

SAMSUNG LASER PRINTER
User's Guide

SAMSUNG DIGITally

LASER PRINTER

ML-1440

SERVING

For UK customers:

To reorder your consumables
Call 0800 3164060

For Technical Assistance
Call 0870 2420303

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Printing Tasks

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Environmental and Safety Consideration

Laser Safety Statement

The printer is certified in the U.S. to conform to the requirements of DHHS 21 CFR, chapter 1 Subchapter J for Class I(1) laser products, and elsewhere, is certified as a Class I laser product conforming to the requirements of IEC 825.

Class I laser products are not considered to be hazardous. The laser system and printer are designed so there is never any human access to laser radiation above a Class I level during normal operation, user maintenance, or prescribed service condition.

WARNING

Never operate or service the printer with the protective cover removed from Laser/Scanner assembly. The reflected beam, although invisible, can damage your eyes.



CAUTION

- INVISIBLE LASER RADIATION WHEN THIS COVER OPEN. DO

NOT OPEN THIS COVER.

VORSICHT

- UNSICHTBARE LASERSTRAHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.

ATTENTION - RAYONNEMENT LASER INVISIBLE EN CAS D'OUVERTURE.EXPOSITION DAN

GEREUSE AU FAISCEAU.

ATTENZIONE -RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA.

EVITARE L'ESPOSIZIONE AL FASCIO.

PRECAUCION -RADIACION LASER IVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL

RAYO.

ADVARSEL. - USYNLIG LASERSTRÅLNING VED ÅBNING NÅR SIKKERHEDSBRYDERE ER

UDE AF FUNKTION, UNDGÅ UDSAETTELSE FOR STRÅLNING.

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VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPAND OCH SPÄRREN ÄR

URKOPPLAD. BETRAKTA EJ STRÅLEN. STRÅLEN ÄR FARLIG.

VARO! - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA

NÄKYMÄTTÖMÄLLE LASERSÄTEILYLLE ÄLÄ KATSO SÄTEESEEN.

Ozone Safety



During normal operation, the ML-1440 printer produces ozone. The ozone produced does not present a hazard to the operator. However, it is advisable that the machine be operated in a well ventilated area.

If you need additional information about ozone, please contact your nearest Samsung dealer.

Power Saver



This printer contains advanced energy conservation technology that reduces power consumption when it is not in active use.

When the printer does not receive data for an extended period of time, power consumption is automatically lowered.

The energy star emblem does not represent EPA endorsement of any product or service.

Radio Frequency Emissions

FCC regulations

This device has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- (1) Reorient or relocate the receiving antenna.
- (2) Increase the separation between the equipment and receiver.
- (3) Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- (4) Consult the dealer or an experienced radio/TV technician for help.

CAUTION: Changes or modifications not expressly approved by the manufacturer responsible for compliance could void the user's authority to operate the equipment.

Canadian Radio Interference Regulations

This digital apparatus does not exceed the Class B limits for radio noise emissions from digital apparatus as set out in the interference-causing equipment standard entitled "Digital Apparatus", ICES-003 of the Industry and Science Canada.

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", ICES-003 édictée par l'Industrie et Sciences Canada.

Declaration of Conformity (European Countries) Approvals and Certifications



The CE marking applied to this product symbolises Samsung Electronics Co., Ltd. Declaration of Conformity with the following applicable 93/68/EEC Directives of the European Union as of the dates indicated:

January 1, 1995: Council Directive 73/23/EEC Approximation of the laws of the member states related to low voltage equipment.

January 1, 1996: Council Directive 89/336/EEC (92/31/EEC), approximation of the laws of the Member States related to electromagnetic compatibility.

March 9, 1999: Council Directive 1999/5/EC on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

A full declaration, defining the relevant Directives and referenced standards can be obtained from your Samsung Electronics Co., Ltd. representative.

EC Certification

Certification to 1999/5/EC Radio Equipment & Telecommunications Terminal Equipment Directive (FAX)

This Samsung product has been self-certified by Samsung for pan-European single terminal connection to the analogue public switched telephone network (PSTN) in accordance with Directive 1999/5/EC. The product has been designed to work with the national PSTNs and compatible PBXs of the European countries:

In the event of problems, you should contact the Euro QA Lab of Samsung Electronics Co., Ltd. in the first instance.

The product has been tested against TBR21 and TBR 38. To assist in the use and application of terminal equipment which complies with this standard, the European Telecommunication Standards Institute (ETSI) has issued an advisory document (EG 201 121) which contains notes and additional requirements to ensure network compatibility of TBR21 terminals. The product has been designed against, and is fully compliant with, all of the relevant advisory notes contained in this document.

EU Declaration of Conformity (LVD,EMC)

For the following product:

Laser Beam Printer

(Product name)

ML-1440

(Model Number)

Manufactured at :

Samsung Electronics Co.,Ltd #259. GongDan-Dong,Gumi-Shi, GyungBuk, KOREA 730-030

(factory name, address)

We hereby declare, that all major safety requirements, concerning to CE Marking Directive[93/68/EEC] and Low Voltage Directive [73/23/EEC], ElectroMagnetic Compatibility [89/336/EEC], amendments [92/31/EEC] are fulfilled, as laid out in the guideline set down by the member states of the EEC Commission.

This declaration is valid for all samples that are part of this declaration, which are manufactured according to the production charts appendix.

The standards relevant for the evaluation of safety & EMC requirements are as follows:

1. Certificate of conformity / Test report issued by :

LVD : EN 60950:1992 +A1+A2+A3+A4+A11,EN 60825-1:1994+A1

EMC: EN 55022:1998, EN 61000-3-2:1995 inc+A1+A2:1998

EN61000-3-3:1995,EN 55024:1998

2. Technical documentation kept at :

LVD: TUV Rheinland

EMC: SAMSUNG Electronics Kihung Lab. in the KOREA

which will be made available upon request.

Samsung Electronics Co.,Ltd

(Manufacturer)

Samsung Electronics co.,ltd #259,KongDan-Dong,GuMi-City KyungBuk, Korea 730-030

2002-03-20

0 0

Yong Hwan Kim / Senior Manager

(place and date of issue)

(name and signature of authorized person)

(Representative in the EU)

Samsung Electronics Euro QA Lab. Blackbushe Business Park,Saxony Way, Yateley, Hampshire,GU46 6GG, UK 2002-03-20

1

In-Seop Lee / Manager

(place and date of issue)

(name and signature of authorized person)

Memo



Introduction

Congratulations on the purchase of your ML-1440 printer! This chapter provides information on the following topics:

- ◆ Special Features
- **♦** Printer Components

Special Features

Your new Samsung ML-1440 printer is equipped with special features that improve print quality, giving you a competitive edge. You can:

Print with excellent quality and high speed



- You can Print at **600 dots per inch** (dpi). See page 5.18.
- Prints 14 pages-per-minute(A4 size), 15 pages-perminute(Letter size).

Flexible paper handling



- Standard 270-sheet input tray (Tray 1) and optional 550**sheet input tray** (Tray 2) supports all standard sizes of
- A 1-sheet Manual Tray supports envelopes, labels, transparencies, custom-sized media, postcards, and heavy paper.
- Your printer has two output trays: Select either the top face-down output or the rear face-up output tray for the most convenient access.
- You can use a **straight-through paper path** from the Manual Tray to the rear output tray.

Create professional documents



- Customize your documents by using **Watermarks** such as "Confidential." See page 5.21.
- You can print **Booklets**. This feature enables you to easily print the pages required to create books. Once printed, all you have to do is fold and staple the pages. See page 5.13.
- You can print **Posters**. The text and pictures of each page of your document are magnified and printed across the selected sheet of paper. After the document has printed, trim off the white edges of each sheet. Tape the sheets together to form a poster. See page 5.16.

Save time and money



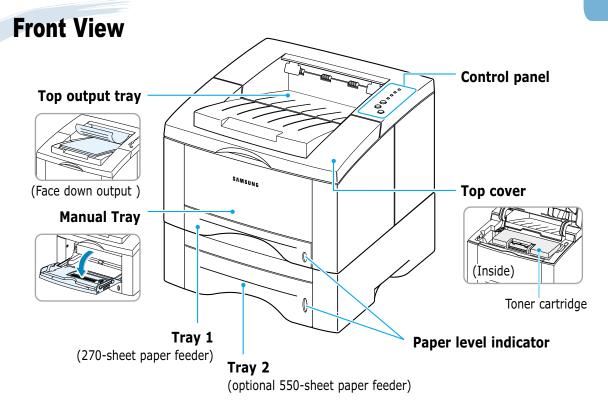
- You can use the **Toner Save** mode to save toner supply. See page 5.6.
- Your printer allows you to print on both sides of the paper to save paper (Manual Duplexing). See page 5.7.
- Your printer allows you to print multiple pages on a single sheet of paper to save paper (**N-Up printing**). See page 5.10.
- Preprinted forms and letterheads can be printed on plain paper (Page Overlay). See page 5.24.
- One-touch **last page printing** is available when the printer is in ready mode. See page 5.29.
- The Samsung ML-1440 printer meets **Energy Star** guidelines for energy efficiency.

Print in various environments

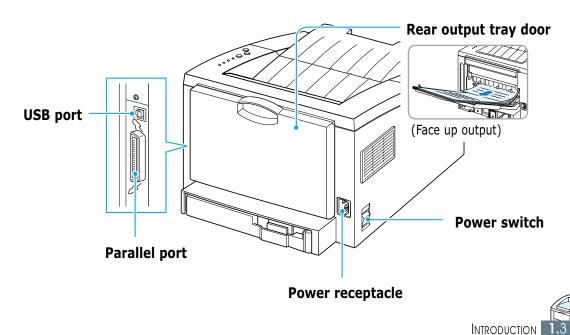


- You can print in Windows 95/98/Me/NT 4.0/2000/XP.
- Your printer supports Linux and Macintosh.
- ML-1440 printer comes with **Parallel** and **USB** interface.

Printer Components



Rear View





Setting Up Your Printer

This chapter provides step by step information on setting up your printer. Topics included in this chapter are:

- ◆ STEP 1: Unpack Your Printer
- ◆ STEP 2: Install the Toner Cartridge
- ◆ STEP 3: Load Paper
- ◆ STEP 4: Connect to the Computer with a Parallel Cable
- ◆ STEP 5: Turn on the Printer
- ◆ STEP 6: Print a Demo Page!
- ◆ STEP 7: Install the Printer Software Installing USB Driver



Unpack Your Printer

Remove the printer and all accessories from the packing carton. Make sure that your printer has been packed with the following items:



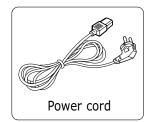




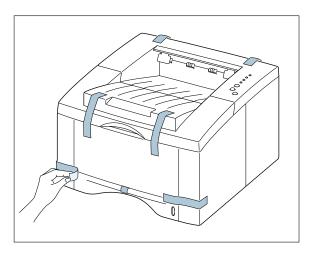


- If any items are missing or damaged, notify your dealer immediately.
- Components may differ from one country to another.
- The CD-ROM contains the printer driver, the User's Guide, the Adobe Acrobat Reader program.





2 Carefully remove all packing tapes from the printer.



Selecting a Location

Select a level, stable place with adequate space for air circulation. Allow extra space for opening covers and trays. The area should be well-ventilated and away from direct sunlight or sources of heat, cold, and humidity. See the image below for clearance space. Do not set the printer close to the edge of your desk or table!

Clearance Space

Front: 482.6 mm(enough space so that

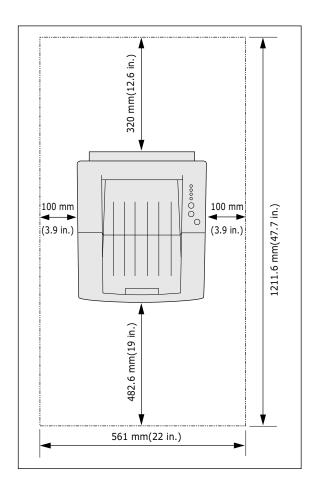
trays can be removed)

Back: 320 mm(enough space to allow opening of the Back Cover)

Right: 100 mm

Left: 100 mm(enough space for

ventilation)

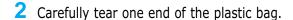




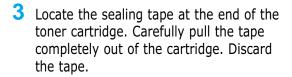
Install the Toner Cartridge

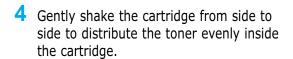
Open the top cover lid. Pull up on the handle to open the lid.





Don't use a knife or other sharp objects as they might scratch the drum of the cartridge.

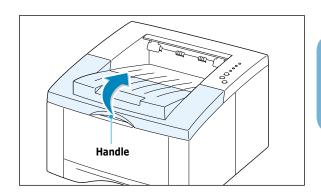


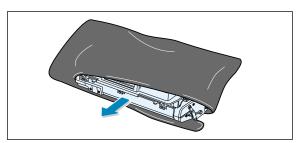


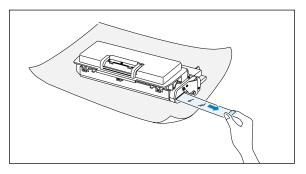


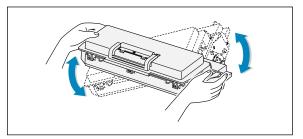
To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper if left exposed for more than a few minutes.

If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.



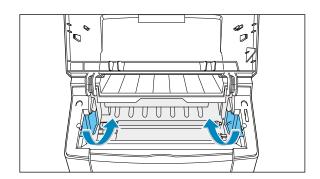






Install the Toner Cartridge

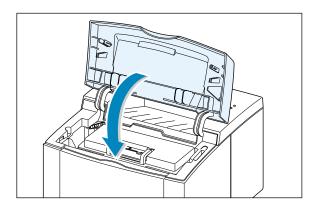
5 Locate the cartridge slots inside the printer, one on each side.



6 Grasp the handle and insert the cartridge in the printer until it snaps in place.



Close the top cover. Make sure that the cover is securely closed.

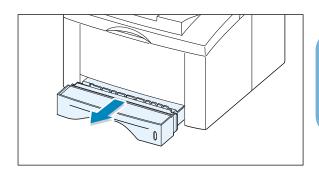


Note: When printing text at 5% coverage, you can expect a toner cartridge life of approximately 6,000 pages (3,000 pages for the toner cartridge that is shipped with the printer).

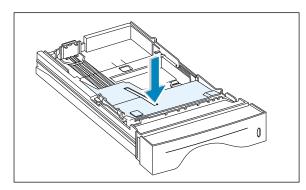


Load Paper

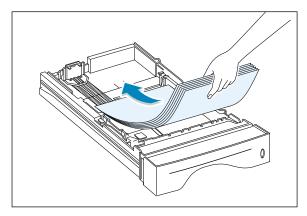
Pull the paper tray out of the printer.



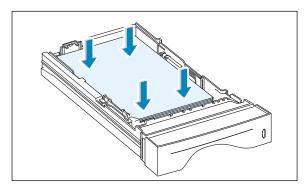
2 Push down on the metal paper lift plate to lock it in place.



3 Load paper with the print side facing down.

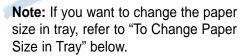


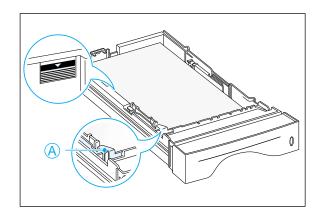
Make sure that all four corners are flat in the tray.



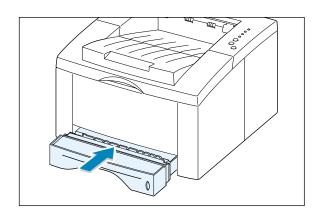
Load Paper

4 Make sure that the stack goes under the metal retaining clip (A) and the plastic tabs on the end guides. Pay attention to the paper limit mark on the left inside wall of the tray. Paper overloading may cause paper jams.



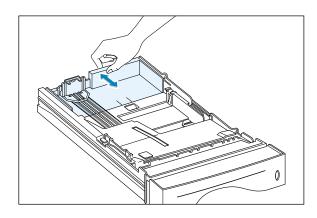


5 Slide the tray back into the printer.

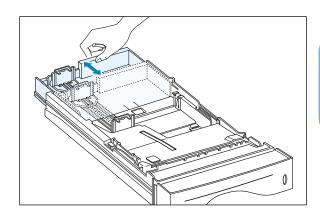


To Change Paper Size in Tray

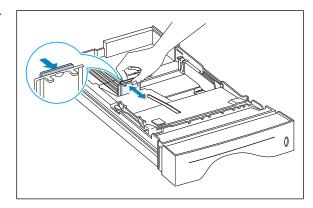
1 Adjust the tray for different paper sizes by sliding the appropriate paper length guide to the desired position.



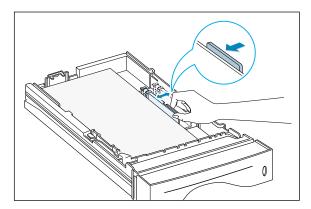
• For legal, folio, or paper, use the the back guide.



• For letter, executive, A4, JIS B5, A5, or A6 size paper, use the the front and back guide.



2 After loading paper, squeeze the width guide as shown and slide it to the left until it lightly touches the paper stack.



Notes:

- Do not push the width guide far enough to cause the media to warp.
- If you do not adjust the width guide, it may cause a paper jam.







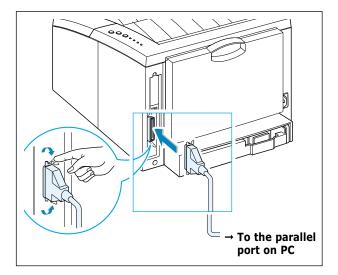


Connect to the Computer with a Parallel Cable

- Make sure that both the printer and the computer are turned off.
- 2 Plug the parallel printer cable into the connector on the back of the printer. Push the metal clips down to fit inside
- the notches on the cable plug. 3 Connect the other end of the cable to the parallel interface port on your

computer, and tighten the screws.

See your computer documentation if you need help.



Note: To connect the printer to the parallel port of the computer requires a certified parallel cable. You will need to buy the IEEE1284 compliant cable.

If you are using a USB interface

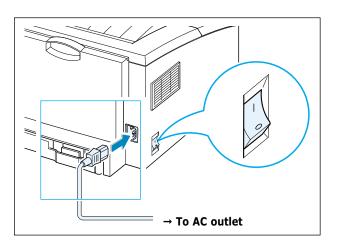
Go to "Installing USB Driver" on page 2.16.

Note: USB cable shorter than 3m is recommended.



Turn on the Printer

- Plug the power cord into the power receptacle on the back of the printer.
- Plug the other end into a properly grounded AC outlet.
- Turn on the power.



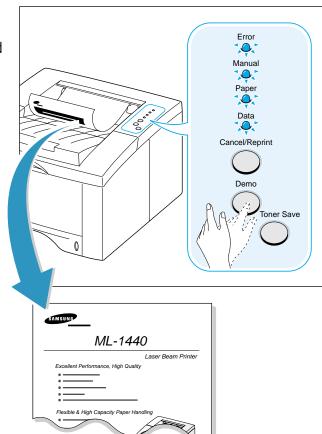


Print a Demo Page!

As the printer powers up, all the printer control panel lights turn on briefly. When only the **Data** light remains on, press and hold the **Demo** button.

Hold the **Demo** button down until all the lights blink (for about 2 seconds) and then release. The demo page will print.

The demo page provides a sample of the print quality to help you verify that the printer is printing correctly.



Included with your printer is a CD-ROM containing the printer drivers for some of the most popular Windows software applications. To operate your printer, you must install a printer driver, which translates data from your application into data that the printer understands.

The CD-ROM shipped with your printer contains the following:

- **SPL printer driver** for Windows. Use this driver to take full advantage of your printer's features.
- **USB driver** for the USB interface to allow you to print with a USB cable.
- **Printer driver** for Macintosh to allow you to use your printer with a Macintosh.
- Linux driver for Linux to allow you to use your printer in Linux.

If you are printing from a computer with a parallel cable

Go to page 2.11 for information on installing the printing software on a computer that is attached directly to the printer with a parallel cable.

If you are printing with a USB cable

Go to "Installing USB Driver" on page 2.16, for information on installing the print software on a USB-enabled computer.

If you are printing from a Macintosh

Go to "Using Your Printer with Macintosh" on page A.10, for information on installing the printer driver for Macintosh.

If you are printing from the Linux system

Go to "Linux SPL Driver Installation" on page A.17, for information on installing the Linux driver for printing in the Linux system.

Before Installing the Printer Software

Verify the following:

- At least 32 MB(Windows 9x/Me), 128 MB(Windows NT/2000/XP) or more of RAM is installed on your PC.
- There is at least **200 MB of free disk space** on your PC.
- All applications are closed on your PC before beginning installation.
- Windows 95, Windows 98, Windows Me, Windows NT 4.0, Windows 2000 or Windows XP.

Installing the Printer Software from the CD-ROM



Note: If the New Hardware Found box appears during the installation procedure, click the x in the upper right corner of the box, or click Cancel.

1 Place the CD-ROM in the CD-ROM drive. Installation will start automatically.

If the CD-ROM drive does not automatically run:

Select **Run** from the **Start** menu, and type **x:\cdsetup.exe** in the Open box (where **x** is the drive letter for the CD-ROM drive), then click OK.

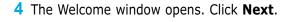


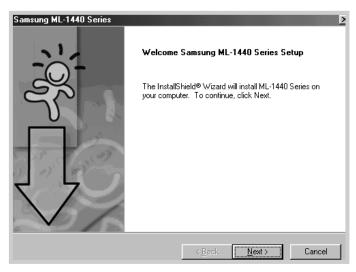
2 When the opening screen appears, select the appropriate language.



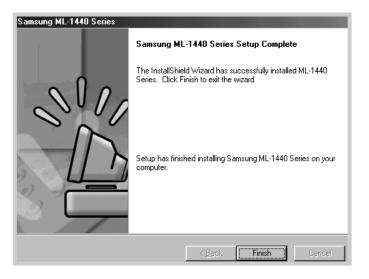
3 Click Install the Samsung Software on your PC.







- 5 The files are copied into the appropriate directory.
- 6 Click Finish.

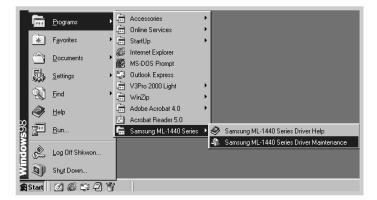


Software Installation Tips

How do I remove the printing software?

In Windows, after installation, the Remove icon in the ML-1440 series program group allows you to select and remove any or all of the Windows ML-1440 printing system components.

- 1 From the **Start** menu, select **Programs**.
- Select Samsung ML-1440 Series, and then Samsung ML-1440 Series Driver Maintenance.



- 3 The Samsung ML-1440 Series Driver Maintenance dialog box appears. Check **Remove** and then click **Next**.
- 4 When you are asked to confirm your selection, click **OK**.
- 5 The Samsung ML-1440 Series printer driver and all of its components are removed from your computer.
- 6 Click Finish.

How do I access printer features?

Some printer features, such as paper size and page orientation, may be available through your application settings. Use application settings, if available, because they override printer driver settings.

Access advanced printer features through your printer driver. See Chapter 5, "Printing Tasks" for instructions on using your printer driver features.

If you have problems installing

- Exit your software programs. Then turn off the computer and the printer. Turn on the printer and the computer.
- Close any virus protection programs that are running on your computer.
- If you fail the installation, you will have to reinstall.
 - 1. From the **Start** menu, select **Programs**.
 - 2. Select **Samsung ML-1440 Series**, and then Samsung ML-1440 Series Driver Maintenance.
 - 3. The Samsung ML-1440 Series Driver Maintenance dialog box appears. Check **Repair** and then click **Next**.
 - 4. When you finish reinstallation, click **Finish**.

Installing USB Driver



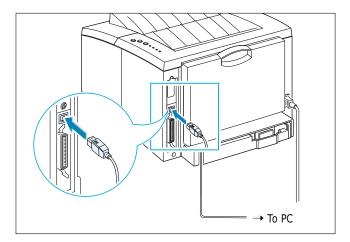
If you have a USB (Universal Serial Bus) port enabled on your computer, and if your computer is running Windows 98/Me/2000/XP, you can connect your ML-1440 series printer to the USB chain of devices.

Note: Connecting the printer to the USB port of the computer requires a certified USB cable. You will need to buy the USB 1.0 or 1.1 compliant cable.



Installing USB driver in Windows 98/Me

- 1. Connect printer with USB cable and install USB driver
- Make sure that both the printer and computer are turned ON.
- 2 Plug one end of the USB cable into the USB port on the printer.



Note: USB cable shorter than 3m is recommended.

3 Plug the other end into the USB port on the computer.

4 The Add New Hardware Wizard dialog box appears. Click Next.



5 Check Search for the best driver for your device and click Next.



6 Check CD-ROM drive and click Browse, then choose x:\USB (where **x** is the drive letter for the CD-ROM drive). Click **Next**.



7 Click **Next**. The USB driver will be installed.



8 Click Finish.

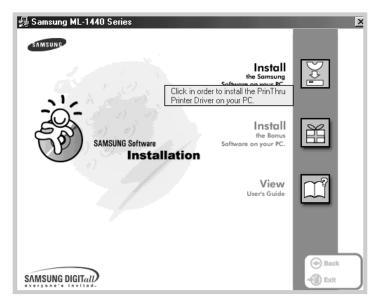


9 When the opening screen appears, select the appropriate language.

Note: If you already installed the printer driver, the **International Setup Version** screen doesn't appear.







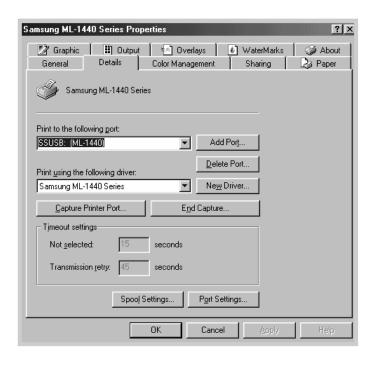
11 Follow the instructions on the screen to complete the installation. For more details, see page 2.11.

printer port

2. Check your PC 1 From the **Start** menu, select **Settings**, then select **Printers**.

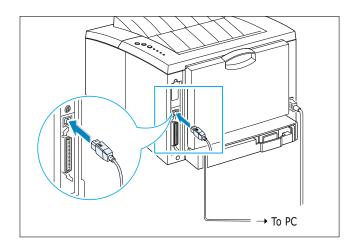


- Select the Samsung ML-1440 Series printer icon in the Printers folder.
- 3 Select **Properties** from the **File** menu.
- 4 Click the **Details** tab. Check **SSUSB: (ML-1440)** in the Print to the following port box. Click OK. The setup is now completed.



Installing USB driver in Windows 2000/XP

- 1. Connect printer with USB cable
- 1 Make sure that both the printer and computer are turned **ON**.
- **2** Plug one end of the USB cable into the USB port on the printer.



Note: USB cable shorter than 3m is recommended.

3 Plug the other end into the USB port on the computer.

2. Install USB driver



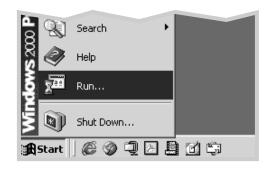
Note: If the New Hardware Found box appears during the installation procedure, click the x in the upper right corner of the box, or click Cancel.



1 Place the CD-ROM in the CD-ROM drive. Installation will start automatically.

If the CD-ROM drive does not automatically run:

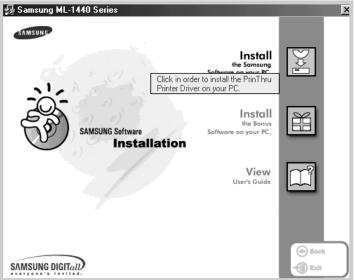
Select **Run** from the **Start** menu, and type **x:\cdsetup.exe** in the Open box (where **x** is the drive letter for the CD-ROM drive), then click **OK**.



2 When the opening screen appears, select the appropriate language.



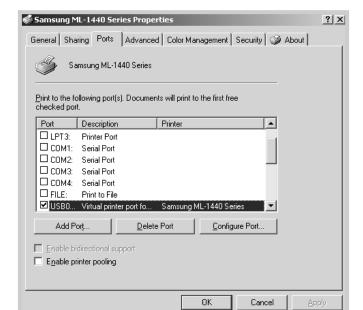




4 Follow the instructions on the screen to complete the installation. For more details, see page 2.11.

3. Check your PC printer port

- 1 From the **Start** menu, select **Settings**, then **Printers**. (Windows 2000) From the **Start** menu, select **Printers and Faxes**. (Windows XP)
- 2 Select the **Samsung ML-1440 Series** printer icon in the Printers folder.
- 3 Select Properties from the File menu.
- 4 Click the Port tab. Check the port and the printer. Click OK.
 - Samsung ML-1440 Series is connected to the USB Port.
 - The printer prints using the USB cable.



Note: If your printer stop the connecting with USB cable, the printer driver icon is faded.



Notes:

- If you want to use your printer with the Parallel cable, remove the USB cable and connect the Parallel cable. Then reinstall the printer driver.
- If your printer doesn't work properly, reinstall the printer driver.

Frequently Asked Questions About USB





Universal Serial Bus (USB) makes it easy to connect devices to your computer without having to open your PC. USB uses a standard port and plug combination for connecting devices like printers, modems, scanners, and digital cameras. It also offers the benefit of being able to easily add, remove, and move devices.

Because USB is a relatively new technology, we recommended using a parallel printing connection. However, USB is an option to customers who want to print from Windows 98/Me/2000/XP, Macintosh using a USB cable. If your computer's USB port is enabled and properly setup, you can connect your printer to it or to a chain of USB devices via a USB cable.

How can I determine if my computer's USB port is enabled?



- 1 In Windows 98/Me, select **Start** → **Settings** → **Control Panel**.
- 2 Double-click the System icon.
- 3 Click the Device Manager tab.
- 4 Click the plus (+) icon before the **Universal Serial Bus**Controller item.

If you see a USB host controller and a USB root hub listed, USB is properly enabled. If you have multiple hubs on the USB chain, try connecting your printer to a different hub or to another USB device. Also, make sure the cable connections are firm. (USB hubs are hardware devices into which you can plug multiple USB cables.)

If you do not see these devices listed, refer to your computer's documentation or contact the manufacturer for more information on enabling and setting up USB. Remember, you can always use a parallel cable to connect your printer's parallel port to your computer. (If you decide to switch to a parallel cable connection, you may need to remove and reinstall the printer software.)

Can other users on my USB chain print to my ML-1440 printer?



Yes. Windows 98/Me/2000/XP allows you to "share" your printer using software settings on your computer. After others on the USB chain have installed the printer software for your specific printer, they can print to your shared printer.

After I install my printer, why isn't my ML-1440 printer assigned to an LPT printer port in the Print dialog box of my software application?



USB uses a different naming convention for USB devices. After the printer has been installed, you see **SSUSB:(your printer name)** instead of **LPT**.

How can I increase printing speed and quality?



When operated on a USB chain, your printer may become slower if other USB devices are being used while you're printing. For optimal print performance, avoid using other devices in the USB chain while printing.



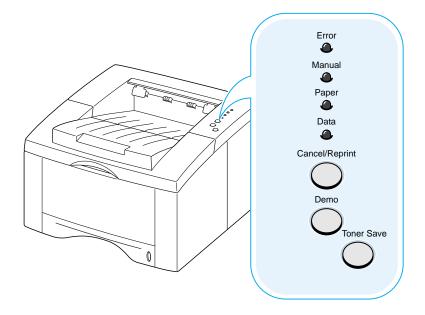
Using the Control Panel

This chapter describes how to use the printer's control panel. It provides information on the following topics:

- ◆ Control Panel Buttons
- ◆ Control Panel Lights

Control Panel Buttons

The printer has three buttons: **Cancel/Reprint**, **Demo** and **Toner Save**.



Cancel/Reprint



Cancel job

Press **Cancel/Reprint** and hold until the control panel lights blink to cancel a job the printer is currently printing. The **Error** light will blink while the print job is cleared from both the printer and the computer, and the printer will then return to the ready mode. This may take some time, depending on the size of the print job.

Note: If the **Cancel/Reprint** button is accidentally pushed, the job must be reprinted. There is no undo function.

Reprint last page of the job

If you press **Cancel/Reprint** in the ready mode, the printer prints the last page of the last print job. For further information, see page 5.29.

Demo

Print demo page

Press and hold **Demo** for about 2 seconds until the control panel lights blink slowly to print a demo page. The printer must be in the ready mode. For further information, see page 2.9.

Start manual feeding

When you select Manual Feed for Paper Source from your software application, you should press **Demo** each time you feed a sheet of paper manually. For further information, see page 4.7.

Cleaning the inside of the printer

Press and hold **Demo** for about 10 seconds until the control panel lights remain illuminated to automatically clean the inside of the printer. After cleaning the printer, one cleaning sheet prints. For further information, see page 6.5.



(on)

Toner Save



Toner Save

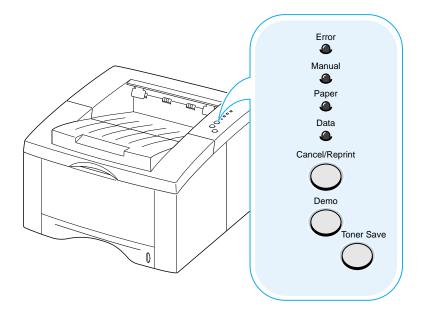
Press **Toner Save** to turn the toner save mode on or off. The printer must be in the ready mode.

- If the button backlight is on, toner save mode activates and the printer uses less toner to print a document.
- If the button backlight is off, toner save mode is disabled and you will print in normal quality.

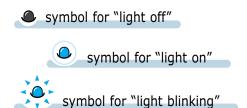
For further information on the Toner Save mode, see page 5.6.

Control Panel Lights

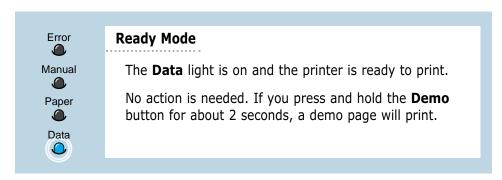
The control panel lights indicate the status of your printer. If the **Error** light is on, the printer is experiencing an error. See "Troubleshooting Error Messages" on page 7.21.



Light status legend



Control Panel Light Message



Error

Manual



Data

Processing

The printer is receiving or processing data. Wait for the job to print.

Pressing the **Cancel/Reprint** button cancels the current job. One or two pages may print as the printer clears the print job. The printer will return to the ready mode after the job has been canceled.

Data

The **Data** light blinks rapidly. Data is in the printer memory waiting to be printed.

Pressing the **Cancel/Reprint** button cancels the current job and the printer returns to the ready mode.











Paper out

The printer is out of paper. The **Paper** light blinks until paper is added.

Load paper into the printer. There is no need to press any button to reset.











Manual feed mode

The printer is set to **Manual Feed** mode for the paper source. You have to feed paper manually through the Manual Tray. If you do not want to be in the Manual Feed mode, change the setting from your printer properties. For details on the Manual Feed mode, see page 4.7.



Paper out in the manual feed mode

In the manual feed mode, the printer picks up paper from the Manual Tray, one sheet at a time.

Feed the correct paper in the Manual Tray, and press the **Demo** button to start printing.



Printing in the manual feed mode

The printer is processing data in the manual feed mode. Wait for the job to print.



Print Media

This chapter will help you understand what kind of paper you can use with the ML-1440 printer and how to properly load paper in the different paper trays for the best print quality.

Topics included in this chapter are:

- ◆ Choosing Paper and Other Media
- ◆ Selecting the Output Tray
- ♦ Loading Paper
- ♦ Printing on Envelopes
- ◆ Printing on Heavy Paper
- ♦ Printing on Labels
- ◆ Printing on Transparencies
- ◆ Printing on Preprinted Paper
- ◆ Printing on Card Stock or Custom-sized Media

Choosing Paper and Other Media

You can print on a variety of print media, such as plain paper, envelopes, labels, transparencies, card stocks and so on. See "Paper Specifications" on page A.2. To get the best possible print quality, use only high-quality copier-grade paper.

When you choose print media, consider the following:

- **Desired outcome**: The paper you choose should be appropriate for the project.
- Size: You can use any size paper that fits easily within the paper adjusters of the paper tray.
- **Weight**: Your printer supports paper weight as follows:
 - 16~28 lbs bond for Tray 1 or optional Tray 2
 - 16~43 lbs bond for Manual Tray
- Brightness: Some papers are whiter than others and produce sharper, more vibrant images.
- **Surface smoothness**: The smoothness of the paper affects how crisp the printing looks on the paper.
- **Opacity**: Opacity refers to the degree to which printing on one side of the paper shows through the other side. Use paper high in opacity (or thicker paper) for two-sided (duplex) printing.

Always test a sample of paper before purchasing large quantities.

CAUTION: Using media that does not conform to the specification listed in the paper specification can cause problems that may require service. This service is not covered by the warranty or service agreements.

Media Sizes and Capacities

Media Size	Input Source/Capacity*			
Picula Size	Tray 1	Optional Tray 2	Manual Tray	
Plain Paper				
Letter (8.5 x 11 in.)	270	550	1	
Legal (8.5 x 14 in.)	270	550	1	
Executive (7.25 x 10.5 in.)	270	550	1	
Folio (8.5 x 13 in.)	270	550	1	
A4 (210 x 297 mm)	270	550	1	
JIS B5 (182 x 257 mm)	270	550	1	
A5 (148 x 210 mm)	250	-	1	
A6 (105 x 148 mm)	250	_	1	
Envelopes				
No. 10 (4.12 x 9.5 in.)	-	40	1	
Monarch (3.87 x 7.5 in.)	-	40	1	
C5 (162 x 229 mm)	-	40	1	
DL (110 x 220 mm)	-	40	1	
B5 (176 x 250 mm)	-	40	1	
C6 (114 x 162 mm)	-	-	1	
Labels				
Letter (8.5 x 11 in.)	-	_	1	
A4 (210 x 297 mm)	-	_	1	
Transparency films				
Letter (8.5 x 11 in.)	-	_	1	
A4 (210 x 297 mm)	-	_	1	
Card stocks/Bond	-	-	1	

^{*} Depending on paper thickness, maximum capacity may be reduced.

Paper Guidelines

When selecting or loading paper, envelopes, or other special media, keep these guidelines in mind:

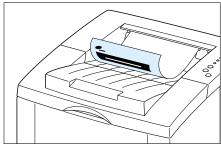
- Attempting to print on damp, curled, wrinkled, or torn paper can cause paper jams and poor print quality.
- **Use** cut-sheet paper **only**. You cannot use multi-part paper.
- **Use only** high-quality, copier grade paper.
- **Do not** use paper that has been already printed on or that has been fed through a photocopier.
- **Do not** use paper with irregularities, such as tabs or staples.
- **Do not** attempt to load any tray during printing and never overfill the tray. This could cause a paper jam.
- Avoid paper with embossed lettering, perforations, or texture that is too smooth or too rough.
- Colored paper should be of the same high quality as white photocopy paper. The pigments must withstand the printer's fusing temperature of 400°F (205°C) for 0.1 second without deterioration. **Do not** use paper with a colored coating that was added after the paper was produced.
- Preprinted forms must be printed with nonflammable, heatresistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the printer's approximately 400°F (205°C) fusing temperature for 0.1 second.
- Store paper in its ream wrapper until it is ready to use. Place cartons on pallets or shelves, not on the floor.
- **Do not** place heavy objects on top of the paper, whether it is packaged or unpackaged.
- **Keep** paper away from moisture, direct sunlight or other conditions that can cause it to wrinkle or curl.

Selecting the Output Tray

The printer has two output locations: the **rear output tray** and the **top output tray**. To use the top output tray, be sure the rear output tray is closed. To use the rear output tray, open it.

- If paper coming out of the top output tray has problems, such as excessive curl, **try printing to the rear output tray.**
- To avoid paper jams, **do not open or close the rear output tray** while the printer is printing.

Printing to the Top Output Tray (Face down)

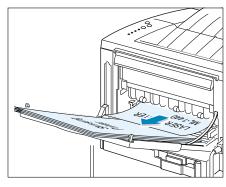


▲ Top output tray

The top output tray collects paper **face-down**, **in correct order**. The top output tray should be used for most print jobs and is recommended for printing the following:

• over 250 sheets of paper, continuously

Printing to the Rear Output Tray (Face up)



▲ Rear output tray

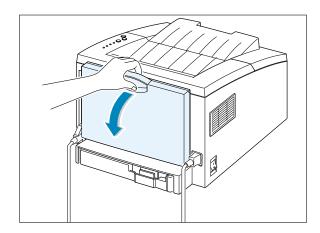
The printer always prints to the rear output tray if it is open. Paper comes out of the printer **face-up**, **with the last page on top**.

Printing from the Manual Tray to the rear output tray provides the **straight paper path**. Opening the rear output tray might improve output quality with the following:

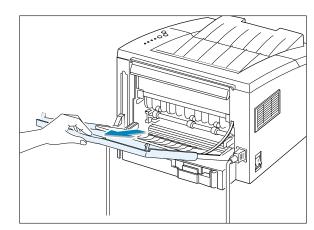
- over 100 sheets of paper, continuously
- envelopes
- labels
- small custom-size paper
- postcards
- paper lighter than 16 lb (60 g/m²) or heavier than 28 lb (105 g/m²)
- transparencies

To open the rear output tray:

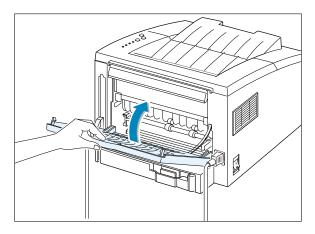
1 Open the rear door by pulling it down. The cover functions as the output tray.



2 Pull the extender to extend the output tray to its full-length position. This will allow the tray to hold longer paper.



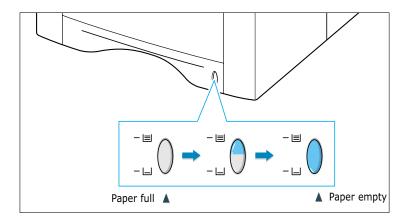
3 If you do not want to stack the printed pages on the rear output tray, slide the extender back into place and close the tray. The pages will then stack on the top output tray.



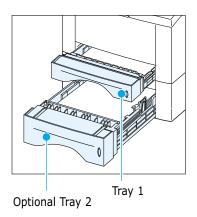
Loading Paper

Proper paper loading helps to prevent paper jams and ensure trouble-free printing. **Do not** remove paper tray while a job is printing. Doing so may cause a paper jam.

The paper level indicator on the front of the paper tray shows the amount of paper currently left in the tray. When the tray is empty, the indicator turns red.



Using Tray 1 or the Optional Tray 2



Tray 1 holds 270 sheets of paper. Optional Tray 2 holds 550 sheets of paper. See "Media Sizes and Capacities" on page 4.2 for acceptable paper size and capacities of the tray.

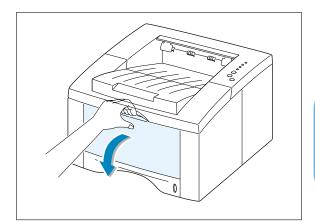
Load a stack of paper into the Tray 1 or optional Tray 2 and print. For details on loading paper in the Tray 1 or optional Tray 2, see page 2.5, A.24.

Using the Manual Tray

When you change the print settings, if you select **Manual Feed** in the **Paper Source** option, you can manually load paper in the Manual Tray. Manually loading paper can be helpful when you want to check the print quality after each page is printed.

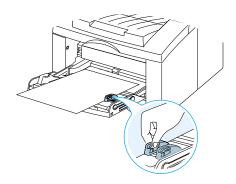
You must load paper sheet-by-sheet in the Manual Tray, send print data to print the first page, and press the **Demo** button to print each following page.

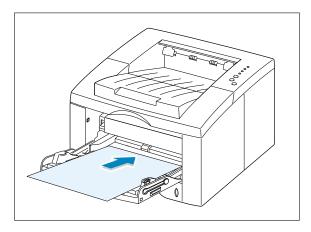
Pull the Manual Tray down towards you.



2 Load the paper in the Manual Tray with the print side up.

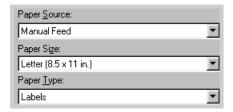
Adjust the guide to the width of paper.





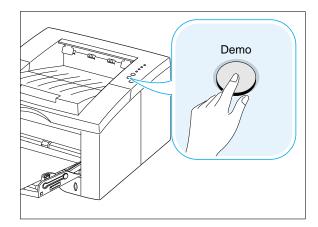
Loading Paper

3 When you print a document, you must select Manual Feed for Paper Source from the software application, and then select the correct paper size and type. For details, see page 5.3.



- 4 Print the document.
- 5 The **Manual** light on the control panel blinks. Press the **Demo** button on the control panel.

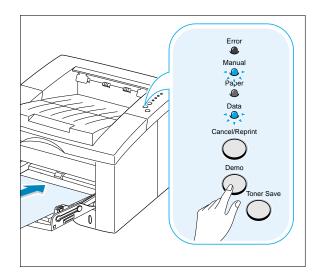
The sheet of paper is loaded and printed.



6 After one page is printed, the **Manual** light on the control panel blinks again.

Feed the next sheet into the Manual Tray and press the **Demo** button.

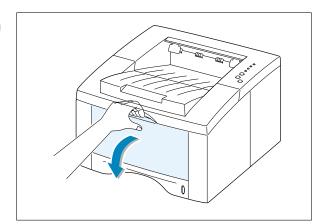
Repeat this step for every page to be printed.



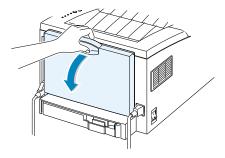
Printing on Envelopes

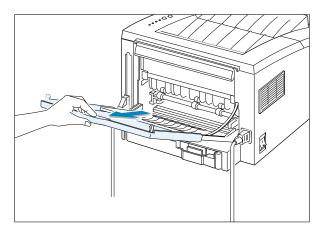
Guidelines

- Only use envelopes recommended for laser printers. Before you load envelopes in the Manual Tray, make sure that they are undamaged.
- Do not feed stamped envelopes.
- Never use envelopes with clasps, snaps, windows, coated lining, or self-stick adhesives. These envelopes may severely damage the printer.
- 1 Open the Manual Tray by pulling it down toward you.



2 Open the rear output tray and pull the extender.

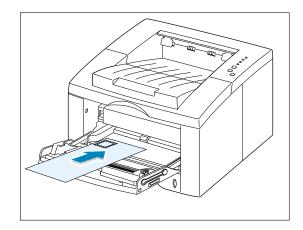




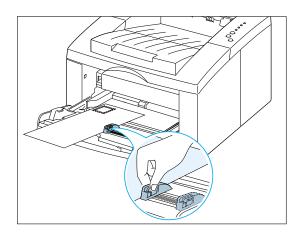
Printing on Envelopes

3 Load the envelope with the flap side down.

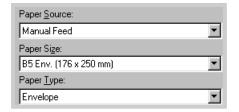
The stamp area is **on the left side** and the end of the envelope **with the stamp area enters the Manual Tray first**.



4 Adjust the guide to the width of envelope.



5 When you print on envelopes, configure the paper source, type and size properly in the software application. For details, see page 5.3.



- 6 Press the **Demo** button on the control panel.
- 7 After printing, close the Manual Tray and the rear output tray.

Printing on Heavy Paper

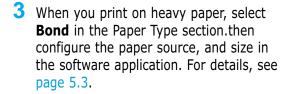
Guidelines

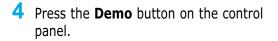
- Heavy paper is any paper heavier than 24 lb (90 g/m²). The maximum paper weight available for your printer is 43 lb (163g/m²).
- Do not use extremely heavy paper stock (greater than 43 lb, or 163 g/m² bond). Misfeeds, mis-stacking, media jams, poor toner fusing, poor print quality, and excessive mechanical wear can result.
- Open the Manual Tray and the rear output tray.

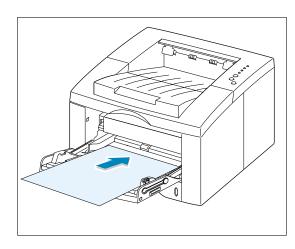


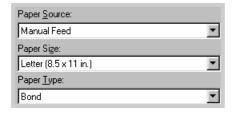
2 Load paper with print side up, and against the left edge of the tray.

Adjust the guide to the width of paper.





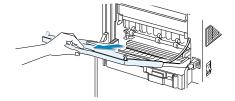




Printing on Labels

Guidelines

- Only use labels recommended for laser printers.
- Verify that the labels' adhesive material can tolerate fusing temperature of 200°C (392°F) for 0.1 second.
- Make sure that there is no exposed adhesive material between the labels. Exposed areas
 can cause labels to peel off during printing, which can cause paper jams. Exposed
 adhesive can also cause damage to printer components.
- Do not feed a sheet of labels through the printer more than once. The adhesive backing is designed for one pass through the printer.
- Do not use labels that are wrinkled, bubbled, separated from the backing sheet, or damaged in any way.
- Open the Manual Tray and the rear output tray.

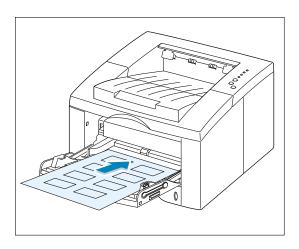


2 Load labels with print side up, and against the left edge of the tray.

Adjust the guide to the width of paper.

- When you print on labels, configure the paper source, type and size in the software application. For details, see page 5.3.
- 4 Press the **Demo** button on the control panel.

Note: To prevent them from sticking together, remove label sheet from the output tray as they are printed out.



Paper <u>S</u> ource:	
Manual Feed	▼
Paper Size:	
A5 (148 x 210 mm)	▼
Paper <u>T</u> ype:	
Labels	▼

Printing on Transparencies

Guidelines

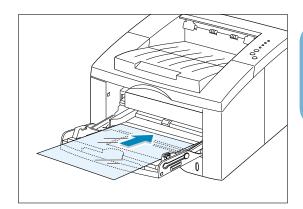
- Only use transparencies recommended for use in laser printers.
- Make sure that the transparencies are not wrinkled or curled, and that they do not have any torn edge.
- Hold the transparencies by the edges and avoid touching the print side. Oils from your fingers that are deposited on the transparency can cause print quality problems.
- Be careful not to scratch or leave fingerprints on the print side.
- To prevent transparencies from curling, use the standard output tray. (This is for transparencies only; for other media, use the rear output tray to reduce curling.)
- 1 Open the Manual Tray by pulling it down toward you.
- 2 Load transparencies with print side up, and the top with the adhesive strip entering the printer first.

Adjust the guide to the width of paper.

- When you print on transparencies, configure the paper source, type and size in the software application. For details, see page 5.3.
- 4 Press the **Demo** button on the control panel.

Notes:

- To prevent transparencies from sticking together, remove them from the output tray as they are printed.
- Place transparencies on a flat surface after removing them from the printer.



Paper Source:	
Manual Feed	▼
Paper Si <u>z</u> e:	
Letter (8.5 x 11 in.)	▼
Paper <u>T</u> ype:	
Transparency	▼

Printing on Preprinted Paper

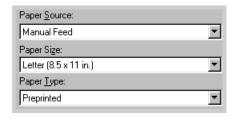
Preprinted paper is paper that has some type of printing placed on it before it is sent through the printer. (paper that has a preprinted logo at the top of the page, for example)

Guidelines

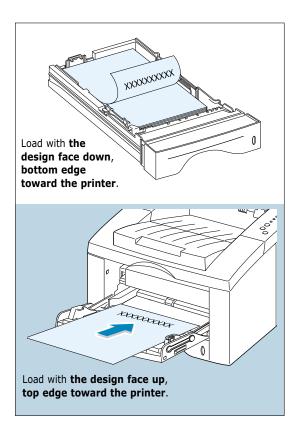
- Letterheads must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the printer's fusing temperature of 400°F (205°C) for 0.1 second.
- Ink on letterheads must be non-flammable and should not adversely affect any printer rollers.
- Forms and letterheads should be sealed in a moisture-proof wrapping to prevent changes during storage.
- Before you load preprinted paper as forms and letterheads, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper.
- 1 Load letterheads into the tray you want to use as shown in the figures.

Adjust the guide to the width of paper.

When you print a document on the paper, configure the paper source, type and size in the software application. For details, see page 5.3.



4 Press the **Demo** button on the control panel.



Printing on Card Stock or Custom-sized Media

Postcards, 3.9 by 5.83 in.(index) cards and other custom-sized media can be printed with the ML-1440 printer. The minimum size is 98 by 148 mm (3.9 by 5.83 in.) and the maximum size is 216 by 356 mm (8.5 by 14 in.).

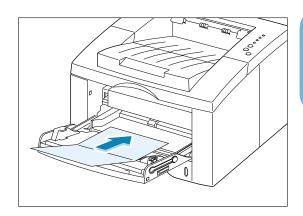
Guidelines

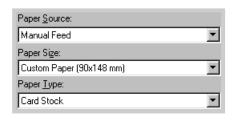
- Always insert the short-edge into the Manual tray first. If you want to print in landscape mode, make this selection through your software. Inserting paper long-edge first may cause a paper jam.
- Do not print on media smaller than 98 mm (3.9 in.) wide or 148 mm(5.83 in.) long.
- Set margins at least 6.4 mm (0.25 in.) away from the edges of the media in the software application.
- 1 Open the Manual Tray. Open the rear output tray and pull the extender out to its full-length position.
- 2 Load print media with print side up, short edge first and against the left edge of the tray.

Adjust the guide to the width of paper.

- 3 Configure the paper source, type and size in the printer driver's properties (see page 5.3) and print.
- 4 Press the **Demo** button on the control panel.

Note: If you are using A6-sized paper or the size of your print media is not listed in the **Paper Size** box in the **Paper** tab of the printer driver properties, select **Custom Paper** and set the paper size manually.









Printing Tasks

This chapter explains your printing options and covers common printing tasks.

Topics included in this chapter are:

- ◆ Printing a Document
- ♦ Using Toner Save Mode
- ◆ Printing on Both Sides of the Paper (Manual Duplexing)
- ◆ Printing Multiple Pages on One Sheet of Paper (N-Up Printing)
- ♦ Scaling Your Document
- ♦ Fitting Your Document To a Selected Paper Size
- ♦ Printing Booklets
- ♦ Printing Posters
- ◆ Setting Graphic Properties
- ♦ Printing Watermarks
- ♦ Using Page Overlay
- ♦ Printing on Different Paper for the First Page
- ♦ Reprinting the Last Page
- ◆ Printing on a Network Environment

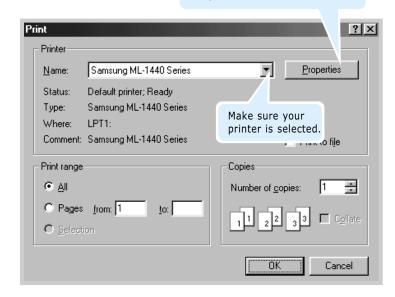
Printing a Document

The following procedure describes the general steps required for printing from various Windows applications. The exact steps for printing a document may vary depending on the application program you are using. Refer to your software application's documentation for the exact printing procedure.

- Open the document you want to print.
- 2 Select **Print** from the **File** menu. The Print dialog box for your application will be displayed (the Print dialog box for your application may look slightly different).

The basic print settings you will need are usually selected within this Print dialog box. These settings include the number of copies, paper size, and page orientation.

> If you see a Properties button, click it. If you see Setup, Printer, or Options, click that button instead; then click **Properties** in the next screen.

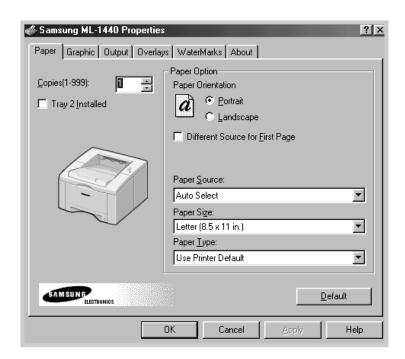


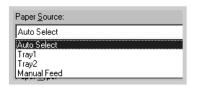
3 To take full advantage of the printer features provided by your ML-1440 printer, click **Properties** in the application's Print dialog box and go to step 4.

If you see **Setup**, **Printer**, or **Options**, click that button instead. Then click **Properties** in the next screen.

4 Now you see the Samsung ML-1440 Series printer's Properties dialog box. The Properties dialog box allows you to access all the information you will need when using your printer.

If necessary, click the **Paper** tab to display the settings shown below. The Paper tab contains the options for setting the basic paper handling.

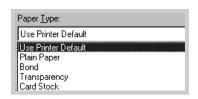




The default paper source is **Auto Select**. If you use paper in the Manual Tray or optional Tray2, select the corresponding paper source.

Manual Feed source is used when printing to special media. You have to feed one sheet at a time into the printer. See page 4.7.

If the paper source is set to **Auto Select**, the printer automatically selects the print media according to the following order: Manual Feed, Tray1, Tray2 (option).



The default **Paper Type** is **Use Printer Default**. If you load a different type of print media, select the corresponding paper type. For further information on print media, refer to chapter 4 'Print Media'.

Also, select the paper size you have loaded in your printer.



The **Paper Orientation** option allows you to select the direction in which information is printed on a page. Portrait prints across the width of the page, letter style. Landscape prints across the length of the page, spreadsheet style.





- 5 Click other tabs on the top of the Properties dialog box to access other features, if needed.
- 6 When you complete the print settings, click **OK** until the Print dialog box is displayed.
- 7 Click **OK** to start printing.

Notes:

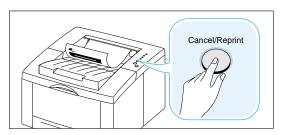
- Most Windows applications will override settings you specify in the printer driver. Change all print settings available in the software application first, and change any remaining settings using the printer driver.
- The settings you change remain in effect only while you are using the current program. To make your changes permanent, make them in the Printers folder. Follow this procedure:
 - 1. Click the Windows Start button.
 - 2. Select **Settings**, then **Printers** to open the Printers window. (Windows 9x/Me/2000) Select **Printers and Faxes**. (Windows XP)
 - 3. Select the Samsung ML-1440 Series printer icon.
- 4. Click the right mouse button and select **Properties** to open the properties window. (Windows 9x/Me) Click the right mouse button and select **Document Defaults** to open the document defaults window. (Windows NT) Click the right mouse button and select **Printing Preferences** to open the printing preferences window. (Windows 2000/XP)

Canceling a Print Job

There are two ways to stop a print job.

To stop a print job from the ML-1440 printer

Press the **Cancel/Reprint** button on the control panel.

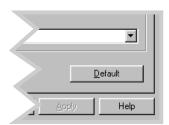


The printer will finish printing the page that is moving through the printer and delete the rest of the print job. Pressing **Cancel/Reprint** cancels only the current job in the printer. If more than one print job is in printer memory, Cancel/Reprint must be pressed once for each job.

To stop a print job from the Printers folder

- 1. From the **Start** menu, select **Settings**.
- 2. Select **Printers** to open the Printers window, then doubleclick the Samsung ML-1440 Series.
- 3. From the **Document** menu, select **Cancel Printing** (Windows 9x/Me) or **Cancel** (Windows NT 4.0/2000/XP).

Printing Help



The Samsung ML-1440 printer has a help screen that can be activated by the **Help** button in the printer Properties dialog box. These help screens give detailed information about the printer features provided by the ML-1440 printer driver.

If you want to restore the default printer properties settings when you change the print settings, click **Default** in the Samsung ML-1440 Series Properties dialog box.

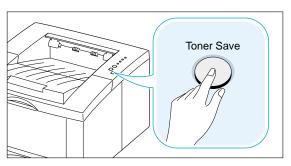
Using Toner Save Mode

Toner Save mode allows the printer to use less toner on each page. Selecting this option will extend the life of your toner cartridge and reduce your cost per page, but will reduce print quality.

There are two ways to enable the Toner Save mode.

To enable this feature from the ML-1440 series printer

Press the **Toner Save** button on the control panel. The printer must be in the ready mode (**Data** light is on).

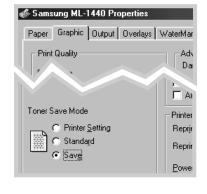


- If the button backlight is on, toner save mode activates and the printer uses less toner to print a page.
- If the button backlight is off, toner save mode is disabled and the printer prints in the normal mode.

Note: To enable or disable the Toner Save mode from the control panel, the Toner Save Mode option in the printer driver must be set to **Printer Setting**. See below.

To enable this feature from the software application

- 1. When you change the print settings from your software application, access the printer properties. See page 5.2 to access the printer properties.
- 2. Click the **Graphic** tab, and select the **Toner Save Mode** option. You can select from:
 - **Printer Setting**: If you select this option, this feature is determined by the setting you've made on the control panel of the printer.
 - **Standard**: If you don't need to save toner to print a document, select this option.
 - **Save**: Select this option to allow the printer to use less toner on each page.
- 3. Click OK.

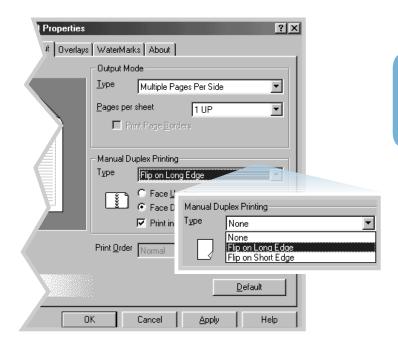


Printing on Both Sides of the Paper (Manual Duplexing)



To print on both sides of the paper (manual duplexing), you must run the paper through the printer twice. You can print using the top output tray (face down tray) or the rear output tray (face up tray). Samsung recommends using the top output tray for light-weight paper. Use the rear output tray for any heavy media or media that tends to curl when printed, such as envelopes and card stock.

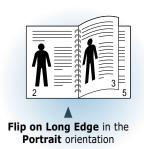
- 1 When you change the print settings from your software application, access the printer properties. See page 5.2 to access the printer properties.
 - From the **Paper** tab, select the paper orientation, source, size and type.
- Click the Output tab, then choose Flip on Long Edge or Flip on Short Edge from the Type drop-down list in the Manual Duplex Printing section.

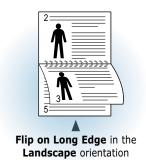


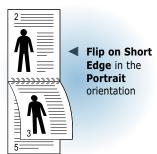
Printing on Both Sides of the Paper (Manual Duplexing)

Choosing Flip on Long Edge lets you place the binding orientation along the long edge of the paper, as in a magazine.

Choosing Flip on Short Edge lets you place the binding orientation along the short edge of the paper, as in a calendar.











3 Select Face Down Tray (top output tray) or Face Up Tray (rear output tray) in which the printed media is to be stacked. According to this option, the printer will determine the print page order when the second sides are printed.

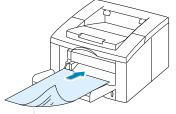
If you select **Face Up Tray**, open the face up tray.

4 If you want to print the instruction page which tells you how to load the paper, click **Print instruction sheet**. If the box is checked, the printer prints the instruction sheet before the duplexing job is printed. If the box is empty, this feature is disabled.

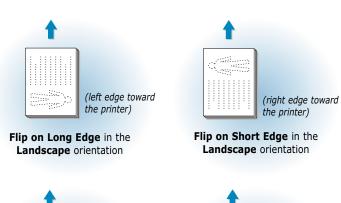
- 5 Start printing. The printer automatically prints only the odd-numbered pages.
- 6 Gather up the printed pages, and reload them into the Manual Tray one sheet at a time in the order that they are printed.

Note: If you have selected the Face Up Tray option in Step 3, the last page is placed on the top of the stack. **Do not** rearrange the pages before reloading them to print the second side.

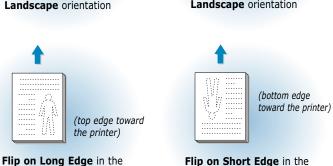
The following illustrations show you how to put the printed pages back into the printer.



Remove the printed pages, and reload them into the Manual Tray one sheet at a time with the printed side face down.



Note: Duplexing can cause the printer to become dirty more quickly and can therefore reduce print quality. See "Cleaning the Printer" on page 6.4 if the printer becomes dirty.



7 You are prompted to reinsert the paper into the Manual Tray. Click **OK** on the screen to start printing the second side. The printer automatically prints only the evennumbered pages.

Portrait orientation

Note: You must press the **Demo** button to start printing each time you load the printed page into the Manual Tray.

Portrait orientation

Printing Multiple Pages on One Sheet of Paper (N-Up Printing)



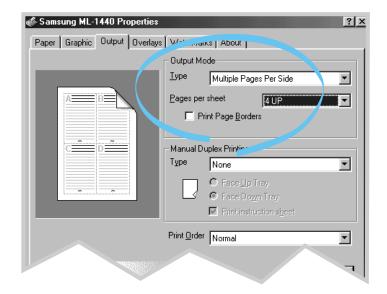
▲ 4 pages per sheet

You can select the number of pages that you want to print on a single sheet of paper. If you choose to print more than one page per sheet, the pages will appear decreased in size and arranged on the sheet. You can specify up to 16 pages.

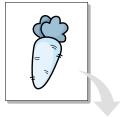
1 When you change the print settings from your software application, access the printer properties. See page 5.2 to access the printer properties.

From the **Paper** tab, select the paper orientation, source, size and type.

- 2 Click the **Output** tab, and choose **Multiple Pages Per Side** in the **Type** drop-down list. Then select the number of pages you want to print per sheet (1, 2, 4, 9 or 16) in the **Pages per sheet** drop-down list.
- 3 Click **Print Page Borders** if you want to print a border around each page on the sheet. **Print Page Borders** is enabled only if **Pages per sheet** is 2, 4, 9, or 16.



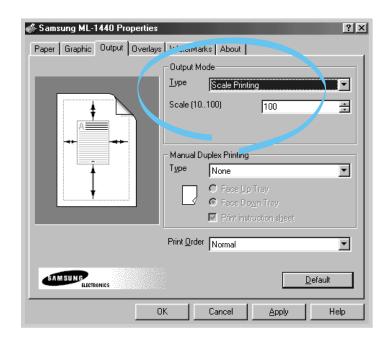
Scaling Your Document



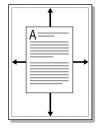


This printer feature allows you to scale your print job on a page.

- 1 When you change the print settings from your software application, access the printer properties. See page 5.2 to access the printer properties.
- 2 Click the **Output** tab, and select **Scale Printing** in the Type drop-down list.
- 3 Enter the desired scaling rate in the **Scale** input field. You can also click the ▲ or ▼ buttons.

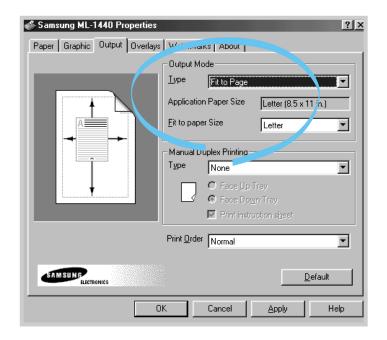


Fitting Your Document To a Selected Paper Size



This printer feature allows you to scale your print job to any selected paper size regardless of the digital document size. This can be useful when you want to check fine details on a small document.

- 1 When you change the print settings from your software application, access the printer properties. See page 5.2 to access the printer properties.
- 2 Click the Output tab, and select Fit to Page in the Type drop-down list.
- 3 You'll see the Application Paper Size and then you will be prompted to select the Fit to paper Size. Select the correct size from the drop-down list.



Printing Booklets



Portrait orientation



The Booklet printing feature allows you to print your document as a 2-sided (duplex) job and to arrange the pages so that the paper can be folded in half after printing to produce a booklet.

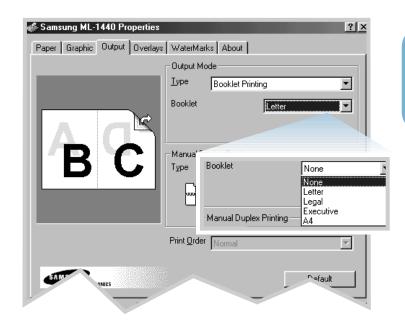
1 When you change the print settings from your software application, access the printer properties. See page 5.2 to access the printer properties.

From the **Paper** tab, select the paper orientation, source, size and type.

Note: For booklet printing, only four paper sizes are supported: Letter, A4, Legal, and Executive.

2 Click the **Output** tab, then choose **Booklet Printing** from the **Type** drop-down list.

Then select the paper size you are using from the **Booklet** drop-down list.



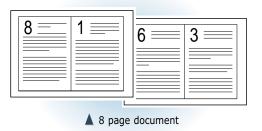
Printing Booklets



3 Select Face Down Tray (top output tray) or Face Up Tray (rear output tray) in which the printed media is stacked. According to this option, the printer will determine the print page order when the second sides are printed.

If you select **Face Up Tray**, open the face up tray.

- 4 If you want the instruction page which tells you how to load the paper, click **Print instruction sheet**. If the box is checked, the printer prints the instruction page before the duplexing job is printed. If the box is empty, this feature is disabled.
- 5 Print the document.
- 6 The printer prints side one as shown below for an 8-page document.

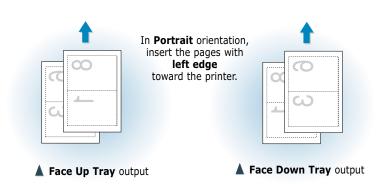


7 Gather up the printed pages, and reload them into the Manual Tray one sheet at a time. Go to the next page for details on reloading the printed pages.

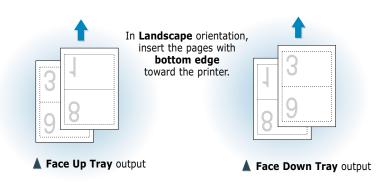


sheet at a time with printed side face down.

The following illustrations show how to put the paper back into the printer.



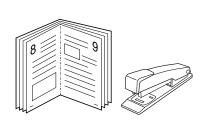
Note: If you have selected the Face Up Tray option at Step 3, the last page is placed on the top of the stack. Do not rearrange the pages before reloading the pages.



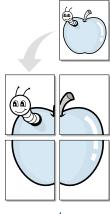
8 You are prompted to reinsert the paper into the Manual Tray. Click **OK** on the screen. The printer will finish printing.

Note: You must press the **Demo** button to start printing each time you load the printed page into the Manual Tray.

9 Fold and staple the pages.



Printing Posters



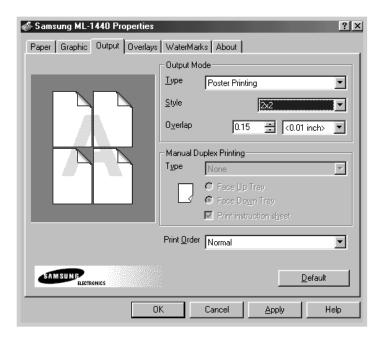
Poster printing with 2x2 style

This feature allows you to print a single-page document onto 4, 9, or 16 sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.

1 When you change the print settings from your software application, access the printer properties. See page 5.2 for more information on accessing printer properties.

From the **Paper** tab, select the paper orientation, source, size and type.

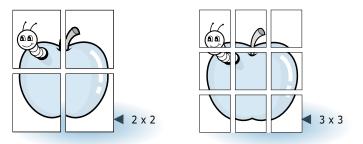
2 Click the Output tab, and select Poster Printing in the Type drop-down list.



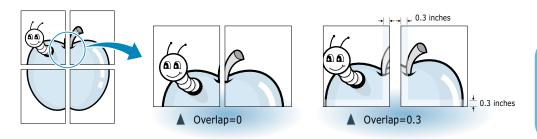


3 To determine the scaling factor, select the **Style**; **2x2**, **3x3** or **4x4**.

For example, if you select **2x2**, the output will be automatically stretched to cover 4 physical pages.



4 You may specify an overlap in millimeter or inch to make it easier to reconstruct the resulting poster.



Setting Graphic Properties

Use the following options to adjust the print quality for your specific printing needs when you access the printer properties. See page 5.2 for more information on accessing printer properties.

If necessary, click the **Graphic** tab to display the settings shown below.



Resolution



You can select the printing resolution by choosing either **300 DPI** or **600 DPI**. The higher the setting, the sharper the clarity of printed characters and graphics. Higher settings may increase the time it takes to print a document.

Darkness

Use this option to lighten or darken the image appearance in your print jobs.



- Normal This setting is for normal documents.
- **Light** This setting is for bolder line widths or darker grayscale images.
- **Dark** This setting is for finer line width, higher definition in graphics, and lighter gray-scale images.

Dark Text

When the **Dark Text** is checked, all text in your document is allowed to print darker than normal document.



All Text to Black



When the **All Text to Black** is checked, all text in your document is allowed to print solid black, regardless of the color it appears on the screen.

When it is not checked, colored text is allowed to print in shades of gray.

Reprint



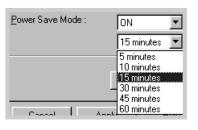
You can set the printer not to print the last page of the last job when the **Cancel/Reprint** button is pressed. For details, see 'Reprinting the Last Page' on page 5.29.

Reprint When Jam



With this option **ON**, the printer keeps the image for a printed page until the printer signals that the page has successfully exited the printer. If a paper jam occurs, the printer will automatically reprint all jammed pages after the jam is cleared.

Power Save Mode





To conserve power when a printer is idle, you can set the printer to enter a reduced power state after completing a print job, according to a time specified by you in the Power save Mode box.

Select the desired length of time from the drop-down list.

If your printer is constantly used, select **OFF** to keep the printer ready to print with the minimum warm-up time. This uses more energy to keep the printer warm and ready to print.

Printing Watermarks

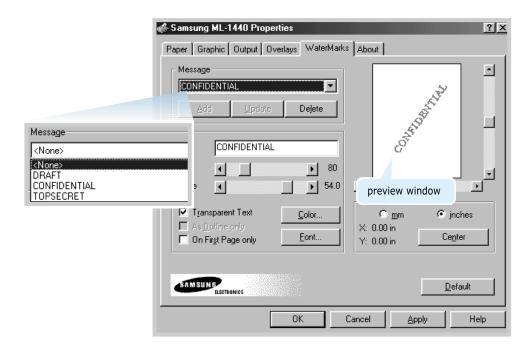


The Watermark option allows you to print text over an existing document. For example, you may want to have large gray letters reading "DRAFT" or "CONFIDENTIAL" printed diagonally across the first page or all pages of a document.

There are several predefined watermarks that come with the ML-1440 series printer, and they can be modified or you can add new ones to the list.

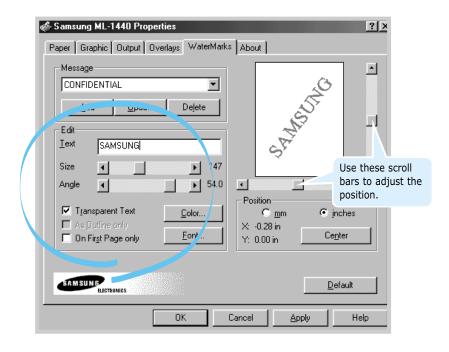
To use an existing watermark

- 1 When you change the print settings from your software application, access the printer properties. See page 5.2 for more information on accessing printer properties.
- 2 Click the WaterMark tab, and select the desired watermark in the Message drop-down list. You will see the selected watermark in the preview window.



To create or edit a watermark

- 1 When you change the print settings from your software application, access the printer properties. See page 5.2 for more information on accessing the printer properties.
- 2 Click the WaterMark tab, and enter the desired text message in the Text field. This will be displayed in the preview window. The preview window is provided so that you can see how the watermark will appear on the printed page.
- 3 Select the desired watermark options. You can select the font type and size, color and angle. There are three checkboxes at the bottom of the dialog box:
 - **Transparent Text** Allows the document to show through the watermark.
 - **As Outline only** Prints the text outline of the watermark. This setting globally effects all watermarks in the list.
 - On First Page only Prints the watermark only on the first page.





4 If you have created a new or edited an existing watermark, the Add and Update button is enabled.

To add a new watermark to the list, click **Add**.

- 5 If you want to edit, select the desired watermark from the list, edit, then click **Update**.
- 6 When you complete the edit, click **OK**, then start printing.

To stop printing the watermark, select **None** in the Message drop-down list.

To delete a watermark

- When you change the print settings from your software application, access the printer properties. See page 5.2 for more information on accessing the printer properties.
- 2 From the **WaterMark** tab, select the watermark you want to delete in the **Message** drop-down list.
- 3 Click **Delete**.
- 4 Click **OK**.

Using Page Overlay

What is an Overlay?



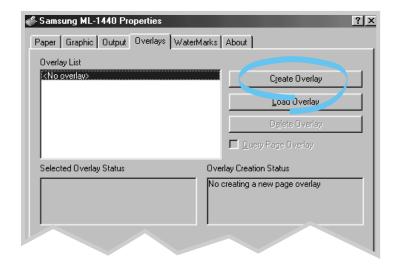
An overlay is text and/or images stored in the computer HDD as a special file format that can be printed on any document you choose. Overlays are often used to take the place of preprinted forms and letterhead paper. Rather than using preprinted letterhead, for example, you can create an overlay containing the exact same information that is currently on your letterhead. Then when you want to print a letter with your company's letterhead, you do not need to load preprinted letterhead paper in the printer. You need only to tell the printer to print the letterhead overlay on your document.

Creating a New Page Overlay

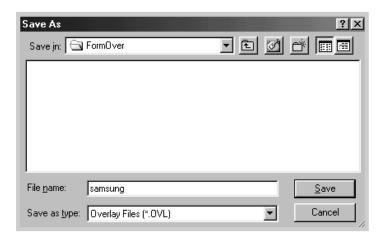


To use a page overlay, you must create a new page overlay containing your logo or image.

- 1 Create or open a document containing a text or image you want to use for page overlay. Position the items exactly as you wish them to appear when printed as an overlay. If needed, save the file for later use.
- 2 Select **Print** from the **File** menu. Then click **Properties** in the application's Print dialog box to access the printer properties. For details, see page 5.2.
- 3 Click the **Overlays** tab, and click **Create Overlay**.



4 In the Create Overlay dialog box, type a name of up to eight characters in the **File name** box. Select the destination path if necessary. (The default is C:\FORMOVER).



- 5 Click **Save**. You will see the name in the **Overlay List** box.
- 6 Click **OK** or **Yes** until you complete the creation.
 The file is not printed out. Instead it will be stored on your computer HDD disk.

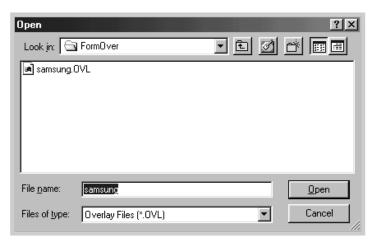
Note: The overlay document size must be the same as documents you will print with the overlay. Do not create overlay with the watermark.

Using Page Overlay

After an overlay has been created, it is ready to be printed with your document. To print an overlay with a document:

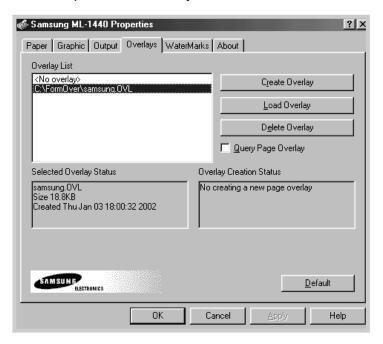
- 1 Create or open the document you want to print.
- 2 When you change the print settings from your software application, access the printer properties. See page 5.2 to access the printer properties.
- 3 Click the **Overlays** tab, and select the desired overlay from the **Overlay List** box.

4 If the desired overlay file does not appear in the **Overlay** List box, click Load **Overlay**, and select the overlay file.



If you have stored the overlay file you want to use into an external source, you can also load the file when you access this Load Overlay window.

After you select the file, click **Open**. The file is now shown in the **Overlay List** box and is available for printing. Select the overlay from the **Overlay List** box.



5 If necessary, click **Query Page Overlay**. If this box is checked, a message box will appear each time you submit a document for printing, asking you to confirm your wish to print an overlay on your document.

Answering **Yes** to the message box means that the selected overlay will be printed with your document. Answering **No** to the message box cancels overlay printing.

If this box is empty, and an overlay has been selected, the overlay will be automatically printed with your document.

6 Click **OK** or **Yes** until the printing starts.

The selected overlay will be downloaded with your print job and printed on your document.

Note: The overlay document resolution must be save as document you will print with the overlay.

Deleting a Page Overlay

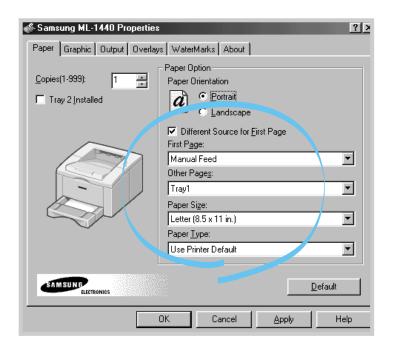
You can delete page overlays that are no longer used.

- 1 In the printer properties dialog box, click the **Overlays** tab.
- 2 Select the overlay you want to delete from the **Overlay** List box.
- 3 Click **Delete Overlay**.
- 4 Click **OK** until you exit the Print dialog box.

Printing on Different Paper for the First Page

- 1 When you change the print settings from your software application, access the printer properties. See page 5.2 to access the printer properties.
- 2 Click the Paper tab, and click Different Source for First Page.

If the box is checked, this feature is enabled and the dialog box allows you to select the desired paper source for the **First Page** and **Other Pages** independently. If the box is empty, this feature is disabled.



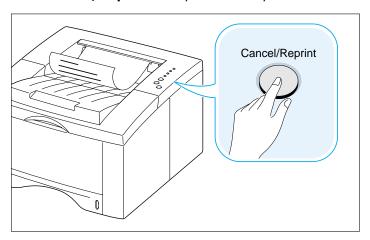
3 Click **OK**, then start printing.

Note: The paper size for all pages of the print job must be the same.

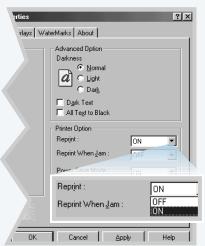
Reprinting the Last Page

The Samsung ML-1440 printer's memory always keep the last page of the last job. If you canceled a print job due to a paper jam or other problems and you want to know which page was printed last, reprint the last page.

Press **Cancel/Reprint** briefly in the ready mode.



Note: If you want to prevent somebody from reprinting your document, you can turn the Reprinting feature off in the printer's properties dialog box. When you turn the feature off in the printer's properties, the **Cancel/Reprint** button on the control panel does not perform the reprinting operation.



To disable this feature:

- 1. From the **Start** menu, select **Settings** and then **Printers**.
- Click the right mouse button on the Samsung ML-1440 Series printer icon and select Properties to open the properties window.
- 3. From the **Graphic** tab, Select **OFF** from the **Reprint** drop-down list.

With this option **OFF**, you cannot reprint the last page from the control panel.

When you want to reprint the last page on the control panel, you must select **ON** from the list.

4. Click OK.

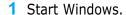
Printing on a Network Environment

If you work in a network environment, you can connect your printer directly to a selected computer (called the "host computer") on the network. The printer can then be shared by other users on the network through a Windows 9x/Me/NT 4.0/2000/XP network printer connection.

Note: You need to install the Samsung ML-1440 printer driver on each computer that will print documents to the printer.

Windows 9x/Me

Setting Up Host Computer





- 2 Click Start and select Control Panel from Settings, then double-click on the Network icon.
- 3 Check the File and Print Sharing box, then click OK. Close the window.
- 4 Click **Start** and select **Printers** from **Settings**, then double-click your printer name.
- 5 Select **Properties** in the **Printer** menu.
- 6 Click the **Sharing** tab, then check the **Shared As** box. Fill in the **Shared Name** field, then click **OK**.

Setting Up Client PC



- 1 Right-click **Start**, and select **Explorer**.
- 2 Open your network folder in the left column.
- 3 Right-click the shared name, and select Capture **Printer Port.**
- 4 Select the port you want, check the **Reconnect at log** on box, then click OK.
- 5 From the **Start** menu, select **Settings**, then **Printers**.
- 6 Double-click your printer icon.
- 7 From the **Printer** menu, select **Properties**.
- 8 Press the **Details** tab, select the printer port, then click OK.

Windows NT/2000/XP

Setting Up Host Computer

- 1 Start Windows.
- 2 From the Start menu, select Settings, then Printers. (Windows NT/2000) From the Start menu, select Printers and Faxes. (Windows XP)
- 3 Double-click your printer icon.
- 4 From the **Printer** menu, select **Sharing**.
- 5 Check the Shared box. (Windows NT) Check the Shared As box. (Windows 2000) Check the Share this printer box. (Windows XP)

Fill in the **Share Name** field, then click **OK**. (Windows NT)
Fill in the **Shared Name** field, then click **OK**. (Windows 2000/XP)

Setting Up Client PC

- 1 Right-click **Start**, and select **Explorer**.
- 2 Open your network folder in the left column.
- 3 Click the shared name.
- 4 From the **Start** menu, select **Settings**, then **Printers**. (Windows NT/2000)
 From the **Start** menu, select **Printers and Faxes**. (Windows XP)
- 5 Double-click your printer icon.
- 6 From the **Printer** menu, select **Properties**.
- 7 Press the **Ports** tab, click **Add Port**.
- 8 Select **Local port**, and click **New Port**.
- **9** Fill in the **Enter a port name** field, enter the shared name.
- 10 Click **OK**, and click **Close** .
- 11 Click **OK**. (Windows NT)
 Click **Apply**, and click **OK**. (Windows 2000/XP)





Maintaining Your Printer

This chapter provides suggestions for high-quality and economical printing and information for maintaining the toner cartridge and the printer.

Topics included in this chapter are:

- ◆ Maintaining Toner Cartridge
- ♦ Cleaning the Printer

Maintaining Toner Cartridge

Toner cartridge storage

To get the most from the toner cartridge, keep the following quidelines in your mind.

- Do not remove the toner cartridge from its package until you are ready to use it. The shelf life of a cartridge in an unopened package is approximately 2 years. The shelf life of a cartridge in an opened package is approximately 6 months.
- Do not refill toner cartridges. The printer warranty does not cover damage caused by using a refilled cartridge.
- Store toner cartridges in the same environment as the printer.
- Do not remove a toner cartridge from the printer except to replace it, clean it or clear a paper jam. Replace the cartridge immediately.
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes.

Toner cartridge life expectancy

The life of the toner cartridge depends on the amount of toner that print jobs require. When printing text at 5 % coverage, a new toner cartridge lasts an average of 6,000 pages. (But, the toner cartridge supplied with the printer lasts an average of 3,000 pages.)

Recycling toner cartridge

After you install a new toner cartridge (see page 2.3), follow the instructions included in the toner cartridge box to recycle the old cartridge.

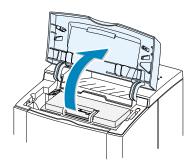
Saving toner

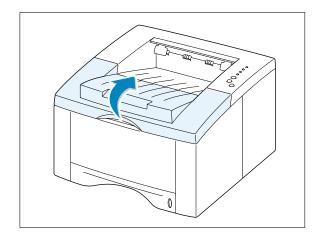
To save toner, press the **Toner Save** button on the printer control panel. The button will be lit. You can also enable the **Toner Save Mode** in your printer properties. Refer to "Using Toner Save Mode" on page 5.6. Selecting this option will expand the life of the toner cartridge and reduce your cost per page, but will reduce print quality.

Redistributing Toner

When toner is low, faded or light areas may appear on a printed page. You may be able to temporarily improve print quality by redistributing the toner. The following procedures may allow you to finish the current print job before replacing the toner cartridge.

Open the top cover.

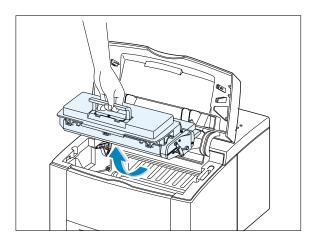




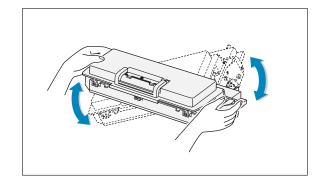
2 Remove the toner cartridge from the printer.

CAUTIONS:

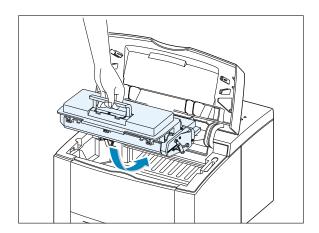
- Avoid reaching too far into the printer. The fusing area may be hot.
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes.



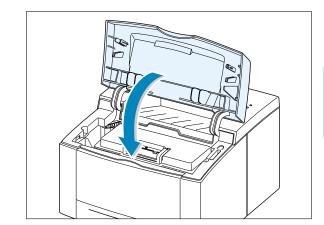
- **3** Gently shake the toner cartridge from side to side 5 or 6 times to redistribute the toner.
 - Note: If the toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.



4 Reinsert the toner cartridge into the printer. Be sure that the toner cartridge is firmly in its place.



5 Firmly close the cover.



If the print remains light

Remove the old cartridge and install a new toner cartridge. See "Install the Toner Cartridge" on page 2.3.

Cleaning the Printer

To maintain print quality, follow the cleaning procedures below every time the toner cartridge is replaced or whenever print quality problems occur. As much as possible, keep the printer free from dust and debris.

Notes:

- Do not use ammonia-based cleaners or volatile solvents such as thinner, on or around the printer. These can damage the printer.
- While cleaning the inside of the printer, be careful not to touch the transfer roller (located underneath the toner cartridge). The oil from your hands on the roller can cause print quality problems.

Cleaning the Outside

Wipe the outside surface of the printer with a soft, clean, lint-free cloth. You can dampen the cloth slightly with water, but be careful not to be let any water drip onto the printer or inside of it.

Cleaning the Inside

During the printing process, paper, toner, and dust particles can accumulate inside the printer. Over time, this buildup can cause print quality problems such as toner specks or smearing. Cleaning inside the printer will eliminate or reduce these problems.

Cleaning inside the printer

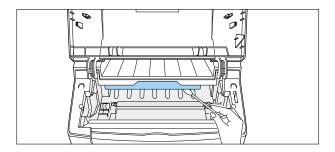
- 1 Turn the printer off and unplug the power cord, then wait for the printer to cool.
- 2 Open the top cover and remove the toner cartridge.

Note: To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary. Also, do not touch the black transfer roller inside the printer. By doing so, you can damage the printer.

3 With a dry, lint-free cloth, wipe away any dust and spilled toner from the toner cartridge area and the toner cartridge cavity.



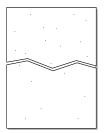
4 Locate the long strip of glass (LSU) inside the top of the cartridge compartment, and gently swab the glass to see if dirt turns the white cotton black.



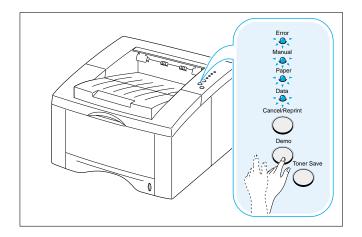
5 Reinsert the toner cartridge and close the top cover. Then, turn the printer on.

Printing a cleaning sheet

Printing a cleaning sheet cleans the drum inside the toner cartridge. Use this process if you are experiencing blurred, faded or smeared printouts. This process will produce a page with toner debris, which should be discarded.



- 1 Make sure the printer is turned on and in the ready state and that there is paper loaded in the paper tray.
- 2 Press and hold **Demo** on the control panel for about 10 seconds until all control panel lights remain steadily lit, then release.



Note: The cartridge cleaning process takes some time. To stop the printing, **turn the power off**.

3 Your printer automatically picks up a sheet of paper from the paper tray and prints out a cleaning sheet with the dust or toner particles on it.





Problem Solving

This chapter gives helpful information for what to do if you encounter a printer error. It provides information on the following topics:

- ◆ Troubleshooting Checklist
- ◆ Solving General Printing Problems
- ♦ Clearing Paper Jams
- ♦ Solving Print Quality Problems
- ◆ Troubleshooting Error Messages
- ♦ Common Windows Problems
- ♦ Common Macintosh Problems

Troubleshooting Checklist

If the printer is not working properly, complete the following checklist in order. If the printer does not pass a step, follow the corresponding troubleshooting suggestions.

Check	Solution	
Make sure that the Data light on the control panel is on.	 If no lights are on, check the power cord connection. Check the power switch. Check the power source by plugging into another outlet. If other lights are on, go to "Troubleshooting Error Messages" on page 7.21. 	
Press the Demo button to print a demo page to verify that the printer is feeding paper correctly. See page 2.9.	 If a demo page does not print, check the paper supply in the paper tray. If the paper jams in the printer, go to "Clearing Paper Jams" on page 7.6. If the Error indicator light is illuminated on the control panel, go to "Troubleshooting Error Messages" on page 7.21. 	
Check the demo page to see if it is printed correctly.	If there is a print quality problem, go to "Solving Print Quality Problems" on page 7.15.	
Print a short document from a software application to verify that the computer and printer are connected and are communicating correctly.	 If the page does not print, check the cable connection between the printer and computer. Check the print queue or print spooler (print monitor in Mac) to see if the printer has been paused. Check the software application to make sure you are using the proper printer driver and communication port. If the page is interrupted during printing, go to "Solving General Printing Problems" on page 7.2. 	
If completing the checklist did not diagnose the problem with the printer, check the following troubleshooting sections.	 "Solving General Printing Problems" on page 7.2. "Troubleshooting Error Messages" on page 7.21. "Common Windows Problems" on page 7.24. "Common Macintosh Problems" on page 7.25. 	

Solving General Printing Problems

If you have any problems with the operation of your ML-1440 printer, refer to the table for suggested solutions.

Problem	Possible Cause	Solution
The printer does not print.	The printer is not receiving power.	If no lights are on, check the power cord connections. Check the power switch and the power source.
	Your printer is not selected as the default printer.	Select Samsung ML-1440 Series as your default printer.
	Check the printer for the following:	 The printer cover is not closed. Paper is jammed. No paper is loaded. Toner cartridge is not installed. Printer system error occurs. Contact a service representative.
	The printer may be in manual feed mode and out of paper. (The Manual and the Data lights are blinking.)	Add paper to the Manual tray, and press the Demo button on the printer's control panel.
	The connection cable between the computer and the printer is not connected properly.	Disconnect the printer cable and reconnect it.
	The connection cable between the computer and the printer is defective.	If possible, attach the cable to another computer that is working properly and print a job. You may also try using a different printer cable.
	The port setting is incorrect.	Check the Windows printer setting to make sure that the print job is sent to the correct port (for example, LPT1). If the computer has more than one port, make sure the printer is attached to the correct one.

Problem	Possible Cause	Solution
The printer does not print. (continued)	The printer may be configured incorrectly.	Check the printer properties to make sure that all print settings are correct.
	The printer driver may be incorrectly installed.	Remove the printer driver, then reinstall the printer driver. Try printing a demo page.
	The printer is malfunctioning.	Check the lights on the control panel to determine if the printer is indicating a system error.
Printer selects media from the wrong paper source.	The paper source selection in the printer properties may be incorrect.	For many software applications the paper source selection is found under the Paper tab within the printer properties. Select the correct paper source.
Paper does not feed into the printer.	Paper has not been loaded correctly.	Remove paper from the paper tray and reload it correctly.
	There is too much paper in the paper tray.	Remove excess paper from the tray.
	The paper is too thick.	Use only paper that meets the specifications required by the printer.
Print job is extremely slow.	The job may be very complex. The maximum speed of 14 pages per minute cannot be exceeded even when more memory is added.	Reduce the complexity of the page or try adjusting the print quality settings. If this problem occurs frequently, add memory to the printer.
	If using Windows 9x/Me, the Spooling Setting may be set incorrectly.	From the Start menu, choose Settings and Printers . Right-click the Samsung ML-1440 Series printer icon, choose Properties , click the Details tab, and then choose the Spool Settings button. Select the desired spool setting from the available choices.

Problem	Possible Cause	Solution
Half of the page is blank.	The page layout is too complex.	Simplify the page layout and remove any unnecessary graphics from the document, if possible.
	The page orientation setting may be incorrect.	Change the page orientation in your application.
	The paper size and the paper size settings do not match.	Make sure that the paper size in the print settings matches the paper in the paper tray.
The paper keeps jamming.	There is too much paper in the paper tray.	Remove excess paper from the tray. If printing special media, use the Manual Tray.
	An incorrect type of paper is being used.	Use only paper that meets the specifications required by the printer.
	An incorrect output method is being used.	Media such as thick paper should not be printed using the standard face- down stacker. Use the rear face-up output tray instead.
	There may be debris inside the machine.	Open the top cover and remove the debris.
The printer prints, but the text is wrong, garbled, or incomplete.	The printer cable is loose or defective.	Disconnect the printer cable and reconnect it. Try a print job that you know works. If possible, attach the cable and printer to another computer and try a print job that you know works. Finally, try a new printer cable.
	The wrong printer driver was selected.	Check the application's printer selection menu to make sure that your printer is selected.

Problem	Possible Cause	Solution
The printer prints, but the text is wrong, garbled, or incomplete. (continued)	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	Exit Windows and reboot the computer. Turn the printer off and then back on again.
Pages print, but are totally blank.	The toner cartridge is defective or out of toner.	Replace the toner cartridge.
	The sealing tape may still be in the toner cartridge.	Remove the toner cartridge and pull out the sealing tape. Reinstall the toner cartridge, and check by printing a demo page.
	The file may have blank pages.	Check the file to make sure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.

Clearing Paper Jams

Occasionally, paper can become jammed during a print job. Some of the causes include:

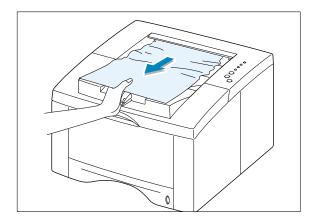
- The paper tray is loaded improperly or overfilled.
- The paper tray has been pulled out during a print job.
- The top cover has been opened during a print job.
- Paper that does not meet paper specifications has been used. See "Paper Specifications" on page A.2.
- Paper that is outside of the supported size range has been used. See "Paper Specifications" on page A.2.

If a paper jam occurs, the **Paper** and the **Error** lights remain lit on the control panel. Find and remove the jammed paper. If the location of the paper jam is not obvious, look inside the printer.

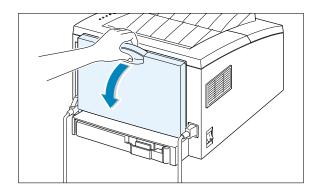
Output Area

Note: Paper jams in this area may result in loose toner on the page. If you get any toner on your clothes, wash them in cold water because hot water will set the toner into the fabric.

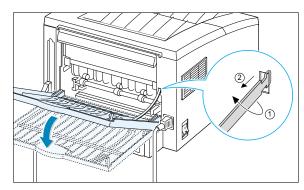
If the paper is almost completely visible from the top output tray, pull the remaining paper carefully out of the printer.



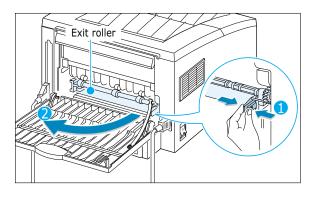
2 If the jammed paper is not visible or there is resistance when you pull the paper, open the rear output tray.



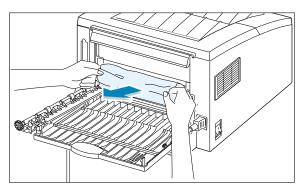
3 Remove the stopper as shown, then push the tray down so that it is open at 90 degrees angle.



4 If there is resistance when you pull the paper, squeeze the handle on the right end of the exit roller 1, then pull the roller in the direction of arrow 2.

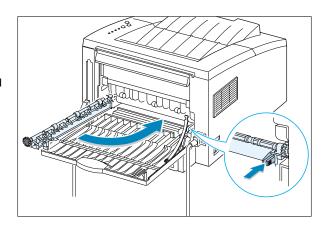


5 Remove the jammed paper.

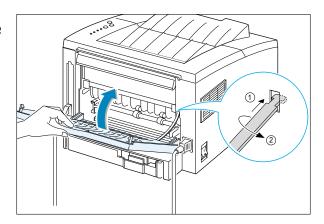


6 Replace the exit roller.

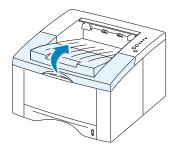
Make sure that you click the right end of the roller back in place. If you fail to do so, the printer system will recognize that the printer cover is open or that a system fuser error has occurred, and the Error light on the control panel will turn on.



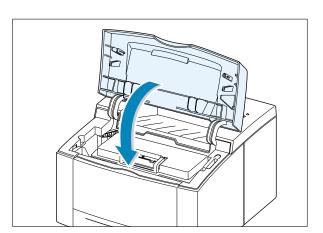
Replace the stopper as shown, and close the rear output tray.



8 To resume printing, open the top cover, and then close it close it again.



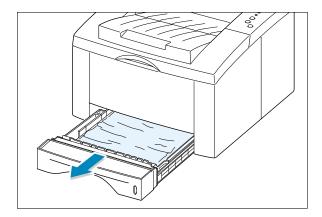
Note: If the Paper and the Error lights do not turn off, there is still jammed paper inside the printer. Check the input area and the inside of the printer.



Input Area

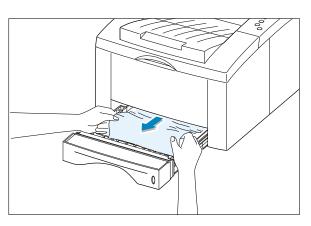
Note: If paper has entered the toner cartridge area, follow the instructions on page 7.10. It is easier to remove such jams from the inside of the printer than the paper input area.

Slide out Auto tray to expose the jammed paper.

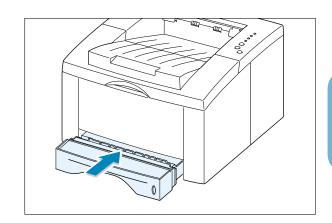


2 Remove any misfed paper by pulling it out by the visible edge from the tray. Make sure that all of the paper is properly aligned in the tray.

Note: If the paper is jammed in the paper feed area and cannot be accessed from inside the printer, remove Tray 1 from the printer and carefully pull the jammed paper free from the printer.

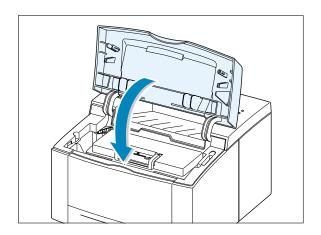


3 Slide the tray back into the printer.



Clearing Paper Jams

- 4 To resume printing, open the top cover, and then close it again.
 - Note: If the Paper and the Error lights do not turn off, there is still jammed paper inside the printer. Check the inside of the printer.

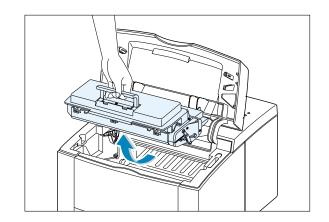


Inside the Printer

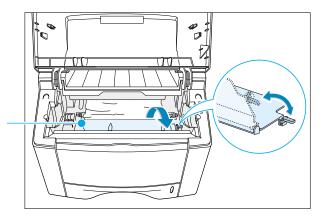
Note: Paper jams in this area may result in loose toner on the page. If you get any toner on your clothes, wash them in cold water because hot water will set the toner into the fabric.

Open the top cover and remove the toner cartridge.

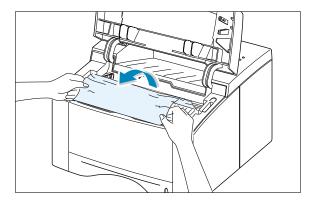
> **CAUTION:** To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Place a piece of paper over the top of the toner cartridge to shield it while it is out of the printer.



Carefully lift up the guide feed.

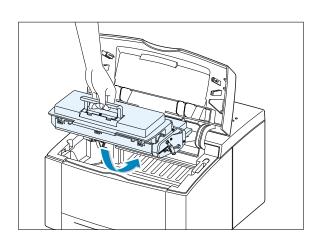


3 Gently pull the paper toward you to remove it from the printer.

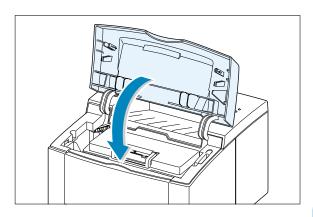


4 Flip down the guide feed, and reinstall the toner cartridge.

> Note: If the toner cartridge is difficult to reinstall, make sure the guide feed has been flipped back down into position.



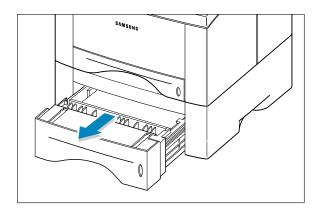
5 Close the top cover. Printing can be resumed.



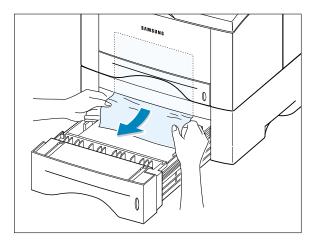
Note: If you have the optional Tray 2 installed, and cannot find the jammed paper in the output or input area, or inside the printer, the paper jam may have occurred in the optional Tray 2. See the next page to clear the jammed paper in the optional tray.

In the Optional Tray 2

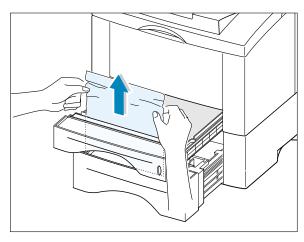
1 Pull the option Tray 2 out of the printer.



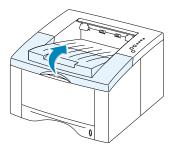
2 If you see the jammed paper, remove the paper from the tray.

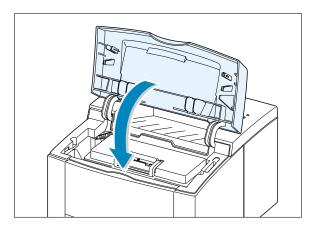


3 If you cannot find the jammed paper in the Tray 2, pull the upper Tray 1 half way out of the printer, and remove the paper as shown in the figure at right.



4 Slide the trays back into the printer. Open the top cover, then close it again. Printing can be resumed.





Tips for Avoiding Paper Jams

By selecting correct paper types and loading them properly, you should be able to avoid most paper jams. If paper jams occur, follow the steps outlined in "Clearing Paper Jams" on page 7.6. If jams occur frequently, make sure you are following these tips to avoid jams.

- Follow the procedures in "**Load Paper**" on page 2.5 to load the paper properly. Make sure the adjustable guides are positioned correctly.
- Do not overload the paper tray. Make sure the paper is under the paper capacity mark on the inside of the paper tray.
- Do not pull out the paper tray while print jobs are in process.
- Flex, fan and straighten the paper before loading it.
- Do not load stacks of labels or transparencies in the Tray 1. Labels or transparencies must be fed using the Manual Tray.
- Do not load wrinkled, creased, damp or highly curled paper.
- Do not mix paper types in the paper tray.
- Use only recommended print media. See "Paper Specifications" on page A.2.
- Make sure that the recommended print side is facing down when loading the paper into the Tray 1 or optional Tray 2 and facing up when loading into the Manual Tray.
- Keep print media stored in an acceptable environment.

Solving Print Quality Problems

Print Quality Checklist

General print quality problems can be solved by following the checklist below.

- Check the printer properties to make sure that you are using the best available print quality option (see page 5.18).
- Redistribute the toner in the toner cartridge (see page 6.2).
- Clean the inside of the printer (see page 6.4).
- Adjust the print resolution from the printer properties (see page 5.18).
- Check to make sure that Toner Save Mode is off (see page 5.6).
- Troubleshoot general printing problems (see page 7.2).
- Install a new toner cartridge, then check print quality again (see page 2.3).

Solving Print Quality Problems

Problem	Solution
Light or faded print	If a vertical white streak or faded area appears on the page:
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 The toner supply is low. You may be able to temporarily extend the toner cartridge life. See "Redistributing the Toner" on page 6.2. If this does not improve the print quality, install a new toner cartridge. The paper may not meet paper specifications (for example, the paper is too moist or too rough). See "Paper Specifications" on page A.2. If the whole page is light, the print resolution setting is too light or Toner Save Mode may be on. Adjust the print resolution and darkness setting within the printer properties. See page 5.6 and 5.18 respectively. A combination of faded and smeared defects may indicate that the toner cartridge needs cleaning. See "Cleaning the Printer" on page 6.4. The surface of the LSU part inside the printer may be dirty. Clean the LSU (see page 6.5).

Problem	Solution
Toner specks AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 The paper may not meet paper specifications (for example, the paper is too moist or too rough). See "Paper Specifications" on page A.2. The transfer roller may be dirty. See "Cleaning the Inside" on page 6.4. The paper path may need cleaning. See "Cleaning the Inside" on page 6.4.
Dropouts	If faded areas, generally rounded, occur randomly on the page:
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 A single sheet of paper may be defective. Try reprinting the job. The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different kind or brand of paper. See "Paper Specifications" on page A.2. The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. The toner cartridge may be defective. See "Repetitive vertical defects" on page 7.17. If these steps do not correct the problems, contact a service representative.
Vertical lines AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 If black vertical streaks appear on the page: The photosensitive drum inside the toner cartridge has probably been scratched. Install a new toner cartridge. If white vertical streaks appear on the page: The surface of the LSU part inside the printer may be dirty. Clean the LSU (see page 6.5).

Problem	Solution
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 If the amount of background toner shading becomes unacceptable, the procedures below may help to clear the condition: Change the paper to a lighter basis weight. See "Paper Specifications" on page A.2. Check the printer's environment; very dry (low humidity) or high humidity (higher than 80 % RH) conditions can increase the amount of background shading. Install a new toner cartridge.
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 Clean the inside of the printer. See "Cleaning the Inside" on page 6.4. Check the paper type and quality. See "Paper Specifications" on page A.2. Try installing a new toner cartridge.
Repetitive vertical defects AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 If marks repeatedly appear on the printed side of the page at even intervals: The toner cartridge may be damaged. If a repetitive mark occurs every 95 mm or 38 mm on the page, print the cleaning sheet several times to clean the cartridge (see page 6.5). If you still have the same problems, install a new toner cartridge. Parts in the printer may have toner on them. If the defects occur on the back of the page, the problem will likely correct itself after a few more pages. The fusing assembly may be damaged. Contact a service representative.

Problem	Solution
Background scatter	Background scatter results from bits of toner distributed on the printed page.
	 The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture from the air. If background scatter occurs on an envelope, change your printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause this problem. If background scatter covers the entire surface of a printed page, adjust the print resolution through your software application or the printer properties.
Misformed characters AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 If characters are improperly formed, producing hollow images, the paper stock may be too slick. Try a different paper. See "Paper Specifications" on page A.2. If characters are improperly formed, producing a wavy effect, the scanner unit may need service. Check to see if it also occurs on a demo page by pressing the Demo button on the control panel when the printer is ready. If you need service, contact a service representative.
Page skew AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 Check the paper type and quality. See "Paper Specifications" on page A.2. Make sure that the paper or other media is loaded correctly and the guides are not too tight or too loose against the paper stack.

Problem	Solution
Curl or wave AaBbCC AaBbCC AaBbCC AaBbCC AaBbCC AaBbCC	 Check the paper type and quality. Both high temperature and humidity will cause paper curl. See "Paper Specifications" on page A.2. Turn over the stack of paper in the paper tray. Also try rotating the paper 180° in the paper tray. Open the rear output tray and try printing to the face up output tray.
Wrinkles or creases AabbCc AabbCc AabbCc AabbCc AabbCc AabbCc AabbCc	 Make sure that paper is loaded properly. Check the paper type and quality. See "Paper Specifications" on page A.2. Open the rear output tray and try printing to the face up output tray. Turn over the stack of paper in the paper tray. Also try rotating the paper 180° in the tray.
AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 The transfer roller may be dirty. See "Cleaning the Inside" on page 6.4. Check if the toner is leaking. Clean inside the printer.
Black pages	 The toner cartridge may not be installed properly. Remove the cartridge and reinsert it. The toner cartridge may be defective and need replacing. Install a new toner cartridge. The printer may require repairs. Contact a service representative.

Problem	Solution
AaBbCc AaEbCc AaEbCc AaEbCc AaCbCc AaCc	 Clean the inside of the printer. Check the paper type and quality. See "Paper Specifications" on page A.2. Try installing a new toner cartridge. If the problem persists, the printer may require repairs. Contact a service representative.
Character Voids	 Character voids are white areas within the parts of characters that should be solid black: If you are using transparencies when you experience this problem, try another type of transparency. (Because of the composition of transparency media, some character voids are normal.) You may be printing on the wrong surface of the paper. Remove the paper and turn it around. The paper may not meet paper specifications. See "Paper Specifications" on page A.2.
Horizontal stripes AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc AaBbCc	 If horizontally aligned black streaks or smears appear: The toner cartridge may be installed improperly. Remove the cartridge and reinsert it. The toner cartridge may be defective. Install a new toner cartridge. If the problem persists, the printer may require repairs. Contact a service representative.

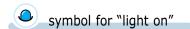
Troubleshooting Error Messages

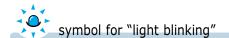
When the printer detects an error, the control panel indicator lights will indicate error messages. Find the light pattern below that matches the printer light pattern and follow the solutions to clear the error.

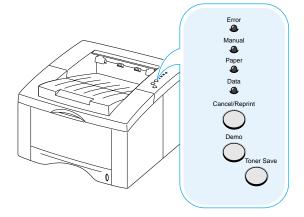
Printer Light Patterns

Light status legend









Error

Manual

Paper

Data

Power off

- Check the power cord and the power switch if your printer does not generate a response.
- Make sure that the printer is powered with the specified AC voltage.





Data

Paper out

The printer is out of paper in the paper tray. The **Paper** light blinks until paper is added.

• Loading paper into the tray will cancel this message and allow you to continue with the print job.

Troubleshooting Error Messages







Paper out in the manual feed mode

While printing in the manual feed mode, the printer is out of paper in the Manual Tray.

• Load the correct paper into the Manual Tray and press the **Demo** button on the control panel to print each page.











Paper jam

Paper is jammed inside the printer.

• Clear the paper jam. See "Clearing Paper Jams" on page 7.6.









Door open, or no toner cartridge

The printer top cover may be opened or the toner cartridge is not installed.

- Check that the printer top cover door and rear door (face-up output tray) are closed properly.
- Make sure that the toner cartridge is correctly installed in the printer.









Memory out

The printer memory ran out of memory in the middle of a print job. The page being printed may have been too complex for the memory capacity of the printer. Press the **Cancel/Reprint** button to cancel the current job.

- Try to free some printer memory by removing any unnecessary fonts, macros, or any data currently in printer memory.
- For a temporary solution, simplify the image or print at a lower resolution.



LSU error

- Reset the printer by briefly turning the printer off and back on again.
- If the error persists, contact the service representative.



Data Data

Engine Over Heat error

- Reset the printer by briefly turning the printer off and back on again.
- If the error persists, contact the service representative.



System error(No Heat error)

- Reset the printer by briefly turning the printer off and back on again.
- If the error persists, contact the service representative.



Open Fuser error

- Reset the printer by briefly turning the printer off and back on again.
- If the error persists, contact the service representative.

Common Windows Problems

Problem	Possible Cause and Solution
"File in Use" message appears during installation.	Quit all software applications. Remove all software from the StartUp Group, then restart Windows. Reinstall the printer driver.
"Error Writing to LPTx" message appears.	• Make sure that the cables are connected correctly, the printer is on, and the Data light on the control panel is on.
	 If bi-directional communication is not turned on in the driver, it will also cause this message.
	 From the Start menu, select Settings, then Printers. Right-click on the Samsung ML-1440 Series printer icon and select Properties. From the Details tab, click on Port Settings. Remove check from Check Port State before Printing box and click OK. From Spool Settings, select Print Directly to Printer and click OK. Try printing again.
"General Protection Fault", "Exception OE", "Spool32", or "Illegal Operation" messages appears.	Close all other applications, reboot Windows, and try printing again.

Note: Refer to Microsoft Windows 9x, Me, NT 4.0, 2000 or XP documentation that came with your PC for further information on Windows error messages.

Common Macintosh Problems

Problems in the Chooser

Problem	Possible Cause and Solution
The printer driver icon does not appear in the Chooser .	Software is not installed correctly.
	• The LaserWriter driver should be present as a part of the Macintosh OS. Make sure that the LaserWriter driver is in the Extensions folder within the Systems folder. If not, install the LaserWriter driver component from the Macintosh OS CD.
	• Make sure that you are using a high-quality cable.
	 Make sure that the printer is on the correct network. Select Network or AppleTalk Control Panel from Control Panels in the Apple menu and then choose the correct network.

Printing Errors

Problem	Possible Cause and Solution
You cannot use the computer while the printer is printing.	 For LaserWriter 8.3, turn Background Printing on in the Chooser. Status messages will now be redirected to the Print Monitor allowing you to continue working while the computer is processing data to be sent to the printer. For LaserWriter 8.4 or higher, turn Background Printing
	on at the Print dialog box.



Appendix

This appendix provides information on the following topics:

- ♦ Printer Specifications
- **♦** Paper Specifications
- ♦ Using Your Printer with Macintosh
- ♦ Linux SPL Driver Installation
- ♦ Using Paper Tray 2 (Option)

Printer Specifications

Item	Specification and Description
Print Speed	14 PPM (A4), 15 PPM (Letter)
Resolution	True 600 x 600 dpi
First Printing Time	Less than 15 seconds
WarmUp Time	Less than 40 seconds
Power Rating	AC 100 ~ 127 V (USA, Canada) / 200 ~ 240 V (Others), 50 / 60 Hz
Power Consumption	350 W average during operation / Less than 12 W in power-save mode
Acoustic Noise	Stand by: Less than 35 dB; Operating: Less than 48 dB
Toner Supply	Single cartridge
Toner Cartridge Life	6,000 pages (for starter, 3,000 pages), 5% area coverage
Duty Cycle	Monthly: 12,000 pages maximum
Weight	11 Kg / 24.3 lb.
Package Weight	Paper: 1.7 Kg Plastic: 0.33 Kg
External Dimensions	362 (W) x 409 (D) x 249.5 (H) mm (without options)
Operating Environment	Temperature:10 \sim 32 °C / 50 \sim 90 °F; Humidity: 20 \sim 80 % RH
Emulation	SPL
Memory(RAM)	Standard: 8MB (Not Expandable)
Interface Switching	Automatic (Parallel, USB)
Interface	 14PPM (A4) Bidirectional Parallel Standard Modes supported: Compatible, Nibble, ECP USB Interface Standard USB 1.1 compliant

Paper Specifications

Overview

This printer accepts a variety of media, such as cut-sheet paper (including up to 100 % recycled fiber content paper), envelopes, labels, transparencies and custom-size paper. Properties such as weight, composition, grain and moisture content are important factors affecting printer performance and output quality. Paper that does not meet the guidelines outlined in this manual can cause the following problems:

- Poor print quality
- Increased paper jams
- Premature wear on the printer, requiring repairs.

Notes:

- Some paper may meet all of the guidelines in this manual and still not produce satisfactory
 results. This might be the result of improper handling, unacceptable temperature and humidity
 levels, or other variables over which Samsung has no control.
- Before purchasing large quantities of paper, make sure that the paper meets the requirements specified in this user guide. Always test paper before buying large quantities.

CAUTION: Using paper that does not meet that stated specifications may cause problems for the printer, requiring repairs. Repairs made necessary by the use of paper not specified in this manual are not covered by the Samsung warranty or service agreements.

Supported Sizes of Paper

Tray 1	Dimensions ^a	Weight	Capacity⁵
Letter	8.5 X 11 in. (216 X 279 mm)		
A4	210 X 297 mm (8.3 X 11.7 in.)		
Executive	7.25 X 10.5 in. (191 X 267 mm)		270 sheets of
Legal	8.5 X 14 in. (216 X 356 mm)	16 to 28 lb Bond	20 lb Bond
B5 (JIS)	182 X 257 mm (7.2 X 10 in.)	(60 to 105 g/m ²)	(75 g/m²)
Folio	216 X 330 mm (8.5 X 13 in.)		paper
A5	148 X 210 mm		
A6	105 X 148 mm		

Optional Tray 2	Dimensions	Weight	Capacity⁵
Letter	8.5 X 11 in. (216 X 279 mm)		
A4	210 X 297 mm (8.3 X 11.7 in.)		
Executive	7.3 X 10.5 in. (191 X 267 mm)		550 sheets of
Legal	8.5 X 14 in. (216 X 356 mm)	16 to 28 lb Bond	20 lb Bond
B5 (JIS)	182 X 257 mm (7.2 X 10 in.)	(60 to 105 g/m ²)	(75 g/m²)
Folio	216 X 330 mm (8.5 X 13 in.)		paper
A5	148 X 210 mm		

Manual Tray	Dimensions ^a	Weight	Capacity⁵
Minimum Size (custom)	98 X 148 mm (3.9 X 5.83 in.)	60 to 163 g/m ² Bond	
Maximum Size (custom)	216 X 356 mm (8.5 X 14 in.)	(16 to 43 lb)	
Transparency	Companie	Thickness: .10 X .14 mm (0.0039 X 0.0055 in.)	1 sheets of paper
Labels ^c	Same minimum and maximum paper sizes as listed above.	Thickness: .10 X .14 mm (0.0039 X 0.0055 in.)	
Envelopes		up to 90 g/m ² (16-24 lb)	

- a. The printer supports a wide range of media sizes. See "Printing on Card Stock or Custom-Sized Media" on page 4.15.
- b. Capacity may vary depending on media weight and thickness, and environmental conditions.
- c. Smoothness 100 to 250 (Sheffield)

Note: You may experience some paper jams when using any media with a length of less than 148 mm (5.83 in.). For optimum performance, make sure you are storing and handling the paper correctly. Please refer to "Printer and Paper Storage Environment" on page A.6.

Guidelines for Using Paper

For best results, use conventional 90 g/m 2 (24 lb) paper. Make sure the paper is of good quality, and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, and curled or bent edges.

If you are unsure of what type of paper you are loading (such as bond or recycled), check the label on the package of the paper.

The following problems with paper can cause print quality deviations, jamming, or even damage to the printer.

Symptom	Problem with Paper	Solution
Poor print quality or toner adhesion Problems with feeding	Too moist, too rough, too smooth, or embossed; faulty paper lot	Try another kind of paper, between 100 ~ 250 Sheffield, 4 ~ 5 % moisture content.
Dropout, jamming, curl	Stored improperly	Store paper flat in its moisture- proof wrapping.
Increased gray background shading /printer wear	Too heavy	Use lighter paper, open the rear output tray.
Excessive curl problems with feeding	Too moist, wrong grain direction or short-grain construction	Open the rear output tray.Use long-grain paper.
Jamming, damage to printer	Cutouts or perforations	Do not use paper with cutouts or perforations.
Problems with feeding	Ragged edges	Use good quality paper

Notes:

- Do not use letterhead paper that is printed with low-temperature inks, such as those used in some types of thermography.
- Do not use raised or embossed letterhead.
- The printer uses heat and pressure to fuse toner to the paper. Make sure that any colored paper or
 preprinted forms use inks that are compatible with this fusing temperature (200 °C or 392 °F for 0.1
 second).

Paper Specifications

Category	Specifications	
Acid Content	5.5 ~ 8.0 pH	
Caliper	.094 ~ .18 mm (3.0 ~ 7.0 mils)	
Curl in Ream	Flat within 5 mm (.02 in.)	
Cut Edge Conditions	Cut with sharp blades with no visible fray.	
Fusing Compatibility	Must not scorch, melt, offset, or release hazardous emissions when heated to 200 °C (392 °F) for .1 second.	
Grain	Long Grain	
Moisture Content	4 % ~ 6 % by weight	
Smoothness	100 ~ 250 Sheffield	

Paper Output Capacity

Output Tray	Capacity
Top output (Face-down) tray	250 sheets of 20 lb bond (75 g/m²) paper
Rear output (Face-up) tray	100 sheets of 20 lb bond (75 g/m²) paper

Printer and Paper Storage Environment

Ideally, the printer and paper storage environment should be at or near room temperature, and not too dry or humid. Remember that paper absorbs and loses moisture rapidly.

Heat works with humidity to damage paper. Heat causes the moisture in paper to evaporate, while cold causes it to condense on the sheets. Heating systems and air conditioners remove most of the humidity from a room. As paper is opened and used, it loses moisture, causing streaks and smudging. Humid weather or water coolers can cause the humidity to increase in a room. As paper is opened and used it absorbs any excess moisture, causing light print and dropouts. Also, as paper loses and gains moisture it can distort. This can cause paper jams.

As a result, paper storage and handling are as important as the paper-making process itself. Paper storage environmental conditions directly affect the feed operation.

Care should be taken not to purchase more paper than can be easily used in a short time (about 3 months). Paper stored for long periods may experience heat and moisture extremes, which can cause damage. Planning is important to prevent damage to a large supply of paper.

Unopened paper in sealed reams can remain stable for several months before use. Opened packages of paper have more potential for environment damage, especially if they are not wrapped with a moisture-proof barrier.

The paper storage environment should be properly maintained to ensure optimum printer performance. The required condition is 20 ° to 24 °C (68° to 75 °F), with a relative humidity of 45 % to 55 %. The following guidelines should be helpful when evaluating the paper's storage environment:

- Paper should be stored at or near room temperature.
- The air should not be too dry or too humid (due to the hygroscopic properties of paper).
- The best way to store an opened ream of paper is to rewrap it tightly in its moisture-proof wrapping. If the printer environment is subject to extremes, unwrap only the amount of paper to be used during the day's operation to prevent unwanted moisture changes.

Envelopes

Envelope construction is critical. Envelope fold lines can vary considerably, not only between manufacturers, but also within a box from the same manufacturer. Successful printing on envelopes depends upon the quality of the envelopes. When selecting envelopes, consider the following components:

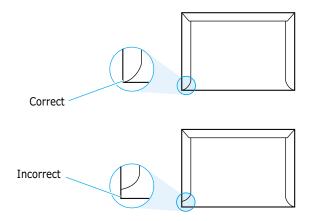
- Weight: The weight of the envelope paper should not exceed 90 g/m² (24 lb) or jamming may occur.
- Construction: Prior to printing, envelopes should lie flat with less than 6 mm (0.25 in.) curl, and should not contain air.
- Condition: Envelopes should not be wrinkled, nicked, or otherwise damaged.
- **Temperature:** You should use envelopes that are compatible with the heat and pressure of the printer.
- Size: You should only use envelopes within the following size ranges.

	Minimum	Maximum
Manual Tray	98 X 148 mm (3.9 X 5.83 in.)	216 X 356 mm (8.5 X 14 in.)
Optional Tray 2	148 X 210 mm (5.82 X 8.25 in.)	216 X 356 mm (8.5 X 14 in.)

Note: You may experience some paper jams when using any media with a length less than 148 mm (5.83 in.). This may be caused by paper that has been affected by environmental conditions. For optimum performance, make sure you are storing and handling the paper correctly. Please refer to "Printer and Paper Storage Environment" on page A.6.

Envelopes with Double Side Seams

Double side-seams construction has vertical seams at both ends of the envelope rather than diagonal seams. This style may be more likely to wrinkle. Be sure the seam extends all the way to the corner of the envelope as illustrated below.



Envelopes with Adhesive Strips or Flaps

Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the heat and pressure in the printer. The extra flaps and strips might cause wrinkling, creasing, or even jams and may even damage the fuser.

Envelope Margins

The following gives typical address margins for a commercial #10 or DL envelope.

Type of Address	Top margin	Left margin
Return address	15 mm (0.6 in.)	51 mm (2 in.)
Delivery address	51 mm (2 in.)	89 mm (3.5 in.)

Notes:

- For best print quality, position margins no closer than 15 mm (0.6 in.) from the edges of the envelope.
- Avoid printing over the area where the envelope's seams meet.

Envelope Storage

Proper storage of envelopes helps contribute to print quality. Envelopes should be stored flat. If air is trapped in an envelope, creating an air bubble, then the envelope may wrinkle during printing. See "Printing on Envelopes" on page 4.9.

Labels

CAUTIONS:

- To avoid damaging the printer, use only labels recommended for laser printers.
- To prevent serious jams, always use the Manual Tray to print labels and always use the rear output tray.
- Never print on the same sheet of labels more than once and never print on a partial sheet of labels.

When selecting labels, consider the quality of each component:

- Adhesives: The adhesive material should be stable at 200 °C (392 °F), the printer's fusing temperature.
- Arrangement: Only use labels with no exposed backing between them. Labels can peel off sheets with spaces between the labels, causing serious jams.
- **Curl:** Prior to printing, labels must lie flat with no more than 16 mm (.61 in.) of curl in any direction.
- Condition: Do not use labels with wrinkles, bubbles, or other indications of separation.

See "Printing on Labels" on page 4.12.

Transparencies

Transparencies used in the printer must be able to withstand 200 °C (392 °F), the printer's fusing temperature.

CAUTION: To avoid damaging the printer, use only transparencies recommended for use in laser printers.

See "Printing on Transparencies" on page 4.13.

Using Your Printer with Macintosh

Your printer supports Macintosh systems with a built-in USB interface. When you print a file from Macintosh, you can use the SPL driver to support your printer's major printing features.

System Requirements

To use your ML-1440 printer and its software with a Macintosh, your system should have:

Macintosh Hardware Requirement:

- One of the following Macintosh models:
 - -Power Macintosh series (for network connection only)
 - -Power Macintosh G3, G4
 - -iMac series
 - -iBook series
 - -Power Book series
- USB interface

Macintosh System Requirement:

System 8.6 or later

Installing Software for Macintosh

Connecting to Macintosh

You can connect the printer to your Macintosh using the USB interface.

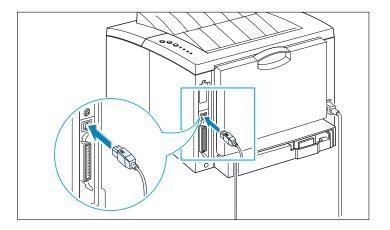


USB cable is not provided in your printer. Purchase a certified USB 1.0 or 1.1 compliant cable.

1 Turn off the printer and computer.



2 Hold the USB cable so the \checkmark icon faces up and connect it to your printer's USB connector.



3 Connect the other end of the cable to an available USB port on your Macintosh computer. If you have any connecting problems, please refer to your computer documentation.

Note: If you are using a USB hub, connect the printer's cable to the first tier of the hub or the printer may malfunction. If the printer doesn't work with the hub, connect it directly to the USB port.

Installing Software

- 1 Turn on your computer and printer.
- 2 Insert the CD-ROM which came with your printer into the CD-ROM drive.
- 3 Double-click **ML-1440** on your Macintosh desktop.
- 4 Click the **Samsung Laser Printer Installer** icon next to the each language to select the correct one.

 If you want to see the User Guide, click User's Guide.
- 5 Click **Continue**, then click **Continue**.

- 6 The Samsung Laser Printer Installer opens. Select installation type. The installer provides two options for software installation:
 - **Easy Install** (recommended method): This option loads installs SPL driver.
 - **Custom Install**: This option allows you to choose which components will be installed.

 If you want to use the SPL driver, you must install it.

 If you want to use Adobe Acrobat Reader program, you must install it.
- 7 Click **Install**.
- 8 After installation is complete, click **Quit**.

Choosing SPL Driver

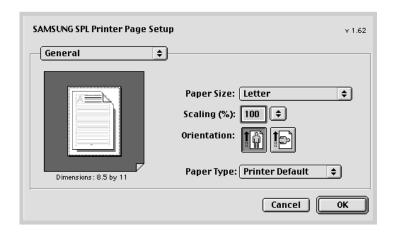
- 1 From the **Apple** menu, select **Chooser**.
- 2 From the left pane of the Chooser window, click **SAMSUNG SPL**. Then the ML-1440 will appear in the right pane of the Chooser window.
- 3 Click the ML-1440, and close the Chooser window.
- 4 You see the message box indicating that you have changed your current printer. Click **OK**.
- 5 A ML-1440 printer icon will be created on your desktop.

Printing from a Macintosh

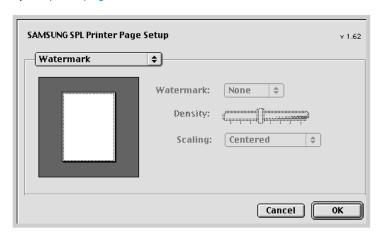
When you print with a Macintosh, you need to check the printer software setting in each application you use. Follow these steps to print from a Macintosh:

1 Open a Macintosh application and select a file you want to print.

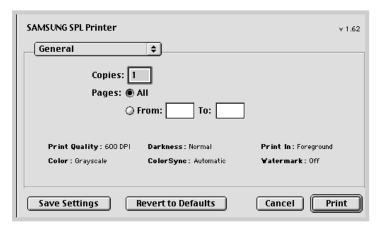
- Open the File menu, and click Page Setup (Document Setup in some applications). You will see the Page Setup dialog box.
- **3** Choose your paper size, orientation, paper type and other options and click **OK**.



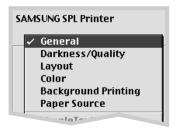
Choose **Watermark** if you want to add a watermark to each page in your document to emphasize its purpose or indicate how it should be handled. For details on the watermark option, see page 5.21.



- 4 Now open the **File** menu and click **Print**. You see the main printer settings dialog box.
- 5 Choose the number of copies and indicate which pages you want to print. For advanced printing features, select the desired option. For details, see page A.15.



Select the desired option for advanced printing features.



6 Click **Print** when you are finished checking your settings.

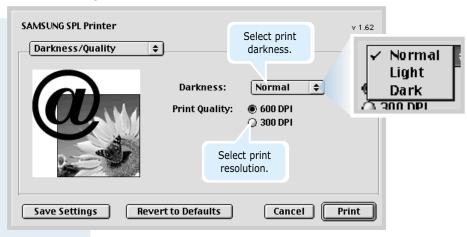
Advanced Printing

The Page Setup dialog box contains five categories of page setup properties. Listed below is the name of each property.

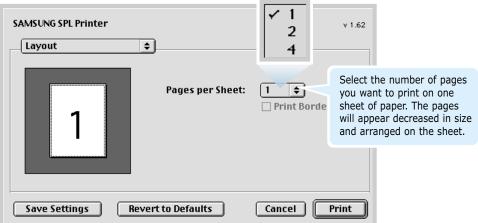
- -Darkness/Quality
- -Layout
- -Color
- -Background Printing
- -Paper Source

Figures below display each property in the Page Setup dialog

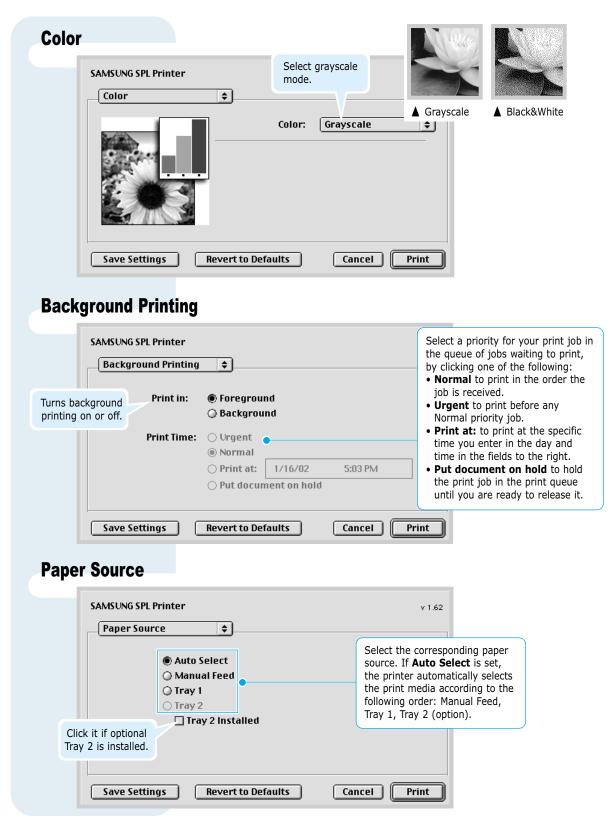
Darkness/Quality



Layout



Using Your Printer with Macintosh



Linux SPL Driver Installation

To use your printer in linux, you must update ghostscript package. Fortunately, our ghostscript package was made by RPM package manager. So, you can easily install and uninstall the package in linux versions that support RPM. But if your linux version doesn't support rpm package, you directly must install the source package in the driver CD. After you update your ghostscript package, you must configure your linux printing environment. For it, you must configure your printer filter.

Unfortunately, all linux versions are different from each other in their filter. So we didn't account filter configuration for all linux versions in here. Installation procedure for each linux version we support was descripted in below.

Configuration Setup Procedure

Directories

gs5.10: ghostscript 5.10 version package.

gs5.10k : ghostscript 5.10 Korean Language version package. gs5.50k : ghostscript 5.50 Korean Language version package.

gs5.50 : ghostscript 5.50 version package. cups :ppd file for CUPS printing system. redhat : setup script for Redhat Linux.

 $redhat 71: configuration \ file \ for \ Redhat \ 7.1 \ lpd-o-matric$

printing system.

Redhat 6.0 ~ 7.0 Linux

- 1 Transfer into super user mode.
- Update your pre-installed ghostscript package.
 #rpm -q ghostscript (check version to install.)
 #cd/mnt/cdrom/linux/gs5.XX (XX is pre-installed
 ghostscript version.)
 #rpm -e --nodeps ghostscript (uninstall pre-installed
 ghostscript '--nodeps' option skips dependency check.)
 #rpm -ivh --nodeps gs5XX.rpm (install our ghostscript.)
- 3 Insert your printer driver CD-ROM to CD-ROM drive.

- 4 Mount your CD-ROM drive and run script file.

 #mount -t iso9660 /dev/cdrom/mnt/cdrom

 #cd /mnt/cdrom/linux/redhat/

 #install.sh
- 5 Set up your printer driver.
- a. Run **printtool** program.**#printtool**
- b. Click **Add** button and select the **proper printer type** and click **OK** button.
- c. Set proper setting values in "Edit XXXXXXXX Entry" window and click **Select** button of Input Filter (XXXXXXXX is the printer type you select).
- d. Add the needed printer driver for the emulation that your printer supports.
 - Select **SAMSUNG Printer SPL compatible** and click **OK** button. If you don't update ghostscript, this item is not visible.
- 6 Run lpr program to print your document or configure the printer setup of your application. ex> #lpr -Plp1 sample.ps (lp1 is the printer device name you install.)

Redjat 7.1 Linux

- 1 Transfer into super user mode.
- 2 Insert your printer driver CD-ROM to CD-ROM drive.
- 3 Mount your CD-ROM drive and copy the configuration file. #mount -t iso9660 /dev/cdrom/mnt/cdrom #cp /mnt/cdrom/linux/redhat71/secspl.foo/usr/share/printconf/foomatic/data
- 4 Update your pre-installed ghostscript package. #rpm -q ghostscript (check version to install.) #cd/mnt/cdrom/linux/gs5.XX (XX is pre-installed ghostscript `--nodeps' option skips dependency check.) #rpm -ivh --nodeps gs5XX.rpm (install our ghostscript.)

5 Delete any previous content of the **printcap.local** file located in the **/etc directory** and copy only the below mentioned lines from the **printcap.sam** file located under the linux/Redhat71 directory of the installation CD.

SPL:\

:if=usr/share/printconf/foomatic/lpdomatic:\
:filter_options= --lprng \$Z
/usr/share/printconf/foomatic/data/sec-spl.foo:\

- 6 Run Printtool to add a new queue. The driver name will not be shown in the available driver list. Apply the following settings.
- a. Queue Name : Say SPL
- b. Alias Name: Say SPL
- c. Queue Type: /dev/lp0 (If you want to print using lpt1:) Or /dev/usb/lp0 (If you want to print using USB)
- d. Printer driver: Text Only Printer.

Save the queue and restart lpd. You will get a message that lpd restarted successfully.

Note: Redhat 7.1 changed 'printtool' to 'printconf', so install.sh in CD/linux/ redhat doesn't work any more. You can downgrade the printconf to the printtool of Redhat 7.0, or manually configure your printer setting by above description.

For detail documentations, refer to the following web site. "http://www.linuxprinting.org/lpd-doc.html"

Mandrake 7.2 or Linux version that use CUPS printer manager

- 1 Transfer into super user mode.
- Update your pre-installed ghostcsript package.
 #rpm -q ghostscript (check version to install.)
 #cd /mnt/cdrom/linux/gs5.XX (XX is pre-installed
 ghostscript version.)
 #rpm -e --nodeps ghostscript (uninstall pre-installed
 ghostscript '--nodeps' option skips dependency
 check.)
 #rpm -ivh --nodeps gs5XX.rpm (install our
 ghostscript.)
- 3 Copy PPD file to your mandrake linux.
 # cd/usr/mnt/cdrom/linux/cups/sec-spl.ppd
 /usr/share/cups/model/samsung <Enter>
 # cd/etc/init/d/cups restart <Enter>
- 4 Run cupsWebAdmin(accordingly, you can use qtcups or printtool.).
- a. Select Printer menu.
- b. Add **printer**.
- c. Select **proper port** (maybe, parallel port)
- d. Select your printer SPL as your printer filter PPD.
- e. Configure printer (select proper DPI, paper size...).

SuSE Linux

- 1 Transfer into super user mode.
 - 2 Update ghostscript package.
 - a. Uninstall(Erase) the pre-installed ghostscript package.

```
#rpm -e --nodeps gs_X11 (or gs_both)
#rpm -e --nodeps gs_lib
```

- b. Install the ghostscript package in Driver CD.
 - #rpm -ivh --nodeps gs550.rpm
- c. Modify font directory.
 - # cd/usr/share/fonts
 - # mkdir default
 - # cd default
 - # mkdir ghostscript
 - # cp/usr/share/ghostscript/fonts/*/usr/share/
 fonts/default/ghostscript
- 3 Set up aps-filter.
- a. #/var/lib/apsfilter/SETUP
- b. Choose **ENTRY** and **DEVICE**.
- c. Choose the **correct port** (ex. /dev/lp0).
- d. Choose **PRINTER** -> **ENTRY** -> **FREEDEF** -> **YOUR**, and type gpdl as device name.
- e. Choose the **resolution** (ex, 600).
- f. Choose the correct values into **PAPER** (ex, A4) and **COLOR** (ex, mono).
- e. Then choose ADD.

Linux USB Driver Configuration Procedure

You must follow this sequences in super user mode. Linux kernel 2.2.12 or later version only supports USB printer driver. If you run "uname -r", you'll see your linux kernel verion. And if your version is lower than the required version, you must patch or upgrade your linux kernel.

And then, you must make the device file for USB printer port by following command. If you want to know whether the device file already exists, check IpO file in /dev/usb directory. If there is no file, you can make it by this method.

mknod/dev/usb/lp0 c 180 0

The following command detect your USB port and load the required module.

modprobe printer

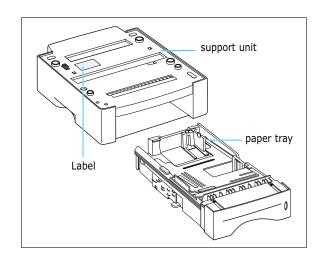
But, you can either manually configure /etc/conf.modules (or /etc/modules.conf with 2.4-ready versions of modutils) to load the modules you require like this on boot time; alias usb-controller usb-uhci (or "alias usb uhci ") post-install usb-uhci (or "uhci" like above) modprobe printer Finally, you must modify/etc/printcap file for using the port you configure.

For more details, please refer to the web site, "http://www.linux-usb.org".

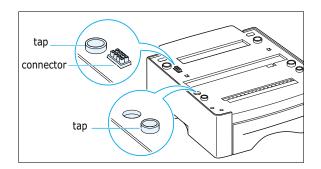
Using Paper Tray 2 (Option)

You can increase the paper handling capacity of your printer by installing the optional Tray 2. The optional paper tray consists of two components; the **support unit** and **paper tray**.

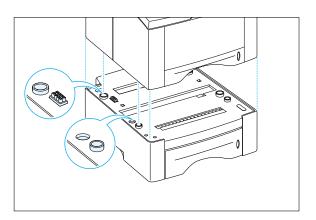
Note: Be sure you check the **label** before using the optional Tray 2. (For use with ML-1440 only)



- 1 Turn off the printer and unplug all cables from the printer.
- 2 Observe the location of the support unit's connector and tabs.



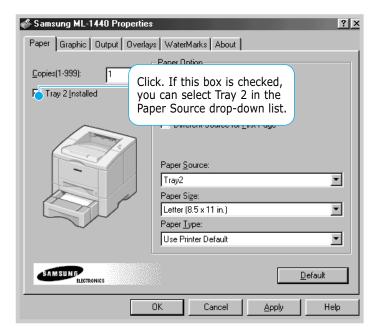
- 3 Align the printer with the support unit and lower it into place on the tabs and connector.
- 4 Load paper in Tray 2. For information on loading paper in the tray, see next page.



Using Paper Tray 2 (Option)

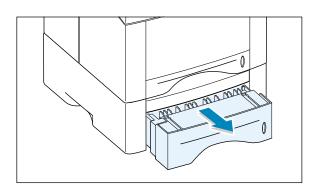
5 Reconnect the cables, then turn the printer on.

Note: To print from Tray 2, you must configure the printer driver from your application prior to printing. To access the printer driver, see page 5.2.

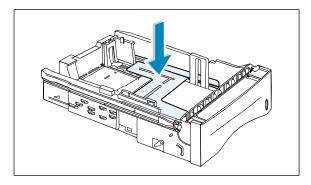


Load Paper

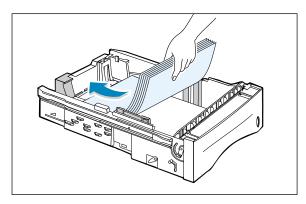
1 Pull the paper tray out of the printer.



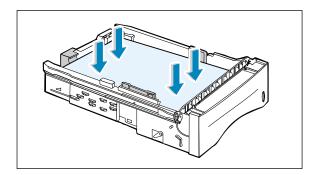
2 Push down on the metal paper lift plate to lock it in place.



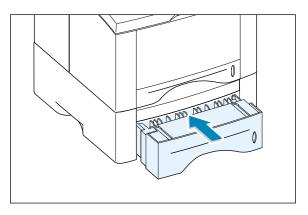
3 Load paper with the print side facing down.



Make sure it is flat in the tray at all four corners.

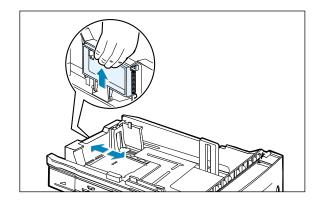


4 Slide the tray back into the printer.

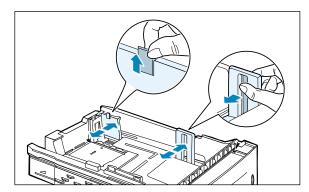


To Change Paper Size in Tray

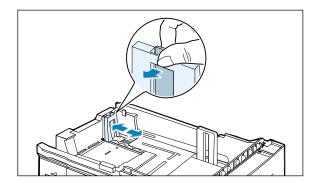
1 For legal, folio or A4 paper, squeeze the release on the reverse side of the rear wall to adjust the tray length.



2 Adjust the side guide to lightly touch the print media. If necessary, adjust the rear side guide by pulling up on the tab and sliding the guide to the left.



3 If necessary, Pinch the rear width guide and slide it forward until it lightly touches the print media.



Notes:

- Do not push the width guide far enough to cause the media to warp.
- If you do not adjust the width guide, it may cause a paper jam.









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