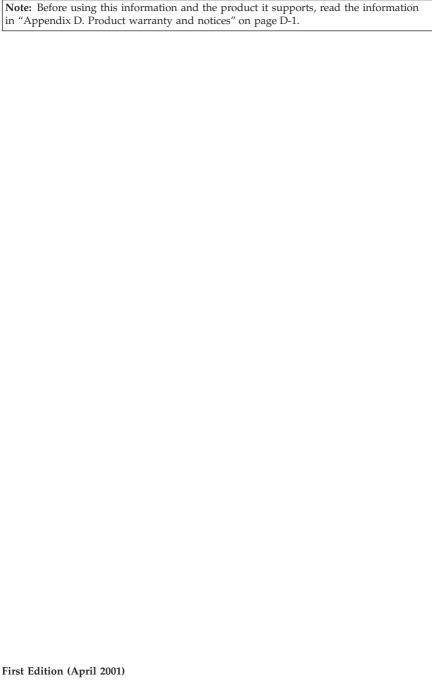


# TrackPoint® USB Space Saver Keyboard with Hub

User's Guide





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# Safety: Read first

Before installing this product, read the Safety Information.

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)。

Prije instalacije ovog produkta obavezno pročitajte Sigurnosne Upute.

Před instalací tohoto produktu si přečtěte příručku bezpečnostních instrukcí. Læs sikkerhedsforskrifterne, før du installerer dette produkt.

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. Lees voordat u dit product installeert eerst de veiligheidsvoorschriften.

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 pečítaje 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.

安裝本產品之前,請先閱讀「安全資訊」。

#### About this book

This manual contains instructions for installing and using your IBM TrackPoint USB Keyboard with Hub. The manual is divided into two parts:

#### Part 1: Installation and user's guide:

This guide contains the product description and hardware and software installation instructions in the following languages:

- English
- French
- Spanish
- Italian
- · Brazilian Portuguese
- · Traditional Chinese
- Japanese

#### Part 2: Appendixes

This section contains problem solving, help and service information, and warranty and notices.

# Registering your option

Thank you for purchasing OPTIONS by IBM<sup>®</sup>. Please take a few moments to register your product and provide us with information that will help IBM to better serve you in the future. Your feedback is valuable to us in developing products and services that are important to you, as well as in developing better ways to communicate with you. Register your option on the IBM Web site at

http://www.ibm.com/pc/register

IBM will send you information and updates on your registered product unless you indicate on the Web site questionnaire that you do not want to receive further information.

# Installation and user's guide

This guide contains instructions for installing and using the IBM TrackPoint USB Keyboard with Hub.

# **Product description**

The IBM TrackPoint USB Keyboard with Hub works with IBM computers and ISA-standard computers that have USB ports. You can use the TrackPoint pointing device for pointing, selecting, dragging, or scrolling. As a result, you do not need to use a mouse with the keyboard. However, you have the option of connecting a mouse to the USB port on the top of the keyboard.

Three buttons are located below the Spacebar on the keyboard. The left and right buttons work similarly to the buttons on the mouse. Pressing the middle button changes the built-in TrackPoint stick from a pointing device to a scrolling device. An illustration of the keyboard is provided in "Using the TrackPoint USB Keyboard with Hub" on page 2-1.

The keyboard provides Press-to-Select and third-button scrolling functions for Microsoft Windows 98, Windows 2000 Professional, and Windows Millennium Edition (Me). However, if you are using a mouse that comes with its own device driver, you must uninstall the mouse device driver before you can use the Press-to-Select and third-button scrolling functions.

**Note:** The keyboard will not work when it is connected to more than one computer. The extended TrackPoint features and drivers may not be compatible with non-IBM mobile computers.

In addition to this guide, the keyboard package contains:

- · One IBM TrackPoint USB Keyboard with Hub
- CD with device drivers and installation instructions
- Warranty book
- Bag of spare caps for the TrackPoint pointing device

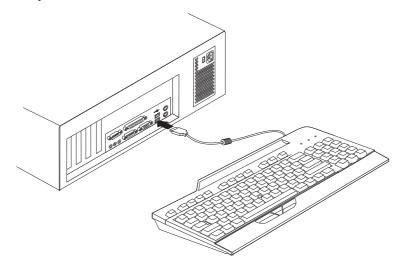
Contact your place of purchase if any parts are missing or damaged. Be sure to retain your proof of purchase because it might be required to obtain warranty service.

# Installing the keyboard

To install the keyboard, use the following set of instructions which correspond to your operating system.

#### Installing the keyboard for Windows 98

 With Windows 98 running, plug your keyboard into the USB slot on your computer.

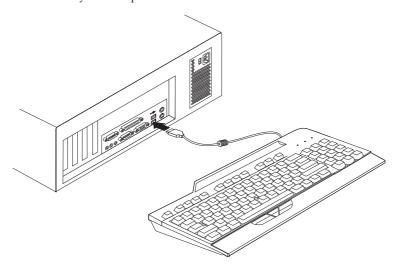


- 2. When the **Add New Hardware** window opens for the USB Generic Hub Device, click **Next.**
- 3. Click Search for the best driver for your device, and then click Next.
- 4. Clear all check boxes, and then click Next.
- 5. Click Next.
- 6. Wait until your computer finishes copying the files, and then click Finish.
- When the Add New Hardware window opens for the USB Composite Device, click Next.
- 8. Click Search for the best drivers for your device, and then click Next.
- 9. Clear all check boxes, and then click Next.
- 10. Click Next.
- 11. Wait until your computer finishes copying the files, and then click Finish.

The keyboard is now ready to use.

#### Installing the keyboard for Windows 2000 or Windows Me

 With Windows 2000 or Windows Me running, plug your keyboard into the USB slot on your computer.



2. Wait until your computer finishes copying the files.

Your keyboard is now ready to use.

# Installing the TrackPoint USB Keyboard with Hub software

To install the TrackPoint USB Keyboard with Hub software, insert the TrackPoint USB Keyboard with Hub CD into your CD-ROM or DVD-ROM drive. The Installation window opens. Follow the on-screen instructions to complete the installation. If the installation program does not start automatically, do the following:

- 1. Click Start --> Settings --> Control Panel.
- 2. Double-click Add/Remove Programs.
- 3. If the installation program does not start automatically, follow the instructions on the screen to complete the installation.
- 4. Restart Windows.

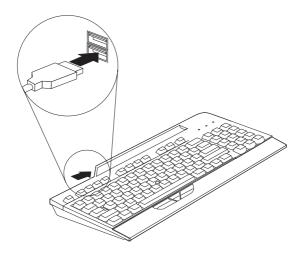
**Note:** When you have restarted Windows, a 301 error message might be displayed on the screen. Disregard this error message; it occurs automatically when there is no keyboard plugged into the PS/2 keyboard port.

The Rapid Access icon is now in the desktop tray and in the Control Panel.

# **Using the Multi-Port USB Hub**

To use other USB devices with the ports on the back of the keyboard, follow these instructions.

With your computer turned on and the TrackPoint USB Keyboard plugged in and operating, plug the other USB devices into the port on the keyboard, and then follow the on-screen instructions.



For more information on how to configure and use the other devices with your keyboard, see the user guides that came with those devices.

**Important:** Do not activate resource-intensive devices at the same time, because USB limitations might cause a degradation in the performance and speed of the devices. For example, do not start a USB scanner while you are using a USB camera. Instead, close the application for the camera; then start the scanner.

# Disabling a ThinkPad® onboard pointing device

Use the TrackPoint USB software CD to install the device driver, even if a TrackPoint pointing device is included in a ThinkPad computer.

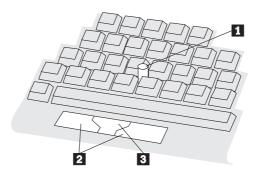
After you install the TrackPoint device driver on a ThinkPad mobile computer, the onboard TrackPoint pointing device on most ThinkPad mobile computers will automatically disable each time you start your computer with the keyboard connected.

However, on a ThinkPad 600, 770, 390, i-series, or other late-model ThinkPad mobile computer, you must follow these steps to disable the ThinkPad TrackPoint pointing device:

- 1. Click Start.
- 2. Click Programs, ThinkPad, ThinkPad Configuration.
- 3. Double-click the TrackPoint icon.
- 4. Select Auto-Disable from the TrackPoint menu.
- 5. Click **OK** to save the changes.
- 6. Click **OK** to restart the ThinkPad mobile computer.

# Using the TrackPoint USB Keyboard with Hub

This section contains information on using the TrackPoint USB Keyboard with Hub.



The main features of the keyboard are:

- A TrackPoint stick **1** near the center of the keyboard.
- Three buttons at the bottom of the keyboard.
  - The left and right buttons 2 are equivalent to left and right mouse buttons.
  - The center button **3** can be used with the TrackPoint pointing device to scroll.
- · Press-to-Select

If Press-to-Select is enabled, you can select an object by pressing down on top of the TrackPoint stick rather than using a left or right mouse button.

• Third-button scrolling

If third-button scrolling is enabled, you can use the middle button and the TrackPoint stick to scroll in many software applications. (Third-button scrolling might not work in some software applications.)

**Note:** The Press-to-Select and third-button scrolling functions are supported only if the device drivers that come with the keyboard are installed.

# Using the TrackPoint pointing device

Follow these instructions to start using the TrackPoint pointing device:

- 1. Place your hands in the typing position. Place either index finger on the stick. Rest your thumbs comfortably above the buttons.
- 2. Press gently on the stick, in the direction that you want the pointer to move: away from you to move up the screen and toward you to move

down the screen. Think of the stick as an extension of your finger. Press down only enough to keep your finger from slipping. Remember that the stick does not move.

- 3. Find a movement speed that you can control. Do not press too hard, or the pointer will move too quickly.
- 4. Move the pointer slowly and directly to the target.
- 5. With your thumbs, use the buttons to select and drag as required by your software, just as with any other pointing device.
- 6. If Press-to-Select is enabled, press down or tap lightly on the stick top to select an object.

# **Customizing your TrackPoint pointing device**

The TrackPoint Press-to-Select and third-button scrolling functions are enabled through the TrackPoint Properties window.

To open the TrackPoint Properties window:

 In Windows 95, Windows 98, Windows 2000, or Windows Me Double-click the **TrackPoint** icon in the system tray on the lower-right corner of the desktop.

or

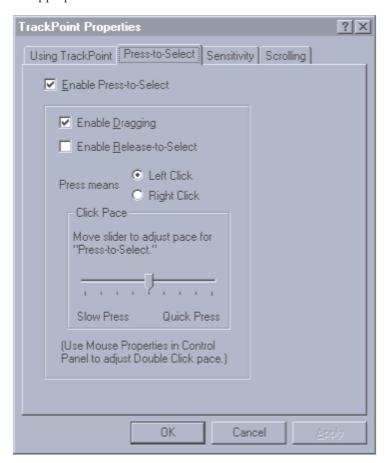
- 1. Click Start, click Settings, and then click Control Panel.
- 2. Double-click the TrackPoint icon.
- In OS/2 Version 4
  - 1. Double-click **OS/2 System** on the Desktop.
  - 2. Double-click System Setup.
  - 3. Double-click the TrackPoint icon.

#### Note:

- a. The screen instructions in the OS/2 Version 4 operating system will be slightly different from the instructions in this section. However, OS/2 Version 4 supports all of the functions in this section.
- b. You must click **OK** or **Apply** for new settings to take effect.

# **Enabling Press-to-Select**

When Press-to-Select is enabled, you can select an object by pressing down on the top of the TrackPoint stick. On the Press-to-Select page, select the **Enable Press-to-Select** check box. The Press-to-Select function can also be enabled for dragging and Release-to-Select. To enable dragging or Release-to-Select, select the appropriate check box.



### · Enabling dragging

When this function is enabled, you can drag and drop with Press-to-Select. Press down on the TrackPoint stick to grab the object. Then drag the object by moving the TrackPoint stick. Drop the object by releasing the TrackPoint stick.

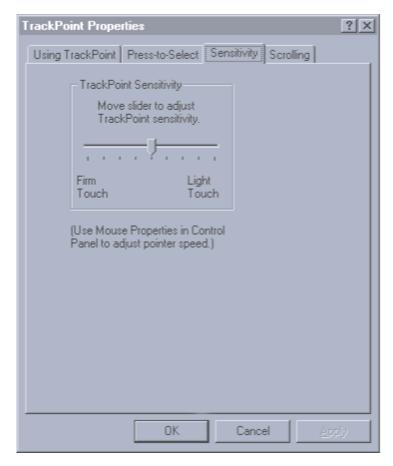
# • Enabling Release-to-Select

When this function is enabled, you can click simply by lifting your finger quickly off the TrackPoint stick. You can also use Release-to-Select to

double-click. When you move the pointer onto an icon and then lift your finger off the TrackPoint stick, one click is made (Release-to-Select). Then, when you press the TrackPoint stick again, the second click is made. The result is a double-click. You can use the slider to choose a comfortable pointer speed for Press-to-Select.

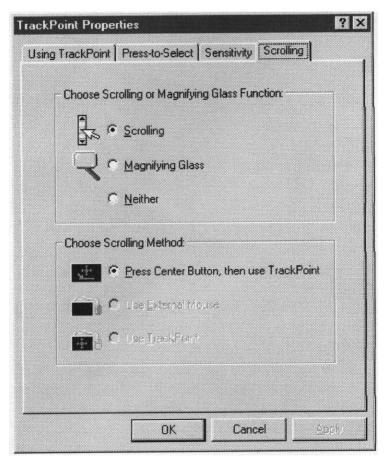
# Adjusting sensitivity

To adjust the sensitivity of the TrackPoint pointing device, click the Sensitivity tab. Use the slider to adjust the setting between Firm Touch and Light Touch. Slide toward Firm Touch to increase the force that is needed to move the pointer or activate Press-to-Select. Slide toward Light Touch to decrease the force that is needed to activate Press-to-Select.



# **Enabling scrolling**

To enable a scrolling function, click the **Scrolling** tab in the TrackPoint Properties window, and click **Scrolling** or **Magnifying Glass**. You cannot enable **Scrolling** and **Magnifying Glass** at the same time. Click **Neither** to disable Scrolling and Magnifying Glass.



#### Scrolling

When Scrolling is enabled, you can press a button to navigate through long documents or large spreadsheets. Instead of using scroll bars, you can choose one of the alternative scrolling methods described in "Selecting a scrolling method" on page 2-6.

# • Magnifying Glass

When Magnifying Glass is enabled, you can enlarge a movable area of your display. Press the center button, and then use the TrackPoint stick to move the Magnifying Glass. You can click objects using the Magnifying Glass. To

change the size of the Magnifying Glass, hold down the center button, and press the right button. To change the magnifying power, hold down the center button, and press the left button.

# Selecting a scrolling method

If you enable Scrolling, you must select one of the following scrolling methods on the Scrolling page.

#### · Press Center Button, then use TrackPoint

When this scrolling method is selected, you can scroll by pressing the center button and moving the TrackPoint stick.

#### · Use External Mouse

When this scrolling method is selected, you can scroll with an external mouse.

#### · Use TrackPoint

When this scrolling method is selected, you can scroll with the TrackPoint stick

# Adjusting mouse properties in Windows 95, Windows 98, Windows 2000, or Windows Me

To adjust button configuration, double-click speed, pointer speed, or pointer trails in Windows 95, Windows 98, Windows 2000, or Windows Me:

- 1. Click Start.
- 2. Select Settings, then click Control Panel.
- 3. Double-click the Mouse icon (Mouse Properties).

**Note:** After you make changes in any window in Mouse Properties in Windows 95, Windows 98, Windows 2000, or Windows Me, be sure to click **OK** or **Apply** to activate your changes.

If you are using OS/2 or Windows 3.1, consult your operating system user's guide for instructions on adjusting mouse properties.

# Using the embedded numeric keypad

You can activate the numeric characters shown on the front of the keys on the right side of the keyboard by pressing the Shift key and the Nm Lk (Num Lock)/Sc Lk (Scroll Lock) key at the same time.

You might want to change the default Num Lock setting to **off** at computer startup. To change the Num Lock default on most Netfinity® servers:

- 1. Press F1 during computer startup.
- 2. From the Main menu, select **Boot Options**.
- 3. Turn Num Lock off.

Other IBM computer systems use similar procedures for changing defaults at startup. For more information on changing defaults, refer to the documentation that comes with your computer.

# Appendix A. Maintaining your keyboard

This section provides maintenance guidelines for your TrackPoint USB Keyboard with Hub.

**Cleaning:** To clean the keyboard surface, wipe it with a soft cloth moistened with water or rubbing alcohol. You might also gently vacuum it or dust it with a small brush. Do not allow water or other liquids to get inside the keyboard.

**Replacing the cap:** When the cap on the end of the stick is worn out, pull the cap straight off (do not twist), and replace it with a new one. Spare caps are supplied with this option package. You can purchase additional caps by calling IBM PC Direct at 1-800-PC-DIRECT.

**Handling the keyboard and TrackPoint stick:** Avoid dropping the keyboard or striking the TrackPoint stick with a heavy force. These actions might damage the keyboard or the stick.

# Appendix B. Problem solving

Computer problems can be caused by hardware, software, or user error. You might be able to use the information in this section to solve problems yourself, or gather helpful information you can pass on to a service technician. For more information on obtaining online and technical support, see "Appendix C. Help and service information" on page C-1.

Review the following problem descriptions to determine if they fit your situation.

#### The keyboard does not work after you connect it to the computer.

Take the following actions:

- · Remove and reattach the keyboard cable.
- Check the computer manual for instructions on installing USB devices.
   Follow all procedures.

#### A device does not operate after you connect it to the hub.

Take the following actions:

- Connect one device at a time to the hub. If a device does not work, attach it
  to the other connector on the hub to determine if there is a problem with a
  connector.
- If the device works with one connector and not the other, the keyboard hub might need service. For information on obtaining help and service, go to "Appendix C. Help and service information" on page C-1.
- If the device does not work with a connector that works with another USB device, the device might need service. Contact the manufacturer of the device for information on obtaining help and service.

#### The pointer is moving erratically.

Other equipment might cause electronic interference that hinders the operation of the keyboard pointing device. Relocate the equipment or move your computer. If the problem continues, refer to "Appendix C. Help and service information" on page C-1.

#### The keyboard is not detected on start up (301 error).

Take the following actions:

1. Shut the system off and plug the original keyboard and mouse in.

Start the system BIOS and verify that the USB Keyboard option is selected/supported. This allows the system to recognize the keyboard before the USB device drivers and support are loaded. For information on checking your system BIOS, refer to the documentation that comes with your computer.

# The computer screen displays characters that do not match keys being pressed.

Be sure that the Nm Lk (Num Lock) key is off. For more information on changing the Num Lock default setting to **off**, see "Using the embedded numeric keypad" on page 2-7.

#### Moving the TrackPoint stick does not move the cursor.

Take the following actions:

- Ensure the USB device is connected properly.
- If you are using a ThinkPad 600, 770, 390, i-series, or other late-model ThinkPad mobile computer, be sure that you have automatically disabled your onboard TrackPoint pointing device. For more information on disabling the onboard TrackPoint pointing device, see "Disabling a ThinkPad" onboard pointing device" on page 1-4.

#### Scrolling does not work.

Take the following actions:

- Verify that the TrackPoint device driver has been installed. Double-click **Mouse** in the Device Manager window, and verify that the TrackPoint device driver is listed. If you do not see the TrackPoint device driver, reinstall the device driver. To reinstall, see "Installing the TrackPoint USB Keyboard with Hub software" on page 1-3.
- Check that scrolling with the center button is enabled by clicking the Scrolling tab in the TrackPoint Properties window. If some applications scroll and others do not, some of your applications do not support scrolling.

#### Press-to-Select does not work.

Take the following actions:

- Verify that the TrackPoint device driver has been installed. Double-click
   Mouse in the Device Manager window and verify that the TrackPoint device
   driver is listed. If you do not see the TrackPoint device driver, reinstall the
   device driver. See "Installing the TrackPoint USB Keyboard with Hub
   software" on page 1-3.
- Check that Press-to-Select is enabled on the Press-to-Select page in the TrackPoint Properties window.

 Try adjusting the Click Pace on the Press-to-Select page and the Sensitivity slider on the Sensitivity page. A harder tap might be needed to activate Press-to-Select.

#### The cursor moves when you are not touching the TrackPoint stick.

This movement might occur if the keyboard is close to an electromagnetic source such as a computer monitor, or if the keyboard is being flexed. Try moving the keyboard to a different location.

#### You cannot locate the TrackPoint cursor on the screen.

#### Take the following actions:

- Try moving the TrackPoint stick in one direction for several seconds. Look to that side of the screen, and then move the TrackPoint stick in the opposite direction. The cursor will appear on that side of the screen.
- In the Mouse Properties window, enable pointer trails. To enable pointer trails using keyboard buttons, follow these steps.
  - 1. Press the Windows key. Or, press the Ctrl (Control) and Esc (Escape) keys at the same time.
  - 2. Use the up-arrow key to select **Settings**.
  - 3. Press the right-arrow key to select Control Panel, and then press Enter.
  - 4. Use the arrow keys to select the Mouse icon, and then press Enter.
  - 5. Use the Tab key to select from the menu.
  - 6. Using the arrow keys to select the **Pointers** tab.
  - 7. Use the arrow and tab keys to select **enable pointer trails** and press Enter.

# Appendix C. Help and service information

This section contains information on how to obtain online and telephone technical support.

# Online technical support

Online technical support is available during the life of your product. Online assistance can be obtained through the Personal Computing Support Web site and the IBM Automated Fax System.

Online technical support		
IBM Personal Computing Support Web site	http://www.ibm.com/pc/support	
IBM Automated Fax System	1-800-426-3395 (U.S. and Canada)	

During the warranty period, assistance for replacement or exchange of defective components is available. In addition, if your IBM option is installed in an IBM computer, you might be entitled to service at your location. Your technical support representative can help you determine the best alternative.

# Telephone technical support

Installation and configuration support through the HelpCenter will be withdrawn or made available for a fee, at IBM's discretion, 90 days after the option has been withdrawn from marketing. Additional support offerings, including step-by-step installation assistance, are available for a nominal fee.

To assist the technical support representative, have available as much of the following information as possible:

- · Option name
- · Option number
- · Proof of purchase
- Computer manufacturer, model, serial number (if IBM), and manual
- Exact wording of the error message (if any)
- Description of the problem
- Hardware and software configuration information for your system

If possible, be at your computer. Your technical support representative might want to walk you through the problem during the call.

For the support telephone number and support hours by country, refer to the following table. If the number is not provided, contact your IBM reseller or IBM marketing representative. Response time may vary depending on the number and nature of the calls received.

Support 24 hours a day, 7 days a week	
Canada (Toronto only)	416-383-3344
Canada (all other)	1-800-565-3344
U.S.A. and Puerto Rico	1-800-772-2227
All other countries	Go to http://www.ibm.com/pc/support/, and click <b>HelpCenter Phone List</b> .

# Appendix D. Product warranty and notices

This section contains the warranty period for your product and the IBM Statement of Limited Warranty.

Machine - TrackPoint USB Space Saver Keyboard with Hub Warranty period\* - One Year

\* Contact your place of purchase for warranty service information. Some IBM Machines are eligible for on-site warranty service depending on the country where service is performed.

# **IBM Statement of Limited Warranty**

#### Part 1 - General Terms

This Statement of Limited Warranty includes Part 1 - General Terms and Part 2 - Country-unique Terms. 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, from IBM or your reseller. 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. Unless IBM specifies otherwise, the following warranties apply only in the country where you acquire the Machine. Nothing in this Statement of Limited Warranty affects any statutory rights of consumers that cannot be waived or limited by contract. If you have any questions, contact IBM or your reseller.

# The IBM Warranty for Machines

IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications ("Specifications"). The warranty period for a Machine is a specified, fixed period commencing on its Date of Installation. The date on your sales receipt is the Date of Installation unless IBM or your reseller informs you otherwise.

If a Machine does not function as warranted during the warranty period, and IBM or your reseller are unable to either 1) make it do so or 2) replace it with one that is at least functionally equivalent, you may return it to your place of purchase and your money will be refunded.

#### **Extent of Warranty**

The warranty does not cover the repair or exchange of a Machine resulting from misuse, accident, modification, unsuitable physical or operating environment, improper maintenance by you, or failure caused by a product for which IBM is not responsible. The warranty is voided by removal or alteration of Machine or parts identification labels.

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. THESE WARRANTIES GIVE YOU SPECIFIC LEGAL RIGHTS AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM JURISDICTION TO JURISDICTION. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF EXPRESS OR IMPLIED WARRANTIES, SO THE ABOVE EXCLUSION OR LIMITATION MAY NOT APPLY TO YOU. IN THAT EVENT, SUCH WARRANTIES ARE LIMITED IN DURATION TO THE WARRANTY PERIOD. NO WARRANTIES APPLY AFTER THAT PERIOD.

#### Items Not Covered by Warranty

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, will be provided WITHOUT WARRANTIES OF ANY KIND.

#### **Warranty Service**

To obtain warranty service for a Machine, contact IBM or your reseller. If you do not register your Machine with IBM, you may be required to present proof of purchase.

During the warranty period, IBM or your reseller, if approved by IBM to provide warranty service, provides without charge certain types of repair and exchange service to keep Machines in, or restore them to, conformance with their Specifications. IBM or your reseller will inform you of the available types of service for a Machine based on its country of installation. At its discretion, IBM or your reseller will 1) either repair or exchange the failing Machine and 2) provide the service either at your location or a service center. IBM or your reseller will also manage and install selected engineering changes that apply to the Machine.

Some parts of IBM Machines are designated as Customer Replaceable Units (called "CRUs"), e.g., keyboards, memory, or hard disk drives. IBM ships CRUs

to you for replacement by you. You must return all defective CRUs to IBM within 30 days of your receipt of the replacement CRU. You are responsible for downloading designated Machine Code and Licensed Internal Code updates from an IBM Internet Web site or from other electronic media, and following the instructions that IBM provides.

When 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. 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.

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 problem determination, problem analysis, and service request procedures that IBM or your reseller provides;
  - b. secure all programs, data, and funds contained in a Machine;
  - c. provide IBM or your reseller with sufficient, free, and safe access to your facilities to permit them to fulfill their obligations; and
  - d. inform IBM or your reseller of changes in a Machine's location.

IBM is responsible for loss of, or damage to, your Machine 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 is responsible for any of your confidential, proprietary or personal information contained in a Machine which you return to IBM or your reseller for any reason. You should remove all such information from the Machine prior to its return.

#### Limitation of Liability

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.

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 LIABLE FOR ANY OF THE FOLLOWING: 1) THIRD-PARTY CLAIMS AGAINST YOU FOR DAMAGES (OTHER THAN THOSE UNDER THE FIRST ITEM LISTED ABOVE): 2) LOSS OF, OR DAMAGE TO, YOUR RECORDS OR DATA; OR 3) SPECIAL, INCIDENTAL, OR INDIRECT DAMAGES OR FOR ANY ECONOMIC CONSEQUENTIAL DAMAGES, LOST PROFITS OR LOST SAVINGS, EVEN IF IBM, ITS SUPPLIERS OR YOUR RESELLER IS INFORMED OF THEIR POSSIBILITY. SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE LIMITATION OR EXCLUSION 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 Agreement, without regard to conflict of law principles.

# Part 2 - Country-unique Terms

#### **AMERICAS**

#### **BRAZIL**

**Governing Law:** The following is added after the first sentence: Any litigation arising from this Agreement will be settled exclusively by the court of Rio de Janeiro.

#### NORTH AMERICA

**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**

**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**

The IBM Warranty for Machines: *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.

*The following is added to this Section:* 

Disputes and differences arising out of or in connection with this Agreement

shall be finally settled by arbitration which shall be held in Singapore in accordance with the rules of the International Chamber of Commerce (ICC). The arbitrator or arbitrators designated in conformity with those rules shall have the power to rule on their own competence and on the validity of the Agreement to submit to arbitration. The arbitration award shall be final and binding for the parties without appeal and the arbitral award shall be in writing and set forth the findings of fact and the conclusions of law.

All proceedings shall be conducted, including all documents presented in such proceedings, in the English language. 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 before proceeding upon the reference. The third arbitrator shall act as chairman of the proceedings. Vacancies in the post of chairman shall be filled by the president of the ICC. 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.

The English language version of this Agreement prevails over any other language version.

#### HONG KONG AND MACAU

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.

#### 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;
- 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, IBM's liability will be limited to the charge paid by you for the individual Machine that is the subject of the claim.

#### **JAPAN**

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

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

#### **NEW ZEALAND**

The IBM Warranty for Machines: 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 this Section:* 

Both you and IBM consent to the application of the laws of the State of New York (except when local law requires otherwise) to govern, interpret, and enforce all your and IBM's rights, duties, and obligations arising from, or relating in any manner to, the subject matter of this Agreement, without regard to conflict of law principles.

Any disputes arising from or in connection with this Agreement will first be resolved by friendly negotiations, failing which either of us has the right to submit the dispute to the China International Economic and Trade Arbitration Commission in Beijing, the PRC, for arbitration in accordance with its arbitration rules in force at the time. The arbitration tribunal will consist of three arbitrators. The language to be used therein will be English and Chinese. An arbitral award will be final and binding on all the parties, and will be enforceable under the Convention on the Recognition and Enforcement of Foreign Arbitral Awards (1958).

The arbitration fee will be borne by the losing party unless otherwise determined by the arbitral award.

During the course of arbitration, this Agreement will continue to be performed except for the part which the parties are disputing and which is undergoing arbitration.

# **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.

# **Warranty Service:**

If you purchase an IBM Machine in Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland or United Kingdom, 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 an IBM Personal Computer Machine in Albania, Armenia, Belarus, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Georgia, Hungary, Kazakhstan, Kirghizia, 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 an IBM 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 authorized service provider. You are responsible for transportation costs for Machines located outside 50 kilometers of an IBM authorized service provider.

# Governing Law:

The applicable laws that govern, interpret and enforce rights, duties, and obligations of each of us arising from, or relating in any manner to, the subject matter of this Statement, without regard to conflict of laws principles, as well as Country-unique terms and competent court for this Statement are those of the country in which the warranty service is being provided, except that in 1) Albania, Bosnia-Herzegovina, Bulgaria, Croatia, Hungary, Former Yugoslav Republic of Macedonia, Romania, Slovakia, Slovenia, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan, the laws of Austria apply; 2) Estonia, Latvia, and Lithuania, the laws of Finland apply; 3) Algeria, Benin, Burkina Faso, Cameroon, Cape Verde, Central African Republic, Chad, Congo, Djibouti, Democratic Republic of Congo, Equatorial Guinea, France, Gabon, Gambia, Guinea, Guinea-Bissau, Ivory Coast, Lebanon, Mali, Mauritania, Morocco, Niger, Senegal, Togo, and Tunisia, this Agreement will be construed and the legal relations between the parties will be determined in accordance with the French laws and all disputes arising out of this Agreement or related to its

violation or execution, including summary proceedings, will be settled exclusively by the Commercial Court of Paris; 4) 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, United Kingdom, West Bank/Gaza, Yemen, Zambia, and Zimbabwe, this Agreement will be governed by English Law and disputes relating to it will be submitted to the exclusive jurisdiction of the English courts; and 5) in Greece, Israel, Italy, Portugal, and Spain any legal claim arising out of this Statement will be brought before, and finally settled by, the competent court of Athens, Tel Aviv, Milan, Lisbon, and Madrid, respectively.

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

#### **AUSTRIA AND GERMANY**

**The IBM Warranty for Machines:** *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 six 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.

**Extent of Warranty:** The second paragraph does not apply.

**Warranty Service:** *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.

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).

#### **IRELAND**

**Extent of Warranty:** *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 items one and two of the first paragraph of this Section:

- 1. death or personal injury or physical damage to your real property solely caused by IBM's negligence; and
- 2. the amount of any other actual direct damages, up to 125 percent of the charges (if recurring, the 12 months' charges apply) for the Machine that is the subject of the claim or which otherwise gives rise to the claim.

Applicability of suppliers and resellers (unchanged).

The following paragraph is added at the end of this Section: IBM's entire liability and your sole remedy, whether in contract or in tort, in respect of any default shall be limited to damages.

#### **ITALY**

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

In each such instance unless otherwise provided by mandatory law, IBM is liable for no more than:

- 1. (unchanged)
- 2. as to any other actual damage arising in all situations involving

nonperformance by IBM pursuant to, or in any way related to the subject matter of this Statement of Warranty, IBM's liability, will be limited to the total amount you paid for the Machine that is the subject of the claim. *Applicability of suppliers and resellers (unchanged).* 

The following replaces the third paragraph of this Section:

Unless otherwise provided by mandatory law, IBM and your reseller are not liable for any of the following: (*items 1 and 2 unchanged*) 3) indirect damages, even if IBM or your reseller is informed of their possibility.

# 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 items 1 and 2 of the first paragraph of this Section:

- death or personal injury or physical damage to your real property solely caused by IBM's negligence;
- 2. the amount of any other actual direct damages or loss, up to 125 percent of the charges (if recurring, the 12 months' charges apply) for the Machine that is the subject of the claim or which otherwise gives rise to the claim;

The following item is added to this paragraph:

3. breach of IBM's obligations implied by Section 12 of the Sale of Goods Act 1979 or Section 2 of the Supply of Goods and Services Act 1982.

Applicability of suppliers and resellers (unchanged).

The following is added to the end of this Section:

IBM's entire liability and your sole remedy, whether in contract or in tort, in respect of any default shall be limited to damages. This publication was developed for products and services offered in the U.SA.

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Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

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**IBM** 

HelpCenter

ThinkPad

TrackPoint

Netfinity

Microsoft and Windows are trademarks of Microsoft Corporation in the United States, other countries, or both.

Other company, product, and service names may be trademarks or service marks of others.

# Federal Communications Commission (FCC) statement

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

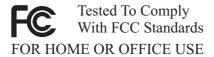
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult an IBM authorized dealer or service representative for help.

Properly shielded and grounded cables and connectors must be used in order to meet FCC emission limits. Proper cables and connectors are available from IBM authorized dealers. IBM is not responsible for any radio or television interference caused 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.

# Responsible party:

International Business Machines Corporation New Orchard Road Armonk, NY 10504 Telephone: 1-919-543-2193



# Industry Canada Class B emission compliance statement

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

# Avis de conformite a la reglementation d'Industrie Canada

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

# Deutsche EMV-Direktive (electromagnetische Verträglichkeit)

Dieses Gerät ist berechtigt in Übereinstimmung mit dem deutschen EMVG vom 9.Nov.92 das EG-Konformitätszeichen zu führen.

Der Aussteller der Konformitätserklärung ist die IBM UK, Greenock.

Dieses Gerät erfüllt die Bedingungen der EN 55022 Klasse B.

#### European Union - emission directive

This product is in conformity with the protection requirements of EU Council Directive 89/366/ECC on the approximation of the laws of the Member States relating to electromagnetic compatibility.

IBM can not 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 B Information Technology Equipment according to CISPR 22/European Standard EN 55022. The limits for Class B equipment were derived for typical residential environments to provide reasonable protection against interference with licensed communication devices.

# Union Européenne - Directive Conformité électromagnétique

Ce produit est conforme aux exigences de protection de la Directive 89/336/EEC du Conseil de l'UE sur le rapprochement des lois des États membres en matière de compatibilité électromagnétique.

IBM ne peut accepter aucune responsabilité pour le manquement aux exigences de protection résultant d'une modification non recommandée du produit, y compris l'installation de cartes autres que les cartes IBM.

Ce produit a été testé et il satisfait les conditions de l'équipement informatique de Classe B en vertu de CISPR22/Standard européen EN 55022. Les conditions pour l'équipement de Classe B ont été définies en fonction d'un contexte résidentiel ordinaire afin de fournir une protection raisonnable contre l'interférence d'appareils de communication autorisés.

# Unione Europea - Directiva EMC (Conformidad électromagnética)

Este producto satisface los requisitos de protección del Consejo de la UE, Directiva 89/336/CEE en lo que a la legislatura de los Estados Miembros sobre compatibilidad electromagnética se refiere.

IBM no puede aceptar responsabilidad alguna si este producto deja de satisfacer dichos requisitos de protección como resultado de una modificación no recomendada del producto, incluyendo el ajuste de tarjetas de opción que no sean IBM.

Este producto ha sido probado y satisface los límites para Equipos Informáticos Clase B de conformidad con el Estándar CISPR22 y el Estándar Europeo EN 55022. Los límites para los equipos de Clase B se han establecido para entornos residenciales típicos a fin de proporcionar una protección razonable contra las interferencias con dispositivos de comunicación licenciados.

# Union Europea - Normativa EMC

Questo prodotto è conforme alle normative di protezione ai sensi della Direttiva del Consiglio dell'Unione Europea 89/336/CEE sull'armonizzazione legislativa degli stati membri in materia di compatibilità elettromagnetica.

IBM non accetta responsabilità alcuna per la mancata conformità alle normative di protezione dovuta a modifiche non consigliate al prodotto, compresa l'installazione di schede e componenti di marca diversa da IBM.

Le prove effettuate sul presente prodotto hanno accertato che esso rientra nei limiti stabiliti per le le apparecchiature di informatica Classe B ai sensi del CISPR 22/Norma Europea EN 55022. I limiti delle apparecchiature della Classe B sono stati stabiliti al fine di fornire ragionevole protezione da interferenze mediante dispositivi di comunicazione in concessione in ambienti residenziali tipici.

Korean B급 규격 증명서

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Japanese statement of compliance for products less than or equal to 20 A per phase

# 高調波ガイドライン適合品

# IBM.

Part Number: 22P5225



Printed in the United States of America on recycled paper containing 10% recovered post-consumer fiber.

(1P) P/N: 22P5225

