

Contrast ratio	600:1
Image size	30 to 300 inches
Projection distance	2.8 to 48.3 feet (0.8 to 11 meters)
Projection methods	Front, rear, upside-down front (ceiling mount), and upside-down rear
Internal sound system	5 W monaural
Optical aspect ratio	4:3 (horizontal:vertical)
Zoom ratio	1:1.6
Noise level	28 dB in low brightness mode or 34 dB in high brightness mode
Keystone correction	Automatic (vertical only); manual adjustment capability $\pm 45^\circ$ (vertical), $\pm 25^\circ$ (horizontal)

Projection Lamp

Type	UHE (Ultra High Efficiency)
Power consumption	200 W
Lamp life	About 2000 hours (when Brightness Control is set to High) and about 3000 hours (when Brightness Control is set to Low)
Part number	V13H010L31

Remote Control

Range	33 feet (10 meters)
Batteries (2)	Alkaline AA

Mouse Compatibility

Supports USB

Dimensions

Height	4.6 inches (117 mm), feet retracted
Width	14.4 inches (365 mm)
Depth	11.0 inches (280 mm)
Weight	10.4 lb (4.7 kg)

Electrical

Rated frequency	50 to 60 Hz AC
Power supply	100 to 120 VAC, 3.6 A 200 to 240 VAC, 1.6 A
Power consumption	Operating: 310 W Standby: 1.5 W with Network OFF 47 W with Network ON

Environmental

Temperature	Operating: 41 to 95 °F (5 to 35 °C)
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Projector Specifications

General

Type of display	Poly-silicon Thin Film Transistor (TFT), active matrix
Size of LCD panels	Diagonal: 0.8 inch (20.3 mm)
Resolution	1024 x 768 pixels (XGA, native format)
Color reproduction	24 bit, 16.8 million colors
Brightness (ANSI)	3000 lumens in high brightness mode 2200 lumens in low brightness mode

Epson PowerLite 835p

	Storage: 14 to 140 °F (–10 to 60 °C)
Humidity	Operating: 20 to 80% RH, non-condensing Storage: 10 to 90% RH, non-condensing

Safety

United States	FCC 47CFR Part 15B Class B (DoC) UL1950 Rev. 3
Canada	ICES-003 Class B CSA C22.2 No. 950-95 (cUL)
CE Marking	Directive 73/23/EEC, 89/336/EEC EN 55022, EN 55024

Compatible Video Formats

You can use any of the following video sources: VCR, DVD player, camcorder, digital camera, gaming console, or laser disc player. The projector supports composite video, S-video, component video, and RGB video, and it automatically senses the video format (HDTV, NTSC, PAL, or SECAM).

The projector supports these international video standards:

Mode	Refresh rate (Hz)
NTSC	60
NTSC 4:43	60
PAL	50
N-PAL	50
M-PAL	60
PAL–60	60
SECAM	50
HDTV (720p)	60
HDTV (1080i)	60
SDTV (480i)	60
SDTV (480p)	60
SDTV (625i)	50
SDTV (625p)	50

Compatible Computer Display Formats

You can connect the projector to a wide range of computers, including PCs and laptops, Apple Macintosh[®], Power Macintosh[®] series, PowerBook[®] computers, many iMac[®] and iBook[®] series systems, and high-end workstations such as the Sun[®] SPARCstation.[™]

Although images are displayed at the projector's native resolution of 1024 × 768 pixels, Epson's patented SizeWise[™] chip supports computer display formats ranging from VGA through UXGA.

To project images output from a computer, the computer's external monitor signal must be set at a refresh rate (vertical frequency) that's compatible with the projector; see the following table for compatible formats. For best results, the computer's resolution should be set to match the projector's native resolution (1024 × 768).

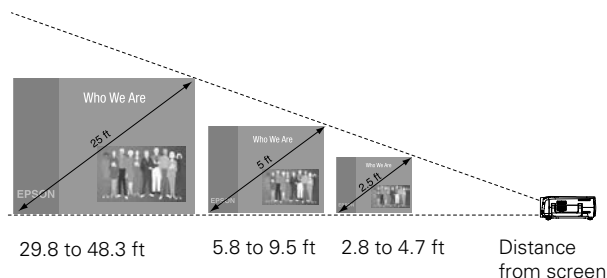
Mode	Refresh rate (Hz)	Resolution
VGA EGA	70	640 × 350*
VGA–60	60	640 × 480*
VESA–72	72	640 × 480*
VESA–75	75	640 × 480*
VESA–85	85	640 × 480*
SVGA–56	56	800 × 600*
SVGA–60	60	800 × 600*
SVGA–72	72	800 × 600*
SVGA–75	75	800 × 600*
SVGA–85	85	800 × 600*
SVGA–120	120	800 × 600*
XGA–60	60	1024 × 768
XGA–70	70	1024 × 768
XGA–75	75	1024 × 768
XGA–85	85	1024 × 768
XGA–100	100	1024 × 768
XGA–120	120	1024 × 768
SXGA1–70	70	1152 × 864*
SXGA1–75	75	1152 × 864*
SXGA1–85	85	1152 × 864*
SXGA1–100	100	1152 × 864*
SXGA2–60	60	1280 × 960*
SXGA2–75	75	1280 × 960*
SXGA2–85	85	1280 × 960*
SXGA3–60	60	1280 × 1024*
SXGA3–75	75	1280 × 1024*
SXGA3–85	85	1280 × 1024*
UXGA–60	60	1600 × 1200*
UXGA–65	65	1600 × 1200*
UXGA–70	70	1600 × 1200*
UXGA–75	75	1600 × 1200*
UXGA–80	80	1600 × 1200*
UXGA–85	85	1600 × 1200*
MAC13	67	640 × 480*
MAC16	75	832 × 624*
MAC19	75	1024 × 768
MAC21	75	1152 × 870*

* The image is resized using Epson's SizeWise technology.

Positioning the Projector

Follow these guidelines:

- Place the projector on a sturdy, level surface between 2.8 and 48.3 feet from the screen. Image size generally increases with distance, but may vary depending on the position of the zoom ring and other settings.



- Place it within 10 feet of an electrical outlet or extension cord and 5 feet of your computer or video source.
- Allow space for ventilation around and under the projector.
- To avoid a keystone shaped image (an image that is wider on one side), place the projector directly in front of the center of the screen, facing the screen squarely.
- If possible, place the projector level with the bottom of the screen.

If you place the projector too far below the screen, you may have to tilt it up by extending the front adjustable foot (see page 7). This causes the projected image to lose its shape, but the projector automatically compensates. If the image is still not square, adjust it manually by pressing the **Keystone** buttons (see page 7) or using Quick Corner (see page 8).

If you place the projector higher than the bottom of the screen, the image will be square, but it won't fill the screen.

Calculating Image Size and Projection Distance

Use the formulas below to find out how large the image will be when you know the distance from projector to screen, or to find out how far from the screen to place the projector if you want an image of a certain size. Since you can change the image size by adjusting the zoom, formulas are given for calculating both minimum and maximum sizes.

Note: Formulas given here apply only when the image is not tilted. If you tilt the image up by extending the projector's foot or using electronic keystone correction, your image size may vary.

To determine the diagonal size of an image (in inches) when you know the projection distance:

- Maximum diagonal size =**
 $(\text{projection distance}[\text{inches}] \times 2.54 \times 0.32827 + 1.6767)$

- Minimum diagonal size =**
 $(\text{projection distance}[\text{inches}] \times 2.54 \times 0.203 + 1.077)$

To determine the projection distance (in inches) when you know the diagonal size of the screen image:

- Maximum projection distance =**
 $((\text{diagonal size}[\text{inches}] \times 4.92611) - 5.30542) / 2.54$

- Minimum projection distance =**
 $((\text{diagonal size}[\text{inches}] \times 3.04627) - 5.10769) / 2.54$

Connecting the Projector

You can connect the projector to two computer sources or four video sources—up to a total of four sources. You can include an independent sound channel for each source. (See the *User's Guide* for complete setup instructions.) Using EasyMP[®], you can also connect over a wireless network, or view images on a memory card or digital camera.

Note: The preview feature lets you see all the sources at a glance, so you can easily switch to the one you want. See page 5.

Types of Connections

The following connections are possible, depending on the signal your equipment generates and its available output ports.

Computer equipment

Output signal	Required cable
Analog RGB video	VGA cable VGA-to-BNC cable
DVI	DVI to VGA cable

Video equipment

Output signal	Required cable
Composite video	RCA video cable
S-video	S-video cable
Component video	Component to VGA cable
RGB video	VGA cable

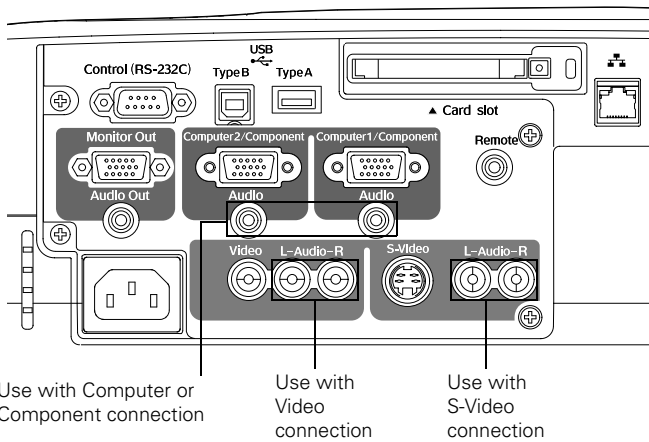
Note that the projector's Computer ports accept a variety of input signals. If you're connecting to one of these ports, you'll need to make sure that the correct input signal setting is selected or your image won't display properly.

Playing Sound Through the Projector

You can play sound through the projector's speaker system or attach an external speaker system.

To play sound through the projector, use one of the following cables that came with your projector:

- ❑ If you have a computer or video equipment connected to one of the Computer/Component ports, use a stereo mini-jack cable. Connect one end to the correct Audio port and the other end to the audio-output connector on your equipment.
- ❑ If you have a computer or video equipment connected to the Video or S-Video port, use an RCA-style audio cable. Connect one end to the correct port and the other end to the audio-output connector on your equipment.



To connect external speakers, use the Audio Out port on the back of the projector. You may be able to use a commercially available audio cable with a stereo mini-jack connector on one end and pin jacks on the other, or you may have to purchase a special cable or use an adapter, depending on your stereo system. See the *User's Guide* for more information.


Using the Remote Control as a Wireless Mouse

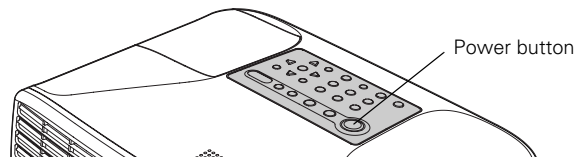
If you've connected a computer to the projector, you can use the projector's remote control as a wireless mouse by connecting the USB cable that came with the projector to the projector's **Type B** USB port. The wireless mouse function is supported on systems with a USB port running Windows® 98, 2000, Me, or XP, Macintosh OS 8.6 to 9.x, or Macintosh OS X 10.2 or later. See the *User's Guide* for more information.

Starting Up the Projector

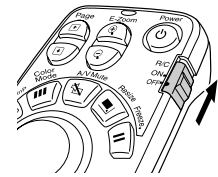
If you turn on your computer or video equipment before the projector, the projector automatically selects the connected source. If you turn on the projector first or you have multiple sources connected, you may have to switch to the desired source manually (see "Selecting the Image Source" below).

Turning On the Projector

1. Remove the lens cap.
2. Plug in the projector.
3. Wait a few seconds until the projector's Power light stops flashing and turns orange.
4. Press the red  Power button on top of the projector or on the remote control.



Note: If you're using the remote control, make sure batteries are installed and the power switch on the side of the remote control is turned on.



The projector's Power light flashes green as it warms up, and an image begins to appear after about 30 seconds. When the Power light stops flashing and remains green, the projector is ready for use.

Warning: Never look into the lens when the lamp is on. This can damage your eyes.

5. If you've connected a Windows-based computer to the projector, you may see a New Hardware Wizard telling you that your computer has found a plug-and-play monitor; if so, click Cancel.

Selecting the Image Source

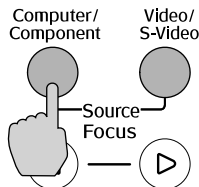
If multiple devices are connected to the projector, you can use the Source buttons on the projector or the remote control to switch from one source to another:

- ❑ You can press the Source Search button on the projector's control panel or the remote to find the connected equipment automatically.

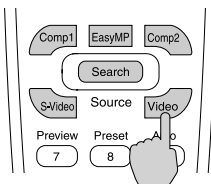
- ❑ The projector's control panel has two Source buttons.

Use the Computer/Component button to switch between EasyMP,™ and equipment connected to the Computer ports.

Use the Video/S-Video button to switch between equipment connected to the Video and S-Video ports.



- ❑ The remote control has five Source buttons. Use them to switch between equipment connected to the port identified on each button, or select EasyMP to project wirelessly or from a memory card.



You can preview all sources to help you select the desired source, as described below.

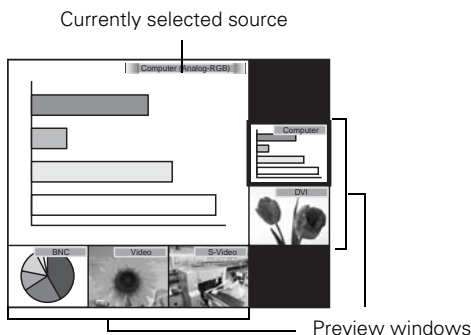
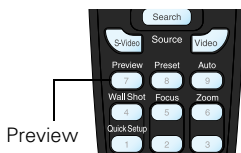
The Computer/Component ports can be set up to use different input signals, so if you have equipment connected to one of these ports, be sure to select the correct signal to match the equipment you're using. You can change the input signal settings using the projector's menu system.

Previewing Image Sources

Use the preview function to select the image source when you have connected multiple sources to the projector.

1. Press the Preview button on the remote control.

You see the currently selected source displayed on the screen, as shown below. Other sources (including the currently selected source) appear in smaller preview windows on the right and bottom of the screen.



If no equipment is connected to a port, or if there is no incoming signal, the preview window for that source appears blank.

Note: Movies are displayed as still images on the preview screen.

2. Press the corresponding Source button on the remote control to switch to the desired source. Or press the Esc button to exit the preview screen without switching sources.

Note: A red border surrounds the preview window for the currently selected source. You can use the pointer button on the remote control to select a different source, and then press Enter to display it.

What To Do If You See a Blank Screen

If you see a blank screen or a blue screen with the message No Signal after turning on your computer or video source, try the following:

- ❑ Make sure the cables are connected correctly.
- ❑ Make sure the Power light is green and not flashing and the lens cover is off.
- ❑ Try restarting your computer.
- ❑ Press the correct Source button on top of the projector or on the remote control. (Allow a few seconds for the projector to sync up after pressing the button.)

If you're using a PC laptop:

- ❑ Hold down the Fn key and press the function key that lets you display on an external monitor. It may have an icon such as or it may be labeled CRT/LCD. Allow a few seconds for the projector to sync up after pressing it. Check your laptop's manual or online help for details.

On most systems, the or CRT/LCD key lets you toggle between the LCD screen and the projector, or display on both at the same time.

- ❑ Depending on your computer's video card, you might need to use the Display utility in the Windows Control Panel to make sure that both the LCD screen and external monitor port are enabled. See your computer's documentation or online help for details.

If you're using a laptop with Macintosh OS X:

You may need to set up your system to display on the projector screen as well as the LCD screen. Follow these steps:

1. From the Apple menu, select System Preferences, then select Displays.
2. Click the Arrangement or Arrange tab.

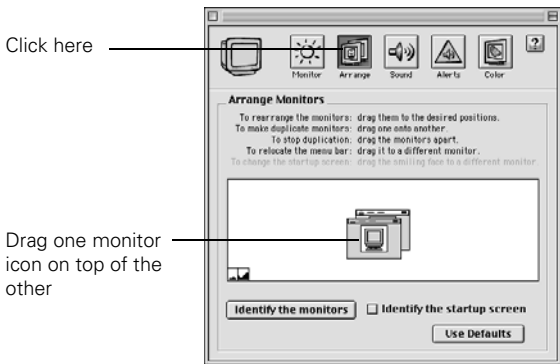


3. Make sure the Mirror Displays checkbox is selected.

If you're using a laptop with Macintosh OS 9.x:

You may need to set up your system to display on the projector screen as well as the LCD screen. Follow these steps:

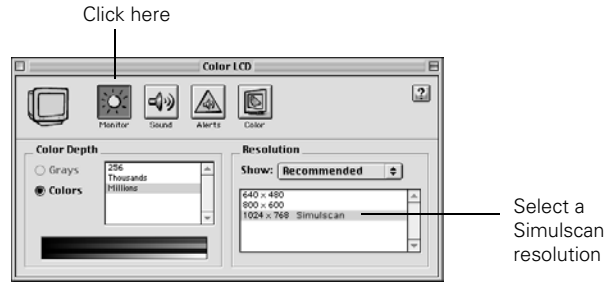
1. From the Apple menu, select Control Panels, then click Monitors or Monitors and Sound.
2. Click the Arrange icon.



3. Drag one monitor icon on top of the other.

If the Arrange option isn't available, do the following:

1. Click the Monitor icon if necessary.



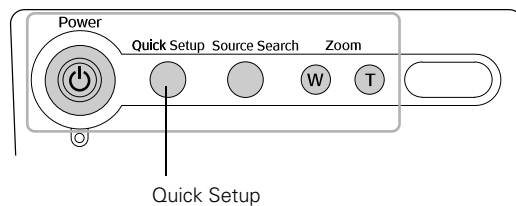
2. Select a Simulscan resolution as shown. (Allow a few seconds for the projector to sync up.)

Adjusting the Image

Once you see your image, you may need to make certain adjustments.

Using Quick Setup

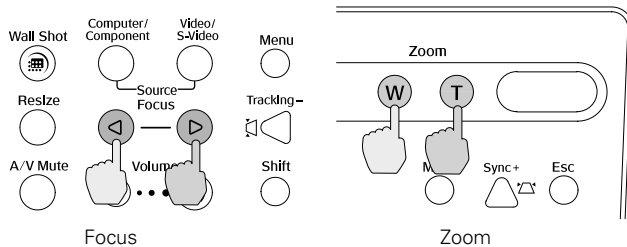
You can use the Quick Setup button on the projector or the remote control to quickly and automatically set up the projector's focus, zoom, and screen shape, as well as the Wall Shot setting. All you need to do is position your projector and press Quick Setup. Make sure you enable Quick Setup for all of the settings you want to use, as described in the *User's Guide*.



Focusing and Zooming Your Image

Use the Focus buttons on the projector or remote to sharpen the image.

Use the Zoom buttons on the projector or remote to reduce or enlarge the image. Press the W button on the projector or the top zoom button on the remote to increase the size, or the T button on the projector or bottom zoom button on the remote to decrease it.

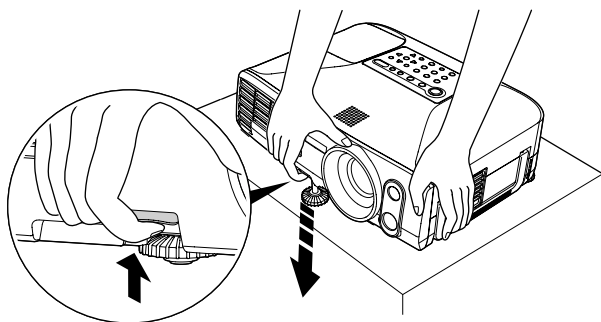


If the image still isn't large enough, you may need to move the projector farther away from the screen. You can also use the E-Zoom buttons on the remote control to zoom in on a portion of the image.

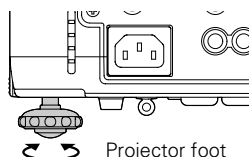
Adjusting the Height of Your Image

If the image is too low on the screen, you can raise it by adjusting the front foot:

1. Stand behind the projector. Press up on the blue foot release lever and lift the front of the projector.



2. Once the image is positioned where you want it, release the lever to lock the foot in position.
3. If necessary, you can fine-tune the height by turning the projector's rear feet.

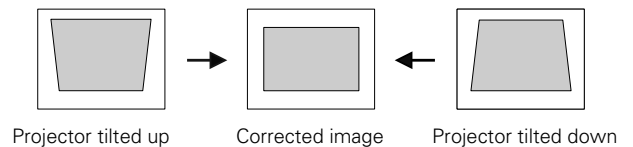


Raising the projector causes the image to distort or "keystone," but you can manually correct the shape as described in the next section.

Adjusting the Image Shape

In most cases, you can maintain a rectangular image by placing the projector directly in front of the center of the screen with the base of the lens level with the bottom of the screen.

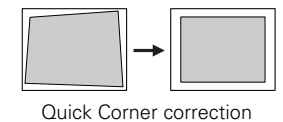
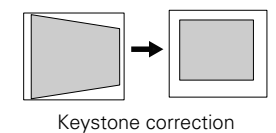
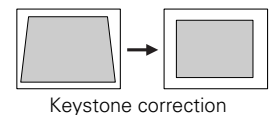
Even if the projector is slightly tilted (within a range of 45° up or down), the projector's automatic keystone correction function detects and corrects vertical keystone distortion.



It takes about one second after projection starts for the image to be corrected. During this time, a vertical keystone correction gauge appears on the screen.

If your image is still distorted, you can correct it using either of these methods:

- ❑ If the image has two parallel sides but is wider on the top, bottom, left, or right, you can correct it using the Keystone buttons on the projector's control panel or the Keystone menu (see the next section).
- ❑ If the image has no parallel sides, you can adjust its shape using Quick Corner™ (see page 8).



You cannot use both keystone correction and Quick Corner at the same time.


Using Keystone Correction

To adjust your image when it is wider on one side, do the following:

- ❑ Look at the shapes of the icons on the projector's four keystone buttons. Press the button whose icon is the opposite of the shape of your screen image. Continue pressing the button until you are satisfied with the shape of the image.

Note: The image will be slightly smaller after adjusting. If it's important to maintain the correct aspect ratio, use the menu system to perform keystone correction, then use the remote's Resize button to adjust the aspect ratio.



- Press the Menu button on the remote control, select the Setting menu, and press Enter. From the Setting menu, select Keystone and press Enter, select H/V Keystone and press Enter, then select Horiz./Vert./Height and press Enter. Select V-Keystone (for vertical keystone distortion) or H-Keystone (for horizontal keystone distortion) and press Enter. Use the  pointer button on the remote control to adjust the keystone setting as needed.

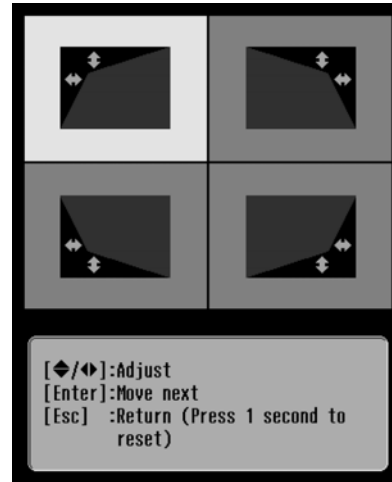
Using Quick Corner


If your projected image has no parallel sides, you can even up the sides using Quick Corner. Follow these steps:

1. Press the Menu button on the remote control (or on the projector's control panel).
2. Select the Setting menu and press Enter.

Note: If you are already using Keystone settings, you see a warning message. To disable keystone settings and use Quick Corner instead, press Enter; to keep your settings, press Esc.
3. From the Setting menu, select Keystone and press Enter.
4. Select Quick Corner and press Enter.

You see this screen:



5. Press the Enter button to select the corner you want to adjust.
6. Use the  pointer button on the remote control (or the arrow buttons on the projector) to adjust the shape.

Note: If you are not satisfied with the corrections made, press the Esc button for one second to reset the screen to its original shape.
7. Repeat steps 5 and 6 as needed to adjust any remaining corners.
8. When you're done, press the Esc button on the remote control or projector's control panel to exit the menu system.

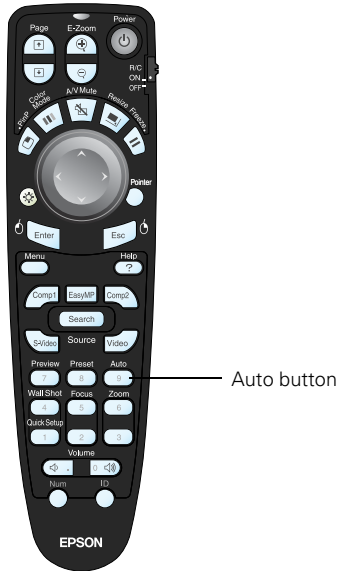
If Quick Corner remains selected in the Keystone menu, the Quick Corner screen appears whenever you press the projector's keystone buttons. You can then follow steps 5 through 8 above to correct the shape of your image or press Esc to exit Quick Corner.

Correcting Computer Images

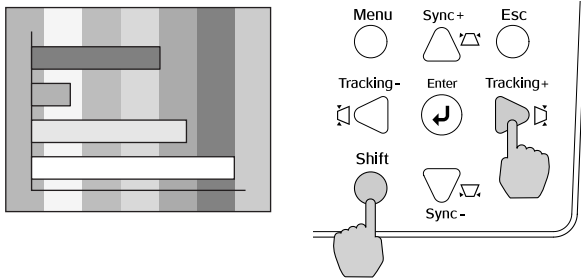
If you're connected to a computer and the image doesn't look right, press the Auto button on the remote control.

Note: You must be projecting an image for this button to have any effect. The Auto button works only with computer images.

This automatically resets the projector's tracking, sync, resolution, and position settings.




If vertical bands appear in the projected image and pressing the Auto button doesn't correct the problem, hold down the Shift button on the projector's control panel while pressing either the Tracking + or the Tracking - button.




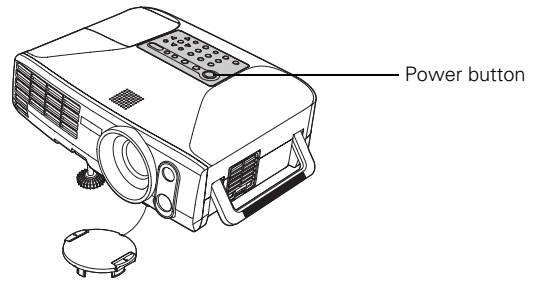
If the image appears fuzzy or flickers and pressing the Auto button doesn't correct the problem, hold down the Shift button while pressing either the Sync + or Sync - button on the projector.

Shutting Down the Projector

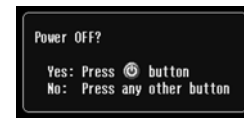
When you've finished using the projector, follow the recommended procedure to shut it down. This extends the life of the lamp and protects the projector from possible overheating.


Note: You can set the projector to automatically turn off the projector lamp and enter "sleep mode" when it has not received any signals for 30 minutes. This conserves electricity, cools the projector, and extends the life of the lamp. To start projecting again, press the  Power button. If you are done using the projector, unplug the power cord. To turn off sleep (standby) mode, see the User's Guide.


1. Turn off any equipment plugged into the projector.
2. To turn off the projector, press the red  Power button on the projector or remote control.



You see a confirmation message. (If you don't want to turn the projector off, press any other button.)



3. Press the  Power button again. The projector beeps twice, the lamp is turned off, and the Power light flashes orange for about 30 seconds as the projector cools down. After the projector has cooled, the orange light stays on and the exhaust fan shuts off.

To turn the projector on again, wait until the orange light stops flashing. Then press the  Power button.

4. If you extended the adjustable front foot, press up on the blue foot release lever to retract it.
5. Replace the lens cap and unplug the power cord.

Caution: Turn the projector off when not in use. Continuous 24-hour-a-day use may reduce the projector's overall life.

6. If you're using a remote control, set its ON/OFF switch to OFF.

Using the Direct Power On Function

The Direct Power On function enables fast and easy setup and shut down. This feature is convenient for ceiling-mounted projectors because you can simply flip a switch connected to the power outlet for the projector to turn it on or off. For desktop or table-top use, you can quickly unplug the projector immediately without having to wait for it to cool down. Then you can pack up the projector and go.

Follow these steps to enable Direct Power On:

1. Press the Menu button on the remote control and select the Extended menu.
2. Choose Operation and press Enter.
3. Choose Direct Power ON and press Enter.



4. Highlight On and press Enter.
5. Press Esc or Menu to exit.

Using the Remote Control

The remote control lets you access your projector's features from up to 30 feet away, and from ± 25° above or below and ± 45° left or right of the projector's infrared receiver.



Note: If the projector does not respond to the remote control, make sure batteries are installed and the switch on its side is turned on. The projector also might not respond if the batteries are weak, you're standing at too great a distance from the projector, ambient light is too bright, a certain type of fluorescent light is present, or other equipment emitting infrared energy is present (such as a radiant room heater).

Remote Control Functions

Button	Function
E-Zoom	Zooms in on a portion of your image.
Page	Advances to the next or previous image in a slideshow.
Power	Turns the projector on or off.
P in P	Displays a picture-in-picture image.
Color Mode	Adjusts the vividness of the image color. You can select from several settings and save a different setting for each computer or video source.
A/V Mute	Turns off audio and video and displays the black, blue, or user logo background. Press it again to turn audio and video back on.
Resize	Adjusts how an image fits into the display area.
Freeze	Halts action. Press again to resume action.
	Illuminates the buttons on the remote control.
	Navigates menus or controls the mouse pointer when the projector is connected to a computer with the mouse cable.
Pointer	Activates the pointer tool. To use a different style pointer, continue pressing the Pointer button to select the desired style.
Enter	Selects a highlighted menu option or functions as the left mouse button when the remote control is used in place of your computer's mouse.
Esc	Displays the previous menu when using the menu system. Functions as the right mouse button when the remote control is used in place of your computer's mouse.
Menu	Displays the on-screen menu system.
Help	Displays the on-screen help system.
Source buttons	Switch to the equipment connected to the corresponding port, or to EasyMP if you are projecting wirelessly or using a memory card. Press Search to automatically find a source image from a connected device.
Preview	Previews connected sources (see page 5).
Preset	Selects a preset selection of options for displaying computer images.
Auto	Optimizes a computer image.
Wall Shot	Adjusts the colors for projecting on a wall, blackboard, or other surface.
Focus	Focuses the projected image.
Zoom	Zooms the projected image.
Quick Setup	Automatically adjusts the image. Adjustments are pre-selected in the projector menus.
Volume	Increases or decreases the sound.
Num	Turns on the numeric keypad. (Press this key until it lights.)
ID	Sets the remote control ID

Using the Control Panel



Control Panel Button Functions

Button	Function
Power	Turns the projector on or off.
Quick Setup	Automatically adjusts the image. Adjustments are pre-selected in the projector menus.
Source Search	Automatically finds a source image from a connected device.
Zoom	Zooms the projected image.
Focus	Focuses the projected image.
Help	Displays the on-screen help.
Computer/Component	Switches the source signal between EasyMP and equipment connected to the Computer/Component ports.
Video/S-Video	Switches the source signal among equipment connected to the Video or S-Video ports.
Menu	Displays the on-screen menu system.
Esc	Pressing Esc while viewing a menu displays the previous menu.
Enter	Use Enter button to select an option when the menu or help system is active.
Tracking buttons	Let you manually eliminate vertical banding that may be present in some computer images. Use the Tracking buttons as arrow keys to navigate the on-screen menu and help systems.
Sync buttons	Let you correct blurriness that may be present in some computer images. Use the Sync buttons as arrow keys to navigate the on-screen menu and help systems.
Shift	Press and hold to use the Tracking and Sync buttons.
A/V Mute	Turns off audio and video and displays the black, blue, or user logo background. Press it again to turn audio and video back on.
Resize	Adjusts how an image fits into the display area.
Keystone buttons	Corrects an image that is keystone-shaped or wider on one side. (When used while pressing the Shift button, these function as Sync and Tracking buttons; see descriptions above.)
Volume	Increases or decreases the sound.

Presenting Over a Wireless Network

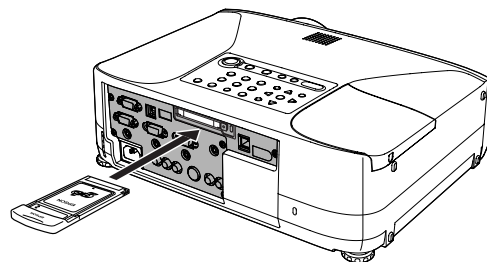
Using EMP NS Connection, you can project images shown on your computer screen directly to your audience without connecting the projector to your computer. Before you begin, make sure you've installed EMP NS Connection from the CD-ROM that came with your projector. See the *User's Guide* for installation instructions.

Note: Your computer must be running Microsoft® Windows XP, 2000, Me or 98, or Macintosh® OS X 10.2.4 or later.

Starting EasyMP

Before you can connect to the projector wirelessly, you have to switch it to EasyMP mode.

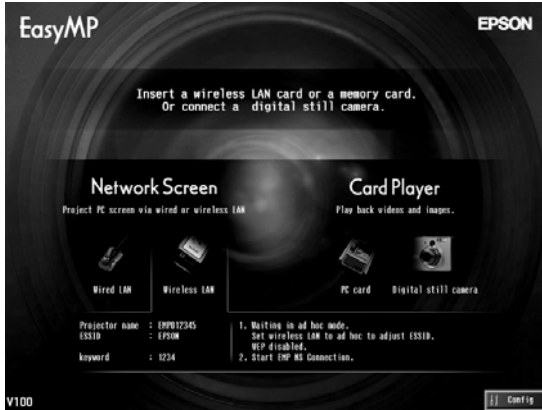
1. Turn on the remote control and the projector. Press the EasyMP button on the remote control to select EasyMP as the source.
2. Locate the EPSON 802.11g card that came with your projector. Insert it with the label facing upward.



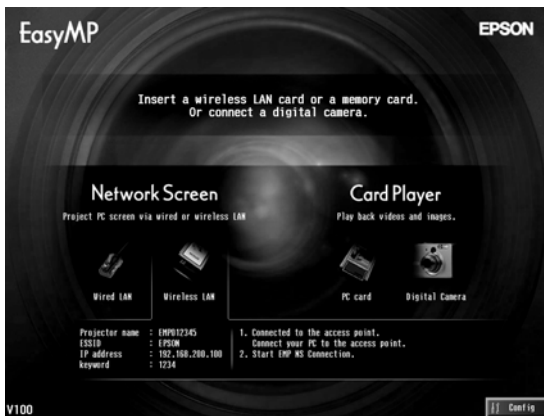
Note: Only the EPSON 802.11g card is guaranteed to work. Other cards may not be compatible.

Once the card is inserted, you see one of these screens, depending on the currently selected mode:

Note: If you see a message asking you to insert a LAN or memory card, check to make sure your 802.11g card is properly inserted.



Ad Hoc mode



Access Point mode

3. If you've already set up your computer and projector for the mode you want to use—Ad Hoc mode (also called computer-to-computer mode) or Access Point mode (also called infrastructure mode)—skip to “Projecting Wirelessly” on page 13.

Otherwise, continue with the next section.

Configuring the Connection

Note: Make sure you've installed the NS Connection software.

To connect to the projector over a wireless network, your computer must be running Windows 98, Me, 2000, or XP. Your Macintosh must be running OS X 10.2.4 or later. See page 183 for complete system requirements for projecting wirelessly.

Access Point mode (infrastructure mode) is required to achieve transfer speeds up to 54MB/sec on an 802.11g network. Ad Hoc mode (computer-to-computer mode) limits network connections to 11MB/sec. This is a standard specification of 802.11g networking.

You can use NS Connection to connect to the projector and send images wirelessly in two modes: Ad Hoc mode or Access Point mode.

- ❑ **Ad Hoc mode** (computer-to-computer mode) lets you connect just one computer to the projector at a time; it's easy to set up, and the only equipment you need is a computer with a wireless (802.11g or 802.11b) network card or adapter, or a Macintosh with an AirPort® or AirPort Extreme card.
- ❑ **Access Point mode** (infrastructure mode) lets multiple computers access the projector at the same time and easily trade off control over the projector. To use Access Point mode, you need a wireless (802.11g or 802.11b) access point or an AirPort Extreme (or AirPort) base station, and one or more computers with wireless network cards or adapters.

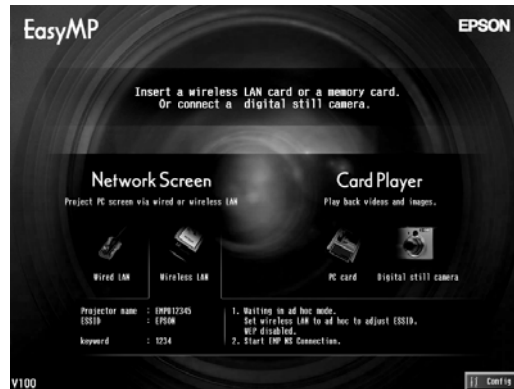
Follow the instructions below for the mode you want to use.

Using Ad Hoc Mode

To use Ad Hoc (computer-to-computer) mode, adjust your projector and wireless card or adapter settings as described in this section.

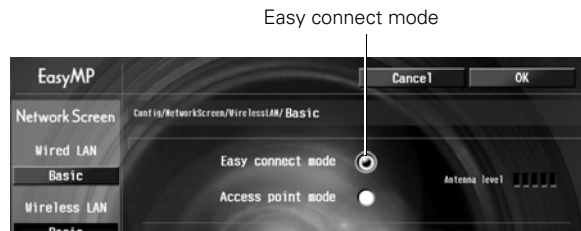
Configuring the Projector

Switch the projector to EasyMP mode and insert the Epson 802.11g card. You see this screen:




Config button



4. To select Config, press the Enter button on the remote control. You see the following screen:

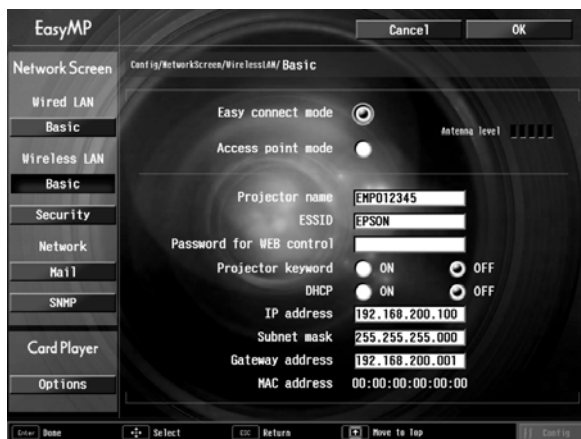


Easy connect mode

Make sure Easy connect mode is selected, as shown above. If not, use the  pointer button on the remote control to highlight the checkbox next to Easy connect mode, then press Enter to select it.

5. Make sure the projector has a unique name, so you can identify it when connecting to it from your computer.

If you need to rename it, highlight the Projector name text box then press Enter. The outline of the text box turns yellow to indicate you are in input mode. Press the  pointer button up to select individual letters in alphabetical order, or down to select letters in reverse order; then press the  pointer button to the right to move to the next character position. When you're done typing the new name, press Enter.



Note: If you want to enter a blank space, use the space character that comes before the capital letter A.


If you want to enter numbers, press the Num button on the remote control. The button lights up to indicate that the numeric keypad mode is active. Press the Num button again to exit numeric keypad mode.

6. If your network card supports an SSID or ESSID name, highlight the ESSID text box, press Enter, and enter a name. When you're done, press Enter. Note that the ESSID is case-sensitive (if you enter the name in uppercase on the projector, you must type it the same way on the computer connecting to the projector).
7. If you want to create a password for remote access to the projector, highlight the Password for WEB control checkbox, press Enter, and enter a password of up to 8 alphanumeric characters. When you're done, press Enter.
8. If you want to set up a security keyword so that only people who are in the same room as the projector can access it, turn Projector keyword on. Then when you want to connect to the projector, it displays a randomized four-digit

number or “keyword” on the screen. When prompted by NS Connection, you must enter the keyword on your computer to connect.

Note: The projector keyword changes each time you turn the projector off and then on again, or remove and reinsert the 802.11g card. Check the keyword on the EasyMP Network screen whenever you start EasyMP and enter that keyword on your computer. You can't connect using a previous keyword.

It is recommended that the keyword setting is changed periodically.

9. When you're done making these settings, highlight the OK button at the top of the screen (you can either press the Esc button on the remote control or use the  pointer button to highlight it), then press Enter. Highlight the OK button again and press Enter to return to the main EasyMP Network Screen.

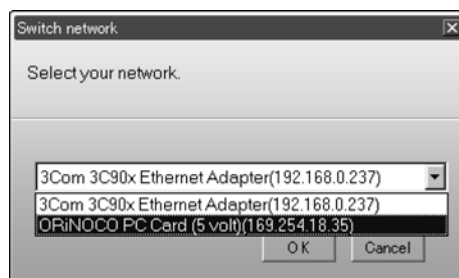
Projecting Wirelessly

Once you've started EasyMP and set up your projector and computer in either Ad Hoc mode or Access Point mode, follow these steps to start NS Connection and project wirelessly.

1. Make sure you've installed your 802.11g wireless card in your projector.
2. **Windows:** Select EMP NS Connection from the Start menu.

Macintosh OS X: Double-click the EMP NS Connection icon in your Applications folder.

3. The first time you start NS Connection, you may see a dialog box asking you to select your network. Select the IP address for your computer's network card and click OK.



Note: If you don't see your network adapter's IP address, allow a minute for it to appear. If your access point or AirPort base station uses DHCP (Distribute IP addresses setting is enabled for AirPort), sometimes it takes a minute for the server to pick up the IP address.

Once you've selected the IP address for your network adapter, you won't see the Switch network dialog box when you start

NS Connection. If you want to change to a different network adapter, click Extension on the EMP NS Connection dialog box, then click Switch LAN on the extension dialog box.

You see the screen below. (If you have previously started NS Connection, this is the first screen you see.)



If the connection is working properly, you see your projector listed. If you have additional Epson projectors on the network, they are also listed, along with their status.

The color of the icon next to each projector's name indicates its status:

- Gray:** the projector is not connected
- Orange:** the projector is connected to another computer
- Green:** the projector is connected to your computer

If you don't see your projector, check the following:

- Make sure your wireless signal is strong enough to establish a connection:

If you have a Macintosh, check the AirPort icon on the Macintosh menu bar.

For Windows, see the documentation for your access point or computer network card.

- Make sure you're trying to connect to the right network. In Windows, verify that you've enabled your computer's connection to the access point or that your wireless card or adapter is enabled, and that its SSID matches the projector's ESSID. In Macintosh, check the AirPort status menu (click the AirPort icon on your menu bar) to make sure AirPort is turned on and the projector's ESSID or your AirPort network is selected.
- Make sure you aren't projecting one of the EasyMP configuration screens. (You should see a message that the projector is ready to connect.) If you have to exit a configuration screen, restart NS Connection.

- Make sure the ESSID for your projector matches the SSID for your wireless card, adapter, or access point. If you have an AirPort base station, make sure the projector's ESSID matches the AirPort network name. Remember that the ESSID is case-sensitive.

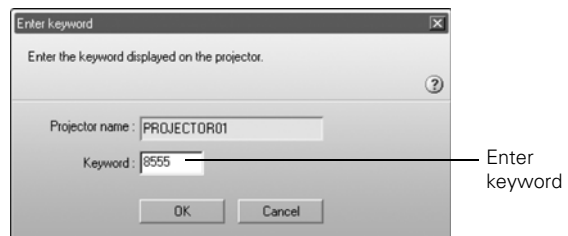
Note: The AirPort network name may be different than the AirPort base station name. To check the network name, start the AirPort Admin utility, select your base station, and click Configure. Then click Show All Settings. The network name appears on the AirPort tab.

- Check the IP address for both your projector and your wireless card, adapter, access point, or AirPort base station. The first three segments of the IP address should be identical. The last segment of the projector's IP address should be close, but not identical, to the last segment of the IP address for your wireless interface, access point, or base station.
- Restart your computer and start NS Connection again.

4. Once the name of your projector appears, select it and click Connect. If more than one projector is listed, you can select additional ones and connect to them at the same time. If the selected projector is already being used by another person, you can still connect to it; doing so automatically disconnects the other user.

Note: If you want your presentation encrypted, click Extension and select Use encrypted communication. This step enhances security but decreases the data transmission speed.

5. If you set up the projector to prompt you for a keyword before connecting, you see a screen like this one:



Type in the four-digit number displayed on the EasyMP Network screen and click OK.

6. Once the connection is established, you see your computer's image transmitted to the screen, and a floating control bar on your computer desktop:













7. If necessary, you can drag the control bar out of the way on your screen.

8. When you're done with your presentation, click **Disconnect** on the control bar.

Using the Control Bar

From the control bar, you can access these NS Connection features:

-  Provides help for NS Connection.
-  Lists projectors and specifies which ones are in use.
-  Lets you access the projector's menu system from an HTML browser window.
-  Keeps the projected image on screen, even if the image on your computer changes.
-  Turns off the image and sound.
-  Zooms in on a part of your image.
-  Changes the brightness, contrast, and color mode.
-  Switches between the Video and S-Video ports.
-  Switches between signals from the Computer ports.

Clicking one of the buttons on the control bar may cause a submenu to appear above the control bar. For example, clicking the  button displays the following submenu:



If you're using more than one projector, you can use the Projector drop-down menu to select the projector on which you want to make any of the following changes:

- Brightness**
Increase or decrease brightness.
- Keystone**
Click **+** to narrow the top edge of the screen, or **-** to narrow the bottom edge (this option functions like the **Sync** buttons on the projector's control panel).
- Contrast**
Increase or decrease image contrast.
- Color Mode**
Lets you select from five preset modes to adjust the color and brightness for specific environments: sRGB for computer displays (the default when projecting from a computer with analog video), Dynamic for presentations in bright rooms, Presentation for presentations in dark rooms, Theatre for optimizing movie images (the default for video display), and Living Room for video games.

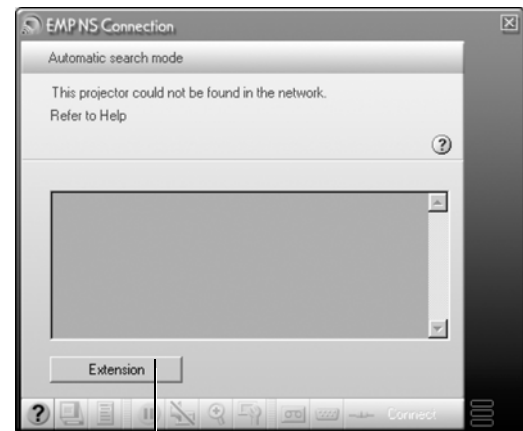
When you're done, click the arrow in the upper right corner to close the submenu.

Connecting in IP Connect Mode

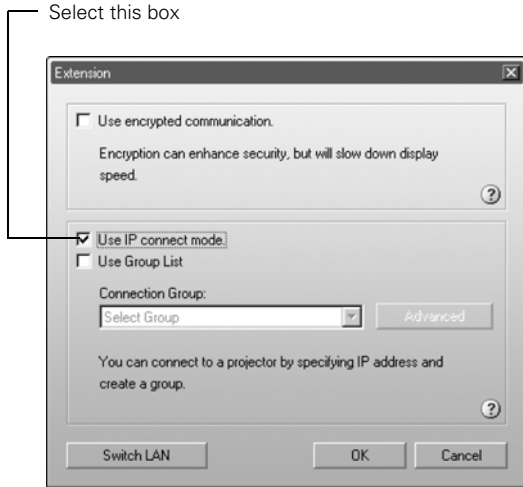
You can establish a connection manually using IP Connect Mode even if your projector and computer are on a different subnet (Access Point mode only) or connecting over different routers.

Note: Depending on your network, your projector and computer may connect over different routers even if they are in the same room. Try this method if you are unable to connect automatically.

1. Start NS Connection. You see this screen:



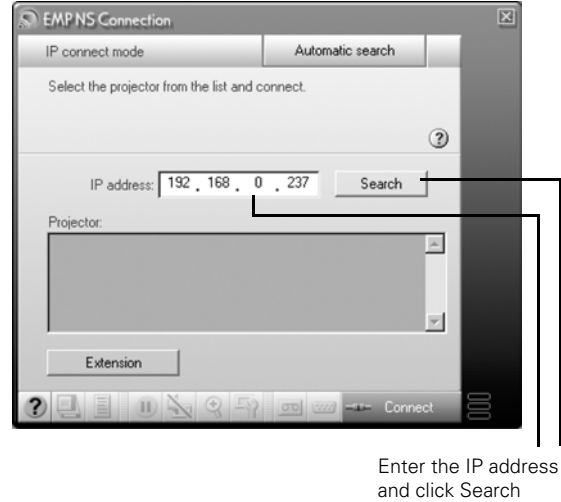
2. Click the Extension button. You see this screen:




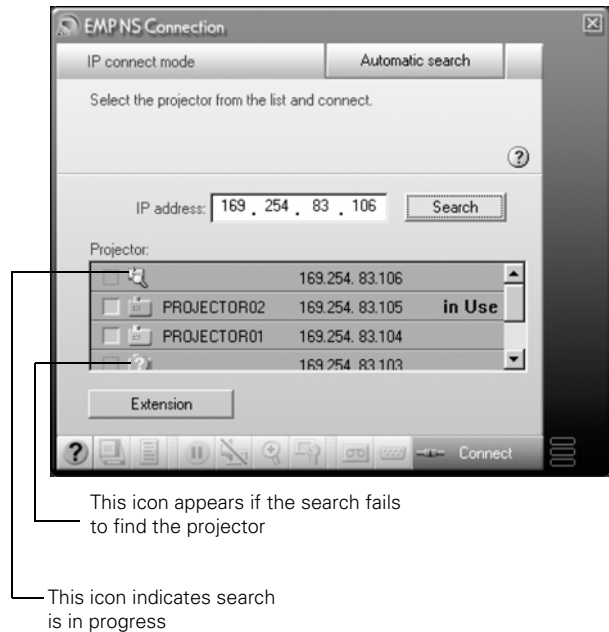
3. Select Use IP connect mode and click OK. You see this screen:



4. Click IP connection. You see this screen:



5. Enter the projector's IP address and click Search. The IP address appears in the Projector list and a  searching icon appears:



Note: You can add up to 16 projectors to the list. If you add more, NS Connection begins to delete projectors from the list, starting with the first projector added.

If the search fails to find a projector with the specified IP address, the searching icon turns into a question mark. If this happens, run EasyMP on your projector to check the projector's IP address, then repeat this step.

- Click the projector you want to connect to and click the Connect button. If more than one projector is listed, you can select additional projectors and connect to them at the same time.
- If you are prompted for a keyword, enter the four-digit number displayed on the EasyMP Network screen and click OK.

The computer's image is transmitted to the projector and appears on the screen.

Switching Between Users

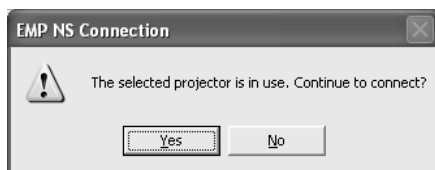
To connect to the projector while another person is already using it (Access Point mode only), follow these steps.

- Start NS Connection. You see this screen:

Select projector

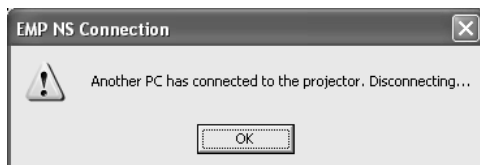


- Select the projector you want to use and click Connect. You see this message:



- Click Yes to connect.

The other user is automatically disconnected and notified about the interruption:



Cleaning the Lens

Clean the lens whenever you notice dirt or dust on the surface.

Use a canister of compressed air to remove dust.

To remove dirt or smears on the lens, use lens-cleaning paper. If necessary, moisten a soft cloth with lens cleaner and gently wipe the lens surface.

Caution: Do not use glass cleaner to clean the lens.

Cleaning the Projector

Before you clean the case, first turn off the projector and unplug the power cord.

To remove dirt or dust, wipe the case with a soft, dry, lint-free cloth.

To remove stubborn dirt or stains, moisten a soft cloth with water and a mild detergent. Then wipe the case.

Caution: Do not use wax, alcohol, benzene, paint thinner, or other chemical detergents. These can damage the case.

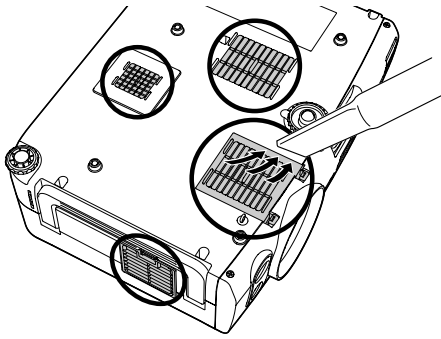
Cleaning the Air Filters and Vents

Clean the air filters and air intake vents after every 100 hours of use. If they are not cleaned periodically, they can become clogged with dust, preventing proper ventilation. This can cause overheating and damage the projector.

Note: To order replacement air filters, request part number V13H134A07.

Follow these steps:

- Turn off the projector. Wait for the Power light to stop flashing, then unplug the power cord.
- To clean the intake vents, use a small vacuum cleaner designed for computers and other office equipment. If you don't have one, gently clean the vents with a soft brush (such as an artist's paintbrush).





If the dirt is difficult to remove or a filter is broken, replace the filters as described in the next section. Contact your dealer, by calling Epson at (800) 873-7766, or by visiting the Epson StoreSM at www.epsonstore.com (U.S. sales only). In Canada, please call (800) 463-7766 for dealer referral.

Replacing the Lamp and Air Filters

The life span of the projection lamp is about 2000 hours if Brightness Control in the Setting menu is set to High (default), and 3000 hours if Brightness Control is set to Low.

Note: When you get a replacement lamp for your projector, you should replace the filters.

It is time to replace the lamp when:

- The projected image gets darker or starts to deteriorate.
- The message Replace the lamp appears on the screen when the lamp comes on and the  lamp warning light flashes orange. To maintain projector brightness and image quality, replace the lamp as soon as possible.
- The  lamp warning light flashes red (the lamp is burnt out).

Contact your dealer or call Epson at (800) 873-7766 in the United States for a replacement lamp. Request part number V13H010L31. In Canada, please call (800) 463-7766 for dealer referral.

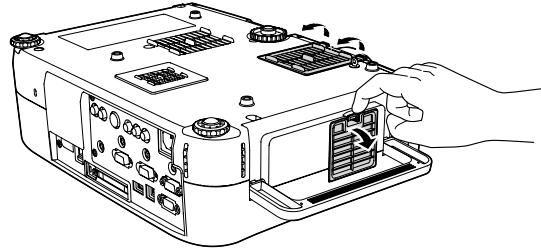
Follow these steps to replace the lamp and air filters:

1. Turn off the projector.
2. When the Power light stops flashing, unplug the power cord.

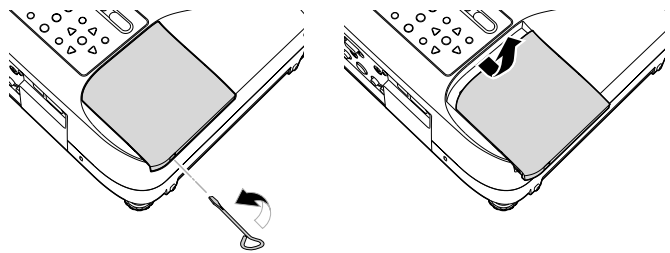
WARNING: Let the lamp cool fully before replacing it. It is extremely hot immediately after use.

In the unlikely event that the lamp has broken, small glass fragments may be present and should be removed carefully to avoid injury.

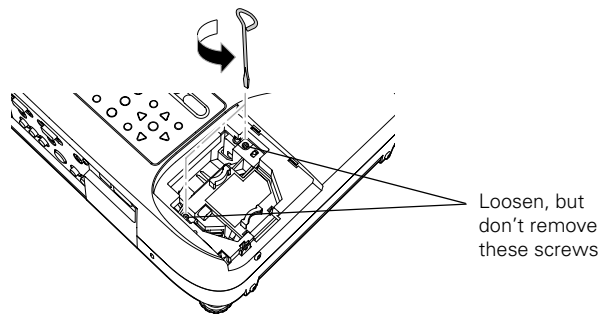
3. Let the projector cool for at least an hour (if it has been on). The lamp is extremely hot immediately after use.
4. Turn the projector over and remove the air filters at the side and bottom of the projector.



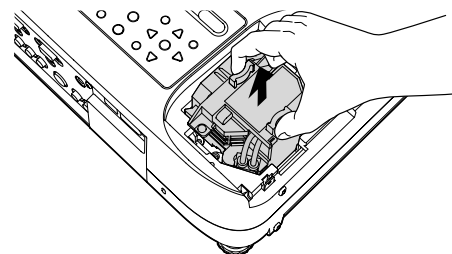
5. Insert the two new air filters. They should click into place.
6. Turn the projector back over.
7. Loosen the screw holding the lamp cover in place (you don't need to remove it). Then remove the lamp cover.



8. Loosen the two screws holding the lamp in place (you don't need to remove them).



9. Grasp the handles as shown and pull the lamp straight out.




10. Gently insert the new lamp. (If it doesn't fit easily, make sure it is facing the right way.)
11. Once the lamp is fully inserted, tighten its screws and replace the cover, then tighten the cover screw. (The projector won't turn on if the lamp cover is loose.)
12. Reset the lamp timer as described below.

- ❑ When transporting the projector a long distance, first place it in a hard-shell shipping case, then pack it in a firm box with cushioning around the case. (An optional case is available from Epson.)

Note: Epson shall not be liable for any damages incurred during transportation.

Resetting the Lamp Timer

After you replace the lamp, you need to reset the lamp timer using the projector's menus.

1. Press the Menu button on the remote control or on the projector's control panel. You see the main menu.
2. Use the  pointer button on the remote control (or the arrow buttons on the projector) to highlight Reset, then press Enter.

You see this screen:



3. Select Lamp Hours Reset and press Enter. You see this prompt:



4. Select Yes and press Enter.
5. When you're finished, press Esc or Menu to exit.

Transporting the Projector

The projector contains many glass and precision parts. Follow these guidelines to prevent damage:

- ❑ When shipping the projector for repairs, use the original packaging material if possible. If you do not have the original packaging, use equivalent materials, placing plenty of cushioning around the projector.

Optional Accessories

To enhance your use of the projector, Epson provides the following optional accessories:

Product	Part number
Replacement lamp	V13H010L31
Air filter replacement set	V13H134A07
ATA molded hardshell case Samsonite® wheeled soft case	ELPKS35 ELPKS52
Ceiling mount Suspension adapter False ceiling plate Security bracket/cabling for gyro lock mounts Adjustable ceiling channel	ELPMB36 ELPMBAPL ELPMBFCP ELPMBSEC ELPMBACC
Kensington® security lock	ELPSL01
Projection screens: 50-inch portable screen 60-inch portable pop-up screen 80-inch portable pop-up screen 83.6-inch hanging pull-down screen	ELPSC06 ELPSC07 ELPSC08 ELPSC09
Macintosh adapter set	ELPAP01
Component video cable S-Video cable	ELPKC19 ELPSV01
Distribution amplifier	ELPDA01
Image Presentation Camera High resolution document camera	V12H162020 V12H064020

You can purchase these accessories from your dealer, by calling Epson at (800) 873-7766, or by visiting the Epson StoreSM at www.epsonstore.com (U.S. sales only). In Canada, please call (800) 463-7766 for dealer referral.

Related Documentation

CPD-18220	Epson PowerLite 835p <i>User's Guide</i>
CPD-18221	Epson PowerLite 835p <i>Quick Setup</i> sheet