PRODUCTINFORMATION GUIDE EPSON

UPDATE

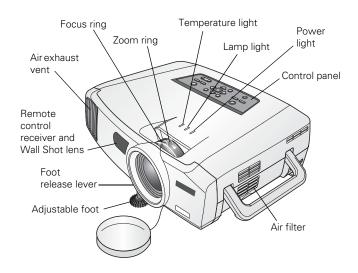
5/23/03

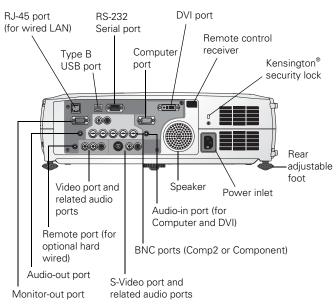
This package provides a new multimedia projector product section to be added to the *EPSON® Product Information Guide*. The table of contents of this section is listed below.

EPSON PowerLite® 7800p

TABLE OF CONTENTS

Projector Specifications	. EPSON PowerLite 7800p Projector - 1
Positioning the Projector	. EPSON PowerLite 7800p Projector - 3
Connecting the Projector	. EPSON PowerLite 7800p Projector - 4
Viewing Images on an External Monitor	. EPSON PowerLite 7800p Projector - 4
Displaying an Image	. EPSON PowerLite 7800p Projector - 5
Troubleshooting Display Problems	. EPSON PowerLite 7800p Projector - 6
Adjusting the Image	. EPSON PowerLite 7800p Projector - 7
Projecting Images Without a Screen	. EPSON PowerLite 7800p Projector - 9
Enabling Password Protection	. EPSON PowerLite 7800p Projector - 10
Shutting Down the Projector	. EPSON PowerLite 7800p Projector - 10
Using the Remote Control	. EPSON PowerLite 7800p Projector - 11
Using the Control Panel	. EPSON PowerLite 7800p Projector - 12
Controlling Multiple Projectors	. EPSON PowerLite 7800p Projector - 12
Managing Projectors from a Remote Computer	. EPSON PowerLite 7800p Projector - 13
Using EMP NetworkManager	. EPSON PowerLite 7800p Projector - 16
Projector Status Lights	. EPSON PowerLite 7800p Projector - 18
Cleaning the Lens	. EPSON PowerLite 7800p Projector - 19
Cleaning the Projector	. EPSON PowerLite 7800p Projector - 19
Cleaning the Air Filters and Vents	. EPSON PowerLite 7800p Projector - 19
Replacing the Lamp and Air Filters	. EPSON PowerLite 7800p Projector - 19
Transporting the Projector	. EPSON PowerLite 7800p Projector - 21
Optional Accessories	. EPSON PowerLite 7800p Projector - 21
Related Documentation	. EPSON PowerLite 7800p Projector - 21





Projector Specifications

General

Type of display Poly-silicon Thin Film Transistor

(TFT), Active Matrix

Size of LCD panels Diagonal: 1.0 inch (25.4 mm)
Lens F=1.7 to 2.3, f=28 to 37 mm

Zoom ratio 1:1.35

Resolution 1024×768 pixels (native format)

Color reproduction 24 bit, 16.7 million colors

Brightness 3500 ANSI lumens in high brightness

mode; 2500 lumens in low brightness

mode

Contrast ratio 700:1

Image size 30 to 300 inches

Projection distance 2.5 to 36.5 feet (0.8 to 11.1 meters)
Projection methods Front, rear, and ceiling mount (upside-

down front or rear)

Internal sound

system 5 W monaural

Optical aspect ratio 4:3 (horizontal:vertical)

Noise level 36 dB in high brightness mode;

33 dB in low brightness mode

Keystone

correction angle ±40° vertical, ±20° horizontal

(automatically adjusts vertical angle)

Projection Lamp

Type UHE (Ultra High Efficiency)

Power

consumption 250 W

Lamp life About 2000 hours (high brightness

mode); 3000 hours (low brightness

mode

Part number V13H010L22

Remote Control

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

Dimensions

Height 4.6 inches (117 mm), feet retracted

Width 16.5 inches (419 mm)

Depth 12.8 inches (325 mm)

Weight 12.1 lb (5.5 kg)

Mouse Compatibility

Supports USB

Electrical

Rated frequency 50 to 60 Hz

Power supply 100 to 120 VAC, 3.6 A

200 to 240 VAC, 1.6 A

Power Operating: 350 W

consumption Standby: 1.5 W with Network OFF,

47 W with Network ON

Environmental

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

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 4:3	60
PAL	50
M-PAL	60
N-PAL	50
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 (including G3 and G4 systems), 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 this 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
VGAEGA	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*
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	1400 × 1050*
SXGA3-75	75	1400 × 1050*
SXGA3-85	85	1400 × 1050*
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*

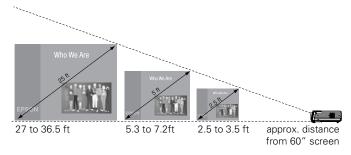
^{*} The image is resized using EPSON's SizeWise Technology.

Positioning the Projector

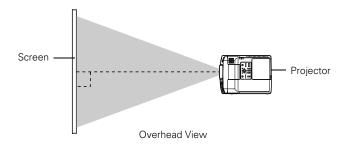
Follow these guideline when deciding where to place the projector:

- ☐ Place the projector on a sturdy, level surface.
- ☐ Make sure there is plenty of space for ventilation around and under the projector. Do not set it on top of anything that could block the vents under the projector.
- ☐ Make sure the projector is within 10 feet of a grounded electrical outlet or extension cord.

Image size increases with distance, but varies depending on how you've adjusted the optical zoom and other settings.



It's best to place the projector directly in front of the center of the screen, facing the screen squarely. If it isn't placed this way, the image will be "keystone" shaped, instead of rectangular.



If you place the projector below screen level, you'll have to tilt it up by extending the front adjustable foot. This also causes the image to lose its rectangular shape. To correct distortion, see "Adjusting the Image Shape" on page 8.

Calculating Image Size and Projection Distance

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

Note: The formulas given here are for when the projector is placed flat, without tilting it up at the screen. If you tilt it up by extending the feet or use electronic keystone correction, your image size may vary.

Standard Lens

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

- ☐ Maximum diagonal size = $(((2.54 \times \text{projection distance}) / 100) \times 36) + 2.13$
- ☐ Minimum diagonal size = $(((2.54 \times \text{projection distance}) / 100) \times 26.84) + 1.29$

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

- Maximum projection distance = $(((diagonal size 1.29) / 26.84) \times 100 / 2.54)$
- ☐ Minimum projection distance = $(((diagonal size 2.13) / 36) \times 100 / 2.54)$

Middle Throw Lens (V12H004M03)

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

☐ Maximum diagonal size =
(((2.54 × projection distance) / 100) × 27.42) + 1.49
Minimum diagonal size =
(((2.54 × projection distance) / 100) × 20.48) + 1.1

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

- ☐ Maximum projection distance = $(((diagonal size 1.1) / 20.48) \times 100 / 2.54)$
- ☐ Minimum projection distance = (((diagonal size – 1.49) / 27.42) × 100 / 2.54

Long Throw Zoom Lens (V12H004L05)

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

- ☐ Maximum diagonal size = $(((2.54 \times \text{projection distance}) / 100) \times 20.4) + 1.93$
- ☐ Minimum diagonal size = $(((2.54 \times \text{projection distance}) / 100) \times 15.23) + 1.45$

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

- ☐ Maximum projection distance = (((diagonal size 1.45) / 15.23) × 100 / 2.54
- Minimum projection distance = $(((diagonal size 1.93) / 20.54) \times 100 / 2.54)$

Connecting the Projector

You can connect the projector to three computer sources or four video sources—up to a total of four sources altogether. You can include an independent sound channel for each source. (See the *Quick Setup* poster or the *User's Guide* for complete setup instructions.)

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

Types of Connections

The following types of connections are possible, depending on the kinds of signals your equipment generates and its available output ports.

Computer equipment

Output signal	Required cable
Analog RGB video	VGA cable BNC cable VGA-to-BNC cable
DVI	DVI-D dual-link cable (DVI-to-DVI or DFP-to-DVI available from EPSON)

Video equipment

Output signal	Required cable
Composite video	RCA video cable
S-Video	S-Video cable
Component video — NTSC (YCbCr)	BNC cable
Component video — HDTV (YPbPr)	BNC cable
RGB video	VGA cable BNC cable

Note that the projector's Computer and BNC 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.

To change the input signal setting, do the following:

- 1. After turning on the projector, press the Menu button. The menu screen appears.
- 2. Select the Setting menu.
- 3. Change the Computer Input or BNC Input setting as needed to match the signal generated by your computer or video equipment. (See the *User's Guide* for more information.)

You can also cycle through the settings by repeatedly pressing the source button for your device on the remote control.

Playing Sound Through the Projector

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

Two types of audio cables are included with the projector:

- ☐ If your computer or video equipment is connected to the Computer or DVI port, use the stereo mini-jack cable.
- ☐ If your equipment is connected to the Video or S-Video port, or to the BNC ports, use the RCA-style audio cable.

Using the Remote Control as a Wireless Mouse

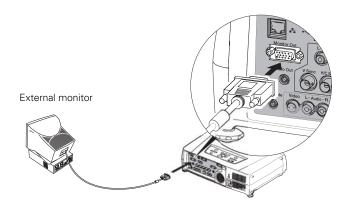
If you've connected a computer to the projector, you can use the projector's remote control as a wireless mouse by connecting the USB cable that came with the projector. The wireless mouse function is supported on systems with a USB port running Windows XP, 98, 2000, or Me; or Macintosh OS 8.6 to OS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

Viewing Images on an External Monitor

You can use an external monitor to display images from any connected computer source. This lets you view your presentation close-up, as well as on the projection screen.

Note: Some LCD monitors may not be able to display the image correctly. If you have trouble displaying the image, connect a multiscan monitor. If you're projecting computer images, make sure the computer's refresh rate is set to 65 Hz or greater.

To use an external monitor, connect it to the projector's Monitor Out port, as shown:



Follow these guidelines when using an external monitor:

- ☐ The monitor displays the currently selected computer source. Press the Preview button on the remote control if you want to display all the active sources at once (see "Previewing Image Sources" on this page).
- ☐ If you want, you can view (or preview) images on the monitor while the projection screen is darkened by pressing the A/V Mute button.
- ☐ You can also view images on the monitor while the projector is in standby mode (plugged in but not turned on). Set the Standby Mode setting to Network ON in the Advanced1 menu.

Displaying an Image

If you turn on your computer or video equipment before turning on 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" on this page).

Turning On the Projector

- 1. Remove the lens cap.
- 2. Plug in the projector.
- 3. Wait a few seconds until the \circlearrowleft power light stops flashing and turns orange.
- 4. Press the red ^Φ 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 \circlearrowleft power light flashes green as the projector warms up, and an image begins to appear after about 30 seconds. When the \circlearrowleft 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 saying your computer has found a plug-and-play monitor; if so, click Cancel.

Selecting the Image Source

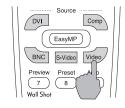
If multiple devices are connected to the projector, you can use the **Source** buttons on the projector or the remote control to switch from one source to another:

- ☐ The projector has two Source buttons.
 - Use the Computer/DVI button to switch between equipment connected to the Computer and DVI ports.



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

☐ The remote control has five Source buttons you can use to switch between equipment connected to the port identified on each button. (The PowerLite 7800p does not support EasyMP.™)



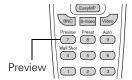
You can preview all sources to help you select the desired source, as described below.

Note that the Computer and BNC ports can be set up to use different input signals (for example, Analog RGB or RGB Video)—so if you have equipment connected to one of these ports, it's important 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 as described in "Types of Connections" on page 4.

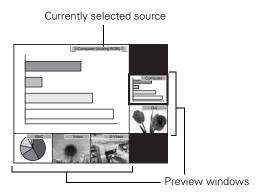
Previewing Image Sources

You can use the Preview function to help you 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 in the main window, as shown below. All other sources (including the currently selected source) are displayed in smaller preview windows on the right side and at the bottom.



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** buttons 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 highlight surrounds the preview window for the currently selected source. You can use the Opointer button on the remote control to highlight a different source, and then press Enter to display it.

Troubleshooting Display Problems

You Can't Project an Image

If you see a blank screen or a blue screen with the No Signal message, 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.
- ☐ If you've connected more than one computer and/or video source, you may need to press one of the Source buttons on the projector's control panel or the remote control to select the correct source. (Allow a few seconds for the projector to sync up after pressing the button.)
- ☐ If you're using a PC laptop, press the function key on your keyboard that lets you display on an external monitor. It may be labeled CRT/LCD or have an icon such as 爲(□). You may have to hold down the Fn key while pressing it. Allow a few seconds for the projector to sync up after changing the setting.

The Projector and Laptop Don't Display the Same Image

If you're projecting from a laptop, and you don't see the same image on the projection screen and on your computer screen, follow these guidelines.

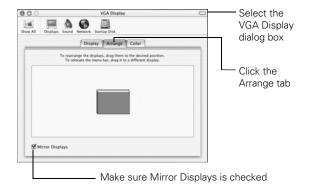
If you're using a PC laptop:

- On most systems, there's a function key that lets you toggle between the LCD screen and the projector, or display on both at the same time. It may be labeled CRT/LCD or with an icon such as B/\to. You may have to hold down the Fn key while pressing it. Allow a few seconds for the projector to sync up after changing the setting.
- ☐ If the function key doesn't permit you to display simultaneously on both screens, you should check your monitor settings to make sure both the LCD screen and the external monitor port are enabled. From the Control Panel, open the Display utility. In the Display Properties dialog box, click the Settings tab, then click Advanced. The method for adjusting the settings varies by brand; you may need to click a Monitor tab, then make sure the external Monitor port is set as your primary display and/or enabled. See your computer's documentation or online help for details.

If you're using 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. Make sure the VGA Display dialog box is selected.
- 3. Click the Arrange tab.

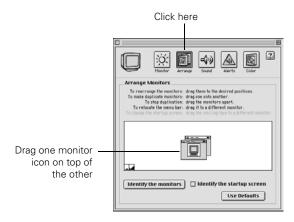


4. Make sure the Mirror Displays checkbox is selected.

If you're using OS 8.6 to 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:

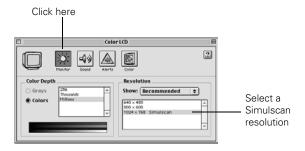
- From the Apple menu, select Control Panels, then click Monitors or Monitors and Sound.
- 2. Click the Arrange icon.



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

If the Arrange option isn't available, you may need to select one of the Simulscan resolution settings:

1. Click the Monitor icon.



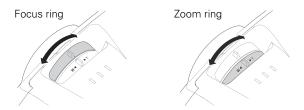
2. Select a **Simulscan** resolution as shown. (Allow a few seconds for the projector to sync up after making the selection.)

Adjusting the Image

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

Focusing and Zooming Your Image

Use the Focus ring on the projector to sharpen the image.



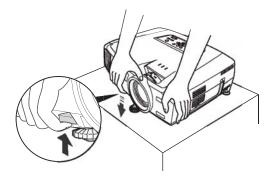
Use the Zoom ring on the projector to reduce or enlarge the projected image. Move the tab toward the W to make it bigger, or toward the T to make it smaller.

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.

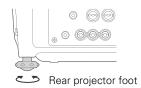
Adjusting the Height of Your Image

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

1. Stand behind the projector. Press the blue foot release lever up 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 finetune the height by turning the projector's rear feet.

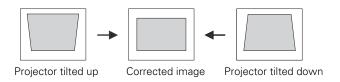


Raising the projector may cause the image to distort or "keystone." See the next section to correct this.

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.

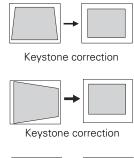
Even if the projector is slightly tilted (within a range of 40° up or down), the projector's automatic keystone correction function detects and corrects vertical keystone distortion.

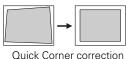


It takes about one second after projection starts for the image to be corrected. During this time, a vertical keystone correction gauge appears on the screen.

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 keys on the projector's control panel or the Keystone menu (see "Using Keystone Correction" below).
- ☐ If the image is trapezoidshaped (no two sides are parallel), you can adjust its shape using Quick Corner[™] as described below.



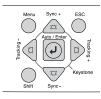


You cannot use both keystone correction and Quick Corner at the same time.

Using Keystone Correction

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

☐ Look at the shapes of the icons on the projector's four **Keystone** buttons. Press the button whose icon is the opposite 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 shorter after adjusting. If it's important to maintain the correct aspect ratio, use the menu system to perform keystone correction, as described below, then adjust the Height setting as needed.

Press the Menu button on the remote control, select the Setting menu, and press Enter. From the Setting menu, select H/V-Keystone in the Keystone menu 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

Use Quick Corner to correct the image shape when it's uneven on the top and bottom, or on all sides.

- 1. Press the Menu button on the remote control (or on the projector's control panel).
- 2. Select the **Setting** menu and press **Enter**.
- 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.
- [\$\frac{\psi}{\psi}\$]:Adjust

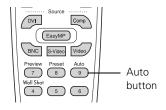
 [\$\emptyset{\text{0}}\$]: Move next

 [ESC]: Return (Press 1 second to reset)
- 7. Repeat steps 5 and 6 as needed to adjust any remaining corners.
- 8. When done, press the ESC button on the remote control 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've connected a computer and the image doesn't look right or fit properly on the screen, press the Auto button on the remote control (or the Auto/Enter button on the projector's control panel).

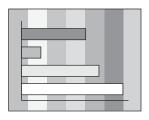


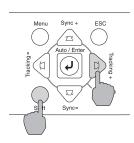
This automatically resets the projector's tracking, sync, resolution, and position settings.

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

Also, make sure the correct Computer or BNC Input option—such as Analog RGB—has been selected in the Setting menu. Alternatively, you can cycle through the input settings using the corresponding source button (Comp, BNC) on the remote control until you see your device.

If vertical stripes appear in the projected image and 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 the Auto button doesn't correct the problem, hold down the Shift button while pressing either the Sync + or Sync – button.

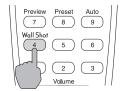
Note: Also make sure you have selected the correct Computer or BNC Input option in the Setting menu for your computer. See the User's Guide for more information.

Projecting Images Without a Screen

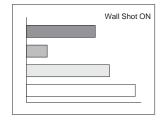
Even if you don't have a screen, you can project images onto surfaces like blackboards and colored walls without loss of image color. Your projector has a sensor that measures the conditions of the projection surface and automatically adjusts the colors and shading of your image. For example, if you're projecting onto a surface near a window, your image appears clear and well-defined rather than faint.

Making Initial Color Corrections

Press the Wall Shot button on either the remote control or the projector's control panel while projecting an image.



Wall Shot's status appears in the upper right corner of your screen. Then you see a sequence of colors flash for approximately five seconds while the sensor measures the conditions of the projection surface and adjusts the image.



Note: If the status message indicates that Wall Shot is off, press the Wall Shot button again to turn it on.

When you turn off the projector, it stores the correction values obtained by the last Wall Shot measurements. This is useful if you're projecting against the same surface and under the same conditions. To retrieve these corrections, just press the Wall Shot button again while projecting an image.

Adjusting Color Corrections for a New Surface

Follow these steps to adjust the correction values if you're projecting on a new surface or in a new location:

- 1. Press the Wall Shot button on the remote control or projector while you're projecting an image. Wait for the Wall Shot status screen.
- 2. Press the Wall Shot button until you see Wall Shot Readjustment on the status screen.

You see a sequence of colors flash for about five seconds as the projector adjusts the color correction values for the new projection surface.

Enabling Password Protection

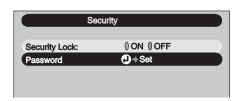
To prevent unauthorized use of the projector, you can assign it a password. If you do, a screen appears requesting the password whenever the projector is plugged in and turned on. If an incorrect password is entered three times in succession, the projector's operation is locked and the power cord must be disconnected and reinserted to redisplay the password screen.

Note: If three attempts like this are made (an incorrect password is entered nine times in succession), the projector remains locked and you must contact the dealer to unlock it. Therefore, it's a good idea to write your password down. Also, make a note of the "Request Code: xxxxx" number that appears in the Password Protect Release screen. If you do forget the password, you'll need this code when you contact the dealer.

If you leave the projector plugged in (after turning if off), the projector does not ask for the password each time you turn it on. You need to enter the password only after unplugging and reconnecting the power cable.

The default setting for the password function is off. Follow these steps to turn password protection on:

 Press the Freeze button on the remote control for about five seconds. You see this screen:



2. Use the Opointer button to set Security Lock to ON. Then press Enter.

Caution: If you lose the remote control, you will not be able to enter the password. Keep the remote control in a safe place at all times.

- 3. Select Password and press Enter.
- 4. When you see a message asking if you want to change the password, select **Yes** and press **Enter**.
- 5. Press the Num button on the remote control. When it lights, the numeric keypad is activated.
- 6. Use the numeric keypad to enter a four-digit password. (The default setting is 0000.)
- 7. When you see a confirmation message, reenter the password. Then press the Menu button to exit the screen.
- 8. Press the Num button on the remote control to deactivate the numeric keypad.

Starting the Projector with a Password

When the password function is enabled, you see this screen when you plug in the projector:



- 1. Press the Num button on the remote control to activate the numeric keypad.
- 2. Enter the four digit password.
- 3. Press the Num button to deactivate the numeric keypad.

The Security Lock Release screen closes, and projection begins.

Shutting Down the Projector

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

Note: When the projector has not received any input signals for 30 minutes, it automatically turns off the projector lamp and enters sleep mode. This conserves electricity, cools the projector, and extends the life of the lamp. If you are done using the projector, unplug the power cord. If you want to start projecting again, press the \circlearrowleft Power button.

You can turn off sleep mode using the Sleep Mode option in the Setting menu. If Standby Mode has been set to Network ON (in the Advanced1 menu), the lamp turns off but the projector does not go into full sleep mode. (It provides enough operation to allow network access.)

Follow these steps to turn off the projector:

- 1. Turn off any equipment plugged into the projector.
- 2. To turn off the projector, press the red \circlearrowleft Power button on the projector or remote control.
 - You see a confirmation message. (If you don't want to turn it off, press any other button.)



3. Press the \circlearrowleft Power button again. The \circlearrowleft power light flashes orange for about 40 seconds as the projector cools down. After the projector has cooled, the orange light stays on and the exhaust fan shuts off.

Caution: To avoid damaging the projector or lamp, never unplug the power cord when the \circlearrowleft power light is green or flashing orange.

If you want to turn the projector on again, wait until the orange light stops flashing. Then press the \circlearrowleft Power button.

- 4. If you extended the adjustable front foot, press up on the blue foot release lever and lower the projector to retract it.
- 5. Replace the lens cap and unplug the power cord.
- 6. If you're using the remote control, turn it off to conserve battery power.
- 7. Disconnect any equipment plugged into the projector.

Using the Remote Control

The remote control lets you access your projector's features from anywhere in the room (up to 30 feet away).



If the projector does not respond to the remote control, make sure batteries are installed and the switch on its side is turned on. Also make sure the projector ID and remote control ID match. (See "Controlling Multiple Projectors" on page 12.)

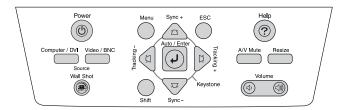
The projector also might not respond if:

- ☐ 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
- ☐ A strong light source (such as direct sunlight) shines into the infrared receiver
- ☐ Other equipment emitting infrared energy is present (such as a radiant room heater)

This table summarizes the 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.
PinP	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, displaying the black, blue, or user logo background. Press 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.
Ö.	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.
Effect	Selects a drawing or pointer tool.
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	Switches to the equipment connected to the corresponding port: DVI, Comp, BNC, S-Video, or Video. (The EasyMP button does not work on this projector.)
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.
Volume	Increases or decreases the sound.
Num	Turns on the numeric keypad. (Press this key until it lights.)
ID	Sets the remote control ID. (See "Setting the Remote Control ID" on page 12.)

Using the Control Panel



This table describes the functions of the control panel buttons.

Button	Function
Power	Turns the projector on or off.
Help	Displays the online help menu.
Computer/ DVI	Switches between the connected Computer and DVI sources.
Video/BNC	Switches between the connected video and BNC sources (Video, S-Video, and BNC).
Menu	Displays the on-screen menu system.
ESC	Displays the previous menu when you're viewing a menu.
Auto/Enter	Selects an option when the menu or help system is active. When computer images are displayed, press to auto-adjust the image.
Tracking + and -	Eliminates 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 + and -	Corrects blurriness that may be present in some computer images. Use the 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, displaying the black, blue, or user logo background. Press again to turn audio and video back on.
Resize	Adjusts how an image fits into the display area.
Keystone	Squares an image that is "keystoned" or tapered on the sides after tilting up the projector.
Volume	Increases or decreases the sound.

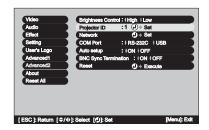
Controlling Multiple Projectors

If you're using more than one projector, you can control all the projectors—or just selected ones—by using the projector ID system with just one remote control. To operate a projector, you have to set the remote control's ID to match that of the projector. Or you can control all of the projectors simultaneously by setting the remote control's ID to zero.

Setting the Projector ID

The projector's default ID is 1. If you need to change it, follow these steps:

1. Access the projector's Advanced2 menu, highlight Projector ID and press Enter.

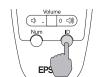


- 2. Press the right or left side of the O pointer button to increase or decrease the ID value.
- 3. Press Enter to set the value.
- 4. When done, press ESC to exit the menu system.

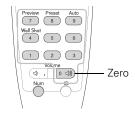
Setting the Remote Control ID

The remote control's default ID is zero. If you need to change it, follow these steps:

1. Press the ID button on the remote control. You see it light up.



2. Press one of the numbered buttons on the remote control to select the desired ID (0 through 9). Select zero to control all projectors, or select a number to match the ID of the projector(s) you want to operate.



The ID button's light shuts off and the new ID is registered.

If you would like to check the remote control's current ID, press the ID button twice. Count the number of flashes; this number corresponds to the remote control's ID. If it doesn't flash, the ID is set to zero.

Managing Projectors from a Remote Computer

The EasyManagement software lets you monitor and control projector(s) from a remote computer. These features are intended for use by network administrators.

- Use EMP Monitor to see your projectors' status, switch image sources, and control basic settings.
- ☐ Use EMP NetworkManager to receive e-mail notifications alerting you to possible problems.
- Use a network management utility running SNMP, such as HP OpenView,[™] to manage your facility's equipment from a pre-existing system.

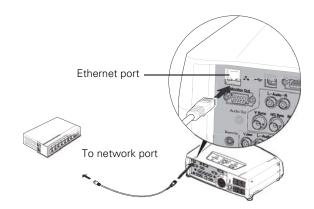
Note: A plug-in is available to allow you to manage your projectors in HP OpenView. Additionally, other SNMP management utilities may be available in the future. Check with EPSON for availability.

Make sure you have installed the software (included on the projector's CD-ROM) on the computer you want to use to monitor your projectors. (See the *User's Guide* for instructions.)

Setting Up the Network

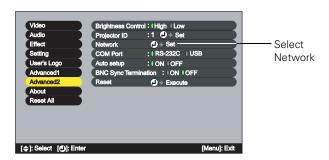
Connect each projector you want to monitor to your network and configure it with an appropriate IP address.

 Connect the projector to your network using a commercially available 100baseTX or 10baseT network cable. Plug the cable into the projector's Ethernet port.

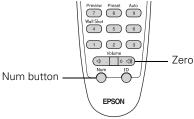


2. Turn on the projector.

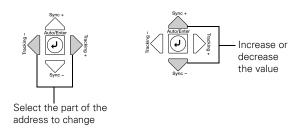
Press the Menu button on the remote control and select Network from the Advanced2 menu.



- 4. If your network assigns addresses automatically, turn on DHCP
- If your network does not assign addresses automatically, turn off DHCP and enter the projector's IP Address, Subnet Mask, and Gateway Address, as needed.
 - ☐ To enter numbers using the remote control, press the Num button until it lights, then use the numeric keypad.



☐ To change the network addresses from the projector's control panel, press the right and left arrow buttons to select the part of the address you want to enter, then use the up and down arrow buttons to increase or decrease the numeric value.



Note: If you're a network administrator, you can use the SNMP option to enter a trap IP address. This lets you receive trap alerts for the projectors you're monitoring. If you have HP OpenView, a plug-in is available to allow you to manage your projectors in HP OpenView. Check with your dealer or EPSON.

When you finish changing an address in the network menu, press the Enter button (on the remote control) or the

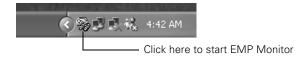
Auto/Enter button (on the projector). This stores the value.

6. When you're done making all necessary changes, press ESC to exit the menu system.

Opening and Closing EMP Monitor

To start EMP Monitor, click Start > Programs or All Programs > EPSON Projector > EMP Monitor.

If you've added the program to the Startup programs folder, it may already be open. If so, click the icon in the system tray on the lower-right corner of your screen to display the EMP Monitor window:



To close EMP Monitor, right-click the program icon shown above, then select Exit.

Registering Projectors in EMP Monitor

Before you can monitor a projector, you have to register it. Follow these steps:

1. Open EMP Monitor. You see this screen:



2. Click Register projector. You see this screen:



3. Click Auto detect to locate projectors currently operating on the network. Or click Manual registration and enter the projector's name and network address.

Note: If Auto detect fails to find the projector, your projector may not be connected or configured correctly for the network.

Any projectors found on the network are listed:



4. Select each projector you want to add by clicking its name and clicking Add. When you're done, click Close.

You see this screen listing all registered projectors:



Note: To delete a projector from the list, highlight the projector name, and click Delete.

5. Click **Close**. You see the status of each of your registered projectors on the main EMP Monitor screen:



Monitoring Your Projectors

The EMP Monitor screen lets you monitor your projectors using the Status, Video Source, and Error icons shown below. This lets you see which projectors are currently being used, from which source (or port) they are projecting an image, and if a problem occurs.



Note: To monitor a projector when it's in standby mode (plugged in but not projecting), you must first select Network ON as the Standby Mode setting in the projector's Advanced 1 menu. You can monitor up to 64 projectors.

For detailed status information, select the projector and click View details.

The following tables explain the status, video source, and error icons.

Status icons

(green)	Projecting; no problems
(dark)	Turned off; no problems
(green)	Projecting; problems detected
(dark)	Turned off; problems detected
	Network error (for example, not connected to network or power cable disconnected).
	You may also see this error if Network OFF is selected in Standby Mode.

Video source icons

(CHEE)	Computer
<u> </u>	BNC
s	S-Video

Video source icons

Video
DVI

Error icons

	Lamp replacement notification (the lamp is nearing the end of its life; see page 19)
	High-speed cooling in progress (the projector is getting too hot but continues to operate)
	Overheating (projection turned off automatically)
	Lamp out or lamp cover open
***	Fan error
	Sensor error
6	Internal problem

Controlling Your Projectors

The control buttons in the upper-right of the EMP Monitor screen let you turn the projectors on and off and select video sources. (Hold the mouse pointer over a button to see a description of its meaning.) Make sure you've selected the projector(s) you want to operate before clicking one of the buttons.



Note: To turn on a projector when it's in standby mode (plugged in but not projecting), you first select Network ON as the Standby Mode setting in the projector's Advanced1 menu.

Configuring the Monitoring Interval

If you need to have the most current status information about your projectors, click the **Refresh** button in the EMP Monitor screen.

You can also select how often EMP Monitor checks the projector status:

 From the Tool menu, select Configuration. You see this screen.



Note: If you want EMP Monitor to run whenever you start your computer, click Add to Startup.

2. Select the desired update interval and click OK.

Using EMP NetworkManager

You can use EMP NetworkManager to configure the projector to send out messages by e-mail, notifying you when a problem occurs with the projector. Before running EMP

NetworkManager, make sure you've installed the software as described in the *User's Guide*. Then follow the steps below to create e-mail settings for each projector you want to monitor.

Selecting the Projectors to Monitor

 To start EMP NetworkManager, click Start > Programs or All Programs > EPSON Projector > EMP NetworkManager.

You see the EMP NetworkManager screen. The projectors you've registered through EMP Monitor appear as icons.



2. If you'd like to register a projector manually and you know its IP address, double-click the Proj(ector) address selection icon.

You see this screen:



3. Enter the projector's IP address and click Add. The projector's icon is added to the EMP NetworkManager screen.

Setting a Password

You can set a password to restrict access to each projector from EMP NetworkManager:

1. Right-click the icon of the projector whose password you want to set, then select **Change Password**.



2. Enter a password up to 14 characters in length.

Creating the E-Mail Settings

1. If EMP NetworkManager is not already running, open it from the Start menu. You see your registered projectors:



2. Double-click the icon for the projector whose e-mail settings you want to create. Enter your password, if you created one.

EMP NetworkManager connects to the projector, and you see this screen:



Note: The projector must be plugged in (projecting or in standby mode) for you to be able to connect to it.

To access a projector in standby mode, you must first select Network ON as the Standby Mode setting in the projector's Advanced1 menu. (See the User's Guide for instructions.)

- 4. Verify that the network settings are correct. (If DHCP is on, you don't need to verify network settings.)
 - ☐ Make any desired changes to the projector's network address configuration (turning off DHCP enables the manual settings).
 - ☐ You can give the projector a name up to 15 characters long. Do not include the following symbols: ! @ # \$ % ^ & ' . _ {} ~.

Naming the projector helps you identify it in EMP Monitor and EMP NetworkManager, especially if you're managing a lot of them.

5. Click Mail Notification Settings. You see this screen:



6. Select ON for the Mail Notification setting.

- 7. Enter the IP address and port number of the SMTP server used for sending e-mail. (The port's default setting is 25, but you can enter any number from 1 to 65535.)
- 8. Enter up to three destination e-mail addresses where you want the event notification messages to be sent.
- Click the Setting a Notification Event button next to each address, then select the conditions under which you want a message to be sent.

Note: A no-signal message is reported when no image signals are being input to a projector. If the projector will not normally be displaying an image, do not select 'no signal' as a condition for which you want a message to be sent.

- 10. Click OK, then click OK again. Click Set on the Setup for Network Projector screen and confirm as needed.
- 11. When you see the test message window, you can send a message with the heading "TEST MAIL" to the addresses you have entered. The projector's name and IP address are included in the body of the message.
- 12. When you're done making all your projector settings, close EMP NetworkManager. (It does not have to be open for messages to be sent or received.)

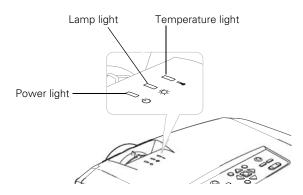
Understanding the Notification Messages

If a projector experiences a problem, it sends an e-mail message to each of the addresses you provided using EMP NetworkManager. The message includes the heading "EPSON Projector" in the subject line. The body of the message contains the name of the projector, the projector's IP address, and a description of the problem. The problem descriptions are similar to the errors reported by EMP Monitor listed on page 15.

If a plus (+) sign appears before the description, it indicates that a problem has occurred. A minus (–) sign appears when the problem goes away or is resolved.

Note: If a projector develops a critical problem, it may not be possible for it to report the error.

Projector Status Lights



The lights on top of the projector indicate the projector's status and let you know when a problem occurs.

$Key: \blacksquare = on$	======================================	$\square = off$
---------------------------	--	-----------------

Light	Description and solution
ა — ა — ა —	If no lights are on, make sure the power cord is connected securely both at the power outlet and the projector. If you have just replaced the lamp, make sure the cover is securely fastened.
Orange Orange	When the \circlearrowleft power light is orange, the projector is in sleep mode. Press the Power button to turn it on.
Green Green	When the O power light is flashing green, the projector is warming up. Wait for the image to appear.
Green	When the O power light is green, the projector is operating normally.
Orange	When the \circlearrowleft power light is flashing orange, the projector is cooling down. Do not unplug it until the light stops flashing and remains orange. If you want to turn it back on, wait until the light stops flashing.

Light	Description and solution
Orange	When the power and temperature lights are flashing, the projector is getting too hot and is in rapid cooling mode. You can continue running it in this condition, however, verify that the air filter is not clogged. Clean or replace it as described on page 19. Make sure the room temperature is not above 95 °F (35 °C) and there is plenty of space around and under the projector for ventilation.
⊕ Red ⊕ Red	When the power and temperature lights are red, the projector has overheated, which turns off the lamp automatically. Wait about 5 minutes for the projector to cool, then unplug the power cord. Verify that the air filter is not clogged. Clean or replace it as described on page 19. Make sure the room temperature is not above 95 °F (35 °C) and there is plenty of space around and under the projector for ventilation. Then plug the power cord back in and press the O Power button. If the projector continues to overheat, contact EPSON for help.
Red Red Red	When the \circlearrowleft power light is red and the temperature light is flashing red, there is a problem with a fan or temperature sensor. Unplug the power cord and contact EPSON for help.
Green Orange	When the \circlearrowleft power light is green and the lamp light is flashing orange, the lamp has been used for at least 1900 hours. To ensure continued operation, you should replace it as soon as possible (see page 19).
Red Red	When the \circlearrowleft power light is red and the lamp light is flashing red, the lamp has burned out. Replace it as described on page 19. If these lights come on after replacing the lamp, make sure the lamp is fully inserted and the lamp cover is attached.
Red Red Red Red	If all three lights are red, the projector has an internal problem. Unplug the power cord and contact EPSON for help.

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.

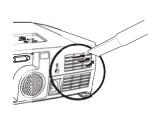
- To remove dirt or dust, wipe the case with a soft, dry, lint-free cloth.
- ☐ To remove stubborn dirt or stains, moisten a soft cloth with water and a mild detergent. Then wipe the case.
- Do not use wax, alcohol, benzene, paint thinner, or other chemical detergents. These can damage the case.

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.

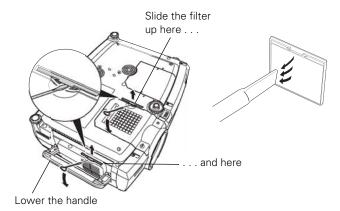
Follow these steps:

- 1. Turn off the projector and unplug the power cord.
- 2. To clean the intake vents, EPSON recommends using 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).





3. Gently turn the projector over and remove the filters from the side and bottom of the projector. Then use a small vacuum cleaner or soft brush to clean the two filters. Slide the filters back into place when you're done.



4. If the dirt is difficult to remove or a filter is broken, replace the filters as described below. Contact your dealer or call EPSON at (800) 873-7766 in the United States to obtain new ones. 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. It is time to replace the lamp when:

- ☐ The projected image gets darker or starts to deteriorate.
- ☐ The message LAMP REPLACE appears on the screen when the lamp comes on (after about 1900 hours) and the ☐ lamp warning light is flashing orange. To maintain projector brightness and image quality, replace the lamp as soon as possible.
- ☐ The ☆ lamp warning light is flashing red (the lamp is burnt out).

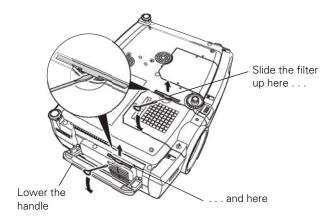
Contact your dealer or call EPSON at (800) 873-7766 in the United States for a replacement lamp. Request part number V13H010L22. In Canada, please call (800) 463-7766 for dealer referral.

Note: When you get a replacement lamp for your projector, new air filters are included. You should replace the filters when you replace the lamp. You can check how long the lamp has been in use (see page 20).

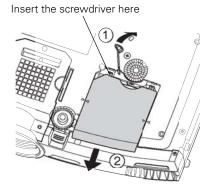
Warning: Let the lamp cool fully before replacing it. In the unlikely event that the lamp has broken, small glass fragments may be present and should be removed carefully to avoid injury.

Follow these steps to replace the lamp and air filters:

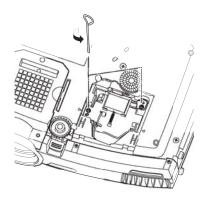
- 1. Turn off the projector.
- 2. When the \circlearrowleft power light stops flashing, unplug the power cord.
- 3. Let the projector cool for at least half an hour (if it has been on). The lamp is extremely hot immediately after use.
- 4. Turn the projector upside-down and remove the air filters at the side and bottom of the projector.



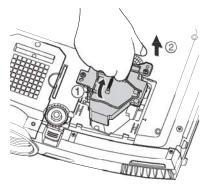
- 5. Insert the two new air filters. They should click into place.
- 6. To remove the lamp cover, insert the screwdriver supplied with the spare lamp (or another flat-tipped screwdriver), into the space beside the air vent to gently lift the lamp cover off.



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



8. Grasp the wire handle as shown and pull the lamp straight out.



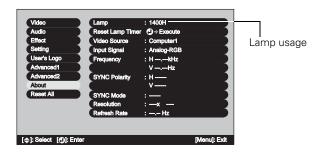
- 9. Gently insert the new lamp.
- 10. Once the lamp is fully inserted, tighten its screws and replace the cover. (The projector won't come on if the lamp cover is loose.)
- 11. Reset the lamp timer as described in the next section.

Resetting the Lamp Timer

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

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

You see this screen:



Note: The lamp usage timer shows 0H until you've used the lamp for at least 10 hours.

Select Reset Lamp
 Timer, then press Enter.
 You see this prompt:



- 4. Select Yes, then 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 injury or damage when transporting it:

- ☐ When hand-carrying the projector, you should use the handle to carry it only a short distance (for example, to set it on a table).
- ☐ 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.
- ☐ When transporting the projector a long distance, first place it in a hard-shell shipping case, and then pack it in a firm box, placing cushioning around the case. (An optional ATA shipping case is available from EPSON; see the following table.)

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

Optional Accessories

Product	Part number
Replacement lamp and air filters	V13H010L22
Replacement air filters	V13H134A01
Customized shipping case	ELPKS46
Ceiling mount	ELPMB40
Suspension adapter	ELPMBAPL
False ceiling plate	ELPMBFCP
Middle Throw Zoom Lens	V12H004M03
Long Throw Zoom Lens	V12H004L05
Kensington [®] security lock	ELPSL01
Projection screens: 50-inch portable screen 60-inch portable pop-up screen 80-inch portable pop-up screen	ELPSC06 ELPSC07 ELPSC08
Macintosh adapter set (includes monitor adapter and desktop adapter)	ELPAP01
Remote control cable set	V12H005C28
DVI-to-DVI digital video cable, 10 ft.	ELPKC20
DVI-to-DFP digital video cable, 10 ft.	ELPKC21
S-Video cable	ELPSV01
Distribution amplifier	ELPDA01
High resolution document imager High resolution document camera	ELPDC02 V12H064020

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

Related Documentation

CPD-15988	EPSON PowerLite 7800p User's Guide
CPD-15989	EPSON PowerLite 7800p Quick Setup sheet