



F-116 User Guide



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DEPLOY. DUPLICATE. DIGITIZE. DELIVER.

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Safety information










These warnings and precautions are included in order to prevent injury to you and others, as well as preventing any potential damage to your machine. Be sure to read and understand all of these instructions before using the machine.

Use common sense for operating any electrical appliance and whenever using your machine. Also, follow all warnings and instructions marked on the machine and in the accompanying literature. After reading this section, keep it in a safe place for future reference.

Important safety symbols

This section explains the meanings of all icons and signs in the user's guide. These safety symbols are in order, according to the degree of danger.

Explanation of all icons and signs used in the user's guide:

	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.
		Do not attempt.
		Do not disassemble.
		Do not touch.
		Unplug the power cord from the wall socket.
		Make sure the machine is grounded to prevent electric shock.
		Call the service center for help.
		Follow directions explicitly.

Operating environment

Warning



Do not use if the power cord is damaged or if the electrical outlet is not grounded.

► This could result in electric shock or fire.



Do not bend, or place heavy objects on the power cord.

► Stepping on or allowing the power cord to be crushed by a heavy object could result in electric shock or fire.



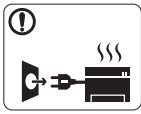
Do not place anything on top of the machine (water, small metal or heavy objects, candles, lit cigarettes, etc.).

► This could result in electric shock or fire.



Do not remove the plug by pulling on the cord; do not handle the plug with wet hands.

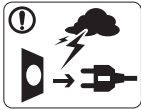
► This could result in electric shock or fire.



If the machine gets overheated, it releases smoke, makes strange noises, or generates an odd odor, immediately turn off the power switch and unplug the machine.

▶ This could result in electric shock or fire.

Caution



During an electrical storm or for a period of non-operation, remove the power plug from the electrical outlet.

▶ This could result in electric shock or fire.



Be careful, the paper output area is hot.

▶ Burns could occur.



If the machine has been dropped, or if the cabinet appears damaged, unplug the machine from all interface connections and request assistance from qualified service personnel.

▶ Otherwise, this could result in electric shock or fire.



If the machine exhibits a sudden and distinct change in performance, unplug the machine from all interface connections and request assistance from qualified service personnel.

▶ Otherwise, this could result in electric shock or fire.



If the plug does not easily enter the electrical outlet, do not attempt to force it in.

▶ Call an electrician to change the electrical outlet, or this could result in electric shock.



Do not allow pets to chew on the AC power, telephone or PC interface cords.

▶ This could result in electric shock or fire.



If the machine does not operate properly after these instructions have been followed, unplug the machine from all interface connections and request assistance from qualified service personnel.

▶ Otherwise, this could result in electric shock or fire.

Operating method

Caution



Do not forcefully pull the paper out during printing.

▶ It can cause damage to the machine.



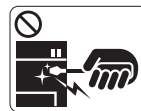
When printing large quantities, the bottom part of the paper output area may get hot. Do not allow children to touch.

▶ You may be burned.



Be careful not to put your hand between the machine and paper tray.

▶ You may get injured.



When removing jammed paper, do not use tweezers or sharp metal objects.

▶ It can cause damage to the machine.



Do not block or push objects into the ventilation opening.

▶ This could result in elevated component temperatures which can cause damage or fire.



Do not allow too many papers to stack up in the paper output tray.

▶ It could cause damage to the machine.



Use care to avoid paper cuts when replacing paper or removing jammed paper.

▶ You may get hurt.

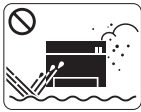


This machine's power interception device is the power cord.

▶ To switch off the power supply, remove the power cord from the electrical outlet.

Installation / Moving

Warning



Do not place the machine in an area with dust, humidity or water leaks.








- ▶ This could result in electric shock or fire.

Caution



When moving the machine, turn the power off and disconnect all cords; then lift the machine with at least two people.

- ▶ The machine could fall, causing human injury or machine damage.

-  Do not place the machine on an unstable surface.
 - ▶ The machine could fall, causing human injury or machine damage.
-  The machine should be connected to the power level which is specified on the label.
 - ▶ If you are unsure and want to check the power level you are using, contact the electrical utility company.
-  Use only No.26 AWG^a or larger, telephone line cord, if necessary.
 - ▶ Otherwise, it can cause damage to the machine.
-  Do not put a cover over the machine or place it in an airtight location, such as a closet.
 - ▶ If the machine is not well-ventilated, this could result in fire.
-  Make sure you plug the power cord into a grounded electrical outlet.
 - ▶ Otherwise, this could result in electric shock or fire.
-  Do not overload wall outlets and extension cords.
 - ▶ This can diminish performance, and could result in electric shock or fire.
-  Use the power cord supplied with your machine for safe operation. If you are using a cord which is longer than 2 meters (79") with a 140V machine, then the gauge should be 16 AWG or larger.
 - ▶ Otherwise, it can cause damage to the machine, and could result in electric shock or fire.

a. AWG: American Wire Gauge

Maintenance / Checking

Caution



Unplug this product from the wall outlet before cleaning the inside of the machine. Do not clean the machine with benzene, paint thinner or alcohol; do not spray water directly into the machine.

- ▶ This could result in electric shock or fire.



Keep cleaning supplies away from children.

- ▶ Children may get hurt.



When you are working inside the machine replacing supplies or cleaning the inside, do not operate the machine.

- ▶ You may get injured.



Do not disassemble, repair or rebuild the machine by yourself.

- ▶ It can cause damage to the machine. Call a certified technician when the machine needs repair.

- ⓘ Keep the power cable and the contact surface of the plug clean from dust or water.
 - ▶ This could result in electric shock or fire.
- ⓘ To clean and operate the machine, strictly follow the user's guide provided with the machine.
 - ▶ Otherwise, it can cause damage to the machine.
- ⊗ Do not remove any covers or guards that are fastened with screws.
 - ▶ The machine should only be repaired by Samsung service technician.

Supply usage

Caution



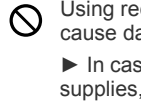
- Do not disassemble the toner cartridge.
- ▶ Toner dust can be dangerous to humans.



- When storing supplies such as toner cartridges, keep them away from children.
- ▶ Toner dust can be dangerous to humans.



- Do not burn any of the supplies such as toner cartridge or fuser unit.
- ▶ It can cause an explosion or fire.



- Using recycled supplies, such as toner, can cause damage to the machine.
- ▶ In case of damage due to the use of recycled supplies, a service fee will be charged.

- ⓘ When changing the toner cartridge or removing jammed paper, be careful not to let toner dust touch your body or clothes.
 - ▶ Toner dust can be dangerous to humans.

Regulatory information

This machine is designed for our sound environment and certified with several regulatory statements.

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 STRAHLAUSSETZEN.

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

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

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

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

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

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

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

VAROITUS - NÄKYMÄTÖNTÄ LASERSÄTELYÄ 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.

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)

Recycling



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

China only

回收和再循环

为了保护环境，我公司已经为废弃的产品建立了回收和再循环系统。我们会为您无偿提供回收同类废旧产品的服务。当您要废弃您正在使用的产品时，请您及时与工厂取得联系，我们会及时为您提供服务。

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

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



This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them 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 these items for environmentally safe recycling.

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

Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)



This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.

To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

Taiwan only

警告

本電池如果更換不正確會有爆炸的危險
請依製造商說明書處理用過之電池

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.

Russia only



МИНСВЯЗИ РОССИИ



Germany only

Das Gerät ist nicht für die Benutzung am Bildschirmarbeitsplatz gemäß BildscharbV vorgesehen.

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.

The equipment complies with Part 68 of the FCC rules and the requirements adopted by the ACTA. On the rear of this equipment is a label that contains, among other information, a product identifier in the format US:AAAEQ##TXXXX. If requested, this number must be provided to the telephone company.



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.

产品中有毒有害物质或元素的名称及含量

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴联苯醚 (PBDE)
塑料	○	○	○	○	○	○
金属 (机箱)	X	○	○	○	○	○
印刷电路部件 (PCA)	X	○	○	○	○	○
电缆 / 连接器	X	○	○	○	○	○
电源设备	X	○	○	○	○	○
电源线	X	○	○	○	○	○
机械部件	X	○	○	○	○	○
卡盒部件	X	○	○	○	○	○
定影部件	X	○	○	○	○	○
扫描仪部件 - CCD (如果有)	X	X	○	○	○	○
扫描仪部件 - 其它 (如果有)	X	○	○	○	○	○
印刷电路板部件 (PBA)	X	○	○	○	○	○
墨粉	○	○	○	○	○	○
滚筒	○	○	○	○	○	○

○：表示该有毒有害物质在该部件所有均质材料中的含量均在 SJ/T 11363-2006 标准规定的限量要求以下。

×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出 SJ/T 11363-2006 标准规定的限量要求。

以上表为目前本产品含有有毒有害物质的信息。本信息由本公司的配套厂家提供，经本公司审核后而做成，本产品的部分部件含有有毒有害物质，这些部件是在现有科学技术水平下暂时无可替代物质，但三星电子将会一直为满足 SJ/T 11363-2006 标准而做不懈的努力。

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 actual usage. Valuable for both novice and professional users can refer to this as a guide for installing and using the machine.





- Read the safety information before using the machine.
- If you have a problem using the machine, refer to the troubleshooting chapter (See "Troubleshooting" on page 53).
- Terms used in this user's guide are explained in the glossary chapter (See "Glossary" on page 74).
- All illustrations in this user's guide may differ from your machine depending on its options or models.

Convention

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


- Document is synonymous with original.
- Paper is synonymous with media, or print media.
- Machine refers to printer or MFP.

The following table offers the conventions of this guide:

CONVENTION	DESCRIPTION	EXAMPLE
Bold	For texts on the display or button names on the machine.	Start
Note	Provides additional information or detailed specification of the machine function and feature.	 The date format may differ from country to country.
Caution	Gives users information to protect the machine from possible mechanical damage or malfunction.	 Do not touch the green underside of the toner cartridge.
Footnote	Provides additional more detailed information on certain words or a phrase.	a. pages per minute
("Cross-reference")	Guides users to a reference page for the additional detailed information.	(See Finding 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 on screen.

MATERIAL NAME	DESCRIPTION
Quick Install Guide 	This guide provides information on setting up your machine and this requires that you follow the instructions in the guide to prepare the machine.
Muratec website	If you have Internet access, you can get help, support, manuals, and order information from the Muratec website, www.muratec.com

Features of your new product

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

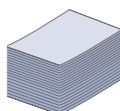
Special Features

Print with excellent quality and speed



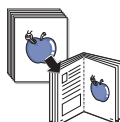
- You can print with a resolution of up to 600 x 600 dpi.
- Your machine prints A4-sized paper at up to 18 ppm and letter-sized paper at up to 19 ppm.

Handle high capacity of paper



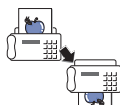
- The 250-sheet tray supports plain paper.

Copy originals in several formats



- The print quality and image size may be adjusted and enhance at the same time.

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.

Save time and money

- This machine automatically conserves electricity by substantially reducing power consumption when not in use.

Introduction

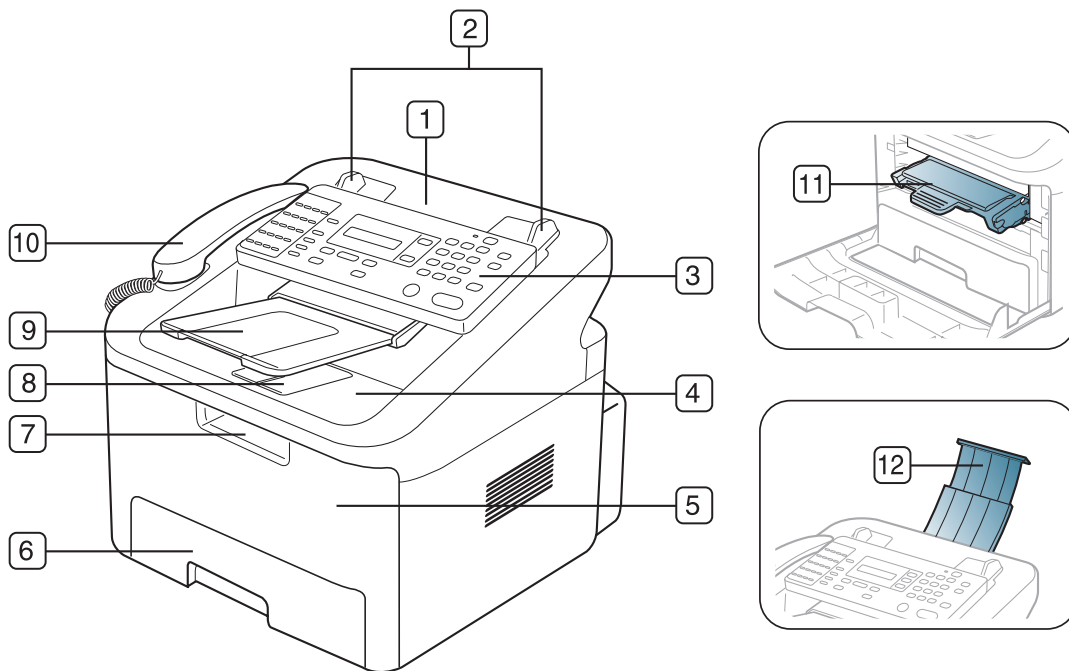
This chapter gives you an overview of your machine:

This chapter includes:

- Machine overview
- Control panel overview
- Understanding the Status LED
- Introducing the useful button
- Turning on the machine

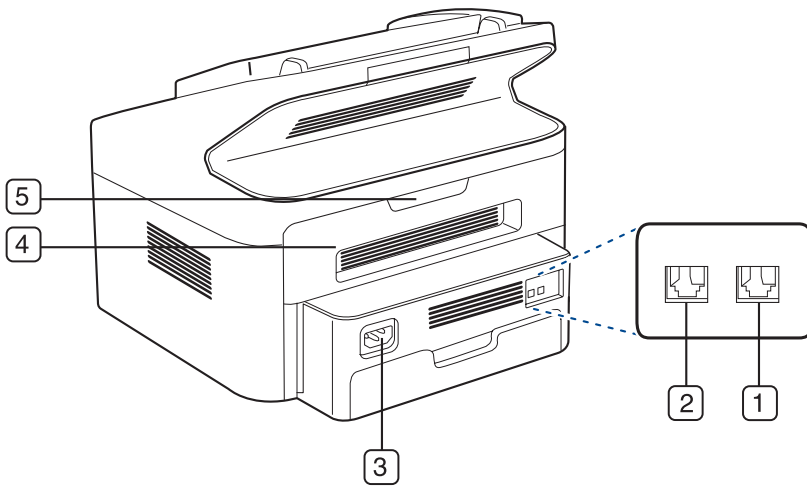
Machine overview

Front view



1	Document feeder	5	Front door	9	Document output tray
2	Document width guides	6	Tray 1	10	Handset
3	Control panel	7	Front door handle	11	Toner cartridge
4	Output tray	8	Output support	12	Document input tray

Rear view



1 Extension telephone socket (EXT)

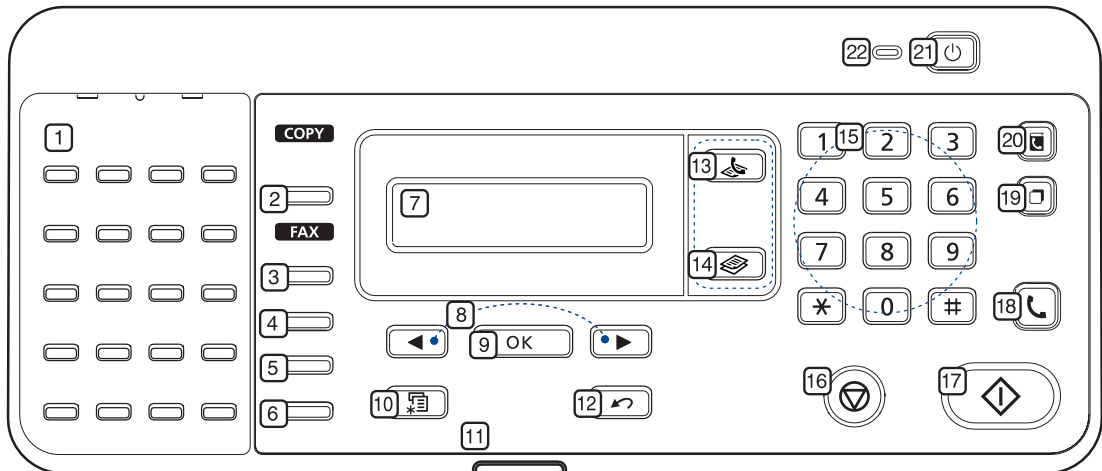
4 Rear door

2 Telephone line socket

5 Rear door handle

3 Power receptacle

Control panel overview



1	One-touch dial	Stores frequently-dialed fax number (See "Storing a number for One-touch Dialing" on page39).
2	Reduce/Enlarge	Makes a copy smaller or larger than the original.
3	Delay Send	Allows you to send a fax at a later time when you will not be present (See "Delaying a fax transmission" on page34).
4	Multi Send	Allows you to send a fax to multiple destinations (See "Sending a fax to multiple destinations" on page34).
5	Receive Mode	Converts the fax receiving mode (See "Changing the receive modes" on page36).
6	Resolution	Adjusts the resolution of the documents for the current fax job.
7	Display	Shows the current status and prompts during an operation.
8	◀▶ Arrow	Scroll through the options available in the selected menu, and increase or decrease values.
9	OK	Confirms the selection on the screen.
10	☰ Menu	Enters Menu mode and scrolls through the available menus (See "Machine status and advanced feature" on page42).
11	Status	Shows the status of your machine (See "Understanding the Status LED" on page21).
12	↶ Back	Sends you back to the upper menu level.
13	☎ (Fax)	Activates fax mode.
14	☰ (Copy)	Activates copy mode.
15	Numeric keypad	Dials fax number, and enters the number value for document copies or other options.
16	⏏ Stop/Clear	Stops an operation at any time. The pop-up window appears on the screen showing the current job that the user can stop or resume.
17	▶ Start	Starts a job.
18	☎ On Hook Dial	Performs same as you hold a handset under the telephone line is engaged.
19	☐ Redial/Pause	In standby mode, redials the last number. Also in edit mode, inserts a pause into a fax number.
20	☎ Address Book	Allows you to store frequently used fax numbers or search for stored fax numbers.
21	⏻ (power)	Turns the machine on or off.
22	power LED	Shows whether the machine is turned on or off.

Understanding the Status LED

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

STATUS		DESCRIPTION
Off		<ul style="list-style-type: none"> The machine is off-line. The machine is in power saver mode. When data is received, or any button is pressed, it switches to on-line automatically.
Green: Online (↔)	Blinking	When the backlight blinks rapidly, the machine is printing data.
	On	The machine is on-line and can be used.
Red: Error (⚠)	Blinking	<ul style="list-style-type: none"> A minor error has occurred and the machine is waiting for the error to be cleared. Check the display message. When the problem is cleared, the machine resumes. Small amount of toner is left in the cartridge. The estimated cartridge life^a of toner is close. Prepare a new cartridge for replacement. You may temporarily increase the printing quality by redistributing the toner (See "Redistributing toner" on page53).
	On	<ul style="list-style-type: none"> A toner cartridge has almost reached its estimated cartridge life^a. It is recommended to replace the toner cartridge (See "Replacing the toner cartridge" on page68). A paper jam has occurred (See "Clearing paper jams" on page56). The cover is opened. Close the cover. There is no paper in the tray. Load paper in the tray. The machine has stopped due to a major error. Check the display message (See "Understanding display messages" on page59).

a. Estimated cartridge life means the expected or estimated toner cartridge life, which indicates the average capacity of print-outs and is designed pursuant to ISO/IEC 19752. The number of pages may be affected by operating environment, printing interval, media type, and media size. Some amount of toner may remain in the cartridge even when **End of life Replace new cart** appears and the printer stops printing



Muratec does not recommend using non-genuine Muratec toner cartridges such as refilled or remanufactured. Muratec cannot guarantee non-genuine Muratec toner cartridge's quality. Service or repair required as a result of using non-genuine Muratec toner cartridges will not be covered under the machine warranty.



Check the message on the display. Follow the instructions in the message or refer to troubleshooting part (See "Understanding display messages" on page59). If the problem persists, call for service.

Power LED

The power LED indicates the machine's on or off.

STATUS	DESCRIPTION
Off	The machine is turned off.
On	<ul style="list-style-type: none"> The machine is in ready mode. The machine is in power on.

Introducing the useful button

Menu button

When you want to know the machine status and set your machine to use an advanced feature, click **Menu** button (See "Machine status and advanced feature" on page42).

Turning on the machine

1. Plug in the power cord.
2. Press (power) on the control panel.



If you want to turn the power off, press this button.

Basic setup

You may want to set the machine's default settings. Refer to the next section if you would like to set or change values. This chapter gives you step-by-step instructions for setting up the machine.

This chapter includes:

- Setting up the hardware
- Changing the display language
- Setting the date and time
- Changing the clock mode
- Setting sounds
- Entering characters using the number keypad
- Using the save modes
- Setting the paper

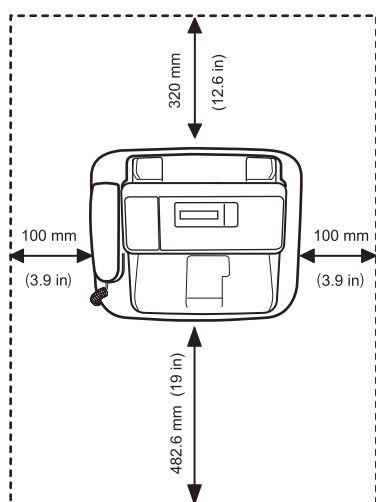
Setting up the hardware

This section shows the steps to set up the hardware, as is explained in the Quick Install Guide. Make sure you read the Quick Install Guide first and follow the steps below:

1. Select a stable location.

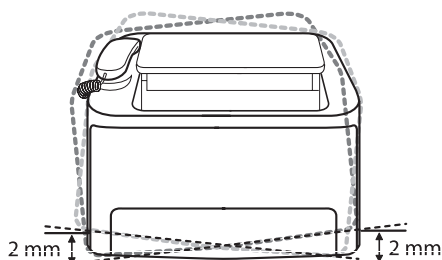
Select a level, stable place with adequate space for air circulation. Allow extra space to open covers and trays.

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.

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 all the tapes.
4. Install the toner cartridge.
5. Attach the document output tray.
6. Load paper (See "Loading paper in the tray" on page 29).
7. Make sure that all cables are connected to the machine.

8. Turn the machine on.



This equipment will be inoperable when mains power fails.

Changing the display language

To change the language that appears on the display, follow the steps below:

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

Setting the date and time

When you set the time and date, they are used in delay fax and delay print. They are printed on reports. If, however, they are not correct, you need to change it for the correct time being.



If the machine's power is cut off, you need to reset the correct time and date once the power has been restored.

1. Press **Menu** until **Machine Setup** appears.
2. Press the left/right arrow until **Date & Time** appears and press **OK**.
3. Enter the correct time and date using left/right arrow or numeric keypad.
Month = 01 to 12,
Day = 01 to 31,
Year = requires four digits,
Hour = 01 to 12,
Minute = 00 to 59,
and you can also select AM or PM.
4. Press **OK** to save the selection.
5. 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 **Machine Setup** appears.
2. Press the left/right arrow until **Clock Mode** appears and press **OK**.
3. Press the left/right arrow to select the other mode and press **OK**.
4. 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**. You can adjust the volume level using the handset.
- This feature is supported only in North America.
- **Ringer:** Adjusts the ringer volume. For the ringer volume, you can select **Off**, **Low**, **Med**, and **High**.

Speaker, ringer, key sound, and alarm sound

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

Speaker volume

To adjust the volume using **On Hook Dial**:

1. Press  (Fax) on the control panel.
2. Press **On Hook Dial**. A dial tone sounds from the speaker.
3. Press the left/right arrow until you hear the volume you want.
4. Press **On Hook Dial** to save the change and return to ready mode.

To adjust the volume using the handset:

1. Pick up the handset. A dial tone sounds from the earpiece.
2. Press the left/right arrow until you hear the volume you want.
3. Press **OK** to save the change and replace the handset.



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 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 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 left/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 1 twice.

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 2
3	D E F 3
4	G H I 4
5	J K L 5
6	M N O 6
7	P Q R S 7
8	T U V 8
9	W X Y Z 9
0	& + - , 0
*	*
#	#

Correcting numbers or names

If you make a mistake while entering a number or name, press the left/right 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 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

Using toner saving feature

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

1. Press **Menu** until **Machine Setup** appears.
2. Press the left/right arrow until **Toner Save** appears and press **OK**.
3. Press the left/right arrow until **On** appears and press **OK**.
4. Press **Stop/Clear** to return to ready mode.



When PC-printing, you can also turn on or off toner save mode in the printer properties.

Using power saving feature

When you are not using the machine for a while, use this feature to save power.

1. Press **Menu** until **Machine Setup** appears.
2. Press the left/right arrow until **Power Save** appears and press **OK**.
3. Press the left/right arrow to select the time you want.
4. Press **OK** to save the selection.
5. Press **Stop/Clear** to return to ready mode.

Setting the paper

You can select the paper you would like to keep using for printing job.

Setting the paper size

1. Press **Menu** until **Paper Setting** appears.
2. Press the left/right arrow until **Paper Size** appears and press **OK**.
3. Press **OK**.
4. Press the left/right arrow to select the paper size you want.
5. Press **OK** to save the selection.
6. Press **Stop/Clear** to return to ready mode.

Setting the paper type

1. Press **Menu** until **Paper Setting** appears.
2. Press the left/right arrow until **Paper Type** appears and press **OK**.
3. Press the left/right arrow to select the paper type you want.
4. Press **OK** to save the selection.
5. Press **Stop/Clear** to return to ready mode.

Media and tray

This chapter provides information on how to load originals and print media into your machine.

This chapter includes:

- Preparing originals
- Loading originals
- Selecting print media
- Changing the tray size
- Loading paper in the tray
- Setting the paper size and type
- Using the output support

Preparing originals

- Do not load paper smaller than 148 x 148 mm (5.8 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, in order to prevent paper jam, low print quality and machine damage.
 - 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 with other unusual characteristics.

Loading originals

You can use the automatic document feeder to load an original for copying and sending a fax.

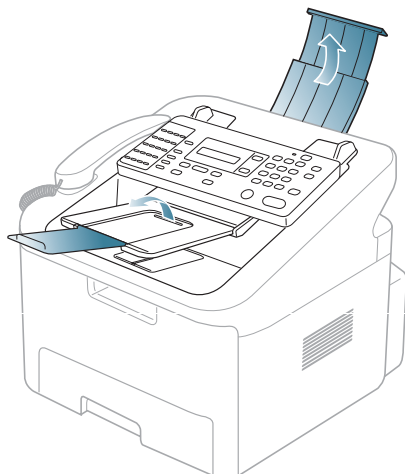
In the document feeder

Using the document feeder, you can load up to 30 sheets of paper (75 g/m², 20 lb bond) for one job.

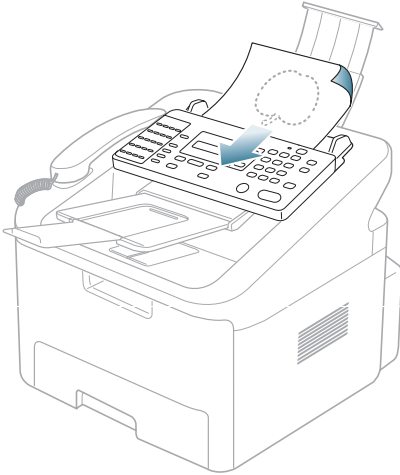
1. Flex or fan the edge of the paper stack to separate the pages before loading originals.



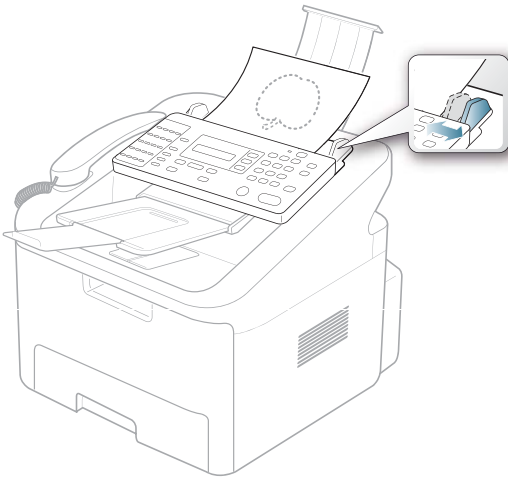
2. Pull the document input tray or document output tray all the way out. Fold out the extender, if necessary.



3. Load the original face down into the document feeder. Make sure that the bottom of the original stack matches the paper size marked on the document input tray.



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



Selecting print media

Always use print media that meet the guidelines for use with your machine.

Guidelines to select the print media

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 in print media specifications (See "Print media specifications" on page 71).
- 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 cannot be controlled.
- 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 the warranty or service agreements.

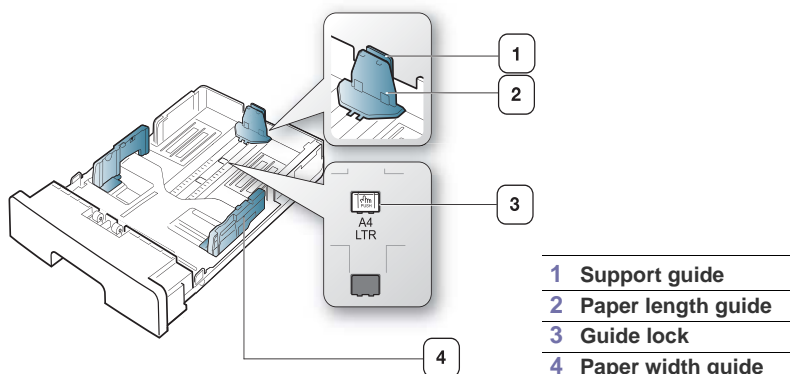
The amount of paper put into the tray may differ according to media type used (See "Print media specifications" on page 71).

Media sizes supported in each mode

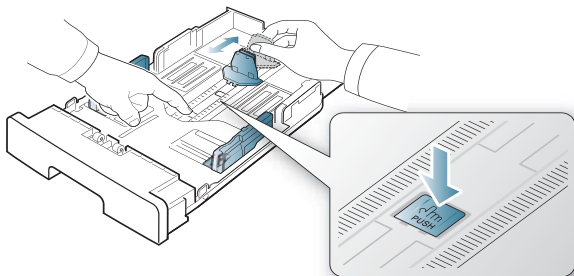
MODE	SIZE	SOURCE
Copy mode	Letter, A4, Legal, Folio, Executive, JIS B5, A5	tray 1
Fax mode	Letter, A4, Legal	tray 1

Changing the tray size

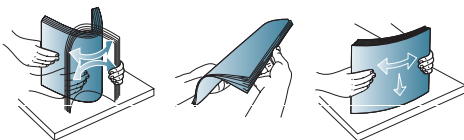
The tray is preset to Letter or A4 size, depending on your country. To change the size, you need to adjust the paper guides.



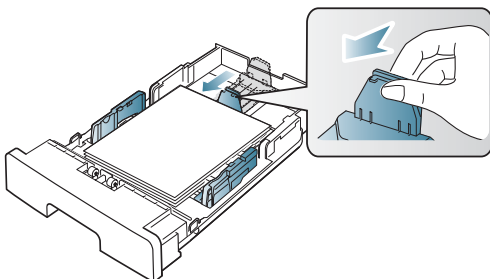
1. With one hand press and hold the guide lock, and with the other hand, hold the paper length guide and support guide together. Slide the paper length guide and support guide to locate them in the correct paper size slot.



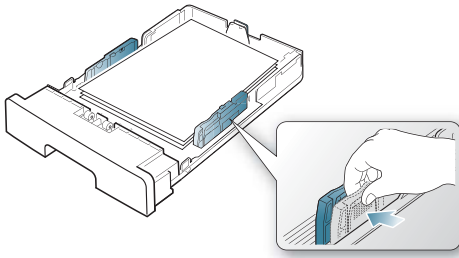
2. Flex or fan the edge of the paper stack to separate the pages before loading papers. Insert the paper into the tray.



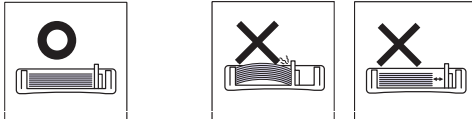
3. After inserting paper into the tray, adjust the support guide so that it lightly touches the paper stack.



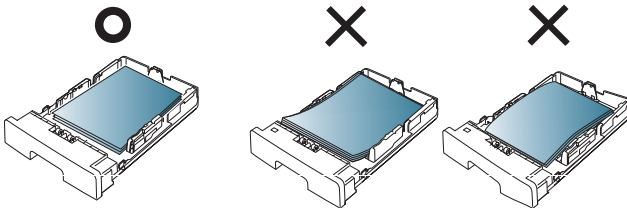
4. Squeeze the paper width guides and slide them to the desired paper size marked at the bottom of the tray.



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



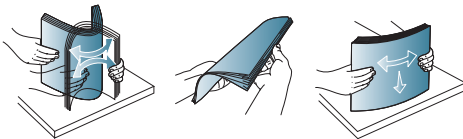
- Do not use a paper with more than 6 mm curl.



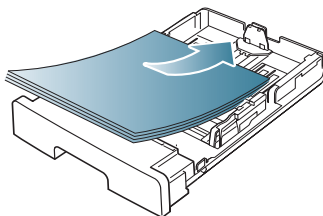
Loading paper in the tray

Tray 1

1. Pull out the paper tray. And adjust the tray size to the media size you are loading (See "Changing the tray size" on page28).
2. Flex or fan the edge of the paper stack to separate the pages before loading paper.



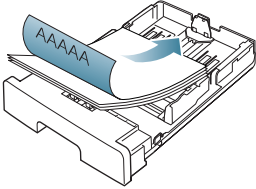
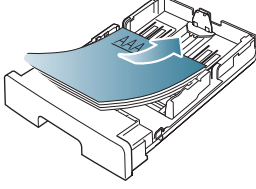
3. And place paper with the side you want to print facing down.



4. Set the paper type and size for the tray 1 (See "Setting the paper" on page25).

- If you experience problems with paper feeding, check whether the paper meets the media specification (See "Print media specifications" on page71).

Letterhead/ Preprinted paper

	SINGLE-SIDED	DOUBLE-SIDED
Tray1	Face down 	Face up 

- Letterhead/ Preprinted paper must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the machine's fusing temperature for 0.1 second. Check your machine's specification to view the fusing temperature (about 170°C (338 °F)).
- Letterhead/ Preprinted paper ink must be non-flammable and should not adversely affect machine rollers.
- Forms and letterhead should be sealed in a moisture-proof wrapping to prevent changes during storage.
- Before you load letterhead/preprinted paper, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper, reducing print quality.

Setting the paper size and type

After loading paper in the paper tray, set the paper size and type using the control panel. These settings will apply to copy and fax modes.

Setting the paper size

1. Press **Menu** until **Paper Setting** appears.
2. Press the left/right arrow until **Paper Size** appears and press **OK**.
3. Press **OK**.
4. Press the left/right arrow to select the paper size you want.
5. Press **OK** to save the selection.
6. Press **Stop/Clear** to return to ready mode.

Setting the paper type

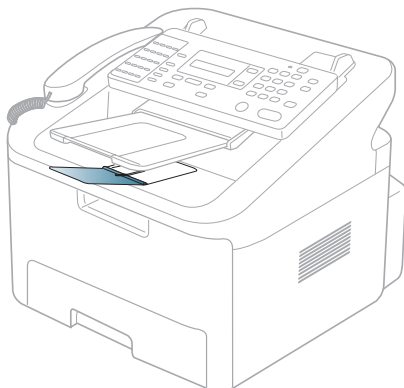
1. Press **Menu** until **Paper Setting** appears.
2. Press the left/right arrow until **Paper Type** appears and press **OK**.
3. Press the left/right arrow to select the paper type you want.
4. Press **OK** to save the selection.
5. Press **Stop/Clear** to return to ready mode.

Using the output support



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.

The printed pages stack on the output support, and the output support will help the printed pages to align. The printer sends output to the output tray by default. To use the output tray, make sure that the rear cover is closed.



If you are using A5 paper, fold the output tray. Otherwise, printed pages might be mis-aligned or jammed.

Copying


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

This chapter includes:

- Basic copy
- Changing the settings for each copy
- Changing the default copy settings
- Setting copy timeout

Basic copy

This is the normal and usual procedure for copying your originals.

1. Press  (Copy) on the control panel.
2. Load originals face down into the document feeder (See "In the document feeder" on page26).
3. If necessary, adjust the settings for each copy such as **Reduce/Enlarge**, **Darkness**, **Original Type** and more (See "Changing the settings for each copy" on page31).
4. Enter the number of copies using the arrow or number keypad, if necessary.
5. Press **Start** on the control panel to begin copying.



To cancel the current copy job, press **Stop/Clear** on the control panel.

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 return to their default status after the machine completes the copy in progress.


Changing the darkness

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

1. Press  (Copy) on the control panel.
2. Press **Menu** until **Copy Setup** appears.
3. Press the left/right arrow until **Darkness** appears and press **OK**.
4. Press the left/right arrow until the contrast mode 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.

Selecting the type of originals


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

1. Press  (Copy) on the control panel.
2. Press **Menu** until **Copy Setup** appears.
3. Press the left/right arrow until **Original Type** appears and press **OK**.
4. Press the left/right arrow until the image mode you want appears and press **OK**.
 - **Text**: Use for originals containing mostly text.
 - **Text/Photo**: Use for originals with mixed text and photographs.
 - **Photo**: Use when the originals are photographs.
5. Press **Stop/Clear** to return to ready mode.

Reducing or enlarging copies


You can reduce or enlarge the size of a copied image from 50% to 200% from the document feeder.

To select from the predefined copy sizes:

1. Press  (Copy) on the control panel.
2. Press **Menu** until **Copy Setup** appears.
3. Press the left/right arrow until **Default-Change** appears and press **OK**.
4. Press the left/right arrow until **Reduce/Enlarge** appears and press **OK**.

5. Press the left/right arrow until the size setting you want appears and press **OK**.
6. Press **Stop/Clear** to return to ready mode.

To scale the copy by directly entering the scale rate:


1. Press  (Copy) on the control panel.
2. Press **Menu** until **Copy Setup** appears.
3. Press the left/right arrow until **Default-Change** appears and press **OK**.
4. Press the left/right arrow until **Reduce/Enlarge** appears and press **OK**.
5. Press the left/right arrow until **Custom** appears and press **OK**.
6. Press the left/right arrow or numeric keypad to enter the copy size you want. Pressing and holding the left/right arrow allows you to quickly scroll to the number you want.
7. Press **OK** to save the selection.
8. Press **Stop/Clear** to return to ready mode.



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, collation 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) on the control panel.
2. Press **Menu** until **Copy Setup** appears.
3. Press the left/right arrow until **Default-Change** appears and press **OK**.
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.

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.

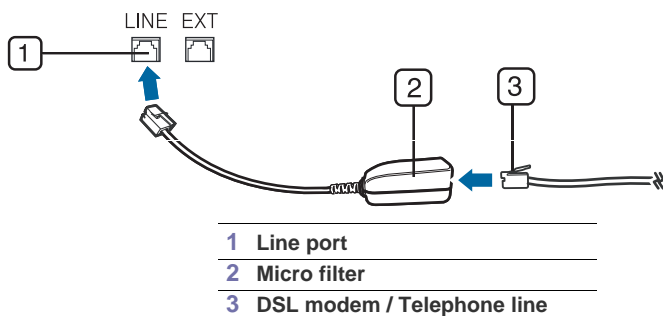
1. Press **Menu** until **Copy Setup** appears.
2. Press the left/right arrow until **Timeout** appears and press **OK**.
3. Press the left/right arrow until the time setting you want appears.
Selecting **Off** means that the machine does not restore the default settings until you press **Start** to begin copying, or **Stop/Clear** to cancel.
4. Press **OK** to save the selection.
5. Press **Stop/Clear** to return to ready mode.

Faxing

This chapter gives you information about using your machine as a fax machine.

This chapter includes:

- Preparing to fax
 - Sending a fax
 - Receiving a fax
 - Adjusting the document settings
 - Forwarding a fax to other destination
 - Setting up address book
 - Printing sent fax report automatically
-  • You cannot use this machine as a fax via the internet phone. For more information ask the internet service provider.
- We recommend you to use traditional analog phone services (PSTN: public switched telephone network) when connecting telephone lines to use Fax. If you use other Internet services (DSL, ISDN, VoIP), you can improve the connection quality by using the Micro-filter. The Micro-filter eliminates unnecessary noise signals and improves connection quality or Internet quality. Since the DSL Micro-filter is not provided with the machine, contact your Internet Service provider for use on DSL Micro-filter.



Preparing to fax

Before you send or receive a fax, you need to connect the supplied line cord to the wall jack. Refer to the Quick Install Guide how to make a connection. The method of making a telephone connection is varies from one country to another.

Sending a fax


This part explains how to send a fax and the special methods of transmission.

Setting the fax header

In some countries, you are required by law to indicate your fax number on any fax you send.

1. Press **Menu** until **Machine Setup** appears.
2. Press the left/right arrow until **Machine ID** appears and press **OK**.
3. Press the left/right arrow until **Fax:** appears and press **OK**.
4. Enter your fax number using the number keypad and press **OK**.
5. Press the left/right arrow until **ID:** appears and press **OK**.
6. 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 1 button. For details on how to enter alphanumeric characters, see "Entering characters using the number keypad" on page24.
7. Press **OK** to save the ID.
8. Press **Stop/Clear** to return to ready mode.

Sending a fax

1. Press  (Fax) on the control panel.
2. Load originals face down into the document feeder (See "In the document feeder" on page26).
3. Adjust the resolution and the darkness to suit your fax needs (See "Adjusting the document settings" on page38).
4. Enter the receiving fax machine's number.
You can use speed dial numbers, or group dial numbers. For details about storing and searching for a number, see "Setting up address book" on page39.


5. Press **Start** on the control panel. The machine starts to scan and send a fax to destinations.



When you want to cancel a fax job, press **Stop/Clear** before the machine start transmission.

Sending a fax manually

This method is sending a fax using **On Hook Dial** on the control panel.

1. Press  (Fax) on the control panel.
2. Load originals face down into the document feeder.
3. Adjust the resolution and the darkness to suit your fax needs (See "Adjusting the document settings" on page38).
4. Press **On Hook Dial** on the control panel or lift the handset.
5. Enter a fax number using the number keypad on the control panel.
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 "Understanding display messages" on page59. 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 "Printing sent fax report automatically" on page41.

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 "Changing the fax setup options" on page42).


Redialing the last number

To redial the number you called last:

1. Press **Redial/Pause** on the control panel.
2. When an original is loaded in the document feeder, the machine automatically begins to send.

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) on the control panel.
2. Load originals face down into the document feeder.
3. Adjust the resolution and the darkness to suit your fax needs (See "Adjusting the document settings" on page38).
4. Press **Multi Send** on the control panel.
5. Enter the number of the first receiving fax machine and press **OK**.
You can press speed dial numbers or select group dial number using **Address book** button. For details, see "Setting up address book" on page39.
6. Enter the second fax number and press **OK**.
The display asks you to enter another fax number to send the document.
7. To enter more fax numbers, press **OK** when **Yes** appears and repeat steps 5 and 6. You can add up to 10 destinations.
8. Press **OK** to start storing the scanned original data into memory.




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 machine begins sending the fax to the numbers you entered in the order in which you entered them.

Delaying a fax transmission

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) on the control panel.
2. Load originals face down into the document feeder.
3. Adjust the resolution and the darkness to suit your fax needs (See "Adjusting the document settings" on page38).
4. Press **Delay Send** on the control panel.
5. Enter the number of the receiving fax machine and press **OK**.

You can press speed dial numbers or select group dial number using **Address book** button. For details, see "Setting up address book" on page39.

6. The display asks you to enter another fax number to send the document.
7. To enter more fax numbers, press **OK** when **Yes** appears and repeat steps 5. You can add up to 10 destinations.
-  Once you entered a group dial number, you cannot enter another group dial numbers anymore.
8. When you have finished entering fax numbers, press the left/right arrow to select **No** at the **Another No.?** prompt and press **OK**.
9. Enter the job name you want and press **OK**.
For details on how to enter alphanumeric characters, see "Entering characters using the number keypad" on page24.
If you do not want to assign a name, skip this step.
10. Enter the time using the number keypad and press **OK**.



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 machine returns to ready mode. The display reminds you that you are in ready mode and that a delayed fax is set.

Adding documents to a reserved delay fax job

You can add additional documents to the delayed fax job which is saved in memory.

1. Load the originals to be added and adjust document settings.
2. Press **Menu** until **Fax Feature** appears.
3. Press the left/right arrow until **Add pages** appears and press **OK**.
4. Press the left/right arrow until the fax job you want appears and press **OK**.
When you have finished, select **No** at the **Another Page?** prompt. The machine scans the original into memory.
5. Press **Stop/Clear** to return to ready mode.


Canceling a reserved delay fax job

You can cancel the delayed fax job which is saved in memory.

1. Press **Menu** until **Fax Feature** appears.
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.
5. Press **Stop/Clear** to return to ready mode.


Sending a priority fax

This function is used when a high priority fax need to 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 sending to multiple destinations between stations (example, when the transmission to station A ends, before transmission to station B begins) or between redial attempts.

1. Press  (Fax) on the control panel.
2. Load originals face down into the document feeder.
3. Adjust the resolution and the darkness to suit your fax needs (See "Adjusting the document settings" on page38).
4. Press **Menu** until **Fax Feature** appears.
5. Press the left/right arrow until **Priority Fax** appears and press **OK**.
6. Enter the number of the receiving fax machine and press **OK**.
You can press speed dial numbers or select group dial number using **Address book** button. For details, see "Setting up address book" on page39.
7. Enter the job name you want and press **OK**.
The original is scanned into memory before transmission.
The machine starts to scan and send a fax to destinations.

Sending a fax in toll save time

You can set the machine to send a fax in toll save time to save a telephone fee. If you send a fax after setting this feature, fax data will be stored in machine's memory and the machine will start to send fax in toll save time.



1. Press  (Fax) on the control panel.
2. Load originals face down into the document feeder.
3. Adjust the resolution and the darkness to suit your fax needs (See "Adjusting the document settings" on page38).
4. Press **Menu** until **Advanced Fax** appears.
5. Press the left/right arrow until **Toll Save** appears and press **OK**.
6. Press the left/right arrow until **On** appears and press **OK**.
7. Enter the start time and press **OK**.
8. Enter the end time and press **OK**.
9. Press **Stop/Clear** to return to ready mode.

Receiving a fax

This part explains how to receive a fax, and the special receiving methods available.

Changing the receive modes

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. But if you want to change the Fax mode to another mode, follow the steps below:

1. Press  (Fax) on the control panel.
2. Press **Receive Mode** on the control panel.
3. Press the left/right arrow until the fax reception mode you want appears.
 - **Fax**: Answers an incoming fax call and immediately goes into the fax reception mode.
 - **Tel**: Receives a fax by pressing **On Hook Dial** and then **Start**. You can receive a fax by picking up the handset.
 - **Ans/Fax**: Is for when an answering machine attached to your machine. 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.
 - **DRPD**: 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 "Receiving faxes using DRPD mode" on page37.
4. Press **OK** to save your selection.
5. Press **Stop/Clear** to return to ready mode.
 -  • 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 "Receiving in secure receiving mode" on page37.


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. If your machine has a handset, you can answer calls using the handset. To change the number of rings, see "Changing the fax setup options" on page42.

Receiving automatically in Answering Machine/Fax mode

To use this mode, you must attach an answering machine to the EXT socket on the back of your machine (See "Rear view" on page 19).

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 this 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 when the answering machine is connected to your machine, you must switch off the answering machine. otherwise, the outgoing message from the answering machine will interrupt your phone conversation.

Receiving faxes 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 "Changing the fax setup options" on page42



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) on the control panel.
 2. Press **Menu** until **Fax Setup** appears.
 3. Press the left/right arrow until **DRPD Mode** appears and press **OK**.
Waiting Ring appears on the display.
 4. Call your fax number from another telephone. It is not necessary to place the call from a fax machine.
 5. 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 **End DRPD [Setup]**. If the DRPD setup fails, **DRPD Ring Error** appears.
Press OK when DRPD appears and start over from step 3.
-  • 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) on the control panel.
2. Press **Menu** until **Advanced Fax** appears.
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.

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 procedure 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) on the control panel.
2. Press **Resolution** on the control panel.
3. Press the left/right arrow until the option you want appears and press **OK**.
4. Press **Stop/Clear** to return to ready mode.


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.  <ul style="list-style-type: none">• 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	Originals containing shades of gray or photographs.

 The resolution setting is applied to the current fax job.

Darkness

You can select the degree of darkness of the original document.

1. Press  (Fax) on the control panel.
2. Press **Menu** until **Fax Setup** appears.
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**.
5. Press **Stop/Clear** to return to ready mode.


 The darkness setting is applied to the current fax job.

Forwarding a fax to other destination

You can set the machine to forward the received or sent fax to other destination by a fax. If you are out of office but have to receive the fax, this feature may be useful.


Forwarding a sent fax to other destination by a fax

You can set the machine to forward every fax you sent to other destination by faxing.

1. Press  (Fax) on the control panel.
2. Press **Menu** until **Advanced Fax** appears.
3. Press the left/right arrow until **Send Forward** appears and press **OK**.
4. Press the left/right arrow until **On** appears and press **OK**.
5. Enter the number of the fax machine to which faxes are to be sent and press **OK**.
6. Press **Stop/Clear** to return to ready mode.
Subsequent sent faxes will be forwarded to the specified fax machine.

Forwarding a received fax to other destination by a fax

With this feature, you can forward every fax you received to other destination by faxing. When the machine receives a fax, a fax is stored in the memory then, the machine sends it to the destination you have set.

1. Press  (Fax) on the control panel.
2. Press **Menu** until **Advanced Fax** appears.
3. Press the left/right arrow until **RCV Forward** appears and press **OK**.
4. Press the left/right arrow until **On** appears and press **OK**.
5. Enter the number of the fax machine to which faxes are to be sent and press **OK**.
6. Enter the starting time using left/right arrow or numeric keypad and press **OK**.

7. Enter the ending time using left/right arrow or numeric keypad and press **OK**.
8. Press **Stop/Clear** to return to ready mode.
Subsequent received faxes will be forwarded to the specified fax machine.

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**:




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

One-touch Dialing

The 20 one-touch buttons on the control panel lets you store frequently-used fax numbers and dial a number automatically with a touch of a button.


Storing a number for One-touch Dialing

1. Press  (Fax) on the control panel.
2. Press and hold one of the one-touch dial buttons for about 2 seconds.
The display asks you to enter the fax number. "T" signifies that you are assigning a one-touch dial button.
If a number is already stored in the location you chose, the display shows the number to allow you to change it. To start over with another one-touch button, press **Stop/Clear**.
3. Enter the number you want to store using the number keypad and press **OK**.
To insert a pause between numbers, press **Redial/Pause**. A symbol "-" appears on the display.
4. To assign a name to the number, enter the name you want.
If you do not want to assign a name, skip this step.
5. Press **OK** when the name appears correctly or without entering a name.
6. To store more numbers, press a one-touch button and repeat steps 2 through 5.
Or to return to Standby mode, press **Stop/Clear**.


Speed dial numbers

You can store up to 250 frequently-used fax numbers in speed dial numbers.

Registering a speed dial number

1. Press  (Fax) on the control panel.
2. Press **Address Book** on the control panel.
3. Press the left/right arrow until **Stored & Edit** appears and press **OK**.
4. Press the left/right arrow until **Speed Dial** appears and press **OK**.
5. Enter a speed dial number between 0 and 249 and press **OK**.
If an entry is already stored in the number you choose, the display shows the message to allow you to change it.
To start over with another speed dial number, press **Back**.
6. Enter the name you want and press **OK**.
For details on how to enter alphanumeric characters, see "Entering characters using the number keypad" on page 24.
7. Enter the fax number you want and press **OK**.
8. Press **Stop/Clear** to return to ready mode.

Editing speed dial numbers

1. Press  (Fax) on the control panel.
2. Press **Address Book** on the control panel.
3. Press the left/right arrow until **Stored & Edit** appears and press **OK**.
4. Press the left/right arrow until **Speed Dial** appears and press **OK**.
5. Enter the speed dial number you want to edit and press **OK**.
6. Change the name and press **OK**.
7. Change the fax number and press **OK**.
8. Change the name and press **OK**.
9. 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 "Searching Address Book for an entry" on page 40).


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 250 (0 through 249) group dial numbers using the destination's existing speed dial numbers.

Registering a group dial number

1. Press  (Fax) on the control panel.
2. Press **Address Book** on the control panel.
3. Press the left/right arrow until **Stored & Edit** appears and press **OK**.
4. Press the left/right arrow until **Group Dial** appears and press **OK**.
5. Enter a group dial number between 0 and 249 and press **OK**.
If an entry is already stored in the number you choose, the display shows the message to allow you to change it.
6. Enter the name you want and press **OK**.
For details on how to enter alphanumeric characters, see "Entering characters using the number keypad" on page 24.
7. Enter the first few letters of the speed dial's name you want.
8. Press the left/right arrow until the name and number you want appears and press **OK**.
9. Press **OK** when **Yes** appears at the **Another No.?** prompt.
Repeat steps 7 and 8 to include other speed dial numbers into the group.
10. When you have finished, press the left/right arrow to select **No** at the **Another No.?** prompt and press **OK**.
11. Press **Stop/Clear** to return to ready mode.

Editing a group dial number

1. Press  (Fax) on the control panel.
2. Press **Address Book** on the control panel.
3. Press the left/right arrow until **Stored & Edit** appears and press **OK**.
4. Press the left/right arrow until **Group Dial** appears and press **OK**.
5. Enter the group dial number you want to edit and press **OK**.
6. Enter the name you want to edit and press **OK**.
7. Enter the first few letters of the speed dial's name you want to add or delete.
8. Press the left/right arrow until the name and number you want appears 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.
9. Press **OK** to add or delete the number.
10. Press **OK** when **Yes** appears to add or delete more numbers and repeat steps 7 and 8.
11. When you have finished, press the left/right arrow to select **No** at the **Another No.?** and press **OK**.
12. 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. Press  (Fax) on the control panel.
2. Press **Address Book** on the control panel.
3. Press the left/right arrow until **Search & Dial** appears and press **OK**.
4. 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. Press  (Fax) on the control panel.
2. Press **Address Book** on the control panel.
3. Press the left/right arrow until **Search & Dial** appears and press **OK**.
4. Press the button labeled with the letter you want to search. A name beginning with the letter displays.
For example, if you want to find the name "MOBILE," press the **6** button, which is labeled with "MNO."
5. Press the left/right arrow until the name and number you want appears.


Printing Address Book

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

1. Press  (Fax) on the control panel.
2. Press **Address Book** on the control panel.
3. Press the left/right arrow until **Print** appears and press **OK**.
The machine begins printing.

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) on the control panel.
2. Press **Menu** until **Fax Setup** appears.
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.

Machine status and advanced feature

This chapter explains how to browse the current status of your machine, and the method of setting for the advanced machine setup. Read this chapter carefully in order to use your machine's diverse features.

This chapter includes:

- Fax setup
- Copy setup
- Printing a report
- Clearing memory
- Menu overview

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.
3. Press the left/right arrow until the fax setup item you want appears and press **OK**.
4. Press the left/right arrow until the option 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 3 through 5.
7. Press **Stop/Clear** to return to ready mode.

Available fax setup options

OPTION	DESCRIPTION
Ring to Answer	You can specify the number of times the machine rings before answering an incoming call.
Darkness	You can select the default darkness mode to fax your documents lighter or darker. <ul style="list-style-type: none">• Light works well with dark print.• Normal works well with standard typed or printed documents.• Dark works well with light print or faint pencil markings.
Redial Term	Your machine can automatically redial a remote fax machine if it was busy. You can set an interval between attempts.
Redials	You can specify the number of redial attempts. If you enter 0, the machine will not redial.
MSG Confirm	You can set your machine to print a report showing whether the transmission was successful, how many pages were sent, and more. The available options are On , Off and On-Err , which prints only when a transmission is not successful.
Image TCR	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.
Auto Report	You can set the machine to print a report with detailed information about the previous 50 communication operations, including time and dates. The available options are On or Off .
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.
Receive 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.
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 "Receiving faxes using DRPD mode" on page 37.

Using the advanced fax settings

Your machine has various user-selectable setting options for sending or receiving faxes. These options are preset at the factory, but you may need to change them.

1. Press **Fax**.
2. Press **Menu** until **Advanced Fax** appears.
3. Press the left/right arrow until the advanced fax item you want appears and press **OK**.
4. Press the left/right arrow until the option 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 3 through 5.
7. Press **Stop/Clear** to return to ready mode.

Advanced fax setting options

OPTION	DESCRIPTION
Send Forward	You can set the machine to always forward all of the outgoing faxes to a specified destination, in addition to the fax numbers you entered. Select Off to turn this feature off. Select On to turn this feature on. You can set the number of the remote fax machine to which faxes are forwarded.
RCV Forward	You can set your machine to forward incoming faxes to another fax number during a specified period of time. When a fax arrives at your machine, it is stored in the memory. Then, the machine dials the fax number that you have specified and sends the fax. Select Off to turn this feature off. Select On to turn this feature on. You can set the fax number to which faxes are forwarded. Then, you can enter the starting time and/or the ending time. The Local Copy option allows you to set the machine to print the fax, if fax forwarding is completed without any error.
Toll Save	You can set your machine to store your faxes into the memory and send them at the specified toll-saving time. Select Off to turn this feature off. Select On to turn this feature on. You can set the starting time and/or the ending time for Toll Save mode.
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. <ul style="list-style-type: none"> • On: Allows you to set up to 10 fax numbers. • Off: Allows you to delete the desired junk fax number. If you select All Delete, you can delete all junk fax numbers.
Secure Receive	You can keep your received faxes from being accessed by unauthorized people.
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.
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.

OPTION	DESCRIPTION
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.

Copy setup

Changing the copy setup options

For copy output, you can set up several options in advance.

1. Press **Copy** on the control panel.
2. Press **Menu** until **Copy Setup** appears.
3. Press the left/right arrow until **Default-Change** appears and press **OK**.
4. Press the left/right arrow until the copy setup item 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.

Change Default

OPTION	DESCRIPTION
Darkness	Adjusts the brightness level to make a copy that is easier to read, when the original contains faint markings and dark images.
Original Type	Improves the copy quality by selecting the document type for the current copy job.
Reduce/Enlarge	Reduces or enlarges the size of a copied image.
No. of Copies	You can enter the number of copies using the number keypad.

Printing a report

You can print a report on the machine's configuration or font list, etc.

1. Press **Menu** until **Reports** appears.
2. Press the left/right arrow until the report or list you want to print appears and press **OK**.
3. Press **OK** when **Yes** appears to confirm printing.
The selected information prints out.

OPTION	DESCRIPTION
Phone Book	This list shows all of the fax numbers currently stored in the machine's memory.
Sent Report	This report shows information on the faxes you have recently sent. You can set the machine to automatically print this report every 50 communications (See "Available fax setup options" on page42).
Fax RCV Report	This report shows information on the faxes you have recently received.
Configuration	This list shows the status of the user-selectable options. You may print this list to confirm your changes after changing any settings.
Schedule Jobs	This list shows the documents currently stored for delayed faxes along with the starting time and type of each operation.
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. You can set up your machine to automatically print the message confirmation report after each fax job.
JunkFax 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 "Advanced fax setting options" on page43).

Clearing memory

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

1. Press **Menu** until **Maintenance** appears.
2. Press the left/right arrow until **Clear Memory** appears and press **OK**.

3. Press the left/right arrow until the item you want to clear appears and press **OK**.
4. Press **OK** when **Yes** appears to confirm clearing.
5. Repeat steps 3 through 4 to clear another item.
6. Press **Stop/Clear** to return to ready mode.



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

OPTION	DESCRIPTION
Clear All Mem.	Clears all of the data stored in memory and resets all of your settings to the factory default.
Paper setting	Restores all of the Paper Setting options to the factory default.
Copy Setup	Restores all of the copy options to the factory default.
Fax Setup	Restores all of the fax options to the factory default.
Fax Feature	Cancels all of the scheduled fax jobs in the machine's memory.
Advanced Fax	Restores all of the Advanced Fax setting options to the factory default.
Sound/Volume	Resets the sound and volume settings to the factory default.
Machine Setup	Resets all of the system settings, such as the machine ID, date and time, display language and save modes, to the factory default.
Sent Report	Clears all records of sent faxes.
RCV Report	Clears all records of received faxes.
Phone Book	Clears all of the fax numbers stored in memory.

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**.



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

ITEMS	OPTION
Paper Setting	Paper Type Paper Size Tray Paper
Copy Setup	Default-Change Darkness Original Type Reduce/Enlarge No. of Copies Timeout CopyCollated Darkness Original Type
Fax Setup	Ring To Answer Darkness Redial Term Redials MSG Confirm Image TCR Auto Report Auto Reduction Discard Size Receive Code DRPD Mode
Fax Feature	Delay Fax Priority Fax Add Page Cancel Job Delay Rx Poll
Advanced Fax	Send Forward RCV Forward Toll Save Junk Fax Setup Secure Receive Prefix Dial Stamp RCV Name ECM Mode
Reports	Phone Book Sent Report Fax RCV Report Configuration Scheduled Jobs Send Report JunkFax Report
Sound/Volume	Speaker Ringer Key Sound Alarm Sound

ITEMS	OPTION
Machine Setup	Machine ID Date & Time Clock Mode Dial Mode Language Toner Save Power Save Clear Toner
Maintenance	Clean Drum Notify Toner Clear Memory Clear All Mem. Paper setting Copy Setup Fax Setup Fax Feature Advanced Fax Sound/Volume Machine Setup Sent Report RCV Report Phone Book Adjust Shading TonerLow Alert

Maintenance

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

This chapter includes:

- Cleaning a machine
- Storing the Toner cartridge
- Tips for moving & storing your machine

Cleaning a machine

If printing quality problems occur or if you use your machine in a dusty environment, you need to clean your machine regularly to keep the best printing condition and use your machine longer.



- 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 the surrounding area is contaminated with toner, we recommend you use cloth or tissue dampened with water to clean it. If you use a vacuum cleaner, toner blows in the air and might be harmful to you.

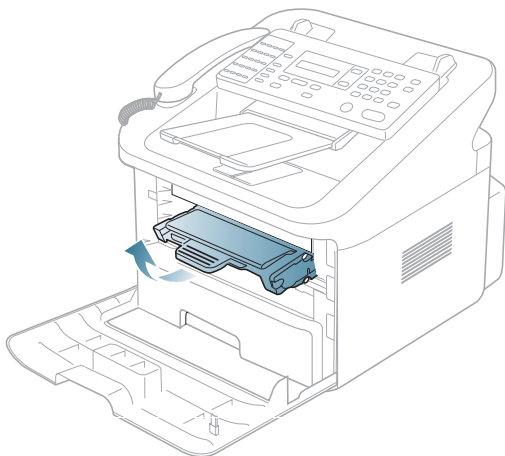
Cleaning the outside

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

Cleaning the inside

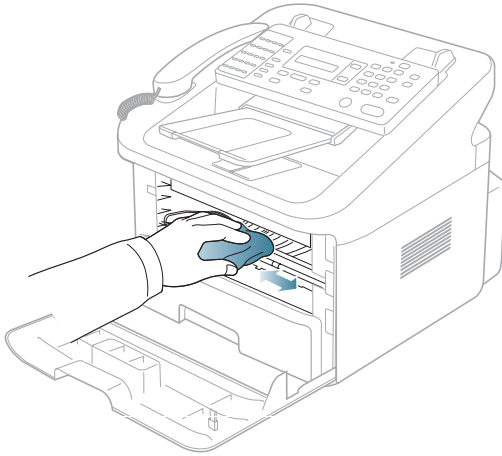
During the printing process, paper, toner, and dust particles can accumulate inside the machine. This buildup can cause print quality problems, such as toner specks or smearing. Cleaning the inside of the machine clears and reduces these problems.

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



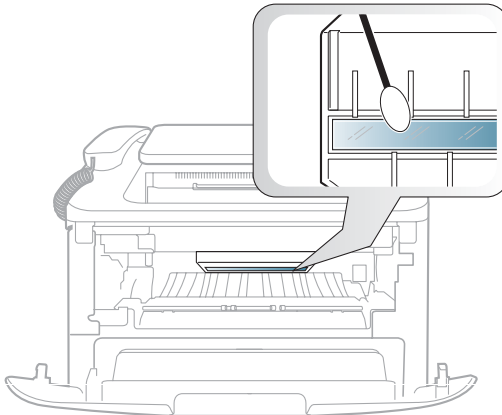
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary.
- Do not touch the green surface underside of the toner cartridge. Use the handle on the cartridge to avoid touching this area.

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



While cleaning the inside of the machine, be careful not to damage the transfer roller or any other inside parts. Do not use solvents such as benzene or thinner to clean. Printing quality problems can occur and cause damage to the machine.

4. Locate the long strip of glass (LSU) inside the machine and gently swab the glass to see if dirt turns the white cotton black.

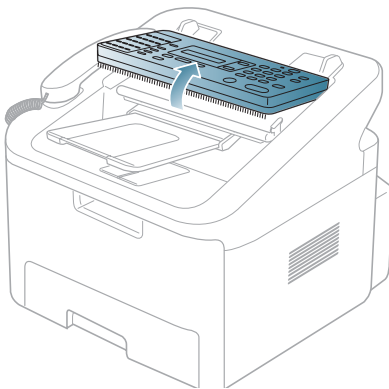


5. Reinsert the toner cartridge and close the front door.
6. Plug in the power cord and turn the machine on.

Cleaning the scan unit

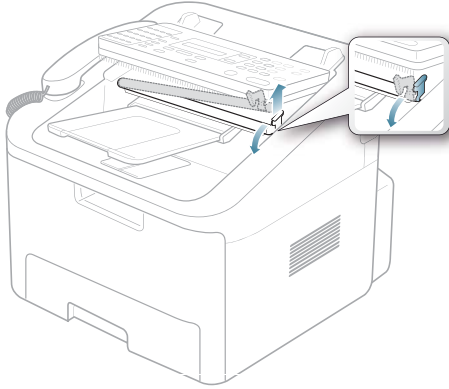
Keeping the scan unit clean helps ensure the best possible copies. We suggest that you clean the scan unit at the start of each day and during the day, as needed

1. Slightly dampen a soft lint-free cloth or paper towel with water.
2. Open the control panel by gripping it on the bottom edge and pulling it upwards.

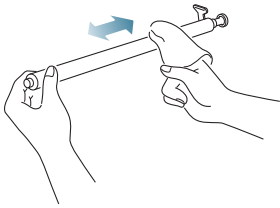


3. Disassemble the white roller as follows

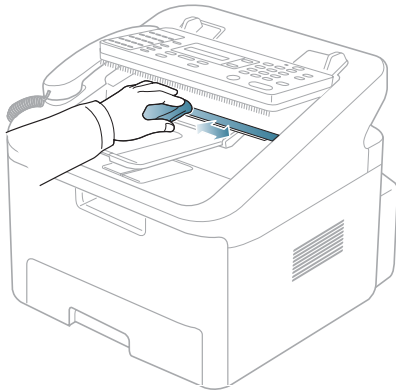
The right end of the white roller has a plastic bush that is snapped shut with small tab on it. Pull the tab inward slightly then lift the tab until the roller is released. Lift the roller upwards and to the right, releasing the left end of the roller, then rotate the bushing until it reach a slot. Then pull the roller upward.



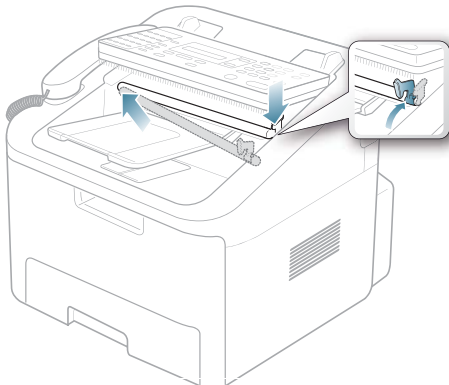
4. Wipe the roller surface with a soft cloth dampened with water.



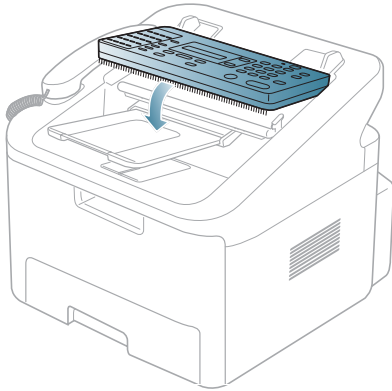
5. Carefully wipe the scanning glass with a soft dry cloth.
If the glass is very dirty, first wipe it with a slightly dampened cloth, and then with a dry cloth. Be very careful not to scratch the glass surface.



6. Replace the roller by inserting the left end first followed by the right end, then rotating the bushing until it locks into place.



7. Reconnect the support and the control panel and then close the control panel firmly until it clicks into place.



Cleaning the drum

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

1. Before setting the cleaning procedure, make sure that paper is loaded in the machine.
2. Press **Menu** until **Maintenance** appears.
3. Press the left/right arrow until **Clean Drum** appears and press **OK**.
4. Press the left/right arrow until **On** appears and press **OK**.
The machine prints a cleaning page. Toner particles on the drum surface are affixed to the paper.
5. If the problem remains, repeat step 1 through 4.

Storing the Toner cartridge

Toner cartridges contain components that are sensitive to light, temperature, and humidity. Muratec suggests users follow the recommendations to ensure the optimum performance, highest quality, and longest life from your new Muratec toner cartridge.

Store this cartridge in the same environment as the printer it will be used in; this should be in controlled office temperature and humidity conditions. The toner cartridge should remain in its original, unopened package until installation – If original packaging is not available, cover the top opening of the cartridge with paper and store in a dark cabinet.

Opening the cartridge package prior to use dramatically shortens its useful shelf and operating life. Do not store on the floor. If the toner cartridge is removed from the printer, always store the cartridge:

- Inside the protective bag from the original package.
- Store lying flat (not standing on end) with the same side facing up as if they were installed in the machine.
- Do not store consumable in;
 - Temperature greater than 40°C (104°F).
 - Humidity range less than 20% nor greater than 80%.
 - An environment with extreme changes in humidity or temperature.
 - Direct sunlight or room light.
 - Dusty places.
 - A car for a long period of time.
 - An environment where corrosive gases are present.
 - An environment with salty air.

Handling instructions

- Do not touch the surface of the photosensitive drum in the cartridge.
- Do not expose the cartridge to unnecessary vibrations or shock.
- Never manually rotate the drum, especially in the reverse direction; this can cause internal damage and toner spillage.

Use of non-Muratec and refilled toner cartridge

Muratec does not recommend or approve the use of non-Muratec brand toner cartridges in your printer including generic, store brand, refilled, or remanufactured toner cartridges.



Muratec's warranty does not cover damage to the machine caused by the use of a refilled, remanufactured, or non-Muratec brand toner cartridge.

Estimated cartridge life

Estimated cartridge life (the life of the toner cartridge yield) depends on the amount of toner that print jobs require. The actual print-out number may vary depending on the print density of the pages you print on, operating environment, printing interval, media type, and/or media size. For example, if you print a lot of graphics, the consumption of the toner is high and you may need to change the cartridge more often.

Tips for moving & storing your machine

- When moving 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.

Troubleshooting

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

This chapter includes:

- Redistributing toner
- Clearing original document jams
- Tips for avoiding paper curls
- Tips for avoiding paper jams
- Clearing paper jams
- Understanding display messages
- Solving other problems

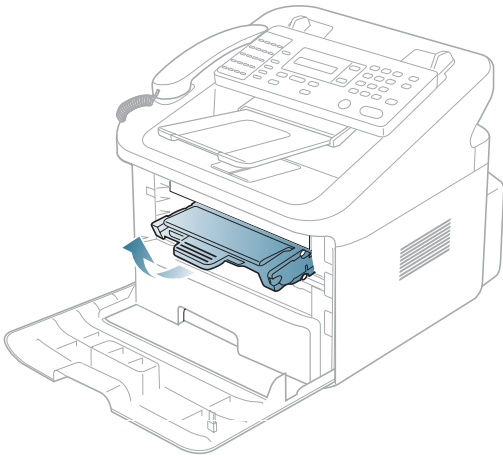
Redistributing toner

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

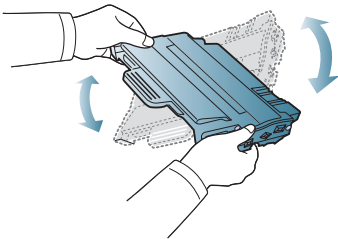
- White streaks or light printing occurs.
- **Prepare new cartridge** appears on the display.
- The **Status** LED blinks red.

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

1. Open the front door.
2. Pull the toner cartridge out.



3. Thoroughly roll the cartridge five or six times to distribute the toner evenly inside the cartridge.



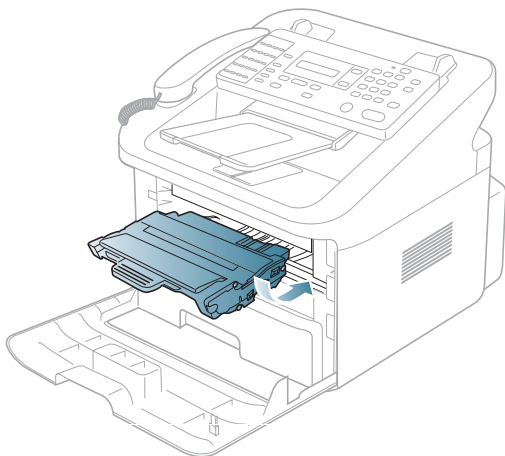
If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.



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

4. Hold the toner cartridge by the handle and slowly insert the cartridge into the opening in the machine. Tabs on the sides of the cartridge and corresponding grooves within the machine will guide the cartridge into the


correct position until it locks into place completely.



5. Close the front door. Ensure that the cover is securely closed.

Clearing original document jams

When an original jams while passing through the document feeder, a warning message appears on the display screen.


 To avoid tearing the document, remove the jammed document slowly and gently.

Input Misfeed

1. Remove any remaining pages from the document feeder.
2. Pull the jammed document gently out of the document feeder.

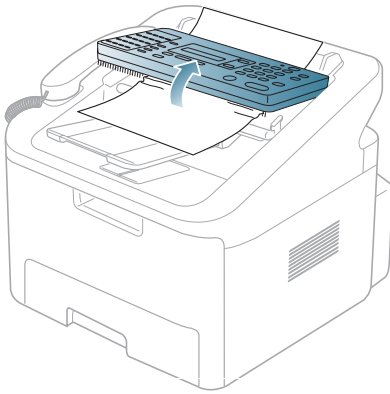


3. Load the documents back into the document feeder.

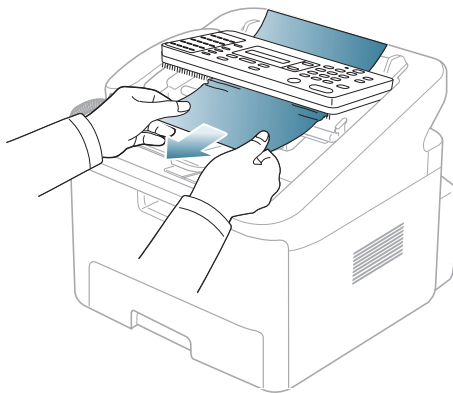
 To prevent document jams, do not use thick, thin or mixed documents.

Exit Misfeed

1. Remove any remaining pages from the document feeder.
2. Open the control panel by gripping it on the bottom edge and pulling it.



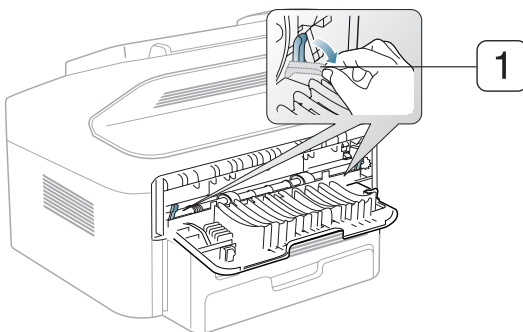
3. Pull the document gently out of the document feeder.




4. Close the control panel. Then load the documents back into the document feeder.

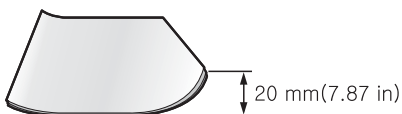
Tips for avoiding paper curls

1. Open the rear door.
2. Pull down the pressure lever on each side.



1 Pressure lever

-  Keep the rear cover opened during printing.
Only use when the printout has more than 20 mm curl.



Tips for avoiding paper jams

By selecting the correct media types, most paper jams can be avoided. When a paper jam occurs, refer to the next guidelines.

- Ensure that the adjustable guides are positioned correctly (See "Loading paper in the tray" on page29).
- 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 page30).
- Ensure that the recommended side of the print media is facing down in the tray.

Clearing paper jams

When a paper jam occurs, a warning message appears on the display.

To resume printing after clearing paper jams, you must open and close the front door.



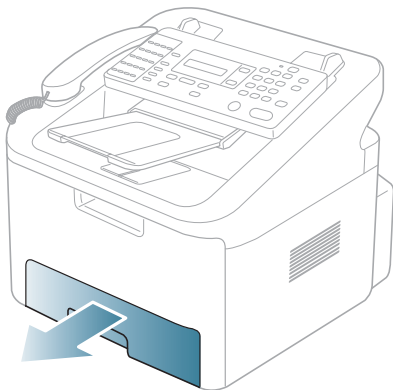
To avoid tearing the paper, pull the jammed paper out slowly and gently. Follow the instructions in the following sections to clear the jam.

In tray 1

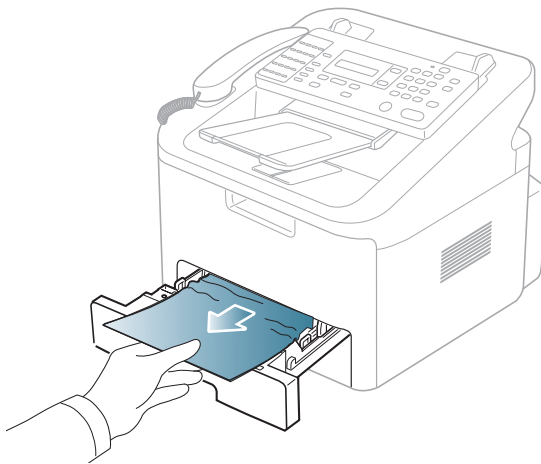


Click this link to open an animation about clearing a jam.

1. Open and close the front door. The jammed paper is automatically ejected from the machine. If the paper does not exit, go to the next step.
2. Pull out tray 1 .



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



If the paper does not move when you pull, or if you do not see the paper in this area, check the fuser area around the toner cartridge (See "Inside the machine" on page57).

4. Insert tray 1 back into the machine until it snaps into place. Printing automatically resumes.

Inside the machine

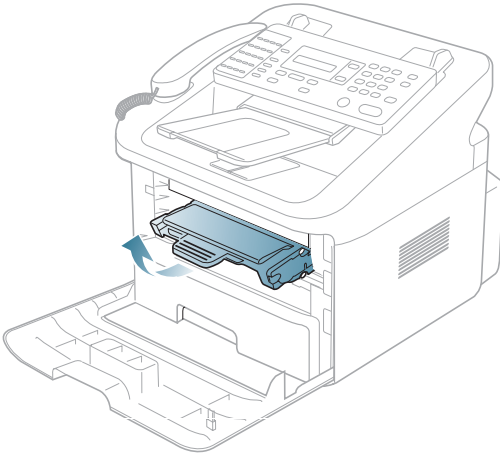


Click this link to open an animation about clearing a jam.

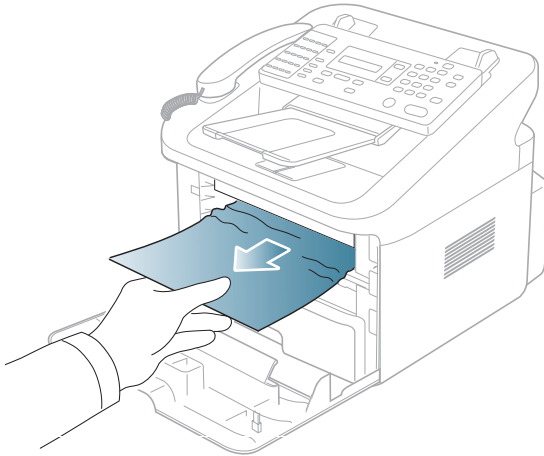


The fuser area is hot. Take care when removing paper from the machine.

1. Open the front door and pull the toner cartridge out, lightly pushing it down.



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



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

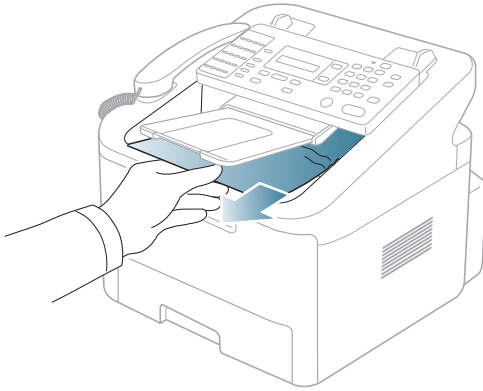
In exit area



Click this link to open an animation about clearing a jam.

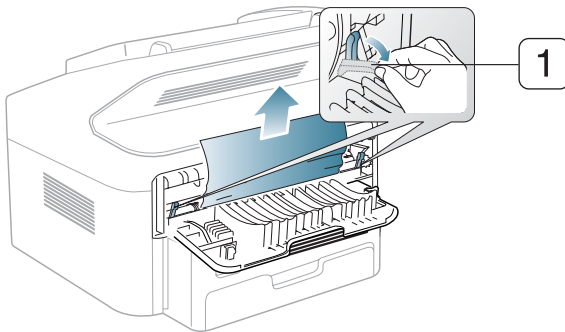
1. Open and close the front door. The jammed paper is automatically ejected from the machine. If you do not see the jammed paper, go to next step.

2. Gently pull the paper out of the output tray.



If you do not see the jammed paper or if there is any resistance when you pull, stop and go to the next step.

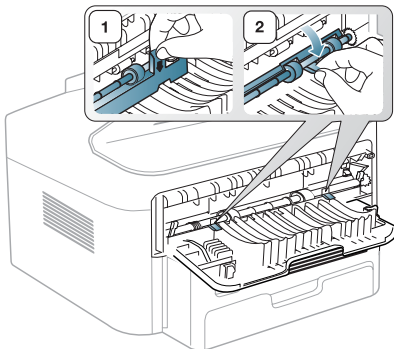
3. Open the rear door.
4. Pull the pressure levers down and remove the paper.



1 Pressure lever

If you do not see the jammed paper, go to next step.

5. Pull the fuser cover levers down and remove the paper. Return the pressure levers to their original position.



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

6. Close the rear door.
7. Open and close front door, 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' and their meaning, and correct the problem, if necessary.

Checking display messages



- If a message is not in the table, restart the machine and try the desired job again. If the problem persists, call for service.
- When you call for service, provide the service representative with the contents of display message.
- Some messages may not appear in the display depending on options or models.

MESSAGE	MEANING	SUGGESTED SOLUTIONS
Cancel ? 1: Yes 2: No	Your machine's memory has become full while documents were being loaded into memory.	To cancel the fax job, press the No 1 button Yes . If you want to send the pages already stored, press the No 2 button No . You should send the remaining pages later when the memory is available.
[Comm. Error]	The machine has a communication problem.	Ask the sender to try again.
Document Jam	The loaded document has jammed in the document feeder.	Clear the document jam (See "Clearing original document jams" on page54).
[Door Open]	The front or rear cover is not securely latched.	Close the cover until it locks into place.
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 broadcasting operation.	Just use a one-touch or speed dial number or dial a number manually using the number keypad
[Incompatible]	The remote machine does not have the requested feature, such as a delayed transmission. It also occurs if the remote machine does not have enough memory space to complete the operation you are attempting.	Reconfirm the remote machine's features
Install Toner	The toner cartridge is installed improperly, or not installed.	Reinstall the toner cartridge two or three times to confirm it is seated properly. If the problem persists, the toner cartridge is not being detected. Contact the service representatives.
Line Busy	The remote person did not answer or the line is already engaged.	Try again after a few minutes.
[Line Error]	Your machine cannot connect with the remote machine or has lost contact because of a problem with the phone line.	Try again. If the problem persists, wait an hour or so for the line to clear and try again. Or, turn the ECM on (See "Advanced fax setting options" on page43).
Load Document	You have attempted to set up a copy or fax operation with no document loaded.	Load a document and try again.
Memory Full	The memory is full.	Delete unnecessary documents, retransmit after more memory becomes available or split the transmission into more than one operation.
[No Answer]	The remote fax machine has not answered after several redial attempts.	Try again. Make sure that the remote machine is operational.
NO. Not Assigned	The one-touch or speed dial location you tried to use has no number assigned to it	Dial the number manually using the number keypad or assign the number. For storing a number (See "Setting up address book" on page39).
[No Paper] Add Paper	The paper tray has run out of paper.	Load paper in the paper tray (See "Loading paper in the tray" on page29).
Not Compatible Toner cartridge	The toner cartridge is not suitable for your machine.	Install the corresponding toner cartridge with a Muratec-genuine cartridge (See "Replacing the toner cartridge" on page68).

MESSAGE	MEANING	SUGGESTED SOLUTIONS
Operation Not Assigned	You are doing in the Add/Cancel operation, but there is no jobs waiting.	Check the display to see if there is any scheduled job. The display should indicate them in standby mode, for example, Delay Fax .
[Paper Jam 0] Open/Close Door	Paper has jammed in the feeding area of the paper tray.	Clear the jam (See "In tray 1" on page56).
[Paper Jam 1] Open/Close Door	Paper has jammed in the paper exit area.	Clear the jam (See "Inside the machine" on page57).
[Paper Jam 2] Check Inside	Paper has jammed in the fuser area.	Clear the jam (See "In exit area" on page57).
Power Failure	Power has turned off then on and the machine's memory has not been saved.	You need to start again the job which you were trying to do before the power failure.
Replace Toner	The toner cartridge has almost reached its estimated cartridge life.	<p>You can choose between Stop or Continue as shown on the control panel. If you select Stop, the printer stops printing and you cannot print any more without changing the cartridge. If you select Continue, the printer keeps printing but the printing quality cannot be guaranteed. Replace the toner cartridge for the best print quality when this message appears. Using a cartridge beyond this stage can result in printing quality issues (See "Replacing the toner cartridge" on page68).</p> <p> Muratec does not recommend using non-genuine Muratec toner cartridges such as refilled or remanufactured. Muratec cannot guarantee non-genuine Muratec toner cartridge's quality. Service or repair required as a result of using non-genuine Muratec toner cartridges will not be covered under the machine warranty.</p>
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.
[Stop Pressed]	The Stop/Clear button is pressed during a copy or fax operation.	Try again.
End of life Replace new cart	<p>The indicated toner cartridge has reached its estimated cartridge life. The printer stops printing.</p> <p> Estimated cartridge life means the expected or estimated toner cartridge life, which indicates the average capacity of print-outs and is designed pursuant to ISO/IEC 19798 (See "Available supplies" on page67). The number of pages may be affected by operating environment, printing interval, media type, and media size. Some amount of toner may remain in the cartridge even when End of life Replace new cart appears and the printer stops printing.</p>	Replace the toner cartridge (See "Replacing the toner cartridge" on page68).
Prepare new cartridge	Small amount of toner is left in the cartridge. The estimated cartridge life of toner is close.	Prepare a new cartridge for replacement. You may temporarily increase the printing quality by redistributing the toner (See "Redistributing toner" on page53).

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 problems

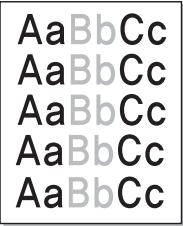
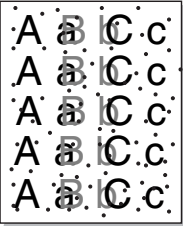
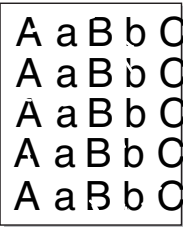

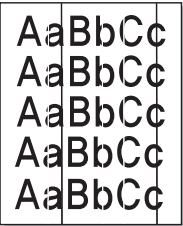
CONDITION	SUGGESTED SOLUTIONS
Paper jams during printing.	Clear the paper jam (See "Clearing paper jams" on page56).
Paper sticks together.	<ul style="list-style-type: none"> • Check the maximum paper capacity of the tray (See "Print media specifications" on page71). • Make sure that you are using the correct type of paper (See "Print media specifications" on page71). • 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.
Paper does not feed into the machine.	<ul style="list-style-type: none"> • 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 "Print media specifications" on page71). • If an original does not feed into the machine, the document feeder rubber pad may require to be replaced. Contact a service representative.
The paper keeps jamming.	<ul style="list-style-type: none"> • There is too much paper in the tray. Remove excess paper from the tray. • An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine (See "Print media specifications" on page71). • There may be debris inside the machine. Open the front door and remove any debris. • If an original does not feed into the machine, the document feeder rubber pad may need to be replaced. Contact a service representative.


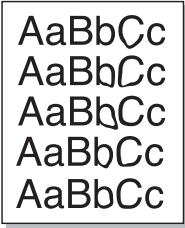
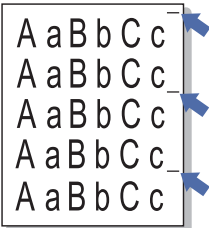
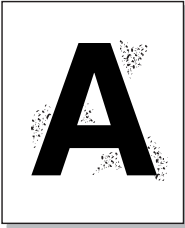
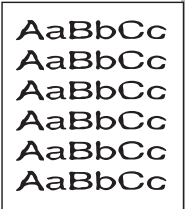
Printing problems

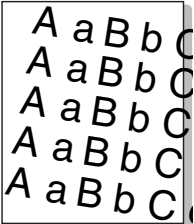
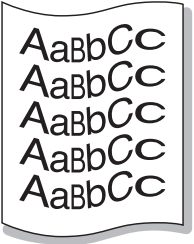
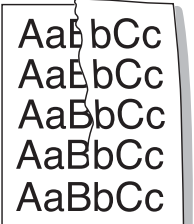
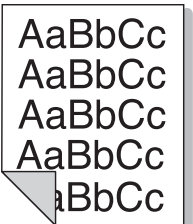

CONDITION	POSSIBLE CAUSE	SUGGESTED SOLUTIONS
The machine does not print.	The machine is not receiving power.	Check the power cord connections.
	Check the machine for the following: <ul style="list-style-type: none"> • The front door is not closed. Close the front door. • Paper is jammed. Clear the paper jam (See "Clearing paper jams" on page56). • No paper is loaded. Load paper (See "Loading paper in the tray" on page29). • The toner cartridge is not installed. Install the toner cartridge. If a system error occurs, contact your service representative.	
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error. Contact a service representative.
Pages print, but they are blank.	The toner cartridge is defective or out of toner.	Redistribute the toner, if necessary. If necessary, replace the toner cartridge.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.

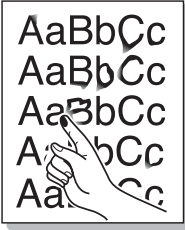
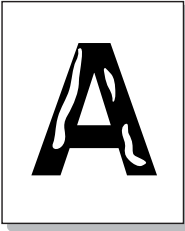
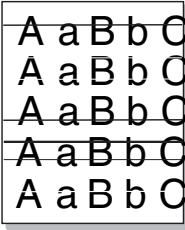
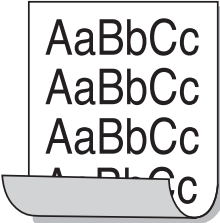
Printing quality problems

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

CONDITION	SUGGESTED SOLUTIONS
<p>Light or faded print</p> 	<ul style="list-style-type: none"> • 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 "Redistributing toner" on page53). If this does not improve the print quality, install a new toner cartridge. • The paper may not meet paper specifications; for example, the paper may be too moist or rough (See "Print media specifications" on page71). • A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning (See "Cleaning the inside" on page48). • The surface of the LSU part inside the machine may be dirty (See "Cleaning the inside" on page48).
<p>Toner specks</p> 	<ul style="list-style-type: none"> • The paper may not meet specifications; for example, the paper may be too moist or rough (See "Print media specifications" on page71). • The transfer roller may be dirty. Clean the inside of your machine. Contact a service representative. • The paper path may need cleaning. Contact a service representative.
<p>Dropouts</p> 	<p>If faded areas, generally rounded, occur randomly on the page:</p> <ul style="list-style-type: none"> • A single sheet of paper may be defective. Try reprinting the job. • The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper (See "Print media specifications" on page71). • The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. • If these steps do not correct the problem, contact a service representative.
<p>White Spots</p> 	<p>If white spots appear on the page:</p> <ul style="list-style-type: none"> • The paper is too rough and a lot of dirt from a paper falls to the inner devices within the machine, so the transfer roller may be dirty. Clean the inside of your machine (See "Cleaning the inside" on page48). • The paper path may need cleaning (See "Cleaning the inside" on page48).
<p>Vertical lines</p> 	<p>If black vertical streaks appear on the page:</p> <ul style="list-style-type: none"> • The surface (drum part) of the toner cartridge inside the machine has probably been scratched. Remove the toner cartridge and install a new one (See "Replacing the toner cartridge" on page68). <p>If white vertical streaks appear on the page:</p> <ul style="list-style-type: none"> • The surface of the LSU part inside the machine may be dirty (See "Cleaning the inside" on page48).

CONDITION	SUGGESTED SOLUTIONS
<p>Black background</p> 	<p>If the amount of background shading becomes unacceptable:</p> <ul style="list-style-type: none"> • Change to a lighter weight paper (See "Print media specifications" on page71). • Check the environmental conditions: very dry conditions or a high level of humidity (higher than 80% RH) can increase the amount of background shading. • Remove the old toner cartridge and, install a new one (See "Replacing the toner cartridge" on page68).
<p>Toner smear</p> 	<p>If toner smears on the page:</p> <ul style="list-style-type: none"> • Clean the inside of the machine (See "Cleaning the inside" on page48). • Check the paper type and quality (See "Print media specifications" on page71). • Remove the toner cartridge and then, install a new one (See "Replacing the toner cartridge" on page68).
<p>Vertical repetitive defects</p> 	<p>If marks repeatedly appear on the printed side of the page at even intervals:</p> <ul style="list-style-type: none"> • The toner cartridge may be damaged. If you still have the same problem, remove the toner cartridge and, install a new one (See "Replacing the toner cartridge" on page68). • 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.
<p>Background scatter</p> 	<p>Background scatter results from bits of toner randomly distributed on the printed page.</p> <ul style="list-style-type: none"> • The paper may be too damp. Try printing with a different batch of paper. Do not open packages of paper until necessary so that the paper does not absorb too much moisture.
<p>Misformed characters</p> 	<ul style="list-style-type: none"> • If characters are improperly formed and producing hollow images, the paper stock may be too slick. Try different paper (See "Print media specifications" on page71).

CONDITION	SUGGESTED SOLUTIONS
<p>Page skew</p> 	<ul style="list-style-type: none"> • Ensure that the paper is loaded properly. • Check the paper type and quality (See "Print media specifications" on page71). • Ensure that the guides are not too tight or too loose against the paper stack.
<p>Curl or wave</p> 	<ul style="list-style-type: none"> • Ensure that the paper is loaded properly. • Check the paper type and quality. Both high temperature and humidity can cause paper curl (See "Print media specifications" on page71). • Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.
<p>Wrinkles or creases</p> 	<ul style="list-style-type: none"> • Ensure that the paper is loaded properly. • Check the paper type and quality (See "Print media specifications" on page71). • Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.
<p>Back of printouts are dirty</p> 	<p>Check for leaking toner. Clean the inside of the machine (See "Cleaning the inside" on page48).</p>
<p>Solid Color or Black pages</p> 	<ul style="list-style-type: none"> • The toner cartridge may not be installed properly. Remove the cartridge and reinsert it. • The toner cartridge may be defective. Remove the toner cartridge and install a new one (See "Replacing the toner cartridge" on page68). • The machine may require repair. Contact a service representative.

CONDITION	SUGGESTED SOLUTIONS
<p>Loose toner</p> 	<ul style="list-style-type: none"> • Clean the inside of the machine (See "Cleaning the inside" on page48). • Check the paper type and quality (See "Print media specifications" on page71). • Remove the toner cartridge and then, install a new one (See "Replacing the toner cartridge" on page68). • If the problem persists, the machine may require repair. Contact a service representative.
<p>Character Voids</p> 	<p>Character voids are white areas within parts of characters that should be solid black:</p> <ul style="list-style-type: none"> • 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 "Print media specifications" on page71).
<p>Horizontal stripes</p> 	<p>If horizontally aligned black streaks or smears appear:</p> <ul style="list-style-type: none"> • The toner cartridge may be installed improperly. Remove the cartridge and reinsert it. • The toner cartridge may be defective. Remove the toner cartridge and install a new one (See "Replacing the toner cartridge" on page68). • If the problem persists, the machine may require repair. Contact a service representative.
<p>Curl</p> 	<p>If the printed paper is curled or paper does not feed into the machine:</p> <ul style="list-style-type: none"> • Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.

Copying problems

CONDITION	SUGGESTED SOLUTION
<p>Copies are too light or too dark</p>	<p>Use Darkness in Copy Setup to lighten or darken the backgrounds of copies (See "Changing the darkness" on page31).</p>
<p>Smears, lines, marks, or spots appear on copies.</p>	<ul style="list-style-type: none"> • If the defects are on the original, use Darkness in Copy Setup to lighten the background of your copies (See "Changing the darkness" on page31).
<p>Copy image is skewed.</p>	<ul style="list-style-type: none"> • Ensure that the original is face down in the document feeder. • Check that the copy paper is loaded correctly.
<p>Blank copies print out.</p>	<p>Ensure that the original is face down in the document feeder.</p>
<p>Image rubs off the copy easily.</p>	<ul style="list-style-type: none"> • Replace the paper in the tray with paper from a new package. • In high humidity areas, do not leave paper in the machine for extended periods of time.

CONDITION	SUGGESTED SOLUTION
Frequent copy paper jams occur.	<ul style="list-style-type: none"> • Fan the stack of paper, then turn it over in the tray. Replace the paper in the tray with a fresh supply. Check/adjust the paper guides, if necessary. • Ensure that the paper is the proper paper weight. • Check for copy paper or pieces of copy paper remaining in the machine after a paper jam has been cleared.
Toner cartridge produces fewer copies than expected before running out of toner.	<ul style="list-style-type: none"> • Your originals may contain pictures, solids, or heavy lines. For example, your originals may be forms, newsletters, books, or other documents that use more toner. • Turn the machine off and back on.

Fax problems

CONDITION	SUGGESTED SOLUTIONS
The machine is not working, there is no display, or the buttons are not working.	<ul style="list-style-type: none"> • Unplug the power cord and plug it in again. • Ensure that there is power being supplied to the electrical outlet.
No dial tone.	<ul style="list-style-type: none"> • Check that the phone line is properly connected. • Check that the phone socket on 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 (See "Setting up address book" on page39).
The original does not feed into the machine.	<ul style="list-style-type: none"> • Make sure that the paper is not wrinkled and you are inserting it in correctly. Check that the original is the right size, not too thick or thin. • Make sure that the document feeder is firmly closed. • The document feeder rubber pad may need to be replaced. Contact a service representative.
Faxes are not received automatically.	<ul style="list-style-type: none"> • 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.	<ul style="list-style-type: none"> • Make sure that the original is loaded in the document feeder. • Check the fax machine you are sending to, to see if it can receive your fax.
The incoming fax has blank spaces or is of poor-quality.	<ul style="list-style-type: none"> • The fax machine sending you the fax may be faulty. • A noisy phone line can cause line errors. • Check your machine by making a copy. • A toner cartridge has reached its estimated cartridge life. Replace the toner cartridge (See "Replacing the toner cartridge" on page68).
Some of the words on an incoming fax are stretched.	The fax machine sending the fax had a temporary document jam.
The machine dials a number, but the 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 solve out the problem.
Faxes do not store in memory.	There may not be enough memory space to store the fax. If the display indicating the memory status shows, delete any faxes you no longer need from the memory, and then try to store the fax again. Call for service.
Blank areas appear at the bottom of each page or on other pages, with a small strip of text at the top	You may have chosen the wrong paper settings in the user option setting. For details about paper settings (See "Setting the paper size and type" on page30).

Supplies and accessories

This chapter provides information on purchasing supplies, accessories and maintenance parts available for your machine.

This chapter includes:

- How to purchase
- Available supplies
- Available maintenance parts
- Replacing the toner cartridge



Available accessories may differ from country to country. Contact your sales representatives to obtain the list of available accessories.

How to purchase

To order Muratec supplies, accessories and maintenance parts, please contact your local Muratec dealer.

Available supplies

When supplies reach their lifespan, you can order the following types of supplies for your machine:

TYPE	AVERAGE YIELD ^a	PART NAME
Standard yield	Approx. 2,500 pages	• DKT116

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

To replace a toner cartridge see "Replacing the toner cartridge" on page68.



Depending on the options and job mode used, the toner cartridge's lifespan may differ.



You must purchase supplies, including toner cartridges, in the same country where you purchased your machine. Otherwise, supplies will be incompatible with your machine since the system configuration of these vary from country to country.



Available 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 parts will need to be replaced after printing the specified number of pages or when the life span of each item has expired.

PARTS	AVERAGE YIELD ^a	PART NAME
Document feeder rubber pad	Approx. 10,000 pages	
White roller	Approx. 50,000 pages	
Fuser unit	Approx. 50,000 pages	
Pickup roller	Approx. 50,000 pages	
Cassette pad unit	Approx. 50,000 pages	

a. It will be affected by media type, media size and job complexity.

To purchase maintenance parts, contact your local Muratec dealer.

Replacing maintenance parts can be performed only by an authorized Muratec dealer.

The warranty does not cover the replacement of any maintenance parts after their lifespan.

Replacing the toner cartridge



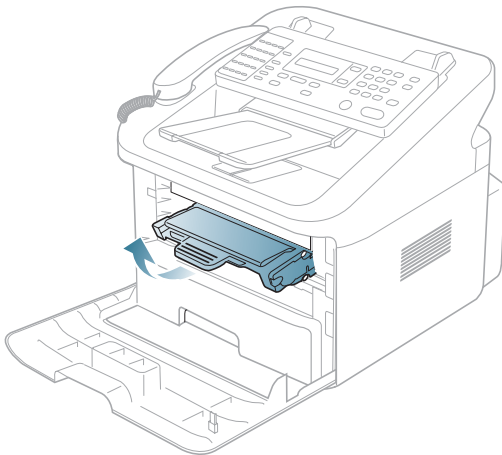
Click this link to open an animation about replacing a toner cartridge.

When a toner cartridge has reached its estimated cartridge life:

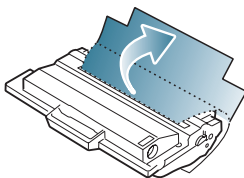
- **End of life Replace new cart** appears on the display.
- The machine stops printing. Incoming faxes are saved in memory.

At this stage, the toner cartridge needs to be replaced. Check the type of the toner cartridge for your machine (See "Available supplies" on page 67).

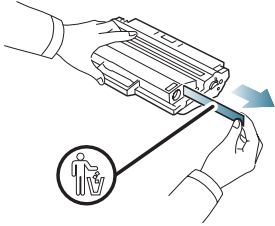
1. Open the front door.
2. Pull the toner cartridge out.



3. Remove the new toner cartridge out of its package.
4. Remove the paper protecting the toner cartridge by pulling the packing tape.

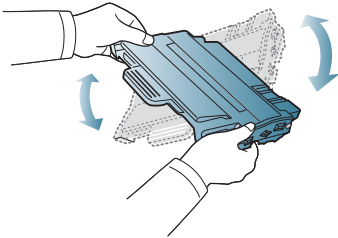


5. Locate the sealing tape at the end of the toner cartridge. Carefully pull the tape completely out of the cartridge and discard it.



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

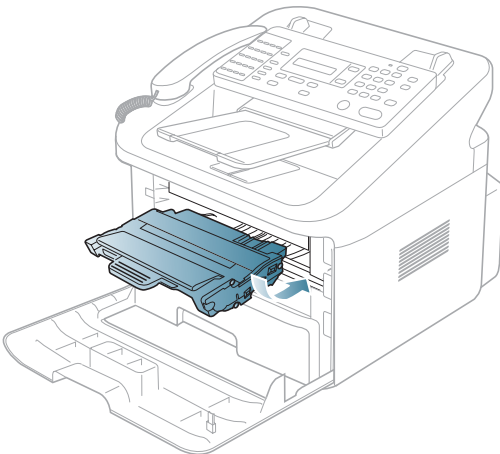
6. Slowly shake the cartridge five or six times to distribute the toner evenly inside the cartridge. It will assure maximum copies per cartridge.



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

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

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



8. Close the front door. Make sure that the cover is securely closed.

Specifications

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

This chapter include:

- Hardware specifications
- Environmental specifications
- Electrical specifications
- Print media specifications



The specification values here are based on preliminary data.

Hardware specifications

	ITEM	DESCRIPTION
Dimension	Height	293.7 mm (11.5 inches)
	Depth	391.2 mm (15.4 inches)
	Width	360 mm (14.1 inches)
Weight	Machine with consumables	8.9 Kg (19.62 lbs)
Package weight	Paper	1.5 Kg (3.36 lbs)
	Plastic	0.4 Kg (0.91 lbs)

Environmental specifications

	ITEM	DESCRIPTION
Noise Level^a	Ready mode	26 dB(A)
	Printing mode	50 dB(A)
Temperature	Operation	10 to 32 °C (50 to 90 °F)
	Storage	-20 to 40°C (-4 to 104°F)
Humidity	Operation	10 to 80% RH
	Storage	10 to 95% RH

a. Sound Pressure Level, ISO 7779. Configuration tested: machine basic installation, A4 paper, simplex printing.

Electrical specifications



Power requirements are based on the country/region where the device is sold. Do not convert operating voltages. Doing so might damage the device and void the product warranty.

	ITEM	DESCRIPTION
Power rating^a	110 volt models	AC 110 - 127 V
	220 volt models	AC 220 - 240 V
Power consumption	Average operating mode	Less than 380 W
	Ready mode	Less than 65 W
	Power save mode	Less than 8 W
	Power off mode	Less than 1 W under

a. See the rating label on the machine for the correct voltage, frequency (hertz) and type of current for your machine.

Print media specifications

TYPE	SIZE	DIMENSIONS	PRINT MEDIA WEIGHT ^a / CAPACITY ^b
			TRAY1
Plain paper	Letter	216 x 279 mm (8.50 x 11.00 inches)	60 to 120 g/m ² (16 to 32 lb bond) • 250 sheets of 80 g/m ² (20 lb bond)
	Legal	216 x 356 mm (8.50 x 14.00 inches)	
	US Folio	216 x 330 mm (8.50 x 13.00 inches)	
	A4	210 x 297 mm (8.27 x 11.69 inches)	
	Oficio	216 x 343 mm (8.50 x 13.50 inches)	
	JIS B5	182 x 257 mm (7.17 x 10.12 inches)	60 to 90 g/m ² (16 to 24 lb bond) • 150 sheets of 80 g/m ² (20 lb bond)
	ISO B5	176 x 250 mm (6.93 x 9.84 inches)	
	Executive	184 x 267 mm (7.25 x 10.50 inches)	
	A5	148 x 210 mm (5.83 x 8.27 inches)	
	A6	105 x 148 mm (4.13 x 5.83 inches)	
Thick paper	Refer to the Plain paper section	Refer to the Plain paper section	90 g/m ² (24 lb bond)
Thin paper	Refer to the Plain paper section	Refer to the Plain paper section	60 to 70 g/m ² (16 to 19 lb bond)
Minimum size (custom)		76 x 127 mm (3.00 x 5.00 inches)	60 to 163 g/m ² (16 to 43 lb bond)
Maximum size (custom)		216 x 356 mm (8.50 x 14.02 inches)	

a. If media weight is over 120 g/m² (32 lb), load a paper into the tray one by one.

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

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.

802.11

802.11 is a set of standards for wireless local area network (WLAN) communication, developed by the IEEE LAN/MAN Standards Committee (IEEE 802).

802.11b/g

802.11b/g can share same hardware and use the 2.4 GHz band. 802.11b supports bandwidth up to 11 Mbps; 802.11g up to 54 Mbps. 802.11b/g devices may occasionally suffer interference from microwave ovens, cordless telephones, and Bluetooth devices.

Access point

Access Point or Wireless Access Point (AP or WAP) is a device that connects wireless communication devices together on wireless local area networks (WLAN), and acts as a central transmitter and receiver of WLAN radio signals.

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.

RADIUS

Remote Authentication Dial In User Service (RADIUS) is a protocol for remote user authentication and accounting. RADIUS enables centralized management of authentication data such as usernames and passwords using an AAA (authentication, authorization, and accounting) concept to manage network access.

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.

SSID

Service Set Identifier (SSID) is a name of a wireless local area network (WLAN). All wireless devices in a WLAN use the same SSID in order to communicate with each other. The SSIDs are case-sensitive and have a maximum length of 32 characters.

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.

WEP

Wired Equivalent Privacy (WEP) is a security protocol specified in IEEE 802.11 to provide the same level of security as that of a wired LAN. WEP provides security by encrypting data over radio so that it is protected as it is transmitted from one end point to another.

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.

WPA

Wi-Fi Protected Access (WPA) is a class of systems to secure wireless (Wi-Fi) computer networks, which was created to improve upon the security features of WEP.

WPA-PSK

WPA-PSK (WPA Pre-Shared Key) is special mode of WPA for small business or home users. A shared key, or password, is configured in the wireless access point (WAP) and any wireless laptop or desktop devices. WPA-PSK generates a unique key for each session between a wireless client and the associated WAP for more advanced security.

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