

SAMSUNG



SAMSUNG LASER MFP User's Guide

SCX-4521F
SCX-4521FR
SCX-4321

About the User's Guide

This **User's Guide** provides information you need for setting up your machine.

It also provides all of the detailed instructions for using your machine as a printer, a scanner, a copier, and a facsimile, and information for maintaining and troubleshooting the machine.

The **Software User's Guide** which is the second section of this guide provides information you need for installing the supplied software and using its features.

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Important Precautions and Safety Information

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

1. Read and understand all instructions.
2. Use common sense whenever operating electrical appliances.
3. Follow all warnings and instructions marked on the machine and in the literature accompanying the machine.
4. If an operating instruction appears to conflict with safety information, heed the safety information. You may have misunderstood the operating instruction. If you cannot resolve the conflict, contact your sales or service representative for assistance.
5. Unplug the machine from the AC wall socket 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. Your machine may have a heavy cover for optimal pressure on the document for the best scanning and/or faxing (usually the flatbed-type machine). In this case, replace the cover after placing document on the scan glass, by holding and moving it down slowly until it seats on its location.
13. 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.
14. 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.

15. 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.
16. 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.
17. SAVE THESE INSTRUCTIONS.
18. Use only No.26 AWG or larger telephone line cord.

Laser Safety Statement

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

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

WARNING

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

	CAUTION - 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. UNNGÅ UDSAETTELSE FOR STRÅLNING.
	ADVARSEL - USYNLIG LASERSTRÅLNING NÄR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.
	VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPEN. STRÅLEN ÄR FARLIG.
	VAROITUS - NÄKYMÄTÖNTÄ LASERSÄTELYÄ AVATTAESSA. VARO SUORAA ALTISTUMISTA SÄTEELLE.
	注 意 - 严禁揭开此盖, 以免激光泄露灼伤
	주 의 - 이 덮개를 열면 레이저광에 노출될 수 있으므로 주의하십시오.

Ozone Safety



During normal operation, this machine produces ozone.

The ozone produced does not present a hazard to the operator. However, it is advisable that the machine be operated in a well ventilated area.

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

Mercury Safety



LAMP(S) INSIDE THIS PRODUCT CONTAIN MERCURY AND MUST BE RECYCLED OR DISPOSED OF ACCORDING TO LOCAL, STATE OR FEDERAL LAWS. For details see lamprecycle.org, eiae.org, or call 1-800-Samsung

Power Saver

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

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

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

Recycling



Please 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, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

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

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

Radio Frequency Emissions

FCC 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.

CAUTION: 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.

WARNING:

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.

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:

The declaration of conformity may be consulted at www.samsung.com/printer, go to Support > Download center and enter your printer name to browse the EuDoC.

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.

Replacing the Fitted Plug (for UK Only)

IMPORTANT

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

Please contact the people from you purchased the machine.

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

WARNING

If you cut off the moulded plug, get rid of it straight away.
You cannot rewire the plug and you may receive an electric shock if you plug it into a socket.

IMPORTANT WARNING: You must earth this machine.

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

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

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

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

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

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

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

Differences Between British and American English

British English	American English
(Re)dialling	(Re)dialing
Colour	Color
Emphasise	Emphasize
Recognise	Recognize
Organise	Organize
Authorise	Authorize
Cancelling	Canceling
Customise	Customize
Socket	Jack
Labelling	Labeling
Grey	Gray

1 Introduction

Thank you for purchasing this Samsung multifunctional product. Your machine provides printing, copying, scanning, and faxing (only for SCX-4521F) functions!

This chapter includes:

- **Special Features**
- **Understanding Component Locations**

Special Features

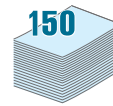
Your new machine is equipped with special features that improve the print quality. You can:

Print with excellent quality and high speed



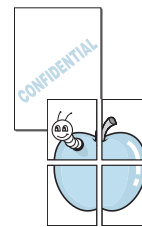
- You can print up to **600 dots per inch (dpi)**.
- Up to **20 ppm in A4 (20 ppm in Letter)**.

Handle paper flexibly



- **Manual tray** supports one sheet of envelopes, labels, transparencies, custom-sized materials, postcards and heavy paper.
- **Standard 150-sheet tray** supports standard type and size of paper. Also, standard tray supports one sheet of special materials.
- 50-sheet output tray supports convenient access.

Create professional documents



- Print **Watermarks**. You can customize your documents with words, such as "Confidential". For details, see **Software User's Guide**.
- 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. For details, see **Software User's Guide**.

Save time and money

- Allows you to use the **Toner Save** mode to save the toner. For details, see **Software User's Guide** and "Toner Save Mode" on page 2.12.
- You can print multiple pages on one single sheet of paper to save paper.
- You can use preprinted forms and letterhead on plain paper.
- This machine automatically **conserves electricity** by substantially reducing power consumption when not printing.
- This machine meets **Energy Star** guidelines for energy efficiency.

Print in various environments

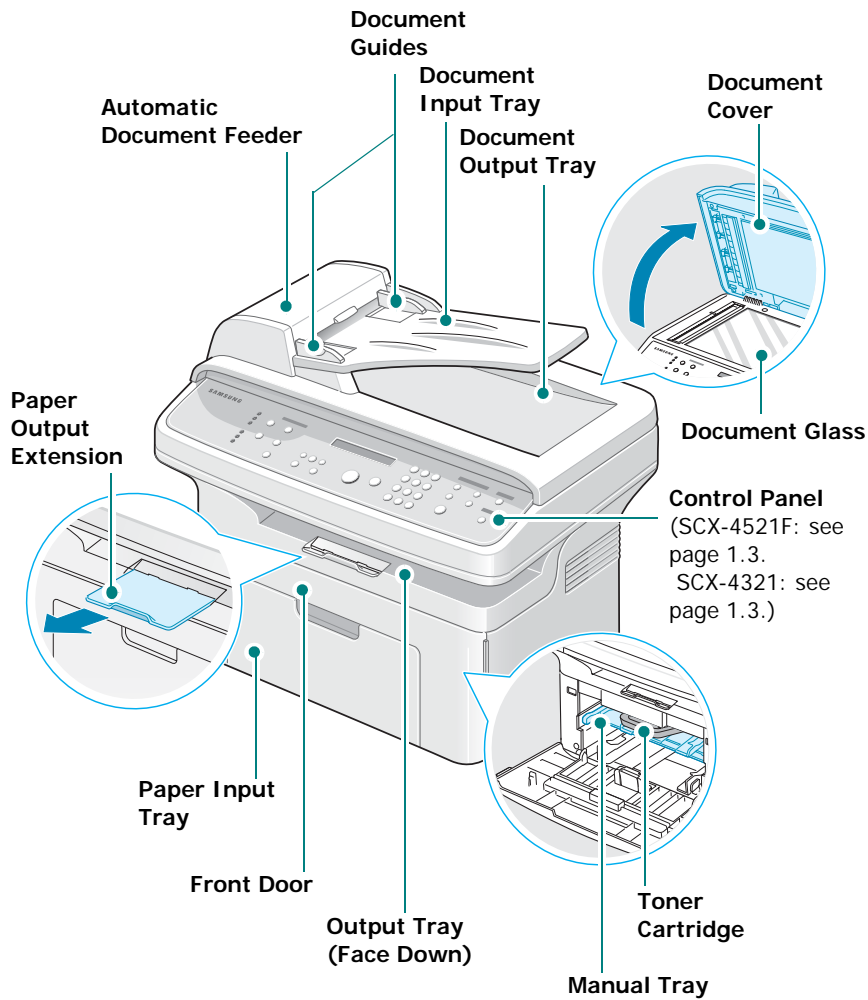


- You can print with various operating system such as Windows, Linux and Macintosh systems.
- Your machine comes with both the **USB** and **Parallel** interface.

Understanding Component Locations

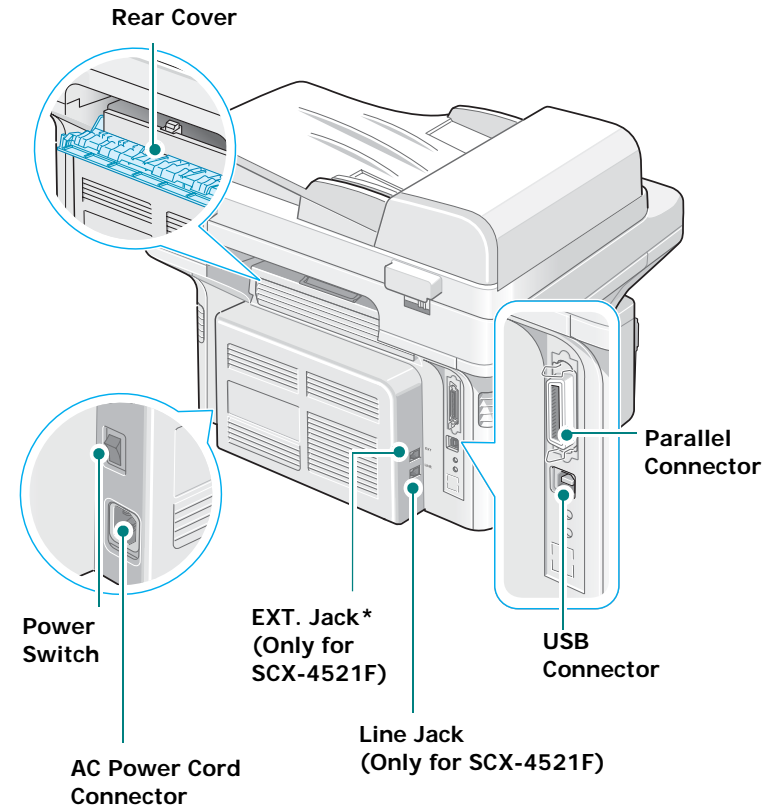
These are the main components of your machine:

Front View



The figure above shows an SCX-4521F.

Rear View

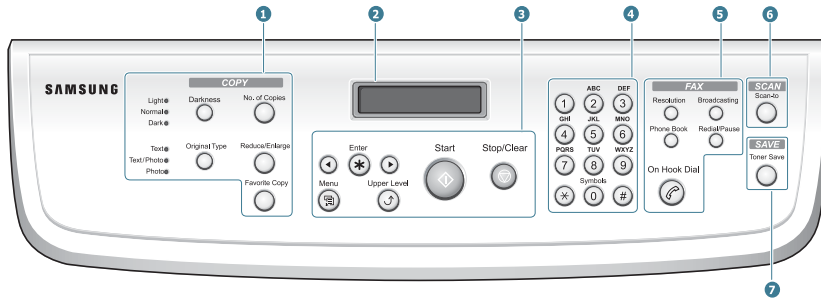


The figure above shows an SCX-4521F.

* If your country has a different telephone connection system, this socket may be blocked.

Control Panel Functions

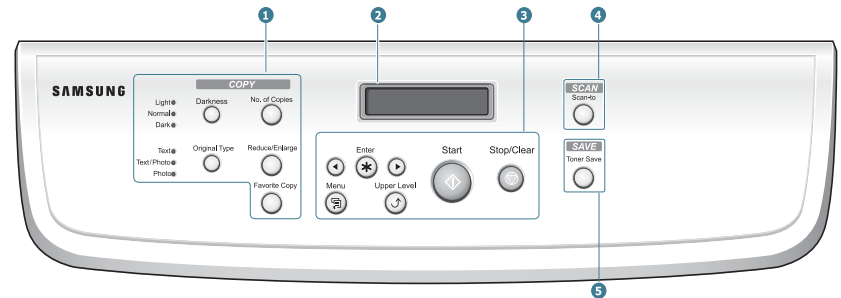
SCX-4521F



①	Darkness	Adjusts the brightness of the documents for the current copy job.
	Original Type	Selects the document type for the current copy job.
	No. of Copies	Selects the number of copies.
②	Reduce/Enlarge	Makes a copy smaller or larger than the original.
	Favorite Copy	Allows you to use one of the special copy features, such as Clone, Collation, Auto Fit, ID Card Copy, 2/4 Up (multiple pages on a sheet), and Poster copying after assigning it.
③		Displays the current status and prompts during an operation.
		Uses to scroll through the available options for the selected menu item.
	Enter	Confirms the selection on the display.
	Menu	Enters Menu mode and scrolls through the menus available.
	Upper Level	Sends you back to the upper menu level.
	Start	Starts a job.
④	Stop/Clear	Stops an operation at any time. In Standby mode, clears/cancels the copy options, such as the darkness, the document type setting, the copy size, and the number of copies.
	Number Keypad	Dials a number or enters alphanumeric characters.
	Resolution	Adjusts the resolution of the documents for the current fax job.
	Broadcasting	Allows you to send a fax to multiple destinations.
⑤	Phone Book	Allows you to store frequently-dialed fax numbers as one or two-digit speed dial or group dial numbers for automatic dialing and edit the stored numbers. Also allows you to print a Phonebook list.
	Redial/Pause	In Standby mode, redials the last number or in Edit mode, inserts a pause into a fax number.
	On Hook Dial	Engages the telephone line.

⑥	Scan-to	Allows you to access a list of your PC software programs that an image can be scanned to. You must create the scan list using the Samsung software (Printer Settings Utility) provided with this machine. For details, see Software User's Guide .
⑦	Toner Save	Allows you to save on toner by using less toner to print a document.

SCX-4321



①	Darkness	Adjusts the brightness of the documents for the current copy job.
	Original Type	Selects the document type for the current copy job.
	No. of Copies	Selects the number of copies.
②	Reduce/Enlarge	Makes a copy smaller or larger than the original.
	Favorite Copy	Allows you to use one of the special copy features, such as Clone, Collation, Auto Fit, ID Card Copy, 2/4 Up (multiple pages on a sheet), and Poster copying after assigning it.
③		Displays the current status and prompts during an operation.
		Uses to scroll through the available options for the selected menu item.
	Enter	Confirms the selection on the display.
	Menu	Enters Menu mode and scrolls through the menus available.
	Upper Level	Sends you back to the upper menu level.
	Start	Starts a job.
④	Stop/Clear	Stops an operation at any time. In Standby mode, clears/cancels the copy options, such as the darkness, the document type setting, the copy size, and the number of copies.
	Scan-to	Allows you to access a list of your PC software programs that an image can be scanned to. You must create the scan list using the Samsung software (Printer Settings Utility) provided with this machine. For details, see Software User's Guide .
⑤	Toner Save	Allows you to save on toner by using less toner to print a document.

2 Getting Started

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

This chapter includes:

- **Unpacking**
- **Installing the Toner Cartridge**
- **Loading Paper**
- **Making Connections**
- **Turning the Machine On**
- **Installing Printer Software**
- **Changing the Display Language and Country**
- **Setting the Machine ID (Only for SCX-4521F)**
- **Setting the Date and Time (Only for SCX-4521F)**
- **Setting the Paper Size and Type**
- **Setting Sounds (Only for SCX-4521F)**
- **Using the Save Modes**
- **Setting the Dial Mode (Only for SCX-4521F)**

Unpacking

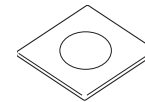
- 1 Remove the machine and all accessories from the packing carton. Make sure that the machine has been packed with the following items:



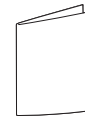
Starter Toner Cartridge



AC Power Cord*



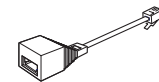
CD-ROM**



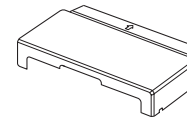
Quick Install Guide



Telephone Line Cord*
(only for SCX-4521F)



TAM Lead
(only for SCX-4521F and UK)



Paper Cover***

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

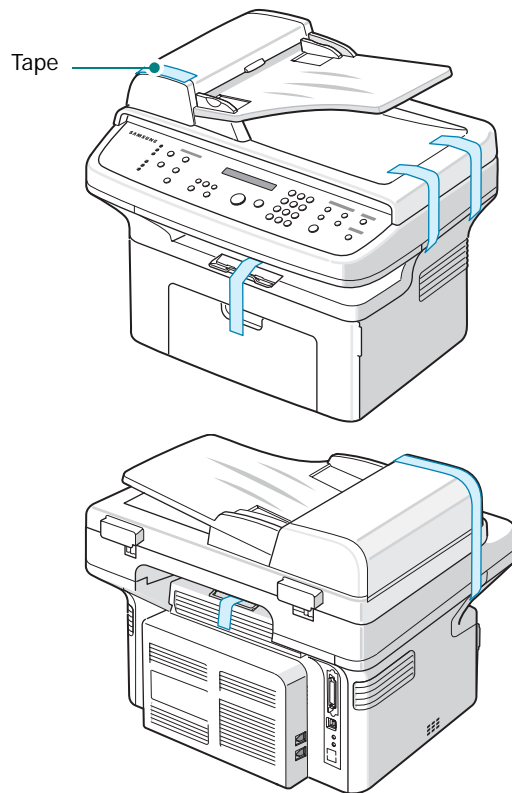
** The CD-ROM contains the Samsung printer drivers, Scan drivers, Printer Settings Utility, SmarThru software, the User's Guide, and the Adobe Acrobat Reader program.

*** The paper cover is to prevent dust and moisture from contaminating your paper loaded in the tray. When you need to open the machine (for example, cleaning inside of the machine, removing the jammed paper or installing the toner cartridge), remove the paper cover from your machine.

NOTES:

- Components may differ from country to country.
- You should use the telephone line cord which is supplied with your machine. If you are replacing it with another vendor's, it should be AWG #26 or larger telephone line cord.
- Power cord must be plugged into a grounded power socket.

- 2 Remove the packing tape from the front, back, and sides of the machine.



Selecting a Location

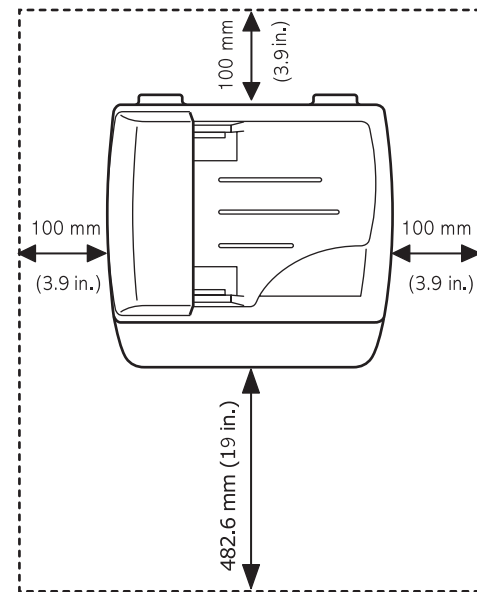
Select a level, stable place with adequate space for air circulation. Allow extra space for opening doors and trays.

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

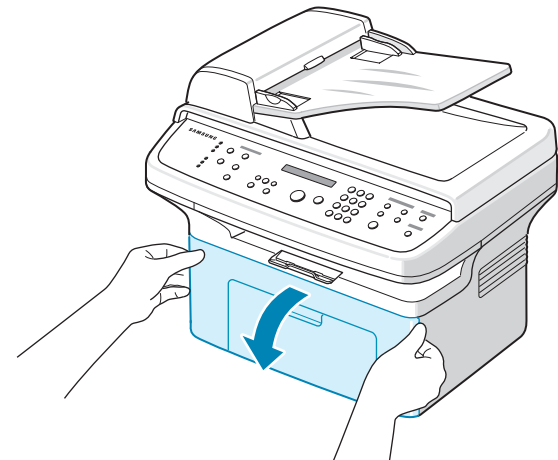
- **Front:** 19 in./482.6 mm (enough space so that the tray and door can be opened)
- **Back:** 3.9 in./100 mm (enough space for ventilation)
- **Right:** 3.9 in./100 mm (enough space for ventilation)

- **Left:** 3.9 in./100 mm (enough space for ventilation)

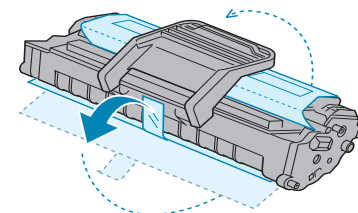


Installing the Toner Cartridge

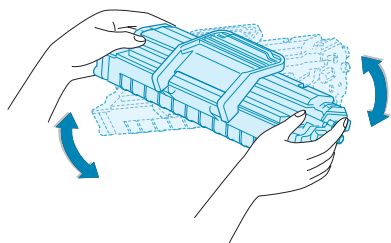
- 1 Open the front door.



- 2 Remove the toner cartridge from its bag and remove the paper protecting the cartridge by pulling the packing tape.



- 3 Gently roll the cartridge 5 or 6 times to distribute the toner.



Thoroughly rolling the cartridge will assure maximum copies per cartridge.

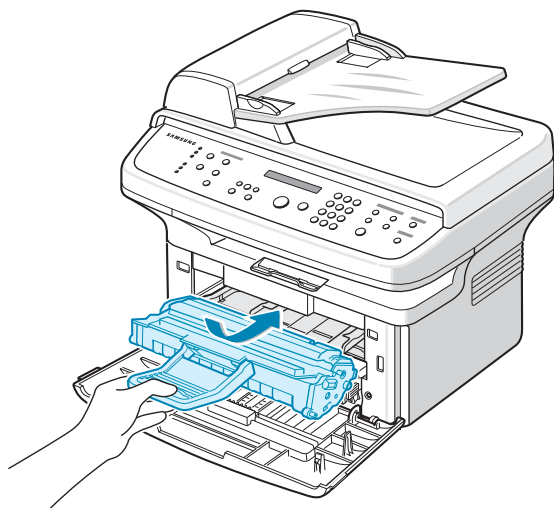
NOTE: If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.



CAUTIONS:

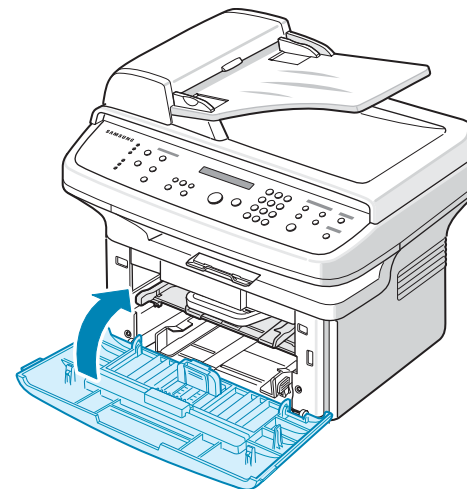
- To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper, if left exposed for more than a few minutes.
- Do not touch the green underside of the toner cartridge. Use the handle on the cartridge to avoid touching this area.

- 4 Unfold the toner cartridge handle and grasp it. Insert the cartridge in the machine until it snaps into place.



NOTE: Carefully insert or pull out the toner cartridge not to scratch against the printer.

- 5 Close the front door. Make sure that the door is securely closed. If the cover is not firmly closed, printing errors may occur when you print.

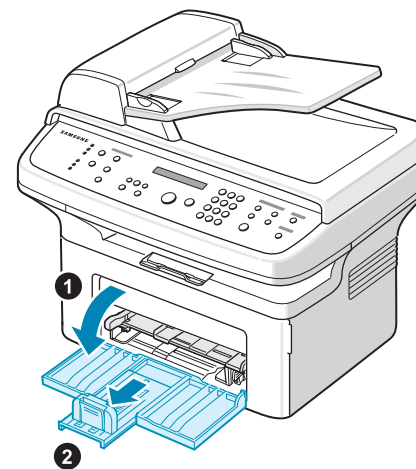


NOTE: When printing text at 5% coverage, you can expect a toner cartridge life of approximately 3,000 pages. (1,000 pages for the toner cartridge that is shipped with the machine.)

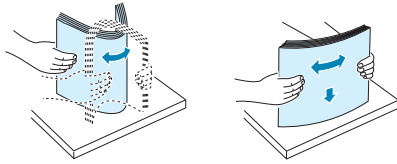
Loading Paper

The tray can hold a maximum of 150 sheets of 20 lb (75 g/m² bond) plain paper.

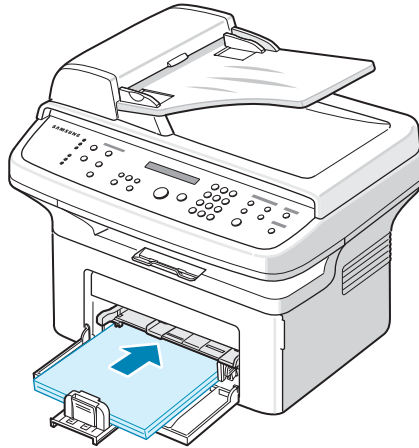
- 1 Grasp the tray and pull it toward you to open. Pinch the rear guide and pull it out to extend the tray.



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

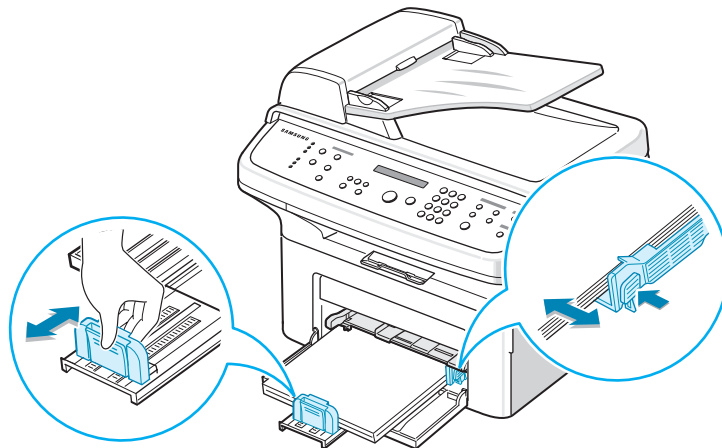


- 3 Load paper **with the print side facing up**.



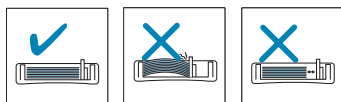
Make sure that all four corners are flat in the tray. Pay attention not to overload paper. Paper overloading may cause paper jams.

- 4 Pinch the rear guide to adjust for the paper length and pinch the side guide to slide it to the edge of the paper.

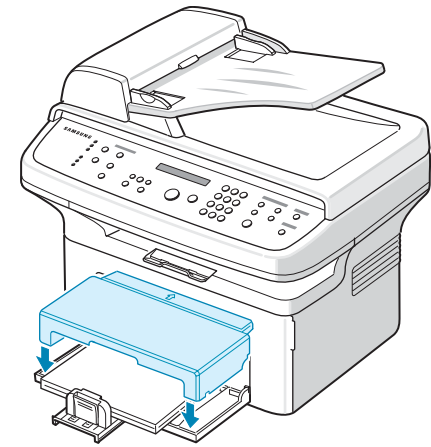


NOTES:

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



- 5 If necessary, close the paper cover to keep the paper loaded in the tray from dust.



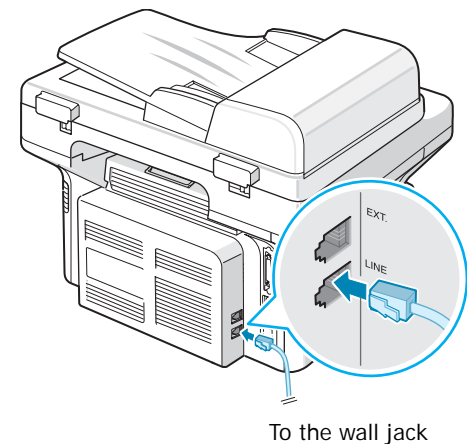
Making Connections

- 1 **If you have SCX-4321:**

Skip this step and proceed to step 2.

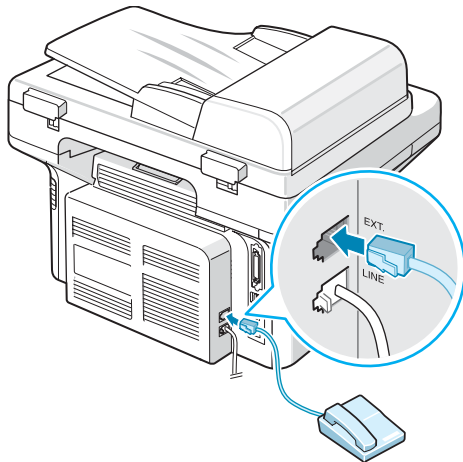
If you have SCX-4521F:

Plug one end of the supplied telephone line cord into the **LINE** jack on the machine and the other end into the wall jack.



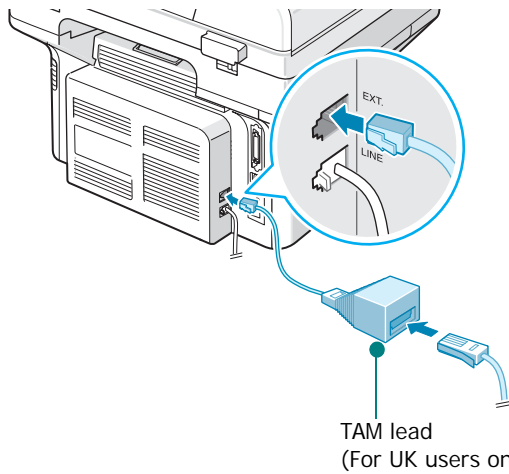
If you want to use your machine to receive both faxes and voice calls, you will need to connect a telephone and/or answering machine to your machine.

Plug the cord of your extension phone or answering machine into the **EXT.** jack.



To an extension phone or answering machine

UK users should plug the cord of the extension phone into the supplied TAM lead and plug the cord of the TAM lead into the **EXT.** jack on the back of your machine.

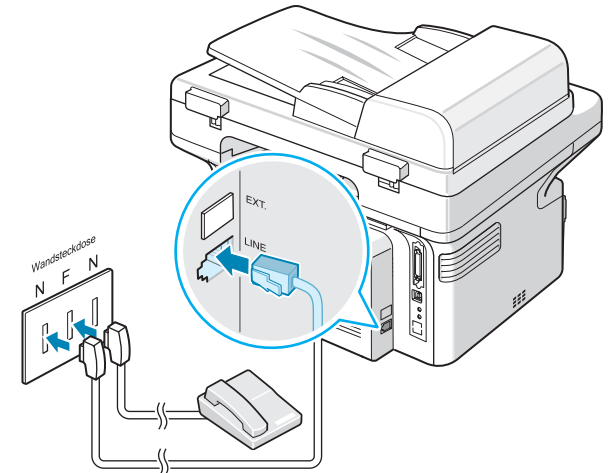


TAM lead
(For UK users only)

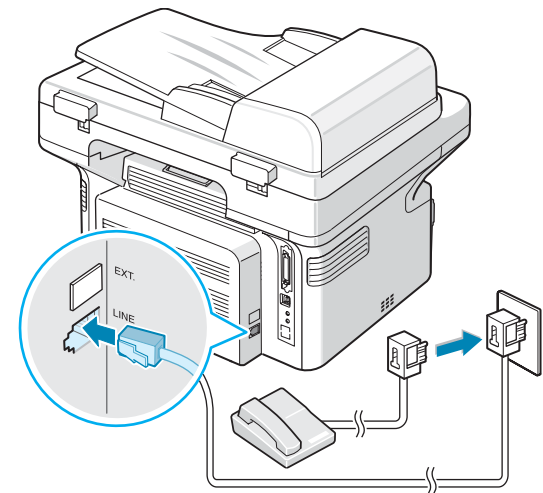
NOTES:

- Use the TAM lead and the telephone line cord supplied with your machine.
- In the United Kingdom, if a three-wire type (SHUNT-wire, older equipment) telephone or answering machine is connected to the EXT. jack on the machine, the external equipment will fail to ring when receiving an incoming call as the machine is designed to operate with the latest technology. To prevent this incompatibility, use two-wire (newer equipment) telephones or answering machines.

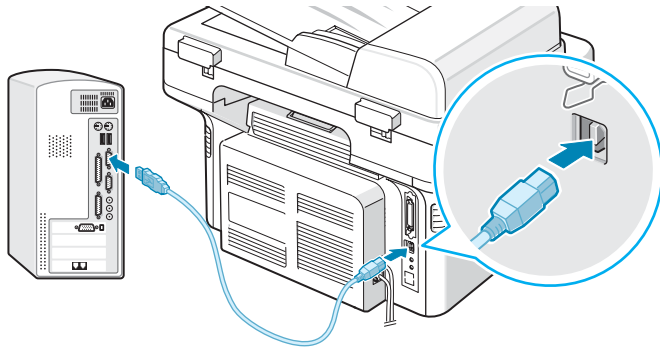
For German users only



For France users only



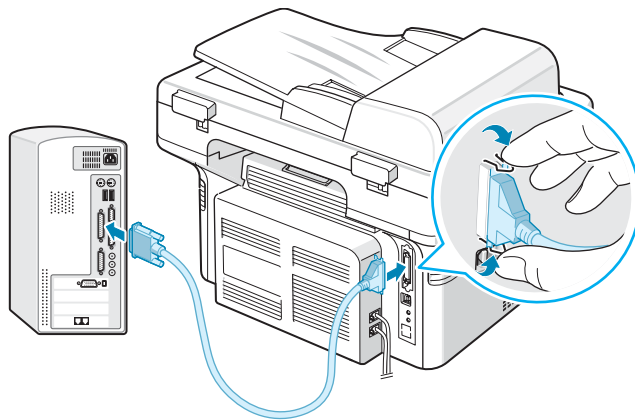
- 2 Connect a USB cable to the USB connector on your machine. You need to buy a USB 1.1 compliant cable that is within 3 m in length.



To the USB port on your computer

If you want to use a parallel printer cable, purchase only an IEEE-1284 compliant parallel cable and connect it to the parallel connector on your machine.

Push the metal clips down to fit inside the notches on the cable plug.



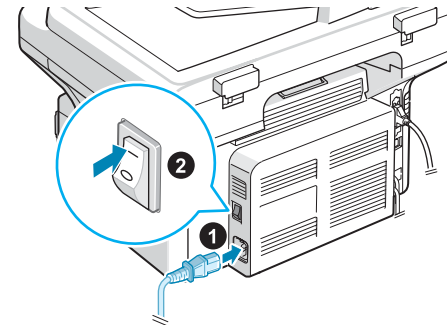
To the parallel port on your computer

NOTES:

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

Turning the Machine On

- 1 Plug one end of the supplied three-pronged electrical cord into the AC socket 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 the AC outlet

To view your display text in another language, see "Changing the Display Language and Country" on page 2.9.

**CAUTIONS:**

- The fusing area at the rear portion of the inside of your printer is hot when powered. Be careful not to be burned when accessing this area.
 - Do not disassemble the machine with power on. If you do, you may receive an electric shock.
-

Installing Printer Software

After you have set up your machine and connected it to your computer, you must install the printer software. If you are a Windows or Macintosh OS, install the software from the supplied CD and if you are a Linux OS user, download the software from the Samsung website (www.samsung.com/printer) and install. For details, see **Software User's Guide**.

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.
- **Scan driver**- TWAIN and Windows Image Acquisition (WIA) driver are available for scanning documents on your machine.
- **Printer Settings Utility**- Use this program to create phonebook entries and configure the destination of the scan button. You can also update the firmware of the machine.
- **SmarThru**- It 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 e-mail. 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.

Macintosh Driver

You can print and scan in Macintosh using your machine.

Linux Driver

You can print and scan in Linux using your machine.

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)	600 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 2008 Server	Pentium IV 1 GHz (Pentium IV 2 GHz)	512 MB (2048 MB)	10 GB
Windows Vista	Pentium IV 3 GHz	512 MB (1024 MB)	15 GB
Windows 7	Pentium IV 1 GHz 32-bit or 64-bit processor or higher	1 GB (2 GB)	16 GB
Windows Server 2008 R2	Pentium IV 1 GHz(x86) or 1.4GHz(x64) processors(2GHz or faster)	512 MB (2048MB)	10 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	<ul style="list-style-type: none"> Intel Processor Power PC G4 / G5 	<ul style="list-style-type: none"> 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	<ul style="list-style-type: none"> Intel Processor 867 MHz or faster Power PC G4 / G5 	512 MB (1 GB)	1 GB
Mac OS X 10.6	<ul style="list-style-type: none"> Intel Processor 	1 GB (2 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

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		
	Windows	Linux	Macintosh
Toner Save	Y	Y	N
Print quality option	Y	Y	Y
Poster printing	Y	N	N
Multiple pages per sheet (N-up)	Y	Y(2,4)	Y
Fit to page printing	Y	Y	N
Scale printing	Y	Y	Y
Watermark	Y	N	N
Overlay	Y	N	N
Print order	Y	N	N

NOTE: For details about installing software and using its features, see **Software User's Guide**.

Changing the Display Language and Country

Setting Language

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

- 1 Press **Menu** until "Machine Setup" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until "Language" appears on the bottom line of the display.
- 3 Press **Enter**. The current setting appears on the bottom line of the display.
- 4 Press the scroll button (◀ or ▶) until the language you want appears on the display.
- 5 Press **Enter** to save the selection.
- 6 To return to Standby mode, press **Stop/Clear**.

Setting Country

- 1 Press **Menu** until "Machine Setup" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until "Select Country" appears on the bottom line of the display.
- 3 Press **Enter**. The current setting appears on the bottom line of the display.
- 4 Press the scroll button (◀ or ▶) until your country appears on the display.
- 5 Press **Enter** to save the selection.
- 6 To return to Standby mode, press **Stop/Clear**.

NOTE: Changing the country clears the memory.

Setting the Machine ID

(Only for SCX-4521F)

In some countries, you are required by law to indicate your fax number on any fax you send. The Machine ID, containing your telephone number and name (or company name), will be printed at the top of each page sent from your machine.

- 1 Press **Menu** until "Machine Setup" appears on the top line of the display. The first available menu item, "Machine ID", displays on the bottom line.
- 2 Press **Enter**. The display asks you to enter the fax number. If there is a number already set, the number appears.
- 3 Enter your fax number using the number keypad.

NOTE: If you make a mistake while entering numbers, press the ◀ button to delete the last digit.

- 4 Press **Enter** when the number on the display is correct. The display asks you to enter an ID.
- 5 Enter your name or the company name using the number keypad.

You can enter alphanumeric characters using the number keypad, and include special symbols by pressing the **0** button.

For details on how to use the number keypad to enter alphanumeric characters, see "Entering Characters Using the Number Keypad" on page 2.9.

If you want to enter the same letter or number in succession (e.g. SS, AA, 777), enter one digit, move the cursor by pressing the ▶ button and enter the next digit.

If you want to insert a space in the name, you can also use the ▶ button to move the cursor to skip the position.

- 6 Press **Enter** when the name on the display is correct.
- 7 To return to Standby mode, press **Stop/Clear**.

Entering Characters Using the Number Keypad

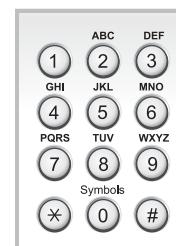
As you perform various tasks, you need to enter names and numbers. For example, when you set up your machine, you enter your name (or your company's name) and telephone number. When you store one- or two-digit speed dial or group dial numbers, you may also enter the corresponding names.

To enter alphanumeric characters:

- 1 When you are prompted to enter a letter, locate the button labeled with the character you want. Press the button until the correct letter appears on the display.

For example, to enter the letter **O**, press **6**, labeled with "MNO".

Each time you press **6**, the display shows a different letter, **M**, **N**, **O**, and finally **6**.



You can enter special characters, such as space, plus sign, and etc.. For details, see "Keypad Letters and Numbers" on page 2.10.

- 2 To enter additional letters, repeat step 1.

If the next letter is printed on the same button, move the cursor by pressing the ► button and then press the button labeled with the letter you want. The cursor will move to the right and the next letter will appear on the display.

You can enter a space by pressing **1** twice.

- 3 When you finish entering letters, press **Enter**.

Keypad Letters and Numbers

Key	Assigned numbers, letters, or characters
1	1 Space
2	A B C 2
3	D E F 3
4	G H I 4
5	J K L 5
6	M N O 6
7	P Q R S 7
8	T U V 8
9	W X Y Z 9
0	+ - , . ' / * # & 0

Changing Numbers or Names

If you make a mistake while entering a number or name, press the ◀ button to delete the last digit or character. Then enter the correct number or character.

Inserting a Pause

With some telephone systems, you must dial an access code (9, for example) and listen for a second dial tone. In such cases, you must insert a pause in the telephone number. You can insert a pause while you are setting up speed dial numbers.

To insert a pause, press **Redial/Pause** at the appropriate place while entering the telephone number. A "—" appears on the display at the corresponding location.

Setting the Date and Time

(Only for SCX-4521F)

When you turn your machine on for the first time, the display prompts you to enter the current date and time. After entering, it will not appear anymore.

NOTE: When turning on the machine after turning it off for a long time, you need to reset date and time.

- 1 Press **Menu** until "Machine Setup" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to display "Date & Time" on the bottom line and press **Enter**.
- 3 Enter the correct time and date using the number keypad.
 - Month = 01 ~ 12
 - Day = 01 ~ 31
 - Year = requires four digits
 - Hour = 01 ~ 12 (12-hour mode)
00 ~ 23 (24-hour mode)
 - Minute = 00 ~ 59

NOTE: The date format may differ from country to country.

You can also use the scroll button (◀ or ▶) to move the cursor under the digit you want to correct and enter a new number.

- 4 To select "AM" or "PM" for 12-hour format, press the ✖ or # button or any number button.

When the cursor is not under the AM or PM indicator, pressing the ✖ or # button immediately moves the cursor to the indicator.

You can change the clock mode to 24-hour format (e.g. 01:00 PM as 13:00). For details, see "Changing the Clock Mode" on page 2.10.

- 5 Press **Enter** when the time and date on the display is correct.
- 6 To return to Standby mode, press **Stop/Clear**.

Changing the Clock Mode

You can set your machine to display the current time using either a 12-hour or 24-hour format.

- 1 Press **Menu** until "Machine Setup" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until you see "Clock Mode" on the bottom line and press **Enter**.
 - The clock mode currently set for the machine displays.
- 3 Press the scroll button (◀ or ▶) to select the other mode and then press **Enter** to save the selection.
- 4 To return to Standby mode, press **Stop/Clear**.

Setting the Paper Size and Type

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

- 1 Press **Menu**.
The display shows "Paper Setting" on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to display "Paper Size" on the bottom line and press **Enter** to access the menu item.
- 3 Use the scroll button (◀ or ▶) to find the paper size you are using and press **Enter** to save it.
- 4 Press the ▶ button to scroll to "Paper Type" and press **Enter** to access the menu item.
- 5 Use the scroll button (◀ or ▶) to find the paper type you are using and press **Enter** to save it.
- 6 To return to Standby mode, press **Stop/Clear**.

Setting Sounds *(Only for SCX-4521F)*

You can control the following sounds:

- **Speaker:** You can turn on or off the sounds from the telephone line through the speaker, such as the dial tone or a fax tone. With this option set to "Comm." the speaker is on until the remote machine answers.
- **Ringer:** You can adjust the ringer volume.
- **Key Sound:** With this option set to "On" a key tone sounds each time a key is pressed.
- **Alarm Sound:** You can turn the alarm sound on or off. With this option set to "On" an alarm tone sounds when an error occurs or fax communication ends.
- You can adjust the volume level using the **On Hook Dial** button.

Speaker, Ringer, Key Sound, and Alarm Sound

- 1 Press **Menu** until "Sound/Volume" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to scroll through the options. Press **Enter** when you see the desired sound option.
- 3 Press the scroll button (◀ or ▶) to display the desired status or volume for the option you have selected.
You will see the selection on the bottom line of the display. For the ringer volume, you can select "Off", "Low", "Med", and "High". Setting "Off" means that the ringer does not sound. The machine works normally even if the ringer is turned off.
- 4 Press **Enter** to save the selection. The next sound option appears.
- 5 If necessary, repeat steps 2 through 4.
- 6 To return to Standby mode, press **Stop/Clear**.

Speaker Volume

- 1 Press **On Hook Dial**. A dial tone sounds from the speaker.
- 2 Press the scroll button (◀ or ▶) until you hear the volume you want. The display shows the current volume level.
- 3 Press **On Hook Dial** to save the change and return to Standby mode.

NOTE: You can adjust the speaker volume only when the telephone line is connected.

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.

To turn the toner save mode on or off, press **Toner Save**.

- If the button backlight is on, the mode is active and the machine uses less toner when printing a document.
- If the button backlight is off, the mode is deactivated and the machine prints with the normal quantity of toner.

NOTE: When PC-printing, you can also turn on or off the toner save mode in the printer properties. For details, see **Software User's Guide**.

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 top line of the display.
- 2 Press the scroll button (◀ or ▶) until "Power Save" appears on the bottom line. Press **Enter**.
- 3 Press the scroll button (◀ or ▶) to display "On" on the bottom line and press **Enter**.
Selecting "Off" means that the power save mode is deactivated.
- 4 Press the scroll button (◀ or ▶) until the time setting you want appears.
The available options are 5, 10, 15, 30, and 45 (minutes).
- 5 Press **Enter** to save the selection.
- 6 To return to Standby mode, press **Stop/Clear**.

Setting the Dial Mode

(Only for SCX-4521F)

You can select the type of the telephone dial system where your machine is connected.

NOTE: The Dial Mode setting may be unavailable depending on your country.

- 1 Press **Menu** until "Machine Setup" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until you see "Dial Mode" on the bottom line and press **Enter**.
- 3 Press the scroll button (◀ or ▶) to select the desired dial mode.
Select "Tone" if your machine is connected to a tone dial line.
Select "Pulse" if the machine is connected to a pulse dial line.
- 4 Press **Enter** to save the selection.
- 5 To return to Standby Mode, press **Stop/Clear**.

3 Paper Handling

This chapter introduces you to the basics of selecting print materials and loading them into your machine.

This chapter includes:

- **Selecting Print Materials**
- **Loading Paper**
- **Verifying an Output Location**

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 this machine. See "Paper Specifications" on page 10.3. To get the best possible print quality, use only high-quality copier-grade paper.

When you choose print materials, consider the following:

- **Size:** You can use any size paper that fits easily within the paper adjusters of the tray.
- **Weight:** 16 ~ 24 lb (60 to 90 g/m² bond) for the tray with multi-pages feeding, and 16 ~ 43 lb (60 to 165 g/m² bond) for the manual tray and tray with single page feeding.
- **Brightness:** Some papers are whiter than others and produce sharper, more vibrant images.
- **Surface smoothness:** The smoothness of the paper affects how crisp the printing looks on the paper.



CAUTION: Using print materials that do not conform to the specifications listed on page 10.2 may cause problems that may require service. This service is not covered by the warranty or service agreements.

Paper Type, Input Sources, and Capacities

Paper Type*	Input Tray/Capacity**	
	Tray	Manual tray
Plain paper	150	1
Envelopes	1	1
Labels	1	1
Transparencies	1	1
Card stock	1	1

*. If you experience excessive jamming, load one sheet at a time through the tray or manual tray.

**Maximum capacity may differ depending on media weight, thickness, and environmental conditions.

Guidelines for Paper and Special Materials

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

- Always use paper and other materials that conform with the specifications listed under "Paper Specifications" on page 10.3.
- Attempting to print on damp, curled, wrinkled, or torn paper can cause paper jams and poor print quality.
- Use only high quality copier grade paper for the best print quality.
- Avoid paper with embossed lettering, perforations, or a texture that is too smooth or too rough. Paper jams may occur.
- Store paper in its ream wrapper until you are ready to use. Place cartons on pallets or shelves, not on the floor. Do not place heavy objects on top of the paper, whether it is packaged or unpackaged. Keep 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 %.
- During storage, you should use 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 tray or the tray to avoid paper jams.
- Only use materials specifically recommended for use in laser printers.
- To prevent special materials, such as transparencies and label sheets from sticking together, remove them as they print out.
- For envelopes:
 - Use only well-constructed envelopes with sharp and well creased folds.
 - Do not use envelopes with clasps and snaps.
 - Do not use envelopes with windows, coated lining, self-adhesive seals, or other synthetic materials.
 - Do not use damaged or poorly made envelopes.
 - Only use envelopes recommended for laser printers.
 - Before loading envelopes in the tray, make sure that they are undamaged and are not stuck together.
 - Do not feed stamped envelopes.
- For transparencies:
 - Place them on a flat surface after removing them from the machine.
 - Do not leave them in the 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.

Only use transparencies recommended for use in laser printers.

Ensure that transparencies are not wrinkled, curled, or have any torn edges.

- For labels:
 - Verify that their adhesive material can tolerate a fusing temperature of 200 °C (392 °F) for 0.1 second.
 - Make sure that there is no exposed adhesive material between them. 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 load a sheet of them through the machine more than once. The adhesive backing is designed for one pass through the machine.
 - Do not use labels that are separating from the backing sheet or are wrinkled, bubbled or otherwise damaged.
 - Only use labels recommended for laser printers.
- For Card Stock or Custom-sized materials:
 - Postcards, 3.5 x 5.8 in. (89 x 148 mm) cards and other custom-sized materials can be printed with this printer. The minimum size is 3 x 5 in. (76 x 127 mm) and the maximum size is 8.5 x 14 in. (216 x 356 mm)
 - Always insert the short-edge into the tray first. If you want to print in landscape mode, make this selection through your software. Inserting paper long-edge first may cause a paper jam.
 - Do not print on media smaller than 3 in. (76 mm) wide or 5 in. (127 mm) long.
- For preprinted paper:
 - Letterheads must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the printer's fusing temperature of 200 °C (392 °F) for 0.1 second.
 - Ink on letterheads must be non-flammable and should not adversely affect any printer rollers.
 - Forms and letterheads should be sealed in a moisture-proof wrapping to prevent changes during storage.
 - Before you load preprinted paper as forms and letterheads, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper.
- Do not use **Carbonless** paper and **Tracing** paper. Use of these types of paper could result in chemical smells and could damage your machine.

Loading Paper

Proper paper loading helps prevent paper jams and ensure trouble-free printing. Do not remove the paper in the tray while a job is printing. Doing so may cause a paper jam. See "Paper Type, Input Sources, and Capacities" on page 3.1 for acceptable paper size and capacity for the tray.

Using the Tray

The tray holds 150 sheets of paper.

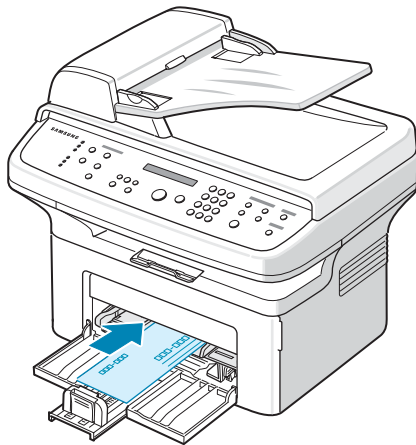
Load a stack of paper into the tray and print. For details about loading paper in the tray, see "Loading Paper" on page 2.3.

To use the special material like envelope, label and card, remove the stack of plain paper and load one sheet of special material into the tray.

Using the Manual Tray

When you print a document using your PC and want to check the print quality after each page is printed, load the paper in the manual tray and select **Manual Feed** for **Source** from the software application.

- 1 Load the print material in the tray **with the print side up**.



Push the print material firmly into the manual tray.

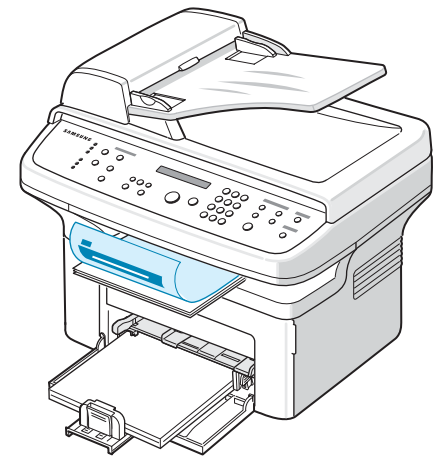
- 2 Adjust the paper guide against the print material without bending the material.
- 3 Select **Manual Feed** for **Source** from the software application, and then select the correct paper size and type. For details, see **Software User's Guide**.
- 4 Operate printing.
- 5 The display shows "Add Paper & Press Start" then press **Start** on the machine to start feeding.
Printing is started.
- 6 If you have multiple pages to be printed, the display shows "Add Paper & Press Start" again. Load the next sheet and press **Start**.
Repeat this step for every page to be printed.

NOTES:

- When you print more than 20 envelopes in succession, print speed may be reduced.
 - If you experience jams with card stock feeding, turn the paper around and try again.
 - Manually loading paper and pressing **Start** to start feeding is only available with PC printing.
 - Because the Manual Feed mode does not print jobs automatically and continuously, incoming faxes are stored in memory instead of printing immediately. (Only for SCX-4521F)
 - When you press **Stop/Clear** in the Manual Feed mode, the print job in progress is canceled.
-

Verifying an Output Location

The machine has a paper output location which holds 50 sheets of paper. The output tray collects printed paper face down, in the order in which the sheets were printed.



NOTE: Pull the paper output extension not to drop the printed paper.

4 Copying

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

This chapter includes:

- **Loading Paper for Copying**
- **Preparing a Document**
- **Making Copies on the Document Glass**
- **Making Copies from the Automatic Document Feeder**
- **Setting Copy Options**
- **Using Special Copy Features**
- **Changing the Default Settings**
- **Setting the Time Out Option**
- **Setting the Favorite Copy Option**

Loading Paper for Copying

The instructions for loading print materials are the same whether you are printing, faxing, or copying. For further details, see "Loading Paper" on page 2.3 for loading paper in the tray.

NOTE: For copying, you can only use Letter-, A4-, Legal-, Folio-, Executive-, B5-, A5-, or A6-sized print materials.

Preparing a Document

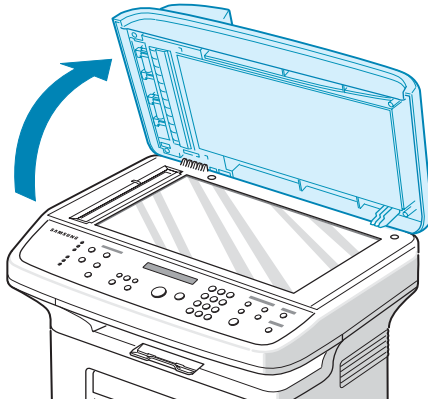
You can use the document glass or the Automatic Document Feeder (ADF) to load an original document for copying, scanning, and sending a fax. Using the ADF, you can load up to 30 documents (20 lb, 75 g/m² bond) for one job. You can, of course, place only one sheet at a time on the document glass.

When you use the ADF:

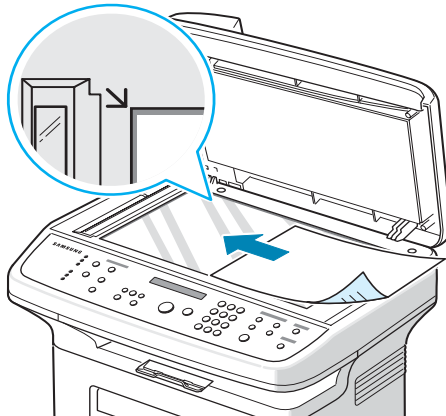
- Do not load documents smaller than 5.6 x 5.8 in. (142 x 148 mm) or larger than 8.5 x 14 in. (216 x 356 mm).
- Do not attempt to feed the following types of documents:
 - carbon-paper or carbon-backed paper
 - coated paper
 - onion skin or thin paper
 - wrinkled or creased paper
 - curled or rolled paper
 - torn paper
- Remove all staples and paper clips before loading documents.
- Make sure any glue, ink, or correction fluid on the paper is completely dry before loading documents.
- Do not load documents that include different sizes or weights of paper.
- Do not load booklet, pamphlet, transparencies, or documents having other unusual characteristics.

Making Copies on the Document Glass

- 1 Lift and open the document cover.



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



NOTE: Make sure that no documents are in the ADF (Automatic Document Feeder). If a document is detected in the ADF, the machine gives it priority over the document on the document glass.

- 3 Close the document cover.

NOTES:

- When you close the document cover, please be careful of any injuries.
- Leaving the cover open while copying may affect copy quality and toner consumption.
- If you are copying a page from a book or magazine, start copying with the cover open.

- 4 Customize the copy settings including number of copies, copy size, darkness, and original type, by using the control panel buttons. See "Setting Copy Options" on page 4.3. To clear the settings, use the **Stop/Clear** button.

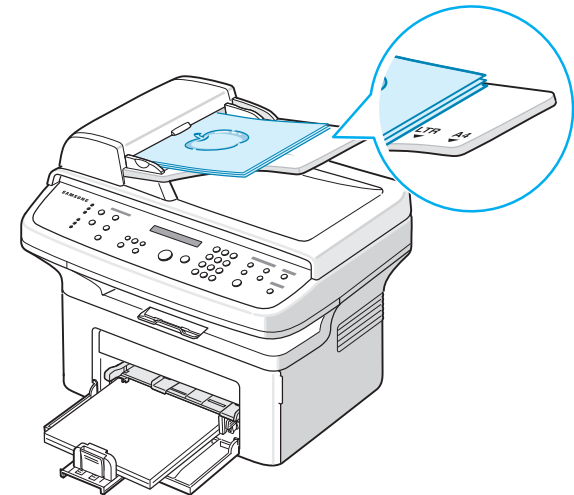
- 5 If necessary, you can use special copy features, such as Poster, Auto Fit, Clone, and ID Card copying.
- 6 Press **Start** to begin copying. The display shows the copy processing.

NOTES:

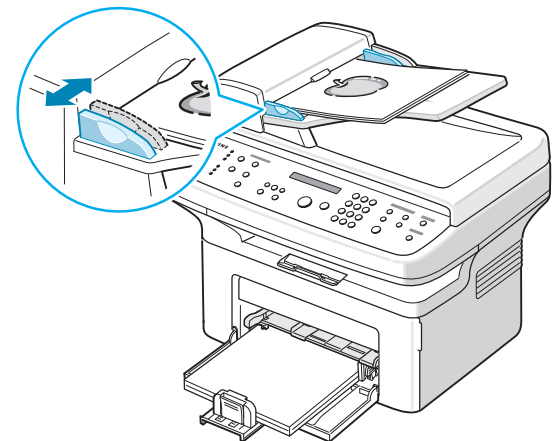
- You can cancel the copy job during an operation. Press **Stop/Clear**, and the copying will stop.
- Dust on the document glass may cause black spots on the printout. Always keep it clean.
- To get the best scan quality, especially for colored or gray-scaled images, use the document glass.

Making Copies from the Automatic Document Feeder

- 1 Load the document **face up** into the ADF (Automatic Document Feeder). You can insert up to 30 sheets at a time. Make sure that the bottom of the document stack matches the paper size marked on the document tray.



- 2 Adjust the document guides to the document size.



- 3 Customize the copy settings including number of copies, copy size, darkness, and original type, by using the control panel buttons. See "Setting Copy Options" on page 4.3.
To clear the settings, use the **Stop/Clear** button.
- 4 If necessary, you can use special copy features, such as Collate and 2 or 4 Up copying.
- 5 Press **Start** to begin copying.
The display shows the copy processing.

NOTE: Dust on the ADF glass may cause black lines on the printout. Always keep it clean.

Setting Copy Options

The buttons on the control panel let you select all basic copy options: darkness, document type, copy size, and number of copies. 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. Or, they will automatically return to their default status after the machine completes the copy in progress.

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.

To adjust the contrast, press **Darkness**.

Each time you press the button, the LED labeled with the selected mode lights.

You can choose from the following contrast modes:

- **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.

Original Type

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

To select the document type, press **Original Type**.

Each time you press the button, the LED labeled with the selected mode lights.

You can choose from the following image modes:

- **Text:** Use for documents containing mostly text.
- **Text/Photo:** Use for documents with mixed text and photographs.
- **Photo:** Use when the originals are photographs.

NOTE: When you copy a document containing color on the background, such as a newspaper or a catalog, the background will appear on your copy. If you want to reduce the background, change the **Darkness** setting to **Light** and/or the **Original Type** setting to **Text**.

Reduced/Enlarged Copy

Using the **Reduce/Enlarge** button, you can reduce or enlarge the size of a copied image from 25% to 400% when you copy original documents from the document glass or from 25% to 100% from the ADF. Note that the zoom rate available is different depending on the document loading method.

To select from the predefined copy sizes:

- 1 Press **Reduce/Enlarge**.
The default setting appears on the bottom line of the display.
- 2 Press **Reduce/Enlarge** or the scroll button (◀ or ▶) to find the size setting you want.
- 3 Press **Enter** to save the selection.

To fine-tune the size of copies:

- 1 Press **Reduce/Enlarge**.
- 2 Press **Reduce/Enlarge** or the scroll button (◀ or ▶) until "Custom: 25-100%" or "Custom: 25-400%" displays on the bottom line. Press **Enter**.
- 3 Press the scroll button (◀ or ▶) until the copy size you want appears on the display.
Pressing and holding the button allows you to quickly scroll to the number you want.
For the SCX-4521F, you can enter the value using the number keypad.
- 4 Press **Enter** to save the selection.

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

Number of Copies

Using the **No. of Copies** button, you can select the number of copies from 1 to 99.

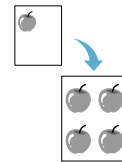
- 1 Press **No. of Copies**.
- 2 Press the scroll button (◀ or ▶) until the number you want appears on the display.
Pressing and holding the button allows you to quickly scroll to the number you want.
For the SCX-4521F, you can enter the value using the number keypad.
- 3 Press **Enter** to save the selection.

Using Special Copy Features

You can use the following copy features:

- **Off:** Prints in normal mode.
- **Clone:** 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. See "Clone Copying" on page 4.4.
- **Copy Collate:** Sorts the copy job. For example, if you make 2 copies of a 3 page document, one complete 3 page document will print followed by the second complete document. See "Collation Copying" on page 4.4.
- **Auto Fit:** Automatically reduces or enlarges the original image to fit on the paper currently loaded in the machine. See "Auto Fit Copying" on page 4.4.
- **ID Card Copy:** Prints 2-sided ID card like a drivers licence on one sheet of paper. See "ID Card Copying" on page 4.5.
- **2/4 Up:** Prints 2/4 original images reduced to fit onto one sheet of paper. See "2 Up or 4 Up Copying" on page 4.5.
- **Poster:** Prints an image onto 9 sheets of paper (3x3). You can paste the printed pages together to make one poster-sized document. See "Poster Copying" on page 4.5.

NOTE: Some features may not be available depending on where you loaded the document, on the document glass or in the Automatic Document Feeder.



Clone Copying

This special copy feature can be applied only when you place a document on the document glass. If a document is detected in the ADF, Clone copying feature does not work.

- 1 Place the document to be copied on the document glass, and close the cover.
- 2 Press **Menu** until "Copy Feature" appears on the top line of the display.
- 3 Press the scroll button (◀ or ▶) until "Clone" displays on the bottom line.
- 4 Press **Enter** to make your selection.
- 5 If necessary, customize the copy settings, including number of copies, darkness, and original type, by using the control panel buttons. See "Setting Copy Options" on page 4.3.

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

- 6 Press **Start** begin copying.



Collation Copying

This special copy feature is available only when you load documents in the ADF.

- 1 Load the documents to be copied in the ADF.
- 2 Press **Menu** until "Copy Feature" appears on the top line of the display.
- 3 Press the scroll button (◀ or ▶) until "Copy Collate" displays on the bottom line.
- 4 Press **Enter** to make your selection.
- 5 If necessary, customize the copy settings, including number of copies, darkness, and original type, by using the control panel buttons. See "Setting Copy Options" on page 4.3.
- 6 Press **Start** to begin copying.



Auto Fit Copying

This special copy feature can be applied only when you place a document on the document glass. If a document is detected in the ADF, Auto Fit copying does not work.

- 1 Place the document to be copied on the document glass, and close the cover.
- 2 Press **Menu** until "Copy Feature" appears on the top line of the display.
- 3 Press the scroll button (◀ or ▶) until "Auto Fit" appears on the bottom line.
- 4 Press **Enter** to make your selection.

- If necessary, customize the copy settings, including number of copies, darkness, and original type, by using the control panel buttons. See "Setting Copy Options" on page 4.3.

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

- 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.

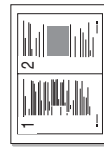
If the loaded card is larger than the printable area, some portions may not be printed.

This special copy feature can be applied only when you place a document on the document glass. If a document is detected in the ADF, ID Card copying feature does not work.

- Place the ID Card to be copied on the document glass and close the cover.
- Press **Menu** until "Copy Feature" appears on the top line of the display.
- Press the scroll button (◀ or ▶) until "ID Card Copy" displays on the bottom line.
- Press **Enter** to make your selection.
- If necessary, customize the copy settings, including number of copies, darkness, and original type, by using the control panel buttons. See "Setting Copy Options" on page 4.3.
- Press **Start** to begin copying.
Your machine begins scanning the front side.
- When "Set Backside" displays on the bottom line, open the document cover and turn the card over. Close the cover.

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

- Press **Start** again.



▲ 2-up copying



▲ 4-up copying

2 Up or 4 Up Copying

This copy feature is available only when you load documents in the ADF.

- Load the documents to be copied in the ADF.
- Press **Menu** until "Copy Feature" appears on the top line of the display.
- Press the scroll button (◀ or ▶) until "2 UP" or "4 UP" displays on the bottom line.
- Press **Enter** to make your selection.
- If necessary, customize the copy settings, including number of copies, darkness, and original type, by using the control panel buttons. See "Setting Copy Options" on page 4.3.

NOTE: You cannot adjust the copy size using the **Reduce/Enlarge** button for making a 2 or 4 Up copy.

- Press **Start** to begin copying.

Poster Copying

This special copy feature can be applied only when you place a document on the document glass. If a document is detected in the ADF, the Poster copying feature does not work.

- Place the document to be copied on the document glass and close the cover.
- Press **Menu** until "Copy Feature" appears on the top line of the display.
- Press the scroll button (◀ or ▶) until "Poster" displays on the bottom line.
- Press **Enter** to make your selection.
- If necessary, customize the copy settings, including number of copies, darkness, and original type, by using the control panel buttons. See "Setting Copy Options" on page 4.3.

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

- Press **Start** to begin copying.

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

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 corresponding buttons on the control panel.

To create your own default settings:

- 1 Press **Menu** on the control panel until “Copy Setup” appears on the top line of the display.
The first menu item, “Default-Change”, appears on the bottom line.
- 2 Press **Enter** to access the menu item. The first setup option, “Darkness”, appears on the bottom line.
- 3 Press the scroll button (◀ or ▶) to scroll through the setup options.
- 4 When the option you want to set appears, press **Enter** to access the option.
- 5 Change the setting using the scroll button (◀ or ▶).
For the SCX-4521F, you can enter the value using the number keypad.
- 6 Press **Enter** to save the selection.
- 7 Repeat steps 3 through 6, as needed.
- 8 To return to Standby mode, press **Stop/Clear**.

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

Setting the Favorite Copy Option

You can set **Favorite Copy** on the control panel works as a special copy button. Assign one of the copy feature to **Favorite Copy** for quick accessing.

- 1 Press **Menu** on the control panel until “Copy Setup” appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to display “Favorite Copy” on the bottom line.
- 3 Press **Enter** to access the menu item.
- 4 Press the scroll button (◀ or ▶) until the feature you want appears on the display.

You can select from Clone, Copy Collate, Auto fit, ID Card Copy, 2 Up, 4 Up, and Poster. See “Using Special Copy Features” on page 4.4 for details about each feature.

- 5 Press **Enter** to make your selection.

To use the special copy feature quickly, press **Favorite Copy** then you will see the assigned special copy feature on the display. Press **Enter** to start copy job.

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** on the control panel until “Copy Setup” appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to display “Timeout” on the bottom line.
- 3 Press **Enter** to access the menu item.
- 4 Press the scroll button (◀ or ▶) until the status you want appears on the display.
You can select from 15, 30, 60, and 180 (seconds).
Selecting “Off” means that the machine does not restore the default settings until you press **Start** to begin copying, or **Stop/Clear** to cancel.
- 5 Press **Enter** to make your selection.
- 6 To return to Standby mode, press **Stop/Clear**.

5 Basic Printing

This chapter includes:

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

Printing a Document

This machine allows you to print in 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 **Software User's Guide**.

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/2003, select **Printers and Faxes**.
For Windows Vista/2008, select **Control Panel > Hardware and Sound > Printers**.
For Windows 7, select **Control Panel > Hardware and Sound > Devices and Printers**.
For Windows Server 2008 R2, **Control Panel > Hardware > Devices and Printers**.
- 3** For Windows 2000, XP, 2003, 2008 and Vista, double-click your machine.
For Windows 7 and Windows Server 2008 R2, right click your printer icon > context menus > **See what's printing**.
- 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 the **Stop/Clear** button on the control panel of your printer.

6 Scanning

This chapter includes:

- **Scanning Basics**
- **Scanning From the Control Panel to an Application**

Scanning Basics

Your SCX-4x21 Series offers four ways to scan. These are:

- From the control panel on your machine to an application: Use the **Scan-to** button on the control panel to initiate scanning. Assign the TWAIN-compliant software, such as Adobe Photo Deluxe or Adobe Photoshop, to the machine by selecting it from a list of available applications via the **Scan-to** button. To compose the list of available applications, you must configure it in the scan settings tab of the Printer Settings Utility program. For details, see **Software User's Guide**.
- From TWAIN-compliant software: You can use other software including Adobe PhotoDeluxe and Adobe Photoshop. For details, see **Software User's Guide**.
- From the Windows Images Acquisition (WIA) driver: Your machine also supports the WIA driver for scanning images. For details, see **Software User's Guide**.
- From the Samsung SmarThru software: Launch Samsung SmarThru and open Scan To to begin scanning. For details, see **Software User's Guide**.

NOTES:

- To scan with your machine, you must install the software. For details, see the installing printer software in windows section of **Software User's Guide** to install the scan software.
 - Scanning is done through the same LPT or USB port currently assigned for your printer port.
-

Scanning From the Control Panel to an Application

- 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 ADF.
OR
Place a single document face down on the document glass.
For details about loading a document, see "Loading a Document" on page 7.3.
- 3 Press **Scan-to**. The first available menu item, for example "Microsoft Paint", appears on the display.
- 4 Press the scroll button (◀ or ▶) to select an application to which you want to send the scanned image.
- 5 Press **Start** to start scanning. The selected application window opens with the scanned image.

7 Faxing *(Only for SCX-4521F)*

The fax feature is only available on the SCX-4521F. This chapter gives you information about using your machine as a fax machine.

This chapter includes:

Setting Up the Fax System

- Changing the Fax Setup options
- Available Fax Setup Options

Sending a Fax

- Loading a Document
- Adjusting the Document Resolution
- Sending a Fax Automatically
- Sending a Fax Manually
- Redialing the Last Number
- Confirming Transmission
- Automatic Redialing

Receiving a Fax

- About Receiving Modes
- Loading Paper for Receiving Faxes
- Receiving Automatically in Fax Mode
- Receiving Manually in Tel Mode
- Receiving Automatically in Ans/ Fax Mode
- Receiving Manually Using an Extension Telephone
- Receiving Faxes Using the DRPD Mode
- Receiving Faxes in the Memory

Automatic Dialing

- Speed Dialing
- Group Dialing
- Searching for a Number in Memory
- Printing a Phonebook List

Other Ways to Fax

- Sending Broadcast Faxes
- Sending a Delayed Fax
- Sending a Priority Fax
- Adding Documents To a Scheduled Fax
- Canceling a Scheduled Fax

Additional Features

- Using Secure Receiving Mode
- Printing Reports
- Using Advanced Fax Settings

NOTE: Since the configuration of the VoIP is not compatible with Fax communication, there could be a restriction on color fax transmission, a slow speed in transmission, a bad image quality or communication failure at the worst occasion. Contact your local network manager or internet service provider for the details.

Setting Up the Fax System

Changing the Fax Setup options

- 1 Press **Menu** until "Fax Setup" appears on the top line of the display.
The first available menu item, "Default-Change", displays on the bottom line.
- 2 Press the scroll button (◀ or ▶) until you see the desired menu item on the bottom line and press **Enter**.
If you select "Default-Change", you will see "Resolution". Press **Enter** again.
- 3 Use the scroll button (◀ or ▶) to find the desired status or use the number keypad to enter the value for the option you have selected.
- 4 Press **Enter** to make your selection. The next Fax Setup option appears.
- 5 If necessary, repeat steps 2 through 4.
- 6 To return to Standby mode, press **Stop/Clear**.

Available Fax Setup Options

Option	Description
Default-Change	You can change the default value of resolution. <ul style="list-style-type: none">• Standard for documents with normal sized characters.• Fine for documents containing small characters or thin lines, or for sending documents printed using a dot-matrix printer.• Super Fine for documents containing extremely fine detail. Super Fine mode is enabled only if the remote machine also supports Super Fine resolution.• Photo for documents containing shades of gray or photographs.• Color for documents with colors. Sending a color fax is enabled only if the machine with which you are communicating supports color fax reception and you send the fax manually. In this mode, memory transmission is not available.

Option	Description
Ring To Answer	You can specify the number of times the machine rings, from 1 to 7, before answering an incoming call.
Darkness	You can select the default contrast mode to fax your documents lighter or darker. <ul style="list-style-type: none"> • 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.
Redial Term	Your machine can automatically redial a remote fax machine if it was busy. Intervals from 1 to 15 minutes can be entered.
Redials	You can specify the number of redial attempts, from 1 to 13.
MSG Confirm	You can set your machine to print a report showing whether a transmission was successful, how many pages were sent, and more. The available options are On , Off , and On-Err , which prints only when a transmission is not successful.
Image TCR	You can prevent the Image TCR from being included in the confirmation report for privacy or security protection. The available options are On or Off .
Auto Report	This produces a report with detailed information about the previous 50 communications operations, including time and dates. The available options are On or Off .
Auto Reduction	When receiving a document containing pages as long as or longer than the paper loaded in the tray, the machine can reduce the size of the document to fit the size of the paper loaded in the machine. Select On if you want to automatically reduce an incoming page. With this feature set to Off , the machine cannot reduce the document to fit onto one page. The document will be divided and printed in actual size on two or more pages.
Discard Size	When receiving a document containing pages as long as or longer than the paper installed in your machine, you can set the machine to discard any excess at the bottom of the page. If the received page is outside the margin you set, it will print in actual size on two or more sheets of paper. When the document is outside the margin and the Auto Reduction feature is turned on, the machine reduces the document to fit it onto the appropriately-sized paper and discard does not occur. If the Auto Reduction feature is turned off or fails, data outside the margin will be discarded. Settings range from 0 to 30 mm.

Option	Description
Receive Code	The Receive Start Code allows you to initiate fax reception from an extension phone plugged into the EXT. jack on the back of the machine. If you pick up the extension phone and hear fax tones, enter the Receive Start Code. The Receive Start Code is preset to *9* at the factory. Settings range from 0 to 9. See "Receiving Manually Using an Extension Telephone" on page 7.7 for more information about using the code.
DRPD Mode	You can receive a call using the Distinctive Ring Pattern Detection (DRPD) feature, which enables a user to use a single telephone line to answer several different telephone numbers. In this menu, you can set the machine to recognize which ring patterns to answer. For details about this feature, see "Receiving Faxes Using the DRPD Mode" on page 7.7.
Receive Mode	You can select the default fax receiving mode. <ul style="list-style-type: none"> • In Tel mode, you can receive a fax by picking up the handset of the extension phone and then pressing the remote receive code (see "Receive Code" on page 7.2). Alternatively, you can press On Hook Dial (you can hear a fax tone from the remote machine) and then press Start on the control panel of your machine. • In the Fax mode, the machine answers an incoming call and immediately goes into fax reception mode. • In Ans/Fax mode, the answering machine answers an incoming call, and the caller can leave a message on the answering machine. If the fax machine senses a fax tone on the line, the call automatically switches to Fax mode. • In DRPD mode, you can receive a call using the Distinctive Ring Pattern Detection (DRPD) feature. This option is available only when you set up the DRPD Mode. For further details, see "Receiving Faxes Using the DRPD Mode" on page 7.7.

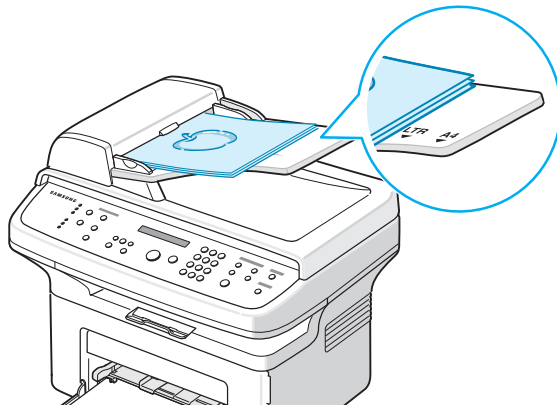
Sending a Fax

Loading a Document

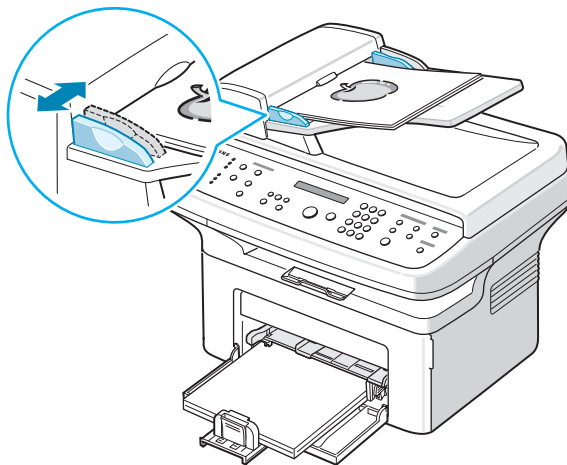
You can use the Automatic Document Feeder (ADF) or the document glass to load an original document for faxing. Using the ADF, you can load up to 30 sheets of 20 lb (75 g/m² bond) paper at a time. You can, of course, place only one sheet at a time on the document glass. For details about preparing a document, see "Preparing a Document" on page 4.1.

To fax a document using the Automatic Document Feeder (ADF):

- 1 Load the document **face up** into the ADF. You can insert up to 30 sheets at a time.
Make sure that the bottom of the document stack matches the paper size marked on the document tray.



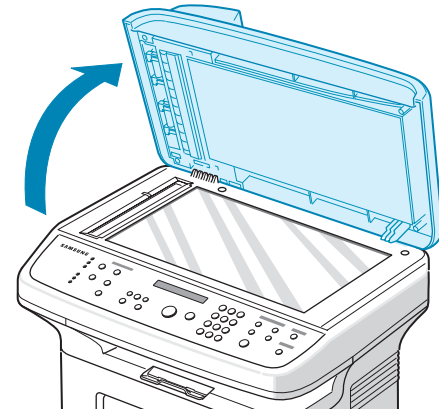
- 2 Adjust the document guide on the ADF to match the width of the document.



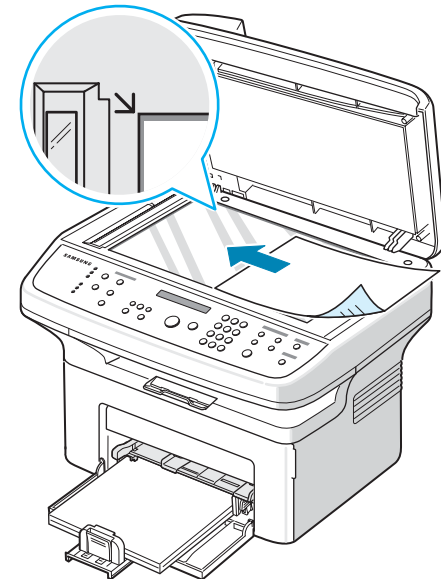
NOTE: Dust on the ADF glass may cause black lines on the printout. Keep it always clean.

To fax a document from the document glass:

- 1 Lift and open the document cover.



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



NOTE: Make sure that no other documents are in the ADF (Automatic Document Feeder). If a document is detected in the ADF, the machine gives it priority over the document on the document glass.

- 3 Close the document cover.

Adjusting the Document Resolution

The default document settings produce good results when using typical text-based documents.

However, if you send documents that are of a poor quality, or contain photographs, you can adjust the resolution to produce a higher quality fax.

- 1 Press **Resolution** on the control panel.
- 2 By pressing **Resolution** or the scroll button (◀ or ▶), you can choose from Standard, Fine, Super Fine, Photo, and Color.
- 3 When the mode you want to use displays, press **Enter** to make your selection.

The document types recommended for the resolution settings are described in the table below:

Mode	Recommended for:
Standard	Documents with normal sized characters.
Fine	Documents containing small characters or thin lines or documents printed using a dot-matrix printer.
Super Fine	Documents containing extremely fine detail. Super Fine mode is enabled only if the machine with which you are communicating also supports the Super Fine resolution. See the notes below.
Photo	Documents containing shades of gray or photographs.
Color	Documents with colors. Sending a color fax is enabled only if the machine with which you are communicating supports color fax reception and you send the fax manually. In this mode, memory transmission is not available.

NOTES:

- For memory transmission, Super Fine mode is not available. The resolution setting is automatically changed to Fine.
- When your machine is set to Super Fine resolution and the fax machine with which you are communicating does not support Super Fine resolution, the machine transmits using the highest resolution mode supported by the other fax machine.

Sending a Fax Automatically

- 1 Load the document(s) face up into the ADF.
OR
Place a single document face down on the document glass.
For details about loading a document, see "Loading a Document" on page 7.3.
- 2 Adjust the document resolution to suit your fax needs (see "Adjusting the Document Resolution" on page 7.4).
If you need to change the darkness, see "Darkness" on page 7.2.
- 3 Enter the remote fax phone number using the number keypad.
You can also press and hold the digit button of the speed dial number if you have assigned one. To store the speed dial number, see "Storing a Number for Speed Dialing" on page 7.8.
- 4 Press **Start**.
- 5 When a document is placed on the document glass, the display shows "Another Page?" on the top line after the document is scanned into the memory. If you have the next page, remove the scanned page and place the next page on the glass and select "1:Yes". Repeat as necessary.
After all of the pages are scanned, select "2:No" when the display shows "Another Page?".
- 6 The number is dialed and then the machine begins sending the fax when the receiving fax machine is ready.

NOTE: When you want to cancel a fax job, press **Stop/Clear** at any time while sending.

Sending a Fax Manually

- 1 Load the document(s) face up into the ADF.
OR
Place a single document face down on the document glass.
For details about loading a document, see "Loading a Document" on page 7.3.
- 2 Adjust the document resolution to suit your fax needs (see "Adjusting the Document Resolution" on page 7.4).
If you need to change the darkness, see "Darkness" on page 7.2.
- 3 Press **On Hook Dial**. You hear a dial tone.
- 4 Enter the receiving fax machine's number using the number keypad.
You can also press and hold the digit button of the speed dial number if you have assigned one. To store the speed dial number, see "Storing a Number for Speed Dialing" on page 7.8.
- 5 Press **Start** when you hear a high-pitched fax signal from the remote fax machine.

NOTE: When you want to cancel a fax job, press **Stop/Clear** at any time while sending.

Redialing the Last Number

To redial the number you last called:

Press **Redial/Pause**.

When a document is loaded in the ADF (Automatic Document Feeder; see "To fax a document using the Automatic Document Feeder (ADF):" on page 7.3), the machine automatically begins to send.

For a document placed on the document glass, the display asks if you want to load another page. Select "1:Yes" to add. Otherwise, select "2:No".

Confirming Transmission

When the last page of your document has been sent successfully, the machine beeps and returns to Standby mode. When something goes wrong while sending your fax, an error message appears on the display. For a list of error messages and their meanings, see "Clearing LCD Error Messages" on page 9.4.

If you receive an error message, press **Stop/Clear** to clear the message and try to send the document again.

You can set your machine to print a confirmation report automatically each time sending a fax is completed. For further details, see the MSG Confirm item on "MSG Confirm" on page 7.2.

Automatic Redialing

When the number you have dialed is busy or there is no answer when you send a fax, the machine automatically redials the number every three minutes, up to seven times according to the factory default settings.

When the display shows "Retry Redial ?", press **Enter** to redial the number without waiting. To cancel the automatic redialing, press **Stop/Clear**.

To change the time interval between redials and the number of redial attempts. See "Redial Term" on page 7.2.

Receiving a Fax

About Receiving Modes

- In **Fax** mode, the machine answers an incoming fax call and immediately goes into the fax reception mode.
- In **Tel** mode, you can receive a fax by pressing **On Hook Dial** (you can hear a fax tone from the sending machine) and then pressing **Start** on the control panel of your machine. You can also pick up the handset of the extension phone and then press the remote receive code (see “Receive Code” on page 7.2).
- In **Ans/Fax** mode, the answering machine answers an incoming call, and the caller can leave a message on the answering machine. If the fax machine senses a fax tone on the line, the call automatically switches to Fax mode.
- In **DRPD** mode, you can receive a call using the Distinctive Ring Pattern Detection (DRPD) feature. “Distinctive Ring” is a telephone company service which enables a user to use a single telephone line to answer several different telephone numbers. For further details, see “Receiving Faxes Using the DRPD Mode” on page 7.7.

When your machine’s memory is full, the receiving mode automatically switches to Tel.

For details about changing the receiving mode, see “Receive Mode” on page 7.2.

NOTES:

- To use the Ans/Fax mode, attach an answering machine to the EXT. jack on the back of your machine.
- If you do not want other people to view your received documents, you can use Secure Receiving mode. In this mode, all of the received faxes are stored in memory. For further details, see “Using Secure Receiving Mode” on page 7.13.

Loading Paper for Receiving Faxes

The instructions for loading paper in the tray are the same whether you are printing, faxing, or copying, except that faxes can only be printed on Letter-, A4-, Legal-, Folio-, Executive-, or B5-sized paper. For details about loading paper and setting the paper size in the tray, see “Loading Paper” on page 2.3 and “Setting the Paper Size and Type” on page 2.11.

Receiving Automatically in Fax Mode

Your machine is preset to Fax mode at the factory.

When you receive a fax, the machine answers the call on a specified number of rings and automatically receives the fax.

To change the number of rings, see “Ring To Answer” on page 7.2.

If you want to adjust the ringer volume, see “Setting Sounds (Only for SCX-4521F)” on page 2.11.

Receiving Manually in Tel Mode

You can receive a fax call by Start key pressure like below,

- 1 Press the On Hook Dial key or lift the external handset.
- 2 Press Start, then the “1.Sending 2.Receiving” message appears on the display.
- 3 Press 2 by using the numer keypad for receiving.
- 4 Press Enter to start fax receiving.

Receiving Automatically in Ans/Fax Mode

To use this mode, you must attach an answering machine to the EXT. jack on the back of your machine. See “Making Connections” on page 2.4.

If the caller leaves a message, the answering machine stores the message as it would normally. If your machine detects a fax tone on the line, it automatically starts to receive the fax.

NOTES:

- If you have set your machine to Ans/Fax mode and your answering machine is switched off, or no answering machine is connected to EXT. jack, your machine automatically goes into Fax mode after a predefined number of rings.
- If your answering machine has a ‘user-selectable ring counter’, set the machine to answer incoming calls within 1 ring.
- If you are in Tel mode (manual reception) when the answering machine is connected to your machine, you must switch off the answering machine, or the outgoing message from the answering machine will interrupt your phone conversation.

Receiving Manually Using an Extension Telephone

This feature works best when you are using an extension telephone connected to the EXT. jack on the back of your machine. You can receive a fax from someone you are talking to on the extension telephone without going to the fax machine.

When you receive a call on the extension phone and hear fax tones, press the keys ***9*** on the extension telephone. The machine receives the document.

Press the buttons slowly in sequence. If you still hear the fax tone from the remote machine, try pressing ***9*** once again. ***9*** is the remote receive code preset at the factory. The first and the last asterisks are fixed, but you can change the middle number to whatever you wish. For details about changing the code, see "Receive Code" on page 7.2

Receiving Faxes Using the DRPD Mode

"Distinctive Ring" is a telephone company service which enables a user to use a single telephone line to answer several different telephone numbers. The particular number someone uses to call you is identified by different ringing patterns, which consist of various combinations of long and short ringing sounds. This feature is often used by answering services who answer telephones for many different clients and need to know which number someone is calling in on to properly answer the phone.

Using the Distinctive Ring Pattern Detection feature, your fax machine can "learn" the ring pattern you designate to be answered by the fax machine. Unless you change it, this ringing pattern will continue to be recognized and answered as a fax call, and all other ringing patterns will be forwarded to the extension telephone or answering machine plugged into the EXT. jack. You can easily suspend or change Distinctive Ring Pattern Detection at any time.

Before using the Distinctive Ring Pattern Detection option, Distinctive Ring service must be installed on your telephone line by the telephone company. To set up Distinctive Ring Pattern Detection, you will need another telephone line at your location, or someone available to dial your fax number from outside.

To set up the DRPD mode:

- 1 Press **Menu** until "Fax Setup" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until you see "Receive Mode" on the bottom line and press **Enter**.

- 3 Press the scroll button (◀ or ▶) until you see "DRPD Mode" on the bottom line and press **Enter**.
- 4 When "Set" displays on the bottom line, press **Enter**.
"Waiting Ring" appears on the display.
- 5 Call your fax number from another telephone. It is not necessary to place the call from a fax machine.
- 6 When your machine begins to ring, do not answer the call. The machine requires several rings to learn the pattern. When the machine completes learning, the LCD displays "End DRPD Setup".
If the DRPD setup fails, "DRPD Ring Error" appears. Press **Enter** when "DRPD Mode" displays and retry from step 3.
- 7 To return to Standby mode, press **Stop/Clear**.

When the DRPD feature is set up, the DRPD option is available in the Receive Mode menu. To receive faxes in the DRPD mode, you need to set the menu to **DRPD**; see "DRPD Mode" on page 7.2.

NOTES:

- DRPD must be set up again if you re-assign your fax number, or connect the machine to another telephone line.
 - After DRPD has been set up, call your fax number again to verify that the machine answers with a fax tone. Then have a call placed to a different number assigned to that same line to be sure the call is forwarded to the extension telephone or answering machine plugged into the EXT. jack.
-

Receiving Faxes in the Memory

Since your machine is a multi-tasking device, it can receive faxes while you are making copies or printing. If you receive a fax while you are copying or printing, your machine stores incoming faxes in memory. Then, as soon as you finish copying or printing, the machine automatically prints the fax.

Automatic Dialing

Speed Dialing

You can store up to 100 frequently dialed numbers in one or two-digit speed dial locations (0-99).

Storing a Number for Speed Dialing

- 1 Press **Phone Book** on the control panel.
- 2 Press **Phone Book** or the scroll button (◀ or ▶) to display "Store&Edit" on the bottom line of the display. Press **Enter**.
- 3 Press **Enter** when "Speed Dials" appears on the display.
The display prompts you to enter a location number, showing the first available number.
- 4 Enter a speed dial number between 0 and 99, using the number keypad or the scroll button (◀ or ▶) and press **Enter**.
If a number is already stored in the location you chose, the display shows the number to allow you to change it. To start over with another speed-dial number, press **Upper Level**.
- 5 Enter the number you want to store using the number keypad and press **Enter**.
To insert a pause between numbers, press **Redial/Pause**.
The symbol "-" appears on the display.
- 6 To assign a name to the number, enter the name you want. For details about entering characters, see "Entering Characters Using the Number Keypad" on page 2.9.
OR
If you do not want to assign a name, skip this step.
- 7 Press **Enter** when the name appears correctly or without entering a name.
- 8 To store more fax numbers, repeat steps 4 through 7.
OR
To return to Standby mode, press **Stop/Clear**.

Sending a Fax using a Speed Dial Number

- 1 Feed the document(s) face up into the ADF.
Or
Place a single document face down on the document glass.
For details about loading a document, see "Loading a Document" on page 7.3.

- 2 Adjust the document resolution to suit your fax needs (see "Adjusting the Document Resolution" on page 7.4).
If you need to change the darkness, see "Darkness" on page 7.2.
- 3 Enter the speed dial number.
 - For a one-digit speed dial number, press and hold the appropriate digit button.
 - For a two-digit speed dial number, press the first digit button and press and hold the last digit button.
- 4 The corresponding entry's name briefly displays.
- 5 The document scans into memory.
When a document is placed on the document glass, the LCD display asks if you want to send another page. Select "1:Yes" to add more documents or "2:No" to begin sending the fax immediately.
- 6 The fax number stored in the speed dial location is automatically dialed. The document is sent when the receiving fax machine answers.

Group Dialing

If you frequently send the same document to several destinations, you can create a group of these destinations and set them under a group dial location. This enables you to use a group dial number setting to send the same document to all the destinations in the group.

Setting a Group Dial Number

- 1 Press **Phone Book** on the control panel.
- 2 Press **Phone Book** or the scroll button (◀ or ▶) to display "Store&Edit" on the bottom line of the display. Press **Enter**.
- 3 Press the scroll button (◀ or ▶) to display "Group Dials" on the bottom line and press **Enter**.
- 4 Press **Enter** when "New" displays on the bottom line.
The display prompts you to enter a location number, showing the first available number.
- 5 Enter a group number between 0 and 99 using the number keypad or the scroll button (◀ or ▶) and press **Enter**.
- 6 Enter a speed dial number you want to include in the group and press **Enter**.
You can also select the speed dial number stored in the machine by pressing the scroll button (◀ or ▶) and then press **Enter**.
- 7 When the display confirms the number to be added to the group, press **Enter**.
- 8 Repeat steps 6 and 7 to enter other speed dial numbers into the group.

- 9 Press the **Upper Level** button when you have entered all of the desired numbers. The display prompts you to enter a group ID.
- 10 To assign a name to the group, enter the name you want. For details about entering characters, see "Entering Characters Using the Number Keypad" on page 2.9.
OR
If you do not want to assign a name, skip this step.
- 11 Press **Enter** when the name appears correctly or without entering a name.
- 12 If you want to assign another group, press **Enter** and repeat from step 5.
OR
To return to Standby mode, press **Stop/Clear**.

NOTE: You cannot include one group dial number in another group dial number.

Editing Group Dial Numbers

You can delete a specific speed dial number from a selected group or add a new number to the selected group.

- 1 Press **Phone Book** on the control panel.
- 2 Press **Phone Book** or the scroll button (◀ or ▶) to display "Store&Edit" on the bottom line of the display. Press **Enter**.
- 3 Press the scroll button (◀ or ▶) to display "Group Dials" on the bottom line and press **Enter**.
- 4 Press the scroll button (◀ or ▶) to display "Edit" on the bottom line and press **Enter**.
- 5 Enter the group number you want to edit or select the group number by pressing the scroll button (◀ or ▶) and press **Enter**.
- 6 Enter the speed dial number you want to add or delete.
You can also select the speed dial number you want to delete by pressing the scroll button (◀ or ▶).
- 7 Press **Enter**.
- 8 When you enter the specific number in the group, the display shows "Delete?".
When you enter a new number, the display shows "Add?".
- 9 Press **Enter** to add or delete the number.
- 10 To change the group name, press **Upper Level**.
- 11 Enter a new group name and press **Enter**.
- 12 If you want to edit another group, press **Enter** and repeat from step 5.
Or
To return to Standby mode, press **Stop/Clear**.

Sending a Fax Using Group Dialing (Multi-address Transmission)

You can use group dialing for Broadcast or Delayed transmissions.

Follow the procedure of the operation (Broadcast fax: see "Sending Broadcast Faxes" on page 7.10, Delayed fax: see "Sending a Delayed Fax" on page 7.11, Priority fax: see "Sending a Priority Fax" on page 7.11). When you come to a step in which the display asks you to enter the receiving fax number:

- For a one-digit group number, press and hold the appropriate digit button.
- For a two-digit group number, press the first digit button and press and hold the last digit button.

You can use only one group number for one operation. Then continue the procedure to complete the desired operation.

Your machine automatically scans a document loaded in the Automatic Document Feeder or on the document glass into memory. The machine dials each of the numbers included in the group.

Searching for a Number in Memory

There are two ways to search for a number in the machine's memory. You can either scan from A to Z sequentially, or you can search using the first letter of the name associated with the number.

Searching Sequentially through the Memory

- 1 Press **Phone Book**.
- 2 Press **Enter** when "Search&Dial" appears on the display.
- 3 Press the scroll button (◀ or ▶) to scroll through the machine's memory until the name and number you want to dial display. You can search upwards or downwards through the entire memory in alphabetical order, from A to Z.
While searching through the machine's memory, you can see that each entry is preceded by one of three letters; "S" for speed dial or "G" for group dial numbers. These letters tell you how the number is stored.
- 4 When the name and/or the number you want displays, press **Start** or **Enter** to dial.

Searching with a Particular First Letter

- 1 Press **Phone Book**.
- 2 Press **Enter** when "Search&Dial" appears on the display.
- 3 Press the button labeled with the letter you want to search for. A name beginning with the letter displays.
For example, if you want to find the name "MOBILE" press the 6 button, which is labeled with "MNO".
- 4 Press the scroll button (◀ or ▶) to display the next name.
- 5 When the name and/or the number you want displays, press **Start** or **Enter** to dial.

Printing a Phonebook List

You can check your automatic dial setting by printing a Phonebook list.

- 1 Press **Phone Book**.
- 2 Press **Phone Book** or the scroll button (◀ or ▶) until "Print" appears on the bottom line and press **Enter**.
A list showing your speed dial, and group dial entries prints out.

Other Ways to Fax

Sending Broadcast Faxes

Using the **Broadcasting** button on the control panel, you can use the broadcast fax feature, which allows you to send a document to multiple locations. Documents are automatically stored in memory and sent to a remote station. After transmission, the documents are automatically erased from memory.

- 1 Load the document(s) face up into the ADF.
OR
Place a single document face down on the document glass.
For details about loading a document, see "Loading a Document" on page 7.3.
- 2 Adjust the document resolution to suit your fax needs (see "Adjusting the Document Resolution" on page 7.4).
If you need to change the darkness, see "Darkness" on page 7.2.
- 3 Press **Broadcasting** on the control panel.
- 4 Enter the number of the first receiving machine using the number keypad.
You can also press and hold the digit button of the speed dial number if you have assigned one. To store the speed dial number, see "Storing a Number for Speed Dialing" on page 7.8.
- 5 Press **Enter** to confirm the number. The display asks you to enter another fax number to send the document.

NOTE: The Another No. prompt does not appear if you have added numbers for another broadcast or delay fax job. You must wait until the job is completed.

- 6 To enter more fax numbers, press **1** to select "Yes" and repeat steps 4 and 5. You can add up to 10 destinations.
Note that you can input group dial numbers only once at first.
- 7 When you finish entering fax numbers, press **2** to select "No" at the Another No. prompt.
The document is scanned into memory before transmission. The display shows memory capacity and the number of pages being stored in memory.
For a document placed on the document glass, the display asks if you want to load another page. Select "1:Yes" to add. Otherwise, select "2:No".
- 8 The machine begins sending the document to the numbers you entered in the order in which you entered them.

Sending a Delayed Fax

You can set your machine to send a fax at a later time when you will not be present.

- 1 Load the document(s) face up into the ADF.
OR
Place a single document face down on the document glass.
For details about loading a document, see "Loading a Document" on page 7.3.
- 2 Adjust the document resolution to suit your fax needs (see "Adjusting the Document Resolution" on page 7.4).
If you need to change the darkness, see "Darkness" on page 7.2.
- 3 Press **Menu** until "Fax Feature" appears on the top line of the display. The first available menu item, "DelayFax" displays on the bottom line.
- 4 Press **Enter**.
- 5 Enter the number of the receiving machine using the number keypad.
You can also press and hold the digit button of the speed dial number if you have assigned one. To store the speed dial number, see "Storing a Number for Speed Dialing" on page 7.8.
- 6 Press **Enter** to confirm the number on the display. The display asks you to enter another fax number to which to send the document.

NOTE: The Another No. prompt does not appear if you have added numbers for another broadcast or delay fax job. You must wait until the job is completed.

- 7 To enter more fax numbers, press **1** to select "Yes" and repeat steps 5 and 6. You can add up to 10 destinations.
Note that you can input group dial numbers only once at first.
- 8 When you finish entering fax numbers, press **2** to select "No" at the Another No. prompt.
The display asks you to enter a name.
- 9 To assign a name to the transmission, enter the name you want. For details about entering characters, see "Entering Characters Using the Number Keypad" on page 2.9.
If you do not want to assign a name, skip this step.
- 10 Press **Enter**. The display shows the current time and asks you to enter the starting time when the fax is to be sent.
- 11 Enter the time using the number keypad.
To select "AM" or "PM" for 12-hour format, press the ***** or **#** button or any number button.
If you set a time earlier than the current time, the document will be sent at that time on the following day.

- 12 Press **Enter** when the starting time displays correctly.
- 13 The document is scanned into memory before transmission. The display shows memory capacity and the number of pages being stored in memory.
For a document placed on the document glass, the display asks if you want to load another page. Select "1:Yes" to add. Otherwise, select "2:No".
- 14 The machine returns to Standby mode. The display reminds you that you are in Standby mode and that a delayed fax is set.

NOTE: If you want to cancel the delayed transmission, see "Canceling a Scheduled Fax" on page 7.12.

Sending a Priority Fax

Using the Priority Fax feature, a high priority document can be sent ahead of reserved operations. The document is scanned into memory and transmitted when the current operation is finished. In addition, priority transmission will interrupt a broadcast operation between stations (i.e., when the transmission to station A ends, before transmission to station B begins) or between redial attempts.

- 1 Load the document(s) face up into the ADF.
OR
Place a single document face down on the document glass.
For details about loading a document, see "Loading a Document" on page 7.3.
- 2 Adjust the document resolution to suit your fax needs (see "Adjusting the Document Resolution" on page 7.4).
If you need to change the darkness, see "Darkness" on page 7.2.
- 3 Press **Menu** until "Fax Feature" appears on the top line of the display.
- 4 Press the scroll button (◀ or ▶) to display "Priority Fax" on the bottom line and press **Enter**.
- 5 Enter the number of the receiving machine using the number keypad.
You can also press and hold the digit button of the speed dial number if you have assigned one. To store the speed dial number, see "Storing a Number for Speed Dialing" on page 7.8.
- 6 Press **Enter** to confirm the number. The display asks you to enter a name.
- 7 To assign a name to the transmission, enter the name you want. For details about entering characters, see "Entering Characters Using the Number Keypad" on page 2.9.
If you do not want to assign a name, skip this step.

8 Press **Enter**.

The document is scanned into memory before transmission. The display shows memory capacity and the number of pages being stored in memory.

For a document placed on the document glass, the display asks if you want to load another page. Select "1:Yes" to add. Otherwise, select "2:No".

9 The machine shows the number being dialed and begins sending the document.

Adding Documents To a Scheduled Fax

You can add documents to a delayed transmission previously reserved in your machine's memory.

1 Load the document(s) face up into the ADF.

OR

Place a single document face down on the document glass.

For details about loading a document, see "Loading a Document" on page 7.3.

2 Adjust the document resolution to suit your fax needs (see "Adjusting the Document Resolution" on page 7.4).

If you need to change the darkness, see "Darkness" on page 7.2.

3 Press **Menu** until "Fax Feature" appears on the top line of the display.

4 Press the scroll button (◀ or ▶) to display "Add Page" on the bottom line and press **Enter**.

The display shows the last job reserved in memory.

5 Press the scroll button (◀ or ▶) until you see the fax job to which you want to add documents and press **Enter**.

The machine automatically stores the documents in memory, and the display shows memory capacity and the number of pages.

For a document placed on the document glass, the display asks if you want to load another page. Select "1:Yes" to add. Otherwise, select "2:No".

6 After storing, the machine displays the numbers of total pages and added pages and then returns to Standby mode.

Canceling a Scheduled Fax

1 Press **Menu** until "Fax Feature" appears on the top line of the display.

2 Press the scroll button (◀ or ▶) to display "Cancel Job" on the bottom line and press **Enter**.

The display shows the last job reserved in memory.

3 Press the scroll button (◀ or ▶) until you see the fax job you want to cancel, and press **Enter**.

4 When the display confirms your selection, press **1** to select "Yes". The selected job is canceled and the machine returns to Standby mode.

To cancel your selection, press **2** to select "No".

Additional Features

Using Secure Receiving Mode

You may need to prevent your received faxes from being accessed by unauthorized people. You can turn on Secure Receiving mode to restrict printing of received faxes when the machine is unattended. In Secure Receiving mode, all incoming faxes go into memory. When the mode is deactivated, any stored faxes are printed.

To turn Secure Receiving mode on:

- 1 Press **Menu** until "Advanced Fax" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until "Secure Receive" appears on the bottom line and press **Enter**.
- 3 Press the scroll button (◀ or ▶) to display "On" on the bottom line and press **Enter**.
- 4 Enter a four-digit password you want to use, using the number keypad and press **Enter**.
- 5 Re-enter the password to confirm it and press **Enter**.
- 6 To return to Standby mode, press **Stop/Clear**.

When a fax is received in Secure Receiving mode, your machine stores it in memory and displays "Secure Receive" to let you know that there is a fax stored.

To print received documents:

- 1 Press **Menu** until "Advanced Fax" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until "Secure Receive" appears on the bottom line and press **Enter**.
- 3 Press the scroll button (◀ or ▶) to display "Print" on the bottom line and press **Enter**.
- 4 Enter the four-digit password and press **Enter**.

The machine prints all of the faxes stored in memory.

To turn Secure Receiving mode off:

- 1 Press **Menu** until "Advanced Fax" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until "Secure Receive" appears on the bottom line and press **Enter**.
- 3 Press the scroll button (◀ or ▶) to display "Off" on the bottom line and press **Enter**.
- 4 Enter the four-digit password and press **Enter**.
The mode is deactivated and the machine prints all faxes stored in memory.
- 5 To return to Standby mode, press **Stop/Clear**.

Printing Reports

Your machine can print reports containing useful information. The following reports are available:

Phonebook List

This list shows all of the numbers currently stored in the machine's memory as speed dial and group dial numbers.

You can print this Phonebook list using the **Phone Book** button: see "Printing a Phonebook List" on page 7.10.

Sent Fax Report

This report shows information on the faxes you have recently sent.

Received Fax Report

This report shows information on the faxes you have recently received.

System Data List

This list shows the status of the user-selectable options. You may print this list to confirm your changes after changing any settings.

Scheduled Job Information

This list shows the document(s) currently stored for Delayed faxes. You may print this list to check the delayed faxes and the starting times.

Message Confirmation

This report shows the fax number, the number of pages, the elapsed time of the job, the communication mode, and the communication results for a particular fax job.

You can set up your machine to automatically print a message confirmation report after each fax job. See "MSG Confirm" on page 7.2.

Junk Fax Number List

This list shows up to 10 fax numbers specified as junk fax numbers. To add or delete numbers to or from this list, access the Junk Fax Setup menu: see "Junk Fax Setup" on page 7.14. When the Junk Fax Barrier feature is turned on, incoming faxes from those numbers are blocked.

This feature recognize the last 6 digits of the fax number set as a remote fax machine's ID.

Multi-communication Report

This report is printed automatically after sending documents from more than one location.

Power Failure Report

This report is printed out automatically when power is restored after a power failure, if any data loss occurs due to the power failure.

NOTE: The lists you have set to print out automatically don't print out when there is no paper loaded or a paper jam has occurred.

Printing a Report

- 1 Press **Menu** until "Reports" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to display the report or list you want to print on the bottom line.
 - Phone Book: Phonebook list
 - Sent Report: Sent fax report
 - RCV Report: Received fax report
 - System Data: System data list
 - Scheduled Jobs: Scheduled job information
 - MSG Confirm: Message confirmation
 - Junk Fax List: Junk fax number list
- 3 Press **Enter**.
The selected information prints out.

Using Advanced Fax Settings

Your machine has various user-selectable setting options for sending or receiving faxes. These options are preset at the factory, but you may need to change them. To find out how the options are currently set, print the System Data List. For details about printing the list, see above.

Changing Setting Options

- 1 Press **Menu** until "Advanced Fax" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until you see the menu item you want on the bottom line and press **Enter**.
- 3 When the option you want appears on the display, choose a status by pressing the scroll button (◀ or ▶) or enter a value using the number keypad.
- 4 Press **Enter** to save the selection.
- 5 You can exit from Setup mode at any time by pressing **Stop/Clear**.

Advanced Fax Setting Options

Option	Description
Send Forward	You can set the machine to send a copy of all outgoing faxes to a specified destination, in addition to the fax numbers you entered. Select Off to turn this feature off. Select On to turn this feature on. You can set the number of the fax machine to which faxes are to be sent.
RCV Forward	You can set your machine to forward incoming faxes to another fax number during a specified time period. When a fax arrives at your machine, it is stored in memory. Then, the machine dials the fax number that you have specified and sends the fax. Select Off to turn this feature off. Select On to turn this feature on. You can set the fax number to which faxes are forwarded. Then, you can enter the starting time and date, and/or the ending time and date. The Print Local Copy option allows you to set the machine to print the fax on your machine, if fax forwarding is completed without any error.
Junk Fax Setup	Using the Junk Fax Barrier feature, the system will not accept faxes sent from remote stations whose numbers are stored in the memory as junk fax numbers. This feature is useful for blocking any unwanted faxes. Select Off to turn the feature off. Your machine accepts all faxes. Select On to turn the feature on. You can set up to 10 fax numbers as junk fax numbers using the Set option. After storing numbers, your machine will not accept faxes from the registered stations. To delete all junk fax numbers, use the All Delete option.
Secure Receive	You can keep your received faxes from being accessed by unauthorized people. For further details about setting this mode, see "Using Secure Receiving Mode" on page 7.13.
Prefix Dial	You can set a prefix dial number of up to five digits. This number dials before any automatic dial number is started. It is useful for accessing a PABX exchange.
Stamp RCV Name	This option allows the machine to automatically print the page number, and the date and time of reception at the bottom of each page of a received document. Select Off to turn this feature off. Select On to turn this feature on.
ECM Mode (Error Correction Mode)	Error Correction Mode helps with poor line quality and makes sure any faxes you send are sent smoothly to any other ECM-equipped fax machine. If the line quality is poor, it takes more time to send a fax when you are using ECM. Select Off to turn this feature off. Select On to turn this feature on.

8 Maintenance

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

This chapter includes:

- **Clearing the Memory**
- **Setting the Machine to be Checked by Phone (Only for SCX-4521F)**
- **Cleaning Your Machine**
- **Maintaining the Toner Cartridge**
- **Consumables and Replacement Parts**
- **Replacing the ADF Rubber Pad**

Clearing the Memory

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



CAUTION: For SCX-4521F users, before clearing the memory, make sure that all fax jobs have been completed.

- 1** Press **Menu** on the control panel until "Maintenance" appears on the top line of the display.
- 2** Press the scroll button (◀ or ▶) until you see "Clear Memory" on the bottom line and press **Enter**.
The first available menu item, "Clear All Mem.", displays on the bottom line.
- 3** Press the scroll button (◀ or ▶) until you see the item you want to clear.
 - **Clear All Mem.:** Clears all of the data stored in the memory.
 - **Paper Setting:** Restores all of the Paper Setting options to the factory default.
 - **Machine Setup:** Resets all of your settings to the factory default.
 - **Copy Setup:** Restores all of the Copy Setup options to the factory default.
 - **Fax Setup:** (Only for SCX-4521F) Restores all of the Fax Setup options to the factory default.
 - **Fax Feature:** (Only for SCX-4521F) Cancels all of the scheduled fax jobs in the machine's memory.
 - **Advanced Fax:** (Only for SCX-4521F) Restores all of the Advanced Fax setting options to the factory default.
 - **Sound/Volume:** (Only for SCX-4521F) Restores all of the Sound/Volume settings to the factory default.
 - **Sent Report:** (Only for SCX-4521F) Clears all records of sent faxes.
 - **RCV Report:** (Only for SCX-4521F) Clears all records of received faxes.
 - **Phone Book:** (Only for SCX-4521F) Clears the speed dial and group dial numbers stored in the memory.
- 4** Press **Enter**. The selected memory is cleared and the display asks you to continue clearing the next item.
- 5** To clear another item, repeat steps 3 and 4.
OR
To return to Standby mode, press **Stop/Clear**.

Setting the Machine to be Checked by Phone

(Only for SCX-4521F)

The Remote Test feature allows your machine to be checked out by a service company at a remote place by phone.

- 1 Press **Menu** on the control panel until "Maintenance" appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) until you see "Remote Test" on the bottom line and press **Enter**.
- 3 Press the scroll button (◀ or ▶) to change the setting. Select "On" to enable this feature. Selecting "Off" protects your machine from being accessed by unauthorized people.
- 4 Press **Enter** to save the selection.
- 5 To return to Standby mode, press **Stop/Clear**.

Cleaning Your Machine

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



CAUTIONS:

- 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.
- 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 quality problems.

Cleaning the Outside

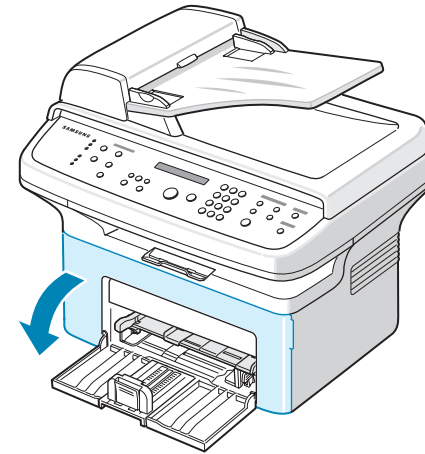
Clean the cabinet of the machine with a soft lint-free cloth. You can dampen the cloth slightly with water, but be careful not to let any water drip onto or into the machine.

Cleaning the Inside

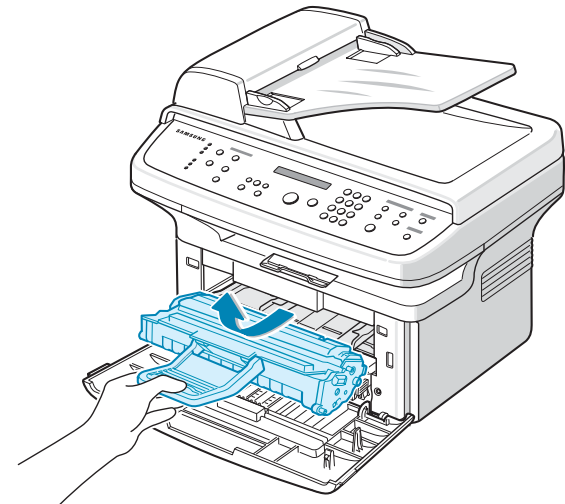
During the printing process, paper, toner, and dust particles can accumulate inside the machine. This buildup can cause print quality problems, such as toner specks or smearing. Cleaning the inside of the machine clears or reduces these problems.

- 1 Turn the machine off and unplug the power cord. Wait for the machine to cool down.

- 2 Open the front door.



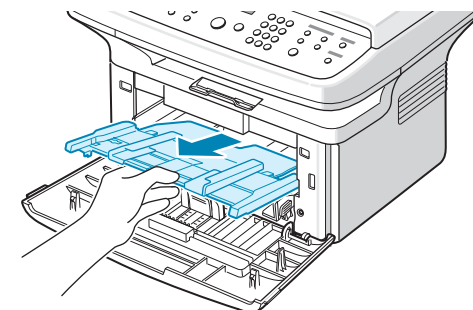
- 3 Pull the toner cartridge out, lightly pushing it down. Set it on a clean flat surface.



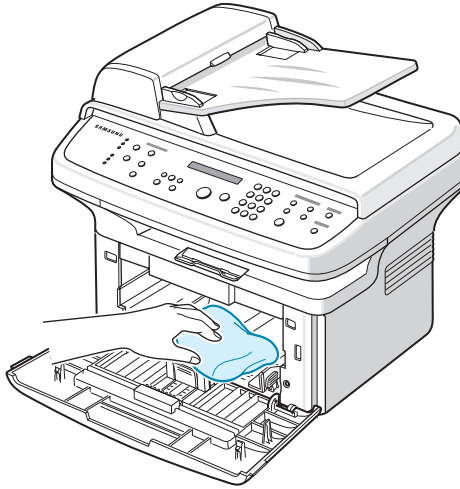
CAUTIONS:

- 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 underside of the toner cartridge. Use the handle on the cartridge to avoid touching this area.

- 4 Remove the manual tray by pulling it out.

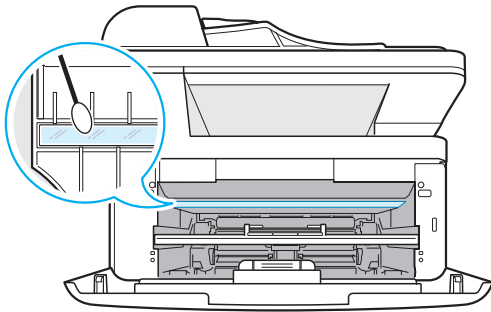


- 5 With a dry lint-free cloth, wipe away any dust and spilled toner from the toner cartridge area and the toner cartridge cavity.



CAUTION: Do not touch the black transfer roller inside the machine.

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



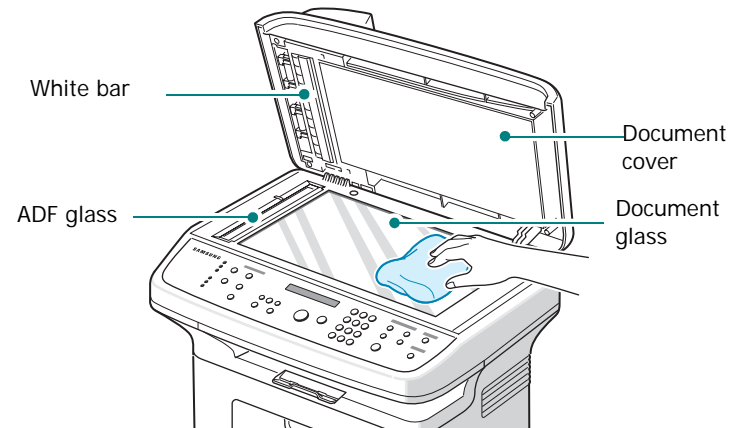
- 7 Reinsert the manual tray, toner cartridge and close the door.
- 8 Plug in the power cord and turn the machine on.

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 and ADF glass until it is clean and dry.



- 4 Wipe the underside of the white document cover and white bar 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 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 the **Toner Save** button on the control panel; see "Toner Save Mode" on page 2.12. The button backlight turns on. Using this feature extends the life of the toner cartridge and reduces your cost per page, but it also reduces print quality.

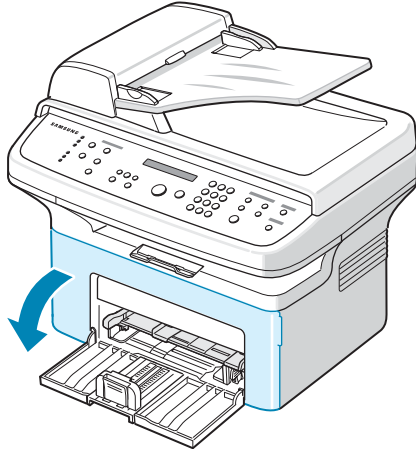
Expected Cartridge Life

The life of the toner cartridge depends on the amount of toner that print jobs require. When printing text at ISO 19752 5% coverage, a new toner cartridge lasts an average of 3,000 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 cartridge more often.

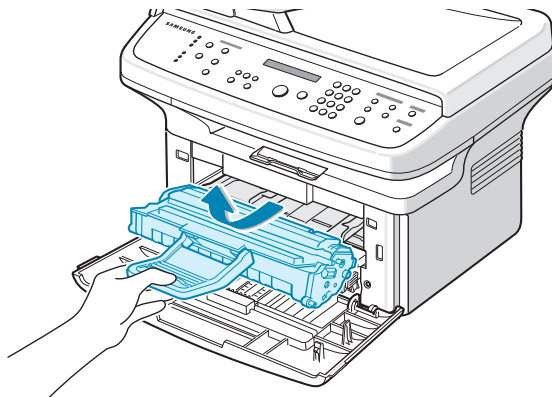
Redistributing Toner

When the toner cartridge is near the end of its life, white streaks or light printing occurs. The LCD displays the warning message, “[Toner Low]”. You can temporarily reestablish print quality by redistributing the remaining toner in the cartridge. In some cases, white streaks or light printing still occurs even after you have redistributed the toner.

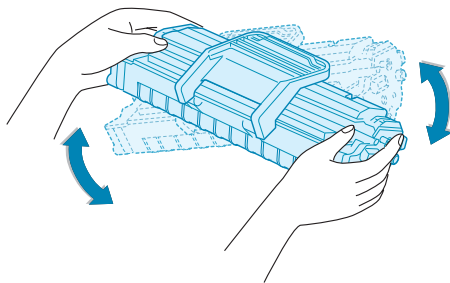
- 1 Open the front door.



- 2 Pull the toner cartridge out and remove it from the printer.



- 3 Gently shake the toner cartridge from side to side five or six times to redistribute the toner.



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 cartridge to avoid touching this area.

- 4 Reinstall the cartridge and close the front door. Make sure that the cover is securely closed. If it is not firmly closed, printing error may occur when you print.

Replacing the Toner Cartridge

When the display on the control panel shows the warning message, “[Toner Empty]” the toner cartridge has run out but continues printing. For the SCX-4521F, incoming faxes are saved in memory. At this stage, the toner cartridges need to be replaced.

NOTE: You can set the machine to ignore the “[Toner Empty]” message and to continue printing incoming faxes. See “Ignoring the Toner Empty Message (Only for SCX-4521F)” on page 8.5.

Remove the old toner cartridge and install a new toner cartridge. See “Installing the Toner Cartridge” on page 2.2.

Setting the Notify Toner Option

(Only for SCX-4521F)

If you set the Notify Toner menu option to “On”, your machine automatically sends a fax to your service company or the dealer to notify them. The fax number is preset by your dealer when you bought your machine.

Notification cases are like this:

- When the toner cartridges are low.
- When a critical error occurred at your machine. (Error cases: CRU Fuse Error, Low Heat Error, LSU Error.)
- When notification day and notification pages that are preset by your dealer have passed.

- 1 Press **Menu** on the control panel until “Maintenance” appears on the top line of the display.
- 2 Press the scroll button (◀ or ▶) to display “Notify Toner” on the bottom line and press **Enter**.
- 3 **Enter** a four-digit password you want to use, using the number keypad and press **Enter**. (If you select this menu, for the first time after purchasing or after clearing all memory, Re-enter the password to confirm it and press **Enter**.)
- 4 Press the scroll button (◀ or ▶) to change the setting. Select “On” to enable this feature. Selecting “Off” disables this feature.
- 5 Press **Enter** to save the selection.
- 6 To return to Standby mode, press **Stop/Clear**.

Cleaning the Drum

You can clean the OPC drum of the toner cartridge manually or automatically.

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

- 1 Before starting the cleaning procedure, make sure that paper is loaded in the machine.
- 2 Press **Menu** on the control panel until "Maintenance" appears on the top line of the display.
The first available menu item, "Clean Drum", displays on the bottom line.
- 3 Press **Enter**.
The first available menu item, "Yes" displays on the bottom line.
- 4 Press **Enter**.
The machine prints out a cleaning page. Toner particles on the drum surface are affixed to the paper.
- 5 If the problem remains, repeat steps 1 through 4.
- 6 To return to Standby mode, press **Stop/Clear**.

Ignoring the Toner Empty Message

(Only for SCX-4521F)

When the toner cartridge is nearly empty, the machine shows the "[Toner Empty]" message and continues printing except incoming faxes. In this case, incoming faxes are saved in memory.

However, you can set the machine to print incoming faxes, even though print quality is not optimal.

- 1 Press **Menu** until "Machine Setup" appears on the display.
- 2 Press the scroll button (◀ or ▶) until "Ignore Toner" appears on the bottom line and press **Enter**.
- 3 Press the Scroll button (◀ or ▶) to select "On" or "Off".
Select "On" to ignore the [Toner Empty] message.
Select "Off" to stop printing incoming faxes when the message appears. This is the default setting.
- 4 Press **Enter** to save the selection.
- 5 To return to Standby mode, press **Stop/Clear**.

Consumables 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 following items should be replaced after you have printed the specified number of pages:

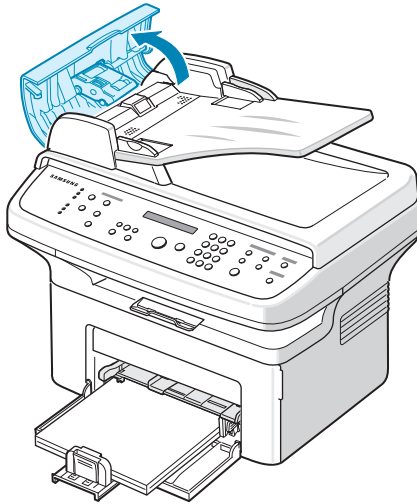
Items	Yield (Average)
ADF rubber pad	Approx. 20,000 pages
ADF roller	Approx. 50,000 pages
Paper feeding roller	Approx. 50,000 pages
Transfer roller	Approx. 50,000 pages
Fuser unit	Approx. 50,000 pages

To purchase consumables 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 "Replacing the Toner Cartridge" on page 8.4) and the ADF rubber pad (see "Replacing the ADF Rubber Pad" on page 8.6).

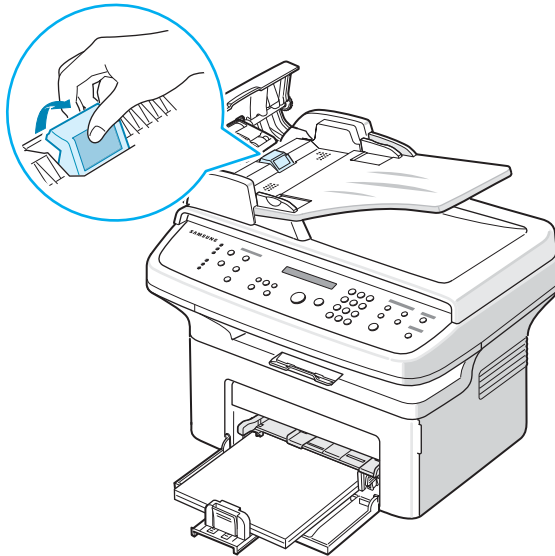
Replacing the ADF Rubber Pad

You can purchase an ADF rubber pad from your Samsung dealer or the retailer where you bought your machine.

- 1 Open the ADF cover.



- 2 Remove the ADF rubber pad from the ADF, as shown.



- 3 Insert a new ADF rubber pad into place.
- 4 Close the ADF cover.

9 Troubleshooting

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

This chapter includes:

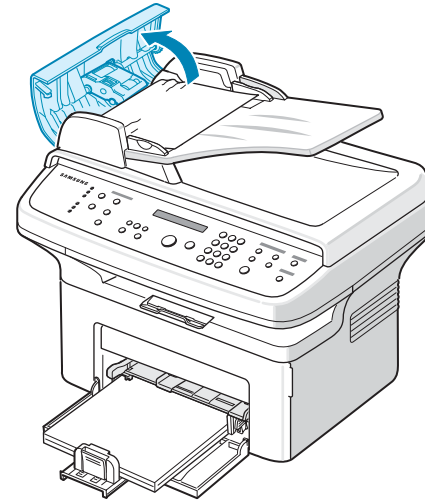
- Clearing Document Jams
- Clearing Paper Jams
- Clearing LCD Error Messages
- Solving Other Problems
- Common Linux Problems
- Common Macintosh Problems

Clearing Document Jams

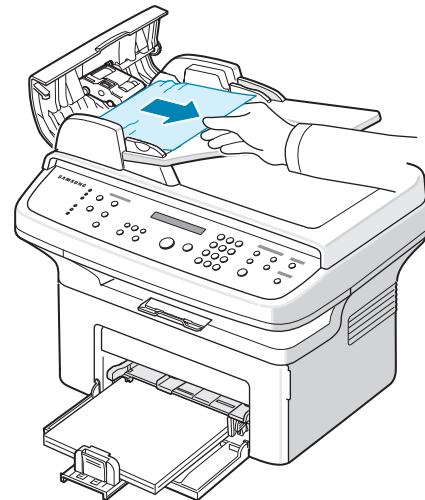
When a document jams while passing through the ADF (Automatic Document Feeder), “[Document Jam]” appears on the display.

Input Misfeed

- 1 Remove any remaining page(s) from the ADF.
- 2 Open the ADF cover.



- 3 Pull the document gently out of the ADF.

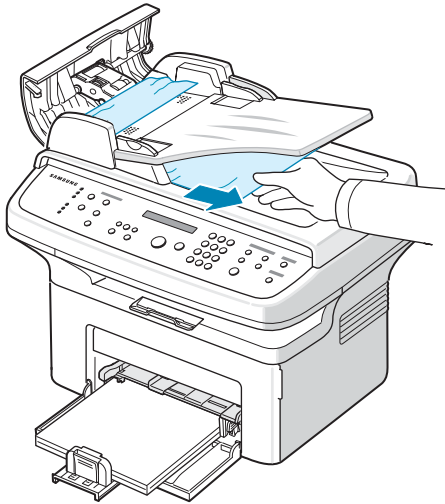


- 4 Close the ADF cover. Then load the removed page(s), if any, back into the ADF.

NOTE: To prevent document jams, use the document glass for thick, thin, or mixed paper-type documents.

Exit Misfeed

- 1 Remove any remaining page(s) from the ADF.
- 2 Open the ADF cover.
- 3 Remove the misfed documents from the document output tray.



- 4 Close the ADF cover. Then load the removed page(s), if any, back into the ADF.

Clearing Paper Jams

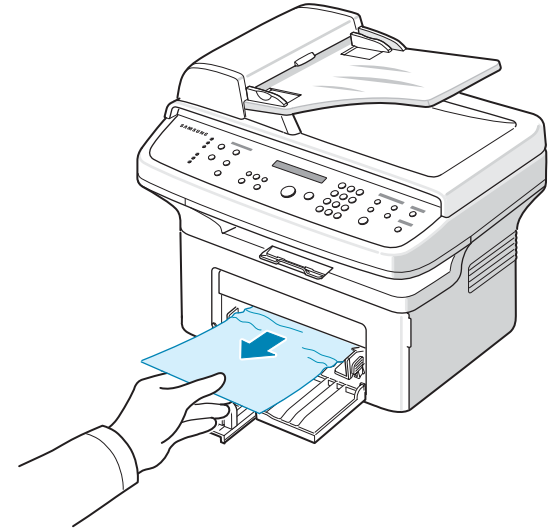
When a paper jam occurs, "Paper Jam" appears on the display. Refer to the table below to locate and clear the paper jam.

Message	Location of Jam	Go to
[Paper Jam 0] Open/Close Door	In the tray or manual tray	page 9.2
[Paper Jam 1] Open/Close Door	In the fuser area or around the toner cartridge.	page 9.3
[Paper Jam 2] Check Inside	In the paper exit area	page 9.3

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 Tray

- 1 Remove the jammed paper in the tray by gently pulling it straight out.

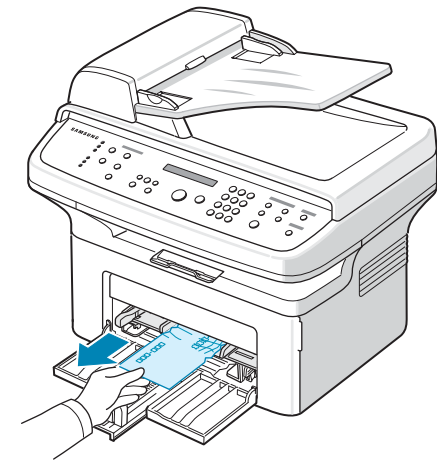


If there is any resistance and the paper does not move when you pull, or if you cannot see the paper in this area, check the fuser area around the toner cartridge. See page 9.3.

- 2 Open and close the front door to resume printing.

In the Manual Tray

- 1 Remove the jammed paper in the tray by gently pulling it straight out.



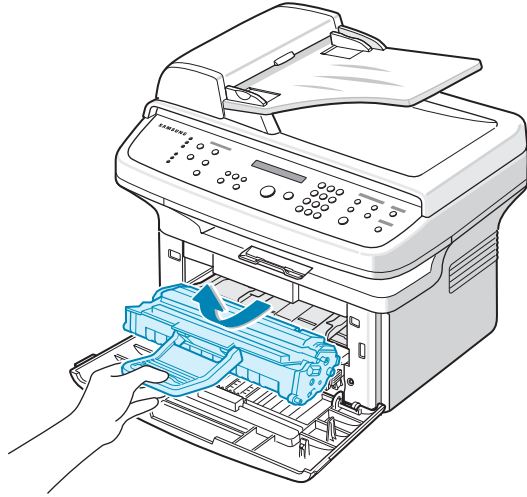
If there is any resistance and the paper does not move when you pull, or if you cannot see the paper in this area, check the fuser area around the toner cartridge. See page 9.3.

- 2 Open and close the front door to resume printing.

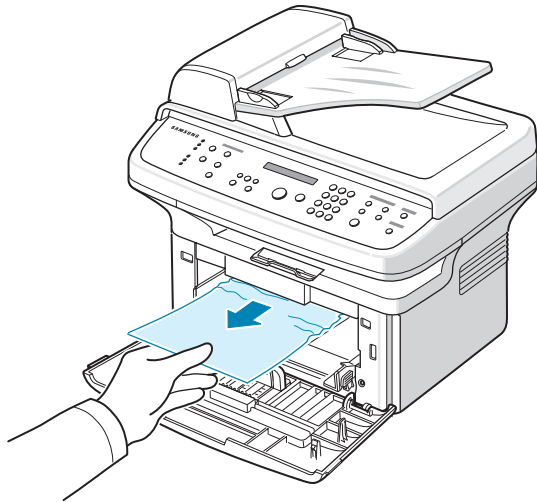
In the Fuser Area or Around the Toner Cartridge

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

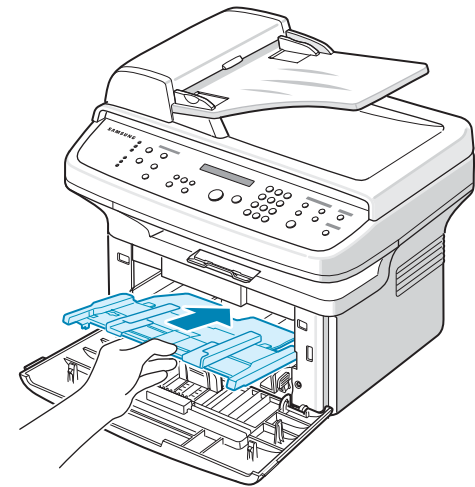
- 1 Open the front door.
- 2 Pull the toner cartridge out, lightly pushing it down.



- 3 If necessary, pull the manual tray out.
- 4 Remove the jammed paper by gently pulling it straight out.



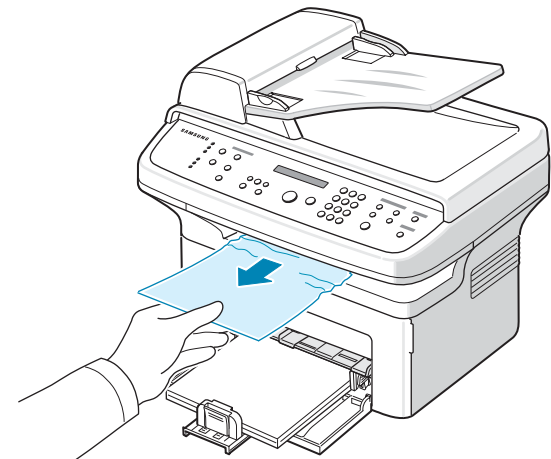
- 5 If necessary, push the manual tray back into the machine.



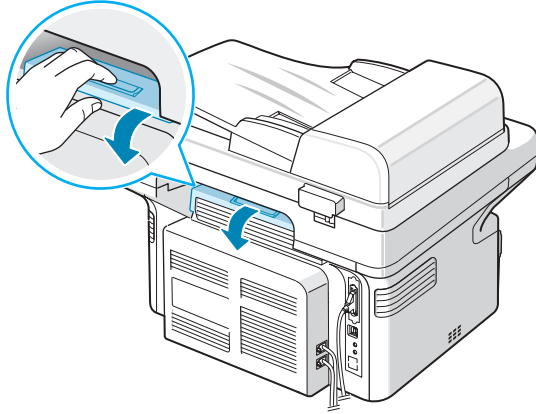
- 6 Reinstall the toner cartridge and close the front door. Printing automatically resumes.

In the Paper Exit Area

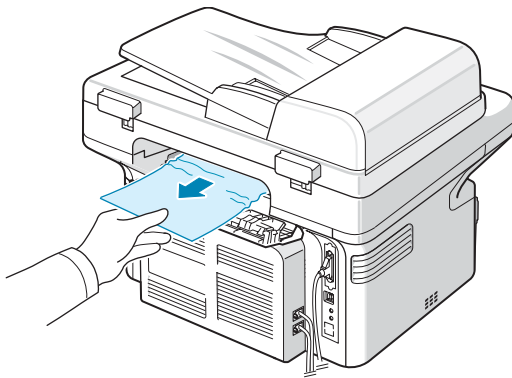
- 1 Open and close the front door. The jammed paper automatically exits the machine. If the paper does not exit, continue to step 2.
- 2 Gently pull the paper out of the output tray.



- 3** If there is any resistance and the paper does not move when you pull, or if you cannot see the paper in the output tray, open the rear cover by pulling the tab on it.

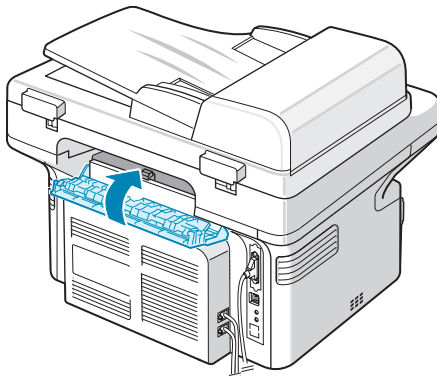


- 4** Remove the jammed paper by gently pulling it straight out.



CAUTION: Inside of the machine is hot. Take care when removing paper from the machine.

- 5** Close the rear cover.



- 6** Open and close the front door 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 "Clearing Paper Jams" on page 9.2.

- Follow the procedures in "Loading Paper" on page 2.3. Ensure that the adjustable guides are positioned correctly.
- Do not overload the tray.
- Do not remove paper from the 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 tray.
- Use only recommended print materials. See "Paper Specifications" on page 10.3.
- Ensure that the recommended print side of print materials is facing up in the tray.

Clearing LCD Error Messages

Display	Meaning	Suggested solutions
Cancel ? 1:Yes 2:No (only for SCX-4521F)	Your machine's memory has become full while trying to store a document into memory.	To cancel the fax job, press the 1 button to accept "Yes". If you want to send the pages that have been successfully stored, press the 2 button to accept "No". You should send the remaining pages later, when memory is available.
[Comm. Error] (only for SCX-4521F)	The machine has a communication problem.	Ask the sender to try again.
CRU Fuse Error	The toner cartridge is not installed correctly.	Install the toner cartridge correctly. See "Replacing the Toner Cartridge" on page 8.4.
[Document Jam]	The loaded document has jammed in the ADF (Automatic Document Feeder).	Clear the document jam. See "Clearing Document Jams" on page 9.1.
[Front or Rear] [Cover Open]	The front door or rear cover is not securely latched.	Close the door until it locks into place.
Enter Again	You entered an unavailable item.	Enter the correct item again.

Display	Meaning	Suggested solutions
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.
Open Heat Error		
[Over Heat]		
Group Not Available (only for SCX-4521F)	You have tried to select a group location number where only a single location number can be used, such as when adding locations for a broadcast operation.	Use a speed dial number or dial a number manually using the number keypad.
[Incompatible] (only for SCX-4521F)	The remote machine did not have the requested feature, such as a delayed transmission. This message also occurs if the remote machine does not have enough memory space to complete the operation you are attempting.	Reconfirm the remote machine's features.
[Line Busy] (only for SCX-4521F)	The receiving party did not answer or the line is already engaged.	Try again after a few minutes.
[Line Error] (only for SCX-4521F)	Your machine cannot connect with the remote machine or has lost contact because of a problem with the phone line.	Try again. If the problem persists, wait an hour or so for the line to clear and try again. Or, turn the ECM mode on. See "ECM Mode (Error Correction Mode)" on page 7.14.
Load Document	You have attempted to set up a copy or fax operation with no document loaded into the ADF.	Load a document into the ADF and try again.
[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.
Memory Dial Full (only for SCX-4521F)	The fax jobs queue in the memory is full.	Cancel unnecessary fax jobs in the memory.

Display	Meaning	Suggested solutions
Memory Full (only for SCX-4521F)	The memory is full.	Delete unnecessary documents and retransmit after more memory becomes available. Alternatively, split the transmission into more than one operation.
[No Answer] (only for SCX-4521F)	The receiving fax machine has not answered after several redial attempts.	Try again. Make sure that the receiving machine is operational.
[No Cartridge]	The toner cartridge is not installed.	Install the toner cartridge. See "Installing the Toner Cartridge" on page 2.2.
Not Assigned (only for SCX-4521F)	<ul style="list-style-type: none"> The speed dial location you tried to use has no number assigned to it. The ID you entered is not assigned. 	<ul style="list-style-type: none"> Dial the number manually using the number keypad or assign the number. For storing a number, see "Automatic Dialing" on page 7.8. Enter the correct ID. .
[No Paper] Add Paper	The paper in the tray has run out.	Load paper in the tray. See "Loading Paper" on page 2.3.
Operation Not Assigned (only for SCX-4521F)	You are doing the Add/Cancel operation, but there are no jobs waiting.	Check the display to see if there are any scheduled jobs. The display should indicate them in Standby mode; for example, Delay Fax.
Out of Range	The current date and time you entered is not correct.	Enter the correct date and time.
[Paper Jam 0] Open/Close Door	Paper has jammed in the feeding area of the tray.	Clear the jam. See "In the Tray" on page 9.2.
[Paper Jam 1] Open/Close Door	Paper has jammed in the fuser area or around the toner cartridge.	Clear the jam. See "In the Fuser Area or Around the Toner Cartridge" on page 9.3.
[Paper Jam 2] Check Inside	Paper has jammed in the paper exit area.	Clear the jam. See "In the Paper Exit Area" on page 9.3.
[Power Failure]	Power has turned off then on and the machine's memory has not been saved.	The job which you were trying to do before the power failure must be completely re-done.

Display	Meaning	Suggested solutions
Remove Documents from ADF	The Favorite Copy button is set to Clone, Autofit, ID Card Copy or Poster and you press the button.	The Clone, Autofit, ID Card Copy or Poster feature does not work with ADF. Remove the documents in the ADF.
[Retry Redial?] (only for SCX-4521F)	The machine is waiting for a specified time interval to redial a previously busy station.	You can press Enter to immediately redial, or Stop/Clear to cancel the redial operation.
Scanner Locked	The scanner module is locked.	Unplug the power cord and plug it back in.
[Stop Pressed]	The Stop/Clear button has been pressed during a copy or fax operation.	Try again.
[Toner Empty]	The toner cartridge has run out.	Replace the toner cartridge with a new one. See "Replacing the Toner Cartridge" on 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. See "Redistributing Toner" on page 8.4.

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 "Clearing Paper Jams" on page 9.2.
Paper sticks together.	<ul style="list-style-type: none"> • Ensure that there is not too much paper in the tray. The tray can hold up to 150 sheets of paper, depending on the thickness of your paper. • Make sure that you are using the correct type of paper. See "Paper Specifications" on page 10.3. • Remove paper from the tray and flex or fan the paper. • Humid conditions may cause some paper to stick together.
Multiple sheets of paper do not feed.	<ul style="list-style-type: none"> • Different types of paper may be stacked in the tray. Load paper of only one type, size, and weight. • If multiple sheets have caused a paper jam, clear the paper jam. See "Clearing Paper Jams" on page 9.2.
Paper does not feed into the machine.	<ul style="list-style-type: none"> • Remove any obstructions inside the machine. • Paper has not been loaded correctly. Remove paper from the tray and reload it correctly. • There is too much paper in the tray. Remove excess paper from the tray. • The paper is too thick. Use only paper that meets the specifications required by the machine. See "Paper Specifications" on page 10.3.
The paper keeps jamming.	<ul style="list-style-type: none"> • There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, use one sheet of paper at a time. • An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine. See "Paper Specifications" on page 10.3. • There may be debris inside the machine. Open the front door 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


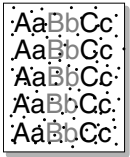

Condition	Possible cause	Suggested solutions
The machine does not print.	The machine is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The machine is not selected as the default printer.	Select your printer as your default printer in your Windows.
	Check the machine for the following: <ul style="list-style-type: none"> The front door is not closed. Paper is jammed. No paper is loaded. The toner cartridge is not installed. 	After locating the problem, clear it. <ul style="list-style-type: none"> Close the door. Clear the paper jam. See "Clearing Paper Jams" on page 9.2. Load paper. See "Loading Paper" on page 2.3. Install the toner cartridge. See "Installing the Toner Cartridge" on 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. For details, see Software User's Guide .
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error.

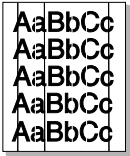
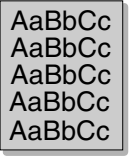
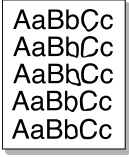
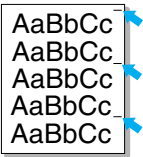
Condition	Possible cause	Suggested solutions
The machine selects print materials from the wrong paper source.	The paper source selection in the printer properties may be incorrect.	For many software applications, the paper source selection is found under the Paper tab within the printer properties. Select the correct paper source. For details, see Software User's Guide .
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 20 PPM for Letter-sized paper and 20 PPM for A4-sized paper.
Half the page is blank.	The page orientation setting may be incorrect.	Change the page orientation in your application. For details, see Software User's Guide .
	The paper size and the paper size settings do not match.	Ensure that the paper size in the printer driver settings matches the paper in the tray. Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use.
The 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.

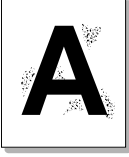
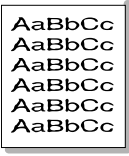

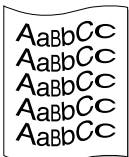
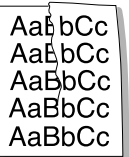
Condition	Possible cause	Suggested solutions
Pages print, but are blank.	The toner cartridge is defective or out of toner.	Redistribute the toner, if necessary. See "Redistributing Toner" on page 8.4. If necessary, replace the toner cartridge.
	The file may have blank pages.	Check the file to ensure 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 user may experience poor USB communication.	Change the USB mode to "Slow". To do so, follow these steps: 1. Press Menu until "Machine Setup" appears on the display. 2. Press the scroll button (◀ or ▶) until "USB Mode" appears on the bottom line and press Enter . 3. Press the scroll button (◀ or ▶) to select "Slow". 4. Press Enter to save the selection. 5. Press Stop/Clear to return to Standby Mode.

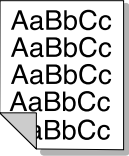
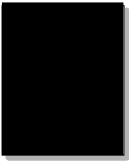
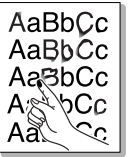

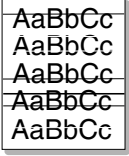
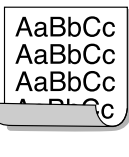
Printing Quality Problems

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 	<p>If a vertical white streak or faded area appears on the page:</p> <ul style="list-style-type: none"> The toner supply is low. You may be able to temporarily extend the toner cartridge life. See "Redistributing Toner" on page 8.4. If this does not improve the print quality, install a new toner cartridge. The paper may not meet paper specifications; for example, the paper is too moist or too rough. See "Paper Specifications" on page 10.3. 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. For details, see Software User's Guide and "Toner Save Mode" on page 2.12, respectively. A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning. See "Cleaning the Drum" on page 8.5. The surface of the LSU part inside the machine may be dirty. Clean the LSU ("Cleaning the Inside" on page 8.2). Contact a service representative.
Toner specs 	<ul style="list-style-type: none"> The paper may not meet specifications; for example, the paper is too moist or too rough. See "Paper Specifications" on page 10.3. The transfer roller may be dirty. Clean the inside of your machine. See "Cleaning the Inside" on page 8.2. The paper path may need cleaning. See "Cleaning the Drum" on page 8.5.
Dropouts 	<p>If faded areas, generally rounded, occur randomly on the page:</p> <ul style="list-style-type: none"> A single sheet of paper may be defective. Try reprinting the job. The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper. See "Paper Specifications" on page 10.3. The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. The toner cartridge may be defective. See "Vertical repetitive defects" on page 9.9. If these steps do not correct the problem, contact a service representative.

Condition	Suggested solutions
Vertical lines 	<p>If black vertical streaks appear on the page:</p> <ul style="list-style-type: none"> The drum inside the toner cartridge has probably been scratched. Remove the toner cartridge and install a new one. See "Replacing the Toner Cartridge" on page 8.4. <p>If white vertical streaks appear on the page:</p> <ul style="list-style-type: none"> The surface of the LSU part inside the machine may be dirty. Clean the LSU ("Cleaning the Inside" on page 8.2). Contact a service representative.
Gray background 	<p>If the amount of background shading becomes unacceptable:</p> <ul style="list-style-type: none"> Change to a lighter weight paper. See "Paper Specifications" on page 10.3. 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 "Replacing the Toner Cartridge" on page 8.4.
Toner smear 	<ul style="list-style-type: none"> Clean the inside of the machine. See "Cleaning the Inside" on page 8.2. Check the paper type and quality. See "Paper Specifications" on page 10.3. Remove the toner cartridge and install a new one. See "Replacing the Toner Cartridge" on page 8.4.
Vertical repetitive defects 	<p>If marks repeatedly appear on the printed side of the page at even intervals:</p> <ul style="list-style-type: none"> The toner cartridge may be damaged. If a repetitive mark occurs on the page, print a cleaning sheet several times to clean the cartridge; see "Cleaning the Drum" on page 8.5. After the printout, if you still have the same problems, remove the toner cartridge and install a new one. See "Replacing the Toner Cartridge" on 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 "Cleaning the Drum" on page 8.5.

Condition	Suggested solutions
Background scatter 	<p>Background scatter results from bits of toner randomly distributed on the printed page.</p> <ul style="list-style-type: none"> The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture. If background scatter occurs on an envelope, change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems. If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or the printer properties.
Misformed characters 	<ul style="list-style-type: none"> If characters are improperly formed and producing hollow images, the paper stock may be too slick. Try a different paper. See "Paper Specifications" on page 10.3. If characters are improperly formed and producing a wavy effect, the scanner unit may need service. For service, contact a service representative.
Page skew 	<ul style="list-style-type: none"> Ensure that the paper is loaded properly. Check the paper type and quality. See "Paper Specifications" on page 10.3. Ensure that the paper or other material is loaded correctly and the guides are not too tight or too loose against the paper stack.
Curl or wave 	<ul style="list-style-type: none"> Ensure that the paper is loaded properly. Check the paper type and quality. Both high temperature and humidity can cause paper curl. See "Paper Specifications" on page 10.3. Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray.
Wrinkles or creases 	<ul style="list-style-type: none"> Ensure that the paper is loaded properly. Check the paper type and quality. See "Paper Specifications" on page 10.3. Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray.

Condition	Suggested solutions
Back of printouts are dirty 	<p>Check for leaking toner. Clean the inside of the machine. See "Cleaning the Inside" on page 8.2.</p>
Black pages 	<ul style="list-style-type: none"> The toner cartridge may not be installed properly. Remove the cartridge and reinsert it. The toner cartridge may be defective and need replacing. Remove the toner cartridge and install a new one. See "Replacing the Toner Cartridge" on page 8.4. The machine may require repair. Contact a service representative.
Loose toner 	<ul style="list-style-type: none"> Clean the inside of the machine. See "Cleaning the Inside" on page 8.2. Check the paper type and quality. See "Paper Specifications" on page 10.3. Remove the toner cartridge and install a new one. See "Replacing the Toner Cartridge" on page 8.4. If the problem persists, the machine may require repair. Contact a service representative.
Character Voids 	<p>Character voids are white areas within parts of characters that should be solid black:</p> <ul style="list-style-type: none"> If you are using transparencies, try another type of transparency. Because of the composition of 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 "Paper Specifications" on page 10.3.
Horizontal stripes 	<p>If horizontally aligned black streaks or smears appear:</p> <ul style="list-style-type: none"> The toner cartridge may be installed improperly. Remove the cartridge and reinsert it. The toner cartridge may be defective. Remove the toner cartridge and install a new one. See "Replacing the Toner Cartridge" on page 8.4. If the problem persists, the machine may require repair. Contact a service representative.
Curl 	<p>If the printed paper is curled or paper does not feed into the machine:</p> <ul style="list-style-type: none"> Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray.

Copying Problems

Condition	Suggested solutions
Copies are too light or too dark.	Use the Darkness button to darken or lighten the background of the copies.
Smears, lines, marks, or spots appears on copies.	<ul style="list-style-type: none"> If defects are on the original, press the Darkness button to lighten the background of your copies. If no defects are on the original, clean the scan unit. See "Cleaning the Scan Unit" on page 8.3.
Copy image is skewed.	<ul style="list-style-type: none"> Ensure that the original is face down on the document glass or face up in the ADF (Automatic Document Feeder). Check that the copy paper is loaded correctly.
Blank copies print out.	Ensure that the original is face down on the document glass or face up in the ADF.
Image rubs off the copy easily.	<ul style="list-style-type: none"> Replace the paper in the 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.	<ul style="list-style-type: none"> Fan the stack of paper, then turn it over in the tray. Replace the paper in the tray with a fresh supply. Check/adjust the paper guides, if necessary. Ensure that the paper is the proper paper weight. 20 lb (75 g/m² bond) paper is recommended. Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.
Toner cartridge produces fewer copies than expected before running out of toner.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> • Make sure that you place the document to be scanned face down on the document glass, or face up in the Automatic Document Feeder. • 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 or parallel cable is connected properly. • Make sure that the USB or parallel cable is not defective. Switch the cable with a known good cable. If necessary, replace the cable. • If you are using a parallel cable, ensure that it is compliant with IEEE 1284 standards. • 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.	<ul style="list-style-type: none"> • 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.

Fax Problems *(Only for SCX-4521F)*

Condition	Suggested solutions
The machine is not working, there is no display and the buttons are not working.	<ul style="list-style-type: none"> • Unplug the power cord and plug it in again. • Ensure that there is power to the electrical outlet.
No dial tone sounds.	<ul style="list-style-type: none"> • Check that the phone line is connected properly. • Check that the phone socket in the wall is working by plugging in another phone.
The numbers stored in memory do not dial correctly.	Make sure that the numbers are stored in memory correctly. Print a Phonebook list, referring to "Phonebook List" on page 7.13.

Condition	Suggested solutions
The document does not feed into the machine.	<ul style="list-style-type: none"> • Make sure that the document is not wrinkled and you are putting it in correctly. Check that the document is the right size, not too thick or thin. • Make sure that the ADF (Automatic Document Feeder) cover is firmly closed.
Faxes are not received automatically.	<ul style="list-style-type: none"> • Fax mode should be selected. • Make sure that there is paper in the tray. • Check to see if the display shows "Memory Full".
The machine does not send.	<ul style="list-style-type: none"> • Make sure that the document is loaded in the ADF or on the document glass. • "TX" should show up on the display. • Check the fax machine you are sending to, to see if it can receive your fax.
The incoming fax has blank spaces or is of poor-quality.	<ul style="list-style-type: none"> • The fax machine sending you the fax may be faulty. • A noisy phone line can cause line errors. • Check your machine by making a copy. • The toner cartridge may be empty. Replace the toner cartridge, referring to "Replacing the Toner Cartridge" on page 8.4.
Some of the words on an incoming fax are stretched.	The fax machine sending you the fax had a temporary document jam.
There are lines on the documents you send.	Check your scanning glass for marks and clean it. See "Cleaning the Scan Unit" on page 8.3.
The machine dials a number, but a connection with the other fax machine fails.	The other fax machine may be turned off, out of paper, or cannot answer incoming calls. Speak with the other machine operator and ask her/him to sort out the problem.
Documents are not stored in memory.	There may not be enough memory to store the document. If the display shows a "Memory Full" message, delete from memory any documents you no longer need and then try again to store the document.
Blank areas appear at the bottom of each page or on other pages, with a small strip of text at the top.	You may have chosen the wrong paper settings in the user option setting. For details about paper settings, see "Setting the Paper Size and Type" on page 2.11.

Common Linux Problems

Problem	Possible Cause and Solution
The machine doesn't print.	<ul style="list-style-type: none"> 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. <p>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.</p>

Problem	Possible Cause and Solution
The machine doesn't appear on the scanners list.	<ul style="list-style-type: none"> 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 you 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. 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 displays. 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.	<ul style="list-style-type: none"> 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.
The machine doesn't scan. (continued)	<ul style="list-style-type: none"> 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.

Problem	Possible Cause and Solution
I can't print when I installed both Linux Print Package (LPP) and MFP driver on the same machine simultaneously.	<ul style="list-style-type: none"> • 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 <code>-sf /usr/local/bin/samsung/slpr /usr/bin/lpr</code>
Can't scan via Gimp Front-end.	<ul style="list-style-type: none"> • 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. <p>If you wish to use other kind of scan application, refer to the Help for application.</p>
I encounter error "Cannot open MFP port device file" when printing a document.	<p>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.</p>

Common Macintosh Problems

Problems in Printer Setup Utility

Problem	Possible Cause and Solution
There is described "driver not installed" at Product List Window after you click Add and Select USB.	<ul style="list-style-type: none"> • Software is not installed correctly. Reinstall the software. See Software User's Guide. • 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.	<ul style="list-style-type: none"> • Make sure that the cables are connected correctly and the printer 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 "Clearing LCD Error 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**
- **Facsimile Specifications (Only for SCX-4521F)**
- **Paper Specifications**

General Specifications

Item	Description
Model name	SCX-4321(WT21MFC)
	SCX-4521F(WT21MFF)
Automatic document feeder	Up to 30 sheets (20 lb, 75 g/m ² bond)
ADF document size	Width: 5.6 to 8.5 inches (142 to 216 mm) Length: 5.8 to 14 inches (148 to 356 mm)
Paper input capacity	Tray with multi-pages: 150 multi-pages for plain paper (20 lb, 75 g/m ² bond) Tray with single page and manual tray: 1 single page for plain paper, card stock, labels, transparencies, and envelopes
Paper output capacity	50 sheets
Paper type	Plain paper, Transparencies, Labels, Card stock, Envelopes
Consumables	1-piece toner cartridge system
Power requirements	110 - 127 VAC, 50/60 Hz, 4.5 A 220 - 240 VAC, 50/60 Hz, 2.5 A
Power consumption	Sleep mode: Under 10 W Average: 350 W
Noise*	Standby mode: Less than 35 dBA Warm up: Less than 49 dBA Copying: Less than 55 dBA Printing: Less than 53 dBA
Warm-up time	Less than 35 seconds
Operating conditions	Temperature: 50 °F to 89 °F (10 °C to 32 °C) Humidity: 20 % to 80 % RH
LCD	16 characters x 2 lines
Toner cartridge life**	3,000 pages (for starter, 1,000 pages) @ ISO 19752 5 % coverage
SET dimension (W x D x H)	17.2 x 14.7x 14.5 in. (438 x 374 x 368 mm)
Weight	10.4 Kg (including consumables)
Package weight	Paper: 1.2 Kg Plastic: 0.5 Kg
Duty cycle (Monthly)	Print: Up to 4,200 pages

*.Sound Pressure Level, ISO7779

**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	ADF and Flat-bed CIS (Contact Image Sensor) module
Resolution	Optical: 600 x 600 dpi (Mono and color) Enhanced: 4,800 x 4,800 dpi
Effective scanning length	Platen: 11.7 in. (297 mm) ADF: 14 in. (356 mm)
Effective scanning width	Max. 8.2 in. (208 mm)
Color bit depth	24 bit
Mono bit depth	1 bit for Black & White mode 8 bit for Gray mode
Copy speed*	<ul style="list-style-type: none"> • SCX-4521F: Up to 20 cpm in A4 (20 cpm in Letter) • SCX-4521FR: Up to 9 cpm in A4 (9 cpm in Letter)
First copy out time	Standby mode: 11 seconds Power save mode: 41 seconds
Copy resolution	Scan: 600 x 300 (Text, Text/Photo) 600 x 600 (Photo using Platen) 600 x 300 (Photo using ADF) Print: 600 x 600 (Text, Text/Photo, Photo)
Zoom rate	Platen: 25 ~ 400 % ADF: 25 ~ 100 %
Multiple copies	1-99 pages
Gray scale	256 levels

*. Copy Speed is based on Single Document Multiple Copy.

Printer Specifications

Item	Description
Printing method	Laser Beam Printing
Printing speed*	Up to 20 ppm in A4 (20 ppm in Letter)
First print out time	Standby mode: 11 seconds Power save mode: 41 seconds
Paper size	Letter, Legal, A4, Folio, Executive, A5, A6 card, Envelope 10, Envelope DL, Envelope C5, Envelope C6, Envelope 7-3/4 (Monarch), JIS B5, ISO B5 * Min.: 3 x 5 in. (76 x 127 mm) Max.: 8.5 x 14 in. (216 x 356 mm)
Printer resolution	600 x 600 dpi
Emulation	SPL (Samsung Printer Language)
OS Compatibility**	Windows 2000/XP/2003/2008/Vista/7/Server 2008 R2, Various Linux OS (USB only), Macintosh 10.3~10.6
Memory	10 MB (Non-expendable)
Inteface	IEEE 1284 Parallel, USB 1.1 (Compatible with USB 2.0)

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

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

Facsimile Specifications

(Only for SCX-4521F)

Item	Description
Compatibility	ITU-T Group 3
Applicable line	Public Switched Telephone Network (PSTN) or behind PABX
Data coding	MH/MR/MMR (ECM Mode)/JPEG
Modem speed	33.6 Kbps
Transmission speed	Approx. 3 seconds/page * Transmission time applies to memory transmission of text data with ECM compression using only ITU-T No.1 Chart.
Maximum document length	Platen: 11.7 in. (297 mm) ADF: 14 in. (356 mm)
Paper size	Letter, A4, Legal, Folio, Executive, B5
Resolution	Standard: 203 x 98 dpi Fine: 203 x 196 dpi Super Fine: 300 x 300 dpi Photo: 203 x 196 dpi Color: 200 x 200 dpi
Memory	2 MB
Halftone	256 levels
Auto dialer	Speed dialing (up to 100 numbers)

Paper Specifications

Overview

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

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

NOTES:

- Some paper may meet all of the guidelines in this guide and still not produce satisfactory results. This may be the result of improper handling, unacceptable temperature and humidity levels, or other variables over which Samsung has no control.
- Before purchasing large quantities of paper, insure the paper meets the requirements specified in this user's guide.

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

Supported Sizes of Paper

Paper	Dimensions *	Weight	Capacity **
Letter	8.5 x 11 in. (216 x 279 mm)	<ul style="list-style-type: none"> • 16 to 24 lb (60 to 90 g/m² bond) for the tray with multi-pages feeding • 16 to 43 lb (60 to 165 g/m² bond) for the tray with single page feeding and the manual tray 	<ul style="list-style-type: none"> • 150 sheets of 20 lb (75 g/m² bond) paper for the tray • 1 sheet of paper for the tray or manual tray
A4	8.3 x 11.7 in. (210 x 297 mm)		
Executive	7.3 x 10.5 in. (184 x 267 mm)		
Legal	8.5 x 14 in. (216 x 356 mm)		
A5	5.8 x 8.2 in. (148 x 210 mm)		
A6	4.1 x 5.8 in. (105 x 148 mm)		
ISO B5	6.9 x 9.8 in. (176 x 250 mm)		
JIS B5	7.2 x 10.1 in. (182 x 257 mm)		
Folio	8.5 x 13 in. (216 x 330 mm)		
Minimum size (custom)	3 x 5 in. (76 x 127 mm)	16 to 43 lb (60 to 165 g/m ² bond) for the tray with single page feeding and the manual tray	1 sheet of paper for the tray or manual tray
Maximum size (custom)	8.5 x 14 in. (216 x 356 mm)		
Transparency	Same minimum and maximum paper sizes as listed above.	138 to 146 g/m ²	
Labels		120 to 150 g/m ²	
Cards		90 to 163 g/m ²	
Envelopes		75 to 90 g/m ² (20 to 24 lb)	

*. The machine supports a wide range of media sizes. See "Paper Type, Input Sources, and Capacities" on page 3.1

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

NOTE: You may experience jams when using print materials with a length of less than 5 in. (127 mm). For optimum performance, ensure that you are storing and handling the paper correctly. Please refer to "Paper Storage Environment" on page 10.5.

Guidelines for Using Paper

For the best result, use conventional 20 lb (75 g/m² bond) paper. Ensure that the paper is of good quality, and free of cuts, nicks, tears, spots, loose particles, dust, wrinkles, voids, and curled or bent edges.

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

The following problems may cause print quality deviations, jamming or even damage to the machine:

Symptom	Problem with Paper	Solution
Poor print quality or toner adhesion, problems with feeding	Too moist, too rough, too smooth or embossed; faulty paper lot	Try another kind of paper, between 100 ~ 400 Sheffield, 4 ~ 5 % moisture content.
Dropout, jamming, curl	Stored improperly	Store paper flat in its moisture-proof wrapping.
Increased gray background shading/ printer wear	Too heavy	Use lighter paper.
Excessive curl problems with feeding	Too moist, wrong grain direction or short-grain construction	Use long-grain paper.
Jamming, damage to machine	Cutouts or perforations	Do not use paper with cutouts or perforations.
Problems with feeding	Ragged edges	Use good quality paper.

NOTES:

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

Paper Specifications

Category	Specifications
Acid content	5.5 pH or lower
Caliper	3.0 ~ 7.0 mils (0.094 ~ 0.18 mm)
Curl in ream	Flat within 0.02 in. (5 mm)
Cut edge conditions	Cut with sharp blades with no visible fray.
Fusing compatibility	Must not scorch, melt, offset or release hazardous emissions when heated to 200 °C (392 °F) for 0.1 second.
Grain	Long grain
Moisture content	4 % ~ 6 % by weight
Smoothness	100 ~ 400 Sheffield

Paper Output Capacity

Output Location	Capacity
Face-down output tray	50 sheets of 20 lb (75 g/m ² bond) paper

Paper Storage Environment

Paper storage environmental conditions directly affect the feed operation.

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

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

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

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

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

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

Envelopes

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

- **Weight:** The weight of the envelope paper should not exceed 24 lb (90 g/m² bond) or jamming may occur.
- **Construction:** Prior to printing, envelopes should lie flat with less than 0.25 in. (6 mm) 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.
- **Size:** You should only use envelopes within the following size ranges.

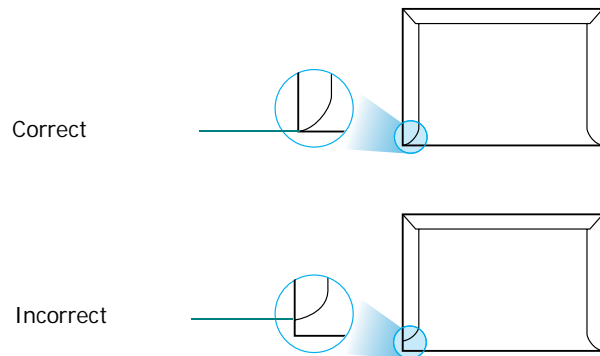
Minimum	Maximum
3 x 5 in. (76 x 127 mm)	8.5 x 14 in. (216 x 356 mm)

NOTES:

- Load only one sheet of paper at a time to print envelopes.
- You may experience some paper jams when using any media with a length less than 5.5 in. (140 mm). This may be caused by paper that has been affected by environmental conditions. For optimum performance, make sure you are storing and handling the paper correctly. Please refer to "Paper Storage Environment" on page 10.5.

Envelopes with Double Side Seams

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



Envelopes with Adhesive Strips or Flaps

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

Envelope Margins

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

Type of Address	Minimum	Maximum
Return address	0.6 in. (15 mm)	2 in. (51 mm)
Delivery address	2 in. (51 mm)	3.5 in. (90 mm)

NOTES:

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

Envelope Storage

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

Labels

CAUTIONS:

- To avoid damaging the machine, use only labels recommended for laser printers.
- To prevent serious jams, always load one sheet of paper at a time to print labels.
- Never print on the same sheet of labels more than once and never print on a partial sheet of labels.

When selecting labels, consider the quality of each component:

- Adhesives: The adhesive material should be stable at 180°C (356°F), the machine's fusing temperature.
- Arrangement: Only use labels with no exposed backing between them. Labels can peel off sheets with spaces between the labels, causing serious jams.
- Curl: Prior to printing, labels must lie flat with no more than 5 in. (13 mm) of curl in any direction.
- Condition: Do not use labels with wrinkles, bubbles or other indications of separation.

Transparencies

Transparencies used in the machine must be able to withstand 180°C (356°F), the machine's fusing temperature.



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

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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.

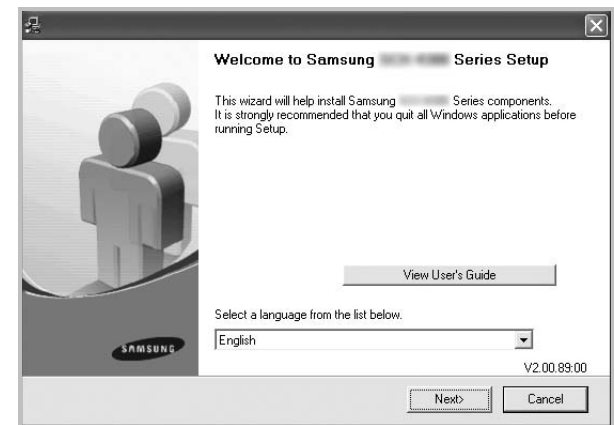
- 1 Make sure that the printer is connected to your computer and powered on.
- 2 Insert the supplied CD-ROM into your CD-ROM drive. The CD-ROM should automatically run, and an installation window appears.

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, Windows 7 and Windows Server 2008 R2, click **Start** → **All programs** → **Accessories** → **Run**, and type **X:\Setup.exe**.

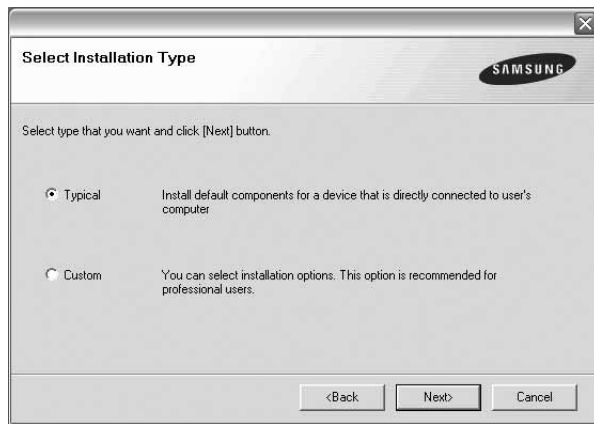
If the **AutoPlay** window appears in Windows Vista, Windows 7 and Windows Server 2008 R2, click **Run Setup.exe** in **Install or run program** field, and click **Continue** in the **User Account Control** window.

- 3 Click **Next**.



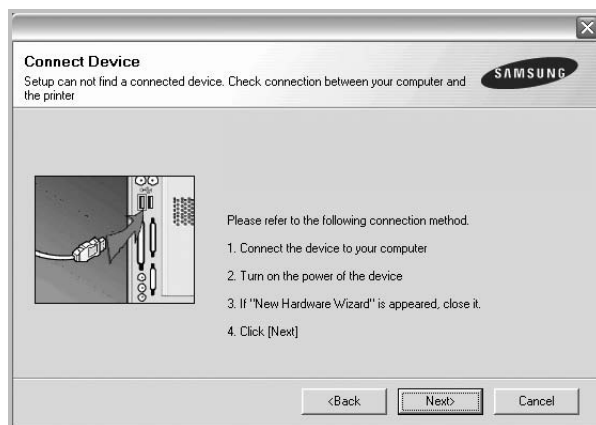
- If necessary, select a language from the drop-down list.
- **View User's Guide:** Allows you to view the User's Guide. If your computer doesn't have Adobe Acrobat, click on this option and it will automatically install Adobe Acrobat Reader for you.

- 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**.

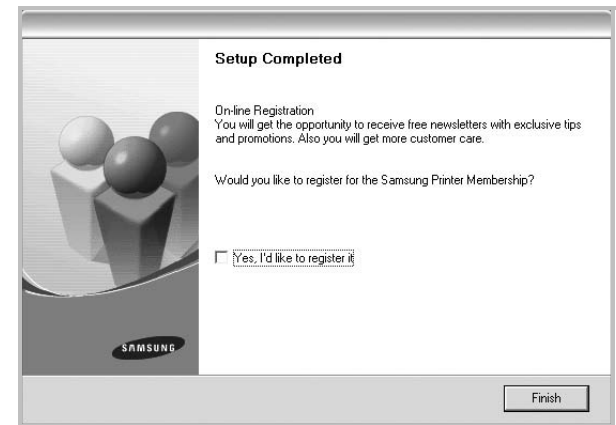
Otherwise, just click **Next** and skip to step 7.

- 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.

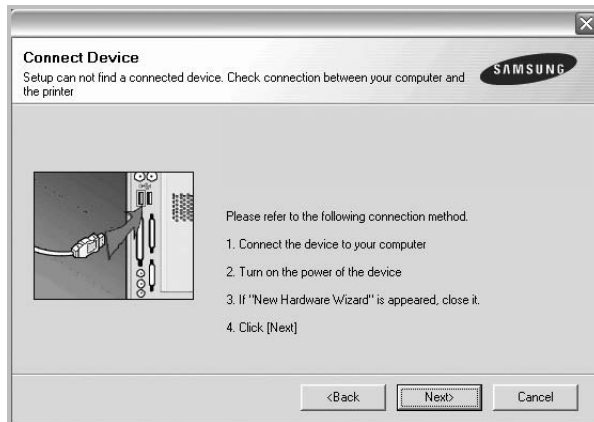
Reinstalling Printer Software

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 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

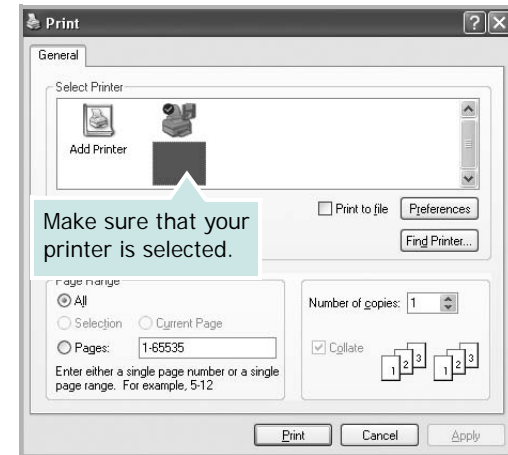
NOTES:

- 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.

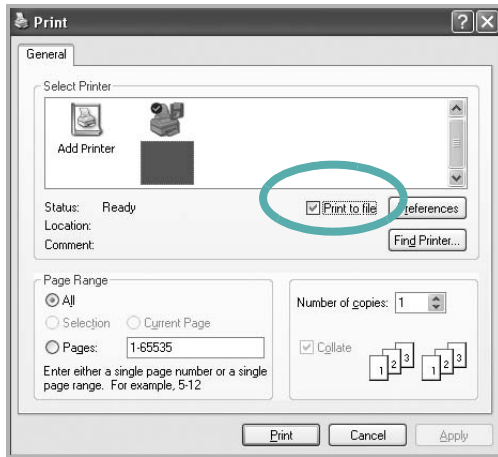
- 4 To start the print job, click **OK** or **Print** in the Print window.

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.

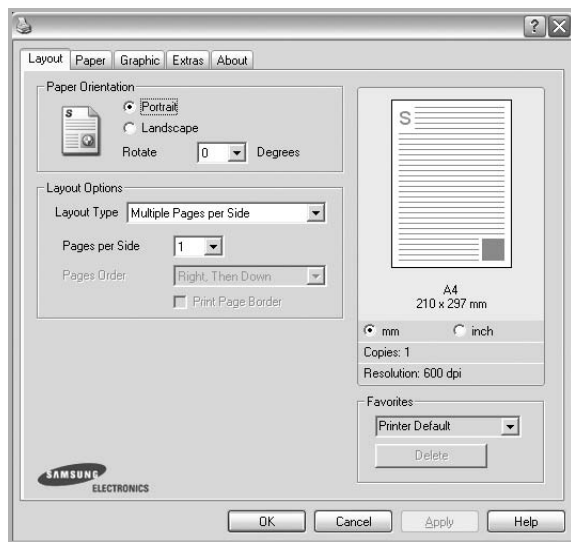
If you access printer properties through the Printers folder, you can view additional Windows-based tabs (refer to your Windows User's Guide) and the Printer tab (see "Printer Tab" on page 11).

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.



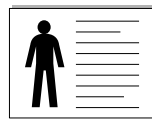
Paper Orientation

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



▲ Portrait



▲ Landscape

Layout Options

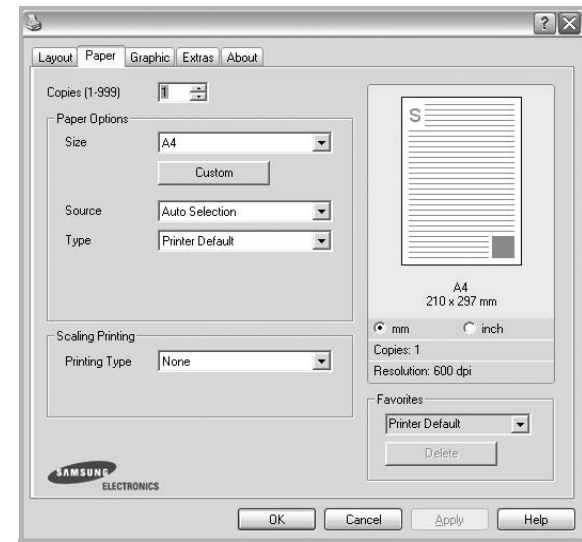
Layout Options allows you to select advanced printing options. You can choose **Multiple Pages per Side** and **Poster Printing**.

- 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-backgrounded paper.

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

Scaling Printing

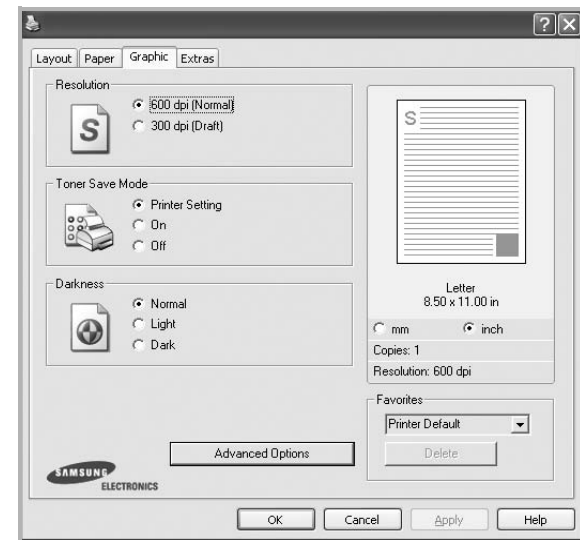
Scaling Printing allows you to automatically or manually scale your print job on a page. You can choose from **None**, **Reduce/Enlarge**, and **Fit to Page**.

- 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

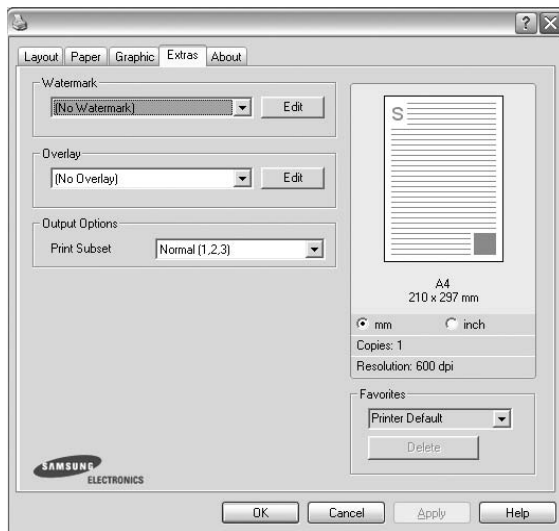
You can set advanced settings by clicking the **Advanced Options** button.

- **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

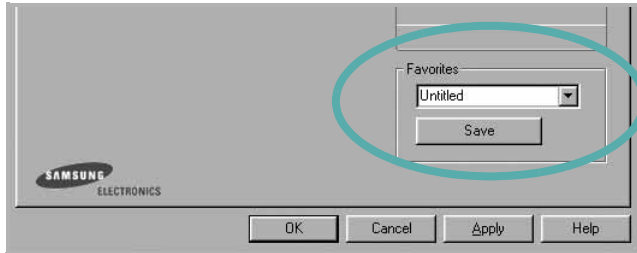
If your printer is going to be used at a high altitude, checking this option will optimize the print quality for those circumstances.

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.

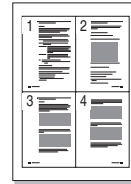
NOTE:

- 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**

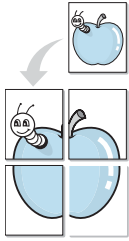
Printing Multiple Pages on One Sheet of Paper (N-Up Printing)



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.

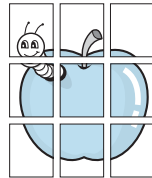
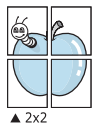
Printing Posters



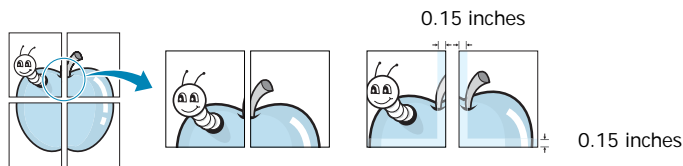
This feature allows you to print a single-page document onto 4, 9, or 16 sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.

- 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.

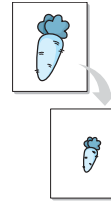


Specify an overlap in millimeters or inches to make it easier to pasting the sheets together.



- 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.

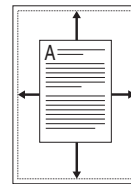
Printing a Reduced or Enlarged Document



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.

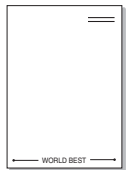
Using Overlays

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. If you are a Windows or Macintosh OS user, Smart Panel is installed automatically when you install the printer software. If you are a Linux OS user, download Smart Panel from the Samsung website (www.samsung.com/printer) and install.

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**.

Select the settings you want from the **Options** window.

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

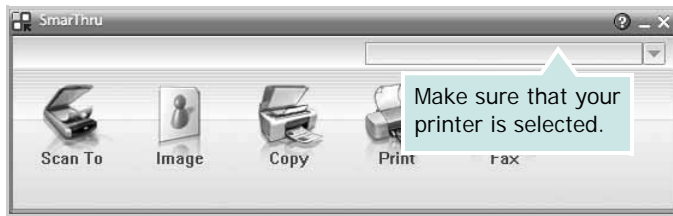
Follow these steps to start scanning using the SmarThru:

- 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.

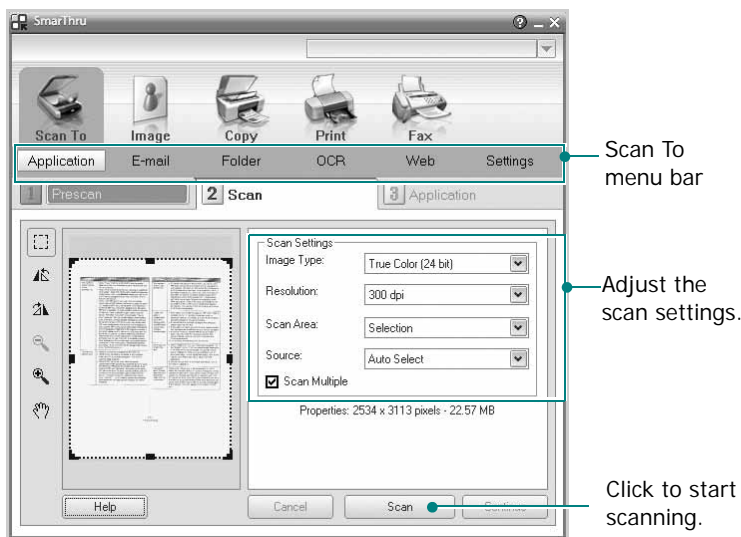
• Print

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 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/7 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.

Windows 7

- 1 Load the document(s) face up into the DADF.
OR
Place a single document face down on the document glass.
- 2 Click **Start** → **Control Panel** → **Hardware and Sound** → **Devices and Printers**.
- 3 Click right button of mouse on device driver icon in **Printers and Faxes** > **Start Scan**. **New Scan** application appears.
- 4 Choose your scanning preferences and click **Preview** to see your preferences affect the picture.
- 5 Click **Scan**.

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

You need to download Linux software package from the Samsung website (www.samsung.com/printer) to install the printer and scanner softwares.

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.

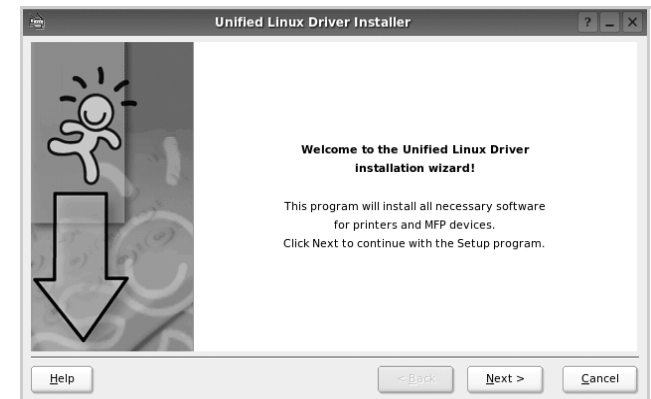
NOTE: You must log in as a super user (*root*) to install the printer software. If you are not a super user, ask your system administrator.

- 3 From the Samsung website, download and unpack the Unified Linux Driver package to your computer.
- 4 Click the '☐' icon at the bottom of the desktop. When the Terminal screen appears, type in:

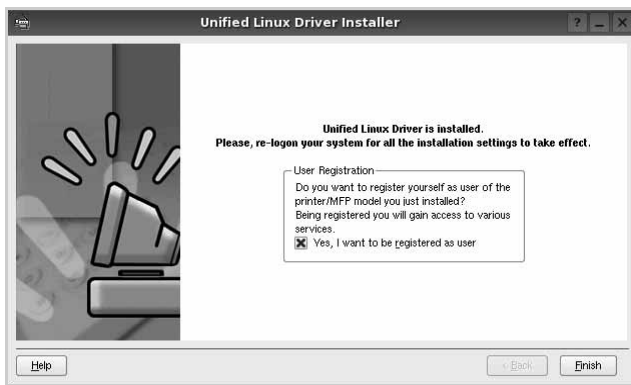
```
[root@localhost root]#tar xzf [FilePath]/
UnifiedLinuxDriver.tar.gz
[root@localhost root]#cd [FilePath]/cdroot/Linux
[root@localhost Linux]#./install.sh
```

NOTE: If you do not use the graphical interface and failed to install the software, you have to use the driver in the text mode. Follow the steps 3 to 4, and then follow the instructions on the terminal screen.

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



- 6 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:

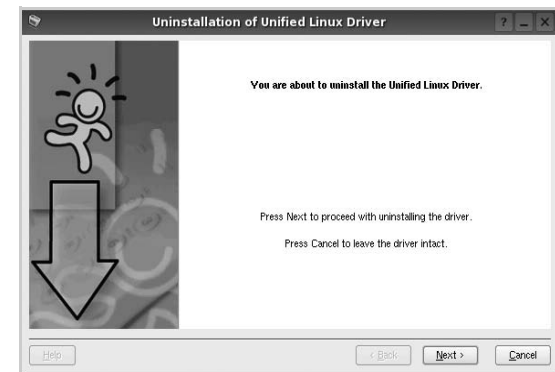
- If you do not use the graphical interface or have failed the driver installation, you have to use the driver in the text mode.
- Follow the step 1 to 3, then type `[root@localhost Linux]# ./install.sh`, than follow the instruction on the terminal screen. Then the installation completes.
- When you 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 Click the  icon at the bottom of the desktop. When the Terminal screen appears, type in:
`[root@localhost root]#cd /opt/Samsung/mfp/uninstall/`
`[root@localhost uninstall]#./uninstall.sh`
- 3 Click **Uninstall**.
- 4 Click **Next**.



- 5 Click **Finish**.

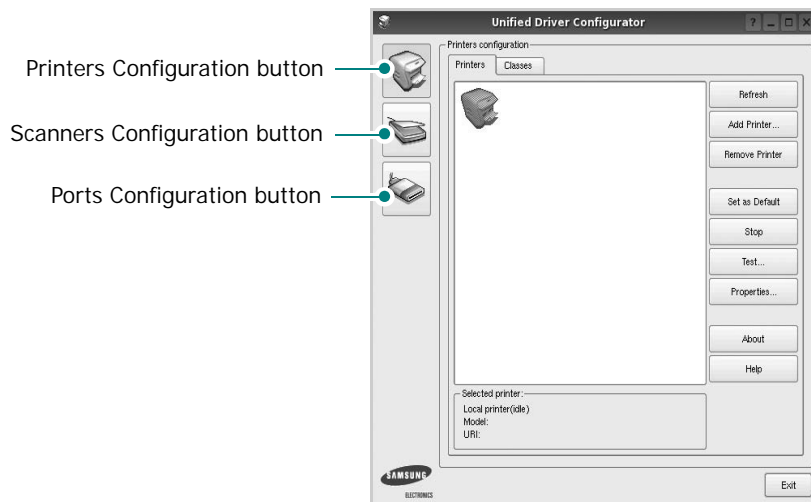
Using the Unified Driver Configurator

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.



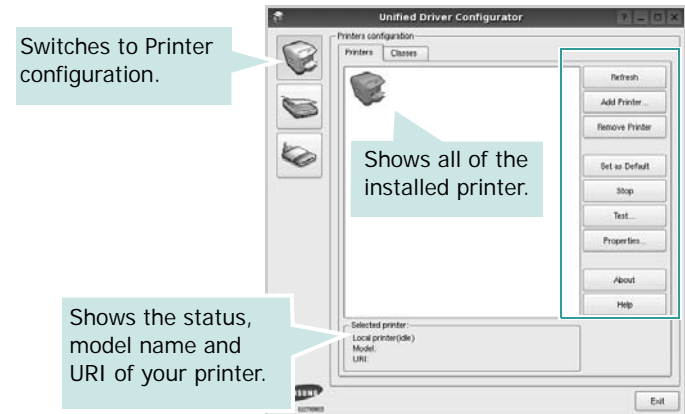
- 3 You can use the onscreen help by clicking **Help**.
After changing the configurations, click **Exit** to close the Unified Driver Configurator.

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.

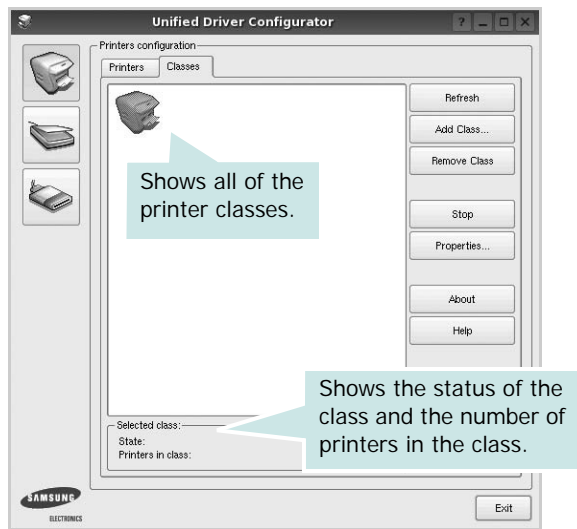


You can use the following printer control buttons:

- **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

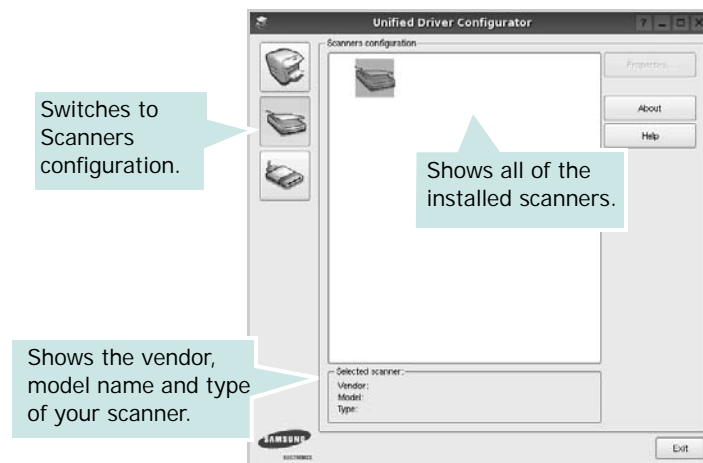
The Classes tab shows a list of available printer classes.



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

Scanners Configuration

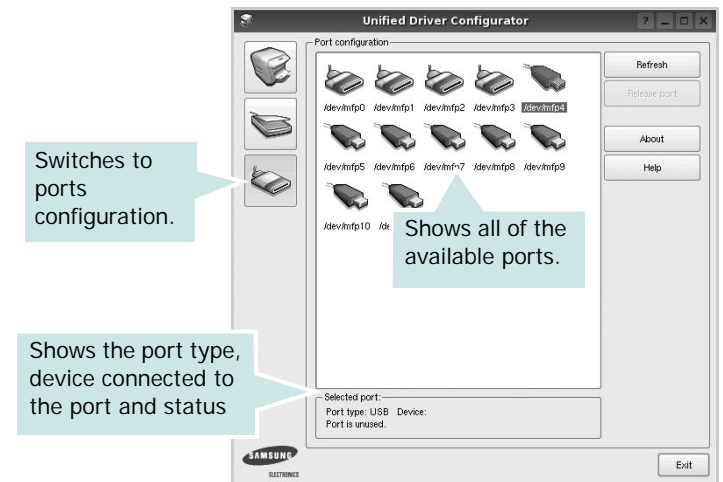
In this window, you can monitor the activity of scanner devices, view a list of installed Samsung MFP devices, change device properties, and scan images.



- **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.

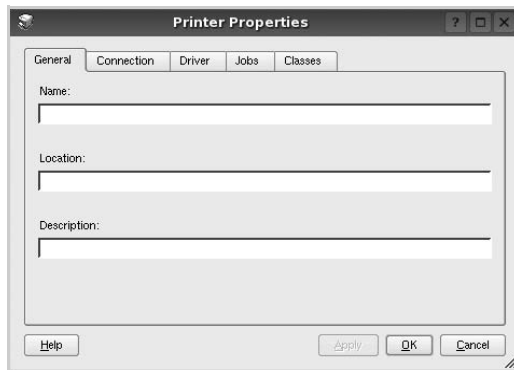
The Samsung Unified Linux Driver package provides an appropriate port sharing mechanism that is used by Samsung printer and scanner drivers. The drivers address their devices via so-called MFP ports. The current status of any MFP port can be viewed via the Ports Configuration. The port sharing prevents 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:

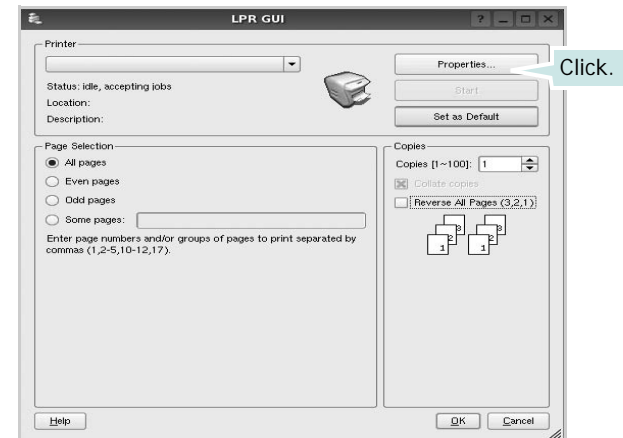
- **General:** allows you to change the printer location and name. The name entered in this tab displays on the printer list in Printers configuration.
 - **Connection:** allows you to view or select another port. If you change the printer port from USB to parallel or vice versa while in use, you must 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

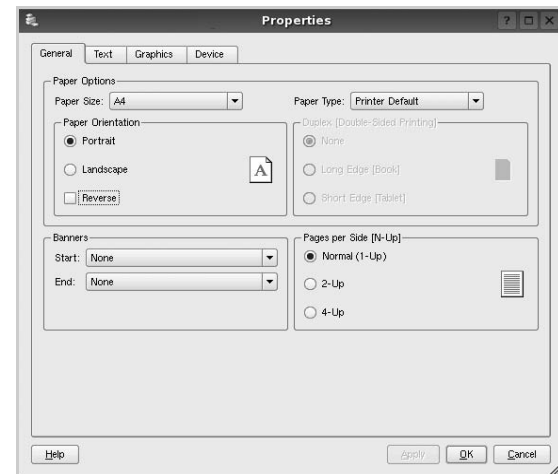
Printing from Applications

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 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.

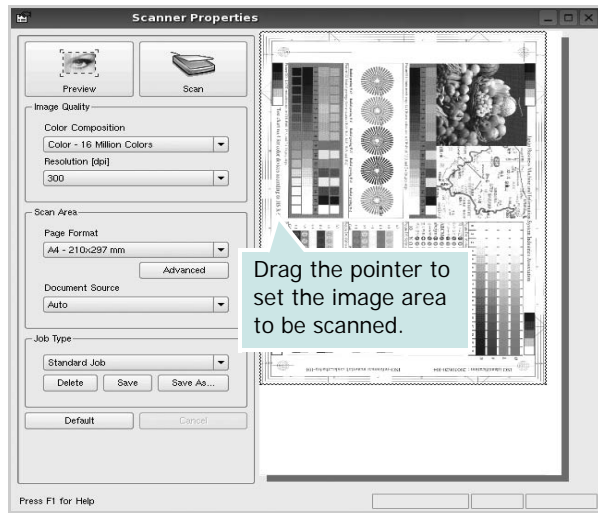


When you have only one MFP device and it is connected to the computer and turned on, your scanner appears on the list and is automatically selected.

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.

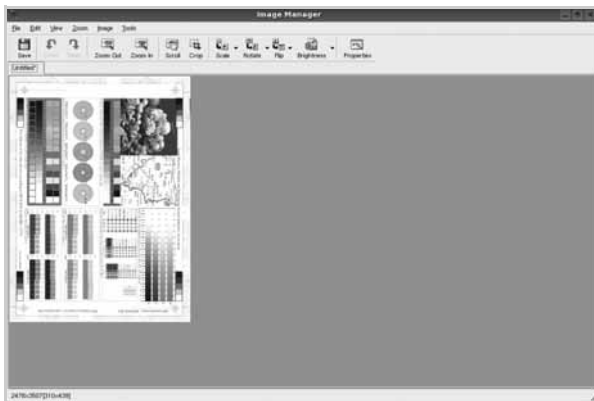
If you want to use one of the preset scan option settings, select from the Job Type drop-down list. For details about the preset Job Type settings, see page 29.

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.

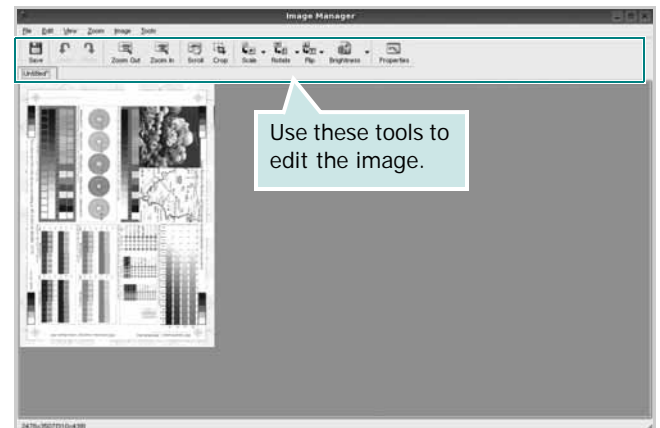
To delete a Job Type setting:

- 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 **Installer** icon.
- 6** Enter the password and click **OK**.
- 7** The Samsung Installer window opens. Click **Continue**.
- 8** Select **Easy Install** and click **Install**. **Easy Install** is recommended for most users. All components necessary for printer operations will be installed. If you select **Custom Install**, you can choose individual components to install.
- 9** The message which warns all application will close on your computer appears, Click **Continue**.
- 10** After the installation is finished, click **Quit**.

NOTE:

- If you have installed scan driver, click **Restart**.
 - 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** 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 **Installer** icon.
- 6** Enter the password and click **OK**.
- 7** The Samsung Installer window opens. Click **Continue**.
- 8** Select **Uninstall** and then click **Uninstall**.
- 9** The message which warns all application will close on your computer appears, Click **Continue**.
- 10** When the uninstallation is done, click **Quit**.

Setting Up the Printer

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

For a Network-connected

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 10.5~10.6, open **System Preferences** from the **Applications** folder, and click **Print & Fax**.
- 3 Click **Add** on the **Printer List**.
 - For MAC OS 10.5~10.6, 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 10.5~10.6, 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 10.5~10.6, 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 10.5~10.6, open **System Preferences** from the **Applications** folder, and click **Print & Fax**.
- 3 Click **Add** on the **Printer List**.
 - For MAC OS 10.5~10.6, 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 10.5~10.6, 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 10.5~10.6, 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

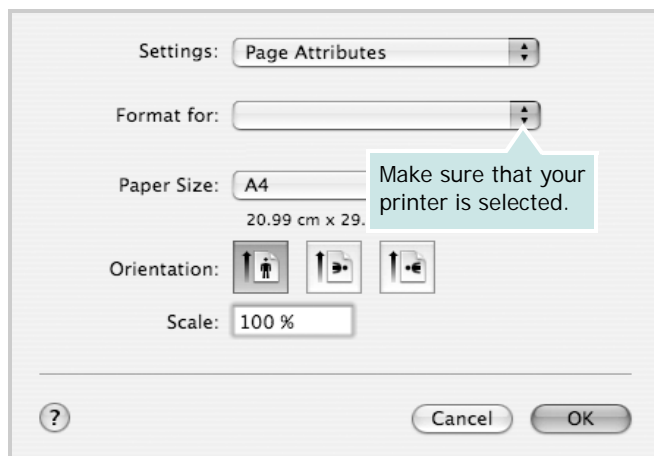
NOTES:

- 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

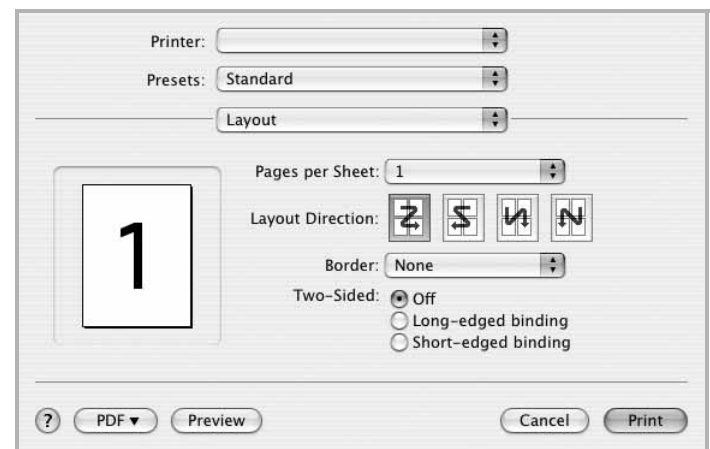
You can use advanced printing features when using your printer.

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.

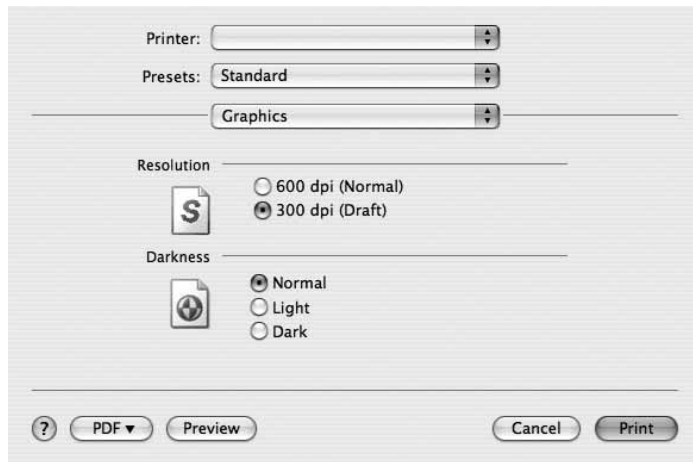


Mac OS 10.4

- **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

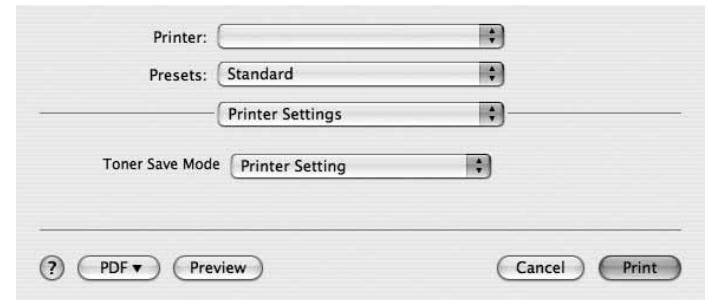
Set **Paper Type** to correspond to the paper loaded in the tray from which you want to print. This will let you get the best quality printout. If you load a different type of print material, select the corresponding paper type.



Mac OS 10.4

Printer Settings

Select **Printer Settings** from the list to access the following features:



Mac OS 10.4

• Toner Save Mode

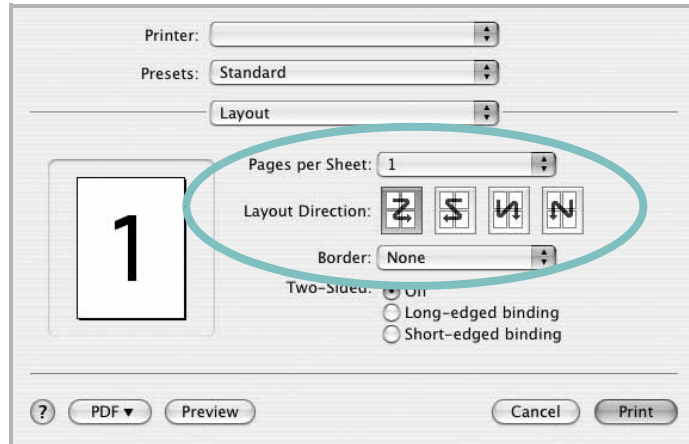
Selecting this option extends the life of your toner cartridge and reduces your cost per page without a significant reduction in print quality. *Some printers do not support this feature.*

- **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**.

- 1 Make sure that your machine and computer are turned on and properly connected to each other.
- 2 Place a single document face down on the document glass. OR load the document(s) face up into the ADF (or DADF).
- 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.
- If you want to scan via the DADF, use TWAIN-compliant softwares.
- You can also scan using TWAIN-compliant softwares, such as Adobe Photoshop.
- Scan process differ according to TWAIN-compliant softwares. Please refer to the user's guide of the software.
- When scanning does not operate in Image Capture, update Mac OS to the latest version. Image Capture operates properly in Mac OS 10.4.7 or higher.

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