

Keyboard with TrackPoint II

User's Guide

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First Edition (October 1994)

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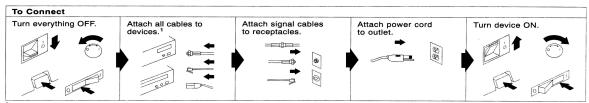
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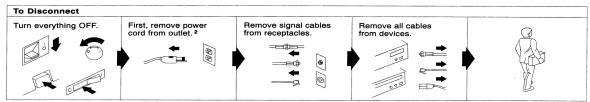
Safety Information



Electrical current from power, telephone, and communication cables is hazardous. To avoid shock hazard, connect and disconnect cables as shown below when installing, moving or opening the covers of this product or attached devices. The power cord must be used with a properly grounded outlet.



¹ In the U.K., by law, the telephone cable must be connected after the power cord.



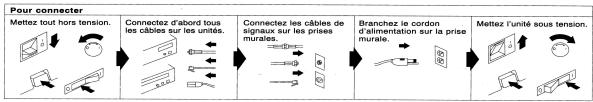
² In the U.K., by law, the power cord must be disconnected after the telephone line cable.

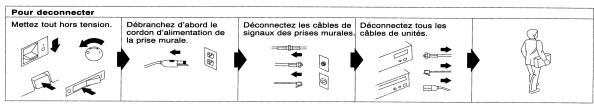
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V



Le courant électrique provenant des câbles d'alimentation, télephoniques et de transmission peut présenter un danger. Pour éviter tout risque de choc électrique, connectez et déconnectez ces câbles comme indiqué cidessous lorsque vous installez ou déplacez ce matériel ou les unités connectées, ou que vous soulevez un carter.*





^{*}Le cordon d'alimentation doit être branché sur un socle de prise de courant correctement mis à la terre.

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About This Book

This publication explains how to:

- Connect the keyboard with the TrackPoint II pointing device to your computer
- Install the TrackPoint II device driver, if needed
- Use and care for the keyboard and TrackPoint II
- Install an optional numeric keypad or mouse, if applicable

You will also refer to documentation that came with your computer and operating system.

Note: The illustrations in this publication might be slightly different from your hardware.

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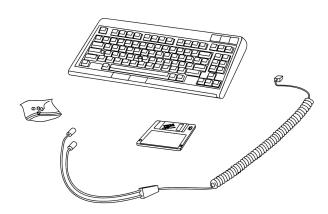


Product Description

This keyboard works on IBM* PS/2* and ISA-standard computers with 6-pin, mini-DIN, PS-style keyboard and mouse connectors. With the TrackPoint* II built-in, this keyboard eliminates the need for a mouse. Two buttons below the Spacebar work like mouse buttons. Some keyboards also contain connectors for an optional numeric keypad and mouse.

The keyboard option includes:

- Keyboard with TrackPoint II
- Keyboard cable
- Device driver diskette
- · Bag of spare caps for TrackPoint II



Note: Attach the mouse connector to a PS-style mouse port only. Attaching the mouse connector to the serial port or bus mouse port might cause damage to your computer.

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Contact your place of purchase if any parts are missing or damaged. For information on how to get help, technical support, and warranty service, see "Help and Service Information" on page 25.

Important: Be sure to retain your proof of purchase because it might be required to obtain warranty service.

If you are installing the keyboard on a personal computer, go to "Installing the TrackPoint II Keyboard" on page 3.

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If you are installing the keyboard on a ThinkPad* computer, go to "Installing the TrackPoint II Keyboard on the IBM ThinkPad" on page 5.



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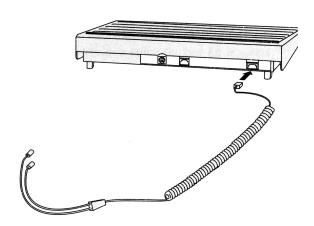
Installing the TrackPoint II Keyboard

Note:

- The drawings in this publication show the 84-key keyboard as an example.
- You can attach only one TrackPoint II keyboard to each computer.

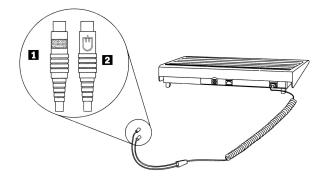
To install your TrackPoint II keyboard:

- 1. Turn off your computer and all attached devices.
- 2. Disconnect any keyboard or mouse now attached to the computer.
- 3. Attach the single connector end of the supplied keyboard cable to the TrackPoint II keyboard as shown. On some keyboards, the cable might already be connected.



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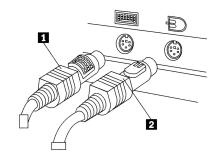
4. Look at the end of the keyboard cable with two connectors. One connector shows a symbol of a keyboard 1 and one shows a symbol of a mouse 2.



5. Insert the connector with the keyboard symbol into the computer keyboard port 1.

3

Insert the connector with the mouse symbol into the computer mouse port 2.



Note: If you are not sure of the keyboard or mouse ports, refer to your computer documentation.

After installing the TrackPoint II keyboard, install the device driver using the instructions given in "Installing the Device Driver" on page 14.

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Installing the TrackPoint II Keyboard 5

Installing the TrackPoint II Keyboard on the IBM ThinkPad

To attach the keyboard to your IBM ThinkPad notebook computer and docking stations, you need to have a Keyboard/Mouse Connector. If you do not have one, contact your place of purchase.

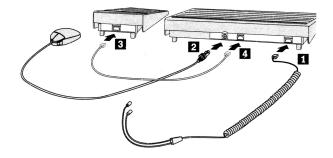
The following information shows how to set up the TrackPoint II keyboard and the optional mouse and keypad for your computer.

Attaching the Connector Cables

To attach the TrackPoint II keyboard:

- 1. Turn off your computer and all attached devices.
- 2. Disconnect any optional keyboard or mouse now attached to the computer.
- 3. Attach the single connector end 1 of the supplied keyboard cable to the TrackPoint II keyboard. On some keyboards, the cable might already be connected.
- If you have a mouse, attach it to the round mouse connector on the back of the TrackPoint II keyboard
- If you have a numeric keypad, attach one end of the keypad cable to the connector on the numeric keypad
 .

 Attach the other end of the keypad cable to the rectangular keypad connector on the back of the TrackPoint II keyboard



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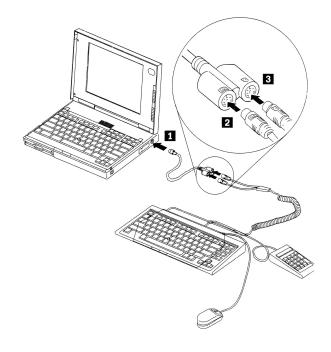
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Attaching the Keyboard/Mouse Connector Cable

To attach the Keyboard/Mouse Connector cable:

- Attach the single connector end of the Keyboard/Mouse Connector cable to the ThinkPad port.
- 2. Look at the end of the Keyboard/Mouse Connector cable with two connectors. One connector shows a symbol of a keyboard and one shows a symbol of a mouse.
- 3. Insert the connector with the keyboard symbol into the keyboard connector side of the keyboard cable 2.
- 4. Insert the connector with the mouse symbol into the mouse connector side of the keyboard cable 3.



Installing the TrackPoint II Keyboard on the IBM ThinkPad

For information on the Function (Fn) key functions and the IBM ThinkPad features for each operating system, see "Imitating the Fn Key Functions on the IBM ThinkPad 750 Series Computers" on page 9.

After installing the TrackPoint II keyboard on the IBM ThinkPad, install the device driver using the instructions given in "Installing the Device Driver" on page 14.

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Imitating the Fn Key Functions on the IBM ThinkPad 750 Series Computers

The TrackPoint II keyboard does not have a Fn key. However, it supports the same functions that the Fn key supports. If you use the TrackPoint II keyboard with the ThinkPad 750 series of the computers, you can use the same Fn key functions by using the ThinkPad features. The following table is a comparison of the Fn key functions and the ThinkPad features for the DOS, OS/2*, and Microsoft** Windows** operating systems.

Fn Key Function	DOS	Windows and OS/2
Fn + F1 Reserved.	_	_
Reserved.		
Fn + F2 Fuel-Gauge display	_	 Double-click on the ThinkPad Features object (). Double-click on the Fuel object ().
on/off		The minimized Fuel-Gauge appears on the lower side of the screen. To view the full screen, double-click on the minimized Fuel-Gauge.

Installing the TrackPoint II Keyboard on the IBM ThinkPad

Fn Key Function DOS Windows and OS/2 At the DOS prompt, type PS2 ST E and Auto-standby mode press Enter. At the DOS 1. Double-click on the ThinkPad Features object (). prompt, type 2. Double-click on the Fuel object (). PS2 SUS and Suspend mode press Enter. The minimized Fuel-Gauge appears on the lower side of the screen. 3. Double-click on the minimized Fuel-Gauge so that the maximized Fuel-Gauge appears. 4. Click on the Suspend Button (()).

Note:

When you resume normal operation from suspend mode:

- Close the LCD of the computer; then open it.
- Press any key on the TrackPoint II keyboard if the "Will not suspend even if LCD is closed" option of the Power menu in the ThinkPad Features is specified.
- If an expansion unit is attached to the computer, press any key on the TrackPoint II keyboard.

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Installing the TrackPoint II Keyboard on the IBM ThinkPad

Fn Key Function	DOS	Windows and OS/2
LCD Reverse/Normal switch Note: Used only for monochrome LCDs.	At the DOS prompt, type PA2 RE E and press Enter.	 Double-click on the ThinkPad Features object (). Double-click on the Display object (). Select the item from the menu.
Highlight Text (high-intensity text) Note: Used only for monochrome LCDs.	At the DOS prompt, type PS2 F9 E and press Enter.	 If you use OS/2: a. Double-click on Command Prompts. b. Double-click on DOS Full Screen. At the DOS prompt, type PS2 F9 E and press Enter.
Fn + F10 Reserved	_	_

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DOS

At the DOS

prompt, type

press Enter.

Note:
• Use PS2 XV

PS2 SV xx or

PS2 XV xx and

xx if an expansion

unit is attached to

the computer.
• xx = volumenumber

At the DOS

prompt, type

press Enter.

Note: xxx = LCD, CRT, or BOTH (you can enter 3 or 4 characters).

PS2 SC xxx and

Fn Key Function

+ F5

F6

Audio volume

Audio volume

+ F7

Display)/LCD display

CRT (External

switch

(increase)

(decrease)

Windows and OS/2

3. Set the volume.

switch shows the volume number.

3. Select the item from the menu.

1. Double-click on the ThinkPad Features object ().

1. Double-click on the ThinkPad Features object ().

2. Double-click on the Display object ().

button and move the volume switch with the TrackPoint II.

Place the cursor on the volume switch of the sound control panel. Then press and hold the left click

As the volume switch moves to the right, the volume increases. The number on the left side of the volume

2. Double-click on the Sound object (**).

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Fn Key Function	DOS	Windows and OS/2
Power management mode switch	At the DOS prompt, type PS2 PM x and press Enter. Note: x = H (High), M (Medium), or L (Low)	 Double-click on the ThinkPad Features object (). Double-click on the Power object (). Select the item from the menu.
Fn + F12 Hibernation mode	At the DOS prompt, type PS2 HIB and press Enter.	 Double-click on the ThinkPad Features object (). Double-click on the Fuel object (). The minimized Fuel-Gauge appears on the lower side of the screen. Double-click on the minimized Fuel-Gauge so that the maximized Fuel-Gauge appears. Click on the Hibernation Button ().

Installing the TrackPoint II Keyboard on the IBM ThinkPad

Installing the Device Driver

Important: If you are using DOS Version 5.02 or later, or the IBM OS/2 operating system, the mouse device driver is included in the operating system. For earlier versions of DOS, you must install the mouse device driver from the mouse program diskette to use all of the TrackPoint II features.

Before installing the device driver, you must have DOS on either the hard disk or the diskette you use to start the computer. The following procedure copies the MOUSE.COM file from the mouse program diskette to the hard disk or to the diskette that you use to start the computer.

To install the device driver:

- 1. Start the computer.
- 2. Insert the device driver diskette into drive A when the system prompt appears.
- 3. Type A:UINSTALL and press Enter.
- 4. Follow the instructions on the screen.
- 5. Remove the diskette from drive A.
- 6. Restart the computer.

Activating the TrackPoint II Device Driver

Some application programs need to know that you have a mouse device driver installed on your computer so that you can use TrackPoint II with those programs. Setup of these programs, however, might not provide a selection for TrackPoint II. If there is no selection for TrackPoint II, select the IBM PS/2 Mouse instead. Refer to your application program documentation for selecting pointing devices.

To activate the DOS TrackPoint II device driver:

- 1. Start the computer.
- 2. Type MOUSE at the DOS prompt and press Enter.

The device driver activation is now complete.

To deactivate TrackPoint II, type **MOUSE OFF** at the system prompt and press **Enter**. To reactivate TrackPoint II, repeat step 2.

To activate TrackPoint II automatically whenever you start the computer, add the MOUSE command to the AUTOEXEC.BAT file on either drive C or the diskette that contains DOS.

Use a text editor to edit the AUTOEXEC.BAT file. Type **MOUSE** at the left margin of a blank line. Save the AUTOEXEC.BAT file.

Note: If you are using the DOS Shell, the MOUSE statement must appear before the DOSSHELL statement in the AUTOEXEC.BAT file. Refer to the DOS documentation for more information on the AUTOEXEC.BAT file.

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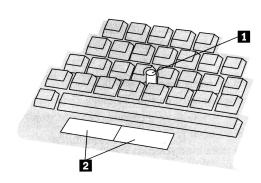
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Using TrackPoint II

There are three features on the keyboard for operating TrackPoint II:

- A stick 1 near the center of the keyboard.
- Two buttons 2 at the bottom of the keyboard.
 - The button on the left side is equivalent to a left mouse button.
 - The button on the right side is equivalent to a right mouse button.

The stick, which extends above the typing keys, controls the motion of the pointer on the screen. Pressing the stick horizontally with your finger moves the pointer in the direction you press, but the stick does not move. The more pressure you apply, the faster the pointer moves. The buttons work like those on other pointing devices, depending on the software being used.



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TrackPoint II is very easy to use. The following instructions will help you get started.

- 1. Place your hands in the typing position. Rest the heels of your hands on something solid. Place either index finger on the stick. Rest your thumbs comfortably above the
- 2. Press gently on the stick, in the direction 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 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.

Using TrackPoint II 17

Customizing TrackPoint II

You can customize TrackPoint II by changing the button settings, the pointer speed, or both.

Making Temporary Changes

To make a temporary change, which remains active until you turn off the computer, continue with these instructions. To make the change effective whenever you turn on the computer, go to "Changing the AUTOEXEC.BAT File" on page 20.

Changing Button Settings

You can customize TrackPoint II by changing the button default setting from button 1 to button 2. This change can be useful to left-handed people.

Note: Buttons 1 and 2 at the bottom of the keyboard are equivalent to left and right mouse buttons, respectively.

Make temporary changes at the operating system prompt. The command syntax is: [drive:] [path]MOUSE [/KPnSm]

The following information assumes you are in drive C and that the mouse files are in the root directory.

To change the button 1 setting to the button 2 setting, type MOUSE /KP3S1 at the prompt and press Enter.

To change the button 2 setting to the button 1 setting, type MOUSE /KP1S3 at the prompt and press Enter.

Changing Pointer Speed

You can change the speed of the TrackPoint II pointer on the screen from 5 (the lowest speed) to 100 (the highest speed). The default is 50. You can change the vertical or horizontal speed, or both.

Make temporary changes at the operating system prompt. The command syntax is: [drive:] [path]MOUSE [/Hn] [/Vn] [/Sn]

The following table describes the mouse command parameters and gives examples of how to use them. The examples assume you are in drive C and that the mouse files are in the root directory.

Command	Description
/Hn	Specifies the horizontal speed of the pointer movements. For example, to set the horizontal speed to 75, type MOUSE /H75 at the prompt and press Enter.
/Vn	Specifies the vertical speed of the pointer movements. For example, to set the vertical speed to 35, type MOUSE /V35 at the prompt and press Enter .
(Sn	Specifies both the horizontal and vertical speed of the pointer movements. For example, to set the horizontal and vertical speed to 75, type MOUSE /S75 at the prompt and press Enter.

Customizing TrackPoint II 19

Changing the AUTOEXEC.BAT File

To make your customizing changes active whenever you turn on the computer, add the commands to the mouse statement in your AUTOEXEC.BAT file. You can change both settings in the mouse statement by using a text editor to edit the AUTOEXEC.BAT file.

If the MOUSE statement is not in the AUTOEXEC.BAT file. type MOUSE on a blank line at the left margin, followed by the appropriate commands. If the MOUSE statement is in your AUTOEXEC.BAT file, add the appropriate commands.

Note: If you are using the DOS Shell, the MOUSE statement must appear before the DOSSHELL statement in the AUTOEXEC.BAT file. Refer to the DOS documentation for more information about the AUTOEXEC.BAT file.

Changing Button Settings

To change the TrackPoint II setting from the button 1 setting to the button 2 setting, add the statement:

MOUSE /KP3S1

To change the TrackPoint II setting from the button 2 setting to the button 1 setting, add the statement:

MOUSE /KP1S3

Changing Pointer Speed

To change the TrackPoint II pointer speed, use the appropriate command in the mouse statement (see page 19) for horizontal or vertical speeds. For example, to change the button 1 setting to the button 2 setting and to set the horizontal and vertical speed to 75, the AUTOEXEC.BAT file statement is: MOUSE /KP3S1 /S75

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Installing a Numeric Keypad

You can connect an optional numeric keypad to some keyboards. The keypad, which is arranged like a calculator, is useful when working with numeric information.

To install the optional numeric keypad:

- 1. Turn off your computer and all attached devices.
- 2. Unpack the numeric keypad and cable.
- 3. Attach one end of the cable to the connector on the numeric keypad.
- 4. Attach the other end of the cable to the rectangular numeric keypad connector on the back of the keyboard.
- 5. Turn on the computer.

The numeric keypad is now operational.



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Using the Numeric Keypad

You can use the numeric keypad to:

- Enter numeric data when the Num Lock key is activated.
 A special 00 key lets you quickly enter two zeros with one keystroke when entering numeric data.
- Control cursor movement when the Num Lock key is deactivated.
- Enter special characters when the keypad is used in conjunction with the Alt key. This is done by holding down the Alt key while entering a numeric value on the keypad. The available characters are determined by the code page loaded by your operating system, which varies from language to language. Refer to your operating system documentation for information about code pages.



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Installing a Mouse

You can also connect an optional mouse to some keyboards. The mouse must be PS/2 style and have two buttons and a 6-pin mini-DIN connector. When a mouse is connected, you can use it or TrackPoint II. However, you can use only one pointing device at a time.



To install a mouse:

- 1. Turn off the computer and all attached devices.
- 2. Unpack the mouse and attach it to the round mouse connector on the back of the keyboard.
- 3. Turn on the computer.

The mouse is now operational.

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Maintaining the Keyboard

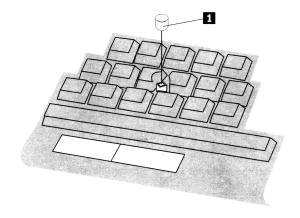
Note: Because the keyboard is an electronic product, do not get it wet, drop it, or bang on it.

Cleaning: To maintain smooth operation, occasionally clean the keyboard and the TrackPoint II cap with a soft cloth moistened with water and mild soap.

Replacing the Cap: When the cap 1 on the end of the stick is worn out, remove it and replace with a new one. Spare caps in different colors are supplied with this option package.

Faulty Pointer Movement: Other equipment might interfere with the operation of the keyboard pointing device. Relocate suspected equipment or move your computer. If the problem continues, refer to "Help and Service Information" on page 25.

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Help and Service Information

During the warranty period, you can get toll-free technical support 24 hours a day, 7 days a week, to answer any questions about your new IBM option. If you need warranty service, return or exchange 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.

Before calling, please prepare for your call by following these steps.

CAUTION:

To avoid electrical shock, unplug your computer and all attached devices from electrical outlets before performing any troubleshooting procedure.

Step 1: Troubleshooting

You might be able to solve the problem yourself. Before calling IBM, you might want to try some or all of the following troubleshooting procedures.

- 1. Remove and reattach all option cables.
- 2. Reread any software instructions; be sure software settings are correct.
- 3. Inspect the option for damage, such as bent pins.
- 4. Check the computer manual for instructions about the installation of upgrades. Look for a section about system setup or system configuration. Follow all procedures.
- 5. After completing these steps, reassemble the computer and connect the power cord.

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Step 2: Preparing for the Call

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

- 1. Option name, description, and serial number (if any)
- 2. Proof of purchase
- 3. Computer manufacturer, model, serial number (if IBM), and manual
- 4. Exact wording of the error message (if any)
- 5. Description of the problem
- 6. 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.

Step 3: Placing the Call to IBM

Use one of the following numbers:

- Within the United States, call the Options by IBM HelpCenter* at 1-800-426-7299.
- Within Canada
 - For support, call HelpPC at 1-800-565-3344.
 - For more information or to place an order, call 1-800-465-7999.
- Outside the United States and Canada, contact your IBM HelpWare* number, your place of purchase, or your local branch office.

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Product Warranties, Licenses, and **Notices**

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Armonk, New York, 10504

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The warranties provided by IBM in this Statement of Limited Warranty apply only to Machines you originally purchase for your use, and not for resale, from IBM or an IBM authorized reseller. The term "Machine" means an IBM machine, its features, conversions, upgrades, elements, or accessories, or any combination of them. Machines are subject to these terms only if purchased in the United States or Puerto Rico, or Canada, and located in the country of purchase. If you have any questions, contact IBM or your reseller.

Machine: Keyboard with TrackPoint II

Warranty Period*: One Year

*Elements and accessories are warranted for three months. Contact your place of purchase for warranty service information.

Production Status

If a Machine does not function as warranted during the warranty period, IBM or your reseller will repair or replace it (with a Machine that is at least functionally equivalent) without charge. If IBM or your reseller is unable to do so, you may return it to your place of purchase and your money will be refunded.

If you transfer a Machine to another user, warranty service is available to that user for the remainder of the warranty period. You should give your proof of purchase and this Statement to that user.

Warranty Service

To obtain warranty service for the Machine, you should contact your reseller or call IBM. In the United States, call IBM at 1-800-426-7299. In Canada, call IBM at 1-800-565-3344. You may be required to present proof of purchase.

Depending on the Machine, the service may be 1) a "Repair" service at your location (called "On-site") or at one of IBM's or a reseller's service locations (called "Carry-in") or 2) an "Exchange" service, either On-site or Carry-in.

When a type of service involves the exchange of a Machine or part, the item IBM or your reseller replaces becomes its property and the replacement becomes yours. The replacement may not be new, but will be in good working order and at least functionally equivalent to the item replaced.

It is your responsibility to:

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Each Machine is manufactured from new parts, or new and serviceable used parts (which perform like new parts). In some cases, the Machine may not be new and may have been previously installed. Regardless of the Machine's production status, IBM's warranty terms apply.

The IBM Warranty

IBM warrants that each Machine 1) is free from defects in materials and workmanship and 2) conforms to IBM's Official Published Specifications. IBM calculates the expiration of the warranty period from the Machine's Date of Installation. The date on your receipt is the Date of Installation, unless IBM or your reseller informs you otherwise.

During the warranty period, IBM or your reseller will provide warranty service under the type of service designated for the Machine and will manage and install engineering changes that apply to the Machine. IBM or your reseller will specify the type of service.

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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.

IBM is not responsible for any radio or television interference caused 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.

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Industry Canada Compliance Statement

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

Avis de conformité aux normes d'Industrie Canada

Cet appareil numérique respecte les limites de bruits radioélectriques applicables aux appareils numériques de Classe B prescrites dans la norme sur le matériel brouilleur : "Appareils numériques", NMB-003 édictée par Industrie Canada.

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