SAMSUNG

SAMSUNG LASER PRINTER

# User's Guide

# ML-2150

For UK customers:

To reorder your consumables
Call 0800 3164060

For Technical Assistance
Call 0870 2420303

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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. When using this product, these basic safety precautions should always be followed to reduce risk of fire, electric shock, and injury to persons:

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 DANGEREUSE AU FAISCEAU.

ATTENZIONE - RADIAZIONE LASER INVISIBILE IN CASO DI APERTURA. EVITARE L'ESPOSIZIONE AL FASCIO.

PRECAUCIÓN - RADIACIÓN LASER INVISIBLE CUANDO SE ABRE. EVITAR EXPONERSE AL RAYO.

PERIGO - RADIAÇÃO LASER INVISÍVEL AO ABRIR. EVITE EXPOSIÇÃO DIRECTA AO FEIXE.

GEVAAR - ONZICHTBARE LASERSTRALEN BIJ GEOPENDE KLEP. DEZE KLEP NIET OPENEN.

ADVARSEL. - USYNLIG LASERSTRÅLNING VED ÅBNING, NÅR SIKKERHEDSBRYDERE ER UDE AF FUNKTION. UNDGÅ UDSAETTELSE FOR STRÅLNING.

ADVARSEL. - USYNLIG LASERSTRÅLNING NÅR DEKSEL ÅPNES. STIRR IKKE INN I STRÅLEN. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPEN OCH SPÄRREN ÄR URKOPPLAD. BETRAKTA EJ STRÅLEN. STRÅLEN ÄR FARLIG.

VARO! - AVATTAESSA JA SUOJALUKITUS OHITETTAESSA OLET ALTTIINA NÄKYMÄTTÖMÄLLE LASER-SÄTEILYLLE ÄLÄ KATSO SÄTEESEEN.

注 意 - 严禁揭开此盖, 以免激光泄露灼伤

주 의 - 이 덮개를 열면 레이저광에 노출될 수 있으므로 주의하십시오.

## Ozone Safety

During normal operation, this machine 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 symbolizes 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/or 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-2150

(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

2001-12-06

(place and date of issue)

**Yong Hwan Kim / Senior Manager**

(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

2001-12-10

(place and date of issue)

**In-Seop Lee / Manager**

(name and signature of authorized person)

# NOTE

# 1 INTRODUCTION

Congratulations on the purchase of your Printer!

This chapter includes:

- **Special Features**
- **Printer Components**
- **Understanding the Control Panel**

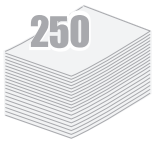
# Special Features

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

## Print with excellent quality and high speed

- You can print at **1200 dots per inch** (dpi). See page 4.16.
- Prints **17 pages-per-minute (Letter size)**, **16 pages-per-minute (A4 size)**.

## Handle paper flexibly




- **Standard 250-sheet tray** and a 1-sheet Manual Feeder support various sizes and types of paper.
- Two output tray; select either **the top output tray (face-down)** or **the rear output tray (face-up)** for the most convenient access.

## Create professional documents

- You can customize your documents using **Watermarks**, such as "Confidential." See page 4.19.
- 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 4.14.

## Save your time and money

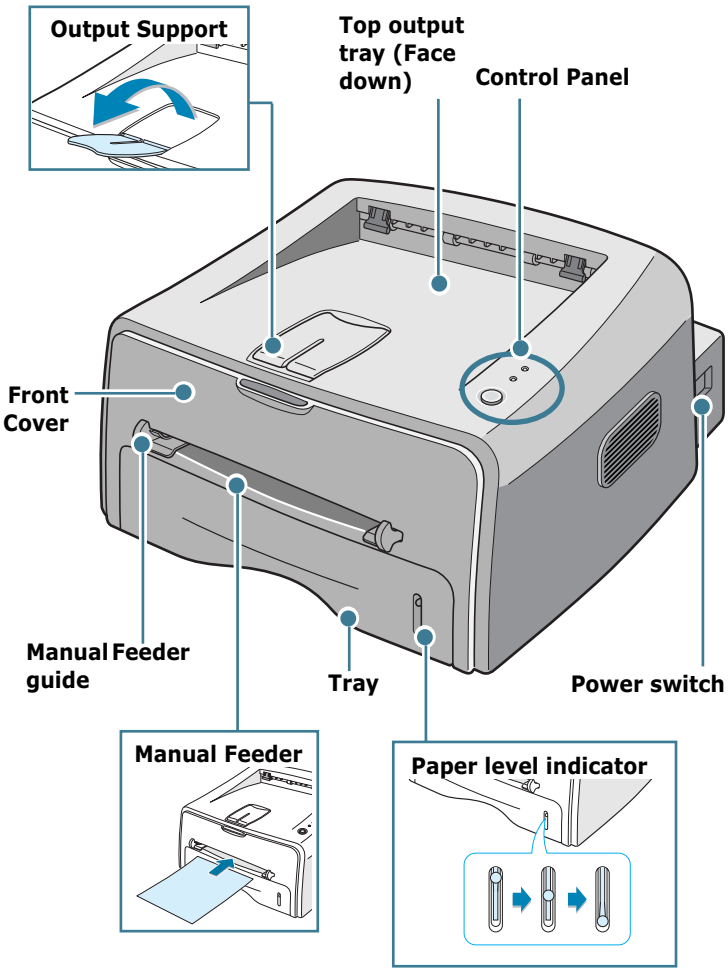
- Allows you to use the **Toner Save mode** to save toner. See page 4.8.
- Allows you to print multiple pages on one single sheet of paper to save paper (**N-Up printing**). See page 4.10.
- This printer meets **Energy Star** guidelines for energy efficiency.

## Print in various environments

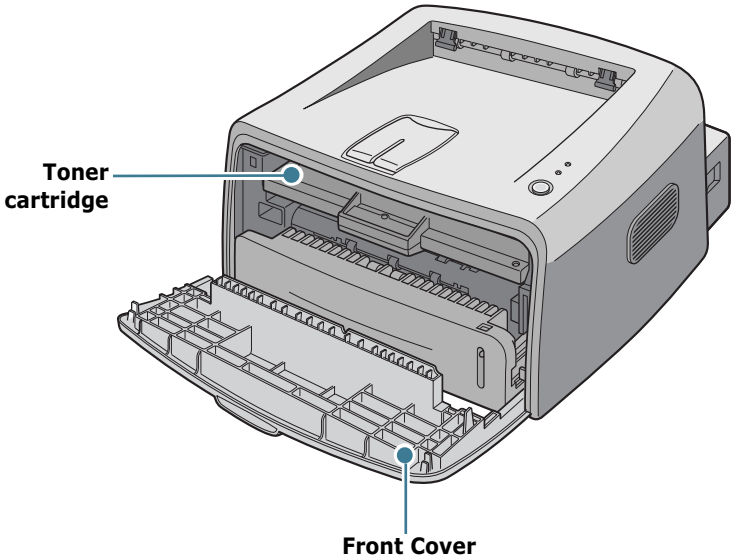
- You can print in **Windows 95/98/Me/NT 4.0/2000/XP**.
- Your printer is compatible with **Linux** and **Macintosh**.
- Your printer comes with both the **Parallel** and the **USB** interface.

# Printer Components

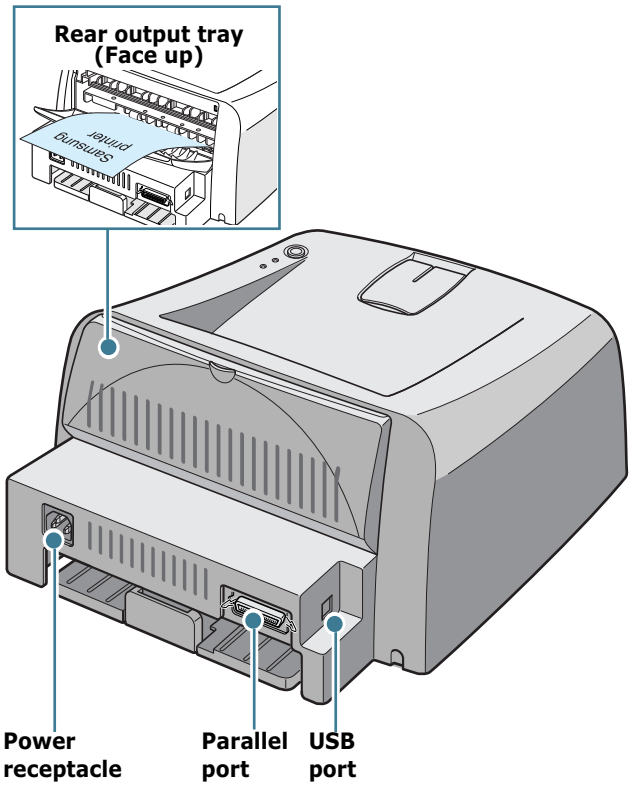
## Front View



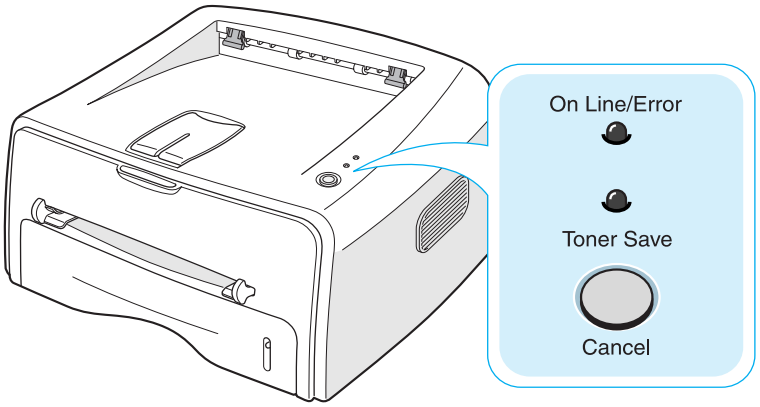
## Inside View




## Rear View



# Understanding the Control Panel




## On Line/Error and Toner Save LEDs

| LED | Description |
|---|---|
| On Line/Error | If the **On Line/Error** lights green, the printer is ready to print. |
| | If the **On Line/Error** lights red, the printer is experiencing an error, such as jammed paper, the open cover or the empty toner cartridge. See "Troubleshooting Error Messages" on page 6.17. |
| | If you press the **Cancel** button while the printer is receiving data, the **On Line/Error** LED blinks red to cancel printing. |
| | In Manual Feed mode, if there is no paper in the Manual Feeder, the **On Line/Error** LED blinks red. Load paper into the Manual Feeder and the LED stops blinking. |
| | If the printer is receiving data, the **On Line/Error** LED slowly blinks green.<br>If the printer is printing the received data, the **On Line/Error** LED blinks green fast. |
| Toner Save | If you press the **Cancel** button in Ready mode, this LED is on and the Toner Save mode is enabled.<br>If you press this button once again, this LED is off and the Toner Save mode is disabled. |

| LED | Description |
|---|---|
| On Line/Error<br>Toner Save | If the **On Line/Error** and **Toner save** LEDs blink, your system has some problems. To solve the problem, see "Troubleshooting Error Messages" on page 6.17 |

## Cancel button

| Function | Description |
|---|---|
| **Printing demo page** | In Ready mode, press and hold this button for about 2 seconds until all LEDs blink slowly, and release. |
| **Printing configuration sheet** | In Ready mode, press and hold this button for about 6 seconds until all LEDs blink fast, and release. |
| **Manual feeding** | Press this button each time you load a sheet of paper in the manual feeder, when you select **Manual Feed** for **Source** from your software application. For detailed information, see "Using the Manual Feeder" on page 3.8. |
| **Cleaning inside printer** | In Ready mode, press and hold this button for about 10 seconds until all LEDs turn on, and release. After cleaning the printer, one cleaning sheet prints. |
| **Canceling print job** | Press this button during printing. The **On Line/Error** LED blinks while the print job is cleared from both the printer and the computer, and then return to Ready mode. This may take some time depending on the size of the print job.<br>In Manual Feed mode, you can't cancel the print job by pressing this button. For detailed information, see "Using the Manual Feeder" on page 3.8. |
| **Toner Save mode on/off** | In Ready mode, press this button to turn the Toner Save mode on or off.<br>For detailed information, see page 4.8. |

# NOTE

# 2 SETTING UP YOUR PRINTER

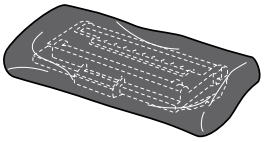
This chapter provides step by step information on setting up your printer.

This chapter includes:

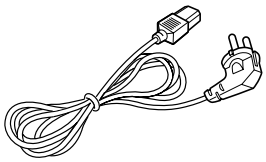
- **Unpacking**
- **Installing the Toner Cartridge**
- **Loading Paper**
- **Connecting a Printer Cable**
- **Turning the Printer on**
- **Printing a Demo Page**
- **Installing Printer Software**

# Unpacking

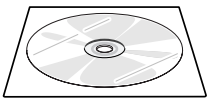
1 Remove the Printer and all accessories from the packing carton. Make sure that the printer has been packed with the following items:



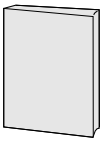
Toner Cartridge



Power Cord



CD-ROM

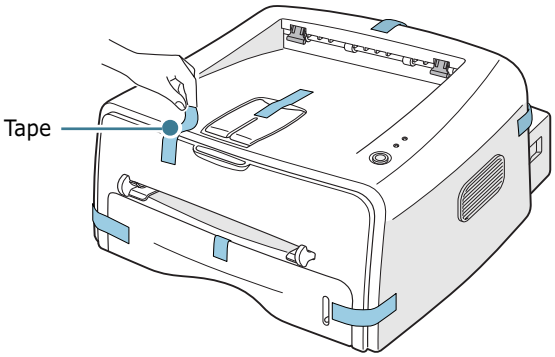


Setup Guide

**Notes:**

- 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, and the Adobe Acrobat Reader program.

2 Carefully remove all of packing tapes from the printer.

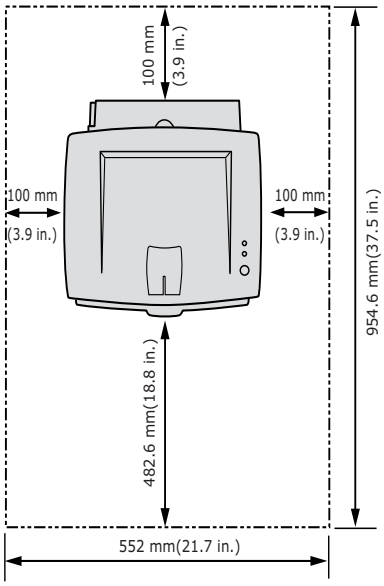


## Selecting a Location

Select a level, stable place with adequate space for air circulation. Allow extra space for opening covers and tray. 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!

2

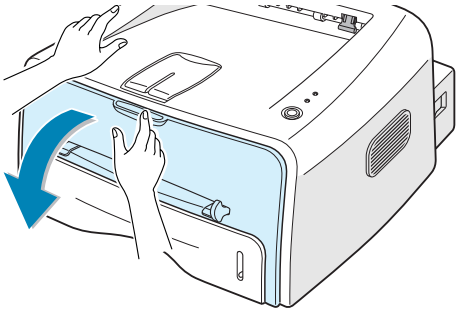
### Clearance Space




- **Front**: 482.6 mm (enough space so that tray can be removed)
- **Back**: 100 mm (enough space to allow opening of the rear out tray)
- **Right**: 100 mm (enough space for ventilation)
- **Left**: 100 mm

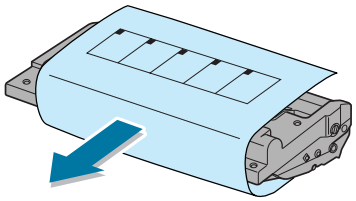
# Installing the Toner Cartridge

1 Grasp the front cover and pull it toward you to open.

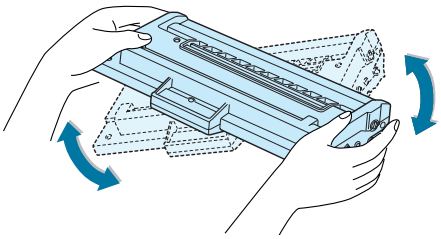


**Note:** Because the printer is very light, it may be moved when you use it; for example, when opening/closing the tray or installing/removing the toner cartridge or installing. Be careful not to move the printer.

2 Remove the toner cartridge from its bag and remove the paper covering the cartridge. Discard it.



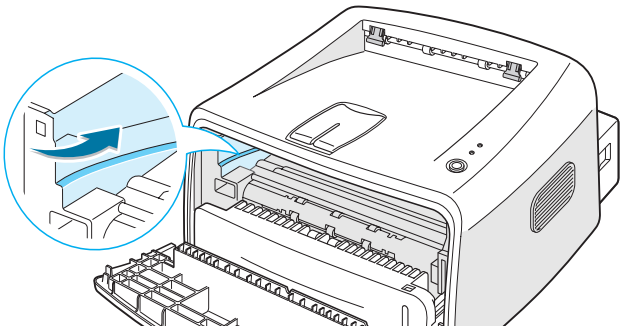
3 Gently shake the cartridge from side to side to distribute the toner evenly inside the cartridge.



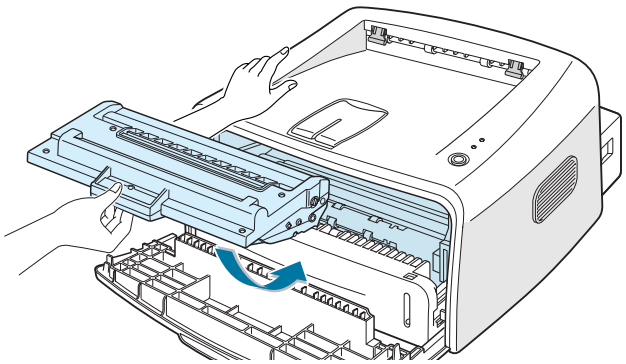
**CAUTION:**

- 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.

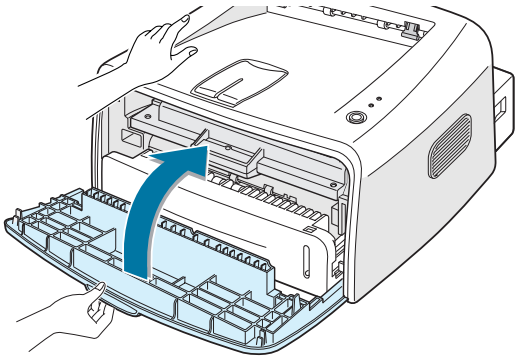
4 Locate the cartridge slots inside the printer, one on each side.



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



6 Close the front cover. Make sure that the cover is securely closed.

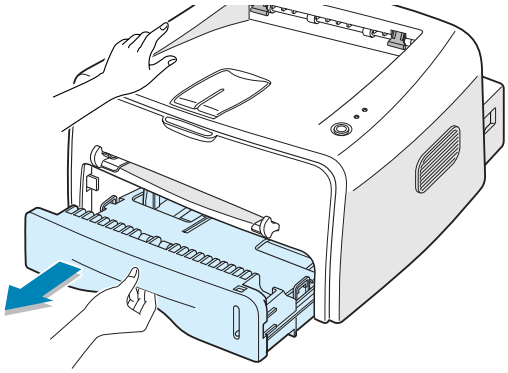


**Note:** When printing text at 5% coverage, you can expect a toner cartridge life of approximately 3,000 pages (1,000 pages for the toner cartridge that is shipped with the printer).

# Loading Paper

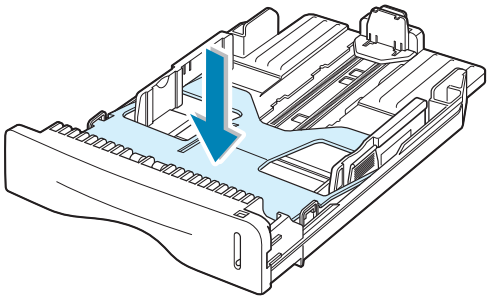
You can load approximately 250 sheets of paper in the tray.

1 Pull the tray out of the printer.

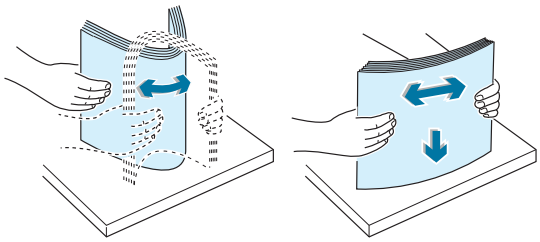


**Note:** Because the printer is very light, it may be moved when you use it; for example, when opening/closing the tray or installing/removing the toner cartridge or installing. Be careful not to move the printer.

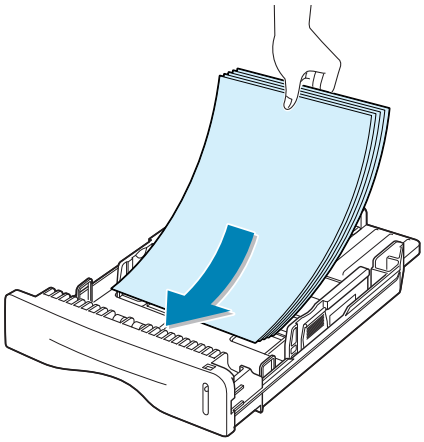
2 Push down on the pressure plate until it locks in position.



3 Prepare a stack of paper for loading by flexing or fanning them back and forth. Straighten the edges on a level surface.

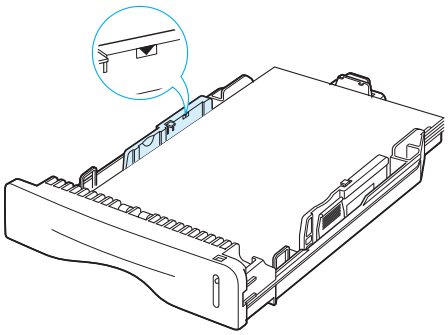


4 Load paper **with the print side facing down**.



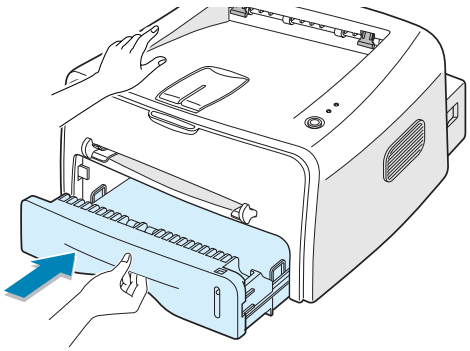
Make sure that all four corners are flat in the tray.

5 Pay attention to the paper limit mark on the left inside wall of the tray. Paper overloading may cause paper jams.



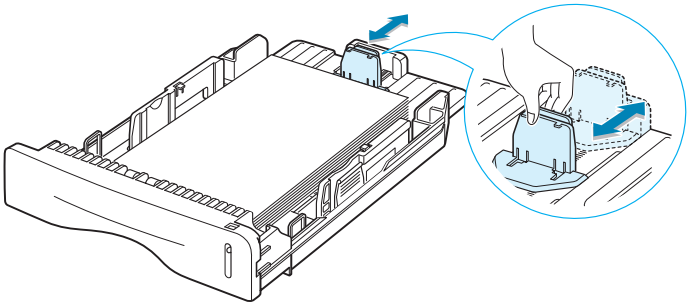
**Note:** If you want to change the paper size in the tray, see ""Changing the Paper Size in the Tray" on page 2.8" .

6 Slide the tray back into the printer.

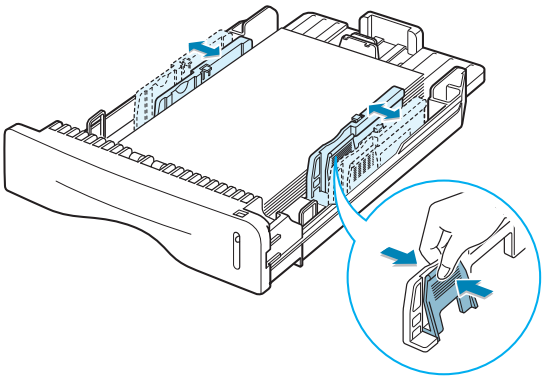


## Changing the Paper Size in the Tray

1 Pinch the rear guide as shown below to adjust for the paper length.

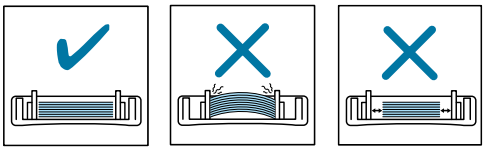


2 Pinch the side guide as shown and slide it to the left flush against the paper.



**Notes:**

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



# Connecting a Printer Cable

To print from your computer, you need to connect your printer to your computer with either a parallel interface cable or a Universal Serial Bus (USB) cable.

If you are a Macintosh user, you can use only a USB cable.

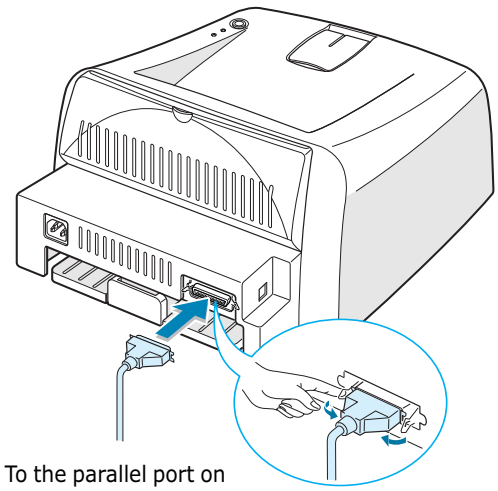
## Using a Parallel Cable

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

1. 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.

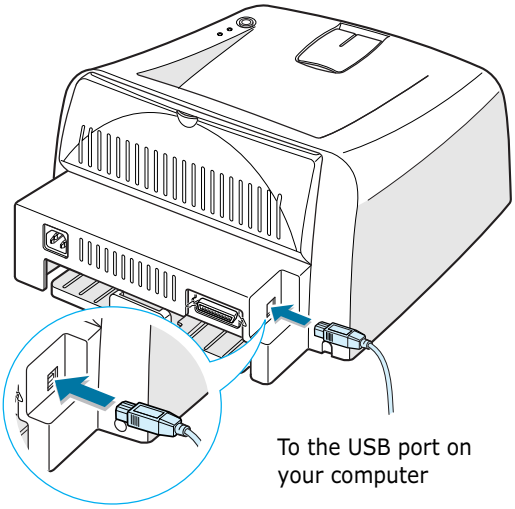
   See your computer User's Guide if you need help.

## Using a USB Cable

**Note:** Connecting the printer to the USB port of the computer requires a certified USB cable. You will need to buy a USB 2.0 compliant cable that is within 3m in length.

1. Make sure that both the printer and the computer are turned off.

2. Plug the USB printer cable into the connector on the back of the printer.




3. Connect the other end of the cable to the USB port on your computer.

   See your computer User's Guide if you need help.

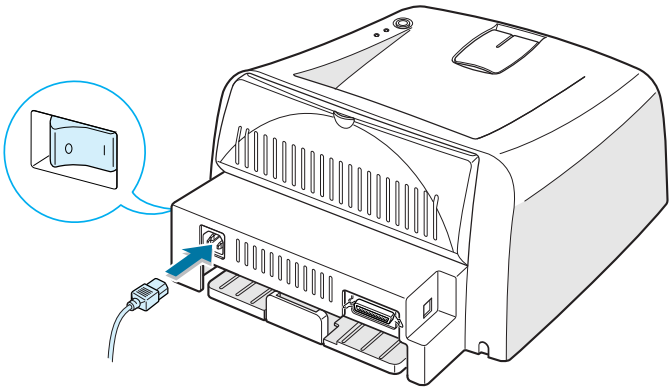
**Note:**

- For using a USB cable, you must be running Windows 98/Me/2000/XP, or Macintosh with OS 8.6 and the G3 processor or higher.
- In Windows 98/Me, if you want to print using the USB interface, you must install the USB driver to add the USB port. See page 2.18.
- In Windows 2000/XP, if you want to print using the USB interface, you must install the Printer driver. See page 2.15.

# Turning the Printer on

1 Plug the power cord into the power receptacle on the back of the printer.

2 Plug the other end into a properly grounded AC outlet and turn on the printer using the power switch.



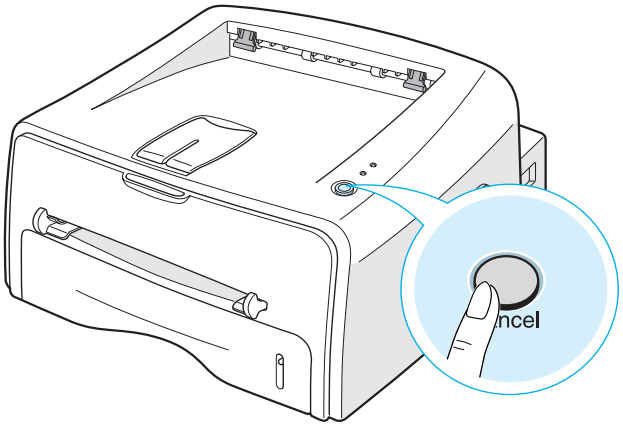
# Printing a Demo Page

Print a demo page or a configuration sheet to make sure that the printer is operating correctly.

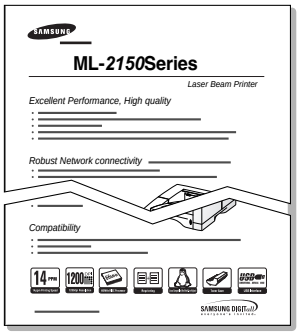
1 Hold down the **Cancel** button for about 2 seconds to print a demo page.

OR

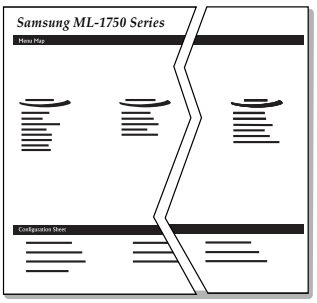
Hold down the **Cancel** button for about 6 seconds to print a configuration sheet.




2 The Demo page or the configuration sheet shows the printer's current configuration.




Demo page




Configuration sheet

# Installing Printer Software

The supplied CD-ROM contains Windows printing software, Macintosh printing software, Linux printing software, on-line User's Guide and Acrobat Reader to view the User's Guide.

2

## If you are printing from Windows

You can install the following printer software using the CD-ROM.

- **SPL** printer driver for windows. Use this driver to take full advantage of your printer's features. See page 2.15.
- **Status Monitor** allows you to see the printing status of the printer. See page 4.26.
- **Remote Control Panel** for DOS application. Go to "Printing from DOS Applications" on page 7.20, for information about installing the Remote Control Panel and printing from DOS applications.
- **USB driver** for adding the USB port to Windows 98/Me. You must first install the USB driver for the USB connection in Windows 98/Me. In Windows 2000/XP, the USB port is provided, so that you don't have to install the USB driver. Just install the printer software; see page 2.15.

## If you are printing from Macintosh

Go to "Using Your Printer with a Macintosh" on page 7.2, for information about installing the print software and printing from a Macintosh.

## If you are printing in Linux

Go to "Using Your Printer in Linux" on page 7.10, for information about installing the Linux driver.

## Printer Driver Features

The your printer drivers will support the following standard features:

- Paper source selection
- Paper size, orientation and media type
- number of copies

Table below lists a general overview of features supported by the your printer drivers.

| Feature | SPL | | | |
|---|---|---|---|---|
| | Win9x/Me | Win2000/XP | NT4.0 | Macintosh |
| Toner Save | Y | Y | Y | N |
| Print quality option | Y | Y | Y | Y |
| Poster printing | Y | Y | Y | N |
| Multiple pages per sheet (N-up) | Y | Y | Y | Y |
| Fit to page printing | Y | Y | Y | N |
| Scale printing | Y | Y | Y | Y |
| Watermark | Y | Y | Y | Y |
| Overlay | Y | Y | Y | N |

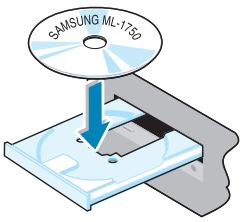
# Installing Printer software in Windows

## System Requirements

Verify the following:

- At least **32 MB** (Windows 9x/Me), **64 MB** (Windows 2000/NT), **128 MB** (Windows XP) or more of RAM is installed on your PC.
- There is at least **200 MB** (Windows 9x/Me), **650 MB** (Windows 2000/NT), **1.5 GB** (Windows XP) 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 Printer Software




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

**If the CD-ROM drive does not automatically run:**

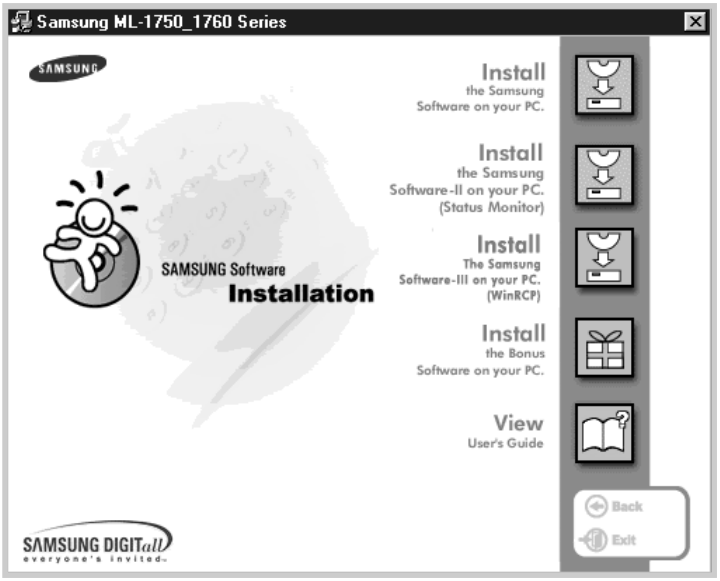
Select **Run** from the **Start** menu, and type **x:\cdsetup.exe** in the Open box (where **x** is the drive letter for the CD-ROM drive), then click **OK**.

**Note:** If the **New Hardware Found** window appears during the installation procedure, click ☒ in the upper right coner of the box, or click **Cancel**.

2 When the language selection window appears, select the appropriate language.

If you can't find the desired language from the screen, scroll through the screen using the scroll button on the bottom right of the screen.

3 Click **Install the Samsung Software I on your PC (SPL Driver)** or **Install the Samsung Software II on your PC (Status Monitor)**.




4 The **Welcome** window opens. Click **Next**.

5 Follow the instructions on the window to complete the installation.

## Reinstalling Printer software

Reinstall is required if your installation fails.

1 From the **Start** menu, select **Programs**.

2 Select **Samsung ML-2150 Series**, and then **Samsung ML-2150 Series Driver Maintenence**.

3 The Samsung ML-2150 Series Driver Maintenance window appears. Click **Repair** and then click **Next**.

4 When reinstallation is done, click **Finish**.

## Removing Printer software

1 From the **Start** menu, select **Programs**.

2 Select **Samsung ML-2150 Series**, and then **Samsung ML-2150 Series Driver Maintenence**.

3 The Samsung ML-2150 Series Driver Maintenance window appears. Check **Remove** and then click **Next**.

4 When you are asked to confirm your selection, click **OK**.

The Samsung ML-1750 Series printer driver and all of its components are removed from your computer.

5 When removing is completed, click **Finish**.

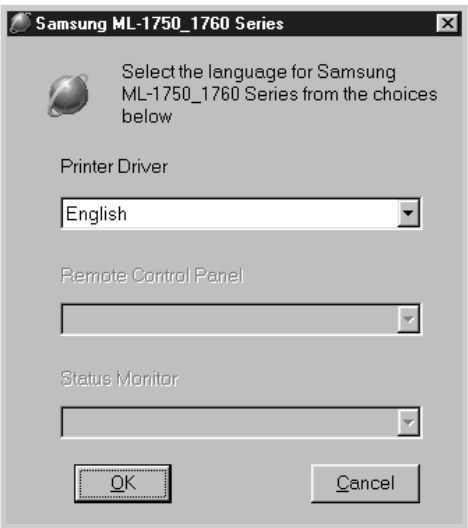
## Changing the Display Language

After installation of the software, you can change the display language. If you installed the Remote Control Panel or the Status Monitor, the selected language is applied to them.

1 From the **Start** menu, select **Programs**.

2 Select **Samsung ML-2150 Series**, and **Language Selection**.

3 Select the desired language from the language selection window, and click **OK**.



## Installing the USB Driver in Windows 98/Me

1 Connect the printer to your computer using the USB cable and turn them on. For detailed information, see page 2.10.

2 The **Add New Hardware Wizard** window appears. Click **Next**.

3 Place the CD-ROM in the CD-ROM drive and check **Search for the best driver for your device** and click **Next**.

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

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

6 When the installation is completed, click **Finish**.

7 When the language selection window appears, select the appropriate language.

**Note:** If you already installed the printer software, this screen doesn't appear.

8 Follow the instructions on the window to complete the printer software installation. For more details, see page 2.15.

**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.

# NOTE

# 3 Using Print Materials

This chapter will help you understand types of paper you can use with this printer and how to properly load paper in the tray for the best print quality.

This chapter includes:

- **Choosing Paper and Other Materials**
- **Selecting the Output Location**
- **Loading Paper**
- **Printing on Envelopes**
- **Printing on Labels**
- **Printing on Transparencies**
- **Printing on Card Stock or Custom-sized Materials**

# Choosing Paper and Other Materials

You can print on a variety of print materials, such as plain paper, envelopes, labels, transparencies and so on. See "Paper Specifications" on page 7.30. To get the best possible print quality, use only high-quality copier-grade paper.

When you choose print materials, consider the followings:

- **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 feeder.
- **Weight**: Your printer supports paper weight as follows:
  - 16~24 lbs (60~90g/$m^2$) bond for the tray
  - 16~43 lbs (60~163 g/$m^2$) bond for the manual feeder
- **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.

**CAUTION:** Using a material 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.

## Sizes and Capacities

| Size | Input Source/Capacity[a] | |
|---|---|---|
| | Tray | Manual Feeder |
| **Plain Paper** | | |
| Letter (8.5 x 11 in.) | 250 | 1 |
| Legal (8.5 x 14 in.) | 250 | 1 |
| Executive (7.25 x 10.5 in.) | 250 | 1 |
| Folio (8.5 x 13 in.) | 250 | 1 |
| A4 (210 x 297 mm) | 250 | 1 |
| B5 (182 x 257 mm) | 250 | 1 |
| A5 (148 x 210 mm) | 250 | 1 |
| A6 (105 x 148 mm) | 250 | 1 |
| **Envelopes**[b] | | |
| No. 10 (4.12 x 9.5 in.) | - | 1 |
| Monarch (3.87 x 7.5 in.) | - | 1 |
| C5 (162 x 229 mm) | - | 1 |
| DL (110 x 220 mm) | - | 1 |
| B5 (176 x 250 mm) | - | 1 |
| C6 (114 x 162 mm) | - | 1 |
| **Labels**[b] | | |
| Letter (8.5 x 11 in.) | - | 1 |
| A4 (210 x 297 mm) | - | 1 |
| **Transparencies**[b] | | |
| Letter (8.5 x 11 in.) | - | 1 |
| A4 (210 x 297 mm) | - | 1 |
| **Card stocks**[b] | - | 1 |

*a. Depending on paper thickness, the maximum capacity may be reduced.*
*b. If you are experiencing excessive jamming, feed one sheet at a time through the manual feeder.*

## Guidelines for Paper and Special Materials

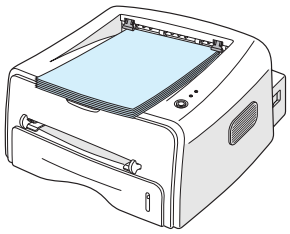
When selecting or loading paper, envelopes, or other special materials, keep these guidelines in mind:

- 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 for the best print quality.
- 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 feeder during printing and never overfill the feeder. 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, heat-resistant ink that do not melt, vaporize, or release hazardous emissions when subject to the printer's approximately 400°F (205°C) fusing temperature for 0.1 second.
- Store paper in its ream wrapper until 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.

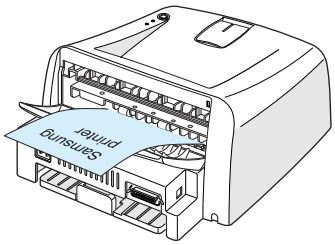
# Selecting the Output Location

The printer has two output locations: the rear output tray and the top output tray.

▼ Top output tray



▼ Rear output tray



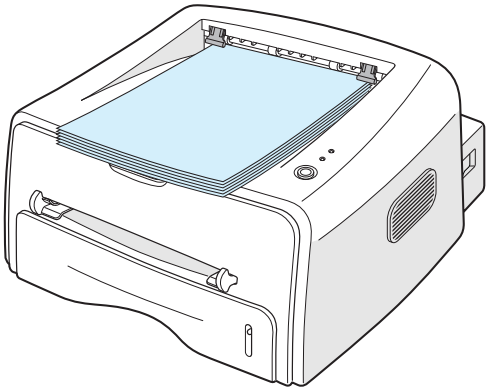

To use the top output tray, be sure the rear output tray is closed. To use the rear output tray, open it.

**Notes:**

- 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.

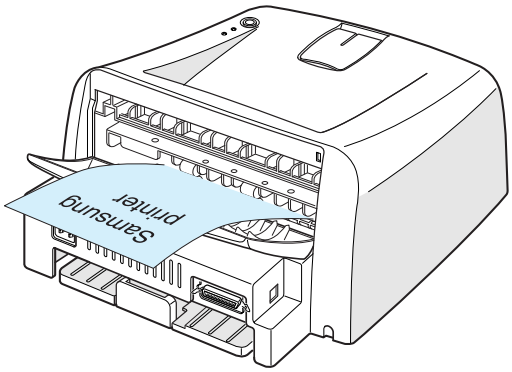
## Printing to the Top Output Tray (Face down)

The top output tray collects paper face-down, in correct order. The top output tray should be used for most print jobs.



## Printing to the Rear Output Tray (Face up)

The printer always prints to the rear output tray if it is open. Paper comes out of the printer face-up, and each time a sheet of paper comes out, it falls down from the printer.

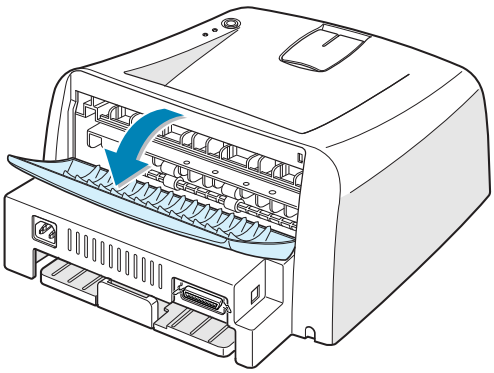



Printing from the Manual Feeder to the rear output tray provides the **straight paper path**. Opening the rear output tray might improve the output quality with the following:

- envelopes
- labels
- transparencies

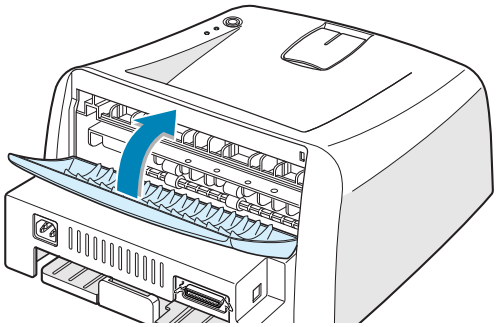
### To open the rear output tray:

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



**Notes:** Please be careful when you open the rear cover. The inside of the printer is still hot.

2 If you do not want to stack the printed pages on the rear output tray close the tray. The pages will stack on the top output tray.

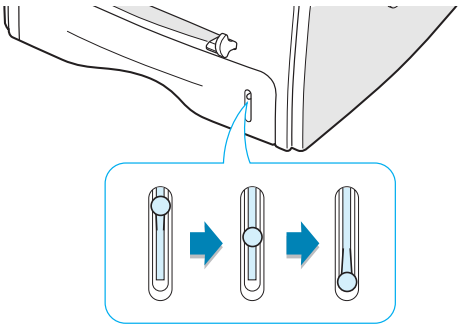




## Loading Paper

Proper paper loading helps prevent paper jams and ensure trouble-free printing. Do not remove the tray while a job is printing. Doing so may cause a paper jam. See "Sizes and Capacities" on page 3.3 for acceptable paper size and capacities for each tray.

The paper level bar on the front of the paper tray shows the amount of paper currently right in the tray. When the tray is empty, the indicator of the bar is lowered.



Paper full ▲ ▲ Paper empty

### Using the Tray

The tray holds 250 sheets of paper. See "Sizes and Capacities" on page 3.3 for acceptable paper size and capacities of each tray.

Load a stack of paper into the tray and print. for details about loading paper in the tray, see "Loading Paper" on page 2.6.

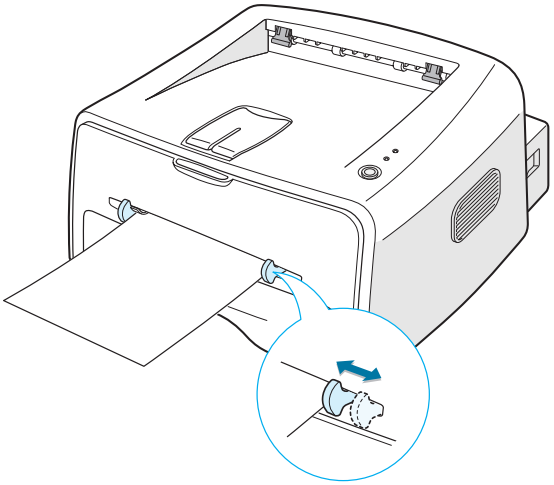
## Using the Manual Feeder

If you select **Manual Feed** in the **Source** option, you can manually load paper in the manual feeder. Manually loading paper can be helpful when you want to check the print quality after each page is printed.

If you experience a paper jam from the tray, load one sheet of paper at a time into the manual feeder.

1. Load the print material in the manual feeder **with the print side up**.

   Adjust the paper guide against the print material without bending the paper.



2. When you print a document, you must select **Manual Feed** for **Source** from the software application, and then select the correct paper size and type. For details, see page 4.6.

3. Press the **Cancel** button to start feeding.

4. Printing is started.

5. If you are printing multiple pages, load the next sheet after the first page prints out, and press the **Cancel** button.

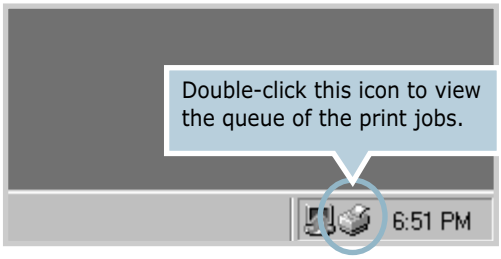
   Repeat this step for every page to be printed.

In Manual Feed mode, you can't cancel a print job by pressing the **Cancel** button.

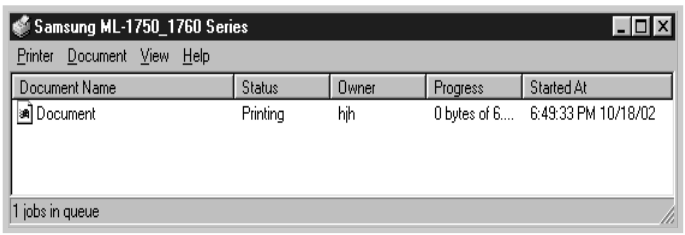
To cancel a print job in Manual Feed mode:

1 Turn the printer off.

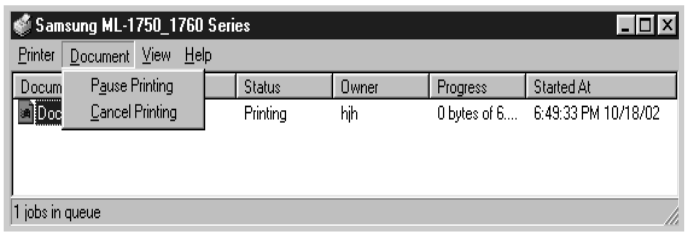
2 Double-click the icon at right bottom of the window.




3 Select a job you want to cancel.




4 For Windows 9x/Me, select **Cancel Printing** from **Document** menu.
For Windows NT/2000/XP, select **Cancel** from **Document** menu.




5 When the jobs are removed from the list. Turn the printer on.

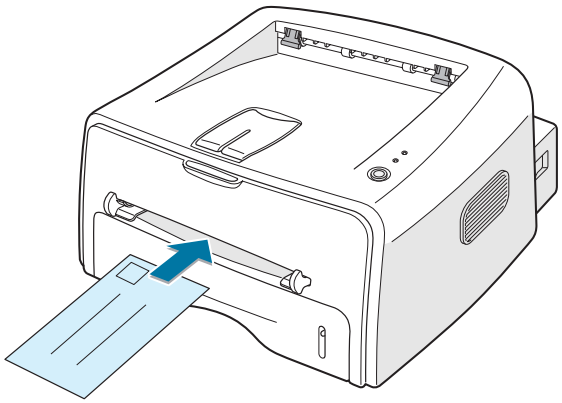
# Printing on Envelopes

**Guidelines**

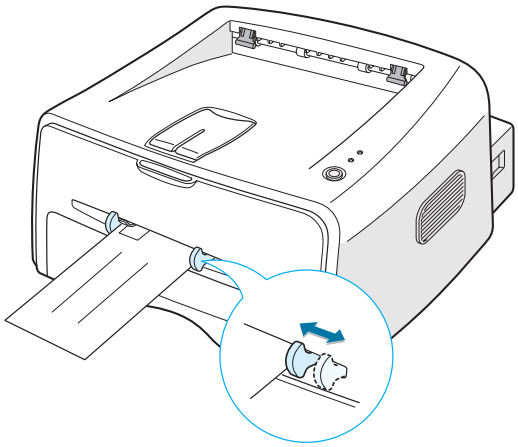
- Only use envelopes recommended for laser printers. Before loading envelopes in the manual feeder, make sure that they are undamaged and are not stuck together.
- Do not feed stamped envelopes.
- Never use envelopes with clasps, snaps, windows, coated lining, or self-stick adhesives. These envelopes may severely damage the printer.

1 Open the rear output tray. Load the envelopes into the manual feeder **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 feeder first**.



2 Adjust the guide to the edge of the envelope stack.



3 When you print on envelopes, you must select **Manual Feed** for **Source** from the software application, and then select the correct paper size and type. For details, see page 4.6.

4 Press the **Cancel** button to start feeding.

**Notes:** Please be careful when you open the rear cover. The inside of the printer is still hot.

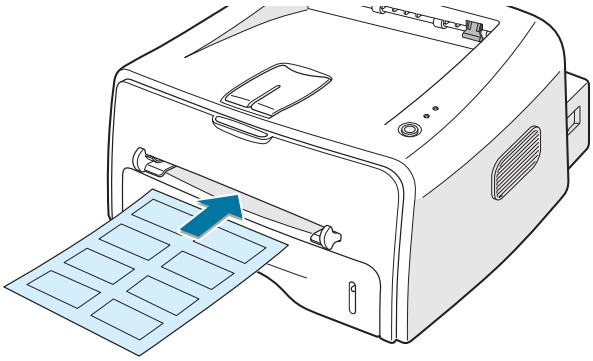
5 Printing is started. Close the rear output tray.

# Printing on Labels

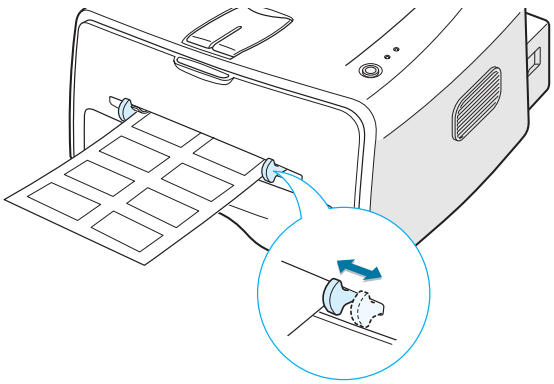
**Guidelines**

- 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 label through the printer more than once. The adhesive backing is designed for one pass through the printer.
- Do not use labels that are separating from the backing sheet or are wrinkled, bubbled, or otherwise damaged.

1 Open the rear output tray. Load labels in the manual feeder **with print side up**.



2 Adjust the guide to fit the width of the labels.



3 When you print on labels, you must select **Manual Feed** for **Source** from the software application, and then select the correct paper size and type. For details, see page 4.6.

**Notes:** Please be careful when you open the rear cover. The inside of the printer is still hot.

4 Press the **Cancel** button to start feeding. Printing is started. Close the rear output tray.

**Note:** To prevent labels from sticking, do not let the printed label sheets stack up as they are printed out.

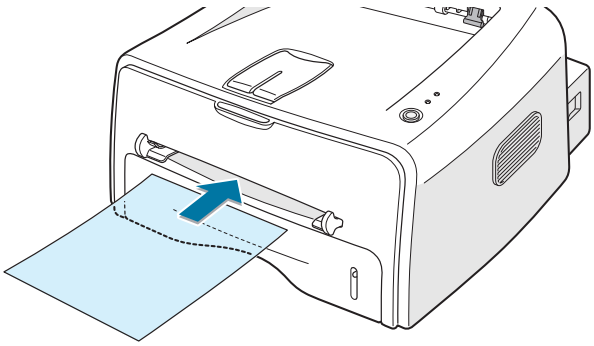
3

## Printing on Transparencies

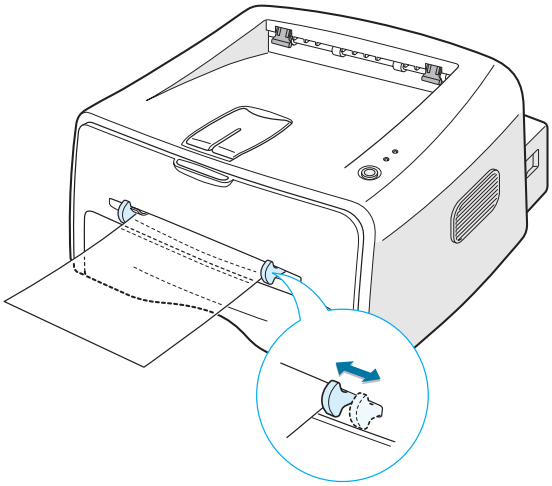
**Guidelines**

- Only use transparencies recommended for use in laser printers.
- Ensure that transparencies are not wrinkled, curled, or have any torn edges.
- Hold the transparencies by the edges and avoid touching the print side. Oils deposited on the transparency can cause print quality problems.
- Be careful not to scratch or leave fingerprints on the print side.

1 Open the rear output tray. Load transparencies in the manual feeder **with print side up**, and the **top with the adhesive strip going first**.



2 Adjust the guide to fit the width of the transparencies.



3 When you print on transparencies, you must select **Manual Feed** for **Source** from the software application, and then select the correct paper size and type. For details, see page 4.6.

**Notes:** Please be careful when you open the rear cover. The inside of the printer is still hot.

4 Press the **Cancel** button to start feeding.
Printing is started. Close the rear output tray.

**Notes:**

- To prevent transparencies from sticking, do not let the printed sheets stack up as they are printed out.
- Place transparencies on a flat surface after removing them from the printer.

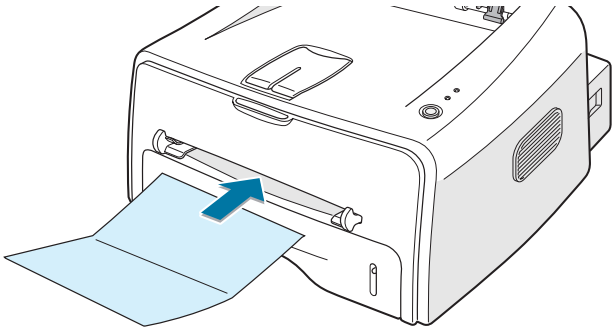
# Printing on Card Stock or Custom-sized Materials

Postcards, 3.5 by 5.83 in.(index) cards and other custom-sized materials can be printed with this printer. The minimum size is 76 by 127mm(3.0 by 5.0 in.) and the maximum size is 216 by 356mm(8.5 by 14 in.).

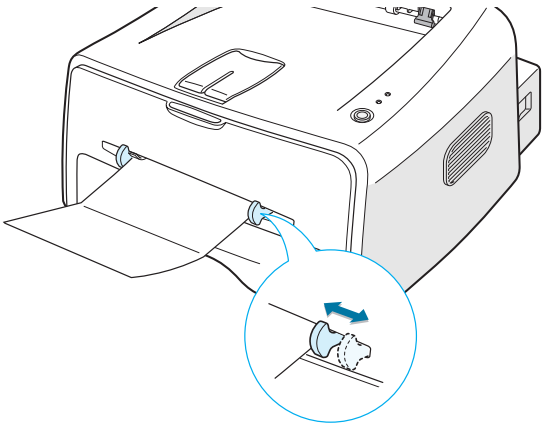
**Guidelines**

- Always insert the short-edge into the Manual Feeder 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 76mm (3.0 in.) wide or 127mm(5.0 in.) long.

1 Open the rear output tray. Load print material **with print side up**, short edge first and against the left edge of the feeder.



2 Adjust the guide to fit the width of the material.



3 When you print on card stocks or the custom-sized paper, you must select **Manual Feed** for **Source** from the software application, and then select the correct paper size and type. For details, see page 4.6.

**Note:** If the size of your print material is not listed in the **Size** box in the **Paper** tab of the printer driver properties, click **Add Custom** button and set the size manually. See page 4.6.

4 Press the **Cancel** button to start feeding.
Printing is started. Close the rear output tray.

# 4 Printing Tasks

This chapter explains the printing options and common printing tasks.

This chapter includes:

- **Printing a Document**
- **Setting Paper Properties**
- **Using the Toner Save Mode**
- **Printing Multiple Pages on One Sheet of Paper (N-Up Printing)**
- **Scaling Your Document**
- **Fitting Your Document to a Selected Paper Size**
- **Printing Posters**
- **Setting Graphic Properties**
- **Printing Watermarks**
- **Printing Overlays**
- **Using the Status Monitor**
- **Setting Up Locally Shared Printer**

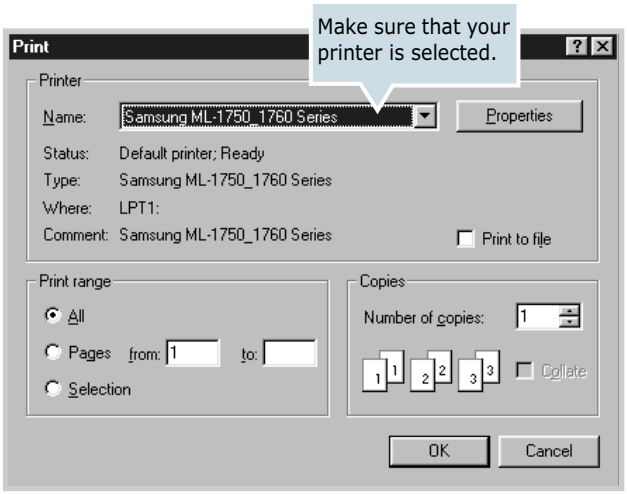
# Printing a Document

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 the User's Guide of your software application for the exact printing procedure.

1 Open the document you want to print.

2 Select **Print** from the **File** menu. The Print window is displayed (It may look slightly different depending on your application).

The basic print settings are selected within the Print window. These settings include the number of copies and print range.

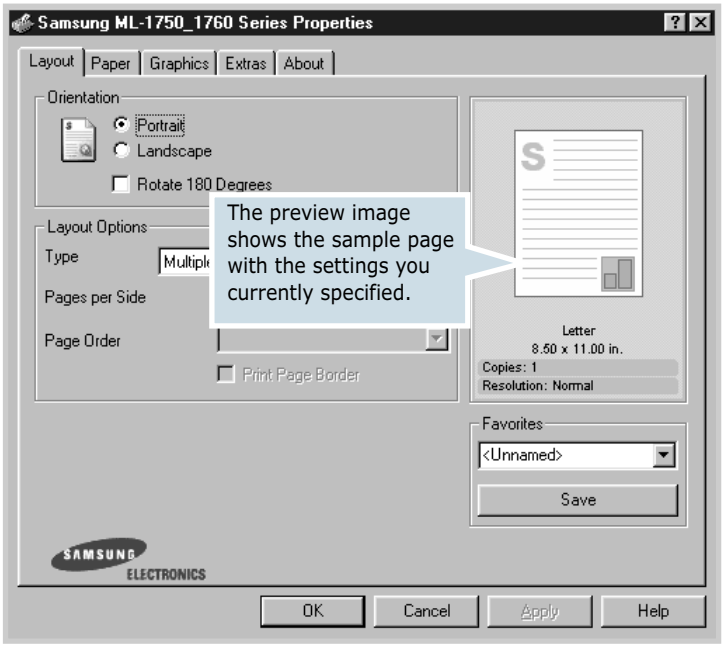



3 To take advantage of the printer features provided by your printer, click **Properties** in the application's print window and go to step 4.

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-2150 Series Properties window, which allows you to access all the information you will need when using your printer.

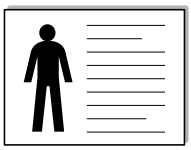
The **Layout** tab is first displayed.



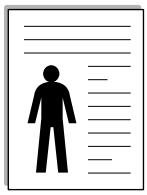

If necessary, select the **Orientation** option.

The **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.
- If you want to rotate the page in 180 degrees, select **Rotate 180 Degrees**.



▲ Landscape



▲ Portrait

5 From the **Paper** tab, select the paper source, size and type. For further details, see page 4.6.

6 Click other tabs on the top of the Samsung ML-2150 Series Properties window to access other features, if needed.

7 When you complete setting the properties, click **OK** until the Print window is displayed.

8 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. Follows this procedure.

1 Click the Windows **Start** button.

2 For Windows 9x/Me/2000/NT, select **Settings**, and then **Printers**.
For Windows XP, select **Printers and Faxes**.

3 Select the **Samsung ML-2150 Series** printer.

4 Click the right mouse button on the printer icon and:
- In Windows 9x/Me, select **Properties**.
- In Windows 2000/XP, select **Printing Preferences**.
- In Windows NT, select **Document Defaults**.

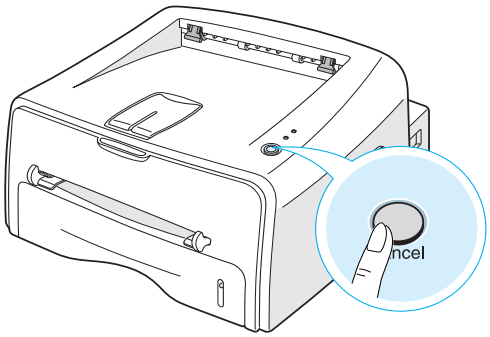
5 Change the settings on each tab, and click **OK**.

## Canceling a Print Job

There are two ways to cancel a print job.

### To stop a print job from the Control Panel

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



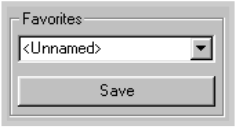
The printer will finish printing the page that is moving through the printer and delete the rest of the print job. Pressing **Cancel** cancels only the current job in the printer. If more than one print job is in the printer memory, **Cancel** must be pressed once for each job.

### To stop a print job from the Printers folder

1. From the windows **Start** menu, select **Settings**.
2. Select **Printers** to open the Printers window, and double-click the **Samsung ML-2150 Series** icon.
3. From the **Document** menu, select **Cancel Printing** (Windows 9x/Me) or **Cancel** (Windows NT 4.0/2000/XP).



## Using a Favorite Setting




The **Favorites** option, which is visible on each properties tab, allows you to save the current properties settings for future use.

To save a Favorites item:

1. Change the settings as needed on each tab.
2. Enter a name for the item in the **Favorites** input box.
3. Click **Save**.

To use a saved setting, just select the item from the **Favorites** drop down list.

To delete a favorite setting item, select the desired item from the list and click **Delete**.

You can also restore the printer driver's default settings by selecting **Defaults** from the list.

## Using Help

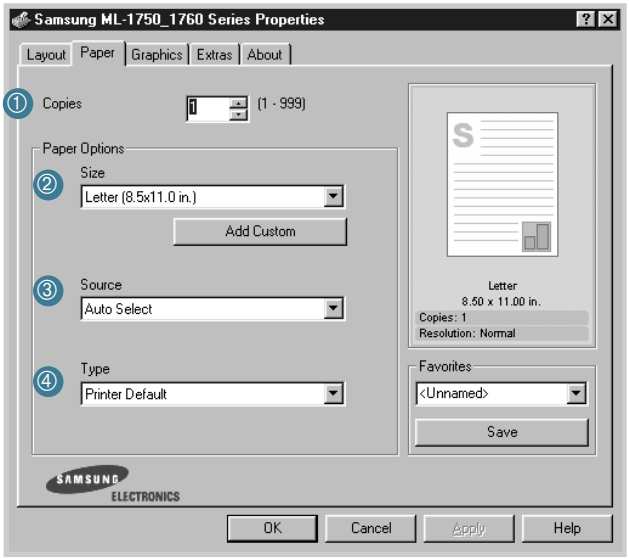
This printer has a help screen that can be activated by the **Help** button in the printer's properties window. These help screen give detailed information about the printer features provided by the printer driver.

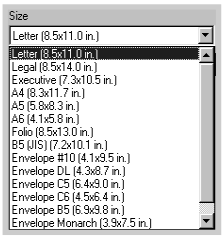
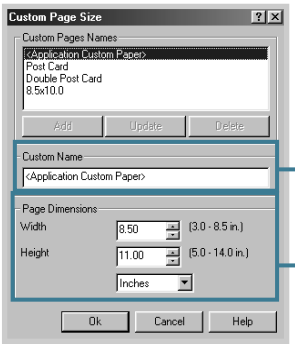
You can also click ? from the upper right hand corner, and then click on any setting.

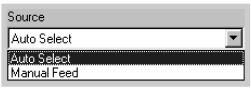
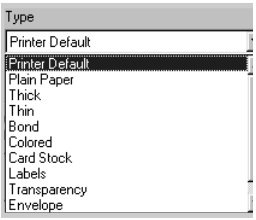
# Setting Paper Properties

Use the following options to set the basic paper handling needs when you access the printer properties. See page 4.2 for more information on accessing printer properties.

Click the **Paper** tab to access various paper properties.




| Property | Description |
|---|---|
| ① | **Copies** allows you to choose the number of copies to be printed. You can enter up to 999. |
| ②   | **Size** option allows you to choose the size of paper you loaded into the tray.<br><br>If the required size is not listed in the Size box, click **Add Custom**. When the **Custom Page Size** window appears, set the paper and click **OK**. The size setting appears in the size list so that you can select it.<br><br>  <br>Enter the custom name you want to use.<br><br>Enter the paper size. |

| Property | Description |
| --- | --- |
| ③<br>  <br> | Make sure that **Source** is set to the corresponding paper tray.<br><br>**Manual Feed** source is used when you use the Manual Feeder to print using special materials. You have to load one sheet at a time into the the printer. see page 3.8.<br><br>If the paper source is set to **Auto Select**, the printer automatically selects paper from the Manual Feeder first and then from the Tray. |
| ④<br>  <br> | Make sure the **Type** is set to **Printer Default**. If you load a different type of print materials, select the corresponding paper type. For further information on print materials, refer to chapter 3 "Using Print Materials". |

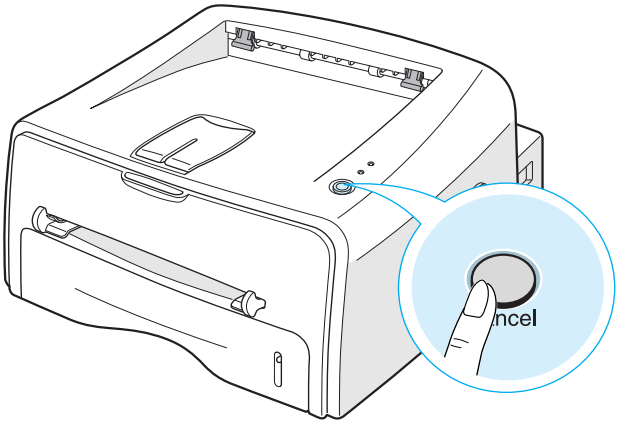
# Using the Toner Save Mode

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:

## From the Control Panel

Press the **Cancel** button on the control panel. The printer must be in Ready mode (**On Line/Error** green LED is on).



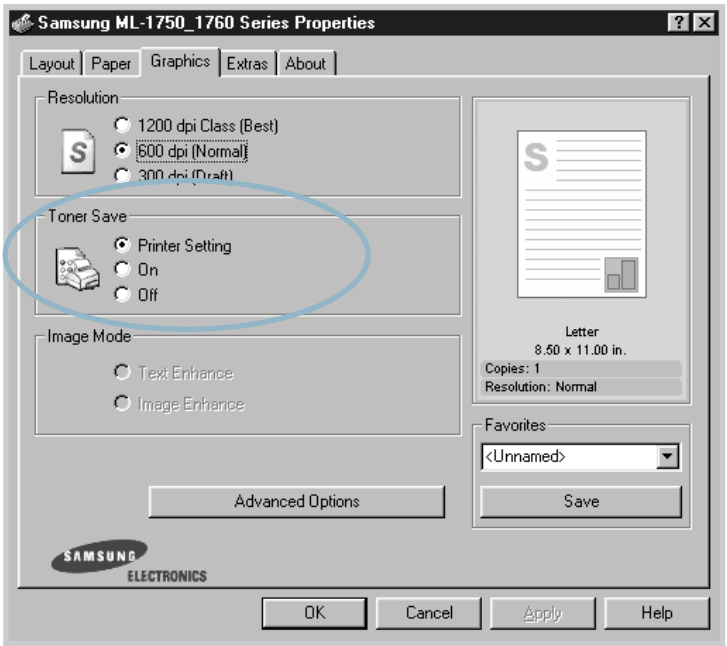

- If the **Toner Save** LED is on, the mode is enabled and the printer uses less toner to print a page.
- If the **Toner Save** LED is off, the mode is disabled and the printer prints in the normal mode.

## From the software application

1 When you change the print settings from your software application, access the printer properties. See page 4.2.

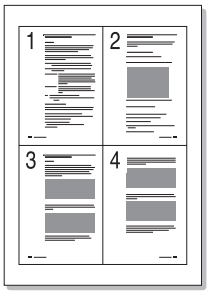
2 Click the **Graphics** tab, and select the **Toner Save** option. You can select from:

- **Printer Setting**: If you select this option, this feature is determined by the setting you've made on the control panel of the printer.
- **On**: Select this option to allow the printer to use less toner on each page.
- **Off**: If you don't need to save toner to print a document, select this option.




3 Click **OK**.

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

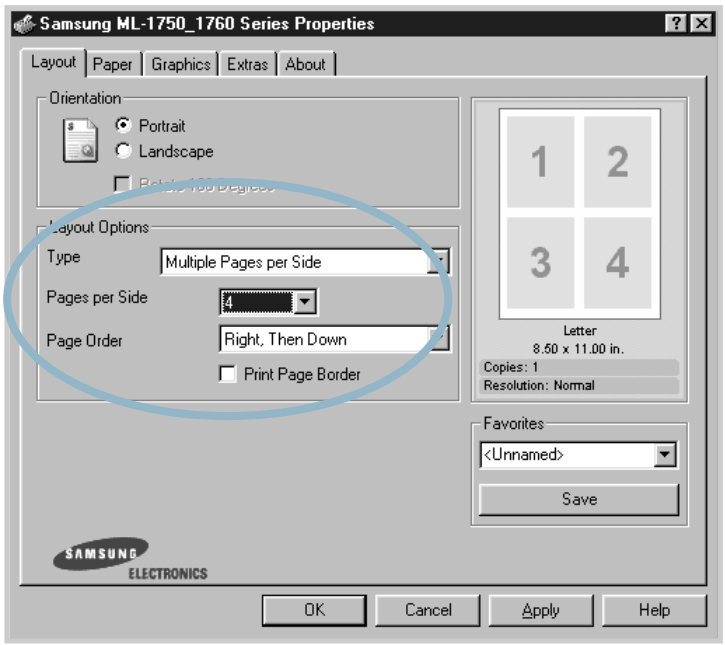



You can select the number of pages to print on a single sheet of paper. To print more than one page per sheet, the pages will appear decreased in size and arranged on the sheet. You can print up to 16 pages on one sheet.

1 To change the print settings from your software application, access the printer properties. See page 4.2.

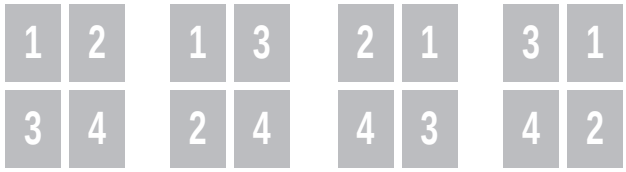
2 From the **Layout** tab, and choose **Multiple Pages per Side** in the **Type** drop-down list.

3 Select the number of pages you want to print per sheet (1, 2, 4, 9 or 16) in the **Pages per Side** drop-down list.




Check **Print Page Border** to print a border around each page on the sheet. **Print Page Border** is enabled only if the **Pages per Side** is 2, 4, 9, or 16.

4 Select the page order, if necessary.

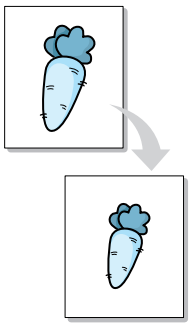



Right then Down | Down then Right | Left then Down | Down then Left

5 Click the **Paper** tab, select the paper source, size and type.

6 Click **OK** and print the document.

# Scaling Your Document



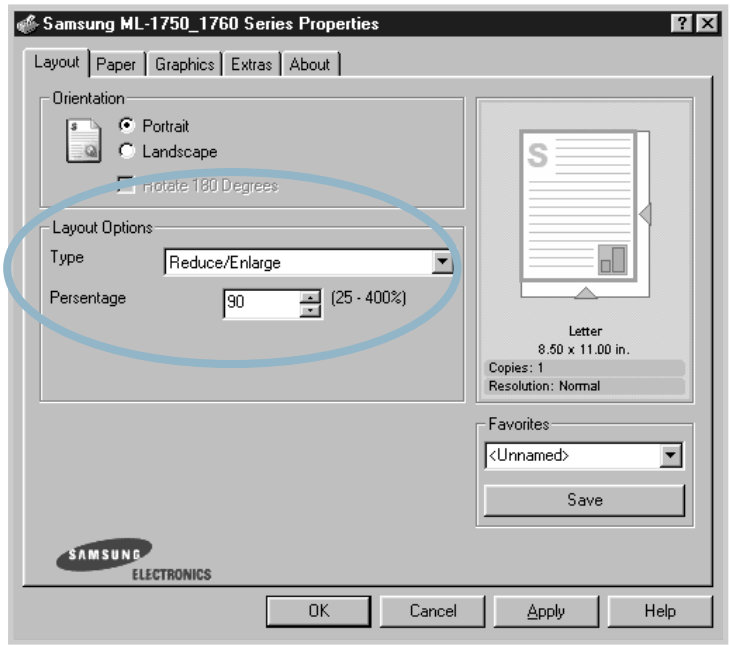
You can scale your print job on a page.

1 When you change the print settings from your software application, access the printer properties. See page 4.2.

2 From the **Layout** tab, and select **Reduce/Enlarge** in the **Type** drop-down list.

3 Enter the desired scaling rate in the **Persentage** input box.

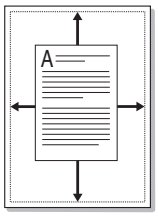
You can also click the ▲ or ▼ button.




4 Click the **Paper** tab, select the paper source, size and type.

5 Click **OK** and print the document.

# Fitting Your Document to a Selected Paper Size

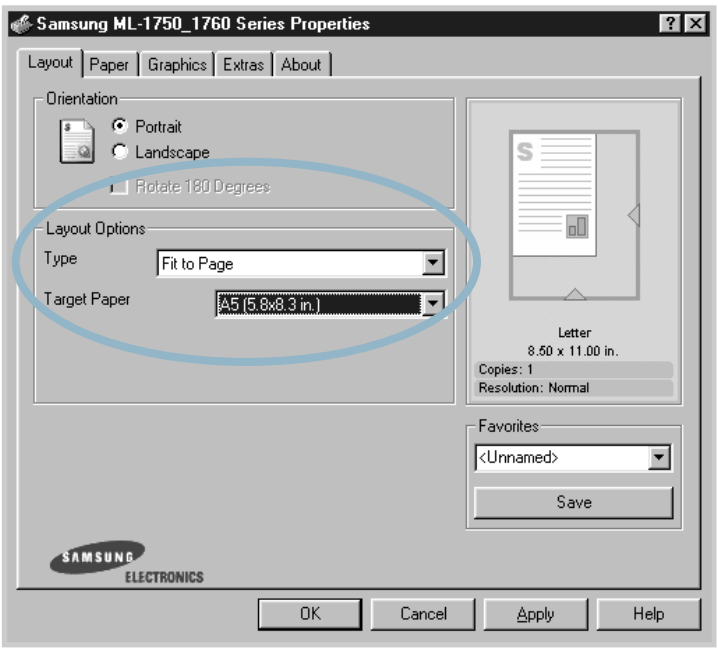


This printer feature allows you to scale your print job to any selected paper size regardless of the digital document size. This can be useful when you want to check fine details on a small document.

1 When you change the print settings from your software application, access the printer properties. See page 4.2.

2 From the **Layout** tab, and select **Fit to Page** in the **Type** drop-down list.

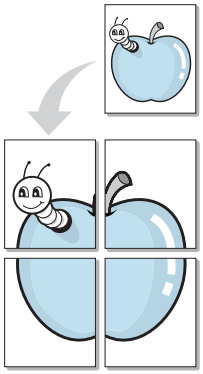
3 Select the correct size from the **Target Paper** drop-down list.




4 Click the **Paper** tab, select the paper source, size and type.

5 Click **OK** and print the document.

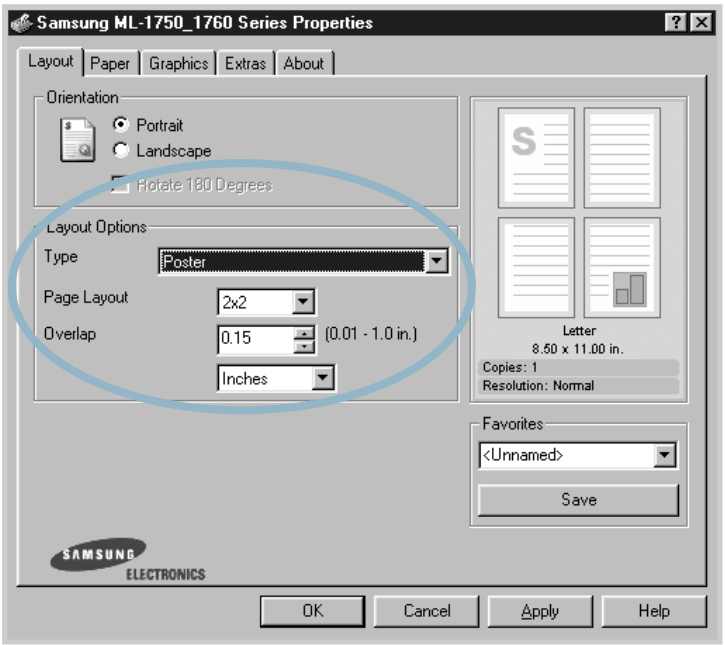
# Printing Posters



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.

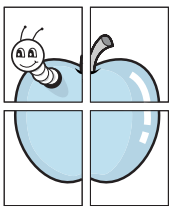
1 When you change the print settings from your software application, access the printer properties. See page 4.2.

2 Click the **Layout** tab, and select **Poster** in the **Type** drop-down list.

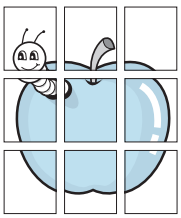



3 Configure the poster option:

You can select the page layout from 2x2, 3x3, or 4x4. If you select 2x2, the output will be automatically stretched to cover 4 physical pages.

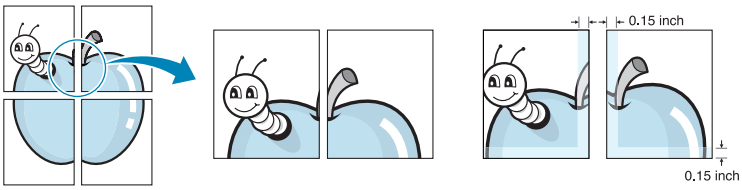


▲ 2 x 2



▲ 3 x 3

Specify an overlap in millimeter or inch to make it easier to reconstruct the resulting poster.



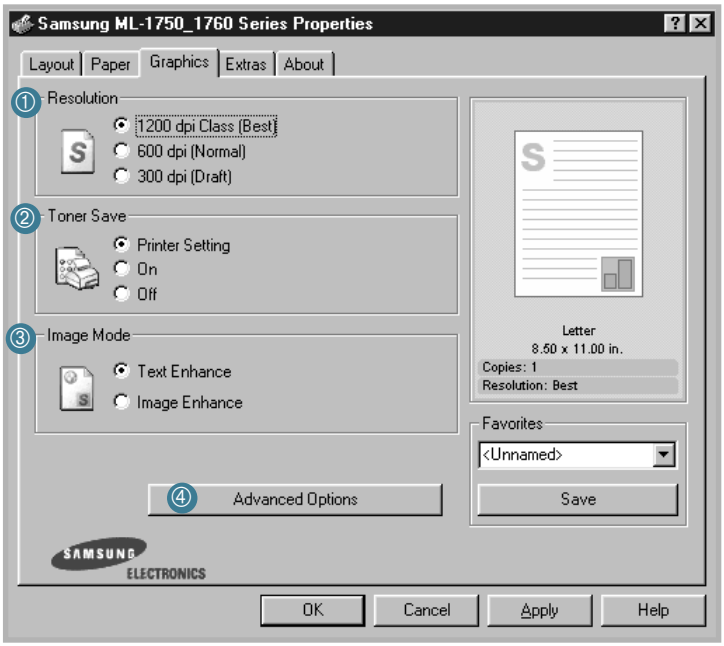

4 Click the **Paper** tab, select the paper source, size and type.

5 Click **OK** and print the document. You can complete the poster by reconstructing the results.

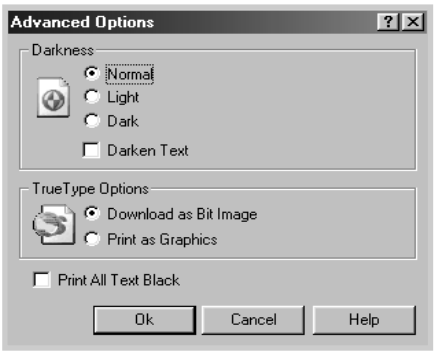
# Setting Graphic Properties

Use the following Graphic options to adjust the print quality for your specific printing needs. See page 4.2 for more information on accessing printer properties.

Click the **Graphics** tab to display the properties shown below.




| Property | Description |
|---|---|
| ① **Resolution** | You can select the printing resolution by choosing from **1200 dpi Class (Best)**, **600 dpi (Normal)** or **300 dpi (Draft)**. The higher the setting, the sharper the clarity of printed characters and graphics. Higher settings may increase time it takes to print a document. |
| ② **Toner Save** | Selecting this option will extend the life of your toner cartridge and reduce your cost per page without a significant reduction in print quality. For detailed information about this mode, see page 4.8. |

| Property | Description |
|---|---|
| ③<br><br>**Image Mode** | Some printed characters or images appear to have jagged or uneven edges. Set this **Image Mode** option to improve the print quality of your text and image, and make the characters and images appear smoother.<br>The **Image Mode** option is only available when you select **1200 dip Class (Best)** in the **Resolution** option.<br>• **Text Enhance**: This setting refines the print quality of characters by smoothing out jagged edges that can occur on the angles and curves of each character.<br>• **Image Enhance**: This setting refines the print quality of photo images. |
| ④<br><br>**Advanced Options** | You can set advanced settings by clicking the **Advanced Options** button.<br>  <br><br>**Darkness**<br><br>Use this option to lighten or darken the image appearance in your print.<br>• **Normal**: This setting is for normal documents.<br>• **Light**: This setting is for bolder line widths or darker gray-scale images.<br>• **Dark**: This setting is for finer line width, higher definition in graphics, and lighter gray-scale images.<br>When the **Darken Text** option is checked, all text in your document is allowed to print darker than a normal document. |

4

| Property | Description |
| --- | --- |
| ④<br><br>**Advanced Options**<br>**(continued)** | **True-Type Options**<br>This option determines what the driver tells the printer about how to image the text in your document. Select the appropriate setting according to the status of your document.<br>• **Download as Bit Image**: When this option is selected, the driver will download the font data as bitmap images. Documents with complicated fonts, such as Korean or Chinese, or various types of fonts will print faster in this setting.<br>• **Print as Graphics**: When this option is selected, the driver will download any fonts as graphics. When printing documents with high graphic content and relatively few TrueType fonts, printing performance (speed) may be enhanced in this setting.<br>When the **Print All Text 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. |

# Printing Watermarks

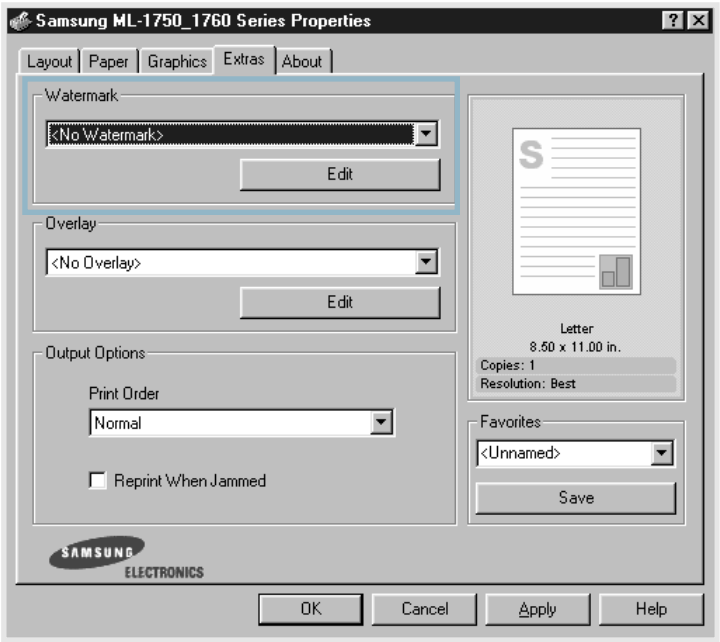
The Watermark option allows you to print text over an existing document. For example, you may want to have large gray letters reading "DRAFT" or "CONFIDENTIAL" printed diagonally across the first page or all pages of a document.

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

## Using an existing Watermark

1 When you change the print settings from your software application, access the printer properties. See page 4.2.

2 Click the **Extras** tab, and select the desired watermark in the **Watermark** drop-down list. You will see the selected watermark in the preview image.

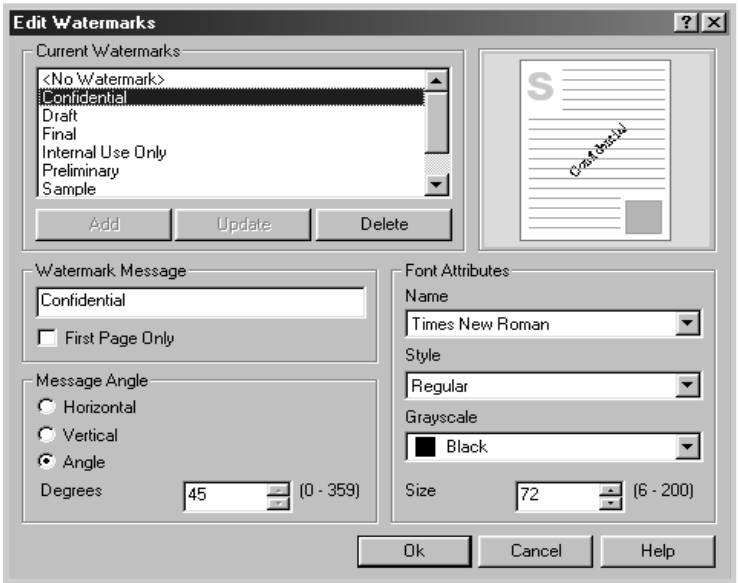



3 Click **OK** to start printing.

## Creating a Watermark

1 When you change the print settings from your software application, access the printer properties. See page 4.2.

2 Click the **Extras** tab, and click the **Edit** button in the Watermark section. The Watermarks window appears.




3 You can enter the desired text message in the **Watermark Message** box.

This will be displayed in the preview window. The preview image is provided so that you can see how the watermark will appear on the printed page.

If the **First Page Only** box is checked, the watermark will be printed on the first page only.

4 Select the desired watermark options.

You can select the font type and size, and color from the **Font Attributes** section, and set the angle of the watermark from the **Message Angle** section.

5 Click **Add** to add a new watermark to the list.

6 When you complete editing, click **OK** and start printing.

To stop printing the watermark, select **<No Watermark>** in the **Watermark** drop-down list.