



# IBM E400 PROJECTOR

## User's Guide





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**Note:** Before using this information and the product it supports, read the information in Appendix D, "Service and Support," on page D-1 and Appendix E, "IBM Statement of Limited Warranty - Z125-4753-07 - 11/2002," on page E-1

**Second Edition (February 2004)**

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## Safety information

Before installing this product, read the Safety Information.

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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 produktu si prečítajte bezpečnostné informácie.

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」。

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## General safety information

Always observe the following precautions to reduce the risk of injury and property damage.

---

### Service

Do not attempt to service a product yourself unless instructed to do so by the IBM Support Center. Use only an IBM authorized service provider who is approved to repair your particular product.

**Note:** Some parts can be upgraded or replaced by the customer. These parts are referred to as Customer Replaceable Units, or CRUs. IBM expressly identifies CRUs as such, and provides documentation with instructions when it is appropriate for customers to replace those parts. You must closely follow all instructions when performing such replacements. Always make sure that the power is turned off and that the product is unplugged from any power source before you attempt the replacement. If you have any questions or concerns, contact the IBM Support Center.

---

### Power cords and power adapters

Use only the power cords and power adapters supplied by the product manufacturer.

Never wrap a power cord around the power adapter or other object. Doing so can stress the cord in ways that can cause the cord to fray, crack or crimp. This can present a safety hazard.

Always route power cords so that they will not be walked on, tripped over, or pinched by objects.

Protect the cord and power adapters from liquids. For instance, do not leave your cord or power adapter near sinks, tubs, toilets, or on floors that are cleaned with liquid cleansers. Liquids can cause a short circuit, particularly if the cord or power adapter has been stressed by misuse. Liquids can also cause gradual corrosion of the power cord terminals and/or the connector terminals on the adapter which can eventually result in overheating.

Always connect power cords and signal cables in the correct order and ensure that all power cord connectors are securely and completely plugged into receptacles.

Do not use any power adapter that shows corrosion at the ac input pins and/or shows signs of overheating (such as deformed plastic) at the ac input or anywhere on the power adapter.

Do not use any power cords where the electrical contacts on either end show signs of corrosion or overheating or where the power cord appears to have been damaged in any way.

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## Extension cords and related devices

Ensure that extension cords, surge protectors, uninterruptible power supplies, and power strips that you use are rated to handle the electrical requirements of the product. Never overload these devices. If power strips are used, the load should not exceed the power strip input rating. Consult an electrician for more information if you have questions about power loads, power requirements, and input ratings.

---

## Plugs and outlets

If a receptacle (power outlet) that you intend to use with your computer equipment appears to be damaged or corroded, do not use the outlet until it is replaced by a qualified electrician.

Do not bend or modify the plug. If the plug is damaged, contact the manufacturer to obtain a replacement.

Some products are equipped with a three-pronged plug. This plug fits only into a grounded electrical outlet. This is a safety feature. Do not defeat this safety feature by trying to insert it into a non-grounded outlet. If you cannot insert the plug into the outlet, contact an electrician for an approved outlet adapter or to replace the outlet with one that enables this safety feature. Never overload an electrical outlet. The overall system load should not exceed 80 percent of the branch circuit rating. Consult an electrician for more information if you have questions about power loads and branch circuit ratings.

Be sure that the power outlet you are using is properly wired, easily accessible, and located close to the equipment. Do not fully extend power cords in a way that will stress the cords.

Connect and disconnect the equipment from the electrical outlet carefully

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## Batteries

All IBM personal computers contain a non-rechargeable coin cell battery to provide power to the system clock. In addition many mobile products such as Thinkpad notebook PCs utilize a rechargeable battery pack to provide system power when in portable mode. Batteries supplied by IBM for use with your product have been tested for compatibility and should only be replaced with IBM approved parts.

Never attempt to open or service any battery. Do not crush, puncture, or incinerate batteries or short circuit the metal contacts. Do not expose the battery to water or other liquids. Only recharge the battery pack strictly according to instructions included in the product documentation.

Battery abuse or mishandling can cause the battery to overheat, which can cause gasses or flame to “vent” from the battery pack or coin cell. If your battery is damaged, or if you notice any discharge from your battery or the buildup of foreign materials on the battery leads, stop using the battery and obtain a replacement from the battery manufacturer.

Batteries can degrade when they are left unused for long periods of time. For some rechargeable batteries (particularly Lithium Ion batteries), leaving a battery unused in a discharged state could increase the risk of a battery short circuit, which could

shorten the life of the battery and can also pose a safety hazard. Do not let rechargeable Lithium-Ion batteries completely discharge or store these batteries in a discharged state.

---

## Heat and product ventilation

Computers generate heat when turned on and when batteries are charging. Notebook PCs can generate a significant amount of heat due to their compact size. Always follow these basic precautions:

- Do not leave the base of your computer in contact with your lap or any part of your body for an extended period when the computer is functioning or when the battery is charging. Your computer produces some heat during normal operation. Extended contact with the body could cause discomfort or, potentially, a skin burn.
  - Do not operate your computer or charge the battery near flammable materials or in explosive environments.
  - Ventilation slots, fans and/or heat sinks are provided with the product for safety, comfort, and reliable operation. These features might inadvertently become blocked by placing the product on a bed, sofa, carpet, or other flexible surface. Never block, cover or disable these features.
- 

## CD and DVD drive safety

CD and DVD drives spin discs at a high speed. If a CD or DVD is cracked or otherwise physically damaged, it is possible for the disc to break apart or even shatter when the CD drive is in use. To protect against possible injury due to this situation, and to reduce the risk of damage to your machine, do the following:

- Always store CD/DVD discs in their original packaging
- Always store CD/DVD discs out of direct sunlight and away from direct heat sources
- Remove CD/DVD discs from the computer when not in use
- Do not bend or flex CD/DVD discs, or force them into the computer or their packaging
- Check CD/DVD discs for cracks before each use. Do not use cracked or damaged discs



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## Registering your option

Thank you for purchasing this IBM® product. 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.

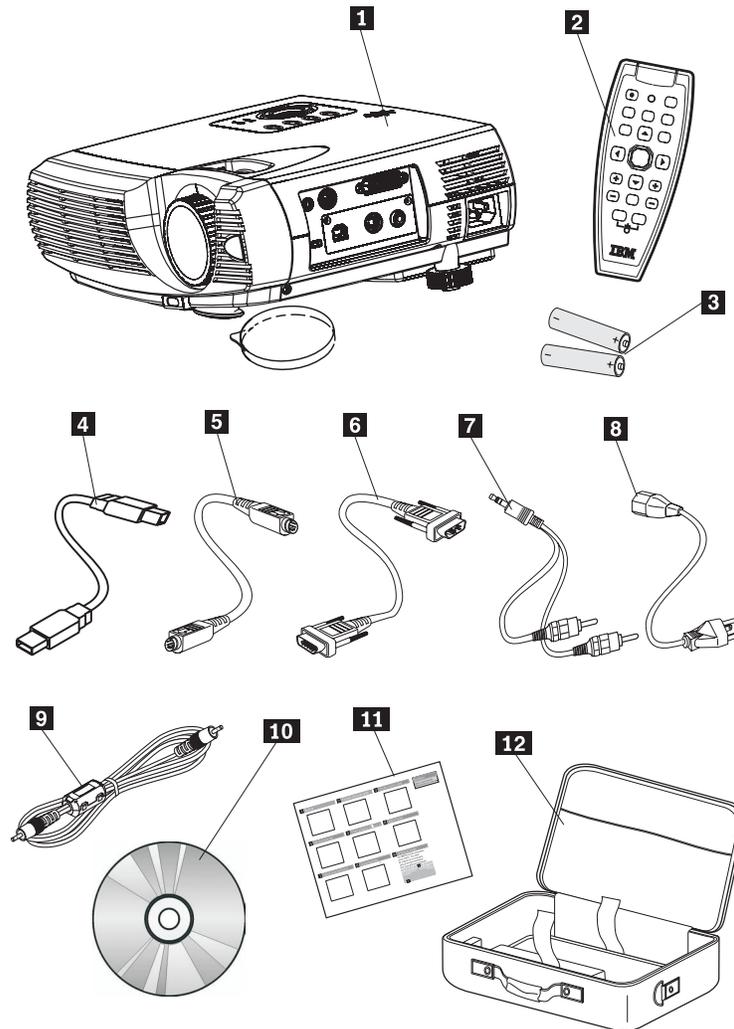


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## Preface

The IBM® E400 projector can be used for both business presentations and home entertainment and is easy to connect, use, and maintain.

In addition to this User's Guide, your option package contains the following:



- 1** Projector with lamp housing and lens cap included
- 2** Remote control
- 3** Two AAA batteries
- 4** USB cable
- 5** S-video cable
- 6** Video cable (DVI-DB15) to VGA
- 7** Audio cable (Mini Jack-to-RCA)
- 8** Power cord
- 9** Composite video cable
- 10** User's Guide (and installation) CD
- 11** Multi-language Quick Start guide
- 12** Carrying case

If any of the items listed above are missing or damaged, contact your place of purchase.

**Note:** Be sure to retain your proof of purchase; it will be required to receive warranty service.

For information on optional accessories for your projector, please go to <http://www.ibm.com>.

**Attention:**

- Avoid using the projector in dusty environments.
- Do not obstruct the vent openings of the projector.
- Leave the power cable plugged in (for 2-5 minutes) until the projector returns to room temperature before placing the projector inside the soft case. Placing the projector into the case too soon after switching off the power could cause the projector to overheat and will shorten lamp life.
- Be sure to attach the lens cap and place the projector into the soft case to avoid damaging the lens.

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## Chapter 1. Introduction

The figures below show the features of the projector.

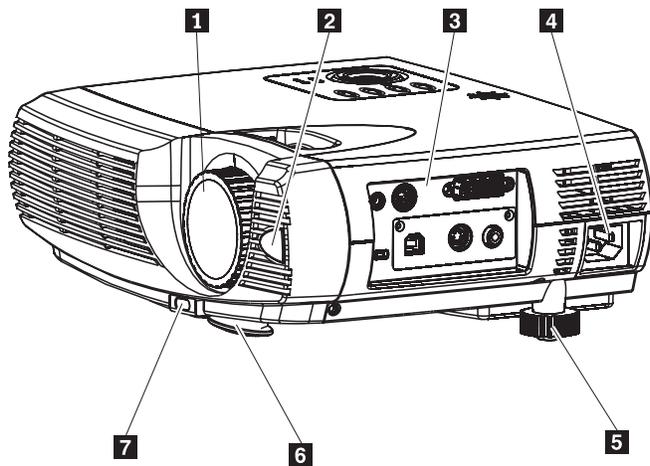


Figure 1-1. Front right view of projector

- 1** Lens/focus
- 2** IR receiver
- 3** Connectors
- 4** Power cord connector
- 5** Leveling foot
- 6** Elevator foot
- 7** Elevator foot adjuster button

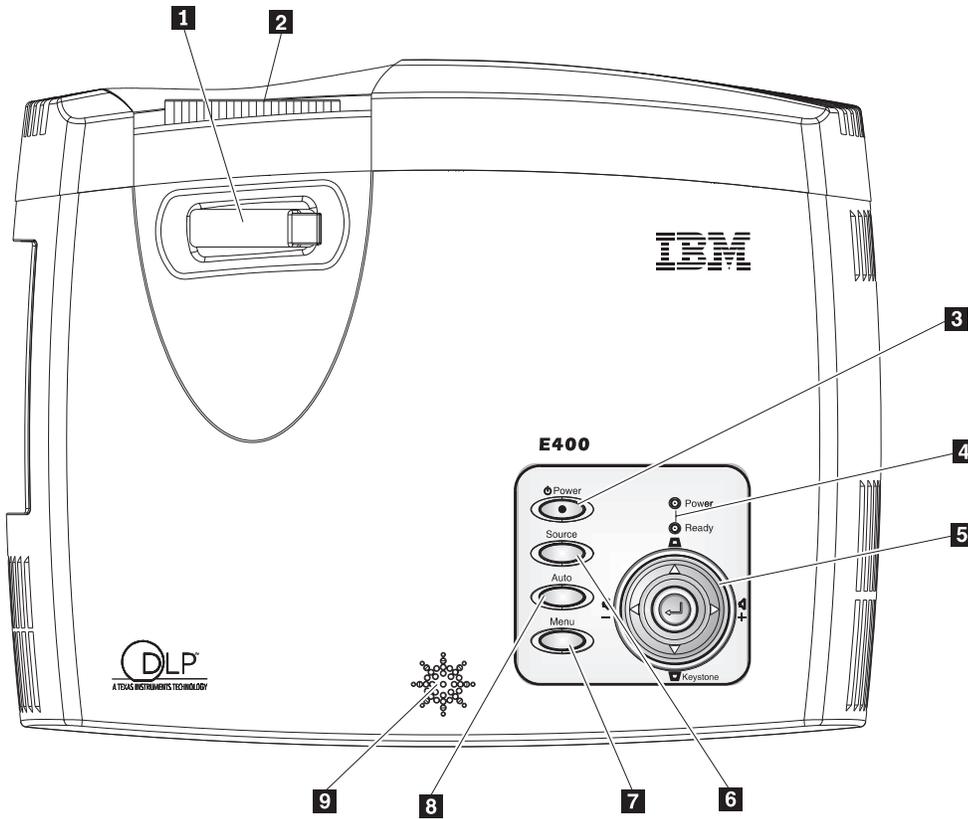


Figure 1-2. Top view of projector

- 1** Zoom
- 2** Focus
- 3** Power
- 4** System status LEDs
- 5** Control buttons
- 6** Source button
- 7** Menu button
- 8** Auto button
- 9** Speaker

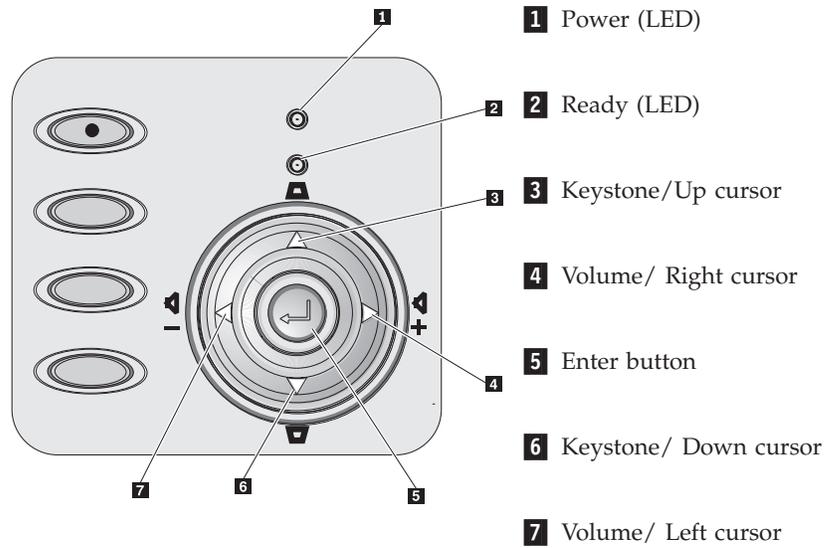


Figure 1-3. Top view of the control buttons and LEDs on the projector

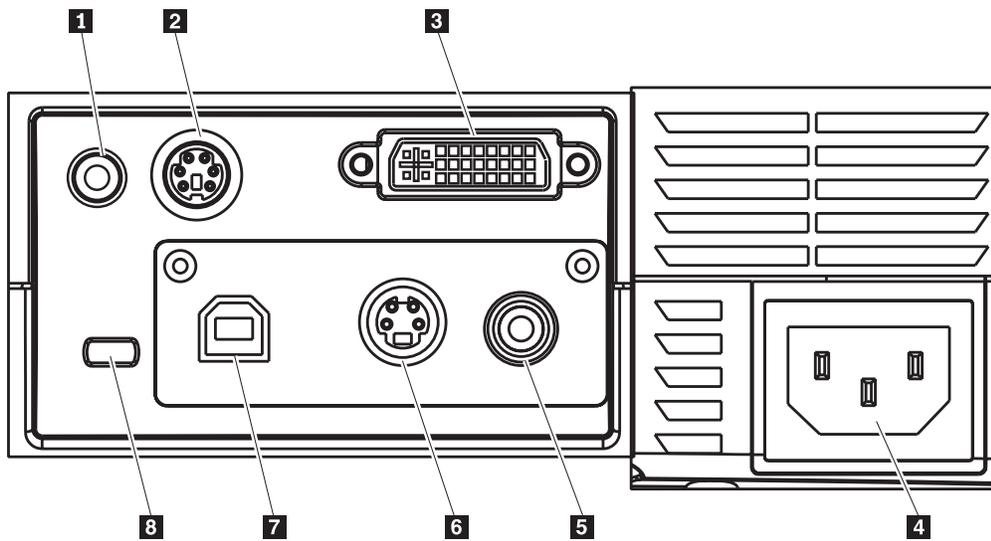


Figure 1-4. Connectors

- 1** Audio-in
- 2** RS-232
- 3** DVI-I
- 4** AC socket
- 5** Composite video
- 6** S-video
- 7** USB
- 8** Security slot

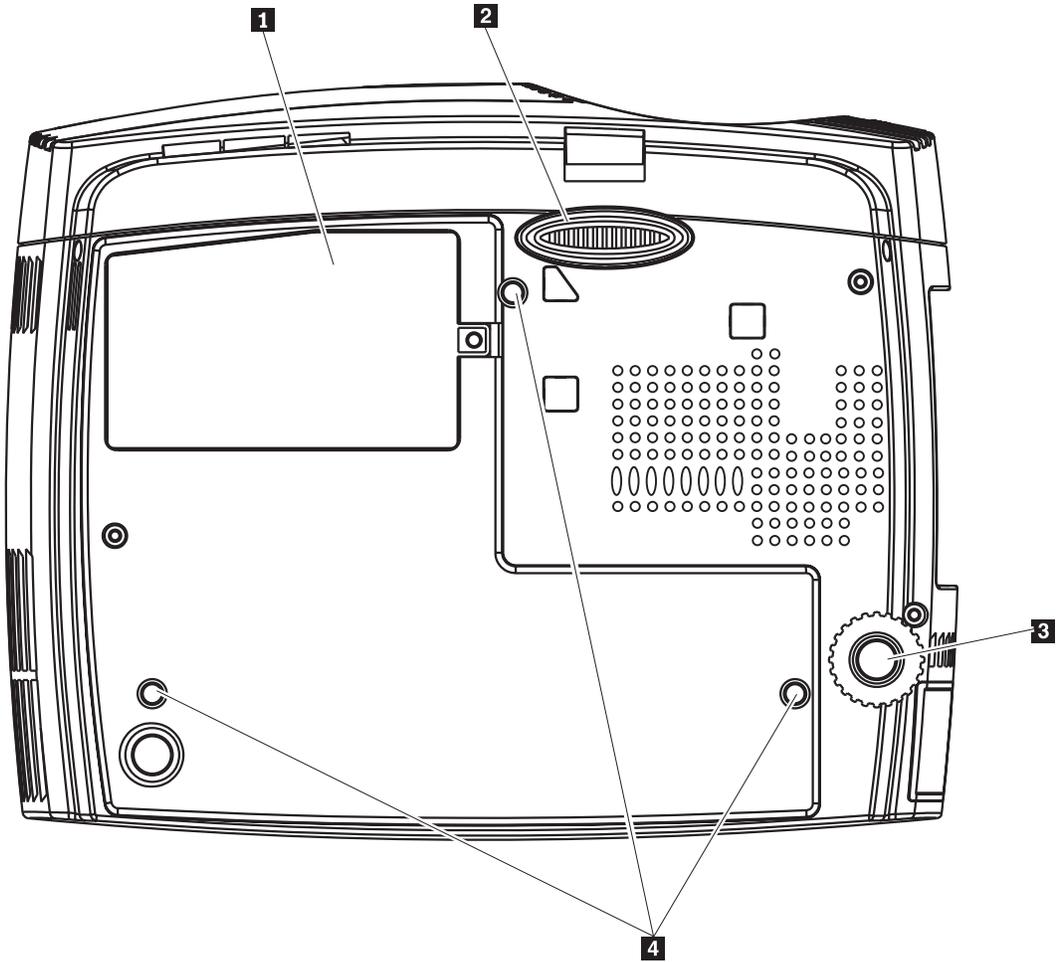


Figure 1-5. Bottom view of the projector

- 1** Projection lamp cover
- 2** Elevator foot
- 3** Leveling foot
- 4** Ceiling support holes

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## Chapter 2. Setting up the projector

This chapter provides information on starting and shutting down the projector, adjusting the projector height and level, adjusting the zoom, focus, and keystone, and adjusting the volume.

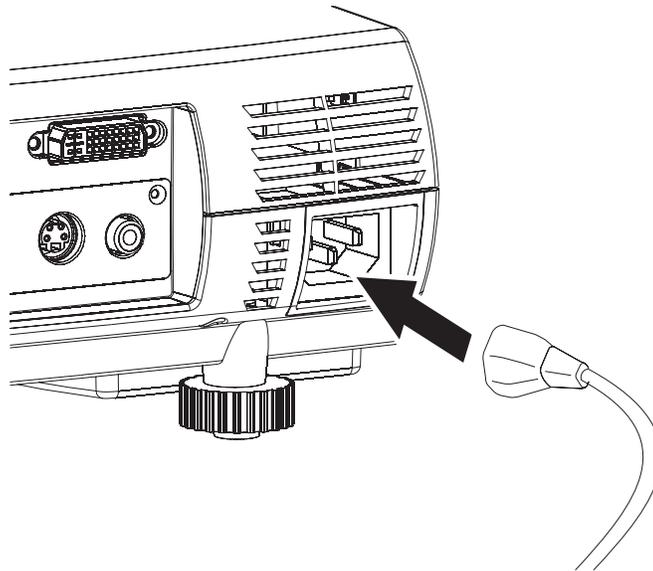
**Attention:** Before moving the projector, be sure to power down the projector normally and disconnect the projector from the main power source.

---

### Starting and shutting down the projector

Please follow the steps below to start the projector and to shut down the projector.

1. Connect the power cord to the projector as shown below. Connect the other end to a wall outlet. The Power LED and Lamp-ready LED turn on.



2. Remove the lens cover.
3. Connect to an input device.
4. Turn on the connected devices.
5. Ensure that the Lamp-ready LED is on a steady amber, then press the **Power** button to turn on the projector.

The projector splash screen displays and connected devices are detected. If the connected device is an IBM ThinkPad, press Fn + F7 on the computer keyboard to switch the display output to the projector. Check the user's manual of non-IBM PCs to determine the appropriate Fn hot keys to change display output.

**Attention:** Do not look directly into the projection lens when the lamp is turned on. The bright light may harm your eyes.

6. If more than one input device is connected, press the **Source** button repeatedly to switch among devices.
7. To turn off the projector, press the **Power** button. The projector prepares for shutdown, and a "Wait a moment please..." message appears.

- When the "Power off?/Press Power again" message appears, press the **Power** button. The projector turns off.

**Note:** Leave the power cable plugged in for at least 2-5 minutes until the projector returns to room temperature before placing the projector inside the soft case. Placing the projector into the case too soon after switching off the power could cause the projector to over heat.

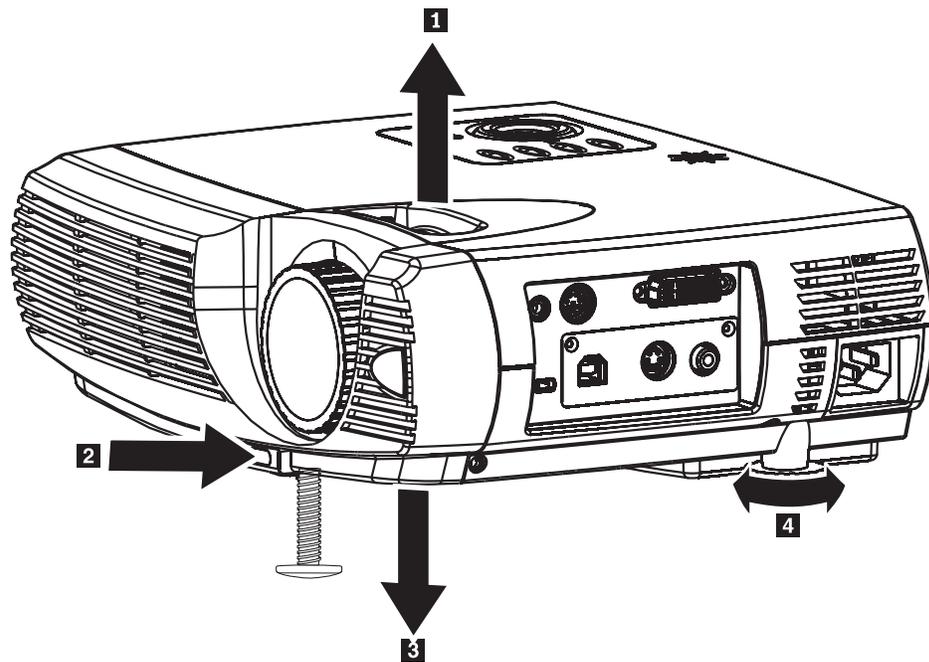
**Attention:** Before moving the projector, be sure to power down the projector normally and disconnect the projector from the main power source.

---

## Adjusting the projector height

To adjust the projector height, complete the following procedure:

- To raise the height of the projector, lift the projector as shown in **1** and press the elevator-foot buttons as shown in **2**. The elevator foot drops down as shown in **3**.
- To lower the height of the projector, press the elevator-foot button as shown in **2** and push down on the top of the projector.
- To make adjustments to the level, rotate the leveling foot as shown in **4**.



---

## Positioning the projector

To determine where to position the projector, consider the size and shape of your screen, the location of your power outlets, and the distance between the projector and the rest of your equipment. Following are some general guidelines:

- Position the projector on a flat surface at a right angle to the screen. The projector must be at least 1.5 m (4.9 ft) from the projection screen.

- Position the projector within 2.7 m (9 ft) of your power source and within 1.8 m (6 ft) of your video device (unless you purchase extension cables). To ensure adequate cable access, do not place the projector within .15 m (6 in.) of a wall or other object.
- Position the projector the desired distance from the screen. The distance from the lens of the projector to the screen, the zoom setting, and the video format determine the size of the projected image.

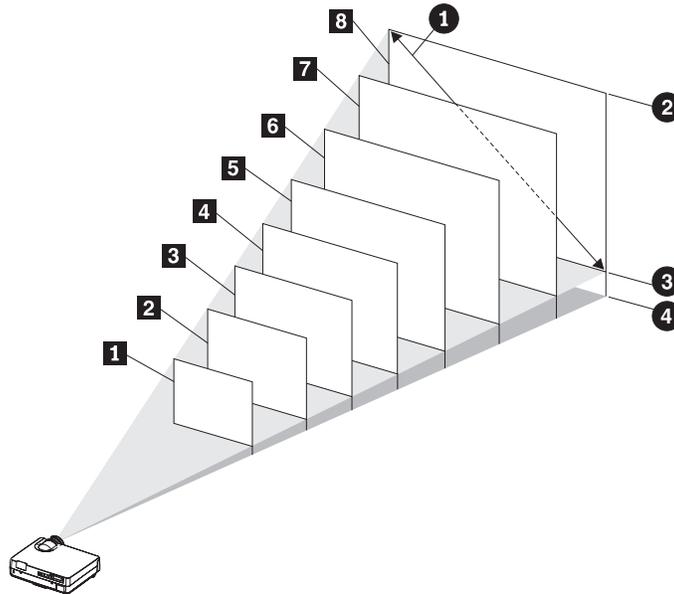


Figure 2-1.

Table 2-1.

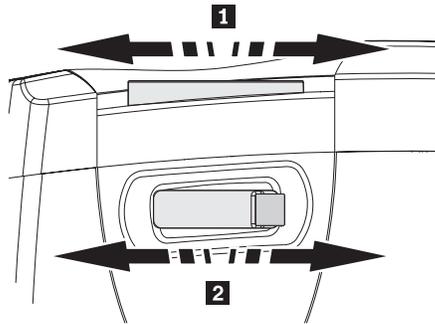
Diagonal screen size ①	Image Width ②	Image height ③	Distance from center of lens to bottom of image ④
(m/in.)	(m/ft)	(m/ft)	(m/ft)
① 1.10/43.3	.88/2.88	.66/2.16	1.5/4.92
② 1.47/57.8	1.17/3.83	.88/2.88	2/6.56
③ 1.76/69.3	1.4/4.59	1.1/3.6	2.4/7.87
④ 2.06/81.1	1.64/5.38	1.23/4.03	2.8/9.18
⑤ 2.35/92.5	1.87/6.13	1.41/4.62	3.2/10.5
⑥ 2.65/104.3	2.11/6.92	1.58/5.18	3.6/11.81
⑦ 2.94/115.7	2.34/7.67	1.76/5.77	4/13.12
⑧ 3.23/127.2	2.57/8.43	1.94/6.36	4.4/14.4

## Adjusting the zoom, focus and keystone

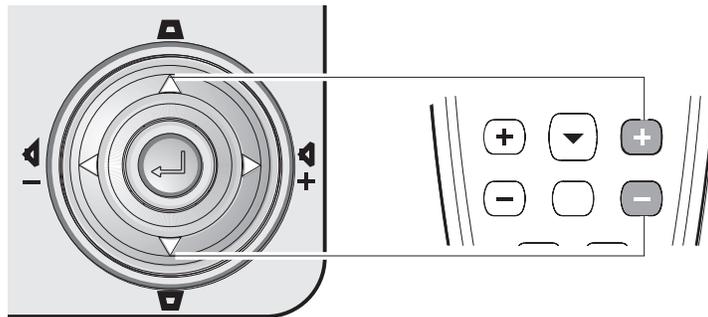
To adjust the image, follow these steps.

1. Use the Image-focus control on the projector to sharpen the projected image as shown in ①.

- Use the Image-zoom control on the projector to resize the projected image and screen size as shown in **2**.



- Use the Keystone buttons (shown below) to correct image-trapezoid effect.



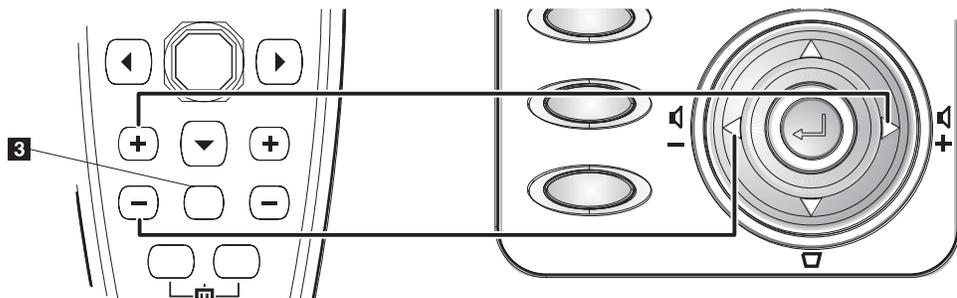
The keystone control appears on the display.

---

## Adjusting the volume

To adjust the volume, follow the steps below.

- Press the Volume +/- buttons on the projector or the remote control. The volume control appears on the OSD.
- Use the Volume +/- buttons to adjust the level. The volume buttons on the projector and remote control are shown below.



- Press the **Mute** button (on the remote control only) to turn off the volume. See **3** in the figure above.
- Press the Volume +/- buttons on the projector or the remote control to turn off the mute.

---

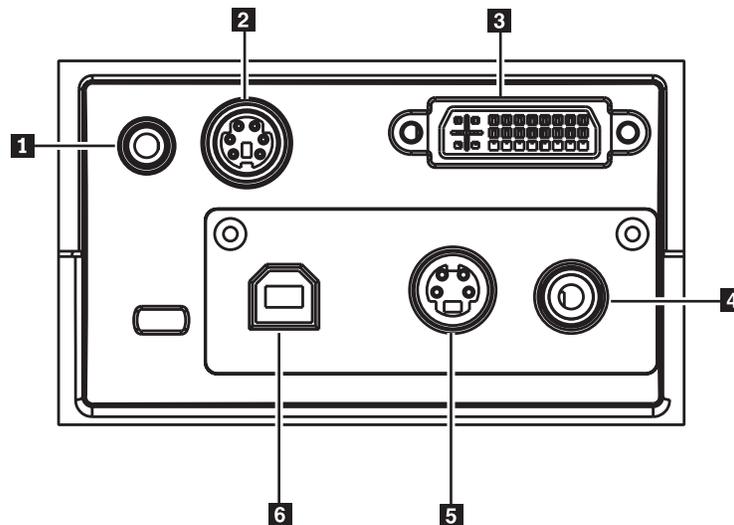
## Chapter 3. Connecting devices to the projector

This chapter provides information on connecting devices to the E400 projector.

---

### Connecting devices

Computers and video devices can be connected to the projector at the same time. Check the user's manual of the connecting device to confirm that it has the appropriate output connector.



- 1** Audio-in
- 2** RS-232
- 3** DVI-I
- 4** Composite video
- 5** S-video
- 6** USB



---

## Chapter 4. Using the projector features

This chapter provides information on using the remote control, audio, keypad buttons, and other projector features.

---

### Using the remote control

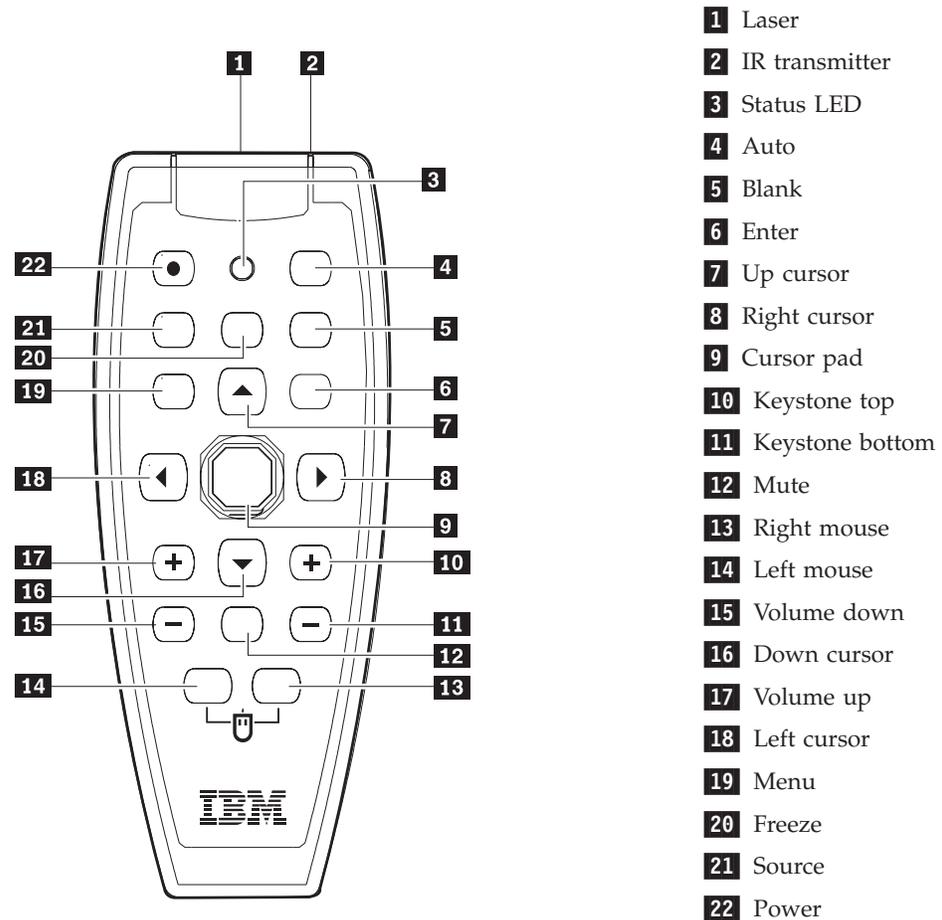
The remote uses two provided AAA batteries. They are easily installed by sliding the cover off the back of the remote, aligning the + and - ends of the batteries, sliding them into place, and then replacing the cover.



**CAUTION:**

To reduce the risk of injury to the eyes, do not look directly into the remote control laser light and do not point the laser light into anyone's eyes. The remote control is equipped with a Class II laser that emits radiation.

The figure below provides an illustration of the remote.

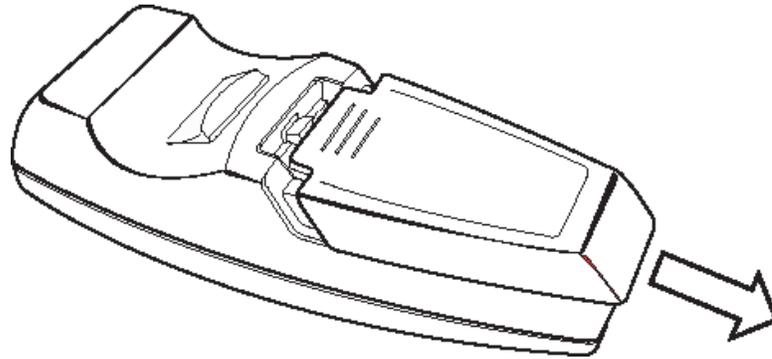


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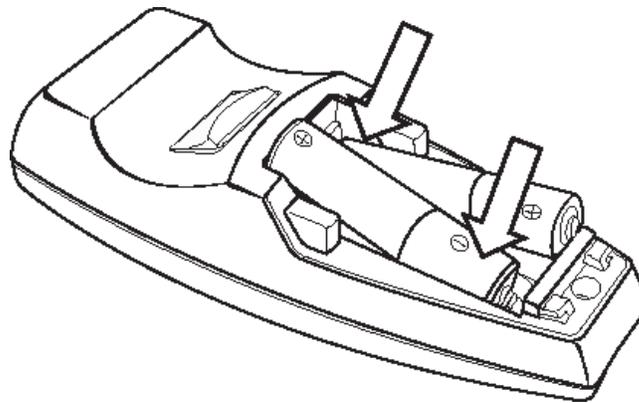
## Inserting the remote control batteries

When using the remote control for the first time, install the batteries that were supplied. Follow the steps below for inserting new batteries into your remote control.

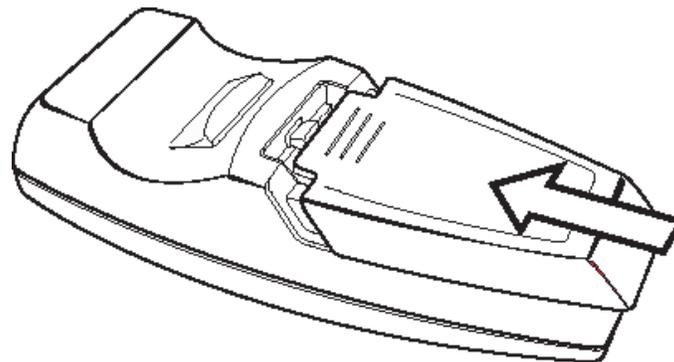
1. Remove the battery compartment cover by sliding the cover in the direction of the arrow, as shown.



2. Insert the supplied batteries taking note of the polarity (+/-), as shown.



3. Replace the cover, as shown.



### Note:

- Only use AAA alkaline batteries.
- Dispose of used batteries according to local government ordinance regulations.
- Remove the batteries when not using the remote for prolonged periods.

---

## Operating range

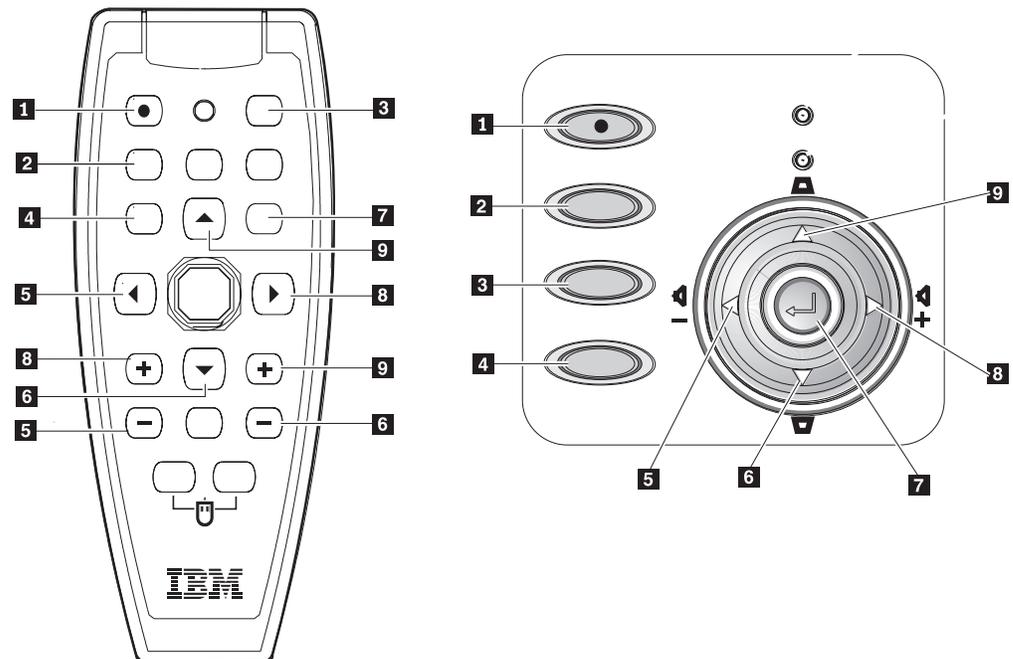
The remote control uses infrared transmission to control the projector. It is not necessary to point the remote directly at the projector, the remote will function well within a radius of about 10 m (33 ft) and 30° above or below the projector level. If the projector does not respond to the remote control, move a little closer.

**Note:** You can also point the remote at the projected image.

---

## Projector and remote control buttons

The projector can be operated using the remote control or the buttons on the top of the projector. The figure below shows the corresponding buttons on the remote control and on the projector.



- 1** Power
- 2** Source
- 3** Auto
- 4** Menu
- 5** Volume down/Left button
- 6** Keystone bottom/Down button
- 7** Enter
- 8** Volume up/Right button
- 9** Keystone top/Up button



---

## Chapter 5. On-Screen Display menu controls

This projector has an On-Screen Display that lets you make image adjustments and change various settings.

**Note:** You must have a display on the screen in order to access the OSD.

---

### Navigating the OSD

You can use the remote control or the buttons on the top of the projector to navigate and make changes to the OSD. The following sections show the menu options in the OSD.

#### Setting the OSD language

You may want to reference the OSD on your projector while reading this section. Set the OSD language to your preference before continuing by following the steps below.

1. Press the **Menu** button. The Quality menu appears.
2. Press the cursor left/right button until Language is highlighted.



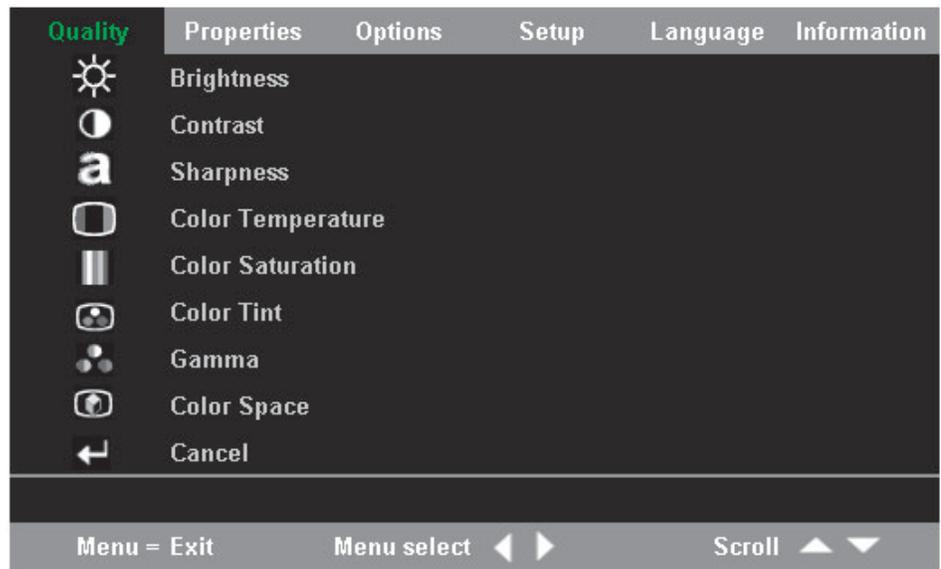
3. Press the cursor up/down button until the language you want is highlighted.
4. Press the **Enter** button to select the language.
5. Press the **Menu** button twice to close the OSD.

#### Quality menu

Follow the steps below to access the Quality menu.

1. Press the Menu button to open the OSD menu.

- Press the cursor left/right button to move to the Quality menu.



- Press the cursor up/down button to move up and down in the Quality menu.

The following table shows the options that you will see in the Quality menu and the default.

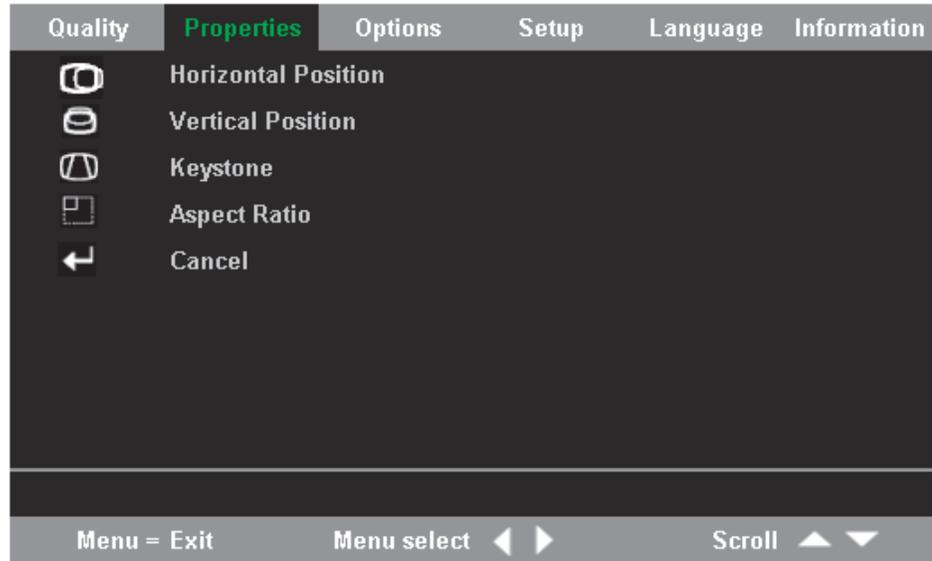
Item	Description	Default
Brightness	Press the cursor left/right button to adjust the brightness. Range: 0 to 100	50
Contrast	Press the cursor left/right button to adjust the contrast. Range: 0 to 100	50
Sharpness	Press the cursor left/right button to adjust the display sharpness. Range: 1 to 5	3
Color Temperature	Press the cursor left/right button to adjust the color temperature. Range: Cool/Normal/Warm	Normal
Color Saturation	Press the cursor left/right button to adjust the video saturation. Color Saturation is only active when the input source is Video/SVideo/YPbPr Range: 0 to 100	50

Item	Description	Default
Color Tint	Press the cursor left/right button to adjust the video tint/hue.  Color tint is only active when the input source is Video/S-video/YPbPr  Range: 0 to 100	50
Gamma	Press the cursor left/right button to adjust the gamma correction of the display.  <b>Input Gamma Brightness</b>  PC      2.2      High MAC    1.8      High Video  2.4      Low Chart  2.2      Low B&W    2.4      High	PC
Color Space	Press the cursor left/right button to adjust the color space.  Range: Auto, RGB, YpbPr YCbCr	Auto
Cancel	Resets all Quality item setting to default value	N/A

## Properties menu

Follow the steps below to access the Properties menu.

1. Press the **Menu** button to open the OSD menu.
2. Press the cursor left/right button to move into the Properties menu.



3. Press the cursor up/down button to move up and down within the Properties menu.

The following table show the options that you will see in the Properties menu and the default.

Item	Description	Default
Horizontal Position	Press the cursor left/right button to move the image left or right. Range: 0 to 100	50
Vertical Position	Press the cursor left/right button to move the image up or down. Range: 0 to 100	50
Keystone	Press the cursor left/right button to correct distortion of the projected image. Range: -50 to 50	0
Aspect Ratio	Press the cursor left/right button to toggle between the 4:3 standard format and 16:9 High Definition TV (HDTV) format.	4:3
Cancel	Resets Keystone and Aspect Ratio to default values.	N/A

## Options menu

To access the Options menu, follow the steps below.

1. Press the Menu button to open the OSD menu.
2. Press the cursor left/right button to move to the Options menu.



3. Press the cursor up/down button to move up and down in the Options menu.

The following table shows the options that you will see in the Options menu and the default.

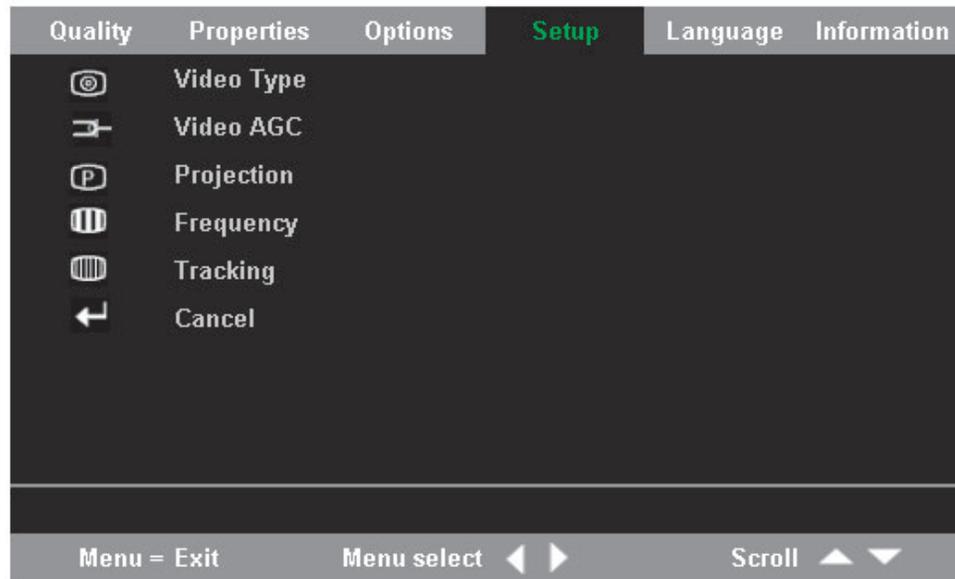
Item	Description	Default
Blank Screen	Press the cursor left/right button to select a background color for blank screen.  Range: Black, Red, Green, Blue, White	Blue
Auto Source	Press the cursor left/right button to enable or disable automatic source detection.  Range: On/Off	On
Auto Power Off	Press the cursor left/right button to enable or disable automatic shut-down of lamp after 10 minutes of inactivity.  Range: On/Off	Off
Volume	Press the cursor left/right button to adjust the audio volume level.  Range: 0 to 8	4

Item	Description	Default
Menu Position	Press the cursor left/right button to position the OSD on screen.  Range: Left, Right, Center, Down, Up	Center
Menu Display	Press the cursor left/right button to determine timeout delay of OSD.  Range: 10 to 20 seconds	15
Translucent Menu	Press the cursor left/right button to set menu screen translucency.  Range: On/Off	Off
Cancel	Resets all Options screen items to default values.	N/A

## Setup menu

Follow the steps below to access the Setup menu.

1. Press the **Menu** button to open the OSD menu.
2. Press the cursor left/right button to move to the Setup menu.



3. Press the cursor up/down button to move up and down in the Setup menu.

The following table shows the options that you will see in the Setup menu and the default.

Item	Description	Default
Video Type	<p>Press the cursor left/right button to select the video standard.</p> <p>Video Type is only active when the input source is Video or S-video</p> <p>Range: Auto, NTSC, PAL, SECAM</p>	Auto
Video Automatic Grain Control (AGC)	<p>Press the cursor left/right button to enable or disable automatic grain control for video source.</p> <p>Video AGC is only active when the input source is Video or S-video</p> <p>Range: On/Off</p>	On
Projection	<p>Press the cursor left/right button to choose from four projection methods:</p> <ul style="list-style-type: none"> <li>• Desktop mount, front of screen</li> <li>• Desktop mount, rear of screen</li> <li>• Ceiling mount, front of screen</li> <li>• Ceiling mount, rear of screen</li> </ul>	Desktop mount, front of screen
Frequency	<p>Press the cursor left/right button to adjust the A/D sampling clock.</p> <p>Frequency is only active when the input source is Analog RGB.</p> <p>Range: 0 to 100</p>	Auto detected
Tracking	<p>Press the cursor left/right button to adjust the A/D sampling number.</p> <p>Tracking is only active when the input source is Analog RGB.</p> <p>Range: 0 to 100</p>	Auto detected
Cancel	Resets Video Type, Video AGC, and Projection to default values.	N/A

## Information menu

Follow the steps below to access the Information menu.

1. Press the **Menu** button to open the OSD menu.
2. Press the cursor left/right button to move to the Information menu.



3. Press the cursor up/down button to move up and down in the Information menu.

The following table shows the options that you will see in the Information menu and a brief description.

Item	Description
Video Information	Displays the resolution and refresh rate of the connected video device.
Active Source	Information about active source
Software Version	Information about software revisions.
Lamp Hours	Number of hours the lamp has been in use
Lamp Mode	Press the cursor left/right button to select Lamp mode: <ul style="list-style-type: none"> <li>• Normal</li> <li>• Eco</li> </ul>
Lamp Hour Reset	After replacing the lamp, this item should be reset.

---

## Appendix A. Maintenance

This chapter provides information on projector maintenance.

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### Cleaning the lens

To clean the lens, complete the following procedure:

1. Apply a non-abrasive camera lens cleaner to a soft, dry cloth.

**Note:** Avoid using an excessive amount of cleaner, and do not apply the cleaner directly to the lens. Abrasive cleaners, solvents or other harsh chemicals might scratch the lens.

2. Lightly wipe the cleaning cloth over the lens in a circular motion. If you do not intend to use the projector immediately, replace the lens cap.

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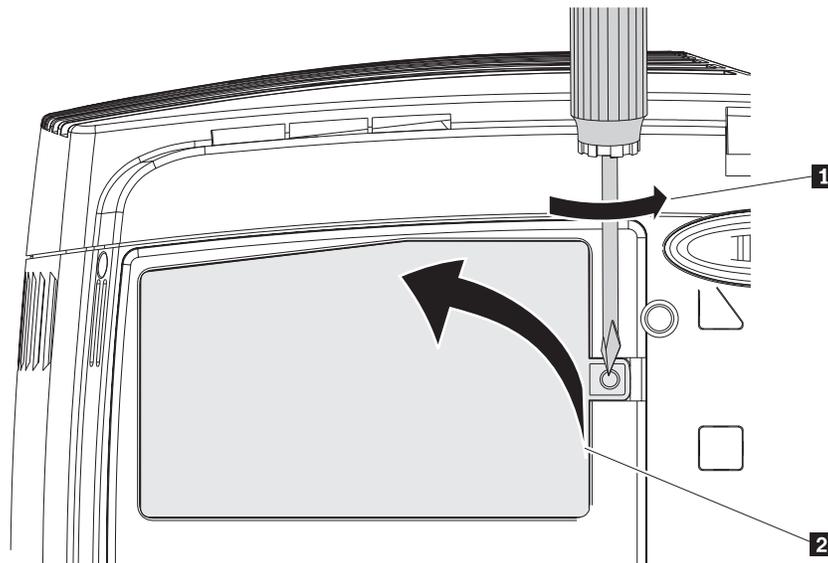
### Replacing the projection lamp

Use only a replacement lamp with the same type and rating as the original lamp. Contact your IBM representative for information or go to [www.ibm.com/pc](http://www.ibm.com/pc).

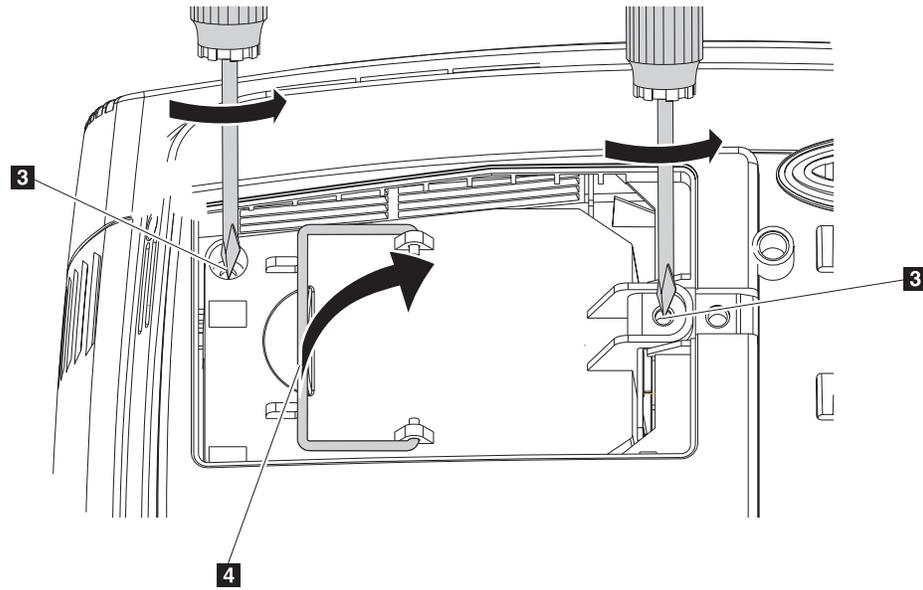
**Note:** Turn off the projector, unplug the power cord, and allow the projector to cool for at least 1 hour before attempting to replace the lamp.

To replace the projector lamp, complete the following procedure:

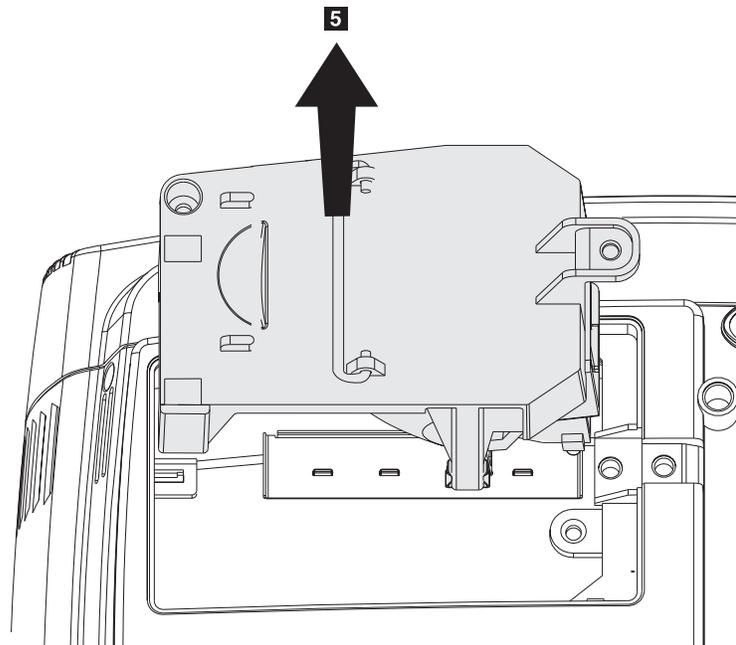
1. Loosen the screw on the lamp compartment cover as shown.
2. Remove the lamp compartment cover as shown.



3. Remove the two screws from the lamp module as shown.
4. Lift the module handle up as shown.



5. Pull firmly on the module handle to remove the lamp module as shown.



6. Reverse steps 1 to 5 to install the new lamp module.

**Attention:** This product contains a Metal Arc Lamp, which contains Mercury. Dispose of it as required by local ordinances and regulations.

The USA restricts or prohibits the disposal of some or all lamps containing mercury in the municipal waste stream. Please visit [www.lamprecycle.org](http://www.lamprecycle.org) for more information on specific state disposal requirements and recycling facilities.

For users in Connecticut, please call Northeast Lamp Recycling toll-free at 1-888-657-5267 to place an order for the delivery of a kit that includes a box for the lamp, tape, and a return shipping label.

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## Resetting the lamp timer

After replacing the lamp, you should reset the lamp timer to zero. Please follow these steps:

1. Press the **Menu** button to open the main menu.
2. Press the left/right cursor button to move to the Information menu.
3. Press the up/down cursor button to move down to Lamp Hour Reset.
4. Press the Enter button. A message screen appears.
5. Press the cursor buttons in this order: **down, up, left, right**. The Information menu appears again showing the Lamp Hours reset to zero.

**Attention:** Lamp Life is a measure of brightness degradation only, and is not a specification for the time it takes a lamp to fail and cease light output. Lamp Life is defined as the time it takes for more than 50% of a lamp sample population to have brightness decrease by approximately 50% of the rated lumens for the specified lamp. For example, if the defined life of your lamp is 2000 hours of run time, your lamp will have decreased its brightness by 50% to approximately 550 lumens.

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## Using the security slot

The projector has a security slot. Refer to the information that comes with the lock for instructions on how to use it.



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## Appendix B. Troubleshooting

The following table provides troubleshooting information for the projector. In some cases, more than one possible solution is provided. Try the solutions in the order they are presented. When the problem is solved, you can skip the additional solutions.

*Table B-1. Troubleshooting*

Problem	Solution
No image appears on the screen.	<ul style="list-style-type: none"><li>• Verify the settings on your notebook or desktop PC</li><li>• Turn off all equipment and power up again in the correct order.</li></ul>
The image is blurred.	<ul style="list-style-type: none"><li>• Adjust the Focus on the projector.</li><li>• Press the <b>Auto</b> button on the remote control or projector.</li><li>• Ensure the projector-to-screen distance is within the 10 m (33 ft) specified range.</li><li>• Check that the projector lens is clean.</li></ul>
The image is wider at the top or bottom (trapezoid effect).	<ul style="list-style-type: none"><li>• Position the projector so it is as perpendicular to the screen as possible.</li><li>• Use the <b>Keystone</b> button on the remote control or projector to correct the problem.</li></ul>
The image is reversed or upside down.	Check the Projection setting on the Setup menu of the OSD.
The image is streaked.	<ul style="list-style-type: none"><li>• Set the Frequency and Tracking settings on the Setup menu of the OSD to the default settings.</li><li>• To ensure the problem is not caused by a connected PC's video card, connect to another computer.</li></ul>
The image is flat with no contrast.	Adjust the Contrast setting on the main menu of the OSD.
The color of the projected image does not match the source image.	Adjust the Color Temp. and Gamma settings on the ColorMgr menu of the OSD.
There is no light from the projector.	<ul style="list-style-type: none"><li>• Check that the power cable is securely connected.</li><li>• Ensure the power source is good by testing with another electrical device.</li><li>• Restart the projector in the correct order and check that the Power LED is green.</li><li>• If you have replaced the lamp recently, try resetting the lamp connections.</li><li>• Replace the lamp module.</li><li>• Put the old lamp back in the projector and have the projector serviced.</li></ul>

Table B-1. Troubleshooting (continued)

Problem	Solution
The lamp goes off.	<ul style="list-style-type: none"> <li>• Power surges can cause the lamp to turn off. Press the <b>Power</b> button twice to turn off the projector. When the Lamp Ready LED is on, press the <b>Power</b> button.</li> <li>• Replace the lamp module.</li> <li>• Put the old lamp back in the projector and have the projector serviced.</li> </ul>
The projector does not respond to the remote control.	<ul style="list-style-type: none"> <li>• Direct the remote control towards the remote sensors on the projector.</li> <li>• Ensure the path between the remote and sensor is not blocked.</li> <li>• Turn off any fluorescent lights in the room.</li> <li>• Check the battery polarity.</li> <li>• Replace the batteries.</li> <li>• Turn off other Infrared-enabled devices in the vicinity.</li> <li>• Have the remote control serviced.</li> </ul>
There is no sound	<ul style="list-style-type: none"> <li>• Adjust the volume on the remote control.</li> <li>• Adjust the volume of the audio source.</li> <li>• Check the audio cable connection.</li> <li>• Test the source audio output with other speakers.</li> <li>• Have the projector serviced.</li> </ul>
The sound is distorted.	<ul style="list-style-type: none"> <li>• Check the audio cable connection.</li> <li>• Test the source audio output with other speakers.</li> <li>• Have the projector serviced.</li> </ul>

## Projector LEDs

The LED on top of the projector indicates the state of the projector and can help you troubleshoot. There are two-second pauses between the blinking cycles. For more details on LED projector errors, contact your IBM representative.

Table B-2. Lamp-ready LED error messages

Lamp-ready LED number of flashes	Explanation
Flashing	Lamp not ready- do not press the power button.
1	Lamp fan2 error
2	Blower fan1 error
3	Ballast fan1 error

Table B-3. Power LED error messages

Power LED number of flashes	Explanation
3	System overheating
4	System interface error
5	Lamp error

*Table B-3. Power LED error messages (continued)*

<b>Power LED number of flashes</b>	<b>Explanation</b>
6	Fan error. Refer to Lamp-ready LED to determine which fan.
7	Lamp cover open
8	DLP driver error.



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## Appendix C. Specifications

Following are specifications for the IBM E400 projector.

Temperature (operating)	5° to 35° C (41° to 95° F) at sea level
(non-operating)	-10° to 60° C(14° to 140° F)
Altitude (operating)	3,048 m (0 to 10,000 ft)
Altitude (non-operating)	12,192 m (0 to 40,000 ft)
Humidity (operating)	5% to 90% relative humidity, non-condensing
Humidity (non-operating)	5% to 95% relative humidity, non-condensing
Dimensions (W x D x H)	280 x 205 x 97 mm (11.02 x 8.07 x 3.82in.)
Weight	2.09 kg (4.61 lbs) unpacked
Optics (focus range)	1.5 to 7 m (4.9 to 23 ft)
Lamp type	VIP 200W
Input power requirements	100-240Vac 50-60Hz 2.8A
Ceiling mount	UL tested/listed ceiling mount with minimum capacity of 15.5 kg (34 lbs)



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## Appendix D. Service and Support

The following information describes the technical support that is available for your product, during the warranty period or throughout the life of the product. Refer to your IBM Statement of Limited Warranty for a full explanation of IBM warranty terms.

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### Online technical support

Online technical support is available during the life of your product through the Personal Computing Support Web site at [www.ibm.com/pc/support](http://www.ibm.com/pc/support).

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.

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### Telephone technical support

Installation and configuration support through the IBM Support Center 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 for your country or region is not listed, contact your IBM reseller or IBM marketing representative. Response time may vary depending on the number and nature of the calls received.

Phone numbers are subject to change without notice. For the latest phone number list, go to [www.ibm.com/pc/support](http://www.ibm.com/pc/support) and click **Support Phone List**.

Country or Region	Telephone Number	Country or Region	Telephone Number
Argentina	0800-666-0011	Malaysia	03-7727-7800
Australia	1300-130-426	Mexico	001-866-434-2080
Austria	01-24592-5901	Netherlands	020-514-5770

Country or Region	Telephone Number	Country or Region	Telephone Number
Belgium	Dutch 02-210-9820 French 02-210-9800	New Zealand	0800-446-149
Bolivia	0800-0189	Norway	66 81 11 00
Brazil	55-11-3889-8986	Peru	0-800-50-866
Canada	1-800-565-3344 Toronto 416-383-3344	Philippines	632-995-2225
Chile	800-224-488	Portugal	21-791 51 47
China (PRC)	800-810-1818	Russia	095-940-2000
China (Hong Kong S.A.R.)	852-2825-7799	Singapore	1800-840-9911
Columbia	980-912-3021	Spain	91-662 49 16
Denmark	45 20 82 00	Sweden	08-477 4420
Ecuador	1-800-426911 (option #4)	Switzerland	058-333-09-00
Finland	09-459 69 60	Taiwan	886-2-2725-9799
France	02 38 55 74 50	Thailand	66-2-273-4000
Germany	07032-1549 201	Turkey	00-800-446-32-041
Indonesia	021-523-8535	United Kingdom	0-1475-555 055
Ireland	01-815-9202	United States	1-800-426-7378
Italy	02-7031-6101	Uruguay	000-411-005-6649
Japan	Consumer customers 0120-887-870  Business customers 0120-887-874	Venezuela	0-800-100-2011
Luxembourg	298-977 5063	Vietnam	848-8295-160

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

### 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. 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.

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## **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.*

#### **NEW ZEALAND**

**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 PA 16 OAH

**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 minimum 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.

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## **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.

#### **E400 PROJECTOR**

<b>Country or Region of Purchase</b>	<b>Warranty Period</b>	<b>Type of Warranty Service</b>
Worldwide	3 years	1, 4

## E400 PROJECTOR LAMP

Country or Region of Purchase	Warranty Period	Type of Warranty Service
Worldwide	3 months	1, 4

A warranty period of 3 years on parts and 3 years on labor means that IBM provides warranty service without charge for parts and labor during the 3 year warranty period.

A warranty period of 3 months on parts and 3 months on labor means that IBM provides warranty service without charge for parts and labor during the 3 month 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<sup>1</sup>**

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**

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

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.

The IBM Machine Warranty worldwide 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's 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). For other countries, see the telephone numbers below.

Phone numbers are subject to change without notice. For the latest phone number list, go to [www.ibm.com/pc/support](http://www.ibm.com/pc/support) and click **Support Phone List**.

Country or Region	Telephone Number	Country or Region	Telephone Number
Argentina	0800-666-0011	Malaysia	03-7727-7800
Australia	1300-130-426	Mexico	001-866-434-2080
Austria	01-24592-5901	Netherlands	020-514-5770
Belgium	Dutch 02-210-9820 French 02-210-9800	New Zealand	0800-446-149
Bolivia	0800-0189	Norway	66 81 11 00
Brazil	55-11-3889-8986	Peru	0-800-50-866
Canada	1-800-565-3344 Toronto 416-383-3344	Philippines	632-995-2225
Chile	800-224-488	Portugal	21-791 51 47
China (PRC)	800-810-1818	Russia	095-940-2000
China (Hong Kong S.A.R.)	852-2825-7799	Singapore	1800-840-9911
Columbia	980-912-3021	Spain	91-662 49 16
Denmark	45 20 82 00	Sweden	08-477 4420
Ecuador	1-800-426911 (option #4)	Switzerland	058-333-09-00
Finland	09-459 69 60	Taiwan	886-2-2725-9799
France	02 38 55 74 50	Thailand	66-2-273-4000
Germany	07032-1549 201	Turkey	00-800-446-32-041
Indonesia	021-523-8535	United Kingdom	0-1475-555 055
Ireland	01-815-9202	United States	1-800-426-7378
Italy	02-7031-6101	Uruguay	000-411-005-6649

Country or Region	Telephone Number	Country or Region	Telephone Number
Japan	Consumer customers 0120-887-870  Business customers 0120-887-874	Venezuela	0-800-100-2011
Luxembourg	298-977 5063	Vietnam	848-8295-160

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## Appendix F. Notices

IBM may not offer the products, services, or features discussed in this document in all 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.

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IBM Corporation  
North Castle Drive  
Armonk, NY 10504-1785  
U.S.A.*

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## Electronic emission notices

IBM E400 PROJECTOR

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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.

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

 Tested To Comply  
With FCC Standards  
FOR HOME OR OFFICE USE

#### **Industry Canada Class B emission compliance statement**

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

#### **Avis de conformité a la réglementation d'Industrie Canada**

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

#### **Deutsche EMV-Direktive (electromagnetische Verträglichkeit)**

Zulassungsbeseinigung laut dem Deutschen Gesetz über die elektromagnetische Verträglichkeit von Geräten (EMVG) vom 30. August 1995 (bzw. der EMC EG Richtlinie 89/336):

Dieses Gerät ist berechtigt in Übereinstimmung mit dem Deutschen EMVG das EG-Konformitätszeichen - CE - zu führen. Verantwortlich für die Konformitätserklärung nach Paragraph 5 des EMVG ist die:

IBM Deutschland Informationssysteme GmbH, 70548 Stuttgart.

Informationen in Hinsicht EMVG Paragraph 3 Abs. (2) 2:

Das Gerät erfüllt die Schutzanforderungen nach EN 55024:1998 und EN 55022:1998 Klasse B.
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EN 55022 Hinweis:

“Wird dieses Gerät in einer industriellen Umgebung betrieben (wie in EN 55022:B festgelegt), dann kann es dabei eventuell gestört werden. In solch einem FA11 ist der Abstand bzw. die Abschirmung zu der industriellen Störquelle zu vergrößern.”

Anmerkung:

Um die Einhaltung des EMVG sicherzustellen sind die Geräte, wie in den IBM Handbüchern angegeben, zu installieren und zu betreiben.

#### **European Union - emission directive**

This product is in conformity with the protection requirements of EU Council Directive 89/336/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 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 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 electromagnética)**

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.

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Este producto ha sido probado y satisface los límites para Equipos Informáticos Clase B de conformidad con 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 apparecchiature di informatica Classe B ai sensi della 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.

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Part Number: 73P2776

Printed in USA

(1P) P/N: 73P2776

