



# IBM E400 PROJECTOR

## User's Guide





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

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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 sikkerhetsinformasjonene (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.

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### 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.

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### 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.

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## 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.

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## 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.

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## 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<sup>®</sup> 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/>

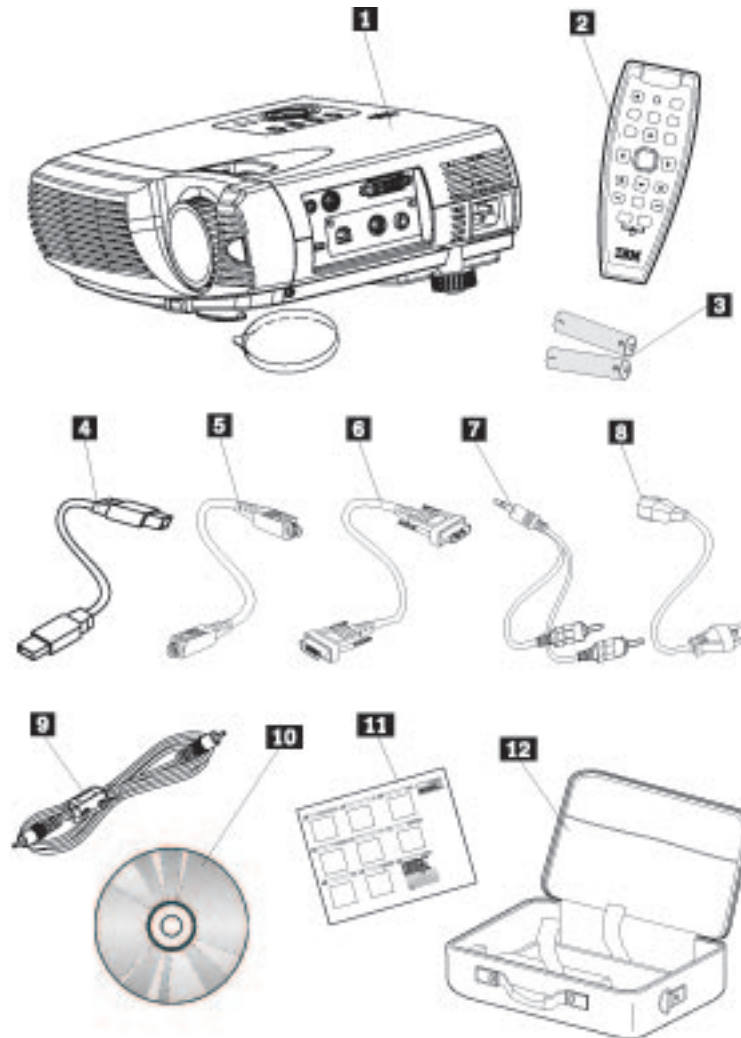
IBM will send you information and updates on your registered product unless you indicate on the Web site questionnaire that you do not want to receive further information.



## Prefácio

O projetor IBM E400 pode ser utilizado para apresentações de negócios e para entretenimento em sua casa e é fácil de conectar, utilizar e manter.

Além deste Guia do Usuário, o pacote de opcionais contém o seguinte:



- 1** Projetor com compartimento para lâmpada e capa da lente incluídos
- 2** Controle remoto
- 3** Duas baterias AAA
- 4** Cabo USB
- 5** Cabo de S-vídeo
- 6** Cabo de vídeo (DVI-DB15) para VGA
- 7** Cabo de áudio (Minitomada para RCA)
- 8** Cabo de alimentação
- 9** Cabo de vídeo composto
- 10** CD do Guia do Usuário (e instalação)
- 11** Guia de Referência Rápida em Vários Idiomas
- 12** Estojo de transporte

Se algum dos itens relacionados anteriormente estiver faltando ou estiver danificado, entre em contato com o revendedor.

**Nota:** Certifique-se de guardar o comprovante de compra; ele será solicitado para o recebimento do serviço de garantia.

Para obter informações sobre acessórios opcionais para o seu projetor, vá para <http://www.ibm.com>.

**Atenção:**

- Evite utilizar o projetor em ambientes sujos.
- Não obstrua as aberturas de ventilação do projetor.
- Deixe o cabo de alimentação conectado (2 a 5 minutos) até o projetor retornar à temperatura ambiente antes de colocá-lo dentro do estojo. A colocação do projetor no estojo logo após desligá-lo pode fazer com que ele superaqueça e isso encurtará a vida da lâmpada.
- Para evitar danos na lente, certifique-se de colocar a capa da lente e de colocar o projetor no estojo.



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## Capítulo 1. Introdução

As figuras abaixo mostram os recursos do projetor.

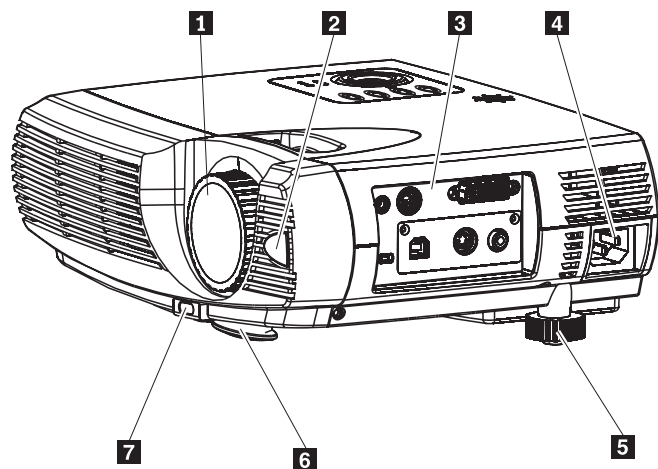


Figura 1-1. Vista Frontal Direita do Projetor

- 1** Lente/foco
- 2** Receptor IR
- 3** Conectores
- 4** Conector do cabo de alimentação
- 5** Base de nivelamento
- 6** Base de elevação
- 7** Botão de ajuste da base de elevação

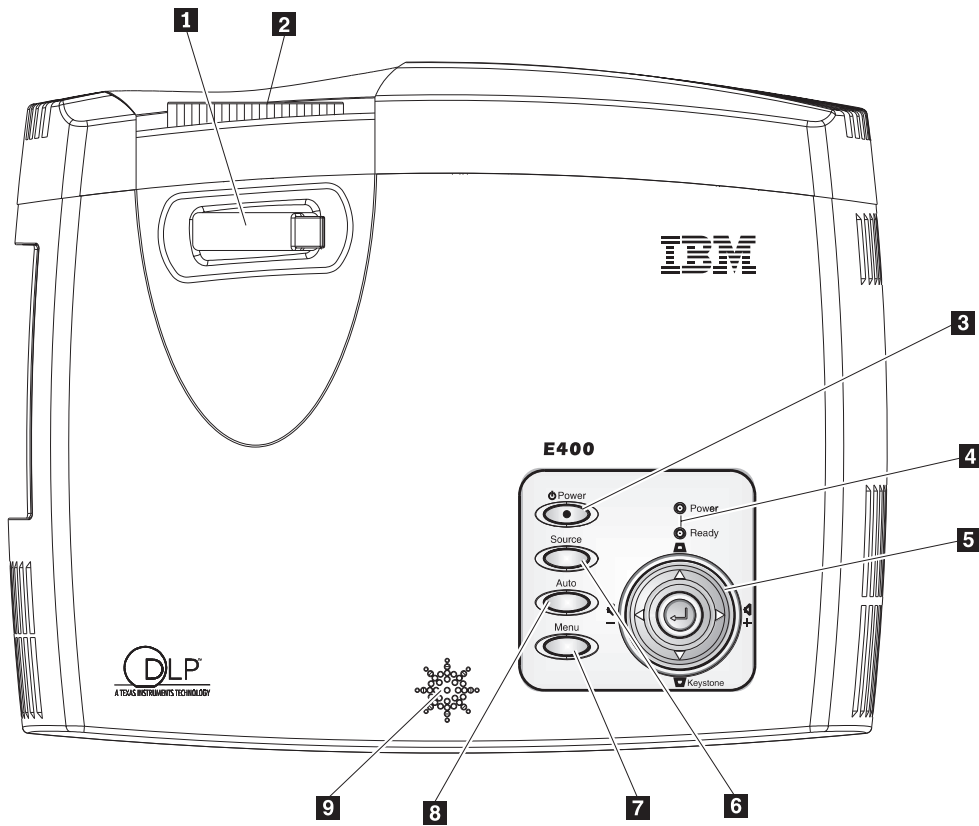


Figura 1-2. Vista Superior do Projetor

- 1** Zoom
- 2** Foco
- 3** Energia
- 4** LEDs de Status do Sistema
- 5** Botões de controle
- 6** Botão Source
- 7** Botão Menu
- 8** Botão Auto
- 9** Alto-falante

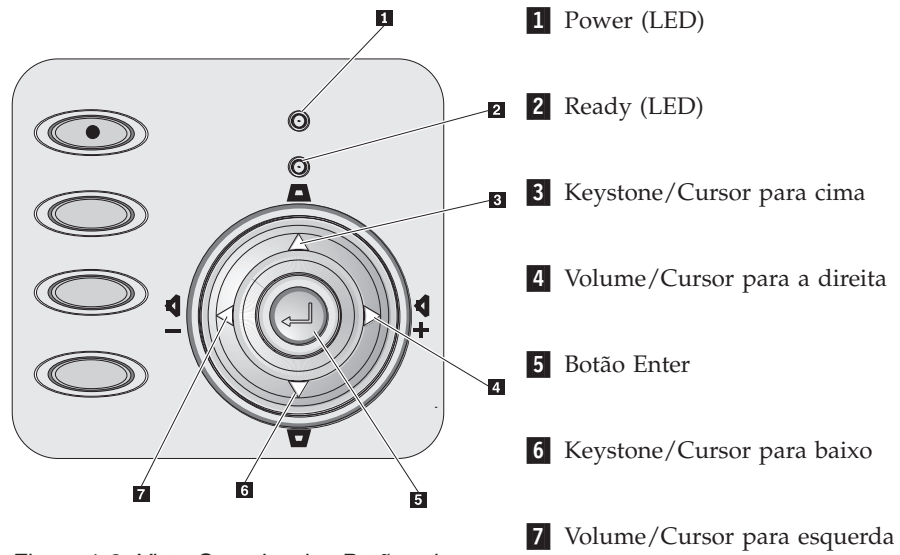


Figura 1-3. Vista Superior dos Botões de Controle e LEDs no Projetor

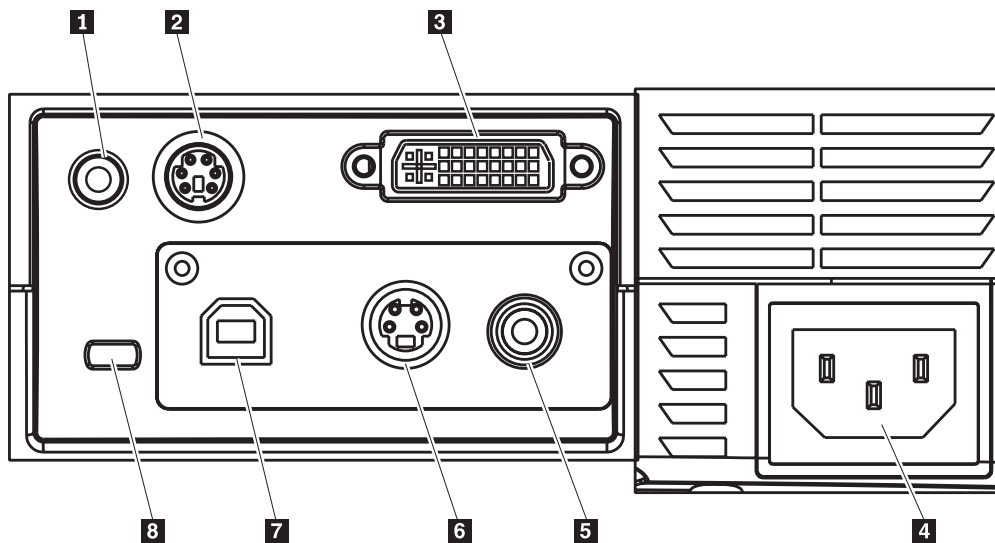


Figura 1-4. Conectores

- 1** Entrada de áudio
- 2** RS-232
- 3** DVI-I
- 4** Soquete AC
- 5** Vídeo composto
- 6** S-video
- 7** USB
- 8** Slot de segurança

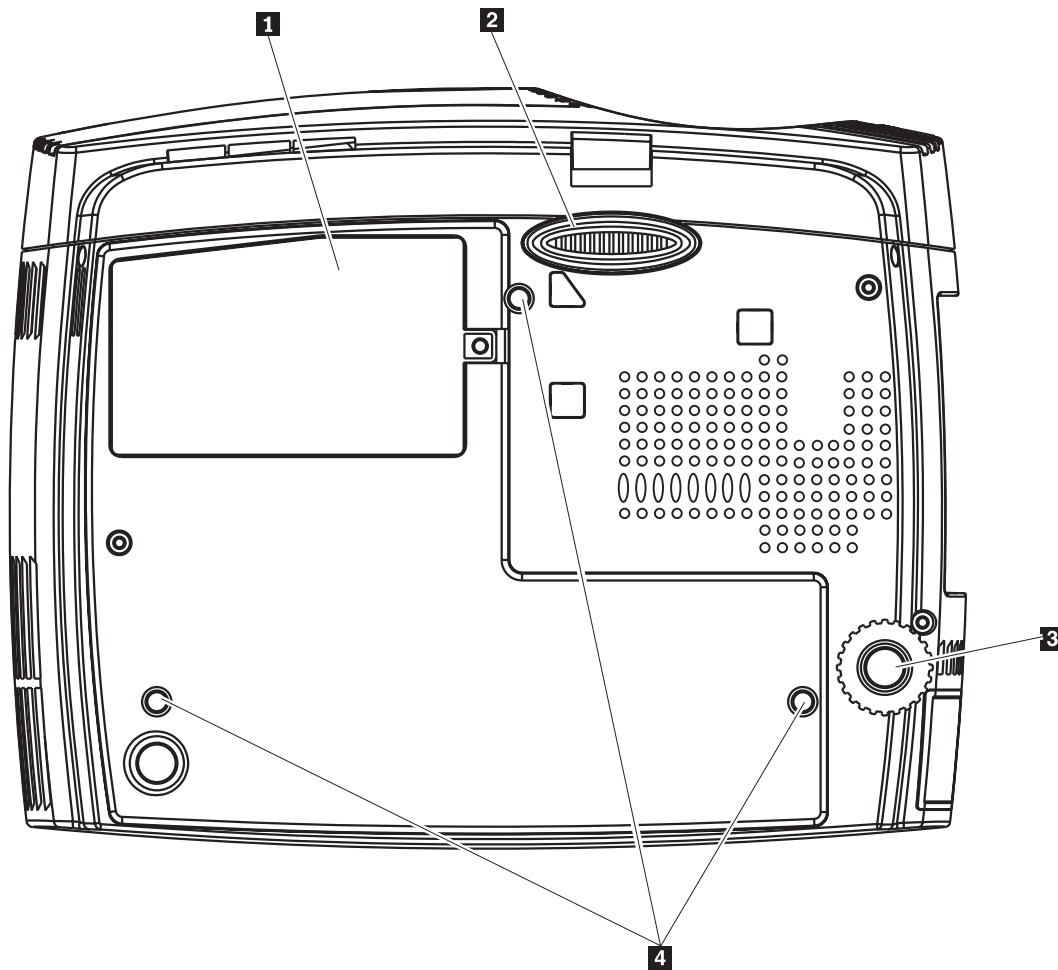


Figura 1-5. Vista Inferior do Projetor

- 1** Tampa da lâmpada de projeção
- 2** Base de elevação
- 3** Base de nivelamento
- 4** Orifícios de suporte para teto

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## Capítulo 2. Instalando o Projetor

Este capítulo fornece informações para iniciar e desligar o projetor, ajustar a altura e o nível do projetor, ajustar o zoom, o foco e a distorção de imagem e ajustar o volume.

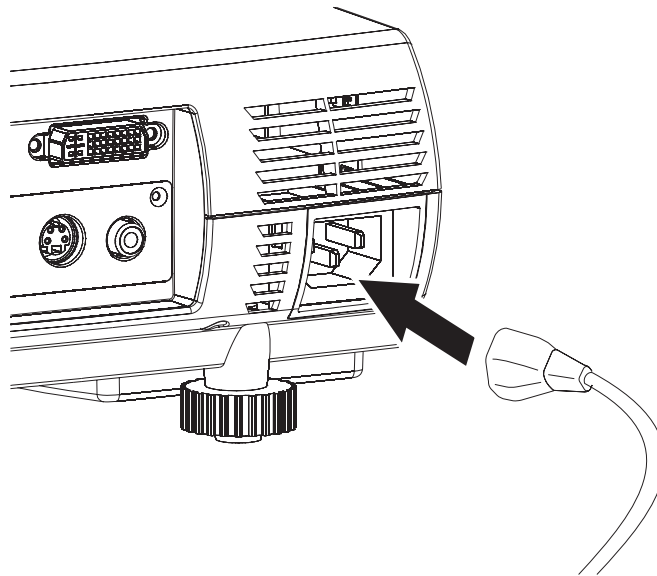
**Atenção:** Antes de mover o projetor, certifique-se de desligá-lo normalmente e de desconectá-lo da fonte de alimentação principal.

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### Iniciando e Desligando o Projetor

Siga estas etapas para iniciar e desligar o projetor.

1. Conecte o cabo de alimentação ao projetor, conforme mostrado a seguir. Conecte a outra extremidade a uma tomada de parede. Os LEDs Power e Lamp-ready acendem.



2. Remova a tampa da lente.
3. Conecte a um dispositivo de entrada.
4. Ligue os dispositivos conectados.
5. Assegure-se de que o LED Lamp-ready esteja aceso e na cor âmbar estável, em seguida pressione o botão **Power** para ligar o projetor.

A tela inicial do projetor é exibida e os dispositivos conectados são detectados. Se o dispositivo conectado for um IBM ThinkPad, pressione Fn + F7 no teclado do computador para alternar a saída de exibição para o projetor. Verifique o manual do usuário de PCs não-IBM para determinar as teclas de acesso rápido Fn a fim de alterar a saída de exibição.

**Atenção:** Não olhe diretamente nas lentes de projeção quando a lâmpada estiver acesa. A luz brilhante pode ferir seus olhos.

6. Se mais de um dispositivo de entrada for conectado, pressione o botão **Source** repetidamente para alternar entre os dispositivos.
7. Para desligar o projetor, pressione o botão **Power**. O projetor se prepara para o desligamento e a mensagem "Wait a moment please..." aparece.

- Quando a mensagem "Power off?/Press Power again" aparecer, pressione o botão **Power**. O projetor é desligado.

**Nota:** Deixe o cabo de alimentação conectado por pelo menos 2 a 5 minutos até o projetor retornar à temperatura ambiente antes de colocá-lo dentro do estojo. A colocação do projetor no estojo logo após desligá-lo pode fazer com que ele superaqueça.

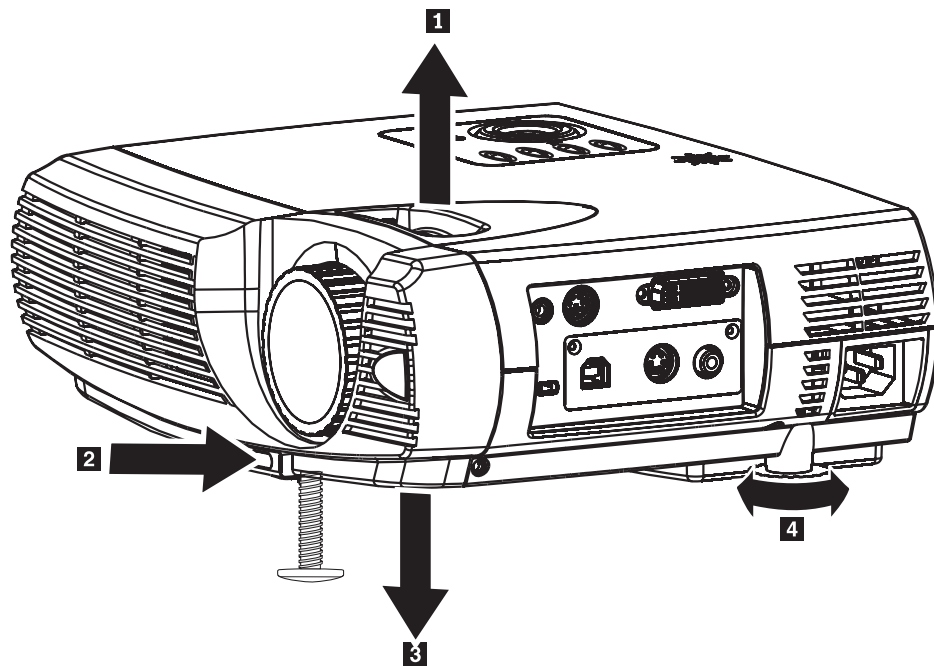
**Atenção:** Antes de mover o projetor, certifique-se de desligá-lo normalmente e de desconectá-lo da fonte de alimentação principal.

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## Ajustando a Altura do Projetor

Para ajustar a altura do projetor, complete o seguinte procedimento:

- Para elevar a altura do projetor, levante-o conforme mostrado em **1** e pressione os botões da base de elevação, conforme mostrado em **2**. A base de elevação desce conforme mostrado em **3**.
- Para diminuir a altura do projetor, pressione os botões da base de elevação, conforme mostrado em **2** e empurre para baixo a parte superior do projetor.
- Para fazer ajustes no nível, gire a base de nivelamento conforme mostrado em **4**.



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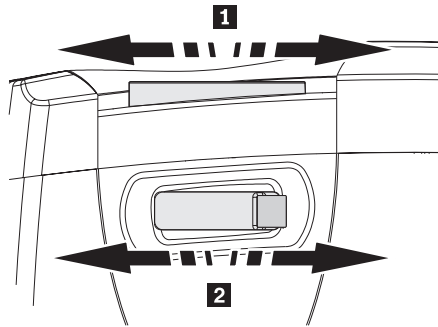
## Posicionando o Projetor

Para determinar onde posicionar o projetor, considere o tamanho e a forma da tela, a localização das tomadas de força e a distância entre o projetor e o restante do equipamento. A seguir estão algumas pautas gerais:

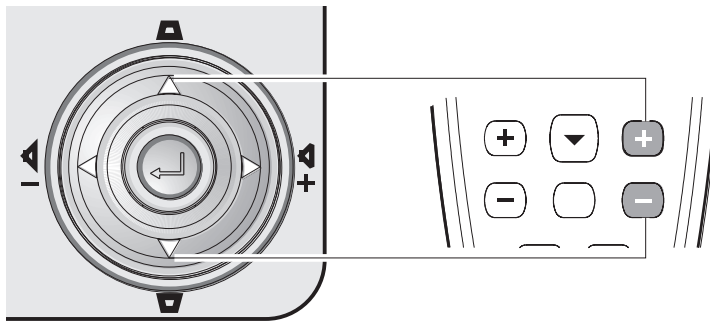
- Posicione o projetor sobre uma superfície plana em ângulo reto à tela. O projetor deve estar pelo menos a 1,5 m (4,9 pés) da tela de projeção.



- Utilize o controle de Zoom da imagem no projetor para redimensionar a imagem projetada e o tamanho da tela, conforme mostrado em **2**.



- Utilize os botões de distorção de imagem (mostrados a seguir) para corrigir o efeito de imagem trapézio.



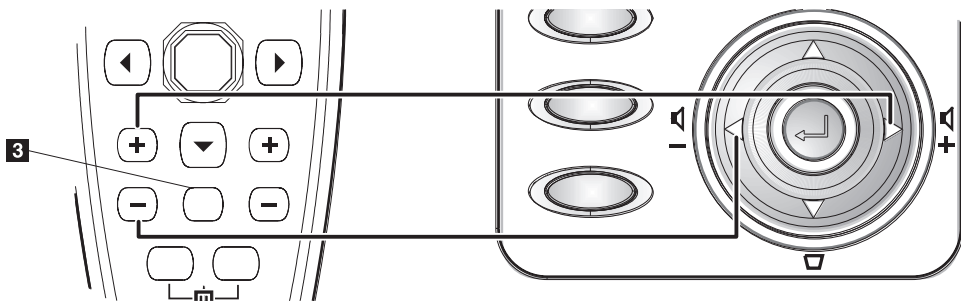
O controle de distorção de imagem aparece no vídeo.

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## Ajustando o Volume

Para ajustar o volume, siga estas etapas.

- Pressione os botões +/- do Volume no projetor ou no controle remoto. O controle de volume aparece no OSD.
- Utilize os botões +/- do Volume para ajustar o nível. Os botões de volume no projetor e no controle remoto são mostrados a seguir.



- Pressione o botão **Mute** (apenas no controle remoto) para desligar o volume. Consulte **3** na figura acima.
- Pressione os botões +/- do Volume no projetor ou no controle remoto para desligar Mute.



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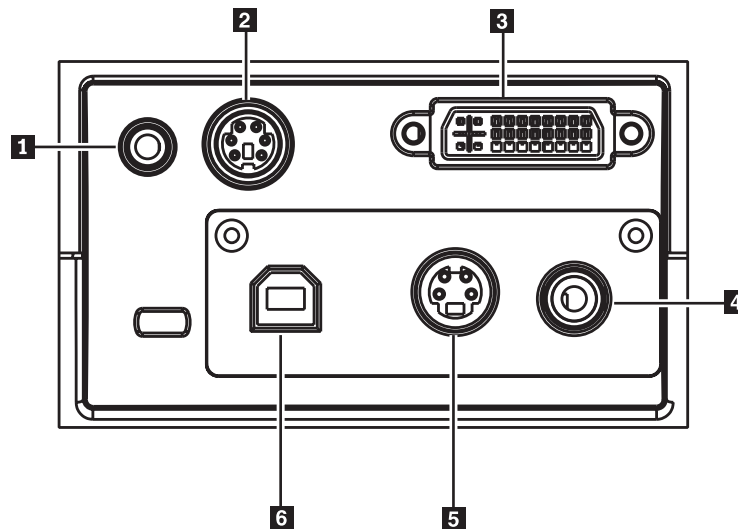
## Capítulo 3. Conectando Dispositivos ao Projetor

Este capítulo fornece informações sobre a conexão de dispositivos ao projetor E400.

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### Conectando Dispositivos

Os computadores e dispositivos de vídeo podem ser conectados ao projetor ao mesmo tempo. Verifique o manual do usuário do dispositivo de conexão para confirmar se ele tem o conector de saída adequado.



- 1** Entrada de áudio
- 2** RS-232
- 3** DVI-I
- 4** Vídeo composto
- 5** S-video
- 6** USB



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## Capítulo 4. Utilizando os recursos do projetor

Este capítulo fornece informações sobre como utilizar o controle remoto, áudio, botões do teclado e outros recursos do projetor.

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### Utilizando o Controle Remoto

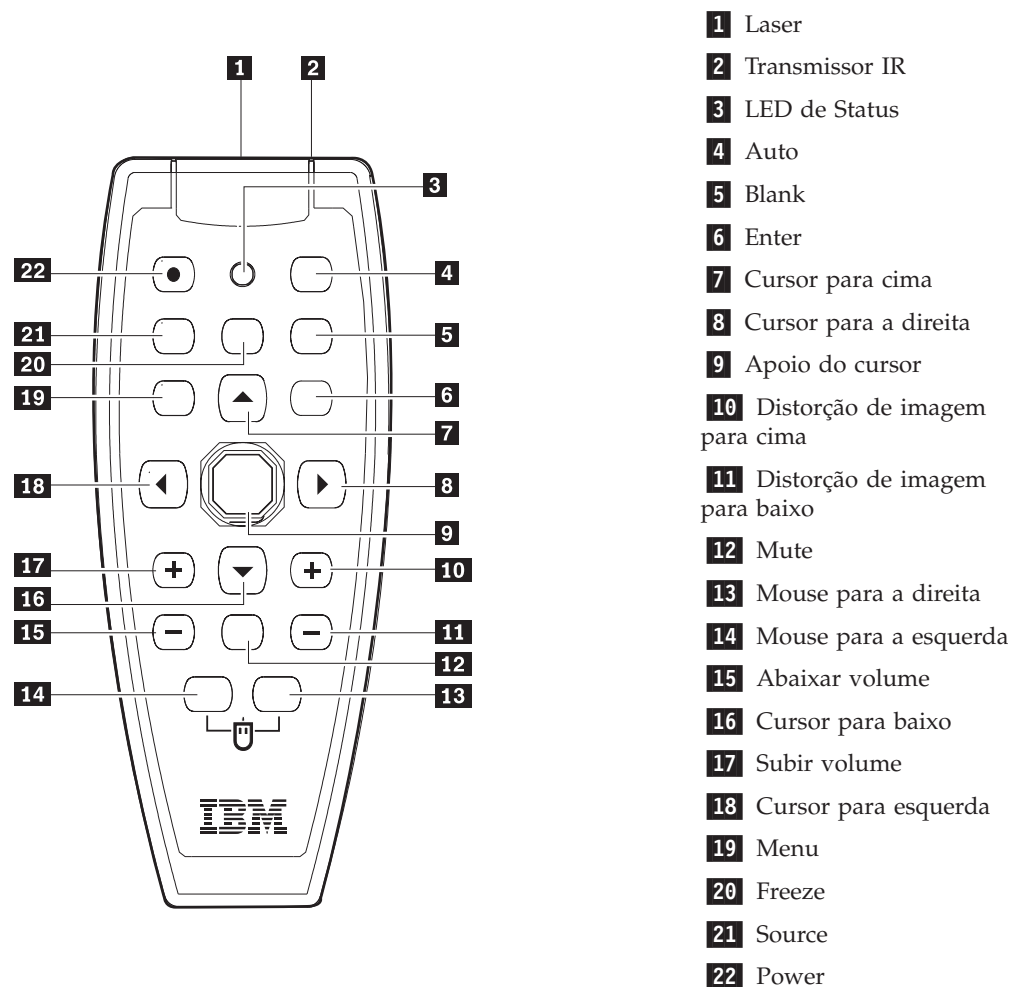
O controle remoto utiliza duas baterias fornecidas AAA. Eles são facilmente instaladas, deslizando a tampa e removendo-a, alinhado as extremidades + e - das baterias, colocando-as no local e encaixando novamente a tampa.



#### CUIDADO:

Para reduzir o risco de danos aos olhos, não olhe diretamente para a luz laser do controle remoto e não aponte a luz laser para os olhos de qualquer outra pessoa. O controle remoto é equipado com um laser Classe II que emite radiação.

A figura a seguir fornece uma ilustração do controle remoto.

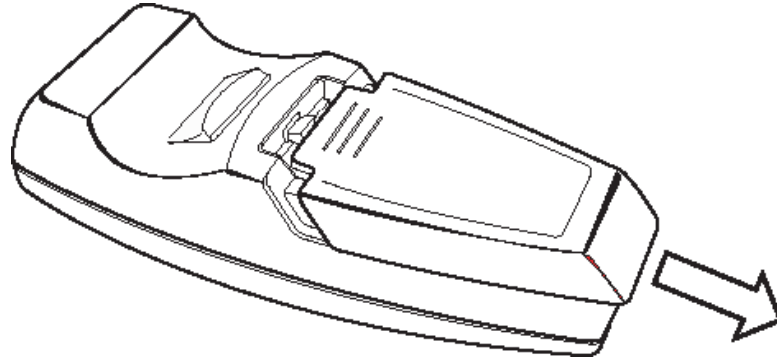


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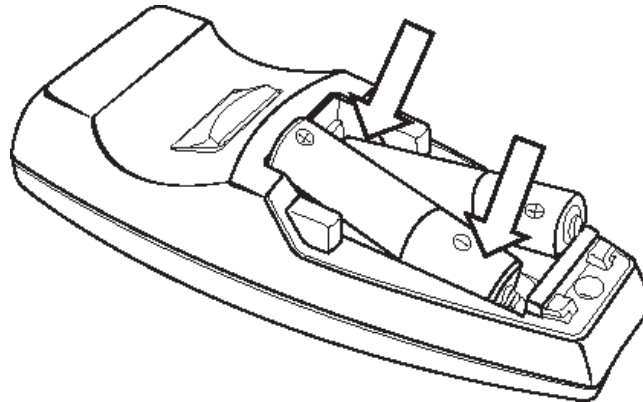
## Inserindo as Baterias do Controle Remoto

Ao utilizar o controle remoto pela primeira vez, instale as baterias que foram fornecidas. Siga estas etapas para inserir novas baterias no controle remoto.

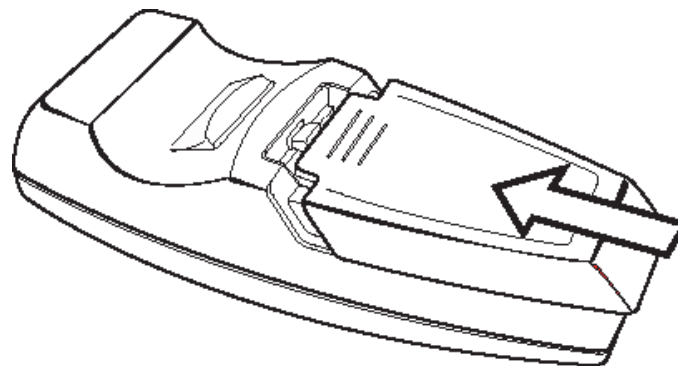
1. Remova a tampa do compartimento de bateria deslizando-a na direção da seta, conforme mostrado.



2. Insira as baterias fornecidas anotando a polaridade (+/-), conforme mostrado.



3. Recoloque a tampa, conforme mostrado.



### Nota:

- Utilize apenas baterias alcalinas AAA.
- Descarte as baterias usadas de acordo com as leis e os regulamentos governamentais locais.
- Remova as baterias quando não estiver utilizando o controle remoto por períodos prolongados.

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## Intervalo de Operação

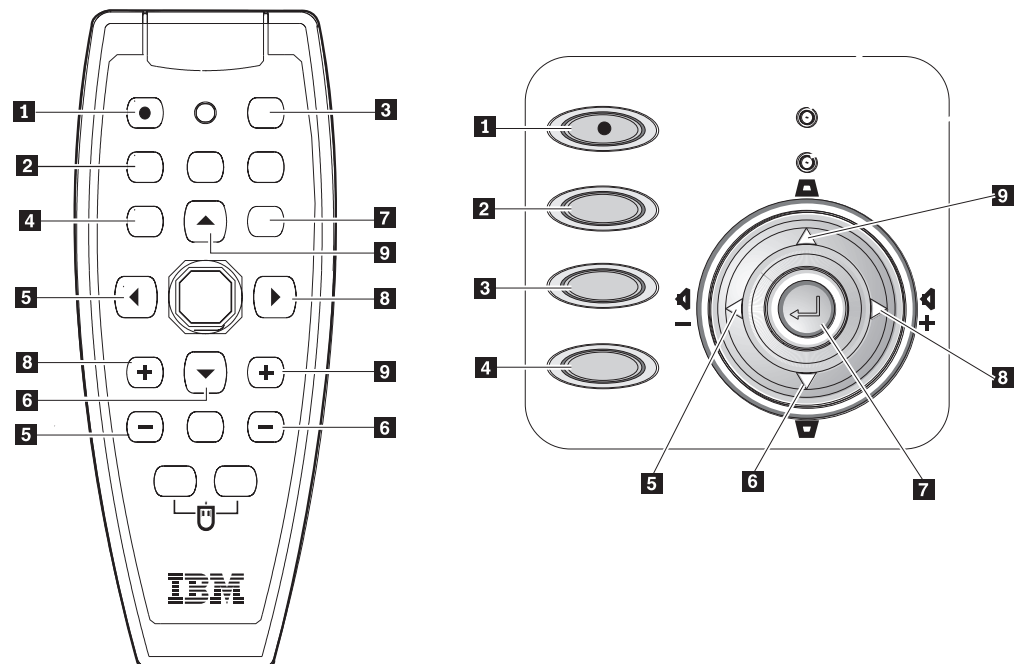
Esse controle remoto utiliza transmissão por infravermelho para controlar o projetor. Não é necessário apontar o controle remoto diretamente para o projetor, ele funcionará bem dentro de um raio de 10 m (33 pés) e 30° acima ou abaixo do nível do projetor. Se o projetor não responder ao controle remoto, aproxime-o um pouco.

**Nota:** Você também pode apontar o controle remoto para a imagem projetada.

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## Botões do Projetor e do Controle Remoto

O projetor pode ser operado utilizando-se o controle remoto ou os botões na parte superior do projetor. Todas as operações podem ser executadas com o controle remoto. A figura a seguir mostra os botões correspondentes no controle remoto e no projetor.



- 1** Power
- 2** Source
- 3** Auto
- 4** Menu
- 5** Botão para abaixar o volume/para a esquerda
- 6** Botão de distorção da imagem/para baixo
- 7** Enter
- 8** Botão para subir o volume/para a direita
- 9** Botão distorção da imagem para cima/para cima



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## Capítulo 5. Controles de Menu do On-Screen Display

Este projetor tem um OSD (On-Screen Display) que permite fazer ajustes de imagem e alterações em várias definições.

**Nota:** Você deve ter uma exibição na tela para acessar o OSD.

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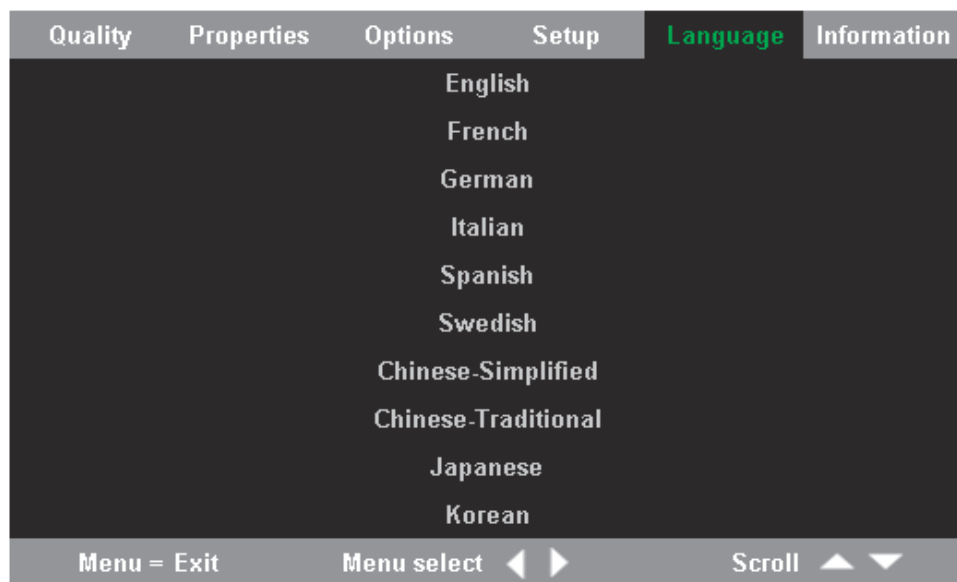
### Navegando no OSD

Você pode utilizar o controle remoto ou os botões na parte superior do projetor para navegar e fazer alterações no OSD. As seguintes seções mostram as opções de menu no OSD.

#### Definindo o Idioma do OSD

Você poderá querer consultar o OSD no projetor enquanto lê esta seção. Defina o idioma do OSD para sua preferência antes de continuar, seguindo estas etapas.

1. Pressione o botão **Menu**. O menu Quality aparece.
2. Pressione o botão do cursor para a esquerda/para a direita até Language ser realçado.



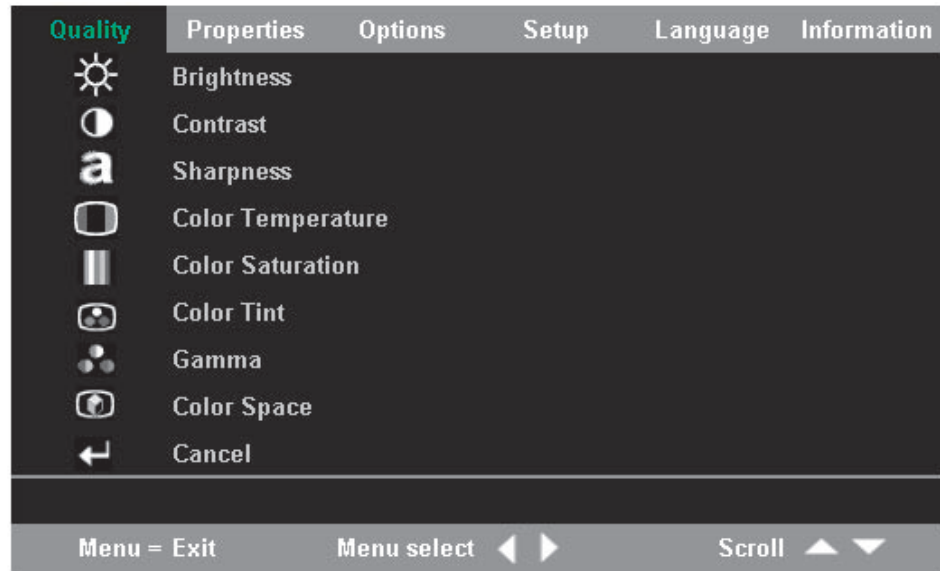
3. Pressione o botão do cursor para cima/para baixo até o idioma que deseja ser realçado.
4. Pressione o botão **Enter** para selecionar o idioma.
5. Pressione o botão **Menu** duas vezes para fechar o OSD.

#### Menu Quality

Siga estas etapas para acessar o menu Quality.

1. Pressione o botão Menu para abrir o OSD.

- Pressione o botão do cursor para a esquerda/para a direita para mover-se para o menu Quality.



- Pressione o botão do cursor para cima/para baixo para mover-se para cima e para baixo no menu Quality.

A tabela a seguir mostra as opções que você verá no menu Quality e o padrão.

Item	Descrição	Padrão
Brightness	Pressione o botão do cursor para a esquerda/para a direita para ajustar o brilho.  Intervalo: 0 a 100	50
Contrast	Pressione o botão do cursor para a esquerda/para a direita para ajustar o contraste.  Intervalo: 0 a 100	50
Sharpness	Pressione o botão do cursor para a esquerda/para a direita para ajustar a nitidez do vídeo.  Intervalo: 1 a 5	3
Color Temperature	Pressione o botão do cursor para a esquerda/para a direita para ajustar a temperatura da cor.  Intervalo: Fria/Normal/Quente	Normal

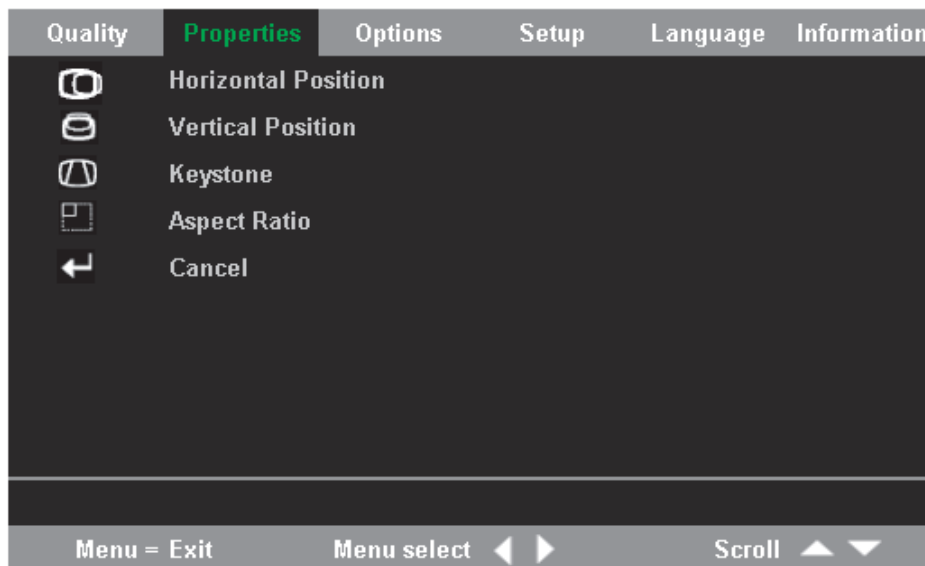


Item	Descrição	Padrão															
Color Saturation	<p>Pressione o botão do cursor para a esquerda/para a direita para ajustar a saturação do vídeo.</p> <p>Color Saturation está ativo apenas quando a origem de entrada for Vídeo/SVideo/YPbPr</p> <p>Intervalo: 0 a 100</p>	50															
Color Tint	<p>Pressione o botão do cursor para a esquerda/para a direita para ajustar a tonalidade/matiz do vídeo.</p> <p>Color tint está ativo apenas quando a origem de entrada for Vídeo/S-video/YPbPr</p> <p>Intervalo: 0 a 100</p>	50															
Gamma	<p>Pressione o botão do cursor para a esquerda/para a direita para ajustar a correção de gama do vídeo.</p> <p><b>Entrada Gama Brilho</b></p> <table> <tr> <td>PC</td> <td>2,2</td> <td>Alto</td> </tr> <tr> <td>MAC</td> <td>1,8</td> <td>Alto</td> </tr> <tr> <td>Vídeo</td> <td>2,4</td> <td>Baixo</td> </tr> <tr> <td>Gráfico</td> <td>2,2</td> <td>Baixo</td> </tr> <tr> <td>B&amp;W</td> <td>2,4</td> <td>Alto</td> </tr> </table>	PC	2,2	Alto	MAC	1,8	Alto	Vídeo	2,4	Baixo	Gráfico	2,2	Baixo	B&W	2,4	Alto	PC
PC	2,2	Alto															
MAC	1,8	Alto															
Vídeo	2,4	Baixo															
Gráfico	2,2	Baixo															
B&W	2,4	Alto															
Color Space	<p>Pressione o botão do cursor para a esquerda/para a direita para ajustar o espaço da cor.</p> <p>Intervalo: Automático, RGB, YpbPr YCbCr</p>	Automático															
Cancel	Reconfigura toda a definição do item Quality para o valor padrão	N/D															

## Menu Properties

Siga estas etapas para acessar o menu Properties.

1. Pressione o botão **Menu** para abrir o menu OSD.
2. Pressione o botão do cursor para a esquerda/para a direita para mover-se para o menu Properties.



3. Pressione o botão do cursor para cima/para baixo para mover-se para cima e para baixo no menu Properties.

A tabela a seguir mostra as opções que você verá no menu Properties e o padrão.

Item	Descrição	Padrão
Horizontal Position	Pressione o botão do cursor para a esquerda/para a direita para mover a imagem para a esquerda ou para a direita.  Intervalo: 0 a 100	50
Vertical Position	Pressione o botão do cursor para a esquerda/para a direita para mover a imagem para cima ou para baixo.  Intervalo: 0 a 100	50
Keystone	Pressione o botão do cursor para a esquerda/para a direita para corrigir a imagem projetada.  Intervalo: -50 a 50	0
Aspect Ratio	Pressione o botão do cursor para a esquerda/para a direita para alternar entre o formato padrão 4:3 e o formato HDTV (High Definition TV) 16:9.	4:3

Item	Descrição	Padrão
Cancel	Reconfigura Keystone e Aspect Ratio para os valores padrão.	N/D

## Menu Options

Para acessar o menu Options, siga estas etapas.

1. Pressione o botão Menu para abrir o OSD.
2. Pressione o botão do cursor para a esquerda/para a direita para mover-se para o menu Options.



3. Pressione o botão do cursor para cima/para baixo para mover-se para cima e para baixo no menu Options.

A tabela a seguir mostra as opções que você verá no menu Options e o padrão.

Item	Descrição	Padrão
Blank Screen	Pressione o botão do cursor para a esquerda/para a direita para selecionar uma cor de segundo plano para a tela em branco.  Intervalo: Preto, Vermelho, Verde, Azul, Branco	Azul
Auto Source	Pressione o botão do cursor para a esquerda/para a direita para ativar ou desativar a detecção automática de origem.  Intervalo: Ativado/Desativado	Ativado

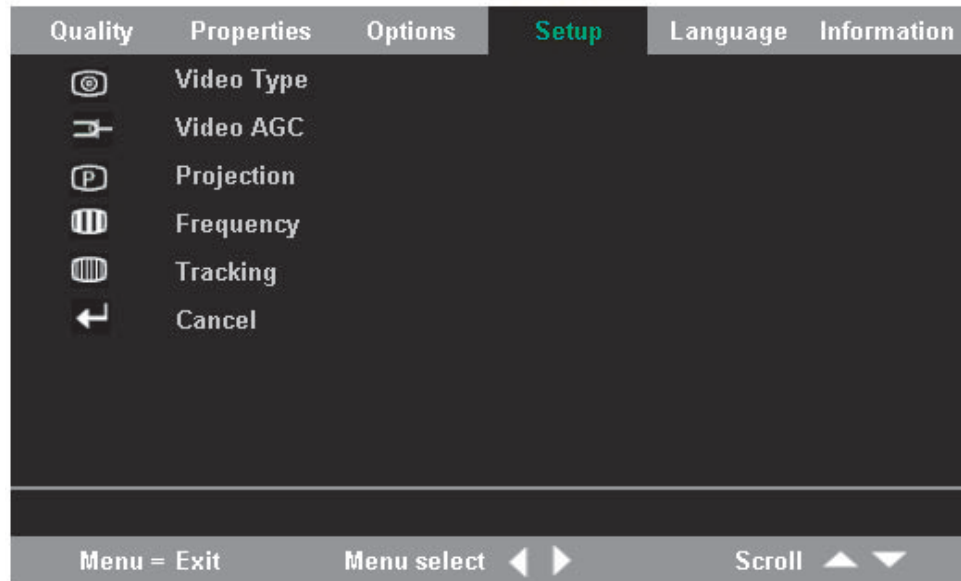
Item	Descrição	Padrão
Auto Power Off	Pressione o botão do cursor para a esquerda/para a direita para ativar ou desativar o desligamento automático da lâmpada após 10 minutos de inatividade.  Intervalo: Ativado/Desativado	Desativado
Volume	Pressione o botão do cursor para a esquerda/para a direita para ajustar o nível do volume de áudio.  Intervalo: 0 a 8	4
Menu Position	Pressione o botão do cursor para a esquerda/para a direita para posicionar o OSD na tela.  Intervalo: Esquerda, Direita, Centro, Para Baixo, Para Cima	Centro
Menu Display	Pressione o botão do cursor para a esquerda/para a direita para determinar o retardo no tempo limite do OSD.  Intervalo: 10 a 20 segundos	15
Translucent Menu	Pressione o botão do cursor para a esquerda/para a direita para definir a transparência da tela.  Intervalo: Ativado/Desativado	Desativado
Cancel	Reconfigura todos os itens da tela Options para os valores padrão.	N/D

## Menu Setup

Siga estas etapas para acessar o menu Setup.

1. Pressione o botão **Menu** para abrir o menu OSD.

2. Pressione o botão do cursor para a esquerda/para a direita para mover-se para o menu Setup.



3. Pressione o botão do cursor para cima/para baixo para mover-se para cima e para baixo no menu Setup.

A tabela a seguir mostra as opções que você verá no menu Setup e o padrão.

Item	Descrição	Padrão
Video Type	<p>Pressione o botão do cursor para a esquerda/para a direita para selecionar o padrão de vídeo.</p> <p>Video Type está ativo apenas quando a origem de entrada for Vídeo ou S-video</p> <p>Intervalo: Automático, NTSC, PAL, SECAM</p>	Automático
Video AGC (Automatic Grain Control)	<p>Pressione o botão do cursor para a esquerda/para a direita para ativar ou desativar o controle automático de granulação para a origem de vídeo.</p> <p>Video AGC está ativo apenas quando a origem de entrada for Vídeo ou S-video</p> <p>Intervalo: Ativado/Desativado</p>	Ativado

Item	Descrição	Padrão
Projection	<p>Pressione o botão do cursor para a esquerda/para a direita para escolher entre quatro métodos de projeção.</p> <ul style="list-style-type: none"> <li>• Montagem no desktop, parte frontal da tela</li> <li>• Montagem no desktop, parte traseira da tela</li> <li>• Montagem no teto, parte frontal da tela</li> <li>• Montagem do teto, parte traseira da tela</li> </ul>	Montagem no desktop, parte frontal da tela
Frequency	<p>Pressione o botão do cursor para a esquerda/para a direita para ajustar o relógio de amostragem do A/D.</p> <p>Frequency está ativo apenas quando a origem de entrada for RGB Análogo</p> <p>Intervalo: 0 a 100</p>	Autodetectado
Tracking	<p>Pressione o botão do cursor para a esquerda/para a direita para ajustar o número de amostragem do A/D.</p> <p>Tracking está ativo apenas quando a origem de entrada for RGB Análogo.</p> <p>Intervalo: 0 a 100</p>	Autodetectado
Cancel	Reconfigura Video Type, Video AGC e Projection para os valores padrão.	N/D

## Menu Information

Siga estas etapas para acessar o menu Information.

1. Pressione o botão **Menu** para abrir o menu OSD.

2. Pressione o botão do cursor para a esquerda/para a direita para mover-se para o menu Information.



3. Pressione o botão do cursor para cima/para baixo para mover-se para cima e para baixo no menu Information.

A tabela a seguir mostra as opções que você verá no menu Information e uma breve descrição.

Item	Descrição
Video Information	Exibe a resolução e a taxa de atualização do dispositivo de vídeo conectado.
Active Source	Informações sobre a origem ativa
Software Version	Informações sobre revisões de software.
Lamp Hours	Número de horas que a lâmpada esteve em uso
Lamp Mode	Pressione o botão do cursor para a esquerda/para a direita para selecionar o modo Lamp. <ul style="list-style-type: none"> <li>• Normal</li> <li>• Eco</li> </ul>
Lamp Hour Reset	Depois de substituir a lâmpada, esse item deverá ser reconfigurado.





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## Apêndice A. Manutenção

Este capítulo fornece informações sobre a manutenção do projetor.

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### Limpendo a Lente

Para limpar as lentes, proceda da seguinte maneira:

1. Aplique um limpador de lente de câmera não abrasivo em um pano macio e seco.

**Nota:** Evite usar uma quantidade excessiva de limpador e não aplique-o diretamente nas lentes. Limpadores abrasivos, solventes ou outros produtos químicos adstringentes podem riscar a lente.

2. Passe o pano de limpeza levemente sobre a lente em um movimento circular. Se você não pretende utilizar o projetor imediatamente, recoloque a tampa das lentes.

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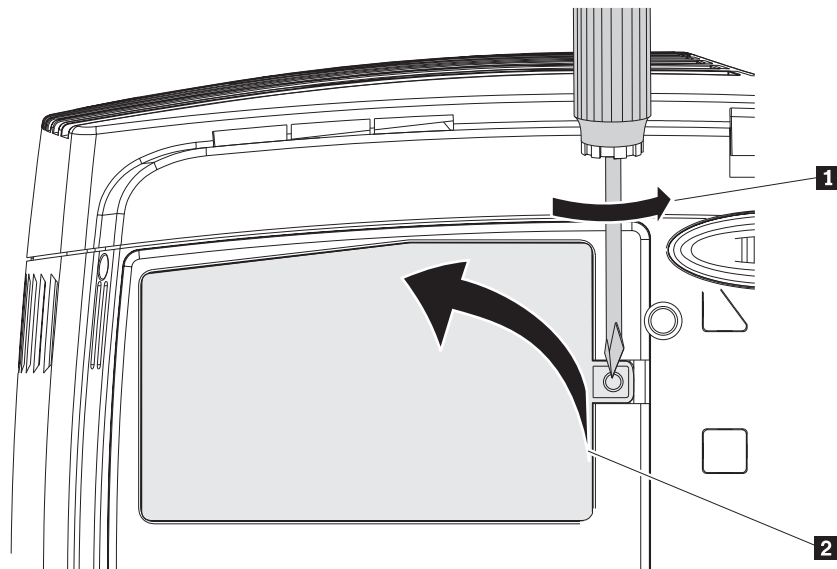
### Substituindo a Lâmpada de Projeção

Utilize somente uma lâmpada de substituição com o mesmo tipo e a mesma qualidade da lâmpada original. Entre em contato com o representante IBM para obter informações ou vá para [www.ibm.com/pc](http://www.ibm.com/pc).

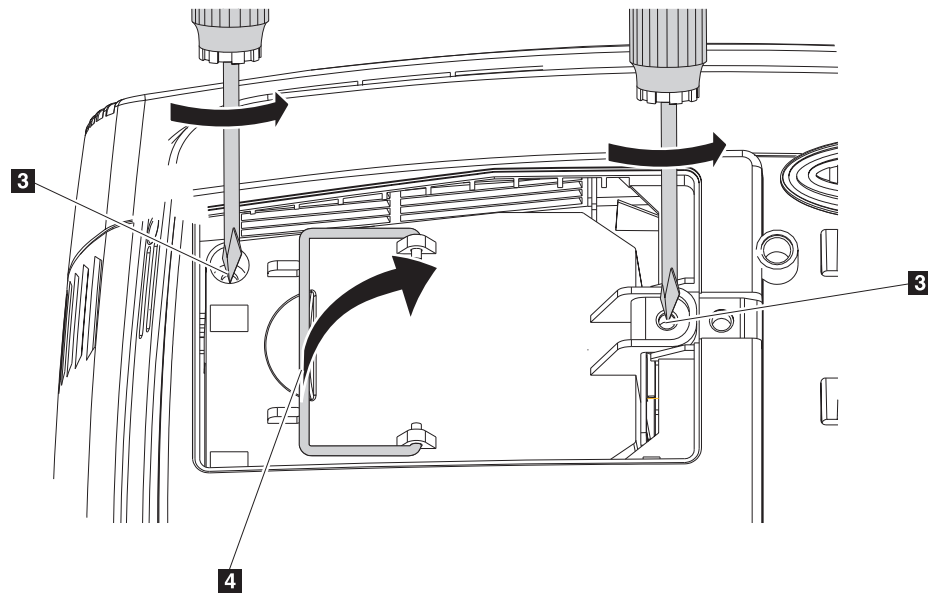
**Nota:** Desligue o projetor, desconecte o cabo de alimentação e deixe o projetor esfriar por pelo menos 1 hora antes de tentar substituir a lâmpada.

Para substituir a lâmpada de projeção, complete o seguinte procedimento:

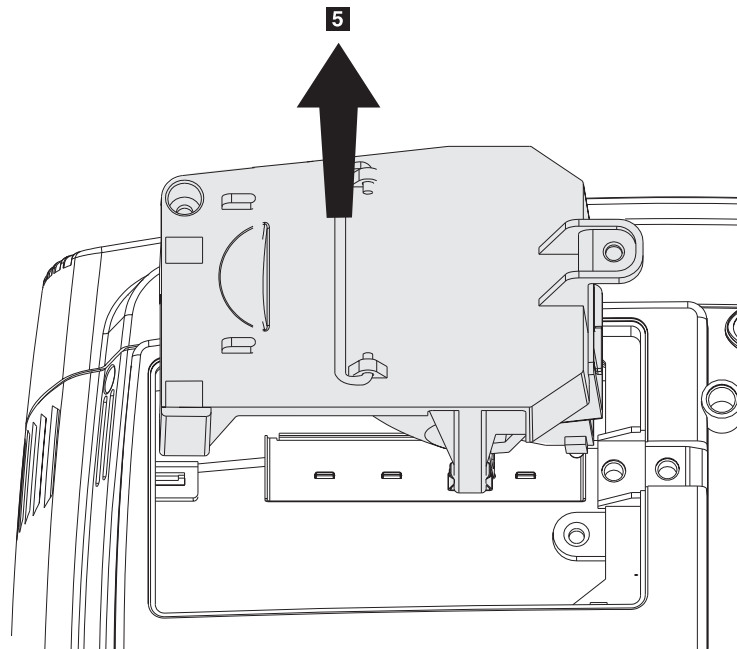
1. Solte o parafuso da tampa do compartimento da lâmpada, conforme mostrado.
2. Remova a tampa do compartimento da lâmpada, conforme mostrado.



3. Remova os dois parafusos do módulo da lâmpada, conforme mostrado.
4. Levante a alça do módulo, conforme mostrado.



5. Puxe firmemente a alça do módulo para remover o módulo da lâmpada, conforme mostrado.



6. Inverta as etapas 1 a 5 para instalar o novo módulo da lâmpada.

**Atenção:** Este produto contém uma Lâmpada de Arco de Metal, que contém Mercúrio. Descarte-a de acordo com as leis e os regulamentos locais.

Os EUA restringem ou proíbem o descarte de algumas ou de todas as lâmpadas que contêm mercúrio no lixo municipal. Visite [www.lamprecycle.org](http://www.lamprecycle.org) para obter informações adicionais sobre requisitos específicos de descarte por estado e instalações de reciclagem.

Para usuários em Connecticut, ligue gratuitamente para Northeast Lamp Recycling no número 1-888-657-5267 para fazer um pedido de entrega de um kit que inclui uma caixa para a lâmpada, uma fita e uma etiqueta de remessa de devolução.

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## Reconfigurando o Cronômetro da Lâmpada

Reconfigure o cronômetro da lâmpada para zero, depois de substituí-la. Siga estas etapas:

1. Pressione o botão **Menu** para abrir o menu principal.
2. Pressione o botão do cursor para a esquerda/para a direita para mover-se para o menu Information.
3. Pressione o botão do cursor para cima/para baixo para mover-se para baixo em Lamp Hour Reset.
4. Pressione o botão Enter. Aparece uma tela de mensagem.
5. Pressione os botões do cursor nesta ordem: **para baixo, para cima, para a esquerda, para a direita**. O menu Information aparece novamente mostrando Lamp Hours Reset como zero.

**Atenção:** Lamp Life é apenas a medida de degradação de brilho e não é uma especificação do tempo que vai demorar para a lâmpada falhar e cessar a luz. Lamp Life é definido como o tempo que demora para que mais de 50% da amostra da lâmpada tenha uma diminuição de brilho de aproximadamente 50% da taxa de lúmens desta lâmpada. Por exemplo, se o tempo de vida definido para sua lâmpada é de 2000 horas de execução, a lâmpada começará a diminuir o brilho de 50% para aproximadamente 550 lúmens.

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## Utilizando o Slot de Segurança

O projetor tem um slot de segurança. Consulte as informações que acompanham a trava para saber como utilizá-la.



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## Apêndice B. Resolução de Problemas

A tabela a seguir fornece informações sobre resolução de problemas do projetor. Em alguns casos, é fornecida mais de uma possível solução. Tente as soluções na mesma ordem em que elas são apresentadas. Quando o problema for solucionado, ignore as demais soluções.

Tabela B-1. Resolução de problemas

Problema	Solução
Não aparece nenhuma imagem na tela.	<ul style="list-style-type: none"><li>• Verifique as definições no PC notebook ou desktop.</li><li>• Desligue todo o equipamento e ligue-o novamente na ordem correta.</li></ul>
A imagem está borrada.	<ul style="list-style-type: none"><li>• Ajuste o Foco no projetor.</li><li>• Pressione o botão <b>Auto</b> no controle remoto ou no projetor.</li><li>• Assegure-se de que a distância do projetor à tela esteja dentro do intervalo especificado 10 m (33 pés).</li><li>• Verifique se a lente do projetor está limpa.</li></ul>
A imagem está maior na parte superior ou inferior (efeito trapézio).	<ul style="list-style-type: none"><li>• Posicione o projetor para que fique o máximo perpendicular à tela.</li><li>• Utilize o botão <b>Keystone</b> no controle remoto ou no projetor para corrigir o problema.</li></ul>
A imagem está invertida ou de cabeça para baixo.	Verifique a definição Projection no menu Setup do OSD.
A imagem está riscada.	<ul style="list-style-type: none"><li>• Ajuste as definições Frequency and Tracking no menu Setup do OSD para as definições padrão.</li><li>• Para se assegurar de que o problema não seja causado por uma placa de vídeo do PC conectada, conecte a outro computador.</li></ul>
A imagem está plana sem contraste.	Ajuste a definição Contrast no menu principal do OSD.
A cor da imagem projetada não corresponde à imagem de origem.	Ajuste as definições Color Temp. e Gamma no menu ColorMgr do OSD.
Não há luz do projetor.	<ul style="list-style-type: none"><li>• Verifique se o cabo de alimentação está firmemente conectado.</li><li>• Assegure-se de que a fonte de alimentação esteja boa testando-a com outro dispositivo elétrico.</li><li>• Reinicie o projetor na ordem correta e verifique se o LED de energia está verde.</li><li>• Se tiver substituído a lâmpada recentemente, tente reconfigurar as suas conexões.</li><li>• Recoloque o módulo da lâmpada.</li><li>• Coloque a lâmpada antiga de volta no projetor e leve-o à assistência técnica.</li></ul>

Tabela B-1. Resolução de problemas (continuação)

Problema	Solução
A lâmpada apaga.	<ul style="list-style-type: none"> <li>• Oscilações de energia podem fazer com que a lâmpada apague. Pressione o botão <b>Power</b> duas vezes para desligar o projetor. Quando o LED Lamp Ready acender, pressione o botão <b>Power</b>.</li> <li>• Recoloque o módulo da lâmpada.</li> <li>• Coloque a lâmpada antiga de volta no projetor e leve-o à assistência técnica.</li> </ul>
O projetor não responde ao controle remoto.	<ul style="list-style-type: none"> <li>• Direcione o controle remoto aos sensores remotos no projetor.</li> <li>• Assegure-se de que o caminho entre o controle remoto e o sensor não esteja obstruído.</li> <li>• Apague todas as luzes fluorescentes na sala.</li> <li>• Verifique a polaridade da bateria.</li> <li>• Substitua as baterias.</li> <li>• Desligue outros dispositivos ativados por infravermelho que estão ao redor.</li> <li>• Leve o controle remoto à assistência técnica.</li> </ul>
Não há som.	<ul style="list-style-type: none"> <li>• Ajuste o volume no controle remoto.</li> <li>• Ajuste o volume na origem de áudio.</li> <li>• Verifique a conexão dos cabos de áudio.</li> <li>• Teste a saída de áudio de origem com outros alto-falantes.</li> <li>• Leve o projetor à assistência técnica.</li> </ul>
O som está distorcido.	<ul style="list-style-type: none"> <li>• Verifique a conexão dos cabos de áudio.</li> <li>• Teste a saída de áudio de origem com outros alto-falantes.</li> <li>• Leve o projetor à assistência técnica.</li> </ul>

## LEDs do Projetor

O LED na parte superior indica o estado do projetor e pode ajudá-lo a solucionar problemas. Há pausas de dois segundos entre os ciclos de piscadas. Para obter detalhes adicionais sobre os erros de projetor do LED, entre em contato com o seu representante da IBM.

Tabela B-2. Mensagens de Erro do LED Lamp-ready

Número de Piscadas do LED Lamp-ready	Explicação
Intermitente	A lâmpada não está pronta - não pressione o botão Power.
1	Erro do ventilador 2 lâmpada
2	Erro do ventilador 1 da ventoinha
3	Erro do ventilador 1 do lastro

*Tabela B-3. Mensagens de Erro do LED Power*

<b>Número de Piscadas do LED Power</b>	<b>Explicação</b>
3	Superaquecimento do sistema
4	Erro da interface do sistema
5	Erro da lâmpada
6	Erro do ventilador. Consulte o LED Lamp-ready para determinar em qual ventilador.
7	Tampa de abertura da lâmpada
8	Erro do driver DLP.





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## Apêndice C. Especificações

A seguir estão as especificações para o Projetor IBM E400.

Temperatura (em funcionamento)	5° a 35° C (41° a 95° F) no nível do mar
(desligado)	-10° a 60° C (14° a 140° F)
Altitude (em funcionamento)	3.048 m (0 a 10.000 pés)
Altitude (desligado)	12.192 m (0 a 40.000 pés)
Umidade (em funcionamento)	Umidade relativa de 5% a 90%, sem condensação
Umidade (desligado)	Umidade relativa de 5% a 95%, sem condensação
Dimensões (L x P x A)	280 x 205 x 97 mm (11,02 x 8,07 x 3,82 pol.)
Peso	2,09 kg (4,61 lb) sem a embalagem
Óptica (faixa de foco)	1,5 a 7 m (4,9 a 23 pés)
Tipo de lâmpada	VIP 200W
Requisitos de entrada de alimentação	100-240 V ac 50-60 Hz 2,8 A
Montagem do teto	Suporte de teto testado/aprovado pela UL com uma capacidade mínima de 15,5 kg (34 lb)



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## Apêndice 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	New Zealand	0800-446-149
	French 02-210-9800		
Bolivia	0800-0189	Norway	66 81 11 00
Brazil	55-11-3889-8986	Peru	0-800-50-866
Canada	1-800-565-3344	Philippines	632-995-2225
	Toronto 416-383-3344		
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	Venezuela	0-800-100-2011
	Business customers 0120-887-874		
Luxembourg	298-977 5063	Vietnam	848-8295-160

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## Apêndice 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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## Apêndice 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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Any performance data contained herein was determined in a controlled environment. Therefore, the result obtained in other operating environments may

vary significantly. Some measurements may have been made on development-level systems and there is no guarantee that these measurements will be the same on generally available systems. Furthermore, some measurements may have been estimated through extrapolation. Actual results may vary. Users of this document should verify the applicable data for their specific environment.

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

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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.
--

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.

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

Este producto ha sido probado y satisface los límites para Equipos Informáticos Clase B de conformidad con el Estándar 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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