

EPSON STYLUS™ COLOR 900

DOS User's Guide

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Installing the Printer Driver for DOS Programs

Most DOS software programs include a driver for EPSON ESC/P 2™ printers, and require you to select the printer name from a list to install the printer driver. To take advantage of your printer's advanced built-in scalable fonts and graphics handling, you must select an appropriate driver.

If your printer is not included in the list, contact your software manufacturer to obtain updated software.

If the manufacturer does not have an updated printer driver for your printer, select an alternative printer name from those below, starting from the top.

When printing black only:

LQ-870/1170
LQ-570 (+)/1070(+)
SQ-870/1070
LQ-850
LQ-500

When printing black and color:

EPSON Stylus PRO
EPSON Stylus COLOR 500
EPSON Stylus COLOR II
LQ-860
LQ-2550

Note:

The drivers for the printers listed above do not provide all EPSON STYLUS COLOR 900 features, such as 720-dpi printing, 1440-dpi printing and MicroWeave.

DOS software varies greatly. See the printing section of your software manual for information on accessing the printer driver settings.

Changing the Print Settings

You can change many print settings such as print direction and loading position. Because these settings take effect each time you turn on the printer, they are also called default settings.

The factory default settings are designed to meet the needs of most users, so you may not need to change them. The table below lists the features you can select in the default-setting mode.

Settings	Options
Font	Courier, Roman, Sans Serif, Prestige, Script, Roman T, Sans Serif H, Draft
Pitch	10 cpi, 12 cpi, 15 cpi, 17.1 cpi, 20 cpi, Proportional
Print direction	Auto, Bi-D, Uni-D
Loading position	8.5 mm, 3 mm, Others
I/F mode	Auto, Parallel, Serial, USB, Optional
Auto I/F wait time	10 seconds, 30 seconds
Network I/F mode	Off, On
Parallel I/F transfer rate	Fast, Normal
Software	ESC/P 2, IBM X24E
Auto CR (IBM mode only)	Off, On
AGM (IBM mode only)	Off, On
Auto line feed	Off, On
0 slash	0, 0 with slash
Character table	Standard model: Italic, PC437, PC850, PC860, PC861, PC863, PC865, BRASCII, Abicomp, Roman 8, ISO Latin 1, PC858, ISO 8859-15 All other models: Italic, PC437, PC437 Greek, PC850, PC852, PC853, PC855, PC857, PC866, PC869, MAZOWIA, Code MJK, ISO 8859-7, ISO Latin 1T, Bulgaria, PC774, Estonia, ISO 8859-2, PC866 LAT, PC866 UKR, PCAPTEC, PC708, PC720, PCAR864, PC860, PC861, PC863, PC865, BRASCII, Abicomp, Roman 8, ISO Latin 1, PC858, ISO 8859-15

For more details, see the next section, “Using the default settings”. To change a setting, see “Changing the default settings” on page 8.

Note:

Most software controls the character table and auto line feed. If your software controls these features, you may never need to set them with the control panel.

Using the default settings

Print direction

Your printer has three direction settings: Auto, Bi-D, and Uni-D. Auto causes the printer to switch automatically between bidirectional (for text data) and unidirectional (for graphics data). Bi-D causes the print heads to print in both directions. This provides the fastest printing. Uni-D causes the print heads to print in one direction only. This provides maximum alignment for both graphics and character printing.

Note:

Most software controls this setting. If your software does, you may never need to set it with the control panel.

Font

Use this setting to select the default font.

Pitch

With this setting, you can specify the default character pitch (font size).

I/F (interface) mode

You may need to change the I/F mode so that your printer and computer can communicate properly. If you select Auto, the printer automatically selects the interface that is receiving data, and uses that interface until the end of the print job. This setting allows you to share the printer among multiple computers without changing the interface mode.

Check your computer documentation if you are not sure of the type of interface your computer requires.

Auto I/F (interface) wait time

If you select Auto as the I/F mode option, you can set the interface timeout to 10 seconds or 30 seconds. The printer does not accept data from another interface unless it receives no data from the current interface for the period set in Auto I/F wait time.

Software

Use this setting to specify the type of control codes you want to use to control the printer. If you select ESC/P 2, the printer emulates an EPSON ESC/P 2 printer. If you select IBM X24E, the printer operates as an IBM Proprinter™ X24E. If possible, select EPSON ESC/P 2 in your application programs. This will allow you to use the most advanced font and graphics handling available.

Auto CR

This feature is available when you select IBM X24E emulation as the Software setting. When Auto CR is on, the auto carriage return option performs a carriage-return line-feed (CR LF) operation whenever the print position exceeds the right margin. If this is off, the printer does not print characters beyond the right margin, and does not perform a linewrap until it receives a CR command.

AGM (Alternate Graphics Mode)

This feature is available when you select IBM X24E emulation as the Software setting. When AGM is on, the printer can use high-resolution 24-pin graphics commands. The default is off.

Character table

Character tables contain the characters and symbols used in different languages. The printer prints text based on the selected character table. For the available character tables, see “Character Tables” on page 28.

Auto line feed

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

Network I/F mode

If your printer is connected to a single computer, leave this feature off. If you want to share the printer with another computer, turn this feature on. When this feature is on, data may be present in the printer’s buffer even though the printer is not printing. Always make sure the printer does not receive data before turning off the printer.

Loading position

If you want to print more lines on a page, set this feature to 3 mm. If you set the top margin with your software, that setting is added to the default-setting value.

0 slash

If you want to use the zero character which has a slash, set this feature to 0 with slash. The slash allows you to easily distinguish between an uppercase letter “O” and a zero.

Parallel I/F transfer rate

This setting specifies the interface transfer rate. For most printing, leave this setting set to Fast. If you encounter problems, set it to Normal.

Changing the default settings

To change the printer's default settings, use the control panel buttons; the control panel lights show your selections.

1. Make sure the printer is turned off and A4 or Letter size paper is loaded in the sheet feeder.
2. Hold down the  cleaning button and turn on the printer to enter the default-setting mode.

The printer loads a sheet of paper and prints a brief summary and instructions. It instructs you to select the language that you want messages printed in (English, French, German, Italian, Spanish, or Portuguese).

3. Press the  cleaning button until the control panel lights indicate the language of your choice, as shown below.

Language			
English	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
French	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
German	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Italian	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Spanish	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Portuguese	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

■ = On, □ = Off

4. Press the  load/eject button to print the current default settings and the next instructions in the language you selected. The printed instructions include submenu tables that list all of the settings you can change and show you how the control panel lights appear for each selection. Use the instruction sheets to change the settings from the control panel.

5. After making your changes, exit the default-setting mode by turning off the printer.

Note:

You may exit the default-setting mode any time by turning off the printer. Any changes you have made remain in effect until you change them again.

If you want to check the current default settings, enter the default-setting mode again and print the current settings. Current settings are indicated with arrows.

Selecting fonts

Your printer has eight built-in character fonts including two EPSON fonts: EPSON Roman T and EPSON Sans Serif H. (Roman T is similar to the Times™ font; Sans Serif H is similar to Helvetica™.)

To select a font, enter the default-setting mode. See “Changing the default settings” on page 8.

Note:

The font selections you make with your software override your printer’s control panel selections. For best results, use your software to select fonts.

The following table shows the available fonts.

Fonts	Sample
EPSON Courier	
EPSON Roman T	
EPSON Sans Serif H	
EPSON Roman	
EPSON Sans Serif	
EPSON Prestige	
EPSON Script	
Draft	

Note:

- ❑ *Roman T and Sans Serif H fonts are available in proportionally spaced fonts only.*

- ❑ *Some of the character tables might not be able to print with EPSON Roman T and EPSON Sans Serif H fonts. In these cases, selected character tables are printed with EPSON Roman.*

Scalable fonts

The size of the Roman, Sans Serif, Roman T, and Sans Serif H fonts can be selected from 8 to 32 points in 2-point increments through your software or by sending an ESC/P 2™ command. See the documentation that came with your software for information on selecting the size of scalable fonts.

EPSON
Roman

EPSON
Roman T

scalable sample

EPSON
Sans Serif

EPSON
Sans Serif H

Troubleshooting and Maintenance

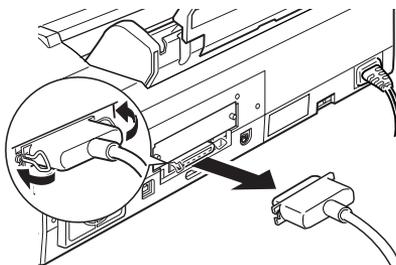
This section describes what you can do if you are having problems printing. See also “Maintenance” and “Troubleshooting” in your *Setup & Daily Use* manual.

Running a printer operation check

Performing a printer operation check can help you determine whether the problem comes from the printer or the computer.

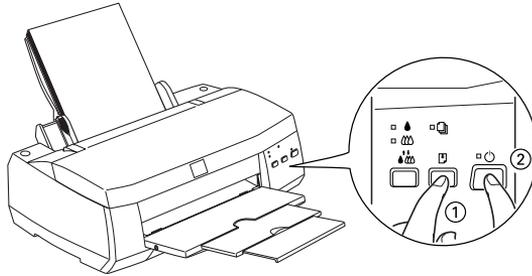
To print a printer operation check page, follow these steps.

1. Make sure both the printer and computer are turned off.
2. Unlock the wire clips on both sides of the interface connector, and remove the ground connector if necessary. Then disconnect the cable from the printer’s interface connector.



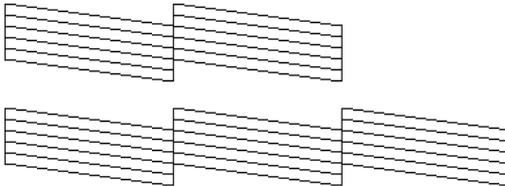
3. Make sure that A4 or Letter size paper is loaded in the sheet feeder.

4. Hold down the  load/eject button (① in the illustration below) and press the  power button (② in the illustration below) to turn on the printer. Then release both buttons.



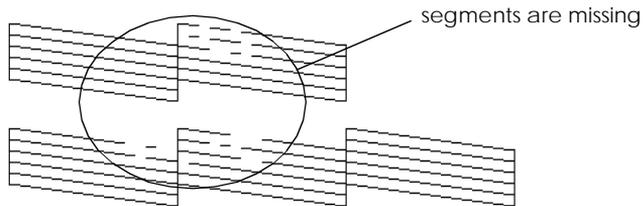
The printer prints an operation check page including the version of your printer's ROM, the ink counter code, the current code page, and a nozzle check pattern.

- ❑ If the operation check page results appear as shown in step 4, the printer itself is all right and the problem probably lies in the printer software settings, application settings, the interface cable (be sure to use a shielded cable), or the computer itself.



The above sample is in black and white, but the actual test prints in color (CMYK).

- ❑ If the operation check page does not print satisfactorily, for example, if any segment of the printed lines is missing, there is a problem with the printer. This could be a clogged ink nozzle or a misaligned print head.



The above sample is in black and white, but the actual test prints in color (CMYK).

Problems and solutions

Most printer problems have simple solutions. Define the problem from those below and apply the recommended solutions.

Print quality problems

If you want to improve print quality, see the following problems and solutions.

Horizontal banding

Try one or more of these solutions:

- ❑ Make sure the printable side of the paper is face up in the sheet feeder.
- ❑ Clean the print heads to clear clogged ink nozzles. See “Cleaning the print heads” on page 22.
- ❑ Check the  black and  color ink out lights. If a light is flashing, replace an ink cartridge. See “Replacing Ink Cartridges” in your *Setup & Daily Use* manual.

Vertical misalignment or banding

Try one or more of these solutions:

- ❑ Make sure the printable side of the paper is face up in the sheet feeder.
- ❑ Run the Print Head Alignment utility. See “Aligning the print head” on page 24.
- ❑ Clean the print heads to clear clogged ink nozzles. See “Cleaning the print heads” on page 22.

Color gaps

Try one or more of these solutions:

- ❑ Make sure your paper is not damaged, dirty, or old. Also, make sure the printable side of the paper is face up in the sheet feeder.
- ❑ Clean the print heads to clear clogged ink nozzles. See “Cleaning the print heads” on page 22.
- ❑ Check the  black and  color ink out lights. If a light is flashing, replace an ink cartridge. See “Replacing Ink Cartridges” in your *Setup & Daily Use* manual.

Incorrect or missing colors

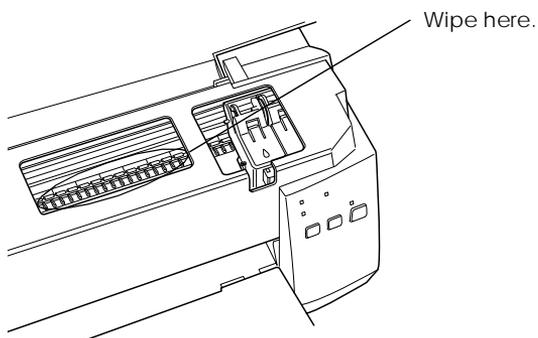
Try one or more of these solutions:

- ❑ Make sure the printable side of the paper is face up in the sheet feeder.
- ❑ Clean the print heads. See “Cleaning the print heads” on page 22. If colors are still incorrect or missing, replace the ink cartridge.

Blurry or smeared printouts

Try one or more of these solutions:

- ❑ Make sure the paper is dry and the printable side is face up.
- ❑ If you're printing on thick media, such as envelopes or cards, set the adjust lever to the "+" position.
- ❑ If you're printing on glossy media or transparencies, place a support sheet (or a piece of plain paper) beneath the stack, or load one sheet at a time.
- ❑ Clean the print heads. See "Cleaning the print heads" on page 22.
- ❑ Run the Print Head Alignment utility. See "Aligning the print head" on page 24.
- ❑ Ink may have leaked inside the printer; wipe the inside of the printer as shown below with a soft, clean cloth.



Printouts are not what you expected

If any of the following problems have occurred, see the solutions given below.

Incorrect or garbled characters

Turn off the printer and computer. Make sure the printer's interface cable is plugged in securely.

Incorrect margins

Check the margin settings in your application software.

Printing is too slow

Try one or both of these solutions:

- Don't run too many applications at the same time. Close any applications you are not currently using.
- Delete unnecessary files to make room on your hard disk drive.

Printer doesn't print

If any of the following problems have occurred, see the solutions given below.

All lights are off

- Press the  power button and make sure the printer is on.
- Turn off the printer and make sure the power cord is plugged in securely.
- Make sure the power outlet is working and is not controlled by a wall switch or timer.

Lights came on and then went out

The printer's voltage may not match the outlet rating. Turn off the printer and unplug it immediately. Then, check the printer labels.

If the voltage doesn't match, **DO NOT PLUG YOUR PRINTER BACK IN**. See "Where to Get Help" in your *Setup & Daily Use* manual.

Only the power light is on

Try one or more of these solutions:

- Turn off the printer and computer. Make sure the printer's interface cable is plugged in securely.
- Make sure there's no packing material in the printer.
- Turn off the printer and computer and disconnect the printer's interface cable. Then print an operation check page. See "Running a printer operation check" on page 11.
- If it prints, make sure the printer software and your application software is installed correctly.

Note:

If you're trying to print a large image, your computer may not have enough memory to print.

- If the above doesn't work, replace the ink cartridges. See "Replacing Ink Cartridges" in your *Setup & Daily Use* manual.

The paper out light is flashing or on

- If the  paper out light is flashing, remove the jammed paper.
- If the  paper out light is on, load more paper in the sheet feeder.

One of the ink out lights is flashing or on

- ❑ If the  black or  color ink out light is flashing, ink is low. Prepare a replacement cartridge.
- ❑ If the  black or  color light is on, ink is out. Replace the corresponding cartridge. See “Replacing Ink Cartridges” in your *Setup & Daily Use* manual.

Ink out lights are on and the other lights are flashing

Follow these steps.

1. Remove any paper in the printer.
2. Turn the printer off. Check for and remove any foreign objects or pieces of paper from inside the printer. Also, make sure that there is sufficient space around the vent on the back of the printer allowing for proper ventilation. Remove any objects blocking the vent. Then turn the printer back on.
3. If the error is not cleared, contact your dealer.

Paper doesn't feed correctly

If any of the following problems have occurred, see the solutions below.

Paper doesn't feed

Remove the stack of paper and check that:

- ❑ The paper isn't curled or creased.
- ❑ The paper isn't too old. See the instructions that came with the paper for more information.
- ❑ The paper isn't loaded above the arrow on the left edge guide.
- ❑ The paper isn't jammed inside. If it is, remove the jammed paper.

Multiple pages feed

Remove the stack of paper and:

- ❑ Make sure the paper is not too thin.
- ❑ Fan the edges of the stack to separate the sheets, then reload the paper.

The paper jams

Press the  load/eject button to eject the jammed paper. If the error message does not clear, open the cover and remove all the paper inside, including any torn pieces. Then load the paper again.

If the paper jams frequently, make sure you:

- ❑ Use smooth, high-quality paper, loaded with the printable side up.
- ❑ Fan the stack before loading it.
- ❑ Don't load paper above the arrow mark on the left edge guide.
- ❑ Adjust the left edge guide to fit your paper.

Paper isn't ejected fully or is wrinkled

Try one or more of these solutions:

- ❑ If the paper doesn't eject fully, press the  load/eject button. Also check the paper size setting in your application or printer driver.
- ❑ If the paper is wrinkled when it comes out, it may be damp or too thin. Load a new stack.

Note:

Store any unused paper in its original package in a dry area.

Ink cartridge problems

If output quality does not improve even after cleaning and aligning the print head, you may need to replace one or both of the ink cartridges.

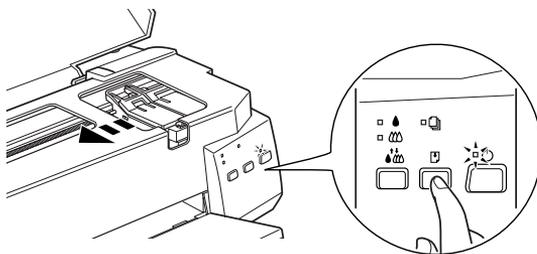
To replace an ink cartridge before the  black or  color ink out light flashes, follow these steps.

If the  black or  color ink out light is flashing or is on, replace the empty ink cartridge as described in “Replacing Ink Cartridges” in your *Setup & Daily Use* manual.

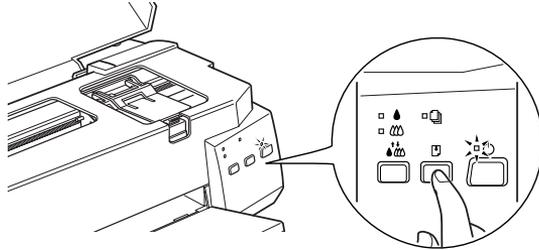


Caution:

- Once you remove an ink cartridge, it becomes unusable and cannot be reinstalled even if ink remains.*
 - Leave the old cartridge installed in the printer until you are ready to replace it with a new one.*
1. Make sure the printer is on. The  power light should be on, but not flashing.
 2. Lower the output tray; then open the printer cover.
 3. Hold down the  load/eject button for three seconds; the print head moves to the black cartridge replacement position. The  power light begins flashing.



4. If you need to replace only the color ink cartridge, press the  load/eject button to move the print head to the color cartridge replacement position.



5. Lift the ink cartridge clamp. Then lift the cartridge out of the printer and dispose of the ink cartridge properly.
6. Remove the yellow tape seal from the new cartridge.
7. Place the cartridge gently into the cartridge holder. Do not press down on the cartridge.
8. Press the ink cartridge clamp down until it locks in place.

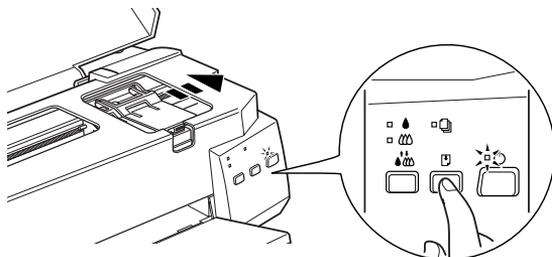


Caution:

Once you install the cartridges, do not open their clamps again until you replace the ink cartridges. Otherwise, the cartridges may become unusable.

9. Press the  load/eject button. The print head moves to the color cartridge replacement position. If you need to replace color ink cartridge as well, repeat steps 5 through 8. Otherwise, continue to the next step.

10. Press the  load/eject button again. The printer moves the print head back to its home position and charges ink in the system.



Caution:

The  power light continues to flash while the printer performs the ink charging operation. Never turn off the printer while the  power light is flashing. Doing so can result in incomplete charging of ink.

Cleaning the print heads

If print quality diminishes, use the printer's built-in print head cleaning cycle to ensure that the nozzles are delivering ink properly.

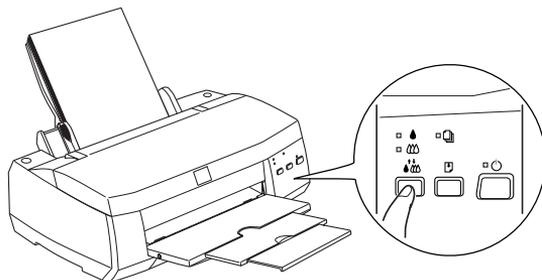
To avoid wasting ink, clean the print head only if print quality declines.

1. Make sure that the  power light is on and the  black and  color ink out lights are off.

Note:

The print head cannot be cleaned if the  black or  color ink out light is flashing or on. Replace the ink cartridges as needed before proceeding.

2. Hold down the  cleaning button for three seconds.



3. The printer starts cleaning the print head and the  power light begins flashing. Print head cleaning takes about one minutes to complete.



Caution:

Never turn off the printer while the  power light is flashing. Doing so may damage the printer.

4. When the  power light stops flashing, print a few lines from a document to confirm that the head is clean and reset the cleaning cycle.

If print quality hasn't improved after repeating this procedure four or five times, turn the printer off and leave it alone overnight. Then do the head cleaning again.

If the print quality still has not improved, one or both of your ink cartridges may be old or damaged and may need to be replaced. To replace an ink cartridge before it is empty, see "Ink cartridge problems" on page 20.

If print quality remains a problem after replacing the ink cartridges, contact your dealer.

Note:

To maintain print quality, we recommend turning on the printer for at least one minute every month.

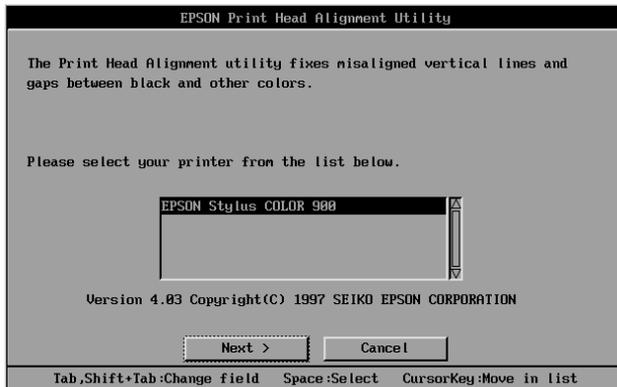
Aligning the print head

If you find that the printed image is fuzzy or the vertical lines in your printout are not properly aligned, you may need to align the print head with the EPSON Print Head Alignment Utility. This utility aligns the print head to print images clearly. You may need to align the print head when you transport the printer or move it to a different place.

Using the print head alignment utility

To use this utility, follow these steps.

1. Insert the EPSON Printer Software CD into your CD-ROM drive.
2. Type D:\SETUP at the DOS prompt. (If your CD-ROM driver has a different drive letter, or if you are using the floppy version, substitute the appropriate letter for D:\.) Then press Enter, and follow the directions on the screen.
3. After running the setup program, type C:\EPCALIB2. If your hard disk drive has a drive letter other than "C", substitute the appropriate letter. Then press Enter. The following window appears.



4. Make sure your printer is selected. Click Next, then follow the directions on the screen.

Using the control panel buttons

If you cannot use the print head alignment utility program that came with your printer, follow these steps to align the print head.

1. Make sure that A4 or Letter size paper is loaded in the sheet feeder.
2. While holding down the  cleaning button, press the  power button to turn on the printer. Then release both buttons.
3. The  paper out light flashes for about three seconds. While it is flashing, press the  load/eject button.

The printer prints a sheet of instructions in English, French, German, Italian, Spanish, and Portuguese explaining how to align the print heads. Follow these instructions.

Note:

If you fail to press the  load/eject button, the printer enters the default-setting mode. If this happens, turn off the printer and return to step 2.

4. After aligning the print head, turn off the printer to exit the print head alignment mode.

Cleaning the printer

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

1. Make sure the printer is turned off and all the printer's lights are off. Then unplug the power cord.
2. Remove any paper from the sheet feeder.
3. Use a soft brush to carefully clean away all dust and dirt.
4. If the outer case or the inside of the sheet feeder is dirty, clean it with a soft, clean cloth dampened with mild detergent. Keep the printer cover closed to prevent water from getting inside.
5. If the inside of the printer is accidentally soiled with ink, wipe it out with a damp cloth.



Warning:

Be careful not to touch the gears inside the printer.



Caution:

- Never use alcohols or thinners to clean the printer; these chemicals can damage the components as well as the case.*
- Be careful not to get water on the printer mechanism or electronic components.*
- Do not use a hard or abrasive brush.*
- Do not spray the inside of the printer with lubricants; unsuitable oils can damage the mechanism. Contact your dealer or a qualified service person if lubrication is needed.*

Transporting the printer

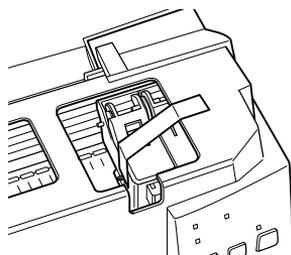
If you need to transport your printer a significant distance, carefully repack it using the original box and packing materials as follows:

1. Open the printer cover and make sure that the print head is in the home (far right) position. If not, turn on the printer and wait until the print head returns to the home position. Then turn off the printer and close the printer cover.



Caution: Leave the ink cartridges installed during transportation, otherwise the printer may be damaged.

2. Unplug the power cord from the electrical outlet; then disconnect the interface cable from the printer.
3. Remove the paper from the sheet feeder and remove the paper support.
4. Push in the output extension tray, and then raise the output tray.
5. Open the printer cover again. Secure the ink cartridge holder to the printer with tape as shown below, then close the printer cover.



6. Attach the protective materials to both sides of the printer.
7. Repack the printer and power cord in the original box.
8. Keep the printer level during transport.

Character Tables

These character tables are selected with the default-setting mode or by using software commands.

All tables except the italic character table are the same as the PC437 table for hex codes 00 through 7F, so only the PC437 table is shown in its entirety. The rest of the tables show only the characters for hex codes 80 through FF.

The tables with an asterisk (*) after the table name are only available in certain areas.

PC437 (U.S./Standard Europe)

PC850(Multilingual)

PC860(Portuguese)

PC861(Icelandic)

PC863(Canadian-French)

PC865(Nordic)

BRASCII

Abicomp

Roman 8

ISO Latin 1

PC858

ISO 8859-15

*PC437Greek(Greek)**

*PC852(East Europe)**

*PC853(Turkish)**

*PC855(Cyrillic)**

*PC857(Turkish)**

*PC866(Russian)**

*PC869(Greek)**

*MAZOWIA(Polish)**

*Code MJK (CSFR)**

*ISO 8859-7 (Latin/Greek)**

*ISO Latin 1T (Turkish)**

*Bulgaria**

*PC774 (LST 1283: 1993)**

*Estonia**

*ISO 8859-2**

*PC866 LAT. (Latvian)**

*PC866 UKR**

*PC APTEC(Arabic)**

*PC708(Arabic)**

*PC720(Arabic)**

*PC AR864(Arabic)**

Italic

No characters are available for hex code 15 in the italic character table.

International character sets

You can select one of the following international character sets with the default-setting mode or the ESC R command. For example, when you select “Italic France,” the characters in the “France” row on the table below are used in the italic character table.

The following eight international character sets can be selected with the default-setting mode or with the ESC R command.

The following seven additional sets can be selected only with the ESC R command.

Characters available with ESC (^ command

To print the characters in the table below, use the ESC (^ command. The characters in the right table are available with PC864 (Arabic), PC AR864 (Arabic), and PC APTEC (Arabic).

EPSON