

SAMSUNG



SAMSUNG LASER MFP User's Guide

SCX-4300

For UK customers:

To reorder your consumables
Call 0800 3164060

For Technical Assistance
Call 0870 2420303

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IMPORTANT SAFETY SYMBOLS AND PRECAUTIONS

What the icons and signs in this user’s guide mean:

 WARNING	Hazards or unsafe practices that may result in severe personal injury or death.
 CAUTION	Hazards or unsafe practices that may result in minor personal injury or property damage.
 CAUTION	To reduce the risk of fire, explosion, electric shock, or personal injury when using your laser MFP, follow these basic safety precautions:
	Do NOT attempt.
	Do NOT disassemble.
	Do NOT touch.
	Follow directions explicitly.
	Unplug the power plug from the wall socket.
	Make sure the MFP is grounded to prevent electric shock.
	Call the service center for help.

These warning signs are here to prevent injury to you and others. Follow them explicitly. After reading this section, keep it in a safe place for future reference.

- 
 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 and/or telephone jack 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. 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, telephone 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 telephone jack, 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 and telephone cord for the duration of the lightning storm.

16. The Power cord supplied with your machine should be used for safe operation. If you are using a cord which is longer than 2 m with 110 V machine, then it should be 16 AWG^a or bigger.

17. Use only No.26 AWG or larger telephone line cord.



18. SAVE THESE INSTRUCTIONS

a. AWG: American Wire Gauge

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 UDSAETTELSE 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, request 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.
ENERGY STAR and the ENERGY STAR mark are registered U.S. marks.
For more information on the ENERGY STAR program see <http://www.energystar.gov>

RECYCLING



Recycle or dispose of the packaging material 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, 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 Information to the User

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 equipment 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 experienced radio TV technician for help.



Change 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.

FAX BRANDING

The Telephone Consumer Protection Act of 1991 makes it unlawful for any person to use a computer or other electronic device to send any message via a telephone facsimile machine unless such message clearly contains in a margin at the top or bottom of each transmitted page or on the first page of the transmission the following information:

- (1) the date and time of transmission
- (2) identification of either business, business entity or individual sending the message; and
- (3) telephone number of either the sending machine, business, business entity or individual.

The Telephone Company may make changes in its communications facilities, equipment operations or procedures where such action is reasonably required in the operation of its business and is not inconsistent with the rules and regulations in FCC Part 68. If such changes can be reasonably expected to render any customer terminal equipment incompatible with telephone company communications facilities, or require modification or alteration of such terminal equipment, or otherwise materially affect its use or performance, the customer shall be given adequate notice in writing, to allow the customer an opportunity to maintain uninterrupted service

RINGER EQUIVALENCE NUMBER

The Ringer Equivalence Number and FCC Registration Number for this machine may be found on the label located on the bottom or rear of the machine. In some instances you may need to provide these numbers to the telephone company.

The Ringer Equivalence Number (REN) is a measure of the electrical load placed on the telephone line, and is useful for determining whether you have "overloaded" the line. Installing several types of equipment on the same telephone line may result in problems making and receiving telephone calls, especially ringing when your line is called. The sum of all Ringer Equivalence Numbers of the equipment on your telephone line should be less than five in order to assure proper service from the telephone company. In some cases, a sum of five may not be usable on your line. If any of your telephone equipment is not operating properly, you should immediately remove it from your telephone line, as it may cause harm to the telephone network.



FCC Regulations state that changes or modifications to this equipment not expressly approved by the manufacturer could void the user's authority to operate this equipment. In the event that terminal equipment causes harm to the telephone network, the telephone company should notify the customer that service may be stopped. However, where prior notice is impractical, the company may temporarily cease service, providing that they:

- a) promptly notify the customer.
- b) give the customer an opportunity to correct the equipment problem.
- c) inform the customer of the right to bring a complaint to the Federal Communication Commission pursuant to procedures set out in FCC Rules and Regulations Subpart E of Part 68.

You should also know that:

- Your machine is not designed to be connected to a digital PBX system.
- If you intend to use a computer modem or fax modem on the same phone line as your machine, you may experience transmission and reception problems with all the equipment. It is recommended that no other equipment, except for a regular telephone, share the line with your machine.
- If your area experiences a high incidence of lightning or power surges, we recommend that you install surge protectors for both the power and the telephone lines. Surge protectors can be purchased from your dealer or telephone and electronic specialty stores.
- When programming emergency numbers and/or making test calls to emergency numbers, use a non-emergency number to advise the emergency service dispatcher of your intentions. The dispatcher will give you further instructions on how to actually test the emergency number.
- This machine may not be used on coin service or party lines.
- This machine provides magnetic coupling to hearing aids.

You may safely connect this equipment to the telephone network by means of a standard modular jack, USOC RJ-11C.

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.

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.



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.

DECLARATION OF CONFORMITY (EUROPEAN COUNTRIES)



Approvals and Certifications

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

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

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

March 9, 1999: Council Directive 1999/5/EC on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity. A full declaration, defining the relevant Directives and referenced standards can be obtained from your Samsung Electronics Co., Ltd. representative.

EC Certification

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

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

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

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



EU Declaration of Conformity

We, Samsung Electronics Co., Ltd.

- of Samsung Electronics Co., Ltd.
#259, Gongdan-dong, Gumi-si, Gyeongbuk, Korea, [730-030]
- of Samsung Electronics(Shandong) Digital Printing Co., Ltd.
#264209, Samsung Road, Weihai Hi-Tech IDZ, Shandong Province, China

declare under our sole responsibility that the product

to which this declaration relates is in conformity with

Low Voltage Directive 2006/95/EC
EMC Directive 89/336/EEC , 92/31/EEC

By application of the following standards,

LVD : EN 60950-1:2001+A11	EN 60825-1:1993+A1:2002
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

(Manufacturer)

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2007-03-21

(place and date of issue)

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2007-03-21

(place and date of issue)

Y. S. Park

Yong-Sang Park / Manager

(name and signature of authorized person)

1 Introduction

Thank you for purchasing this Samsung multifunctional product. Your machine provides printing, copying, and scanning functions!

This chapter includes:

- **Special features**
- **Understanding component locations**

Special features

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

Print with excellent quality and speed

600 DPI

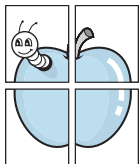
- You can print up to **600 dpi X 600 dpi**. See the **Software Section**.
- Your machine prints A4-sized paper at up to 18 ppm^a and letter-sized paper at up to 19 ppm.

Handle paper flexibly

250

- The **manual feeder** supports plain paper, letterhead, envelope, label, transparency, custom-sized material, postcard, and heavy paper.
- The **paper input tray** supports 250 sheets of A4/letter-sized paper.

Create professional documents



- Print **Watermarks**. You can customize your documents with words, such as "Confidential." See the **Software Section**.
- Print **Posters**. The text and pictures of each page of your document are magnified and printed across the sheet of paper and taped together to form a poster. See the **Software Section**.

Save time and money

- You can print multiple pages on one single sheet of paper to save paper.
- You can use preprinted forms and letterhead on plain paper. See the **Software Section**
- This machine automatically **conserves electricity** by substantially reducing power consumption when not printing.

Print in various environments

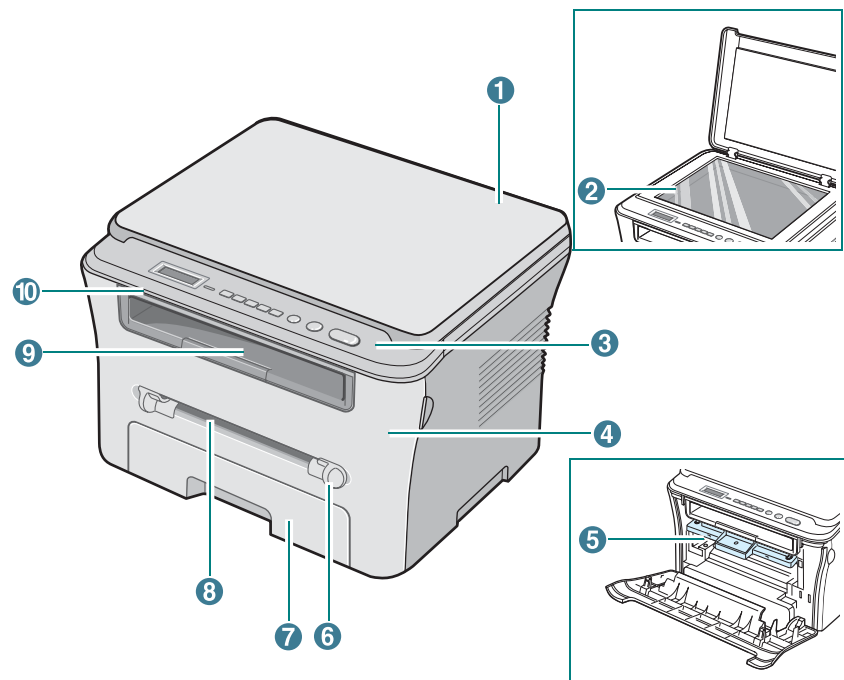
- You can print in **Windows 2000/XP/Vista**.
- Your machine is compatible with various **Linux** operating system versions.
- Your machine is compatible with various **Macintosh** operating system versions.
- Your machine comes with the **USB** interface.

a. page per minute

Understanding component locations

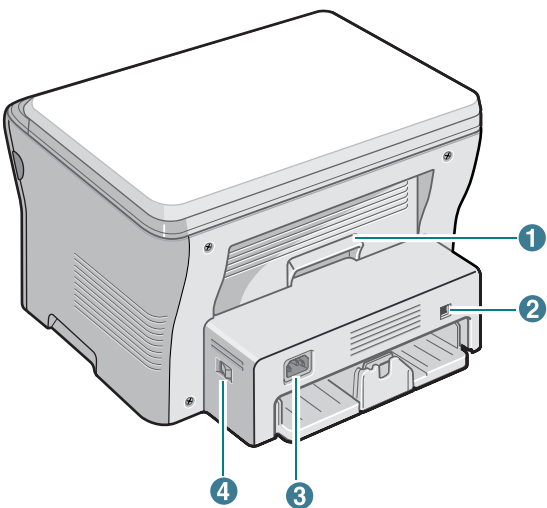
These are the main components of your machine:

Front view



1	document cover	6	manual feeder guides
2	document glass	7	paper input tray
3	control panel	8	manual feeder
4	front cover	9	output tray
5	toner cartridge	10	scan unit

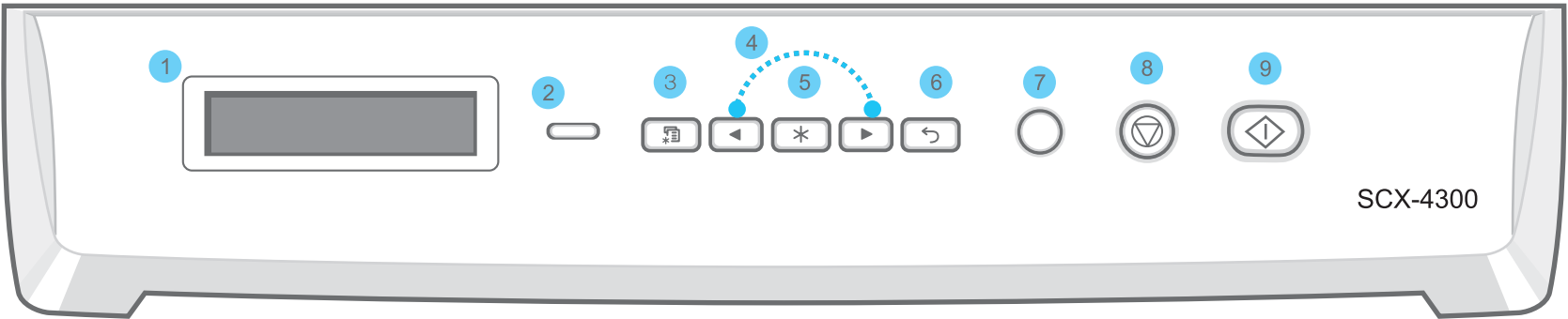
Rear view



1	rear cover	3	power receptacle
2	USB port	4	power switch

Control panel functions

SCX-4300



1	Displays the current status and prompts during an operation.
2	Status - Shows the status of your machine. See page 9.3.
3	Menu - Enters Menu mode and scrolls through the available menus.
4	Scroll through the options available in the selected menu.
5	OK - Confirms the selection on the display.
6	Back - Sends you back to the upper menu level.
7	Copies - Allows you to enter the number of copies.
8	Stop/Clear - Stops an operation at any time. In Standby mode, clears/cancels the copy options, such as the resolution, the document type setting, the copy size, and the number of copies.
9	Start - Starts a job.

2 Getting started

This chapter gives you step-by-step instructions for setting up your machine.

This chapter includes:

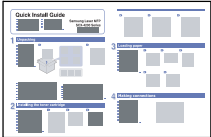
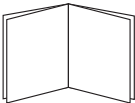
Setting up your machine

- **Selecting a location**
- **Installing the toner cartridge**
- **Loading paper**
- **Making connections**
- **Turning the machine on**
- **Setting up the machine system**
- **Overview of control panel menus**
- **Changing the display language**
- **Using the save modes**
- **Printer software overview**
- **Supplied printer software**
- **Printer driver features**
- **System requirements**

Setting up your machine

Finding more information

You can find information for setting up and using your machine from the following resources, either printed or onscreen.

Quick Install Guide 	Provides information on setting up your machine and, therefore, be sure to follow the instructions in the guide to get the machine ready.
Online User's Guide 	Provides you with step-by-step instructions for using your machine's full features, and contains information for maintaining your machine, troubleshooting, and installing accessories. This user's guide also contains the Software Section providing you with information on how to print documents with your machine on various operating systems, and how to use the supplied software utilities. NOTE: You can access the user's guides in other languages from the Manual folder on the printer driver CD.
Printer Driver Help 	Provides you with help information on printer driver properties and instructions for setting up the properties for printing. To access a printer driver help screen, click Help from the printer properties dialog box.
Samsung website	If you have Internet access, you can get help, support, printer drivers, manuals, and order information from the Samsung website, www.samsungprinter.com.

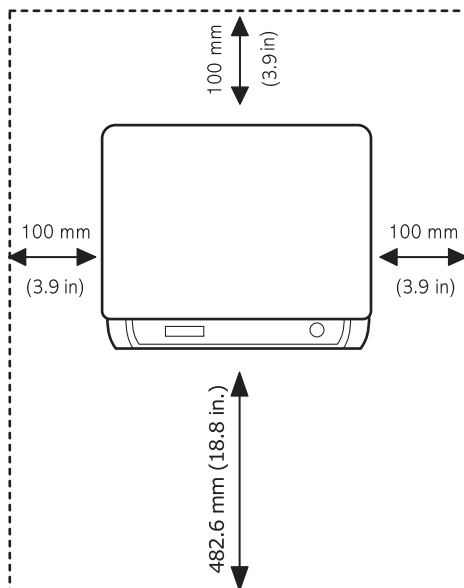
Selecting a location

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 machine close to the edge of your desk or table.

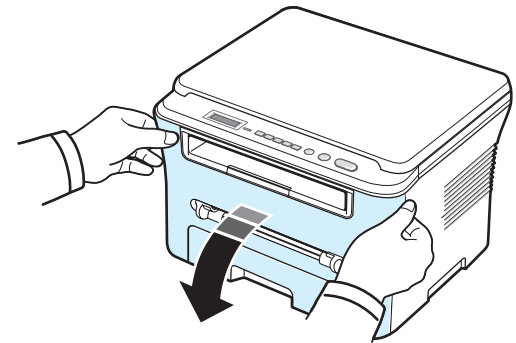
Clearance space

- **Front:** 482.6 mm (enough space so that the paper tray can be removed)
- **Back:** 100 mm (enough space for ventilation)
- **Right:** 100 mm (enough space for ventilation)
- **Left:** 100 mm (enough space for ventilation)

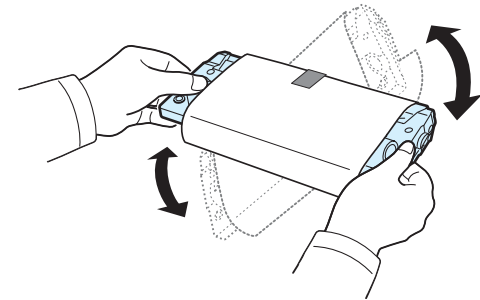


Installing the toner cartridge

- 1 Open the front cover.

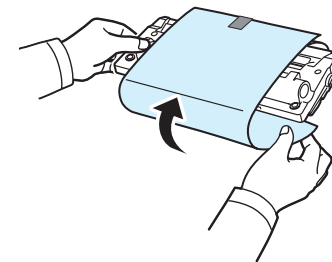


- 2 Remove the toner cartridge from its bag. Do not use a knife or other sharp object as it might scratch the drum of the toner cartridge.
- 3 Roll the toner cartridge 5 or 6 times to distribute the toner evenly inside the toner cartridge.



Thoroughly rolling the toner cartridge will assure maximum copies per toner cartridge.

- 4 Remove the paper protecting the **toner cartridge**.

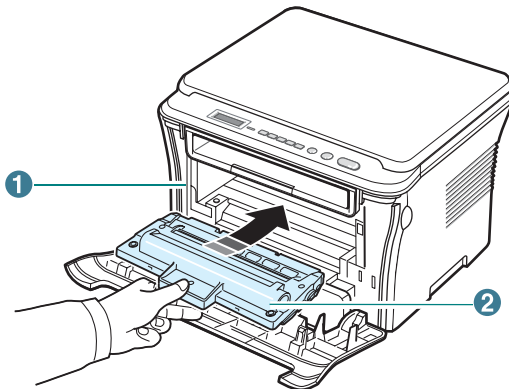


NOTE: If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.

**CAUTION:**

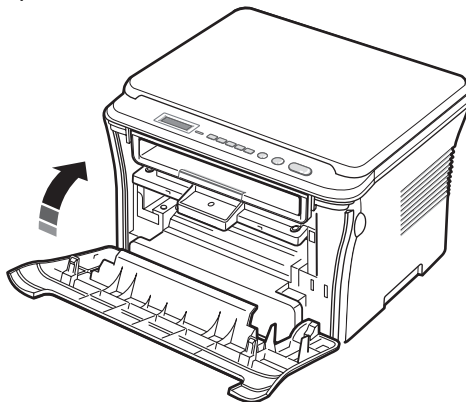
- To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper, if left exposed for more than a few minutes.
- Do not touch the green underside of the toner cartridge. Use the handle on the toner cartridge to avoid touching this area.

- 5 Hold the toner cartridge by the handle. Slowly insert the toner cartridge into the opening in the machine.
- 6 Tabs on the sides of the toner cartridge and corresponding grooves within the machine will guide the toner cartridge into the correct position until it locks into place completely.



- | | |
|---|--------|
| 1 | Groove |
| 2 | Tab |

- 7 Close the front cover. Make sure that the front cover is securely closed.

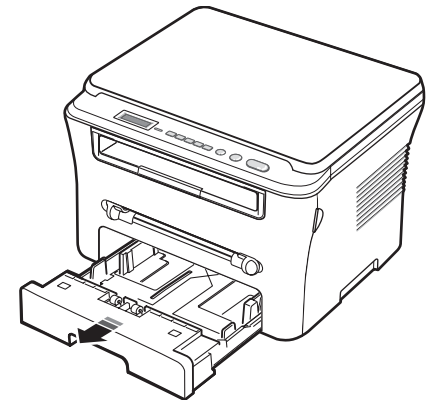


NOTE: When printing text at 5% coverage, you can expect a toner cartridge life of approximately 2,000 pages. (1,000 pages for the toner cartridge that is shipped with the machine.)

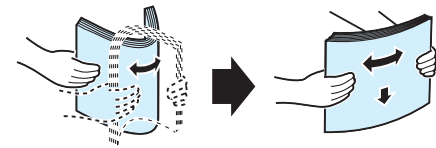
Loading paper

The paper input tray can hold a maximum of 250 sheets of 21 lb (80 g/m²) plain paper.

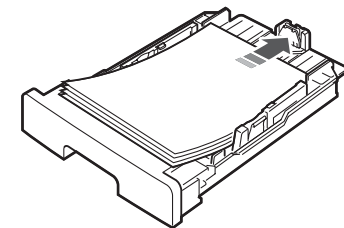
- 1 Pull open the paper input tray and remove it from the machine.



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

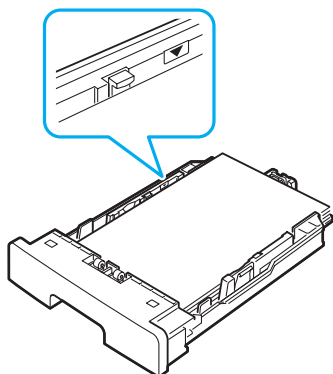


- 3 Insert the paper stack into the paper input tray **with the side to be printed on facing down**.

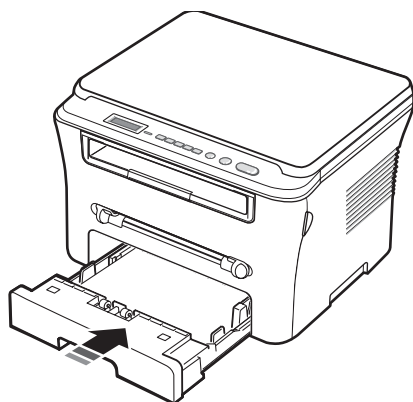


NOTE: If you want to load a different sized paper, you need to adjust the paper guides. For details, see page 2.4.

- 4 Pay attention to the paper limit mark on both inside walls of the paper input tray. Paper overloading may cause paper jams.



- 5 Insert and slide the paper input tray back into the machine.

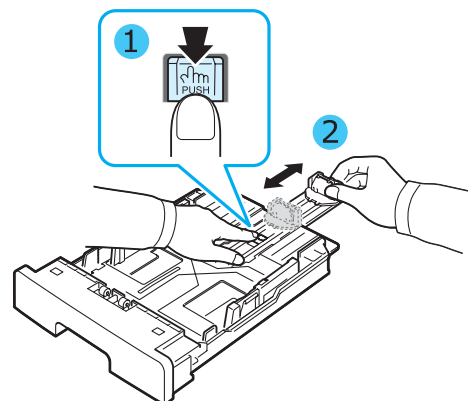


NOTE: After you load paper, you need to set up your machine for the paper type and size you loaded. See page 3.6 for copying, or the **Software Section** for PC-printing. The settings made from the printer driver override the settings on the control panel.

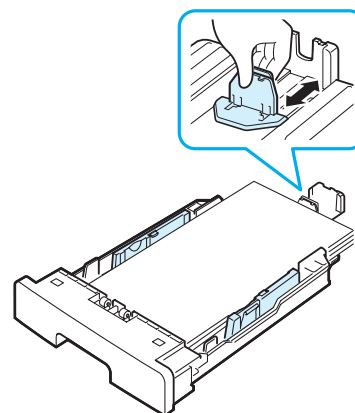
Changing the size of the paper in the paper input tray

To load longer sizes of paper, such as Legal-sized paper, you need to adjust the paper guides to extend the paper input tray.

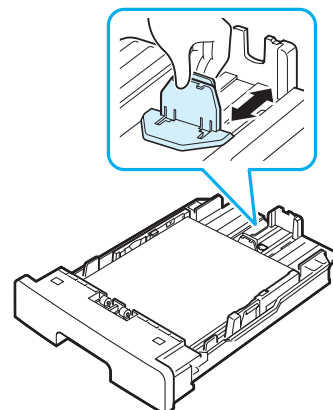
- 1 After pressing and unlatching the guide lock, slide the paper length guide out completely to extend the paper input tray to its full length.



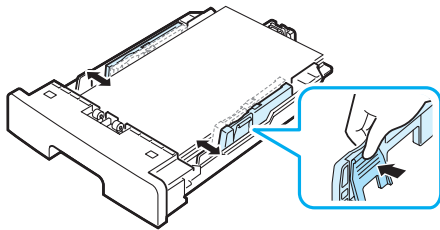
- 2 After inserting paper into the paper input tray, squeeze the front paper length guide and slide it until it lightly touches the end of the paper stack.



For paper smaller than Letter size, adjust the front paper length guide so that it lightly touches the paper stack.

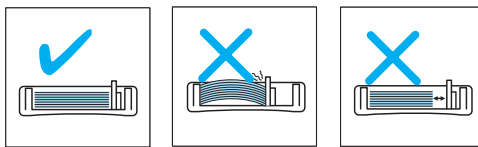


- 3 Squeeze the paper width guide, as shown and slide it to the stack of paper until it lightly touches the side of the stack.



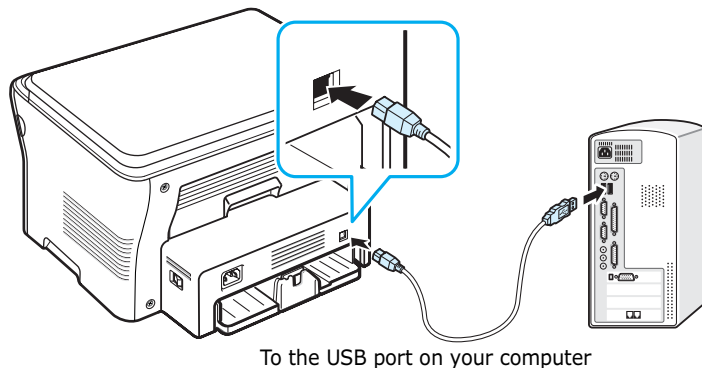
NOTES:

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



Making connections

- 1 Connect a USB cable to the USB connector on your machine. You need to buy a USB 2.0 compliant cable that is not longer than 3 m.

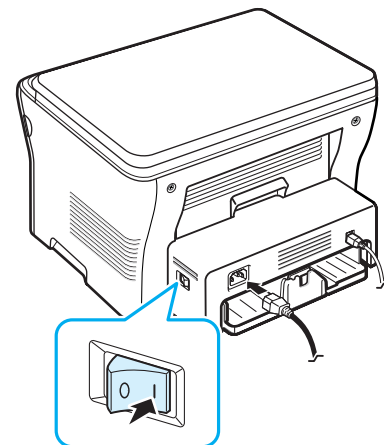


- 2 Connect the other end of the cable to the USB port on your computer.
- See your computer User's Guide if you need help.

NOTE: When using the USB connection, your machine provides two USB modes; Fast and Slow. Fast is the default mode. Some PC users may experience poor USB function in the default mode. If this occurs, select Slow mode to achieve successful results. For details about changing the USB mode, see page 9.7.

Turning the machine on

- 1 Plug one end of the supplied power cord into the **power receptacle** on the machine and the other end into a properly grounded AC outlet.
- 2 Press the power switch to turn the machine on. **warming up please wait** appears on the display indicating that the machine is now on.



To view your display text in another language, see page 2.6.



CAUTION:

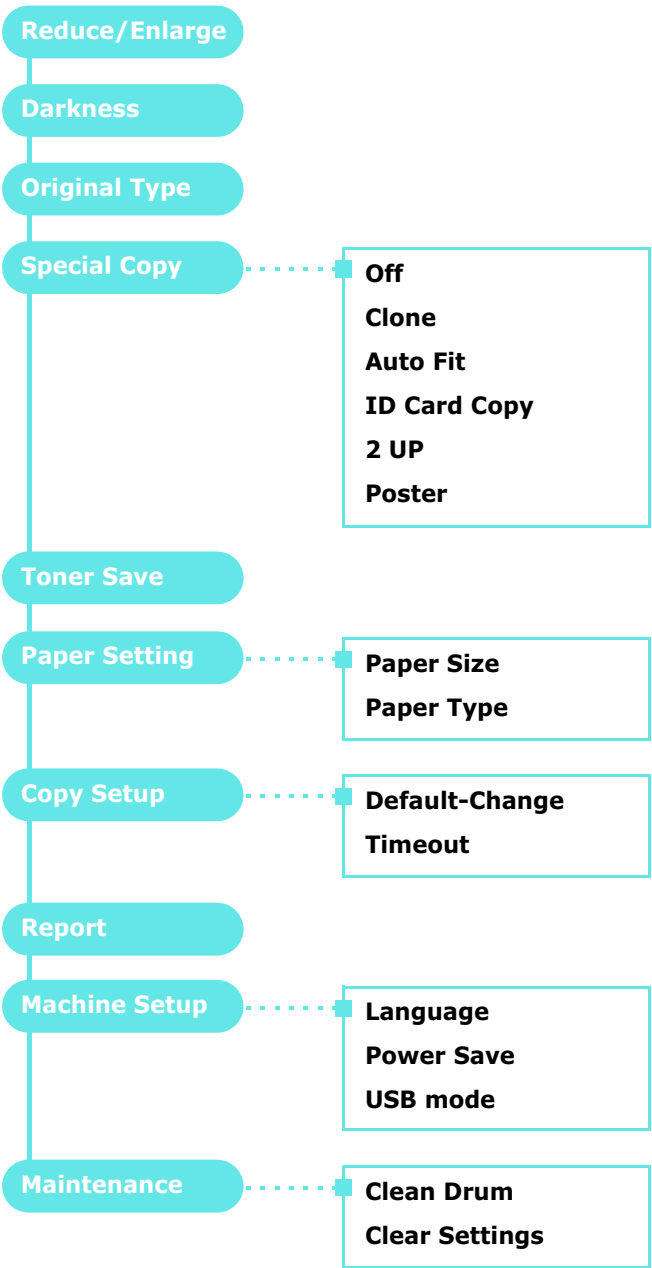
- The fuser area inside of the rear cover of your machine becomes very hot when in use. Take care not to burn your fingers when you access this area.
- Do not disassemble the machine with power on. If you do, you may receive an electric shock.

Setting up the machine system

Overview of control panel menus

The control panel provides access to various menus to set up the machine or use the machine's functions. They can be accessed by pressing **Menu**.

Refer to the following diagram.



Changing the display language

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

- 1 Press **Menu** until **Machine Setup** appears on the top line of the display.
- 2 Press **OK** when **Language** appears.
- 3 Press the scroll button (◀ or ▶) to select the language you want and press **OK**.
- 4 Press **Stop/Clear** to return to Standby mode.

Using the save modes

Toner save mode

Toner save mode allows your machine to use less toner on each page. Activating this mode extends the life of the toner cartridge beyond what one would experience in the normal mode, but it reduces print quality.

- 1 Press **Menu** until **Toner Save** appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until **On** appears and press **OK**.

NOTE: When PC-printing, you can also turn on or off Toner Save mode in the printer properties. See the **Software Section**.

Power save mode

Power save mode allows your machine to reduce power consumption when it is not in actual use. You can turn this mode on and select a length of time for which the machine waits after a job is printed before it switches to a reduced power state.

- 1 Press **Menu** until **Machine Setup** appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until **Power Save** appears and press **OK**.
- 3 Press the scroll button (◀ or ▶) until **On** appears and press **OK**.
- 4 Press the scroll button (◀ or ▶) to select the time setting you want and press **OK**.
- 5 Press **Stop/Clear** to return to Standby mode.

Printer software overview

Supplied printer software

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

The printer driver CD provides you with the following software:

Programs for windows

To use your machine as a printer and scanner in Windows, you must install the MFP driver. You can install selectively or all the following components:

- **Printer driver**- Use this driver to take full advantage of your printer's features.
- **Scanner driver**- TWAIN and Windows Image Acquisition (WIA) driver are available for scanning documents on your machine.
- **Smart Panel**- This program allows you to monitor the machine's status and alerts you when an error occurs during printing.
- **SmarThru**- This is the accompanying Windows-based software for your multifunctional machine. Allows you to edit a scanned image in many ways using a powerful image editor and to send the image by email. You can also open another image editor program installed in your Windows, like Adobe PhotoShop, from SmarThru.

For details, please refer to the onscreen help supplied on the SmarThru program.

Linux driver

You can print and scan in Linux using your machine. For information about installing the MFP driver in Linux, see the **Software Section**.

Macintosh printer driver

You can print and scan in Macintosh using your machine. For information about installing the printer driver in Macintosh, see the **Software Section**.

Printer driver features

Your printer drivers support the following standard features:

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

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

Feature	Printer Driver			
	Win 2000/XP/ Vista	Macintosh		Linux
		OS 10.3 ~ 10.4	OS 10.5	
Toner save	Y	N		Y
Print quality option	Y	Y		Y
Poster printing	Y	N		N
Multiple pages per sheet (N-up)	Y	Y		Y(2,4)
Fit to page printing	Y	N	Y	Y
Scale printing	Y	Y		Y
Watermark	Y	N		N
Overlay	Y	N		N
TrueType fonts option	N	N		N

System requirements

Before you begin, ensure that your system meets the minimum requirements.

Windows

Your machine supports the following Windows operating systems.

Operating System	Requirement (recommended)		
	CPU	RAM	free HDD space
Windows 2000	Pentium II 400 MHz (Pentium III 933 MHz)	64 MB (128 MB)	650 MB
Windows XP	Pentium III 933 MHz (Pentium IV 1 GHz)	128 MB (256 MB)	1.5 GB
Windows 2003 Server	Pentium III 933 MHz (Pentium IV 1 GHz)	128 MB (512 MB)	1.25 GB to 2 GB
Windows Vista	Pentium 4.3 GHz	512 MB (1024 MB)	15 GB

NOTE:

- Internet Explorer 5.0 or higher is the minimum requirement for all Windows operating systems.
- Users who have an administrator right can install the software.

Macintosh

Operating System	Requirement (recommended)		
	CPU	RAM	free HDD space
Mac OS X 10.4 or lower	Power PC G4 / G5	• 128 MB for a Power-PC based Mac (512 MB) • 512 MB for an Intel-based Mac (1 GB)	1 GB
Mac OS X 10.5	867 MHz or faster Power PC G4 / G5	512 MB (1 GB)	1 GB

Linux

Item	Requirements (Recommended)
Operating system	RedHat 8.0, 9.0 (32 bit) RedHat Enterprise Linux WS 4, 5 (32/64 bit) Fedora Core 1~7 (32/64 bit) Mandrake 9.2 (32 bit), 10.0, 10.1 (32/64 bit) Mandriva 2005, 2006, 2007 (32/64 bit) SuSE Linux 8.2, 9.0, 9.1 (32 bit) SuSE Linux 9.2, 9.3, 10.0, 10.1, 10.2 (32/64 bit) SuSE Linux Enterprise Desktop 9, 10 (32/64 bit) Ubuntu 6.06, 6.10, 7.04 (32/64 bit) Debian 3.1, 4.0 (32/64 bit)
CPU	Pentium IV 2.4 GHz (IntelCore2)
RAM	512 MB (1024 MB)
free HDD space	1 GB (1 GB)
Software	Linux Kernel 2.4 or higher Glibc 2.2 or higher CUPS

3 Loading original documents and paper

This chapter introduces you to how to load documents and print materials into your machine.

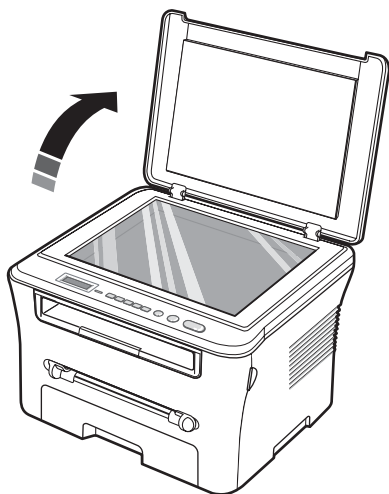
This chapter includes:

- **Loading document**
- **Selecting print materials**
- **Loading paper**
- **Setting the paper size and type**
- **Selecting an output location**

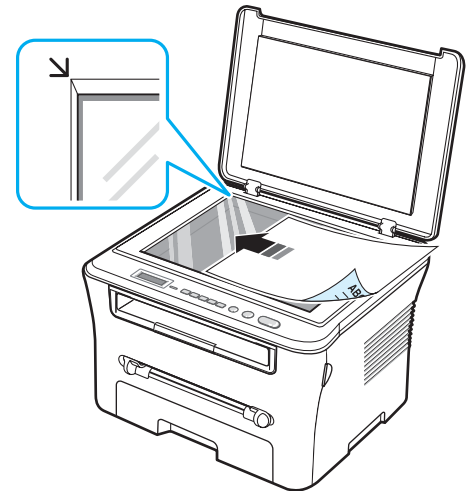
Loading document

You can use the document glass to load an original document for copying and scanning.

- 1 Lift and open the document cover.



- 2 Place the document **face down** on the **document glass** and align it with the registration guide at the top left corner of the glass.



- 3 Close the document cover. Be careful not to move the document.

NOTES:

- Leaving the document cover open while copying may affect copy quality and toner consumption.
- Dust on the document glass may cause black spots on the printout. Always keep it clean.
- If you are copying a page from a book or magazine, lift the document cover until its hinges are caught by the stopper and then close the cover. If the book or magazine is thicker than 30 mm, start copying with the cover open.

Selecting print materials

You can print on a variety of print materials, such as plain paper, envelopes, labels, and transparencies. Always use print materials that meet the guidelines for use with your machine. Paper that does not meet the guidelines outlined in this user's guide may cause the following problems:

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

Properties, such as weight, composition, grain, and moisture content, are important factors that affect the machine's performance and the output quality. When you choose print materials, consider the following:

- Desired outcome: The paper you choose should be appropriate for your project.
- Size: You can use any size paper that fits easily within the paper adjusters of the paper input tray.
- Weight: Your machine supports paper weights as follows:
 - 16 to 24 lb (60 to 90 g/m²) bond for the paper input tray
 - 16 to 43 lb (60 to 165 g/m²) bond for the manual feeder.
- Brightness: Some papers are whiter than others and produce sharper, more vibrant images.
- Surface smoothness: The smoothness of the paper affects how crisp the printing looks on the paper.

NOTES:

- Some paper may meet all of the guidelines in this section 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. Such repairs are not covered by the Samsung warranty or service agreements.

Supported paper types and sizes

Type	Size	Dimensions	Weight ^a	Capacity ^b
Plain paper	Letter	215.9 x 279 mm (8.5 x 11 inches)	• 60 to 90 g/m² (16 to 24 lb bond) for the paper input tray • 60 to 165 g/m² (16 to 43 lb bond) for the manual feeder	• 250 sheets of 80 g/m² (21 lb bond) paper for the paper input tray • 1 sheet of paper for the manual feeder
	Legal	215.9 x 355.6 mm (8.5 x 14 inches)		
	Folio	216 x 330.2 mm (8.5 x 13 inches)		
	A4	210 x 297 mm (8.27 x 11.69 inches)		
	Oficio	216 x 343 mm (8.5 x 13.5 inches)		
	JIS B5	182 x 257 mm (7.18 x 10.12 inches)		
	ISO B5	176 x 250 mm (6.93 x 9.84 inches)		
	Executive	184.2 x 266.7 mm (7.25 x 10.5 inches)		
	A5	148.5 x 210 mm (5.85 x 8.27 inches)		
Envelope	A6	105 x 148.5 mm (4.13 x 5.85 inches)		
	Envelope B5	176 x 250 mm (6.92 x 9.48 inches)	60 to 90 g/m ² (16 to 24 lb)	1 sheet of paper for the manual feeder
	Envelope Monarch	98.4 x 190.5 mm (3.88 x 7.5 inches)		
	Envelope COM-10	105 x 241 mm (4.12 x 9.5 inches)		
	Envelope DL	110 x 220 mm (4.33 x 8.66 inches)		
	Envelope C5	162 x 229 mm (6.38 x 9.02 inches)		

Type	Size	Dimensions	Weight ^a	Capacity ^b
Envelope (continued)	Envelope C6	114 x 162 mm (4.48 x 6.37 inches)	60 to 90 g/m ² (16 to 24 lb)	1 sheet of paper for the manual feeder
Transparency	Letter, A4	Refer to the Plain paper section	138 to 148 g/m ²	1 sheet of paper for the manual feeder
Labels	Letter, Legal, Folio, A4, JIS B5, ISO B5, Executive, A5, A6	Refer to the Plain paper section	120 to 150 g/m ² (32 to 40 lb)	1 sheet of paper for the manual feeder
Card stock	Letter, Legal, Folio, A4, JIS B5, ISO B5, Executive, A5, A6	Refer to the Plain paper section	60 to 165 g/m ² (16 to 43 lb)	1 sheet of paper for the manual feeder
Minimum size (custom)		76 x 127 mm (3.0 x 5.0 inches)	60 to 165 g/m ² (16 to 43 lb bond)	1 sheet of paper for the manual feeder
Maximum size (custom)		215.9 x 356 mm (8.5 x 14 inches)		

a If paper weight is over 90 g/m², load one sheet of paper in the manual feeder.
b Maximum capacity may differ depending on media weight, thickness, and environmental conditions.

Paper size supported in each mode

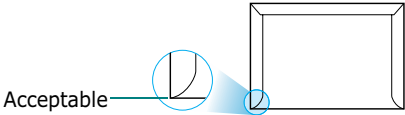
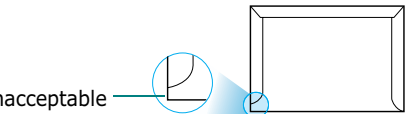
Mode	Size	Source
Copy mode	Letter, A4, Legal, Folio, Executive, ISO B5, JIS B5, A5, A6	- paper input tray - manual feeder
Single side printing	All sizes supported by the machine	- paper input tray - manual feeder

Guidelines for selecting and storing print materials

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

- Always use paper and other materials that conform with the specifications listed on page 3.2.
- Attempting to print on damp, curled, wrinkled, or torn paper can cause paper jams and poor print quality.
- For the best print quality, use only high quality copier grade paper specifically recommended for use in laser printers.
- Avoid using the following paper types:
 - Paper with embossed lettering, perforations, or a texture that is too smooth or too rough
 - Erasable bond paper
 - Multi-paged paper
 - Synthetic paper and thermally reactive paper
 - Carbonless** paper and **Tracing** paper.
- Use of these types of paper could result in paper jams, chemical smells, and damage to your machine.
- 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 it away from moisture or other conditions that can cause it to wrinkle or curl.
- Store unused materials at temperatures between 15° C and 30° C (59° F to 86° F). The relative humidity should be between 10% and 70%.
- Store unused paper in a moisture-proof wrap, such as a plastic container or bag, to prevent dust and moisture from contaminating your paper.
- Load special paper types one sheet at a time through the manual feeder to avoid paper jams.
- To prevent materials such as transparencies and label sheets from sticking together, remove them as they print out.

Guidelines for special materials

Paper Type	Guidelines
Envelopes	• Successful printing on envelopes depends upon the quality of the envelopes. When selecting envelopes, consider the following factors: - 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 inches) 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 machine during operation. • Use only well-constructed envelopes with sharp and well creased folds. • Do not use stamped envelopes. • Do not use envelopes with clasps, snaps, windows, coated lining, self-adhesive seals, or other synthetic materials. • Do not use damaged or poorly made envelopes. • Be sure the seam at both ends of the envelope extends all the way to the corner of the envelope. Acceptable  Unacceptable  • Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the machine's fusing temperature of 208° C (406.4° F) for 0.1 second. The extra flaps and strips might cause wrinkling, creasing, or jams, and may even damage the fuser. • For the best print quality, position margins no closer than 15 mm (0.6 inches) from the edges of the envelope. • Avoid printing over the area where the envelope's seams meet.

Paper Type	Guidelines
Transparencies	• To avoid damaging the machine, use only transparencies designed for use in laser printers. • Transparencies used in the machine must be able to withstand 208° C (406.4° F), the machine's fusing temperature. • Place them on a flat surface after removing them from the machine. • Do not leave them in the paper tray for long periods of time. Dust and dirt may accumulate on them, resulting in spotty printing. • To avoid smudging caused by fingerprints, handle them carefully. • To avoid fading, do not expose printed transparencies to prolonged sunlight. • Ensure that transparencies are not wrinkled, curled, or have any torn edges.
Labels	• To avoid damaging the machine, use only labels designed for use in laser printers. • When selecting labels, consider the following factors: - Adhesives: The adhesive material should be stable at 208° C (406.4° F), the machine's fusing temperature. - Arrangement: Only use labels with no exposed backing between them. Labels can peel off sheets that have spaces between the labels, causing serious jams. - Curl: Prior to printing, labels must lie flat with no more than 13 mm (5 inches) of curl in any direction. - Condition: Do not use labels with wrinkles, bubbles, or other indications of separation. • Make sure that there is no exposed adhesive material between labels. Exposed areas can cause labels to peel off during printing, which can cause paper jams. Exposed adhesive can also cause damage to machine components. • Do not run a sheet of labels through the machine more than once. The adhesive backing is designed for only a single pass through the machine. • Do not use labels that are separating from the backing sheet or are wrinkled, bubbled, or otherwise damaged.
Card stock or custom-sized materials	• Do not print on media smaller than 76 mm (3 inches) wide or 127 mm (5 inches) long. • In the software application, set margins at least 6.4 mm (0.25 inches) away from the edges of the material.

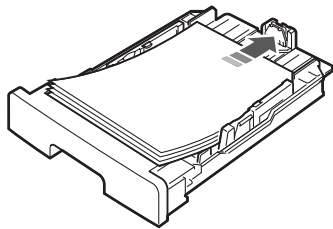
Paper Type	Guidelines
Preprinted paper	• Letterhead must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the machine's fusing temperature of 208° C (406.4° F) for 0.1 second. • Letterhead ink must be non-flammable and should not adversely affect printer rollers. • Forms and letterhead should be sealed in a moisture-proof wrapping to prevent changes during storage. • Before you load preprinted paper, such as forms and letterhead, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper, reducing print quality.

Loading paper

In the paper input tray

Load the print material you use for the majority of your print jobs in the paper input tray. The paper input tray can hold a maximum of 250 sheets of 21 lb (80 g/m²) plain paper.

To load paper, pull open the paper input tray and load paper with the side to be printed on face down.



You can load letterhead paper with the design side face down. The top edge of the sheet with the logo should be placed at the front of the paper input tray.

For details about loading paper in the tray, see page 2.3.

NOTES:

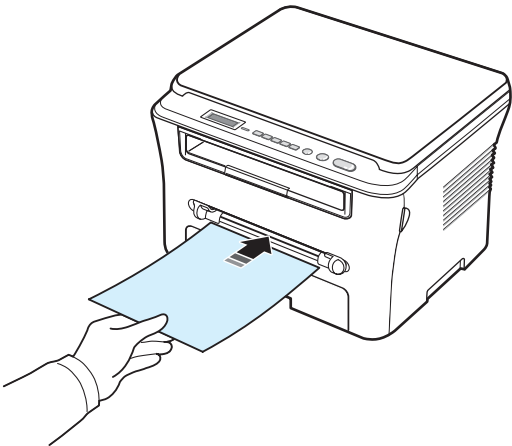
- If you experience problems with paper feed, place one sheet at a time in the manual feeder.
- You can load previously printed paper. The printed side should be facing up with an uncurled edge at the front. If you experience problems with paper feed, turn the paper around. Note that the print quality is not guaranteed.

In the manual feeder

Use the manual feeder to print transparencies, labels, envelopes or postcards in addition to making quick runs of paper types or sizes that are not currently loaded in the paper input tray.

To load print material in the manual feeder:

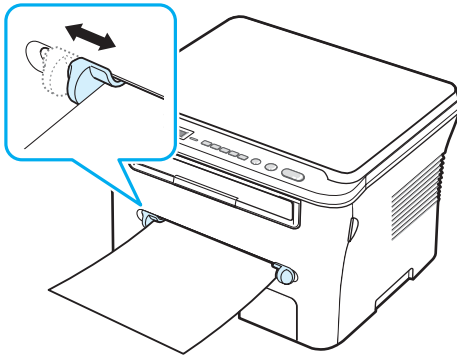
- 1 Load a sheet of the print material **with the side to be printed on facing up** into the center of the **manual feeder**.



Depending on the paper type you are using, keep the following loading method:

- Envelopes: load a sheet with the flap side down and with the stamp area on the top left side.
- Transparencies: load a sheet with the print side up and the top with the adhesive strip entering the machine first.
- Labels: load a sheet with the print size up and top short edge entering the machine first.
- Preprinted paper: load a sheet with the design face up, top edge toward the machine.
- Card: load a sheet with the print side up and the short edge entering the machine first.
- Pre printed paper: load a sheet with the printed side down and an uncurled edge toward the machine.

- 2 Adjust the manual feeder guides to the width of the print material without bending it.



- 3 After loading paper, you need to set the paper type and size for the manual feeder. See page 3.6 for copying or the **Software Section** for PC-printing.

NOTE: The settings made from the printer driver override the settings on the control panel.

- 4 If you want to use the rear cover, open the rear cover.

Tips on using the manual feeder

- Print materials should be loaded face up with the top edge going into the manual feeder first and be placed in the center of the tray.
- Always load only the print materials specified in the Specifications on page 3.2 to avoid paper jams and print quality problems.
- When you print on 76 x 127 mm (3 x 5 inches) sized media on the manual feeder, open the rear cover to use the rear cover.
- Make sure to open the rear cover when you print on transparencies. If not, they may tear while exiting the machine.

Setting the paper size and type

After loading paper in the paper tray, you need to set the paper size and type using the control panel buttons. These settings will apply to Copy mode. For PC-printing, you need to select the paper size and type in the application program you use on your PC.

- 1 Press **Menu** until **Paper Setting** appears on the top line of the display.
- 2 Press **OK** when **Paper Size** appears.
- 3 Press the scroll button (◀ or ▶) to select the paper tray you want to use and press **OK**.

- 4 Press the scroll button (◀ or ▶) to find the paper size you are using and press **OK**.
- 5 Press **Back** to return to the upper level.
- 6 Press the scroll button (◀ or ▶) to select **Paper Type** and press **OK**.
- 7 Press the scroll button (◀ or ▶) to find the paper type you are using and press **OK**.
- 8 Press **Stop/Clear** to return to Standby mode.

Selecting an output location

The machine 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 the rear cover.

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 machine is printing.

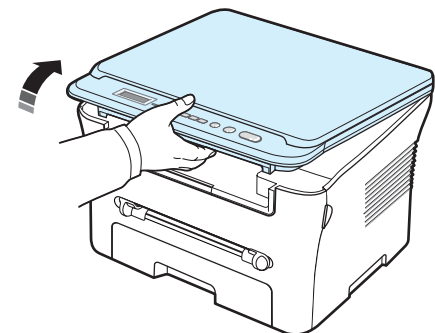
Printing to the output tray (Face down)

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

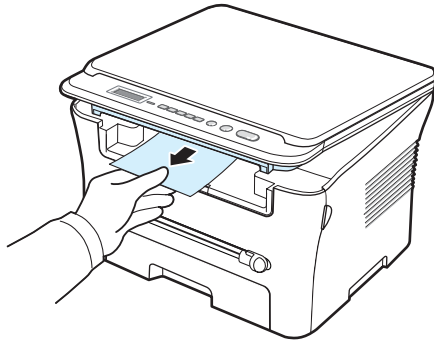
If you use paper which is not long enough to reach the output tray, use the scan unit.

To use the scan unit:

- 1 Lift the scan unit. A tab automatically springs up to support the cover.

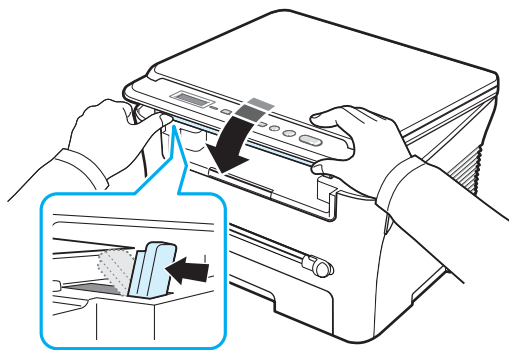


- 2 Take the paper out manually.



- 3 Close the scan unit. In order to close the cover, push the tab to the left and hold it down. Then lower the cover carefully until the cover is holding down the tab. Then you can move your hand and finish lowering the cover.

Be careful not to pinch your fingers!



NOTES:

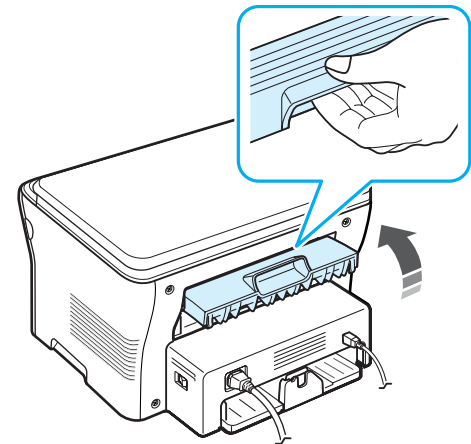
- If you continuously print many pages, the surface of the output tray may become hot. Be careful not to touch the surface, and especially keep children away from the surface.
- The output tray can hold up to 50 sheets of paper. Remove the pages so that tray is not overloaded.

Printing to the rear cover (*Face up*)

Using the rear cover, paper comes out of the machine face up.

Printing from the manual feeder to the rear cover provides a **straight paper path**. Using the rear cover might improve the output quality with special materials.

To use the rear cover, open the rear cover by pulling it up.



CAUTION: The fuser area inside the rear cover of your machine becomes very hot when in use. Take care when you access this area.

4 Copying

This chapter gives you step-by-step instructions for copying documents.

This chapter includes:

- **Copying**
- **Changing the settings for each copy**
- **Using special copy features**
- **Changing the default settings**
- **Setting the time out option**

Copying

- 1 Place a document on the document glass.
- 2 Customize the copy settings including copy size, darkness, and original type, by using the control panel buttons. See page 4.1.

If necessary, you can use special copy features, such as Poster copying or 2 Up copying. See page 4.3.
- 3 Press **Copies** and enter the number of copies using the scroll button (◀ or ▶), if necessary.
- 4 Press **Start** to begin copying.

The display shows the copy processing.

NOTE: You can cancel the copy job during an operation. Press **Stop/Clear**, and the copying will stop.

Changing the settings for each copy

The buttons on the control panel let you select all basic copy options: darkness, document type and copy size. Set the following options for the current copy job before pressing **Start** to make copies.

NOTE: If you press **Stop/Clear** while setting the copy options, all of the options you have set for the current copy job will be canceled and returned to their default status.

Reduced/Enlarged copy

You can reduce or enlarge the size of a copied image from 50% to 200% when you copy original documents from the document glass.

To select from the predefined copy sizes:

- 1 Press **Menu** then **Reduce/Enlarge** appears.
- 2 Press the scroll button (◀ or ▶) to select the size setting you want and press **OK**.

To fine-tune the size of copies:

- 1 Press **Menu** then **Reduce/Enlarge** appears.
- 2 Press the scroll button (◀ or ▶) until **Custom:50-200%** appears and press **OK**.
- 3 Press the scroll button (◀ or ▶) to enter the copy size you want. Pressing and holding the button allows you to quickly scroll to the number you want.
- 4 Press **OK** to save the selection.

NOTE: When you make a reduced copy, black lines may appear at the bottom of your copy.

Darkness

If you have an original document containing faint markings and dark images, you can adjust the brightness to make a copy that is easier to read.

- 1 Press **Menu** until **Darkness** appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to select the contrast mode you want.
 - **Light:** works well with dark print.
 - **Normal:** works well with standard typed or printed documents.
 - **Dark:** works well with light print or faint pencil markings.
- 3 Press **OK** to save the selection.

Original type

The original type setting is used to improve the copy quality by selecting the document type for the current copy job.

- 1 Press **Menu** until **Original Type** appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to select the image mode you want.
 - **Text:** Use for documents containing mostly text.
 - **Text/Photo:** Use for documents with mixed text and photographs.
 - **Photo:** Use when the originals are photographs.

- 3 Press **OK** to save the selection.

Changing the default settings

The copy options, including darkness, original type, copy size and number of copies, can be set to the most frequently used modes. When you copy a document, the default settings are used unless they are changed by using the menus on the control panel.

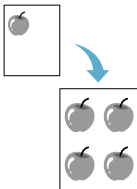
To create your own default settings:

- 1 Press **Menu** until **Copy Setup** appears on the top line of the display.
- 2 Press **OK** when **Default-Change** appears.
- 3 Press the scroll button (◀ or ▶) to select a setup option and press **OK**.
- 4 Press the scroll button (◀ or ▶) to change the setting or enter the value and press **OK**.
- 5 Repeat steps 3 through 4, as needed.
- 6 Press **Stop/Clear** to return to Standby mode.

NOTE: While you are setting copy options, pressing **Stop/Clear** cancels the changed settings and restores their default status.

Using special copy features

Clone copying

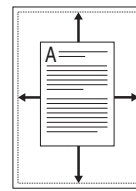


This feature prints multiple image copies from the original document on a single page. The number of images is automatically determined by the original image and paper size.

- 1 Place the document to be copied on the document glass, and close the cover.
- 2 Press **Menu** until **Special Copy** appears on the top line of the display.
- 3 Press the scroll button (◀ or ▶) until **Clone** appears and press **OK**.
- 4 Customize the copy settings including copy size, darkness, and original type, by using the control panel buttons. See page 4.1.

NOTE: You cannot adjust the copy size using the **Reduce/Enlarge** menu while making a clone copy.

- 5 Press **Start** to begin copying.



Auto Fit copying

This feature automatically reduces or enlarges the original image to fit on the paper currently loaded in the machine.

NOTE: When the size of the document you want to copy is not same as the size of the paper loaded, this function automatically adjusts the size of the document to fit the paper. You can not adjust the copy size manually.

- 1 Load the document to be copied on the document glass, and close the cover.
- 2 Press **Menu** until **Special Copy** appears on the top line of the display.
- 3 Press the scroll button (◀ or ▶) until **Auto Fit** appears and press **OK**.
- 4 Customize the copy settings including copy size, darkness, and original type, by using the control panel buttons. See page 4.1.

NOTE: You cannot adjust the copy size using the **Reduce/Enlarge** menu while Auto Fit copying is enabled.

- 5 Press **Start** to begin copying.

ID Card copying



You can copy both sides of the ID Card like a drivers licence to a single side of paper.

When you copy using this feature, the machine prints one side of the card on the upper half of the paper and the other side on the lower half without reducing the size of the original.

If the loaded card is larger than the printable area, some portions may not be printed.

- 1 Place the ID Card to be copied on the document glass and close the cover.
- 2 Press **Menu** until **Special Copy** appears on the top line of the display.
- 3 Press the scroll button (◀ or ▶) until **ID Card copy** appears and press **OK**.
- 4 Customize the copy settings including copy size, darkness, and original type, by using the control panel buttons. See page 4.1.
- 5 Press **Start** to begin copying.

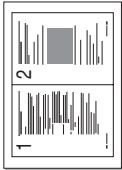
Your machine begins scanning the front side and will then display **Set Backside**.

- 6 Open the document cover and flip the document over. Close the cover.

NOTE: If you press **Stop/Clear** or no buttons are pressed for approximately 30 seconds, the machine cancels the copy job and returns to Standby mode.

- 7 Press **Start** to begin copying.

2-UP copying



This feature prints 2 original images reduced to fit onto one sheet of paper.

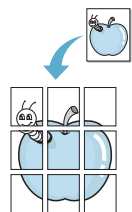
- 1 Place the document to be copied on the document glass and close the cover.
- 2 Press **Menu** until **Special Copy** appears on the top line of the display.
- 3 Press the scroll button (◀ or ▶) until **2-UP** appears and press **OK**.
- 4 Customize the copy settings including copy size, darkness, and original type, by using the control panel buttons. See page 4.1.

NOTE: You cannot adjust the copying size using the **Reduce/Enlarge** menu while making a 2-UP copying.

- 5 Press **Start** to begin copying.
Your machine begins scanning the front side and will then display **Set Next Page Press Start**.
- 6 Place the second document to be copied on the document glass.
- 7 Press **Start** to begin copying.

NOTE: 2-UP copying reduces your original document by 50%.

Poster copying



This feature prints an image onto 9 sheets of paper (3x3). You can paste the printed pages together to make one poster-sized document.

- 1 Place the document to be copied on the document glass and close the cover.
- 2 Press **Menu** until **Special Copy** appears on the top line of the display.
- 3 Press the scroll button (◀ or ▶) until **Poster** appears and press **OK**.
- 4 Customize the copy settings including copy size, darkness, and original type, by using the control panel buttons. See page 4.1.
- 5 Press **Start** to begin copying.

NOTE: You cannot adjust the copy size using the **Reduce/Enlarge** menu while making a poster.

Your original document is divided into 9 portions. Each portion is scanned and printed one by one in the following order:

1	2	3
4	5	6
7	8	9

Setting the time out option

You can set the time the machine waits before it restores the default copy settings, if you do not start copying after changing them on the control panel.

- 1 Press **Menu** until **Copy Setup** appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until **Timeout** appears and press **OK**.
- 3 Press the scroll button (◀ or ▶) to select the time setting you want.

Selecting **Off** means that the machine does not restore the default settings until you press **Start** to begin copying, or **Stop/Clear** to cancel.
- 4 Press **OK** to save your selection.
- 5 press **Stop/Clear** to return to Standby mode.

5 Basic printing

This chapter explains common printing tasks.

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 2000, select **Settings** and then **Printers**.
For Windows XP, select **Printers and Faxes**.
For Windows Vista, select **Control Panel > Hardware and Sound > Printers**.
- 3 Double-click the **Samsung SCX-4300 Series** icon.
- 4 From the **Document** menu, select **Cancel**.

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

You can also cancel the current job by pressing **Stop/Clear** on the **control panel** of your machine.

6 Scanning

Scanning with your machine lets you turn pictures and text into digital files on your computer. Then you can upload them on your web site or use them to create projects that you can print using Samsung SmarThru program or the WIA driver.

Scanning basics

Your machine offers the following ways to scan an image:

- From TWAIN-compliant software: You can use other software including Adobe Photoshop.
- From the Windows Images Acquisition (WIA) driver: Your machine supports the WIA driver for scanning images.
- From the Samsung SmarThru software: Launch Samsung SmarThru and open Scan To to begin scanning.

NOTE: To scan with your machine, you must install the software. For details about installing the software, see the **Software Section**.

7

Ordering toner cartridge

This chapter provides information on purchasing toner cartridges available for your machine.

Toner cartridges

When the toner runs out, you can order the following type of toner cartridges for your machine:

Type	Yield ^a	Part number
Standard	2,000 pages	Region A^b : MLT-D1092S Region B^c : MLT-D109S

a. Declared yield value in accordance with ISO/IEC 19752.

b. **Region A:** Albania, Austria, Belgium, Bosnia, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Herzegovina, Hungary, Ireland, Israel, Italy, Luxemburg, Macedonia, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, UK.

c. **Region B:** Other countries except Region A.

How to purchase

To order Samsung-authorized toner cartridges, contact your local Samsung dealer or the retailer where you purchased your machine, or visit www.samsungprinter.com and select your country/region for information on calling for technical support.

8 Maintenance

This chapter provides information for maintaining your machine and the toner cartridge.

This chapter includes:

- **Printing reports**
- **Clearing memory**
- **Cleaning your machine**
- **Maintaining the toner cartridge**
- **Consumable and replacement parts**

Printing reports

Your machine can print report containing system data information.

- 1 Press **Menu** until **Report** appears on the top line of the display.
- 2 Press **OK** when **System Data** appears.
The system data information will be printed.

Clearing memory

You can selectively clear information stored in your machine's memory.

- 1 Press **Menu** until **Maintenance** appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until **Clear Settings** appears and press **OK**.
- 3 Press the scroll button (◀ or ▶) to select the item you want to clear.
 - **Paper Setting:** Resets all of the Paper Setting options to the factory default.
 - **Copy Setup:** Resets all of the Copy Setup options to the factory default.
 - **All Settings:** Resets all of your settings to the factory default.
 - **Machine Setup:** Resets all of the system settings, such as the display language and save mode, to the factory default.
- 4 Press **OK** to confirm clearing. The selected setting is cleared.
- 5 Repeat steps 3 through 4 to clear another setting.
- 6 Press **Stop/Clear** to return to Standby mode.

Cleaning your machine

To maintain print and scan quality, follow the cleaning procedures below each time the toner cartridge is replaced or if print and scan quality problems occur.



CAUTION: Cleaning the cabinet of the machine with cleaning materials containing large amounts of alcohol, solvent, or other strong substances can discolor or crack the cabinet.

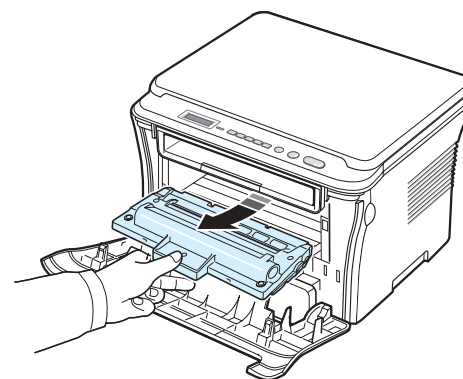
Cleaning the outside

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

Cleaning the inside

During the printing process, paper, toner, and dust particles can accumulate inside the machine. This buildup can cause print quality problems, such as toner specks or smearing. Cleaning the inside of the machine clears or reduces these problems.

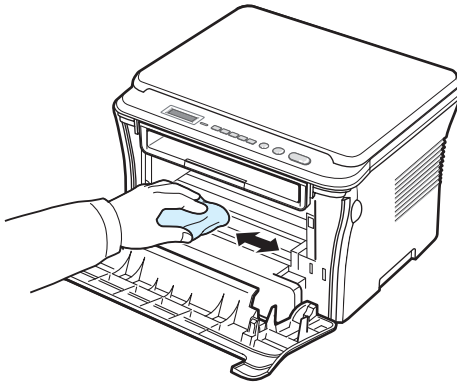
- 1 Turn the machine off and unplug the power cord. Wait for the machine to cool down.
- 2 Open the front cover and pull the toner cartridge out. Set it on a clean flat surface.



CAUTION:

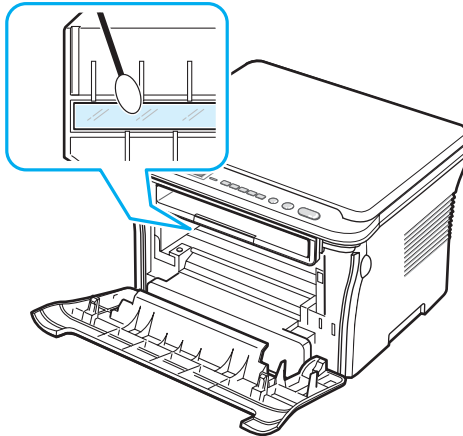
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary.
- Do not touch the green surface underside of the toner cartridge. Use the handle on the toner cartridge to avoid touching this area.

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



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

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



- 5 Reinsert the toner cartridge and close the front cover.
- 6 Plug in the power cord and turn the machine on.

Cleaning the drum

If there are streaks or spots on your print, the OPC drum of the toner cartridge may require cleaning.

- 1 Before starting the cleaning procedure, make sure that paper is loaded in the machine.
- 2 Press **Menu** until **Maintenance** appears on the top line of the display.
- 3 Press **OK** when **Clean Drum** appears.

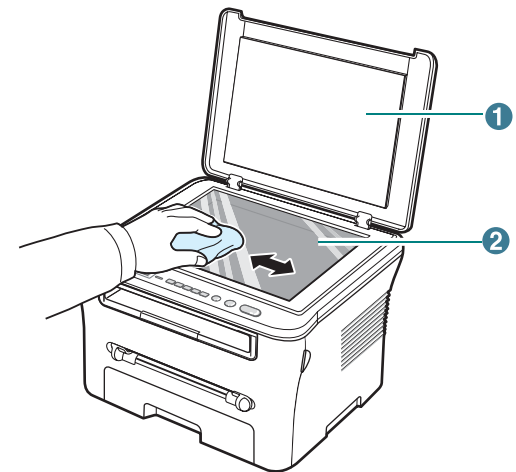
The machine prints out a cleaning page. Toner particles on the drum surface are affixed to the paper.

- 4 If the problem remains, repeat steps 1 through 3.

Cleaning the scan unit

Keeping the scan unit clean helps ensure the best possible copies. We suggest that you clean the scan unit at the start of each day and during the day, as needed.

- 1 Slightly dampen a soft lint-free cloth or paper towel with water.
- 2 Open the document cover.
- 3 Wipe the surface of the document glass until it is clean and dry.



1	document cover
2	document glass

- 4 Wipe the underside of the document cover until it is clean and dry.
- 5 Close the document cover.

Maintaining the toner cartridge

Toner cartridge storage

To get the most from the 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 machine warranty does not cover damage caused by using a refilled toner cartridge.**
- Store toner cartridges in the same environment as your machine.
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes.

Saving toner

To save toner, press **Menu** until **Toner Save** appears and then press **OK** when **On** appears. Using this feature extends the life of the toner cartridge and reduces your cost per page, but it also reduces print quality.

Expected toner cartridge life

The life of the toner cartridge depends on the amount of toner that print jobs require. When printing text at ISO/IEC 19752 standard page, a new toner cartridge lasts an average of 2,000 pages. (The original toner cartridge supplied with the machine lasts an average of 1,000 pages.) The actual number may be different depending on the print density of the page you print. If you print a lot of graphics, you may need to change the toner cartridge more often.

Redistributing the toner cartridge

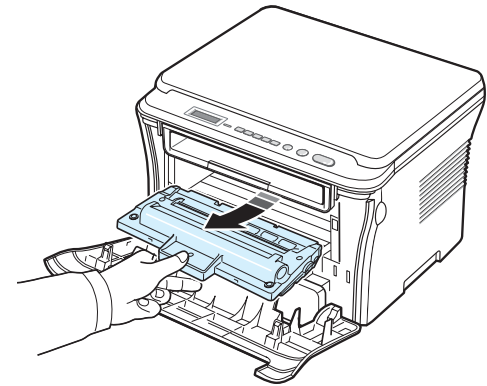
When the toner cartridge is near the end of its life:

- White streaks or light printing occurs.
- The warning message, **Toner Low** displays on the control panel.
- The Smart Panel program window appears on the computer telling you that the toner cartridge is low on toner.
- The **Status** LED blinks red.

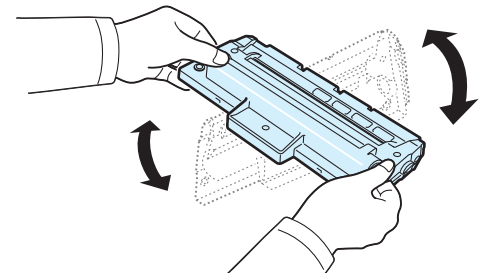
If this happens, you can temporarily reestablish print quality by redistributing the remaining toner in the toner cartridge. In some cases, white streaks or light printing will still occur even after you have redistributed the toner.

- 1 Open the front cover.

- 2 Pull the toner cartridge out.



- 3 Thoroughly roll the toner cartridge 5 or 6 times to distribute the toner evenly inside the toner cartridge.

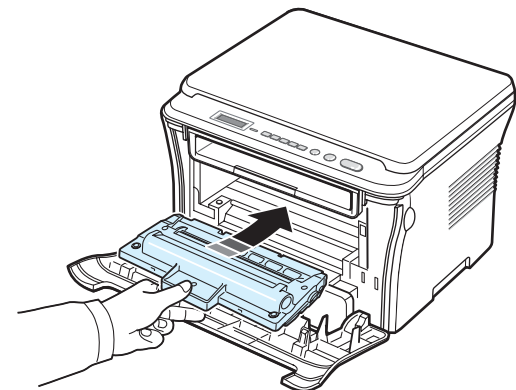


NOTE: If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.



CAUTION: Do not touch the green underside of the toner cartridge. Use the handle on the toner cartridge to avoid touching this area.

- 4 Hold the toner cartridge by the handle and slowly insert the toner cartridge into the opening in the machine.
- 5 Tabs on the sides of the toner cartridge and corresponding grooves within the machine will guide the toner cartridge into the correct position until it locks into place completely.



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

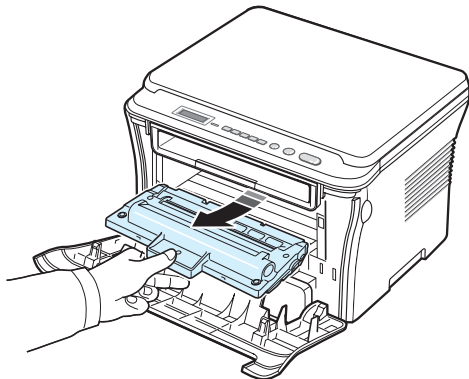
Replacing the toner cartridge

When the toner cartridge is completely empty:

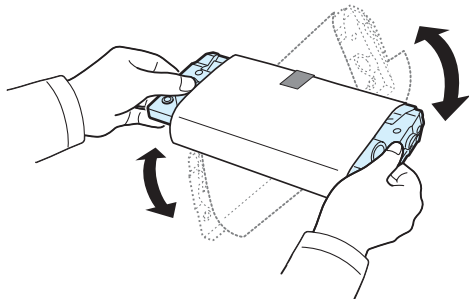
- The printer stops printing.
- The Smart Panel program window appears on the computer telling you that the toner cartridge is empty.
- The **Status** LED lights red.

At this stage, the **toner cartridge** needs to be replaced. For order information for toner cartridges, see page 7.1.

- 1 Pull the toner cartridge out.

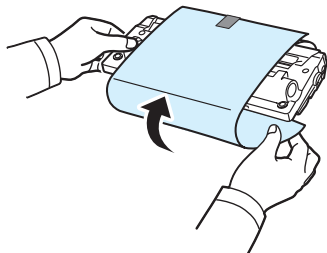


- 2 Remove the new toner cartridge from its bag.
- 3 Roll the toner cartridge 5 or 6 items to distribute the toner evenly inside the toner cartridge.



Thoroughly rolling the toner cartridge will assure maximum copies per toner cartridge.

- 4 Remove the paper protecting the **toner 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.



CAUTION: Do not touch the green underside of the toner cartridge. Use the handle on the toner cartridge to avoid touching this area.

- 5 Hold the toner cartridge by the handle and slowly insert the toner cartridge into the opening in the machine.
- 6 Tabs on the sides of the toner cartridge and corresponding grooves within the machine will guide the toner cartridge into the correct position until it locks into place completely.
- 7 Close the front cover. Make sure that the cover is securely closed.

Consumable and replacement parts

From time to time, you need to replace the toner cartridge, roller, and fuser unit to maintain top performance and to avoid print quality problems and paper feed problems resulting from worn parts. The Smart Panel program window will appear on the computer, indicating which item needs to be replaced.

The following items should be replaced after you have printed the specified number of pages, or when the life span of each item has expired. The Smart Panel program window will appear on the computer, indicating which item needs to be replaced.

Items	Yield (Average)
Transfer roller	Approx. 50,000 pages
Fuser unit	Approx. 50,000 pages
Paper feeding roller	Approx. 50,000 pages

To purchase consumable and replacement parts, contact your Samsung dealer or the retailer where you bought your machine. We strongly recommend that these items be installed by a trained service professional, except for the toner cartridge (see page 8.4).

9 Troubleshooting

This chapter gives helpful information for what to do if you encounter an error.

This chapter includes:

- **Clearing paper jams**
- **Understanding the Status LED**
- **Understanding display messages**
- **Solving other problems**

Clearing paper jams

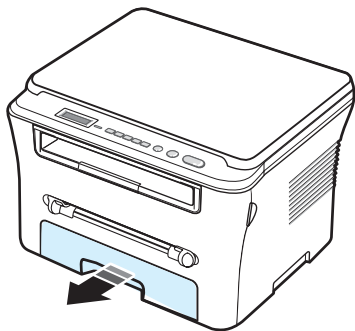
When a paper jam occurs, **Paper Jam** appears on the display. Refer to the table below to locate and clear the paper jam.

Message	Location of Jam	Go to
[Paper Jam 0] Open/Close Door	In the paper input tray	below and page 9.1
[Paper Jam 1] Open/Close Door	In the fuser area or around the toner cartridge In the manual feeder	page 9.2
[Paper Jam 2] Check Inside	In the paper exit area	page 9.2

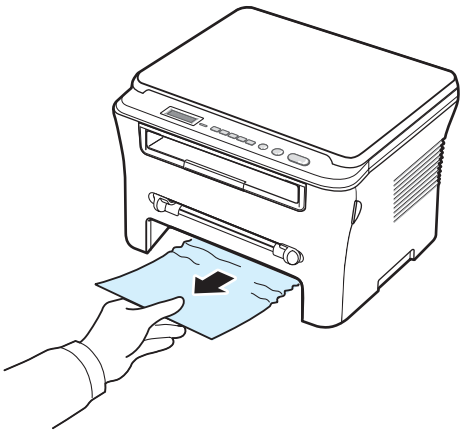
To avoid tearing the paper, pull out the jammed paper gently and slowly. Follow the instructions in the following sections to clear the jam.

In the paper input tray

- 1 Open and close the front cover. The jammed paper automatically exits the machine.
If the paper does not exit, continue to step 2.
- 2 Pull the paper input tray out.



- 3 Remove the jammed paper by gently pulling it straight out.

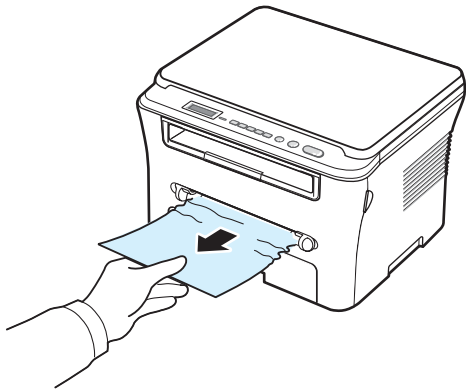


If there is any resistance and the paper does not move when you pull, or if you cannot see the paper in this area, check the fuser area around the toner cartridge. See page 9.2.

- 4 Insert the paper input tray into the machine until it snaps into place.
- 5 Open and close the front cover to resume printing.

In the manual feeder

- 1 If the paper is not feeding properly, pull the paper out of the machine.

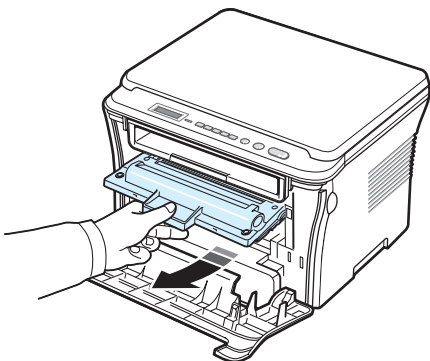


- 2 To resume printing, open and close the front cover.

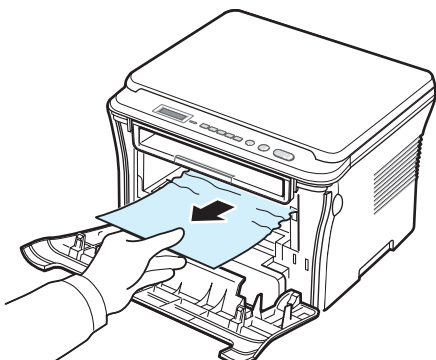
In the fuser area or around the toner cartridge

NOTE: The fuser area is hot. Take care when removing paper from the machine.

- 1 Open the front cover and pull the toner cartridge out.



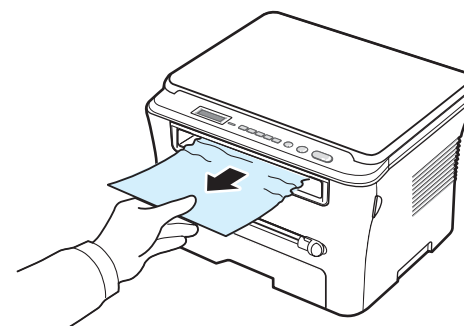
- 2 Remove the jammed paper by gently pulling it straight out.



- 3 Replace the toner cartridge and close the front cover. Printing automatically resumes.

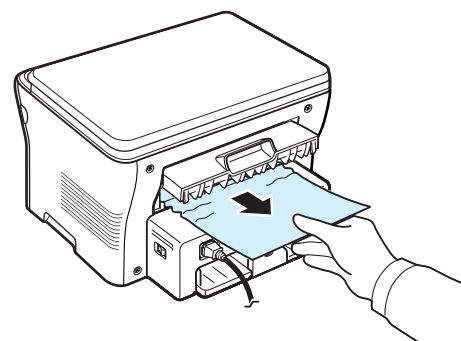
In the paper exit area

- 1 Open and close the front cover. The jammed paper automatically exits the machine.
If the paper does not exit, continue to step 2.
- 2 Gently pull the paper out of the output tray. Skip to step 9.



If you cannot see the jammed paper in the output tray, continue to the next step.

- 3 Lift the scan unit.
- 4 Pull the jammed paper out gently.
- 5 Close the scan unit by pushing a tab to the left and hold it down and lowering the cover carefully until the cover is holding down the tab.
If there is any resistance and the paper does not move when you pull or if you cannot see the paper under the scan unit, continue to the next step.
- 6 Open the rear cover.
- 7 Remove the jammed paper by gently pulling it straight out.



- 8 Close the rear cover.
- 9 Open and close the front cover to resume printing.

Tips for avoiding paper jams

By selecting the correct paper types, most paper jams can be avoided. When a paper jam occurs, follow the steps outlined in page 9.1.

- Follow the procedures in page 2.3. Ensure that the adjustable guides are positioned correctly.
- Do not overload the paper input tray. Ensure that the paper is below the paper capacity mark on the inside wall of the paper input tray.
- Do not remove paper from the paper input tray while your machine is 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 paper input tray.
- Use only recommended print materials. See page 3.2.
- Ensure that the recommended print side of print materials is facing down in the paper input tray and facing up in the manual feeder.

Understanding the Status LED

The **Status** LED on the control panel shows the status of your machine. See the table below to know your machine’s status.

Status		Description
Off		• The machine is off-line. • The machine is in Power Save mode. When data is received, or any button is pressed, it switches to on-line automatically.
Green	On	The machine is on-line and can be used.
	Blinking	• When the backlight slowly blinks, the machine is receiving data from the computer. • When the backlight normally blinks, the machine is scanning the loaded document. • When the backlight fast blinks, the machine is printing data.
Red	On	• The toner cartridge is empty, or needs to be changed. See page 8.4 • A paper jam has occurred. To solve the problem, see page 9.1. • The front cover is open. Close the front cover. • There is no paper in the paper input tray. Load paper in the paper input tray. • The machine has stopped due to a major error. Check the display message. See page 9.4 for details on the meaning of the error message.
	Blinking	• A minor error occurs and the machine is waiting an error to be cleared. Check the display message. When the problem is cleared, the machine resumes. • The toner cartridge is low. Order a new toner cartridge. You can temporarily improve print quality by redistributing the toner. See page 8.4.

Understanding display messages

Messages appear on the Smart Panel program window or the control panel display to indicate the machine'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.

Display	Meaning	Suggested solutions
[LSU Error]	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back in. If the problem persists, please call for service.
[No Paper] Add Paper	The paper in the paper input tray has run out.	Load paper in the paper input tray . See page 2.3.
[Over Heat]	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, please call for service.
[Paper Jam 0] Open/Close Door	Paper has jammed in the feeding area of the paper input tray .	Clear the jam. See page 9.1.
[Paper Jam 1] Open/Close Door	Paper has jammed in the fuser area or in the manual feeder .	Clear the jam. See page 9.2.
[Paper Jam 2] Check Inside	Paper has jammed in the paper exit area.	Clear the jam. See page 9.2.
Door Open	The front cover or rear cover is not securely latched.	Close the cover until it locks into place.
Hsync Error	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back in. If the problem persists, please call for service.
Invalid Toner	You have used an unauthorized cartridge.	You must use a Samsung approved cartridge.

Display	Meaning	Suggested solutions
Jam 1 or Install Toner	- The toner cartridge is not installed. - Paper has jammed in the fuser area or in the manual feeder.	- Install the Samsung genuine toner cartridge designed for your machine. Otherwise reinstall toner cartridge at several times. See page 2.2. - Clean the paper jam. See page 9.1.
Low Heat Error	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, please call for service.
NonSamsung Toner Replace Toner	The toner cartridge is not a Samsung-genuine cartridge.	Replace the toner cartridge with a Samsung-genuine.
Open Heat Error	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, please call for service.
Power Failure	Power has turned off then on and the machine's memory has not been back up.	The job which you were trying to do before the power failure must be completely re-done.
Scanner Error	There is a problem in the scanner unit.	Unplug the power cord and plug it back in. If the problem persists, please call for service.
Toner Empty Replace Toner	The toner cartridge has run out.	Replace the toner cartridge with a new one. See page 8.4.
Toner Exhausted Replace Toner	To prevent serious pollution or breakdown of printer, the printer stops printing.	Replace the toner cartridge with a new one. See page 8.4.
Toner Low	The toner is almost empty.	Take out the toner cartridge and gently shake it. By doing this, you can temporarily reestablish printing operations.

Solving other problems

The following chart lists some conditions that may occur and the recommended solutions. Follow the suggested solutions until the problem is corrected. If the problem persists, please call for service.

Paper feeding problems

Condition	Suggested solutions
Paper is jammed during printing.	Clear the paper jam. See page 9.1.
Paper sticks together.	- Ensure that there is not too much paper in the paper input tray. The paper input tray can hold up to 250 sheets of paper, depending on the thickness of your paper. - Make sure that you are using the correct type of paper. See page 3.2. - Remove paper from the paper input tray and flex or fan the paper. - Humid conditions may cause some paper to stick together.
Multiple sheets of paper do not feed.	- Different types of paper may be stacked in the paper input tray. Load paper of only one type, size, and weight. - If multiple sheets have caused a paper jam, clear the paper jam. See page 9.1.
Paper does not feed into the machine.	- Remove any obstructions inside the machine. - Paper has not been loaded correctly. Remove paper from the paper input tray and reload it correctly. - There is too much paper in the paper input tray. Remove excess paper from the paper input tray. - The paper is too thick. Use only paper that meets the specifications required by the machine. See page 3.2.
The paper keeps jamming.	- There is too much paper in the paper input tray. Remove excess paper from the tray. If you are printing on special materials, use the manual feeder. - An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine. See page 3.2. - There may be debris inside the machine. Open the front cover and remove the debris.
Transparencies stick together in the paper exit.	Use only transparencies specifically designed for laser printers. Remove each transparency as it exits from the machine.
Envelopes skew or fail to feed correctly.	Ensure that the paper guides are against both sides of the envelopes.

Printing problems

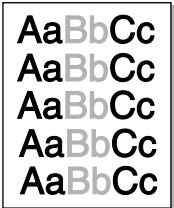
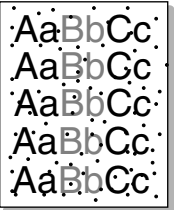
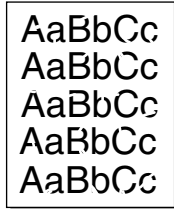
Condition	Possible cause	Suggested solutions
The machine does not print.	The machine is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The machine is not selected as the default printer.	Select Samsung SCX-4300 Series as your default printer in your Windows.
	Check the machine for the following: - The front cover is not closed. - Close the front cover. - Paper is jammed. - Clear the paper jam. See page 9.1. - No paper is loaded. - Load paper. See page 2.3. - The toner cartridge is not installed. - Install the toner cartridge. See page 2.2. If a printer system error occurs, contact your service representative.	
	The connection cable between the computer and the machine is not connected properly.	Disconnect the printer cable and reconnect it.
	The connection cable between the computer and the machine is defective.	If possible, attach the cable to another computer that is working properly and print a job. 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, for example, LPT1. If the computer has more than one port, make sure that the machine is attached to the correct one.
	The machine may be configured incorrectly.	Check the printer properties to ensure that all of the print settings are correct.
	The printer driver may be incorrectly installed.	Repair the printer software. See the Software Section .
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error.

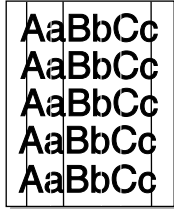
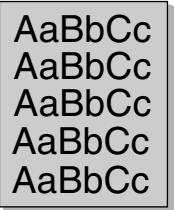
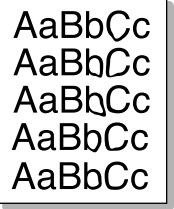
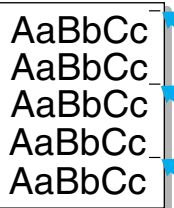
Condition	Possible cause	Suggested solutions
The machine selects print materials from the wrong paper source.	The paper source selection in the printer properties may be incorrect.	For many software applications, the paper source selection is found under the Paper tab within the printer properties. Select the correct paper source. See the Software Section .
A print job is extremely slow.	The job may be very complex.	Reduce the complexity of the page or try adjusting the print quality settings. The maximum print speed of your machine is 19 PPM for Letter-sized paper and 18 PPM for A4-sized paper.
Half the page is blank.	The page orientation setting may be incorrect.	Change the page orientation in your application. 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 paper input tray. Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use.
The machine prints, but the text is wrong, garbled, or incomplete.	The printer cable is loose or defective.	Disconnect the printer cable and reconnect. Try a print job that you have already printed successfully. If possible, attach the cable and the machine 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 machine is selected.
	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	Exit Windows and reboot the computer. Turn the machine off and then back on again.

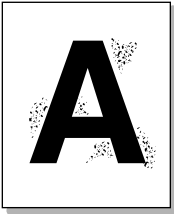
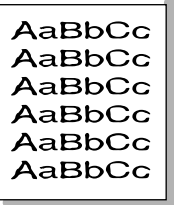
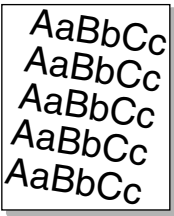
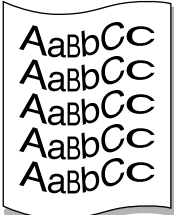
Condition	Possible cause	Suggested solutions
Pages print, but are blank.	The toner cartridge is defective or out of toner.	Redistribute the toner, if necessary. See page 8.3. If necessary, replace the toner cartridge.
	The file may have blank pages.	Check the file to ensure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.
An error occurs repeatedly when you are printing with the USB connection.	When the USB mode is set to Fast , some PC users may experience poor USB communication.	Change the USB mode to Slow . To do so, follow these step: 1 Press Menu until Machine Setup appears on the top line of the display. 2 Press the scroll button (◀ or ▶) until USB mode appears and press Ok. 3 Press the scroll button (◀ or ▶) until Slow appears and press Ok. 4 Press Stop/Clear to return to standby mode.

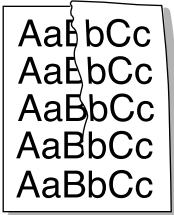
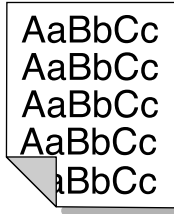
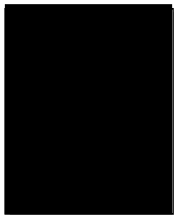
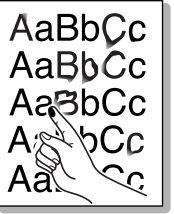
Printing quality problems

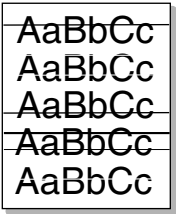
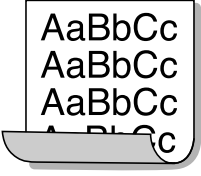
If the inside of the machine is dirty or paper has been loaded improperly, you may notice a reduction in print quality. See the table below to clear the problem.

Condition	Suggested solutions
Light or faded print 	If a vertical white streak or faded area appears on the page: - The toner supply is low. You may be able to temporarily extend the toner cartridge life. See page 8.3. If this does not improve the print quality, install a new toner cartridge. - The paper may not meet paper specifications; for example, the paper is too moist or too rough. See page 3.2. - If the entire page is light, the print resolution setting is too low or the toner save mode is on. Adjust the print resolution and turn the toner save mode off. See the Software Section and page 2.6, respectively. - A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning. See page 8.2. - The surface of the LSU part inside the machine may be dirty. Clean the LSU. See page 8.2.
Toner specks 	- The paper may not meet specifications; for example, the paper is too moist or too rough. See page 3.2. - The transfer roller may be dirty. Clean the inside of your machine. See page 8.1. - The paper path may need cleaning. See page 8.2.
Dropouts 	If faded areas, generally rounded, occur randomly on the page: - 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 page 3.2. - The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. - If these steps do not correct the problem, contact a service representative.

Condition	Suggested solutions
Vertical lines 	If black vertical streaks appear on the page: - The drum inside the toner cartridge has probably been scratched. Remove the toner cartridge and install a new one. See page 8.4. If white vertical streaks appear on the page: - The surface of the LSU part inside the machine may be dirty. Clean the LSU (see page 8.2).
Gray background 	If the amount of background shading becomes unacceptable: - Change to a lighter weight paper. See page 3.2. - Check the machine'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 page 8.4.
Toner smear 	- Clean the inside of the machine. See page 8.1. - Check the paper type and quality. See page 3.2. - Remove the toner cartridge and install a new one. See page 8.4.
Vertical repetitive defects 	If marks repeatedly appear on the printed side of the page at even intervals: - The toner cartridge may be damaged. If a repetitive mark occurs on the page, print a cleaning sheet several times to clean the toner cartridge; see page 8.2. After the printout, if you still have the same problems, remove the toner cartridge and install a new one. See page 8.4. - Parts of the machine 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. - If you use inferior quality paper; see page 8.2.

Condition	Suggested solutions
Background scatter 	Background scatter results from bits of toner randomly distributed on the printed page. - The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture. - 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 the printer properties.
Misformed characters 	- If characters are improperly formed and producing hollow images, the paper stock may be too slick. Try a different paper. See page 3.2. - If characters are improperly formed and producing a wavy effect, the scanner unit may need service. For service, contact a service representative.
Page skew 	- Ensure that the paper is loaded properly. - Check the paper type and quality. See page 3.2. - 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 	- Ensure that the paper is loaded properly. - Check the paper type and quality. Both high temperature and humidity can cause paper curl. See page 3.2. - Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray. - Try printing to the rear cover.

Condition	Suggested solutions
Wrinkles or creases 	- Ensure that the paper is loaded properly. - Check the paper type and quality. See page 3.2. - Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray. - Try printing to the rear cover.
Back of printouts are dirty 	Check for leaking toner. Clean the inside of the machine. See page 8.1.
Black pages 	- The toner cartridge may not be installed properly. Remove the toner cartridge and reinsert it. - The toner cartridge may be defective and need replacing. Remove the toner cartridge and install a new one. See page 8.4. - The machine may require repair. Contact a service representative.
Loose toner 	- Clean the inside of the machine. See page 8.1. - Check the paper type and quality. See page 3.2. - Remove the toner cartridge and install a new one. See page 8.4. - If the problem persists, the machine may require repair. Contact a service representative.
Character Voids 	Character voids are white areas within parts of characters that should be solid black: - If you are using transparencies, try another type of transparency. Because of the composition of transparencies, some character voids are normal. - You may be printing on the wrong surface of the paper. Remove the paper and turn it around. - The paper may not meet paper specifications. See page 3.2.

Condition	Suggested solutions
Horizontal stripes 	If horizontally aligned black streaks or smears appear: - The toner cartridge may be installed improperly. Remove the toner cartridge and reinsert it. - The toner cartridge may be defective. Remove the toner cartridge and install a new one. See page 8.4. - If the problem persists, the machine may require repair. Contact a service representative.
Curl 	If the printed paper is curled or paper does not feed into the machine: - Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray. - Try printing to the rear cover.

Copying problems

Condition	Suggested solutions
Copies are too light or too dark.	Use Darkness to darken or lighten the background of the copies.
Smears, lines, marks, or spots appears on copies.	- If defects are on the original, use Darkness to lighten the background of your copies. - If no defects are on the original, clean the scan unit. See page 8.2.
Copy image is skewed.	- Ensure that the original is face down on the document glass. - Check that the paper is loaded correctly.
Blank copies print out.	Ensure that the original is face down on the document glass.
Image rubs off the copy easily.	- Replace the paper in the paper input tray with paper from a new package. - In high humidity areas, do not leave paper in the machine for extended periods of time.
Frequent copy paper jams occur.	- Fan the stack of paper, then turn it over in the paper input tray. Replace the paper in the paper input tray with a fresh supply. Check/adjust the paper guides, if necessary. - Ensure that the paper is the proper paper weight 80 g/m² (21 lb bond) paper is recommended. - Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.

Condition	Suggested solutions
Toner cartridge produces fewer copies than expected before running out of toner.	- Your originals may contain pictures, solids, or heavy lines. For example, your originals may be forms, newsletters, books, or other documents that use more toner. - The machine may be turned on and off frequently. - The document cover may be left open while copies are being made.

Scanning problems

Condition	Suggested solutions
The scanner does not work.	- Make sure that you place the document to be scanned face down on the document glass. - There may not be enough available memory to hold the document you want to scan. Try the Prescan function to see if that works. Try lowering the scan resolution rate. - Check that the USB cable is connected properly. - Make sure that the USB cable is not defective. Switch the cable with a known good cable. If necessary, replace the cable. - Check that the scanner is configured correctly. Check scan setting in the SmarThru Configuration or the application you want to use to make certain that the scanner job is being sent to the correct port, for example, LPT1.
The unit scans very slowly.	- Check if the machine is printing received data. If so, scan the document after the received data has been printed. - Graphics are scanned more slowly than text. - Communication speed slows in scan mode because of the large amount of memory required to analyze and reproduce the scanned image. Set your computer to the ECP printer mode through BIOS setting. It will help to increase the speed. For details about how to set BIOS, refer to your computer User's Guide.

Condition	Suggested solutions
Message appears on your computer screen: • "Device can't be set to the H/W mode you want." • "Port is being used by another program." • "Port is disabled." • "Scanner is busy receiving or printing data. When the current job is completed, try again." • "Invalid handle." • "Scanning has failed."	• There may be a copying or printing job in progress. When that job is complete, try your job again. • The Selected port is currently being used. Restart your computer and try again. • The printer cable may be improperly connected or the power may be off. • The scanner driver is not installed or the operating environment is not set up properly. • Ensure that the machine is properly connected and the power is on, Then restart your computer. • The USB cable may be improperly connected or the power may be off.

Common windows problems

Condition	Suggested solutions
"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.	• Ensure that the cables are connected correctly, the machine 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 machine 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 2000/XP/Vista User’s Guide that came with your PC for further information on Windows error messages.

Common Linux Problems

Condition	Suggested solutions
The machine doesn't print.	• Check if the printer driver is installed in your system. Open MFP configurator and switch to the Printers tab in Printers configuration window to look at the list of available printers. Make sure that your machine is displayed on the list. If not, please, invoke Add new printer wizard to set up your device. • Check if the printer is started. Open Printers configuration and select your machine on the printers list. Look at the description in the Selected printer pane. If its status contains "(stopped)" string, please, press the Start button. After that normal operation of the printer should be restored. The "stopped" status might be activated when some problems in printing occurred. For instance, this could be an attempt to print document when MFP port is claimed by a scanning application. • Check if the MFP port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (MFP port), the situation of simultaneous access of different "consumer" application to the same MFP port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. You should open MFP ports configuration and select the port assigned to your printer. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present owner is not functioning properly. • Check if your application has special print option such as "-oraw". If "-oraw" is specified in the command line parameter then remove it to print properly. For Gimp front-end, select "print" -> "Setup printer" and edit command line parameter in the command item.
The machine does not appear on the scanners list.	• Check if your machine is attached to your computer. Make sure that it is connected properly via the USB port and is turned on. • Check if the scanner driver for your machine is installed in your system. Open MFP Configurator, switch to Scanners configuration, then press Drivers. Make sure that driver with a name corresponding to your machine's name is listed in the window.

Condition	Suggested solutions
The machine does not appear on the scanners list (continued).	• Check if the MFP port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (MFP port), the situation of simultaneous access of different "consumer" application to the same MFP port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. This can usually happen while starting scan procedure, and appropriate message box appears. • To identify the source of the problem, you should open MFP ports configuration and select the port assigned to your scanner. MFP port's symbol /dev/mfp0 corresponds to LP:0 designation displayed in the scanners' options, /dev/mfp1 relates to LP:1 and so on. USB ports start at /dev/mfp4, so scanner on USB:0 relates to /dev/mfp4 respectively and so forth sequentially. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present port's owner is not functioning properly.
The machine doesn't scan.	• Check if a document is loaded into the machine. • Check if your machine is connected to the computer. Make sure if it is connected properly if I/O error is reported while scanning. • Check if MFP port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (MFP port), the situation of simultaneous access of different "consumer" application to the same MFP port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other "consumer" will encounter "device busy" response. This can usually happen while starting scan procedure, and appropriate message box will be displayed. To identify the source of the problem, you should open MFP ports configuration and select the port assigned to your scanner. MFP port's symbol /dev/mfp0 corresponds to LP:0 designation displayed in the scanners' options, /dev/mfp1 relates to LP:1 and so on. USB ports start at /dev/mfp4, so scanner on USB:0 relates to /dev/mfp4 respectively and so forth sequentially. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present port's owner is not functioning properly.

Condition	Suggested solutions
I can't print when I installed both Linux Print Package (LPP) and MFP driver on the same machine simultaneously.	• Since both Linux Printer Package and MFP driver make a symbolic link to "lpr" printing command, which is commonly used on Unix clones, it is not recommended to use both package on the same machine. • If you still want to use both packages simultaneously, please install the LPP first. • If you want to uninstall only one of them, please uninstall both packages and install that one you want to use again. • If you don't want to uninstall MFP driver and install it again, you may make the necessary symbolic link yourself. Please, log in as root user and invoke the following command: In -sf /usr/local/bin/samsung/slpr /usr/bin/lpr
Can't scan via Gimp Front-end.	• Check if Gimp Front-end has "Xsane:Device dialog." on the "Acquire" menu. If not, you should install Xsane plug-in for Gimp on the your computer. You can find Xsane plug-in package for Gimp on Linux distribution CD or Gimp home page. For the detail information, refer to the Help for Linux distribution CD or Gimp Front-end application. If you wish to use other kind of scan application, refer to the Help for application.
I encounter error "Unable to open MFP port device file!" when printing a document.	Please avoid changing print job parameters (via SLPR utility, for example) while a print job is in progress. Known versions of CUPS server break the print job whenever print options are changed and then try to restart the job from the beginning. Since Linux MFP driver locks MFP port while printing, the abrupt termination of the driver keeps the port locked and therefore unavailable for subsequent print jobs. If this situation occurred, please, try to release the MFP port.

Common macintosh problems

Problems in printer setup utility

Condition	Suggested solutions
There is described "driver not installed" at Product List Window after you click Add and Select USB.	• Software is not installed correctly. Reinstall the software. See Software Section. • Make sure that you are using a high-quality cable.
Your product not listed at Product List Window after you click Add and Select USB.	• Make sure that the cables are connected correctly and the machine is turned on. • Check if "Ready" appears on the display of the control panel. If not, clear the problem depending on the error message; see "Understanding display messages" on page 9.4. • Make sure that the correct printer driver has been selected at Product List Window after you click Add and Select USB.

10 Specifications

This chapter includes:

- **General specifications**
- **Scanner and copier specifications**
- **Printer specifications**

General specifications

Item	Description
Model name	SCX-4300 Series
Paper input capacity	Tray with multi-pages: 250 multi-pages for plain paper (21 lb bond, 80 g/m ²) Tray with single page and manual tray: 1 single page for plain paper, transparencies, labels, Post Card and envelopes (16 ~43 lb bond, 60 ~ 165 g/m ²)
Paper output capacity	Face down: 50 sheets Face up: 1 sheet
Consumables	1-piece toner cartridge system
Power rating	AC 110 - 127 V or AC 220 - 240 V See the Rating label on the machine for the correct voltage, frequency (hertz) and type of current for your machine.
Power consumption	Average: 350 W Power save mode: Less than 10 W
Noise level ^a	Standby mode: Less than 38 dBA Scanning / Printing mode: Less than 53 dBA Warm-up: Less than 45 dBA
Warm-up time	Less than 42 seconds
First print out time	Standby mode: less than 11 seconds Cold status: less than 53 seconds
Operating environment	Temperature: 50° F to 89° F (10° C to 32° C) Humidity: 20% to 80% RH
Display	16 characters x 2 lines
Toner cartridge life ^b	2,000 pages at ISO/IEC 19752 standard page (Ships with 1,000 pages toner cartridge)
Memory	8 MB (Non-expandable)
External dimension (W x D x H)	409 x 362 x 232 mm (16.1 x 14.3 x 9.1 inches)

Item	Description
Weight	9.3 Kg (including consumables)
Package weight	Paper: 2.16 Kg, Plastic: 0.4 Kg
Duty cycle	Monthly print: Up to 10,000 pages

- ^a Sound Pressure Level, ISO7779
^b Declared yield value in accordance with ISO/IEC 19752 standard page. The number of pages may be affected by operating environment, printing interval, media type, and media size.

Scanner and copier specifications

Item	Description
Compatibility	TWAIN standard/ WIA standard
Scanning method	Color CIS
Resolution	Optical: Max. 600 x 2400 dpi (Mono and color) Enhanced: 4,800 x 4,800 dpi
Effective scanning length	Max. 297 mm (11.7 inches)
Effective scanning width	Max. 216 mm (8.5 inches) Effective: 208 mm (8.2 inches)
Color bit depth	24 bit
Mono bit depth	1 bit for Black & White mode 8 bit for Gray mode
Copy speed ^a	Region A ^b : Up to 12 cpm in A4 Region B ^c : Up to 18 cpm in A4 (19 cpm in Letter)
Copy resolution	Scan: up to 600 x 300 dpi (Text, Text/Photo) up to 600 x 600 dpi (Photo) Print: up to 600 x 600 dpi (Text, Text/Photo, Photo)
Zoom rate	50 ~ 200%
Multiple copies	1-99 pages
Gray scale	256 levels

- ^a Copy Speed is based on Single Document Multiple Copy.
^b **Region A:** Albania, Austria, Belgium, Bosnia, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Herzegovina, Hungary, Ireland, Italy, Luxemburg, Macedonia, Montenegro, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK.
^c Other countries except Region A

Printer specifications

Item	Description
Printing method	Laser Beam Printing
Printing speed ^a	Up to 18 ppm in A4 (19 ppm in Letter)
First print out time	11 seconds (From Ready)
Print resolution	Up to 600 x 600 dpi
Printer language	SPL (Samsung Printer Language)
OS Compatibility ^b	Windows 2000/XP/Vista, Various Linux OS, Macintosh 10.3/10.4/10.5
Inteface	USB 2.0

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

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

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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**
- **Reinstalling Printer Software**
- **Removing Printer Software**

Installing Printer Software

You can install the printer software for local 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.

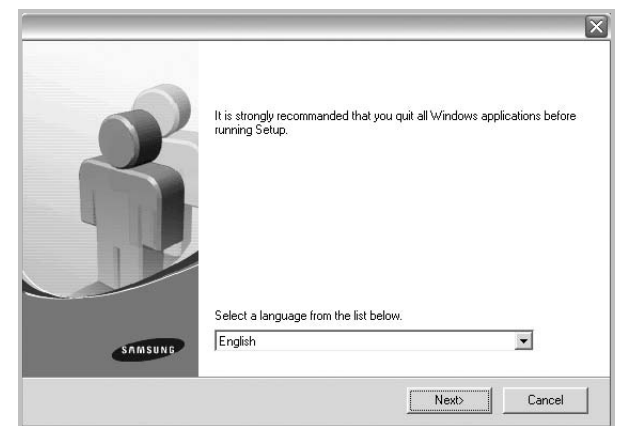
A local printer is a printer directly attached to your computer using the printer cable supplied with your printer, such as a USB or parallel cable.

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

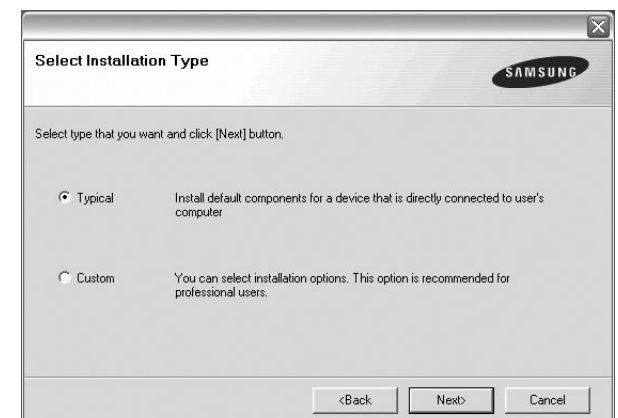
NOTE: If the “New Hardware Wizard” window appears during the installation procedure, click  in the upper right corner of the box to close the window, or click **Cancel**.

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**.
If you use Windows Vista, click **Start** → **All programs** → **Accessories** → **Run**, and type **X:\Setup.exe**.
If the **AutoPlay** window appears in Windows Vista, click **Run Setup.exe** in **Install or run program** field, and click **Continue** in the **User Account Control** window.
- 3 Click **Next**.

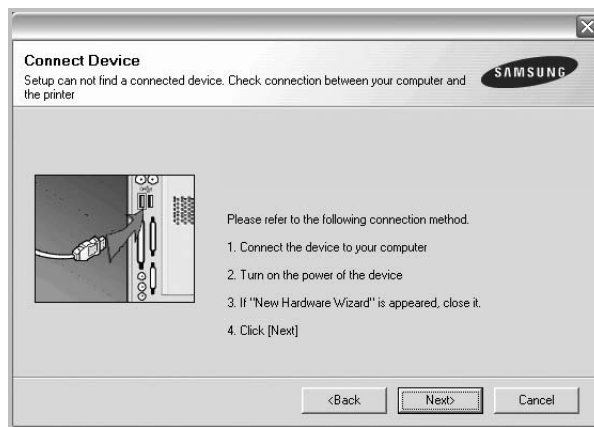


- If necessary, select a language from the drop-down list.
 - **View User's Guide:** Allows you to view the User's Guide. If your computer doesn't have Adobe Acrobat, click on this option and it will automatically install Adobe Acrobat Reader for you.
- 4 Choose the type of installation. Click **Next**.



- **Typical:** Installs the most common software for your printer. This is recommended for most users.
- **Custom:** Allows you to choose the individual components you want to install.

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

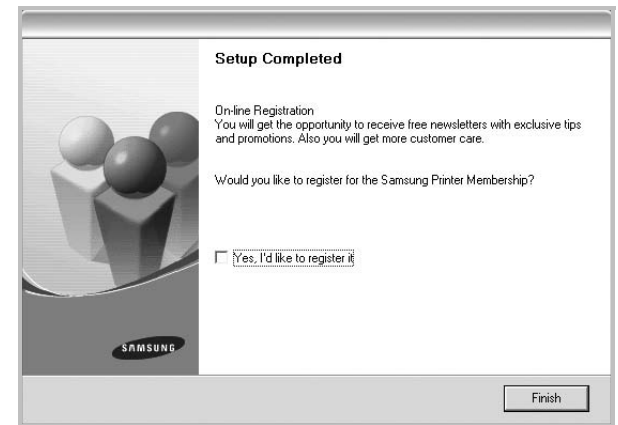


- After connecting the printer, click **Next**.
- If you don't want to connect the printer at this time, click **Next**, and **No** on the following screen. Then the installation will start and a test page will not be printed at the end of the installation.
- *The installation window that appears in 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 6.

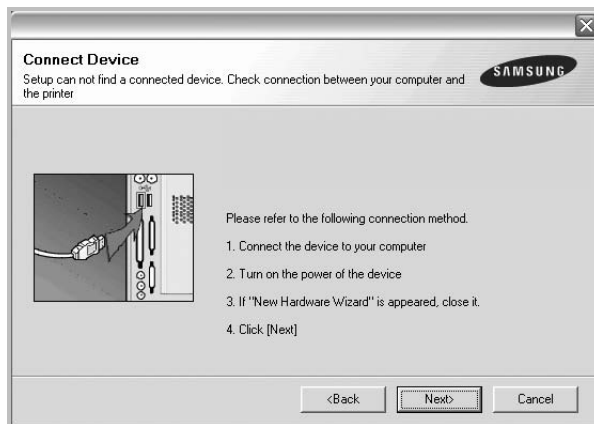
Reinstalling Printer Software

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**.

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.*

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

If you select **your printer driver name** and reinstall the printer software for local printing, 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.

- 5 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**
- **Printing to a file (PRN)**
- **Printer Settings**
 - **Layout Tab**
 - **Paper Tab**
 - **Graphics Tab**
 - **Extras Tab**
 - **About Tab**
 - **Printer Tab**
 - **Using a Favorite Setting**
 - **Using Help**

Printing a Document

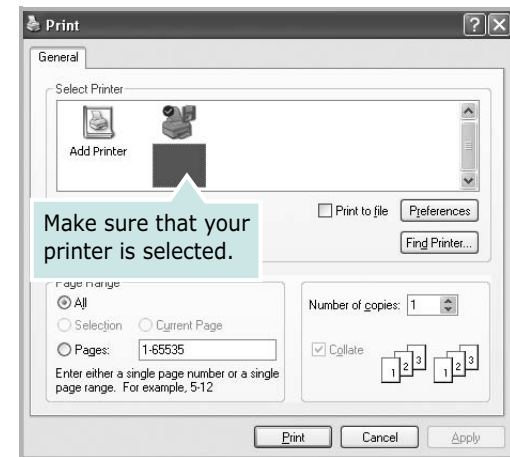
NOTES:

- 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.
- When you select an option in printer properties, you may see an exclamationmark  or  mark. An exclamation mark means you can select that certain option but it is not recommended, and  mark means you cannot select that option due to the machine's setting or environment.

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.

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 8.

If you see **Setup**, **Printer**, or **Options** in your Print window, click it instead. Then click **Properties** on the next screen.

Click **OK** to close the printer properties window.

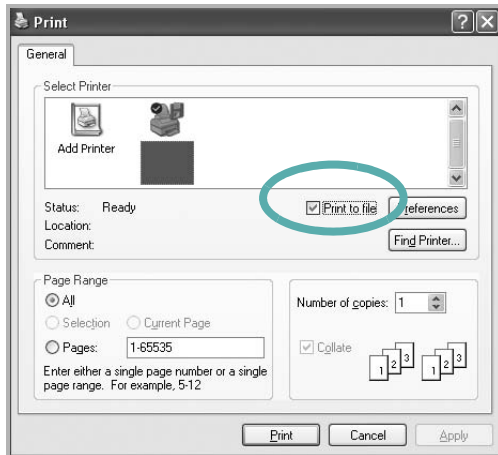
- 4 To start the print job, click **OK** or **Print** in the Print window.

Printing to a file (PRN)

You will sometimes need to save the print data as a file for your purpose.

To create a file:

- 1 Check the **Print to file** box at the **Print** window.



- 2 Select the folder and assign a name of the file and then click OK.

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.

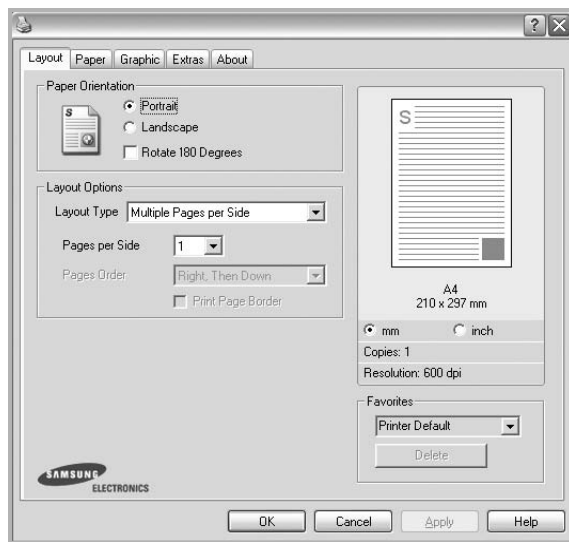
If you access printer properties through the Printers folder, you can view additional Windows-based tabs (refer to your Windows User's Guide) and the Printer tab (see "Printer Tab" on page 11).

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

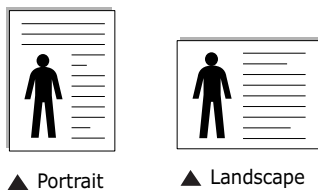
The **Layout** tab provides options to adjust how the document appears on the printed page. The **Layout Options** includes **Multiple Pages per Side**, **Poster Printing** and **Booklet Printing**. See "Printing a Document" on page 7 for more information on accessing printer properties.



Paper Orientation

Paper 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



Layout Options

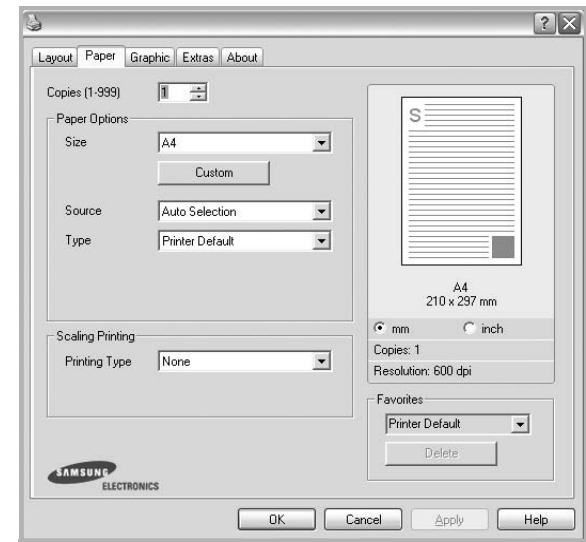
Layout Options allows you to select advanced printing options. You can choose **Multiple Pages per Side** and **Poster Printing**.

- For details, see "Printing Multiple Pages on One Sheet of Paper (N-Up Printing)" on page 13.
- For details, see "Printing Posters" on page 14

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 7 for more information on accessing printer properties.

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



Copies

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

Paper Options

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 Paper Setting** window appears, set the paper size and click **OK**. The setting appears in the list so that you can select it.

Source

Make sure that **Source** is set to the corresponding paper tray. Use **Manual Feeder** 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 Selection**, the printer automatically picks up print material in the following tray order: Manual Tray or Multi-Purpose Tray, Tray n.

Type

Set **Type** to correspond to the paper loaded in the tray from which you want to print. This will let you get the best quality printout. If not, print quality may not be achieved as you want.

Thick Paper: 24 lb to 28 lb (90~105 g/m²) thick paper.

Thin Paper: 16 lb to 19 lb (60~70 g/m²) thin paper.

Cotton: 20 lb to 24 lb (75~90 g/m²) cotton paper such as Gilbert 25 % and Gilbert 100 %.

Plain Paper: Normal plain paper. Select this type if your printer is monochrome and printing on the 16 lb (60 g/m²) cotton paper.

Recycled Paper: 20 lb to 24 lb (75~90 g/m²) recycled paper.

Color Paper: 20 lb to 24 lb (75~90 g/m²) color-background paper.

Archive Paper: If you need to keep print-out for a long period time such as archives, select this option.

Scaling Printing

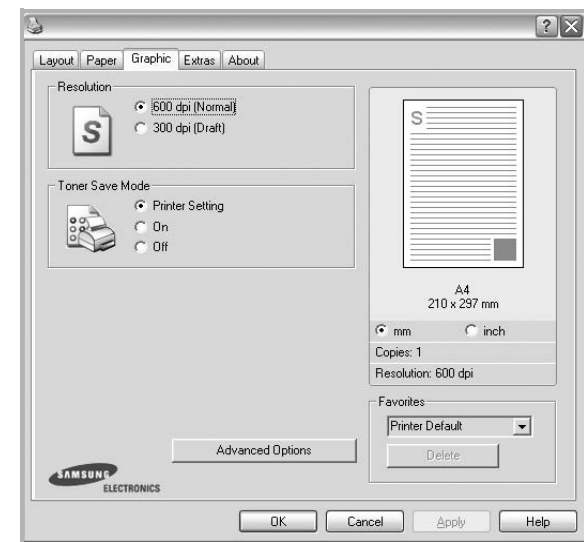
Scaling Printing allows you to automatically or manually scale your print job on a page. You can choose from **None**, **Reduce/Enlarge**, and **Fit to Page**.

- For details, see "Printing a Reduced or Enlarged Document" on page 14.
- For details, see "Fitting Your Document to a Selected Paper Size" on page 14.

Graphics Tab

Use the following Graphic options to adjust the print quality for your specific printing needs. See "Printing a Document" on page 7 for more information on accessing printer properties.

Click the **Graphic** 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.

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.

Darkness

Use this option to lighten or darken your print job.

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

Advanced Options

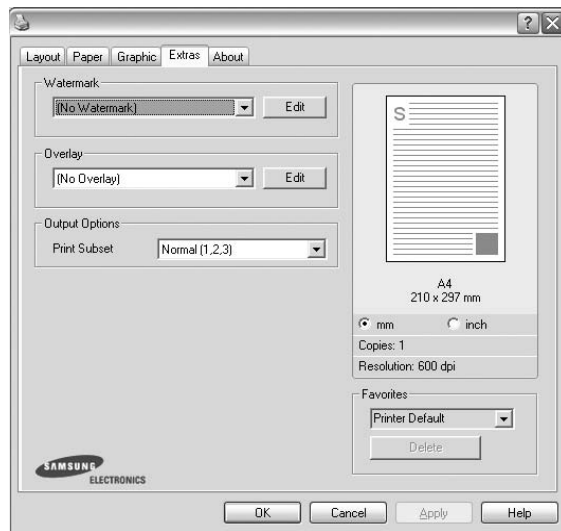
You can set advanced settings by clicking the **Advanced Options** button.

- **Print All Text To Black:** When the **Print All Text To Black** option is checked, all text in your document prints solid black, regardless of the color it appears on the screen.
- **Print All Text To Darken:** When the **Print All Text To Darken** option is checked, all text in your document is allowed to print darker than on a normal document. *Some printers do not support this feature.*

Extras Tab

You can select output options for your document. See “Printing a Document” on page 7 for more information about accessing the printer properties.

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



Watermark

You can create a background text image to be printed on each page of your document. For details, see “Using Watermarks” on page 15.

Overlay

Overlays are often used to take the place of preprinted forms and letterhead paper. For details, see “Using Overlays” on page 16.

Output Options

- **Print Subset:** You can set the sequence in which the pages print. Select the print order from the drop-down list.
 - **Normal (1,2,3):** Your printer prints all pages from the first page to the last page.
 - **Reverse All Pages (3,2,1):** 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.

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 7 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.

High Altitude Correction

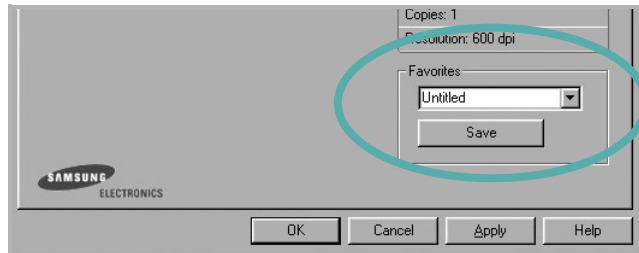
If your printer is going to be used at a high altitude, checking this option will optimize the print quality for those circumstances.

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

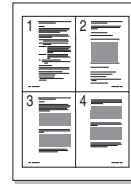
This chapter explains printing options and advanced printing tasks.

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 a Reduced or Enlarged Document**
- **Fitting Your Document to a Selected Paper Size**
- **Using Watermarks**
- **Using Overlays**

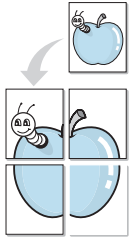


Printing Multiple Pages on One Sheet of Paper (N-Up Printing)

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 7.
- 2** From the **Layout** tab, choose **Multiple Pages per Side** in the **Layout 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.

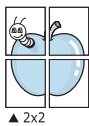
Printing Posters



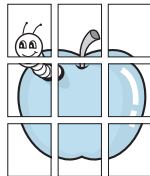
This feature allows you to print a single-page document onto 4, 9, or 16 sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.

- 1 To change the print settings from your software application, access printer properties. See "Printing a Document" on page 7.
- 2 Click the **Layout** tab, select **Poster Printing** in the **Layout Type** drop-down list.
- 3 Configure the poster option:

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

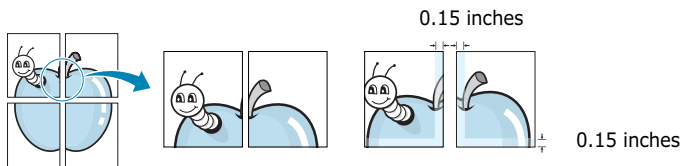


▲ 2x2



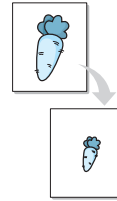
▲ 3x3

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.

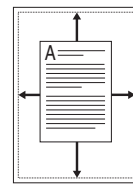
Printing a Reduced or Enlarged Document



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 7.
- 2 From the **Paper** tab, select **Reduce/Enlarge** in the **Printing 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 7.
- 2 From the **Paper** tab, select **Fit to Page** in the **Printing Type** drop-down list.
- 3 Select the correct size from the **Output size** 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 7.
- 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 7.
- 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 7.
- 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 7.
- 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.

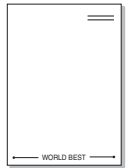
Using Overlays

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 7.
- 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 7.
- 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 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 **Explore**.
- 2 Select **My Network Places** and then right-click **Search for Computers**.
- 3 Fill in the IP address of host computer in **Computer name** field, and click **Search**. (In case host computer requires **User name** and **Password**, fill in User ID and password of host computer account.)
- 4 Double-click **Printers and Faxes**.
- 5 Right-click printer driver icon, select **Connect**.
- 6 Click **Yes**, if the installation confirm message appears.

5 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:
 - 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.

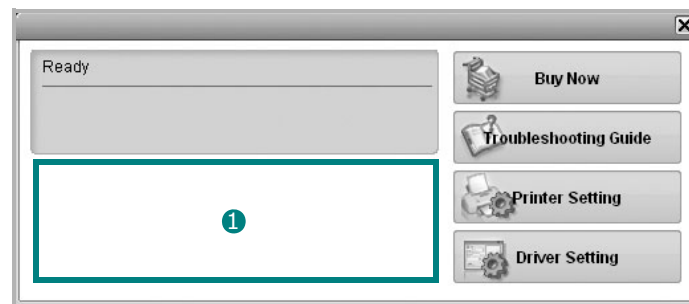


Or, from the **Start** menu, select **Programs** or **All Programs** → **your printer driver name** → **Smart Panel**.

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.

Buy Now

You can order replacement toner cartridge online.

Troubleshooting Guide

You can view Help to solve problems.

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 8.

Opening the Troubleshooting Guide

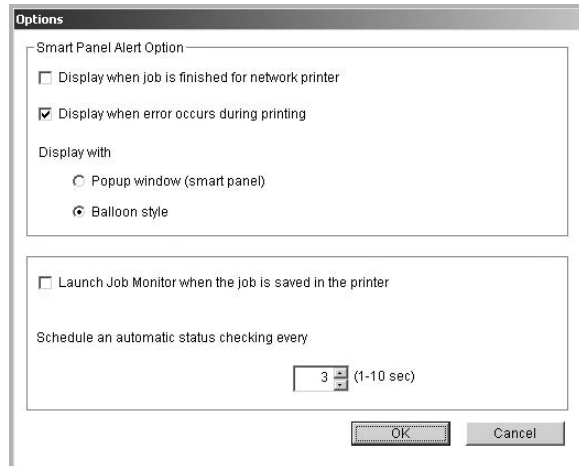
Using the troubleshooting guide, you can view solutions for error status problems.

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

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 pop 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.

6 Scanning

Scanning with your machine lets you turn pictures and text into digital files on your computer. Then you can fax or e-mail the files, display them on your web site or use them to create projects that you can print using Samsung SmarThru software or the WIA driver.

This chapter includes:

- **Scanning Using Samsung SmarThru**
- **Scanning Process with TWAIN-enabled Software**
- **Scanning Using the WIA Driver**

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.*
 - *You can check your printer name in the supplied CD-ROM.*
 - *The maximum resolution that can be achieved depends upon various factors, including computer speed, available disk space, memory, the size of the image being scanned, and bit depth settings. Thus, depending on your system and what you are scanning, you may not be able to scan at certain resolutions, especially using enhanced dpi.*
-

Scanning Using Samsung SmarThru

Samsung SmarThru is the accompanying software for your machine. With SmarThru, scanning is the proverbial piece of cake.

Uninstalling Samsung SmarThru

NOTE: Before beginning uninstallation, ensure that all applications are closed on your computer.

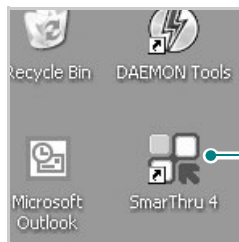
- 1** From the **Start** menu, select **Programs**.
- 2** Select **SmarThru 4**, and then select **Uninstall SmarThru 4**.
- 3** When your computer asks you to confirm, click **OK**.
- 4** Click **Finish**.

You may be prompted to restart your computer. In this case you must shut the computer down and then restart it before the changes will be saved.

Using Samsung SmarThru

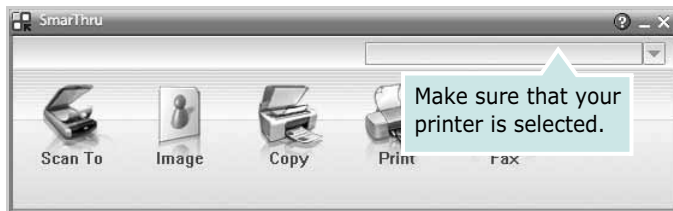
Follow these steps to start scanning using the SmarThru:

- 1 Make sure that your machine and computer are turned on and properly connected to each other.
- 2 Place your photograph or page on the document glass or ADF.
- 3 Once you have installed Samsung SmarThru, you will see the **SmarThru 4** icon on your desktop. Double-click the **SmarThru 4** icon.



Double-click this icon.

The SmarThru 4 window opens.



•Scan To

Allows you to scan an image and save it to an application or folder, email it, or publish it on a web site.

•Image

Allows you to edit an image you have saved as a graphic file and send it to a selected application or folder, email it, or publish it on a web site.

•Copy

Allows you to produce professional quality copies. You can make black and white or color copies of an image if your machine supports it, and customize the copy settings.

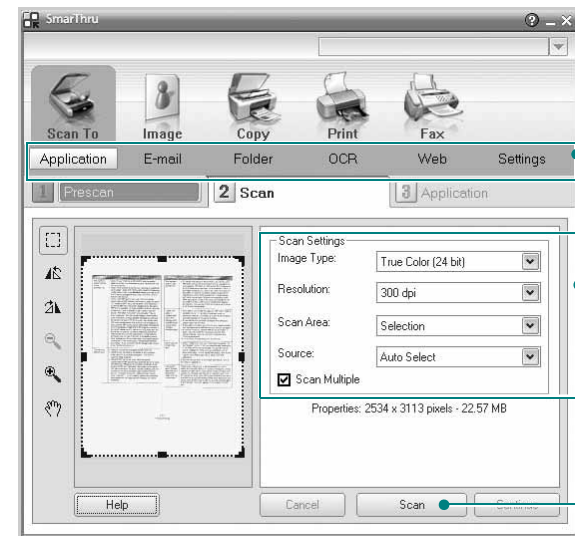
•Print

Allows you to print images you have saved. You can print images in black and white or color mode if your machine supports it.

•Fax

Allows you to fax images or files you have saved on your computer. This is available when your machine supports the fax feature.

- 4 Click **Scan To**. The **Scan To** menu bar appears on the SmarThru 4 window.



Scan To menu bar

Adjust the scan settings.

Click to start scanning.

Scan To lets you use the following services:

•Application

Scanning an image and placing it in an image editor application, such as Paint or Adobe Photoshop.

•E-mail

Scanning an image and emailing it. Allows you to scan an image, preview it, and email it.

NOTE: To send an image by e-mail, you must have a mail client program, like Outlook Express, which has been set up with your e-mail account.

•Folder

Scanning an image and saving it to a folder. Allows you to scan an image, preview it, and save it to the folder of your choice.

•OCR

Scanning an image and performing text recognition. Allows you to scan an image, preview it, and send it to the OCR program for text recognition.

- Recommended Scan Option for OCR
- Resolution: 200 or 300 dpi
- Image Type: Grayscale or Black & White

•Web

Scanning an image, previewing it, and publishing it on a web site, using the specified file format for the image you want to publish.

•Settings

Customizing settings of **Scan To** basic functions. Allows you to customize settings for **Application**, **E-mail**, **OCR**, and **Web** functions.

- 5 Click the service icon according to your job.
- 6 SmarThru 4 opens for the selected service. Adjust the scan settings.
- 7 To start scanning, click **Scan**.

NOTE: If you want to cancel the scan job, click **Cancel**.

Using Onscreen Help File

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

Scanning Process with TWAIN-enabled Software

If you want to scan documents using other software, you will need to use TWAIN-compliant software, such as Adobe Photoshop. The first time you scan with your machine, select it as your TWAIN source in the application you use.

The basic scanning process involves a number of steps:

- 1 Make sure that your machine and computer are turned on and properly connected to each other.
- 2 Load the document(s) face up into the DADF (or ADF).
OR
Place a single document face down on the document glass.
- 3 Open an application, such as PhotoDeluxe or Photoshop.
- 4 Open the TWAIN window and set the scan options.
- 5 Scan and save your scanned image.

NOTE: You need to follow the program's instructions for acquiring an image. Please refer to the user's guide of the application.

Scanning Using the WIA Driver

Your machine also supports the Windows Image Acquisition (WIA) driver for scanning images. WIA is one of the standard components provided by Microsoft® Windows® XP and works with digital cameras and scanners. Unlike the TWAIN driver, the

WIA driver allows you to scan and easily manipulate images without using additional software.

NOTE: The WIA driver works only on Windows XP/Vista with USB port.

Windows XP

- 1 Load the document(s) face up into the DADF (or ADF).
OR
Place a single document face down on the document glass.
- 2 From the **Start** menu on your desktop window, select **Settings, Control Panel**, and then **Scanners and Cameras**.
- 3 Double click **your scanner driver** icon. The Scanner and Camera Wizard launches.
- 4 Choose your scanning preferences and click **Preview** to see how your preferences affect the picture.
- 5 Click **Next**.
- 6 Enter a picture name, and select a file format and destination to save the picture.
- 7 Follow the on-screen instructions to edit the picture after it is copied to your computer.

Windows Vista

- 1 Load the document(s) face up into the DADF (or ADF).
OR
Place a single document face down on the document glass.
- 2 Click **Start → Control Panel → Hardware and Sound → Scanners and Cameras**.
- 3 Click on **Scan a document or picture**. Then **Windows Fax and Scan** application is opened automatically.

NOTE:

- To view scanners, user can click on **View scanners and cameras**.
 - If there is not **Scan a document or picture**, open the MS paint program and click **From Scanner or Camera...** on **File** menu.
-

- 4 Click **New Scan** and then scan driver is opened.
- 5 Choose your scanning preferences and click **Preview** to see your preferences affect the picture.
- 6 Click **Scan**.

NOTE: If you want to cancel the scan job, press the Cancel button on the Scanner and Camera Wizard.

7 Using Your Printer in Linux

You can use your machine in a Linux environment.

This chapter includes:

- **Getting Started**
- **Installing the Unified Linux Driver**
- **Using the Unified Driver Configurator**
- **Configuring Printer Properties**
- **Printing a Document**
- **Scanning a Document**

Getting Started

The supplied CD-ROM provides you with Samsung's Unified Linux Driver package for using your machine with a Linux computer.

Samsung's Unified Linux Driver package contains printer and scanner drivers, providing the ability to print documents and scan images. The package also delivers powerful applications for configuring your machine and further processing of the scanned documents.

After the driver is installed on your Linux system, the driver package allows you to monitor a number of machine devices via fast ECP parallel ports and USB simultaneously. The acquired documents can then be edited, printed on the same local or network machine devices, sent by e-mail, uploaded to an FTP site, or transferred to an external OCR system.

The Unified Linux Driver package is supplied with a smart and flexible installation program. You don't need to search for additional components that might be necessary for the Unified Linux Driver software: all required packages will be carried onto your system and installed automatically; this is possible on a wide set of the most popular Linux clones.

Installing the Unified Linux Driver

Installing the Unified Linux Driver

- 1 Make sure that you connect your machine to your computer. Turn both the computer and the machine 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 will automatically run.

If the CD-ROM does not automatically run, click the  icon at the bottom of the desktop. When the Terminal screen appears, type in:

If the CD-ROM is secondary master and the location to mount is /mnt/cdrom,

```
[root@localhost root]#mount -t iso9660 /dev/hdc /mnt/cdrom
```

```
[root@localhost root]#cd /mnt/cdrom/Linux
```

```
[root@localhost root]#./install.sh
```

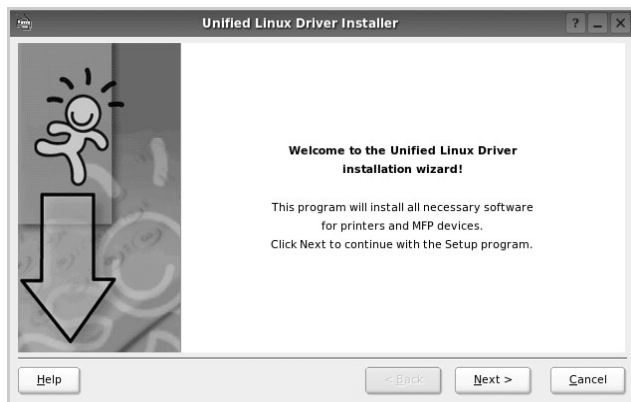
If you still failed to run the CD-ROM, type the followings in sequence:

```
[root@localhost root]#umount/dev/hdc
```

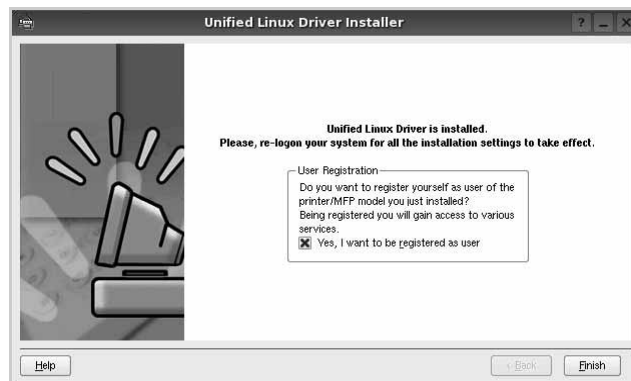
```
[root@localhost root]#mount -t iso9660 /dev/hdc /mnt/cdrom
```

NOTE: The installation program runs automatically if you have an autorun software package installed and configured.

- 4 When the welcome screen appears, click **Next**.



- 5 When the installation is complete, click **Finish**.



The installation program has added the Unified Driver Configurator desktop icon and Samsung Unified Driver group to the system menu for your convenience. If you have any difficulties, consult the onscreen help that is available through your system menu or can otherwise be called from the driver package windows applications, such as **Unified Driver Configurator** or **Image Manager**.

NOTE: Installing the driver in the text mode:

- If you do not use the graphical interface or have failed the driver installation, you have to use the driver in the text mode.
- Follow the step 1 to 3, then type `[root@localhost Linux]# ./install.sh`, then follow the instruction on the terminal screen. Then the installation completes.
- When you want to uninstall the driver, follow the installation instruction above, but type `[root@localhost Linux]# ./uninstall.sh` on the terminal screen.

Uninstalling the Unified Linux Driver

- 1 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.

- 2 Insert the printer software CD-ROM. The CD-ROM will automatically run.

If the CD-ROM does not automatically run, click the  icon at the bottom of the desktop. When the Terminal screen appears, type in:

If the CD-ROM is secondary master and the location to mount is `/mnt/cdrom`,

```
[root@localhost root]# mount -t iso9660 /dev/hdc /mnt/cdrom
```

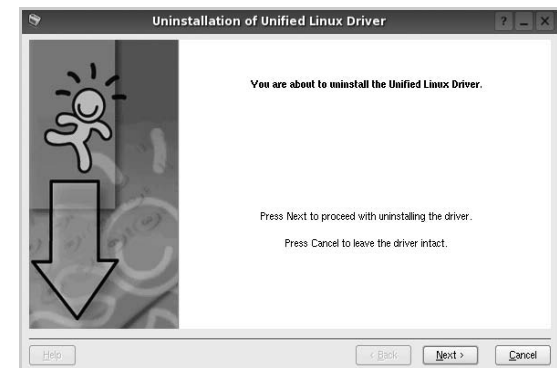
```
[root@localhost root]# cd /mnt/cdrom/Linux
```

```
[root@localhost root]# ./uninstall.sh
```

NOTE: The installation program runs automatically if you have an autorun software package installed and configured.

- 3 Click **Uninstall**.

- 4 Click **Next**.



- 5 Click **Finish**.

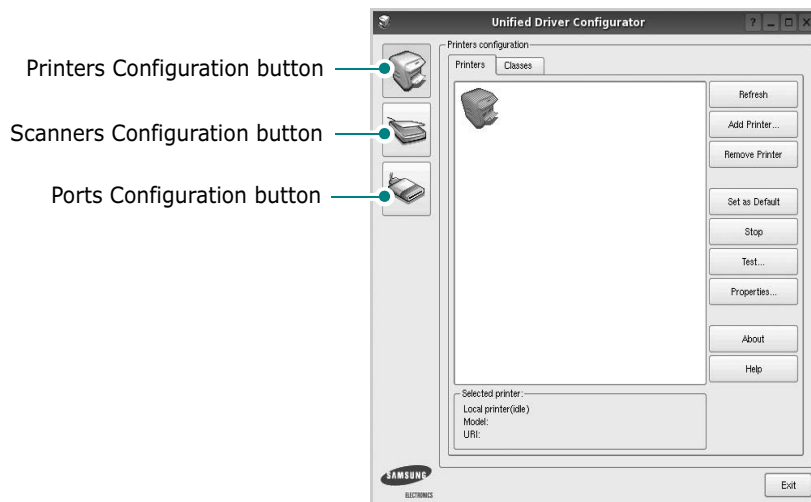
Using the Unified Driver Configurator

Unified Linux Driver Configurator is a tool primarily intended for configuring Printer or MFP devices. Since an MFP device combines the printer and scanner, the Unified Linux Driver Configurator provides options logically grouped for printer and scanner functions. There is also a special MFP port option responsible for the regulation of access to an MFP printer and scanner via a single I/O channel.

After installing the Unified Linux driver, the Unified Linux Driver Configurator icon will automatically be created on your desktop.

Opening the Unified Driver Configurator

- 1 Double-click **Unified Driver Configurator** on the desktop.
You can also click the Startup Menu icon and select **Samsung Unified Driver** and then **Unified Driver Configurator**.
- 2 Press each button on the Modules pane to switch to the corresponding configuration window.



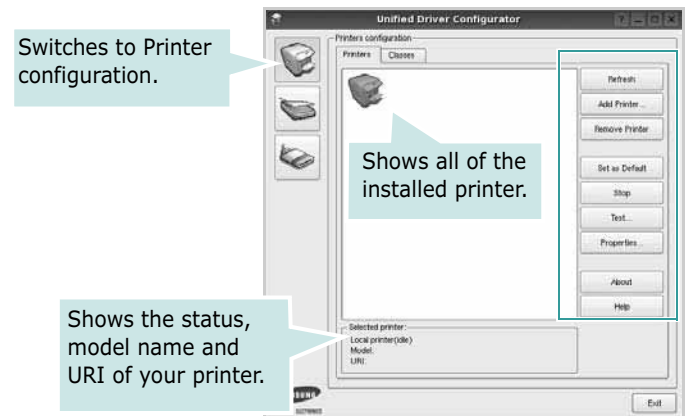
- 3 You can use the onscreen help by clicking **Help**.
After changing the configurations, click **Exit** to close the Unified Driver Configurator.

Printers Configuration

Printers configuration has the two tabs: **Printers** and **Classes**.

Printers Tab

You can see the current system's printer configuration by clicking on the printer icon button on the left side of the Unified Driver Configurator window.

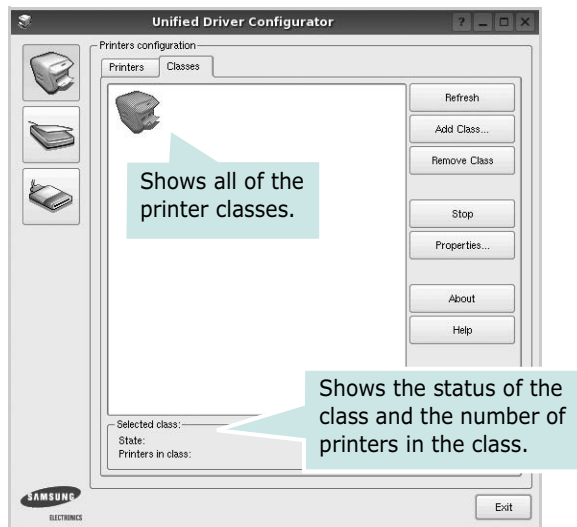


You can use the following printer control buttons:

- **Refresh:** renews the available printers list.
- **Add Printer:** allows you to add a new printer.
- **Remove Printer:** removes the selected printer.
- **Set as Default:** sets the current printer as a default printer.
- **Stop/Start:** stops/starts the printer.
- **Test:** allows you to print a test page to check if the machine is working properly.
- **Properties:** allows you to view and change the printer properties. For details, see page 27.

Classes Tab

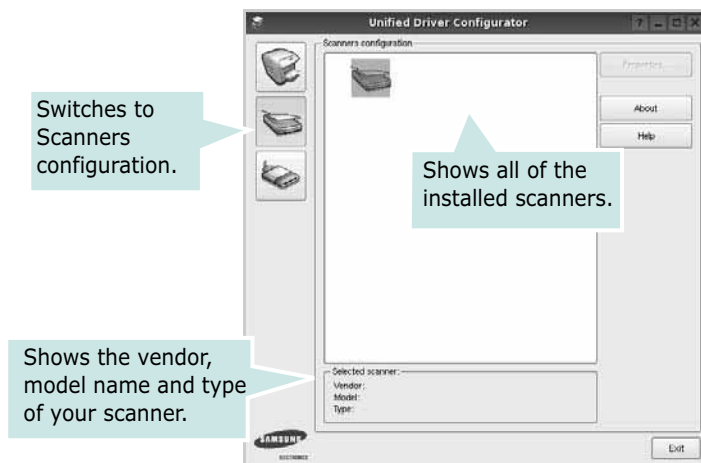
The Classes tab shows a list of available printer classes.



- **Refresh** : Renews the classes list.
- **Add Class...** : Allows you to add a new printer class.
- **Remove Class** : Removes the selected printer class.

Scanners Configuration

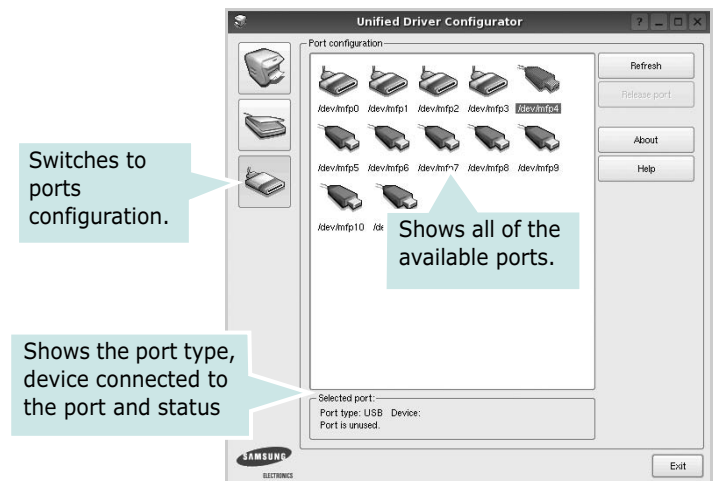
In this window, you can monitor the activity of scanner devices, view a list of installed Samsung MFP devices, change device properties, and scan images.



- **Properties...** : Allows you to change the scan properties and scan a document. See page 28.
- **Drivers...** : Allows you to monitor the activity of the scan drivers.

Ports Configuration

In this window, you can view the list of available ports, check the status of each port and release a port that is stalled in busy state when its owner is terminated for any reason.



- **Refresh** : Renews the available ports list.
- **Release port** : Releases the selected port.

Sharing Ports Between Printers and Scanners

Your machine may be connected to a host computer via the parallel port or USB port. Since the MFP device contains more than one device (printer and scanner), it is necessary to organize proper access of "consumer" applications to these devices via the single I/O port.

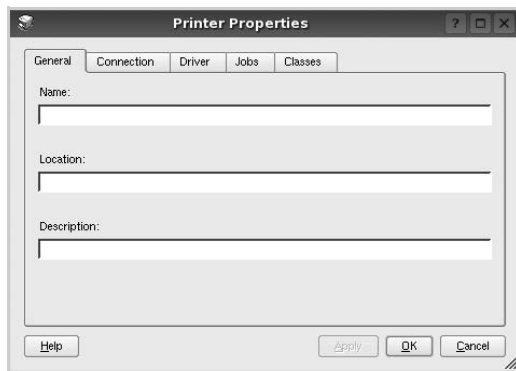
The Samsung Unified Linux Driver package provides an appropriate port sharing mechanism that is used by Samsung printer and scanner drivers. The drivers address their devices via so-called MFP ports. The current status of any MFP port can be viewed via the Ports Configuration. The port sharing prevents you from accessing one functional block of the MFP device, while another block is in use.

When you install a new MFP device onto your system, it is strongly recommended you do this with the assistance of an Unified Driver Configurator. In this case you will be asked to choose I/O port for the new device. This choice will provide the most suitable configuration for MFP's functionality. For MFP scanners I/O ports are being chosen by scanner drivers automatically, so proper settings are applied by default.

Configuring Printer Properties

Using the properties window provided by the Printers configuration, you can change the various properties for your machine as a printer.

- 1 Open the Unified Driver Configurator.
If necessary, switch to Printers configuration.
- 2 Select your machine on the available printers list and click **Properties**.
- 3 The Printer Properties window opens.



The following five tabs display at the top of the window:

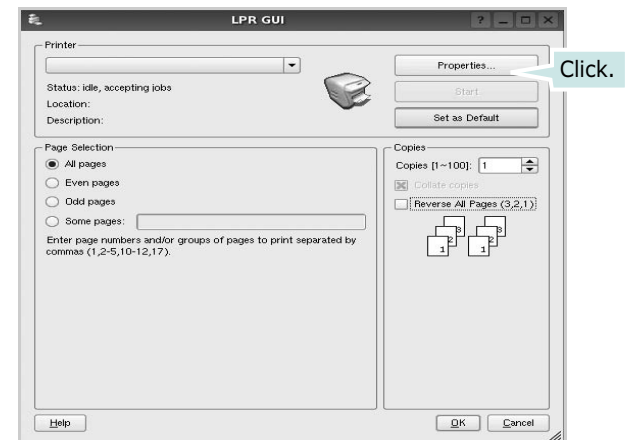
- **General:** allows you to change the printer location and name. The name entered in this tab displays on the printer list in Printers configuration.
 - **Connection:** allows you to view or select another port. If you change the printer port from USB to parallel or vice versa while in use, you must re-configure the printer port in this tab.
 - **Driver:** allows you to view or select another printer driver. By clicking **Options**, you can set the default device options.
 - **Jobs:** shows the list of print jobs. Click **Cancel job** to cancel the selected job and select the **Show completed jobs** check box to see previous jobs on the job list.
 - **Classes:** shows the class that your printer is in. Click **Add to Class** to add your printer to a specific class or click **Remove from Class** to remove the printer from the selected class.
- 4 Click **OK** to apply the changes and close the Printer Properties Window.

Printing a Document

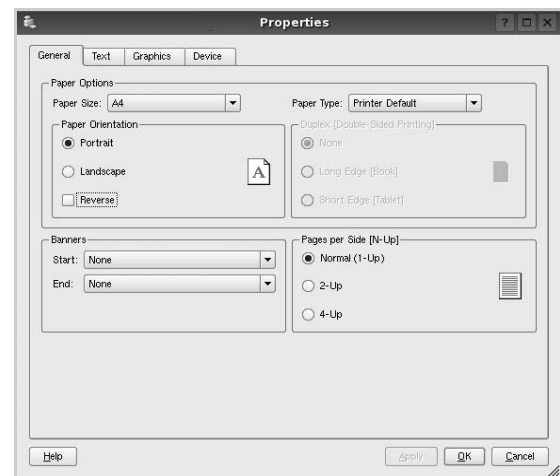
Printing from Applications

There are a lot of Linux applications that you are allowed to print from using Common UNIX Printing System (CUPS). You can print on your machine from any such application.

- 1 From the application you are using, select **Print** from the **File** menu.
- 2 Select **Print** directly using **lpr**.
- 3 In the LPR GUI window, select the model name of your machine from the Printer list and click **Properties**.



- 4 Change the printer and print job properties.



The following four tabs display at the top of the window.

- General** - allows you to change the paper size, the paper type, and the orientation of the documents, enables the duplex feature, adds start and end banners, and changes the number of pages per sheet.
- Text** - allows you to specify the page margins and set the text options, such as spacing or columns.
- Graphics** - allows you to set image options that are used when printing images/files, such as color options, image size, or image position.
- Device**: allows you to set the print resolution, paper source, and destination.

- 5 Click **Apply** to apply the changes and close the Properties window.
- 6 Click **OK** in the LPR GUI window to start printing.
- 7 The Printing window appears, allowing you to monitor the status of your print job.

To abort the current job, click **Cancel**.

Printing Files

You can print many different types of files on the Samsung machine device using the standard CUPS way - directly from the command line interface. The CUPS lpr utility allows you to do that. But the drivers package replaces the standard lpr tool by a much more user-friendly LPR GUI program.

To print any document file:

- 1 Type `lpr <file_name>` from the Linux shell command line and press **Enter**. The LPR GUI window appears.

When you type only `lpr` and press **Enter**, the Select file(s) to print window appears first. Just select any files you want to print and click **Open**.
- 2 In the LPR GUI window, select your printer from the list, and change the printer and print job properties.

For details about the properties window, see page 27.
- 3 Click **OK** to start printing.

Scanning a Document

You can scan a document using the Unified Driver Configurator window.

- 1 Double-click the Unified Driver Configurator on your desktop.
- 2 Click the  button to switch to Scanners Configuration.
- 3 Select the scanner on the list.

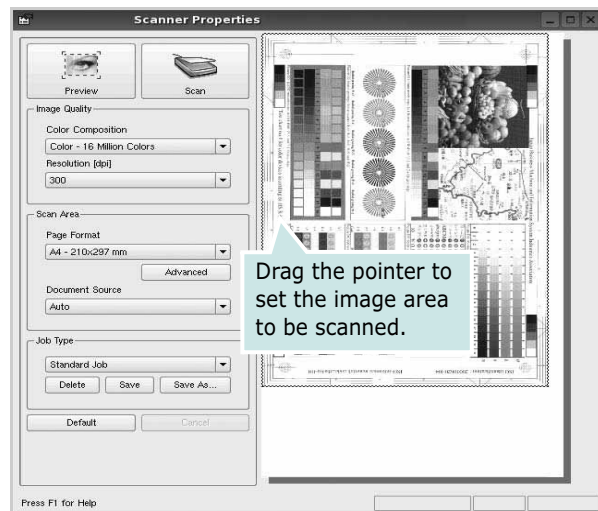


When you have only one MFP device and it is connected to the computer and turned on, your scanner appears on the list and is automatically selected.

If you have two or more scanners attached to your computer, you can select any scanner to work at any time. For example, while acquisition is in progress on the first scanner, you may select the second scanner, set the device options and start the image acquisition simultaneously.

- 4 Click **Properties**.
- 5 Load the document to be scanned face up into the ADF (Automatic Document Feeder) or face down on the document glass.
- 6 Click **Preview** in the Scanner Properties window.

The document is scanned and the image preview appears in the Preview Pane.



- 7 Change the scan options in the Image Quality and Scan Area sections.

- Image Quality:** allows you to select the color composition and the scan resolution for the image.
- Scan Area:** allows you to select the page size. The **Advanced** button enables you to set the page size manually.

If you want to use one of the preset scan option settings, select from the Job Type drop-down list. For details about the preset Job Type settings, see page 29.

You can restore the default setting for the scan options by clicking **Default**.

- 8 When you have finished, click **Scan** to start scanning.

The status bar appears on the bottom left of the window to show you the progress of the scan. To cancel scanning, click **Cancel**.

- 9 The scanned image appears in the new Image Manager tab.



If you want to edit the scanned image, use the toolbar. For further details about editing an image, see page 29.

- 10 When you are finished, click **Save** on the toolbar.
- 11 Select the file directory where you want to save the image and enter the file name.
- 12 Click **Save**.

Adding Job Type Settings

You can save your scan option settings to retrieve for a later scanning.

To save a new Job Type setting:

- 1 Change the options from the Scanner Properties window.
- 2 Click **Save As**.
- 3 Enter the name for your setting.
- 4 Click **OK**.

Your setting is added to the Saved Settings drop-down list.

To save a Job Type setting for the next scan job:

- 1 Select the setting you want to use from the Job Type drop-down list.
- 2 The next time you open the Scanner Properties window, the saved setting is automatically selected for the scan job.

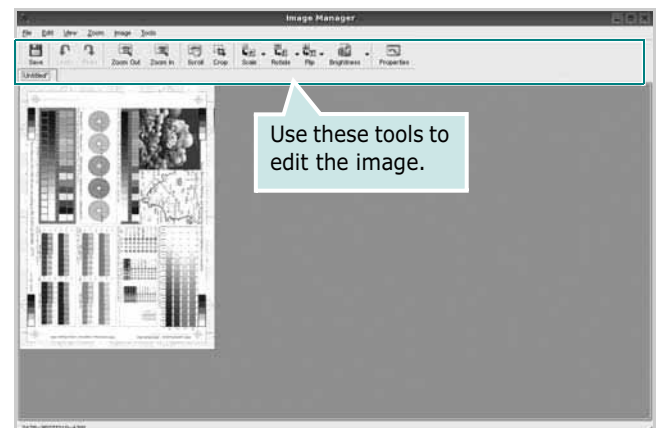
To delete a Job Type setting:

- 1 Select the setting you want to delete from the Job Type drop-down list.
- 2 Click **Delete**.

The setting is deleted from the list

Using the Image Manager

The Image Manager application provides you with menu commands and tools to edit your scanned image.



You can use the following tools to edit the image:

Tools	Function
 Save	Saves the image.
 Undo	Cancels your last action.
 Redo	Restores the action you canceled.
 Scroll	Allows you to scroll through the image.
 Crop	Crops the selected image area.
 Zoom Out	Zooms the image out.
 Zoom In	Zooms the image in.
 Scale	Allows you to scale the image size; you can enter the size manually, or set the rate to scale proportionally, vertically, or horizontally.
 Rotate	Allows you to rotate the image; you can select the number of degrees from the drop-down list.
 Flip	Allows you to flip the image vertically or horizontally.
 Effect	Allows you to adjust the brightness or contrast of the image, or to invert the image.
 Properties	Shows the properties of the image.

For further details about the Image Manager application, refer to the onscreen help.

8 Using Your Printer with a Macintosh

Your printer supports Macintosh systems with a built-in USB interface or 10/100 Base-TX network interface card. When you print a file from a Macintosh computer, you can use the CUPS 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**
- **Setting Up the Printer**
- **Printing**
- **Scanning**

Installing Software

The CD-ROM that came with your printer provides you with the PPD file that allows you to use the CUPS driver or Apple LaserWriter driver (*only available when you use a printer which supports the PostScript driver*), for printing on a Macintosh computer.

Also, it provides you with the Twain driver for scanning on a Macintosh computer.

Printer driver

Installing the Printer driver

- 1** Make sure that you connect your printer to the computer. Turn on your computer and printer.
- 2** Insert the CD-ROM which came with your printer into the CD-ROM drive.
- 3** Double-click **CD-ROM icon** that appears on your Macintosh desktop.
- 4** Double-click the **MAC_Installer** folder.
- 5** Double-click the **MAC_Printer** folder.
- 6** Double-click the **Samsung SPL2 Installer** icon.
- 7** Enter the password and click **OK**.
- 8** The Samsung SPL Installer window opens. Click **Continue** and then click **Continue**.
- 9** Select **Easy Install** and click **Install**.
- 10** After the installation is finished, click **Quit**.
 - After installation, you need to set up the connection between the printer and your computer. See "Setting Up the Printer" on page 32.

Uninstalling the Printer driver

Uninstall is required if you are upgrading the software, or if installation fails.

- 1** Insert the CD-ROM which came with your printer into the CD-ROM drive.
- 2** Double-click **CD-ROM icon** that appears on your Macintosh desktop.
- 3** Double-click the **MAC_Installer** folder.
- 4** Double-click the **MAC_Printer** folder.
- 5** Double-click the **Samsung SPL2 Installer** icon.
- 6** Enter the password and click **OK**.
- 7** The Samsung SPL Installer window opens. Click **Continue** and then click **Continue**.
- 8** Select **Uninstall** and then click **Uninstall**.
- 9** When the uninstallation is done, click **Quit**.

Scan driver

Installing the Scan driver

- 1 Make sure that you connect your printer to the computer. Turn on your computer and printer.
- 2 Insert the CD-ROM which came with your printer into the CD-ROM drive.
- 3 Double-click **CD-ROM icon** that appears on your Macintosh desktop.
- 4 Double-click the **MAC_Installer** folder.
- 5 Double-click the **MAC_Twain** folder.
- 6 Double-click the **Installer** icon.
- 7 Enter the password and click **OK**.
- 8 Click **Continue**.
- 9 Click **Install**.
- 10 After the installation is finished, click **Restart**.

Uninstalling the Scan driver

- 1 Insert the CD-ROM which came with your printer into the CD-ROM drive.
- 2 Double-click **CD-ROM icon** that appears on your Macintosh desktop.
- 3 Double-click the **MAC_Installer** folder.
- 4 Double-click the **MAC_Twain** folder.
- 5 Double-click the **Installer** icon.
- 6 Enter the password and click **OK**.
- 7 Click **Continue**.
- 8 Select **Uninstall** from the Installation Type and then Click **Uninstall**.
- 9 When the uninstallation is done, click **Restart**.

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

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.*

- 1 Follow the instructions on "Installing Software" on page 31 to install the PPD and Filter files on your computer.
- 2 Open the **Applications** folder → **Utilities**, and **Print Setup Utility**.
 - For MAC OS 10.5, open **System Preferences** from the **Applications** folder, and click **Print & Fax**.
- 3 Click **Add** on the **Printer List**.
 - For MAC OS 10.5, press the "+" icon then a display window will pop up.
- 4 For MAC OS 10.3, select the **IP Printing** tab.
 - For MAC OS 10.4, click **IP Printer**.
 - For MAC OS 10.5, click **IP**.
- 5 Select **Socket/HP Jet Direct** in **Printer Type**.
WHEN PRINTING A DOCUMENT CONTAINING MANY PAGES, PRINTING PERFORMANCE MAY BE ENHANCED BY CHOOSING SOCKET FOR PRINTER TYPE OPTION.
- 6 Enter the printer's IP address in the **Printer Address** field.
- 7 Enter the queue name in the **Queue Name** field. If you cannot determine the queue name for your printer server, try using the default queue first.
- 8 For MAC OS 10.3, if Auto Select does not work properly, select **Samsung** in **Printer Model** and **your printer name** in **Model Name**.
 - For MAC OS 10.4, if Auto Select does not work properly, select **Samsung** in **Print Using** and **your printer name** in **Model**.
 - For MAC OS 10.5, if Auto Select does not work properly, select **Select a driver to use...** and **your printer name** in **Print Using**.

Your printer's IP address appears on the **Printer List**, and is set as the default printer.
- 9 Click **Add**.

For a USB-connected

- 1 Follow the instructions on “Installing Software” on page 31 to install the PPD and Filter files on your computer.
- 2 Open the **Applications** folder → **Utilities**, and **Print Setup Utility**.
 - For MAC OS 10.5, open **System Preferences** from the **Applications** folder, and click **Print & Fax**.
- 3 Click **Add** on the **Printer List**.
 - For MAC OS 10.5, press the “+” icon then a display window will pop up.
- 4 For MAC OS 10.3, select the **USB** tab.
 - For MAC OS 10.4, click **Default Browser** and find the USB connection.
 - For MAC OS 10.5, click **Default** and find the USB connection.
- 5 For MAC OS 10.3, if Auto Select does not work properly, select **Samsung** in **Printer Model** and **your printer name** in **Model Name**.
 - For MAC OS 10.4, if Auto Select does not work properly, select **Samsung** in **Print Using** and **your printer name** in **Model**.
 - For MAC OS 10.5, if Auto Select does not work properly, select **Select a driver to use...** and **your printer name** in **Print Using**.

Your machine appears on the Printer List and is set as the default printer.
- 6 Click **Add**.

Printing

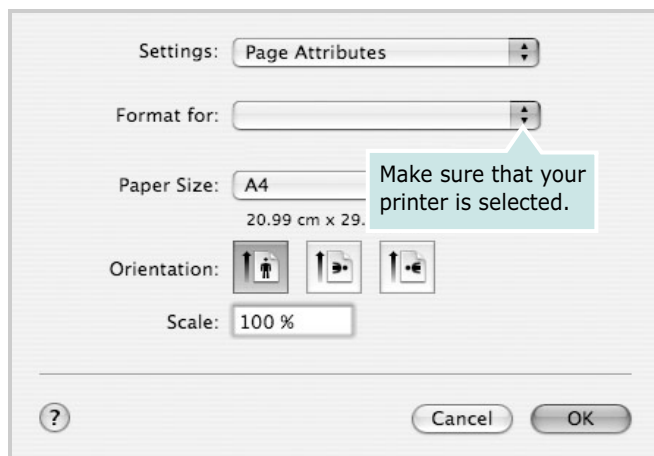
NOTES:

- 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 10.4

- 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

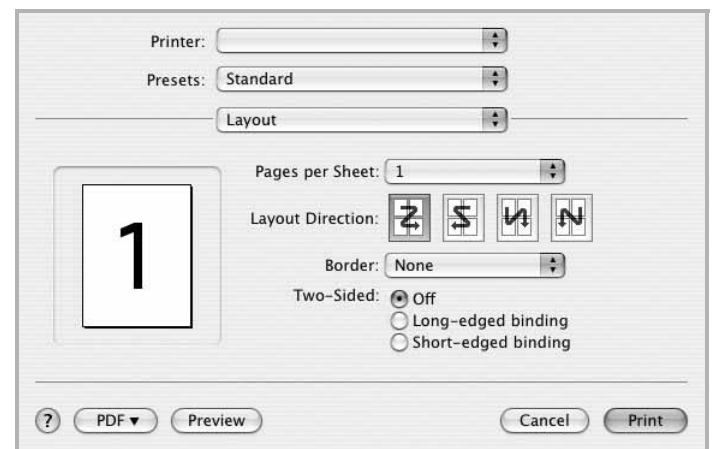
You can use advanced printing features when using your printer.

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.

NOTES: The setting options may differ depending on printers and Macintosh OS version.

Layout

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.

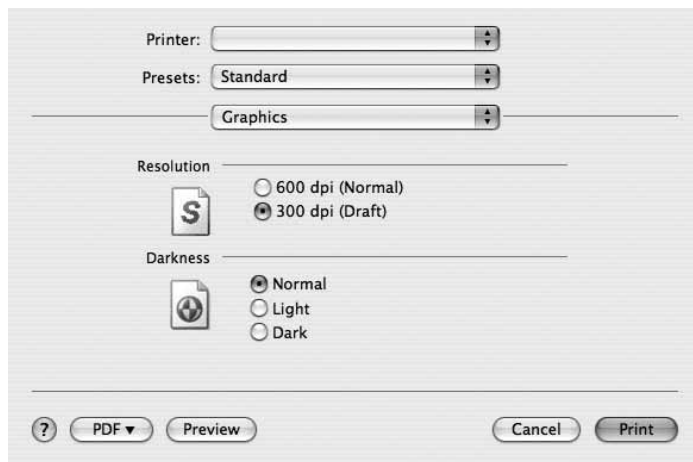


▲ Mac OS 10.4

- **Pages per Sheet:** This feature determines how many pages printed on one page. For details, see "Printing Multiple Pages on One Sheet of Paper" on the next column.
- **Layout Direction:** You can select the printing direction on a page as like the examples on UI.

Graphics

The **Graphics** tab provides options for selecting **Resolution(Quality)** and **Darkness**. Select **Graphics** from the **Presets**' drop-down list to access the graphic features.

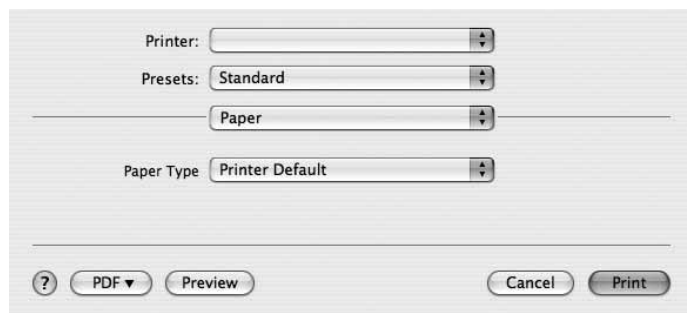


▲ Mac OS 10.4

- **Resolution(Quality)**: 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.
- **Darkness**: Use this option to lighten or darken your print job.
 - **Normal**: This setting is for normal documents.
 - **Light**: This setting is for bolder line widths or darker gray-scale images.
 - **Dark**: This setting is for finer line width, higher definition in graphics, and lighter gray-scale images.

Paper

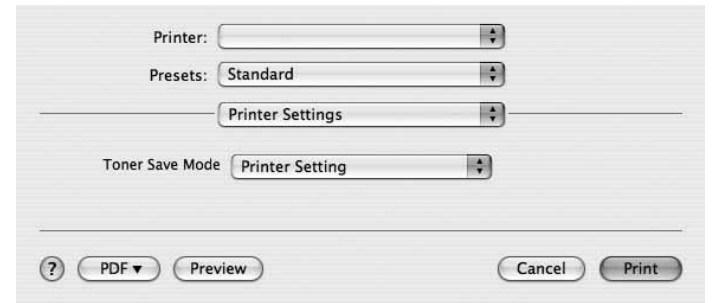
Set **Paper Type** to correspond to the paper loaded in the tray from which you want to print. This will let you get the best quality printout. If you load a different type of print material, select the corresponding paper type.



▲ Mac OS 10.4

Printer Settings

This tab provides options for selecting the paper type and adjusting print quality. Select **Printer Settings** from the **Presets**' drop-down list to access the following features:



▲ Mac OS 10.4

• Toner Save Mode

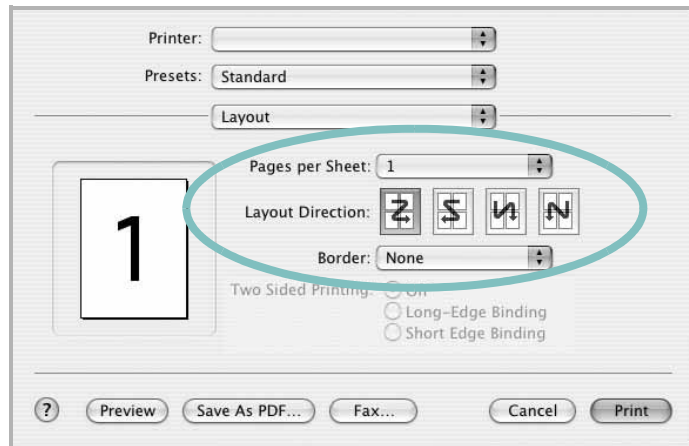
Selecting this option extends the life of your toner cartridge and reduces your cost per page without a significant reduction in print quality. *Some printers do not support this feature.*

- **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.

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 10.4

- 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.

Scanning

You can scan documents using **Image Capture**. Macintosh OS offers **Image Capture**, you do not need to install other TWAIN-compliant softwares.

- 1 Make sure that your machine and computer are turned on and properly connected to each other.
- 2 Load the document(s) face up into the DADF (or ADF). OR place a single document face down on the document glass.
- 3 Start **Applications** and click **Image Capture**.

NOTE: If **No Image Capture device connected** message appears, disconnect the USB cable and reconnect it. If the problem persists, please refer to the **Image Capture**'s help.

- 4 Set the scan options on this program.
- 5 Scan and save your scanned image.

NOTE:

- For more information about using **Image Capture**, please refer to the **Image Capture**'s help.
- You can also scan using TWAIN-compliant softwares, such as Adobe Photoshop.(Only for Macintosh OS X 10.3.9 or above)
- Scan process differ according to TWAIN-compliant softwares. Please refer to the user's guide of the software.

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