

PG L230, PG L235 PG L245

Operation Guide



olivetti

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The  mark affixed to the product certifies that the product satisfies the basic quality requirements.



The manufacturer reserves the right to carry out modifications to the product described in this manual at any time and without any notice.



ENERGY STAR is a U.S. registered mark.

The ENERGY STAR program is an energy reduction plan introduced by the United States Environmental Protection Agency in response to environmental issues and for the purpose of advancing the development and utilization of more energy efficient office equipment.

Your attention is drawn to the following actions which could compromise the conformity attested to above, as well as the characteristics of the product:

- incorrect electrical power supply;
 - incorrect installation, incorrect or improper use or use not in compliance with the warnings provided in the User's Manual supplied with the product;
 - replacement of original components or accessories with others of a type not approved by the manufacturer, or performed by unauthorised personnel.
-

Contents

Legal and Safety Information

1	Machine Parts	
	Components at the Front of the Printer	1-2
	Components at the Left of the Printer and Internal Components	1-2
	Components at the Rear of the Printer	1-3
2	Printing Operation	
	Loading Printer Driver	2-2
	Printing from Application Software	2-3
3	Maintenance	
	General Information	3-2
	Toner Container Replacement	3-3
	Cleaning the Printer	3-8
4	Troubleshooting	
	General Guidelines	4-2
	Print Quality Problems	4-3
	Error Messages	4-5
	Clearing Paper Jams	4-11
5	Specifications	

Legal and Safety Information

CAUTION: NO LIABILITY IS ASSUMED FOR ANY DAMAGE CAUSED BY IMPROPER INSTALLATION.

Notice on Software

SOFTWARE USED WITH THIS PRINTER MUST SUPPORT THE PRINTER'S EMULATION MODE. The printer is factory-set to emulate the PCL. The emulation mode can be changed.

Notice

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Safety Information

Laser Safety

This printer is certified as a Class 1 laser product under the U.S. Department of Health and Human Services (DHHS) Radiation Performance Standard according to Radiation Control for Health and Safety Act of 1968. This means that the printer does not produce hazardous laser radiation. Since radiation emitted inside the printer is completely confined within protective housings and external covers, the laser beam cannot escape from the printer during any phase of user operation.

Laser Notice

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

DANGER: CLASS 3B LASER RADIATION WHEN OPEN. AVOID DIRECT EXPOSURE TO BEAM.

CAUTION: Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Radio Frequency Transmitter

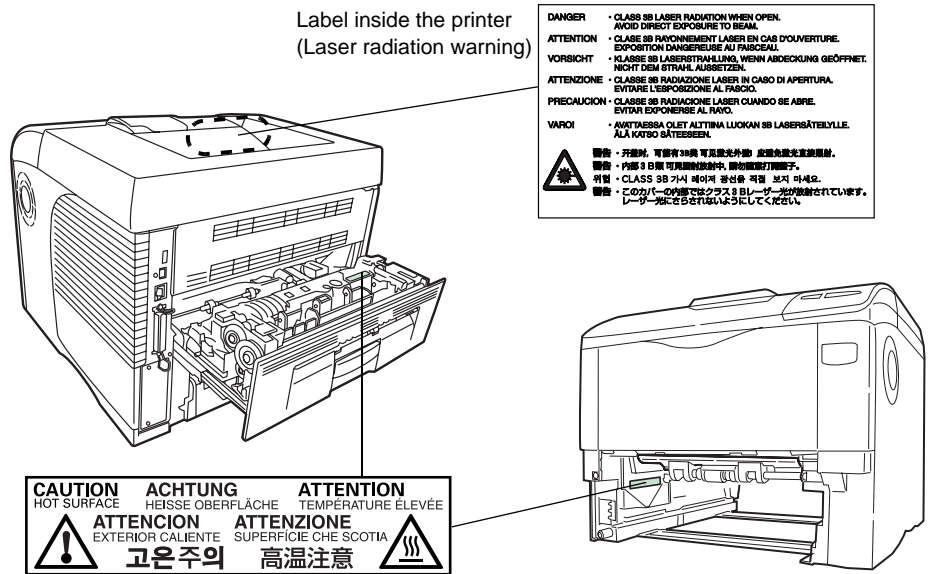
This machine contains the transmitter module. We, the manufacturer hereby declare that this equipment (page printer), models PG L230/235/245 are in compliance with the essential requirements and other relevant provisions of Directive 1999/5/EC.

Radio Tag Technology

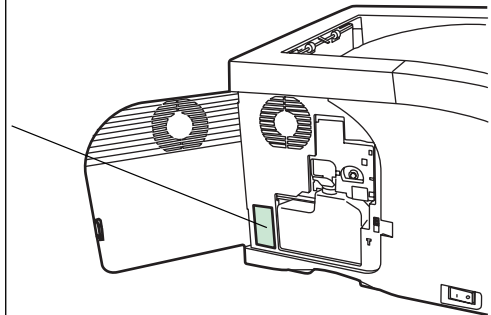
In some countries the radio tag technology used in this equipment to identify the toner container may be subject to authorization and the use of this equipment may consequently be restricted.

Caution Labels

The printer bears any of the following labels.



For Europe, Asia,
and other countries



Ozone Concentration

The printers generate ozone gas (O₃) which may concentrate in the place of installation and cause an unpleasant smell. To minimize the concentration of ozone gas to less than 0.1ppm, we recommend you not to install the printer in a confined area where ventilation is blocked.

CE Marking Directive

According to Council Directive 89/336/EEC, 2006/95/EEC, and 1999/5/EC

Manufacturer: Olivetti S.p.A.

Manufacturer's address: Via Jervis 77, Ivrea (TO), Italy

Declares that the product

Product name: Laser Printer

Model number: PG L230/PG L235/PG L245 (as tested with enhancement optional unit; Paper Feeder PF-310)

Conforms to the following product specifications:

EN 55 022:1998+A1:2000+A2:2003 Class B

EN 61 000-3-2:2000

EN 61 000-3-3:1995+A1:2001

EN 55 024:1998+A1:2001+A2:2003

EN 60 950-1:2001+A11

EN 60 825-1:1994+A1+A2

EN 300330-1

EN 300330-2

The manufacturer and its merchandising companies retain the following technical documentation in anticipation of the inspection that may be conducted by the authorities concerned.

User's instruction that conforms to the applicable specifications.

Technical drawings.

Descriptions of procedures that guarantee conformity.

Other technical information.

Energy Star Program



As an ENERGY STAR Partner, we have determined that this product meets the ENERGY STAR guidelines for energy efficiency.

The basic objective of the ENERGY STAR Program is to reduce environmental pollution by encouraging the manufacture and sale of equipment that uses energy more efficiently.

This printer is equipped with a sleep timer function that conforms with the standards of the ENERGY STAR Program. This function makes it possible to reduce the amount of electrical power consumed by the printer. For maximum power savings, turn off the printer's power supply when not using the printer for extended periods of time.

For details on the sleep timer function and printer power consumption, refer to this manual.

Initial settings of the sleep timer function and power saved using the sleep timer function:

	PG L230	PG L235	PG L245
Initial Auto Sleep Setting	15 minutes (60 minutes)	15 minutes (60 minutes)	15 minutes (60 minutes)
Power Consumption in Auto Sleep	4.4W (30W)	4.9W (40W)	5.5W (75W)

(): ENERGY STAR program guideline

Please read this Operation Guide before using the machine. Keep it close to the machine for easy reference.

The sections of this guide and parts of the machine marked with symbols are safety warnings meant to protect the user, other individuals and surrounding objects, and ensure correct and safe usage of the machine. The symbols and their meanings are indicated below.



DANGER: Indicates that serious injury or even death will very possibly result from insufficient attention to or incorrect compliance with the related points.



WARNING: Indicates that serious injury or even death may result from insufficient attention to or incorrect compliance with the related points.



CAUTION: Indicates that personal injury or mechanical damage may result from insufficient attention to or incorrect compliance with the related points.

Symbols

The following symbols indicate that the related section includes safety warnings. Specific points of attention are indicated inside the symbol.



.... [General warning]



.... [Warning of danger of electrical shock]



.... [Warning of high temperature]

The following symbols indicate that the related section includes information on prohibited actions. Specifics of the prohibited action are indicated inside the symbol.



.... [Warning of prohibited action]



.... [Disassembly prohibited]

The following symbols indicate that the related section includes information on actions which must be performed. Specifics of the required action are indicated inside the symbol.



.... [Alert of required action]



.... [Remove the power plug from the outlet]



.... [Always connect the machine to an outlet with a ground connection]

Please contact your service representative to order a replacement if the safety warnings in this Operation Guide are illegible or if the guide itself is missing. (fee required)



Installation Precautions

Environment



CAUTION:

Avoid placing the machine on or in locations which are unstable or not level. Such locations may cause the machine to fall down or fall over. This type of situation presents a danger of personal injury or damage to the machine.



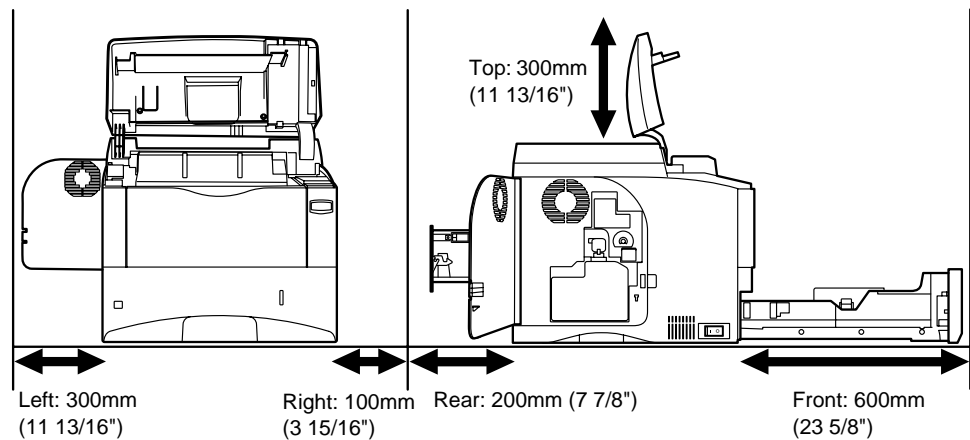
Avoid locations with humidity or dust and dirt. If dust or dirt become attached to the power plug, clean the plug to avoid the danger of fire or electrical shock.



Avoid locations near radiators, heaters, or other heat sources, or locations near flammable items, to avoid the danger of fire.



To keep the machine cool and facilitate changing of parts and maintenance, allow access space as shown below. Leave adequate space, especially around the vents, to allow air to be properly ventilated out of the printer.



Other Precautions

Adverse environmental conditions may affect the safe operation and performance of the machine. Install in an air-conditioned room (recommended room temperature: around 23°C, humidity: around 60% RH), and avoid the following locations when selecting a site for the machine.

- Avoid locations near a window or with exposure to direct sunlight.

- Avoid locations with vibrations.
- Avoid locations with drastic temperature fluctuations.
- Avoid locations with direct exposure to hot or cold air.
- Avoid poorly ventilated locations.

During printing, some ozone is released, but the amount does not cause any ill effect to one's health. If, however, the printer is used over a long period of time in a poorly ventilated room or when printing an extremely large number of copies, the smell may become unpleasant. To maintain the appropriate environment for print work, it is suggested that the room be properly ventilated.

Power Supply/Grounding the Machine



WARNING:

Do not use a power supply with a voltage other than that specified. Avoid multiple connections in the same outlet. These types of situations present a danger of fire or electrical shock.



Plug the power cord securely into the outlet. If metallic objects come in contact with the prongs on the plug, it may cause a fire or electric shock.



Always connect the machine to an outlet with a ground connection to avoid the danger of fire or electrical shock in case of an electric short. If an earth connection is not possible, contact your service representative.



Other Precautions

Connect the power plug to the closest outlet possible to the machine.

The power supply cord is used as the main disconnect device. Ensure that the socket/outlet is located/installed near the equipment and is easily accessible.

Handling of Plastic Bags



WARNING:

Keep the plastic bags that are used with the machine away from children. The plastic may cling to their nose and mouth causing suffocation.





Precautions for Use

Cautions when Using the Machine



WARNING:

Do not place metallic objects or containers with water (flower vases, flower pots, cups, etc.) on or near the machine. This situation presents a danger of fire or electrical shock should they fall inside.



Do not remove any of the covers from the machine as there is a danger of electrical shock from high voltage parts inside the machine.



Do not damage, break or attempt to repair the power cord. Do not place heavy objects on the cord, pull it, bend it unnecessarily or cause any other type of damage.



These types of situations present a danger of fire or electrical shock.

Never attempt to repair or disassemble the machine or its parts as there is a danger of fire, electrical shock or damage to the laser. If the laser beam escapes, there is a danger of it causing blindness.



If the machine becomes excessively hot, smoke appears from the machine, there is an odd smell, or any other abnormal situation occurs, there is a danger of fire or electrical shock. Turn the power switch off (O) immediately, be absolutely certain to remove the power plug from the outlet and then contact your service representative.



If anything harmful (paper clips, water, other fluids, etc.) falls into the machine, turn the power switch off (O) immediately. Next, be absolutely certain to remove the power plug from the outlet to avoid the danger of fire or electrical shock. Then contact your service representative.



Do not remove or connect the power plug with wet hands, as there is a danger of electrical shock.



Always contact your service representative for maintenance or repair of internal parts.





CAUTION

Do not pull the power cord when removing it from the outlet. If the power cord is pulled, the wires may become broken and there is a danger of fire or electrical shock. (Always grasp the power plug when removing the power cord from the outlet.)

Always remove the power plug from the outlet when moving the machine. If the power cord is damaged, there is a danger of fire or electrical shock.



If the machine will not be used for a short period of time (overnight, etc.), turn the power switch off (O). If it will not be used for an extended period of time (vacations, etc.), remove the power plug from the outlet for safety purposes during the time the machine is not in use.



Always hold the designated parts when lifting or moving the machine.



For safety purposes, always remove the power plug from the outlet when performing cleaning operations.



If dust accumulates within the machine, there is a danger of fire or other trouble. It is therefore recommended that you consult with your service representative in regard to cleaning of internal parts. This is particularly effective if accomplished prior to seasons of high humidity. Consult with your service representative in regard to the cost of cleaning the internal parts of the machine.



Other Precautions

Do not place heavy objects on the machine or cause other damage to the machine.

Do not open the upper front cover, turn off the power switch, or pull out the power plug during copying.

When lifting or moving the machine, contact your service representative.

Do not touch electrical parts, such as connectors or printed circuit boards. They could be damaged by static electricity.

Do not attempt to perform any operations not explained in this handbook.

Use shielded interface cables.



CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Cautions when Handling Consumables



CAUTION

Do not attempt to incinerate the Toner Container. Dangerous sparks may cause burns.



Keep the Toner Container out of the reach of children.



If toner happens to spill from the Toner Container, avoid inhalation and ingestion, as well as contact with your eyes and skin.



- If you do happen to inhale toner, move to a place with fresh air and gargle thoroughly with a large amount of water. If coughing develops, contact a physician.
- If you do happen to ingest toner, rinse your mouth out with water and drink 1 or 2 cups of water to dilute the contents of your stomach. If necessary, contact a physician.
- If you do happen to get toner in your eyes, flush them thoroughly with water. If there is any remaining tenderness, contact a physician.
- If toner does happen to get on your skin, wash with soap and water.

Do not attempt to force open or destroy the Toner Container.



Other Precautions

After use, always dispose of the Toner Container in accordance with Federal, State and Local rules and regulations.

Store all consumables in a cool, dark location.

If the machine will not be used for an extended period of time, remove the paper from the cassette, return it to its original package and reseal it.

About the Operation Guide

This Operation Guide has the following chapters:

Chapter 1 - Machine Parts

This chapter explains the names of parts.

Chapter 2 - Printing Operation

This chapter explains how to print from your workstation.

Chapter 3 - Maintenance

This chapter explains how to replace the toner container and how to care for your printer.

Chapter 4 - Troubleshooting

This chapter explains how to handle printer problems that may occur, such as paper jams.

Chapter 5 - Specifications

This chapter lists the printer's specifications.

Conventions

This manual uses the following conventions.

Convention	Description	Example
Italic Typeface	Used to emphasize a key word, phrase or references to additional information.	Close the <i>top cover</i> . Refer to <i>Toner Container Replacement on page 3-3</i> .
Courier Typeface	Used to denote messages or names displayed on the operation panel.	Replace the waste toner box when the Check waste toner box message is displayed.
Bold Typeface	Used to denote operation panel keys.	Press [Menu] .
Notes	Used to provide additional or useful information about a function or feature.	NOTE: For information about storing the pin, refer to step 10.
Important	Use to provide important information.	IMPORTANT: Ensure paper is not folded, curled, or damaged.
Caution	Cautions are statements that suggest <i>mechanical</i> damage as a result of an action.	CAUTION: Do not pull the cassette out when holding the front of the machine.
Warning	Used to alert users to the possibility of <i>personal</i> injury.	WARNING: High voltage is present in the charger section.

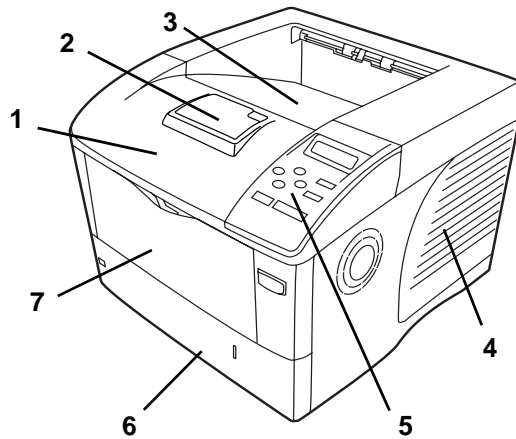
1 Machine Parts

This section provides explanations and illustrations for you to determine the parts and their functions. Try to be familiar with the names and functions of these parts for correct use and optimal performance.

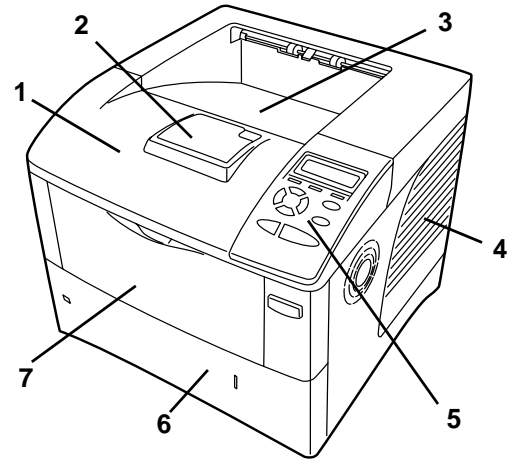
This chapter contains explanations on the following topics:

- Components at the Front of the Printer 1-2
- Components at the Left of the Printer and Internal Components 1-2
- Components at the Rear of the Printer 1-3

Components at the Front of the Printer



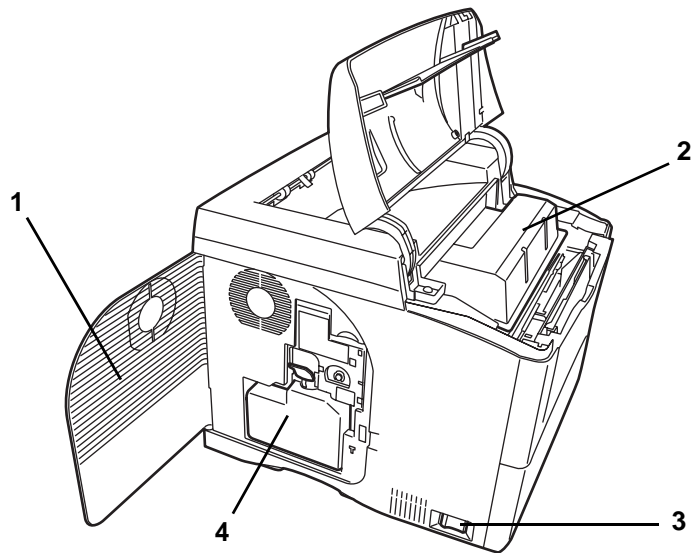
PG L230



PG L235/L245

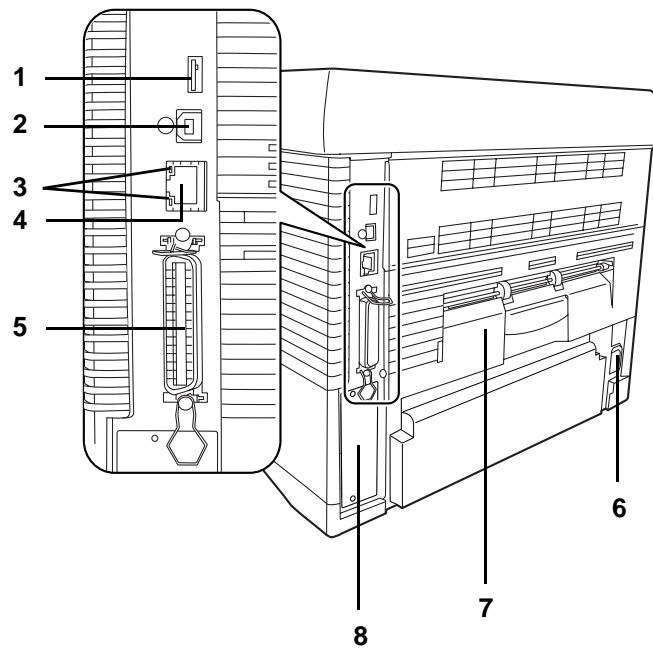
- 1 Top Cover
- 2 Paper Stopper
- 3 Top Tray
- 4 Right Cover
- 5 Operation Panel
- 6 Paper Cassette
- 7 MP (Multi-Purpose) Tray

Components at the Left of the Printer and Internal Components



- 1 Left Cover
- 2 Toner Container
- 3 Power Switch
- 4 Waste Toner Box

Components at the Rear of the Printer



- 1 USB Memory Slot
- 2 USB Interface Connector
- 3 Network indicators (PG L235/L245 only)
- 4 Network Interface Connector (PG L235/L245 only)
- 5 Parallel Interface Connector
- 6 Power Cord Connector
- 7 Rear Unit
- 8 Option Interface Slot (Network/Serial/CF card/Microdrive)

2 Printing Operation

This chapter contains explanations on the following topics:

- Loading Printer Driver 2-2
- Printing from Application Software 2-3

Loading Printer Driver

Ensure the printer is plugged in and connected to the PC before installing the printer driver from the CD-ROM.

- 1** Switch on the PC and activate Windows.

NOTE: If the Welcome to the Found New Hardware Wizard dialog box displays, select Cancel.

- 2** Insert the CD-ROM supplied with the printer into the optical drive of the PC.

- 3** The installation program launches.

NOTE: If the installation program fails to launch, use Windows Explorer to access the CD-ROM and select Setup.exe.

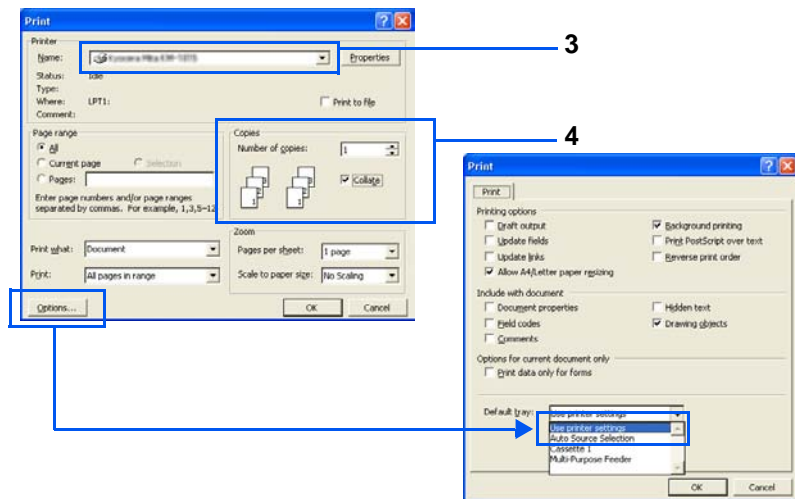
- 4** Perform the procedures displayed on the installation program to install the Printing System Driver.

Printing from Application Software

The steps required to print a document created with an application are explained below. You can select the printing *Paper Size* and *Output Destination*.

- 1 Load the paper required into the paper cassette.
- 2 From the application *File* menu, select **Print**. The *Print* dialog box displays.
- 3 Click the drop down list of printer names. All the printers installed in Windows are listed. Click the name of the machine.
- 4 Use **Number of copies** to enter the number of prints required. Up to 999 copies can be entered.

For Microsoft Word, we recommend that you click **Options** and specify **Use printer settings** for the **Default tray**.



- 5 To start printing, click **OK**.

3 Maintenance

This chapter contains explanations on the following topics:

- General Information..... 3-2
- Toner Container Replacement..... 3-3
- Cleaning the Printer..... 3-8

General Information

This chapter describes basic maintenance tasks you can perform on the printer. You can replace the following component according to the printer's display:

- Toner Kits
- Waste Toner Box

Also, the internal parts need periodic cleaning.

Toner Container Replacement

Frequency of toner container replacement

The life of the toner containers depends on the amount of toner required to accomplish your printing jobs. Assuming paper of A4 size, an average toner coverage of approximately 5% and EcoPrint mode turned off, the toner container will need replacing approximately once every 20,000 pages (PG L245); 15,000 pages (PG L235); 12,000 pages (PG L230).

You can print a status page to check how much toner remains in the toner container. The Toner Gauge in the consumables status section on the status page shows a progress bar, which roughly represents how much toner is left in the toner container.

Starter Toner Container

The toner container packed with the new printer is a starter toner container. The starter toner container lasts an average of 10,000 pages (PG L245); 7,500 pages (PG L235); 6,000 pages (PG L230).

Toner Kits

For best results, we recommend that you only use genuine Olivetti Parts and Supplies.

A new toner kit contains the following items:

- Toner Container
- Plastic waste bags for old toner container and old waste toner box
- Waste toner box
- Installation Guide

NOTE: Do not remove the toner container from the carton until you are ready to install it in the printer.

Understanding Messages Requesting Toner Container Replacement

The printer displays messages at two stages of toner usage. This message is automatically alternated with the other printer message (such as Ready):

- When the printer becomes low on toner, the printer displays the message `Toner low` as the first caution. Note the replacement is not always necessary at this stage.
- If you ignore the above message and continue printing, the printer displays the message `Replace toner` — just before the toner is used up. The toner container must be replaced immediately. After the cleaning is finished, however, the message does not automatically

change to Ready. To restart printing, you must press **[GO]** and make the printer ready.

In either case, replace the toner container, refer to *Toner Container Replacement* on page 3-3.

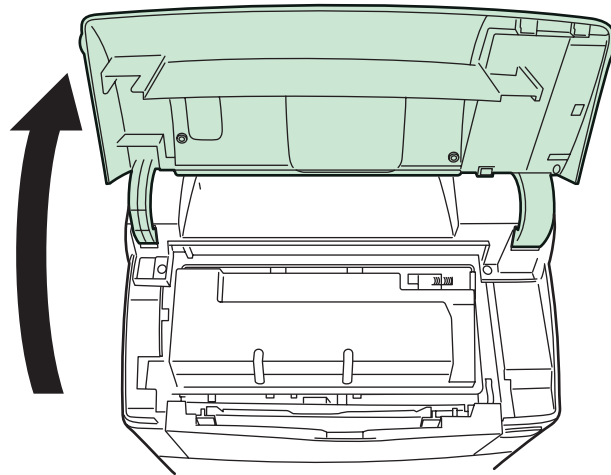
Replacing the Toner Container

NOTE: During toner container replacement, temporarily put storage media and computer supplies (such as floppy disks) away from around the toner container. This is to avoid damaging media by the magnetism of toner.

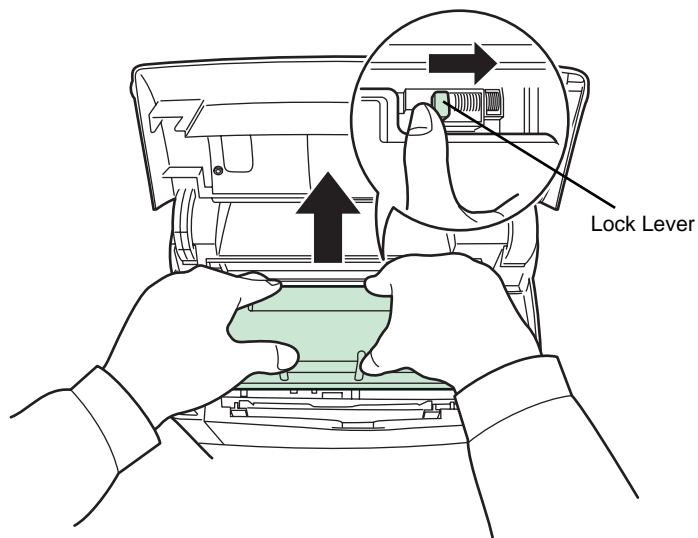
This section explains how to replace the toner container. When replacing the toner container, always replace the waste toner box at the same time. If this box is full, the printer may be damaged or contaminated by the waste toner that may spill over the box.

NOTE: You do not have to turn printer power off before starting the replacement. Any data that may be under printing process in the printer will be deleted if you turn printer power off.

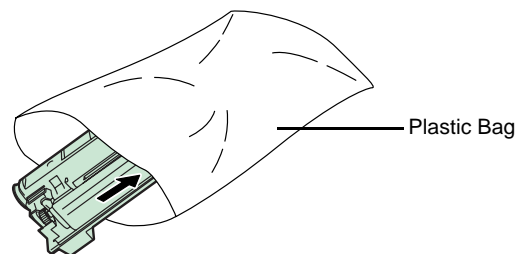
- 1 Open the top cover.



- 2** Push lock lever to the right and pull out the toner container.

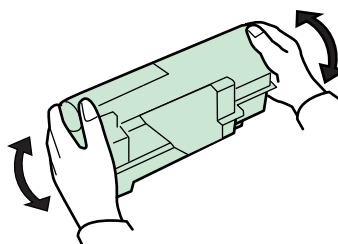


- 3** Put the old toner container in the plastic bag (contained in the toner kit) and discard it later according to the local code or regulations for waste disposal.

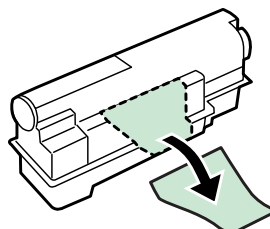


- 4** Take the new toner container out of the toner kit.

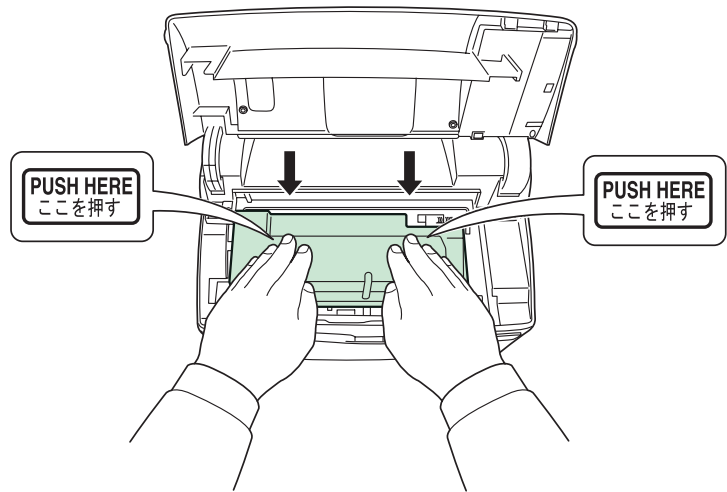
- 5** Shake the new toner container at least 10 times as shown in the figure in order to distribute the toner evenly inside the container.



- 6** Remove the label from the toner container.



- 7 Set the new toner container in the printer and push down on the top of the toner container to install it firmly in place as shown in the figure below.

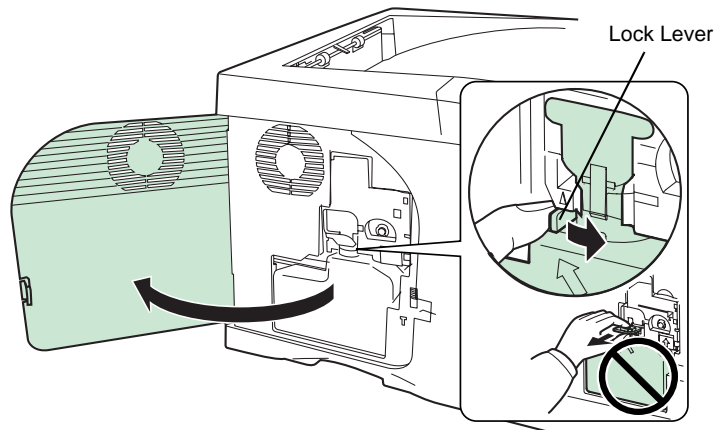


- 8 Close the top cover.
Proceed to the next section.

Replacing the Waste Toner Box

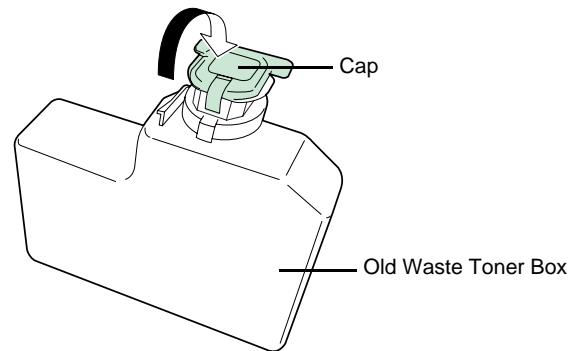
When replacing the toner container, the used waste toner box in the printer should also be replaced with the new one from the new toner kit. A new waste toner box is included with the toner kit. The printer will not operate without replacing the waste toner box.

- 1 Open the left cover. While holding the waste toner box, press the lock lever and then gently remove the waste toner box.

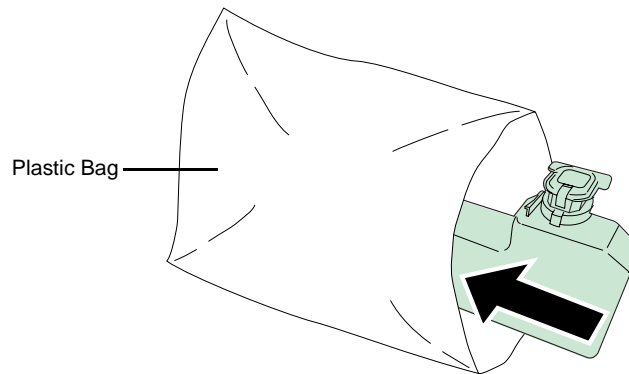


NOTE: Remove the waste toner box as gently as possible so as not to scatter the toner inside. Do not let the opening of the waste toner box face downward.

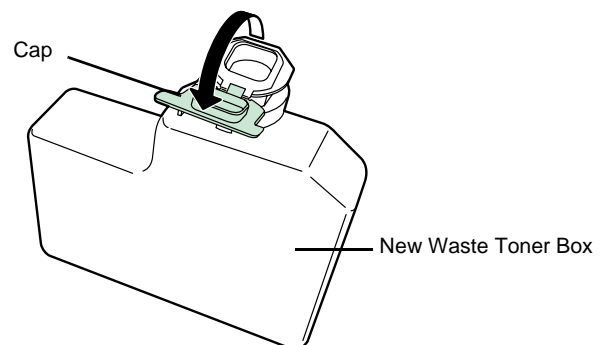
- 2 Close the cap to the old waste toner box after removing the box from the printer.



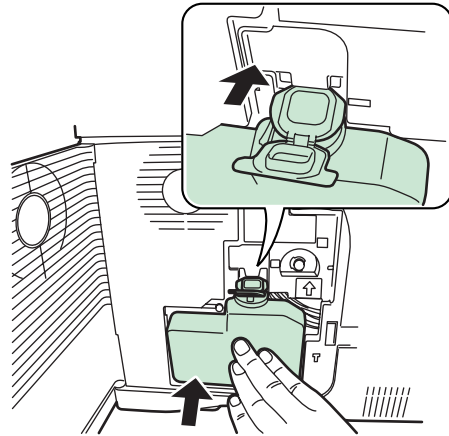
- 3 To prevent toner from spilling, put the old waste toner box in the plastic bag (contained in the toner kit) and discard it later according to the local code or regulations for waste disposal.



- 4 Open the cap of the new waste toner box.



- 5 Insert the new waste toner box as shown in the figure below. When the box is set correctly, it will snap into place.



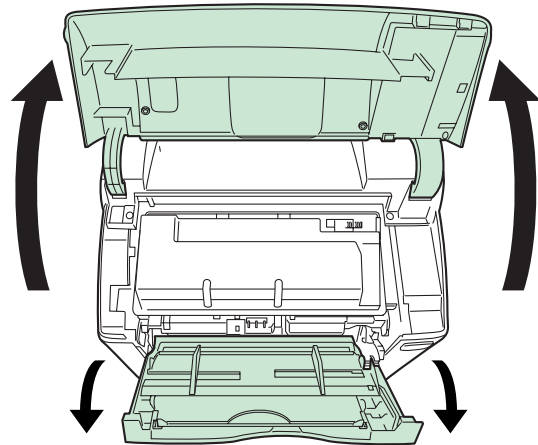
- 6 Make sure that the waste toner box is correctly inserted and close the left cover.

After replacing the toner containers and the waste toner box, clean the internal parts. For instructions, refer to *Cleaning the Printer* on page 3-8.

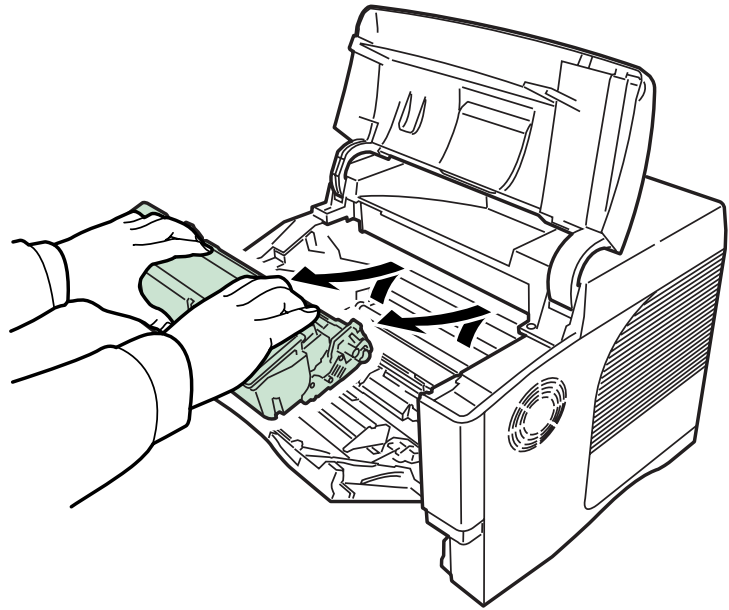
Cleaning the Printer

To avoid print quality problems, the interior of the printer must be cleaned.

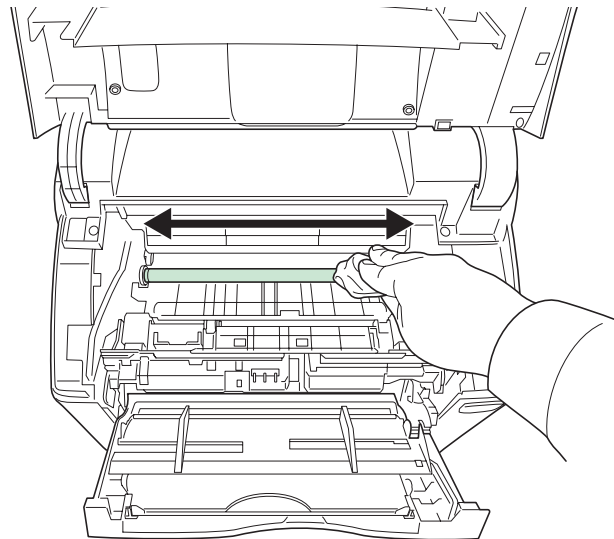
- 1 Open the top cover and MP tray.



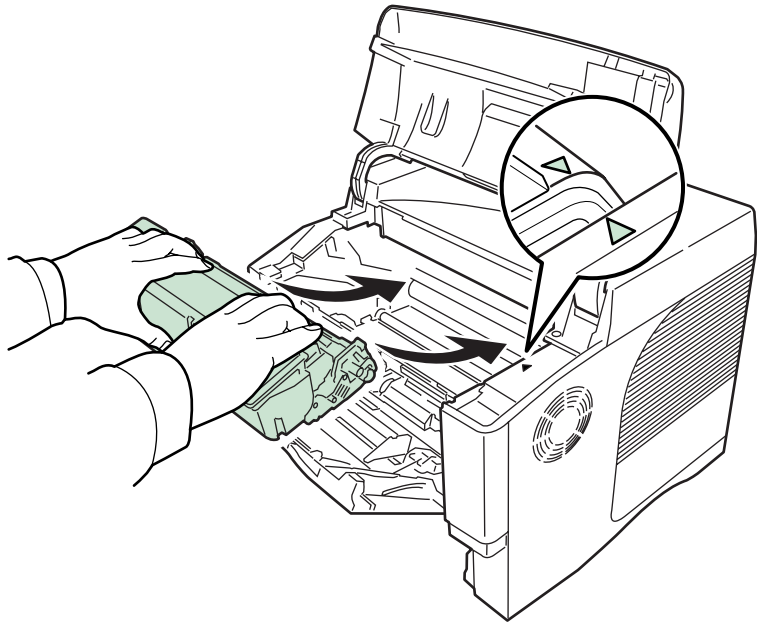
- 2 Lift the developer unit together with the toner container out of the printer.



- 3 Use a lint free cloth to clean dust and dirt away from the registration roller (metal).



- 4 Insert the developer unit together with the toner container, back into the machine.



- 5 Close the top cover and MP tray.

4 Troubleshooting

This chapter contains explanations on the following topics:

- General Guidelines..... 4-2
- Print Quality Problems..... 4-3
- Error Messages 4-5
- Clearing Paper Jams.....4-11

If a problem cannot be corrected, contact your service technician.

General Guidelines

The table below provides basic solutions for problems you may encounter with the printer. We suggest you consult this table to troubleshoot the problems before calling for service.

Symptom	Check Items	Corrective Action
Print quality is not good.	Refer to <i>Print Quality Problems</i> on page 4-3.	
Paper is jammed.	Refer to <i>Clearing Paper Jams</i> on page 4-11.	
Nothing lights on the operation panel even when power is turned on and the fan makes no noise.	Check that the power cord is properly plugged into the power outlet.	Turn off the printer's power, plug in the power cord securely, and try turning on the printer's power again.
	Check that the power switch is in the On (I) position.	Set the power switch to the On position.
The printer prints a status page, but does not print jobs from the computer.	Check the printer cable or the interface cable.	Connect both ends of the printer cable securely. Try replacing the printer cable or the interface cable.
	Check program files and application software.	Try printing another file or using another print command. If the problem occurs only with a specific file or application, check the printer driver settings for that application.

Tips

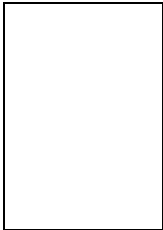
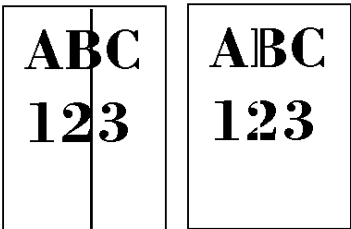
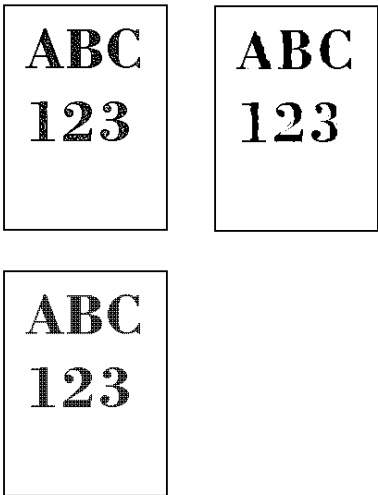
Printer problems may be solved easily by following the tips below. When you have encountered a problem that following the above guidelines will not solve, try the following:

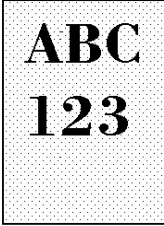
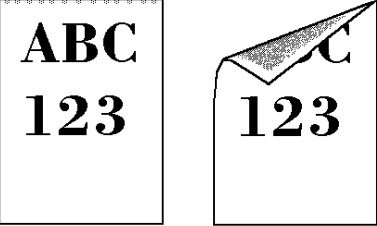
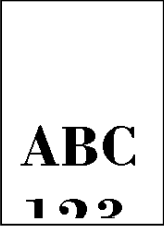
- Turn the printer power off and wait for several seconds. Then, turn on the printer.
- Reboot the computer which sends the print jobs to the printer.
- Obtain and use the latest version of the printer driver. The latest versions of printer drivers and utilities are available at: <http://www.olivetti.com>.
- Make sure that the procedures for printing are correctly followed in the application software. Consult the documentation supplied with the application software.
- If the printer prints garbage characters or stalls when the computer is turned on, rename device driver file `drvppqt.vxd`. This file may be located in `Windows\System\losubsys` or `Arcada\System` folder. For technical details, visit Microsoft web site for the device driver.

Print Quality Problems

The tables and diagrams in the following sections define print quality problems and the corrective action you can conduct to solve the problems. Some solutions may require cleaning or replacing parts of the printer.

If the suggested corrective action will not solve the problem, call for service.

Printed Results	Corrective Action
<p>Completely blank printout</p> 	<p>Check the toner container. Open the top cover and check that the toner container is correctly installed in the printer. For more information on installing the toner container, refer to <i>Toner Container Replacement on page 3-3</i>.</p> <hr/> <p>Check that the application software is correctly operated.</p>
<p>Black or white vertical streaks</p> 	<p>Check the operation panel for toner. If the Toner low message is displayed, install a new toner kit. To replace the toner container, refer to <i>Toner Container Replacement on page 3-3</i>.</p>
<p>Faint or blurred printing</p> 	<p>Check the EcoPrint setting. When this setting is On, switch it to off on the operation panel.</p> <hr/> <p>Make sure the paper type setting is correct the paper being used.</p> <hr/> <p>Check the operation panel. If the Toner low message is displayed, install a new toner kit. To replace toner, refer to <i>Toner Container Replacement on page 3-3</i>.</p>

Printed Results	Corrective Action
<p>Grey background</p> 	<p>Check the operation panel. If the Toner low message is displayed and the Attention indicator is flashing, install a new toner kit. Refer to <i>Toner Container Replacement</i> on page 3-3.</p> <hr/> <p>Check the print density. Display the print density menu from the operation panel and select a lighter density setting.</p>
<p>Dirt on the top edge or back of the paper</p> 	<p>Clean the parts in the paper paths—such as the paper cassette, etc.</p>
<p>Printing incomplete or out of position</p> 	<p>Check that the application software is correctly operated.</p> <hr/> <p>Refer to <i>Tips</i> on page 4-2.</p>

Error Messages

The following table lists errors and maintenance messages that you can be dealt with by yourself. If `Call service` appears, turn off the printer, disconnect the power cord, and contact your service technician.

Some errors cause the alarm to sound. To stop the alarm, press **[Cancel]**.

Message	Corrective Action
Add paper MPTray	The paper has run out in the paper source displayed. Supply paper according to the paper source displayed (paper cassettes, MP tray, optional paper feeders, or optional envelope feeder [PG L235/L245]). This message is displayed alternately with messages indicating the printer status, such as, Ready, Please wait, Processing, Waiting, and FormFeed Time Out.
Call service F###	F### represents a controller error (#=0, 1, 2, ...). Call for service. The printer does not operate when this message is displayed.
Call service ####:0123456	#### represents a mechanical error (#=0, 1, 2, ...). Call for service. The printer does not operate when this message is displayed. The total number of pages printed is also indicated, e.g. 0123456.
Cassette # not loaded	The corresponding paper cassette is not installed. Install the cassette. The cassette number can be 1 (topmost) to 4 (bottom) [PG L230: 1 and 2].
Check waste toner box	This message warns following two cases. Install the new waste toner box. The waste toner box is not installed. The waste toner box is full.
Clean printer Press GO	Please clean the inside of the printer. Refer to <i>Cleaning the Printer on page 3-8</i> . This message will be displayed when replacing the toner container after the message <code>Replace toner</code> is displayed. After cleaning the inside of the printer, press [GO] and the printer will be ready for printing.
Close left cover	The left cover of the printer is open. Close the left cover.
Close rear unit	The rear unit of the printer is open. Close the printer rear unit.
Close top cover	The top cover of the printer is open. Close the printer top cover.
Duplex disabled Press GO	You attempted to print with a paper size and paper type that cannot be used for duplex printing. Press [GO] to print onto one-side of the paper only.

Message	Corrective Action
<p>e-MPS not stored Press GO</p>	<p>The e-MPS job cannot be stored because RAM disk is disabled, RAM disk size is insufficient, Microdrive is not installed, or Microdrive is full. Press [GO] to print error report.</p>
<p>Error.Power off F###</p>	<p>Turn the power switch off and then back on again. If this message still remains, turn the power switch off, and contact your service representative or authorized service center.</p>
<p>File not found Press GO</p>	<p>You have attempted to print a job that is not contained in the specified virtual mailbox, or the specified virtual mailbox is not found. If Auto Error Clear is set to On, printing will be automatically resumed after a preset period of time.</p>
<p>Format error Hard disk</p>	<p>The Microdrive installed in the printer is not formatted, and therefore cannot be read or written.</p>
<p>Format error Memory card</p>	<p>The CompactFlash card inserted in the printer is not formatted, and therefore cannot be read or written.</p>
<p>Hard disk err ## Press GO</p>	<p>A Microdrive error has occurred. Look at the error code given in place of ## and refer to <i>Storage Error Codes on page 4-9</i>. To ignore the Microdrive error, press [GO].</p>
<p>I/F occupied</p>	<p>This message is displayed when you attempt to use the printer's operation panel to change the environmental settings on the interface from which data are presently being received.</p>
<p>ID error</p>	<p>The user ID entered for a private job, or a stored job is not correct. Check the user ID that you specified on the printer driver.</p>
<p>Install MK</p>	<p>Replace Maintenance Kit which is displayed on the message display. Replacement of the maintenance kit is necessary at every 300,000 pages of printing and requires professional servicing. Contact your service technician.</p>
<p>KPDL error ## Press GO</p>	<p>Current print processing cannot continue because of occurrence of KPDL error which is categorized by ##. To print out an error report, display > Print KPDL err(s) from the menu system, and select On. Press [GO] to resume printing. You can abandon printing by pressing [Cancel]. If Auto Error Clear is set to On, printing will be automatically resumed after a preset period of time.</p>
<p>Load Cassette # (A4)/(PLAIN) †</p>	<p>The paper cassette matching the paper size and paper type of the print job is empty. Load paper into the paper cassette as displayed in place of #. Press [GO] to resume printing. If you want to print from a different paper source, press ▲ or ▼ to display Use alternative and you can change the source for paper feeding. After selecting a paper source and pressing [Menu], Paper Handling > appears. By pressing the ▲, the paper type settings menu appears. After setting the correct paper type, press [OK] and printing starts.</p>

Message	Corrective Action
<p>Load MP Tray (A4)/(PLAIN)†</p>	<p>There is no paper cassette installed in the printer that matches the paper size and paper type of the print job. Set paper in the MP tray. Press [GO] to resume printing. (Note that feeding the paper having a paper size which does not match the current paper size from the MP tray can cause paper jam.)</p> <p>If you want to print from a different paper source, press ▲ or ▼ to display <i>Use alternative</i> and you can change the source for paper feeding. After selecting a paper source and pressing [Menu], <i>Paper Handling ></i> appears. By pressing the ▶, the paper type settings menu appears. After setting the correct paper type, press [OK] and printing starts.</p>
<p>Memory overflow Press GO</p>	<p>The total amount of data received by the printer exceeds the printer's internal memory. Try adding more memory. Press [GO] to resume printing. You can abandon printing by pressing [Cancel].</p> <p>If Auto Error Clear is set to <i>On</i>, printing will be automatically resumed after a preset period of time.</p>
<p>MemoryCard err## Press GO</p>	<p>A CompactFlash card error has occurred. Look at the error code given in place of ## and refer to <i>Storage Error Codes on page 4-9</i>. To ignore the CompactFlash card error, press [GO].</p>
<p>MemoryCard err20</p>	<p>The CompactFlash card is accidentally removed from the printer's slot during reading. Turn the power switch off and then back on again.</p>
<p>Missing developer unit</p>	<p>The developer unit is either not installed or incorrectly inserted. Insert the developer unit securely.</p>
<p>No multi copies Press GO</p>	<p>Multi copies cannot be printed because RAM disk is disabled or the Microdrive is not installed. There is no available RAM disk or Microdrive space. Delete unnecessary files. Press [GO] to print error report.</p>
<p>Paper jam #####</p>	<p>A paper jam has occurred. The location of the paper jam is indicated in place of the #'s. For details, refer to <i>Clearing Paper Jams on page 4-11</i>.</p>
<p>Paper path error</p>	<p>There is no paper cassette in the feeder, or the cassette is not inserted properly. After reinserting the paper cassette, you should be able to print. When two or more optional feeders are installed and the lowest one is selected, the same message will appear if any of the upper paper feeder and the printer cassette is improperly installed.</p>
<p>Print overrun†† Press GO</p>	<p>The print job transferred to the printer was too complex to print on a page. Press [GO] to resume printing. (A page break may be automatically inserted in some places.)</p> <p>You can abandon printing by pressing [Cancel].</p> <p>If Auto Error Clear is set to <i>On</i>, printing will be automatically resumed after a preset period of time.</p>
<p>RAM disk error## Press GO</p>	<p>A RAM disk error has occurred. Look at the error code given in place of ## and refer to <i>Storage Error Codes on page 4-9</i>. To ignore the RAM disk error, press [GO].</p>

Message	Corrective Action
<div style="border: 1px solid black; padding: 2px;"> Replace toner Clean printer </div>	Toner has run out in the toner container. Replace the toner container using a new toner kit. The printer does not operate when this message is displayed.
<div style="border: 1px solid black; padding: 2px;"> Set paper Press GO </div>	The MP tray is out of paper. Load paper and press [GO] . (Note that feeding the paper having a paper size which does not match the current paper size from the MP tray can cause paper jam.)
<div style="border: 1px solid black; padding: 2px;"> Toner low </div>	Toner is running low. Replace the toner container using a new toner kit.
<div style="border: 1px solid black; padding: 2px;"> Top tray paper full </div>	The top tray has become full. You must remove all printed pages from the top tray. When the printer detects that the top tray is empty again, the printer will continue printing into the top tray.
<div style="border: 1px solid black; padding: 2px;"> Unknown Toner Installed </div>	The toner container is not original. Use of original Olivetti toner kits is highly recommended to prevent printer trouble and ensure the long life of the printer. If a toner container which indicates Toner low or Replace toner Clean printer is installed to other printers of the same model, the message indicating Unknown Toner Installed may be displayed. But, in this case, this toner container can be used.
<div style="border: 1px solid black; padding: 2px;"> USB memory err## Press GO </div>	An USB flash memory error has occurred. Look at the error code given in place of ## and refer to <i>Storage Error Codes on page 4-9</i> . To ignore the USB memory error, press [GO] .
<div style="border: 1px solid black; padding: 2px;"> USB mem. removed Press GO </div>	The USB flash memory is accidentally removed from the printer. To ignore the USB memory error, press [GO] . The message display returns to Ready.
<div style="border: 1px solid black; padding: 2px;"> Virtual mailbox full </div>	The storage area in the Microdrive for the virtual mailboxes is full. Print out accumulated jobs in the virtual mailboxes.
<div style="border: 1px solid black; padding: 2px;"> Warning image adapt </div>	Printing job cannot be done in current resolution because there is not enough internal memory. Try adding more memory or changing resolution.
<div style="border: 1px solid black; padding: 2px;"> Warning low memory </div>	The printer's internal memory is running low due to too many numbers of fonts and macros downloaded. Try deleting unnecessary fonts and macros.

† Messages separated by '()/()' are displayed alternately.

†† After this error has happened, page protect mode will be automatically turned on. To maintain optimum use of memory during printing, we recommend you manually turn off page protect mode.

Storage Error Codes

Microdrive Errors

Code	Meaning
01	Microdrive format error. If this error recurs even if the power has been turned off and then on, reformat the Microdrive.
02	The disk system is not installed. Recheck the requirements for using the system and the devices.
04	There is no available Microdrive space. Delete unnecessary files, etc., in order to free up space.
05	The specified file does not exist in the Microdrive.
06	There is no memory available to the Microdrive system. Increase the available memory.
10	Formatting is not possible because host data is being spooled on the Microdrive. Wait until the Microdrive is ready, and then format.
85	VMB: Alias error. The alias setting was lost, or the virtual tray corresponding to the alias does not exist. Set the alias again.
97	The number of permanent code jobs that can be stored reached the limit value, and no more can be saved. Either delete some unnecessary jobs, etc., or increase the limit.
98	An unreadable page was found in a job (The job is damaged.).
99	A print job for the specified ID does not exist in the Microdrive.

CompactFlash Card/USB memory Errors

Code	Meaning
01	The printer does not support the CompactFlash card inserted.
02	The CompactFlash card is not installed.
04	The CompactFlash card is full and cannot hold further data. Purge unnecessary files or use a new CompactFlash card.
05	Specified file is not on the CompactFlash card/USB flash memory.
06	Insufficient printer memory to support the CompactFlash card system. Expand printer memory.

RAM Disk Errors

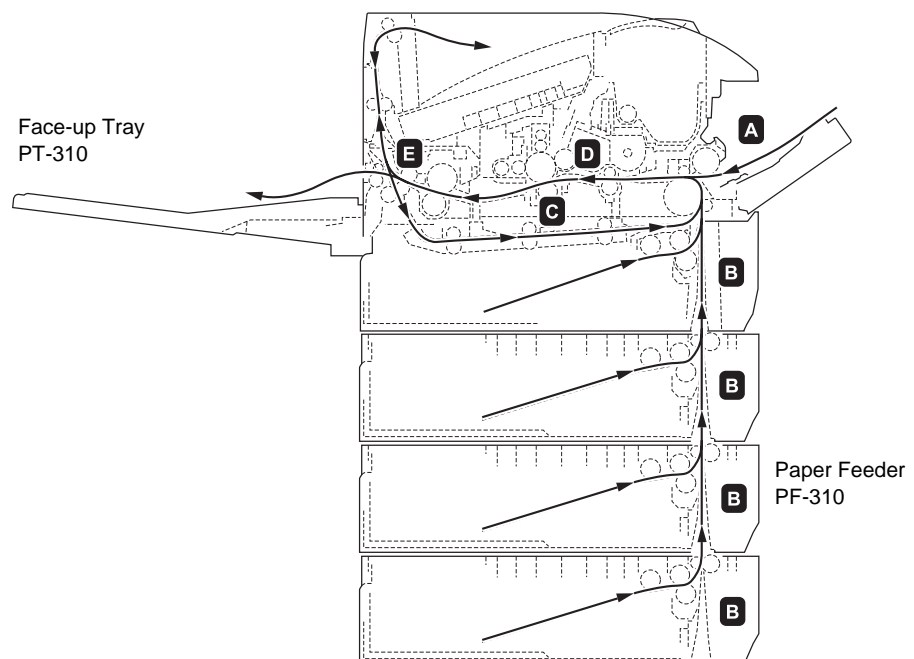
Code	Meaning
01	Format error. Try turning the power off and on again.
02	RAM disk mode is OFF. Turn RAM disk mode On from the operation panel.
04	No disk space. Purge unnecessary files.
05	Specified file is not on disk.
06	Insufficient printer memory to support the RAM disk system. Expand printer memory.

Clearing Paper Jams

If the paper jammed in the paper transport system, or no paper sheets were fed at all, the `Paper jam` message appears and the location of the paper jam (the component where the paper jam has occurred) is also indicated. The printer automatically goes off-line when this message is displayed. Remove jammed paper. After removing jammed paper, the printer will re-start printing.

Possible Paper Jam Locations

The figure below explains the printer's paper paths including the options. The locations where paper jams might occur are also shown here, with each location explained in the table below. Paper jams can occur in more than one component on the paper paths.



Paper jam message	Paper jam location	Description	Reference page
Paper jam MP Tray	A	Paper is jammed at the MP tray or optional envelope feeder or bulk paper feeder (if installed [PG L235 and PG L245 only]).	<i>page 4-13</i>
Paper jam EF			<i>page 4-16</i>
Paper jam Bulk Feeder			<i>page 4-16</i>

Paper jam message	Paper jam location	Description	Reference page
Paper jam Cassette 1 (to 4)	B	Paper is jammed at the paper cassette. The cassette number can be 1 (topmost) to 4 (bottom) [PG L230: 1 and 2].	<i>page 4-13</i>
Paper jam Duplexer	C	Paper is jammed inside the duplex section.	<i>page 4-14</i>
Paper jam Printer	D	Paper is jammed inside the printer.	<i>page 4-15</i>
Paper jam Rear Unit	E	Paper is jammed inside the rear unit.	<i>page 4-16</i>


General considerations for clearing jams

Bear in mind the following considerations when attempting jam removal:

CAUTION: When pulling the paper, pull it gently so as not to tear it. Torn pieces of paper are difficult to remove and may be easily overlooked, deterring the jam recovery.

- If paper jams occur frequently, try using a different type of paper, replace the paper with paper from another ream, flip the paper stack over, or rotate the paper stack 180 degrees. The printer may have problems if paper jams recur after the paper was replaced.
- Whether or not the jammed pages are reproduced normally after printing is resumed depends on the location of the paper jam.

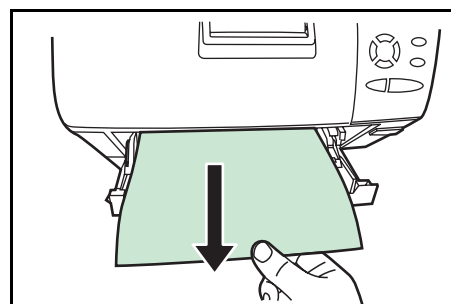
Utilizing Online Help Messages

Online help messages are available in the printer's message display to provide simple instructions for clearing jams. Press () when the paper jam message has appeared. Then a help message will appear to facilitate jam clearing in the location.

MP Tray

Paper is jammed at the MP tray. Remove the jammed paper using the procedure given below.

- 1** Remove the paper jammed at the MP tray.



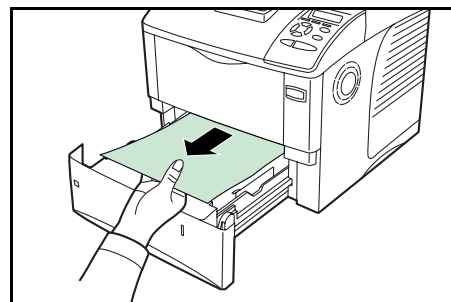
- 2** Open and close the top cover to clear the error.

Paper Cassette

- 1** Pull out the paper cassette.

- 2** Remove any partially fed paper.

Check to see if paper is loaded correctly. If not, reload the paper.



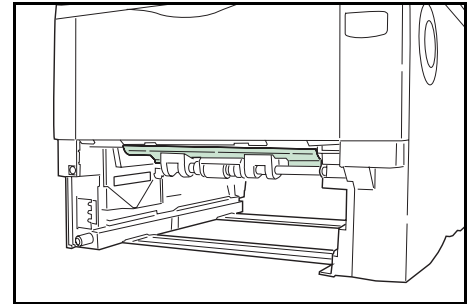
- 3** Push the paper cassette back in firmly. The printer warms up and resumes printing.

Duplexer

Paper is jammed in the duplex section. Remove the jammed paper using the procedure given below.

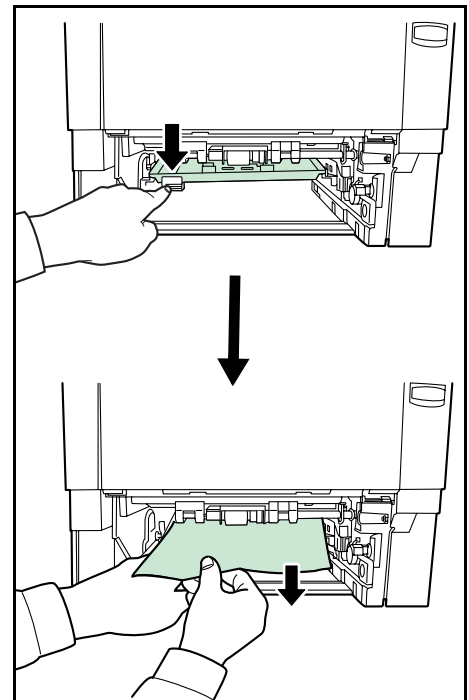


CAUTION: Do not touch parts in this area, because it may result in burn injury.



1 Pull the paper cassette all the way out of the printer.

2 Open the duplexer's cover and remove any jammed paper.

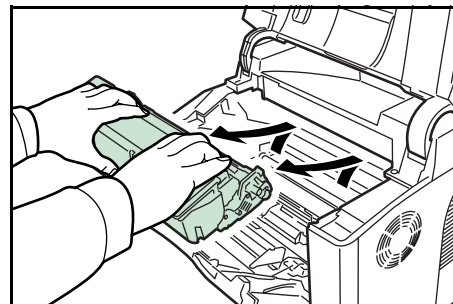


3 Insert the paper cassette into the slot in the printer. The printer warms up and resumes printing.

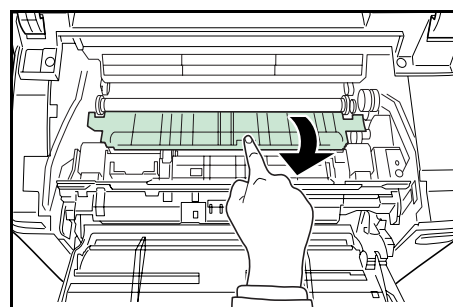
The Inside of Printer

1 Open the top cover and MP tray.

2 Lift the developer unit together with the toner container out of the printer.

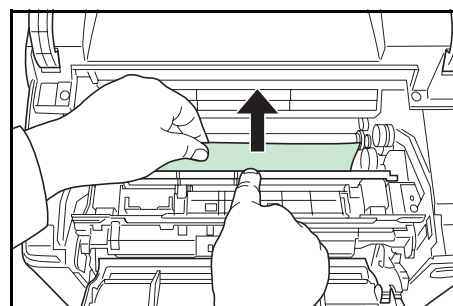


3 Open the feed cover.



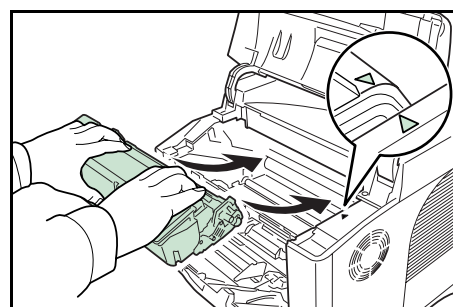
4 Remove the paper from the printer.

If the jammed paper appears to be pinched by rollers, pull it along the normal running direction of the paper.



NOTE: If you cannot find a paper jam, try checking inside the rear of the printer. Refer to *Rear Unit* on page 4-16.

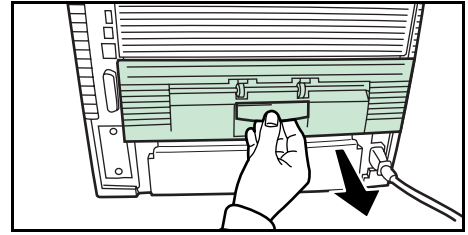
5 Insert the developer unit together with the toner container, back into the machine.



6 Close the top cover and MP tray. The printer warms up and resumes printing.

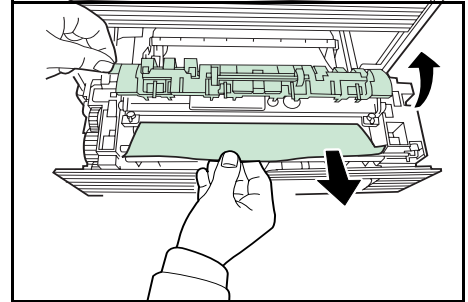
Rear Unit

- 1 If paper is not completely ejected into the output tray, open the rear unit.



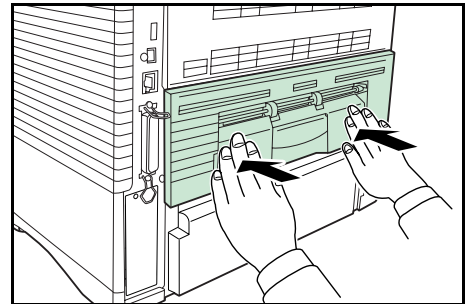
- 2 Open the fuser cover and remove the jammed paper by pulling it out.

NOTE: If you cannot find a paper jam, try checking inside the rear of the printer.



CAUTION: The fuser unit inside the printer is hot. Do not touch it with your hands as it may result in burn injury.

- 3 Close the rear unit. The printer warms up and resumes printing out.



Paper Feeder

Paper is jammed at optional paper cassette 2 (to 4). Refer to the Installation Guide for the optional paper feeder and remove the jammed paper.

Envelope Feeder

Paper is jammed at the optional envelope feeder. Remove the jammed paper using the same procedure as for a jam at the MP Tray. Then, open and close the paper transfer unit. For details, refer to the User's Manual for the envelope feeder.

Bulk Paper Feeder

Paper is jammed at the optional bulk paper feeder. Detach the bulk paper feeder from the printer by sliding with the rail away from the printer, holding the bulk paper feeder by both hands. If paper is partially fed out from the feeder's output slot, pull the paper out by hand.

5 Specifications

NOTE: Specifications are subject to change without notice.

Item	Description		
	PG L230	PG L235	PG L245
Printing Method	Semiconductor laser and electrophotography		
Printing Speeds - Simplex - Duplex	A5: 19ppm A4: 30ppm Letter: 31ppm Legal: 26ppm A4: 15.5ppm Letter: 15.5ppm	A6: 21ppm A5: 21ppm A4: 35ppm Letter: 37ppm Legal: 28ppm A4: 25ppm Letter: 26ppm	A6: 23ppm A5: 23ppm A4: 45ppm Letter: 47ppm Legal: 38ppm A4: 33.5ppm Letter: 34.5ppm
Paper Sizes - Cassette - MP Tray	A4, A5, B5, Letter, Legal, Folio, Oficio2, Custom (148 x 210 to 216 x 356 mm [5 13/16 x 8 1/4 to 8 1/2 x 14"]) A4, A5, B5, A6, Letter, Legal, Folio, Oficio2, Custom (70 x 148 to 216 x 356 mm [2 3/4 x 5 13/16 to 8 1/2 x 14"])	A4, A5, B5, A6, Letter, Legal, Folio, Oficio2, Custom (105 x 148 to 216 x 356 mm [4 1/8 x 5 13/16 to 8 1/2 x 14"]) A4, A5, B5, A6, Letter, Legal, Folio, Oficio2, Custom (70 x 148 to 216 x 356 mm [2 3/4 x 5 13/16 to 8 1/2 x 14"])	
Paper Types - Cassette - MP Tray	Plain, Preprinted, Bond, Recycled, Rough, Letterhead, Color, Prepunched, High quality, and Custom Plain, Transparency, Preprinted, Labels, Bond, Recycled, Vellum, Rough, Letterhead, Color, Prepunched, Envelope, Cardstock, Thick, High quality, and Custom		
Paper Feed Source Capacity - Cassette - MP Tray	500 sheets (80g/m ²) 100 sheets (80g/m ²)		
Output Tray Capacity - Top Tray - Face-up Tray (Option)	250 sheets (80g/m ²) -	500 sheets (80g/m ²) PT-310: 250 sheets (80g/m ²)	

Item	Description		
	PG L230	PG L235	PG L245
Warm-up Time (23°C, 50%RH) - Power on	13 seconds or less	15 seconds or less	17 seconds or less
- Sleep	10 seconds or less	15 seconds or less	15 seconds or less
First Print Out (A4)	19 seconds or less	25.5 seconds or less	24 seconds or less
Resolution	Fine1200, Fast1200, 600dpi, 300dpi		
Monthly Duty - Average	4,000 pages	8,000 pages	12,000 pages
- Maximum	150,000 pages	200,000 pages	250,000 pages
Operating Systems	Microsoft Windows 2000/XP/Vista Microsoft Windows Server 2003 Apple Macintosh OS 9 Apple Macintosh OS X		
Controller	PowerPC 440 400MHz	PowerPC 750Cxr 400MHz	PowerPC 750Cxr 500MHz
Memory - Standard	64MB		128MB
- Maximum	576MB		640MB
Interface - Standard	USB: 1 (Hi-Speed USB) Parallel: 1 (IEEE1284) KUIO-LV slot: 1 USB memory slot: 1 (Full-Speed USB)	USB: 1 (Hi-Speed USB) Parallel: 1 (IEEE1284) Network: 1 (10BASE-T/100BASE-TX) KUIO-LV slot: 1 USB memory slot: 1 (Full-Speed USB)	
- Option	IB-11: Serial IB-21E/IB-30: 10BASE-T/ 100BASE-TX	IB-11: Serial IB-21E: 10BASE-T/100BASE-TX	
Operation Environment - Temperature	10 to 32.5 °C		
- Relative Humidity	15 to 80 %		
- Altitude	2,500m maximum		
- Illumination	1,500lux maximum		
Dimensions (W x D x H)	382 x 394 x 285mm (15 3/8 x 15 1/2 x 11 1/4")	382 x 394 x 320mm (15 3/8 x 15 1/2 x 12 5/8")	
Weight (without toner container)	15.8kg (33lb)	16.7kg (33 5/16lb)	16.8kg (33 5/16lb)

Item	Description		
	PG L230	PG L235	PG L245
Operating noise (in accordance with ISO7779 [Bystander Position, sound pressure level at the front])	During printing: LpA = 50dB (A)	During printing: LpA = 52dB (A)	During printing: LpA = 56dB (A)
	During standby: LpA = 40dB (A)	During standby: LpA = 40dB (A)	During standby: LpA = 40dB (A)
	During sleep mode: immeasurably low	During sleep mode: immeasurably low	During sleep mode: immeasurably low

DIRECTIVE 2002/96/CE ON THE TREATMENT, COLLECTION, RECYCLING AND DISPOSAL OF ELECTRIC AND ELECTRONIC DEVICES AND THEIR COMPONENTS

INFORMATION

1. FOR COUNTRIES IN THE EUROPEAN UNION (EU)

The disposal of electric and electronic devices as solid urban waste is strictly prohibited: it must be collected separately.

The dumping of these devices at unequipped and unauthorized places may have hazardous effects on health and the environment.

Offenders will be subjected to the penalties and measures laid down by the law.

TO DISPOSE OF OUR DEVICES CORRECTLY:

- a) Contact the Local Authorities, who will give you the practical information you need and the instructions for handling the waste correctly, for example: location and times of the waste collection centres, etc.
- b) When you purchase a new device of ours, give a used device similar to the one purchased to our dealer for disposal.



The crossed dustbin symbol on the device means that:

- when it to be disposed of, the device is to be taken to the equipped waste collection centres and is to be handled separately from urban waste;
- The producer guarantees the activation of the treatment, collection, recycling and disposal procedures in accordance with Directive 2002/96/CE (and subsequent amendments).

2. FOR OTHER COUNTRIES (NOT IN THE EU)

The treatment, collection, recycling and disposal of electric and electronic devices will be carried out in accordance with the laws in force in the country in question.

