

# User Guide

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## Samsung Printer **ProXpress**

M403x series

### **BASIC**

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

### **ADVANCED**

This guide provides information about the installation, advanced configuration, operation and troubleshooting on various OS environments.

Some features may not be available depending on models or countries.



## 1. Introduction

<b>Key benefits</b>	5
<b>Features by model</b>	7
<b>Useful to know</b>	9
<b>About this user's guide</b>	10
<b>Safety information</b>	11
<b>Machine overview</b>	17
<b>Control panel overview</b>	20
<b>Turning on the machine</b>	21
<b>Installing the driver locally</b>	22
<b>Reinstalling the driver</b>	24



## 2. Menu Overview and Basic Setup

<b>Menu overview</b>	26
<b>Machine's basic settings</b>	30
<b>Media and tray</b>	32
<b>Basic printing</b>	44
<b>Using USB memory device</b>	50



## 3. Maintenance

<b>Ordering supplies and accessories</b>	55
<b>Available consumables</b>	56
<b>Available accessories</b>	57
<b>Available maintenance parts</b>	58
<b>Storing the toner cartridge</b>	59
<b>Redistributing toner</b>	61
<b>Replacing the toner cartridge</b>	62
<b>Installing accessories</b>	64
<b>Monitoring the supplies life</b>	68
<b>Setting the toner</b>	69
<b>Cleaning the machine</b>	70
<b>Tips for moving &amp; storing your machine</b>	75



## 4. Troubleshooting

<b>Tips for avoiding paper jams</b>	77
<b>Clearing paper jams</b>	78
<b>Understanding the status LED</b>	89
<b>Understanding display messages</b>	91



## 5. Appendix

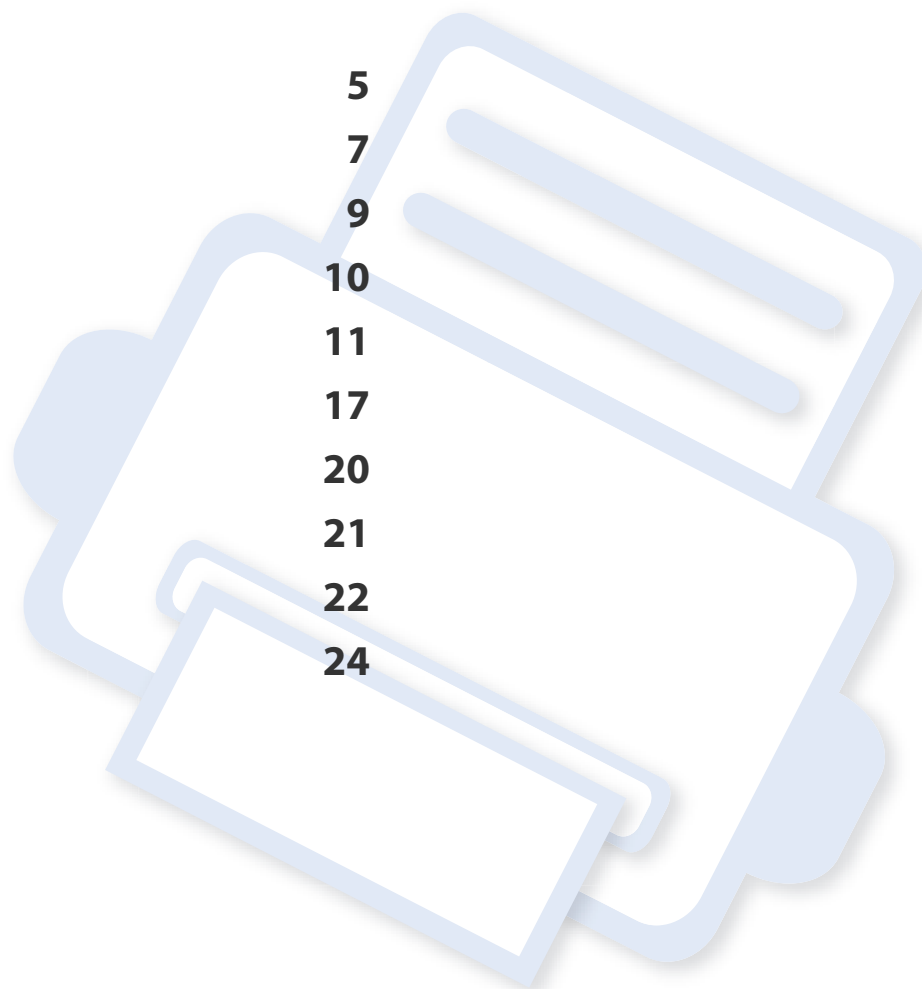
<b>Specifications</b>	<b>100</b>
<b>Regulatory information</b>	<b>109</b>
<b>Copyright</b>	<b>119</b>



# 1. Introduction

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

- **Key benefits** 5
- **Features by model** 7
- **Useful to know** 9
- **About this user's guide** 10
- **Safety information** 11
- **Machine overview** 17
- **Control panel overview** 20
- **Turning on the machine** 21
- **Installing the driver locally** 22
- **Reinstalling the driver** 24



# Key benefits

## Environmentally friendly



- To save toner and paper, this machine supports Eco feature (see "Eco printing" on page 47).
- To save paper, you can print multiple pages on one single sheet of paper (see "Using advanced print features" on page 171).
- To save paper, you can print on both sides of the paper (double-sided printing) (see "Using advanced print features" on page 171).
- To save electricity, this machine automatically conserves electricity by substantially reducing power consumption when not in use.
- We recommend using recycled paper for saving energy.

## Fast high resolution printing



- You can print with a resolution of up to 1,200 x 1,200 dpi effective output (1,200 x 600 x 2 bit).
- Fast, on-demand printing.
  - For single-side printing, up to 40 ppm (A4) or up to 42 ppm (Letter).

## Convenience



- Easy Capture Manager allows you to easily edit and print whatever you captured using the Print Screen key on the keyboard (see "Easy Capture Manager" on page 189).
- Samsung Easy Printer Manager and Printing Status is a program that monitors and informs you of the machine's status and allows you to customize the machine's settings (see "Using Samsung Easy Printer Manager" on page 199 or "Using Samsung Printer Status" on page 201).
- Samsung AnyWeb Print helps you screen-capture, preview, scrap, and print the screen of Windows Internet Explorer more easily than when you use the ordinary program (see "Samsung AnyWeb Print" on page 190).
- Smart Update allows you to check for the latest software and install the latest version during the printer driver installation process. This is available only for Windows.
- If you have Internet access, you can get help, support application, machine drivers, manuals, and order information from the Samsung website, [www.samsung.com](http://www.samsung.com) > find your product > Support or Downloads.

# Key benefits

## Wide range of functionality and application support



- Supports various paper sizes (see "Print media specifications" on page 102).
- Print watermark: You can customize your documents with words, such as "**CONFIDENTIAL**" (see "Using advanced print features" on page 171).
- Print posters: The text and pictures of each page of your document are magnified and printed across the multiple sheets of paper and can then be taped together to form a poster (see "Using advanced print features" on page 171).
- You can print in various operating systems (see "System requirements" on page 105).
- Your machine is equipped with a USB interface and/or a network interface.

## Supports various wireless network setting method



- Using the USB cable or a network cable
  - You can connect and set various wireless network settings using a USB cable or a network cable.
- Using the Wi-Fi Direct
  - You can conveniently print from your mobile device using the Wi-Fi or Wi-Fi Direct feature.



See "Introducing wireless set up methods" on page 142.

# Features by model

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

## Operating System

Operating System	M403x series
Windows	●
Mac	●
Linux	●
Unix	●

(●: Supported, Blank: Not supported)

## Software

You can install the printer driver and software when you insert the software CD into your CD-ROM drive. For windows, select the printer driver and software in the **Select Software to Install** window.

Software	M403x series
SPL printer driver	
PCL printer driver	●
PS printer driver <sup>a</sup>	●
XPS printer driver <sup>a</sup>	●
Direct Printing Utility <sup>a</sup>	●

Software	M403x series
Samsung Printer Center	●
Samsung Easy Printer Manager	Advanced Setting ●
Samsung Printer Status	●
Samsung AnyWeb Print <sup>a</sup>	●
Easy Capture Manager	●
Eco Driver Pack	●
Stylish Driver Pack <sup>b</sup>	●
SyncThru™ Web Service	●

- Download the software from the Samsung website and install it: (<http://www.samsung.com> > find your product > Support or Downloads). Before installing, check whether your computer's OS support the software.
- 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 196).

(●: Supported, Blank: Not supported)

## Variety feature

Features	M403x series
Hi-Speed USB 2.0	●
Network Interface Ethernet 10/100/1000 Base TX wired LAN	●
Network Interface 802.11b/g/n wireless LAN <sup>a</sup>	○
NFC (Near Field Communication)	○

# Features by model

Features	M403x series
<b>Eco printing</b>	●
<b>Duplex (2-sided) printing</b>	●
<b>USB memory interface</b>	●
<b>Memory module</b>	○
<b>Optional trays (Tray2, Tray3, Tray4, Tray5)</b>	○
<b>AirPrint</b>	●
<b>Mopria</b>	●

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 45).
- Remove the driver and install it again (see "Installing the driver locally" on page 22).
- Select your machine as your default machine in your Windows (see "Setting your machine as a default machine" on page 171).



## Where can I purchase accessories or supplies?

- Inquire at a Samsung distributor or your retailer.
- Visit [www.samsung.com/supplies](http://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 89).



## A paper jam has occurred.

- Open and close the door (see "Front view" on page 18).
- Check the instructions on removing jammed paper in this manual and troubleshoot accordingly (see "Clearing paper jams" on page 78).



## Printouts are blurry.

- The toner level might be low or uneven. Shake the toner cartridge (see "Redistributing toner" on page 61).
- Try a different print resolution setting (see "Opening printing preferences" on page 45).
- Replace the toner cartridge (see "Replacing the toner cartridge" on page 62).



## 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](http://www.samsung.com) > find your product > Support or Downloads.

# About this user's guide

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




- 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's guide are explained in the glossary chapter.
- All illustrations in this user's guide may differ from your machine depending on its options or model you purchased.
- The screenshots in this user's guide may differ from your machine depending on the machine's firmware/driver version.
- The procedures in this user's guide are mainly based on Windows 7.

## Conventions

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

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

## General icons




Icon	Text	Description
	<b>Warning</b>	Used to alert users to the possibility of personal injury.
	<b>Caution</b>	Gives users information to protect the machine from possible mechanical damage or malfunction.
	<b>Note</b>	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

	<b>Warning</b>	Hazards or unsafe practices that may result in severe personal injury or death.
	<b>Caution</b>	Hazards or unsafe practices that may result in minor personal injury or property damage.
		Do not attempt.

## Operating environment

### Warning



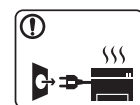
Do not use if the power cord is damaged or if the electrical outlet is not grounded.

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.



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

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

This could result in electric shock or fire.



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

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

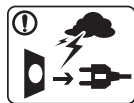







Do not remove the plug by pulling on the cord; do not handle the plug with wet hands.

This could result in electric shock or fire.







# Safety information

## 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.</p> <p>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

	<p>Do not forcefully pull the paper out during printing.</p> <p>It can cause damage to the machine.</p>
	<p>Be careful not to put your hand between the machine and paper tray.</p> <p>You may get injured.</p>
	<p>Be care when replacing paper or removing jammed paper.</p> <p>New paper has sharp edges and can cause painful cuts.</p>
	<p>When printing large quantities, the bottom part of the paper output area may get hot. Do not allow children to touch.</p> <p>Burns can occur.</p>
	<p>When removing jammed paper, do not use tweezers or sharp metal objects.</p> <p>It can damage the machine.</p>
	<p>Do not allow too many papers to stack up in the paper output tray.</p> <p>It can damage the machine.</p>

# Safety information



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.

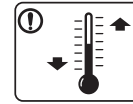
## Installation / Moving

### Warning



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

This could result in electric shock or fire.



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.

Otherwise, quality problems can occur and cause damage to the machine (see "General specifications" on page 100).

### Caution



Before moving the machine, turn the power off and disconnect all cords. The information below are only suggestions based on the units weight.

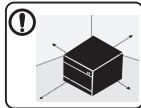





If you have a medical condition that prevents you from lifting, do not lift the machine. Ask for help, and always use the appropriate amount of people to lift the device safely.




Then lift the machine:

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

The machine could fall, causing injury or machine damage.

# Safety information


	<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>
	<p>Use only No.26 AWG<sup>a</sup> or larger, telephone line cord, if necessary.</p> <p>Otherwise, it can cause damage to the machine.</p>
	<p>Make sure you plug the power cord into a grounded electrical outlet.</p> <p>Otherwise, this could result in electric shock or fire.</p>
	<p>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.</p> <p>Otherwise, it can cause damage to the machine, and could result in electric shock or fire.</p>

	<p>Do not put a cover over the machine or place it in an airtight location, such as a closet.</p> <p>If the machine is not well-ventilated, this could result in fire.</p>
	<p>Do not overload wall outlets and extension cords.</p> <p>This can diminish performance, and could result in electric shock or fire.</p>
	<p>The machine should be connected to the power level which is specified on the label.</p> <p>If you are unsure and want to check the power level you are using, contact the electrical utility company.</p>







a. AWG: American Wire Gauge

## Maintenance / Checking

### Caution





	<p>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.</p> <p>This could result in electric shock or fire.</p>
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# Safety information

	<p>When you are working inside the machine replacing supplies or cleaning the inside, do not operate the machine.</p> <p>You could get injured.</p>
	<p>Keep cleaning supplies away from children.</p> <p>Children could get hurt.</p>
	<p>Do not disassemble, repair or rebuild the machine by yourself.</p> <p>It can damage the machine. Call a certified technician when the machine needs repairing.</p>
	<p>To clean and operate the machine, strictly follow the user's guide provided with the machine.</p> <p>Otherwise, you could damage the machine.</p>
	<p>Keep the power cable and the contact surface of the plug clean from dust or water.</p> <p>Otherwise, this could result in electric shock or fire.</p>
	<ul style="list-style-type: none"><li>• Do not remove any covers or guards that are fastened with screws.</li><li>• Fuser units should only be repaired by a certified service technician. Repair by non-certified technicians could result in fire or electric shock.</li><li>• The machine should only be repaired by a Samsung service technician.</li></ul>

## Supply usage

### Caution

	<p>Do not disassemble the toner cartridge.</p> <p>Toner dust can be dangerous if inhaled or ingested.</p>
	<p>Do not burn any of the supplies such as toner cartridge or fuser unit.</p> <p>This could cause an explosion or uncontrollable fire.</p>
	<p>When storing supplies such as toner cartridges, keep them away from children.</p> <p>Toner dust can be dangerous if inhaled or ingested.</p>
	<p>Using recycled supplies, such as toner, can cause damage to the machine.</p> <p>In case of damage due to the use of recycled supplies, a service fee will be charged.</p>

# Safety information



For supplies that contain toner dust (toner cartridge, waste toner bottle, imaging unit, etc.) follow the instructions below.

- 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.

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.



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

Hot water sets toner into fabric. Use cold water.



When changing the toner cartridge or removing jammed paper, be careful not to let toner dust touch your body or clothes.

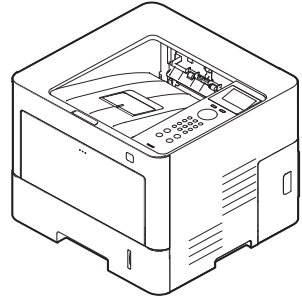
Toner dust can be dangerous if inhaled or ingested.



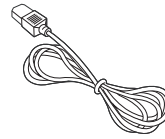
# Machine overview

## Components

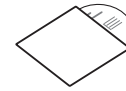
The actual component may differ from the illustration below. Some components may change depending on the circumstances.



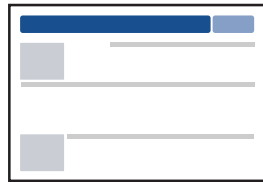
Machine



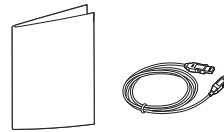
Power cord



Software CD<sup>a</sup>



Quick installation guide



Misc. accessories<sup>b</sup>

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

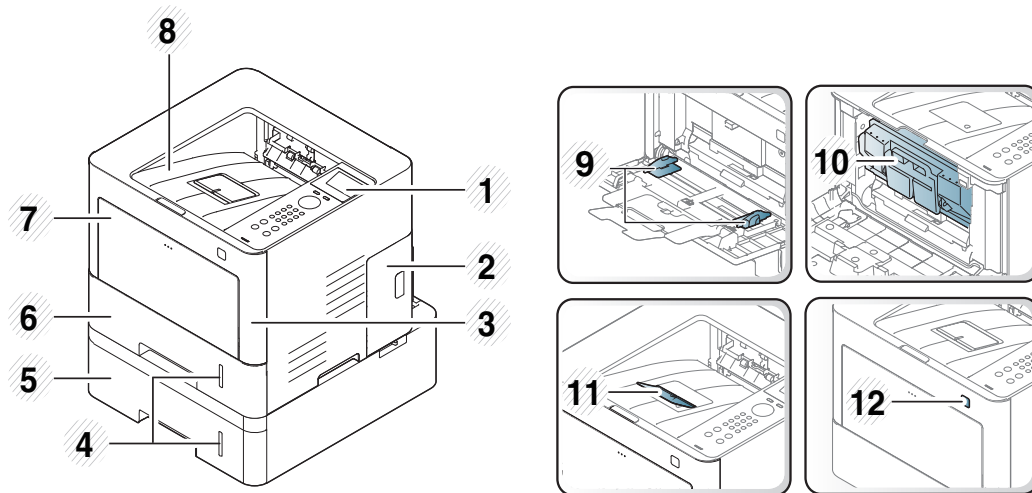
b. Miscellaneous accessories included with your machine may vary by country of purchase and specific model.

# Machine overview

## 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 7).



1	Control panel
2	Cover for optional memory <sup>a</sup>
3	Front cover
4	Paper level indicator
5	Optional trays <sup>b</sup>
6	Tray 1
7	Multi-purpose tray
8	Output tray
9	Paper width guides on a multi-purpose tray
10	Toner cartridge
11	Output support
12	USB memory port

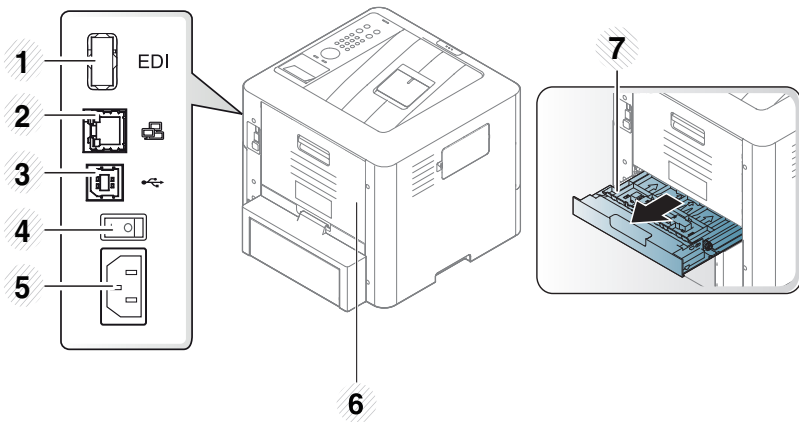
- a. Open this cover to install the optional memory.  
b. This is an optional feature.

# Machine overview

## Rear view



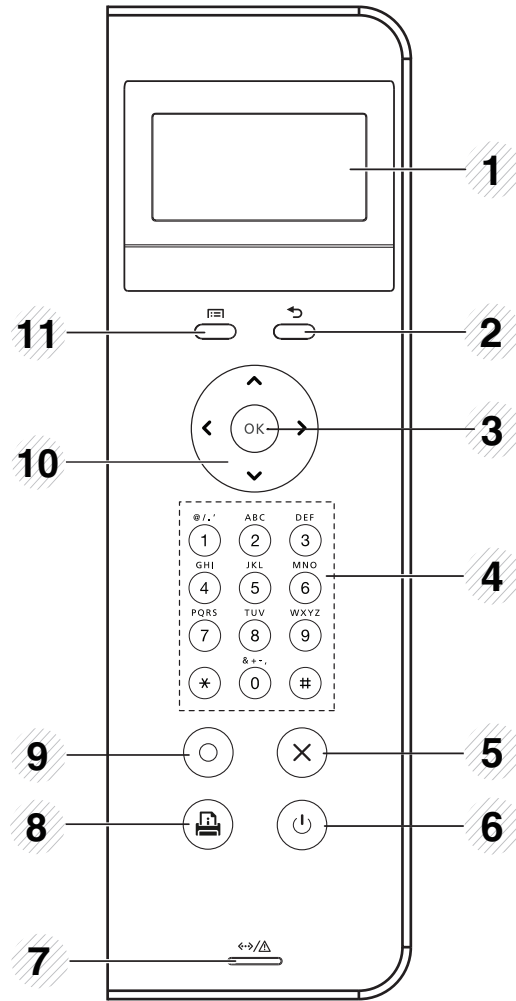
- This illustration may differ from your machine depending on your model. There are various types of machine.
- Some features and optional goods may not be available depending on model or country (see "Features by model" on page 7).



1	EDI port for card reader
2	Network port
3	USB port
4	Power-switch
5	Power receptacle
6	Rear cover
7	Duplex unit

# Control panel overview

## Control panel



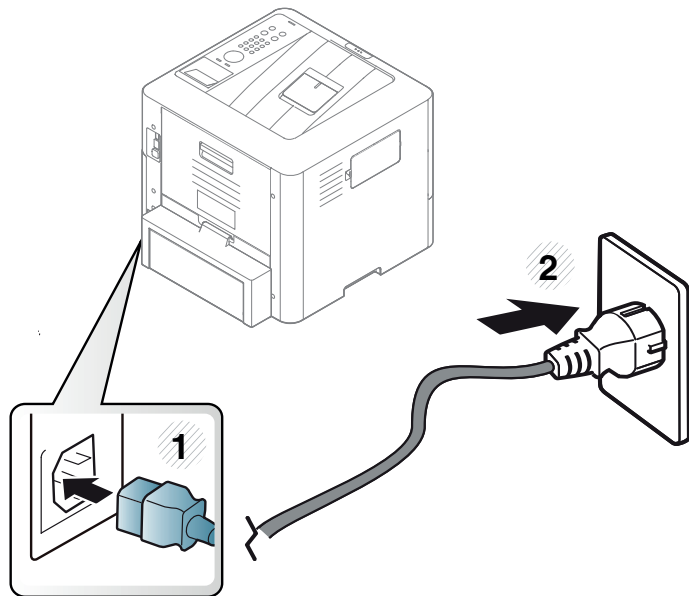
1	<b>Display screen</b>		Shows the current status and prompts during an operation.
2	<b>Back</b>		Sends you back to the upper menu level.
3	<b>OK</b>		Confirms the selection on the screen.
4	<b>Numeric keypad</b>		Use the keypad to enter numbers and characters (see "Keypad letters and numbers" on page 170).
5	<b>Stop/ Clear</b>		Stops current operation.
6	<b>Power/ Wake Up</b>		You can turn the power on and off with this button. Or wake up from the power save mode.
7	<b>Status LED</b>		Indicates the status of your machine (see "Understanding the status LED" on page 89).
8	<b>Demo Page</b>		Prints a demo page by pressing this button.
9	<b>Eco</b>		Turn on the Eco mode to reduce toner consumption and paper usage (see "Eco printing" on page 47).
10	<b>Arrow</b>		Navigates available values by moving to the next or previous options.
11	<b>Menu</b>		Enters menu mode and scrolls through the available menus (see "Accessing the menu" on page 26).

# Turning on the machine

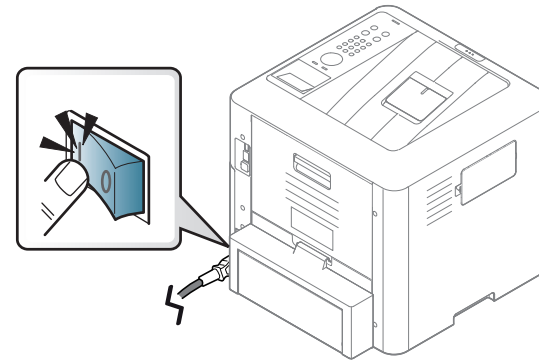


Keep in mind that you should use the power cord supplied with the machine. Otherwise, it can cause damage or fire to the machine.

- 1 Connect the machine to the electricity supply first.  
Turn the switch on if the machine has a power switch.



- 2 Turn the switch on.



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



- 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.
- If you turn the machine off directly using the power switch, it could cause the hard disk problem in the machine.

# Installing the driver locally

A locally connected machine is a machine directly attached to your computer using a USB cable. If your machine is attached to a network, skip the following steps below and go on to installing a network connected machine's driver (see "Installing driver over the network" on page 133).



- If you are a Mac, Linux, or UNIX operating systems user, refer to the "Installation for Mac" on page 124, "Installation for Linux" on page 126, or "Installing the UNIX printer driver package" on page 138.
- The installation window in this User's Guide may differ depending on the machine and interface in use.
- Only use a USB cable no longer than 3 meters (118 inches).

## Windows

- 1 Make sure that the machine is connected to your computer and powered on.
- 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**.
- 3 Review and accept the installation agreements in the installation window, and then, click **Next**.
- 4 Select **USB** on the **Printer Connection Type** screen. Then, click **Next**.
- 5 Follow the instructions in the installation window.



You can select the software applications in the **Select Software to Install** window.

# Installing the driver locally

## From the Windows 8 Start Screen



- The V4 driver is automatically downloaded from the Windows Update if your computer is connected to the Internet. If not, you can manually download the V4 driver from Samsung website, [www.samsung.com](http://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, <http://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**.

# Reinstalling the driver

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

## Windows

- 1 Make sure that the machine is connected to your computer and powered on.
- 2 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**.
- 3 Follow the instructions in the installation window.
- 4 Insert the software CD into your CD-ROM drive and install the driver again (see "Installing the driver locally" on page 22).

## From the Windows 8 Start Screen

- 1 Make sure that the machine is connected to your computer and powered on.
- 2 Click on the **Uninstall Samsung Printer Software** tile in the **Start** screen.
- 3 Follow the instructions in the window.



- If you cannot find a Samsung Printer Software tile, uninstall from the desktop screen mode.
- If you want to uninstall Samsung's printer management tools, from the **Start** screen, right-click the app > **Uninstall** > right-click the program you want to delete > **Uninstall** and follow the instruction in the window.

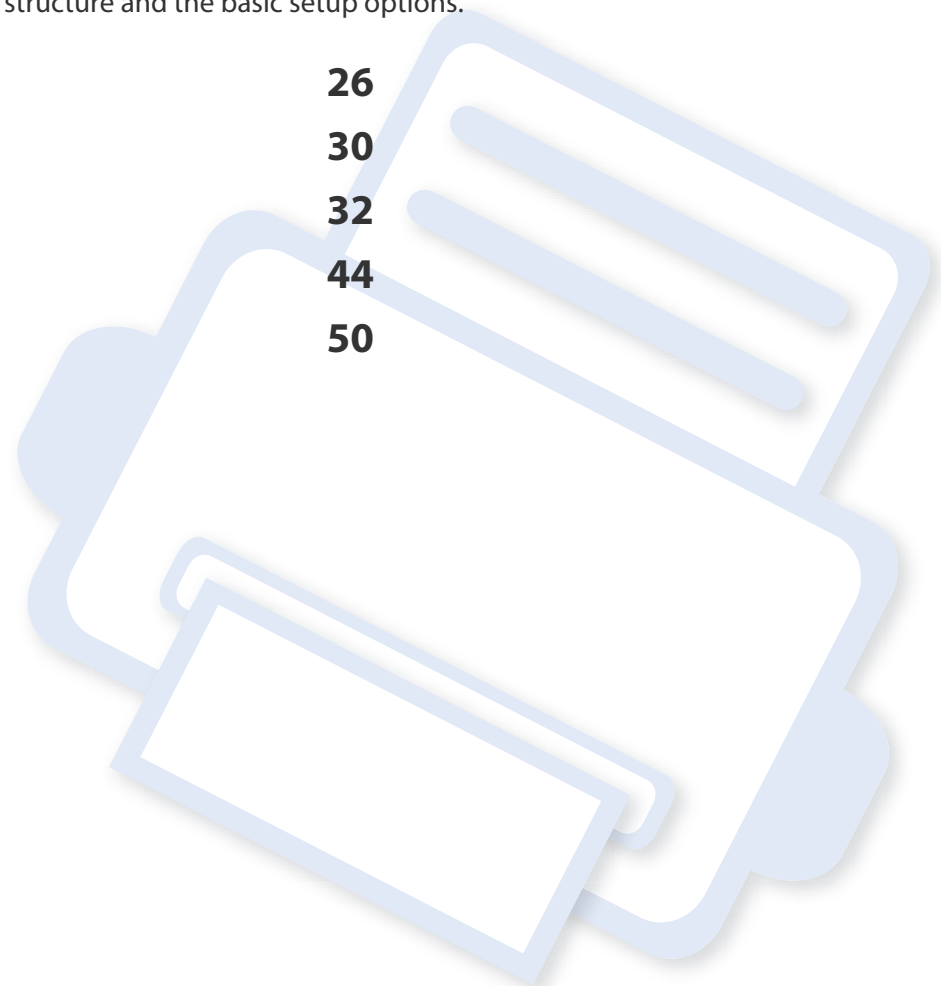




## 2. Menu Overview and Basic Setup

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

- **Menu overview** 26
- **Machine's basic settings** 30
- **Media and tray** 32
- **Basic printing** 44
- **Using USB memory device** 50





# Menu overview

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

## Accessing the menu



- An checked (✓) appears next to the currently selected menu.
- 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 Menus" on page 229).

- 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  (**Stop/Clear**) to return to the ready mode.

# Menu overview

<b>Information</b> (see "Information" on page 231)	<b>Layout</b> (see "Layout" on page 232)	<b>Paper</b> (see "Paper" on page 233)	<b>Graphic</b> (see "Graphic" on page 234)
<b>Configuration</b> Demo Page Network Configuration Supplies Information Usage Counter Account <sup>a</sup> Menu Map PCL Font PS Font	<b>Orientation</b> Portrait Landscape <b>Margin</b> Common Margin MP Tray Tray[x] <sup>b</sup> Emulation Margin <b>Duplex</b> Off Long Edge Short Edge	<b>Copies</b> Tray[x] <sup>b</sup> Paper Size Paper Type <b>MP Tray</b> Paper Size Paper Type <b>Paper Source</b> Auto Tray[x] <sup>b</sup> MP Tray <b>Tray Confirm</b> Tray[x] <sup>b</sup> MP Tray	<b>Resolution</b> Standard High Resolution <b>Clear Text</b> Off Minimum Medium Maximum <b>Edge Enhancement</b> Off Normal Maximum <b>Auto CR</b>

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

b. [tray type] indicates the tray number.

# Menu overview

System Setup (see "System Setup" on page 235)		Emulation (see "Emulation" on page 238)	Image Management (see "Image Management" on page 239)
<b>Date &amp; Time</b> <b>Date Format</b> <b>Clock Mode</b> <b>Language</b> <b>Default Paper</b> <b>Power Save</b> <b>Wakeup Event</b> <b>Job Timeout</b> <b>Held Job Timeout</b> <b>Altitude Adjustment</b> <b>Humidity</b> <b>Job Rescheduling</b> <b>Auto Continue</b> <b>Auto Tray Switch</b> <b>Paper Substitution</b> <b>Tray Protection</b> <b>Tray Mode</b> <b>Skip Blank Pages</b>	<b>Maintenance</b>  <b>CLR Empty Msg.<sup>a</sup></b> <b>Supplies Life</b>  <b>RAM Disk<sup>b</sup></b> <b>Paper Low Alert</b>  <b>Toner Save</b>  <b>Quiet Mode</b>  <b>Eco Settings</b>  <b>Auto Power Off</b>  <b>Filing Policy</b>	<b>Emulation Type</b>  <b>Setup</b>	<b>Custom Color</b>  <b>Default</b>  <b>Print Density</b>

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

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

# Menu overview

Network (see "Network" on page 240)		Direct USB (see "Direct USB" on page 241)	Job Management <sup>a</sup> (see "Job Management" on page 242)	Admin Setup <sup>b</sup> (see "Admin Setup" on page 243)
TCP/IP (IPv4)	Protocol Management	Print From	Active Job	Stamp
DHCP	NFC <sup>c</sup>	File Manage	Secured Job	Stamp Activate
BOOTP	Network Configuration	Show Space	Stored Job	Item
Static	Clear Settings			Text Size
TCP/IP (IPv6)				Opacity
IPv6 Protocol				Position
DHCPv6 Config				Change Admin Password
Ethernet				Firmware Upgrade
Ethernet Port				Import Setting
Ethernet Speed				Export Setting
802.1x				Secure Print <sup>d</sup>
Wi-Fi <sup>c</sup>				Supplies Management
Wi-Fi On/Off				Toner Low Alert
Wi-Fi Settings				
WPS				
Wi-Fi Direct				
Wi-Fi Signal				
CLR Wi-Fi set.				

a. This option is available when the optional memory installed or RAM Disk is checked. To use Ram disk, click **Samsung Printer Center > Device Options** and then check **RAM Disk** (see "Using Samsung Printer Center" on page 196).

b. You need to enter the password to access this menu. The default password is **sec00000**.

c. This option is available when the optional Wireless/NFC kit installed.

d. This option is available when the **System Setup > Maintenance > RAM Disk** is enabled.

# Machine's basic settings



- You change the machine's 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 199).
  - If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "Using SyncThru™ Web Service" on page 192).

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) > System Setup** on the control panel.
- 2 Select the option you want, then press **OK**.
  - **Language:** Change the language that is displayed on the control panel.
  - **Date & Time:** You can set the time and date. They are printed on reports. If, however, they are not correct, you need to change it for the correct time being.



Enter the correct time and date using arrows or numeric keypad (see "Keypad letters and numbers" on page 170).

- Month = 01 to 12
- Day = 01 to 31
- Year = requires four digits
- Hour = 01 to 12
- Minute = 00 to 59

- **Clock Mode:** You can set your machine to display the current time using either a 12 hours or 24 hours format.
- **Power Save:** When you are not using the machine for a while, use this feature to save power.




- When you press the power button or start printing, the product will wake up from the power saving mode.
- When you press any button except power button, the machine wake up from the power save mode. Press **☰(Menu) > System Setup > Wakeup Event > On** on the control panel.

- **Altitude Adjustment:** Print quality is affected by atmospheric pressure, which atmospheric pressure is determined by the height of the machine above sea level. Before you set the altitude value, determine the altitude where you are (see "Altitude adjustment" on page 169).

- 3 Select the option you want, then press **OK**.

# Machine's basic settings

- 4 Press **OK** to save the selection.
- 5 Press  (**Stop/Clear**) to return to the ready mode.



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

- See "Setting the paper size and type" on page 42.
- See "Keypad letters and numbers" on page 170.

# 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, labels, and transparencies. 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 102).
- 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 102).
- 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 102).



# Media and tray

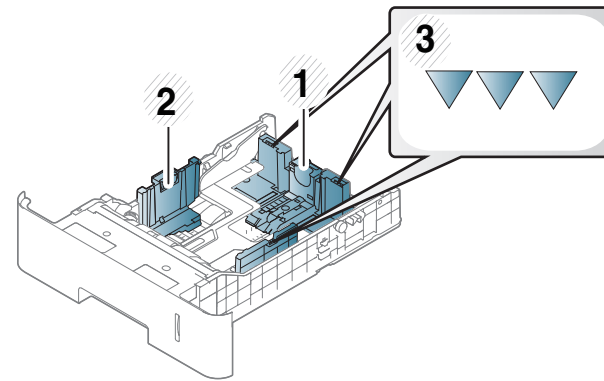


The use of flammable media or foreign materials left in the printer may lead to overheating of the unit and, in rare cases may cause a fire.

The amount of paper put into the tray may differ according to media type used (see "Print media specifications" on page 102).

## Tray overview

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



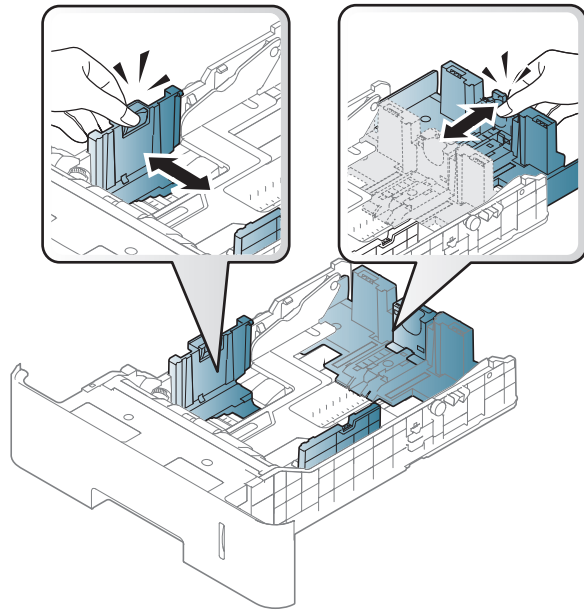
- 1 Paper length guide
- 2 Paper width guide
- 3 Paper limit mark

# Media and tray



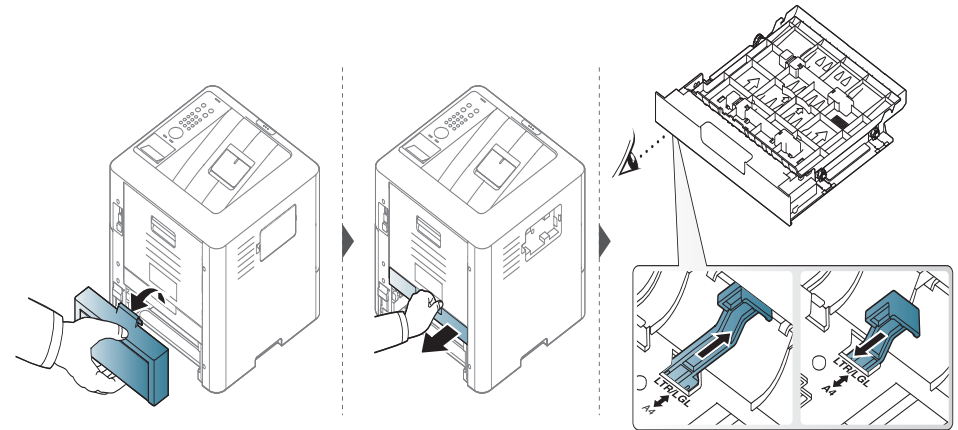
## For Legal-sized paper

Push button as shown and pull out the tray.



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

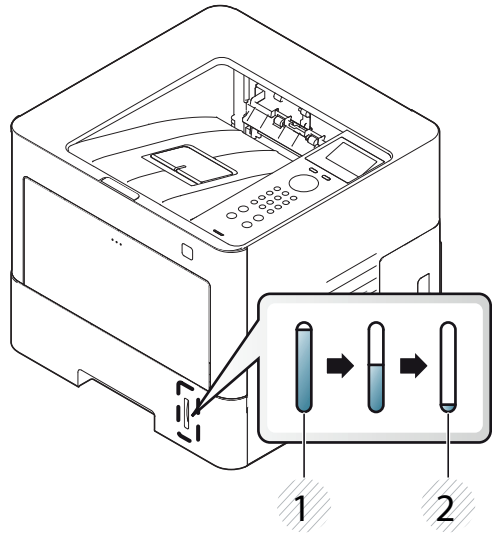
The duplex unit is preset to Letter/LGL or A4 size, depending on your country. To change the paper size, adjust the guides as shown below.



# Media and tray



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



1 Full

2 Empty

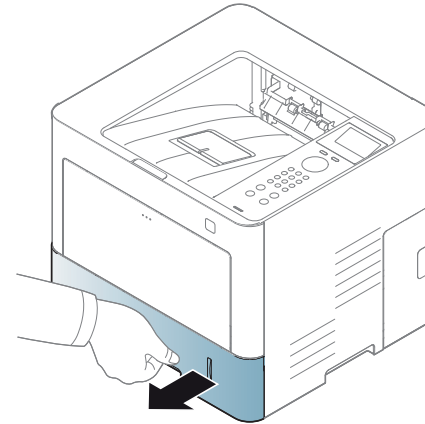
## Loading paper in the tray



The procedure is same for all optional trays.

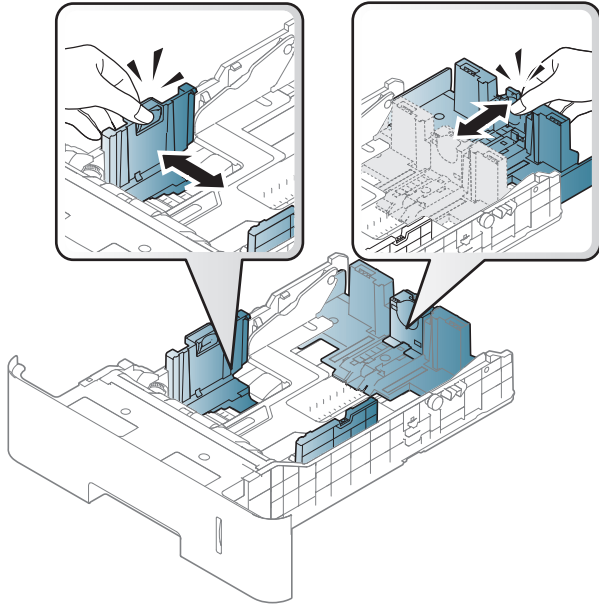
## Tray 1 / optional tray

1 Pull out the paper tray.

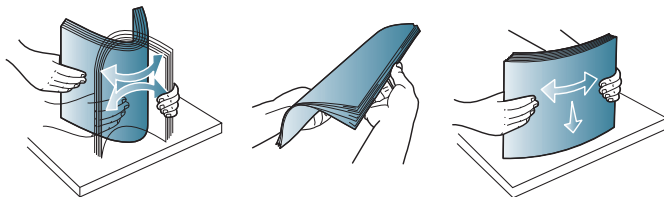


# Media and tray

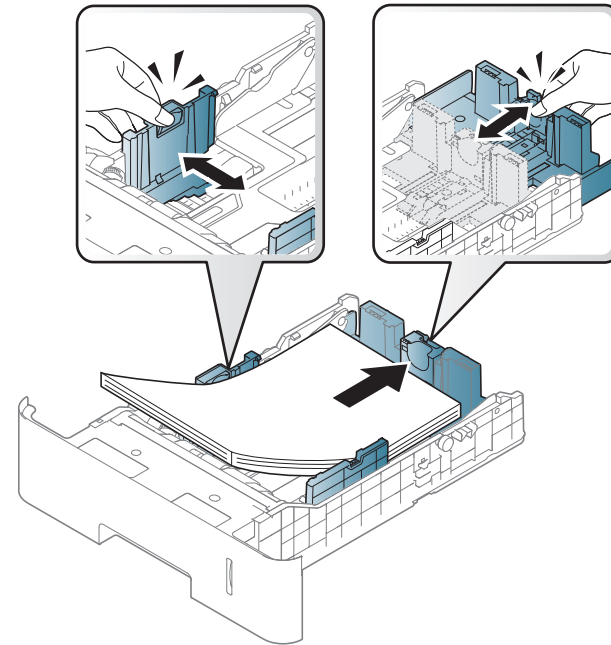
- 2** Squeeze and the paper width guide and paper length lever to locate them in the correct paper size slot marked at the bottom of the tray to adjust to the size (see "Tray overview" on page 33).



- 3** Flex or fan the edge of the paper stack to separate the pages before loading papers.



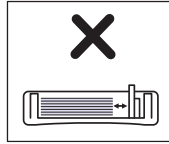
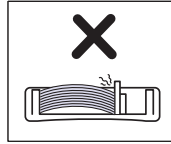
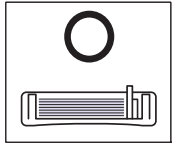
- 4** After inserting paper into the tray, squeeze the paper width guides and paper length guide.



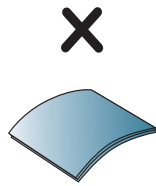
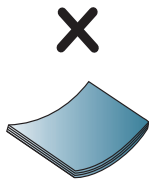
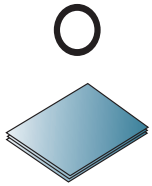
# Media and tray



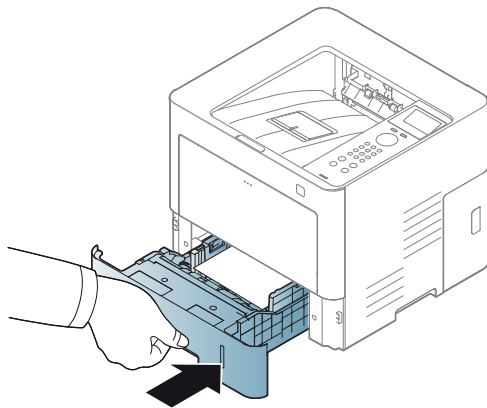
- Do not push the paper width guide too far causing the media to warp.
- If you do not adjust the paper width guide, it may cause paper jams.



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



- 5** Insert the tray back into the machine.



- 6** When you print a document, set the paper type and size for the tray (see "Setting the paper size and type" on page 42).

## Multi-purpose tray

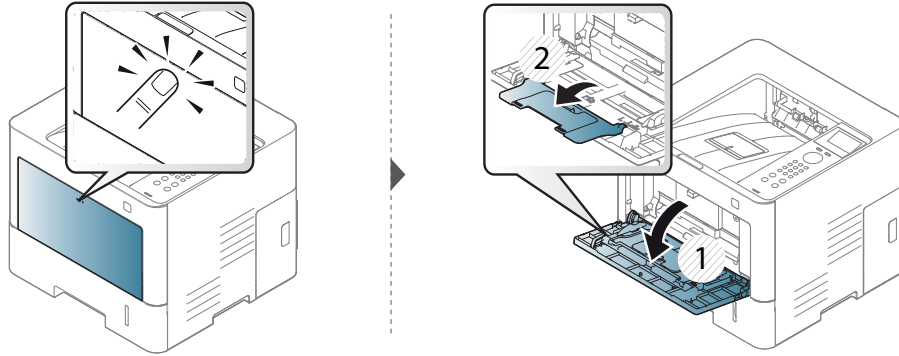
The Multi-purpose tray can hold special sizes and types of print material, such as postcards, note cards, and envelopes (see "Print media specifications" on page 102).

### Tips on using the Multi-purpose tray

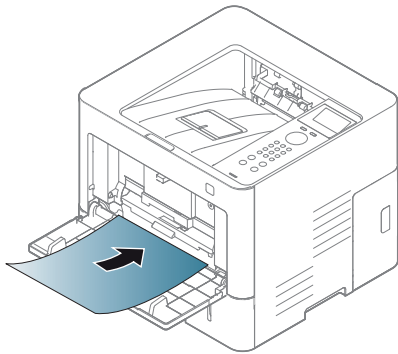
- Load only one type, size and weight of print media at a time in the Multi-purpose tray.
- To prevent paper jams, do not add paper while printing when there is still paper in the Multi-purpose tray. This also applies to other types of print media.
- Always load the specified print media only to avoid paper jams and print quality problems (see "Print media specifications" on page 102).
- Flatten any curl on postcards, envelopes, and labels before loading them into the Multi-purpose tray.

# Media and tray

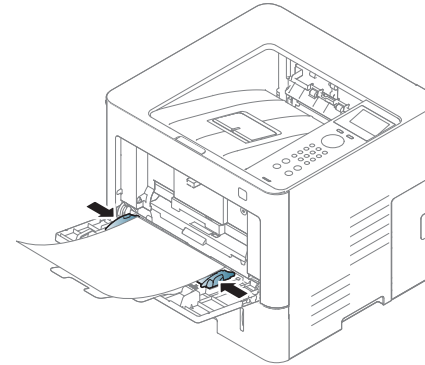
- 1 Press the push-release of multi-purpose tray and it down to open. Unfold the multi-purpose tray extension, as shown.



- 2 Load the paper.



- 3 Squeeze the Multi-purpose tray paper width guides and adjust them to the width of the paper. Do not force them too much, or the paper will bent resulting in a paper jam or skew.



- When printing the special media, you must follow the loading guideline (See "Printing on special media" on page 39).
- When papers overlap when printing using Multi-purpose tray, open tray 1 and remove overlapping papers then try printing again.

- 4 When you print a document, set the paper type and size for the Multi-purpose tray (see "Setting the paper size and type" on page 42).

# Media and tray

## Printing on special media

The table below shows the special media usable in tray.

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



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 199).
  - If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "Using SyncThru™ Web Service" on page 192).
- You can set it using **[Menu] > Paper > select the tray you want > Paper Size or Paper Type** on the control panel.

To see for paper weights for each sheet, refer to "Print media specifications" on page 102.

Types	Tray 1	Optional tray <sup>a</sup>	Multi-purpose tray
Plain	●	●	●
Thick	●	●	●
Thicker			●

Types	Tray 1	Optional tray <sup>a</sup>	Multi-purpose tray
Thin	●	●	●
Bond	●	●	●
Color	●	●	●
Card Stock	●	●	●
Labels	●	●	●
Envelope	●	●(Tray 2 only)	●
Preprinted	●	●	●
Cotton	●	●	●
Recycled	●	●	●
Archive	●	●	●
Letterhead	●	●	●
Punched	●	●	●

a. This feature is available when you install and optional tray (see "Variety feature" on page 7).

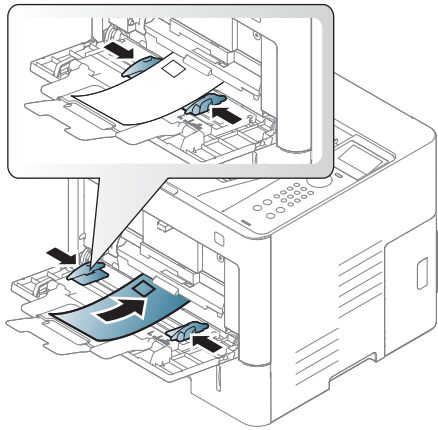
(●: Supported, Blank: Not supported)

## Envelope

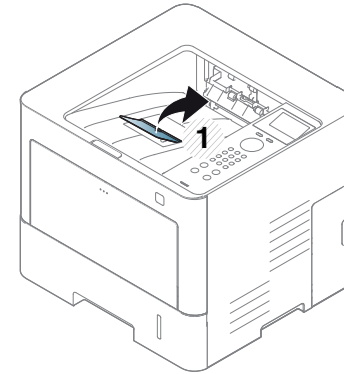
Printing successfully on envelopes depends upon the quality of the envelopes.

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

# Media and tray



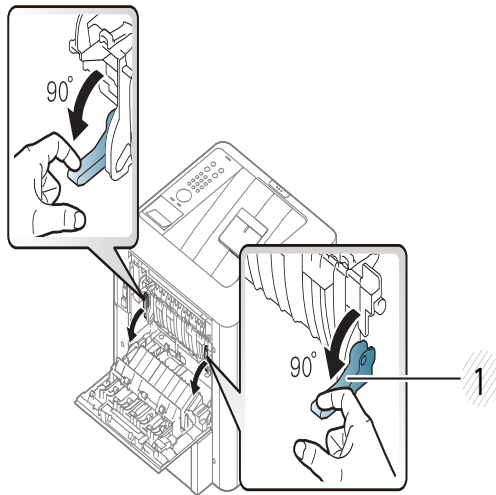
- When you are printing on an envelope, close the output support. Otherwise, paper jam may occur.



1 Output support



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



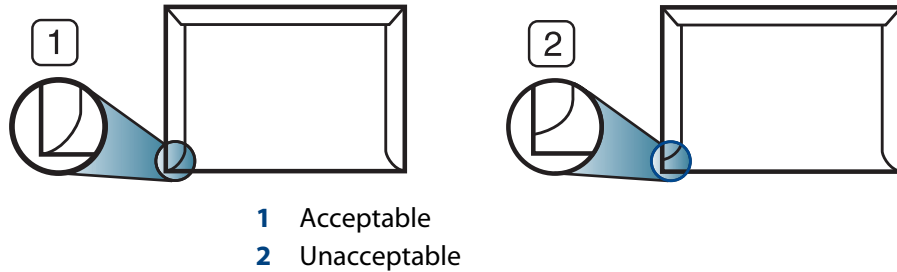
1 Pressure lever

- When selecting envelopes, consider the following factors:
  - **Weight:** should not exceed 90 g/m<sup>2</sup> otherwise; jams may occur.
  - **Construction:** should lie flat with less than 6 mm curl and should not contain air.
  - **Condition:** should not be wrinkled, nicked, nor damaged.
  - **Temperature:** should resist the heat and pressure of the machine during operation.
- Use only well-constructed envelopes with sharp and 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.



# Media and tray

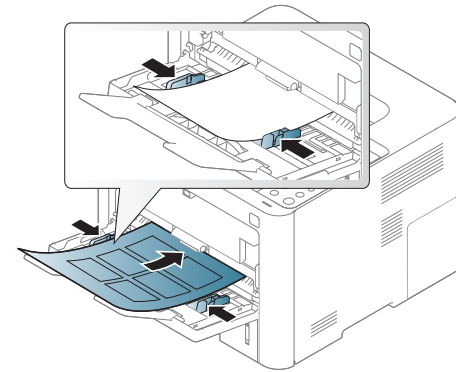
- Do not use damaged or poorly made envelopes.
- Be sure the seam at both ends of the envelope extends all the way to the corner of the envelope.



- 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

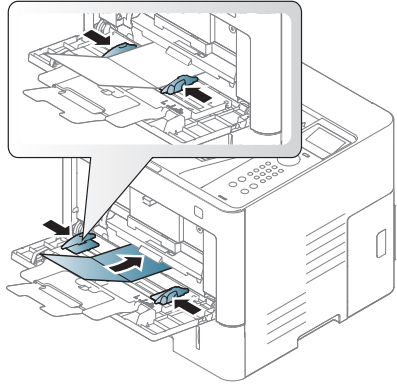
To avoid damaging the machine, use only labels designed for use in laser printers.



- When selecting labels, consider the following factors:
  - **Adhesives:** Should be stable at your machine's fusing temperature about 170°C (338°F), and not have excessive curl. Only use labels that have **For use in Laser Printers** on the carton box.
  - **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.

# Media and tray

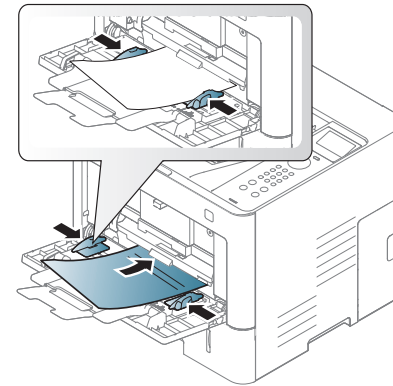
## Card stock/ Custom-sized paper



- 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 using the display screen. For computer printing, select the paper size and type in the application program you use on your computer (see "Opening printing preferences" on page 45).

# Media and tray



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 199).
  - If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "Using SyncThru™ Web Service" on page 192).
- You can set it using **[Menu] > Paper > select the tray you want > Paper Size or Paper Type** on the control panel.

- 1 Select **[Menu] > Paper > select the tray you want > Paper Size or Paper Type** on the control panel.
- 2 Select the option you want.
- 3 Press **OK** to save the selection.
- 4 Press **[Stop/Clear]** to return to ready mode.

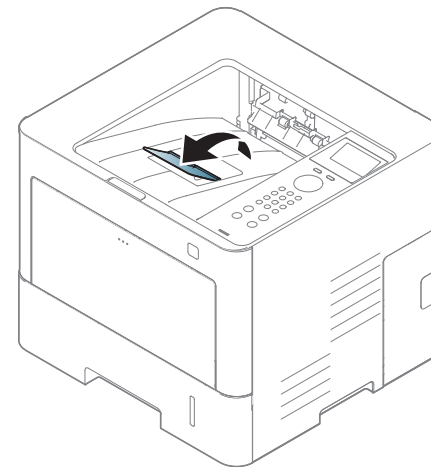


If you want to use special-sized paper such as billing paper, select the **Paper** tab > **Size > Edit...** and set **Custom Paper Size Settings** in the **Printing Preferences** (see "Opening printing preferences" on page 45).

## 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 machine sends output to the output tray by default. The printed pages stack on the output support, and the output support will help the printed pages to align. Open the output support.

# Basic printing



For special printing features, refer to the Advanced Guide (see "Using advanced print features" on page 171).

## Printing

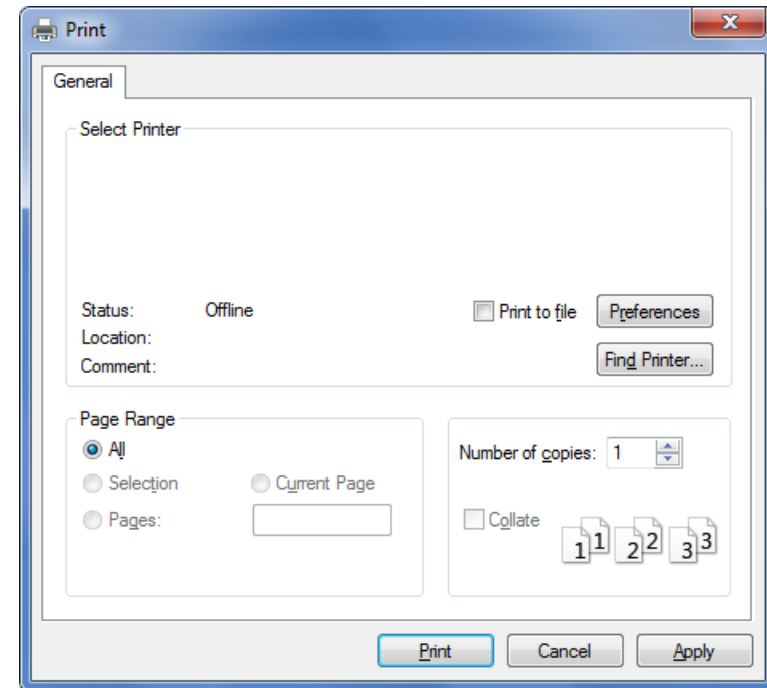


- Mac printing (see "Mac printing" on page 182).
- Linux printing (see "Linux printing" on page 183).
- UNIX printing (see "Unix printing" on page 185).

The following **Printing Preferences** window is for Notepad in Windows 7. Your **Printing Preferences** window may differ, depending on your operating system or the application you are using.

- 1 Open the document you want to print.
- 2 Select **Print** from the **File** menu.

- 3 Select your machine from the **Select Printer** list.



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





To take advantage of the printer features provided by your printer driver, click **Properties** or **Preferences** in the application's **Print** window to change the print setting (see "Opening printing preferences" on page 45).

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

# Basic printing





## 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  (**Stop/Clear**) on the control panel.

## Opening printing preferences

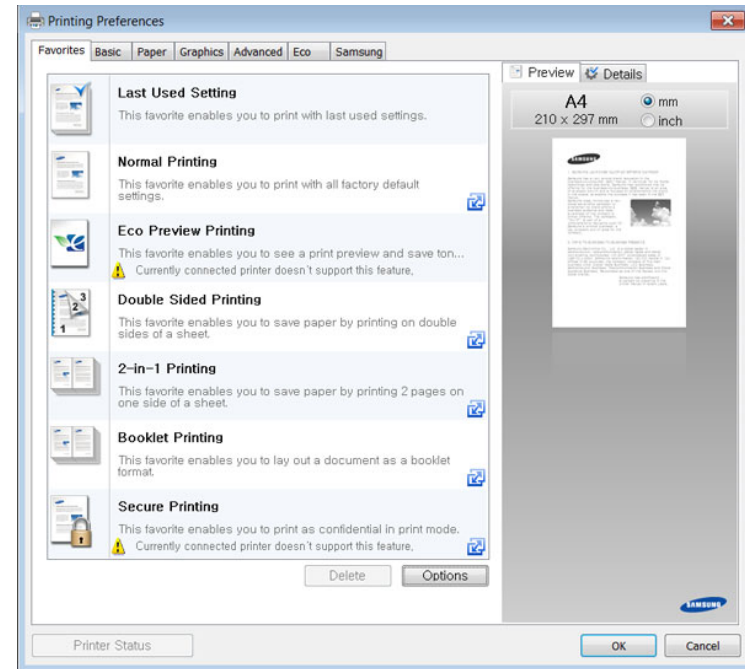


When you select an option in **Printing Preferences**, you may see a warning mark  or . An exclamation mark (  ) means you can select that certain option but it is not recommended, and (  ) mark means you cannot select that option due to the machine's setting or environment.

- 1 Open the document you want to print.
- 2 Select **Print** from the **file** menu.
- 3 Select your Printer driver from the **Select Printer** list.
- 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 191).
- You can check the machine's current status pressing the **Printer Status** button (see "Using Samsung Printer Status" on page 201).
- 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 196).

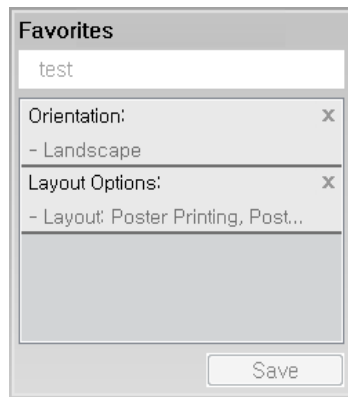
# Basic printing

## Using a favorite setting

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

To save **Favorites** items, 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.

# Basic printing

## Eco printing

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

If you press the **Eco** button from the control panel, Eco mode is enabled. The default setting of Eco mode is double-sided printing (long edge), multiple pages per side (2-up), skip blank pages, and toner save. Some features may not be available depending on the model.





- You change the machine's 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 199).
  - If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "Using SyncThru™ Web Service" on page 192).



Depending on the printer driver you use, Skip blank pages may not work properly. If Skip blank pages feature does not work properly, set the feature from the Easy Eco Driver (see "Easy Eco Driver" on page 191).

## Setting Eco mode on the control panel

- 1 Select  (**Menu**) > **System Setup** > **Eco Settings** on the control panel.
- 2 Select the option you want and press **OK**.
  - **Default Mode:** Select this to turn on or off the Eco mode.
    - **Off:** Set the Eco mode off.
    - **On:** Set the Eco mode on.
- 3 Press **OK** to save the selection.
- 4 Press  (**Stop/Clear**) to return to ready mode.



If you set the Eco mode on with a password from the SyncThru™ Web Service (**Settings tab > Machine Settings > System > Eco Settings**) or Samsung Easy Printer Manager (**Device Settings > Eco**), the **On force** message appears. You have to enter the passcode to change the Eco mode status.


- **Select Template:** Follow the settings from SyncThru™ Web Service or Samsung Easy Printer Manager. Before you select this item, you must set the Eco function in SyncThru™ Web Service (**Settings tab > Machine Settings > System > Eco Settings**) or Samsung Easy Printer Manager (**Device Settings > Eco**).
  - **Default Settings:** The machine is set to **Default Eco** mode.
  - **Custom Settings:** Change any necessary values.

# Basic printing

## Setting eco mode on the driver



To take advantage of the advanced printing features, click **Properties** or **Preferences** from the **Print** window (see "Opening printing preferences" on page 45).

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

### Eco options

- **Printer Default:** Follows the settings from the machine's control panel.
- **None:** Disables Eco mode.
- **Eco Printing:** To activate Eco mode, select **Double-Sided Printing, Layout, Color Mode, Skip Blank Pages, and Toner Save**. You want to use in eco mode to save on paper and toner usage. As long as you do not change the options from the other tabs, the document will be printed out as a set in the Eco mode with the selections you have chosen.
- **Password:** If the administrator fixed to enable the Eco mode, you have to enter the password to change the status.



**Password** button: You can set from SyncThru™ Web Service (**Settings** tab > **Machine Settings** > **System** > **Eco Settings**) or Samsung Easy Printer Manager (**Device Settings** > **Eco**), the password button is activated. To change the print settings, click on this button, enter the password or need to contact the administrator.

### Result simulator

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

- The results are calculated on the basis that the total number of printed paper is one hundred without a blank page when the Eco mode is disabled.
- Refers to the calculation coefficient about CO<sub>2</sub>, energy, and paper from **IEA**, the index of Ministry of Internal Affairs and Communication of Japan and [www.remanufacturing.org.uk](http://www.remanufacturing.org.uk). Each model has a different index.
- The power consumption in printing mode refers to the average printing power consumption of this machine.
- The actual amount displayed is only an estimate as the actual amount may differ depending on the operating system used, computing performance, application software, connection method, media type [thickness], media size, job complexity, etc.



# Basic printing

## Secure printing



- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- You might not be able to print a complex document using the RAM disk. Install an optional memory to print a complex document.

When you use a printing device in an office, school or other public place, you can protect your personal documents or confidential information by using the secure printing feature.



## Starting secure printing from the 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 Click Login on the upper right of SyncThru™ Web Service website.
- 3 **Settings > Machine Settings > System > Ram Disk.**
- 4 Enable **Ram Disk**.



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

## Printing secure documents from the control panel

- 1 Select  (**Menu**) > **Job Management** > **Stored Job** on the printer's control panel.
- 2 Select the document to print.
- 3 Enter the password that you set from the printer driver.
- 4 Print the document.
- 5 Press  (**Stop/Clear**) to return to ready mode.

# Using USB memory device

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

## About USB memory device

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

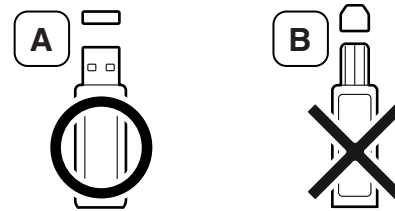
You can do the following tasks on your machine by using a USB memory device.

- Scan documents and save them on a USB memory device
- Print data stored on a USB memory device
- Restore backup files to the machine's memory
- Format the USB memory device
- Check the available memory space

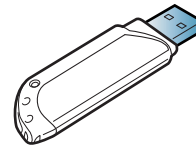
Your machine supports USB memory devices with FAT16/FAT32 and sector size of 512 bytes.

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

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



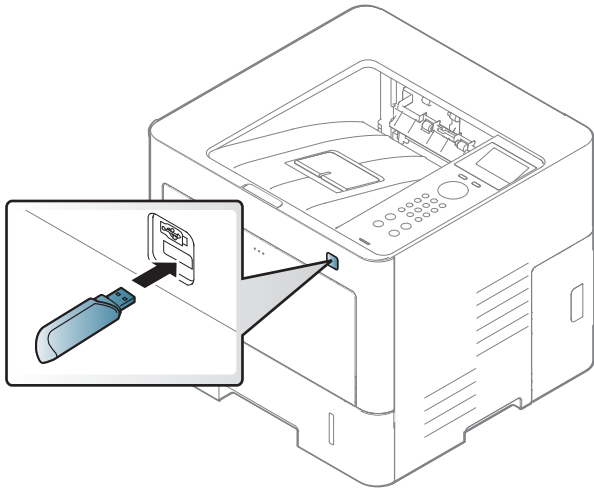
Use only a USB memory device with metal-shielded connector.



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

# Using USB memory device

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



- Do not remove the USB memory device while it is in use. 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.

Direct Print option supported file types:



- **PRN:** Only files created by provided driver with your machine are compatible.



If you print PRN files created from other machine, the printout would be different.

- **TIFF:** TIFF 6.0 Baseline
- **JPEG:** JPEG Baseline
- **PDF:** PDF 1.7 or lower

To print a document from a USB memory device:



- 1 Insert a USB memory device into the USB memory port on your machine.
- 2 Select  (**Menu**) > **Direct USB** > **Print From** on the control panel.
- 3 Select the folder or file you want.
- 4 Select the number of copies to be printed or enter the number.
- 5 Press **OK**.
- 6 Press  (**Stop/Clear**) button to return to ready mode.

# Using USB memory device


## Backing up data


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

## Backing up data

- 1 Insert the USB memory device into the USB memory port on your machine.
- 2 Select  (**Menu**) > **Admin Setup** > **Export Setting** on the control panel.
- 3 Press **OK** when the confirmation window appears.
- 4 Press  (**Stop/Clear**) button to return to ready mode.

## Restoring data

- 1 Insert the USB memory device on which the backup data is stored in to the USB memory port.
- 2 Select  (**Menu**) > **Admin Setup** > **Import Setting** on the control panel.

- 3 Select **Setup File**.
- 4 Select the file you want to restore.
- 5 Press **OK** when the confirmation window appears.
- 6 Press  (**Stop/Clear**) button to return to ready mode.


## Managing USB memory

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




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

## Deleting an image file



- 1 Insert a USB memory device into the USB memory port on your machine.
- 2 Select  (**Menu**) > **Direct USB** > **File Manage** > **Delete** on the control panel.
- 3 Press **OK** when the confirmation window appears.

# Using USB memory device

- 4 Press  (**Stop/Clear**) button to return to ready mode.

## Formatting a USB memory device



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- 1 Insert a USB memory device into the USB memory port on your machine.
- 2 Select  (**Menu**) > **Direct USB** > **File Manage** > **Format** on the control panel.
- 3 Press **OK** when the confirmation window appears.
- 4 Press  (**Stop/Clear**) button to return to ready mode.

## Viewing the USB memory status

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

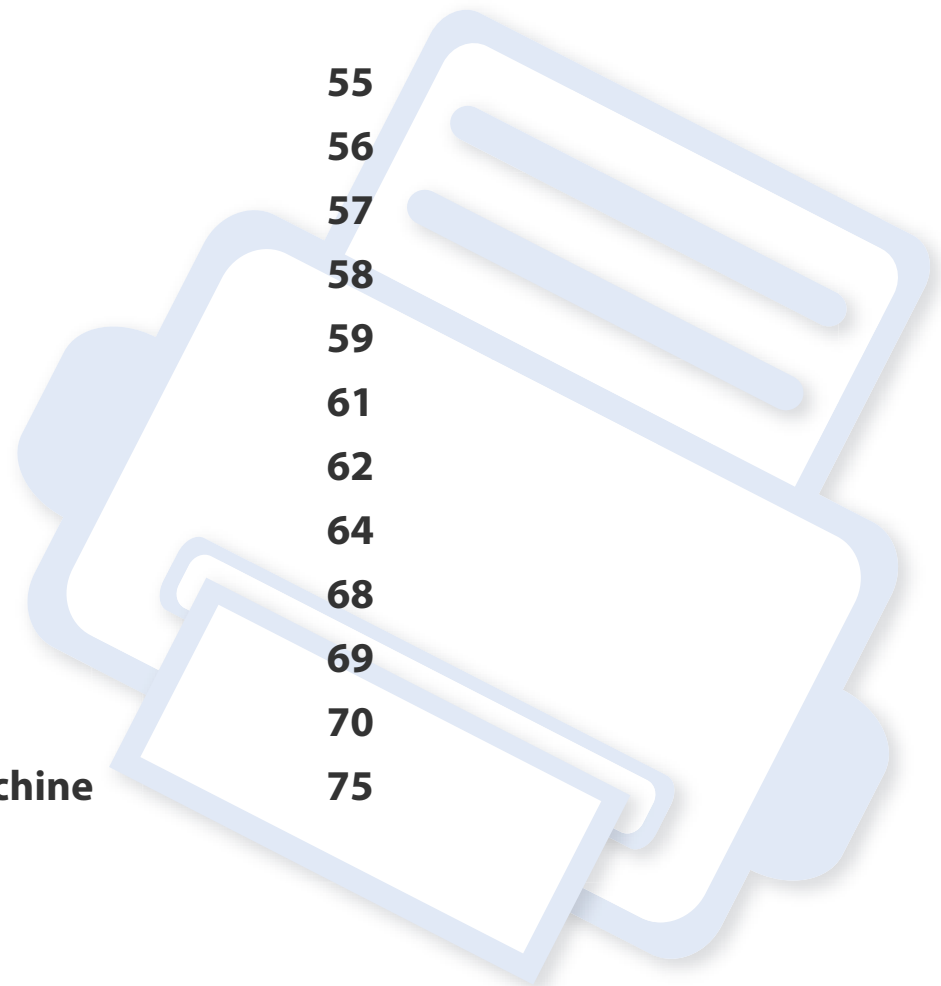
- 1 Insert a USB memory device into the USB memory port on your machine.
- 2 Select  (**Menu**) > **Direct USB** > **Show Space** on the control panel.
- 3 The available memory space appears on the display.
- 4 Press  (**Stop/Clear**) button to return to ready mode.



# 3. Maintenance

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

- **Ordering supplies and accessories** 55
- **Available consumables** 56
- **Available accessories** 57
- **Available maintenance parts** 58
- **Storing the toner cartridge** 59
- **Redistributing toner** 61
- **Replacing the toner cartridge** 62
- **Installing accessories** 64
- **Monitoring the supplies life** 68
- **Setting the toner** 69
- **Cleaning the machine** 70
- **Tips for moving & storing your machine** 75



# 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 (see "Available consumables" on page 56, "Available accessories" on page 57).

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 <http://www.samsung.com/supplies>, and then select your country/region to obtain the contact information for service.

# Available consumables

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

Type	Average yield <sup>a</sup>	Part name
Toner cartridge	Average continuous cartridge yield : Approx. 10,000 standard pages	<b>MLT-D201S</b>
	Average continuous cartridge yield : Approx. 20,000 standard pages	<b>MLT-D201L</b>

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



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 consumables, these must be purchased in the same country as the machine you are using. Otherwise, new toner cartridges or other consumables will be incompatible with your machine due to different configurations of toner cartridges and other consumables 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 country (see "Features by model" on page 7).

Accessory	Function	Part name
<b>Memory module</b>	Extends your machine's memory capacity.	<b>SL-MEM001: 2 GB</b>
<b>Optional trays (Tray2, Tray3, Tray4, Tray 5)</b>	If you are experiencing frequent paper supply problems, you can attach an additional 550 <sup>a</sup> Sheet trays.	<b>SL-SCF4000</b>
<b>Stand</b>	<p>You can easily move the machine using the stand with its wheels.</p> <div style="border: 1px solid gray; padding: 5px;"> When using the optional Stand, you must install the foot as shown in the Optional Stand Install Guide provided with the optional Stand. Otherwise, the machine could fall over if on incline and cause bodily injury.</div>	<b>ML-DSK65S</b>
<b>Wireless /NFC kit</b>	This kit lets you use your machine as a Wireless and NFC machine.	<b>SL-NWE001X</b>

a. Plain paper 75g/m<sup>2</sup> (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 30°C (86°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.

# Storing the toner cartridge

## Estimated cartridge life

Estimated cartridge life (the life of the toner cartridge yield) depends on the amount of toner that print jobs require. The actual print 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 varies from side to side.
- The **Status** LED blinks orange. 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 cartridge is low on toner (see "Using Samsung Printer Status" on page 201).

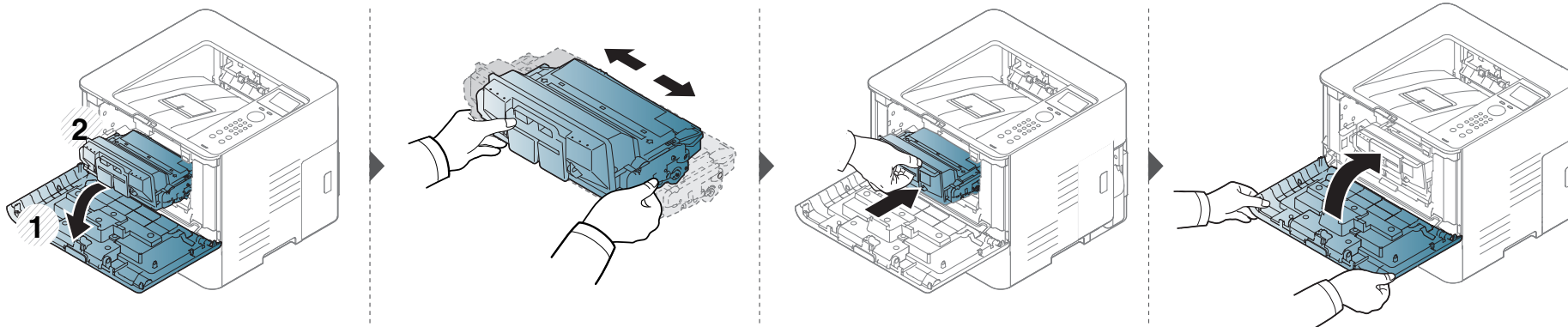
If this happens, you can temporarily improve print quality by redistributing the remaining toner in the cartridge. In some cases, white streaks or light printing will still occur even after you have redistributed the toner.



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 18).



- 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

A toner cartridge has almost reached its estimated cartridge life:

- The **status** LED and the toner-related message on the display indicate when the toner cartridge should be replaced.
- The computer's Samsung Printing Status Program window appears on the computer telling you when the cartridge is empty (see "Using Samsung Printer Status" on page 201).

Check the type of the toner cartridge for your machine (see "Available consumables" on page 56).



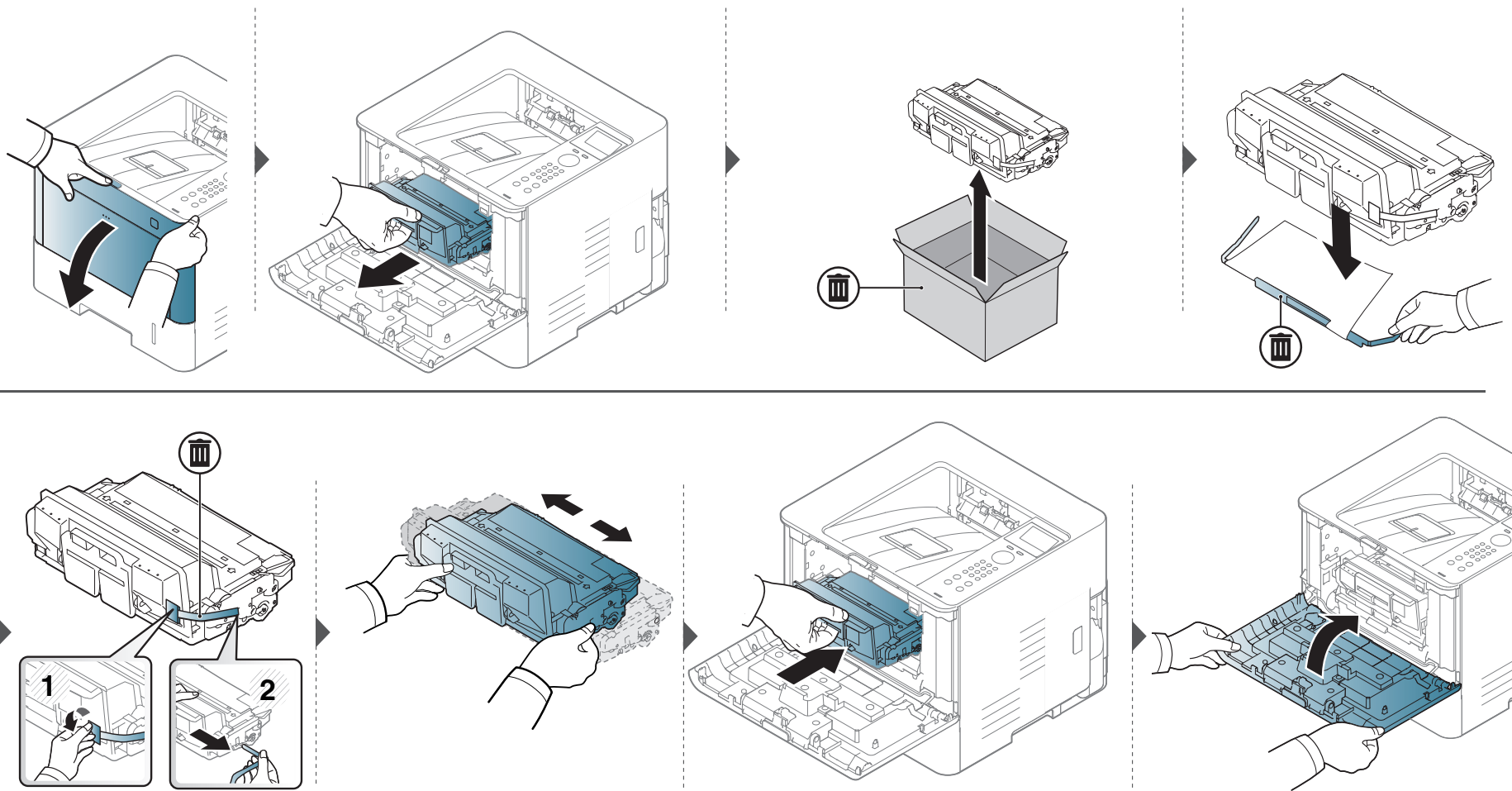
- Shake the toner cartridge thoroughly, it will increase the initial print quality.
- Illustrations on this user's guide may differ from your machine depending on its options or models. Check your machine type (see "Front view" on page 18).



- 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

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



# 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 it in accordance with the relevant regulations in your country.

## 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 need to set the optional devices in **Device Options**.

- 1 Click the Windows **Start** menu.
  - For Windows 8, from the **Charms**, select **Search > Settings**.
- 2 For Windows XP Service Pack 3/2003, select **Printers and Faxes**.
  - For Windows 2008/Vista, select **Control Panel > Hardware and Sound > Printers**.
  - For Windows 7, select **Control Panel > Hardware and Sound > Devices and Printers**.
  - For Windows 8, search for **Devices and Printers**.
  - For Windows Server 2008 R2, select **Control Panel > Hardware > Devices and Printers**.
- 3 Right-click your machine.
- 4 For Windows XP Service Pack 3/2003/2008/Vista, press **Properties**.  
For Windows 7, For Windows 8, and Windows Server 2008 R2, from context menus, select the **Printer properties**.



# Installing accessories



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

5

Select **Device Options**.



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

6

Select the appropriate option.



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

- **Tray Options:** Select the optional tray you installed. You can select the tray.
- **Storage Options:** Select the optional memory you installed. If this feature is checked, you can select the **Print Mode**.
- **Printer Configuration:** Select the printer language for the print job.
- **Administrator Settings:** You can select the **Printer Status** and **EMF Spooling**.

- **Admin Job Accounting:** Allows you to associate user and account identification information with each document you print.
  - **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.



If you want to encrypt job accounting password, check **Job Accounting Password Encryption**.

- **Custom Paper Size Settings:** You can specify custom paper size.

7

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

# Installing accessories

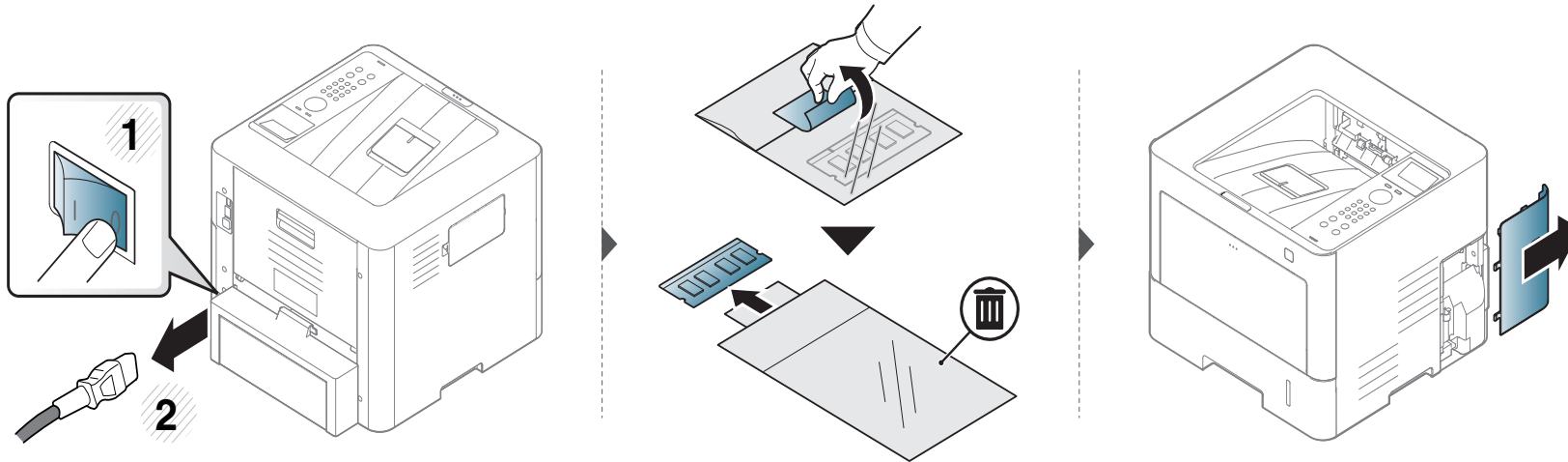
## Upgrading a memory module

Your machine has a dual in-line memory module (DIMM). Use this memory module slot to install additional memory. We recommend the use of only genuine Samsung DIMM's. You may void your warranty if it is determined that your machine problem is being caused by third party DIMM's.

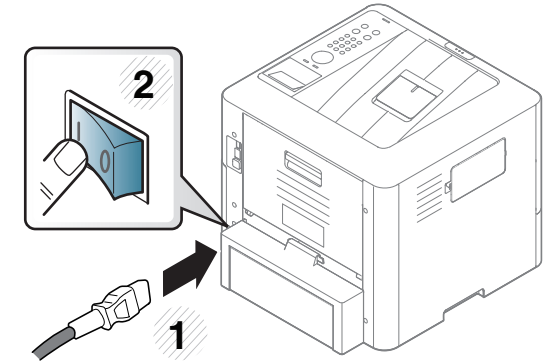
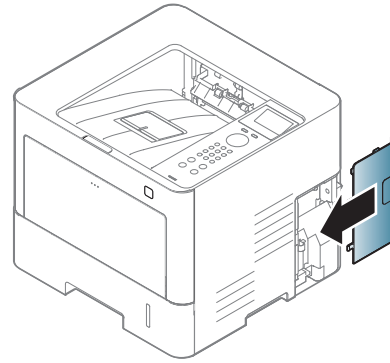
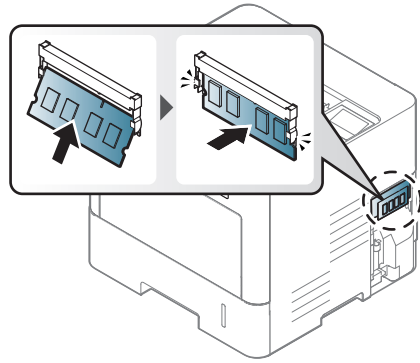
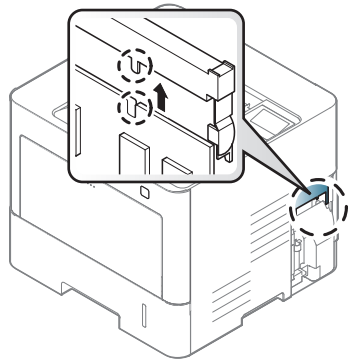
The order information is provided for optional accessories (see "Available accessories" on page 57).



- After installing the optional memory, you can use the advanced printing features, such as proofing a job and specifying of printing a secure print job in the printer properties window. You can control the active job queue and file policy in **Job Management** menu.





# Installing accessories



# Monitoring the supplies life

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



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

# Setting the toner

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



- You change the machine's setting set in the machine from **Samsung Easy Printer Manager** program or **SyncThru™ Web Service**.
  - If you 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 199).
  - If your machine is connected to the network, you can set the machine's setting from **SyncThru™ Web Service > Settings tab > Machine Settings** (see "Using SyncThru™ Web Service" on page 192).

- 1 Select  (**Menu**) > **Admin Setup** > **Supplies Management** > **Toner Low Alert** on the control panel.
- 2 Select the option you want and press **OK** to save the selection.
- 3 Press  (**Stop/Clear**) 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.
- 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.

## 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 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.

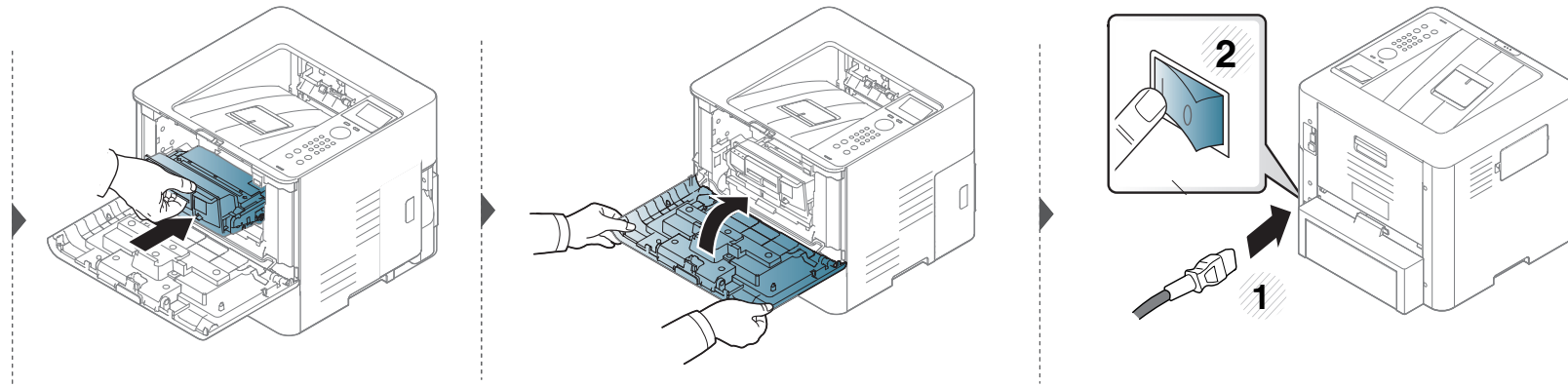
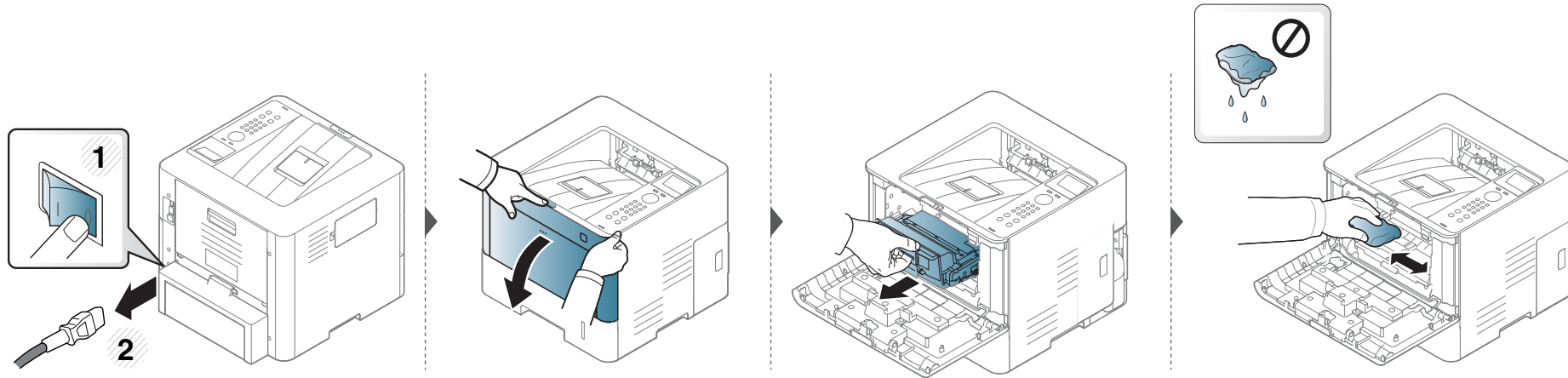


- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary.
- Do not touch the green area of the toner cartridge. Use the handle on the cartridge to avoid touching this area.
- Use a dry lint free cloth when cleaning 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 18).

# Cleaning the machine





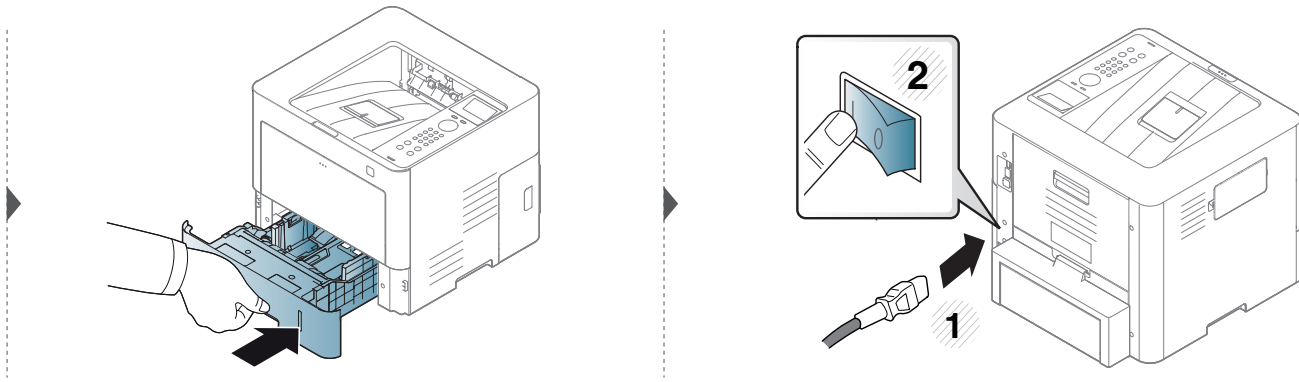
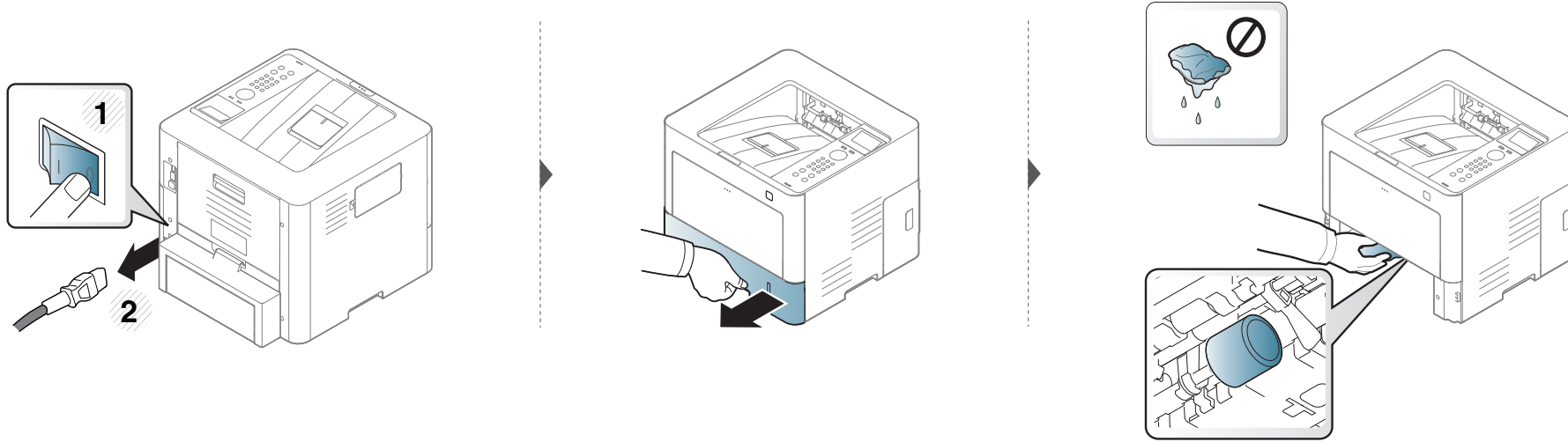
# Cleaning the machine

## 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 18).

# Cleaning the machine



# 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.



# 4. Troubleshooting

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

- **Tips for avoiding paper jams** 77
- **Clearing paper jams** 78
- **Understanding the status LED** 89
- **Understanding display messages** 91



This chapter gives helpful information for what to do if you encounter an error. If your machine has a display screen, check the message on the display screen first to solve the error.

If you cannot find a solution to your problem in this chapter, refer to the **Troubleshooting** chapter in the Advanced Guide (see "Troubleshooting" on page 210).


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

# Tips for avoiding paper jams


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

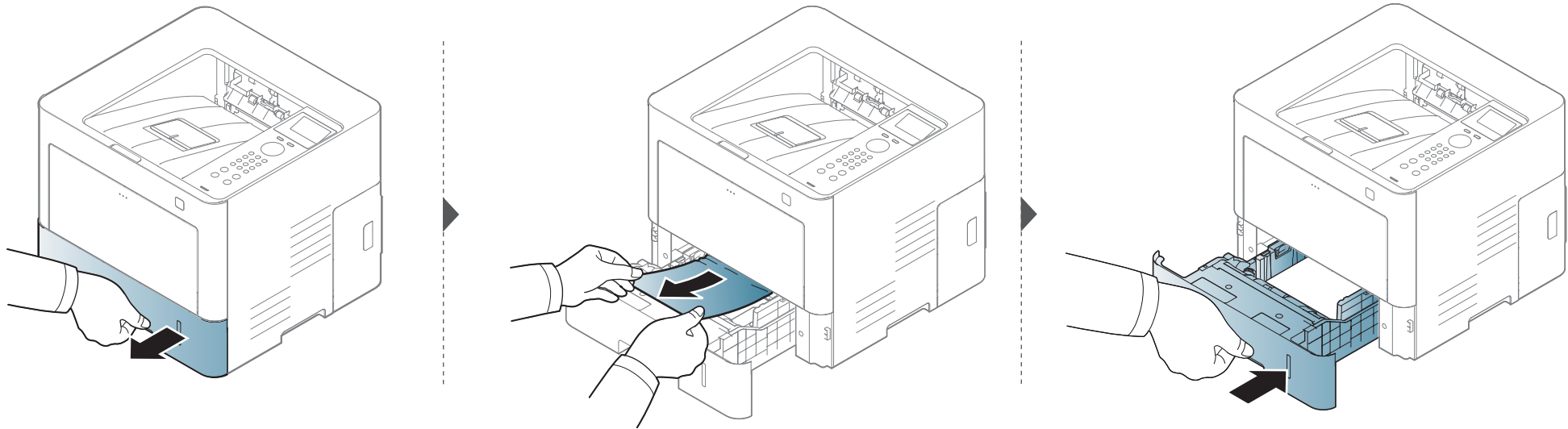
- Ensure that the adjustable guides are positioned correctly (see "Tray overview" on page 33).
- Do not remove paper from the tray while your machine is printing.
- Flex, fan, and straighten paper before loading.
- Do not use creased, damp, or highly curled paper.
- Do not mix papers in a tray.
- Use only recommended print media (see "Print media specifications" on page 102).

# Clearing paper jams

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

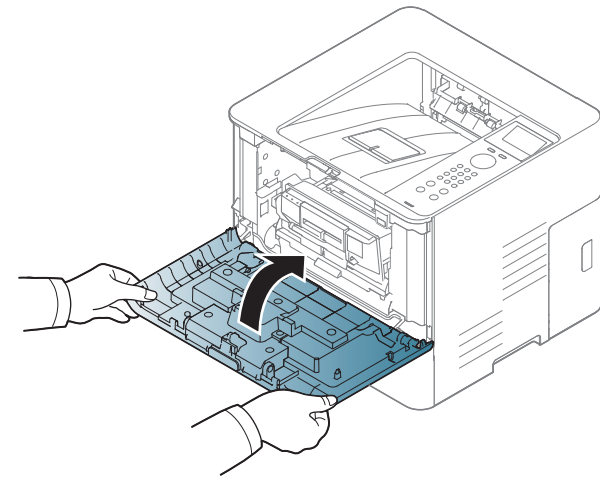
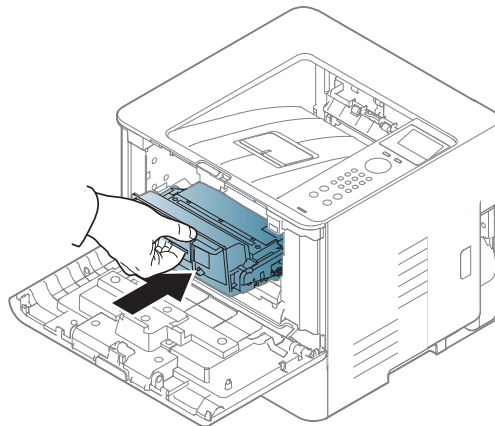
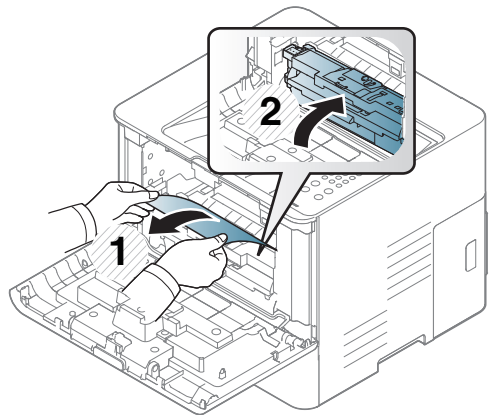
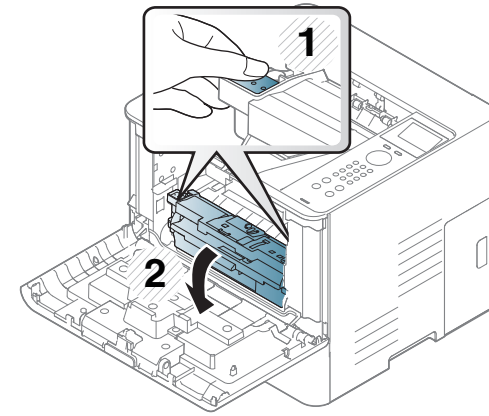
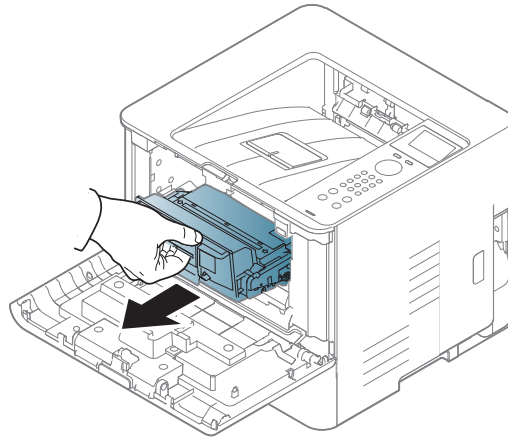
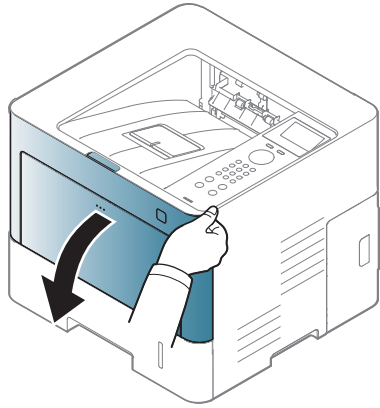
## In tray 1

 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 18).



# Clearing paper jams

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

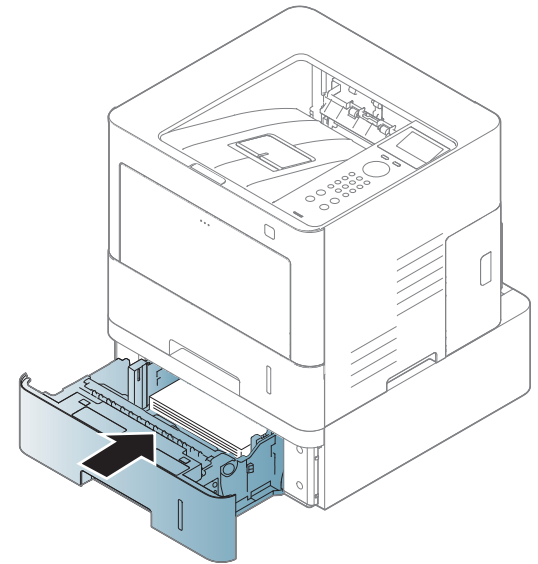
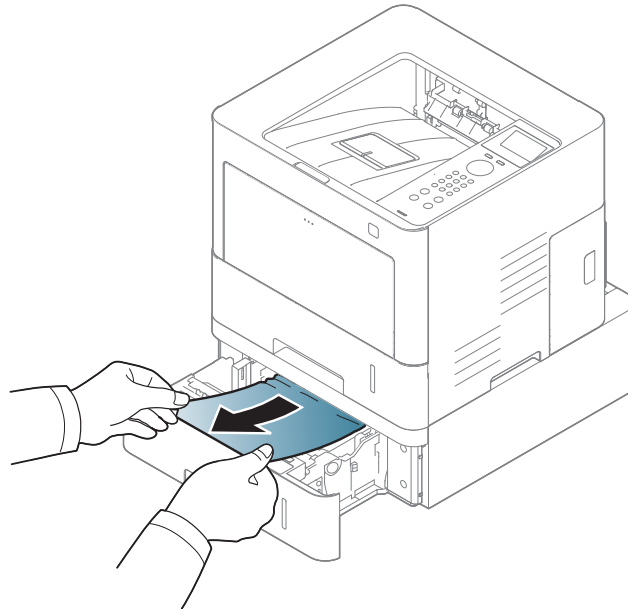
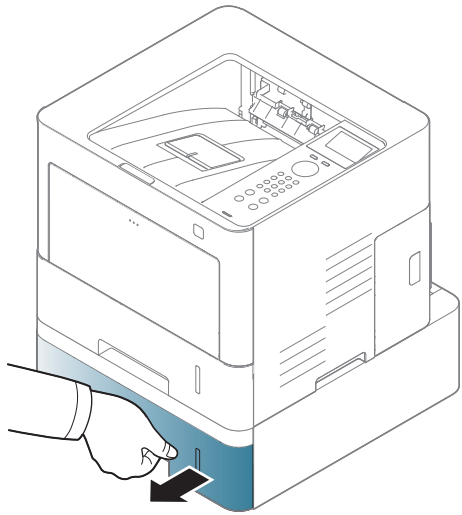


# Clearing paper jams

## In optional trays



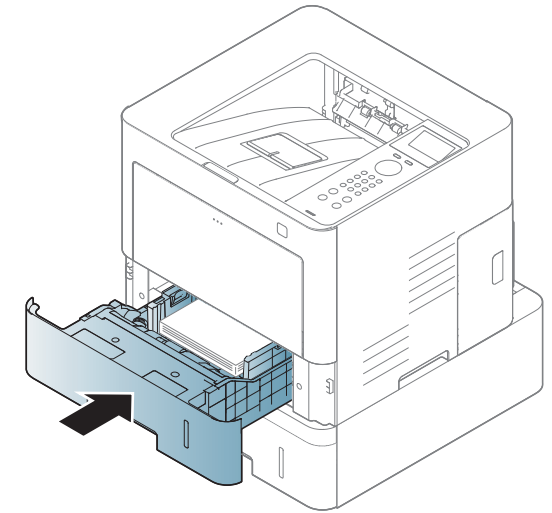
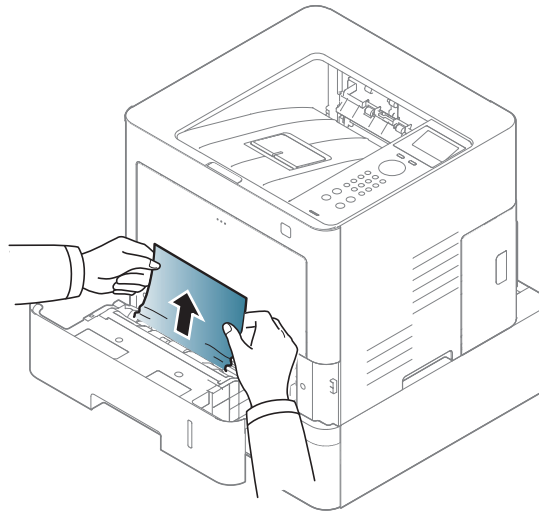
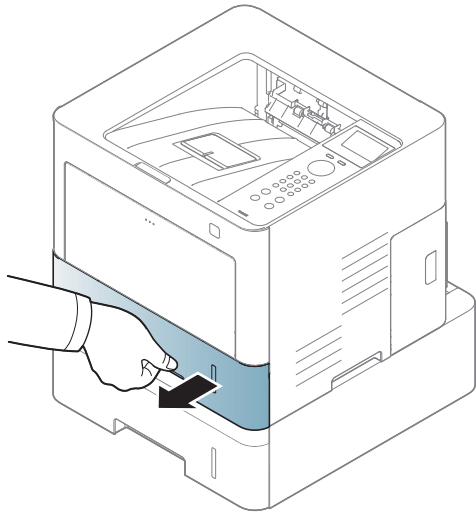
The procedure is same for all optional trays.



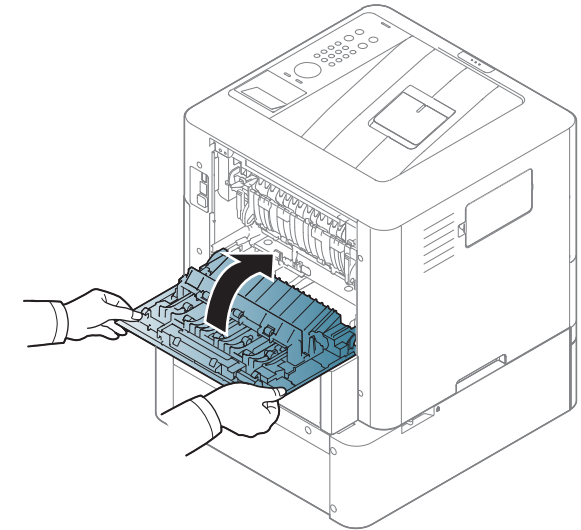
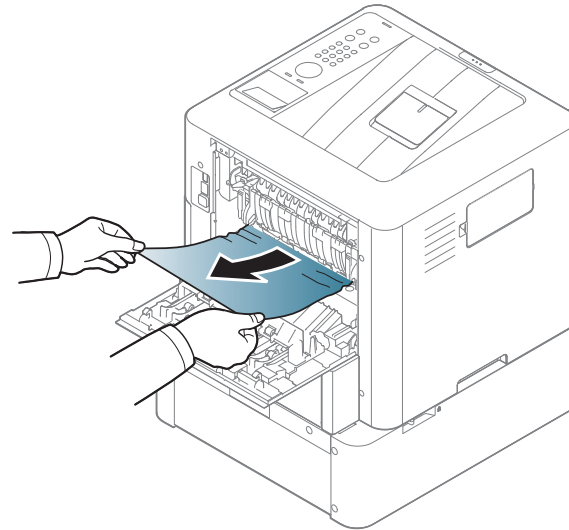
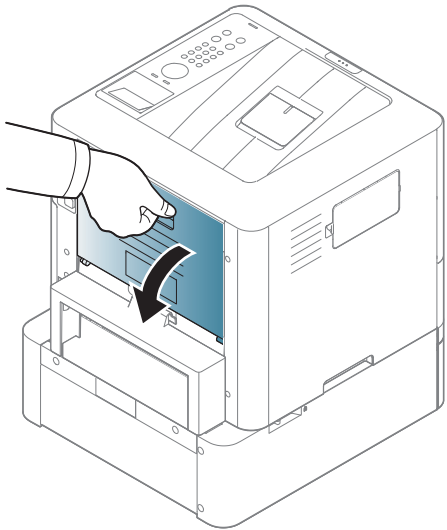


# Clearing paper jams

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

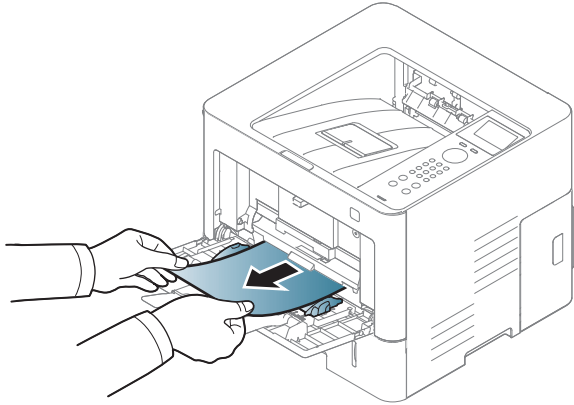


If you do not see the paper in this area, stop and go to next step:



# Clearing paper jams

## In the multi-purpose tray



# Clearing paper jams

## Inside the machine

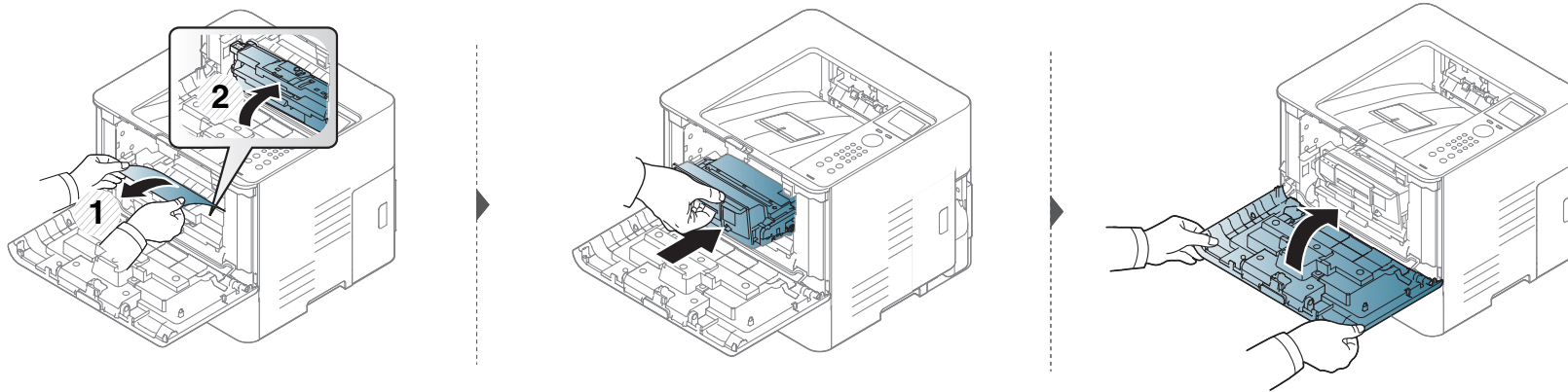
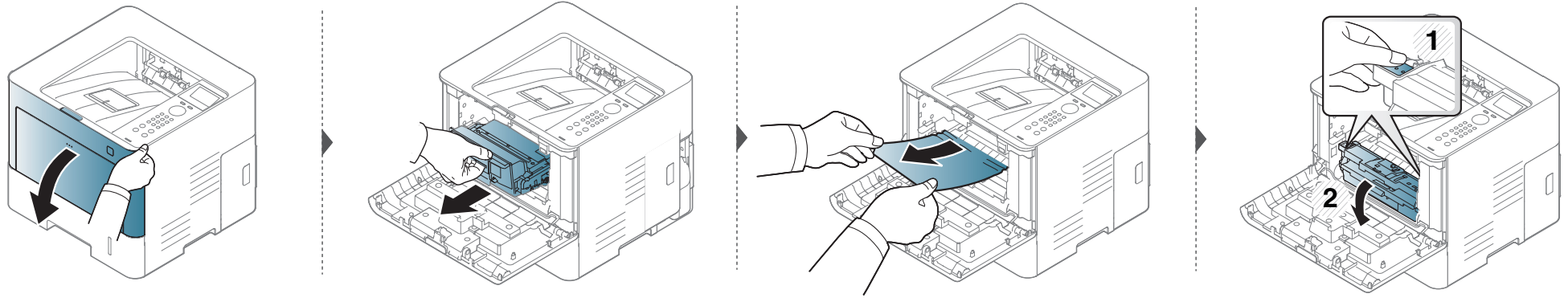


The Fuser area is HOT please wait until device cools down before accessing this area. Turn power off to cool the machine down. Take care when removing paper from the machine.



Illustrations in this user's guide may differ from your machine depending on the model and options installed. Check your machine type (see "Front view" on page 18).

# Clearing paper jams

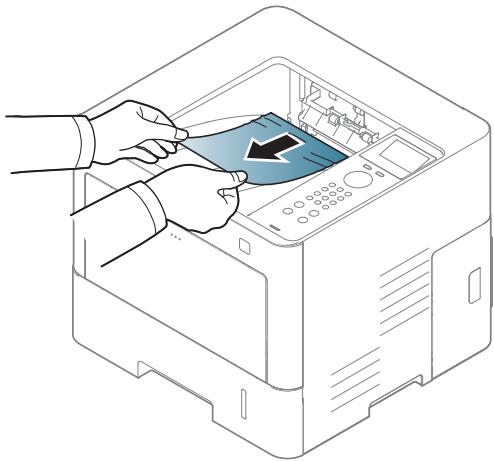


# Clearing paper jams

## In the exit area

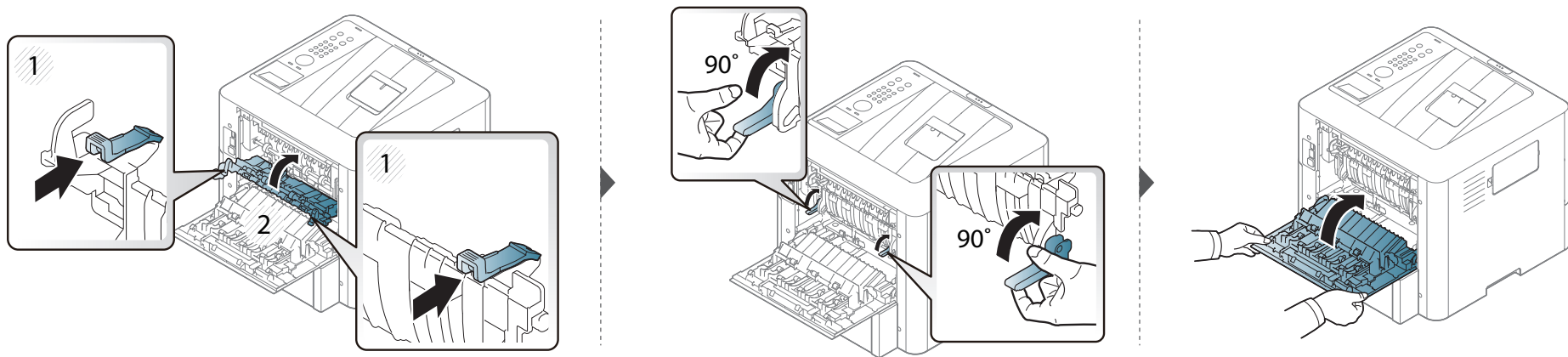
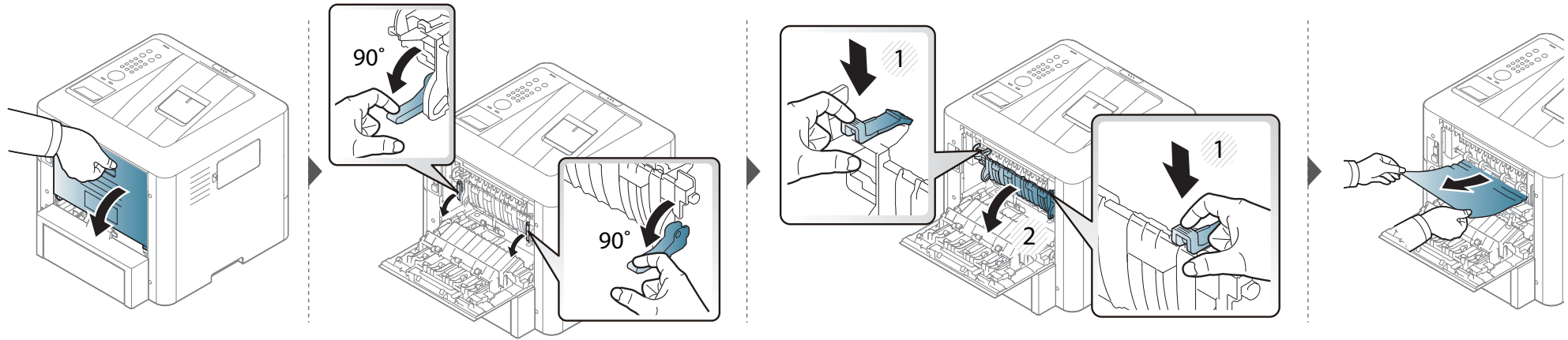


The Fuser area is HOT please wait until device cools down before accessing this area. Turn power off to cool the machine down. Take care when removing paper from the machine.



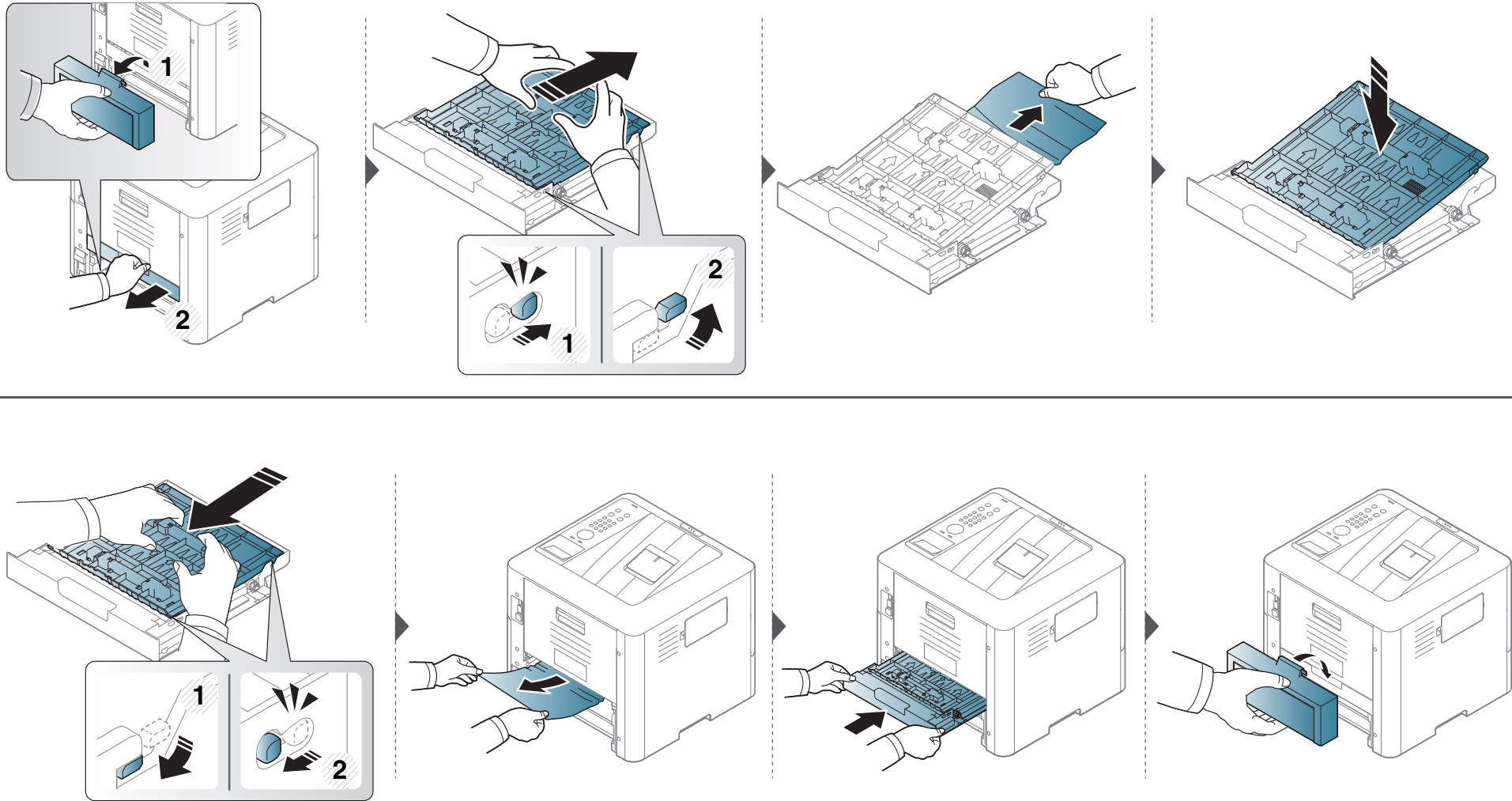
# Clearing paper jams

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



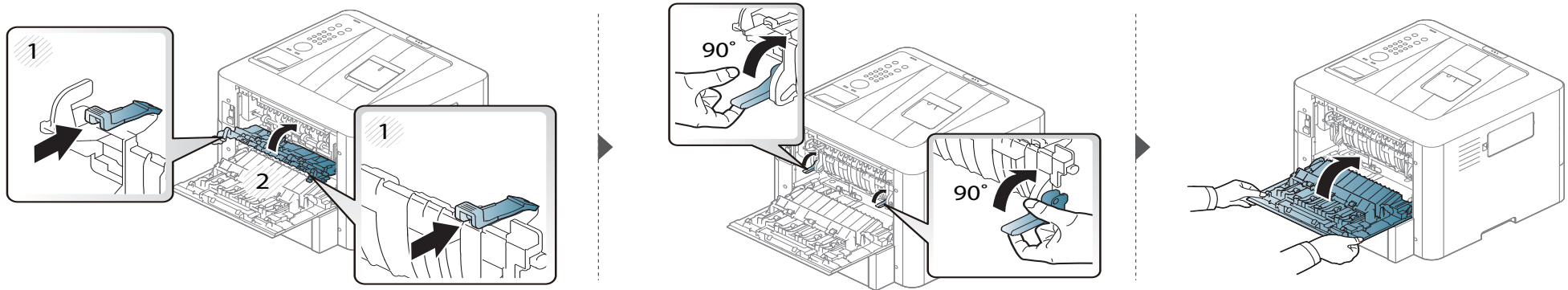
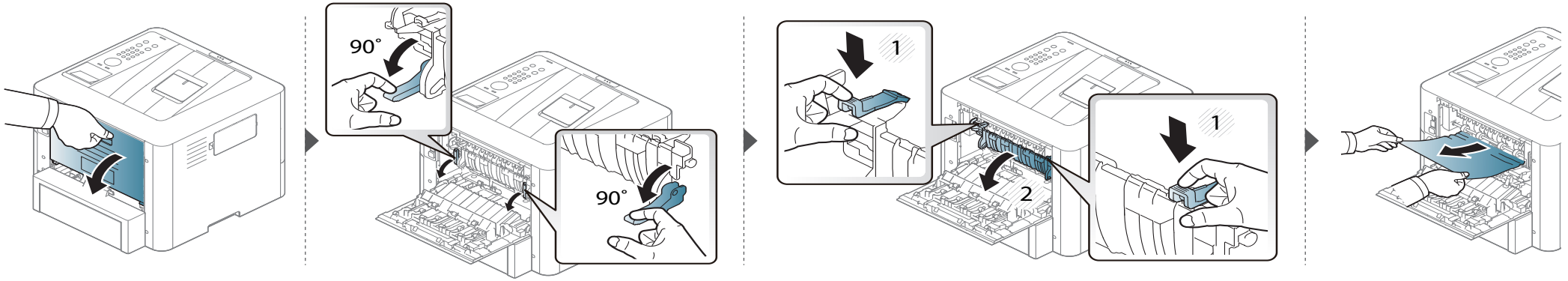
# Clearing paper jams

## In the duplex unit area



# Clearing paper jams

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






# 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 20).
- To resolve the error, look at the error message and its instructions from the troubleshooting part (see "Understanding display messages" on page 91).
- You also can resolve the error with the guideline from the computers's Samsung Printer Status program window (see "Using Samsung Printer Status" on page 201).
- If the problem persists, call a service representative.

LED	Status	Description	
 Status	<b>Off</b>	The machine is off-line.	
	<b>Blue</b>	<b>Blinking</b>	When the backlight blinks, the machine is receiving or printing data.
		<b>On</b>	<ul style="list-style-type: none"><li>• The machine is on-line and can be used.</li></ul>
	<b>Orange</b>	<b>Blinking</b>	<ul style="list-style-type: none"><li>• A minor error has occurred and the machine is waiting for the error to be cleared. For models that supports display screen on the control panel, check the display message. When the problem is cleared, the machine resumes.</li><li>• Small amount of toner is left in the cartridge. The estimated cartridge life<sup>a</sup> of toner is close. Prepare a new cartridge for replacement. You may temporarily increase the printing quality by redistributing the toner (see "Redistributing toner" on page 61).<sup>b</sup></li></ul>
			<b>On</b>

# Understanding the status LED

LED	Status	Description	
 Power/ Wake Up	Blue	On	The machine is in power save mode.
		Off	The machine is in ready mode or machine's power is off.
Eco	Green	On	Eco mode is on (see "Eco printing" on page 47).
		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.
- b. Some LEDs may not be available depending on model or country (see "Control panel overview" on page 20).

# 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 computers's Samsung Printing Status program window (see "Using Samsung Printer Status" on page 201).
- 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 type] indicates the tray number.
- [media type] indicates the media type.
- [media size] indicates the media size.

## Paper Jam-related messages

Message	Meaning	Suggested solutions
<b>Jam inside of duplex</b>	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 87).
<b>Jam bottom of duplex</b>		
<b>Jam top of duplex</b>		
<b>Jam in exit area</b>	Paper has jammed in the exit area.	Clear the jam (see "In the exit area" on page 85).
<b>Jam inside machine</b>	Paper has jammed in the inside machine.	Clear the jam (see "Inside the machine" on page 83).

# Understanding display messages

Message	Meaning	Suggested solutions
<b>Paper jam in tray 1</b>	Paper has jammed in the tray.	Clear the jam (see "In optional trays" on page 80).
<ul style="list-style-type: none"><li>• <b>Paper jam in tray 2</b></li><li>• <b>Paper jam in tray 3</b></li><li>• <b>Paper jam in tray 4</b></li><li>• <b>Paper jam in tray 5</b></li></ul>	Paper has jammed in the optional tray.	Clear the jam (see "In optional trays" on page 80).
<b>Paper jam in MP tray</b>	Paper has jammed in the multi-purpose tray.	Clear the jam (see "In the multi-purpose tray" on page 82).

# Understanding display messages

## Toner-related messages

Message	Meaning	Suggested solutions
<b>Replace new toner</b>	The indicated toner cartridge has reached its estimated cartridge life.	Replace the toner cartridge with a Samsung- genuine toner cartridge <sup>a</sup> (see "Replacing the toner cartridge" on page 62).  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 62).  If the machine stops printing, replace the toner cartridge (see "Replacing the toner cartridge" on page 62).
<b>Prepare new toner</b>	The estimated cartridge life of toner is close.	Prepare a new cartridge for a replacement. You may temporarily increase the printing quality by redistributing the toner (see "Redistributing toner" on page 61).
<b>Error: [error number]</b> <b>Toner Cart Failure: [error number].</b> <b>Call for service</b>	The toner cartridge is not installed.	Install the toner cartridge. If it is already installed, try to reinstall the toner cartridge. If the problem persists, call for service.  Reinstall the Samsung-genuine toner cartridge two or three times to confirm it is seated properly. If the problem persists, please call for service.
<b>Toner Not Installed</b>	The toner cartridge is not installed.	Reinstall the toner cartridge.
<b>Toner Not Compatible</b>	The toner cartridge you have installed is not for your machine.	Install a Samsung-genuine toner cartridge, designed for your machine (see "Available consumables" on page 56).
<b>Remove seal tape</b>	The seal tape of the toner cartridge is not removed	Remove the seal tape of the toner cartridge (see "Replacing the toner cartridge" on page 62).

a. When the toner cartridge has reached its end of life, the machine will stop printing. In this case, you can choose to stop or continue printing from the SyncThru™ Web Service (**Settings > Machine Settings > System > Setup > Supplies Management > Toner Cartridge Stop**) or Samsung Easy Printer Manager (**Device Settings > System > Supplies Management > Toner Cartridge Stop**). Turning off this option and continuing to print may damage the device's system.

# Understanding display messages



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
<b>Output bin full</b>	The output tray is full.	Remove papers from the output tray, the machine resumes printing. If the problem persists, call for service.
<b>Paper Empty in MP</b>	There is no paper in the multi-purpose tray.	Load paper in the multi-purpose tray (see "Multi-purpose tray" on page 37).
<b>[tray type] Paper mismatch</b>	The paper size specified in the printer properties does not match the paper you are loading.	You can select the option between <b>Continue</b> or <b>Cancel</b> . If you select <b>Cancel</b> , the printing job will stop. Load the correct paper in the tray. If you select <b>Continue</b> , printing job will continue.
<b>[tray type] cassette Out</b>	The tray is not securely latched	Close the tray until it locks into place. If the problem persists, call for service.
<b>Error: [error number]</b> <b>Tray Failure:[error number]. Check [tray type] connection &amp; turn off then on. Call for service if the problem persists</b>	There is a problem in the tray.	Check the tray connection. If the problem persists, call for service.
<b>Error: [error number]</b> <b>Tray Failure: [error number]. Pull [tray type] out and insert it. Call for service if the problem persists</b>	There is a problem in the tray.	Open and close the tray. If the problem persists, call for service
<b>Paper Low in [tray type]</b>	Running out of paper in the tray.	Load paper in the tray (see "Loading paper in the tray" on page 35).
<b>Paper Empty in [tray type]</b>	There is no paper in the tray.	Load paper in the tray (see "Loading paper in the tray" on page 35).

# Understanding display messages

## Network-related messages

Message	Meaning	Suggested solutions
<b>Error [error number]</b> <b>Network Failure: [error number].</b> <b>Turn off then on. Call for service if the problem persists</b>	There is a problem in the network.	Turn the machine off and back on again. If the problem persists, call for service.
<b>Error [error number]</b> <b>Can not find a wireless network.</b> <b>Please check the wireless environment</b>	The machine cannot find the wireless network.	Check the status of the wireless router or 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.
<b>Error [error number]</b> <b>Wireless security settings are incorrect. Please change the settings</b>	<ul style="list-style-type: none"><li>• The wireless network options are configured incorrectly for the security method.</li><li>• The password entered in the wireless security options is incorrect.</li><li>• The machine does not support the security method used by the access point or wireless router.</li><li>• The access point or wireless router has malfunctioned.</li></ul>	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.

# Understanding display messages

Message	Meaning	Suggested solutions
<b>Error [error number]</b> <b>Not connected from the wireless AP. If you do not reconnect automatically, check the wireless settings</b>	The machine failed to connect to the wireless AP(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.
<b>Error [error number]</b> <b>Failed connection to WPS. Try again or set up other wireless connection</b>	The machine failed to connect via WPS.	Check the WPS settings (see "Using the WPS menu" on page 143).
<b>Error [error number]</b> <b>Wi-Fi Direct is not ready. Turn off then on. Call for service if the problem persists</b>	The machine failed to initialize the Wi-Fi Direct connection.	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.
<b>Error [error number]</b> <b>Failed to connect to Wi-Fi Direct. Turn off your mobile device and turn it on</b>	The machine failed to connect via Wi-Fi Direct.	Turn the machine off and back on again. If the problem persists, call for service.
<b>IP Conflict</b>	The IP address is used elsewhere.	Check the IP address or obtain a new IP address.
<b>802.1x Network Error</b>	Fail to authenticate.	Check the network authentication protocol. If the problem persists, contact your network administrator.



# Understanding display messages

## Misc. messages

Message	Meaning	Suggested solutions
<b>Door is open. Close it</b>	The cover is not securely latched.	Close the cover until it locks into place.
<b>Front door is open. Close it</b>		
<b>Error [error number]</b> <b>Motor Failure: [error number]. Turn off then on. Call for service if the problem persists</b>	The machine unit cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.
<b>Error [error number]</b> <b>Fan Failure: [error number]. Turn off then on. Call for service if the problem persists</b>	The machine unit cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.
<b>Error [error number]</b> <b>Sensor Failure: [error number]. Turn off then on. Call for service if the problem persists</b>	The machine unit cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.
<b>Error [error number]</b> <b>Fuser Unit Failure: [error number]. Turn off then on. Call for service if the problem persists</b>	The machine unit cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.
<b>Error [error number]</b> <b>LSU Failure: [error number]. Turn off then on. Call for service if the problem persists</b>	The machine unit cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.

# Understanding display messages

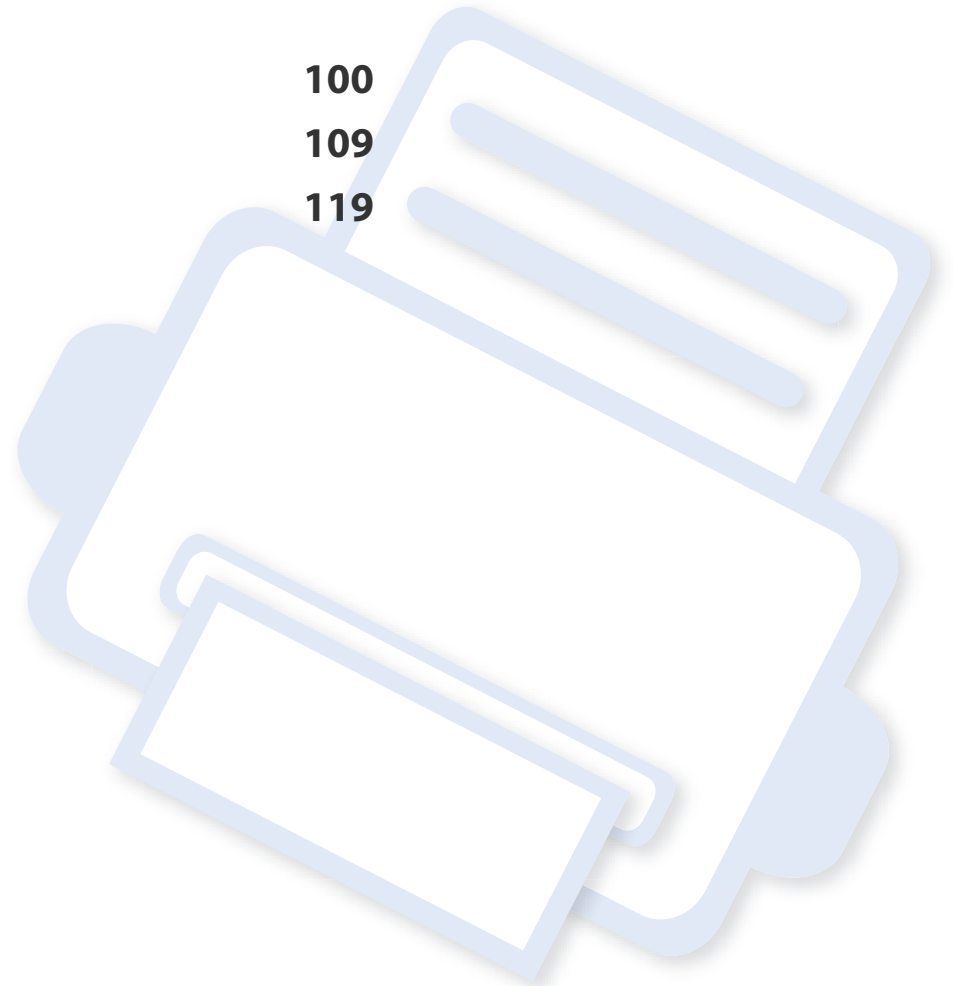
Message	Meaning	Suggested solutions
<b>Error [error number]</b> <b>Engine System Failure: [error number]. Call for service</b>	The machine unit cannot be controlled.	Reboot the power and try the printing job again. If the problem persists, please call for service.
<b>Not proper room temp.</b>	The machine is in a room with improper room temperature.	Move the machine to a room with proper room temperature.
<b>Prepare fuser unit</b>	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.
<b>Replace fuser unit</b>	The life of the fuser unit will be expired.	Replace the fuser unit with a new one. If the problem persists, please call for service.



# 5. Appendix

This chapter provides product specifications and information concerning applicable regulations.

- **Specifications** 100
- **Regulatory information** 109
- **Copyright** 119



# Specifications

## General specifications



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

	Items	Description
<b>Dimension<sup>a</sup></b>	<b>Depth x Width x Height</b>	421.4 x 460.5 x 351mm (16.59 x 18.13 x 13.82 inches)
<b>Weight<sup>a</sup></b>	<b>Machine with consumables</b>	16.6 kg (36.6 lbs)
<b>Noise Level<sup>bc</sup></b>	<b>Ready mode</b>	Less than 30 dB (A)
	<b>Print mode</b>	Less than 53 dB (A)
<b>Temperature</b>	<b>Operation</b>	10 to 30 °C (50 to 86 °F)
	<b>Storage (packed)</b>	-20 to 40 °C (-4 to 104 °F)
<b>Humidity</b>	<b>Operation</b>	20 to 80% RH
	<b>Storage (packed)</b>	10 to 90% RH
<b>Power rating<sup>d</sup></b>	<b>110 volt models</b>	AC 110 - 127 V
	<b>220 volt models</b>	AC 220 - 240 V

# Specifications

	Items	Description
Power consumption <sup>e</sup>	<b>Average operating mode</b>	Less than 700 W
	<b>Ready mode</b>	Less than 50 W
	<b>Power save mode</b>	Less than 1.21 W
	<b>Power off mode<sup>f</sup></b>	Less than 0.1 W
	<b>Network Standby Mode (All Port Activation)</b>	Less than 1.26 W

a. Dimensions and weight are measured without 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.

# Specifications

## Print media specifications

Type	Size	Dimensions	Weight/Capacity <sup>a</sup>	
			Tray1 / Optional trays(Tray2, Tray3, Tray4, Tray5)	Multi-purpose tray
Plain paper <sup>bc</sup>	<b>Letter</b>	216 x 279 mm (8.5 x 11 inches)	70 to 90 g/m <sup>2</sup> (19 to 24 lbs bond)	70 to 90 g/m <sup>2</sup> (19 to 24 lbs bond) • 100 sheets
	<b>Legal</b>	216 x 356 mm (8.5 x 14 inches)	<ul style="list-style-type: none"> <li>• Tray1: 550 sheets of 75g/m<sup>2</sup> (20 lbs bond)</li> <li>• Optional trays: 550 Sheets of 75g/m<sup>2</sup> (20 lbs bond)</li> </ul>	
	<b>US Folio</b>	216 x 330 mm (8.5 x 13 inches)		
	<b>A4</b>	210 x 297 mm (8.27 x 11.69 inches)		
	<b>Oficio</b>	216 x 343 mm (8.5 x 13.5 inches)		
	<b>JIS B5</b>	182 x 257 mm (7.17 x 10.12 inches)		
	<b>ISO B5</b>	176 x 250 mm (6.93 x 9.84 inches)		
	<b>Statement</b>	140 x 216 mm (5.5 x 8.5 inches)		
	<b>Executive</b>	184 x 267 mm (7.25 x 10.5 inches)		
	<b>A5</b>	148 x 210 mm (5.83 x 8.27 inches)		
	<b>A6</b>	105 x 148 mm (4.13 x 5.83 inches)		
			 Not available in optional trays.	
<b>Index Card</b>	76 x 127 mm (3.00 x 5.00 inches)	Not available in tray1/optional trays.		
<b>Postcard 4 x 6</b>	102 x 152 mm (4.00 x 6.00 inches)	Not available in optional trays.		
<b>Postcard 100 x 148</b>	100 x 148 mm (3.94 x 5.83 inches)	Not available in optional trays.		

# Specifications

Type	Size	Dimensions	Weight/Capacity <sup>a</sup>	
			Tray1 / Optional trays(Tray2, Tray3, Tray4, Tray5)	Multi-purpose tray
Envelope	<b>Envelope Monarch</b>	98 x 191 mm (3.87 x 7.5 inches)	75 to 90 g/m <sup>2</sup> (20 to 24 lbs bond) • 20 sheets   <ul style="list-style-type: none"> <li>• <b>Envelope Monarch, Envelope C6:</b> Not available in optional trays.</li> <li>• <b>Envelope No. 10, Envelope No. 9, Envelope DL, Envelope C5:</b> Not available in optional Tray3, Tray 4,Tray5.</li> </ul>	75 to 90 g/m <sup>2</sup> (20 to 24 lbs bond) • 10 sheets
	<b>Envelope No. 10</b>	105 x 241 mm (4.12 x 9.5 inches)		
	<b>Envelope No. 9</b>	98 x 225 mm (3.87 x 8.87 inches)		
	<b>Envelope DL</b>	110 x 220 mm (4.33 x 8.66 inches)		
	<b>Envelope C5</b>	162 x 229 mm (6.38 x 9.02 inches)		
	<b>Envelope C6</b>	114 x 162 mm (4.49 x 6.38 inches)		
<b>Thick paper<sup>b c</sup></b>	<b>Refer to the Plain paper section</b>	Refer to the Plain paper section	91 to 105 g/m <sup>2</sup> (24 to 28 lbs bond) • 50 sheets of 105 g/m <sup>2</sup> (28 lbs bond)	91 to 105 g/m <sup>2</sup> (24 to 28 lbs bond) • 10 sheets
<b>Thicker paper<sup>c d</sup></b>	<b>Refer to the Plain paper section</b>	Refer to the Plain paper section	 Not available in tray1 and optional trays.	164 to 220 g/m <sup>2</sup> (43 to 59 lbs bond) • 10 sheets
<b>Thin paper</b>	<b>Refer to the Plain paper section</b>	Refer to the Plain paper section	60 to 69 g/m <sup>2</sup> (16 to 19 lbs bond) • 550 sheets of 75 g/m <sup>2</sup> (20s lbs bond)	60 to 69g/m <sup>2</sup> (16 to 19 lbs bond) • 100 sheets
<b>Cotton, Color, Pre-printed, Punched paper, Letterhead</b>	<b>Refer to the Plain paper section</b>	Refer to the Plain paper section	75 to 90 g/m <sup>2</sup> (20 to 24 lbs bond) • 550 sheets of 75g/m <sup>2</sup> (21 lbs bond)	75 to 90 g/m <sup>2</sup> (20 to 24 lbs bond) • 100 sheets

# Specifications

Type	Size	Dimensions	Weight/Capacity <sup>a</sup>	
			Tray1 / Optional trays(Tray2, Tray3, Tray4, Tray5)	Multi-purpose tray
<b>Recycled</b>	<b>Refer to the Plain paper section</b>	Refer to the Plain paper section	60 to 90 g/m <sup>2</sup> (16 to 24 lbs bond) • 550 sheets of 75 g/m <sup>2</sup> (20 lbs bond)	60 to 90 g/m <sup>2</sup> (16 to 24 lbs bond) • 100 sheets
<b>Labels<sup>e</sup></b>	<b>Letter, Legal, US Folio, A4, JIS B5, ISO B5, Executive, A5</b>	Refer to the Plain paper section	120 to 150 g/m <sup>2</sup> (32 to 40 lbs bond) • 50 sheets	120 to 150 g/m <sup>2</sup> (32 to 40 lbs bond) • 10 sheets
<b>Card stock<sup>b c</sup></b>	<b>Letter, Legal, US Folio, A4, JIS B5, ISO B5, Executive, A5</b>	Refer to the Plain paper section	106 to 163 g/m <sup>2</sup> (28 to 43 lbs bond) • 50 sheets	106 to 163 g/m <sup>2</sup> (32 to 43 lbs bond) • 10 sheets
<b>Bond paper</b>	<b>Refer to the Plain paper section</b>	Refer to the Plain paper section	105 to 120 g/m <sup>2</sup> (28 to 32 lbs bond) • 50 sheets	105 to 120 g/m <sup>2</sup> (28 to 32 lbs bond) • 10 sheets
<b>Archive</b>	<b>Refer to the Plain paper section</b>	Refer to the Plain paper section	• 550 sheets	• 100 sheets
<b>Minimum size (custom)</b>		76 x 127 mm (3 x 5 inches)	60 to 163 g/m <sup>2</sup> ( 16 to 43 lbs bond)	60 to 220 g/m <sup>2</sup> ( 16 to 59 lbs bond)
<b>Maximum size (custom)</b>		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, Post card 100 x 148.5 are supported for Tray1, Multi-purpose tray.

c. Index card (3x5) is supported for Multi-purpose tray.

d. Post card 4 x 6, Post card 100 x 148.5 are supported for Multi-purpose tray.

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



# Specifications

## System requirements

### Microsoft® Windows®

Operating system	Requirement (recommended)		
	CPU	RAM	free HDD space
<b>Windows® XP Service Pack 3</b>	Intel® Pentium® III 1 GHz (Pentium IV 2 GHz)	512 MB (1 GB)	1.5 GB
<b>Windows Server® 2003</b>	Intel® Pentium® III 1 GHz (Pentium IV 2 GHz)	512 MB (1 GB)	1.5 GB
<b>Windows Server® 2008</b>	Intel® Pentium® IV 1 GHz (Pentium IV 2 GHz)	512 MB (2 GB)	10 GB
<b>Windows Vista®</b>	Intel® Pentium® IV 3 GHz	512 MB (1 GB)	15 GB
<b>Windows® 7</b>	Intel® Pentium® IV 1 GHz 32-bit or 64-bit processor or higher <ul style="list-style-type: none"><li>• Support for DirectX® 9 graphics with 128 MB memory (to enable the Aero theme).</li><li>• DVD-R/W Drive</li></ul>	1 GB (2 GB)	16 GB
<b>Windows Server® 2008 R2</b>	Intel® Pentium® IV 1 GHz (x86) or 1.4 GHz (x64) processors (2 GHz or faster)	512 MB (2 GB)	10 GB
<b>Windows® 8</b>	Intel® Pentium® IV 1 GHz 32-bit or 64-bit processor or higher <ul style="list-style-type: none"><li>• Support for DirectX® 9 graphics with 128 MB memory (to enable the Aero theme).</li><li>• DVD-R/W Drive</li></ul>	2 GB (2 GB)	20 GB
<b>Windows® 8.1</b>			
<b>Windows® 10</b>			
<b>Windows Server® 2016</b>			
<b>Windows Server® 2012</b>	Intel® Pentium® IV 1.4 GHz (x86) or 1.4 GHz (x64) processors (2 GHz or faster)	512 MB (2 GB)	32 GB
<b>Windows Server® 2012 R2</b>			

# Specifications



- 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	<ul style="list-style-type: none"><li>• Intel® processors</li></ul>	1 GB (2 GB)	1 GB
Mac OS X 10.7 - 10.10	<ul style="list-style-type: none"><li>• Intel® processors</li></ul>	2 GB	4 GB

# Specifications

## Linux

Items	Requirements
<b>Operating system</b>	RedHat® Enterprise Linux WS 5, 6, 7 Fedora 12, 13, 14, 15, 16, 17, 18, 19, 20, 21 OpenSuSE® 11.3, 11.4, 12.1, 12.2, 12.3, 13.1, 13.2 Ubuntu 10.04, 10.10, 11.04, 11.10, 12.04, 12.10, 13.04, 13.10, 14.04, 14.10 SuSE Linux Enterprise Desktop 11, 12 Debian 6, 7 Mint 13, 14, 15, 16, 17
<b>CPU</b>	Pentium IV 2.4GHz (Intel Core™2)
<b>RAM</b>	512 MB (1 GB)
<b>Free HDD space</b>	1 GB (2 GB)

## Unix

Items	Requirements
<b>Operating system</b>	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 (Power PC)
<b>Free HDD space</b>	Up to 100 MB

# Specifications

## Network environment



Network and wireless models only (see "Features by model" on page 7).

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

Items	Specifications
<b>Network interface</b>	<ul style="list-style-type: none"><li>• Ethernet 10/100/1000 Base-TX Wired Lan</li><li>• Network Interface 802.11b/g/n Wireless LAN &amp; Near Field Communication(NFC)<sup>a</sup></li></ul>
<b>Network operating system</b>	<ul style="list-style-type: none"><li>• Windows<sup>®</sup> XP Service Pack 3, Windows Server<sup>®</sup> 2003, Windows Vista<sup>®</sup> 7, Windows<sup>®</sup> 7/8, Windows Server<sup>®</sup> 2008 R2</li><li>• Various Linux OS</li><li>• Mac OS X 10.6 - 10.10</li><li>• UNIX OS</li></ul>
<b>Network protocols</b>	<ul style="list-style-type: none"><li>• TCP/IPv4</li><li>• DHCP, BOOTP</li><li>• DNS, WINS, Bonjour, SLP, UPnP</li><li>• Standard TCP/IP Printing (RAW), LPR, IPP, WSD</li><li>• SNMPv 1/2/3, HTTP, IPsec, SMTP</li><li>• TCP/IPv6 (DHCP, DNS, RAW, LPR, SNMPv 1/2/3, HTTP, IPsec)</li></ul>
<b>Wireless security</b>	<ul style="list-style-type: none"><li>• Authentication: Open System, Shared Key, WPA + WPA2 Personal (PSK)</li><li>• Encryption: WEP64, WEP128, TKIP, AES</li></ul>

a. Optional device

# 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 60825-1 : 2007.

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

## Warning

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

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



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

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

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

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

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

PERIGO - CLASSE 3B, RADIÇÃO LASER INVISÍVEL AO ABRIR, EVITE EXPOSIÇÃO DIRECTA AO FEIXE.

GEVAAR - 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 - KLASSE 3B OSYNLIG LASERSTRÅLNING NÅR DENNA DEL ÄR ÖPPNAD. STRÅLEN ÄR FARLIG.

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

注意 - CLASS 3B。严禁打开, 以免被不可见激光辐射 泄漏灼伤  
주의 - 열리면 등급 3B 비가시 레이저 방사선이 방출됩니다.  
광선에 노출을 피하십시오.

注意 - CLASS 3B。嚴禁打開, 以免被不可見激光輻射洩漏灼傷

## 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.

# Regulatory information

## 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 <http://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.

## China only

### 回收和再循环

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

### 中国能效标识

型号	能效等级	典型能耗 (kW·h)
Pro Xpress M4030ND	2	2.05

依据国家标准 GB 21521-2014

# Regulatory information

## 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: <http://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: [http://www.samsung.com/uk/aboutsamsung/samsungelectronics/corporatecitizenship/data\\_corner.html](http://www.samsung.com/uk/aboutsamsung/samsungelectronics/corporatecitizenship/data_corner.html)

## State of California Proposition 65 Warning (US 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 potential exposure to such chemicals.

WARNING: This product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.  
This appliance can cause low-level exposure to the chemicals, which can be minimized by operating the appliance in a well ventilated area.

# Regulatory information

## Radio frequency emissions

### FCC information to the user

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

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

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

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

- Consult the dealer or experienced radio TV technician for help.



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

### Canadian radio interference regulations

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

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



# Regulatory information

## 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/5 GHz Band, may be present (embedded) in your printer system. This section is only applicable if these devices are present. Refer to the system label to verify the presence of wireless devices.

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

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

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

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



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

### FCC Statement for Wireless LAN use:



While installing and operating this transmitter and antenna combination the radio frequency exposure limit of 1m W/cm<sup>2</sup> 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.

## Russia / Kazakhstan / Belarus only



Изготовитель: «Самсунг Электроникс Ко., Лтд.»  
(Мэтан-донг) 129, Самсунг-ро, Енгтонг-гу, г. Сувон, Кёнги-до, Республика Корея  
Импортер: ООО «Самсунг Электроникс Рус Компани»  
Адрес: 125009, г. Москва, ул. Воздвиженка 10

Самсунг Электроникс Ко. Лтд  
(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., Өл-Фараби даңғылы, 36, 3,4-қабаттар

# Regulatory information

## Germany only

Das Gerät ist nicht für die Benutzung am Bildschirmarbeitsplatz gemäß BildschirmV 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.

## 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.

# Regulatory information

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 [M403x series] is in compliance with the essential requirements and other relevant provisions of R&TTE Directive 1999/5/EC.

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

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

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

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

### EC Certification

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

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

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

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

# Regulatory information

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

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



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 R&TTE 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/5 GHz Band, may be present (embedded) in your printer system. The following section is a general overview of considerations while operating a wireless device.

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

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

# Regulatory information

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.

# Regulatory information

## China only

### 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 <sup>6+</sup> )	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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○：表示该有害物质在该部件所有均质材料中的含量均在 GB/T 26572 规定的限量要求以下。

X：表示该有害物质至少在该部件的某一均质材料中的含量超出 GB/T 26572 规定的限量要求。

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**The following URL [https://opensource.samsung.com/opensource/Samsung\\_M403x\\_Series/seq/46](https://opensource.samsung.com/opensource/Samsung_M403x_Series/seq/46) 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.

# User Guide

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## Samsung Printer **ProXpress**

M403x 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 installation, basic operation and troubleshooting on Windows.





## 1. Software Installation

<b>Installation for Mac</b>	124
<b>Reinstallation for Mac</b>	125
<b>Installation for Linux</b>	126
<b>Reinstallation for Linux</b>	127



## 2. Using a Network-Connected

<b>Useful network programs</b>	129
<b>Wired network setup</b>	130
<b>Installing driver over the network</b>	133
<b>IPv6 configuration</b>	140
<b>Wireless network setup(Optional)</b>	142
<b>Using the NFC feature (Optional)</b>	155
<b>Supported Mobile Apps</b>	163
<b>Mopria™</b>	164
<b>AirPrint</b>	166



## 3. Special Features

<b>Altitude adjustment</b>	169
<b>Entering various characters</b>	170
<b>Printing features</b>	171



## 4. Useful Management Tools

<b>Accessing management tools</b>	188
<b>Easy Capture Manager</b>	189
<b>Samsung AnyWeb Print</b>	190
<b>Easy Eco Driver</b>	191
<b>Using SyncThru™ Web Service</b>	192
<b>Using Samsung Printer Center</b>	196
<b>Using Samsung Easy Printer Manager</b>	199
<b>Using Samsung Printer Status</b>	201
<b>Using Samsung Printer Experience</b>	203



## 5. Troubleshooting

<b>Paper feeding problems</b>	211
<b>Power and cable connecting problems</b>	212

<b>Printing problems</b>	213
<b>Printing quality problems</b>	217
<b>Operating system problems</b>	225



## 6. Useful Setting Menus

<b>Before you begin reading a chapter</b>	230
<b>Information</b>	231
<b>Layout</b>	232
<b>Paper</b>	233
<b>Graphic</b>	234
<b>System Setup</b>	235
<b>Emulation</b>	238
<b>Image Management</b>	239
<b>Network</b>	240
<b>Direct USB</b>	241
<b>Job Management</b>	242
<b>Admin Setup</b>	243



# 1. Software Installation

This chapter provides instructions for installing essential and helpful software for use in an environment where the machine is connected via a cable. A locally connected machine is a machine directly attached to your computer using the cable. If your machine is attached to a network, skip the following steps below and go on to installing a network connected machine's driver (see "Installing driver over the network" on page 133).

- **Installation for Mac** **124**
- **Reinstallation for Mac** **125**
- **Installation for Linux** **126**
- **Reinstallation for Linux** **127**



- If you are a Windows OS user, refer to the Basic Guide for installing the machine's driver (see "Installing the driver locally" on page 22).
- Only use a USB cable no longer than 3 meter (118 inches).

# Installation for Mac

- 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.
- 3 Select the CD-ROM volume that appears on **Finder**.
- 4 Double-click the **Install Software** icon.
- 5 Read the license agreement and Check installation agreement button.
- 6 Click **Next** and then follow the instructions in the installation window.

# Reinstallation for Mac

If the printer driver does not work properly, uninstall the driver and reinstall it.

- 1 Open the **Applications** folder > **Samsung** > **Printer Software Uninstaller**.
- 2 To uninstall printer software, click **Continue**.
- 3 Check the program you want to delete and click **Uninstall**.
- 4 Enter the password and click **OK**.
- 5 After the uninstallation is finished, click **Close**.



If a machine has already been added, delete it from the **Print Setup Utility** or **Print & Fax**.

# Installation for Linux

You need to download Linux software packages from the Samsung website to install the printer software (<http://www.samsung.com> > find your product > Support or Downloads).

## Installing the Unified Linux Driver



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

- 1 Make sure that the machine is connected to your computer and powered on.
- 2 Copy **Unified Linux Driver** package to your system.
- 3 Open Terminal program and go to the folder that you copied the package to.
- 4 Extract the package.
- 5 Move to **uld** folder.
- 6 Execute **./install.sh** command (If you're not logged in as root, execute the command with **sudo** as **sudo ./install.sh**)
- 7 Proceed with installation.

- 8 When installation finished, launch printing utility (Go to **System** > **Administration** > **Printing** or execute **"system-config-printer"** command in Terminal program).
- 9 Click **Add** button.
- 10 Select your printer.
- 11 Click **Forward** button and add it to your system.

# Reinstallation for Linux

If the printer driver does not work properly, uninstall the driver and reinstall it.

- 1 Open **Terminal** program.
- 2 Move to **uld** folder extracted from **Unified Linux Driver** package.
- 3 Execute "**./uninstall.sh**" command (If you're not logged in as root, execute the command with "**sudo**" as "**sudo ./uninstall.sh**")
- 4 Proceed with uninstallation.



## 2. Using a Network-Connected Machine

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

- **Useful network programs** 129
- **Wired network setup** 130
- **Installing driver over the network** 133
- **IPv6 configuration** 140
- **Wireless network setup(Optional)** 142
- **Using the NFC feature (Optional)** 155
- **Supported Mobile Apps** 163
- **Mopria™** 164
- **AirPrint** 166





# 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.
- Some features and optional goods may not be available depending on model or country (see "Features by model" on page 7).

## SyncThru™ Web Service

The web server embedded on your network machine allows you to do the following tasks (see "Using SyncThru™ Web Service" on page 192).

- 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 "IPv4 configuration using SetIP (Windows)" on page 130.
- See "IPv4 configuration using SetIP (Mac)" on page 131.
- See "IPv4 configuration using SetIP (Linux)" on page 132.

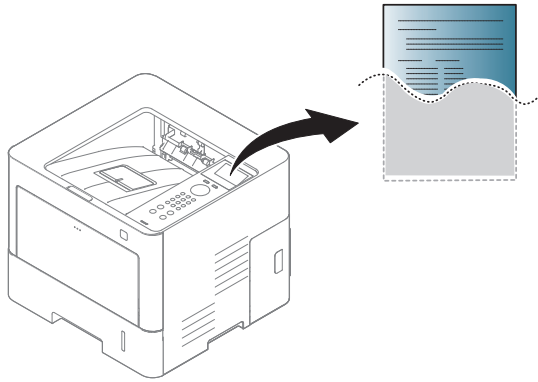


- The machine that does not support the network port, it will not be able to use this feature (see "Rear view" on page 19).
- TCP/IPv6 is not supported by this program.


# 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.



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

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

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

For example:

- MAC Address: 00:15:99:41:A2:78
- IP Address: 169.254.192.192

## Setting IP address



- If your device does not support a network connection, it will not be able to use this feature (see "Rear view" on page 19).
- You can also set the TCP/IPv4 from control panel.
- TCP/IPv6 is not supported by this program.

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 using SetIP (Windows)

Before using the SetIP program, disable the computer firewall from **Control Panel > Security Center > Windows Firewall**.



The following instructions may vary from your model.

# Wired network setup

- 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.
- 3 Connect your machine to the network with a network cable.
- 4 Turn on the machine.
- 5 From the Windows **Start** menu, select **All Programs > Samsung Printers > SetIP > SetIP**.
- 6 Click the  icon (third from left) in the SetIP window to open the TCP/IP configuration window.
- 7 Enter the machine's new information into the configuration window. In a corporate intranet, you may need to have this information assigned by a network manager before proceeding.




Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 130) and enter it without the colons. For example, 00:15:99:29:51:A8 becomes 0015992951A8.

- 8 Click **Apply**, and then click **OK**. The machine will automatically print the **Network Configuration Report**. Confirm that all the settings are correct.

## IPv4 configuration using SetIP (Mac)

Before using the SetIP program, disable the computer firewall from **System Preferences > Security** (or **Security & Privacy**) > **Firewall**.

- 1 Download the software from the Samsung website then unpack and install it: (<http://www.samsung.com> > find your product > Support or Downloads).
- 2 Turn on the machine.
- 3 Run downloaded **SetIP** application.
- 4 Click the  icon (third from left) in the SetIP window to open the TCP/IP configuration window.
- 5 Enter the machine's new information into the configuration window. In a corporate intranet, you may need to have this information assigned by a network manager before proceeding.



Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 130) and enter it without the colons. For example, 00:15:99:29:51:A8 becomes 0015992951A8.

- 6 Click **Apply**, and then click **OK**. The machine will automatically print the **Network Configuration Report**. Confirm that all the settings are correct.

# Wired network setup

## IPv4 configuration using SetIP (Linux)

Before using the SetIP program, disable the computer firewall from **System Preferences** or **Administrator**.



The following instructions may vary from your model or operating systems.

- 1 Download the SetIP program from the Samsung web site and extract it.
- 2 Double-Click the **SetIPApplet.html** file in **cdroot/Linux/noarch/at\_opt/share/utils** folder.
- 3 Click to open the TCP/IP configuration window.
- 4 Enter the machine's new information into the configuration window. In a corporate intranet, you may need to have this information assigned by a network manager before proceeding.



Find the machine's MAC address from the **Network Configuration Report** (see "Printing a network configuration report" on page 130) and enter it without the colons. For example, 00:15:99:29:51:A8 becomes 0015992951A8.

- 5 The machine will automatically print the **Network Configuration Report**.

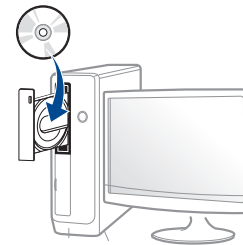
# Installing driver over the network

You must install the printer driver software for printing. The software includes drivers, applications, and other support programs.

Make sure that the network setup for your machine is completed. All applications should be closed on your computer before beginning installation.

## Windows

- 1 Make sure that the machine is connected to the network and powered on. Also, your machine's IP address should have been set.
- 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**.

- 3 Review and accept the installation agreements in the installation window. Then, click **Next**.

# Installing driver over the network

- 4 Select **Network** on the **Printer Connection Type** screen. 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. If not, you can manually download the V4 driver from Samsung website, <http://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.
  - a From **Charms**, select **Search**.
  - b Click **Store**.
  - c Search and click **Samsung Printer Experience**.
  - d 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, <http://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 the machine is connected to the network and powered on. Also, your machine's IP address should have been set.
- 2 From **Charms**, select **Settings** > **Change PC settings** > **Devices**.
- 3 Click **Add a device**.  
Discovered machines will be shown on the screen.
- 4 Click the model name or host name you wish to use.



You can print a Network Configuration Report from the machine's control panel that will show the current machine's host name (see "Printing a network configuration report" on page 149).

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

## Silent installation Mode

Silent installation mode is an installation method that does not require any user intervention. Once you start the installation, the machine driver and software are automatically installed on you computer. You can start the silent installation by typing **/s** or **/S** in the command window.

## Command-line Parameters

Following table shows commands that can be used in the command window.

# Installing driver over the network




Following command-line are effective and operated when command is used with **/s** or **/S**. But **/h**, **/H** or **/?** are exceptional commands that can be operated solely.

Command- line	Definition	Description
/s or /S	Starts silent installation.	Installs machine drivers without prompting any UIs or user intervention.

Command- line	Definition	Description
/p"<port name>" or /P"<port name>"	<p>Specifies printer port.</p> <p> Network Port will be created by use of Standard TCP/IP Port monitor. For local port, this port must exist on system before being specified by command.</p>	<p>Printer port name can be specified as IP address, hostname, USB local port name or IEEE1284 port name or network path.</p> <p>For example:</p> <ul style="list-style-type: none"><li>/p"xxx.xxx.xxx.xxx" in where, "xxx.xxx.xxx.xxx" means IP address for network printer. /p"USB001", /P"LPT1", /p"hostname", p"\\computer_name\shared_printer" or "\\xxx.xxx.xxx.xxx\shared_printer" in where, "\\computer_name\shared_printer" or "\\xxx.xxx.xxx.xxx\shared_printer" means the network path to the printer by entering two slashes, the computer name or local IP address of the PC sharing the printer, and then the share name of the printer.</li></ul>

# Installing driver over the network

Command- line	Definition	Description
/a"<dest_path>" or /A"<dest_path>"	Specifies destination path for installation.   The destination path should be a fully qualified path.	Since machine drivers should be installed on the OS specific location, this command applies to only application software.
/n"<Printer name>" or /N"<Printer name>"	Specifies printer name. Printer instance shall be created as specified printer name.	With this parameter, you can add printer instances as your wishes.
/nd or /ND	Commands not to set the installed driver as a default machine driver.	It indicates installed machine driver will not be the default machine driver on your system if there are one or more printer drivers installed. If there is no installed machine driver on your system, then this option won't be applied because Windows OS will set installed printer driver as a default machine driver.

Command- line	Definition	Description
/x or /X	Uses existing machine driver files to create printer instance if it is already installed.	This command provides a way to install a printer instance that uses installed printer driver files without installing an additional driver.
/up"<printer name>" or /UP"<printer name>"	Removes only specified printer instance and not the driver files.	This command provides a way to remove only specified printer instance from your system without effecting other printer drivers. It will not remove printer driver files from your system.
/d or /D	Uninstalls all device drivers and applications from your system.	This command will remove all installed device drivers and application software from your system.
/v"<share name>" or /V"<share name>"	Shares installed machine and add other available platform drivers for Point & Print.	It will install all supported Windows OS platform's machine drivers to system and share it with specified <share name> for point and print.
/o or /O	Opens <b>Printers and Faxes</b> folder after installation.	This command will open <b>Printers and Faxes</b> folder after the silent installation.



# Installing driver over the network

Command- line	Definition	Description
/h, /H or /?		Shows Command-line Usage.

## Mac

- 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.
- 3 Select the CD-ROM volume that appears on **Finder**.
- 4 Double-click **Install Software** icon.
- 5 Read the license agreement and check installation agreement button.
- 6 Click **Next**.
- 7 Select **Network** on the **printer connection type**.
- 8 Click **Next**.
- 9 Follow the instructions in the installation window.

## Linux

You need to download Linux software packages from the Samsung website to install the printer software (<http://www.samsung.com> > find your product > Support or Downloads).

- 1 Make sure that the machine is connected to your network and powered on. Also, your machine's IP address should have been set.
- 2 Copy **Unified Linux Driver** package to your system.
- 3 Open Terminal program and go to the folder that you copied the package to.
- 4 Extract the package.
- 5 Move to **uld** folder.
- 6 Execute "**./install.sh**" command (If you are not logged in as root, execute the command with "**sudo**" as "**sudo ./install.sh**").
- 7 Proceed with installation.
- 8 When installation finished, launch **Printing** utility (Go to **System** > **Administration** > **Printing** or execute "**system-config-printer**" command in Terminal program).

# Installing driver over the network

- 9 Click **Add** button.
- 10 Select **AppSocket/HP JetDirect** and enter your machine's IP address.
- 11 Click **Forward** button and add it to your system.

## UNIX



- Make sure your machine supports the UNIX operating system before installing the UNIX printer driver (see "Operating System" on page 7).
- The commands are marked with "", when typing the commands, do not type "".
- Some features and optional goods may not be available depending on model or country (see "Operating System" on page 7).

To use the UNIX printer driver, you have to install the UNIX printer driver package first, then setup the printer. You can download the UNIX printer driver package from the Samsung website (<http://www.samsung.com> > find your product > Support or Downloads).

## Installing the UNIX printer driver package

The installation procedure is common for all variants of UNIX OS mentioned.

- 1 From the Samsung website, download and unpack the UNIX Printer Driver package to your computer.
- 2 Acquire root privileges.  
"su -"
- 3 Copy the appropriate driver archive to the target UNIX computer.



See administration guide of your UNIX OS for details.

- 4 Unpack the UNIX printer driver package.  
For example, on IBM AIX, use the following commands.  
"gzip -d < enter the package name | tar xf -"
- 5 Go to the unpacked directory.
- 6 Run the install script.  
"./install -i"  
**install** is the installer script file which is used to install or uninstall the UNIX Printer Driver package.  
Use "**chmod 755 install**" command to give the permission to the installer script.
- 7 Execute the "**./install -c**" command to verify installation results.

# Installing driver over the network

- 8 Run “**installprinter**” from the command line. This will bring up the **Add Printer Wizard** window. Setup the printer in this window referring to the following procedures.



On some UNIX OS, for example on Solaris 10, just added printers may not be enabled and/or may not accept jobs. In this case run the following two commands on the root terminal:

```
“accept <printer_name>”
```

```
“enable <printer_name>”
```

## Uninstalling the printer driver package



The utility should be used to delete the printer installed in the system.

- a Run “**uninstallprinter**” command from the terminal.  
It will open the **Uninstall Printer Wizard**.  
The installed printers are listed in the drop-down list.
- b Select the printer to be deleted.
- c Click **Delete** to delete the printer from the system.
- d Execute the “**./install -d**” command to uninstall the whole package.
- e To verify removal results, execute the “**./install -c**” command.

To re-install it, use the command “**./install -i**” to reinstall the binaries.

## Setting up the printer

To add the printer to your UNIX system, run ‘installprinter’ from the command line. This will bring up the Add Printer Wizard window. Setup the printer in this window according to the following steps:

- 1 Type the name of the printer.
- 2 Select the appropriate printer model from the model list.
- 3 Enter any description corresponding to the type of the printer in the **Type** field. This is optional.
- 4 Specify any printer description in the **Description** field. This is optional.
- 5 Specify the printer location in the **Location** field.
- 6 Type the IP address or DNS name of the printer in the **Device** textbox for network-connected printers. On IBM AIX with **jetdirect Queue type**, only the DNS name is possible-numeric IP address is not allowed.
- 7 **Queue type** shows the connection as **lpd** or **jetdirect** in the corresponding list box. Additionally, **usb** type is available on Sun Solaris OS.
- 8 Select **Copies** to set the number of copies.
- 9 Check the **Collate** option to receive copies already sorted.
- 10 Check the **Reverse Order** option to receive copies in the reverse order.
- 11 Check the **Make Default** option to set this printer as default.
- 12 Click **OK** to add the printer.

# IPv6 configuration



**IPv6** is supported properly only in Windows Vista or higher.

## From the control panel

### Activating IPv6



Accessing menus may differ from model to model (see "Menu overview" on page 26).

- 1 Select **☰(Menu) > Network > TCP/IP (IPv6) > IPv6 Protocol** on the control panel.
- 2 Select **On** and press **OK**.
- 3 Turn the machine off and turn it on again.



When you install the printer driver, do not configure both IPv4 and IPv6. We recommend to configure either IPv4 or IPv6.

### DHCPv6 address configuration

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.
  - **Router:** Use DHCPv6 only when requested by a router.
  - **Always Use:** Always use DHCPv6 regardless of router request.
  - **Never Use:** Never use DHCPv6 regardless of router request.

# IPv6 configuration

## From the SyncThru™ Web Service

### Activating IPv6

- 1 Access a web browser, such as Internet Explorer, from Windows. Enter the machine IP address (<http://xxx.xxx.xxx.xxx>) in the address field and press the Enter key or click **Go**.
- 2 If it's your first time logging into SyncThru™ Web Service you need to log in as an administrator. Type in the below default ID and password. We recommend you to change the default password for security reasons.
  - **ID: admin**
  - **Password: sec00000**
- 3 When the **SyncThru™ Web Service** window opens, move the mouse cursor over the **Settings** of the top menu bar and then click **Network Settings**.
- 4 Click **TCP/IPv6** on the left pane of the website.
- 5 Check the **IPv6 Protocol** check box to activate IPv6.
- 6 Click the **Apply** button.
- 7 Turn the machine off and turn it on again.



- You can also set the DHCPv6.
- To manually set the IPv6 address:  
Check the **Manual Address** check box. Then, the **Address/Prefix** text box is activated. Enter the rest of the address (e.g.,:3FFE:10:88:194::AAAA. "A" is the hexadecimal 0 through 9, A through F).

### IPv6 address configuration

- 1 Start a web browser, such as Internet Explorer, that supports IPv6 addressing as a URL.
- 2 Select one of the IPv6 addresses (**Link-local Address, Stateless Address, Stateful Address, Manual Address**) from **Network Configuration Report** (see "Printing a network configuration report" on page 130).
  - **Link-local Address:** Self-configured local IPv6 address (Address starts with FE80).
  - **Stateless Address:** Automatically configured IPv6 address by a network router.
  - **Stateful Address:** IPv6 address configured by a DHCPv6 server.
  - **Manual Address:** Manually configured IPv6 address by a user.
- 3 Enter the IPv6 addresses (e.g.,: [http://\[FE80::215:99FF:FE66:7701\]](http://[FE80::215:99FF:FE66:7701])).



Address must be enclosed in '[' ]' brackets.

# Wireless network setup(Optional)



- If you want to add wireless feature to the machine, check the option lists and contact the purchasing point to order (see "Available accessories" on page 57). When you purchase a Wireless/NFC kit (Wireless LAN Option), install the kit by following the steps described in the Wireless Kit (Wireless LAN Option) Guide which is enclosed in the kit. After installing the Wireless/NFC kit (Wireless LAN Option), 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 7).

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 "Using a network cable" on page 149.
	From the machine's control panel	See "Using the WPS menu" on page 143. See "Using a network cable" on page 149.
Wi-Fi Direct setup		See "Setting the Wi-Fi Direct for mobile printing" on page 151.

# Wireless network setup(Optional)

## Using the WPS menu

If your machine and an 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 button 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 enabling WPS in your machine and pressing the WPS (PBC) button on a WPS-supported access point (or wireless router).
- The **Personal Identification Number (PIN)** method helps you connect your machine to a wireless network by entering the supplied PIN information on a WPS-supported access point (or wireless router).

## Connecting WPS

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


## Connecting in PBC mode




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

Use the same login ID, Password, Domain as when logging in from the machine (see "Activating IPv6" on page 140). If you want to create a new user or change the password, see "Security tab" on page 193.

# Wireless network setup(Optional)

- 1 Select  (**Menu**) > **Network** > **Wi-Fi** > **WPS** on the control panel.
- 2 Press **Connect via PBC**.
- 3 Press **OK** when the confirmation window appears.  
Information window appears showing 2 minutes connection processing time.
- 4 Touch 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.

- 1 Select  (**Menu**) > **Network** > **Wi-Fi** > **WPS** on the control panel.
- 2 Press **Connect via PIN**.
- 3 Touch **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 **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



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

Use the same login ID, Password, Domain as when logging in from the machine (see "Activating IPv6" on page 140). If you want to create a new user or change the password, see "Security tab" on page 193.



# Wireless network setup(Optional)

## 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 (see "Accessing management tools" on page 188).

## Setting up via USB cable

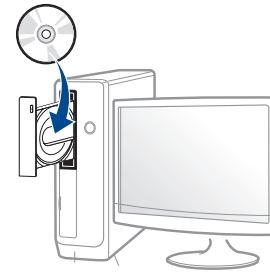
### Items to prepare

- 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**.

- 4 Review and accept the installation agreements in the installation window. Then, click **Next**.


- 5 Select **Wireless** on the **Printer Connection Type** screen. Then, click **Next**.

# Wireless network setup(Optional)

- 6 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.**

- 7 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:** Select **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 Key:** Enter the encryption network password value.

- **Confirm Network Key:** 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).

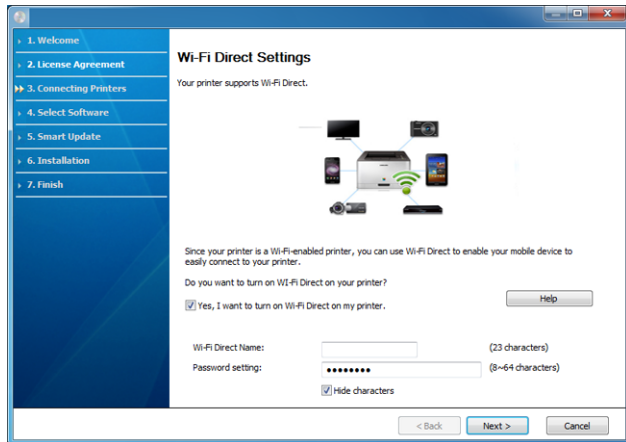
8

When the network connection window appears, disconnect the network cable. Then, click **Next.** The network cable connection can interfere with searching for wireless devices.

# Wireless network setup(Optional)

- 9 If your printer supports Wi-Fi Direct and this function is disabled, its corresponding screen will appear.

If you want to enable Wi-Fi Direct, check the checkbox, and click **Next**. If not, click just **Next**.



- You can start Wi-Fi Direct by using the control panel (see "Setting up Wi-Fi Direct" on page 151).
- **Wi-Fi Direct Name:** The default Wi-Fi Direct Name is the model name and the maximum length is 22 characters.
- **Password setting** is the numeric string, and the size is 8 ~ 64 characters.

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

- 11 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 Insert the supplied software CD into your CD-ROM drive.
- 3 Select the CD-ROM volume that appears on **Finder**.
- 4 Double-click **Install Software** icon.
- 5 Read the license agreement and check installation agreement button.
- 6 Click **Next**.

# Wireless network setup(Optional)

- 7 Select **Wireless** on the **Printer Connection Type**.
- 8 Click **Next**.
- 9 If the installer asks you to allow access to the keychain, click **Deny**.
- 10 On the **Select the Wireless Setup Method** screen, select **Using a USB cable**, and then click **Next**.
- 11 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:** Select **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).

- 12 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 151).
- **Wi-Fi Direct Name:** The default Wi-Fi Direct Name is the model name and the maximum length is 22 characters.
- **Password setting** is the numeric string, and the size is 8 ~ 64 characters.

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

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

- 15 Follow the instructions in the installation window.

# Wireless network setup(Optional)

## 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
- Software CD that was provided with your machine
- 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 130.

## 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 130.

## 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 networks, you can use SyncThru™ Web Service.

## Using SyncThru™ Web Service

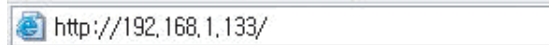
Before starting wireless network configuration, check the cable connection status.

# Wireless network setup(Optional)

1 Check whether or not the network cable is connected to the machine. If not, connect the machine with a standard network cable.

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** on the upper right of the **SyncThru™ Web Service** website.

4 Type in the **ID** and **Password** then click **Login**. We recommend you to change the default password for security reasons.

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



If you want to create a new user or change the password, see "Security tab" on page 193.

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

## Turning the Wi-Fi network on/off

1 Check whether the network cable is connected to the machine. If not, connect the machine with a standard network cable.

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** on the upper right of the **SyncThru™ Web Service** website.

4 Type in the **ID** and **Password**, then click **Login**. We recommend you to change the default password for security reasons.

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

# Wireless network setup(Optional)



If you want to create a new user or change the password, see "Security tab" on page 193.

- 5 When the **SyncThru™ Web Service** window opens, click **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 USB cable-connected computer

After the driver installation is complete, Samsung Easy Printer Manager can be used to change Wi-Fi Direct settings.




Samsung Easy Printer Manager is Available for Windows and Mac OS users only.

# Wireless network setup(Optional)

From the **Start** menu, select **Programs** or **All Programs** > **Samsung Printers** > **Samsung Easy Printer Manager** > **Device Settings** > **Network**.

- **Wi-Fi Direct On/Off:** Select **On** to enable.
- **Device Name:** Enter the printer's name for searching for your printer on a wireless network. By default, the device name is the model name.
- **IP Address:** Enter the IP address of the printer. This IP address is used only for the local network and not for the infrastructure wired or wireless network. We recommend using the default local IP address (the default local IP address of the printer for Wi-Fi Direct is 192.168.3.1 )
- **Group Owner:** Activate this option to assign the printer the Wi-Fi Direct group's owner. The **Group Owner** acts similar to a wireless access point. We recommend activating this option.
- **Network Password:** If your printer is a **Group Owner**, a **Network Password** is required for other mobile devices to connect to your printer. You can configure a network password yourself, or can remember the given Network Password that is randomly generated by default.

## From the machine

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

## 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 print) 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.



# Wireless network setup(Optional)

## Troubleshooting for wireless network

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.

- 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.

# Wireless network setup(Optional)

- 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.

# Using the NFC feature (Optional)



If you want to add NFC feature to the machine, check the option lists and contact the purchasing point to order (see "Available accessories" on page 57). When you purchase a Wireless/NFC Kit (Wireless LAN Option), install the kit by following the steps described in the Wireless/NFC Kit (Wireless LAN Option) guide which is enclosed in the kit. After installing the Wireless Kit (Wireless LAN Option), set the machine to use this feature.

The NFC (Near Field Communication) printer allows you to directly print from your mobile device just by holding your mobile device over the NFC tag on Wireless/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. The default in your machine is NFC on.



- 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 17).
- 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 OS 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 151).

## 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 161).
- **Samsung Mobile Print Pro:** 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 Pro App" on page 156).

# Using the NFC feature (Optional)

- **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 158).

## Using the Samsung Mobile Print Pro App

You can use it to get an authentication/registration from the **Samsung Mobile Print Pro** app.

## Authentication from the 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 Pro** app.



If you do not have **Samsung Mobile Print Pro** 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 Type in the **ID** and **Password**.

If necessary, type in the ID and Password to log in. If it's your first time logging into the printer, type in the below default ID and password. We recommend you to change the default password for security reasons.

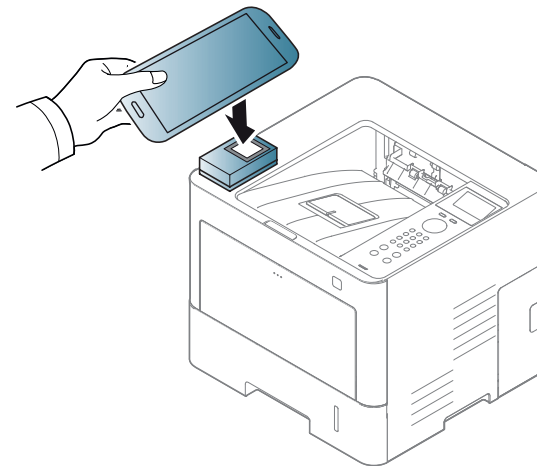
- **ID: admin**
- **Password: sec00000**



If you want to create a new user or change the password, see "Security tab" on page 193.

- 4 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.



# Using the NFC feature (Optional)



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.

## Registration from the 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 Pro** app.



If you do not have **Samsung Mobile Print Pro** 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 the  icon on the **Samsung Mobile Print Pro** screen.


**4** Select **On** from the **Phone login set as default** menu.

**5** Mobile device ID appears on the **Samsung Mobile Print Pro** screen. Press **Registration**.

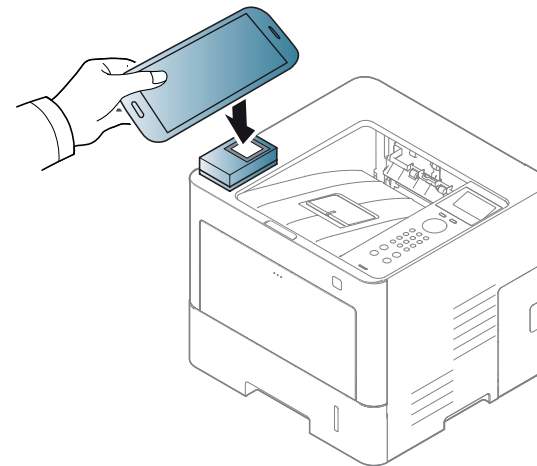
**6** Type in the **ID**, **Password**, **Domain** and **Password**, then click **OK**.



- If you want to create a new user or change the password, see "Security tab" on page 193.
- **Passcode** is for when the administrator chooses **Two-Factor Authentication** method. You need to enter a passcode for authentication. Password and passcode should be different. You can select **Two-Factor Authentication** from the SyncThru™ Web Service, select **Security > User Access Control > Authentication > Authentication Method > Options** button > **Login Method > Two-Factor Authentication**.

**7** 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.



# Using the NFC feature (Optional)



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.

8 Registration complete message appears on the printer's touch screen.

## 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 features are enabled on your mobile device and Wi-Fi Direct feature is enabled on your printer (see "Setting the Wi-Fi Direct for mobile printing" on page 151).

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**, then click **OK**.

If necessary, type in the ID and Password to log in. If it's your first time logging into the printer, type in the below default ID and password. We recommend you to change the default password for security reasons.

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

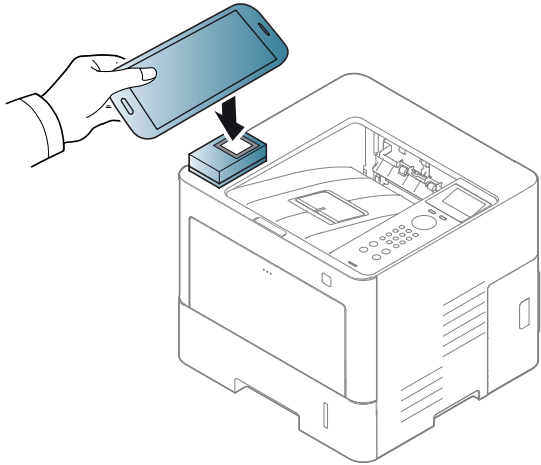


If you want to create a new user or change the password, see "Security tab" on page 193.

# Using the NFC feature (Optional)

- 5 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 tag 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 features are enabled on your mobile device and Wi-Fi Direct feature is enabled on your printer (see "Setting the Wi-Fi Direct for mobile printing" on page 151).
- 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**, then click **OK**.

If necessary, type in the ID and Password to log in. If it's your first time logging into the printer, type in the below default ID and password. We recommend you to change the default password for security reasons.

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



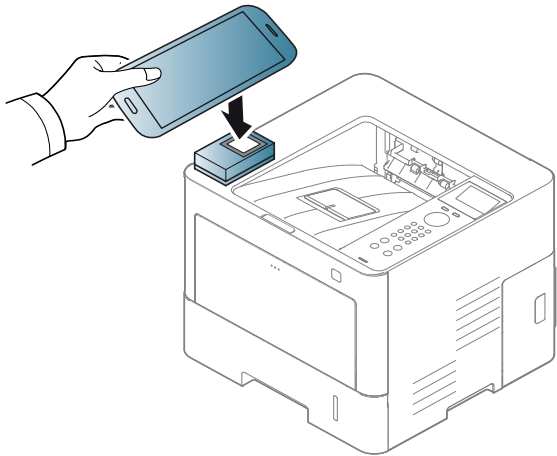
If you want to create a new user or change the password, see "Security tab" on page 193.

- 5 Select the settings you want to copy.

# Using the NFC feature (Optional)

- 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.

## 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 features are enabled on your mobile device and Wi-Fi Direct feature is enabled on your printer (see "Setting the Wi-Fi Direct for mobile printing" on page 151).
- 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**, then click **OK**.

If necessary, type in the ID and Password to log in. If it's your first time logging into the printer, type in the below default ID and password. We recommend you to change the default password for security reasons.

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



If you want to create a new user or change the password, see "Security tab" on page 193.



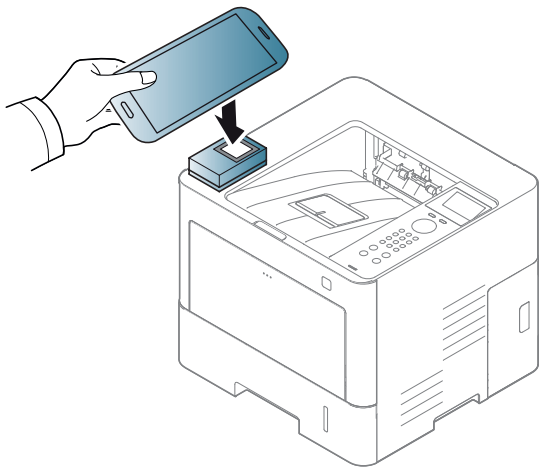
# Using the NFC feature (Optional)


- 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**.

- 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, App Store) on your mobile device, and just search for download the app and try again.

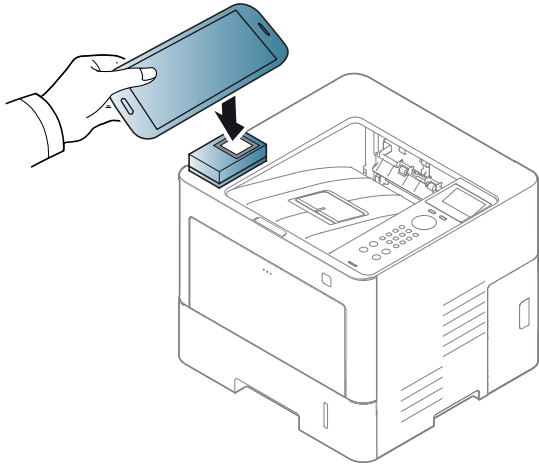
- 3 Select print mode.
- 4 Select the content you want to print.

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

# Using the NFC feature (Optional)

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

Wait a few seconds for the mobile device to send a job 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 161).
- **Samsung Mobile Print Pro:** 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 Pro App" on page 156).
- **Samusng 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 158, "Wireless Setup" on page 160).

## 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 Pro/Samusng 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 Pro/Samusng Mobile Print Manager**
  - **Android:** Search for **Samsung Mobile Print Pro** or **Samusng Mobile Print Manager** from Play Store, and then download the app.

## Supported Mobile OS

- **Samsung Mobile Print**
  - Android OS 2.3 or higher
  - iOS 5.0 or higher
- **Samsung Mobile Print Pro/Samusng Mobile Print Manager**
  - NFC and Wi-Fi Direct enabled, supported mobile apps installed mobile device with Android 4.0 or higher



Only Mopria-certified machines can use the Mopria feature. Check the box that your machine came in for the Mopria-certified logo.



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 Ensure that the machine is connected to the network.
- 2 On your computer, open a web browser (Internet Explorer, Safari, or Firefox) and type the IP address of the machine in the address bar. Then, press Enter.

For example,



- 3 Click **Login** in the top right corner of the **SyncThru™ Web Service** website.
- 4 Type in your **ID** and **Password** and select the **Domain**. then click **LOGIN**. Use the same login ID, password, and domain as when your log in from the machine (see "Using SyncThru™ Web Service" on page 192.)



If you want to create a new user or change the password, see "Security tab" on page 193.

- 5 When the **SyncThru™ Web Service** window opens, 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** > **Feature 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 iPhone, iPad, and iPod touch running the latest version of iOS.

## 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**. 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**




If you want to create a new user or change the password, see "Security tab" on page 193.

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

## 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.

# AirPrint

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.



# 3. Special Features

This chapter explains special printing features.

- **Altitude adjustment** 169
- **Entering various characters** 170
- **Printing features** 171



- The procedures in this chapter are mainly based on Windows 7.
- It may be necessary to press **OK** to navigate to lower-level menus for some models.



# 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.

- For Windows and Mac users, you set from **Samsung Easy Printer Manager** > **Advanced Setting** > **Device Settings** (see "Using Samsung Easy Printer Manager" on page 199).



- If your machine is connected to the network, you can set the altitude via SyncThru™ Web Service (see "Using SyncThru™ Web Service" on page 192).
- You can also set the altitude in **System Setup** > **Altitude Adjustment** on the control panel (see "Machine's basic settings" on page 30).

# 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 170.



- 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
2	ABCabc2
3	DEFdef3
4	GHIghi4
5	JKLjkl5
6	MNOmno6
7	PQRSpqrs7
8	TUVtuv8
9	WXYZwxyz9
0	&+ -, 0
*	*% ^ _ ~ ! # \$ ( ) [ ] (These symbols are available when you type for network authentication.)
#	# =   ? " : { } < > ; (These symbols are available when you type for network authentication.)

Key	Assigned numbers, letters, or characters
1	@ / . ' 1

# Printing features



- For basic printing features, refer to the Basic Guide (see "Basic printing" on page 44).
- This feature may not be available depending on model or optional goods (see "Features by model" on page 7).

## Changing the default print settings

- 1 Click the Windows **Start** menu.
- 2 Select **Control Panel > Devices and Printers**.
- 3 Right-click on your machine.
- 4 Select **Printing preferences**.



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

- 5 Change the settings on each tab.
- 6 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 Click the Windows **Start** menu.
- 2 Select **Control Panel > Devices and Printers**.
- 3 Select your machine.
- 4 Right-click your machine and select **Set as Default Printer**.



If **Printing preferences** 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 7.

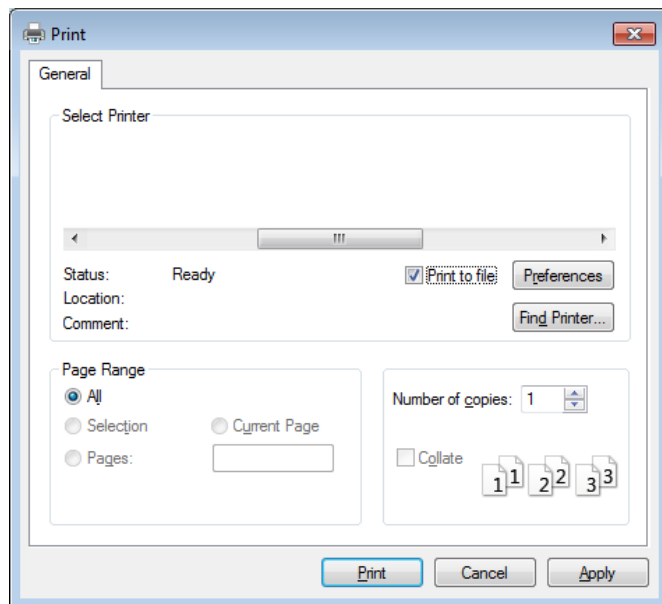
# Printing features

- The XPS printer driver can be installed only on Windows Vista OS or higher.
- For models that provide XPS driver from the Samsung website, <http://www.samsung.com> > find your product > Support or downloads.

## Printing to a file (PRN)

You will sometimes need to save the print data as a file.

- 1 Check the **Print to file** box in the **Print** window.



- 2 Click **Print**.

- 3 Type in the destination path and the file name, and then click **OK**.  
For example, **c:\Temp\file name**.



If you type in only the file name, the file is automatically saved in **My Documents, Documents and Settings, or Users**. The saved folder may differ, depending on your operating system or the application you are using.

# Printing features


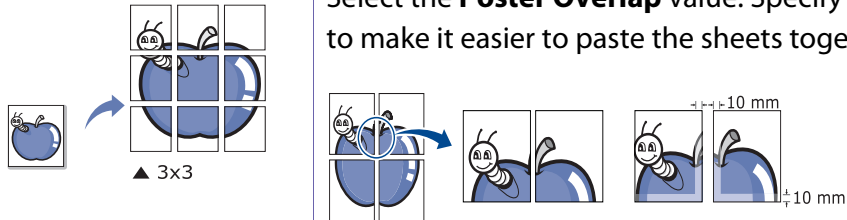
## Understanding special printer features

You can use advanced printing features when using your machine.

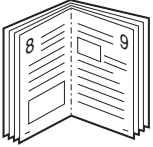



To take advantage of the printer features provided by your printer driver, click **Properties** or **Preferences** in the application's **Print** window to change the print settings. The machine name, that appears in the printer properties window may differ depending on the machine in use.




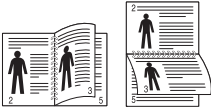
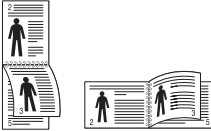



- Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.
- Select the **Help** menu or press **F1** on your keyboard and click on any option you want to know about (see "Using help" on page 46).

Item	Description
<p data-bbox="51 770 315 842"><b>Multiple Pages per Side</b></p> 	<p data-bbox="383 770 2175 847">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 data-bbox="51 1134 259 1166"><b>Poster Printing</b></p> 	<p data-bbox="383 1094 2130 1166">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 data-bbox="383 1190 2186 1262">Select the <b>Poster Overlap</b> value. Specify <b>Poster Overlap</b> in millimeters or inches by selecting the radio button on the upper right of <b>Basic</b> tab to make it easier to paste the sheets together.</p>


# Printing features

Item	Description
<p><b>Booklet Printing<sup>a</sup></b></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"><li>• If you want to make a booklet, you need to print on Letter, Legal, A4, US Folio, or Oficio sized print media.</li><li>• The <b>Booklet Printing</b> option is not available for all paper sizes. Select the available paper <b>Size</b> option under the <b>Paper</b> tab to see what paper sizes are available.</li><li>• If you select an unavailable paper size, this option can be automatically canceled. Select only available paper (paper without  or  mark).</li></ul>
<p><b>Double-sided Printing</b></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>

# Printing features



Item	Description
<b>Double-sided Printing</b>	<p data-bbox="398 309 2190 395"> Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.</p> <ul data-bbox="380 421 2177 558" style="list-style-type: none"><li>• <b>Printer Default:</b> If you select this option, this feature is determined by the settings you have selected on the control panel of the machine.</li><li>• <b>None:</b> Disables this feature.</li><li>• <b>Long Edge:</b> This option is the conventional layout used in bookbinding.</li></ul>  <ul data-bbox="380 719 1299 751" style="list-style-type: none"><li>• <b>Short Edge:</b> This option is the conventional layout used in calendars.</li></ul>  <ul data-bbox="380 938 1693 970" style="list-style-type: none"><li>• <b>Reverse Double-Sided Printing:</b> Check this option to reverse the print order when duplex printing.</li></ul>
<b>Paper Options</b>   	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.

# Printing features

Item	Description
<b>Watermark</b> 	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 <b>"DRAFT"</b> or <b>"CONFIDENTIAL"</b> printed diagonally across the first page or all pages of a document.
<b>Watermark (Creating a watermark)</b>	<ul style="list-style-type: none"><li><b>a</b> To change the print settings from your software application, access <b>Printing Preferences</b>.</li><li><b>b</b> Click the <b>Advanced</b> tab, select <b>Edit</b> from the <b>Watermark</b> drop-down list. The <b>Edit Watermarks</b> window appears.</li><li><b>c</b> Enter a text message in the <b>Watermark Message</b> box. You can enter up to 256 characters. The message displays in the preview window.</li></ul>
<b>Watermark (Editing a watermark)</b>	<ul style="list-style-type: none"><li><b>a</b> To change the print settings from your software application, access <b>Printing Preferences</b>.</li><li><b>b</b> Click the <b>Advanced</b> tab, select <b>Edit</b> from the <b>Watermark</b> drop-down list. The <b>Edit Watermarks</b> window appears.</li><li><b>c</b> Select the watermark you want to edit from the <b>Current Watermarks</b> list and change the watermark message and options.</li><li><b>d</b> Click <b>Update</b> to save the changes.</li><li><b>e</b> Click <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window.</li></ul>
<b>Watermark (Deleting a watermark)</b>	<ul style="list-style-type: none"><li><b>a</b> To change the print settings from your software application, access <b>Printing Preferences</b>.</li><li><b>b</b> Click the <b>Advanced</b> tab, select <b>Edit</b> from the <b>Watermark</b> drop-down list. The <b>Edit Watermarks</b> window appears.</li><li><b>c</b> Select the watermark you want to delete from the <b>Current Watermarks</b> list and click <b>Delete</b>.</li><li><b>d</b> Click <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window.</li></ul>





# Printing features

Item	Description
<p><b>Overlay<sup>a</sup></b></p> 	<p>This option is available only when you use the PCL/SPL printer driver (see "Software" on page 7).</p> <p>An overlay is text and/or images stored in the computer hard disk drive (HDD) as a special file format that can be printed on any document. Overlays are often used to take the place of 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>To use a page overlay, you must create a new page overlay containing your logo or image.</p> <div data-bbox="383 592 2197 751" style="background-color: #f0f0f0; padding: 10px;"><ul style="list-style-type: none"><li>• The overlay document size must be the same as the document you print with the overlay. Do not create an overlay with a watermark.</li><li>• The resolution of the overlay document must be the same as that of the document you will print with the overlay.</li></ul></div>
<p><b>Overlay<sup>a</sup></b> <b>(Creating a new page overlay)</b></p>	<p><b>a</b> To save the document as an overlay, access <b>Printing Preferences</b>.</p> <p><b>b</b> Click the <b>Advanced</b> tab, and select <b>Edit</b> from the <b>Text</b> drop-down list. <b>Edit Overlay</b> window appears.</p> <p><b>c</b> In the <b>Edit Overlay</b> window, click <b>Create</b>.</p> <p><b>d</b> In the <b>Save As</b> window, type a name up to eight characters in the <b>File name</b> box. Select the destination path, if necessary (The default is C:\Formover).</p> <p><b>e</b> Click <b>Save</b>. The name appears on the <b>Overlay List</b>.</p> <p><b>f</b> Click <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window.</p> <p>The file is not printed. Instead, it is stored on your computer hard disk drive.</p>


# Printing features

Item	Description
<b>Overlay<sup>a</sup></b> <b>(Using a page overlay)</b>	<ul style="list-style-type: none"><li><b>a</b> Click the <b>Advanced</b> tab.</li><li><b>b</b> Select the desired overlay from the <b>Text</b> drop-down list.</li><li><b>c</b> If the overlay file you want does not appear in the <b>Text</b> drop-down list, select <b>Edit...</b> from the list and click <b>Load</b>. 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 <b>Open</b> window. After you select the file, click <b>Open</b>. The file appears in the <b>Overlay List</b> box and is available for printing. Select the overlay from the <b>Overlay List</b> box.</li><li><b>d</b> If necessary, check <b>Confirm Page Overlay When Printing</b> box. If this box is checked, a message window appears each time you submit a document for printing, asking you to confirm printing an overlay on your document. If this box is not checked and an overlay has been selected, the overlay automatically prints with your document.</li><li><b>e</b> Click <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window.</li></ul>
<b>Overlay<sup>a</sup></b> <b>(Deleting a page overlay)</b>	<ul style="list-style-type: none"><li><b>a</b> In the <b>Printing Preferences</b> window, click the <b>Advanced</b> tab.</li><li><b>b</b> Select <b>Edit</b> in the <b>Text</b> drop down list.</li><li><b>c</b> Select the overlay you want to delete from the <b>Overlay List</b> box.</li><li><b>d</b> Click <b>Delete</b>.</li><li><b>e</b> When a confirming message window appears, click <b>Yes</b>.</li><li><b>f</b> Click <b>OK</b> or <b>Print</b> until you exit the <b>Print</b> window. You can delete page overlays that you no longer use.</li></ul>

# Printing features

Item	Description
<b>Print Mode</b>	<div data-bbox="383 284 2197 584"><ul style="list-style-type: none"><li>• This feature is available only if you have installed the optional memory or mass storage device (HDD) (see "Variety feature" on page 7).</li><li>• Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.</li><li>• To enable this feature, check <b>Storage Options</b> (see "Setting Device Options" on page 64).</li><li>• Without installing the optional memory or mass storage device (HDD) in the machine, the RAM disk feature provides only 3 options: <b>Normal</b>, <b>Proof</b>, and <b>Confidential</b>.</li></ul></div> <ul style="list-style-type: none"><li>• <b>Print Mode:</b> The default <b>Print Mode</b> is <b>Normal</b>, which is for printing without saving the printing file in the memory.<ul style="list-style-type: none"><li>- <b>Normal:</b> This mode prints without storing your document in the optional memory.</li><li>- <b>Proof:</b> This mode is useful when you print more than one copy. You can print one copy first to check, then print the rest of the copies later.</li><li>- <b>Confidential:</b> This mode is used for printing confidential documents. You need to enter a password to print.</li></ul></li></ul> <div data-bbox="383 831 2197 1177"><ul style="list-style-type: none"><li>• <b>Job Name:</b> This option is used when you need to find a stored file using the control panel.</li><li>• <b>User ID:</b> This option is used when you need to find a stored file using the control panel. The user name automatically appears as the user name that you use to log on Windows.</li><li>• <b>Enter Password:</b> If the <b>Property</b> of the document you selected is secured, you have to enter the password for the document. This option is used for loading a stored file using the control panel.</li><li>• <b>Confirm Password:</b> Re-enter the password to confirm it.</li></ul></div>

# Printing features

Item	Description
<b>Job Accounting</b>	<p>This option allows you to print with the given permission.</p> <ul style="list-style-type: none"><li>• <b>User permission:</b> If you check this option, only users with user permission can start a print job.</li><li>• <b>Group permission:</b> If you check this option, only groups with group permission can start a print job.</li></ul> <div data-bbox="383 459 2197 619" style="background-color: #f0f0f0; padding: 10px;"><ul style="list-style-type: none"><li>• Select the <b>Help</b> menu or press <b>F1</b> on your keyboard and click on any option you want to know about (see "Using help" on page 46).</li><li>• Administrators can enable job accounting and configure permissions in the control panel or SyncThru™ Web Admin Service.</li></ul></div>

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

# Printing features

## Using Direct Printing Utility



- Direct Printing Utility may not be available depending on model or optional goods (see "Software" on page 7).
- 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 opening 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** .
  - For Windows 8, from **Charms**, select **Search** > **Apps**.
- 2 Find **Samsung Printers** > **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.

# Printing features

## Mac printing



Some features may not be available depending on models or options. It means that the features are not supported.

## Printing a document

When you print with a Mac, you need to check the printer driver settings in each application you use. Follow the steps below to print from a Mac:

- 1 Open the document to print.
- 2 Open the **File** menu and click **Page Setup** (**Document Setup** in some applications).
- 3 Choose your paper size, orientation, scaling, other options, and make sure that your machine is selected. Click **OK**.
- 4 Open the **File** menu and click **Print**.
- 5 Choose the number of copies and indicate which pages to print.
- 6 Click **Print**.

## Changing printer settings

You can use advanced printing features when using your machine.

Open an application and select **Print** from the **File** menu. The machine name, which appears in the printer properties window, may differ depending on the machine in use. Except for the name, the composition of the printer properties window is similar to the following.

## Printing multiple pages on one sheet

You can print more than one page on a single sheet of paper. This feature provides a cost-effective way to print draft copies.

- 1 Open an application, and select **Print** from the **File** menu.
- 2 Select **Layout** from the drop-down list under **Orientation**. In the **Pages per Sheet** drop-down list, select the number of pages you want to print on one sheet of paper.
- 3 Select the other options to use.
- 4 Click **Print**.  
The machine prints the selected number of pages to print on one sheet of paper.

# Printing features

## Printing on both sides of the paper



Some features may not be available depending on models or options. It means that the features are not supported (see "Variety feature" on page 7).

Before printing in the duplex mode, decide on which edge you will be binding your finished document. The binding options are, as follows:

- **Long-Edge Binding:** This option is the conventional layout used in book binding.
- **Short-Edge Binding:** This option is the type often used with calendars.

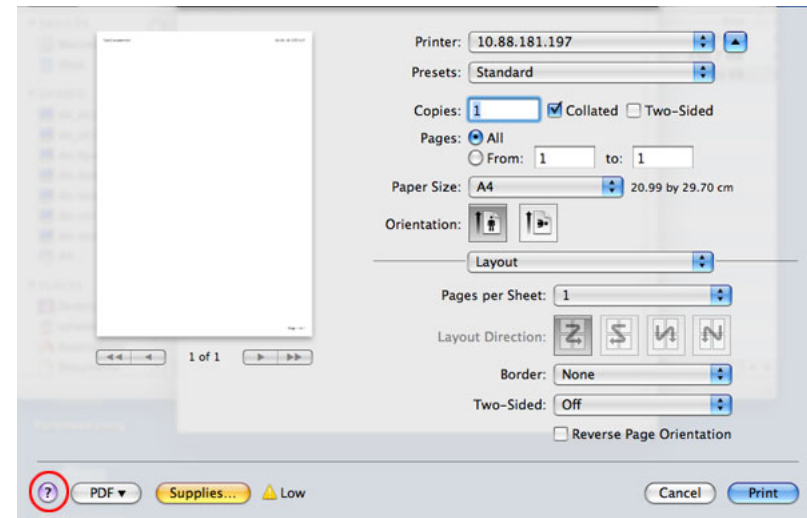
- 1 From your Mac application, select **Print** from the **File** menu.
- 2 Select **Layout** from the drop-down list under **Orientation**.
- 3 Select a binding orientation from the **Two-Sided** option.
- 4 Select the other options to use.
- 5 Click **Print** and the machine prints on both sides of the paper.



If you print more than 2 copies, the first copy and the second copy might print on the same sheet of paper. Avoid printing on both sides of paper when you are printing more than 1 copy.

## Using help

Click the question mark on the bottom-left corner of the window and click on the topic you want to know about. A pop-up window appears with information about that option's feature, which is provided from the driver.



## Linux printing



Some features may not be available depending on models or options. It means that the features are not supported.

# Printing features

## Printing from applications

---

There are a lot of Linux applications that allow you to print using Common UNIX Printing System (CUPS). You can print on your machine from any such application.

- 1 Open the document to print.
- 2 Open the **File** menu and click **Page Setup (Print Setup** for some applications).
- 3 Choose your paper size, orientation, and make sure that your machine is selected. Click **Apply**.
- 4 Open the **File** menu and click **Print**.
- 5 Select your machine to print.
- 6 Choose the number of copies and indicate which pages to print.
- 7 Change other printing options in each tab, if necessary.
- 8 Click **Print**.



Automatic duplex printing may not be available depending on models. You can alternatively use the lpr printing system or other applications for odd-even printing (see "Features by model" on page 7).

## Printing files

---

You can print text, image, pdf files on your machine using the standard CUPS directly from the command line interface. The CUPS lp or lpr utility allows you to do that. You can print these files by using below command format.

**"lp -d <printer name> -o <option> <file name>"**

Please refer to lp or lpr man page on your system for more details.

## Configuring Printer Properties

---

You can change the default printing options or connection type with Printing utility supplied by o/s.

- 1 Launch Printing utility(Go to **System > Administration > Printing** menu or execute "**system-config-printer**" command in Terminal program).
- 2 Select your printer and double-click it.
- 3 Change default printing options or connection type.
- 4 Click **Apply** button.



# Printing features

## Unix printing



Some features may not be available depending on models or options. It means that the features are not supported (see "Features by model" on page 7).

## Proceeding the print job

After installing the printer, choose any of the image, text, or PS files to print.

- 1 Execute "**printui <file\_name\_to\_print>**" command.  
For example, if you are printing "**document1**"  
**printui document1**  
This will open the UNIX Printer Driver **Print Job Manager** in which the user can select various print options.
- 2 Select a printer that has been already added.
- 3 Select the printing options from the window such as **Page Selection**.
- 4 Select how many copies are needed in **Number of Copies**.



To take advantage of the printer features provided by your printer driver, press **Properties**.

- 5 Press **OK** to start the print job.

## Changing the machine settings

The UNIX printer driver **Print Job Manager** in which the user can select various print options in printer **Properties**.

The following hot keys may also be used: "H" for **Help**, "O" for **OK**, "A" for **Apply**, and "C" for **Cancel**.

### General tab

- **Paper Size:** Set the paper size as A4, Letter, or other paper sizes, according to your requirements.
- **Paper Type:** Choose the type of the paper. Options available in the list box are **Printer Default**, **Plain**, and **Thick**.
- **Paper Source:** Select from which tray the paper is used. By default, it is **Auto Selection**.
- **Orientation:** Select the direction in which information is printed on a page.
- **Duplex:** Print on both sides of paper to save paper.

# Printing features



Automatic duplex printing may not be available depending on models. You can alternatively use the lpr printing system or other applications for odd-even printing.

- **Multiple pages:** Print several pages on one side of the paper.
- **Page Border:** Choose any of the border styles (e.g., **Single-line hairline**, **Double-line hairline**)

## Image tab

In this tab, you can change the brightness, resolution, or image position of your document.

## Text tab

Set the character margin, line space, or the columns of the actual print output.

## Margins tab

- **Use Margins:** Set the margins for the document. By default, margins are not enabled. The user can change the margin settings by changing the values in the respective fields. Set by default, these values depend on the page size selected.
- **Unit:** Change the units to points, inches, or centimeters.

## Printer-Specific Settings tab

Select various options in the **JCL** and **General** frames to customize various settings. These options are specific to the printer and depend on the PPD file.



## 4. Useful Management Tools

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

- **Accessing management tools** 188
- **Easy Capture Manager** 189
- **Samsung AnyWeb Print** 190
- **Easy Eco Driver** 191
- **Using SyncThru™ Web Service** 192
- **Using Samsung Printer Center** 196
- **Using Samsung Easy Printer Manager** 199
- **Using Samsung Printer Status** 201
- **Using Samsung Printer Experience** 203



# 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 the **Charms**, select **Search > Apps**.
- 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.

# Easy Capture Manager



- This feature may not be available depending on model or optional goods (see "Software" on page 7).
- Available for Windows OS users only (see "Software" on page 7).

Capture your screen and launch Easy Capture Manager by simply pressing the Print Screen key. Now you can easily print your captured screen as captured or edited.

# Samsung AnyWeb Print




- This feature may not be available depending on model or optional goods (see "Software" on page 7).
- Available for Windows and Mac OS users only (see "Software" on page 7).

This tool helps you screen-capture, preview, scrap, and print Windows Internet Explorer pages more easily, than when you use an ordinary program.

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

# Easy Eco Driver

-  Available for Windows OS users only (see "Software" on page 7).
- 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 to do simple editing such as removing images and texts and more. You can save frequently used settings as a favorite.

## How to use:

- 1 Open a document to print.
- 2 Open printing preference window (see "Opening printing preferences" on page 45).
- 3 From the **Favorites** tab, select **Eco Printing Preview**.
- 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 196).

# Using SyncThru™ Web Service



- Internet Explorer 8.0 or higher is the minimum requirement for SyncThru™ Web Service.
- SyncThru™ Web Service explanation in this user's guide may differ from your machine depending on its options or models.
- Network model only (see "Software" on page 7).

## 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**



# Using SyncThru™ Web Service

## SyncThru™ Web Service overview

 Information   Settings   Security   Maintenance



Some tabs may not appear depending on your model.

## Information tab

This tab gives you general information about your machine. You can check things, such as remaining amount of toner. You can also print reports, such as an error report.

- **Active Alerts:** Shows the alerts that have occurred in the machine and their severity.
- **Supplies:** Shows how many pages are printed and amount of toner left in the cartridge.
- **Usage Counters:** Shows the usage count by print types: simplex and duplex.
- **Current Settings:** Shows the machine's and network's information.
- **Security Information:** Shows the machine's security information.
- **Print information:** Prints reports such as system related reports, e-mail address, and font reports.

## Settings tab

This tab allows you to set configurations provided by your machine and network. You need to log-in as an administrator to view this tab.

- **Machine Settings** tab: Sets options provided by your machine.
- **Network Settings** tab: Shows options for the network environment. Sets options such as TCP/IP and network protocols.

## Security tab

This tab allows you to set system and network security information. You need to log-in as an administrator to view this tab.

- **System Security:** Sets the system administrator's information and also enables or disables machine features.
  - **Information Hiding:** You can enable/disable network features. Check the features you want to enable and click **Apply**.
- **Network Security:** Sets settings for HTTPs, IPSec, IPv4/IPv6 filtering, 802.1x, and Authentication servers.
- **User Access Control:** You can choose authentication methods/modes for user authentication. You can add/delete/modify the user profile used for Local Authentication.

# Using SyncThru™ Web Service

## Maintenance tab

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

- **Firmware Upgrade:** Upgrade your machine's firmware.
- **License Management:** License management provides settings for or settings of installed applications and application license.
- **Application Management:** This feature is only available for models with a touch screen. You can manage applications. You can install new applications from USB or URL.
- **Wi-Fi Interface:** You can enable or disable the Wi-Fi menu.
- **Cloning:** You can import or export (transfer) various settings (machine setting, network information, address book, etc.) between devices that have the **Cloning** feature in SyncThru™ Web Service.
- **Contact Information:** Shows the contact information.
- **Link:** Shows links to useful sites where you can download or check information.

## E-mail notification setup

You can receive emails about your machine's status by setting this option. By setting information such as IP address, host name, e-mail address and SMTP server information, the machine status (toner cartridge shortage or machine error) will be sent to a certain person's e-mail automatically. This option may be used more frequently by a machine administrator.



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

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



If you have not configured outgoing server environment, go to **Settings > Network Settings > Outgoing Mail Server(SMTP)** to configure network environment before setting e-mail notification.

- 4 Select **Enable** check box to use the **E-mail Notification**.

# Using SyncThru™ Web Service

- 5 Click **Add** button to add e-mail notification user.  
Set the recipient name and e-mail address(es) with notification items you want to receive an alert for.

- 6 Click **Apply**.



If the firewall is activated, the e-mail may not be sent successfully. In that case, contact the a network administrator.

## Setting the system administrator's information

This setting is necessary for using the e-mail notification option.



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

- 1 Start a web browser, such as Internet Explorer, from Windows.  
Enter the machine IP address (<http://xxx.xxx.xxx.xxx>) in the address field and press the Enter key or click **Go**.
- 2 Your machine's embedded website opens.
- 3 From the **Security** tab, select **System Security > System Administrator**
- 4 Enter the name of the administrator, phone number, location, and email address.
- 5 Click **Apply**.

# 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:

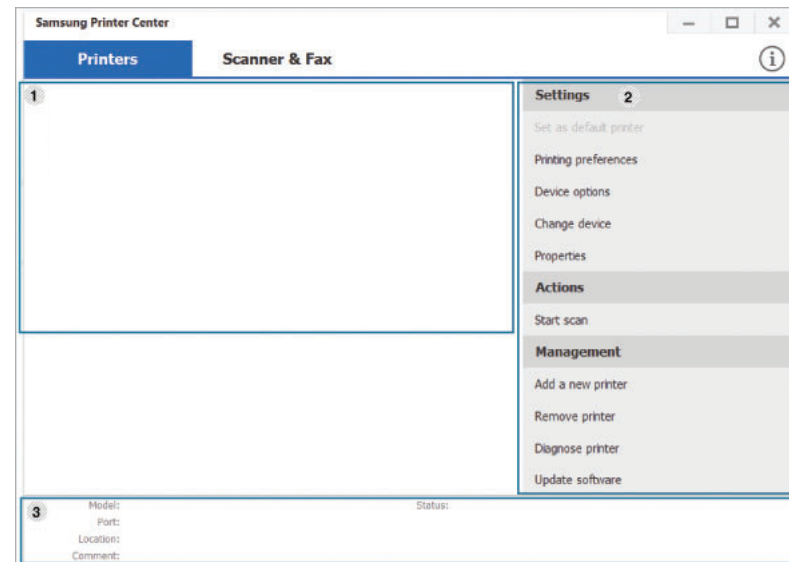
**For Windows,**


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

## Printers tab



The screenshot may differ depending on operating system you are using.



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

# Using Samsung Printer Center

## Quick links

Displays links to various printer driver management functions. The quick links in the **Printers** tab link to the following functions:

- **Settings:** Allows you to configure the settings for individual printer driver.
  - **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.



The option allows you to modify the **Printer Status** and **Stylish User Interface** settings.

- **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.
  - **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.

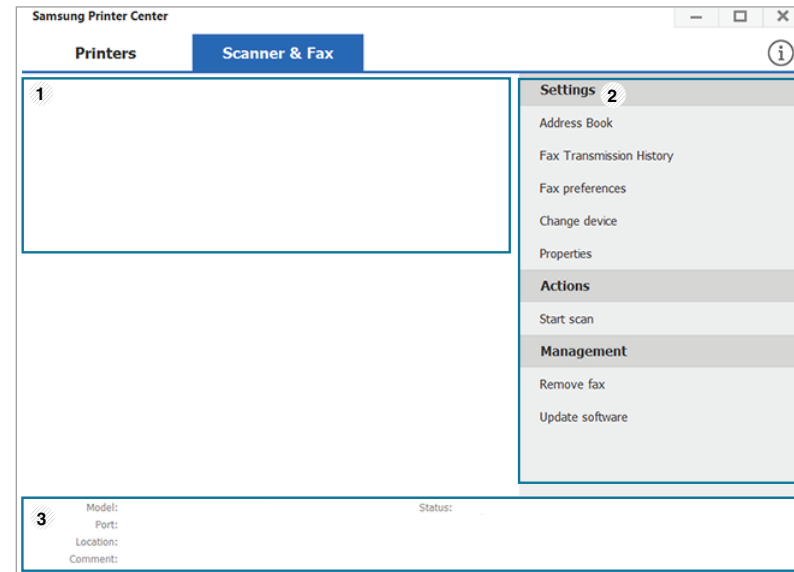
## Printer information

Provides general information about the selected device, such as its model, IP address, port number, and status.

## Scanner & Fax Tab



- The screenshot may differ depending on operating system you are using.
- Available for multifunction products only.



## 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.

# Using Samsung Printer Center

2	<b>Quick links</b>	<p>Displays links to the functions available for managing fax or scanner drivers. The quick links in the <b>Scanner &amp; Fax</b> tab offer the following features:</p> <div data-bbox="309 371 1081 528"> To use this feature, the scanner driver and fax driver must be installed on the computer.</div> <ul style="list-style-type: none"><li>• <b>Settings:</b> Allows you to configure the settings for fax or scanner drivers.<ul style="list-style-type: none"><li>- <b>Address Book (fax only):</b> Opens the Address Book.</li><li>- <b>Fax Transmission History (fax only):</b> Opens the fax transmission history.</li><li>- <b>Fax preferences (fax only):</b> Allows you to configure the default fax settings.</li><li>- <b>Change device:</b> Allows you to change the devices into another device.</li><li>- <b>Properties:</b> Allows you to configure the properties of a device, such as location and add comments about the device.</li></ul></li><li>• <b>Actions:</b> Allows you to use the scan feature.</li><li>• <b>Management:</b> Allows you to manage the devices registered in the program.<ul style="list-style-type: none"><li>- <b>Remove fax or Remove scan:</b> Removes the selected fax or scan driver.</li><li>- <b>Update software:</b> Downloads and applies the applicable software updates.</li></ul></li></ul>
3	<b>Printer information</b>	<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



- This feature may not be available depending on model or optional goods (see "Software" on page 7).
- Available for Windows and Mac OS users only (see "Software" on page 7).
- 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.

## Understanding Samsung Easy Printer Manager

To open the program:

### For Windows,

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

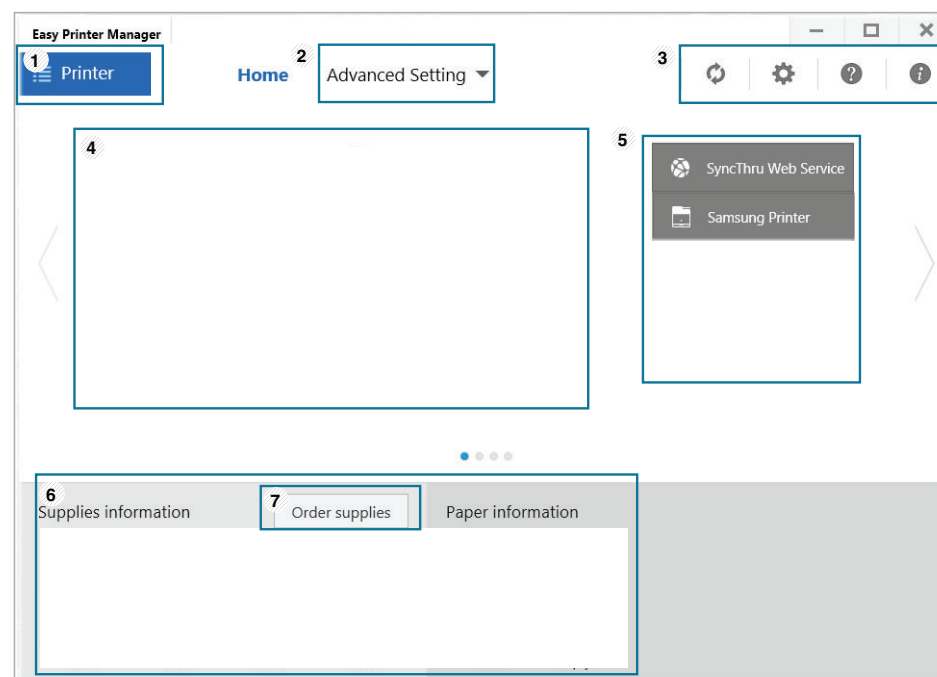
### For Mac,

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 the operating system you are using.



	Printer list	The Printer list displays printers installed on your computer and network printers added by network discovery (Windows only).
1		

# Using Samsung Easy Printer Manager

2	<b>Advanced Setting</b>	<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"><li>• <b>Device Settings:</b> You can configure various machine settings such as machine setup, paper, layout, emulation, network, and print information.</li></ul> <p> If you connect your machine to a network, the SyncThru™ Web Service icon is enabled.</p> <ul style="list-style-type: none"><li>• <b>Scan to PC Settings:</b> This menu includes settings to create or delete scan to PC profiles.<ul style="list-style-type: none"><li>- <b>Scan Activation:</b> Determines whether or not scanning is enabled on the device.</li><li>- <b>Basic tab:</b> Contains settings related general scan and device settings.</li></ul></li><li>• <b>Alert Settings (Windows only):</b> This menu includes settings related to error alerting.<ul style="list-style-type: none"><li>- <b>Printer Alert:</b> Provides settings related to when alerts will be received.</li><li>- <b>Email Alert:</b> Provides options relating to receiving alerts via email.</li><li>- <b>Alert History:</b> Provides a history of device and toner related alerts.</li></ul></li></ul>
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3	<b>Application information</b>	Includes links for changing to the refresh, preference setting, help, and about.
4	<b>Printer information</b>	<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 <b>Troubleshooting Guide</b> when an error occurs. You can directly open the troubleshooting section in the user's guide.</p>
5	<b>Quick links</b>	<p>Displays <b>Quick links</b> 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	<b>Contents area</b>	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.
7	<b>Order supplies</b>	Click on the <b>Order</b> button from the supply ordering window. You can order replacement toner cartridge(s) from online.



Select the **Help** menu from the window and click on any option you want to know about.



# Using Samsung Printer Status

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



- 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 "Specifications" on page 100).
- Available for Windows OS users only (see "Software" on page 7).

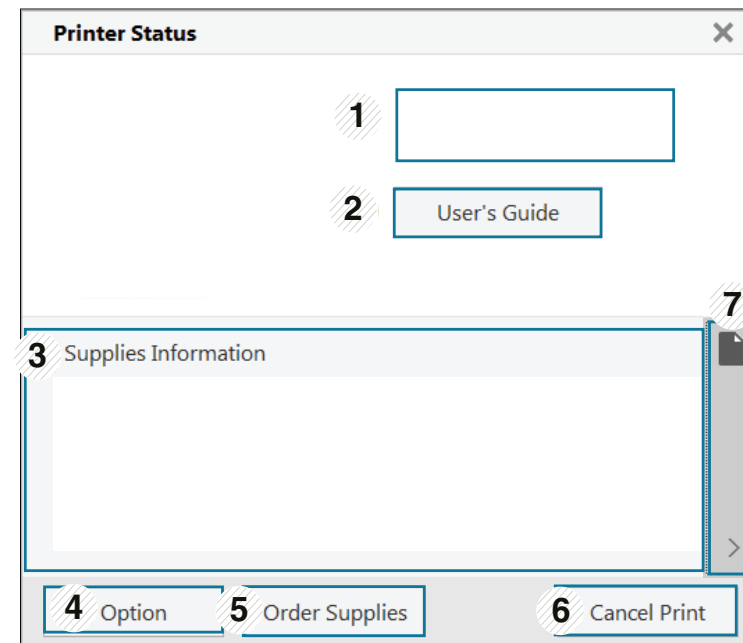
## Samsung Printer Status overview

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**, click the **Basic** tab > **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.



1	<b>Device Information</b>	You can view the device information.
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# Using Samsung Printer Status

2	<b>User's Guide</b>	<p>You can view the online User's Guide.</p> <div data-bbox="380 287 1075 486"><p>This button opens the <b>Troubleshooting Guide</b> when an error occurs. You can directly open the troubleshooting section in the user's guide.</p></div>
3	<b>Supplies Information</b>	<p>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.</p>
4	<b>Option</b>	<p>You can set printing job alert related settings.</p>
5	<b>Order Supplies</b>	<p>You can order replacement toner cartridge(s) from online.</p>
6	<b>Cancel Print</b> or <b>Close</b>	<ul style="list-style-type: none"><li>• <b>Cancel Print</b> : If print job is waiting in the print queue or printer, cancel all user's print jobs in the print queue or the printer.</li><li>• <b>Close</b> : Depending on the status of the machine or the supported functions, the <b>Close</b> button may appear to close the status window.</li></ul>
7	<b>Toner/Paper Information</b>	<p>This button areas for paper and toner info will be available based on the device.</p>

# Using Samsung Printer Experience

**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

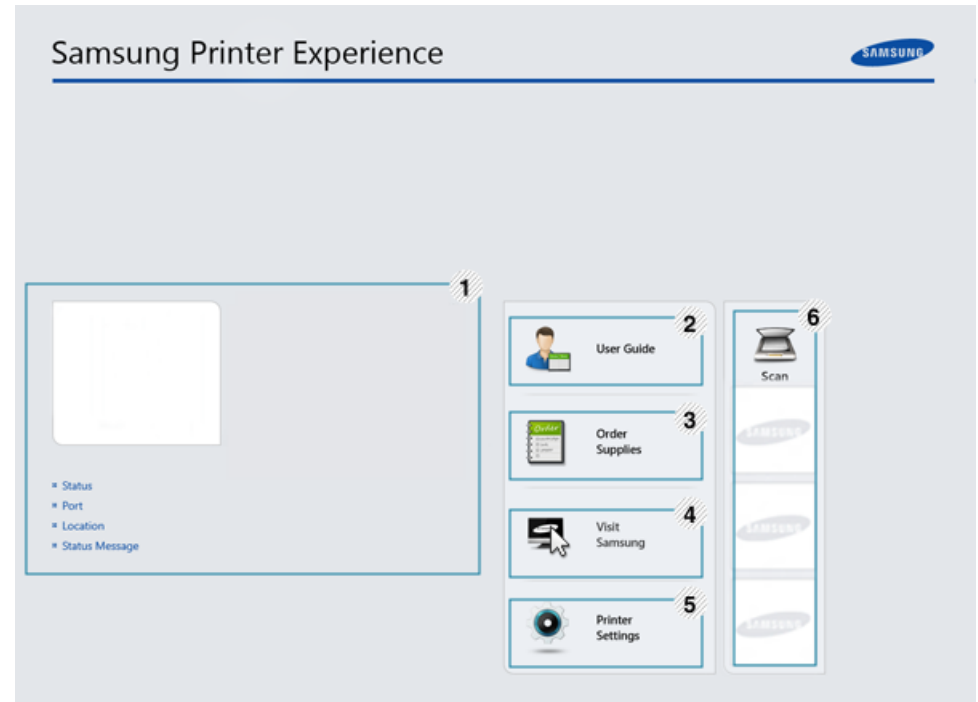
To open the application,

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

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




The screenshot may differ depending on the model you are using.



1	<b>Printer Information</b>	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.
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# Using Samsung Printer Experience

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

## 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 From the **Charms**, select **Settings**.  
Or, 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.

# Using Samsung Printer Experience

## Deleting a printer

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- 1 From the **Charms**, select **Settings**.  
Or, right-click the **Samsung Printer Experience** page and select **Settings**.
- 2 Select **Remove Printer**
- 3 Select the printer you want to delete.
- 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.

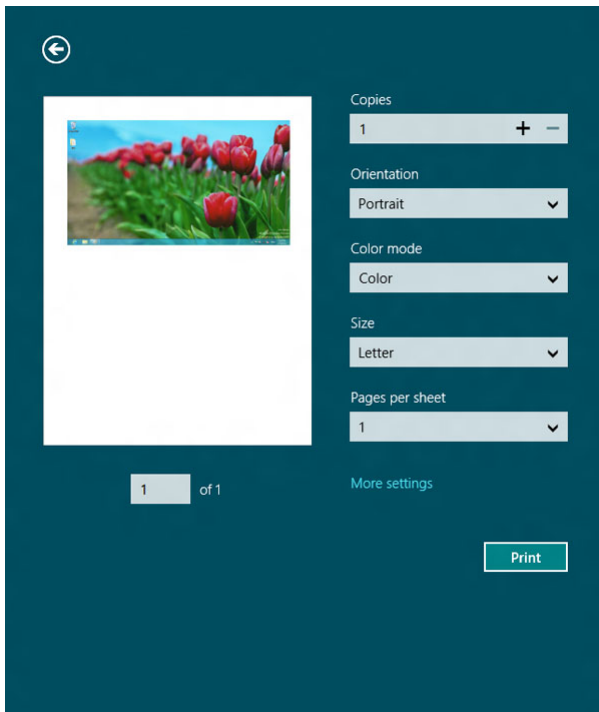
## Basic printing

---

- 1 Open the document to print.
- 2 From the **Charms**, select **Devices**.
- 3 Select your printer from the list
- 4 Select the printer settings, such as the number of copies and orientation.



# Using Samsung Printer Experience

- 5 Click the **Print** button to start the print job.



## Canceling 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  (**Stop/Clear**) 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 From the **Charms**, select **Devices**.
- 3 Select your printer from the list
- 4 Click **More settings**.

# Using Samsung Printer Experience

## Basic tab



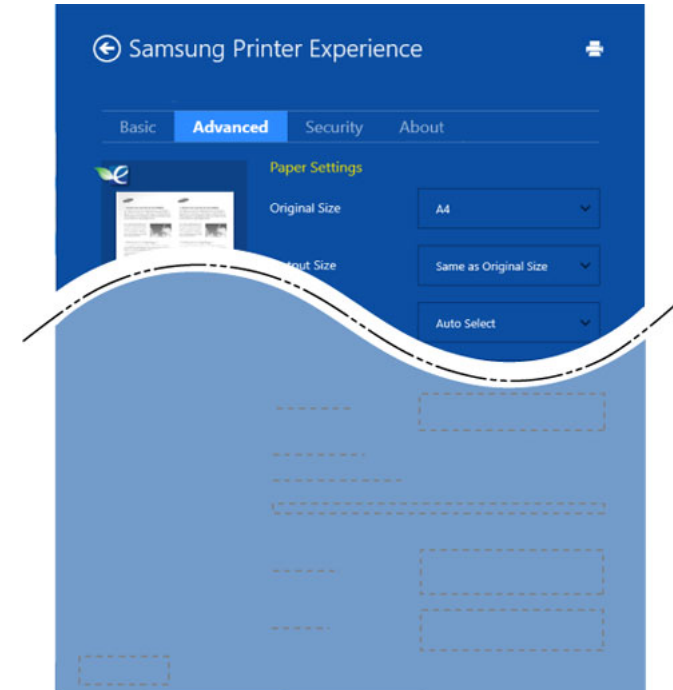
### Basic

This option allows you to choose the basic printing settings such as copies, orientation, and document type.

### Eco settings

This option allows you to choose multiple pages per side to save media.

## Advanced tab



### Paper settings

This option allows you to set the basic paper handling specifications.

### Layout settings

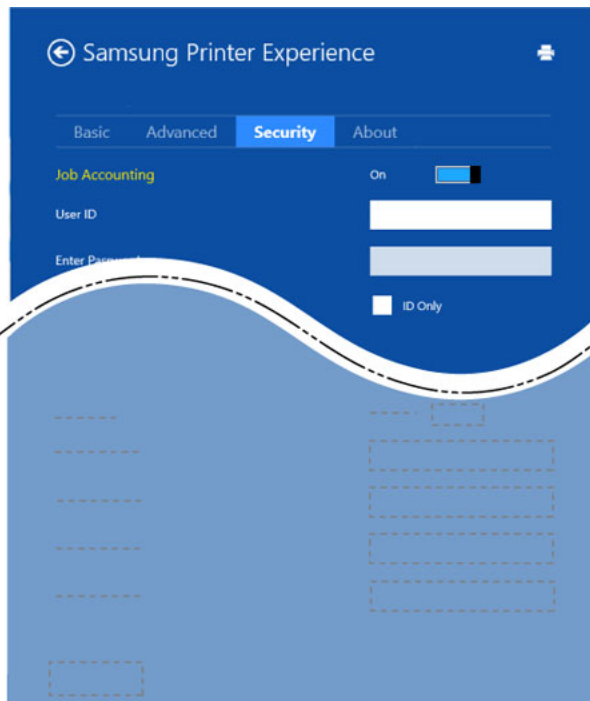
This option allows you to set the various ways to layout your documents.

# Using Samsung Printer Experience

## Security tab



Some features may not be available depending on the model or options. If this tab is not shown or disabled, it means that these features are not supported.



## Job Accounting

This option allows you to print with the given permission.

## Confidential Printing

This option is used for printing confidential documents. You need to enter a password to print using it.

## Scanning





This section is for the users with multi-functional printers.

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


## Scanning from Samsung Printer Experience

The most frequently used printing menus are displayed for quick scanning.


- 1 Place a single document face down on the document glass, or load the documents face up into the document feeder.
- 2 Click the **Samsung Printer Experience** tile on the **Start** screen.
- 3 Click **Scan** (  ).
- 4 Set up the scanning parameters such as image type, document size, and resolution.
- 5 Click **Prescan** (  ) to check the image.



# Using Samsung Printer Experience

- 6 Adjust the prescanned image with scanning operation functions such as rotate and mirror.
- 7 Click **Scan** () and save the image.



- When you place the originals in the ADF (or DADF), **Prescan** () is not available.
- You can skip step 5, if the Prescan option is selected.



# 5. Troubleshooting

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

- **Paper feeding problems** 211
- **Power and cable connecting problems** 212
- **Printing problems** 213
- **Printing quality problems** 217
- **Operating system problems** 225




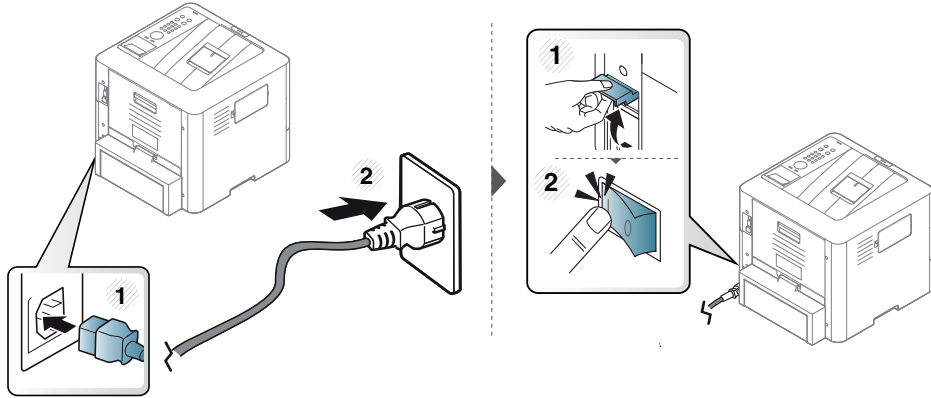
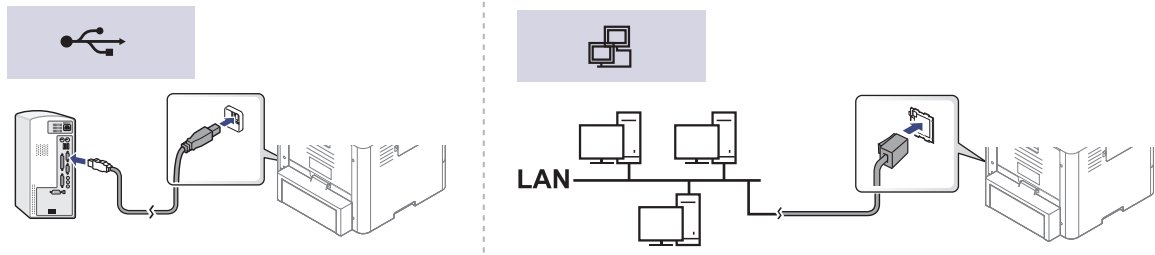
For errors that occur during the wireless software installation and settings, refer to the troubleshooting section in the wireless setting chapter (see "Troubleshooting for wireless network" on page 153).

# Paper feeding problems


Condition	Suggested solutions
<b>Paper jams during printing.</b>	Clear the paper jam.
<b>Paper sticks together.</b>	<ul style="list-style-type: none"><li>• Check the maximum paper capacity of the tray.</li><li>• Make sure that you are using the correct type of paper.</li><li>• Remove paper from the tray and flex or fan the paper.</li><li>• Humid conditions may cause some paper to stick together.</li><li>• Replace with paper from a fresh ream.</li></ul>
<b>Multiple sheets of paper do not feed.</b>	Different types of paper may be stacked in the tray. Load paper of only one type, size, and weight.
<b>Paper does not feed into the machine.</b>	<ul style="list-style-type: none"><li>• Remove any obstructions from inside the machine.</li><li>• Paper has not been loaded correctly. Remove paper from the tray and reload it correctly.</li><li>• There is too much paper in the tray. Remove excess paper from the tray.</li><li>• The paper is too thick. Use only paper that meets the specifications required by the machine.</li></ul>
<b>The paper keeps jamming.</b>	<ul style="list-style-type: none"><li>• 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.</li><li>• An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine.</li><li>• There may be debris inside the machine. Open the front cover and remove any debris.</li></ul>
<b>Envelopes skew or fail to feed correctly.</b>	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
<p data-bbox="51 359 555 526"><b>The machine is not receiving power, or the connection cable between the computer and the machine is not connected properly.</b></p>	<p data-bbox="656 359 2190 454"><b>1</b> Connect the machine to the electricity supply first. If the machine has a  (<b>Power/Wake Up</b>) button on the control, press it.</p>  <p data-bbox="656 885 1456 917"><b>2</b> Check the USB cable or network cable in the machine's rear.</p>  <p data-bbox="656 1332 1814 1364"><b>3</b> Disconnect the USB cable or network cable in the machine's rear and then, reconnect it.</p>


# Printing problems

Condition	Possible cause	Suggested solutions
<b>The machine does not print.</b>	The machine is not receiving power.	Connect the machine to the electricity supply first. If the machine has a  ( <b>Power/Wake Up</b> ) button on the control, press it.
	The machine is not selected as the default machine.	Select your machine as your default machine in Windows.
	Check the machine for the following: <ul style="list-style-type: none"><li>• The cover is not closed. Close the cover.</li><li>• Paper is jammed. Clear the paper jam (see "Clearing paper jams" on page 78).</li><li>• No paper is loaded. Load paper (see "Loading paper in the tray" on page 35).</li><li>• The toner cartridge is not installed. Install the toner cartridge (see "Replacing the toner cartridge" on page 62).</li><li>• Make sure the protect cover and sheets are removed from the toner cartridge (see "Replacing the toner cartridge" on page 62).</li></ul> If a system error occurs, contact your service representative.	
	The connection cable between the computer and the machine is not connected properly.	Disconnect the machine cable and reconnect it (see "Rear view" on page 19).
	The connection cable between the computer and the machine is defective.	If possible, attach the cable to another computer that is working properly and print a job. You can also try using a different machine cable.
	The port setting is incorrect.	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.

# Printing problems

Condition	Possible cause	Suggested solutions
<b>The machine does not print.</b>	The machine may be configured incorrectly.	Check the <b>Printing Preferences</b> to ensure that all of the print settings are correct.
	The printer driver may be incorrectly installed.	Uninstall and reinstall the machine's driver.
	The machine is malfunctioning.	Check the display message on the control panel to see if the machine is indicating a system error. Contact a service representative.
	The document size is so big that the hard disk space of the computer is insufficient to access the print job.	Get more hard disk space and print the document again.
	The output tray is full.	Once the paper is removed from the output tray, the machine resumes printing.
<b>The machine selects print materials from the wrong paper source.</b>	The paper option that was selected in the <b>Printing Preferences</b> may be incorrect.	For many software applications, the paper source selection is found under the <b>Paper</b> tab within the <b>Printing Preferences</b> (see "Opening printing preferences" on page 45). Select the correct paper source. See the printer driver help screen (see "Using help" on page 46).
<b>A print job is extremely slow.</b>	The job may be very complex.	Reduce the complexity of the page or try adjusting the print quality settings.
<b>Half the page is blank.</b>	The page orientation setting may be incorrect.	Change the page orientation in your application (see "Opening printing preferences" on page 45). See the printer driver help screen (see "Using help" on page 46).
	The paper size and the paper size settings do not match.	Ensure that the paper size in the printer driver settings matches the paper in the tray. Or, ensure that the paper size in the printer driver settings matches the paper selection in the software application settings you use (see "Opening printing preferences" on page 45).

# Printing problems

Condition	Possible cause	Suggested solutions
<b>The machine prints, but the text is wrong, garbled, or incomplete.</b>	The machine cable is loose or defective.	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.
	The wrong printer driver was selected.	Check the application's printer selection menu to ensure that your machine is selected.
	The software application is malfunctioning.	Try printing a job from another application.
	The operating system is malfunctioning.	Exit Windows and reboot the computer. Turn the machine off and back on again.
<b>Pages print, but they are blank.</b>	The toner cartridge is defective or out of toner.	Redistribute the toner, if necessary. If necessary, replace the toner cartridge. <ul style="list-style-type: none"><li>• See "Redistributing toner" on page 61.</li><li>• See "Replacing the toner cartridge" on page 62.</li></ul>
	The file may have blank pages.	Check the file to ensure that it does not contain blank pages.
	Some parts, such as the controller or the board, may be defective.	Contact a service representative.
<b>The machine does not print PDF files correctly. Some parts of graphics, text, or illustrations are missing.</b>	Incompatibility between the PDF file and the Acrobat products.	Printing the PDF file as an image may enable the file to print. Turn on <b>Print As Image</b> from the Acrobat printing options.   It will take longer to print when you print a PDF file as an image.
<b>The print quality of photos is not good. Images are not clear.</b>	The resolution of the photo is very low.	Reduce the photo size. If you increase the photo size in the software application, the resolution will be reduced.

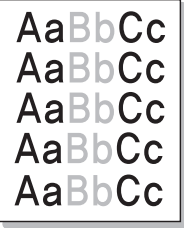
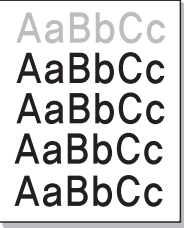
# Printing problems

Condition	Possible cause	Suggested solutions
<b>Before printing, the machine emits vapor near the output tray.</b>	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.
<b>The machine does not print custom-sized paper, such as billing paper.</b>	Paper size and paper size setting do not match.	Set the correct paper size in the <b>Custom</b> in <b>Paper</b> tab in <b>Printing Preferences</b> (see "Opening printing preferences" on page 45).
<b>The printed billing paper is curled.</b>	The paper type setting does not match.	Change the printer option and try again. Go to <b>Printing Preferences</b> , click <b>Paper</b> tab, and set type to <b>Thin</b> (see "Opening printing preferences" on page 45).

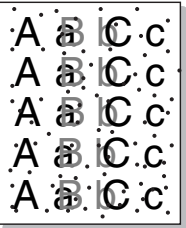
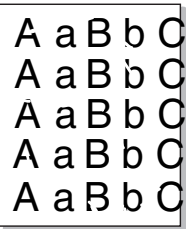
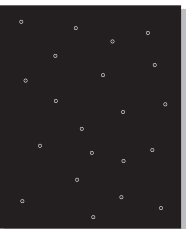


# Printing quality problems

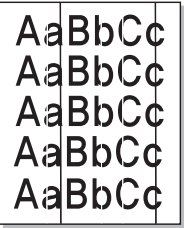
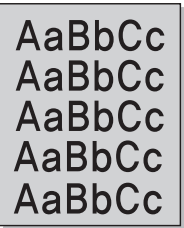

If the inside of the machine is dirty or paper has been loaded improperly, there might be a reduction in print quality. See the table below to clear the problem.

Condition	Suggested solutions
<p data-bbox="49 357 322 389"><b>Light or faded print</b></p> 	<ul data-bbox="506 357 2190 751" style="list-style-type: none"><li>• 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 62).</li><li>• The paper may not meet paper specifications; for example, the paper may be too moist or rough.</li><li>• 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.</li><li>• 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 70).</li><li>• The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 70). If these steps do not correct the problem, contact a service representative.</li></ul>
<p data-bbox="49 786 472 903"><b>The top half of the paper is printed lighter than the rest of the paper</b></p> 	<p data-bbox="506 786 1301 818"><b>The toner might not adhere properly to this type of paper.</b></p> <ul data-bbox="506 842 2190 911" style="list-style-type: none"><li>• Change the printer option and try again. Go to <b>Printing Preferences</b>, click the <b>Paper</b> tab, and set the paper type to <b>Recycled</b> (see "Opening printing preferences" on page 45).</li></ul>

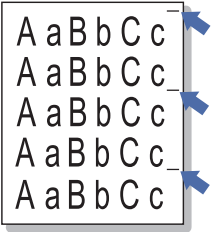
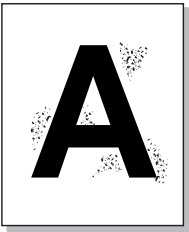
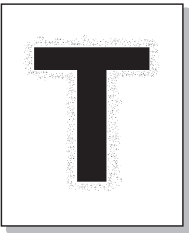
# Printing quality problems

Condition	Suggested solutions
<p><b>Toner specks</b></p> 	<ul style="list-style-type: none"><li>• The paper may not meet specifications; for example, the paper may be too moist or rough.</li><li>• The transfer roller may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 70).</li><li>• The paper path may need cleaning. Contact a service representative (see "Cleaning the machine" on page 70).</li></ul>
<p><b>Dropouts</b></p> 	<p>If faded areas, generally rounded, occur randomly on the page:</p> <ul style="list-style-type: none"><li>• A single sheet of paper may be defective. Try reprinting the job.</li><li>• The moisture content of the paper is uneven or the paper has moist spots on its surface. Try a different brand of paper.</li><li>• The paper lot is bad. The manufacturing processes can cause some areas to reject toner. Try a different kind or brand of paper.</li><li>• Change the printer option and try again. Go to <b>Printing Preferences</b>, click the <b>Paper</b> tab, and set type to <b>Thick</b> (see "Opening printing preferences" on page 45).</li></ul> <p>If these steps do not correct the problem, contact a service representative.</p>
<p><b>White Spots</b></p> 	<p>If white spots appear on the page:</p> <ul style="list-style-type: none"><li>• 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 70).</li><li>• The paper path may need cleaning. Clean the inside of your machine (see "Cleaning the machine" on page 70).</li></ul> <p>If these steps do not correct the problem, contact a service representative.</p>

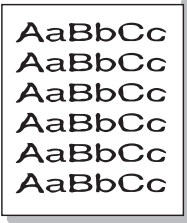
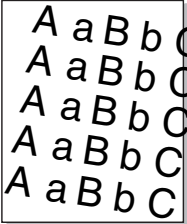
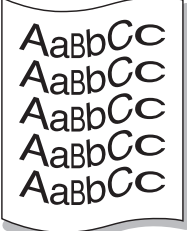
# Printing quality problems

Condition	Suggested solutions
<b>Vertical lines</b> 	<p>If black vertical streaks appear on the page:</p> <ul style="list-style-type: none"><li>• The surface (drum part) of the cartridge inside the machine has probably been scratched. Remove the cartridge and install a new one (see "Replacing the toner cartridge" on page 62).</li></ul> <p>If white vertical streaks appear on the page:</p> <ul style="list-style-type: none"><li>• The surface of the LSU part inside the machine may be dirty. Clean the inside of your machine (see "Cleaning the machine" on page 70). If these steps do not correct the problem, contact a service representative.</li></ul>
<b>Black or color background</b> 	<p>If the amount of background shading becomes unacceptable:</p> <ul style="list-style-type: none"><li>• Change to a lighter weight paper.</li><li>• Check the environmental conditions: very dry conditions or a high level of humidity (higher than 80% RH) can increase the amount of background shading.</li><li>• Remove the old toner cartridge and install a new one (see "Replacing the toner cartridge" on page 62).</li><li>• Thoroughly redistribute the toner (see "Redistributing toner" on page 61).</li></ul>
<b>Toner smear</b> 	<ul style="list-style-type: none"><li>• Clean the inside of the machine (see "Cleaning the machine" on page 70).</li><li>• Check the paper type and quality.</li><li>• Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 62).</li></ul>

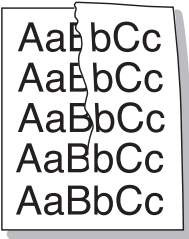
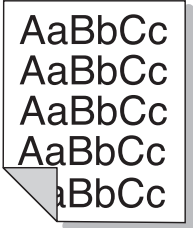
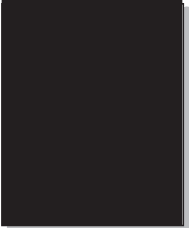
# Printing quality problems

Condition	Suggested solutions
<p data-bbox="49 272 407 304"><b>Vertical repetitive defects</b></p> 	<p data-bbox="504 272 1473 304">If marks repeatedly appear on the printed side of the page at even intervals:</p> <ul data-bbox="504 328 2190 544" style="list-style-type: none"><li data-bbox="504 328 2190 400">• 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 62).</li><li data-bbox="504 416 2190 488">• 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.</li><li data-bbox="504 504 1464 544">• The fusing assembly may be damaged. Contact a service representative.</li></ul>
<p data-bbox="49 612 322 644"><b>Background scatter</b></p> 	<p data-bbox="504 612 1621 644">Background scatter results from bits of toner randomly distributed on the printed page.</p> <ul data-bbox="504 668 2190 1059" style="list-style-type: none"><li data-bbox="504 668 2190 740">• 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.</li><li data-bbox="504 756 2190 876">• 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 <b>Thick</b> from the <b>Printing Preferences</b> window (see "Opening printing preferences" on page 45).</li><li data-bbox="504 892 2190 1011">• If background scatter covers the entire surface area of a printed page, adjust the print resolution through your software application or in <b>Printing Preferences</b> (see "Opening printing preferences" on page 45). 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.</li><li data-bbox="504 1027 1868 1059">• If you are using a new toner cartridge, redistribute the toner first (see "Redistributing toner" on page 61).</li></ul>
<p data-bbox="49 1091 479 1163"><b>Toner particles are around bold characters or pictures</b></p> 	<p data-bbox="504 1091 1249 1123">The toner might not adhere properly to this type of paper.</p> <ul data-bbox="504 1147 2190 1315" style="list-style-type: none"><li data-bbox="504 1147 2190 1219">• Change the printer option and try again. Go to <b>Printing Preferences</b>, click the <b>Paper</b> tab, and set the paper type to <b>Recycled</b> (see "Opening printing preferences" on page 45).</li><li data-bbox="504 1235 2190 1315">• 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.</li></ul>

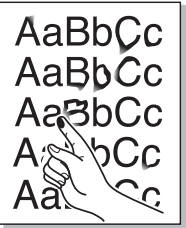

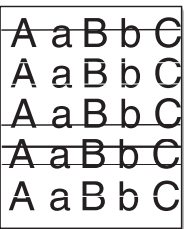
# Printing quality problems

Condition	Suggested solutions
<p data-bbox="49 272 353 304"><b>Misformed characters</b></p> 	<ul data-bbox="504 272 2072 304" style="list-style-type: none"><li>• If characters are improperly formed and producing hollow images, the paper stock may be too slick. Try different paper.</li></ul>
<p data-bbox="49 608 203 639"><b>Page skew</b></p> 	<ul data-bbox="504 608 1518 743" style="list-style-type: none"><li>• Ensure that the paper is loaded properly.</li><li>• Check the paper type and quality.</li><li>• Ensure that the guides are not too tight or too loose against the paper stack.</li></ul>
<p data-bbox="49 951 226 983"><b>Curl or wave</b></p> 	<ul data-bbox="504 951 1729 1086" style="list-style-type: none"><li>• Ensure that the paper is loaded properly.</li><li>• Check the paper type and quality. Both high temperature and humidity can cause paper curl.</li><li>• Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.</li></ul>

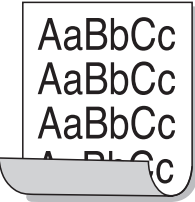
# Printing quality problems

Condition	Suggested solutions
<p data-bbox="49 272 318 300"><b>Wrinkles or creases</b></p> 	<ul data-bbox="504 272 1599 411" style="list-style-type: none"><li>• Ensure that the paper is loaded properly.</li><li>• Check the paper type and quality.</li><li>• Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.</li></ul>
<p data-bbox="49 619 412 646"><b>Back of printouts are dirty</b></p> 	<ul data-bbox="504 619 1787 646" style="list-style-type: none"><li>• Check for leaking toner. Clean the inside of the machine (see "Cleaning the machine" on page 70).</li></ul>
<p data-bbox="49 986 405 1013"><b>Solid color or black pages</b></p> 	<ul data-bbox="504 986 2159 1161" style="list-style-type: none"><li>• The toner cartridge may not be installed properly. Remove the cartridge and reinsert it.</li><li>• The toner cartridge may be defective. Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 62).</li><li>• The machine may require repairing. Contact a service representative.</li></ul>

# Printing quality problems

Condition	Suggested solutions
<p><b>Loose toner</b></p> 	<ul style="list-style-type: none"><li>• Clean the inside of the machine (see "Cleaning the machine" on page 70).</li><li>• Check the paper type, thickness, and quality.</li><li>• Remove the toner cartridge and then, install a new one (see "Replacing the toner cartridge" on page 62).</li></ul> <p>If the problem persists, the machine may require repair. Contact a service representative.</p>
<p><b>Character voids</b></p> 	<p>Character voids are white areas within parts of characters that should be solid black:</p> <ul style="list-style-type: none"><li>• You may be printing on the wrong surface of the paper. Remove the paper and turn it around.</li><li>• The paper may not meet paper specifications.</li></ul>
<p><b>Horizontal stripes</b></p> 	<p>If horizontally aligned black streaks or smears appear:</p> <ul style="list-style-type: none"><li>• The toner cartridge may be installed improperly. Remove the cartridge and reinsert it.</li><li>• The toner cartridge may be defective. Remove the toner cartridge and install a new one (see "Replacing the toner cartridge" on page 62).</li></ul> <p>If the problem persists, the machine may require repairing. Contact a service representative.</p>

# Printing quality problems

Condition	Suggested solutions
<p><b>Curl</b></p> 	<p>If the printed paper is curled or paper does not feed into the machine:</p> <ul style="list-style-type: none"><li>• Turn the stack of paper over in the tray. Also try rotating the paper 180° in the tray.</li><li>• Change the printer's paper option and try again. Go to <b>Printing Preferences</b>, click the <b>Paper</b> tab, and set type to <b>Thin</b> (see "Opening printing preferences" on page 45).</li></ul>
<ul style="list-style-type: none"><li>• <b>An unknown image repetitively appears on a few sheets</b></li><li>• <b>Loose toner</b></li><li>• <b>Light print or contamination occurs</b></li></ul>	<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 169).</p>



# Operating system problems

## Common Windows problems


Condition	Suggested solutions
<b>“File in Use” message appears during installation.</b>	Exit all software applications. Remove all software from the startup group, then restart Windows. Reinstall the printer driver.
<b>“General Protection Fault”, “Exception OE”, “Spool 32”, or “Illegal Operation” messages appear.</b>	Close all other applications, reboot Windows and try printing again.
<b>“Fail To Print”, “A printer timeout error occurred” message appear.</b>	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.
<b>Samsung Printer Experience is not shown when you click more settings.</b>	<b>Samsung Printer Experience</b> is not installed. Download the app. from the Windows <b>Store</b> and install it.
<b>Machine information is not displayed when you click the device in the Devices and Printers.</b>	Check the <b>Printer properties</b> . Click the <b>Ports</b> tab. ( <b>Control Panel</b> > <b>Devices and Printers</b> > Right-click on your printer icon and select <b>Printer properties</b> ) 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.

# Operating system problems

## Common Mac problems

Condition	Suggested solutions
<b>The machine does not print PDF files correctly. Some parts of graphics, text, or illustrations are missing.</b>	<p>Printing the PDF file as an image may enable the file to print. Turn on <b>Print As Image</b> from the Acrobat printing options.</p> <p> It will take longer to print when you print a PDF file as an image.</p>
<b>Some letters are not displayed normally during cover page printing.</b>	<p>Try printing the cover page as an image; or replace the corrupt image with a new one.</p>
<b>When printing a document in Mac with Acrobat Reader 6.0 or higher, colors print incorrectly.</b>	<p>Make sure that the resolution setting in your machine driver matches the one in Acrobat Reader.</p>



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

# Operating system problems

## Common Linux problems

condition	Suggested solutions
<b>There is no xsane nor simple-scan applicatin on my Linux machine.</b>	For some Linux distributions, there might be no default scan application. To use scan features, install one of scan applications using download center supplied by the OS(ex. Ubuntu Software Center for Ubuntu, Install/Remove Software for openSUSE, Software for Fedora).
<b>Scanner can not be found via network.</b>	For some Linux distributions, strong firewall is enabled and it may block our installer from opening the necessary port for searching network devices. In such a case, open the snmp port - 22161 manually or disable the firewall temporarily while using the device.
<b>When printing more than one copy, the second copy does not print.</b>	The problem occurs on Ubuntu 12.04 due to the problem in standard CUPS filter 'pdftops'. Update 'cups-filters' package to version 1.0.18 to fix the problem ('pdftops' is a part of 'cups-filters' package).
<b>Unchecking the collate option in the Print Dialog does not work.</b>	For some distributions, GNOME Print Dialog has an issue handling the collate option. As workaround, set the default value of collate option to <b>False</b> using the system's printing utility(execute "system-config-printer" in the Terminal program).
<b>Printing always works with duplex.</b>	This duplex issue was in Ubuntu 9.10 CUPS package. Update CUPS version to 1.4.1-5ubuntu2.2.
<b>Printer is not added through system's printing utility.</b>	The problem occurs on Debian 7 due to the defect in 'system-config-printer' package of the Debian 7 ( <a href="http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=662813">http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=662813</a> in Debian bug tracking system). Please use another way to add printer (CUPS WebUI for example)
<b>Paper size and orientation are disabled in the Print Dialog when opening text files.</b>	The problem occurs on Fedora 19 and it's related to 'leafpad' text editor on Fedora 19. Please use other text editors like 'gedit'.
<b>Printing produces divided images.</b>	This issue exists in openSUSE 13.2 due to wrong ghostscript provided by the system. Update 'cups-filters-ghostscript' package with the command "zypper install --force cups-filters-ghostscript" or with "Install/Remove Software" utility.



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

# Operating system problems

## Common PostScript problems

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

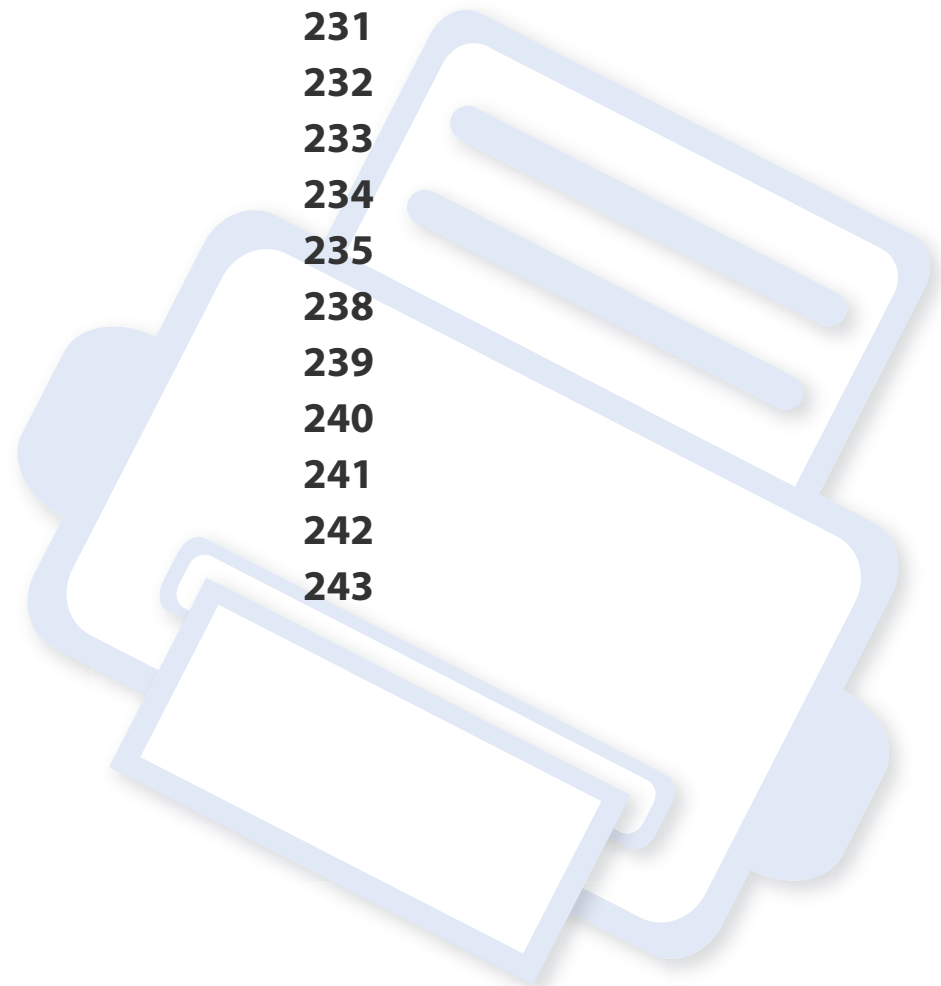
Problem	Possible cause	Solution
<b>The PostScript file cannot be printed</b>	The PostScript driver may not be installed correctly.	<ul style="list-style-type: none"><li>• Install the PostScript driver (see "Software Installation" on page 123).</li><li>• Print a configuration page and verify that the PS version is available for printing.</li><li>• If the problem persists, contact a service representative.</li></ul>
<b>Limit Check Error report prints</b>	The print job was too complex.	You might need to reduce the complexity of the page or install more memory.
<b>A PostScript error page prints</b>	The print job may not be PostScript.	Make sure that the print job is a PostScript job. Check to see whether the software application expected a setup or PostScript header file to be sent to the machine.
<b>The optional tray is not selected in the driver</b>	The printer driver has not been configured to recognize the optional tray.	Open the driver properties, select the <b>Device Options</b> tab, and set the tray option (see "Setting Device Options" on page 64).
<b>When printing a document in Mac with Acrobat Reader 6.0 or higher, colors print incorrectly</b>	The resolution setting in the printer driver may not be matched with the one in Acrobat Reader.	Make sure that the resolution setting in your printer driver matches the one in Acrobat Reader.



## 6. Useful Setting Menus

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

- **Before you begin reading a chapter** 230
- **Information** 231
- **Layout** 232
- **Paper** 233
- **Graphic** 234
- **System Setup** 235
- **Emulation** 238
- **Image Management** 239
- **Network** 240
- **Direct USB** 241
- **Job Management** 242
- **Admin Setup** 243





# 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 26).

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**) or from the touch screen.
- 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**).
- 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 26).

To change the menu options:

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

Item	Description
<b>Configuration</b>	<p>Prints a report on the machine's overall configuration.</p> <div><p>If the configuration report includes a QR code, then you can scan the code with your smartphone or tablet to see information about the printer.</p></div>
<b>Demo Page</b>	Prints the demo page to check whether your machine is printing properly or not.
<b>Network Configuration</b>	Prints a report on the machine's current network configuration.
<b>Supplies Information</b>	Prints supplies' information page.
<b>Usage Counter</b>	Prints a usage page. The usage page contains the total number of pages printed.

Item	Description
<b>Account<sup>a</sup></b>	Prints a report of printout counts for each user. This is only available when Job Accounting is enabled from the SyncThru™ Web Admin Service.
<b>Menu Map</b>	Prints the menu map which shows the layout and current settings of this machine.
<b>PCL Font</b>	Prints the PCL font list.
<b>PS Font</b>	Prints the PS font list.

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



# Layout

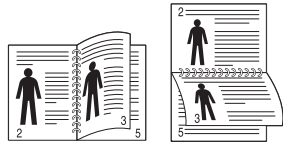
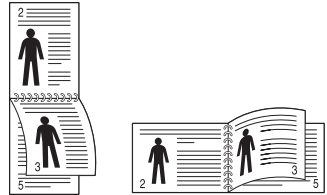


Some menus may not appear in the display depending on options or models. If so, it is not applicable to your machine (see "Menu overview" on page 26).

To change the menu options:

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

Item	Description
<b>Orientation</b>	<p>Selects the direction in which information is printed on a page.</p> <ul style="list-style-type: none"> <li>• <b>Portrait</b></li> </ul>  <ul style="list-style-type: none"> <li>• <b>Landscape</b></li> </ul> 

Item	Description
<b>Margin</b>	<ul style="list-style-type: none"> <li>• <b>Common Margin:</b> Sets the margin for each side of paper.</li> <li>• <b>MP Tray:</b> Sets the paper margins in multi-purpose tray.</li> <li>• <b>Tray[x]<sup>a</sup>:</b> Sets the paper margins for the paper trays.</li> <li>• <b>Emulation Margin:</b> Sets the paper margins for emulation print page.</li> </ul>
<b>Duplex</b>	<p>To print on both sides of the paper, choose the binding edge.</p> <ul style="list-style-type: none"> <li>• <b>Off:</b> Disables this option.</li> <li>• <b>Long Edge</b></li> </ul>  <ul style="list-style-type: none"> <li>• <b>Short Edge</b></li> </ul> 

a. [tray type] indicates the tray number.




# 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 26).

To change the menu options:

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

Item	Description
<b>Copies</b>	Selects the number of copies.
<b>Tray[x]/MP Tray<sup>a</sup></b>	<ul style="list-style-type: none"><li>• <b>Paper Size:</b> Selects the paper size currently loaded in the tray.</li><li>• <b>Paper Type:</b> Selects the paper type currently loaded in the tray.</li></ul>
<b>Paper Source</b>	Sets the default paper tray to use. <div data-bbox="425 1018 1081 1174"><b>Auto:</b> Automatically locates the tray with the same sized paper as an original.</div>
<b>Tray Confirm</b>	Activates the tray confirmation message. If you open and close a tray, a window asking you confirm the paper size and type. This message can be turned off if found to be annoying.

a. [tray type] indicates the tray number.

# 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 26).

To change the menu options:

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

Item	Description
<b>Resolution</b>	Specifies the number of dots printed per inch (dpi). The higher the setting, the sharper printed characters and graphics.
<b>Clear Text</b>	Prints text darker than on a normal document.
<b>Edge Enhancement</b>	Allows user to enhance sharpness of text and graphics for improving readability.
<b>Auto CR</b>	Allows you to append the required carriage return to each line feed, which is useful for Unix or DOS users.

# 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 26).


To change the menu options:

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

Item	Description
<b>Date &amp; Time</b>	Sets the date and time.
<b>Date Format</b>	Sets the date format.
<b>Clock Mode</b>	Selects the format for displaying time between 12 hours and 24 hours.
<b>Language</b>	Sets the language of the text that appears on the control panel display.
<b>Default Paper</b>	You can set the default paper size to use.
<b>Power Save</b>	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.


Item	Description
<b>Wakeup Event</b>	When this option is <b>On</b> , you can wake up the machine from the power saving mode with the following actions: <ul style="list-style-type: none"><li>• Loading paper in a tray.</li><li>• Opening or closing the front cover.</li><li>• Pulling a tray out or pushing a tray in.</li></ul>
<b>Job Timeout</b>	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.
<b>Held Job Timeout</b>	You can set the time to hold the temporarily stopped job.
<b>Altitude Adjustment</b>	Optimize print quality according to the machine's altitude ("Altitude adjustment" on page 169).
<b>Humidity</b>	Optimizes print quality according to the humidity in the environment.
<b>Job Rescheduling</b>	<b>Job Rescheduling</b> allows the machine to proceed to the next job when the current job pauses due to a paper mismatch or paper empty error.



# System Setup

Item	Description
<b>Auto Continue</b>	<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"> <li>• <b>After 0 Sec:</b> This option allows you to continue printing when the paper size you have set is mismatched with the paper in the tray.</li> <li>• <b>After 30 Sec:</b> If a paper mismatch occurs, an error message will display. The machine waits for about 30 second, then automatically clear the message and continue printing.</li> <li>• <b>Off:</b> If a paper mismatch occurs, the machine waits until you insert the correct paper.</li> </ul>
<b>Auto Tray Switch</b>	<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> <div style="border: 1px solid #ccc; background-color: #f9f9f9; padding: 10px; margin-top: 10px;">  This option does not appear if you selected <b>Auto</b> for <b>Paper Source</b> from printer driver.         </div>
<b>Paper Substitution</b>	<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>

Item	Description
<b>Tray Protection</b>	<p>Decides to use or not use the <b>Auto Tray Switch</b> feature for a certain tray. If you set tray 1 to on, for example, then tray 1 is excluded during tray switching.</p>
<b>Tray Mode</b>	<ul style="list-style-type: none"> <li>• <b>Dynamic:</b> 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 <b>Dynamic</b> mode, the machine presumes that the paper in the tray was replaced with the size and type required for the job.)</li> </ul>
<b>Skip Blank Pages</b>	<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>
<b>Maintenance</b>	<ul style="list-style-type: none"> <li>• <b>CLR Empty Msg.<sup>a</sup>:</b> When toner cartridge is empty, this option appears. You can clear the empty message.</li> <li>• <b>Supplies Life:</b> Allows you to check how many pages are printed and how much toner is left in the cartridge.</li> <li>• <b>RAM Disk<sup>b</sup>:</b> Enables/disables RAM disk to manage jobs.</li> <li>• <b>Paper Low Alert:</b> Allows you to set the alarm for when the paper is low.</li> </ul>

# System Setup

Item	Description
<b>Toner Save</b>	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.
<b>Quiet Mode</b>	You can reduce the printing noise by turning this menu on. However, the printing speed and quality may be declined.
<b>Eco Settings</b>	<p>Allows you to save print resources and enables eco-friendly printing (see "Eco printing" on page 47).</p> <ul style="list-style-type: none"> <li>• <b>Default Mode:</b> Select whether to turn the Eco mode on or off.</li> </ul> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;">  <b>On Force:</b> Sets the Eco mode on. If a user wants to turn the Eco mode off, the user needs to enter the password.         </div> <ul style="list-style-type: none"> <li>• <b>Select Template:</b> Selects the eco template set from the SyncThru™ Web Service.</li> </ul>

Item	Description
<b>Auto Power Off</b>	<p>Turns power off automatically when the machine has been in power save mode for the length of time set in <b>Auto Power Off &gt; On &gt; Timeout</b>.</p> <div style="border: 1px solid #ccc; padding: 5px; margin: 10px 0;">  <ul style="list-style-type: none"> <li>• To turn the machine on again, press the  (<b>Power/Wake Up</b>) button on the control panel (make sure the main power switch is on).</li> <li>• If you run the printer driver or Samsung Easy Printer Manager, the time automatically extends.</li> <li>• While the machine is connected to the network or working on a print job, <b>Auto Power Off</b> feature doesn't work.</li> </ul> </div>
<b>Filing Policy</b>	If the memory already has the same name when you entered a new file name, you can rename or overwrite it.

- a. This option only appears when small amount of toner is left in the cartridge.
- b. Some menus may not appear on the display depending on options or models. If so, it is not applicable to your machine.

# 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 26).

To change the menu options:

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

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

# Image Management



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 26).

To change the menu options:

- Press **☰(Menu)** > **Image Management** on the control panel.

Item	Description
<b>Custom Color</b>	<p>This menu allows you to adjust contrast, color by color.</p> <ul style="list-style-type: none"><li>• <b>Default:</b> Optimizes colors automatically.</li><li>• <b>Print Density:</b> Allows you to manually adjust color density for print. Adjust the print density.</li></ul> <p>It is recommended to use the <b>Default</b> setting for best color quality.</p>

# 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 26).

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 "Using SyncThru™ Web Service" on page 192).

Option	Description
<b>TCP/IP (IPv4)</b>	<p>Selects the appropriate protocol and configure parameters to use the network environment (see "Setting IP address" on page 130).</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  There are lots of parameters to be set. If you are not sure, leave as is, or consult the network administrator.         </div>
<b>TCP/IP (IPv6)</b>	Selects this option to use the network environment through IPv6 (see "IPv6 configuration" on page 140).

Option	Description
<b>Ethernet</b>	<p>Configure the ethernet port and network transmission speed.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  Turn the power off and on after you change this option.         </div>
<b>802.1x</b>	You can select the user authentication for network communication. For detailed information consult the network administrator.
<b>Wi-Fi<sup>a</sup></b>	Select this option to use the wireless network (see "Wireless network setup(Optional)" on page 142).
<b>Protocol Management</b>	<p>You can activate or deactivate the protocols.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  Turn the power off and on after you change this option.         </div>
<b>Network Configuration</b>	This list shows information on your machine's network connection and configuration (see "Printing a network configuration report" on page 130).
<b>Clear Settings</b>	<p>Reverts the network settings to the default values.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  Turn the power off and on.         </div>

a. This option is available when the optional Wireless/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 26).

To change the menu options:

Item	Description
<b>Print From</b>	Select a file to print.
<b>File Manage</b>	Select a file to delete. You can format the USB device.
<b>Show Space</b>	Shows the remaining space.

# Job Management



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 26).

To change the menu options:

Item	Description
<b>Active Job</b>	Displays the list of jobs in progress and pending.
<b>Secured Job</b>	Displays the list of jobs that are secured on the disk
<b>Stored Job</b>	Displays the list of jobs that are stored on the disk.

# Admin 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 26).
- You need to enter the password to access this menu. The default password is **sec00000**.

To change the menu options:

- Press **Menu** > **Admin Setup** on the control panel.

Item	Description
<b>Stamp</b>	<p>You can apply the stamp feature.</p> <ul style="list-style-type: none"> <li>• <b>Stamp Activate:</b> You can activate stamp feature.</li> <li>• <b>Item:</b> You can select the items to print on the printout such as time, date, and etc.</li> <li>• <b>Text Size:</b> You can select the text size such as small, normal, large.</li> <li>• <b>Opacity:</b> You can select the stamp transparency.</li> <li>• <b>Position:</b> Sets the stamp position.</li> </ul>
<b>Change Admin Password</b>	Changes the machine's password for accessing the <b>Admin Setup</b> .
<b>Firmware Upgrade</b>	To upgrade the latest firmware, turn this option " <b>On</b> " and then download the firmware file.
<b>Import Setting</b>	Imports data stored on a USB memory stick to the machine (see "Backing up data" on page 52).

Item	Description
<b>Export Setting</b>	Exports data stored on the machine stick to a USB memory (see "Restoring data" on page 52).
<b>Secure Print<sup>a</sup></b>	<p>You can set the login method of secure print.</p> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 10px;">  This option is available when the <b>System Setup &gt; Maintenance &gt; RAM Disk</b> is enabled.         </div>
<b>Supplies Management</b>	<ul style="list-style-type: none"> <li>• <b>Toner Low Alert:</b> 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.</li> </ul>

a. This option is available when the **System Setup > Maintenance > RAM Disk** is enabled.



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 shade 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.

# Glossary

## 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, labels, and transparencies 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.

# Index

## A

---

accessories	
installing	64
ordering	57
AirPrint	164, 166
AnyWeb Print	190

## B

---

buttons	
eco	20
print screen	20

## C

---

cleaning	
inside	71
outside	70
pickup roller	73
cleaning a machine	70
control panel	20
convention	10

## D

---

default settings	
tray setting	42

device options	64
direct printing utility	181
driver installation	
Unix	138

## E

---

eco printing	47
entering character	170
error message	91

## F

---

favorites settings, for printing	46
features	5
machine features	229
print media feature	102

## G

---

general icons	10
general settings	235
glossary	244

## J

---

jam	
clearing paper	78

tips for avoiding paper jams	77
------------------------------	----

## L

---

layout	232
Linux	
common Linux problems	227
driver installation for network connected	137
driver installation for USB cable connected	126
driver reinstallation for USB cable connected	127
printer properties	184
printing	183
system requirements	107
using SetIP	132

## loading

paper in multi-purpose (or manual feeder)	
tray	37
paper in the tray1	35
paper in the tray1 / optional trays	35
special media	39

## M

---

### Mac



# Index

common Mac problems	226	loading	37	ordering	57
driver installation for network connected	137	tips on using	37	output support	43
driver installation for USB cable connected	124	using special media	39	overlay printing	
driver reinstallation for USB cable connected	125			create	177
printing	182			delete	178
system requirements	106			print	178
using SetIP	131				
machine overview		<b>N</b>			
front view	18	network			
rear view	19	driver installation			
maintenance parts	58	Linux	137	<b>P</b>	
memory		Mac	137	paper	233
memory upgrading	66	UNIX	138	placing a machine	
menu		Windows	133	adjusting the altitude	169
admin setup	243	general setup	240	postScript driver	
direct usb	241	installing environment	108	troubleshooting	228
emulation	238	introducing network programs	129	print	
information	231	IPv6 configuration	140	mobile OS	163
job management	242	SetIP program	130, 131, 132, 149	mobileprint	163
menu map	231	wired network setup	130	print media	
menu overview	26	wireless network setup	142	card stock	42
multi-purpose (or manual feeder) tray		numeric keypad	20	envelope	39
		n-up printing		labels	41
		Mac	182	output support	102
		<b>O</b>		preprinted paper	42
		optional tray	57	setting the paper size	42
				setting the paper type	42

# Index

special media	39	printing feature	171	available supplies	56
printer preferences		problem		estimated toner cartridge life	60
Linux	184	operating system problems	225	monitoring the supplies life	68
printer status		problems		ordering	56
general information	201	paper feeding problems	211	replacing toner cartridge	62
printing		power problems	212	SyncThru Web Service	
changing the default print settings	171	printing problems	213	general information	192
Linux	183	printing quality problems	217	SyncThru™ Web Service	192
Mac	182				
multiple pages on one sheet of paper		<b>R</b>		<b>T</b>	
Mac	182	regulatory information	109	toner cartridge	
printing a document				estimated life	60
Windows	44	<b>S</b>		handling instructions	59
printing on both sides of paper		safety		non-Samsung and refilled	59
Mac	183	symbols	11	redistributing toner	61
printing to a file	172	samsung printer experience	203	replacing the cartridge	62
setting as a default machine	171	Samsung Printer Status	201	storing	59
special printer features	173	secure printing	49	tray	
UNIX	185	SetIP program	130, 149	adjusting the width and length	33
using direct printing utility	181	Special features	168	changing the tray size	33
printing a document		specifications	100	loading paper in multi-purpose (or manual feeder) tray	37
Linux	183	print media	102	ordering an optional tray	57
Mac	182	status	20	setting the paper size and type	42
UNIX	185	supplies			

## U

---

understanding the status LED 89

### UNIX

driver installation for network connected  
138

printing 185

### Unix

system requirements 107

### USB cable

driver installation 22, 24, 124, 126

driver reinstallation 125, 127

### USB flash memory

data backup 52

managing 52

### USB memory device

printing 51

using help 46, 183

## W

---

### watermark

create 176

delete 176

edit 176

### Windows

common Windows problems 225

driver installation for network connected  
133

driver installation for USB cable connected  
22, 24

system requirements 105

using SetIP 130, 149

### wireless

#### WPS

disconnecting 143, 144

### wireless network

network cable 149