

SAMSUNG



SAMSUNG LASER PRINTER User's Guide

ML-3560 series

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Country	Customer Care Center	Web Site
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BRAZIL	0800-124-421	www.samsung.com/br
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ECUADOR	1-800-10-7267	www.samsung.com/latin
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PANAMA	800-7267	www.samsung.com/latin
PUERTO RICO	1-800-682-3180	www.samsung.com/latin
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RUSSIA	8-800-200-0400	www.samsung.ru
UKRAINE	8-800-502-0000	www.samsung.com/ur
AUSTRALIA	1300 362 603	www.samsung.com/au
CHINA	800-810-5858 010- 6475 1880	www.samsung.com.cn
HONG KONG	2862 6001	www.samsung.com/hk
INDIA	3030 8282 1600 1100 11	www.samsung.com/in
INDONESIA	0800-112-8888	www.samsung.com/id
JAPAN	0120-327-527	www.samsung.com/jp
MALAYSIA	1800-88-9999	www.samsung.com/my
PHILIPPINES	1800-10-SAMSUNG (7267864)	www.samsung.com/ph
SINGAPORE	1800-SAMSUNG (7267864)	www.samsung.com/sg
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Important Precautions and Safety Information

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

- 1 Read and understand all instructions.
- 2 Use common sense whenever operating electrical appliances.
- 3 Follow all warnings and instructions marked on the machine and in the literature accompanying the machine.
- 4 If an operating instruction appears to conflict with safety information, heed the safety information. You may have misunderstood the operating instruction. If you cannot resolve the conflict, contact your sales or service representative for assistance.
- 5 Unplug the machine from the AC wall socket before cleaning. Do not use liquid or aerosol cleaners. Use only a damp cloth for cleaning.
- 6 Do not place the machine on an unstable cart, stand or table. It may fall, causing serious damage.
- 7 Your machine should never be placed on, near or over a radiator, heater, air conditioner or ventilation duct.
- 8 Do not allow anything to rest on the power cable. Do not locate your machine where the cords will be abused by persons walking on them.
- 9 Do not overload wall outlets and extension cords. This can diminish performance, and may result in the risk of fire or electric shock.
- 10 Do not allow pets to chew on the AC power or PC interface cords.
- 11 Never push objects of any kind into the machine through case or cabinet openings. They may touch dangerous voltage points, creating a risk of fire or shock. Never spill liquid of any kind onto or into the machine.
- 12 To reduce the risk of electric shock, do not disassemble the machine. Take it to a qualified service technician when repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly could cause electric shock when the unit is subsequently used.
- 13 Unplug the machine from the PC and AC wall outlet, and refer servicing to qualified service personnel under the following conditions:
 - When any part of the power cord, plug, or connecting cable is damaged or frayed.
 - If liquid has been spilled into the machine.
 - If the machine has been exposed to rain or water.
 - If the machine does not operate properly after instructions have been followed.
 - If the machine has been dropped, or the cabinet appears damaged.
 - If the machine exhibits a sudden and distinct change in performance.
- 14 Adjust only those controls covered by the operating instructions. Improper adjustment of other controls may result in damage, and may require extensive work by a qualified service technician to restore the machine to normal operation.

- 15 Avoid using this machine during a lightning storm. There may be a remote risk of electric shock from lightning. If possible, unplug the AC power for the duration of the lightning storm.
- 16 If you continuously print multiple pages, the surface of the output tray may become hot. Be careful not to touch the surface, and keep children away from the surface.
- 17 SAVE THESE INSTRUCTIONS.

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 - CLASS 3B LASER RADIATION WHEN OPEN
AVOID EXPOSURE TO THE BEAM.
DANGER - LASER RADIATION AVOID DIRECT
EXPOSURE TO BEAM.

DANGER - RADIATIONS INVISIBLES DU LASER EN CAS
D'OUVERTURE. EVITER TOUTE EXPOSITION
DIRECTE AU FAISCEAU.

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

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.
UNDGÅ UDSÆTTELSE FOR STRÅLNING.

ADVARSEL - USYNLIG LASERSTRÅLNING NÅR DEKSEL
ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING - OSYNLIG LASERSTRÅLNING NÅR DENNA DEL
ÄR ÖPPEN. STRÅLEN ÄR FARLIG.

VAROITUS - NÄKYMÄTÖNTÄ LASERSÄTEILYÄ AVATTAESSA.
VARO SUORAA ALTISTUMISTA SÄTEELLE.

注 意 - 严禁揭开此盖, 以免激光泄露灼伤
주의 - 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.

Recycling



Please recycle or dispose of packaging materials for this product in an environmentally responsible manner.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)



This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

Radio Frequency Emissions

FCC Regulations

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

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:

- Reorient or relocate the receiving antenna.

- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- 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.

United States of America

Federal Communications Commission (FCC)

Intentional emitter per FCC Part 15

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz/5 GHz Band, may be present (embedded) in your printer system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

Wireless devices that may be in your system are only qualified for use in the United States of America if an FCC ID number is on the system label.

The FCC has set a general guideline of 20 cm (8 inches) separation between the device and the body, for use of a wireless device near the body (this does not include extremities). This device should be used more than 20 cm (8 inches) from the body when wireless devices are on. The power output of the wireless device (or devices), which may be embedded in your printer, is well below the RF exposure limits as set by the FCC.

This transmitter must not be collocated or operation in conjunction with any other antenna or transmitter.

Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and(2) this device must accept any interference received, including interference that may cause undesired operation of the device.



Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Contact manufacturer for service.




FCC Statement for Wireless LAN use:

“While installing and operating this transmitter and antenna combination the radio frequency exposure limit of 1mW/cm2 may be exceeded at distances close to the antenna installed. Therefore, the user must maintain a minimum distance of 20cm from the antenna at all times. This device can not be colocated with another transmitter and transmitting antenna.”

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/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.

European Radio Approval Information (for products fitted with EU-approved radio devices)

This Product is a printer; low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz/5 GHz band, may be present (embedded) in your printer system which is intended for home or office use. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices. Wireless devices that may be in your system are only qualified for use in the European Union or associated areas if a CE mark with  a Notified Body Registration Number and the Alert Symbol is on the system label.

The power output of the wireless device or devices that may be embedded in you printer is well below the RF exposure limits as set by the European Commission through the R&TTE directive.

European States qualified under wireless approvals:

EU Austria, Belgium, Denmark, Finland, France (with frequency restrictions), Germany, Greece, Ireland, Italy, Luxembourg, The Netherlands, Portugal, Spain, Sweden and the United

Accept EU Iceland, Liechtenstein, Norway and Switzerland

European States with restrictions on use:

EU In France, the frequency range is restricted to 2446.5-2483.5 MHz for devices above 10 mW transmitting power such as wireless

Accept EU No limitations at this time.

Regulatory Compliance Statements

Wireless Guidance

Low power, Radio LAN type devices (radio frequency (RF) wireless communication devices), operating in the 2.4 GHz/5 GHz Band, may be present (embedded) in your printer system. The following section is a general overview of considerations while operating a wireless device.


Additional limitations, cautions, and concerns for specific countries are listed in the specific country sections (or country group sections). The wireless devices in your system are only qualified for use in the countries identified by the Radio Approval Marks on the system rating label. If the country you will be using the wireless device in, is not listed, please contact your local Radio Approval agency for requirements. Wireless devices are closely regulated and use may not be allowed.


The power output of the wireless device or devices that may be embedded in your printer is well below the RF exposure limits as known at this time. Because the wireless devices (which may be embedded into your printer) emit less energy than is allowed in radio frequency safety standards and recommendations, manufacturer believes these devices are safe for use. Regardless of the power levels, care should be taken to minimize human contact during normal operation.

As a general guideline, a separation of 20 cm (8 inches) between the wireless device and the body, for use of a wireless device near the body (this does not include extremities) is typical. This device should be used more than 20 cm (8 inches) from the body when wireless devices are on and transmitting.

This transmitter must not be collocated or operation in conjunction with any other antenna or transmitter.

Some circumstances require restrictions on wireless devices. Examples of common restrictions are listed below:

 Radio frequency wireless communication can interfere with equipment on commercial aircraft. Current aviation regulations require wireless devices to be turned off while traveling in an airplane. IEEE 802.11 (also known as wireless Ethernet) and Bluetooth communication devices are examples of devices that provide wireless communication.

 In environments where the risk of interference to other devices or services is harmful or perceived as harmful, the option to use a wireless device may be restricted or eliminated. Airports, Hospitals, and Oxygen or flammable gas laden atmospheres are limited examples where use of wireless devices may be restricted or eliminated. When in environments where you are uncertain of the sanction to use wireless devices, ask the applicable authority for authorization prior to use or turning on the wireless device.



Every country has different restrictions on the use of wireless devices. Since your system is equipped with a wireless device, when traveling between countries with your system, check with the local Radio Approval authorities prior to any move or trip for any restrictions on the use of a wireless device in the destination country.



If your system came equipped with an internal embedded wireless device, do not operate the wireless device unless all covers and shields are in place and the system is fully assembled.



Wireless devices are not user serviceable. Do not modify them in any way. Modification to a wireless device will void the authorization to use it. Please contact manufacturer for service.



Only use drivers approved for the country in which the device will be used. See the manufacturer System Restoration Kit, or contact manufacturer Technical Support for additional information.

Replacing the Fitted Plug (for UK Only)

IMPORTANT

The mains lead for this machine is fitted with a standard (BS 1363) 13 amp plug and has a 13 amp fuse. When you change or examine the fuse, you must re-fit the correct 13 amp fuse. You then need to replace the fuse cover. If you have lost the fuse cover, do not use the plug until you have another fuse cover.

Please contact the people from you purchased the machine.

The 13 amp plug is the most widely used type in the UK and should be suitable. However, some buildings (mainly old ones) do not have normal 13 amp plug sockets. You need to buy a suitable plug adaptor. Do not remove the moulded plug.

WARNING

If you cut off the moulded plug, get rid of it straight away.

You cannot rewire the plug and you may receive an electric shock if you plug it into a socket.

IMPORTANT WARNING: You must earth this machine.

The wires in the mains lead have the following color code:

- Green and Yellow: Earth
- Blue: Neutral
- Brown: Live

If the wires in the mains lead do not match the colors marked in your plug, do the following:

You must connect the green and yellow wire to the pin marked by the letter "E" or by the safety 'Earth symbol' or colored green and yellow or green.

You must connect the blue wire to the pin which is marked with the letter "N" or colored black.

You must connect the brown wire to the pin which is marked with the letter "L" or colored red.

You must have a 13 amp fuse in the plug, adaptor, or at the distribution board.



EU Declaration of Conformity (R&TTE)

We, Samsung Electronics Co., Ltd.

of Samsung Electronics Co., Ltd.
#259, Gongdan-Dong, Gumi-City, Gyungbuk, Korea 730-030
of Shandong Samsung Telecommunications Co., Ltd.
Sanxing Road, Weihai Hi-Tech, IDZ Shandong Province, China 264209
(factory name, address)

declare under our sole responsibility that the product

Laser Beam Printer
model "KT35MPB, Phaser 3500"

to which this declaration relates is in conformity with

R&TTE Directive 1999/5/EC (Annex II)
Low Voltage Directive 73/23/EEC
EMC Directive 89/336/EEC, 92/31/EEC

By application of the following standards

RF : EN 300 328 V1.4.1 EN 301 893 V1.2.3

LVD : EN 60950-1:2001+A11

EMC : EN 55022:1998+A1:2000+A2:2003 EN 55024:1998+A1:2001+A2:2003

EN61000-3-2:2000 EN61000-3-3:1995+A1:2001

EN 301 489-1 V1.6.1 EN 301 489-17 V1.2.1

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1 Introduction

Congratulations on the purchase of your printer!

This chapter includes:

- **Special Features**
- **Printer Components**

Special Features

Your new printer is equipped with several special features that improve the print quality. You can:

Print with excellent quality and high speed



- You can print up to **1200 x 1200 dpi** effective output. For details, see the **Software Section**.
- Your printer prints A4-sized paper at **33 ppm** and letter-sized paper at **35 ppm**.

Handle paper flexibly



- The **Multi-Purpose Tray** supports letterheads, envelopes, labels, transparencies, custom-sized materials, postcards, and heavy paper. The **Multi-Purpose Tray** also supports up to 100 sheets of plain paper.
- **Standard 500-sheet input tray** (Tray1) and **optional 500-sheet input tray** (Tray 2) supports all standard sizes of paper.
- Two output tray; select either **the output tray (face-down)** or **the rear cover (face-up)** for the most convenient access.
- **Straight-through paper path** capability from the Multi-Purpose Tray to the rear cover.

Create professional documents



- Print **Watermarks**. You can customize your documents with a watermark, such as the word "Confidential." For details, see the **Software Section**.
- Print **Booklets**. This feature enables you to easily print a document to create a book. Once printed, all you have to do is fold and staple the pages. For details, see the **Software Section**.
- Print **Posters**. The text and pictures of each page of your document can be magnified and printed across several sheets of paper and taped together to form a poster. For details, see the **Software Section**.

Save time and money

- This printer allows you to use the **Toner Save** mode to save toner. For details, see page 2.8.
- You can print on both sides of the paper to save paper (**double-sided printing**) if you install an optional duplex unit. For details, see page 9.9.
- You can print multiple pages on a single sheet of paper to save paper (**N-Up printing**). For details, see the **Software Section**.
- You can use preprinted forms and letterhead. For details, see the **Software Section**.
- This printer automatically **conserves electricity** by substantially reducing power consumption when not printing.



Expand the printer capacity

- This printer has 32 MB of memory which can be expanded to **288 MB**. For details, see page 9.1.
- A **Network interface** enables network printing. You can add an optional network interface card to the ML-3560. The ML-3561N and ML-3561ND come with a built-in network interface, 10/100 Base TX. You can also use an optional wireless network interface in the ML-3560, ML-3561N and ML-3561ND.
- Your printer comes with a built-in **PostScript 3 Emulation*** (PS) DIMM which enables PS printing.

* PostScript 3 Emulation



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* 136 PS3 fonts

- Contains UFST and MicroType from Monotype Imaging Inc..

Use the optional hard disk

If you install an optional hard disk, you can use it in various ways with your printer. For details, see page 9.4.

- The hard disk allows the data from your computer to be sent to the print queue of the printer hard disk. This decreases the workload of the computer.
- You can use various print features, such as storing a job in the hard disk and printing jobs anytime you want.
- You can print or delete the stored files in the hard disk.
- You can manage the print jobs in the print queue of the printer hard disk.



Print in various environments

- You can print in **Windows 95/98/Me/NT 4.0/2000/XP/2003**.
- Your printer is compatible with **Linux** and **Macintosh**.
- Your printer comes with both the **Parallel** and **USB** interfaces.
- You can also use a **network interface**. The ML-3561N and ML-3561ND come with a built-in network interface, 10/100 Base TX. However, you need to install the optional network interface card to the ML-3560. You can also install the optional wireless network interface in the ML-3560, ML-3561N and ML-3561ND.

Printer Features

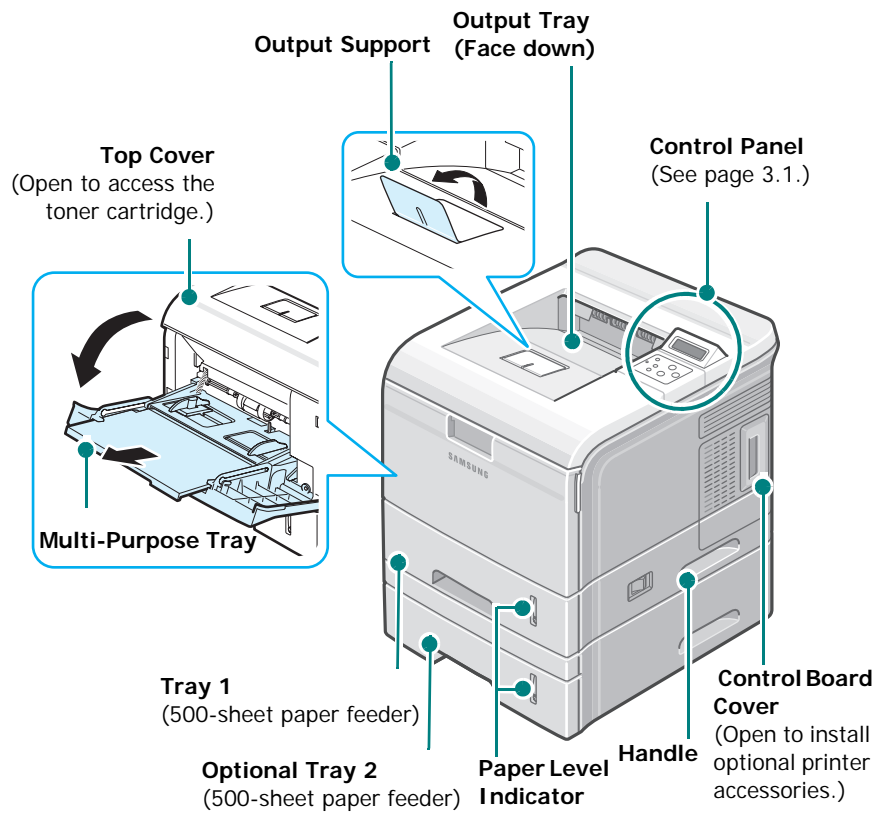
The table below lists a general overview of features supported by your printer.

(S: Standard, O: Option)

Features	ML-3560	ML-3561N	ML-3561ND
IEEE 1284	S	S	S
USB 2.0	S	S	S
Network Interface	O	S	S
Wireless LAN	O	O	O
PostScript Emulation	S	S	S
Hard Disk	O	O	O
Duplex Unit	O	O	S
Optional Tray 2	O	O	O

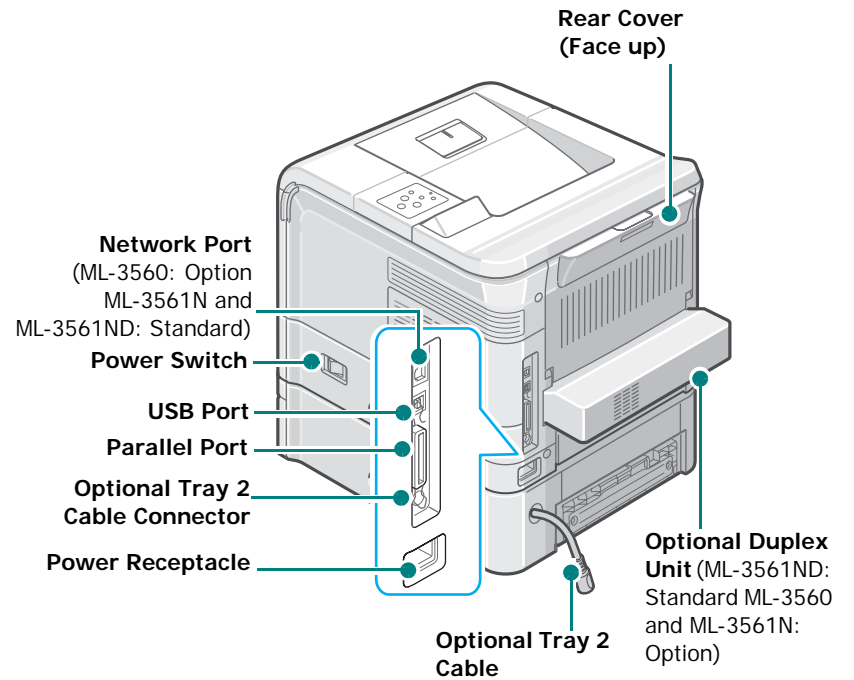
Printer Components

Front View



* The figure above shows an ML-3561ND with all available options.

Rear View



* The figure above shows an ML-3561ND with all available options.

2 Setting Up Your Printer

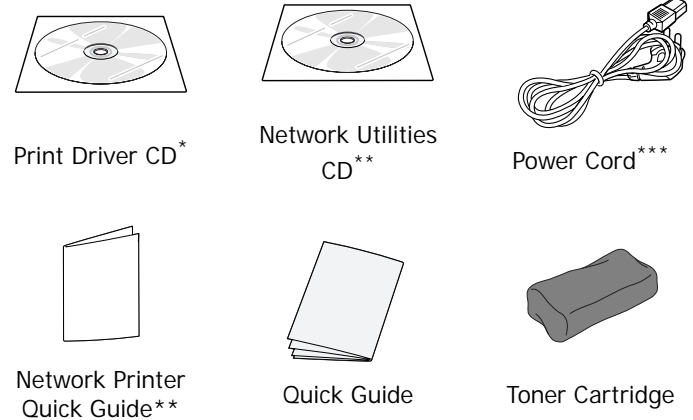
This chapter provides step by step information on setting up your printer.

This chapter includes:

- **Unpacking**
- **Installing the Toner Cartridge**
- **Loading Paper**
- **Connecting a Printer Cable**
- **Turning the Printer On**
- **Printing a Demo Page**
- **Changing the Display Language**
- **Using the Toner Save Mode**
- **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:



* The Printer Driver CD contains the printer driver, the User's Guide, and the Adobe Acrobat Reader programme.

**The Network Utilities CD and Network Printer Quick Guide are only for ML-3561N and ML-3561ND.

***The appearance of the power cord may differ depending on your country's specifications.

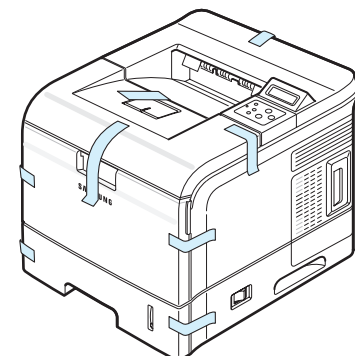
NOTES:

- If any items are missing or damaged, notify your dealer immediately.
- **Components may differ from one country to another.**

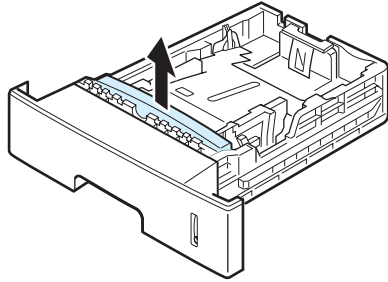


CAUTION: The printer weighs 17 kg including the toner cartridge and the tray. Use safe lifting and handling techniques. If you need to move the printer, it should be moved by two people. Use the lifting handles as shown in page 1.3. Back injury could result if a single person attempts to lift the printer.

- 2 Carefully remove all of the packing tape from the printer.



- 3 Pull the paper tray out of the printer and remove the packing tape and the packing material inside of the tray.



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. Do not set the printer close to the edge of your desk or table.

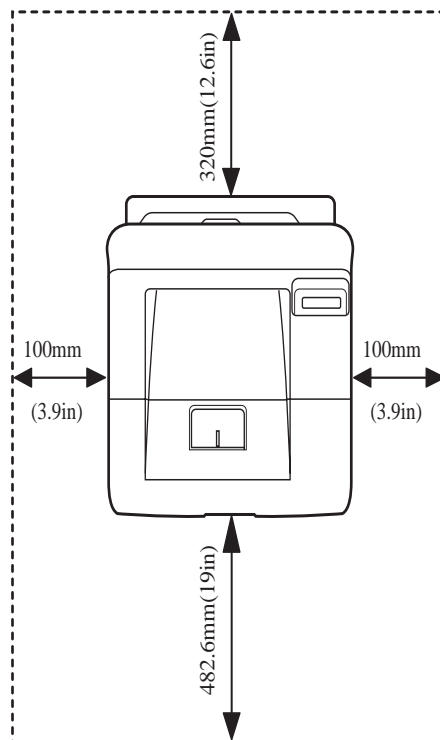
Clearance Space

Front: 482.6 mm
(enough space so that trays can be opened or removed)

Back: 320 mm
(enough space to allow opening of the rear output tray)

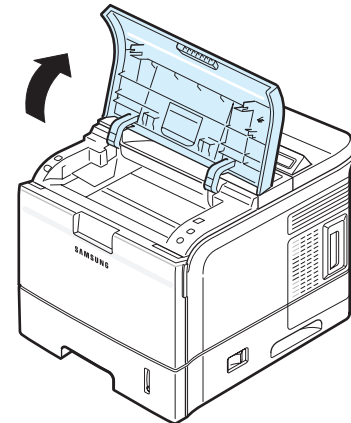
Right: 100 mm
(enough space for ventilation)

Left: 100 mm
(enough space for ventilation)

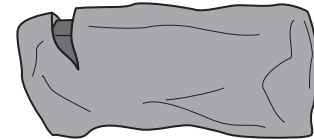


Installing the Toner Cartridge

- 1 Open the top cover. Pull up on the handle to open the cover.

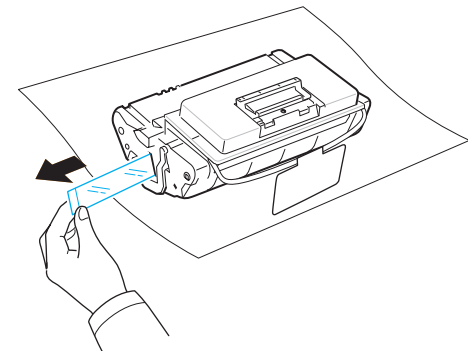


- 2 Remove the starter toner cartridge from its bag.



CAUTION: Do not use sharp objects, such as a knife or scissors, to open the toner cartridge package. They might scratch the drum of the cartridge.

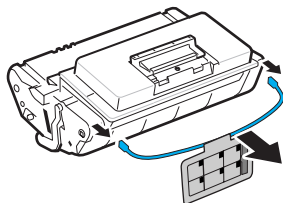
- 3 Locate the sealing tape at the end of the toner cartridge. Carefully pull the tape completely out of the cartridge and discard it.



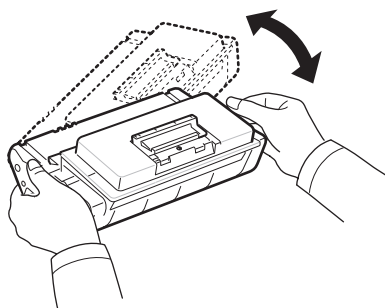
NOTES:

- The sealing tape should be longer than 60 cm when correctly removed.
- Holding the toner cartridge, pull the sealing tape straight to remove it from the cartridge. Be careful not to cut the tape. If this happens, you cannot use the toner cartridge.
- Refer to the helpful pictures on the cartridge wrapping paper.

- 4 There is a flexible plastic holder. Remove the holder out of the toner cartridge.



- 5 Thoroughly shake the cartridge from side to side to distribute the toner evenly inside the cartridge.



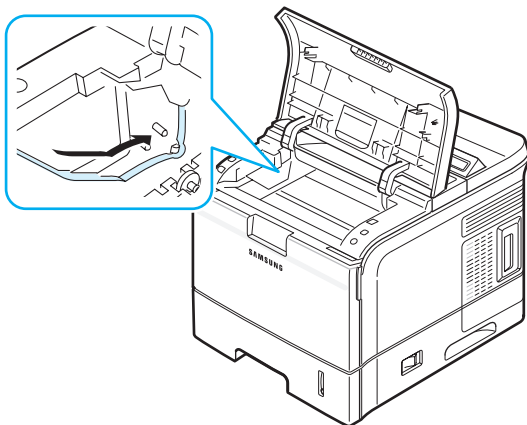
Thoroughly shaking the cartridge will assure maximum copies per cartridge.



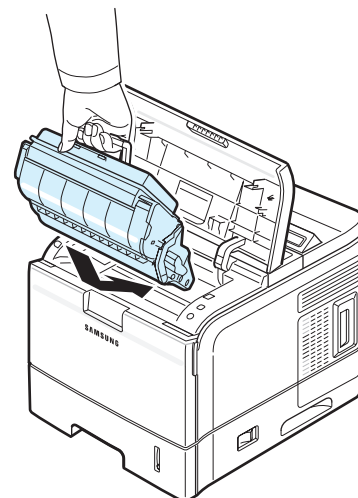
CAUTION:

- 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.
- Do not touch the green surface, the OPC drum, on the front of the toner cartridge with your hands or any other material.
- To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper to protect it, if necessary.

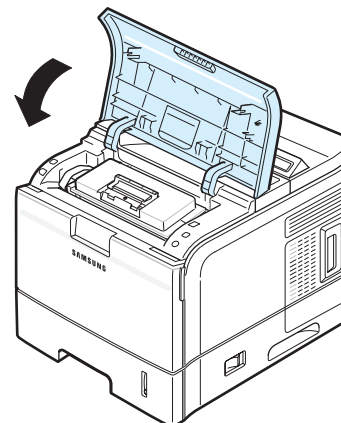
- 6 Locate the cartridge slots inside the printer, one on each side.



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



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



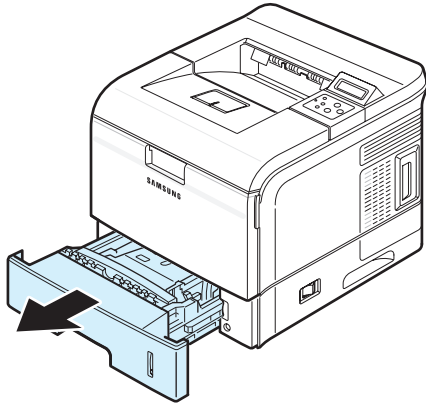
NOTE: When printing text at 5% coverage, you can expect a toner cartridge life of approximately 12,000 pages (6,000 pages for the toner cartridge that is shipped with the printer).

Loading Paper

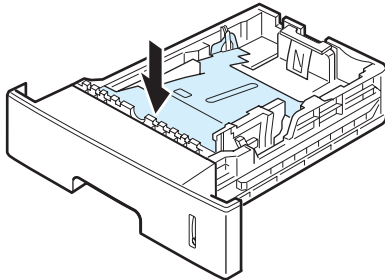
The Tray 1 can hold a maximum of 500 sheets of 20lb plain paper.

To load a stack of A4 or Letter-sized paper:

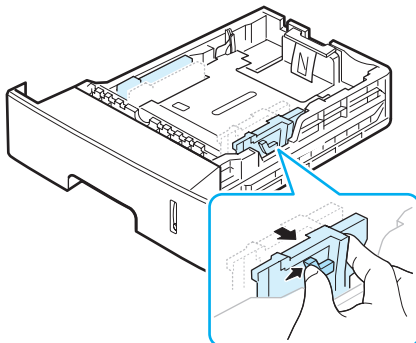
- 1 Pull open the Tray 1 and remove it from the printer.



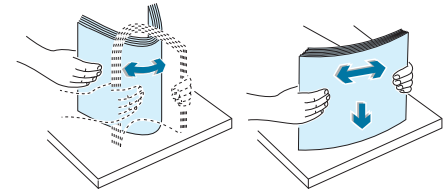
- 2 Pull down the metal plate until it locks into position.



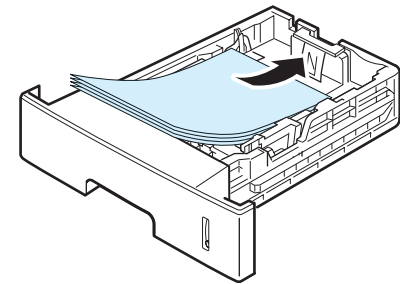
- 3 Squeeze the paper width guide and slide it to the desired paper size marked at the bottom of the tray.



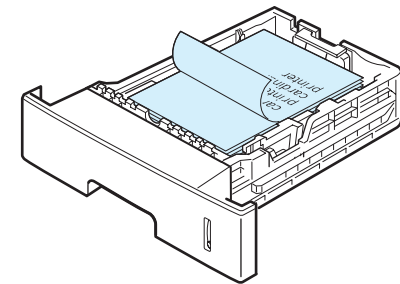
- 4 Fan the edges of the paper stack to separate the pages. Then tap the stack on a flat surface to even it up.



- 5 Insert the paper stack into the paper tray **with the print side down**.

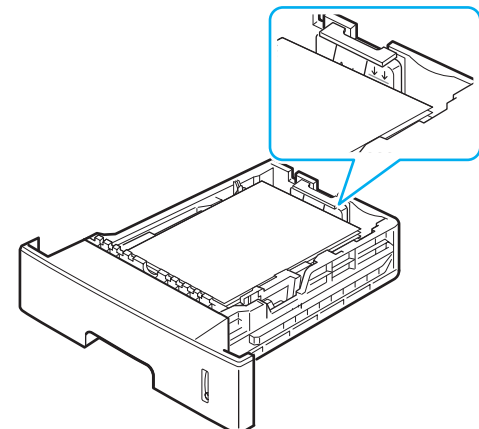


You can load previously printed paper. The printed side should be facing up with an uncurled edge at the top side. If you experience problems with paper feed, turn the paper around.

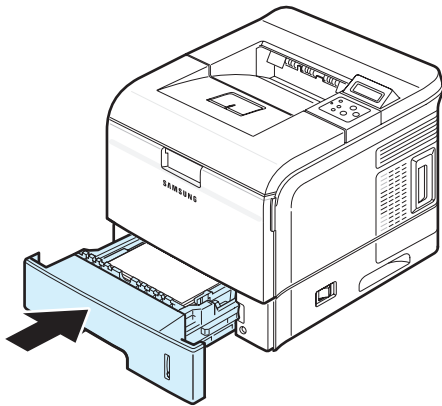


NOTE: If you want load a different sized paper, you need to adjust the paper guides. For details, see page 2.5.

- 6 Make sure not to overfill the tray and that all four corners are flat in the tray and under the paper length guide bracket, as shown below. Overfilling the tray may cause a paper jam.



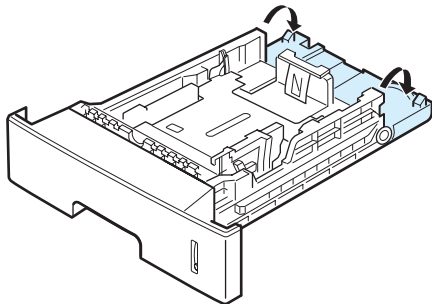
- 7 Insert and slide the paper tray back into the printer.



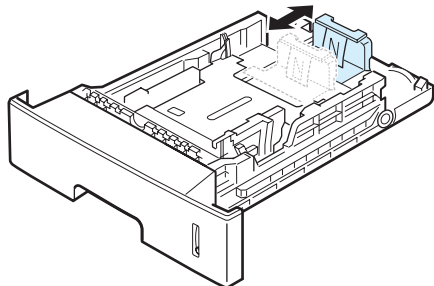
Changing the Size of the Paper in the Paper Tray

The tray is preset to Letter or A4 size, depending on your country. To change the size, you need to adjust the paper guides.

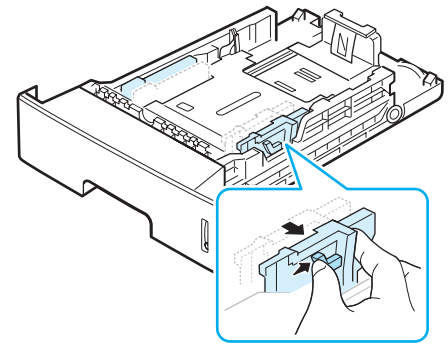
- 1 Push the back plate of the tray outwards completely so that it can extend the length of the tray.



- 2 Squeeze the paper length guide and slide it to the correct position for the paper size you are loading, which is marked at the bottom of the tray.

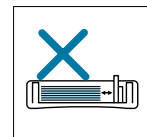
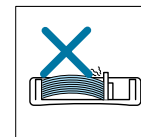
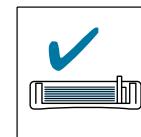


- 3 Squeeze the paper width guide and slide it to the desired paper size marked at the bottom of the tray.

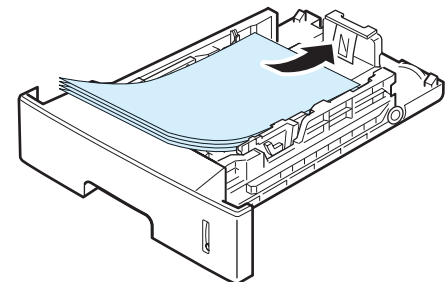


NOTES:

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



- 4 Load paper with the print side down. For details, see from step 5 on page 2.4.



Connecting a Printer Cable

For Local Printing

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

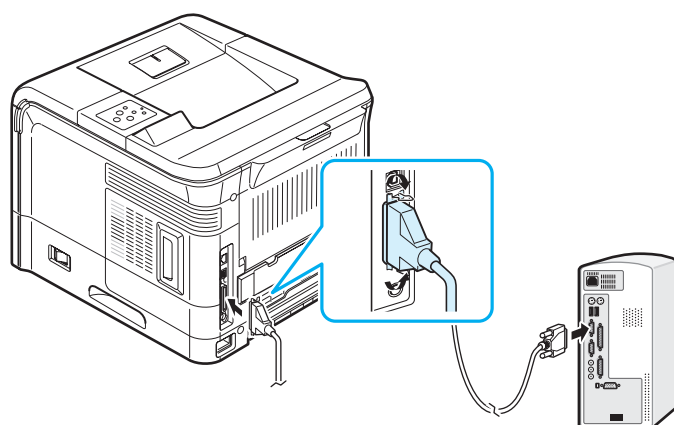
If you are a Macintosh user, you can use only the USB cable.

NOTE: You only need to connect one of the cables mentioned above. Do not use the parallel cable and USB cables at the same time.

Using a Parallel Cable

NOTE: Connecting the printer to the parallel port of the computer requires a certified parallel cable. You will need to buy a IEEE1284 compliant cable that is 3 m or less in length.

- 1 Make sure that both the printer and the computer are turned off.
- 2 Connect a parallel printer cable into the parallel port on the back of the printer.
Push the metal clips down to fit inside the notches on the cable plug.

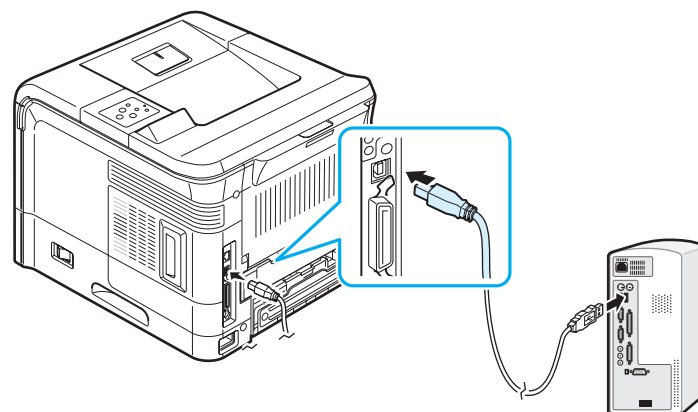


- 3 Connect the other end of the cable to the parallel interface port on your computer, and tighten the screws.
See your computer's User's Guide, if you need help.

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 3 m in length.

- 1 Make sure that both the printer and the computer are turned off.
- 2 Connect a USB printer cable into the USB port on the back of the printer.



- 3 Connect the other end of the cable to the USB port on your computer.
See your computer's User's Guide, if you need help.

NOTE: To print using the USB interface, you must be running Windows 98/Me/2000/XP/2003 or Macintosh with the OS 9.x and G3 processor or OS 10.2.x later.

For Network Printing

You can attach your printers to a network using an Ethernet cable (UTP cable with RJ.45 connector).

The ML-3561N and ML-3561ND come with a built-in network interface card.

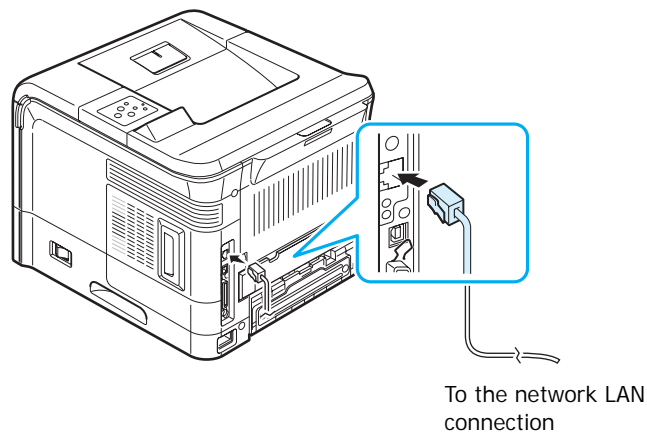
If you are a ML-3560 user, you need to install an optional network interface card.

If you want to use the printer in both wired and wireless network environments, you need to install an optional wired and wireless network card to the ML-3560. For the ML-3561N, ML-3561ND you can replace the network interface card to one supporting the wired and wireless LAN interface.

For details about installing the network interface card, see page 9.3.

Using an Ethernet Cable

- 1 Connect one end of the Ethernet cable into the network port on the printer.



- 2 Connect the other end of the cable into a network LAN connection.
See your computer's User's Guide, if you need help.

Using a Network Antenna

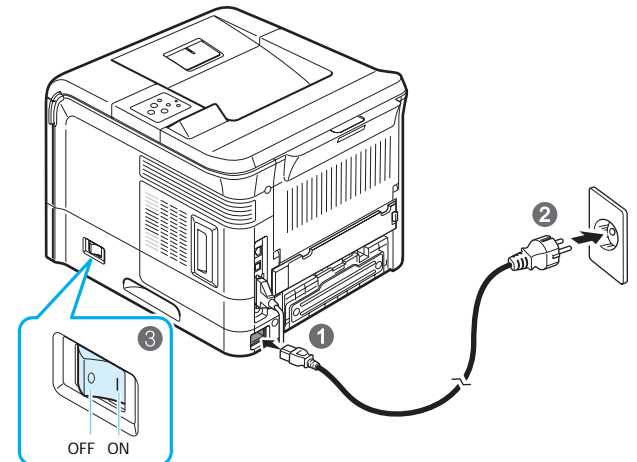
If you install a wired and wireless network card, you can use your printer in a wireless environment by using a network antenna.

For the ML-3560, ML-3561N, ML-3561ND you need to install an optional wired and wireless network card. For details about installing the wired and wireless network card, see page 9.3.

NOTE: After connecting the printer, you need to configure the network parameters on the control panel. See page 8.2. You can use the software supplied with the card. Refer to the **Software Section**.

Turning the Printer On

- 1 Connect one end of the supplied power cord into the power receptacle on the back of the printer.
- 2 Connect the other end into a properly grounded AC outlet and turn on the printer using the power switch.



To view your display text in another language, see page 2.8.



CAUTION:

- The fuser area inside the rear cover of your printer becomes very hot when in use. Take care not to burn your fingers when you access this area.
- Do not disassemble the printer with power on. If you do, you may receive an electric shock.

Printing a Demo Page

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

- 1 In ready mode, press the **Menu** button (Ⓜ) on the control panel. You can see "Information" on the bottom line of the display.
- 2 Press the **Enter** button (ⓧ) to access the menu.
- 3 Press the scroll button (⏪ or ⏩) until you see "Demo Page" on the bottom line.
- 4 Press the **Enter** button (ⓧ).
A demo page prints out.

Changing the Display Language

To change the language that is displayed on the control panel, follow these steps:

- 1 In ready mode, press the **Menu** button (Ⓜ) on the control panel until you see “Setup” on the bottom line of the display.
- 2 Press the **Enter** button (Ⓚ) to access the menu.
- 3 Press the scroll button (⏪ or ⏩) until you see “LCD Language” on the bottom line.
- 4 Press the **Enter** button (Ⓚ) to confirm the menu item.
- 5 Press the scroll button (⏪ or ⏩) to display the language you want to use.
- 6 Press the **Enter** button (Ⓚ) to save the selection.
- 7 Press the **On Line/Continue** button (Ⓛ) to return to ready mode.

Using the Toner Save Mode

The Toner Save mode allows the printer to use less toner on each page. Activating this mode extends the life of your toner cartridge and reduces your cost per page beyond what one would experience in the normal mode, but it reduces print quality. This setting is not available with the 1200 dpi setting.

There are three ways to enable the Toner Save mode:

Using the Control Panel Button

Press the **Toner Save** button (Ⓢ) on the control panel. The printer must be in ready mode; the **On Line/Continue** button (Ⓛ) is on in green and “Ready” is shown on the display.

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

Using the Control Panel Menu

You can set the **Toner Save** item in the **Graphics** menu to turn the Toner Save mode on or off.

For further details about using the control panel menu, see page 3.2.

From the Software Application

You can set the Toner Save mode from the printer properties window on your printer driver. For details, see the **Software Section**.

Installing Printer Software

*You must install software using the supplied Printer Drive CD after you have set up your printer and connected it to your computer. For details, see the **Software Section**.*

The Printer Drive CD provides you with the following software:

If you are printing from Windows

You can install the following printer software using the Printer Drive CD.

- **PCL printer driver** for Windows. Use this driver to take full advantage of your printer's features. See the **Software Section** for details about installing the Samsung PCL printer driver.
- **PostScript Printer Description (PPD) file** for Windows to allow installation of the PostScript driver.
To install the PostScript driver, you need to select **Custom** and put a check mark on the PostScript driver when you install the software. For details, see the **Software Section**.
- **Smart Panel**. Appears when printing errors occur. See the **Software Section** for details about installing the Smart Panel program.

If you are printing in Linux

You can print from a Linux-based computer with your printer. Go to the **Software Section** for information about installing the Linux driver and printing from a Linux environment.

If you are printing from a Macintosh

You can print from a Macintosh with your printer. Go to the **Software Section** for information about installing the print software and printing from a Macintosh.

3 Using the Control Panel

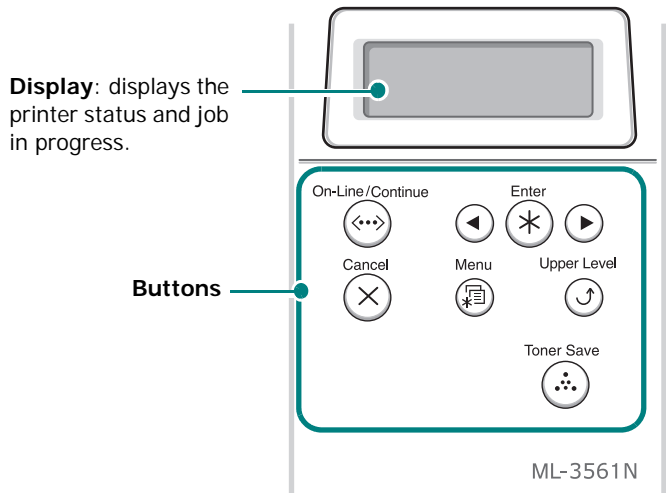
This chapter describes how to use the printer’s control panel.

This chapter includes:

- Understanding the Control Panel
- Using Control Panel Menus

Understanding the Control Panel

The control panel on the top right side of your printer has the display and the eight buttons.



Display

Message	Description
Ready	<ul style="list-style-type: none">• The printer is on-line and ready to print.• If you press the On Line/Continue button (↔), the printer goes to off-line.
Offline	<ul style="list-style-type: none">• The printer is off-line and cannot print.• If you press the On Line/Continue button (↔), the printer switches to on-line.
Printing XXX * xxx is the current emulation.	<ul style="list-style-type: none">• The printer is printing.• If you want to stop printing, press the Cancel button (X).
Sleeping...	<ul style="list-style-type: none">• The printer is in the Power Save mode, consuming less power. When a print job is received from the computer, or if any button is pressed, the printer switches to on-line.• To deactivate the Power Save mode or change the power-saving time, see page 3.6.

See “Understanding Display Messages” on page 7.10 for a complete listing of all printer messages.

Buttons

Button	Description		
On Line/ Continue	<ul style="list-style-type: none">Press to switch between on-line and off-line.In menu mode, press to return to ready mode. You can check the printer status according to the button backlight.		
	Green	On	The printer is on-line and can receive data from the computer.
		Blinking	<ul style="list-style-type: none">When the backlight slowly blinks, the printer is receiving data from the computer.When the backlight fast blinks, the printer is receiving and printing data. If you want to pause printing, switch the printer to off-line.
	Orange	On	The printer has stopped printing due to a major error. Check the display message. See page 7.10 for details on the meaning of the error message.
		Blinking	A minor error occurs and the printer is waiting an error to be cleared. Check the display message. When the problem is cleared, the printer resumes printing. If you want to ignore this warning, press this button.
	Off	<ul style="list-style-type: none">The printer is off-line and cannot print.The printer is in the Power Save mode. When data is received, it switches to on-line automatically.	
Menu	<ul style="list-style-type: none">Press to enter menu mode.In menu mode, press to scroll through the menus.		
Enter	In menu mode, press to select the displayed sub menu item or to confirm the changed setting. You can see the selected value marked with *.		
Scroll buttons	In menu mode, press to scroll through sub menu items or setting options. Pressing ► moves you to the next option and pressing ◀ sends you back to the previous option.		
Cancel	<ul style="list-style-type: none">Press to cancel the current print job.In menu mode, press to return to ready mode.		

Button	Description
Upper Level	In menu mode, press to go back to the upper menu level.
Toner Save	Press to enable or disable the Toner Save mode. <ul style="list-style-type: none"> If the button backlight is on, the mode is enabled and the printer uses less toner to print a document. If the button backlight is off, the mode is disabled and the printer will print in the normal quality. For more information on the Toner Save mode, see page 2.8.

Using Control Panel Menus

A number of menus are available to make it easy for you to change printer settings. The diagram on next column shows the menus and all of the menu items available in each menu. The items in each menu and the values you can select are described in more detail in the tables beginning on page 3.3.

Accessing Control Panel Menus

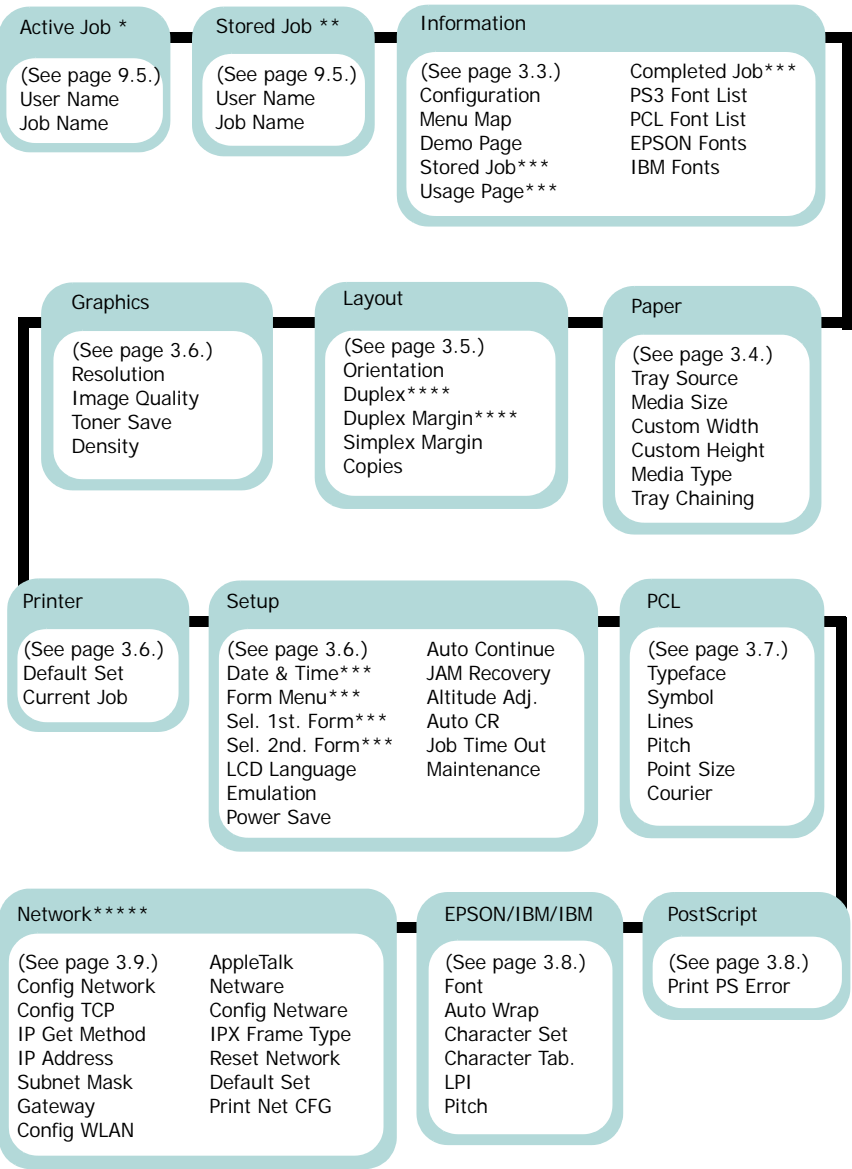
You can control your printer from the printer's control panel. You can also set the control panel menus while the printer is in use.

- 1 In ready mode, press the **Menu** button (Ⓜ) until you see the menu you want on the bottom line of the display.
- 2 Press the **Enter** button (ⓧ) to access the menu.
- 3 Press the scroll button (◀ or ▶) until the desired menu item displays on the bottom line.
- 4 Press the **Enter** button (ⓧ) to confirm the selected item.
- 5 If the selected menu item has sub menus, repeat steps 3 and 4.
- 6 Press the scroll button (◀ or ▶) until the desired setting option displays on the bottom line, or enter the required value.
- 7 Press the **Enter** button (ⓧ) to save your input or selection.
An asterisk (*) appears next to the selection on the display, indicating that it is now the default.
- 8 To exit the menu, press the **Upper Level** button (⏮) repeatedly, or the **Cancel** button (ⓧ).
After 60 seconds of inactivity (no key being pressed), the printer automatically returns to ready mode.

NOTE: Print settings made from the printer driver on a connected computer override the settings on the control panel.

Overview of Control Panel Menus

The control panel menus are used to configure the printer. The control panel provides access to the following menus:



*: Available when your printer is printing a file from an optional hard disk.
**: Available when there is a file stored in an optional hard disk.
***: Available when an optional hard disk is installed in your printer.
****: Available when an optional duplex unit is installed in your printer.
*****: Available when a network card is installed in your printer. (ML-3561N or ML-3561ND, or ML-3560 with an optional network card)

Information Menu

This menu contains printer information pages that give details about the printer and its configuration.

Item	Explanation
Configuration	The configuration page shows the printer's current configuration. See page 6.1.
Menu Map	The menu map shows the layout and current settings of the control panel menu items.
Demo Page	The demo page allows you to check if your printer properly performs printing.
Stored Job	The list shows the file list stored in the optional hard disk.
Usage Page	The Usage Page contains the total number of pages printed by person or group. This page can be used for cost accounting. See page 6.1.
Completed Job	The Completed Job page shows the list of completed print jobs. The list contains up to 50 files from the latest print jobs.
PS3 Font List PCL Font List EPSON Fonts IBM Fonts	The font sample list shows all of the fonts currently available in the selected language.

Paper Menu



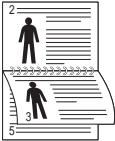
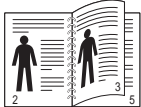


Use this menu to define all settings relating to print material input and output, as well as the specific print material you are using with your printer.
(*: the default setting)

Item	Explanation
Tray Source	<div>Values: Auto Select*, Tray 1, MP Tray, Tray 2, Manual Tray</div> <p>Using this item, you can set the tray you will use.</p> <ul style="list-style-type: none">If you select Auto Select, the printer can automatically determine the source.Select MP Tray or Manual Tray to use the Multi-Purpose Tray. If you select Manual Tray, you need to press the On Line/Continue button each time you print a page.The Tray 2 item is available only when the optional Tray 2 is installed.
Media Size	<div>Values: Letter, Legal, A4, EXE, JIS B5, ISO B5, No.10 Env., Monarch Env., DL Env., C5 Env., C6 Env., US Folio, A5, A6, Custom, Oficio * Letter for USA, A4 for Europe and Asia</div> <p>Select the paper size currently loaded in the tray.</p>
Custom Width	<div>Values: A4:210 mm/ Letter:215 mm * Letter for USA, A4 for Europe and Asia</div> <p>Select the paper size currently loaded in the tray. This menu is shown when Media Size value is set up by Custom.</p> <ul style="list-style-type: none">Custom Width: Set the custom width from 76 to 216 mm.
Custom Height	<div>Values: A4:297 mm/ Letter:279 mm * Letter for USA, A4 for Europe and Asia</div> <p>Select the paper size currently loaded in the tray. This menu is shown when Media Size value is set up by Custom.</p> <ul style="list-style-type: none">Custom Height: Set the custom height from 127 to 356 mm.

Item	Explanation
Media Type	<div>Values: Off*, Plain Paper, Thick, Thin, Bond, Color Paper, Card Stock, Labels, Transparency, Envelope, Preprinted</div> <p>The Media Type setting lets you specify the type of print material you are using to get the best result.</p> <ul style="list-style-type: none">Plain Paper: Select for plain paper.Thick: Select for thick paperThin: Select for thin paperBond: Select for thick paper.Color Paper: Select for colored paper.Card Stock: Select for card stocks.Labels: Select for labels.Transparency: Select for transparencies.Envelope: Select for envelopes.Preprinted: Preprinted is for paper with something else printed on it, such as letterhead.
Tray Chaining	<div>Values: Off, On*</div> <p>When you select any other value except Auto Select from Tray Source and the selected tray is empty, the printer automatically prints from other trays.</p> <p>If this menu item is set to Off, the On Line/Continue button backlight blinks in orange and the printer doesn't work until you insert paper into the specified tray.</p>

Layout Menu

Use the **Layout** menu to define all settings relating to output.
(*: the default setting)

Item	Explanation
Orientation	<div>Values: Portrait*, Landscape</div> <p>Choose the default orientation of print image on the page.</p> <div></div> <div>PortraitLandscape</div>
Duplex	<div>Values: Off*, Long Edge, Short Edge</div> <p>To print on both sides of paper, choose the binding edge as follows.</p> <ul style="list-style-type: none">• Long Edge: Flip on long edge. Prints pages to read like a book.• Short Edge: Flip on short edge. Prints pages to read by flipping over like a note pad. <div></div> <div>Long Edge in the Portrait orientationLong Edge in the Landscape orientation</div> <div></div> <div>Short Edge in the Portrait orientationShort Edge in the Landscape orientation</div> <p>Select Off to print on one side of paper. NOTE: This menu item is available only when you install an optional duplex unit.</p>

Item	Explanation
Duplex Margin	<div>Values: Top/Left: 5.0*, Short/Long: 0*</div> <p>In this menu, you can set the margin of print materials for double-sided printing. You can increase or decrease the value in 0.1 mm increments.</p> <ul style="list-style-type: none">• Top Margin: Set the top margin, from 0.0 to 9.9 mm.• Left Margin: Set the left margin, from 0.0 to 9.9 mm.• Short Binding: Set the bottom margin of the rear side for short binding, from 0.0 to 22 mm.• Long Binding: Set the right margin of the rear side for long binding, from 0.0 to 22 mm. <p>NOTE: This menu item is available only when you install an optional duplex unit.</p>
Simplex Margin	<div>Values: 0.0*</div> <p>Set the margin of print materials for one-sided printing. You can increase or decrease the value in 0.1 mm increments.</p> <ul style="list-style-type: none">• Top Margin: Set the top margin, from 0.0 to 250 mm.• Left Margin: Set the left margin, from 0.0 to 164 mm.
Copies	<div>Values: 1* ~ 999</div> <p>Set the default number of copies by selecting any number from 1 to 999.</p>

Graphics Menu

Use the **Graphics** menu to change settings affecting the quality of the printed characters and images.
(*: the default setting)

Item	Explanation
Resolution	<div>Values: 600dpi-Normal*, 1200dpi-Best</div> <p>Specify the number of dots printed per inch (dpi). The higher the setting, the sharper the clarity of printed characters and graphics.</p> <ul style="list-style-type: none">• If your print jobs are mostly text, select 600dpi-Normal for the highest quality output.• Select 1200dpi-Best when your job contains bitmapped images, such as scanned photos or some business graphics, that will benefit from enhanced line screening.
Image Quality	<div>Values: Normal, Text Enhance*</div> <p>This item enhances the print quality.</p> <ul style="list-style-type: none">• Normal: Doesn't enhance the quality.• Text Enhance: If you want to display characters more vivid in your documents, use Text Enhance, and it will make your documents easier to read. Also, using 1200dpi mode will make characters and graphics better. Its higher resolution will provide better graphical image quality.
Toner Save	<div>Values: Off*, On</div> <p>To get the most from your toner supply, set this menu to Off. If you set this menu to On, print quality may be reduced.</p>
Density	<div>Values: Light, Medium*, Dark</div> <p>You can lighten or darken the print on the page by changing the toner density setting. The Medium setting usually produces the best result. Use the Light toner density setting to save toner.</p>

Printer Menu

This menu allows you to reset the printer settings or cancel the current job.

Item	Explanation
Default Set	This menu item allows you to restore the printer's factory default settings.
Current Job	You can cancel the current print job and remove it from the printer buffer.

Setup Menu

Use the **Setup** menu to configure a variety of printer features.
(*: the default setting)

Item	Explanation
Date & Time Form Menu Sel. 1st. Form Sel. 2nd. Form	For details, see "Using the Hard Disk" on page 9.4.
LCD Language	<div>Values: English*, German, French, Italian, Spanish, Russian, Portuguese, ...</div> <p>The LCD Language setting determines the language of the text that appears on the control panel display and information printing.</p>
Emulation	<div>Values: Auto*, PCL, HEXDUMP, EPSON, PS3, IBM ProPrint</div> <p>The printer language defines how the computer communicates with the printer. If you select Auto, your printer can change the printer language automatically.</p>
Power Save	<div>Values: Off, 5 Minutes, 10 Minutes, 15 Minutes*, 30 Minutes, 45 Minutes, 60 Minutes</div> <p>When the printer does not receive data for an extended period of time, power consumption is automatically lowered. You can set how long the printer waits before going to the power save state.</p>

Item	Explanation
Auto Continue	<p>Values: Off, On*</p> <p>This item determines whether or not the printer continues printing when it detects the paper unmatched to your paper setting.</p> <ul style="list-style-type: none"> • Off: If the paper mismatch occurs, the message will remain on the display and the printer will remain off-line until you insert the correct paper. • On: If the paper mismatch occurs, an error message will display. The printer will go offline for 30 seconds and automatically clear the message and continue printing.
JAM Recovery	<p>Values: Off*, On</p> <p>This item determines how the printer behaves when a paper jam occurs.</p> <ul style="list-style-type: none"> • Off: The printer does not reprint pages. Printing performance might be increased with this setting. • On: The printer automatically reprints pages after you clear the paper jam.
Altitude Adj.	<p>Values: Low*, High</p> <p>You can optimize print quality depending on the air pressure, such as in a high ground.</p>
Auto CR	<p>Values: LF*, LF+CR</p> <p>This item allows you to append the required carriage return to each line feed. Refer to the following samples:</p> <div> <div>AA BB</div> <div>AA BB</div> <div>LF</div> <div>LF+CR</div> </div>
Job Time Out	<p>Values: 0 ~ 1800 sec *15 sec</p> <p>You can set the time length the printer waits before printing the last page of a print job that does not end with a command to print the page.</p> <p>When a job time-out occurs, the printer prints the page in the print buffer.</p>

Item	Explanation
Maintenance	<p>This item allows you to maintain the toner cartridge.</p> <ul style="list-style-type: none"> • OPC Cleaning: Cleans the OPC drum of the cartridge and produces a cleaning sheet with toner debris on it. • Fuser Cleaning: Cleans the fuser unit inside of the printer and produces a cleaning sheet with toner debris on it. • Life Remaining: This item allows you to check how much toner are left in the cartridge.

PCL Menu

This menu sets the PCL emulation configuration. You can set the font type, symbol type, lines per page, and point size.
(*: the default setting)

Item	Explanation
Typeface	<p>Values: PCL1* ~ PCL68</p> <p>You can select the standard font to be used in PCL emulation.</p> <ul style="list-style-type: none"> • PCL1~PCL7's interval between letters is fixed, and PCL8~PCL45's interval is proportional to the font type and point size. You can adjust the font size of PCL1~PCL7 using the Pitch item, and PCL8~PCL45 can do using Point Size item. • PCL46~PCL54's interval and point size are fixed.
Symbol	<p>Values: ROMAN8 ~ PCCYRILLIC *PC8</p> <p>This item selects the symbol to be used in PCL emulation. The symbol is the group of numbers, marks, and special signs being used when printing letters.</p>
Lines	<p>Values: 5 ~ 128 *60 (Letter), 64 (A4)</p> <p>This item allows you to set vertical spacing from 5 to 128 lines for the default paper size. The lines may differ according to the paper size and printing orientation.</p>

Item	Explanation
Pitch	<p>Values: 0.44 ~ 99.99 (0.01 unit) *10</p> <p>When you select one between PCL1 and PCL7 from the Typeface menu, you can determine the font size by setting the number of characters that will print in one horizontal inch of type. The default value, 10 is the best size.</p>
Point Size	<p>Values: 4.00 ~ 999.75 (0.25 unit) *12</p> <p>When you select one between PCL8 and PCL45 from the Typeface menu, you can determine the font size by setting the height of the characters in the font.</p>
Courier	<p>Values: Regular*, Dark</p> <p>This item lets you select the version of Courier font to use.</p>

PostScript Menu

This menu provides you with the Print PS Error menu item.

(*: the default setting)

Item	Explanation
Print PS Error	<p>Values: Off*, On</p> <p>You can select whether or not your printer prints an error list when a PS error occurs.</p> <ul style="list-style-type: none"> Select On to print PS 3 emulation errors. If an error occurs, the job stops processing, the error message prints, and the printer flushes the job. If this menu is set to Off, the job is flushed without an indication of the error.

EPSON/IBM Menu

This menu sets the EPSON emulation configuration.

(*: the default setting)

Item	Explanation
Font	<p>Values: SANSERIF*, ROMAN</p> <p>You can select the standard font will be used in EPSON emulation.</p>
Auto Wrap	<p>Values: On*, Off</p> <p>This item determines whether or not the printer automatically performs line feed when the data overflows the printable area of the print material.</p>
Character Set	<p>Values: USA*, FRANCE, GERMANY, UK, DENMARK1, SWEDEN, ITALY, SPAIN1, JAPAN, NORWAY, DENMARK2, SPAIN2, LATIN</p> <p>This item allows you to select a character set of the desired language.</p>
Character Tab.	<p>Values: ITALIC, PC437US*, PC850</p> <p>This item selects the character set.</p>
LPI	<p>Values: 6*, 8</p> <p>You can set the number of lines printed in one vertical inch.</p>
Pitch	<p>Values: 10*, 12, 17.14, 20</p> <p>You can determine the font size by setting the number of characters that will print in one horizontal inch of type.</p>

Network Menu

This menu lets you configure the network interface card installed in your printer. You can upgrade the firmware of the network interface card and print a configuration page.

NOTE: This menu only appears when a network card is installed (ML-3561N, ML-3561ND, or ML-3560 with an optional network card).

(*: the default setting)

Item	Explanation
Config Network	<div>Values: Yes, No*</div> <p>Set whether or not you configure network values. If you select Yes, the following options are available: Config TCP, Config 802.11b, AppleTalk, and Netware.</p>
Config TCP	<div>Values: Yes, No*</div> <p>Select whether you set the IP address item or not. If you select Yes, you can configure the IP address. If you select Yes, the IP Get Method option appears on the display. You can select how to get the IP address.</p>
IP Get Method	<div>Values: Static, BOOTP, DHCP*</div> <p>You can set this item only when you set Config TCP to Yes.</p> <ul style="list-style-type: none">• BOOTP: The BOOTP server allots the IP address to you automatically.• DHCP: The DHCP server allots the IP address to you automatically.• Static: You can enter IP address, subnetmask, and gateway manually.
IP Address	<p>You can select this item only when you set IP Get Method to Static. This item lets you enter the IP address manually. Press the scroll button to set the value of the 1st byte between 0 and 255, and then press the Enter button. Set the value for the 2nd, 3rd, and 4th byte the same way.</p>

Item	Explanation
Subnet Mask	<p>You can set this item only when you set IP Get Method to Static. This item lets you enter the subnet mask manually. Press the scroll button to set the value of the 1st byte between 0 and 255, and then press the Enter button. Set the value for the 2nd, 3rd, and 4th bytes in the same way.</p>
Gateway	<p>You can set this item only when you set IP Get Method to Static. This item lets you enter the gateway manually. Press the scroll button to set the value of the 1st byte between 0 and 255, and then press the Enter button. Set the value for the 2nd, 3rd, and 4th bytes in the same way.</p>
Config WLAN	<div>Values: Yes, No*</div> <p>Configure the Wireless Network environments. If you select Yes, the following options are available: SSID, Operation Mode, Channel, Authentication, Encryption, Using Key, Key Type, and Key1~Key4. See "Configuring the Wireless Network" on page 8.4</p> <p>NOTE: This menu only appears when an optional wireless network interface card has been installed in ML-3560, ML-3561N or ML-3561ND.</p>
AppleTalk	<div>Values: On*, Off</div> <p>This item lets you select whether or not you use the AppleTalk protocol. Select On to use the protocol.</p>
Netware	<div>Values: On*, Off</div> <p>This item selects whether you use the Netware protocol. If you select On, you can access the Config Netware menu item. In the Config Netware menu, you can specify the frame type parameter used on your network.</p>

Item	Explanation
Config Netware	<div>Values: Yes, No*</div> <p>You can set this item only when you set Netware to On. This item lets you select whether or not you set the frame type parameter. Select Yes to select the frame type. If you select Yes, the IPX Frame Type option appears on the display.</p>
IPX Frame Type	<div>Values: Auto*, EN_8023, EN_II, EN_8022, EN_SNAP</div> <p>You can select this item only when you set Config Netware to Yes. This item lets you select the IPX frame type.</p> <ul style="list-style-type: none">• Auto: You can set the frame type automatically.• EN_8023: Select this value to use the IEEE 802.3 frame type.• EN_II: Select this value to use the ETHERNET II frame type.• EN_8022: Select this value to use the IEEE 802.2 frame type.• EN_SNAP: Select this value to use the SNAP frame type.
Reset Network	This item reboots the network interface card.
Default Set	This item performs a simple reset and restores the factory default settings for the network configuration. This setting will only take effect after you have reset the printer.
Print Net CFG	This item print a page showing the network parameters you set.

4 Using Print Materials

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

This chapter includes:

- **Choosing Paper and Other Materials**
- **Loading Paper**
- **Selecting an Output Location**
- **Printing on Special Print 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 10.2. To get the best possible print quality, use only high-quality, copier-grade paper.

When you choose print materials, 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 (60~105 g/m²) bond for the Tray 1 or optional Tray 2
 - 16~43 lbs (60~163 g/m²) bond for the Multi-Purpose 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.



CAUTION: Using a material that does not conform to the specifications listed on page 10.2 can cause problems that may require service. This service will not be covered by the warranty or service agreements.

Sizes and Capacities

Size	Input Source/Capacity*		
	Tray1 or optional Tray 2	Multi-Purpose Tray	Manual Feed
Plain Paper	500	100	1
Envelopes	-	10	1
Labels**	-	25	1
Transparencies**	-	50	1
Card stocks**	-	10	1
Bond**	-	10	1

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

** If you are experiencing excessive jamming, feed one sheet at a time through the Multi-Purpose Tray.

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 with irregularities, such as tabs or a 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 a texture that is too smooth or too rough.
- Colored paper should be of the same high quality as white photocopy paper. The pigments must be able to withstand the printer's fusing temperature of 383°F (195°C) for 0.1 seconds without deteriorating. Do not use paper with a colored coating that was added after the paper was produced.

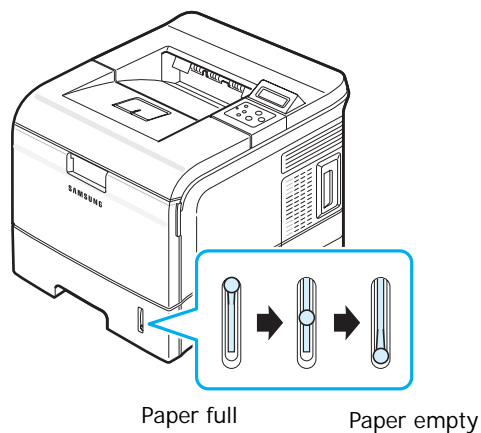
- Preprinted forms must be printed with nonflammable, heat-resistant ink that does not melt, vaporize, or release hazardous emissions when subjected to the printer's approximately 383°F (195°C) fusing temperature for 0.1 seconds.
- Store paper in its ream wrapper until you are ready to use it. Place 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.

NOTE: Do not use carbonless paper or tracing paper. They are unstable at the fusing temperature and can give off fumes, or cause damage to the printer.

Loading Paper

Proper paper loading helps prevent paper jams and ensure trouble-free printing. Do not remove the paper tray while a job is printing. Doing so may cause a paper jam. See "Sizes and Capacities" on page 4.1 for acceptable paper size and capacities for each tray.

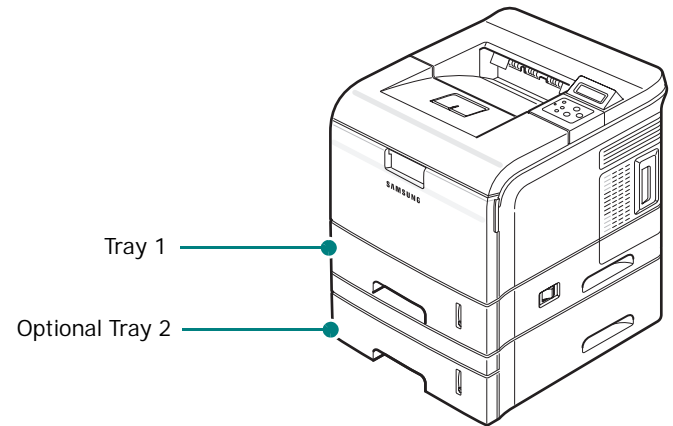
The paper level indicator on the front of the paper tray shows the amount of paper currently left in the tray. When the tray is empty, the indicator of the bar is completely lowered.



Using the Tray 1 or the Optional Tray

Use the print material you use for the majority of your print jobs in the Tray 1. The Tray 1 can hold a maximum of 500 sheets of 20lb paper.

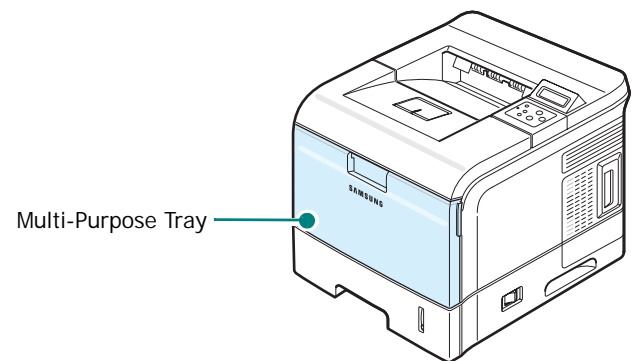
You can purchase an optional Tray 2 and attach it below the Tray 1 to load an additional 500 sheets of paper. See page 9.7 for more information about installing the optional Tray 2.



To load paper, pull open the paper tray and load paper with the print side down. For details about loading paper in the Tray 1 or optional Tray 2, see "Loading Paper" on page 2.4.

Using the Multi-Purpose Tray

The Multi-Purpose Tray is located in the front of your printer. It can be closed when not in use, making the printer more compact.



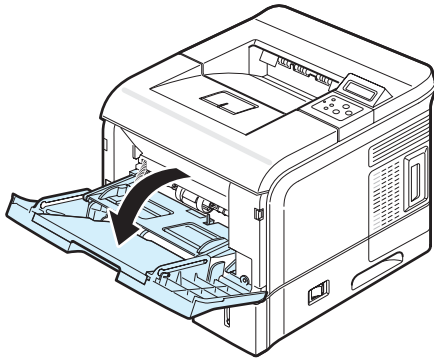
The Multi-Purpose Tray can hold several sizes and types of material, such as transparencies, cards, and envelopes. You may also want to use the Multi-Purpose Tray for single page print jobs on letterheads, colored paper for use as separator sheets, or other special materials that you do not normally keep in the tray. You can load approximately 100 sheets of plain paper, 10 envelopes, 50 transparencies, 10 card stocks, or 25 labels at a time.

- Load only one size of print material at a time in the Multi-Purpose Tray.

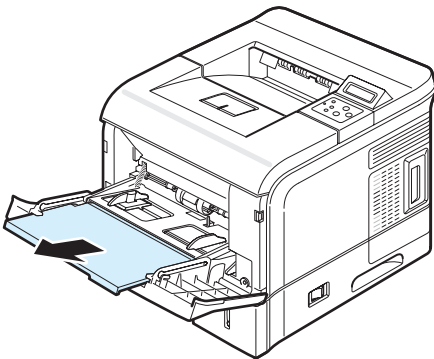
- To prevent paper jams, do not add paper when there is still paper in the Multi-Purpose Tray. This also applies to other types of print materials.
- Print materials should be loaded face up with the top edge going into the Multi-Purpose Tray first, and be placed on the center of the tray.
- Do not place objects on the Multi-Purpose Tray. Also avoid pressing down or applying excessive force on it. The Multi-Purpose Tray may fall apart from the printer.

To load paper in the Multi-Purpose Tray:

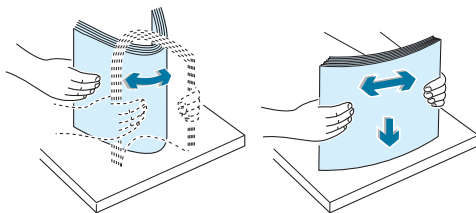
- 1 Pull the Multi-Purpose Tray down towards you.



- 2 Pull the extender to extend the Multi-Purpose Tray to hold longer paper.

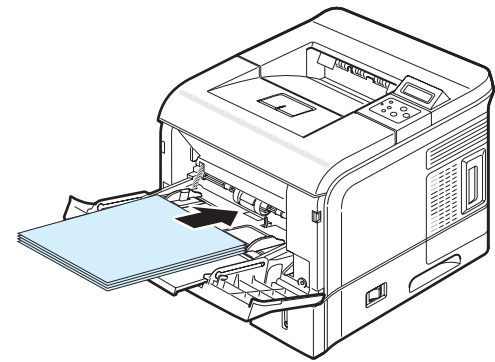


- 3 If you are using paper, flex or fan the edge of the paper stack to separate the pages before loading.

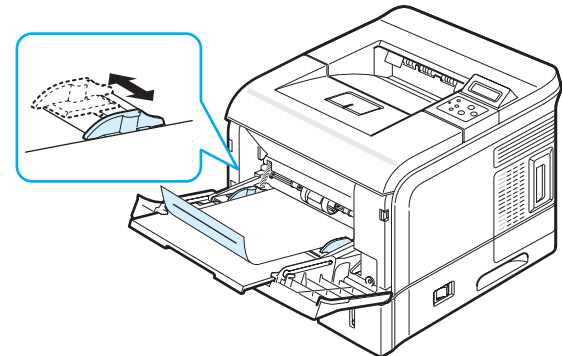


For transparencies, hold them by the edges and avoid touching the print side. Oils from your fingers can cause print quality problems.

- 4 Load the print material on the center of the tray **with the print side up**.

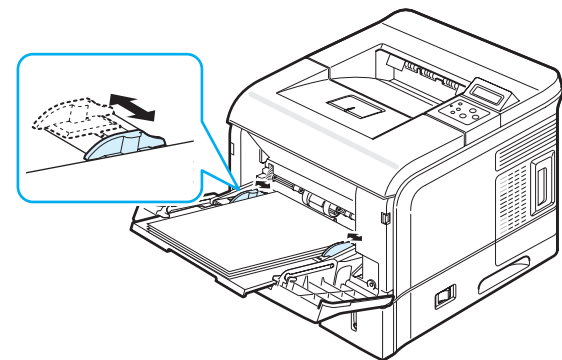


If you want to print on previously printed paper from the Multi-Purpose Tray, the printed side should be facing down with an uncurled edge to the printer. If you experience problems with paper feeding, turn the paper around.



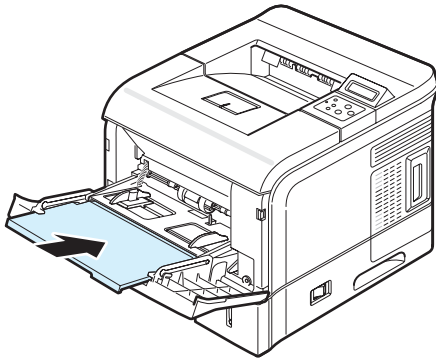
NOTE: Make sure that you have not loaded too much print material. The print material buckles if you load a stack that is too deep or if you push it in too far.

- 5 Squeeze the paper width guide and slide it to the edge of the print material without causing it to bend.

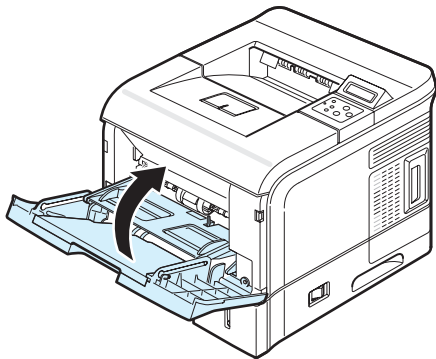


NOTE: Your printer cannot automatically detect the size of paper loaded in the Multi-Purpose Tray. Configuring the Multi-Purpose Tray with the correct paper size allows you to select paper by size rather than paper source when you print from your software application. You do not have to check which paper is loaded in the Multi-Purpose Tray before printing.

- 6 In Ready mode, press the **Menu** button (Ⓜ) until you see "Paper" on the bottom line of the display.
- 7 Press the **Enter** button (Ⓜ) to access the menu.
- 8 Press the scroll button (⏪ or ⏩) until "Media Size" appears on the bottom line.
- 9 Press the **Enter** button (Ⓜ) to access the menu.
- 10 Press the scroll button (⏪ or ⏩) until the size of paper you loaded appears on the bottom line of the display.
- 11 Press the **Enter** button (Ⓜ). Now, you are ready to print.
- 12 When you print a document, set the paper source and type in the software application. For details, see the **Software Section**.
For information about setting on the control panel, see page 3.2.
- 13 After printing, put the extender back to its place.



- 14 Close the Multi-Purpose Tray.



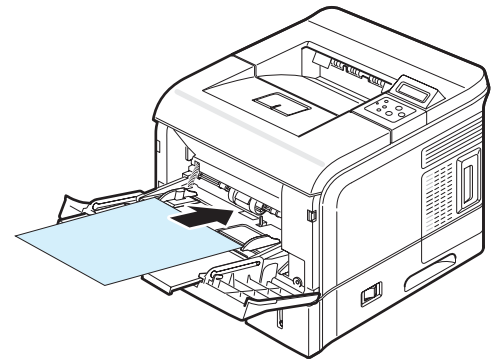
NOTE: When the Multi-Purpose Tray is empty, load paper after pushing the inner part of the tray. If not, the paper is not fed into the Multi-Purpose Tray automatically.

Using the Manual Feed Mode

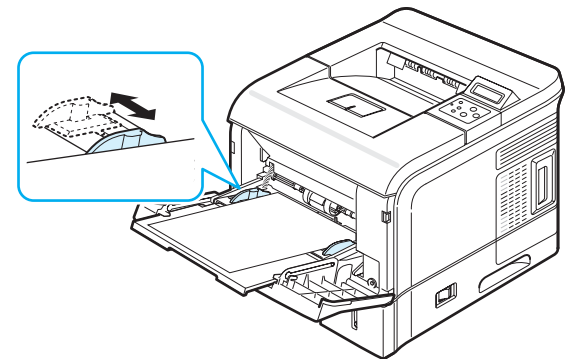
You can manually load a sheet of print material in the Multi-Purpose Tray if you select **Manual Feed** in the **Source** option from the **Paper** tab when you change print settings to print a document. For details about changing print settings, see the **Software Section**. Manually loading paper can be helpful when you want to check the print quality after each page is printed.

This loading procedure is almost the same as the procedure for loading in the Multi-Purpose Tray, except you load paper sheet-by-sheet in the tray, send print data to print the first page, and press the **On Line/Continue** button (⏸) on the control panel to print each following page.

- 1 Load a sheet of print material on the center of the Multi-Purpose Tray **with the print side up**.



- 2 Squeeze the paper width guide and slide it to the edge of the print material without causing it to bend.



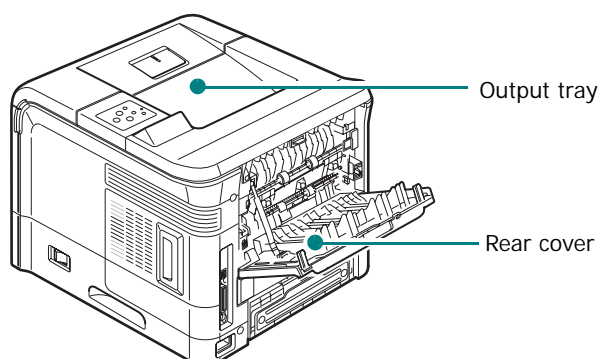
- 3 When you print a document, set the paper source to **Manual Feed** and select the appropriate paper size and type in the software application. For details, see the **Software Section**.
- 4 Print a document.
The display shows a message prompting you to load paper and press the **On Line/Continue** button (⏸).
- 5 Press the **On Line/Continue** button (⏸).
The printer picks up the print material and prints. After one page is printed, the message appears again.

NOTE: If you do not press the button, after a pause the printer will automatically pick the print material.

- 6 Insert the next sheet into the Multi-Purpose Tray and press the **On Line/Continue** button (⏮).
Repeat this step for every page to be printed.

Selecting an Output Location

The printer has two output locations; the rear cover (face up) and the output tray (face down).



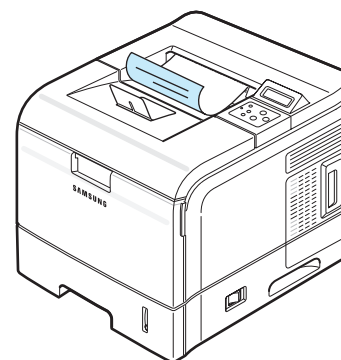
To use the output tray, make sure that the rear cover is closed.
To use the rear cover, open it.

NOTES:

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

Printing to the Output Tray (Face down)

The output tray collects paper face down, in the order in which the sheets were printed. The tray should be used for most print jobs.

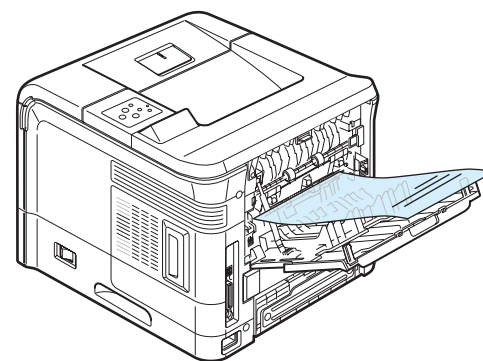


NOTE:

- If you continuously print many pages, the surface of the output tray may become hot. Be careful not to touch the surface, especially for children.
- The output tray can hold up to 250 sheets of paper.

Printing to the Rear Cover (Face up)

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

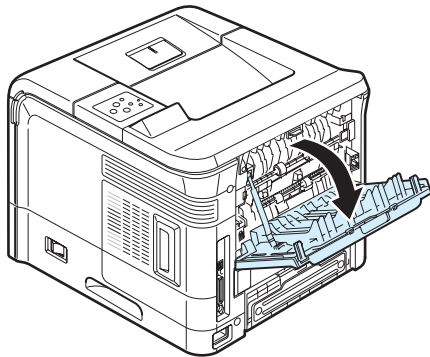


Printing from the Multi-Purpose Tray to the rear cover provides the **straight paper path**. Opening the rear cover might improve the output quality with the following:

- over 100 sheets of paper continuously
- envelopes
- labels
- small custom-sized paper
- postcards
- paper lighter than 60 g/m² (16 lb) or heavier than 105 g/m² (28 lb)
- transparencies: some special transparencies may have stacking problem by curl. In that case, please use the output tray (face down).

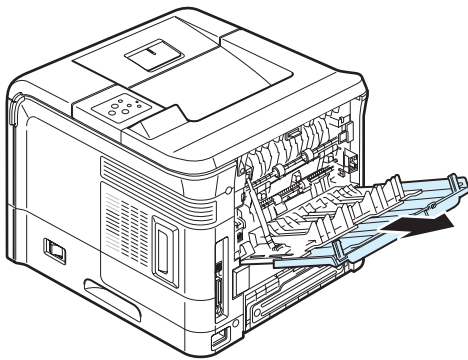
To open the rear cover:

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

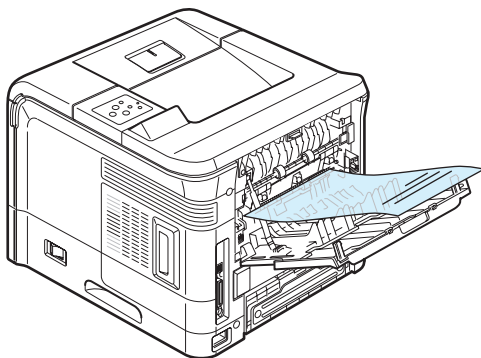


CAUTION: The fusing area inside the rear cover of your printer becomes very hot when in use. Take care not to burn your fingers when you access this area.

- 2 Pull the extender to extend the rear cover to its full-length position to hold longer paper.



- 3 If you do not want to stack the printed pages on the rear cover, slide the extender to its place and close the tray. The pages will stack on the output tray.



NOTE: The rear cover can hold up to 100 sheets of paper. If the cover is overloaded with printed pages, it may fall from the printer. Remove the pages so that the cover is not overloaded.

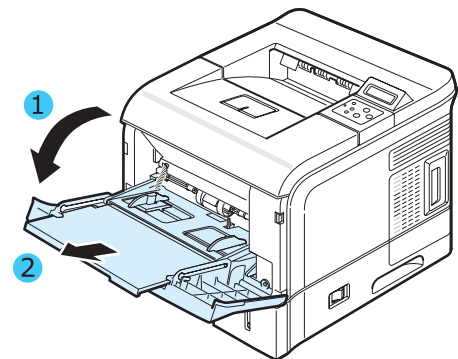
Printing on Special Print Materials

Printing on Envelopes

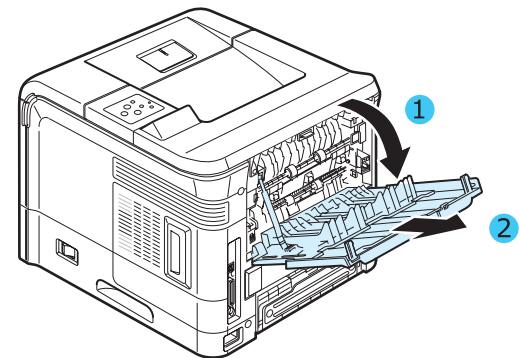
Guidelines

- Only use envelopes recommended for laser printers. Before loading envelopes in the Multi-Purpose Tray, make sure that they are undamaged and are not stuck together.
- Load envelopes into the Multi-Purpose Tray only.
- 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.

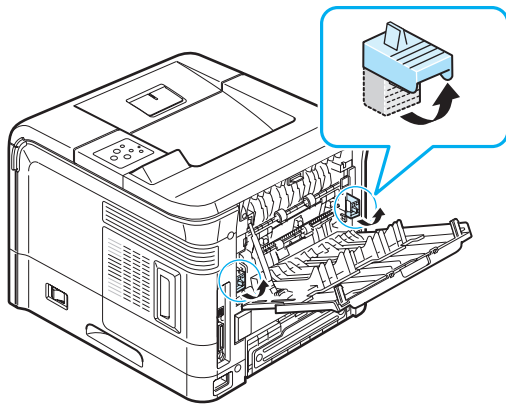
- 1 Open the Multi-Purpose Tray and pull the extender.



- 2 Open the rear cover and pull the extender.

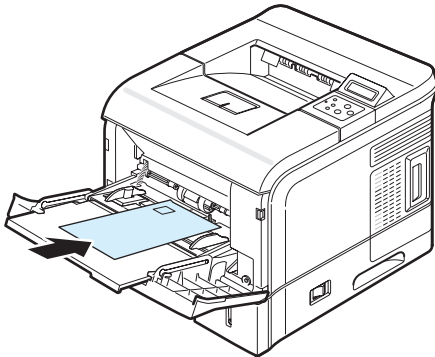


- 3 Push the envelope levers upwards. The print quality will be enhanced.

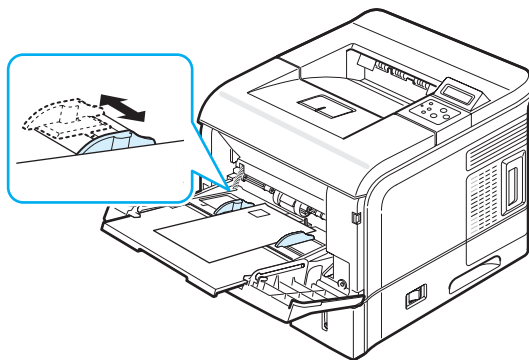


CAUTION: Push the envelope levers downwards when you print on materials other than envelopes.

- 4 Flex or fan the edge of the envelope stack to separate and load the envelopes into the Multi-Purpose Tray **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 printer first**.



- 5 Squeeze the paper width guide and slide it to the edge of the envelope stack without causing it to bend.



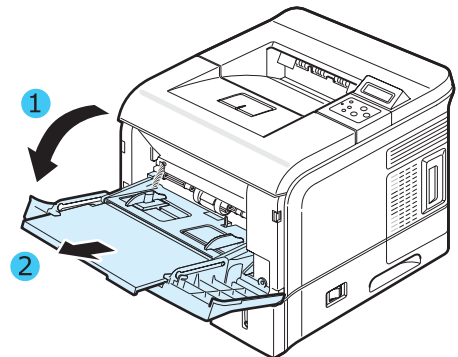
- 6 When you print, set the paper source, type, and size properly in the software application. For details, see the **Software Section**.
For details about setting on the control panel, see page 3.2.
- 7 After printing, push the envelope levers to their original positions, and close the Multi-Purpose Tray and the rear cover.

Printing on Labels

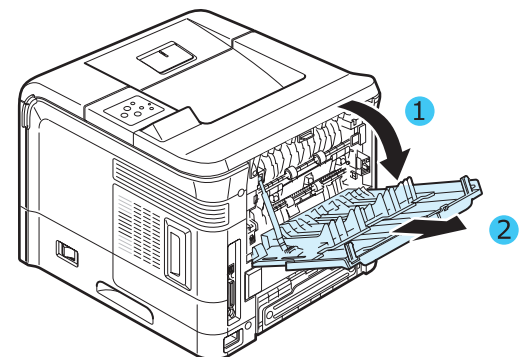
Guidelines

- Only use labels recommended for laser printers.
- Verify that the labels' adhesive material can tolerate fusing temperature of 195°C (383°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.
- Never print on the same sheet of labels more than once, or print on a partial sheet of labels.
- Do not use labels that are separating from the backing sheet or are wrinkled, bubbled, or damaged in any way.
- To prevent labels from sticking together, do not let the printed label sheets stack up as they are printed out.

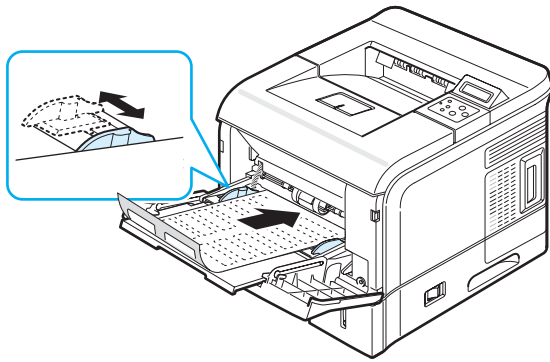
- 1 Open the Multi-Purpose Tray and pull the extender.



- 2 Open the rear cover and pull the extender.



- 3 Load labels into the Multi-Purpose Tray **with the print side up**. Adjust the guide to fit the width of the labels.



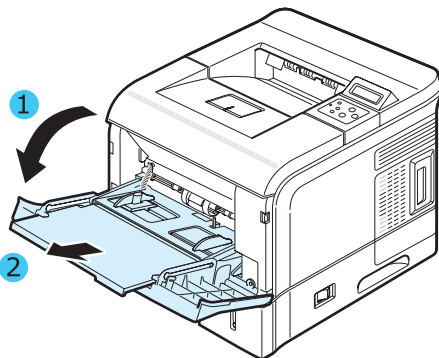
- 4 When you print, set the paper source, type, and size properly in the software application. For details, see the **Software Section**.
For details about setting on the control panel, see page 3.2.
- 5 After printing, close the Multi-Purpose Tray and the rear cover.

Printing on Transparencies

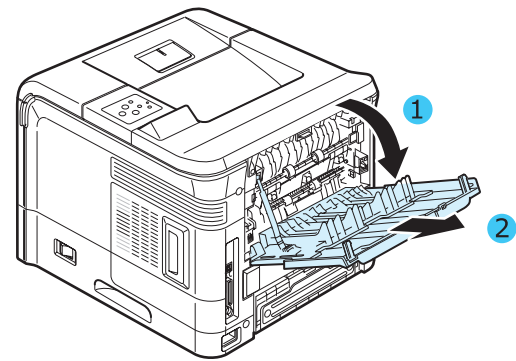
Guidelines

- 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 from your fingers can cause print quality problems.
- Be careful not to scratch or leave fingerprints on the print side.

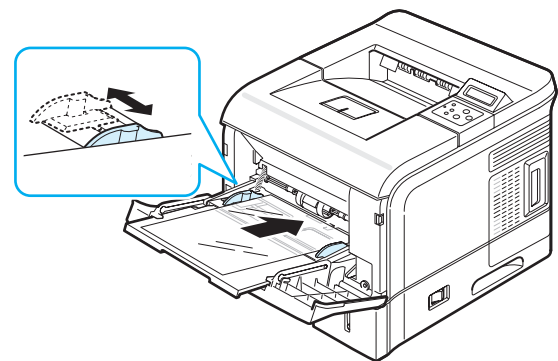
- 1 Open the Multi-Purpose Tray and pull the extender.



- 2 Open the rear cover and pull the extender.



- 3 Load transparencies in the Multi-Purpose Tray **with the print side up**, and **the top with the adhesive strip entering the printer first**. Adjust the guide to fit the width of the transparencies.



- 4 When you print, set the paper source, type, and size properly in the software application. For details, see the **Software Section**.
For details about setting on the control panel, see page 3.2.
- 5 After printing, close the Multi-Purpose Tray and the rear cover.

NOTES:

- If you print on thin transparencies to the rear cover, they can be curled. In this case, use the output tray. If the problem persists, check if your transparencies meet the printer's specifications.
- 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 Preprinted Paper

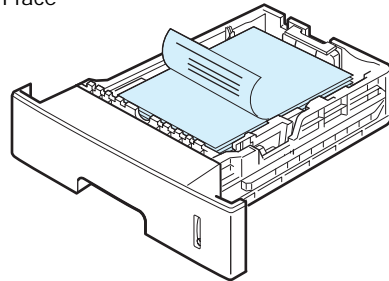
Preprinted paper is paper that has some type of printing on it before it is sent through the printer (paper that has a preprinted logo at the top of the page, for example).

Guidelines

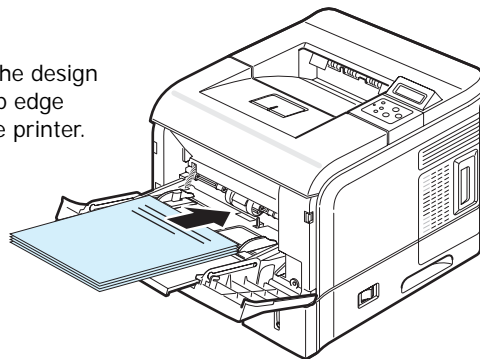
- Letterheads must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the printer's fusing temperature of 383 °F (195 °C) for 0.1 second.
- Ink on letterheads must be non-flammable and should not adversely affect printer rollers.
- Forms and letterheads should be sealed in a moisture-proof wrapping to prevent changes during storage.
- Before you load preprinted paper, such as forms and letterheads, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper, reducing print quality.

- 1 Load letterheads into the tray you want to use, as shown in the figures below. Adjust the guides to fit the width of the paper stack.

Load with the design face down, bottom edge towards the printer.



Load with the design face up, top edge towards the printer.



- 2 When you print, set the paper source, type, and size properly in the software application. For details, see the **Software Section**.
For details about setting on the control panel, see page 3.2.

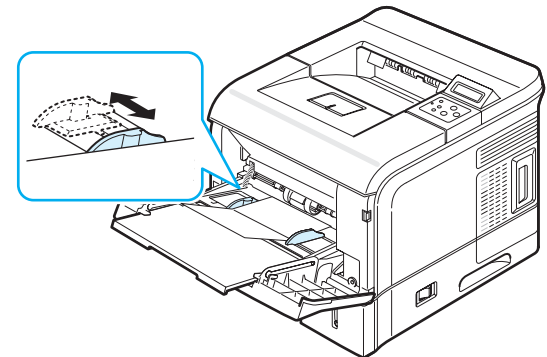
Printing on Card Stock or Custom-sized Materials

Postcards, 3.5 by 5.83 in. (index) cards, and other custom-sized materials can be printed with your printer. The minimum size is 76 by 127 mm (3 by 5 in.) and the maximum size is 216 by 356 mm (8.5 by 14 in.).

Guidelines

- Always insert the short-edge into the Multi-Purpose 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 load more than 10 cards into the Multi-Purpose Tray at a time.
- Do not print on media smaller than 76 mm (3 in.) wide or 127 mm (5 in.) long.
- In the software application, set margins at least 6.4 mm (0.25 in.) away from the edges of the material.

- 1 Open the Multi-Purpose Tray and pull the extender.
- 2 Open the rear cover and pull the extender.
- 3 Load print material in the Multi-Purpose Tray **with the print side up and short edge first**. Adjust the guide to fit the width of the material stack.



- 4 When you print, set the paper source, type, and size properly in the software application. For details, see the **Software Section**.
For details about setting on the control panel, see page 3.2.
- 5 After printing, close the Multi-Purpose Tray and the rear cover.

5 Basic Printing

This chapter explains common printing tasks.

This chapter includes:

- **Printing a Document**
- **Canceling a Print Job**

Printing a Document

This printer allows you to print from various Windows applications, a Macintosh computer, or a Linux system. The exact steps for printing a document may vary depending on the application you use.

For details about printing, see the **Software Section**.

Canceling a Print Job

If the print job is waiting in a print queue or print spooler, such as the printer group in Windows, delete the job as follows:

- 1** Click the Windows **Start** button.
- 2** For Windows 98SE/NT 4.0/2000/Me, select **Settings** and then **Printers**.
For Windows XP/2003, select **Printers and Faxes**.
- 3** Double-click the **Samsung ML-3560 Series PCL6** or **Samsung ML-3560 Series PS** icon.
- 4** From the **Document** menu, select **Cancel Printing** (Windows 98SE/Me) or **Cancel** (Windows NT 4.0/2000/XP/2003).

NOTE: You can access this window simply by double-clicking the printer icon at the bottom right corner of the Windows desktop.

You can also cancel the current job by pressing the **Cancel** button (⊗) on the control panel of your printer.

6 Maintaining Your Printer

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

This chapter includes:

- **Printing a Configuration Page**
- **Maintaining the Toner Cartridge**
- **Cleaning the Printer**
- **Cleaning the Printer**
- **Consumables and Replacement Parts**

Printing Information Pages

From the printer's control panel, you can print pages that give detailed information about the printer. They can be help you maintain your printer.

Printing a Configuration Page

You can print a configuration page from the printer's control panel. Use the configuration page to view the current settings, to help troubleshoot problems, or to verify the installation of optional accessories, such as memory, optional tray, hard disk, or duplex unit.

To print a configuration page:

- 1 In ready mode, press the **Menu** button (Ⓜ) on the control panel until you see "Information" on the bottom line of the display.
- 2 Press the **Enter** button (ⓧ) to access the menu.
- 3 Press the **Enter** button (ⓧ) when "Configuration" displays on the bottom line.
A configuration page prints out.

Printing Usage Page

This page shows the total number of pages printed up to the current time by person or group. It is useful for cost accounting. You can print this page only when an optional hard disk is installed in your printer.

To print a usage page:

- 1 In ready mode, press the **Menu** button (Ⓜ) on the control panel until you see "Information" on the bottom line of the display.
- 2 Press the **Enter** button (ⓧ) to access the menu.
- 3 Press the scroll button (⏪ or ⏩) until "Usage Page" displays on the bottom line.
- 4 Press the **Enter** button (ⓧ).
The Usage Page prints out.

Maintaining the Toner Cartridge

Toner Cartridge Storage

To get the maximum results from a toner cartridge, keep the following guidelines in mind:

- Do not remove the toner cartridge from its package until ready for use.
- Do not refill the toner cartridge. **The printer warranty does not cover damage caused by using a refilled cartridge.**
- Store toner cartridges in the same environment as the printer.
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minute.

Expected Cartridge Life

The life of a toner cartridge depends on the amount of toner that your print jobs require. When printing text at 5% coverage, a new toner cartridge lasts an average of 12,000 pages or 6,000 pages depending on its type. (The original toner cartridge supplied with the printer lasts an average of 6,000 pages.)

Saving Toner

To save toner, press the **Toner Save** button (⊕) on the control panel. The button backlight turns on. You can also enable the Toner Save mode in the printer properties window or from the control panel menu. For details, see page 2.8.

Using this feature extends the life of the toner cartridge and reduce your cost per page, but it also reduces print quality.

Checking the Toner Remains

You can check the level of toner currently left in the cartridge. If you are having print quality problems, this can help you determine if the problem is caused by low toner.

- 1 In ready mode, press the **Menu** button (⊕) on the control panel until you see "Setup" on the bottom line of the display.
- 2 Press the **Enter** button (⊗) to access the menu.
- 3 Press the scroll button (⏮ or ⏭) until "Maintenance" displays on the bottom line and press the **Enter** button (⊗).
- 4 Press the scroll button (⏮ or ⏭) until "Life Remaining" displays on the bottom line.
- 5 Press the **Enter** button (⊗).

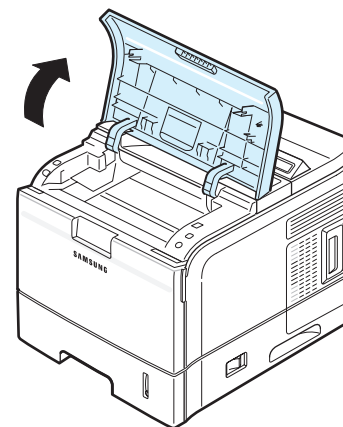
The display shows the percentage of the toner remains.

Redistributing Toner

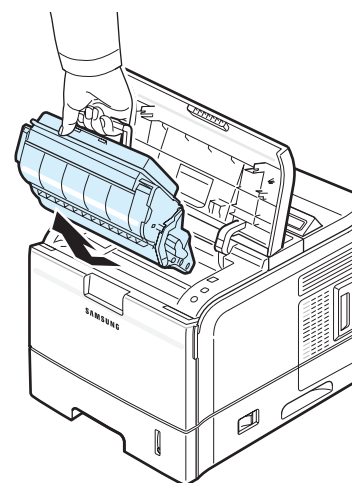
When a toner cartridge is nearly empty, "Low Toner" appears on the display and faded or light areas may appear on a printed page. Also, the Smart Panel program window appears on the computer telling you the toner cartridge is low on toner. You may be able to temporarily improve print quality by redistributing the toner.

To redistribute the toner:

- 1 Open the top cover.



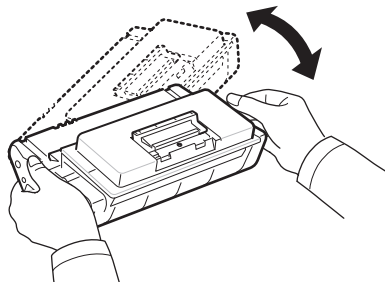
- 2 Remove the toner cartridge from the printer.



CAUTION:

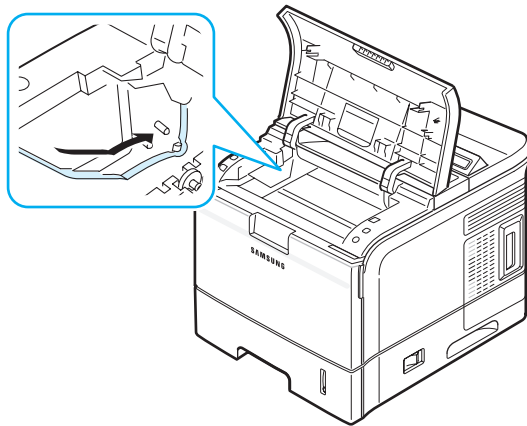
- Avoid reaching too far into the printer. The fusing area may be hot.
- Do not touch the green surface, the OPC drum, on the front of the toner cartridge with your hands or any other material.
- To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper to protect it, if necessary.

- 3 Thoroughly shake the toner cartridge from side to side 5 or 6 times to distribute the toner evenly inside the cartridge.

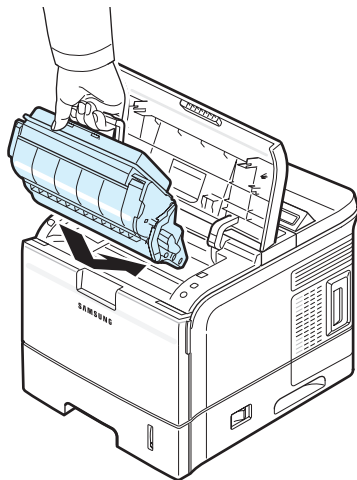


NOTE: If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.

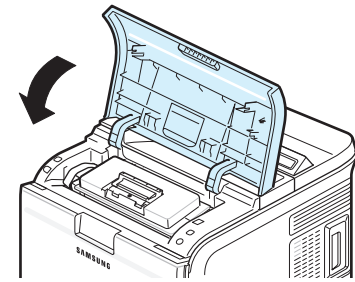
- 4 Locate the cartridge slots inside the printer, one on each side.



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



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

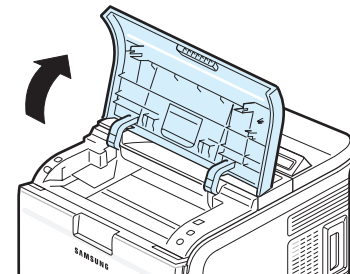


Replacing the Toner Cartridge

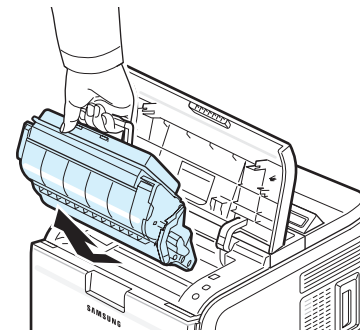
When "Replace Cartridge" appears on the display, you need to replace the toner cartridge. Also, the Smart Panel program window appears on the computer telling you the toner cartridge is empty.

To replace the toner cartridge:

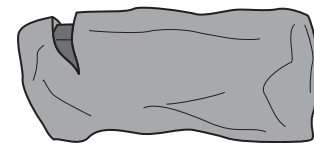
- 1 Open the top cover.



- 2 Remove the old toner cartridge from the printer.

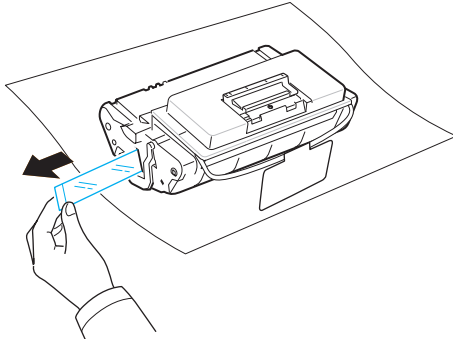


- 3 Take a new toner cartridge out of its package.



CAUTION: Do not use sharp objects, such as a knife or scissors, to open the toner cartridge package. They might scratch the drum of the cartridge.

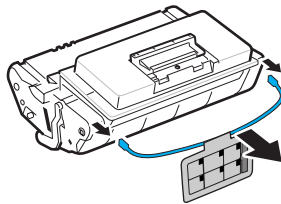
- 4 Locate the sealing tape at the end of the toner cartridge. Carefully pull the tape completely out of the cartridge and discard it.



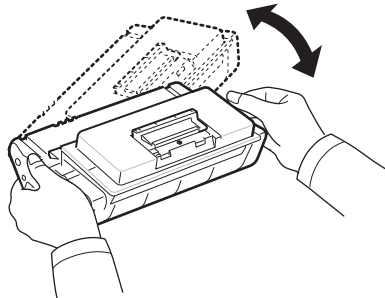
NOTES:

- The sealing tape should be longer than 60 cm when correctly removed.
- Holding the toner cartridge, pull the sealing tape straight to remove it from the cartridge. Be careful not to cut the tape. If this happens, you cannot use the toner cartridge.
- Refer to the helpful pictures on the cartridge wrapping paper.

- 5 There is a flexible plastic holder. Remove the holder out of the toner cartridge.



- 6 Thoroughly shake the cartridge from side to side 5 or 6 times to distribute the toner evenly inside the cartridge.



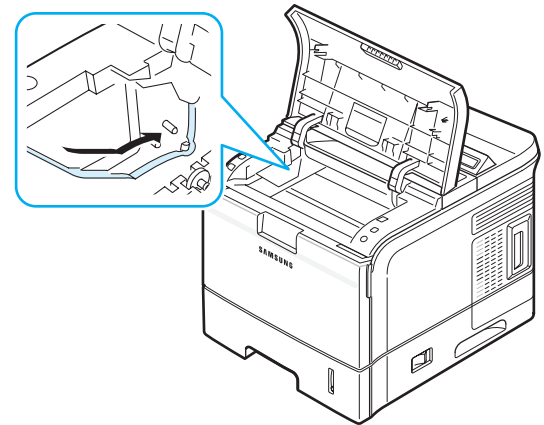
Thoroughly shaking the cartridge will assure maximum copies per cartridge.



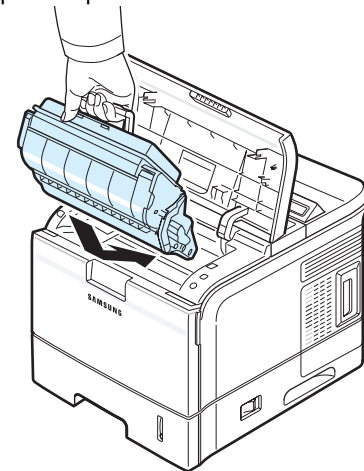
CAUTION:

- 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.
- Do not touch the green surface, the OPC drum, on the front of the toner cartridge with your hands or any other material.
- To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper to protect it, if necessary.

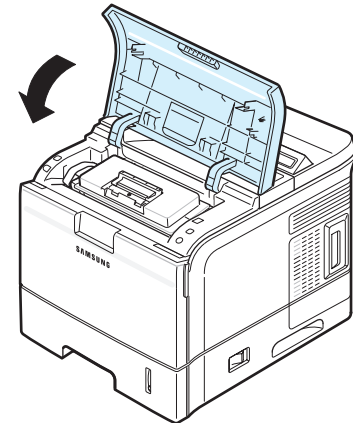
- 7 Locate the cartridge slots inside the printer, one on each side.



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



- 9 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 12,000 pages (6,000 pages for the toner cartridge that is shipped with the printer).

Cleaning the Printer

During the printing process, particles of paper, toner, and dust can accumulate inside the printer. Over time, this build-up can cause print quality problems such as toner specks or smearing. Your printer has a cleaning mode that can correct and prevent these types of problems.

Cleaning the Outside of the Printer

Turn the printer off and unplug the power cord, then wait a few minutes for the printer to cool.

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

After cleaning, plug in the power cord and turn the printer on.



CAUTION: Cleaning the printer cabinet with cleaners containing large amounts of alcohol, solvents, or other strong substances can discolor or crack the cabinet.

Cleaning the Inside of the Printer

NOTE: While cleaning the inside of the printer, be careful not to touch the transfer roller (located underneath the toner cartridge). Oil from your fingers can cause print quality problems.

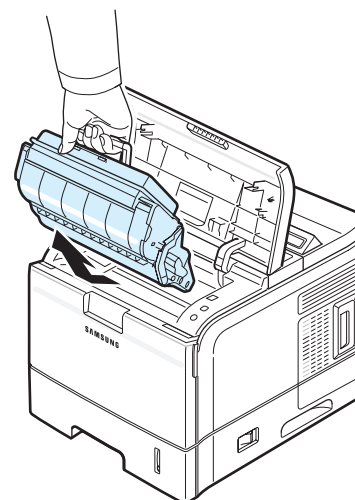
There are two methods to clean the inside of the printer:

- Clean the inside manually.
- Print a cleaning sheet, which can be done from the control panel.

Cleaning the Inside of the Printer Manually

- 1 Turn the printer off and unplug the power cord, then wait a few minutes for the printer to cool.

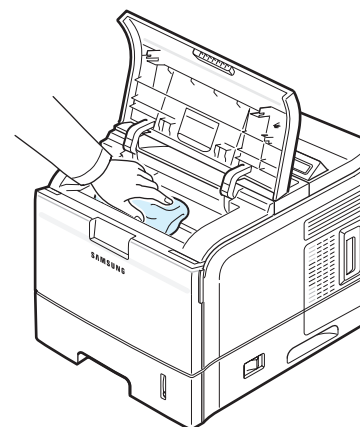
- 2 Open the top cover and remove the toner cartridge.



CAUTION:

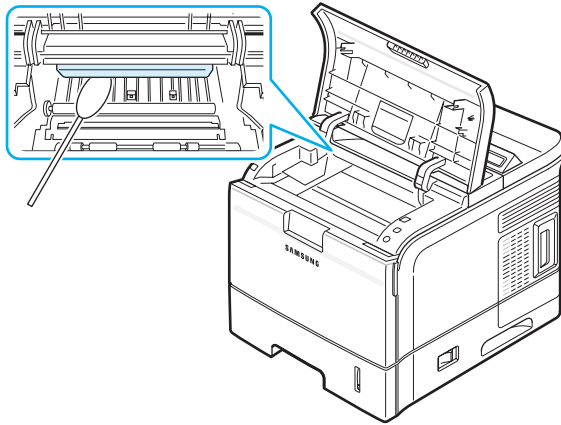
- Do not touch the green surface, the OPC drum, on the front of the toner cartridge with your hands or any other material.
- To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper to protect it, if necessary.

- 3 Look inside the printer. Remove any dust, paper particles, and spilled toner with a damp, soft lint-free cloth.



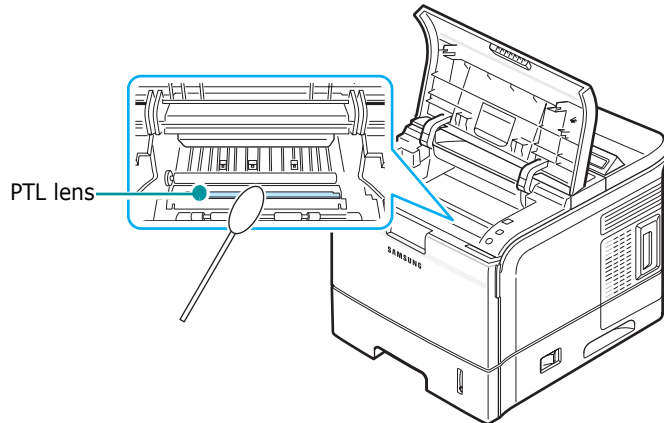
CAUTION: Be careful not to damage the parts inside the printer.

- 4 Swap the long strip of glass (LSU) inside the printer and see if dirt turns the white cotton black.



NOTE: The long strip of glass is hard to locate because it is inside the top of the cartridge compartment.

- 5 Locate the PTL lens by flipping up the guide feed and gently swab the lens with the pointed white cotton.



- 6 Reinsert the toner cartridge and close the cover.
- 7 Plug in the power cord and turn the printer on.

Printing a Cleaning Sheet

If you are experiencing blurred, faded, or smeared printouts, you can clear the problem by printing a cleaning sheet, provided by your printer. You can print:

- OPC Cleaning sheet: cleans the OPC drum of the toner cartridge.
- Fuser Cleaning sheet: cleans the fuser unit inside the printer.

This process will produce a page with toner debris, which should be discarded.

- 1 Make sure that the printer is turned on with paper loaded in the tray.

- 2 In ready mode, press the **Menu** button (Ⓜ) on the control panel until you see "Setup" on the bottom line of the display.
- 3 Press the **Enter** button (ⓧ) to access the menu.
- 4 Press the scroll button (⏪ or ⏩) until "Maintenance" displays on the bottom line and press the **Enter** button (ⓧ).
- 5 Press the scroll button (⏪ or ⏩) until the required option, "OPC Cleaning" or "Fuser Cleaning" displays on the bottom line.
- 6 Press the **Enter** button (ⓧ).
Your printer automatically picks up a sheet of paper from the tray and prints out a cleaning sheet with dust or toner particles on it.

Maintenance Parts

To avoid print quality and paper feed problems resulting from worn parts and to maintain your printer in top working condition the following items will need to be replaced at the specified number of pages or when the life span of each item has expired.

Items	Yield (Average)
Transfer Roller	150,000
Pick-up Roller	150,000
Retard Roller	150,000
Fuser Roller	150,000
Feed Roller	150,000\

Samsung highly recommends that an authorized service provider, dealer or the retailer where you bought printer performs this maintenance activity.

7 Solving Problems

This chapter provides helpful information for what to do if you encounter an error while using your printer.

This chapter includes:

- **Troubleshooting Checklist**
- **Solving General Printing Problems**
- **Clearing Paper Jams**
- **Solving Print Quality Problems**
- **Understanding Display Messages**
- **Common Windows Problems**
- **Common Macintosh Problems**
- **Common PS Problems**
- **Common Linux Problems**

Troubleshooting Checklist

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

Check	Solution
Make sure that the On Line/Continue button on the control panel is on in green and “Ready” is shown on the display.	<ul style="list-style-type: none">• If the button backlight is off, check the power cord connection. Check the power switch. Check the power source by plugging the power cord into another outlet.• If the button backlight is on in orange, check the display message and go to “Understanding Display Messages” on page 7.10.
Print a demo page to verify that the printer is feeding paper correctly. See page 2.7.	<ul style="list-style-type: none">• 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 7.4.• If an error message appears on the display, go to “Understanding Display Messages” on page 7.10.
Check the demo page to see if it printed correctly.	If there is a print quality problem, go to “Solving Print Quality Problems” on page 7.8.
Print a short document from a software application to verify that the computer and printer are connected and are communicating correctly.	<ul style="list-style-type: none">• If the page does not print, check the cable connection between the printer and the computer.• Check the print queue or print spooler to see if the printer has been paused.• Check the software application to ensure that 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 does not resolve the printer problem, check the following troubleshooting sections.	<ul style="list-style-type: none">• “Solving General Printing Problems” on page 7.2.• “Understanding Display Messages” on page 7.10.• “Common Windows Problems” on page 7.12.• “Common Macintosh Problems” on page 7.12.• “Common PS Problems” on page 7.13.• “Common Linux Problems” on page 7.13.

Solving General Printing Problems

For problems with the operation of your printer, refer to the table for suggested solutions.

Problem	Possible Cause	Solution
The printer does not print.	The printer is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The printer is not selected as the default printer.	Select Samsung ML-3560 Series PCL 6 or Samsung ML-3560 Series PS as your default printer.
	Check the printer for the following: <ul style="list-style-type: none"> The printer cover is not closed. Paper is jammed. No paper is loaded. The toner cartridge is not installed. 	After locating the problem, clear it. If a printer system error occurs, contact your service representative. <ul style="list-style-type: none"> Close the printer cover. Clear the paper jam. See page 7.4. Load paper. See page 2.4. Install the toner cartridge. See page 2.2.
	The printer may be in manual feed mode and out of paper.	Check the display message, add paper to the Multi-Purpose Tray, and press the On Line/Continue 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 try to print a document. You can 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. If the computer has more than one port, make sure that the printer is attached to the correct one.
	The printer may be configured incorrectly.	Check the printer properties to ensure that all of the print settings are correct.

Problem	Possible Cause	Solution
The printer does not print. (Continued)	The printer driver may be incorrectly installed.	Reinstall the printer driver; for details, see the Software Section . Try printing a test page.
	The printer is malfunctioning.	Check the display message on the control panel to determine if the printer is indicating a system error.
Printer selects print materials 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. For details, see the Software Section .
Paper does not feed into the printer.	Paper has not been loaded correctly.	Remove paper from the tray and reload it correctly. Check that the paper size guides are set 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 printer specifications.
Print job is extremely slow.	The job may be very complex.	Reduce the complexity of the page(s) or try adjusting the print quality settings. To adjust the print quality settings, reduce the resolution. If you have set the resolution to 1200 dpi (Best) , change it to 600 dpi (Normal) . For details, see the Software Section . Change the port setting to the USB or network port to improve print speed. Your printer prints A4-sized paper at 33 ppm and letter-sized paper at 34 ppm.
	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-3560 Series PCL 6 printer icon, choose Properties , click the Details tab, and then choose the Spool Settings button. Select the desired spool setting.
	The computer may have insufficient random-access memory (RAM).	Install more memory in your printer. See "Installing Memory DIMM" on page 9.1.

Problem	Possible Cause	Solution
Half the page is blank.	The page layout is too complex.	Simplify the page layout and remove any unnecessary graphics from the document. Install more memory in your printer. See “Installing Memory DIMM” on page 9.1.
	The page orientation setting may be incorrect.	Change the page orientation in your application. For details, see the Software Section .
	The paper size and the paper size settings do not match.	Ensure that the paper size in the printer driver settings matches the paper in the tray. Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use.
The paper keeps jamming.	There is too much paper in the paper tray.	Remove excess paper from the tray. If printing on special materials, use the Multi-Purpose Tray.
	An incorrect type of paper is being used.	Use only paper that meets printer specifications. If printing on special materials, use the Multi-Purpose Tray.
	An incorrect output method is being used.	Special print materials, such as thick paper, should not be printed using the output tray (face-down). Use the rear cover (face-up) 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 and reconnect the printer cable. Try a print job that you have already printed successfully. 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 ensure that your printer is selected.
	The software application is malfunctioning.	Try printing a job from another application.

Problem	Possible Cause	Solution
The printer prints, but the text is wrong, garbled, or incomplete. <i>(Continued)</i>	The operating system is malfunctioning.	If printing from Windows (any version), exit to a DOS prompt and verify functionality with the following command: At a C:\ prompt, type Dir LPT1 , and press Enter . (This assumes you are connected to LPT1.) Exit Windows and reboot the computer. Turn the printer off and then back on again.
	You may start your job before turning the printer on.	Make sure that you turn on the printer and start your job.
Pages print, but are blank.	The toner cartridge is defective or out of toner.	Redistribute the toner cartridge. See page 6.2. If necessary, replace the toner cartridge. See page 6.3.
	The file may have blank pages.	Check the file to ensure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.
The illustrations print incorrectly in Adobe Illustrator.	The setting in the software application is wrong.	Select Download as Bit Image in the Advanced Options window of the graphic properties. Print the document again.

Clearing Paper Jams

NOTE: When removing paper that is jammed in the printer, if possible always pull the paper in the direction that it normally moves so as not to damage internal components. Always pull firmly and evenly; do not jerk the paper. If the paper tears, ensure that all fragments of paper are removed; otherwise a jam will occur again.

When a paper jam occurs, the display on the control panel shows the message indicating the corresponding location of the paper jam. Refer to the table below to locate the paper jam and to clear it:

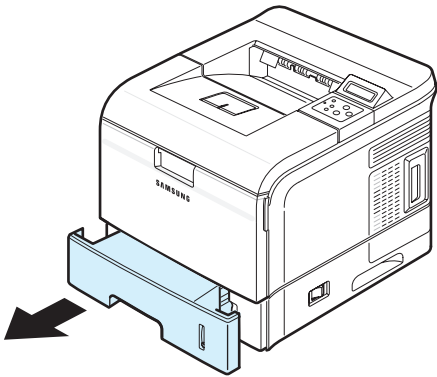
Message	Location of Jam	Go To
Paper Jam0	In the paper feed area	below
Paper Jam1	Around the toner cartridge	page 7.6
Paper Jam2	In the paper exit area	page 7.7
Duplex Jam (1, 2)	In the duplex area	page 7.7
Duplex Jam 1	In the duplex area	page 7.7
Duplex Jam 2	In the duplex area	page 7.8

To resume printing after clearing paper jams, you must open and close the top cover.

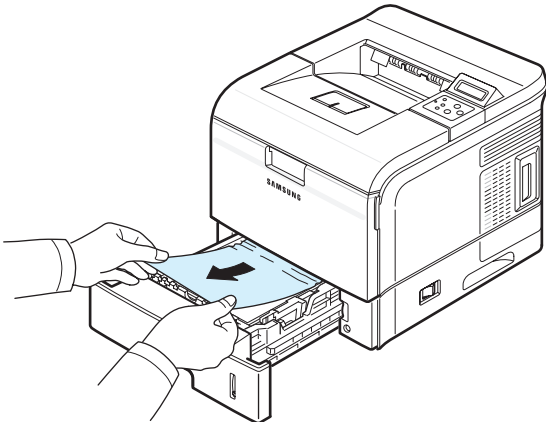
In the Paper Feed Area (Paper Jam 0)

In the Tray (Paper Jam 0)

- 1 Slide out the Tray 1 to expose the jammed paper.

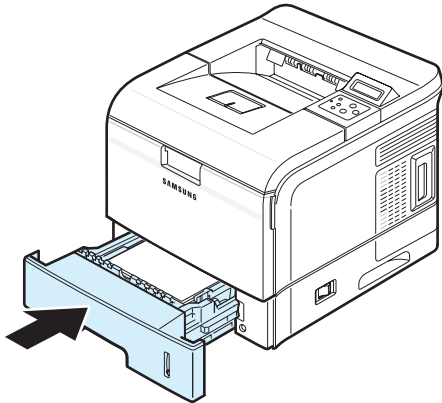


- 2 Remove any jammed paper by gently pulling it straight out by the visible edge from the tray. Make sure that all of the paper is properly aligned in the tray.



NOTE: If you cannot find jammed paper, or if there is any resistance removing the paper, stop pulling and remove the tray from the printer and carefully pull the jammed paper from the printer.

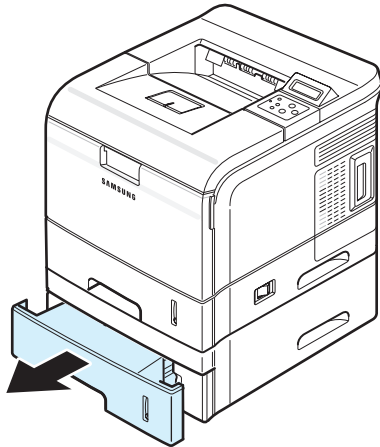
- 3 Slide the tray back into the printer.



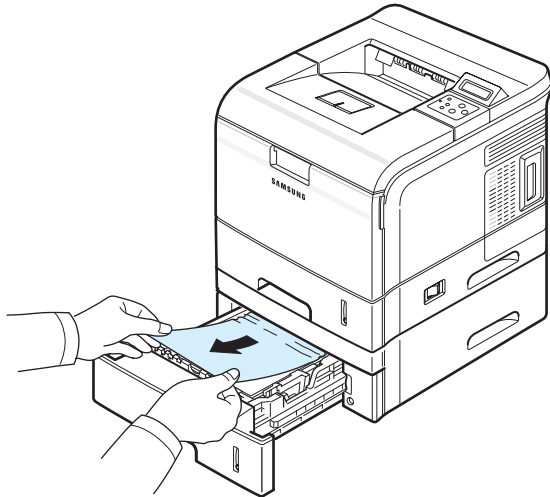
- 4 Open and close the top cover. The printer will resume printing.

In the Optional Tray 2 (Paper Jam 0)

- 1 Pull the optional Tray 2 out of the printer.



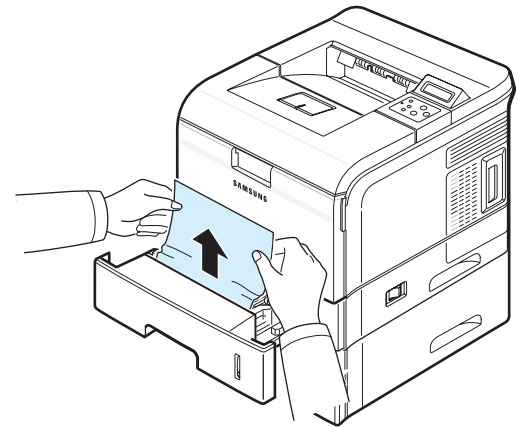
- 2 Remove the jammed paper from the tray. Slide the tray back into the printer. Go to step 6.



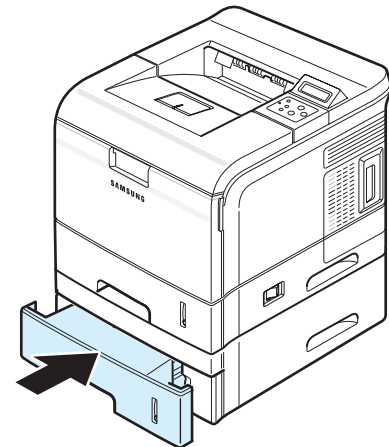
If you cannot find jammed paper, or if there is any resistance removing the paper, stop pulling and go to step 3.

- 3 Remove the Tray 2 and pull the Tray 1 half way out of the printer.

- 4 Pull the jammed paper by gently pulling it straight out.



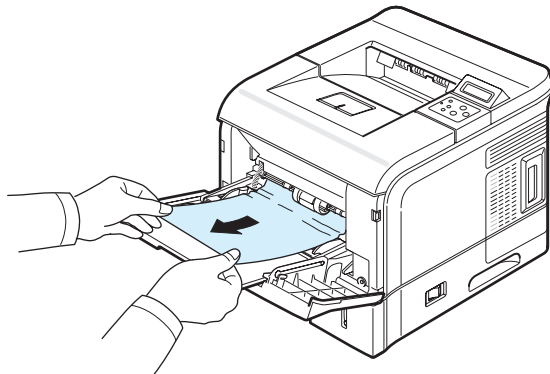
- 5 Slide the trays back into the printer.



- 6 Open and close the top cover. The printer will resume printing.

In the Multi-Purpose Tray (Paper Jam 0)

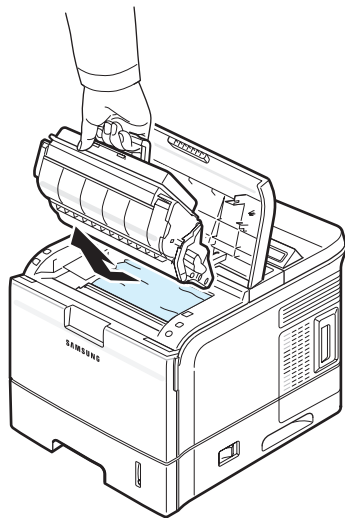
- 1 Open the Multi-Purpose Tray.
- 2 Remove the jammed paper by pulling in direction shown. To avoid tearing the paper, pull it out gently and slowly.



- 3 Open and close the top cover. The printer will resume printing.

Around the Toner Cartridge (Paper Jam 1)

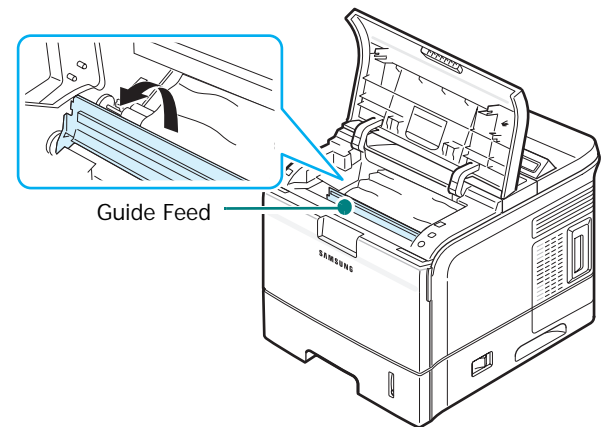
- 1 Open and close the top cover. The jammed paper automatically exits the printer. If the paper does not exit, continue to step 2.
- 2 Open the top cover and remove the toner cartridge.



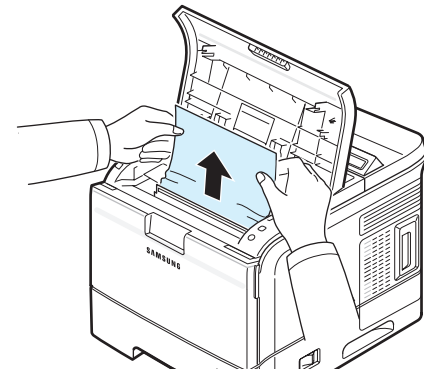
CAUTION:

- Do not touch the green surface, the OPC drum, on the front of the toner cartridge with your hands or any other material.
- To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper to protect it, if necessary.

- 3 Carefully lift up the guide feed.

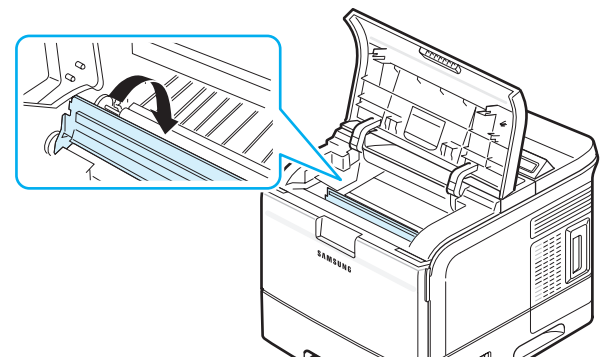


- 4 Gently pull the jammed paper towards you to remove it from the printer.



If you cannot find jammed paper, or if there is any resistance removing the paper, stop pulling and go to "In the Paper Exit Area (Paper Jam 2)" on page 7.7.

- 5 Flip down the guide feed and reinstall the toner cartridge.

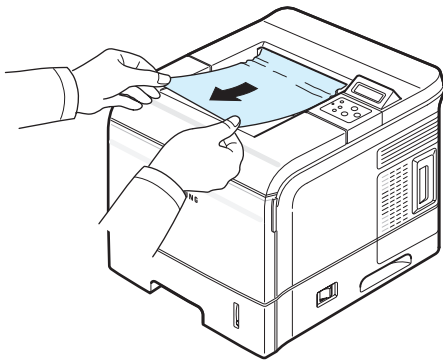


NOTE: If it is difficult to reinstall the toner cartridge, make sure that the guide feed has been flipped back down into position.

- 6 Close the top cover. The printer will resume printing.

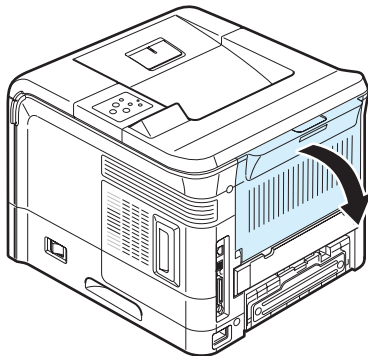
In the Paper Exit Area (Paper Jam 2)

- 1 If a long portion of the paper is visible, pull it straight out. Go to step 5.

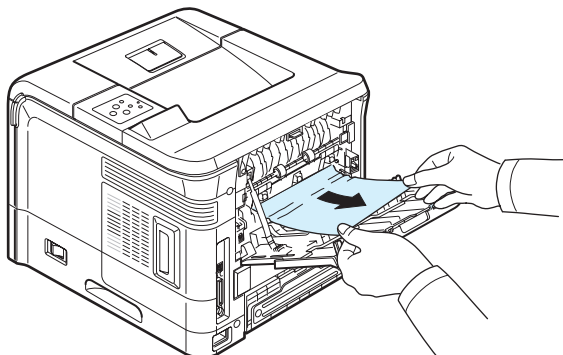


If you cannot find jammed paper, or if there is any resistance removing the paper, stop pulling and go to step 2.

- 2 Open the rear cover.



- 3 Loosen the jammed paper if it is caught in the feed rollers. Then gently pull the paper straight out.

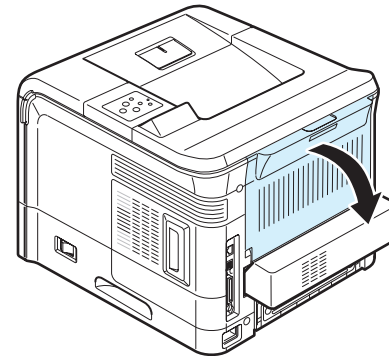


- 4 Close the rear cover.
- 5 Open and close the top cover. The printer will resume printing.

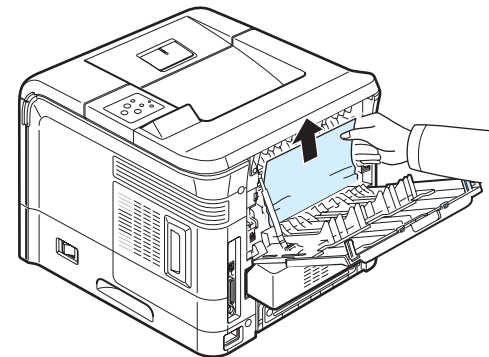
In the Duplex Area (Duplex Jam 1,2)

In the Duplex Area (Duplex Jam 1)

- 1 Open the rear cover.



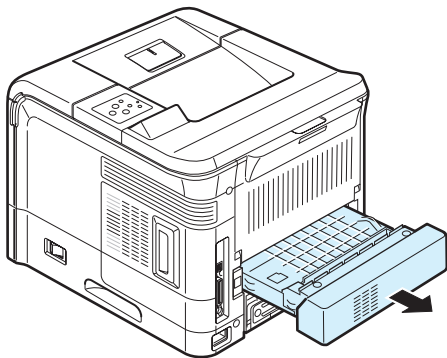
- 2 Gently pull the paper straight up.



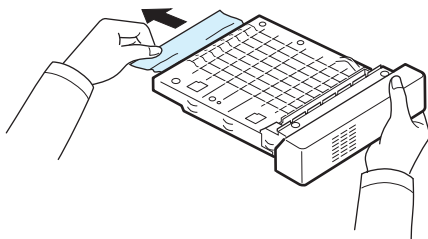
- 3 Close the rear cover.
- 4 Open and close the top cover. The printer will resume printing.

In the Duplex Area (Duplex Jam 2)

- 1 Pull the duplex unit out of the printer.



- 2 Locate the jammed paper and remove it.



- 3 Insert the duplex unit into the slot.
4 Open and close the top cover. The printer will resume printing.

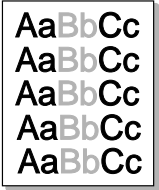
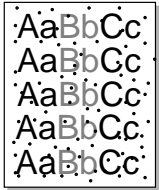
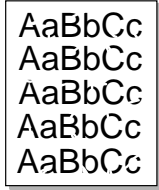
Tips for Avoiding Paper Jams

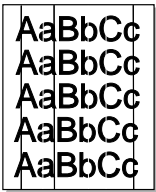
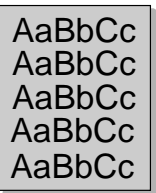
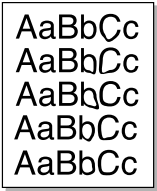
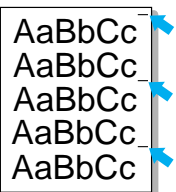
By selecting the correct paper types, most paper jams can be avoided. If a paper jam occurs, follow the steps outlined in "Clearing Paper Jams" on page 7.4.

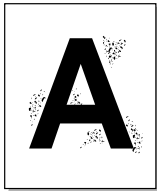
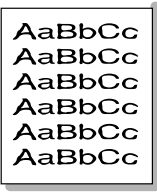
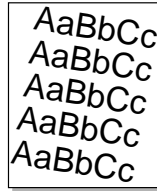
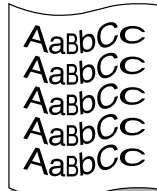
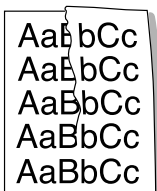
- Follow the procedures in "Loading Paper" on page 2.4. Ensure that the adjustable guides are positioned correctly.
- Do not overload the paper tray.
- Do not remove the paper from the tray while printing.
- Flex, fan, and straighten the paper before loading.
- Do not use creased, damp, or highly curled paper.
- Do not mix paper types in the tray.
- Use only recommended print materials. See "Paper Specifications" on page 10.2.
- Ensure that the recommended print side is facing down in the tray and facing up in the Multi-Purpose Tray.

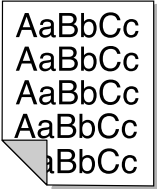
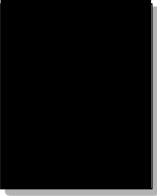
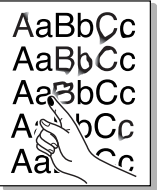

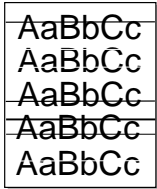
Solving Print Quality Problems

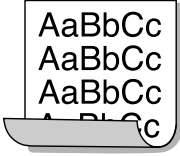
Dirt inside of the printer or improper paper loading may reduce print quality. See the table below to troubleshoot problems.

Problem	Solution
<p>Light or faded print</p> 	<p>If a vertical white streak or faded area appears on the page:</p> <ul style="list-style-type: none">• The toner supply is low. You may be able to temporarily extend the toner cartridge life. See "Redistributing Toner" on page 6.2. If this does not improve 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 10.2.• If the entire page is light, the print resolution setting is too light or the Toner Save Mode is on. Adjust the print resolution and the Toner Save mode in the printer properties. For details, see the Software Section.• A combination of faded or smeared defects may indicate that the printer needs cleaning. See "Cleaning the Inside of the Printer" on page 6.5.• The surface of LSU may be dirty. Clean the LSU. See "Cleaning the Inside of the Printer" on page 6.5.
<p>Toner specs</p> 	<ul style="list-style-type: none">• The paper may not meet specifications (for example, the paper is too moist or too rough). See "Paper Specifications" on page 10.2.• The transfer roller or paper path may be dirty. See "Cleaning the Inside of the Printer" on page 6.5.
<p>Dropouts</p> 	<p>If generally rounded, faded areas occur randomly on the page:</p> <ul style="list-style-type: none">• 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 brand of paper. See "Paper Specifications" on page 10.2.• 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 "Vertical repetitive defects" on the next page.• If these steps do not correct the problems, contact a service representative.

Problem	Solution
Vertical lines 	<p>If black vertical streaks appear on the page:</p> <ul style="list-style-type: none"> The drum inside the toner cartridge has probably been scratched. Install a new toner cartridge. <p>If white vertical lines appear on the page:</p> <ul style="list-style-type: none"> The surface of the LSU may be dirty. Clean the LSU. See page 6.6.
Gray background 	<p>If the amount of background shading becomes unacceptable, the procedures below may fix the problem.</p> <ul style="list-style-type: none"> Change to lighter weight pages. See "Paper Specifications" on page 10.2. Check the printer's environment; very dry (low humidity) or high humidity (higher than 80% RH) conditions can increase the amount of background shading. Remove the old toner cartridge and install a new one. See "Replacing the Toner Cartridge" on page 6.3.
Toner smear 	<ul style="list-style-type: none"> Clean the inside of the printer. See "Cleaning the Inside" on "Cleaning the Inside of the Printer" on page 6.5. Check the paper type and quality. See "Paper Specifications" on page 10.2. Remove the toner cartridge and install a new one. See "Replacing the Toner Cartridge" on page 6.3.
Vertical repetitive defects 	<p>If marks repeatedly appear on the printed side of the page at even intervals:</p> <ul style="list-style-type: none"> The toner cartridge may be damaged. If a repetitive mark occurs on the page, print a cleaning sheet several times to clean the cartridge; see page 6.6. After the printout, if you still have the same problems, install a new toner cartridge. See "Replacing the Toner Cartridge" on page 6.3. Parts of 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 	<p>Background scatter results from bits of toner distributed on the printed page.</p> <ul style="list-style-type: none"> 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. If background scatter occurs on an envelope, change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems. If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or via the printer properties window.
Misformed characters 	<ul style="list-style-type: none"> If characters are improperly formed and producing hollowed images, the paper stock may be too slick. Try a different paper. See "Paper Specifications" on page 10.2. If characters are improperly formed and producing a wavy effect, the scanner unit may need service. Verify that it also occurs on a demo page (see page 2.7). For service, contact a service representative.
Page skew 	<ul style="list-style-type: none"> Ensure that the paper is loaded properly. Check the paper type and quality. See "Paper Specifications" on page 10.2. Ensure that the paper or other material is loaded correctly and the guides are not too tight or too loose against the paper stack.
Curl or wave 	<ul style="list-style-type: none"> Ensure that the paper is loaded properly. Check the paper type and quality. Both high temperature and humidity can cause paper curl. See "Paper Specifications" on page 10.2. Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray. Try printing to the face up output slot.
Wrinkles or creases 	<ul style="list-style-type: none"> Ensure that the paper is loaded properly. Check the paper type and quality. See "Paper Specifications" on page 10.2. Open the rear output tray and try printing to the rear output tray (face-up). Turn over the stack of paper in the paper tray. Also try rotating the paper 180° in the tray.

Problem	Solution
Back of printouts are dirty 	<ul style="list-style-type: none"> The transfer roller may be dirty. "Cleaning the Inside of the Printer" on page 6.5. Check for leaking toner. Clean the inside of the printer.
Solid color or Black pages 	<ul style="list-style-type: none"> The toner cartridge may not be installed properly. Remove the cartridge and reinsert. The toner cartridge may be defective and need replacing. Install a new toner cartridge. The printer may require repair. Contact a service representative.
Loose toner 	<ul style="list-style-type: none"> Clean the inside of the printer. Check the paper type and quality. See page 10.2. Install a new toner cartridge. See "Replacing the Toner Cartridge" on page 6.3. If the problem persists, the printer may require repair. Contact a service representative.
Character Voids 	<p>Character voids are white areas within characters that should be solid black:</p> <ul style="list-style-type: none"> If you are using transparencies, try another type of transparency. Because of the composition of the transparency, some character voids may be normal. You may be printing on the wrong surface on the paper. Remove the paper and turn it around. The paper may not meet paper specifications. See "Paper Specifications" on page 10.2.
Horizontal stripes 	<p>If horizontally aligned black streaks or smears appear:</p> <ul style="list-style-type: none"> The toner cartridge may be installed improperly. Remove the cartridge and reinsert. The toner cartridge may be defective. Install a new toner cartridge. See "Replacing the Toner Cartridge" on page 6.3. If the problem persists, the printer may require repair. Contact a service representative.

Problem	Solution
Curl 	<p>If the printed paper is curled or paper does not feed into the printer:</p> <ul style="list-style-type: none"> Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray. Try printing to rear output tray.

Understanding Display Messages

Messages appear on the Smart Panel program window or the control panel display to indicate the printer's status or errors. Refer to the tables below to understand the messages' meaning and correct the problem if necessary. Messages and their meanings are listed in alphabetical order.

NOTE: When you call for service, it is very convenient to tell the service representative the display message.

Message	Status	Do this...
Check Cartridge	A toner cartridge is not installed or your toner cartridge is not for your printer.	Install a Samsung-approved toner cartridge, designed for your printer.
Cleaning Now	An OPC or fuser cleaning page is printing.	Wait until printing is complete.
Close Fuser Door	A fuser door is open.	Close the fuser door firmly.
Cover Open	A cover is open.	Close the top cover or rear cover firmly.
Delete	The stored files in the optional hard disk is deleting	Wait until deleting is complete.
Duplex Jam (1, 2)	A paper jam occurs while printing on both sides of paper.	Remove the jammed paper from the printer, referring to page 7.7.
Engine Fuser Error	A problem has occurred in the fuser inside the printer.	Unplug the power cord and plug it in again. If the problem persists, call for service.

Message	Status	Do this...
Engine Fuser Low Heat Error	The temperature in the fuser is abnormally low.	Unplug the power cord and plug it in again. If the problem persists, call for service.
Engine Fuser Over Heat Error	The temperature in the fuser is abnormally high.	Unplug the power cord and plug it in again. If the problem persists, call for service.
Engine Hsync Error	There is a problem in your printer engine.	Turn off and then on the printer.
Engine LSU Error	A problem has occurred in the LSU (Laser Scanning Unit) in the printer.	Unplug the power cord and plug it in again. If the problem persists, call for service.
Initialize System	The printer is now turning on.	Wait until your printer turns on completely.
Load Manual Press Cont Key	The Multi-Purpose Tray is empty in manual feed mode.	Load a sheet of print material and press the On Line/Continue button. You need to press the button each page to be printed.
Load [Size] In [Tray]	The paper size specified in the printer properties does not match the paper you are loading.	Load the correct paper in the tray.
Memory Overflow	The printer does not have enough memory to print the current job.	The job will be automatically cleared and the printer will return to ready mode. Expand the memory in your printer. See "Installing Memory DIMM" on page 9.1.
Menu	The Menu button is pressed.	Use the printer features.
Offline	The printer is off-line and cannot print.	Press the On Line/Continue button.
Outbin Full	The output tray is full.	It can hold up to 250 sheets of paper. Once the paper is removed from the output bin, the printer resumes printing.

Message	Status	Do this...
Page Too Complex	Too complicated data was sent to the printer.	Simplify the page layout and remove unnecessary graphics from your document. If the message persists, expand the memory in your printer. See "Installing Memory DIMM" on page 9.1.
Paper Empty [Size] In [Tray]	The displayed tray is empty.	Load the corresponding size of paper into the tray.
Paper Jam 0	A paper jam occurs in the paper feed area.	Remove the jammed paper from the tray in use, referring to page 7.4.
Paper Jam 1	A paper jam occurs around the toner cartridge.	Remove the jammed paper from the printer, referring to page 7.6.
Paper Jam 2	A paper jam occurs in the paper exit area.	Remove the jammed paper from the output tray, referring to page 7.7.
Load Manual Press Cont key	The paper size specified in the printer properties does not match the paper you are loading.	Load the correct paper and press the On Line/Continue button.
Printing xxx (xxx: Emulation)	The printer is printing jobs using the displayed language.	Complete your printing.
Ready	The printer is on-line and ready to printer.	Use your printer.
Ready Close Tray 1	The Tray 1 is open but there is paper in the Multi-Purpose Tray.	Close the Tray 1 to clear the message.
Ready Close Tray 2	The optional Tray 2 is open but there is paper in the Multi-Purpose Tray.	Close the optional Tray 2 to clear the message.
Ready IP Conflict	An IP address conflicts with other devices on the network.	Contact your network administrator and choose an address within your subnet which will not conflict with any other devices.
Ready Low Toner	The toner cartridge in your printer is nearly empty.	Redistribute the toner, referring to page 6.2.

Message	Status	Do this...
Ready Replace Cart	The life of some parts on the toner cartridge ends.	The overflow of the waste toner contaminates the inside of the machine. Regardless of the remaining toner, this is warning message showing that the toner cartridge replacement is needed as the parts life there of is exhausted. The toner cartridge is at the end of its life and the print quality lowers, you need to replace the cartridge to new one.
Replace Cartridge	The toner cartridge is out of its life.	Replace the toner cartridge.
Sleeping	The printer is on Power Save mode.	When data is received, it switches to on-line automatically.
Reset Now	The network card is initializing.	Wait until the message is cleared.
Restore	The printer settings or network settings are turning to their default value.	Wait until restoring is complete.
Tray 1 Open	The Tray 1 is open and also there is no paper in the Multi-Purpose Tray.	Close the Tray 1 or load paper in the Multi-Purpose Tray.
Tray 2 Open	The optional Tray 2 is open and also there is no paper in the Multi-Purpose Tray.	Close the optional Tray 2 or load paper in the Multi-Purpose Tray.

NOTE: When you encounter the problems about the optional hard disk, call for service.

Common Windows Problems

Problem	Possible Cause and Solution
"File in Use" message appears during installation.	Exit all software applications. Remove all software from the StartUp Group, then restart Windows. Reinstall the printer driver.
"Error Writing to LPTx" message appears.	<ul style="list-style-type: none"> • Ensure that the cables are connected correctly, the printer is on. • If bi-directional communication is not turned on in the driver, it will also cause this message.
"General Protection Fault", "Exception OE", "Spool32", or "Illegal Operation" messages appear.	Close all other applications, reboot Windows and try printing again.
"Fail To Print," "A printer timeout error occurred," messages appear.	These messages may appear during printing. Just keep waiting until the printer finishes printing. If the message appears in standby mode or after printing has been completed, check the connection and/or whether an error has occurred.

NOTE: Refer to Microsoft Windows 9x/Me/NT 4.0/2000/XP/2003 User's Guide that came with your PC for further information on Windows error messages.

Common Macintosh Problems

Problem	Possible Cause and Solution
The printer does not print a document from Acrobat Reader.	You should change the Print Method option to Print as Image when you print from Acrobat Reader.
The document has printed, but the print job has not disappeared from the spooler in Mac OS 10.3.2.	Update your Mac OS to OS 10.3.3 or higher.

Common PS Problems

The following situations are PS language specific and may occur when several printer languages are being used.

NOTE: To receive a printed or screen displayed message when PS errors occur, open the Print Options window and click the desired selection next to the PostScript errors section. You can also receive an error list by setting from the control panel. See page 3.8.

Problem	Possible Cause	Solution
PostScript file can not be printed.	The PostScript driver may not be installed.	<ul style="list-style-type: none">• Print a configuration page and verify that the PS version is available for printing.• Install the PostScript driver; to installing the PS printer driver, you need to select Custom and put a check mark on the PS printer driver. For details, see the Software Section.
"This job contains binary data..." message appears.	The pure binary data option is not supported by the PostScript driver.	Open the PostScript driver Properties, and click on Advanced . The pure binary data option is not supported. Choose another.
A PS error page prints.	Print job may not be PS.	Make sure that the print job is a PS job. Check to see whether the software application expected a setup or PS header file to be sent to the printer.
The optional Tray 2 is not selected in the driver.	The printer driver has not been configured to recognize the optional Tray 2.	Open the PostScript driver properties and set the Tray 2 item of the Device option to Installed .

Common Linux Problems

Problem	Possible Cause and Solution
I can't change settings in the configuration tool.	You need to have administrator privileges to be able to affect global settings.
I am using the KDE desktop but the configuration tool and LLPR won't start.	Maybe you do not have the GTK libraries installed. These usually come with most Linux distributions, but you may have to install them manually. Refer to your distribution's installation manual for more details about installing additional packages.
I just installed this package but can't find entries in the KDE/Gnome menus.	Some versions of the KDE or GNOME desktop environments may require that you restart your session for the changes to take effect.
I get a "Some options are not selected" error message while editing the printer settings.	Some printers have conflicting settings, meaning that some settings for two options can't be selected at the same time. When you change a setting and the Printer Package detects such a conflict, the conflicting option is changed to a "No Choice" value, and you have to choose an option that does not conflict before being able to submit the changes.
I can't make a printer the system default.	In some conditions, it may not be possible to change the default queue. This happens with some variants of LPRng, especially on recent RedHat systems that use the "printconf" database of queues. When using printconf, the /etc/printcap file is automatically refreshed from the database of printers managed by the system (usually through the "printtool" command), and the queues in /etc/printcap.local are appended to the resulting file. Since the default queue in LPRng is defined as the first queue in /etc/printcap, therefore it is not possible for the Linux Printer Package to change the default when some queues have otherwise been defined using printtool. LPD systems identify the default queue as the one named "lp". Thus, if there is already a queue by this name, and if it doesn't have an alias, then you won't be able to change the default. To work around this, you can either delete the queue or rename it by manually editing the /etc/printcap file.
The N-up setting does not work correctly for some of my documents.	The N-up feature is achieved through post-processing of the PostScript data that is being sent to the printing system. However, such post-processing can only be adequately achieved if the PostScript data conforms to the Adobe Document Structuring Conventions. Problems may arise when using N-up and other features relying on post-processing if the document being printed isn't compliant.

Problem	Possible Cause and Solution
I am using BSD lpr (Slackware, Debian, older distributions) and some options chosen in LLPR don't seem to take effect.	Legacy BSD lpr systems have a hard limitation on the length of the option string that can be passed to the printing system. As such, if you selected a number of different options, the length of the options may have exceeded and some of your choices won't be passed to the programmes responsible for implementing them. Try to select fewer options that deviate from the defaults, to save on memory usage.
I am trying to print a document in Landscape mode, but it prints rotated and cropped.	Most Unix applications that offer a Landscape orientation option in their printing options will generate correct PostScript code that should be printed as is. In that case, you need to make sure that you leave the LLPR option set to its default Portrait setting, to avoid unwanted rotations of the page that would result in cropped output.
Some pages come out all white (nothing is printed), and I am using CUPS.	If the data being sent is in Encapsulated PostScript (EPS) format, some earlier versions of CUPS (1.1.10 and before) have a bug preventing them from being processed correctly. When going through LLPR to print, the Printer Package will work around this issue by converting the data to regular PostScript. However, if your application bypasses LLPR and feeds EPS data to CUPS, the document may not print correctly.
I can't print to an SMB (Windows) printer.	To be able to configure and use SMB-shared printers (such as printers shared on a Windows machine), you need to have a correct installation of the SAMBA package that enables that feature. The "smbclient" command should be available and usable on your system.
My application seems to be frozen while LLPR is running.	Most Unix applications will expect a command like the regular "lpr" command to be non-interactive and thus return immediately. Since LLPR is waiting for user input before passing the job on to the print spooler, very often the application will wait for the process to return, and thus will appear to be frozen (its windows won't refresh). This is normal and the application should resume functioning correctly after the user exits LLPR.
How do I specify the IP address of my SMB server?	It can be specified in the "Add Printer" dialogue of the configuration tool, if you don't use the CUPS printing system. Unfortunately, CUPS currently doesn't allow to specify the IP address of SMB printers, so you will have to be able to browse the resource with SAMBA in order to be able to print.
Some documents come out as white pages when printing.	Some versions of CUPS, especially those shipped with Mandrake Linux before the 8.1 release, have some known bugs when processing PostScript output from some applications. Try upgrading to the latest version of CUPS (at least 1.1.14). Some RPM packages for most popular distributions are provided as a convenience with this Linux Printing Package.

Problem	Possible Cause and Solution
I have CUPS and some options (such as N-up) seem to be always enabled even though I don't pick them in LLPR.	There may be some local options defined in your ~/.lpoptions file, which is manipulated by the lpoptions command. These options will always be used if not overridden by LLPR settings. To get rid of all options for a printer, run the following command, replacing "printer" with the name of the queue: lpoptions -x printer
I configured a printer to print to a file, but I get "Permission denied" errors.	Most printing systems will not run as the super-user but as a special user (usually "lp"). Therefore, make sure that the file you have chosen to print to is accessible to the user owning the spooler daemon.
On my PCL (or SPL) printer, I sometimes get error messages printing instead of my document.	Unfortunately, some Unix applications may generate non-compliant PostScript output that may not be supported by Ghostscript, or even the printer itself in PostScript mode. You can try to capture the output to a file and view the results with Ghostscript (gv or ghostview will allow you to do so interactively) and see if you get error messages. However, since the application is fault at probably, contact your software vendor to inform them of the issue.
Some color images come out all black.	This a known bug in Ghostscript (until GNU Ghostscript version 7.05) when the base color space of the document is indexed color space and it is converted through CIE color space. Because Postscript uses CIE color space for Color Matching System, you should upgrade Ghostscript on your system to at least GNU Ghostscript version 7.06 or later. You can find recent Ghostscript versions at www.ghostscript.com .

8 Using Your Printer on a Network

If you work in a networked environment, the printer can be shared by other users on the network. The ML-3561N and ML-3561ND printers are network printers and can be connected to the network via Ethernet cable.

This chapter includes:

- **About Sharing the Printer on a Network**
- **Setting Up a Network-Connected Printer**

NOTE: If you are a ML-3560 user, you need to install an optional network interface card. For details, see “Installing a Network Card” on page 9.3.

About Sharing the Printer on a Network

If you work in a networked environment, you can connect your printer to the network.

Locally-Shared Printer

You can connect the printer directly to a selected computer, which is 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/2003 network printer connection.

For details about sharing the printer locally, see the **Software Section**.

Wired Network-connected Printer

The ML-3561N and ML-3561ND printer come with a built-in network interface. For more information about connecting your printer to the network, see page 2.7.

To use a ML-3560 printer as a network printer, you need to install an optional network interface card in your printer. See page 9.3 for information about installing the card.

Wireless Network-connected Printer

To use your ML-3560, ML-3561N or ML-3561ND in a wireless network environment, you need to install an optional wired and wireless network interface card in your printer. See page 9.3.

Printing Across a Network

Whether the printer is locally connected or network-connected, you need to install the ML-3560 Series printer software on each computer that prints documents using the printer.

Setting Up a Network-Connected Printer

You can set up the network protocols on the printer to use it as your network printer. Setting protocols can be accomplished by using the supplied network program. Please refer to Network User's Guide.

You can configure the basic network parameters through the printer's control panel. Use the printer control panel to do the following:

- Print a Network Configuration page
- Enable or disable network protocols (AppleTalk, IPX/SPX)
- Configure TCP/IP
- Configure IPX frame types

Configuring Network Parameters on the Control Panel

Supported Operating Systems

NOTE: The operating systems supported by the network card may be different from the operating systems supported by the printer. The following table shows the network environments supported by the printer.

Item	Requirements
Network Interface	10/100 Base-TX (standard for ML-3561N and ML-3561ND) or 802.11b Wireless LAN
Network Operating System	<ul style="list-style-type: none">• Novell NetWare 4.x, 5.x, 6.x• Windows 98/Me, NT 4.0/2000/XP/2003• Unix, BSD4.3, HP-UX, SUN OS, SOLARIS, SCO• Linux Red Hat 8.0~9.0, Fedora Core 1~3, Mandrake 9.0~10.2, and SuSE 8.2~9.2• Macintosh OS 8.6~9.2/10.1~10.4
Network Protocols	<ul style="list-style-type: none">• IPX/SPX• TCP/IP(LPR,Standard TCP/IP printing,IPP,DHCP,BOOTP,SNMP,HTTP)• EtherTalk

- IPX/SPX: Internet Packet exchange/Sequenced Packet eXchange
- TCP/IP: Transmission Control Protocol/Internet Protocol
- DLC/LLC: Data Link Control/Logical Link Control
- DHCP: Dynamic Host Configuration Protocol
- BOOTP: Bootstrap Protocol

Printing a Network Configuration Page

The Network Configuration page shows how the network interface card on your printer is configured. The default settings enabled all parts which are suitable for most applications.

- 1 In ready mode, press the **Menu** button (⌂) until you see “Network” on the bottom line of the display.
 - 2 Press the **Enter** button (⌘) to access the menu.
 - 3 Press the scroll button (⏪ or ⏩) until “Print Net CFG” displays on the bottom line.
 - 4 Press the **Enter** button (⌘).
- The Network Configuration page prints out.

Setting Network Protocols

When you first install the printer, all supported network protocols are enabled when you turn the printer on. If a network protocol is enabled, the printer may actively transmit on the network even when the protocol is not in use. This may increase network traffic slightly. To eliminate unnecessary traffic, you can disable unused protocols.

- 1 In ready mode, press the **Menu** button (⌂) until you see “Network” on the bottom line of the display. Press the **Enter** button (⌘) to access the menu.
 - 2 Press the **Enter** button (⌘) when “Config Network” displays on the bottom line.
 - 3 Press the scroll button (⏪ or ⏩) until “Yes” displays and press the **Enter** button (⌘). Then press the **Upper Level** button (⏴).
 - 4 Press the scroll button (⏪ or ⏩) until you see the desired protocol on the bottom line.
 - 5 Press the **Enter** button (⌘).
- If you selected “AppleTalk,” press the scroll button (⏪ or ⏩) to change the setting to “On” (enable) or “Off” (disable).
- 6 Press the **Enter** button (⌘) to save the selection.
 - 7 Press the **On Line/Continue** button (⏵) to return to ready mode.

Configuring TCP/IP

Your printer can be set up on a variety of TCP/IP networks. There are several ways in which your printer can be assigned a TCP/IP address, depending on your network.

- Static Addressing: TCP/IP address is assigned manually by the network administrator.
- Dynamic Addressing BOOTP/DHCP (default): TCP/IP address is assigned automatically by the server.

Static Addressing

To enter the TCP/IP address from your printer’s control panel, take the following steps:

- 1 In ready mode, press the **Menu** button (⌂) until you see “Network” on the bottom line of the display. Press the **Enter** button (⌘) to access the menu.
- 2 Press the **Enter** button (⌘) when “Config Network” displays on the bottom line.
- 3 Press the scroll button (⏪ or ⏩) until “Yes” displays and press the **Enter** button (⌘).
- 4 Press the **Upper Level** button (⏴), then use the scroll button (⏩).
- 5 Press the **Enter** button (⌘) when “Config TCP” displays.
- 6 Press the scroll button (⏪ or ⏩) until “Yes” displays and press the **Enter** button (⌘).
- 7 Press the **Upper Level** button (⏴), then use the scroll button (⏩).
- 8 Press the **Enter** button (⌘) when “IP Get Method” displays.

- 9 Press the scroll button (◀ or ▶) until "Static" displays and press the **Enter** button (*).
- 10 Press the **Upper Level** button (⌈), then use the scroll button (▶).
- 11 Press the **Enter** button (*) to access the IP Address menu.
IP address consists of 4 bytes.



Enter a number between 0 and 255 for each byte.

- 12 Press the scroll button (◀ or ▶) to enter a number between 0 and 255 and press the **Enter** button (*).
- 13 Repeat step 12 to complete the address from the 1st byte to the 4th byte.
- 14 To select other parameters, such as Subnet Mask or Gateway, press the **Upper Level** button (⌈), then use the scroll button (◀ or ▶). Press the **Enter** button (*).
- 15 Repeat steps 12 and 13 to configure the other TCP/IP parameters.
- 16 Press the **Upper Level** button (⌈) to return to ready mode.

Dynamic Addressing (BOOTP/DHCP)

To assign the TCP/IP address automatically by the server, take the following steps:

- 1 In ready mode, press the **Menu** button (☰) until you see "Network" on the bottom line of the display. Press the **Enter** button (*) to access the menu.
- 2 Press the **Enter** button (*) when "Config Network" displays on the bottom line.
- 3 Press the scroll button (◀ or ▶) until "Yes" displays and press the **Enter** button (*).
- 4 Press the **Upper Level** button (⌈), then use the scroll button (▶).
- 5 Press the **Enter** button (*) when "Config TCP" displays.
- 6 Press the scroll button (◀ or ▶) until "Yes" displays and press the **Enter** button (*).
- 7 Press the **Upper Level** button (⌈), then use the scroll button (▶).
- 8 Press the **Enter** button (*) when "IP Get Method" displays.

- 9 Press the scroll button (◀ or ▶) until "DHCP" displays and press the **Enter** button (*).
- 10 To assign the address from the BOOTP server, press the **Enter** button (*) when "BOOTP" displays.
- 11 Press the **On Line/Continue** button (⌈) to return to ready mode.

Configuring IPX Frame Types

On IPX/SPX protocol networks (for example, Novell NetWare), the format of network communication frames must be specified on the printer. In most cases, you can keep the default setting "Auto". However, you can manually set the frame type format, if required.

- **AUTO** (default): Automatically senses and limits the frame type to the first one detected.
- **EN_8023**: Limits the frame type to IPX over IEEE 802.3 frames. All others will be counted and discarded.
- **EN_II**: Limits the frame type to IPX over Ethernet Frames. All others will be counted and discarded.
- **EN_8022**: Limits the frame type to IPX over IEEE 802.2 with IEEE 802.3 frames. All others will be counted and discarded.
- **EN_SNAP**: Limits the frame type to IPX over SNAP with IEEE 802.3 frames. All others will be counted and discarded.

Note that the IPX/SPX protocol must be enabled in the **Netware** menu before you can configure frame types. See "Setting Network Protocols" on page 8.2.

Take the following steps to change the frame type format:

- 1 In ready mode, press the **Menu** button (☰) until you see "Network" on the bottom line of the display. Press the **Enter** button (*) to access the menu.
- 2 Press the **Enter** button (*) when "Config Network" displays on the bottom line.
- 3 Press the scroll button (◀ or ▶) until "Yes" displays on the bottom line. Press the **Enter** button (*).
- 4 Press the **Upper Level** button (⌈).
- 5 Press the scroll button (◀ or ▶) until "Netware" displays on bottom line. Press the **Enter** button (*).
- 6 Press the scroll button (◀ or ▶) until "On" displays on the bottom line and press the **Enter** button (*).
- 7 Press the **Upper Level** button (⌈), then use the scroll button (▶).
- 8 Press the **Enter** button (*) when "Config Netware" displays.
- 9 Press the scroll button (◀ or ▶) until "Yes" displays on the bottom line. Press the **Enter** button (*).
- 10 Press the **Upper Level** button (⌈), then use the scroll button (▶).

- 11 Press the **Enter** button (⌂) when "IPX Frame Type" displays.
- 12 Press the scroll button (⏪ or ⏩) until you see the desired frame type and press the **Enter** button (⌂).
- 13 Press the **On Line/Continue** button (⏮) to return to ready mode.

Restoring the Network Configuration

You can return the network configuration to its default settings.

- 1 In ready mode, press the **Menu** button (⌂) until you see "Network" on the bottom line of the display.
- 2 Press the **Enter** button (⌂) to access the menu.
- 3 Press scroll button (⏪ or ⏩) until "Default Set" displays on the bottom line.
- 4 Press the **Enter** button (⌂) to confirm the selection.

Rebooting the Network Interface Card

If you configured the "Netware" or "Config WLAN" menu option, the printer will not recognize your change.

In this case, you can simply reboot the network interface card without turning your printer off and back on.

- 1 In ready mode, press the **Menu** button (⌂) until you see "Network" on the bottom line of the display.
- 2 Press scroll button (⏪ or ⏩) until "Reset Network" displays on the bottom line.
- 3 Press the **Enter** button (⌂) to reboot the network interface card.

Configuring the Wireless Network

See the instructions supplied with the wireless network interface card.

You can easily configure the wireless network environments using the SetIP program in Windows. See the Network User's Guide.

To configure the wireless network settings:

- 1 In ready mode, press the **Menu** button (⌂) until you see "Network" on the bottom line of the display. Press the **Enter** button (⌂) to access the menu.
- 2 Press the **Enter** button (⌂) when "Config Network" displays on the bottom line.
- 3 Press the scroll button (⏪ or ⏩) until "Yes" displays on the bottom line. Press the **Enter** button (⌂).
- 4 Press the **Upper Level** button (⏮).
- 5 Press the scroll button (⏪ or ⏩) until "Config WLAN" displays on the bottom line. Press **Enter**.
- 6 Press the scroll button (⏪ or ⏩) until "Yes" displays on the bottom line. Press **Enter** button (⌂).

You can configure the following items:

- **SSID:** When you select "Search List", the wireless network card on your printer searches for wireless networks in the area and shows the results on the list. Select a network on the list. You cannot change "Operation Mode" and "Channel".
If you select "Custom", you can configure the wireless settings according to your needs and enter a name of up to 32 letters for your "Custom" setting. "SSID" is case sensitive, so you need to change it carefully. Using the scroll buttons, find the alphabet you want and press the **Enter** button (⌂). When the cursor moves to the next input field, enter the following letters the same way you entered the first letter. After you entered the last letter of the name, press the **Enter** button (⌂) once again to save the ID. The way to enter the key number for the encryption key is the same as to enter letters.
- **Operation Mode:** "Ad-Hoc" mode allows the wireless devices to communicate directly with each other. This is the default operating mode for the print server.
If your network uses an Access Point, you must reconfigure the operation mode to "Infra". "Infra" mode allows both wireless and cabled computers to send files to the printer through an Access Point.
If you select "Auto", the print server selects the operation mode automatically according to the network cable's connection each time it boots up. If the network cable is detected, the print server enters "Ad-Hoc" mode; if not, enters "Infra" mode.
- **Channel:** This option is available in the "Ad-Hoc" mode only. In most cases, you will not need to change this setting. The print server will scan all available channels for the specified network and will adapt its channel to the one detected. Default setting is 10.
- **Authentication:** "Open System" or "Shared Key". The Samsung print server is not configured for network authentication (Open System). If required by your network, the proper authentication method must be configured on the print server.
- **Encryption:** "None", "64-bit WEP", or "128-bit WEP". Default setting is "None". If your network uses WEP encryption keys, you must configure the encryption keys. You can configure up to four keys. The active key must match the value and active key position (for example, Key 1) configured on other wireless devices.
- **Using Key:** Select the key to use in your network.
- **Key Type:** Select the key type of your network.
- **Key1, Key2, Key3, Key4:** Enter the key number for "Encryption". The number you can enter are as follows:

	Hexadecimal	Alphanumeric
64-bit WEP	10 digits	5 characters
128-bit WEP	26 digits	13 characters

9

Installing Printer Options

Your printer is a full-featured laser printer that has been optimized to meet most of your printing needs. Recognizing that each user may have different requirements, however, Samsung makes several options available to enhance the printer's capabilities.

This chapter includes:

- **Precaution When Installing Printer Options**
- **Installing Memory DIMM**
- **Installing a Network Card**
- **Using the Hard Disk**
- **Installing an Optional Tray 2**
- **Installing a Duplex Unit**

Precaution When Installing Printer Options

DISCONNECT THE POWER CORD:

Never remove the printer control board while the printer is plugged in.

To avoid the possibility of an electrical shock, always disconnect the power cord when installing or removing ANY internal or external printer option.

DISCHARGE STATIC ELECTRICITY:

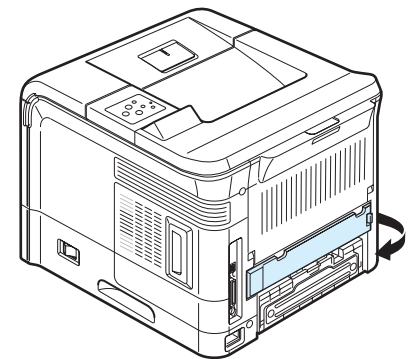
The control board and internal printer options (Memory DIMM, Network Card and Hard Disk) are sensitive to static electricity. Before installing or removing an internal option, discharge static electricity from your body by touching something metal, such as the metal back plate on any device plugged into a grounded power source. If you walk round before finishing installation, discharge any static electricity once again.

Installing Memory DIMM

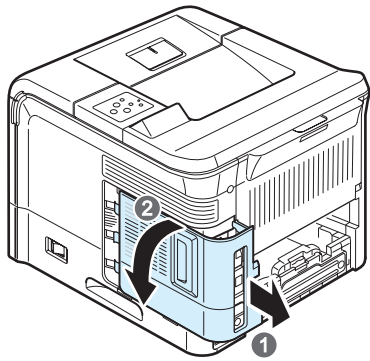
Your printer has a dual in-line memory module (DIMM) slot. Use this DIMM slot to install more memory for the printer.

NOTE: Your printer has 32 MB of memory which can be expanded to 288 MB. Use only the Samsung-approved DIMM. Contact your Samsung dealer.

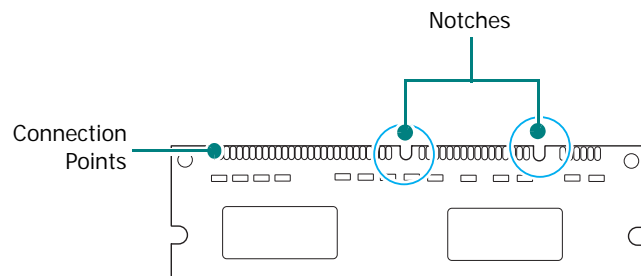
- 1 Turn the printer power off and unplug all cables from the printer.
- 2 Remove the duplex-slot cover from the back of the printer. If you installed an optional duplex unit, remove it from the printer.



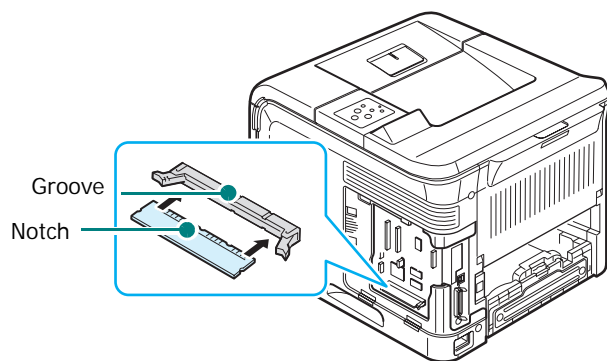
- 3 Hold the control board cover and remove it.



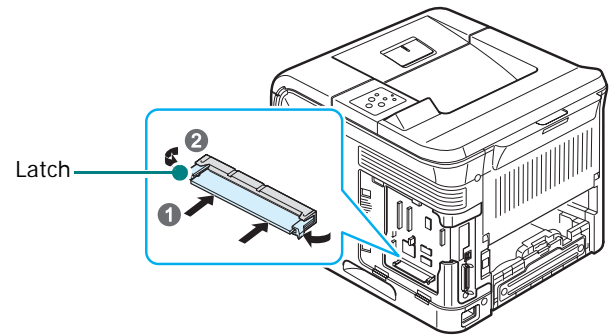
- 4 Completely open the latches on each side of the DIMM slot.
5 Remove the memory DIMM from its antistatic package. Locate the alignment notches on the bottom edge of the DIMM.



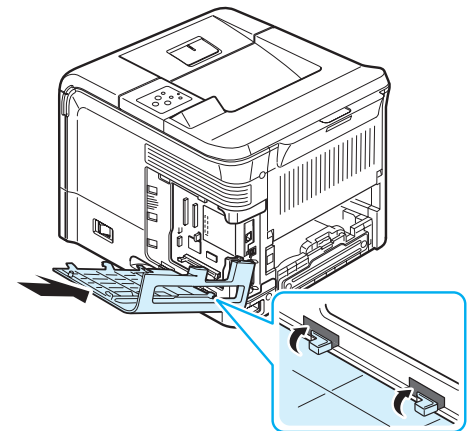
- 6 Holding the memory DIMM by the edges, align the notches on the memory DIMM with the grooves on the memory DIMM slot.



- 7 Push the DIMM straight into the DIMM slot until it snaps into place. Make sure the latches fit over the notches located on either side of the DIMM.



- 8 Replace the control board cover.



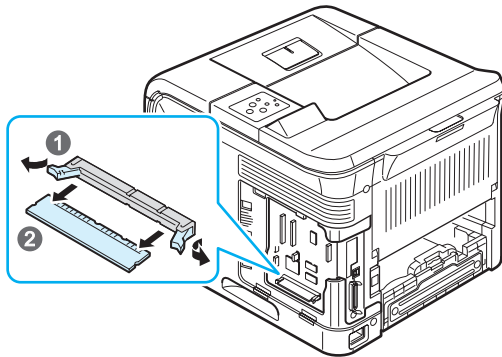
- 9 Reinstall the duplex-slot cover or the optional duplex unit.
10 Reconnect the power cord and printer cable, and turn the printer on.

After installing the memory DIMM, you need to select it in the printer properties of the PostScript printer driver so that you can use it with your printer:

- 11 Make sure that the PostScript printer driver is installed in your computer. To installing the PS printer driver, you need to select **Custom** and put a check mark on the PS printer driver. For details, see the **Software Section**.
12 Click the Window **Start** menu.
13 For Windows 95/98/Me/NT4.0/2000, select **Settings** and then **Printers**.
For Windows XP/2003, select **Printers and Faxes**.
14 Select the **Samsung ML-3560 Series PS** printer.
15 Click the right mouse button on the printer icon and select **Properties**.
16 For Windows 95/98/Me, select **Device Options** tab.
For Windows NT4.0/2000/XP/2003, select **Device Settings** tab.
17 Select the memory DIMM you installed in from **Printer Memory** in the **Installable Option** section and click **OK**.
For Windows 98, select **Installable Option** → **VMOption** → **change setting for:VMOption** → **change memory**.

Removing the Memory DIMM

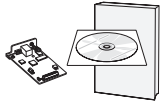

- 1 Follow steps 1 and 3 on page 9.1 to access the control board.
- 2 Push the latches at both ends of the DIMM slot away from the DIMM. Pull out the DIMM.



- 3 Place the DIMM in its original package or wrap it with a sheet of thin metal, such as aluminium foil, and store it in a box.
- 4 Follow from step 8 on page 9.2.

Installing a Network Card

Check to see if there are any missing parts in your optional network card package.

ML-3560 only	ML-3560, ML-3561N, ML-3561ND
Ethernet 10/100 Base TX (Internal)	Ethernet 10/100 Base TX + 802.11b Wireless LAN (Internal)
Network Interface Card, Network Utilities CD and Network Printer Quick Guide	Wireless Network Interface Card, Network Utilities CD and Network Printer Quick Guide
	

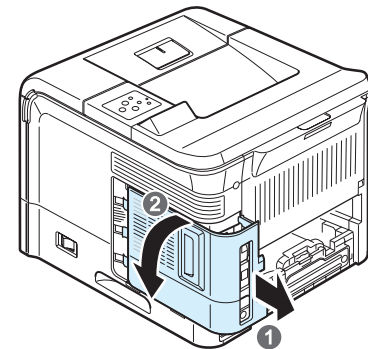
Tips for using the Network Interface Card

- The ML-3561N and ML-3561ND comes with a built-in network interface card.
- If you use a ML-3560 user, you need to install an optional network interface card.
- If you want to use the printer in both wired and wireless network environments, you need to install an optional wired/wireless network interface card in the ML-3560, ML-3561N and ML-3561ND.

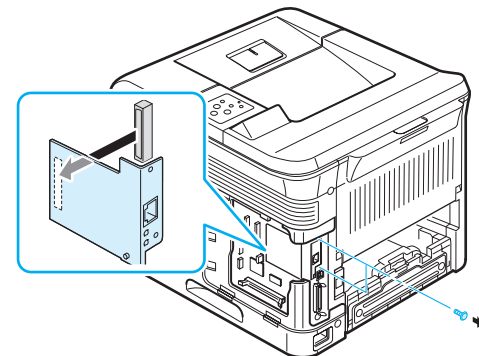
- When you purchase a wired/wireless network interface card, the antenna connected to the card may not be separated from the card, depending on your country.

Review the precaution on page 9.1 and then follow this procedure to install the network in your printer.

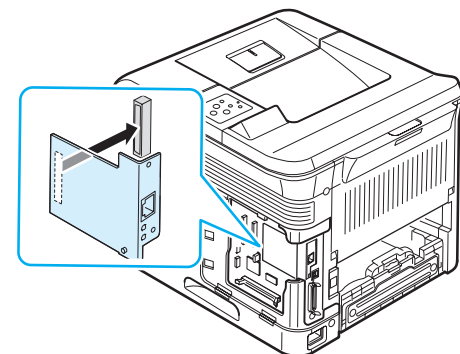
- 1 Turn the printer power off and unplug all cables from the printer.
- 2 Remove the duplex-slot cover from the back of the printer. If you installed an optional duplex unit, remove it from the printer.
- 3 Hold the control board cover and remove it.



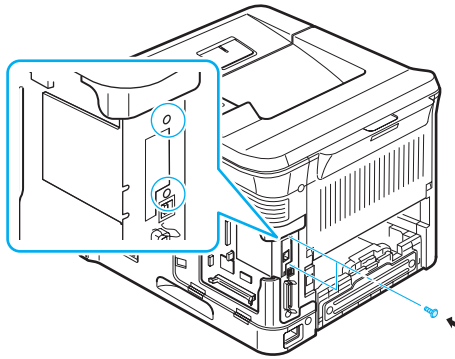
- 4 If you are replacing an existing network interface card with a new one, remove the two screws and the old card.



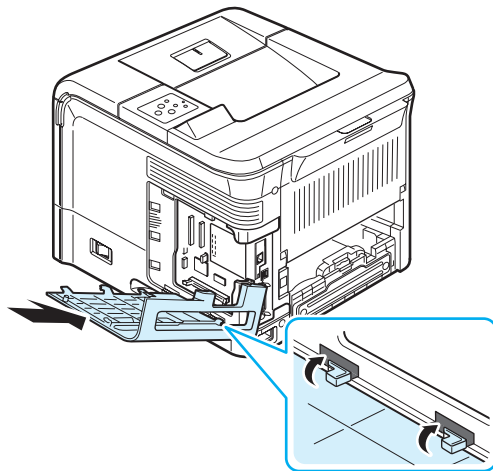
- 5 Align the connector on the network card with the connector on the control board. Make sure that the jacks on the card go through the holes. Push the card firmly into the connector on the control board until it is completely and securely in place.



- 6 Tighten the two screws which you removed in step 4 or supplied with your new network card.



- 7 Replace the control board cover.



- 8 Reinstall the duplex-slot cover or the optional duplex unit.
9 Connect the network cable, reconnect the power cord, and then turn the printer on.

NOTE: For information about configuring and using the printer on a network environment, refer to the Network Printer User's Guide provided with the network interface card. You can also configure the network parameters on the control panel; see page 8.2.

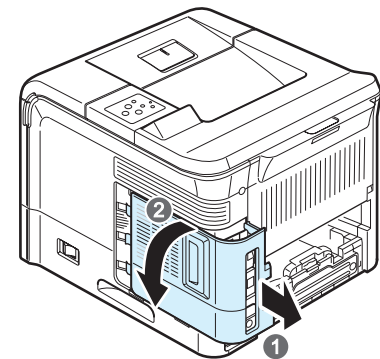
Using the Hard Disk

Installing the hard disk allows the data from your computer to be sent to the print queue of the printer hard disk. This decreases the workload of the computer.

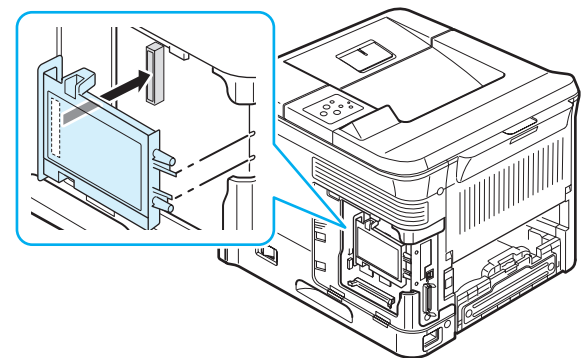
You can use various print features, such as storing a job in the hard disk, proofing a job, and printing private documents.

Installing the Hard Disk

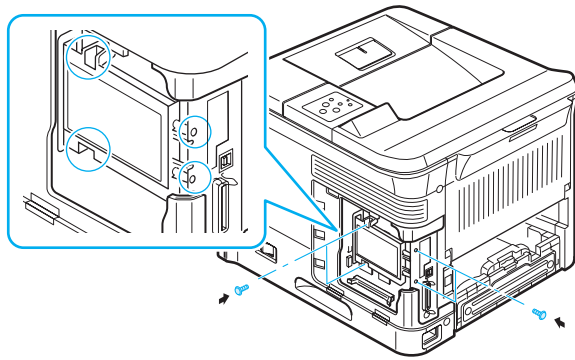
- 1 Turn the printer off. Unplug the power cord and all of the cables.
- 2 Remove the duplex-slot cover from the back of the printer.
If you installed an optional duplex unit, remove it from the printer.
- 3 Hold the control board cover and remove it.



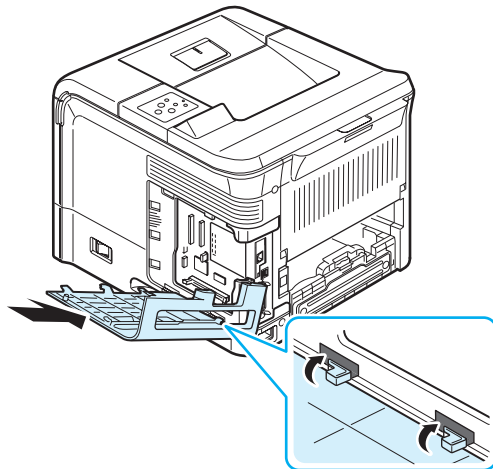
- 4 Insert a hard disk and push it in until it is latched into place.



- 5 Fasten the four screws supplied with your new hard disk.



- 6 Replace the control board cover.



- 7 Reinstall the duplex-slot cover or the optional duplex unit.
- 8 Reconnect the power cord and printer cable, and turn the printer on.
- 9 Print a configuration page from the control panel to check if the hard disk is correctly installed. See page 6.1.
- 10 Now you need to set the hard disk in your printer driver. The procedure for setting the hard disk may differ depending on the selected printer driver. Take the following steps:
 - 11 Click the Windows **Start** menu.
For Windows 9x/Me/NT4.0/2000, select **Settings** and then **Printers**.
 - 12 For Windows XP/2003, select **Printers and Faxes**.
 - 13 Select the **Samsung ML-3560 Series PCL 6** printer icon or **Samsung ML-3560 Series PS** printer icon.
 - 14 Right-click on the printer icon and select **Properties**.
 - 15 In PCL 6 Properties, click the **Printer** tab and then check **Optional Hard Disk Drive(HDD)**.
In PS Properties, click the **Device Option** tab and set the **Printer Hard Disk** option to **Installed**.
 - 16 Click **OK**.

Printing with the Optional Hard Disk

If you have the optional hard disk installed, you can use advanced printing features, such as storing or spooling a print job to the hard disk, proofing a job, and specifying of printing a private job in the printer properties window on your printer driver.

Once you stored files in the hard disk, you can easily reprint or delete the stored files using the control panel of your printer. You can also manage all of the print jobs in the print queue of the printer hard disk.

Setting the time and date

- 1 Press the **Menu** button (Ⓜ) on the control panel until "Setup" appears on the bottom line of the display.
- 2 Press the **Enter** button (Ⓢ) to access the menu.
- 3 When "Date & Time" appears, press the **Enter** button (Ⓢ).
- 4 Press the scroll button (⏪ or ⏩) until the digit you want appears and press the **Enter** button (Ⓢ).
You can enter from 2000 to 2065 in the year input section. The cursor moves to the next position. Repeat step 4 until all digits appears correctly.
- 5 Press the **Enter** button (Ⓢ).

Storing a Job

You can store jobs in the installed hard disk.

- 1 Open the file you want to store.
- 2 Select **Printer** from the **File** menu. The Print window is displayed (It may look slightly different depending on your application.)
- 3 Click **Properties**. If you see **Setup**, **Printer** or **Options**, click the button instead.
- 4 Click the **Extra** tab and click **Print and Hold**.
- 5 Select the Print Mode you want from the drop-down list.
 - **Normal**: prints in normal mode.
 - **Proof**: prints the first file and after a pause prints the next file.
 - **Confidential**: stores the files secured with a password.
 - **Store**: stores the file to the hard disk.
 - **Spool**: spools the file into the hard disk and prints it from the hard disk queue.
 - **Delay**: prints the file at a specified time.
- 6 Click **OK** until the Print window is displayed.
- 7 Click **OK** or **Print** to start printing.

Printing a Stored Job

You can print jobs currently stored in the hard disk.

- 1 Press the **Menu** button (⏮) on the control panel until “Stored Job” appears on the bottom line of the display.
- 2 Press the **Enter** button (⌘) to access the menu.
- 3 Press the scroll button (⏪ or ⏩) until the file name appears on the display and then press the **Enter** button (⌘).
- 4 If the job is secured with a password, “Input PIN” displays. Press the **Enter** button (⌘).
You must enter the specified 4-digit password. Press the scroll button (⏪ or ⏩) to enter the first digit and press the **Enter** button (⌘). The cursor automatically moves to the next digit position. Enter the 2nd, 3rd, and 4th digit in the same way.
- 5 When “Func Print” appears, press the **Enter** button (⌘).
If you enter incorrect password, “Input PIN” appears again. Reenter the correct password.
- 6 If you want to change the number of copies, press the **Enter** button (⌘) when “Copies” appears on the display.
If you installed the optional duplex unit and want to print on both sides of paper, press the **Enter** button (⌘) when “Duplex” appears on the display. Select the binding edge.
- 7 When “Print Now” appears, press the **Enter** button (⌘) to start printing.

Deleting a Stored Job

You can delete jobs currently stored in the hard.

- 1 Press the **Menu** button (⏮) on the control panel until you see “Stored Job” appears on the bottom line of the display.
- 2 Press the **Enter** button (⌘) to access the menu.
- 3 Press the scroll button (⏪ or ⏩) until the file name appears on the display and then press the **Enter** button (⌘).
- 4 If the job is secured with a password, “Input PIN” displays. Press the **Enter** button (⌘).
You must enter the specified 4-digit password. Press the scroll button (⏪ or ⏩) to enter the first digit and press the **Enter** button (⌘). The cursor automatically moves to the next digit position. Enter the 2nd, 3rd, and 4th digit in the same way.
- 5 Press the scroll button (⏪ or ⏩) until you see “Func Delete” on the display.
- 6 Press the **Enter** button (⌘).
- 7 Press the scroll button (⏪ or ⏩) until you see “Yes” on the display.
- 8 Press the **Enter** button (⌘).

Controlling the Active Job Queue

All of the print jobs waiting to be printed are listed in the Active Job Queue in the order you sent them to the printer. You can delete a job from the queue before printing, or promote a job to print sooner.

To delete a file from the queue:

- 1 Press the **Menu** button (⏮).
The first available menu item, “Active Job,” appears on the bottom line of the display.
- 2 Press the **Enter** button (⌘).
- 3 Press the scroll button (⏪ or ⏩) until the file name appears on the display and then press the **Enter** button (⌘).
- 4 If the job is secured with a password, “Input PIN” displays. Press the **Enter** button (⌘).
You must enter the specified 4-digit password. Press the scroll button (⏪ or ⏩) to enter the first digit and press the **Enter** button (⌘). The cursor automatically moves to the next digit position. Enter the 2nd, 3rd, and 4th digit in the same way.
- 5 Press the scroll button (⏪ or ⏩) until you see “Func Cancel” on the display.
- 6 Press the **Enter** button (⌘).
If you enter incorrect password, “Input PIN” appears again. Reenter the correct password.
- 7 Press the scroll button (⏪ or ⏩) until you see “Yes” on the display.
- 8 Press the **Enter** button (⌘) to delete the selected file.

To promote a file from the queue:

You can select a job waiting in the Active Job Queue and change its print order so that it can be printed sooner.

- 1 Press the **Menu** button (⏮).
- 2 Press the **Enter** button (⌘) when “Active Job” displays on the bottom line of the display.
- 3 Press the scroll button (⏪ or ⏩) until the file name appears on the display and then press the **Enter** button (⌘).
- 4 If the job is secured with a password, “Input PIN” displays. Press the **Enter** button (⌘).
You must enter the specified 4-digit password. Press the scroll button (⏪ or ⏩) to enter the first digit and press the **Enter** button (⌘). The cursor automatically moves to the next digit position. Enter the 2nd, 3rd, and 4th digit in the same way.
- 5 Press the scroll button (⏪ or ⏩) until you see “Func Promote” on the display.
- 6 Press the **Enter** button (⌘).
If you enter incorrect password, “Input PIN” appears again. Reenter the correct password.

To print a file immediately:

You can print the print job you want immediately. In this case, the job currently printing is stopped and the selected job will be printed.

- 1 Press the **Menu** button (Ⓜ).
- 2 Press the **Enter** button (Ⓚ) when "Active Job" displays on the bottom line of the display.
- 3 Press the scroll button (⏪ or ⏩) until the file name appears on the display and then press the **Enter** button (Ⓚ).
- 4 If the job is secured with a password, "Input PIN" displays. Press the **Enter** button (Ⓚ).
You must enter the specified 4-digit password. Press the scroll button (⏪ or ⏩) to enter the first digit and press the **Enter** button (Ⓚ). The cursor automatically moves to the next digit position. Enter the 2nd, 3rd, and 4th digit in the same way.
- 5 Press the scroll button (⏪ or ⏩) until you see "Func Release" on the display. The Select Function Release option appears only when you select Delay in the Print Mode option. See "Storing a Job" on page 9.5
- 6 Press the **Enter** button (Ⓚ).
If you enter incorrect password, "Input PIN" appears again. Reenter the correct password.

Printing using the form files

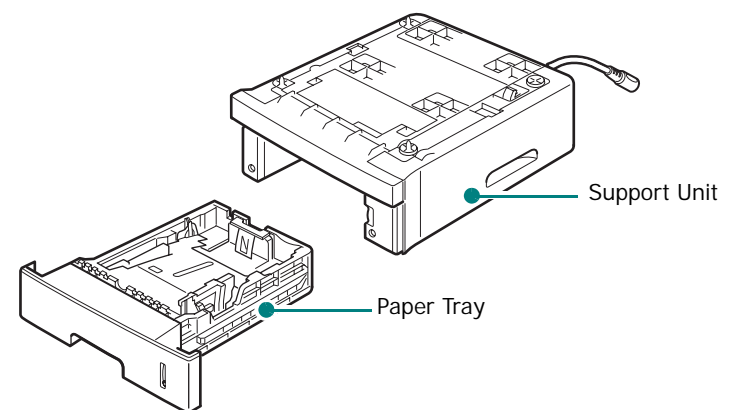
- 1 In ready mode, press the scroll button (⏪ or ⏩) until you see "Setup" on the bottom line of the display. Press the **Enter** button (Ⓚ) to access the menu.
- 2 Press scroll button (⏪ or ⏩) until you see "Form Menu" on the bottom line of the display. Press the **Enter** button (Ⓚ) to access the menu.
- 3 Select one among three menu "Off", "Single Form", "Double Form". Then, Press **Enter** button (Ⓚ).
- 4 Press the **Upper Level** button (Ⓢ).
- 5 If you selected "Single Form", press right button. Then you can see "Sel. 1st. Form" menu, and then press **Menu** button (Ⓜ).
- 6 Press the scroll button (⏪ or ⏩) until the form name appears on the display and then press the **Enter** button (Ⓚ).
- 7 Press the **Upper Level** button (Ⓢ).
- 8 If you selected "Double Form", press right button. Then you can see "Sel. 2nd. Form" menu, and then press **Menu** button (Ⓜ).
- 9 Press the scroll button (⏪ or ⏩) until the form name appears on the display and then press the **Enter** button (Ⓚ) for even page.

- 10 Press the **Upper Level** button (Ⓢ) to return to ready mode. If you selected "Single Form", the selected form will be applied to every page. If you selected "Double Form", 1st form will be applied to odd page and 2nd page will be even page.

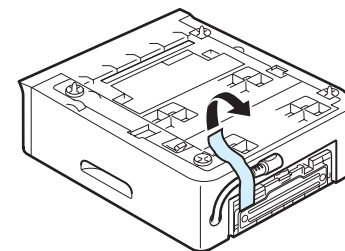
Installing an Optional Tray 2

You can increase the paper handling capacity of your printer by installing an optional Tray 2. This tray holds 500 sheets of paper.

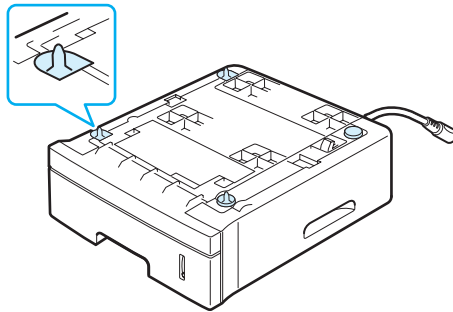
The optional Tray 2 consists of two components; the support unit and paper tray.



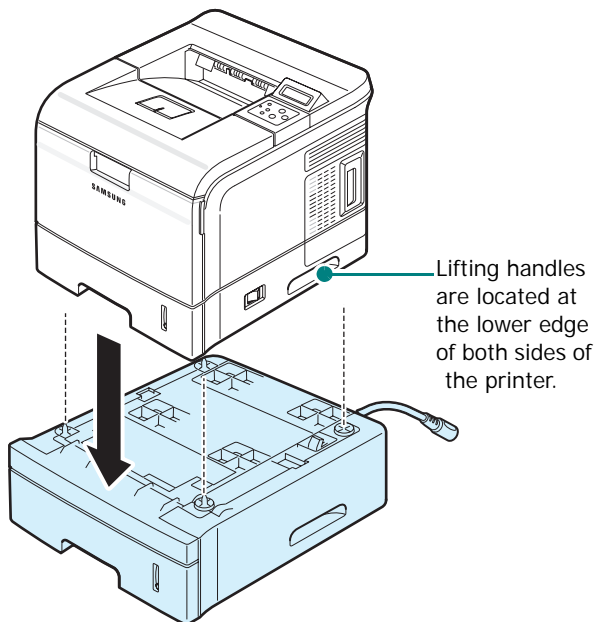
- 1 Turn off the printer and unplug all cables from the printer.
- 2 Remove the packing tape and the packing material inside of the tray.



- 3 Find the location of the connector and the optional Tray 2 positioners.



- 4 Place the printer over the optional Tray 2, aligning the feet on the printer with the positioners on the optional Tray 2.

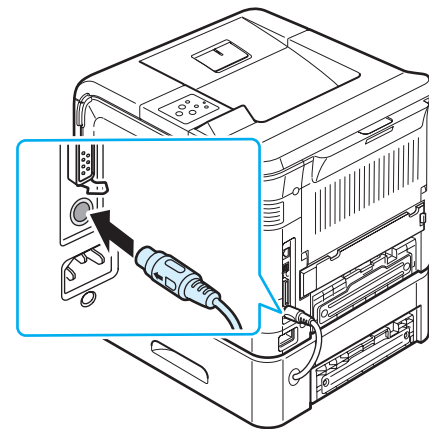


Lifting handles are located at the lower edge of both sides of the printer.



CAUTION: The printer weighs 23kg including the toner cartridge and the tray. Use safe lifting and handling techniques. If you need to move the printer, it should be moved by two people. Use the lifting handles as shown in page 1.3. Back injury could result if a single person attempts to lift the printer.

- 5 Plug the optional Tray 2 cable into the optional Tray 2 cable connector on the back of the printer.



- 6 Load paper in the optional Tray 2. The instructions for loading paper in the optional Tray 2 are same as for loading in the Tray 1. See page 2.4.
- 7 Reconnect the power cord and cables and then turn the printer on.



CAUTION: Do not remove the Tray 1 from the printer while you are printing using the optional Tray 2. If you do this, a paper jam may occur. Use the optional Tray 2 with the Tray 1.

After installing optional Tray 2, you must set the tray as installed in the printer properties window.

- 8 Click the Windows **Start** menu.
- 9 For Windows 9x/Me/NT4.0/2000, select **Settings** and then **Printers**.
For Windows XP/2003, select **Printers and Faxes**.
- 10 Select the **Samsung ML-3560 Series PCL 6** printer icon or **Samsung ML-3560 Series PS** printer icon.
- 11 Right-click on the printer icon and select **Properties**.
- 12 In PCL 6 Properties, click the **Printer**. Then select **Tray 2** from the **Optional Tray** drop-down list.
In PS Properties, click the **Device Option** tab and select **Installed** from the **Tray 2** drop-down list.
- 13 Click **OK**.

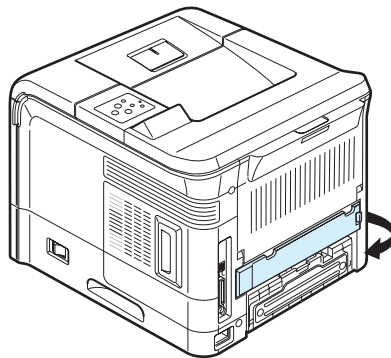
Installing a Duplex Unit

The printer can automatically print on both sides of a sheet of paper with an optional duplex unit. This is called duplexing. The optional duplex unit supports the following paper sizes: letter, legal, folio, and A4.

The duplex-slot cover that is located at the rear of the printer must be removed when the optional duplex unit is installed. When you use duplexing, the printer partially ejects the printed page into the output tray, and then pulls it back to print the reverse side.

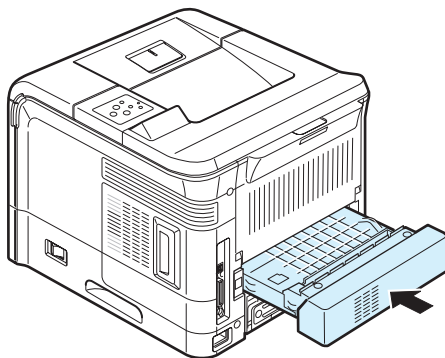
To install a duplex unit:

- 1 Turn the printer off and unplug all cables from the printer.
- 2 Remove the tape and all packing material from the duplex unit.
- 3 Remove the duplex-slot cover from the back of the printer.



NOTE: Reinstall this cover when you are not use the duplex unit.

- 4 Insert the duplex unit all the way into the slot until it fits into place.



- 5 Reconnect the power cord and printer cable, and turn the printer on.

After installing the duplex unit, you must set the unit as installed in the printer properties window.

- 6 Click the Windows **Start** menu.

- 7 For Windows 9x/Me/NT4.0/2000, select **Settings** and then **Printers**.

For Windows XP/2003, select **Printers and Faxes**.

- 8 Select the **Samsung ML-3560 Series PCL 6** printer icon or **Samsung ML-3560 Series PS** printer icon.

- 9 Right-click on the printer icon and select **Properties**.

- 10 In PCL 6 Properties, click the **Printer** tab and check **Duplex Unit**.

In PS Properties, click the **Device Option** tab and select **Installed** from the **Duplex Unit** drop-down list.

- 11 Click **OK**.

Printing on Both Sides of Paper

After installing the duplex unit, you can print on both sides of paper. Before printing, decide how you want your document oriented.

The options are:

- **Long Edge**, which is the conventional layout used in book binding.
- **Short Edge**, which is the type often used with calendars.

NOTES:

- Do not print on both sides of labels, transparencies, envelopes, or thick paper. Paper jamming and damage to the printer may result.
- To use double-sided printing, you can use only the following paper sizes: A4, Letter, Legal, and Folio, with a weight of 20~24lbs (75~90g/m²).

There are two ways to enable or disable the double-sided printing:

Using the Control Panel Menu

You can use the **Duplex** item in the **Layout** menu for double-sided printing. After setting the item, set the **Duplex Margin** item in the same menu, if necessary.

For further details about using the control panel menu, see page 3.2.

From the Software Application

You can use the printer properties window on your printer driver. For details, see the **Software Section**.

10 Specifications

This chapter includes:

- **Printer Specifications**
- **Paper Specifications**

Printer Specifications

Item	Specifications and Description	
Model Name	ML-3560 ML-3561N ML-3561ND	(KT35MPB)
Print Speed*	Up to 33 PPM (A4); 35 PPM (Letter) Duplex: Up to 18 IPM (A4); 19 IPM (Letter)	
Resolution	Up to 1200 x 1200 dpi effective output	
First Printing Time	Standby mode: 9 seconds Sleep mode: 49 seconds	
Warm-up Time	40 seconds	
Power Rating	AC 110 - 127 V (USA, Canada) / 220 - 240 V (Others), 50 / 60 Hz	
Power Consumption	600 W average during operation Less than 11 W in power-save mode	
Acoustic Noise **	Stand by: Less than 35 dB Operating: Less than 55 dB	
Toner Supply	Single cartridge	
Toner Cartridge Life ***	12,000 Pages (for starter, 6,000 Pages) ISO 19752 (LSA 5% coverage)	
Duty Cycle	Monthly: 150,000 pages maximum	
Weight	Gross: 21 Kg (46.3 lb) Net: 17 Kg (37.5 lb)	
Package Weight	Paper: 2.5 Kg, Plastic: 0.6 Kg	
External Dimensions (W x D x H)	396 (W) x 453 (D) x 353 (H) mm / 15.6 x 17.8 x 13.9 in. (without options)	
Operating Environment	Temperature: 10 ~ 32 °C / 50 ~ 90 °F Humidity: 20 ~ 80 % RH	

Item	Specifications and Description
Emulation	PCL 6 ****, PostScript 3, IBM ProPrinter, EPSON
Random Access Memory (RAM)	32 MB (Max 288 MB)
	16, 32, 64, 128, or 256 MB optional memory available Use only the Samsung-approved DIMM.
Fonts	1 bitmap, 45 scalable, 136 PS3 fonts
Interface Switching	Automatic (Parallel, USB, Network)
Interface	<ul style="list-style-type: none">• IEEE 1284 Bidirectional Parallel Standard<ul style="list-style-type: none">- Modes supported: Compatible, Nibble, Byte, ECP• USB Interface Standard<ul style="list-style-type: none">- USB 2.0 compliant- 480 Mbps 1 port• Network Interface<ul style="list-style-type: none">- 10/100 Base TX (option for ML-3560)- 802.11b Wireless LAN (option for ML-3560, ML-3561N and ML-3561ND)
OS Compatibility *****	Windows 95/98/Me/NT 4.0/2000/XP/2003, Various Linux OS, Mac 8.6~9.2/10.1~10.4
Options	ML-3560: Duplex unit, 500-sheet optional Tray 2, Ethernet 10/100 Base TX, Ethernet 100 Base TX + 802.11a/b/g wireless LAN, Hard disk ML-3561N: Duplex unit, 500-sheet optional Tray 2, Ethernet 100 Base TX + 802.11a/b/g wireless LAN, Hard disk ML-3561ND: 500-sheet optional Tray 2, Ethernet 100 Base TX + 802.11a/b/g wireless LAN, Hard disk

* Print speed will be affected by operating system used, computing performance, application software, connection method, media type, media size, and job complexity.

**Sound pressure Level, ISO7779

***The number of pages may be affected by operating environment, printing interval, media type, and media size.

****Compatible with PCL6 Version 2.1

*****Please visit www.samsungprinter.com to download the latest software version.

Paper Specifications

Overview

Your printer accepts a variety of print materials, 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 the printer's performance and the output quality. Paper that does not meet the guidelines outlined in this User's Guide can cause the following problems:

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

NOTES:

- Some paper may meet all of the guidelines in this guide and still not produce satisfactory results. This may 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, ensure that the paper meets the requirements specified in this User's Guide.



CAUTION: Using paper that does not meet these specifications may cause problems, requiring repairs. These repairs are not covered by the Samsung warranty or service agreements.

Supported Sizes of Paper

Tray 1/ Optional Tray 2	Dimensions*	Weight	Capacity**
Letter	216 x 279 mm (8.5 x 11 in.)	60 to 105 g/ m ² bond (16 to 28 lb)	500 sheets of 75 g/m ² bond paper
A4	210 x 297 mm (8.3 x 11.7 in.)		
Executive	191 x 267 mm (7.25 x 10.5 in.)		
Legal	216 x 356 mm (8.5 x 14 in.)		
B5 (JIS)	182 x 257 mm (7.2 x 10 in.)		
B5 (ISO)	176 x 250 mm (6.9 x 9.8 in.)		
Folio	216 x 330 mm (8.5 x 13 in.)		
A5	148 x 210 mm (5.8 x 8.3 in.)		
A6	105 x 148 mm (4.1 x 5.8 in.)		
Oficio	216 x 343 mm (8.5 x 13.5 in.)		

Multi-Purpose Tray	Dimensions *	Weight	Capacity **
Minimum Size (custom)	76 x 127 mm (3 x 5 in.)	60 to 163 g/m ² bond (16 to 43 lb)	100 sheets of 75 g/m ² bond paper
Maximum Size (custom)	216 x 356mm (8.5 x 14 in.)		
Transparency	Same minimum and maximum paper sizes as listed above.	Thickness: 0.10 x 0.14 mm (0.0039 x 0.0055 in.)	50 typical
Labels ***		Thickness: 0.10 x 0.14 mm (0.0039 x 0.0055 in.)	25 typical
Envelopes		up to 90 g/m ² (16 to 24 lb)	up to 10

* The printer supports a wide range of media sizes. See “Printing on Card Stock or Custom-sized Materials” on page 4.9.

**Capacity may vary depending on media weight and thickness, and environmental conditions.

***Smoothness: 100 to 250 (Sheffield)

NOTE: You may experience jams when using print materials with a length of less than 127 mm (5.0 in.). For optimum performance, ensure that you are storing and handling the paper correctly. Please refer to “Printer and Paper Storage Environment” on page 10.4.

Guidelines for Using Paper

For the best result, use conventional 75 g/m² (20 lb) paper. Ensure that 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 paper, check the label on the package.

The following problems may 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	<ul style="list-style-type: none"> 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 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. Insure that any colored paper or preprinted forms use inks that are compatible with this fusing temperature (195 °C or 383 °F for 0.1 second).

Paper Specifications

Category	Specifications
Acid Content	5.5 ~ 8.0 pH
Caliper	0.094 ~ 0.18 mm (3.0 ~ 7.0 mils)
Curl in Ream	Flat within 5 mm (0.02 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 195 °C (383 °F) for 0.1 second.
Grain	Long Grain
Moisture Content	4 % ~ 6 % by weight
Smoothness	100 ~ 250 Sheffield

Paper Output Capacity

Output Tray	Capacity
Face-down output tray	250 sheets of 75 g/m ² bond paper
Face-up rear cover	100 sheet of 75 g/m ² bond paper

Printer and Paper Storage Environment

Paper storage environmental conditions directly affect the feed operation.

Ideally, the printer and paper storage environment should be at or near room temperature, and not too dry or humid. Remember that paper is hygroscopic; it 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 become distorted. This can cause paper jams.

Care should be taken not to purchase more paper than can be 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 large supplies 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 considered 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.
- 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.

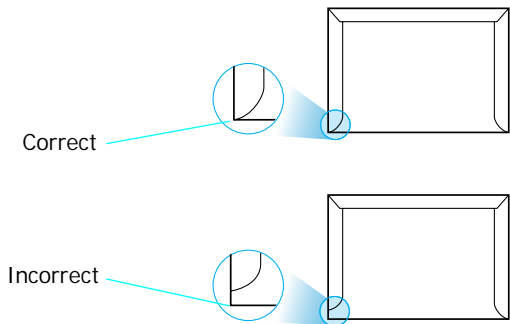
	Minimum	Maximum
Multi-Purpose Tray	76 x 127 mm (3 x 5 in)	216 x 356 mm (8.5 x 14 in)

NOTES:

- Use only the Multi-Purpose Tray to print envelopes.
- You may experience some paper jams when using any media with a length less than 127 mm (5.0 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 10.4.

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	Minimum	Maximum
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 4.6.

Labels



CAUTION:

- To avoid damaging the printer, use only labels recommended for laser printers.
- To prevent serious jams, always use the Multi-Purpose 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 195 °C (383 °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 13 mm (0.5 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 4.7.

Transparencies

Transparencies used in the printer must be able to withstand 140 °C (284 °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 4.8.

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Samsung Printer

Software section

SOFTWARE SECTION

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1 Installing Printer Software in Windows

This chapter includes:

- **Installing Printer Software**
- **Changing the Software Language**
- **Reinstalling Printer Software**
- **Removing Printer Software**

Installing Printer Software

You can install the printer software for local printing or network printing. To install the printer software on the computer, perform the appropriate installation procedure depending on the printer in use.


A printer driver is software that lets your computer communicate with your printer. The procedure to install drivers may differ depending on the operating system you are using.

All applications should be closed on your PC before beginning installation.

Installing Software for Local Printing

A local printer is a printer directly attached to your computer using the printer cable supplied with your printer, such as a USB or parallel cable. If your printer is attached to a network, skip this step and go to “Installing Software for Network Printing” on page 7.

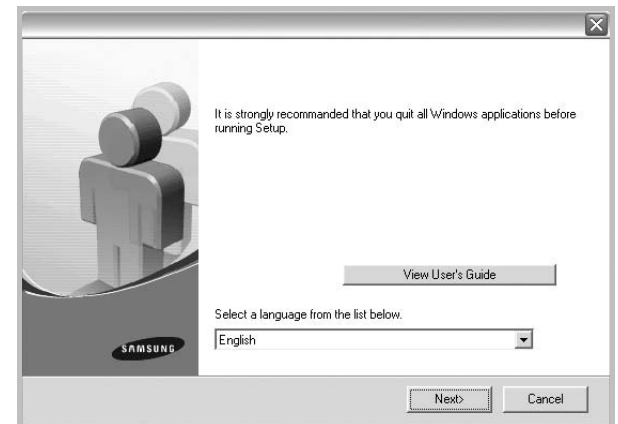
You can install the printer software using the typical or custom method.

NOTE: If the “New Hardware Wizard” window appears during the installation procedure, click  in the upper right corner of the box to close the window, or click **Cancel**.

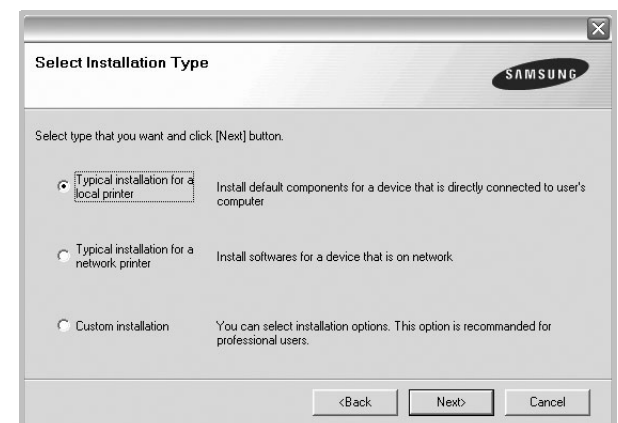
Typical Installation

This is recommended for most users. All components necessary for printer operations will be installed.

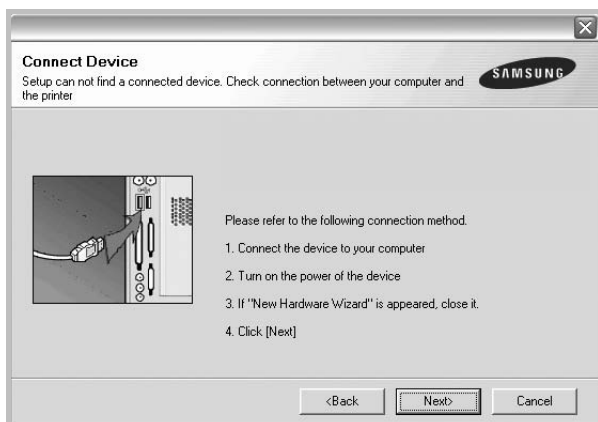
- 1 Make sure that the printer is connected to your computer and powered on.
- 2 Insert the supplied CD-ROM into your CD-ROM drive.
The CD-ROM should automatically run, and an installation window appears.
If the installation window does not appear, click **Start** and then **Run**. Type **X:\Setup.exe**, replacing “X” with the letter which represents your drive and click **OK**.



- 3 Click **Next**.
 - If necessary, select a language from the drop-down list.
 - **View User's Guide:** Allows you to view the User's Guide. If your computer doesn't have Adobe Acrobat, click on this option and it will automatically install Adobe Acrobat Reader for you.
- 4 Select **Typical installation for a local printer**. Click **Next**.



NOTE: If your printer is not already connected to the computer, the following window will appear.

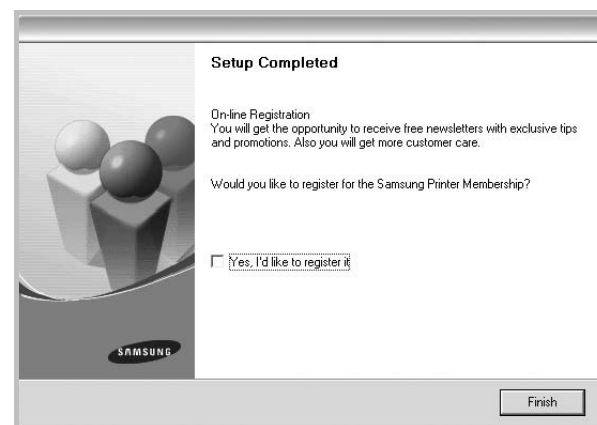


- After connecting the printer, click **Next**.
- If you don't want to connect the printer at this time, click **Next**, and **No** on the following screen. Then the installation will start and a test page will not be printed at the end of the installation.
- *The installation window that appears in this User's Guide may differ depending on the printer and interface in use.*

- 5 After the installation is finished, a window asking you to print a test page appears. If you choose to print a test page, select the checkbox and click **Next**. Otherwise, just click **Next** and skip to step 7.
- 6 If the test page prints out correctly, click **Yes**. If not, click **No** to reprint it.

- 7 To register yourself as a user of Samsung Printers in order to receive information from Samsung, select the checkbox and click **Finish**. You are now sent to the Samsung web site.

Otherwise, just click **Finish**.

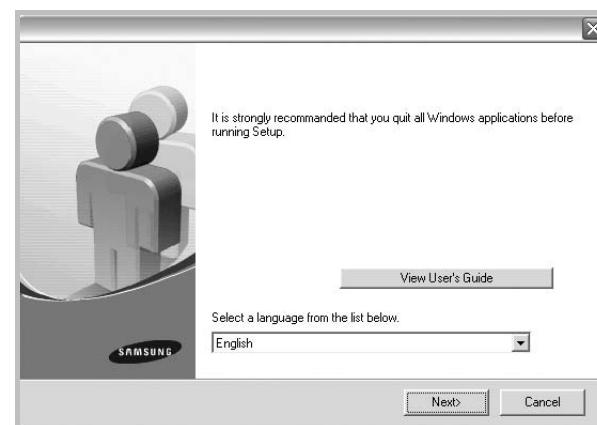


NOTE: After setup is complete, if your printer driver doesn't work properly, reinstall the printer driver. See "Reinstalling Printer Software" on page 10.

Custom Installation

You can choose individual components to install.

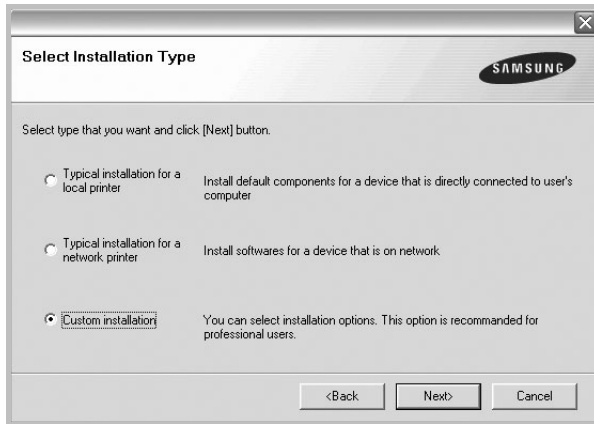
- 1 Make sure that the printer is connected to your computer and powered on.
- 2 Insert the supplied CD-ROM into your CD-ROM drive. The CD-ROM should automatically run, and an installation window appears. If the installation window does not appear, click **Start** and then **Run**. Type **X:\Setup.exe**, replacing "X" with the letter which represents your drive and click **OK**.



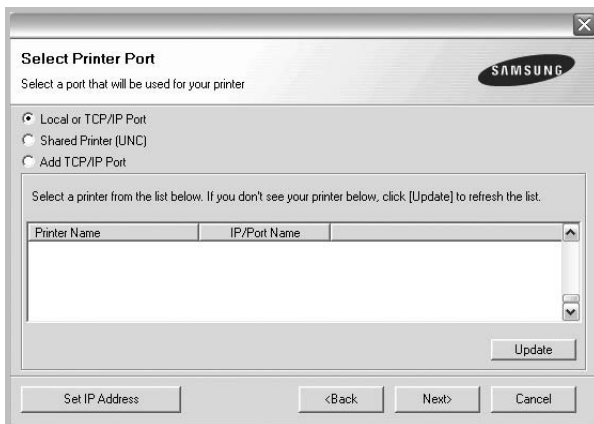
3 Click **Next**.

- If necessary, select a language from the drop-down list.
- **View User's Guide:** Allows you to view the User's Guide. If your computer doesn't have Adobe Acrobat, click on this option and it will automatically install Adobe Acrobat Reader for you.

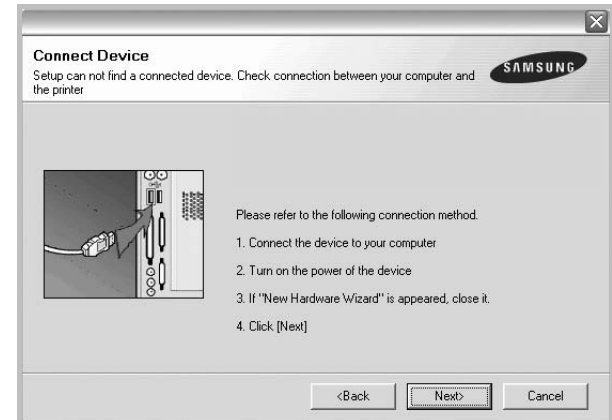
4 Select **Custom installation**. Click **Next**.



5 Select your printer and click **Next**.

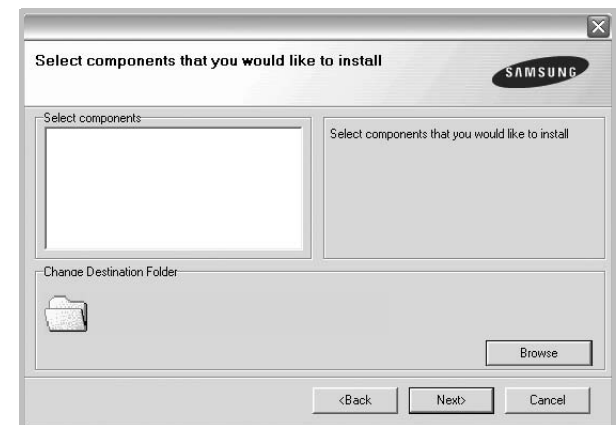


NOTE: If your printer is not already connected to the computer, the following window will appear.



- After connecting the printer, click **Next**.
- If you don't want to connect the printer at this time, click **Next**, and **No** on the following screen. Then the installation will start and a test page will not be printed at the end of the installation.
- *The installation window that appears in this User's Guide may differ depending on the printer and interface in use.*

6 Select the components to be installed and click **Next**.



- 7** After the installation is finished, a window asking you to print a test page appears. If you choose to print a test page, select the checkbox and click **Next**. Otherwise, just click **Next** and skip to step 9.
- 8** If the test page prints out correctly, click **Yes**. If not, click **No** to reprint it.

- 9 To register yourself as a user of Samsung Printers in order to receive information from Samsung, select the checkbox and click **Finish**. You are now sent to the Samsung web site.

Otherwise, just click **Finish**.



Installing Software for Network Printing

When you connect your printer to a network, you must first configure the TCP/IP settings for the printer. After you have assigned and verified the TCP/IP settings, you are ready to install the software on each computer on the network.

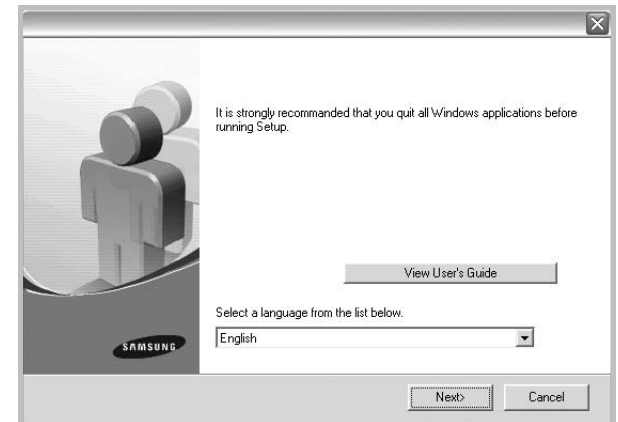
You can install the printer software using the typical or custom method.

Typical Installation

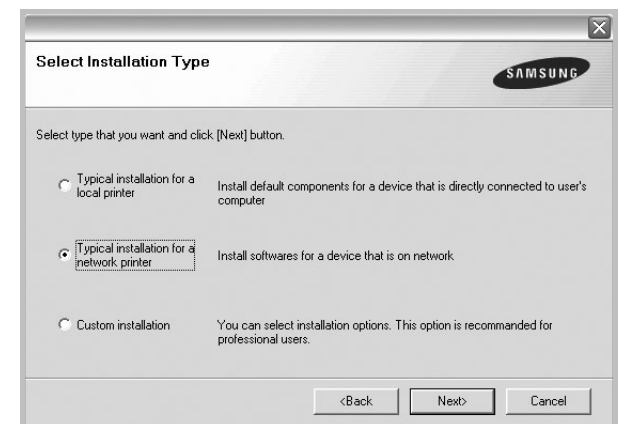
This is recommended for most users. All components necessary for printer operations will be installed.

- 1 Make sure that the printer is connected to your network and powered on. For details about connecting to the network, see the supplied printer's User's Guide.
- 2 Insert the supplied CD-ROM into your CD-ROM drive. The CD-ROM should automatically run, and an installation window appears.

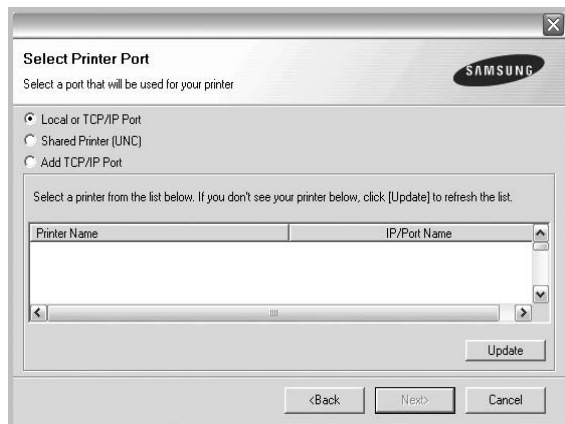
If the installation window does not appear, click **Start** and then **Run**. Type **X:\Setup.exe**, replacing "X" with the letter which represents your drive and click **OK**.



- 3 Click **Next**.
 - If necessary, select a language from the drop-down list.
 - **View User's Guide:** Allows you to view the User's Guide. If your computer doesn't have Adobe Acrobat, click on this option and it will automatically install Adobe Acrobat Reader for you.
- 4 Select **Typical installation for a network printer**. Click **Next**.



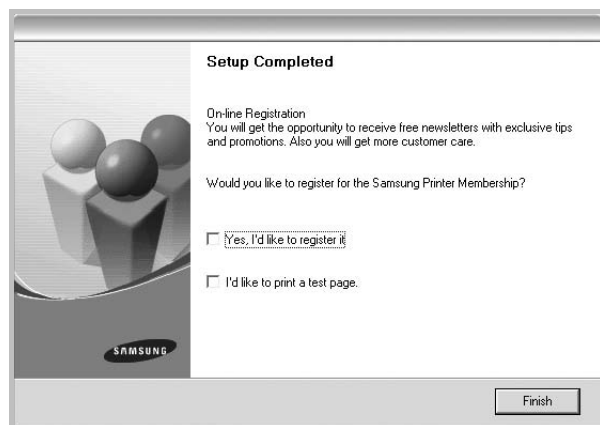
- 5 The list of printers available on the network appears. Select the printer you want to install from the list and then click **Next**.



- If you do not see your printer on the list, click **Update** to refresh the list, or select **Add TCP/IP Port** to add your printer to the network. To add the printer to the network, enter the port name and the IP address for the printer.
- To find a shared network printer (UNC Path), select **Shared Printer [UNC]** and enter the shared name manually or find a shared printer by clicking the **Browse** button.

- 6 After the installation is finished, a window appears asking you to print a test page and to register yourself as a user of Samsung Printers in order to receive information from Samsung. If you so desire, select the corresponding checkbox(es) and click **Finish**.

Otherwise, just click **Finish**.

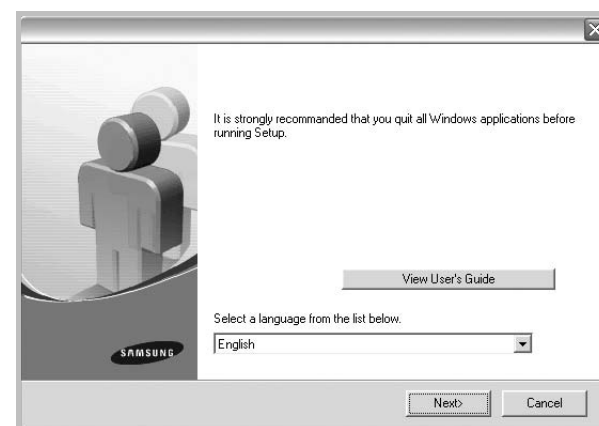


NOTE: After setup is complete, if your printer driver doesn't work properly, reinstall the printer driver. See "Reinstalling Printer Software" on page 10.

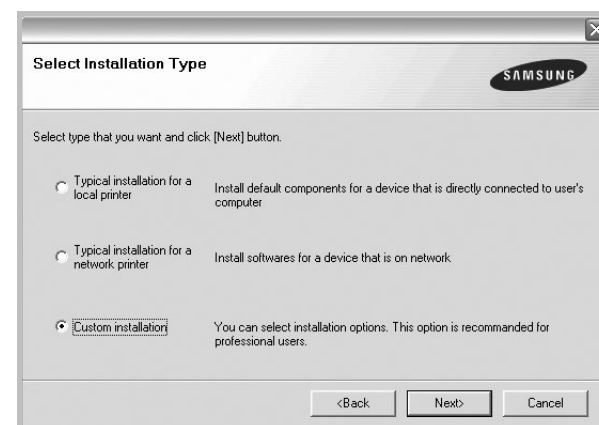
Custom Installation

You can choose individual components to install and set a specific IP address.

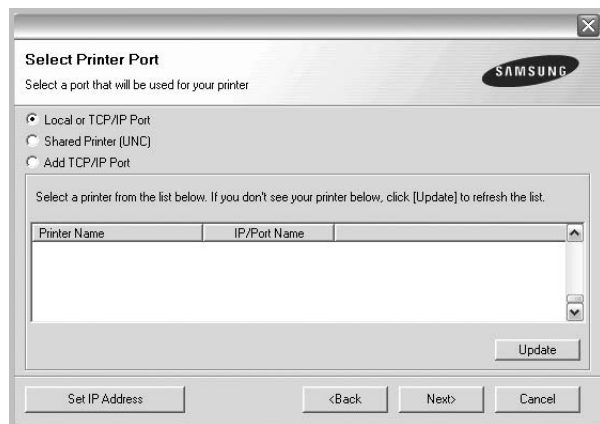
- 1 Make sure that the printer is connected to your network and powered on. For details about connecting to the network, see the supplied printer's User's Guide.
- 2 Insert the supplied CD-ROM into your CD-ROM drive. The CD-ROM should automatically run, and an installation window appears. If the installation window does not appear, click **Start** and then **Run**. Type **X:\Setup.exe**, replacing "X" with the letter which represents your drive and click **OK**.



- 3 Click **Next**.
 - If necessary, select a language from the drop-down list.
 - **View User's Guide:** Allows you to view the User's Guide. If your computer doesn't have Adobe Acrobat, click on this option and it will automatically install Adobe Acrobat Reader for you.
- 4 Select **Custom installation**. Click **Next**.

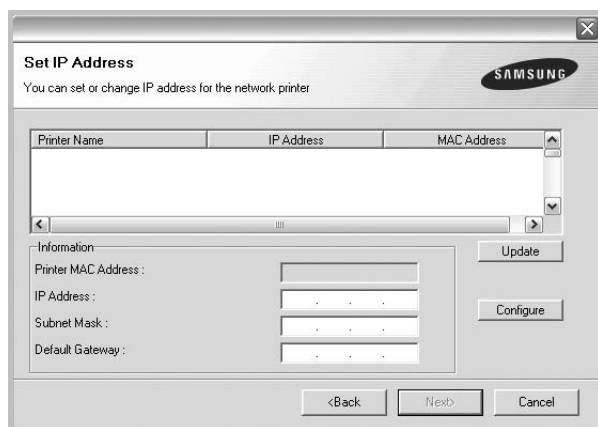


- 5 The list of printers available on the network appears. Select the printer you want to install from the list and then click **Next**.



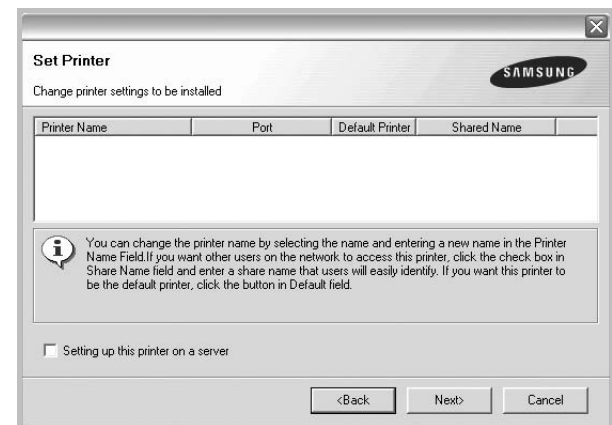
- If you do not see your printer on the list, click **Update** to refresh the list, or select **Add TCP/IP Port** to add your printer to the network. To add the printer to the network, enter the port name and the IP address for the printer.
- To find a shared network printer (UNC Path), select **Shared Printer [UNC]** and enter the shared name manually or find a shared printer by clicking the **Browse** button.

TIP: If you want to set a specific IP address on a specific network printer, click the **Set IP Address** button. The Set IP Address window appears. Do as follows:



- a. Select a printer to be set with a specific IP address from the list.
- b. Configure an IP address, subnet mask, and gateway for the printer manually and click **Configure** to set the specific IP address for the network printer.
- c. Click **Next**.

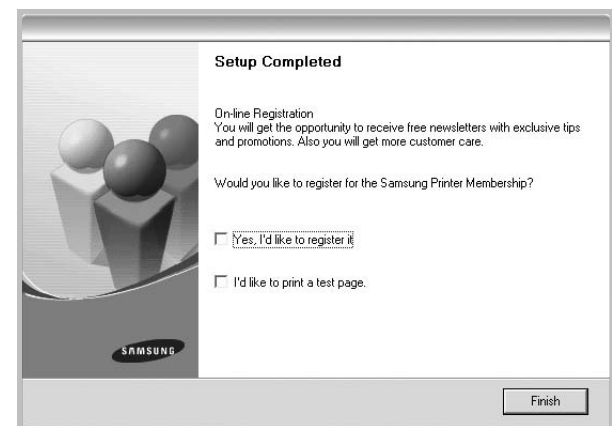
- 6 Select the components to be installed. After selecting the components, the following window appears. You can also change the printer name, set the printer to be shared on the network, set the printer as the default printer, and change the port name of each printer. Click **Next**.



To install this software on a server, select the **Setting up this printer on a server** checkbox.

- 7 After the installation is finished, a window appears asking you to print a test page and to register yourself as a user of Samsung Printers in order to receive information from Samsung. If you so desire, select the corresponding checkbox(es) and click **Finish**.

Otherwise, just click **Finish**.



NOTE: After setup is complete, if your printer driver doesn't work properly, reinstall the printer driver. See "Reinstalling Printer Software" on page 10.

Changing the Software Language

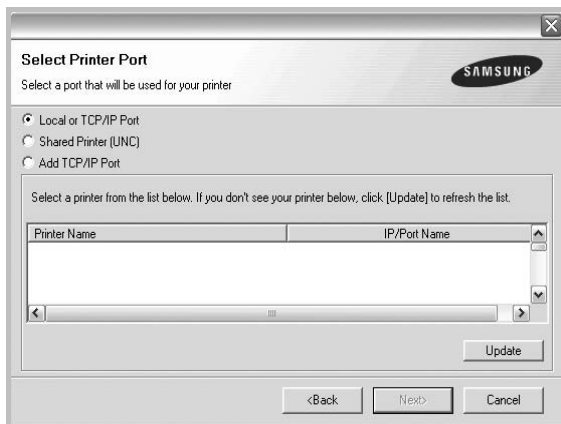
After installation of the software, you can change the display language.

- 1 Click the Windows **Start** menu.
- 2 Select **Programs** or **All Programs** and then **your printer driver name**.
- 3 Select **Language Selection**.
- 4 Select the desired language from the language selection window, and click **OK**.

Reinstalling Printer Software

You can reinstall the software if installation fails.

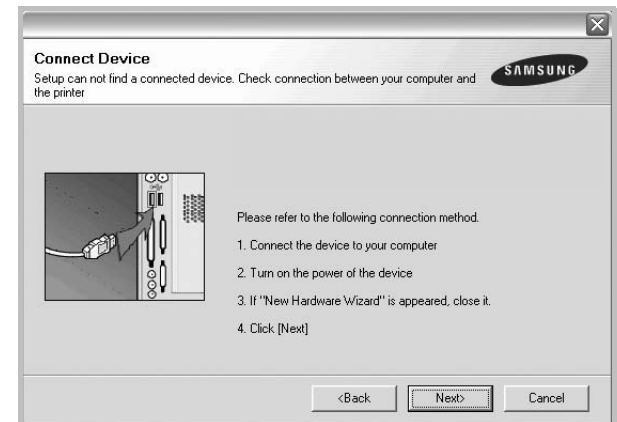
- 1 Start Windows.
- 2 From the **Start** menu select **Programs** or **All Programs** → **your printer driver name** → **Maintenance**.
- 3 Select **Repair** and click **Next**.
- 4 The list of printers available on the network appears. Select the printer you want to install from the list and then click **Next**.



- If you do not see your printer on the list, click **Update** to refresh the list, or select **Add TCP/IP Port** to add your printer to the network. To add the printer to the network, enter the port name and the IP address for the printer.
- To find a shared network printer (UNC Path), select **Shared Printer [UNC]** and enter the shared name manually or find a shared printer by clicking the **Browse** button.

You will see a component list so that you can reinstall any item individually.

NOTE: If your printer is not already connected to the computer, the following window will appear.



- After connecting the printer, click **Next**.
- If you don't want to connect the printer at this time, click **Next**, and **No** on the following screen. Then the installation will start and a test page will not be printed at the end of the installation.
- *The reinstallation window that appears in this User's Guide may differ depending on the printer and interface in use.*

- 5 Select the components you want to reinstall and click **Next**.

If you installed the printer software for local printing and you select **your printer driver name**, the window asking you to print a test page appears. Do as follows:

- a. To print a test page, select the check box and click **Next**.
- b. If the test page prints out correctly, click **Yes**.
If it doesn't, click **No** to reprint it.

- 6 When the reinstallation is done, click **Finish**.

Removing Printer Software

- 1 Start Windows.
- 2 From the **Start** menu select **Programs** or **All Programs** → **your printer driver name** → **Maintenance**.
- 3 Select **Remove** and click **Next**.

You will see a component list so that you can remove any item individually.
- 4 Select the components you want to remove and then click **Next**.
- 5 When your computer asks you to confirm your selection, click **Yes**.

The selected driver and all of its components are removed from your computer.
- 6 After the software is removed, click **Finish**.

2 Basic Printing

This chapter explains the printing options and common printing tasks in Windows.

This chapter includes:

- **Printing a Document**
- **Printer Settings**
 - Layout Tab
 - Paper Tab
 - Graphics Tab
 - Extras Tab
 - About Tab
 - Printer Tab
 - Using a Favorite Setting
 - Using Help

Printing a Document

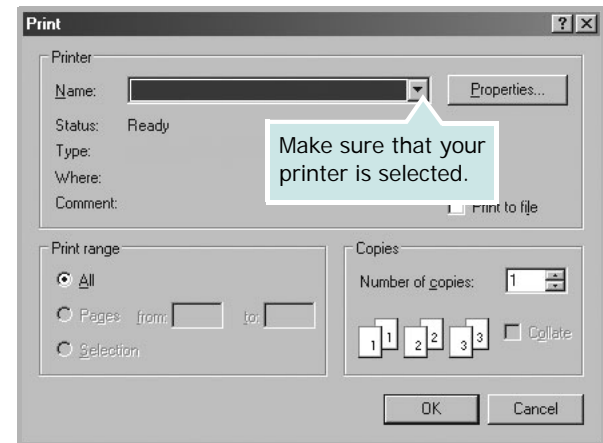
NOTE:

- Your printer driver **Properties** window that appears in this User's Guide may differ depending on the printer in use. However the composition of the printer properties window is similar.
- *Check the Operating System(s) that are compatible with your printer. Please refer to the OS Compatibility section of Printer Specifications in your Printer User's Guide.*
- If you need to know the exact name of your printer, you can check the supplied CD-ROM.

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 Select **your printer driver** from the **Name** drop-down list.
- 4 To take advantage of the printer features provided by your printer driver, click **Properties** or **Preferences** in the application's Print window. For details, see "Printer Settings" on page 13.

If you see **Setup**, **Printer**, or **Options** in your Print window, click it instead. Then click **Properties** on the next screen.
- 5 Click **OK** to close the printer properties window.
- 6 To start the print job, click **OK** or **Print** in the Print window.

Printer Settings

You can use the printer properties window, which allows you to access all of the printer options you need when using your printer. When the printer properties are displayed, you can review and change the settings needed for your print job.

Your printer properties window may differ, depending on your operating system. This Software User's Guide shows the Properties window for Windows 98.

Your printer driver **Properties** window that appears in this User's Guide may differ depending on the printer in use.

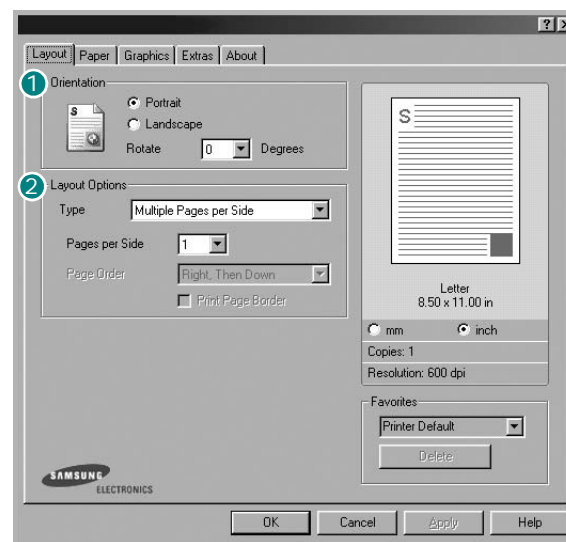
If you access printer properties through the Printers folder, you can view additional Windows-based tabs (refer to your Windows User's Guide) and the Printer tab (see "Printer Tab" on page 17).

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.
- The following procedure is for Windows XP. For other Windows OS, refer to the corresponding Windows User's Guide or online help.
 1. Click the Windows **Start** button.
 2. Select **Printers and Faxes**.
 3. Select **your printer driver icon**.
 4. Right-click on the printer driver icon and select **Printing Preferences**.
 5. Change the settings on each tab, click OK.

Layout Tab

The **Layout** tab provides options to adjust how the document appears on the printed page. The **Layout Options** includes **Multiple Pages per Side** and **Poster**. See "Printing a Document" on page 12 for more information on accessing printer properties.



1 Orientation

Orientation 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.
- **Rotate** allows you to rotate the page the selected degrees.



▲ Portrait



▲ Landscape

2 Layout Options

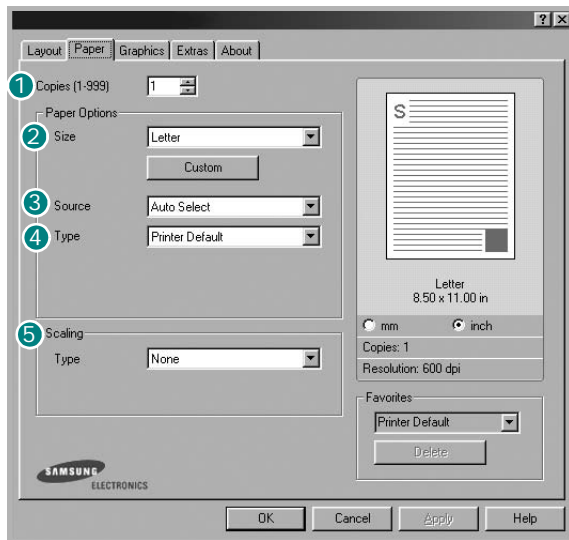
Layout Options allows you to select advanced printing options. You can choose **Multiple Pages per Side** and **Poster**.

- For details, see "Printing Multiple Pages on One Sheet of Paper (N-Up Printing)" on page 18.
- For details, see "Printing Posters" on page 19

Paper Tab

Use the following options to set the basic paper handling specifications when you access the printer properties. See “Printing a Document” on page 12 for more information on accessing printer properties.

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

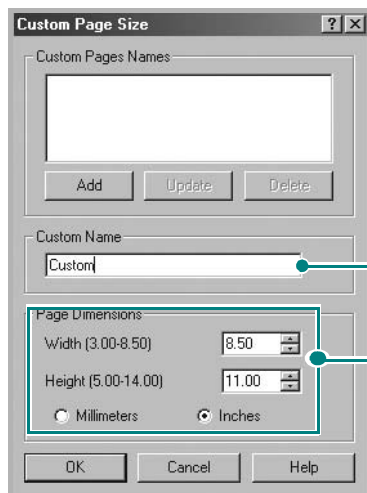


1 Copies

Copies allows you to choose the number of copies to be printed. You can select 1 to 999 copies.

2 Size

Size allows you to set the size of paper you loaded in the tray. If the required size is not listed in the **Size** box, click **Custom**. When the **Custom Page Size** window appears, set the paper size and click **OK**. The setting appears in the list so that you can select it.



Enter the custom name you want to use.

Enter the paper size.

3 Source

Make sure that **Source** is set to the corresponding paper tray. Use **Manual Feed** when printing on special materials like envelopes and transparencies. You have to load one sheet at a time into the Manual Tray or Multi-Purpose Tray. If the paper source is set to **Auto Select**, the printer automatically picks up print material in the following tray order: Manual Tray or Multi-Purpose Tray, Tray1, Optional Tray2

4 Type

Make sure that **Type** is set to **Printer Default**. If you load a different type of print material, select the corresponding paper type. If you use cotton paper, set the paper type to **Thick** for best printing. To use recycled paper, with weighs from 20lb to 24lb (75~90g/m²), or colored paper, select **Color Paper**.

First Page

This property allows you to print the first page using a different paper type from the rest of the document. You can select the paper source for the first page. For example, load thick stock for the first page into the Multi-purpose Tray, and plain paper into Tray1. Then, select **Tray1** in the **Source** option and **Multi-Purpose Tray** in the **First Page** option. *Some printers do not support this feature.*

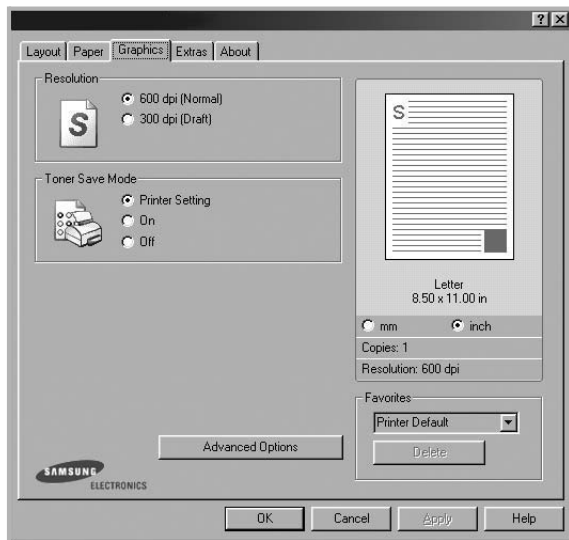
5 Scaling

Scaling allows you to automatically or manually scale your print job on a page. You can choose from **None**, **Reduce/Enlarge**, and **Fit to Page**.

- For details, see “Printing a Reduced or Enlarged Document” on page 21.
- For details, see “Fitting Your Document to a Selected Paper Size” on page 21.

Graphics Tab

Use the following Graphic options to adjust the print quality for your specific printing needs. See “Printing a Document” on page 12 for more information on accessing printer properties. Click the **Graphics** tab to display the properties shown below..



Resolution

The Resolution options you can select may vary depending on your printer model. The higher the setting, the sharper the clarity of printed characters and graphics. The higher setting also may increase the time it takes to print a document.

Image Mode

The available options are Normal and Text Enhance. *Some printers do not support this feature.*

- **Printer Setting:** If you select this option, this feature is determined by the setting you’ve made on the control panel of the printer.
- **Normal:** This setting is for normal documents.
- **Text Enhance:** If you want to display characters more vivid in your documents, use Text Enhance, and it will make your documents easier to read.

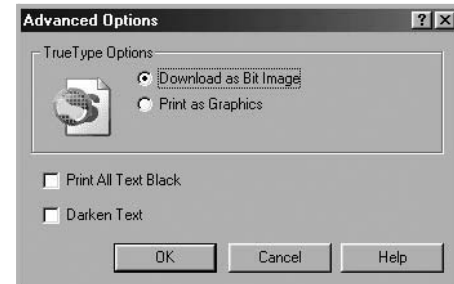
Toner Save Mode

Selecting this option extends the life of your toner cartridge and reduces your cost per page without a significant reduction in print quality. *Some printers do not support this feature.*

- **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 when printing a document, select this option.

Advanced Options

You can set advanced settings by clicking the **Advanced Options** button.

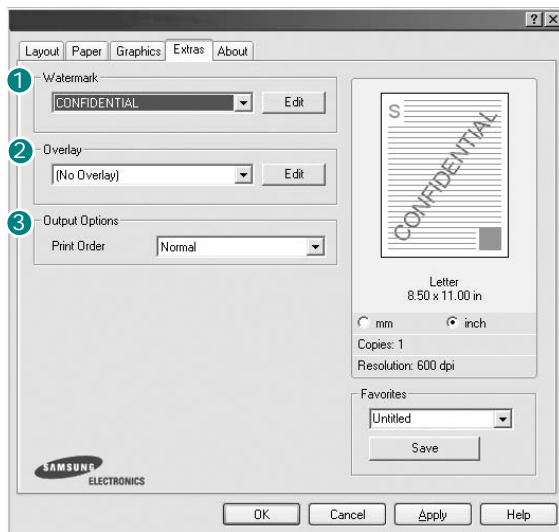


- **TrueType Options:** This option determines what the driver tells the printer about how to image the text in your document. Select the appropriate setting according to the status of your document. *This option may be available only in Windows 9x/Me, depending on your particular printer model.*
 - **Download as Outline:** When this option is selected, the driver will download any TrueType fonts that are used in your document not already stored (resident) on your printer. If, after printing a document, you find that the fonts did not print correctly, choose Download as bit image and resubmit your print job. The Download as bit image setting is often useful when printing Adobe. *This feature is available only when you use the PCL printer driver.*
 - **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 other fonts, will print faster in this setting.
 - **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.
- **Print All Text Black:** When the **Print All Text Black** option is checked, all text in your document prints solid black, regardless of the color it appears on the screen.

Extras Tab

You can select output options for your document. See “Printing a Document” on page 12 for more information about accessing the printer properties.

Click the **Extras** tab to access the following feature:



1 Watermark

You can create a background text image to be printed on each page of your document. For details, see “Using Watermarks” on page 22.

2 Overlay

Overlays are often used to take the place of preprinted forms and letterhead paper. For details, see “Using Overlays” on page 23.

3 Output Options


- **Print Order:** You can set the sequence in which the pages print. Select the print order from the drop-down list.
 - **Normal:** Your printer prints all pages from the first page to the last page.
 - **Reverse All Pages:** Your printer prints all pages from the last page to the first page.
 - **Print Odd Pages:** Your printer prints only the odd numbered pages of the document.
 - **Print Even Pages:** Your printer prints only the even numbered pages of the document.

- **Banner Page:** Select Banner Page to print a banner sheet containing the printer name, the network user ID, job name before printing the document. When several users send a print job to the printer, this option allows you to easily find your printing from the output tray. *Some printers do not support this feature.*
- **Use Printer Fonts:** When Use Printer Fonts is checked, the printer uses the fonts that are stored in its memory (resident fonts) to print your document, rather than downloading the fonts used in your document. Because downloading fonts takes time, selecting this option can speed up your printing time. When using Printer fonts, the printer will try to match the fonts used in your document to those stored in its memory. If, however, you use fonts in your document that are very different from those resident in the printer, your printed output will appear very different from what it looks like on the screen. *This feature is available only when you use the PCL printer driver.*
- **Save as Form for Overlay:** Select Save as Form for Overlay to save the document as a form file (C:\FORMOVER*.FOM). Once this option is selected, the printer driver requires the file name and the destination path each time you print. If you want to preset the file name and specify the path, click on the button in the Output to area, and type the file name and specify the path. *This feature is available only when you use the PCL printer driver.*

4 Print and Hold

Print and Hold dialog allows you to select how to print or save the printing file by using the optional HDD. *Some printers do not support this feature.*

Using Onscreen Help File

- For more information about **Print and Hold**, click  at the top right corner of the window. The **Print and Hold** Help window opens and allows you to view onscreen help supplied on the **Print and Hold**.
-

About Tab

Use the **About** tab to display the copyright notice and the version number of the driver. If you have an Internet browser, you can connect to the Internet by clicking on the web site icon. See "Printing a Document" on page 12 for more information about accessing printer properties.

Printer Tab

If you access printer properties through the **Printers** folder, you can view the **Printer** tab. You can set the printer configuration.

The following procedure is for Windows XP. For other Windows OS, refer to the corresponding Windows User's Guide or online help.

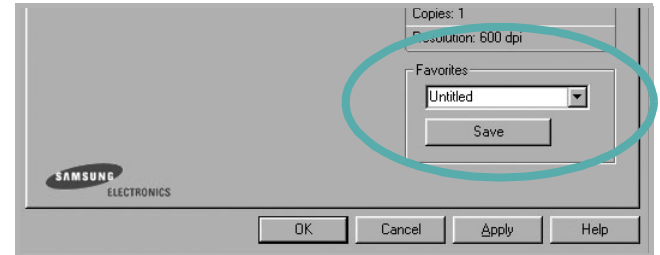
- 1 Click the Windows **Start** menu.
- 2 Select **Printers and Faxes**.
- 3 Select **your printer driver** icon.
- 4 Right-click on the printer driver icon and select **Properties**.
- 5 Click the **Printer** tab and set the options.

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**.

When you save **Favorites**, all current driver settings are saved.


To use a saved setting, select the item from the **Favorites** drop down list. The printer is now set to print according to the Favorites setting you selected.

To delete a Favorites item, select it from the list and click **Delete**.

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

Using Help

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

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

3 Advanced Printing

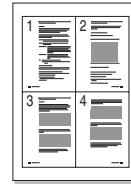
This chapter explains printing options and advanced printing tasks.

NOTE:

- Your printer driver **Properties** window that appears in this User's Guide may differ depending on the printer in use. However the composition of the printer properties window is similar.
- If you need to know the exact name of your printer, you can check the supplied CD-ROM.

This chapter includes:

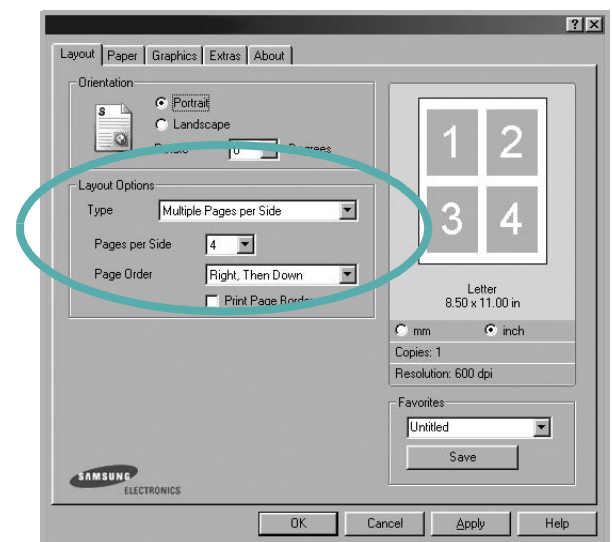
- **Printing Multiple Pages on One Sheet of Paper (N-Up Printing)**
- **Printing Posters**
- **Printing Booklets**
- **Printing on Both Sides of Paper**
- **Printing a Reduced or Enlarged Document**
- **Fitting Your Document to a Selected Paper Size**
- **Using Watermarks**
- **Using Overlays**



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

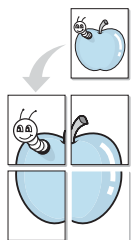
You can select the number of pages to print on a single sheet of paper. To print more than one page per sheet, the pages will be reduced in size and arranged in the order you specify. You can print up to 16 pages on one sheet.

- 1 To change the print settings from your software application, access printer properties. See "Printing a Document" on page 12.
- 2 From the **Layout** tab, 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, 6, 9, or 16) in the **Pages per Side** drop-down list.



- 4 Select the page order from the **Page Order** drop-down list, if necessary.
Check **Print Page Border** to print a border around each page on the sheet.
- 5 Click the **Paper** tab, select the paper source, size, and type.
- 6 Click **OK** and print the document.

Printing Posters



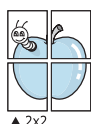
This feature allows you to print a single-page document onto 4, 9, or 16 sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.

- 1 To change the print settings from your software application, access printer properties. See "Printing a Document" on page 12.
- 2 Click the **Layout** tab, select **Poster** in the **Type** drop-down list.

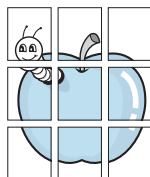


- 3 Configure the poster option:

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.

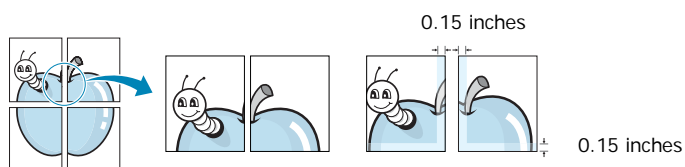


▲ 2x2



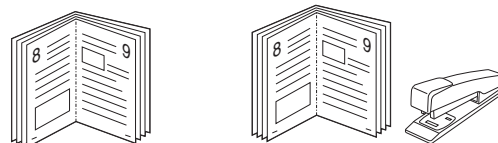
▲ 3x3

Specify an overlap in millimeters or inches to make it easier to pasting the sheets together.



- 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 pasting the sheets together.

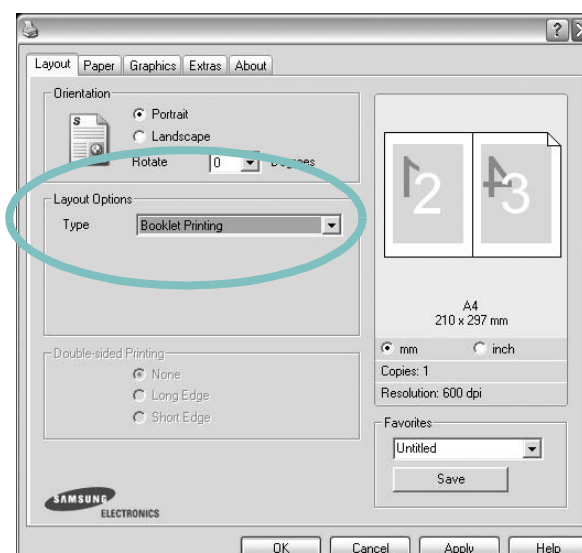
Printing Booklets



NOTE: *Some printers do not support this feature.*

This printer feature allows you to print your document on both sides of the paper and arranges the pages so that the paper can be folded in half after printing to produce a booklet.

- 1 To change the print settings from your software application, access the printer properties. See "Printing a Document" on page 12.
- 2 From the **Layout** tab, choose **Booklet Printing** from the **Type** drop-down list.



NOTE: The booklet printing option is available when A4, Letter, Legal, or Folio size is selected in the **Size** option on the **Paper** tab.

- 3 Click the **Paper** tab, and select the paper source, size, and type.
- 4 Click **OK** and print the document.
- 5 After printing, fold and staple the pages.

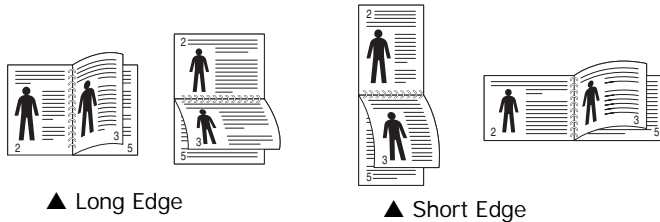
Printing on Both Sides of Paper

NOTE: *Some printers do not support this feature.*

You can print on both sides of a sheet of paper. Before printing, decide how you want your document oriented.

The options are:

- **Printer Setting**, if you select this option, this feature is determined by the setting you've made on the control panel of the printer. *Some printers do not support this feature.*
- **None**
- **Long Edge**, which is the conventional layout used in book binding.
- **Short Edge**, which is the type often used with calendars.

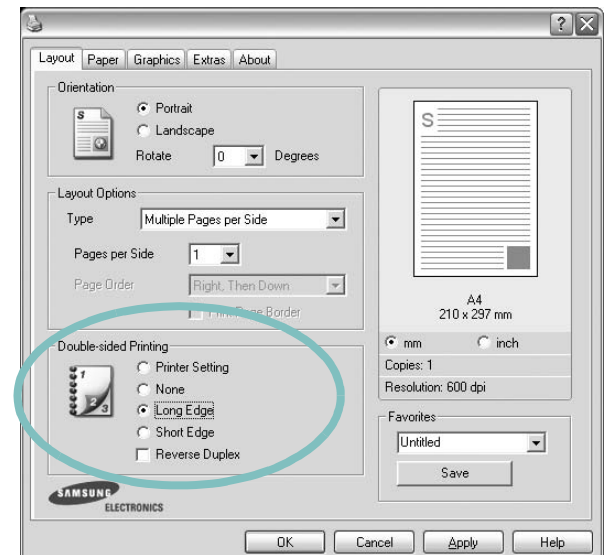


- **Reverse Duplex**, allows you to select general print order compare to duplex print order. *Some printers do not support this feature.*

NOTE:

- Do not print on both sides of labels, transparencies, envelopes, or thick paper. Paper jamming and damage to the printer may result.
- To use double-sided printing, you can use only the following paper sizes: A4, Letter, Legal, and Folio, with a weight of 20~24 lbs (75~90 g/m²).

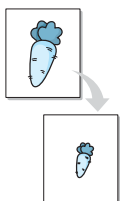
- 1 To change the print settings from your software application, access printer properties. "Printing a Document" on page 12.
- 2 From the **Layout** tab, select the paper orientation.
- 3 From the **Double-sided Printing** section, select the duplex binding option you want.



- 4 Click the **Paper** tab and select the paper source, size, and type.
- 5 Click **OK** and print the document.

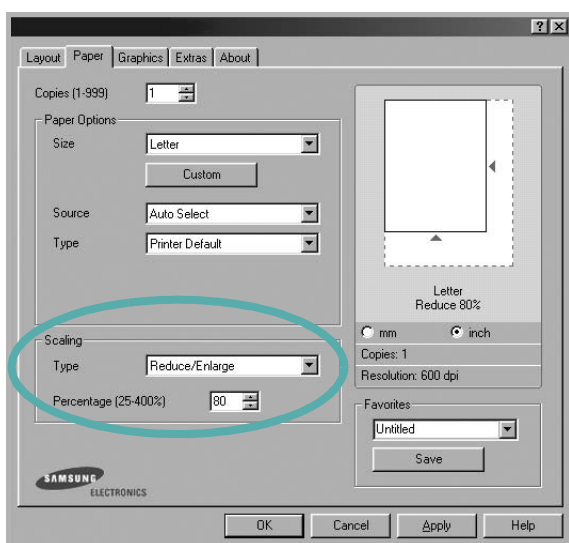
NOTE: If your printer does not have a duplex unit, you should complete the printing job manually. The printer prints every other page of the document first. After printing the first side of your job, the Printing Tip window appears. Follow the on-screen instructions to complete the printing job.

Printing a Reduced or Enlarged Document



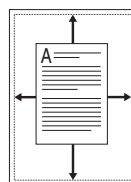
You can change the size of a page's content to appear larger or smaller on the printed page.

- 1 To change the print settings from your software application, access printer properties. See "Printing a Document" on page 12.
- 2 From the **Paper** tab, select **Reduce/Enlarge** in the **Type** drop-down list.
- 3 Enter the scaling rate in the **Percentage** input box.
You can also click the ▼ or ▲ button.



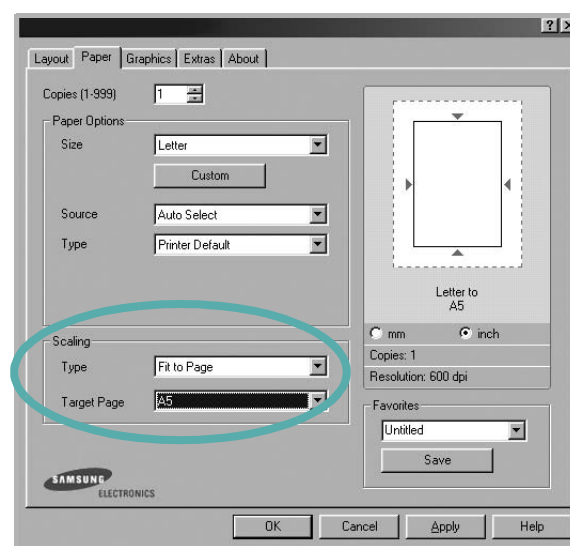
- 4 Select the paper source, size, and type in **Paper Options**.
- 5 Click **OK** and print the document.

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 To change the print settings from your software application, access printer properties. See "Printing a Document" on page 12.
- 2 From the **Paper** tab, select **Fit to Page** in the **Type** drop-down list.
- 3 Select the correct size from the **Target Page** drop-down list.



- 4 Select the paper source, size, and type in **Paper Options**.
- 5 Click **OK** and print the document.

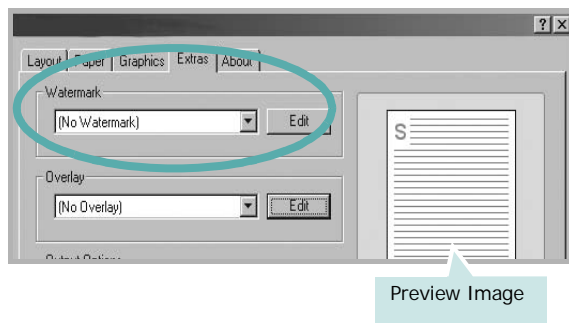
Using Watermarks

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 To change the print settings from your software application, access printer properties. See “Printing a Document” on page 12.
- 2 Click the **Extras** tab, and select the desired watermark from the **Watermark** drop-down list. You will see the selected watermark in the preview image.

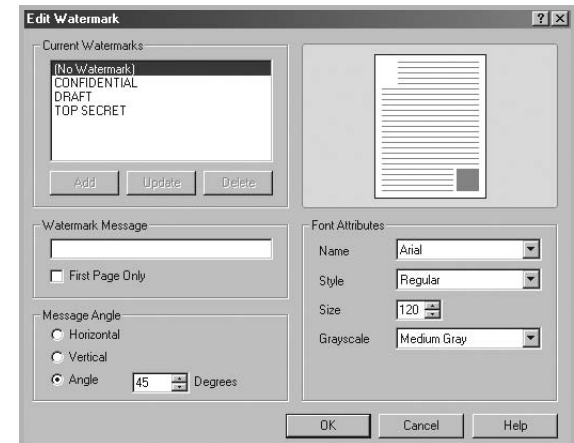


- 3 Click **OK** and start printing.

NOTE: The preview image shows how the page will look when it is printed.

Creating a Watermark

- 1 To change the print settings from your software application, access printer properties. See “Printing a Document” on page 12.
- 2 Click the **Extras** tab, and click the **Edit** button in the **Watermark** section. The **Edit Watermark** window appears.



- 3 Enter a text message in the **Watermark Message** box. You can enter up to 40 characters. The message displays in the preview window.
When the **First Page Only** box is checked, the watermark prints on the first page only.
- 4 Select watermark options.
You can select the font name, style, size, or grayscale level 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 have finished editing, click **OK** and start printing.

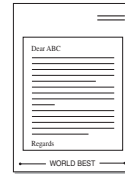
To stop printing the watermark, select **<No Watermark>** from the **Watermark** drop-down list.

Editing a Watermark

- 1 To change the print settings from your software application, access printer properties. See “Printing a Document” on page 12.
- 2 Click the **Extras** tab and click the **Edit** button in the **Watermark** section. The **Edit Watermark** window appears.
- 3 Select the watermark you want to edit from the **Current Watermarks** list and change the watermark message and options.
- 4 Click **Update** to save the changes.
- 5 Click **OK** until you exit the Print window.

Deleting a Watermark

- 1 To change the print settings from your software application, access printer properties. See “Printing a Document” on page 12.
- 2 From the **Extras** tab, click the **Edit** button in the Watermark section. The **Edit Watermark** window appears.
- 3 Select the watermark you want to delete from the **Current Watermarks** list and click **Delete**.
- 4 Click **OK** until you exit the Print window.



Using Overlays

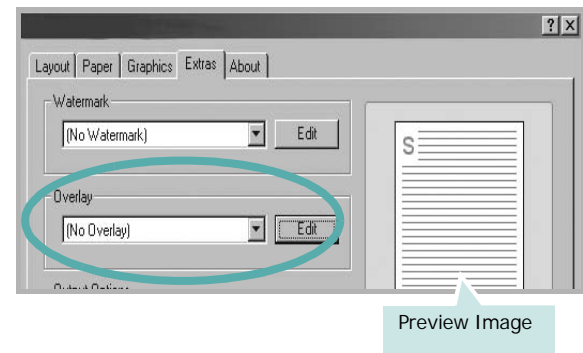
What is an Overlay?

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

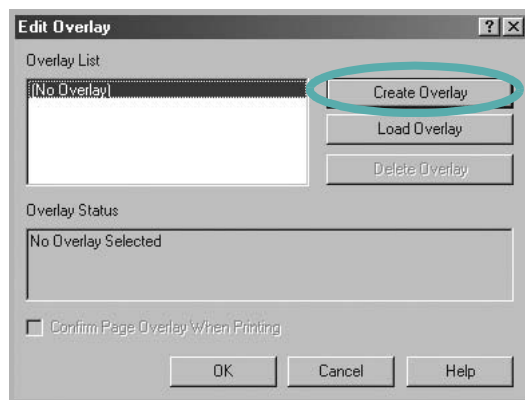
Creating a New Page Overlay

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

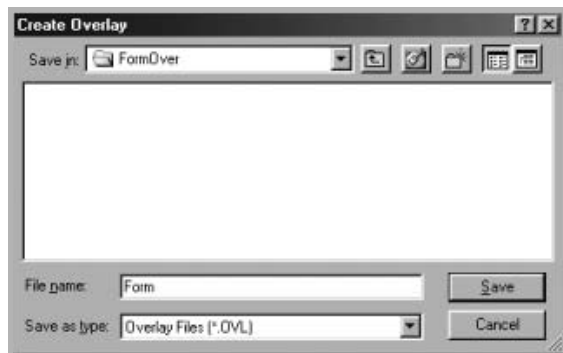
- 1 Create or open a document containing text or an image for use in a new page overlay. Position the items exactly as you wish them to appear when printed as an overlay.
- 2 To save the document as an overlay, access printer properties. See “Printing a Document” on page 12.
- 3 Click the **Extras** tab, and click **Edit** button in the **Overlay** section.



- 4 In the Edit Overlay window, click **Create Overlay**.



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



- 6 Click **Save**. The name appears on the **Overlay List** box.
- 7 Click **OK** or **Yes** to finish creating.

The file is not printed. Instead it is stored on your computer hard disk drive.

NOTE: The overlay document size must be the same as the documents you print with the overlay. Do not create an overlay with a watermark.

Using a Page Overlay

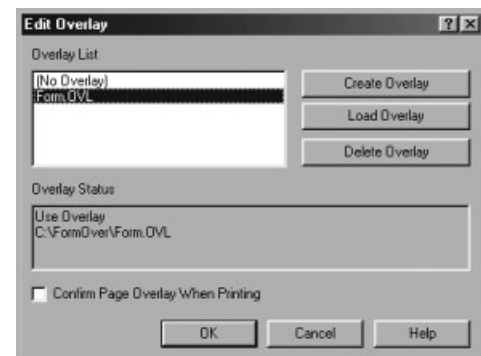
After an overlay has been created, it is ready to be printed with your document. To print an overlay with a document:

- 1 Create or open the document you want to print.
- 2 To change the print settings from your software application, access printer properties. See "Printing a Document" on page 12.
- 3 Click the **Extras** tab.
- 4 Select the desired overlay from the **Overlay** drop-down list box.
- 5 If the overlay file you want does not appear in the **Overlay** list, click **Edit** button and **Load Overlay**, and select the overlay file.



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

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



- 6 If necessary, click **Confirm Page Overlay When Printing**. If this box is checked, a message window appears each time you submit a document for printing, asking you to confirm your wish to print an overlay on your document.

If this box is not checked and an overlay has been selected, the overlay automatically prints with your document.

- 7 Click **OK** or **Yes** until printing begins.

The selected overlay downloads with your print job and prints on your document.

NOTE: The resolution of the overlay document must be the same as that of the document you will print with the overlay.

Deleting a Page Overlay

You can delete page overlays that you no longer use.

- 1 In the printer properties window, click the **Extras** tab.
- 2 Click the **Edit** button in the **Overlay** section.
- 3 Select the overlay you want to delete from the **Overlay List** box.
- 4 Click **Delete Overlay**.
- 5 When a confirming message window appears, click **Yes**.
- 6 Click **OK** until you exit the Print window.

4 Using Windows PostScript Driver

If you want to use the PostScript driver provided with your system CD-ROM to print a document.

PPDs, in combination with the PostScript driver, access printer features and allow the computer to communicate with the printer. An installation program for the PPDs is provided on the supplied software CD-ROM.

This chapter includes:

Printer Settings

You can use the printer properties window, which allows you to access all of the printer options you need when using your printer. When the printer properties are displayed, you can review and change the settings needed for your print job.

Your printer properties window may differ, depending on your operating system. This Software User's Guide shows the Properties window for Windows XP.

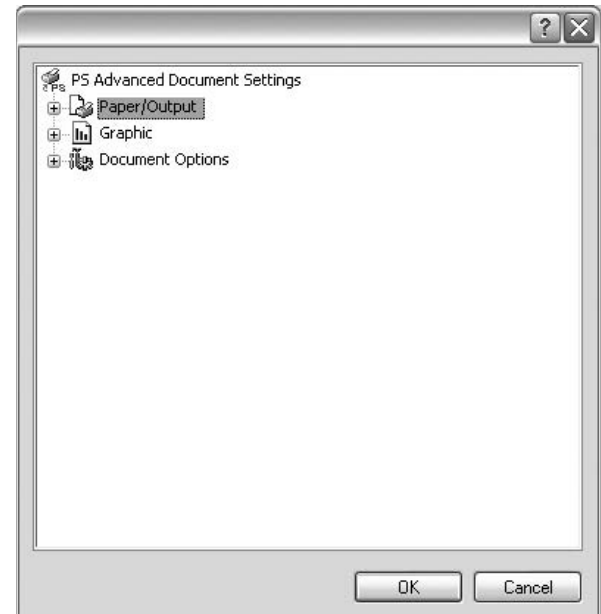
Your printer driver **Properties** window that appears in this User's Guide may differ depending on the printer in use.

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.
- The following procedure is for Windows XP. For other Windows OS, refer to the corresponding Windows User's Guide or online help.
 1. Click the Windows **Start** button.
 2. Select **Printers and Faxes**.
 3. Select **your printer driver icon**.
 4. Right-click on the printer driver icon and select **Printing Preferences**.
 5. Change the settings on each tab, click OK.


Advanced

You can use advanced settings by clicking the **Advanced** button.



- **Paper/Output** this option allows you to select the size of the paper loaded in the tray.
- **Graphic** this option allows you to adjust the print quality for your specific printing needs.
- **Document Options** this options allow you to set the PostScript options or printer features.

Using Help

You can click  from the upper right corner of the window, and then click on any setting.

5

Sharing the Printer Locally

You can connect the printer directly to a selected computer, which is called “host computer,” on the network.

The following procedure is for Windows XP. For other Windows OS, refer to the corresponding Windows User's Guide or online help.

NOTES:

- Check the Operating System(s) that are compatible with your printer. Please refer to the OS Compatibility section of Printer Specifications in your Printer User's Guide.
 - If you need to know the exact name of your printer, you can check the supplied CD-ROM.
-

Setting Up a Host Computer

- 1 Start Windows.
- 2 From the **Start** menu select **Printers and Faxes**.
- 3 Double-click **your printer driver icon**.
- 4 From the **Printer** menu, select **Sharing**.
- 5 Check the **Share this printer** box.
- 6 Fill in the **Shared Name** field, and then click **OK**.

Setting Up a Client Computer

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

6 Using Smart Panel

Smart Panel is a program that monitors and informs you of the status of the printer, and allows you to customize the printer's settings. Smart Panel is installed automatically when you install the printer software.

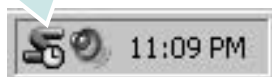
NOTES:

- To use the this program, you need:
 - Windows 98 or higher (Windows NT 4.0 can be used only for network-supported printers.) To check for Operating System(s) that are compatible with your printer, refer to Printer Specifications in your Printer User's Guide.
 - Internet Explorer version 5.0 or higher for flash animation in HTML Help.
- If you need to know the exact name of your printer, you can check the supplied CD-ROM.

Understanding Smart Panel

If an error occurs while printing, Smart Panel appears automatically, showing the error. You can also launch Smart Panel manually from the Windows task bar. Double-click the Smart Panel icon on the Windows task bar.

Double click this icon.



Or, from the **Start** menu, select **Programs** or **All Programs** → **your printer driver name** → **Smart Panel**.

NOTES:

- If you have already installed more than one Samsung printer, first select the printer model you want in order to use the corresponding Smart Panel. Right-click the Smart Panel icon on the Windows task bar and select **your printer name**.
- The Smart Panel window and its contents shown in this Software User's Guide may differ depending on the printer in use.

The Smart Panel program displays the current status of the printer, various information, lets you change settings and the level of toner remaining in the toner cartridge(s).



① Toner Level

You can view the level of toner remaining in the toner cartridge(s). The printer and the number of the toner cartridge(s) shown above window may differ depending on the printer in use.

② Buy Now

You can order replacement toner cartridge online.

③ Troubleshooting Guide

You can view Help to solve problems.

④ Printer Setting

You can configure various printer settings in the Printer Settings Utility window.

NOTES: If you connect your printer to a network, the **SyncThru Web Service** window appears instead of the Printer Settings Utility window.

⑤ Driver Setting

You can use the printer properties window, which allows you to access all of the printer options you need for using your printer. For details, See "Printer Settings" on page 13.

Opening the Troubleshooting Guide

Using the troubleshooting guide, you can view solutions for error status problems.

Right-click the Smart Panel icon on the Windows task bar and select **Troubleshooting Guide**.


Using Printer Settings Utility

Using the Printer Settings Utility, you can configure and check print settings.

- 1 Right-click the Smart Panel icon on the Windows task bar and select **Printer Setting**.
- 2 Change the settings.
- 3 To send the changes to the printer, click the **Send** button.

NOTES: If you connect your printer to a network, the **SyncThru Web Service** window appears instead of the Printer Settings Utility window.

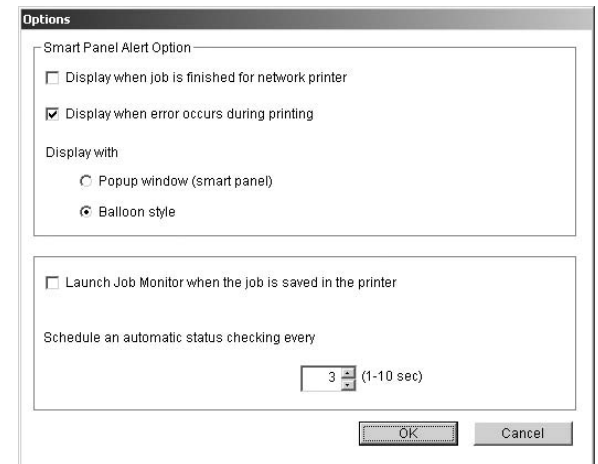
Using Onscreen Help File

For more information about **Printer Settings Utility**, click  at the top right corner of the window. The **Printer Settings Utility** Help window opens and allows you to view onscreen help supplied on the **Printer Settings Utility** program.

Changing the Smart Panel Program Settings

Right-click the Smart Panel icon on the Windows task bar and select **Options**.

The following window opens.



- **Display when job is finished for network printer:** The computer shows the Smart Panel popup window or balloon when your job is complete. *(Only for a network supported printer.)*
- **Display when error occurs during printing:** The computer shows the Smart Panel popup window or balloon when an error occurs during printing.
- **Display with:** You can select how the computer shows you a message. If you select **Popup window (smart panel)**, the message appears in the Smart Panel popup window.
- **Launch Job Monitor when the job is saved in the printer:** If you store print jobs on the printer's hard disk, the computer opens the Job Monitor window. *(Only for a network supported printer with a built-in hard disk.)*
- **Schedule an automatic status checking every:** The computer updates the printer status regularly. Setting the value close to 1 second causes the computer to check the printer status more frequently, thereby allowing a faster response to any printer error.

7 Using Your Printer in Linux

You can use your printer in a Linux environment.

This chapter includes:

- **System Requirements**
- **Installing the Printer Driver**
- **Changing the Printer Connection Method**
- **Uninstalling the Printer Driver**
- **Using the Configuration Tool**
- **Changing LLPR Properties**

System Requirements

Supported OS

- Redhat 6.2/7.0/7.1 and above
- Linux Mandrake 7.1/8.0 and above
- SuSE 6.4/7.0/7.1 and above
- Debian 2.2 and above
- Caldera OpenLinux 2.3/2.4 and above
- Turbo Linux 6.0 and above
- Slackware 7.0/7.1 and above

Recommended Capacities

- Pentium IV 1 GHz or higher
- RAM 256 MB or higher
- HDD 1 GB or higher

Software

- Glibc 2.1 or higher
- GTK+ 1.2 or higher
- GhostScript

NOTES:


- The Linux printer's properties window that appears in this User's Guide may differ depending on the printer in use. However the composition of the properties is similar.
 - *You can check your printer name in the supplied CD-ROM.*
-

Installing the Printer Driver

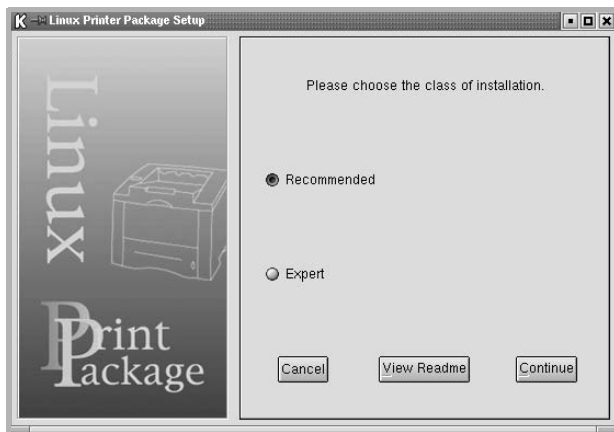
- 1 Make sure that you connect the printer to your computer. Turn both the computer and the printer on.
- 2 When the Administrator Login window appears, type in “root” in the **Login** field and enter the system password.

NOTE: You must log in as a super user (root) to install the printer software. If you are not a super user, ask your system administrator.

- 3 Insert the printer software CD-ROM. The CD-ROM automatically runs.

NOTE: If the CD-ROM does not automatically run, click the  icon at the bottom of the window. When the Terminal screen appears, type in:
[root@local /root]# `cd /mnt/cdrom` (the CD-ROM directory)
[root@local cdrom]# `./setup.sh`

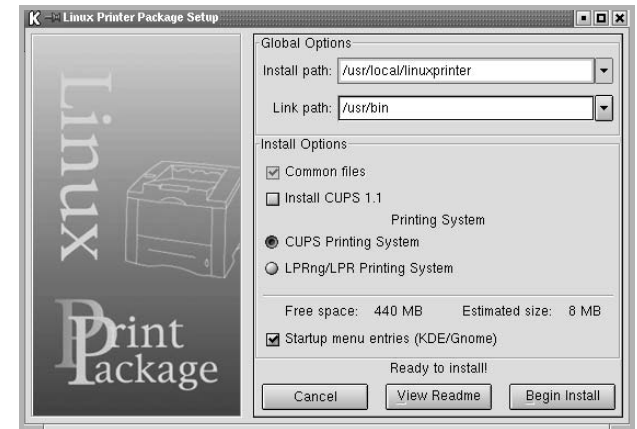
- 4 Select the type of installation, either **Recommended** or **Expert**, and then click **Continue**.



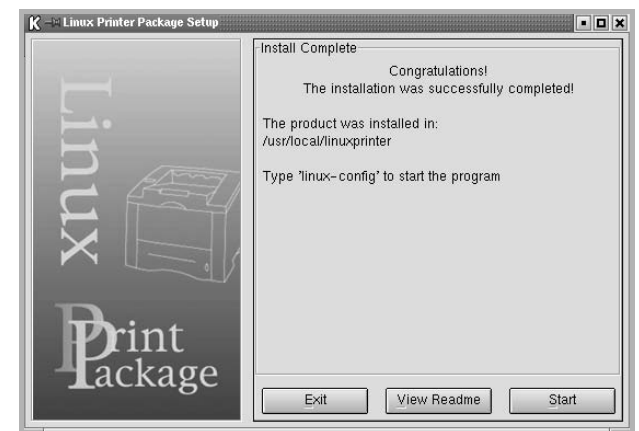
Recommended is fully automated and does not require any interaction. **Expert** installation allows you to select the install path or printing system.

- 5 If you selected **Recommended**, go to step 6.

For **Expert**, select the desired option and then click **Begin Install**.



- 6 The printer driver installation begins. When the installation is completed, click **Start**.



- 7 The Linux Printer Configuration window opens. Click the **Add Printer** icon on the toolbar at the top of the window.

NOTE: Depending on the printing system in use, the Administrator Login window may appear. Type in “root” in the **Login** field and enter the system password.

- 8 You see the printers currently installed in your system. Select the printer you want to use. The function tabs available for the selected printer appear at the top of the Add a Printer window.

NOTE: If the printer supports PS printing, it is recommended to select the PS driver.

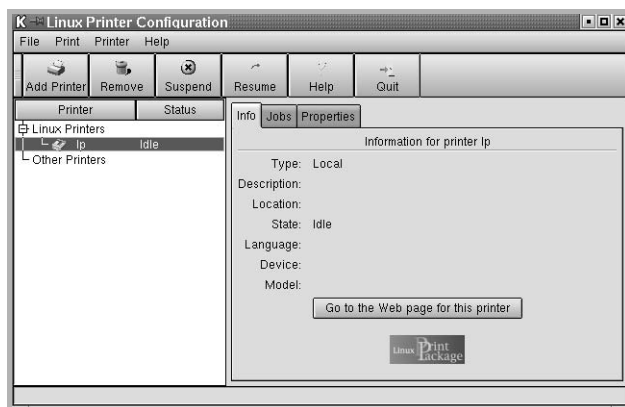
- 9 Click the **Connection** tab and ensure that the printer port is set properly. If it is not, change the device setting.



- 10 You can use the **Settings** tab and the **Queue** tab to view the printer's current settings. If necessary, you can change the settings.

NOTE: Options may differ depending on the printer in use. The **Description** and the **Location** field in the Queue screen may not appear depending on the printing system in use.

- 11 To exit, click **OK**.
- 12 When the window indicates that the new printer is successfully configured, click **OK**.
- 13 The Linux Printer Configuration window reappears. From the **Info** tab, you can view information about your printer driver. If necessary, you can change the printer's configuration. For details about changing the printer's configuration, see "Using the Configuration Tool" on page 33.



Changing the Printer Connection Method

If you change the printer connection method from USB to parallel or vice versa while in use, you must reconfigure your Linux printer by adding the printer to your system. Take the following steps:

- 1 Make sure that you connect the printer to your computer. Turn both the computer and the printer on.
- 2 When the Administrator Login window appears, type in "**root**" in the Login field and enter the system password.

NOTE: You must log in as a super user (root) to install a new printer to the printing system. If you are not a super user, ask your system administrator.

- 3 From the Startup Menu icon at the bottom of the desktop, select **Linux Printer** and then **Configuration Tool**. You can also access the Linux Printer Configuration window by typing in "**linux-config**" from the Terminal screen.
- 4 When the Linux Printer Configuration window appears, click the **Add Printer** icon on the toolbar at the top of the window.
- 5 Click the **Connection** tab at the top of the Add a Printer window.

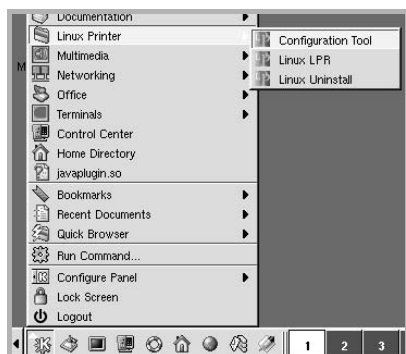
Ensure that the printer port is set properly. If it is not, change the device setting.



- 6 Click **OK**.

Uninstalling the Printer Driver

- 1 From the Startup Menu icon at the bottom of the desktop, select **Linux Printer** and then **Configuration Tool**.

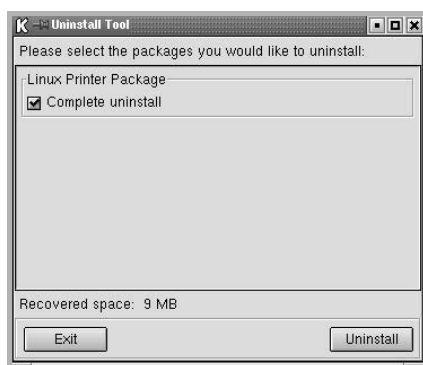


You can also access the Linux Printer Configuration window by typing in “**linux-config**” from the Terminal screen.

- 2 In the Linux Printer Configuration window, select the **Uninstall** command from the **File** menu.
- 3 The Administrator Login window appears. Type in “**root**” in the **Login** field and enter the system password. Click **Proceed**.

NOTE: You must log in as a super user (root) to uninstall the printer software. If you are not a super user, ask your system administrator.

- 4 A message window asking for confirmation to proceed with the uninstallation appears. Click **Yes**.
- 5 Select **Complete uninstall** and then click **Uninstall**.



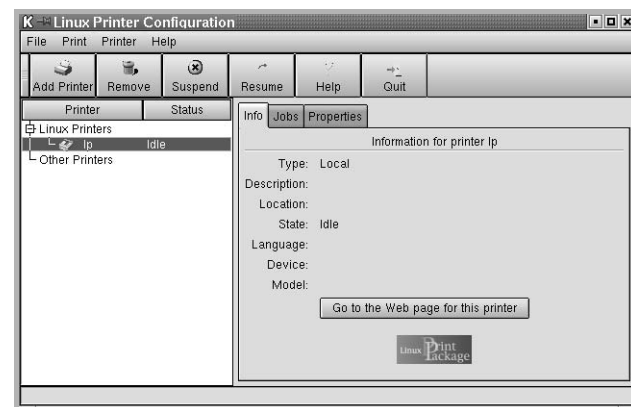
- 6 Click **OK** to begin uninstallation.
- 7 When the uninstallation is completed, click **Finished**.

Using the Configuration Tool

The configuration tool accesses administrative tasks, including adding and removing new printers, and changing their global settings. Regular users can also run it to easily inspect job queues, examine printer properties and changing their local preferences.

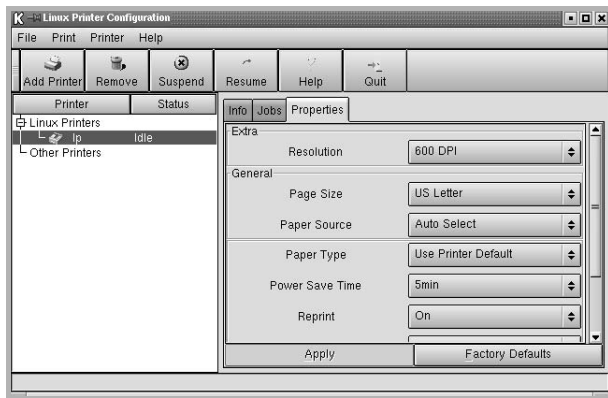
To access the Configuration Tool:

- 1 From the Startup Menu icon at the bottom of the screen, select **Linux Printer** and then **Configuration Tool**. The Linux Printer Configuration window appears.
You can also open this window from the Terminal screen by typing in “**linux-config**.”
- 2 The Linux Printer Configuration window shows a list of installed printers in the left pane. The right pane shows a number of tabs that display information regarding the currently selected printer.
Select your printer driver, if not currently selected.



- 3 The **Info** tab shows general information about the printer.
If you are an Internet user, you can click **Go to the Web page for this printer** to access the Samsung web page.
Click the **Job** tab to inspect and manage the job queue for the selected printer. You can suspend, resume, or delete a specific job(s) in the queue. If you drag a specific job(s), you can drop it into the print queue of another printer.

The **Properties** tab allows you to change the default printer settings.



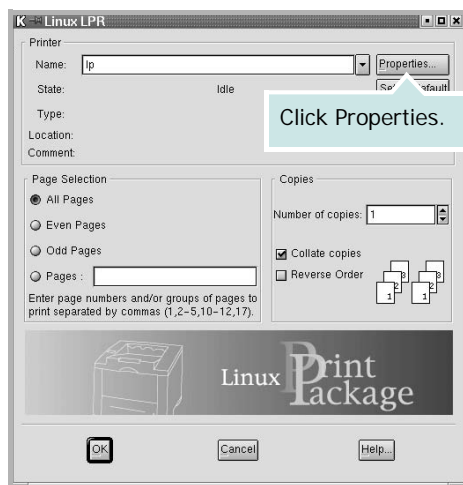
NOTE: Regular users are able to override the system-wide default settings defined by the administrator. When a regular user clicks **Apply**, these custom settings will be saved in the user's profile and may be used later with LLPR. If the administrator is running the configuration tool, then the settings will be saved as the new global defaults.

Changing LLPR Properties

You can fine-tune the printer's properties by opening the LLPR Properties window.

To open the LLPR Properties window:

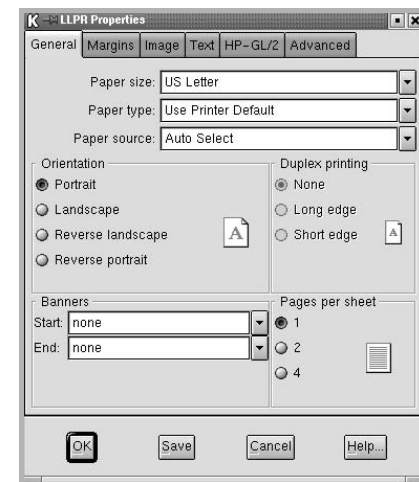
- 1 From the application you are using, select the **Print** command.
- 2 When the Linux LPR window opens, click **Properties**.



You can also open the LLPR Properties window in the following ways:

- From the Startup Menu icon at the bottom of the screen, select **Linux Printer**, and then **Linux LPR**.
- If the Linux Printer Configuration window is currently open, select **Test Print** from the **Print** menu.

- 3 The LLPR Properties window opens.



You will see the following six tabs at the top of the window:

- **General** - allows you to change the paper size, the paper type, the paper source, the orientation of the documents, enable the duplex feature, add start and end banners, and change the number of pages per sheet.
- **Margins** - allows you to specify the page margins. The graphics on the right show the current settings. These margins do not apply when printing regular PostScript data.
- **Image** - allows you to set image options that will be used when printing image files, i.e., when a non-PostScript document is passed to LLPR on the command line. Color settings will also take effect for postscript documents.
- **Text** - allows you to select the text density and turn the syntax coloring on or off.
- **HP-GL/2** - allows you to set default options to print HP-GL/2 format documents, used by some plotters.
- **Advanced** - allows you to override the default settings for the printer.

If you click the **Save** button at the bottom of the window, the options will be retained between LLPR sessions.

Use the **Help** button to view details about the options in the window.

- 4 To apply the options, click **OK** in the LLPR Properties window. You will return to the Linux LPR window. To start printing, click **OK**.

8 Using Your Printer with a Macintosh

Your machine supports Macintosh systems with a built-in USB interface or a 10/100 Base-TX network interface card. When you print a file from a Macintosh computer, you can use the PostScript driver by installing the PPD file.

NOTE: *Some printers do not support a network interface. Make sure that your printer supports a network interface by referring to Printer Specifications in your Printer User's Guide.*

This chapter includes:

- **Installing Software for Macintosh**
- **Setting Up the Printer**
- **Printing**

Installing Software for Macintosh

The PostScript driver CD-ROM that came with your machine provides you with the PPD file to use the PS driver, Apple LaserWriter driver, for printing on a Macintosh computer.

Verify the following before you install the printer software:

Item	Requirements	
Operating system	Mac OS 8.6 ~ 9.2/10.1 or hihger	
RAM	Mac OS 8.6~9.2	64 MB
	Mac OS 10.1 or hihger	128 MB
Free disk space	200 MB	
Connection	USB interface, Network interface	

- 1 Connect your machine to the computer using the USB cable or the Ethernet cable.
- 2 Turn on your computer and the machine.
- 3 Insert the PostScript driver CD-ROM which came with your machine into the CD-ROM drive.
- 4 Double-click the **Samsung_LBP** on your Macintosh desktop.
- 5 Double-click the **Installer** folder.
- 6 For Mac OS 8.6~9.2, double-click the **Samsung_LBP Installer Classic** icon.
For Mac OS 10.1 or higher, double-click the **Samsung_LBP Installer OSX** icon.
- 7 Click **Continue**.
- 8 Click **Install**.
- 9 After the installation is finished, click **Quit**.

Setting Up the Printer

Set up for your printer will be different depending on which cable you use to connect the printer to your computer—the network cable or the USB cable.

For a Network-connected Macintosh

NOTE: *Some printers do not support a network interface. Before connecting your printer, make sure that your printer supports a network interface by referring to Printer Specifications in your Printer User's Guide.*

Mac OS 8.6 ~ 9.2

- 1 Follow the instructions on “Installing Software for Macintosh” on page 35 to install the PPD file on your computer.
- 2 From the **Apple** menu, select **Chooser**.
- 3 Click **LaserWriter 8** (the PostScript driver provided with your Macintosh).
The name of your machine appears on the list.
- 4 Select **SEC000xxxxxxxxx** from the printer box (where the xxxxxxxxx varies depending on each of the machines) and Click **Select**.
If Auto Setup does not work properly, click **Select PPD**, choose **your printer name**, and click **OK**.
- 5 When the setup is complete, you see your machine icon created as a desktop printer.
- 6 Close the **Chooser**.
- 7 When a message window appears telling you that you have changed your current machine, click **OK**.

Mac OS 10.1 or higher

- 1 Follow the instructions on “Installing Software for Macintosh” on page 35 to install the PPD file on your computer.
- 2 Open **Print Center** or **Printer Setup Utility** from the Utilities folder.
- 3 Click **Add** on the Printer List.
- 4 Select the **AppleTalk** tab.
The name of your machine appears on the list. Select **SEC000xxxxxxxxx** from the printer box, where the xxxxxxxxx varies depending on your machine.
- 5 Click **Add**.
- 6 If Auto Select does not work properly, select **Samsung** in **Printer Model** and **your printer name** in **Model Name**.
Your machine appears on the Printer List and is set as the default printer.

For a USB-connected Macintosh

Mac OS 10.1 or higher

- 1 Follow the instructions on “Installing Software for Macintosh” on page 35 to install the PPD file on your computer.
- 2 Open **Print Center** or **Printer Setup Utility** from the Utilities folder.
- 3 Click **Add** on the Printer List.
- 4 Select the **USB** tab.
- 5 Select **your printer name** and click **Add**.
- 6 If Auto Select does not work properly, select **Samsung** in **Printer Model** and **your printer name** in **Model Name**.
Your machine appears on the Printer List and is set as the default printer.

Printing

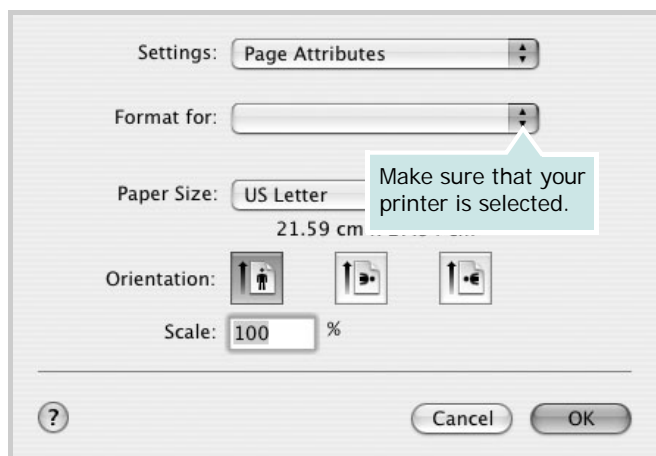
NOTES:

- The Macintosh printer's properties window that appears in this User's Guide may differ depending on the printer in use. However the composition of the printer properties window is similar.
- *You can check your printer name in the supplied CD-ROM.*

Printing a Document

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 the file you want to print.
- 2 Open the **File** menu and click **Page Setup (Document Setup** in some applications).
- 3 Choose your paper size, orientation, scaling, and other options and click **OK**.



▲ Mac OS 10.3

- 4 Open the **File** menu and click **Print**.
- 5 Choose the number of copies you want and indicate which pages you want to print.
- 6 Click **Print** when you finish setting the options.

Changing Printer Settings

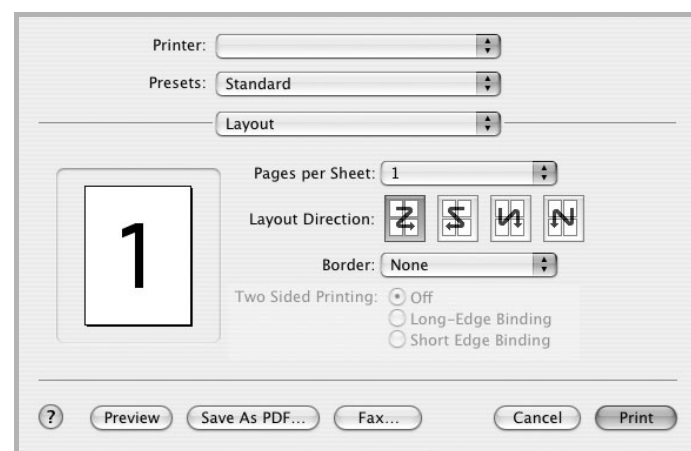
You can use advanced printing features when using your printer.

From your Macintosh application, select **Print** from the **File** menu. The printer name which appears in the printer properties window may differ depending on the printer in use. Except for the name, the composition of the printer properties window is similar.

Layout Setting

The **Layout** tab provides options to adjust how the document appears on the printed page. You can print multiple pages on one sheet of paper.

Select **Layout** from the **Presets** drop-down list to access the following features. For details, see "Printing Multiple Pages on One Sheet of Paper" on the next column.



▲ Mac OS 10.3

Printer Features Setting

The **Printer Features** tab provides options for selecting the paper type and adjusting print quality.

Select **Printer Features** from the **Presets** drop-down list to access the following features:



▲ Mac OS 10.3

Reverse Duplex

Allows you to select general print order compare to duplex print order.

Image Mode

Image Mode allows the user to enhance printouts. The available options are Normal and Text Enhance.

Fit to Page

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.

Paper Type

Make sure that **Paper Type** is set to **Printer Default**. If you load a different type of print material, select the corresponding paper type.

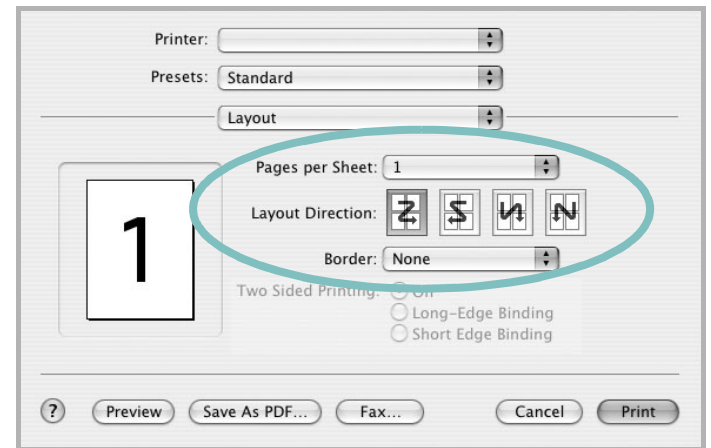
Resolution

The Resolution options you can select may vary depending on your printer model. You can select the printing resolution. The higher the setting, the sharper the clarity of printed characters and graphics. The higher setting also may increase the time it takes to print a document.

Printing Multiple Pages on One Sheet of Paper

You can print more than one page on a single sheet of paper. This feature provides a cost-effective way to print draft pages.

- 1 From your Macintosh application, select **Print** from the **File** menu.
- 2 Select **Layout**.



▲ Mac OS 10.3

- 3 Select the number of pages you want to print on one sheet of paper on the **Pages per Sheet** drop-down list.
- 4 Select the page order from the **Layout Direction** option.
To print a border around each page on the sheet, select the option you want from the **Border** drop-down list.
- 5 Click **Print**, and the printer prints the selected number of pages on one side of each page.

Duplex Printing

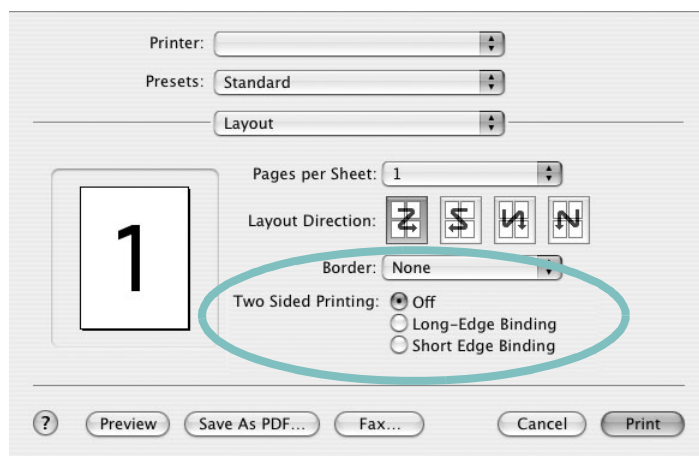
You can print on both sides of the paper. Before printing in the duplex mode, decide on which edge you will be binding your finished document. The binding options are:

CAUTION: If you have selected duplex printing and then try to print multiple copies of a document, the printer may not print the document in the way you want. In case of "Collated copy", if your document has odd pages, the last page of the first copy and the first page of the next copy will be printed on the front and back of one sheet. In case of "Uncollated copy", the same page will be printed on the front and back of one sheet. Therefore, if you need multiple copies of a document and you want those copies on both sides of the paper, you must print them one at a time, as separate print jobs.

Long-Edge Binding: Which is the conventional layout used in book binding.

Short-Edge Binding: Which is the type often used with calendars.

- 1 From your Macintosh application, select **Print** from the **File** menu.
- 2 Select the **Layout**.



▲ Mac OS 10.3

- 3 Select a binding orientation from **Two Sided Printing** option.
- 4 Click **Print** and the printer prints on both sides of the paper.

SOFTWARE SECTION

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