



PLQ-30/PLQ-30M

User's Guide

NPD5346-00 EN

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Operating System Versions

In this manual, the following abbreviations are used.

Windows refers to **Microsoft Windows 8, 7, Vista, XP, and 2000.**

- ❑ Windows 8 refers to Windows 8, Windows 8 Pro, Windows 8 Enterprise, and Windows 8.1.
- ❑ Windows 7 refers to Windows 7 Home Basic, Windows 7 Home Premium, Windows 7 Professional, Windows 7 Enterprise, and Windows 7 Ultimate.
- ❑ Windows Vista refers to Windows Vista Home Basic Edition, Windows Vista Home Premium Edition, Windows Vista Business Edition, Windows Vista Enterprise Edition, and Windows Vista Ultimate Edition.
- ❑ Windows XP refers to Windows XP Home Edition, Windows XP Professional x64 Edition, and Windows XP Professional.
- ❑ Windows 2000 refers to Windows 2000 Professional.

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Getting to Know Your Printer

Features

Your EPSON® PLQ-30/PLQ-30M 24-pin flat bed dot matrix printer provides high-quality printing and superior performance in a compact design. Its features include:

- ❑ PLQ-30M can read and write magnetic stripes.
- ❑ The ability to handle a wide range of paper types, including passbook, single sheets, multipart forms (with one original and up to six copies), and roll paper.

Safety Instructions

Safety Instructions

Warnings, Cautions, and Notes



Warnings
must be followed carefully 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.

Hot Parts Caution Symbol



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

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.

Some of the symbols used on your product are to ensure safety and proper use of the product. Visit the following Web site to learn the meaning of the symbols.

<http://support.epson.net/symbols>

When setting up the printer

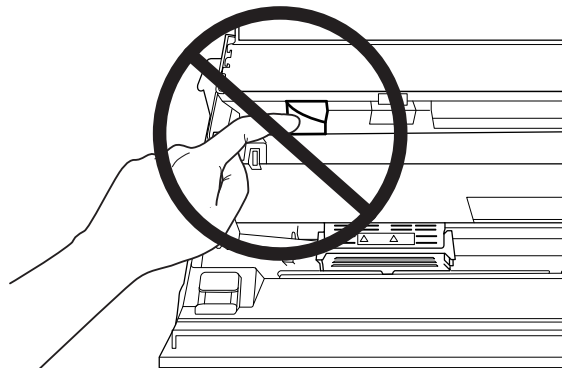
- Do not place the printer on an unstable surface or near a radiator or heat source.
- Place the printer on a flat, stable surface. The printer will not operate properly if it is tilted or placed at an angle.

- ❑ Do not place this product on a soft, unstable surface like a bed or a sofa, or a small, enclosed area, as this restricts ventilation.
- ❑ Do not block or cover the slots and openings in the printer's cabinet, and do not insert objects through the slots.
- ❑ Leave adequate room around the printer for easy operation and maintenance.
- ❑ When connecting this product to a computer or other device with a cable, ensure the correct orientation of the connectors. Each connector has only one correct orientation. Inserting a connector in the wrong orientation may damage both devices connected by the cable.
- ❑ Use only the type of power source indicated on the printer's label. If you are not sure of the power supply specifications in your area, contact your local power company or consult your dealer.
- ❑ Connect all equipment to properly grounded electrical 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.
- ❑ The power cord should be placed to avoid abrasions, cuts, fraying, crimping, kinking, and other damage.
- ❑ 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 the total ampere of all devices plugged into the electrical outlet does not exceed the electrical outlet's ampere rating.
- ❑ Use only the power cord that comes with this product. Use of another cord may result in fire or electric shock.
- ❑ This product's power cord is for use with this product only. Use with other equipment may result in fire or electric shock.
- ❑ Be sure the AC power cord meets the relevant local safety standards.
- ❑ Avoid using or storing the printer in places subject to rapid changes in temperature and humidity. Also 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.
- ❑ Keep the entire computer system away from potential sources of electromagnetic interference, such as loudspeakers or the base units of cordless telephones.

- ❑ 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.
- ❑ 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 can support at least twice the weight of the printer.
 - 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.
- ❑ Do not place near the CRT display which emits strong electromagnetic wave.

When maintaining the printer

- ❑ Unplug the printer before cleaning it, and always clean it with a piece of damp cloth only.
- ❑ Do not spill liquid onto the printer.
- ❑ Do not attempt to service the printer yourself except as specifically explained in this guide.
- ❑ Unplug the printer and refer servicing to qualified service 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.
- ❑ Do not use aerosol blowers which contain flammable gas inside or around this product. Doing so may cause fire.
- ❑ Adjust only those controls that are covered by the operating instructions.
- ❑ Do not touch the white cable inside the printer.



When loading paper

- Use passbooks and paper that have more than 60% reflectance.
- When you use a passbook, set **Passbook** mode to **On** and set **Binding** mode to the method for the passbook's binding in the default setting mode.
- Do not load passbooks that are creased or have ripped seam.
- Do not use a passbook that has any metallic parts such as staplers or metal clips.
- Do not use a passbook with sticky parts such as stamps or seals.
- Do not use a passbook that has any pages smaller than the cover page.
- Do not print on the front or back cover of a passbook. Printing can be done only when the passbook is opened.
- When you use paper that is shorter than 110.0 mm, set the paper eject direction to front. The factory set default is front. Please access <http://www.epson.com> for information.
- Do not insert paper that is curled or has been folded into the slot when you load it.
- Do not punch holes in the area from 25.0 to 40.0 mm from the left edge of paper.
- Always use the printer with the ribbon cartridge installed. Otherwise, paper jam may occur.

When operating the printer

- 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.
- Adjust only those controls that are covered in the user documentation. Improper adjustment of other controls may result in damage requiring extensive repair by a qualified technician.
- Whenever you turn off the printer, wait at least five seconds before turning it back on; otherwise, you may damage the printer.
- Do not turn off the printer while it is printing the self test. Always press the **Offline** button to stop printing and then turn off the printer.
- Do not turn off the printer while it is printing the hex dump. Always press the **Offline** button to pause printing. Then turn off the printer.
- Do not reconnect the power cord to an electrical outlet that has the wrong voltage for your printer.
- Never replace the print head yourself; you may damage the printer. Also, other parts of the printer must be checked when the print head is replaced.

- ❑ You need to move the print head by hand to replace 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.
- ❑ If ink gets on your skin, wash it off with soap and water. If it gets in your eyes, flush them immediately with water.
- ❑ 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 16-amp circuit breaker.
Beim Anschluss des Druckers an die Stromversorgung muss sichergestellt werden, dass die Gebäudeinstallation mit einer 16-A-Sicherung abgesichert ist.

Restriction of Use

When this product is used for applications requiring high reliability/safety such as transportation devices related to aviation, rail, marine, automotive etc.; disaster prevention devices; various safety devices etc.; or functional/precision devices etc., you should use this product only after giving consideration to including fail-safes and redundancies into your design to maintain safety and total system reliability. Because this product was not intended for use in applications requiring extremely high reliability/safety such as aerospace equipment, main communication equipment, nuclear power control equipment, or medical equipment related to direct medical care etc., please make your own judgment on this product's suitability after a full evaluation.

For Users in Russia, Belarus, and Kazakhstan

Customer information

The model complies with the Technical regulation of Customs Union "About the safety of low voltage equipment" (TP TC 004/2011); with the Technical regulation of Customs Union "On Electromagnetic Compatibility of Technical Devices" (TP TC 020/2011)

Manufacturer: SEIKO EPSON CORPORATION

Address: 3-5, Owa 3-chome, Suwa-shi, Nagano-ken 392-8502 Japan Telephone: 81-266-52-3131

Official representative in CIS countries:

LLC "EPSON CIS"

Address: Moscow, 129110, ul. Schepkina, 42, Bldg. 2a, Fl. 3 Business Center Chaika Plaza

Telephone: +7 (495) 777-0355/56

web: <http://www.epson.ru/>email: info_CIS@epson.ru**EPSON EUROPE B.V. MOSCOW REPRESENTATIVE OFFICE**

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Telephone: +7 (495) 777-0355/56

web: <http://www.epson.ru/>**Production month and year:** Labeled on the product with 8 numbers: YYYY.MM.DD**Country of production:** Labeled on the product

Chapter 1

Paper Handling

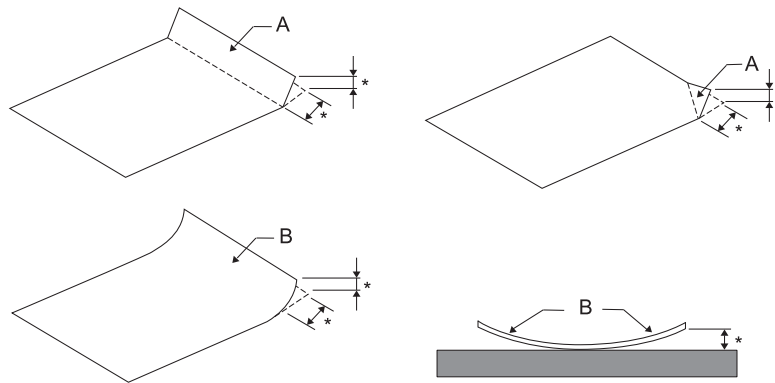
Acceptable Paper Condition



Caution:

- ❑ Do not use paper that is folded, creased, curled, torn, stained, or stamped. Use the paper that meets the paper specifications. See "Paper/Media" on page 111 for more detailed information.
- ❑ Illustrations below describe the condition of paper that can be used and cannot be used with the printer. Make sure to use the paper that is acceptable for use with the printer.

Acceptable



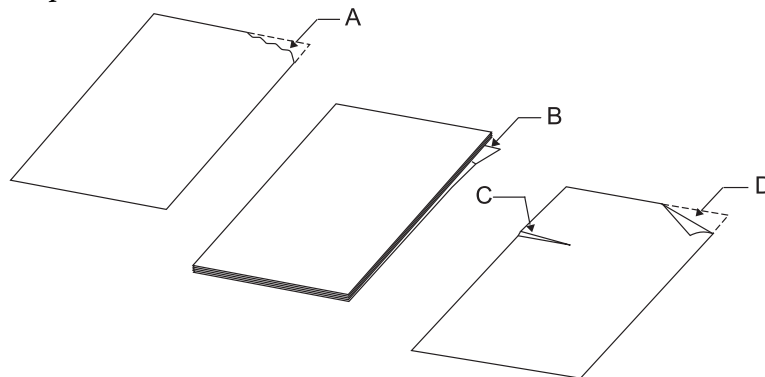
A: Folded

B: Curled

*: 3 mm or less

Insert paper after flattening the fold or curl.

Not Acceptable



A: Torn

B: Curled

C: Creased

D: Folded

Loading Passbooks

**Caution:**

Always use the printer with the ribbon cartridge installed. Otherwise, paper jam may occur.

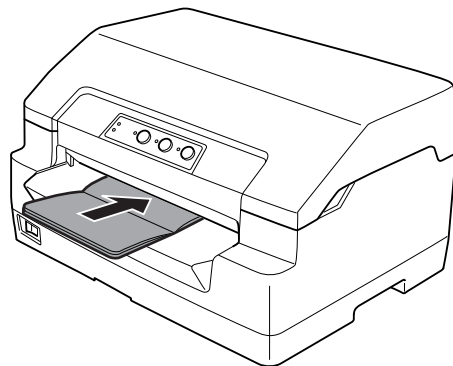
You can load vertical-fold and horizontal-fold passbooks. Follow the steps shown below to load passbooks.

1. Turn on the printer.
2. Open your passbook to the page to be printed.

Note:

Make sure that you press any bulging parts of the folded passbook down to 0.6 mm or less before inserting it into the front slot. For information on the thickness of passbooks you can print, see "Paper/Media" on page 111.

3. Insert the passbook into the front slot with the printable side face up and the magnetic stripe facing away from the printer until the top part of it reaches the roller inside. The printer loads it automatically to the correct position and the passbook is ready to be printed.



**Caution:**

- When you use a passbook, set Passbook mode to On and set Binding mode to the method for the passbook's binding in the default setting mode.
- Use a passbook that has more than 60% reflectance.
- Do not load passbooks that are creased or have ripped seam.
- Do not use a passbook that has any metallic parts such as staplers or metal clips.
- Do not use a passbook with sticky parts such as stamps or seals.
- Do not use a passbook that has any pages smaller than the cover page.
- Do not print on the front or back cover of a passbook. Printing can be done only when the passbook is opened.
- Always close the printer cover before printing. The printer does not print when the printer cover is open.
- When printing a vertical passbook in USD mode and HSD mode, the difference in thickness between the right page and the left page should be within 1 mm. If the difference in thickness is more than 1 mm, the print results may be blurred.

Loading Single Sheets

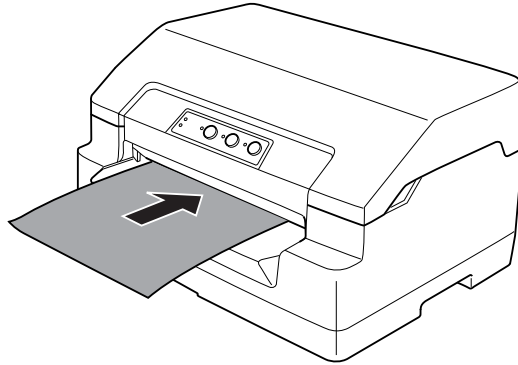
**Caution:**

Always use the printer with the ribbon cartridge installed. Otherwise, paper jam may occur.

You can load single sheets and carbonless single sheet multipart forms up to 7 parts (one original and six copies). Follow these steps to load single sheets.

1. Turn on the printer.

2. Insert a single sheet into the front slot with the printable side face up until the top part of the paper reaches the roller inside. The printer loads the paper automatically to the correct position and the paper is ready to be printed.



Note:

- Use paper that has more than 60% reflectance.
- Do not load paper that is curled or has been folded.
- Do not punch holes in the area from 25.0 to 40.0 mm from the left edge of paper.
- When you use paper that is shorter than 110.0 mm, set the paper eject direction to front. The factory set default is front. Please access <http://www.epson.com> for information.
- When you print a multipart form that is glued at the top, load the glued part first.
- Be sure your multipart forms do not exceed 0.53 mm (0.021 inch) in thickness.
- Always close the printer cover before printing. The printer does not print when the printer cover is open.

Adjusting the top-of-form position

The top-of-form position is the vertical position on the page where the printer starts printing. If the printout appears too high or low on the page, you can use this function to adjust the top-of-form position.

The top-of-form position can be set for each emulation.

Target Printer Mode	Emulation
---------------------	-----------

Olivetti Mode	PR2
Wincor Nixdorf Mode	WNI4915
IBM Mode	IBM4722
EPSON Mode	ESC/P2, IBM PPDS, ESC/P2+ESC/MC

Follow these steps to adjust the top-of-form position:

Note:

- The factory set default for the top-of-form position is set as shown below.
PR2: 4.2 mm
EPSON Mode, IBM4722: 8.5 mm
WNI4915: 9.8 mm*
 - This mode can be used even when the printer cover is open.*
 - If you wish to change the top-of-form position in PR40+, make sure that you set the TOF position for PR40+ to Off.*
 - 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 this function. If necessary, adjust the top-of-form position in your software.*
 - Prepare an A4 size sheet of paper before using this function.*
1. Select the Target Printer Mode which corresponds to the emulation you wish to change setting. See "About Your Printer's Default Settings" on page 54.
 2. Turn off the printer.

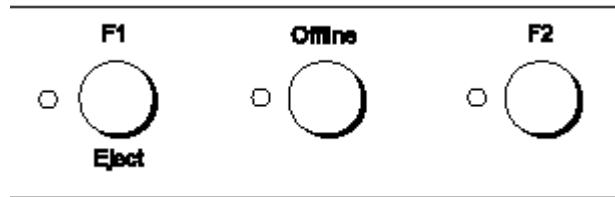


Caution:

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

3. Turn on the printer while holding the **Offline** and **F2** button.
4. Press the **F1/Eject** button while the **Offline** light is flashing.
5. When the **Ready** light turns on, insert a sheet of A4 paper into the front slot. The printer prints triple H in capitals (HHH) on the current top-of-form position and ejects the sheet.

6. Press the **F1/Eject** button to move the top-of-form position up on the page, or press the **F2** button to move the top-of-form position down on the page. Each time you press the **F1/Eject** or **F2** button, the printer makes a short beep. Pressing these buttons executes micro feed in 0.282 mm (1/90-inch) increments.



Note:

The top-of-form position can be set from 1.0 mm to 33.8 mm.

7. Insert a sheet of A4 paper into the front slot. The printer prints triple H in capitals (HHH) on the current top-of-form position and ejects the sheet. You may continue to adjust the position by pressing the **F1/Eject** and **F2** buttons and checking the position by inserting another sheet.
8. After finishing the adjustment, turn off the printer. The setting does not change even if the printer is turned off.

Adjusting the printing start position

The printing start position is the horizontal position on the page where the printer starts printing. If the printout appears too far to the left or right on the page, you can use this function to adjust the printing start position.

The print start position can be set for each emulation.

Target Printer Mode	Emulation
Olivetti Mode	PR2
Wincor Nixdorf Mode	WNI4915
IBM Mode	IBM4722
EPSON Mode	ESC/P2, IBM PPDS, ESC/P2+ESC/MC

Follow these steps to adjust the printing start position:

Note:

- ❑ *Your printing start position setting remains in effect until you change it, even if you turn off the printer.*
 - ❑ *Prepare an A4 size sheet of paper before using this function.*
 - ❑ *Always close the printer cover before printing. The printer does not print when the printer cover is open.*
1. Select the Target Printer Mode which corresponds to the emulation you wish to change setting. See “About Your Printer’s Default Settings” on page 54.

2. Turn off the printer.

**Caution:**

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

3. Turn on the printer while holding the **Offline** and **F2** button.
4. Press the **F2** button while the **Offline** light is flashing.
5. When the **Ready** light turns on, insert a sheet of A4 paper into the front slot. The printer prints the guide to adjust the printing start position and position patterns.
6. Press the **F1/Eject** button for the next pattern or **F2** button for the previous pattern to select the printing start position. Each time you press the **F1/Eject** or **F2** button, the printer makes a short beep. The **F1/Eject**, **Offline** and **F2** lights show the pattern which is selected at that time.
7. After you select the printing start position, turn off the printer. The setting does not change even if the printer is turned off.

Chapter 2

Printer Software

About Your Printer Software

The Epson software includes the printer driver software and EPSON Status Monitor 3.

The printer driver is software that allows your computer to control the printer. You need to install the printer driver so your Windows software applications can take full advantage of the printer's capabilities.

EPSON Status Monitor 3 program allows you to monitor the status of your printer, alerts you when errors occur, and provides you with troubleshooting tips. EPSON Status Monitor 3 is automatically installed when you install the printer driver. If you want to install EPSON Status Monitor 3 later, see "Installing EPSON Status Monitor 3" on page 36 for instructions.

Note:

- ❑ *Before proceeding, make sure you have installed the printer driver on your computer.*
- ❑ *When using the printer driver, the following printer settings need to be set. For instructions on changing the default settings, see "Changing default settings" on page 68.
Target Printer Mode: EPSON Mode
Software: ESC/P2*
- ❑ *When you wish to reinstall or upgrade the printer driver, uninstall the printer driver that has been installed already.*
- ❑ *The on-screen displays on the following pages may differ depending on the version of Windows OS.*

Using the Printer Driver

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" on page 24 for more information.*

- ❑ 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 26 for more information.

See “Changing the printer driver settings” on page 28 to check and change printer driver settings.

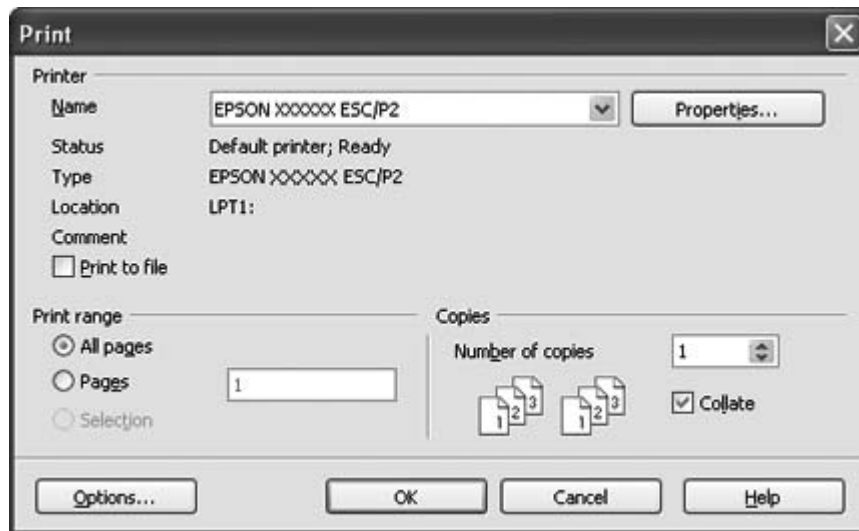
Note:

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.

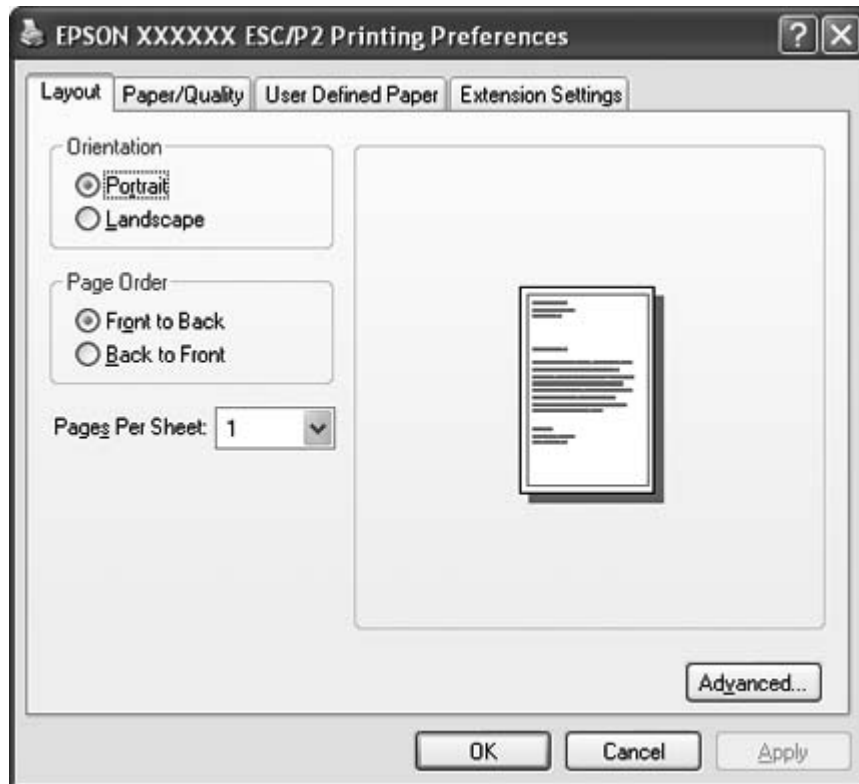
Accessing the printer driver from Windows applications

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

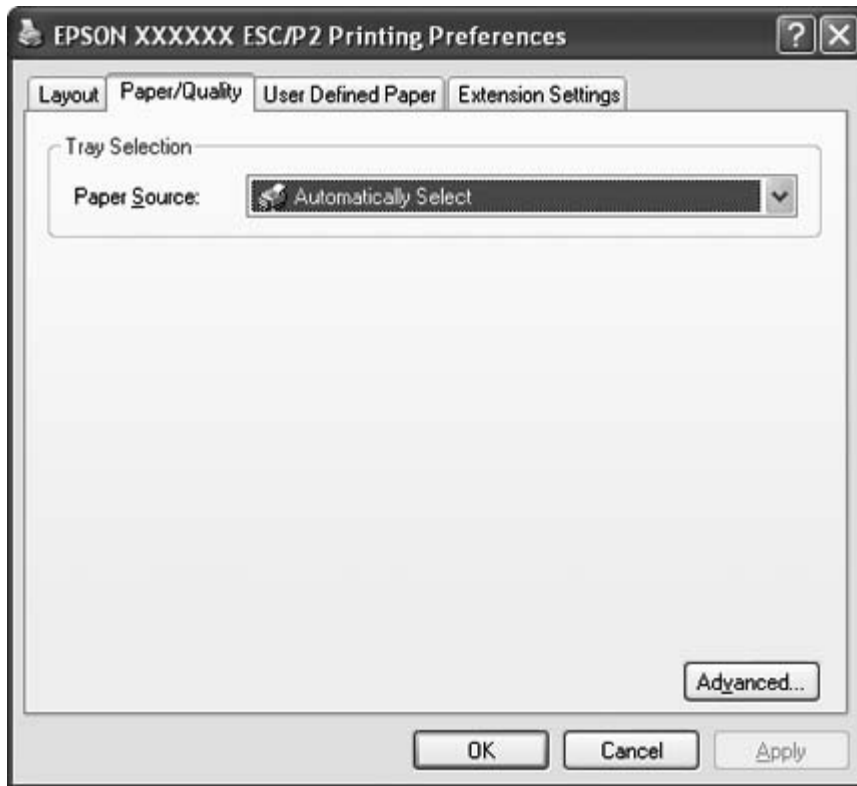
1. Select **Print Setup** or **Print** from the File menu of your application software. In the Print or Print Setup dialog box displayed, make sure that your printer is selected in the Name drop-down list.



2. Click **Printer, Setup, Properties, or Options**. (The button you click depends on your application and you may need to click a combination of these buttons.) The Document Properties window appears, and you see the Layout, Paper/Quality, User Defined Paper and Extension Settings 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” on page 28 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. For Windows 8:

Click **Desktop** on the Start screen, move the cursor to the top-right corner of the screen, click **Settings**, and then click **Control Panel**. Next, click **View devices and printers** from the **Hardware and Sound** category.

For Windows 7:

Click **Start**, and click **Devices and Printers**.

For Windows Vista:

Click **Start**, click **Control Panel**, click **Hardware and Sound**, and then click **Printers**.

For Windows XP Professional edition:

Click **Start**, and click **Printers and Faxes**.

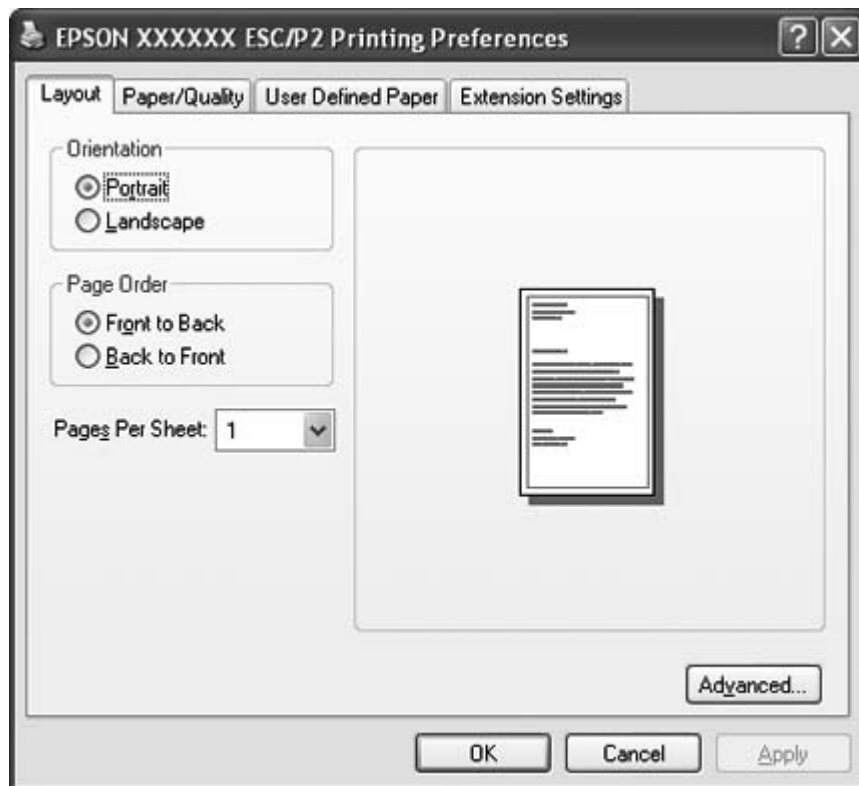
For Windows XP Home edition:

Click **Start**, click **Control Panel** first, and then click **Printers and Faxes**.

For Windows 2000:

Click **Start**, point to **Settings**, and then select **Printers**.

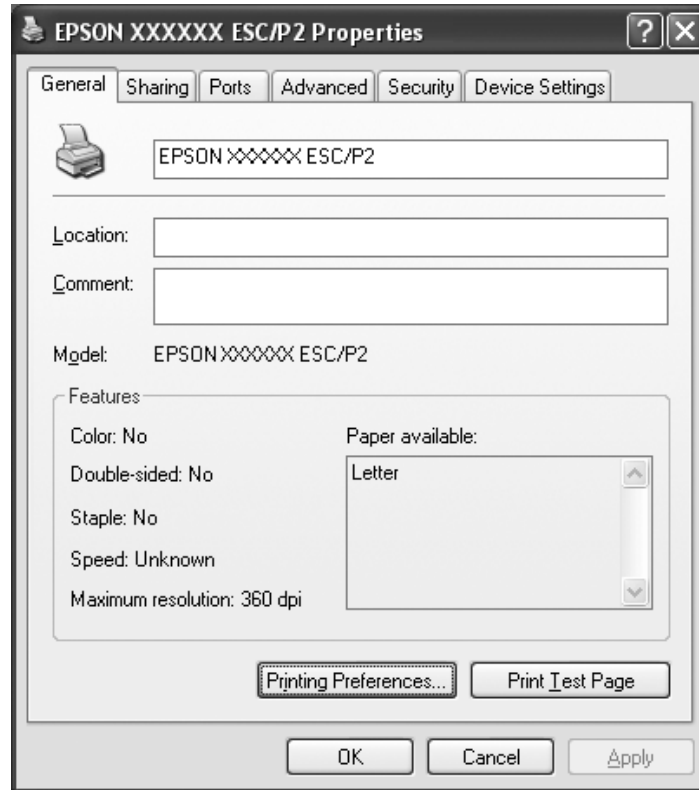
2. Right-click your printer icon, and click **Printing Preferences**. The screen displays the Document Properties window, which contains the Layout, Paper/Quality, User Defined Paper and Extension Settings menus. These menus display the printer driver settings.



When you click **Properties** (Windows Vista, XP, and 2000) or **Printer properties** (Windows 8 and 7) in the menu displayed by right-clicking the printer icon, the Properties window appears, which includes menus used to make the printer driver settings.

Note:

Do not click **Properties** though both **Properties** and **Printer properties** are displayed in the menu of Windows 7.

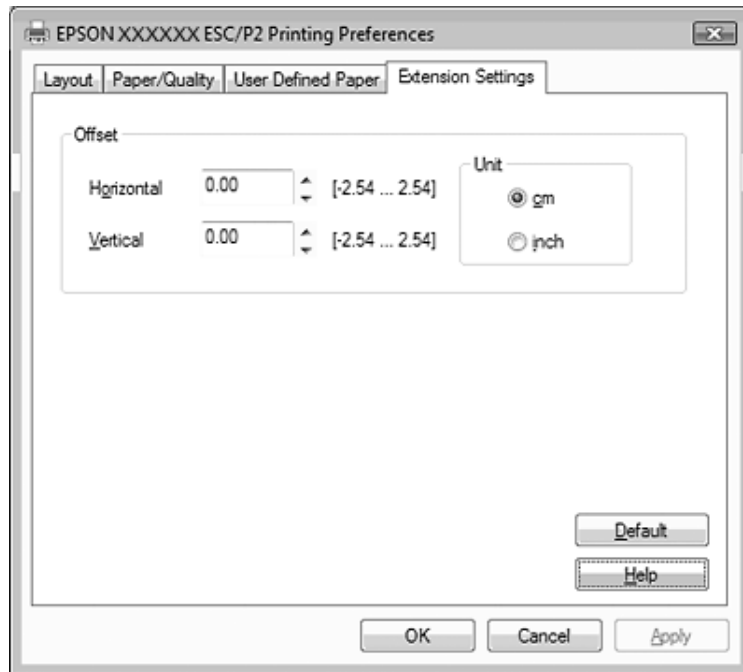


- To view a menu, click the corresponding tab at the top of the window. See “Printer Driver Settings Overview” on page 29 for information on how to change the settings.

Changing the printer driver settings

Your printer driver has four menus from which you can change the printer driver settings; Layout, Paper/Quality, User Defined Paper, and Extension Settings. You can also change settings on the Utility menu in the printer software. For an overview of the available settings, see “Printer Driver Settings Overview” on page 29. If you are using Windows XP or 2000, you can also view online help by right-clicking items in the driver and selecting **What's this?**.

Click the **Help** button on the Printer Driver screen.



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. For more details, see **Help** for the printer driver.

Printer settings

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, see "Definition of Custom Paper Size" on page 31 for instructions.

Settings	Explanations
Orientation	Select Portrait or Landscape .
Paper Source	Select the paper source you want to use.
Graphic - Print Quality	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.
Halftoning	Select the type of halftoning to use when printing graphics. To let the printer determine the best halftone quality, use Auto Select .
Printer Font Setting	Select a character table group to use. You can select one of three character table groups, Standard , Expanded , and None (Bit Image printing). When Standard or Expanded is selected, the printer uses the device fonts. Expanded includes more fonts than Standard. When None is selected, the printer uses bit map images instead of the device fonts. For details on the fonts which are included in each table, see "Electronic" on page 107.
Page Order*	Select whether to print from front to back or back to front.
Pages Per Sheet*	Select the number of pages that you want to print onto a single page.
Copy Count*	When you select more than one in the Number of copies box, this check box appears and you can select whether to collate the pages of the copies.
Advanced Printing Features*	Select Enable or Disable for the metafile Spooling.
Print Optimizations*	Select Disable when the printer does not use the device fonts and select Enable when the printer uses the device fonts.
Top Margin Priority	Select which setting for the print-start position is to be used; driver setting or printer setting. For more details, see Help for the printer driver.
Packet Mode	Ordinarily, there is no need to change this setting. If you change the printer's Packet Mode settings, change this setting to match. If the printer and printer driver settings are different, you may not be able to print correctly. For more details, see Help for the printer driver.
User Defined Paper	If your paper is not included in the Paper Size drop-down list, you can add the size to the list. For more details, see Help for the printer driver.
Offset	This setting allows you to offset the image on the page. That is, you can adjust the position of the printed image. If the offset you specify moves a portion of the image out of the printer's printable area, that portion will not be printed.
Print Speed	This setting allows you to select print speed. Select Printer Setting when you want to print using the settings stored in the printer. When Standard is selected, prints in standard printing mode. When High Speed is selected, prints in high-speed printing mode.

Settings	Explanations
Print Direction	This setting allows you to select bidirectional printing. Selecting the Printer Setting will use the setting stored in the printer. Selecting Bidirectional will print in bidirectional printing mode. Selecting Unidirectional will print in unidirectional printing mode.

* For details, see Windows help.

Definition of Custom Paper Size

If your paper is not included in the Paper Size drop-down list, you can add the size to the list.

1. For Windows 8:

Click **Desktop** on the Start screen, move the cursor to the top-right corner of the screen, click **Settings**, and then click **Control Panel**. Next, click **View devices and printers** from the **Hardware and Sound** category.

For Windows 7:

Click **Start**, and click **Devices and Printers**.

For Windows Vista:

Click **Start**, click **Control Panel**, click **Hardware and Sound**, and then click **Printers**.

For Windows XP Professional x64 Edition:

Click **Start**, and click **Printers and Faxes**.

For Windows XP Professional:

Click **Start**, and click **Printers and Faxes**.

For Windows XP Home Edition:

Click **Start**, click **Control Panel**, and then click **Printers and Faxes**.

For Windows 2000:

Click **Start**, point to **Settings**, and click **Printers**.

2. Right click your printer icon, and click **Printing Preferences**.
3. Select the **User Defined Paper** menu.
4. Enter the paper size in the Paper Size fields.
5. Click **Apply** and then click **OK**.

Note:

For more details, see *Help for the printer driver*.

Monitoring settings

Settings	Explanations
EPSON Status Monitor 3	You can access EPSON Status Monitor 3 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 EPSON Status Monitor 3. See "Setting up EPSON Status Monitor 3" on page 33 for more information.

Setting Utility

Settings	Explanations
Bi-D Adjustment	Click this button to open the Bi-D Adjustment dialog box where you can adjust misalignment in vertical lines.
Printer Setting	Click this button to open the Printer Setting utility dialog box where you can change the printer settings.

Using EPSON Status Monitor 3

EPSON Status Monitor 3 allows you to monitor your printer's status, alerts you when printer errors occur, and provides troubleshooting instructions when needed.

EPSON Status Monitor 3 is available when:

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

EPSON Status Monitor 3 is installed when the printer is connected directly and you install the printer driver. When sharing the printer, be sure to set EPSON Status Monitor 3 so that the shared printer can be monitored on the printer server and clients. See "Setting up EPSON Status Monitor 3" on page 33 and "Setting Up Your Printer on a Network" on page 38.

**Caution:**

Although you can print to the printer directly connected to the computer in a remote location by using Remote Desktop function* of Windows 8, 7, Vista, or XP, communication error may occur.

* Remote Desktop function: Function which enables a user to access applications or files in a computer connected to the office network from a mobile computer at a remote location.

Note:

- ❑ If you are using a computer running Windows 8, 7, Vista, or XP with multiple users are logged on, a communication error message may be displayed when monitoring printers at the same time.
- ❑ If EPSON Status Monitor 3 is installed with the Windows Firewall feature turned on (recommended), the shared printer may not be able to be monitored. This problem can be resolved by adding EEBAgent.exe to Exceptions of the firewall function.

Setting up EPSON Status Monitor 3

Follow these steps to set up EPSON Status Monitor 3:

1. For Windows 8:

Click **Desktop** on the Start screen, move the cursor to the top-right corner of the screen, click **Settings**, and then click **Control Panel**. Next, click **View devices and printers** from the **Hardware and Sound** category.

For Windows 7:

Click **Start**, and click **Devices and Printers**.

For Windows Vista:

Click **Start**, click **Control Panel**, click **Hardware and Sound**, and then click **Printers**.

For Windows XP Professional edition:

Click **Start**, and click **Printers and Faxes**.

For Windows XP Home edition:

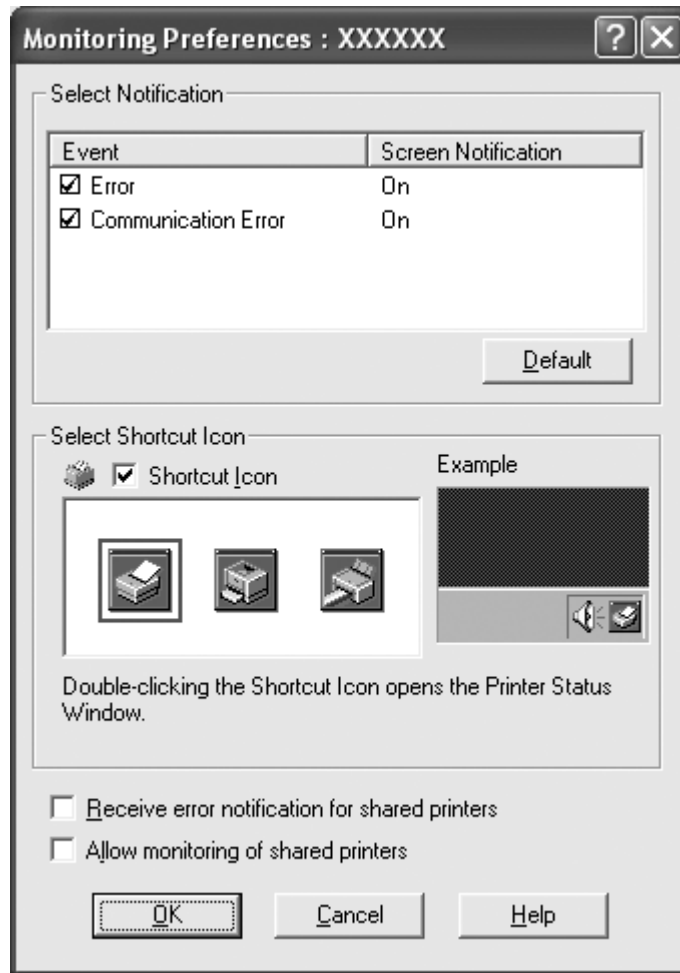
Click **Start**, click **Control Panel** first, and then click **Printers and Faxes**.

For Windows 2000:

Click **Start**, point to **Settings**, and then select **Printers**.

2. Right-click your printer icon, click **Printer properties** (Windows 8 and 7) or **Properties** (Windows Vista, XP, and 2000), and then click the **Utility** tab.

- 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 on the taskbar. 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.

<p>Allow monitoring of shared printers</p>	<p>When this check box is selected, a shared printer can be monitored by other PCs.</p> <p>Note: You must access Windows as the Administrator.</p>
---	---

Note:

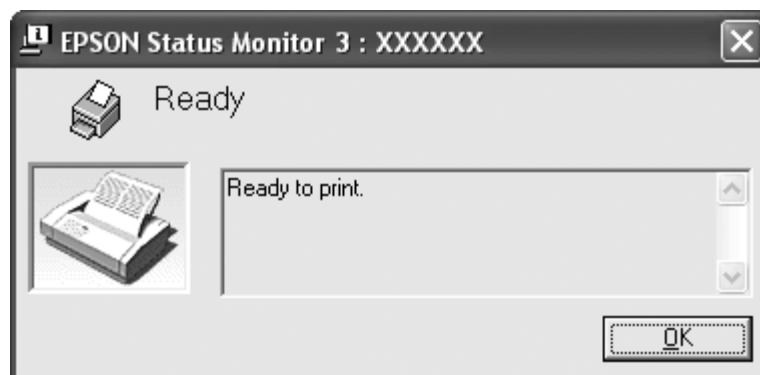
Click the **Default** button to revert all items to the default settings.

Accessing EPSON Status Monitor 3

Do one of the following to access EPSON Status Monitor 3:

- 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 instructions.
- 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” on page 23.

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



You can view printer status information in this window.

Note:

It might not be possible to retrieve the printer status during printing. In this situation, click the **EPSON Status Monitor 3** button in the Utility tab, and use the printer with the status window left open.

Installing EPSON Status Monitor 3

Download EPSON Status Monitor 3 from the Epson web site and install it on your computer.

<http://www.epson.com>

Using Bi-D Adjustment

This utility tool allows you to make adjustment when you find a misalignment in vertical line.

Making adjustment with Bi-D Adjustment

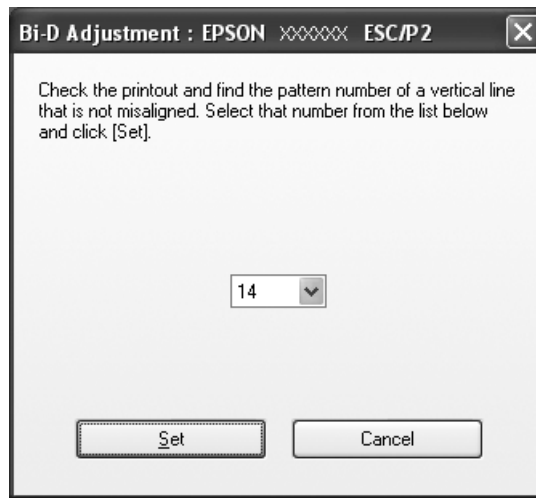
To make Bi-D Adjustment, follow the steps below.



Caution:

- Do not turn off the printer while the printer is printing adjustment pattern. Doing so may cause the printer to store incorrect settings. If you turned off the printer during the adjustment process, restart Bi-D Adjustment again.
 - Do not turn off Packet Mode setting.
 - Network connection is not supported.
 - Make sure that the printer's status is ready before making Bi-D Adjustment.
 - If Bi-D Adjustment is not printed properly, set the printer's font setting to default and try again.
1. Open the **Utility** menu, then click the **Bi-D Adjustment** icon. To find out how to open the **Utility** menu, see "Using the Printer Driver" on page 23. The Bi-D Adjustment window appears.
 2. Click **Next**.
 3. Click **Print**. The printer prints three sets of adjustment pattern.
 4. Look at the adjustment patterns and find the vertical line that is aligned the best. Then, select the corresponding line number in the Bi-D Adjustment window.

5. Click **Set**. The adjustment pattern will be stored in the printer.



Using Printer Setting

This utility tool allows you to display current settings stored in the printer, change settings of the printer, and read settings stored in the file or save settings to the file.



Caution:

- Do not turn off Packet Mode setting.
- Network connection is not supported.
- Make sure that the printer's status is ready before getting setting from the printer or updating the printer settings.

Changing printer setting

To change printer settings, follow the steps below.

1. Open the **Utility** menu, then click the **Printer Setting** icon. To find out how to open the Utility menu, see "Using the Printer Driver" on page 23. The Printer Setting windows appears.
2. Change the necessary printer settings. For details on how to use this tool, refer to the printer driver Help.

Note:

For a printer that is connected via USB in Windows 2000, after the message "Updated printer settings." is displayed, turn the power to the printer back on.

Setting Up Your Printer on a Network

Sharing the printer

This section describes how to share the printer on a standard Windows network.

The computers on a network can share a printer that is directly connected to one of them. The computer that is directly connected to the printer is the printer server, and the other computers are the clients which need permission to share the printer with the printer server. The clients share the printer via the printer server.

According to the versions of Windows OS and your access rights on the network, perform the appropriate settings of the printer server and clients.

See "Setting Up Your Printer on a Network" on page 38.

See "Setting for the clients" on page 43.

Note:

- When sharing the printer, be sure to set EPSON Status Monitor 3 so that the shared printer can be monitored on the printer server and clients. See "Setting up EPSON Status Monitor 3" on page 33.*
- When connecting to a Windows XP shared printer, error and warning notifications do not appear during printing. Installing Windows XP Service Pack 1 or later will solve this problem.*
- When connecting to a shared printer beyond a router, error and warning notification for shared printers during printing is not available in some cases because of the router's settings.*
- The printer server and clients should be set on the same network system, and they should be under the same network management beforehand.*

Setting up your printer as a shared printer

Follow these steps to set the printer server.

Note:

You must access as the Administrators of the local machine.

1. For Windows 8 printer server:
Click **Desktop** on the Start screen, move the cursor to the top-right corner of the screen, click **Settings**, and then click **Control Panel**. Next, click **View devices and printers** from the **Hardware and Sound** category.

For a Windows 7 printer server:

Click **Start**, and click **Devices and Printers**.

For a Windows Vista printer server:

Click **Start**, click **Control Panel**, click **Hardware and Sound**, and then click **Printers**.

For a Windows XP Professional printer server:

Click **Start**, and click **Printers and Faxes**.

For Windows XP Home Edition printer server:

Click **Start**, click **Control panel**, then click **Printers and Faxes**.

For a Windows 2000 printer server:

Click **Start**, point to **Settings**, and click **Printers**.

2. For Windows 8 or 7:
Right-click your printer icon, click **Printer Properties**, and then click the **Sharing** tab in the appearing screen.

For Windows Vista, XP, or 2000:

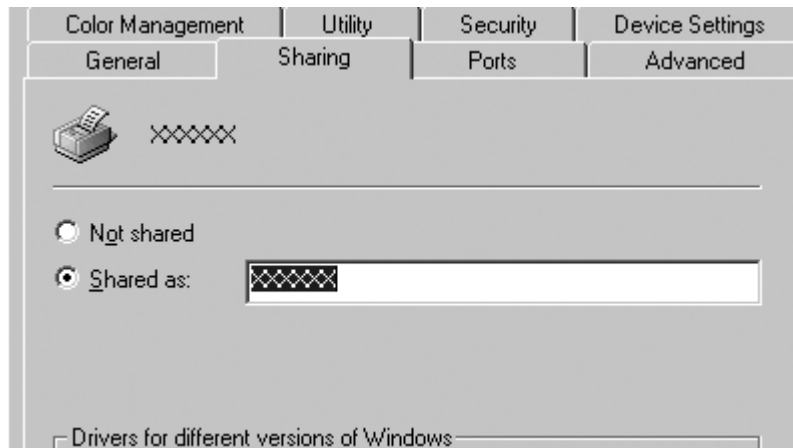
Right-click your printer icon, and click **Sharing** in the menu that appears.

For Windows XP, if the following menu appears, click either **Network Setup Wizard** or **If you understand the security risks but want to share printers without running the wizard, click here**.

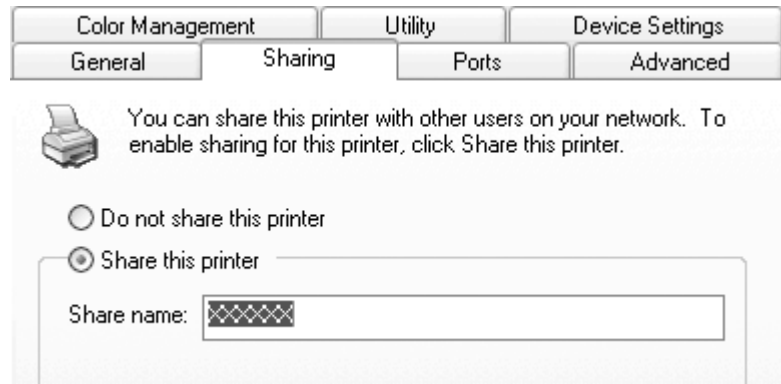
In either case, follow the on-screen instructions.



3. For a Windows 2000 printer server, select **Shared as**, then type the name in the Share name box and click **OK**.



For a Windows 8, 7, Vista, or XP printer server, select **Share this printer**, then type the name in the Share name box and click **OK**.



Note:

- Do not use spaces or hyphens for the share name, or an error may occur.
- In Windows 8, 7, or Vista, you cannot select **share this printer** until you click the **Change sharing options** button.

You need to set the client computers so that they can use the printer on a network. See the following pages for details:

See “Setting for the clients” on page 43.

Sharing the printer when the firewall is on

Note:

To share files and printers when Windows Firewall is on, perform the following procedure.

Windows 8

1. Click **Desktop** on the Start screen, move the cursor to the top-right corner of the screen, click **Settings**, and then click **Control Panel**. Next, click **System and Security**, and then click **Windows Firewall**.
2. Click **Turn Windows Firewall on or off** in the window on the left. Make sure that **Block all incoming connections, including those in the list of allowed apps** is not selected, and then click **OK**.
3. Click **Allow an app or feature through Windows Firewall** in the window on the left.

4. Select **File and Printer Sharing**, and then click **OK**.

Windows 7

1. Click **Start**, click **Control Panel**, click **System and Security**, and then click **Windows Firewall**.
2. Click **Turn Windows Firewall on or off** in the window on the left. Make sure that **Block all incoming connections, including those in the list of allowed programs** is not selected, and then click **OK**.
3. Click **Allow a program or feature through Windows Firewall** in the window on the left.
4. Select **Share file and printer**, and then click **OK**.

Windows Vista

1. Click **Start**, and then click **Control Panel**.
2. Click **Security**, and then click **Windows Firewall** to open the **Windows Firewall** window.
3. Click **Turn Windows Firewall on or off** in the window on the left. When the **User Account Control** screen is displayed, click **Continue**.
4. Make sure that **Block all incoming connections** is not selected from the **General** tab.
5. Open the **Exceptions** tab, select **File and Printer Sharing**, and then click **OK**.

Windows XP

1. Click **Start**, and then click **Control Panel**.
2. Click **Security Center**.
3. Click **Windows Firewall** to open the **Windows Firewall** window.
4. Make sure that **Don't allow exceptions** is not selected from the **General** tab.
5. Open the **Exceptions** tab, select **File and Printer Sharing**, and then click **OK**.

Setting for the clients

This section describes how to install the printer driver by accessing the shared printer on a network.

Note:

- ❑ *To share the printer on a Windows network, you need to set the printer server. For details, see “Setting up your printer as a shared printer” on page 38.*
- ❑ *This section describes how to access the shared printer on a standard network system using the server (Microsoft workgroup). If you cannot access the shared printer due to the network system, ask the administrator of the network for assistance.*
- ❑ *When you want to use EPSON Status Monitor 3 on a client computer, you have to download the printer driver and EPSON Status Monitor 3 from the Epson web site and install them on each client computer.*
- ❑ *If the printer drivers are not already installed on the client, please install them before performing these settings.*

1. On the Windows **Start** menu, open the **Device and Printers**, **Printers** or **Printers and Faxes**.

For Windows 8 clients:

Click **Desktop** on the Start screen, move the cursor to the top-right corner of the screen, click **Settings**, and then click **Control Panel**. Next, click **View devices and printers** from the **Hardware and Sound** category.

For Windows 7 clients:

Click **Start**, and click **Devices and Printers**.

For Windows Vista clients:

Click **Start**, click **Control Panel**, click **Hardware and Sound**, and then click **Printers**.

Windows XP Professional clients:

Click **Start** and then click **Printers and Faxes**.

Windows XP Home Edition clients:

Click **Start**, click **Control Panel**, and then click **Printers and Faxes**.

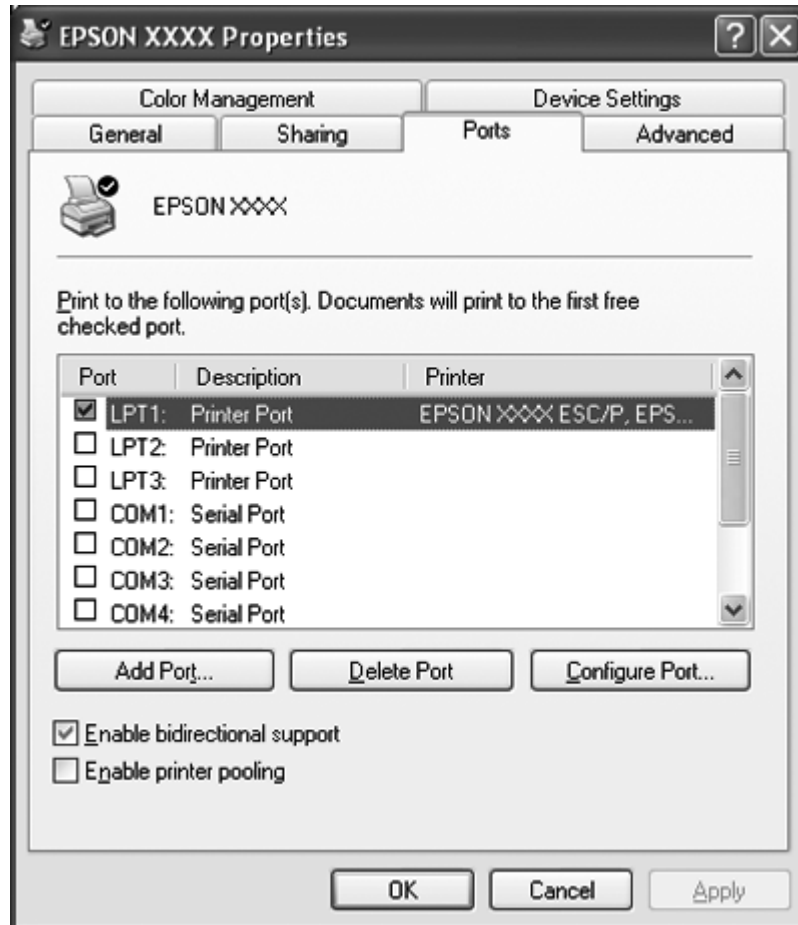
For Windows 2000 clients:

Click **Start**, click **Settings**, and then click **Printers**.

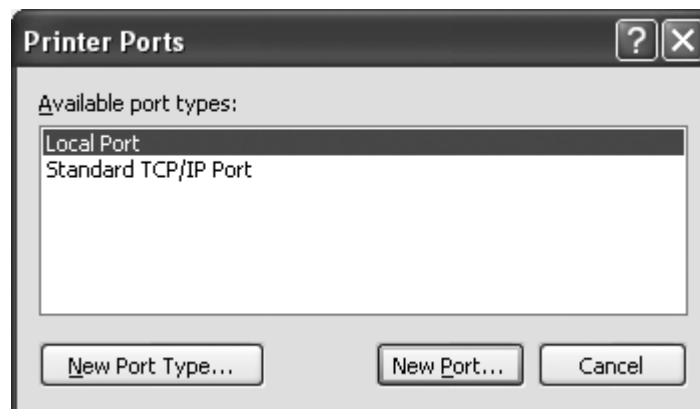
2. Right-click the icon for the printer you wish to change the settings for, and then click **Properties** (Windows Vista, XP and 2000) or **Printer properties** (Windows 8 and 7).



3. Click the **Ports** tab and then click **Add Port**.

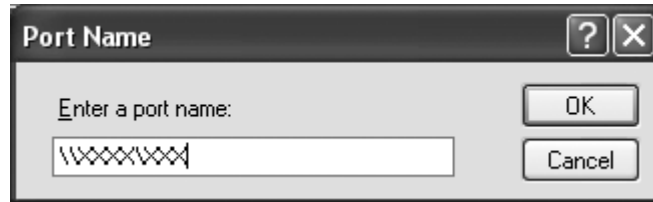


4. When the **Printer Ports** window appears, select **Local Port**, and then click **New Port**.



5. Enter the following information for the port name and then click **OK**.

\\Name of computer connected to the target printer\name of shared printer



6. After returning to the **Printer Ports** window, click **Close**.
7. Check that the name you entered for the port has been added and selected, and then click **Close**.

Canceling Printing

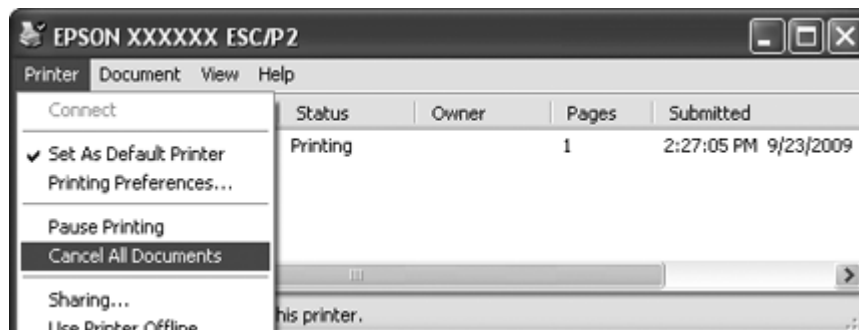
If the printouts are not what you expected and display incorrect or garbled characters or images, you may need to cancel printing. When the printer icon is displayed on the taskbar, follow the instructions below to cancel printing.

1. Double-click the printer icon on the task bar.



2. When canceling all printing documents, select **Cancel All Documents** on the Printer menu.

When canceling a specified document, select a document you want to cancel and select **Cancel** on the Document menu.



3. Turn off the printer.

Unprinted data remaining in the printer is erased.

Uninstalling the Printer Software

When you wish to reinstall or upgrade the printer driver, uninstall the printer driver that has been installed already.

Note:

When uninstalling EPSON Status Monitor 3 from a multi-user Windows XP or 2000 environment, remove the shortcut icon from all clients before uninstalling. You can remove the icon by clearing the Shortcut Icon check box in the Monitoring Preferences dialog box.

Uninstalling the printer driver and EPSON Status Monitor 3

1. Quit all applications.
2. For Windows 8:
Click **Desktop** on the Start screen, move the cursor to the top-right corner of the screen, click **Settings**, and then click **Control Panel**.

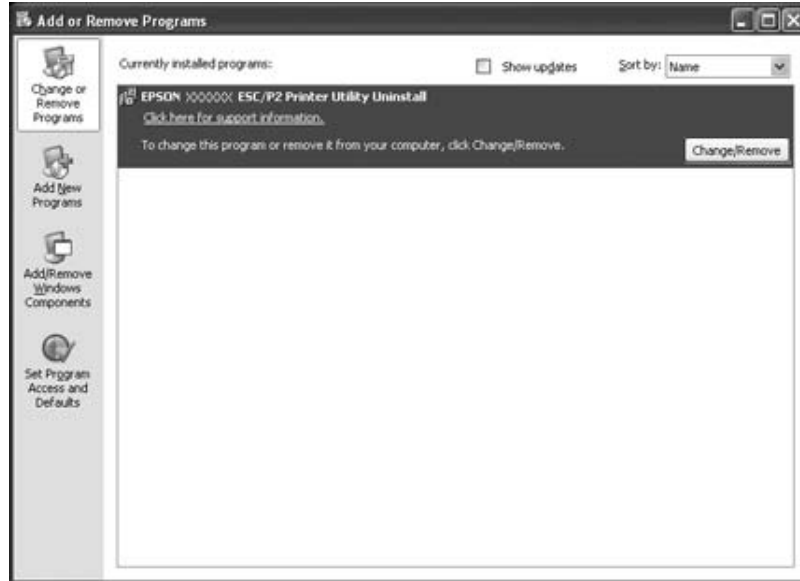
For Windows 7, Vista, or XP:
Click **Start**, and then select **Control Panel**.

For Windows 2000:
Click **Start**, point to **Settings**, and click **Control Panel**.
3. Click **Uninstall a program** (Windows 8, 7, or Vista) or double-click the **Add or Remove Programs** icon (Windows XP or 2000).

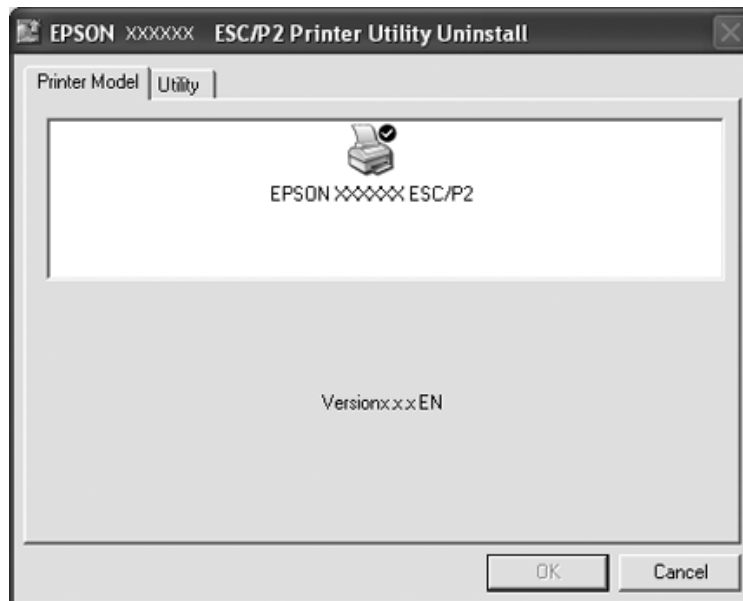


Add or Remove Programs

- Click **Change or Remove Programs** (Windows XP or 2000 only), select the **EPSON XXXXXX ESC/P2 Printer Utility Uninstall**, then click **Uninstall/Change** (Windows 8 or 7) or **Change/Remove** (Windows Vista, XP, or 2000).



- Click the **Printer Model** tab, select the icon of the printer you want to uninstall, then click **OK**.



Note:

*Make sure that nothing is selected in the Printer Model tab. Open **Utility** tab and select **EPSON Status Monitor 3(for EPSON XXXXXX ESC/P2)** and click **OK**. You can uninstall only the EPSON Status Monitor 3.*

6. Follow the on-screen instructions.

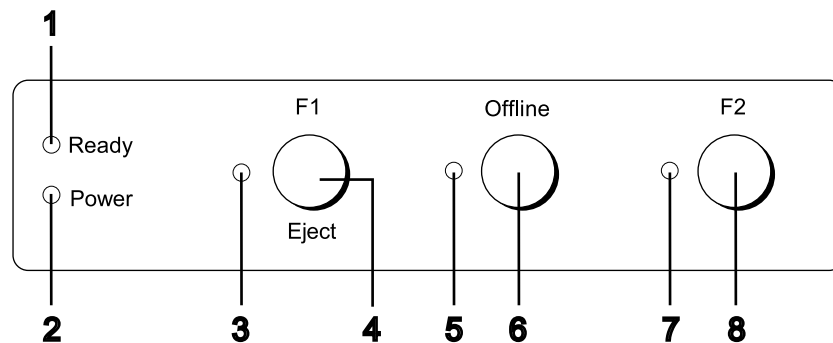
Chapter 3

Control Panel

Using the Control Panel

You can control simple printer operations—such as line feeding, form feeding, and loading and ejecting paper. The control panel lights show the printer's status.

Control Panel Buttons and Lights



1. Ready light (Yellow)

- On when output data is in buffer, or is being printed.
- Flashes when an error has occurred during a printing operation.

2. Power light (Green)

On when the power is turned on.

3. F1/Eject light (Yellow)

Works as programmed when the printer is in the PR2, WNI4915, or IBM4722 mode. You can program it when it is on, off or flashes in the PR2, WNI4915 or IBM4722 mode.

4. F1/Eject button

- ❑ Executes functions that are assigned to the **F1/Eject** button when the printer is in PR2 or WNI4915 mode. You can assign optional functions by programming them in PR2 or WNI4915 mode.
- ❑ When the printer is in IBM4722 mode:
Executes functions that are assigned to the **F1/Eject** button. You can assign optional functions by programming them in IBM4722 mode.
Ejects paper when the printer is in offline status.
- ❑ Ejects paper when the printer is in EPSON Mode.
- ❑ When the printer enters the default setting mode, the button works as a button to select the menu. You can select the next menu by pressing this button. See “Changing default settings” on page 68.

5. **Offline light (Yellow)**

On when the printer is offline.

6. **Offline button**

- ❑ Alternates the printer activity between offline and online.
- ❑ When the printer enters the default setting mode, the button works as a button to select the menu. You can select the previous menu by pressing this button. See “Changing default settings” on page 68.

7. **F2 light (Yellow)**

Works as programmed when the printer is in the PR2, WNI4915, or IBM4722 mode. You can program it when it is on, off or flashes in the PR2, WNI4915, or IBM4722 mode.

8. **F2 button**

- ❑ Executes functions that are assigned to the **F2** button when the printer is in PR2, WNI4915, or IBM4722 mode. You can assign optional functions by programming them in PR2, WNI4915, or IBM4722 mode.
- ❑ When the printer enters the default setting mode, you can change the setting by pressing this button. See “Changing default settings” on page 68.

Functions auxiliary

This section describes functions executed by turning on the printer while holding one or more buttons. These functions are shown in the following table and explained in detail after the table.

Switch	Function
F2 * ¹	Self-test
F1/Eject & F2	Default setting
F1/Eject & Offline	Compress printing mode
Offline	Data dump
Open the cover & F1/Eject	Paper removing
F2 * ²	Bidirectional adjustment
F2 & Offline * ³	Top-of-form adjustment
F2 & Offline * ⁴	Printing start position adjustment

*¹ To enter this mode, press the **F1/Eject** and **F2** button while the **F1/Eject**, **Offline**, and **F2** lights are flashing.

*² To enter this mode, press the **F1/Eject** button while the **F1/Eject**, **Offline**, and **F2** lights are flashing.

*³ To enter this mode, press the **F1/Eject** button while the **Offline** light is flashing.

*⁴ To enter this mode, press the **F2** button while the **Offline** light is flashing.

Self-test

Prints the self-test. See “Printing a Self Test” on page 83 for more information.

Default setting

Starts the default setting mode. See “Changing default settings” on page 68 for more information.

Compress printing mode

Starts the compress printing mode. See “Compress Printing Mode” on page 53 for more information.

Data dump

Starts the data dump mode, in which all input data is printed as hexadecimal numbers and corresponding characters. See “Printing a Hex Dump” on page 84 for more information.

Paper removing

Starts the paper removing mode. See “Clearing a Paper Jam” on page 82 for instruction on feeding paper.

Bidirectional adjustment

Starts the bidirectional adjustment mode. See “Aligning Vertical Lines in Your Printout” on page 70 for more information.

Top-of-form adjustment

Starts the top-of-form position adjustment mode. See “Adjusting the top-of-form position” on page 19 for more information.

Printing start position adjustment

Starts the printing start position adjustment mode. See “Adjusting the printing start position” on page 21 for more information.

Compress Printing Mode

You can compress your printing data to the ratio of 75% by following the steps below.

Note:

Compress printing mode is effective only when the printer is in the ESC/P2 or ESC/P2+ESC/MC mode.

1. Turn off the printer.



Caution:

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

2. Turn on the printer while holding the **F1/Eject** and **Offline** buttons. The printer makes two short beeps and enters the compress printing mode.

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.

For a detailed description of the settings you can change in the default setting mode, see "Understanding default settings" on page 54. For instructions on changing the settings, see "Changing default settings" on page 68.

Understanding default settings

This section describes the settings and options available in the default setting mode.

- In the default setting mode, you can select items you want to set from the main menu.
- From the **Common settings** menu, you can change the settings for the common items, which are effective in all the emulation modes.
- From the **Target Printer Mode settings** menu, you can then select the target printer and change the settings for each item from the **Olivetti Mode**, the **Wincor Nixdorf Mode**, the **IBM Mode**, or the **EPSON Mode**.
- From the **Olivetti Mode** menu, you can select the PR2 emulation mode.
- From the **Wincor Nixdorf Mode** menu, you can select the WNI4915 emulation mode.
- From the **IBM Mode** menu, you can select the IBM4722 emulation mode.
- From the **EPSON Mode** menu, you can select the ESC/P2, IBM PPDS, or ESC/P2+ESC/MC emulation modes.

These settings are shown in the following tables and explained in detail after each table.

To access and change a setting, see "Changing default settings" on page 68.

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 68.

Main Menu

Menu	Values (default in bold)
Main Menu	Common settings , Target Printer Mode settings

Common Settings

Menu	Values (default in bold)
Draft speed	Draft, HSD , USD
Parallel I/F bidirectional mode	Off, On
Packet mode *1	Auto , Off
Baud rate (bps)	19200, 9600 , 4800, 2400, 1200, 600, 300
Data length (bit)	8 , 7
Parity	None , Odd, Even
Passbook *2	Off, On
Binding	Horizontal , Vertical
Thin paper	Off , On
Buzzer	Off, On
Paper width measurement	After loading , Before printing
Right paper edge detection	Off, On
Low-noise mode	Off , On
Broken pin compensation	Off , On
Broken pin number	1 , 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24
Roll paper *2	Off , On
Rear Paper Guide *2	Off , On
Copy mode	Off , On
Magnetic standard *3	DIN/ISO, ANSI*5, IBM3604 , IBM4746*5, ISO7811, HT2751CIZ*5, ISO8484*5
End sentinel *3*4	C, F

Menu	Values (default in bold)
Displacement ^{*3}	Standard , +10, +20
Duplicate ^{*3}	Off , On
Retry ^{*3}	1 , 3

*1 When the printer turns on in the PR2, WNI4915, or IBM4722 mode, Packet mode is set to OFF.

*2 When the printer turns on in Passbook or Rear Paper Guide mode, Roll paper mode is not available.

*3 These settings are available only when magnetic stripe reader/writer is installed.

*4 This settings is effective when the format of IBM3604 or IBM4746 is selected.

*5 These settings are unavailable when the printer turns on in WNI4915 mode.

Draft speed

This setting allows you to set printing speed.

Parallel I/F bidirectional mode

The Parallel Interface bidirectional transfer mode is used when this feature is set to **On**. If bidirectional transfer mode is unnecessary, select **Off**.

Packet mode

Make sure to select **Auto** when you print from Windows applications using the printer driver that was downloaded from the Web site. Set this feature to **Off** if you have connection troubles while printing from applications based on other operating systems. When the printer turns on in the PR2, WNI4915, or IBM4722 mode, this mode is set to **Off**.

Baud rate (bps)

Use this option to set the data transfer rate (baud) for the serial interface. The baud rate is measured in bits per second (bps).

Data length (bit)

Set the data length of the serial interface to **7** or **8**.

Parity

When this option is set to **None**, parity checking is disabled. The parity bit, if used, provides a basic form of error detection.

Passbook

When you use single sheet or passbook, set this option to **On**. When you use multipart forms, set this option to **Off**.

Binding

You need to set the method for binding when you use a passbook. Select **Horizontal** for a horizontal-fold passbook or **Vertical** for a vertical-fold passbook.

Thin paper

When you use thin paper, set this option to **On**. This mode is activated when you select **On** and the **Passbook** mode is set to **Off**.

Buzzer

If you set this feature to **On**, the printer beeps when an error occurs. See “Using the Error Indicators” on page 72 for more information on printer errors. If you do not want the printer to beep, select **Off**.

Paper width measurement

You can set the timing when the printer measures the width of the paper. When you select **After loading**, the printer measures the width just after it loads the paper. When you select **Before printing**, it makes the measurement just before printing the first line.

Right paper edge detection

This setting allows you to determine whether the printer prints excess data when the data is longer than the paper width. When you select **On**, the excess data is not printed. When you select **Off**, the printer prints the excess data on the next line.

Low-noise mode

When this mode is set to **On**, the noise is reduced, but the printing speed is slower.

Broken pin compensation

When this feature is **On**, printing is done at normal quality if one of the 24 pins is broken. You need to set the broken pin number at the **Broken pin number** setting.

Broken pin number

Select the pin number of the broken pin. The broken pin number is shown on the sheet of current default settings that can be printed in the default setting mode. The gap on the sloping line above the pin numbers shows the broken pin number.

Roll Paper

When you use roll paper with the optional roll paper holder, set this option to **On**. This mode is activated when you select **On** and the **Passbook** and **Rear Paper Guide** mode is set to **Off**.

When this option is set to **Off** and paper is left in the printer, the printer ejects the paper when the printer is turned on or the cover is opened. When this option is set to **On**, the printer does not eject the paper.

Rear Paper Guide

When you use the optional rear paper guide, set this option to **On**.

Copy mode

This setting allows you to set copying capabilities. When **On** is selected, you can use multipart forms with one original and up to six copies. When **Off** is selected, you can use multipart forms with one original and up to two copies. Printing speed is reduced when **On** is selected.

Magnetic standard

You can select the magnetic standard in this setting.

This feature is available only for PLQ-30M.

End sentinel

You can select **C** or **F** as the letter which will be attached to the end of the data recorded on magnetic stripes.

This setting is effective only when the format for **IBM3604** or **IBM4746** is selected in the **Magnetic standard** setting.

This feature is available only for PLQ-30M.

Displacement

This option allows you to select the displacement value of the magnetic stripe.

This feature is available only for PLQ-30M.

Duplicate

When this feature is set to **On**, the magnetic stripes record the data in duplicate.

This feature is available only for PLQ-30M.

Retry

This setting allows you to set the number of times the printer tries to receive data before it fails.

This feature is available only for PLQ-30M.

Target Printer Mode Settings

Menu	Values (default in bold)
Target Printer Mode	Olivetti Mode , Wincor Nixdorf Mode, IBM Mode, EPSON Mode

Olivetti Mode Settings

Menu	Values (default in bold)
Interface	Parallel, Serial , USB
Software	PR2

PR2 Mode Settings

Menu	Values (default in bold)
PR2 Emulation	PR2 , PR40+, PR54+
Font	Draft, NLQ1 , NLQ2, LQ2, OCR-A, OCR-B
Pitch (dpi)	10, 12 , 15, 16.6, 13, 17.1
Character table	Olivetti , PC, ISO

Menu	Values (default in bold)
Olivetti character table	ST15INT (International) , ST15ITA (Italy), ST15P (Portugal), ST15USSR (USSR), ST15SDC (SDC),ST15E (Spain 1), ST15E2 (Spain 2),ST15S/SF (Sweden/Finland), ST15CH (Switzerland), ST31 (Olivetti TCV 370), ST15TR (Turkey), ST15USA (U.S.A.), ST15YU (Yugoslavia), ST15ARABIC (Arabic), ST15CND (Canada), ST15CIBC (CIBC), ST15DK/N (Denmark/Norway), ST15IL (Israel), ST15F (France), ST15UK (Great Britain), ST15D (Germany), ST15GR (Greece)
PC character table	PC437 (INT) , PC210 (GR), PC220 (E), PC850 (LATIN 1), PC851 (GREEK), PC 852 (LATIN 2), PC855 (CYRILLIC), PC857 (LATIN 5), PC858 (LATIN EURO), PC860 (P), PC862 (IL), PC863 (CANADIAN FRENCH), PC864 (ARABIC), PC865 (NORDIC), PC866 (CYRILLIC), DK/N (Denmark/Norway), DK (Denmark), PC1252 (PC-WIN LATIN1), PC1250 (PC-WIN LATIN2)
ISO character table	CPOLUNIX , ISO 8859/15, ISO 8859/1, ISO 8859/2, ISO 8859/5, ISO 8859/6, ISO 8859/7, ISO 8859/8, ISO 8859/9
8-pin bit image resolution	72, 96
Serial I/F DSR	Off , On
Serial I/F DCD	Off , On
Status Request	No Wait , Wait
Condensed pitch (cpi)	16.6 , 17.1
Vertical resolution	1/216", 1/240"
Auto CR	Off , On
Columns	90, 94
Side	Left , Right
TOF position for PR40+	Off , On (7.4 mm)

PR2 Emulation

You can select emulation of **PR2**, **PR40+**, or **PR54+**.

Font

This setting allows you to set one of the six fonts.

Pitch (cpi)

This setting allows you to set one of six pitches.

Character table

You can set one of the three character tables; **Olivetti**, **PC**, **ISO**.

Olivetti character table

You can select a font. The setting you select in this table is effective only when you have chosen **Olivetti** in the **Character table** setting.

PC character table

You can select a font. The setting you select in this table is effective only when you have chosen **PC** in the **Character table** setting.

ISO character table

You can select a font. The setting you select in this table is effective only when you have chosen **ISO** in the **Character table** setting.

8-pin bit image resolution

You can select **72** or **96** as the default value of the 8 pin bit image resolution.

Serial I/F DSR

When you select **On**, DSR (Data Set Ready) is activated.

This option is available only in the PR2 mode.

Serial I/F DCD

When you select **On**, DCD (Data Carrier Detector) is activated.

This option is available only in the PR2 mode.

Status Request

This setting allows you to set the reply timing for the status response command. When **No Wait** is selected, the command is processed without waiting for the printing operation. When **Wait** is selected, the command is processed after the printing operation has completely finished.

Condensed pitch (cpi)

You can set the pitch that is used in the condensed mode.

Vertical resolution

This setting allows you to select the vertical resolution.

Auto CR

When auto carriage return is set to **On**, each line feed (LF) code is accompanied by a carriage return (CR) code so the printer moves the next printing start position to the left margin. When this setting is set to **Off**, you must send a CR code after the line feed code to move the printing start position to the left margin.

Columns

You can select the number of columns in one line.

Side

This setting allows you to switch the printing start position reference to the left or right side of the paper. When **Left** is selected, printing is normal and starts from the first character with the left edge of the paper. When **Right** is selected, printing starts from the last column of the number of columns set in Columns with the right edge of the paper as the reference.

TOF position for PR40+

When you select **On** in this option and **PR40+** in **PR2 Emulation**, the top-of-form position is set to 7.4 mm which is unique to the PR40+ mode. When you select **Off** and **PR40+**, the top-of-form position is set to the same position as in the PR2 and PR54+ modes (the factory set default is 4.2 mm).

Wincor Nixdorf Mode Settings

Menu	Values (default in bold)
Interface	Serial , Parallel, USB
Software	WNI4915

WNI4915 Mode Settings

Depending on the factory default, the WNI4915 mode may not be available. In this case, the PR2 mode is implemented instead. See “PR2 Mode Settings” on page 59.

Menu	Values (default in bold)
Font	Draft, Roman , Sans Serif
Pitch (dpi)	10 , 12, 15, 17.1, 20, Proportional
Character table	Italic, PC437 , PC850, ISO 8859/2, ISO 8859/5, ISO 8859/7, ISO 8859/8, ISO8859/9, ISO 8859/15
Serial I/F Protocol	DTR , XON/XOFF, XON/XOFF2

Menu	Values (default in bold)
Auto line feed	Off , On
Columns	90, 94
Side	Left , Right

Font

This setting allows you to set one of the 3 fonts.

Pitch (cpi)

This setting allows you to set one of six pitches.

Character table

You can select among various character tables. This setting is used when you print without using the printer driver.

When using the printer driver, change the settings on the printer driver. For details, see “Printer Driver Settings Overview” on page 29.

Serial I/F Protocol

This setting allows you to set the serial interface flow control specialized for WNI4915.

The setting is only for WNI4915.

Auto line feed

When auto line feed is set to **On**, the printer accompanies each carriage return (CR) code received with a line feed (LF) code.

Columns

You can select the number of columns in one line.

Side

This setting allows you to switch the printing start position reference to the left or right side of the paper. When **Left** is selected, printing is normal and starts from the first character with the left edge of the paper. When **Right** is selected, printing starts from the last column of the number of columns set in Columns with the right edge of the paper as the reference.

IBM Mode Settings

Menu	Values (default in bold)
Interface	Serial , COMUSB
Software	IBM4722

IBM4722 Mode Settings

Menu	Values (default in bold)
0 slash	0 , 0
Pitch (cpi)	10 , 12, 15, 17.1, 20
Character table	CP437 , CP808, CP813, CP850, CP851, CP852, CP855, CP857, CP859, CP860, CP862, CP863, CP864, CP865, CP866, CP867, CP869, CP872, CP874, CP876, CP877, CP1161, CP1250, CP1251, CP1252, CP1253, CP1254, CP1257, CP819, CP912, CP913, CP915, CP916, CP920, CP923
Thai compose mode (CP874 only) *	Non-compose , Auto-compose, 3SP-align, EOF-align, 3SP/EOF-align
Thai 1 pass mode (CP874 only) *	1-pass print, Multi pass
Auto line feed	Off , On
Auto CR	Off , On
Columns	82 , 94
Serial communication interface	With Finance Device Driver (Honor CTS) , With Finance Device Driver (Ignore CTS), Without Finance Device Driver

* These settings vary depending on the country.

0 slash

The zero character has a slash (0) when this feature is set to **On**; it has no slash (0) when set to **Off**. The slash allows you to easily distinguish between the uppercase letter “O” and a zero.

Pitch (cpi)

This setting allows you to set one of five pitches.

Character table

You can select among various character tables. This setting is used when you print without using the printer driver.

When using the printer driver, change the settings on the printer driver. For details, see “Printer Driver Settings Overview” on page 29.

Thai compose mode (CP874 only)

This setting allows you to select how Thai character is processed. The default setting is **Non-compose**.

Thai 1 pass mode (CP874 only)

This setting allows you to select how Thai character is printed. The default setting is **Multi-pass**.

Auto line feed

When auto line feed is set to **On**, the printer accompanies each carriage return (CR) code received with a line feed (LF) code.

Auto CR

When auto carriage return is set to **On**, each line feed (LF) code or ESC J code is accompanied by a carriage return (CR) code so the printer moves the next printing start position to the left margin.

When this setting is set to **Off**, you must send a CR code after the line feed code to move the printing start position to the left margin.

Columns

You can select the number of columns in one line.

Serial communication interface

This setting allows you to select enabling or disabling of Financial Protocol function, as well as to select reply control method when Financial Protocol is enabled. By selecting reply control method, a handshake that matches the host PC environment is allowed.

Selecting the **Without Finance Device Driver** disables Financial Protocol function. Selecting other settings enables Financial Protocol setting, as well as allowing you to select reply control method.

EPSON Mode Settings

Menu	Values (default in bold)
Software	ESC/P2 , IBM PPDS, ESC/P2+ESC/MC
Interface	Auto , Serial, Parallel, USB
Auto I/F wait time (Seconds)	10 , 30
Print direction	Bi-D , Uni-D, Auto

Menu	Values (default in bold)
0 slash	0 , 0
Font	Draft, Roman , Sans Serif, Courier, Prestige, Script, OCR-B, Orator, Orator-S, Script C, Roman T(PS), Sans serif H(PS)
Pitch (dpi)	10 , 12, 15, 17.1, 20, Proportional
Character table	Standard model: Italic, PC437 , PC850, PC860, PC863, PC865, PC861, BRASCII, Abicomp, Roman 8, ISO Latin 1, PC858, ISO 8859-15 European model: Italic, PC437 , PC850, PC437 Greek, PC853, PC855, PC852, PC857, PC866, PC869, MAZOWIA, Code MJK, ISO 8859-7, ISO Latin IT, Bulgaria, PC774, Estonia, ISO 8859-2, PC 866 LAT., PC 866 UKR, PC860, PC861, PC865, PC864, PC APTEC, PC708, PC720, PC AR864, PC863, BRASCII, Abicomp, Roman 8, ISO Latin 1, PC858, ISO 8859-15, PC 771, PC437 Slovenia, PC MC, PC 1250, PC 1251
International character set for Italic table	Italic U.S.A. , Italic France, Italic Germany, Italic U.K., Italic Denmark 1, Italic Sweden, Italic Italy, Italic Spain 1
Auto line feed	Off , On
Auto CR (IBM PPDS)* ¹	Off , On
A.G.M. (IBM PPDS)* ¹	Off , On
IBM character table (IBM PPDS)* ¹	Table2 , Table1
Columns	80, 90, 94
Paper loading	Auto Load , Data Exists

*¹ This setting is effective when IBM PPDS emulation is selected.

Software

This setting allows you to select the software format.

Interface

The printer provides built-in slots for three kinds of interfaces; Parallel, Serial, and USB. You can choose **Auto** (automatic), **Parallel**, **Serial**, or **USB**, for the interface mode. When you select **Auto**, the printer automatically selects the interface that is receiving data, and uses that interface until the end of the print job. The **Auto** setting allows you to share the printer among multiple computers without changing the interface mode.

If only one computer is connected to the printer, you can select **Parallel**, **Serial**, or **USB** depending on which interface your computer uses.

Auto I/F wait time (Seconds)

When the printer is in the auto interface mode and it receives no data from the currently selected interface for the amount of time specified with this setting, it determines which interface is receiving data and switches to that interface. You can specify either **10** or **30** for the auto interface wait time. When the printer turns on in the PR2 mode, this mode is not activated.

Print direction

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

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

0 slash

The zero character has a slash (\emptyset) when this feature is set to **On**; it has no slash (0) when set to **Off**. The slash allows you to easily distinguish between the uppercase letter “O” and a zero.

Font

You can select from a variety of fonts.

Pitch (dpi)

This setting allows you to set one of six pitches.

Character table

You can select among various character tables. This setting is used when you print without using the printer driver.

When using the printer driver, change the settings on the printer driver. For details, see “Printer Driver Settings Overview” on page 29.

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.

Auto line feed

When auto line feed is set to **On**, the printer accompanies each carriage return (CR) code received with a line feed (LF) code.

Auto CR (IBM PPDS)

When auto carriage return is set to **On**, each line feed (LF) code or ESC J code is accompanied by a carriage return (CR) code so the printer moves the next printing start position to the left margin.

When this setting is set to **Off**, you must send a CR code after the line feed code to move the printing start position to the left margin.

This feature is only available in IBM PPDS emulation mode.

A.G.M. (IBM PPDS)

When the alternate graphic mode (A.G.M.) is set to **On**, the ESC 3, ESC A, ESC J, ESC K, ESC L, ESC Y, ESC Z, and ESC * commands in IBM PPDS emulation mode work the same way as in ESC/P2 or ESC/P2+ESC/MC mode.

This feature is only available in IBM PPDS emulation mode.

IBM character table (IBM PPDS)

Select **Table2** or **Table1** for the IBM character table.

This feature is only available in IBM PPDS emulation mode.

Columns

You can select the number of columns in one line.

Paper loading

When you set **Auto Load**, the printer loads paper just after it is inserted. When you set **Data Exists**, the printer does not load the paper until it receives the data.

Changing default settings

The following table shows the basic function of each button in the default setting mode.

Button	Basic function
F1/Eject	Selects the next menu parameter.
Offline	Selects the previous menu parameter.
F2	Changes the value in the selected menu.

Follow these steps to enter the default setting mode and change the printer's default settings:

Note:

- Prepare an A4 size sheet of paper before entering the default setting mode.
- You need to load a new sheet of paper each time the printer ejects a printed sheet from the front slot.
- Always close the printer cover before printing. The printer does not print when the printer cover is open.

1. Turn off the printer.



Caution:

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

2. Turn on the printer while holding the **F1/Eject** and **F2** buttons on the control panel.
3. When the **Ready** light turns on, insert a sheet of A4 paper into the front slot. The printer prints the version number and the language selection for the default settings menu. The underline shows the selected language. Select the language by pressing the **F1/Eject** button.
4. Press the **F2** button to set the language. The printer prints a message asking if you wish to print the current settings. If you wish to print the current settings, press the **F2** button. The printer prints the current settings. The underline shows the setting value that is currently selected for each item. You can also bypass printing the current setting by pressing the **F1/Eject** button.
5. The printer prints the setting method and the first selection of the main setup menu.

Common settings

Target Printer Mode settings

You can select the main setup menu by pressing **F2**. Then press the **F1/Eject** to set it.

6. Select the menu parameters which you wish to change by pressing the **F1/Eject** button (for the next item) or the **Offline** button (for the previous item). The printer prints the item and the current setting value of that item is underlined.
7. Press the **F2** button to change the value and the printer prints the next value.
8. You may either continue to make changes to other parameters by pressing the **F1/Eject** or **Offline** button. The menu selection will return to the selection of the three main setup menus after the selection of the last parameter on each menu is done.

Note:

*When you press the **Offline** button at the first item selection of each menu, the menu selection will also return to the main setup menu selection.*

9. After you finish the default setting, turn off the printer to exit the default setting mode.

Aligning Vertical Lines in Your Printout

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

During bidirectional adjustment, the printer prints three sheets of alignment patterns, labeled Draft, Bit image (ESC * 26H), and LQ (letter quality). As described below, you select the best alignment pattern from each sheet.

Note:

Prepare an A4 size sheet of paper before entering the bidirectional adjustment mode.

Follow these steps to perform the bidirectional adjustment:

1. Turn off the printer.



Caution:

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

2. Turn on the printer while holding the **F2** button.
3. Press the **F1/Eject** button while the **F1/Eject**, **Offline**, and **F2** lights are flashing.

4. When the **Ready** light turns on, insert a sheet of A4 paper into the front slot. The printer prints the guide to adjust the bidirectional alignment and the first set of alignment patterns.
5. As described in the instructions, compare the alignment patterns and select the pattern with the best alignment. You can select the alignment pattern by pressing the **F1/Eject** button (for the next pattern) and the **F2** button (for the previous pattern). The **F1/Eject**, **Offline** and **F2** lights show the pattern which is selected at that time. Each time you press the **F1/Eject** or **F2** button, the printer makes a short beep.
6. Set the pattern by pressing the **Offline** button. The printer prints the next set of alignment patterns.
7. After you select the best pattern in the final set of alignment patterns and set it by pressing the **Offline** button, turn off the printer. The setting does not change even if the printer is turned off.

Chapter 4

Troubleshooting

Diagnosing the Problem

For problems that may be related to USB connections, see “Correcting USB Problems” on page 81 for details.

If your problem is not USB related, troubleshooting printer problems is best handled in two easy steps; first diagnose the problem, then apply likely solutions until the problem is fixed.

The information you need to diagnose and solve most common problems is provided by the printer's control panel, or by printing a self-test or hex dump. Refer to the appropriate section below.

If you have a specific problem relating to print quality, a printout problem not related to print quality, or a paper feeding problem, or if the printer does not print at all, refer to the appropriate section in this chapter.

To solve a problem, you may need to cancel printing. For details, see “Canceling Printing” on page 46.

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, see “Problems and Solutions” on page 75.

Note:

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

PR2 mode

State of panel lights	Beep pattern	Problem
		Solution
○ Power ◌ Ready	—	There is no paper loaded in the slot.
		Load a paper into the front slot.
	—	Paper is not loaded correctly.
		Remove the paper and reload it correctly. See "Loading Passbooks" on page 17, or "Loading Single Sheets" on page 18.
	—	Paper is not fully ejected.
		See "Clearing a Paper Jam" on page 82 for instruction on ejecting paper.
—	Paper is jammed in the printer.	
	To clear the paper jam, see "Clearing a Paper Jam" on page 82.	
○ Power ○ Offline	—	The printer cover is open.
		Stop the operation and close the printer cover.
○ Power ◌ Offline	—	The print head is overheated.
		Wait for a few minutes; the printer resumes printing automatically once the print head cools.
○ Power ◌ Ready ◌ F1/Eject ◌ Offline ◌ F2	●●●●●	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

●●●●● = long series of beeps (five beeps)

WNI4915 mode

State of panel lights	Beep pattern	Problem
		Solution
○ Power ◌ Ready ○ Offline	●●●	There is no paper loaded in the slot.
		Load a paper into the front slot.
	●●●	Paper is not loaded correctly.
		Remove the paper and reload it correctly. See "Loading Passbooks" on page 17, or "Loading Single Sheets" on page 18.
	●●●	Paper is not fully ejected.
		Press the F1/Eject button to eject paper.
	●●●	Paper is jammed in the printer.
		To clear the paper jam, see "Clearing a Paper Jam" on page 82.
○ Power ○ Offline	●●●	The printer cover is open.
		Stop the operation and close the printer cover.
○ Power ◌ Offline	—	The print head is overheated.
		Wait for a few minutes; the printer resumes printing automatically once the print head cools.
○ Power ◌ Ready ◌ F1/Eject ◌ Offline ◌ F2	●●●●●	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)

IBM4722, ESC/P2, IBM PPDS, and ESC/P2+ESC/MC modes

State of panel lights	Beep pattern	Problem
		Solution
○ Power ◌ Ready ○ Offline	●●●	There is no paper loaded in the slot.
		Load a paper into the front slot.
	●●●	Paper is not loaded correctly.
		Remove the paper and reload it correctly. See "Loading Passbooks" on page 17, or "Loading Single Sheets" on page 18.
	●●●	Paper is not fully ejected.
		Press the F1/Eject button to eject paper.
○ Power ○ Offline	●●●	The printer cover is open.
		Stop the operation and close the printer cover.
○ Power ◌ Offline	—	The print head is overheated.
		Wait for a few minutes; the printer resumes printing automatically once the print head cools.
○ Power ◌ Ready ◌ F1/Eject ◌ Offline ◌ F2	●●●●●	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)

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 "Printing a Self Test" on page 83. 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.

Power Supply

Power is not being supplied

The lights come on briefly and then go off. The lights stay off even when the power is turned on again.	
Cause	What to do
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.
The printer does not work and the control panel lights are off even when you turn on the printer.	
Cause	What to do
The power cord is not properly plugged into the electrical outlet or your printer.	Turn off the printer, and make sure the power cord is firmly plugged into the electrical outlet and the printer, if necessary. Then turn on the printer.
The electrical outlet does not work.	Use a different outlet.

Printing

Printing or printout quality problems

The printer is on but it doesn't print.	
Cause	What to do
The interface cable is broken or twisted.	Check that the interface cable is not broken or twisted. If you have another interface cable, replace the cable and check whether the printer works correctly.
The printer is not connected directly to your computer.	When you use a printer changer, printer buffer, or an extension cable, the printer does not print correctly due to the combination of these devices. Make sure that the printer works correctly when it is connected to your computer without these devices.
The printer driver is not installed correctly.	Check that the printer driver is installed properly. If necessary, reinstall the printer driver.
Paper is jammed or the ribbon or guard mechanism is stuck.	Turn the printer off, open the printer cover and remove the jammed paper or things that are stuck. To eject the jammed paper, see "Clearing a Paper Jam" on page 82.

The USB setting is incorrect.	Confirm the USB setting is correct. See "Correcting USB Problems" on page 81 for details.
The printer is hung-up (stopping in abnormal situations).	Turn the printer off and wait for a while. Then, turn the printer on again, and start printing.
The cable used in the WNI 4915 mode is not the one shipped with the printer.	Ensure that the correct dedicated cable is always used.
The printer does not print when the computer sends data.	
Cause	What to do
The printer is paused.	Press the Offline button to turn off the Power light.
The interface cable is not plugged in securely.	Check that both ends of the cable between the printer and the computer are plugged in securely. If the cable is connected correctly, run a self-test as described in "Printing a Self Test" on page 83.
Your interface cable does not meet the printer and/or computer specifications.	Use an interface cable that meets the requirements of both the printer and computer. See "Electronic" on page 107 and your computer documentation.
Your software is not properly set up for your printer.	Select your printer from the Windows desktop or in your application. If necessary, install or reinstall the printer driver software.
The printer makes noise, but nothing prints or printing stops abruptly.	
Cause	What to do
The ribbon has too much slack, the ribbon has come loose, or the ribbon cartridge is not installed properly.	Remove any slack in the ribbon by turning the ribbon-tightening knob, or reinstall the ribbon cartridge as described in the section under "Replacing the ribbon cartridge" on page 96.
The printout is pale.	
Cause	What to do
The ribbon is worn out.	Replace the ribbon cartridge as described in "Replacing the ribbon cartridge" on page 96.
The printout is faint.	
Cause	What to do
The ribbon is worn out.	Replace the ribbon cartridge as described in "Replacing the ribbon cartridge" on page 96.
Part of the printout is missing, or dots are missing in random positions.	
Cause	What to do

The ribbon has too much slack, the ribbon has come loose, or the ribbon cartridge is not installed properly.	Remove any slack in the ribbon by turning the ribbon-tightening knob, or reinstall the ribbon cartridge as described in "Replacing the ribbon cartridge" on page 96.
The ribbon is worn out.	Replace the ribbon cartridge as described in "Replacing the ribbon cartridge" on page 96.
Lines of dots are missing in the printout.	
Cause	What to do
The print head is damaged.	<p>Print the current settings in the default setting mode and check the pin condition. See "Changing default settings" on page 68 to see how to print them.</p> <p>If only one pin is broken, other pins can compensate for it. See "Broken pin compensation" on page 57 for details.</p> <p>If more than two pins are broken, stop printing and contact your dealer to have the print head replaced.</p>
<p>Caution: Never replace the print head yourself; you may damage the printer. Also, other parts of the printer must be checked when the print head is replaced.</p>	
All the text is printed on the same line.	
Cause	What to do
No line feed command is sent at the end of each line of text.	Set the Auto line feed setting to On in the default setting mode so that the printer automatically adds a line feed code to each carriage return. See "Changing default settings" on page 68.
The printout has extra blank lines between lines of text.	
Cause	What to do
Two line feed commands are being sent at the end of each line of text, because the printer's auto line feed setting is on.	Set the Auto line feed setting to Off in the default setting mode. See "Changing default settings" on page 68.
The line space setting in your application software is incorrect.	Adjust the line space setting in your application software.
The printer prints strange symbols, incorrect fonts, or other inappropriate characters.	
Cause	What to do
Your printer and computer are not communicating correctly.	Make sure that you use the correct interface cable and that the communications protocol is correct. See "Electronic" on page 107 and your computer documentation.

The wrong character table is selected in your software.	Select the correct character table using your software or the default setting mode. The character table setting in your software overrides settings made in the default setting mode.
The printer you want to use is not selected in your software.	Choose the correct printer from the Windows desktop or in your application before printing.
Your application software is not configured correctly for your printer.	Make sure that your application software is configured correctly for your printer. See your application documentation. If necessary, install or reinstall the printer driver software.
Software settings override settings you make using the default setting mode or the control panel buttons.	Use your application software to select the font.
Vertical printed lines are not aligned.	
Cause	What to do
Bidirectional printing, which is the printer's standard printing mode, is out of alignment.	Use the printer's bidirectional adjustment mode to correct this problem. See "Aligning Vertical Lines in Your Printout" on page 70

Printing position problems

Your printing appears too high or low on the page.	
Cause	What to do
The paper size setting in your application software or printer driver does not match the size of the paper you are using.	Check the paper size setting in your application or printer driver.
The top margin or top-of-form position setting is incorrect.	Check and adjust the margin or top-of-form position settings in your application software. For information about recommended printable area, refer to the "Paper/Media" on page 111. You can also adjust the top-of-form position using the Micro Adjust function. However, settings made in Windows applications override settings made in the Micro Adjust mode. See "Adjusting the top-of-form position" on page 19 for more information.
The printer driver settings you want to use are not selected in your software.	Choose the correct printer driver setting from the Windows desktop or in your application before printing.

Paper Handling

Paper loading or feeding problems

The printer does not load single-sheet paper or does not feed it properly.	
Cause	What to do
Single-sheet paper is not loaded properly.	See "Loading Single Sheets" on page 18 for instructions on loading single-sheet paper.
Paper is creased, old, too thin, or too thick.	See the "Paper/Media" on page 111 for information about the printable paper and use new, clean sheets of paper.
The printer does not fully eject a single sheet.	
Cause	What to do
Paper is too long.	When the printer is in the PR2 mode, see "Clearing a Paper Jam" on page 82 for instructions on ejecting paper. When you are in the WNI4915 or EPSON Mode, press the F1/Eject button. When you are in IBM4722 mode, press the Offline button and then the F1/Eject button. Make sure the page length of your paper is within the range specified for single-sheet paper in "Paper/Media" on page 111. Also check and adjust the paper size setting in your application or printer driver.
The printer does not load passbook or does not feed it properly.	
Cause	What to do
Passbook is not loaded properly.	See "Loading Passbooks" on page 17 for instructions on loading passbooks.

Network problems

The printer does not print when using a network.	
Cause	What to do

The network setting is wrong.	<p>Check whether or not print jobs from other computers are being printed through the network.</p> <p>When the print job is executed, the printer or your computer may have a problem. Check the connection between the printer and your computer, settings on the printer driver, and settings of your computer.</p> <p>When the print job is not executed, network settings may be incorrect. Ask your network administrator for help.</p>
A communication error occurs	
Cause	What to do
Are multiple users are logged into a single computer at the same time?	<p>On a Windows 7/Vista/XP system with multiple users, a communication error may occur when switching to a new user and starting a new print job while the previous user is still printing.</p> <p>Make sure that the print job for the first user is complete and that user is logged off before switching to a new user and starting a new print job.</p>

Correcting USB Problems

If you are having difficulty using your printer with a USB connection, read the information in this section.

Make sure that your computer is a Windows 8, 7, Vista, XP, or 2000 pre-installed model

Your computer must be a Windows 8, 7, Vista, XP, or 2000 pre-installed model. You may not be able to install or run the USB printer driver on a computer which is not equipped with a USB port or which has been upgraded from Windows 95 to Windows Vista, XP, or 2000.

For details about your computer, contact your dealer.

Printer does not work correctly with the USB cable

If your printer does not work correctly with the USB cable, try one or more of these solutions:

- Make sure that the cable you are using is a standard, shielded USB cable.

- ❑ If you are using a USB hub, connect the printer to the first tier of the hub, or connect the printer directly to the computer's USB port.

Clearing a Paper Jam

If paper is not automatically ejected in the situations noted below, a paper jam may have occurred inside the printer.

- ❑ The printer is turned on.
- ❑ Press the **F1/Eject** button in EPSON Mode.
- ❑ Press the **Offline** button and then the **F1/Eject** button in IBM4722 mode.

Follow the steps noted below to clear the paper jam.



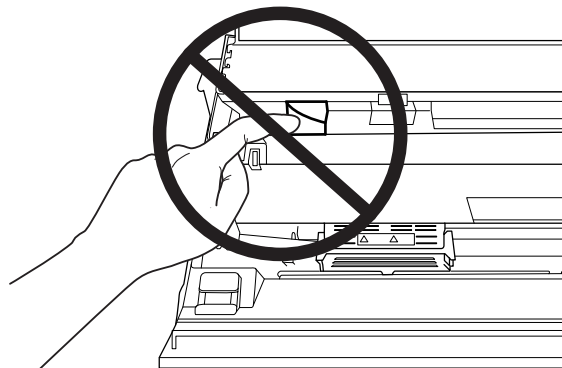
Warning:

If you have just used the printer, the print head may be hot; let it cool for a few minutes before touching it.



Caution:

Do not touch the white cable inside the printer.



1. Turn off the printer.



Caution:

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

- Open the cover and press the release lever to move the upper mechanism. Then hold the jammed paper with both hands and pull it out of the printer. If you can clear the paper jam, move the upper mechanism to its original position by pulling the release lever and then close the printer cover. If it is difficult to do so, go to the next step.

**Caution:**

Make sure that you move the upper mechanism by pulling the release lever. Do not pull the mechanism by hand. It may damage the printer.

- Turn on the printer while pressing the **F1/Eject** button. The printer is in the paper removing mode and ready to start feed operations. See the table below to find out how the **F1/Eject** and **F2** buttons work in this mode and execute the appropriate operation.

Button	Press	Hold for a few seconds
F1/Eject	Feeds paper forward a few lines every time you press it.	Eject paper forward.
F2	Feeds paper backward a few lines every time you press it.	Eject paper backward.

If you can clear the paper jam, turn off the printer, move the upper mechanism to its original position by pulling the release lever, and then close the printer cover to finish the operation. If you cannot clear the paper jam with this function, stop the operation and contact your dealer.

**Caution:**

Make sure that you move the upper mechanism by pulling the release lever. Do not pull the mechanism by hand. It may damage the printer.

Printing a Self Test

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

- If the self test results are satisfactory, the printer is working properly and the problem is probably caused by your printer driver settings, application settings, computer, or interface cable. (Be sure to use a shielded interface cable.)
- If the self test does not print properly, there is a problem with the printer. See "Problems and Solutions" on page 75 for possible causes and solutions to the problem.

Note:

- Prepare an A4 size sheet of paper before entering the self-test printing mode.

- ❑ Always close the printer cover before printing. The printer does not print when the printer cover is open.

Follow these steps to perform a self test:

1. Turn off the printer.



Caution:

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

2. Turn on the printer while holding the **F2** button. Then press the **F1/Eject** and **F2** button while the **F1/Eject**, **Offline**, and **F2** lights are flashing.
3. When the **Ready** light turns on, insert a sheet of A4 paper into the front slot.
4. The printer prints the self-test pattern in the font selected in the default setting mode.

```

Font:cn
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNPQRSTUWXYZ[\]^_`abcedfghi;jklmnopqrstuvwxyz{|}~"
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNPQRSTUWXYZ[\]^_`abcedfghi;jklmnopqrstuvwxyz{|}~"
!"#$%&'()*+,-./0123456789:;<=>?@ABCDEFGHIJKLMNPQRSTUWXYZ[\]^_`abcedfghi;jklmnopqrstuvwxyz{|}~"
.
.
.

```

Note:

To stop the self-test temporarily, press the **Offline** button. To resume the test, press the **Offline** button again.



Caution:

Do not turn off the printer while it is printing the self-test. Always press the **Offline** button to pause printing. Then turn off the printer.

Printing a Hex Dump

If you are an experienced user or a programmer, you can print a hexadecimal dump to isolate communication problems between the printer and your software program. In hex dump mode, the printer prints all data received from the computer as hexadecimal values.

Note:

- ❑ Before using hex dump mode, disable the bi-directional support setting in the printer driver.

- ❑ *Prepare an A4 size sheet of paper before entering the hex dump printing mode.*
- ❑ *Always close the printer cover before printing. The printer does not print when the printer cover is open.*

To print a hex dump, follow the steps below.

1. Turn off the printer.



Caution:

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

2. Turn on the printer while holding the **Offline** button to enter hex dump.
3. Open a software program and send a print job to the printer. Your printer prints all the codes it receives in hexadecimal format.

```

10 40 20 04 06 07 73 20 09 70 20 01 4E 20 69 7E .@ This is an ex
61 60 70 6C 60 20 4F 66 20 61 20 6B 63 78 20 64  sample of a hex d
75 6D 70 70 70 72 4B 4F 70 4E 75 74 2E 00 0A   um printout...

```

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



Caution:

*Do not turn off the printer while it is printing the hex dump. Always press the **Offline** button to pause printing. Then turn off the printer.*

Chapter 5

Where To Get Help

Technical Support Web Site

Epson's Technical Support Web Site provides help with problems that cannot be solved using the troubleshooting information in your product documentation. If you have a Web browser and can connect to the Internet, access the site at:

<http://support.epson.net/>

If you need the latest drivers, FAQ's, manuals, or other downloadables, access the site at:

<http://www.epson.com>

Then, select the support section of your local Epson Web site.

Contacting Customer Support

Before Contacting Epson

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

Help 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 Helpdesk

Epson Helpdesk is provided as a final backup to make sure our clients have access to advise. 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) 8899 3789

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.

Help for Users in Singapore

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

World Wide Web (<http://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.

Help for Users in Thailand

Contact for information, support, and services are:

World Wide Web (<http://www.epson.co.th>)

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

Help for Users in Indonesia

Contacts for information, support, and services are:

World Wide Web (<http://www.epson.co.id>)

- Information on product specifications, drivers for download
- Frequently Asked Questions (FAQ), Sales Enquiries, questions through e-mail

Help 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>

Help for Users in Malaysia

Contacts for information, support, and services are:

World Wide Web (<http://www.epson.com.my>)

- ❑ Information on product specifications, drivers for download
- ❑ Frequently Asked Questions (FAQ), Sales Enquiries, questions through e-mail

Help for Users in India

Contacts for information, support, and services are:

World Wide Web (<http://www.epson.co.in>)

Information on product specifications, drivers for download, and products enquiry are available.

Help for Users in the Philippines

To obtain technical support as well as other after sales services, users are welcome to contact the Epson Philippines Corporation.

World Wide Web (<http://www.epson.com.ph>)

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

Help for Users in Europe

Check your **Pan-European Warranty Document** for information on how to contact Epson Customer support.

Help for Users in Latin America

Epson provides the technical support services listed below.

Internet Support

Visit Epson's support web site at <http://global.latin.epson.com/Soporte> for solutions to common problems. You can download drivers and documentation, get FAQs and troubleshooting advice, or e-mail Epson with your questions. (Web site available in Spanish and Portuguese only.)

Speak to a Support Representative

Before you call Epson for support, please have the following information ready:

- Product name
- Product serial number (located on the back of product)
- Proof of purchase (such as a store receipt) and date of purchase
- Computer configuration
- Description of the problem

Then call:

Country	Telephone
Chile	(56 2) 2484-3400
Uruguay	00040-5210067

If your country does not appear in the list, contact the sales office in the nearest country. Toll or long distance charges may apply.

Purchase supplies and accessories

You can purchase genuine Epson ink and paper from an Epson authorized reseller. To find the nearest reseller, visit <http://global.latin.epson.com> or call your nearest Epson sales office. (Web site available in Spanish and Portuguese only.)

Parent topic: Solving Problems

Chapter 6

Options and Consumables

Installing and Using Options

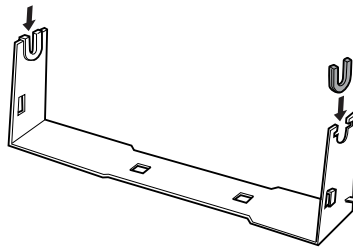
Roll paper holder

The optional roll paper holder (C81114*) allows you to use 8.5-inch roll paper like that used with telex machines. This provides an alternative for applications requiring variable paper lengths. Before you install and use the roll paper holder, you need to assemble it.

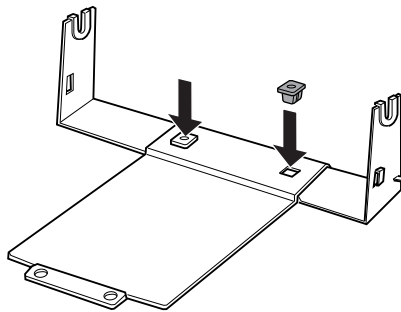
Assembling the roll paper holder

Follow these steps to assemble the roll paper holder:

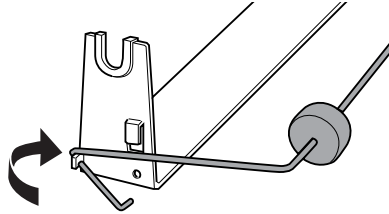
1. Fit the arc bearings into the stand as shown.



2. Place the base plate on the stand and fasten the two together with the plastic spacing clips. Make sure you orient the stand and base plate as shown below.



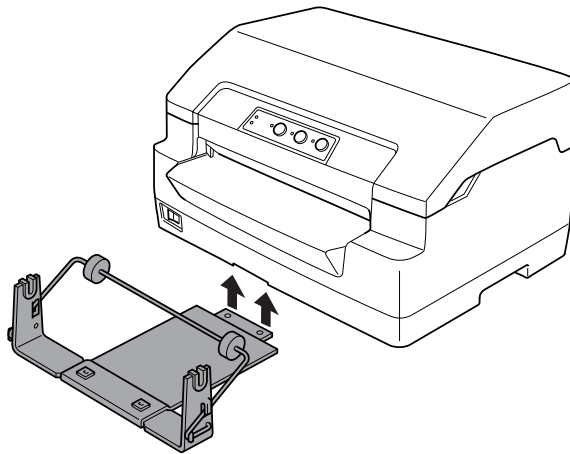
- Hook the tension lever onto both ends of the stand as shown below. While pulling up on the tension lever, fit the wire ends of the tension lever into the holes in the stand. The roll paper holder is assembled.



Installing the roll paper holder

Follow these steps to install the roll paper holder on your printer:

- Make sure the printer is turned off.
- Position the roll paper holder underneath the printer as shown below. Fit the two positioning pegs on the bottom of the printer into the two holes in the base plate.



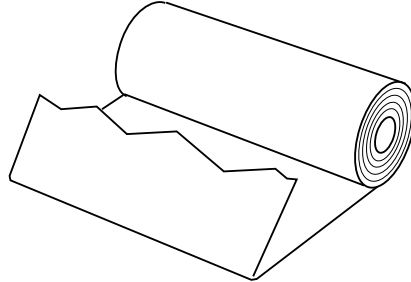
Caution:

The roll paper holder is not fastened to the printer; only the printer's weight and the two positioning pegs hold it in place. If you pick up the printer, be careful not to drop the roll paper holder.

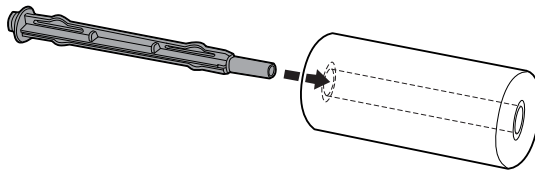
Loading roll paper

Follow these steps to load a roll of paper after you install the roll paper holder:

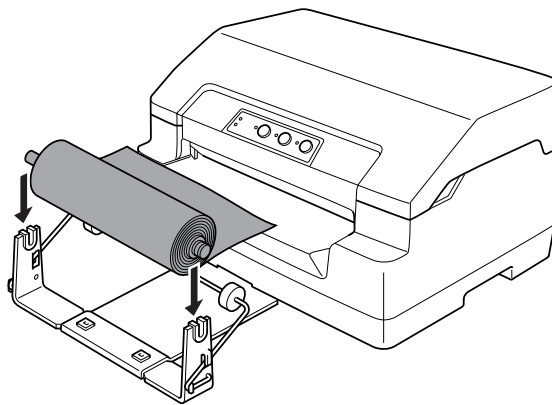
1. Make sure the printer is turned off.
2. Cut the leading edge of the roll paper straight across.



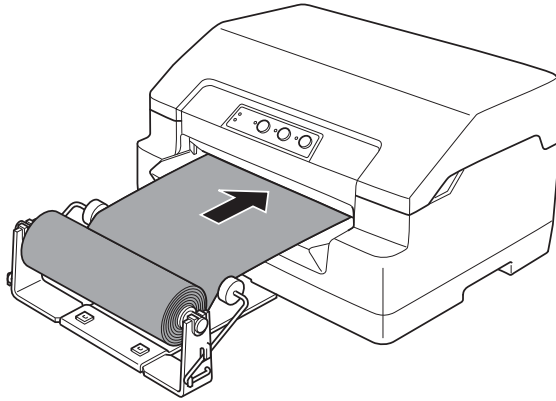
3. Insert the roll paper holder shaft into the center of the paper roll as shown.



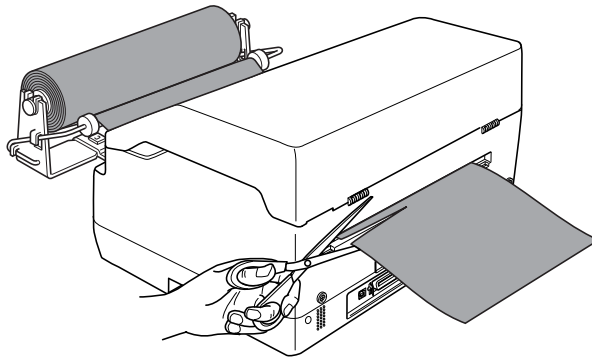
4. Place the shaft and paper roll on the roll paper holder so the paper feeds from the bottom of the roll. Then turn on the printer.



5. Bring the leading edge of the paper up over the front of the printer and insert it into the front slot until it meets resistance. The printer loads the roll paper automatically.

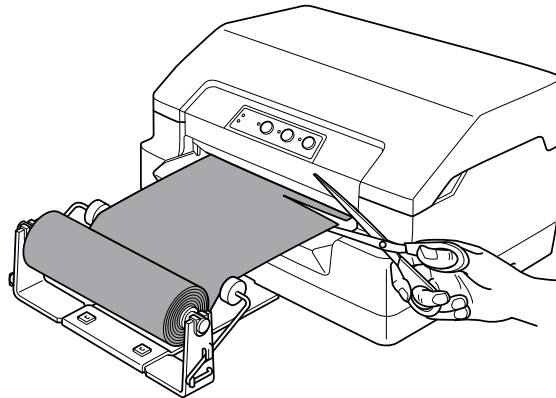


You are now ready to print. When you finish printing, advance the paper by issuing the paper feed command (in PR2 mode), pressing the **F1/Eject** button (in WNI4915 or EPSON Mode), or pressing the **Offline** button and then the **F1/Eject** button (in IBM4722 mode). Then cut the roll paper where it comes out of the printer.



Removing roll paper

Roll paper cannot be fed backward. To remove roll paper, cut the roll paper behind where it feeds into the printer. Then eject the remaining paper by issuing the paper feed command (in PR2 mode), pressing the **F1/Eject** button (in WNI4915 or EPSON Mode), or pressing the **Offline** button and then the **F1/Eject** button (in IBM4722 mode).



Replacing the Ribbon Cartridge

Genuine Epson ribbon cartridge

When printing becomes faint, you need to replace the ribbon cartridge. Genuine Epson ribbon cartridges are designed and manufactured to work properly with your Epson printer. They ensure proper operation and long life of the print head and other printer parts. Other products not manufactured by Epson may cause damage to your printer, which is not covered by Epson's warranties.

Your printer uses the following ribbon cartridge:

Epson black ribbon cartridge: S015592

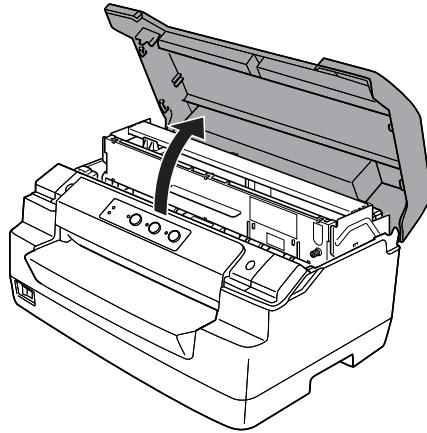
Replacing the ribbon cartridge

Follow these steps to install or replace the ribbon cartridge:

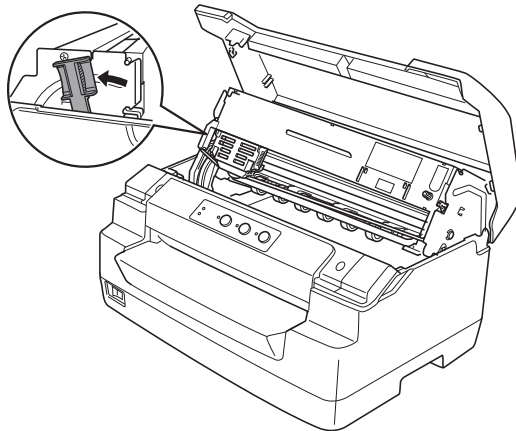
**Warning:**

If you have just used the printer, the print head may be hot; let it cool for a few minutes before replacing the ribbon cartridge.

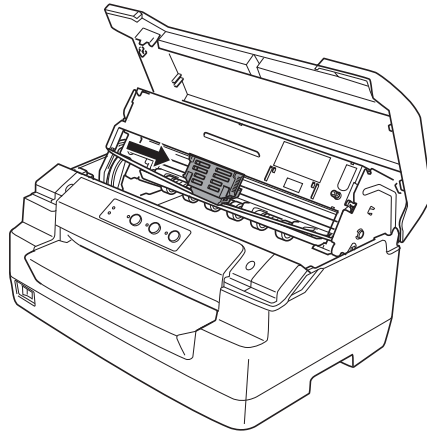
1. Make sure the printer is turned off.
2. Hold both sides of the printer cover and move it upward to open it.



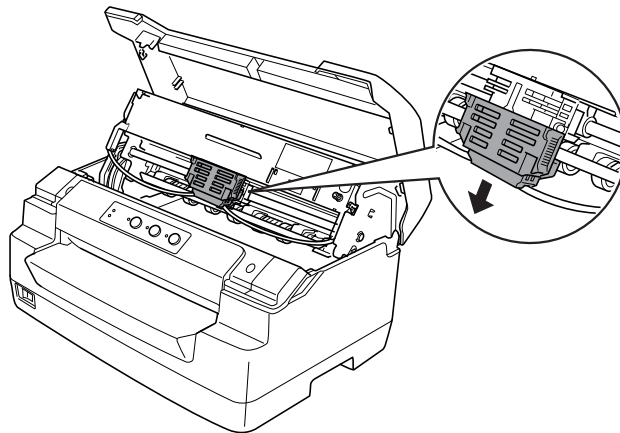
3. Push the release lever to move the upper mechanism forward. Make sure that you push the lever until it clicks.



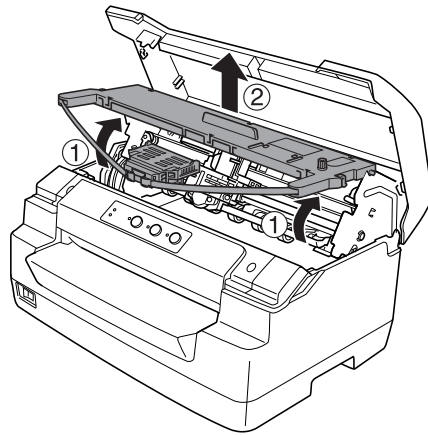
4. Make sure that the print head is in the middle of the printer. If it is not, turn on the printer so that the print head moves to the replacement position, and turn off the printer, and then unplug it.



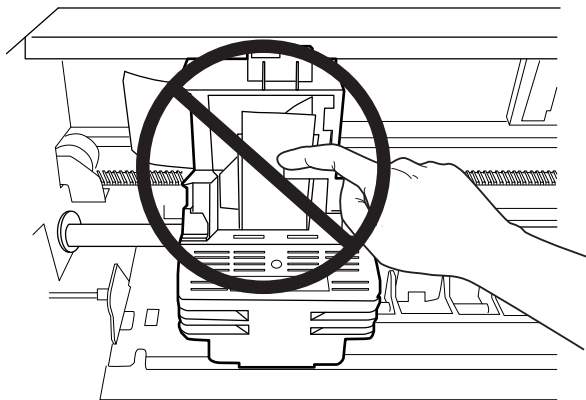
5. Hold both sides of the ribbon guide and pull it down until it is out of the print head.



6. Hold both sides of the ribbon cartridge with both hands and rotate it on the plastic hooks. Then pull it up until it is out of the printer.

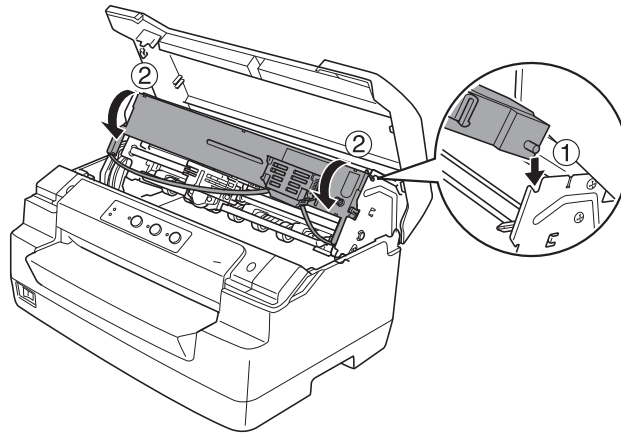


! **Caution:**
Do not touch the white cable inside the printer.

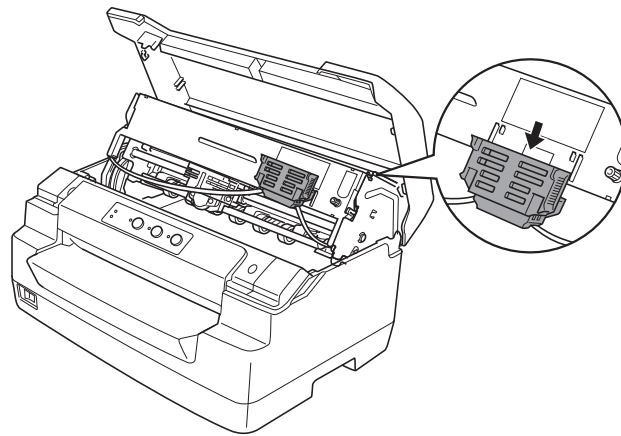


7. Remove the new ribbon cartridge from the package.

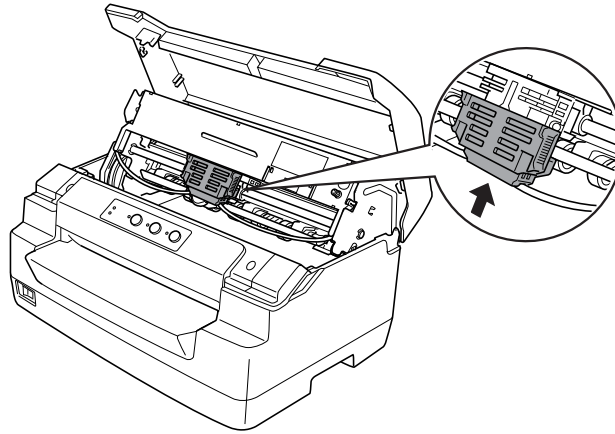
8. Place the plastic hooks on the ribbon cartridge into the slots of the printer. Then press the cartridge until it clicks into place.



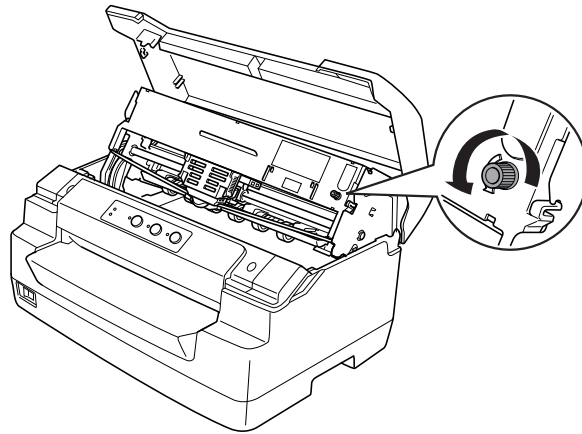
9. Hold both sides of the ribbon guide and pull it down until it is out of the cartridge.




10. Put the ribbon guide at the bottom of the print head and push it up until it clicks.

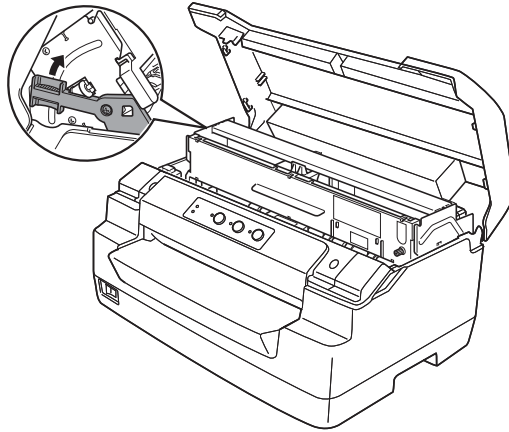


11. Turn the ribbon-tightening knob to help feed the ribbon into place.



 **Caution:**
The ribbon should not be twisted or creased.

12. Pull the release lever back to move the upper mechanism to its original position. Make sure that you pull the lever until it clicks.



Caution:

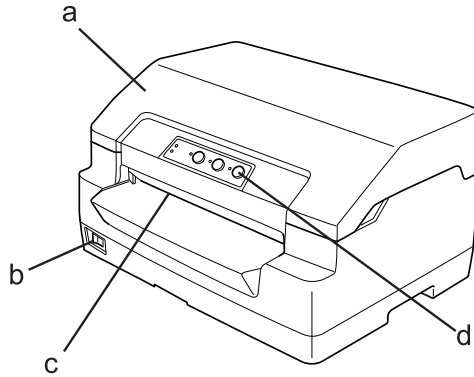
Make sure that you move the upper mechanism by pulling the release lever. Do not pull the mechanism by hand. It may damage the printer.

13. Close the printer cover.

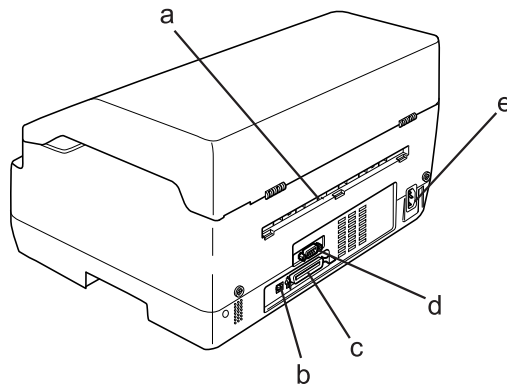
Chapter 7

Product Information

Printer Parts

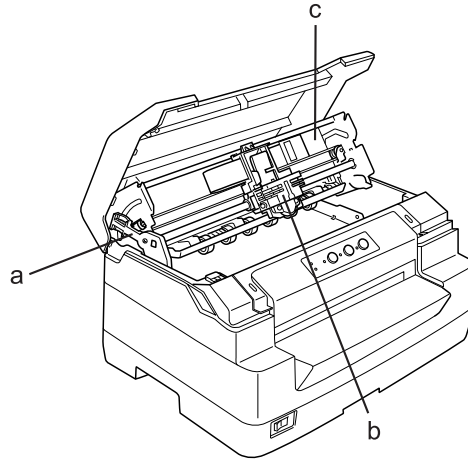


- a. printer cover
- b. power switch
- c. front slot
- d. control panel



- a. rear outlet
- b. USB interface

- c. Parallel interface
- d. Serial interface
- e. AC inlet



- a. release lever
- b. print head
- c. upper mechanism

Printer Specifications

Mechanical

Printing method: 24-pin impact dot matrix

Printing speed:	PR2:	
	Ultra speed draft	585 cps at 10 cpi
	High speed draft	520 cps at 10 cpi
	Draft	390 cps at 10 cpi
	NLQ	195 cps at 10 cpi
	LQ	130 cps at 10 cpi
	IBM4722:	
	Draft	390 cps at 10 cpi
	NLQ	260 cps at 10 cpi
	LQ	130 cps at 10 cpi
	WNI4915, ESC/P2, IBM PPDS, ESC/P2+ESC/MC:	
	Ultra speed draft	585 cps at 10 cpi
	High speed draft	520 cps at 10 cpi
	Draft	390 cps at 10 cpi
	LQ	130 cps at 10 cpi
Printing direction:	Bidirectional logic seeking for text and graphics printing. Uni-directional text or graphics printing can be selected using software commands.	
Line spacing:	4.23 mm (1/6 inch)	
	PR2:	
	Programmable in increments of 0.106 mm (1/240 inch) or 0.118 mm (1/216 inch)	
	WIN4915,IBM4722, ESC/P2, IBM PPDS, ESC/P2+ESC/MC:	
	Programmable in increments of 0.0706 mm (1/360 inch)	
Printable columns:	94 columns (at 10 cpi)	

Resolution:	Maximum 360 × 180 dpi (letter quality)	
Paper feed methods:	Friction (front)	
Paper feed speed:	Continuous	508 mm/second 20 inches/second
	Intermittent	30 msec/line at 1/6 inch line spacing
Reliability:	Total print volume	7 million lines (except print head)
		MTBF 12,000 POH
	Print head life	400 million strokes/wire
	MSRW Head	7 hundred thousand strokes
Dimensions and weight:	Width	384 mm (15.1 inches)
	Depth	280 mm (11.0 inches)
	Height	203 mm (8.0 inches)
	Weight	approx. 8.0 kg (17.7 lb) (PLQ-30) approx. 8.9 kg (19.7 lb) (PLQ-30M)
Ribbon:	Black ribbon cartridge	S015592
	Ribbon life	approx. 5 million characters (LQ, 10 cpi, 48 dots/character) approx. 10 million characters (Draft, 10 cpi, 24 dots/character)

Acoustic noise:	PLQ-30 (A4):	Approx. 55 dB (ISO 7779 pattern, High Speed Print Mode)
	PLQ-30 (Passbook):	Approx. 52 dB (ISO 7779 pattern, High Speed Print Mode)
	PLQ-30M (A4):	Approx. 58 dB (ISO 7779 pattern, High Speed Print Mode)
	PLQ-30M (Passbook):	Approx. 55 dB (ISO 7779 pattern, High Speed Print Mode)

Electronic

Interfaces: Three built-in interface slots;
Bidirectional, 8-bit, parallel interface with IEEE 1284 nibble mode support,
USB (ver 2.0) interface,
EIA-232D Serial interface

Buffer: 128KB

Fonts: PR2 emulation

Bitmap fonts:

EPSON Super Draft 10 cpi, proportional
EPSON Draft 10 cpi, proportional
EPSON Roman 10, 12, 15 cpi, proportional
EPSON Sans Serif 10 cpi, proportional
EPSON OCR-B 10 cpi

Scalable fonts:

Not supported

Bar code fonts:

EAN-13, EAN-8, Interleaved 2 of 5, UPC-A, UPC-E, Code 39, Coda bar (NW-7), Industrial 2 of 5

WNI4915, ESC/P2, IBM PPDS, ESC/P2+ESC/MC emulations

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

Bar code fonts:

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

IBM4722 emulation

Bitmap fonts:

EPSON Draft 10 cpi
EPSON Roman 10, 12, 15 cpi
EPSON Sans Serif 10, 12, 15 cpi
EPSON Courier 10, 12, 15 cpi
EPSON Prestige 10, 12 cpi
EPSON OCR-B 10 cpi

Scalable fonts:

Not supported

Bar code fonts:

Not supported

Character tables: PR2 emulation

- (Olivetti) 22 graphics character tables:
International, Germany, Portugal, Spain 1, Denmark/Norway, France, Italy, Sweden/Finland, Switzerland, Great Britain, USA ASCII, Greece, Israel, Spain 2, USSR, Yugoslavia, Olivetti TCV 370, Canada, SDC, Turkey, Arabic, CIBC
- (ISO) 9 graphics character tables:
ISO 8859-1 Latin 1, ISO 8859-9 Latin 5, ISO 8859-2 Latin 2, ISO 8859-5 Cyrillic, ISO 8859-15, ISO 8859-6 Latin Arabic, ISO 8859-7 Greek, ISO 8859-8 Hebrew, OLI-UNIX
- (PC) 19 graphics character tables:
PC-437 International, PC-220 Spain 2, PC-865 Nordic, PC-Denmark/Norway, PC-Denmark OPE, PC-860 Portugal, PC-863 Canadian French, PC-850 Latin 1, PC-858 Latin Euro, PC-857 Turkish Latin 5, PC-852 Latin 2, PC-851 Greek, PC-210 Greek, PC-855 Cyrillic, PC-862 Israel, PC-864 Arabic, PC-866 Cyrillic, PC-1252 PC-WIN Latin 1, PC-1250 PC-WIN Latin 2

WNI4915 emulation

Italic table,
PC 437 (US, Standard Europe), PC 850 (Multilingual), ISO 8859-2, ISO 8859-5, ISO 8859-7, ISO 8859-8, ISO 8859-9, ISO 8859-15

IBM4722 emulation

35 graphics character tables:
CP 437 (Standard), CP808 (Russian), CP813 (Greek), CP819 (Latin 1), CP850 (US Multilingual), CP851 (Greek), CP852 (Latin 2), CP855 (Cyrillic 1), CP857 (Turkish Latin 5), CP858 (Multilingual), CP860 (Portuguese), CP862 (Hebrew), CP863 (Canadian French), CP864 (Arabic), CP865 (Nordic), CP866 (Russian :Cyrillic 2), CP867 (Hebrew), CP869 (Greek), CP872 (Cyrillic 1), CP874 (Thai with TIS extended), CP876 (OCR A), CP877 (OCR B), CP912 (Latin 2), CP913 (Latin 3), CP915 (Cyrillic), CP916 (Hebrew), CP920 (Latin 5 :Turkey), CP923 (Latin 9 :Latin 1 with Euro), CP1161 (Thai), CP1250 (Latin 2), CP1251 (Cyrillic), CP1252 (Latin 1), CP1253 (Greek), CP1254 (Turkish), CP1257 (Baltic Rim)

ESC/P2, IBM PPDS, and ESC/P2+ESC/MC emulations

Standard One italic and 12 graphics character tables:
 Italic table, PC 437 (US, Standard Europe), PC 850 (Multilingual), PC 860 (Portuguese), PC 861 (Icelandic), PC 865 (Nordic), PC 863 (Canadian-French), BRASCII, Abicomp, ISO Latin 1, Roman 8, PC 858, ISO 8859-15

Expanded (European model only) One italic and 39 graphics character tables:
 Italic table, PC437 (US, Standard Europe), PC850 (Multilingual), PC437 Greek, PC853 (Turkish), PC855 (Cyrillic), PC852 (East Europe), PC857 (Turkish), PC866 (Russian), PC869 (Greek), MAZOWIA (Poland), Code MJK (CSFR), ISO 8859-7 (Latin/Greek), ISO Latin 1T (Turkish), Bulgaria (Bulgarian), PC 774 (LST 1283:1993), Estonia (Estonia), ISO 8859-2, PC 866 LAT. (Latvian), PC 866 UKR (Ukraine), PC860 (Portuguese), PC861 (Icelandic), PC865 (Nordic), PC864 (Arabic), PC APTEC (Arabic), PC 708 (Arabic), PC 720 (Arabic), PCAR864 (Arabic), PC863 (Canadian-French), BRASCII, Abicomp, Roman 8, ISO Latin 1, PC858, ISO 8859-15, PC771 (Lithuania), PC437 Slovenia, PC MC, PC1250, PC1251

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

Electrical

	110 - 120 V Model	220 - 240 V Model
Rated voltage range	AC 100 - 120 V	AC 220 - 240 V
Input voltage range	AC 90 - 132 V	AC 198 - 264 V
Rated frequency range	50 - 60 Hz	
Input frequency range	49.5 - 60.5 Hz	
Rated current	3.1 A (maximum 6.0 A depending on the character type)	1.6 A (maximum 2.8 A depending on the character type)

	110 - 120 V Model	220 - 240 V Model
Power consumption	Approx. 69 W (ISO/IEC 10561 letter pattern) Approx. 16 W in ready mode Approx. 1.6 W in sleep mode * 0.1 W in power-off	Approx. 67 W (ISO/IEC 10561 letter pattern) Approx. 16 W in ready mode Approx. 1.6 W in sleep mode * 0.1 W in power-off

* When 4 minutes 30 seconds pass in the following condition, the printer enters sleep mode.

- not error.
- not pause.
- There is no data in input buffer.

Note:

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

Environmental

	Temperature	Humidity (without condensation)
Operation (passbook, plain paper, recycled paper, and multipart forms)	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

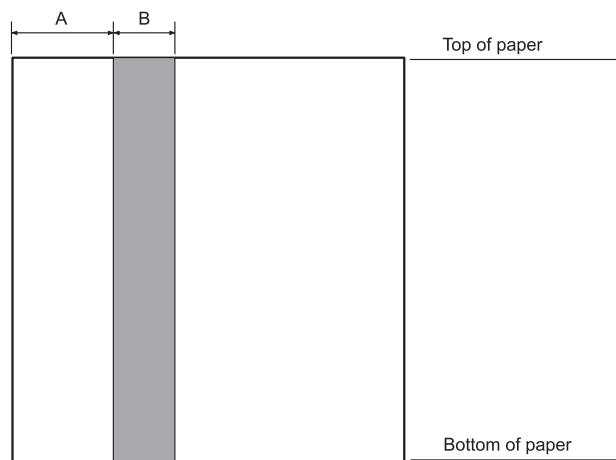
Paper/Media

Available Paper

Note:

- Use passbooks, plain paper, recycled paper, and multipart forms under the temperature and humidity conditions described below:
Temperature: 5 to 35 °C (41 to 95 °F)
Humidity: 10 to 80 % RH
- Use passbooks and paper that have more than 60% reflectance.
- Do not load passbooks that are creased or have ripped seams.
- Do not use a passbook that has metallic parts such as staplers or metal clips.
- Do not use a passbook with sticky parts such as stamps or seals.

- Do not use a passbook that has any pages smaller than the cover page.
- Do not print on the front or back cover of a passbook. Printing can be done only when the passbook is opened.
- When you use paper that is shorter than 110.0 mm, set the paper eject direction to front. The factory set default is front. Please access <http://www.epson.com> for information.
- Do not load paper that is curled, folded, or crumpled.
- Do not punch holes in the area from 25.0 to 40.0 mm from the left edge of paper. See the illustration below.



A 25.0 mm

B 15.0 mm

C Do not punch holes in this area.

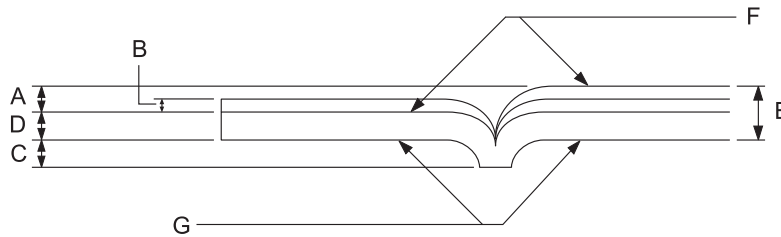
- When using the printer driver, the minimum achievable top and bottom margins are 1.0 mm (0.04 inch) and 9.0 mm (0.36 inch) respectively.

Passbook

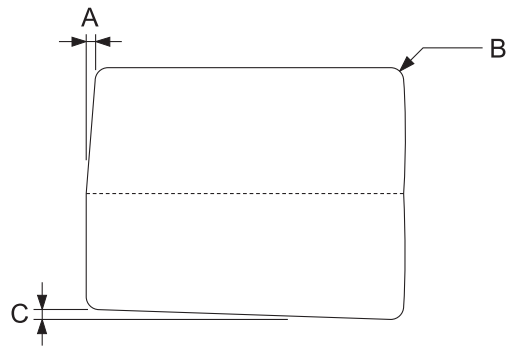
		Horizontal-fold		Vertical-fold	
		Minimum	Maximum	Minimum	Maximum
Width	(mm) (inch)	110 4.33	241.3 9.5	110 4.33	241.3 9.5

Length	(mm) (inch)	127 5.0	220 8.66	85 3.35	220 8.66
Thickness of cover page	(mm) (inch)	0.2 0.008	0.5 0.025	0.2 0.008	0.5 0.02
Thickness of each page	(mm) (inch)	0.1 0.004	0.15 0.006	0.1 0.004	0.15 0.006
Weight	(g/m ²) (lb)	95 25	116 31	95 25	116 31
Quality	Plain paper				

Thickness of passbook

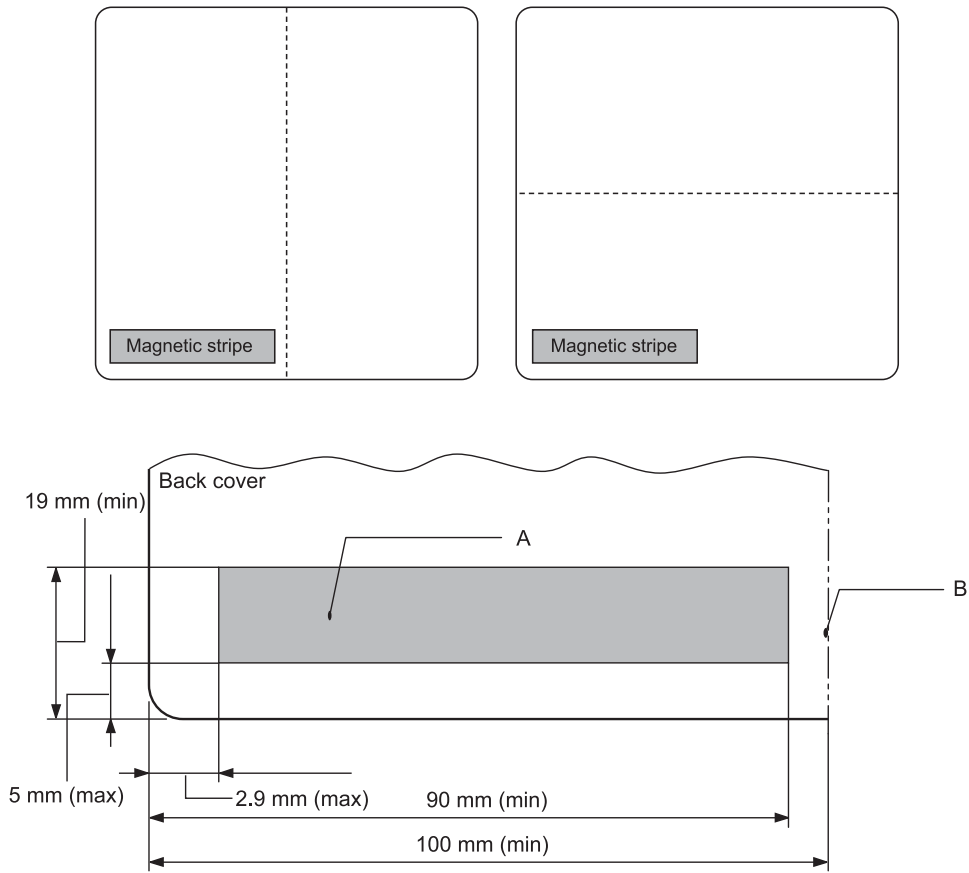


- A Less than 1.5 mm
- B 0.1 ~ 0.15 mm
- C Less than 0.6 mm
- D 0.2 ~ 0.5 mm
- E Less than 2.0 mm
- F printable side
- G Do not print on this side.

Degree of passbook

- A Less than 0.3 mm
- B R2 ~ 5 mm
- C Less than 0.3 mm

Magnetic stripe position



- A Magnetic stripe minimum area
- B Seam or Right edge

Single sheets

		Front Ejection		Rear Ejection	
		Minimum	Maximum	Minimum	Maximum
Width	(mm) (inch)	65 2.6	245 9.6	65 2.6	245 9.6
Length	(mm) (inch)	67 2.64	297/(450)* 11.69/(17.72)*	142 5.59	297/(450)* 11.69/(17.72)*

Thickness	(mm) (inch)	0.065 0.0025	0.19 0.0074	0.065 0.0025	0.19 0.0074
Weight	(g/m ²) (lb)	52 14	157 42	52 14	157 42
Quality	Plain paper and recycled paper				

* Figures in () are the maximum possible lengths.

Single-sheet multipart forms

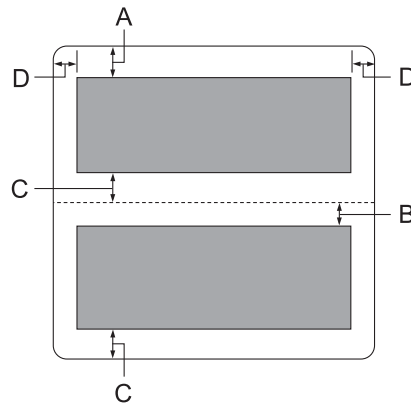
		Front Ejection		Rear Ejection	
		Minimum	Maximum	Minimum	Maximum
Width	(mm) (inch)	65 2.6	245 9.6	65 2.6	245 9.6
Length	(mm) (inch)	67 2.64	297 11.69	142 5.59	297 11.69
Copies	1 original + 6 copies				
Total thickness	(mm) (inch)	0.12 0.0047	0.53 0.021	0.12 0.0047	0.53 0.021
Weight per sheet of multipart	(g/m ²) (lb)	40 12	58 15	40 12	58 15
Quality	Carbonless multipart forms with a line of glue at the top side or along one side of the form				

Roll paper

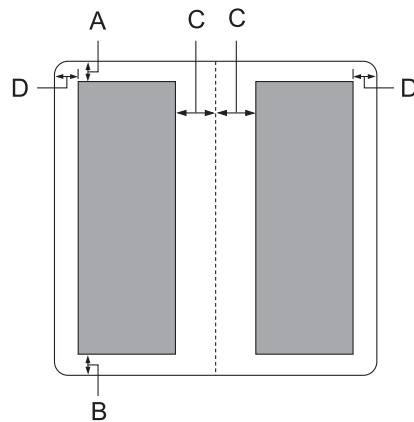
		Front Entry	
		Minimum	Maximum
Width	(mm) (inch)	216 ± 3 8.5 ± 0.12	
Volume diameter	(mm) (inch)	ø127 (5.0)	
Thickness	(mm) (inch)	0.07 0.0028	0.09 0.0035
Weight	(g/m ²) (lb)	52 14	82 22

Quality

Plain paper

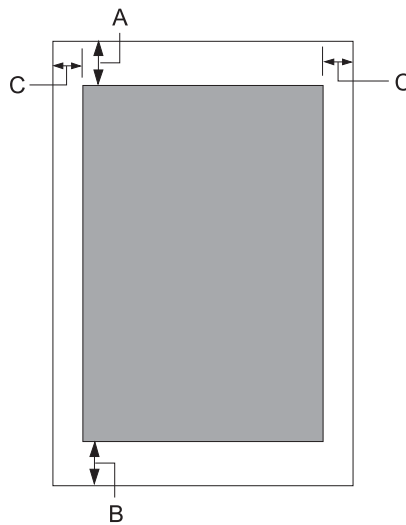
Recommended printable area*Passbooks (horizontal-fold)*

- A The minimum top margin of the upper page is 1.0 mm (0.04 inch).
- B The minimum top margin of the lower page is 4.7 mm (0.19 inch).
- C The minimum bottom margins of the upper and lower pages are 5.0 mm (0.2 inch).
- D The minimum left and right margins are 3.0 mm (0.12 inch).
*Minimum of 2.54 mm (0.1 inch) for WNI4915 emulation.

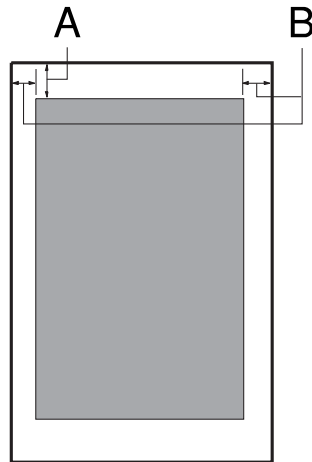
Passbooks (vertical-fold)

- A The minimum top margin is 1.0 mm (0.04 inch).
- B The minimum bottom margin is 5.0 mm (0.2 inch).
- C The minimum left and right margins inside the printable areas are 3.8 mm (0.15 inch).
- D The minimum left and right margins outside the printable areas are 3.0 mm (0.12 inch).
*Minimum of 2.54 mm (0.1 inch) for WNI4915 emulation.

Single sheets (including multipart forms)



- A The minimum top margin is 1.0 mm (0.04 inch).
- B The minimum bottom margin is 3.1 mm (0.12 inch).
- C The minimum left and right margins are 3 mm (0.12 inch).
*Minimum of 2.54 mm (0.1 inch) for WNI4915 emulation.

Roll paper

- A The minimum top margin is 1.0 mm (0.04 inch).
- B The minimum left and right margins are 3 mm (0.12 inch).

Magnetic stripe reader/writer (horizontally installed only)

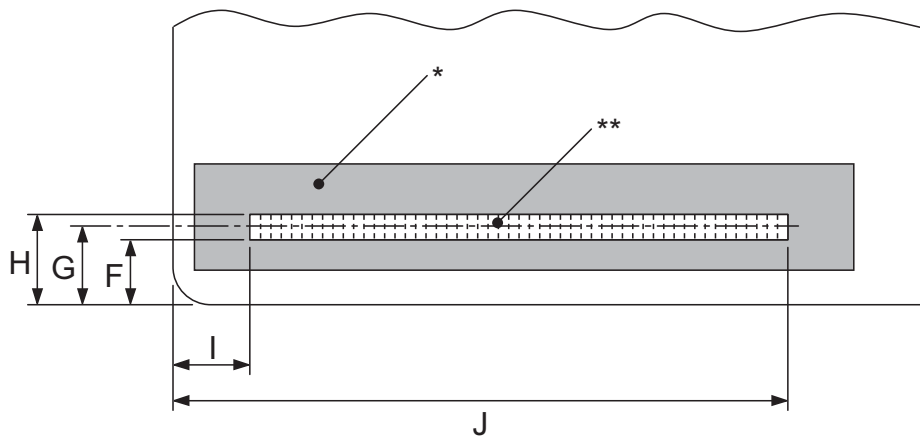
The horizontal magnetic stripe reader/writer is used to read and write data on the magnetic stripe on bank passbooks. See the following specifications of this device for details.

Recording code	BCD Binary Coded decimal, 4 data bits, 1 VRC parity control bit
Recordable characters	column 3 of the ASCII table
Recordable formats	IBM3604, DIN/ISO, ISO7811, IBM4746, ANSI, HT-2751-CIZ, ISO8484
Recorded track width	9.7 mm
Read track width	1.1 mm
Speed of medium	340 mm/second

Displacement	Standard, Standard + 10 mm, Standard + 20 mm
Number of retries	1 or 3
Field duplication	YES or NO

Recordable area

Back Cover:



*: Magnetic stripe area
 **: Recordable area

	F (max)	G	H (min)	I	J (max)
DIN/ISO, ANSI	12.5	13.9	15.5	9.5	85
IBM3604	8.9	10.4	11.9	10.4	81.3
ISO7811	8.9	10.4	11.9	14.8	—
IBM4746	8.9	10.4	11.9	9.8	—
ISO8484	12.5	13.9	15.3	9.5	85
HT-2751-CIZ	7.4	8.8	10.2	12.6	—

Recordable formats specification

PR2 emulation and ESC/P2+ESC/MC mode

	DIN/ISO, ISO8484	IBM3604	ANSI
Bit density	210 bpi ± 5%	210 bpi ± 5%	210 bpi ± 5%
Recording direction	Left to Right	Left to Right	Left to Right
Preamble	20 bits	20 bits	20 bits
SOM (Start sentinel)	D	B	B
Recordable characters	0-9, A, B, C, D, E	0-9, A, B, D, E	0-9, A, B, C, D, E
EOM (End sentinel)	F	F or C	F
LRC Parity	even	even	even
Postamble	20 bits	20 bits	20 bits
Maximum number of recordable characters (1 block)	105 characters	105 characters	105 characters
Maximum number of recordable characters (2 block)	45 characters	45 characters	45 characters
Number of separator	60 bits	120 bits	60 bits
Center of vertical position	13.9 mm	10.4 mm	13.9 mm
Horizontal start position (from the left edge)	9.5 mm	10.4 mm	9.5 mm

	ISO7811	IBM4746	HT-2751-CIZ
Bit density	75 bpi ± 5%	210 bpi ± 5%	105 bpi ± 5%
Recording direction	Left to Right	Left to Right	Right to Left
Preamble	20 bits	20 bits	55 bits
SOM (Start sentinel)	B	BA	F
Recordable characters	0-9, A, D, E	0-9, D	0-9
EOM (End sentinel)	F	F or C	F
LRC Parity	even	even	odd

	ISO7811	IBM4746	HT-2751-CIZ
Postamble	20 bits	20 bits	40 bits
Maximum number of recordable characters (1 block)	37 characters	105 characters	60 characters
Maximum number of recordable characters (2 block)	23 characters	45 characters	27 characters
Number of separator	120 bits	120 bits	10 bits
Center of vertical position	10.4 mm	10.4 mm	8.8 mm
Horizontal start position (from the left edge)	14.8 mm	9.8 mm	12.6 mm

WNI4915 emulation

	DIN	IBM1	IBM2
Bit density	210 bpi \pm 5%	210 bpi \pm 5%	210 bpi \pm 5%
Recording direction	Left to Right	Left to Right	Left to Right
Preamble	61 bits	61 bits	61 bits
SOM (Start sentinel)	D	B	B
Recordable characters	0-9, A, B, C, D, E	0-9, A, B, D, E	0-9, A, B, D, E
EOM (End sentinel)	F	C	F
LRC Parity	even	even	even
Postamble	64 bits	154 bits	154 bits
Maximum number of recordable characters (1 block)	—	—	—
Maximum number of recordable characters (2 block)	45 characters	36 characters	36 characters
Number of separator	60 bits	60 bits	60 bits
Center of vertical position	14.0 mm	11.0 mm	11.0 mm

	DIN	IBM1	IBM2
Horizontal start position (from the left edge)	14.8 mm	14.8 mm	14.8 mm

	105 characters	ISO7811
Bit density	210 bpi ± 5%	75 bpi ± 5%
Recording direction	Left to Right	Left to Right
Preamble	61 bits	21 bits
SOM (Start sentinel)	D	B
Recordable characters	0-9, A, B, C, D, E	0-9, A, E
EOM (End sentinel)	F	F
LRC Parity	even	even
Postamble	64 bits	24 bits
Maximum number of recordable characters (1 block)	105 characters	35 characters
Maximum number of recordable characters (2 block)	—	—
Number of separator	—	—
Center of vertical position	14.0 mm	14.0 mm
Horizontal start position (from the left edge)	14.8 mm	14.8 mm

Character conversion table

PR2 emulation and ESC/P2+ESC/MC mode

Crt	ASCII	Line code	Function		Recording codes				
			DIN/ISO, ISO8484	IBM3604	VRC	BIT4	BIT3	BIT2	BIT1
0	0	30H	crt	crt	1	0	0	0	0
1	1	31H	crt	crt	0	0	0	0	1

2	2	32H	crt	crt	0	0	0	1	0
3	3	33H	crt	crt	1	0	0	1	1
4	4	34H	crt	crt	0	0	1	0	0
5	5	35H	crt	crt	1	0	1	0	1
6	6	36H	crt	crt	1	0	1	1	0
7	7	37H	crt	crt	0	0	1	1	1
8	8	38H	crt	crt	0	1	0	0	0
9	9	39H	crt	crt	1	1	0	0	1
A	:	3AH	crt	crt	1	1	0	1	0
B	;	3BH		SOM	0	1	0	1	1
			crt	crt					
C	<	3CH		EOM	1	1	1	0	0
			crt	—					
D	=	3DH	SOM		0	1	1	0	1
			crt	crt					
E	>	3EH	crt	crt	0	1	1	1	0
F	?	3FH	EOM	EOM	1	1	1	1	1

* crt means character.

Crt	ASCII	Line code	Function		Recording codes				
			ANSI	ISO7811	VRC	BIT4	BIT3	BIT2	BIT1
0	0	30H	crt	crt	1	0	0	0	0
1	1	31H	crt	crt	0	0	0	0	1
2	2	32H	crt	crt	0	0	0	1	0
3	3	33H	crt	crt	1	0	0	1	1
4	4	34H	crt	crt	0	0	1	0	0
5	5	35H	crt	crt	1	0	1	0	1
6	6	36H	crt	crt	1	0	1	1	0

7	7	37H	crt	crt	0	0	1	1	1
8	8	38H	crt	crt	0	1	0	0	0
9	9	39H	crt	crt	1	1	0	0	1
A	:	3AH	crt	crt	1	1	0	1	0
B	;	3BH	SOM	SOM	0	1	0	1	1
			crt	—					
C	<	3CH			1	1	1	0	0
			crt	—					
D	=	3DH	crt	crt	0	1	1	0	1
E	>	3EH	crt	crt	0	1	1	1	0
F	?	3FH	EOM	EOM	1	1	1	1	1

* crt means character.

Crt	ASCII	Line code	Function		Recording codes				
			IBM4746	HT-2751-CIZ	VRC	BIT4	BIT3	BIT2	BIT1
0	0	30H	crt	crt	1	0	0	0	0
1	1	31H	crt	crt	0	0	0	0	1
2	2	32H	crt	crt	0	0	0	1	0
3	3	33H	crt	crt	1	0	0	1	1
4	4	34H	crt	crt	0	0	1	0	0
5	5	35H	crt	crt	1	0	1	0	1
6	6	36H	crt	crt	1	0	1	1	0
7	7	37H	crt	crt	0	0	1	1	1
8	8	38H	crt	crt	0	1	0	0	0
9	9	39H	crt	crt	1	1	0	0	1
A	:	3AH	SOM		1	1	0	1	0
			—	—					

B	;	3BH	SOM		0	1	0	1	1
			—	—					
C	<	3CH	EOM		1	1	1	0	0
			—	—					
D	=	3DH	crt	—	0	1	1	0	1
E	>	3EH	—	—	0	1	1	1	0
F	?	3FH		SOM	1	1	1	1	1
			EOM	EOM					

* crt means character.

WNI4915 emulation

Crt	ASCII	Line code	Function			Recording codes				
			DIN	IBM1	IBM2	VRC	BIT4	BIT3	BIT2	BIT1
0	0	30H	crt	crt	crt	1	0	0	0	0
1	1	31H	crt	crt	crt	0	0	0	0	1
2	2	32H	crt	crt	crt	0	0	0	1	0
3	3	33H	crt	crt	crt	1	0	0	1	1
4	4	34H	crt	crt	crt	0	0	1	0	0
5	5	35H	crt	crt	crt	1	0	1	0	1
6	6	36H	crt	crt	crt	1	0	1	1	0
7	7	37H	crt	crt	crt	0	0	1	1	1
8	8	38H	crt	crt	crt	0	1	0	0	0
9	9	39H	crt	crt	crt	1	1	0	0	1
A	:	3AH	crt	crt	crt	1	1	0	1	0
B	;	3BH		SOM	SOM	0	1	0	1	1
			crt	crt	crt					

C	<	3CH	SOM	EOM		1	1	1	0	0
			crt	—	—					
D	=	3DH	crt	crt	crt	0	1	1	0	1
E	>	3EH	crt	crt	crt	0	1	1	1	0
F	?	3FH	EOM	—	EOM	1	1	1	1	1

* crt means character.

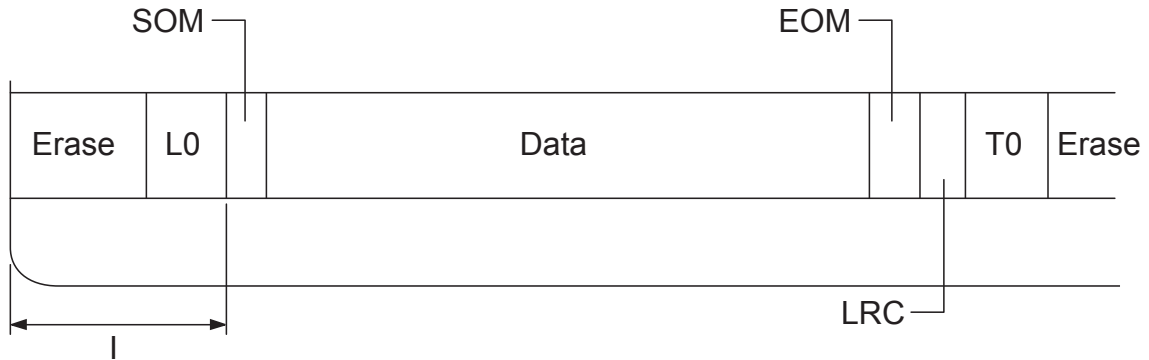
Crt	ASCII	Line code	Function		Recording codes				
			105 characters	ISO7811	VRC	BIT4	BIT3	BIT2	BIT1
0	0	30H	crt	crt	1	0	0	0	0
1	1	31H	crt	crt	0	0	0	0	1
2	2	32H	crt	crt	0	0	0	1	0
3	3	33H	crt	crt	1	0	0	1	1
4	4	34H	crt	crt	0	0	1	0	0
5	5	35H	crt	crt	1	0	1	0	1
6	6	36H	crt	crt	1	0	1	1	0
7	7	37H	crt	crt	0	0	1	1	1
8	8	38H	crt	crt	0	1	0	0	0
9	9	39H	crt	crt	1	1	0	0	1
A	:	3AH	crt	crt	1	1	0	1	0
B	;	3BH	crt	SOM	0	1	0	1	1
				—					
C	<	3CH	SOM		1	1	1	0	0
			crt	—					
D	=	3DH	crt	—	0	1	1	0	1
E	>	3EH	crt	crt	0	1	1	1	0
F	?	3FH	EOM	EOM	1	1	1	1	1

* crt means character.

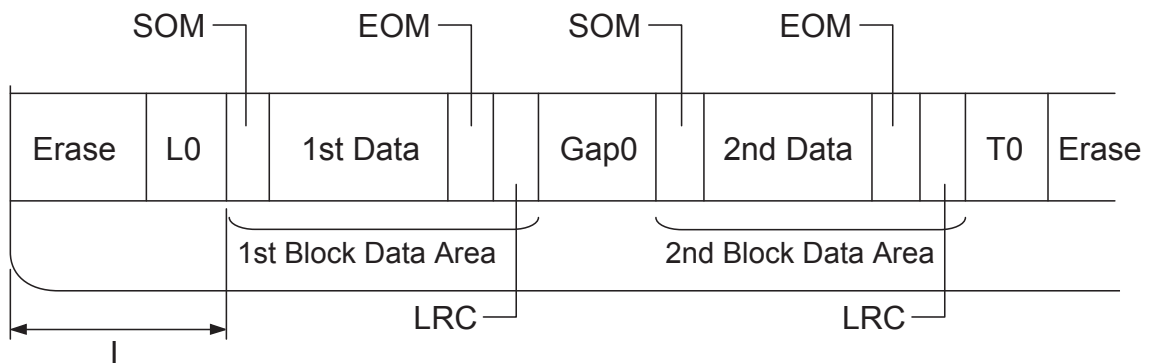
Recording layout of magnetic stripe

DIN/ISO, IBM3604, ANSI, ISO7811, IBM4746, and ISO8484

1 block format



2 block format

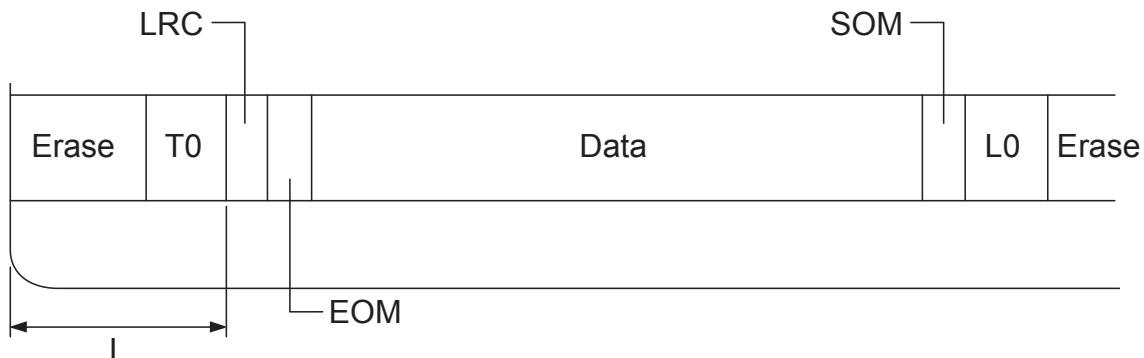


Direction of bit pattern

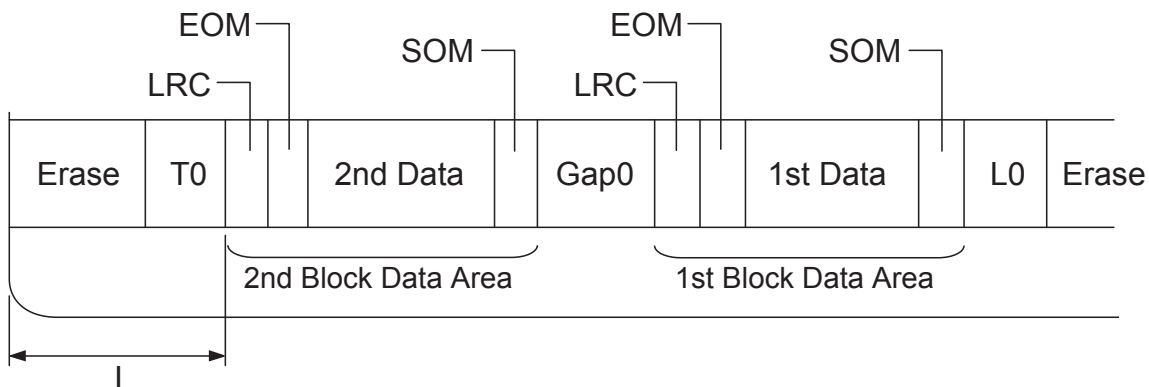


HT-2751-CIZ

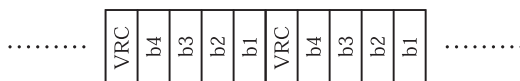
1 block format



2 block format



Direction of bit pattern



Standards and Approvals



Warning:

- ❑ *This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.*
- ❑ *The connection of a non-shielded printer interface cable to this printer will invalidate the EMC standards of this device.*
- ❑ *You are cautioned that changes or modifications not expressly approved by Seiko Epson Corporation could void your authority to operate the equipment.*

Safety approvals

230V model:

Safety

IEC/EN60950-1

EMI

EN55022 (CISPR pub.22) class A

AS/NZS CISPR22 class A

CE Marking

230V model:

Low Voltage Directive 2006/95/EC

EN60950-1

EMC Directive 2004/108/EC

EN55022 Class A

EN55024

EN61000-3-2

EN61000-3-3

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. Turn off the printer and remove any paper loaded in the printer.
2. If the rear paper guide are installed, remove them.
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 closed to prevent water from getting inside the printer and be careful not to get water in the front slot.

**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.
2. Turn off the printer.

3. Unplug the power cord from the electrical outlet; then disconnect the interface cable from the printer.
4. 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 “Replacing the Ribbon Cartridge” on page 96.
6. Make sure that the printer cover is closed.
7. Repack the printer, ribbon cartridge, and power cord (if necessary) in their original packing materials and place them in the printer's original box.

Glossary

ASCII

American Standard Code for Information Interchange. A standardized coding system for assigning numerical codes to letters and symbols.

auto line feed

When this setting is turned on using the default setting mode, each carriage return (CR) code is automatically followed by a line feed (LF) code.

bidirectional printing

Printing in which the print head prints in both directions (bidirectionally). This increases the print speed but may reduce precise vertical alignment. Bidirectional printing is this printer's standard printing mode.

buffer

The portion of the printer's memory used to store data before it is printed.

character table

A collection of letters, numbers, and symbols that constitute the set of characters used in a particular language.

characters per inch (cpi)

A measurement of the size of text characters.

compress printing

This function reduces the size of the data. You can compress your printing data to the ratio of 75%.

continuous paper

Paper that has sprocket-feed holes on both sides, is perforated between pages, and is supplied in a folded stack. Also called fanfold paper.

control code

A special code used to control a printer function such as performing a carriage return or line feed.

cpi

A measurement of the size of text characters.

cut-sheet feeder

An optional, detachable device that automatically feeds single sheets of paper into the printer.

data dump

A troubleshooting method that helps identify the cause of communication problems between the printer and the computer. When the printer is in hex dump mode, it prints each code that it receives in hexadecimal notation and ASCII characters. Also called hex dump.

default

A value that takes effect when the equipment is turned on, reset, or initialized.

dithering

A way of arranging dots on a page to simulate a shade or tone.

dot matrix

A method of printing in which each letter or symbol is formed by a pattern (matrix) of individual dots.

dpi

Dots per inch. This is a measurement of the resolution for display and printing systems.

draft

The print mode used by your printer when you select Draft as the font. The Draft font uses less dots per character for faster printing.

driver

A software program that controls a particular type of device that is connected to the computer.

ESC/P ®

Abbreviation for Epson Standard Code for Printers. This is the system of commands your computer uses to control your printer. It is standard for all Epson printers and supported by most application software for personal computers.

ESC/P 2™

The enhanced version of the ESC/P printer command language. Commands in this language produce laser-like results, such as scalable fonts and enhanced graphics.

fanfold paper

Paper that has sprocket-feed holes on both sides, is perforated between pages, and is supplied in a folded stack. Also called continuous paper.

font

A style of type designated by a name such as Roman or Sans Serif.

form feed (FF)

A control code and control panel button that advances the paper to the next top-of-form position.

grayscale

Images represented with various shades of gray in addition to black and white.

halftoning

A method of using dot patterns to represent an image. Halftoning makes it possible to produce varying shades of gray using only black dots, or a nearly infinite array of colors using only a few colors of dots.

hex dump

A troubleshooting method that helps identify the cause of communication problems between the printer and the computer. When the printer is in hex dump mode, it prints each code that it receives in hexadecimal notation and ASCII characters. Also called data dump.

high speed draft

A mode of draft printing you can select using the default setting mode. High speed draft uses a minimum number of dots per character to produce extremely high-speed printing.

interface

The connection between the computer and the printer over which print data is transmitted to the printer.

landscape

Printing that is oriented sideways on the page. This orientation gives you a page that is wider than it is high and is useful for printing spreadsheets.

letter quality (LQ)

The print mode used by your printer when a font other than Draft is selected. Printing with letter-quality fonts provides better readability and appearance at a reduced print speed.

line feed (LF)

A control code and control panel button that advances the paper one line space.

loading position

The position to which the paper is automatically loaded.

magnetic stripe

A stripe of tape that is coated with magnetic material on which data is stored. PLQ-30M is equipped with a device to read and write data on magnetic stripes.

micro adjust

A printer feature that allows you to precisely adjust the tear-off and top-of-form positions.

paper positions

There are three paper positions for continuous paper printing: standby, tear-off, and top-of-form. For single sheet printing, there is only the top-of-form position.

pitch

The size of the font, which is measured in the number of characters per inch (cpi). The standard is 10 cpi.

pixel

Short for picture element. Each image is composed of a number of pixels. Pixels are also counted in units of dots.

portrait

Printing that is oriented upright on the page (as opposed to landscape, in which printing is sideways on the page). This is the standard orientation for printing letters or documents.

printer driver

A software program that sends commands from the computer for using the functions of a particular printer.

printing start position

The horizontal position on the paper that the printer recognizes as the first printable column. You can adjust the printing start position with the control panel.

proportional font

A font whose characters take up varying amounts of horizontal space depending on the width of the character. Thus the uppercase M takes up more horizontal space than the lowercase l.

recommended printable area

The area of a page on which the printer can print. It is smaller than the physical size of the page due to margins.

reset

To return a printer to its default settings.

resolution

A measure of the amount of detail that can be represented. Resolution of printed images is measured in number of dots per inch (dpi).

self test

A method for checking the operation of the printer. When you run the self test, the printer prints the characters stored in its ROM (Read Only Memory).

standby position

The position of your continuous paper when it is attached to the tractor but not loaded in the printer.

tear off

A control panel button that feeds the perforation of continuous paper to the tear-off position and then feeds the paper back to the top-of-form position.

tear-off position

The position the printer feeds the paper to when the auto tear-off mode is on. Using the Micro Adjust function, you can adjust the position so that the paper's perforation meets the printer's tear-off edge.

threshold

A reference point that is used to determine whether data will be processed as "on" or "off". In the case of color image data, "on" means that a certain color will appear in a pixel or dot, and "off" means that color will not appear there.

top-of-form position

The position on the paper that the printer recognizes as the first printable line. This is the default top-margin position.

unidirectional printing

Printing in which the print head prints in one direction only. Unidirectional printing is useful for printing graphics because it provides precise vertical alignment. You can select unidirectional printing using the printer's default setting mode.

USB

A Universal Serial Bus. A hardware interface for connecting peripherals such as a keyboard, mouse, scanner, or printer to the computer.

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