

User Guide

pro**Xpress**

C401x series

Basic

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

Advanced

This guide provides information about installation, advanced configuration, operation and troubleshooting on various OS environments. Some features may not be available depending on models or countries.

Basic

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Introduction

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

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Features by model

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

Features	C401x series
Hi-Speed USB 2.0	●
Network Interface Ethernet 10/100/1000 Base TX wired LAN	●
Network Interface 802.11b/g/n wireless LAN ^a	○
NFC (Near Field Communication)	○
PrinterOn	●
Mopria	●
Eco printing	●
Duplex (2-sided) printing	●
USB memory interface	●
Optional tray (Tray2, Tray3, Tray4)	○
Stand	○

a. Depending on your country, wireless LAN card may not be available. For some countries, only 802.11 b/g can be applied. Contact your local Samsung dealer or the retailer where you bought your machine.

(●: supported, ○: optional, Blank: Not supported)

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 41).
- Remove the driver and install it again (see "Installing the software" on page 21).
- Select your machine as your default machine in your Windows (see "Setting your machine as a default machine" on page 176).

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 78).

A paper jam has occurred.

- Open and close the door (see "Front view" on page 16).
- Check the instructions on removing jammed paper in this manual and troubleshoot accordingly (see "Clearing paper jams" on page 71).

Printouts are blurry.

- The toner level might be low or uneven. Shake the toner cartridge (see "Redistributing toner" on page 55).
- Try a different print resolution setting (see "Opening printing preferences" on page 41).
- Replace the toner cartridge (see "Replacing the toner cartridge" on page 57).

Where can I download the machine's driver?

- You can get help, support application, machine drivers, manuals, and order information from the Samsung website, www.samsung.com > find your product > Support or Downloads.

About this user guide

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




- Do not discard this manual, and keep it for future reference.
- 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 guide are explained in the glossary chapter.
- All illustrations in this user guide may differ from your machine depending on its options or model you purchased.
- The screenshots in this user guide may differ from your machine depending on the machine's firmware/driver version.
- The procedures in this user guide are mainly based on Windows 7.
- If you are a Mac, Linux or UNIX operating systems user, refer to the User Guide from the Samsung website, <http://www.samsung.com> > find your product > Support or Downloads.
- If you have Internet access, you can get help, support application, machine drivers, manuals, and order information from the Samsung website, www.samsung.com > find your product > Support or Downloads.

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



Icon	Text	Description
	Warning	Used to alert users to the possibility of personal injury.
	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.

Safety information

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.



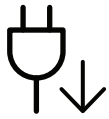

Important safety symbols



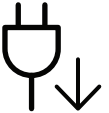



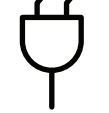

Explanation of all icons and signs used in this chapter

	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.

Operating environment









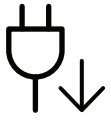
Warning

	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 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.
	<ul style="list-style-type: none">• If the machine gets overheated, it releases smoke, makes strange noises, or generates an odd odor, immediately turn off the power switch or 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.

	<p>Do not remove the plug by pulling on the cord; do not handle the plug with wet hands.</p> <p>This could result in electric shock or fire.</p>
 Caution	
	<p>During an electrical storm or for a period of non-operation, remove the power plug from the electrical outlet.</p> <p>This could result in electric shock or fire.</p>
	<p>Be careful, the paper output area is hot.</p> <p>Burns could occur.</p>
	<p>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.</p> <p>Otherwise, this could result in electric shock or fire.</p>
	<p>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.</p> <p>Otherwise, this could result in electric shock or fire.</p>
	<p>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.</p>
	<p>Do not allow pets to chew on the AC power, telephone or PC interface cords.</p> <p>This could result in electric shock or fire and/or injury to your pet.</p>



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.
	Be careful 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.
	Do not block or push objects into the ventilation opening. This could result in elevated component temperatures which can cause damage or fire.
	Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.
	This machine's power reception device is the power cord. To switch off the power supply, remove the power cord from the electrical outlet.

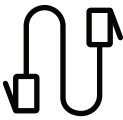
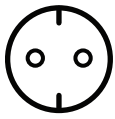


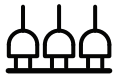

Installation / Moving

Warning

	<p>Do not place the machine in an area with dust, humidity, or water leaks. This could result in electric shock or fire.</p>
	<p>Place the machine in the environment where it meets the operating temperature and humidity specification.</p> <p>Do not use the machine when it is below freezing temperature or has recently been moved from a location below freezing temperature. Doing so may damage the machine. Only operate the machine when the internal temperature of the machine is within the operating temperature and humidity specifications.</p> <p>Otherwise, quality problems can occur and cause damage to the machine. See "General specifications" on page 104.</p>

Caution


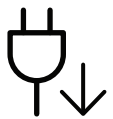

	<p>Before moving the machine, turn the power off and disconnect all cords. The information below are only suggestions based on the units weight.</p> <p>If you have a medical condition that prevents you from lifting, do not lift the machine. Ask for help, and always use the appropriate amount of people to lift the device safely.</p> <p>Then lift the machine:</p> <ul style="list-style-type: none">• If the machine weighs under 20 kg (44.09 lbs), lift with 1 person.• If the machine weighs 20 kg (44.09 lbs) - 40 kg (88.18 lbs), lift with 2 people.• If the machine weighs more than 40 kg (88.18 lbs), lift with 4 or more people. <p>The machine could fall, causing injury or machine damage.</p>
	<p>Choose a flat surface with enough space for ventilation to place the machine. Also consider the space required to open the cover and trays.</p> <p>The place should be well-ventilated and be far from direct light, heat, and humidity.</p>
	<p>When using the machine for a long period of time or printing a large number of pages in a non-ventilated space, it could pollute the air and be harmful to your health. Place the machine in a well-ventilated space or open a window to circulate the air periodically.</p>
	<p>Do not place the machine on an unstable surface.</p> <p>The machine could fall, causing injury or machine damage.</p>


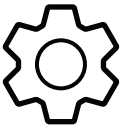


	Use only No.26 AWG ^a or larger, telephone line cord, if necessary. Otherwise, it can cause damage to the machine.
	Make sure you plug the power cord into a grounded electrical outlet. Otherwise, this could result in electric shock or fire.
	Use the power cord supplied with your machine for safe operation. If you are using a cord which is longer than 2 meters (6 feet) with a 110V 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.
	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.
	Do not overload wall outlets and extension cords. This can diminish performance, and could result in electric shock or fire.
	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.

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 cleaning supplies away from children. Children could get hurt.

	Do not disassemble, repair or rebuild the machine by yourself. It can damage the machine. Call a certified technician when the machine needs repairing.
	To clean and operate the machine, strictly follow the user's guide provided with the machine. Otherwise, you could damage the machine.
	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.
	<ul style="list-style-type: none"> Do not remove any covers or guards that are fastened with screws. Fuser units should only be repaired by a certified service technician. Repair by non-certified technicians could result in fire or electric shock. The machine should only be repaired by a Samsung service technician.

Supply usage

Caution






	Do not disassemble the toner cartridge. Toner dust can be dangerous if inhaled or ingested.
	Do not burn any of the supplies such as toner cartridge or fuser unit. This could cause an explosion or uncontrollable fire.
	When storing supplies such as toner cartridges, keep them away from children. Toner dust can be dangerous if inhaled or ingested.
	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.

	<p>For supplies that contain toner dust (toner cartridge, waste toner bottle, imaging unit, etc.) follow the instructions below.</p> <ul style="list-style-type: none"> • When disposing of the supplies, follow the instructions for disposal. Refer to the reseller for disposal instructions. • Do not wash the supplies. • For a waste toner bottle, do not reuse it after emptying the bottle. <p>If you do not follow the instructions above, it may cause machine malfunction and environmental pollution. The warranty does not cover damages caused by a user's carelessness.</p>
	<p>When toner gets on your clothing, do not use hot water to wash it. Hot water sets toner into fabric. Use cold water.</p>
	<p>When changing the toner cartridge or removing jammed paper, be careful not to let toner dust touch your body or clothes.</p> <p>Toner dust can be dangerous if inhaled or ingested.</p>

Machine overview

Components

The actual component may differ from the illustration below. Some components may change depending on the configuration.

	Machine ^a
	Quick installation guide
	Software CD ^b
	Power cord
	Misc. accessories ^c

a.This illustration may differ from your machine depending on your model. There are various types of machine.

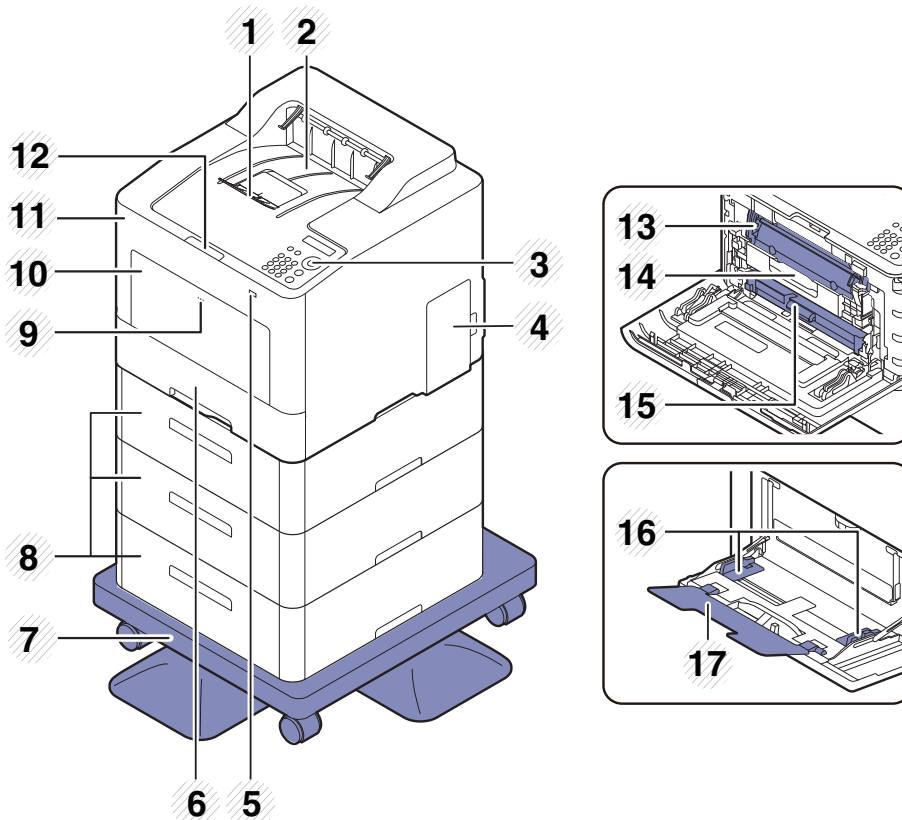
b.The software CD contains the print drivers, user's guide, and software applications.

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

Front view



- This illustration may differ from your machine depending on your model. There are various types of machine.
- Some features and optional goods may not be available depending on model or country (see "Features by model" on page 5).



1	Output support tray	10	Multi-purpose tray
2	Output tray	11	Front cover
3	Control panel	12	Push-release of front cover button
4	Control board cover	13	Toner cartridges
5	USB memory port	14	Toner cartridge handle
6	Tray 1	15	Intermediate Transfer Belt (ITB)
7	Stand ^a	16	Paper width guides on a multi-purpose tray
8	Optional tray ^b	17	Multi-purpose support tray
9	Push-release of Multi-purpose tray		

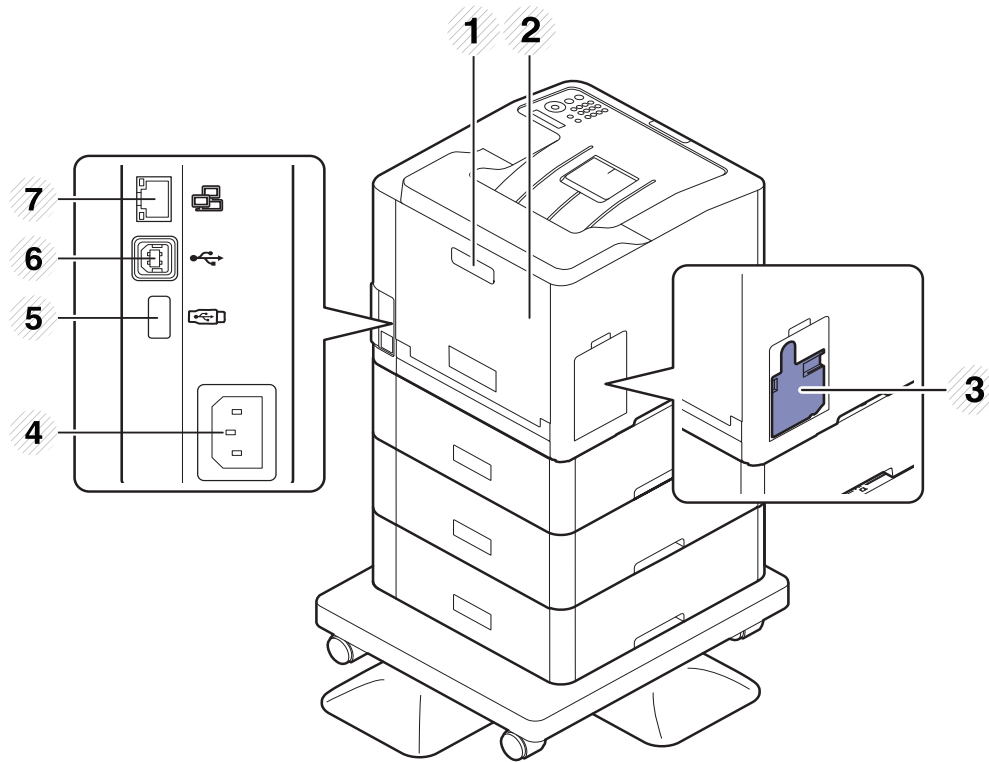
a.Optional device.

b.Install the optional tray if it is necessary.

Rear view



- This illustration may differ from your machine depending on your model. There are various types of machine.
- Some features and optional goods may not be available depending on model or country (see "Features by model" on page 5).

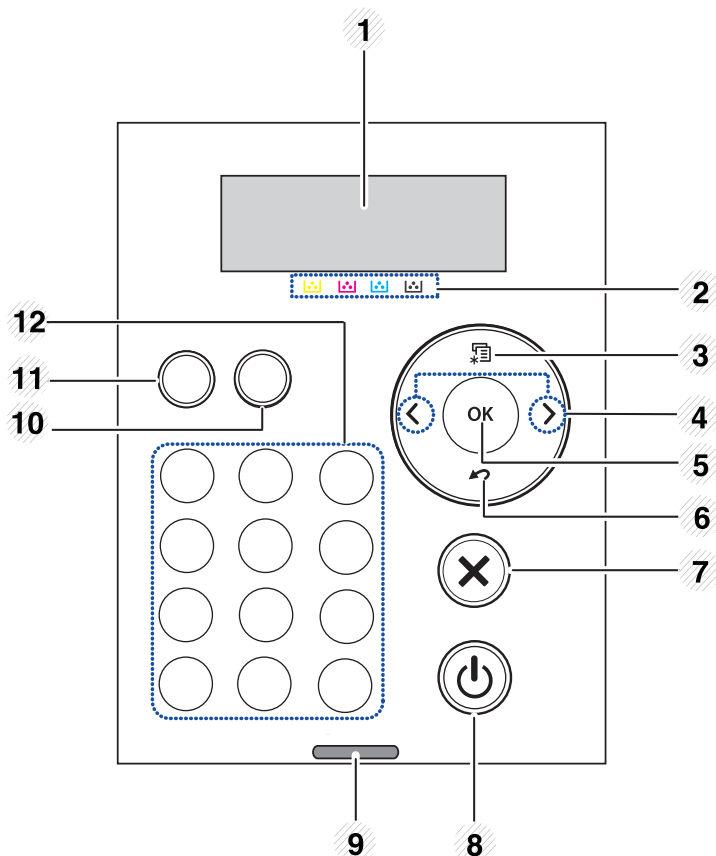


1	Rear cover handle
2	Rear cover
3	Waste toner container
4	Power receptacle
5	USB memory port
6	USB port
7	Network port



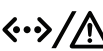

Control panel overview



- This control panel may differ from your machine depending on its model. There are various types of control panels.
- Some features and optional goods may not be available depending on model or country (see "Features by model" on page 5).



1	Display screen		Shows the current status and prompts during an operation.
2	Toner colors		Show the status of each toner cartridge (see "Toner-related messages" on page 81).
3	Menu		Enters menu mode and scrolls through the available menus (see "Accessing the menu" on page 25).
4	Arrow		Navigates available values by moving to the next or previous options.
5	OK		Confirms the selection on the screen.
6	Back		Sends you back to the upper menu level.

7	Cancel		Stops current operation.
8	Power/Wake up		You can turn the power on and off with this button. Or wake up from the power save mode.
9	Status LED		Indicates the status of your machine (see "Understanding the status LED" on page 78).
10	Demo page		Prints a demo page by pressing this button.
11	Eco		Turn on eco mode to reduce toner consumption and paper usage (see "Eco printing" on page 44).
12	Numeric keypad		Use the keypad to enter numbers and characters (see "Keypad letters and numbers" on page 174).

Turning on the machine

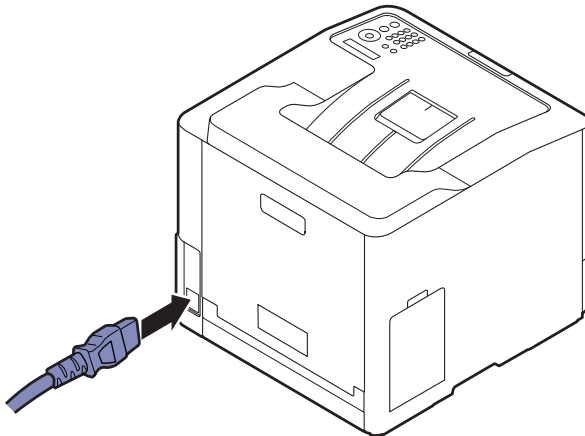


Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).



- Keep in mind that you should use the power cord supplied with the machine. Otherwise, it can cause damage or fire to the machine.
- Some parts inside of the machine may be hot when power is on, or after printing. Be careful not to burn yourself when working inside the machine.
- Do not disassemble the machine when it is turned on or plugged in. Doing so may give you an electric shock.

- 1 Connect the machine to the electricity supply first.



- 2 Power is turned on automatically.



If you want to turn the power off, press the  (**Power/Wakeup**) button.

Installing the software

After you have set up your machine and connected it to your computer, you must install the printer software. If you are a Windows user, install the software from the supplied CD and if you are a Mac, Linux, or UNIX OS user, download the software from the Samsung website and install (<http://www.samsung.com> > find your product > Support or Downloads or <http://www.samsung.com/printersetup>). Before installing, check whether your computer's OS support the software.



- If you are a Mac, Linux or UNIX operating systems user, refer to the User Guide from the Samsung website.
- The installation window in this User Guide may differ depending on the machine and interface in use.
- Only use a USB cable no longer than 3 meters (118 inches).

Supplied software

Printer software are occasionally updated due to release of new operating system and etc. If needed, download the latest version from the Samsung website.

Software	Windows	Mac ^a	Linux ^a	UNIX ^a
SPL printer driver	•	•	•	
PCL printer driver	•	•		•
PS printer driver ^a	•	•	•	•
XPS printer driver ^a	•			
Direct Printing Utility ^a	•			
SetIP ^a	•	•	•	
Easy Capture Manager	•	•		
Samsung Easy Printer Manager	•	•		
Samsung Eco Driver Pack ^b	•			
Samsung Stylish Driver Pack ^c	•			
Samsung Printer Center	•			
Samsung Printer Status	•			

a.Download the software from the Samsung website and install it (<http://www.samsung.com> > find your product > Support or Downloads or <http://www.samsung.com/printersetup>). Before installing, check whether your computer's OS support the software.

b.To use the Easy Eco Driver features, the **Eco Driver Pack** must be installed.

c.The printer driver includes a user interface that is optimized for touchscreens. To use this UI, click **Samsung Printer Center > Device Options** and then select **Stylish User Interface** (see "Using Samsung Printer Center" on page 192).

Installing for Windows

- 1 Make sure that the machine is connected to your computer and powered on.
- 2 Insert the supplied software CD into your CD-ROM drive.



If the installation window does not appear, click **Start > All programs > Accessories > Run**.

X:\Setup.exe replacing "X" with the letter, which represents your CD-ROM drive and click **OK**.

- For Windows 8

If the installation window does not appear, from **Charms**, select **Search > Apps** and search for **Run**. Type in X:\Setup.exe, replacing "X" with the letter that represents your CD-ROM drive and click **OK**.

If "**Tap to choose what happens with this disc.**" pop-up window appears, click the window and select **Run Setup.exe**.

- For Windows 10 / Windows Server 2016

If the installation window does not appear, from task bar, type in X:\Setup.exe in **Search** input area, replacing "X" with the letter that represents your CD-ROM drive and press the Enter key.

- 3 Review and accept the installation agreements in the installation window, and then click **Next**.
- 4 Select you want type on the **Printer Setup Type** screen, and then click **Next**.
- 5 Follow the instructions in the installation window.

From the Windows 8 Start Screen



- The V4 driver is automatically downloaded from the Windows Update if your computer is connected to the Internet. Or, you can manually download the V4 driver from Samsung website, www.samsung.com > find your product > Support or downloads.
 - You can download Samsung Printer Experience app from the Windows Store. You need have a Microsoft account to use the Windows Store.
 1. From **Charms**, select **Search**.
 2. Click **Store**.
 3. Search and click **Samsung Printer Experience**.
 4. Click **Install**.
 - If you install the driver using the supplied software CD, V4 driver is not installed. If you want to use the V4 driver in the **Desktop** screen, you can download from the Samsung website, www.samsung.com > find your product > Support or downloads.
 - If you want to install Samsung's printer management tools, you need to install them using the supplied software CD.
-

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


2 Make sure that the machine is powered on.

3 Connect the computer and the machine with a USB cable.

The driver is automatically installed from the **Windows Update**.



If the printer driver does not work properly, follow the steps below to reinstall the driver. From the **Start** menu, select **Programs** or **All Programs** > **Samsung Printers** > **Uninstall Samsung Printer Software** .

- For Windows 8,
 1. From Charms, select **Search** > **Apps**.
 2. Search and click **Control Panel**.
 3. Click **Programs and Features**.
 4. Right-click the driver you want to uninstall and select **Uninstall**.
 - For Windows 10 / Windows Server 2016
 1. From task bar, type in **Programs and Features** in **Search** input area. Press the Enter key.
OR
From the **Start** () icon, select **All apps** > **Search** > type in **Programs and Features**.
 2. Right-click the driver you want to uninstall and select **Uninstall**.
-

Menu Overview and Basic Setup

This chapter provides information about the overall menu structure and the basic setup options.

• Menu overview	25
• Machine's basic settings	28
• Media and tray	29
• Basic printing	40
• Using USB memory device	46



Menu overview

The control panel provides access to various menus to set up the machine or use the machine's functions.



- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
 - Some menu names may differ from your machine depending on its options or the models.
 - The menus are described in the Advanced Guide (see "Useful Setting Menu" on page 154).
-

Accessing the menu

- 1 Press  (**Menu**) button on the control panel.
- 2 Press the arrows until the needed menu item appears and press **OK**.
- 3 If the setting item has sub menus, repeat step 2.
- 4 Press **OK** to save the selection.
- 5 Press  (**Cancel**) to return to the ready mode.

Information (see "Information" on page 156)	Layout (see "Layout" on page 157)	Paper (see "Paper" on page 159)
Menu Map Configuration Supplies Info. Demo Page PCL Font PS Font Usage Counter Account ^a Network Conf.	Orientation Portrait Landscape Margin Common Margin MP Tray Tray 1 Tray 2 ^b Tray 3 ^b Tray 4 ^b Emulation Mar. Duplex	Copies MP Tray Tray 1 Tray 2 ^b Tray 3 ^b Tray 4 ^b Paper Source Tray 1 Tray 2 ^b Tray 3 ^b Tray 4 ^b MP Tray Auto

a.This is used only available when Job Accounting is enabled from the SyncThru™ Web Admin Service.

b.This option is available when the optional tray is installed.

Graphic (see "Graphic" on page 160)	System Setup (see "System Setup" on page 161)	
Resolution Clear Text Edge Enhance Auto CR Screen Trapping	Date & Time Clock Mode Language Power Save Wakeup Event Job Timeout Default Paper Altitude Adj. Humidity Auto Continue Auto Tray Swi. Paper Substit. Tray Protect. Tray Mode SkipBlankPages	Maintenance CLR Empty Msg. ^a Supplies Life Image Mgr. TonerLow Alert RAM Disk Toner Save Eco Settings Quiet Mode Stacking Mode Smart Duplex Vapor Mode Auto Power Off

a.This option only appears when small amount of toner is left in the cartridge.

Emulation (see "Emulation" on page 165)	Image Mgr. (see "Image Mgr." on page 166)	Network (see "Network" on page 167)	
Emulation Type Setup	Custom Color Default Print Density AutoColor Reg. Tone Adjust. Auto Tone Adj.	TCP/IP (IPv4) DHCP BOOTP Static TCP/IP (IPv6) IPv6 Protocol DHCPv6 Config Ethernet Ethernet Port Ethernet Speed 802.1x	Wi-Fi ^a Wi-Fi On/Off Wi-Fi Settings WPS Wi-Fi Direct Wi-Fi Signal CLR Wi-Fi Set. Protocol Mgr. NFC ^a Network Conf. Clear Settings

a.This option is available when the optional Wi-Fi/NFC kit installed.

Direct USB ^a (see "Direct USB" on page 169)	Job Manage ^b (see "Job Manage" on page 170)	PrinterOn ^c (see "PrinterOn" on page 171)
Print From File Manage Check Space	Active Job Secured Job Stored Job Filing Policy	

a.This option is available when USB memory is inserted into the USB memory port on your machine.

b.This option is available when the RAM disk is checked.

c.This is available only when **PrinterOn** is enabled from SyncThru™ Web Service (see "Registering your printer on the PrinterOn service" on page 152). The sub menus that appear in this menu may differ based on whether or not the machine is connected to the **PrinterOn** server.

Machine's basic settings



You change the machine's setting set in the machine from Samsung Easy Printer Manager or SyncThru™ Web Service.



- If your machine is connected to the local, you can set the machine's setting from **Samsung Easy Printer Manager > Advanced Setting > Device Settings** (see "Using Samsung Easy Printer Manager" on page 197).
- If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "SyncThru™ Web Service" on page 187).

After installation is complete, you may want to set the machine's default settings.

To change the machine's default settings, follow these steps:



It may be necessary to press **OK** to navigate to lower-level menus for some models.

- 1 Select  (**Menu**) button on the control panel.
- 2 Press **System Setup**.
- 3 Select the option (language, data & time, clock mode, power save, altitude adjustment, etc.) you want, then press **OK**.
- 4 Select the detailed option you want, then press **OK**.
- 5 Press **OK** to save the selection.
- 6 Press  (**Cancel**) to return to ready mode.



Refer to below links to set other settings useful for using the machine.

- See "Setting the paper size and type" on page 38.
 - See "Keypad letters and numbers" on page 174.
-

Media and tray

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

Selecting print media

You can print on a variety of print media, such as plain paper, envelopes, and labels. Always use print media that meet the guidelines for use with your machine.

Guidelines for 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 105).
- 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 user's guide and still not produce satisfactory results. This may be the result of the sheets characteristics, 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.
-



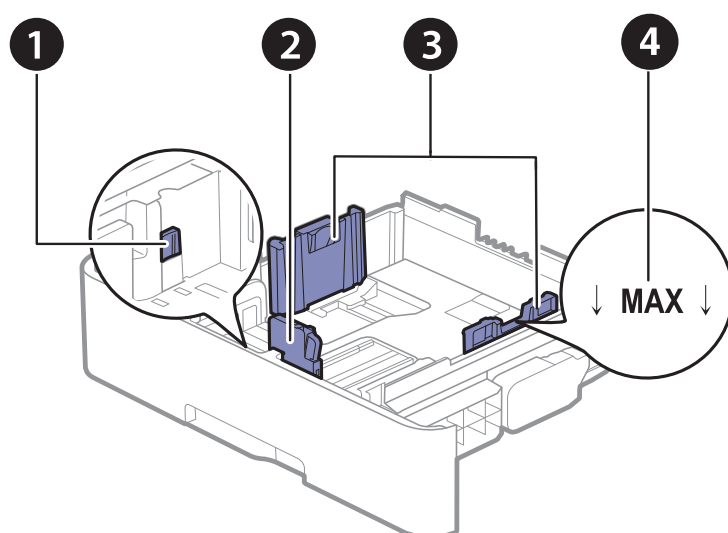
- Using print media that does not meet these specifications may cause problems or require repairs. Such repairs are not covered by Samsung's warranty or service agreements.
- The amount of paper put into the tray may differ according to media type used (see "Print media specifications" on page 105).
- Make sure not to use the inkjet photo paper with this machine. It could cause damage to the machine.
- Using flammable print media can cause a fire.
- Use designated print media (see "Print media specifications" on page 105).



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

The amount of paper put into the tray may differ according to media type used (see "Print media specifications" on page 105).

Tray overview



1. Tray extend lever
2. Paper length guide
3. Paper width guide
4. Paper limit mark



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

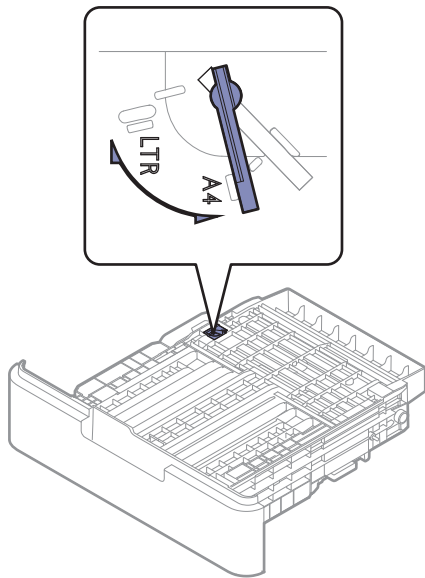
Changing the tray size

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

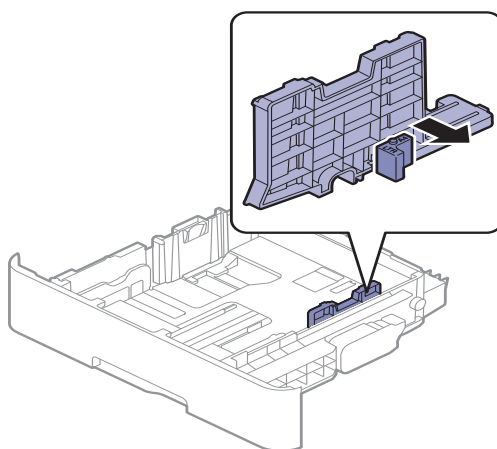
To change the size to A4 or Letter

The tray is preset to Letter or A4 size, depending on your country. You must adjust the lever and paper width guide properly.

- 1 Pull the tray out of the machine. Remove paper from the tray if necessary.
- 2 If you want to change the size to Letter, hold the lever at the back of the tray, and rotate the lever clockwise.



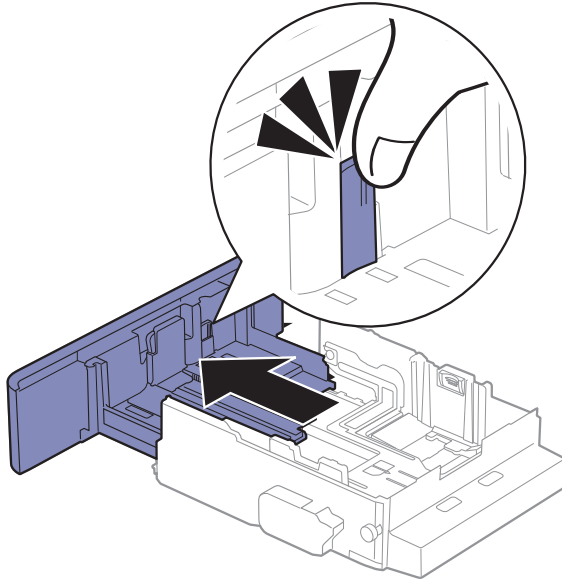
- 3 Squeeze the paper width guide and slide it to the edge of the lever.



If you want to change the size to A4, first move the paper width guide to left and rotate the lever counterclockwise. If you force the lever, it could damage the tray.

To change the size to Legal (LGL)

Push button as shown and pull out the tray.



Loading paper in the tray



Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).

Tray 1 / optional tray

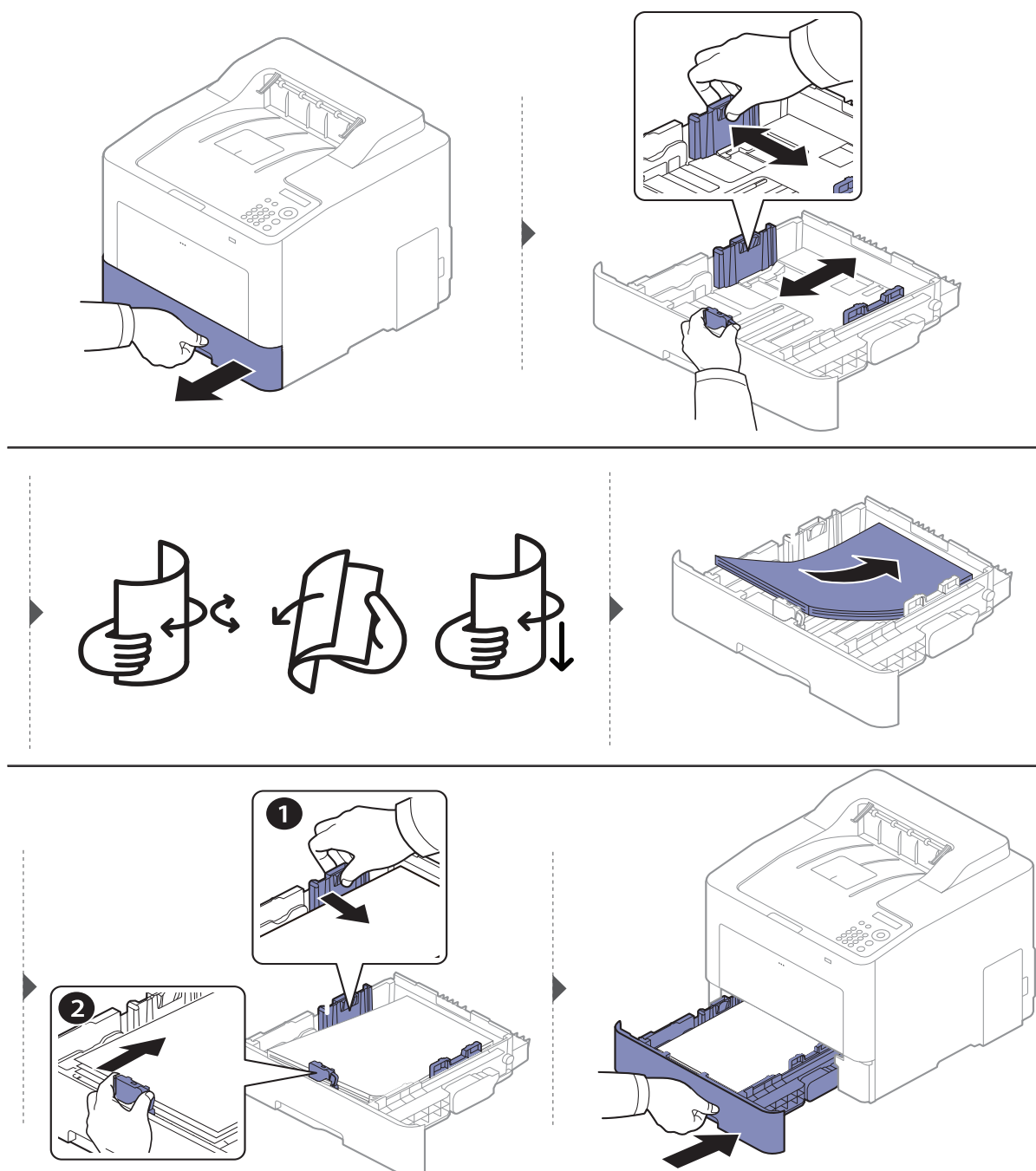


- The procedure is same for all optional trays.
- Do not push the paper width guide too far causing the media to warp.
- If you do not adjust the paper width guide, it may cause paper jams.



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





When you print a document, set the paper type and size for the tray (see "Setting the paper size and type" on page 38).

Multi-purpose tray

The multi-purpose tray can hold special sizes and types of print material, such as postcards, note cards, and envelopes (see "Print media specifications" on page 105).

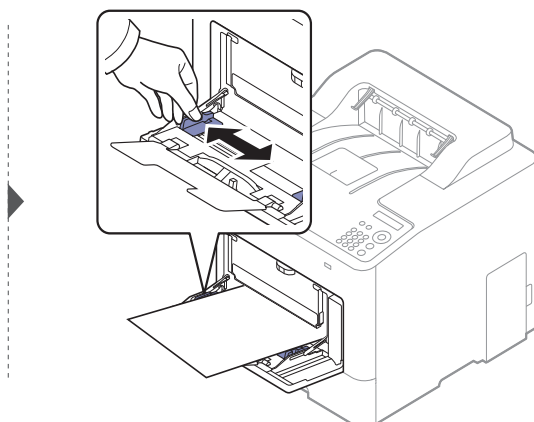
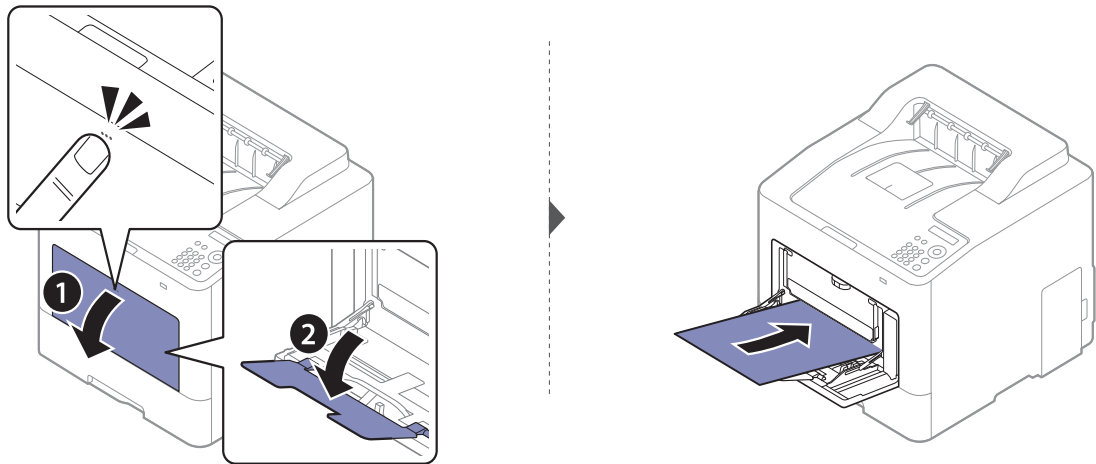
Tips on using the multi-purpose tray

- Load only one type, size and weight of print media at a time in the multi-purpose tray.
- To prevent paper jams, do not add paper while printing when there is still paper in the multi-purpose tray. This also applies to other types of print media.

- To prevent paper jams, do not pull out the paper tray while printing is in progress from the multi-purpose tray or the printing will stop. Make sure that the paper tray is inserted.
- Always load the specified print media only to avoid paper jams and print quality problems (see "Print media specifications" on page 105).
- Flatten any curl on postcards, envelopes, and labels before loading them into the multi-purpose tray.



- When printing the special media, you must follow the loading guideline (see "Printing on special media" on page 34).
- When papers overlap when printing using multi-purpose tray, open tray 1 and remove overlapping papers then try printing again.




When you print a document, set the paper type and size for the multi-purpose tray.

For information about setting the paper type and size on the control panel (see "Setting the paper size and type" on page 38).

Printing on special media

The paper setting in the machine and driver should match to print without a paper mismatch error.

- You change the paper setting set in the machine from Samsung Easy Printer Manager program or SyncThru™ Web Service.

- If your machine is connected to the local, you can set the machine's setting from **Samsung Easy Printer Manager > Advanced Setting > Device Settings** (see "Using Samsung Easy Printer Manager" on page 197).
- If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "SyncThru™ Web Service" on page 187).
- You change the paper setting set in the machine using control panel.
 - Select  (Menu) > **System Setup > Paper Setup > Paper Size or Paper Type** on the control panel.
- You change the paper setting set in the machine using printer driver.
 - Set the paper type from the **Printing preferences** window > **Paper** tab > **Paper Type** (see "Opening printing preferences" on page 41).



- When using special media, we recommend you feed one sheet at a time (see "Print media specifications" on page 105).
- Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).

To see for paper weights for each sheet, refer to "Print media specifications" on page 105.

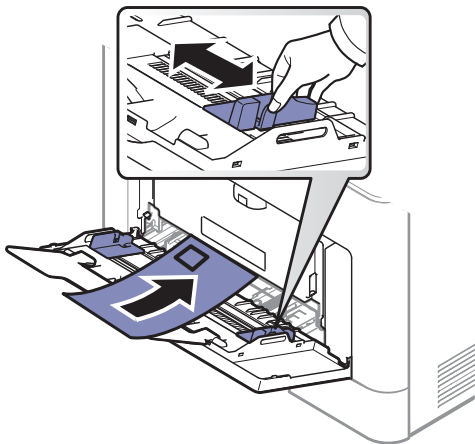
Types	Tray 1	Optional tray	Multi-purpose tray
Plain	•	•	•
Thick	•	•	•
Heavy weight	•	•	•
Extra Heavy weight	•		•
Thin	•	•	•
Cotton	•	•	•
Color	•	•	•
Preprinted	•	•	•
Recycled	•	•	•
Envelope	•		•
Thick Envelope	•		•
Labels	•		•
CardStock	•	•	•
Bond	•	•	•
Archive	•	•	•
LetterHead	•	•	•
Punched	•	•	•
Glossy Photo	•		•

(●: Supported, Blank: Not supported)

Envelope

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

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



- When selecting envelopes, consider the following factors:
 - **Weight:** should not exceed 90 g/m² 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 well-creased folds.
- Do not use stamped envelopes.
- Do not use envelopes with clasps, snaps, windows, coated lining, self-adhesive seals, or other synthetic materials.
- Do not use damaged or poorly made envelopes.
- Be sure the seam at both ends of the envelope extends all the way to the corner of the envelope.

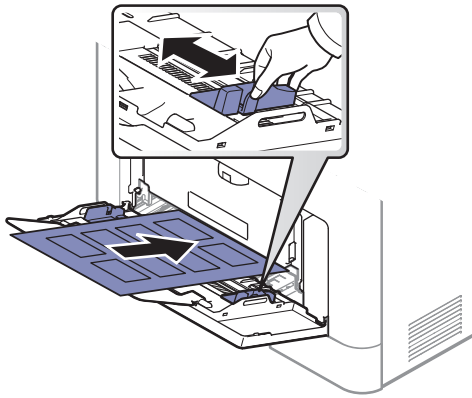


1. Acceptable
2. Unacceptable

- 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.

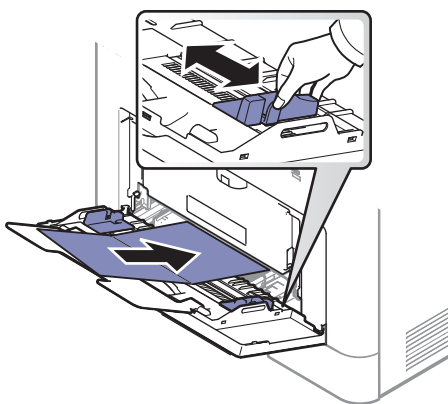
Labels

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 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.

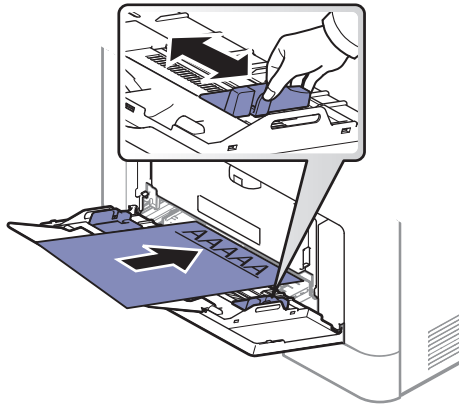
Card stock/ Custom-sized paper



- In the software application, set the margins to 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).
- Preprinted paper ink 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.

The paper setting in the machine and driver should match to print without a paper mismatch error.

- You change the paper setting set in the machine from Samsung Easy Printer Manager program or SyncThru™ Web Service.
 - If your machine is connected to the local, you can set the machine's setting from **Samsung Easy Printer Manager > Advanced Setting > Device Settings** (see "Using Samsung Easy Printer Manager" on page 197).
 - If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "SyncThru™ Web Service" on page 187).
- You change the paper setting set in the machine using control panel.
 - Select  (Menu) > **System Setup > Paper Setup > Paper Size or Paper Type** on the control panel.



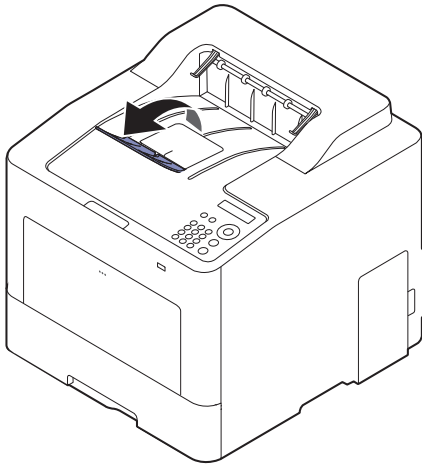
If you want to use special-sized paper such as billing paper, select the **Paper** tab > **Size > Edit...** and set **Custom Paper Size Settings** in the **Printing Preferences** (see "Opening printing preferences" on page 41).

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. Unfold the output support.



Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).

Basic printing



For special printing features, refer to the Advanced Guide (see "Using advanced print features" on page 177).

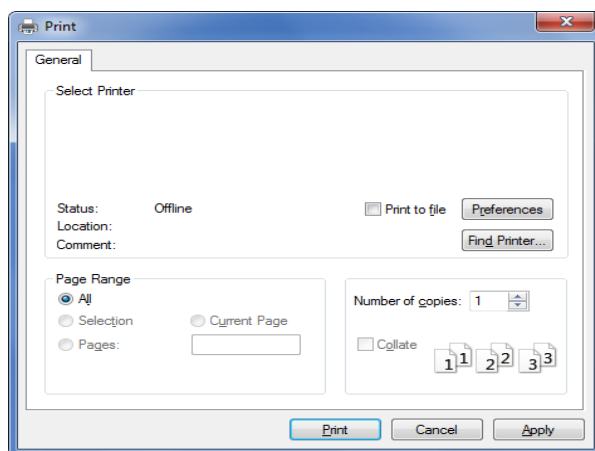
Printing



If you are a Mac, Linux or UNIX operating systems user, refer to the User Guide from the Samsung website, <http://www.samsung.com> > find your product > Support or Downloads.

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

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



- 4 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 41).

- 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**) on the control panel.

Opening printing preferences

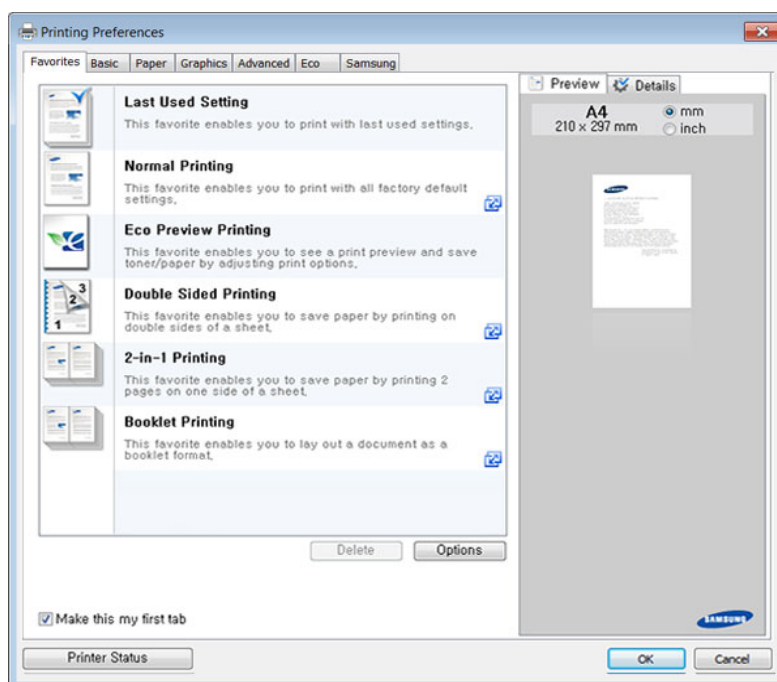


- The **Printing Preferences** window that appears in this user's guide may differ depending on the machine in use.
 - When you select an option in **Printing Preferences**, you may see a warning mark  or . An  mark means you can select that certain option but it is not recommended, and an  mark means you cannot select that option due to the machine's setting or environment.
-

- 1 Open the document you want to print.
 - 2 Select **Print** from the file menu. The **Print** window appears.
 - 3 Select your machine from the **Select Printer**.
 - 4 Click **Properties** or **Preferences**.
-



The screenshot may differ depending on model.



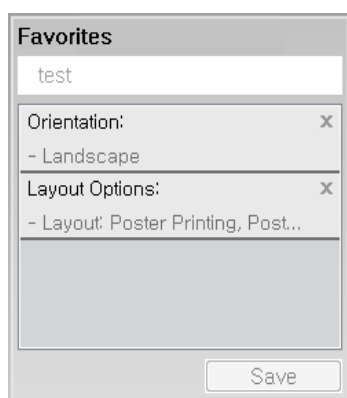
- You can apply **Eco** features to save paper and toner before printing (see "Easy Eco Driver" on page 44).
- You can check the machine's current status pressing the **Printer Status** button (see "Using Samsung Printer Status" on page 200).
- The printer driver includes a user interface that is optimized for touchscreen. To use this UI, click **Samsung Printer Center** > **Device Options** and then select **Stylish User Interface** (see "Using Samsung Printer Center" on page 192).

Using a favorite setting

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

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

- 1 Change the settings as needed on each tab.
- 2 Enter a name for the item in the **Favorites** input box.



3 Click **Save**.

4 Enter name and description, and then select the desired icon.

5 Click **OK**. When you save **Favorites**, all current driver settings are saved.



To use a saved setting, select it in the **Favorites** tab. The machine is now set to print according to the settings you have selected.

To delete saved settings, select it in the **Favorites** tab and click **Delete**.


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.

You can change the eco setting set:

- From the Samsung Easy Printer Manager program or SyncThru™ Web Service.
 - If your machine is connected to the local, you can set the machine's setting from **Samsung Easy Printer Manager > Advanced Setting > Device Settings** (see "Using Samsung Easy Printer Manager" on page 197).
 - If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "SyncThru™ Web Service" on page 187).
- From the control panel.
 - Select  (Menu) > **System Setup > Eco Settings** on the control panel.



If you press the **Eco** button from the control panel, eco mode is enabled. The default setting of Eco mode is duplex, Multiple Pages per Side (2-up), Skip Blank Pages.

-
- From the printer driver.
 - Set the paper type from the **Printing preferences** window > **Eco** tab (see "Opening printing preferences" on page 41).

Easy Eco Driver



- Available for Windows OS users only.
- To use the Easy Eco Driver features, the **Eco Driver Pack** must be installed.

With the Easy Eco Driver, you can apply Eco features to save paper and toner before printing.

Easy Eco Driver also allows you simple editing such as removing images and texts, and more. You can save frequently used settings as a favorite (preset).

How to use:

- 1 Open a document to print.
- 2 Open printing preference window.
- 3 From the **Favorites** tab, select **Eco Preview Printing**.
- 4 Click **OK > Print** in the window. A preview window appears.
- 5 Select the options you want to apply to the document.
You can see the preview of the applied features.

6 Click **Print**.



- If you want to run Easy Eco Driver every time you print, check **Start Easy Eco Driver before printing job** checkbox in the **Basic** tab of the printing preference window.
 - To use this feature on Stylish User Interface, click **Samsung Printer Center > Device Options** and then select **Stylish User Interface** (see "Using Samsung Printer Center" on page 192).
-

Using USB memory device

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

About USB memory

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

You can do the following tasks on your machine by using a USB memory device.

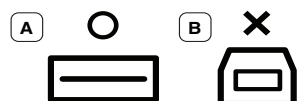
- Print data stored on a USB memory device
- Format the USB memory device
- Check the available memory space

Plugging in a USB memory device

The USB memory port on the front of your machine is designed for USB V1.1 and USB V2.0 memory devices. Your machine supports USB memory devices with FAT16/FAT32 and a sector size of 512 bytes.

Check your USB memory device's file system from your dealer.

You must use only an authorized USB memory device with an A plug connector.

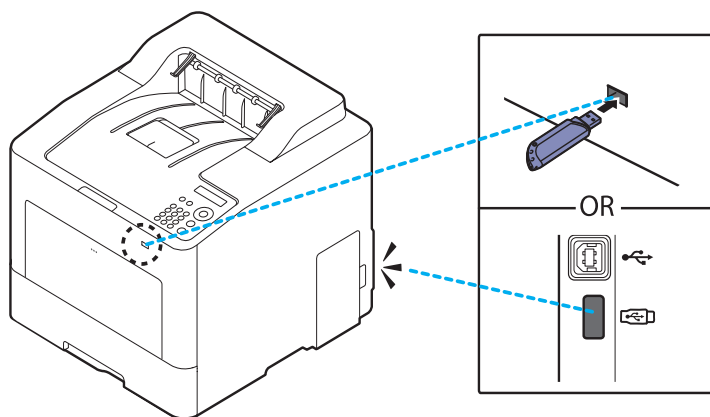


Use only a metal-shielded USB memory device.



Only use a USB memory device that has obtained compatibility certification; otherwise, the machine might not recognize it.

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





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

Printing from a USB memory device

You can directly print files stored on a USB memory device.

File is supported by Direct Print option.

- **PRN:** Only files created by provided driver with your machine are compatible. PRN files can be created by selecting the **Print to file** check box when you print a document. The document will be saved as a PRN file, rather than printed on paper. Only PRN files created in this fashion can be printed directly from USB memory device.
- **TIFF:** TIFF 6.0 Baseline
- **JPEG:** JPEG Baseline
- **PDF:** PDF 1.7 and below
- **XPS:** XML Paper Specification 1.0

To print a document from a USB memory device:

Insert a USB memory device into the USB memory port on your machine, and then press **Direct USB > USB Print** on the control panel.

Managing USB memory

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



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



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

To delete, format, or check space image files stored from a USB memory device:

Insert a USB memory device into the USB memory port on your machine, and then press **Direct USB > File Manage > Delete, Format, or Check Space**.

Maintenance

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

• Ordering supplies and accessories	49
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• Available accessories	51
• Available maintenance parts	52
• Storing the toner cartridge	53
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• Replacing the toner cartridge	57
• Replacing the waste toner container	59
• Installing accessories	61
• Monitoring the supplies life	63
• Setting the toner low alert	64
• Cleaning the machine	65
• Tips for moving & storing your machine	68

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 followings of consumables for your machine:

Type	Average yield ^a	Part name
Toner cartridge	<ul style="list-style-type: none">• Average continuous black cartridge yield: Approx. 15,000 standard pages (Black)• Average continuous color cartridge yield: Approx. 10,000 standard pages (Yellow/Magenta/Cyan)	<ul style="list-style-type: none">• CLT-K603L: Black• CLT-M603L: Yellow• CLT-Y603L: Magenta• CLT-C603L: Cyan
		<ul style="list-style-type: none">• CLT-K604L^b: Black• CLT-Y604L^b: Yellow• CLT-M604L^b: Magenta• CLT-C604L^b: Cyan
Waste toner container	Approx. 20,000 black pages or 5,000 color pages	CLT-W506

a.Declared yield value in accordance with ISO/IEC 19798. The number of pages may be affected by operating environment, printing interval, graphics, media type and media size.

b.The toner cartridge is available only for C4012 series.



Depending on the options, percentage of image area 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 accessories

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



Some features and optional goods may not be available depending on models or countries (see "Features by model" on page 5).

Accessory	Function	Part name
Optional trays (Tray2, Tray3, Tray4)	If you are experiencing frequent paper supply problems, you can attach an additional 550 ^a sheet trays.	SL-SCF3001
Stand	<p>You can easily move the machine using the stand with its wheels.</p> <p> When using the optional Stand, you must install the foot as shown in the Optional Stand Installation Guide. Otherwise, the machine could fall over if on incline and cause bodily injury.</p>	SL-DSK003S
Wi-Fi/NFC kit	This kit lets you use your machine as a Wireless and NFC machine.	SL-NWE001X

a.Plain paper 75 g/m² (20 lb bond).

Available maintenance parts

You need to replace the maintenance parts at specific intervals to keep the machine in the best condition and avoid print quality and paper feeding problems resulting from the worn-out parts. Maintenance parts are mostly rollers, belts and pads. However, the replacement period and parts may differ depending on the model. Replacing maintenance parts can be performed only by an authorized service provider, dealer, or the retailer where you bought the machine. To purchase maintenance parts, contact the retailer where you bought the machine. The replacement period for the maintenance parts is informed by the "Samsung Printer Status" program. Or on the UI (User Interface) if your machine supports a display screen. The replacement period varies based on the operating system used, computing performance, application software, connecting method, paper type, paper size, and job complexity.

Storing the toner cartridge

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

Store this cartridge in the same environment in which the printer will be used. This should be in controlled temperature and humidity conditions. The toner cartridge should remain in its original and 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, follow the instructions below to store the toner cartridge properly.

- 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 it were installed in the machine.
- Do not store consumables in any of the following conditions:
 - Temperature greater than 40 °C (104 °F).
 - Humidity range less than 20 % or 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 photoconductive 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.

Toner cartridge usage

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



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

Estimated cartridge life

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

Redistributing toner

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

- White streaks or light printing occurs and/or density variation side to side.
- The toner-related message saying that the toner is low may appear on the display.
- The computer's Samsung Printing Status program window appears on the computer telling you which color cartridge is low on toner (see "Using Samsung Printer Status" on page 200).

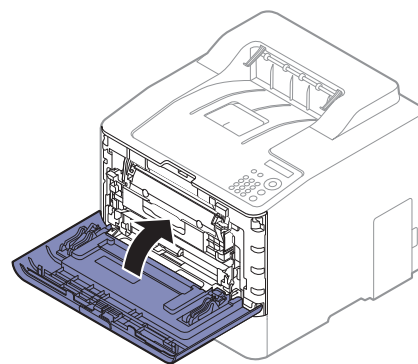
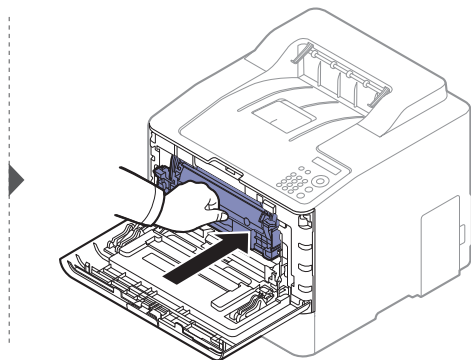
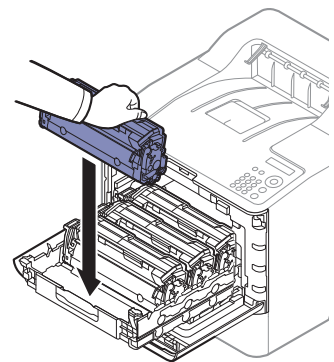
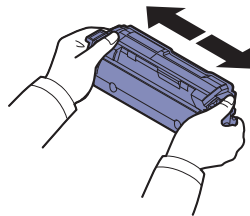
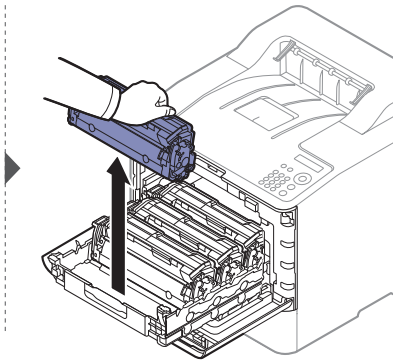
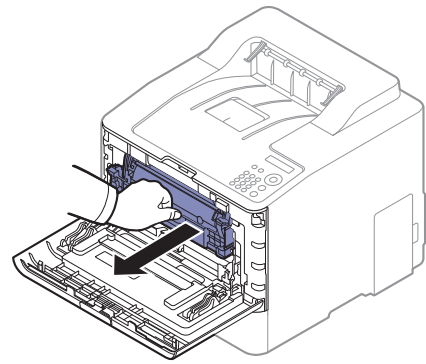
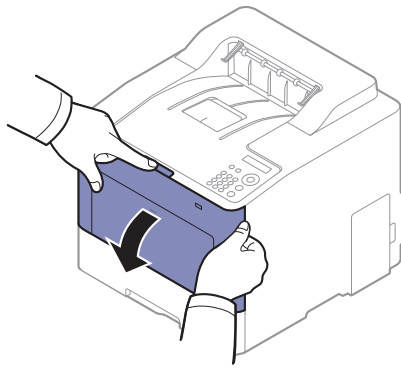
If this happens, you can temporarily improve print quality by redistributing the remaining toner in the cartridge. In some cases, white streaks or light printing will still occur even after you have redistributed the toner. Check the type of the toner cartridge for your machine (see "Available supplies" on page 50).



Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).



- 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 area of the toner cartridge. Use the handle on the cartridge to avoid touching this area.
- Do not use sharp objects such as a knife or scissors to open the toner cartridge package. They might scratch the drum of 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

The machine uses four colors and has a different toner cartridge for each one: yellow (Y), magenta (M), cyan (C), and black (K).

- The status LED and the toner-related message on the display indicate when each individual toner cartridges should be replaced.
- The computer's Samsung Printing Status program window appears on the computer telling you which color cartridge is empty on toner (see "Using Samsung Printer Status" on page 200).

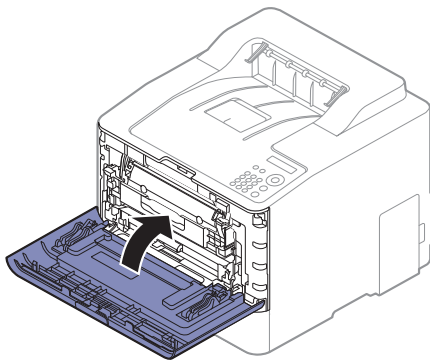
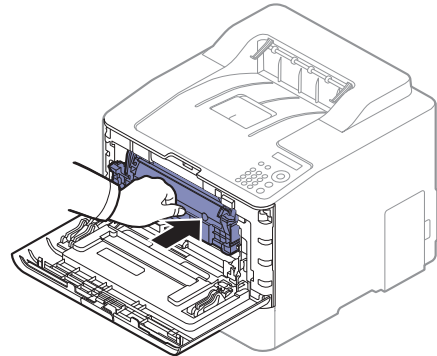
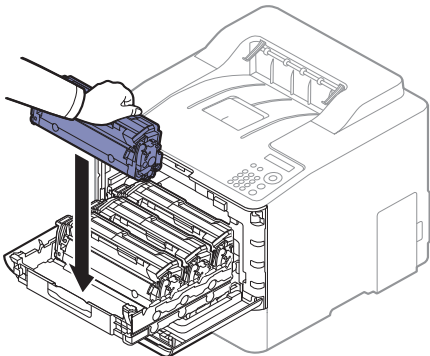
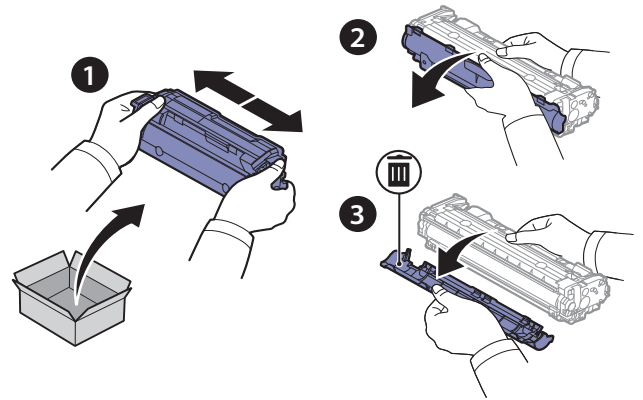
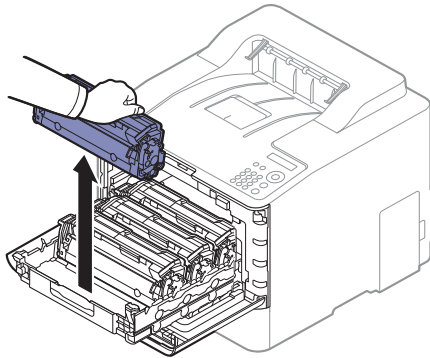
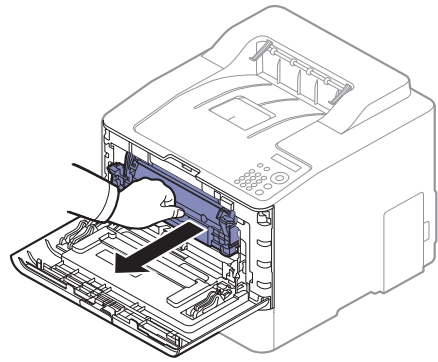
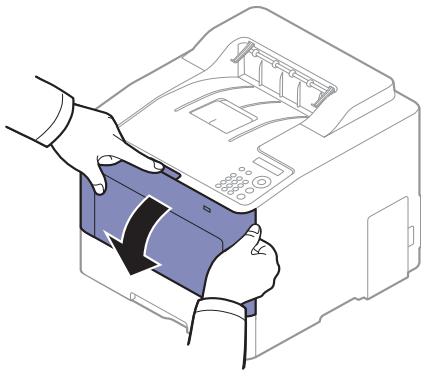
Check the type of the toner cartridge for your machine (see "Available supplies" on page 50).



- Shake the toner cartridge thoroughly side to side, it will increase the initial print quality.
- Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).



- 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 area of the toner cartridge. Use the handle on the cartridge to avoid touching this area.
- Do not use sharp objects such as a knife or scissors to open the toner cartridge package. They might scratch the drum of 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 waste toner container

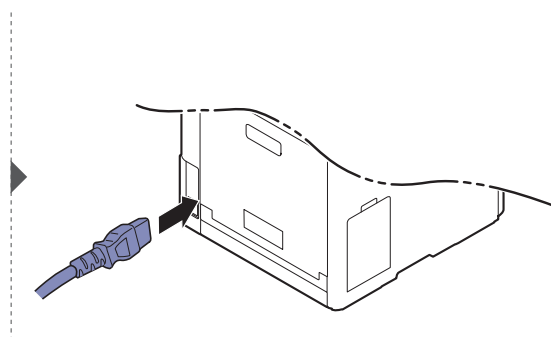
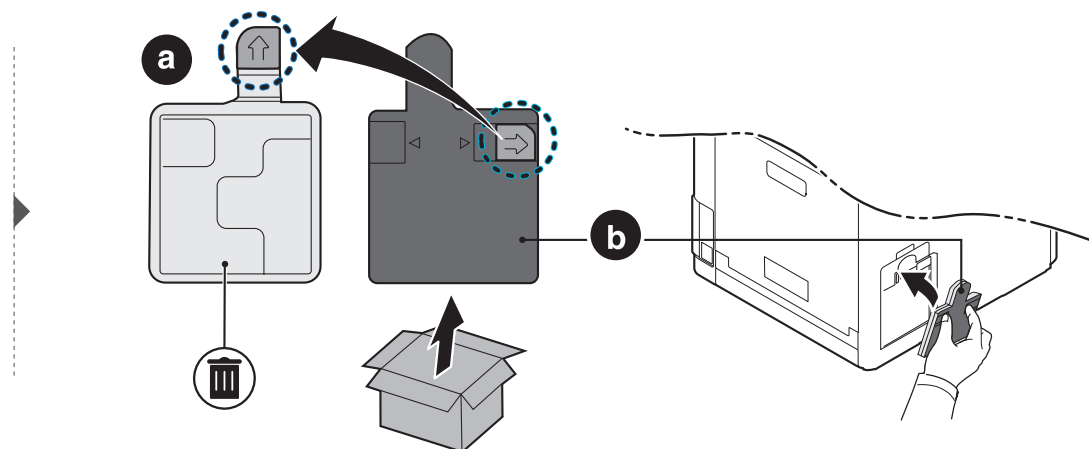
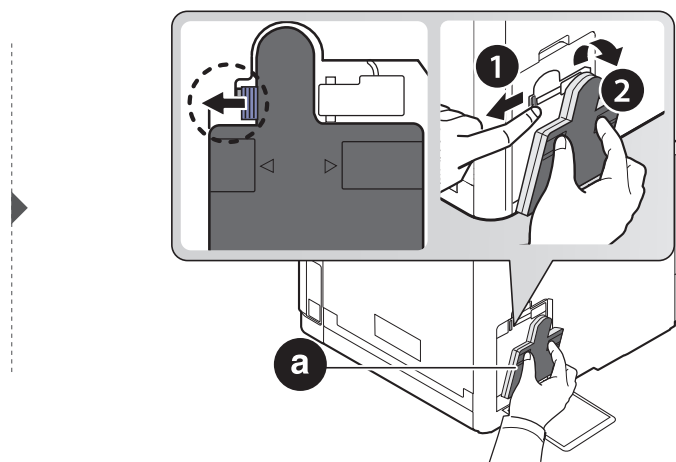
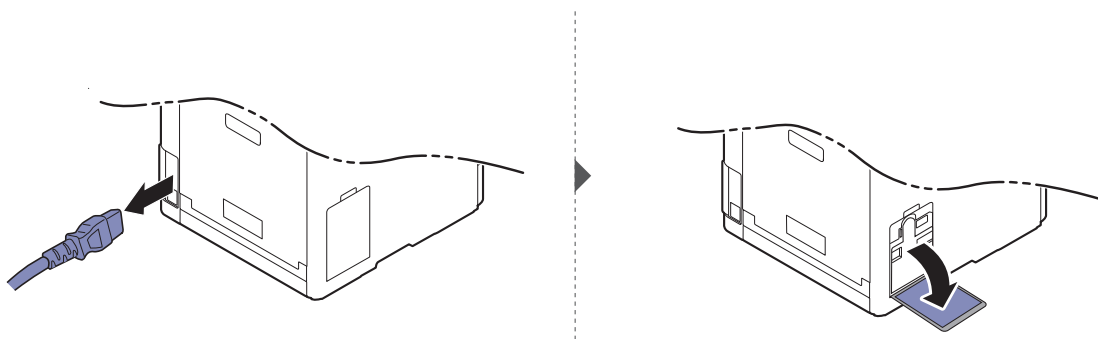
When the life span of the waste toner container has expired, waste toner container-related message appears on the screen display of the control panel, indicating the waste toner container needs to be replaced. Check the waste toner container for your machine (see "Available supplies" on page 50).



- Toner particles can be released inside the machine but it does not mean the machine is damaged. Contact a service representative when print quality problems occur.
 - When you pull out the waste toner container out of the machine, move the container carefully not to drop it from your hands.
 - Make sure that you lay the waste toner container on a flat surface so that the toner does not spill.
-



Do not tilt or turn over the container.



Installing accessories

Precautions

- Disconnect the power cord

Never remove the control board cover while the power is turned on.

To avoid the possibility of an electrical shock, always disconnect the power cord when installing or removing ANY internal or external accessories.

- Discharge static electricity


The control board and internal accessories (network interface card or memory module) are sensitive to static electricity. Before installing or removing any internal accessories, discharge static electricity from your body by touching something metal, such as the metal back plate on any device plugged into a grounded power source. If you walk around before finishing the installation, repeat this procedure to discharge any static electricity again.



When installing accessories, the battery inside the machine is a service component. Do not change it by yourself. There is a risk of an explosion if battery is replaced by an incorrect type. Your service provider should remove the old battery from your device and dispose of in ordinance with state regulations.

Setting Device Options

When you install the optional devices such as optional tray, memory, etc, this machine automatically detects and sets the optional devices. If you cannot use the optional devices you installed in this driver, you can set the optional devices in **Device Options**.

- 1 For Windows XP Service Pack 3/Server 2003, from the **Start** menu, select **Printer**.
 - For Windows Server 2008/Vista, from the **Start** menu, select **Control Panel > Hardware and Sound > Printers**.
 - For Windows 7, from the **Start** menu, select **Control Panel > Devices and Printers**.
For Windows 8, from the **Charms**, select **Search > Settings > Control Panel > Devices and Printers**.
 - For Windows Server 2008 R2, select **Control Panel > Hardware > Devices and Printers**.
 - For Windows 10 / Windows Server 2016
From task bar, type in **Devices and Printers** in **Search** input area. Press the Enter key.
OR
From the **Start** () icon, select **Settings > Devices > Printers & scanners > Devices and Printers**.



Right-click the **Start** () icon, you can select **Control Panel > Devices and Printers**.

2 Right-click your machine.

3 For Windows XP Service Pack 3/2003/2008/Vista, press **Properties**.

For Windows 7/Windows 8/Windows Server 2008 R2/Windows 10 / Windows Server 2016, from context menus, select the **Printer properties**.



If **Printer properties** item has ► mark, you can select other printer drivers connected with selected printer.

4 Select **Device Options**.



The **Properties** window may differ depending on the driver or operating system you are using.

5 Select the appropriate option.



6 Click **OK** until you exit the **Properties** or **Printer properties** window.

Monitoring the supplies life

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



- Accessing menus may differ from model to model (see "Accessing the menu" on page 25).
 - Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine.
 - It may be necessary to press **OK** to navigate to lower-level menus for some models.
-



- 1 Select  (**Menu**) > **System Setup** > **Maintenance** > **Supplies Life** on the control panel.
- 2 Select the option you want and press **OK**.
- 3 Press  (**Cancel**) to return to ready mode.

Setting the toner low alert

If the amount of toner in the cartridge is low, a message informing the user to change the toner cartridge appears. You can set the option for whether or not this message appears.



Accessing menus may differ from model to model (see "Accessing the menu" on page 25).

- 1 Select  (**Menu**) > **System Setup** > **Maintenance** > **TonerLow Alert** on the control panel.
- 2 Select the option you want and press **OK**.
- 3 Press  (**Cancel**) to return to ready mode.

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 proper working order which will help to prolong its life.



- 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 or the display screen

Clean the machine cabinet or the display screen 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

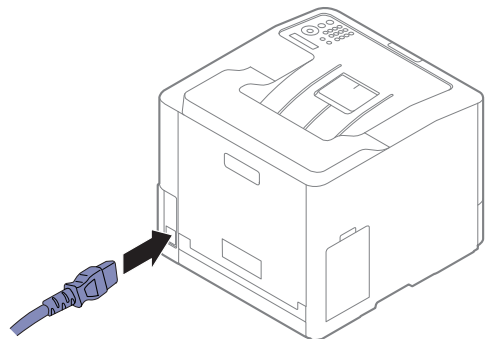
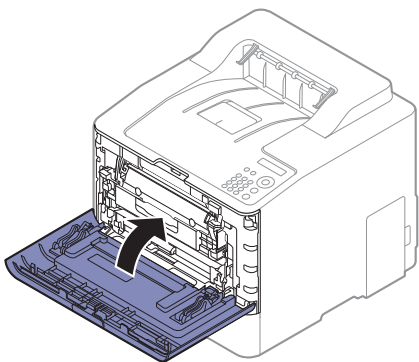
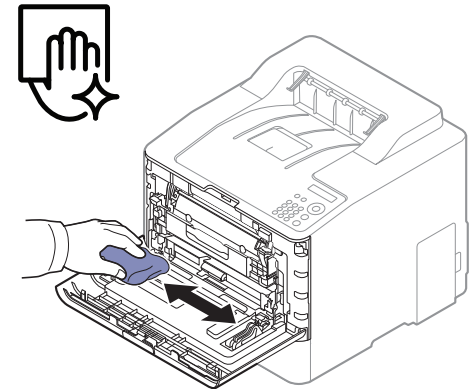
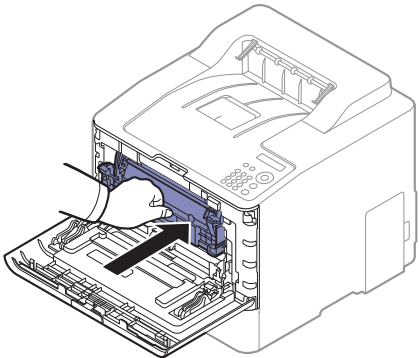
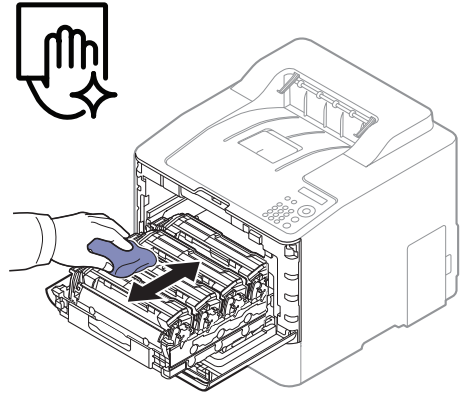
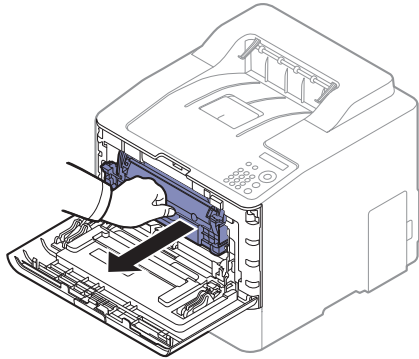
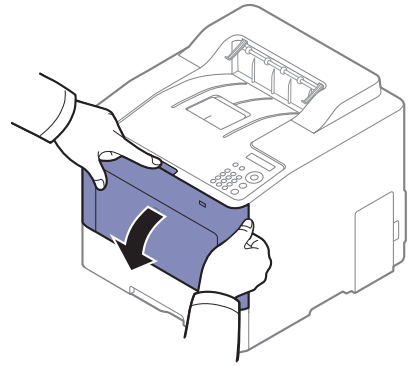
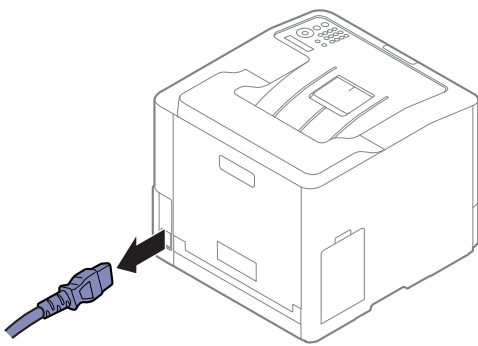
During the printing process, paper, toner, and dust particles can accumulate inside the machine. This buildup can cause print quality problems, such as toner specks or smearing. Cleaning the inside of the machine clears and reduces these problems.



- 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 area of the toner cartridge. Use the handle on the cartridge to avoid touching this area.
- Use a dry lint free cloth when 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. Printing quality problems can occur and cause damage to the machine.



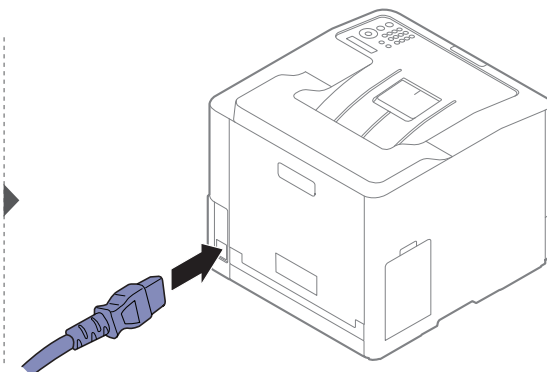
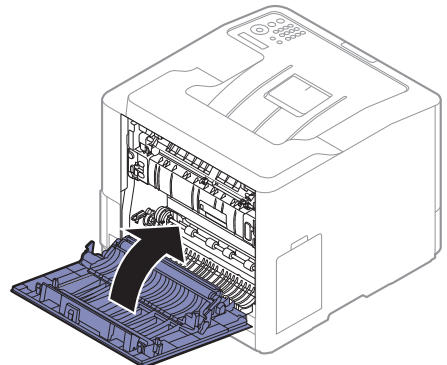
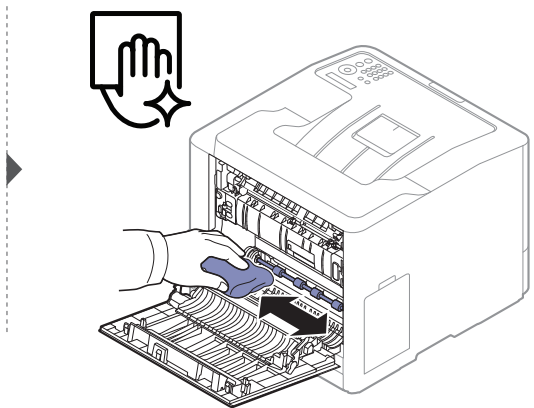
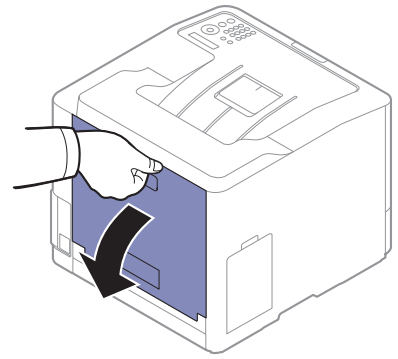
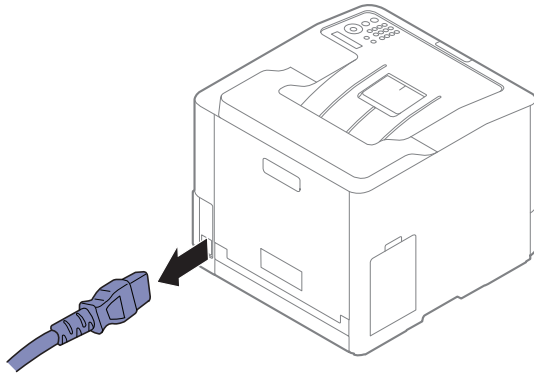
- Use a dry lint-free cloth to clean the machine.
 - Turn the machine off and unplug the power cord. Wait for the machine to cool down. If your machine has a power switch, turn the power switch off before cleaning the machine.
 - Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).
-



Cleaning the pickup roller



- Turn the machine off and unplug the power cord. Wait for the machine to cool down. If your machine has a power switch, turn the power switch off before cleaning the machine.
 - Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).
-




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 reduce print quality.
- When moving the machine, make sure at least two people are holding the machine securely.

Troubleshooting

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

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

• Tips for avoiding paper jams	70
• Clearing paper jams	71
• Understanding the status LED	78
• Understanding display messages	80
• Paper feeding problems	87
• Power and cable connecting problems	88
• Printing problems	89
• Printing quality problems	92
• Operating system problems	98
• Wireless network problems	99

Tips for avoiding paper jams

By selecting the correct medias, 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 30).
- 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 type and size in a tray.
- Use only recommended print media (see "Print media specifications" on page 105).
- Remove any substances (dust, pieces of paper, tape) in the path in which paper is loaded or passes.

Clearing paper jams

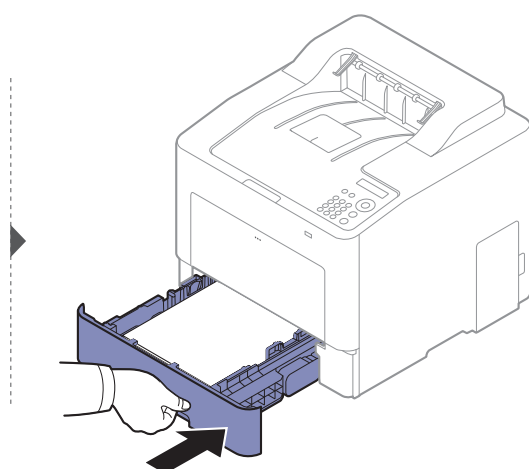
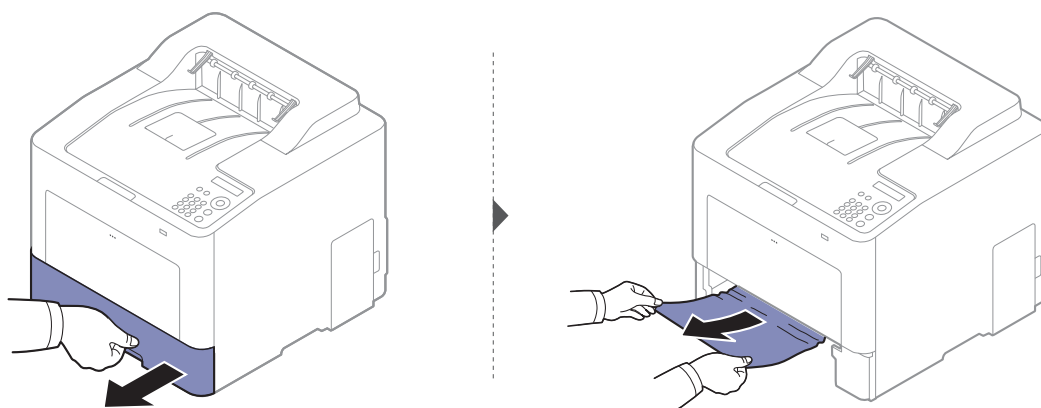


To avoid tearing the paper, pull the jammed paper out slowly and gently.

In tray1



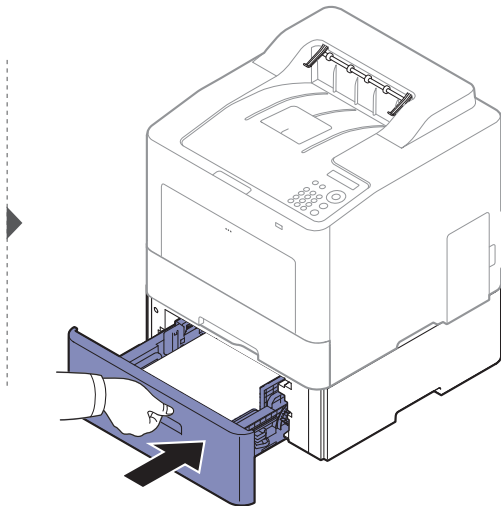
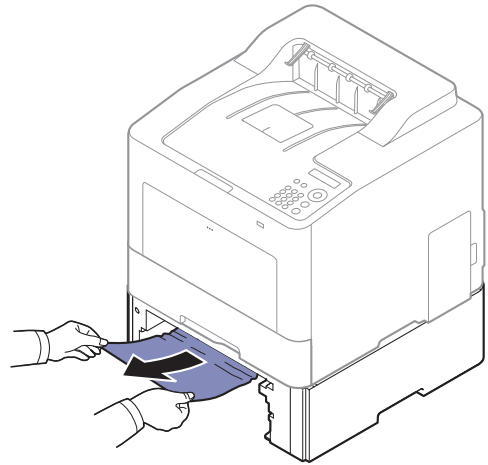
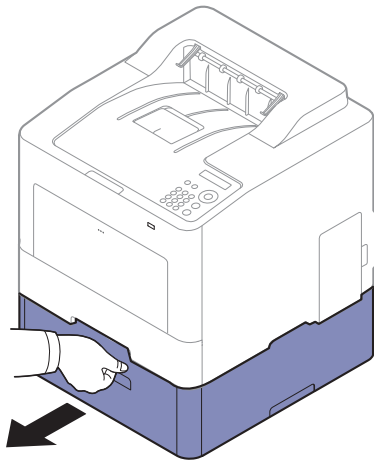
Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).



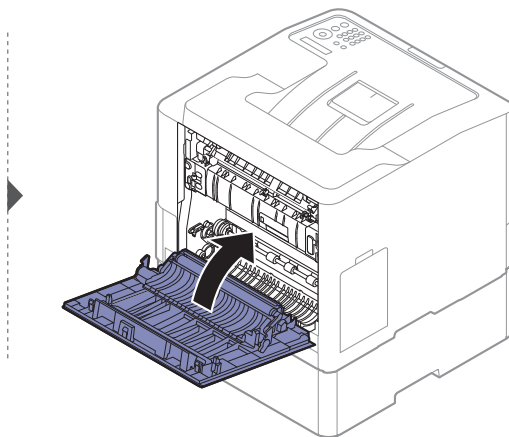
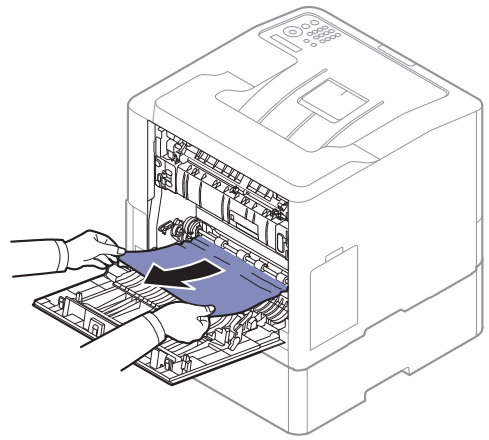
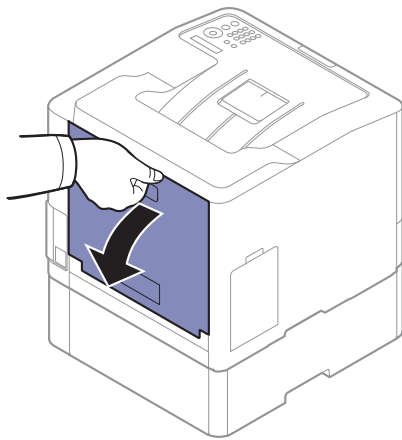
In optional tray



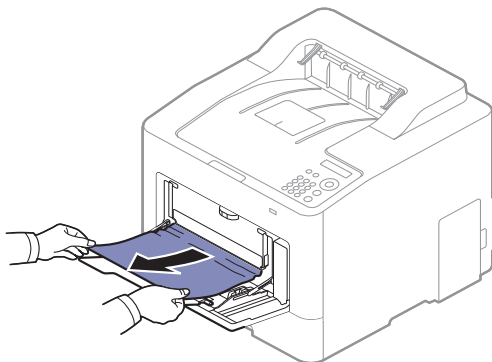
The procedure is same for all optional trays.



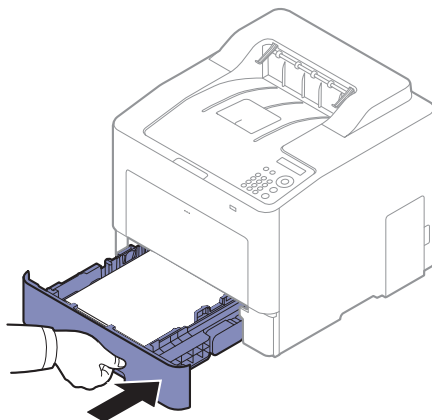
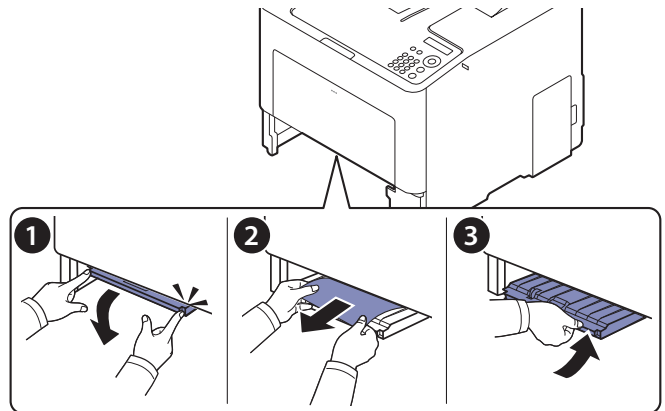
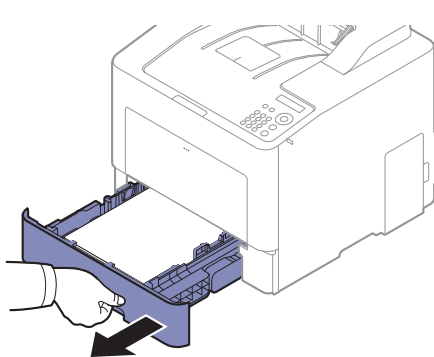
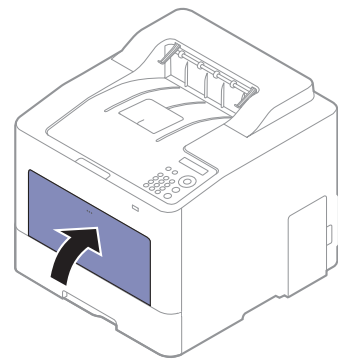
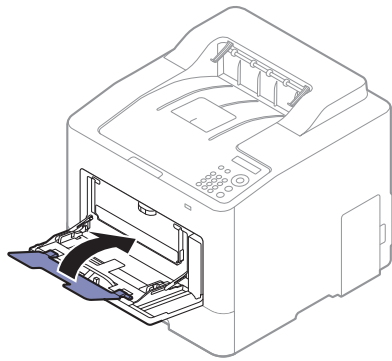
If you do not see the paper in this area, stop and go to next step:



In the multi-purpose tray



If you do not see the paper in this area, stop and go to next step:



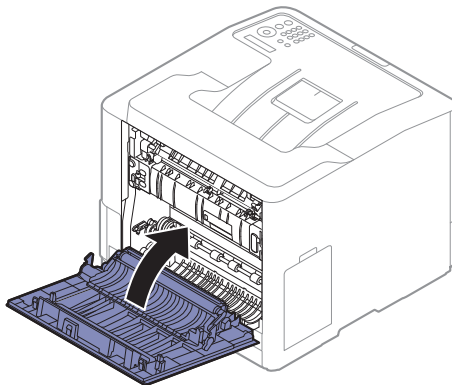
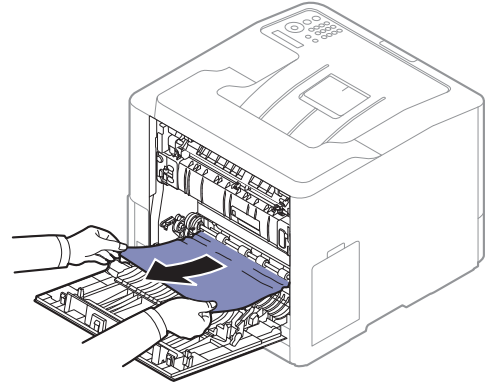
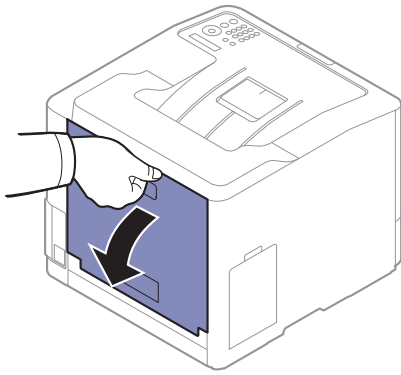
Inside the machine



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



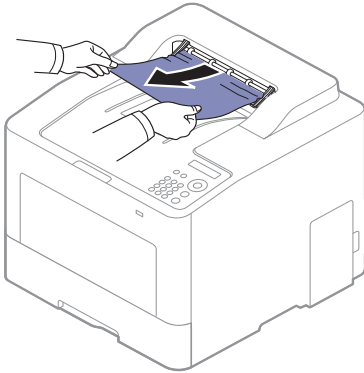
Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 16).



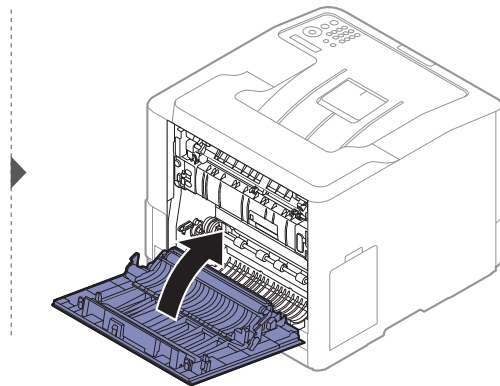
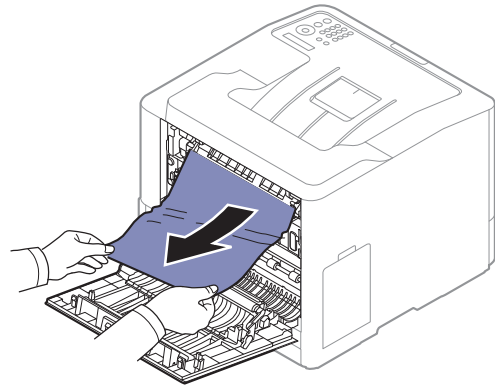
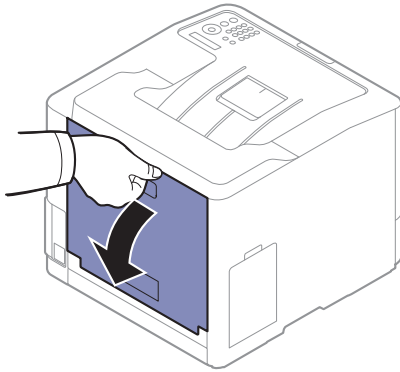
In exit area



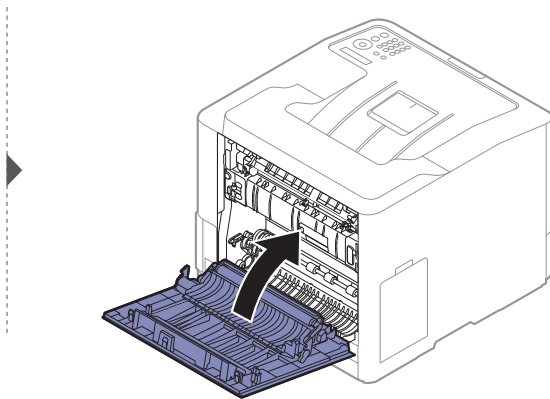
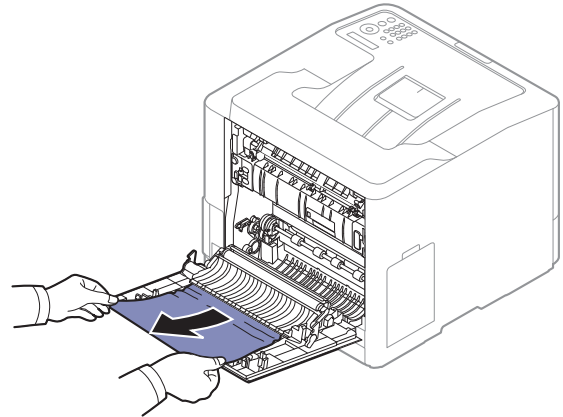
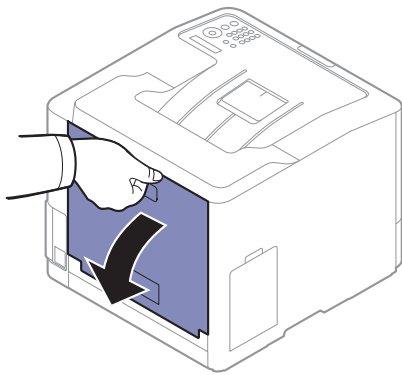
The fuser area is hot. Take care when removing paper from the machine in this area.



If you do not see the paper in this area, stop and go to next step:



In the duplex unit area

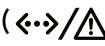



Understanding the status LED

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



- Some LEDs may not be available depending on model or country (see "Control panel overview" on page 18).
- To resolve the error, look at the error message and its instructions from the troubleshooting part (see "Understanding display messages" on page 80).
- You also can resolve the error with the guideline from the computer's Samsung Printing Status program window (see "Using Samsung Printer Status" on page 200).
- If the problem persists, call a service representative.

LED	Status		Description
 Status	Off		<ul style="list-style-type: none"> • The machine is off-line. • The machine is in power save mode.
	Blue	On	The machine is on-line and can be used.
		Blinking	When the backlight blinks, the machine is receiving or printing data.
	Orange	On	<ul style="list-style-type: none"> • The cover is opened. Close the cover. • There is no paper in the tray when receiving or printing data. Load paper in the tray. • The machine has stopped due to a major error. Check the display message (see "Understanding display messages" on page 80). • A paper jam has occurred (see "Clearing paper jams" on page 71). • The waste toner container is not installed in the machine or it is full (see "Replacing the waste toner container" on page 59). • 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 page 57).
		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.
	Blue	On	The machine is in power save mode.
 Power/ Wakeup		Off	The machine is in ready mode or machine's power is off.

LED	Status		Description
Eco	Green	On	Eco mode is on (see "Eco printing" on page 44).
		Off	Eco mode is off.

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 19798. The number of pages may be affected by operating environment, percentage of image area, printing interval, graphics, media and media size. Some amount of toner may remain in the cartridge even when red LED is on and the printer stops printing.

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.



- You can resolve the error with the guideline from the computer's Printing Status program window (see "Using Samsung Printer Status" on page 200).
- If a message is not in the table, reboot the power and try the printing job again. If the problem persists, call a service representative.
- When you call for service, provide the service representative with the contents of display message.
- Some messages may not appear on the display depending on the options or models.
- [error number] indicates the error number.
- [tray number] indicates the tray number.
- [media type] indicates the media type.
- [media size] indicates the media size.
- [color] indicates the color of toner.

Paper Jam-related messages

Message	Meaning	Suggested solutions
Paper jam in exit area	Paper has jammed in the exit area.	Clear the jam (see "In exit area" on page 76).
Paper jam inside machine	Paper has jammed in the inside machine.	Clear the jam (see "Inside the machine" on page 75).
Paper jam in tray1	Paper has jammed in the tray.	Clear the jam (see "In tray 1" on page 71).
Paper jam in tray2	Paper has jammed in the optional tray.	Clear the jam (see "In optional tray" on page 72).
Paper jam in tray3	Paper has jammed in the optional tray.	Clear the jam (see "In optional tray" on page 72).
Paper jam in tray4	Paper has jammed in the optional tray.	Clear the jam (see "In optional tray" on page 72).
Paper jam in MP tray	Paper has jammed in the multi-purpose tray.	Clear the jam (see "In the multi-purpose tray" on page 73).

Message	Meaning	Suggested solutions
Paper Jam inside of duplex	Paper has jammed during duplex printing. This is applicable only to machines with this feature.	Clear the jam (see "In the duplex unit area" on page 77).
Paper Jam bottom of duplex		

Toner-related messages

Message	Meaning	Suggested solutions
Install Toner ▼	A toner cartridge is not installed.	Reinstall the toner cartridge.
	A toner cartridge is not being detected.	Reinstall the toner cartridge two or three times to confirm it is seated properly. If the problem persists, contact the service representatives.
Not Compatible [color] toner cart.	The indicated toner cartridge is not suitable for your machine.	Install the corresponding toner cartridge with a Samsung-genuine cartridge (see "Replacing the toner cartridge" on page 57).
Not Compatible [color] Toner Country	The indicated toner cartridge is not available in the country set in the machine.	Install new toner cartridge (see "Replacing the toner cartridge" on page 57).
[color] toner cart. Position error	The indicated toner mismatch on toner cartridge position.	Install again in the proper position.
Toner Low ▼	Small amount of toner is left in the indicated cartridge. The estimated cartridge life of toner is close. ^a	Prepare a new cartridge for a replacement. You may temporarily increase the printing quality by redistributing the toner (see "Redistributing toner" on page 55).

Message	Meaning	Suggested solutions
Toner Very Low ▼	The indicated toner cartridge has almost reached its estimated cartridge life ^a .	<ul style="list-style-type: none"> You can choose Stop or Continue as shown on the control panel. If you select Stop, the printer stops printing. 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 page 57).
End of Life ▼	The indicated toner cartridge has reached its estimated cartridge life ^a .	Replace the toner cartridge (see "Replacing the toner cartridge" on page 57).

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 19798 (see "Available supplies" on page 50). The number of pages may be affected by operating environment, percentage of image area, printing interval, media, percentage of image area, and media size. Some amount of toner may remain in the cartridge even when replace new cartridge appears and the machine stops printing.




Samsung does not recommend using a non-genuine Samsung toner cartridge such as refilled or remanufactured. Samsung cannot guarantee a 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 warranty.

Tray-related messages

Message	Meaning	Suggested solutions
Paper empty in [tray number]	There is no paper in the indicated tray.	Load paper in the tray (see "Loading paper in the tray" on page 32).
Paper empty in MP tray	There is no paper in the indicated tray.	Load paper in the tray (see "Loading paper in the tray" on page 32).
Paper empty in all trays	There is no paper in the indicated tray.	Load paper in the tray (see "Loading paper in the tray" on page 32).
Pulled out [tray number] cassette	Tray is pulled out.	Insert tray properly.

Message	Meaning	Suggested solutions
[tray number] Paper Mismatch	The paper size specified in the printer properties does not match the paper you are loading.	Load the correct paper in the tray.
MP Tray Paper Mismatch	The paper size specified in the printer properties does not match the paper you are loading.	Load the correct paper in the tray.

Network-related messages

Message	Meaning	Suggested solutions
Network Problem: IP Conflict	The IP address is used elsewhere.	Check the IP address or obtain a new IP address.
Not found Wireless network	<p>A NOT FOUND SSID event occurs when the printer cannot connect to the wireless module due to the absence of the wireless SSID.</p> <p>If the following problem occurs.</p> <ul style="list-style-type: none"> • The access point (or wireless router) with the set SSID was turned off. • The access point (or wireless router) with the set SSID is too far away. • The access point (or wireless router) with the set SSID malfunctions. • The antenna of the wireless module performs poorly. 	<ul style="list-style-type: none"> • Check the wireless environment. (Check the power connection and settings of the access point (or wireless router).) • Check the environment near the printer. (Check for microwaves, Bluetooth devices, steel cabinets, or other items that may affect wireless communication.) <p>If the problem persists, please call for service.</p> <p> Services that use the wireless interface (copy, print, and email) are unavailable.</p>
Error: #S6-3113 Call for service	The network function does not work due to a fault in the wired network PHY chip.	Reboot the power and try the printing job again. If the problem persists, please call for service.
802.1x Network Error	Fail to authenticate.	Check the network authentication protocol. If the problem persists, contact your network administrator.

Message	Meaning	Suggested solutions
Not correct Wireless setting	<ul style="list-style-type: none"> The wireless network options are configured incorrectly for the security method. The password entered in the wireless security options is incorrect. The machine does not support the security method used by the access point or wireless router. The access point or wireless router has malfunctioned. 	Reconfigure the wireless options in the machine, SWS, access point, or wireless router. The WPA2-PSK/AES security method is recommended. If the problem persists, please call for service.
Not connect Wireless AP	The machine failed to connect to the wireless access point (or wireless router).	Check the status of the access point, including its configuration and power connections, as well as any devices that may affect wireless communication. If the problem persists, please call for service.
Fail connection to WPS	The machine failed to connect to the wireless access point (or wireless router).	Check the status of the access point or WPS, including its configuration and power connections, as well as any devices that may affect wireless communication. If the problem persists, please call for service.
Wi-Fi Direct is not ready	The machine failed to initialize the Wi-Fi Direct connection.	Reboot the machine to initialize the wireless settings. If the problem persists, please call for service.
Wi-Fi Direct is not connect	The machine failed to connect via Wi-Fi Direct.	Turn the Wi-Fi Direct feature off and then back on or reboot the machine or mobile device. If the problem persists, please call for service.

Misc. messages

Message	Meaning	Suggested solutions
Adjusting Color Registration...	The machine is adjusting the color registration.	Wait a few minutes.
Calibrating image density...	The machine is calibrating the image density.	Wait a few minutes.

Message	Meaning	Suggested solutions
Door Open Close it	The cover is not securely latched.	Close the cover until it locks into place.
Error [error number] Install [color] toner	The indicated toner cartridge is installed improperly, or the connector is polluted.	Reinstall the Samsung-genuine toner cartridge two or three times to confirm it is seated properly. If the problem persists, please call for service.
Error [error number] Turn off then on	The machine unit cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.
Error [error number] Call for service		
Install TR. belt unit.	The transfer belt is not installed.	Install a Samsung-genuine transfer belt.
Not compatible transfer belt	The transfer belt of the machine is not for your machine.	Install the Samsung-genuine part designed for your machine.
Not Installed Waste tank	The is waste toner container not installed.	Install a Samsung-genuine waste toner container.
Not proper room temp. Move set	The machine is in a room with improper room temperature.	Move the machine to a room with proper room temperature.
Output bin Full Remove paper	The output tray is full.	Remove papers from the output tray, the machine resumes printing. If the problem persists, call for service.
Prepare new Transfer belt	The life of the transfer belt will expired soon.	Replace the transfer belt with a new one. If the problem persists, please call for service.
Replace new Transfer belt	The life of the transfer belt has expired.	
Prepare Fuser Soon	The life of the fuser unit will be expired soon.	Replace the fuser unit with a new one. If the problem persists, please call for service.
Replace new Fuser unit	The life of the fuser unit will be expired.	


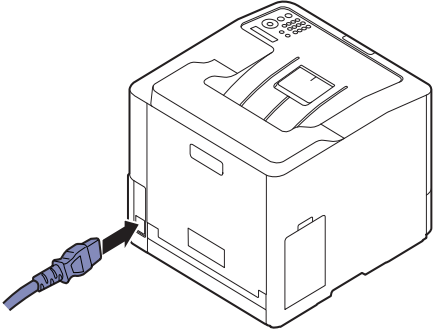
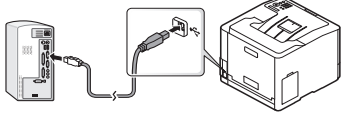

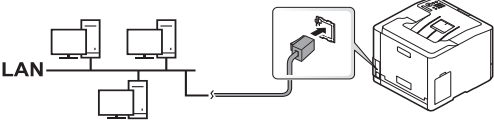

Message	Meaning	Suggested solutions
<ul style="list-style-type: none"> • Replace new tray1 roller • Replace new tray2 roller • Replace new tray3 roller • Replace new tray4 roller 	The life of the tray roller will expired.	Replace the tray roller with a new one. If the problem persists, please call for service.
Transfer Belt Error	The transfer belt cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.
Waste toner Full Replace new one	The waste toner container is full.	Replace the waste toner container.

Paper feeding problems


Condition	Suggested solutions
Paper jams during printing.	Clear the paper jam.
Paper sticks together.	<ul style="list-style-type: none">• Check the maximum paper capacity of the tray.• Make sure that you are using the correct type of paper.• 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.
The paper keeps jamming.	<ul style="list-style-type: none">• There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, use the manual feeding in tray.• An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine.• There may be debris inside the machine. Open the front cover and remove any debris.
Envelopes skew or fail to feed correctly.	Ensure that the paper guides are against both sides of the envelopes.


Power and cable connecting problems

Reboot the power. If the problem persists, please call for service.

Condition	Suggested solutions
The machine is not receiving power, or the connection cable between the computer and the machine is not connected properly.	<div><div>1. Connect the machine to the electricity supply first. If the machine has a  (Power/Wakeup) button on the control, press it.</div><div></div><div>2. Check the USB cable or network cable in the machine's rear.</div><div><div></div><div></div></div><div>3. Disconnect the USB cable or network cable in the machine's rear and then, reconnect it.</div></div>

Printing problems

Condition	Suggested solutions
The machine does not print.	Connect the machine to the electricity supply first. If the machine has a  (Power/Wakeup) button on the control, press it.
	Select your machine as your default machine in Windows.
	Check the machine for the following: <ul style="list-style-type: none"> • The cover is not closed. Close the cover. • Paper is jammed. Clear the paper jam (see "Clearing paper jams" on page 71). • No paper is loaded. Load paper (see "Loading paper in the tray" on page 32). • The toner cartridge is not installed. Install the toner cartridge (see "Replacing the toner cartridge" on page 57). • Make sure the protect cover and sheets are removed from the toner cartridge (see "Replacing the toner cartridge" on page 57). If a system error occurs, contact your service representative.
	Disconnect the machine cable and reconnect it (see "Rear view" on page 17).
	If possible, attach the cable to another computer that is working properly and print a job. You can also try using a different machine cable.
	Check the Windows printer settings to make sure that the print job is sent to the correct port. If the computer has more than one port, make sure that the machine is attached to the correct one.
	Check the Printing Preferences to ensure that all of the print settings are correct.
	Install and reinstall the machine's driver.
	Check the display message on the control panel to see if the machine is indicating a system error. Contact a service representative.
	Get more hard disk space and print the document again.
	Once the paper is removed from the output tray, the machine resumes printing.
The machine selects print materials from the wrong paper source.	For many software applications, the paper source selection is found under the Paper tab within the Printing Preferences (see "Opening printing preferences" on page 41). Select the correct paper source. See the printer driver help screen (see "Using help" on page 43).



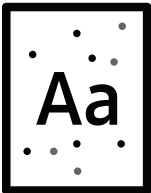
Condition	Suggested solutions
A print job is extremely slow.	Reduce the complexity of the page or try adjusting the print quality settings.
Half the page is blank.	Change the page orientation in your application (see "Opening printing preferences" on page 41). See the printer driver help screen (see "Using help" on page 43).
	Ensure that the paper size in the printer driver settings matches the paper in the tray. Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use (see "Opening printing preferences" on page 41).
The machine prints, but the text is wrong, garbled, or incomplete.	Disconnect the machine cable and reconnect. Try a print job that you have already printed successfully. If possible, attach the cable and the machine to another computer that you know works and try a print job. Finally, try a new machine cable.
	Check the application's printer selection menu to ensure that your machine is selected.
	Try printing a job from another application.
	The operating system is malfunctioning. Exit Windows and reboot the computer. Turn the machine off and back on again.
Pages print, but they are blank.	Redistribute the toner, if necessary. If necessary, replace the toner cartridge. <ul style="list-style-type: none"> • See "Redistributing toner" on page 55. • See "Replacing the toner cartridge" on page 57.
	Check the file to ensure that it does not contain blank pages.
	Contact a service representative.
The machine does not print PDF files correctly. Some parts of graphics, text, or illustrations are missing.	<p>Printing the PDF file as an image may enable the file to print. Turn on Print As Image from the Acrobat printing options.</p> <p> It will take longer to print when you print a PDF file as an image.</p>
The print quality of photos is not good. Images are not clear.	Reduce the photo size. If you increase the photo size in the software application, the resolution will be reduced.

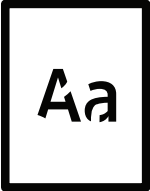
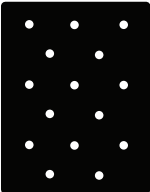
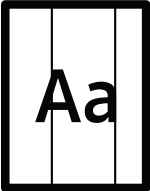
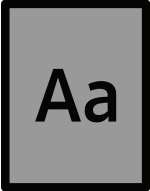

Condition	Suggested solutions
Before printing, the machine emits vapor near the output tray.	Using damp/wet paper can cause vapor [white smoke] during printing. This is not a problem, just keep printing. If you are bothered by the smoke [vapor], then replace the paper with fresh paper from an unopened ream.
The machine does not print custom-sized paper, such as billing paper.	Set the correct paper size in the Custom in Paper tab in Printing Preferences (see "Opening printing preferences" on page 41).
The printed billing paper is curled.	The paper type setting does not match. Change the printer option and try again. Go to Printing Preferences , click Paper tab, and set type to Thin (see "Opening printing preferences" on page 41).

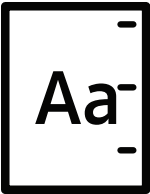
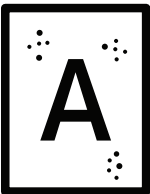
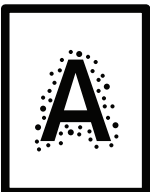
Printing quality problems

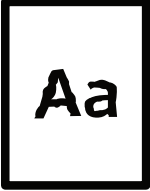
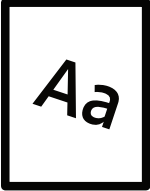
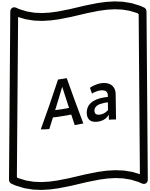
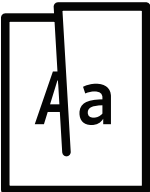

If the inside of the machine is dirty or paper has been loaded improperly, there might be a reduction in print quality. See the table below to clear the problem.

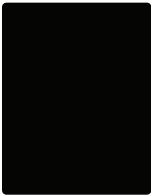
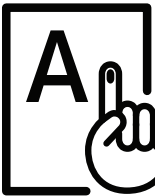
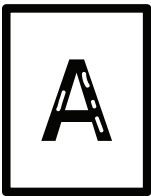
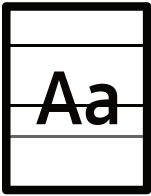
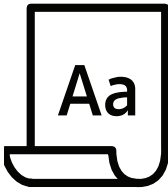
Ensure that the paper is not wet, try paper from a fresh ream.

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. Install a new toner cartridge (see "Replacing the toner cartridge" on page 57).• The paper may not meet paper specifications; for example, the paper may be too moist or rough.• If the entire page is light, the print resolution setting is too low or the toner save mode is on. Adjust the print resolution and turn the toner save mode off. See the help screen of the printer driver.• A combination of faded or smeared defects may indicate that the toner cartridge needs cleaning. Clean the inside of your machine (see "Cleaning the machine" on page 65).• The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 65). If these steps do not correct the problem, contact a service representative.
<p>The top half of the paper is printed lighter than the rest of the paper</p> 	<p>The toner might not adhere properly to this type of paper.</p> <ul style="list-style-type: none">• Change the printer option and try again. Go to Printing Preferences, click the Paper tab, and set the paper type to Recycled (see "Opening printing preferences" on page 41).
<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.• The transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 65).• The paper path may need cleaning. Contact a service representative (see "Cleaning the machine" on page 65).

Condition	Suggested solutions
<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. • The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper. • Change the printer option and try again. Go to Printing Preferences, click the Paper tab, and set type to Thick (see "Opening printing preferences" on page 41). <p>If these steps do not correct the problem, contact a service representative.</p>
<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 paper falls to the inner components within the machine, so the transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 65). • The paper path may need cleaning. Clean the inside of your machine (see "Cleaning the machine" on page 65). <p>If these steps do not correct the problem, contact a service representative.</p>
<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 page 57). <p>If white vertical streaks appear on the page:</p> <ul style="list-style-type: none"> • The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 65). If these steps do not correct the problem, contact a service representative.
<p>Black or color background</p> 	<p>If the amount of background shading becomes unacceptable:</p> <ul style="list-style-type: none"> • Change to a lighter weight paper. • 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 page 57). • Thoroughly redistribute the toner (see "Redistributing toner" on page 55).
<p>Toner smear</p> 	<ul style="list-style-type: none"> • Clean the inside of the machine (see "Cleaning the machine" on page 65). • Check the paper type and quality. • Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 57).

Condition	Suggested solutions
<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 page 57). • 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. • If background scatter occurs on an envelope, change the printing layout to avoid printing over areas that have overlapping seams on the reverse side. Printing on seams can cause problems. Or select Thick from the Printing Preferences window (see "Opening printing preferences" on page 41). • If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or in Printing Preferences (see "Opening printing preferences" on page 41). Ensure the correct paper type is selected. For example: If Thicker Paper is selected, but Plain Paper actually used, an overcharging can occur causing this copy quality problem. • If you are using a new toner cartridge, redistribute the toner first (see "Redistributing toner" on page 55).
<p>Toner particles are around bold characters or pictures</p> 	<p>The toner might not adhere properly to this type of paper.</p> <ul style="list-style-type: none"> • Change the printer option and try again. Go to Printing Preferences, click the Paper tab, and set the paper type to Recycled (see "Opening printing preferences" on page 41). • Ensure the correct paper type is selected. For example: If Thicker Paper is selected, but Plain Paper actually used, an overcharging can occur causing this copy quality problem.

Condition	Suggested solutions
<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.
<p>Page skew</p> 	<ul style="list-style-type: none"> • Ensure that the paper is loaded properly. • Check the paper type and quality. • 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. • 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. • 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> 	<ul style="list-style-type: none"> • Check for leaking toner. Clean the inside of the machine (see "Cleaning the machine" on page 65).

Condition	Suggested solutions
<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 page 57). • The machine may require repairing. Contact a service representative.
<p>Loose toner</p> 	<ul style="list-style-type: none"> • Clean the inside of the machine (see "Cleaning the machine" on page 65). • Check the paper type, thickness, and quality. • Remove the toner cartridge and then, install a new one (see "Replacing the toner cartridge" on page 57). <p>If the problem persists, the machine may require repair. Contact a service representative.</p>
<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.
<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 page 57). <p>If the problem persists, the machine may require repairing. Contact a service representative.</p>
<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. • Change the printer's paper option and try again. Go to Printing Preferences, click the Paper tab, and set type to Thin (see "Opening printing preferences" on page 41).

Condition	Suggested solutions
<ul style="list-style-type: none"> • An unknown image repetitively appears on a few sheets • Loose toner • Light print or contamination occurs 	<p>Your machine is probably being used at an altitude of 1,000 m (3,281 ft) or above.</p> <p>The high altitude may affect the print quality, such as loose toner or light imaging. Change the altitude setting for your machine (see "Altitude adjustment" on page 173).</p>

Operating system problems

Common Windows problems

Condition	Suggested solutions
"File in Use" message appears during installation.	Exit all software applications. Remove all software from the startup group, then restart Windows. Reinstall the printer driver.
"General Protection Fault", "Exception OE", "Spool 32", or "Illegal Operation" messages appear.	Close all other applications, reboot Windows and try printing again.
"Fail To Print", "A printer timeout error occurred" message appear.	These messages may appear during printing. Just keep waiting until the machine finishes printing. If the message appears in ready mode or after printing has completed, check the connection and/or whether an error has occurred.
Samsung Printer Experience is not shown when you click more settings.	Samsung Printer Experience is not installed. Download the app from the Windows Store and install it.
Machine information is not displayed when you click the device in the Devices and Printers.	Check the Printer properties . Click the Ports tab. (Control Panel > Devices and Printers > Right-click on your printer icon and select Printer properties) If the port is set to File or LPT, uncheck them and select TCP/IP, USB, or WSD.





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

Wireless network problems

Problems during setup or driver installation

Driver installation message	Suggested solutions
Printers Not Found	<ul style="list-style-type: none">• Your machine may not be turned on. Turn on your computer and the machine.• USB cable is not connected between your computer and machine. Connect the machine to your computer using the USB cable.• The machine does not support wireless networking. Check the machine's user's guide included on the software CD supplied with your machine and prepare a wireless network machine.
Connecting Failure - SSID Not Found	<ul style="list-style-type: none">• The machine is unable to find the network name (SSID) you have selected or entered. Check the network name (SSID) on your access point and try connecting again.• Your access point is not turned on. Turn on your access point.
Connecting Failure - Invalid Security	<ul style="list-style-type: none">• Security is not configured correctly. Check the configured security on your access point and machine.
Connecting Failure - General Connection Error	<ul style="list-style-type: none">• Your computer is not receiving a signal from your machine. Check the USB cable and your machine's power.
Connecting Failure - Connected Wired Network	<ul style="list-style-type: none">• Your machine is connected with a wired network cable. Remove the wired network cable from your machine.
Connecting Failure - Assigning the IP address	<ul style="list-style-type: none">• Cycle the power for the access point (or wireless router) and machine.

Driver installation message	Suggested solutions
PC Connection Error	<ul style="list-style-type: none"> The configured network address is unable to connect between your computer and machine. <ul style="list-style-type: none"> For a DHCP network environment The printer receives the IP address automatically (DHCP) when computer is configured to DHCP. <p> If the printing job is not working in DHCP mode, the problem may be caused by the automatically changed IP address. Compare the IP address between the product's IP address and the printer port's IP address.</p> <p>How to compare:</p> <ol style="list-style-type: none"> Print the network information report of your printer, and then check the IP address (see "Printing a network configuration report" on page 127). Check the printer port's IP address from your computer. <ol style="list-style-type: none"> Click the Windows Start menu. Select Start > Programs or All Programs > Samsung Printers > Samsung Printer Center. <ul style="list-style-type: none"> For Windows 8 From the Charms, select Search > Apps > Samsung Printers > Samsung Printer Center. Windows 10 / Windows Server 2016 From task bar, type in Samsung Printers in Search input area. Press the Enter key and then select Samsung Printer Center. <p>OR</p> <p>From the Start () icon, select All apps > Samsung Printers > Samsung Printer Center.</p> <ol style="list-style-type: none"> Click your machine. Press Properties. Click Port tab. Click Configure Port.. button. Check if Printer Name or IP Address: is the IP address on the network configuration Sheet. <ol style="list-style-type: none"> Change the printer port's IP address if it is different from the network information report's. If you want to use the software installation CD to change the port IP, connect to a network printer. Then reconnect the IP address.

Driver installation message	Suggested solutions
<p>PC Connection Error</p>	<ul style="list-style-type: none"> • For a Static network environment The machine uses the static address when the computer is configured to static address. For example, If the computer's network information is as shown below: <ul style="list-style-type: none"> - IP address: 169.254.133.42 - Subnet Mask: 255.255.0.0 Then the machine's network information should be as below: <ul style="list-style-type: none"> - IP address: 169.254.133.43 - Subnet Mask: 255.255.0.0 (Use the computer's subnet mask.) - Gateway: 169.254.133.1

Other problems

If problems occur while using the machine on a network, check the following:



For information on the access point (or wireless router), refer to its own user's guide.

- Your computer, access point (or wireless router), or machine may not be turned on.
- Check the wireless reception around the machine. If the router is far from the machine or there is an obstacle, you might have difficulty receiving the signal.
- Cycle the power for the access point (or wireless router), machine, and computer. Sometimes cycling the power can recover network communication.
- Check whether firewall software (V3 or Norton) is blocking the communication.
If the computer and the machine are connected on the same network and it cannot be found when searching, firewall software might be blocking the communication. Refer to the user's guide for the software to turn it off and try searching for the machine again.
- Check whether the machine's IP address is allocated correctly. You can check the IP address by printing the network configuration report.D
- Check whether the access point (or wireless router) has a configured security (password). If it has a password, refer to the access point (or wireless router) administrator.
- Check the machine's IP address. Reinstall the machine driver and change the settings to connect to the machine on the network. Due to the characteristics of DHCP, the allocated IP address could change if the machine is not used for a long time or if the access point has been reset.
Register the product's MAC address when you configure the DHCP server on the access point (or wireless router). Then you can always use the IP address that is set with the MAC address. You can identify the Mac address of your machine by printing a network configuration report.
- Check the wireless environment. You might not be able to connect to the network in the infrastructure environment where you need to type in a user's information before connecting to the access point (or wireless router).
- This machine only supports IEEE 802.11 b/g/n and Wi-Fi. Other wireless communication types (e.g., Bluetooth) are not supported.
- The machine is within the range of the wireless network.
- The machine is located away from obstacles that could block the wireless signal.
Remove any large metal objects between the access point (or wireless router) and the machine. Make sure the machine and wireless access point (or wireless router) are not separated by poles, walls, or support columns containing metal or concrete.
- The machine is located away from other electronic devices that may interfere with the wireless signal.
Many devices can interfere with the wireless signal, including a microwave oven and some Bluetooth devices.
- Whenever the configuration of your access point (or wireless router) changes, you must do the product's wireless network setup again.
- The maximum number of devices that can be connected via Wi-Fi Direct is 4.
- If the access point is set to work with the 802.11n standard only, it may not connect to your machine.

Appendix

This chapter provides product specifications and information concerning applicable regulations.

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Specifications

General specifications



These specifications are subject to change without notice. To see additional specifications and information about changes to the specifications, please visit, www.samsung.com.

Items		Description
Dimension ^a	Width x Depth x Height	420 x 453 x 385 mm (16.54 x 17.84 x 15.16 inches)
Weight ^a	Machine with consumables	22 kg (48.50 lbs)
Noise Level ^{b c}	Ready mode	Less than 37 dB (A)
	Print mode	Less than 53 dB (A)
Temperature	Operation	10 to 30 °C (50 to 86 °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 ^d	110 volt models	AC 110 - 127 V
	220 volt models	AC 220 - 240 V
Power consumption ^e	Average operating mode	Less than 600 W
	Ready mode	Less than 13 W
	Power save mode	Less than 0.8 W
	Power off mode ^f	Less than 0.1 W

a. Dimensions and weight are measured without a other accessories.

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

c. China only: If the equipment's noise is louder than 63 db (A), the equipment should be placed in region of relatively independent advice.

d. See the rating label on the machine for the correct voltage (V), frequency (hertz) and of current (A) for your machine.

e. The power consumption may be affected by the machine's status, setting conditions, operating environment, and measuring equipment and method the country uses.

f. Power consumption can be completely avoided only when the power cable is not connected.

Print media specifications



We recommend using recycled paper for saving energy.

Type	Size	Dimensions	Weight/Capacity ^a	
			Tray1/ Optional tray	Multi-purpose tray
Plain paper ^{b c}	Letter	216 x 279 mm (8.5 x 11 inches)	70 to 90 g/m ² (19 to 24 lbs bond)	70 to 90 g/m ² (19 to 24 lbs bond)
	Legal	216 x 356 mm (8.5 x 14 inches)	<ul style="list-style-type: none"> Tray1: 550 sheets of 75 g/m² (20 lbs bond) 	<ul style="list-style-type: none"> 50 sheets
	Folio	216 x 330 mm (8.5 x 13 inches)	<ul style="list-style-type: none"> Optional tray: 550 sheets of 75 g/m² (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)		
	B5(JIS)	182 x 257 mm (7.17 x 10.12 inches)		
	B5(ISO)	176 x 250 mm (6.93 x 9.84 inches)		
	Executive	184 x 267 mm (7.25 x 10.5 inches)		
	Statement	140 x 216 mm (5.5 x 8.5 inches)		
	A5	148 x 210 mm (5.83 x 8.27 inches)		
	A6	105 x 148 mm (4.13 x 5.83 inches)	70 to 90 g/m ² (19 to 24 lbs bond) <ul style="list-style-type: none"> 150 sheets of 75 g/m² (20 lbs bond) Not available in optional tray.	
Thick Envelope	Envelope Monarch	98 x 191 mm (3.87 x 7.5 inches)	91 to 120 g/m ² (24 to 32 lbs bond) <ul style="list-style-type: none"> 20 sheets Not available in optional tray.	91 to 120 g/m ² (24 to 32 lbs bond) <ul style="list-style-type: none"> 5 sheets

Type	Size	Dimensions	Weight/Capacity ^a	
			Tray1/ Optional tray	Multi-purpose tray
Envelope	Envelope No. 10	105 x 241 mm (4.12 x 9.5 inches)	75 to 90 g/m ² (20 to 24 lbs bond) • 20 sheets Not available in optional tray.	75 to 90 g/m ² (20 to 24 lbs bond) • 5 sheets
	Envelope No. 9	98 x 225 mm (3.87 x 8.87 inches)		
	Envelope DL	110 x 220 mm (4.33 x 8.66 inches)		
	Envelope C5	162 x 229 mm (6.38 x 9.02 inches)		
	Envelope C6	114 x 162 mm (4.49 x 6.38 inches)		
Thick paper ^b ^c	Refer to the Plain paper section	Refer to the Plain paper section	91 to 105 g/m ² (24 to 28 lbs bond) • 50 sheets of 105 g/m ² (28 lbs bond)	91 to 105 g/m ² (24 to 28 lbs bond) • 5 sheets
Heavy weight	Refer to the Plain paper section	Refer to the Plain paper section	106 to 176 g/m ² (28 to 47 lbs bond) • 50 sheets	106 to 176 g/m ² (28 to 47 lbs bond) • 5 sheets
Extra Heavy weight	Refer to the Plain paper section	Refer to the Plain paper section	177 to 220 g/m ² (47 to 59 lbs bond) • 50 sheets	177 to 220 g/m ² (47 to 59 lbs bond) • 5 sheets
Thin paper	Refer to the Plain paper section	Refer to the Plain paper section	60 to 70 g/m ² (16 to 19 lbs bond) • 550 sheets of 70 g/m ² (19 lbs bond)	60 to 70 g/m ² (16 to 19 lbs bond) • 50 sheets
Cotton, Color, Preprinted	Refer to the Plain paper section	Refer to the Plain paper section	75 to 90 g/m ² (20 to 24 lbs bond) • 550 sheets of 75 g/m ² (20 lbs bond)	75 to 90 g/m ² (20 to 24 lbs bond) • 50 sheets
Recycled	Refer to the Plain paper section	Refer to the Plain paper section	70 to 90 g/m ² (19 to 24 lbs bond) • 550 sheets of 75 g/m ² (20 lbs bond)	70 to 90 g/m ² (19 to 24 lbs bond) • 50 sheets

Type	Size	Dimensions	Weight/Capacity ^a	
			Tray1/ Optional tray	Multi-purpose tray
Labels ^{b c d}	Letter, Legal, US Folio, A4, B5(JIS), B5(ISO), Executive, A5, Statement, A6, Oficio	Refer to the Plain paper section	120 to 150 g/m ² (32 to 40 lbs bond) • 50 sheets Not available in optional tray.	120 to 150 g/m ² (32 to 40 lbs bond) • 5 sheets
Card stock ^{b c}	Letter, Legal, US Folio, A4, B5(JIS), B5(ISO), Executive, A5, Statement, A6, Oficio	Refer to the Plain paper section	121 to 163 g/m ² (32 to 43 lbs bond) • 50 sheets	121 to 163 g/m ² (32 to 43 lbs bond) • 5 sheets
Bond paper	Refer to the Plain paper section	Refer to the Plain paper section	105 to 120 g/m ² (28 to 32 lbs bond) • 50 sheets	105 to 120 g/m ² (28 to 32 lbs bond) • 5 sheets
Archive, Punched paper, Letterhead	Refer to the Plain paper section	Refer to the Plain paper section	• 550 sheets	• 50 sheets
Glossy Photo ^b	Letter, A4, Postcard 4x6	Refer to the Plain paper section	111 to 130 g/m ² (30 to 35 lbs bond) for tray • Tray1: 50 sheets • Optional tray: 50 sheets	111 to 130 g/m ² (30 to 35 lbs bond) • 5 sheets
			131 to 175 g/m ² (35 to 47 lbs bond) • Tray1: 50 sheets • Optional tray: 50 sheets	131 to 175 g/m ² (35 to 47 lbs bond) • 5 sheets
			176 to 220 g/m ² (47 to 59 lbs bond) • Tray1: 50 sheets • Optional tray: 50 sheets	176 to 220 g/m ² (47 to 59 lbs bond) • 5 sheets

Type	Size	Dimensions	Weight/Capacity ^a	
			Tray1/ Optional tray	Multi-purpose tray
Minimum size (custom)		<ul style="list-style-type: none">• Tray1: 98 x 149 mm (3.86 x 5.85 inches)• Optional tray: 98 x 210 mm (5.85 x 8.27 inches)• Multi-Purpose tray: 76 x 127 mm (3 x 5 inches)	<ul style="list-style-type: none">• 60 to 220 g/m² (16 to 59 lbs bond) for tray1.• 60 to 176 g/m² (16 to 47 lbs bond) for optional tray.	60 to 220 g/m ² (16 to 59 lbs bond)
Maximum size (custom)		216 x 356 mm (8.5 x 14 inches)		

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

b.Post card 4 x 6 is supported for tray1 or Multi-purpose tray.

c.Index card (3 x 5) is supported for Multi-purpose tray.

d.The smoothness of the labels used in this machine is 100 to 250 (sheffield). This means the numeric level of smoothness.

System requirements



Printer software are occasionally updated due to release of new operating system and etc. If needed, download the latest version from the Samsung website.

Microsoft® Windows®

Operating system	Requirement (Recommended)		
	CPU	RAM	Free HDD space
Windows® XP Service Pack 3	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 style="list-style-type: none">• Support for DirectX® 9 graphics with 128 MB memory (to enable the Aero theme).• DVD-R/W Drive		
Windows Server® 2008 R2	Intel® Pentium® IV 1.4 GHz (x64) processors (2 GHz or faster)	512 MB (2 GB)	10 GB
Windows® 8 Windows® 8.1 Windows® 10 Windows Server® 2016	Intel® Pentium® IV 1 GHz 32-bit or 64-bit processor or higher	2 GB	20 GB
	<ul style="list-style-type: none">• Support for DirectX® 9 graphics with 128 MB memory (to enable the Aero theme).• DVD-R/W Drive		
Windows Server® 2012 Windows Server® 2012 R2	Intel® Pentium® IV 1.4 GHz (x64) processors (2 GHz or faster)	512 MB (2 GB)	32 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.

Mac

Operating system	Requirements (Recommended)		
	CPU	RAM	Free HDD space
Mac OS X 10.6	Intel® processors	1 GB (2 GB)	1 GB
Mac OS X 10.7 - 10.11	Intel® processors	2 GB	4 GB

Linux

Items	Requirements
Operating system	Red Hat Enterprise Linux 5, 6, 7 Fedora 16, 17, 18, 19, 20, 21, 22, 23, 24 OpenSUSE 12.1, 12.2, 12.3, 13.1, 13.2, 42.1 Ubuntu 11.10, 12.04, 12.10, 13.04, 13.10, 14.04, 14.10, 15.04, 15.10, 16.04 SUSE Linux Enterprise Desktop 11, 12 Debian 7, 8 Mint 13, 14, 15, 16, 17, 18
CPU	Pentium IV 2.4 GHz (Intel Core™ 2)
RAM	512 MB (1 GB)
Free HDD space	1 GB (2 GB)

Unix

Items	Requirements
Operating system	Sun Solaris 9, 10, 11 (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, 6.1, 7.1 (PowerPC)
Free HDD space	Up to 100 MB

Regulatory information

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/EN 60825-1 : 2014.

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:

Below the warning label of Laser is attached on LSU cover.



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

AVERTISSEMENT - CLASSE 3B. RADIATION LASER INVISIBLE EN CAS D'OUVERTURE. EVITER L'EXPOSITION AU FAISCEAU.

WARNUNG - KLASSE 3B: UNSICHTBARE LASERSTRAHLUNG WENN GEOFFNET. STRAHLENAUSSETZUNG VERMEIDEN.

ATTENZIONE - CLASSE 3B. RADIAZIONI LASER INVISIBILI CON IL DISPOSITIVO APERTO. EVITARE L'ESPOSIZIONE AL RAGGIO.

ADVERTENCIA - RADIACIÓN LÁSER INVISIBLE DE CLASE 3B PRESENTE AL ABRIR. EVITE LA EXPOSICIÓN AL HAZ.

AVISO - CLASSE 3B. RADIAÇÃO LASER INVISÍVEL AO ABRIR. EVITE EXPOSIÇÃO DIRECTA AO FEIXE.

WAARSCHUWING - KLASSE 3B. ONZICHTBARE LASERSTRALING INDIEN GEOPEND. VERMIJD BLOOTSTELLING AAN DE STRAAL.

ADVARSEL - KLASSE 3B. USYNLIG LASERSTRÅLING VED ÅBNING. UNNGÅ UDSÆTTELSE FOR STRÅLING.

ADVARSEL - KLASSE 3B. USYNLIG LASERSTRÅLING NÅR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.

VARNING - KLASS 3B OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD. STRÅLEN ÄR FARLIG.

VAROITUS - LUOKAN 3B NÄKYMÄTTÖMÄLLE LASER-SÄTEILYÄ AVATTUNA. VÄLTÄ ALTISTUMISTA SÄTEELLE.

警告 - CLASS 3B. 严禁打开, 以免被不可见激光辐射 泄漏灼伤

경고 - 열리면 등급 3B 비가시 레이저 방사선이 방출됩니다. 광선에 노출을 피하십시오.

警告 - CLASS 3B. 嚴禁打開, 以免被不可見激光輻射洩漏灼傷

For 110 volt models , “**This product complies with 21 CFR Chapter 1, subchapter J.**” is written on the label of rear cover. And for 220 volt models, below image is applied on the label of rear cover.



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.

Perchlorate warning

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

Perchlorate Material - special handling may apply.

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

Power saver



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

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

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

For more information on the ENERGY STAR program see

<http://www.energystar.gov>

For ENERGY STAR certified models, the ENERGY STAR label will be on your machine. Check if your machine is ENERGY STAR certified.

Recycling



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

Correct disposal of this product (Waste electrical & electronic equipment)

(Applicable in 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 s 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

EU REACH SVHC Declaration

For information on Samsung's environmental commitments and product specific regulatory obligations e.g. REACH visit:

samsung.com/uk/aboutsamsung/samsungelectronics/corporatecitizenship/data_corner.html.

State of California Proposition 65 Warning (USA Only)

The California Safe Drinking Water and Toxic Enforcement Act requires the Governor of California to publish a list of chemicals known to the state of California to cause cancer or reproductive toxicity and requires businesses to warn of exposure to such chemicals.

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. This appliance and its accessories can cause low-level exposure to chemicals during operation, which can be reduced by operating the appliance in a well ventilated area, and low-level exposure to chemicals through other use or handling.

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.
- 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 A 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 A 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 A prescrites dans la norme sur le matériel brouilleur: "Appareils Numériques", ICES-003 édictée par l'Industrie et Sciences Canada.

European Class A Warning

This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

United States of America

Federal Communications Commission (FCC)

Intentional emitter per FCC Part 15

Low power, Radio LAN devices (radio frequency (RF) wireless communication devices), operating in the 2.4 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 collocated with another transmitter and transmitting antenna.

RFID (Radio Frequency Interface Device)

RFID operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device. (U.S.A., France, Taiwan only)

Taiwan only

警告使用者：

此為甲類資訊技術設備，於居住環境中使用時，可能會造成射頻擾動，在此種情況下，使用者會被要求採取某些適當的對策。

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

低功率電波輻射性電機管理辦法

第十二條 經型式認證合格之低功率射頻電機，非經許可，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。

第十四條 低功率射頻電機之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前項合法通信，指依電信法規定作業之無線電通信。低功率射頻電機須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。

- 設備名稱: 打印机
- 型號(型式): ProXpress C4010ND

限用物質含有情況標示聲明書

Declaration of the Presence Condition of the Restricted Substances Marking

單元 Unit	限用物質及其化學符號 Restricted substances and its chemical symbols					
	鉛Lead (Pb)	汞Mercury (Hg)	鎘Cadmium (Cd)	六價鉻 Hexavalent chromium (Cr ⁺⁶)	多溴聯苯 Polybrominated biphenyls (PBB)	多溴二苯醚 Polybrominated diphenyl ethers (PBDE)
電路板	—	○	○	○	○	○
外殼	○	○	○	○	○	○
玻璃面板	○	○	○	○	○	○
配件(例： 遙控器等)	○	○	○	○	○	○
備考1. “超出0.1 wt %”及“超出0.01 wt %”係指限用物質之百分比含量超出百分比含量基準值。 Note 1: “Exceeding 0.1 wt %” and “exceeding 0.01 wt %” indicate that the percentage content of the restricted substance exceeds the reference percentage value of presence condition. 備考2. “○”係指該項限用物質之百分比含量未超出百分比含量基準值。 Note 2: “○” indicates that the percentage content of the restricted substance does not exceed the percentage of reference value of presence. 備考3. “—”係指該項限用物質為排除項目。 Note 3: The “—” indicates that the restricted substance corresponds to the exemption.						

Russia / Kazakhstan / Belaru only



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(Мэтан-донг) 129, Самсунг-ро, Енгтонг-гу, г. Сувон, Кёнги-до, Республика Корея
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(Мэтан-донг) 129, Самсунг-ро, Енгтонг-гу, Сувон қ., Кёнги-до, Корея Республикасы
«САМСУНГ ЭЛЕКТРОНИКС КЗ ЭНД ЦЕНТРАЛ ЭЙЖА» ЖШС
Заңды мекен-жайы: Қазақстан Республикасы, Алматы қ., Әл-Фараби даңғылы, 36, 3,4-қабаттар

Germany only

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

Das Gerät kann der Bildschirmarbeitsverordnung unterliegen und in diesem Zusammenhang Abweichungen von an Bildschirmarbeitsplätze zu stellenden Anforderungen (Zeichengröße auf Bildschirmgerät und Tastatur) aufweisen. Es ist daher für Tätigkeiten nicht geeignet, bei denen Beschäftigte das Gerät für einen nicht unwesentlichen Teil ihrer normalen Arbeit mit Bildschirmarbeit benutzen.

Bei Aufstellung des Gerätes darauf achten, dass Blendungen durch in der Anzeige spiegelnde Lichtquellen vermieden werden.

Turkey only

- Bu ürünün ortalama yaşam süresi 7 yıl, garanti süresi 2 yıldır.

Thailand only

This telecommunication equipment conforms to NTC technical requirement.

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 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 [C401x series] is in compliance with the essential requirements and other relevant provisions of Low Voltage Directive (2014/35/EU), EMC Directive(2014/30/EU).

Hereby, Samsung Electronics, declares that this [C401x series] is in compliance with the essential requirements and other relevant provisions of Radio Equipment Directive (2014/53/EU).

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

Council Directive 2014/35/EU, Approximation of the laws of the member states related to low voltage equipment.

Council Directive 2014/30/EU, Approximation of the laws of the Member States related to electromagnetic compatibility.

Council Directive 2014/53/EU 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.

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 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.



Wireless devices that may be in your system are only qualified for use in the European Union or associated areas if a CE mark is on the system label.

The power output of the wireless device or devices that may be embedded in your printer is well below the RF exposure limits as set by the European Commission through the Radio Equipment Directive.

European states qualified under wireless approvals:

EU countries

European states with restrictions on use:

EU

EEA/EFTA countries

No limitations at this time

Regulatory compliance statements

Wireless guidance

Low power, Radio LAN devices (radio frequency (RF) wireless communication devices), operating in the 2.4 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.



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 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.

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。

当您废弃您正在使用的产品时，请您及时与授权耗材更换中心取得联系，

我们会及时为您提供服务。

Website:

<http://www.samsung.com/cn/support/location/supportServiceLocation.do?page=SERVICE.LOCATION>

产品中有害物质的名称及含量

部件名称	有害物质					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr ⁶⁺)	多溴联苯 (PBB)	多溴二苯醚 (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	○	○	○	○	○	○

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警告

此为A级产品，在生活环境中，该产品可能会造成无线电干扰。
在这种情况下，可能需要用户对其干扰采取切实可行的措施。

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QR code

The software included in this product contains open source software. You may obtain the complete corresponding source code for a period of three years after the last shipment of this product by sending an email to <mailto:oss.request@samsung.com>. It is also possible to obtain the complete corresponding source code in a physical medium such as a CD-ROM; a minimal charge will be required.

The following URL

http://opensource.samsung.com/opensource/Samsung_C401x_Series/seq/0 leads to the download page of the source code made available and open source license information as related to this product. This offer is valid to anyone in receipt of this information.

REV. 2.00

User Guide

pro**Xpress**

C401x series

Advanced

This guide provides information about installation, advanced configuration, operation and troubleshooting on various OS environments. Some features may not be available depending on models or countries.

Basic


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

Advanced

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Using a Network-Connected Machine

This chapter gives you step-by-step instructions for setting up a network connected machine and software.

 Supported optional devices and features may differ according to your model (see "Features by model" on page 5).

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Useful network programs

There are several programs available to setup the network settings easily in a network environment. For the network administrator especially, managing several machines on the network is possible.



Before using the programs below, set the IP address first.

SyncThru™ Web Service

The web server embedded on your network machine allows you to do the following tasks (see "SyncThru™ Web Service" on page 187).

- Check the supplies information and status.
- Customize machine settings.
- Set the email notification option. When you set this option, the machine status (toner cartridge shortage or machine error) will be sent to a certain person's email automatically.
- Configure the network parameters necessary for the machine to connect to various network environments.

SetIP wired network setup

This utility program allows you to select a network interface and manually configure the IP addresses for use with the TCP/IP protocol.

- See "Setting IP address" on page 127.



The machine that does not support the network port, it will not be able to use this feature (see "Rear view" on page 17).

Wired network setup

Printing a network configuration report

You can print **Network Configuration Report** from the machine's control panel that will show the current machine's network settings. This will help you to set up a network.

Press the  (**Menu**) button on the control panel and select **Network > Network Conf.**

Using this **Network Configuration Report**, you can find your machine's MAC address and IP address.

For example:

- MAC Address: 30:CD:A7:41:A2:78
- IP Address: 169.254.192.192

Setting IP address

When you connect your machine to a network, you must first configure the TCP/IP settings for the machine. The settings shown below are the basic settings required for using your machine as a network machine. You can set TCP/IP, DNS server, TCP/IPv6, Ethernet, and IP address allocation methods.

First, you have to set up an IP address for network printing and managements. In most cases a new IP address will be automatically assigned by a DHCP (Dynamic Host Configuration Protocol) server located on the network.


IPv4 configuration



You can also set the TCP/IPv4 from **SyncThru™ Web Service**. When the **SyncThru™ Web Service** window opens, move the mouse cursor over the **Settings** of the top menu bar and then click **Network Settings** ("Settings tab" on page 189).

From the control panel

If you have a DHCPv4 server on your network, you can set one of the following options for default dynamic host configuration.

- 1 Select  (**Menu**) > **Network** > **TCP/IP (IPv4)** > **DHCPv4 Config** on the control panel.
- 2 Press **OK** to select the required value you want.

From SetIP program

Before using the SetIP program, disable the computer firewall.



- TCP/IPv6 is not supported by this program.
 - The following instructions may vary from your model or operating systems.
-

1 Download the software from the Samsung website then unpack and install it: (<http://www.samsung.com> > find your product > Support or Downloads).

2 Follow the instructions in the installation window.

For Linux, double-click the **SetIPApplet.html** file in **cdroot/Linux/noarch/at_opt/share/utils** folder.

3 Run downloaded **SetIP** application.



Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 127) and enter it without the colons. For example, 30:CD:A7:29:51:A8 becomes 30CDA72951A8.

IPv6 configuration




IPv6 is supported properly only in Windows Vista or higher.



You can also set the TCP/IPv6 from **SyncThru™ Web Service**. When the **SyncThru™ Web Service** window opens, move the mouse cursor over the **Settings** of the top menu bar and then click **Network Settings** ("Settings tab" on page 189).

From the control panel

If you have a DHCPv6 server on your network, you can set one of the following options for default dynamic host configuration.

1 Select  (Menu) > **Network** > **TCP/IP (IPv6)** > **DHCPv6 Config** on the control panel.

2 Press **OK** to select the required value you want.

Wireless network setup (optional)



- Check the option lists and contact the purchasing point to order (see "Available accessories" on page 51). After installing the Wi-Fi/NFC kit (Optional), set the machine to use this feature.
- Make sure your machine supports wireless networking. Wireless networking may not be available depending on the model (see "Features by model" on page 5).
For errors that occur during the wireless software installation and settings, refer to the troubleshooting chapter (see "Wireless network problems" on page 99).

Wireless networks require higher security, so when an access point is first set up, a network name (SSID), the type of security used, and a Network Password are created for the network. Ask your network administrator about this information before proceeding with the machine installation.

Introducing wireless set up methods

You can set wireless settings either from the machine or the computer. Choose the setting method from the below table.



- Some wireless network installation types may not be available depending on the model or country.
- It is strongly recommended that you set the password on Access Points. If you do not set the password on Access Points, they might be exposed to illegal access from unknown machines including PCs, smart phones and printers. Refer to the Access Point user' guide for password settings.

Set up method	Connecting method	Description & Reference
With Access Point	From the computer	See "Setting up via USB cable" on page 132 for Window.
		See "Setting up via USB cable" on page 135 for Mac.
		See "Using a network cable" on page 136.
	From the machine's control panel	See "Using the WPS menu" on page 130.
		See "Using the Wi-Fi Networks" on page 132.
Wi-Fi Direct setup		See "Setting the Wi-Fi Direct for mobile printing" on page 139.

Using the WPS menu

If your machine and access point (or wireless router) support Wi-Fi Protected Setup™ (WPS), then you can easily configure the wireless network settings through the **WPS** menu without the need for a computer.



- If you want to use the wireless network using the infrastructure mode, make sure that the network cable is disconnected from the machine. Using the **WPS(PBC)** or entering the PIN from the computer to connect to the access point (or wireless router) varies depending on the access point (or wireless router) you are using. Refer to the user's guide of the access point (or wireless router) you are using.
- When using the WPS to set the wireless network, security settings may change. To prevent this, lock the WPS option for the current wireless security settings. The option name may differ depending on the access point (or wireless router) you are using.

Items to prepare

- Check if the access point (or wireless router) supports Wi-Fi Protected Setup™ (WPS).
- Check if your machine supports Wi-Fi Protected Setup™ (WPS).
- Networked computer (PIN mode only)

Choosing your type

There are two methods available to connect your machine to a wireless network.

- The **Push Button Configuration (PBC)** method allows you to connect your machine to a wireless network by pressing both the **WPS** menu on the control panel of your machine and the WPS (PBC) button on a Wi-Fi Protected Setup™ WPS-enabled access point (or wireless router) respectively.
- The **Personal Identification Number (PIN)** method helps you connect your machine to a wireless network by entering the supplied PIN information on a Wi-Fi Protected Setup™ WPS-enabled access point (or wireless router).


Connecting WPS

Factory default in your machine is **PBC** mode, which is recommended for a typical wireless network environment.




If the machine is connected to a wired network, then you cannot connect to it using the WPS feature. If a network cable is plugged into the network port, remove it from the network port.

Connecting in PBC mode

- 1 Select  (Menu) > **Network** > **Wi-Fi** > **WPS** on the control panel.
- 2 Press **PBC**.


- 3 Press **OK** when the confirmation window appears.
Information window appears showing 2 minutes connection processing time.
- 4 Press the **WPS (PBC)** button on the access point (or wireless router).
The messages are displayed on the display screen in the order below:
 - a. **Connecting:** The machine is connecting to the access point (or wireless router).
 - b. **Connected:** When the machine is successfully connected to the wireless network, the WPS LED light stays on.
 - c. **AP SSID:** After completing the wireless network connection process, the AP's SSID information appears on the display.
- 5 Insert the supplied software CD into your CD-ROM drive, and follow the instructions in the window to set up the wireless network.

Connecting in PIN mode

- 1 Select  (Menu) > **Network** > **Wi-Fi** > **WPS** on the control panel.
- 2 Press **PIN**.
- 3 Press **OK** when the confirmation window appears.
- 4 The eight-digit PIN appears on the display.
You need to enter the eight-digit PIN within two minutes on the computer that is connected to the access point (or wireless router).
The messages are displayed on the display screen in the order below:
 - a. **Connecting:** The machine is connecting to the wireless network.
 - b. **Connected:** When the machine is successfully connected to the wireless network, the WPS LED light stays on.
 - c. **Network Name(SSID):** After completing the wireless network connection process, the AP's SSID information is displayed on the LCD display.
- 5 Insert the supplied software CD into your CD-ROM drive, and follow the instructions in the window to set up the wireless network.

Using the Wi-Fi Networks

Before starting, you will need to know the network name (SSID) of your wireless network and the network key if it is encrypted. This information was set when the access point (or wireless router) was installed. If you do not know about your wireless environment, please ask the person who set up your network.

- 1 Select the  (Menu) > **Network** > **Wi-Fi** > **Wi-Fi Settings** button on the control panel.
- 2 Press the **OK** to select the setup method you want.
 - **Search List (recommended):** In this mode, the setup is automatic. The machine will display a list of available networks from which to choose. After a network is chosen then printer will prompt for the corresponding security key.
 - **Custom:** In this mode, users can give or edit manually their own SSID, or choose the security option in detail.
- 3 Follow the instructions to set up the wireless network.

Setup using Windows



Shortcut to the **Samsung Easy Wireless Setup** program without the CD: If you have installed the printer driver once, you can access the **Samsung Easy Wireless Setup** program without the CD.

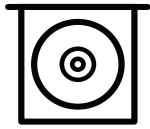
Setting up via USB cable

Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

Creating the infrastructure network

- 1 Check whether the USB cable is connected to the machine.
- 2 Turn on your computer, access point, and machine.
- 3 Insert the supplied software CD into your CD-ROM drive.



If the installation window does not appear, click **Start > All programs > Accessories > Run**.

X:\Setup.exe replacing "X" with the letter, which represents your CD-ROM drive and click **OK**.

- For Windows 8,
If the installation window does not appear, from **Charms**, select **Search > Apps** and search for **Run**. Type in X:\Setup.exe, replacing "X" with the letter that represents your CD-ROM drive and click **OK**.
If "**Tap to choose what happens with this disc.**" pop-up window appears, click the window and select **Run Setup.exe**.
- For Windows 10 / Windows Server 2016
If the installation window does not appear, type in X:\Setup.exe in **Search** input area from task bar, replacing "X" with the letter that represents your CD-ROM drive and press the Enter key.

- 4 Review and accept the installation agreements in the installation window. Then, click **Next**.
- 5 Select you want type on the **Printer Setup Type** screen, and then click **Next**.
- 6 Select **Wireless** on the **Printer Connection Type** screen. Then, click **Next**.
- 7 On the **Are you setting up your printer for the first time?** screen, select **Yes, I will set up my printer's wireless network**. Then, click **Next**.
If your printer is already connected on the network, select **No, my printer is already connected to my network**.
- 8 Select **Using a USB cable** on the **Select the Wireless Setup Method** screen. Then, click **Next**.
- 9 After searching, the window shows the wireless network devices. Select the name (SSID) of the access point you want to use and click **Next**.



If you cannot find the network name you want to choose, or if you want to set the wireless configuration manually, click **Advanced Setting**.

- **Enter the wireless Network Name:** Enter the SSID of the access point (SSID is case-sensitive).
- **Operation Mode:** Shows the **Infrastructure**.
- **Authentication:** Select an authentication type.
Open System: Authentication is not used, and encryption may or may not be used, depending on the need for data security.
Shared Key: Authentication is used. A device that has a proper WEP key can access

the network.

WPA Personal or WPA2 Personal: Select this option to authenticate the print server based on a WPA Pre-Shared Key. This uses a shared secret key (generally called Pre Shared Key pass phrase), which is manually configured on the access point and each of its clients.

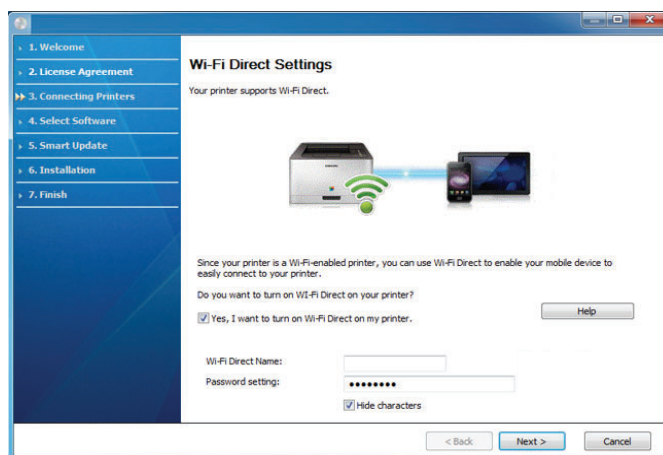
- **Encryption:** Select the encryption (None, WEP64, WEP128, TKIP, AES).
- **Network Password:** Enter the encryption network password value.
- **Confirm Network Password:** Confirm the encryption network password value.
- **WEP Key Index:** If you are using WEP Encryption, select the appropriate **WEP Key Index**.

The wireless network security window appears when the access point has security settings.

Enter the Network Password of the access point (or router).

10 If the Wi-Fi Direct feature is turned off in the machine, the following screen appears.

Click **Next**.



- Wi-Fi Direct option appears on the screen only if your printer supports this feature.
- You can start Wi-Fi Direct by using the control panel (see "Setting up Wi-Fi Direct" on page 139).
- **Wi-Fi Direct Name:** The default Wi-Fi Direct Name is the model name and the maximum length is 23 characters.
- **Password setting** is the numeric string, and the size is 8 ~ 64 characters.

11 When the wireless network set up is completed, disconnect the USB cable between the computer and machine. Click **Next**.

12 Select the components to be installed.

13 Follow the instructions in the installation window.

Setup using Mac

Items to prepare

- Access point
- Network-connected computer
- Software CD that was provided with your machine
- A machine installed with a wireless network interface
- USB cable

Setting up via USB cable

- 1 Make sure that the machine is connected to your computer and powered on.
- 2 Download the software from the Samsung website then unpack and install it:
(<http://www.samsung.com> > find your product > Support or Downloads).
- 3 Turn on the machine.
- 4 Double-click **Install Software** icon.
- 5 Read the license agreement and check installation agreement button.
- 6 Click **Next**.
- 7 Select **Wireless** on the **Printer Connection Type**.
- 8 Click **Next**.
- 9 On the **Select the Wireless Setup Method** screen, select **Using a USB cable**, and then click **Next**.
If the screen dose not appear, go to step 14.
- 10 After searching, the window shows the wireless network devices. Select the name (SSID) of the access point you want to use and click **Next**.



When you set the wireless configuration manually, click **Advanced Setting**.

- **Enter the wireless Network Name:** Enter the SSID of the access point (SSID is case-sensitive).
- **Operation Mode:** Shows the **Infrastructure**.
- **Authentication:** Select an authentication type.
Open System: Authentication is not used, and encryption may or may not be used,

depending on the need for data security.

Shared Key: Authentication is used. A device that has a proper WEP key can access the network.

WPA Personal or WPA2 Personal: Select this option to authenticate the print server based on the WPA Pre-Shared Key. This uses a shared secret key (generally called Pre Shared Key pass phrase) that is manually configured on the access point and each of its clients.

- **Encryption:** Select the encryption. (None, WEP64, WEP128, TKIP, AES)
- **Network Key:** Enter the encryption network key value.
- **Confirm Network Key:** Confirm the encryption network key value.
- **WEP Key Index:** If you are using WEP Encryption, select the appropriate **WEP Key Index**.

The wireless network security window appears when the access point has security enabled.

Enter the Network Key of the access point (or router).

- 11 The window showing the wireless network setting appears. Check the settings and click **Next**.
-



- You can start Wi-Fi Direct by using the control panel (see "Setting up Wi-Fi Direct" on page 139).
 - **Wi-Fi Direct Name:** The default Wi-Fi Direct Name is the model name and the maximum length is 23 characters.
 - **Password setting** is the numeric string, and the size is 8 ~ 64 characters.
-

- 12 The **Wireless Network Setting Complete** window appears. Click **Next**.

- 13 When the wireless network settings are completed, disconnect the USB cable between the computer and machine. Click **Next**.

- 14 Follow the instructions in the installation window.

Using a network cable



See your network administrator, or the person that set up your wireless network, for information about your network configuration.

Your machine is a network compatible machine. To enable your machine to work with your network, you will need to perform some configuration procedures.

Items to prepare

- Access point

- Network-connected computer
- A machine installed with a wireless network interface
- Network cable

Printing a network configuration report

You can identify the network settings of your machine by printing a network configuration report. See "Printing a network configuration report" on page 127.

IP setting using SetIP Program (Windows)

This program is used to manually set the network IP address of your machine using its MAC address to communicate with the machine. The MAC address is the hardware serial number of the network interface and can be found in the **Network Configuration Report**.

See "Setting IP address" on page 127.

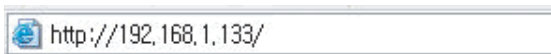
Configuring the machine's wireless network

Before starting, you will need to know the network name (SSID) of your wireless network and the network key if it is encrypted. This information was set when the access point (or wireless router) was installed. If you do not know about your wireless environment, please ask the person who set up your network.

To configure wireless parameters, you can use **SyncThru™ Web Service**.

Using SyncThru™ Web Service

Before starting wireless parameter configuration, check the cable connection status.

- 1 Check whether the machine is connected to the network.
- 2 Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.
For example,

- 3 Click **Login** in the upper right of the SyncThru™ Web Service website.
- 4 Type in the **ID** and **Password**, then click **Login**. If it's your first time logging into SyncThru™ Web Service, type in the below default ID and password. We recommend you to change the default password for security reasons.
 - **ID:** admin
 - **Password:** sec00000
- 5 When the **SyncThru™ Web Service** window opens, click **Settings > Network Settings**.

6 Click **Wi-Fi > Wizard**.

7 Select the one **Network Name(SSID)** in the list.

8 Click **Next**.

If the wireless security setting window appears, enter the registered password (network password) and click **Next**.

9 The confirmation window appears, please check your wireless setup. If the setup is right, click **Apply**.



If a network cable is plugged into the network port, remove it from the network port.

Turning the Wi-Fi network on/off

1 Check whether the machine is connected to the network.

2 Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.

For example,



3 Click **Login** in the upper right of the SyncThru™ Web Service website.

4 Type in the **ID** and **Password**, then click **Login**. If it's your first time logging into SyncThru™ Web Service, type in the below default ID and password. We recommend you to change the default password for security reasons.

- **ID: admin**
- **Password: sec00000**

5 When the **SyncThru™ Web Service** window opens, click **Settings > Network Settings**.

6 Click **Wi-Fi**.

7 You can turn the Wi-Fi network on/off.

Setting the Wi-Fi Direct for mobile printing

Wi-Fi Direct is a secure and easy-to-use peer-to-peer connection between a Wi-Fi Direct-enabled printer and mobile device.

With Wi-Fi Direct, you can connect your printer to a Wi-Fi Direct network while concurrently connecting to an access point. You can also use a wired network and a Wi-Fi Direct network simultaneously so multiple users can access and print documents both from Wi-Fi Direct and from a wired network.




- You cannot connect your mobile device to the internet through the printer's Wi-Fi Direct.
 - The supported protocol list may differ from your model, Wi-Fi Direct networks do NOT support IPv6, network filtering, IPSec, WINS, and SLP services.
 - The maximum number of devices that can be connected via Wi-Fi Direct is 4.
-

Setting up Wi-Fi Direct

You can enable Wi-Fi Direct feature by one of the following methods.

From the machine

- 1 Select  (Menu) > **Network** > **Wi-Fi** > **Wi-Fi Direct** on the control panel.
- 2 Enable **Wi-Fi Direct**.

From the network-connected computer

If your printer is using a network cable or a wireless access point, you can enable and configure Wi-Fi Direct from SyncThru™ Web Service.

- 1 Access **SyncThru™ Web Service** and select **Settings** > **Network Settings** > **Wi-Fi** > **Wi-Fi Direct™**.
- 2 Enable **Wi-Fi Direct™** and set other options.

Setting up the mobile device

- After setting up Wi-Fi Direct from the printer, refer to the user manual of the mobile device you are using to set its Wi-Fi Direct.
- After setting up Wi-Fi Direct, you need to download the mobile printing application (For example: Samsung Mobile printer) to print from your smartphone.



- When you have found the printer you want to connect to from your mobile device, select the printer and the printer's LED will blink. Press the option you want when the Wi-Fi connection confirmed window appears from the display screen and it will be connected to your mobile device.
 - If your mobile device does not support Wi-Fi Direct, you need to enter the "Network Key" of a printer.
-

Using the NFC feature (optional)



If you want to add Wi-Fi/NFC feature to the machine, check the option lists and contact the purchasing point to order (see "Available accessories" on page 51). After installing the Wireless Kit (Wireless LAN Option), set the machine to use this feature.

The Wireless and NFC (Near Field Communication) printer allows you to directly print/scan/fax from your mobile device just by holding your mobile device over the NFC tag on Wi-Fi/NFC Kit (Wireless LAN Option). It does not require installing print driver or connecting to an access point. You just need NFC supported mobile device. In order to use this feature, mobile apps needs to be installed on your mobile device.



- Depending on the material of the mobile device cover, NFC recognition may not work properly.
- Depending on the mobile device you are using, the transmission speed may differ.
- This feature is available only for the model with a NFC tag (see "Machine overview" on page 15).
- Using a cover or a battery other than the ones that came with the mobile device, or a metal cover/sticker can block NFC.
- If NFC devices keep failing to communicate,
 - Remove the case or cover from the mobile device, then try again.
 - Reinstall the battery from the mobile device, then try again.

Requirements

- NFC and Wi-Fi Direct enabled, supported mobile apps installed mobile device with Android 4.0 or higher



Only Android OS 4.1 or higher will automatically enable the Wi-Fi Direct feature on your mobile device when you enable the NFC feature. We recommend you to upgrade your mobile device to Android OS 4.1 or higher to use the NFC feature.

-
- Wi-Fi Direct feature enabled printer (see "Setting up Wi-Fi Direct" on page 139).

Related Apps

There are some apps that can be used with the NFC feature. The apps can be downloaded from the Google Play Store.

- **Samsung Mobile Print:** Enables users to print, scan (Only users with multi-functional printers), or fax (Only users with multi-functional printers) photos, documents, and web pages directly from your smartphone or tablet (see "Using the Samsung Mobile Print App" on page 145).

- **Samsung Mobile Print Manager:** Enables users to use cloning and wireless setup features using your mobile device (see "Using the Samsung Mobile Print Manager App" on page 142).

Using the Samsung Mobile Print Manager App

If you have more than one printer and need to set the same settings on each printer, you can easily do it using the **Samsung Mobile Print Manager** app. Touch your cellphone on the NFC tag on your printer to copy the settings and tap on the printer you want to set the setting.




When exporting the data, you can save more than one data. When importing the data, you can select the data from the list and import.

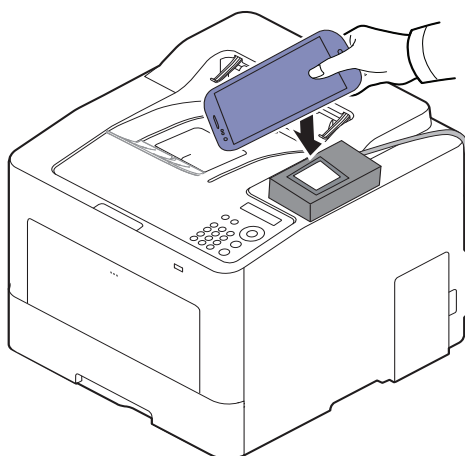
Exporting(Copying the setting to your mobile device)

- 1 Check that NFC and Wi-Fi Direct enabled features are on your mobile device and Wi-Fi Direct feature is enabled on your printer.
- 2 Open **Samsung Mobile Print Manager** from your mobile device.



If you do not have **Samsung Mobile Print Manager** installed on your cellphone, go to the application store (Samsung Apps, Play Store) on your mobile device, and just search for download the app and try again.

- 3 Press **Export**.
- 4 Type in the **ID** and **Password**.
 - **ID:** admin
 - **Password:** sec00000
- 5 Tag your mobile device (usually located on the back of the mobile device) over the NFC tag() on your printer.
Wait few seconds for the mobile device to connect to the printer.



- For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.
- While cloning, the machine is locked.

6 Select the settings you want to apply and press **OK**.

7 Follow the instruction on the mobile device's screen.

Importing (Applying the settings to the machine)

1 Check that NFC and Wi-Fi Direct enabled features are on your mobile device and Wi-Fi Direct feature is enabled on your printer.

2 Open **Samsung Mobile Print Manager** from your mobile device.



If you do not have **Samsung Mobile Print Manager** installed on your cellphone, go to the application store (Samsung Apps, Play Store) on your mobile device, and just search for download the app and try again.

3 Press **Import**.

4 Type in the **ID** and **Password**.

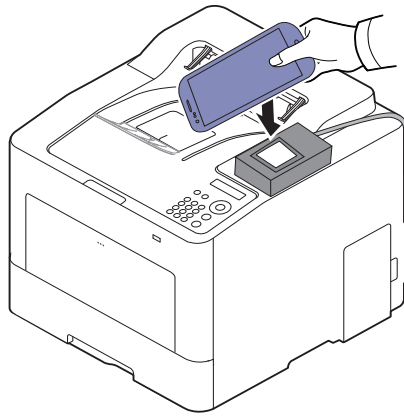
- **ID:** admin
- **Password:** sec00000

5 Select the settings you want to copy.

6 Follow the instruction on the mobile device's screen.

- 7 Tag your mobile device (usually located on the back of the mobile device) over the NFC tag(NFC) on your printer.

Wait few seconds for the mobile device to connect to the printer.



- For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.
- While cloning, the machine is locked.
- While importing, the machine is rebooted.

Wireless Setup

You can copy wireless setting from your phone to your printer by touching your mobile device on the NFC tag on your printer.

- 1 Check that NFC and Wi-Fi Direct enabled features are on your mobile device and Wi-Fi Direct feature is enabled on your printer.
- 2 Open **Samsung Mobile Print Manager** from your mobile device.



If you do not have **Samsung Mobile Print Manager** installed on your cellphone, go to the application store (Samsung Apps, Play Store) on your mobile device, and just search for download the app and try again.

- 3 Mobile device **Samsung Mobile Print Manager** screen appears.

Press **Wi-Fi- Setup**.

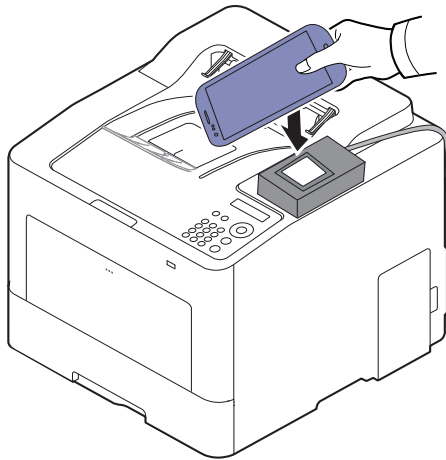
- 4 Type in the **ID** and **Password**.
 - **ID:** admin
 - **Password:** sec00000

- 5 If the access point (or wireless router) is connected to the connection confirmation window appears, then click **OK**.

If the access point (or wireless router) not connection, select the desired access point (or wireless router) and click **OK**, then **OK**.

- 6 Tag your mobile device (usually located on the back of the mobile device) over the NFC tag(NFC) on your printer.

Wait few seconds for the mobile device to connect to the printer.



For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.

- 7 Follow the instruction on the mobile device's screen.

Using the Samsung Mobile Print App

Samsung Mobile Print is a free application that enables users to print, scan (Only users with multi-functional printers), or fax (Only users with multi-functional printers) photos, documents, and web pages directly from your smartphone or tablet.

Printing

- 1 Check that NFC and Wi-Fi Direct features are enabled on your mobile device and Wi-Fi Direct feature is enabled on your printer.


- 2 Open **Samsung Mobile Print** app.




If you do not have **Samsung Mobile Print** installed on your cellphone, go to the application store (Samsung Apps, Play Store) on your mobile device, and just search for download the app and try again.

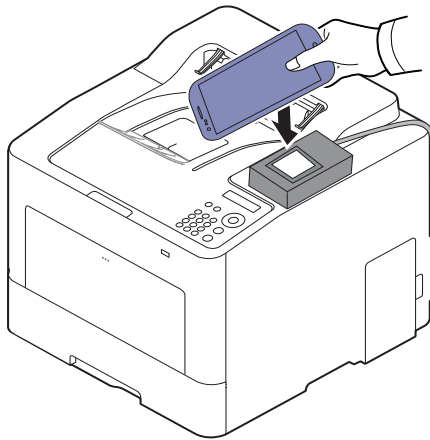
3 Select print mode.

4 Select the content you want to print.

If necessary, change the print option by pressing the  icon.

5 Tag your mobile device (usually located on the back of the mobile device) over the NFC tag() on your printer.

Wait few seconds for the mobile device to connect to the printer.



For some mobile devices, NFC tag might not be located at the back of the mobile device. Check the location of the NFC antenna on your mobile device before tagging.

6 The printer starts printing.

Supported Mobile Apps

Available Apps

- **Samsung Mobile Print:** **Samsung Mobile Print** is a free application that enables users to print, scan (Only users with multi-functional printers), or fax (Only users with multi-functional printers) photos, documents, and web pages directly from your smartphone or tablet. **Samsung Mobile Print** is not only compatible with your Android and iOS smart phones but also with your iPod Touch and tablet PC. It connects your mobile device to a network connected Samsung printer or to a wireless printer through a Wi-Fi access point. Installing a new driver or configuring network settings isn't necessary – just simply install the **Samsung Mobile Print** application, and it will automatically detect compatible Samsung printers. Besides printing photos, web pages, and PDFs, scanning is also supported. If you have a Samsung multifunction, scan any document into a JPG, PDF, or PNG format for quick and easy viewing on your mobile device (see "Using the Samsung Mobile Print App" on page 145).
- **Samsung Mobile Print Control:** Helps users to get an authentication easily. This app provides one way of getting a user authentication using your mobile device (see "Using the Samsung Mobile Print App" on page 145).
- **Samsung Mobile Print Manager:** Enables users to use cloning and wireless setup features using your mobile device (see "Using the Samsung Mobile Print Manager App" on page 142, "Wireless Setup" on page 144).

Downloading Apps

To download apps, go to the application store (Play Store, App Store) on your mobile device, and just search for "**Samsung Mobile Print /Samsung Mobile Print Control/Samsung Mobile Print Manager.**" You can also visit iTunes for Apple devices on your computer.

- **Samsung Mobile Print**
 - **Android:** Search for **Samsung Mobile Print** from Play Store, and then download the app.
 - **iOS:** Search for **Samsung Mobile Print** from App Store, and then download the app.
- **Samsung Mobile Print Control/Samsung Mobile Print Manager**
 - **Android:** Search for **Samsung Mobile Print Controls** or **Samsung Mobile Print Manager** from Play Store, and then download the app.

Supported Mobile OS

- **Samsung Mobile Print**
 - Android OS 4.0 or higher
 - iOS 8.0 or higher
- **Samsung Mobile Print Control/Samsung Mobile Print Manager**
 - NFC and Wi-Fi Direct enabled, supported mobile apps installed mobile device with Android 4.0 or higher

Mopria™




- Only Mopria-certified machines can use the Mopria feature. Check the box that your machine came in for the Mopria-certified logo.
 - Make sure that the printer and mobile device are connected to the same network and the communication is available.
-



Mopria™ Print Service is a mobile printing solution that enhances the new print functionality on any Android phone or tablet (Android version 4.4 or later). With this service, you can connect and print to any Mopria-certified printer on the same network as your mobile device without additional set-up. Many native Android apps support printing, including Chrome, Gmail, Gallery, Drive and Quickoffice.

Setting up the machine for Mopria printing

Bonjour(mDNS) and IPP protocols are required on your machine to use the **Mopria** feature. Perform the following steps to enable the **Mopria** feature.

- 1 Check whether the machine is connected to the network.
- 2 Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.
For example,

- 3 Click **Login** in the top right corner of the SyncThru™ Web Service website.
- 4 Type in the **ID** and **Password**, then click **Login**. If it's your first time logging into SyncThru™ Web Service, type in the below default ID and password. We recommend you to change the default password for security reasons.
 - **ID:** admin
 - **Password:** sec00000
- 5 Click **Settings** > **Network Settings** > **Standard TCP/IP, LPR, IPP** > **IPP**. Then, select **Enable**.
- 6 Click **Settings** > **Network Settings** > **mDNS**. Then, select **Enable**.

- 7 Click **Security** > **System Security** > **Menu Management** > **Mopria**. Then, select **Enable**.

Setting up Mopria on your mobile device

If you do not have **Mopria Print Service** app installed on your mobile device, open to the app store (Play Store, App Store) on your mobile device, search for, **Mopria Print Service**, and then download and install the app.

- 1 In the **Settings** menu of your Android device, tap **Printing**.



The location of this option may differ depending on your mobile device. If you cannot locate the **Printing** option, refer to the user's manual for your mobile device.

- 2 Under **Print Services**, tap **Mopria Print Service**.
- 3 Tap the **On/Off** slider to enable the **Mopria Print Service**.

Printing via Mopria

To print via Mopria on an Android device:

- 1 Open the email, photo, web page, or document that you want to print.
- 2 Tap **Print** on the menu in the app.
- 3 Select **your printer**, and then configure the print options.
- 4 Touch **Print** again to print the document.



To cancel a print job: Select and delete the document from the print queue in the **Notification Bar**.

AirPrint



Only AirPrint certified machines can use the AirPrint feature. Check the box your machine came in for the AirPrint certified mark.



- **AirPrint** allows you to print directly from Mac OS (MacBook Pro, MacBook Air, and iMac) and iOS (iPhone, iPad and iPod touch). Scan and Fax are available only for Mac OS. (Only users with multi-functional printers)
- Make sure that the printer and mobile device are connected to the same network and the communication is available.

Setting up AirPrint

Bonjour(mDNS) and IPP protocols are required on your machine to use the **AirPrint** feature. You can enable the **AirPrint** feature by one of the following methods.

- 1 Check whether the machine is connected to the network.
- 2 Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.


For example,




- 3 Click **Login** in the upper right of the SyncThru™ Web Service website.
- 4 Type in the **ID** and **Password**, then click **Login**. Type in the below default ID and password. We recommend you to change the default password for security reasons.
 - **ID:** admin
 - **Password:** sec00000
- 5 Click **Settings** > **Network Settings** > **Standard TCP/IP, LPR, IPP** > **IPP**. Then, select **Enable**.
- 6 Click **Settings** > **Network Settings** > **mDNS**. Then, select **Enable**.
- 7 Click **Security** > **System Security** > **Menu Management** > **AirPrint**. Then, select **Enable**.

Printing via AirPrint

For example, the iPad manual provides these instructions:

- 1 Open your email, photo, web page, or document you want to print.
- 2 Touch the action icon().
- 3 Select **your printer driver name** and option menu to set up.
- 4 Touch **Print** button. Print it out.



Cancelling print job: To cancel the printing job or view the print summary, click the print center icon () in multitasking area. You can click cancel in the print center.

PrinterOn

Registering your **PrinterOn**-enabled Samsung printer on the **PrinterOn** service allows you to print documents on that printer from anywhere in the world. The **PrinterOn** service also enables you to print directly from the **PrinterOn** Mobile app on your iOS or Android device.

To use the **PrinterOn** feature, you must register your printer on the **PrinterOn** website (www.printeron.com).

Only administrators can register or configure a printer on the **PrinterOn** service.

This chapter does not explain all the features in the **PrinterOn** service. Instead, it explains how to register a printer on the **PrinterOn** service from the SyncThru™ Web Service.

For more information about the **PrinterOn** service, visit the **PrinterOn** website (www.printeron.com).

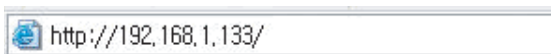
Registering your printer on the PrinterOn service

To register your printer on the **PrinterOn** service, you must activate the **PrinterOn** feature on the machine through the SyncThru™ Web Service.

Registering from Web Browser



Before you begin this process, make sure that your printer is turned on and can connect to the Internet.

- 1 Check whether the machine is connected to the network.
- 2 Start a web browser such as Internet Explorer, Safari, or Firefox and enter your machine's new IP address in the browser window.
For example,

- 3 Click **Login** in the upper right of the SyncThru™ Web Service website.
- 4 Type in the **ID** and **Password**, then click **Login**. If it's your first time logging into SyncThru™ Web Service, type in the below default ID and password. We recommend you to change the default password for security reasons.
 - **ID:** admin
 - **Password:** sec00000

- 5 When the **SyncThru™ Web Service** window opens, click **Settings > Network Settings > PrinterOn Cloud Print**.
- 6 Select check box to enable **PrinterOn Service**.
If a dialog box appears asking for permission to use your personal information, click **Privacy Policy** to review the terms and conditions. Select the check box indicating you agree to the terms, and then click **Yes**. When the dialog box closes, click **Apply**.
Web Connected Services is enabled automatically.



If **Web Connected Services** has been disabled, you cannot connect to the cloud service. To enable **Web Connected Services**, go to **Security > System Security > Feature Management** and select the **Enable** check box.

- 7 Now your printer is registered with **PrinterOn** service.

Using the PrinterOn Service

For instruction on how to print using the **PrinterOn** service, refer to the **PrinterOn** service website (www.printeron.com).

Useful Setting Menu



This chapter explains how to browse the current status of your machine, and the method of setting for advanced machine setup.

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Before you begin reading a chapter

This chapter explains all the features available for this series' models to help users easily understand the features. You can check the features available for each model in the Basic Guide (see "Menu overview" on page 25).

The following are tips for using this chapter


- 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 on the display depending on options or models. If so, it is not applicable to your machine.
- For models that do not have the  (**Menu**) on the control panel, this feature is not applicable (see "Control panel overview" on page 18).
- Some menu names may differ from your machine depending on its options or the models.

Information



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

To change the menu options:

Press  (**Menu**) > **Information** on the control panel.


Item	Description
Menu Map	Prints the menu map which shows the layout and current settings of this machine.
Configuration	Prints a report on the machine's overall configuration.
Supplies Info.	Prints supplies' information page.
Demo Page	Prints the demo page to check whether your machine is printing properly or not.
PCL Font	Prints the PCL font list.
PS Font	Prints the PS font list.
Usage Counter	Prints a usage page. The usage page contains the total number of pages printed.
Account	This is used only available when Job Accounting is enabled from the SyncThru™ Web Admin Service. You can print a report of printout counts for each user.
Network Conf.	Prints a report on the machine's current network configuration.

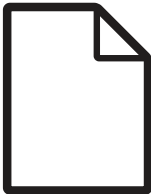

Layout

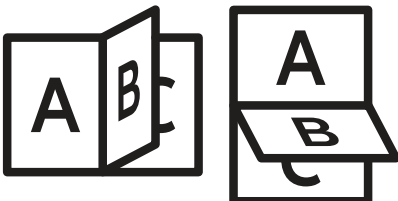
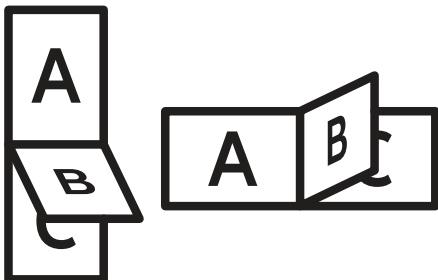


Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

To change the menu options:

Press  (Menu) > **Layout** on the control panel.

Item	Description
Orientation	<p>Selects the direction in which information is printed on a page.</p> <ul style="list-style-type: none">• Portrait  <ul style="list-style-type: none">• Landscape 
Common Margin	<ul style="list-style-type: none">• Simplex Margin: Sets the margin for one-sided printing.• Duplex Margin: Sets the margin for double-sided printing.• Binding: When printing on both sides of the paper, side A's margin closest to the binding will be the same as side B's margin closest to the binding. Likewise, the sides' margins farthest from the binding will be the same.
MP Tray	Sets the paper margins in multi-purpose tray.
<Tray X>	Sets the paper margins for the paper trays.
Emulation Mar.	Sets the paper margins for emulation print page.

Item	Description
Duplex	<p>To print on both sides of the paper, choose the binding edge.</p> <ul style="list-style-type: none"> • Off: Disables this option. • Long Edge  <ul style="list-style-type: none"> • Short Edge 


Paper



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

To change the menu options:

Press  (Menu) > **Paper** on the control panel.

Item	Description
Copies	Selects the number of copies.
MP Tray/ [Tray <x>]	<ul style="list-style-type: none">• Paper Size: Selects the default paper size.• Paper Type: Selects the paper type currently loaded in the tray.
Paper Source	<p>Sets the default paper tray to use.</p> <div> Auto: You can set the machine to automatically to the tray with the same sized paper when the tray in use is empty.</div>

Graphic



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

To change the menu options:

Press  (Menu) > **Graphic** on the control panel.

Item	Description
Resolution	Specifies the number of dots printed per inch (dpi). The higher the setting, the sharper printed characters and graphics.
Clear Text	Prints text darker than on a normal document.
Edge Enhance	It allows user to enhance sharpness of text and graphics for improving readability.
Auto CR	Allows you to append the required carriage return to each line feed, which is useful for Unix or DOS users.
Screen	This option affect the resolution and clarity of your color output. <ul style="list-style-type: none">• Normal: This mode will generate printouts with smooth tone over the entire page.• Enhanced: This mode will generate printouts with sharp texts and smooth graphic/photo objects in the page.• Detailed: This mode will generate printouts with sharp details over the entire page.
Trapping	It reduces the white gap caused by misalignment of color channels in color printing mode. Also black text will be overprinted on other colors.


System Setup






Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).



To change the menu options:

Press  (Menu) > **System Setup** on the control panel.

Item	Description
Date & Time	Sets the date and time.
Clock Mode	Selects the format for displaying time between 12 hr and 24 hr.
Language	Sets the language of the text that appears on the control panel display.
Power Save	Sets how long the machine waits before going to power save mode. When the machine does not receive data for an extended period of time, power consumption is automatically lowered.
Wakeup Event	When this option is On , you can wake up the machine from the power saving mode with the following actions: <ul style="list-style-type: none">• Pressing any button on the control panel.• Loading paper in a tray.• Opening or closing the front cover.• Pulling a tray out or pushing a tray in. <div> If the machine does not have the touch screen, you can wake up the machine from the power saving mode by pressing any button on the control panel regardless of this option's setting.</div>
Job Timeout	When there is no input for a certain period of time, the machine cancels the current job. You can set the amount of time the machine will wait before canceling the job.
Default Paper	Allows you to choose the default paper size.
Altitude Adj.	Optimize print quality according to the machine's altitude ("Altitude adjustment" on page 173).
Humidity	Optimizes print quality according to the humidity in the environment.

Item	Description
Auto Continue	<p>Determine whether or not the machine continues printing when it detects the paper does not match the paper settings.</p> <ul style="list-style-type: none"> • Off: If a paper mismatch occurs, the machine waits until you insert the correct paper. • On: If a paper mismatch occurs, the device chooses the most appropriate paper size to print on and continues printing, even if it is on the wrong size. For example, letter sent but only legal available, so prints letter job on legal paper.
Auto Tray Swi.	<p>Determine whether or not the machine continues printing when it detects the paper does not match. For example, if both tray 1 and tray 2 are filled with the same size paper, the machine automatically prints from tray 2 after the tray 1 runs out of paper.</p> <p> This option does not appear if you selected Auto for Paper Source from printer driver.</p>
Paper Substit.	<p>Automatically substitutes the printer driver's paper size to prevent the paper mismatch between Letter and A4. For example, if you have A4 paper in the tray but you set the paper size to Letter in the printer driver, the machine prints on A4 paper and vice versa.</p>
Tray Protect.	<p>Decides to use or not use the Auto Tray Swi. feature. If you set tray 1 to on, for example, then tray 1 is excluded during tray switching.</p>
Tray Mode	<p>Specifies whether or not the machine automatically changes the paper settings to the required settings when you close the tray.</p> <ul style="list-style-type: none"> • Static: The tray settings do not change when you open and close the tray. • Dynamic: If you open and close the tray when a paper mismatch occurs, the paper settings (size and type) for that tray automatically change to the settings required for the job. (When you open and close the tray in the Dynamic mode, the machine presumes that the paper in the tray was replaced with the size and type required for the job.)
SkipBlankPages	<p>The printer detects the printing data from computer whether a page is empty or not. You can set to print or skip the blank page.</p>

Item	Description
Maintenance	<ul style="list-style-type: none"> • CLR Empty Msg.: This option appears only when toner cartridge is empty. • Supplies Life: Allows you to check how many pages are printed and how much toner is left in the cartridge. • TonerLow Alert: If toner in the cartridge has run out, a message informing the user to change the toner cartridge appears. You can set the option for this message to appear or not. • Image Mgr.: This menu allows you to adjust contrast. • RAM Disk: Enables/disables RAM disk to manage jobs.
Toner Save	Activating this mode extends the life of your toner cartridge and reduces your cost per page beyond what one would experience in the normal mode, but it reduces print quality.
Eco Settings	<p>Allows you to save print resources and enables eco-friendly printing (see "Eco printing" on page 44).</p> <ul style="list-style-type: none"> • Default Mode: Select whether to turn the Eco mode on or off. <div>  <p>On Force: Sets the Eco mode on. If a user wants to turn the Eco mode off, the user needs to enter the password.</p> </div> <ul style="list-style-type: none"> • Select Temp.: Selects the eco template set from the SyncThru™ Web Service.
Vapor Mode	<p>You can reduce the amount of water vapor produced during printing.</p> <ul style="list-style-type: none"> • On: Enables vapor mode. • Off: Disables vapor mode. • Auto: Automatically enters vapor mode according to time in high humidity environments. <div>  <p>Enabling the Vapor Mode option can make the printing speed slower.</p> </div>

Item	Description
Auto Power Off	<p>Turns power off automatically when the machine has been in power save mode for the length of time set in Auto Power Off > On > Timeout.</p>  <ul style="list-style-type: none"> • To turn the machine on again, press the  (Power/Wakeup) button on the control panel. • If you run the printer driver or Samsung Easy Printer Manager, the time automatically extends. • While the machine is connected to the network or working on a print job, Auto Power Off feature doesn't work.
Quiet Mode	<p>You can reduce the printing noise by turning this menu on. However the printing speed and quality maybe declined.</p>
Stacking Mode	<p>If you use a machine in a humid area, or you are using the damp print media caused by a high humidity, the print-outs on the output tray may be curled and may not be stacked properly. In this case, you can set the machine to use this function to let print-outs stacked firmly. But, using this function will make the print speed slow.</p>
Smart Duplex	<p>Uses simplex mode when printing only one original page or a blank page although the duplex option is enabled.</p>

Emulation



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

To change the menu options:

Press  (Menu) > **Emulation** on the control panel.

Item	Description
Emulation Type	The machine language defines how the computer communicates with the machine.
Setup	Sets the detailed settings for the selected emulation type.


Image Mgr.



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

To change the menu options:

Press  (Menu) > **Image Mgr.** on the control panel.

Option	Description
Custom Color	<p>This menu allows you to adjust contrast, color by color.</p> <ul style="list-style-type: none">• Default: Return to default value.• Print Density: Allows you to manually adjust color density for print. Adjust the print density. <p>It is recommended to use the Default setting for best color quality.</p>
AutoColor Reg.	<p>The machine virtually prints certain patterned image to calibrate the color printing position. This feature enhances the colored image sharper and clearer, which means the machine prints the colored image on the paper more like the one in the monitor.</p> <p> If you have moved the machine, it is strongly recommended to operate this menu manually.</p>
Tone Adjust.	<ul style="list-style-type: none">• Auto Tone Adj.: Allows you to automatically adjust tone for the best possible print quality.

Network






Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).


To change the menu options:

Press  (**Menu**) > **Network** on the control panel.



You can also use this feature from the SyncThru™ Web Service. Open the Web browser from your networked computer and type the IP address of your machine. When SyncThru™ Web Service opens, click **Settings** > **Network Settings** (see "SyncThru™ Web Service" on page 187).

Option	Description
TCP/IP (IPv4)	Selects the appropriate protocol and configure parameters to use the network environment (see "Setting IP address" on page 127).  There are many of parameters to be set. If you are not sure, leave as is, or consult the network administrator.
TCP/IP (IPv6)	Selects this option to use the network environment through IPv6 (see "IPv6 configuration" on page 128).
Ethernet	Configure the network transmission speed.  Turn the power off and on after you change this option.
802.1x	You can select the user authentication for network communication. For detailed information consult the network administrator.
Wi-Fi ^a	Selects this option to use the wireless network.
Clear Setting	Reverts the network settings to the default values.  Turn the power off and on.
NFC ^a	Selects this option to use the NFC feature.
Network Conf.	This list shows information on your machine's network connection and configuration (see "Printing a network configuration report" on page 127).

Option	Description
Protocol Mgr.	<p>You can set protocol.</p> <p> Turn the power off and on after you change this option.</p>

a.This option is available when the optional Wi-Fi/NFC kit installed.

Direct USB



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

If you want to use this feature, you need to insert a USB memory device into the USB memory port on your machine.

To change the menu options:

Press  (Menu) > **Direct USB** on the control panel (see "Using USB memory device" on page 46).

Item	Description
Print From	You can directly print files stored on a USB memory device.
File Manage	You can delete image files stored on a USB memory device one by one or all at once by reformatting the device.
Check Space	You can check the amount of memory space available for saving documents.

Job Manage



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

To change the menu options:

Press  (Menu) > **Job Manage** on the control panel.

Item	Description
Active Job	Shows the print job lists that are waiting to be printed.
Secured Job	Shows the print job lists that are secured on the disk.
Stored Job	Shows the print job lists that are stored on the disk.
Filing Policy	If the memory already has the same name when you entered a new file name, you can rename or overwrite it.

PrinterOn



Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 25).

To register your printer on the **PrinterOn** service, you must activate the **PrinterOn** feature on the machine through the SyncThru™ Web Service (see "Registering your printer on the PrinterOn service" on page 152).

This is available only when **PrinterOn** is enabled. The sub menus that appear in this menu may differ based on whether or not the machine is connected to the **PrinterOn** server.



Before you can use the **PrinterOn** feature, you must configure the network connection of the machine. If you cannot connect to the machine after configuring its network connection, then you may have to check the external internet connection of the network.

When the **PrinterOn** feature is enabled, you can set it to Release Code mode or Auto mode. These modes can be changed on the **PrinterOn** server.

- **Release Code:** Users must enter a Release Code to print a document sent through **PrinterOn**.
 - **Auto:** The machine automatically prints documents sent through **PrinterOn** without the user entering a Release Code.
-

Special Features

This chapter explains special printing features.

- Altitude adjustment 173
- Entering various characters 174
- Printing features 175

Altitude adjustment

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

Before you set the altitude value, determine the altitude where you are.

- **Normal:** 0-1,000 m(3,280 ft)
- **High1:** 1,000 m(3,280 ft)-2,000 m(6,561 ft)
- **High2:** 2,000 m(6,561 ft)-3,000 m(9,842 ft)
- **High3:** 3,000 m(9,842 ft)-4,000 m(13,123 ft)
- **High4:** 4,000 m(13,123 ft)-5,000 m(16,404 ft)

You can set the altitude value from **Device Settings** in Samsung Easy Printer Manager program.

- If your machine is connected to the local, you can set the machine's setting from **Samsung Easy Printer Manager > Advanced Setting > Device Settings** (see "Using Samsung Easy Printer Manager" on page 197).
- If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "SyncThru™ Web Service" on page 187).



- If your machine is connected to the network, you can set the altitude via SyncThru™ Web Service (see "SyncThru™ Web Service" on page 187).
 - You can also set the altitude in **System Setup** option on the machine's display (see "Machine's basic settings" on page 28).
-

Entering various characters

As you perform various tasks, you may need to enter names and numbers.

Entering alphanumeric characters

Press the button until the correct letter appears on the display. For example, to enter the letter O, press 6, labeled with MNO. Each time you press 6, the display shows a different letter, M, N, O, m, n, o and finally 6. To find the letter that you want to enter, see "Keypad letters and numbers" on page 174.



- You can enter a space by pressing 1 twice.
- To delete the last digit or character, press the arrow button.

Keypad letters and numbers



- Special character sets may differ from your machine depending on its options or the models.
- Some of the follow key values may not appear depending on the job you are doing.

Key	Assigned numbers, letters, or characters
1	@ / . ' 1
2	A B C a b c 2
3	D E F d e f 3
4	G H I g h i 4
5	J K L j k l 5
6	M N O m n o 6
7	P Q R S p q r s 7
8	T U V t u v 8
9	W X Y Z w x y z 9
0	& + - , 0
*	* % ^ _ ~ ! # \$ () [] (These symbols are available when you type for network authentication.)
#	# = ? " : { } < > ; (These symbols are available when you type for network authentication.)

Printing features




- For basic printing features, refer to the Basic Guide (see "Basic printing" on page 40).
 - If you are a Mac, Linux or UNIX operating systems user, refer to the User Guide from the Samsung website, <http://www.samsung.com> > find your product > Support or Downloads.
-

Changing the default print settings



Most Windows applications will override settings you specify in the printer driver. Change all print settings available in the software application first, and change any remaining settings using the printer driver.

- 1 For Windows XP Service Pack 3/Server 2003, from the **Start** menu, select **Printer and Faxes**.
 - For Windows Server 2008/Vista, from the **Start** menu, select **Control Panel > Hardware and Sound > Printers**.
 - For Windows 7, from the **Start** menu, select **Control Panel > Devices and Printers**.
For Windows 8, from the **Charms**, select **Search > Settings > Control Panel > Devices and Printers**.
 - For Windows Server 2008 R2, select **Control Panel > Hardware > Devices and Printers**.
 - For Windows 10 / Windows Server 2016
From task bar, type in **Devices and Printers** in **Search** input area. Press the Enter key.
OR
From the **Start** () icon, select **Settings > Devices > Printers & scanners > Devices and Printers**.
-



Right-click the **Start** () icon, you can select **Control Panel > Devices and Printers**.

- 2 Right-click on your machine.
- 3 For Windows XP Service Pack 3/Server 2003/Server 2008/Vista, select **Printing Preferences**.

For Windows 7/Windows 8/Windows Server 2008 R2/Windows 10/ Windows Server 2016, from context menus, select **Printing preferences**.



If **Printing preferences** has a ►, you can select other printer drivers connected to the selected printer.


4 Change the settings on each tab.

5 Click **OK**.



If you want to change the settings for each print job, change it in **Printing Preferences**.

Setting your machine as a default machine

- 1 For Windows XP Service Pack 3/Server 2003, from the **Start** menu, select **Printer and Faxes**.
 - For Windows Server 2008/Vista, from the **Start** menu, select **Control Panel > Hardware and Sound > Printers**.
 - For Windows 7, from the **Start** menu, select **Control Panel > Devices and Printers**.
For Windows 8, from the **Charms**, select **Search > Settings > Control Panel > Devices and Printers**.
 - For Windows Server 2008 R2, select **Control Panel > Hardware > Devices and Printers**.
 - For Windows 10 / Windows Server 2016
From task bar, type in **Devices and Printers** in **Search** input area. Press the Enter key.
OR
From the **Start** () icon, select **Settings > Devices > Printers & scanners > Devices and Printers**.



Right-click the **Start** () icon, you can select **Control Panel > Devices and Printers**.

2 Select your machine.

3 Right-click your machine and select **Set as Default Printer**.



For Windows 7 or Windows Server 2008 R2, if **Set as default printer** has a ►, you can select other printer drivers connected to the selected printer.

Using advanced print features




- XPS printer driver:** used to print XPS file format.
- See "Features by model" on page 5.
 - The XPS printer driver can be installed only on Windows Vista OS or higher.
 - Install optional memory when an XPS job does not print because the printer is out of memory.
 - For models that provide XPS driver from the Samsung website, <http://www.samsung.com> > find your product> Support or downloads.

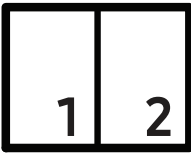
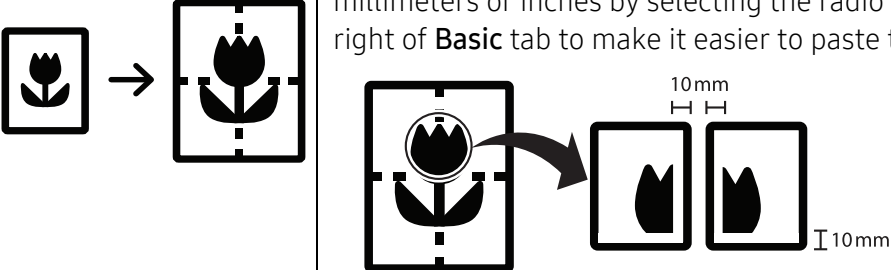
Understanding special printer features

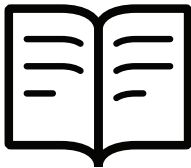


You can use advanced printing features when using your machine.


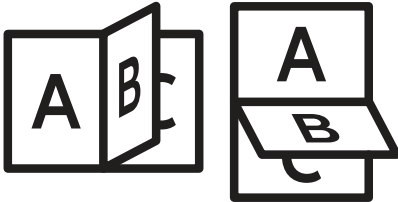
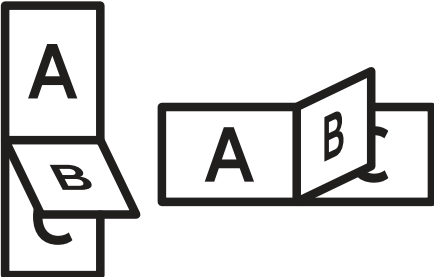
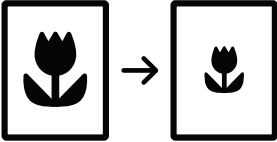

To take advantage of the printer features provided by your printer driver, click **Properties** or **Preferences** in the application's **Print** window to change the print settings. The machine name that appears in the printer properties window may differ depending on the machine in use.

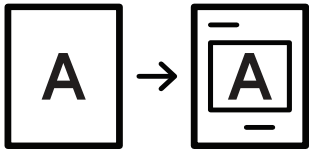



- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- Select the **Help** menu or click the  button from the window or press **F1** on your keyboard and click on any option you want to know about (see "Using help" on page 43).

Item	Description
<p>Multiple Pages per Side</p> 	<p>Selects the number of pages to print on a single sheet of paper. To print more than one page per sheet, the pages will be reduced in size and arranged in the order you specify. You can print up to 16 pages on one sheet.</p>
<p>Poster Printing</p> 	<p>Prints a single-page document onto 4 (Poster 2x2), 9 (Poster 3x3), or 16 (Poster 4x4) sheets of paper, for the purpose of pasting the sheets together to form one poster-size document.</p> <p>Select the Poster Overlap value. Specify Poster Overlap in millimeters or inches by selecting the radio button on the upper right of Basic tab to make it easier to paste the sheets together.</p>

Item	Description
<p>Booklet Printing^a</p> 	<p>Prints your document on both sides of a sheet of paper and arranges the pages so that the paper can be folded in half after printing to produce a booklet.</p>  <ul style="list-style-type: none"> • If you want to make a booklet, you need to print on Letter, Legal, A4, US Folio, or Oficio sized print media. • The Booklet Printing option is not available for all paper sizes. Select the available paper Size option under the Paper tab to see what paper sizes are available. • If you select an unavailable paper size, this option can be automatically canceled. Select only available paper (paper without ⚠ or ✖ mark).
<p>Double-sided Printing</p>	<p>Print on both sides of a sheet of paper (duplex). Before printing, decide how you want your document oriented.</p>  <p>You can use this feature with Letter, Legal, A4, US Folio or Oficio sized paper</p>

Item	Description
<p>Double-sided Printing</p>	<p> Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.</p> <ul style="list-style-type: none"> • Printer Default: If you select this option, this feature is determined by the settings you have selected on the control panel of the machine. • None: Disables this feature. • Long Edge: This option is the conventional layout used in book binding. <p></p> <ul style="list-style-type: none"> • Short Edge: This option is the conventional layout used in calendars. <p></p> <ul style="list-style-type: none"> • Reverse Double-Sided Printing: Check this option to reverse the print order when duplex printing.
<p>Paper Options</p> <p></p>	<p>Changes the size of a document to appear larger or smaller on the printed page by entering in a percentage by which to enlarge or decrease the document.</p>
<p>Watermark</p> <p></p>	<p>The watermark option allows you to print text over an existing document. For example, you use it when you want to have large gray letters reading “DRAFT” or “CONFIDENTIAL” printed diagonally across the first page or all pages of a document.</p>

Item	Description
Watermark (Creating a watermark)	<ol style="list-style-type: none"> To change the print settings from your software application, access Printing Preferences. Click the Advanced tab, select Edit from the Watermark drop-down list. The Edit Watermarks window appears. Enter a text message in the Watermark Message box. You can enter up to 256 characters. The message displays in the preview window.
Watermark (Editing a watermark)	<ol style="list-style-type: none"> To change the print settings from your software application, access Printing Preferences. Click the Advanced tab, select Edit from the Watermark drop-down list. The Edit Watermarks window appears. Select the watermark you want to edit from the Current Watermarks list and change the watermark message and options. Click Update to save the changes. Click OK or Print until you exit the Print window.
Watermark (Deleting a watermark)	<ol style="list-style-type: none"> To change the print settings from your software application, access Printing Preferences. Click the Advanced tab, select Edit from the Watermark drop-down list. The Edit Watermarks window appears. Select the watermark you want to delete from the Current Watermarks list and click Delete. Click OK or Print until you exit the Print window.
<p data-bbox="284 1417 403 1451">Overlay ^a</p> 	<p data-bbox="619 1160 1420 1227">This option is available only when you use the PCL/SPL printer driver.</p> <p data-bbox="619 1238 1476 1529">An overlay is text and/or images stored in the computer hard disk drive as a special file format that can be printed on any document. Overlays are often used to take the place of letterhead paper. Rather than using preprinted letterhead, you can create an overlay containing exactly the same information that is currently on your letterhead. To print a letter with your company's letterhead, you do not need to load preprinted letterhead paper in the machine: just print the letterhead overlay on your document.</p> <p data-bbox="619 1541 1372 1619">To use a page overlay, you must create a new page overlay containing your logo or image.</p> <div data-bbox="625 1662 683 1720">  </div> <ul data-bbox="710 1680 1476 1870" style="list-style-type: none"> • The overlay document size must be the same as the document you print with the overlay. Do not create an overlay with a watermark. • The resolution of the overlay document must be the same as that of the document you will print with the overlay.

Item	Description
<p>Overlay^a (Creating a new page overlay)</p>	<p>To use a page overlay, you must create a new page overlay containing your logo or image.</p> <ol style="list-style-type: none"> Create or open a document containing text or an image for use in a new page overlay. Position the exactly as you wish them to appear when printed as an overlay. To save the document as an overlay, access Printing Preferences. Click the Advanced tab, and select Create from the Overlay drop-down list. In the Save As window, type a name up to eight characters in the File name box. Select the destination path, if necessary (The default is C:\Formover). Click Save. Click OK or Print until you exit the Print window. When a confirming message window appears, click Yes. The file is not printed. Instead, it is stored on your computer hard disk drive.
<p>Overlay^a (Using a page overlay)</p>	<p>After an overlay has been created, it is ready to be printed with your document. To print an overlay with a document:</p> <ol style="list-style-type: none"> Create or open the document you want to print. To change the print settings from your software application, access Printing Preferences. Click Advanced tab. Select the Print Overlay from the Overlay drop-down list. If the overlay file you want does not appear in the Overlay File 1 or Overlay File 2 drop-down list, select Load from the Overlay List. Select the overlay file you want to use. If you have stored the overlay file you want to use in an external source, you can also load the file when you access the Open window. After you select the file, click Open. The file appears in the Overlay List box and is available for printing. Select the overlay from the Overlay List box. If necessary, check Confirm Page Overlay When Printing box. If this box is checked, a message window appears each time you submit a document for printing, asking you to confirm your wish to print an overlay on your document. If this box is not checked and an overlay has been selected, the overlay automatically prints with your document. Click OK or Print until you exit the Print window. The selected overlay prints on your document.

Item	Description
Overlay ^a (Deleting a page overlay)	<p>You can delete page overlays that you no longer use.</p> <ol style="list-style-type: none"> In the Printing Preferences window, click the Advanced tab. Select Print Overlay from the Overlay drop-down list. Select the overlay you want to delete from the Overlay List box. If the overlay file you want does not appear in the Overlay List, select Load from the Overlay List. Select the overlay file you want to delete. Click Delete. When a confirming message window appears, click Yes. Click OK or Print until you exit the Print window.
Job Accounting	<p>This option allows you to print with the given permission.</p> <ul style="list-style-type: none"> • User permission: If you check this option, only users with user permission can start a print job. • Group permission: If you check this option, only groups with group permission can start a print job. <div data-bbox="625 929 683 987" data-label="Image"> </div> <ul style="list-style-type: none"> • Select the Help menu or press F1 on your keyboard and click on any option you want to know about (see "Using help" on page 43). • Administrators can enable job accounting and configure permissions in the control panel or SyncThru™ Web Admin Service.

a.This option is not available when you use XPS driver.

Using Direct Printing Utility



- Direct Printing Utility may not be available depending on model or optional goods (see "About USB memory" on page 46).
 - Available for Windows OS users only.
-

What is Direct Printing Utility?

Direct Printing Utility is a program that sends the PDF files directly to your machine to print without having to open the file.

To install this program:


Download the software from the Samsung website then unpack and install it:
(<http://www.samsung.com> > find your product > Support or Downloads).



- You cannot print PDF files that are restricted. Deactivate the printing restriction feature and retry printing.
- You cannot print PDF files that are restricted by a password. Deactivate the password feature, and retry printing.
- Whether or not a PDF file can be printed using the Direct Printing Utility program depends on how the PDF file was created.
- The Direct Printing Utility program supports PDF version 1.7 and below. For higher versions, you must open the file to print it.

Printing

There are several ways you can print using the Direct Printing Utility.

- 1 From the **Start** menu select **Programs** or **All Programs > Samsung Printers**.
 - For Windows 8, from **Charms**, select **Search > Apps**.
 - For Windows 10 / Windows Server 2016
From task bar, type in **Samsung Printers** in **Search** input area. Press the Enter key.
OR
From the **Start** () icon, select **All apps > Samsung Printers**.
- 2 Press **Direct Printing Utility**.
- 3 Select your machine from the **Select Printer** drop-down list and click **Browse**.
- 4 Select the file you wish to print and click **Open**.
The file is added in the **Select Files** section.
- 5 Customize the machine settings for your needs.

- 6 Click **Print**. The selected PDF file is sent to the machine.

Using the right-click menu

- 1 Right-click on the PDF file to print and select **Direct Printing**.
The Direct Printing Utility window appears with the PDF file is added.
- 2 Select the machine to use.
- 3 Customize the machine settings.
- 4 Click **Print**. The selected PDF file is sent to the machine.


Useful Tools

This chapter introduces management tools provided to help you make full use of your machine.

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• Using Samsung Printer Center	192
• Using Samsung Easy Printer Manager	197
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• Using Samsung Printer Experience	202

Accessing management tools

Samsung provides a variety of management tools for Samsung printers.

- 1 Make sure that the machine is connected to your computer and powered on.
- 2 From the **Start** menu, select **Programs** or **All Programs**.
 - For Windows 8, from **Charms**, select **Search > Apps**.
 - For Windows 10 / Windows Server 2016
From task bar, type in **Samsung Printers** in **Search** input area. Press the enter key.
OR
From the **Start**() icon, select **All apps > Search > Samsung Printers**.
- 3 Find **Samsung Printers**.
- 4 Under **Samsung Printers**, you can see installed management tools.
- 5 Click the management tool you want to use.



- After installing the driver, for some management tools, you can access them directly from the **Start** menu > **Programs** or **All Programs**.
 - For Windows 8, after installing the driver, for some management tools, you can access them directly from the **Start** screen by clicking on the corresponding tile.
-

SyncThru™ Web Service

This chapter gives you step-by-step instructions for setting up the network environment through SyncThru™ Web Service.



- Internet Explorer® 8.0 or higher is the minimum requirement for SyncThru™ Web Service.
 - Some menus may not appear on the display screen depending on the settings or models. If so, it is not applicable to your machine.
-

What is SyncThru™ Web Service?

If you have connected your machine to a network and set up TCP/IP network parameters correctly, you can manage the machine via SyncThru™ Web Service. Use SyncThru™ Web Service to:

- View the machine's device information and check its current status.
- Change TCP/IP parameters and set up other network parameters.
- Change the printer preference.
- Set the email notifications advising of the machine's status.
- Get support for using the machine.
- Upgrade machine software.

Required web browser

You need one of the following web browsers to use SyncThru™ Web Service.

- Internet Explorer® 8.0 or higher
- Chrome 27.0 or higher
- FireFox 21.0 or higher
- Safari 5.9.1 or higher

Connecting to SyncThru™ Web Service

IPv4 supported web browser

- 1 Start a web browser, such as Internet Explorer®, that supports IPv4 addressing as a URL. Enter the machine's IP address (<http://xxx.xxx.xxx.xxx>) in the address field and press the Enter key or click **Go**.



You can get the machine's IP address from the machine report (see "Printing a network configuration report" on page 127).

- 2 Your machine's SyncThru™ Web Service website opens.

IPv6 supported web browser

- 1 Start a web browser, such as Internet Explorer®, that supports IPv6 addressing as a URL.
- 2 Select one of the IPv6 addresses (**Stateless Address**, **Stateful Address**, **Manual Address**) from **Network Configuration Report**.



You can get the machine's IPv6 address from the machine report (see "Printing a network configuration report" on page 127).

- 3 Enter the IPv6 addresses (eg., `http://[3ffe:10:88:194:213:77ff:fe82:75b]`).



The address must be enclosed in '[']' brackets.

- 4 Your machine's SyncThru™ Web Service website opens.

Accessing SyncThru™ Web Service

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

Logging into SyncThru™ Web Service

Before configuring options in SyncThru™ Web Service, you need to log-in as an administrator. You can still use SyncThru™ Web Service without logging in but you won't have access to **Settings** tab and **Security** tab.

- 1 Click **Login** on the upper right of the SyncThru™ Web Service website.
- 2 Type in the **ID** and **Password** then click **Login**. Type in the below default ID and password. We recommend you to change the default password for security reasons.
 - **ID:** admin
 - **Password:** sec00000

SyncThru™ Web Service overview

Information tab

This tab gives you general information about your machine. You can check things, such as the machine's status, supplies' status, count information, network information, and more. You can also print reports, such as configuration page.

- **Active Alerts:** You can check the current alerts in the machine. Use this information to troubleshoot machine errors.
- **Supplies:** You can check the supplies' information. For toner cartridge, supplies' status is displayed with a visual graph showing you the amount of each supply left. Page counts are also available which can help you predict when to change the supplies. This feature is also available from the machine.
- **Usage Counters:** You can check the billing information and usage counter of the machine. This feature is also available from the machine.
- **Current Settings:** Shows the current settings of the machine and network.
 - **Machine Information:** Shows the current machine settings.
 - **Network Information:** Shows the current network settings. Use this page as a reference and change the necessary settings needed for using the network.
- **Security Information:** Shows the current security settings of the machine and network.
- **Print Information:** You can print all the reports provided by your machine. You can use these reports to help you maintain your machine. This feature is also available in the machine.

Settings tab

Settings tab has sub menus, **Machine Settings** and **Network Settings**. You cannot view or access this tab if you do not log-in as an administrator (see "Logging into SyncThru™ Web Service" on page 188).

- **Machine Settings:** You can set machine settings.
 - **System:** You can set machine related settings.
 - **Printer:** You can set print related settings such as darkness or adjust the background. This feature is also available from the machine.
 - **Email Notification:** When an error occurs or the consumables are running out, the machine sends a notification to the administrator via email. You can set whether to use this feature or not. You can also select which alerts to receive and when.
- **Network Settings:** You can set up the network environment to use your machine as a network machine. You can also set the settings from the machine. Refer to the network setup chapter.
 - **General:** You can set general machine information to use in the network and set ethernet settings. This feature is also available from the machine.
 - **TCP/IPv4, TCP/IPv6, Raw TCP/IP, LPR/LPD, IPP, Telnet, WSD, SLP, UPNP, SNMPv1/v2, SNMPv3, FTP Print Server, AirPrint, ThinPrint®, PrinterOn Cloud Print :** You can set protocol settings.
 - **Outgoing Mail Server (SMTP):** You can set server settings for outgoing emails. If this setting is not configured, you cannot use scan to email feature. Outgoing emails will be sent through SMTP server you set here.
 - **HTTP:** You can allow or block users from accessing the SyncThru™ Web Service.
 - **Proxy:** You can set proxy settings and enable authentication.
 - **Restore Default:** Clicking the **Clear** button under the **Restore Default** section will clear security and network configurations. Restoring the settings will take effect after the system is rebooted.

Security tab

The security tab has **System Security**, **Network Security**, **User Access Control** and **System Log**. You cannot access this tab if you do not log-in as an administrator (see "Logging into SyncThru™ Web Service" on page 188).

- **System Security:** From the SyncThru™ Web Service, select the **Security** tab > **System Security**.
 - **System Administrator:** Enter the system administrator's information. The machine sends email notification to the email address set here. This feature is also available from the machine.
 - **Feature Management:** Specifies the services, PC application security, physical ports, and network protocol features to use. Select the features to use, and then click **Apply**.
 - **Information Hiding:** Specifies which information to hide. Select the amount of information that you want to hide, and then click **Apply**.
 - **Restart Device:** You can reboot your machine. Click the **Restart Now** button to reboot.
 - **Menu Management:** You can enable/disable network menu. Check the menu you want to enable, and then click **Apply**.
- **Network Security:** From the SyncThru™ Web Service, select the **Security** tab > **Network Security**.
 - **Digital Certificate:** You can manage digital certificates. A digital certificate is an electronic certificate that verifies the secure association between communication nodes. You need to add the certificate for SSL communication.
 - **Secure Connection:** You can enable or disable secure connection to use more enhanced secure network channel. For secure communication, using the **Secure Connection** feature is recommended.
 - **SNMPv3:** You can set SNMPv3.
 - **IP Security:** You can set IP security settings.
 - **IP/MAC Filtering:** You can set filtering options for IP and MAC addresses. If the administrator does not add a filtering rule for IPv4, IPv6, and MAC addresses, nothing is filtered. If the administrator has added a filtering rule, filtering will be applied to the entered IPv4, IPv6, and MAC addresses.
 - **IPv4 Filtering:** You can enable/disable IPv4 filtering as well as manage filtering rules.
 - **IPv6 Filtering:** You can enable/disable IPv6 filtering as well as manage filtering rules.
 - **MAC Filtering:** You can enable/disable Mac filtering as well as manage filtering rules.
 - **802.1x(External):** You can enable/disable 802.1x Security as well as manage filtering rules.
- **System Log:** You can keep logs of events that have happened in the machine. The administrator can record and manage the machine usage information by keeping the system log files. The system log files are stored on the machine's mass storage device (hard disk), and when it is full, it will erase old data. Export and save the important audit data separately using the exporting feature.
 - **Log configuration:** You can enable or disable keeping logs. You can also backup log files by periods and transfer to a repository server.
 - **Log Viewer:** You can view, delete, and search log files.

Maintenance tab

This tab allows you to maintain your machine by upgrading firmware, managing applications, and setting contact information for sending emails. You can also connect to the Samsung website or download manuals and drivers by selecting the **Link** menu.

- **Firmware Upgrade:** You can check the firmware version used in the machine. Check the version and update it if necessary.
- **Contact Information:** You can view contact information.
- **Link:** You can view links to useful websites where you can:
 - view product information and get support (Samsung website).
 - download manuals and drivers.
 - order consumable supplies.
 - register your machine on-line.
- **Samsung MIB Version:** The version number of the MIB (Management Information Base).
- **License Management:** **License Management** provides settings managing the licenses for installed applications.
- **Wi-Fi Interface:** You can enable or disable the Wi-Fi menu.

Using Samsung Printer Center



Available for Windows users only.


The **Samsung Printer Center** allows you to manage all the printer drivers installed on your computer from a single integrated application. You can use the **Samsung Printer Center** to add and remove printer drivers, check the status of printers, update printer software, and configure printer driver settings.

Understanding Samsung Printer Center

To open the program:

For Windows,

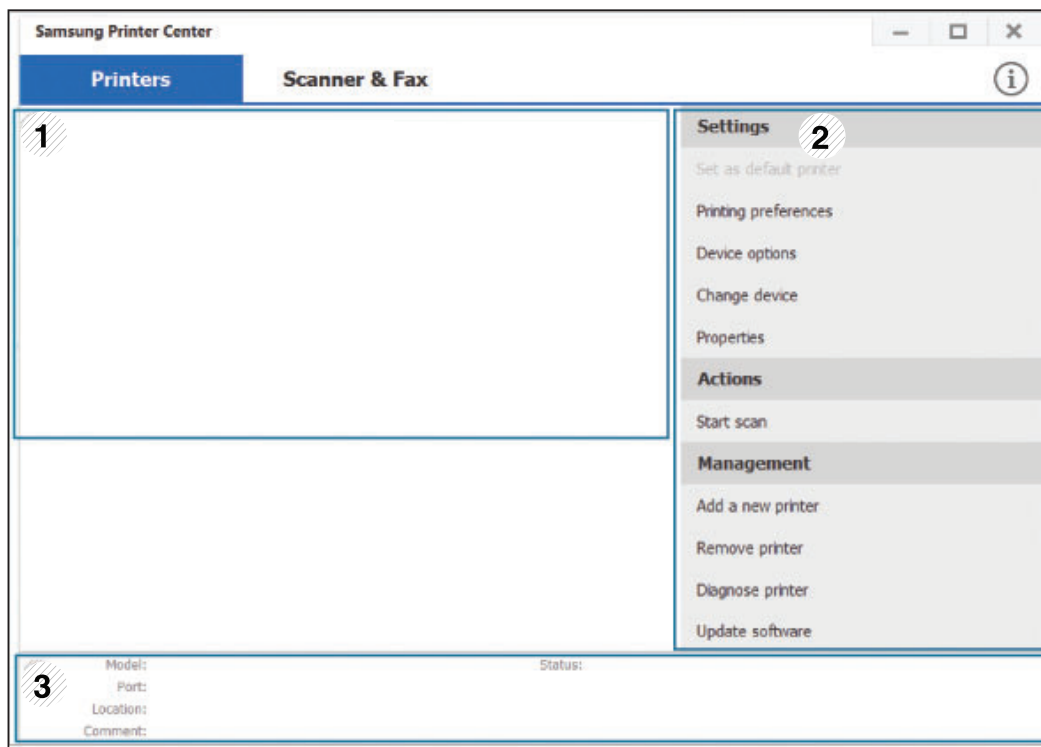
Select **Start > Programs** or **All Programs > Samsung Printers > Samsung Printer Center**.


- For Windows 8
From the **Charms**, select **Search > Apps > Samsung Printers > Samsung Printer Center**.
- For Windows 10 / Windows Server 2016
From task bar, type in **Samsung Printers** in **Search** input area. Press the enter key and then select **Samsung Printer Center**.
OR
From the **Start**() icon, select **All apps > Samsung Printers > Samsung Printer Center**.


Printers tab



The screenshot may differ depending on operating system, model, or options.



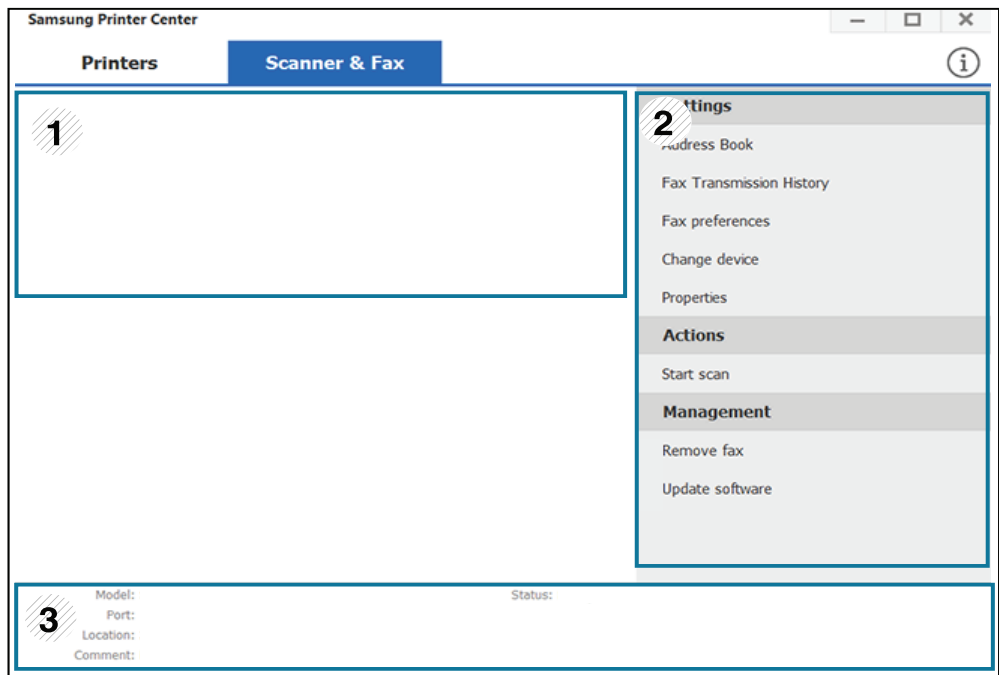
1	Printer list	Displays the printer drivers installed on your computer. To add a printer driver to the list, click the  button.
---	--------------	--



2	Quick links	<p>Displays links to various printer driver management functions. The quick links in the Printers tab link to the following functions:</p> <ul style="list-style-type: none"> • Settings: Allows you to configure the settings for individual printer driver. <ul style="list-style-type: none"> - Set as default printer: Sets the selected printer driver as the default printer. If the selected printer driver is already set as the default printer, then this option is not activated. - Printing preferences: Allows you to configure the default print settings. - Device options: Allows you to configure advanced options, such as the settings for optional devices and additional features. <p> The option allows you to modify the Printer Status and Stylish User Interface settings.</p> <ul style="list-style-type: none"> - Change device: Allows you to change the device into another device. - Properties: Allows you to configure the printer driver properties, such as the name of the printer driver and its location, or add comments about the printer driver. • Actions: Allows you to use the scan feature (this option is enabled only if the selected device supports the scan feature). • Management: Allows you to manage the devices registered in the program. <ul style="list-style-type: none"> - Add a new printer / Remove printer: Adds a new device or removes an existing device. - Diagnose printer: Diagnoses problems in the selected device and suggests solutions. - Update Software: Downloads and applies the applicable software updates.
3	Printer information	<p>Provides general information about the selected device, such as its model, IP address, port number, and status.</p>


Scanner & Fax Tab



- The screenshot may differ depending on operating system, model, option.
- Available for multifunction products only.



1	Printer list	Displays the fax and scanner driver installed on your computer. To add a fax or scanner driver to the list, click the  (Add Fax) or  (Add Scanner) button.
---	--------------	--

2	Quick links	<p>Displays links to the functions available for managing fax or scanner drivers. The quick links in the Scanner & Fax tab offer the following features:</p> <p> To use this feature, the scanner driver and fax driver must be installed on the computer.</p> <ul style="list-style-type: none"> • Settings: Allows you to configure the settings for fax or scanner drivers. <ul style="list-style-type: none"> - Address Book (fax only): Opens the Address Book. - Fax Transmission History (fax only): Opens the fax transmission history. - Fax preferences (fax only): Allows you to configure the default fax settings. - Change device: Allows you to change the devices into another device. - Properties: Allows you to configure the properties of a device, such as location and add comments about the device. • Actions: Allows you to use the scan feature. • Management: Allows you to manage the devices registered in the program. <ul style="list-style-type: none"> - Remove fax or Remove scan: Removes the selected fax or scan driver. - Update Software: Downloads and applies the applicable software updates.
3	Printer information	<p>Provides general information about the selected device, such as the model, IP address, port number, and machine status.</p>

Using Samsung Easy Printer Manager



- Available for Windows and Mac OS users only.
- For Windows, Internet Explorer 6.0 or higher is the minimum requirement for Samsung Easy Printer Manager.

Samsung Easy Printer Manager is an application that combines Samsung machine settings into one location. Samsung Easy Printer Manager combines device settings as well as printing environments, settings/actions and launching. All of these features provide a gateway to conveniently use your Samsung machine. Samsung Easy Printer Manager provides two different user interfaces for the user to choose from: the basic user interface and the advanced user interface. Switching between the two interfaces is easy: just click a button.

Also, **Easy Capture Manager** is installed automatically when you install the **Samsung Easy Printer Manager**. You can also launch **Easy Capture Manager** manually. Capture your screen and launch **Easy Capture Manager** by simply pressing the Print Screen key on the keyboard. Now you can easily print your captured screen as captured or edited.

Understanding Samsung Easy Printer Manager

To open the program:

For Windows,

Select **Start > Programs** or **All Programs > Samsung Printers > Samsung Easy Printer Manager**.

- For Windows 8

From the **Charms**, select **Search > Apps > Samsung Printers > Samsung Printer Manager**.

- For Windows 10 / Windows Server 2016

From task bar, type in **Samsung Printers** in **Search** input area. Press the enter key and then select **Samsung Printer Manager**.

OR

From the **Start**() icon, select **All apps > Samsung Printers > Samsung Printer Manager**.

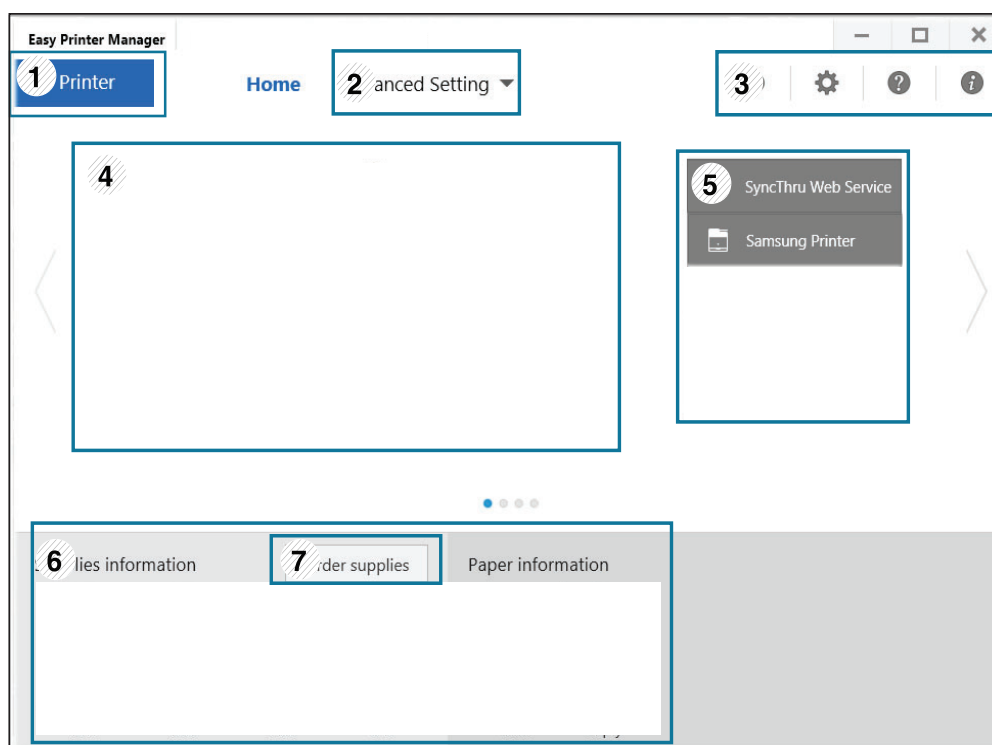
For Mac,



Open the **Applications** folder > **Samsung** folder > **Samsung Easy Printer Manager**.




The Samsung Easy Printer Manager interface is comprised of various basic sections as described in the table that follows:



The screenshot may differ depending on operating system, model, or options.



1	Printer list	The Printer List displays printers installed on your computer and network printers added by network discovery (Windows only).
2	Advanced Setting	<p>The advanced user interface is intended to be used by the person responsible for managing the network and machines.</p> <p> Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine.</p> <ul style="list-style-type: none"> • Device Settings: You can configure various machine settings such as machine setup, paper, layout, emulation, network, and print information. <p> If you connect your machine to a network, the SyncThru™ Web Service icon is enabled.</p> <ul style="list-style-type: none"> • Alert Settings (Windows only): This menu includes settings related to error alerting. <ul style="list-style-type: none"> - Printer Alert: Provides settings related to when alerts will be received. - Email Alert: Provides options relating to receiving alerts via email. - Alert History: Provides a history of device and toner related alerts.
3	Application information	Includes links for changing to the refresh, preference setting, help, and about.

4	Printer information	<p>This area gives you general information about your machine. You can check information, such as the machine's model name, IP address (or Port name), and machine status.</p> <p> This button opens the Troubleshooting Guide when an error occurs. You can directly open the troubleshooting section in the user's guide.</p>
5	Quick links	<p>Displays Quick links to machine specific functions. This section also includes links to applications in the advanced settings.</p> <p> If you connect your machine to a network, the SyncThru™ Web Service icon is enabled.</p>
6	Contents area	<p>Displays information about the selected machine, remaining toner level, and paper. The information will vary based on the machine selected. Some machines do not have this feature.</p>
7	Order supplies	<p>Click on the Order button from the supply ordering window. You can order replacement toner cartridge(s) from online.</p>
<p> Select the Help menu from the window and click on any option you want to know about.</p>		

Using Samsung Printer Status

The Samsung Printer Status is a program that monitors and informs you the status of machine.






- The Samsung Printer Status window and its contents shown in this user’s guide may differ depending on the machine or operating system in use.
- Check the operating system(s) that are compatible with your machine (see "System requirements" on page 109).
- Available for Windows OS users only.

Samsung Printer Status overview

If an error occurs while operating, you can check the error from the Samsung Printer Status. Samsung Printer Status is installed automatically when you install the machine software.

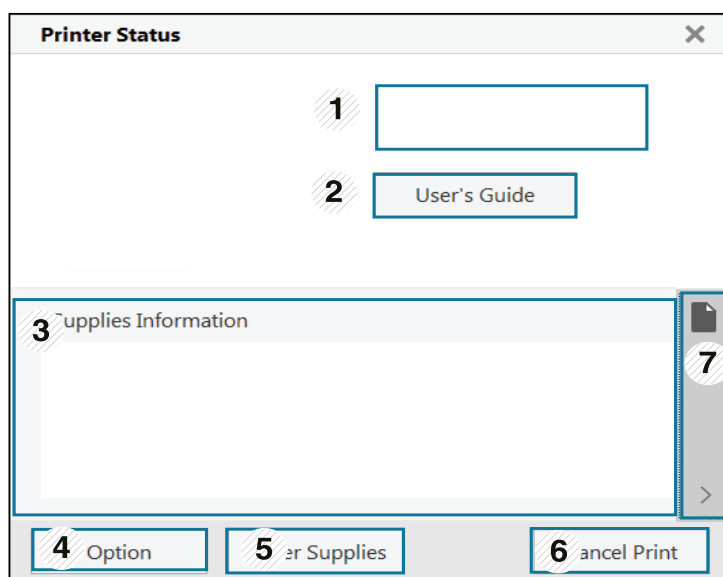
You can also launch Samsung Printer Status manually. Go to the **Printing Preferences** and click the **Printer Status** button.


These icons appear on the Windows task bar:

Icon	Mean	Description
	Normal	The machine is in ready mode and experiencing no errors or warnings.
	Warning	The machine is in a state where an error might occur in the future. For example, it might be in toner low status, which may lead to toner empty status.
	Error	The machine has at least one error.




The screenshot may differ depending on operating system, model, or options.



1	Device Information	You can view the device information.
2	User's Guide	 This button opens the Troubleshooting Guide when an error occurs. You can directly open the troubleshooting section in the user's guide.
3	Supplies Information	You can view the percentage of toner remaining in each toner cartridge. The machine and the number of toner cartridge(s) shown in the above window may differ depending on the machine in use. Some machines do not have this feature.
4	Option	You can set printing job alert related settings.
5	Order Supplies	You can order replacement toner cartridge(s) from online.
6	Cancel Print or Close	<ul style="list-style-type: none"> • Cancel Print : If print job is waiting in the print queue or printer, cancel all user's print jobs in the print queue or the printer. • Close : Depending on the status of the machine or the supported functions, the Close button may appear to close the status window.
7	Toner/Paper Information	This button area for paper and toner info will be available based on the device.


Using Samsung Printer Experience

 Available for Windows 8 or higher users only.


Samsung Printer Experience is a Samsung application that combines Samsung machine settings and machine management into one location. You can set device settings, order supplies, open troubleshooting guides, visit Samsung’s web site, and check connected machine information. This application will be automatically downloaded from the Windows **Store** if the machine is connected to a computer with an Internet connection.

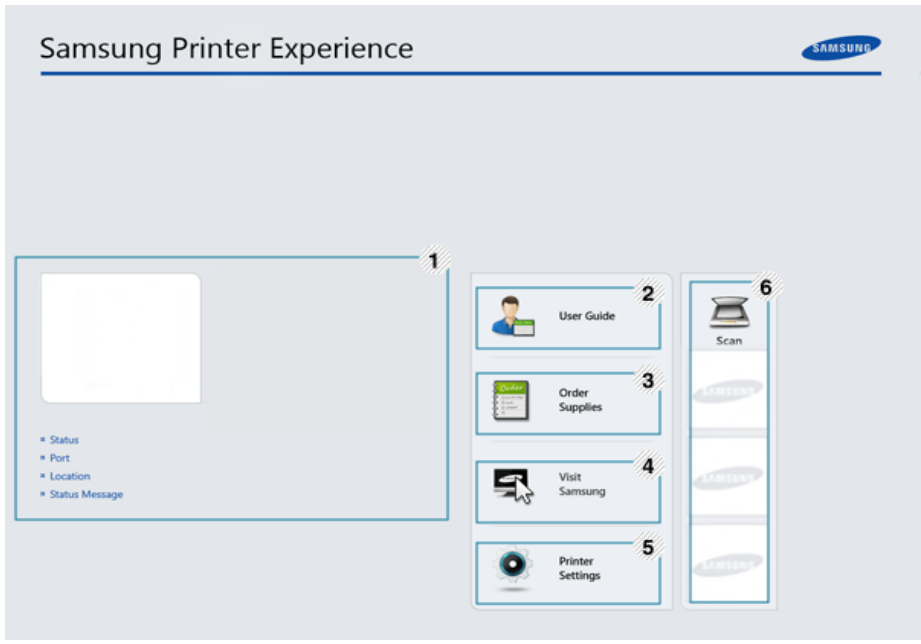
Understanding the Samsung Printer Experience

To open the application,


From the **Start** screen or **Start**() icon, select the **Samsung Printer Experience** () tile.

The **Samsung Printer Experience** interface comprises various useful features as described in the following table:

 The screenshot may differ depending on operating system, model, or options.



1	Printer Information	This area gives you general information about your machine. You can check information, such as the machine’s status, location, IP address, and remaining toner level.
---	---------------------	---

2	User Guide	<p>You can view the online User's Guide. You need to be connected to the Internet to use this feature.</p> <p> This button opens the Troubleshooting Guide when an error occurs. You can directly open the troubleshooting section in the user's guide.</p>
3	Order Supplies	Click on this button to order replacement toner cartridges online. You need to be connected to the Internet to use this feature.
4	Visit Samsung	Links to Samsung printer website. You need to be connected to the Internet to use this feature.
5	Printer Settings	You can configure various machine settings such as machine setup, paper, layout, emulation, networking, and print information through SyncThru™ Web Service . Your machine needs to be connected to a network. This button will be disabled if your machine is connected via USB cable.
6	Device List & Latest Scanned Image	<p>The scan list displays devices that supports Samsung Printer Experience. Under the device, you can see the latest scanned images. Your machine needs to be connected to a network to scan from here.</p> <p>This section is for the users with multi-functional printers.</p>

Adding/Deleting Printers

If you do not have any printer added to the **Samsung Printer Experience**, or if you want to add/delete a printer, follow the instructions below.



You can only add/delete network connected printers.

Adding a printer

1 Right-click the **Samsung Printer Experience** page and select **Settings**.

2 Select **Add Printer**.

3 Select the printer you want to add.

You can see the added printer.



If you see  mark, you can also click  mark to add printers.

Deleting a printer

- 1 Right-click the **Samsung Printer Experience** page and select **Settings**.
- 2 Select **Remove Printer**.
- 3 Right-click the **Samsung Printer Experience** page, and then click **Settings**.
- 4 Click **Yes**.

You can see that the deleted printer is removed from the screen.

Printing

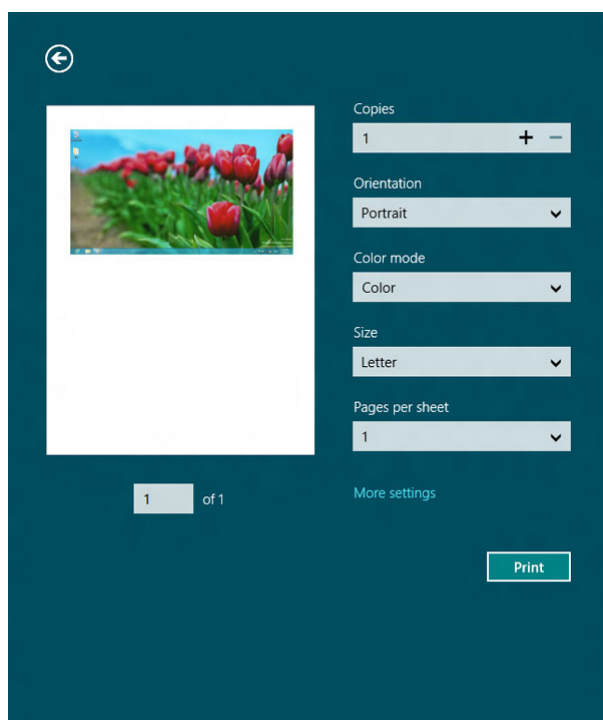
This section explains common printing tasks from the **Start** screen.



The screenshot may differ depending on operating system, model, or options.



Basic printing

- 1 Open the document to print.
- 2 Select **Print** from the **File** menu.
- 3 Select your printer from the list.
- 4 Select the printer settings, such as the number of copies and orientation.
- 5 Click the **Print** button to start the print job.



Cancelling a print job

If the printing 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**) button on the control panel.

Opening more settings



The screen may appear somewhat different depending on the model or options.

You can set up more printing parameters.

- 1 Open the document you want to print.
- 2 Select **Print** from the **File** menu.
- 3 Select your printer from the list.
- 4 Click **More settings**.

Using the sharing feature

Samsung Printer Experience allows you to print from other applications installed on the computer using the sharing feature.



This feature is only available for printing jpeg, bmp, tiff, gif, and png file formats.

- 1 Select the content you want to print from other application.
- 2 Click **Share** menu or press Window key + H.
- 3 Select the printer settings, such as the number of copies and orientation.
- 4 Click the **Print** button to start the print job.

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/n

802.11b/g/n can share same hardware and use the 2.4 GHz band. 802.11b supports bandwidth up to 11 Mbps, 802.11n supports bandwidth up to 150 Mbps. 802.11b/g/n 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 scanning unit 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 Mac (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 de facto standard throughout the industry, even among non-Microsoft platforms.

DADF

A Duplex Automatic Document Feeder (DADF) is a scanning unit that will automatically feed and turn 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.

DLNA

The Digital Living Network Alliance (DLNA) is a standard that allows devices on a home network to share information with each other across the network.

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 turn 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 Unit can print on both sides of paper during one print cycle.

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 Mac (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 fuses the toner onto the print media. It consists of a heat roller and a pressure 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.

Mass storage device (HDD)

Mass storage device (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 rust colored and has a cylinder shape.

An imaging unit containing a drum slowly wears the drum surface by its usage in the printer, and it should be replaced appropriately since it gets worn from contact with the cartridge development brush, cleaning mechanism, and 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, dot matrix printer, and laser 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 and labels which can be used in 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 or container used in a machine like a 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 fused by by a combination of heat/pressure from 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. It is an image capture API for Microsoft Windows and Apple Mac 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.

WPS

The Wi-Fi Protected Setup (WPS) is a standard for establishing a wireless home network. If your wireless access point supports WPS, you can configure the wireless network connection easily without a computer.

XPS

XML Paper Specification (XPS) is a specification for a Page Description Language (PDL) and a new document format, which has benefits for portable document and electronic document, developed by Microsoft. It is an XML-based specification, based on a new print path and a vector-based device-independent document format.

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