# User's Guide Basic

### imagine the possibilities

This guide provides information concerning installation, basic operation and troubleshooting on windows.

### **Contents**



### 1. Introduction

- 4 Key benefits
- 6 Features by models
- 7 Useful to know
- 8 About this user's guide
- 9 Safety information
- 15 Machine overview
- 19 Control panel overview
- 21 Turning on the machine
- 22 Installing the driver locally
- 23 Reinstalling the driver



#### 2. Menu overview and basic setup

- 25 Printing a demo page
- 26 Media and tray
- 37 Basic printing



#### 3. Maintenance

- 43 Ordering supplies and accessories
- 44 Available supplies

- 45 Available maintenance parts
- 46 Redistributing toner
- 48 Replacing the toner cartridge
- 50 Cleaning the machine



### 4. Troubleshooting

- 54 Tips for avoiding paper jams
- 55 Clearing paper jams
- 61 Understanding the status LED



### 5. Appendix

- **64** Specifications
- 74 Regulatory information
- 84 Copyright



### 1. Introduction

This chapter provides information you need to know before using the machine.

•	Key benefits	4
•	Features by models	6
•	Useful to know	7
•	About this user's guide	8
•	Safety information	9
•	Machine overview	15
•	Control panel overview	19
•	Turning on the machine	21
•	Installing the driver locally	22
•	Reinstalling the driver	23

### **Key benefits**

#### **Environmentally friendly**



- To save toner and paper, this machine supports Eco feature.
- To save paper, you can print multiple pages on a single sheet of paper (see Advanced Guide).
- To save paper, you can print on both sides of the paper (doublesided printing) (see Advanced Guide).
- To save electricity, this machine automatically conserves electricity by substantially reducing power consumption when not in use.

#### Print with excellent quality and speed



- You can print with a resolution of up to 1,200 x 1,200 dpi effective output.
- · Fast, on-demand printing.
  - For single-side printing, 28 ppm (A4) or 29 ppm (Letter).
  - For duplex printing, 14 ppm (A4) or 14 ppm (Letter).

#### Convenience



- Easy Capture Manager allows you to easily edit and print whatever you captured using the Print Screen key on the keyboard (see Advanced Guide).
- Samsung Easy Printer Manager and Samsung Printer Status (or Smart Panel) are a program that monitors and informs you of the machine's status and allows you to customize the machine's settings (see Advanced Guide).
- AnyWeb Print helps you screen-capture, preview, scrap, and print the screen of Windows Internet Explorer more easily, than when you use the ordinary program (see Advanced Guide).

#### Wide range of functionality and application support



- Supports various paper sizes (see "Print media specifications" on page 65).
- Print watermark: You can customize your documents with words, such as "Confidential" (see Advanced Guide).

### **Key benefits**

Key beliefits			
<ul> <li>Print posters: The text and pictures of each page of your document a be taped together to form a poster (see Advanced Guide).</li> </ul>	are magnified and printed across t	the multiple sheets of paper ar	nd can then
<ul> <li>You can print in various operating systems (see "System requirement</li> </ul>	nts" on page 68).		
<ul> <li>Your machine is equipped with a USB interface and/or a network interface.</li> </ul>	terface.		

### **Features by models**

Some features and optional goods may not be available depending on model or country.

Features	ML-2950ND Series	ML-2950DW Series	ML-2950D Series
Hi-Speed USB 2.0	•	•	•
Network Interface Ethernet 10/100 Base TX wired LAN	•	•	•
Network Interface 802.11b/g/n wireless LAN		•	
IPv6	•	•	
Eco printing	•	•	•
Wi-Fi Protected Setup™ (WPS)		•	
Duplex (2-sided) printing	•	•	•
Samsung Easy Printer Manager	•	•	•
SyncThru™ Web Service	•	•	

(●: Included, ○: Optional, Blank: Not available)

### **Useful to know**



#### The machine does not print.

- Open the print queue list and remove the document from the list (see "Canceling a print job" on page 38).
- Remove the driver and install it again (see "Installing the driver locally" on page 22).
- Select your machine as your default machine in your Windows.



#### Where can I purchase accessories or supplies?

- Inquire at a Samsung distributor or your retailer.
- Visit www.samsung.com/supplies. Select your country/ region to view product service information.



#### The status LED flashes or remains constantly on.

- Turn the product off and on again.
- Check the meanings of LED indications in this manual and troubleshoot accordingly (see "Understanding the status LED" on page 59).



#### A paper jam has occurred.

- Open and close the front door.
- Check the instructions on removing jammed paper in this manual and troubleshoot accordingly (see "Clearing paper jams" on page 55).



#### Printouts are blurry.

- The toner level might be low or uneven. Shake the toner cartridge.
- Try a different print resolution setting.
- Replace the toner cartridge.



#### Where can I download the machine's driver?

• Visit www.samsung.com/printer to download the latest machine's driver, and install it on your system.

### About this user's guide

This user's guide provides information for your basic understanding of the machine as well as detailed steps to explain machine usage.

- Read the safety information before using the machine.
- If you have a problem using the machine, refer to the troubleshooting chapter.
- Terms used in this user's guide are explained in the glossary chapter.
- All illustrations in this user's guide may differ from your machine depending on its options or model you purchased.
- The screenshots in this user's guide may differ from your machine depending on the machine's firmware/driver version.
- The procedures in this user's guide are mainly based on Windows
   7.



#### **Conventions**

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.



#### **General icons**

lcon	Text	Description
1	Caution	Gives users information to protect the machine from possible mechanical damage or malfunction.
	Note	Provides additional information or detailed specification of the machine function and feature.

These warnings and precautions are included to prevent injury to you and others, and to prevent any potential damage to your machine. Be sure to read and understand all of these instructions before using the machine. After reading this section, keep it in a safe place for future reference.



### **Operating environment**



#### Warning



#### **Important safety symbols**

#### Explanation of all icons and signs used in this chapter

$\Lambda$	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.
$\bigcirc$	Do not att	empt.



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 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.



- 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.
- The user should be able to access the power outlet in case of emergencies that might require the user to pull the plug out.

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

This could result in electric shock or fire.





During an electrical storm or for a period of nonoperation, 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 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 and/or injury to your pet.



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.



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

You may get injured.



Do not block or push objects into the ventilation opening.

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



Be care when replacing paper or removing jammed paper.

New paper has sharp edges and can cause painful cuts.



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

Burns can occur.



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

It can damage the machine.



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

It can damage the machine.



This machine's power reception 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



Before moving the machine, turn the power off and disconnect all cords.

Then lift the machine:

- If the machine weighs under 20 kg (44.09 lbs), lift with 1 person.
- If the machine weighs 20 kg (44.09 lbs) 40kg (88.18 lbs), lift with 2 people.
- If the machine weighs more than 40 kg (88.18 lbs), lift with 4 or more people.

The machine could fall, causing injury or machine damage.

1	Do not place the machine on an unstable surface. The machine could fall, causing injury or machine damage.
Ø	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.
①	Use only No.26 AWG <sup>a</sup> or larger, telephone line cord, if necessary.  Otherwise, it can cause damage to the machine.
$\Diamond$	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.
①	Make sure you plug the power cord into a grounded electrical outlet.  Otherwise, this could result in electric shock or fire.
$\Diamond$	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 (6 feet) with a 110 V 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.



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

You could get injured.

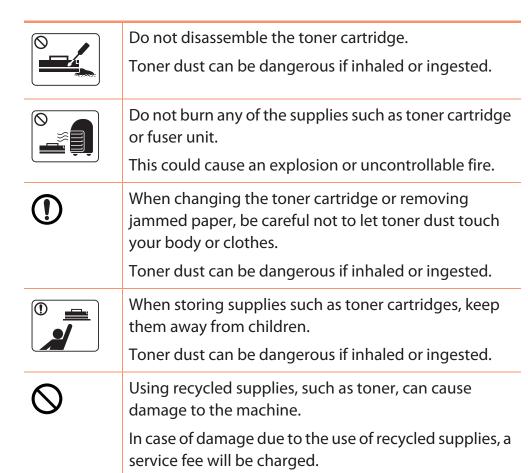
•	Keep the power cable and the contact surface of the plug clean from dust or water.  Otherwise, this could result in electric shock or fire.
8	<ul> <li>Do not remove any covers or guards that are fastened with screws.</li> <li>Fuser units should only be repaired by a certified service technician. Repair by non-certified technicians could result in fire or electric shock.</li> <li>The machine should only be repaired by a Samsung</li> </ul>
	service technician.
	Keep cleaning supplies away from children. Children could get hurt.
0	Do not disassemble, repair or rebuild the machine by yourself.
	It can damage the machine. Call a certified technician when the machine needs repairing.
1	To clean and operate the machine, strictly follow the user's guide provided with the machine.
	Otherwise, you could damage the machine.



#### **Supply usage**



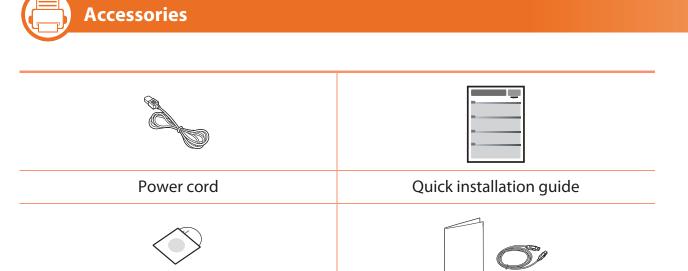
#### Caution





When toner gets on your clothing, do not use hot water to wash it.

Hot water sets toner into fabric. Use cold water.



a. The software CD contains the printer driver and applications.

Software CD<sup>a</sup>

b. Miscellaneous accessories included with your machine may vary by country of purchase and specific model.

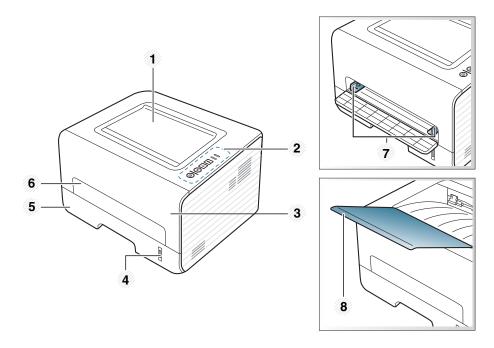
Misc. accessories<sup>b</sup>



### **Front view**



- This illustration may differ from your machine depending on its model.
- Some features and optional goods may not be available depending on model or country.



1	Output tray	4	Paper level indicator	7	Paper width guides on a manual feeder/multi-purpose tray
2	Control panel	5	Tray 1	8	Output support

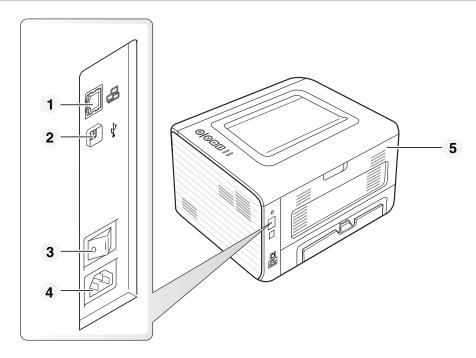
3	Front cover	6	Manual feeder/Multi-purpose	
			tray	



### **Rear view**



- This illustration may differ from your machine depending on its model.
- Some features and optional goods may not be available depending on model or country.



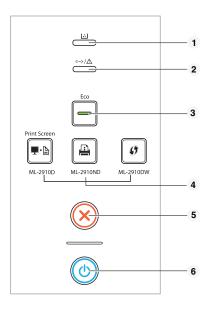
1	Network port <sup>a</sup>	3	Power-switch	5	Rear cover
2	USB port	4	Power receptacle		

a. Network and wireless models only (see "Features by models" on page 6).

### **Control panel overview**



This control panel may differ from your machine depending on its model. There are various types of control panels.



1	Toner LED	Shows the status of the toner (see "Status LED" on page 60).
2	⇔/△     (Status     LED)	Shows the status of your machine (see "Status LED" on page 60).
3	Eco	Enters eco mode to reduce toner consumption and paper usage (see "Eco options" on page 41).

4



(Demo)/



(Print screen)

- **Demo:** Prints a demo page.
- WPS: Configures the wireless network connection easily without a computer (see Admin Guide).
- **Print screen:** Press this button and the green LED will start blinking. If you want to print only the active screen, release the button when the green LED stops blinking. If you want to print the whole screen, release the button while it's blinking.



- **Print Screen** can only be used in the Windows and Macintosh operating systems.
- You can only use this function with USB-connected machine.
- When printing the active window/whole monitor screen using the print screen button, the machine may use more toner depending on what is being printed.
- You can only use this function if the machine's Smart Panel program is installed.

### **Control panel overview**

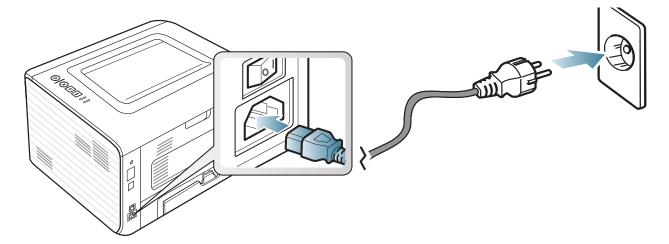
5		Stops an operation at any time and there are more functions.
		· Cancels the current job.
	(Cancel)	<ul> <li>Prints demo page: Press and hold this button for about 2 seconds until the status LED blinks, and release.</li> </ul>
		<ul> <li>Prints configuration reports/network</li> </ul>
		configuration reports <sup>a</sup> : Press and hold this button for about 4 seconds until the status LED blinks, and release.
6	(Power)	You can turn the power on and off with this button.

a. Network and wireless models only (see "Features by models" on page 6).

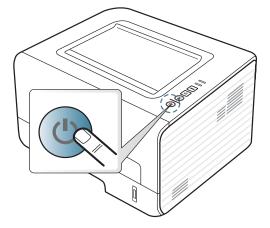
### **Turning on the machine**

Connect the machine to the electricity supply first.

Turn the switch on if the machine has power switch.



Press the (b) (**Power**) button, then release.



### Installing the driver locally

A locally connected machine is a machine directly attached to your computer using the cable. If your machine is attached to a network, skip the following steps below and go on to installing a network connected machine's driver (see Advanced Guide).



- If you are a Macintosh, Linux, or Unix OS user, refer to the Advanced guide.
- The installation window in this User's Guide may differ depending on the machine and interface in use.
- Selecting Advanced Installation > Custom Installation allows you to choose which programs to install.
- Only use a USB cable no longer than 3 meters (118 inches).



#### Windows

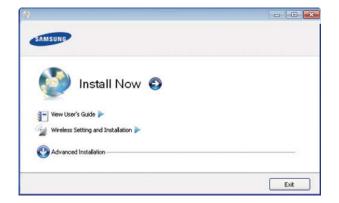
1 Make sure that the machine is connected to your computer and powered on.



If the "Found New Hardware Wizard" appears during the installation procedure, click Cancel to close the window.

The software CD should automatically run and an installation window will appear.

Select **Install Now**.



- Read License Agreement, and select I accept the terms of the License Agreement. Then, click Next.
- Follow the instructions in the installation window.

Insert the supplied software CD into your CD-ROM drive.

### **Reinstalling the driver**

If the printer driver does not work properly, follow the steps below to reinstall the driver.



#### Windows

- Make sure that the machine is connected to your computer and powered on.
- From the Start menu, select Programs or All Programs > Samsung Printers > your printer driver name > Uninstall.
- **?** Follow the instructions in the installation window.
- Insert the software CD into your CD-ROM drive and install the driver again (see "Installing the driver locally" on page 22).



## 2. Menu overview and basic setup

After installation is complete, you may want to set the machine's default settings. Refer to the next section if you would like to set or change values. This chapter provides information about the overall menu structure and the basic setup options.

•	Printing a demo page			25
•	Media and tray			26
•	Basic printing			37

### Printing a demo page

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

#### To print a demo page:

In ready mode, press and hold (Cancel) button for about 2 seconds until the status LED blinks, and release.

Or, click the **Demo page** button under the Samsung tab in the **Printing Preferences** window (see "Opening printing preferences" on page 39).



For a model with a Demo button ( ), press the button to print a demo page.

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



- Using print media that does not meet these specifications may cause problems or require repairs. Such repairs are not covered by Samsung's warranty or service agreements.
- Make sure not to use the inkjet photo paper with this machine. It could cause damage to the machine.
- Using inflammable print media can cause a fire.
- Use designated print media (see "Print media specifications" on page 65).

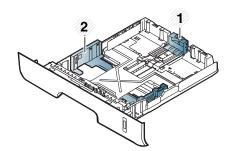


The use of inflammable media or foreign materials left in the printer may lead to overheating of the unit and, in rare cases may cause a fire.



#### **Tray overview**

To change the size, you need to adjust the paper guides.



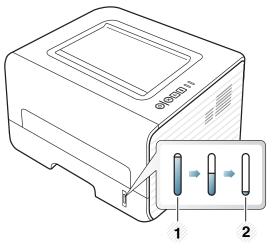
- 1 Paper length guide
- 2 Paper width guide



If you do not adjust the guide, it may cause paper registration, image skew, or jamming of the paper.



Paper quantity indicator shows the amount of paper in the tray.



- 1 Full
- 2 Empty

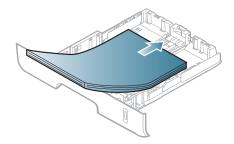


### Loading paper in the tray

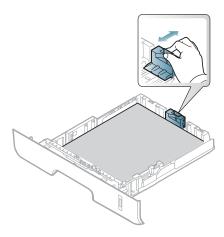
- Pull out the paper tray.
- Plex or fan the edge of the paper stack to separate the pages before loading papers.



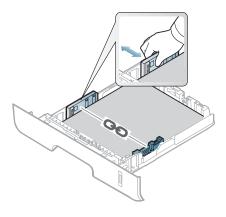
Place paper with the side you want to print on facing down.



Slide the paper length guide until it lightly touches the end of the paper stack.



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





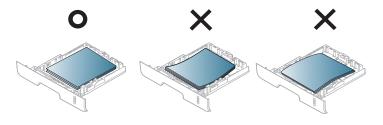
- Do not push the paper width guide too far causing the media to warp.
- If you do not adjust the paper width guide, it may cause paper jams.







• Do not use a paper with a leading-edge curl, it may cause a paper jam or the paper can be wrinkled.



- Insert the tray back into the machine.
- Set the paper type and size for tray 1 (see "Setting the paper size and type" on page 37).



### Loading in manual feeder/multi-purpose tray

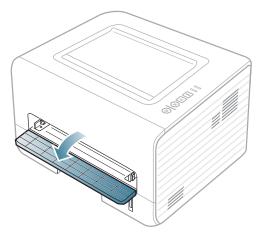
The manual feeder/multi-purpose tray can hold special sizes and types of print material, such as postcards, note cards, and envelopes.



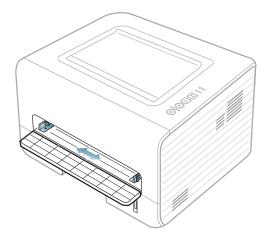
#### Tips on using the manual feeder/multi-purpose tray

- If you select Manual Feeder for the paper source in your software application, you need to press (cancel button) each time you print a page and load only one type, size and weight of print media at a time on the manual tray.
- To prevent paper jams, do not add paper while printing when there is still paper in the manual feeder/multipurpose tray.
- Print media should be loaded face up with the top edge going into the manual feeder/multi-purpose tray first and be placed in the center of the tray.
- To ensure printing quality and to prevent paper jams, only load the available paper (see "Print media specifications" on page 65).
- Flatten any curl on postcards, envelopes, and labels before loading them into the manual feeder/multi-purpose tray.
- When printing on special media, you must follow the loading guidelines (see "Printing on special media" on page 31).

- When papers overlap when printing using the manual feeder/multi-purpose tray, open tray 1 and remove the overlapping papers then try printing again.
- When paper does not feed well while printing, push the paper in manually until it starts feeding automatically.
- Open the manual feeder/multi-purpose tray and unfold the manual feeder/multi-purpose tray extension, as shown.



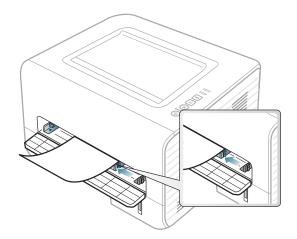
Adjust the manual feeder/multi-purpose tray paper width guides to the width of the paper.



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



Load the paper. Squeeze the manual feeder/multi-purpose tray paper width guides and adjust them to the width of the paper.



Set the paper type and size from the control panel (see "Setting the paper size and type" on page 37).



To print from an application, open an application and start the print menu.

- **a** Open **Printing Preferences** (see "Opening printing preferences" on page 39).
- **b** Press the **Paper** tab in **Printing Preferences** and select an appropriate paper type.

For example, if you want to use a label, set the paper type to **Label**.

- **c** Select **MP Tray** in paper source, then press **OK**.
- **d** Start printing in application.



### Printing on special media

The table below shows the special media usable in each tray.

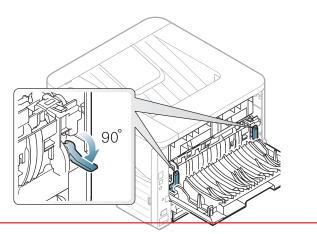
The media types are shown in the **Printing Preferences**. Select the proper media type to get the highest printing quality.



 When using special media, we recommend you feed one sheet at a time (see "Print media specifications" on page 65).

#### Printing the special media (Face up)

If special media are printed out with curl, wrinkles, crease, or black bold lines, open the rear cover and pull down the pressure lever as shown below and try printing again. Keep the rear cover opened during printing.



To see for paper weights for each sheet, refer to "Print media specifications" on page 65.

Types	Tray 1	Manual feeder/ Multi-purpose tray
Plain	•	•

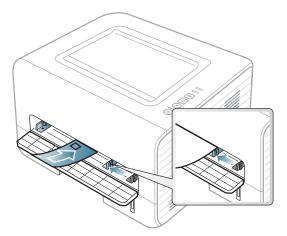
Types	Tray 1	Manual feeder/ Multi-purpose tray
Thick	•	•
Thicker		•
Thin	•	•
Bond	•	•
Color		•
CardStock	•	•
Labels		•
Transparency		•
Envelope		•
Preprinted		•
Cotton		•
Recycled	•	•
Archive	•	•

( •: Included, Blank: Not available)

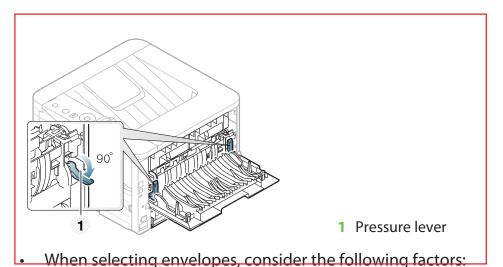
### **Envelope**

Printing successfully on envelopes depends upon the quality of the envelopes.

To print an envelope, place it as shown in the following figure.

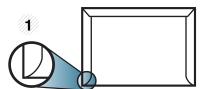


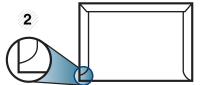
If envelopes are printed out with wrinkles, crease, or black bold lines, open the rear cover and pull down the pressure lever on the right side about 90 degrees and try printing again. Keep the rear cover opened during printing.



- **Weight:** should not exceed 90 g/m<sup>2</sup> otherwise; jams may occur.
- **Construction:** should lie flat with less than 6 mm curl and should not contain air.
- **Condition:** should not be wrinkled, nicked, nor damaged.
- **Temperature:** should resist the heat and pressure of the machine during operation.
- Use only well-constructed envelopes with sharp and wellcreased folds.
- Do not use stamped envelopes.
- Do not use envelopes with clasps, snaps, windows, coated lining, self-adhesive seals, or other synthetic materials.
- Do not use damaged or poorly made envelopes.

• Be sure the seam at both ends of the envelope extends all the way to the corner of the envelope.

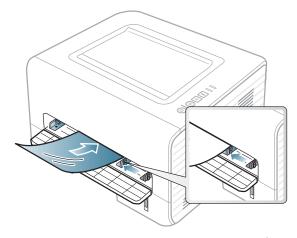




- 1 Acceptable
- 2 Unacceptable
- Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the machine's fusing temperature for 0.1 second (about 170°C (338 °F)). The extra flaps and strips might cause wrinkling, creasing, or jams, and may even damage the fuser.
- For the best print quality, position margins no closer than 15 mm from the edges of the envelope.
- Avoid printing over the area where the envelope's seams meet.

#### **Transparency**

To avoid damaging the machine, use only transparencies designed for use in laser printers.

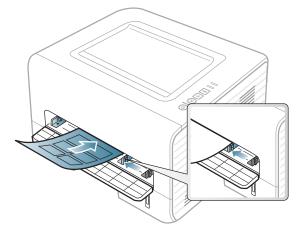


- Must withstand the machine's fusing temperature.
- Place them on a flat surface after removing them from the machine.
- Do not leave unused transparencies in the paper tray for long.
   Dust and dirt may accumulate on them, resulting in spotty printing.
- To avoid smudging caused by fingerprints, handle them carefully.
- To avoid fading, do not expose printed transparencies to prolonged sunlight.

- Ensure that transparencies are not wrinkled, curled, or have any torn edges.
- Do not use transparencies that separate from the backing sheet.
- To prevent transparencies from sticking to each other, do not let the printed sheets stack up as they are being printed out.
- Recommended media: Transparency for a color laser printer by Xerox, such as 3R 91331(A4), 3R 2780 (Letter)

#### Labels

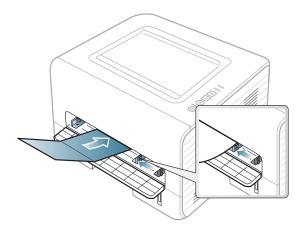
To avoid damaging the machine, use only labels designed for use in laser printers.



- When selecting labels, consider the following factors:
  - **Adhesives:** Should be stable at your machine's fusing temperature. Check your machine's specifications to view the fusing temperature (about 170°C (338°F)).
  - **Arrangement:** Only use labels with no exposed backing between them. Labels can peel off sheets that have spaces between the labels, causing serious jams.
  - **Curl:** Must lie flat with no more than 13 mm of curl in any direction.
  - **Condition:** Do not use labels with wrinkles, bubbles, or other indications of separation.

- Make sure that there is no exposed adhesive material between labels. Exposed areas can cause labels to peel off during printing, which can cause paper jams. Exposed adhesive can also cause damage to machine components.
- Do not run a sheet of labels through the machine more than once. The adhesive backing is designed for only a single pass through the machine.
- Do not use labels that are separating from the backing sheet or are wrinkled, bubbled, or otherwise damaged.

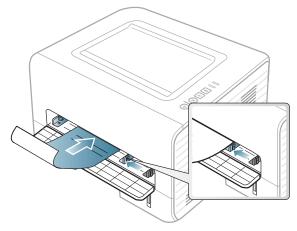
#### **Card stock/ Custom-sized paper**



• In the software application, set margins at least 6.4 mm (0.25 inches) away from the edges of the material.

#### **Preprinted paper**

When loading preprinted paper, the printed side should be facing up with an uncurled edge at the front. If you experience problems with paper feeding, turn the paper around. Note that print quality is not guaranteed.



- 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 (about 170°C (338°F)).
- Must be non-flammable and should not adversely affect machine rollers.
- Before you load 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.

Open the **Printing Preferences** (see "Opening printing preferences" on page 39) and set the paper size and type in the **Paper** tab.



If you want to use special-sized paper such as billing paper, select **Custom** in the **Paper** tab in the **Printing Preferences** (see "Opening printing preferences" on page 39).



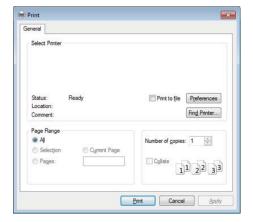
#### **Printing**



If you are a Macintosh, Linux, or Unix OS user, refer to the Advanced Guide.

The following **Printing Preferences** window is for Notepad in Windows 7.

- Open the document you want to print.
- Select Print from the File menu.
- Select your machine from the **Select Printer** list.



The basic print settings including the number of copies and print range are selected within the **Print** window.



To take advantage of the advanced printing features, click **Properties** or **Preferences** from the **Print** window (see "Opening printing preferences" on page 39).

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



## Canceling a print job

If the print job is waiting in the print queue or print spooler, cancel the job as follows:

- You can access this window by simply double-clicking the machine icon ( ) in the Windows task bar.
- You can also cancel the current job by pressing (Cancel) or the control panel.

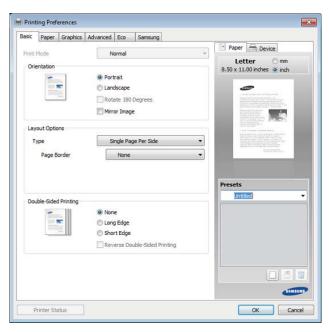


### **Opening printing preferences**



- The Printing Preferences window that appears in this user's guide may differ depending on the machine in use. However, the composition of the Printing Preferences window is similar.
- When you select an option in Printing Preferences, you may see a warning mark or . An mark means you can select that certain option but it is not recommended, and an mark means you cannot select that option due to the machine's setting or environment.
- Open the document you want to print.
- Select Print from the file menu.
- Select your machine from the **Select Printer**.







You can check the machine's current status using the **Printer Status** button (see Advanced Guide).

#### Using a favorite setting

The **Presets** option, which is visible on each preferences tab except for the **Samsung** tab, allows you to save the current preferences for future use.

To save a **Presets** item, follow these steps:

- 1 Change the settings as needed on each tab.
- The state of the item in the **Presets** input box.



Click (Add). When you save Presets, all current driver settings are saved.



Select more options and click (Update), settings will be added to the Presets you made. To use a saved setting, select it from the Presets drop-down list. The machine is now set to print according to the settings you have selected. To delete saved settings, select it from the Presets drop-down list and click (Delete).

You can also restore the printer driver's default settings by selecting **Default Preset** from the **Presets** drop-down list.



### **Using help**

Click the option you want to know on the **Printing Preferences** window and press **F1** on your keyboard.



#### **Eco printing**

The **Eco** function cuts toner consumption and paper usage. The **Eco** function allows you to save print resources and lead you to eco-friendly printing.

If you press the **Eco** button from the control panel, eco mode is enabled. The default setting of eco mode is duplex (long edge), 2-up, skip blank pages, and toner save.

#### Setting eco mode on the control panel



- The settings set from the machine's driver override the settings on the control panel.
- If you set the eco mode on with a password from the SyncThru<sup>™</sup> Web Service (Settings tab > Machine Settings > System > Eco > Settings), the Onforce message appears. You have to enter the password to change the eco mode status.
- Press (**Eco**) button on the control panel.

  When the LED ont the button lights up, the Eco mode is enabled.

#### Setting eco mode on the driver

Open the Eco tab to set eco mode. When you see the eco image (), that means the eco mode is currently enabled.

#### Eco options

- **Printer Default:** Follows the settings from the machine's control panel.
- None: Disables eco mode.

- **Eco Printing:** Enables eco mode. Activate the various eco items you want to use.
- **Password:** If the administrator fixed to enable the eco mode, you have to enter the password to change the status.

#### **▶** Result simulator

**Result Simulator** shows the results of reduced emission of carbon dioxide, used electricity, and the amount of saved paper in accordance with the settings you selected.

- The results are calculated on the basis that the total number of printed paper is one hundred without a blank page when the eco mode is disabled.
- Refer to the calculation coefficient about CO2, energy, and paper from IEA, the index of Ministry of Internal Affairs and Communication of Japan and www.remanufacturing.org.uk. Each model has a different index.
- The power consumption in printing mode refers to the average printing power consumption of this machine.
- The actual saved or reduced amount may differ depending on the operating system used, computing performance, application software, connection method, media type, media size, job complexity, etc.



## 3. Maintenance

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

•	Ordering supplies and accessories	43
•	Available supplies	44
•	Available maintenance parts	45
•	Redistributing toner	46
•	Replacing the toner cartridge	48
•	Cleaning the machine	50

## Ordering supplies and accessories



Available accessories may differ from country to country. Contact your sales representatives to obtain the list of available supplies, and maintenance parts.

To order Samsung-authorized supplies, accessories, and maintenance parts, contact your local Samsung dealer or the retailer where you purchased your machine. You can also visit **www.samsung.com/supplies**, and then select your country/region to obtain the contact information for service.

## **Available supplies**

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

Туре	Average yield <sup>a</sup>	Part name
Standard yield toner cartridge	Approx. 1,500 pages	MLT-D103S
High yield toner cartridge	Approx. 2,500 pages	MLT-D103L

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



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



When purchasing new toner cartridges or other supplies, these must be purchased in the same country as the machine you are using. Otherwise, new toner cartridges or other supplies will be incompatible with your machine due to different configurations of toner cartridges and other supplies according to the specific country conditions.



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

## **Available maintenance parts**

To purchase maintenance parts, contact the source where you bought the machine. Replacing maintenance parts can be performed only by an authorized service provider, dealer, or the retailer where you bought the machine. The warranty does not cover the replacement of any maintenance parts once it has reached its "Average yield".

Maintenance parts are replaced at specific intervals to avoid print quality and paper feed problems resulting from worn parts, see table below. The purpose of which is to maintain your machine in top working condition. The maintenance parts below should be replaced when the life span of each item has been met.

Parts	Average yield <sup>a</sup>
Transfer roller	Approx. 100,000 pages
Fuser unit	Approx. 50,000 pages
Pickup roller	Approx. 50,000 pages
Retard roller	Approx. 50,000 pages

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

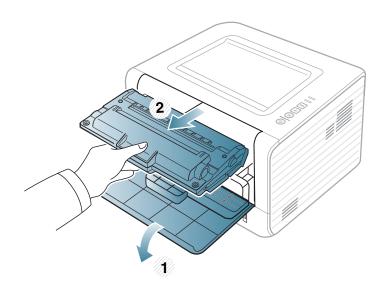
## **Redistributing toner**

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

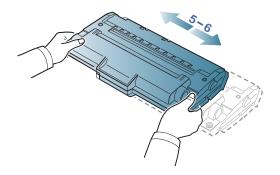
- White streaks or light printing occurs and/or density variation side to side.
- The Status LED blinks red.

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.

Open the front cover and pull the toner cartridge out.



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





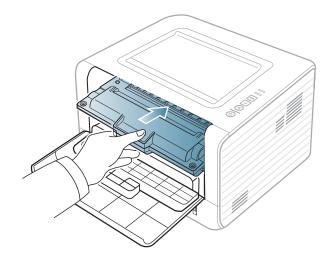
If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water: hot water sets toner into fabric.



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

# **Redistributing toner**

Hold the toner cartridge by the handle and slowly insert the cartridge into the opening in the machine.



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

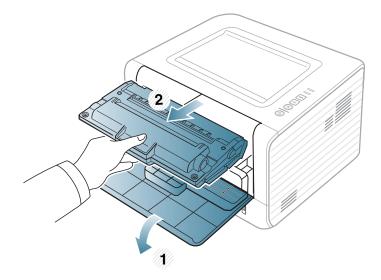
## Replacing the toner cartridge



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

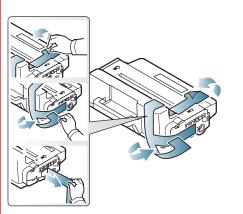
When a toner cartridge has reached the end of life, the machine will stop printing.

Open the front cover and pull the toner cartridge out.

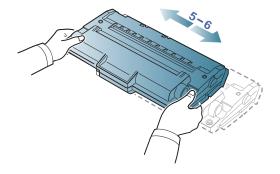


Remove the new toner cartridge from its bag.

Remove the label from the toner cartridge as shown below.



Thoroughly shake side to side the cartridge five or six times to distribute the toner evenly inside the cartridge.





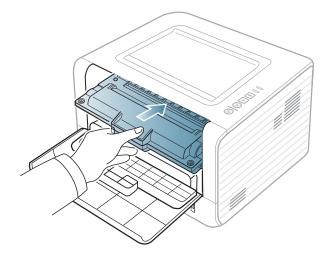
If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water: hot water sets toner into fabric.

## Replacing the toner cartridge



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

Hold the toner cartridge by the handle and slowly insert the cartridge into the opening in the machine.



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

## **Cleaning the 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 it in the best printing condition and use your machine longer.



- Cleaning the cabinet of the machine with cleaning materials containing large amounts of alcohol, solvents, 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 a 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**

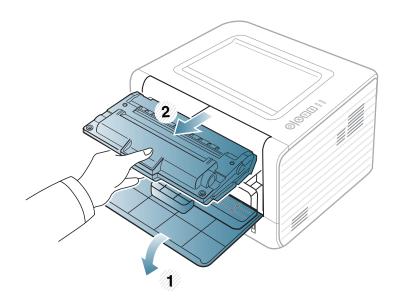
Clean the machine cabinet with a soft, lint-free cloth. Dampen the cloth slightly with water, but be careful not to let any water drip onto or into the machine.



### **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.

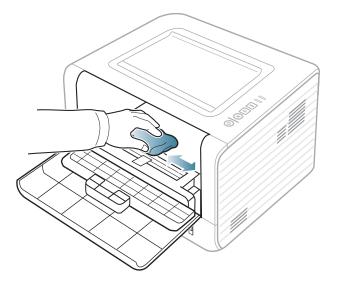
- Turn the machine off and unplug the power cord. Wait for the machine to cool down.
- Open the front cover and pull the toner cartridge out. Set it on a clean flat surface.

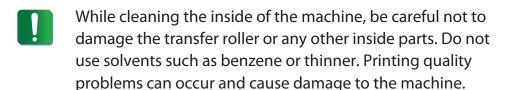


## **Cleaning the machine**



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





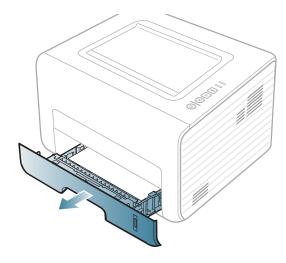
Reinsert the toner cartridge and close the front cover.

# **Cleaning the machine**

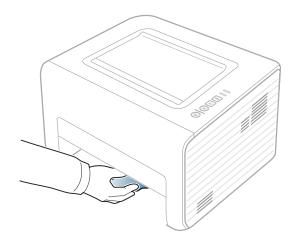


## Cleaning the pickup roller

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



Clean the pickup roller with a soft, lint-free cloth.



Insert the tray back into the machine.



## 4. Troubleshooting

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

•	Tips for avoiding paper jams	54
•	Clearing paper jams	55
•	Understanding the status LED	59



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

If your machine has a display screen, check the message on the display screen first to solve the error. If you cannot find a solution to your problem in this chapter, refer to the **Troubleshooting** chapter in the Advanced User's Guide.

If you cannot find a solution in the User's Guide or the problem persists, call for service.

## Tips for avoiding paper jams

By selecting the correct media types, most paper jams can be avoided. To avoid paper jams, refer to the following guidelines:

- Ensure that the adjustable guides are positioned correctly (see "Tray overview" on page 26).
- 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 "Print media specifications" on page 65).



To avoid tearing the paper, pull the jammed paper out slowly and gently.

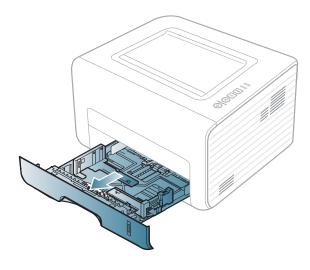


#### In tray 1

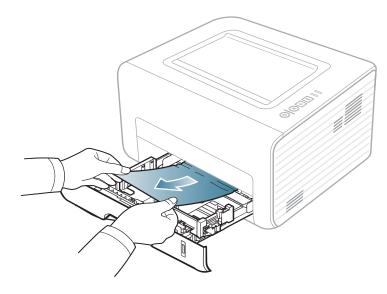


Click this link to open an animation about clearing a jam.

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



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 page 57).

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

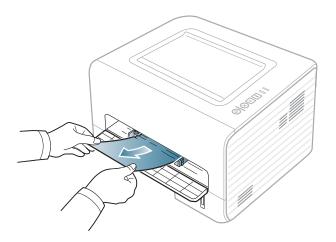


### In the manual feeder/multi-purpose tray



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

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



Open and close the front cover to resume printing.



### Inside the machine

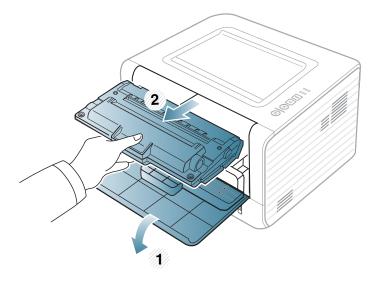


Click this link to open an animation about clearing a jam.

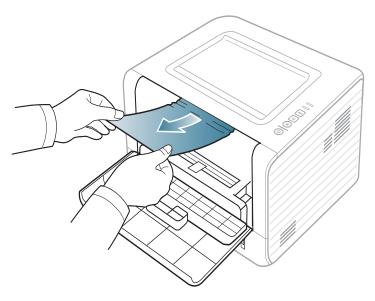


The fuser area is hot. Take care when removing paper from the machine.

Open the front cover and pull the toner cartridge out.



Remove the jammed paper by gently pulling it straight out.



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

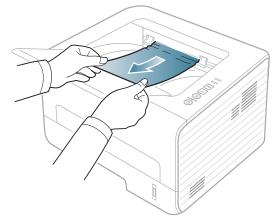


### In the exit area



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

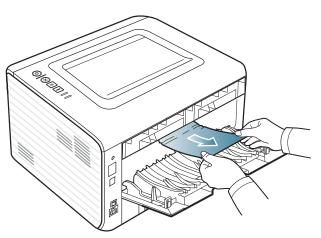
- Open and close the front cover. The jammed paper is automatically ejected from the machine.
  - If you do not see the jammed paper, go to the next step.
- Gently pull the paper out of the output tray.



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

Open the rear cover.

A Remove the jammed paper as shown in the following figure.



Close the rear cover. Printing automatically resumes.

## **Understanding the status LED**

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



- Some LEDs may not be available depending on model or country.
- To resolve the error, look at the error message and its instructions from the troubleshooting part.
- You also can resolve the error with the guideline from the computers's Samsung Printer Status or Smart Panel program window.
- If the problem persists, call a service representative.

# **Understanding the status LED**



### **Status LED**

Status			<b>Description</b>	
	Off		The machine is off-line.	
	Green	Blinking	<ul> <li>When the backlight slowly blinks, the machine is receiving data from the computer.</li> <li>When the backlight blinks rapidly, the machine is printing data.</li> </ul>	
		On	The machine is on-line and can be used.	
«→/≜ (Status	○(Status	Blinking	<ul> <li>A minor error has occurred and the machine is waiting for the error to be cleared. When the problem is cleared, the machine resumes.</li> </ul>	
LED)		On	<ul> <li>The cover is opened. Close the cover.</li> <li>There is no paper in the tray. Load paper in the tray ("Loading paper in the tray" on page 27).</li> <li>The machine has stopped due to a major error.</li> </ul>	
	Orongo	Blinking	Upgrading firmware.	
	Orange	On	A paper jam has occurred (see "Clearing paper jams" on page 55).	

# **Understanding the status LED**



#### **Toner LED/ WPS LED**

Status			Description
	Yellow On Off	Blinking	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 page 46).
(Toner LED)		On	A toner cartridge has almost reached its estimated cartridge life <sup>a</sup> . It is recommended to replace the toner cartridge (see "Replacing the toner cartridge" on page 48).
		Off	All toner cartridges are at normal capacity.
	Blin	Blinking	The machine is connecting to a wireless network.
(WPS LED)b	Blue	On	The machine is connected to a wireless network (see Advanced Guide).
		Off	The machine is disconnected from a wireless network.

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, graphics, media type and media size. Some amount of toner may remain in the cartridge even when red LED is on and the printer stops printing.

b. Wireless model only (see "Features by models" on page 6).



# 5. Appendix

This chapter provides product specifications and information concerning applicable regulations.

•	Specifications	63
•	Regulatory information	73
•	Copyright	84





## **General specifications**



The specification values listed below are subject to change without notice. See **www.samsung.com/printer** for possible changes in information.

	Items	Description
Dimension Width x Length x Height		348 x 338 x 197 mm (13.7 x 13.3 x 7.7 inches)
Weight	Machine with consumables	7.2 kg (15.87 lbs)
	Ready mode	Less than 30 dB (A)
Noise Level <sup>a</sup>	Print mode	Less than 50 dB (A)
Temperature	Operation	10 to 32°C (50 to 90°F)
	Storage (packed)	-20 to 40°C (-4 to 104°F)
Humidity	Operation	20 to 80% RH
	Storage (packed)	10 to 90% RH
Power rating <sup>b</sup>	110 volt models	AC 110 - 127 V
	220 volt models	AC 220 - 240 V

	Items	Description
Power consumption	Average operating mode	Less than 550 W
	Ready mode	Less than 60 W
Power save mode		Less than 3.5 W
	Power off mode	Less than 0.4 W (0.1 W <sup>c</sup> )
Wireless <sup>d</sup> Module		U98Z058

- a. Sound Pressure Level, ISO 7779. Configuration tested: basic machine installation, A4 paper, simplex printing.
- b. See the rating label on the machine for the correct voltage (V), frequency (hertz) and type of current (A) for your machine.
- c. For the machine that has a power switch.
- d. Wireless model only (see "Features by models" on page 6).



## Print media specifications

	Size	Dimensions	Print media weight/Capacity <sup>a</sup>		
Туре			Tray1	Manual feeder/Multi- purpose tray <sup>b</sup>	
	Letter	216 x 279 mm (8.5 x 11 inches)	70 to 90 g/m <sup>2</sup> (19 to 24 lbs bond)	70 to 90 g/m <sup>2</sup> (19 to 24 lbs	
	Legal	216 x 356 mm (8.5 x 14 inches)	• 250 sheets of 80 g/m <sup>2</sup> (20 lbs	bond)	
	US Folio	216 x 330 mm (8.5 x 13 inches)	bond) for tray1.	• 1 sheet of 80 g/m <sup>2</sup> (20 lbs bond)	
	A4	210 x 297 mm (8.27 x 11.69 inches)			
	Oficio	216 x 343 mm (8.5 x 13.5 inches)			
Plain paper	JIS B5	182 x 257 mm (7.17 x 10.12 inches)			
	ISO B5	176 x 250 mm (6.93 x 9.84 inches)			
	Executive	184 x 267 mm (7.25 x 10.5 inches)			
	A5	148 x 210 mm (5.83 x 8.27 inches)			
	A6	105 x 148 mm (4.13 x 5.83 inches)	• 150 sheets of 75 g/m <sup>2</sup> (20 lbs bond)		

			Print media weight/Capacity <sup>a</sup>		
Туре	Size	Dimensions	Tray1	Manual feeder/Multi- purpose tray <sup>b</sup>	
	Envelope Monarch	98 x 191 mm (3.87 x 7.5 inches)	Not available in tray1	75 to 90 g/m <sup>2</sup> (20 to 24 lbs bond)	
Envelope	Envelope No. 10	105 x 241 mm (4.12 x 9.5 inches)			
	<b>Envelope DL</b>	110 x 220 mm (4.33 x 8.66 inches)			
	Envelope C5	162 x 229 mm (6.38 x 9.02 inches)			
	Envelope C6	114 x 162 mm (4.49 x 6.38 inches)			
Thick paper	Refer to the Plain paper section	Refer to the Plain paper section	91 to 105 g/m <sup>2</sup> (24 to 28 lbs bond)	91 to 105 g/m <sup>2</sup> (24 to 28 lbs bond)	
Thicker paper	Refer to the Plain paper section	Refer to the Plain paper section	Not available in tray1	164 to 220 g/m <sup>2</sup> (44 to 58 lbs bond)	
Thin paper	Refer to the Plain paper section	Refer to the Plain paper section	60 to 70 g/m <sup>2</sup> (16 to 19 lbs bond)	60 to 70 g/m <sup>2</sup> (16 to 19 lbs bond)	
Transparency	Letter, A4	Refer to the Plain paper section	Not available in tray1	138 to 146 g/m <sup>2</sup> (36.81 to 38.91 lbs bond)	

	Type Size	Dimensions	Print media weight/Capacity <sup>a</sup>	
Туре			Tray1	Manual feeder/Multi- purpose tray <sup>b</sup>
Labels <sup>c</sup>	Letter, Legal, US Folio, A4, JIS B5, ISO B5, Executive, A5	Refer to the Plain paper section	Not available in tray1	120 to 150 g/m <sup>2</sup> (32 to 40 lbs bond)
Card stock	Letter, Legal, US Folio, A4, JIS B5, ISO B5, Executive, A5	Refer to the Plain paper section	121 to 163 g/m <sup>2</sup> (32 to 43 lbs bond)	121 to 163 g/m <sup>2</sup> (32 to 43 lbs bond)
<b>Bond paper</b>	Refer to the Plain paper section	Refer to the Plain paper section	106 to 120 g/m <sup>2</sup> (28 to 32 lbs bond)	106 to 120 g/m <sup>2</sup> (28 to 32 lbs bond)
Minimum size (custom)  Maximum size (custom)		<ul> <li>Manual feeder/Multi-purpose tray: 76 x 127 mm (3 x 5 inches)</li> <li>Tray 1: 105 x 148.5 mm (4.13 x 5.85 inches)</li> </ul>	60 to 163 g/m <sup>2</sup> (16 to 43 lbs bond) <sup>d</sup> , <sup>e</sup>	
		216 x 356 mm (8.5 x 14 inches)		

- a. Maximum capacity may differ depending on media weight, thickness, and environmental conditions.
- b. 1 sheet for multi-purpose tray.
- c. The smoothness of the labels used in this machine is 100 to 250 (sheffield). This means the numeric level of smoothness.
- d. The paper types available in the manual feeder/multi-purpose tray: Plan, Thick, Thicker, Thin, Cotton, Colored, Pre-printed, Recycled, Envelope, Transparency, Labels, Cardstock, Bond, Archive

e. The paper types available in tray 1: Plan, Thick, Thin, Recycled, Cardstock, Bond, Archive



## **System requirements**

#### Microsoft® Windows®

Operating system	Requirement (recommended)		
Operating system	СРИ	RAM	free HDD space
Windows® 2000	Intel® Pentium® II 400 MHz (Pentium III 933 MHz)	64 MB (128 MB)	600 MB
Windows® XP	Intel® Pentium® III 933 MHz (Pentium IV 1 GHz)	128 MB (256 MB)	1.5 GB
Windows Server® 2003	Intel® Pentium® III 933 MHz (Pentium IV 1 GHz)	128 MB (512 MB)	1.25 GB to 2 GB
Windows Server® 2008	Intel® Pentium® IV 1 GHz (Pentium IV 2 GHz)	512 MB (2 GB)	10 GB
Windows Vista®	Intel® Pentium® IV 3 GHz	512 MB (1 GB)	15 GB
Windows® 7	Intel® Pentium® IV 1 GHz 32-bit or 64-bit processor or higher	1 GB (2 GB)	16 GB
<ul> <li>Support for DirectX® 9 graphics with 128 MB memory (to enable the Aero theme).</li> <li>DVD-R/W Drive</li> </ul>			
Windows Server® 2008 R2	Intel® Pentium® IV 1 GHz (x86) or 1.4 GHz (x64) processors (2 GHz or faster)	512 MB (2 GB)	10 GB



- Internet Explorer 6.0 or higher is the minimum requirement for all Windows operating systems.
- Users who have administrator rights can install the software.
- Windows Terminal Services is compatible with your machine.
- For Windows 2000, Services Pack 4 or higher is required.

#### Macintosh

Operating system	Requirements (Recommended)		
Operating system	СРИ	RAM	Free HDD space
Mac OS X 10.3 ~ 10.4	<ul> <li>Intel® processors</li> <li>PowerPC G4/ G5</li> </ul>	<ul> <li>128 MB for a powerPC based Mac (512 MB)</li> <li>512 MB for an Intel-based Mac (1 GB)</li> </ul>	1 GB
Mac OS X 10.5	<ul> <li>Intel® processors</li> <li>867 MHz or faster Power PC G4/ G5</li> </ul>	512 MB (1 GB)	1 GB
Mac OS X 10.6	• Intel® processors	1 GB (2 GB)	1 GB

### Linux

Items	Requirements
Operating system	Fedora 4 ~ 12 (32/64 bit)  OpenSuSE® 10.2, 10.3, 11.0, 11.1, 11.2 (32/64 bit)  SuSE 10.0, 10.1 (32 bit)
	Ubuntu 5.04, 5.10, 6.04, 6.10, 7.04, 7.10, 8.04, 8.10, 9.04, 9.10 (32/64 bit)  Mandriva 2005, 2006, 2007, 2008, 2009, 2009.1 (32/64 bit)  Debian 4.0, 5.0 (32/64 bit)  Redhat® Enterprise Linux WS 4, 5 (32/64 bit)  SuSE Linux Enterprise Desktop 10, 11 (32/64 bit)
CPU	Pentium IV 2.4GHz (Intel Core™2)
RAM	512 MB (1 GB)
Free HDD space	1 GB (2 GB)

### Unix

Items	Requirements
	Sun Solaris 9, 10 (x86, SPARC)
	HP-UX 11.0, 11i v1, 11i v2, 11i v3 (PA-RISC, Itanium)
	IBM AIX 5.1, 5.2, 5,3, 5.4

Items	Requirements
Free HDD space	Up to 100 MB



## **Network environment**



Network and wireless models only (see "Features by models" on page 6).

You need to set up the network protocols on the machine to use it as your network machine. The following table shows the network environments supported by the machine.

Items	Specifications
Network interface	<ul><li>Ethernet 10/100/1000 Base-TX</li><li>802.11b/g/n Wireless LAN</li></ul>
Network operating system	<ul> <li>Windows 2000/Server 2003 /Server 2008/XP/Vista/7/Server 2008 R2</li> <li>Various Linux OS</li> <li>Mac OS X 10.3 ~ 10.6</li> <li>Unix</li> </ul>

Items	Specifications
Network protocols	<ul> <li>TCP/IPv4</li> <li>DHCP, BOOTP</li> <li>DNS, WINS, Bonjour, SLP, UPnP</li> <li>Standard TCP/IP Printing (RAW), LPR, IPP, WSD</li> <li>SNMPv 1/2/3, HTTP (S), IPSec</li> <li>TCP/IPv6 (DHCP, DNS, RAW, LPR, SNMPv 1/2/3, HTTP (S), IPSec)</li> </ul>
Wireless security	<ul> <li>Authentication: Open System, Shared Key, WPA Personal, WPA2 Personal (PSK), WPA Enterprise, WPA2 Enterprise</li> <li>Encryption: WEP64, WEP128, TKIP, AES</li> </ul>

This machine is designed for a normal work 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 60825-1: 2007.

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.

Wavelength: Max. 800 nm

**Beam divergence** 

Paraller: Max. 12 degrees

Perpendicular: Max. 35 degrees

Maximum power or energy output: 15 mW

#### 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 BADIATION WHEN OPEN AVOID EXPOSURE TO THE BEAM

- LASER RADIATION AVOID DIRECT EXPOSURE TO BEAM.

D'OUVERTURE, EVITER TOUTE EXPOSITION DIRECTE AU FAISCEAU. VORSICHT - UNSICHTBARE LASERSTRAHLUNG, WENN

ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN

ATTENZIONE - RADIAZIONE I ASER 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 ÅRNING UNDGÅ UDSAETTELSE FOR STRÅLNING.

ADVARSEL. - USYNLIG LASERSTRÅLNING NÅR DEKSEL

ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN. VARNING - OSYNLIG LASERSTRÅLNING NÄR DENNA DEL

ÄR ÖPPEN, STRÅLEN ÄR FARLIG.

VAROITUS - NÄKYMÄTÖNTÄ LASERSÄTEILYÄ AVATTAESSA. VARO SUORAA ALTISTUMISTA SÄTEELLE.

■ - 严禁揭开此盖, 以免激光泄露灼伤

의 - 이 덮개를 열면 레이저광에 노출될 수 있으므로



### **Ozone safety**



This product's ozone emission rate is under 0.1 ppm. Because ozone is heavier than air, keep the product in a place with good ventilation.



### Recycling



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



#### **Power saver**



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

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

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

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



### **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.

#### The United States of America only

Dispose unwanted electronics through an approved recycler. To find the nearest recycling location, go to our website:www.samsung.com/recyclingdirect Or call, (877) 278 - 0799



### **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.



#### **United states of america**

### Federal communications commission (FCC)

#### ► Intentional emitter per FCC Part 15

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

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

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

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

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



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

#### **FCC statement for wireless LAN use:**



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



### Russia only





### Germany only

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



#### **Turkey only**

- RoHS
- EEE Yönetmeliğine Uygundur. This EEE is compliant with RoHS.
- Bu ürünün ortalama yaşam süresi 7 yıl, garanti suresi 2 yildir.



### Replacing the fitted plug (for UK only)

#### **Important**

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

Contact the people from you purchased the machine.

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



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

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

#### **Important warning:**



You must earth this machine.

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

• Green and Yellow: Earth

• Blue: Neutral

• Brown: Live

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

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

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

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

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



**Declaration of conformity (European countries)** 

#### **Approvals and Certifications**

 Hereby, Samsung Electronics, declares that this [ML-2950ND Series, ML-2950D Series] is in compliance with the essential requirements and other relevant provisions of Low Voltage Directive (2006/95/EC), EMC Directive (2004/108/EC).



 Hereby, Samsung Electronics, declares that this [ML-2950DW] is in compliance with the essential requirements and other relevant provisions of R&TTE Directive 1999/5/EC.

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

**January 1, 1995:** Council Directive 2006/95/EC Approximation of the laws of the member states related to low voltage equipment.

**January 1, 1996:** Council Directive 2004/108/EC, approximation of the laws of the Member States related to electromagnetic compatibility.

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

#### **EC Certification**

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

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

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

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

# **European radio approval information (for products fitted with EU-approved radio devices)**

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

C€0984Φ

Wireless devices that may be in your system are only qualified for use in the European Union or associated areas if a CE mark with a Notified Body Registration Number and the Alert Symbol is on the system label.

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

#### ► European states qualified under wireless approvals:

**EU** countries

#### ► European states with restrictions on use:

EU

In France, the frequency range is restricted to 2454-2483.5 MHz for devices above 10 mW transmitting power such as wireless

**EEA/EFTA** countries

No limitations at this time



### **Regulatory compliance statements**

#### Wireless guidance

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

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

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

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

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

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



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



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



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



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



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



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



### Israel only

מספר אישור אלחוטי של משרד התקשורת 51-24146 אסור להחליף את האנטנה המקורית של המכשיר ולא לעשות בו כל שינוי טכני אחר



#### 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 <sup>6+</sup> )	多溴联苯 (PBB)	多溴联苯醚 (PBDE)		
塑料	0	0	0	0	0	0		
金属(机箱)	X	0	0	0	0	0		
印刷电路部件 (PCA)	X	0	0	0	0	0		
电缆 / 连接器	X	0	0	0	0	0		
电源设备	X	0	0	0	0	0		
电源线	X	0	0	0	0	0		
机械部件	X	0	0	0	0	0		
卡盒部件	X	0	0	0	0	0		
定影部件	X	0	0	0	0	0		
扫描仪部件 - CCD (如果有)	X	X	0	0	0	0		
扫描仪部件-其它(如果有)	X	0	0	0	0	0		
印刷电路板部件 (PBA)	Х	0	0	0	0	0		
墨粉	0	0	0	0	0	0		
滚筒	0	0	0	0	0	0		

- 〇: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。

© 2010 Samsung Electronics Co., Ltd. All rights reserved.

This user's guide is provided for information purposes only. All information included herein is subject to change without notice.

Samsung Electronics is not responsible for any direct or indirect damages, arising from or related to use of this user's guide.

- Samsung and the Samsung logo are trademarks of Samsung Electronics Co., Ltd.
- Microsoft, Windows, Windows Vista, Windows 7, and Windows Server 2008 R2 are either registered trademarks or trademarks of Microsoft Corporation.
- TrueType, LaserWriter, and Macintosh are trademarks of Apple Computer, Inc.
- All other brand or product names are trademarks of their respective companies or organizations.

Refer to the 'LICENSE.txt' file in the provided CD-ROM for the open source license information.

**REV. 0.98** 

# Index

С		tips for avoiding paper jams	54	<u>P</u>	
cleaning		L		print media	
inside	50	Linux		card stock	35
outside	50		71	envelope	32
pickup roller	52	system requirements	71	labels	34
cleaning a machine	50	loading		output support	66
control panel	19	paper in manual feeder/multi-put tray	rpose 29	preprinted paper	36
convention	8	paper in the tray1	27	special media	31
_		special media	31	transparency	34
E		local	01	Printing	37
eco button	19	driver installation	22	printing	
eco printing	40	driver reinstalling	23	printing a document	
_		diver remotaning	20	Windows	37
<u>F</u>		M		R	
favorites settings, for printing	39	Macintosh			
features	4	system requirements	70	rear view	18
print media feature	66	maintenance parts	45	regulatiory information	74
front view	16	multi-purpose tray		S	
G		loading	29	safety	
		tips on using	29	information	9
general icons	8	using special media	31	symbols	9
J		N		specifications	64
				print media	66
jam		network			20
clearing paper	55	installing environment	72	stop button	20

# Index

supplies						
available supplies						
ordering						
replacing toner cartridge	48					
T						
toner cartridge						
redistributing toner						
replacing the cartridge						
tray						
adjusting the width and length	26					
changing the tray size	26					
loading paper in multi-purpose tray	29					
U						
understanding the status LED	61					
Unix						
system requirements						
using help	40					
W						
Windows						
driver installation for USB cable						
connected 22,	23					
system requirements	69					