



**IBM UPS750TLV/ UPS750THV  
IBM UPS1000TLV/ UPS1000THV  
IBM UPS1500TLV/ UPS1500THV**

**Tower Uninterruptible Power Supply  
Operation and Maintenance Manual**

02R2772



# TABLE OF CONTENTS

Safety .....	1
Introduction .....	4
<b>1: INSTALLATION .....</b>	<b>4</b>
Unpacking.....	4
Positioning the Uninterruptible Power Supply .....	4
Battery Connection.....	5
Connecting Equipment and Power to the Uninterruptible Power Supply .....	5
Startup .....	6
<b>2: OPERATION.....</b>	<b>7</b>
Front Display Panel .....	7
On Battery Operation .....	8
Determining On Battery Runtime.....	8
Battery Runtime Table.....	8
<b>3: USER CONFIGURABLE ITEMS .....</b>	<b>9</b>
<b>4: STORAGE, MAINTENANCE, AND TRANSPORTING .....</b>	<b>11</b>
Storage.....	11
Replacing the Battery Module.....	11
<b>5: HARDWARE MAINTENANCE INFORMATION .....</b>	<b>13</b>
Field Replaceable Unit Part Numbers .....	13
<b>6: TROUBLESHOOTING .....</b>	<b>14</b>
<b>7: GETTING HELP AND TECHNICAL ASSISTANCE.....</b>	<b>16</b>
Before you call.....	16
Using the Documentation.....	16
Getting help and information from the World Wide Web .....	16
Software service and support .....	16
Hardware service and support.....	16
Replacement part handling.....	17
<b>8: SAFETY INFORMATION.....</b>	<b>18</b>
<b>9: WARRANTY INFORMATION.....</b>	<b>45</b>
Part 1 - General Terms.....	45
Part 2 - Country-unique Terms .....	47
Part 3 - Warranty Information .....	55
<b>10: NOTICES, TRADEMARKS, AND RADIO FREQUENCY WARNINGS.....</b>	<b>57</b>
Notices .....	57
Attention! Life Support .....	57
Edition notice.....	58
Trademarks.....	58
Important notes.....	58
Product recycling and disposal.....	58
Battery return program .....	59
Electronic emission notices .....	59
Power Cords.....	60



# SAFETY

Before installing this product, read the Safety Information.

قبل تركيب هذا المنتج، يجب قراءة الملاحظات الأمنية

Antes de instalar este produto, leia as Informações de Segurança.

在安装本产品之前，请仔细阅读 **Safety Information**  
(安全信息)。

安裝本產品之前，請先閱讀「安全資訊」。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí.

Læs sikkerhedsforskrifterne, før du installerer dette produkt.

Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

Ennen kuin asennat tämän tuotteen, lue turvaohjeet kohdasta Safety Information.

Avant d'installer ce produit, lisez les consignes de sécurité.

Vor der Installation dieses Produkts die Sicherheitshinweise lesen.

Πριν εγκαταστήσετε το προϊόν αυτό, διαβάστε τις πληροφορίες ασφάλειας (safety information).

לפני שתתקינו מוצר זה, קראו את הוראות הבטיחות.

A termék telepítése előtt olvassa el a Biztonsági előírásokat!

Prima di installare questo prodotto, leggere le Informazioni sulla Sicurezza.

製品の設置の前に、安全情報をお読みください。

본 제품을 설치하기 전에 안전 정보를 읽으십시오.

Пред да се инсталира овој продукт, прочитајте информацијата за безбедност.

Les sikkerhetsinformasjonen (Safety Information) før du installerer dette produktet.

Przed zainstalowaniem tego produktu, należy zapoznać się z książką "Informacje dotyczące bezpieczeństwa" (Safety Information).

Antes de instalar este produto, leia as Informações sobre Segurança.

Перед установкой продукта прочтите инструкции по технике безопасности.

Pred inštaláciou tohto zariadenia si pečítajte Bezpečnostné predpisy.

Pred namestitvijo tega proizvoda preberite Varnostne informacije.


Antes de instalar este producto, lea la información de seguridad.


Läs säkerhetsinformationen innan du installerar den här produkten.

**WARNING:** Handling the cord on this product or cords associated with accessories sold with this product, will expose you to lead, a chemical known to the State of California to cause cancer, and birth defects or other reproductive harm. ***Wash hands after handling.***


**ADVERTENCIA:** El contacto con el cable de este producto o con cables de accesorios que se venden junto con este producto, pueden exponerle al plomo, un elemento químico que en el estado de California de los Estados Unidos está considerado como un causante de cancer y de defectos congénitos, además de otros riesgos reproductivos. ***Lávese las manos después de usar el producto.***


 **CAUTION! Handling Safety - Use safe practices when lifting.**

 <18 kg (<40 lb)



 32–55 kg (70–120 lb)



 18–32 kg (40–70 lb)

 >55 kg (>120 lb)

 >10°

  **CAUTION! Electrical Safety**

Electrical Current from power, telephone, and communication cables is hazardous. Please read the following safety statements.

- Do not connect or disconnect any cables or perform installation, maintenance, or reconfiguration of this product during an electrical storm.
- Connect all power cords to a properly wired and grounded electrical outlet.
- Connect to properly wired outlets any equipment that will be attached to this product.
- When possible, use one hand only to connect or disconnect signal cables.
- Never turn on any equipment when there is evidence of fire, water, or structural damage.
- Disconnect the attached power cords, telecommunications systems, networks, and modems before you open the device covers, unless instructed otherwise in the installation and configuration procedures.
- Connect and disconnect cables as described in the following table when installing, moving, or opening covers on this product or attached devices.

**To Connect:**

1. Turn everything OFF.
2. First attach all cables to devices.
3. Attach signal cables to connectors.
4. Attach power cords to outlet.
5. Turn device ON.

**To Disconnect:**

1. Turn everything OFF.
2. First remove power cords from outlet.
3. Remove signal cables from connectors.
4. Remove all cables from devices.

- Do not work alone under hazardous conditions.
- High current through conductive materials could cause severe burns.
- Check that the power cord(s), plug(s), and sockets are in good condition.
- Use qualified service personnel to change the plug on the uninterruptible power supply.
- When grounding cannot be verified, disconnect the equipment from the utility power outlet before installing or connecting to other equipment. Reconnect the power cord only after all connections are made.
- Do not handle any metallic connector before the power has been disconnected.
- Connect the equipment to a three wire utility outlet (two poles plus ground). The receptacle must be connected to appropriate branch circuit/mains protection (fuse or circuit breaker). Connection to any other type of receptacle may result in risk of electrical shock.
- *HV models only:*
  - In order to maintain compliance with the EMC directive for products sold in Europe, output cords attached to the uninterruptible power supply should not exceed 10 meters in length.
  - Total leakage current from connected equipment and the uninterruptible power supply must not exceed 3.5 mA for a pluggable A Type uninterruptible power supply.

  **CAUTION! De-energizing Safety**

- The uninterruptible power supply has an internal energy source, the battery. The output may be energized when the unit is not connected to a utility power outlet.
- To de-energize the uninterruptible power supply, press the OFF button to shut the equipment off. Unplug the uninterruptible power supply from the utility power outlet. Disconnect the external batteries where applicable and disconnect the internal battery (see *Operation and Setup Guide*). Push the ON button to de-energize the capacitors.

  **CAUTION! Battery Safety**

- **This equipment contains potentially hazardous voltages.** Refer to your product documentation to determine which parts are user-replaceable.
- Do not dispose of batteries in a fire; they may explode.
- Do not open or mutilate batteries. They contain an electrolyte that is toxic and harmful to the skin and eyes.
- To avoid personal injury due to energy hazard, remove wristwatches and jewelry such as rings when replacing the batteries. Use tools with insulated handles.
- Replace the battery module with the same number and type as originally installed in the equipment.



**Be sure to deliver the spent battery to a recycling facility.**

## Introduction

The IBM® UPS750TLV, UPS750THV, UPS1000TLV, UPS1000THV, UPS1500TLV and UPS1500THV models are designed to prevent blackouts, brownouts, sags, and surges from reaching your computer and other valuable electronic equipment. The uninterruptible power supply filters small utility line fluctuations and isolates your equipment from large disturbances by internally disconnecting from the utility line. The uninterruptible power supply provides continuous power from the internal battery until the utility line returns to safe levels or the battery is fully discharged.

# 1: INSTALLATION

## Unpacking

### Attention:

- Read the Safety Information in this documentation before you install the uninterruptible power supply.
- The uninterruptible power supply comes with its battery disconnected (see *Battery Connection*).

**Note: Illustrations in this documentation might differ slightly from your hardware.**

Inspect the uninterruptible power supply upon receipt. Accidents and damage can occur during shipment. Notify the carrier and your IBM marketing representative or authorized reseller if there is damage.

The packaging is recyclable; save it for reuse or dispose of it properly.

Check the package contents:

- Uninterruptible power supply
- Uninterruptible power supply accessory kit containing:
  - Product documentation
  - PowerChute® CD
  - Serial and USB communication cables- 2 m (6.5 ft)
  - 750TLV, 1000TLV and 1500TLV models only: One C-13 to NEMA 5-15 power cable - 2 m (6.5 ft)
  - 750THV model only: Three IEC jumper cables - 2 m (6.5 ft)
  - 1000THV and 1500THV models only: Four IEC jumper cables - 2 m (6.5 ft)
  - 1000TLV, 1000THV, 1500TLV and 1500THV models only: One RJ-45, CAT5 network communication cable and one RJ-11 phone communication cable- 1.8 m (6 ft)

## Positioning the Uninterruptible Power Supply

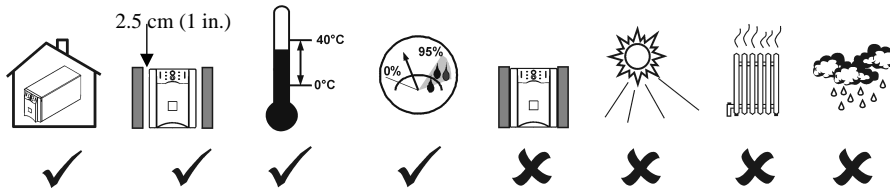


**Attention: The uninterruptible power supply is heavy.**

**Select a location sturdy enough to handle the weight.**

Do not operate the uninterruptible power supply in excessive dust or in temperature and humidity outside the specified limits.

### PLACEMENT

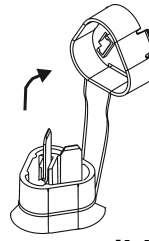




## Battery Connection

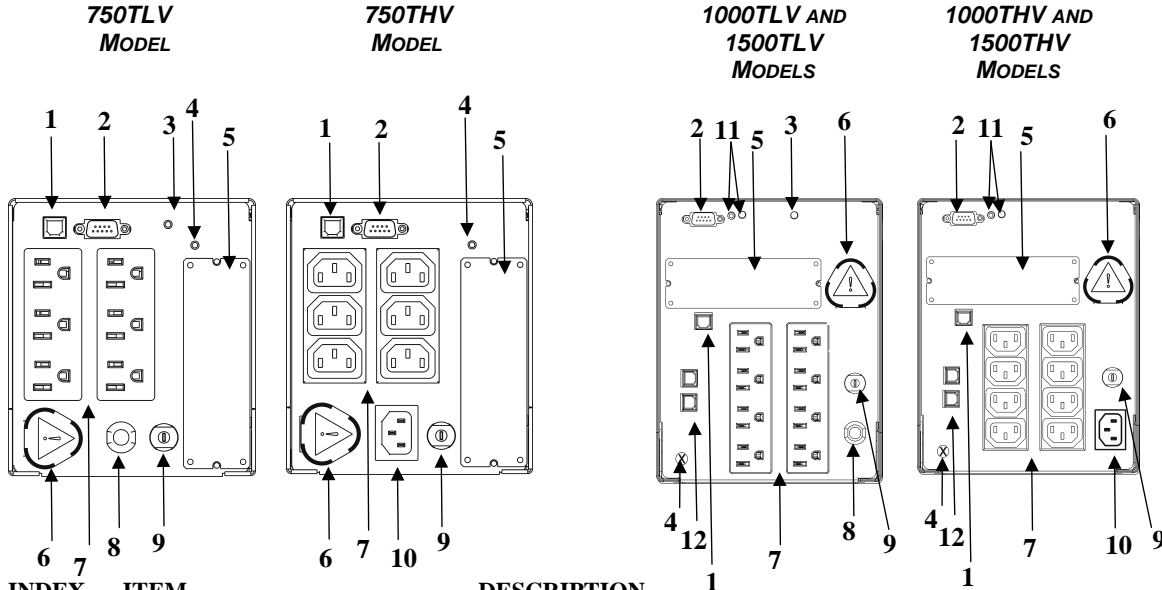
The battery connector is located on the rear panel (See *Connecting Equipment and Power to the Uninterruptible Power Supply*).

For battery connection, push the connector into the corresponding port.



## Connecting Equipment and Power to the Uninterruptible Power Supply

### REAR PANEL



INDEX	ITEM
1 & 2	USB Port & Serial Port
3	Site Wiring Fault LED
4	TVSS Screw
5	Smart Slot
6	Battery Connector
7	Outlet Banks
8	Input Cord
9	Circuit Breaker
10	Input Connector
11	Voltage Sensitivity Button and LED
12	Telephone/Network Surge Suppression Ports

### DESCRIPTION

Power management software and either USB or serial port communication with the uninterruptible power supply can be used. Use only cables supplied or approved by IBM.

**Use the supplied serial cable to connect to the serial port. DO NOT use a standard serial interface cable since it is incompatible with the uninterruptible power supply connector.**

**Important: Serial and USB ports cannot be used simultaneously.**  
*750TLV, 1000TLV and 1500TLV models only: See Troubleshooting.*

The uninterruptible power supply features a transient voltage surge-suppression (TVSS) screw for connecting the ground lead on surge suppression devices such as telephone and network line protectors.

When connecting a grounding cable, disconnect the unit from the utility power outlet.

See *Startup*.

See *Battery Connection*.



Connect equipment.

*750TLV, 1000TLV and 1500TLV models only: See Startup.*

See *Troubleshooting*.

*750THV, 1000THV and 1500THV models only: See Startup.*

*1000TLV, 1000THV, 1500TLV and 1500THV models only: See User Configurables.*

*1000TLV, 1000THV, 1500TLV and 1500THV models only:* For telephone/network surge suppression, connect a single line telephone or a 10Base-T/ 100Base-Tx network cable into the RJ-45/RJ-11 telephone/network surge protection port, , on the back of the uninterruptible power supply. Connect from the  port with supplied telephone or network cabling to a fax modem or network port.

## Startup



1. Plug in the battery connector.
2. Connect equipment to the uninterruptible power supply.

**Note: A laser printer draws significantly more power than other types of equipment and might overload the uninterruptible power supply.**

3. Add any optional accessories to the Smart-Slot. This IBM uninterruptible power supply is compatible with APC Smart-Slot options.
4. Plug the uninterruptible power supply into a two-pole, three-wire, grounded receptacle only. Do not use extension cords.

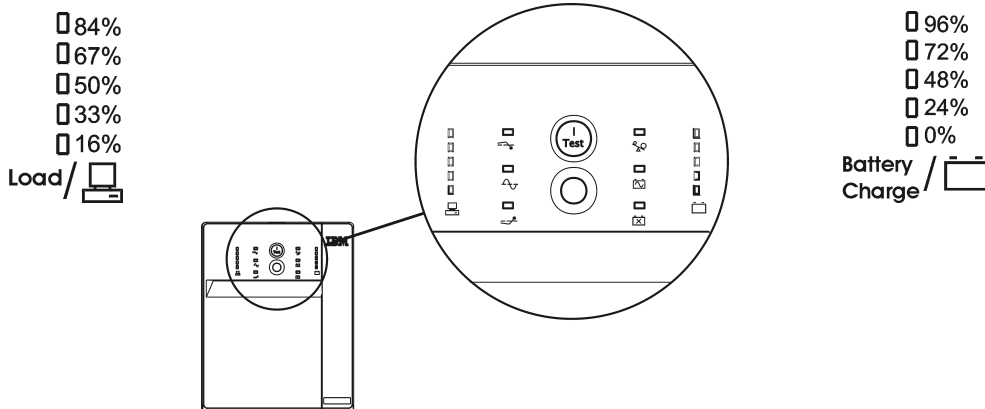
*750TLV, 1000TLV and 1500TLV models only:* The power cord is permanently attached to the rear panel of the uninterruptible power supply.

*750THV, 1000THV and 1500THV models only:* A country or region specific power cord for the uninterruptible power supply is available as a separate option. Alternatively, you can use a power cord that comes with an IBM server that you intend to connect to the uninterruptible power supply. Use only an IBM supplied or approved power cord to connect your uninterruptible power supply to a power source.



5. Use the power cord or jumper cables that come with the uninterruptible power supply to connect servers or devices to the uninterruptible power supply. Alternatively, you can use a jumper cable or power cord that comes with an IBM server that you intend to connect to the uninterruptible power supply. Use only an IBM supplied or approved power cord or jumper cable to connect servers or devices.
6. *750TLV, 1000TLV and 1500TLV models only:* Check the *site wiring fault* LED  located on the rear panel. It will be illuminated if the uninterruptible power supply is plugged into an improperly wired utility power outlet (See *Troubleshooting*).
7. Turn on all connected equipment. To use the uninterruptible power supply as a master *on/off* switch, be sure all connected equipment is turned on.
8. To turn on the uninterruptible power supply, press the  button on the front panel.
9. For optimal computer system security, install PowerChute monitoring software on all computers powered by the uninterruptible power supply.

## 2: OPERATION

### Front Display Panel




INDICATOR	DESCRIPTION
Online 	This LED illuminates when the uninterruptible power supply is supplying utility power to the connected equipment. If not illuminated, the uninterruptible power supply is either not turned on, or is supplying battery power. When blinking, the uninterruptible power supply is running an internal self-test.
AVR Trim 	This LED illuminates to indicate the uninterruptible power supply is compensating for a high utility voltage.
AVR Boost 	This LED illuminates to indicate the uninterruptible power supply is compensating for a low utility voltage.
On Battery 	This LED illuminates when the uninterruptible power supply is supplying battery power to the connected equipment.
Overload 	This LED illuminates and the uninterruptible power supply emits a sustained alarm tone when the connected loads are drawing more than the uninterruptible power supply power rating (see <i>Troubleshooting</i> ).
Replace Battery/ Battery Disconnected 	Failure of a battery self-test causes the uninterruptible power supply to emit short beeps for one minute and this LED to illuminate (see <i>Troubleshooting</i> ).  This LED also flashes and a short beep is emitted every two seconds to indicate when the battery is disconnected (see <i>Troubleshooting</i> ).
FEATURE	FUNCTION
Power On 	Press this button to turn on the uninterruptible power supply. (Read on for additional capabilities.)
Power Off 	Press this button to turn off the uninterruptible power supply.
Self-Test	<b>Automatic:</b> The uninterruptible power supply performs a self-test automatically when turned on, and every two weeks thereafter (by default). During the self-test, the uninterruptible power supply briefly operates the connected equipment on battery.  If the uninterruptible power supply fails the self-test, the <i>replace battery</i> LED illuminates and immediately returns to online operation. The connected equipment is not affected by a failed test. Allow the battery to recharge for 24 hours and perform another self-test. If it fails, the battery must be replaced.  <b>Manual:</b> Press and hold the  button for a few seconds to initiate the self-test.

<p>Diagnostic Utility Voltage</p> <table style="width: 100%;"> <tr> <td style="width: 50%;">120V</td> <td style="width: 50%;">230V</td> </tr> <tr> <td>□ 133</td> <td>□ 266</td> </tr> <tr> <td>□ 123</td> <td>□ 248</td> </tr> <tr> <td>□ 115</td> <td>□ 229</td> </tr> <tr> <td>□ 105</td> <td>□ 210</td> </tr> <tr> <td>□ 98</td> <td>□ 191</td> </tr> <tr> <td>□</td> <td>□</td> </tr> </table>	120V	230V	□ 133	□ 266	□ 123	□ 248	□ 115	□ 229	□ 105	□ 210	□ 98	□ 191	□	□	<p>The uninterruptible power supply has a diagnostic feature that displays the utility voltage. Plug the uninterruptible power supply into the utility power outlet.</p> <p><b>The uninterruptible power supply starts a self-test as part of this procedure. The self-test does not affect the voltage display.</b></p> <p>Press and hold the  button to view the utility voltage bar graph display. After a few seconds, this five-LED <i>Battery Charge</i>  display on the right of the front panel will show the utility input voltage.</p> <p>Refer to the figure at left for the voltage reading, corresponding to the configured nominal output voltage.</p> <p>The display indicates the voltage is between the displayed value on the list and the next higher value.</p> <p><i>If three LEDs are illuminated, the utility voltage is within the normal range. If no LEDs are illuminated and the uninterruptible power supply is plugged into a properly functioning utility power outlet, the line voltage is extremely low. If all five LEDs are illuminated, the line voltage is extremely high and should be checked by an electrician.</i></p>
120V	230V														
□ 133	□ 266														
□ 123	□ 248														
□ 115	□ 229														
□ 105	□ 210														
□ 98	□ 191														
□	□														

### On Battery Operation

The IBM uninterruptible power supply switches to battery operation automatically if the utility power fails. While running on battery, an alarm beeps four times every 30 seconds.

Press the  button to silence this uninterruptible power supply alarm. If the utility power does not return, the uninterruptible power supply continues to supply power to the connected equipment until the battery is fully discharged.

If you are not using PowerChute, shut down the operating system and turn off the computer before the uninterruptible power supply fully discharges the battery.

### Determining On Battery Runtime











The uninterruptible power supply battery charges when connected to utility power. The battery charges to 90% capacity during the first three hours of normal operation. **Do not** expect full battery run capability during the initial charge period.

### Battery Runtime Table

This chart shows the typical on-battery runtime in minutes.

Load (VA)	Load (watts)	750VA	1000VA	1500VA
50	30	105	224	269
100	60	57	127	157
200	122	28	64	80
300	184	18	41	51
400	247	13	29	37
500	311	9.7	23	28
600	377	7.7	18	22
700	447	6.4	15	18
750	500	5.0	13.5	16.5
800	511	–	12	15
900	579	–	11	13
1000	700	–	8	11
1200	790	–	–	9.0
1400	936	–	–	7.4
1440	1050	–	–	6.7
1500	1050	–	–	6.7

### 3: USER CONFIGURABLE ITEMS

NOTE: SETTINGS ARE MADE THROUGH THE SUPPLIED POWERCHUTE SOFTWARE OR OPTIONAL SMART SLOT ACCESSORY CARDS. REFER TO THE SOFTWARE HELP GUIDES FOR DETAILS.			
FUNCTION	FACTORY DEFAULT	USER SELECTABLE CHOICES	DESCRIPTION
Automatic Self-Test	Every 14 days (336 hours)	Every 14 days (336 hours), Every 7 days (168 hours), On Startup Only, No Self-Test	This function sets the interval at which the uninterruptible power supply will execute a self-test.
UPS ID	UPS_IDEN	Up to eight characters	Use this field to uniquely identify the uninterruptible power supply, (i.e. server name or location) for network management purposes.
Date of Last Battery Replacement	Manufacture Date	mm/dd/yy	Reset this date when you replace the battery module.
Minimum Capacity Before Return from Shutdown	0 percent	0, 15, 30, 45, 50, 60, 75, 90 percent	The uninterruptible power supply will charge its batteries to the specified percentage before it powers up connected equipment, following a low-battery shutdown.
Alarm Control	Enable	Enable, Mute, Disable	User can mute an ongoing alarm or disable all existing alarms permanently.
Shutdown Delay	90 seconds	0, 90, 180, 270, 360, 450, 540, 630 seconds	The interval is set between the times when the uninterruptible power supply receives a shutdown command and actual shutdown.
Synchronized Turn-on Delay	0 seconds	0, 60, 120, 180, 240, 300, 360, 420 seconds	The uninterruptible power supply will wait the specified time after the return of utility power before turn-on (to avoid branch circuit overload).
Output Voltage	750THV, 1000THV and 1500THV models: 230VAC	750THV, 1000THV and 1500THV models: 220, 230, 240VAC	750THV, 1000THV and 1500THV models: Allows the user to select the output voltage.
Voltage Sensitivity The uninterruptible power supply detects and reacts to line voltage distortions by transferring to battery operation to protect connected equipment.	 High	 : Brightly illuminated - <i>high</i> sensitivity.  : Dimly illuminated - <i>medium</i> sensitivity.  : No illumination; <i>low</i> sensitivity.	Adjust by pressing the <i>voltage sensitivity</i> button  (rear panel). Use a pointed object (such as a pen) to do so.  Note: In situations of poor power quality, the uninterruptible power supply may frequently transfer to battery operation. If the connected equipment can operate normally under such conditions, reduce the sensitivity setting to conserve battery capacity and service life.
Low Battery Warning	 2 minutes  PowerChute software provides automatic, unattended shutdown when approximately two minutes of battery operated runtime remains.	 : Brightly illuminated - low battery warning level of about <i>two minutes</i> .  : Dimly illuminated - low battery warning level of about <i>five minutes</i> .  : No illumination; low battery warning level is approximately <i>eight minutes</i> .  Possible interval settings: 2, 5, 8, 11, 14, 17, 20, 23 minutes.	The uninterruptible power supply will beep when two minutes of battery runtime remains.  Change the warning interval setting by pressing the voltage sensitivity button, while pressing and holding the  button.  Change the low battery warning interval setting to the time that the operating system or system software requires to safely shut down.

<b>NOTE: SETTINGS ARE MADE THROUGH THE SUPPLIED POWERCHUTE SOFTWARE OR OPTIONAL SMART SLOT ACCESSORY CARDS. REFER TO THE SOFTWARE HELP GUIDES FOR DETAILS.</b>			
<b>FUNCTION</b>	<b>FACTORY DEFAULT</b>	<b>USER SELECTABLE CHOICES</b>	<b>DESCRIPTION</b>
High Transfer Point	750TLV, 1000TLV and 1500TLV mod- els:127VAC  750THV, 1000THV and 1500THV mod- els:253VAC	750TLV, 1000TLV and 1500TLV models: 127, 130, 133, 136VAC  750THV, 1000THV and 1500THV models: 253, 257, 261, 265VAC	If the utility voltage is usually high and the connected equipment is specified to operate with input voltages this high, set the high transfer point higher to avoid unnecessary battery usage.
Low Transfer Point	750TLV, 1000TLV and 1500TLV mod- els:106VAC  750THV, 1000THV and 1500THV mod- els:208VAC	750TLV, 1000TLV and 1500TLV models: 97, 100, 103, 106VAC  750THV, 1000THV and 1500THV models: 196, 200, 204, 208VAC	If the utility voltage is usually low and the connected equipment is specified to operate with input voltages this low, set the low transfer point lower.

## 4: STORAGE, MAINTENANCE, AND TRANSPORTING

### Storage

Store the uninterruptible power supply covered in a cool, dry location, with the batteries fully charged.

At -15 to +30 °C (+5 to +86 °F), charge the uninterruptible power supply battery every six months.

At +30 to +45 °C (+86 to +113 °F), charge the uninterruptible power supply battery every three months.

### Replacing the Battery Module

The uninterruptible power supply battery life differs based on usage and environment.

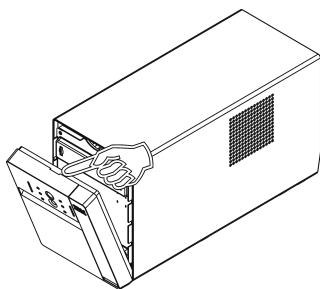
This uninterruptible power supply has an easy to replace, hot-swappable battery module. Replacement is a safe procedure, isolated from electrical hazards. You can leave the uninterruptible power supply and connected equipment on for the replacement procedure. **Note: Upon battery disconnection, connected equipment is not protected from power outages.**

Contact your IBM marketing representative or authorized reseller for information on replacement battery modules.

#### REMOVING THE FRONT BEZEL AND BATTERY MODULE

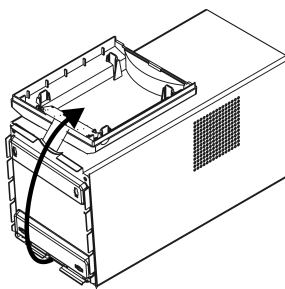
##### Step 1

Use a coin or screwdriver, on the specified area, to pull down the front bezel.



##### Step 2

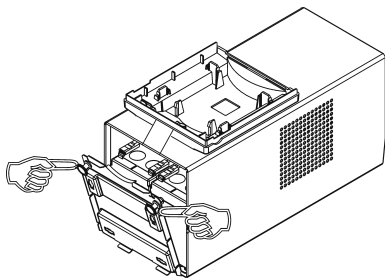
Pull bezel up and rest it on top of the unit.



##### Step 3

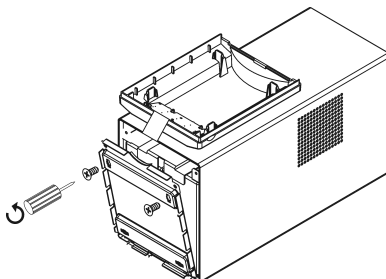
##### 750TLV and 750THV Models

Unsnap the battery panel.



##### 1000TLV, 1000THV, 1500TLV and 1500THV Models

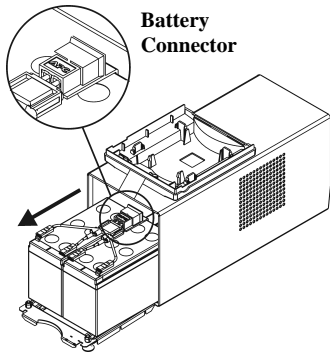
Remove the screws that secure the battery panel; then, remove the panel.



#### Step 4

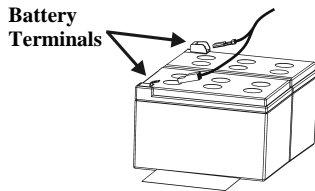
##### **750TLV and 750THV Models**

Pull the battery module out of the uninterruptible power supply; the battery connector will disconnect from port.

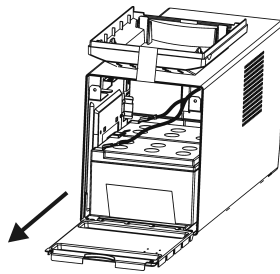


##### **1000TLV and 1000THV Models**

**A.** Pull the battery module from the uninterruptible power supply until the battery cables are visible. Disconnect the battery cable terminals.

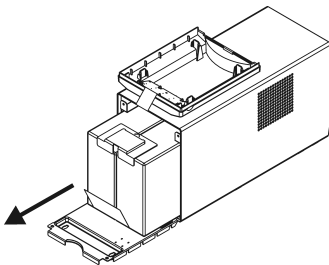


**B.** Remove the battery module from the uninterruptible power supply.

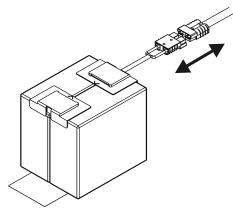


##### **1500TLV and 1500THV Models**

**A.** Pull the battery module from the uninterruptible power supply until the back of the module is flush with the outer edges of the uninterruptible power supply.



**B.** Disconnect the battery connector.



#### **REPLACING THE BATTERY MODULE**

To replace the battery module, reverse the directions for *Removing the Front Bezel and Battery Module*.

**Attention: 1000TLV and 1000THV models only:** When reconnecting the battery cables, connect cables to the corresponding color terminals.

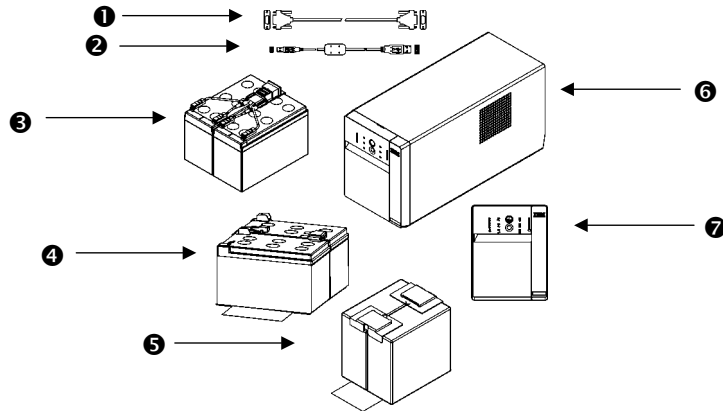


## 5: HARDWARE MAINTENANCE INFORMATION

This chapter contains information about IBM field replaceable unit (FRU) availability for the IBM UPS750TLV, UPS750THV, UPS1000TLV, UPS1000THV, UPS1500TLV and UPS1500THV models.

### Field Replaceable Unit Part Numbers

IBM FRU part numbers are subject to change without notice. This section contains a listing of the FRU part numbers available at the time this document was published.



Index	FRU Part #	Description
1	73P5767	Serial Cable
2	53P7072	USB Cable
3	90P4827	Replacement Battery 750TLV and 750THV
4	90P4829	Replacement Battery 1000TLV and 1000THV
5	90P4831	Replacement Battery 1500TLV and 1500THV
6	90P4884	750TLV UPS with battery & bezel
	90P4885	750THV UPS with battery & bezel
	90P4818	1000TLV UPS with battery & bezel
	90P4821	1000THV UPS with battery & bezel
	90P4819	1500TLV UPS with battery & bezel
	90P4822	1500THV UPS with battery & bezel
7	90P4887	750TLV and 750THV Front Bezel Kit
	90P4841	1000TLV and 1000THV Front Bezel Kit
	90P4843	1500TLV and 1500THV Front Bezel Kit

## 6: TROUBLESHOOTING

Use the chart below to solve minor uninterruptible power supply installation and operation problems. Refer to IBM for assistance with complex uninterruptible power supply problems.

PROBLEM AND/OR POSSIBLE CAUSE	SOLUTION
<b>UNINTERRUPTIBLE POWER SUPPLY WILL NOT TURN ON</b>	
Uninterruptible power supply not connected to utility power supply.	Check that the power cord from the uninterruptible power supply to the utility power supply is securely connected at both ends.
Battery not connected properly.	Check that the battery connector is fully snapped into position.
Very low or no utility voltage.	Check the utility power supply to the uninterruptible power supply by plugging in a table lamp. If the light is very dim, have the utility voltage checked.
<b>UNINTERRUPTIBLE POWER SUPPLY WILL NOT TURN OFF</b>	
Internal uninterruptible power supply fault.	Do not attempt to use the uninterruptible power supply. Unplug the uninterruptible power supply and have it serviced immediately.
<b>UNINTERRUPTIBLE POWER SUPPLY BEEPS OCCASIONALLY</b>	
Normal operating uninterruptible power supply beeps when running on battery.	None. The uninterruptible power supply is protecting the connected equipment from occasional utility power irregularities.
<b>UNINTERRUPTIBLE POWER SUPPLY IS NOT PROVIDING EXPECTED BACKUP TIME</b>	
The uninterruptible power supply battery is weak due to a recent outage or is near the end of the service life.	Charge the battery. Batteries require recharging after extended outages, and wear faster when frequently put into service or when operated at elevated temperatures. If the battery is near the end of the service life, consider replacing the battery even if the <i>replace battery</i> LED is not yet illuminated.
<b>ALL LEADS ARE ILLUMINATED AND THE UNINTERRUPTIBLE POWER SUPPLY EMITS A CONSTANT BEEPING</b>	
Internal uninterruptible power supply fault.	Do not attempt to use the uninterruptible power supply. Turn off the uninterruptible power supply and have it serviced immediately.
<b>FRONT PANEL LEADS FLASH SEQUENTIALLY</b>	
The uninterruptible power supply has been shut down remotely through software or an optional accessory card.	None. The uninterruptible power supply will restart automatically when utility power returns.
<b>ALL LEADS ARE OFF AND THE UNINTERRUPTIBLE POWER SUPPLY IS PLUGGED INTO A WALL OUTLET</b>	
The uninterruptible power supply is shut down or the battery is discharged from an extended outage.	None. The uninterruptible power supply will return to normal operation when the power is restored and the battery has a sufficient charge.
<b>THE OVERLOAD LED IS ILLUMINATED AND THE UNINTERRUPTIBLE POWER SUPPLY EMITS A SUSTAINED ALARM TONE</b>	
The uninterruptible power supply is overloaded. The connected equipment is drawing more VA or more Watts than the uninterruptible power supply can sustain.	<p>The connected equipment exceeds the specified "maximum load."</p> <p>The alarm remains on until the overload is removed. Disconnect nonessential equipment from the uninterruptible power supply to eliminate the overload.</p> <p>The uninterruptible power supply continues to supply power as long as it is online and the circuit breaker does not trip; the uninterruptible power supply will not provide power from batteries in the event of a utility voltage interruption.</p> <p>If a continuous overload occurs while the uninterruptible power supply is on battery, the unit turns off output in order to protect the uninterruptible power supply from possible damage.</p>

PROBLEM AND/OR POSSIBLE CAUSE	SOLUTION
<b>THE REPLACE BATTERY LED IS ILLUMINATED</b>	
<i>Replace battery</i> LED flashes and short beep is emitted every two seconds to indicate the battery is disconnected.	Check that the battery connectors are fully engaged.
Weak battery.	Allow the battery to recharge for 24 hours. Then, perform a self-test. If the problem persists after recharging, replace the battery.
Failure of a battery self-test.	The uninterruptible power supply emits short beeps for one minute and the <i>replace battery</i> LED illuminates. The uninterruptible power supply repeats the alarm every five hours. Perform the self-test procedure after the battery has charged for 24 hours to confirm the <i>replace battery</i> condition. The alarm stops and the LED clears if the battery passes the self-test.
<b>THE SITE WIRING FAULT LED ON THE REAR PANEL IS ILLUMINATED (750TLV, 1000TLV &amp; 1500TLV MODELS ONLY)</b>	
The uninterruptible power supply is plugged into an improperly wired utility power outlet.	Wiring faults detected include missing ground, hot-neutral polarity reversal, and overloaded neutral circuit. Contact a qualified electrician to correct the building wiring.
<b>THE INPUT CIRCUIT BREAKER HAS TRIPPED</b>	
The plunger on the circuit breaker pops out.	Reduce the load on the uninterruptible power supply by unplugging equipment. Press in the plunger on the circuit breaker.
<b>THE AVR BOOST OR TRIM LEDS ARE ILLUMINATED</b>	
Your system is experiencing excessive periods of low or high voltage.	Have qualified service personnel check your facility for electrical problems. If the problem continues, contact the utility company for further assistance.
<b>UNINTERRUPTIBLE POWER SUPPLY OPERATES ON BATTERY ALTHOUGH NORMAL LINE VOLTAGE EXISTS</b>	
The uninterruptible power supply input circuit breaker tripped.	To reduce the load on the uninterruptible power supply, unplug equipment and press in the plunger on the circuit breaker.
Very high, low, or distorted line voltage.	Move the uninterruptible power supply to a different outlet on a different circuit, as inexpensive fuel powered generators may distort the voltage. Test the input voltage with the utility voltage display (see <i>Operation</i> ). If acceptable to the connected equipment, reduce the uninterruptible power supply sensitivity.
<b>BATTERY CHARGE AND BATTERY LOAD LEDS FLASH SIMULTANEOUSLY</b>	
The uninterruptible power supply has shutdown. The internal temperature of the uninterruptible power supply has exceeded the allowable threshold for safe operation.	Check that the room temperature is within the specified limits for operation. Check that the uninterruptible power supply is properly installed, allowing for adequate ventilation. Allow the uninterruptible power supply to cool down. Restart the uninterruptible power supply. If the problem continues, contact IBM.

## 7: GETTING HELP AND TECHNICAL ASSISTANCE

If you need help, service, or technical assistance or just want more information about IBM products, you will find a wide variety of sources available from IBM to assist you. This chapter contains information about where to go for additional information about IBM and IBM products, what to do if you experience a problem with your xSeries or IntelliStation system, and whom to call for service, if it is necessary.

### Before you call

Before you call, make sure that you have taken these steps to try to solve the problem yourself:

- Check all cables to make sure they are connected.
- Check the power switches to make sure that the system is turned on.
- Use the troubleshooting information in your system documentation, and use diagnostic tools that come with your system.
- Go to the IBM Support Web site at <http://www.ibm.com/pc/support/> to check for technical information, hints, tips, and new device drivers.
- Use an IBM discussion forum on the IBM Web Site to ask questions.

You can solve many problems without outside assistance by following the troubleshooting procedures that IBM provides in the online help or in the publications that are provided with your system and software. The information that comes with your system also describes the diagnostic tests that you can perform. Most xSeries and IntelliStation systems, operating systems, and programs come with information that contains troubleshooting procedures and explanations of error messages and error codes. If you suspect a software problem, see the information for the operating system or program.

### Using the Documentation

Information about your IBM xSeries or IntelliStation system and preinstalled software, if any, is available in the documentation that comes with your system. That documentation includes printed books, online books, readme files, and help files. See the troubleshooting information in your system documentation for instructions for using the diagnostic programs. The troubleshooting information or the diagnostic programs might tell you that you need additional or updated device drivers or other software. IBM maintains pages on the World Wide Web where you can get the latest technical information and download device drivers and updates. To access these pages, go to <http://www.ibm.com/pc/support/> and follow the instructions. Also, you can order publications through the IBM Publications Ordering System at <http://www.elink.ibm.com/public/applications/publications/cgibin/pbi.cgi>.

### Getting help and information from the World Wide Web

On the World Wide Web, the IBM Web site has up-to-date information about IBM xSeries and IntelliStation products, services, and support. The address for IBM xSeries information is <http://www.ibm.com/eserver/xseries/>. The address for IBM IntelliStation information is <http://www.ibm.com/pc/intellistation/>.

You can find service information for your IBM products, including supported options, at <http://www.ibm.com/pc/support/>.

### Software service and support

Through IBM Support Line, you can get telephone assistance, for a fee, with usage, configuration, and software problems with xSeries servers, IntelliStation workstations, and appliances. For information about which products are supported by Support Line in your country or region, go to <http://www.ibm.com/services/sl/products/>.

For more information about Support Line and other IBM services, go to <http://www.ibm.com/services/>, or go to <http://www.ibm.com/planetwide/> for support telephone numbers. In the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).

### Hardware service and support

You can receive hardware service through IBM Integrated Technology Services or through your IBM reseller, if your reseller is authorized by IBM to provide warranty service. Go to <http://www.ibm.com/planetwide/> for support telephone numbers, or in the U.S. and Canada, call 1-800-IBM-SERV (1-800-426-7378).

In the U.S. and Canada, hardware service and support is available 24 hours a day, 7 days a week. In the U.K., these services are available Monday through Friday, from 9 a.m. to 6 p.m.

## Replacement part handling

If the issue cannot be resolved through any of the aforementioned steps, you will be sent a replacement part. Pack the uninterruptible power supply or the faulty component in packaging sent by IBM, and use the return label to ship back to IBM. Pack the uninterruptible power supply properly to avoid damage in transit. Never use Styrofoam beads for packaging. Damage sustained in transit is not covered under warranty.





**Attention: Always DISCONNECT THE BATTERY before shipping. The battery can remain in the uninterruptible power supply; it does not have to be removed.**

Complete the following steps.

1. Shut down and disconnect any equipment attached to the uninterruptible power supply.
2. Shut down the uninterruptible power supply, and disconnect the uninterruptible power supply input cord from the utility.
3. Disconnect the battery connector on the rear panel.

## **8: SAFETY INFORMATION**

**⚠️ إنتبه! الرجاء مراعاة السلامة والامن في معالجة او نقل الاجهزة**

	٣٢-٥٥ كجم (٧٠-١٢٠ رطل امريكي)		أقل من ١٨ كجم (أقل من ٤٠ رطل مريكي)
	أكثر من ٥٥ كجم (أكثر ١٢٠ رطل مريكي)		١٨-٣٢ كجم (٤٠-٧٠ رطل امريكي)

**تنبيه! المعلومات الأمنية المتعلقة بالكهرباء**

تشكل التيارات الكهربائية عبر أسلاك تزويد الطاقة والتلفون وشبكات الاتصال بشكل عام خطراً شديداً. فالرجاء قراءة بيانات الامن والسلامة التالية:  
الرجاء عدم وصل او قطع الاسلاك الكهربائية او تركيب هذه الاجهزة او صيانتها او تغيير ترتيباتها خلال العاصفة.  
الرجاء وصل جميع اسلاك الطاقة بمأخذ طاقة كهربائية مؤرخصة (موصولة بالارض) وذات تمديدات صحيحة.  
الرجاء وصل أية معدات توصل بهذا الجهاز بمأخذ طاقة كهربائية ذات تمديدات صحيحة.  
عند الامكان، استعمل يد واحدة فقط من أجل وصل او قطع الاسلاك الاشارية او الاتصالية.  
يُتأكد أن تدبير اي جهاز عند تواجد النار او الماء او ضرر بالمبنى.  
عليك فصل جميع اسلاك الطاقة الكهربائية واسلاك أجهزة الاتصالات وشبكات الكمبيوتر والمودم قبل فتح غطاء هذا الجهاز، إلا اذا أعطيت تعليمات أخرى في مناهج تركيب وترتيب الجهاز.  
الرجاء وصل او فصل الاسلاك بالطريقة الموصوفة في الخطوات التالية عند تركيب، نقل او فتح غطاء الجهاز او الاجهزة الاخرى الموصولة به.

**عملية الفصل**

١. أطفئ كل شيء.
٢. أولاً عليك بفصل اسلاك الطاقة من مأخذ الطاقة.
٣. أفضل الاسلاك الاتصالية او الاشارية من أمكنة التوصيل.
٤. أفضل جميع الاسلاك من الاجهزة.

**عملية الوصل**

١. أطفئ كل شيء.
٢. أولاً عليك بوصل جميع الاسلاك بالاجهزة.
٣. قم بوصل الاسلاك الاتصالية او الاشارية بامكنة التوصيل.
٤. قم بوصل اسلاك الطاقة بمأخذ الطاقة الكهربائية.
٥. شغل أو أدر الجهاز الآن.

- لا تعمل بمفردك عند تواجد الخطر.
- قد يسبب التيار العالي عبر الاسلاك الموصلة حروفاً خطيرة.
- تأكد من سلامة أسلاك الطاقة والمقيس والقابس.
- ننصح بأن تغيير القابس على أجهزة ال "يو.بي.اس" UPS يتم من قبل اختصاصيون فنيون.
- عندما لا يمكن التحقق من وجود الوصلة الارضية، عندها عليك بفصل الجهاز من مأخذ الطاقة الكهربائية قبل التركيب او التوصيل بجهزة أخرى. يمكنك وصل اسلاك الطاقة بعد عمل جميع الوصلات الاخرى.
- لا تلمس أية وصلة معدنية قبل فصل الطاقة الكهربائية.
- قم بتوصيل الجهاز بمأخذ طاقة كهربائية ثلاثي (قطبين بالإضافة الى طرف أرضي). يجب توصيل المقبس بتيار فرعي مناسب او الخط الرئيسي الذي هو تحت الحماية (الحماية بالفيز أو قاطع الدائرة الكهربائية). قد يؤدي التوصيل بأي نوع آخر من المقابس الى حدوث صدمة كهربائية.
- لموديلات ال "اتش. في." HV فقط:
- ليتم الالتزام مع توجيه التوافق الكهرومغناطيسي (EMC) للمنتجات التي يتم بيعها في أوروبا، فلا يجب أن يتعدى طول الأسلاك المتصلة بجهاز UPS على ١٠ متر.
- يجب أن لا يتعدى مقدار تسرب التيار من الجهاز المتصل أو جهاز UPS على ٣,٥ ميليبيير (ثلاثة ونصف على ألف أمبير) في حالة جهاز ال UPS من نوع A القابل الايصال بالمقبس (Pluggable A Type UPS).

**تنبيه! الملاحظات الامنية المتعلقة بفصل الطاقة**

لجهاز UPS مصدر داخلي للطاقة (البطارية). قد يتم تزويد المخرجات بالطاقة، وذلك اذا لم يكن الجهاز متصلًا بمأخذ تيار كهربائي. لفصل الطاقة عن UPS، اضغط مفتاح OFF لاييقاف تشغيل الجهاز. قم بفصل جهاز UPS عن مأخذ الطاقة الكهربائية. قم بفصل البطاريات الخارجية؛ اذا أمكن؛ مع فصل البطارية الداخلية (ارجع الى دليل المستخدم). اضغط مفتاح ON لفصل الطاقة عن المكثف الكهربائي.

**تنبيه! الملاحظات الأمنية المتعلقة بالبطارية**

يتضمن هذا الجهاز جهد كهربائي في غاية الخطورة. ارجع الى خطوات استبدال البطارية الموضحة في دليل المستخدم. لا تعرض البطاريات للنار. فقد يؤدي ذلك الى انفجارها. لا تحاول فتح أو بتر البطاريات. حيث أنها تتضمن مادة الالكتروليت والتي تعد من المواد السامة والضارة بالجلد والاعين. لتجنب التعرض لأي اصابات جسيمة أثناء استبدال البطاريات، يجب نزع الساعات المعدنية وأي حلي ترتديها مثل الخواتم. استخدم الأدوات التي لها مقابض عازلة. قم باستبدال البطاريات ببطاريات أخرى لها نفس رقم ونوع البطاريات الموجودة أساساً في الجهاز.

تأكد من تسليم البطارية القديمة التي تم تغييرها للجهة المسؤولة عن اعادة تصنيعها.



© جميع الحقوق محفوظة لشركة آي.بي.ام. IBM ، ٢٠٠٢.

ملاحظة لمستعملي هذا الدليل في حكومة الولايات المتحدة- بيانات متعلقة بالحقوق محفوظة- يخضع الاستعمال او النسخ او الكنتف الى القيود الموجودة في العقد بين ادارة الخدمات العامة GSA ADP وشركة آي.بي.ام. العلامة آي.بي.ام. IBM هي علامة تجارية لشركة أجهزة العمل الدولية International Business Machines Corporation في الولايات المتحدة، في بلدان أخرى او الاثنين معاً.



## Informações de segurança - CONSERVE ESTE GUIA

### **ATENÇÃO! Segurança na movimentação - use procedimentos seguros ao suspender o equipamento.**



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

### **ATENÇÃO! Segurança do sistema elétrico**

Correntes elétricas derivadas de cabos elétricos, telefônicos ou de comunicações são perigosas. Leia cuidadosamente as recomendações de segurança a seguir.

- Não conecte ou desconecte qualquer cabo nem execute nenhum serviço de instalação, manutenção ou reconfiguração neste produto durante uma tempestade elétrica.
- Conecte todos os cabos elétricos a uma tomada devidamente instalada que possua aterramento.
- Ligue todos os equipamentos que serão conectados neste produto em tomadas com fiação apropriada.
- Quando possível, use somente uma mão para conectar e desconectar cabos de sinal.
- Nunca ligue nenhum equipamento quando houver indícios de fogo, água ou danos estruturais.
- Desligue os fios elétricos, sistemas de comunicações, redes e modems antes de abrir as tampas dos aparelhos, a menos que indicado de outra maneira nos procedimentos de instalação e configuração.
- Ao instalar, mover ou abrir tampas deste produto ou de aparelhos a ele conectados, conecte e desconecte os cabos como descrito nas etapas a seguir.

#### Para ligar:

1. DESLIGAR tudo.
2. Primeiramente, conecte todos os cabos nos aparelhos.
3. Ligue os cabos de sinal nos conectores.
4. Ligue os fios elétricos nas tomadas.
5. LIGUE o aparelho.

#### Para desligar:

1. DESLIGUE tudo.
2. Primeiramente, retire os fios elétricos da tomada.
3. Retire os cabos de sinal dos conectores.
4. Retire todos os cabos dos aparelhos.

- Não trabalhe sozinho em condições de risco.
- Correntes altas em materiais condutores podem causar queimaduras graves.
- Verifique se os fios elétricos, plugues e soquetes estão em boas condições.
- A troca do plugue do no-break deve ser feita por eletricitistas qualificados.
- Quando não for possível verificar a existência de aterramento, desconecte o equipamento da tomada da rede elétrica antes de instalar ou conectá-lo a outros equipamentos. Só volte a reconectar o fio de eletricidade após terminar de fazer todas as conexões.
- Não segure nenhum conector metálico se a força não estiver desligada.
- Conecte o equipamento em uma tomada de três orifícios (dois pólos e terra). A tomada deverá estar conectada num circuito ramal/linha principal com proteção adequada (fusível ou disjuntor). A conexão em qualquer outro tipo de tomada pode acarretar risco de choque elétrico.
- *Apenas modelos HV:*
  - Para manter a conformidade com a diretiva EMC referente a produtos vendidos na Europa, o comprimento máximo dos fios de saída conectados ao no-break não pode exceder 10 metros.
  - A fuga de corrente total dos equipamentos conectados e do no-break não deverá exceder 3,5 mA em no-breaks conectáveis do tipo A.

### **ATENÇÃO! Como desligar a energia com segurança**

- O no-break possui uma fonte de energia interna, a bateria. A saída elétrica poderá estar energizada mesmo quando a unidade não estiver conectada a uma tomada da rede elétrica.
- Para desligar a energia do no-break, pressione o botão DESLIGAR para desativar o equipamento. Retire o no-break da tomada elétrica. Desconecte as baterias externas, onde existentes, e desconecte a bateria interna (consulte o *Guia de Instalação e Operação*). Pressione o botão de força (ON) para desenergizar os capacitores.

### **ATENÇÃO! Segurança no manuseio da bateria**

- **Este equipamento contém tensões potencialmente perigosas.** Consulte a documentação do produto para saber quais as peças que podem ser substituídas pelo usuário.
- Não jogue as baterias no fogo pois elas podem explodir.
- Não abra nem destrua as baterias. Elas contêm um eletrólito que é tóxico e nocivo à pele e aos olhos.
- Para evitar ferimentos causados por eletricidade, retire relógios e jóias, tais como anéis, quando substituir a bateria. Use ferramentas com cabos isolados.
- Substitua o módulo da bateria por outro com o mesmo número e do mesmo tipo que o instalado originalmente no equipamento.




**Lembre-se de levar a bateria antiga para uma estação de reciclagem.**

© Copyright International Business Machines Corporation, 2002. Todos os direitos reservados.  
Observação para os usuários do governo dos EUA – Documentação relativa a restrição de direitos – O uso, duplicação ou divulgação está sujeito a restrições estabelecidas no contrato com a IBM Corp. (GSA ADP Schedule Contract).

IBM é uma marca comercial da International Business Machines Corporation nos EUA, em outros países ou em ambos.



# IBM® 重要的安全指示 – 注意保留


 **警告！操作安全 - 搬动重物时请小心。**

 <18 千克 (<40 磅)


 32-55 千克 (70-120 磅)



 18-32 千克 (40-70 磅)

 >55 千克 (>120 磅)


 >10°

 **警告！电气安全**


电源、电话和通讯线路中的电流是危险的。请阅读以下安全声明。

- 发生雷电风暴时，不要连接或撤除任何缆线，也不要安装、维护或重新配置本产品。
- 将电源线插入正确接线和接地的插座。
- 任何与本产品连接的设备也要插入正确接线的插座。
- 如果可能的话，只用单手插拔信号线。
- 如有证据表明已发生火灾、水淹或结构损坏，不要打开任何设备的开关。
- 打开设备封盖之前，撤除连接的电源线、通讯系统、网络和调制解调器，除非安装与配置手册另有指示。
- 在安装和搬动本产品及连接设备，或打开封盖时，采用下列步骤连接和撤除缆线。

<b>连接：</b> <ol style="list-style-type: none"><li>1. 关掉所有设备开关。</li><li>2. 将所有缆线与设备接好。</li><li>3. 将信号线与接头连接。</li><li>4. 将电源线插入插座。</li><li>5. 打开设备开关。</li></ol>	<b>撤除：</b> <ol style="list-style-type: none"><li>1. 关掉所有设备开关。</li><li>2. 将电源线从插座拔出。</li><li>3. 将信号线与接头分离。</li><li>4. 将所有缆线与设备分离。</li></ol>
--	--
- 在危险条件下，请勿单独一人工作。
- 高的短路电流通过导电物质时可以造成严重烧伤。
- 检查并确认电源线、插头及插座状态完好。
- 只有合格的维修人员才可更换 UPS 上的插头。
- 当不能证实接地情况时，在安装设备或与其它设备作连接前，应将设备与交流电源断开。只有当所有的连接都做好以后，才能重新接通电源。
- 操作任何金属接头前，务必断开电源。
- 连接设备时，应采用三线交流接线（两条火线，一条地线）。插座应连接于合适的支线（或干线）保护装置（保险丝或断路器）。采用其它类型的插座可能导致触电危险。
- *只 HV 型号：*
  - 为遵照欧洲产品之 EMC 规定，与 UPS 连接之输出电缆长度不得超过 10 米。
  - 对于插入式 A 类设备，连接设备和 UPS 的总泄漏电流不得超过 3.5 mA。

 **小心！消电安全 (De-energizing)**

- 本 UPS 设备带有内部电源（电池），即使该设备未与交流电源相连，其输出端也可能带电。
- 为了对 UPS 消电，首先按 OFF 按钮将设备关闭，然后将 UPS 与交流电源断开。断开外部电池（如果有的话）及内部电池（参见 *使用与安装手册*），按 ON 按钮以消去电容器的储蓄电能。

 **警告！电池安全**

- 此设备具有潜在的电压。请参阅产品文文件以确定哪些零件可由用户自行更换。
- 请勿将电池扔进火中，以免引起爆炸。
- 请勿打开或损毁电池，因为电池中含有有毒的电解液，对皮肤和眼睛都有害。
- 为避免触电等事故，在更换电池时应取下手表和诸如戒指之类的首饰。所使用的工具应带有绝缘手柄。
- 更换的电池或电池组件，其数量与型号均应与设备原装的一样。





请将旧电池送到回收中心。

©Copyright International Business Machines Corporation, 2002. All rights reserved.

美国联邦政府用户请注意 – 本文件涉及限制权力 – 对使用、复制和披露的限制列于与 IBM 公司签定的 GSA ADP 大宗合约。  
IBM 是国际商业机器公司在美国、其它国家、或二者注册的商标。

# IBM® 重要的安全指示 – 注意保留


 警告！操作安全 - 搬動重物時請小心。

 <18 千克 (<40 磅)


 32-55 千克 (70-120 磅)



 18-32 千克 (40-70 磅)

 >55 千克 (>120 磅)

 >10°

 警告！電氣安全

電源、電話和通訊纜線中的電流是危險的。請閱讀以下安全聲明。

- 發生雷電風暴時，不要連接或撤除任何纜線，也不要安裝、維護或重新配置本產品。
- 將電源線插入正確接線和接地的插座。
- 任何與本產品連接的設備也要插入正確接線的插座。
- 如果可能的話，只用單手插拔信號線。
- 如有證據表明已發生火災、水淹或結構損壞，不要打開任何設備的開關。
- 打開設備封蓋之前，撤除連接的電源線、通訊系統、網路和數據機，除非安裝與配置手冊另有指示。
- 在安裝和搬動本產品及連接設備，或打開封蓋時，採用下列步驟連接和撤除纜線。

連接：	撤除：
1. 關掉所有設備開關。	1. 關掉所有設備開關。
2. 將所有纜線與設備接好。	2. 將電源線從插座拔出。
3. 將信號線與接頭連接。	3. 將信號線與接頭分離。
4. 將電源線插入插座。	4. 將所有纜線與設備分離。
5. 打開設備開關。	
- 在危險條件下，請勿單獨一人工作。
- 高的短路電流通過導電物質時可以造成嚴重燒傷。
- 檢查並確認電源線、插頭及插座狀態完好。
- 只有合格的維修人員才可更換 UPS 上的插頭。
- 當不能證實接地情況時，在安裝設備或與其他設備作連接前，應將設備與交流電源斷開。只有當所有的連接都做好以後，才能重新接通電源。
- 操作任何金屬接頭前，務必斷開電源。
- 連接設備時，應採用三線交流接線（兩條火線，一條地線）。插座應連接於合適的支線（或幹線）保護裝置（保險絲或斷路器）。採用其他類型的插座可能導致觸電危險。
- 只 HV 型號：
  - 為遵照歐洲產品之 EMC 規定，與 UPS 連接之輸出電纜長度不得超過 10 米。
  - 對於插入式 A 類設備，連接設備和 UPS 的總泄漏電流不得超過 3.5 mA。

 小心！消電安全 (De-energizing)

- 本 UPS 設備帶有內部電源（電池），即使該設備未與交流電源相連，其輸出端也可能帶電。
- 為了對 UPS 消電，首先按 OFF 按鈕將設備關閉，然後將 UPS 與交流電源斷開。斷開外部電池（如果有的話）及內部電池（參見使用與安裝手冊），按 ON 按鈕以消去電容器的儲蓄電能。

 警告！電池安全

- 此設備具有潛在的危險電壓。請參閱產品文檔以確定哪些零件可由用戶自行更換。
- 請勿將電池扔進火中，以免引起爆炸。
- 請勿打開或損毀電池，因為電池中含有有毒的電解液，對皮膚和眼睛都有害。
- 為避免觸電等事故，在更換電池時應取下手錶和諸如戒指之類的首飾。所使用的工具應帶有絕緣手柄。
- 更換的電池或電池組件，其數量與型號均應與設備原裝的一樣。



請將舊電池送到回收中心。

©Copyright International Business Machines Corporation, 2002. All rights reserved.

美國聯邦政府用戶請注意 – 本文件涉及限制權力 – 對使用、複製和披露的限制列於與 IBM 公司簽定的 GSA ADP 大宗合約。

IBM 是國際商業機器公司在美國、其他國家、或二者註冊的商標。



## Sigurnosne informacije – SAČUVAJTE OVAJ VODIČ

### **OPREZ! Sigurnost rukovanja – Koristite sigurne metode dizanja.**



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

### **OPREZ! Električna sigurnost**

Električni napon iz strujnih, telefonskih i komunikacijskih kablova je opasan. Pročitajte sljedeća sigurnosna uputstva.

- Ne spajajte i ne odvajajte kablove i ne instalirajte, ne opravljajte i ne rekonfigurirajte ovaj proizvod tijekom nepogode s grmljavinom.
- Priključite sve strujne kablove na prikladno ožičene i uzemljene električne utičnice.
- Svu opremu koja će se spajati na ovaj proizvod priključite na prikladno ožičene utičnice.
- Kad je moguće, koristite samo jednu ruku da spojite ili odvojite signalne kablove.
- Nikada ne uključujte opremu ako postoje naznake vatre, vode ili strukturalnog oštećenja.
- Odvojite spojene strujne kablove, telekomunikacijske sisteme, mreže i modeme prije no što skinete masku naprave, ukoliko nije drugačije naznačeno u uputama za instaliranje i konfiguriranje.
- Prema dole navedenim koracima spojite i odvojite kablove pri instaliranju, pomjeranju ili skidanju maski na ovom proizvodu ili na spojenim napravama.
 

<b>Da spojite:</b> <ol style="list-style-type: none"> <li>1. Isključite sve.</li> <li>2. Prvo spojite sve kablove na napravu.</li> <li>3. Spojite signalne kablove na konektore.</li> <li>4. Uključite strujni kabal u utičnicu.</li> <li>5. Uključite napravu.</li> </ol>	<b>Da odvojite:</b> <ol style="list-style-type: none"> <li>1. Isključite sve.</li> <li>2. Prvo isključite strujni kabal iz utičnice.</li> <li>3. Odstranite signalne kablove iz konektora.</li> <li>4. Odstranite sve kablove iz naprave.</li> </ol>
--	--
- Ne radite sami u rizičnim uvjetima.
- Visoki napon u provodnim materijalima može prouzročiti ozbiljne opekline.
- Provjerite da li su strujni kablovi, utičnice i utikači u dobrom stanju.
- Koristite kvalificirano osoblje za promjenu utikača na UPS-u.
- Kad se uzemljenje ne može provjeriti, isključite opremu iz utičnice električne struje prije instaliranja i konektiranja na drugu opremu. Ponovno uključite strujni kabal tek nakon što ste obavili sva povezivanja.
- Ne dodirujte ni jedan metalni konektor prije no što je isključen dotok struje.
- Uključite opremu u trožilnu utičnicu (dvije faze plus zemlja). Utičnica mora biti spojena na odgovarajući granski krug/mrežnu zaštitu (osigurač ili prekidač strujnog kola). Spajanje na bilo koji drugi tip utičnice može rezultirati rizikom od električnog udara.
- *Samo HV modeli:*
  - Da bi se zadržala usklađenost s EMC direktivnom za proizvode koji se prodaju u Europi, izlazne žice spojene na UPS ne smiju biti duže od 10 metara.
  - Cjelokupni protok struje iz spojene opreme i UPS-a ne smije premašiti 3.5 mA za A tip UPS-a.

### **OPREZ! Sigurnost deenergiziranja**

- UPS ima interni izvor energije, bateriju. Izlaz može biti pod naponom kada jedinica nije priključena na strujnu utičnicu.
- Da uklonite napon iz UPS-a, pritisnite OFF gumb (prekidač) da isključite opremu. Isključite UPS iz struje. Iskopčajte vanjske baterije gdje je to moguće i iskopčajte internu bateriju (pogledajte *Priručnik za korisnike*). Pritisnite ON gumb da deenergizirate kondenzatore.

### **OPREZ! Sigurnost baterije**

- **Ova oprema sadrži potencijalno opasne voltaže.** Pogledajte dokumentaciju proizvoda da utvrdite koje dijelove može izmijeniti korisnik.
- Ne odbacujte baterije u vatru; baterije mogu eksplodirati.
- Ne otvarajte i ne uništavajte baterije. One sadrže elektrolit koji je otrovan i štetan za kožu i oči.
- Da izbjegnute ozljede usljed opasnog napona, kod zamjene baterija skinite ručni sat i nakit kao što je prstenje. Koristite alat s izoliranim ručkama.
- Zamijenite bateriju s istim brojem i tipom baterije koja je originalno instalirana u opremi.



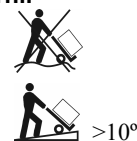
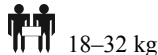
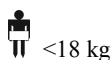
**Ne zaboravite dostaviti iskorištenu bateriju u odlagalište za recikliranje.**

© Autorsko pravo International Business Machines Corporation, 2002. Sva prava pridržana.

Napomena za korisnike iz Vlade SAD – Dokumentacija vezana za ograničena prava – Uporaba, kopiranje ili objavljivanje podliježe ograničenjima specificiranim u GSA ADP Ugovoru s IBM Corp.

IBM je zaštitni znak za International Business Machines Corporation u Sjedinjenim Američkim Državama i drugim zemljama.

## **POZOR! Bezpečnost při manipulaci – při zdvihání břemen buďte opatrní.**



## **POZOR! Bezpečnost při manipulaci s elektrickým zařízením**

Elektrický proud z veřejné sítě, telefonní linky a komunikačních kabelů představuje určité riziko. Přečtěte si prosím následující bezpečnostní údaje.

- Nezapojujte ani neodpojujte žádné kabely ani neprovádějte instalaci, údržbu či rekonfiguraci tohoto výrobku během bouřky.
- Připojte veškeré napájecí kabely do řádně uzemněné elektrické zásuvky se správnou elektroinstalací.
- Veškerá zařízení, které budou napojena na tento výrobek, je třeba zapojit do elektrické zásuvky se správnou elektroinstalací.
- Je-li to možné, provádějte zapojování a odpojování signálních kabelů pouze jednou rukou.
- Nikdy žádná zařízení nezapínejte jestliže jsou patrné známky po ohni, vodě či strukturálním poškození.
- Před otevřením krytu tohoto zařízení odpojte připojené napájecí kabely, telekomunikační systémy, sítě a modemy, pokud neobdržíte jiné pokyny při instalačních a konfiguračních postupech.
- Při instalaci, přemísťování či otevírání krytu tohoto výrobku či přídavných zařízení připojte a odpojte kabely podle níže uvedených pokynů.
 

<b>Zapojení:</b> <ol style="list-style-type: none"> <li>1. VYPNĚTE veškerá zařízení.</li> <li>2. Nejdříve zapojte kabely všech zařízení.</li> <li>3. Připojte signální kabely ke konektorům.</li> <li>4. Zapojte napájecí kabely do zásuvky.</li> <li>5. ZAPNĚTE zařízení.</li> </ol>	<b>Odpojení:</b> <ol style="list-style-type: none"> <li>1. VYPNĚTE veškerá zařízení.</li> <li>2. Nejdříve odpojte napájecí kabely ze zásuvky.</li> <li>3. Odpojte signální kabely od konektorů.</li> <li>4. Odpojte veškeré kabely od zařízení.</li> </ol>
---	--
- V rizikových podmínkách nepracujte sami.
- Vysoké napětí ve vodivých materiálech může způsobit vážné popáleniny.
- Zkontrolujte, zda jsou napájecí kabely, zástrčky a zásuvky v pořádku.
- Výměnu zástrčky na zařízení UPS by měl provádět kvalifikovaný personál.
- Jestliže nelze ověřit uzemnění, odpojte zařízení od rozvodu veřejné sítě a teprve poté můžete instalovat či připojovat další zařízení. Napájecí kabel znovu zapojte až po provedení všech ostatních zapojení.
- Nedotýkejte se žádných kovových konektorů pokud není zdroj odpojen.
- Zapojte zařízení do zásuvky se třemi vodiči (dva póly a uzemnění). Zásuvka musí být napojena na místní rozvod veřejné sítě s náležitou ochranou (pojistka nebo jistič). Zapojení do jakékoli jiné zásuvky může způsobit riziko elektrického šoku.
- *Pouze modely HV:*
  - K dodržování nařízení EMC pro výrobky prodávané v Evropě nesmí výstupní kabely připojené k jednotce UPS přesahovat délku 10 metrů.
  - Celkový svodový proud z připojeného vybavení a jednotky UPS nesmí přesahovat 3,5 mA pro jednotky UPS typu A určené k zapojení do zásuvky.

## **POZOR! Bezpečnost při vypínání**

- Jednotka se vyznačuje vnitřním zdrojem energie, tj. obsahuje baterii. Výstup tedy může být pod proudem i v době, kdy jednotka není zapojena do rozvodu veřejné sítě.
- K vypnutí jednotky UPS stiskněte tlačítko OFF (Vypnout), čímž vypnete připojená zařízení. Odpojte jednotku UPS od síťového rozvodu. Odpojte externí baterie, jsou-li připojené, a odpojte vnitřní baterii (viz *Příručku pro provoz a nastavení*). Stisknutím tlačítka ON (Zapnout) vybijete kondenzátory.

## **POZOR! Bezpečnost při manipulaci s baterií**

- **Toto zařízení může obsahovat potenciálně nebezpečná napětí.** Informace o tom, které části smí vyměňovat uživatel, naleznete v dokumentaci k tomuto výrobku.
- Baterie nevhazujte do ohně; může dojít k jejich explozi.
- Baterie neotvírejte ani nepoškozujte. Obsahují toxický elektrolyt, který může poškodit pokožku a zrak.
- Abyste zabránili poranění v důsledku elektrického šoku, při výměně baterií sejměte náramkové hodinky a šperky jako např. prsteny. Používejte nářadí s izolovanými rukojeťmi.
- Nahradte bateriový modul stejným číslem a typem, jako bylo číslo a typ původně nainstalovaný ve vybavení.



**Nezapomeňte odevzdat vybité baterie k recyklaci.**

© Copyright International Business Machines Corporation, 2002. Všechna práva vyhrazena.

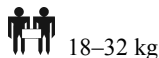
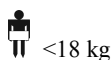
Upozornění pro vládní uživatele v USA – Dokumentace týkající se omezených práv – Použití, duplikace a vyzrazení podléhají omezením uvedeným v kontraktu GSA ADP se společností IBM Corp.

IBM je ochranná známka společnosti International Business Machines Corporation ve Spojených státech, v jiných zemích, nebo ve Spojených státech i v jiných zemích současně.



## Sikkerhedsoplysninger – GEM DISSE OPLYSNINGER

### **PAS PÅ! Sikkerhed ved håndtering – Anvend sikkerhedsforskrifter ved løftning.**



### **PAS PÅ! Sikkerhed ved elektricitet**

Elektrisk strøm fra el-, telefon- og kommunikationskabler er farlig. Læs venligst følgende sikkerhedserklæringer.

- Tilslut og afbryd ikke nogle kabler og udfør ikke installation, vedligeholdelse eller konfiguration i tordenvejr.
- Tilslut alle elledninger til en stikkontakt, som er korrekt tilsluttet og jordforbundet.
- Tilslut alt udstyr, som skal sluttes til dette produkt, til stikkontakter, der er korrekt tilsluttede.
- Når det er muligt, bør kun én hånd bruges til tilslutning og afbrydelse af signalkabler.
- Tænd aldrig for noget udstyr, når der er tegn på brand, vand eller bygningsskade.
- Afbryd de tilsluttede elledninger, telekommunikationssystemer, netværk og modem, før anordningens hylster åbnes, medmindre installations- og konfigurationsprocedurerne instruerer anderledes.
- Tilslut og afbryd kabler som beskrevet i følgende punkter, når dette produkt eller tilsluttede anordninger installeres, flyttes eller når hylstre åbnes.
 

<b>Tilslutning:</b>	<b>Afbrydelse:</b>
1. Sluk for alting (OFF).	1. Sluk for alting (OFF).
2. Tilslut først alle kabler til anordninger.	2. Fjern først elledninger fra stikkontakt.
3. Tilslut signalkabler til forbindelsesstik.	3. Fjern signalkabler fra forbindelsesstik.
4. Sæt elledninger i stikkontakt.	4. Fjern alle kabler fra anordninger.
5. Tænd for anordningen (ON).	
- Arbejd ikke alene under farlige forhold.
- Høj spænding gennem ledende materialer kan medføre alvorlige forbrændinger.
- Kontrollér at elledning(er), stik og stikkontakter er i forsvarlig tilstand.
- Brug kvalificeret servicepersonale til at skifte stikket på UPS-enheden.
- Hvis jordforbindelsen ikke kan kontrolleres, afbrydes udstyret fra kraftstikket, før installation og før tilslutning til andet udstyr. Tilslut først elledningen, når alle andre tilslutninger er udført.
- Rør ikke metalstik, før strømmen er blevet afbrudt.
- Tilslut udstyret til en stikkontakt med jordforbindelse. Stikkontakten skal være tilsluttet bygningens net med tilhørende HIFI-relæ. Forbindelse til andre typer stikkontakt kan medføre risiko for elektrisk stød.
- *Kun højspændingsmodeller:*
  - For at overholde EMC-direktivet for produkter, der sælges i Europa, må udgangsledninger, der er forbundet til UPS-enheden, ikke have en længde på mere end 10 meter.
  - Den samlede afladningsstrøm fra tilsluttet udstyr og UPS-enheden må ikke overstige 3.5 mA for en A Type UPS-enhed, der kan tilsluttes.

### **PAS PÅ! Sikkerhed ved afkobling**

- UPS-enheden har en intern energikilde, batteriet. Udgangsstikket kan være strømførende, selvom enheden ikke er tilsluttet en stikkontakt.
- Fjern strømmen fra UPS-enheden ved at trykke på OFF-knappen for at slukke for udstyret. Tag UPS-enheden ud af stikkontakten. Afmonter de eksterne batterier, hvis det er muligt, og afmonter det interne batteri (der henvises til *Betjenings- og opstillingsvejledningen*). Tryk på ON-knappen for at afbryde kondensatorerne.

### **PAS PÅ! Sikkerhed ved batteri**

- **Dette udstyr kan indeholde farlig spænding.** Der henvises til produktokumentationen for at afgøre, hvilke dele kan udskiftes af brugeren.
- Brænd ikke batterierne. De kan eksplodere.
- Åbn eller ødelæg ikke batterierne. De indeholder en elektrolyt, som er giftig og skadelig for hud og øjne.
- Fjern armbåndsurs og smykker, som f.eks. ringe, når batterierne udskiftes, for at undgå tilskadecomst på grund af elektrisk stød. Brug værktøj med isolerede håndtag.
- Udskift batterimodul med batterier af samme nummer og type som de batterier, der oprindeligt var installeret i udstyret.



Aflever de brugte batterier i overensstemmelse med de gældende miljøbestemmelser.

© Copyright International Business Machines Corporation, 2002. Alle rettigheder forbeholdes.

Bemærkning til brugere i den amerikanske regering – Dokumentation med hensyn til begrænsede rettigheder – Anvendelse, kopiering eller offentliggørelse er underlagt restriktionerne fremstillet i GSA ADP Schedule Contract med IBM Corp.

IBM er et varemærke tilhørende International Business Machines Corporation i Amerikas Forende Stater, andre lande eller begge dele



## Veiligheidsinformatie – BEWAAR DEZE GIDS

 **LET OP! Veilig hanteren – Pas bij het optillen veilige praktijken toe.**



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

  **LET OP! Elektrische veiligheid**

**Elektrische stroom van netsnoeren en telefoon- en communicatiekabels is gevaarlijk. Lees de volgende veiligheidsinformatie.**

- Bij onweer geen kabels aansluiten of loskoppelen en geen installatie-, onderhouds- of configuratiewerkzaamheden aan dit product uitvoeren.
- Sluit alle netsnoeren aan op een goed bedraad en geaard stopcontact.
- Sluit alle apparatuur die op dit product wordt aangesloten aan op goed bedrade stopcontacten.
- Gebruik indien mogelijk slechts één hand om signaalkabels aan te sluiten of los te koppelen.
- Zet nooit apparatuur aan wanneer er tekenen zijn van brand-, water- of constructieschade.
- Koppel de aangesloten netsnoeren, telecommunicatiesystemen, netwerken en modems los voordat u de deksels van het apparaat opent, tenzij de instructies voor de installatie- en configuratieprocedures anders voorschrijven.
- Sluit kabels aan en koppel ze los zoals beschreven in de volgende stappen wanneer u het product of aangesloten apparatuur installeert, verplaatst of de deksels ervan opent.

#### Aansluiten:

1. Alles uitzetten.
2. Eerst alle kabels aan apparatuur bevestigen.
3. Signaalkabels aan connectors bevestigen.
4. Netsnoeren op stopcontact aansluiten.
5. Apparaat aanzetten.

#### Loskoppelen:

1. Alles uitzetten.
2. Eerst stekkers van netsnoeren uit stopcontact halen.
3. Signaalkabels uit connectors verwijderen.
4. Alle kabels van apparatuur verwijderen.

- Werk onder gevaarlijke omstandigheden niet alleen.
- Hoge spanning via geleidende materialen kan ernstige brandwonden veroorzaken.
- Controleer of de elektrische snoeren, stekkers en stekkerdozen in goede staat zijn.
- Laat de stekker op de UPS vervangen door bevoegd servicepersoneel.
- Trek de stekker van het apparaat uit het wandstopcontact alvorens het te installeren of op andere apparatuur aan te sluiten wanneer de aarding niet geverifieerd kan worden. Sluit het elektrische snoer pas weer aan nadat alle aansluitingen zijn gemaakt.
- Raak geen enkele metalen connector aan voordat de stroom is uitgeschakeld.
- Sluit de apparatuur aan op een wandstopcontact met drie draden (twee polen plus aarde). Het stopcontact moet op netvoeding met geschikte bescherming (zekering of stroomonderbreker) zijn aangesloten. Aansluiting op een ander type stopcontact kan risico van elektrische schok geven.
- *Alleen HV modellen:*
  - Om te voldoen aan de EMC-richtlijn voor in Europa verkochte producten mogen de aan de UPS bevestigde snoeren niet meer dan 10 meter lang zijn.
  - De totale lekstroom van aangesloten apparatuur en de UPS mag niet groter zijn dan 3.5 mA voor een insteekbare UPS, Type A.

  **LET OP! Veiligheid bij het deactiveren**

- De UPS heeft een interne energiebron, de batterij. De output kan onder stroom staan wanneer het apparaat niet op een wandstopcontact is aangesloten.
- Om de UPS te deactiveren, drukt u op de UIT-knop om het apparaat uit te schakelen. Haal de stekker van de UPS uit het stopcontact. Schakel de externe batterijen uit waar van toepassing en schakel de interne batterij uit (zie de gids voor bediening en instelling). Druk op de AAN-knop om de condensators te deactiveren.

  **LET OP! Veiligheid van de batterij**

- **Deze apparatuur bevat mogelijk gevaarlijke spanning.** Raadpleeg de documentatie bij het product om te bepalen welke onderdelen door de gebruiker vervangen kunnen worden.
- Verbrand de batterijen niet. Ze kunnen ontploffen.
- De batterijen mogen niet geopend of vernield worden. Ze bevatten een elektrolyt die giftig en schadelijk voor de huid en ogen is.
- Om letsel als gevolg van gevaarlijke stroom te voorkomen, moet u polshorloges en sieraden zoals ringen uitdoen wanneer u de batterijen vervangt. Gebruik gereedschap met geïsoleerde handvatten.
- Vervang de batterijmodule door hetzelfde aantal en type als oorspronkelijk in deze apparatuur waren aangebracht



**Zorg dat u de gebruikte batterij naar een recyclingstation brengt.**

© Copyright International Business Machines Corporation, 2002. Alle rechten voorbehouden.

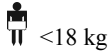
Opmerking voor Amerikaanse overheidsgebruikers – Documentatie betreffende beperkte rechten – Gebruik, vermenigvuldiging of onthulling is onderworpen aan beperkingen uiteengezet in GSA ADP Schedule Contract met IBM Corp.

IBM is een handelsmerk van International Business Machines Corporation in de Verenigde Staten, andere landen of beide.



## Turvallisuustietoja – SÄILYTÄ TÄMÄ OPAS

### **VAROITUS! Käsittelyturvallisuus – suorita nostaminen turvallisesti.**



<18 kg



32–55 kg



18–32 kg



>55 kg



>10°

### **VAROITUS! Sähköturvallisuus**

Verkko-, puhelin- ja tiedonsiirtokaapeleista tuleva sähkövirta on vaarallista. Lue seuraavat turvaohjeet.

- Älä kytke tai irrota kaapeleita tai tee tälle tuotteelle asennus- tai kunnossapitotöitä tai muuta sen kokoonpanoa ukkosen aikana.
- Liitä kaikki verkkojohdot oikein asennettuun ja maadoitettuun pistorasiaan.
- Liitä kaikki tähän tuotteeseen kytkettävät laitteet oikein asennettuihin pistorasioihin.
- Jos mahdollista, käytä signaalikaapeleiden kytkemiseen ja irrottamiseen vain yhtä kättä.
- Älä koskaan kytke mihinkään laitteeseen virtaa, jos siinä näkyy merkkejä palo-, vesi- tai rakenneaurioista.
- Kytke irti verkkojohdot, tietoliikennejärjestelmät, verkot ja modeemit ennen kuin avaat laitteen suojuksia, ellei asennus- tai kokoonpano-ohjeissa ole toisin mainittu.
- Kytke ja irrota kaapelit seuraavalla tavalla, kun asennat tai siirrät tätä tuotetta tai siihen kytkettyjä laitteita tai avaat niissä olevia suojuksia.
 

<b>Kytkeminen:</b>	<b>Irrottaminen:</b>
1. Kytke kaikki POIS päältä.	1. Kytke kaikki POIS päältä.
2. Kiinnitä ensin kaikki kaapelit laitteisiin.	2. Irrota ensin verkkojohdot pistorasiasta.
3. Kiinnitä signaalikaapelit liittimiin.	3. Irrota signaalikaapelit liittimistä.
4. Liitä verkkojohdot pistorasiaan.	4. Irrota kaikki kaapelit laitteista.
5. Kytke laite PÄÄLLE.	
- Älä työskentele yksin vaarallisissa olosuhteissa.
- Johtavien materiaalien läpi kulkeva voimakas virta voi aiheuttaa vakavia palovammoja.
- Tarkista, että verkkojohdot, pistokkeet ja pistorasiat ovat kunnossa.
- UPS-laitteen pistokkeen vaihto on annettava valtuutetun huoltohenkilöstön tehtäväksi.
- Jos et pysty tarkistamaan maadoitusta, irrota laitteen verkkojohto pistorasiasta, ennen kuin asennat tai liität laitteen muihin laitteisiin. Kytke verkkojohto vasta, kun kaikki kytkennät on tehty.
- Älä käsittele metallisia liittimiä, ennen kuin virta on katkaistu.
- Kytke laite kolmijohtimiseen pistorasiaan (kaksi napaa ja maa). Pistorasian tulee olla liitettyä asianmukaiseen ryhmäjohtoon/sähköverkon suojaukseen (varoke tai katkaisija). Muunlaisen pistorasian käyttö saattaa aiheuttaa sähköiskun.
- *Vain HV-mallit:*
  - EMC-direktiivi edellyttää, että Euroopassa myytävien tuotteiden verkkojohto, joka kytketään UPS-laitteeseen, ei saa olla yli 10 metrin pituinen.
  - Liitettyjen laitteiden ja UPS-laitteen yhteenlaskettu vuotovirta ei saa ylittää 3,5 mA:a käytettäessä vaihdettavissa olevaa tyyppiä A UPS-laitetta.

### **VAROITUS! Virransyötön katkaisua koskevat turvaohjeet**

- UPS-laitteessa on sisäinen virtalähde: akku. Laitteen virtavastakkeessa voi olla jännite, vaikka laitetta ei ole kytketty pistorasiaan.
- Katkaise virransyöttö UPS-laitteesta sulkemalla laite painamalla OFF-painiketta. Irrota UPS-laitteen verkkojohto pistorasiasta. Jos laitteessa on ulkoisia akkuja, irrota ne ja irrota sitten sisäinen akku (katso *Operation and Setup Guide* [Käyttö- ja asennusopas]). Katkaise virransyöttö kondensaattoreista painamalla ON-painiketta.

### **VAROITUS! Akkua koskevat turvaohjeet**

- **Tässä laitteessa saattaa olla vaarallinen jännite.** Katso tuotteen dokumentaatiosta, mitkä osat ovat käyttäjän vaihdettavissa.
- Älä hävitä akkuja polttamalla, koska ne voivat räjähtää.
- Älä avaa tai runtele akkuja. Akkujen sisältämä elektrolyytti on myrkyllistä, ja se voi vahingoittaa ihoa ja silmiä.
- Riisu korut, kuten sormukset ja kello, ennen kuin ryhdyt vaihtamaan akkua. Muutoin voit saada sähköiskun. Käytä työkaluja, joiden kädensijat on eristetty.
- Vaihda akkumoduuli vain sellaiseen akkumoduuliin, jonka numero ja tyyppi on sama kuin laitteen alkuperäisellä akkumoduulilla.



Toimita käytetty akku kierrätyslaitokseen.

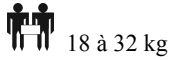
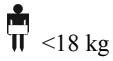
© Copyright International Business Machines Corporation, 2002. Kaikki oikeudet pidätetään.

Huomautus Yhdysvaltojen hallituksen käyttäjille – rajoitettuihin oikeuksiin liittyvä dokumentaatio – käyttöä, jäljentämistä ja ilmaisemista koskevat IBM Corporationin kanssa tehdyssä GSA ADP -sopimuksessa mainitut rajoitukset.

IBM on International Business Machines Corporationin tavaramerkki Yhdysvalloissa ja/tai muissa maissa.



## ATTENTION ! Sécurité de manutention – Attention en soulevant.



## ATTENTION ! Sécurité électrique

Le courant électrique traversant les câbles d'alimentation, de téléphone et de communication est dangereux. Lisez les instructions suivantes relatives à la sécurité.

- Évitez de connecter ou déconnecter des câbles ou de réaliser l'installation, l'entretien ou la reconfiguration de ce produit pendant un orage électrique.
- Connectez tous les câbles d'alimentation à une prise électrique correctement câblée et reliée à la terre.
- Connectez tout matériel relié à ce produit à des prises de secteur correctement câblées.
- Si possible, utilisez une main seulement pour connecter ou déconnecter les câbles d'interface.
- Ne mettez jamais le matériel en marche si des dégâts (incendie, inondation ou construction) sont évidents.
- Déconnectez les câbles d'alimentation, les systèmes de télécommunications, les réseaux et les modems branchés avant d'ouvrir les appareils, sauf indication contraire dans les procédures d'installation et de configuration.
- Connectez et déconnectez les câbles comme décrit à la procédure ci-après lors de l'installation, du déplacement ou de l'ouverture du couvercles sur ce produit ou les appareils reliés.

### Pour connecter :

1. Arrêtez TOUT.
2. Commencez par relier tous les câbles aux appareils.
3. Attachez les câbles d'interface aux connecteurs.
4. Attachez les câbles d'alimentation à la prise secteur.
5. Mettez en MARCHE l'appareil.

### Pour déconnecter :

1. Arrêtez TOUT.
2. Commencez par débrancher les câbles d'alimentation de la prise de secteur.
3. Enlevez les câbles d'interface des connecteurs.
4. Enlevez tous les câbles des différents appareils.

- Évitez d'être seul si les conditions de travail présentent un danger.
- Un courant de haute intensité traversant des matières conductrices peut causer de graves brûlures.
- Assurez-vous que les câbles d'alimentation, les prises et les connecteurs sont en bon état.
- Faites appel à du personnel d'entretien qualifié pour changer la prise sur l'onduleur.
- Lorsque la mise à la terre n'est pas vérifiable, déconnectez l'équipement de la prise de courant de secteur avant d'installer ou de connecter tout autre équipement. Reconnectez le câble d'alimentation uniquement après avoir rétabli toutes les connexions.
- Évitez de manipuler des connecteurs métalliques avant la coupure d'alimentation.
- Connectez l'équipement à une prise de secteur à trois fils (bipolaire, plus une terre). La prise femelle doit être connectée au dispositif de protection électrique approprié (fusible ou disjoncteur). La connexion à tout autre de prise peut entraîner un risque d'électrocution.
- *Modèles haute tension seulement:*
  - Pour préserver la conformité à la directive CEM des produits vendus en Europe, les câbles de sortie reliés à l'onduleur ne doivent pas dépasser 10 m.
  - Le courant de fuite total de l'équipement connecté et de l'onduleur ne doit pas dépasser 3,5 mA pour un onduleur enfichable de type A.

## ATTENTION ! Sécurité de mise hors tension

- L'onduleur dispose d'une source d'énergie interne, la batterie. La sortie peut être sous tension quand l'unité n'est pas connectée à une prise de secteur.
- Pour mettre hors tension l'onduleur, appuyez sur le bouton d'arrêt ( OFF) afin d'arrêter l'équipement. Débranchez l'onduleur de la prise de secteur. Déconnectez les batteries externes, le cas échéant, et déconnectez la batterie interne (reportez-vous au *Guide d'utilisation et de configuration*). Appuyez sur le bouton de marche (ON) pour mettre hors tension les condensateurs.

## ATTENTION ! Sécurité de batterie

- **Cet équipement contient des tensions qui peuvent s'avérer dangereuses.** Reportez-vous à la documentation du produit pour déterminer quelles pièces peuvent être remplacées par l'utilisateur.
- Évitez de jeter les batteries au feu en raison d'un risque d'explosion.
- Évitez d'ouvrir ou de mutiler des batteries. Elles contiennent un électrolyte toxique, dangereux pour la peau et les yeux.
- Pour éviter les blessures personnelles dues à l'électrocution, enlevez montres-bracelets et bijoux tels que bagues lorsque vous remplacez les batteries. Utilisez des outils à poignée isolante.
- Remplacez le module de batterie par un module du même numéro et du même type que celui installé initialement dans l'équipement.



Déposez la batterie épuisée à un centre de recyclage.

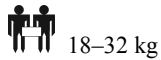
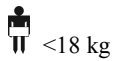
© Copyright International Business Machines Corporation, 2002. Tous droits réservés.

Note à l'intention des utilisateurs du gouvernement fédéral des États-Unis – Documentation liée à la restriction des droits – L'emploi, la duplication ou la divulgation sont sujets aux restrictions présentées dans le GSA ADP Schedule Contract passé avec IBM Corp.

IBM est une marque commerciale de International Business Machines Corporation aux États-Unis et/ou dans d'autres pays.



 **ACHTUNG! Sichere Handhabung - Seien Sie vorsichtig. Heben Sie schwere Geräte nicht ohne Hilfe.**



  **ACHTUNG! Elektrische Sicherheit**

**Elektrischer Strom von Strom-, Telefon-, und Kommunikationskabeln ist gefährlich. Bitte lesen Sie die folgenden Sicherheitsanweisungen.**

- Führen Sie an diesem Produkt während eines Gewitters keinerlei elektrische Installations- oder Wartungsarbeiten aus.
- Schließen Sie alle Stromkabel nur an fehlerfrei verdrahtete, geerdete Stromanschlüsse an.
- Vergewissern Sie sich, dass alle mit diesem Produkt verbundenen Geräte an fehlerfrei verdrahtete, geerdete Stromanschlüsse angeschlossen sind.
- Benutzen Sie, wenn möglich, nur eine Hand, um Signalkabel anzuschließen oder zu trennen.
- Schalten Sie bei Anzeichen auf Feuer-, Wasser- oder strukturellen Schäden keine Geräte ein.
- Trennen Sie, soweit in den Installations- und Konfigurationsanweisungen nicht anders beschrieben, alle Stromkabel, Kommunikationssysteme, Netzwerke und Modems, bevor Sie das Gehäuse eines Geräts öffnen.
- Befolgen Sie diese Schritte, wenn Sie dieses Produkt oder angeschlossene Geräte installieren, transportieren oder das Gehäuse öffnen.



**Um Kabel anzuschließen:**

1. Schalten Sie alle Geräte AUS.
2. Schließen Sie alle Kabel an die entsprechenden Geräte an.
3. Verbinden Sie die Signalkabel mit den Steckern.
4. Schließen Sie die Stromkabel an die Stromversorgung an.
5. Schalten Sie die Geräte EIN.

**Um Kabel zu trennen:**

1. Schalten Sie alle Geräte AUS.
2. Trennen Sie die Stromkabel von der Stromversorgung.
3. Trennen Sie die Signalkabel von den Steckern.
4. Trennen Sie alle Kabel von den entsprechenden Geräten.

- Arbeiten Sie unter gefährlichen Bedingungen nicht allein.
- Durch leitfähige Materialien geleiteter Strom kann schwere Verbrennungen zur Folge haben.
- Vergewissern Sie sich, dass sich Stromeingangskabel, Stecker und Steckdosen in guter Kondition befinden.
- Lassen Sie den Austausch von Verbindungssteckern an der USV nur von qualifiziertem Fachpersonal durchführen.
- Um das Stromschlagrisiko beim Erden zu reduzieren, entfernen Sie die Geräte vom Wechselstromanschluss, bevor Sie sie installieren oder an andere Geräte anschließen. Schließen Sie das Stromeingangskabel erst wieder an, wenn alle Verbindungen hergestellt sind.
- Berühren Sie keine Verbindungsstücke aus Metall, bevor die Stromversorgung abgeschaltet wurde.
- Schließen Sie Geräte an einen Dreifachanschluss (zwei Pole und Erde) an. Die Steckerbuchse muss an eine entsprechende Verzweigungsleitung/Netzstromsicherung (Sicherung oder Schaltkreis-Sicherung) angeschlossen sein. Das Anschließen an eine andere Art von Steckerbuchse kann Stromschlaggefahr zur Folge haben.
- *Nur HV Modelle:*
  - Gemäß der EMC-Bestimmungen, dürfen die an der USV angeschlossenen Ausgangskabel nicht länger als 10 m sein.
  - Für steckbare Typ A USVs darf der Gesamtkriechstrom von angeschlossenen Geräten und der USV 3.5 mA nicht überschreiten.

  **ACHTUNG! Abschaltsicherheit**

- Wenn das Gerät eine interne Energiequelle (Batterie) hat, kann die Ausgabe aktiviert werden, wenn die Einheit nicht an einen Wechselstromanschluss angeschlossen ist.
- Um eine USV auszuschalten, betätigen Sie den AUS-Knopf. Entfernen Sie das Gerät vom Wechselstromanschluss. Trennen Sie nun, wenn angebracht, die externen Batterien und die interne Batterie (siehe Betriebs- und Setuphandbuch). Drücken Sie den EIN-Knopf, um die Kondensatoren auszuschalten.

  **ACHTUNG! Batteriesicherheit**

- **Dieses Gerät weist gefährliche Stromspannung auf.** Hinweise über Teile, die vom Benutzer ausgetauscht werden können, finden Sie in Ihrer Produktdokumentation.
- Batterien dürfen nicht verbrannt werden; Explosionsgefahr.
- Batterien dürfen nicht geöffnet oder zerstört werden, da sie ein Elektrolyt enthalten, das schädlich für Haut und Augen ist.
- Um die Verletzungsgefahr zu verringern, entfernen Sie erst Armbanduhren und Schmuck, z.B. Ringe, bevor Sie Batterien austauschen. Benutzen Sie nur Werkzeug mit isolierten Griffen.
- Tauschen Sie Batterien mit derselben Anzahl und demselben Batterietyp aus, die original im Gerät installiert waren.



Bitte geben Sie alte Batterien zum Recycling.

© Copyright International Business Machines Corporation, 2002. Alle Rechte vorbehalten.

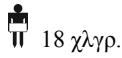
Hinweis für Benutzer der U.S. Regierung – Die Dokumentation unterliegt eingeschränkten Rechten. – Die Benutzung, Duplikation oder Weitergabe unterliegt den Einschränkungen des GSA ADP Schedule Contract mit IBM Corp.

IBM ist ein Warenzeichen der International Business Machines Corporation in den USA und/oder anderen Ländern.

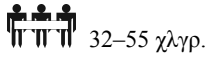


## Πληροφορίες ασφαλείας - ΦΥΛΑΞΤΕ ΑΥΤΟΝ ΤΟΝ ΟΔΗΓΟ

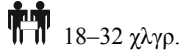
**ΠΡΟΣΟΧΗ!** Ασφάλεια χειρισμού - Χρησιμοποιείτε ασφαλείς πρακτικές κατά την ανύψωση.



18 χλ.γρ.



32-55 χλ.γρ.



18-32 χλ.γρ.



>55 χλ.γρ.



>10°

**ΠΡΟΣΟΧΗ: Ηλεκτρική ασφάλεια**

Το ηλεκτρικό ρεύμα που προέρχεται από καλώδια ρεύματος, τηλεφώνου και επικοινωνίας είναι επικίνδυνο. Διαβάστε τις ακόλουθες υποδείξεις ασφαλείας.

- Μην συνδέετε και μην αποσυνδέετε οποιαδήποτε καλώδια και μην πραγματοποιείτε εγκατάσταση, συντήρηση ή αναδιαμόρφωση αυτού του προϊόντος σε περίπτωση ηλεκτροπύελλας.
- Συνδέστε όλα τα καλώδια ρεύματος σε μια σωστά καλωδιωμένη και γειωμένη πρίζα ηλεκτρικού ρεύματος.
- Συνδέστε σε σωστά καλωδιωμένες πρίζες οποιονδήποτε εξοπλισμό που πρόκειται να συνδεθεί σε αυτό το προϊόν.
- Όταν αυτό είναι δυνατό, χρησιμοποιείτε μόνο ένα χέρι για να συνδέετε ή να αποσυνδέετε τα καλώδια σήματος.
- Ποτέ μην ανάβετε οποιοδήποτε μηχάνημα εάν υπάρχει ένδειξη φωτιάς, νερού ή δομικής ζημιάς.
- Αποσυνδέστε τα συνδεδεμένα καλώδια ρεύματος, τηλεπικοινωνιακά συστήματα, δίκτυα και μόντεμ πριν ανοίξετε τα καλύμματα συσκευών, εκτός εάν παρέχονται διαφορετικές οδηγίες στις διαδικασίες εγκατάστασης και διαμόρφωσης.
- Συνδέστε και αποσυνδέστε τα καλώδια όπως περιγράφεται στα παρακάτω βήματα κατά την εγκατάσταση, τη μετακίνηση ή το άνοιγμα των καλυμμάτων αυτού του προϊόντος ή των συνδεδεμένων συσκευών.

### Για τη σύνδεση:

1. ΣΒΗΣΤΕ τα πάντα (Θέση OFF).
2. Συνδέστε πρώτα όλα τα καλώδια στις συσκευές.
3. Συνδέστε τα καλώδια σήματος στους ακροδέκτες.
4. Συνδέστε τα καλώδια ρεύματος στην πρίζα του τοίχου.
5. ΑΝΑΨΤΕ τη συσκευή (θέση ON).

### Για την αποσύνδεση:

1. Σβήστε τα πάντα (θέση OFF).
2. Πρώτα βγάλτε τα καλώδια ρεύματος από την πρίζα τοίχου.
3. Αφαιρέστε τα καλώδια σήματος από τους ακροδέκτες.
4. Αφαιρέστε όλα τα καλώδια από τις συσκευές.

- Μην εργάζεστε μόνοι υπό επικίνδυνες συνθήκες.
- Δυνατό ρεύμα μέσω αγωγίων υλικών μπορεί να προκαλέσει σοβαρά εγκαύματα.
- Βεβαιωθείτε ότι τα καλώδια ρεύματος και οι πρίζες και οι υποδοχές πρίζας είναι σε καλή κατάσταση.
- Χρησιμοποιείτε ειδικευμένο προσωπικό συντήρησης για να αλλάξετε την πρίζα του UPS.
- Όταν δεν είναι δυνατή η επαλήθευση της γείωσης, αποσυνδέστε τα μηχανήματα από την πρίζα παροχής ρεύματος πριν την εγκατάσταση ή τη σύνδεση με άλλο εξοπλισμό. Επανασυνδέστε το καλώδιο ρεύματος μόνο αφού κάνετε όλες τις υπόλοιπες συνδέσεις.
- Μην χειρίζεστε οποιοδήποτε μεταλλικό ακροδέκτη πριν αποσυνδέσετε το ρεύμα.
- Συνδέστε τον εξοπλισμό σε μια τριφασική πρίζα παροχής ρεύματος (δύο πόλοι και γείωση). Η πρίζα παροχής ρεύματος πρέπει να συνδεθεί στο κατάλληλο κύκλωμα διακλάδωσης/κύρια προστασία (ασφάλεια ή ασφαλειοδιακόπτη). Η σύνδεση σε οποιοδήποτε άλλο τύπο πρίζας παροχής ρεύματος μπορεί να προκαλέσει κίνδυνο ηλεκτροπληξίας.
- Μόνο για τα μοντέλα HV:
  - Προκειμένου να διατηρηθεί η συμμόρφωση με την οδηγία EMC για τα προϊόντα που πωλούνται στην Ευρώπη, το μήκος των καλωδίων εξόδου που συνδέονται στη συσκευή UPS δεν πρέπει να υπερβαίνει τα 10 μέτρα.
  - Το συνολικό ρεύμα διαρροής από τον συνδεδεμένο εξοπλισμό UPS δεν πρέπει να υπερβαίνει τα 3,5 mA για ένα UPS τύπου A με δυνατότητα σύνδεσης στο δίκτυο παροχής ρεύματος.

**ΠΡΟΣΟΧΗ: Ασφάλεια απενεργοποίησης**

- Η συσκευή UPS διαθέτει εσωτερική πηγή ρεύματος, την μπαταρία. Η έξοδος μπορεί να ενεργοποιηθεί όταν η μονάδα δεν είναι συνδεδεμένη σε πρίζα παροχής ρεύματος.
- Για την απενεργοποίηση της μονάδας UPS, πιάστε το κουμπί OFF για να σβήσετε τον εξοπλισμό. Αποσυνδέστε τη συσκευή UPS από την πρίζα παροχής ρεύματος. Αποσυνδέστε τις εξωτερικές μπαταρίες, όταν αυτό είναι εφικτό, και αποσυνδέστε την εσωτερική μπαταρία (βλ. Οδηγός λειτουργίας και εγκατάστασης). Πιάστε το κουμπί ON για να απενεργοποιήσετε τους πυκνωτές.

**ΠΡΟΣΟΧΗ: Ασφάλεια μπαταρίας**

- Αυτός ο εξοπλισμός περιέχει πιθανώς επικίνδυνες τάσεις ρεύματος. Ανατρέξτε στην τεκμηρίωση του προϊόντος σας για να προσδιορίσετε ποια εξαρτήματα είναι δυνατό να αντικατασταθούν από το χρήστη.
- Μην πετάτε τις μπαταρίες σε φωτιά, υπάρχει κίνδυνος να εκραγούν.
- Μην ανοίγετε και μην κόβετε τις μπαταρίες. Περιέχουν ηλεκτρολύτη ο οποίος είναι τοξικός και επικίνδυνος για το δέρμα και τα μάτια.
- Για να αποφύγετε τυχόν τραυματισμό λόγω ηλεκτρικού ρεύματος, βγάλτε το ρολόι σας και τα κοσμήματά σας, όπως δαχτυλίδια, όταν αντικαθιστάτε τις μπαταρίες. Χρησιμοποιείτε εργαλεία με μονωμένες λαβές.
- Αντικαταστήστε τη μονάδα της μπαταρίας με τον ίδιο αριθμό και τύπο, όπως της μπαταρίας που είχε εγκατασταθεί αρχικά στον εξοπλισμό.



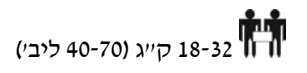
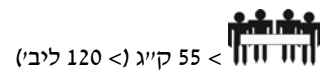
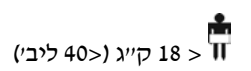
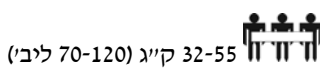
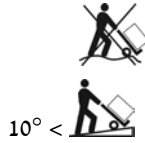
Βεβαιωθείτε ότι παραδώσατε την άδεια μπαταρία σε έναν οργανισμό ανακύκλωσης.

© Πνευματικά δικαιώματα International Business Machines Corporation, 2002. Με επιφύλαξη παντός νόμιμου δικαιώματος.

Σημείωση για τους χρήστες της Κυβέρνησης των Η.Π.Α. – Τεκμηρίωση που σχετίζεται με τα δικαιώματα περιορισμένης χρήσης – Η χρήση, η αναπαραγωγή ή η αποκάλυψη υπόκειται στους περιορισμούς που διατυπώνονται στη σύμβαση GSA ADP Schedule Contract με την IBM Corp.

IBM είναι εμπορικό σήμα της International Business Machines Corporation στις Ηνωμένες Πολιτείες, λοιπές χώρες ή και στις δύο.

**זהירות! בטיחות בטיפול – יש להקפיד על נוהלי בטיחות בעת הרמה**



**זהירות! בטיחות חשמל**

ישנה סכנה בזרם חשמלי שמקורו בכבלי מתח, טלפון ותקשורת. נא לקרוא את הוראות הבטיחות הבאות.

- אין לחבר או לנתק כבלים או לבצע פעולות התקנה, תחזוקה או הגדרת תצורה במוצר זה בעת סופה חשמלית.
- יש לחבר את כל חוטי החשמל לשקע חשמל שמחווט ומוארק כהלכה.
- יש לחבר לשקעי חשמל מחוטים ומוארקים כהלכה כל ציוד שיחובר למוצר זה.
- במידת האפשר, יש להשתמש ביד אחת בלבד לחיבור או לניתוק של כבלים להעברת אותות.
- לעולם אין להפעיל ציוד כלשהו כאשר יש סימנים לנוק שנגרם מאש, ממים או סימנים לנוק מבני.
- לפני פתיחת המכסים של מכשיר זה, יש לנתק את כבלי המתח, מערכת התקשורת, הרשתות והמודמים המחוברים אליו, אלא אם כן נאמר אחרת בנוהלי ההתקנה והגדרת התצורה.
- בעת התקנה, הזזה או פתיחת המכסים של מוצר זה או של מכשירים המחוברים אליו, יש לחבר או לנתק את הכבלים על פי השלבים המתוארים להלן:

**לשם חיבור**

- |   |  |
|---|--|
| 1. כבה את כל המכשירים.                  | 1. כבה את כל המכשירים.                     |
| 2. נתק תחילה את כבלי המתח משקעי החשמל.  | 2. חבר תחילה את כל הכבלים למכשירים השונים. |
| 3. נתק את הכבלים להעברת אותות מהמחברים. | 3. חבר את הכבלים להעברת אותות למחברים.     |
| 4. נתק את כל הכבלים מהמכשירים.          | 4. חבר את כבלי המתח לשקעי החשמל.           |
|   | 5. הדלק את המכשיר.                         |

- אין לעבוד לבד בתנאים מסוכנים.
- זרם גבוה שעובר בחומרים מוליכים עלול לגרום לכוויות חמורות.
- יש לוודא שחוטי החשמל, התקעים והשקעים במצב תקין.
- יש להיעזר באנשי שירות מוסמכים לצורך החלפת התקע ביחידת האל-פסק.
- כאשר לא ניתן לוודא שישנה הארקה, יש לנתק את הציוד משקע החשמל לפני התקנתו או חיבורו לציוד אחר. יש לשוב ולחבר את כבל המתח לחשמל רק לאחר שבוצעו כל החיבורים.
- אין לגעת במחברים עשויים מתכת לפני ניתוק החשמל.
- יש לחבר את הציוד לשקע חשמל בעל שלושה תילים (שני קטבים והארקה). השקע חייב להיות מחובר למעגל צדדי/מעגל הגנה (נתיך או מפסק מקצר) מתאים.
- חיבור הציוד לשקע מסוג אחר עלול לגרום לסכנת התחשמלות.

דגמי HV בלבד:

- על מנת להבטיח עמידה בהנחיית EMC לגבי מוצרים שנמכרים באירופה, כבלי היציאה המחוברים ליחידת האל-פסק חייבים להיות באורך שאינו עולה על 10 מטרים.
- זרם הזליגה הכולל מהציוד הנלווה ומיחידת האל-פסק חייב להיות נמוך מ-3.5 מיליאמפר עבור יחידת אל-פסק נתיקה מטיפוס A.

**זהירות! בטיחות בפריקת אנרגיה**

- ליחידת האל-פסק יש מקור אנרגיה פנימי - הסוללה. היציאה מהיחידה עשויה להיות טעונה באנרגיה גם כאשר היחידה אינה מחוברת לזרם החשמל.
- על מנת לפרוק את האנרגיה מיחידת האל-פסק, יש ללחוץ על מתג הכיבוי (OFF) כדי לכבות את הציוד, ולהוציא את התקע של היחידה משקע החשמל. לאחר מכן יש לנתק סוללות חיצוניות, במידה וישנן, ולנתק את הסוללה הפנימית (ראה מדריך הפעלה והתקנה). לחץ על מתג ההפעלה (ON) כדי לפרוק את האנרגיה מהקבלים.

**זהירות! בטיחות בטיפול בסוללות**

- ציוד זה מכיל מתחים העלולים להיות מסוכנים. יש לעיין בתיעוד הנלווה למוצר כדי לקבוע אלו חלקים ניתנים להחלפה על ידי המשתמש.
- אין להשמיד את הסוללות באמצעות שריפה; הסוללות עלולות להתפוצץ.
- אין לפתוח או להשחית את הסוללות. הן מכילות אלקטרוליט רעיל שגורם לפגיעה בעור ובעיניים.
- כדי להימנע מפציעה כתוצאה מסכנת אנרגיה, יש להסיר שעוני יד ותכשיטים כגון טבעות בעת החלפת הסוללות. יש להשתמש בכלי עבודה עם ידיות מבודדות.
- יש להחליף את מודול הסוללה בסוללה מסוג ומספר זהה לסוללה המקורית שהייתה מותקנת בציוד.

יש להקפיד להביא את הסוללה הריקה למתקן מחזור.





## Biztonsági tudnivalók – ŐRIZZE MEG EZT AZ ÚTMUTATÓT!

**FIGYELEM!** Kezelési biztonsági tudnivalók – Emeléskor vegye figyelembe a munkavédelmi szempontokat.



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

**FIGYELEM!** Elektromos biztonsági tudnivalók

A tápkábelekben, telefonvezetékben és kommunikációs kábelekben levő elektromos áram veszélyes. Kérjük, olvassa el az alábbi óvintézkedéseket.

- A kábelek csatlakoztatása vagy leszerelése, a termék üzembe helyezése, karbantartása vagy újrakonfigurálása tilos elektromos vihar idején.
- Az összes tápkábel megfelelő módon huzalozott és földelt hálózati aljzatba kell csatlakoztatni.
- Azokat a berendezéseket, amelyeket a termékhez kíván csatlakoztatni, megfelelően huzalozott aljzatba kell csatlakoztatni.
- Ha erre mód van, a jelkábelek csatlakoztatását és kihúzását csak egy kézzel végezze el.
- Ne kapcsolja be egyik berendezést sem, ha szerkezeti károsodást, tűz vagy víz okozta kárt tapasztal.
- Szüntesse meg a tápkábelek, telekommunikációs rendszerek, hálózatok és modemek csatlakozását, mielőtt kinyitná a készülék fedelét, kivéve, ha az üzembe helyezési és konfigurációs eljárásoknál kifejezetten erre utasítják.
- A kábelek csatlakoztatásakor és leszerelésékor kövesse az alábbi lépéseket a termék és a csatlakoztatott berendezések üzembe helyezésekor, elmozdításakor vagy a fedőlapok kinyitásakor.

#### Csatlakoztatáskor:

1. Kapcsoljon KI mindent.
2. Először csatlakoztassa az összes kábelt a berendezésekhez.
3. Csatlakoztassa a jelkábeleket a csatlakozókhoz.
4. Csatlakoztassa a tápkábeleket a hálózati aljzatba.
5. Kapcsolja BE a készüléket.

#### Leszereléskor:

1. Kapcsoljon KI mindent.
2. Először húzza ki a tápkábeleket a hálózati aljzatból.
3. Húzza ki a jelkábeleket a csatlakozókból.
4. Szerelje le az összes kábelt a berendezésekről.

- Ne dolgozzon egyedül veszélyes munkakörülmények között.
- A vezetőképes anyagokon áthaladó nagyenergiájú áram súlyos égési sérüléseket okozhat.
- Ellenőrizze, hogy a tápkábel(ek), dugasz(ok) és aljzatok jó állapotban vannak.
- A szünetmentes tápegység dugaszát szakképzett szerelővel kell kicseréltetni.
- Ha a földelés megléte nem bizonyítható, kapcsolja le a készüléket a hálózati áramról az üzembe helyezéskor és a berendezések csatlakoztatásakor. Csak akkor csatlakoztassa a tápkábelt, amikor minden más csatlakoztatás kész.
- Ne nyúljon semmilyen fémcsatlakozóhoz áramtalanítás nélkül.
- Csatlakoztassa a berendezést háromeres váltóáramú kimenethez (két pólus plusz földelés). A foglalat legyen megfelelő fő- vagy aláramköri védelemhez kötve (biztosítékhoz vagy áramkörmegszakítóhoz). Bármilyen más foglalathoz való csatlakoztatás áramütés veszélyével járhat.
- *Csak a HV modellek esetén:*
  - Az Európában értékesített termékekre vonatkozó EMC-irányelvek alapján a szünetmentes tápegységhez csatolt vezeték hossza nem haladhatja meg a 10 métert.
  - A szünetmentes tápegységből és a csatlakoztatott berendezésekből származó szivárgási áram összmenyisége nem haladhatja meg a 3,5 mA-t a dugaljzatba csatlakoztatható A típusú szünetmentes tápegység esetén.

**FIGYELEM!** Áramtalanítás

- A szünetmentes tápegység belső energiaforrással, akkumulátorral rendelkezik. A kimenet áram alatt lehet akkor is, ha a készülék nem csatlakozik hálózati aljzathoz.
- A szünetmentes tápegység áramtalanításához nyomja meg a KI (OFF) gombot. Húzza ki a szünetmentes tápegység tápkábelét a hálózati aljzatból. Ha külső akkumulátort is használ, előbb szüntesse meg a külső akkumulátorok csatlakoztatását, ezután szüntesse meg a belső akkumulátor csatlakoztatását (lásd a *Felhasználói és üzembe helyezési kézikönyvet*). Nyomja meg a BE (ON) gombot a kondenzátorok áramtalanításához.

**FIGYELEM!** Az akkumulátorokra vonatkozó biztonsági tudnivalók

- A berendezés belsejében veszélyes feszültség van. Nézze meg a termékdokumentációban, melyek a felhasználó által kicserélhető alkatrészek.
- Az akkumulátorokat ne dobja tűzbe. Az akkumulátorok felrobbanhatnak.
- Ne nyissa ki, ne csonkítsa meg az akkumulátorokat. A bőrre és a szemre ártalmas, mérgező elektrolitot tartalmaznak.
- A személyi sérülések elkerülése érdekében az akkumulátor cseréjekor vegye le a karóráját és gyűrűjét. Szigetelt nyelű szerszámokkal dolgozzon.
- Az akkumulátor kicserélésekor a berendezésbe eredetileg beszerelt típusú és számú akkumulátort kell használni.



A kimerült akkumulátorokat juttassa el egy újrahasznosító létesítménybe.

©Copyright International Business Machines Corporation, 2002. Minden jog fenntartva.

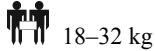
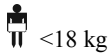
Egyesült Államok kormányzati szerveinek figyelmébe – A jogok korlátozásával kapcsolatos dokumentáció – A felhasználásra, sokszorosításra vagy közzétételre vonatkozó jogok korlátozásait a GSA ADP – IBM Corp. közti szerződés tartalmazza.

IBM az International Business Machines Corporation védjegye az Egyesült Államokban, más országokban, vagy mindkét helyen.



## Informazioni di sicurezza - DA CONSERVARE

**⚠ ATTENZIONE. Sicurezza nel sollevamento e trasporto – Adottare misure di protezione durante il sollevamento.**



**⚠ ATTENZIONE. Sicurezza elettrica**

**La corrente elettrica proveniente dai cavi di alimentazione, di apparecchi telefonici e di comunicazione è pericolosa. Leggere le seguenti dichiarazioni in materia di sicurezza.**

- Non collegare né scollegare alcun cavo e non installare, riparare o riconfigurare questo prodotto in presenza di una tempesta elettromagnetica.
- Collegare tutti i cavi di alimentazione ad una presa cablata correttamente e dotata di messa a terra adeguata.
- Inserire nelle prese corrette tutte le apparecchiature che dovranno essere allacciate a questo prodotto.
- Se possibile, utilizzare una sola mano per collegare o scollegare i cavi di segnale.
- Non accendere mai un'apparecchiatura in presenza di incendi, inondazioni o danni strutturali.
- Disinserire tutti i cavi di alimentazione, dei sistemi di telecomunicazione, di rete e dei modem collegati prima di aprire le coperture di un dispositivo, salvo quando le istruzioni di installazione e configurazione richiedono diversamente.
- Collegare e scollegare i cavi nel modo descritto nella procedura seguente per installare, spostare e aprire le coperture di questo prodotto o dei dispositivi collegati.

**Per il collegamento:**

1. Accendere tutte le unità.
2. Collegare per primi i cavi dei dispositivi.
3. Collegare i cavi di segnale ai connettori.
4. Inserire i cavi di alimentazione nelle prese.
5. Accendere il dispositivo.

**Per lo scollegamento:**

1. Accendere tutte le unità.
2. Rimuovere anzitutto i cavi di alimentazione dalle prese.
3. Rimuovere i cavi di segnale dai connettori.
4. Rimuovere tutti i cavi dai dispositivi.

- Non lavorare da soli in condizioni pericolose.
- Un'elevata corrente che attraversa materiali conduttori può provocare gravi ustioni.
- Verificare che i cavi di alimentazione, le spine e le prese siano in condizioni operative soddisfacenti.
- La sostituzione della spina del gruppo di continuità deve essere affidata esclusivamente al personale di assistenza qualificato.
- Quando non è possibile verificare la messa a terra, scollegare l'apparecchiatura dalla presa di alimentazione elettrica prima di installarla o collegarla ad altre apparecchiature. Ricollegare il cavo di alimentazione solamente dopo aver eseguito tutti gli altri collegamenti.
- Non toccare alcun connettore metallico prima di aver interrotto l'alimentazione.
- Collegare l'apparecchiatura ad una presa elettrica trifase (due poli più la terra). La presa deve essere collegata ad un'appropriata protezione per circuiti di derivazione/di rete (fusibile o interruttore automatico). Il collegamento a qualsiasi altro tipo di presa potrebbe comportare il pericolo di scariche elettriche.
- *Solo modelli HV:*
  - La conformità alla direttiva sulla compatibilità elettromagnetica (EMC) dei prodotti in vendita sul mercato europeo è garantita solo se i cavi in uscita collegati al gruppo di continuità non superano i 10 metri.
  - La corrente di dispersione totale proveniente dalle apparecchiature collegate e dal gruppo di continuità stesso non deve superare i 3,5 mA nel caso di un UPS scollegabile di tipo A.

**⚠ ATTENZIONE. Sicurezza relativa all'interruzione dell'alimentazione**

- La batteria del gruppo di continuità è una sorgente di energia interna. L'uscita potrebbe essere sotto tensione quando l'unità non è collegata alla presa di alimentazione di rete.
- Per diseccitare un UPS, spegnere l'apparecchiatura premendo il tasto OFF. Scollegare il gruppo di continuità dalla presa di alimentazione di rete. Scollegare le batterie esterne (se pertinente) e la batteria interna (consultare il *Manuale di installazione*). Premere il tasto "ON" per diseccitare i condensatori.

**⚠ ATTENZIONE. Sicurezza relativa alla batteria**

- **Questa apparecchiatura contiene tensioni potenzialmente pericolose.** Consultare la documentazione del prodotto per identificare i componenti che l'utente può sostituire personalmente.
- Non eliminare le batterie gettandole nelle fiamme, poiché potrebbero esplodere.
- Non aprire né manomettere le batterie, dal momento che contengono un elettrolito tossico e nocivo alla pelle e agli occhi.
- Per evitare infortuni derivanti dall'energia elettrica, prima di sostituire le batterie togliersi l'orologio da polso ed eventuali anelli, braccialetti, ecc. Ricorrere ad attrezzi con impugnature isolate.
- Sostituire il modulo della batteria con uno dello stesso tipo installato originariamente nell'apparecchiatura.



**Restituire la batteria usata a un centro di riciclaggio.**

© Copyright International Business Machines Corporation, 2002. Tutti i diritti riservati.

Nota per gli utenti statali USA – Documentazione relativa alla limitazione dei diritti – L'utilizzazione, la duplicazione e la divulgazione sono soggette alle limitazioni stabilite nel contratto di programma GSA ADP stipulato con IBM Corp.

IBM è un marchio commerciale della International Business Machines Corporation negli Stati Uniti e/o in altri paesi.



## 安全に関する注意事項 – このガイドを保管してください。

**注意！** 取り扱い上の安全に関する注意事項 – 安全に持ち上げるための基準に従ってください。



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

**注意！** 電気的な安全に関する注意事項

電源ケーブル、電線、通信ケーブルには電流が通っているため危険です。以下の安全要項をお読みください。

- 雷雨が発生したときはケーブルの接続や取り外し、あるいはこの製品の取付け、保守、再設定などを行わないでください。
- 電源コードはすべて適切に配線かつ接地されたコンセントに差し込んでください。
- この製品に接続する機器は、すべて適切に配線されたコンセントに差し込んでください。
- 信号ケーブルの接続または取り外し作業はできる限り片手で行ってください。
- 火災、水、構造的な損傷が確認されたときは絶対に機器の電源を入れないでください。
- 取付けや設定に関する説明に特記されている場合を除き、機器のカバーを開ける前に電源コードの取り外し、接続済みの通信システム、ネットワーク、モデムの切断は行わないでください。
- この製品や接続機器の取付け、移動、またはカバーを開けるときは以下の手順に従ってケーブルの接続や取り外しを行ってください。

### 接続手順

1. この製品と接続機器の電源をすべて切る。
2. すべてのケーブルを機器に接続する。
3. 信号ケーブルをコネクタに接続する。
4. 電源コードをコンセントに差し込む。
5. 機器の電源を入れる。

### 取り外し手順

1. この製品と接続機器の電源をすべて切る。
2. コンセントから電源コードを抜く。
3. 信号ケーブルをコネクタから外す。
4. すべてのケーブルを機器から外す。

- 危険な条件下では単独の作業は避けてください。
- 高い電流を導体材料に通すと大火傷をすることがあります。
- 電源コード、プラグ、コンセントなどに支障がないことを確認してください。
- UPS のプラグを変えるときは資格を持った電気技術者が行う必要があります。
- 接地が確認できないときは、他の装置を取付けたり接続する前に、装置の電源ケーブルを商用電源のコンセントから外します。接続がすべて完了したことを確認してから電源コードを差し込んでください。
- 金属型のコネクタは、電源を切断してから取り扱うようにしてください。
- この製品は 2 アース正端子付きの 3 本ピン用コンセントに差し込んでください。コンセントは適切な分岐回路/幹線の保護機能（ヒューズまたはブレーカ）に接続する必要があります。その他の不適切な商用電源のコンセントに電源コードを差し込むと感電する可能性があります。
- **HV モデルのみ：**
  - ヨーロッパでの販売製品に必要な EMC の指針に従い、UPS に接続された機器の出力コードの長さは 10 メートル以内のものを使用してください。
  - 接続可能な A タイプの UPS については、接続装置と UPS の総漏電流が 3.5 mA を超えないようにしてください。

**注意！** 電源の遮断に関する注意事項

- UPS には、バッテリーが内蔵されています。したがって商用電源のコンセントに電源コードが差し込まれていなくても出力することがあります。
- UPS の電源を切るにはオフボタンを押します。次に商用電源のコンセントから UPS の電源コードを抜きます。拡張バッテリーがある場合はそのバッテリーおよび内蔵バッテリーを切断します（ユーザーマニュアルを参照）。オンボタンを押すとコンデンサの電源が遮断されます。

**注意！** バッテリーについての注意


- この製品には人体に危険を伴う高電圧がかかっている部分があります。ユーザーによる交換が可能な部分についてはユーザーマニュアルを参照してください。
- バッテリーを処分するときは火中に投下しないでください。爆発する可能性があります。
- バッテリーの内部を開けたり部分的に取り除かないでください。バッテリーには有毒な電解質が含まれており、皮膚や目に危害を及ぼす恐れがあります。
- 感電などの人身事故を防止するため、バッテリーを交換するときは腕時計および指輪などの宝石類を外してください。また、使用する工具類は絶縁加工が施されているものをご使用ください。
- バッテリーの交換時には、この製品の購入時に装着済みのバッテリーと、種類、番号が同じものをご使用ください。

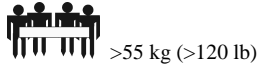
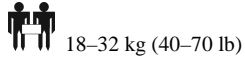
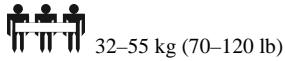
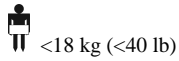



使用済みのバッテリーはリサイクル品回収機関に処分を依頼してください。

© Copyright International Business Machines Corporation, 2002. All rights reserved.

米国政府機関による本書の使用制限 – 情報の使用、複製、開示は IBM Corp. との GSA ADP 指定契約に規定された制限事項の対象となります。IBM は、米国、その他の国において International Business Machines Corporation の商標です。

 주의! 취급 안전 – 들 때는 안전 지침을 이용하십시오.




 주의! 전기 안전


전원, 전화, 통신 케이블에서 발생하는 전류는 위험합니다. 다음 안전 지침을 읽으십시오.

- 천동번개가 치는 동안 본 제품의 설치, 보수 또는 재구성을 수행하거나 케이블을 연결하거나 분리하지 마십시오.
- 모든 전원 코드를 올바르게 배선되고 접지된 전기 콘센트에 연결하십시오.
- 본 제품에 부착될 장비를 올바르게 배선된 콘센트에 연결하십시오.
- 가능하다면, 한 손만 사용해 신호 케이블을 연결하거나 분리하십시오.
- 불이나 물로 인한 손상 또는 구조적 손상의 흔적이 있을 경우 절대 장비를 켜지 마십시오.
- 설치나 구성 절차 시에 별도의 지시사항이 없을 경우, 장치 덮개를 열기 전에 부착된 전원 코드, 전기통신 시스템, 네트워크 및 모뎀을 분리하십시오.
- 본 제품이나 부착된 장치에서 덮개를 설치하거나, 옮기거나 열 때 다음 단계에서 설명된 대로 케이블을 연결하고 분리하십시오.
 


<b>연결할 때:</b> <ol style="list-style-type: none"> <li>1. 모두 끄십시오.</li> <li>2. 먼저 모든 케이블을 장치에 부착하십시오.</li> <li>3. 신호 케이블을 커넥터에 부착하십시오.</li> <li>4. 전원 코드를 콘센트에 부착하십시오.</li> <li>5. 장치를 켜십시오.</li> </ol>	<b>분리할 때:</b> <ol style="list-style-type: none"> <li>1. 모두 끄십시오.</li> <li>2. 먼저 전원 코드를 콘센트에서 제거합니다.</li> <li>3. 신호 케이블을 커넥터에서 제거합니다.</li> <li>4. 모든 케이블을 장치에서 제거합니다.</li> </ol>
---	---
- 위험한 상황에서 혼자 작업하지 마십시오.
- 전도성 물질을 통한 높은 전류는 심각한 화상을 유발할 수 있습니다.
- 전원 코드, 플러그 및 소켓의 상태가 좋은지 확인하십시오.
- UPS 에 부착된 플러그를 변경할 때는 자격을 갖춘 서비스 직원을 이용하십시오.
- 접지가 확인되지 않는 경우, 기타 장비를 설치하거나 연결하기 전에 유틸리티 전원 콘센트에서 장비를 분리하십시오. 모든 연결을 마친 후에만 전원 코드를 다시 연결하십시오.
- 전원을 분리하기 전에는 금속 커넥터를 취급하지 마십시오.
- 장비는 3선 유틸리티 전원 콘센트(두 극에 접지를 더한 것)에 연결하십시오. 콘센트는 적절한 분기 회선/간선 보호장치(퓨즈 또는 차단기)에 연결되어야 합니다. 다른 유형의 콘센트에 연결할 경우 감전 위험을 초래할 수 있습니다.
- **HV 모델 전용:**
  - 유럽에서 판매되는 제품에 대한 EMC 지침에 대한 준수를 유지하기 위하여, UPS 에 부착된 출력 코드의 길이는 10m 를 초과해서는 안됩니다.
  - 연결 장비 및 UPS 의 총 누설 전류는 플러그를 꽂아 사용하는 A 타입 UPS 에 대해 3.5mA 를 초과해서는 안됩니다.

 주의! 전압차단 안전

- UPS 에는 내장된 전력원인 배터리가 있습니다. 출력은 장치가 유틸리티 전원 콘센트에 연결되지 않았을 때 가압될 수 있습니다.
- UPS 의 전압을 차단하려면, OFF 버튼을 눌러 장비를 끄십시오. 유틸리티 전원 콘센트에서 UPS 의 플러그를 뽑으십시오. 외부 배터리가 적용되는 경우에는 이를 분리하고 내장 배터리를 분리하십시오(**작동 및 설치 안내서** 참조). ON 버튼을 눌러 축전기의 전압을 차단하십시오.

 주의! 배터리 안전

- 본 장비에는 위험이 잠재된 전압이 포함되어 있습니다. 어떤 부품을 사용자가 교체할 수 있는지 확인하려면 제품 설명서를 참조하십시오.
- 배터리를 볼 속에 버리지 마십시오. 배터리가 폭발할 수 있습니다.
- 배터리를 뜯거나 손상시키지 마십시오. 배터리에는 독성이 있어서 피부와 눈에 해로운 전해질이 들어 있습니다.
- 전기 위험으로 인한 부상을 예방하기 위하여, 배터리 교체 시 손목시계, 그리고 반지와 같은 보석류를 제거하십시오. 절연 손잡이가 달린 도구를 사용하십시오.
- 장비에 처음 설치된 배터리와 동일한 번호와 유형의 배터리로 교체하십시오.

 다 쓴 배터리는 재활용 시설로 보내 주십시오.

©Copyright International Business Machines Corporation, 2002. All rights reserved.

미국 정부 사용자에게 대한 고지 – 제한적 권리와 관련된 문서 – 사용, 복제, 공개는 IBM 사와의 GSA ADP 부속명세 계약서(GSA ADP Schedule Contract)에 명시된 제한규정을 따라야 합니다.

IBM 은 미국, 기타 국가 또는 모든 국가에서 International Business Machines Corporation 의 상표입니다.



## Безбедносни инструкции – ЧУВАЈТЕ ГО ПРИРАЧНИКОВ

**⚠ ВНИМАНИЕ!** Упатства за безбедно ракување со опремата – Придржувајте се на безбедносните мерки при кревање.



<18 кг (<40 lb)



32–55 кг (70–120 lb)



18–32 кг (40–70 lb)



>55 кг (>120 lb)



>10°

**⚠ ВНИМАНИЕ!** Заштита од удар од електрична струја

Електричната струја од електричен приклучок, телефон и комуникациони кабли е опасна. Ве молиме прочитајте ги следните заштитни мерки:

- За време на бура не смее да се приклучуваат или исклучуваат кабли, да се извршува инсталација, поправка или реконфигурација на апаратот.
- Приклучете ги сите кабли за струја на заземјени и правилно инсталирани штекери.
- Целокупната опрема што ќе биде приклучена на овој апарат треба да биде приклучена на правилно инсталирани штекери.
- Доколку е возможно, исклучувајте и вклучувајте ги каблите со една рака.
- Никогаш не вклучувајте го апаратот доколку има оган, вода или структурни оштетувања на просторијата каде што се наоѓа апаратот.
- Исклучете ги приклучените кабли за струја, телекомуникациони системи, компјутерски мрежи, модеми пред да го отворите капакот на апаратот, освен ако не е поинаку наведено во прирачникот за инсталирање и конфигурација.
- При инсталација, поместување или отворање на капакот на апаратот или приклучените апарати, каблите треба да се приклучат или исклучат според следниве упатства.

#### Да се приклучат:

1. Исклучете ги сите апарати.
2. Најпрво приклучете ги каблите за струја на апаратите.
3. Приклучете ги сигналните кабли на конекторите.
4. Приклучете ги каблите за струја во штекерите.
5. Вклучете ги апаратите.

#### Да се исклучат:

1. Исклучете ги сите апарати.
2. Најпрво исклучете ги каблите за струја од штекерите.
3. Исклучете ги сигналните кабли од конекторите.
4. Исклучете ги каблите за струја од апаратите.

- Не работете сами под опасни услови.
- Висока струја низ спроводни материјали може да предизвика сериозни изгоретини.
- Проверете ја исправноста на каблите, штекерите и електричните приклучоци.
- Само квалификувани електричари смеат да ги менуваат приклучниците на UPS-от.
- Ако не може да се утврди дали постои заземјување, исклучете го апаратот од мрежа пред да ги инсталирате или поврзете другите апарати. Повторно приклучете го на струја само откако сите други апарати се поврзани.
- Не ракувајте со метални конектори под напон.
- Приклучете ја опремата на шуко штек (две фази и нула). Приклучокот за струја мора да биде поврзан на соодветно споредно коло т.е. со заштита од главната мрежа (преку осигурувач односно исклучник). Во спротивно може да дојде до електро шок.
- *Само HV модели:*
  - Со цел да се запазат правилата на EMC што се однесуваат на производи наменети за европскиот пазар, излезните кабли на UPS-от не смеат да бидат подолги од 10 метри.
  - Целокупната загуба на енергија поради истекување од приклучената опрема и UPS-от не смее да надмине 3.5 mA за приклучлив UPS од тип A.

**⚠ ВНИМАНИЕ!** Сигурносни мерки при празнење на електрична енергија

- UPS-от има внатрешен извор на енергија, батерија. Излезот на апаратот може да биде под напон кога тој е исклучен.
- За да се разелектризира UPS-от, притиснете го OFF копчето за да ја исклучите опремата. Исклучете го USP-от од струјата. Исклучете ги надворешните батерии доколку постојат и исклучете ја внатрешната батерија (следете ги упатствата во прирачникот за инсталирање и употреба ). Притиснете на ON копчето за да ги испразните кондензаторите.

**⚠ ВНИМАНИЕ!** Безбедно ракување со батериите

- **Оваа опрема содржи потенцијално опасен напон.** Погледнете ја документацијата за да видите кои делови можете сами да ги замените.
- Батериите не фрлајте ги во оган. Може да експлодираат.
- Не отварајте ги и не оштетувајте ги батериите. Батериите содржат отровен електролит штетен за кожата и очите.
- За да се избегнат повреди, отстранете ги рачните часовници и накит, на пр. прстени кога ја менувате батеријата. Користете алат со изолирани рачки.
- Заменете ги батериите со ист број и вид на батерии како оригиналните батерии во опремата.



Потрошената батерија обавезно предајте ја во центар за рециклирање.

©2002 International Business Machines Corporation. Сите права задржани.

Забелешка за корисниците - вработени во Владата на САД – Документацијата подлежи на законот за авторски права. – Користењето, копирањето и разоткривањето информации подлежи на рестрикции наведени во GSA ADP Договорот со IBM Corp.

IBM е заштитен знак на International Business Machines Corporation и во Соединетите Американски Држави и во други земји.





## Sikkerhetsinformasjon - TA VARE PÅ DENNE VEILEDNINGEN

### **OBS! Forsvarlig håndtering - Bruk sikre teknikker for løfting.**



<18 kg (<40 pund)



32–55 kg (70–120 pund)



18–32 kg (40–70 pund)



>55 kg (>120 pund)



>10°

### **OBS! Elektrisitet og sikkerhet**

Elektrisk strøm fra strømledninger, telefon- og kommunikasjonsskabler er farlig. Vennligst les de følgende sikkerhetsinstruksjonene.

- Du må ikke koble til eller fra kabler eller utføre installasjon, vedlikehold, eller omkonfigurering av denne enheten under lyn- og tordenvær.
- Koble alle strømledninger til en riktig koblet og jordet stikkontakt.
- Koble alt utstyr som skal sammenkobles med denne enheten til stikkontakter som er riktig koblet.
- Bruk bare én hånd til å koble til eller fra signalkabler når dette er mulig.
- Slå aldri på noen del av utstyret hvis det forekommer brann-, vann-, eller strukturelle skader.
- Koble fra strømledningene, telekommunikasjonssystemene, nettverkene og modemene som er tilkoblet enheten, før du åpner enhetsdekslene, med mindre du får instruksjon om annet i installasjons- og konfigurasjonsprosedyrene.
- Koble kablene til og fra slik som beskrevet i de følgende trinnene når du installerer, flytter, eller åpner deksler på denne enheten eller tilkoblede enheter.
 

<b>Slik kobler du til:</b>	<b>Slik kobler du fra:</b>
1. Slå AV alt.	1. Slå AV alt.
2. Koble først alle kabler til enhetene.	2. Trekk først ut strømledningene fra stikkontaktene.
3. Koble til signalkabler til kontaktene.	3. Fjern signalkabler fra kontaktene.
4. Sett strømledningene i stikkontaktene.	4. Fjern alle kabler fra enhetene.
5. Slå PÅ enheten.	
- Utfør ikke arbeid alene under risikofylte forhold.
- Høy spenning gjennom ledende materiale kan føre til alvorlig brannskade.
- Kontroller at strømledning(er), støpsel(er) og kontakter er i god stand.
- Bruk kvalifiserte fagkyndige til å skifte støpselet på UPS-en.
- Dersom jording ikke kan bekrefte, skal utstyret kobles fra stikkontakten før det installeres eller tilkobles annet utstyr. Sett ikke i strømledningen igjen før alle tilkoblinger er utført.
- Ta ikke i noen koblingsenheter av metall før strømmen er frakoblet.
- Koble utstyret til en trekablet stikkontakt for vekselstrøm (to poler pluss jord). Stikkontakten må være koblet til egnet beskyttelse av forgreining/hovednett (dvs. sikring eller kretsbytter). Tilkobling til alle andre typer stikkontakter kan føre til fare for elektrisk støt.
- *Bare HV-modeller:*
  - I den hensikt å oppnå overensstemmelse med EMC-direktivet for produkter som selges i Europa, skal utgangsledninger som er koblet til UPS-en, ikke være lenger enn 10 meter.
  - Total lekkasjestrøm fra det tilkoblede utstyret og UPS-en må ikke overstige 3,5 mA for en tilkoblings-UPS av type A.

### **OBS! Sikkerhet når enheter gjøres strømløse**

- UPS-en har en intern strømkilde, batteriet. Utgangen kan være strømførende også når enheten ikke er koblet til en stikkontakt på strømmettet.
- UPS-en kan gjøres strømløs ved å trykke på AV-knappen slik at utstyret slås av. Ta ut kontakten til UPS-en fra stikkontakten. Frakoble det interne batteriet og eventuelt eksterne batterier (se *bruks- og installasjonsveiledningen*). Trykk på PÅ-knappen for å gjøre kondensatorene strømløse.

### **OBS! Batteri og sikkerhet**

- **Dette utstyret er ladet med spenning som kan være farlig.** Slå opp i dokumentasjonen for enheten for å finne ut hvilke deler som kan skiftes ut av brukeren.
- Batterier skal ikke kastes på ild. Batteriene kan eksplodere.
- Batteriene skal ikke åpnes eller ødelegges. De inneholder et elektrolytt som er giftig og skadelig for hud og øyne.
- I den hensikt å unngå personskader på grunn av strømfare, må du ta av deg armbåndsurs og smykker, f.eks. ringer, når batteriene skal skiftes ut. Bruk verktøy med isolerte håndtak.
- Skift batterier med samme antall og type batterier som opprinnelig sto i utstyret.



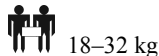
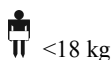
Lever det brukte batteriet til et resirkuleringscenter.

© International Business Machines Corporation, 2002. Med enerett.

Merknad til brukere som tilhører føderalregjeringen i USA – Dokumentasjonen er underlagt begrensede rettigheter – Bruk, kopiering eller utlevering er underlagt restriksjoner som er beskrevet i GSA ADP Schedule-kontrakten med IBM Corp.

IBM er et varemerke for International Business Machines Corporation i USA, andre land, eller begge deler.

**⚠️ OSTRZEŻENIE! Bezpieczne przenoszenie – Przy podnoszeniu należy przestrzegać zasad bezpieczeństwa.**



**⚠️ ⚡ OSTRZEŻENIE! Zasady bezpieczeństwa dotyczące zagrożenia prądem elektrycznym**

Prąd elektryczny z kabli zasilających, telefonicznych i telekomunikacyjnych jest niebezpieczny. Należy przeczytać poniższe instrukcje.

- Nie należy podłączać lub odłączać żadnych kabli, ani przeprowadzać instalacji, konserwacji lub rekonfiguracji tego wyrobu w czasie burzy z wyładowaniami elektrycznymi.
- Należy podłączyć wszystkie kable do właściwie oprzewodowanego i uziemionego gniazdka elektrycznego.
- Należy podłączyć do właściwie oprzewodowanych gniazdek wszelki sprzęt, który będzie podłączony do tego wyrobu.
- W miarę możliwości, należy używać tylko jednej ręki do podłączania lub odłączania kabli sygnałowych.
- Nigdy nie należy włączać żadnego sprzętu, w przypadku widocznych zniszczeń struktury lub spowodowanych ogniem lub wodą.
- Przed otwarciem pokryw urządzeń, należy odłączyć kable zasilające, systemy telekomunikacyjne, sieci i modemy, o ile opis procedur instalacji i konfiguracji nie podaje innych instrukcji.
- Przy instalacji, przemieszczaniu lub otwieraniu pokryw tego wyrobu lub podłączonych do niego urządzeń, należy podłączać lub odłączać kable w niżej opisany sposób.

**Podłączenie:**

- WYŁĄCZ całość sprzętu.
- W pierwszej kolejności podłącz wszystkie kable do urządzeń.
- Podłącz kable sygnałowe do złączy.
- Podłącz kable zasilające do gniazda.
- WŁĄCZ sprzęt.

**Odłączenie:**

- WYŁĄCZ całość sprzętu.
- W pierwszej kolejności odłącz kable zasilające od gniazda.
- Wyjmij kable sygnałowe ze złączy.
- Odłącz wszystkie kable od urządzeń.

- W warunkach niebezpiecznych nie należy pracować samemu.
- Duży prąd przepływający przez materiały przewodzące może spowodować poważne poparzenia.
- Należy sprawdzić, czy kabel(kable) zasilania, wtyczki i gniazdka są w dobrym stanie.
- Wymiana wtyczki zasilacza musi być wykonana przez wykwalifikowany personel techniczny.
- Kiedy nie jest możliwe sprawdzenie uziemienia, należy odłączyć urządzenie od gniazdka sieci zasilania przed instalacją lub podłączeniem do innego sprzętu. Można podłączyć kabel zasilania dopiero po podłączeniu wszystkich innych elementów.
- Nie należy dotykać żadnych złączy metalowych, zanim nie zostanie odłączone zasilanie.
- Sprzęt należy podłączyć do trójprzewodowego gniazda (dwa bieguny i uziemienie). Gniazdo musi być podłączone do odpowiednio zabezpieczonego (przy pomocy bezpiecznika lub wyłącznika automatycznego) obwodu lub głównego doprowadzenia z sieci. Podłączenie do gniazda innego rodzaju grozi porażeniem prądem.
- Tylko modele HV:
  - W celu zachowania zgodności z dyrektywą EMC dla produktów sprzedawanych w Europie, przewody wyjściowe podłączone do zasilacza nie powinny przekraczać 10 metrów długości.
  - Całkowity prąd upływowy z podłączonego sprzętu i zasilacza nie może przekraczać 3,5 mA dla zasilaczy typu A zasilanych przez kabel z wtyczką.

**⚠️ ⚡ OSTRZEŻENIE! Zasady bezpieczeństwa przy wyłączeniu spod napięcia**

- Zasilacz jest wyposażony w wewnętrzne źródło zasilania - akumulator. Na wyjściu z niego jest prąd, chociaż nie jest on podłączony do sieci.
- Aby wyłączyć zasilacz spod napięcia, należy nacisnąć przycisk OFF (Wyłącz) w celu wyłączenia dopływu zasilania do sprzętu. Następnie odłącz zasilacz od sieci. Odłącz zewnętrzne akumulatory, jeżeli są stosowane oraz akumulator wewnętrzny (patrz *Instrukcja obsługi i konfiguracji*). Naciśnij przycisk ON (Włącz), aby rozładować kondensatory.

**⚠️ ⚡ OSTRZEŻENIE! Zasady bezpieczeństwa dotyczące akumulatorów**

- W sprzęcie występuje potencjalnie niebezpieczne napięcie.** Należy odwołać się do dokumentacji wyrobu w celu ustalenia, które części mogą być wymieniane przez użytkownika.
- Nie należy wrzucać akumulatorów do ognia; mogą one wybuchnąć.
- Nie należy otwierać, ani uszkadzać akumulatorów. Zawierają one trujące i szkodliwe dla skóry i oczu elektrolity.
- Aby uniknąć porażenia prądem, przy wymianie akumulatora należy zdjąć zegarek i pierścionki. Należy używać narzędzi z izolowanymi uchwytami.
- Należy wymienić zestaw akumulatorów na nowe w tej samej liczbie i tego samego rodzaju, jak oryginalnie zainstalowane w urządzeniu.



**Zużyty akumulator należy odesłać do zakładu przerobu wtórnego.**

©Prawa autorskie International Business Machines Corporation, 2002. Wszelkie prawa zastrzeżone.

Uwaga przeznaczona dla amerykańskich użytkowników rządowych – Dokumentacja dotycząca ograniczenia praw – Użycie, powielanie lub ujawnianie podlega ograniczeniom opisanym w warunkach umowy GSA ADP z firmą IBM Corp.

IBM jest znakiem handlowym firmy International Business Machines Corporation w Stanach Zjednoczonych i w innych krajach.



**⚠️ ATENÇÃO! Segurança no manuseamento - Proceda com segurança quando levantar pesos.**



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

**⚠️ ⚡ ATENÇÃO! Segurança do sistema eléctrico**

A corrente eléctrica proveniente de cabos de instalações eléctricas, telefones e comunicações representa um sério perigo. Leia, pois, as normas de segurança que vão a seguir.

- Não ligar ou desligar cabos nem proceder à instalação, manutenção ou reconfiguração deste produto durante uma tempestade eléctrica.
- Ligar todas as extensões eléctricas a tomadas que estejam devidamente instaladas e com ligação à terra.
- Ligar todo o equipamento que vier agregado a este produto a tomadas devidamente instaladas.
- Sempre que possível, usar só uma das mãos para ligar ou desligar cabos de sinal.
- Nunca ligar nenhum equipamento se se verificar a evidência de danos causados por fogo, água ou deficiência estrutural.
- Desligar as extensões eléctricas agregadas, sistemas de telecomunicações, redes e modems antes de abrir as tampas do dispositivo, a não ser que o procedimento para instalação e configuração recomendem instruções diferentes.
- Ligar e desligar os cabos de acordo com o que vai exposto nos passos seguintes, sempre que se instalem, desloquem ou abram as tampas deste produto ou dos dispositivos agregados.

**Para ligar:**

1. Desligar todos os equipamentos [OFF].
2. Primeiro, ligar todos os cabos aos dispositivos.
3. Ligar cabos de sinal aos conectores.
4. Ligar as extensões eléctricas à tomada .
5. Ligar o dispositivo [ON]

**Para desligar:**

1. Desligar todos os equipamentos [OFF].
2. Primeiro, remover da tomada as extensões eléctricas.
3. Remover dos conectores os cabos de sinal.
4. Remover dos dispositivos todos os cabos.

- Não trabalhar sozinho em situações de risco.
- Corrente de alta intensidade através de materiais bons condutores pode causar queimaduras graves.
- Verificar se as extensões eléctricas, fichas e tomadas se encontram em boas condições.
- A mudança da ficha no UPS [*Uninterruptible Power Supply* (Fornecimento Permanente de Energia Eléctrica)] deve ser feita só por electricistas qualificados.
- Quando não for possível verificar a existência de ligação à terra, desligar o equipamento da tomada da rede eléctrica antes de instalar outros equipamentos ou de proceder à respectiva ligação. Voltar a fazer a ligação à corrente eléctrica somente depois de efectuadas todas as outras ligações.
- Não tocar em nenhum conector metálico se a corrente não estiver desligada.
- Ligar o equipamento a uma tomada de três orifícios (dois pólos e um terra). O receptáculo deve ser ligado à protecção correspondente do circuito ramal/linha principal (fusível ou disjuntor). A conexão a qualquer outro tipo de tomada é susceptível de causar choque eléctrico. .
- *Só para modelos HV:*
  - Para manter a conformidade com as directivas da EMC para produtos vendidos na Europa, o comprimento máximo das extensões de saída ligadas ao UPS não deverá exceder os 10 metros.
  - O total da fuga de corrente dos equipamentos ligados e do UPS não deverá exceder os 3,5 mA para um UPS inserível do tipo A.

**⚠️ ⚡ ATENÇÃO! Segurança na desactivação**

- O UPS está equipado com uma fonte de energia interna, uma bateria. Assim, a saída poderá estar activada mesmo quando a unidade não estiver ligada a uma tomada eléctrica.
- Para desactivar o UPS, premir o botão *OFF* para desligar o equipamento. Remover o UPS da tomada eléctrica. Desligar as baterias externas, se as houver, e desligar a bateria interna [consultar o *Operation and Setup Guide* (Guia de Montagem e Funcionamento)]. Premir o botão *ON* para desactivar os condensadores.

**⚠️ ⚡ ATENÇÃO! Segurança da bateria**

- **Este equipamento contém voltagens potencialmente perigosas.** Para saber quais as peças susceptíveis de substituição a efectuar pelo utilizador, consultar a documentação que acompanha o produto.
- Nunca lançar as baterias no fogo, pois elas poderão explodir.
- Não abrir nem deformar as baterias. Elas contêm um electrólito que é tóxico e nocivo à pele e aos olhos.
- Para evitar lesões causadas pela electricidade, remover relógios de pulso e jóias, incluindo anéis, quando se proceder à substituição das baterias. Utilizar ferramentas com cabos isolados.
- Ao substituir as baterias, utilizar o mesmo número e tipo das baterias inicialmente instaladas no equipamento.



**Descartar a bateria usada num centro de reciclagem**

© Copyright International Business Machines Corporation, 2002. All rights reserved [Todos os direitos reservados].

Aviso aos utilizadores do Governo dos Estados Unidos – Documentação sujeita a direitos restritos – Uso, duplicação ou divulgação estão sujeitos a restrições estabelecidas no contrato firmado entre a GSA ADP e a IBM Corp.

IBM é a marca comercial da *International Business Machines Corporation* nos Estados Unidos e em outros países.



**⚠ ПРЕДОСТЕРЕЖЕНИЕ! Безопасность при погрузке-разгрузке – При подъеме используйте безопасные приемы.**



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

**⚠ ПРЕДОСТЕРЕЖЕНИЕ! ЭЛЕКТРОБЕЗОПАСНОСТЬ**

Находящиеся под током электрические кабели питания, телефонные линии и связные кабели опасны. Пожалуйста, прочтите следующие указания по технике безопасности.

- Не производите никаких подключений или отключений любых кабелей, а также не выполняйте никаких работ по монтажу, техобслуживанию или изменению конфигурации данного изделия во время грозы.
- Все сетевые шнуры должны быть подключены к правильно смонтированным и заземленным сетевым розеткам.
- Любое оборудование, которое будет подключено к данному изделию, должно питаться от правильно смонтированных сетевых розеток.
- По возможности, подключение или отключение сигнальных кабелей должно производиться одной рукой.
- Никогда не включайте питание любого оборудования при наличии признаков пожара, попадания воды или повреждении конструкции.
- Прежде чем открыть крышки устройства, всегда необходимо отсоединить подключенные шнуры питания, системы телекоммуникации, компьютерные сети и модемы., если только в инструкциях по монтажу и конфигурированию не оговорено иное.
- Подключение и отключение кабелей при монтаже, передвижении или открывании крышек на данном изделии или подключенных к нему устройствах должно производиться в последовательности, приведенной в следующей таблице:

**Для подключения:**

1. Выключите все оборудование.
2. Сначала подключите все кабели к устройствам.
3. Подключите сигнальные кабели к разъемам.
4. Подключите шнуры питания к сетевым розеткам.
5. Включите устройство.

**Для отключения:**

1. Выключите все оборудование.
2. Сначала отключите от сети все шнуры питания.
3. Отсоедините сигнальные кабели от разъемов.
4. Отключите все кабели от устройств.

- В опасных условиях не допускается работа по одному.
- Протекание большого тока по проводящему материалу может вызвать серьезные ожоги.
- Проверяйте исправность и состояние сетевых шнуров, вилок и розеток..
- Замена вилки на источнике бесперебойногопитания (ИБП) должна производиться квалифицированным электриком.
- При невозможности проверить заземление, перед установкой другого оборудования или подключении к нему, произведите отключение оборудования от сети питания. Подключение к питающей сети допускается только после выполнения всех соединений.
- Не прикасайтесь к разъемам с металлическими корпусами до того как питание отключено.
- Оборудование должно подключаться к трехпроводной сетевой розетке (Два штыря плюс заземление). Розетка должна быть подключена к соответствующему сетевому/фазному защитному устройству (предохранитель или автоматический выключатель). Подключение к розетке любого другого типа может привести к риску поражения электрическим током.
- *Только для моделей HV:*
  - Для обеспечения соответствия с требованиями МЭК для Европейского рынка , длина выходных шнуров ИБП не должна превышать 10 метров.
  - Суммарный ток утечки от всего подключенного оборудования и ИБП не должен быть более 3,5 mA для сменного ИБП типа А (с подключением посредством вилок.).

**⚠ ПРЕДОСТЕРЕЖЕНИЕ! Безопасность при отключении питания**

- В ИБП имеется внутренний источник питания – аккумуляторная батарея. На выходе отключенного от розетки сетевого питания устройства может быть напряжение.
- Для того чтобы обесточить ИБП, нажмите кнопку OFF (ВЫКЛ) . Отсоедините вилку ИБП от сетевой розетки. Отключите наружные аккумуляторы (там где они имеются) и отключите внутренний аккумулятор (см. руководство по эксплуатации и настройке). Для разряда конденсаторов нажмите кнопку ON (ВКЛ).

**⚠ ПРЕДОСТЕРЕЖЕНИЕ! Техника безопасности при работе с аккумуляторами**

- Данное оборудование содержит потенциально опасные напряжения. Для определения деталей, замена которых разрешена потребителю, см. документацию на изделие.
- Не ликвидируйте аккумуляторы путем их сжигания, они могут взрываться.
- Не открывайте и не повреждайте аккумуляторы. Они содержат токсичный электролит, который вреден для кожи и глаз.
- Во избежание несчастных случаев, при замене аккумуляторов следует снять наручные часы и ювелирные украшения подобные кольцам. Пользуйтесь инструментом с изолированными рукоятками.
- При замене аккумуляторных элементов используйте такое же количество и тот же тип что был первоначально установлен в оборудовании.



**Обеспечьте доставку использованных аккумуляторов на пункт вторичной переработки.**

© Защищено авторским правом Интерэшнл Бизнес Машин Корпорэйшн, 2002. Перепечатка запрещена.

Примечание для пользователей в государственных организациях США – Документация относится к разряду документации с ограниченными правами - Применение, копирование, или раскрытие подлежат ограничениям, приведенным в контракте с корпорацией IBM.

IBM является торговой маркой Интерэшнл Бизнес Машин Корпорэйшн в США, других странах, или в обоих случаях.



## Informácie o bezpečnosti - UCHOVAJTE TOHTO SPRIEVODCU

### CAUTION! Handling Safety - Use safe practices when lifting.



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

### VÝSTRAHA! Bezpečnosť pri práci s elektrickým prúdom

Elektrický prúd v elektrických, telefónnych a komunikačných kábloch je nebezpečný. Prečítajte si, prosím, nasledujúce bezpečnostné pokyny.

- Nepripájajte ani neodpájajte žiadne káble ani nerobte inštaláciu, údržbu alebo zmenu konfigurácie tohto výrobku v prípade búrky.
- Všetky prívodné šnúry pripojte do riadne zapojených a uzemnených elektrických zásuviek.
- Do riadne zapojených zásuviek pripojte tiež všetky ostatné prístroje, ktoré budú pripojené k tomuto výrobku.
- Ak je to možné, použite na pripojenie alebo odpojenie signálnych káblov len jednu ruku.
- Nikdy nespúšťajte žiadne prístroje, keď je u nich náznak poškodenia ohňom, vodou, alebo štrukturálneho poškodenia.
- Pred otvorením krytov zariadenia odpojte pripojené prívodné šnúry, telekomunikačné systémy, siete a modemy, ak pokyny pre inštaláciu a zmeny konfigurácie nepožadujú iný postup.
- Keď budete inštalovať, premiestňovať alebo otvárať kryty na tomto výrobku alebo na pripojených prístrojoch, postupujte podľa nasledujúcich pokynov:

#### Pri pripájaní:

1. Turn everything OFF.
2. First attach all cables to devices.
3. Attach signal cables to connectors.
4. Attach power cords to outlet.
5. Turn device ON.

#### Pri odpájaní:

1. Turn everything OFF.
2. First remove power cords from outlet.
3. Remove signal cables from connectors.
4. Remove all cables from devices.

- Nepracujte sami v nebezpečných podmienkach.
- Vysoký prúd spôsobený skratom cez vodivé materiály môže spôsobiť vážne popáleniny.
- Skontrolujte, či sú napájacie káble, zástrčky a elektrické zásuvky v dobrom stave.
- Na výmenu poistiek na UPS a na inštaláciu trvalo pripojených zariadení používajte kvalifikovaný servisný personál.
- Keď nemôžete overiť uzemnenie, pred inštaláciou alebo pripojením k inému zariadeniu odpojte zariadenie z elektrickej zásuvky. Napájací kábel znova zapojte až po vykonaní všetkých pripojení.
- Nedotýkajte sa žiadnych kovových konektorov skôr ako bolo napájanie odpojené.
- Pripojte zariadenie do elektrickej zásuvky s tromi vodičmi (dva póly plus zem). Zásuvka musí byť pripojená k vhodnej ochrane pobočkového obvodu/hlavného vedenia (poistka alebo prerušovač obvodu). Pripojenie k akémukoľvek inému typu zásuvky môže mať za následok nebezpečie zranenia elektrickým prúdom.
- *Len pre modely HV [na vyššie napätie]:*
  - Kvôli udržaniu zhody so smernicami EMC pre produkty predávané v Európe nesmú výstupné káble pripojené do UPS presahovať dĺžku 10 metrov.
  - Celkový únik prúdu z pripojeného zariadenia a UPS nesmie u UPS typu A prekročiť 3,5 mA.

### VÝSTRAHA! Bezpečnosť pri vypínaní

- UPS má interný napájací zdroj, batériu. Výstup .môže byť pod napätím, aj keď jednotka nie je pripojená do elektrickej zásuvky.
- Náboj na UPS sa odstraňuje stlačením tlačidla OFF, ktorým sa zariadenie vypne. Potom odpojte UPS z elektrickej zásuvky. Tam, kde to je vhodné, odpojte vonkajší akumulátor a potom odpojte internú batériu (viď *Spríevodca pre nastavenie a prevádzku*). Stlačte tlačidlo ON, aby sa odstránil náboj z kondenzátora.

### VÝSTRAHA! Bezpečnosť batérií

- **Toto zariadenie obsahuje potenciálne nebezpečné napätia.** Nepokúšajte sa rozoberať túto jednotku. **Jediná výnimka** je pre UPS, ktoré obsahujú batérie. Pozrite si detaily o postupoch pri výmene batérie v užívateľskej príručke. Jednotka neobsahuje okrem batérie žiadne užívateľom opraviteľné časti. **Opravy by mal vykonávať len kvalifikovaný servisný personál.**
- Nezahadzujte batérie do ohňa. Batérie by mohli vybuchnúť.
- Neotvárajte ani nepoškodzuje batérie. Obsahujú elektrolyt, ktorý je jedovatý a škodlivý pre pokožku a oči.
- Aby ste predišli zraneniu elektrickým prúdom, počas výmeny batérií si odložte náramkové hodinky a šperky ako sú prstene. Používajte nástroje s izolovanými rúčkami.
- Nahradzujte batérie rovnakým číslom a typom batérií, ako sú pôvodne nainštalované v zariadení.



Opatrebovaná batéria sa musí odovzdať do recyklovacieho strediska.

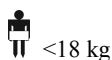
© Copyright International Business Machines Corporation, 2002. Všetky práva vyhradené.  
Poznámka pre užívateľov, ktorí sú zamestnanci americkej federálnej vlády – Dokumentácia vzťahujúca sa k obmedzeným právam – Používanie, kopírovanie alebo zverejňovanie týchto informácií podlieha obmedzeniam uvedeným v zmluve federálneho Úradu pre všeobecné služby [GSA ADP Schedule Contract] s firmou IBM Corp.

IBM je ochranná značka firmy International Business Machines Corporation registrovaná v Spojených štátoch, iných krajinách alebo v oboch.



## Informacije o varnosti – SHRANITE TA NAVODILA

**PREVIDNOST! Varnost pri rokovanju – Pri dvigovanju uporabite varnostne postopke.**



<18 kg



32–55 kg



18–32 kg



>55 kg



>10°

**PREVIDNOST! Varnost pri rokovanju z električnimi elementi**

**Električni tok iz priključnega, telefonskega in komunikacijskega kabla je nevaren. Prosim, preberite naslednja varnostna navodila.**

- Med električno nevihto ne priklopljajte ali odklopljajte nobenih kablov, ter ne opravljajte instalacije, vzdrževanja ali rekonfiguracije tega proizvoda.
- Vsi priključni kabli morajo biti priklopljeni v pravilno vezane in ozemljene vtičnice .
- Vsa oprema, ki bo priklopljena na ta proizvod, mora biti priklopljena v pravilno vezane vtičnice.
- Kadar je to mogoče, uporabite samo eno roko za priklop ali odklop signalnih kablov.
- Nikoli ne vklopite opreme, ki je vidno poškodovana (sledi ognja, vode ali poškodbe konstrukcije).
- Preden odprete pokrove naprave, odklopite priključne kable, telekomunikacijske sisteme, omrežja in modeme, razen če navodila v instalacijskih in konfiguracijskih postopkih niso drugačna.
- Pri instalaciji, premikanju ali odpiranju pokrovov na tem proizvodu ali priključenih napravah kable priklopite in odklopite, kot je prikazano v naslednjih korakih.

### **Priklop:**

1. Vse komponente IZKLOPITE.
2. Najprej priklopite vse kable naprav.
3. Priklopite signalne kable na konektorje.
4. Vtaknite priključne kable v vtičnico.
5. VKLOPITE napravo.

### **Odklop:**

1. Vse komponente IZKLOPITE.
2. Izvlecite priključne kable iz vtičnice.
3. Snemite signalne kable s konektorjev.
4. Odklopite vse kable naprav.

- V nevarnih pogojih ne delajte sami.
- Močan tok lahko skozi prevodne materiale povzroči hude opekline.
- Preverite, da so priključni kabel/kabli, vtič/vtiči in vtičnica/vtičnice v dobrem stanju.
- Zamenjavo vtiča na UPS (sistemu za neprekinjeno oskrbo z električno energijo) naj opravi pooblaščen servisno osebje.
- Kadar ne morete preveriti ozemljitve, priključni kabel opreme izvlecite pred instalacijo ali priklopom k drugi opremi. Priključni kabel priklopite šele, ko so opravljene vse priključitve.
- Pred izklopom priključnega kabla se ne dotikajte nobenih kovinskih konektorjev.
- Opremo priključite na trožilno vtičnico (dva pola in zemlja), ki mora biti priključena na primerno zaščito glavnega omrežja ali njegove veje (varovalka ali prekinjalo toka). S priključitvijo na drugačno vtičnico lahko tvegate električni udar.
- *Samo visokonapetostni modeli:*
  - Za skladnost z elektro-magnetnimi predpisi za proizvode, namenjene prodaji v Evropi, na UPS priključeni izhodni kabli ne smejo preseči dolžine 10 m.
  - Skupni odvodni tokovi iz priključene opreme in UPS (sistema za neprekinjeno oskrbo z električno energijo) ne smejo preseči 3.5 mA za vtične UPS tipa A.

**PREVIDNOST! Varnost pri izklopu**

- UPS ima notranji vir energije, baterijo. Izhod je lahko aktiven tudi, kadar priključni kabel enote ni priklopljen v vtičnico..
- Za izklop UPS pritisnite gumb IZKLOP. Izvlecite vtič priključnega kabla UPS iz vtičnice. Odklopite zunanje baterije, če obstajajo. Odklopite notranjo baterijo (glej *Priročnik za uporabo in zagon*). Pritisnite gumb VKLOP za deaktivacijo kondenzatorjev.

**PREVIDNOST! Varnost pri rokovanju z baterijami**

- **Napetosti te opreme so potencialno nevarne.** V tehnični dokumentaciji preverite, katere sestavne dele lahko zamenja uporabnik sam.
- Baterij ne vrzite v ogenj, saj lahko eksplodirajo.
- Baterij ne odpirajte in ne poškodujte. Vsebujejo elektrolit, ki je strupen ter škodljiv za kožo in oči.
- Da bi se izognili poškodbam, pred zamenjavo baterij snemite ročno uro in nakit, posebno prstane. Uporabljajte orodje z izoliranimi ročaji.
- Baterijski element zamenjajte z elementom z enako številko in tipom, kot je bil originalno vgrajen v opremo.



**Izpraznjeno baterijo reciklirajte.**

© International Business Machines Corporation, 2002. Vse pravice pridržane.

IBM je zaščitna znamka International Business Machines Corporation v ZDA in/ali drugih državah.



## Medidas de seguridad - GUARDE ESTA GUÍA

### ¡CUIDADO! Medidas de seguridad durante el transporte – Levante las cargas en forma segura.



<18 kg (<40 libras)



32–55 kg (70–120 libras)



18–32 kg (40–70 libras)



>55 kg (>120 libras)



>10°

### ¡CUIDADO! Medidas de seguridad eléctricas

La corriente eléctrica de los cables de electricidad, comunicación y de teléfono es peligrosa. Por favor, lea las siguientes medidas de seguridad.

- No conecte o desconecte ningún cable y no realice la instalación, tareas de mantenimiento o la reconfiguración de este producto durante tormentas eléctricas.
- Conecte todos los cables eléctricos a un tomacorriente correctamente cableado y con conexión a tierra.
- Conecte todos los equipos conectados a este producto a tomacorrientes correctamente cableados.
- Si es posible, use una sola mano para conectar o desconectar los cables de señal.
- Nunca encienda un equipo si observa fuego, agua o daño estructural en el mismo.
- Desconecte los cables de electricidad, sistemas de telecomunicaciones, redes y módems conectados antes abrir las tapas del dispositivo, salvo cuando los procedimientos de instalación y configuración indiquen lo contrario.
- Cuando instale, mueva o abra las tapas de este producto o de los dispositivos conectados, siga los pasos descritos a continuación para conectar y desconectar los cables.

#### Para conectar:

1. APAGUE todo.
2. Primero conecte todos los cables a los dispositivos.
3. Conecte los cables de señal a los conectores.
4. Conecte los cables eléctricos al tomacorriente.
5. ENCIENDA el dispositivo.

#### Para desconectar:

1. APAGUE todo.
2. Primero, desenchufe los cables de electricidad del tomacorriente.
3. Retire los cables de señal de los conectores.
4. Retire todos los cables de los dispositivos.

- No trabaje solo en condiciones peligrosas..
- La alta corriente que pasa por materiales conductivos puede causar graves quemaduras.
- Compruebe que los cables eléctricos, los enchufes y los tomacorrientes estén en buenas condiciones.
- Solicite al personal del servicio técnico autorizado que cambie el enchufe del SAI.
- Cuando no sea posible verificar la conexión a tierra, desconecte el equipo del tomacorriente de la red pública antes de instalarlo o conectarlo a otro equipo. Vuelva a conectar el cable eléctrico sólo después de realizar todas las demás conexiones.
- No toque conectores metálicos si no ha desconectado antes el suministro de corriente eléctrica.
- Conecte el equipo a un tomacorriente trifilar de la red pública (dos polos y conexión a tierra). El receptáculo debe estar conectado al circuito secundario o protección de línea principal (fusible o disyuntor) adecuado. Toda conexión a otro tipo de receptáculo puede producir descargas eléctricas.
- *Sólo para los modelos de alto voltaje:*
  - Para cumplir las normas de EMC correspondientes a los productos vendidos en Europa, los cables de salida conectados al sistema de alimentación ininterrumpida no deben tener más de 10 metros de largo.
  - La corriente de fuga total proveniente del equipo conectado y el SAI no debe ser superior a 3,5 mA en el caso de un SAI enchufable Tipo A.

### ¡CUIDADO! Medidas de seguridad al desenergizar

- Como el SAI posee una fuente de energía interna, la batería, la salida puede estar energizada aun cuando la unidad no esté conectada a un tomacorriente de la red pública.
- Para desenergizar el SAI, presione el botón OFF (apagar) para apagar el equipo. Desenchufe el SAI del tomacorriente de la red pública. Desconecte las baterías externas (si las hubiere) y la batería interna (consulte la Guía de Operación y Configuración). Presione el botón ON (encendido) para desenergizar los capacitores.

### ¡CUIDADO! Medidas de seguridad para la batería

- **Este equipo contiene voltajes que pueden ser peligrosos.** Consulte la documentación del producto para determinar qué piezas pueden ser reemplazadas por el usuario.
- No arroje las baterías al fuego ya que pueden explotar.
- No abra o mutile las baterías. Las baterías contienen un electrolito que es tóxico y dañino para la piel y los ojos.
- Para evitar lesiones personales debido al peligro de descargas eléctricas, quítese los relojes de pulsera y todas las joyas y anillos que tenga puestos cuando sustituya la batería. Use herramientas con manijas aisladas.
- Sustituya el módulo de las baterías por otro del mismo número y tipo que el instalado originalmente en el equipo.



No olvide enviar la batería usada a un centro de reciclado.

© Copyright International Business Machines Corporation, 2002. Reservados todos los derechos.

Nota a los usuarios del gobierno de los EE.UU. – Documentación relacionada con los Derechos Restringidos – Su uso, duplicación o divulgación están sujetos a las restricciones publicadas en el GSA ADP Schedule Contract con IBM Corp.

IBM es una marca comercial de International Business Machines Corporation en los Estados Unidos de América y en otros países .



### **OBS! Säkerhet vid hanteringen – Utöva ett säkert förfarande vid lyftning.**



<18 kg (<40 lb)



32–55 kg (70–120 lb)



18–32 kg (40–70 lb)



>55 kg (>120 lb)



>10°

### **OBS! Elektrisk säkerhet**

Elektrisk ström från el-, telefon- och datakommunikationskablar utgör säkerhetsrisk. Var god läs igenom följande påpekanden rörande säkerhet.

- Vid förestående eller rådande åskväder får ingen kabel ur- eller ikopplas, och ej heller utföras installation, underhåll eller konfiguration av denna produkt.
- Anslut alla elsladdar till korrekt installerat och jordat elektriskt uttag.
- Koppla all utrustning som ska anslutas till denna produkt till korrekt installerade uttag.
- Om det är möjligt ska endast ena handen användas för att koppla i eller urkoppla signalkablar.
- Slå aldrig på utrustning i förekommande fall av eld, vatten eller konstruktionskada.
- Koppla ur anslutna elsladdar, telekommunikationssystem, nätverk och modem innan du öppnar lock/lucka/kåpa i utrustningen, om ej andra anvisningar har givits för installation och konfiguration.
- Koppla i och urkoppla kablar enligt beskrivningen i det följande vid installation, förflyttning eller öppnande av lock/lucka/kåpa på denna produkt eller tillhörande utrustning.

#### Att ansluta:

- Stäng AV (OFF) allting.
- Anslut samtliga kablar till utrustningens enheter.
- Anslut signalkablarna till kontakterna.
- Koppla sladdarna till el-uttaget.
- Slå PÅ (ON) enheten.

#### Att urkoppla:

- Stäng AV (OFF) allting.
- Ta ur elsladdarna från uttaget.
- Avlägsna signalkablarna från kontakterna.
- Ta bort samtliga kablar från enheterna.

- Arbeta inte ensam under riskfyllda förhållanden.
- Starkström genom ledande material kan leda till allvarliga brännskador.
- Se till att elsladden/-sladdarna, stickkontakten/-kontakterna, och uttagen är i gott skick.
- Låt kvalificerad servicepersonal utföra stickkontaktsbyte på UPS-enheten.
- Ifall jordning ej kan verifieras, ska utrustningen urkopplas från kraftspänningsuttaget innan installering eller anslutning sker till annan utrustning. Koppla återigen i elsladden efter att samtliga anslutningar upprättats.
- Kontakt av metall får ej hanteras innan strömmen har urkopplats.
- Anslut utrustningen till ett 3-tråds kraftuttag (två poler plus jord). Sockeln måste vara kopplad till lämplig grenkrets/huvudnätsskydd (säkring eller effektbrytare). Anslutning till annan typ av sockel kan resultera i risk för elchock.
- Endast HV-modeller:
  - För att uppfylla fördringarna enligt EMC-direktivet för produkter sålda i Europa, ska uttagssladd som kopplas till UPS-enhet inte överskrida en längd av 10 meter.
  - Total läckström från ansluten utrustning och från UPS-enhet får ej överskrida 3,5 mA för UPS-enhet av instickbar typ A.

### **OBS! Säkerhet när utrustning görs strömlös**

- UPS-enheten har en invändig energikälla, nämligen batteriet. Utgången kan vara strömsatt även om enheten inte är tillkopplad ett kraftspänningsuttag.
- Gör UPS-enheten strömlös genom att trycka på OFF-knappen så att utrustningen stängs av. Koppla ur UPS-enheten från kraftspänningsuttaget. Koppla ur de utvändiga batterierna i förekommande fall samt koppla ur det invändiga batteriet (se *Operation and Setup Guide, Handledning för drift och uppsättning*). Gör kondensatorerna strömlösa genom att trycka på ON-knappen.

### **OBS! Batterisäkerhet**

- Denna utrustning innehåller potentiellt farlig elspänning.** Se efter i produktdokumentationen för uppgift om vilka delar som kan bytas ut av användaren.
- Batterierna får inte deponeras i eld. Batterierna kan explodera.
- Batterierna får ej öppnas eller manipuleras med. De innehåller en elektrolyt som är toxisk och skadlig för ögon och hud.
- Undvik personskada vid batteribyte genom att ta av klockarmband, ringar, smycken osv. Använd verktyg med isolerade handtag.
- Byt ut batterimodulen mot modul av samma nummer och typ som den som originalinstallerades i utrustningen.



Se till att det förbrukade batteriet levereras till en återvinningscentral.

© Copyright International Business Machines Corporation, 2002. Alla rättigheter förbehålles.

Anm. för användare vid U.S. Government – Dokumentationen gäller med inskränkta regler – Användning, duplicering eller yppande sorterar under restriktioner som är framförda i GSA ADP Schedule Contract-avtalet med IBM Corp.

IBM är ett varumärke som tillhör International Business Machines Corporation i USA och/eller andra länder.



## 9: WARRANTY INFORMATION

### IBM Statement of Limited Warranty Z125-4753-07 11/2002

#### Part 1 - General Terms

##### Part 1 - General Terms

*This Statement of Limited Warranty includes Part 1 - General Terms, Part 2 - Country- unique Terms, and Part 3 - Warranty Information. The terms of Part 2 replace or modify those of Part 1. The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you purchase for your use, and not for resale. The term "Machine" means an IBM machine, its features, conversions, upgrades, elements, or accessories, or any combination of them. The term "Machine" does not include any software programs, whether pre-loaded with the Machine, installed subsequently or otherwise. **Nothing in this Statement of Limited Warranty affects any statutory rights of consumers that cannot be waived or limited by contract.***

##### What this Warranty Covers

IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications ("Specifications") which are available on request. The warranty period for the Machine starts on the original Date of Installation and is specified in Part 3 - Warranty Information. The date on your invoice or sales receipt is the Date of Installation unless IBM or your reseller informs you otherwise. Many features, conversions, or upgrades involve the removal of parts and their return to IBM. A part that replaces a removed part will assume the warranty service status of the removed part. Unless IBM specifies otherwise, these warranties apply only in the country or region in which you purchased the Machine.

**THESE WARRANTIES ARE YOUR EXCLUSIVE WARRANTIES AND REPLACE ALL OTHER WARRANTIES OR CONDITIONS, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OR CONDITIONS OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OF EXPRESS OR IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU. IN THAT EVENT, SUCH WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD. SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

##### What this Warranty Does not Cover

This warranty does not cover the following:

- any software programs, whether pre-loaded or shipped with the Machine, or installed subsequently;
- failure resulting from misuse (including but not limited to use of any Machine capacity or capability, other than that authorized by IBM in writing), accident, modification, unsuitable physical or operating environment, or improper maintenance by you;
- failure caused by a product for which IBM is not responsible; and
- any non-IBM products, including those that IBM may procure and provide with or integrate into an IBM Machine at your request.

The warranty is voided by removal or alteration of identification labels on the Machine or its parts.

IBM does not warrant uninterrupted or error-free operation of a Machine.

Any technical or other support provided for a Machine under warranty, such as assistance via telephone with "how-to" questions and those regarding Machine set-up and installation, is provided **WITHOUT WARRANTIES OF ANY KIND.**

##### How to Obtain Warranty Service

If the Machine does not function as warranted during the warranty period, contact IBM or your reseller to obtain warranty service. If you do not register the Machine with IBM, you may be required to present

proof of purchase as evidence of your entitlement to warranty service.

### **What IBM Will Do to Correct Problems**

When you call for service, you must follow the problem determination and resolution procedures that IBM specifies. A technician will attempt to make an initial diagnosis of your problem and help you resolve it over the telephone.

The type of warranty service applicable to your Machine is specified in Part 3 - Warranty Information.

You are responsible for downloading and installing designated Machine Code (microcode, basic input/output system code (called "BIOS"), utility programs, device drivers, and diagnostics delivered with an IBM Machine) and other software updates from an IBM Internet Web site or from other electronic media, and following the instructions that IBM provides.

If your problem can be resolved with a Customer Replaceable Unit ("CRU") (e.g., keyboard, mouse, speaker, memory, hard disk drive and other easily replaceable parts), IBM will ship these parts to you for replacement by you.

If the Machine does not function as warranted during the warranty period and your problem cannot be resolved over the telephone, through your application of Machine Code or software updates, or with a CRU, IBM or your reseller, if approved by IBM to provide warranty service, will either, at its discretion, 1) repair it to make it function as warranted, or 2) replace it with one that is at least functionally equivalent. If IBM is unable to do either, you may return the Machine to your place of purchase and your money will be refunded

IBM or your reseller will also manage and install selected engineering changes that apply to the Machine.

### **Exchange of a Machine or Part**

When the warranty service involves the exchange of a Machine or part, the item IBM or your reseller replaces becomes its property and the replacement becomes yours. You represent that all removed items are genuine and unaltered. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced. The replacement assumes the warranty service status of the replaced item.

### **Your Additional Responsibilities**

Before IBM or your reseller exchanges a Machine or part, you agree to remove all features, parts, options, alterations, and attachments not under warranty service.

You also agree to:

1. ensure that the Machine is free of any legal obligations or restrictions that prevent its exchange;
2. obtain authorization from the owner to have IBM or your reseller service a Machine that you do not own; and
3. where applicable, before service is provided:
  - a. follow the service request procedures that IBM or your reseller provides;
  - b. backup or secure all programs, data, and funds contained in the Machine;
  - c. provide IBM or your reseller with sufficient, free, and safe access to your facilities to permit IBM to fulfill its obligations; and
  - d. inform IBM or your reseller of changes in the Machine's location.
4. a) ensure all information about identified or identifiable individuals (Personal Data) is deleted from the Machine (to the extent technically possible), (b) allow IBM, your reseller or an IBM supplier to process on your behalf any remaining Personal Data as IBM or your reseller considers necessary to fulfill its obligations under this Statement of Limited Warranty (which may include shipping the Machine for such processing to other IBM service locations around the world), and (c) ensure that such processing complies with any laws applicable to such Personal Data.

### **Limitation of Liability**

IBM is responsible for loss of, or damage to, your Machine only while it is 1) in IBM's possession or 2) in transit in those cases where IBM is responsible for the transportation charges.

Neither IBM nor your reseller are responsible for any of your confidential, proprietary or personal

information contained in a Machine which you return to IBM for any reason. You should remove all such information from the Machine prior to its return.

Circumstances may arise where, because of a default on IBM's part or other liability, you are entitled to recover damages from IBM. In each such instance, regardless of the basis on which you are entitled to claim damages from IBM (including fundamental breach, negligence, misrepresentation, or other contract or tort claim), except for any liability that cannot be waived or limited by applicable laws, IBM is liable for no more than

1. damages for bodily injury (including death) and damage to real property and tangible personal property; and
2. the amount of any other actual direct damages, up to the charges (if recurring, 12 months' charges apply) for the Machine that is subject of the claim. For purposes of this item, the term "Machine" includes Machine Code and Licensed Internal Code ("LIC").

This limit also applies to IBM's suppliers and your reseller. It is the maximum for which IBM, its suppliers, and your reseller are collectively responsible.

**UNDER NO CIRCUMSTANCES IS IBM, ITS SUPPLIERS OR RESELLERS LIABLE FOR ANY OF THE FOLLOWING EVEN IF INFORMED OF THEIR POSSIBILITY: 1) THIRD PARTY CLAIMS AGAINST YOU FOR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE); 2) LOSS OF, OR DAMAGE TO, DATA; 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; OR 4) LOST PROFITS, BUSINESS REVENUE, GOODWILL OR ANTICIPATED SAVINGS. SOME STATES OR JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION MAY NOT APPLY TO YOU. SOME STATES OR JURISDICTIONS DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU.**

#### **Governing Law**

Both you and IBM consent to the application of the laws of the country in which you acquired the Machine to govern, interpret, and enforce all of your and IBM's rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Statement of Limited Warranty, without regard to conflict of law principles.

**THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE OR JURISDICTION TO JURISDICTION.**

#### **Jurisdiction**

All of our rights, duties, and obligations are subject to the courts of the country in which you acquired the Machine.

## **Part 2 - Country-unique Terms**

### **AMERICAS**

#### **ARGENTINA**

**Governing Law:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the Ordinary Commercial Court of the city of Buenos Aires.

#### **BRAZIL**

**Governing Law:** *The following is added after the first sentence:*

Any litigation arising from this Statement of Limited Warranty will be settled exclusively by the court of Rio de Janeiro, RJ.

#### **PERU**

**Limitation of Liability:** *The following is added at the end of this section:*

In accordance with Article 1328 of the Peruvian Civil Code the limitations and exclusions specified in this section will not apply to damages caused by IBM's willful misconduct ("dolo") or gross negligence ("culpa inexcusable").

## **NORTH AMERICA**

**How to Obtain Warranty Service:** *The following is added to this Section:*

To obtain warranty service from IBM in Canada or the United States, call 1-800-IBM-SERV (426-7378).

### **CANADA**

**Limitation of Liability:** *The following replaces item 1 of this section:*

1. damages for bodily injury (including death) or physical harm to real property and tangible personal property caused by IBM's negligence; and

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*

laws in the Province of Ontario.

### **UNITED STATES**

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*

laws of the State of New York.

## **ASIA PACIFIC**

### **AUSTRALIA**

**What this Warranty Covers:** *The following paragraph is added to this section:*

The warranties specified in this Section are in addition to any rights you may have under the Trade Practices Act 1974 or other similar legislation and are only limited to the extent permitted by the applicable legislation.

**Limitation of Liability:** *The following is added to this section:*

Where IBM is in breach of a condition or warranty implied by the Trade Practices Act 1974 or other similar legislation, IBM's liability is limited to the repair or replacement of the goods or the supply of equivalent goods. Where that condition or warranty relates to right to sell, quiet possession or clear title, or the goods are of a kind ordinarily acquired for personal, domestic or household use or consumption, then none of the limitations in this paragraph apply.

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*

laws of the State or Territory.

### **CAMBODIA, LAOS, AND VIETNAM**

**Governing Law:** *The following replaces "laws of the country in which you acquired the Machine" in the first sentence:*

laws of the State of New York, United States of America.

### **CAMBODIA, INDONESIA, LAOS, AND VIETNAM**

**Arbitration:** *The following is added under this heading:*

Disputes arising out of or in connection with this Statement of Limited Warranty shall be finally settled by arbitration which shall be held in Singapore in accordance with the Arbitration Rules of Singapore International Arbitration Center ("SIAC Rules") then in effect. The arbitration award shall be final and binding for the parties without appeal and shall be in writing and set forth the findings of fact and the conclusions of law.

The number of arbitrators shall be three, with each side to the dispute being entitled to appoint one arbitrator. The two arbitrators appointed by the parties shall appoint a third arbitrator who shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the SIAC. Other vacancies shall be filled by the respective nominating party. Proceedings shall continue from the stage they were at when the vacancy occurred.

If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator shall be the sole arbitrator, provided that the arbitrator was validly and properly appointed.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. The English language version of this Statement of Limited Warranty prevails over any other language version.

## HONG KONG S.A.R. OF CHINA AND MACAU S.A.R. OF CHINA

**Governing Law:** *The following replaces “laws of the country in which you acquired the Machine” in the first sentence:*

laws of Hong Kong Special Administrative Region of China.

## INDIA

**Limitation of Liability:** *The following replaces items 1 and 2 of this section:*

1. liability for bodily injury (including death) or damage to real property and tangible personal property will be limited to that caused by IBM's negligence; and
2. as to any other actual damage arising in any situation involving nonperformance by IBM pursuant to, or in any way related to the subject of this Statement of Limited Warranty, the charge paid by you for the individual Machine that is the subject of the claim. For purposes of this item, the term “Machine” includes Machine Code and Licensed Internal Code (“LIC”).

**Arbitration:** *The following is added under this heading:*

Disputes arising out of or in connection with this Statement of Limited Warranty shall be finally settled by arbitration which shall be held in Bangalore, India in accordance with the laws of India then in effect. The arbitration award shall be final and binding for the parties without appeal and shall be in writing and set forth the findings of fact and the conclusions of law.

The number of arbitrators shall be three, with each side to the dispute being entitled to appoint one arbitrator. The two arbitrators appointed by the parties shall appoint a third arbitrator who shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the Bar Council of India. Other vacancies shall be filled by the respective nominating party. Proceedings shall continue from the stage they were at when the vacancy occurred.

If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator shall be the sole arbitrator, provided that the arbitrator was validly and properly appointed.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. The English language version of this Statement of Limited Warranty prevails over any other language version.

## JAPAN

**Governing Law:** *The following sentence is added to this section:*

Any doubts concerning this Statement of Limited Warranty will be initially resolved between us in good faith and in accordance with the principle of mutual trust.

## MALAYSIA

**Limitation of Liability:** *The word “SPECIAL” in item 3 of the fifth paragraph is deleted.*

**What this Warranty Covers:** *The following paragraph is added to this section:*

The warranties specified in this section are in addition to any rights you may have under the Consumer Guarantees Act 1993 or other legislation which cannot be excluded or limited. The Consumer Guarantees Act 1993 will not apply in respect of any goods which IBM provides, if you require the goods for the purposes of a business as defined in that Act.

**Limitation of Liability:** *The following is added to this section:*

Where Machines are not acquired for the purposes of a business as defined in the Consumer Guarantees Act 1993, the limitations in this section are subject to the limitations in that Act.

## PEOPLE'S REPUBLIC OF CHINA (PRC)

**Governing Law:** *The following replaces “laws of the country in which you acquired the Machine” in the first sentence:*

laws of the State of New York, United States of America (except when local law requires otherwise).

## PHILIPPINES

**Limitation of Liability:** *Item 3 in the fifth paragraph is replaced by the following:*

**SPECIAL (INCLUDING NOMINAL AND EXEMPLARY DAMAGES), MORAL,**

## **INCIDENTAL, OR INDIRECT DAMAGES FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; OR**

**Arbitration:** *The following is added under this heading:*

Disputes arising out of or in connection with this Statement of Limited Warranty shall be finally settled by arbitration which shall be held in Metro Manila, Philippines in accordance with the laws of the Philippines then in effect. The arbitration award shall be final and binding for the parties without appeal and shall be in writing and set forth the findings of fact and the conclusions of law.

The number of arbitrators shall be three, with each side to the dispute being entitled to appoint one arbitrator. The two arbitrators appointed by the parties shall appoint a third arbitrator who shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the Philippine Dispute Resolution Center, Inc. Other vacancies shall be filled by the respective nominating party. Proceedings shall continue from the stage they were at when the vacancy occurred.

If one of the parties refuses or otherwise fails to appoint an arbitrator within 30 days of the date the other party appoints its, the first appointed arbitrator shall be the sole arbitrator, provided that the arbitrator was validly and properly appointed.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. The English language version of this Statement of Limited Warranty prevails over any other language version.

## **SINGAPORE**

**Limitation of Liability:** *The words "SPECIAL" and "ECONOMIC" in item 3 in the fifth paragraph are deleted.*

## **EUROPE, MIDDLE EAST, AFRICA (EMEA)**

### ***THE FOLLOWING TERMS APPLY TO ALL EMEA COUNTRIES:***

The terms of this Statement of Limited Warranty apply to Machines purchased from IBM or an IBM reseller.

**How to Obtain Warranty Service:** If you purchase a Machine in Austria, Belgium, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, Norway, Portugal, Spain, San Marino, Sweden, Switzerland, United Kingdom or Vatican State, you may obtain warranty service for that Machine in any of those countries from either (1) an IBM reseller approved to perform warranty service or (2) from IBM, provided the Machine has been announced and made available by IBM in the country in which you wish to obtain service. If you purchased a Personal Computer Machine in Albania, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Kazakhstan, Kyrgyzstan, Federal Republic of Yugoslavia, Former Yugoslav Republic of Macedonia (FYROM), Moldova, Poland, Romania, Russia, Slovak Republic, Slovenia, or Ukraine, you may obtain warranty service for that Machine in any of those countries from either (1) an IBM reseller approved to perform warranty service or (2) from IBM.

If you purchase a Machine in a Middle Eastern or African country, you may obtain warranty service for that Machine from the IBM entity within the country of purchase, if that IBM entity provides warranty service in that country, or from an IBM reseller, approved by IBM to perform warranty service on that Machine in that country. Warranty service in Africa is available within 50 kilometers of an IBM approved service provider. You are responsible for transportation costs for Machines located outside 50 kilometers of an IBM approved service provider.

*Add the following paragraph in **Western Europe** (Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Monaco, Netherlands, Norway, Portugal, Spain, San Marino, Sweden, Switzerland, United Kingdom, Vatican State):*

The warranty for Machines acquired in Western Europe shall be valid and applicable in all Western Europe countries provided the Machines have been announced and made available in such countries.

## **Governing Law:**

*The phrase "the laws of the country in which you acquired the Machine" is replaced by:*

1) "the laws of Austria" in **Albania, Armenia, Azerbaijan, Belarus, Bosnia- Herzegovina, Bulgaria, Croatia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, FYR Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, and FR Yugoslavia;** 2) "the laws of France" in **Algeria, Benin, Burkina Faso, Cameroon, Cape Verde,**

**Central African Republic, Chad, Comoros, Congo Republic, Djibouti, Democratic Republic of Congo, Equatorial Guinea, French Guiana, French Polynesia, Gabon, Gambia, Guinea, Guinea-Bissau, Ivory Coast, Lebanon, Madagascar, Mali, Mauritania, Mauritius, Mayotte, Morocco, New Caledonia, Niger, Reunion, Senegal, Seychelles, Togo, Tunisia, Vanuatu, and Wallis & Futuna;** 3) “the laws of Finland” **in Estonia, Latvia, and Lithuania;** 4) “the laws of England” **in Angola, Bahrain, Botswana, Burundi, Egypt, Eritrea, Ethiopia, Ghana, Jordan, Kenya, Kuwait, Liberia, Malawi, Malta, Mozambique, Nigeria, Oman, Pakistan, Qatar, Rwanda, Sao Tome, Saudi Arabia, Sierra Leone, Somalia, Tanzania, Uganda, United Arab Emirates, the United Kingdom, West Bank/Gaza, Yemen, Zambia, and Zimbabwe;** and 5) “the laws of South Africa” **in South Africa, Namibia, Lesotho and Swaziland.**

**Jurisdiction:** *The following exceptions are added to this section:*

1) **In Austria** the choice of jurisdiction for all disputes arising out of this Statement of Limited Warranty and relating thereto, including its existence, will be the competent court of law in Vienna, Austria (Inner-City); 2) **in Angola, Bahrain, Botswana, Burundi, Egypt, Eritrea, Ethiopia, Ghana, Jordan, Kenya, Kuwait, Liberia, Malawi, Malta, Mozambique, Nigeria, Oman, Pakistan, Qatar, Rwanda, Sao Tome, Saudi Arabia, Sierra Leone, Somalia, Tanzania, Uganda, United Arab Emirates,**

**West Bank/Gaza, Yemen, Zambia, and Zimbabwe** all disputes arising out of this Statement of Limited Warranty or related to its execution, including summary proceedings, will be submitted to the exclusive jurisdiction of the English courts; 3) **in Belgium and Luxembourg**, all disputes arising out of this Statement of Limited Warranty or related to its interpretation or its execution, the law, and the courts of the capital city, of the country of your registered office and/or commercial site location only are competent; 4) **in France, Algeria, Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Congo Republic, Djibouti, Democratic Republic of Congo, Equatorial Guinea, French Guiana, French Polynesia, Gabon, Gambia, Guinea, Guinea-Bissau, Ivory Coast, Lebanon, Madagascar, Mali, Mauritania, Mauritius, Mayotte, Morocco, New Caledonia, Niger, Reunion, Senegal, Seychelles, Togo, Tunisia, Vanuatu, and Wallis & Futuna** all disputes arising out of this Statement of Limited Warranty or related to its violation or execution, including summary proceedings, will be settled exclusively by the Commercial Court of Paris; 5) **in Russia**, all disputes arising out of or in relation to the interpretation, the violation, the termination, the nullity of the execution of this Statement of Limited Warranty shall be settled by Arbitration Court of Moscow; 6) **in South Africa, Namibia, Lesotho and Swaziland**, both of us agree to submit all disputes relating to this Statement of Limited Warranty to the jurisdiction of the High Court in Johannesburg; 7) **in Turkey** all disputes arising out of or in connection with this Statement of Limited Warranty shall be resolved by the Istanbul Central (Sultanahmet) Courts and Execution Directorates of Istanbul, the Republic of Turkey; 8) in each of the following specified countries, any legal claim arising out of this Statement of Limited Warranty will be brought before, and settled exclusively by, the competent court of a) Athens for **Greece**, b) Tel Aviv-Jaffa for **Israel**, c) Milan for **Italy**, d) Lisbon for **Portugal**, and e) Madrid for **Spain**; and 9) **in the United Kingdom**, both of us agree to submit all disputes relating to this Statement of Limited Warranty to the jurisdiction of the English courts.

**Arbitration:** *The following is added under this heading:*

**In Albania, Armenia, Azerbaijan, Belarus, Bosnia-Herzegovina, Bulgaria, Croatia, Georgia, Hungary, Kazakhstan, Kyrgyzstan, FYR Macedonia, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan, and FR Yugoslavia** all disputes arising out of this Statement of Limited Warranty or related to its violation, termination or nullity will be finally settled under the Rules of Arbitration and Conciliation of the International Arbitral Center of the Federal Economic Chamber in Vienna (Vienna Rules) by three arbitrators appointed in accordance with these rules. The arbitration will be held in Vienna, Austria, and the official language of the proceedings will be English. The decision of the arbitrators will be final and binding upon both parties. Therefore, pursuant to paragraph 598 (2) of the Austrian Code of Civil Procedure, the parties expressly waive the application of paragraph 595 (1) figure 7 of the Code. IBM may, however, institute proceedings in a competent court in the country of installation.

**In Estonia, Latvia and Lithuania** all disputes arising in connection with this Statement of Limited Warranty will be finally settled in arbitration that will be held in Helsinki, Finland in accordance with the arbitration laws of Finland then in effect. Each party will appoint one arbitrator. The arbitrators will then jointly appoint the chairman. If arbitrators cannot agree on the chairman, then the Central Chamber of Commerce in Helsinki will appoint the chairman.

**EUROPEAN UNION (EU)**

**THE FOLLOWING TERMS APPLY TO ALL EU COUNTRIES:**

Consumers have legal rights under applicable national legislation governing the sale of consumer goods. Such rights are not affected by the warranties provided in this Statement of Limited Warranty.

**How to Obtain Warranty Service:** *The following is added to this section:*

To obtain warranty service from IBM in EU countries, see the telephone listing in Part 3 - Warranty Information.

You may contact IBM at the following address:

IBM Warranty & Service Quality Dept.  
PO Box 30  
Spango Valley  
Greenock  
Scotland PA16 0AH

**AUSTRIA, DENMARK, FINLAND, GREECE, ITALY, NETHERLANDS, PORTUGAL, SPAIN, SWEDEN AND SWITZERLAND**

**Limitation of Liability:** *The following replaces the terms of this section in its entirety:*

Except as otherwise provided by mandatory law:

1. IBM's liability for any damages and losses that may arise as a consequence of the fulfillment of its obligations under or in connection with this Statement of Limited Warranty or due to any other cause related to this Statement of Limited Warranty is limited to the compensation of only those damages and losses proved and actually arising as an immediate and direct consequence of the non-fulfillment of such obligations (if IBM is at fault) or of such cause, for a maximum amount equal to the charges you paid for the Machine. For purposes of this item, the term "Machine" includes Machine Code and Licensed Internal Code ("LIC").

The above limitation shall not apply to damages for bodily injuries (including death) and damages to real property and tangible personal property for which IBM is legally liable.

2. **UNDER NO CIRCUMSTANCES IS IBM, ITS SUPPLIERS OR RESELLERS LIABLE FOR ANY OF THE FOLLOWING, EVEN IF INFORMED OF THEIR POSSIBILITY: 1) LOSS OF, OR DAMAGE TO, DATA; 2) INCIDENTAL OR INDIRECT DAMAGES, OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; 3) LOST PROFITS, EVEN IF THEY ARISE AS AN IMMEDIATE CONSEQUENCE OF THE EVENT THAT GENERATED THE DAMAGES; OR 4) LOSS OF BUSINESS, REVENUE, GOODWILL, OR ANTICIPATED SAVINGS.**

**FRANCE AND BELGIUM**

**Limitation of Liability:** *The following replaces the terms of this section in its entirety:*

Except as otherwise provided by mandatory law:

1. IBM's liability for any damages and losses that may arise as a consequence of the fulfillment of its obligations under or in connection with this Statement of Limited Warranty is limited to the compensation of only those damages and losses proved and actually arising as an immediate and direct consequence of the non- fulfillment of such obligations (if IBM is at fault), for a maximum amount equal to the charges you paid for the Machine that has caused the damages. For purposes of this item, the term "Machine" includes Machine Code and Licensed Internal Code ("LIC").

The above limitation shall not apply to damages for bodily injuries (including death) and damages to real property and tangible personal property for which IBM is legally liable.

2. **UNDER NO CIRCUMSTANCES IS IBM, ITS SUPPLIERS OR RESELLERS LIABLE FOR ANY OF THE FOLLOWING, EVEN IF INFORMED OF THEIR POSSIBILITY: 1) LOSS OF, OR DAMAGE TO, DATA; 2) INCIDENTAL OR INDIRECT DAMAGES, OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES; 3) LOST PROFITS, EVEN IF THEY ARISE AS AN IMMEDIATE CONSEQUENCE OF THE EVENT THAT GENERATED THE DAMAGES; OR 4) LOSS OF BUSINESS, REVENUE, GOODWILL, OR ANTICIPATED SAVINGS.**

**THE FOLLOWING TERMS APPLY TO THE COUNTRY SPECIFIED:**

**AUSTRIA**



**What this Warranty Covers:** *The following replaces the first sentence of the first paragraph of this section:*

The warranty for an IBM Machine covers the functionality of the Machine for its normal use and the Machine's conformity to its Specifications.

*The following paragraphs are added to this section:*

The warranty period for Machines is 12 months from the date of delivery. The limitation period for consumers in action for breach of warranty is the statutory period as a minimum. In case IBM or your reseller is unable to repair an IBM Machine, you can alternatively ask for a partial refund as far as justified by the reduced value of the unrepaired Machine or ask for a cancellation of the respective agreement for such Machine and get your money refunded.

*The second paragraph does not apply.*

**What IBM Will Do to Correct Problems:** *The following is added to this section:*

During the warranty period, transportation for delivery of the failing Machine to IBM will be at IBM's expense.

**Limitation of Liability:** *The following paragraph is added to this section:*

The limitations and exclusions specified in the Statement of Limited Warranty will not apply to damages caused by IBM with fraud or gross negligence and for express warranty.

*The following sentence is added to the end of item 2:*

IBM's liability under this item is limited to the violation of essential contractual terms in cases of ordinary negligence.

## **EGYPT**

**Limitation of Liability:** *The following replaces item 2 in this section:*

as to any other actual direct damages, IBM's liability will be limited to the total amount you paid for the Machine that is the subject of the claim. For purposes of this item, the term "Machine" includes Machine Code and Licensed Internal Code ("LIC").

*Applicability of suppliers and resellers (unchanged).*

## **FRANCE**

**Limitation of Liability:** *The following replaces the second sentence of the first paragraph of this section:*

In such instances, regardless of the basis on which you are entitled to claim damages from IBM, IBM is liable for no more than: (items 1 and 2 unchanged).

## **GERMANY**

**What this Warranty Covers:** *The following replaces the first sentence of the first paragraph of this section:*

The warranty for an IBM Machine covers the functionality of the Machine for its normal use and the Machine's conformity to its Specifications.

*The following paragraphs are added to this section:*

The minimum warranty period for Machines is twelve months. In case IBM or your reseller is unable to repair an IBM Machine, you can alternatively ask for a partial refund as far as justified by the reduced value of the unrepaired Machine or ask for a cancellation of the respective agreement for such Machine and get your money refunded.

*The second paragraph does not apply.*

**What IBM Will Do to Correct Problems:** *The following is added to this section:*

During the warranty period, transportation for delivery of the failing Machine to IBM will be at IBM's expense.

**Limitation of Liability:** *The following paragraph is added to this section:*

The limitations and exclusions specified in the Statement of Limited Warranty will not apply to damages caused by IBM with fraud or gross negligence and for express warranty.

*The following sentence is added to the end of item 2:*

IBM's liability under this item is limited to the violation of essential contractual terms in cases of ordinary negligence.

## **HUNGARY**

**Limitation of Liability:** *The following is added at the end of this section:*

The limitation and exclusion specified herein shall not apply to liability for a breach of contract damaging life, physical well-being, or health that has been caused intentionally, by gross negligence, or by a criminal act.

The parties accept the limitations of liability as valid provisions and state that the Section 314.(2) of the Hungarian Civil Code applies as the acquisition price as well as other advantages arising out of the present Statement of Limited Warranty balance this limitation of liability.

## **IRELAND**

**What this Warranty Covers:** *The following is added to this section:*

Except as expressly provided in these terms and conditions, all statutory conditions, including all warranties implied, but without prejudice to the generality of the foregoing all warranties implied by the Sale of Goods Act 1893 or the Sale of Goods and Supply of Services Act 1980 are hereby excluded.

**Limitation of Liability:** *The following replaces the terms of this section in its entirety:*

For the purposes of this section, a "Default" means any act, statement, omission, or negligence on the part of IBM in connection with, or in relation to, the subject matter of this Statement of Limited Warranty in respect of which IBM is legally liable to you, whether in contract or tort. A number of Defaults which together result in, or contribute to, substantially the same loss or damage will be treated as one Default occurring on the date of occurrence of the last such Default.

Circumstances may arise where, because of a Default, you are entitled to recover damages from IBM.

This section sets out the extent of IBM's liability and your sole remedy.

1. IBM will accept unlimited liability for death or personal injury caused by the negligence of IBM.
2. Subject always to the **Items for Which IBM is Not Liable** below, IBM will accept unlimited liability for physical damage to your tangible property resulting from the negligence of IBM.
3. Except as provided in items 1 and 2 above, IBM's entire liability for actual damages for any one Default will not in any event exceed the greater of 1) EUR 125,000, or 2) 125% of the amount you paid for the Machine directly relating to the Default.

### **Items for Which IBM is Not Liable**

Save with respect to any liability referred to in item 1 above, under no circumstances is IBM, its suppliers or resellers liable for any of the following, even if IBM or they were informed of the possibility of such losses:

1. loss of, or damage to, data;
2. special, indirect, or consequential loss; or
3. loss of profits, business, revenue, goodwill, or anticipated savings.

## **SLOVAKIA**

**Limitation of Liability:** *The following is added to the end of the last paragraph:*

The limitations apply to the extent they are not prohibited under §§ 373-386 of the Slovak Commercial Code.

## **SOUTH AFRICA, NAMIBIA, BOTSWANA, LESOTHO AND SWAZILAND**

**Limitation of Liability:** *The following is added to this section:*

IBM's entire liability to you for actual damages arising in all situations involving nonperformance by IBM in respect of the subject matter of this Statement of Warranty will be limited to the charge paid by you for the individual Machine that is the subject of your claim from IBM.

## **UNITED KINGDOM**

**Limitation of Liability:** *The following replaces the terms of this section in its entirety:*

For the purposes of this section, a “Default” means any act, statement, omission, or negligence on the part of IBM in connection with, or in relation to, the subject matter of this Statement of Limited Warranty in respect of which IBM is legally liable to you, whether in contract or tort. A number of Defaults which together result in, or contribute to, substantially the same loss or damage will be treated as one Default.

Circumstances may arise where, because of a Default, you are entitled to recover damages from IBM.

This section sets out the extent of IBM's liability and your sole remedy.

1. IBM will accept unlimited liability for:
  - a. death or personal injury caused by the negligence of IBM; and
  - b. any breach of its obligations implied by Section 12 of the Sale of Goods Act 1979 or Section 2 of the Supply of Goods and Services Act 1982, or any statutory modification or re-enactment of either such Section.
2. IBM will accept unlimited liability, subject always to the **Items for Which IBM is Not Liable** below, for physical damage to your tangible property resulting from the negligence of IBM.
3. IBM's entire liability for actual damages for any one Default will not in any event, except as provided in items 1 and 2 above, exceed the greater of 1) Pounds Sterling 75,000, or 2) 125% of the total purchase price payable or the charges for the Machine directly relating to the Default.

These limits also apply to IBM's suppliers and resellers. They state the maximum for which IBM and such suppliers and resellers are collectively responsible.

**Items for Which IBM is Not Liable**

Save with respect to any liability referred to in item 1 above, under no circumstances is IBM or any of its suppliers or resellers liable for any of the following, even if IBM or they were informed of the possibility of such losses:

1. loss of, or damage to, data;
2. special, indirect, or consequential loss; or
3. loss of profits, business, revenue, goodwill, or anticipated savings.

**Part 3 - Warranty Information**

This Part 3 provides information regarding the warranty applicable to your Machine, including the warranty period and type of warranty service IBM provides.

**Warranty Period**

The warranty period may vary by country or region and is specified in the table below.

**Note:** “Region” means either Hong Kong or Macau Special Administrative Region of China.

**Machine - IBM UPS750TLV, UPS750THV, UPS1000TLV, UPS1000THV, UPS1500TLV and UPS1500THV Tower Uninterruptible Power Supplies**

Country or Region of Purchase	Warranty Period	Type of Warranty Service*
Worldwide	Parts - 3 years, labor - 3 years	4
* See “Types of Warranty Service” for the legend and explanations of warranty-service types.		

A warranty period of 3 years on parts and 1 year on labor means that IBM provides warranty service without charge for:

1. parts and labor during the first year of the warranty period; and
2. parts only, on an exchange basis, in the second and third years of the warranty period. IBM will charge you for any labor provided in performance of the repair or replacement(s) in the second and third year of the warranty period.

**Types of Warranty Service**

If required, IBM provides repair or exchange service depending on the type of warranty service specified for your Machine in the above table and as described below. Warranty service may be provided by your

reseller if approved by IBM to perform warranty service. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations, additional charges may apply outside IBM's normal service area, contact your local IBM representative or your reseller for country and location specific information.

1. **Customer Replaceable Unit (“CRU”) Service**

IBM will ship CRU parts to you for your replacement. If IBM instructs you to return the replaced CRU, you are responsible for returning it to IBM in accordance with IBM's instructions. If you do not return the defective CRU, if IBM so instructs, within 30 days of your receipt of the replacement CRU, IBM may charge you for the replacement.

2. **On-site Service**

IBM or your reseller will either repair or exchange the failing Machine at your location and verify its operation. You must provide suitable working area to allow disassembly and reassembly of the IBM Machine. The area must be clean, well lit and suitable for the purpose. **For some Machines, certain repairs may require sending the Machine to an IBM service center.**

3. **Courier or Depot Service\***

You will disconnect the failing Machine for collection arranged by IBM. IBM will provide you with a shipping container for you to return your Machine to a designated service center. A courier will pick up your Machine and deliver it to the designated service center. Following its repair or exchange, IBM will arrange the return delivery of the Machine to your location. You are responsible for its installation and verification.

4. **Customer Carry-In or Mail-In Service**

You will deliver or mail as IBM specifies (prepaid unless IBM specifies otherwise) the failing Machine suitably packaged to a location IBM designates. After IBM has repaired or exchanged the Machine, IBM will make it available for your collection or, for Mail-in Service, IBM will return it to you at IBM's expense, unless IBM specifies otherwise. You are responsible for the subsequent installation and verification of the Machine.

\* This type of service is called ThinkPad EasyServ or EasyServ in some countries.

The IBM Machine Warranty World Wide Web site at [http://www.ibm.com/servers/support/machine\\_warranties/](http://www.ibm.com/servers/support/machine_warranties/) provides a worldwide overview of IBM Limited Warranty for Machines, a Glossary of IBM definitions, Frequently Asked Questions (FAQs) and Support by Product (Machine) with links to Product Support pages. **The IBM Statement of Limited Warranty is also available on this site in 29 languages.**

To obtain warranty service contact IBM or your IBM reseller. In Canada or the United States, call 1-800-IBM-SERV (426-7378). In the EU countries, see the telephone numbers below.

**EU Country Telephone List**

Phone numbers are subject to change without notice.

Austria -- 43-1-24592-5901	Italy -- 39-02-482-9202
Belgium -- 02-718-4339	Luxembourg -- 352-360385-1
Denmark -- 4520-8200	Netherlands -- 020-514-5770
Finland -- 358-9-4591	Portugal -- 351-21-7915-147
France -- 0238-557-450	Spain -- 34-91-662-4916
Germany -- 07032-15-4920	Sweden -- 46-8-477-4420
Greece -- 30-210-688-1220	United Kingdom -- 01475-555-055
Ireland -- 353-1-815-4000	

## 10: NOTICES, TRADEMARKS, AND RADIO FREQUENCY WARNINGS

### Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non- IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

*IBM Director of Licensing*

*IBM Corporation*

*North Castle Drive*

*Armonk, NY 10504-1785*

*U.S.A.*

INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product, and use of those Web sites is at your own risk.

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

### Attention! Life Support

American Power Conversion (APC) Corporation and International Business Machines (IBM) Corporation, their affiliates and subsidiaries world-wide, do not recommend the use of any of their products in life support applications where failure or malfunction of the product can be reasonably expected to cause failure of the life support device or to significantly affect its safety or effectiveness. APC and IBM do not permit the use of any of their products in direct patient care. APC and IBM will not knowingly sell their products for use in such applications.

Examples of devices considered to be life support devices include, but are not limited to, neonatal oxygen analysers, nerve stimulators (whether used for anesthesia, pain relief, or other purposes), autotransfusion devices, blood pumps, defibrillators, arrhythmia detectors and alarms, pacemakers, hemodialysis systems, peritoneal dialysis systems, neonatal ventilator incubators, ventilators for both adults and infants, anesthesia ventilators, infusion pumps, and any other device designated as "critical" by the U.S.F.D.A.

Hospital grade wiring devices and reduced leakage currents that meet medical safety standards may be ordered as options on many uninterruptible power supply systems. APC and IBM do not claim that units with these modifications are certified or listed as such by APC, IBM or any other organizations, therefore these units do not meet the requirements for use in direct patient care.

## Edition notice

© Copyright International Business Machines Corporation 2003. All rights reserved.

Note to U.S. Government Users Restricted Rights — Use, duplication, or disclosure restricted by GSA ADP Schedule Contract with IBM Corp.

## Trademarks

IBM, Intellistation, and xSeries are trademarks of International Business Machines Corporation in the United States, other countries, or both.

APC, Smart-UPS, and PowerChute are registered trademarks of American Power Conversion Corporation. Other company, product, or service names may be the trademarks or service marks of others.

## Important notes

Processor speeds indicate the internal clock speed of the microprocessor; other factors also affect application performance.

CD-ROM drive speeds list the variable read rate. Actual speeds vary and are often less than the maximum possible.

When referring to processor storage, real and virtual storage, or channel volume, KB stands for approximately 1000 bytes, MB stands for approximately 1 000 000 bytes, and GB stands for approximately 1 000 000 000 bytes.

When referring to hard disk drive capacity or communications volume, MB stands for 1\_000\_000 bytes, and GB stands for 1\_000 000 000 bytes. Total user-accessible capacity may vary depending on operating environments.

Maximum internal hard disk drive capacities assume the replacement of any standard hard disk drives and population of all hard disk drive bays with the largest currently supported drives available from IBM.

Maximum memory may require replacement of the standard memory with an optional memory module.

IBM makes no representation or warranties regarding non-IBM products and services that are Server-Proven, including but not limited to the implied warranties of merchantability and fitness for a particular purpose. These products are offered and warranted solely by third parties.

IBM makes no representations or warranties with respect to non-IBM products. Support (if any) for the non-IBM products is provided by the third party, not IBM.

Some software may differ from its retail version (if available), and may not include user manuals or all program functionality.

## Product recycling and disposal

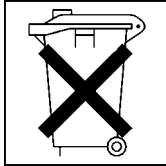
This unit contains materials such as circuit boards, cables, electromagnetic compatibility gaskets, and connectors which may contain lead and copper/beryllium alloys that require special handling and disposal at end of life. Before this unit is disposed of, these materials must be removed and recycled or discarded according to applicable regulations. IBM offers product-return programs in several countries. Information on product recycling offerings can be found on IBM's Internet site at <http://www.ibm.com/ibm/environment/products/prp.shtml>.

## Battery return program

This product may contain a sealed lead acid, nickel cadmium, nickel metal hydride, lithium, or lithium ion battery. Consult your user manual or service manual for specific battery information. The battery must be recycled or disposed of properly. Recycling facilities may not be available in your area. For information on disposal of batteries outside the United States, go to <http://www.ibm.com/ibm/environment/products/batteryrecycle.shtml> or contact your local waste disposal facility.

In the United States, IBM has established a collection process for reuse, recycling, or proper disposal of used IBM sealed lead acid, nickel cadmium, nickel metal hydride, and battery packs from IBM equipment. For information on proper disposal of these batteries, contact IBM at 1-800-426-4333. Have the IBM part number listed on the battery available prior to your call.

In the Netherlands, the following applies.



## Electronic emission notices

### Federal Communications Commission (FCC) Statement

**Note:** This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. IBM is not responsible for any radio or television interference caused by using other than recommended cables and connectors or by using other than recommended cables and connectors or by unauthorized changes or modifications to this equipment. Unauthorized changes or modifications could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation 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.

### Industry Canada Class A emission compliance statement

This Class A digital apparatus complies with Canadian ICES-003.

Avis de conformité à la réglementation d'Industrie Canada.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

### Australia and New Zealand Class A statement

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

### United Kingdom telecommunications safety requirement

#### Notice to Customers

This apparatus is approved under approval number NS/G/1234/J/100003 for indirect connection to public telecommunication systems in the United Kingdom.

## European Union EMC Directive conformance statement

This product is in conformity with the protection requirements of EU Council Directive 89/336/EEC on the approximation of the laws of the Member States relating to electromagnetic compatibility. IBM cannot accept responsibility for any failure to satisfy the protection requirements resulting from a non-recommended modification of the product, including the fitting of non-IBM option cards.

This product has been tested and found to comply with the limits for Class A Information Technology Equipment according to CISPR 22/European Standard EN 55022. The limits for Class A equipment were derived for commercial and industrial environments to provide reasonable protection against interference with licensed communication equipment.

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

## Taiwan electronic emission statement

警告使用者：  
這是甲類的資訊產品，在居住的環境中使用時，可能會造成射頻干擾，在這種情形下，使用者會被要求採取某些適當的對策。

## Chinese Class A warning statement

聲 明  
此為 A 級產品。在生活環境中，該產品可能會造成無線電干擾。在這種情況下，可能需要用戶對其干擾採取切实可行的措施。

## Statement of Conformity to the Voluntary Control Council for Interference from Information

この装置は、情報処理装置等電波障害自主規制協議会（VCCI）の基準に基づきクラスA情報技術装置です。この装置を家庭環境で使用すると電波妨害を引き起こすことがあります。この場合には使用者が適切な対策を講ずるよう要求されることがあります。

## Power Cords

For your safety, IBM provides a power cord with a grounded attachment plug to use with this IBM product. To avoid electrical shock, always use the power cord and plug with a properly grounded outlet.

IBM power cords used in the United States and Canada are listed by Underwriter's Laboratories (UL) and certified by the Canadian Standards Association (CSA).

For units intended to be operated at 115 volts: Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 6 feet in length and a parallel blade, grounding-type attachment plug rated 15 amperes, 125 volts.

For units intended to be operated at 230 volts (U.S. use): Use a UL-listed and CSA-certified cord set consisting of a minimum 18 AWG, Type SVT or SJT, three-conductor cord, a maximum of 6 feet in length and a tandem blade, grounding-type attachment plug rated 15 amperes, 250 volts.

For units intended to be operated at 230 volts (outside the U.S.): Use a cord set with a grounding-type attachment plug. The cord set should have the appropriate safety approvals for the country in which the equipment will be installed.

IBM power cords for a specific country or region are usually available only in that country or region.











## Free Manuals Download Website

<http://myh66.com>

<http://usermanuals.us>

<http://www.somanuals.com>

<http://www.4manuals.cc>

<http://www.manual-lib.com>

<http://www.404manual.com>

<http://www.luxmanual.com>

<http://aubethermostatmanual.com>

Golf course search by state

<http://golfingnear.com>

Email search by domain

<http://emailbydomain.com>

Auto manuals search

<http://auto.somanuals.com>

TV manuals search

<http://tv.somanuals.com>