TOSHIBA

The power to open people's eyes

TDP-S3

USER GUIDE

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FCC Warning

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

Canada

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Safety Certifications

UL, CUL, TÜV, NOM, IRAM

EN 55022 Warning

This is a Class A product. In a domestic environment it may cause radio interference, in which case the user may be required to take adequate measures. The typical use is in a conference room, meeting room or auditorium.

Declaration of Conformity

Manufacturer:Toshiba Corporation
1-1, Shibaura 1-Chome, Minato-ku, Tokyo, Japan

We declare under our sole responsibility that the TDP-T3 and TDP-S3 projectors conform to the following directives and norms:

EMC Directive 89/336/EEC, Amended by 93/68/EEC
EMC: EN 55022
EN 55024
EN 61000-3-2
EN 61000-3-3
Low Voltage Directive 73/23/EEC, Amended by 93/68/EEC
Safety: EN 60950: 1992 + A1 + A2 + A3 + A4: 1997

September, 2001

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SAFETY INSTRUCTIONS

Please read and follow all safety instructions provided BEFORE using your new projector. Failure to comply with safety instructions may result in fire, electrical shock, or personal injury and may damage or impair protection provided by equipment. Please save all safety instructions.

Safety Definitions:

- **Warning:** Statements identify conditions or practices that could result in personal injury.
- **Caution:** Statements identify conditions or practices that could result in damage to your equipment.

Safety Symbols:

Attention: For information about usage of a feature, please refer to the User's Guide.

Warning: Hot surface. Do not touch.

An arrow pointing to the lamp door on the projector.

Safety Terms:

- **Warning:** Don't look directly into the lens when the lamp is turned on.

•**Warning:** To replace the lamp, turn off the projector and unplug the power cord. To avoid burns, wait 30 minutes before opening the lamp door. Follow all instructions provided in this User's Guide.

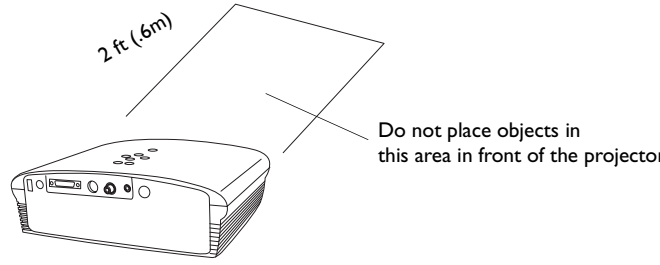
•**Warning:** Please use the power cord provided. Connect the power cord to a receptacle with a protective safety (earth) ground terminal.

- **Warning:** Refer all service to qualified service personnel. Servicing your own projector will void the warranty. See the following page for the customer service contact information.
- **Caution:** Don't block ventilation openings.

- **Caution:** Don't set liquids on the projector. Spilled liquids may damage your projector.
- **Caution:** Don't place the projector on a hot surface or in direct sunlight.
- **Caution:** Do not drop the projector. Transport the projector in a Toshiba-approved case; refer to your Toshiba dealer for more information.

Important Operating Considerations

Do not place the projector on a tablecloth or other soft covering that may block the vents. In the unlikely event of the bulb rupturing, thoroughly clean the area in front of the projector and discard any edible items placed in that area.



Customer Service

Please contact your Toshiba dealer for details.

INTRODUCTION

The Toshiba TDP-S3 and TDP-T3 multimedia projectors are specifically designed for multipurpose use. They generate crisp, clear images using Digital Light Processing™ (DLP) technology. They are easy to connect, easy to use, easy to transport, and easy to maintain. The TDP-S3 has native SVGA 800x600 resolution, the TDP-T3 has XGA 1024x768 resolution. The user interfaces of the two products are identical except where noted; information in this user's guide applies to both products.

Image Resolution

TDP-S3

The SVGA resolution of the TDP-S3's projected image is 800x600. The projector is compatible with screen resolutions up to 1280x1024. If your computer's screen resolution is higher than 1280x1024, reset it to a lower resolution before you connect the projector.

TDP-T3

The XGA resolution of the TDP-T3's projected image is 1024x768. The projector is compatible with screen resolutions up to 1280x1024. If your computer's screen resolution is higher than 1280x1024, reset it to a lower resolution before you connect the projector.

Compatibility

The projector is compatible with a wide variety of computers and video devices, including:

- IBM-compatible computers, including laptops, up to 1280x1024 resolution.
- Apple® Macintosh® and PowerBook® computers up to 1280x1024 resolution.
- Most standard VCRs, DVD players, HDTV sources, camcorders and laser disc players.

Unpacking the Projector

The projector comes with the items shown in Figure 1. Check to make sure all are included.

NOTE: *The TDP-S3 automatically expands 640x480 images to 800x600. You can display these images at their native resolutions by turning off the Auto Resize feature. See "Resize" on page 27 for more information.*

NOTE: *The TDP-T3 automatically expands 640x480 and 800x600 images to 1024x768. You can display these images at their native resolutions by turning off the Auto Resize feature. See page 27.*

NOTE: *The projector is compatible with 1080i and 720P HDTV formats.*

If you are experienced in setting up presentation systems, use the *Quick Start* card that was included in the shipping box. For complete details on connecting and operating the projector, refer to this User's Guide.

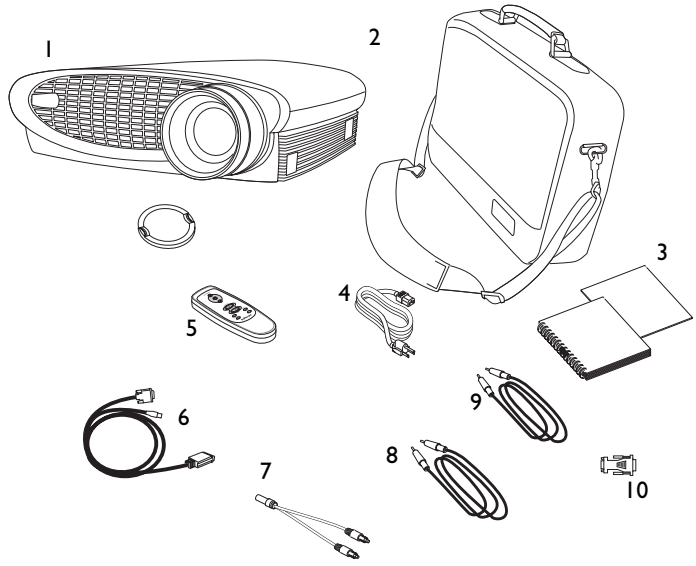


FIGURE 1

Shipping box contents

1. Projector + lens cap
2. Soft carry case
3. User's Guide and quick start card
4. Power cord
5. Remote control
6. Computer cable
7. Audio cable adapter
8. Audio cable
9. Composite video cable
10. Macintosh adapter

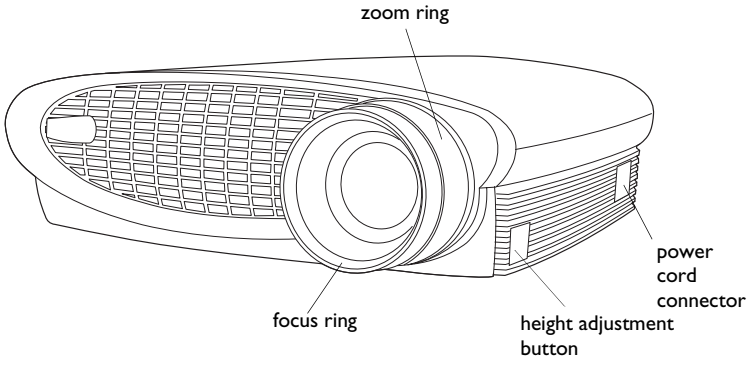


FIGURE 2

Front view of projector

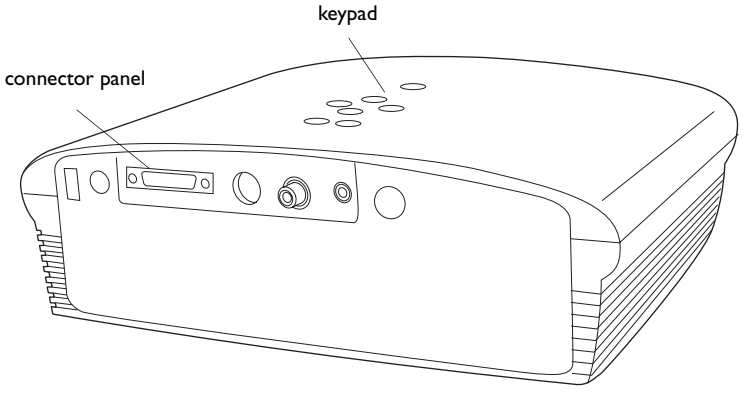


FIGURE 3

Back view of projector

Usage Guidelines

- Do not look directly into the projection lens when the lamp is turned on. The bright light may harm your eyes.
- Do not block the grills on the projector. Restricting the air flow can cause it to overheat and turn off. If this happens, you must wait a minute before attempting to turn it back on.
- Handle the projector as you would any product with glass components. Be especially careful not to drop it.
- Avoid leaving the projector in direct sunlight or extreme cold for extended periods of time. If this happens, allow it to reach room temperature before use.
- Transport the projector in a vendor-approved hard or soft case. Contact your dealer for more information on cases, accessories and solutions.

If You Need Assistance

The first place to look for help is in this manual. Be sure to check the guidelines in "Troubleshooting" on page 40.

Please contact your Toshiba dealer for details.

SETTING UP THE PROJECTOR

1 Place the projector on a flat surface.

- The projector must be within 10 feet (3 m) of your power source and within 6 feet (1.8 m) of your computer.
- If you want to project from behind a translucent screen, set up the projector behind your screen. See "Rear Project" on page 32 to reverse the image.
- If you are installing the projector on the ceiling, refer to the installation guide that comes with the Ceiling Mount Kit for more information. To turn the image upside down, see "Ceiling Project" on page 32. The Ceiling Mount Kit is sold separately, contact your Toshiba dealer to order.

2 Position the projector the desired distance from the screen.

- The distance from the lens of the projector to the screen and the zoom setting determine the size of the projected image. Figure 4 shows three projected image sizes. For more information about image size, see "Projected Image Size" on page 53.

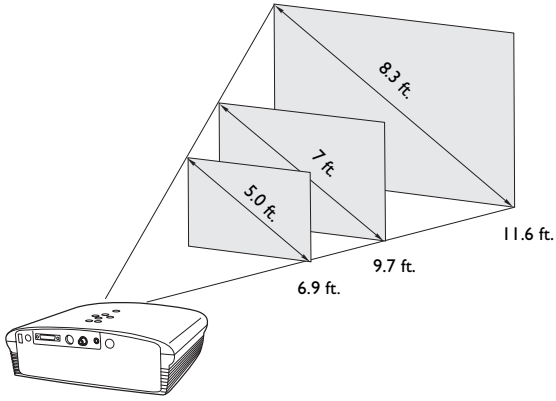


FIGURE 4

Projected image size at minimum zoom

NOTE: *The projector must be at least 5 feet (1.5 m) from the projection screen.*

3 Make sure the projector is unplugged and your computer is turned off.

***NOTE**: Before you continue, make sure the projector is unplugged and your equipment is turned off. If you're connecting a computer, make sure the distance between it and the projector is 6 feet or less.*

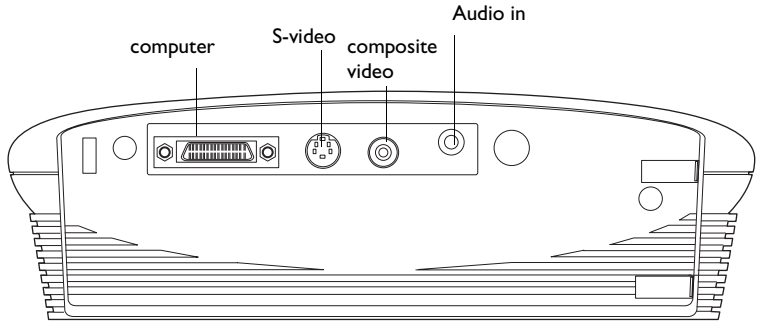


FIGURE 5

Connector panel

***NOTE**: The enhanced connectivity module is an optional accessory that provides RS-232, component video, VESA computer, M1 computer, and monitor loop through capabilities. Contact your Toshiba dealer to order.*

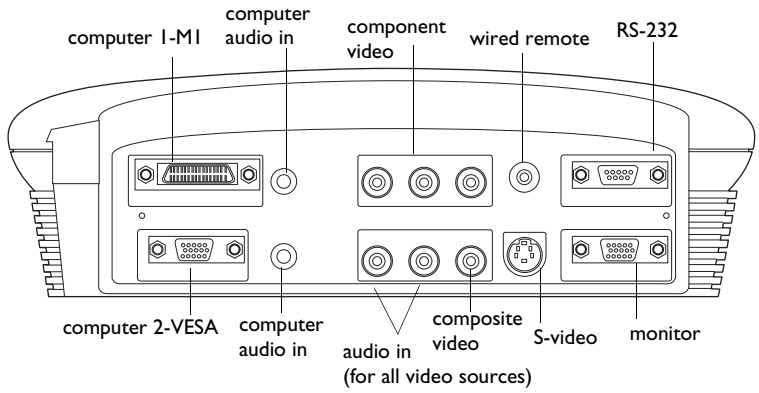


FIGURE 6

Connector panel on optional enhanced connectivity module

***NOTE:** If you are connecting an older Macintosh computer that does not have a 15-pin connector, you must use a Mac adaptor between the computer and the projector. The Mac adaptor will only work with the 1024x768 resolution. Please set your Mac's video card accordingly.*

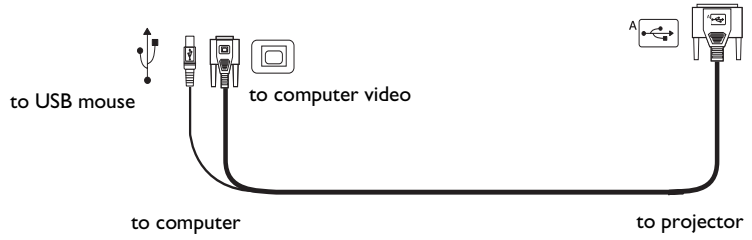


FIGURE 7

Computer cable

Connecting a Computer

The projector ships with an analog computer cable. If your computer has a digital output, you can order the optional digital computer cable. Using a digital source generates the highest quality and brightest image possible. See "Optional Accessories" on page 46.

1. Plug the end of the computer cable with one cable into the PC 1 connector on the projector.
2. Plug the blue end of the computer cable into the video connector on your computer.

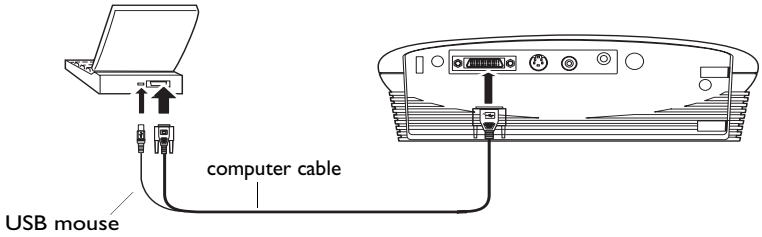


FIGURE 8

Connecting the projector to a computer

Do you want to advance slides in a PowerPoint™ presentation using the projector's remote?

1. Plug the USB cable into the USB mouse connector on your computer. To use the USB functionality, you must install the USB drivers. See page 14 for details.

Do you want to play your computer's audio on the projector?

1. Plug either end of the audio cable into the audio connector on your computer.
2. Plug the other end of the audio cable into the Audio In connector on the projector.

Now you're ready to power up the projector and your laptop. Skip to "Powering up the Projector" on page 12.

NOTE: *Many laptop computers do not automatically turn on their external video port when a secondary display device such as a projector is connected. Refer to your computer manual for the command that activates the external video port. Activation commands for some laptop computers are listed in the Appendix of this manual on page 47 and in the Service section of our website.*

NOTE: *The USB mouse is supported for use with Windows 98, Windows ME, Windows 2000, and Apple OS 8.5 and higher only.*

NOTE: *You do not need to restart your computer after connecting a USB mouse to use it (it is hot-pluggable).*

Connecting a Video Device

1 If your video player uses a round, one-prong composite video connector, you'll need only the audio cable, audio adapter, and composite video cable that shipped with the projector.

- If your video player uses a round, four-prong S-video connector, you'll need an S-video cable in addition to the audio cable and audio adapter. The S-video cable is sold separately. (See "Optional Accessories" on page 46.)

2 Plug the composite video cable's yellow connector into the "video-out" connector on your video player (Figure 9). This connector may be labeled "To Monitor."

- If you're using an S-video cable, connect it to the "S-video out" connector on the video player (Figure 10).

3 Plug the other yellow connector into the composite video connector on the projector.

- If you're using S-video, plug the other end of the cable into the "S-video" connector on the projector (Figure 10).

***NOTE**: HDTV sources are connected to the projector using the computer cable. See the previous pages for details.*

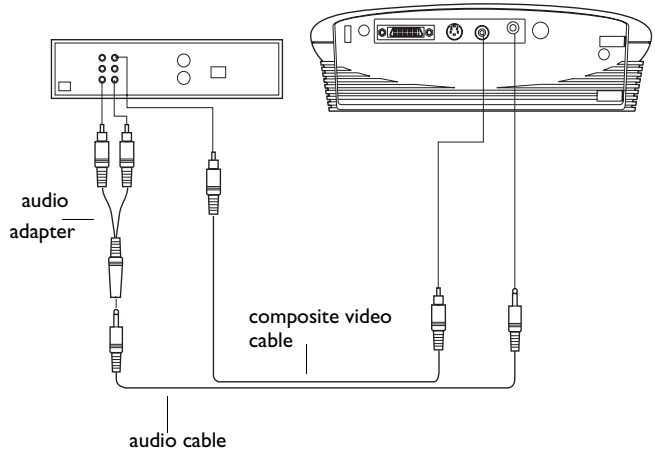


FIGURE 9

Connecting the projector to a video player using the standard video cable (with composite video connector) and the audio cable and adapter

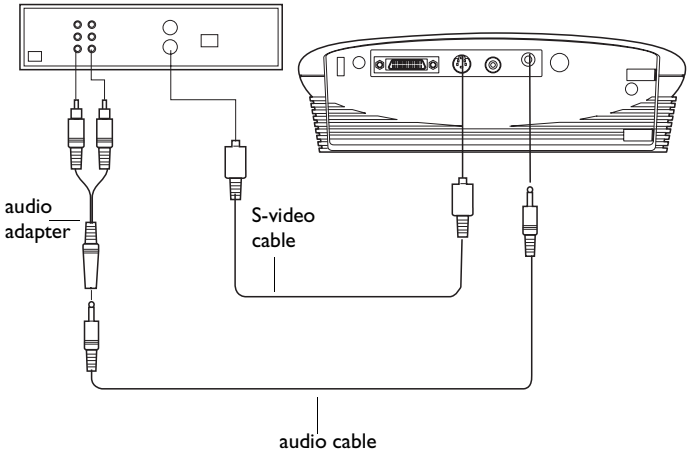


FIGURE 10

Connecting the projector to a video player using an S-video cable and the audio cable and adapter

4 Plug the audio adapter's white connector into the left "audio out" connector on your video player. Plug the adapter's red connector into the right "audio out" connector on the video player (Figure 9 and Figure 10).

5 Plug the audio adapter's other end into the audio cable.

6 Plug the audio cable into the "audio in" connector on the projector.

The projector is compatible with these major broadcast video standards: NTSC, NTSC 4.43, PAL, PAL-M, PAL-N, PAL-60, and SECAM. It automatically adjusts to optimize its performance for the incoming video.

***NOTE**: The audio adapter is provided so that the same audio cable used to connect a computer can be used with the adapter to connect a video device.*

***CAUTION:** Your video player may also have a "Video Out" connector for a coaxial cable connection. DO NOT use this to connect to the projector.*

NOTE: *If you have turned Auto Source off (page 31), you may need to press the source button on the keypad more than once to display an active source. The sources switch in this order: PC 1-Analog, PC 1-Digital, PC 2-VESA, Video 3-Component, Video 1 S-Video, and Video 2-Composite.*

Using the optional enhanced connectivity module

This module connects to the projector via the projector's computer connector. Slide the tabs in the module into the grooves on the back of the projector, then press the computer connector into the projector. To remove the module, press down on the textured lever on the top left of the module to release the latch, then slide the module off.

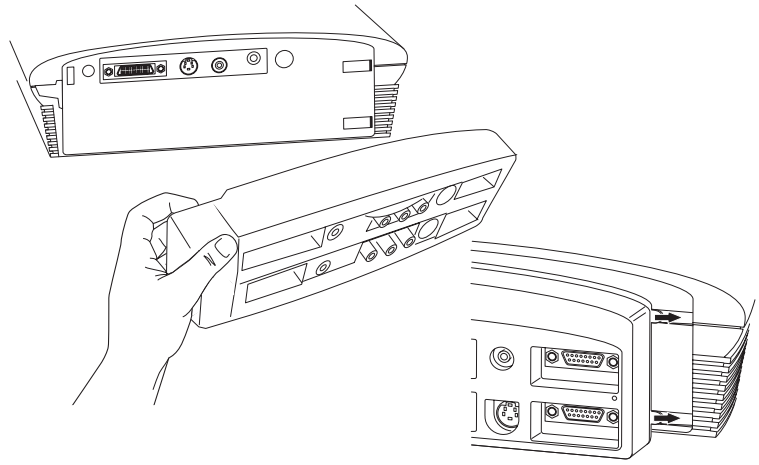


FIGURE 11

Connecting the optional connectivity module to the projector

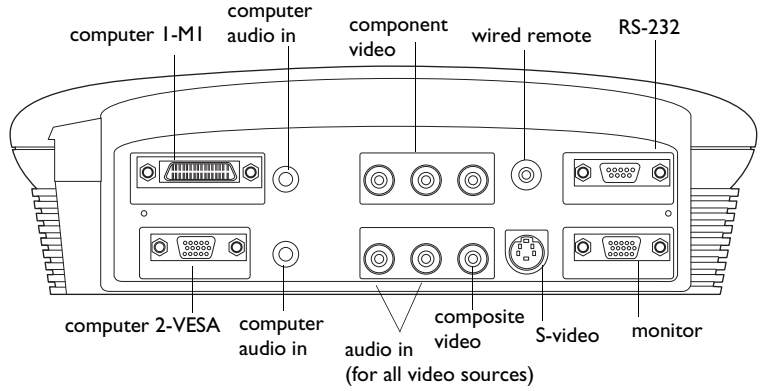


FIGURE 12

Connector panel on optional enhanced connectivity module

The module provides the following audio/video inputs:

Source	Video	Audio
Computer 2 VESA	VESA Single-ended analog RGB (HD-15)	mini jack
Computer 1 M1-DA	M1-DA Single-ended analog or digital	mini jack
Component Video	Base-band component video (RCA)	Left and right line-level (2 RCAs)
Composite Video	Base-band composite video (RCA)	Left and right line-level (2 RCAs)
S-Video	S-video Y/C (4-pin circular)	Left and right line-level (2 RCAs)

The module also provides wired remote input (used with an optional remote), monitor out (used to display images on your desktop computer's monitor as well as on the projection screen), and RS-232 input (to control the projector from an LCD control panel).

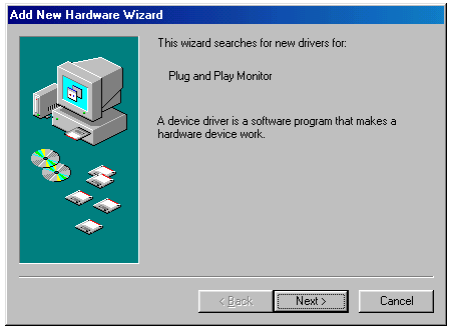
***NOTE**: Always use the power cord that shipped with the projector.*

Powering up the Projector

1. Remove the lens cap.
2. Plug the power cord into the side of the projector, then plug it into your electrical outlet. A surge-protected power strip is recommended.
   - The LED on the top of the projector (Figure 17 on page 20) lights green.
3. Turn on the lamp by pressing the green **power** button on the keypad or remote.
   - A tone sounds when you press the button, and the LED blinks green while the software initializes. When initialization is complete, the LED lights solid green and the startup screen appears.
4. If you connected a video player, turn it on.
   - The video image should display on the projection screen. If it doesn't, press the **source** button on the keypad or the **video** button on the remote to display your video image. You can select a default source to determine which source the projector examines first during power-up for active video; see "Default Source" on page 31.
   - Use the **volume** buttons to adjust the volume.
5. Turn on your computer.

   For Windows 98:

   a The first time you connect a particular computer to the projector, the computer recognizes the projector as "new hardware" and the Add New Hardware Wizard appears. Follow these instructions to use the Wizard to load the correct driver (which was installed with your Windows operating system).



Click Next. Make sure “Search for the best driver” is selected, then click Next.

Uncheck any checked boxes, then click Next. Windows automatically locates the driver. If this driver has been removed, reload the driver using your Windows operating system CD.

When Windows finds the driver, you are ready to install it. Click Next.

Click Finish when installation is complete.

b If you connected the USB cable (page 7), the Add New Hardware Wizard appears again. Drivers must be installed to use the USB functionality.
The Wizard is launched three times. The first time it detects a USB Composite Device, the second time a USB Human Interface Device (for the keyboard), and the third time a USB Human Interface Device (for the mouse). The required drivers are located on your Windows operating system and on the Window operating system CD.

For Windows 2000 and Windows ME:

a The USB drivers are automatically installed.

For a Macintosh computer running Mac OS 9.1:

a The USB drivers for mouse control are automatically installed.

NOTE: *The USB mouse is supported for use with Windows 98, Windows ME, Windows 2000, and Apple OS 8.5 and higher only. Windows NT is not supported.*

6 The computer image should display on the projection screen. If it doesn't, press the **source** button on the keypad or the **data** button on the remote to display your computer's image. Make sure your laptop's external video port is activated; see "Portable and Laptop Activation Chart" on page 47 for details.

- If necessary, make adjustments to the image using the projector's on-screen menus. To open the menus, press the **menu/select** button on the keypad or remote, then select the Display or Image sub-menu. For more information about the menus, see page 23.

Turning Off the Projector

If you want to turn off the projector for a short period of time, press the **standby** button on the keypad or remote. This blanks the screen for fifteen minutes, but keeps the projector running. (You can change the amount of time the projector stays in standby mode; see page 31 for details.) After 15 minutes, the lamp goes out. To exit standby mode, press the **standby** button again. (It may take several seconds for the projection lamp to reach full power and project the image again.) See page 22 for details on standby mode.

To turn off the projector, press the **power** button. The lamp turns off and the LED blinks orange for a minute while the fans continue to run to cool the lamp. When the lamp has cooled, the LED lights green and the fans stop. Unplug the power cord to completely power off the projector.

***NOTE**: With some computers, the order in which you power up the equipment is very important. Most computers should be turned on last, after all other peripherals have been turned on. Refer to your computer's documentation to determine the correct order.*

***NOTE**: Lamp life will be extended if you turn the power off, then wait 1 minute while the lamp cools before unplugging the projector. The Lamp LED will light green when the lamp has cooled.*

USING THE PROJECTOR

This section describes how to use and make adjustments to the projector. It also provides a reference to the keypad and remote buttons and the options available from the on-screen menus.

Basic Image Adjustment

1. Make sure you have powered up your equipment in the right order (page 12).
2. If the image doesn't display completely, zoom the image (page 17), adjust the height of the projector (page 18) or center the image by adjusting its horizontal or vertical position (page 29). Be sure the projector is at a 90 degree angle to the screen.
3. If the image is out of focus, rotate the focus lens (page 17).
4. If the colors don't look right, adjust the brightness, contrast, tint, or color (page 24).

Adjusting the Projector

To focus the image, rotate the focus ring (Figure 13) until the image is clear. To zoom the image, rotate the zoom ring. This adjusts the image size. You can also zoom in on part of the image, see page 22.

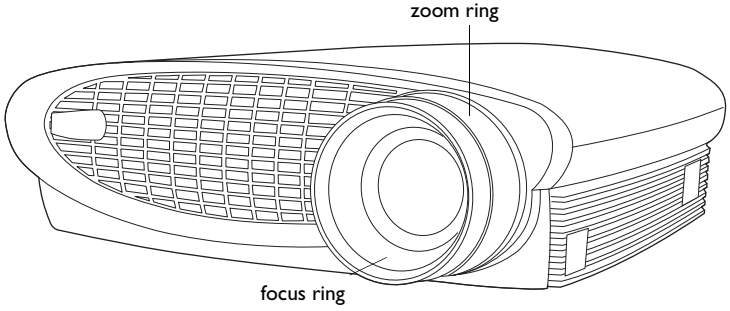


FIGURE 13

Focus ring and zoom ring

NOTE: *To obtain the best overall focus quality, open the menu and focus on the text. This will ensure that the best overall image quality is achieved.*

The projector is equipped with a self-locking, quick-release elevator foot and button.

To raise the projector:

1. Press and hold the elevator button (Figure 14).
2. Raise the projector to the height you want, then release the button to lock the elevator foot into position.

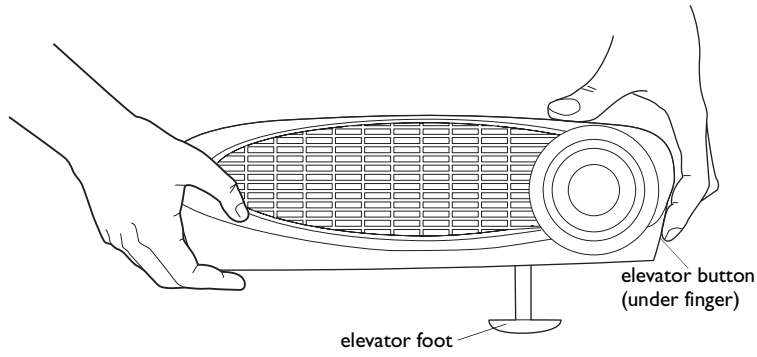


FIGURE 14

Adjusting the height of the projector

3. If necessary, turn the leveling knob to adjust the angle of the projected image.

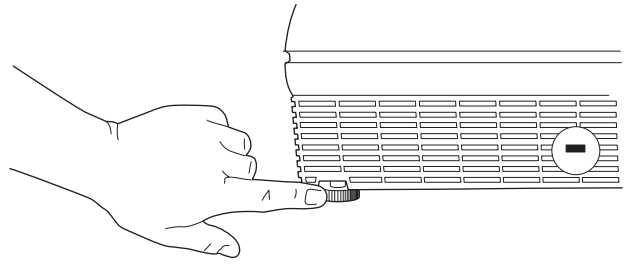


FIGURE 15

Turning the leveling knob

Using the Remote Control

To use the forward and backward buttons on the remote to advance slides in PowerPoint, you must connect the USB connector on the computer cable to the computer. See page 7 for details.

Point the remote control at the projection screen or at the front or back of the projector (not at the computer). The range for optimum operation is about 25 feet. If you point the remote at the projection screen, the distance to the screen and back to the projector must be less than or equal to 25 feet. For best results, point the remote directly at the projector.

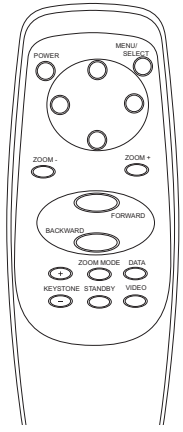


FIGURE 16

Remote control

Using the Keypad and Remote Buttons

While the menus are displayed, the volume, source, and standby buttons on the keypad act as menu navigation buttons. See "Using the On-Screen Menus" on page 23 for details.

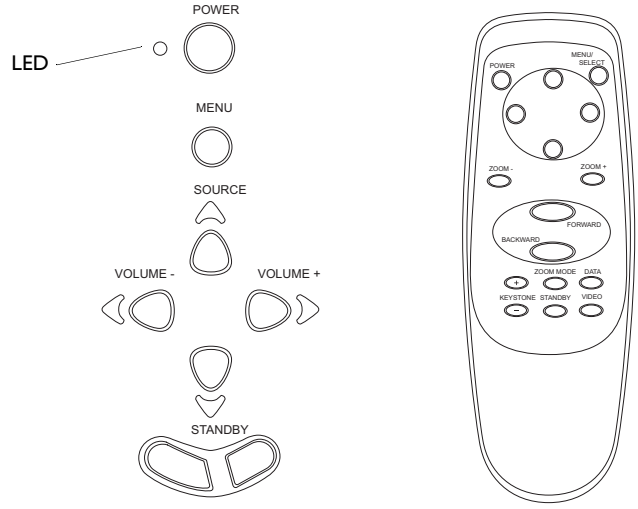


FIGURE 17

Keypad and remote buttons

NOTE: *If you have turned Auto Source off (page 31), you may need to press the source button more than once to display an active source. The sources switch in this order: PC 1-Analog, PC 1-Digital, Video 1 S-Video, and Video 2-Composite.*

Menu/select

Press the **menu/select** button to open the on-screen menus. Press **menu/select** again (while Exit is highlighted) to close the menus. (The menus automatically close after 30 seconds if no buttons are pressed.) When you close the menus, the projector saves any changes you made. For more information about the on-screen menus, see page 23.

Mouse buttons (keypad only)

Use the mouse buttons to zoom in and out on the image. See "Zoom mode" on page 22 for details.

Source (keypad only) or Data and Video (remote only)

When you have more than one source (computer and video) connected to the projector, select between them by pressing the **source** button on the keypad or the **data** or **video** button on the remote.

Keystone + - (remote only)
Use this feature to adjust the image vertically and make a squarer image.

1 Press the **keystone +** button to reduce the upper part of the image, and press the **keystone -** button to reduce the lower part. You can also adjust keystone from the Display menu (see page 24 for details on the menu).

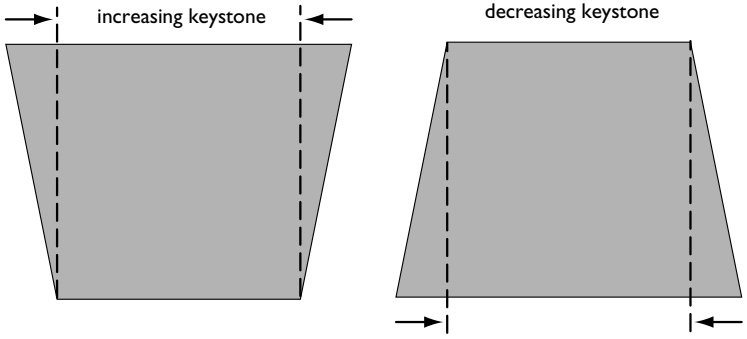


FIGURE 18

Adjusting the keystone

Forward/back buttons (remote only)
These buttons act like the page up and page down buttons on your computer's keyboard. You can use them to advance through a slide show in PowerPoint™ presentations. To use this feature, you must connect the USB mouse connector on the computer cable to your computer. See page 7 for details.

Up/down/left/right arrow buttons (remote only)
Use these buttons to navigate through and make adjustments to the on-screen menus. See "Using the On-Screen Menus" on page 23 for details.

Power button
This turns the lamp on and off. See page 12 for startup and shut-down details.

Zoom mode
This activates the zoom feature. When you press this button, the zoom icon appears in the lower right corner of the screen. Press the **zoom +** button to zoom in on part of the image, press the **zoom -** button to zoom out. When the image is zoomed, you can use the up/down/left/right arrow buttons to display a different part of the zoomed image (pan the image). Press **zoom mode** again to exit the mode and return the image to normal size.

You can also turn Zoom mode on using the Image menu and zoom and pan the image using the mouse buttons and arrows on the keypad. See page 28 for details.

Zoom +/-
This allows you to zoom in and out on a part of the image.

Standby
When you press **standby**, the display and audio turn off and a blank screen is displayed for 15 minutes. You can change the amount of time the projector stays in standby mode; see page 31 for details. The LED lights orange while the projector is in standby.

- If you press **standby** again within 15 minutes, the projector returns to normal operations immediately. The LED changes from orange to green.
- If you don't press **standby** again, the lamp turns off after 15 minutes. The LED blinks orange and the fans run while the projector cools down, then the projector shuts off and the LED lights solid green.

Volume (keypad only)
To increase the volume, press **volume +**. To decrease the volume, press **volume -**.

Using the On-Screen Menus

The projector has menus that allow you to make image adjustments and change a variety of settings. These adjustments aren't available directly from the keypad.

To open the on-screen menus, press the **menu/select** button on the keypad or remote. (The menus automatically close after 60 seconds if no buttons are pressed.) This displays the Main menu and changes the volume, source, and standby buttons on the keypad to menu navigation and adjustment buttons (the arrow LEDs around the buttons light green to indicate the change). Press the corresponding buttons to move the cursor up and down, or use the arrow buttons on the remote. The selected menu is highlighted.

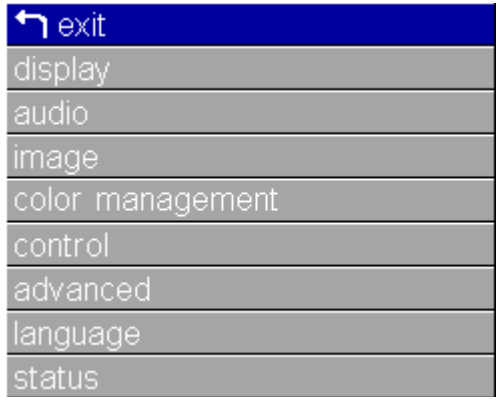


FIGURE 19

Main menu

To change a menu setting, use the up and down arrow buttons to move the cursor up and down to the item you want to change (the selected item is highlighted), then press **menu/select**. When an item is selected, its button appears depressed to provide a visual indication of selection. Use the left and right arrows to adjust the setting or turn it on and off. Press **menu/select** when you are done. Press the up and down arrows to move to another setting. When you have completed your adjustments, navigate to Exit, then press **menu/select**. You are returned to the top of the Main menu. Press **menu/select** again to exit the Main menu, or navigate to another submenu.

NOTE: *Some menu items may be grayed out (dimmed) at certain times. This indicates the item is not applicable to your setup or the item is not enabled until another selection is made.*

Display Menu

To access the Display menu settings, press the **menu/select** button to display the Main menu, press the down arrow to highlight Display, then press **menu/select** again to access the Display menu.

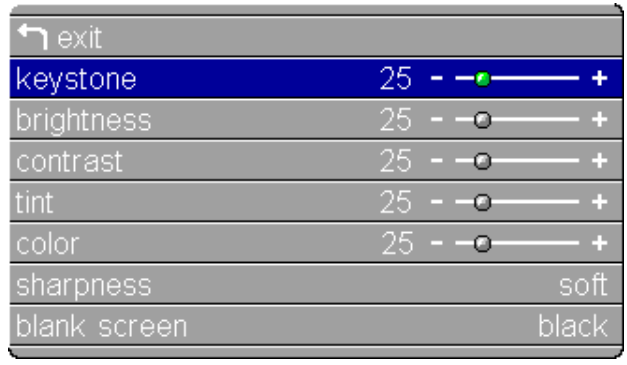


FIGURE 20

Display menu

Keystone

This option helps to keep the image square as the angle of projection is changed. Use this feature to adjust the image vertically and make a squarer image. See page 21 for details on keystone adjustments.

- Press the down button to highlight Keystone, then press **menu/select**. Use the left and right arrows to adjust the keystone setting. Press **menu/select** to accept your changes.

Brightness

Adjusting the brightness changes the intensity of the image.

- Use the up and down arrows to highlight Brightness, press **menu/select**, use the arrows to adjust the brightness, then press **menu/select** to accept your changes.

Contrast
The contrast controls the degree of difference between the lightest and darkest parts of the picture. Adjusting the contrast changes the amount of black and white in the image.

- Use the up and down arrows to highlight Contrast, press **menu/select**, use the arrows to adjust the contrast, then press **menu/select** to accept your changes.

Tint
The tint adjusts the red-green color balance in the projected image.

- Use the up and down arrows to highlight Tint, press **menu/select**, use the arrows to adjust the tint, then press **menu/select** to accept your changes.

Color
The color setting adjusts a video image from black and white to fully saturated color.

- Use the up and down arrows to highlight Color, press **menu/select**, use the arrows to adjust the color, then press **menu/select** to accept your changes.

Sharpness
This setting adjusts sharpness of a video image.

- Use the up and down arrows to highlight Sharpness, press **menu/select**, use the arrows to cycle through the options soft, med-soft, medium, med-hard, and hard, then press **menu/select** to accept your selection.

Blank screen
Blank Screen determines what color is displayed when there is no active source and when the projector is in standby.

- Use the up and down arrows to highlight Blank screen, press **menu/select**, use the arrows to cycle through the options blue, black, and white, then press **menu/select** to accept your selection.

NOTE: *The color setting applies to video sources only. The tint setting applies to NTSC video sources only.*

Audio Menu

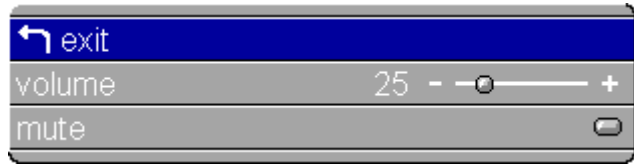


FIGURE 21

Display menu

Volume

You can also adjust the volume directly from the projector's keypad.

- Use the up and down arrows to highlight Volume, press **menu/select**, use the arrows to adjust the volume, then press **menu/select** to accept your changes.

Mute

This mutes the sound.

- Use the up and down arrows to highlight Mute, press **menu/select**, use the left or right arrow to turn mute on and off (a green dot indicates a feature is on), then press **menu/select** to accept your changes.

Image Menu

To access the Image menu settings, press the **menu/select** button to display the Main menu, press the down arrow to highlight Image, then press **menu/select** again to access the Image menu.

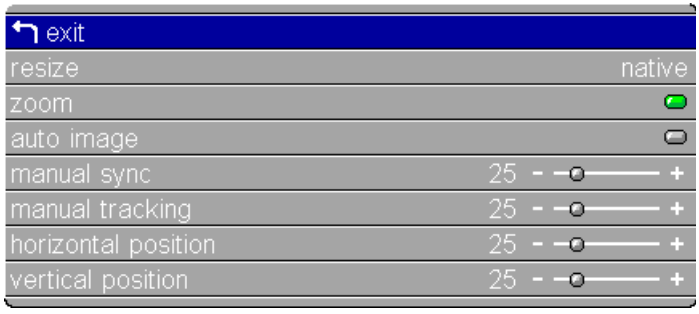


FIGURE 22

Image menu for computer sources

Resize

Resize allows you to select from among four different re-sizing options. The default is **Standard**, which resizes the image from its original version to fit a standard 4x3 aspect ratio screen. **Widescreen Letterbox** preserves the 16x9 aspect ratio of the original theater version, but the image is placed in a 4x3 space, so black bars appear at the top and bottom of the image. **Enhanced Widescreen** also preserves the aspect ratio of the original theater version and is designed to be used with content that is Enhanced for Widescreen TVs. This option yields more detail than Widescreen Letterbox. **Native** displays the image with no resizing.
Highlight **Resize**, press **menu/select**, use the left or right arrow buttons to cycle through the options, then press **menu/select** to select.

Zoom

This allows you to enter zoom mode without using the remote. Highlight **Zoom**, press **menu/select**, use the left or right arrow buttons to turn zoom mode on, then press **menu/select**. Exit the menus to use the zoom feature. The zoom icon appears in the lower right corner. Use the right mouse button to zoom in and use the left mouse button to zoom out. Use the keypad navigation buttons on the keypad to pan the zoomed image. To exit zoom mode, either turn the feature off in the Image menu or press the **zoom mode** button on the remote.

Auto Image

The projector automatically adjusts tracking, signal synchronization and vertical and horizontal position for most computers. If you want to adjust these features manually, you must turn off **Auto image** first.

Highlight **Auto image**, press **menu/select**, then press the left or right arrow buttons to turn this feature off and on.

NOTE: *The **Manual Sync**, **Manual Tracking**, **Horizontal Position** and **Vertical Position** options are available only for analog computer sources. The projector sets these options automatically for digital computer and video sources, with no manual override.*

Manual Sync

The projector adjusts signal synchronization automatically for most computers. But if the projected computer image looks fuzzy or streaked, try turning **Auto image** off then back on again. If the image still looks bad, try adjusting the signal synchronization manually:

1. Turn Auto Image off.
2. Highlight Manual sync, press **menu/select,** use the arrow buttons to adjust Manual sync until the image is sharp and free of streaks, then press **menu/select**.

Manual Tracking

The projector adjusts tracking automatically to match the video signal from your computer. However, if the display shows evenly spaced, fuzzy, vertical lines or if the projected image is too wide or too narrow for the screen, try turning **Auto Image** off then back on again. If the image is still bad, try adjusting the tracking manually:

1. Turn Auto image off.
2. Highlight Manual tracking, press **menu/select,** use the arrow buttons to adjust Manual tracking until the fuzzy vertical bars are gone, then press **menu/select**.

Horizontal Position

Follow these steps to manually adjust the horizontal position:

1. Turn Auto image off.
2. Highlight Horizontal position, press **menu/select,** use the arrow buttons to adjust the Horizontal position, then press **menu/select**.

Positioning adjustments are saved when you turn off the projector.

Vertical Position

Follow these steps to manually adjust the vertical position.

1. Turn Auto image off.
2. Highlight Vertical position, press **menu/select,** use the arrow buttons to adjust the Vertical position, then press **menu/select**.

Positioning adjustments are saved when you turn off the projector.

Overscan (video sources only)

This option crops all the edges of the image to remove noise generated on the edges by your source. This option is available for video sources only.

Video Standard (video sources only)

When Video is set to Auto, the projector attempts to pick the video standard (NTSC, NTSC 4.43, PAL, PAL-M, PAL-N, PAL 60 or SECAM) automatically based on the input signal it receives. (The video standard options may vary depending on your region of the world.) If the projector is unable to detect the correct standard, the colors might not look right or the image might appear "torn." If this happens, manually select a video standard. Highlight **Video standard**, press **menu/select**, use the left or right arrows to cycle through the options, then press **menu/select** to select.

Color Management Menu

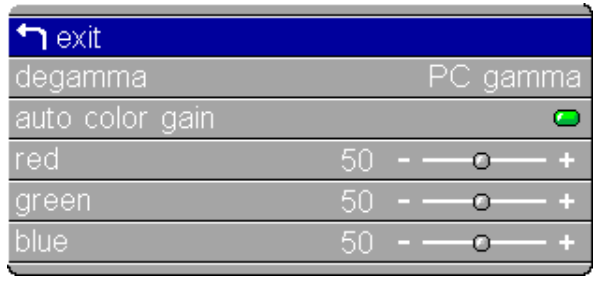


FIGURE 23

Color Management menu

Degamma

This allows you to select a gamma table that has been specifically tuned for either computer, video, or film input.
Highlight **Degamma**, press **menu/select**, use the left or right arrows to cycle through the options, then press **menu/select** to select.

Auto Color Gain

When this feature is On, the projector automatically sets the red, green, and blue color gains for each source. When it is off, you can manually adjust the color gains.

Red, Green, Blue

To manually adjust the color gains:

1. Turn Auto Color Gain off.
2. Highlight Red, Green, or Blue, press **menu/select,** use the arrow buttons to adjust the gain, then press **menu/select**.

The settings are saved for each source.

Control Menu

To access the Control menu settings, press the **menu/select** button to display the Main menu, press the down arrow to highlight Control, then press **menu/select** again to access the Control menu.

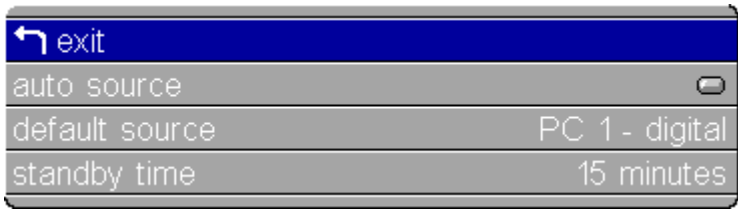


FIGURE 24

Control menu

Auto Source

When this feature is On, the projector automatically finds the active source, checking the default source first. When this feature is Off, the projector defaults to the source selected in Default Source. To display another source, you must manually select one by pressing the **source** button on the keypad or the **data** or **video** button on the remote.

Highlight **Auto source**, press **menu/select**, then press the left or right arrow buttons to turn this feature off and on.

Default Source

This determines which source the projector checks first for active video during power-up. Select among PC 1-Analog, PC 1-Digital, Video1 S-Video, and Video 2-Composite (also PC 2-VESA and Video 3-Component when using the optional connectivity module).

Highlight **Default source**, press **menu/select**, use the left or right arrows to cycle through the options, then press **menu/select** to select.

Standby Time

This option lets you select how long the lamp stays on and the blank screen is displayed when the projector enters standby mode before the projector turns off. Select among 1, 5, 10, 15 and 30 minutes and 1 and 2 hours by clicking the left or right arrow buttons and cycling through the options.

Advanced Menu

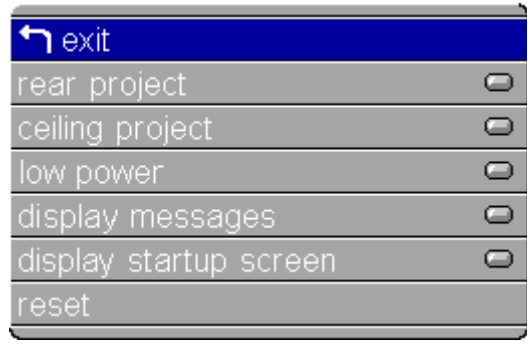


FIGURE 25

Advanced menu

Rear Project

When you turn **Rear Project** on, the projector reverses the image so you can project from behind a translucent screen. Highlight **Rear Project**, press **menu/select**, then press the left or right arrow buttons to turn this feature off and on.

Ceiling Project

When you turn **Ceiling Project** on, the projector turns the image upside down for ceiling-mounted projection. Highlight Ceiling Project, press **menu/select**, then press the left or right arrow buttons to turn this feature off and on.

Low Power

This setting toggles between on and off. Turn it on to lower the light output of the lamp, thus extending its life. This also lowers the fan speed, making the projector quieter.

Display Messages

This setting toggles between On and Off. When this feature is On, status messages such as “No signal detected” or “Standby Active” appear in the lower-right corner of the screen.

Display Startup Screen
This setting toggles between On and Off. When this feature is On, the startup screen appears when the projector starts up and remains until an active source is detected. When it is off, a plain black or blue screen is displayed instead of the startup screen.

Reset
Highlight Reset then press **menu/select** to reset the options in the menus (except Language, Video Standard, Ceiling and Rear Project, and Standby Time) to their original settings.

Language Menu

FIGURE 26

Language menu

You can display the on-screen menus in English, French, German, Spanish, Portuguese, Chinese, Japanese, or Korean.

1. Press the **menu/select** button to display the Main menu, press the arrow buttons to highlight Language, then press **menu/select** again to access the Language menu.
2. Press the arrow buttons to highlight the desired language, then press **menu/select**. Press **menu/select** to exit this menu and return to the Main menu.

Status Menu

This is a read-only menu for informational purposes. To display the Status menu, highlight Status from the Main menu, then press **menu/select**.

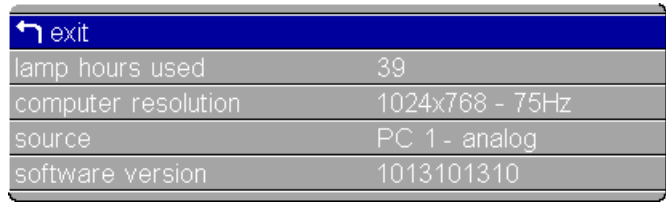


FIGURE 27

Status menu

Lamp Hours Used

Indicates how many hours the current lamp has been in use. The counter starts at zero hours and counts each hour the lamp is in use. Replace the bulb when the brightness is no longer acceptable. See "Replacing the Projection Lamp" on page 35 for details.

Computer Resolution (computer sources only)

Shows your computer's resolution setting. To change this, go to your computer's Control Panel and adjust the resolution in the Display tab. See your computer's user's guide for details.

Video Format (video sources only)

Shows the video format being displayed.

Source

Indicates the active source, PC 1-Analog, PC 1-Digital, Video1 S-Video, and Video 2-Composite (also PC 2-VESA and Video 3-Component when using the optional connectivity module).

Software Version

Indicates the projector's software version. This information is useful when contacting Technical Support.

MAINTENANCE & TROUBLESHOOTING

This section describes how to:

- clean the lens
- replace the projection lamp
- clean the projection lamp filter screens
- replace the batteries in the remote
- use the security lock feature
- troubleshoot the projector

Cleaning the Lens

Follow these steps to clean the projection lens:

1. Apply a non-abrasive camera lens cleaner to a soft, dry cloth.
   - Avoid using an excessive amount of cleaner, and don't apply the cleaner directly to the lens.
   - Abrasive cleaners, solvents or other harsh chemicals might scratch the lens.
2. Lightly wipe the cleaning cloth over the lens in a circular motion.
3. If you don't intend to use the projector immediately, replace the lens cap.

Replacing the Projection Lamp

The lamp hour counter in the Status menu counts the number of hours the lamp has been in use. After 1,980 hours of use, the message "Change Lamp" temporarily appears on the screen when the projector is turned on. Change the lamp within the next 20 hours. After 2,000 hours, the lamp will not light. You can order new lamp modules from your Toshiba dealer.

Follow these steps to replace the projection lamp:

1. Turn off the projector and unplug the power cord.
2. Wait 30 minutes to allow the projector to cool thoroughly.

WARNING: *To avoid burns, allow the projector to cool for at least 30 minutes before you open the lamp module door. Never extract the lamp module while the projector is operating.*

3 Invert the projector on a soft flat surface, then push the ridge on the lamp door toward the back (Figure 28). The arrow on the lamp door should point to the unlock icon on the bottom of the projector. Lift the door up.

WARNING: *Be extremely careful when removing the lamp module. In the unlikely event that the bulb ruptures, small glass fragments may be generated. The lamp module is designed to contain these fragments, but use caution when removing the lamp module.*

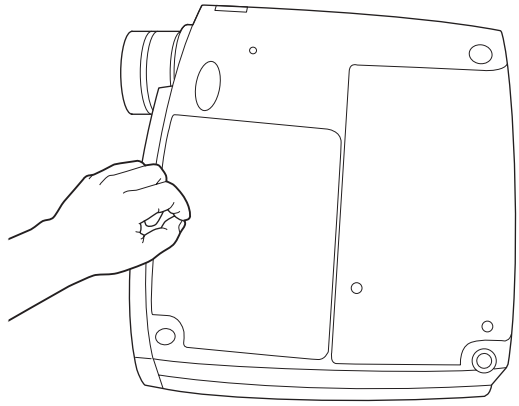


FIGURE 28

Removing the lamp door

CAUTION: *Never operate the projector with the lamp door open or removed. This disrupts the air flow and causes the projector to overheat.*

4 Loosen the two non-removable screws on the outside of the module (Figure 29).

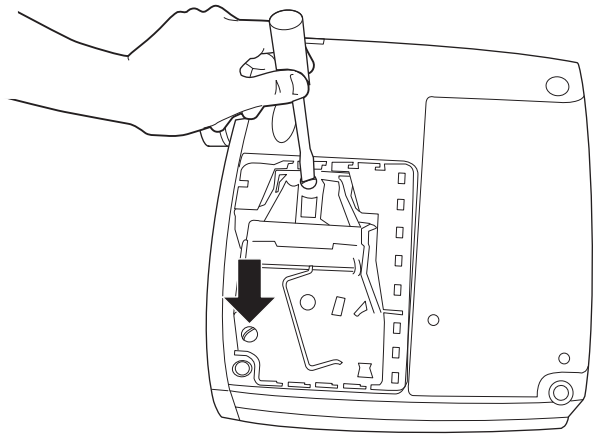


FIGURE 29

Loosening the screws on the lamp module

5 Lift and grasp the metal bail wire and lift the module out (Figure 30). Dispose of the lamp module in an environmentally proper manner.

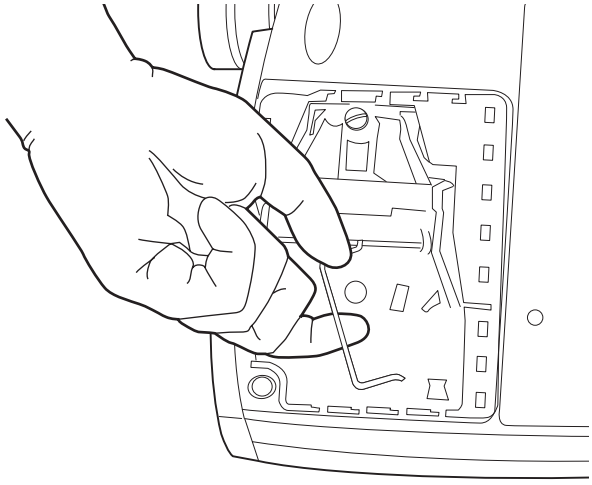


FIGURE 30

Removing the lamp module

6 Install the new lamp module, being sure to align the connectors properly.

7 Push the module in until it is flush with the bottom case of the projector.

8 Tighten the screws on the outside of the module.

9 Replace the lamp door by inserting the hooks on the lamp door into the slots on the projector and pressing the lamp door into place. The arrow on the lamp door should point to the lock icon on the bottom of the projector. If the lamp door does not fit properly or bulges out, remove the door and re-seat the lamp module.

10 Plug in the power cord and press the green **power** button to turn the projector back on.

11 To reset the lamp hour counter in the Status window, press and hold the **volume -** button, then press the **source** button (while still holding down the **volume -** button) for 5 seconds. Verify that the counter was reset by viewing the counter in the Status window.

WARNING: *Do not drop the lamp module or touch the glass bulb! The glass may shatter and cause injury.*

Cleaning the Projection Lamp Filter Screens

In dirty or dusty environments, the dust filter screens on the lamp module can become clogged, causing high temperatures inside the lamp module. These high temperatures can cause premature lamp failure. Routine maintenance to remove dust and dirt from the screens lowers the lamp operating temperature and prolongs lamp life. To maximize lamp life you may want to clean the screen every 250 hours.

1. Remove the lamp module. Refer to "Replacing the Projection Lamp" on page 35 for instructions.
2. Examine the dust filter screens on each side of the lamp module. If necessary, use compressed or canned air to clean the screens. Then use a cotton swab dipped in isopropyl alcohol to lightly wipe each screen. After you've wiped each screen, use the compressed or canned air to blow away remaining contaminants.

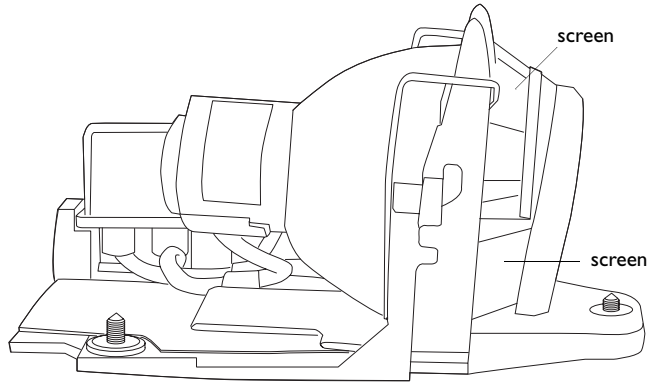


FIGURE 31

Lamp module screens

3. Before you replace the lamp, use the compressed or canned air to clean the lamp housing in the projector.
4. Replace the lamp and lamp door.

Replacing the Batteries in the Remote Control

The life of the batteries depends on how often and how long you use the remote. Symptoms of low battery charge include erratic responses when using the remote and a reduced range of operation.

Follow these steps to replace the batteries:

1. Turn the remote face down in your hand.
2. Push the tab on the battery door toward the top of the remote and lift the door off.
3. Remove the old batteries and dispose of them in an environmentally proper manner.
4. Install two new AAA alkaline batteries. Make sure you install each in the correct direction.
5. Insert the hooks on the battery door into the remote and press the tab to re-install the door.

Using the Security Lock

The projector has a security connector for use with a PC Guardian Cable Lock System (Figure 32). See "Optional Accessories" on page 46 for ordering information. Refer to the information that came with the lock for instructions on how to use it to secure the projector.

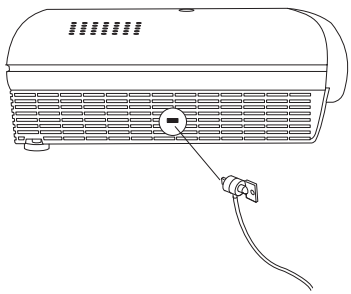


FIGURE 32

Installing the security lock

Troubleshooting

Problem: The projector is not running

- Make sure that the power cord is properly connected to a fully functional AC electrical outlet. Make sure that the power cord is also properly connected to the projector.
- If the projector is plugged into a power strip, make sure the power strip is turned on.
- Make sure the projector is turned on.

Problem: Projector is running, but nothing appears on projection screen

- Make sure you have removed the lens cap on the projection lens at the front of the projector.
- Check the projector's lamp to ensure that it is securely connected in the lamp module. Make sure the lamp door is installed. Make sure the lamp has not been in use for over 2,000 hours. The lamp automatically shuts off at 2,000 hours. See "Replacing the Projection Lamp" on page 35.

Problem: Only the start-up screen displays

- Verify that the cables are connected correctly. See page 7 through page 8 for connection procedures.
- Make sure that the cables do not have any bent pins.
- Verify that the proper input source is connected. See "Source (keypad only) or Data and Video (remote only)" on page 20.
- You might need to turn everything off and power up the equipment again in the proper order. Refer to your computer's documentation to determine the correct order.
- Make sure your laptop's external video port is turned on. See the "Portable and Laptop Activation Chart" on page 47 or your computer's manual for details.
- Make sure your computer's video board is installed and configured correctly.
- Make sure your computer has a compatible video board. The projector isn't CGA or EGA compatible.

If you're using Windows 98:

1. Open "My Computer" icon, the Control Panel folder and then the Display icon.
2. Click the Settings tab.
3. Verify that the Desktop area is set to 1280x1024 or less.

Problem: Color or text not being projected

- You might need to adjust the brightness up or down until the text is visible. Refer to "Brightness" on page 24 for more information.

Problem: The screen resolution is not right

- Make sure the computer's video card is set for a resolution of no greater than 1280x1024.

Problem: Image isn't centered on the screen

- Move the projector to reposition the image.
- Reposition the image using the menu. Refer to "Horizontal Position" on page 29 and "Vertical Position" on page 29.
- Be sure the projector is at a 90 degree angle to the screen.

Problem: Image is too wide or narrow for screen

- Adjust the zoom or projector placement.
- Adjust the resolution of your video card if it's greater than 1280x1024.

Problem: Image is out of focus

- Turn the projection lens to focus the image.
- Make sure the projection screen is at least 5 feet (1.5 m) from the projector.
- Check the projection lens to see if it needs cleaning.

Problem: Image and menus are reversed left to right

- Rear projection mode is probably turned on. Turn Rear Projection off in the Controls menu. The image should immediately return to forward projection. See "Rear Project" on page 32.

Problem: the projector displays vertical lines, "bleeding" or spots

- Adjust the brightness. See "Brightness" on page 24.
- Check the projection lens to see if it needs cleaning.

Problem: no sound

- Adjust volume.
- Turn off "mute" in the menu. See page 26.
- Verify audio/input connections.
- Adjust audio source.

Problem: Image is "noisy" or streaked

Try these steps in this order.

1. Deactivate the screen saver on your computer.
2. Turn **Auto Image** off and then back on again. See "Auto Image" on page 28.
3. Turn **Auto Image** off and adjust the synchronization and tracking manually to find an optimal setting. See "Manual Sync" on page 28 and "Manual Tracking" on page 28.

- The problem could be with your computer's video card. If possible, connect a different computer.

Problem: Projected colors don't match the computer or video player's colors

- Just as there are differences in the displays of different monitors, there are often differences between the computer image and the projected image. Adjust the brightness, tint and/or contrast from the Display menu. See "Brightness" on page 24, "Tint" on page 25 and "Contrast" on page 25.

Problem: Lamp seems to be getting dimmer

- The lamp begins to lose brightness when it has been in use for a long time. Replace the lamp as described in "Replacing the Projection Lamp" on page 35.

Problem: Lamp shuts off

- A minor power surge may cause the lamp to shut off. Unplug the projector, wait at least a minute, then plug it back in.
- Make sure the vents are not blocked.
- Make sure the lamp has not been in use for over 2000 hours. The lamp automatically shuts off after 2000 hours.

Before calling your Toshiba dealer for assistance, please have the following information available:

- the projector's serial number (located on the bottom label)
- the resolution of your computer.

APPENDIX

Specifications

The projector must be operated and stored within the temperature and humidity ranges specified.

Temperature	
Operating	50 to 104° F (10 to 40° C) at sea level 50 to 95° F (10 to 35° C) at 10,000 feet
Non-operating	-4 to 158° F (-20 to 70° C)

Altitude	
Operating	0 to 10,000 feet (3,048 meters)
Non-operating	0 to 20,000 feet (6,096 meters)

Humidity	
Operating and non-oper.	10% to 95% relative humidity, non-condensing

Dimensions
10.25 x 3.34 x 11 inches (26 x 8.5 x 28 cm) with module 10.25 x 3.34 x 12 inches (26 x 8.5 x 30.5 cm)

Weight
5.7 lbs. (2.6 kg) unpacked with module 6.5 lbs. (2.9 kg)

Optics	
Focus Range	5 - 16 feet (1.5-5 m)

Lamp	
Type	270-watt SHP lamp

Input Power Requirements
100-120VAC 5A;50/60Hz 200-240VAC 3A; 50Hz

Accessories

Standard Accessories (ship with the projector)
Quick Start card
User's Guide
Soft Case
Shipping Box
Analog Computer Cable 6 ft (1.8 m)
Composite Video Cable 6 ft (1.8 m)
Computer Audio Cable 6 ft (1.8 m)
Audio Adapter (RCA to 3.5mm)
Remote
Projection Lamp Module (included in projector)
Lens Cap
Macintosh Adapter

NOTE: *Use only Toshiba-approved accessories. Other products have not been tested with the projector.*

Power Cords (one ships with projector, type depends on country)
North American Power Cord
Australian Power Cord
UK Power Cord
European Power Cord
Danish Power Cord
Swiss Power Cord

Optional Accessories
Enhanced Connectivity Module
ATA Case
Deluxe Carry Case
Deluxe Travel Case
Digital Computer Cable with USB
Ceiling Mount
PC Guardian Projector Cable Lock

Portable and Laptop Activation Chart

Many laptop computers do not automatically turn on their external video port when a projector is connected. Activation commands for some laptop computers are listed in the following table. (If your computer is not listed or the given command does not work, refer to the computer's documentation for the appropriate command.) On many laptops, the activation function key is labeled with an icon, for example or the text CRT/LCD.

Computer	Key command to activate port	Key command to de-activate port
Toshiba* **	Ctrl-Alt-End	Ctrl-Alt-Home
	FN-End	FN-Home
	FN-F5	FN-F5
	setup screen option	setup screen option
Acer	Ctrl-Alt-Esc (for setup)	Ctrl-Alt-Esc (for setup)
AST* **	FN-D or Ctrl-D	FN-D or Ctrl-D
	Ctrl-FN-D	Ctrl-FN-D
	FN-F5	FN-F5
	type from A:/IVGA/CRT	type from A:/IVGA/CRT
	FN-F12	FN-F12
AMS	FN-F2	FN-F2
AMT	setup screen	setup screen
AT&T	FN-F3 FN-F6	FN-F3 FN-F6
Advanced Logic Research	Ctrl-Alt-V	Ctrl-Alt-V
Altima	Shift-Ctrl-Alt-C	Shift-Ctrl-Alt-L
	setup VGA/ Conf.Simulscan	setup VGA/ Conf.Simulscan
Ambra**	FN-F12	FN-F12
	FN-F5	FN-F5
	F2/Choose Option/F5	F2/Choose Option/F5
Amrel* **	setup menu	setup menu
	Shift-Ctrl-D	Shift-Ctrl-D
Apple	see Mac Portable and Mac PowerBook	
Aspen	automatic	automatic

NOTE: *Usually, pressing the key commands once activates the external video port, pressing it again activates both the external and internal ports, and pressing it a third time activates the internal port. Refer to your computer's documentation for details on your specific model.*

Computer	Key command to activate port	Key command to de-activate port
Award	FN-F6	FN-F6
BCC*	automatic	reboot computer
Bondwell	LCD or CRT options after bootup	reboot for LCD or CRT options to appear
Chaplet**	setup screen	setup screen
	FN-F6	FN-F6
	FN-F4	FN-F4
Chembook	FN-F6	FN-F6
Commax	Ctrl-Alt-#6	Ctrl-Alt-#5
Compaq* **	Ctrl-Alt-<	Ctrl-Alt->
	FN-F4	FN-F4
	automatic	automatic
	mode/? (for setup option)	mode/? (for setup option)
Compuadd* **	automatic	automatic
	Alt-F for screen setup option	Alt-F for screen setup option
Data General	Ctrl-Alt-Command	Ctrl-Alt-Command
Data General Walkabout	2 CRT/X at DOS prompt	reboot
Datavue	Ctrl-Shift-M	Ctrl-Shift-M
DEC**	FN-F5	FN-F5
	FN-F4	FN-F4
Dell**	Ctrl-Alt-<	Ctrl-Alt->
	Ctrl-Alt-F10	Ctrl-Alt-F10
	FN-F8 (CRT/LCD)	FN-F8
	FN-D	FN-D
	FN-F12	FN-F12
Digital*	automatic	reboot
	FN-F2	FN-F2
Dolch	dip switch to CRT	dip switch to LCD
Epson	dip switch to CRT	dip switch to LCD
Everex*	setup screen option	setup screen option
For-A	Ctrl-Alt-Shift-C	Ctrl-Shift-Alt-L
Fujitsu	FN-F10	

Computer	Key command to activate port	Key command to de-activate port
Gateway	FN-F3 FN-F1/FN-F1 again simultaneous	FN-F3 FN-F1
Grid* **	FN-F2, choose auto or simultaneous	FN-F2
	Ctrl-Alt-Tab	Ctrl-Alt-Tab
Hitachi	FN-F7	FN-F7
Honeywell	FN-F10	FN-F10
Hyundai	setup screen option	setup screen option
IBM 970*	automatic	warm reboot
IBM ThinkPad**	reboot, enter setup menu	FN-F2
	FN-F7, select choice from setup menu	
	FN-F1, select choice	
	FN-F5, select choice	
	PS/2 SC select choice (CRT, LCD, etc.)	
Infotel	FN-F12	FN-F12
Kaypro	boot up, monitor plugged in	unplug monitor
Kris Tech	FN-F8	FN-F8
Leading Edge	FN-T	FN-T
Mac Portable 100	no video port: not compatible	
Mac PowerBook		
140, 145, 150, 170	no video port: requires a 3rd-party interface	
160, 165, 180, 520, 540, 5300	Control Panel folder, PowerBook Display folder; Activate Video Mirroring	warm reboot
210, 230, 250, 270, 280, 2300	requires Apple Docking Station or Mini Dock	
Magitronic	FN-F4	FN-F4
Mastersport	FN-F2	FN-F1
Micro Express*	automatic	warm reboot

Computer	Key command to activate port	Key command to de-activate port
Micron	FN-F2	FN-F2
Microslate*	automatic	warm reboot
Mitsubishi	SW2 On-Off-Off-Off	SW2 Off-On-On-On
NCR	setup screen option	setup screen option
NEC* **	setup screen option	setup screen option
	CRT at the DOS prompt	LCD at the DOS prompt
	FN-F3	FN-F3
Olivetti*	automatic	automatic
	FN-O/*	FN-O/*
Packard Bell* **	FN-F0	FN-F0
	Ctrl-Alt-<	Ctrl-Alt->
Panasonic	FN-F2	FN-F2
Prostar	Ctrl-Alt-S at bootup	Ctrl-Alt-S at bootup
Samsung*	setup screen option	setup screen option
Sanyo	setup screen option	setup screen option
Sharp	dip switch to CRT	dip switch to LCD
Sun SPARC-Dataview	Ctrl-Shift-M	Ctrl-Shift-M
Tandy**	Ctrl-Alt-Insert	Ctrl-Alt-Insert
	setup screen option	setup screen option
Tangent	FN-F5	FN-F5
Texas Instruments*	setup screen option	setup screen option
Top-Link* **	setup screen option	setup screen option
	FN-F6	FN-F6
Toshiba* **	Ctrl-Alt-End	Ctrl-Alt-Home
	FN-End	FN-Home
	FN-F5	FN-F5
	setup screen option	setup screen option
Twinhead*	FN-F7	FN-F7
	FN-F5	FN-F5
	Automatic	Automatic

Computer	Key command to activate port	Key command to de-activate port
WinBook	Ctrl-Alt-F10	Ctrl-Alt-F10
Wyse	software driven	software driven
Zenith**	FN-F10	FN-F10
	FN-F2	FN-F2
	FN-F1	FN-F1
Zeos**	Ctrl-Shift-D FN-F1	Ctrl-Shift-D FN-F1

* These manufacturers have models that automatically send video to the external CRT port when some type of display device is attached.

** These manufacturers offer more than one key command depending on the computer model.

Using Video Mirroring with a PowerBook Computer

When you turn video mirroring (called SimulScan in newer PowerBooks—see below) on, the projector displays the same information that appears on your PowerBook's built-in screen. When video mirroring is off, the projector acts like a separate display.

To turn on video mirroring for the first time:

1. Open the Monitors control panel; click on Monitor 2.
2. Set the number of colors you want.
3. Open the Control Strip, then click on the monitor icon.
4. Select "Turn Video Mirroring On."

Now you can turn video mirroring on and off from the Control Strip without having to open the Monitors control panel again.

When using video mirroring and high color graphics such as slide shows, the projected image occasionally might turn black and white. If this happens, perform the following steps:

1. Turn off video mirroring.
2. Open the Monitors control panel.
3. Move the white menu bar to Monitor 2 to set the projector as the primary monitor.
4. Restart the PowerBook.

Using SimulScan

Some newer PowerBooks display images on an external monitor or projector differently than previous ones. When using SimulScan, the projector displays the same information that appears on your PowerBook

To select SimulScan:

1. Open the Control Panel, then double-click Monitors and Sound.
2. In the Resolution list, choose the SimulScan mode, then click OK.
3. If this changes your display settings, a dialog box appears. Click OK to confirm the change.

Projected Image Size

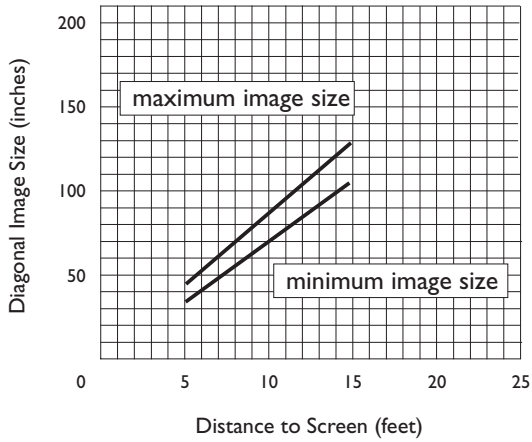


FIGURE 33

Projected image size

NOTE: *Use the graph and table to help you determine projected image sizes.*

Table 1:
Range of distance to the screen for a given screen size

		Distance to screen	
Diagonal Screen Size (inches)	**Image Width (inches)**	**Maximum distance (feet)**	**Minimum Distance (feet)**
60	48	8.5	6.9
72	58	10.2	8.3
84	67	11.9	9.7
90	72	12.7	10.4
100	80	14.1	11.6

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