Color Laser Printer User's Guide

CLP-610 Series
CLP-660 Series

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TAIWAN	0800-329-999	www.samsung.com/tw
THAILAND	1800-29-3232 02-689-3232	www.samsung.com/th
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About this user’s guide

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

This explanation is mainly based on the Microsoft Windows operating system.

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

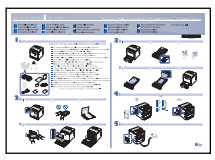
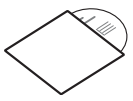
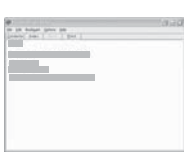
- Document is synonymous with original.
- Paper is synonymous with media, or print media.
- The model name such as CLP-6xx Series is synonymous with the machine.

The following table offers the conventions of this guide.

Convention	Description	Example
Bold	Used for texts on the display or actual prints on the machine.	**Start**
Note	Used to provide additional information or detailed specification of the machine function and feature.	**Note** The date format may differ from country to country.
Caution	Used to give users information to protect the machine from possible mechanical damage or malfunction.	**Caution** Do not touch the green underside of the print cartridge.
Footnote	Used to provide more detailed information on certain words or a phrase.	a. pages per minute
(See page 1.1 for more information)	Used to guide users to the reference page for the additional detailed information.	(See page 1.1 for more information)

Finding more information

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

Quick Install Guide 	Provides information on setting up your machine and this requires that you follow the instructions in the guide to prepare the machine.
Online User’s Guide 	Provides you with step-by-step instructions for using your machine’s full features, and contains information for maintaining your machine, troubleshooting, and installing accessories. This user’s guide also contains Software section to provide you with information on how to print documents with your machine in various operating systems, and how to use the included software utilities. **Note** You can access the user’s guide in other languages from the Manual folder on the printer software CD.
Network Printer User’s Guide 	Contained on the Network Utilities CD, this guide provides you with information on setting up and connecting your machine to a network.
Printer Driver Help 	Provides you with help information on printer driver properties and instructions for setting up the properties for printing. To access a printer driver help screen, click **Help** from the printer properties dialog box.
Samsung website	If you have Internet access, you can get help, support, printer drivers, manals, and order information from the Samsung website, www.samsungprinter.com.

Safety and Regulatory Information

Important Precautions and Safety Information

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

1 Read and understand all instructions.

2 Use common sense whenever operating electrical appliances.

3 Follow all warnings and instructions marked on the machine and in the literature accompanying the machine.

4 If an operating instruction appears to conflict with safety information, heed the safety information. You may have misunderstood the operating instruction. If you cannot resolve the conflict, contact your sales or service representative for assistance.

5 Unplug the machine from the AC wall socket before cleaning. Do not use liquid or aerosol cleaners. Use only a damp cloth for cleaning.

6 Do not place the machine on an unstable cart, stand or table. It may fall, causing serious damage.

7 Your machine should never be placed on, near or over a radiator, heater, air conditioner or ventilation duct.

8 Do not allow anything to rest on the power cable. Do not locate your machine where the cords will be abused by persons walking on them.

9 Do not overload wall outlets and extension cords. This can diminish performance, and may result in the risk of fire or electric shock.

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

11 Never push objects of any kind into the machine through case or cabinet openings. They may touch dangerous voltage points, creating a risk of fire or shock. Never spill liquid of any kind onto or into the machine.

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

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

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

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

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

16 If you continuously print multiple pages, the surface of the output tray may become hot. Be careful not to touch the surface, and keep children away from the surface.

17 The Power cord supplied with your machine should be used for safe operation. If you are using a cord which is longer than 2 m with 110 V machine, then it should be 16 AWG[1] or bigger.

18 SAVE THESE INSTRUCTIONS.

Environmental and Safety Consideration

Laser Safety Statement

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

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

Warning

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

1 AWG: American Wire Gauge

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

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

DANGER - LASER RADIATION AVOID DIRECT EXPOSURE TO BEAM.

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

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

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

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

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

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

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

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

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

VAROITUS - NÄKYMÄTÖNTÄ LASERSÄTEILYÄ AVATTAESSA. VARO SUORAA ALTISTUMISTA SÄTEELLE.

注 意 - 严禁揭开此盖, 以免激光泄露灼伤

주 의 - 이 덮개를 열면 레이저광에 노출될 수 있으므로 주의하십시오.

Ozone Safety

During normal operation, this machine produces ozone. The ozone produced does not present a hazard to the operator. However, it is advisable that the machine be operated in a well ventilated area.

If you need additional information about ozone, please contact your nearest Samsung dealer.

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.

Recycling

Please recycle or dispose of packaging materials for this product in an environmentally responsible manner.

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

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

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

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

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

Radio Frequency Emissions

FCC Regulations

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 device 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 an experienced radio/TV technician for help.

Caution:

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

Canadian Radio Interference Regulations

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

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

Declaration of Conformity (European Countries)

Approvals and Certifications

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

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

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

March 9, 1999: Council Directive 1999/5/EC on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity.

A full declaration, defining the relevant Directives and referenced standards can be obtained from your Samsung Electronics Co., Ltd. representative.

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.

Please contact the people from you purchased the machine.

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

Warning

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

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

Important warning: You must earth this machine.

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

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

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

You must connect the green and yellow wire to the pin marked by the letter “E” or by the safety ‘Earth symbol’ or colored green and yellow or green.

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

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

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

SAMSUNG ELECTRONICS

EU Declaration of Conformity (R&TTE)

We, Samsung Electronics Co, Ltd.

of Samsung Electronics Co.,Ltd. #259. GongDan-Dong,Gumi-City, Kyung-Buk, KOREA 730-030
(factory name, address)

declare under our sole responsibility that the product

Multi-function Printer
model "SCX-6345N"

to which this declaration relates is in conformity with

RTTE Directive 1999/5/EC (Annex Ⅱ)
Low Voltage Directive 73/23/EEC
EMC Directive 89/336/EEC:92/31/EEC

By application of the following standards

RTTE : TBR 21, EG 201 121 V1.1.3(2000-02)

LVD : EN 60950-1:2001+A11:2004, EN60825-1:1994+A11:1996+A1:2002+A2:2001

EMC : EN55022:1998+A1:2000+A2:2003, EN55024:1998 +
A1:2001+A2:2003, EN61000-3-2:2000, EN61000-3-3:1995+A1:2001

EMC(RFID) : ESTI EN 301 489-1 V1.7.1(2006-7),ESTI EN 301 489-3 V1.4.1(2002-8)

R&TTE(RFID) : ETSI EN 300 330-1 V1.5.1(2006-4)

(Manufacturer)

Samsung Electronics co.,ltd
#259,KongDan-Dong,GuMi-City
KyungBuk, Korea 730-030

(place and date of issue)
2006-09-25

Whan-Soon Yim / General Manager
(name and signature of authorized person)

(Representative in the EU)

Samsung Electronics Euro QA Lab.
Blackbushe Business Park
Saxony Way, Yateley, Hampshire
GU46 6GG, UK

(place and date of issue)
2006-09-25

Yong-Sang Park / Manager
(name and signature of authorized person)

1 Introduction

Thank you for purchasing this Samsung color printer.

This chapter includes:

- **Special features**
- **Machine overview**
- **Control panel overview**
- **Understanding the Status LED**
- **Understanding the menu map**

Note

Some features are optional. Please check the specifications sections. (See "Specifications" on page 10.1.)

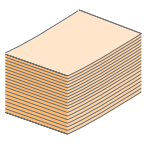
Special features

Your new machine is equipped with special features.

Print with excellent quality and speed

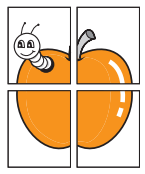
- You can print in a full range of colors using cyan, magenta, yellow, and black.
- You can print with a resolution of up to **2400 x 600 dpi**. See Software section.
- Your machine prints A4-sized paper at up to 20 ppm[a] (CLP-610 series), 24 ppm (CLP-660 series) and letter-sized paper at up to 21 ppm (CLP-610 series), 25 ppm (CLP-660 series).
- For double-sided printing, which is supported in CLP-610ND and CLP-660ND, you can print A4-sized paper at up to 9 ipm[b] and letter-sized paper at up to 12 ipm.

Handle different paper options with flexibility



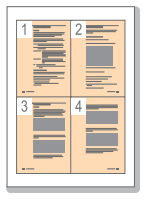
- The **multi-purpose tray** supports letterhead, envelopes, labels, custom-sized media, postcards, and heavy paper. The **multi-purpose tray** holds up to 100 sheets of plain paper for the CLP-610ND and CLP-660 series.
- The **250-sheet tray 1** and **500-sheet optional tray** support plain paper in various sizes.

Create professional documents



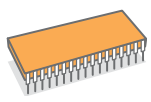
- Print **Watermarks**. You can customize your documents with words, such as “Confidential”. See Software section.
- Print **Posters**. The text and pictures of each page of your document are magnified and printed across the sheet of paper and can then be taped together to form a poster. See Software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

Save time and money



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

Expand your machine’s capacity



- Your machine has an extra memory slot to expand their memory. (Page 8.1)
- Zoran IPS Emulation* compatible with **PostScript 3 Emulation*** (PS) enables PS printing.

* Zoran IPS Emulation compatible with PostScript 3

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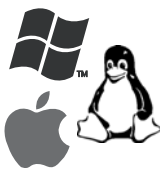
* 136 PS3 fonts
Contains UFST and MicroType from Monotype Imaging Inc.

Print in various environments



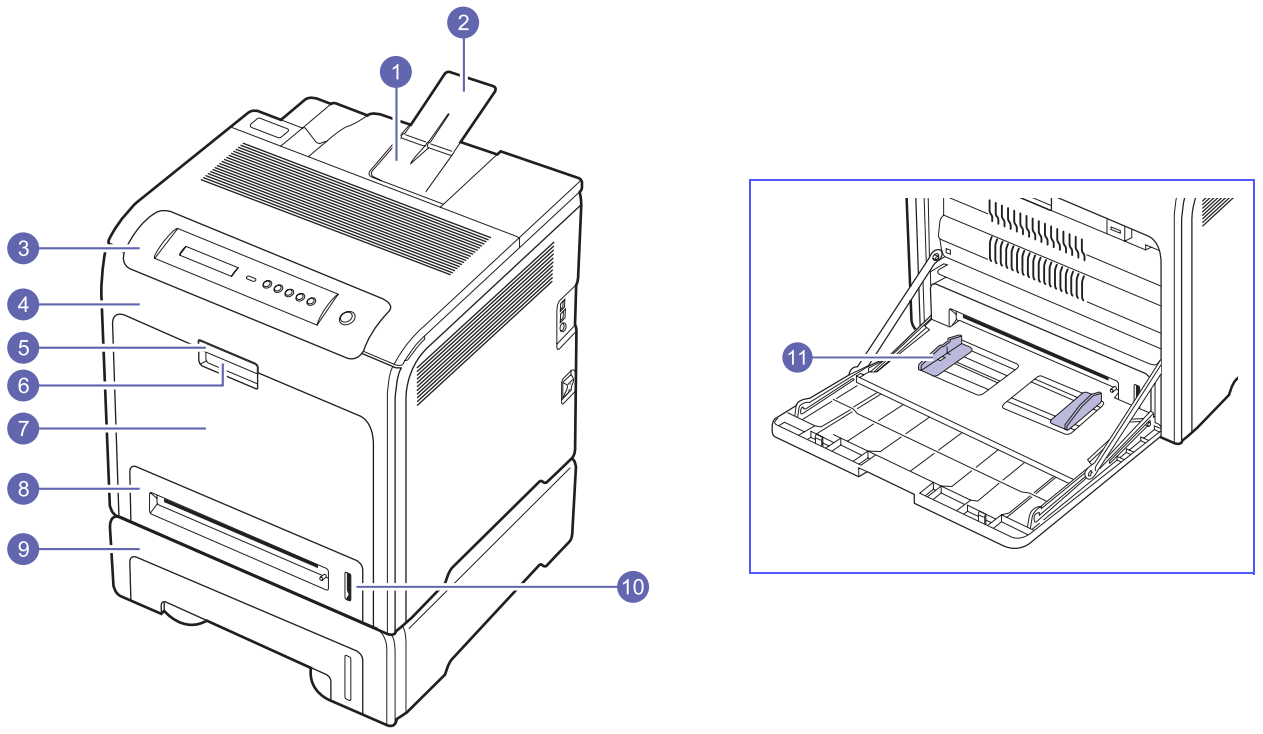
- You can print with **Windows 2000/XP/2003/Vista** as well as **Linux** and **Macintosh** systems.
- Your machine is equipped with a **USB** interface and a **network** interface.

a. pages per minute
b. images per minute

Machine overview

These are the main components of your machine.

Front view



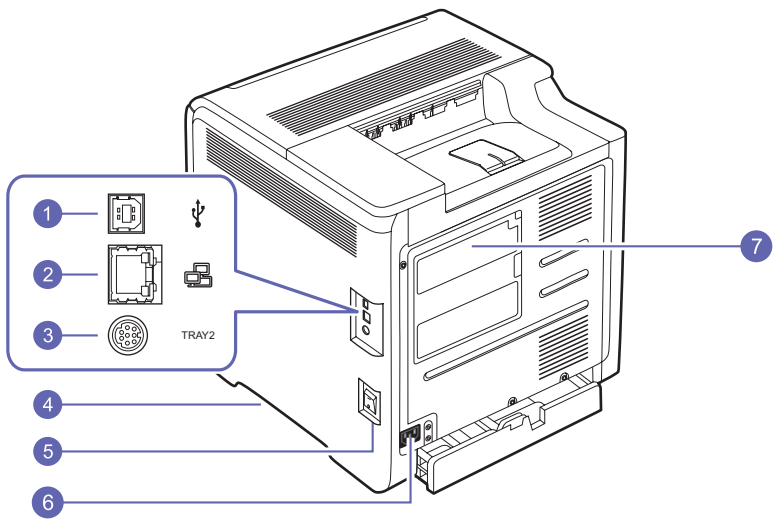
- The figure above shows your machine with the available accessories. (See page 8.1 for more information)
- The symbol * denotes an optional device.

1	output tray	7	multi-purpose tray
2	output support	8	tray 1
3	control panel	9	optional tray*
4	front cover	10	paper level indicator
5	front cover handle	11	multi-purpose tray paper width guides
6	multi-purpose tray handle		

Note

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

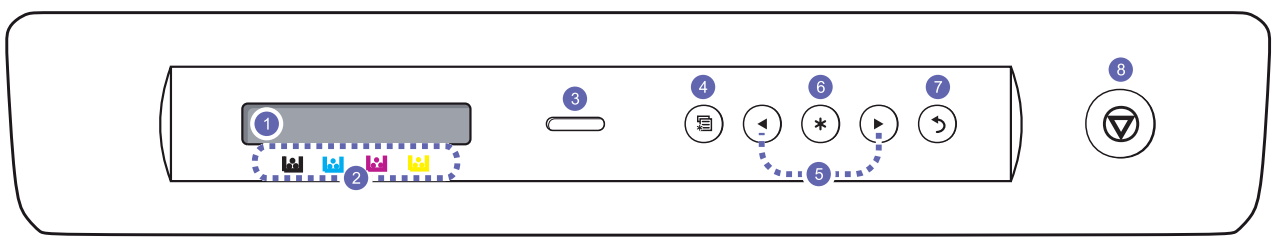
Rear view



- The figure above shows your machine with the available accessories.
- The symbol * denotes an optional device.

1	**USB port**	5	**power switch**
2	**network port**	6	**power receptacle**
3	**15-pin Optional tray connection***	7	**control board cover** (Memory module, see page 9.1 for more information)
4	**handle** (Use these handles to move your machine.)		

Control panel overview



1	**Display**: Shows the current status and prompts during an operation.	5	**Left/right arrow**: Navigates available values by moving to the next or previous options.
2	**Toner colors**: The toner colors shown below the LCD display work together with display messages. See Status LED with the print cartridge messages on page 1.5.	6	**OK**: Confirms the selection on the display.
3	**Status**: Shows the status of your machine. (See "Understanding the Status LED" on page 1.5 for more information.)	7	**Back**: Sends you back to the upper menu level.
4	**Menu**: Enters Menu mode and scrolls through the available menus. (See "Understanding the Status LED" on page 1.5 for more information.)	8	**Stop**: Stops an operation at any time.

Understanding the Status LED

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

Status		Description
Off		• The machine is powered off.
Green	Blinking	• When the backlight slowly blinks, the machine is receiving data from the computer. • When the backlight blinks rapidly, the machine is printing data.
	On	• The machine is powered on and can be used. • The machine is in power save mode. When data is received, or any button is pressed, it switches to the ready mode automatically.
Red	Blinking	• A minor error has occurred and the machine is waiting for the error to be cleared. Check the display message, and solve the problem referring to "Understanding display messages" on page 7.7. • The print cartridge is low. Order a new print cartridge, see "Ordering supplies and accessories" on page 8.1. You can temporarily improve print quality by redistributing the toner. See "Replacing the print cartridge" on page 6.4.
	On	• A problem has occurred such as a paper jam, opened cover or no paper in the tray, so that the machine can not continue the job. Check the message on the display, and refer to Understanding display messages on page 7.7 to solve the problem. • The print cartridge is low, empty, or needs to be changed. See "Understanding display messages" on page 7.7.

Note

Always check the message on the display to solve the problem. The instruction in the Troubleshooting section will guide you to operate the machine properly. See page 7.1 for more information.

Status LED with the print cartridge messages

The status of print cartridges is indicated by the status LED and the LCD display. If the print cartridge is low or needs to be changed, the status LED turns red and the display shows the message. However the arrow mark (or marks) shows which color toner is of concern or may be installed with a new cartridge.

Example:

The above example shows the print cartridges' status of the color shown by arrows. Check the message to find out what the problem is and how to solve it. See page 7.7 to browse the detailed information on error messages.

Understanding the menu map

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

Accessing menus

The next steps show how to print the menu map of this machine, and they are the general way to select menus and configure your machine.

1 Make sure your machine is properly connected with all the necessary cables, and turn on the machine.

2 Press **Menu** on the control panel, until you see the menu (ex. 1.Information) you want on the bottom line of the display.

3 Press **OK** to access the menu.

4 Press left/right arrow until the menu item (ex. Menu Map) you want displays on the bottom line.

5 Press the **OK** button to confirm the selected item.

Note
If the menu item has sub menus, repeat steps 4 and 5.

6 Press left/right arrow until the menu item (ex. Print?) you want displays on the bottom line.

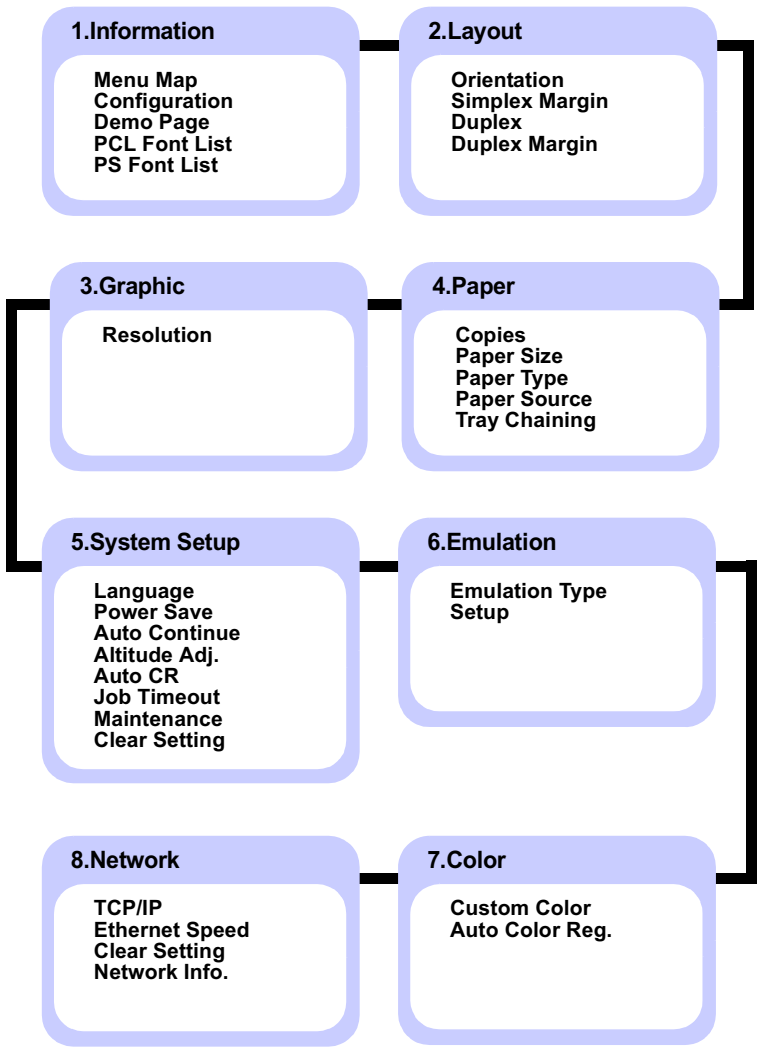
7 Press **OK** to process your selection, save your input or selection.

An asterisk (*) appears next to the selection on the display, indicating that it is now the default.

8 To exit the menu, press **Back** repeatedly, or **Stop**.

Note
- If no key is pressed within 1 minute, the machine automatically returns to ready mode.
- The print settings made from the printer driver on a connected computer override the settings on the control panel.

Menu overview



Description on each menu

The following tables provide the information on each menu.

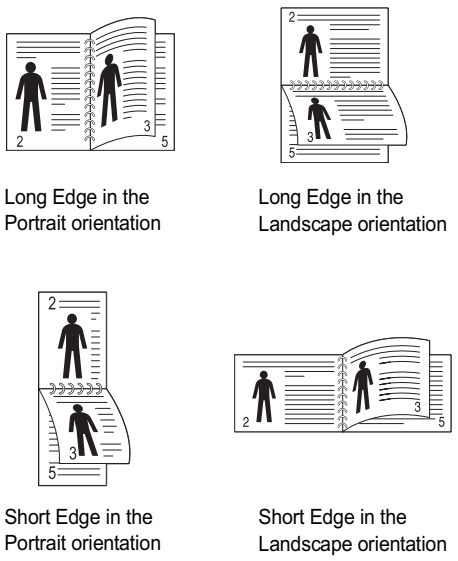
Note
The symbol * denotes an optional menu depending on machines.

1.Information

Menu	Description
Menu Map	You can print the menu map which shows the layout and current settings of this machine.
Configuration	You can print the machine's current configuration.
Demo Page	You can print the demo page whether your machine is printing properly or not.
PCL Font List*	You can print the PCL font list.
PS Font List*	You can print the PS font list.

2.Layout

Menu	Description
Orientation	This menu allows you to select the direction in which information is printed on a page. **Landscape** and **Portrait** are selectable. **Portrait** **Landscape**
Simplex Margin	Set the margin of print materials for one-sided printing. You can increase or decrease the value in 0.1 mm increments. • **Top Margin**: Set the top margin. • **Left Margin**: Set the left margin.

Menu	Description
Duplex*	To print on both sides of paper, choose the binding edge as follows. • **Long Edge**: Flip on the long edge. • **Short Edge**: Flip on the short edge. Select **Off** to print on one side of the paper.  Long Edge in the Portrait orientation Long Edge in the Landscape orientation Short Edge in the Portrait orientation Short Edge in the Landscape orientation
Duplex Margin*	In this menu, you can set the margins for double-sided printing. You can increase or decrease the value in 0.1 mm increments. • **Top Margin**: Set the top margin. • **Left Margin**: Set the left margin. • **Short Binding**: Set the bottom margin of the back of the page for short binding. • **Long Binding**: Set the right margin of the back of the page for long binding.

3.Graphic

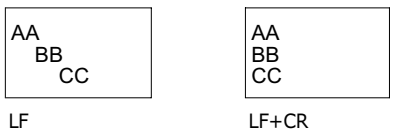
Menu	Description
Resolution	You can select the default resolution. If the resolution is high, the clarity of the printouts is sharper, but the print time may take longer.

4.Paper

Menu	Description
Copies	You can select the maximum amount of copies.
Paper Size	You can select the default paper size. (See page 3.5 for more information)
Paper Type	You can select the default paper type for the print media.
Paper Source	You can select the tray to process the print job. If you select **Auto**, your machine supplies the paper from the multi-purpose tray first, than the tray 1, and tray 2 for the last. So if any tray is empty, then the machine try to search the paper from the next available tray. (See page 3.5 for more information)
Tray Chaining	When you select any other value except **Auto** from **Paper Source** and the selected tray is empty, you can set the machine to automatically print from other trays. If this menu item is set to **Off**, the machine does not work until you insert paper into the specified tray.

5.System Setup

Menu	Description
Language	The language setting for the display on the control panel determines the language of the text that appears on the control panel display and for printing information. (See page 3.5 for more information)
Power Save	When the machine does not receive data for an extended period of time, power consumption is automatically lowered. You can set how long the machine waits before going to power save. (See page 3.5 for more information)
Auto Continue	This item determines whether or not the machine continues printing when it detects paper that is not matched to your paper setting. • **Off**: If a paper mismatch occurs, the message remains on the display and the machine remains off-line until you insert the correct paper. • **On**: If the paper is mismatched, an error message displays. The machine goes off-line for 30 seconds then automatically clears the message and continues printing.
Altitude Adj.	You can optimize the print quality according to your altitude.

Menu	Description
Auto CR	This option allows you to append the required carriage return to each line feed, which is useful to the Unix user or DOS user. Refer to the following samples: 
Job Timeout	You can set the amount of time a single print job is active before it must print. The machine handles incoming data as a single job, if it comes in within the specified time. When an error occurs while processing data from the computer and the data flow stops, the machine waits the specified amount of time and then cancels printing if data flow does not resume. (See page 3.5 for more information)
Maintenance	This menu allows you to maintain consumables within the machine and check supplies' life. You can clean fuser components. (See page 6.1 for more information)
Clear Setting	This menu item allows you to restore the printer's factory default settings.

6.Emulation

Menu	Description
Emulation Type	You can select the machine language. If the languages from the computer and the machine are different, the printing quality can not be confirmed. It is recommended to set this menu to Auto to switch the proper language.
Setup	**PCL** This menu sets the PCL emulation configuration. You can set the font type, symbol type, lines per page, and font size. • **Typeface**: You can select the standard font to be used in PCL emulation. PCL1~PCL7's interval between letters is fixed, and PCL8~PCL45's interval is proportional to the font type and font size. You can adjust the font size of PCL1~PCL7 using the **Pitch** item, and PCL8~PCL45 can do using **Point Size** item. PCL46~PCL54's interval and font size are fixed. • **Symbol**: This item selects the symbol set to be used in PCL emulation. The symbol is the group of numbers, marks, and special signs being used when printing letters. Depending on the Typeface setting, available symbol sets vary. • **Point Size**: When you select one between PCL8 and PCL45 from the **Typeface** menu, you can determine the font size by setting the height of the characters in the font. • **Courier**: This item lets you select the version of Courier font to use. • **Pitch**: When you select one between PCL1 and PCL7 from the **Typeface** menu, you can determine the font size by setting the number of characters that will print in one horizontal inch of type. The default value, 10 is the best size. • **Lines**: This item allows you to set vertical spacing from 5 to 128 lines for the default paper size. The default number of lines may differ according to the paper size and printing orientation. **PostScript** This menu provides you with the Print PS Error menu item. You can select whether or not your printer prints an error list when a PS error occurs. Select **On** to print PS 3 emulation errors. If an error occurs, the job stops processing, the error message prints, and the printer flushes the job. If this menu is set to **Off**, the job is flushed without an indication of the error.

7.Color

Menu	Description
Custom Color	This menu allows you to adjust contrast, color by color. • **Default**: Optimizes colors automatically. • **Manual Adjust**: Allows you to manually adjust the color contrast for each cartridge. It is recommended to use the **Default** setting for best color quality.
Auto Color Reg.	You can adjust the position of color texts or graphics to match the position of the printed colors to those on your screen. **Note** If you have moved the machine, it is strongly recommended to operate this menu manually.

8.Network

Menu	Description
TCP/IP	If you are using the TCP/IP protocol for networking, select this menu. • **DHCP**: The DHCP server allots an IP address to you automatically. • **BOOTP**: The BOOTP server allots an IP address to you automatically. • **Static**: You can enter an IP address, subnetmask, and gateway manually.
Ethernet Speed	This item allows you to select the communication speed for ethernet connection.
Clear Setting	You can clear the network setting you have set.
Network Info.	You can print the network configuration report.

2 Software overview

This chapter gives you an overview of the software that comes with your machine. Further details on how to use the software are explained in the Software section.

This chapter includes:

- **Supplied software**
- **Printer driver features**
- **System requirements**

Supplied software

You must install the machine software using the supplied CDs after you have set up your machine and connected it to your computer.

Each CD provides you with the following software:

CD	Contents	
Printer software CD	Windows	• **Printer driver**: Use this driver to take full advantage of your machine's features. • **PostScript Printer Description (PPD) file**[a]: Use the PostScript driver to print documents with complex fonts and graphics in the PS language. • **Smart Panel**: This program allows you to monitor the machine's status and alerts you when an error occurs during printing. • User's Guide in PDF
	Linux	• **PostScript Printer Description**[a]: Use this driver to run your machine from a Linux computer and print documents.
	Macintosh	• **Postscript Printer Description (PPD) file**[a]: Use this file to run your machine from a Macintosh computer and print documents. • **Smart Panel**: This program allows you to monitor the machine's status and alerts you when an error occurs during printing.
Network Utilities CD	Windows	• **SyncThru™ Web Admin Service**: Use this web-based program to remotely manage, monitor, and troubleshoot network machines. • **SetIP**: Use this program to set your machine's TCP/IP addresses. • Network Printer User's Guide in PDF

a. This feature is available with the CLP-660 series only.

Printer driver features

Your printer drivers support the following standard features:

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

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

Printer driver

Feature	Windows	Linux	Macintosh (CLP-610 series only)
Color mode	O	O	O
Machine quality option	O	O	O
Poster printing	O	X	X
Multiple pages per sheet (N-up)	O	O (2, 4)	O (2, 4, 6, 9, 16)
Fit to page printing	O	X	X
Scale printing	O	X	O
Different source for first page	O	X	O
Watermark	O	X	X
Overlay	O	X	X
Duplex	O	X	X

PostScript driver

Feature	Windows	Linux	Macintosh (CLP-660 series only)
Color mode	O	O	O
Machine quality option	O	O	O
Poster printing	X	X	X
Multiple pages per sheet (N-up)	O	O (2, 4)	O (2, 4, 6, 9, 16)
Fit to page printing	O	X	X
Scale printing	O	X	O
Different source for first page	X	X	O
Watermark	X	X	X
Overlay	X	X	X
Duplex	O	X	X

System requirements

Before you begin, ensure that your system meets the following requirements:

Windows

Your machine supports the following Windows operating systems.

OS	Requirement (recommended)		
	CPU	RAM	free HDD space
Windows 2000	Pentium II 400 MHz (Pentium III 933 MHz)	64 MB (128 MB)	650 MB
Windows XP	Pentium III 933 MHz (Pentium IV 1 GHz)	128 MB (256 MB)	1.5 GB
Windows 2003 Server	Pentium III 933 MHz (Pentium IV 1 GHz)	128 MB (512 MB)	1.25 GB to 2 GB
Windows Vista	Pentium 4.3 GHz	512 MB (1024 MB)	15 GB

Note

- Internet Explorer 5.0 or higher is the minimum requirement for all Windows operating systems.
- Users who have an administrator right can install the software.

Linux

Item	Requirements
Operating system	• Red Hat 8 ~ 9 • Fedora Core 1 ~ 4 • Mandrake 9.2 ~ 10.1 • SuSE 8.2 ~ 9.2
CPU	Pentium IV 1 GHz or higher
RAM	256 MB or higher
free HDD space	1 GB or higher
Software	• Linux Kernel 2.4 or higher • Glibc 2.2 or higher • CUPS

Macintosh

Item	Requirements
Operating system	Macintosh 10.3 ~ 10.4 (CLP-610 series) Macintosh 10.1 ~ 10.4 (CLP-660 series)
CPU	Intel processor PowerPC G4 /G5
RAM	512 MB for an Intel-based Mac, 128 MB for a Power-PC based Mac
free HDD space	1 GB
Connection	USB interface or Network interface

3 Getting Started

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

This chapter includes:

- **Setting up the hardware**
- **Setting up the network**
- **Installing the software**
- **Printer's basic settings**

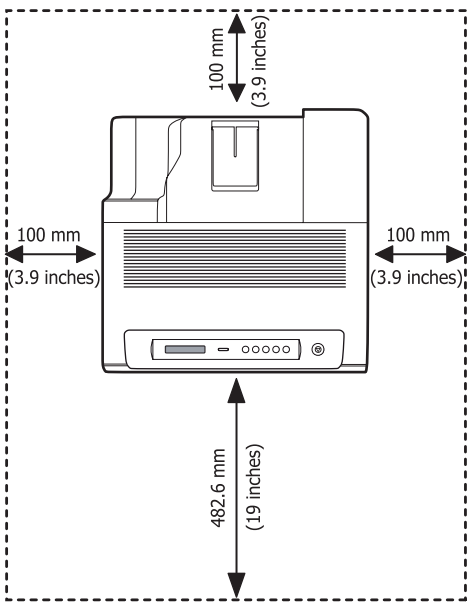
Setting up the hardware

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

1 Select a stable location.

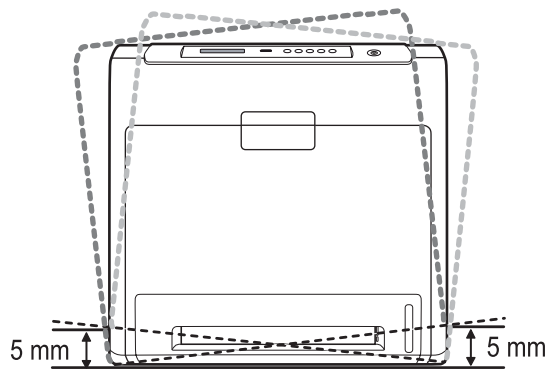
Select a level, stable place with adequate space for air circulation. Allow extra space to open covers and trays.

The area should be well-ventilated and away from direct sunlight or sources of heat, cold, and humidity. Do not set the machine close to the edge of your desk or table.



Printing is suitable for altitudes under 2,500 m (8,200 ft). Refer to the altitude setting to optimize your printing. See page 3.4 for more information.

Place the machine on a flat and stable surface for not letting it tilt more than 5 mm (0.2 inches). Otherwise, it may affect the printing quality.



Allow a flat surface area of 5 mm (0.2 inches) to surround all sides.

2 Unpack the machine and check all the enclosed items.

3 Remove the tape holding the machine tightly.

4 Install both the print cartridge.

5 Load paper. (See "Loading paper" on page 4.4.)

6 Make sure that all the cables are connected to the machine.

7 Turn the machine on.

Caution

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

Setting up the network

You need to set up the network protocols on the machine to use it as your network printer. You can set up the basic network settings with the machine's touch screen.

Note

- If you want to use the USB cable, connect the cable between a computer and you machine. Then, refer to the software installation in Software section.
- For detailed information on network settings, please, refer to the Network Printer Quick Guide, or the on-line user's guide on the Network Utilities CD.

Supported operating systems

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

Item	Requirements
Network interface	10/100 Base-TX
Network operating system	Windows 2000/XP/2003/Vista Various Linux OS Macintosh 10.3 ~ 10.4 (CLP-610 series) Macintosh 10.1 ~ 10.4 (CLP-660 series)
Network protocols	TCP/IP
Dynamic addressing server	DHCP, BOOTP

Configuring network protocol via the machine

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

1 Make sure your machine is connected to the network with an RJ-45 Ethernet cable.

2 Make sure you have turned on the machine.

3 Press **Menu** on the control panel, until you see **8.Network** on the bottom line of the display.

4 Press **OK** to access the menu.

5 Press the left/right arrow until **TCP/IP** displays.

6 Press **OK**.

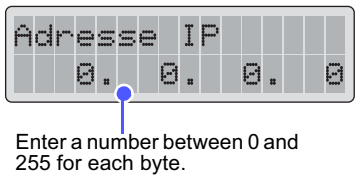
7 Press the left/right arrow until **Static** displays.

8 Press **OK**.

9 Press the left/right arrow until **IP Address** displays.

10 Press **OK**.

11 Enter IP address.



a.Press the left/right arrow to enter a number between 0 and 255.

b.Press **OK**.

c.Repeat these steps to complete the address.

12 Press **Back** to go to the upper level.

13 Press the left/right arrow until **Subnet Mask** displays.

14 Press **OK**.

15 Enter Subnet Mask.

a.Press the left/right arrow to enter a number between 0 and 255.

b.Press **OK**.

c.Repeat these steps to complete **Subnet Mask**.

16 Press **Back** to go to the upper level.

17 Press the left/right arrow until **Gateway** displays.

18 Press **OK**.

19 Enter Gateway.

a.Press the left/right arrow to enter a number between 0 and 255.

b.Press **OK**.

c.Repeat these steps to complete **Gateway**.

Note

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

Note

You can also set up the network settings through the network administration programs. Refer to the user's guide on the Network Utilities CD that came with your machine.

- **SyncThru™ Web Admin Service**: Web-based printer management solution for network administrators. **SyncThru™ Web Admin Service** provides you with an efficient way of managing network devices and lets you remotely monitor and troubleshoot network machines from any site with corporate internet access.
- **SyncThru™ Web Service**: Web server embedded on your network print server, which allows you to:
  - Configure the network parameters necessary for the machine to connect to various network environments.
  - Customize machine settings.
- **SetIP**: Utility program allowing you to select a network interface and manually configure the IP addresses for use with the TCP/IP protocol.

Installing the software

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

Note

- The following procedure is for when you use the machine as a network machine. If you want to connect a machine with a USB cable, refer to the Software section.
- The following procedure is based on the Windows XP operating system. The procedure and popup window which appears during the installation may differ depending on the operating system, the printer feature, or the interface in use. (See Software section.)

1 Make sure that the network setup for your machine is completed. (See "Setting up the network" on page 3.1.) All applications should be closed on your computer before beginning installation.

2 Insert the Printer Software CD-ROM into your CD-ROM drive.

The CD-ROM should automatically run, and an installation window appears.

3 Click **Next**.

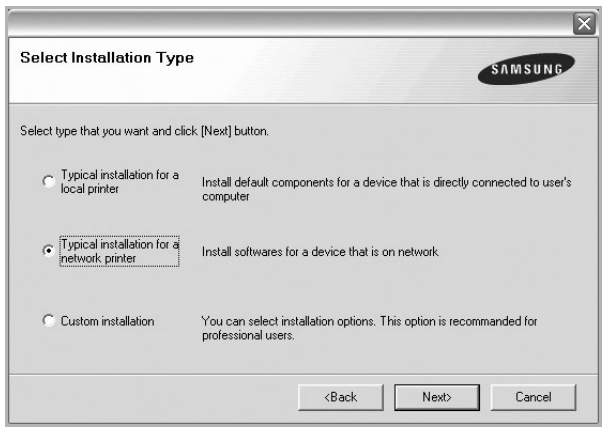
If the installation window does not appear, click **Start** > **Run**. Type X:**Setup.exe**, replacing “X” with the letter which represents your drive and click **OK**.

If you use Windows Vista, click **Start** > **All Programs** > **Accessories** > **Run**, and type X:**Setup.exe**.

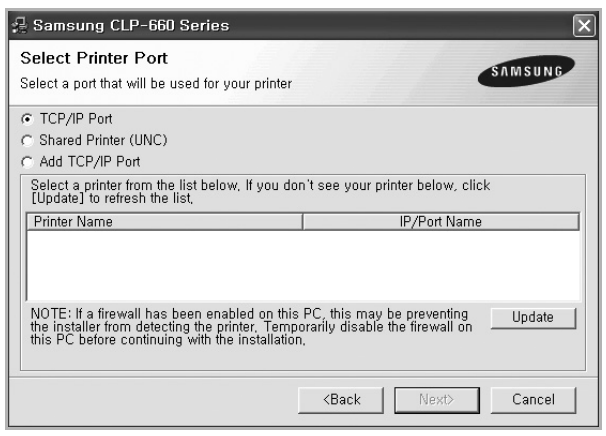
If the **AutoPlay** window appears in Windows Vista, click **Run Setup.exe** in **Install or run program** field, and click **Continue** in the **User Account Control** window.

- The window above may slightly differ, if you are reinstalling the driver.
- **View User’s Guide**: Allows you to view the User’s Guide. If your computer does not have Adobe Acrobat, click on this option and it will automatically install Adobe Acrobat Reader for you, and then open the User’s Guide.

4 Select **Typical installation for a network printer**, and then click **Next**.



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

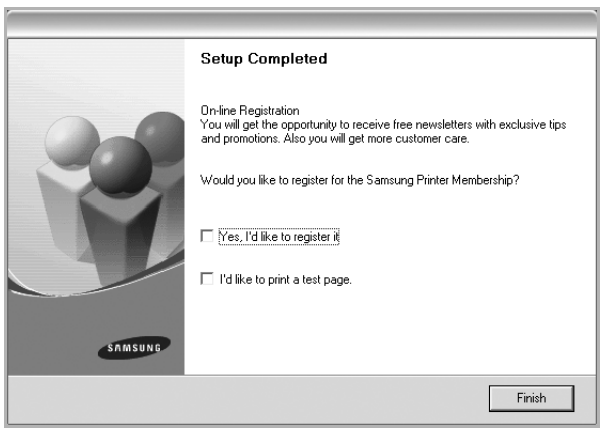


- If you do not see your machine on the list, click **Update** to refresh the list, or select **Add TCP/IP Port** to add your machine to the network. To add the machine to the network, enter the port name and the IP address for the machine.
  To verify your machine’s IP address or the MAC address, print a Network Configuration page. (See "Printing a machine configuration report" on page 6.1.)
- To find a shared network printer (UNC Path), select **Shared Printer [UNC]** and enter the shared name manually or find a shared printer by clicking the **Browse** button.

Note

If you are not sure of the IP address, contact your network administrator or print network information. (See "Printing a machine configuration report" on page 6.1.)

6 After the installation is finished, a window appears asking you to print a test page and to register yourself as a user of Samsung machines in order to receive information from Samsung. If you so desire, select the corresponding checkbox(es) and click **Finish**.



Note
If your machine does not work properly after the installation, try to reinstall the printer driver. See Software section.

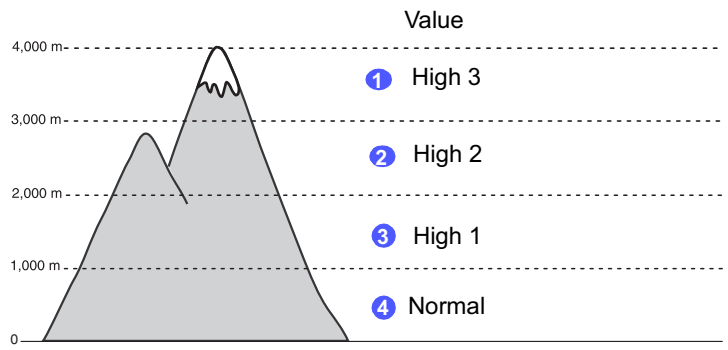
Printer's basic settings

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

Altitude Setting after Software Installation

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

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



1 Ensure that you have installed the printer driver with the provided Printer Software CD.

2 Double-check the **Smart Panel** icon on the Windows task bar (or Notification Area in Linux).

You can also click **Smart Panel** on the status bar in Mac OS X.

3 Click **Printer Setting**.

4 Click **Setting** > **Altitude Adjustment**. Select the appropriate value from the dropdown list, and then click **Apply**.

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

Changing the display language

To change the language that appears on the display, refer to the following steps.

1 Press **Menu** on the control panel until you see **5.System Setup** on the bottom line of the display.

2 Press **OK** to access **5.System Setup**.

3 Press the left/right arrow until **Language** displays.

4 Press **OK**.

5 Press the left/right arrow until the language you want displays.

6 Press **OK**.

7 Press **Stop** to return to machine ready mode.

Setting job timeout

1 Press **Menu** on the control panel until you see **5.System Setup** on the bottom line of the display.

2 Press **OK** to access **5.System Setup**.

3 Press the left/right arrow until **Job Timeout** displays.

4 Press **OK**.

5 Press the left/right arrow to select the amount of time the machine will wait.

6 Press **OK**.

7 Press **Stop** to return to machine ready mode.

Using power saving feature

The machine provides power saving features. When the machine is not in use, you can save electricity with the provided power save mode. Set the specific time the machine goes to the power save mode.

1 Press **Menu** on the control panel until you see **5.System Setup** on the bottom line of the display.

2 Press **OK** to access **5.System Setup**.

3 Press the left/right arrow until **Power Save** displays.

4 Press **OK**.

5 Press the left/right arrow to select the amount of time.

6 Press **OK**.

7 Press **Stop** to return to machine ready mode.

Setting the default paper size and type

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

Note

For detailed information on the Custom paper size setting and the paper type setting, see "Setting the paper size and type" on page 4.7.

1 Press **Menu** on the control panel until you see **4.Paper** on the bottom line of the display.

2 Press **OK** to access the paper setup.

3 Press the left/right arrow until **Paper Size** displays.

4 Press **OK**.

5 Press the left/right arrow to select the paper size such as **A4**, **Letter** or **Custom**.

6 Press **OK**.

7 Press **Stop** to return to machine ready mode.

Setting the default tray

If you want to select the particular tray for the print job, use the **Paper Source** feature.

1 Press **Menu** on the control panel until you see **4.Paper** on the bottom line of the display.

2 Press **OK** to access the paper setup.

3 Press the left/right arrow until **Paper Source** displays.

4 Press **OK**.

5 Press the left/right arrow to select the paper tray, such as **Tray 1**, **Tray 2**, **MP Tray**, **Manual Feeder** or **Auto**.

Note

If you set this menu to **Auto**, an additional menu, **Tray Chaining** appears. With **Tray Chaining**, the machine finds a secondary available tray to continue a printing job in case the primary tray, usually tray 1, is vacant.

6 Press **OK**.

7 Press **Stop** to return to machine ready mode.

4 Selecting and loading print media

This chapter introduces you how select and load print media for your machine.

This chapter includes:

- **Selecting print media**
- **Loading paper**
- **Setting the paper size and type**

Selecting print media

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

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

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

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

Note

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

Caution

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

Guidelines for selecting and storing print media

When selecting or loading paper, envelopes, or other print materials, keep these guidelines in mind:

- Always use print media that conform with the specifications listed on page 4.2.
- Attempting to print on damp, curled, wrinkled, or torn paper can cause paper jams and poor print quality.
- For the best print quality, use only high quality copier grade paper specifically recommended for use in laser machines.
- Avoid using the following media types:
  - Paper with embossed lettering, perforations, or a texture that is too smooth or too rough
  - Erasable bond paper
  - Multi-paged paper
  - Synthetic paper and thermally reactive paper
  - Carbonless paper and Tracing paper.

  Use of these types of paper could result in paper jams, chemical smells, and damage to your machine.
- Store print media in its ream wrapper until you are ready to use it. Place cartons on pallets or shelves, not on the floor. Do not place heavy objects on top of the paper, whether it is packaged or unpackaged. Keep it away from moisture or other conditions that can cause it to wrinkle or curl.
- Store unused print media at temperatures between 15 °C and 30 °C. The relative humidity should be between 10% and 70%.
- Store unused print media in a moisture-proof wrap, such as a plastic container or bag, to prevent dust and moisture from contaminating your paper.
- Load special media types one sheet at a time through the multi-purpose tray to avoid paper jams.
- To prevent print media, such as label sheets, from sticking together, remove them as they print out.

Specifications on print media

Type	Size	Dimensions	Weight[a]	Capacity[b]
Plain paper	Letter	216 x 279 mm (8.5 x 11 inches)	• 60 to 105 g/m^2 (16 to 28 lb bond) for the tray • 60 to 163 g/m^2 (16 to 43 lb bond) for the multi-purpose tray	• 250 sheets of 75 g/m^2 (20 lb bond) paper for the tray • 100 sheets of 75 g/m^2 (20 lb bond) in the multi-purpose tray • 500 sheets of 75 g/m^2 (20 lb bond) paper for optional tray
	Legal	216 x 356 mm (8.5 x 14 inches)		
	Folio	216 x 330 mm (8.5 x 13 inches)		
	A4	210 x 297 mm (8.26 x 11.69 inches)		
	Oficio	216 x 343 mm (8.5 x 13.5 inches)		
	JIS B5	182 x 257 mm (7.16 x 10.11 inches)		
	ISO B5	176 x 250 mm (6.93 x 9.84 inches)		
	Executive	184 x 267 mm (7.25 x 10.5 inches)		
	A5	148 x 210 mm (5.82 x 8.26 inches)		
	Statement	140 x 216 mm (5.5 x 8.5 inches)		
	A6	105 x 148 mm (4.13 x 5.82 inches)		
	Post Card	105 x 148 mm (4.13 x 5.82 inches)		
Envelope	Envelope Monarch	98 x 191 mm (3.87 x 7.5 inches)	75 to 105 g/m^2 (20 to 28 lb bond)	• 10 sheets of 75 g/m^2 (20 lb bond) in the multi-purpose tray
	Envelope No. 10	105 x 241 mm (4.12 x 9.5 inches)		
	Envelope DL	110 x 220 mm (4.33 x 8.66 inches)		
	Envelope C5	162 x 229 mm (6.37 x 9.01 inches)		
	Envelope C6	114 x 162 mm (4.48 x 6.38 inches)		
Labels	Letter, Legal, Folio, A4, JIS B5, ISO B5, Executive, A5, Statement	Refer to the Plain paper section	120 to 150 g/m^2 (32 to 40 lb bond)	30 sheets of 75 g/m^2 (20 lb bond) paper for the multi-purpose tray
Card stock	Letter, Legal, Folio, A4, JIS B5, ISO B5, Executive, A5, Statement	Refer to the Plain paper section	90 to 163 g/m^2 (24 to 43 lb bond)	30 sheets of 75 g/m^2 (20 lb bond) paper for the multi-purpose tray
Minimum size (custom)		76 x 127 mm (3 x 5 inches)	60 to 163 g/m^2 (16 to43 lb bond)	
Maximum size (custom)		216 x 356 mm (8.5 x 14 inches)		

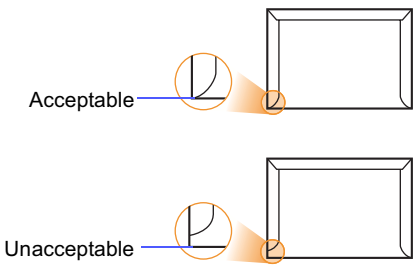
a. If media weight is over 105 g/m^2 (28 lb bond), use the multi-purpose tray.
b. Maximum capacity may differ depending on media weight, thickness, and environmental conditions.

Media sizes supported in each mode

Mode	Size	Weight	Source
Single side printing	All sizes supported by the machine	All weights supported by the machine	• **tray 1** • **optional tray** • **multi-purpose tray**
Duplex printing[a]	Letter, A4, Legal, Folio, Oficio	75 to 90 g/m^2 (20 to 24 lb bond)	• **tray 1** • **optional tray** • **multi-purpose tray**

a. 75 to 105 g/m^2 (20 ~ 28 lb bond) only, and this feature is supported in CLP-6xxND.

Guidelines for special print media

Media type	Guidelines
Envelopes	• Successful printing on envelopes depends upon the quality of the envelopes. When selecting envelopes, consider the following factors: - Weight: The weight of the envelope paper should not exceed 90 g/m^2 or jamming may occur. - Construction: Prior to printing, envelopes should lie flat with less than 6 mm curl, and should not contain air. - Condition: Envelopes should not be wrinkled, nicked, or otherwise damaged. - Temperature: You should use envelopes that are compatible with the heat and pressure of the machine during operation. • Use only well-constructed envelopes with sharp and well creased folds. • Do not use stamped envelopes. • Do not use envelopes with clasps, snaps, windows, coated lining, self-adhesive seals, or other synthetic materials. • Do not use damaged or poorly made envelopes. • Be sure the seam at both ends of the envelope extends all the way to the corner of the envelope. 
Labels	• To avoid damaging the machine, use only labels designed for use in laser machines. • When selecting labels, consider the following factors: - Adhesives: The adhesive material should be stable at your machine's fusing temperature. Check your machine's specification to view the fusing temperature, see page 10.1. - Arrangement: Only use labels with no exposed backing between them. Labels can peel off sheets that have spaces between the labels, causing serious jams. - Curl: Prior to printing, labels must lie flat with no more than 13 mm of curl in any direction. - Condition: Do not use labels with wrinkles, bubbles, or other indications of separation. • Make sure that there is no exposed adhesive material between labels. Exposed areas can cause labels to peel off during printing, which can cause paper jams. Exposed adhesive can also cause damage to machine components. • Do not run a sheet of labels through the machine more than once. The adhesive backing is designed for only a single pass through the machine. • Do not use labels that are separating from the backing sheet or are wrinkled, bubbled, or otherwise damaged.
Card stock or custom-sized materials	• Do not print on media smaller than 76 mm wide or 356 mm long. • In the software application, set margins at least 6.4 mm away from the edges of the material.

Media type	Guidelines
Preprinted paper	• Letterhead must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the printer's fusing temperature for 0.1 second. Check your machine's specification to view the fusing temperature, see page 10.1. • Letterhead ink must be non-flammable and should not adversely affect printer rollers. • Forms and letterhead should be sealed in a moisture-proof wrapping to prevent changes during storage. • Before you load preprinted paper, such as forms and letterhead, verify that the ink on the paper is dry. During the fusing process, wet ink can come off preprinted paper, reducing print quality.

Loading paper

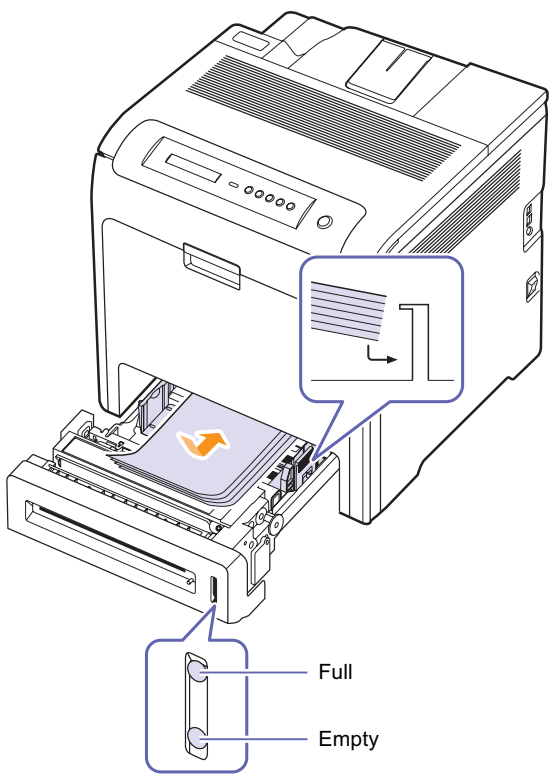
In the tray

Load the print media you use for the majority of your print jobs in the tray 1. The tray 1 can hold a maximum of 250 sheets of 75 g/m^2 (20 lb bond) plain paper.

You can purchase an optional tray and attach it below the standard tray to load an additional 500 sheets of paper. (See "Accessories" on page 8.1.)

Loading paper in the tray 1 or optional tray

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

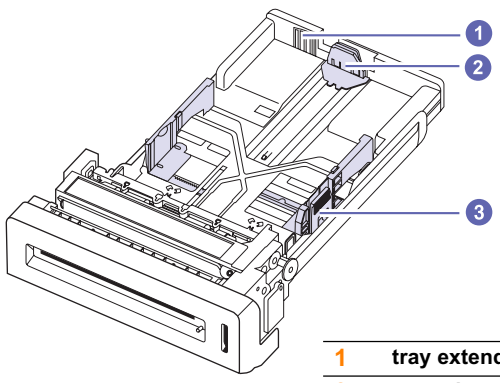


2 After loading paper, set the paper type and size for the tray 1. See Software section for PC-printing.

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

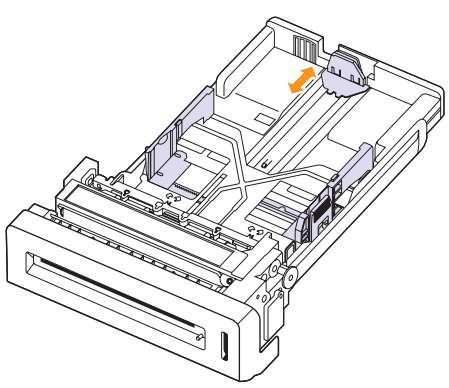
Changing the size of the paper in the paper tray

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

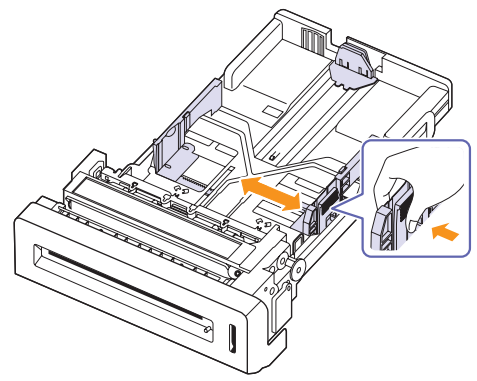


1	tray extend lever
2	paper length guide
3	paper width guide

1 Adjust the paper length guide to the desired paper length. It is preset to Letter or A4 size depending on the country.

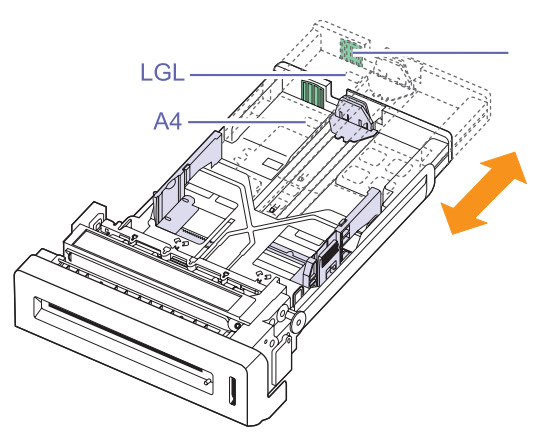


2 After inserting paper into the tray, while pinching the paper width guide as shown, move it toward the stack of paper until it lightly touches the side of the stack. Do not press the guide too tightly to the edge of the paper; the guide may bend the paper.



When you use legal-sized paper, you need to extend the length of the tray.

3 Press and hold the green lever on the back of the tray, when you are holding the lever, extend the tray to the corresponding position.



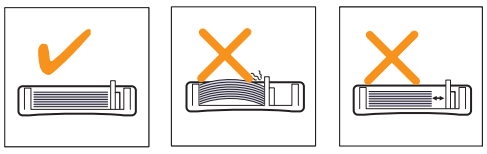
4 Load the paper into the tray.

5 Place the tray into the machine.

6 Set the paper size from your computer. (See page 4.7)

Note

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



In the multi-purpose tray

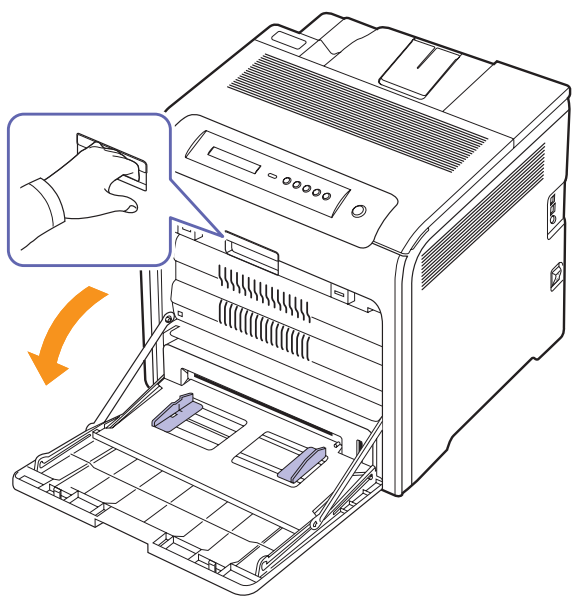
The multi-purpose tray can hold special sizes and types of print material, such as postcards, note cards, and envelopes. It is useful for single page printing on letterhead or colored paper.

Tips on using the multi-purpose tray

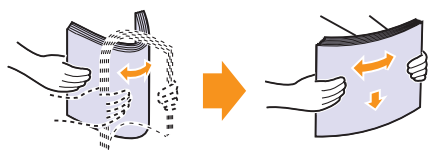
- Load only one size of print media at a time in the multi-purpose tray.
- To prevent paper jams, do not add paper when there is still paper in the multi-purpose tray. This also applies to other types of print media.
- Print media should be loaded face down with the top edge going into the multi-purpose tray first and be placed in the center of the tray.
- Always load only the specified print media to avoid paper jams and print quality problems. (See "Selecting print media" on page 4.1.)
- Flatten any curl on postcards, envelopes, and labels before loading them into the multi-purpose tray.

To load paper in the multi-purpose tray:

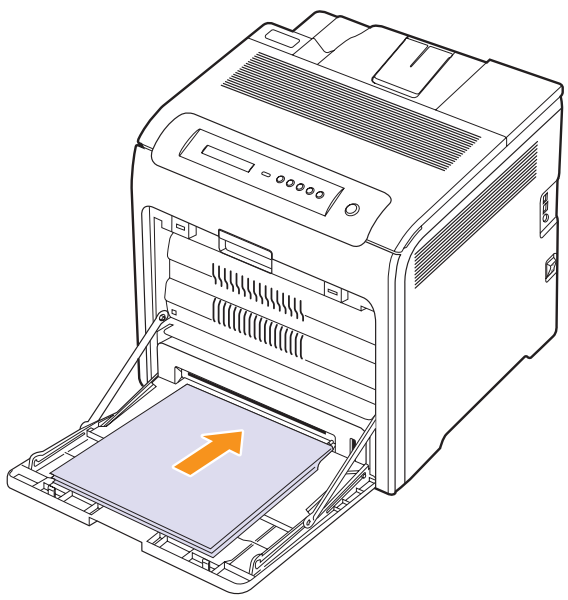
1 Hold the handle of multi-purpose tray and pull it down to open.



2 If you are using paper, flex or fan the edge of the paper stack to separate the pages before loading.

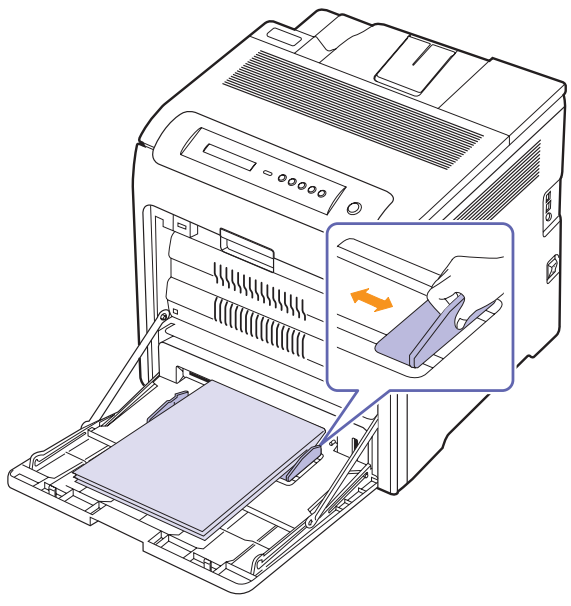


3 Load the paper.



Note
If you want to load the used paper, place the paper with the printed side facing down.

4 Squeeze the multi-purpose tray paper width guides and adjust them to the width of the paper. Do not force too much, or the paper will be bent, which will result in a paper jam or skew.



Note

Depending on the media type you are using, keep the following loading guidelines:

- Envelopes: Flap side down and with the stamp area on the top left side.
- Labels: Print side up and top short edge entering the machine first.
- Preprinted paper: Design side up with the top edge toward the machine.
- Card stock: Print side up and the short edge entering the machine first.
- Previously printed paper: Previously printed side down with an uncurled edge toward the machine.

5 After loading paper, set the paper type and size for the multi-purpose tray. See Software section for PC-printing.

Note

The settings made from the printer driver override the settings on the control panel.

6 After printing, close the multi-purpose tray.

Setting the paper size and type

The settings you change remain in effect only while you are using the current program. To make your changes permanent, make them in the Printers folder.

Note

The following procedure is for Windows XP. For other Windows OS, refer to the corresponding Windows User's Guide or online help.

1 Click the **Start** button on the computer screen.

2 Select **Printers and Other Hardwares**.

3 Select **Printers and Faxes**.

4 Right-click on the printer driver icon and select **Printing Preferences**.

5 Click the **Paper** tab, and change the settings on **Paper Options**.

6 Click **OK**.

5 Basic printing

This chapter explains common printing tasks.

Printing a document

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

1 Open the document you want to print.

2 Select **Print** from the **File** menu. The Print window is displayed. It may look slightly different depending on your application.

3 Select **your printer driver** from the **Selet Printer** drop-down list.

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

For details about printing, see Software section.

Canceling a print job

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

1 Click the Windows **Start** menu.

2 For Windows 2000, select **Settings** and then **Printers**.

For Windows XP/2003, select **Printers and Faxes**.

For Windows Vista, select **Control Panel** > **Hardware and Sound** > **Printers**.

3 Double-click the **Samsung CLP-6xx Series PCL 6** icon. (Or **Samsung CLP-6xx Series PS**)

4 From the **Document** menu, select **Cancel**.

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

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

6 Maintenance

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

This chapter includes:

- **Printing a machine configuration report**
- **Printing a network report**
- **Monitoring the supplies' life**
- **Cleaning your machine**
- **Maintaining the cartridge**
- **Redistributing toner**
- **Replacing the print cartridge**
- **Replacing the Paper Transfer Belt**
- **Maintenance Parts**
- **Managing your machine from the website**

Printing a machine configuration report

You can print the machine's information and job report.

1 Press **Menu** on the control panel until you see Information on the bottom line of the display.

2 Press **OK**.

3 Press the left/right arrow until Configuration displays.

4 Press **OK**.

5 The display shows **Print?**, then press **OK** to print the configuration report.

Printing a network report

You can print the machine's network information such as the protocol type you set, IP address and so forth.

1 Press **Menu** on the control panel until you see **8.Network** on the bottom line of the display.

2 Press **OK**.

3 Press the left/right arrow button until **Network Info.** displays.

4 Press **OK**.

5 The display shows **Print?**, then press **OK** to print the configuration report.

Monitoring the supplies' life

If you want to view the supply life indicators, follow the next step.

1 Press **Menu** on the control panel until you see System Setup on the bottom line of the display.

2 Press **OK**.

3 Press the left/right arrow until **Maintenance** displays.

4 Press **OK**.

5 Press the left/right arrow until **Supplies Life** displays.

6 Press **OK**.

7 The display shows two options as you press the left/right arrow button.

- **Total**: displays the total number of pages printed.
- **Toner Remains**: displays how much toner remains in the cartridge.

8 When you select the option, press **OK** to browse the life.

Cleaning your machine

To maintain print quality, follow the cleaning procedures below each time the print cartridge is replaced.

Caution
Cleaning the machine cabinet with cleaning materials that contain large amounts of alcohol, solvent, or other strong substances can discolor or damage the cabinet.

Note
If your machine or its surrounding is contaminated with toner, we recommend you to use a cloth or tissue dampened with water to clean it. If you use a vacuum cleaner, toner blows into the air then might be harmful to you.

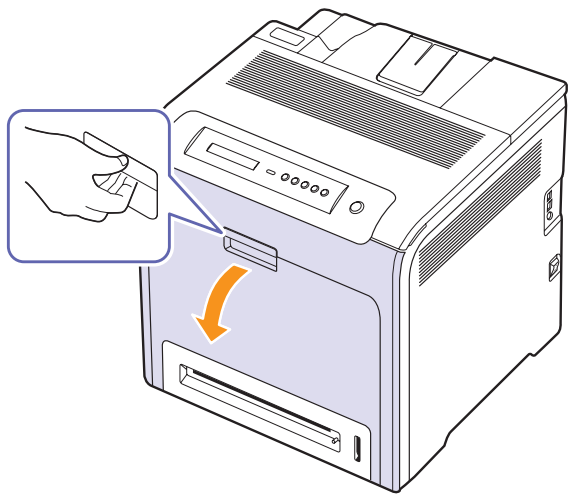
Cleaning the outside

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

Cleaning the inside

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

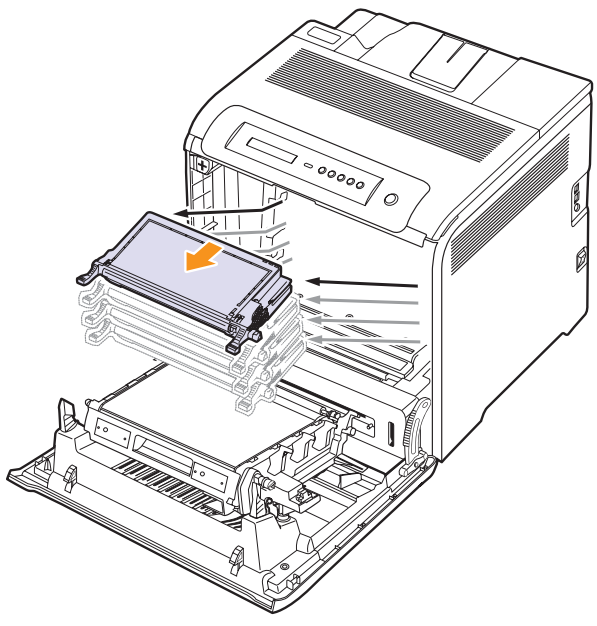
1 Using the handle, completely open the front cover.



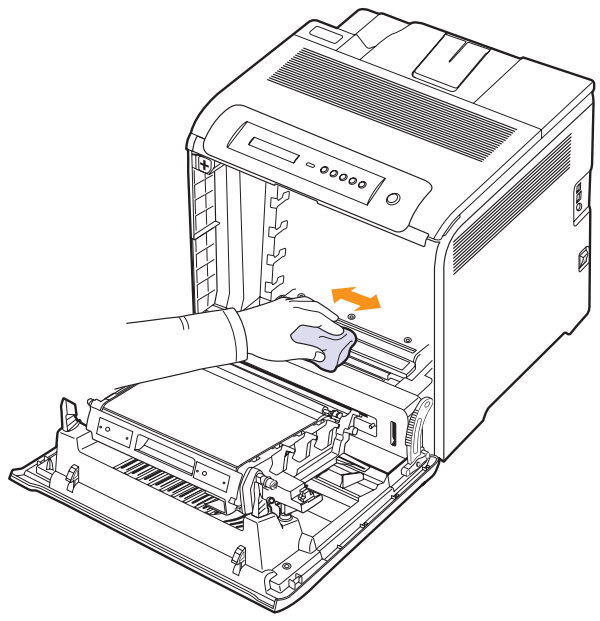
Caution

- Do not touch the green surface, the OPC drum or the front of the print cartridge, with your hands or any other material. Use the handle on each cartridge in order to avoid touching this area.
- Be careful not to scratch the surface of the paper transfer belt.
- If you leave the front cover open for more than a few minutes, the OPC drum can be exposed to light. This will cause damage to the OPC drum. Cover the OPC drum of the print cartridge with the clean paper could avoid damaging it from the light while you clean the inside.

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



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



Note

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

Maintaining the cartridge

print cartridge storage

To get the most from the print cartridge, keep the following guidelines in mind:

- Do not remove the print cartridge from its package until ready for use.
- Do not refill the print cartridge. The machine warranty does not cover damage caused by using a refilled cartridge.
- Store print cartridges in the same environment as your machine.
- To prevent damage to the print cartridge, do not expose it to light for more than a few minutes.

Expected cartridge life

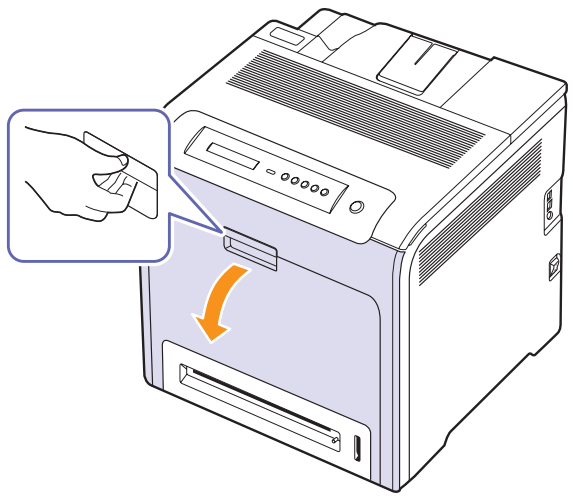
The life of the print cartridge yield depends on the amount of toner that print jobs require. The actual number may also be different depending on the print density of the pages you print on, and the number of pages may be affected by operating environment, printing interval, media type, and media size.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

Redistributing toner

When a toner is low, faded or light areas may appear. It is possible that colored images may be printed with incorrect colors due to flawed mixing of toner colors when one of the colored print cartridges is low on toner. You can temporarily improve print quality by redistributing the toner.

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

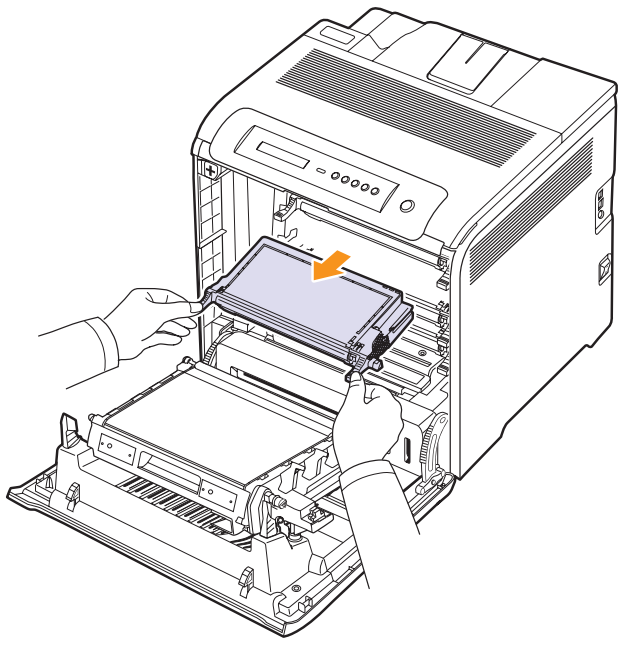
1 Using the handle, completely open the front cover.



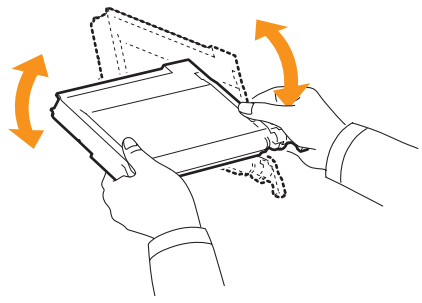
Caution

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

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



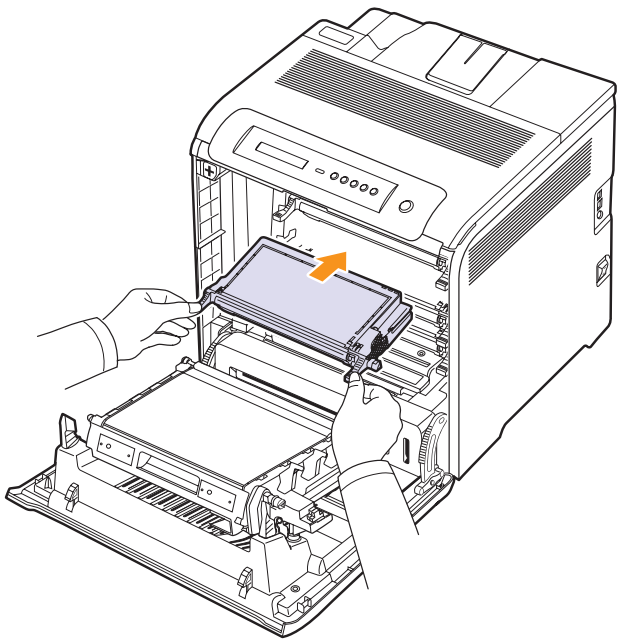
3 Holding both handles on the print cartridge, thoroughly rock it from side to side to redistribute the toner.



Note

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

4 Slide the print cartridge back into the machine.



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

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

Replacing the print cartridge

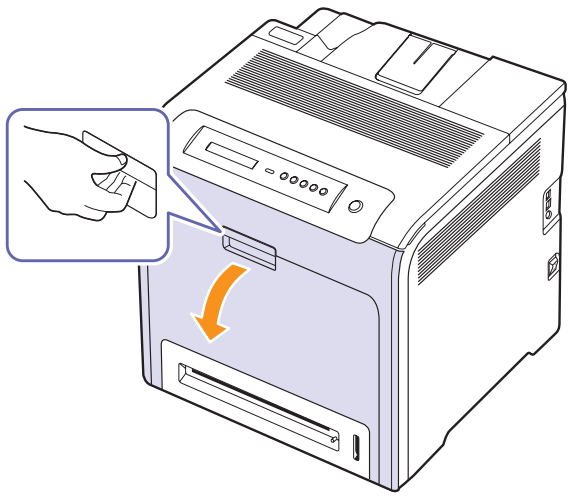
The machine uses four colors and has a different print cartridge for each one: yellow (Y), magenta (M), cyan (C), and black (K).

- The status LED and the toner-related message on the display indicate when each individual print cartridge should be replaced.

At this stage, the print cartridge needs to be replaced. Check the type of print cartridge for your machine. (See "Supplies" on page 8.1.)

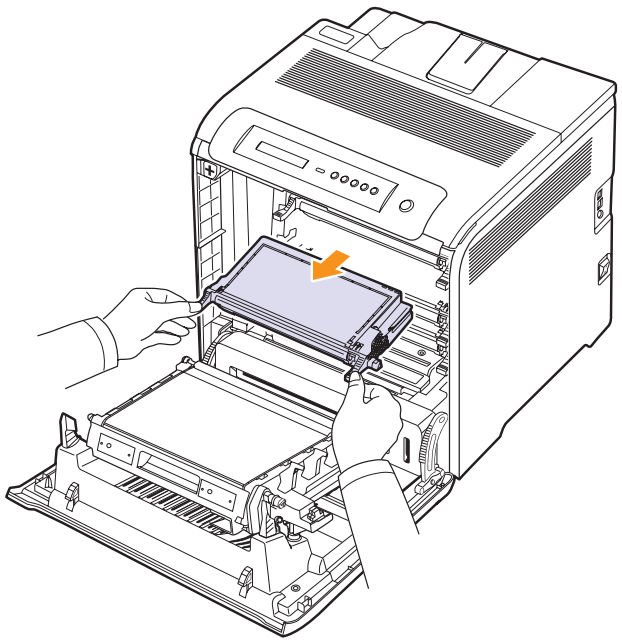
1 Turn the machine off, then wait a few minutes for the machine to cool.

2 Using the handle, completely open the front cover.

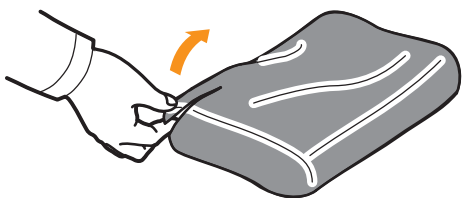


Caution
- Do not touch the green surface, the OPC drum or the front of each print cartridge, with your hands or any other material. Use the handle on each cartridge in order to avoid touching this area.
- Be careful not to scratch the surface of the paper transfer belt.
- If you leave the front cover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

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



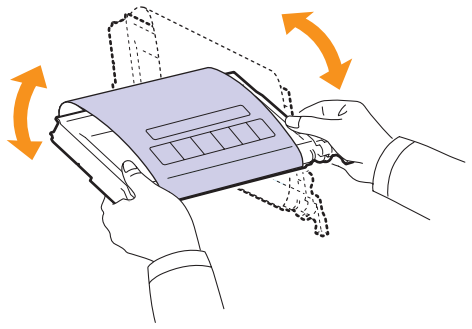
4 Take a new print cartridge out of its package.



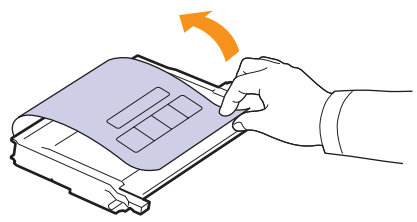
Caution

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

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



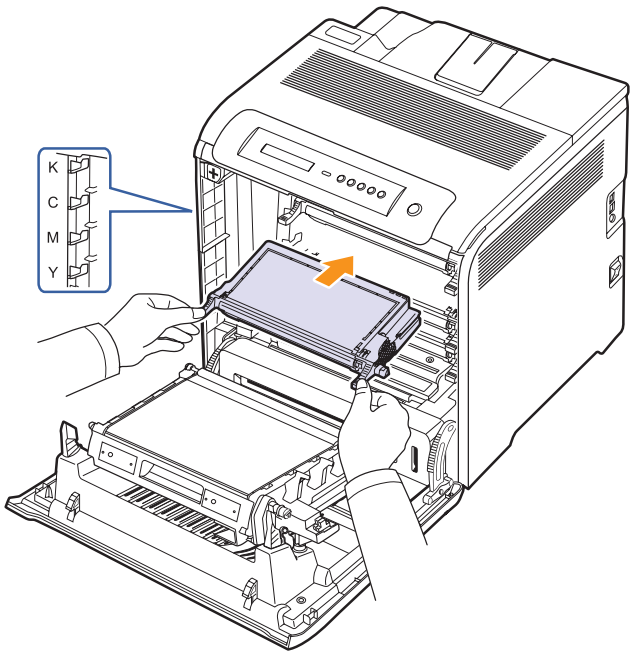
6 Place the print cartridge on a flat surface, as shown, and remove the paper covering the print cartridge by removing the tape.



Note

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

7 Make sure that the color of the print cartridge matches the color slot and then grasp the handles on the print cartridge. Insert the cartridge until it clicks into place.



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

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

Replacing the Paper Transfer Belt

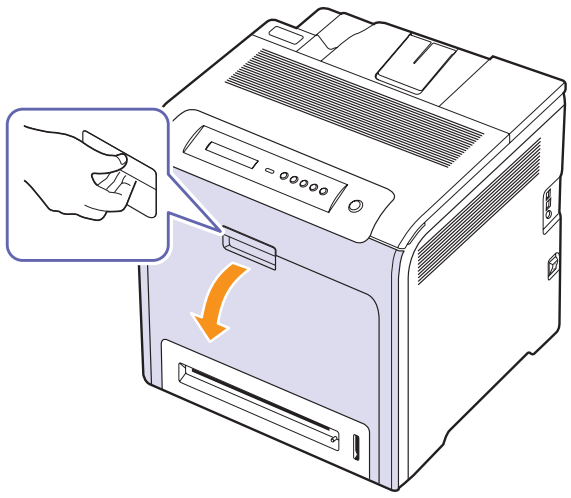
The life of the paper transfer belt is approximately 50,000 black and color pages. After the life span of the paper transfer belt is complete, you have to replace it.

- The transfer belt-related message appears on the display, telling it's time for a replacement.
- The SmartPanel program window appears on the computer telling you the paper transfer belt needs to be replaced.

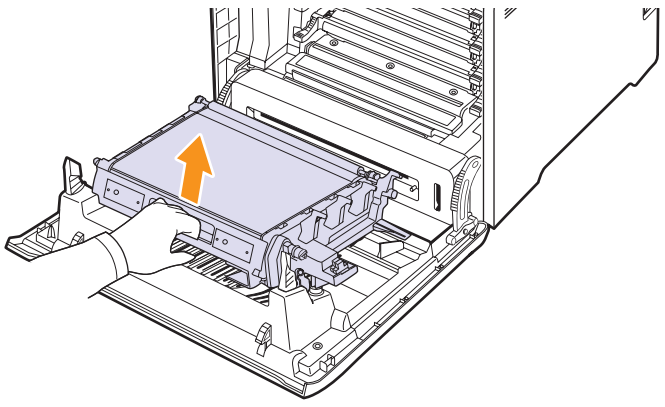
Note
The life span of the paper transfer belt may be affected by operating environment, printing interval, media type, and media size.

1 Turn the machine off, then wait a few minutes for the machine to cool.

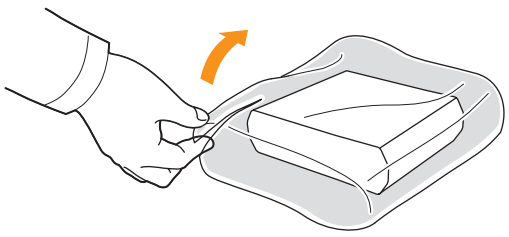
2 Using the handle, completely open the front cover.



3 Press the green release handle to release the paper transfer belt. Holding the handle on the paper transfer belt, lift it out of the machine.



4 Take a new paper transfer belt out of its package.

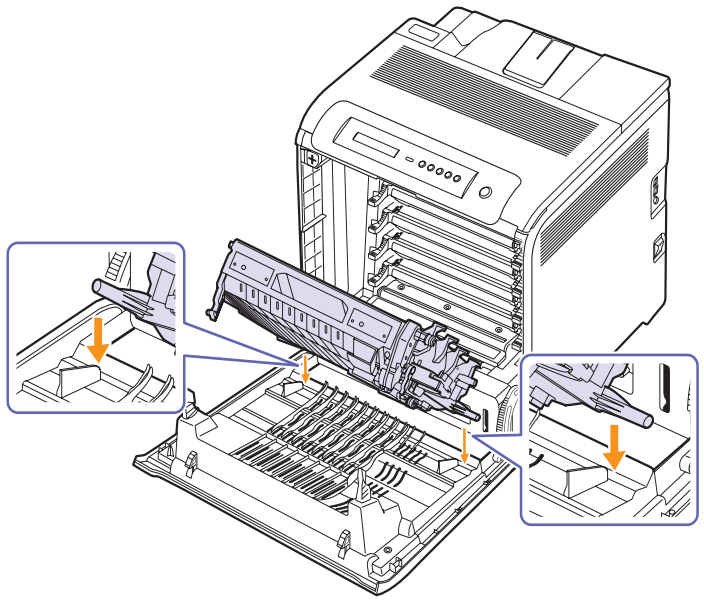


5 Remove the paper covering the paper transfer belt.

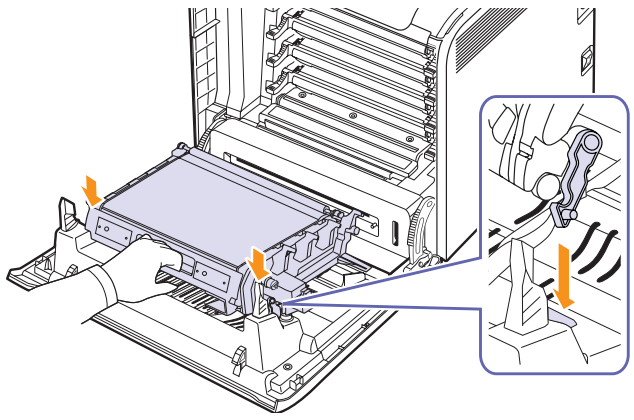
Caution

- Don't use sharp objects, such as a knife or scissors, to open the paper transfer belt package. You could damage the surface of the paper transfer belt.
- Be careful not to scratch the surface of the paper transfer belt.

6 Holding the handle on the new paper transfer belt, align it with the slots on the inside of the front cover.



7 Lower the paper transfer belt until it is parallel with the front cover and firmly seated.



8 Close the front cover firmly.

Caution

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

9 Turn the machine on.

Maintenance Parts

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

Items	Yield (Average)
Multi-purpose tray rubber pad	Approx. 70,000 pages
Multi-purpose tray pick up roller	Approx. 70,000 pages
Fuser unit	Approx. 50,000 pages
Paper pick up roller	Approx. 70,000 pages
FCF rubber pad	Approx. 70,000 pages

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

Managing your machine from the website

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

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

To access **SyncThru™ Web Service**:

1 Start a web browser, such as Internet Explorer, from Windows.

2 Enter the machine IP address (http://xxx.xxx.xxx.xxx) in the address field and press the **Enter** key or click **Go**.
Your machine's embedded website opens.

7 Troubleshooting

This chapter gives helpful information on what to do if you encounter a problem.

This chapter includes:**Machine Setup**

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

Tips for avoiding paper jams

By selecting the correct media types, most paper jams can be avoided. When a paper jam occurs, follow the steps outlined on page 7.1.

- Follow the procedures on page 4.4. Ensure that the adjustable guides are positioned correctly.
- Do not overload the tray. Ensure that the paper level is below the paper capacity mark on the inside of the tray.
- Do not remove paper from the tray while your machine is printing.
- Flex, fan, and straighten paper before loading.
- Do not use creased, damp, or highly curled paper.
- Do not mix paper types in a tray.
- Use only recommended print media. (See "Setting the paper size and type" on page 4.7.)
- Ensure that the recommended side of the print media is facing down in the tray, or facing down in the multi-purpose tray.

Clearing paper jams

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

Message	Location of jam	Go to
MP Tray Paper Jam 0	In the multi purpose tray	Page 7.3
Tray 2 Paper Jam 0	In the optional tray	Page 7.6
Paper Jam 0 Open/Close Door	In the paper feed area and inside the machine	Page 7.1, Page 7.4
Paper Jam 1 Open/Close Door	Inside the machine	Page 7.1, Page 7.4
Paper Jam 2 Check Inside	Inside the machine and in the exit area	Page 7.1, Page 7.5
Duplex Jam 0 Check Inside*	Inside the machine	Page 7.1
Duplex Jam 1 Open/Close Door*	In the paper feed area and inside the machine	Page 7.1, Page 7.4

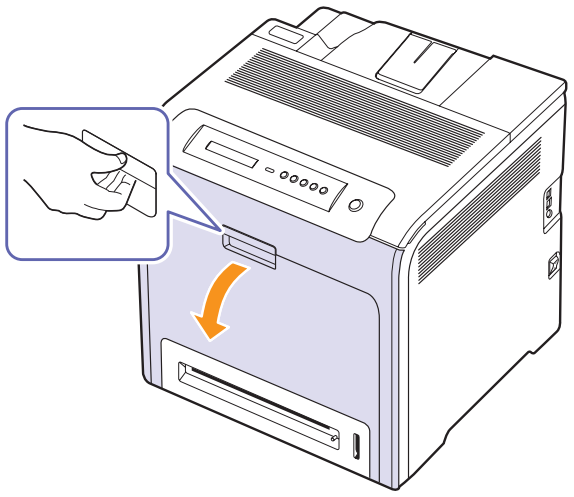
Note
The symbol * denotes an optional feature depending on machines.

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

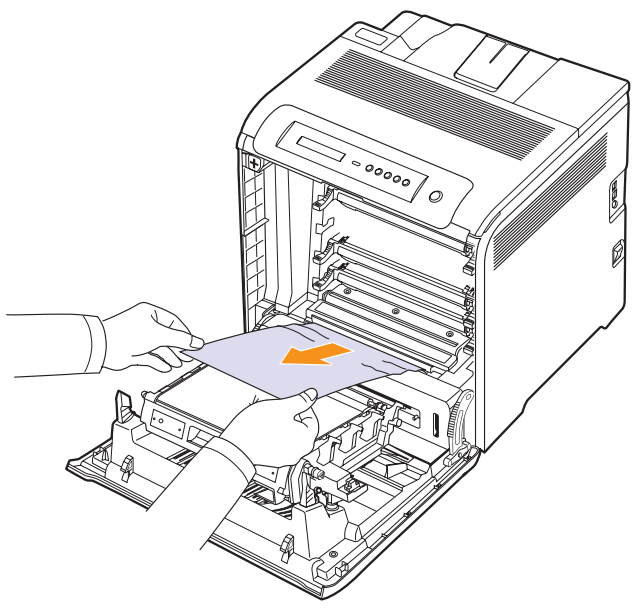
In the paper feed area

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

1 Using the handle, completely open the front cover.



2 Carefully remove the paper by pulling in the direction as shown below. Go to step 7.



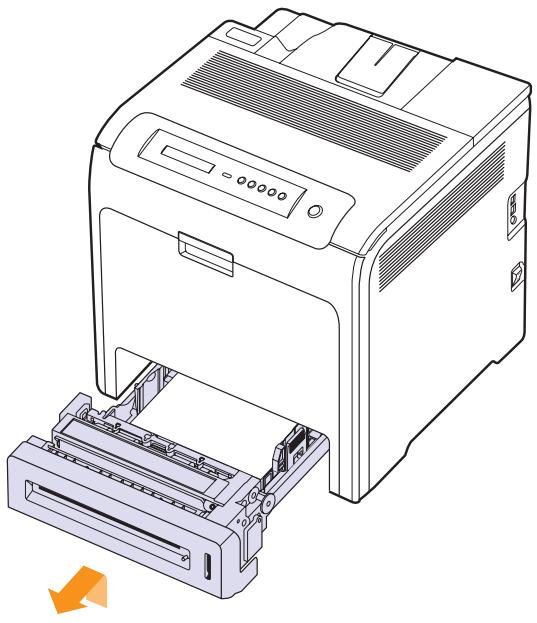
If you cannot find the jammed paper, or if there is any resistance removing the paper, stop pulling, and go to step 3.

Caution

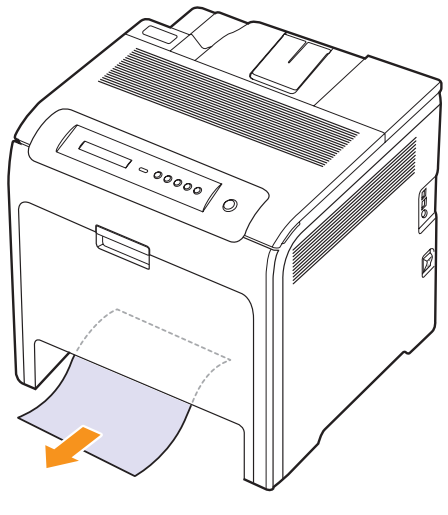
- Do not touch the green surface, the OPC drum or the front of each print cartridge, with your hands or any other material. Use the handle on each cartridge in order to avoid touching this area.
- Be careful not to scratch the surface of the paper transfer belt.
- If you leave the front cover open for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

3 Close the front cover.

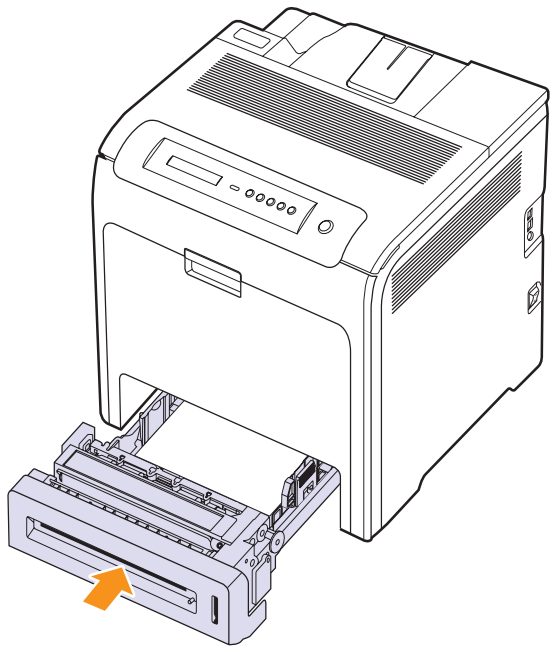
4 Pull the tray open.



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



6 To replace the tray, lower the rear edge, align it with the slot, and slide it into the machine.

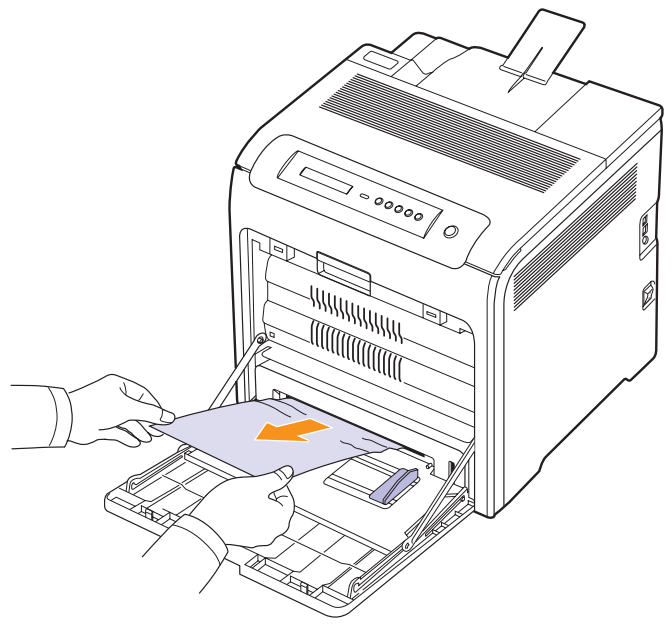


7 Open the front cover and close it. The machine will resume printing.

In the multi-purpose tray

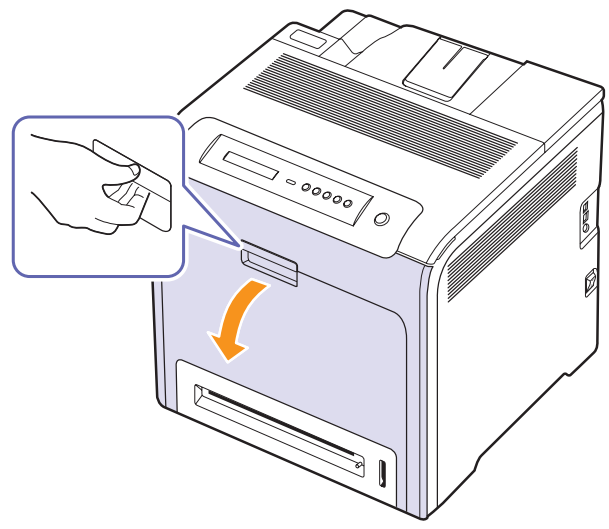
When you print using the Multi-purpose Tray and the machine detects that there is either no paper or that the paper has been improperly loaded, follow the next steps to release the jammed paper.

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

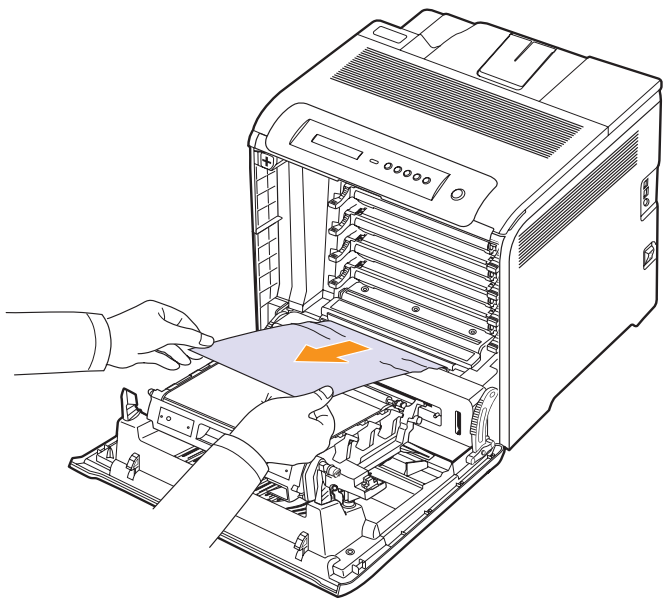


If you cannot find the jammed paper, or if there is any resistance removing the paper, stop pulling and go to step 2.

2 Using the handle, completely open the front cover.



3 Remove the jammed paper by pulling in the direction shown. To avoid tearing the paper, pull it out gently and slowly.



Caution

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

4 Close the front cover firmly. The machine will resume printing.

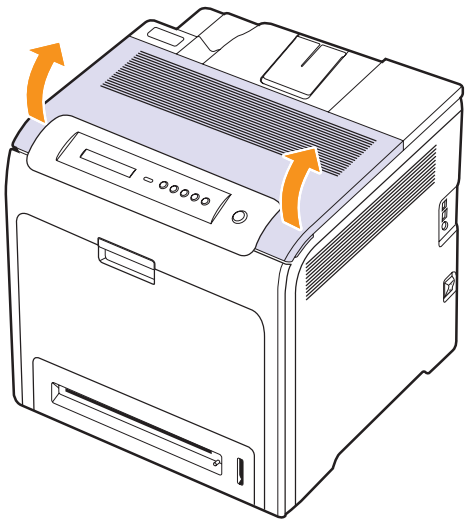
Caution

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

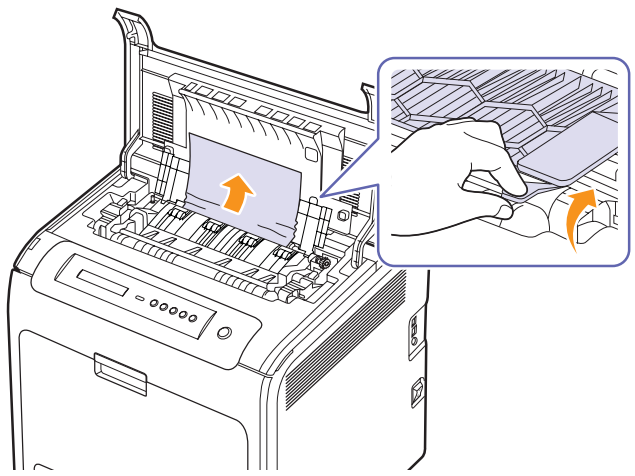
In the fuser unit area

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

1 Open the top cover.



2 Open the inner cover using the handle on it and carefully take the jammed paper out of the machine.



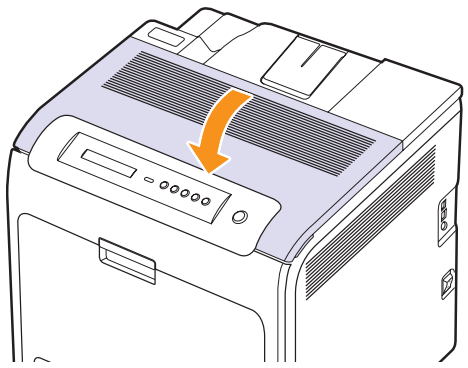
Caution

Do not touch the fuser inside the inner cover. It is hot and could cause burns! The fuser's operating temperature is 180°C (356°F). Take care when removing paper from the machine.

3 Close the inner cover.

4 After removing the jammed paper, check for paper which may be jammed in other parts of the machine.

5 Close the top cover. Make sure that it is securely latched.

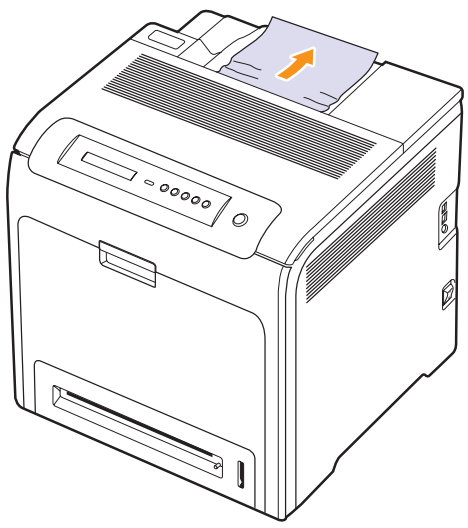


Caution
If the top cover is not completely closed, the machine will not operate.

In the paper exit area

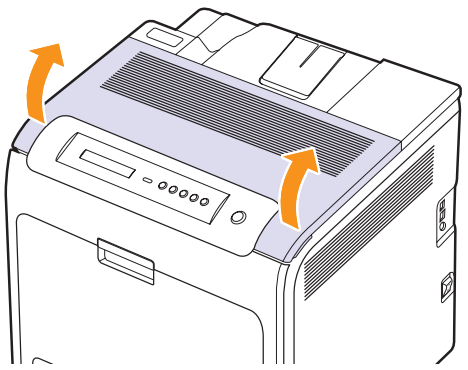
If paper is jammed in the paper exit area, follow the next steps to release the jammed paper.

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

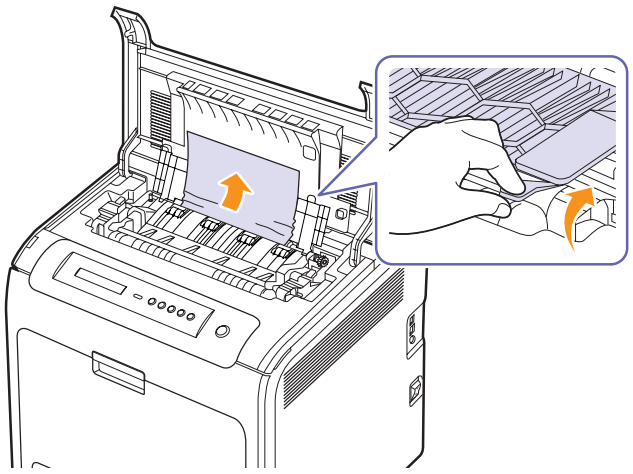


If you cannot find the jammed paper, or if there is any resistance removing the paper, stop pulling and go to step 2.

2 Open the top cover.



3 Open the inner cover using the handle on it and carefully take the jammed paper out of the machine.

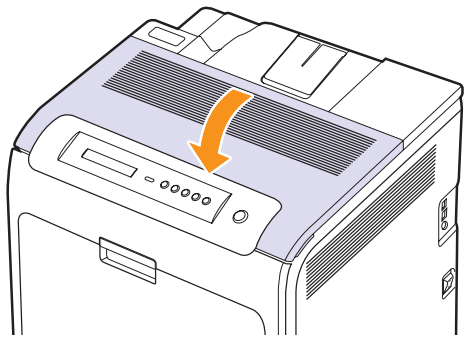


Caution
Do not touch the fuser inside the inner cover. It is hot and could cause burns! The fuser's operating temperature is 180°C (356°F). Take care when removing paper from the machine.

4 Close the inner cover.

5 After removing the jammed paper, check for paper which may be jammed in other parts of the machine.

6 Close the top cover. Make sure that it is securely latched.

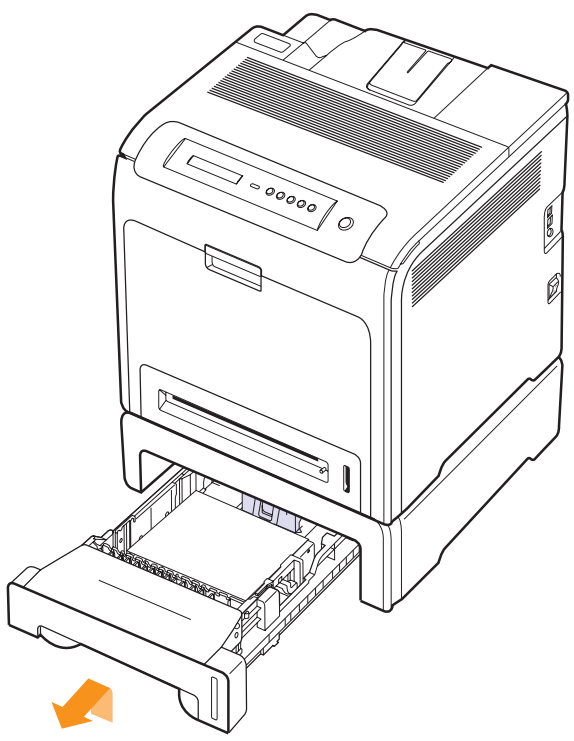


Caution
If the top cover is not completely closed, the machine will not operate.

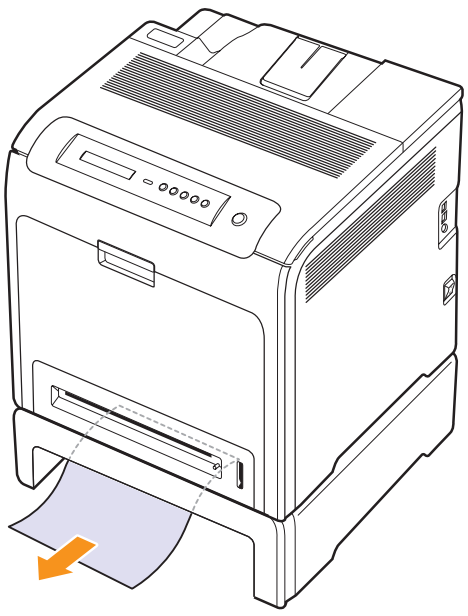
In the optional tray

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

1 Pull the optional Tray open. After you pull it all the way out, lift up the front part of the tray slightly to release the tray from the machine.

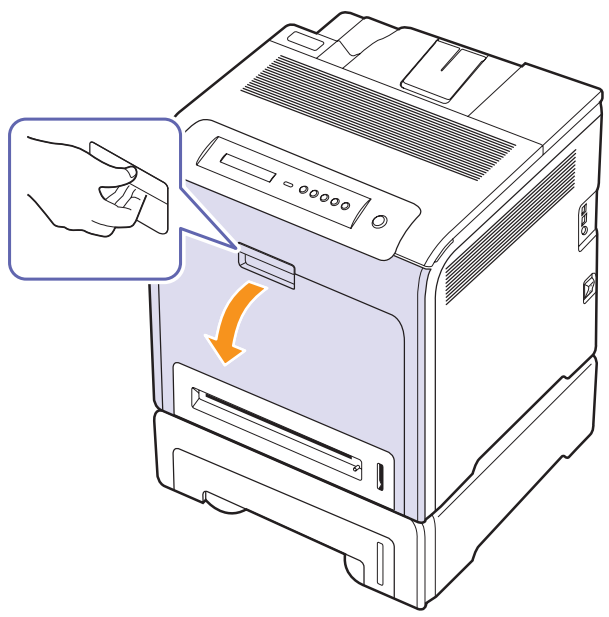


2 If you see the jammed paper, remove the paper from the machine by gently pulling it straight out as shown below.

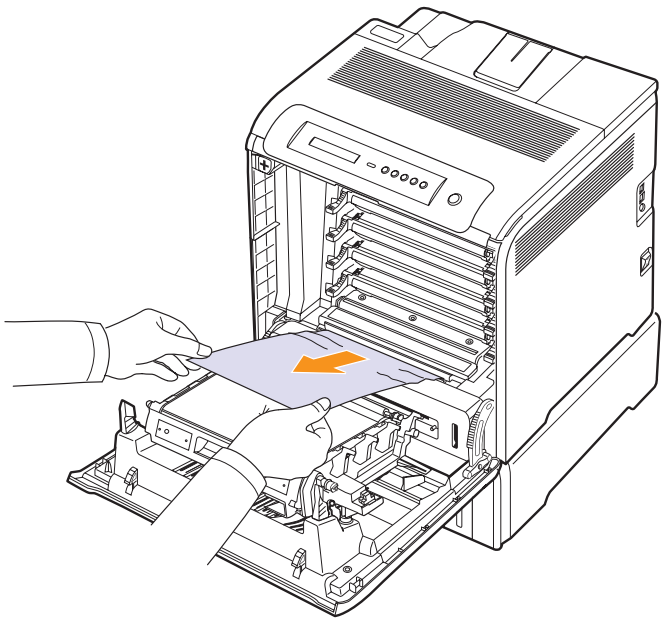


3 Slide the tray back into the machine and close the two jam covers.

4 Open the front cover.



5 Pull the jammed paper out in the direction shown. To avoid tearing the paper, pull it out gently and slowly.



6 Close the front cover firmly. The machine will resume printing.

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

Understanding display messages

Messages appear on the Smart Panel program window or on the control panel display to indicate machine status or errors. Refer to the tables below to understand the messages meaning to correct the problem, if necessary. Messages and their explanations are listed in alphabetical order.

Note
When you call for service, it is very convenient to provide the service representative with the contents of the display message.

* xxx indicates the media type.
* yyy indicates the tray type.

Message	Explanation	Solution
[yyy] Cassette Out	The tray cassette is not properly closed.	To close the tray, lower the rear edge, align it with the slot, and slide it into the printer.
[yyy] Paper Empty	There is no paper in the tray.	Load paper in the tray. (Page 4.4)
ADC Not Confirm Error	There is a problem in the ADC (Analog to Digital Converter) of your machine.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
ADC Slope Error Cycle Power	The temperature slope for ADC (Analog to Digital Converter) shows the value out of the normal range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Adjusting... Registration	The machine is adjusting the color registration.	Please wait a few minutes.
CTD Calibration Error	The CTD (Color Toner Density) Calibration has an invalid value.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Deve Motor Locked	There is a problem with the deve motor to machines which moves the toner supply device.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.

Message	Explanation	Solution
Door Open	The front cover or the top cover is not securely latched.	Close the cover until it locks into place.
Duplex Jam 0 Check Inside	Paper has jammed during duplex printing. This is applicable only to machines with this feature.	Clear the jam. (Page 7.1)
Duplex Jam 1 Open/Close Door	Paper has jammed during duplex printing. This is applicable only to machines with this feature.	Clear the jam. (Page 7.1)
Fuser Fan Locked	There is a problem with the fan for the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Humidity Open Cycle Power	The humidity exceeds the normal range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Humidity Out Cycle Power	The humidity has fallen under the normal range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Inner Temp. Open Cycle Power	The inner temperature of the machine is above the normal range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Inner Temp. Short Cycle Power	The inner temperature of the machine is below the normal range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Install Transfer Belt	The transfer belt is not installed.	Install a Samsung-genuine transfer belt. (Page 8.1, Page 6.6)

Message	Explanation	Solution
Install Toner ▼	The print cartridge is installed improperly, or not installed.	Reinstall the print cartridge two or three times. If the problem persists, the print cartridge is not being detected. Please contact the service representatives.
IP Conflict	The network IP address you have set is being used by someone else.	Check the IP address and reset it if necessary. (Page 3.2)
Load Manually Press Stop Key	The multi-purpose tray is empty in manual feed mode.	Load paper in the multi-purpose tray. (Page 4.6)
Load [xxx] In [yyy]	There is no corresponding paper in the corresponding tray.	Load corresponding paper in the corresponding tray. (Page 4.4)
Low Heat Error Cycle Power	The fuser unit is low-heated.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Low Power	The machine is in the previous stage of the power save mode.	When data is received, it switches to on-line automatically.
LSU C-Hsync Err. Cycle Power	There is a problem in the laser beam detecting device of the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
LSU C-Motor Err. Cycle Power	There is a problem in the LSU (Laser Scanning Unit) motor.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
LSU Hsync Error Cycle Power	There is a problem in the laser beam detecting device of the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.

Message	Explanation	Solution
LSU M-Hsync Err. Cycle Power	There is a problem in the laser beam detecting device of the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
LSU M-Motor Err. Cycle Power	There is a problem in the LSU (Laser Scanning Unit) motor.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
LSU Motor Error Cycle Power	There is a problem in the LSU (Laser Scanning Unit) motor.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
LSU Y-Hsync Err. Cycle Power	There is a problem in the laser beam detecting device of the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
LSU Y-Motor Err. Cycle Power	There is a problem in the LSU (Laser Scanning Unit) motor.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Main Motor Locked	There is a problem with the main motor for the machine.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
MP Tray Paper Jam 0	Paper has jammed in the multi-purpose tray.	Clear the jam. (Page 7.3)
New Fuser Error	The problem has occurred in the newly installed fuser unit.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Open Heat Error Cycle Power	The temperature for the fuser unit is above the normal range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.

Message	Explanation	Solution
Outer Temp.Open Cycle Power	The outer temperature of the machine is above the normal range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Outer Temp.Short Cycle Power	The outer temperature of the machine is below the normal range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Over Heat Error Cycle Power	The fuser unit is overheated.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Paper Jam 0 Open/Close Door	Paper has jammed in the paper feed area and inside the machine.	Clear the jam. (Page 7.1)
Paper Jam 1 Open/Close Door	Paper has jammed inside the machine.	Clear the jam. (Page 7.1)
Paper Jam 2 Check Inside	Paper has jammed in the paper exit area.	Clear the jam. (Page 7.5)
Remove Jam Open/Close Door	Paper has jammed in the fuser area.	Clear the jam. (Page 7.4)
Replace Fuser	The life of the fuser unit is expired.	Replace the fuser unit with a new one. Please contact the service representatives.
Replace Fuser Soon	The life of the fuser unit will be expired soon.	Replace the fuser unit with a new one. Please contact the service representatives.
Replace Toner ▼	This message appears between Toner Low and Toner Empty.	Replace the corresponding print cartridge with a Samsung-genuine cartridge. (Page 6.4) The arrow indicates which color print cartridge has to be replaced.

Message	Explanation	Solution
Replace Transfer Belt	The life of the transfer belt is expired.	Replace the paper transfer belt with a new one. Please contact the service representatives.
Replace Transfer Belt Soon	The life of the transfer belt will be expired soon.	Replace the transfer belt with a new one. Please contact the service representatives.
Replace [yyy] Pick-Roller	The life of the tray pick-roller has expired.	Replace the pick up - roller with a new one. Please contact the service representatives.
Self Diagnostics LSU	The LSU (Laser Scanning Unit) in your machine is checking problems detected.	Please wait a few minutes.
Self Diagnostics Temperature	The engine in your machine is checking problems detected.	Please wait a few minutes.
Sleeping...	The machine is in the power save mode.	When data is received, it switches to on-line automatically.
System Fan Locked	There is a problem with the main fan for the machine.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Thermistor Open Cycle Power	There is a problem in the temperature sensing device for the fuser unit. This device detects a value above the normal value range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Thermistor Short Cycle Power	There is a problem in the temperature sensing device for the fuser unit. This device detects a value below the normal value range.	Unplug the power cord and plug it back in. If the problem persists, contact the service representatives.
Toner Empty ▼	The color print cartridge which the arrow indicates has run out.	Replace the corresponding print cartridge with a Samsung-genuine cartridge. (Page 6.4)
Toner Low ▼	The color print cartridge which the arrow indicates is almost empty.	Take out the corresponding print cartridge and thoroughly shake it. By doing this, you can temporarily reestablish printing operations. (Page 6.3)
Tray 2 Paper Jam 0	Paper has jammed in the optional tray.	Clear the jam. (Page 7.6)

Solving other problems

The following chart lists some conditions that may occur and the recommended solutions. Follow the suggested solutions until the problem is corrected. If the problem persists, please call for service.

Paper feeding problems

Condition	Suggested solutions
Paper is jammed during printing.	Clear the paper jam. (See "Clearing paper jams" on page 7.1.)
Paper sticks together.	• Ensure that there is not too much paper in the tray. The tray can hold up to 250 sheets of paper, depending on the thickness of the paper. • Make sure that you are using the correct type of paper. (See "Specifications on print media" on page 4.2.) • Remove paper from the tray and flex or fan the paper. • Humid conditions may cause some paper to stick together.
Multiple sheets of paper do not feed.	• Different types of paper may be stacked in the tray. Load paper of only one type, size, and weight. • If multiple sheets have caused a paper jam, clear the paper jam. (See "Clearing paper jams" on page 7.1.)
Paper does not feed into the machine.	• Paper has not been loaded correctly. Remove paper from the tray and reload it correctly. • There is too much paper in the tray. Remove excess paper from the tray. • The paper is too thick. Use only paper that meets the specifications required by the machine. (See "Specifications on print media" on page 4.2.) • Remove any obstructions from inside the machine.
The paper keeps jamming.	• There is too much paper in the tray. Remove excess paper from the tray. If you are printing on special materials, use the multi-purpose tray. • An incorrect type of paper is being used. Use only paper that meets the specifications required by the machine. (See "Specifications on print media" on page 4.2.) • There may be debris inside the machine. Open the front cover and remove the debris.
Envelopes skew or fail to feed correctly.	Ensure that the paper guides are against both sides of the envelopes.

Printing problems

Condition	Possible cause	Suggested solutions
The machine does not print.	The machine is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The machine is not selected as the default printer.	Select a machine name as your default printer in your Windows.
	Check the machine for the following: • The cover is not closed. Close the cover. • Paper is jammed. Clear the paper jam. (See "Clearing paper jams" on page 7.1.) • No paper is loaded. Load paper. (See "Loading paper" on page 4.4.) • The print cartridge is not installed. Install the print cartridge. If a system error occurs, contact your service representative.	
	The connection cable between the computer and the machine is not connected properly.	Disconnect the printer cable and reconnect it.
	The connection cable between the computer and the machine is defective.	If possible, attach the cable to another computer that is working properly and print a job. You can also try using a different printer cable.
	The port setting is incorrect.	Check the Windows printer setting to make sure that the print job is sent to the correct port. If the computer has more than one port, make sure that the machine is attached to the correct one.
	The machine may be configured incorrectly.	Check the printer properties to ensure that all of the print settings are correct.