tractor and push tractor sprockets are not aligned correctly. When using both tractors, be sure that the sprockets on both are positioned evenly.

The paper may have too much slack. Adjust the position of the sprockets to take up any slack along the width of the paper. Remove slack lengthwise by rotating the paper-feed knob.

The paper may be caught on the edge guides. Make sure that the paper guide is installed over the paper and that the edge guides are positioned correctly.

With the color upgrade kit installed, the printer does not operate properly

The lights on the control panel do not go on.

Did you install the motor in the color upgrade kit? Follow the instructions under “Color upgrade kit” on page 2-42.

The desired color or certain characters are not printed.

Your application software may not be properly set up for color printing. Use the program’s setup (or install) procedure to check the printer setting and adjust as needed. If your application software is capable of sending control codes, select the color using the ESC r command. (See “Command Lists” on page A-16.)

The ribbon cartridge may not be installed properly. See Chapter 1, “Setting Up the Printer.”

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Cleaning the Printer

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

Follow these steps to clean your printer:

1. Remove any paper loaded in the printer. Make sure the printer is turned off.
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 or dusty, clean them with a soft, clean cloth dampened with a mild detergent dissolved in water. Keep the printer cover in place and lower it 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 onto 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 for some distance, carefully repack it using the original box and packing materials.

Follow these steps to repack the printer in its original packing materials:



Warning:

You 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. Remove any paper loaded in the printer. Make sure the printer is turned off.
2. Unplug the power cord from the electrical outlet; then disconnect the interface cable from the printer.
3. Attach 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 as described in Chapter 1, “Setting Up the Printer.”
6. Make sure the tractor that comes with your printer is installed in the push position.
7. Repack the printer, ribbon cartridge, paper guide, and power cord in their original packing materials and place them in the printer’s original box.

Printer Specifications

Mechanical

Printing method:	24-pin impact dot matrix	
Printing speed:	High speed draft	300 cps at 10 cpi
	Draft	225 cps at 10 cpi 270 cps at 12 cpi 337 cps at 15 cpi
	Draft condensed	192 cps at 17 cpi 225 cps at 20 cpi
	LQ	75 cps at 10 cpi 90 cps at 12 cpi 112 cps at 15 cpi
	LQ condensed	128 cps at 17 cpi 150 cps at 20 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:	80 columns (at 10 cpi)	
Resolution:	360 × 360 dpi maximum	
Paper feed methods:	Friction (top paper entry) Push tractor (rear paper entry) Pull tractor (bottom or rear paper entry) Push and pull tractor (optional) Cut-sheet feeder (optional) Roll paper holder (optional)	
Paper feed speed:	Continuous	92 mm/second (3.6 inches/second)
	Intermittent	53 msec/line at 1/6-inch line spacing

Color printing (optional):	Method	Print ribbon shifting
	Ribbon color	Black, Magenta, Cyan and Yellow
Reliability:	Total print volume	12 million lines (except print head) MTBF 6,000 POH (25% duty)
	Print head life	Black ribbon: 200 million strokes per wire Color ribbon: 100 million strokes per wire
Dimensions and weight:	Height	159 mm (6.26 inches)
	Width	366 mm (14.4 inches)
	Depth	275 mm (10.8 inches) (not including the knob, paper guide and paper release laver.)
	Weight	approx. 4.4 kg (9.8 lb)
Ribbon:	Black ribbon cartridge (#7753)	
	Color ribbon cartridge (S015077)	
	Black film ribbon cartridge (#7768)	
	Black ribbon life	2 million characters
	Color ribbon life	
	black	1 million characters
	cyan	0.7 million characters
	magenta	0.7 million characters
	yellow	0.5 million characters
	Film ribbon life	0.2 million characters (LQ, 10 cpi, 48 dots/character)
Acoustic noise:	Approx. 49 dB (A) (ISO 7779 pattern)	



Electronic

Interfaces: One standard bidirectional, 8-bit, parallel interface with IEEE-1284 nibble mode support and One EIA-232D serial interface

Buffer: 32KB

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

EPSON Roman	10.5, 8-32 pt (every 2 pt)
EPSON Sans Serif	10.5, 8-32 pt (every 2 pt)
EPSON Roman T	10.5, 8-32 pt (every 2 pt)
EPSON Sans Serif H	10.5, 8-32 pt (every 2 pt)

Barcode fonts

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

Character tables:

One Italic and 12 graphical character tables:

Italic table,
PC 437 (US, Standard Europe),
PC 850 (Multilingual),
PC 860 (Portuguese),
PC 861 (Icelandic), PC 865 (Nordic),
PC 863 (French-Canadian),
BRASCI, Abicomp, ISO Latin 1,
Roman 8, PC 858, ISO 8859-15

The following 23 graphical character tables are also available in some countries:

PC 437 Greek,
PC 852 (Eastern Europe),
PC 853 (Turkish), PC 855 (Cyrillic),
PC 857 (Turkish), PC 866 (Russian),
PC 864 (Arabic), PC 869 (Greek),
MAZOWIA (Poland),
Code MJK (CSFR),
ISO 8859-7 (Latin/Greek),
ISO Latin 1T (Turkish),
Bulgaria (Bulgarian),
PC 774 (LST 1283: 1993),
Estonia (Estonian),
PC 771 (Lithuanian), ISO 8859-2,
PC 866 LAT. (Latvian),
PC 866 UKR (Ukrainian),
PC APTEC (Arabic), PC 708 (Arabic),
PC 720 (Arabic), PC AR 864 (Arabic)

Character sets:

14 international character sets and one legal character set:

USA, France, Germany, UK, Denmark I,
Sweden, Italy, Spain I
Japan, Norway, Denmark II, Spain II,
Latin America, Korea, Legal

Latter 7 sets can be selected only with the ESC R command.

A

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	0.6 A (maximum 1.4 A depending on the character type)	0.3 A (maximum 0.7 A depending on the character type)
Power consumption	Approx. 20 W (ISO/IEC 10561 letter pattern)	

Note:

Check the label on the back of the printer for the voltage of your printer.

Environmental

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

Paper

Note:

- ❑ *Use recycled paper, envelopes, and single-sheet multipart forms only under normal temperature and humidity conditions, as follows:*

Temperature 15 to 25 °C (59 to 77 °F)

Humidity 30 to 60% RH

- ❑ *Do not load paper that has been folded or is damaged, wrinkled, or curled.*

Single sheets (standard): paper guide and cut-sheet feeder entry

Width	Paper guide: 100 to 257 mm (3.9 to 10.1 inches) Cut-sheet feeder: 182 to 216 mm (7.2 to 8.5 inches)
Length	Paper guide: 100 to 364 mm (3.9 to 14.3 inches) Cut-sheet feeder: 257 to 356 mm (10.1 to 14 inches)
Thickness	Paper guide: 0.065 to 0.14 mm (0.0025 to 0.0055 inch) Cut-sheet feeder: 0.07 to 0.14 mm (0.0028 to 0.0055 inch)
Weight	Paper guide: 52 to 90 g/m ² (14 to 24 lb) Cut sheet feeder: 64 to 90 g/m ² (18 to 24 lb)

Single-sheet multipart forms: paper guide entry

Width	100 to 257 mm (3.9 to 10.1 inches)
Length	100 to 364 mm (3.9 to 14.3 inches)
Copies	1 original + up to 3 copies
Thickness	0.12 to 0.32 mm (0.0047 to 0.013 inch)
Weight	40 to 58 g/m ² (12 to 15 lb)
Binding	Line glued at the top of form

Envelopes: paper guide entry

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

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

Width	101.6 to 254.0 mm (4.0 to 10.0 inches)
Length (one page)	101.6 to 558.8 mm (4.0 to 22.0 inches)
Copies	1 original + up to 3 copies
Thickness	Printable area 0.065 to 0.32 mm (0.0025 to 0.013 inch) Gathering area up to 0.9 mm (0.035 inch)
Weight (not multipart)	52 to 82 g/m ² (14 to 22 lb)
Weight (one sheet of multipart)	40 to 58 g/m ² (12 to 15 lb)
Binding	Spot glued or crimp bound on both sides

Labels: bottom entry

Label size	23.8 × 63.5 mm (15/16 × 2.5 inches) minimum 2.5 mm (0.1 inch) corner radius, minimum
Backing sheet width	101.6 to 254 mm (4.0 to 10.0 inches)
Backing sheet length (one page)	101.6 to 558.8 mm (4.0 to 22.0 inches)
Backing sheet thickness	0.07 to 0.09 mm (0.0028 to 0.0035 inch)
Total thickness	0.16 to 0.19 mm (0.0063 to 0.0075 inch)
Label weight	64 g/m ² (17 lb)

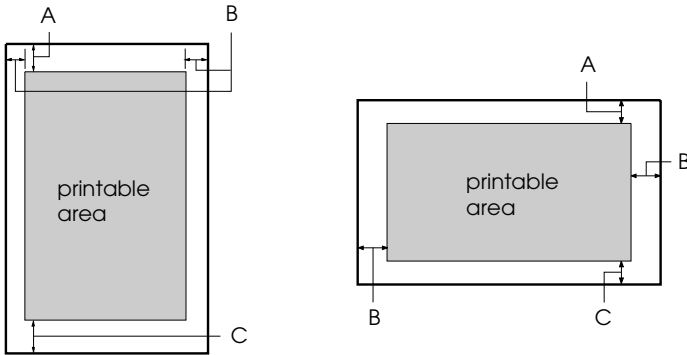
Roll paper: rear entry with optional roll paper holder

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

A

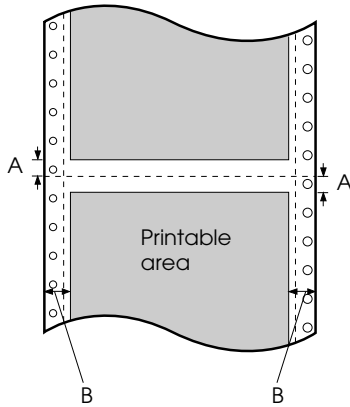
Printable area

Single sheets and envelopes:



- A The minimum top margin is 4.2 mm (0.17 inch).
- B The minimum left and right margins are 3.0 mm (0.12 inch) each.
The maximum paper width is 257 mm (10.1 inches) and the maximum printable width is 203.2 mm (8.0 inches).
For single sheets wider than 209.2 mm (8.23 inches), the side margins increase proportionally to match the width of the paper.
- C The minimum bottom margin is 4.2 mm (0.17 inch).

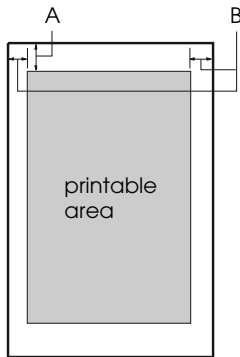
Continuous paper:



- A The minimum top and bottom margins above and below the perforation are 4.2 mm (0.17 inch) each.
- B The minimum left and right margins are 13 mm (0.51 inch) each.
The maximum paper width is 254 mm (10.0 inches) and the maximum printable width is 203.2 mm (8.0 inches).
For continuous paper wider than 229.2 mm (9.0 inches), the side margins increase proportionally to match the width of the paper.

A

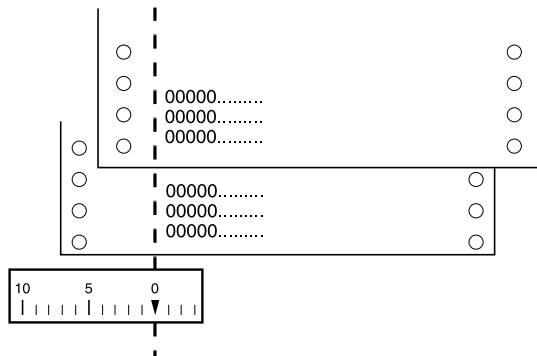
Roll paper:



- A The minimum top margin is 4.2 mm (0.17 inch).
- B The minimum left margin is 3.0 mm (0.12 inch).
The minimum right margin is 3.0 mm (0.12 inch).
The maximum printable width is 203.2 mm (8.0 inches).

Paper alignment

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



A

Standards and approvals

European model:

Low Voltage Directive 73/23/EEC	EN 60950
EMC Directive 89/336/EEC	EN 55022 Class B
	EN 55024
	EN 61000-3-2
	EN 61000-3-3

Australian model:

EMC	AS/NZS 3548 Class B
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Command Lists

Your printer supports the EPSON ESC/P2 control codes and IBM 2390 Plus emulation control codes listed below.

EPSON ESC/P2 control codes

Selecting an EPSON ESC/P2 printer in your software allows you to use advanced fonts and graphics.

General operation:

ESC @, ESC U, ESC EM

Paper feeding:

FF, LF, ESC 0, ESC 2, ESC 3, ESC +, CR

Page format:

ESC (C, ESC C, ESC C 0, ESC Q, ESC l, ESC (c, ESC N, ESC O

Print position motion:

ESC \$, ESC \, ESC (V, ESC (v, ESC D, HT, ESC B, VT, ESC J

Font selection:

ESC k, ESC x, ESC y, ESC X, ESC P, ESC M, ESC g, ESC p,
ESC 4, ESC 5, ESC E, ESC F, ESC !

Font enhancement:

ESC W, DC4, SO, DC2, SI, ESC w, ESC G, ESC H, ESC T,
ESC S, ESC -, ESC (-, ESC q

Spacing:

ESC Space, ESC c, ESC (U

Character handling:

ESC t, ESC (t, ESC R, ESC %, ESC &, ESC :, ESC 6, ESC 7, ESC (^

Bit image:

ESC *

Bar code:
ESC (B

Color printing:
ESC r

IBM 2390 Plus emulation control codes

This printer emulates the IBM Proprinter using the commands below. For detailed information, see the IBM 2390 Plus reference manual.

General operation:

NUL, DC3, ESC j, BEL, CAN, DC1, ESC Q, ESC [K, ESC U,
ESC [F

Paper feeding:

FF, LF, ESC 5, ESC A, ESC A (AGM*), ESC 0, ESC 1, ESC 2,
ESC 3, ESC 3 (AGM*), CR, ESC]

Page format:

ESC C, ESC C0, ESC X, ESC N, ESC O, ESC 4

Print position motion:

ESC d, ESC R, ESC D, HT, ESC B, VT, ESC J, ESC J (AGM*)

Font selection:

DC2, ESC P, ESC :, ESC E, ESC F, ESC I, ESC [d, ESC [I

Font enhancement:

DC4, SO, ESC SO, ESC W, ESC [@, SI, ESC SI, ESC G, ESC H,
ESC T, ESC S, ESC -, ESC _, ESC [-

Spacing:

BS, SP, ESC [\

Character handling:

ESC 6, ESC 7, ESC [T, ESC ^, ESC \

A

Bit image:

ESC K, ESC L, ESC Y, ESC Z, ESC [g, ESC * (AGM*)

* Alternate Graphic Mode

Barcode:

ESC [f, ESC [p

Download:

Download command is not provided.

Contacting Customer Support

If your EPSON product is not operating properly and you cannot solve the problem using the troubleshooting information in your product documentation, contact customer support services for assistance. If customer support for your area is not listed below, contact the dealer where you purchased your product.

Customer support will be able to help you much more quickly if you give them the following information.

- Product serial number
(The serial number label is usually on the back of the product.)
- Product model
- Product software version
(Click About, Version Info, or similar button in the product software.)
- Brand and model of your computer
- Your computer operating system name and version
- Names and versions of the software applications you normally use with your product

For users in North America

If you purchased your printer in the United States or Canada, EPSON provides technical assistance 24 hours a day through the electronic support services and automated telephone services listed in the following table:

Service	Access
World Wide Web	From the Internet, you can reach EPSON Support at http://support.epson.com . At this site, you can download drivers and other files, look at documentation such as product brochures and user manuals, and access troubleshooting information.
EPSON Internet FTP Site	If you have Internet FTP capability, use your Web browser (or other software for FTP downloading) to log onto ftp.epson.com with the user name anonymous and your e-mail address as the password.
EPSON E-MAIL Technical Support	To receive technical advice through e-mail, go to http://support.epson.com and complete the form under the troubleshooting tab, as requested.
Automated Telephone Services	A variety of automated help services are available 24 hours a day, seven days a week. To use these services, you must have a touch tone telephone and call (800) 922-8911 .

To speak directly to a technical support representative, dial: **(562) 276-4322** (U.S.), or **(905) 709-2170** (Canada), 6 AM to 6 PM, Pacific Time, Monday through Friday. Toll or long distance charges may apply.

Before you call, please have the following information ready:

- Product name
- Product serial number (located on the back of the printer)
- Proof of purchase (such as a store receipt) and date of purchase

- Computer configuration
- Description of the problem

Note:

For help using any other software on your system, see the documentation for that software for technical support information.

You can purchase ink cartridges, ribbon cartridges, paper, manuals, and accessories from EPSON at (800) 873-7766 or visit our web site at www.epsonstore.com (U.S. sales only). In Canada, please call (800) 873-7766 for dealer referral.

For users in the United Kingdom and the Republic of Ireland

If you purchased your product in the UK or the Republic of Ireland, EPSON (UK) LTD provides a range of customer services and technical support.

Support Via the World Wide Web

- For information on the latest EPSON products, software drivers, online user guides, and answers to frequently asked questions:

<http://www.epson.co.uk>

- To e-mail EPSON Technical Support:

<http://www.epson.co.uk/support/email/>

- For a full list of EPSON Customer and Warranty Support services:

<http://www.epson.co.uk/support/>

Support Via Telephone

Our Customer and Warranty Support teams can be contacted by calling 0870 163 7766 in the UK or 0044 0870 163 7766 from the Republic of Ireland. They can provide the following services:

- ❑ Technical information on installing, configuring, and operating your EPSON products
- ❑ Arranging for faulty EPSON products to be repaired within the warranty period

Pre-Sales Enquiry Desk

Our Enquiry Desk team can be contacted by calling 0800 220546 in the UK or 1 800 409132 from the Republic of Ireland, by faxing 01442 227271 in the UK or 0044 1442 227271 from the Republic of Ireland, and via e-mail at info@epson.co.uk. They can provide the following information:

- ❑ Pre-sales information and literature on new EPSON products (also available via our world wide web site at <http://www.epson.co.uk>)
- ❑ Where to purchase genuine EPSON consumables, accessories, and options

For users in Australia

EPSON Australia wishes to provide you with a high level of customer service. In addition to your product documentation, we provide the following sources for obtaining information:

Your Dealer

Don't forget that your dealer can often help identify and resolve problems. The dealer should always be the first call for advise on problems, they can often solve problems quickly and easily as well as give advise on the next step to take.

Internet URL <http://www.epson.com.au>

Access the EPSON Australia World Wide Web pages. Worth taking your modem here for the occasional surf! The site provides a download area for drivers, EPSON contact points, new product information and technical support (e-mail).

EPSON Faxback service

EPSON Faxback service will fax you the latest specifications for most EPSON products offered in Australia. Phone (02) 9903 9075 and the system will guide you through a number of choices before faxing the information to your fax machine.

EPSON Helpdesk

EPSON Helpdesk is provided as a final backup to make sure our clients have access to advice. Operators on the Helpdesk can aid you in installing, configuring and operating your EPSON product. Our Pre-sales Helpdesk staff can provide literature on new EPSON products and advise where the nearest dealer or service agent is located. Many types of queries are answered here.

The Helpdesk numbers are:

Phone: 1300 361 054

Fax: (02) 9903 9189

We encourage you to have all the relevant information on hand when you ring. The more information you prepare, the faster we can help solve the problem. This information includes your EPSON product documentation, type of computer, operating system, application programs, and any information you feel is required.

For users in Singapore

Sources of information, support, and services available from Epson Singapore are:

World Wide Web (www.epson.com.sg)

Information on product specifications, drivers for download, Frequently Asked Questions (FAQ), Sales Enquiries, and Technical Support via e-mail are available.

Epson HelpDesk (Phone: (065) 5863111)

Our HelpDesk team can help you with the following over the phone:

- Sales enquiries and product information
- Product usage questions or problem
- Enquiries on repair service and warranty

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For users in Hong Kong

To obtain technical support as well as other after-sales services, users are welcome to contact EPSON Hong Kong Limited.

Internet home page

EPSON Hong Kong has established a local home page in both Chinese and English on the Internet to provide users with the following information:

- Product information
- Answers to Frequently Asked Questions (FAQs)
- Latest versions of EPSON product drivers

Users can access our World Wide Web home page at:

<http://www.epson.com.hk>

Electronic bulletin board system

An electronic bulletin board system (BBS) is also available to obtain product information and the latest versions of product drivers. You can log on to the following number for the BBS service:

BBS: (852) 2827-4244

Technical Support Hotline

You can also contact our technical staff at the following telephone and fax numbers:

Phone: (852) 2585-4399

Fax: (852) 2827-4383

For users in Malaysia

Contacts for information, support, and services are:

World Wide Web (www.epson.com.my)

Information on product specifications, drivers for download, Frequently Asked Questions (FAQ), and Email Enquiries are available.

Epson Trading Shah Alam Head Office

Phone: 03 5191366

Fax: 03 5191281

For users in India

Contacts for information, support, and services are:

World Wide Web (www.epson.co.in)

Information on product specifications, drivers for download, Frequently Asked Questions (FAQ), Products Enquiry, and Technical Query are available.

A

Epson India Head Office - Bangalore:

Phone: 5321 266-70

Fax: 5581799/5321095

Help Desk Phone: 5321 625

Epson India Regional Offices:

Mumbai	Phone: 8261516-17 Fax: 8257287 Help Desk Phone: 8261515
Delhi	Phone: 3352051-53 Fax: 3352054 Help Desk Phone: 3706222
Chennai	Phone: 8203940-41 Fax: 8272463 Help Desk Phone: 8218659
Kolkata	Phone: 2871355 Fax: 2871357 Help Desk Phone: 2404932

For users in the Philippines

To obtain technical support as well as other after sales services, users are welcome to contact the EPSON Philippines Representative Office at the telephone and fax numbers below:

Phone: (632) 813-6552

Fax: (632) 813-6545

BBS: (632) 814-0595

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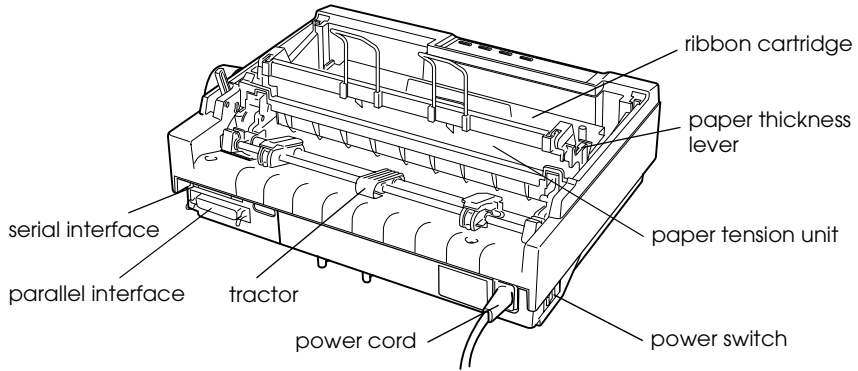
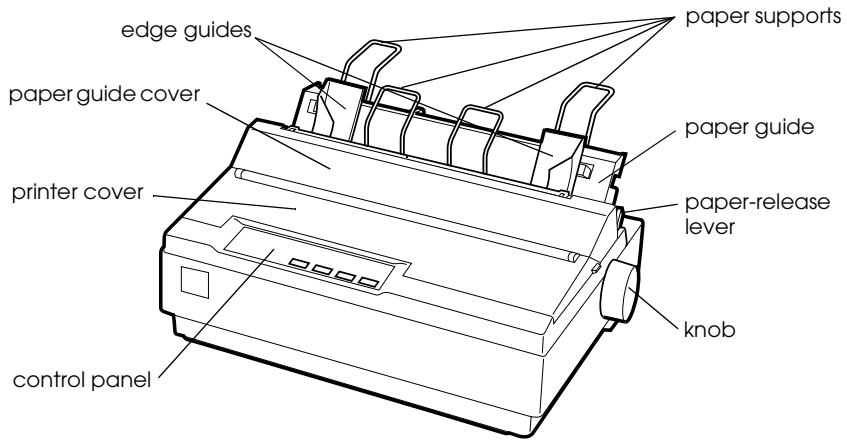
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Printer Parts



EPSON OVERSEAS MARKETING LOCATIONS

Epson America, Inc.

3840 Kilroy Airport Way
Long Beach, CA 90806
Phone: (562) 981-3840
Fax: (562) 290-5220

EPSON UK LTD.

Campus 100, Maylands Avenue,
Hemel Hempstead, Herts,
HP2 7TJ, U.K.
Phone: (+44) 01442 261144
Fax: (+44) 01442 227227

EPSON DEUTSCHLAND GmbH

Zülpicher Straße 6,
40549 Düsseldorf Germany
Phone: (0211) 56030
Fax: (0211) 5047787

EPSON FRANCE S.A.

68 bis, rue Marjolin
92300, Levallois-Perret, France
Phone: 33.1.41.86.26.56
Telex: 610657

EPSON AUSTRALIA PTY. LTD.

70 GIBBES STREET,
CHATSWOOD 2067 NSW.
Phone: 2-9903-9000
Fax: 2-9903-9177

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No. 1 Temasek Avenue #36-00
Millenia Tower, Singapore 039192
Phone: (065) 33 77 911
Fax: (065) 33 41 185

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