myprojectorlamps.com

The most trusted, dependable name in projector lamp sales.

http://www.myprojectorlamps.com

http://www.myprojectorlamps.ca

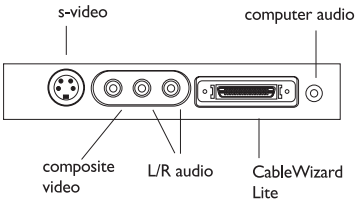
http://www.myprojectorlamps.eu

The following projector manual has not been modified or altered in any way.

QUICK START

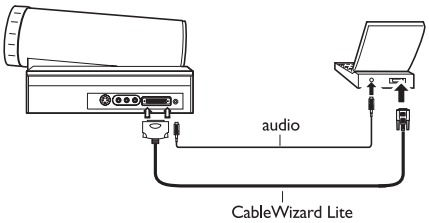
LP™225

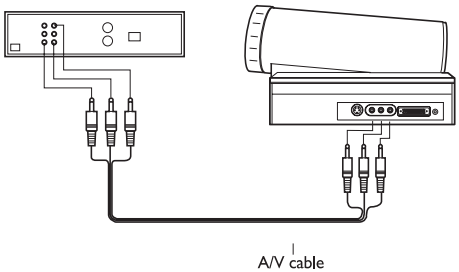
It's easy to connect your computer or video player to the LP 225 and start presenting.



1. Plug the CableWizard Lite cable into the video connector on your computer and into the projector.
If you want sound with your presentation, connect the audio cable.

NOTE: To connect a Macintosh, you must also connect the Mac adaptor between the CableWizard Lite and the Mac. See the user's guide for details.



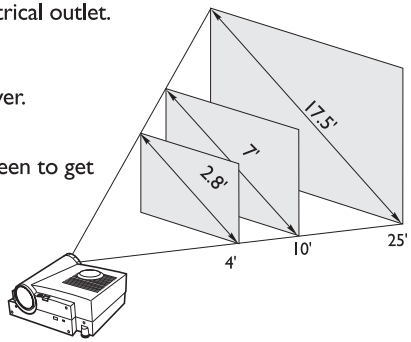


To connect a video player, use the supplied A/V cable as shown or your own S-video cable.

2. Plug the power cord into the projector and into an electrical outlet.

3. Turn on the projector, then your computer or video player.

4. Position the projector the desired distance from the screen to get the desired image size.



5. Adjust the height or focus of the image. Refer to the *LP 225 User's Guide* for more information.

6. If necessary, access the menus by pressing the menu button on the keypad and using the Display or Image menus to further adjust the image.

InFocus®

009-0344-00 (English)

QUICK START

LP™225

SAFETY SUMMARY: Please read these instructions before using your projector. Failure to comply could result in fire, electrical shock, personal injury or equipment damage.

Definition of Safety Icons on Product Labels

Refer to the User's Guide for more information.

Avoid hot surfaces.

Don't Look Into The Lens!

Be extremely careful not to look directly into the lens when the projector is on. The bright light can harm your eyes. Be especially careful to keep children from looking into the lens.

Don't Disassemble

Do not open the projector's case! Doing so exposes you to an electric shock hazard. Except for the projection lamp, there are no user-serviceable parts. All service must be performed by an In Focus Authorized Service Provider.

Avoid Hot Surfaces

The inside of the projector lamp housing can be very hot. Allow the projector to cool for at least 45 minutes before opening the lamp door to replace the lamp. Use extreme care. Avoid touching the hot surfaces inside.

Use Only The 225 Power Cord

Always use the power cord that came with the projector. Although other cords might look the same, they have not been safety-tested with the 225. Never use the power cord if it's damaged or frayed. When you disconnect the projector, always remove the power cord from the electrical outlet first, then from the projector.

Don't Defeat The Purpose Of The Grounding Plug

The projector is grounded through the grounding conductor on the power cord. To avoid electric shock, plug the power cord into a properly wired receptacle.

Use The Correct Fuse

To avoid the risk of fire, use only a T6.3AH 250V 5x20mm fuse.

Avoid Liquid Spills

Don't set drinks on top of the projector. Spilled liquids can flow inside causing damage.

Don't Block Ventilation

Openings in the case provide ventilation to protect the projector from overheating. Keep loose papers and other objects away from the grills. Don't place the projector on top of or close to a computer or other heat-producing equipment.

Customer Service

If you need assistance, call In Focus Customer Service directly at **1-800-799-9911**. Call between 5 a.m. and 5 p.m. PST, Monday through Friday. Or, send us an e-mail at techsupport@infocus.com

In Europe, call In Focus in The Netherlands at **(31) 23-5540310**.

In Singapore, call **(65) 740-6435**.

InFocus®

TABLE OF CONTENTS

Safety Summary **iii**

Introduction **1**
Image Resolution 1
Compatibility 1
Unpacking the Projector 2
Usage Guidelines 3
If You Need Assistance 3
Warranty 3

Setting up the Projector **5**
Connecting an IBM-Compatible Computer 7
Connecting a Macintosh Computer 8
Connecting a Video Player 9
Powering up the Projector and Adjusting the Image 11
Turning Off the Projector 12

Using the Projector **13**
Basic Image Adjustment 13
Adjusting the Projector 13
Using the Keypad Buttons 16
Using the Disk Mouse 19
Using the On-Screen Menus 19
Display Menu Functions 21
Audio Menu Functions 23
Image Menu Functions 24
Controls Menu Functions 26

Maintenance & Troubleshooting **29**
Cleaning the Lens 29
Removing and Replacing a Lens 29
Using the Optional Zoom Lens 30
Replacing the Projection Lamp 31
Replacing the Fuse 33
Using the Kensington Lock 35
Troubleshooting 36
Solutions to Common Problems 37

Appendix **41**
Specifications 41
Accessories 43
Portable and Laptop Activation Chart 45
Using Video Mirroring with a PowerBook Computer 49
Projected Image Size 50

Index **53**

SAFETY SUMMARY

Please read these instructions carefully before using your projector. Failure to comply with them could result in fire, electrical shock, personal injury or damage to equipment.

These graphics are used throughout this manual to draw your attention to important information about the projectors.

NOTE: *Additional useful details or tips.*

CAUTION: *Steps to take to avoid damage to your equipment.*

WARNING: *Steps to take to avoid personal injury.*

These graphics are used on the projector's labels.

Attention - Refer to this User's Guide for important safety information.

Hot Surfaces - Avoid touching hot surfaces. Do not touch until the projector has cooled.

Do Not Look Into The Lens!

Be extremely careful not to look into the projection lens when the projector is turned on. The bright light may harm your eyes. Be especially careful to keep children from looking into the lens.

Power Source

Use only a three-wire grounding type power source. The power source should not exceed 250 volts rms between the supply conductors or between either conductor and the ground.

Power Cord

Use only the power cord that was shipped with the projector. Although other power cords might be similar in appearance, they have not been safety-tested with the projector. Do not use a power cord if it has become damaged or frayed. Contact your In Focus dealer or call In Focus if you need to replace your power cord.

Grounding

The projector is grounded through the grounding conductor on the power cord. To avoid electric shock, plug the power cord into a properly wired receptacle. Do not defeat the purpose of the grounding-type plug.

Fuse

For continued protection against the risk of fire, use only the specified fuse. It must be a time delay, high breaking capacity 5x20mm fuse with the following amperages: for 6.3amp use T6.3AH, for 8amp use T8AH. Refer to page 42 for more information about fuse specifications and to page 33 for instructions on replacing the fuse.

Lamp

To avoid overheating and unacceptable image quality, replace the projection lamp with a lamp of the specified type. Refer to page 41 for lamp specifications and to page 31 for instructions on replacing the lamp.

Lamp Compartment

To avoid burns, do not open the lamp module door until the projector is turned off and the lamp has cooled. Follow the instructions in this manual for lamp replacement carefully.

Hot Surfaces

Allow the projector to cool at least 45 minutes before replacing a lamp. When you open the lamp housing, be very careful not to touch the hot surfaces inside.

Ventilation and Overheating

Openings in the projector case provide ventilation to protect it from overheating. Keep loose papers and other objects well away from the bottom, top and side grills. Do not place the projector on top of or close to a computer or other heat-producing equipment.

Liquid Spills

Do not set drinks on top of the projector. Spilled liquids can flow inside and cause damage.

Do Not Disassemble

All service must be performed by an authorized In Focus service center. The only user-serviceable parts in the projector are the projection lamp, which you can replace by opening the lamp cover on the bottom of the projector (see page 31) and the fuse. Do not open any other part of the projector. If your projector needs repair, call In Focus Technical Support as described on page 3. Before you call Technical Support, you may want to refer to “Troubleshooting” on page 36 to see if you can resolve the problem yourself.

***NOTE**: If you open the projector case, you will void the warranty.*

Don’t Set the Projector on its Lens

To protect the lens when you are transporting the projector, adjust the lens so it is fully retracted (turn it clockwise) before you pack it.

Place the projector in its carrying case with the lens facing upwards. You may damage the projector if you set it on its lens.

INTRODUCTION

The In Focus® LP 225™ multimedia projector combines powerful and sophisticated features with easy-to-use, intuitive controls. Built-in multimedia features include a palette of 16.7 million colors and active matrix liquid crystal display (LCD) technology. The 225 is ideal for high-performance business, training and imaging applications that demand exceptional color quality.

Image Resolution

The SVGA resolution of the 225's projected image is 800x600. It displays computer images just as they appear on your computer's monitor. Screen resolutions between 800x600 and 1024x768 are compressed to 800x600. The 225 cannot compress screen resolutions above 1024x768. If your computer's screen resolution is higher than 1024x768, reset it to a lower resolution before you connect the projector.

NOTE: *The 225 automatically expands 640x480 images to 800x600. You can display these images at 640x480 by turning off the Auto Resize feature. See "Auto Resize" on page 24 for more information.*

Compatibility

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

- IBM-compatible computers, including laptops, up to 1024x768 resolution at 75Hz.
- IBM PS/2 in VGA and MCGA modes.
- Apple Macintosh and PowerBook computers up to1024x768 resolution.
- Various VCRs, 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. Contact your In Focus dealer immediately if anything is missing.

If you are experienced in setting up presentation systems, use the *LP 225 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.

NOTE: *The contents of your shipping box may vary depending on the configuration you've ordered.*

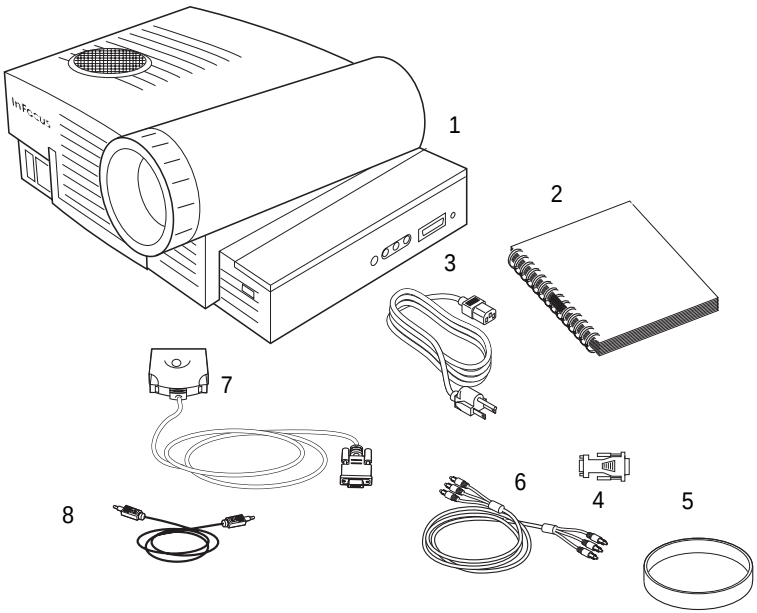


FIGURE 1

Shipping box contents

1. LP 225 projector
2. *LP 225 User's Guide*
3. power cord
4. Macintosh adapter
5. Lens cover
6. RCA audio/video (A/V) cable
7. CableWizard Lite computer cable
8. Audio cable

Usage Guidelines

- Do not look directly into the projection lens when the projector is turned on. The bright light may harm your eyes.
- The top and bottom of the projector can be very hot to the touch after use. Use extreme care or let it cool before lifting it.
- Do not block the grills at the front or top of the projector. Restricting the air flow can cause it to overheat and turn off.
- Handle the projector as you would any product with glass components. Be especially careful not to drop it.
- This projector is not intended for use in mainframe computer rooms as defined in the Standard for the Protection of Electronic Computer / Data Processing Equipment, ANSI / NFPA 75.
- 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. Part numbers for these cases are listed on page 44. Call your In Focus dealer to order.

***NOTE**: If the projector overheats and turns off, you must wait about 45 seconds before you attempt to turn it back on.*

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 36.

If this manual doesn’t answer your question, call your In Focus dealer. You can also call In Focus Customer Service directly at **1-800-799-9911**. Call between 5 a.m. and 5 p.m. PST, Monday through Friday. In Europe, call In Focus in The Netherlands at **(31) 23-5440310**. In Singapore, call **(65) 740-6435**. Or, send us an e-mail at **techsupport@infocus.com**.

Our World Wide Web address is **http://www.infocus.com**.

Warranty

These products are backed by a limited one-year warranty. The details of the warranty are printed at the back of this manual. Longer term warranties can be purchased from your In Focus dealer. Refer to page 44 for part numbers.

SETTING UP THE PROJECTOR

1 Place the projector on a flat surface.

- The projector must be within 10 feet of your power source and within 6 feet of your computer.
- If you want to project from behind a translucent screen, set up the projector behind your screen. See “Rear Projection” on page 27 to reverse the image.
- If you are installing the projector on the ceiling, refer to the *LitePro 200 Series Ceiling Mount Installation Guide* for more information. To turn the image upside down, see “Ceiling” on page 27. The Ceiling Mount Kit is sold separately; see page 44.

2 Position the projector the desired distance from the screen.

- The distance from the lens of the projector to the screen determines the size of the projected image. Figure 2 shows three projected image sizes using the varifocal lens or the zoom lens at minimum focusing distance. For more information about image size, see “Projected Image Size” on page 50.

3 Make sure the projector and your computer are turned off.

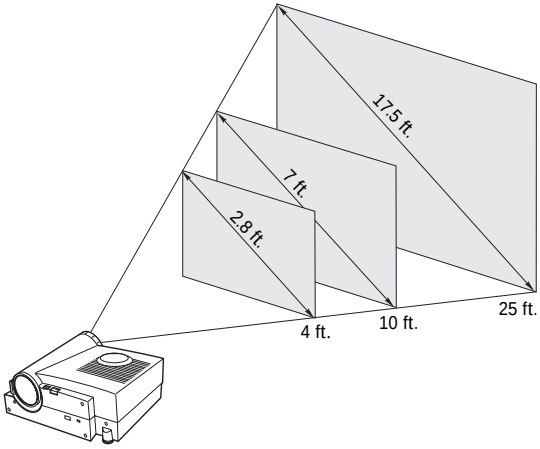


FIGURE 2

Projected image size (varifocal lens, zoom lens at minimum focusing distance)

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

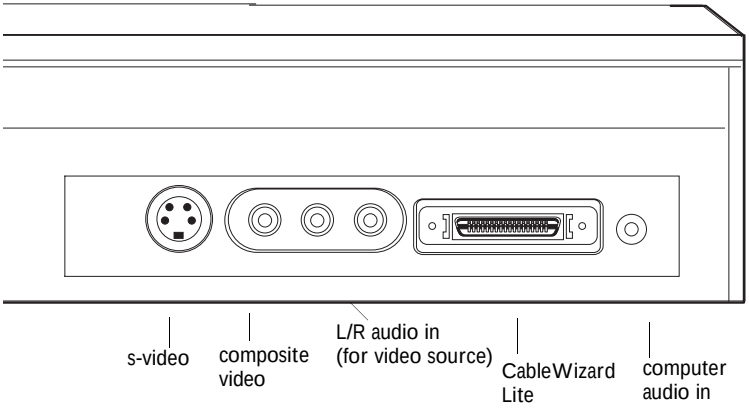


FIGURE 3

Connector panel

Connecting an IBM-Compatible Computer

1 Plug the end of the CableWizard Lite computer cable into the video connector on your computer.

2 Plug the end of the CableWizard Lite computer cable into the connector on the projector.

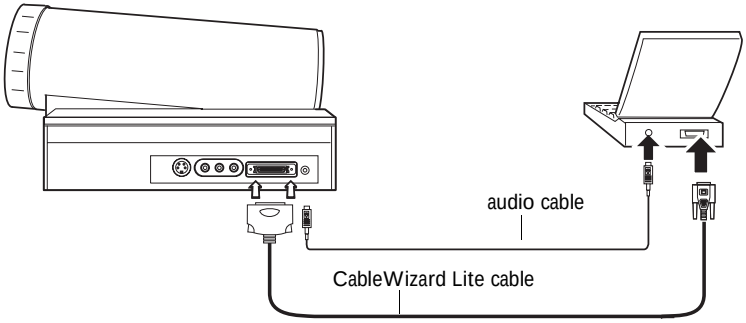


FIGURE 4

Connecting the computer cable to an IBM-compatible computer

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 connector on the projector.

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 45.*

NOTE: *If you are connecting a desktop computer and want to view your presentation on your monitor, purchase the optional CableWizard.*

NOTE: *If you want mouse control, purchase the optional CableWizard and remote.*

NOTE: *Some PowerBooks require the Apple-supplied video-out cable or monitor adapter for external video. Connect it between the PowerBook and the CableWizard Lite computer cable/Mac adaptor as shown in Figure 5.*

NOTE: *If you are connecting a desktop computer and want to view your presentation on your monitor, purchase the optional CableWizard.*

NOTE: *If you want mouse control, purchase the optional CableWizard and remote.*

Connecting a Macintosh Computer

1. Plug the end of the CableWizard Lite computer cable into the In Focus-supplied Mac adaptor.
2. Plug the CableWizard Lite / Mac adaptor into the video connector on your computer (or the Apple video-out cable or monitor adapter, if needed).
3. Plug the end of the CableWizard Lite computer cable into the connector on the projector.
4. If you want the projector display to be the same as the PowerBook's screen display, turn on video mirroring (called SimulScan in newer PowerBooks). See "Using Video Mirroring with a PowerBook Computer" on page 49 for additional information.

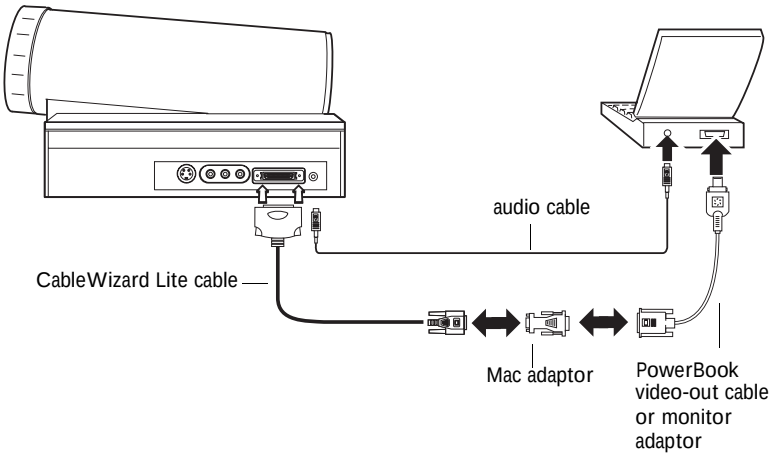


FIGURE 5

Connecting the CableWizard Lite computer cable to a Macintosh

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 connector on the projector.

Connecting a Video Player

1. If your video player uses a round, one-prong composite video connector, you'll need only the A/V 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 A/V cable. The S-video cable is sold separately.
2. Plug the A/V cable's yellow connector into the "video-out" port on your video player (Figure 6). This port 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 7).
3. Plug the other yellow connector into the composite connector on the back of the projector.
   - If you're using S-video, plug the other end of the cable into the "s-video" connector on the projector (Figure 7).

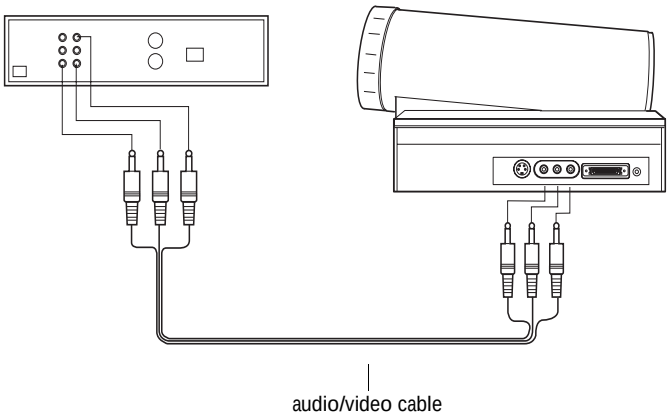


FIGURE 6

Connecting the projector to a video player using the standard A/V cable (with composite video connector)

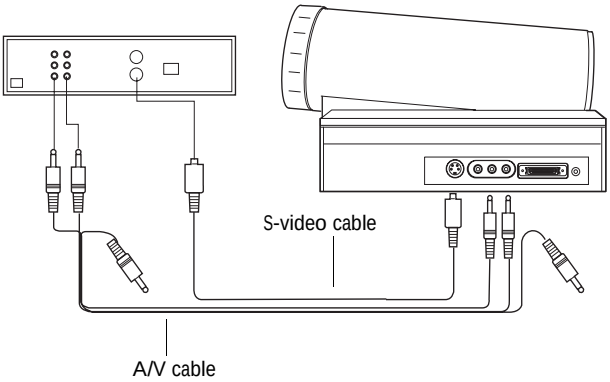


FIGURE 7

Connecting the projector to a video player using an S-video cable and the audio connectors on the standard A/V cable

4 Plug the A/V cable's white connector into the left "audio out" port on your video player. Plug the cable's red connector into the right "audio out" port on the video player (Figure 6 and Figure 7).

- If you're using an S-video cable, the yellow connectors on the A/V cable remain unused (Figure 7).

5 Plug the A/V cable's other white and red connectors to the left and right "audio in" ports on the projector.

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

The projector is compatible with the three major broadcast video standards: NTSC, NTSC 4.43, PAL, PAL-M, PAL-N, and SECAM. It automatically adjusts to optimize its performance for the incoming video. The input signals for SECAM, PAL-M, and PAL-N video cannot be automatically detected, therefore they must be chosen manually; see "Video Standard" on page 26.

Powering up the Projector and Adjusting the Image

1 Remove the lens cap.

2 Plug the power cord into the projector (Figure 8), then plug it into your electrical outlet. A surge-protected power strip is recommended if power surges are common in your area.

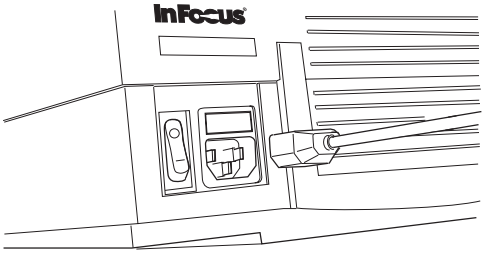


FIGURE 8

Connecting the power cord to the projector

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

3 Turn on the projector.

4 If you connected a video player, turn it on.

- Press the **video** button on the keypad to display the image from your video player. Press **computer** to return to your computer's image.
- Use the **volume** buttons to adjust the volume.
- If you don't want to hear the sound from your video player, press the **mute** button.

5 If you connected your monitor, turn it on.

6 Turn on your computer.

- The computer image should display on the projection screen.
- If necessary, use the **brightness** buttons on the keypad to adjust the brightness. You can make further adjustments to the image from the projector's on-screen menus. To open the menus, press the **menu** button on the keypad. Then select the Display menu or the Image menu. For more information about the menus, see page 19.
- If you don't want to hear the sound from your computer or video player, press the **mute** button.

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.

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. This blanks the screen for fifteen minutes, but keeps the projector running. After 15 minutes, the lamp goes out (the projector keeps running). To exit standby mode, press the **standby** button again. (It takes several seconds for the projection lamp to reach full power and project the image again.)

To completely power off the projector, press the “O” side of the power switch. If you want to turn the projector back on immediately, you must allow about 45 seconds for the lamp to cool. The lamp won’t light if it’s too hot.

NOTE: *When you disconnect the projector after you have switched it off, always remove the power cord from the electrical outlet first, then remove it from the projector.*

USING THE PROJECTOR

This section describes how to use and make adjustments to the projector. It also provides a reference to thekeypad 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 11).
2. If the image doesn't display completely, adjust the height of the projector (page 14) or center the image by adjusting its horizontal or vertical position (page 25).
3. If the image is out of focus, rotate the lens to focus it (page 13).
4. If the image appears to shimmer or if it has blurry vertical bars after you have adjusted the focus, turn **Auto Image** (page 24) off and then back on to reset the automatic sync and tracking. If that doesn't clear up the image, adjust the sync (page 24) and / or the tracking (page 25) manually.
5. If the colors don't look right, adjust the brightness (page 16).

Adjusting the Projector

To focus the image, rotate the projection lens until the image is clear. Rotate the lens clockwise for a longer focusing distance; counterclockwise for a shorter focusing distance.

If the projected image seems wider at the bottom or at the top, rotate the keystone adjustment dial on the back of the projector until the image is correct (Figure 9).

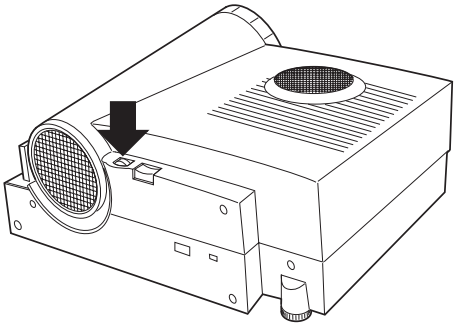


FIGURE 9

Keystone adjustment knob

The projector is equipped with an elevator foot on the underside of the projector and a leveling knob.

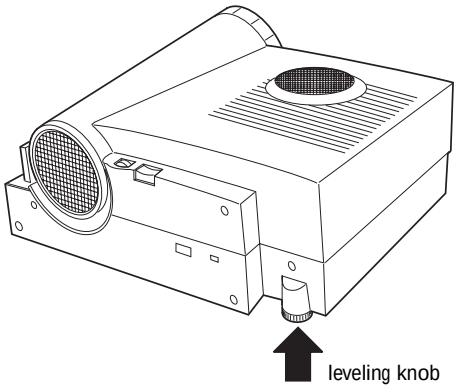


FIGURE 10

Leveling knob

To raise the projector:

1. Raise the front of the projector off the table by lifting up on the handle (Figure 11).
2. Pull out the elevator foot (Figure 11).
3. If necessary, use the leveling knob (Figure 10) to adjust the angle of the projected image.

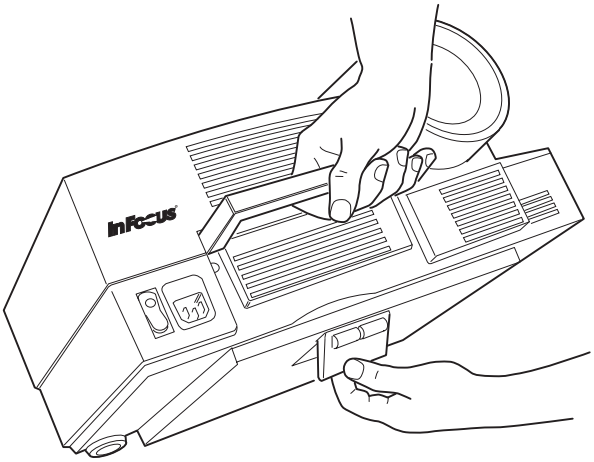


FIGURE 11

Adjusting the height of the projector

To lower the projector:

1. Hold the projector's handle.
2. Pull the foot away from the projector, then push it back to its collapsed position.
3. If necessary, use the leveling knob (Figure 10) to readjust the angle of the projected image.

***CAUTION**: Always hold the projector's handle when you adjust the height.*

Using the Keypad Buttons

This section provides an alphabetical reference to the keypad buttons.

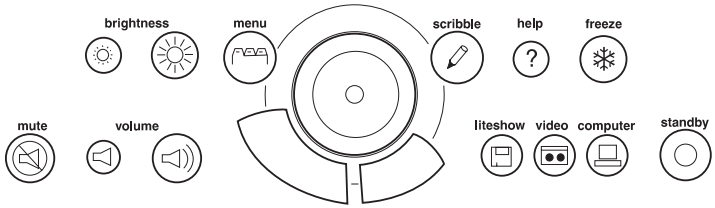


FIGURE 12

Keypad

Brightness

Adjusting the brightness lightens or darkens the image.

- To darken the image, press
- To lighten the image, press

The **brightness** buttons are auto-repeating; they repeat their function as long as you hold down the button.

Computer

When you have more than one source (computer or video) connected to the projector, select between them by pressing the button for the source you want.

Press **computer** to display the computer image.

Freeze

The **freeze** button halts, or “freezes” the projected image. Use this button to freeze a frame of video (the video continues to run but the projected image is frozen). You can also freeze an image from a computer source on the screen, allowing you to perform other operations on the computer without the audience seeing them. Press **freeze** again when you want the image to return to normal.

Help ?

Press **help** to display the online help information.

LiteShow

The **liteshow** button is used to display a LiteShow presentation from disk. Call your In Focus dealer for more information.

Menu

Press **menu** to open the on-screen menus. Press **menu** again to close the menus. When you close the menus, the projector saves any changes you made. For more information about the on-screen menus, see page 19.

Mute

Pressing the **mute** button silences the speaker. To return the volume to its previous setting, press **mute** again or press either **volume** button.

NOTE: *The speaker on the top of the projector is not functional.*

Scribble

The **scribble** button activates on-screen annotation.

1. Press the **scribble** button. The cursor changes to a pencil.
2. Press the right disk mouse button (Figure 14) to display the color selector. Use the disk mouse to position the cursor on the desired color, then press the left mouse button. Press the right button again to close the color selector.
3. Move the pencil to where you want to start the annotation.
4. Press the left mouse button. The cursor changes to an upright pencil.
5. Use the disk mouse to draw your annotation. Press the left mouse button to complete the annotation.
6. To exit Scribble, press the **scribble** button. The annotation is automatically deleted (it cannot be saved).

Standby

When you press **standby**, the display and audio turn off and a blank screen is displayed for 15 minutes.

- If you press **standby** again within 15 minutes, the projector returns to normal operations immediately.
- If you press **standby** again after 15 minutes, there is about a 30 second delay before the lamp turns back on.
- If you don't press **standby** again, the lamp turns off after 15 minutes.

Video

When you have more than one source (computer or video) connected to the projector, select between them by pressing the button for the source you want.

Press **video** to display the image from your video player.

Volume

- To increase the volume, press
- To decrease the volume, press

The **volume** buttons are auto-repeating; they continue to adjust the volume as long as you hold them down. Volume adjustments are saved for each source you have connected.

Using the Disk Mouse

Press anywhere on the edge of the disk mouse to move the cursor on the screen. For example, if you press the top edge of the disk, the cursor moves up the screen; if you press the bottom edge, the cursor moves down (Figure 13). You can move the cursor at any angle by pressing the corresponding edge of the disk.

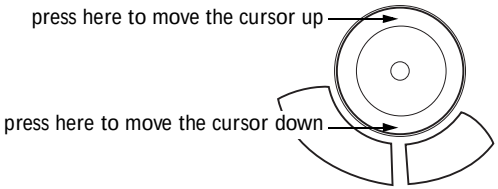


FIGURE 13

Using the disk mouse

Using the On-Screen Menus

The projector has four on-screen menus that allow you to make image adjustments and change a variety of settings.

To open the on-screen menus, press the **menu** button on the keypad. Press **menu** again when you want to close the menus.

To select a menu, use the disk mouse to move the cursor to the tab for the menu you want, then click either mouse button.

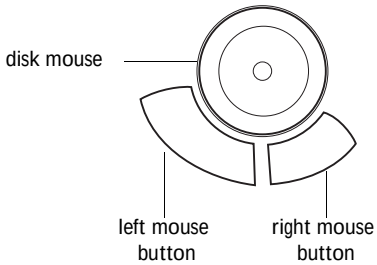


FIGURE 14

Disk mouse and mouse buttons

To change a menu setting, move the cursor to the setting you want to change, then use one of the two mouse buttons below the disk to make changes.

The status bar at the top of the menu display indicates the source that is currently active. For example, if you have both a computer and a video player connected, “Source: Computer” or “Source: Video” displays depending on whether you’ve pressed the **computer** or the **video** button on the keypad. It also contains a lamp hour counter that starts at zero hours and counts each hour the lamp is in use. Change the bulb when the brightness is no longer acceptable.

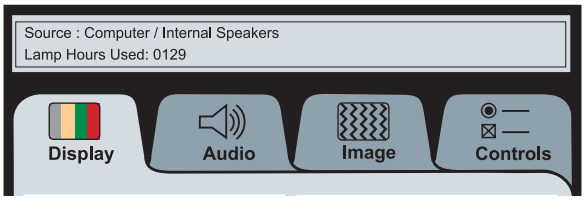


FIGURE 15

On-screen menu status bar

Display Menu Functions

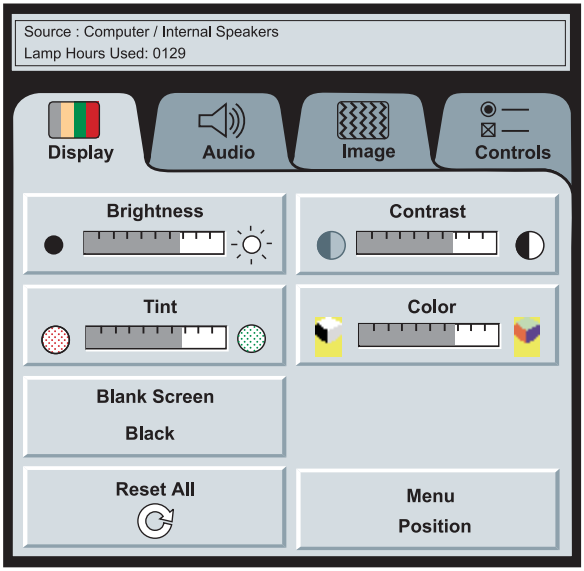


FIGURE 16

Display menu

Brightness

Adjusting the brightness changes the intensity of the image.

- Press the left mouse button to darken the image.
- Press the right mouse button to lighten the image.

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.

- Press the left mouse button to decrease the contrast.
- Press the right mouse button to increase the contrast, making the blacks appear blacker and the whites appear whiter.

Tint

The **Tint** setting adjusts the red-green color balance in the projected image of NTSC video sources.

NOTE: *Changing the brightness using the menu is the same as changing it using the keypad.*

- Press the left mouse button to increase the amount of green in the image.
- Press the right mouse button to increase the amount of red in the image.

Color

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

- Press the left mouse button to decrease the amount of color in the image.
- Press the right mouse button to increase the amount of color in the image.

Blank Screen

Blank Screen determines what color (blue or black) is displayed when there is no active source. Click the button to toggle between the two options.

Reset All

Click either mouse button to reset all the options (except Language,Video Standard, Ceiling, and Rear Project) in all the menus to their original settings. This also returns Freeze and Mute to their default (off) settings.

Menu Position

This lets you move the menu to various locations on the screen, allowing you to view different parts of the image while making adjustments. The default position is the center of the screen. Click Menu Position to move the menu to the upper-left corner; click it again to move it to upper-right, then lower right, then lower left, then center again.

Audio Menu Functions

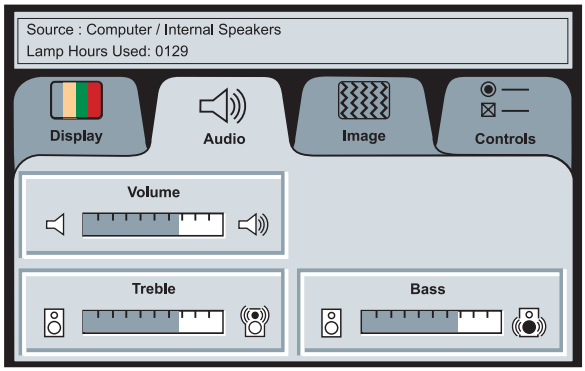


FIGURE 17

Audio menu

Volume

- Press the left mouse button to decrease the volume.
- Press the right mouse button to increase the volume.

Volume adjustments you make are saved for each source.

Treble

The **Treble** setting controls the higher frequencies of your audio source.

- Press the left mouse button to decrease the treble.
- Press the right mouse button to increase the treble.

Bass

The **Bass** setting controls the lower frequencies of your audio source.

- Press the left mouse button to decrease the bass.
- Press the right mouse button to increase the bass.

Image Menu Functions

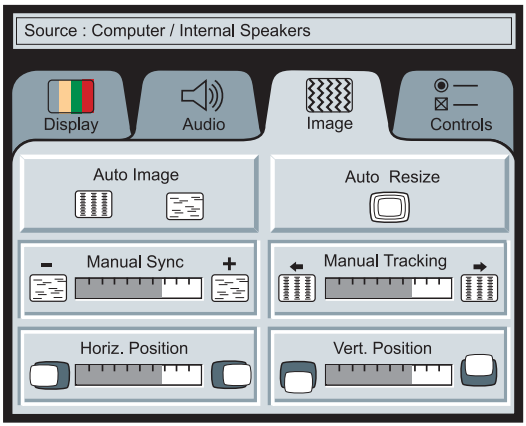


FIGURE 18

Image menu

NOTE: Some screen savers interfere with the operation of Auto Image. If you're experiencing problems, try turning your screen saver off, then turning Auto Image off and back on.

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 by clicking it.

Auto Resize

The **Auto Resize** setting is available only for computer sources. **Auto Resize** automatically resizes the image by scaling it up or down.

When **Auto Resize** is on, the projector makes the best fit of the image to the screen. If you turn **Auto Resize** off (by clicking it), the image may be either cropped or too small for the screen.

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 as described below.

1. Click the **Auto Image** button to turn Auto Image off.

2 Press the left or right mouse buttons repeatedly until the image is sharp and free of streaks.

Manual Tracking

The tracking function adjusts the projector to match the video signal from your computer. The projector usually adjusts the tracking automatically when you connect 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 as described below.

1 Click the **Auto Image** button to turn Auto Image off.

2 Press the left or right mouse buttons repeatedly until the fuzzy vertical bars are gone.

Horiz. Position

Follow these steps to manually adjust the horizontal position.

1 Click the **Auto Image** button to turn Auto Image off.

2 Press the left mouse button to move the image right; press the right mouse button to move the image left.

Positioning adjustments are saved when you power off the projector.

Vert. Position

Follow these steps to manually adjust the vertical position.

1 Click the **Auto Image** button to turn Auto Image off.

2 Press the left mouse button to move the image down; press the right mouse button to move the image up.

Positioning adjustments are saved when you power off the projector.

NOTE: *The* ***Manual Sync****,* ***Manual Tracking****,* ***Horiz. Position*** *and* ***Vert. Position*** *buttons are available only for computer sources. The projector sets these options automatically for a video source so they appear gray.*

Controls Menu Functions

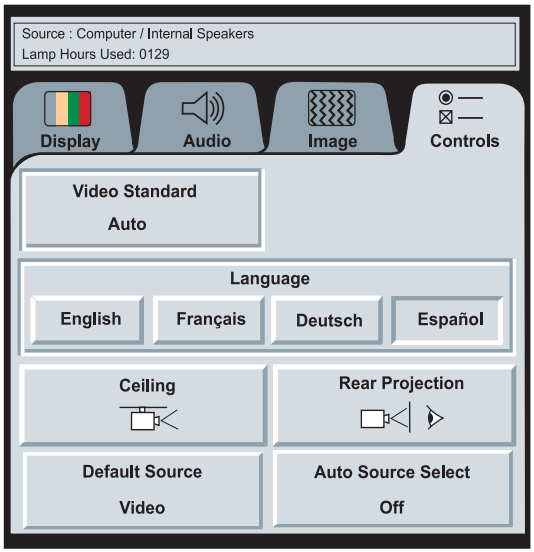


FIGURE 19

Controls menu

NOTE: *If you already know the standard used in your geographical area, it's often best to manually select it.*

Video Standard

When **Auto** is on, the projector attempts to pick the video standard automatically based on the input signal it receives. (The video standard options may vary depending on your region of the world.) The input signals for SECAM, PAL-M, and PAL-N video cannot be automatically detected, therefore they must be chosen manually. If the projector is unable to detect the standard, the colors might not look right or the image might appear "torn." If this happens, manually select a standard by clicking the button and cycling through the standards.

Language

You can display the on-screen menus in English, French, German, and Spanish. The default is English.

- Click the button for the language you want. The menus redraw immediately.

Ceiling

- Click either mouse button to turn the image upside down for ceiling-mounted projection.

Rear Projection

When you select **Rear Projection**, the projector reverses the image so you can project from behind a translucent screen.

- Click either mouse button to reverse the image.

Default Source

Default Source toggles between Computer and Video. This determines which source the projector checks first during power-up for active video. Click the button to toggle between the options.

Auto Source Select

This setting toggles between On and Off. 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 **computer** or **video** button on the keypad. When this feature is On, the projector automatically finds the active source, checking the default source first. Click the button to toggle between the options.

NOTE: *To order the ceiling mount kit, refer to "Optional Accessories" on page 44.*

MAINTENANCE & TROUBLESHOOTING

This section describes how to:

- clean and replace a lens
- install and use the zoom lens
- replace the projection lamp
- replace the fuse
- use the Kensington lock feature

Cleaning the Lens

Follow these steps to clean the projection lens:

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

Removing and Replacing a Lens

1. Turn the focus ring counterclockwise until it reaches a stop.
2. While holding the lens, squeeze the latch below the lens (Figure 20) and turn the lens counterclockwise again.
3. Gently pull the lens out of the lens bracket.

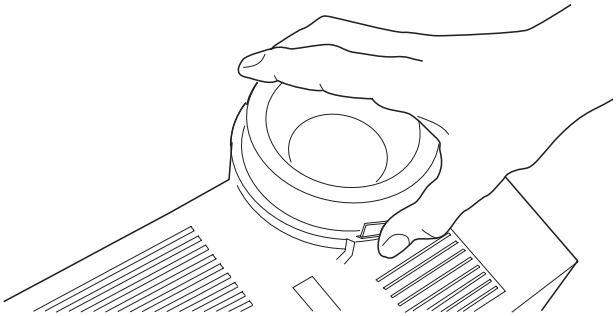


FIGURE 20

Removing the lens

To replace a lens:

1. Make sure the latch is pointing down.
2. Squeeze the latch and gently push the lens in until it stops, then turn the lens clockwise until the catch is engaged.

***CAUTION**: Be sure to fully retract the zoom lens before you put the lens cap on and pack the projector in its case.*

Using the Optional Zoom Lens

The zoom lens enlarges the projected image by 40% without moving the projector. (For more information about image size, see “Projected Image Size” on page 50.) Follow the previous instructions to install the zoom lens.

Follow these steps when operating the zoom lens:

1. Turn the zoom ring (Figure 21) until the projected image is the size you want, even if it is out of focus.
2. Turn the focus ring as needed to clear up the image.

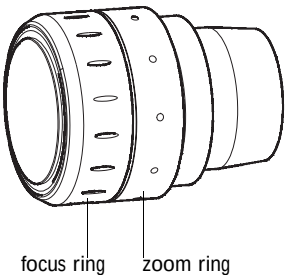


FIGURE 21

LP 200 Series zoom lens

Replacing the Projection Lamp

The lamp hour counter on the status bar at the top of the menus counts the number of hours the lamp has been in use. The LP 225 uses a metal halide bulb. These types of bulbs deteriorate over time. Replace the lamp when the brightness is no longer acceptable. You can order new lamp modules from your In Focus dealer. See “Accessories” on page 43 for information.

Follow these steps to replace the projection lamp:

1. Turn off the projector and unplug the power cord.
2. Wait 45 minutes to allow it to cool thoroughly.
3. Using a small, flat-blade screwdriver, remove the screw on the outside of the lamp door (Figure 22).
4. Pull the lamp cover up and remove it.

WARNING: *To avoid burns, allow the projector to cool for at least 45 minutes before you open the lamp module door. Never extract the lamp module while the lamp is operating.*

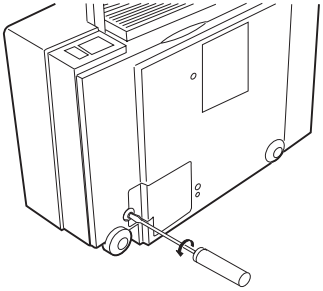


FIGURE 22

Removing the lamp module door

5. Loosen the non-removable screw on the outside of the module.
6. Remove the module (Figure 23).

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

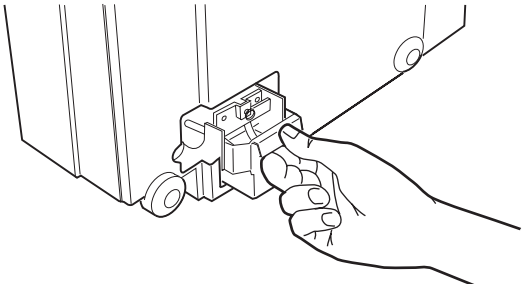


FIGURE 23

Removing the lamp module

7 Align the module in the correct direction.

8 Gently push the module in as far as it goes (Figure 24).

9 Tighten the screw on the outside of the module.

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

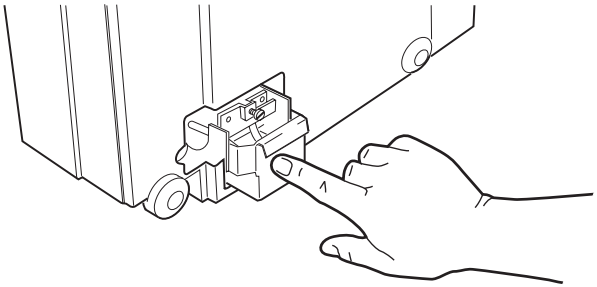


FIGURE 24

Installing a new lamp module

10 Reposition the lamp cover.

11 Replace the screw and tighten it.

12 Turn the projector back on.

13 To reset the lamp hour counter in the Status bar, press and hold both Brightness buttons for 5-10 seconds. Verify that the counter was reset by pressing the menu button and viewing the counter.

Replacing the Fuse

A power line surge or spike can blow the power supply fuse, causing the projector to stop working. If this happens, you'll need to replace the fuse.

The projector ships with a 6.3 amp fuse. The correct replacement fuse depends on the power line voltage in the country where you are operating the projector.

- If your line voltage is 115V to 240V, use a T6.3AH, 250V, 5x20mm fuse.
- If your line voltage is 100V to 115V (as in Japan), use a T8AH, 250V, 5x20mm fuse. You can order the fuse from your In Focus dealer; the part number is listed on page 44.

After you make sure that the condition that made the fuse blow no longer exists, follow these steps to replace the fuse:

1. Turn off the projector by pressing the "O" side of the power switch.
2. Unplug the power cord.
3. Remove the fuse holder, located just above the power cord connector. Pull out the fuse holder with a small, flat-blade screwdriver, key or coin (Figure 25).

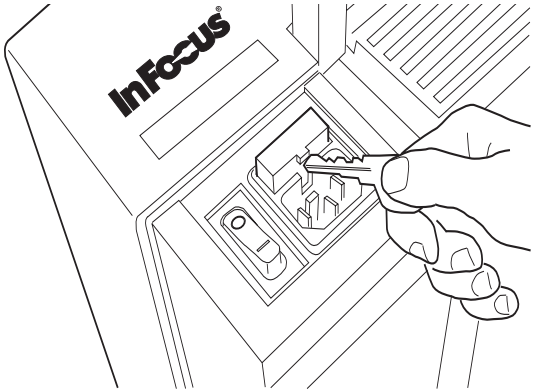


FIGURE 25

Removing the fuse holder

***CAUTION**: Use only the specified power supply fuse. Using a different fuse may damage the projector.*

***CAUTION**: The 6.3A IEC 127 type fuse is required in Europe. In countries with low main voltage, you may need the 8.0A fuse to avoid repeated (nuisance) blowing of the 6.3A fuse. Both fuses provide protection from risk of fire. Do not use the projector if repeated blowing still occurs after switching to the 8.0A fuse. Call In Focus Technical Support for assistance.*

4 Remove the blown fuse from the fuse holder (Figure 26).

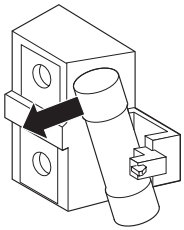


FIGURE 26

Removing the fuse from the fuse holder

5 Push the spare fuse into the holder until it is securely seated.

6 Place the fuse holder back in position (Figure 27).

7 Plug the power cord back in.

8 Press the "|" side of the power switch to turn the projector back on.

CAUTION: *A surge-protected power strip is recommended if power surges are common in your area.*

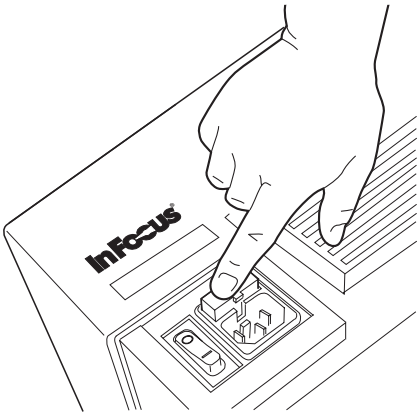


FIGURE 27

Replacing the fuse holder

Using the Kensington Lock

The projector has a Kensington Security Standard connector for use with a Kensington MicroSaver Security System (Figure 28). Refer to the information that came with the Kensington System for instructions on how to use it to secure the projector.

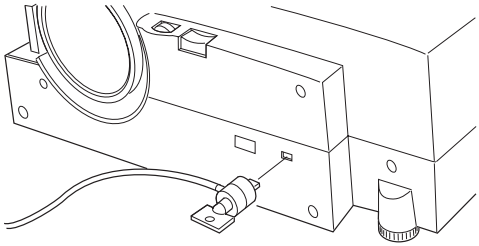


FIGURE 28

Installing the Kensington lock

Troubleshooting

If you're experiencing trouble with the projector, follow these steps to make sure everything is properly connected before you call Technical Support for assistance.

1. Check cable connections. Verify that all computer and power cables are properly connected.
2. Verify that all power is switched on.
3. Verify that the projector has not been switched off with the **standby** button on the keypad.
4. If the projector still doesn't display an image, restart the computer.
5. If the problem still exists, unplug the projector from the computer and check the computer monitor's display. The maximum resolution that the 225 can display is 1024x768 pixels, preferably 800x600. The problem might be with the graphics controller in your computer rather than with the projector. When you reconnect the projector, remember to turn the computer and monitor off before you power up the projector. Power the equipment back up in this order: projector, monitor, computer.
6. If you're using a laptop computer and its monitor is not displaying your presentation, make sure you have re-activated the computer's monitor. Most laptop computers de-activate their own monitor when a second display device, such as the projector, is connected. Refer to page 45 for more information.
7. If the problem still exists, read through the problems and solutions in this chapter.

NOTE: *Macintosh computers require a specific power-up sequence: the projector must be turned on before you turn on the computer.*

If you call Technical Support for assistance:

- Find out what kind of graphics controller card is installed in your computer. This is the circuit board in the computer to which the projector is connected.

Solutions to Common Problems

Problem: Nothing on projection screen

- Make sure that the power cord is properly connected to a 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 you have removed the lens cap on the projection lens at the front of the projector.
- Make sure the projector is switched on.
- Check the projector's lamp to ensure that it is securely connected in the lamp module. See "Replacing the Projection Lamp" on page 31.
- Check the fuse. If it has blown, replace it. See "Replacing the Fuse" on page 33.
- Make sure that the CableWizard Lite and the cables do not have any bent pins. Check the power cord for bent pins also.

Problem: Color or VGA text not being projected

- You might need to adjust the brightness up or down until the text is visible. Refer to "Brightness" on page 16 for more information.
- Verify that the appropriate input source is selected. See "Computer" on page 16 or "Video" on page 18.

Problem: The screen resolution is not right

- Make sure the computer's graphics card is set for a resolution of no greater than 1024x768.

Problem: Image isn't centered on the screen

- Reposition the image. Refer to "Horiz. Position" on page 25 and "Vert. Position" on page 25.

Problem: Only the start-up screen displays

- Verify that the cables are connected correctly. Check to see that the computer cable is correctly connected to the monitor connector on the computer (this is the connector where your monitor cable usually goes.)
- Verify that the proper input source is connected. See “Computer” on page 16 or “Video” on page 18.
- You might need to turn everything off and power up the equipment again. Make sure you power up in this order: projector, computer monitor, computer. It is especially important that you follow this sequence for Macintosh computers.
- Make sure your computer’s graphics board is installed and configured correctly.

  If you’re using Windows 3.x:

  1. In the Windows Program Manager, double-click the Windows Setup icon in the Main program group.
  2. Verify that the Display setting is 1024x768 or less.

  If you’re using Windows 95:

  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 1024x768 or less.

Also check the following:

- Does your computer have a compatible graphics board? The projector isn’t CGA or EGA compatible.
- Is your computer’s graphics board turned on? This is especially true for laptop computers. See “Portable and Laptop Activation Chart” on page 45.

Problem: Image is too wide or narrow for screen

- You might need to manually adjust the tracking to reduce or enlarge the projected image. Refer to “Manual Tracking” on page 25.
- Adjust the resolution of your monitor if it’s greater than 1024x768. Only these resolutions at 75 Hz or less will display on the projector.
- Make sure that your computer has a compatible graphics board. The projector is not compatible with CGA, EGA, or 1280x1024 graphics modes.

Problem: Image is out of focus

- Make sure the lens is locked in place.
- Turn the projection lens to focus the image.
- Make sure the projection screen is at least 4 feet (1.2m) 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. Switch back to forward projection from the Controls menu. The image should immediately return to forward projection. See “Rear Projection” on page 27.

Problem: Image and menus are upside down

- Ceiling mode is probably turned on. Turn off the mode from the Controls menu. The image should immediately return to forward projection. See “Ceiling” on page 27.

Problem: the projector displays vertical lines, “bleeding” or spots

- Adjust the brightness. See “Brightness” on page 16.
- Check the projection lens to see if it needs cleaning.

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 24.
3. Adjust the synchronization and tracking manually to find an optimal setting. See "Manual Sync" on page 24 and "Manual Tracking" on page 25.

- The problem could be with your computer's graphics board. If possible, connect another computer with a different graphics board.

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

- Adjust the brightness, tint and / or contrast from the Display menu. Just as there are differences in the displays of different monitors, there are often differences between the computer image and the projected image. See "Brightness" on page 16, "Tint" on page 21 and "Contrast" on page 21.

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 31.

Problem: Lamp shuts off

- A minor power surge may cause the lamp to shut off. Turn the projector off, wait at least 45 seconds, then turn it back on.

APPENDIX

Specifications

The LP 225 must be operated and stored within the temperature and humidity ranges specified.

Temperature	
Operating	10 C to 40° C
Non-operating	-20 to 60° C

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

Dimensions
6.6 x 16.25 x 13.25 inches (16.8 x 41.3 x 33.7 cm)

Weight
16 lbs. (7.3 kg) unpacked

Altitude	
Operating	0 to 10,000 feet (3048 meters)
Non-operating	20,000 feet (6096 meters)

Optics	
Focus Range	4 to 25 feet

Lamp	
Type	270-watt metal halide

Input Power Requirements
100-240VAC, 7.0A-3.6A, 50 to 60 Hz.

Video Module Input

Input Impedance	5K ohm DC coupled
Maximum Input Voltage	$(L_{IN} + R_{IN})_{PEAK} < 4.5$ V for THD $\leq$ 0.3%L_{IN} or $R_{IN} < 2.0$ Vrms for THD $\leq$ 0.3%
Sensitivity	100 mV at 1 KHz for 88 dB SPL at 1 meter
Connector Type	RCA jack

Audio Input

Input Impedance	10K ohm nominal, AC coupled
Maximum Input Voltage	$(L_{IN} + R_{IN})_{PEAK} < 4.5$ V for THD $\leq$ 0.3% L_{IN} or $R_{IN} < 2.0$ Vrms for THD $\leq$ 0.3%
Sensitivity	100 mV at 1 KHz for 88 dB SPL at 1 meter
Connector Type	3.5 mm (1/8 inch) stereo phone jack

Fuse

115 to 240V nominal line	T6.3AH, 250V, 5x20mm
100 to 115V nominal line	T8AH, 250V, 5x20mm

Accessories

Standard Accessories (ship with the projector)	Part Number
LP 225 Quick Start card	009-0344-xx
LP 225 User's Guide	010-0153-xx
Shipping Box	110-0098-xx
CableWizard Lite Cable	SP-CWLITE
Mac Adapter for CableWizard Lite	515-0045-xx
Audio Cable 6 ft (2m)	210-0118-xx
Varifocal Lens	505-0148-00
Projection Lamp Module	SP-LAMP-LP2
Lens Cap	340-0220-xx
Audio/Video Cable	210-0053-xx
Fuse — 6.3 amp	749-0010-xx

Power Cords (one ships with projector, type depends on country)

North American Power Cord	210-0023-xx
Australian Power Cord	210-0027-xx
UK Power Cord	210-0028-xx
European Power Cord	210-0029-xx
Danish Power Cord	210-0030-xx
Swiss Power Cord	210-0031-xx

Optional Accessories

LP 225 Enhanced Accessory Pack, includes:	SP-AP-LP2
Soft Carry Case (CA-C077)	
2-button Executive remote (HW-EXREM)	
CableWizard 2 (SP-CW2)	
Soft Carry Case	CA-C077
Travel Case	CA-C092
ATA Shipping Case	CA-C119
CableWizard 2	SP-CW2
CableWizard Extension Cable, non-plenum rated, 60.7 ft (18.5 m)	SP-CW2EXT
CableWizard Extension Cable, plenum-rated, 60.7 ft (18.5m)	SP-CW2EXTP
2-button Executive remote	HW-EXREM
Executive remote IR receiver	HW-EXRCVR
Full-Feature Smart Remote Control	HW-SMART
LiteShow Pro Presentation Player	HW-LSPRO
LiteShow Pro Soft Case	CA-C131
32 MB Memory Upgrade	HW-MEM-LSP
Zoom Lens	HW-LP210-ZM
Kensington MicroSaver Security System	SP-KENLOC
Fuse — 8.0 amp	call for part no.
InstaTheater High Power Screen	HW-HPSCRN
LitePro 200 Series Ceiling Mount-LiteMount2	SP-CEIL-LM2
LiteMount False Ceiling Plate	SP-LTMT-PLT
LiteMount Pipe Tubing Extension	SP-LTMT-EXT
CableWizard Wall Plate	SP-CWWALL
Portable Projector Stand	SP-STND
2nd Year Advantage Service Plan (1 year extension)	AS-LP2xx-12
3rd Year Advantage Service Plan (2 year extension)	AS-LP2xx-24

Portable and Laptop Activation Chart

Many laptop computers do not automatically turn on their external video port when a secondary display device such as 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 some 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
Acer	Ctrl-Alt-Esc (for setup)	Ctrl-Alt-Esc (for setup)
AST* **	FN-D or Ctrl-D Ctrl-FN-D FN-F5 type from A:/IVGA/CRT FN-F12	FN-D or Ctrl-D Ctrl-FN-D FN-F5 type from A:/IVGA/CRT FN-F12
Advanced Logic Research	Ctrl-Alt-V	Ctrl-Alt-V
Altima	Shift-Ctrl-Alt-C setup VGA/ Conf.Simulscan	Shift-Ctrl-Alt-L setup VGA/ Conf.Simulscan
Ambra**	FN-F12 FN-F5 F2/Choose Option/F5	FN-F12 FN-F5 F2/Choose Option/F5
Amrel* **	setup menu Shift-Ctrl-D	setup menu Shift-Ctrl-D
Apple	see Mac Portable and Mac PowerBook	
Aspen	automatic	automatic
BCC*	automatic	reboot computer
Bondwell	LCD or CRT options after bootup	reboot for LCD or CRT options to appear
Chaplet**	setup screen FN-F6 FN-F4	setup screen FN-F6 FN-F4
Commax	Ctrl-Alt-#6	Ctrl-Alt-#5

NOTE: *Often, 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
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
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
Gateway	FN-F1/FN-F1 again simultaneous	FN-F1
Grid* **	FN-F2, choose auto or simultaneous	FN-F2
	Ctrl-Alt-Tab	Ctrl-Alt-Tab
Hyundai	setup screen option	setup screen option
IBM 970*	automatic	warm reboot

Computer	Key command to activate port	Key command to de-activate port
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.)	
Kaypro	boot up, monitor plugged in	unplug monitor
Kris Tech	FN-F8	FN-F8
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
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-F31	FN-F3
Olivetti*	automatic	automatic
	FN-O/*	FN-O/*
	FN- | |	FN- | |

Computer	Key command to activate port	Key command to de-activate port
Packard Bell**	FN-F2 Ctrl-Alt-<	FN-F2 Ctrl-Alt->
Panasonic	FN-F2	FN-F2
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 setup screen option	Ctrl-Alt-Insert setup screen option
Texas Instruments*	setup screen option	setup screen option
Top-Link* **	setup screen option FN-F6	setup screen option FN-F6
Toshiba* **	Ctrl-Alt-End FN-End FN-F5 setup screen option	Ctrl-Alt-Home FN-Home FN-F5 setup screen option
Twinhead*	FN-F7 FN-F5 Automatic	FN-F7 FN-F5 Automatic
WinBook	Ctrl-Alt-F10	Ctrl-Alt-F10
Wyse	software driven	software driven
Zenith**	FN-F10 FN-F2 FN-F1	FN-F10 FN-F2 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 on (called SimulScan in newer PowerBooks-see below), 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; 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

Use the chart below and the tables on the next page to help you determine projected image sizes for the varifocal and zoom lenses.

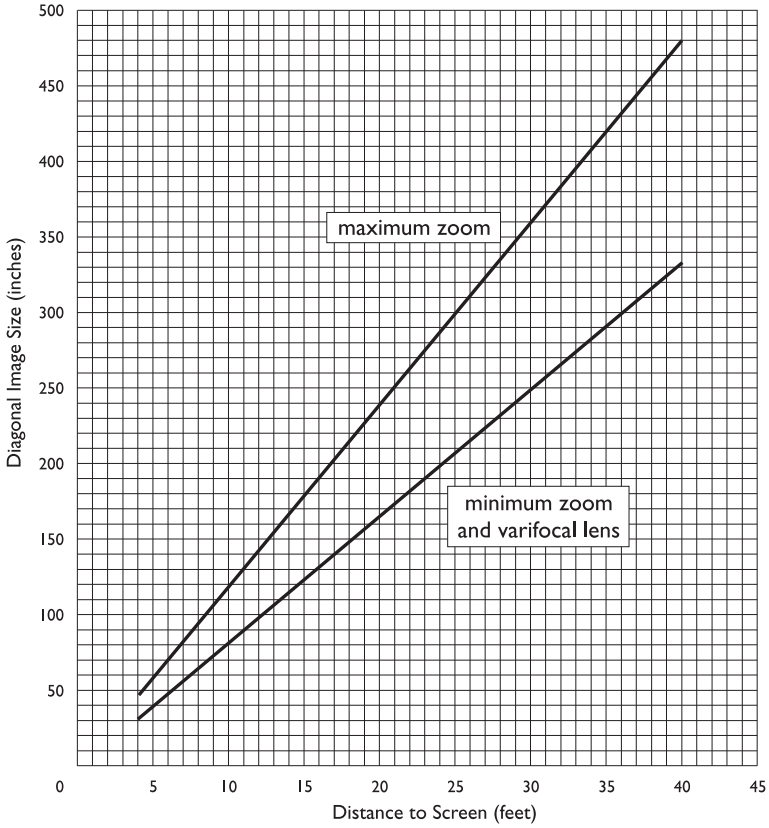


FIGURE 29

Projected image size for LP 200 series zoom and varifocal lenses

Table 1:
Image Size, Width and Height for Varifocal Lens and Zoom Lens at Minimum Focusing Distance

Distance to Screen (feet)	Diagonal (inches)	Width (inches)	Height (inches)
4	34	27	20.4
10	84	67	50.4
15	126	101	75.6
20	168	134	100.8
25	210	168	126.
30	252	202	151.2
35	294	235	176.4
40	336	269	201.6

Table 2:
Image Size, Width and Height for Zoom Lens at Maximum Focusing* Distance

Distance to Screen (feet)	Diagonal (inches)	Width (inches)	Height (inches)
4	48	38	28.8
10	120	96	72
15	180	144	108
20	240	192	144
25	300	240	180
30	360	288	216
35	420	336	252
40	480	384	288

* The focusing distance of the zoom lens is from 4 feet to infinity.

Product Note

Product: *CableWizard2 (SP-CW2)*

The CableWizard2 allows you to connect your computer to your In Focus projector. It provides computer, monitor, audio and mouse connectors. It also provides a serial connector for IBM-compatible computers.

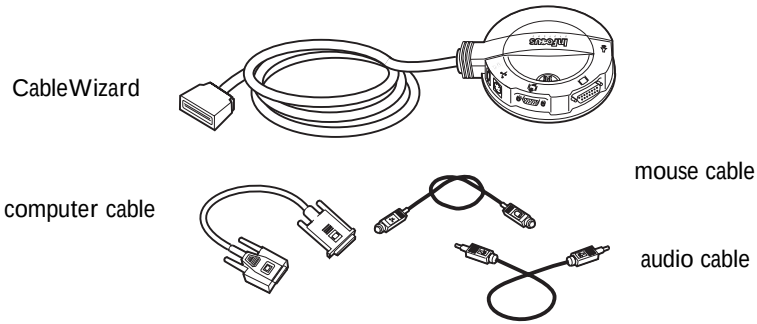


FIGURE 1

CableWizard2 and cables

Connecting the CableWizard2™ to the Projector

The CableWizard2 simplifies the connection process by providing a central hub for all the connections between the projector and your computer. Be sure to turn off the computer, monitor, and projector whenever you connect or disconnect cables. The connectors on the CableWizard2 are labeled with icons.

Connect the end of the CableWizard2 cable to the connector on the projector's connector panel.

InFocus®

009-0319-00 (English)

27700B Parkway Avenue • Wilsonville, Oregon 97070-9215 • 800-294-6400 • 503-685-8888 • Fax: 503-685-8887
Europe: Hoofddorp, The Netherlands (31) 23-5540300, Fax: (31)23-5624388 • Asia: Singapore (65) 334-9005, Fax: (65) 536-3891
http://www.infocus.com

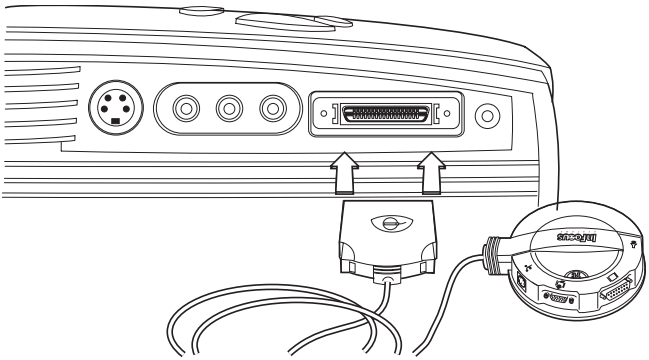


FIGURE 2

Connecting the CableWizard2 to the projector

Selecting Connectors on the CableWizard2

Turn the selector on the top of the CableWizard2 to reveal the correct connectors for your computer.

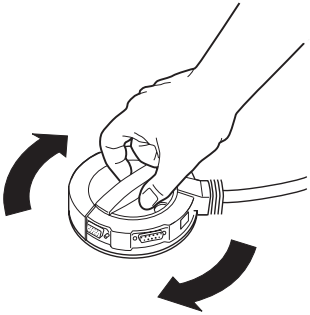


FIGURE 3

Selecting connectors on the CableWizard2

- If you're connecting an **IBM-compatible desktop or laptop computer**, turn the selector until the window displays "PC."

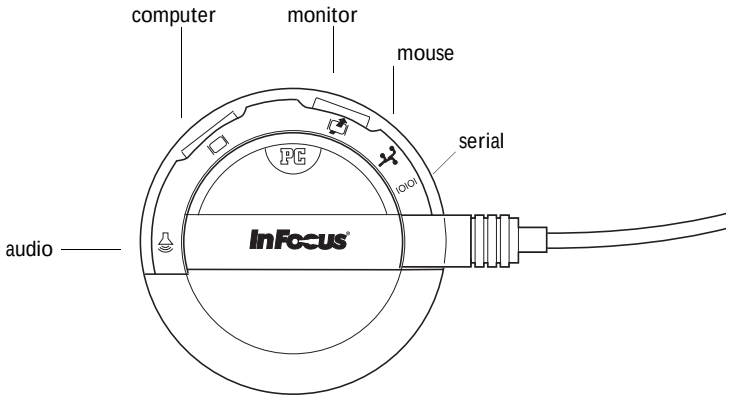


FIGURE 4

Selecting the IBM-compatible connectors on the CableWizard2

- If you're connecting a **Macintosh desktop or an Apple PowerBook computer**, turn the selector until the window displays "Mac™."

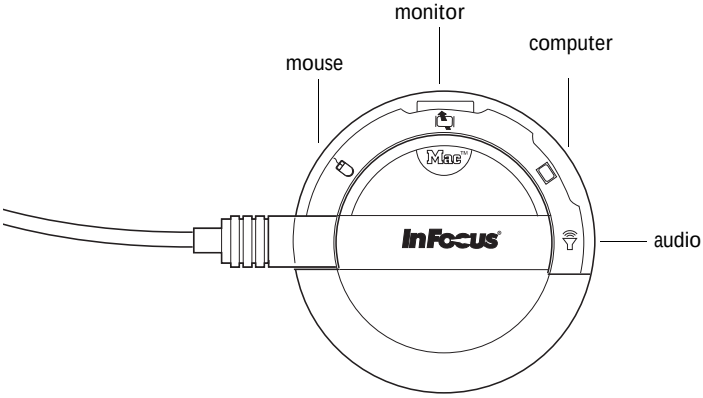


FIGURE 5

Selecting the Macintosh connectors on the CableWizard2

Product Note

Connecting an IBM-Compatible Computer

1. (Desktop models only) Locate the cable that connects your monitor to your computer. Unplug it from the computer.
2. Plug the end of the CableWizard2 computer cable into the monitor connector on your computer.
3. Plug the end of the computer cable into the connector on the CableWizard2.

(Desktop models only) Do you want to display the image on your computer's monitor as well as on the projection screen?

1. Plug your monitor's cable into the connector on the CableWizard2.

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

1. Unplug the audio cable, if present, from your computer.
2. Plug either end of the CableWizard2 audio cable into the audio connector on your computer.
3. Plug the other end of the audio cable into the connector on the CableWizard2.

Do you want to control your computer's mouse from the projector's remote or keypad?

1. Unplug the mouse cable, if present, from your computer.
2. Plug the end of the CableWizard2 mouse cable into the mouse connector on your computer.
3. Plug the end of the CableWizard2 mouse cable into the connector on the CableWizard2.

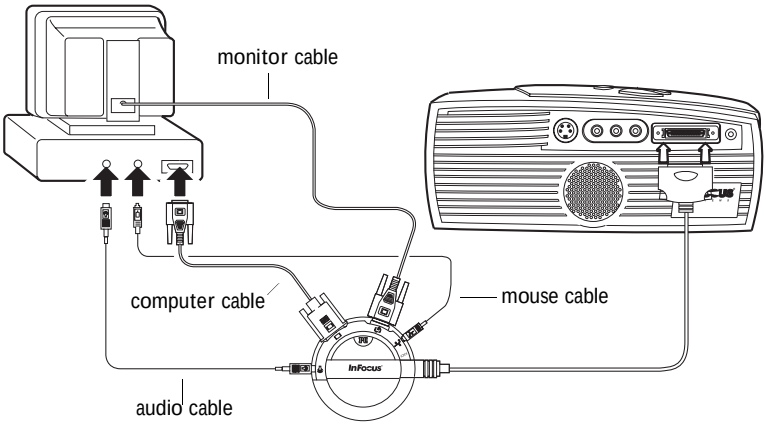


FIGURE 6

Connecting the CableWizard2 cables to an IBM-compatible computer

Now you're ready to power up the projector and your computer. See your projector's user's guide for details.

Product Note

Connecting a Macintosh Computer

1. (Desktop models only) Locate the cable that connects the monitor to your computer. Unplug it from the computer.
2. Plug the end of the CableWizard2 computer cable into the monitor connector on your computer.
3. Plug the end of the CableWizard2 computer cable into the connector on the CableWizard2.

   NOTE: Some PowerBooks require the Apple-supplied video-out cable or Macintosh adaptor for external video. Connect it between the PowerBook and the CableWizard2 computer cable.

(Desktop models only) Do you want to display the image on your computer's monitor as well as on the projection screen?

1. Plug the monitor's cable into the connector on the CableWizard2.

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

1. Unplug the audio cable, if present, from your computer.
2. Plug either end of the CableWizard2 audio cable into the audio connector on your Macintosh.
3. Plug the other end of the audio cable into the connector on the CableWizard2.

Do you want to control the computer's mouse from the projector's remote or keypad?

1. Unplug the mouse from your Macintosh or locate an unused ADB connector.
2. Plug the end of the CableWizard2 mouse cable into the mouse connector or the (ADB) connector on your Macintosh.

3 Plug the end of the CableWizard2 mouse cable into the connector on the CableWizard2.

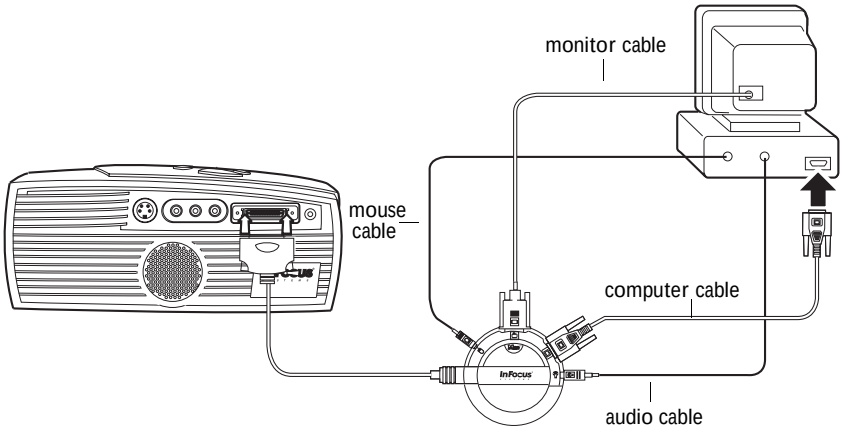


FIGURE 7

Connecting the CableWizard2 cables to a Macintosh computer

Now you're ready to power up the projector and the Macintosh. See your projector's user's guide for details.