

SCX-4x24 Series
SCX-4x28 Series

Multi Functional Printer User's Guide

imagine the possibilities

Thank you for purchasing a Samsung product. To receive a more complete service, please register your product at

www.samsung.com/global/register



features of your new laser product

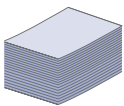
Your new machine is equipped with a number of special features that improve the quality of the documents you print. With the machine, you can:

SPECIAL FEATURES



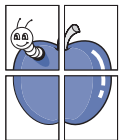
Print with excellent quality and speed

- You can print with a resolution of up to 1200 dpi effective output.
- Your machine prints A4-sized paper at up to 24 ppm (SCX-4x24 Series), 28 ppm (SCX-4x28 Series) and letter-sized paper at up to 25 ppm (SCX-4x24 Series), 30 ppm (SCX-4x28 Series).



Handle many different types of printable material

- The manual tray supports letterhead, envelopes, labels, custom-sized media, postcards, and heavy paper. The manual tray holds up 1 sheet of paper.
- The 250-sheet tray 1 and optional tray support plain paper in various sizes.



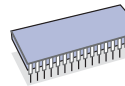
Create professional documents

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



Save time and money

- To save paper, you can print multiple pages on one single sheet of paper.
- This machine automatically conserves electricity by substantially reducing power consumption when not in use.
- To save paper, you can print on both sides of the paper (double-sided printing). See *Software section*.



Expand your machine's capacity

- Your machine has an extra memory slot to expand their memory. (Page 79)
- Zoran IPS Emulation* compatible with PostScript 3 (PS) enables PS printing.



* Zoran IPS Emulation compatible with PostScript 3

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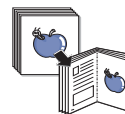
* 136 PS3 fonts

Contains UFST and MicroType from Monotype Imaging Inc.



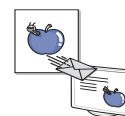
Print in various environments

- You can print with Windows 2000 and Windows XP/2003/ Vista as well as Linux and Macintosh systems.
- Your machine is equipped with a USB interface and a network interface.



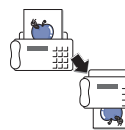
Copy originals in several formats

- Your machine can print multiple image copies from the original document on a single page.
- There are special functions to erase catalog and newspaper background.
- The print quality and image size may be adjusted and enhanced at the same time.



Scan the originals and send it right away

- Scan in color and use the precise compressions of JPEG, TIFF and PDF formats.
- Quickly scan and send files to multiple destinations using Networks scanning.



Set a specific time to transmit a Fax

- You can specify a certain time to transmit the fax and also send the fax to several stored destinations.
- After the transmission, the machine may print out the fax reports according to the setting.

FEATURES BY MODELS

The machine is designed to support all of your document needs – from printing and copying, to more advanced networking solutions for your business. Basic features of this machine include:

FEATURES	SCX-4824FN	SCX-4828FN
USB 2.0	●	●
USB Memory Interface		●
ADF (Automatic Document Feeder)	●	●
Network Interface Enthernet 10/100 Base TX wired LAN	●	●
Duplex (2-sided) printing		●
FAX	●	●
Scan to email		●
PostScript driver		●

(● : Included, O: Optional, Blank: Not Available)

ABOUT THIS USER’S GUIDE

This user's guide provides information about basic understanding of the machine as well as detailed explanation on each step during the actual usage. Both novice users and professional users can refer to this guide for installing and using the machine.

Some terms in this guide are used interchangeably, as below:

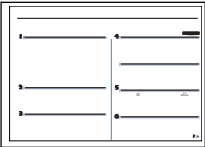
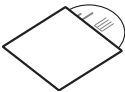
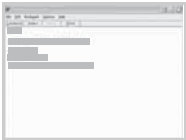
- Document is synonymous with original.
- Paper is synonymous with media, or print media.

Following table offers the conventions of this guide:

CONVENTION	DESCRIPTION	EXAMPLE
Bold	Used for texts on the display or actual prints on the machine.	Start
Note	Used to provide additional information or detailed specification of the machine function and feature.	 The date format may differ from country to country
Caution	Used to give users information to protect the machine from possible mechanical damage or malfunction.	 Do not touch the green underside of the toner cartridge.
Footnote	Used to provide more detailed information on certain words or a phrase.	a. pages per minute
(See page 1 for more information)	Used to guide users to the reference page for the additional detailed information.	(See page 1 for more information)

FINDING MORE INFORMATION

You can find information for setting up and using your machine from the following resources, either as a print-out or onscreen.

Quick Install Guide 	Provides information on setting up your machine and this requires that you follow the instructions in the guide to prepare the machine.
Online User's Guide 	Provides you with step-by-step instructions for using your machine's full features, and contains information for maintaining your machine, troubleshooting, and installing accessories. This user's guide also contains a <i>Software section</i> to provide you with information on how to print documents with your machine in various operating systems, and how to use the included software utilities.
Printer Driver Help 	Provides you with help information on printer driver properties and instructions for setting up the properties for printing. To access a printer driver help screen, click Help from the printer properties dialog box.
Samsung website	If you have Internet access, you can get help, support, printer drivers, manuals, and order information from the Samsung website, www.samsungprinter.com .

IMPORTANT SAFETY SYMBOLS AND PRECAUTIONS

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

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

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

- 
 1. Read and understand all instructions.
 2. Use common sense whenever operating electrical appliances.
 3. Follow all warnings and instructions marked on the machine and in the literature accompanying the machine.
- 
 4. If an operating instruction appears to conflict with safety information, heed the safety information. You may have misunderstood the operating instruction. If you cannot resolve the conflict, contact your sales or service representative for assistance.
- 
 5. Unplug the machine from the AC wall socket and/or telephone jack before cleaning. Do not use liquid or aerosol cleaners. Use only a damp cloth for cleaning.
- 
 6. Do not place the machine on an unstable cart, stand or table. It may fall, causing serious damage.
 7. Your machine should never be placed on, near or over a radiator, heater, air conditioner or ventilation duct.
 8. Do not allow anything to rest on the power. Do not locate your machine where the cords will be abused by persons walking on them.
- 
 9. Do not overload wall outlets and extension cords. This can diminish performance, and may result in the risk of fire or electric shock.
 10. Do not allow pets to chew on the AC power, telephone or PC interface cords.
 11. Never push objects of any kind into the machine through case or cabinet openings. They may touch dangerous voltage points, creating a risk of fire or shock. Never spill liquid of any kind onto or into the machine.
- 

 12. To reduce the risk of electric shock, do not disassemble the machine. Take it to a qualified service technician when repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly could cause electric shock when the unit is subsequently used.



13. Unplug the machine from the telephone jack, PC and AC wall outlet and refer servicing to qualified service personnel under the following conditions:

- When any part of the power cord, plug or connecting cable is damaged or frayed.
- If liquid has been spilled into the machine.
- If the machine has been exposed to rain or water.
- If the machine does not operate properly after instructions have been followed.
- If the machine has been dropped, or the cabinet appears damaged.
- If the machine exhibits a sudden and distinct change in performance.



14. Adjust only those controls covered by the operating instructions. Improper adjustment of other controls may result in damage, and may require extensive work by a qualified service technician to restore the machine to normal operation.



15. Avoid using this machine during a lightning storm. There may be a remote risk of electric shock from lightning. If possible, unplug the AC power and telephone cord for the duration of the lightning storm.

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

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



18. SAVE THESE INSTRUCTIONS

a. AWG: American Wire Gauge

LASER SAFETY STATEMENT

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

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

WARNING

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

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



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

DANGER - LASER RADIATION AVOID DIRECT
EXPOSURE TO BEAM.

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

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

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

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

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

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

ADVARSEL - USYNLIG LASERSTRÅLNING VED ÅBNING.
UNDGÅ UDSÆTTELSE FOR STRÅLNING.

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

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

VAROITUS - NÄKYMÄTÖNTÄ LASERSÄTEILYÄ AVATTAESSA.
VARO SUORAA ALTISTUMISTA SÄTEELLE.

注意 - 严禁揭开此盖, 以免激光泄露灼伤

주의 - 이 덮개를 열면 레이저광에 노출될 수 있으므로
주의하십시오.

OZONE SAFETY



During normal operation, this machine produces ozone. The ozone produced does not present a hazard to the operator. However, it is advisable that the machine be operated in a well ventilated area.
If you need additional information about ozone, request your nearest Samsung dealer.

MERCURY SAFETY



Contains Mercury, Dispose According to Local, State or Federal Laws.(U.S.A. only)

PERCHLORATE WARNING

This Perchlorate warning applies only to primary CR (Manganese Dioxide) Lithium coin cells in the product sold or distributed ONLY in California USA.

Perchlorate Material - special handling may apply.

See www.dtsc.ca.gov/hazardouswaste/perchlorate. (U.S.A. only)

POWER SAVER



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

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

ENERGY STAR and the ENERGY STAR mark are registered U.S. marks.

For more information on the ENERGY STAR program see <http://www.energystar.gov>

RECYCLING



Recycle or dispose of the packaging material for this product in an environmentally responsible manner.

CORRECT DISPOSAL OF THIS PRODUCT (WASTE ELECTRICAL & ELECTRONIC EQUIPMENT)



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

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

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

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

RADIO FREQUENCY EMISSIONS

FCC Information to the User

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

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

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

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



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

Canadian Radio Interference Regulations

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

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

FAX BRANDING

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

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

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

RINGER EQUIVALENCE NUMBER

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

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



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

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

You should also know that:

- Your machine is not designed to be connected to a digital PBX system.
- If you intend to use a computer modem or fax modem on the same phone line as your machine, you may experience transmission and reception problems with all the equipment. It is recommended that no other equipment, except for a regular telephone, share the line with your machine.

- If your area experiences a high incidence of lightning or power surges, we recommend that you install surge protectors for both the power and the telephone lines. Surge protectors can be purchased from your dealer or telephone and electronic specialty stores.
- When programming emergency numbers and/or making test calls to emergency numbers, use a non-emergency number to advise the emergency service dispatcher of your intentions. The dispatcher will give you further instructions on how to actually test the emergency number.
- This machine may not be used on coin service or party lines.
- This machine provides magnetic coupling to hearing aids.

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

REPLACING THE FITTED PLUG (FOR UK ONLY)

Important

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

Contact the people from you purchased the machine.

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



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

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



Important warning:

You must earth this machine.

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

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

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

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

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

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

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

DECLARATION OF CONFORMITY (EUROPEAN COUNTRIES)



Approvals and Certifications

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

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

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

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

EC Certification

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

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

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

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

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This product includes cryptographic software written by Eric Young (ey@cryptsoft.com). This product includes software written by Tim Hudson (tjh@cryptsoft.com).

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introduction

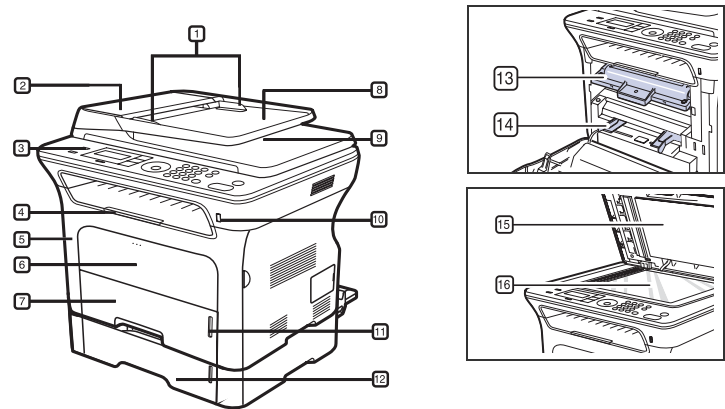
These are the main components of your machine:

This chapter includes:

- Printer overview
- Control panel overview
- Understanding the Status LED
- Menu overview
- Supplied software
- Printer driver features

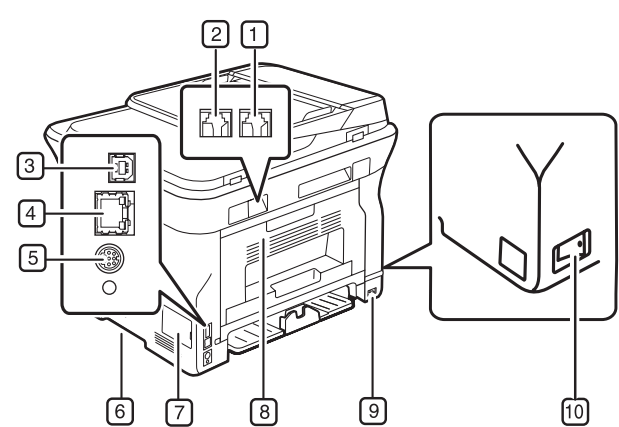
PRINTER OVERVIEW

Front view



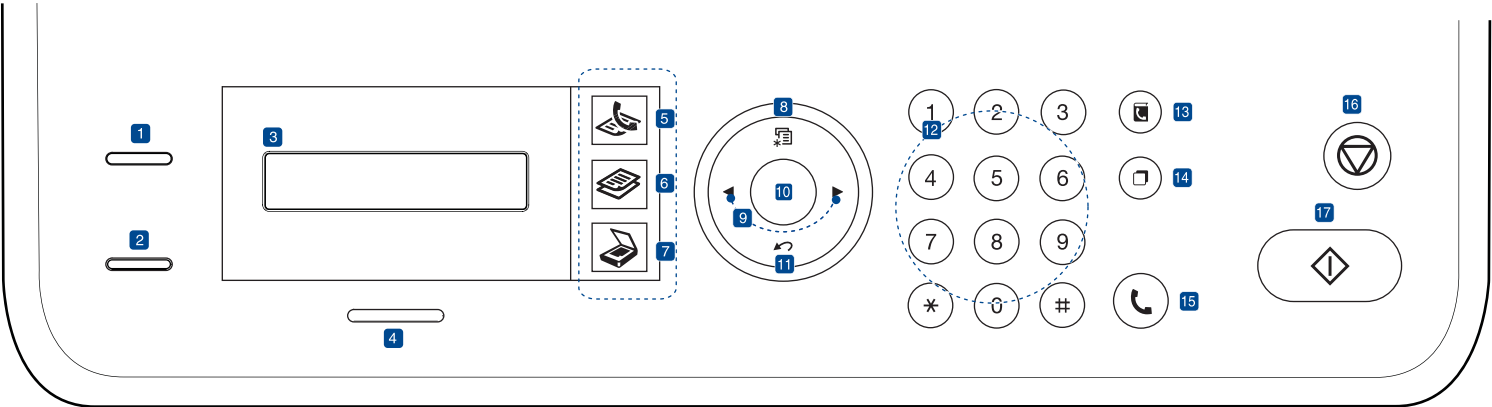
1	Document width guides	9	Document output tray
2	ADF cover	10	USB memory port
3	Control panel	11	Paper level indicator
4	Output support	12	Optional tray 2
5	Front cover	13	Toner cartridge
6	Manual tray	14	Manual tray paper width guides
7	Tray 1	15	Scanner lid
8	Document input tray	16	Scanner glass

Rear view



1	Telephone line socket	6	Handle
2	Extension telephone socket (EXT)	7	Control board cover
3	USB port	8	Rear cover
4	Network port	9	Power receptacle
5	15-pin optional tray connection	10	Power switch

CONTROL PANEL OVERVIEW



1 ID Copy	You can copy both sides of the ID Card like a driver's license to a single side of paper. See page 37.
2 Direct USB	Allows you to directly print files stored on a USB Memory device when it is inserted into the USB memory port on the front of your machine. See page 53. (SCX-4x28 Series only)
Reduce/Enlarge	Makes a copy smaller or larger than the original. (SCX-4x24 Series only)
3 Display	Shows the current status and prompts during an operation.
4 Status	Shows the status of your machine. See page 19.
5 Fax	Activates Fax mode.
6 Copy	Activates Copy mode.
7 Scan/Email	Activates Scan mode.
8 Menu	Enters Menu mode and scrolls through the available menus.
9 Left/right arrow	Scroll through the options available in the selected menu, and increase or decrease values.
10 OK	Confirms the selection on the screen.
11 Back	Sends you back to the upper menu level.
12 Number keypad	Dials a number or enters alphanumeric characters. See page 27.
13 Address Book	Allows you to store frequently used fax numbers in memory or search for stored fax numbers or email addresses.
14 Redial/Pause	In ready mode, redials the last number, or in Edit mode, inserts a pause into a fax number.
15 On Hook Dial	Engages the telephone line.

16 Stop/Clear	Stops an operation at any time. In ready mode, clears/cancels the copy options, such as the darkness, the document type setting, the copy size, and the number of copies.
17 Start	Starts a job.



- All illustrations on this user's guide may differ from your machine depending on its options or models.
- The surface of the output tray may become hot if you print a large number of pages at once. Make sure that you do not touch the surface, and do not allow children near it.

UNDERSTANDING THE STATUS LED

The color of the **Status** LED indicates the machine's current status.

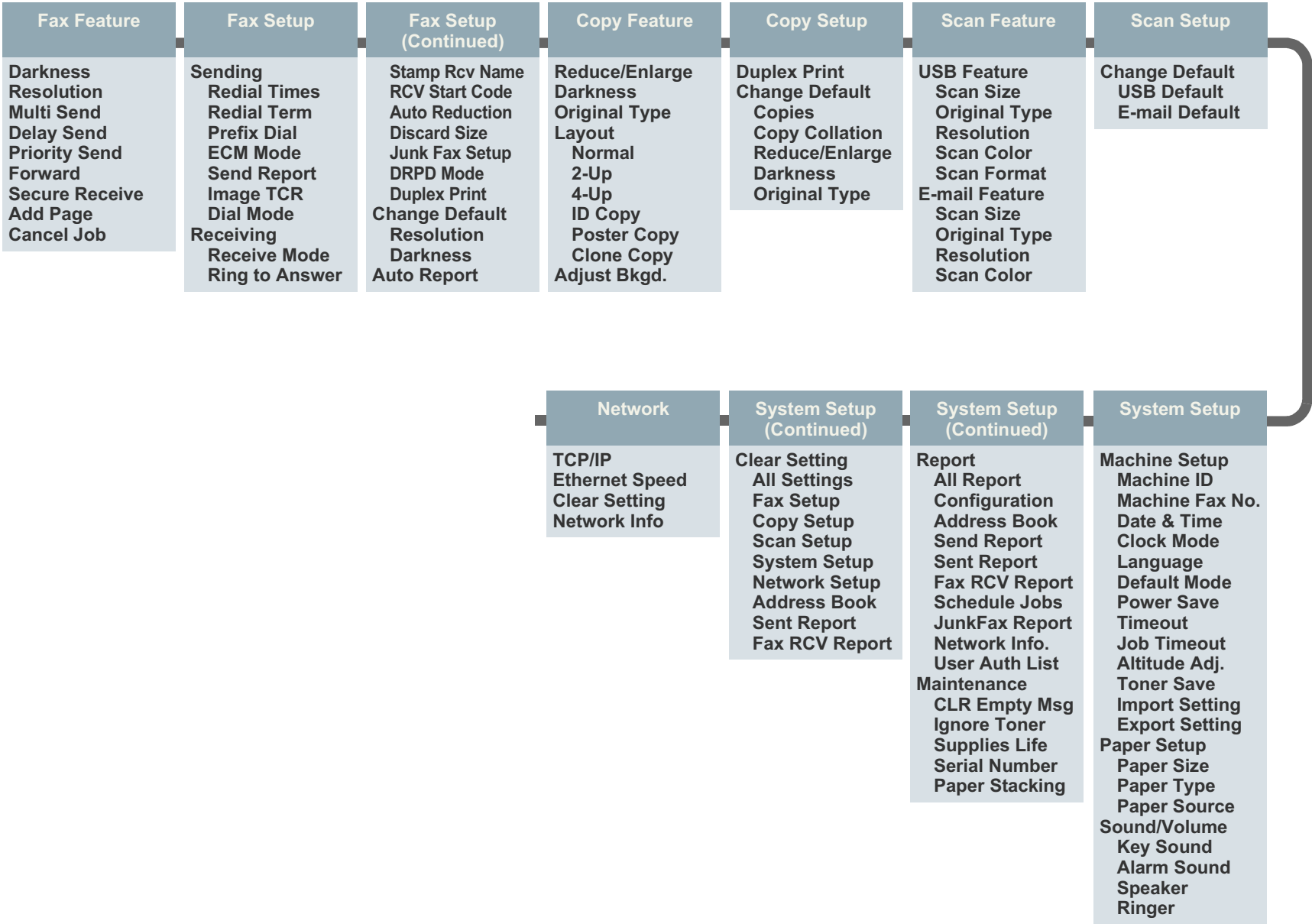
STATUS		DESCRIPTION
Off		- The machine is powered off-line. - The machine is in power save mode. When data is received, or any button is pressed, it switches to on-line automatically.
Green	Blinking	- When the green LED slowly blinks, the machine is receiving data from the computer. - When the green LED rapidly blinks, the machine is printing data.
	On	The machine is powered on and can be used.
Red	Blinking	- A minor error has occurred and the machine is waiting for the error to be cleared. Check the display message, and solve the problem referring to "Understanding display messages" on page 67. - The toner cartridge is low. Order a new toner cartridge, see "Ordering supplies and accessories" on page 79. You can temporarily improve print quality by redistributing the toner. See "Replacing the toner cartridge" on page 60
	On	- A problem has occurred such as a paper jam, cover opened or no paper in the tray, so that the machine cannot continue the job. Check the message on the display, and refer to "Understanding display messages" on page 67 to solve the problem. - The toner cartridge is empty, or needs to be changed. See "Understanding display messages" on page 67

 Always check the message on the display to solve the problem. The instruction in the Troubleshooting section will guide you to operate the machine properly. See "Understanding display messages" on page 67 for more information.

MENU OVERVIEW

The control panel provides access to various menus to set up the machine or use the machine’s functions. These menus can be accessed by pressing **Menu**. Refer to the following diagram.

 Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine.



SUPPLIED SOFTWARE

You must install the printer and scanner software using the supplied CD after you have set up your machine and connected it to your computer. CD provides you with the following software.

CD	CONTENTS	
Printer software CD	Windows	• Printer driver: Use this driver to take full advantage of your printer's features. • Postscript Printer Description (PPD) file: Use the PostScript driver to print documents with complex fonts and graphics in the PS language. (SCX-4x28 Series only) • Scanner driver: TWAIN and Windows Image Acquisition (WIA) drivers are available for scanning documents on your machine. • Smart Panel: This program allows you to monitor the machine's status and alerts you when an error occurs during printing. • SmarThru Office^a: This is the accompanying Windows-based software for your multifunctional machine. • SetIP: Use this program to set your machine's TCP/IP addresses.
	Linux	• Printer driver: Use this driver to take full advantage of your printer's features. • Postscript Printer Description (PPD) file: Use this file to run your machine from a Linux computer and print documents. (SCX-4x28 Series only) • SANE: Use this driver to scan documents. • SetIP: Use this program to set your machine's TCP/IP addresses.
	Macintosh	• Printer driver: Use this driver to take full advantage of your printer's features. • Postscript Printer Description (PPD) file: Use this file to run your machine from a Macintosh computer and print documents. (SCX-4x28 Series only) • Scanner driver: TWAIN driver is available for scanning documents on your machine. • SetIP: Use this program to set your machine's TCP/IP addresses.

a. Allows you to edit a scanned image in many ways using a powerful image editor and to send the image by email. You can also open another image editor program, like Adobe Photoshop, from SmarThru. For details, refer to the onscreen help supplied on the SmarThru program.

PRINTER DRIVER FEATURES

Your printer drivers support the following standard features:

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

In addition, you can use various special printing features. The following table shows a general overview of features supported by your printer drivers:

 Some models or operating system may not support the certain feature(s) in the following table.

Printer driver

FEATURE	WINDOWS	LINUX	MACINTOSH
Machine quality option	O	O	O
Poster printing	O	X	X
Multiple pages per sheet (N-up)	O	O (2, 4)	O
Fit to page printing	O	X	O
Scale printing	O	X	O
Different source for first page	O	X	O
Watermark	O	X	X
Overlay	O	X	X
Duplex	O	X	O

PostScript driver (SCX-4x28 Series only)

FEATURE	WINDOWS	LINUX	MACINTOSH
Machine quality option	O	O	O
Poster printing	X	X	X
Multiple pages per sheet (N-up)	O	O (2, 4)	O
Fit to page printing	O	X	O
Scale printing	O	X	O
Different source for first page	X	X	O
Watermark	X	X	X
Overlay	X	X	X
Duplex	O	X	O

getting started

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

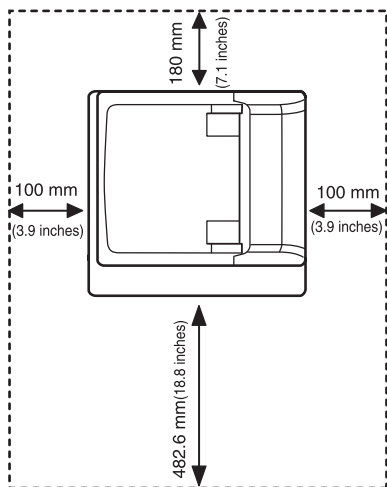
This chapter includes:

- Setting up the hardware
- System requirements
- Setting up the network
- Installing the software
- Machine's basic settings

SETTING UP THE HARDWARE

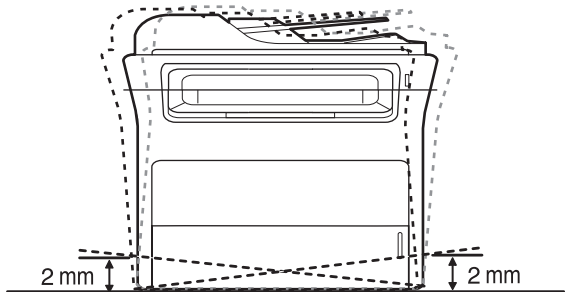
This section shows the steps to set up the hardware which is explained in the *Quick Install Guide*. Make sure you read *Quick Install Guide* and complete following steps.

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



Printing is suitable for altitudes under 1,000 m (3,281 ft). Refer to the altitude setting to optimize your printing. See "Altitude adjustment" on page 26 for more information.

Place the machine on a flat, stable surface so that there is no incline greater than 2 mm (0.08 inch). Otherwise, printing quality may be affected.



2. Unpack the machine and check all the enclosed items.
3. Remove the tape holding the machine tightly.
4. Install the toner cartridge.
5. Load paper. (See "Loading paper" on page 33.)
6. Make sure that all the cables are connected to the machine.
7. Turn the machine on.

 When you move the machine, do not tilt or turn it upside down. Otherwise, the inside of the machine may be contaminated by toner, which can cause damage to the machine or bad print quality.

SYSTEM REQUIREMENTS

Before you begin, ensure that your system meets the following 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 Vista	Pentium IV 4.3 GHz	512 MB (1024 MB)	15 GB

-  • 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 10.3 ~ 10.4	- Intel Processor - Power PC G4 / G5	128 MB for a Power-PC based Mac (512 MB). 512 MB for an Intel-based Mac (1 GB)	1 GB
Mac OS X 10.5	- Intel Processor 867 MHz or faster Power PC G4 /G5	512 MB (1 GB)	1 GB

Linux

ITEM	REQUIREMENTS
Operating system	RedHat 8.0, 9.0 (32bit) RedHat Enterprise Linux WS 4, 5 (32/64bit) Fedora Core 1~7 (32/64bit) Mandrake 9.2 (32bit), 10.0, 10.1 (32/64bit) Mandriva 2005, 2006, 2007 (32/64bit) SuSE Linux 8.2, 9.0, 9.1 (32bit) SuSE Linux 9.2, 9.3, 10.0, 10.1, 10.2 (32/64bit) SuSE Linux Enterprise Desktop 9, 10 (32/64bit) Ubuntu 6.06, 6.10, 7.04 (32/64bit) Debian 3.1, 4.0 (32/64bit)
CPU	Pentium IV 2.4GHz (IntelCore2)
RAM	512 MB (1024 MB)
Free HDD space	1 GB (2GB)

- 
- It is necessary to claim swap partition of 300 MB or larger for working with large scanned images.
 - The Linux scanner driver supports the optical resolution at maximum.

SETTING UP THE NETWORK

You need to set up the network protocols on the machine to use it as your network printer. You can set up the basic network settings through the machine's control panel.

Supported operating systems

The following table shows the network environments supported by the machine:

ITEM	REQUIREMENTS
Network interface	Ethernet 10/100 Base-TX
Network operating system	- Windows 2000/XP/2003/Vista - Various Linux OS - Mac OS 10.3 ~ 10.5
Network protocols	- TCP/IP - Standard TCP/IP - LPR - IPP/HTTP - Bonjour - DHCP - BOOTP

- 
- If you want to set up DHCP network protocol, go to <http://developer.apple.com/networking/bonjour/download/>, select the Bonjour program that is appropriate for your computer operating system and install the program. This program will allow you to set network parameters automatically. Follow the instructions in the installation window. This program does not support Linux.

Configuring network protocol via the machine

You can set up TCP/IP network parameters, follow the steps listed below.

1. Make sure your machine is connected to the network with an RJ-45 Ethernet cable.
2. Make sure you have turned on the machine.
3. Press **Menu** on the control panel, until you see **Network** on the bottom line of the display.
4. Press **OK** to access the menu.
5. Press the left/right arrow until **TCP/IP** displays.
6. Press **OK**.
7. Press the left/right arrow until **Static** displays.
8. Press **OK**.
9. Press the left/right arrow until **IP Address** displays.
10. Press **OK**.
Enter a byte between 0 and 255 using the number keypad and press the left/right arrow to move between bytes.
Repeat this to complete the address from the 1st byte to the 4th byte.
11. When you have finished, press **OK**.
Repeat steps 9 and 10 to configure the other TCP/IP parameters: subnet mask and gateway address.

 Contact the network administrator if you are not sure how to configure.

-  You can also set up the network settings through the network administration programs.
- **SyncThru™ Web Admin Service**: Web-based printer management solution for network administrators. **SyncThru™ Web Admin Service** provides you with an efficient way of managing network devices and lets you remotely monitor and troubleshoot network machines from any site with corporate internet access. Download this program from <http://solution.samsungprinter.com>.
 - **SyncThru™ Web Service**: Web server embedded on your network print server, which allows you to:
 - Configure the network parameters necessary for the machine to connect to various network environments.
 - Customize machine settings.
 - **SetIP**: Utility program allowing you to select a network interface and manually configure the IP addresses for use with the TCP/IP protocol. See "Using SetIP program" on page 24.

Using SetIP program

This program is for the network IP setting using the MAC address which is the hardware serial number of the network printer card or interface. Especially, it is for the network administrator to set several network IPs at the same time.

-  • You can only use SetIP program when your machine is connected to a network.
- The following procedure is based on the Windows XP operating system.
 - If you are in a non-static IP address environment and need to setup a DHCP network protocol, go to the <http://developer.apple.com/networking/bonjour/download/>, select the program Bonjour for Windows due to your computer operating system, and install the program. This program will allow you to fix the network parameter automatically. Follow the instruction in the installation window. This program does not support Linux.

Installing the program

1. Insert the driver CD provided along with your machine. When the driver CD runs automatically, close the window.
2. Start **Windows Explorer** and open the X drive. (X represents your CD-ROM drive.)
3. Double click **Application > SetIP**.
4. Open the folder of the language you plan to use.
5. Double click **Setup.exe** to install this program.
6. Follow the instruction on the window to complete the installation.

Starting the program

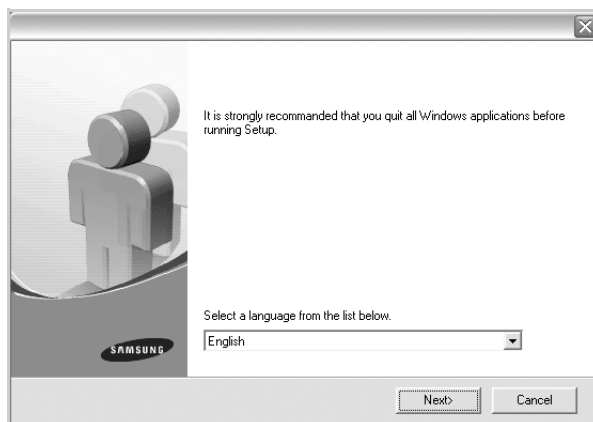
1. Print the machine's network information report which includes your machine's MAC address. See "Printing reports" on page 56.
2. From the Windows **Start** menu, select **All Programs > Samsung Network Printer Utilities > SetIP > SetIP**.
3. Click  in the SetIP window to open the TCP/IP configuration window.
4. Enter the network card's MAC address, IP address, subnet mask, default gateway, and then click **Apply**.

 When you enter the MAC address, enter it without colon(:).
5. Click **OK**, then the machine prints the network information. Confirm all the settings are correct.
6. Click **Exit** to close the **SetIP** program.

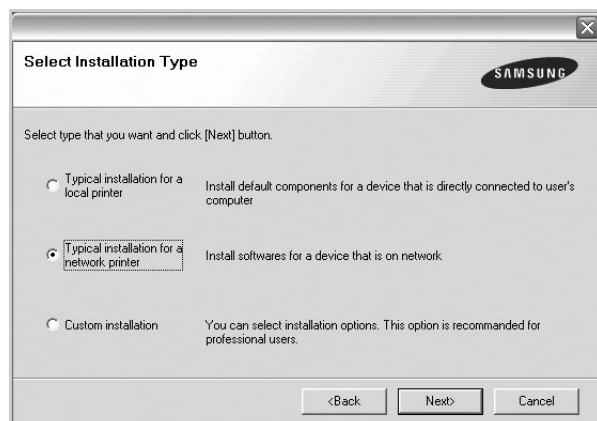
INSTALLING THE SOFTWARE

You have to install the machine software for printing. The software includes drivers, applications, and other user friendly programs.

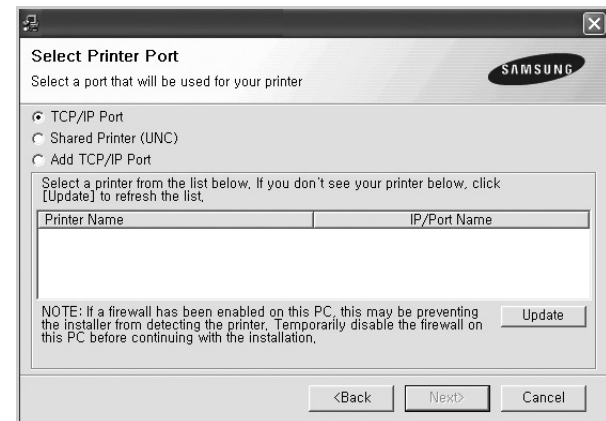
- The following procedure is for when the machine is being used as a network machine. If you want to connect a machine with a USB cable, refer to *Software section*.
 - The following procedure is based on the Windows XP operating system. The procedure and popup window which appear during the installation may differ depending on the operating system, the printer feature, or the interface in use.
1. Make sure that the network setup for your machine is completed. (See "Setting up the network" on page 23.) All applications should be closed on your computer before beginning installation.
 2. Insert the Printer Software 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 > Run**. Type **X:\Setup.exe**, replacing "X" with the letter which represents your drive and click **OK**.
If you use Windows Vista, click **Start > All Programs > Accessories > Run**, and type **X:\Setup.exe**.
If the **AutoPlay** window appears in Windows Vista, click **Run Setup.exe** in **Install or run program** field, and click **Continue** in the **User Account Control** window.
 3. Click **Next**.



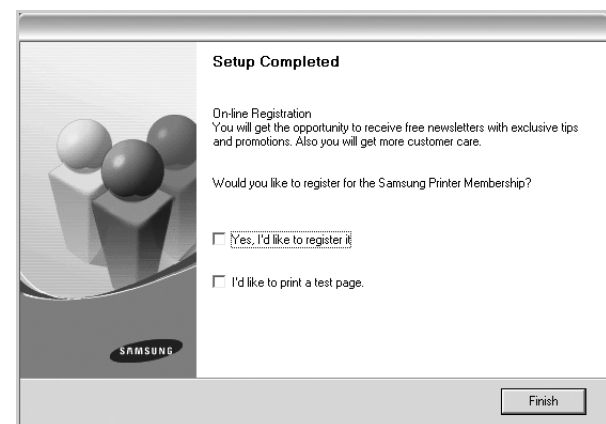
- If necessary, select a language from the drop-down list.
4. Select **Typical installation for a network printer**, and then click **Next**.



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



- If you do not see your machine on the list, click **Update** to refresh the list, or select **Add TCP/IP Port** to add your machine to the network. To add the machine to the network, enter the port name and the IP address for the machine. To verify your machine's IP address or the MAC address, print a Network Configuration page. (See "Printing reports" on page 56.)
 - To find a shared network printer (UNC Path), select **Shared Printer [UNC]** and enter the shared name manually or find a shared printer by clicking the **Browse** button.
- If you are not sure of the IP address, contact your network administrator or print network information. (See "Printing reports" on page 56.)
6. After the installation is finished, a window appears asking you to print a test page and to register yourself as a user of Samsung machines in order to receive information from Samsung. If you desire, select the corresponding checkbox(es) and click **Finish**.



- If your machine does not work properly after the installation, try to reinstall the printer driver. See *Software section*.
- During the printer driver installation process, the driver installer detects the location information for your operating system and sets the default paper size for your machine. If you use a different Windows location, you must change the paper size to match the paper you usually use. Go to printer properties to change the paper size after installation is complete.

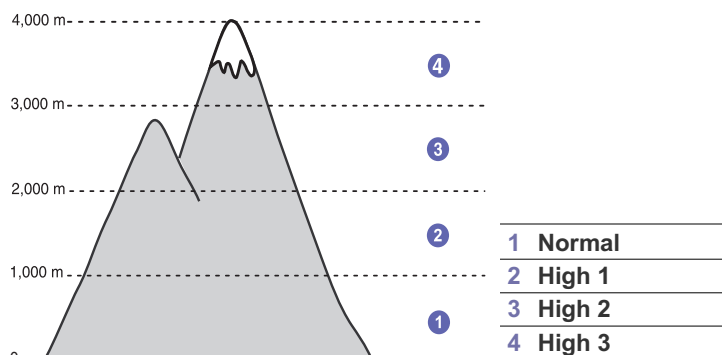
MACHINE'S BASIC SETTINGS

After installation is complete, you may want to set the machine's default settings. Refer to the next section if you would like to set or change values.

Altitude adjustment

The print quality is affected by atmospheric pressure, which is determined by the height of the machine above sea level. The following information will guide you on how to set your machine to the best print quality or best quality of print.

Before you set the altitude value, find the altitude where you are using the machine.



1. Ensure that you have installed the printer driver with the provided Printer Software CD.
2. Double-click the **Smart Panel** icon on the Windows task bar (or Notification Area in Linux). You can also click **Smart Panel** on the status bar in Mac OS X.
3. Click **Printer Setting**.
4. Click **Setting > Altitude Adjustment**. Select the appropriate value from the dropdown list, and then click **Apply**.



If your machine is connected to a network, **SyncThru Web Service** screen appears automatically. Click **Machine Settings > Setup** (or **Machine Setup**) > **Altitude adj.**. Select the appropriate altitude value, and then click **Apply**.

Changing the display language

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

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Machine Setup** appears.
3. Press the left/right arrow until **Language** appears and press **OK**.
4. Press the left/right arrow until the language you want appears and press **OK**.
5. Press **Stop/Clear** to return to ready mode.

Setting the date and time

The current date and time are shown on the display when your machine is on and ready to work. All of your faxes will have the date and time printed on them.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Machine Setup** appears.
3. Press the left/right arrow until **Date & Time** appears and press **OK**.
4. Enter the correct time and date using the number keypad.
Month = 01 to 12
Day = 01 to 31
Year = requires four digits
Hour = 01 to 12 (12-hour mode)
 00 to 23 (24-hour mode)
Minute = 00 to 59



The date format may differ from country to country

You can also use the left/right arrow to move the cursor under the digit you want to correct and enter a new number.

5. 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 the next section.

6. Press **OK** to save the time and date.
When you enter a wrong number, **Out of Range** appears and the machine does not proceed to the next step. If this happens, simply reenter the correct number.
7. Press **Stop/Clear** to return to ready mode.

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 **System Setup** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Machine Setup** appears.
3. Press the left/right arrow until **Clock Mode** appears and press **OK**.
4. Press the left/right arrow to select the other mode and press **OK**.
5. Press **Stop/Clear** to return to ready mode.

Changing the default mode

Your machine is preset to Fax mode. You can switch this default mode between Fax mode and Copy mode.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Machine Setup** appears.
3. Press the left/right arrow until **Default Mode** appears and press **OK**.
4. Press the left/right arrow until the default mode you want appears and press **OK**.
5. Press **Stop/Clear** to return to ready mode.

Setting sounds

You can control the following sounds:

- **Key Sound:** Turns the key sound on or off. With this option set to **On**, a tone sounds each time a key is pressed.
- **Alarm Sound:** Turns the alarm sound on or off. With this option set to **On**, an alarm tone sounds when an error occurs or fax communication ends.
- **Speaker:** Turns on or off the sounds from the telephone line through the speaker, such as a dial tone or a fax tone. With this option set to **Comm.** which means “Common,” the speaker is on until the remote machine answers.



You can adjust the volume level using **On Hook Dial**.

- **Ringer:** Adjusts the ringer volume. For the ringer volume, you can select **Off**, **Low**, **Mid**, and **High**.

Speaker, ringer, key sound, and alarm sound

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Sound/Volume** appears and press **OK**.
3. Press the left/right arrow until the sound option you want appears and press **OK**.
4. Press the left/right arrow until the desired status or volume for the sound you have selected appears and press **OK**.
5. If necessary, repeat steps 3 through 5 to set other sounds.
6. Press **Stop/Clear** to return to ready mode.

Speaker volume

1. Press **On Hook Dial**. A dial tone sounds from the speaker.
2. Press the left/right arrow until you hear the volume you want.
3. Press **Stop/Clear** to save the change and return to ready mode.



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

Entering characters using the number keypad

As you perform various tasks, you may need to enter names and numbers. For example, when you set up your machine, you enter your name or your company's name, and the fax number. When you store fax numbers or email addresses in memory, you may also enter the corresponding names.

Entering 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**, **m**, **n**, **o** and finally **6**.
You can enter special characters, such as space, plus sign, and etc. For details, see the below section.
2. To enter additional letters, repeat step 1.
If the next letter is printed on the same button, move the cursor by pressing the right arrow 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 the right arrow.
3. When you have finished entering letters, press **OK**.

Keypad letters and numbers

KEY	ASSIGNED NUMBERS, LETTERS, OR CHARACTERS
1	@ / . ' 1
2	A B C a b c 2
3	D E F d e f 3
4	G H I g h i 4
5	J K L j k l 5
6	M N O m n o 6
7	P Q R S p q r s 7
8	T U V t u v 8
9	W X Y Z w x y z 9
0	& + - , 0

Correcting numbers or names

If you make a mistake while entering a number or name, press the left arrow 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 buttons or 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.

Using the save modes

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 **System Setup** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Machine Setup** appears.
3. Press the left/right arrow until **Power Save** appears and press **OK**.
4. Press the left/right arrow until the time setting you want appears and press **OK**.
5. Press **Stop/Clear** to return to ready mode.

Setting print job timeout

You can set the amount of time a single print job is active before it must print. The machine handles incoming data as a single job if it comes in within the specified time. When an error occurs while processing data from the computer and the data flow stops, the machine waits the specified time and then cancels printing if data flow does not resume.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Machine Setup** appears.
3. Press the left/right arrow until **Job Timeout** appears and press **OK**.
4. Press the left/right arrow until the time setting you want appears and press **OK**.
5. Press **Stop/Clear** to return to ready mode.

Changing the font setting

Your machine has preset the font for your region or country.

If you want to change the font or set the font for special condition such as the DOS environment, you can change the font setting as follows:

1. Ensure that you have installed the printer driver from the provided software CD.
2. Double-click the **Smart Panel** icon on the Windows task bar.
3. Click **Printer Setting**.
4. Click **Emulation**.
5. Confirm if **PCL** is selected in **Emulation Setting**.
6. Click **Setting**.
7. Select your preferred font in the **Symbol set** list.
8. Click **Apply**.



Following information shows the proper font list for corresponding languages.

- Russian: CP866, ISO 8859/5 Latin Cyrillic
- Hebrew: Hebrew 15Q, Hebrew-8, Hebrew-7 (Israel only)
- Greek: ISO 8859/7 Latin Greek, PC-8 Latin/Greek
- Arabic & Farsi: HP Arabic-8, Windows Arabic, Code Page 864, Farsi, ISO 8859/6 Latin Arabic
- OCR : OCR-A, OCR-B

loading originals and print media

This chapter introduces you how to load originals and print media into your machine.

This chapter includes:

- Loading originals
- Selecting print media
- Changing the size of the paper in the paper tray
- Loading paper

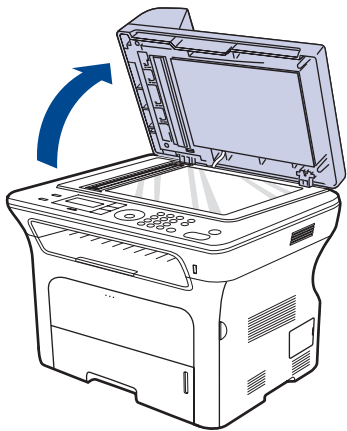
LOADING ORIGINALS

You can use the scanner glass or ADF to load an original for copying, scanning, and sending a fax.

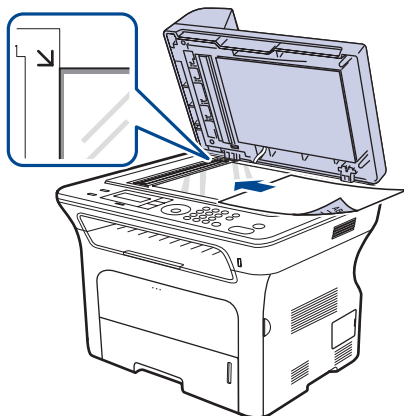
On the scanner glass

Make sure that no originals are in the ADF. If an original is detected in the ADF, the machine gives it priority over the original on the scanner glass. To get the best scan quality, especially for colored or gray-scaled images, use the scanner glass.

1. Lift and open the scanner lid.



2. Place the original face down on the scanner glass and align it with the registration guide at the top left corner of the glass.



- Printing on special print materials
- Adjusting the output support
- Setting the paper size and type

3. Close the scanner lid.



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

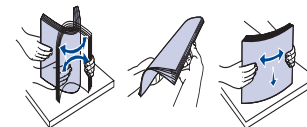
In the ADF

Using the ADF, you can load up to 30 sheets (SCX-4x24 Series), 50 sheets (SCX-4x28 Series) of paper (75 g/m², 20 lb bond) for one job.

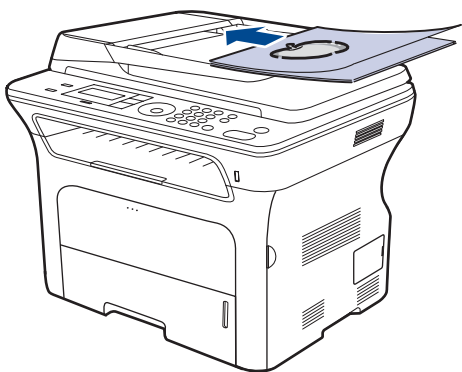
When you use the ADF:

- Do not load paper smaller than 142 x 148 mm (5.6 x 5.8 inches) or larger than 216 x 356 mm (8.5 x 14 inches).
- Do not attempt to load the following types of paper:
 - 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.
- Make sure any glue, ink, or correction fluid on the paper is completely dry before loading.
- Do not load originals that include different sizes or weights of paper.
- Do not load booklets, pamphlets, transparencies, or documents having other unusual characteristics.

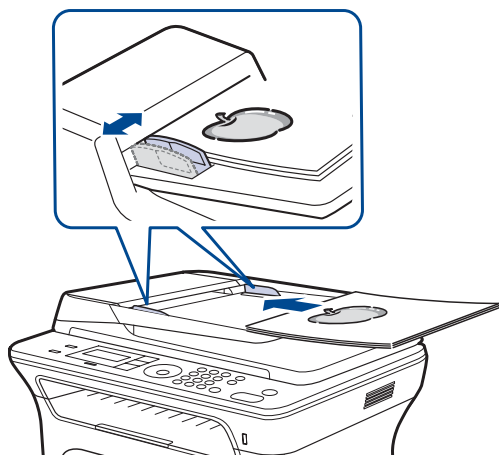
1. Flex or fan the edge of the paper stack to separate the pages before loading originals.



2. Load the original face up into the ADF. Make sure that the bottom of the original stack matches the paper size marked on the document input tray.



3. Adjust the document width guides to the paper size.



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

SELECTING PRINT MEDIA

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

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

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

- The type, size and weight of the print media for your machine are described later in this section.
- Desired outcome: The print media you choose should be appropriate for your project.
- Brightness: Some print media are whiter than others and produce sharper, more vibrant images.
- Surface smoothness: The smoothness of the print media affects how crisp the printing looks on the paper.

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

-  Using print media that does not meet these specifications may cause problems, requiring repairs. Such repairs are not covered by Samsung's warranty or service agreements.

Specifications on print media

TYPE	SIZE	DIMENSIONS	WEIGHT ^A	CAPACITY ^B
Plain paper	Letter	216 x 279 mm (8.5 x 11 inches)	60 to 105 g/m² (16 to 28 lb bond) for the tray 60 to 163 g/m² (16 to 43 lb bond) for the manual tray	250 sheets of 80 g/m² (20 lb bond) paper for the tray 1 sheet in the manual tray 250 sheets of 80 g/m² (20 lb bond) paper for optional tray
	Legal	216 x 356 mm (8.5 x 14 inches)		
	US Folio	216 x 330 mm (8.5 x 13 inches)		
	A4	210 x 297 mm (8.26 x 11.69 inches)		
	Oficio	216 x 343 mm (8.5 x 13.5 inches)		
	JIS B5	182 x 257 mm (7.16 x 10.11 inches)		
	ISO B5	176 x 250 mm (6.93 x 9.84 inches)		
	Executive	184 x 267 mm (7.25 x 10.5 inches)		
	A5	148 x 210 mm (5.82 x 8.26 inches)		
	A6	105 x 148 mm (4.13 x 5.82 inches)		1 sheet in the manual tray
Envelope	Envelope Monarch	98 x 191 mm (3.87 x 7.5 inches)	75 to 90 g/m ² (20 to 24 lb bond)	1 sheet in the manual tray
	Envelope No. 10	105 x 241 mm (4.12 x 9.5 inches)		
	Envelope DL	110 x 220 mm (4.33 x 8.66 inches)		
	Envelope C5	162 x 229 mm (6.37 x 9.01 inches)		
	Envelope C6	114 x 162 mm (4.48 x 6.38 inches)		
Transparency	Letter, A4	Refer to the Plain paper section	138 to 146 g/m ²	1 sheet in the manual tray
Labels	Letter, Legal, US Folio, A4, JIS B5, ISO B5, Executive, A5, A6	Refer to the Plain paper section	120 to 150 g/m ² (32 to 40 lb bond)	1 sheet in the manual tray
Card stock	Letter, Legal, US Folio, A4, JIS B5, ISO B5, Executive, A5, A6	Refer to the Plain paper section	105 to 163 g/m ² (28 to 43 lb bond)	1 sheet in the manual tray
Minimum size (custom)		66 x 127 mm (2.6 x 5 inches)	60 to 163 g/m ² (16 to 43 lb bond)	
Maximum size (custom)		216 x 356 mm (8.5 x 14 inches)		

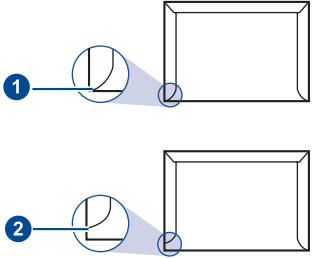
a. If media weight is over 105 g/m² (28 lb bond), use the manual tray.
b. Maximum capacity may differ depending on media weight, thickness, and environmental conditions.

Media sizes supported in each mode

MODE	SIZE	SOURCE
Copy mode	Letter, A4, Legal, Oficio, US Folio, Executive, JIS B5, A5, A6	- tray 1 - optional tray 2 - manual tray
Print mode	All sizes supported by the machine	- tray 1 - optional tray 2 - manual tray
Fax mode	Letter, A4, Legal	- tray 1 - optional tray 2
Duplex printing ^a	Letter, A4, Legal, US Folio, Oficio	- tray 1 - optional tray 2

a. 75 to 90 g/m² (20~24 lb bond) only

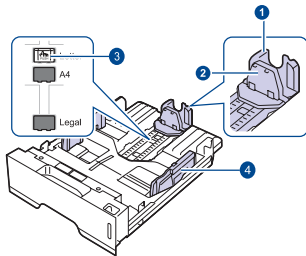
Guidelines for special print media

MEDIA TYPE	GUIDELINES
Envelopes	- Successful printing on envelopes depends upon the quality of the envelopes. When selecting envelopes, consider the following factors: - Weight: The weight of the envelope paper should not exceed 90 g/m² or jamming may occur. - Construction: Prior to printing, envelopes should lie flat with less than 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 during operation. - Use only well-constructed envelopes with sharp and well creased folds. - Do not use stamped envelopes. - Do not use envelopes with clasps, snaps, windows, coated lining, self-adhesive seals, or other synthetic materials. - Do not use damaged or poorly made envelopes. - Be sure the seam at both ends of the envelope extends all the way to the corner of the envelope.  1 Acceptable 2 Unacceptable

MEDIA TYPE	GUIDELINES
	- Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the machine's fusing temperature for 0.1 second. Check your machine's specification to view the fusing temperature, see page 82. The extra flaps and strips might cause wrinkling, creasing, or jams, and may even damage the fuser. - For the best print quality, position margins no closer than 15 mm from the edges of the envelope. - Avoid printing over the area where the envelope's seams meet.
Labels	- To avoid damaging the machine, use only labels designed for use in laser machines. - When selecting labels, consider the following factors: - Adhesives: The adhesive material should be stable at your machine's fusing temperature. Check your machine's specification to view the fusing temperature, see page 82. - Arrangement: Only use labels with no exposed backing between them. Labels can peel off sheets that have spaces between the labels, causing serious jams. - Curl: Prior to printing, labels must lie flat with no more than 13 mm of curl in any direction. - Condition: Do not use labels with wrinkles, bubbles, or other indications of separation. - Make sure that there is no exposed adhesive material between labels. Exposed areas can cause labels to peel off during printing, which can cause paper jams. Exposed adhesive can also cause damage to machine components. - Do not run a sheet of labels through the machine more than once. The adhesive backing is designed for only a single pass through the machine. - Do not use labels that are separating from the backing sheet or are wrinkled, bubbled, or otherwise damaged.
Card stock or custom-sized materials	- Do not print on media smaller than 76 mm wide or 356 mm long. - In the software application, set margins at least 6.4 mm away from the edges of the material.
Preprinted paper	- Letterhead must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the printer's fusing temperature for 0.1 second. Check your machine's specification to view the fusing temperature, see page 82. - Letterhead ink must be non-flammable and should not adversely affect printer rollers. - Forms and letterhead should be sealed in a moisture-proof wrapping to prevent changes during storage. - Before you load preprinted paper, such as forms and letterhead, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper, reducing print quality.

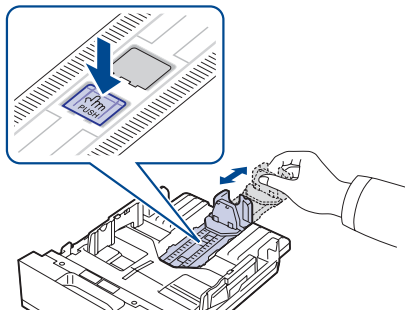
CHANGING THE SIZE OF THE PAPER IN THE PAPER TRAY

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

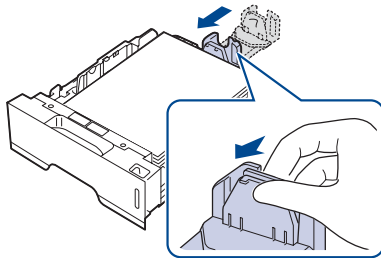


- 1 Paper length guide
- 2 Support guide
- 3 Guide lock
- 4 Paper width guides

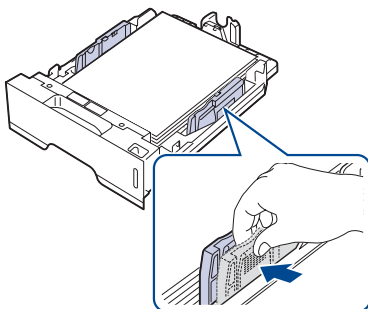
1. Press and hold the guide lock, and slide the paper length guide to locate it in the correct paper size slot. It is preset to Letter or A4 size depending on the country.



2. After inserting paper into the tray, adjust the support guide so that it lightly touches the paper stack.



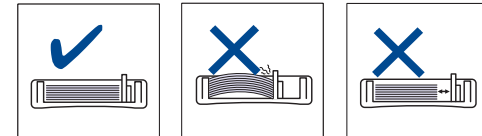
3. Squeeze the paper width guides, as shown and slide them to the stack of paper until it lightly touches the side of the stack.



4. Load the paper into the tray.

5. Place the tray into the machine.
6. Set the paper size from your computer.

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



LOADING PAPER

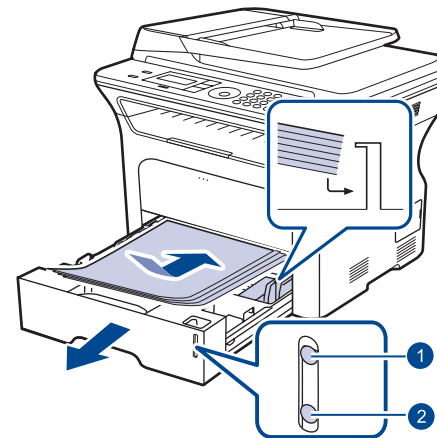
Loading paper in the tray 1 or optional tray

Load the print media you use for the majority of your print jobs in the tray 1. The tray 1 can hold a maximum of 250 sheets of 80 g/m² (20 lb bond) plain paper.

You can purchase an optional tray and attach it below the standard tray to load an additional 250 sheets of paper. (See "Ordering supplies and accessories" on page 79.)

- Using photographic paper or coated paper may cause problems, requiring repairs. Such repairs are not covered by Samsung's warranty or service agreements.

1. To load paper, pull and open the paper tray and place paper with the side you want to print facing down.



- 1 Full
- 2 Empty

2. After loading paper, set the paper type and size for the tray 1. See *Software section* for PC-printing.

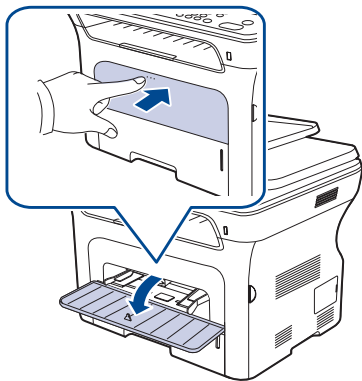
- If you experience problems with paper feed, place one sheet at a time in the manual tray.
- You can load previously printed paper. The printed side should be facing up with an uncurled edge at the front. If you experience problems with paper feed, turn the paper around. Note that print quality is not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

PRINTING ON SPECIAL PRINT MATERIALS

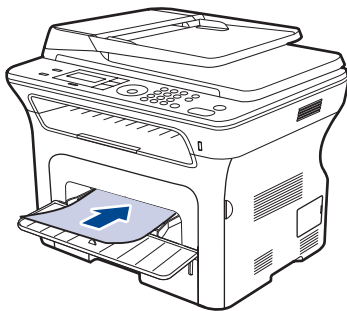
The machine can hold special sizes and types of print material, such as postcards, note cards, and envelopes. Especially, it is useful for single page printing on letterhead or colored paper.

Feeding the print material manually

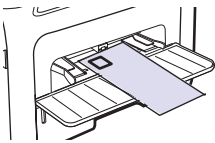
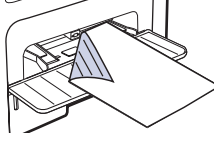
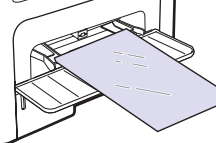
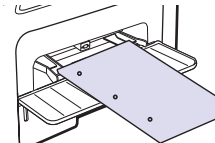
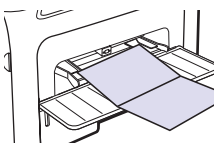
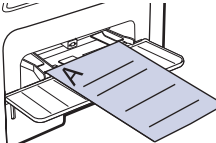
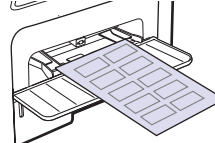
- Load only one size of print media at a time in the tray.
 - To prevent paper jams, do not add paper when there is still paper in the tray. This also applies to other types of print media.
 - Print media should be loaded face up with the side you want to print, and the top edge going into the tray first. Place print materials in the center of the tray.
 - Always load only the specified print media to avoid paper jams and print quality problems. (See "Selecting print media" on page 30.)
 - Flatten any curl on postcards, envelopes, and labels before loading them into the tray.
1. Open the manual tray.



2. Load the paper with the side to be printed on facing up.



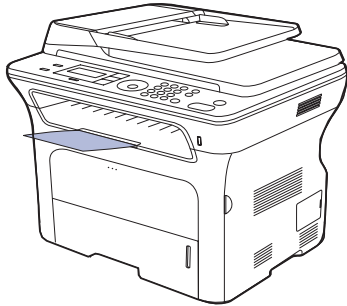
 Place the side to be printed facing up.

Envelope	Preprinted paper	Transparency
		
Punched paper	Card stock	Letterhead paper
		
Label		
		

3. When you print in application, start the print menu.
4. Before you print, open printer properties.
5. Press the **Paper** tab in printer properties, and select an appropriate paper type.
-  If you want to use an label, set the paper type to **Label**.
6. Select **Manual Feeder** in paper source then, press **OK**.
7. Start printing in application.
8. Press the **Stop/Clear** button on the machine to start feeding then the machine starts printing.
-  • If you are printing multiple pages, load the next sheet after first page prints out, and press the **Stop/Clear** button. Repeat this step for every page to be printed.
- The settings you change remain in effect only while you are using the current application.

ADJUSTING THE OUTPUT SUPPORT

The printed pages stack on the output tray, and the output support will help the printed pages align. To let the output support correctly align the pages you need to pull it out appropriately depending on the paper size.



1 Output support



- If the output support is incorrectly adjusted, printed pages may be mis-aligned or fall.
- If you continuously print many pages, the surface of the output tray may become hot. Be careful not to touch the surface, and especially keep children away from the surface.

Stacking papers firmly

If you use a machine in a humid area, or you are using the damp print media caused by a high humidity, the print-outs on the output tray may be curled and may not be stacked properly. In this case, you can set the machine to use the **Paper Stacking** function to let print-outs stacked firmly. But, using this function will make the print speed slow.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Maintenance** appears and press **OK**.
3. Press the left/right arrow until **Paper Stacking** appears and press **OK**.
4. Press the left/right arrow to select **On** or **Off** and press **OK**.
5. Press **Stop/Clear** to return to ready mode.

SETTING THE PAPER SIZE AND TYPE

After loading paper in the paper tray, you need to set the paper size and type using the control panel buttons. These settings will apply to Copy 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** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Paper Setup** appears and press **OK**.
3. Press **OK** when **Paper Size** appears.
4. Press the left/right arrow until the paper tray you want appears and press **OK**.
5. Press the left/right arrow until the paper size you are using appears and press **OK**.
6. Press the left/right arrow until **Paper Type** appears and press **OK**.
7. Press the left/right arrow until the paper tray you want appears and press **OK**.
8. Press the left/right arrow until the paper type you are using appears and press **OK**.
9. Press **Stop/Clear** to return to ready mode.

copying

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

This chapter includes:

- Selecting the paper tray
- Copying
- Changing the settings for each copy
- Changing the default copy settings
- ID card copying
- Using special copy features
- Printing on both sides of paper
- Setting copy timeout

SELECTING THE PAPER TRAY

After loading the print media for copy output, you must select the paper tray you will use for copy jobs.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Paper Setup** appears and press **OK**.
3. Press the left/right arrow until **Paper Source** appears and press **OK**.
4. Press **OK** when **Copy Tray** appears.
5. Press the left/right arrow until the paper tray you want appears and press **OK**.
6. Press **Stop/Clear** to return to ready mode.

COPYING

1. Press  **Copy**.
Ready to Copy appears on the top line of the display.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Enter the number of copies using the number keypad, if necessary.
4. If you want to customize the copy settings including copy size, darkness, and original type, by using the control panel buttons. See page 36.
If necessary, you can use special copy features, such as poster copying, 2- or 4-up copying. See page 37.
5. Press **Start** to begin copying.

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

CHANGING THE SETTINGS FOR EACH COPY

Your machine provides default settings for copying so that you can quickly and easily make a copy. However, if you want to change the options for each copy, use the copy function buttons on the control panel.

 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.

1. Press  **Copy**.
2. Press **Menu** until **Copy Feature** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until the setup option you want appears and press **OK**.

4. Press the left/right arrow until the setting you want appears and press **OK**.
5. Repeat steps 3 through 4, as needed.
6. Press **Stop/Clear** to return to ready mode.

 While you are setting copy options, pressing **Stop/Clear** cancels the changed settings and restores the defaults.

Darkness

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

- **Light:** Works well with dark print.
- **Normal:** Works well with standard typed or printed originals.
- **Dark:** Works well with light print.

Original Type

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

Each time you press the button, the following modes are available:

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

Reduced or enlarged copy

You can reduce or enlarge the size of a copied image from 25% to 400% when you copy original documents from the scanner glass, or from 25% to 100% from the ADF.

To select from the predefined copy sizes:

The left/right arrow until the size setting you want appears and press **OK**.

To scale the copy by directly entering the scale rate:

1. The left/right arrow until **Custom** appears and press **OK**.
2. Enter the scale rate and press **OK** to save the selection.

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

CHANGING THE DEFAULT COPY SETTINGS

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

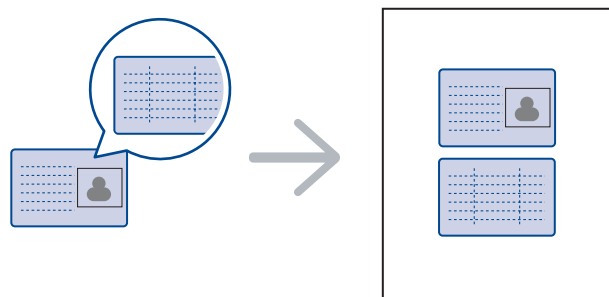
1. Press **Copy**.
2. Press **Menu** until **Copy Setup** appears on the bottom line of the display and press **OK**.
3. Press **OK** when **Change Default** appears.
4. Press the left/right arrow until the setup option you want appears and press **OK**.
5. Press the left/right arrow until the setting you want appears and press **OK**.
6. Repeat steps 4 through 5, as needed.
7. Press **Stop/Clear** to return to ready mode.

 While you are setting copy options, pressing **Stop/Clear** cancels the changed settings and restores the defaults.

ID CARD COPYING

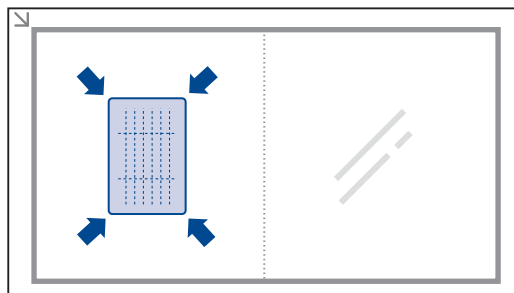
Your machine can print 2-sided originals on one sheet of A4-, Letter-, Legal-, Folio-, Oficio-, Executive-, B5-, A5-, or A6-sized paper.

When you copy using this feature, the machine prints one side of the original on the upper half of the paper and the other side on the lower half without reducing the size of the original. This feature is helpful for copying a small-sized item, such as a name card.

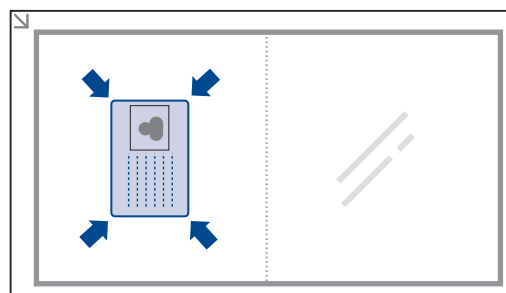


This copy feature is available only when you place originals on the scanner glass. Unload the paper in ADF.

1. Press **ID Copy**.
2. Place the front side of an original facing down on the scanner glass where arrows indicate as shown, and close the scanner lid.



3. **Place Front Side and Press[Start]** appears on the display.
4. Press **Start**.
Your machine begins scanning the front side and shows **Place Back Side and Press[Start]**
5. Turn the original over and place it on the scanner glass, where arrows indicate as shown. Then, close the scanner lid.



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

6. Press **Start** to begin copying.

 If the original is larger than the printable area, some portions may not be printed.
If you press **Stop/Clear** or if no buttons are pressed for approximately 30 seconds, the machine cancels the copy job and returns to ready mode.

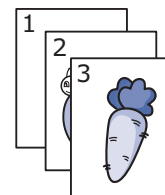
USING SPECIAL COPY FEATURES

You can use the following copy features:

Collation

You can set the machine to sort the copy job. For example, if you make 2 copies of a 3 page original, one complete 3 page document will print followed by a second complete document.

1. Press **Copy**.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Enter the number of copies using the number keypad.
4. Press **Menu** until **Copy Setup** appears on the bottom line of the display and press **OK**.
5. Press **OK** when **Change Default** appears.
6. Press the left/right arrow until **Copy Collation** appears and press **OK**.
7. Press the left/right arrow to select **On**.
8. Press **Start** to begin copying.
One complete document will print followed by the second complete document.



2-up or 4-up copying

Your machine can print 2 or 4 original images reduced to fit onto one sheet of paper.

This copy feature is available only when you place originals on the ADF. Unload the paper in scanner glass.

1. Press  **Copy**.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Press **Menu** until **Copy Feature** appears on the bottom line of the display and press **OK**.
4. Press the left/right arrow until **Layout** appears and press **OK**.
5. Press the left/right arrow until **2-Up** or **4-Up** appears and press **OK**.
6. Press **Start** to begin copying.



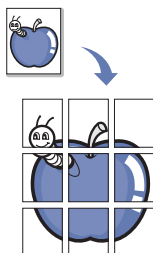
 You cannot adjust the copy size using the **Reduce/Enlarge** button for making a 2- or 4-up copy.

Poster copying

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

This copy feature is available only when you place originals on the scanner glass. Unload the paper in ADF.

1. Press  **Copy**.
2. Place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Press **Menu** until **Copy Feature** appears on the bottom line of the display and press **OK**.
4. Press the left/right arrow until **Layout** appears and press **OK**.
5. Press the left/right arrow until **Poster Copy** appears and press **OK**.
6. Press **Start** to begin copying.



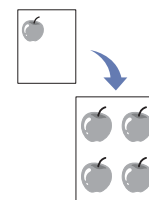
Your original is divided into 9 portions. Each portion is scanned and printed one by one in the following order:

Clone copying

Your machine can print 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.

This copy feature is available only when you place originals on the scanner glass. Unload the paper in ADF.

1. Press  **Copy**.
2. Place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Press **Menu** until **Copy Feature** appears on the bottom line of the display and press **OK**.
4. Press the left/right arrow until **Layout** appears and press **OK**.
5. Press the left/right arrow until **Clone Copy** appears and press **OK**.
6. Press **Start** to begin copying.



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

Adjusting background images

You can set the machine to print an image without its background. This copy feature removes the background color and can be helpful when copying an original containing color in the background, such as a newspaper or a catalog.

1. Press  **Copy**.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Press **Menu** until **Copy Feature** appears on the bottom line of the display and press **OK**.
4. Press the left/right arrow until **Adjust Bkgd.** appears and press **OK**.
5. Press the left/right arrow until the binding option you want appears.
 - **Off:** Does not use this feature.
 - **Auto:** Optimizes the background.
 - **Enhance Lev. 1~2:** The higher the number is, the more vivid the background is.
 - **Erase Lev. 1~4:** The higher the number is, the lighter the background is.
6. Press **Start** to begin copying.
7. Press **Stop/Clear** to return to ready mode.

PRINTING ON BOTH SIDES OF PAPER

You can set the machine to print documents on both sides of paper. (SCX-4x28 Series only)

1. Press  **Copy**.
2. Press **Menu** until **Copy Setup** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Duplex** appears and press **OK**.
4. Press the left/right arrow until the binding option you want appears.
 - **Off**: Cops in Normal mode.
 - **Short Edge**: Cops pages to be read by flipping like a note pad.



- **Long Edge**: Cops pages to be read like a book.



5. Press **OK** to save your selection.

SETTING COPY TIMEOUT

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

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Machine Setup** appears.
3. Press the left/right arrow until **Timeout** appears and press **OK**.
4. Press the left/right arrow until the time setting you want appears.

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 **OK** to save your selection.
6. Press **Stop/Clear** to return to ready mode.

scanning

Scanning with your machine lets you turn pictures and text into digital files that can be stored on your computer.

This chapter includes:

- Scanning basics
- Scanning from the control panel
- Scanning by a network connection

 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 resolution.

SCANNING BASICS

You can scan the originals with your machine via an USB cable or the network.

- **Samsung Scan Manager:** You just walk to the machine with the originals and scan them from the control panel then, the scanned data will be stored in the connected computers **My Documents** folder. When the setup installation is completed, then you have installed the **Samsung Scan Manager** on your computer already. This feature can be used via the local connection or the network connection. See next section.
- **TWAIN:** TWAIN is the one of preset imaging applications. Scanning an image launches the selected application, enabling you to control the scanning process. See the Software section. This feature can be used via the local connection or the network connection. See *Software section*.
- **Samsung SmartThru Office :** This feature is the accompanying software for your machine. You can use this program to scan images or documents, and this feature can be used via the local connection or the network connection. See *Software section*.
- **WIA:** WIA stands for Windows Images Acquisition. To use this feature your computer must be connected directly with the machine via an USB cable. See *Software section*.
- **Email:** You can send the scanned image as an attachment to an email. See page 42. (SCX-4x28 Series only)

- Changing the settings for each scan job
- Changing the default scan settings
- Setting up Address Book

SCANNING FROM THE CONTROL PANEL

Your machine offers you to scan from the control panel and easily send the scanned document to connected computer's **My Documents** folder. In order to use this function, your machine and computer must be connect by USB cable or by network.

Also, with the offered **Samsung Scan Manager** program, scanned documents can be opened with the program you have setup previously. Such as Microsoft Paint, Email, SmartThru Office, OCR can be added to application program. See "Setting scan information in Samsung Scan Manager." on page 41.

Scanned images can be saved as BMP, JPEG, TIFF, PDF files.

Scanning to application programs

1. Make sure that your machine and computer are turned on and properly connected to each other.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Press  **Scan/Email**.
Ready to Scan appears on the top line of the display.
4. Press the left/right arrow until **Scan to PC** appears on the bottom line of the display and press **OK**.
5. Press the left/right arrow until the option you want appears and press **OK**.
6. Depending on the port connection, different messages appear. Check the following messages and move on to the next step.
 - **Scan Destination:** Connected by USB. Move to step 7.
 - **ID:** Connected by Network and user is registered. Move to step 6.
 - **◀Local PC▶:** Choosing USB or Network to scan. If connected by USB, move to step 5. If connected by Network, move to step 6.
 - **Not Available:** Neither connected by USB nor Network. Check the port connection.
7. Press the left/right arrow until the port you want appears on the display.
8. Enter the registered user ID and PIN and click **OK**.
 -  • ID is the same ID as the registered ID for **Samsung Scan Manager**.
 - PIN is the 4 digit number registered for **Samsung Scan Manager**.
9. From **Scan Destination**, press the left/right arrow until the application program you want appears, then press **OK**.
Default setting is **My Documents**.
 -  To add or delete the folder where the scanned file is saved, add or delete the application program in **Samsung Scan Manager>Set Scan Button**.

10. To scan from the default setting, press **Start**. Press the left/right button until the setting you want appears then press OK.

11. Scanning begins.



- Scanned image is saved in computer's **My Documents> My Pictures>Samsung** folder.
- You can use Tawin driver to scan quickly in **Samsung Scan Manager** program.
- You can also scan by pressing Window's **Start>Control Panel> Samsung Scan Manager>Quick Scan**.

Setting scan information in Samsung Scan Manager.

You can find out about **Samsung Scan Manager** program information and installed scan driver's condition. Also, you can change scan settings and add or delete the folders where scanned documents to computer are save in **Samsung Scan Manager** program.



Scan Manager program can only be used in the Window and Macintosh system. If you use the Macintosh, See Software section.

- Press **Start>Control Panel> Samsung Scan Manager**.
Samsung Scan Manager Administration appears.



You can open **Samsung Scan Manager** by pressing the **Smart Panel** icon's right in the window task bar.

- Select the appropriate machine from the **Samsung Scan Manager**.
- Press **Property**.
- Set Scan Button** allows you to change the saving destination and scan settings, add or delete application program and format files.
You can change the scanning machine by using **Change Port**. (Local or Network)
- Press **OK** after setting is done.

SCANNING BY A NETWORK CONNECTION

If you have connected your machine to a network and set up the network parameters correctly, you can scan and send images over the network. (SCX-4x28 Series only)

Preparing for network scanning

Before using your machine's network scanning features, you need to configure the following settings, depending on your scan destination:

- Register as an authorized user for scanning to email.
- Set up the SMTP server for scanning to email

User authentication for network scanning

To send an email or Network, you must register authorized local or network users using SyncThru™ Web Service.

- If user authentication has been activated, only authorized local users or on the DB server can send scanned data to the network (email, Network).
- For network scanning using the authentication feature, you must register the network or local authentication configuration using the SyncThru™ Web Service.
- User authentication has 3 options: none (Default), network authentication, and local authentication.

Registering local authorized users

- Enter your machine's IP address as the URL in a browser and click **Go** to access the web site of your machine.
- Click **Machine Settings**.
- Select **Local Authentication** on the **General Setup of the User Authentication** web page.
- Click **Add**.
- Select an index number corresponding to the location for storing the entry, from 1 to 50.
- Enter your name, auth ID, password, e-mail address and phone number.
You need to enter the registered user ID and password in the machine when you start scanning to email from the control panel.
- Click **Apply**.

Register authorized network users

- Enter your machine's IP address as the URL in a browser and click **Go** to access the web site of your machine.
- Click **Machine Settings**.
- Select **Network Authentication** on the **General Setup of User Authentication** web page.
- Click **Apply** and **OK**.
- Select the **Authentication Type** that you prefer.
- Configure the values for each feature, as follows.
- Click **Apply**.

Setting up an e-mail account

To scan and send an image as an email attachment, you need to set up network parameters using SyncThru™ Web Service.

- Enter your machine's IP address as the URL in a browser and click **Go** to access the web site of your machine.
- Click **Machine Settings** and **E-mail Setup**.
- Select **IP Address** or **Host Name**.
- Enter the IP address in dotted decimal notation or as a host name.
- Enter the server port number, from 1 to 65535.
The default port number is 25.
- Check the box next to **SMTP Requires Authentication** to require authentication.
- Enter the SMTP server login name and password.
- Click **Apply**.



If the authentication method of SMTP server is POP3beforeSMTP, check the box next to **SMTP Requires POP3 Before SMTP Authentication**.

- Enter the IP address in dotted decimal notation or as a host name.
- Enter the server port number, from 1 to 65535. The default port number is 25.

Scanning to Email

You can scan and send an image as an email attachment. You first need to set up your email account in SyncThru™ Web Service. See page 41.

Before scanning, you can set the scan options for your scan job. See page 42.

1. Make sure that your machine is connected to a network.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Press  **Scan/Email**.
4. Press the left/right arrow until **Scan to Email** appears on the bottom line of the display and press **OK**.
5. Enter the recipient's email address and press **OK**.
If you have set up Address Book, you can use a speed button or a speed email or group email number to retrieve an address from memory. See page 42.
6. To enter additional addresses, press **OK** when **Yes** appears and repeat step 5.
To continue to the next step, press the left/right arrow to select **No** and press **OK**.
7. If the display asks if you want to send the email to your account, press the left/right arrow to select **Yes** or **No** and press **OK**.
 This prompt does not appear if you have activated the Send To Self option in the email account setup.
8. Enter an email subject and press **OK**.
9. Press the left/right arrow until the file format you want appears and press **OK** or **Start**.
The machine begins scanning and then sends the email.
10. If the machine asks if you want to log off your account, press the left/right arrow to select **Yes** or **No** and press **OK**.
11. Press **Stop/Clear** to return to ready mode.

CHANGING THE SETTINGS FOR EACH SCAN JOB

Your machine provides you with the following setting options to allow you to customize your scan jobs.

- **Scan Size:** Sets the image size.
- **Original Type:** Sets the original document's type.
- **Resolution:** Sets the image resolution.
- **Scan Color:** Sets the color mode.
- **Scan Format:** Sets the file format in which the image is to be saved. If you select TIFF or PDF, you can select to scan multiple pages.
Depending on the selected scan type, this option may not appear.

To customize the settings before starting a scan job:

1. Press  **Scan/Email**.
2. Press **Menu** until **Scan Feature** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until the scan type you want appears and press **OK**.
4. Press the left/right arrow until the scan setting option you want appears and press **OK**.
5. Press the left/right arrow until the desired status appears and press **OK**.
6. Repeat steps 4 and 5 to set other setting options.
7. When you have finished, press **Stop/Clear** to return to ready mode.

CHANGING THE DEFAULT SCAN SETTINGS

To avoid having to customize the scan settings for each job, you can set up default scan settings for each scan type.

1. Press  **Scan/Email**.
2. Press **Menu** until **Scan Setup** appears on the bottom line of the display and press **OK**.
3. Press **OK** when **Change Default** appears.
4. Press the left/right arrow until the scan type you want appears and press **OK**.
5. Press the left/right arrow until the scan setting option you want appears and press **OK**.
6. Press the left/right arrow until the desired status appears and press **OK**.
7. Repeat steps 5 and 6 to change other settings.
8. To change the default settings for other scan types, press **Back** and repeat from step 4.
9. Press **Stop/Clear** to return to ready mode.

SETTING UP ADDRESS BOOK

You can set up **Address Book** with the email addresses you use frequently via **SyncThru™ Web Service** and then easily and quickly enter email addresses by entering the location numbers assigned to them in **Address Book**. (SCX-4x28 Series only)

Registering speed email numbers

1. Enter your machine's IP address as the URL in a browser and click **Go** to access the web site of your machine.
2. Click **Machine Settings** and **E-mail Setup**.
3. Click **Individual Address Book** and **Add**.
4. Select a location number and enter the user name and e-mail address you want.
5. Click **Apply**.



You can also click Import and obtain your address book from your computer.

Configuring group email numbers

Enter your machine's IP address as the URL in a browser and click **Go** to access the web site of your machine.

1. Click **Machine Settings** and **E-mail Setup**.
2. Click **Group Address Book** and **Add**.
3. Select a group number and enter the group name you want.
4. Select speed email numbers that will be included in the group.
5. Click **Apply**.

Using Address Book entries

To retrieve an email address, use the following ways:

Speed email numbers

When you are prompted to enter a destination address while sending an email, enter the speed email number at which you stored the address you want.

- For a one-digit speed email location, press and hold the corresponding digit button from the number keypad.
- For a two- or three-digit speed email location, press the first digit button(s) and then hold down the last digit button.

You can also search through memory for an entry by pressing **Address Book**. See page 43.

Group email numbers

To use a group email entry, you need to search for and select it from memory.

When you are prompted to enter a destination address while sending an email, press **Address Book**. See page 43

Searching Address Book for an entry

There are two ways to search for an address in memory. You can either scan from A to Z sequentially or search by entering the first letters of the name associated with the address.

Searching sequentially through memory

1. If necessary, press  **Scan/Email**.
2. Press **Address Book** until **Search & Send** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until the number category you want appears and press **OK**.
4. Press **OK** when **All** appears.
5. Press the left/right arrow until the name and address you want appears. You can search upwards or downwards through the entire memory in alphabetical order.

Searching with a particular first letter

1. If necessary, press  **Scan/Email**.
2. Press **Address Book** until **Search & Send** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until the number category you want appears and press **OK**.
4. Press the left/right arrow until **ID** appears and press **OK**.
5. Enter the first few letters of the name you want and press **OK**.
6. Press the left/right arrow until the name you want appears and press **OK**.

Printing Address Book

You can check your **Address Book** settings by printing a list.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Report** appears and press **OK**.
3. Press the left/right arrow until **Address Book** appears and press **OK**.
4. Press the left/right arrow until **E-mail** appears and press **OK**.
5. Press **OK** when **Yes** appears to confirm printing.

A list showing your speed button settings, and the speed/group email entries print out.

basic printing

This chapter explains common printing tasks.

This chapter includes:

- Printing a document
- Canceling a print job

PRINTING A DOCUMENT

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

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

CANCELING A PRINT JOB

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

1. Click the Windows **Start** menu.
2. For Windows 2000, select **Settings** and then **Printers**.
For Windows XP/2003, select **Printers and Faxes**.
For Windows Vista, select **Control Panel > Hardware and Sound > Printers**.
3. Double-click the Samsung SCX-4x24 Series or SCX-4x28 Series icon.
(Or Samsung SCX-4x28 Series PS)
4. From the **Document** menu, select **Cancel**.



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

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

The fax feature is available only on the CLX-6200FX, CLX-6210FX, CLX-6240FX. This chapter gives you information about using your machine as a fax machine.

This chapter includes:

- Sending a fax
- Receiving a fax

 You may experience restrictions on color fax transmission, slower fax transmission, poor fax quality and communication failures when faxing over VoIP network. Contact you local network administrator or Internet Service Provider for more details.

SENDING A FAX

Setting the fax header

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 **System Setup** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Machine Setup** appears.
3. Press **OK** when **Machine ID** appears.
4. 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 enter alphanumeric characters, see page 27.
5. Press **OK** to save the ID.
6. Press the left/right arrow until **Machine Fax No.** appears and press **OK**.
7. Enter your fax number using the number keypad and press **OK**.
8. Press **Stop/Clear** to return to ready mode.

Adjusting the document settings

Before starting a fax, change the following settings according to your original's status to get the best quality.

Resolution

The default document settings produce good results when using typical text-based originals. However, if you send originals that are of poor quality, or contain photographs, you can adjust the resolution to produce a higher quality Fax.

1. Press  **Fax**.
2. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Resolution** appears and press **OK**.
4. Press the left/right arrow until the option you want appears and press **OK**.
5. Press **Stop/Clear** to return to ready mode.

- Other ways to fax
- Fax setup

Recommended resolution settings for different original document types are described in the table below:

MODE	RECOMMENDED FOR:
Standard	Originals with normal sized characters.
Fine	Originals containing small characters or thin lines or originals printed using a dot-matrix printer.
Super Fine	Originals containing extremely fine detail. Super Fine mode is enabled only if the machine with which you are communicating also supports the Super Fine resolution.  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.
Photo Fax	Originals containing shades of gray or photographs.

 The resolution setting is applied to the current fax job. To change the default setting, see page 51.

Darkness

You can select the default contrast mode to fax your originals lighter or darker.

1. Press  **Fax**.
2. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Darkness** appears and press **OK**.
4. Press the left/right arrow until the option you want appears and press **OK**.
 - **Light:** Works well with dark print.
 - **Normal:** Works well with standard typed or printed originals.
 - **Dark:** Works well with light print.
5. Press **Stop/Clear** to return to ready mode.

 The darkness setting is applied to the current fax job. To change the default setting, see page 51.

Sending a fax automatically

1. Press  **Fax**.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
Ready to Fax appears on the top line of the display.
3. Adjust the resolution and the darkness to suit your fax needs.
4. Enter the receiving fax machine's number.
You can use speed buttons, speed dial numbers, or group dial numbers.
For details about storing and searching for a number, see page 51.
5. Press **Start**.
6. If an original is placed on the scanner glass, select **Yes** to add another page. Load another original and press **OK**.
7. When you have finished, select **No** at the **Another Page?** prompt.
After the number is dialed, the machine begins sending the fax when the receiving fax machine answers.

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

Sending a fax manually

1. Press  **Fax**.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Adjust the resolution and the darkness to suit your fax needs. See page 45.
4. Press  **On Hook Dial**. You hear a dial tone.
5. Enter the receiving fax machine's number.
You can use speed buttons, speed dial numbers, or group dial numbers.
For details about storing and searching for a number, see page 51.
6. Press **Start** when you hear a high-pitched fax signal from the remote fax machine.

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

Confirming a transmission

When the last page of your original has been sent successfully, the machine beeps and returns to ready 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 page 67. If you receive an error message, press **Stop/Clear** to clear the message and try to send the fax again.

You can set your machine to print a confirmation report automatically each time sending a fax is completed. For further details, see page 50.

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 **OK** 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 page 50.

Redialing the last number

To redial the number you called last:

1. Press **Redial/Pause**.
2. When an original is loaded in the ADF, the machine automatically begins to send.
If an original is placed on the scanner glass, select **Yes** to add another page. Load another original and press **OK**. When you have finished, select **No** at the **Another Page?** prompt.

RECEIVING A FAX

Selecting the paper tray

After loading the print media for fax output, you have to select the paper tray you will use for the fax reception.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Paper Setup** appears and press **OK**.
3. Press the left/right arrow until **Paper Source** appears and press **OK**.
4. Press the left/right arrow until **Fax Tray** appears and press **OK**.
5. Press the left/right arrow until the paper tray you want appears and press **OK**.
6. Press **Stop/Clear** to return to ready mode.

Changing receiving modes

1. Press  **Fax**.
2. Press **Menu** until **Fax Setup** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Receiving** appears and press **OK**.
4. Press **OK** when **Receive Mode** appears.
5. Press the left/right arrow until the fax reception mode you want appears.
 - 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** and then **Start**. You can also pick up the handset of the extension phone and then press the remote receive code. See page 47.
 - In **Ans/Fax** mode, an answering machine attached to your 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 machine automatically switches to **Fax** mode to receive the fax. See page 47.
 - 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 an user to use a single telephone line to answer several different telephone numbers. For further details, see page 47.
6. Press **OK** to save your selection.
7. Press **Stop/Clear** to return to ready mode.

-  • When the memory is full, the printer can no longer receive any incoming fax. Secure free memory to resume by removing data stored in the memory.
- To use the **Ans/Fax** mode, attach an answering machine to the EXT socket 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 page 47.

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 page 50.

Receiving manually in Tel mode

You can receive a fax call by pressing  **On Hook Dial** and then pressing **Start** when you hear a fax tone from the remote machine.

The machine begins receiving a fax and returns to ready mode when the reception is completed.

Receiving manually using an extension telephone

This feature works best when you are using an extension telephone connected to the EXT socket 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 phone. The machine receives the fax.

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 page 50.

Receiving automatically in Ans/Fax mode

To use this mode, you must attach an answering machine to the EXT socket on the back of your machine.

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.



- 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 socket, 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 faxes using DRPD mode

Distinctive Ring is a telephone company service which enables an 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 (DRPD) 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 socket. You can easily suspend or change DRPD at any time.

Before using the DRPD option, Distinctive Ring service must be installed on your telephone line by the telephone company. To set up DRPD, 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  **Fax**.
2. Press **Menu** until **Fax Setup** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Receiving** appears and press **OK**.
4. Press the left/right arrow until **DRPD Mode** appears and press **OK**. **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 display shows **Completed DRPD Setup**. If the DRPD setup fails, **Error DRPD Ring** appears. Press **OK** when **DRPD Mode** appears and start over from step 4.
7. Press **Stop/Clear** to return to ready mode.



- 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 socket.

Receiving in 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.

Activating secure receiving mode

1. Press  **Fax**.
2. Press **Menu** and then press **OK** when **Fax Feature** appears on the bottom line of the display.
3. Press the left/right arrow until **Secure Receive** appears and press **OK**.
4. Press the left/right arrow until **On** appears and press **OK**.
5. Enter a four-digit password you want to use and press **OK**.
 You can activate secure receiving mode without setting a password, but cannot protect your faxes.
6. Re-enter the password to confirm it and press **OK**.
7. Press **Stop/Clear** to return to ready mode.

When a fax is received in secure receiving mode, your machine stores it in memory and shows **Secure Receive** to let you know that there is a fax received.

Printing received faxes

1. Access the **Secure Receive** menu by following steps 1 through 3 in "Activating secure receiving mode."
2. Press the left/right arrow until **Print** appears and press **OK**.
3. Enter the four-digit password and press **OK**.
The machine prints all of the faxes stored in memory.

Deactivating secure receiving mode

1. Access the **Secure Receive** menu by following steps 1 through 3 in "Activating secure receiving mode."
2. Press the left/right arrow until **Off** appears and press **OK**.
3. Enter the four-digit password and press **OK**.
The mode is deactivated and the machine prints all faxes stored in memory.
4. Press **Stop/Clear** to return to ready mode.

Receiving faxes in 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 its memory. Then, as soon as you finish copying or printing, the machine automatically prints the fax.

Also, your machine receives faxes and stores them in its memory when there is no paper in the tray or no toner in the installed toner cartridge.

OTHER WAYS TO FAX

Sending a fax to multiple destinations

You can use the Multiple Send feature, which allows you to send a fax to multiple locations. Originals are automatically stored in memory and sent to a remote station. After transmission, the originals are automatically erased from memory. You cannot send a color fax using this feature.

1. Press  **Fax**.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Adjust the document resolution and darkness to suit your fax needs. See page 45.
4. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
5. Press the left/right arrow until **Multi Send** appears and press **OK**.

6. Enter the number of the first receiving fax machine and press **OK**.
You can use speed buttons, speed dial numbers. You can enter Group Dial Number using **Address Book** Button. For details, see page 51.
7. Enter the second fax number and press **OK**.
The display asks you to enter another fax number to send the document.
8. To enter more fax numbers, press **OK** when **Yes** appears and repeat steps 6 and 7. You can add up to 10 destinations.
 Once you entered a group dial number, you cannot enter another group dial numbers anymore.
9. When you have finished entering fax numbers, press the left/right arrow to select **No** at the **Another No.?** prompt and press **OK**.
The original is scanned into memory before transmission. The display shows memory capacity and the number of pages being stored in memory.
10. If an original is placed on the scanner glass, select **Yes** to add another pages. Load another original and press **OK**.
When you have finished, select **No** at the **Another Page?** prompt.
The machine begins sending the fax 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. You cannot send a color fax using this feature.

1. Press  **Fax**.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Adjust the document resolution and darkness to suit your fax needs. See page 45.
4. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
5. Press the left/right arrow until **Delay Send** appears and press **OK**.
6. Enter the number of the receiving machine using the number keypad.
You can use speed buttons, speed dial numbers. You can enter Group Dial Number using **Address Book** Button. For details, see page 51.
7. Press **OK** to confirm the number. The display asks you to enter another fax number to which to send the document.
8. To enter more fax numbers, press **OK** when **Yes** appears and repeat steps 6 and 7. You can add up to 10 destinations.
 Once you entered a group dial number, you cannot enter another group dial numbers anymore.
9. When you have finished entering fax numbers, press the left/right arrow to select **No** at the **Another No.?** prompt and press **OK**.
10. Enter the job name you want and press **OK**.
For details on how to enter alphanumeric characters, see page 27.
If you do not want to assign a name, skip this step.
11. Enter the time using the number keypad and press **OK**, or **Start**.
 If you set a time earlier than the current time, the fax will be sent at that time on the following day.

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

12. If an original is placed on the scanner glass, select **Yes** to add another page. Load another original and press **OK**.
When you have finished, select **No** at the **Another Page?** prompt.
The machine returns to ready mode. The display reminds you that you are in ready mode and that a delayed fax is set.

Adding pages to a delayed fax

You can add pages to the delayed transmissions previously reserved in your machine's memory.

1. Load the originals to be added and adjust document settings.
2. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
3. Press **OK** when **Add Page** appears.
4. Press the left/right arrow until the fax job you want appears and press **OK**.

The machine scans the original into memory and shows the total number of pages and the number of the added pages.

Canceling a delayed fax

1. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Cancel Job** appears and press **OK**.
3. Press the left/right arrow until the fax job you want appears and press **OK**.
4. Press **OK** when **Yes** appears.
The selected fax is deleted from memory.

Sending a priority fax

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

1. Press  **Fax**.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Adjust the document resolution and darkness to suit your fax needs. See page 45.
4. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
5. Press the left/right arrow until **Priority Send** appears and press **OK**.
6. Enter the number of the receiving machine.
You can use speed buttons, speed dial numbers, or group dial numbers. For details, see page 51.
7. Press **OK** to confirm the number.
8. Enter the job name you want and press **OK**.
The original is scanned into memory before transmission. The display shows memory capacity and the number of pages being stored in memory.
9. If an original is placed on the scanner glass, select **Yes** to add another page. Load another original and press **OK**.
When you have finished, select **No** at the **Another Page?** prompt.
The machine shows the number being dialed and begins sending the fax.

Forwarding faxes

You can forward your incoming and outgoing faxes to another fax machine or email address.

Forwarding sent faxes to another fax machine

You can set the machine to send copies of all outgoing faxes to a specified destination, in addition to the fax numbers you entered.

1. Press  **Fax**.
2. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Forward** appears and press **OK**.
4. Press **OK** when **Fax** appears.
5. Press the left/right arrow until **Send Forward** appears and press **OK**.
6. Press the left/right arrow to select **On** and press **OK**.
7. Enter the number of the fax machine to which faxes are to be sent and press **OK**.
8. Press **Stop/Clear** to return to ready mode.
Subsequent sent faxes will be forwarded to the specified fax machine.

Forwarding sent faxes to email address

You can set the machine to send copies of all outgoing faxes to a specified destination, in addition to the email address you entered.

1. Press  **Fax**.
2. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Forward** appears and press **OK**.
4. Press the left/right arrow until **E-mail** appears and press **OK**.
5. Press the left/right arrow until **Send Forward** appears and press **OK**.
6. Press the left/right arrow to select **On** and press **OK**.
7. Enter your email address and press **OK**.
8. Enter the email address to which faxes are to be sent and press **OK**.
9. Press **Stop/Clear** to return to ready mode.
Subsequent sent faxes will be forwarded to the specified email address.

Forwarding received faxes to another fax machine

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.

1. Press  **Fax**.
2. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Forward** appears and press **OK**.
4. Press **OK** when **Fax** appears.
5. Press the left/right arrow until **Rcv. Forward** appears and press **OK**.
6. Press the left/right arrow until **Forward** appears and press **OK**.
To set the machine to print out a fax when fax forwarding has been completed, select **Forward&Print**.
7. Enter the number of the fax machine to which faxes are to be sent and press **OK**.
8. Enter the starting time and press **OK**.
9. Enter the ending time and press **OK**.
10. Press **Stop/Clear** to return to ready mode.
Subsequent received faxes will be forwarded to the specified fax

machine.

Forwarding received faxes to email address

You can set your machine to forward incoming faxes to the email address you entered.

1. Press  **Fax**.
2. Press **Menu** until **Fax Feature** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Forward** appears and press **OK**.
4. Press the left/right arrow until **E-mail** appears and press **OK**.
5. Press the left/right arrow until **Rcv. Forward** appears and press **OK**.
6. Press the left/right arrow until **Forward** appears and press **OK**.
To set the machine to print out a fax when fax forwarding has been completed, select **Forward&Print**.
7. Enter your email address and press **OK**.
8. Enter the email address to which faxes are to be sent and press **OK**.
9. Press **Stop/Clear** to return to ready mode.
Subsequent sent faxes will be forwarded to the specified email address.

FAX SETUP

Changing the fax setup options

Your machine provides you with various user-selectable options for setting up the fax system. You can change the default settings for your preferences and needs.

To change the fax setup options:

1. Press  **Fax**.
2. Press **Menu** until **Fax Setup** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow to select **Sending** or **Receiving** and press **OK**.
4. Press the left/right arrow until the menu item you want appears and press **OK**.
5. Press the left/right arrow until the desired status appears or enter the value for the option you have selected, and press **OK**.
6. If necessary, repeat steps 4 through 5.
7. Press **Stop/Clear** to return to ready mode.

Sending options

OPTION	DESCRIPTION
Redial Times	You can specify the number of redial attempts. If you enter 0 , the machine will not redial.
Redial Term	Your machine can automatically redial a remote fax machine if it was busy. You can set an interval between attempts.
Prefix Dial	You can set a prefix of up to five digits. This number dials before any automatic dial number is started. It is useful for accessing a PABX exchange.
ECM Mode	This mode helps with poor line quality and makes sure any faxes you send are sent smoothly to any other ECM-equipped fax machine. Sending a fax using ECM may take more time.

OPTION	DESCRIPTION
Send Report	You can set your machine to print a confirmation report showing whether a transmission was successful, how many pages were sent, and more. The available options are On , Off , and On-Error , which prints only when a transmission is not successful.
Image TCR	This function allows users to know what fax messages have been sent by showing sent messages in the transmission report. The first page of the message is turned into an image file than is printed on the transmission report so the users can see what messages have been sent. However, you can not use this function when sending fax without saving the data in the memory.
Dial Mode	This setting may not be available depending on your country. If you cannot reach this option, your machine does not support this feature. You can set the dial mode for your machine to either tone dialling or pulse dialling. If you have a public telephone system or a private branch exchnage(PBX) system, you may need to select Pulse . Contact your local telephone company if you are not sure which dial mode to use. If you select Pulse , some phone system features might not be available. It can also take longer to dial a fax or phone number.

Receiving options

OPTION	DESCRIPTION
Receive Mode	You can select the default fax receiving mode. For details on receiving faxes in each mode, see page 46.
Ring to Answer	You can specify the number of times the machine rings before answering an incoming call.
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 fax.
Rcv Start Code	This code allows you to initiate fax reception from an extension phone plugged into the EXT socket on the back of the machine. If you pick up the extension phone and hear fax tones, enter the code. It is preset to *9* at the factory.
Auto Reduction	When receiving a fax containing pages as long as or longer than the paper loaded in the paper tray, the machine can reduce the size of the original to fit the size of the paper loaded in the machine. Turn on this feature if you want to automatically reduce an incoming page. With this feature set to Off , the machine cannot reduce the original to fit onto one page. The original will be divided and printed in actual size on two or more pages.

OPTION	DESCRIPTION
Discard Size	When receiving a fax containing pages as long as or longer than the paper in your machine, you can set the machine to discard a specific length from the end of the received fax. The machine will print the received fax on one or more sheets of paper, minus the data that would have been on the specified discard segment. When the received fax contains pages larger than the paper in your machine, and Auto Reduction has been turned on, the machine will reduce the fax to fit on the existing paper, and nothing will be discarded.
Junk Fax Setup	This setting may not be available depending on your country. Using this 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. When you turn on this feature, you can access the following options to set junk fax numbers. • Add: Allows you to set up to 20 fax numbers. • Delete: Allows you to delete the desired junk fax number. • Delete All: Allows you to delete all junk fax numbers.
DRPD Mode	This mode 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 page 47.
Duplex Print	• Long Edge: Prints pages to be read like a book. • Short Edge: Prints pages to be read by flipping like a note pad. • Off: Prints received fax on one sides of a paper.

Changing the default document settings

The fax options, including resolution and darkness, can be set to the most frequently used modes. When you send a fax, the default settings are used if they are not changed by using the corresponding button and menu.

1. Press  **Fax**.
2. Press **Menu** until **Fax Setup** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Change Default** appears and press **OK**.
4. Press **OK** when **Resolution** appears.
5. Press the left/right arrow until the resolution you want appears and press **OK**.
6. Press the left/right arrow until **Darkness** appears and press **OK**.
7. Press the left/right arrow until the darkness you want appears and press **OK**.
8. Press **Stop/Clear** to return to ready mode.

Printing sent fax report automatically

You can set the machine to print a report with detailed information about the previous 50 communication operations, including time and dates.

1. Press  **Fax**.
2. Press **Menu** until **Fax Setup** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Auto Report** appears and press **OK**.
4. Press the left/right arrow until **On** appears and press **OK**.
5. Press **Stop/Clear** to return to ready mode.

Setting up Address Book

You can set up **Address Book** with the fax numbers you use most frequently. Your machine provides you with the following features for setting up **Address Book**:

- Speed/Group dial numbers

 Before beginning to store fax numbers, make sure that your machine is in Fax mode.

Speed dial numbers

You can store up to 200 frequently-used fax numbers in speed dial numbers.

Registering a speed dial number

1. Press  **Fax**.
2. Press **Address Book** until **New & Edit** appears on the bottom line of the display and press **OK**.
3. Press **OK** when **Speed Dial** appears.
4. Enter a speed dial number between 0 and 199 and press **OK**.
If an entry is already stored in the number you choose, the display shows the name to allow you to change it. To start over with another speed dial number, press **Back**.
5. Enter the name you want and press **OK**.
For details on how to enter alphanumeric characters, see page 27.
6. Enter the fax number you want and press **OK**.
7. Press **Stop/Clear** to return to ready mode.

Editing speed dial numbers

1. Press **Address Book** until **New & Edit** appears on the bottom line of the display and press **OK**.
2. Press **OK** when **Speed Dial** appears.
3. Enter the speed dial number you want to edit and press **OK**.
4. Change the name and press **OK**.
5. Change the fax number and press **OK**.
6. Press **Stop/Clear** to return to ready mode.

Using speed dial numbers

When you are prompted to enter a destination number while sending a fax, enter the speed dial number at which you stored the number you want.

- For a one-digit (0-9) speed dial number, press and hold the corresponding digit button on the number keypad.
- For a two- or three-digit speed dial number, press the first digit button(s) and then hold down the last digit button.

You can also search through memory for an entry by pressing **Address Book**. See page 52.

Group dial numbers

If you frequently send the same document to several destinations, you can group these destinations and set them under a group dial number. You can then use a group dial number to send a document to all of the destinations within the group. You can set up to 100 group dial numbers using the destination's existing speed dial numbers.

Registering a group dial number

1. Press  **Fax**.
2. Press **Address Book** until **New & Edit** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until **Group Dial** appears and press **OK**.
4. Enter a group dial number between 0 and 99 and press **OK**.
5. Enter a speed dial number and press **OK**.
6. Press **OK** when speed dial information appears correctly.
7. Press **OK** when **Yes** appears.
8. Repeat steps 5 and 6 to include other speed dial numbers into the group.
9. When you have finished, press the left/right arrow to select **No** at the **Another No.?** prompt and press **OK**.
10. Press **Stop/Clear** to return to ready mode.

Editing a group dial number

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

1. Press **Address Book** until **New & Edit** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Group Dial** appears and press **OK**.
3. Enter the group dial number you want to edit and press **OK**.
4. Enter the speed dial number you want to add or delete and press **OK**.
If you entered a new speed dial number, **Add?** appears.
If you enter a speed dial number stored in the group, **Delete?** appears.
5. Press **OK** to add or delete the number.
6. Press **OK** when **Yes** appears to add or delete more numbers and repeat steps 4 and 5.
7. When you have finished, press the left/right arrow to select **No** at the **Another No.?** prompt and press **OK**.
8. Press **Stop/Clear** to return to ready mode.

Using group dial numbers

To use a group dial entry, you need to search for and select it from memory.

When you are prompted to enter a fax number while sending a fax, press **Address Book**. See below.

Searching Address Book for an entry

There are two ways to search for a number in memory. You can either scan from A to Z sequentially, or you can search by entering the first letters of the name associated with the number.

Searching sequentially through the memory

1. If necessary, press  **Fax**.
2. Press **Address Book** until **Search & Dial** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until the number category you want appears and press **OK**.
4. Press **OK** when **All** appears.
5. Press the left/right arrow until the name and number you want appears. You can search upwards or downwards through the entire memory in alphabetical order.

Searching with a particular first letter

1. If necessary, press  **Fax**.
2. Press **Address Book** until **Search & Dial** appears on the bottom line of the display and press **OK**.
3. Press the left/right arrow until the number category you want appears and press **OK**.
4. Press the left/right arrow until **ID** appears and press **OK**.
5. Enter the first few letters of the name you want and press **OK**.
6. Press the left/right arrow until the name you want appears and press **OK**.

Deleting a Address Book entry

You can delete entries in **Address Book** one by one.

1. Press **Address Book** until **Delete** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until the number category you want appears and press **OK**.
3. Press the left/right arrow until the searching method you want appears and press **OK**.
Select **Search All** to search for an entry by scanning through all entries in **Address Book**.
Select **Search ID** to search for an entry by the first few letters of the name.
4. Press the left/right arrow until the name you want appears and press **OK**.
Or, enter the first letters and press **OK**. Press the left/right arrow until the name you want appears and press **OK**.
5. Press **OK**.
6. Press **OK** when **Yes** appears to confirm the deletion.
7. Press **Stop/Clear** to return to ready mode.

Printing Address Book

1. You can check your **Address Book** settings by printing a list.
1. Press **Address Book** until **Print** appears on the bottom line of the display.
2. Press **OK**. A list showing your speed dial and group dial entries prints out.

using USB flash memory (scx-4x28 series only)

This chapter explains how to use a USB memory device with your machine.

This chapter includes:

- About USB memory
- Plugging in a USB memory device
- Scanning to a USB memory device

ABOUT USB MEMORY

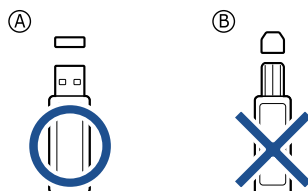
USB memory devices are available with a variety of memory capacities to give you more room for storing documents, presentations, downloaded music and videos, high resolution photographs, or whatever other files you want to store or move.

You can do the following on your machine using a USB memory device:

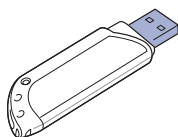
- Scan documents and save them on a USB memory device.
- Print data stored on a USB memory device.
- Back up **Address Book/ Phone Book** entries and the system settings of your machine.
- Restore backup files to the machine's memory.
- Format the USB memory device.
- Check the available memory space.

PLUGGING IN A USB MEMORY DEVICE

The USB memory port on the front of your machine is designed for USB V1.1 and USB V2.0 memory devices. Your machine supports USB memory devices with FAT16/FAT32 and sector size of 512 bytes. Check your USB memory device's file system from your dealer. You must use only an authorized USB memory device with an A plug type connector.

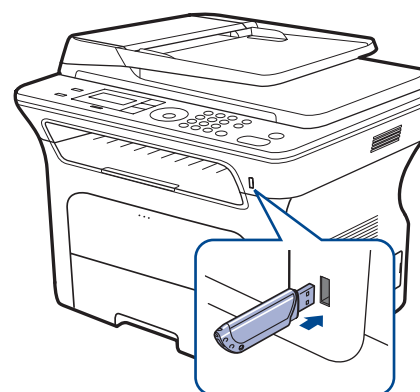


Use only a metal/shielded USB memory device.



- Printing from a USB memory device
- Backing up data
- Managing USB memory

Insert a USB memory device into the USB memory port on the front of your machine.



- ⚠ Do not remove the USB memory device while the machine is in operation, or writing to or reading from USB memory. The machine warranty does not cover damage caused by use's misuse.
- If your USB memory device has certain features, such as security settings and password settings, your machine may not automatically detect it. For details about these features, see the device's User's Guide.

SCANNING TO A USB MEMORY DEVICE

You can scan a document and save the scanned image onto a USB memory device. There are two ways of doing this: you can scan to the device using the default settings, or you can customize your own scan settings.

Scanning

1. Insert a USB memory device into the USB memory port on your machine.
2. Load originals face up into the ADF, or place a single original face down on the scanner glass.
For details about loading an original, see page 29.
3. Press  **Scan/Email**.
4. Press **OK** when **Scan to USB** appears on the bottom line of the display.
5. Press **Start**.

Regardless of the button you press, the color mode is decided as customized. See "Customizing Scan to USB" on page 54.

Your machine begins scanning the original, and then asks if you want to scan another page.

6. Press **OK** when **Yes** appears to scan more pages. Load an original and press **Start**.
Regardless of the button you press, the color mode is decided as customized. See "Customizing Scan to USB" on page 54.
Otherwise, press the left/right arrow to select **No** and press **OK**.

After scanning is complete, you can remove the USB memory device from the machine.

Customizing Scan to USB

You can specify image size, file format, or color mode for each scanning to USB job.

1. Press  **Scan/Email**.
2. Press **Menu** until **Scan Feature** appears on the bottom line of the display and press **OK**.
3. Press **OK** when **USB Memory** appears.
4. Press the left/right arrow until the setting option you want appears and press **OK**.
You can set the following options:
 - **Scan Size:** Sets the image size.
 - **Original Type:** Sets the original document's type.
 - **Resolution:** Sets the image resolution.
 - **Scan Color:** Sets the color mode. If you select Mono in this option, you cannot select JPEG in **Scan Format**.
 - **Scan Format:** Sets the file format in which the image is to be saved. When you select TIFF or PDF, you can select to scan multiple pages. If you select JPEG in this option, you cannot select Mono in **Scan Color**.
5. Press the left/right arrow until the desired status appears and press **OK**.
6. Repeat steps 4 and 5 to set other setting options.
7. When you have finished, press **Stop/Clear** to return to ready mode.

You can change the default scan settings. For details, see page 42.

PRINTING FROM A USB MEMORY DEVICE

You can directly print files stored on a USB memory device. You can print TIFF, BMP, JPEG, PDF, and PRN files.

Direct Print option supported file types:

- PRN: Samsung PCL 6 compatible.
- PRN files can be created by selecting the Print to file check box when you print a document. The document will be saved as a PRN file, rather than printed on paper. Only PRN files created in this fashion can be printed directly from USB memory. See the Software Section to learn how to create a PRN file.
- BMP: BMP Uncompressed
- TIFF: TIFF 6.0 Baseline
- JPEG: JPEG Baseline
- PDF: PDF 1.4 and below

To print a document from a USB memory device:

1. Insert a USB memory device into the USB memory port on your machine.
2. Press **Direct USB**.
Your machine automatically detects the device and reads data stored on it.
3. Press the left/right arrow until **USB Print** appears and press **OK**.
4. Press the left/right arrow until the folder or file you want appears and press **OK**.
If you see **D** in the front of a folder name, there are one or more files or folders in the selected folder.

5. If you selected a file, skip to the next step.
If you selected a folder, press the left/right arrow until the file you want appears.
 6. Press the left/right arrow to select the number of copies to be printed or enter the number.
 7. Press **Start** to start printing the selected file.
After printing the file, the display asks if you want to print another job.
 8. Press **OK** when **Yes** appears to print another job, and repeat from step 2.
Otherwise, press the left/right arrow to select **No** and press **OK**.
 9. Press **Stop/Clear** to return to ready mode.
-  Can choose paper size and tray when printing. See "Setting the paper size and type" on page 35.

BACKING UP DATA

Data in the machine's memory can be accidentally erased due to power failure or storage failure. Backup helps you protect your **Address Book** entries and the system settings by storing them as backup files on a USB memory device.

Backing up data

1. Insert the USB memory device into the USB memory port on your machine.
2. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
3. Press **OK** when **Machine Setup** appears.
4. Press the left/right arrow until **Export Setting** appears and press **OK**.
5. Press the left/right arrow until the option you want appears.
 - **Address Book:** Backs up all **Address Book** entries.
 - **Setup Data:** Backs up all system settings.
6. Press **OK** to begin backing up the data.
The data is backed up to the USB memory.
7. Press **Stop/Clear** to return to ready mode.

Restoring data

1. Insert the USB memory device on which the backup data is stored in to the USB memory port.
2. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
3. Press **OK** when **Machine Setup** appears.
4. Press the left/right arrow until **Import Setting** appears and press **OK**.
5. Press the left/right arrow until the data type you want appears and press **OK**.
6. Press the left/right arrow until the file containing the data you want to restore appears and press **OK**.
7. Press **OK** when **Yes** appears to restore the backup file to the machine.
8. Press **Stop/Clear** to return to ready mode.

MANAGING USB MEMORY

You can delete image files stored on a USB memory device one by one or all at once by reformatting the device.

 After deleting files or reformatting a USB memory device, files cannot be restored. Therefore, confirm that you no longer need the data before deleting it.

Deleting an image file

1. Insert the USB memory device into the USB memory port on your machine.
2. Press **Direct USB**.
3. Press the left/right arrow until **File Manage** appears and press **OK**.
4. Press **OK** when **Delete** appears.
5. Press the left/right arrow until the folder or file you want appears and press **OK**.

 If you see **D** in the front of a folder name, there are one or more files or folders in the selected folder.

If you selected a file, the display shows the size of the file for about 2 seconds. Go to the next step.

If you selected a folder, press the left/right arrow until the file you want to delete appears and press **OK**.

6. Press **OK** when **Yes** appears to confirm your selection.
7. Press **Stop/Clear** to return to ready mode.

Formatting a USB memory device

1. Insert the USB memory device into the USB memory port on your machine.
2. Press **Direct USB**.
3. Press the left/right arrow until **File Manage** appears and press **OK**.
4. Press the left/right arrow until **Format** appears and press **OK**.
5. Press **OK** when **Yes** appears to confirm your selection.
6. Press **Stop/Clear** to return to ready mode.

Viewing the USB memory status

You can check the amount of memory space available for scanning and saving documents.

1. Insert the USB memory device into the USB memory port on your machine.
2. Press **Direct USB**.
3. Press the left/right arrow until **Check Space** appears and press **OK**.
The available memory space appears on the display.
4. Press **Stop/Clear** to return to the ready mode.

maintenance

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

This chapter includes:

- Printing reports
- Clearing memory
- Cleaning your machine
- Maintaining the cartridge
- Replacing the toner cartridge
- Maintenance parts
- Managing your machine from the website
- Checking the machine's serial number

PRINTING REPORTS

Your machine can provide various reports with useful information you will need. The following reports are available:

 Some reports may not appear in the display depending on options or models. If so, it is not applicable to your machine.

REPORT/LIST	DESCRIPTION
Configuration	This list shows the status of the user-selectable options. You may print this list to confirm your changes after changing settings.
Address Book	This list shows all of the fax numbers and email addresses currently stored in the machine's memory.
Send Report	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 transmission confirmation report after each fax job. See page 50.
Sent Report	This report shows information on the faxes and emails you have recently sent. You can set the machine to automatically print this report every 50 communications. See page 50.
Fax RCV Report	This report shows information on the faxes you have recently received.
Schedule Jobs	This list shows the documents currently stored for delayed faxes along with the starting time and type of each operation.
Junk Fax Report	This list shows the fax numbers specified as junk fax numbers. To add or delete numbers to or from this list, access the Junk Fax Setup menu. See page 50.
Network Info.	This list shows information on your machine's network connection and configuration.
User Auth List	This list shows authorized users who are allowed to use the email function.

Printing a report

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Report** appears and press **OK**.
3. Press the left/right arrow until the report or list you want to print appears and press **OK**.
To print all reports and lists, select **All Report**.
4. Press **OK** when **Yes** appears to confirm printing.
The selected information prints out.

CLEARING MEMORY

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

 Before clearing the memory, make sure that all fax jobs have been completed, or you will lose those jobs.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Clear Setting** appears and press **OK**.
3. Press the left/right arrow until the item you want to clear appears.

 Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine.

OPTIONS	DESCRIPTION
All Settings	Clears all of the data stored in memory and resets all of your settings to the factory default.
Fax Setup	Restores all of the fax options to the factory default.
Copy Setup	Restores all of the copy options to the factory default.
Scan Setup	Restores all of the scan options to the factory default.
System Setup	Restores all of the system options to the factory default.
Network Setup	Restores all of the network options to the factory default.
Address Book	Clears all of the fax number and email address entries stored in memory.
Sent Report	Clears all records of sent faxes and emails.
Fax RCV Report	Clears all records of received faxes.

4. Press **OK** when **Yes** appears.
5. Press **OK** again to confirm clearing.
6. Repeat steps 3 through 5 to clear another item.
7. Press **Stop/Clear** to return to ready mode.

CLEANING YOUR MACHINE

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

-  • Cleaning the cabinet of the machine with cleaning materials containing large amounts of alcohol, solvent, or other strong substances can discolor or distort the cabinet.
- If your machine or its surrounding is contaminated with toner, we recommend you to use cloth or tissue dampened with water to clean it. If you use a vacuum cleaner, toner blown into the air may be harmful.

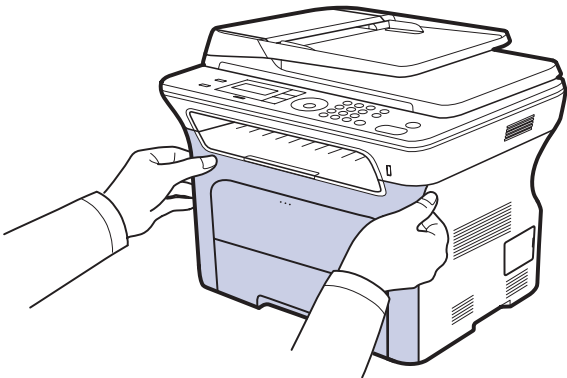
Cleaning the outside

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

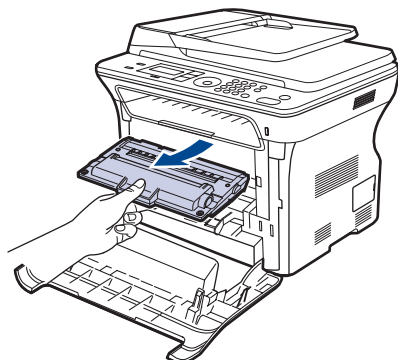
During the printing process, paper, toner, and dust particles can accumulate inside the machine. This buildup can cause print quality problems, such as toner specks or smearing. Cleaning the inside of the machine clears or reduces these problems.

1. Turn the machine off and unplug the power cord. Wait for the machine to cool down.
2. Completely open the front cover.

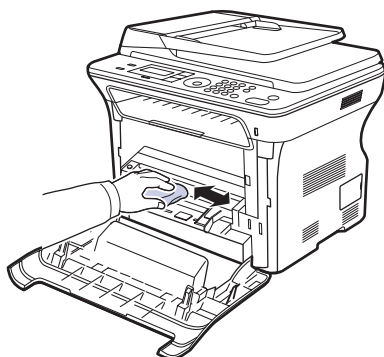


-  • Do not touch the green surface, the OPC drum or the front of the toner cartridge, with your hands or any other material. Use the handle on each cartridge in order to avoid touching this area.
- Be careful not to scratch the surface of the paper transfer belt.
- If you leave the front cover open for more than a few minutes, the OPC drum can be exposed to light. This will cause damage to the OPC drum. Close the front cover should the installation need to be halted for any reason.

3. Grasp the handles on the toner cartridge and pull to remove the cartridge from the machine.

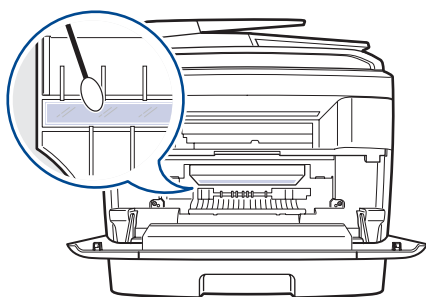


4. With a dry lint-free cloth, wipe away any dust and spilled toner from the toner cartridges area and their cavities.



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

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



6. Reinstall all the compartments into the machine, and close the front cover.

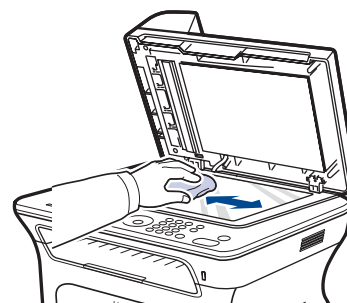
 If the front cover is not completely closed, the machine will not operate.

7. 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 scanner lid.
3. Wipe the surface of the scanner glass and ADF glass until it is clean and dry.



4. Wipe the underside of the scanner lid and white sheet until it is clean and dry.
5. Close the scanner lid.

MAINTAINING THE 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.

Expected cartridge life

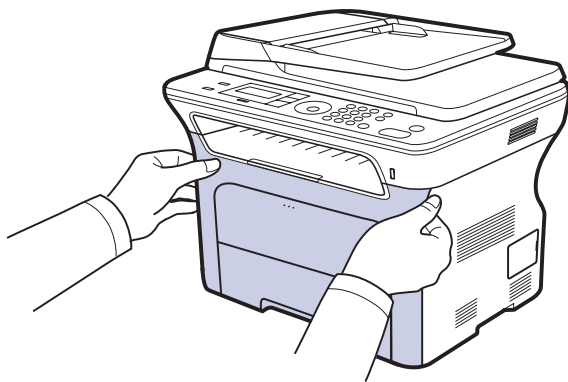
The life of the toner cartridge yield depends on the amount of toner that print jobs require. The actual number may also be different depending on the print density of the pages you print on, and the number of pages may be affected by operating environment, printing interval, media type, and media size. If you print a lot of graphics, you may need to change the cartridge more often.

Redistributing toner

When a toner is low, faded or light areas may appear. You can temporarily improve print quality by redistributing the toner.

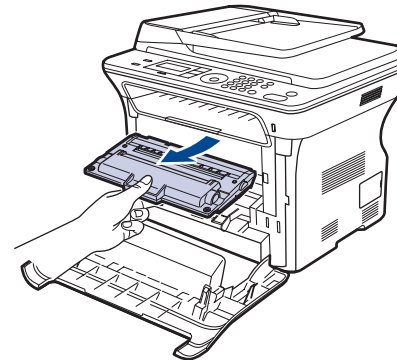
- The toner-related message saying that the toner is low may appear on the display.
- The SmartPanel program window appears on the computer telling you which cartridge is low on toner.

1. Completely open the front cover.

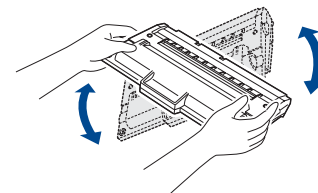


- ⚠ • Do not touch the green surface, the OPC drum or the front of the toner cartridge, with your hands or any other material. Use the handle on each cartridge in order to avoid touching this area.
- Be careful not to scratch the surface of the paper transfer belt.
- If you leave the front cover open for more than a few minutes, the OPC drum can be exposed to light. This will cause damage to the OPC drum. Close the front cover should the installation need to be halted for any reason.

2. Grasp the handles on the toner cartridge and pull to remove the cartridge from the machine.

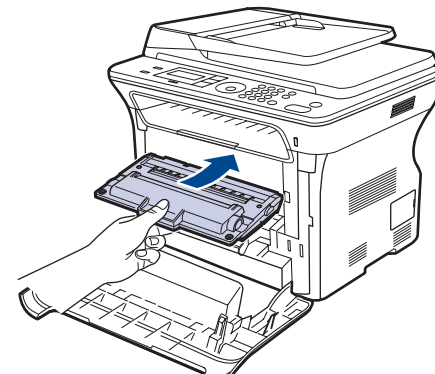


3. Holding both handles on the toner cartridge, thoroughly rock it from side to side to evenly distribute the toner.



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

4. Slide the toner cartridge back into the machine.



5. Close the front cover. Make sure the cover is securely latched.

- ⚠ If the front cover is not completely closed, the machine will not operate.

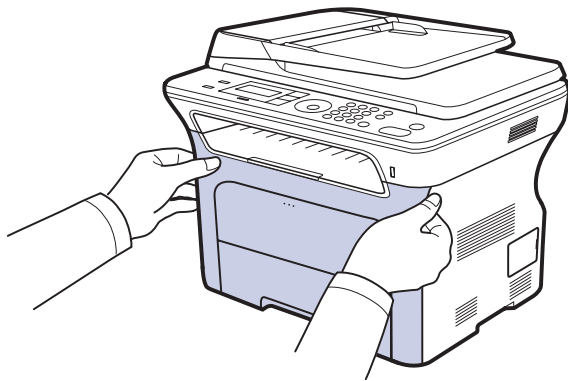
REPLACING THE TONER CARTRIDGE

When the toner cartridge is completely empty, you must replace the toner cartridge.

- The status LED and the toner-related message on the display indicates that the toner cartridge should be replaced.
- Incoming faxes are saved in memory.

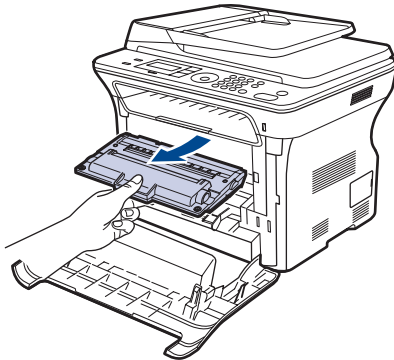
At this stage, the toner cartridge needs to be replaced. Check the type of toner cartridge for your machine. (See "Ordering supplies and accessories" on page 79.)

1. Turn the machine off, then wait a few minutes for the machine to cool.
2. Completely open the front cover.

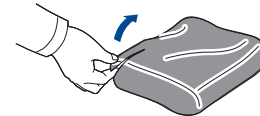


- ⚠ • Do not touch the green surface, the OPC drum or the front of each toner cartridge, with your hands or any other material. Use the handle on each cartridge in order to avoid touching this area.
- Be careful not to scratch the surface of the paper transfer belt.
- If you leave the front cover open for more than a few minutes, the OPC drum can be exposed to light. This will cause damage to the OPC drum. Close the front cover should the installation need to be halted for any reason.

3. Grasp the handles on the toner cartridge and pull to remove the cartridge from the machine.

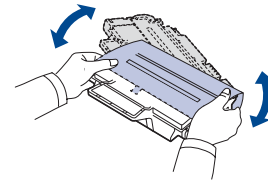


4. Take a new toner cartridge out of its package.

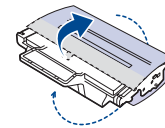


- ⚠ • Don't use sharp objects, such as a knife or scissors, to open the toner cartridge package. You could damage the surface of the toner cartridge.
- To prevent damage, do not expose the toner cartridge to light for more than a few minutes. Cover it with a piece of paper to protect it if necessary.

5. Holding both handles on the toner cartridge, thoroughly rock it from side to side to evenly distribute the toner.

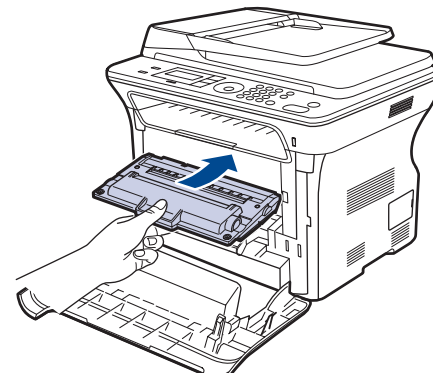


6. Place the toner cartridge on a flat surface, as shown, and remove the paper covering the toner cartridge by removing the tape.



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

7. Grasp the handles on the toner cartridge. Insert the cartridge until it clicks into place.



8. Close the front cover. Make sure the cover is securely latched, and then turn the machine on.

- ⚠ If the front cover is not completely closed, the machine will not operate.

Clearing the Toner Empty message

When the **Toner Empty** message appears you can configure not to see this message again not to disturb you.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the Scroll buttons until **Maintenance** appears and press **OK**.
3. Press the Scroll buttons until **CLR Empty Msg.** appears and press **OK**.
4. Select **On** and press **OK**.
5. Now the **Toner Empty** message does not appear but the **Replace Toner** message will remain for reminding you that the new cartridge needs to be installed for quality.

- ⚠
- Once you have selected **On**, this setting will be permanently written to the memory of the toner cartridge, and this menu will be disappeared from the **Maintenance** menu.
 - You can keep printing but the quality cannot be guaranteed, and the product support is no longer provided.

MAINTENANCE PARTS

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

ITEMS	YIELD (AVERAGE)
Fuser unit	Approx. 50,000 pages
ADF rubber pad	Approx. 20,000 pages
ADF feed roller	Approx. 20,000 pages
Pick-up roller	Approx. 50,000 pages
Transfer roller	Approx. 50,000 pages

We highly recommend that this maintenance be performed by an authorized service provider, dealer or the retailer where you bought the machine. The warranty does not cover the replacement of the maintenance parts after their lifespan.

Checking replaceables

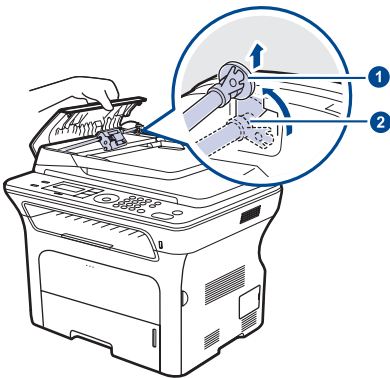
If you experience frequent paper jams or printing problems, check the number of pages the machine has printed or scanned. Replace the corresponding parts, if necessary.

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Maintenance** appears and press **OK**.
3. Press the left/right arrow until **Supplies Life** appears and press **OK**.
4. Press the left/right arrow until the item you want appears and press **OK**.
 - **Supplies Info**: Prints the supply information page.
 - **Total**: Displays the total number of pages printed.
 - **ADF Scan**: Displays the number of pages scanned using the ADF.
 - **Platen Scan**: Displays the number of pages scanned using the scanner glass.
 - **Transfer Belt**: Displays the number of pages printed each item.
5. If you selected to print a supply information page, press **OK** to confirm.
6. Press **Stop/Clear** to return to ready mode.

Replacing the ADF rubber pad

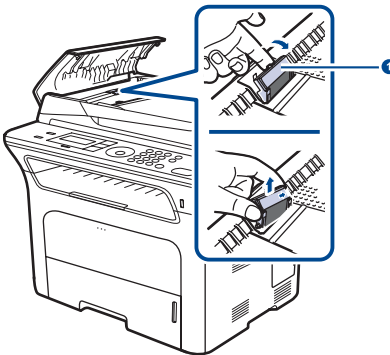
You will need to replace the ADF rubber pad when there seems to be a consistent problem with paper pickup or when its specified yield is reached.

1. Open the ADF cover.
2. Rotate the bushing on the right end of the ADF roller toward the ADF and remove the roller from the slot.



- 1 Bushing
- 2 ADF roller

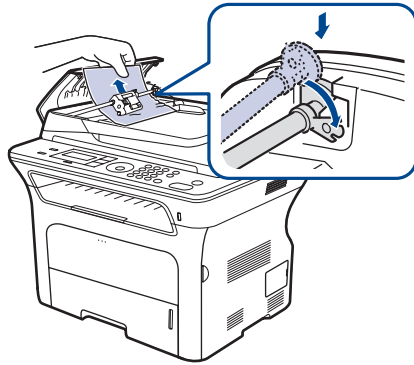
3. Remove the ADF rubber pad from the ADF, as shown.



- 1 ADF rubber pad

4. Insert a new ADF rubber pad into place.

- Align the left end of the ADF roller with the slot and push the right end of the roller into the right slot. Rotate the bushing on the right end of the roller toward the document input tray.



- Close the ADF cover.

MANAGING YOUR MACHINE FROM THE WEBSITE

If you have connected your machine to a network and set up TCP/IP network parameters correctly, you can manage the machine via Samsung's **SyncThru™ Web Service**, an embedded web server. Use **SyncThru™ Web Service** to:

- View the machine's device information and check its current status.
- Change TCP/IP parameters and set up other network parameters.
- Change the printer properties.
- Set the machine to send email notifications to let you know the machine's status.
- Get support for using the machine.

To access SyncThru™ Web Service:

1. Start a web browser, such as Internet Explorer, from Windows.
2. Enter the machine IP address (<http://xxx.xxx.xxx.xxx>) in the address field and press the **Enter** key or click **Go**.
Your machine's embedded website opens.

CHECKING THE MACHINE'S SERIAL NUMBER

When you call for service or register as a user on the Samsung website, the machine's serial number may be required.

You can check the serial number by taking the following steps:

1. Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.
2. Press the left/right arrow until **Maintenance** appears and press **OK**.
3. Press the left/right arrow until **Serial Number** appears and press **OK**.
4. Check your machine's serial number.
5. Press **Stop/Clear** to return to ready mode.

troubleshooting

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

This chapter includes:

- Tips for avoiding paper jams
- Clearing document jams
- Clearing paper jams
- Understanding display messages
- Solving other problems

TIPS FOR AVOIDING PAPER JAMS

By selecting the correct media types, most paper jams can be avoided. When a paper jam occurs, follow the steps outlined on page 63.

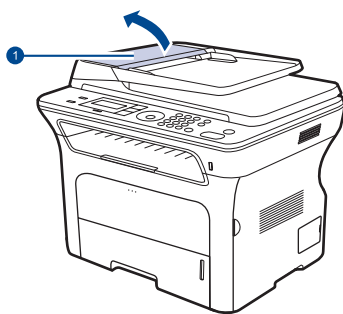
- Follow the procedures on page 33. Ensure that the adjustable guides are positioned correctly.
- Do not overload the tray. Ensure that the paper level is below the paper capacity mark on the inside of the tray.
- Do not remove paper from the tray while your machine is printing.
- Flex, fan, and straighten paper before loading.
- Do not use creased, damp, or highly curled paper.
- Do not mix paper types in a tray.
- Use only recommended print media. (See "Setting the paper size and type" on page 35.)
- Ensure that the recommended side of the print media is facing down in the tray, or facing up in the manual tray.

CLEARING DOCUMENT JAMS

When an original jams while passing through the ADF, **Document Jam** appears on the display.

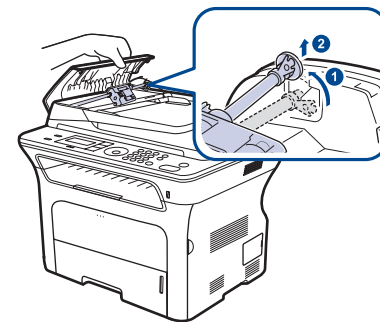
Input Misfeed

1. Remove any remaining pages from the ADF.
2. Open the ADF cover.



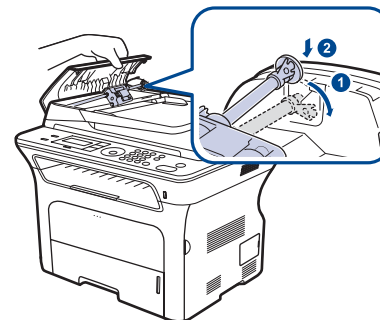
1 ADF cover

3. Rotate the bushing on the right end of the ADF roller toward the ADF (①) and remove the roller from the slot (②). Pull the document gently to the left and out of the ADF.



 This illustration may differ from your machine depending on its model.

4. Align the left end of the ADF roller with the slot and push the right end of the ADF roller into the right slot (①). Rotate the bushing on the right end of the roller toward the document input tray (②).

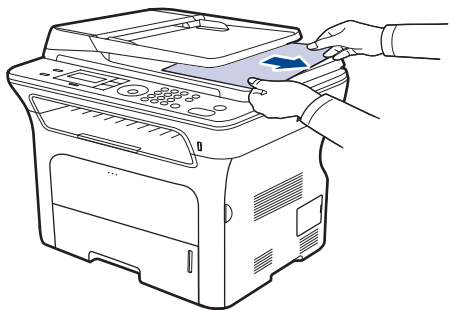


5. Close the ADF cover. Then load the removed page(s), if any, back into the ADF.

 To prevent document jams, use the scanner glass for thick, thin, or mixed paper-type originals.

Exit misfeed

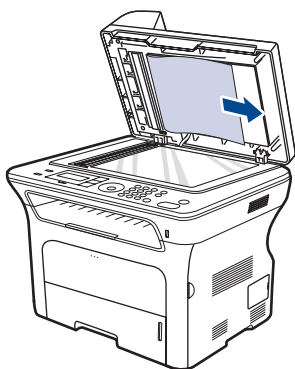
- 1. Remove any remaining pages from the ADF.
- 2. Seize the misfeed paper, and remove the paper from the document output tray by carefully pulling it to the right using both hands.



- 3. Load the removed pages back into the ADF.

Roller misfeed

- 1. Open the scanner lid.
- 2. Seize the misfeed paper, and remove the paper from the feed area by carefully pulling it to the right using both hands.



- 3. Close the scanner lid. Then load the removed pages back into the ADF.

CLEARING PAPER JAMS

When a paper jam occurs, the warning message appears on the display screen. Refer to the table below to locate and clear the paper jam.

MESSAGE	LOCATION OF JAM	GO TO
Paper Jam 0 Open/Close Door	In the paper feed area or inside the machine	Page 64, Page 65
Paper Jam 1 Open/Close Door	Inside the machine	Page 65
Paper Jam 2 Check Inside	Inside the machine or in the fuser area	Page 65
Duplex Jam 0 Check Inside	Inside the machine	Page 65
Duplex Jam 1 Open/Close Door	In the paper feed area or inside the machine	Page 65

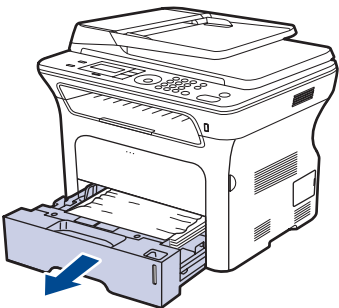
 Some messages may not appear in the display depending on options or models.

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

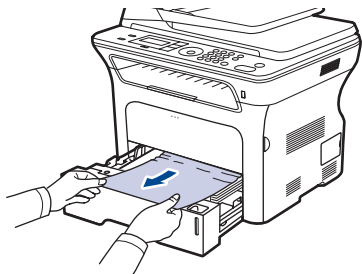
In the paper feed area

If paper is jammed in the paper feed area, follow the next steps to release the jammed paper.

- 1. Pull the tray open.



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



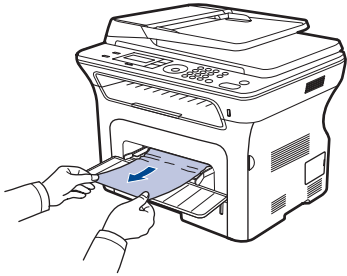
If the paper does not move when you pull, or if you do not see the paper in this area, check In the toner cartridge area.

- 3. Insert the tray back into the machine. Printing automatically resumes.

In the manual tray

When you print using the manual tray and the machine detects that there is either no paper or that the paper has been improperly loaded, follow the next steps to release the jammed paper.

1. Check if the paper is stuck in the feeding area, and if so, pull it out gently and slowly.

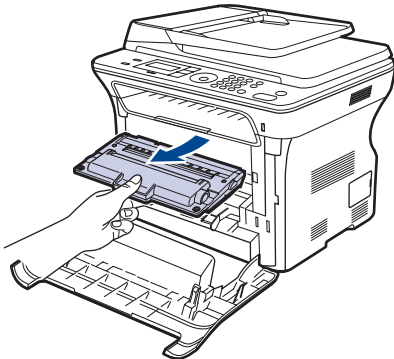


2. Load a paper into the manual tray.
3. Open the front cover and close it. The machine will resume printing.

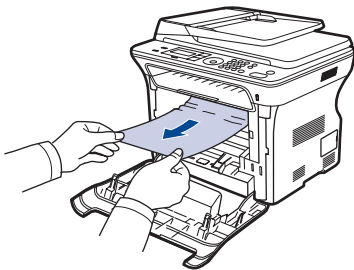
In the toner cartridge area

If paper is jammed in the toner cartridge area, follow the next steps to release the jammed paper.

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



2. Remove the jammed paper by gently pulling it straight out as shown below.



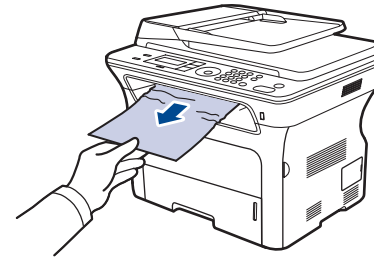
3. Replace the toner cartridge and close the front cover. Printing automatically resumes.

 If the front cover is not completely closed, the machine will not operate.

In the paper exit area

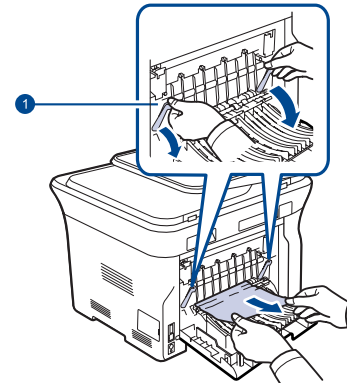
If paper is jammed in the paper exit area, follow the next steps to release the jammed paper.

1. If a long portion of the paper is visible, pull it straight out. Open and close the front cover firmly. The machine will resume printing.



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

2. Open the rear cover.
3. Pull the guide rear on each side down and carefully take the jammed paper out of the machine. Return the guide rear to its original position.



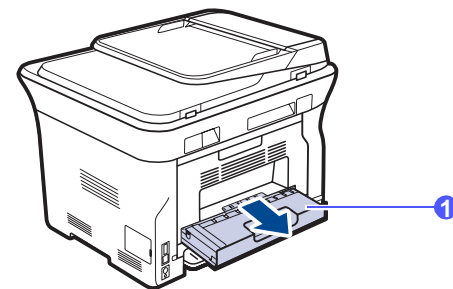
1 Guide rear

4. Close the rear cover. Printing automatically resumes.

In the duplex unit area

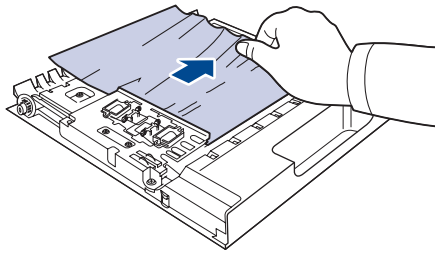
If the duplex unit is not inserted correctly, paper jam may occur. Make sure that the duplex unit is inserted correctly.

1. Pull the duplex unit out of the machine.

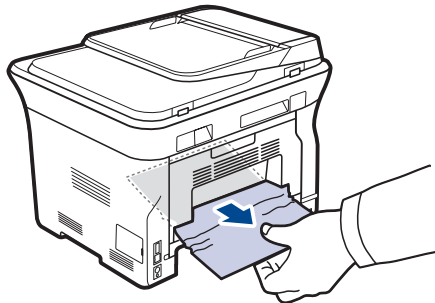


1 duplex unit

2. Remove the jammed paper from the duplex unit.

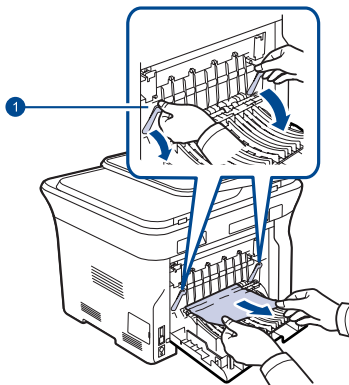


If the paper does not come out with the duplex unit, remove the paper from the bottom of the machine.



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

3. Open the rear cover.
4. Pull the guide rear on each side down and remove the paper. Return the guide rear to its original position.



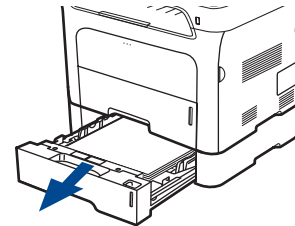
1 Guide rear

5. Close the rear cover. Printing automatically resumes.

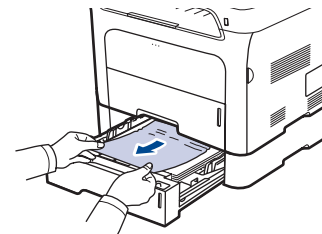
In the optional tray

If paper is jammed in the optional Tray, follow the next steps to release the jammed paper.

1. Pull the optional tray open.

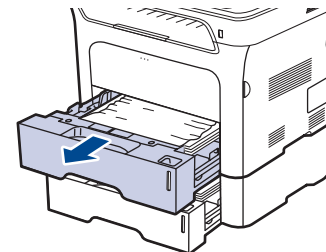


2. If you see the jammed paper, remove the paper from the machine by gently pulling it straight out as shown below.

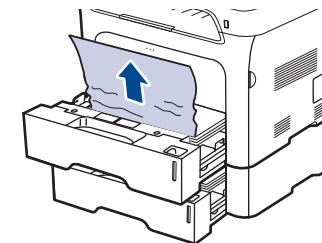


If you cannot find the jammed paper, or if there is any resistance removing the paper, stop pulling and go to step 3.

3. Pull the tray half.



4. Remove the jammed paper by gently pulling the paper straight up and out.



5. Insert the trays back into the machine. Printing automatically resumes.

UNDERSTANDING DISPLAY MESSAGES

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

-  If the message is not in the table, cycle the power and try the printing job again. If the problem persists, call for service.
- Some messages may not appear in the display depending on options or models.
- xxx indicates the media type.
- yyy indicates the tray.

MESSAGE	MEANING	SUGGESTED SOLUTIONS
[COMM. Error]	The machine has a communication problem.	Ask the sender to try again.
[Incompatible]	The machine has received a fax from which is registered as a junk fax.	The received fax data will be deleted. Reconfirm junk fax setup. See page 50
[Line Error]	Your machine cannot connect with the receiving fax 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 page 50.
[No Answer]	The receiving fax machine has not answered after several redial attempts.	Try again. Make sure that the receiving machine is operational.
[Stop Pressed]	Stop/Clear has been pressed during an operation.	Try again.
[yyy] Paper Empty	There is no paper in the tray.	Load paper in the tray.
[yyy] Paper Mismatch	The paper size specified in the printer properties does not match the paper you are loading.	Load the correct paper in the tray.
Cancel? ◀ Yes ▶	Your machine's memory has become full while trying to store an original into memory.	To cancel the fax job, press the OK button to accept Yes . If you want to send those pages that have been successfully stored, press the OK button to accept No . You should send the remaining pages later, when memory is available.
Connection Error	Connection with the SMTP server failed.	Check the server settings and the network cable.

MESSAGE	MEANING	SUGGESTED SOLUTIONS
Data Read Fail Check USB Mem.	Time expired while reading data.	Try again.
Data Write Fail Check USB Mem.	Storing to the USB memory failed.	Check the available USB memory space.
Document Jam	The loaded original has jammed in the ADF.	Clear the jam. See page 63.
Door Open	The front cover is not securely latched.	Close the cover until it locks into place.
Duplex Jam 0 Check Inside	Paper has jammed during duplex printing. This is applicable only to machines with this feature.	Clear the jam. See page 65.
Duplex Jam 1 Open/Close Door	Paper has jammed during duplex printing. This is applicable only to machines with this feature.	Clear the jam. See page 65.
Enter Again	You entered an unavailable item.	Enter the correct item again.
File Format Not Supported	The selected file format is not supported.	Use the correct file format.
Group Not Available	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 Multiple Send operation.	Use a speed dial number or dial a number manually using the number keypad.
Install Toner ▼	The toner cartridge is not installed.	Install the toner cartridge.
Invalid Toner ▼	The toner cartridge you have installed is not for your machine.	Install the a Samsung-genuine toner cartridge designed for your machine.
Line Busy	The receiving fax machine did not answer or the line is already engaged.	Try again after a few minutes.
Mail Exceeds Server Support	The mail size is larger than the supported size by SMTP server.	Divide your mail or reduce the resolution.
Main Motor Locked	There is a problem in the main motor.	Open and then close the front cover.

MESSAGE	MEANING	SUGGESTED SOLUTIONS
Memory Full	The memory is full.	Delete unnecessary fax jobs and retransmit after more memory becomes available. Alternatively, split the transmission into more than one operation.
Not Assigned	The speed button or speed dial number you tried to use has no number assigned to it.	Enter the number manually using the number keypad or store the number or address.
NonSAMSUNG Toner ▼	The toner cartridge is not a Samsung-genuine cartridge. Press OK to toggle the message to Stop or Continue . ◀ Stop ▶	You can select either Stop or Continue with the left/right arrow. If you select Stop by pressing OK on the control panel, the machine stops printing. If you select Continue , the machine keeps printing, but the quality cannot be guaranteed. If you do not select any, the machine will work as Stop is selected. Replace the corresponding toner cartridge with a Samsung-genuine cartridge. See page 60.
One Page is Too Large	Single page data exceeds the configured mail size.	Reduce the resolution and try again.
Operation Not Assigned	You are in the Add Page/Cancel Job operation, but there are no jobs stored.	Check the display to see if there are any scheduled jobs.
Out-Bin Full Open/Close Door	The output tray of the machine is full of paper.	Remove paper. Open the front cover and than close it.
Paper Jam 0 Open/Close Door	Paper has jammed in the feeding area of the tray.	Clear the jam. See page 64.
Paper Jam 1 Open/Close Door	Paper has jammed inside the machine.	Clear the jam. See page 65.
Paper Jam 2 Check Inside	Special print media has jammed in the paper exit area.	Clear the jam. See page 65.
Refilled Toner ▼	The toner cartridge you have installed is not genuine or refilled.	The print quality may get poor if the refilled toner cartridge is installed, since its characteristics may significantly differ from the genuine. We recommend Samsung-genuine toner cartridge.

MESSAGE	MEANING	SUGGESTED SOLUTIONS
Replace Toner ▼	This message appears between Toner Empty and Toner Low status.	Replace the toner cartridge with a new one. See page 60.
Replace [xxx] Soon	The life of the part expires soon.	See page 61 and call for service.
Retry Redial?	The machine is waiting for a specified time interval to redial a previously busy station.	You can press OK to immediately redial, or Stop/Clear to cancel the redial operation.
Scanner locked	The scanner module is locked	Unlock the scanner and press Stop/Clear .
Send Error (AUTH)	There is a problem in SMTP authentication.	Configure the authentication setting.
Send Error (DNS)	There is a problem in DNS.	Configure the DNS setting.
Send Error (POP3)	There is a problem in POP3.	Configure the POP3 setting.
Send Error (SMTP)	There is a problem in SMTP.	Change to the available server.
Send Error (Wrong Config)	There is a problem on the network interface card.	Configure your network interface card correctly.
Toner Empty ▼	The toner cartridge has run out. The machine stops printing. Press OK to toggle the message to Stop or Continue . ◀ Stop ▶	You can select the option among Stop or Continue with the left/right arrow. If you select Stop by pressing OK on the control panel, the machine stops printing. If you select Continue , the machine keeps printing, but the quality cannot be guaranteed. If you do not select any, the machine will work as Stop is selected. Replace the toner cartridge with a new one. See page 60.

MESSAGE	MEANING	SUGGESTED SOLUTIONS
Toner Exhausted ▼	The lifespan of the toner cartridge which the arrow indicates is reached.	This message appears when the toner is completely empty, and your machine stops printing. Replace the corresponding toner cartridge with a Samsung-genuine cartridge. See page 60.
Toner Low ▼	The corresponding toner cartridge is almost empty.	Take out the toner cartridge and thoroughly shake it. By doing this, you can temporarily reestablish printing operations.
Updating Data Please Wait...	This message appears when there is a change in the system setting or when you back up a data.	Do not turn the power off when this message is showing. Changes may not be saved and datas can be lost.

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, call for service.

Paper feeding

CONDITION	SUGGESTED SOLUTIONS
Paper is jammed during printing.	Clear the paper jam. See page 63.
Paper sticks together.	• Ensure there is not too much paper in the tray. The tray can hold up to 250 sheets of paper, depending on the thickness of your paper. • Make sure that you are using the correct type of paper. See page 35. • 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.	• 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 page 63.
Paper does not feed into the machine.	• Remove any obstructions from 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 page 30. • If an original does not feed into the machine, the ADF rubber pad may require to be replaced. See page 61.
The paper keeps jamming.	• There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, use the manual tray. • An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine. See page 30. • There may be debris inside the machine. Open the front cover and remove the debris. • If an original does not feed into the machine, the ADF rubber pad may require to be replaced. See page 61.
Envelopes skew or fail to feed correctly.	Ensure the paper guides are against both sides of the envelopes.

Printing problems

CONDITION	POSSIBLE CAUSE	SUGGESTED SOLUTIONS
The machine does not print.	The machine is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The machine is not selected as the default printer.	Select Samsung SCX-4x24 Series or SCX-4x28 Series as your default printer in your Windows.
	- Check the machine for the following: - The front cover is not closed. Close the cover. - Paper is jammed. Clear the paper jam. See page 64. - No paper is loaded. Load paper. See page 33. - The toner cartridge is not installed. Install the toner cartridge. - If a 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. If the computer has more than one port, make sure that the machine is attached to the correct one.
	The machine may be configured incorrectly.	Check the printer properties to ensure that all of the print settings are correct.
	The printer driver may be incorrectly installed.	Repair the printer software. See the <i>Software section</i> .
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error.
	The document size is so big that the hard disk space of the computer is not enough to access the print job.	Get more hard disk space and print the document again.

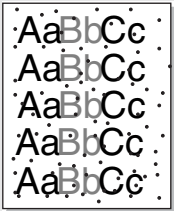
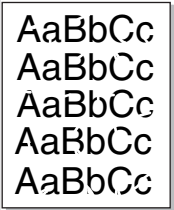
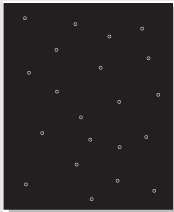
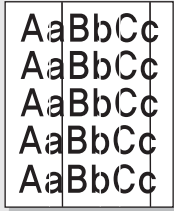
CONDITION	POSSIBLE CAUSE	SUGGESTED SOLUTIONS
The machine selects print materials from the wrong paper source.	The paper source selection in the printer properties may be incorrect.	For many software applications, the paper source selection is found under the Thin Paper tab within the printer properties. Select the correct paper source. See the printer driver help screen.
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.
Half the page is blank.	The page orientation setting may be incorrect.	Change the page orientation in your application. See the printer driver help screen.
	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.
Pages print, but are blank.	The toner cartridge is defective or out of toner.	Redistribute the toner, if necessary. See page 59. 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.

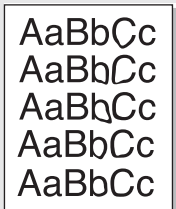
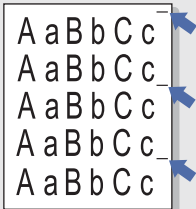
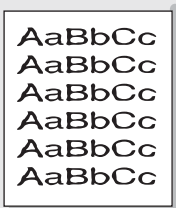
CONDITION	POSSIBLE CAUSE	SUGGESTED SOLUTIONS
The printer does not print PDF file correctly. Some parts of graphics, text, or illustrations are missing.	Incompatibility between the PDF file and the Acrobat products.	Printing the PDF file as an image may solve this problem. Turn on Print As Image from the Acrobat printing options.  It will take longer to print when you print a PDF file as an image.
The print quality of photos is not good. Images are not clear.	The resolution of the photo is very low.	Reduce the photo size. If you increase the photo size in the software application, the resolution will be reduced.
The machine prints, but the text is wrong, garbled, or incomplete.	If you are under the DOS environment, the font setting for your machine may be set incorrectly.	Suggested solutions: Change the font setting. See "Changing the font setting" on page 28.
Before printing, the machine emits vapor near the output tray.	Using damp paper can cause vapor during printing.	This is not a problem. Just keep printing.

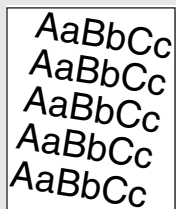
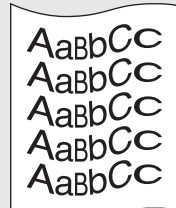
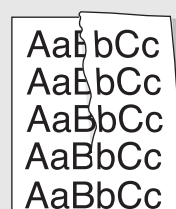
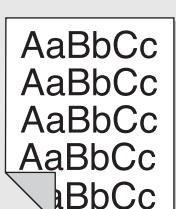
Printing quality problems

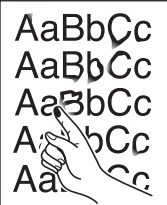
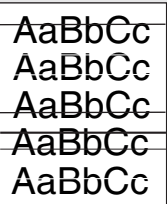
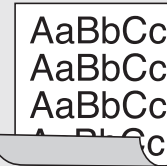
If the inside of the machine is dirty or paper has been loaded improperly, you may notice a reduction in print quality. See the table below to clear the problem.

CONDITION	SUGGESTED SOLUTIONS
Light or faded print 	If a vertical white streak or faded area appears on the page: - The toner supply is low. You may be able to temporarily extend the toner cartridge life. See page 60. If this does not improve the print quality, install a new toner cartridge. - The paper may not meet paper specifications; for example, the paper is too moist or too rough. See page 30. - If the entire page is light, the print resolution setting is too low. Adjust the print resolution. See the help screen of the printer driver. - A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning. - The surface of the LSU part inside the machine may be dirty. Clean the LSU, contact a service representative.

CONDITION	SUGGESTED SOLUTIONS
Toner specks 	- The paper may not meet specifications; for example, the paper is too moist or too rough. See page 30. - The paper path may need cleaning. See "Cleaning the inside" on page 57.
Dropouts 	If faded areas, generally rounded, occur randomly on the page: - A single sheet of paper may be defective. Try reprinting the job. - The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper. See page 30. - The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. - Change the printer option and try again. Go to printer properties, click Paper tab, and set type to Thick Paper. Refer to the <i>Software</i> section for details. If these steps do not correct the problem, contact a service representative.
White Spots 	White spots appear on the page: - The paper is too rough and a lot of dirt from the paper falls to the inner devices within the machine, which means the transfer belt may be dirty. Clean the inside of your machine. Contact a service representative. - The paper path may need cleaning. Contact a service representative.
Vertical lines 	If black vertical streaks appear on the page: - The drum inside the toner cartridge has probably been scratched. Remove the toner cartridge and install a new one. See page 60. If white vertical streaks appear on the page: - The surface of the LSU part inside the machine may be dirty. Clean the LSU, contact a service representative.
Color or Black background 	If the amount of background shading becomes unacceptable: - Change to a lighter weight paper. See page 30. - Check the machine's environment: very dry (low humidity) or high humidity (higher than 80% RH) conditions can increase the amount of background shading. - Remove the old toner cartridge and install a new one. See page 60.

CONDITION	SUGGESTED SOLUTIONS
Toner smear 	• Clean the inside of the machine. See page 57. • Check the paper type and quality. See page 30. • Remove the toner cartridge and install a new one. See page 60.
Vertical repetitive defects 	If marks repeatedly appear on the printed side of the page at even intervals: • The toner cartridge may be damaged. If a repetitive mark occurs on the page, print a cleaning sheet several times to clean the cartridge. After the printout, if you still have the same problems, remove the toner cartridge and install a new one. See page 60. • 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.
Background scatter 	Background scatter results from bits of toner randomly distributed on the printed page. • The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture. • If background scatter occurs on an envelope, change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems. • If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or the printer properties.
Misformed characters 	• If characters are improperly formed and producing hollow images, the paper stock may be too slick. Try a different paper. See page 30. • If characters are improperly formed and producing a wavy effect, the scanner unit may need service. For service, contact a service representative.

CONDITION	SUGGESTED SOLUTIONS
Page skew 	• Ensure that the paper is loaded properly. • Check the paper type and quality. See page 30. • Ensure that the paper or other material is loaded correctly and the guides are not too tight or too loose against the paper stack.
Curl or wave 	• Ensure that the paper is loaded properly. • Check the paper type and quality. Both high temperature and humidity can cause paper curl. See page 30. • Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray.
Wrinkles or creases 	• Ensure that the paper is loaded properly. • Check the paper type and quality. See page 30. • Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray.
Back of printouts are dirty 	• Check for leaking toner. Clean the inside of the machine. See page 57.
Solid Color or Black pages 	• The toner cartridge may not be installed properly. Remove the cartridge and reinsert it. • The toner cartridge may be defective and need replacing. Remove the toner cartridge and install a new one. See page 60. • The machine may require repair. Contact a service representative.

CONDITION	SUGGESTED SOLUTIONS
Loose toner 	• Clean the inside of the machine. See page 57. • Check the paper type and quality. See page 30. • Remove the toner cartridge and install a new one. See page 60. • If the problem persists, the machine may require repair. Contact a service representative.
Character Voids 	Character voids are white areas within parts of characters that should be solid black: • If you are using transparencies, try another type of transparency. Because of the composition of transparencies, some character voids are normal. • You may be printing on the wrong surface of the paper. Remove the paper and turn it around. • The paper may not meet paper specifications. See page 30.
Horizontal stripes 	If horizontally aligned black streaks or smears appear: • The toner cartridge may be installed improperly. Remove the cartridge and reinsert it. • The toner cartridge may be defective. Remove the toner cartridge and install a new one. See page 60. • If the problem persists, the machine may require repair. Contact a service representative.
Curl 	If the printed paper is curled or paper does not feed into the machine: • Turn over the stack of paper in the tray. Also try rotating the paper 180° in the tray. • Change the printer option and try again. Go to printer properties, click Paper tab, and set type to Thin Paper. Refer to the <i>Software section</i> for details. • Use the Paper Stacking function. See page 35.
An unknown image repetitively appears on a next few sheets or loose toner, light print, or contamination occurs.	Your printer is probably being used at an altitude of 1,000 m (3,281 ft) or above. The high altitude may affect the print quality such as loose toner or light imaging. You can set this option through Printer Settings Utility or Printer tab in printer driver's properties. See page 26.

Copying problems

CONDITION	SUGGESTED SOLUTIONS
Copies are too light or too dark.	Use Darkness to darken or lighten the background of the copies.

CONDITION	SUGGESTED SOLUTIONS
Smears, lines, marks, or spots appears on copies.	• If defects are on the original, use Darkness to lighten the background of your copies. • If no defects are on the original, clean the scan unit. See page 58.
Copy image is skewed.	• Ensure that the original is face down on the scanner glass or face up in the ADF. • Check that the copy paper is loaded correctly.
Blank copies print out.	Ensure that the original is face down on the scanner glass or face up in the ADF.
Image rubs off the copy easily.	• 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.	• 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. 80 g/m² (20 lb bond) paper is recommended. • Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.
Toner cartridge produces fewer copies than expected before running out of toner.	• Your originals may contain pictures, solids, or heavy lines. For example, your originals may be forms, newsletters, books, or other documents that use more toner. • The machine may be turned on and off frequently. • The scanner lid may be left open while copies are being made.

Scanning problems

CONDITION	SUGGESTED SOLUTIONS
The scanner does not work.	• Make sure that you place the original to be scanned face down on the scanner glass, or face up in the ADF. • There may not be enough available memory to hold the document you want to scan. Try the Prescan function to see if that works. Try lowering the scan resolution rate. • Check that the USB cable is connected properly. • Make sure that the USB cable is not defective. Switch the cable with a known good cable. If necessary, replace the cable. • Check that the scanner is configured correctly. Check scan setting in the SmarThru Configuration or the application you want to use to make certain that the scanner job is being sent to the correct port.
The unit scans very slowly.	• Check if the machine is printing received data. If so, scan the document after the received data has been printed. • Graphics are scanned more slowly than text. • Communication speed slows in scan mode because of the large amount of memory required to analyze and reproduce the scanned image. Set your computer to the ECP printer mode through BIOS setting. It will help to increase the speed. For details about how to set BIOS, refer to your computer user's guide.
Message appears on your computer screen: • "Device can't be set to the H/W mode you want." • "Port is being used by another program." • "Port is Disabled." • "Scanner is busy receiving or printing data. When the current job is completed, try again." • "Invalid handle." • "Scanning has failed."	• There may be a copying or printing job in progress. When that job is complete, try your job again. • The Selected port is currently being used. Restart your computer and try again. • The printer cable may be improperly connected or the power may be off. • The scanner driver is not installed or the operating environment is not set up properly. • Ensure that the machine is properly connected and the power is on, Then restart your computer. • The USB cable may be improperly connected or the power may be off.

Samsung Scan Manager problems

CONDITION	SUGGESTED SOLUTIONS
I cannot use the Samsung Scan Manager.	Check your operating system. Supporting operating systems are Windows 2000/XP/ Vista.

Fax problems

CONDITION	SUGGESTED SOLUTIONS
The machine is not working, there is no display and the buttons are not working.	• Unplug the power cord and plug it in again. • Ensure that there is power to the electrical outlet.
No dial tone sounds.	• 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 Phone Book list, referring to page 52.
The original does not feed into the machine.	• Make sure that the paper is not wrinkled and you are putting it in correctly. Check that the original is the right size, not too thick or thin • Make sure that the ADF is firmly closed. • The ADF rubber pad may need to be replaced. See page 61.
Faxes are not received automatically.	• The receiving mode should be set to Fax. • Make sure that there is paper in the tray. • Check to see if the display shows any error message. If it does, clear the problem.
The machine does not send.	• Make sure that the original is loaded in the ADF or on the scanner glass. • Sending 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.	• 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 page 60.
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 originals you send.	Check your scan unit for marks and clean it. See page 58.
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.
Faxes do not store in memory.	There may not be enough memory space to store the fax. If the display shows the Memory Full message, delete from memory any faxes you no longer need and then try again to store the fax.

CONDITION	SUGGESTED SOLUTIONS
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 page 30.

Common PostScript problems (SCX-4x28 Series only)

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

 To receive a printed or screen-displayed message when PostScript errors occur, open the Print Options window and click the desired selection next to the PostScript errors section

PROBLEM	POSSIBLE CAUSE	SOLUTION
PostScript file cannot be printed.	The PostScript driver may not be installed correctly.	- Install the PostScript driver, referring to <i>Software section</i>. - Print a configuration page and verify that the PS version is available for printing. - If the problem persists, contact a service representative.
“Limit Check Error” message appears.	The print job was too complex.	You might need to reduce the complexity of the page or install more memory.
A PostScript error page prints.	The print job may not be PostScript.	Make sure that the print job is a PostScript job. Check to see whether the software application expected a setup or PostScript header file to be sent to the machine.
The optional tray is not selected in the driver.	The printer driver has not been configured to recognize the optional tray.	Open the PostScript driver properties, select the Device Settings tab, and set the Tray option of the Installable Options section to Installed .

Common Windows problems

CONDITION	SUGGESTED SOLUTIONS
“File in Use” message appears during installation.	Exit all software applications. Remove all software from the StartUp Group, then restart Windows. Reinstall the printer driver.
“General Protection Fault”, “Exception OE”, “Spool32”, or “Illegal Operation” messages appear.	Close all other applications, reboot Windows and try printing again.
“Fail To Print”, “A printer timeout error occurred.” messages appear.	These messages may appear during printing. Just keep waiting until the machine finishes printing. If the message appears in ready mode or after printing has been completed, check the connection and/or whether an error has occurred.

 Refer to the Microsoft Windows documentation that came with your computer for further information on Windows error messages.

Common Linux problems

CONDITION	SUGGESTED SOLUTIONS
The machine does not print.	• Check if the printer driver is installed in your system. Open Unified Driver 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, 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, 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 port is claimed by a scanning application. • Check if the port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (port), the situation of simultaneous access of different “consumer” application to the same 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 ports configuration and select the port assigned to your printer. In the Selected port pane you can see if the port is occupied by some other application. If this is the case, you should wait for completion of the current job or should press Release port button, if you are sure that the present owner is not functioning properly. • Check if your application has special print option such as “-oraw”. If “-oraw” is specified in the command line parameter then remove it to print properly. For Gimp front-end, select “print” -> “Setup printer” and edit command line parameter in the command item. • The CUPS (Common Unix Printing System) version distributed with SuSE Linux 9.2 (cups-1.1.21) has a problem with ipp (Internet Printing Protocol) printing. Use the socket printing instead of ipp or install later version of CUPS (cups-1.1.22 or higher).
Some color images come out all black.	This is a known bug in Ghostscript (until GNU Ghostscript version 7.05) when the base color space of the document is indexed color space and it is converted through CIE color space. Because Postscript uses CIE color space for Color Matching System, you should upgrade Ghostscript on your system to at least GNU Ghostscript version 7.06 or later. You can find recent Ghostscript versions at www.ghostscript.com.

CONDITION	SUGGESTED SOLUTIONS
Some color images come out in unexpected color.	This is a known bug in Ghostscript (until GNU Ghostscript version 7.xx) when the base color space of the document is indexed RGB color space and it is converted through CIE color space. Because Postscript uses CIE color space for Color Matching System, you should upgrade Ghostscript on your system to at least GNU Ghostscript version 8.xx or later. You can find recent Ghostscript versions at www.ghostscript.com.
The machine does not print whole pages and its output is half page printed.	It is a known problem that occurs when a color printer is used on version 8.51 or earlier of Ghostscript, 64-bit Linux OS, and reported to bugs.ghostscript.com as Ghostscript Bug 688252. The problem is solved in AFPL Ghostscript v. 8.52 or above. Download the latest version of AFPL Ghostscript from http://sourceforge.net/projects/ghostscript/ and install it to solve this problem.
I cannot scan via Gimp Front-end.	• Check if Gimp Front-end has “Xsane: Device dialog.” on the “Acquire” menu. If not, you should install Xsane plug-in for Gimp on the your computer. You can find Xsane plug-in package for Gimp on Linux distribution CD or Gimp home page. For the detail information, refer to the Help for Linux distribution CD or Gimp Front-end application. If you wish to use other kind of scan application, refer to the Help for application.
I encounter error “Cannot open port device file” when printing a document.	Avoid changing print job parameters (via LPR GUI, 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 Unified Linux Driver locks port while printing, the abrupt termination of the driver keeps the port locked and therefore unavailable for subsequent print jobs. If this situation occurred, try to release the port.

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

CONDITION	SUGGESTED SOLUTIONS
The machine does not scan.	• Check if a document is loaded into the machine. • Check if your machine is connected to the computer. Make sure if it is connected properly if I/O error is reported while scanning. • Check if the port is not busy. Since functional components of MFP (printer and scanner) share the same I/O interface (port), the situation of simultaneous access of different “consumer” application to the same port is possible. To avoid possible conflicts, only one of them at a time is allowed to gain control over the device. The other “consumer” will encounter “device busy” response. This can usually happen while starting scan procedure, and appropriate message box will be displayed. To identify the source of the problem, you should open ports configuration and select the port assigned to your scanner. 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.

 Refer to Linux User's Guide that came with your computer for further information on Linux error messages.

Common Macintosh problems

CONDITION	SUGGESTED SOLUTIONS
The printer does not print PDF file correctly. Some parts of graphics, text, or illustrations are missing.	Incompatibility between the PDF file and the Acrobat products: Printing the PDF file as an image may solve this problem. Turn on Print As Image from the Acrobat printing options.  It will take longer to print when you print a PDF file as an image.
The document has printed, but the print job has not disappeared from the spooler in Mac OS 10.3.2.	Update your Mac OS to OS 10.3.3. or higher.
Some letters are not displayed normally during the Cover page printing.	This problem is caused because Mac OS cannot create the font during the Cover page printing. English alphabet and numbers are displayed normally at the Cover page.
When printing a document in Macintosh with Acrobat Reader 6.0 or higher, colors print incorrectly.	The resolution setting in the printer driver may not be matched with the one in Acrobat Reader.

 Refer to Mac OS User's Guide that came with your computer for further information on Mac OS error messages.

ordering supplies and accessories

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

This chapter includes:

- Supplies
- Accessories

 The optional parts or features may differ by countries. Contact your sales representatives whether the part you want is available in your country.

SUPPLIES

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

TYPE	AVERAGE YIELD ^A	PART NUMBER
Standard yield toner cartridge	Average cartridge yield 2,000 standard pages.	MLT-D209S Region A^b MLT-D2092S
High yield toner cartridge	Average cartridge yield 5,000 standard pages.	MLT-D209L Region A^b MLT-D2092L

- a. Declared yield value in accordance with ISO/IEC 19752.
- b. **Region A:** Albania, Austria, Belgium, Bosnia, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Macedonia, Netherlands, Norway, Poland, Portugal, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, UK.

 When purchasing new print cartridges or other supplies, these must be purchased in the same country where the machine was purchased. Otherwise, print cartridges or other supplies will be incompatible with your machine, as configurations of print cartridges and other supplies vary, depending on the specific country.

- How to purchase

ACCESSORIES

You can purchase and install accessories to enhance your machine's performance and capacity.

ACCESSORY	DESCRIPTION	PART NUMBER
Memory module	Extends your machine's memory capacity.	- CLP-MEM201: 128 MB - CLP-MEM202: 256 MB
Optional tray 2	If you are experiencing frequent paper supply problems, you can attach an additional 250 sheet tray. You can print documents in various sizes and types of print materials.	SCX-S4824A

HOW TO PURCHASE

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

installing accessories

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

This chapter includes:

- Precautions to take when installing accessories

PRECAUTIONS TO TAKE WHEN INSTALLING ACCESSORIES

- Disconnect the power cord
Never remove the control board cover while the power is turned on. To avoid the possibility of an electrical shock, always disconnect the power cord when installing or removing ANY internal or external accessories.
- Discharge static electricity
The control board and internal accessories (memory module) are sensitive to static electricity. Before installing or removing any internal accessories, discharge static electricity from your body by touching something metal, such as the metal back plate on any device plugged into a grounded power source. If you walk around before finishing the installation, repeat this procedure to discharge any static electricity again.

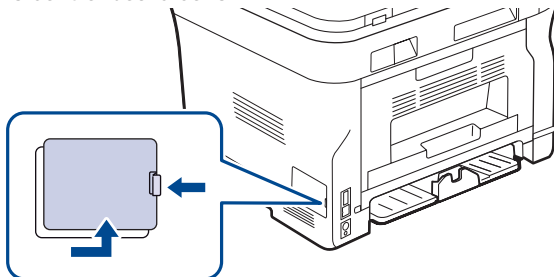
 When installing accessories, battery inside the machine is a service component. Do not change it by yourself.
Risk of explosion if battery is replaced by an incorrect type. Dispose used batteries according to the instructions.

UPGRADING A MEMORY MODULE

Your machine has a small outline dual in-line memory module (SODIMM). Use this memory module slot to install additional memory. When you are expanding the memory capacity, you can add a memory module to the vacant memory slot. Your machine has 128 MB memory, and you can add a 256 MB memory module. Order information is provided for optional memory module. (see "Memory module" on page 79.)

Installing a memory module

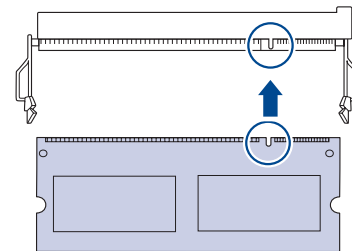
1. Turn the machine off and unplug all cables from the machine.
2. Open the control board cover.



3. Take out a new memory module from the plastic bag.

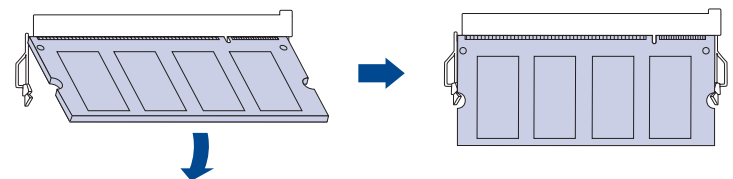
- Upgrading a memory module

4. Holding the memory module by the edges, align the memory module on the slot at about a 30-degree tilt. Make sure that the notches of the module and the grooves on the slot fit each other.



-  The notches and grooves illustrated above may not match those on an actual memory module and its slot.

5. Press the memory module into the slot with care until you hear a 'click'.



-  Do not press the memory module strongly or the module may be damaged. If the module does not seem to fit into the slot properly, carefully try the previous procedure again.

6. Replace the control board cover.
7. Reconnect the power cord and printer cable, and turn the machine on.

-  To release the memory module, pull the two tabs on the sides of the slot outwards, then the module springs out.

Activating the added memory in the PS printer properties

After installing the memory module, you need to select it in the printer properties of the PostScript printer driver in order to use it.

1. Make sure that the PostScript printer driver is installed on your computer. For details about installing the PS printer driver, see *Software section*.
2. Click the Windows **Start** menu.
3. For Windows 2000, select **Settings** and then **Printers**.
For Windows XP/2003, select **Printers and Faxes**.
For Windows Vista, select **Control Panel > Hardware and Sound > Printers**.
4. Select the **Samsung SCX-4x28 Series PS** printer.
5. Click the right mouse button on the printer icon and select **Properties**.
6. For Windows 2000/XP/2003/Vista, select **Device Settings**.
7. Select the amount of memory you installed from **Printer Memory** in the **Installable Options** section.
8. Click **OK**.

specifications

This chapter guides you about this machine's specifications such as various features.

This chapter include:

- General specifications
- Printer specifications
- Scanner specifications
- Copier specifications
- Facsimile specifications

GENERAL SPECIFICATIONS

 The symbol * optional feature depending on machines.

ITEM	DESCRIPTION	
ADF Capacity	• SCX-4x24 Series: Up to 30 sheets 75 g/m ² (20 lb bond)	
	• SCX-4x28 Series: Up to 50 sheets 75 g/m ² (20 lb bond)	
ADF document size	Width: 142 to 216 mm (5.6 x 8.5 inches) Length: 148 to 356 mm (5.8 x 14 inches)	
Paper input capacity	• Tray: 250 sheets for plain paper, 80 g/m ² (20 lb bond) • Manual tray: 1 sheet for paper • Optional tray: 250 sheets for plain paper, 80 g/m ² (20 lb bond) For details about paper input capacity, see 31 page.	
Paper output capacity	SCX-4x24 Series	Face down: 100 sheets 75 g/m ² (20 lb bond)
	SCX-4x28 Series	Face down: 150 sheets 75 g/m ² (20 lb bond)
Power rating	AC 110 - 127 V or AC 220 - 240 V See the Rating label on the machine for the correct voltage, frequency (hertz) and type of current for your machine.	
Power consumption	• Average operating mode: Less than 450 WH • Ready mode: Less than 60 WH • Power save mode: Less than 12 WH • Power off mode: 0 WH	
Noise Level ^a	SCX-4x24 Series	• Ready mode: Less than 26 dBA • Printing mode: Less than 49 dBA • Copying mode: Less than 53 dBA
	SCX-4x28 Series	• Ready mode: Less than 26 dBA • Printing mode: Less than 50 dBA • Copying mode: Less than 53 dBA
Default time to power save mode from ready mode	15 Minutes	
Warm-up time	Less than 15 seconds (from sleep mode)	

ITEM	DESCRIPTION
Operating environment	• Temperature: 15 to 30 °C (59 to 86 °F) • Humidity: 20 to 80% RH
Display	16 characters x 2 lines
Toner cartridge life ^b	Average cartridge yield 5,000 standard pages. (Shipped with 2,000 pages Starter toner cartridge.)
Memory (Expandable)*	128 MB (max. 384 MB)
External dimension (W x D x H)	445.2 x 410.5 x 395.3 mm (17.53 x 16.16 x 15.56 inches) without optional tray
Weight (Including consumables)	13.6 Kg (30 lbs)
Package weight	• Paper: 2.8 Kg (6.2 lbs) • Plastic: 0.6 Kg (1.3 lbs)
Duty cycle (Monthly)	• SCX-4x24 Series: Up to 30,000 pages • SCX-4x28 Series: Up to 50,000 pages
Fusing temperature	180 °C (356 °F)

- a. Sound Pressure Level, ISO 7779
- b. Declared yield value in accordance with ISO/IEC 19752. The number of pages may be affected by operating environment, printing interval, media type, and media size.

PRINTER SPECIFICATIONS

ITEM	DESCRIPTION	
Printing method	Laser beam printing	
Printing speed ^a	- SCX-4x24 Series: Up to 24 ppm (A4), 25 ppm (Letter) - SCX-4x28 Series: Up to 28 ppm(A4), 30 ppm (Letter)	
Duplex printing speed	SCX-4x28 Series: Up to 14 ipm (A4/Letter)	
First print out time	From ready	- SCX-4x24 Series: Less than 9.5 seconds - SCX-4x28 Series: Less than 8.5 seconds
	From coldboot	- SCX-4x24 Series: Less than 17 seconds - SCX-4x28 Series: Less than 16 seconds
Print resolution	Up to 1,200 dpi effective output	
Printer language	- SCX-4x24 Series: PCL6, IBM ProPrinter, EPSON - SCX-4x28 Series: PCL6, IBM ProPrinter, EPSON, PostScript 3	
OS compatibility ^b	- Windows: 2000/XP/2003/Vista - Linux: Various Linux OS - Macintosh: Mac OS X 10.3~10.5	
Interface	- High speed USB 2.0 - Ethernet 10/100 Base TX (embedded type)	

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

b. Visit www.samsungprinter.com to download the latest software version.

SCANNER SPECIFICATIONS

ITEM	DESCRIPTION	
Compatibility	TWAIN standard/WIA standard	
Scanning method	Color CIS	
Resolution	Optical	SCX-4x24 Series: Up to 600 x 600 dpi
		SCX-4x28 Series: Up to 1,200 x 1,200 dpi (Scanner glass)
	Enhanced: Up to 4,800 x 4,800 dpi	
Effective scanning length	- Scanner glass: 297 mm (11.7 inches) - ADF: 348 mm (13.7 inches)	
Effective scanning width	Max. 208 mm (8.2 inches)	
Color bit depth	- Internal: 24 bit - External: 24 bit	
Mono bit depth	1 bit for Lineart & Halftone 8 bit for gray scale	

COPIER SPECIFICATIONS

ITEM	DESCRIPTION	
Copy Speed ^a	- SCX-4x24 Series: Up to 24 cpm (A4), 25 cpm (Letter) - SCX-4x28 Series: Up to 28 cpm(A4), 30 cpm (Letter)	
Copy resolution	Text	Scan: Up to 300 x 300 dpi Printing: Up to 600 x 600 dpi
	Text/photo	Scan: Up to 300 x 300 dpi Printing: Up to 600 x 600 dpi
	Photo	Scan: Up to 600 x 600 dpi (Scanner glass) Up to 300 x 300 dpi (ADF) Printing: Up to 1200 x 1200
Zoom range	- ADF: 25% to 100% - Scanner glass: 25% to 400%	

a. Copy speed is based on Single Document Multiple Copy.

FACSIMILE SPECIFICATIONS

 The fax feature may not be supported depending on machines.

ITEM	DESCRIPTION
Compatibility	ITU-T G3, ECM
Applicable line	Public Switched Telephone Network (PSTN) or behind PABX
Data coding	MH/MR/MMR/JBIG/JPEG
Modem speed	33.6 Kbps
Transmission speed	Up to 3 seconds/page ^a
Maximum document length	356 mm (14 inches)
Resolution	• Standard: Up to 203 x 98 dpi • Fine/Photo: Up to 203 x 196 dpi • Super Fine: Up to 300 x 300 dpi (Receiving only) • Color: Up to 200 x 200 dpi
Memory	3.2 MB (Approx. 260 pages)
Halftone	256 levels

a. Standard resolution, MMR(JBIG), Maximum modem speed, Phase "C" by ITU-T No. 1 chart, Memory Tx, ECM.

glossary

 The following glossary helps you get familiar with the product by understanding the terminologies commonly used with printing as well as mentioned in this user's guide.

ADF

An Automatic Document Feeder (ADF) is a mechanism that will automatically feed an original sheet of paper so that the machine can scan some amount of the paper at once.

AppleTalk

AppleTalk is a proprietary suite of protocols developed by Apple, Inc for computer networking. It was included in the original Macintosh (1984) and is now deprecated by Apple in favor of TCP/IP networking.

BIT Depth

A computer graphics term describing the number of bits used to represent the color of a single pixel in a bitmapped image. Higher color depth gives a broader range of distinct colors. As the number of bits increases, the number of possible colors becomes impractically large for a color map. 1-bit color is commonly called as monochrome or black and white.

BMP

A bitmapped graphics format used internally by the Microsoft Windows graphics subsystem (GDI), and used commonly as a simple graphics file format on that platform.

BOOTP

Bootstrap Protocol. A network protocol used by a network client to obtain its IP address automatically. This is usually done in the bootstrap process of computers or operating systems running on them. The BOOTP servers assign the IP address from a pool of addresses to each client. BOOTP enables 'diskless workstation' computers to obtain an IP address prior to loading any advanced operating system.

CCD

Charge Coupled Device (CCD) is a hardware which enables the scan job. CCD Locking mechanism is also used to hold the CCD module to prevent any damage when you move the machine.

Collation

Collation is a process of printing a multiple-copy job in sets. When collation is selected, the device prints an entire set before printing additional copies.

Control Panel

A control panel is a flat, typically vertical, area where control or monitoring instruments are displayed. They are typically found in front of the machine.

Coverage

It is the printing term used for a toner usage measurement on printing. For example, 5% coverage means that an A4 sided paper has about 5% image or text on it. So, if the paper or original has complicated images or lots of text on it, the coverage will be higher and at the same time, a toner usage will be as much as the coverage.

CSV

Comma Separated Values (CSV). A type of file format, CSV is used to exchange data between disparate applications. The file format, as it is used in Microsoft Excel, has become a pseudo standard throughout the industry, even among non-Microsoft platforms.

DADF

A Duplex Automatic Document Feeder (DADF) is a mechanism that will automatically feed and flip over an original sheet of paper so that the machine can scan on both sides of the paper.

Default

The value or setting that is in effect when taking a printer out of its box state, reset, or initialized.

DHCP

A Dynamic Host Configuration Protocol (DHCP) is a client-server networking protocol. A DHCP server provides configuration parameters specific to the DHCP client host requesting, generally, information required by the client host to participate on an IP network. DHCP also provides a mechanism for allocation of IP addresses to client hosts.

DIMM

Dual Inline Memory Module (DIMM), a small circuit board that holds memory. DIMM stores all the data within the machine like printing data, received fax data.

DNS

The Domain Name Server (DNS) is a system that stores information associated with domain names in a distributed database on networks, such as the Internet.

Dot Matrix Printer

A dot matrix printer refers to a type of computer printer with a print head that runs back and forth on the page and prints by impact, striking an ink-soaked cloth ribbon against the paper, much like a typewriter.

DPI

Dots Per Inch (DPI) is a measurement of resolution that is used for scanning and printing. Generally, higher DPI results in a higher resolution, more visible detail in the image, and a larger file size.

DRPD

Distinctive Ring Pattern Detection. Distinctive Ring is a telephone company service which enables a user to use a single telephone line to answer several different telephone numbers.

Duplex

A mechanism that will automatically flip over a sheet of paper so that the machine can print (or scan) on both sides of the paper. A printer equipped with a Duplex can print double-sided of paper.

Duty Cycle

Duty cycle is the page quantity which does not affect printer performance for a month. Generally the printer has the lifespan limitation such as pages per year. The lifespan means the average capacity of print-outs, usually within the warranty period. For example, if the duty cycle is 48,000 pages per month assuming 20 working days, a printer limits 2,400 pages a day.

ECM

Error Correction Mode (ECM) is an optional transmission mode built into Class 1 fax machines or fax modems. It automatically detects and corrects errors in the fax transmission process that are sometimes caused by telephone line noise.

Emulation

Emulation is a technique of one machine obtaining the same results as another.

An emulator duplicates the functions of one system with a different system, so that the second system behaves like the first system. Emulation focuses on exact reproduction of external behavior, which is in contrast to simulation, which concerns an abstract model of the system being simulated, often considering its internal state.

Ethernet

Ethernet is a frame-based computer networking technology for local area networks (LANs). It defines wiring and signaling for the physical layer, and frame formats and protocols for the media access control (MAC)/data link layer of the OSI model. Ethernet is mostly standardized as IEEE 802.3. It has become the most widespread LAN technology in use during the 1990s to the present.

EtherTalk

A suite of protocols developed by Apple Computer for computer networking. It was included in the original Macintosh (1984) and is now deprecated by Apple in favor of TCP/IP networking.

FDI

Foreign Device Interface (FDI) is a card installed inside the machine to allow a third party device such as a coin operated device or a card reader. Those devices allow the pay-for-print service on your machine.

FTP

A File Transfer Protocol (FTP) is a commonly used protocol for exchanging files over any network that supports the TCP/IP protocol (such as the Internet or an intranet).

Fuser Unit

The part of a laser printer that melts the toner onto the print media. It consists of a hot roller and a back-up roller. After toner is transferred onto the paper, the fuser unit applies heat and pressure to ensure that the toner stays on the paper permanently, which is why paper is warm when it comes out of a laser printer.

Gateway

A connection between computer networks, or between a computer network and a telephone line. It is very popular, as it is a computer or a network that allows access to another computer or network.

Grayscale

A shades of gray that represent light and dark portions of an image when color images are converted to grayscale; colors are represented by various shades of gray.

Halftone

An image type that simulates grayscale by varying the number of dots. Highly colored areas consist of a large number of dots, while lighter areas consist of a smaller number of dots.

HDD

Hard Disk Drive (HDD), commonly referred to as a hard drive or hard disk, is a non-volatile storage device which stores digitally-encoded data on rapidly rotating platters with magnetic surfaces.

IEEE

The Institute of Electrical and Electronics Engineers (IEEE) is an international non-profit, professional organization for the advancement of technology related to electricity.

IEEE 1284

The 1284 parallel port standard was developed by the Institute of Electrical and Electronics Engineers (IEEE). The term "1284-B" refers to a specific connector type on the end of the parallel cable that attaches to the peripheral (for example, a printer).

Intranet

A private network that uses Internet Protocols, network connectivity, and possibly the public telecommunication system to securely share part of an organization's information or operations with its employees. Sometimes the term refers only to the most visible service, the internal website.

IP address

An Internet Protocol (IP) address is a unique number that devices use in order to identify and communicate with each other on a network utilizing the Internet Protocol standard.

IPM

The Images Per Minute (IPM) is a way of measuring the speed of a printer. An IPM rate indicates the number of single-sided sheets a printer can complete within one minute.

IPP

The Internet Printing Protocol (IPP) defines a standard protocol for printing as well as managing print jobs, media size, resolution, and so forth. IPP can be used locally or over the Internet to hundreds of printers, and also supports access control, authentication, and encryption, making it a much more capable and secure printing solution than older ones.

IPX/SPX

IPX/SPX stands for Internet Packet Exchange/Sequenced Packet Exchange. It is a networking protocol used by the Novell NetWare operating systems. IPX and SPX both provide connection services similar to TCP/IP, with the IPX protocol having similarities to IP, and SPX having similarities to TCP. IPX/SPX was primarily designed for local area networks (LANs), and is a very efficient protocol for this purpose (typically its performance exceeds that of TCP/IP on a LAN).

ISO

The International Organization for Standardization (ISO) is an international standard-setting body composed of representatives from national standards bodies. It produces world-wide industrial and commercial standards.

ITU-T

The International Telecommunication Union is an international organization established to standardize and regulate international radio and telecommunications. Its main tasks include standardization, allocation of the radio spectrum, and organizing interconnection arrangements between different countries to allow international phone calls. A -T out of ITU-T indicates telecommunication.

ITU-T No. 1 chart

Standardized test chart published by ITU-T for document facsimile transmissions.

JBIG

Joint Bi-level Image Experts Group (JBIG) is an image compression standard with no loss of accuracy or quality, which was designed for compression of binary images, particularly for faxes, but can also be used on other images.

JPEG

Joint Photographic Experts Group (JPEG) is a most commonly used standard method of lossy compression for photographic images. It is the format used for storing and transmitting photographs on the World Wide Web.

LDAP

The Lightweight Directory Access Protocol (LDAP) is a networking protocol for querying and modifying directory services running over TCP/IP.

LED

A Light-Emitting Diode (LED) is a semiconductor device that indicates the status of a machine.

MAC address

Media Access Control (MAC) address is a unique identifier associated with a network adapter. MAC address is a unique 48-bit identifier usually written as 12 hexadecimal characters grouped in pairs (e. g., 00-00-0c-34-11-4e). This address is usually hard-coded into a Network Interface Card (NIC) by its manufacturer, and used as an aid for routers trying to locate machines on large networks.

MFP

Multi Function Peripheral (MFP) is an office machine that includes the following functionality in one physical body, so as to have a printer, a copier, a fax, a scanner and etc.

MH

Modified Huffman (MH) is a compression method for decreasing the amount of data that needs to be transmitted between the fax machines to transfer the image recommended by ITU-T T.4. MH is a codebook-based run-length encoding scheme optimized to efficiently compress white space. As most faxes consist mostly of white space, this minimizes the transmission time of most faxes.

MMR

Modified Modified READ (MMR) is a compression method recommended by ITU-T T.6.

Modem

A device that modulates a carrier signal to encode digital information, and also demodulates such a carrier signal to decode transmitted information.

MR

Modified Read (MR) is a compression method recommended by ITU-T T.4. MR encodes the first scanned line using MH. The next line is compared to the first, the differences determined, and then the differences are encoded and transmitted.

NetWare

A network operating system developed by Novell, Inc. It initially used cooperative multitasking to run various services on a PC, and the network protocols were based on the archetypal Xerox XNS stack. Today NetWare supports TCP/IP as well as IPX/SPX.

OPC

Organic Photo Conductor (OPC) is a mechanism that makes a virtual image for print using a laser beam emitted from a laser printer, and it is usually green or gray colored and a cylinder shaped.

An exposing unit of a drum is slowly worn away by its usage of the printer, and it should be replaced appropriately since it gets scratches from grits of a paper.

Originals

The first example of something, such as a document, photograph or text, etc, which is copied, reproduced or translated to produce others, but which is not itself copied or derived from something else.

OSI

Open Systems Interconnection (OSI) is a model developed by the International Organization for Standardization (ISO) for communications. OSI offers a standard, modular approach to network design that divides the required set of complex functions into manageable, self-contained, functional layers. The layers are, from top to bottom, Application, Presentation, Session, Transport, Network, Data Link and Physical.

PABX

A private automatic branch exchange (PABX) is an automatic telephone switching system within a private enterprise.

PCL

Printer Command Language (PCL) is a Page Description Language (PDL) developed by HP as a printer protocol and has become an industry standard. Originally developed for early inkjet printers, PCL has been released in varying levels for thermal, matrix printer, and page printers.

PDF

Portable Document Format (PDF) is a proprietary file format developed by Adobe Systems for representing two dimensional documents in a device independent and resolution independent format.

PostScript

PostScript (PS) is a page description language and programming language used primarily in the electronic and desktop publishing areas. - that is run in an interpreter to generate an image.

Printer Driver

A program used to send commands and transfer data from the computer to the printer.

Print Media

The media like paper, envelopes, labels, and transparencies which can be used on a printer, a scanner, a fax or, a copier.

PPM

Pages Per Minute (PPM) is a method of measurement for determining how fast a printer works, meaning the number of pages a printer can produce in one minute.

PRN file

An interface for a device driver, this allows software to interact with the device driver using standard input/output system calls, which simplifies many tasks.

Protocol

A convention or standard that controls or enables the connection, communication, and data transfer between two computing endpoints.

PS

See PostScript.

PSTN

The Public-Switched Telephone Network (PSTN) is the network of the world's public circuit-switched telephone networks which, on industrial premises, is usually routed through the switchboard.

Resolution

The sharpness of an image, measured in Dots Per Inch (DPI). The higher the dpi, the greater the resolution.

SMB

Server Message Block (SMB) is a network protocol mainly applied to share files, printers, serial ports, and miscellaneous communications between nodes on a network. It also provides an authenticated Inter-process communication mechanism.

SMTP

Simple Mail Transfer Protocol (SMTP) is the standard for e-mail transmissions across the Internet. SMTP is a relatively simple, text-based protocol, where one or more recipients of a message are specified, and then the message text is transferred. It is a client-server protocol, where the client transmits an email message to the server.

Subnet Mask

The subnet mask is used in conjunction with the network address to determine which part of the address is the network address and which part is the host address.

TCP/IP

The Transmission Control Protocol (TCP) and the Internet Protocol (IP); the set of communications protocols that implement the protocol stack on which the Internet and most commercial networks run.

TCR

Transmission Confirmation Report (TCR) provides details of each transmission such as job status, transmission result and number of pages sent. This report can be set to print after each job or only after failed transmissions.

TIFF

Tagged Image File Format (TIFF) is a variable-resolution bitmapped image format. TIFF describes image data that typically come from scanners. TIFF images make use of tags, keywords defining the characteristics of the image that is included in the file. This flexible and platform-independent format can be used for pictures that have been made by various image processing applications.

Toner Cartridge

A kind of bottle within a machine like printer which contains toner. Toner is a powder used in laser printers and photocopiers, which forms the text and images on the printed paper. Toner can be melted by the heat of the fuser, causing it to bind to the fibers in the paper.

TWAIN

An industry standard for scanners and software. By using a TWAIN-compliant scanner with a TWAIN-compliant program, a scan can be initiated from within the program.; an image capture API for Microsoft Windows and Apple Macintosh operating systems.

UNC Path

Uniform Naming Convention (UNC) is a standard way to access network shares in Window NT and other Microsoft products. The format of a UNC path is: \\<servername>\<sharename>\<Additional directory>

URL

Uniform Resource Locator (URL) is the global address of documents and resources on the Internet. The first part of the address indicates what protocol to use, the second part specifies the IP address or the domain name where the resource is located.

USB

Universal Serial Bus (USB) is a standard that was developed by the USB Implementers Forum, Inc., to connect computers and peripherals. Unlike the parallel port, USB is designed to concurrently connect a single computer USB port to multiple peripherals.

Watermark

A watermark is a recognizable image or pattern in paper that appears lighter when viewed by transmitted light. Watermarks were first introduced in Bologna, Italy in 1282; they have been used by papermakers to identify their product, and also on postage stamps, currency, and other government documents to discourage counterfeiting.

WIA

Windows Imaging Architecture (WIA) is an imaging architecture that is originally introduced in Windows Me and Windows XP. A scan can be initiated from within these operating systems by using a WIA-compliant scanner.

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