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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 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. 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.

United States of America

Federal Communications Commission (FCC)

Intentional emitter per FCC Part 15

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

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

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

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

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

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

FCC Statement for Wireless LAN use:

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

Declaration of Conformity (European Countries)

Approvals and Certifications

The CE marking applied to this product symbolises 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.

EC Certification

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

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

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

The product has been tested against TBR21 and/or TBR 38. To assist in the use and application of terminal equipment which complies with this standard, the European Telecommunication Standards Institute (ETSI) has issued an advisory document (EG 201 121) which contains notes and additional requirements to ensure network compatibility of TBR21 terminals. The product has been designed against, and is fully compliant with, all of the relevant advisory notes contained in this document.

European Radio Approval Information (for products fitted with EU-approved radio devices)

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

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

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

European States qualified under wireless approvals:

EU Austria, Belgium, Cyprus, Czech Republic, Denmark, Estonia, Finland, France (with frequency restrictions), Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, The Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and the U.K.

EEA/EFTA countries Iceland, Liechtenstein, Norway and Switzerland

European States with restrictions on use:

EU In France, the frequency range is restricted to 2446.5-2483.5 MHz for devices above 10 mW transmitting power such as wireless

EEA/EFTA countries No limitations at this time.

Regulatory Compliance Statements

Wireless Guidance

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

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

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

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

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

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

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

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

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

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

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

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

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.

1 Introduction

Congratulations on the purchase of your printer!

This chapter includes:

- **Special features**
- **Printer overview**
- **Finding more information**

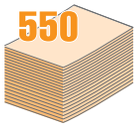
Special features

Your new printer is equipped with several special features that improve the print quality. You can:

Print with excellent quality and high speed

- You can print up to **1200 x 1200 dpi** effective output. See the **Software Section**.
- Your printer prints A4-sized paper at up to 28 ppm[a] and letter-sized paper at up to 30 ppm. If you use the ML-3051ND, for duplex printing, your printer prints A4-sized paper at up to 19 ipm[b] and letter-sized paper at up to 21 ipm.

Handle paper flexibly



- The multi-purpose tray supports letterheads, envelopes, labels, transparencies, custom-sized materials, postcards, and heavy paper. The multi-purpose tray holds up to 50 sheets of plain paper.
- The **250-sheet** tray 1 and **250-sheet** optional tray 2 support plain paper in various sizes.
- Two output tray; select either the output tray (face-down) or the rear cover (face-up) for the most convenient access.
- **Straight-through paper path** capability from the multi-purpose tray to the rear cover.

Create professional documents

- Print **Watermarks**. You can customize your documents with words, such as “Confidential.” See the **Software Section**.
- Print **Booklets**. This feature enables you to easily print a document to create a book. Once printed, all you have to do is fold and staple the pages. See the **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 the **Software Section**.

a. pages per minute
b. images per minute

Save time and money

- This printer allows you to use toner save mode to save toner. See page 2.7.
- You can print on both sides of the paper to save paper (**double-sided printing**) if you use the ML-3051ND.
- You can print multiple pages on a single sheet of paper to save paper (**2-Up printing**). See the **Software Section**.
- You can use preprinted forms and letterhead with plain paper. See the **Software Section**.
- This printer automatically **conserves electricity** by substantially reducing power consumption when not in use.
- This printer meets **Energy Star** guidelines for energy efficiency.

Expand the printer capacity

- The ML-3050 has 32 MB of memory which can be expanded to **288 MB**. The ML-3051N or ML-3051ND has 64 MB of memory which can be expanded to **320 MB**. See page 10.1.
- A **Network interface** enables network printing. You can add an optional network printer server to the ML-3050.
- You can also add an optional wireless network interface card to the ML-3051N and ML-3051ND.
- You can add a 250-sheet optional tray 2 to your printer. This tray lets you add paper to the printer less often.
- A PostScript 3 Emulation* (PS) enables PS printing (ML-3051N, ML-3051ND).

* PostScript 3 Emulation

- © Copyright 1995-2005, Zoran Corporation. All rights reserved. Zoran, the Zoran logo, IPS/PS3 and OneImage are trademarks of Zoran Corporation.

* 136 PS3 fonts

- Contains UFST and MicroType from Monotype Imaging Inc.

Print in various environments

- You can print in **Windows 95/98/Me/NT 4.0/2000/XP/2003**.
- Your printer is compatible with **Linux** and **Macintosh**.
- Your printer comes with both **Parallel** and **USB** interfaces.
- You can also use a **network interface**. The ML-3051N and ML-3051ND come with a built-in network interface, 10/100 Base TX. However, you need to install the optional network printer server to the ML-3050.

Printer features

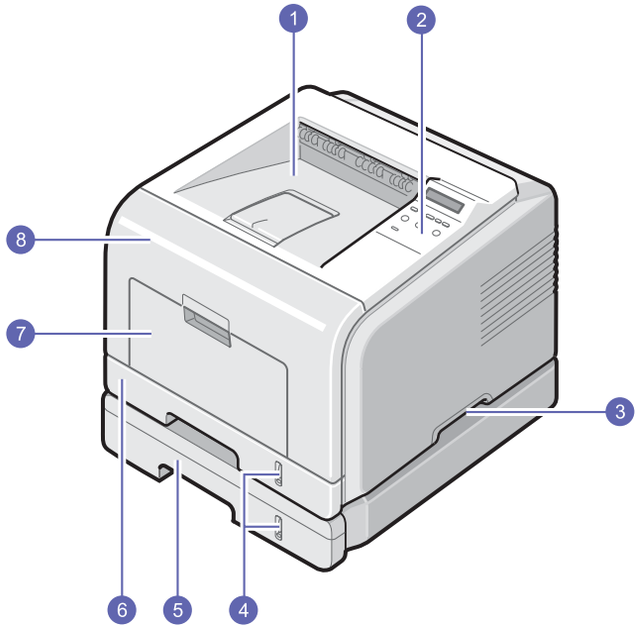
The table below lists a general overview of features supported by your printer.
(I: Installed, O: Option, NA: Not Available)

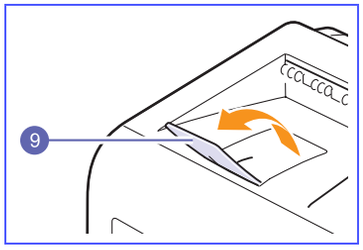
Features	ML-3050	ML-3051N	ML-3051ND
IEEE 1284 Parallel	I	I	I
USB 2.0	I	I	I
Network Interface (Ethernet 10/100 Base TX)	O	I	I
Wireless LAN (IEEE 802.11 b/g Wireless LAN)	O	O	O
PostScript* Emulation	NA	I	I
Duplex printing[a]	NA	NA	I

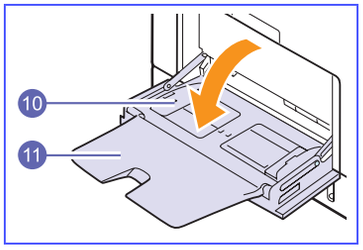
a. Printing on both sides of paper.

Printer overview

Front view



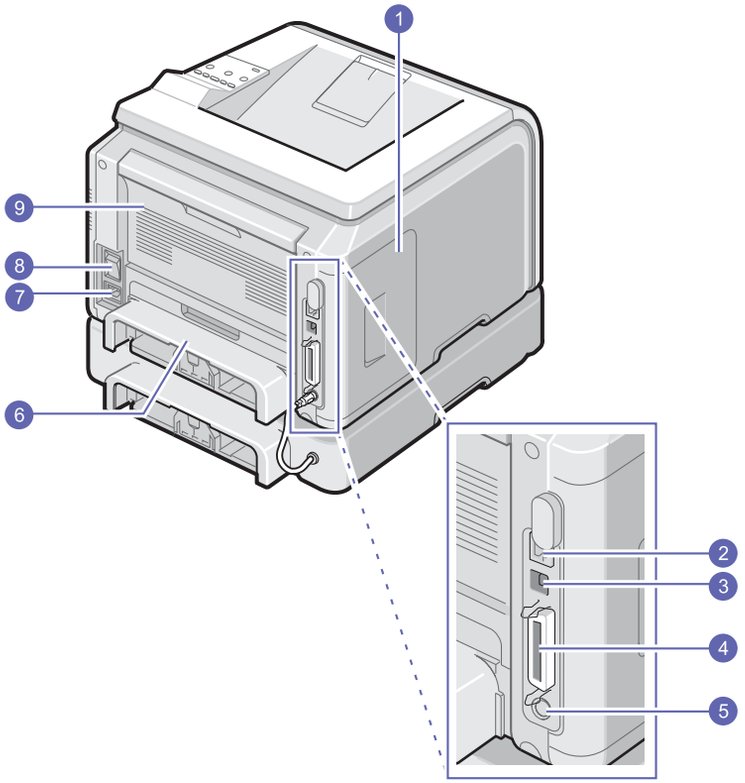




* The figure above shows an ML-3051ND with all available options.

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

Rear view

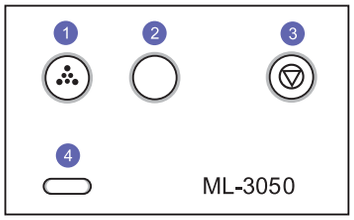


* The figure above shows an ML-3051ND with all available options.

1	control board cover	6	duplex unit
2	network port	7	power receptacle
3	USB port	8	power switch
4	parallel port	9	rear cover
5	optional tray 2 cable connector		

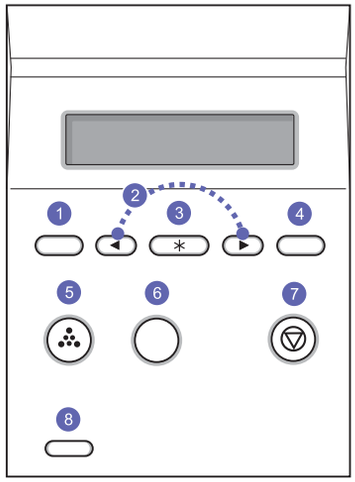
Control panel overview

ML-3050



1	**Toner Save**: Allows you to save on toner by using less toner in printing.
2	**Demo**: Allows you to print a demo page.
3	**Stop**: Stops an operation at any time.
4	**Status**: Shows the status of your printer. See page 9.6.

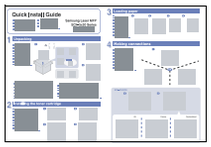
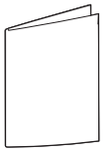
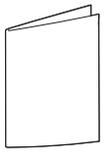
ML-3051N and ML-3051ND



1	**Menu**: Enters Menu mode and scrolls through the available menus.
2	**Scroll** buttons: Scroll through the options available in the selected menu, and increase or decrease values.
3	**OK**: Confirms the selection on the display.
4	**Back**: Sends you back to the upper menu level.
5	**Toner Save**: Allows you to save on toner by using less toner in printing.
6	**ML-3051N_Demo**: Allows you to print a demo page. **ML-3051ND_Duplex**: Allows you to print documents on both sides of the paper.
7	**Stop**: Stops an operation at any time.
8	**Status**: Shows the status of your printer. See page 9.6.

Finding more information

You can find information for setting up and using your from the following resources, either printed or onscreen.

Quick Install Guide 	Provides information on setting up your printer and, therefore, be sure to follow the instructions in the guide to get the printer ready.
Online User's Guide 	Provides you with step-by-step instructions for using your printer's full features, and contains information for maintaining your printer, troubleshooting, and installing accessories. This user's guide also contains the **Software Section** providing you with information on how to print documents with your printer on various operating systems, and how to use the supplied software utilities. **Note** You can access the user's guides in other languages from the **Manual** folder on the printer driver CD.
Network Printer User's Guide 	Contained on the network utilities CD, provides you with information on setting up and connecting your printer 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.

Selecting a location

Select a level, stable place with adequate space for air circulation. Allow extra space for opening 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 printer close to the edge of your desk or table.

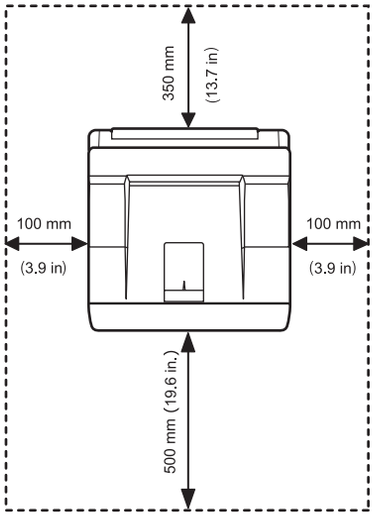
Clearance space

Front: 500 mm (enough space so that trays can be opened or removed)

Back: 350 mm (enough space to allow opening of the **rear cover** or the **duplex unit**)

Right: 100 mm (enough space for ventilation)

Left: 100 mm (enough space to allow opening of the control board cover)



2 System setup

This chapter provides step by step information on setting up your printer.

This chapter includes:

- **Using control panel menus (ML-3051N, ML-3051ND only)**
- **Menu overview**
- **Printing a demo page**
- **Changing the display language (ML-3051N, ML-3051ND only)**
- **Using toner save mode**

Using control panel menus (ML-3051N, ML-3051ND only)

A number of menus are available to make it easy for you to change the printer settings. The diagram on the next column shows the menus and all of the menu items available in each menu. The items in each menu and the options you can select are described in more detail in the tables beginning on page 2.2.

Accessing control panel menus

You can control your printer from the printer's control panel. You can also set the control panel menus while the printer is in use.

1 Press **Menu** until the menu you want appears on the bottom line of the display and press **OK**.

2 Press the **Scroll** buttons until the desired menu item appears and press **OK**.

3 If the menu item has sub menus, repeat step 2.

4 Press the **Scroll** buttons to access the desired setting option or the required value.

5 Press **OK** to save your selection.

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

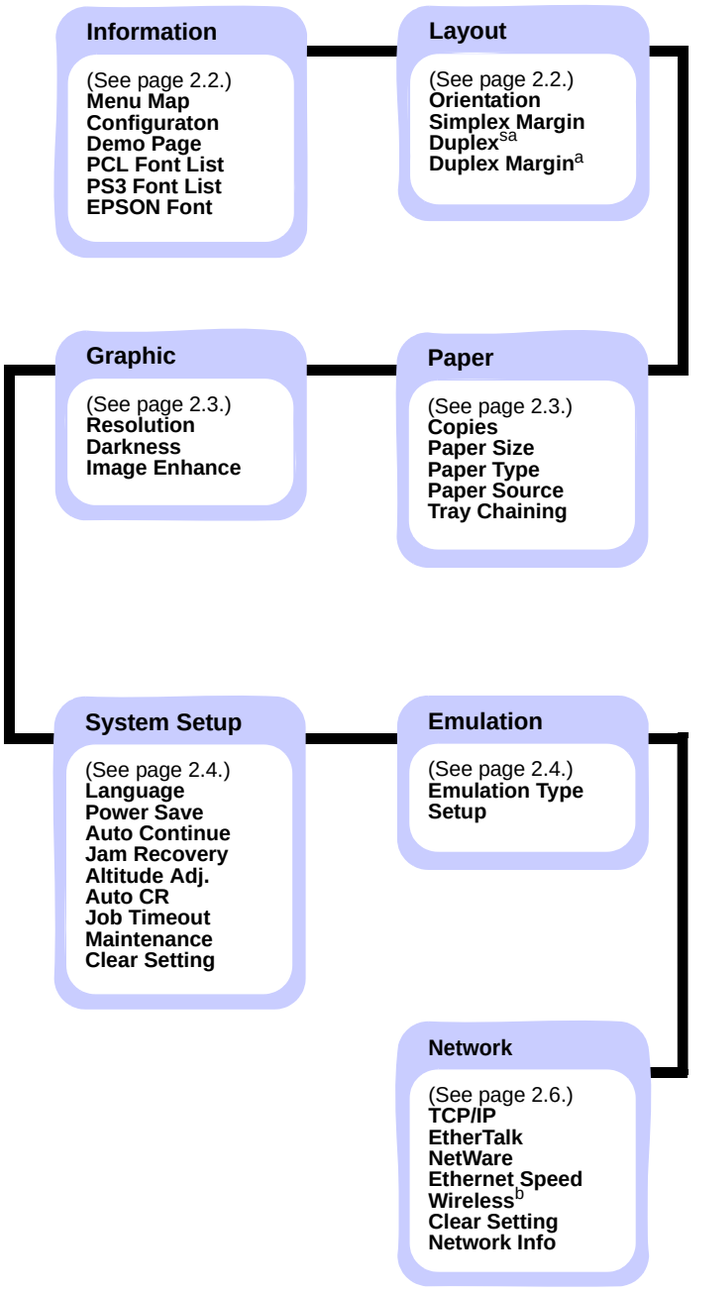
6 Press **Stop** to return to Standby mode.

After 60 seconds of inactivity (no key being pressed), the printer automatically returns to Standby mode.

Note
Print settings made from the printer driver on a connected computer override the settings on the control panel.

Menu overview

The control panel menus are used to configure the printer. The control panel provides access to the following menus:



a. Available with the ML-3051ND.
b. Available with optional wireless network interface.

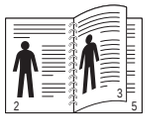
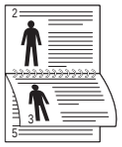
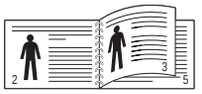
Information menu

This menu contains printer information pages that give details about the printer and its configuration.

Item	Explanation
Menu Map	The menu map shows the layout and current settings of the control panel menu items.
Configuraton	The configuration page shows the printer's current configuration. See page 8.1.
Demo Page	The demo page allows you to check if your printer properly performs printing. See page 2.6.
PCL Font List **PS3 Font List** **EPSON Font**	The font sample list shows all of the fonts currently available in the selected language.

Layout menu

Use the **Layout** menu to define all settings relating to output.
(*: the default setting)

Item	Explanation
Orientation	Values: Portrait*, Landscape Choose the default orientation of the print image on the page. Portrait Landscape
Simplex Margin	Values: 0.0* 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, from 0.0 to 250 mm. • **Left Margin**: Set the left margin, from 0.0 to 164 mm.
Duplex	Values: Off*, Long Edge, Short Edge To print on both sides of paper, choose the binding edge as follows. • **Long Edge**: Flip on the long edge. Prints pages to read like a book. • **Short Edge**: Flip on the short edge. Prints pages to read by flipping over like a note pad.  Long Edge in the Portrait orientation  Long Edge in the Landscape orientation Short Edge in the Portrait orientation  Short Edge in the Landscape orientation Select **Off** to print on one side of the paper. **Note** This menu item is available only with the ML-3051ND.
Duplex Margin	Values: Top/Left:5.0*, Short/Long: 0* 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, from 0.0 to 9.9 mm. • **Left Margin**: Set the left margin, from 0.0 to 9.9 mm. • **Short Binding**: Set the bottom margin of the back of the page for short binding, from 0.0 to 22 mm. • **Long Binding**: Set the right margin of the back of the page for long binding, from 0.0 to 22 mm. **Note** This menu item is available only with the ML-3051ND.

Paper menu

Use the **Paper** menu to define all settings relating to print material input and output, as well as the specific print material you are using with your printer.
(*: the default setting)

Item	Explanation
Copies	Values: 1* ~ 999 Set the default number of copies by selecting any number from 1 to 999.
Paper Size	Values: A4, A5, A6, JIS B5, ISO B5, Letter, Legal, Executive, No.10 Env., Monarch Env., DL Env., C5 Env., C6 Env., US Folio, Custom Paper * Letter for USA, A4 for Europe and Asia Select the paper size currently loaded in the tray.
Paper Type	Values: Plain Paper*, Bond Paper, Transparency, Envelope, Labels, Post Card, CardStock, Preprinted, Recycled, Color Paper, Cotton Paper, Thick Paper, Thin Paper Select the paper type currently loaded in the tray.
Paper Source	Values: Tray 1, Tray 2, MP Tray, Manual Tray, Auto* Using this item, you can set which tray you want to use. • If you select **Auto**, the printer can automatically determine the source. • Select **MP Tray** or **Manual Tray** to use the multi-purpose tray. If you select **Manual Tray**, you need to press **Stop** (ML-3050) or **OK** (ML-3051N, ML-3051ND) each time you print a page. • **Tray 2** is available only when an optional tray 2 is installed.
Tray Chaining	Values: Off, On* When you select any other value except **Auto** from **Paper Source** and the selected tray is empty, the printer automatically prints from other trays. If this menu item is set to **Off**, the Status LED lights red and the printer doesn't work until you insert paper into the specified tray.

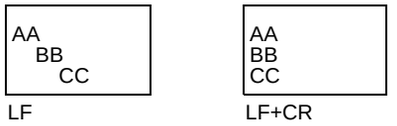
Graphic menu

Use the **Graphic** menu to change settings affecting the quality of the printed characters and images.
(*: the default setting)

Item	Explanation
Resolution	Values: 300dpi-Draft, 600dpi-Normal*, 1200dpi-Best Specify the number of dots printed per inch (dpi). The higher the setting, the sharper printed characters and graphics. • Select **300dpi-Draft** to print a draft document. • If your print jobs are mostly text, select **600dpi-Normal** for the highest quality printing. • Select **1200dpi-Best** when your job contains bitmapped images, such as scanned photos or some graphics, that will benefit from enhanced line screening.
Darkness	Values: Normal*, Light, Dark You can lighten or darken the print on the page by changing the toner density setting. The **Normal** setting usually produces the best result. Use the **Light** toner density setting to save toner.
Image Enhance	Values: Normal, Image Enhance, Text Enhance* This item enhances the print quality. • **Normal**: Doesn't enhance the quality. • **Image Enhance**: Enhances bitmap images, like scanned pictures. • **Text Enhance**: Enhances letters and simple figures.

System Setup menu

Use the **System Setup** menu to configure a variety of printer features.
(*: the default setting)

Item	Explanation
Language	Values: English*, FRANCAIS, Espanol, I. Portuguese, B. Portugues, Deutsch, Italiano,. This setting determines the language of the text that appears on the control panel display and information printing.
Power Save	Values: 5 Min*, 10 Min, 15 Min, 30 Min, 45 Min When the printer does not receive data for an extended period of time, power consumption is automatically lowered. You can set how long the printer waits before going to power save mode.
Auto Continue	Values: Off, On* This item determines whether or not the printer continues printing when it detects the paper unmatched to your paper setting. • **Off**: If a paper mismatch occurs, the message will remain on the display and the printer will remain off-line until you insert the correct paper. • **On**: If the paper is mismatched occurs, an error message will display. The printer will go offline for 30 seconds, then automatically clear the message and continue printing.
Jam Recovery	Values: Off*, On This item determines how the printer behaves when a paper jam occurs. • **Off**: The printer does not reprint pages. Printing performance might be increased with this setting. • **On**: The printer automatically reprints pages after you clear the paper jam.
Altitude Adj.	Values: Low*, High You can optimize print quality according to your altitude.
Auto CR	Values: LF*, LF+CR This item allows you to append the required carriage return to each line feed. Refer to the following samples: 
Job Timeout	Values: 0 ~ 1800 sec *15 sec You can set the length of time the printer waits before printing the last page of a print job that does not end with a command to print the page. When a print time-out occurs, the printer prints the page in the print buffer.
Maintenance	This item allows you to maintain your printer. • **Clean Drum**: Cleans the OPC drum of the cartridge and produces a cleaning sheet with toner debris on it. • **Clean Fuser**: Cleans the fuser unit inside of the printer and produces a cleaning sheet with toner debris on it. • **Supplies Life**: This item allows you to check how many pages are printed and how much toner are left in the cartridge.
Clear Setting	This menu item allows you to restore the printer's factory default settings.

Emulation menu

Use the **Emulation** menu to configure printer language emulation.
(*: the default setting)

Item	Explanation
Emulation Type	Values: Auto*, PCL, EPSON, HEXDUMP, PS3, IBM ProPrint The printer language defines how the computer communicates with the printer. If you select **Auto**, your printer can change the printer language automatically.
Setup	Values: PCL, PostScript, EPSON See the tables on page 2.5 to configure the printer language.

PCL

This menu sets the PCL emulation configuration. You can set the font type, symbol type, lines per page, and point size.
(*: the default setting)

Item	Explanation
Typeface	Values: PCL1* ~ PCL54 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 point 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 point size are fixed.
Symbol	Values: ROMAN8 ~ PCCYRIL *PC8 This item selects the symbol to be used in PCL emulation. The symbol is the group of numbers, marks, and special signs being used when printing letters.
Point Size	Values: 4.00 ~ 999.75 (0.25 unit) *12 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	Values: Regular*, Dark This item lets you select the version of Courier font to use.
Pitch	Values: 0.44 ~ 99.99 (0.01 unit) *10 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	Values: 5 ~ 128 *60 (Letter), 64 (A4) This item allows you to set vertical spacing from 5 to 128 lines for the default paper size. The lines may differ according to the paper size and printing orientation.

PostScript

This menu provides you with the Print PS Error menu item.
(*: the default setting)

Item	Explanation
Print PS Error	Values: On, Off* 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.

EPSON

This menu sets the EPSON emulation configuration.
(*: the default setting)

Item	Explanation
Font	Values: SANSERIF*, ROMAN You can select the standard font will be used in EPSON emulation.
Character Set	Values: USA*, FRANCE, GERMANY, UK, DENMARK1, SWEDEN, ITALY, SPAIN1, JAPAN, NORWAY, DENMARK2, SPAIN2, LATIN This item allows you to select a character set of the desired language.
Character Tab.	Values: ITALIC, PC437US*, PC850 This item selects the character set.
Pitch	Values: 10*, 12, 17.14, 20 You can determine the font size by setting the number of characters that will print in one horizontal inch of type.
LPI	Values: 6*, 8 You can set the number of lines printed in one vertical inch.
Auto Wrap	Values: Off, On* This item determines whether or not the printer automatically performs line feed when the data overflows the printable area of the print material.

Network menu

This menu lets you configure the network interface installed in your printer. You can reset the network interface and print a configuration page.

Note
In the ML-3050 printer, this menu only appears when an optional network printer server is installed.

(*: the default setting)

Item	Explanation
TCP/IP	Values: DHCP*, BOOTP, Static This item allows you to manually set the TCP/IP addresses or receive the addresses from the network. • **DHCP**: The DHCP server allots the IP address to you automatically. • **BOOTP**: The BOOTP server allots the IP address to you automatically. • **Static**: You can enter IP address, subnet mask, and gateway manually.
EtherTalk	Values: Off, On* This item lets you select whether or not you use the EtherTalk protocol. Select **On** to use the protocol.
NetWare	Values: Auto*, 802.2, 802.3, Ethernet II, SNAP, Off This item lets you select the IPX frame type. • **Auto**: You can set the frame type automatically. • **802.2**: Select this value to use the IEEE 802.2 frame type. • **802.3**: Select this value to use the IEEE 802.3 frame type. • **Ethernet II**: Select this value to use the Ethernet 2 frame type. • **SNAP**: Select this value to use the SNAP frame type. • **Off**: You can disable the NetWare protocol.
Ethernet Speed	Values: Auto*, 10M Half, 10M Full, 100M Half, 100M Full This item allows you to select the ethernet speed.
Wireless	Values: SSID Type, Authentication, Encryption Configure the wireless network environments. See page 10.3. **Note** This menu only appears when an optional wireless network interface card has been installed.
Clear Setting	This item performs a simple reset and restores the factory default settings for the network configuration. This setting will only take effect after you have reset the printer.
Network Info	This item print a page showing the network parameters you set.

Printing a demo page

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

ML-3050, ML-3051N

Press and hold **Demo** for about 2 seconds.

ML-3051N, ML-3051ND

1 Press **Menu** and then **OK** when **Information** appears.

2 Press the **Scroll** buttons until **Demo Page** appears and press **OK**.

A demo page prints out.

Changing the display language (ML-3051N, ML-3051ND only)

To change the language that is displayed on the control panel, follow these steps:

1 Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.

2 Press **OK** when **Language** appears.

3 Press the **Scroll** buttons to select the language you want and press **OK**.

4 Press **Stop** to return to Standby mode.

Using toner save mode

Toner save mode allows the printer to use less toner on each page. Activating this mode extends the life of your toner cartridge and reduces your cost per page beyond what one would experience in the normal mode, but it reduces print quality. This setting is not available with the 1200 dpi setting.

There are two ways to enable this mode:

Using the control panel button

Press **Toner Save** on the control panel. The printer must be in Standby mode; the Status LED lights green and **Ready** is shown on the display, if you use the ML-3051N or ML-3051ND.

- If the button backlight is on, the mode is enabled and the printer uses less toner to print a page.
- If the button backlight is off, the mode is disabled and the printer prints in normal mode.

From the software application

You can set toner save mode from the printer properties window on your printer driver. See the **Software Section**.

3 Software overview

This chapter gives you an overview of the software that comes with your printer. Further details about installing and using the software are explained in the **Software Section**.

This chapter includes:

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

Supplied software

You must install the printer and scanner software using the supplied CDs after you have set up your printer 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 printer's features. • **Smart Panel**: This program allows you to monitor the printer's status and alerts you when an error occurs during printing. • **Printer Settings Utility**: This program is automatically installed when you install the Smart Panel. • **User's Guide** in PDF
	Linux	• **Printer driver**: Use this driver to run your printer from a Linux computer and print documents. • **Smart Panel**: This program allows you to monitor the printer's status and alerts you when an error occurs during printing.
PostScript printer driver CD	Windows	• **Postscript Printer Description (PPD) file**: Use the PostScript driver to print documents with complex fonts and graphics in the PostScript language. • **User's Guide** in PDF
	Macintosh	• **Postscript Printer Description (PPD) file**: Use this file to run your printer from a Macintosh computer and print documents. • **Smart Panel**: This program allows you to monitor the printer'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 printers. • **Set IP**: Use this program to set your printer's TCP/IP addresses. • **Network Printer User's Guide** in PDF

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:

Feature	PCL 6	PostScript		
	Windows	Windows	Macintosh	Linux
Toner save	O	X	X	O
Print quality option	O	O	O	O
Poster printing	O	X	X	X
Multiple pages per sheet (N-up)	O	O	O	O (2, 4)
Fit to page printing	O	O	O	O
Scale printing	O	O	O	O
Different source for first page	O	X	O	X
Watermark	O	X	X	X
Overlay	O	X	X	X

System requirements

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

Windows

Item	Requirements		Recommended
Operating system	Windows 95/98/Me/NT 4.0/2000/XP/2003		
CPU	Windows 95/98/ Me/NT 4.0/2000	Pentium II 400 MHz or higher	Pentium III 933 MHz
	Windows XP/ 2003	Pentium III 933 MHz or higher	Pentium IV 1 GHz
RAM	Windows 95/98/ Me/NT 4.0/2000	64 MB or more	128 MB
	Windows XP/ 2003	128 MB or more	256 MB
Free disk space	Windows 95/98/ Me/NT 4.0/2000	300 MB or more	1 GB
	Windows XP/ 2003	1 GB or more	5 GB
Internet Explorer	5.0 or higher		

Note
For Windows NT 4.0/2000/XP/2003, users who have an administrator right can install the software.

Linux

Item	Requirements
Operating system	• Red Hat 8.0 ~ 9.0 • Fedora Core 1 ~ 3 • Mandrake 9.2 ~ 10.1 • SuSE 8.2 ~ 9.2
Processor	Pentium IV 1 GHz or higher
RAM	256 MB or higher
Free disk page	1 GB or higher
Software	• Linux Kernel 2.4 or higher • Glibc 2.2 or higher • CUPS • SANE

Notes

- It is necessary to claim swap partition of 300 MB or larger for working with large scanned images.
- The Linux scanner driver supports the optical resolution at maximum.

Macintosh

Item	Requirements
Operating system	Macintosh 10.3 (ML-3050), 8.6 ~ 9.2 and 10.1 ~ 10.4 (ML-3051N or ML-3051ND)
RAM	128 MB
Free disk space	200 MB
Connection	USB interface, Network interface

4 Network setup

This chapter gives you step-by-step instructions for setting up your printer for network connections.

This chapter includes:

- **Introduction**
- **Supported operating systems**
- **Configuring TCP/IP**
- **Configuring EtherTalk**
- **Configuring IPX frame types**
- **Setting Ethernet speed**
- **Restoring the network configuration**
- **Printing a network configuration page**

Introduction

Once you have connected your printer to a network with an RJ-45 Ethernet cable, you can share the printer with other network users.

You need to set up the network protocols on the printer to use it as your network printer. Protocols can be set up by the following two methods:

Via network administration programs

You can configure your printer's print server settings and manage the printer via the following programs that came with your printer:

- **SyncThru™ Web Admin Service**: A 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 printers from any site with corporate intranet access.
- **SyncThru™ Web Service**: A web server embedded to your network print server, which allows you to configure the network parameters necessary for the printer to connect to various network environments.
- **SetIP**: A utility program allowing you to select a network interface and manually configure the addresses for use with the TCP/IP protocol.

For further details, refer to the user's guide on the network utilities CD that came with your printer.

Via the control panel

You can set up the following basic network parameters through the printer's control panel:

- Configure TCP/IP
- Configure IPX frame types for NetWare
- Configure EtherTalk

Supported operating systems

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

Item	Requirements
Network interface	• 10/100 Base-TX • IEEE 802.11 b/g Wireless LAN (optional)
Network operating system	• Novell NetWare 4.x, 5.x, 6.x • Windows 95/98/Me/NT 4.0/2000/XP/2003 • Various Linux OS • Macintosh OS 10.3 (ML-3050), 8.6 ~ 9.2 and 10.1 ~ 10.4 (ML-3051N, ML-3051ND)
Network protocols	• NetWare IPX/SPX • TCP/IP on Windows • EtherTalk
Dynamic addressing server	• DHCP, BOOTP

• IPX/SPX: Internet Packet eXchange/Sequenced Packet eXchange
• TCP/IP: Transmission Control Protocol/Internet Protocol
• DHCP: Dynamic Host Configuration Protocol
• BOOTP: Bootstrap Protocol

Configuring TCP/IP

Your printer can be set up with a variety of TCP/IP network information, such as an IP address, a subnet mask, a gateway, and DNS addresses. There are several ways in which your printer can be assigned a TCP/IP address, depending on your network.

- Static addressing: A TCP/IP address is assigned manually by the system administrator.
- Dynamic addressing via BOOTP/DHCP (default): A TCP/IP address is assigned automatically by the server.

Note
Before configuring TCP/IP, you need to set the network protocol to TCP/IP.

Static addressing

To enter a TCP/IP address from your printer's control panel, take the following step:

1 Press **Menu** until **Network** appears on the bottom line of the display and press **OK**.

2 Press **OK** when **TCP/IP** appears.

3 Press the **Scroll** buttons until **Static** appears and press **OK**.

4 Press **OK** when **IP Address** appears.

5 Set the first byte between 0 and 255 using the **Scroll** buttons and press **OK** to move to the next byte.

Repeat this to complete the address from the 1st byte to the 4th byte.

6 When you have finished, press **OK**.

7 Repeat step 5 and 6 to configure the other TCP/IP parameters: subnet mask and gateway address.

8 Press **Stop** to return to Standby mode.

Dynamic addressing (BOOTP/DHCP)

To have a TCP/IP address assigned automatically by the server, take the following step:

1 Press **Menu** until **Network** appears on the bottom line of the display.

2 Press **OK** when **TCP/IP** appears.

3 Press the **Scroll** buttons until **DHCP** or **BOOTP** appears and press **OK**.

4 Press **Stop** to return to Standby mode.

Configuring EtherTalk

EtherTalk is AppleTalk used in an Ethernet network. This protocol is widely used in Macintosh network environments. To use EtherTalk, take the following step:

1 Press **Menu** until **Network** appears on the bottom line of the display and press **OK**.

2 Press the **Scroll** buttons until **EtherTalk** appears and press **OK**.

3 Press the **Scroll** buttons until **On** appears and press **OK**.

4 Press **Stop** to return to Standby mode.

Configuring IPX frame types

To use IPX/SPX protocol networks (for example, Novell NetWare), the format of the network communication frames must be specified for the printer. In most cases, you can keep the **Auto** setting. However, you can manually set the frame type format, if required. Take the following step to change the frame type format:

1 Press **Menu** until **Network** on the bottom line of the display and press **OK**.

2 Press the **Scroll** buttons until **NetWare** appears and press **OK**.

3 Press the **Scroll** buttons until the desired frame type appears.

- **Auto**: Automatically senses and limits the frame type to the first one detected.
- **802.2**: Limits the frame type to IPX over IEEE 802.2 with IEEE 802.3 frames. All others will be discarded.
- **802.3**: Limits the frame type to IPX over IEEE 802.3 frames. All others will be discarded.
- **Ethernet II**: Limits the frame type to IPX over Ethernet Frames. All others will be discarded.
- **SNAP**: Limits the frame type to IPX over SNAP with IEEE 802.3 frames. All others will be discarded.
- **Off**: The IPX/SPX protocol is disabled.

4 Press **OK** to save the selection.

5 Press **Stop** to return to Standby mode.

Setting Ethernet speed

You can select the communication speed for Ethernet connections.

1 Press **Menu** until **Network** appears on the bottom line of the display and press **OK**.

2 Press the **Scroll** buttons until **Ethernet Speed** appears and press **OK**.

3 Press the **Scroll** buttons until the speed you want appears and press **OK**.

4 Press **Stop** to return to Standby mode.

Restoring the network configuration

You can return the network configuration to its default settings.

1 Press **Menu** until **Network** appears on the bottom line of the display and press **OK**.

2 Press the **Scroll** buttons until **Clear Setting** appears and press **OK**.

3 Press **OK** when **Yes** appears to restore the network configuration.

4 Power the printer off and back on.

Printing a network configuration page

The network configuration page shows how the network interface card on your printer is configured.

1 Press **Menu** until **Network** appears on the bottom line of the display and press **OK**.

2 Press the **Scroll** buttons until **Network Info** appears and press **OK**.

3 Press **OK** when **Yes** appears.

The network configuration page prints out.

5 Loading print media

This chapter will help you understand types of paper you can use with your printer and how to properly load paper in the different paper trays for the best print quality.

This chapter includes:

- **Selecting print media**
- **Loading paper**
- **Selecting an output location**

Selecting print media

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

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

- Desired outcome: The print media you choose should be appropriate for your project.
- Size: You can use any size media that fits easily within the paper adjusters of the paper tray.
- Weight: Your printer supports print media weights as follows:
  - 16 to 24 lb (60 to 90 g/m^2) bond for the tray 1 and optional tray 2
  - 16 to 43 lb (60 to 163 g/m^2) bond for the multi-purpose tray
  - 20 to 24 lb (75 to 90 g/m^2) for the duplex printing (ML-3051ND only)
- 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.

Notes

- 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.

Supported sizes of paper

Type	Size	Dimensions	Weight[a]	Capacity[b]
Plain paper	Letter	215.9 x 279 mm (8.5 x 11 inches)	• 60 to 90 g/m^2 bond (16 to 24 lb) for the tray • 60 to 163 g/m^2 bond (16 to 43 lb) for the multi-purpose tray	• 250 sheets of 75 g/m^2 (20 lb) bond paper for the tray • 50 sheets for the multi-purpose tray
	Legal	215.9 x 355.6 mm (8.5 x 14 inches)		
	Folio	216 x 330.2 mm (8.5 x 13 inches)		
	Oficio	216 x 343 mm (8.5 x 13.5 inches)		
	A4	210 x 297 mm (8.27 x 11.69 inches)		
	JIS B5	182 x 257 mm (7.18 x 10.12 inches)		
	ISO B5	176 x 250 mm (6.93 x 9.84 inches)		
	Executive	184.2 x 266.7 mm (7.25 x 10.5 inches)		
	A5	148.5 x 210 mm (5.85 x 8.27 inches)		
	A6	105 x 148.5 mm (4.13 x 5.85 inches)		
Envelope	Envelope B5	176 x 250 mm (6.93 x 9.84 inches)	75 to 90 g/m^2 (20 to 24 lb)	5 sheets of 75 g/m^2 (20 lb) in the multi-purpose tray
	Envelope Monarch	98.4 x 190.5 mm (3.88 x 7.5 inches)		
	Envelope COM-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 (6.38 x 9.02 inches)		
	Envelope C6	114 x 162 mm (4.49 x 6.38 inches)		
Transparency	Letter, A4	Refer to the Plain paper section	138 to 146 g/m^2	5 sheets of 75 g/m^2 (20 lb) in the multi-purpose tray
Labels	Letter, Legal, Folio, Oficio, A4, JIS B5, ISO B5, Executive, A5, A6	Refer to the Plain paper section	120 to 150 g/m^2 (32 to 40 lb)	5 sheets of 75 g/m^2 (20 lb) in the multi-purpose tray
Card stock	Letter, Legal, Folio, Oficio, A4, JIS B5, ISO B5, Executive, A5, A6	Refer to the Plain paper section	60 to 163 g/m^2 (16 to 43 lb)	5 sheets of 75 g/m^2 (20 lb) in the multi-purpose tray
Minimum size (custom)		98 x 148 mm (3.86 x 5.83 inches)	60 to 163 g/m^2 bond (16 to 43 lb)	5 sheets of 75 g/m^2 (20 lb) in the multi-purpose tray
Maximum size (custom)		215.9 x 356 mm (8.5 x 14 inches)		

a. If media weight is over 24 lb (90 g/m^2), use the multi-purpose tray.
b. Maximum capacity may differ depending on media weight, thickness, and environmental conditions.

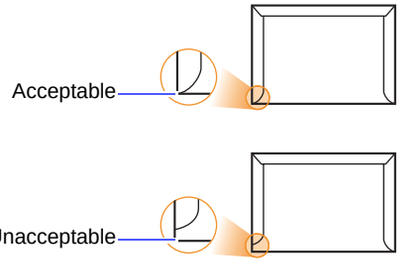
Note
For duplex printing, A4, Letter, Oficio, Legal, and Folio sizes are supported.

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 5.3.
- 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 printers.
- 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 printer.
- 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^{o} C and 30^{o} C (59^{o} F to 86^{o} F). 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 transparencies and label sheets, from sticking together, remove them as they print out.

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 (24 lb) or jamming may occur. - Construction: Prior to printing, envelopes should lie flat with less than 6 mm (0.25 inches) 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 printer 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.  • Envelopes with a peel-off adhesive strip or with more than one flap that folds over to seal must use adhesives compatible with the printer's fusing temperature of 200° C (392° F) for 0.1 second. The extra flaps and strips might cause wrinkling, creasing, or jams, and may even damage the fuser. • For the best print quality, position margins no closer than 15 mm (0.6 inches) from the edges of the envelope. • Avoid printing over the area where the envelope's seams meet.

Media type	Guidelines
Transparencies	• To avoid damaging the printer, use only transparencies designed for use in laser printers. • Transparencies used in the printer must be able to withstand 200° C (392° F), the printer's fusing temperature. • Place them on a flat surface after removing them from the printer. • Do not leave them in the paper tray for long periods of time. Dust and dirt may accumulate on them, resulting in spotty printing. • To avoid smudging caused by fingerprints, handle them carefully. • To avoid fading, do not expose printed transparencies to prolonged sunlight. • Ensure that transparencies are not wrinkled, curled, or have any torn edges.
Labels	• To avoid damaging the printer, use only labels designed for use in laser printers. • When selecting labels, consider the following factors: - Adhesives: The adhesive material should be stable at 200° C (392° F), the printer's fusing temperature. - 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 (5 inches) 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 printer components. • Do not run a sheet of labels through the printer more than once. The adhesive backing is designed for only a single pass through the printer. • 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 (3 inches) wide or 127 mm (5 inches) long. • In the software application, set margins at least 6.4 mm (0.25 inches) away from the edges of the material.

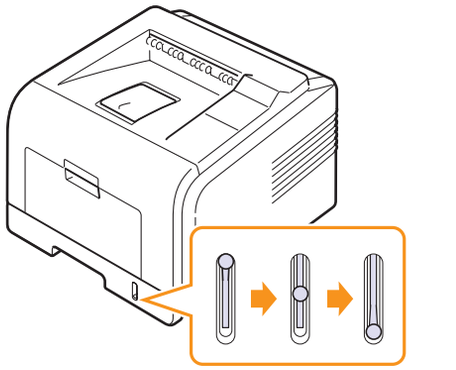
Media type	Guidelines
Preprinted paper	• Letterhead must be printed with heat-resistant ink that will not melt, vaporize, or release hazardous emissions when subjected to the printer's fusing temperature of 205° C (400° F) for 0.1 second. • Letterhead ink must be non-flammable and should not adversely 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

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 20 lb plain paper.

You can purchase an optional tray (tray 2) and attach it below the standard tray to load an additional 250 sheets of paper. For order information for an optional tray, see page 7.1.

The paper level indicator on the front of the tray 1 and the optional tray 2 shows the amount of paper currently left in the tray. When the tray is empty, the indicator of the bar is completely lowered.

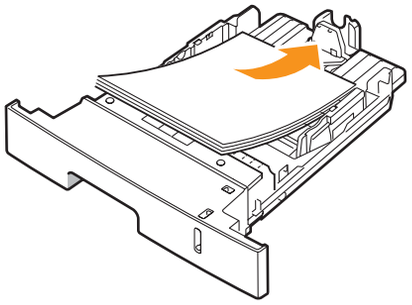


Using the tray 1 or the optional tray 2

Use the print material 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 paper.

You can purchase an optional tray 2 and attach it below the tray 1 to load an additional 250 sheets of paper.

To load paper, pull open the tray and load paper with the side to be printed on face down.



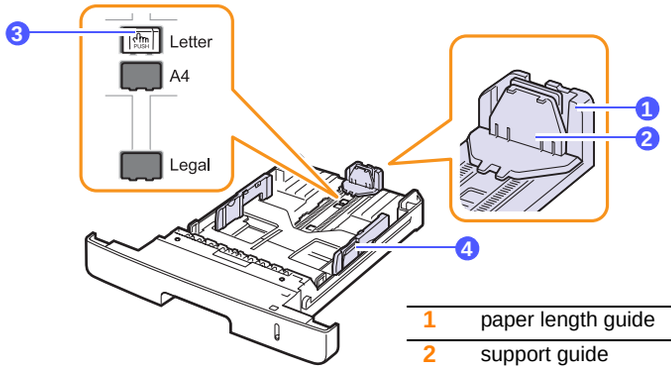
You can load letterhead paper with the design side face down. The top edge of the sheet with the logo should be placed at the front of the tray.

Notes

- 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 the print quality is not guaranteed.

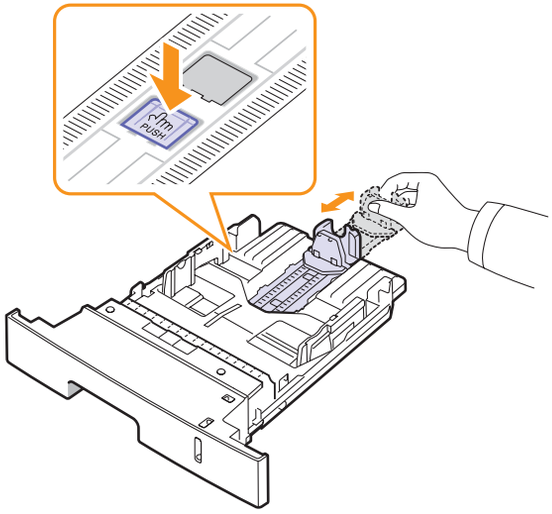
Changing the size of the paper in the tray 1

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

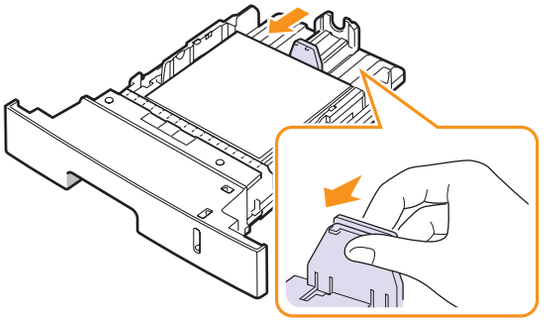


1	paper length guide
2	support guide
3	guide lock
4	paper width guides

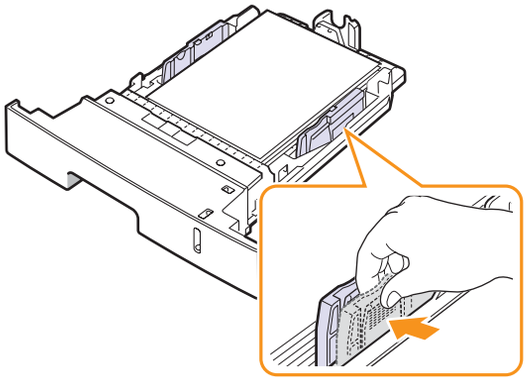
1 Press and hold the guide lock, and slide the paper length guide to locate it in the correct paper size slot.



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

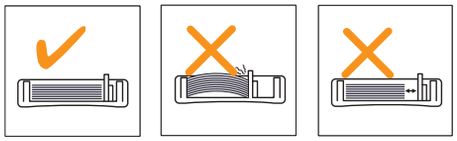


3 Squeeze the paper width guides, as shown and slide them to the stack of paper until it lightly touches the side of the stack.



Notes

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

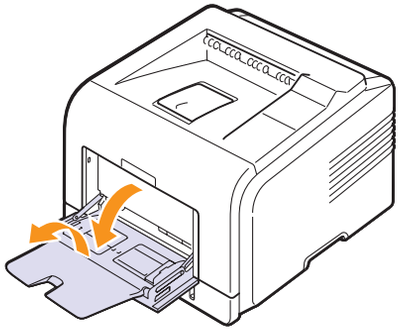


Using the multi-purpose tray

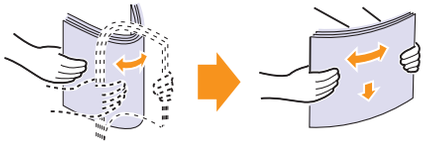
The multi-purpose tray can hold special sizes and types of print material, such as transparencies, postcards, note cards, and envelopes. It is useful for single page printing on letterhead or colored paper.

To load paper in the multi-purpose tray:

1 Open the multi-purpose tray and unfold the multi-purpose tray extension, as shown.

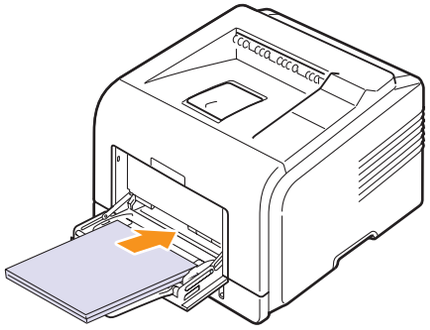


2 If you are using paper, flex or fan the edge of the paper stack to separate the pages before loading.



For transparencies, hold them by the edges and avoid touching the print side. Oils from your fingers can cause print quality problems.

3 Load the paper **with the side to be printed on facing up**.



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.
- Transparencies: Print side up and the top with the adhesive strip entering the printer first.
- Labels: Print side up and top short edge entering the printer first.
- Preprinted paper: Design side up with the top edge toward the printer.
- Card stock: Print side up and the short edge entering the printer first.
- Previously printed paper: Previously printed side down with an uncurled edge toward the printer.

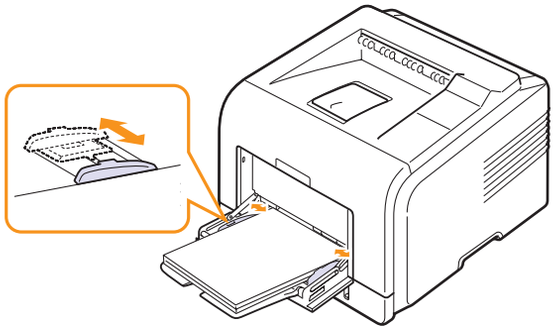
Note

Make sure that you have not loaded too much print material. The print material buckles if you load a stack that is too deep or if you push it in too far.

Caution

When you print on special material like envelopes, labels, transparencies, or cards, the output location should be the rear cover. Open the rear cover to use it. See page 5.8.

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.



5 When you print a document, set the paper source and type in the software application. See the **Software Section**.

For information about setting the paper source and type on the control panel, see page 2.3.

6 After printing, fold the multi-purpose tray extension and close the multi-purpose tray.

Tips on using the multi-purpose tray

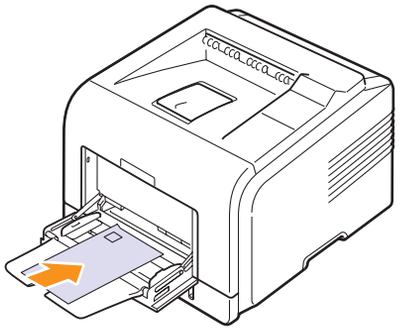
- Load only one size of print media at a time in the multi-purpose tray.
- To prevent paper jams, do not add paper when there is still paper in the multi-purpose tray. This also applies to other types of print media.
- Print media should be loaded face up with the top edge going into the multi-purpose tray first and be placed in the center of the tray.
- Always load only the print media specified in page 5.1 to avoid paper jams and print quality problems.
- Flatten any curl on postcards, envelopes, and labels before loading them into the multi-purpose tray.
- When you print on 76 mm x 127 mm (3 x 5 inches) sized media on the multi-purpose tray, open the rear cover for straight paper path to avoid paper jams.
- Make sure to open the rear cover when you print on transparencies. If not, they may tear while exiting the printer.

Using manual feed mode

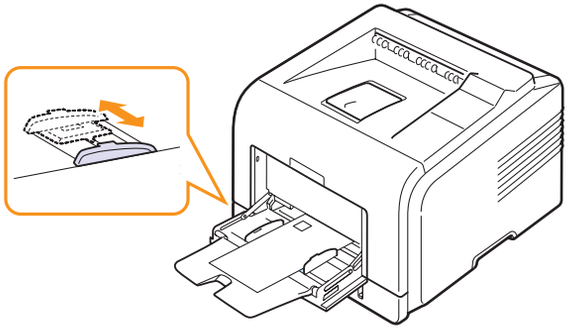
You can manually load a sheet of print material in the multi-purpose tray if you select **Manual Feed** in the **Source** option from the **Paper** tab when you change print settings to print a document. See the **Software Section**. Manually loading paper can be helpful when you want to check the print quality after each page is printed.

This loading procedure is almost the same as the procedure for loading in the multi-purpose tray, except you load paper sheet-by-sheet in the tray, send print data to print the first page, and press **Stop** (if you use the ML-3050) or **OK** (if you use the ML-3051N or ML-3051ND) on the control panel to print each following page.

1 Load the paper **with the side to be printed on facing up**.



2 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.



3 When you print a document, set the paper source to **Manual Feed** and select the appropriate paper size and type in the software application. See the **Software Section**.

4 Print a document.

The display shows a message prompting you to load paper and press **Stop** (if you use the ML-3050) or **OK** (if you use the ML-3051N or ML-3051ND).

5 Press **Stop** or **OK**.

The printer picks up the print material and prints. After one page is printed, the message appears again.

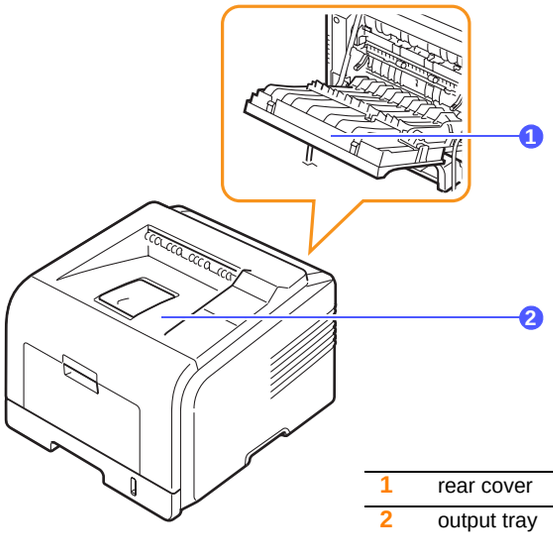
Note
If you do not press the button, after a pause the printer will automatically pick the print material.

6 Insert the next sheet into the multi-purpose tray and press **Stop** or **OK**.

Repeat this step for every page to be printed.

Selecting an output location

The printer has two output locations; the rear cover (face up) and the output tray (face down).



1	rear cover
2	output tray

The printer sends output to the output tray by default. To use the output tray, make sure that the rear cover is closed.

Notes

- If paper coming out of the output tray has problems, such as excessive curl, try printing to the rear cover.
- To avoid paper jams, do not open or close the rear cover while the printer is printing.

Printing to the output tray *(Face down)*

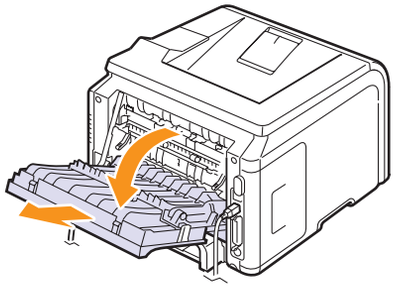
The output tray collects paper face down, in the order in which the sheets were printed. The tray should be used for most print jobs.

Printing to the rear cover *(Face up)*

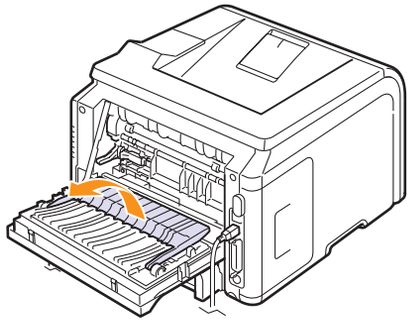
Using the rear cover, paper comes out of the printer **face up**.

Printing from the multi-purpose tray to the rear cover provides a straight paper path. Using the rear cover might improve the output quality with special print media.

To use the rear cover, open it by pulling down.



Unfold the duplex guide.



Caution

The fuser area inside the rear cover of your printer becomes very hot when in use. Take care when you access this area.

6 Basic printing

This chapter explains common printing tasks.

This chapter includes:

- **Printing a document**
- **Canceling a print job**

Printing a document

This printer 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.

For details about printing, see the **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** button.
2. For Windows 98SE/NT 4.0/2000/Me, select **Settings** and then **Printers**.

   For Windows XP/2003, select **Printers and Faxes**.
3. Double-click the **Samsung ML-3050 Series PCL6** or **Samsung ML-3050 Series PS** icon.
4. From the Document menu, select **Cancel Printing** (Windows 95/98/Me) or **Cancel** (Windows NT 4.0/2000/XP/2003).

Note
You can access this window simply by 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 of your printer.

7 Ordering supplies and accessories

This chapter provides information on purchasing toner cartridges and accessories available for your printer.

- **Toner cartridges**
- **Accessories**
- **How to purchase**

Toner cartridges

When the toner runs out, you can order the following types of toner cartridges for your printer:

Type	Yield[a]	Part number
Standard yield	4,000 pages	ML-D3050A
High yield	8,000 pages	ML-D3050B

a. ISO 19752 5% coverage

Accessories

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

The following accessories are available for your printer:

Accessory	Description	Part number
Optional tray	If you are experiencing frequent paper supply problems, you can attach an additional 250 sheet tray. You can print documents on various sizes and types of print materials.	ML-S3050A
Memory DIMM	Extends your printer's memory capacity.	• ML-00MA: 16 MB • ML-00MB: 32 MB • ML-00MC: 64 MB • ML-00MD: 128 MB • ML-MEM140: 256 MB
IEEE 802.11 b/g Wireless LAN card[a]	Allows you to connect your printer to a wireless network and share it with other people over the network.	ML-NWA10L
Ethernet 10/100 Base TX Wired Network Printer Server	Allows you to connect your printer to a network environment using the wired network printer server.	ML-00ND
Ethernet 10/100 Base TX Wired + 802.11b Wireless Network Printer Server	Allows you to connect your printer to a network environment using the wired or wireless network printer server.	ML-00LA

a. Depending on your country, wireless LAN cards may not be available. Contact your local Samsung dealer or the retailer where you bought your printer.

How to purchase

To order Samsung-authorized supplies or accessories, contact your local Samsung dealer or the retailer where you purchased your printer, or visit www.samsungprinter.com and select your country/region for information on calling for technical support.

8 Maintenance

This chapter provides information for maintaining your printer and the toner cartridge, as well as suggestions for high-quality and economical printing.

This chapter includes:

- **Printing information page**
- **Cleaning the printer**
- **Maintaining the toner cartridge**
- **Maintenance parts**

Printing information page

From the printer's control panel, you can print pages that give detailed information about the printer. They can be help you maintain your printer.

In the ML-3051N and ML-3051ND

1 Press **Menu** until **Information** appears on the bottom line of the display and press **OK**.

2 Press the **Scroll** buttons until the information page you want appears and press **OK**.

A page prints out.

In the ML-3050

The configuration page to view the current settings, to help troubleshoot problems, or to verify the installation of optional accessories can be printed.

Press and hold down **Stop** for about 6 seconds.

Cleaning the printer

During the printing process, paper, toner, and dust particles can accumulate inside the printer. This buildup can cause print quality problems, such as toner specks or smearing. Your printer has a cleaning mode that can correct and prevent these types of problems.

Cleaning the outside of the printer

Clean the cabinet of the printer 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 printer.

Caution

Cleaning the cabinet of the printer with cleaning materials containing large amounts of alcohol, solvents, or other strong substances can discolor or crack the cabinet.

Cleaning the inside of the printer

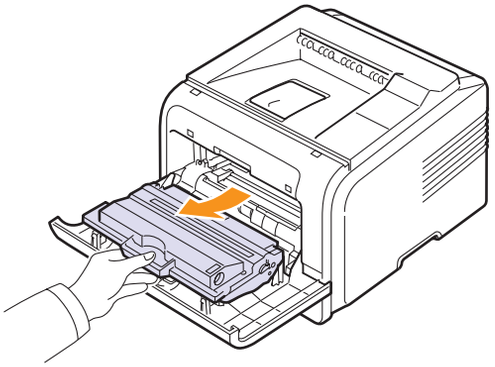
There are two methods to clean the inside of the printer:

- Clean the inside manually.
- Print a cleaning sheet, which can be done from the control panel.

Cleaning the Inside of the printer manually

1 Turn the printer off and unplug the power cord. Wait for the printer to cool down.

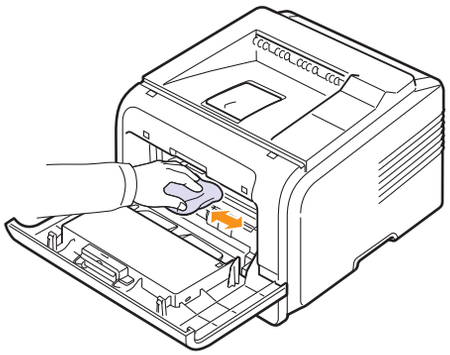
2 Open the front cover and pull the toner cartridge out. Set it on a clean flat surface.



Cautions

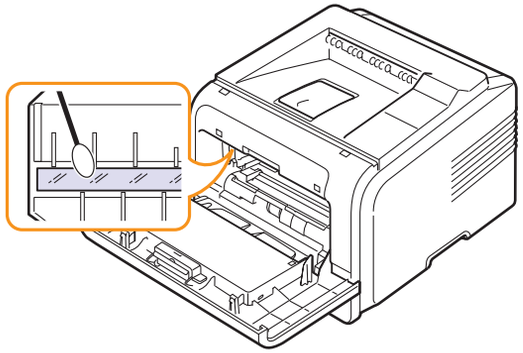
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary.
- Do not touch the green surface underside of the toner cartridge. Use the handle on the cartridge to avoid touching this area.

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



Caution
While cleaning the inside of the printer, be careful not to touch the transfer roller, located underneath the toner cartridge. Oil from your fingers can cause print scan quality problems.

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



5 Reinsert the toner cartridge and close the front cover.

6 Plug in the power cord and turn the printer on.

Printing a cleaning sheet

If you are experiencing blurred, faded, or smeared printouts, you can clear the problem by printing a cleaning sheet, provided by your printer. You can print:

- OPC Cleaning sheet: cleans the OPC drum of the toner cartridge.
- Fuser Cleaning sheet: cleans the fuser unit inside the printer.

In the ML-3050, press and hold down **Stop** for about 10 seconds to print a OPC cleaning sheet.

In the ML-3051N and ML-3051ND, this process will produce a page with toner debris, which should be discarded.

1 Make sure that the printer is turned on with paper loaded in the tray.

2 Press **Menu** until **System Setup** appears on the bottom line of the display and press **OK**.

3 Press the **Scroll** buttons until **Maintenance** appears and press **OK**.

4 When **Clean Drum** appears, press **OK**.

Or, press the **Scroll** buttons until **Clean Drum** or **Clean Fuser** appears and press **OK**.

Your printer automatically picks up a sheet of paper from the tray and prints out a cleaning sheet with dust or toner particles on it.

Maintaining the toner cartridge

Toner cartridge storage

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

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

Expected cartridge life

The life of the toner cartridge depends on the amount of toner that print jobs require. When printing text at ISO 19752 5% coverage, a new toner cartridge lasts an average of either 8,000 or 4,000 pages. (The original toner cartridge supplied with the printer lasts an average of 4,000 pages.) 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.

Saving Toner

To save toner, press **Toner Save** on the control panel. The button backlight turns on.

Using this feature extends the life of the toner cartridge and reduce your cost per page, but it also reduces print quality.

Checking the remaining toner

(**ML-3051N**, **ML-3051ND** only)

You can check the level of toner left in the cartridge.

If you are having print quality problems, this can help you determine if the problem is caused by low toner.

1 Press **Menu** until **System Setup** appears on the bottom line of the display press **OK**.

2 Press the **Scroll** buttons until **Maintenance** appears and press **OK**.

3 Press the **Scroll** buttons until **Supplies Life** appears and press **OK**.

4 Press the **Scroll** buttons to access **Toner Remains** and press **OK**.

The display shows the percentage of the remaining toner.

Redistributing toner cartridge

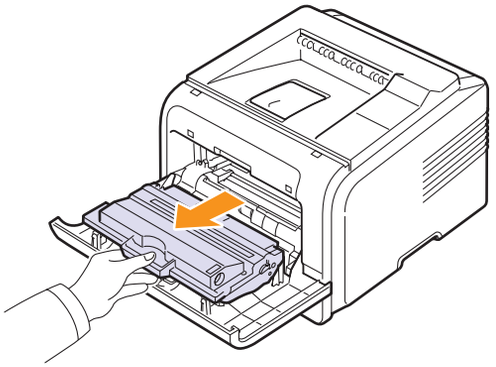
When the toner cartridge is near the end of its life:

- White streaks or light printing occurs.
- **Toner Low** appears on the display. (ML-3051N, ML-3051ND only)
- The Smart Panel program window appears on the computer telling you that the toner level is low.
- The Status LED blinks red.

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

1 Open the front cover.

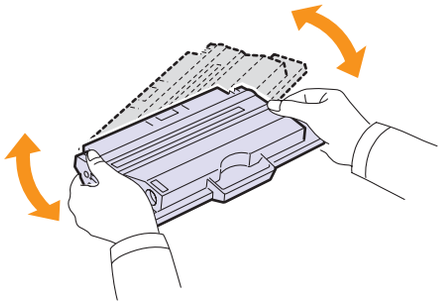
2 Pull the toner cartridge out.



Cautions

- Avoid reaching too far into the printer. The fusing area may be hot.
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary.
- Do not touch the green surface underside of the toner cartridge. Use the handle on the cartridge to avoid touching this area.

3 Thoroughly roll the cartridge 5 or 6 times to distribute the toner evenly inside the cartridge.

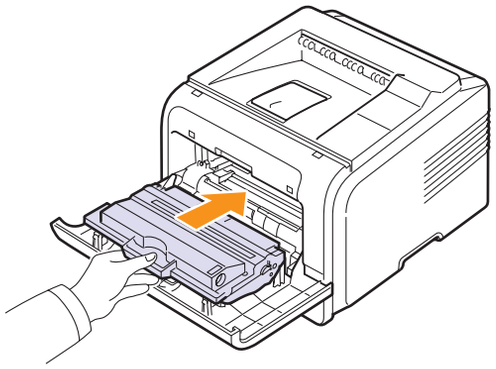


Note

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

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

5 Tabs on the sides of the cartridge and corresponding grooves within the printer will guide the cartridge into the correct position until it locks into place completely.



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

Replacing the toner cartridge

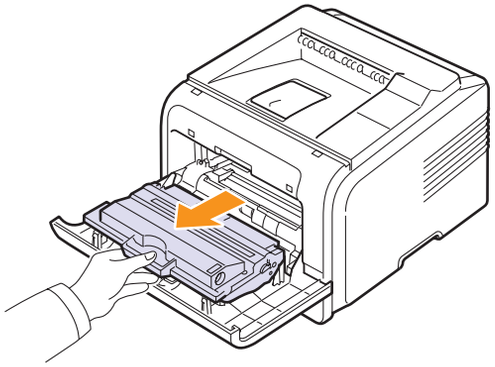
When the toner cartridge is completely empty:

- **Toner Empty** appears on the display. (ML-3051N, ML-3051ND only)
- The **Smart Panel** program window appears on the computer telling you that the toner cartridge is empty.
- The Status LED lights red.

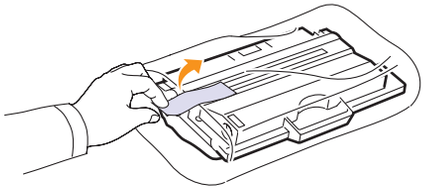
At this stage, the toner cartridge needs to be replaced. For order information for toner cartridges, see page 7.1.

1 Open the front cover.

2 Pull the toner cartridge out.



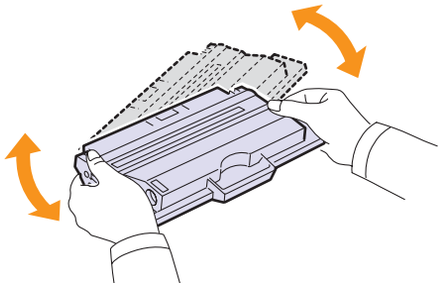
3 Remove the new toner cartridge from its bag.



Caution

Do not use sharp objects, such as a knife or scissors, to open the toner cartridge package. They might scratch the drum of the cartridge.

4 Remove the packing tape and roll the cartridge 5 or 6 items to distribute the toner.



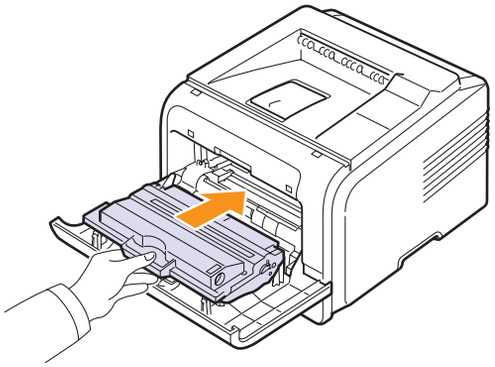
Thoroughly roll the cartridge to assure maximum copies per cartridge. Save the box and the plastic bag for shipping.

Cautions

- If toner gets on your clothing, wipe it off with a dry cloth and wash clothing in cold water. Hot water sets toner into fabric.
- To prevent damage to the toner cartridge, do not expose it to light for more than a few minutes. Cover it with a piece of paper, if necessary.
- Do not touch the green surface underside of the toner cartridge. Use the handle on the cartridge to avoid touching this area.

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

6 Tabs on the sides of the cartridge and corresponding grooves within the printer will guide the cartridge into the correct position until it locks into place completely.



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

Maintenance parts

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

Items	Yield (Average)
Transfer roller	70,000
Pick-up roller	150,000
Fuser unit	80,000

Samsung highly recommends that an authorized service provider, dealer or the retailer where you bought printer performs this maintenance activity.

9 Troubleshooting

This chapter provides helpful information for what to do if you encounter an error while using your printer.

This chapter includes:

- **Clearing paper jams**
- **Troubleshooting checklist**
- **Understanding the status LED**
- **Understanding display messages**
- **Solving general printing problems**
- **Solving print quality problems**
- **Common Windows problems**
- **Common Macintosh problems**
- **Common PostScript problems**
- **Common Linux problems**

Clearing paper jams

Note

When removing paper that is jammed in the printer, if possible always pull the paper in the direction that it normally moves so as not to damage internal components. Always pull firmly and evenly; do not jerk the paper. If the paper tears, ensure that all fragments of paper are removed; otherwise a jam will occur again.

When a paper jam occurs, the Status LED lights red. Open and close the front cover. The jammed paper automatically exit the printer.

If the paper does not exit, check the display on the control panel. The message indicating the corresponding location of the paper jam appears. Refer to the table below to locate the paper jam and to clear it:

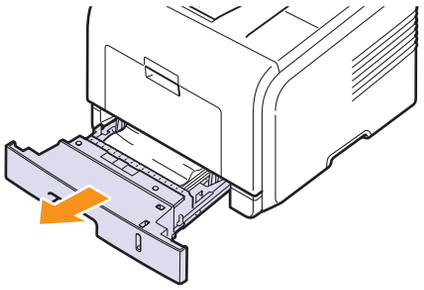
Message	Location of Jam	Go To
Paper Jam 0 **Open/Close Door**	In the paper feed area (tray 1, optional tray 2, multi-purpose tray)	below
Paper Jam 1 **Open/Close Door**	Around the toner cartridge	page 9.3
Paper Jam 2 **Check Inside**	In the paper exit area	page 9.3
Duplex Jam 0 **Check Inside**[a]	In the duplex area	page 9.4
Duplex Jam 1 **Open/Close Door**[a]	In the duplex area	page 9.5

a. ML-3051ND only

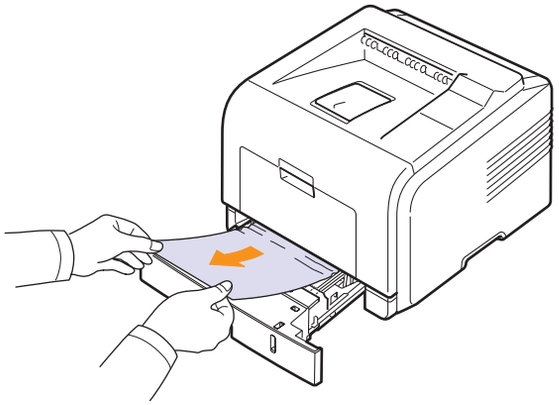
In the paper feed area

In the tray 1

1 Pull the tray 1 open.



2 Remove the jammed paper by gently pulling it straight out. Make sure that all of the paper is properly aligned in the tray 1.



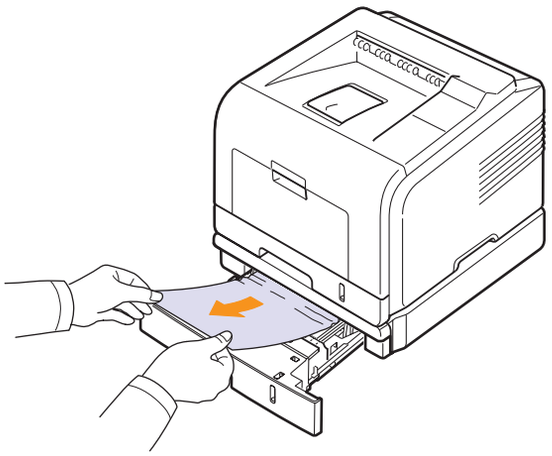
If the paper does not move when you pull, or if you do not see the paper in this area, check the fuser area around the toner cartridge. See page 9.3.

3 Insert the tray 1 into the printer until it snaps into place. Printing automatically resumes.

In the optional tray 2

1 Pull the optional tray 2 open.

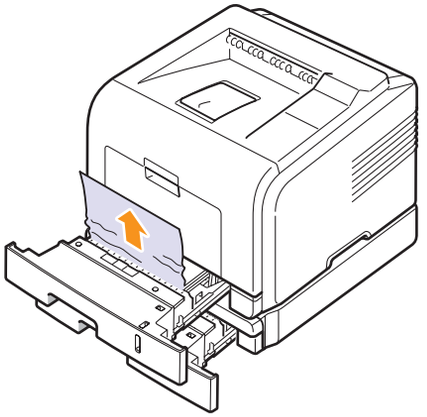
2 Remove the jammed paper from the printer.



If the paper does not move when you pull, or if you do not see the paper in this area, stop and go to step 3.

3 Pull the tray 1 half.

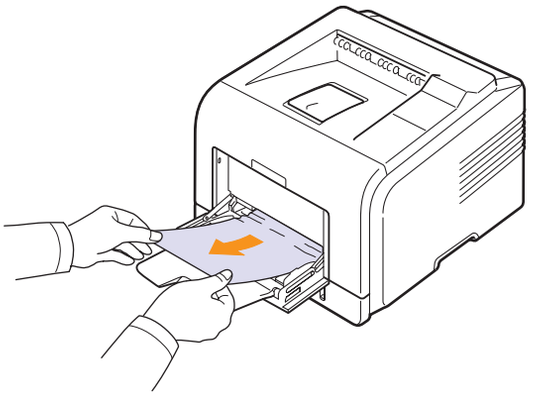
4 Pull the paper straight up and out.



5 Insert the trays back into the printer. Printing automatically resumes.

In the multi-purpose tray

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



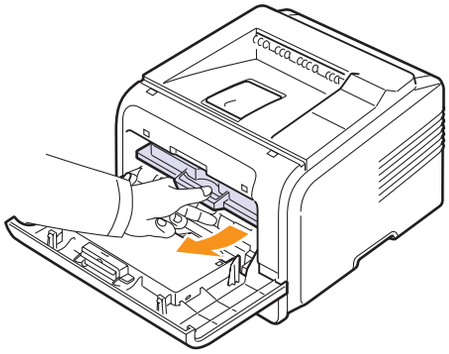
2 Open and close the front cover to resume printing.

Around the toner cartridge

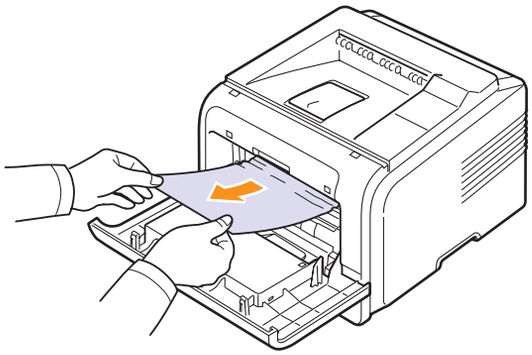
Note

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

1 Open the front cover and pull the toner cartridge out.



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

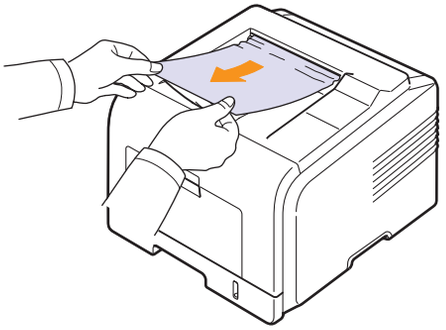


3 Replace the toner cartridge and close the front cover. Printing automatically resumes.

In the paper exit area

1 Open and close the front cover. The jammed paper is automatically ejected from the printer.

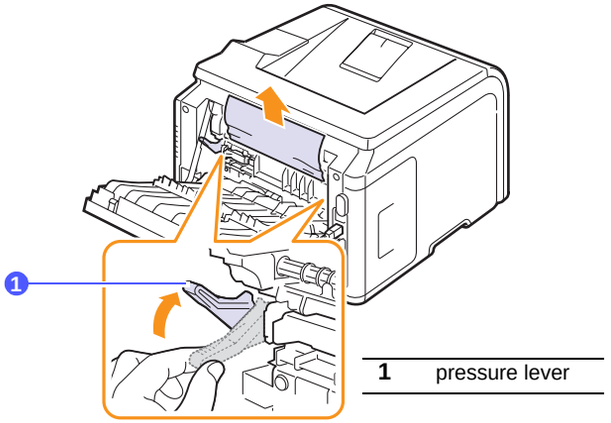
2 Gently pull the paper out of the output tray.



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

3 Open the rear cover.

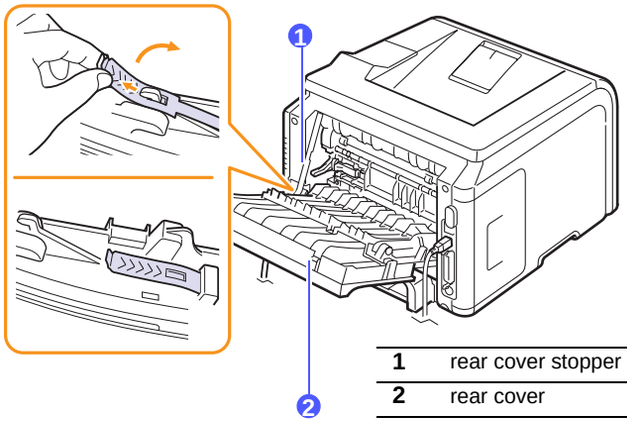
4 If you see the jammed paper, push the pressure lever on each side up and remove the paper. Return the pressure lever to its original position and skip the step 10.



1 pressure lever

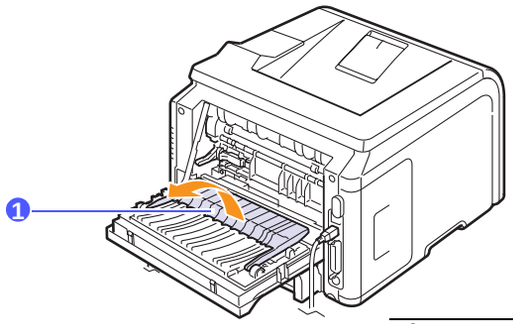
If you still do not see the paper, go to the next step.

5 Release the blue strap, the rear cover stopper, and fully open the rear cover, as shown.



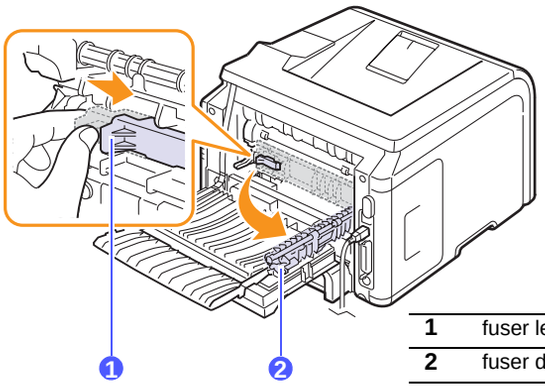
1	rear cover stopper
2	rear cover

6 Unfold the duplex guide fully.



1	duplex guide

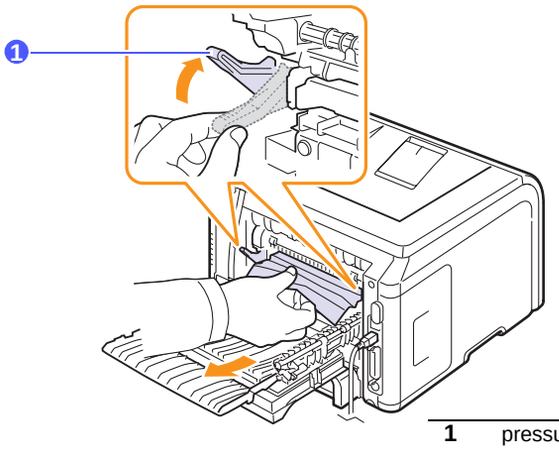
7 While pushing the fuser lever to the right, open the fuser door.



1	fuser lever
2	fuser door

8 Pull the jammed paper out.

If the jammed paper does not move when you pull, push the pressure lever on each side up to loose the paper, and then remove it.



1	pressure lever

9 Return the lever, door, stopper, and guide to their original position.

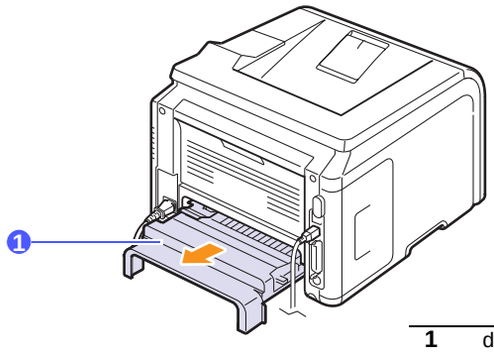
10 Close the rear cover. Printing automatically resumes.

In the duplex unit area (ML-3051ND only)

If the duplex unit is not inserted correctly, paper jam may occur. Make sure that the duplex unit is inserted correctly.

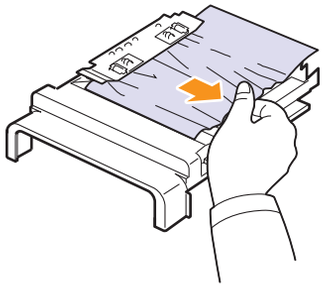
Duplex jam 0

1 Pull the duplex unit out of the printer.

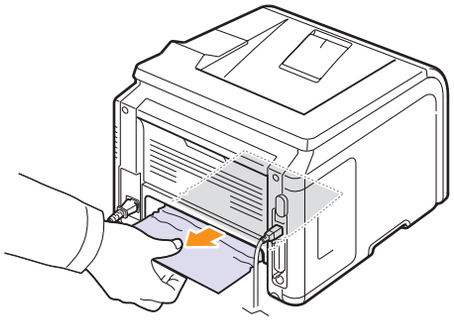


1	duplex unit

2 Remove the jammed paper from the duplex unit.



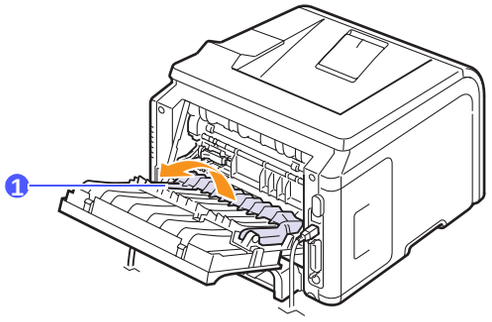
If the paper does not come out with the duplex unit, remove the paper from the bottom of the printer.



Duplex jam 1

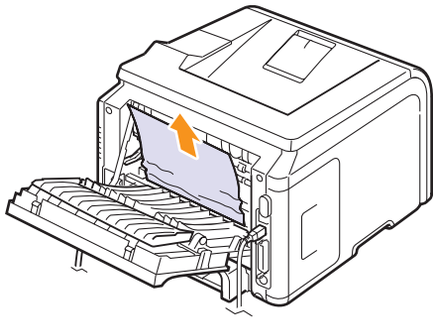
1 Open the rear cover.

2 Unfold the duplex guide fully.



1	duplex guide

3 Pull the jammed paper out.

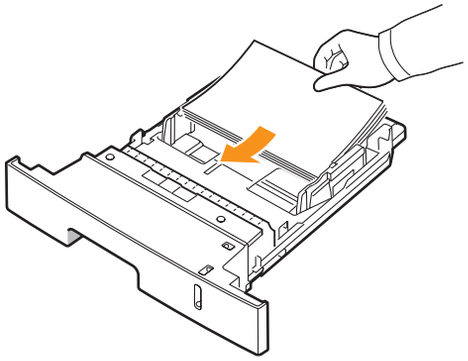


TiPs for avoiding paper jams

By selecting the correct media types, most paper jams can be avoided. When a paper jam occurs, follow the steps outlined on page 9.1.

- Follow the procedures on page 5.5. 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 wall of the tray.
- Do not remove paper from the tray while your printer 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 page 5.1.
- Ensure that the recommended print side of print media is facing down in the tray, or facing up in the multi-purpose tray.
- If paper jams occur frequently when you print on A5-sized paper:

  Load the paper into the tray with the long edge facing the front of the tray.



In the printer properties window, set the page orientation to be rotated 90 degrees. See the **Software Section**.

Troubleshooting checklist

If the printer is not working properly, consult the following checklist. If the printer does not pass a step, follow the corresponding troubleshooting suggestions.

Condition	Suggested solutions
Make sure that the Status LED on the control panel lights green and **Ready** is shown on the display.	• If the Status LED is off, check the power cord connection. Check the power switch. Check the power source by plugging the power cord into another outlet. • If the Status LED lights red, check the display message. See page 9.7.
Print a demo page to verify that the printer is feeding paper correctly. See page 2.6.	• If a demo page does not print, check the paper supply in the tray. • If the paper jams in the printer, see page 9.1. • If an error message appears on the display, see page 9.7.
Check the demo page to see if it printed correctly.	If there is a print quality problem, see page 9.10.
Print a short document from a software application to verify that the computer and printer are connected and are communicating correctly.	• If the page does not print, check the cable connection between the printer and the computer. • Check the print queue or print spooler to see if the printer has been paused. • Check the software application to ensure that you are using the proper printer driver and communication port. If the page is interrupted during printing, see page 9.8.
If completing the checklist does not resolve the printer problem, check the following troubleshooting sections.	• “Understanding display messages” on page 9.7. • “Solving general printing problems” on page 9.8. • “Common Windows problems” on page 9.12. • “Common Macintosh problems” on page 9.15. • “Common PostScript problems” on page 9.13. • “Common Linux problems” on page 9.13.

Understanding the status LED

Status		Description
Off		• The printer is off-line and cannot print. • The printer is in power save mode. When data is received, it switches to on-line automatically.
Green	On	The printer is on-line and can receive data from the computer.
	Blinking	• When the backlight blinks slowly, the printer is receiving data from the computer. • When the backlight blinks quickly, the printer is receiving and printing data.
Red	On	• The toner cartridge is totally exhausted. Remove the old toner cartridge and install a new one. See page 8.4. • A paper jam has occurred. To solve the problem, see page 9.1. • The front cover is open. Close the front cover. • There is no paper in the tray. Load paper in the tray. • The printer has stopped printing due to a major error. Check the display message. See page 9.7 for details on the meaning of the error message.
	Blinking	• A minor error is occurring and the printer is waiting for the error to be cleared. Check the display message. When the problem is cleared, the printer resumes printing. • The toner cartridge is low. Order a new toner cartridge. You can temporarily improve print quality by redistributing the toner. See page 8.3.

Understanding display messages

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

Note

When you call for service, it is very convenient to tell the service representative the display message.

Message	Meaning	Suggested solutions
Door Open	The front cover or rear cover is not securely latched.	Close the cover until it locks into place.
Duplex Jam 0 Check Inside	Paper has jammed during duplex printing.	Clear the jam. See page 9.4.
Duplex Jam 1 Open/Close Door	Paper has jammed during duplex printing.	Clear the jam. See page 9.5.
Fuser Door Open	The fuser door is not securely latched.	Open the rear cover and close the fuser door until it locks into place. For the location of the fuser door, see page 9.4.
Install Toner	A toner cartridge is not installed.	Install a toner cartridge.
Invalid Toner	The toner cartridge you have installed is not for your printer.	Install a Samsung-genuine toner cartridge, designed for your printer.
Load Manual Press Stop Key	The multi-purpose tray is empty in manual feed mode.	Load a sheet of print material and press **Stop** (if you use the ML-3050) or **OK** (if you use the ML-3051N or ML-3051ND). You need to press **Stop** or **OK** each page to be printed.
Low Heat Error Cycle Power	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, please call for service.
LSU Hsync Error Cycle Power	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back inches. If the problem persists, please call for service.
LSU Motor Error Cycle Power	A problem has occurred in the LSU (Laser Scanning Unit).	Unplug the power cord and plug it back inches. If the problem persists, please call for service.
Main Motor Locked	There is a problem in the main motor.	Open and then close the front cover.
Open Heat Error Cycle Power	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, please call for service.
Over Heat Error Cycle Power	There is a problem in the fuser unit.	Unplug the power cord and plug it back in. If the problem persists, please call for service.
Paper Jam 0 Open/Close Door	Paper has jammed in the feeding area of the tray.	Clear the jam. See page 9.1 and page 9.1.
Paper Jam 1 Open/Close Door	Paper has jammed in the fuser area.	Clear the jam. See page 9.3.
Paper Jam 2 Check Inside	Paper has jammed in the paper exit area.	Clear the jam. See page 9.3.
Printing...	The printer is printing jobs using the displayed language.	Complete your printing.
Ready	The printer is on-line and ready to printer.	Use your printer.

Message	Meaning	Suggested solutions
Replace Toner	This message appears between the **Toner Empty** and **Toner Low** status.	Replace the toner cartridge with a new one. See page 8.4.
Self Diagnostic...	The engine in your printer is checking some problems detected.	Please wait a few minutes.
Sleeping...	The printer is on power save mode.	When data is received, it switches to on-line automatically.
Toner Empty	The toner cartridge has run out. The printer stops printing.	Replace the toner cartridge with a new one. See page 8.2.
Toner Low	The toner cartridge is almost empty.	Take out the toner cartridge and thoroughly shake it. By doing this, you can temporarily reestablish printing operations.
Tray 1 Paper Empty	There is no paper in the tray 1.	Load paper in the tray 1. See page 5.5.
Tray 2 Paper Empty	There is no paper in the optional tray 2.	Load paper in the optional tray 2. See page 5.5.

Solving general printing problems

For problems with the operation of your printer, refer to the table for suggested solutions.

Condition	Possible cause	Suggested solutions
The printer does not print.	The printer is not receiving power.	Check the power cord connections. Check the power switch and the power source.
	The printer is not selected as the default printer.	Select **Samsung ML-3050 Series PCL 6** or**Samsung ML-3050 Series PS** as your default printer.
	The printer cover is not closed.	Close the printer cover.
	Paper is jammed.	Clear the paper jam. See page 9.1.
	No paper is loaded.	Load paper. See page 5.4.
	The toner cartridge is not installed.	Install the toner cartridge.
	The printer may be in manual feed mode and out of paper.	Check the display message, add paper to the multi-purpose tray, and press **Stop** (ML-3050) or **OK** (ML-3051N or ML-3051ND) on the printer's control panel.
	The connection cable between the computer and the printer is not connected properly.	Disconnect the printer cable and reconnect it.
	The connection cable between the computer and the printer is defective.	If possible, attach the cable to another computer that is working properly and try to print a document. 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 printer is attached to the correct one.